



FABRICATION AND INSTALLATION GUIDE

EMS PARTNERS WITH 3A COMPOSITES TO SUPPLY AN APPROVED EXTRUDED ALUMINUM ATTACHMENT SYSTEM

EASTERN METAL SUPPLY (EMS) now offers an approved extruded aluminum ACM attachment system in conjunction with testing successfully completed while partnering with 3A Composites for their ALUCOBOND® PLUS panels. The EMS attachments are an easy to install Drained and Back Ventilated system (DBV). Our pre-engineered system is efficient and cost effective. It provides the ability to adhere to AAMA 509-09 DBV rainscreen, NFPA 285 flame spread, ASTM E330 deflection and ASTM E72 serviceability testing.

EMS with Panel Attachment extrusion inventory on hand in multiple locations around the country will provide quick lead times to allow fabricators to take advantage of small and large job opportunities with reduced freight costs. EMS can also assist with any other aluminum needs you may have.

INTRODUCTION

These instructions have been developed to assist EMS/3AC customers in meeting tests required for MCM systems such as NFPA 285 and AAMA 509 by providing fabrication methods for EMS' Drained & Back Ventilated rainscreen system. These instructions include drawings showing the component parts and accessories. Please take a moment to review this information to become familiar with the guide.

EMS' extrusions are usable with ALUCOBOND® PLUS panels specifically designed for commercial and industrial buildings. EMS provides the extrusions for framing and installing the ALUCOBOND® PLUS panels, per the assembly drawings shown in this publication. The frame extrusions are designed to fasten the panel to min. 18 ga. Steel sub-girts installed by others. EMS does not perform any installation.

These instructions are not intended to ensure against water leakage or mold. EMS is not an expert in waterproofing a building. The publication describes the fabrication of a 'rainscreen' which is designed to leak air and water in a controlled way. Rainscreens allow water to penetrate the outer layer of the wall envelope and weep back out. We assume that fabricators and installers are familiar with the design principles of rainscreen attachment systems.

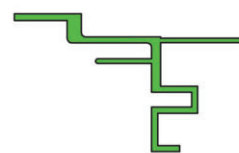


Eastern Metal Supply

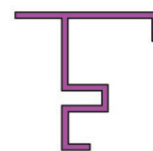
ALUCOBOND® PLUS



MALE RAINSCREEN
52-63-3AC200



FEMALE RAINSCREEN
52-63-3AC300



RAINSCREEN T
52-63-3AC400

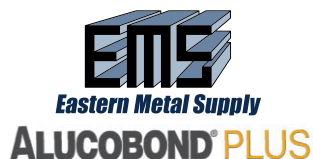


STIFFENER
52-63-3AC100



Eastern Metal Supply www.easternmetal.com • info@easternmetal.com

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ABOUT EMS

EMS has 17 distribution and manufacturing locations in the Eastern 2/3rds of the country employing over 800 people. We have a focus on innovative extruded aluminum and sheet solutions.

- Inventory on Hand
- Multitude of Standard Industrial Shapes
- Custom Extrusions
- Fast Delivery on EMS trucks
- Machining & Fabrication Capabilities

Learn more about EMS and our various divisions by visiting our website:
www.easternmetal.com

SERVICE

EMS has Panel Attachment extrusion inventory on hand in each of our major locations.

- quick lead times
- small and large job capability
- delivery on EMS trucks
- small to no freight upcharges within normal delivery areas

FABRICATION AND INSTALLATION GUIDE

TOOLS & EQUIPMENT REQUIRED

While EMS' extrusions are designed for easy fabrication and attachment to ALUCOBOND® PLUS panels, they are not designed for fabrication by those who are not knowledgeable in the building trade, like a home owner. This product requires the experience of a skilled sheet metal mechanic for proper fabrication.

Cutting, Sawing or Routing:

CNC Router (optional), Table Saw, Panel Saw, Hand Held Router

Drilling:

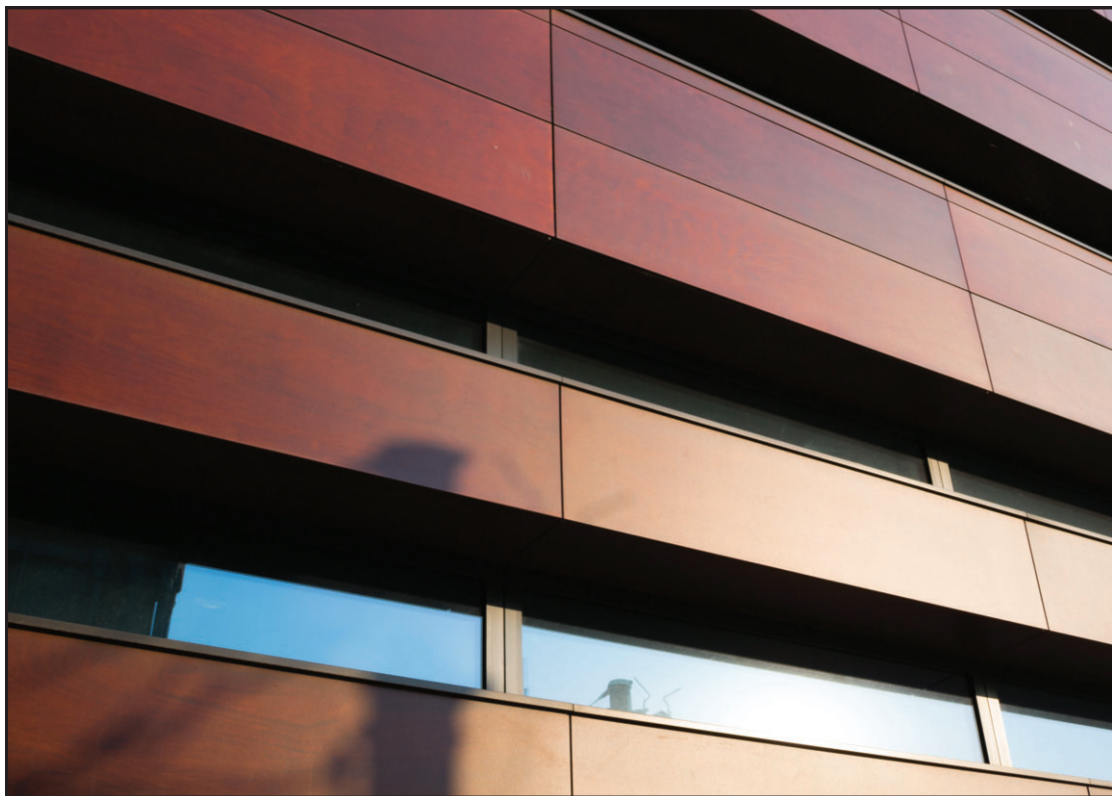
Hand Drill, Drill Press, 3/16" Drill Bit, Countersinking Bit to accommodate countersunk rivets

Materials Required:

Clamps, #10 x 3/4" LG. S/S FPH Tek screws (or equivalent), Rivet Gun, Dow 795 Silicone Sealant (or equivalent), Caulk Gun, 3M VHB5952 Double Sided Tape (or equivalent) Lamatek PN25B00-00002 Weep Baffles (or equivalent)

SAFETY

Normal safety and health precautions in any fabrication environment should be used when fabricating EMS' extrusions and attaching to ALUCOBOND® PLUS ACM panel systems. Eye or other face protection, as well as hearing protection should always be worn.



DISCLAIMER

EMS fabrication guidelines and instructions in this publication are for general information to assist fabricators in the assembly of the components sold by EMS. EMS is not responsible for the workmanship of fabricators or others on any project and EMS is not responsible for the use to which the details and instructions are put by others, including fabricators. EMS disclaims design responsibility on any specific project. The drawings, details and any related notes or texts are based on typical requirements for the relevant products. Compliance with code and engineering for any specific project are the responsibilities of the designer and end-user.

Any details shown are solely for the purpose of illustrating typical fabrications and are not meant to address either products supplied by others, such as caulk or tape, or specific site design conditions for a specific building. EMS does not warrant the fitness of these details for a particular purpose or warrant the suitability of these details for construction. EMS does not assume any liability for the use of the details. It is the sole responsibility of a construction industry professional to apply their professional knowledge and judgment in utilizing the information contained in these details.

EMS is also not responsible and accepts no liability for the materials provided here that are the work product of others, such as the ALUCOBOND® PLUS panels. The fabricators are third-party, independent contractors and as such, remain solely responsible for their own actions. Water-tightness, leaks and water intrusion are the responsibility of others, including the installers, fabricators and designers.

This publication is not a substitution for hands-on training. This brochure is intended solely for construction professionals.

Please direct all technical questions to RAFFAELE BARIOLI (x1425) or CHRIS MILLER (x1433) at 800-432-2204.

TABLE OF CONTENTS

- ABOUT EMS, SERVICE, TOOLS & EQUIPMENT REQUIRED, SAFETY, DISCLAIMER
- FABRICATION GUIDE - 1-4
- INSTALLATION GUIDE - 1-8
- CONTACT SHEET
- LOCATIONS



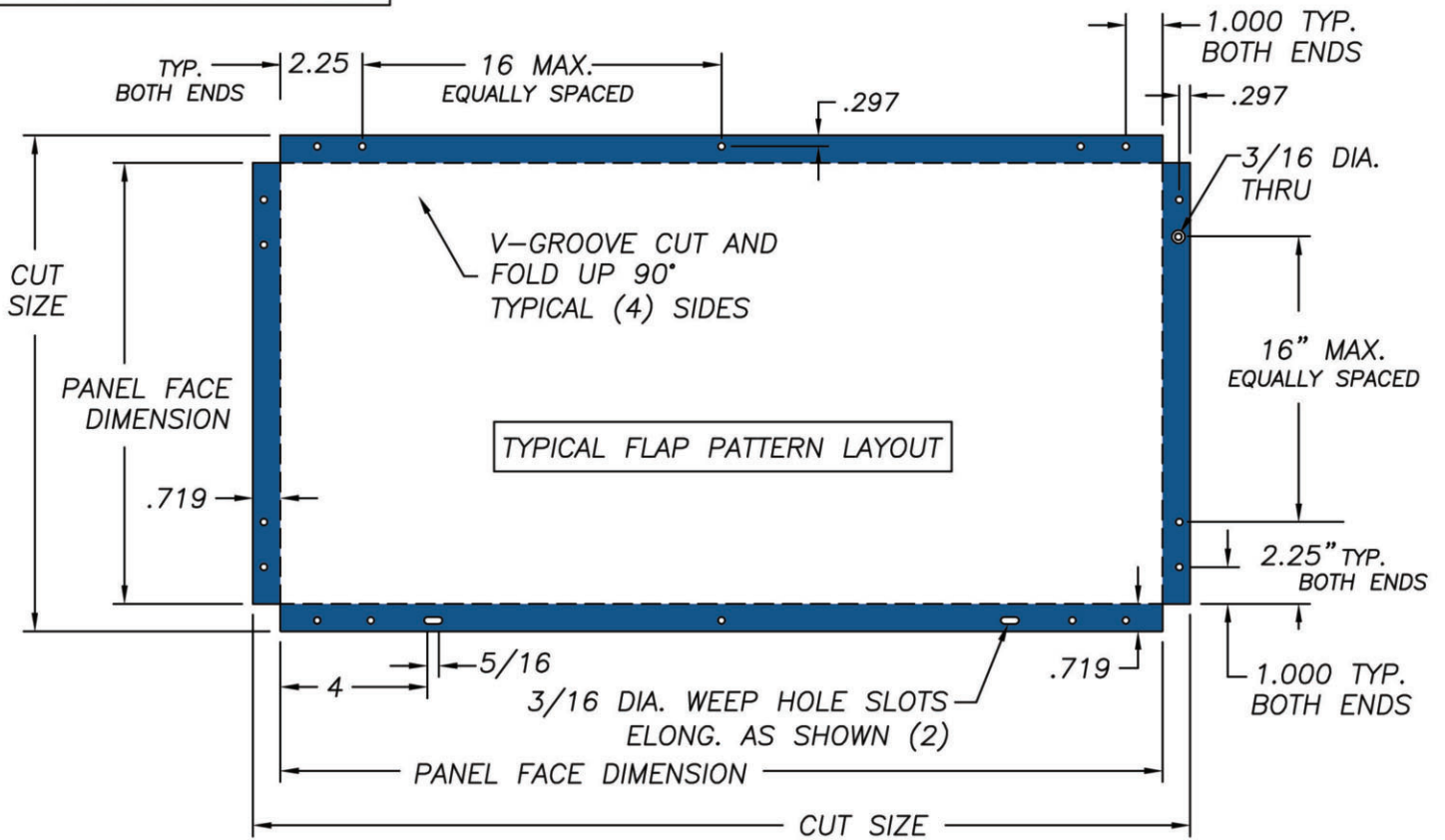
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FABRICATION GUIDE-1

STEP 1

CUT PANEL OUT OF SHEET



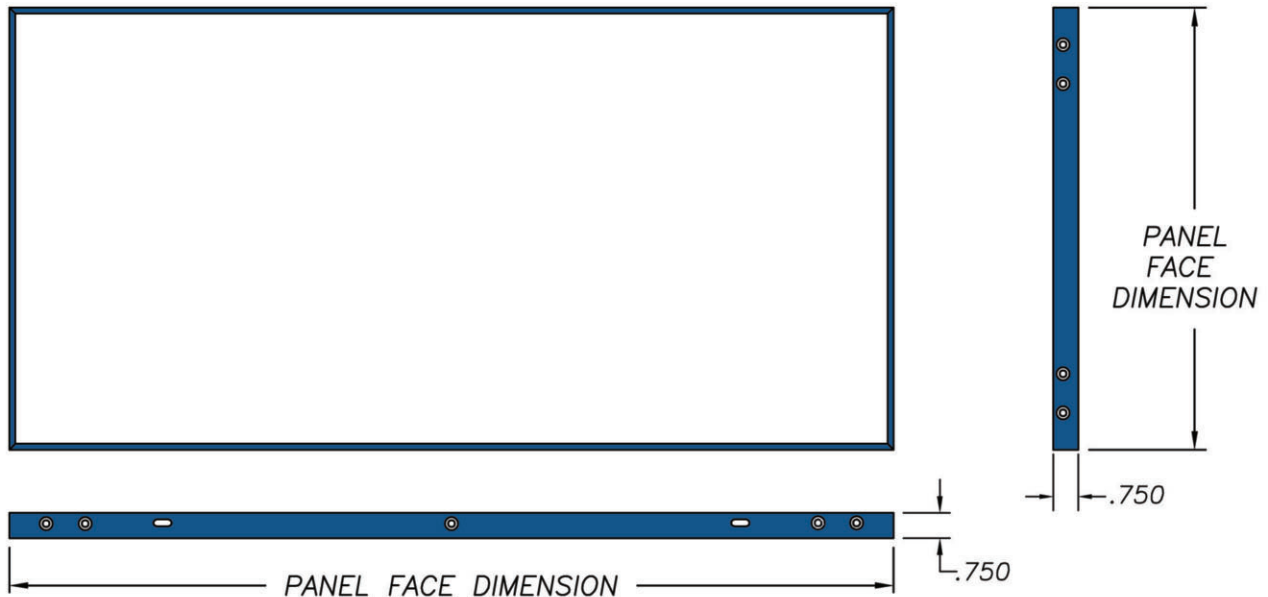
STEP 2

FOLD SIDES UP 90°
DO NOT EXCEED 90°

STEP 3

C'SINK .188 DIA. HOLES
TO BE FLUSH W/ FLAT HEAD SCREWS

ALUCOBOND® PLUS

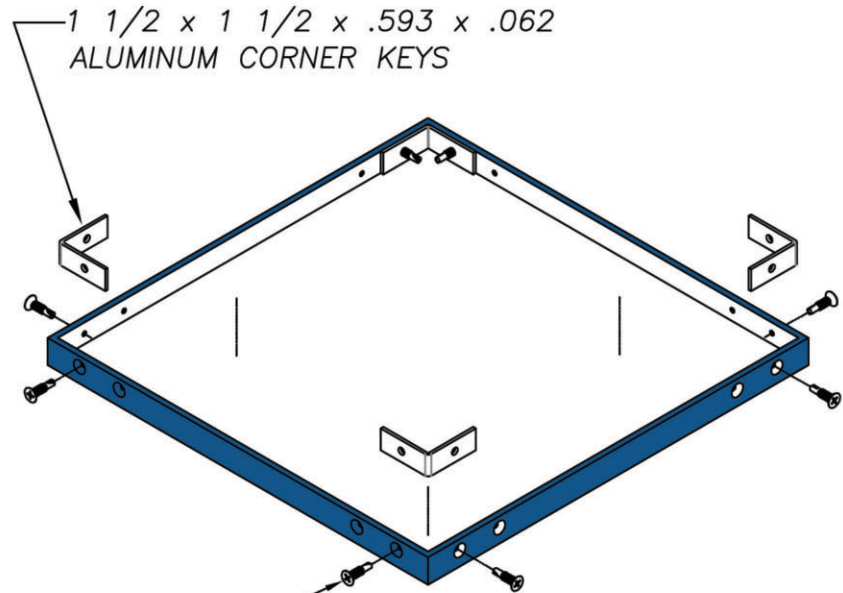


FABRICATION GUIDE-2

STEP 4

FASTEN CORNER KEYS
INSIDE PANEL CORNERS

ALUCOBOND® PLUS

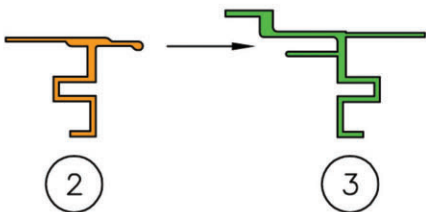


1 1/2 x 1 1/2 x .593 x .062
ALUMINUM CORNER KEYS

#10 X 3/4 S/S FPH TEK SCREWS
OR EQUIVALENT FASTENERS, INCL. RIVETS

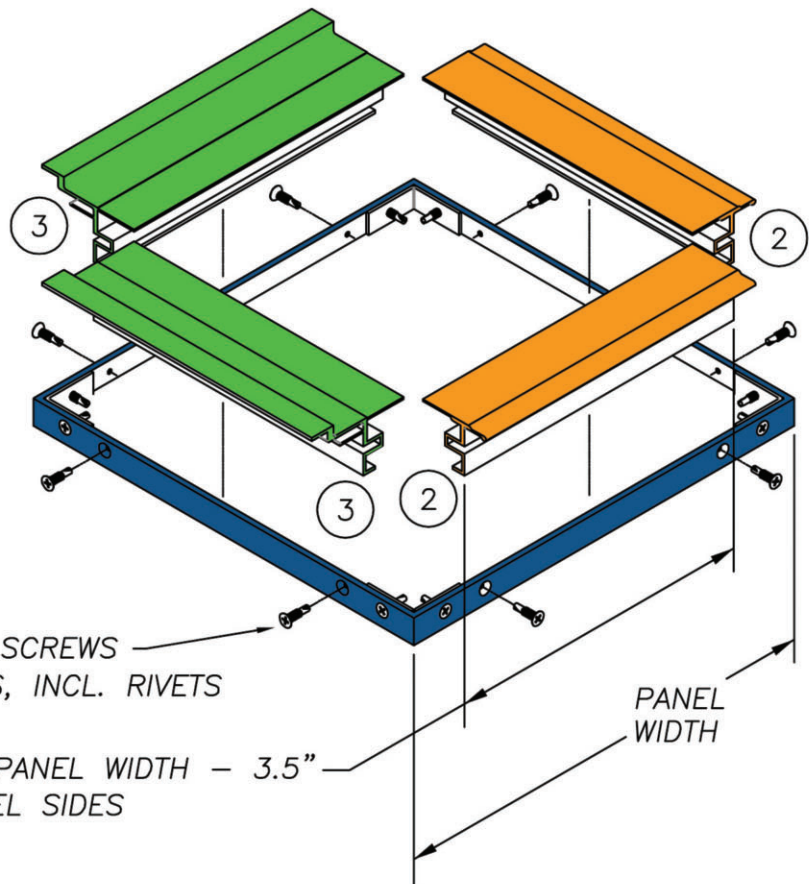
STEP 5

FASTEN EXTRUSIONS
INSIDE PANEL SIDES



MALE RAINDSCREEN
52-63-3AC200

FEMALE RAINDSCREEN
52-63-3AC300



#10 X 3/4 S/S FPH TEK SCREWS
OR EQUIVALENT FASTENERS, INCL. RIVETS

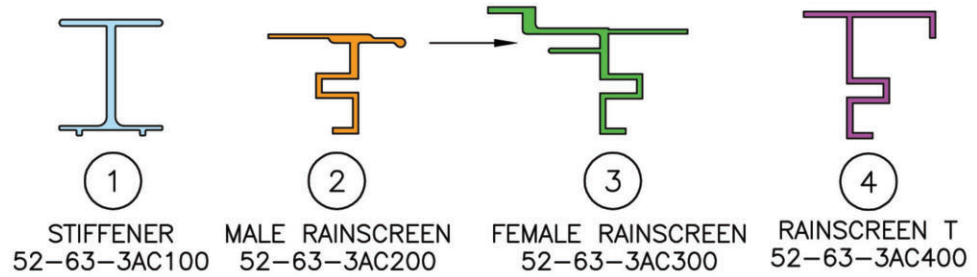
EXTRUSION LENGTH = PANEL WIDTH - 3.5"
CENTERED INSIDE PANEL SIDES

PANEL
WIDTH

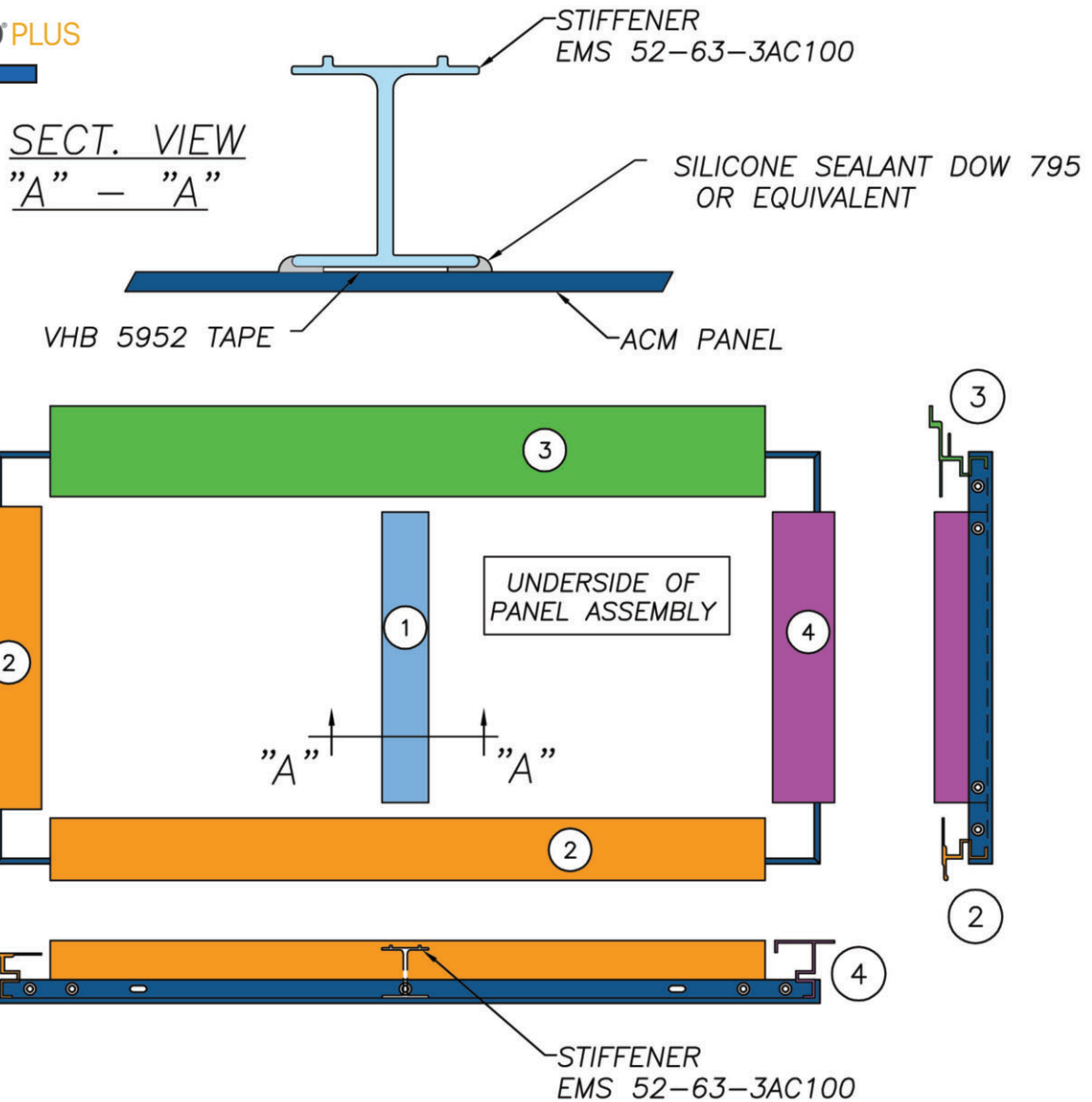
FABRICATION GUIDE-3

STEP 6

ATTACH STIFFENER TO
UNDERSIDE OF PANEL



ALUCOBOND[®] PLUS

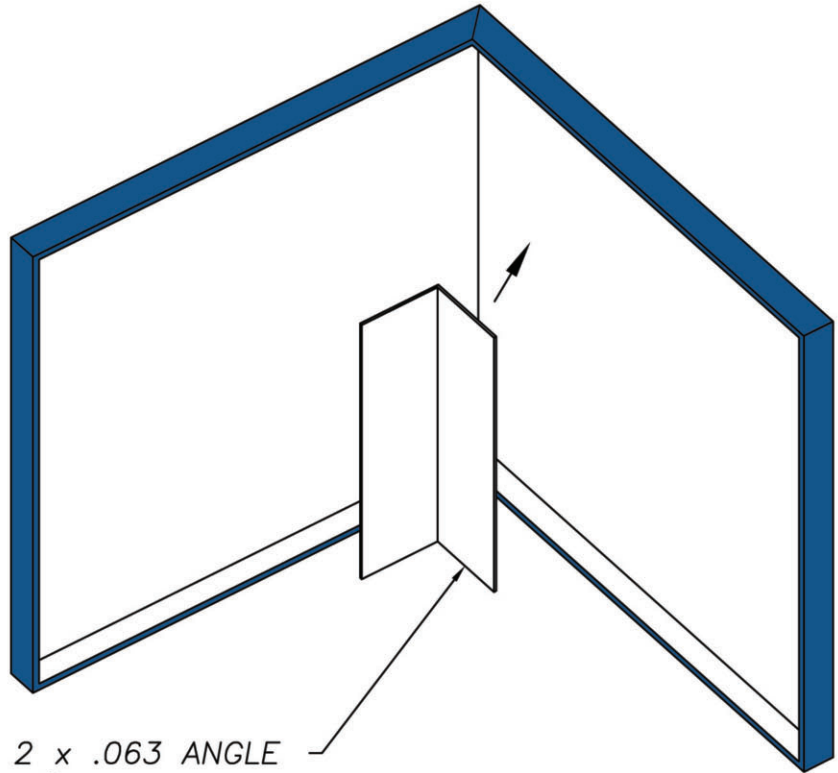


FABRICATION GUIDE-4

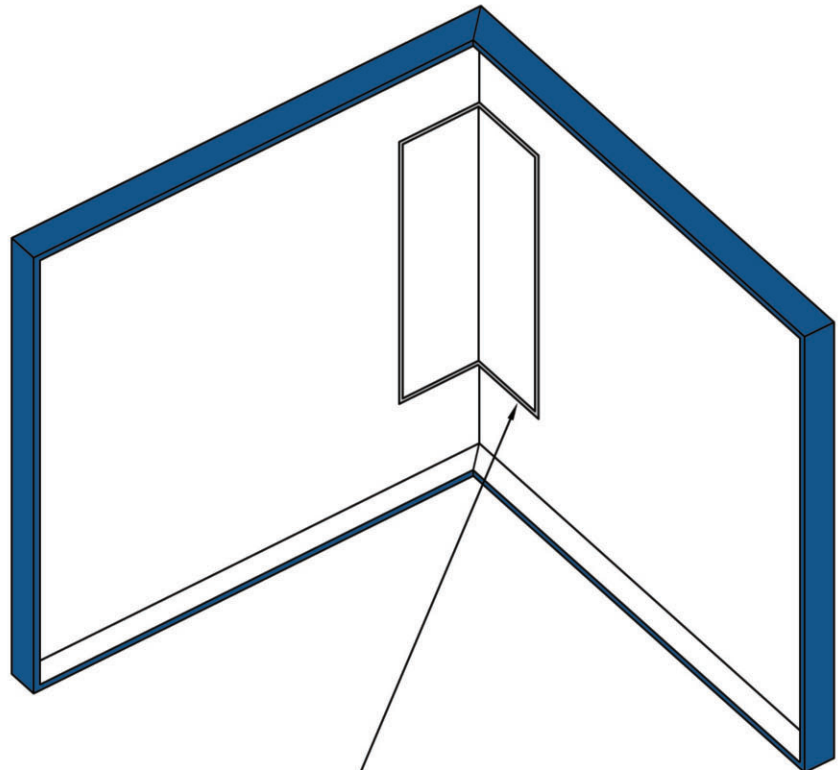
STEP 7

ATTACH 90° ANGLE
INSIDE CORNER PANEL

ALUCOBOND[®] PLUS

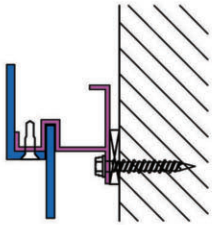


2 x 2 x .063 ANGLE
EMS # 11-63-310
LENGTH = PANEL LENGTH MINUS 5"
CENTERED IN PANEL CORNER

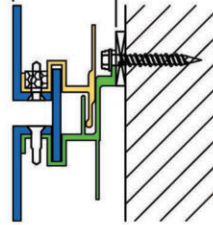


DOW 795 OR EQUIVALENT SILICONE
BACKSIDE AND EDGES AROUND ANGLE

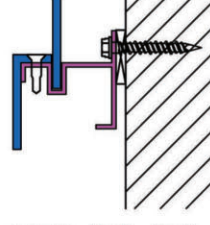
INSTALLATION GUIDE-1



VIEW "A"-"A"

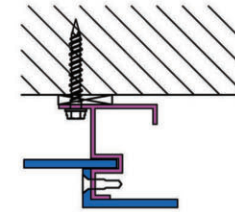
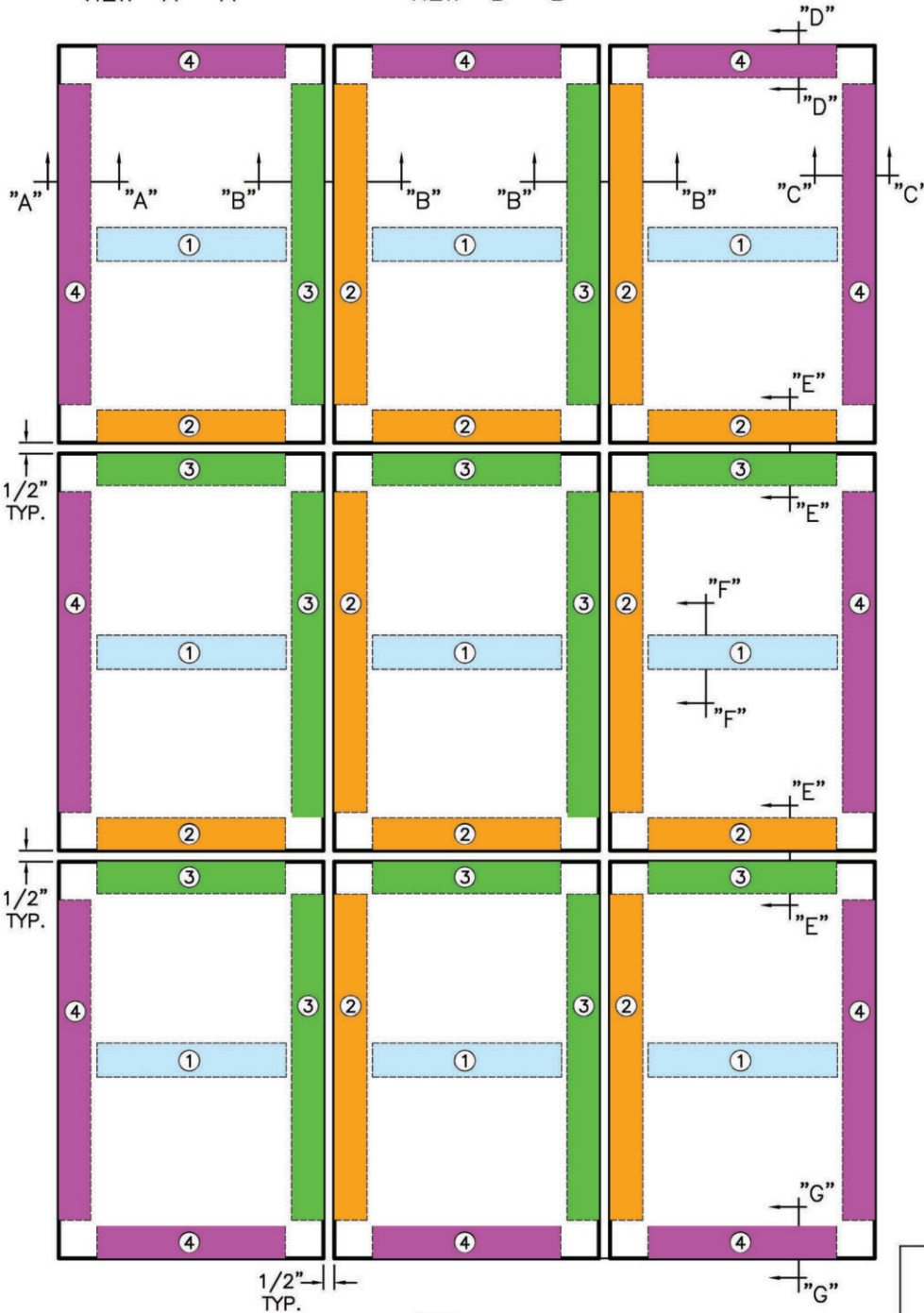


VIEW "B"-"B"

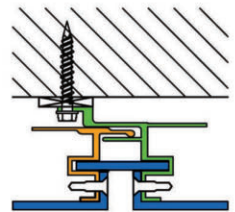


VIEW "C"-"C"

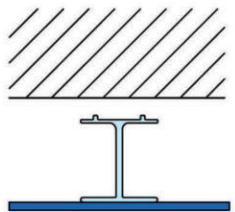
ALUCOBOND[®] PLUS



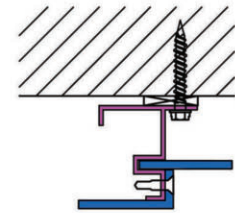
VIEW "D"-"D"



VIEW "E"-"E"



VIEW "F"-"F"



VIEW "G"-"G"



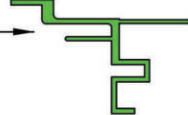
1

STIFFENER
52-63-3AC100



2

MALE RAINSCREEN
52-63-3AC200



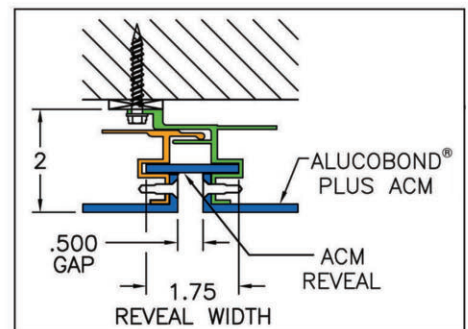
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FEMALE RAINSCREEN
52-63-3AC300

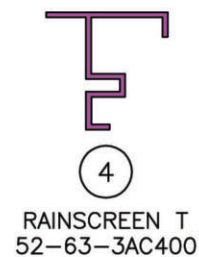
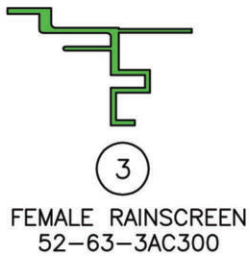
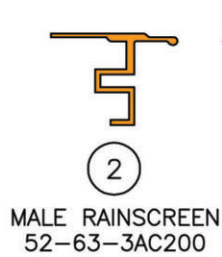
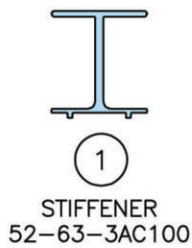


4

RAINSCREEN T
52-63-3AC400



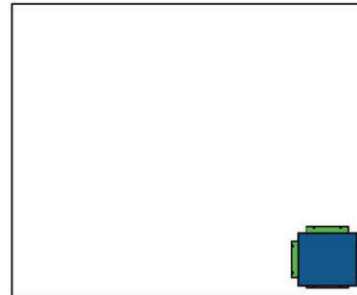
INSTALLATION GUIDE-2



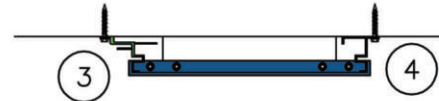
ALUCOBOND[®] PLUS

1ST STEPS

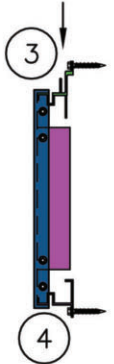
- LEVEL PANEL
- ATTACH LOWER SCREWS
- ATTACH UPPER SCREWS
- ATTACH RIGHT SCREWS
- ATTACH LEFT SCREWS



START FROM THE BOTTOM RIGHT
OR BOTTOM LEFT CORNER

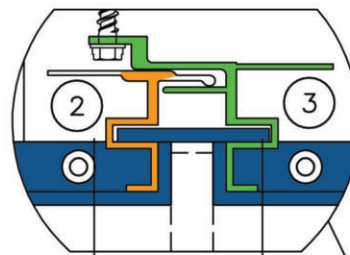
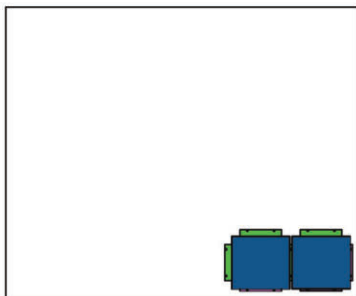


FIRST PANEL

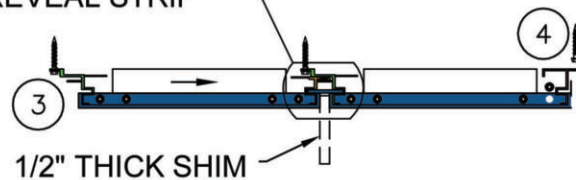


2ND STEPS

- SLIDE SECOND PANEL
AGAINST FIRST PANEL
USING 1/2" SHIM
- LEVEL PANEL
- ATTACH LOWER SCREWS
- ATTACH UPPER SCREWS
- ATTACH LEFT SCREWS
- INSERT ACM REVEAL



1.75" .50" REVEAL OPENING
ACM REVEAL STRIP



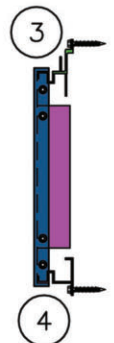
LEVEL

CONTINUE ACROSS

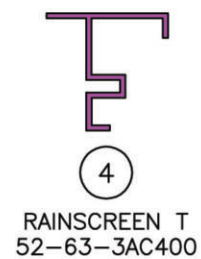
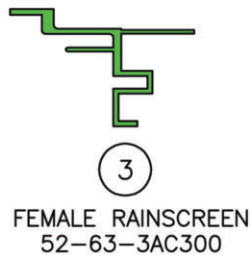
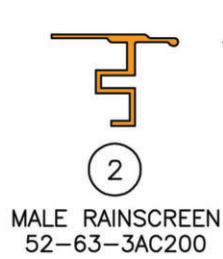
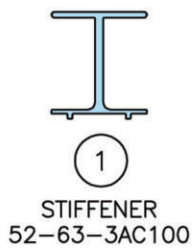
NOTE! ACM REVEALS NOT
SHOWN IN THIS VIEW

SECOND
BOTTOM PANEL

FIRST
BOTTOM PANEL



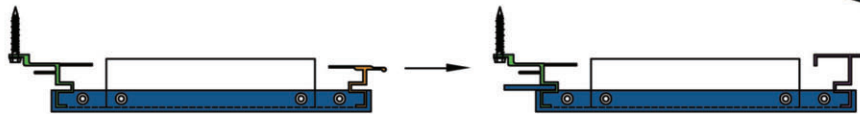
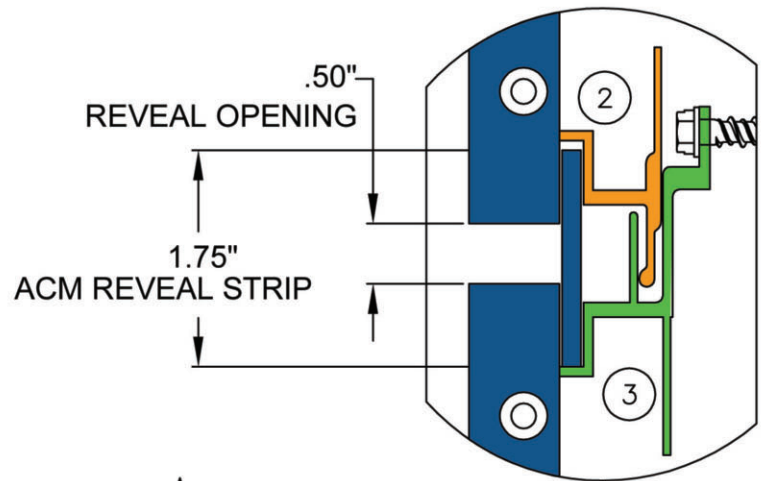
INSTALLATION GUIDE-3



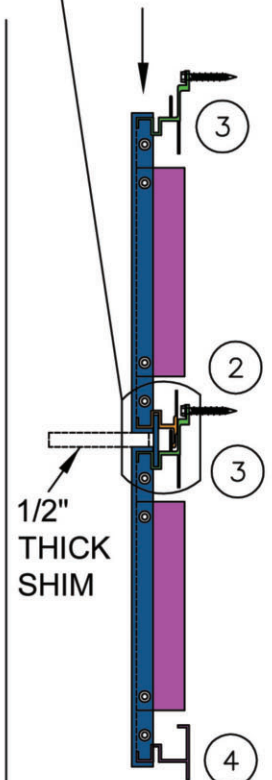
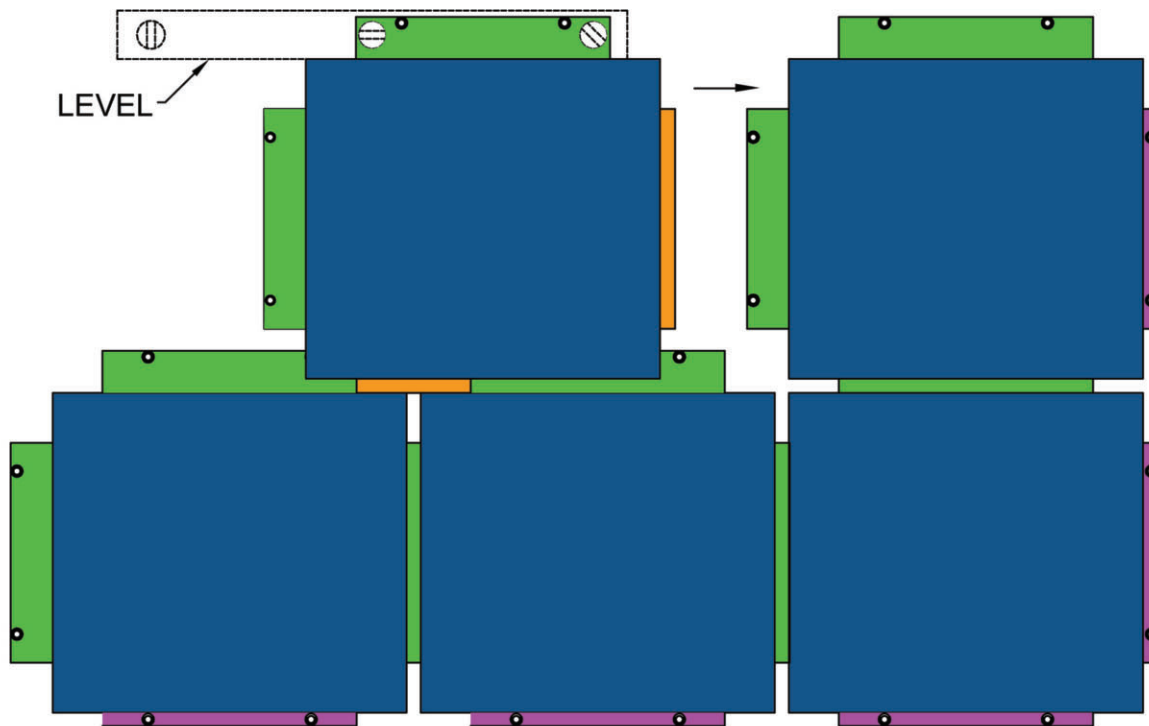
ALUCOBOND[®] PLUS

3RD STEPS

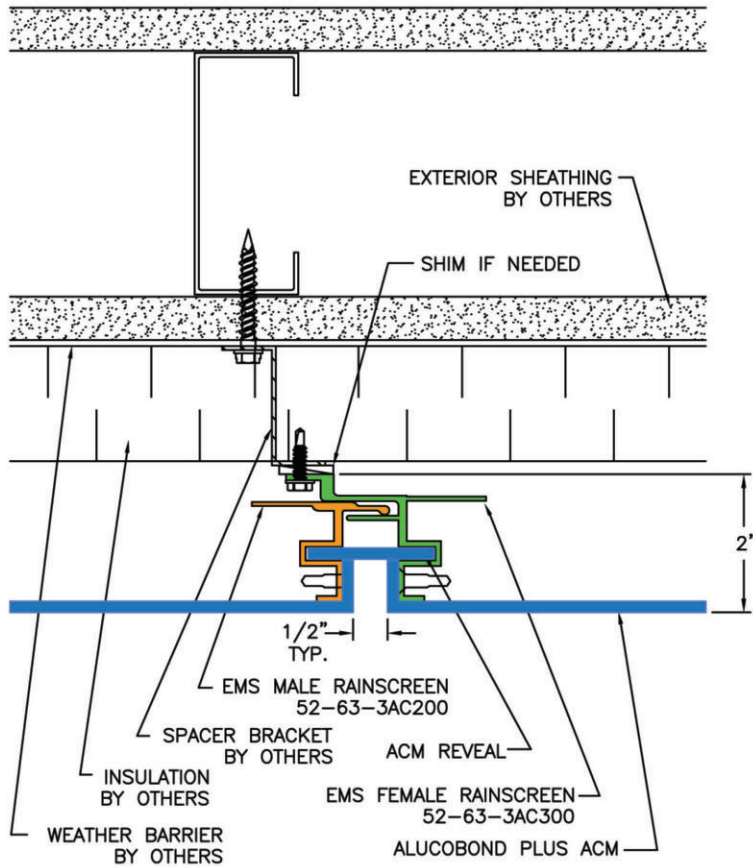
- SLIDE UPPER PANEL AGAINST LOWER PANEL USING 1/2" SHIM
- LEVEL PANEL
- ATTACH UPPER SCREWS
- ATTACH RIGHT SCREWS
- ATTACH LEFT SCREWS
- CONTINUE ACROSS
- INSERT ACM REVEALS



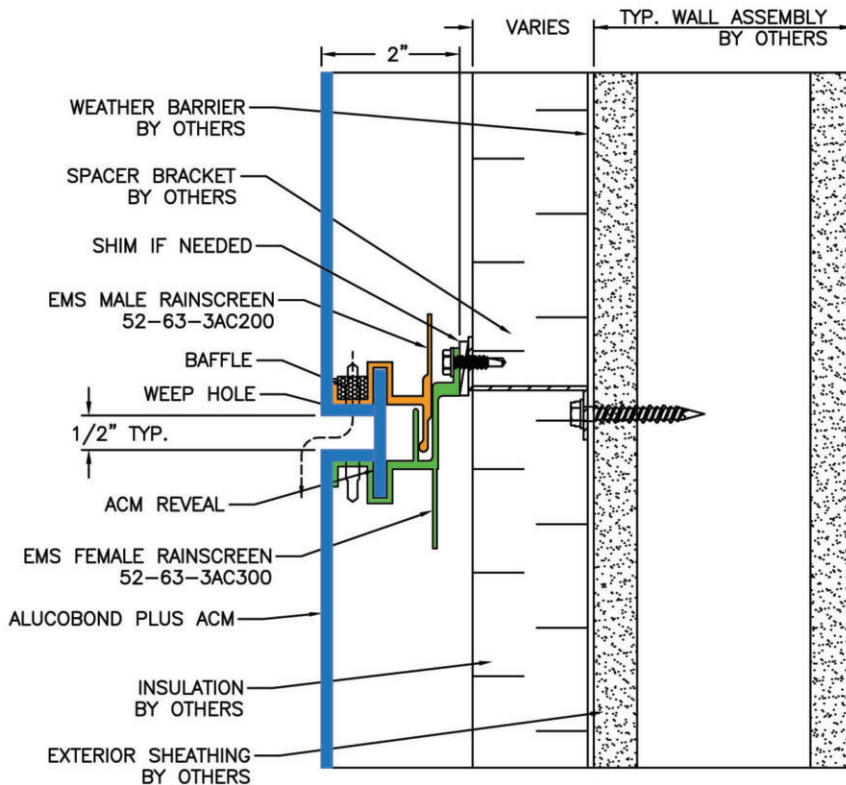
NOTE! ACM REVEALS NOT SHOWN IN THIS VIEW



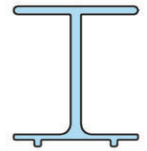
INSTALLATION GUIDE-4



VERTICAL JOINT DETAIL



HORIZONTAL JOINT DETAIL



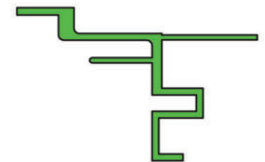
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STIFFENER
52-63-3AC100



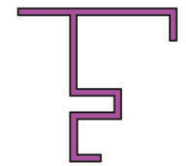
2

MALE RAINSCREEN
52-63-3AC200



3

FEMALE RAINSCREEN
52-63-3AC300



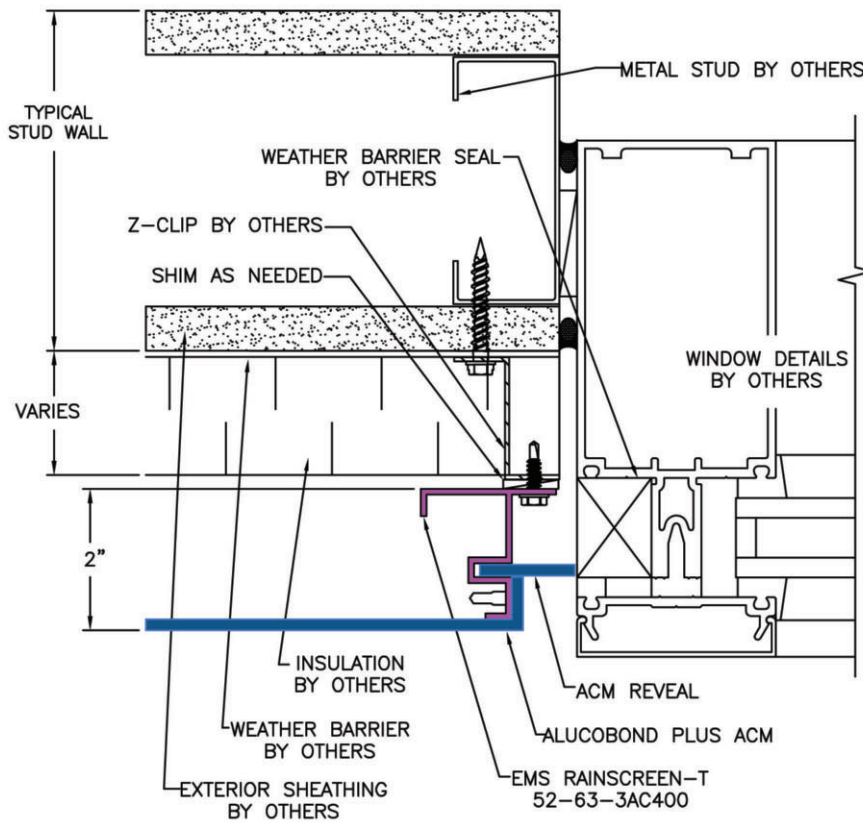
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RAINSCREEN T
52-63-3AC400

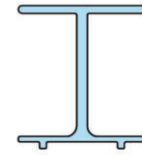
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INSTALLATION GUIDE-5

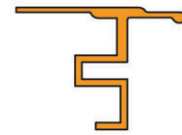


WINDOW JAMB DETAIL – STANDARD



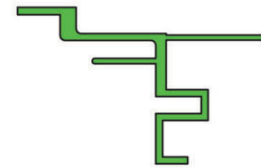
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STIFFENER
52-63-3AC100



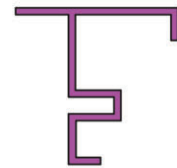
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MALE RAINSCREEN
52-63-3AC200



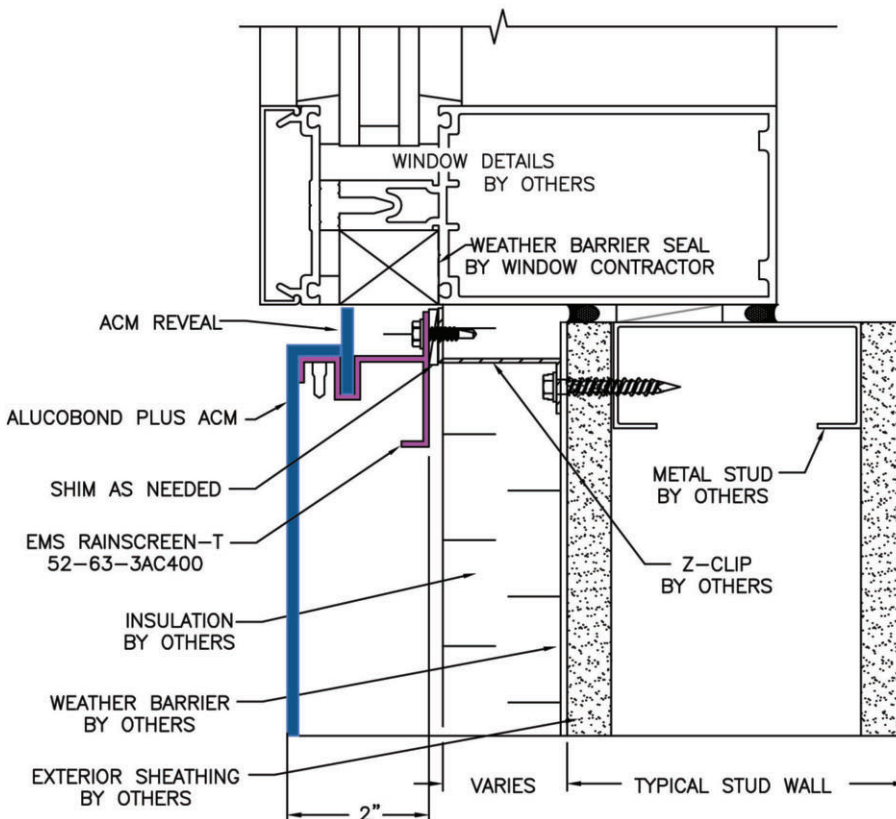
3

FEMALE RAINSCREEN
52-63-3AC300



4

RAINSCREEN T
52-63-3AC400

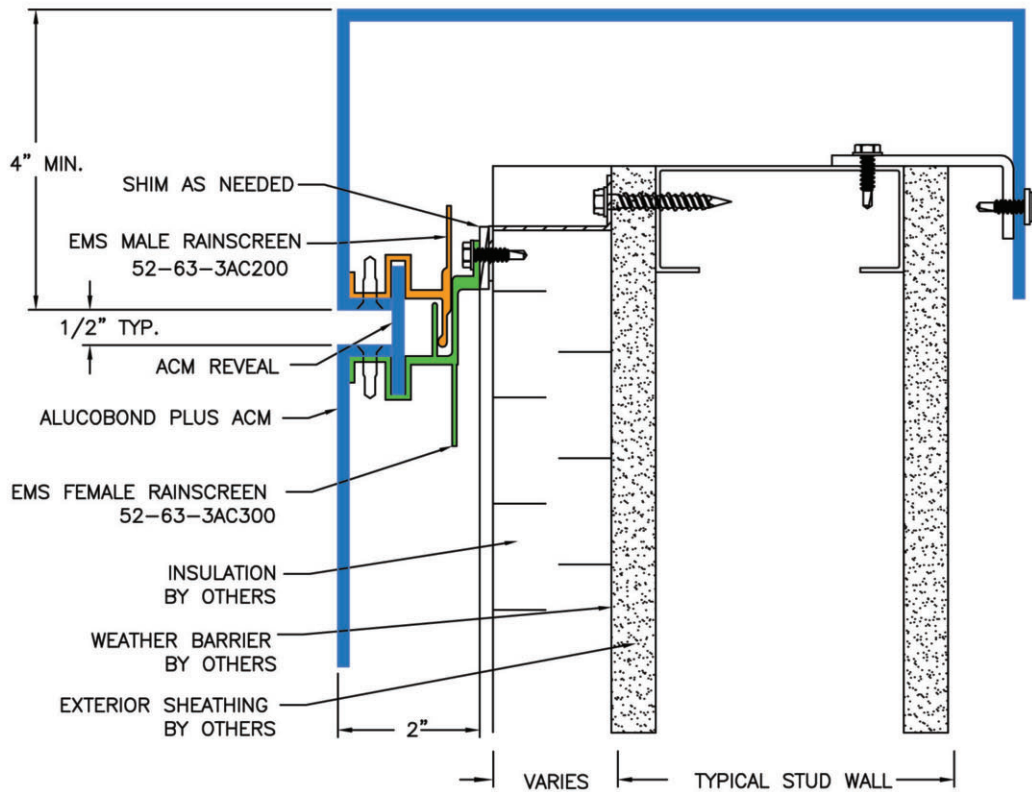


WINDOW SILL DETAIL – STANDARD

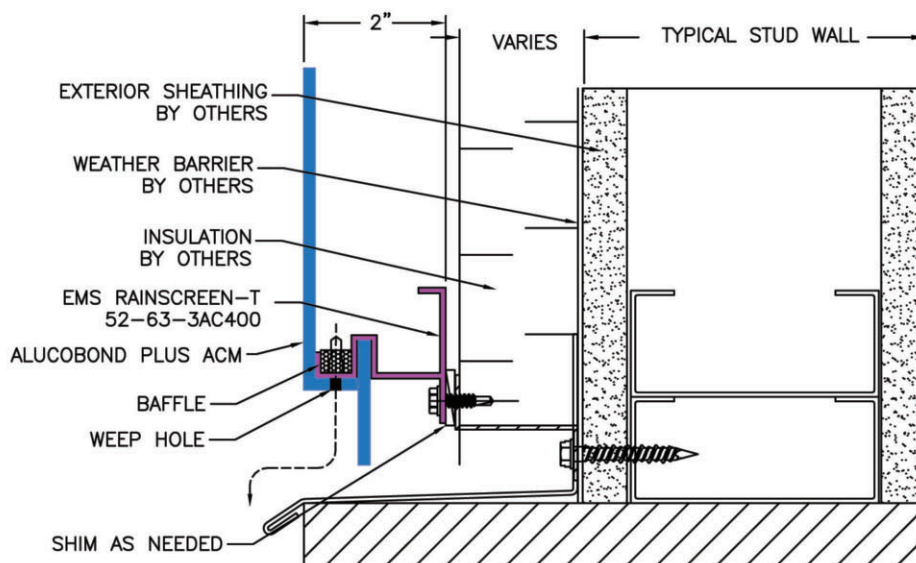
ALUCOBOND[®] PLUS



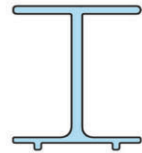
INSTALLATION GUIDE-6



PARAPET CONDITION DETAIL



BASE CONDITION DETAIL



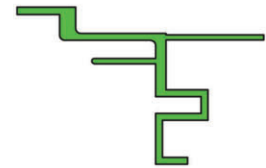
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STIFFENER
52-63-3AC100



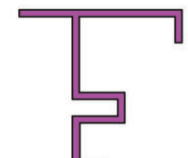
2

MALE RAINDSCREEN
52-63-3AC200



3

FEMALE RAINDSCREEN
52-63-3AC300



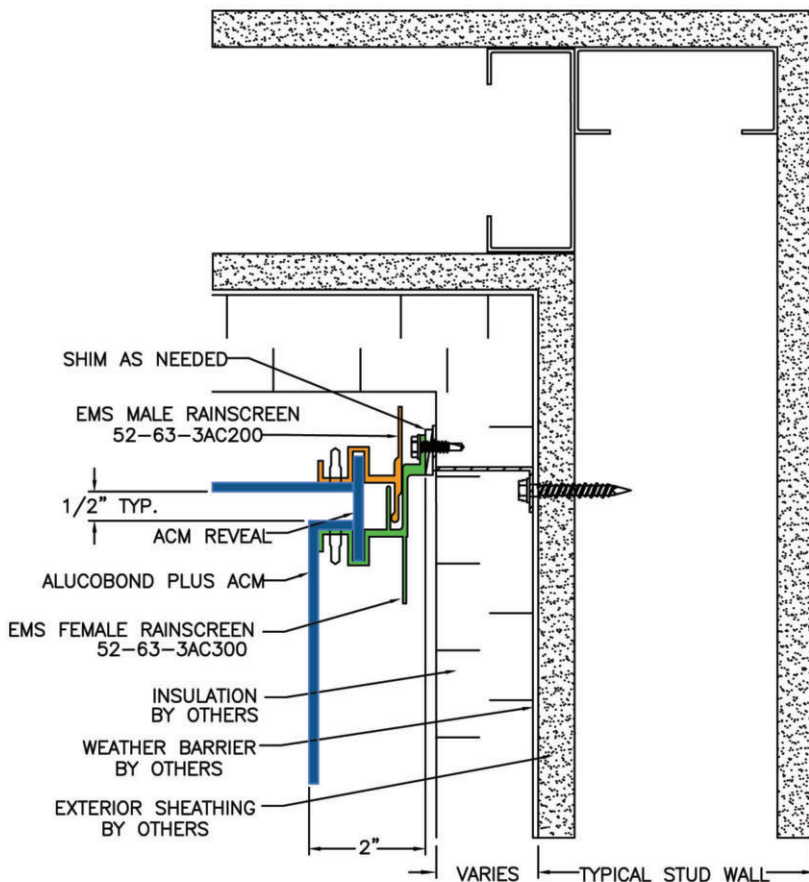
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RAINDSCREEN T
52-63-3AC400

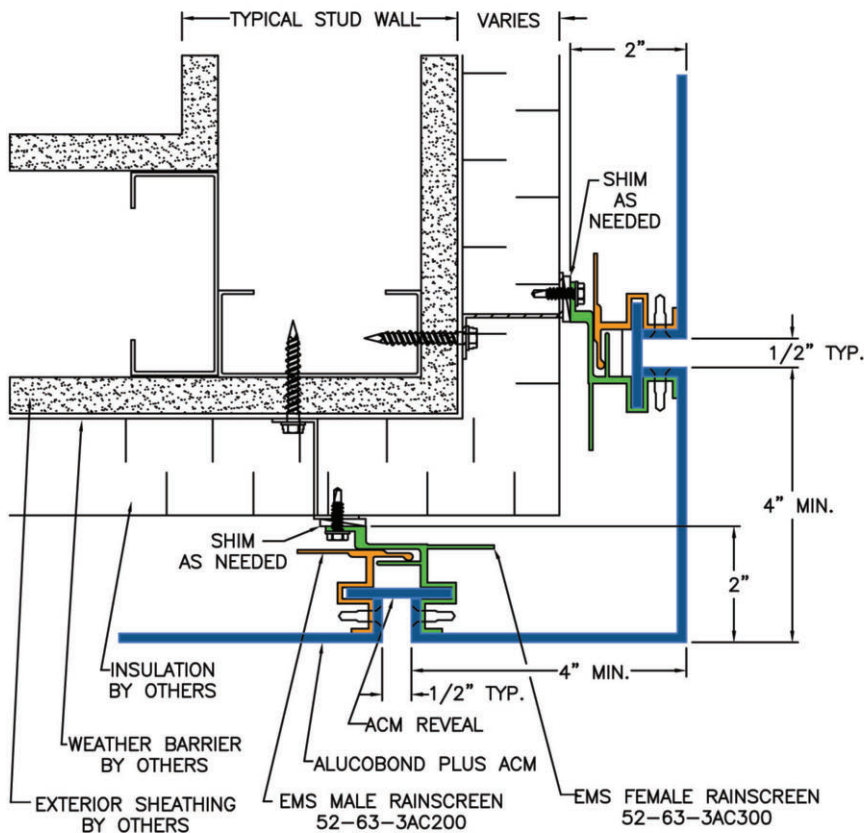
ALUCOBOND[®] PLUS



INSTALLATION GUIDE-7



INSIDE CORNER DETAIL



OUTSIDE CORNER DETAIL



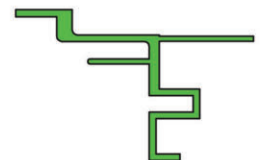
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STIFFENER
52-63-3AC100



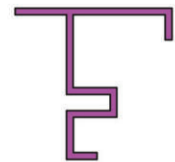
2

MALE RAINSCREEN
52-63-3AC200



3

FEMALE RAINSCREEN
52-63-3AC300



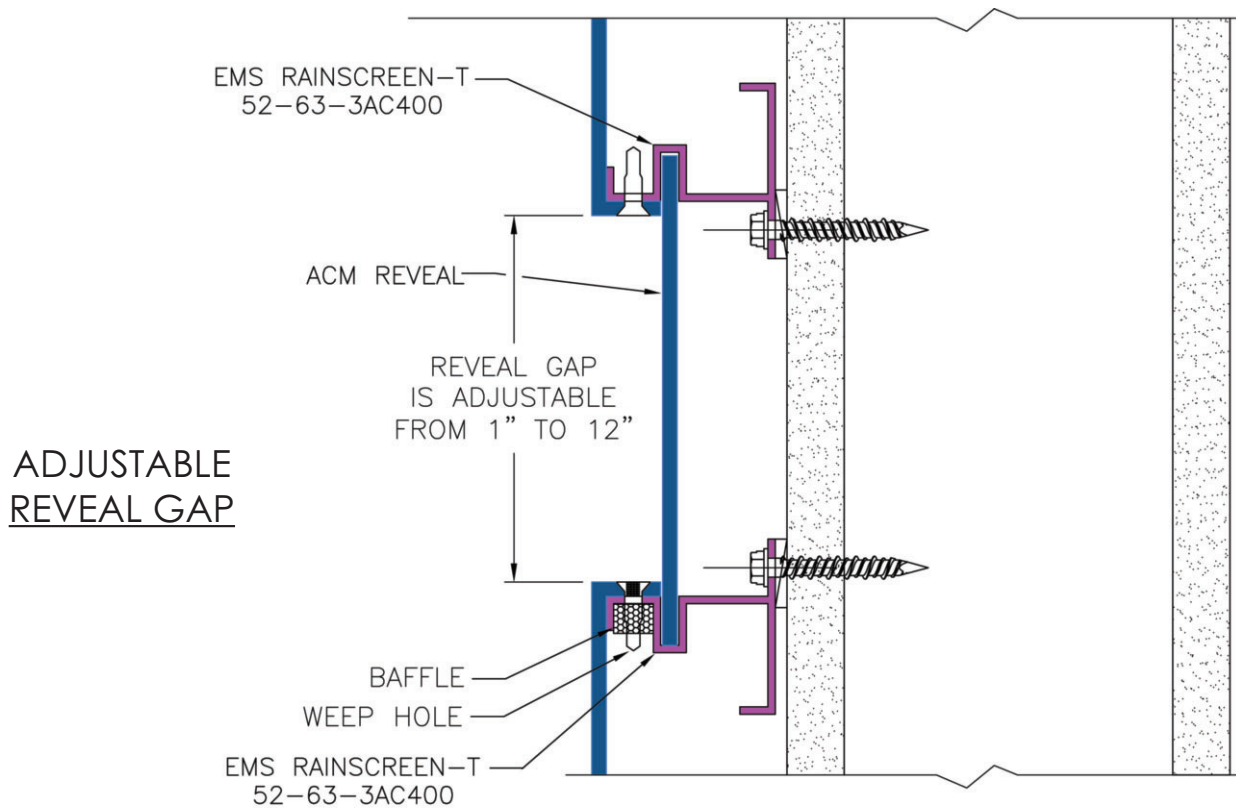
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RAINSCREEN T
52-63-3AC400

ALUCOBOND[®] PLUS



INSTALLATION GUIDE-8



Eastern Metal Supply

CONTACT INFORMATION

PRIMARY CONTACTS:

MIKE BROWN
ACM Project Coordinator
Senior Sales Manager
1-800-343-8154 x2202

RAFFAELE BARIOLI
Product Development
Manager
1-800-432-2204 x1425

CHRIS MILLER
Product Development
Specialist
1-800-432-2204 x1433

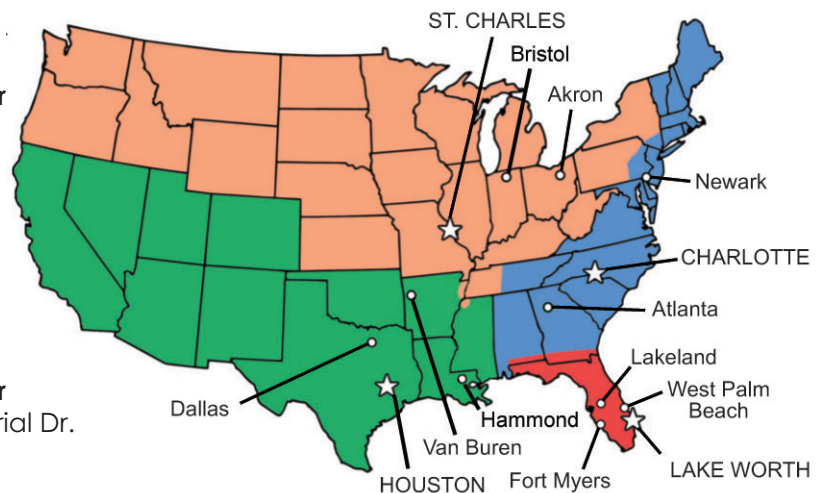
BRIAN PETERSON
Design Engineer
1-800-432-2204 x1429

EMS FL
JOHN EAGLETON
Inside Sales Manager
3600 23rd Avenue South
Lake Worth, FL 33461
1-800-432-2204
Local: (561) 533-6061
Fax: (561) 588-4780

EMS TX
SALLY GENTRY
Inside Sales Manager
9400 Telge Road
Houston, TX 77095
1-800-996-6061
Local: (281) 656-2296
Fax: (281) 656-2297

EMS NC
JIM WEYRENS
Regional Sales Manager
2925 Stewart Creek Blvd.
Charlotte, NC 28216
1-800-343-8154
Local: (704) 391-2266
Fax: (704) 391-2267

EMS MO
CHRIS WIEHARDT
Inside Sales Manager
2931 Elm Point Industrial Dr.
St Charles, MO 63301
1-888-822-6061
Local: (314) 344-3327
Fax: (314) 344-3349



Service areas and additional physical locations are listed on the back of this document.

Eastern Metal Supply

CONTACT INFORMATION

BRANCHES - Sales Offices



EMS Florida (Corporate)

3600 23rd Ave. South
Lake Worth, FL 33461
1-800-432-2204
local: (561) 533-6061
fax: (561) 588-4780
Services: FL & Caribbean
147,000 square feet



EMS North Carolina

2925 Stewart Creek Blvd.
Charlotte, NC 28216
1-800-343-8154
local: (704) 391-2266
fax: (704) 391-2267
Services: NC, SC, VA,
Eastern TN (Knoxville)
112,000 square feet



EMS Texas

9400 Telge Rd.
Houston, TX 77095
1-800-996-6061
local: (281) 656-2296
fax: (281) 656-2297
Services: TX, LA, MS, CO, NM, AZ,
UT, NV, CA, HI;
Mexico and Central America
144,000 square feet



EMS Missouri

2931 Elm Point Industrial Dr.
St. Charles, MO 63301
1-888-822-6061
local: (314) 344-3327
fax: (314) 344-3349
Services: MO, KS, IL, WI, MN, IA,
NE, SD, ND, WY, MT, ID, OR, WA,
AK; Western TN; Canada
68,000 square feet

Satellite Locations & Divisions of EMS



EMS FL: ASSA/Retail

4268 Westroads Dr.
West Palm Beach, FL 33407
1-800-432-2204
1-877-999-ASSA (2772)
fax: (561) 209-8380
113,000 square feet



EMS FL: Shutter/Patio

6729 Belvedere Road
Suite 101
West Palm Beach, FL 33413
1-800-432-2204
110,000 square feet



EMS FL: Lakeland

4675 Drane Field Rd.
Lakeland, FL 33811
(863) 682-6660
fax: (863) 682-3859
215,000 square feet



EMS Delaware

231 Executive Dr., Suite 11
Newark, DE 19702
1-800-343-8154
fax: (704) 391-2267
Services: DE, MD, NJ,
Eastern PA, Washington DC,
NYC metro, RI, CT, MA, NH,
VT, ME
55,500 square feet



EMS Georgia

1451 North River Rd.
Suite 200
Lithia Springs, GA 30122
1-800-343-8154
fax: (704) 391-2267
Services: GA, AL,
Eastern TN (Nashville)
67,000 square feet



EMS Ohio

4945 Scarlet Lane
Suite 6
Stow, Ohio 44224
1-888-822-6061
Fax: 314-344-3349
Services: OH, MI, IN, KY, WV,
Western PA and Western NY
27,000 square feet



EMS Arkansas

1218 Mary Allen Street
Van Buren, AR 72956
1-800-996-6061
fax: (281) 656-2297
Services: AR, OK
50,000 square feet



EMS Texas - Dallas

39324 LBJ Freeway
Suite 160
Dallas, TX 75232
1-800-996-6061
fax: (281) 656-2297
Services: DFW, North TX
93,000 square feet



Eastern Architectural Systems EMS: Shutter & Patio

6341 Domestic Ave.
Ft. Myers, FL 33912
EAS: 800-686-8902
EMS: 800-432-2204
Local Phone: 239-369-9696
EAS Fax: 239-369-2412
EMS Fax: 561-588-4780
260,000 square feet



Tigress Outriggers & Gear EMS Machining & Fabrication

2230 4th Ave. North
Lake Worth, FL 33461
1-844-740-1260
fax: (954) 524-0441
40,000 square feet