

ES-5600
PROJECT-OUT ALUMINUM WINDOW (S.M.I.)

APPROVAL APPLIES TO SINGLE UNITS OR SIDE BY SIDE COMBINATIONS OF P.O./P.O. OR PROJECT OUT WITH OTHER WINDOW TYPES IN MODULES OF TWO OR MORE WINDOWS USING F.B.C. 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 2023 (8TH EDITION)/2026 (9TH EDITION) 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.

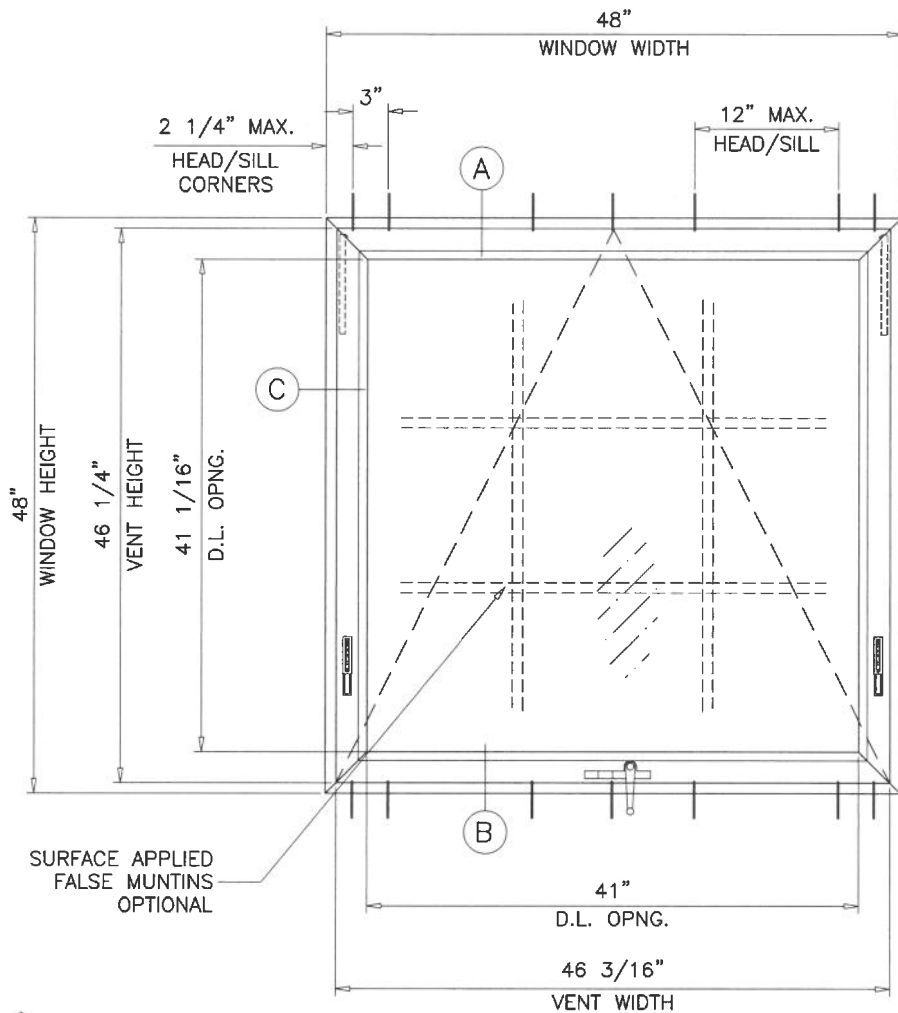
ALL SHIMS TO BE LOAD-BEARING, (HIGH DENSITY PLASTIC/COMPOSITE, METAL OR OTHER RIGID MATERIALS).

MATERIALS INCLUDING BUT NOT LIMITED TO STEEL/METAL SCREWS, THAT COME INTO CONTACT WITH OTHER DISSIMILAR MATERIALS SHALL MEET THE REQUIREMENTS OF THE 2023/2026 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 LOADS SHOWN ARE BASED ON 'ALLOWABLE STRESS DESIGN (ASD)'.

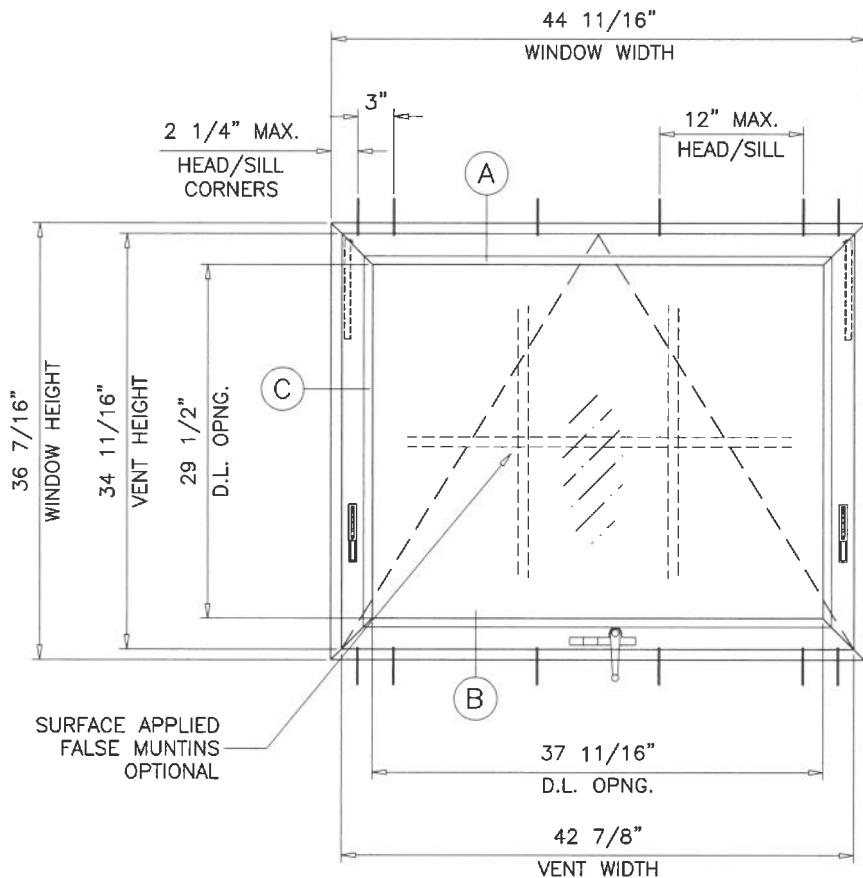
MANUFACTURER'S LABEL SHALL BE LOCATED ON A READILY VISIBLE LOCATION IN ACCORDANCE WITH SECTION 1709.9.3 OF FLORIDA BUILDING CODE. LABELING TO COMPLY WITH SECTION 1709.9.2.



TYPICAL ELEVATION

GLASS TYPES 'A' & 'B'

MAXIMUM DESIGN LOAD RATING = + 100.0 PSF
(FOR SIZE SHOWN ABOVE OR SMALLER) - 125.0 PSF



TYPICAL ELEVATION

GLASS TYPES 'C' & 'D'

MAXIMUM DESIGN LOAD RATING = + 100.0 PSF
(FOR SIZE SHOWN ABOVE OR SMALLER) - 110.0 PSF

THESE WINDOWS ARE RATED FOR SMALL MISSILE IMPACT. F.B.C. APPROVED IMPACT RESISTANT SHUTTERS REQUIRED FOR INSTALLATIONS UP TO 30 FT. OF GRADE. SHUTTERS NOT REQD. FOR INSTALLATIONS ABOVE 30 FT. OF GRADE.

WINDOWS SHOWN ON THIS SHEET ONLY, WITH GLASS TYPES 'A' & 'B' COMPLIES WITH REQUIREMENTS OF ANSI Z97.1. SAFEGUARD REQUIREMENTS TO BE VERIFIED.

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FASTENERS AND CONNECTORS (AS APPLICABLE) SHOWN IN THIS APPROVAL MAY NOT MEET CORROSION RESISTANCE REQUIREMENTS FOR COASTAL OR SALT WATER EXPOSURE ZONES. COMPLIANCE WITH THESE CONDITIONS TO BE CHECKED PER FBC 1711.

A- CONTRACTOR TO BE RESPONSIBLE FOR THE SELECTION, PURCHASE AND INSTALLATION OF THIS PRODUCT BASED ON THIS PRODUCT EVALUATION PROVIDED HE/SHE DOES NOT DEVIATE FROM THE CONDITIONS DETAILED ON THIS DOCUMENT.

B- THIS PRODUCT EVALUATION DOCUMENT WILL BE CONSIDERED INVALID IF ALTERED BY ANY MEANS.

C- SITE SPECIFIC PROJECTS SHALL BE PREPARED BY A FLORIDA REGISTERED ENGINEER OR ARCHITECT WHICH WILL BECOME THE ENGINEER OF RECORD (E.O.R.) FOR THE PROJECT AND WHO WILL BE RESPONSIBLE FOR THE PROPER USE OF THE P.E.D. ENGINEER OF RECORD, ACTING AS A DELEGATED ENGINEER TO THE P.E.D. ENGINEER SHALL SUBMIT TO THIS LATTER THE SITE SPECIFIC DRAWINGS FOR REVIEW.

THIS P.E.D. SHALL BEAR THE DATE AND ORIGINAL SEAL AND SIGNATURE OF THE PROFESSIONAL ENGINEER OF RECORD THAT PREPARED IT.

NOTE:
GLASS CAPACITIES ARE BASED ON
ASTM E1300-16 (3 SEC. GUSTS)
AND FLORIDA BUILDING COMMISSION
DECLARATORY STATEMENT DCA05-DEC-219

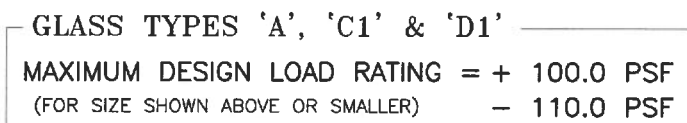


AL-FAROOQ CORPORATION
ENGINEERS & PRODUCT DEVELOPMENT
9360 SUNSET DRIVE, SUITE 220
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C.A.N. 3538

ES-5600 PROJECT-OUT ALUMINUM WDW. (S.M.I.)
E.S. WINDOWS, LLC
3550 N.W. 49 STREET
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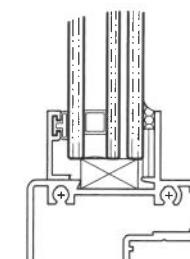
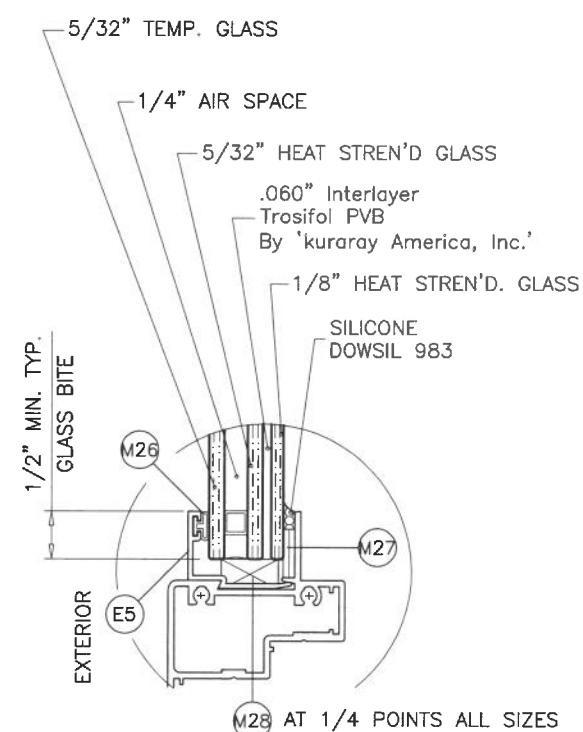
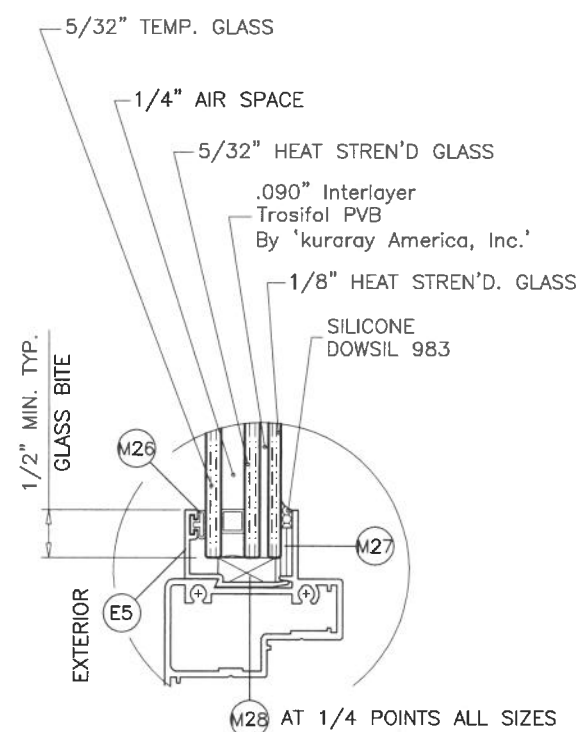
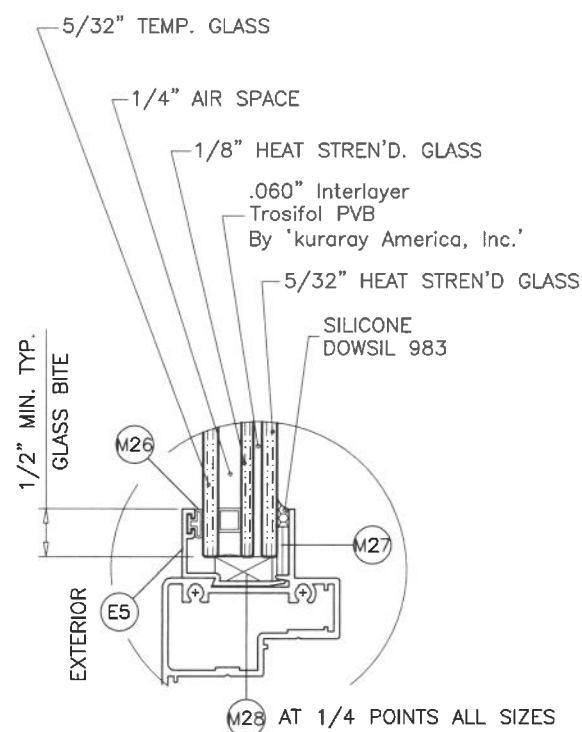
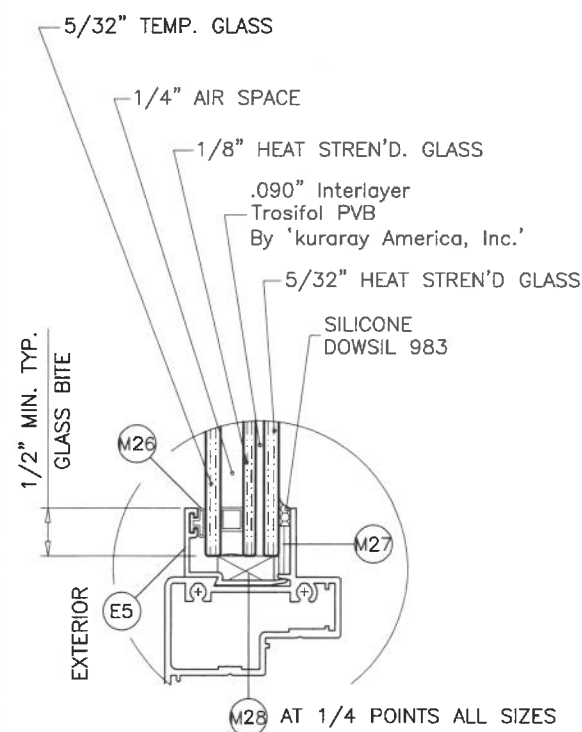
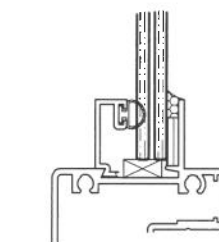
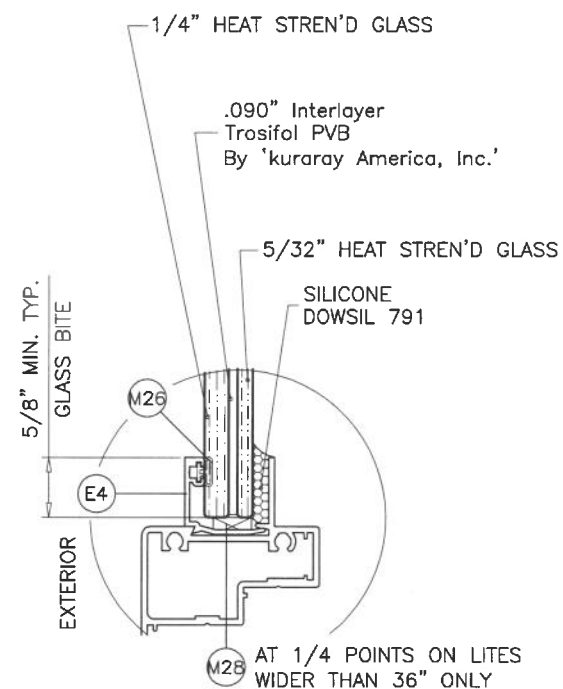
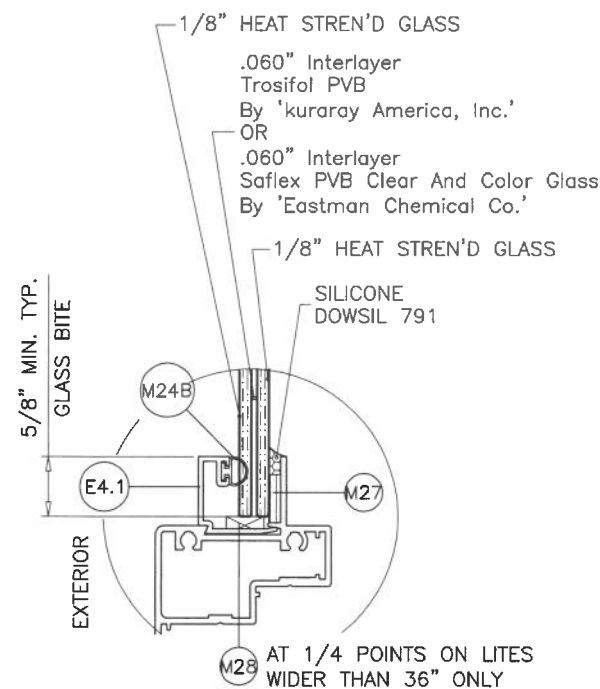
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A	04.05.18			UPDATED TO 2017 FBC	
B	02.11.20			NEW TESTS ADDED	
C	11.06.20			UPDATED TO 2020 FBC	
D	07.25.23			UPDATED TO 2023 FBC	
E	07.13.26			UPDATED TO 2026 FBC	

date: 10-27-16
scale: 3/4"=1'-0"
dr. by: TARIQ
chk. by:
drawing no. W16-67
sheet 1 of 10



A circular professional engineer seal for the State of Florida. The outer ring contains the text "JALAL FAROOQ" at the top and "PROFESSIONAL ENGINEER" at the bottom, separated by two stars. Inside this ring, the word "LICENSE" is at the top and "STATE OF FLORIDA" is at the bottom, also separated by two stars. In the center, the license number "No. 81223" is printed. A large, stylized purple signature is written across the center of the seal, overlapping the license number and the "STATE OF FLORIDA" text. The seal has a dotted inner border and a solid outer border with small tick marks.

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sheet 1.1 of 10						
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COMP--ANL \ W16 - 67ES						



GLAZING OPTIONS

1/4" AIR SPACE CONSISTING OF:

SPACER:

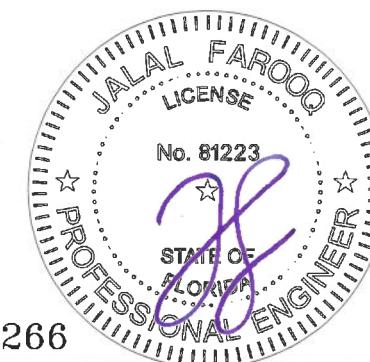
'HELIMA' LOW PROFILE ALUMINUM SPACER
BY 'LINGERMANN GMBH'
AROUND THE PERIMETER OF THE GLASS.

PERIMETER SEALANT:

SILICONE
DOWSIL 791
GE 2000

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FL #22266

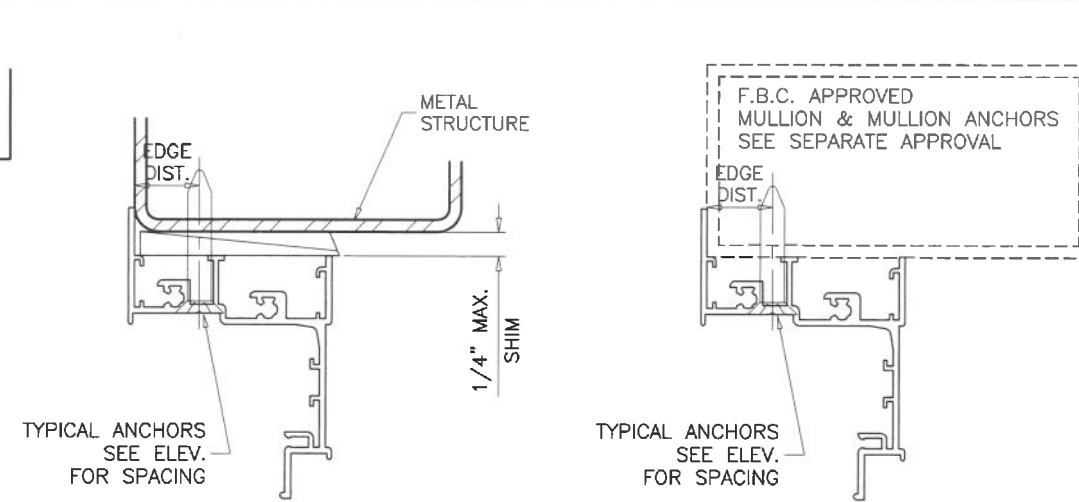
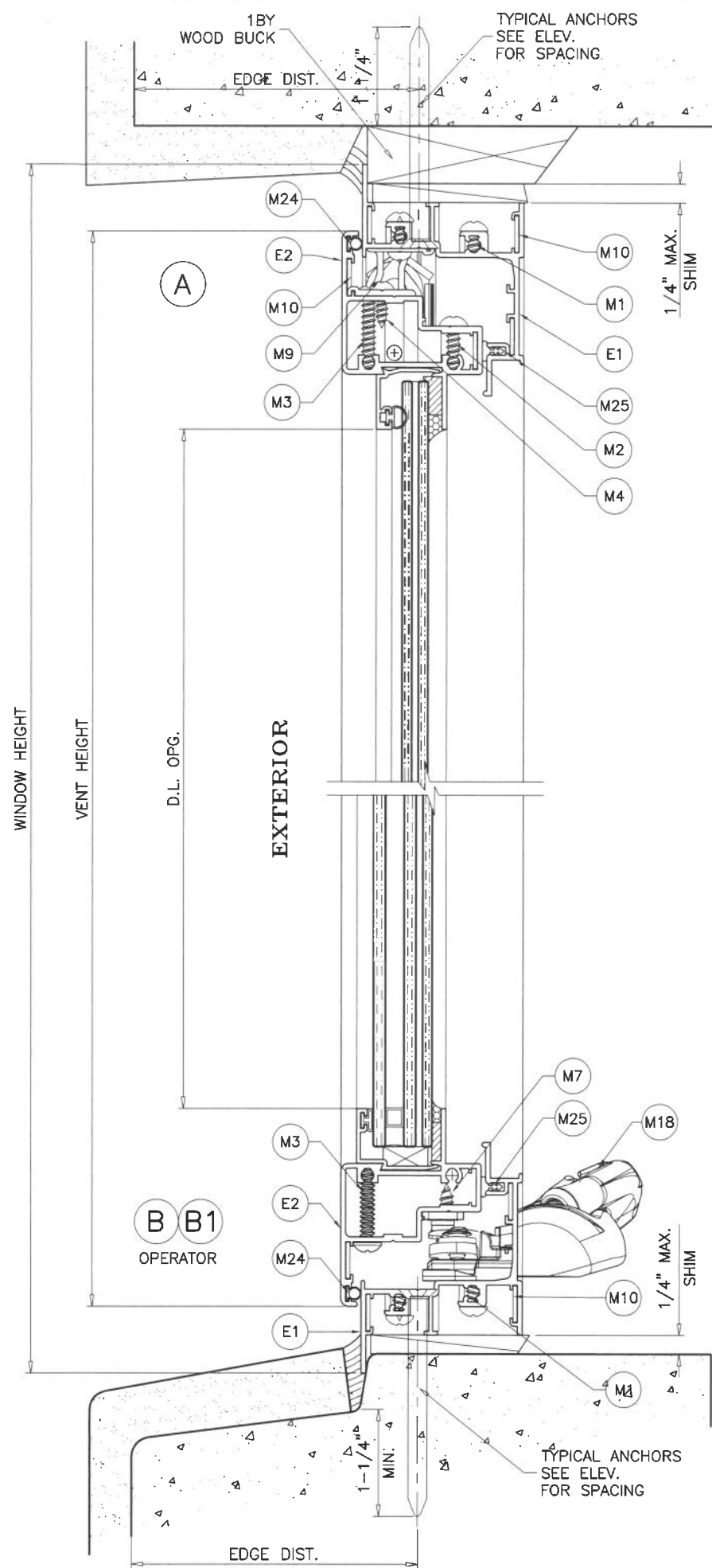


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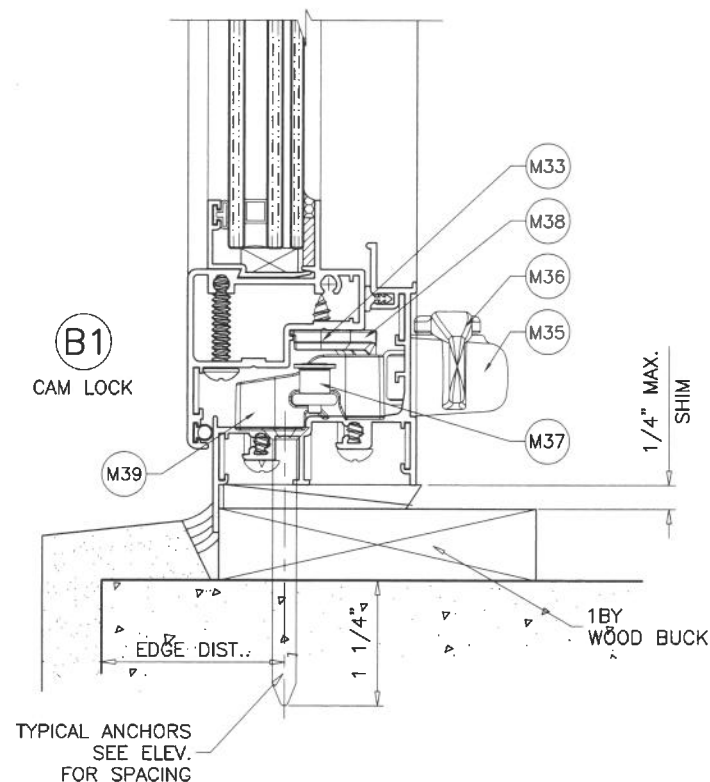
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drawing no. W16-67			
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WOOD BUCKS AND METAL STRUCTURE NOT BY 'E.S. WDW.'
MUST SUSTAIN LOADS IMPOSED BY GLAZING SYSTEM
AND TRANSFER THEM TO THE BUILDING STRUCTURE.

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)
 THRU 1BY BUCKS INTO CONCRETE
 1-1/4" MIN. EMBED INTO CONCRETE (HEAD/SILL)
 DIRECTLY INTO CONCRETE
 1-1/4" MIN. EMBED INTO CONCRETE (HEAD/SILL)
1/4" DIA. TEKS OR SELF DRILLING SCREWS (GRADE 5 CRS)
 INTO F.B.C. APPROVED MULLIONS
 OR
 INTO METAL STRUCTURES (HEAD/SILL)
 (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)

TYPICAL EDGE DISTANCE
 INTO CONCRETE = 2-1/2" MIN.
 INTO WOOD STRUCTURE = 11/16" MIN.
 INTO METAL STRUCTURE = 11/16" MIN.
 WOOD AT HEAD OR SILL SG = 0.55 MIN.
 CONCRETE AT HEAD OR SILL f'c = 3000 PSI MIN.



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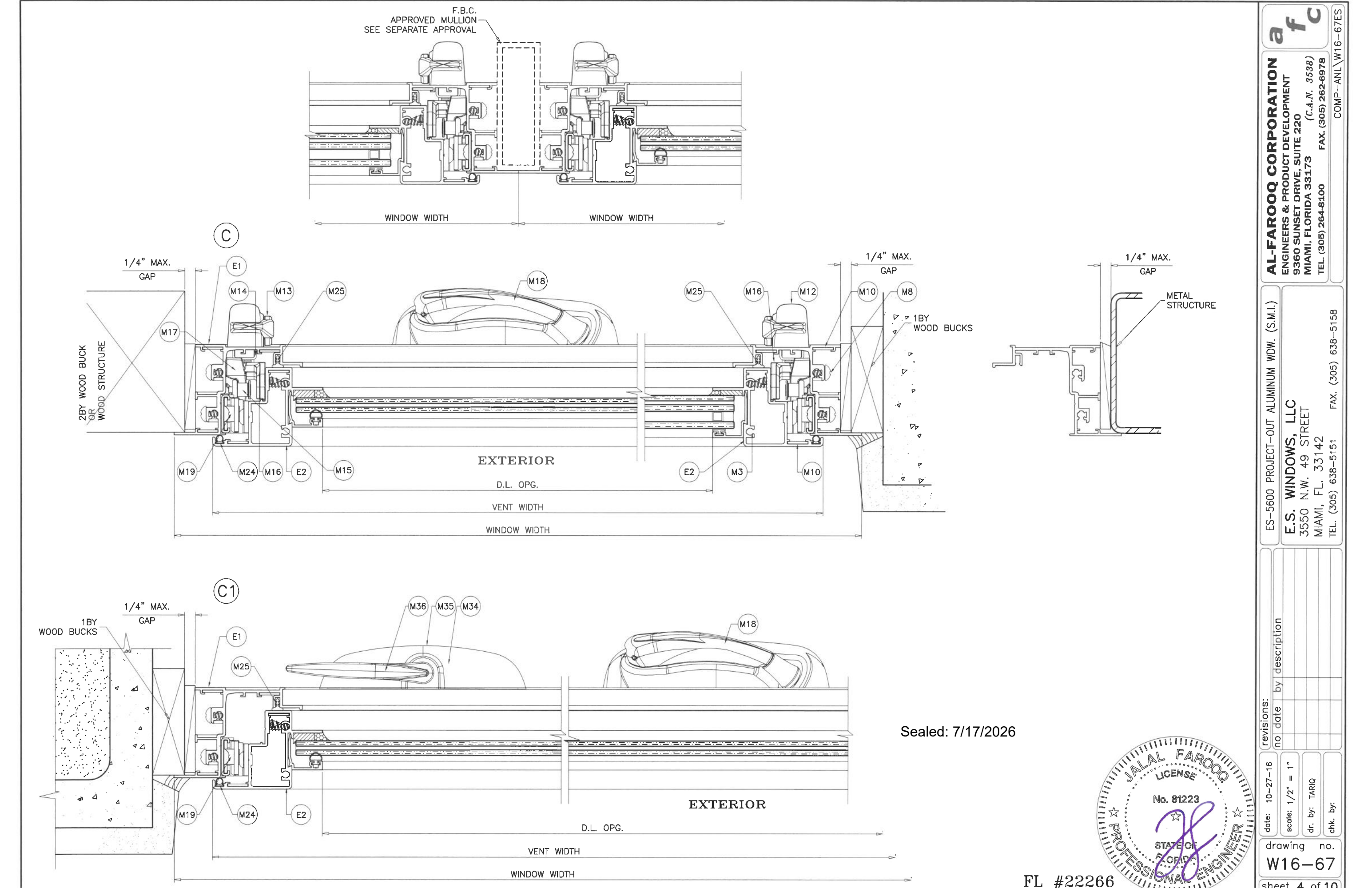
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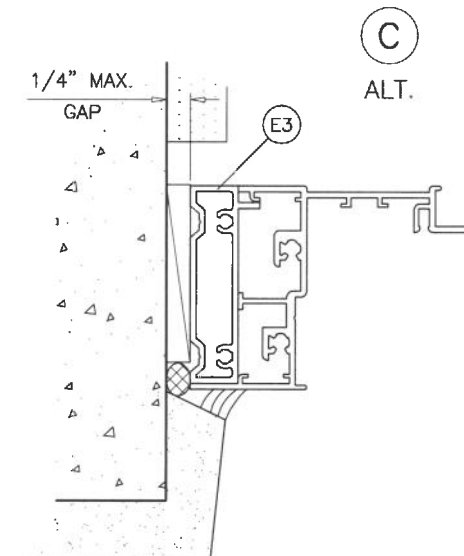
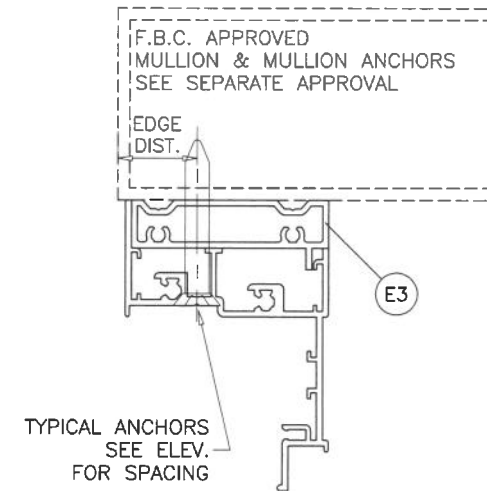
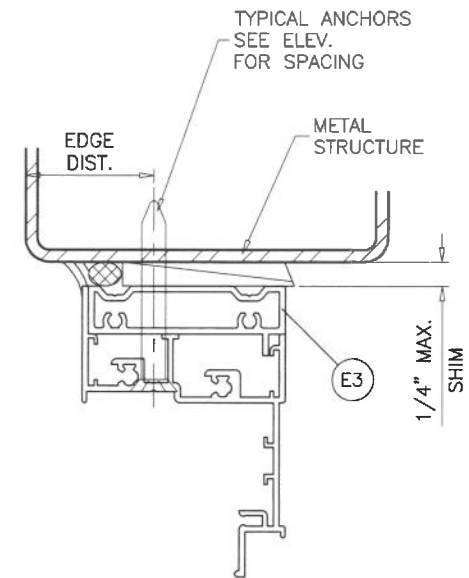
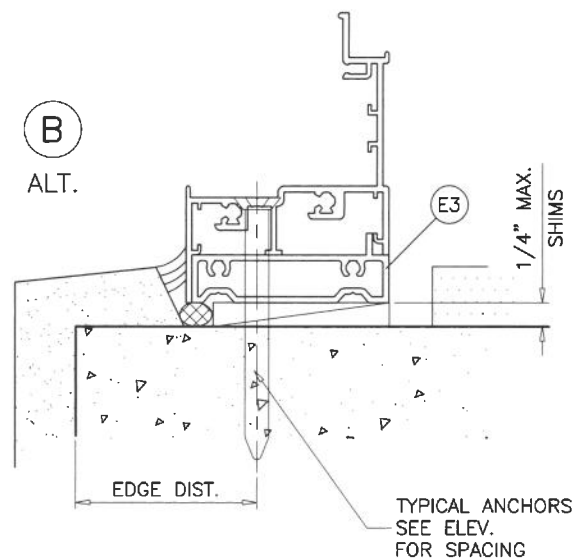
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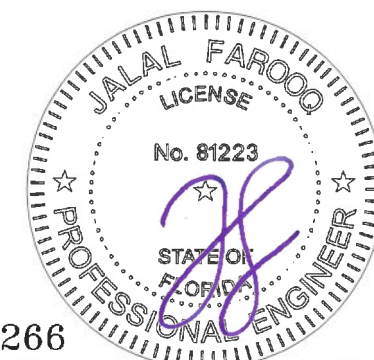
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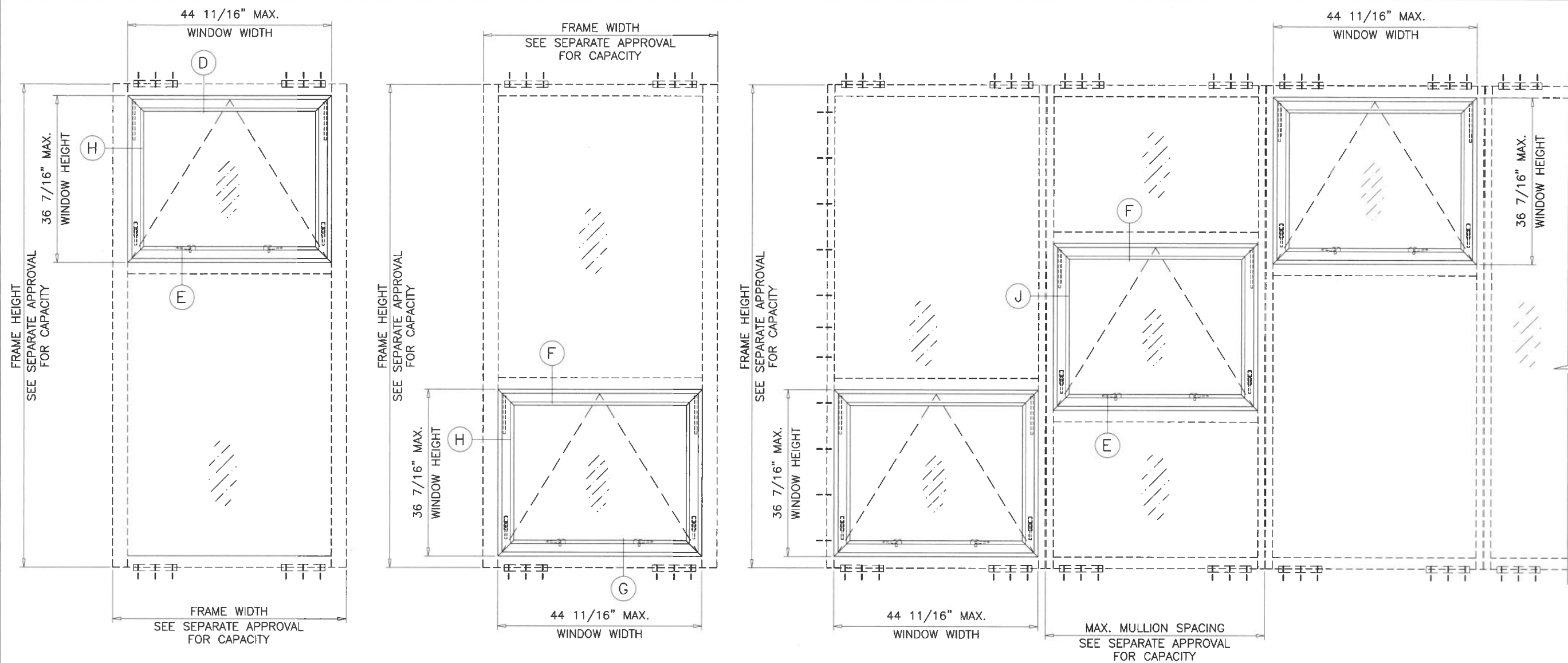
INSTALLATION DETAILS WITH FLUSH FRAME ADAPTER

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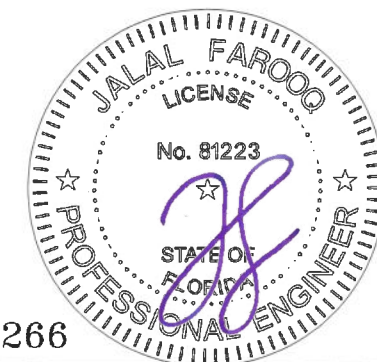
APPROVED CONFIGURATIONS
PROJECT-OUT WINDOWS WITHIN ES-7100 WINDOW WALL SYSTEM

MAXIMUM DESIGN LOAD RATING = + 100.0 PSF
(FOR WINDOW SIZES SHOWN ABOVE - 110.0 PSF
OR SMALLER
WITHIN WINDOW WALL SYSTEM)

SEE SEPARATE APPROVAL FOR ES-7100 WINDOW WALL SYSTEM
DESIGN LOADS AND ANCHORS.

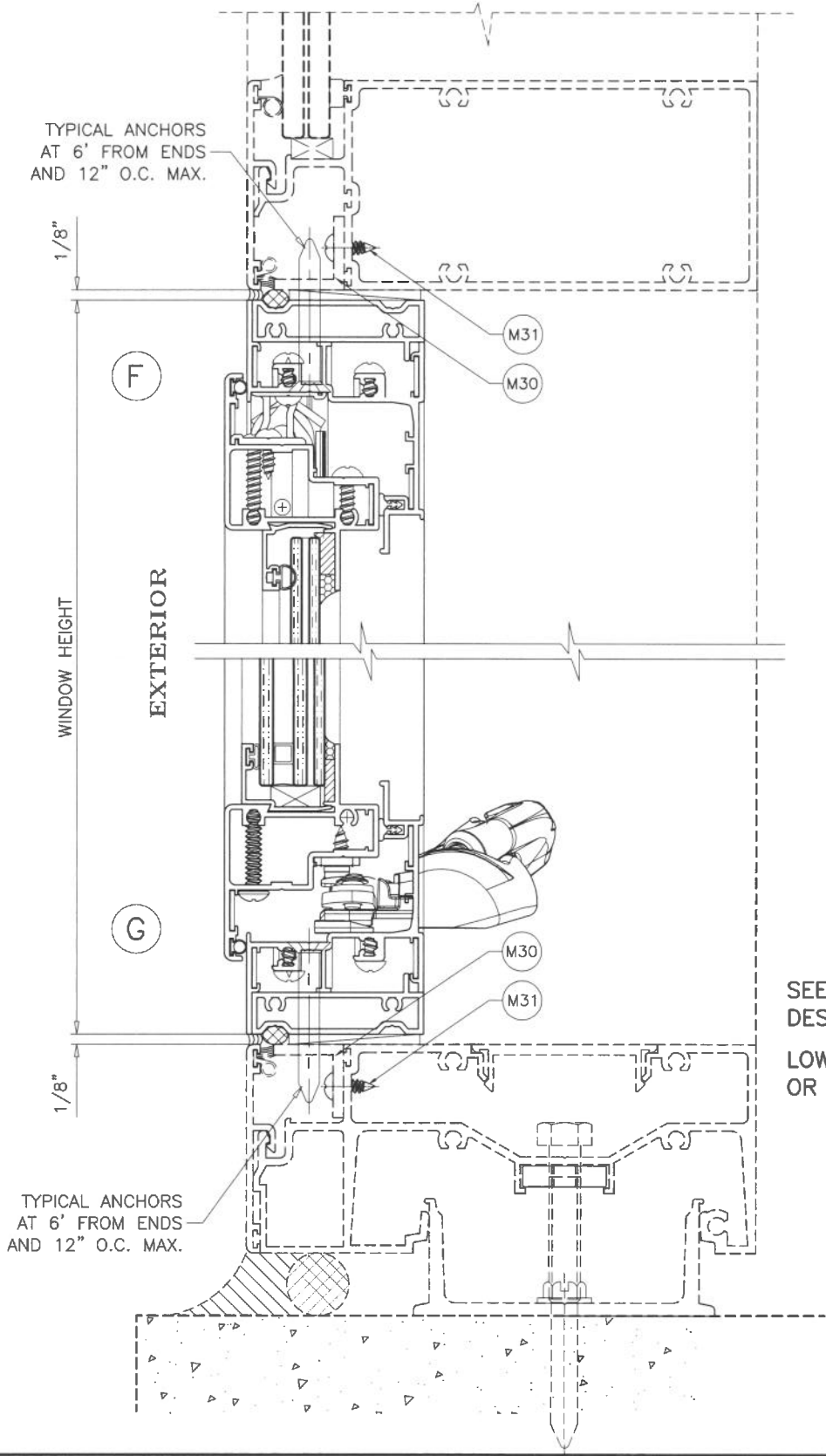
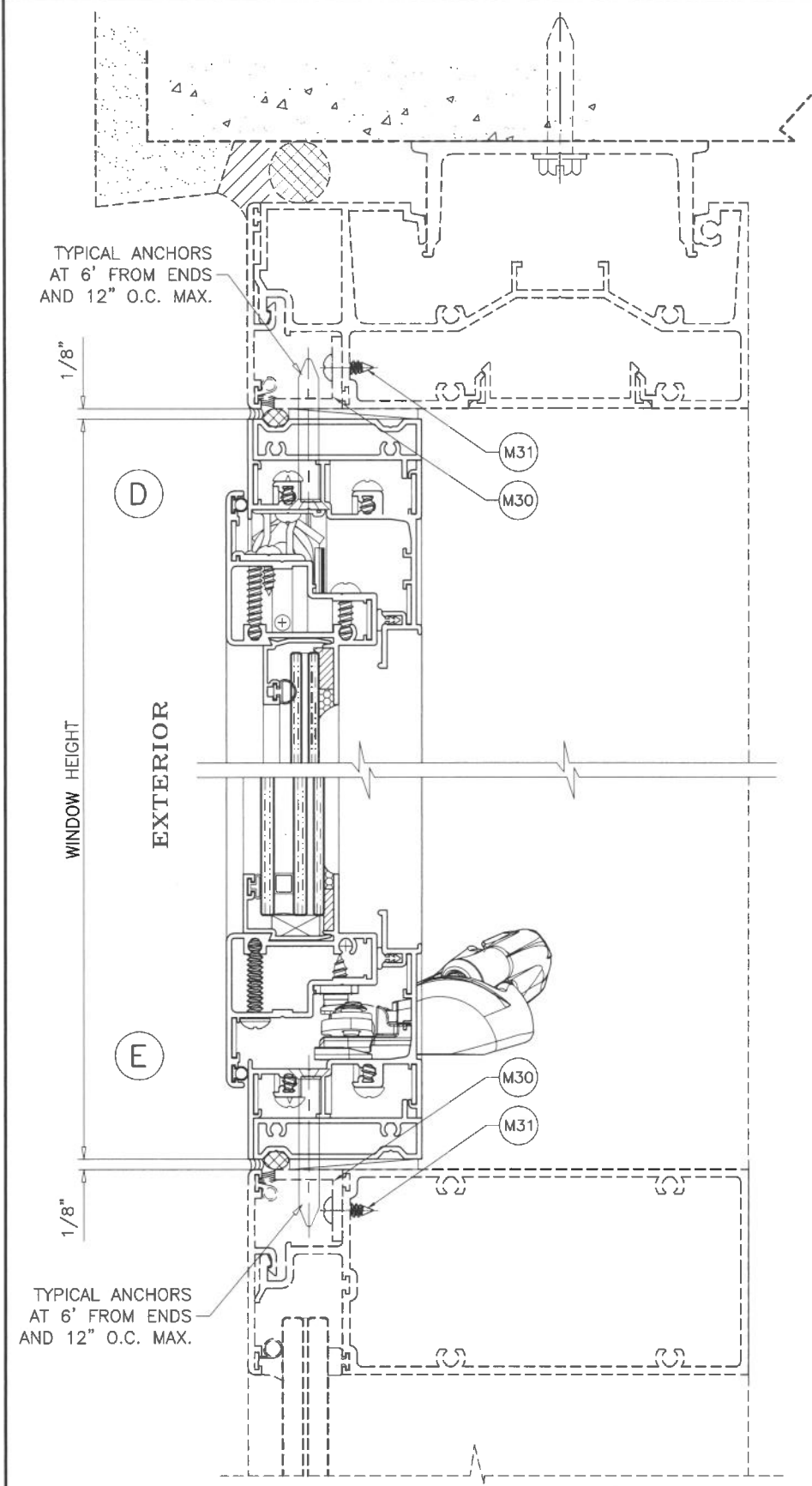
LOWER VALUES FROM PROJECTED WINDOW CAPACITY
OR WINDOW WALL SYSTEM APPROVAL WILL APPLY TO ENTIRE SYSTEM.

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FL #22266

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ES-5600 PROJECT-OUT ALUMINUM WDW. (S.M.I.) E.S. WINDOWS, LLC 3550 N.W. 49 STREET MIAMI, FL. 33142 TEL. (305) 638-5151 FAX. (305) 638-5158	
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SEE SEPARATE APPROVAL FOR ES-7100 WINDOW WALL SYSTEM DESIGN LOADS AND ANCHORS.

LOWER VALUES FROM PROJECTED WINDOW CAPACITY OR WINDOW WALL SYSTEM APPROVAL WILL APPLY TO ENTIRE SYSTEM.



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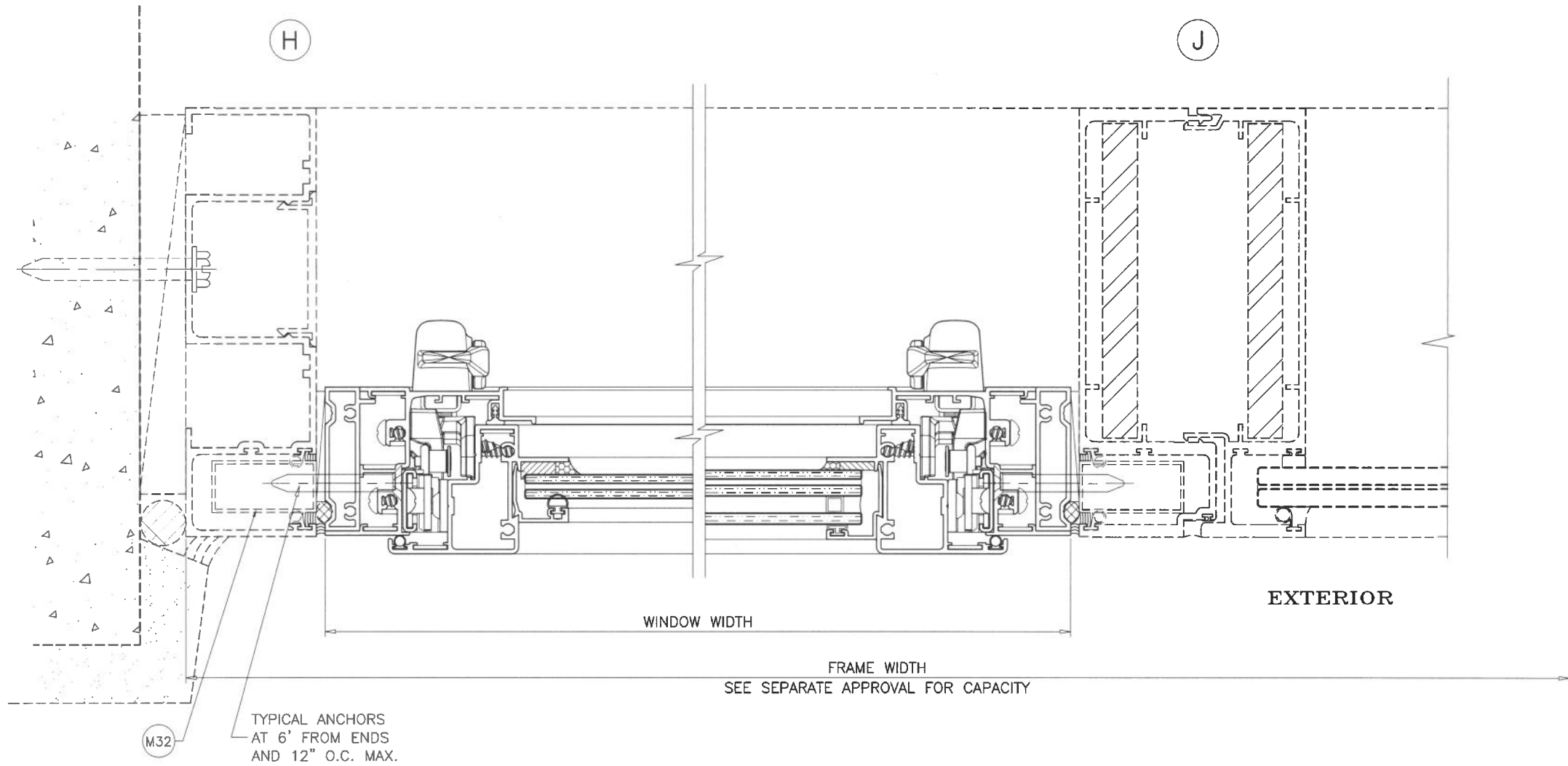
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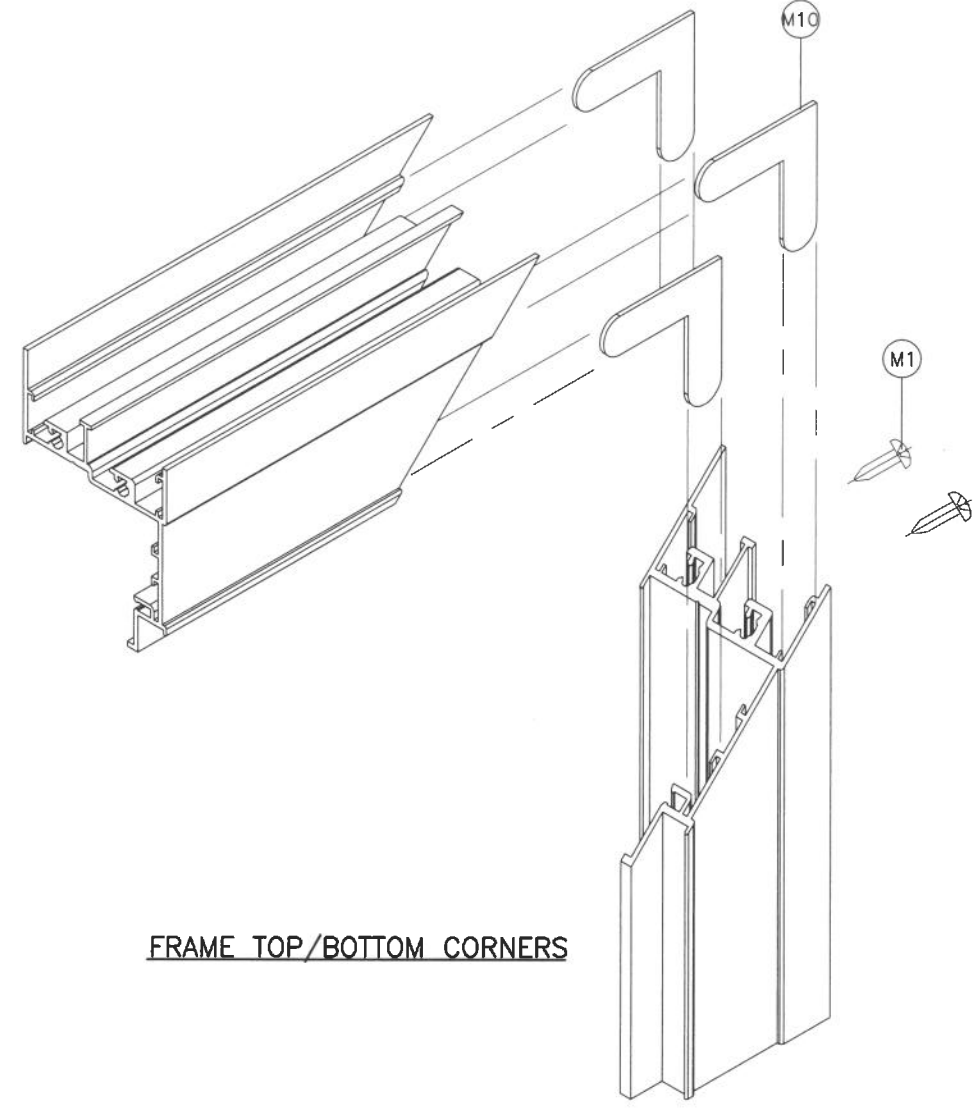
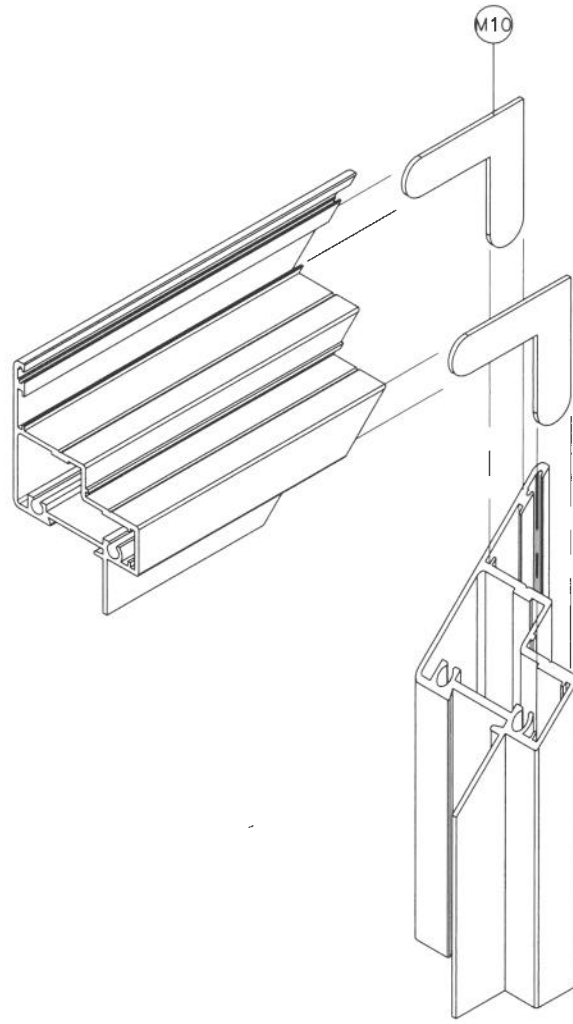
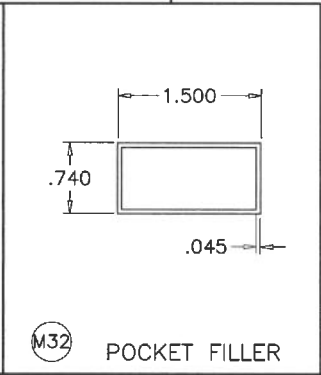
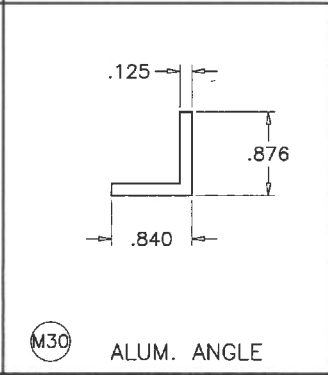
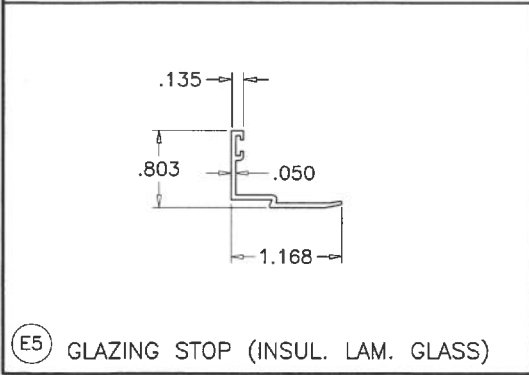
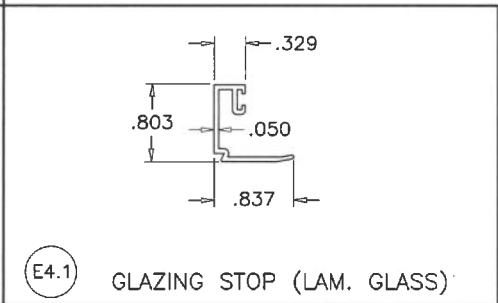
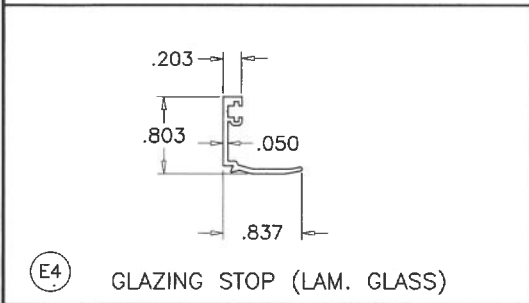
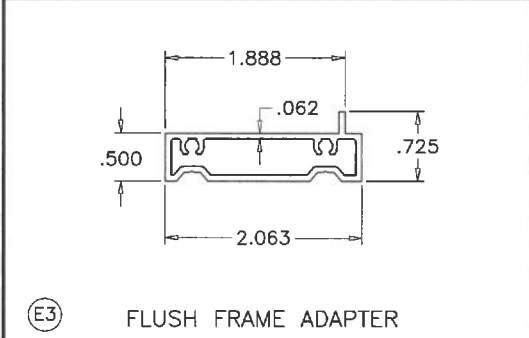
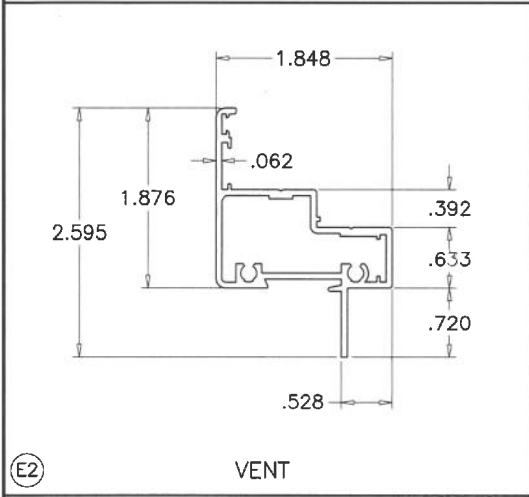
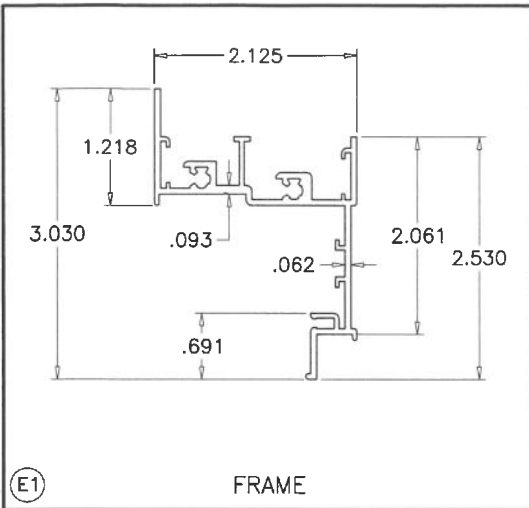
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