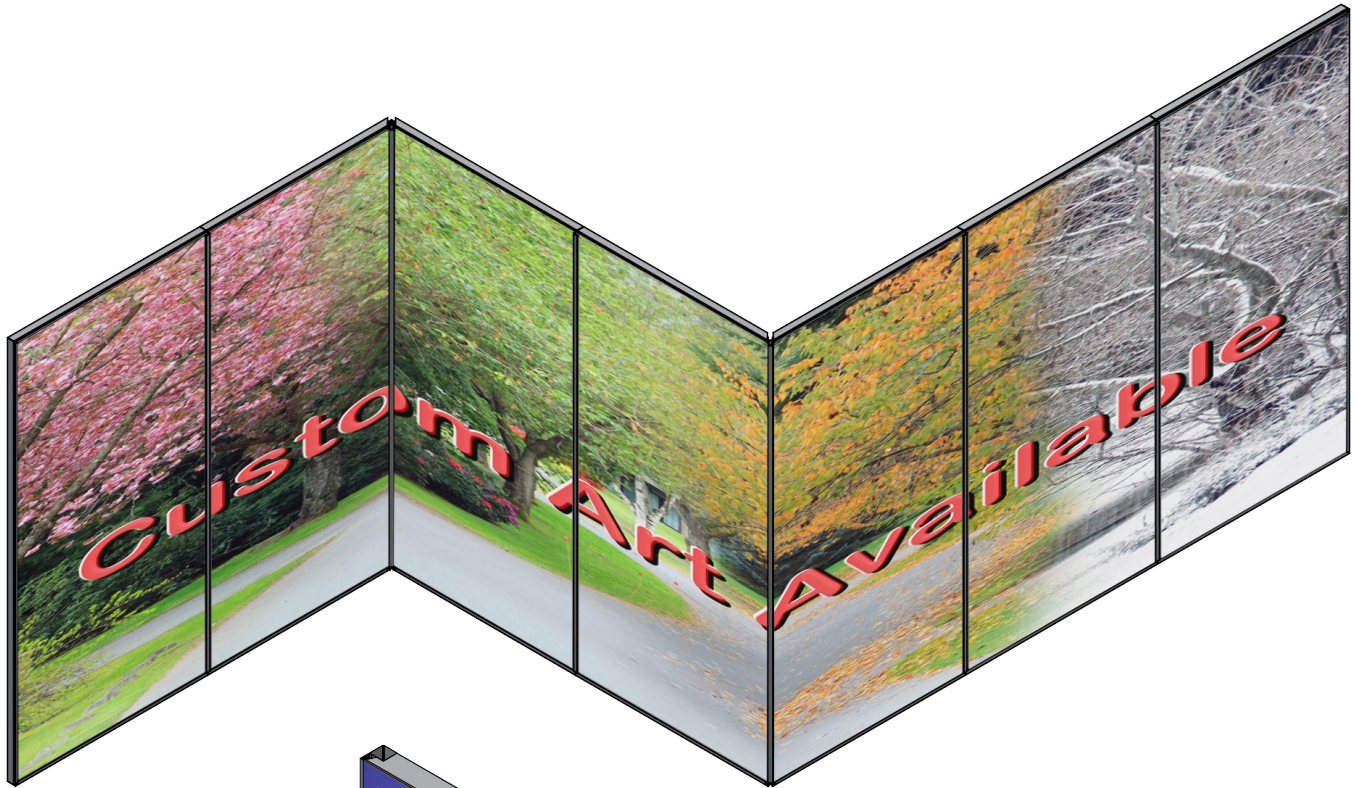


Fabrication and Installation Instructions

Flex System



Fabrication and Installation Instructions

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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 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 SYSTEM, INCLUDING BUT NOT LIMITED TO DEAD LOADS OF THE 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 SEVERE GIRT ALIGNMENT PROBLEMS.

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

Bunting Architectural Metals

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www.BuntingArchitecturalMetals.com

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Fabrication and Installation Instructions

Flex 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. EXTRUSIONS FOLLOWING THE DESIGN SPECIFICATIONS.

Fabrication and Installation Instructions

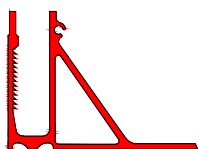
Flex System

Fabrication

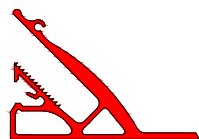
REFERENCE APPROVED SHOP DRAWINGS FOR VERTICAL LENGTHS AND HORIZONTAL LOCATIONS. ACTUAL PROJECT CONDITIONS WILL DETERMINE SPECIFIC DESIGN AND QUANTITY. DETAILS ON THIS PAGE ARE FOR REFERENCE ONLY.

THE FLEX SYSTEM HAS DIFFERENT EXTRUSIONS FOR IT TWO VERSIONS (VENEER & CURTAINWALL) BUT THEY ARE ALL FABRICATED USING THE SAME METHOD.

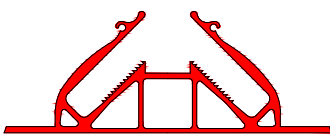
VENEER SYSTEM EXTRUSION TYPES:



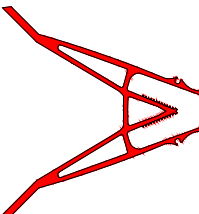
FRAMED PERIMETER
ALUMINUM ALLOY 6061-T6
F10001
USED FOR END FABRIC
CONNECTIONS



FRAMELESS PERIMETER
ALUMINUM ALLOY 6061-T6
F10002
USED FOR END FABRIC
CONNECTIONS



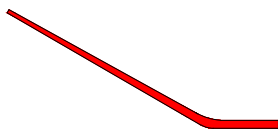
INTERMEDIATE JOINT
ALUMINUM ALLOY 6061-T6
F10003
USED FOR MIDDLE FABRIC
CONNECTIONS



OUTSIDE CORNER
ALUMINUM ALLOY 6061-T6
F10004
USED FOR CORNER FABRIC
CONNECTIONS

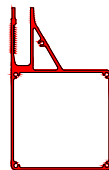


INSIDE CORNER
ALUMINUM ALLOY 6061-T6
F10005
USED FOR CORNER FABRIC
CONNECTIONS

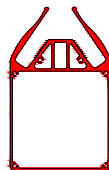


PERIMETER SUPPORT
ALUMINUM ALLOY 6061-T6
F10006
USED FOR END FABRIC
CONNECTIONS

CURTAINWALL SYSTEM EXTRUSION TYPES:

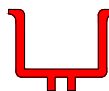


FRAMED PERIMETER MULLION
ALUMINUM ALLOY 6061-T6
F10007
USED FOR END FABRIC
CONNECTIONS

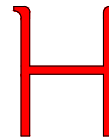


INTERMEDIATE MULLION
ALUMINUM ALLOY 6061-T6
F10008
USED FOR MIDDLE FABRIC
CONNECTIONS

ACCESSORY EXTRUSION TYPES:



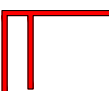
U-COVER
ALUMINUM ALLOY 6061-T6
F10011
USED FOR CORNER FABRIC
CONNECTIONS



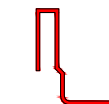
H-COVER
ALUMINUM ALLOY 6061-T6
F10012
USED FOR MIDDLE FABRIC
CONNECTIONS



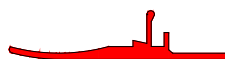
SNAP COVER
ALUMINUM ALLOY 6061-T6
F10013
USED FOR MIDDLE AND CORNER
FABRIC CONNECTIONS



FLUSH COVER
ALUMINUM ALLOY 6061-T6
F10014
USED FOR END FABRIC
CONNECTIONS



INSET COVER
ALUMINUM ALLOY 6061-T6
F10015
USED FOR END FABRIC
CONNECTIONS



FRAMELESS COVER
ALUMINUM ALLOY 6061-T6
F10016
USED FOR END FABRIC
CONNECTIONS



MESH CLIP
ALUMINUM ALLOY 6061-T6
F10021
USED FOR ALL FABRIC
CONNECTIONS

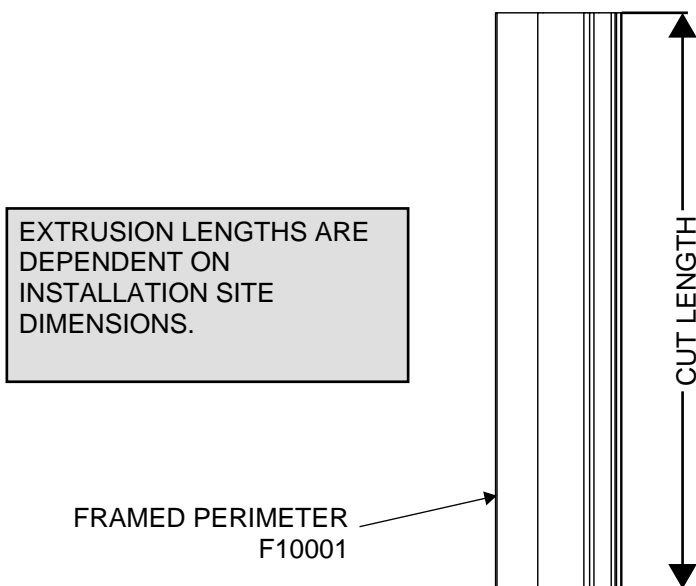
Fabrication and Installation Instructions

Flex System

Fabrication

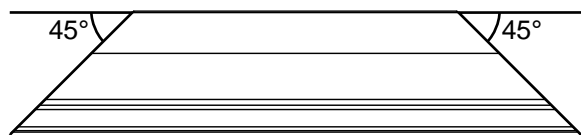
STEP 1: CUT THE EXTRUSIONS TO LENGTH

CUT THE EXTRUSIONS TO INSTALL HEIGHT



STEP 2: MITER THE EXTRUSIONS

CUT THE MITERED CORNERS PER SHOP DRAWINGS



ANGLE AND DIRECTION OF MITER, AS WELL AS SIDE OF EXTRUSION CAN VARY FROM ONE EXTRUSION TO ANOTHER. BE SURE TO CHECK SHOP DRAWINGS BEFORE CUTTING.

STEP 3: CUT THE FABRIC

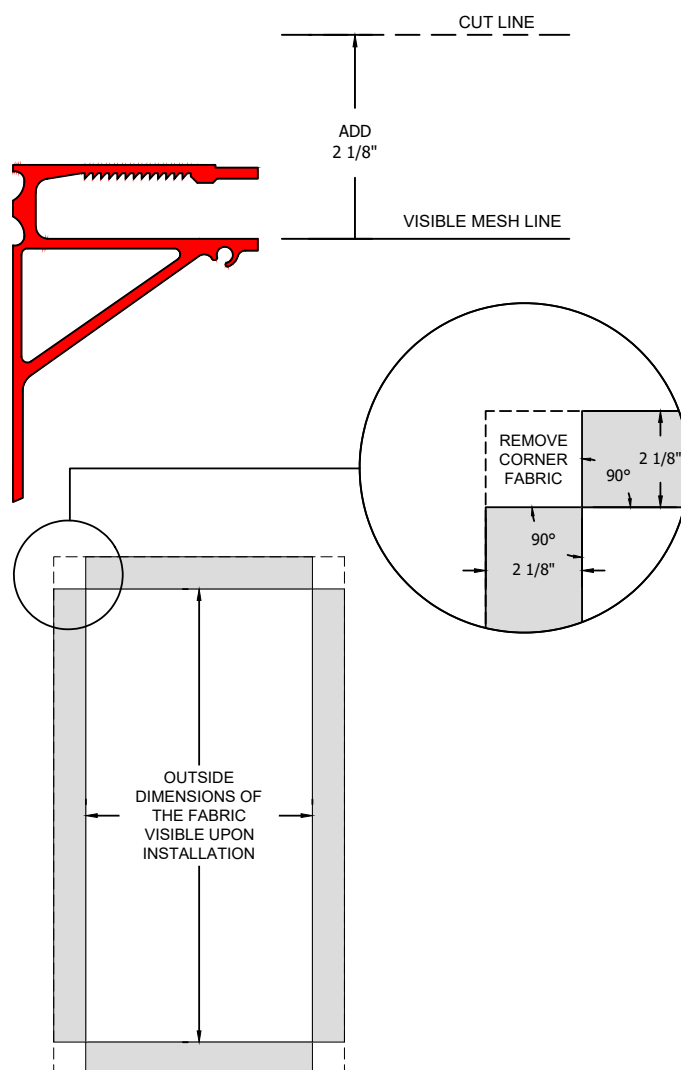
DURING INSTALLATION, EXCESS FABRIC IS NEEDED TO BE TUCKED INTO THE CHANNELS IN THE EXTRUSIONS TO ALLOW FOR ATTACHMENT WITH THE MESH CLIPS AND TO ELIMINATE WRINKLES.

THE AMOUNT OF FABRIC THAT NEEDS ADDED DEPENDS ON WHICH TYPE OF CHANNEL IS IN THE EXTRUSION.

CHANNEL TYPE 1 (STRAIGHT):

INCLUDES FRAMED PERIMETER (F10001) AND FRAMED PERIMETER MULLION (F10007)

FROM THE VISIBLE MESH LINE ADD 2 1/8" OF MATERIAL AND TRIM AWAY FROM THE CORNERS AT A 90° ANGLE



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Flex System

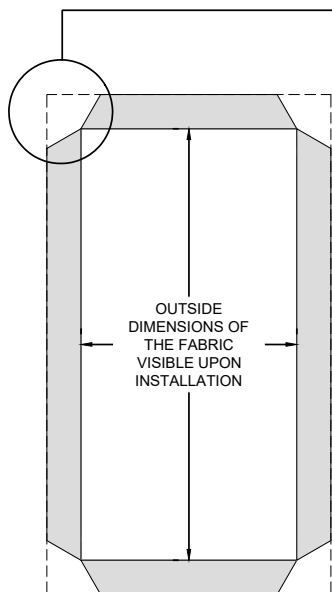
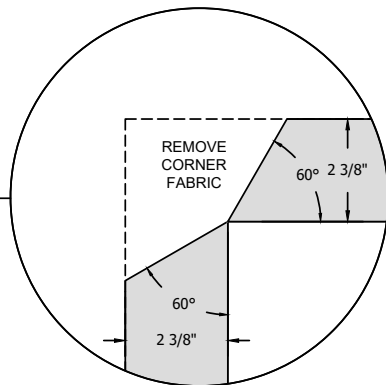
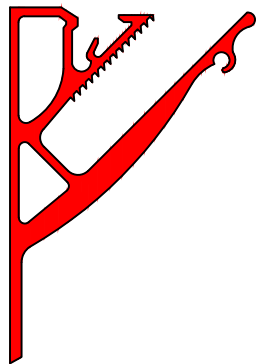
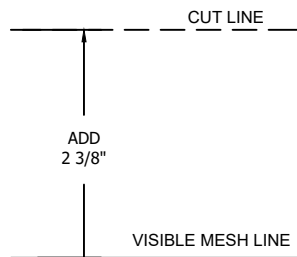
Fabrication

STEP 3: CUT THE FABRIC (CONTINUED)

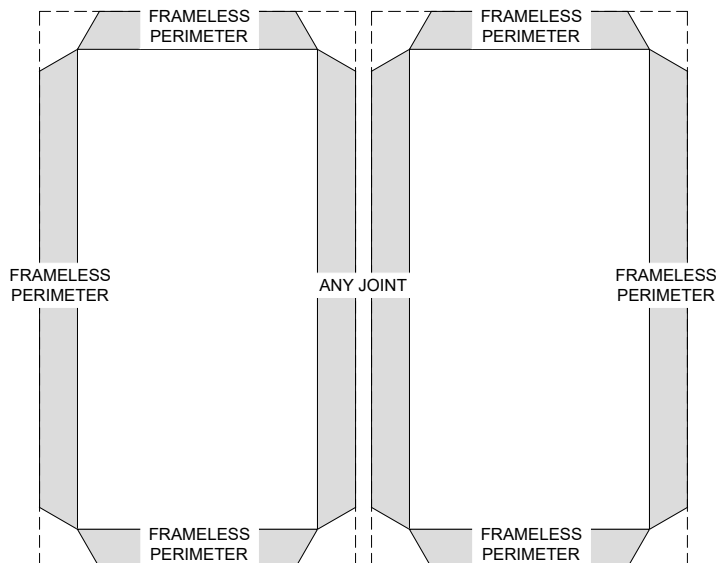
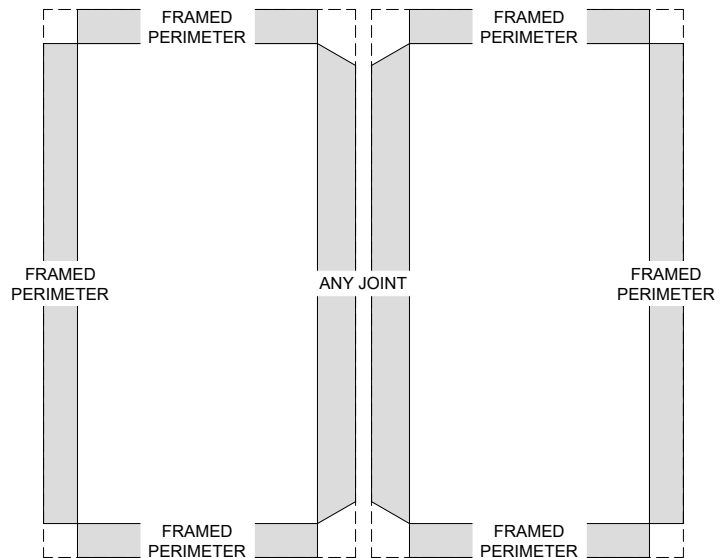
CHANNEL TYPE 2 (ANGLED):

INCLUDES FRAMELESS PERIMETER (F10002), INTERMEDIATE (F10003), OUTSIDE CORNER (F10004), INSIDE CORNER (F10005), AND INTERMEDIATE MULLION (F10008)

FROM THE VISIBLE MESH LINE ADD 2 3/8" OF MATERIAL AND TRIM AWAY FROM THE CORNERS AT A 60° ANGLE



BELOW ARE EXAMPLES OF HOW TWO SHEETS OF FABRIC WOULD INTERACT AT A JOINT. ONE USING FRAMED PERIMETERS WITH THE STRAIGHT CHANNEL TYPE AND THE OTHER WITH FRAMELESS PERIMETERS USING THE ANGLED CHANNEL TYPE.



Fabrication and Installation Instructions

Flex System

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STEP 1 - CHECK OPENINGS

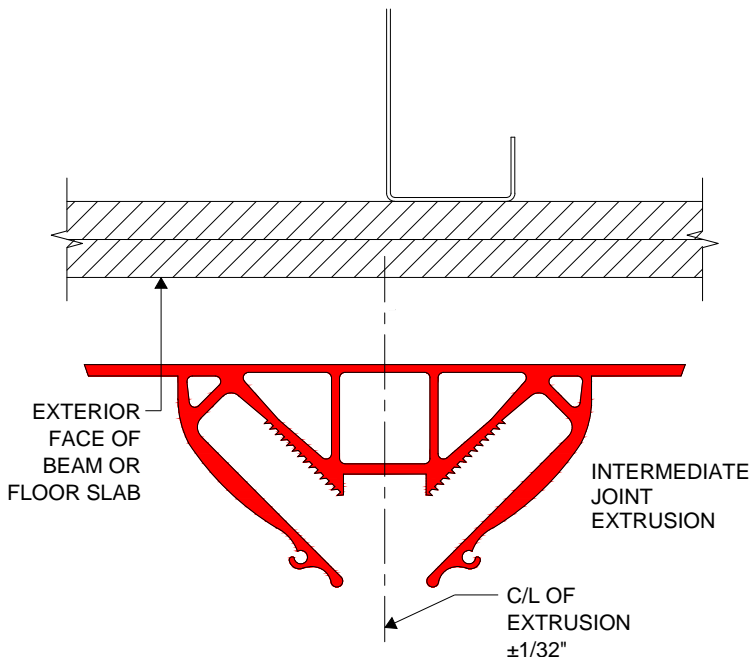
ELEVATIONS AND SLABS MUST BE WITHIN ADJUSTMENT OF ANCHORING SYSTEM. SEE APPROVED SHOP DRAWINGS FOR ALLOWABLE ADJUSTMENT.

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 EXTRUSION 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 EXTRUSION CENTER LINES.



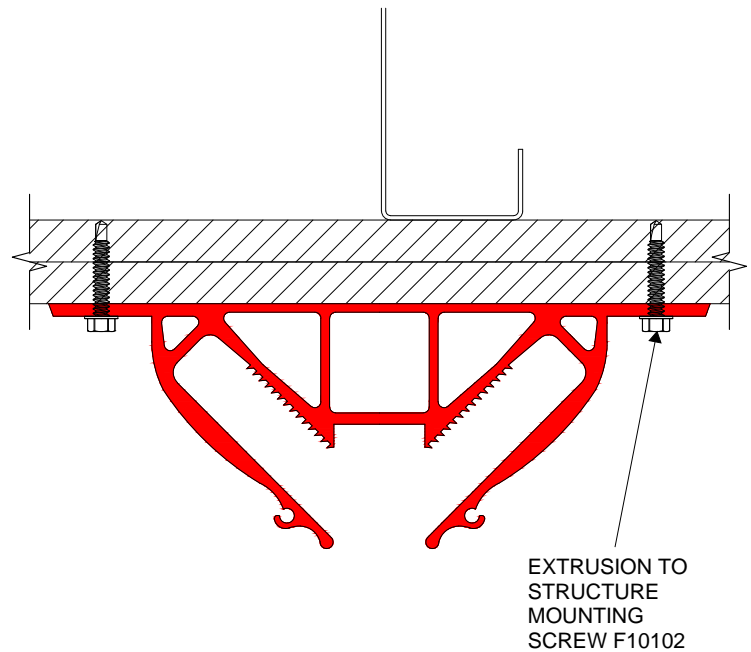
SEE APPROVED SHOP DRAWINGS FOR LAYOUTS

STEP 3 - INSTALL ADDITIONAL ATTACHMENT SYSTEM IF APPLICABLE

DEPENDING ON THE PROJECT ADDITIONAL ANGLES, BRACKETS, STEEL, MAY BE REQUIRED. REVIEW THE APPROVED SHOP DRAWINGS IN ORDER TO DETERMINE HOW EXTRUSION IS ATTACHED TO THE PROJECT STRUCTURE.

STEP 4 - SECURE EXTRUSION TO STRUCTURE

ATTACH EXTRUSION TO THE STRUCTURE WHERE APPLICABLE. CONSULT APPROVED SHOP DRAWINGS FOR CORRECT METHOD.



ACTUAL PROJECT CONDITIONS WILL DETERMINE SPECIFIC FASTENER DESIGN AND SPACING. REFERENCE APPROVED SHOP DRAWINGS FOR DETAILS.

REFERENCE PAGE 13 FOR FASTENER DETAILS.

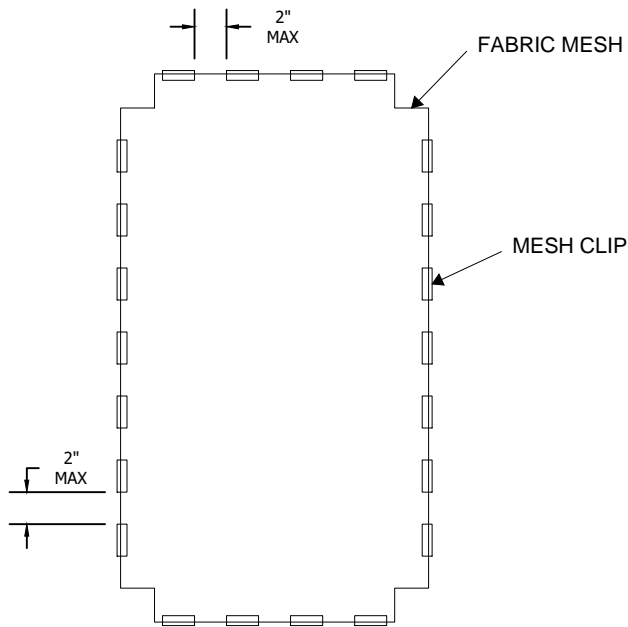
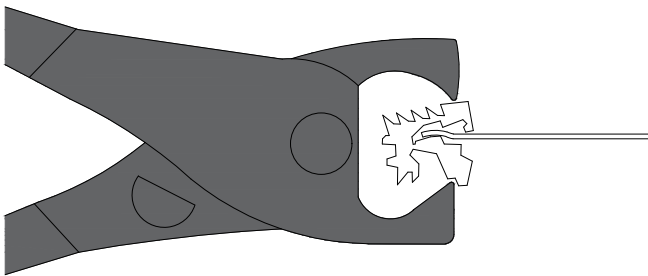
Fabrication and Installation Instructions

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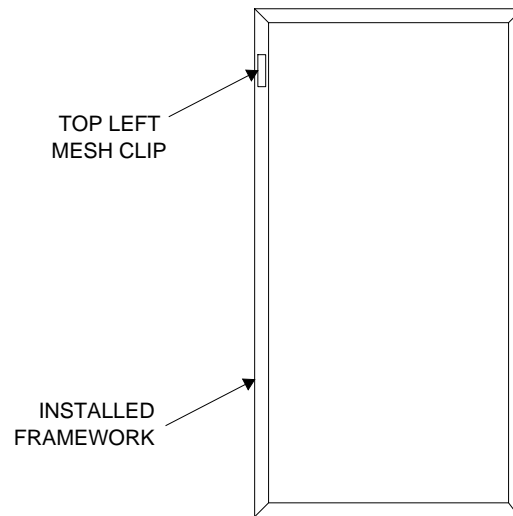
STEP 5 - ATTACH CLIPS TO FABRIC

USING A SET OF PLIERS, CRIMP THE MESH CLIPS ONTO THE PERIMETER FABRIC MESH LEAVING 2" IN BETWEEN CLIPS. THE 2" GAP BETWEEN CLIPS IS STANDARD BUT THE LARGER THE SURFACE OF THE FABRIC IS, THEN SMALLER THE GAP BETWEEN CLIPS MAY NEED TO BE IN ORDER TO ACHIEVE IDEAL TENSIONING.

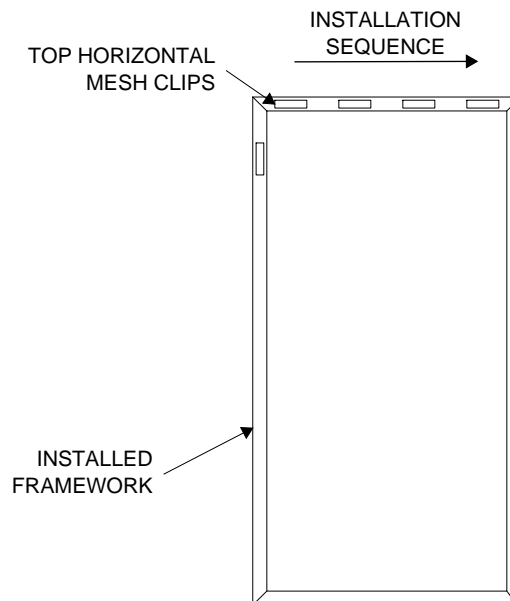


STEP 6 - INSERT CLIPS INTO EXTRUSION

SNAP THE TOP LEFT CLIP ON THE VERTICAL PORTION OF THE FABRIC INTO THE CHANNEL OF THE VERTICAL EXTRUSION 1 OR 2 TEETH.



INSERT THE CLIPS 1 OR 2 TEETH ON THE TOP HORIZONTAL STARTING ON THE LEFT AND WORKING ACROSS. HOLD THE EXCESS FABRIC AWAY FROM THE SYSTEM WITH TENSION TO AVOID WRINKLING AS YOU INSTALL.



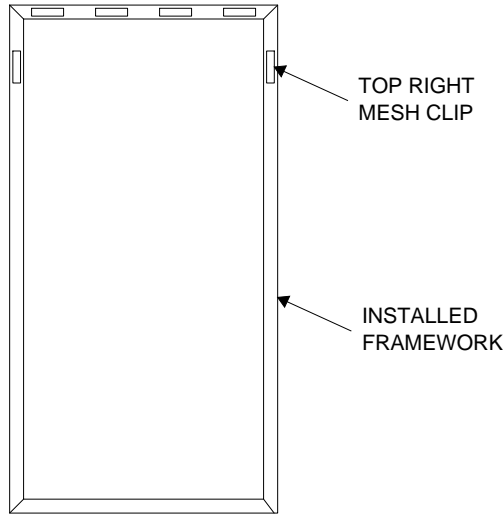
Fabrication and Installation Instructions

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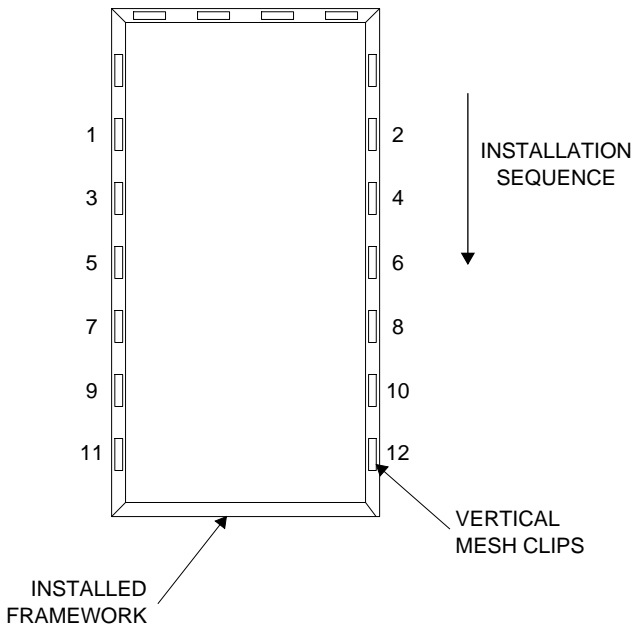
Installation

STEP 6 - INSERT CLIPS INTO EXTRUSION (CONT.)

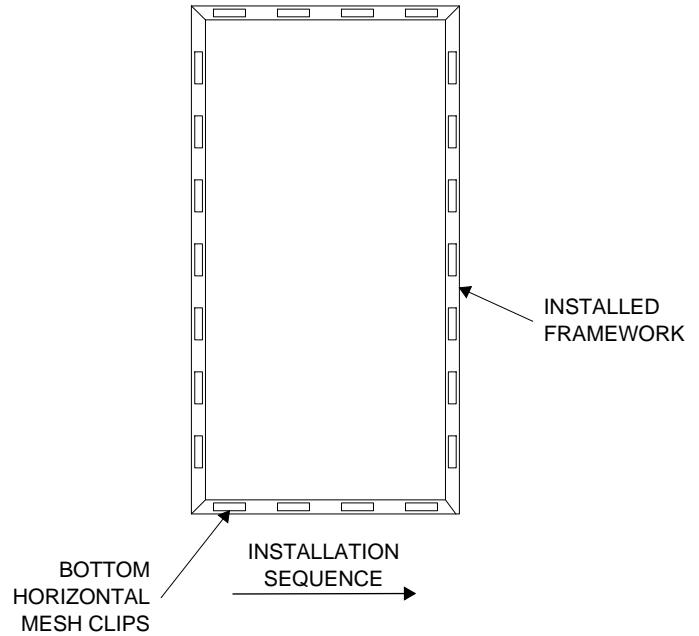
INSERT TOP RIGHT CLIP ON THE VERTICAL PORTION OF THE FABRIC 1 OR 2 TEETH ON THE RIGHT VERTICAL.



SNAP THE REST OF THE VERTICAL EXTRUSION'S CLIPS WORKING DOWN AND ALTERNATING LEFT TO RIGHT.



INSERT THE BOTTOM ROW OF CLIPS INTO THE HORIZONTAL EXTRUSION STARTING AT ONE END AND WORKING ACROSS.



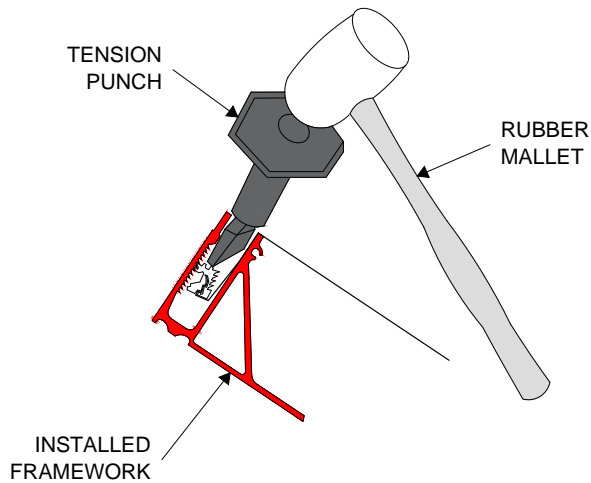
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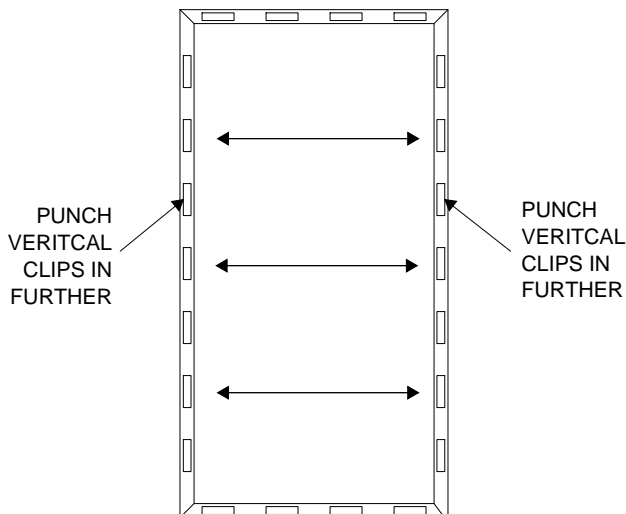
Installation

STEP 7 - TAKE THE SLACK OUT OF THE FABRIC

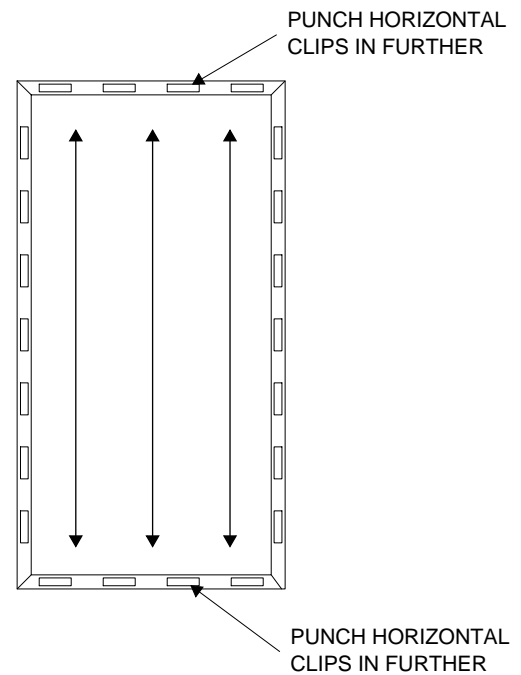
USING THE TENSION PUNCH AND A RUBBER Mallet, TAKE THE SLACK OUT OF THE FABRIC BY PUNCHING THE CLIPS FURTHER INTO THE CHANNELS IN THE EXTRUSION.



START BY PUNCHING IN THE CLIPS ON THE VERTICAL EXTRUSIONS. DO SO UNTIL ALL VERTICAL WRINKLES ARE GONE AND THE FABRIC IS TIGHT SIDE TO SIDE.

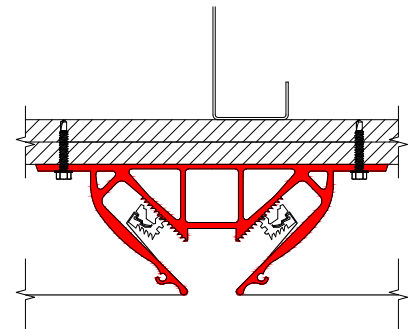


THEN DO THE SAME TO THE CLIPS ON THE HORIZONTALS UNTIL ALL WRINKLES ARE GONE AND FABRIC IS TIGHT TOP TO BOTTOM.

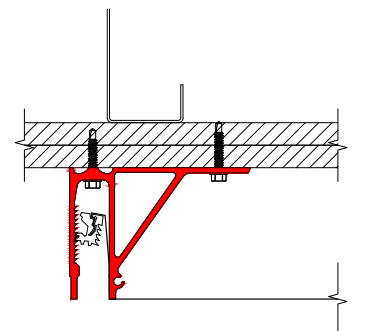


SOME EXAMPLES:

INTERMEDIATE JOINT WITH CLIPS PUNCHED IN.



FRAMED PERIMETER WITH CLIPS PUNCHED IN.



Fabrication and Installation Instructions

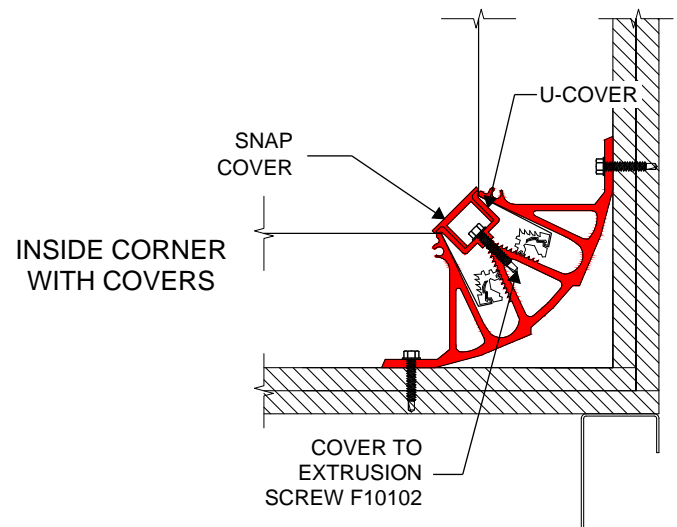
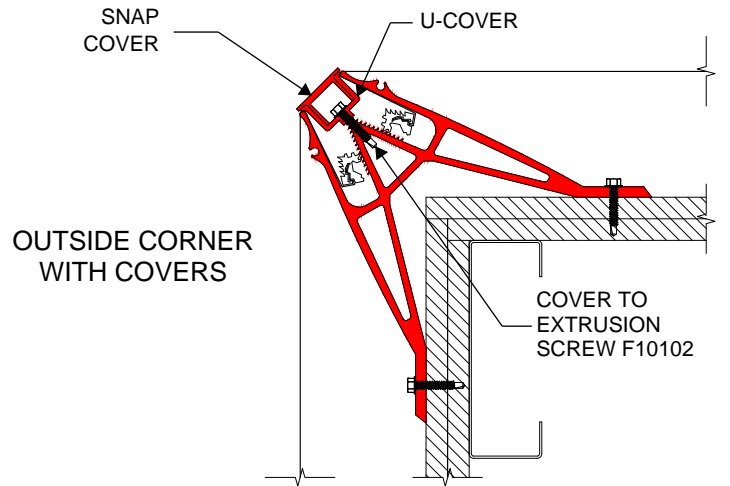
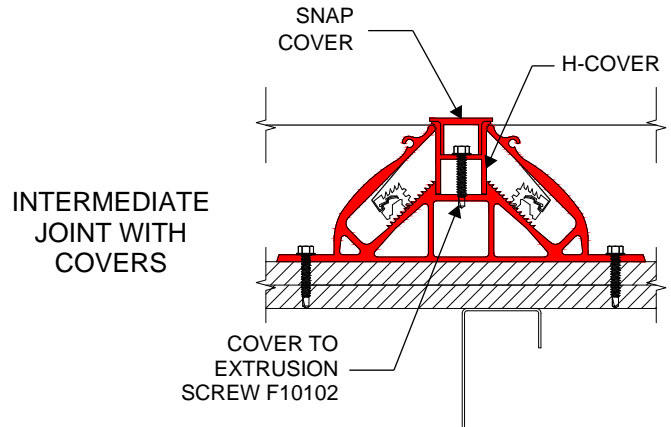
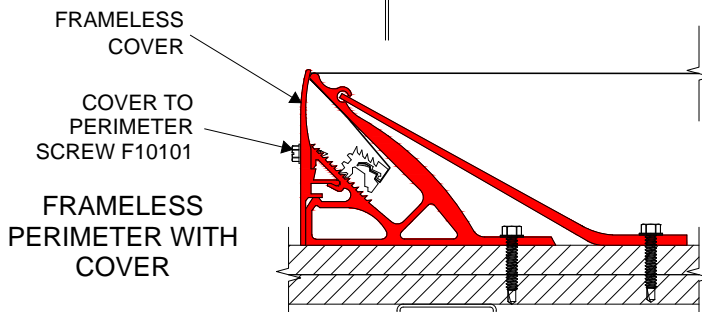
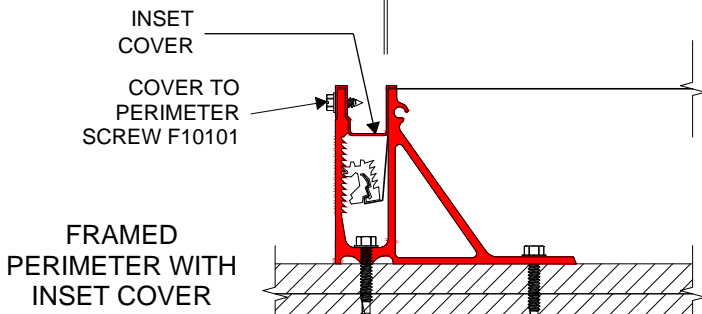
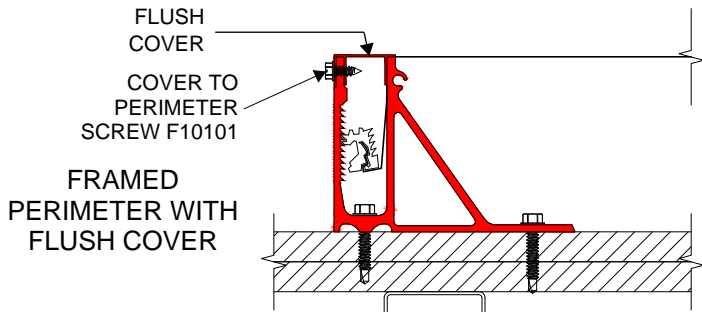
Flex System

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STEP 8 - INSTALL VARIOUS COVERS

DIFFERENT EXTRUSIONS REQUIRE DIFFERENT COVERS TO BE USED TO HIDE THE CLIPS IN THEIR CHANNELS. BELOW ARE SEVERAL EXAMPLES OF THE VENEER SYSTEM BUT THE SAME LOGIC APPLIES TO THE CURTAINWALL SYSTEM AS WELL.

REFERENCE APPROVED SHOP DRAWINGS FOR PROJECT SPECIFIC DETAILS. DETAILS ON THIS PAGE ARE FOR REFERENCE ONLY.



REFERENCE PAGE 13 FOR FASTENER DETAILS.

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Fastener Details

FASTENER	PART NUMBER	COUNT	CONNECTION	PAGE(S)
PERIMETER COVER SCREW	101101	ONE EVERY 12" O.C.	PERIMETER COVER TO EXTRUSION	7
MOUNTING SCREW	F10102	ONE OR TWO SCREWS EVERY 12" O.C.	MOUNTING EXTRUSION TO STRUCTURE	8