

ECO-GUARD SERIES-500
ALUMINUM OUTSWING CASEMENT WINDOW

APPROVAL APPLIES TO SINGLE UNITS OR SIDE BY SIDE
COMBINATIONS OF CASMT/CASMT OR CASEMENT WITH OTHER
WINDOW TYPES IN MODULES OF TWO OR MORE WINDOWS USING
F.B.C HVHZ APPROVED MULLIONS IN BETWEEN.
LOWER DESIGN PRESSURE FROM WINDOWS OR MULLION APPROVAL
WILL APPLY TO ENTIRE SYSTEM.

THIS PRODUCT HAS BEEN DESIGNED AND TESTED TO COMPLY WITH THE
REQUIREMENTS OF THE FLORIDA BUILDING CODE INCLUDING HIGH VELOCITY
HURRICANE ZONE (HVHZ).

1BY OR 2BY WOOD BUCKS & BUCK FASTENERS BY OTHERS, MUST BE
DESIGNED AND INSTALLED ADEQUATELY TO TRANSFER APPLIED PRODUCT LOADS
TO THE BUILDING STRUCTURE.

ANCHORS SHALL BE CORROSION RESISTANT, SPACED AS SHOWN ON DETAILS
AND INSTALLED PER MANUF'S INSTRUCTIONS. SPECIFIED EMBEDMENT TO BASE
MATERIAL SHALL BE BEYOND WALL DRESSING OR STUCCO.

A LOAD DURATION INCREASE IS USED IN DESIGN OF ANCHORS INTO WOOD ONLY.

ALL SHIMS TO BE HIGH IMPACT, NON-METALLIC AND NON-COMPRESSIBLE.

MATERIALS INCLUDING BUT NOT LIMITED TO STEEL/METAL SCREWS, THAT
COME INTO CONTACT WITH OTHER DISSIMILAR MATERIALS SHALL MEET THE
REQUIREMENTS OF THE FLORIDA BLDG. CODE & ADOPTED STANDARDS.

THIS PRODUCT APPROVAL IS GENERIC AND DOES NOT PROVIDE INFORMATION
FOR A SITE SPECIFIC PROJECT, i.e. LIFE SAFETY OF THIS PRODUCT, ADEQUACY
OF STRUCTURE RECEIVING THIS PRODUCT AND SEALING AROUND OPENING FOR
WATER INFILTRATION RESISTANCE ETC.

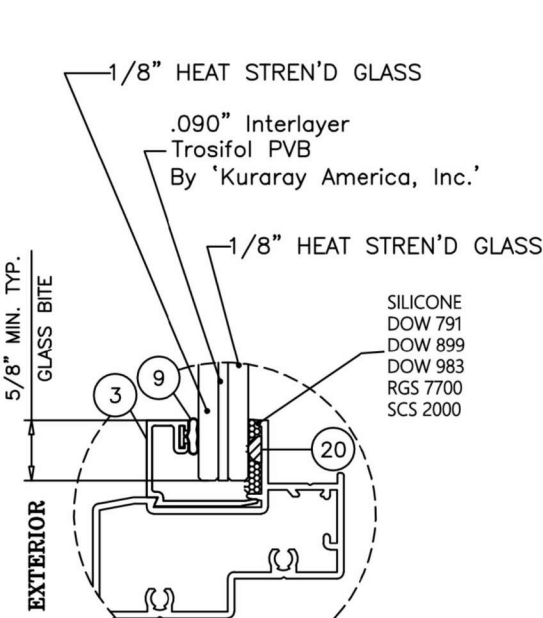
CONDITIONS NOT SHOWN IN THIS DRAWING ARE TO BE ANALYZED SEPARATELY,
AND TO BE REVIEWED BY BUILDING OFFICIAL.

DESIGN LOAD SHOWN ARE BASED ON 'ALLOWABLE STRESS DESIGN (ASD)'.

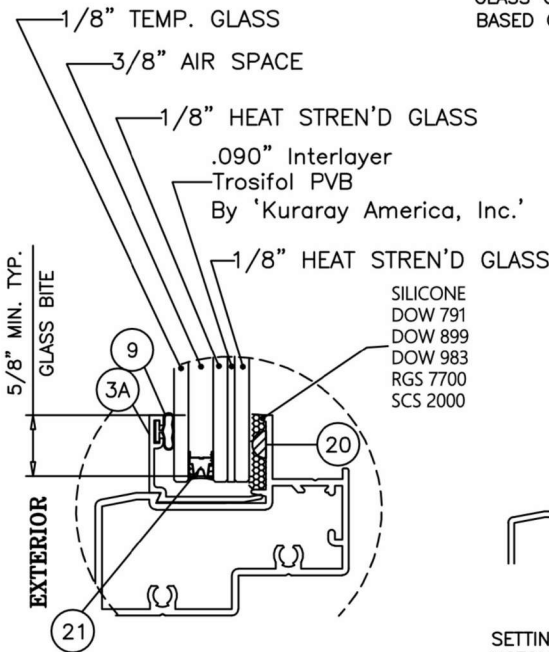
THESE WINDOWS ARE RATED FOR LARGE & SMALL MISSILE IMPACT.
SHUTTERS ARE NOT REQUIRED.

MAXIMUM DESIGN LOAD RATING = + 70.0 PSF
(FOR SIZES SHOWN OR SMALLER) - 75.0 PSF

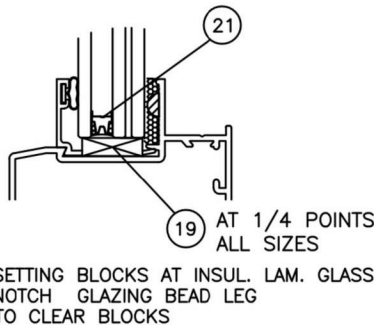
NOTE:
GLASS CAPACITIES ON THIS SHEET ARE
BASED ON ASTM E1300-16 (3 SEC. GUSTS)



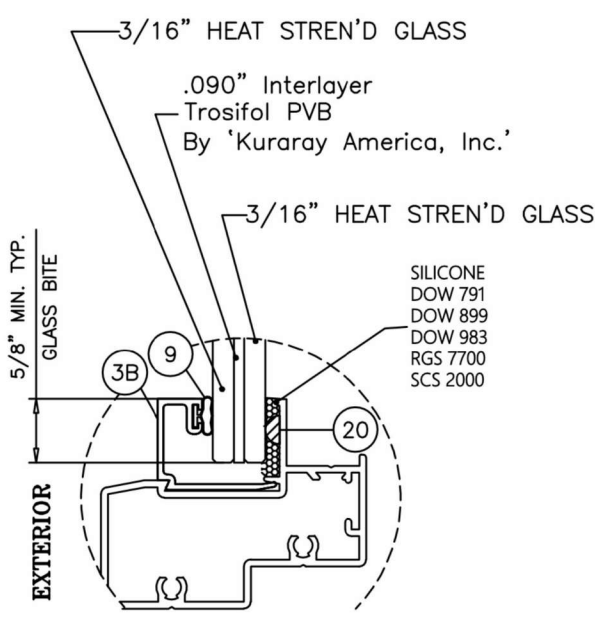
GLASS TYPE 'A'



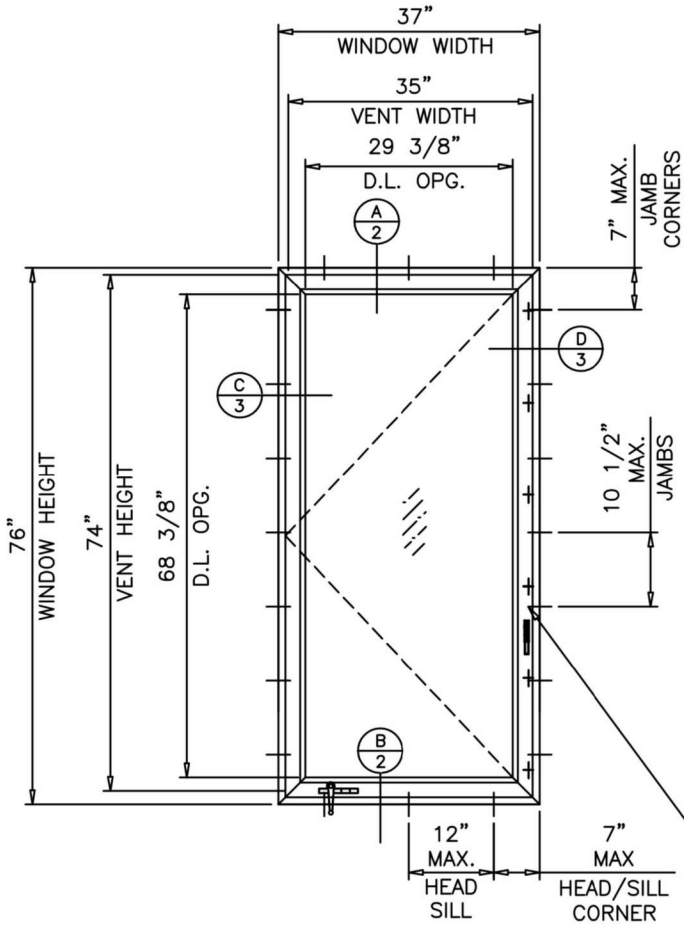
GLASS TYPE 'AA'



GLAZING OPTIONS



GLASS TYPE 'B'



TYPICAL ELEVATION

6 POINT LOCK

LOCKING POINTS
SEE CHART

WDW. HEIGHT UP TO	NO. OF KEEPERS AT SASH
26"	2
38-3/8"	3
50-5/8"	4
63"	5
76"	6



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drawing no.	date:	revision	DESCRIPTION
JA-1844-24	12/31/2024	BY	
MA	BS	DATE	
		No.	

SERIES 500 : ECO-GUARD ALUMINUM CASEMENT WINDOW
(L.M.I.)
LARGE MISSILE IMPACT RATED

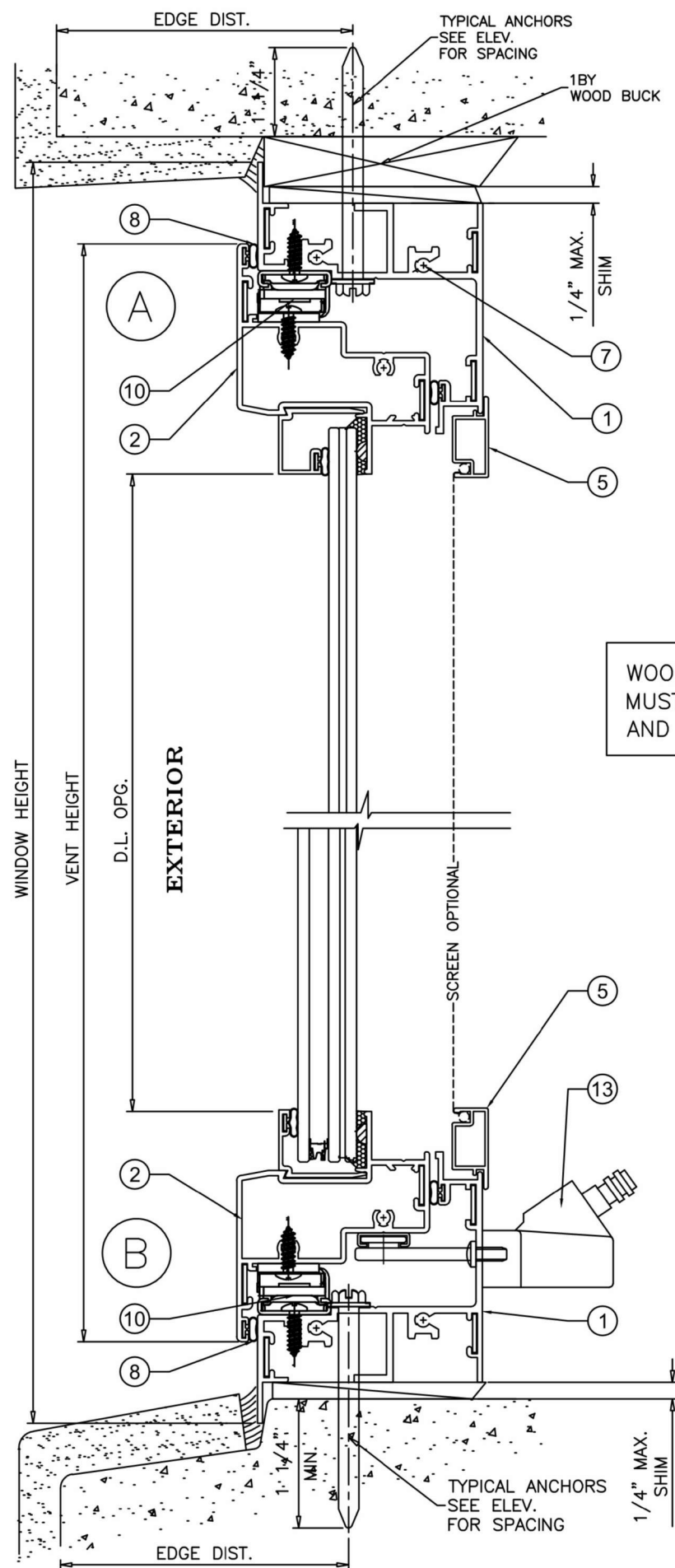


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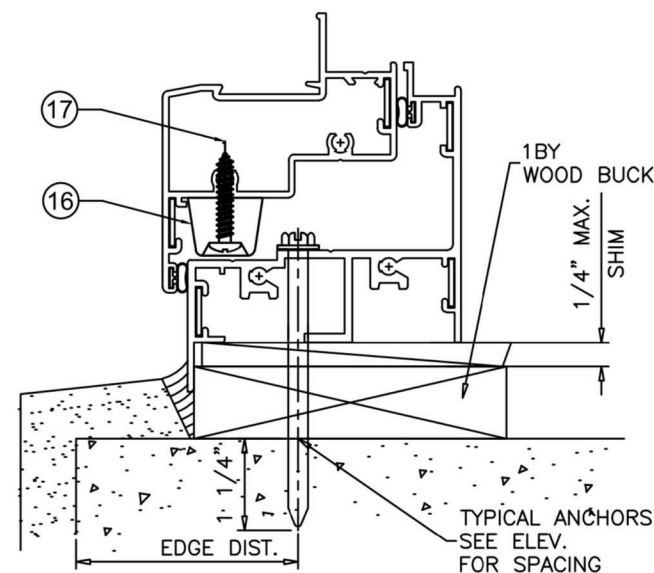
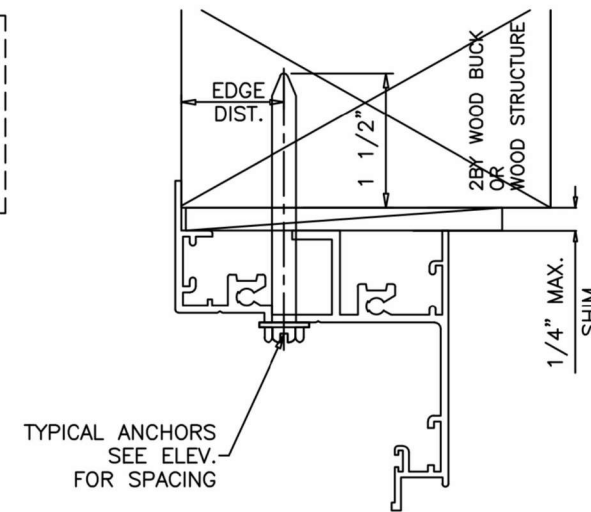
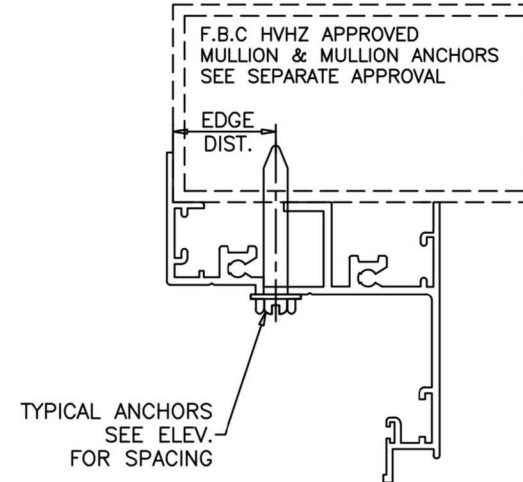
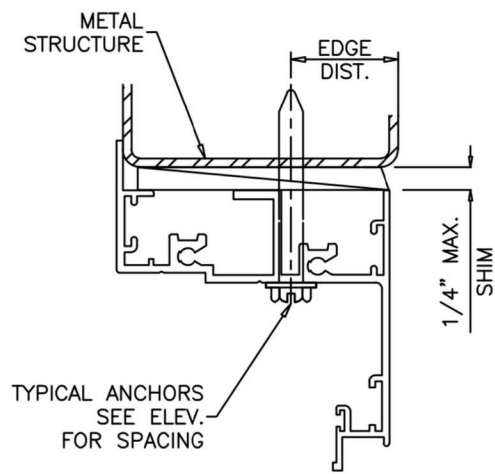


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WOOD BUCKS AND METAL STRUCTURE NOT BY 'ECO WDW.'
MUST SUSTAIN LOADS IMPOSED BY GLAZING SYSTEM
AND TRANSFER THEM TO THE BUILDING STRUCTURE.



TYPICAL ANCHORS: SEE ELEV. FOR SPACING

1/4" DIA. ULTRACON+ BY 'DEWALT' (Fu=164 KSI, Fy=148 KSI)

INTO 2BY WOOD BUCKS OR WOOD STRUCTURES
1-1/2" MIN. PENETRATION INTO WOOD (HEAD/SILL/JAMBS)

THRU 1BY BUCKS INTO CONC. OR BLOCKS
1-1/4" MIN. EMBED INTO CONCRETE (HEAD/SILL/JAMBS)
1-1/4" MIN. EMBED INTO BLOCKS (JAMBS)

DIRECTLY INTO CONCRETE OR BLOCKS
1-1/4" MIN. EMBED INTO CONCRETE (HEAD/SILL/JAMBS)
1-1/4" MIN. EMBED INTO BLOCKS (JAMBS)

#14 SMS OR SELF DRILLING SCREWS (GRADE 2 CRS)
INTO METAL STRUCTURES (HEAD/SILL/JAMBS)
(3) THREADS MIN. PENETRATION BEYOND SUBSTRATE
ALUMINUM : 1/8" THK. MIN. (6063-T5 MIN.)
STEEL : 1/8" THK. MIN. (Fy = 36 KSI MIN.)
(STEEL IN CONTACT WITH ALUMINUM TO BE PLATED OR PAINTED)

#12 SMS OR SELF DRILLING SCREWS (GRADE 2 CRS)
INTO F.B.C HVHZ APPROVED MULLIONS
(3) THREADS MIN. PENETRATION BEYOND SUBSTRATE (NO SHIM SPACE)
ALUMINUM : 1/8" THK. MIN. (6063-T5 MIN.)
STEEL : 1/8" THK. MIN. (Fy = 36 KSI MIN.)
(STEEL IN CONTACT WITH ALUMINUM TO BE PLATED OR PAINTED)

TYPICAL EDGE DISTANCE

INTO CONCRETE AND MASONRY = 2-1/2" MIN.
INTO WOOD STRUCTURE = 1" MIN.
INTO METAL STRUCTURE = 3/4" MIN.

WOOD AT HEAD, SILL OR JAMBS SG=0.55 MIN.
CONCRETE AT HEAD, SILL OR JAMBS f'c = 3000 PSI MIN.
C-90 HOLLOW/FILLED BLOCK AT JAMBS f'm = 2000 PSI MIN.



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JA-1844-24	12/31/2024	1	MA	BS	BS
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(L.M.I.)
LARGE MISSILE IMPACT RATED

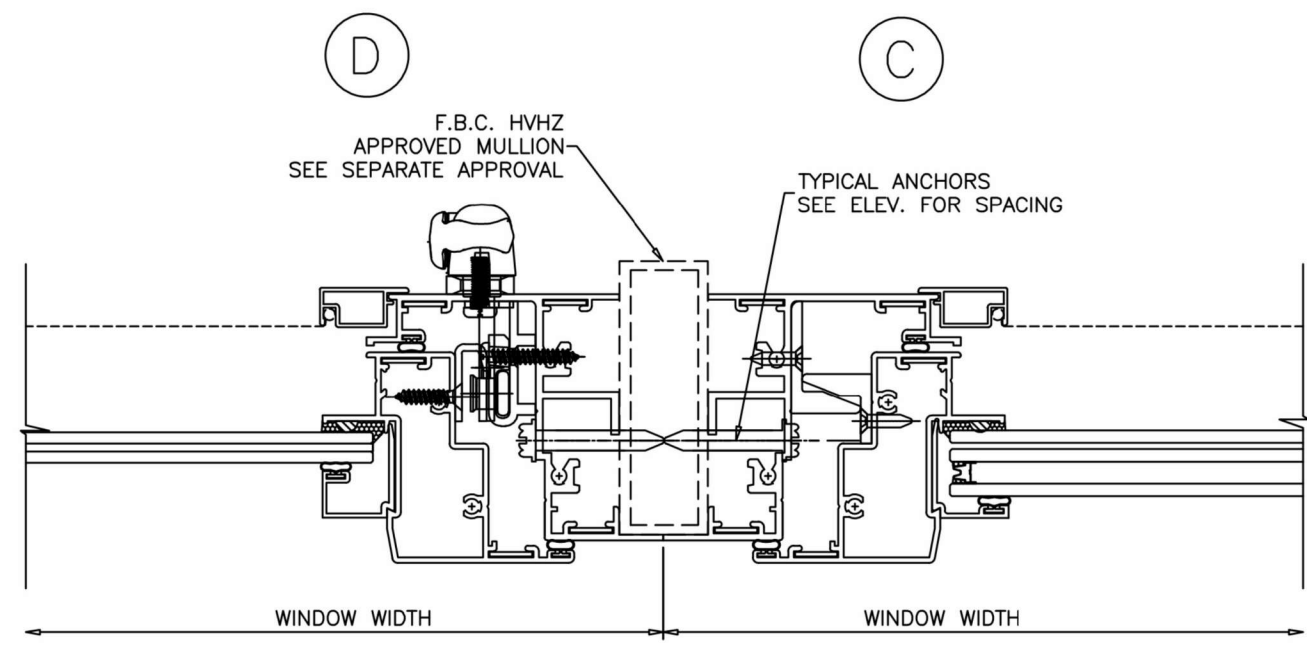
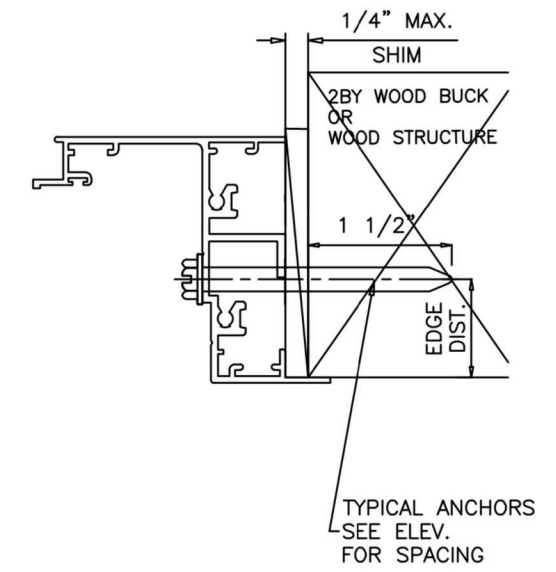
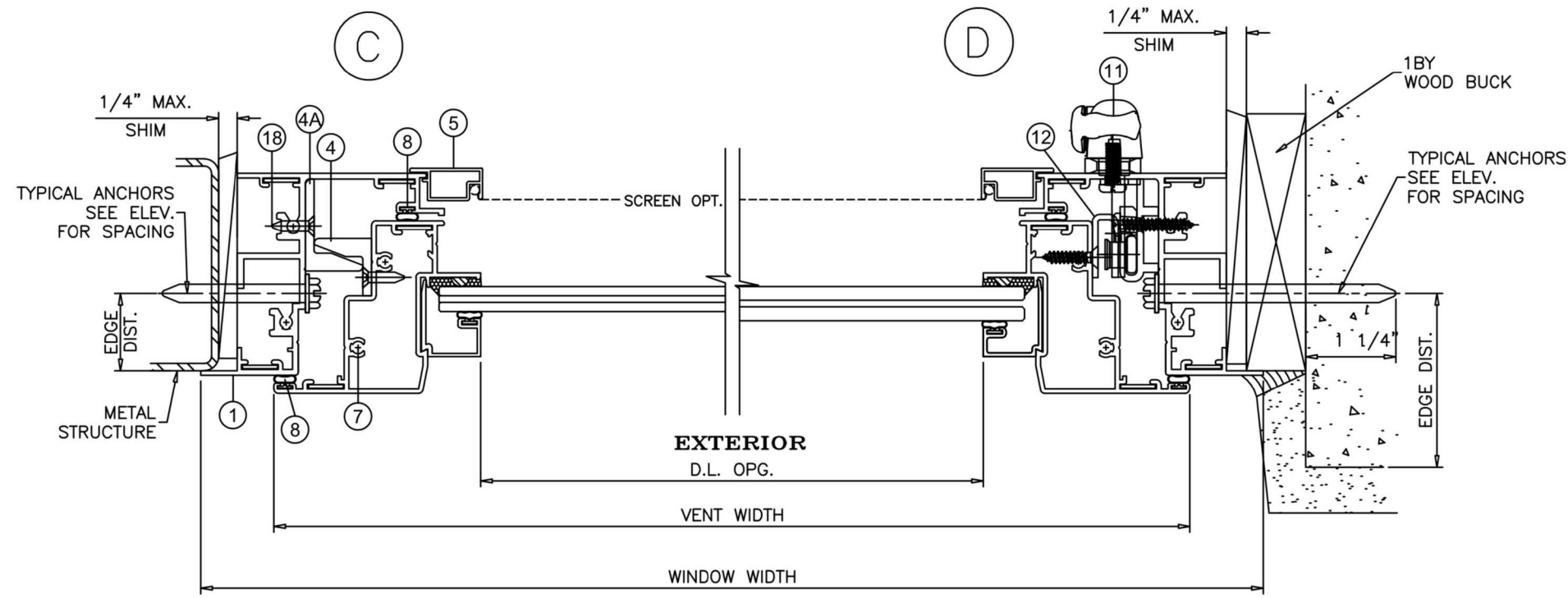


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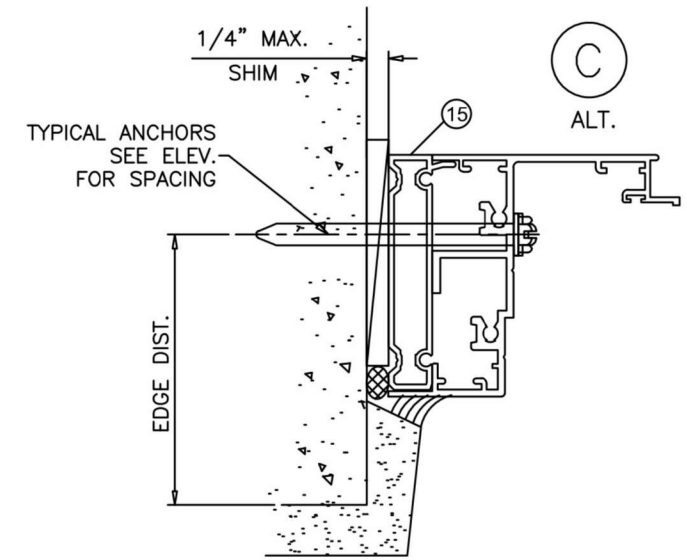
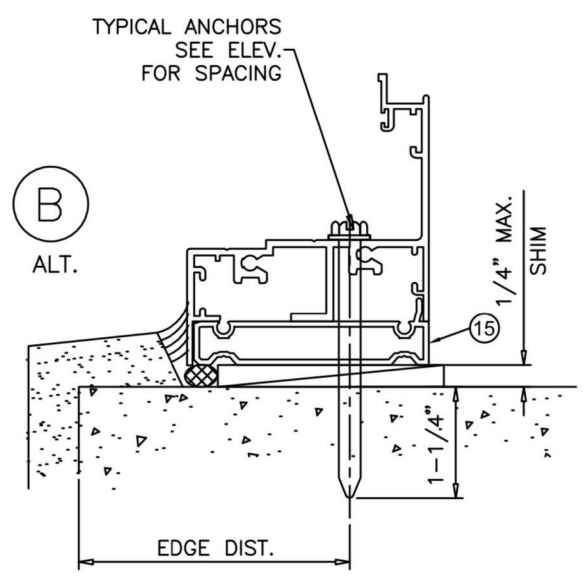
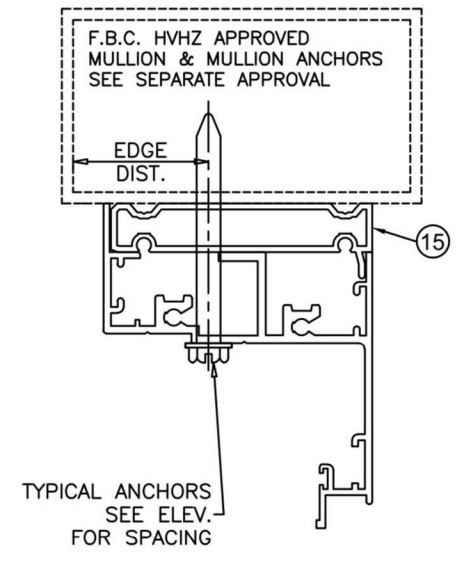
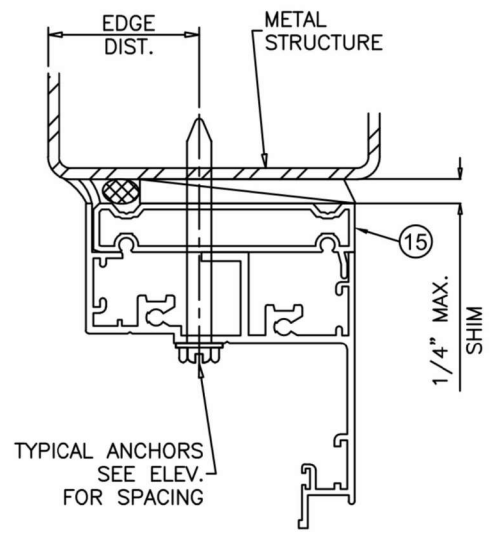
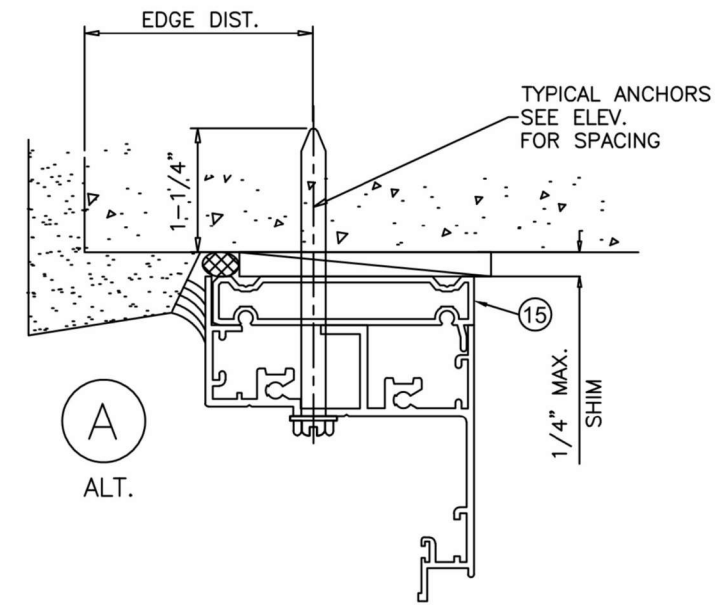
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INSTALLATION DETAILS WITH FLUSH FRAME ADAPTER

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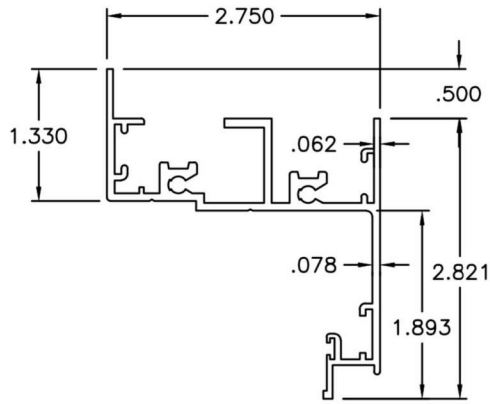
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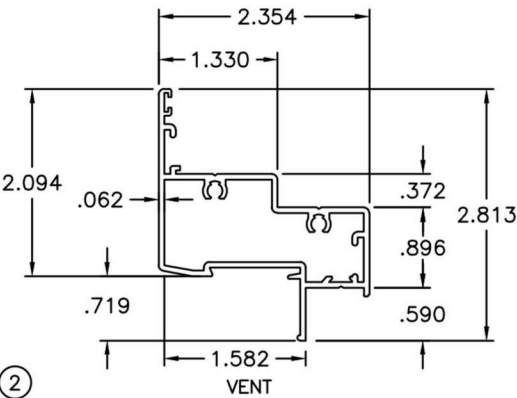
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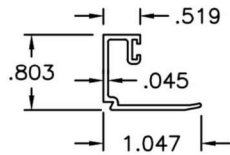
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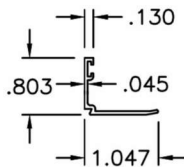
① FRAME HEAD/SILL/JAMB



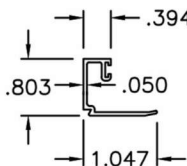
② VENT



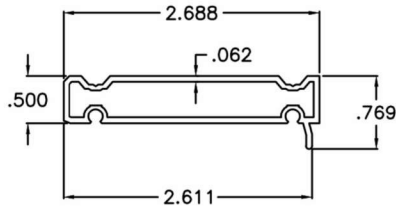
③ GLAZING BEAD (5/16" LAM. GLASS)



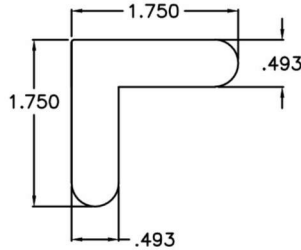
③A GLAZING BEAD (INSUL. LAM. GLASS)



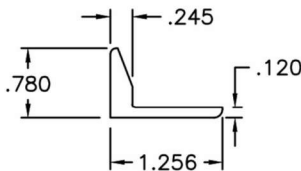
③B GLAZING BEAD (7/16" LAM. GLASS)



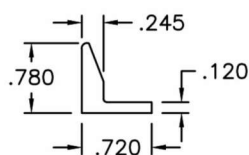
⑮ FLUSH FRAME ADAPTER



⑭ CORNER KEY



④A SNUBBER - FRAME



④ SNUBBER - VENT

ITEM #	PART #	QUANTITY	DESCRIPTION	MATERIAL	MANF./SUPPLIER/REMARKS
1	E501	4	FRAME HEAD/SILL/JAMB	6063 - T6	-
2	E502	4	VENT	6063 - T6	-
3	FY108	AS REQD.	GLAZING BEAD (5/16" LAM. GLASS)	6063 - T6	-
3A	E505	AS REQD.	GLAZING BEAD (INSUL. LAM. GLASS)	6063 - T6	-
3B	FY109	AS REQD.	GLAZING BEAD (7/16" LAM. GLASS)	6063 - T6	-
4	E508	AS REQD.	SNUBBER - VENT, FULL LENGTH	6063 - T6	-
4A	E509	AS REQD.	SNUBBER - FRAME, FULL LENGTH	6063 - T6	-
5	E506	OPTIONAL	SCREEN FRAME	6063 - T5	-
7	#10 X 1-1/4"	AS REQD.	FRAME AND VENT ASSEMBLY SCREWS	-	H WH SMS
8	E203	AS REQD.	BULB WEATHERSTRIPPING, DUROMETER 65	SANTOPRENE	ULTRAFAB
9	E203	AS REQD.	GLAZING BEAD BULB, DUROMETER 65	SANTOPRENE	ULTRAFAB
10	35.12.00.400	2/ VENT	4 BAR HINGE, AT TOP AND BOTTOM	ST. STEEL	TRUTH, INSTALLED WITH (4) #10 X 5/8" SDS
11	13096.92	1	MULTI POINT LOCK SYSTEM	ZAMAK	TRUTH
12	-	6/ VENT	KEEPER	STEEL	-
13	-	1/ VENT	ROTO OPERATOR	ZAMAK/STEEL	TRUTH
14	PSJ40-SS	2/ CORNER	FRAME/VENT CORNER KEY	ST. STEEL	-
15	FY120	AS REQD.	FLUSH FRAME ADAPTER	6063 - T6	OPTIONAL
16	-	3	ANTI SAG SKATE	NYLON	M&M PLASTICS
17	#10 X 1-1/4"	2/ SKATE	FH SDS SKATE SCREWS	-	-
18	#8 X 3/4"	AS REQD.	FH SMS SNUBBER SCREWS	-	IN PAIRS 2" APART, PAIRS SPACED AT 7-3/4" O.C.
19	-	2/ LITE	SETTING BLOCK, 3/16" X 3/4" X 4" LONG	EPDM	DUROMETER 80±5 SHORE A
20	FLB-50	-	GLASS SPACER - 1/8" HIGH	SILICONE	FRANK LOWE
21	-	-	INSUL. GLASS SPACER	VARIOUS	VARIOUS

SEALANT:

ALL JOINTS AND FRAME CONNECTIONS SEALED WITH SCHNEE-MOREHEAD SM5504 SEAM SEALER. PERIMETER CAULKING SICAFLEX 15LM ON EXTERIOR ONLY.

LOCKS:

MULTIPOINT LOCK SYSTEM # 13096.92 BY 'TRUTH' AT FRAME JAMB.
LOCK OPERATOR #24.33.XX.004 AT 8-1/2" FROM SILL
FASTENED TO JAMBS WITH (2) #10 X 5/8" SMS.
LOCK BAR SECURED TO JAMB WITH LOCK GUIDES #33489.00.0001 SPACED AT 12-3/4" O.C. MAX.
EACH GUIDE FASTENED WITH (2) #10 X 1" PH SMS.

STAINLESS STEEL KEEPERS #31964.92 AT VENT
EACH FASTENED WITH (2) #10 X 5/8" FH SMS
SEE CHART ON SHEET 1 FOR QUANTITIES.

HINGES:

4 BAR ST/ST HINGES #35.12.00.400 BY 'TRUTH' LOCATED AT TOP AND BOTTOM CORNERS FASTENED TO FRAME WITH (2) #10 X 5/8" PH SDS
VENT WITH (2) #10 X 5/8" PH SDS

OPERATOR:

SINGLE ARM ROTO OPERATOR #52.13.012 BY 'TRUTH' LOCATED AT SILL END.
FASTENED WITH (6) # 10 X 1" PH SMS.
OPERATOR TRACK #30175 AT BOTTOM RAIL
FASTENED WITH (2) #10 X 1" PH SMS.

ANTI-SAG SKATES:

VINYL ANTI-SAG SKATES BY 'M&M PLASTICS'
(2) AT LOCK STILE AT 6-3/4" FROM TOP/BOTTOM RAILS
(1) AT BOTTOM RAIL AT 4" FROM LOCK STILE
EACH FASTENED WITH (2) #10 X 1-1/4" FH SDS.



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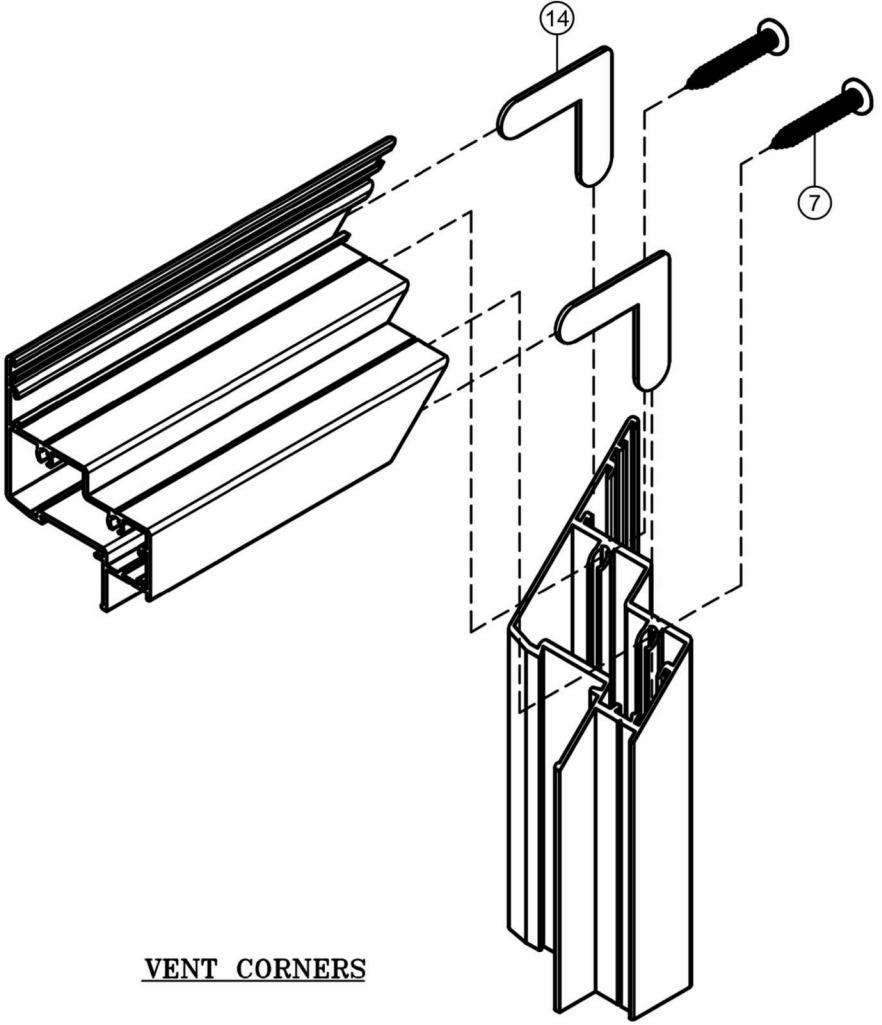


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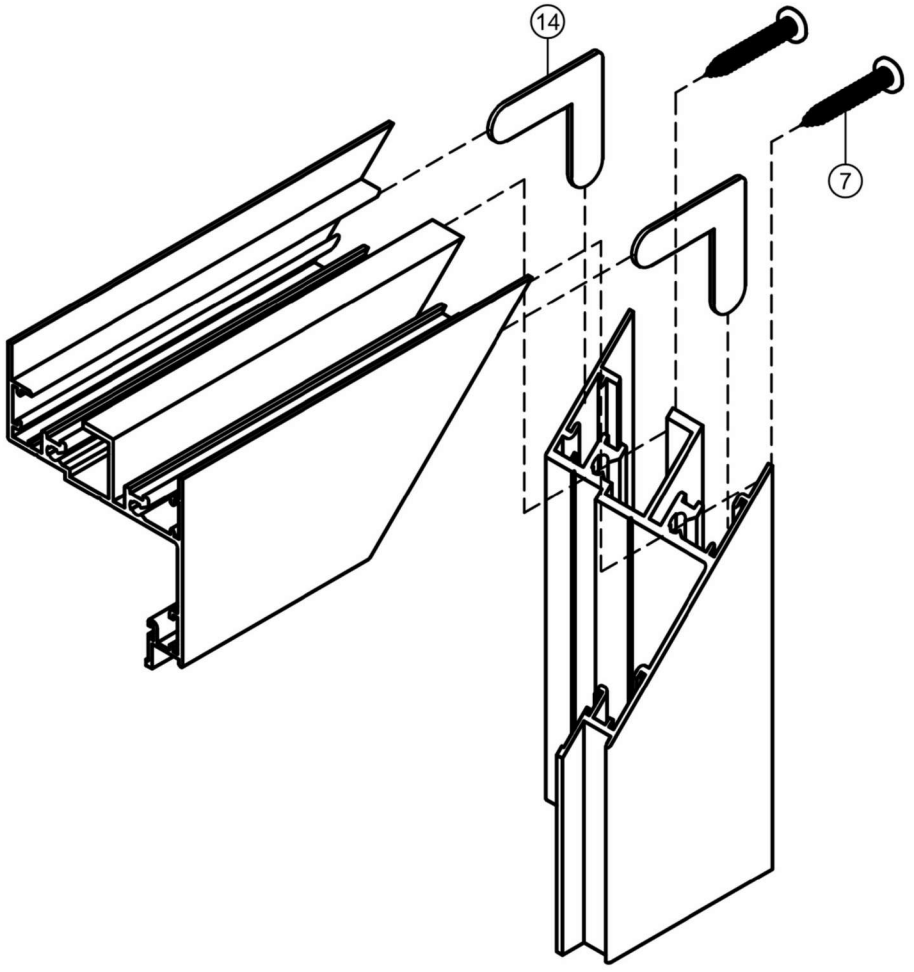
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VENT CORNERS



FRAME CORNERS



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