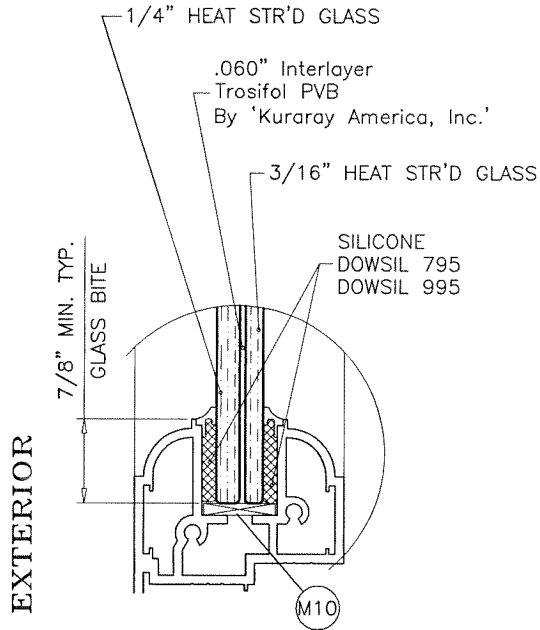


DESIGN LOAD CAPACITY - PSF			
WINDOW DIMS.		(X) SIZES	
WIDTH	HEIGHT	EXT.(+)	INT.(-)
20"	36"	130.0	210.0
24"		130.0	210.0
28"		130.0	210.0
32"		130.0	165.0
36"		130.0	165.0
40"		130.0	165.0
42"		130.0	165.0
20"	42"	130.0	210.0
24"		130.0	210.0
28"		130.0	165.0
32"		130.0	165.0
36"		130.0	165.0
40"		130.0	151.7
42"		130.0	144.5
20"	48"	130.0	210.0
24"		130.0	165.0
28"		130.0	165.0
32"		130.0	165.0
36"		130.0	165.0
40"		130.0	165.0
42"		130.0	165.0
20"	54"	130.0	165.0
24"		130.0	165.0
28"		130.0	165.0
32"		130.0	165.0
36"		130.0	165.0
40"		130.0	157.3
42"		130.0	149.8
20"	60"	130.0	165.0
24"		130.0	165.0
28"		130.0	165.0
32"		130.0	165.0
36"		130.0	165.0
40"		130.0	150.0
42"		130.0	150.0
20"	66"	130.0	165.0
24"		130.0	165.0
28"		130.0	165.0
32"		130.0	165.0
36"		130.0	150.0
40"		130.0	150.0
42"		130.0	150.0
20"	72"	130.0	165.0
24"		130.0	165.0
28"		130.0	165.0
32"		130.0	165.0
36"		130.0	150.0
40"		130.0	147.5
42"		130.0	140.5

DESIGN LOAD CAPACITY - PSF			
WINDOW DIMS.		(X) SIZES	
WIDTH	HEIGHT	EXT.(+)	INT.(-)
20"	78"	130.0	165.0
24"		130.0	165.0
28"		130.0	165.0
32"		130.0	150.0
36"		130.0	150.0
40"		124.0	143.0
20"	84"	130.0	165.0
24"		130.0	165.0
28"		130.0	150.0
32"		118.0	136.2
36"		106.6	123.0

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

DESIGN LOAD CAPACITY - PSF			
WINDOW DIMS.		(X) SIZES	
WIDTH	HEIGHT	EXT.(+)	INT.(-)
19-1/8"	26"	130.0	210.0
26-1/2"		130.0	210.0
37"		130.0	210.0
42"		130.0	165.0
19-1/8"	38-3/8"	130.0	210.0
26-1/2"		130.0	210.0
37"		130.0	165.0
42"		130.0	158.1
19-1/8"	50-5/8"	130.0	210.0
26-1/2"		130.0	165.0
37"		130.0	165.0
42"		130.0	159.8
19-1/8"	63"	130.0	165.0
26-1/2"		130.0	165.0
37"		130.0	165.0
42"		130.0	150.0
19-1/8"	76"	130.0	165.0
26-1/2"		130.0	165.0
37"		130.0	150.0
42"		130.0	133.1



GLAZING DETAIL

SERIES HC200 ALUMINUM CASEMENT WINDOW

DESIGN LOAD RATING FOR THESE WINDOWS TO BE AS PER
CHARTS SHOWN ABOVE.

APPROVAL APPLIES TO SINGLE UNITS OR SIDE BY SIDE
COMBINATIONS OF CASEMENT/CASEMENT OR CASEMENT WITH OTHER
F.B.C. APPR'D 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.

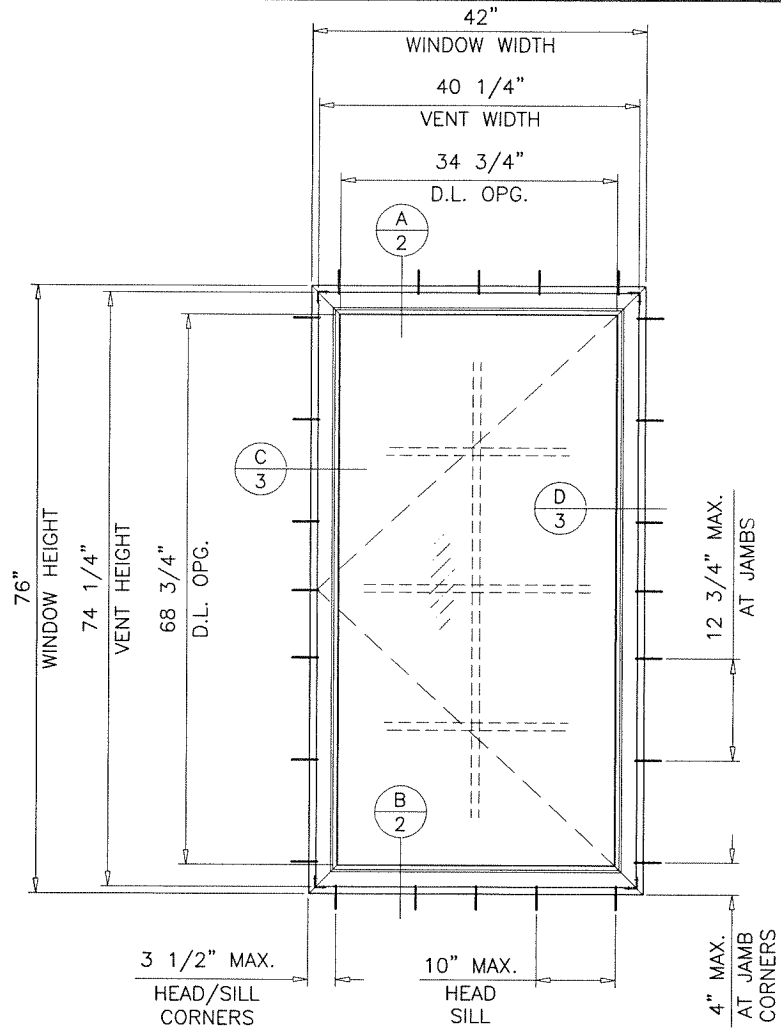
ALL SHIMS TO BE LOAD-BEARING, (HIGH DENSITY PLASTIC/COMPOSITE, METAL
OR OTHER RIGID MATERIALS).

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.

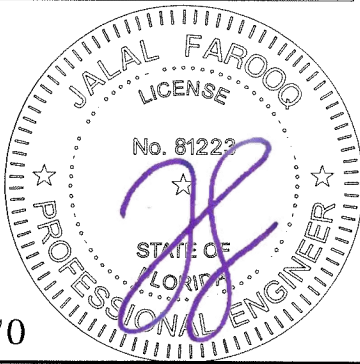


TYPICAL ELEVATION

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.

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.

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



Sealed: 9/24/2026

FL #28670

AL-FAROOQ CORPORATION
ENGINEERS & PRODUCT DEVELOPMENT
9360 SUNSET DRIVE, SUITE 220
MIAMI, FLORIDA 33173
TEL. (305) 264-8100 FAX. (305) 262-6978
COMP-ANL\18-126FRC

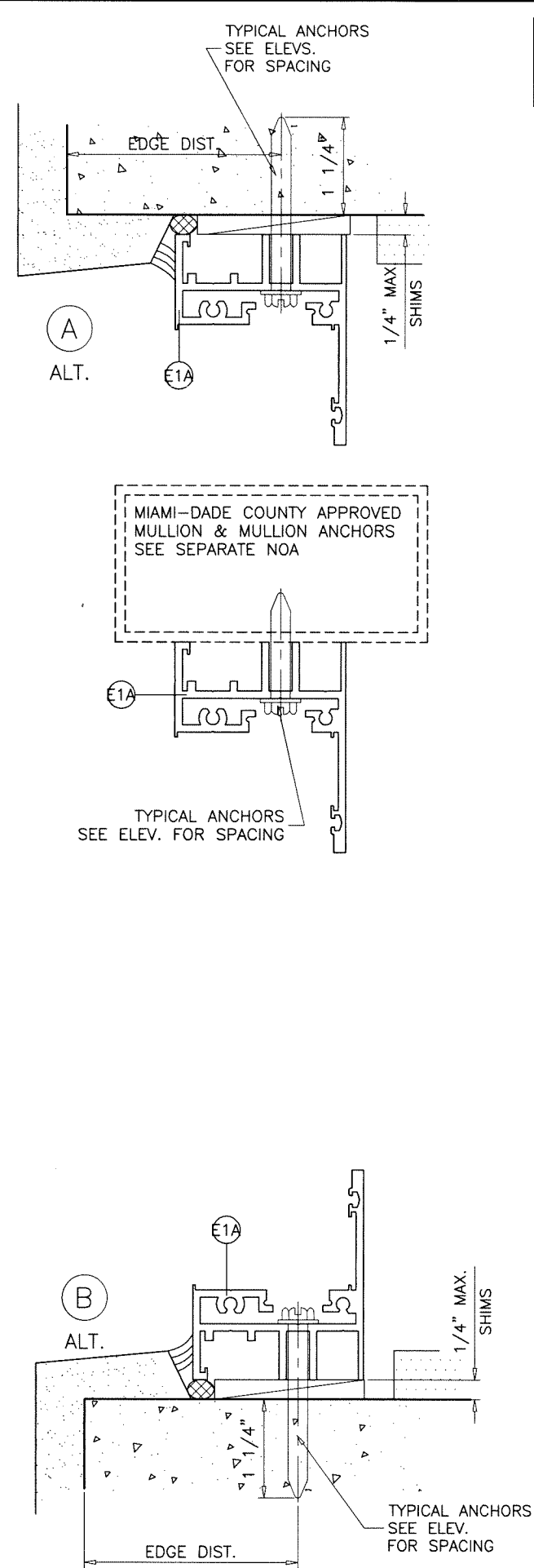
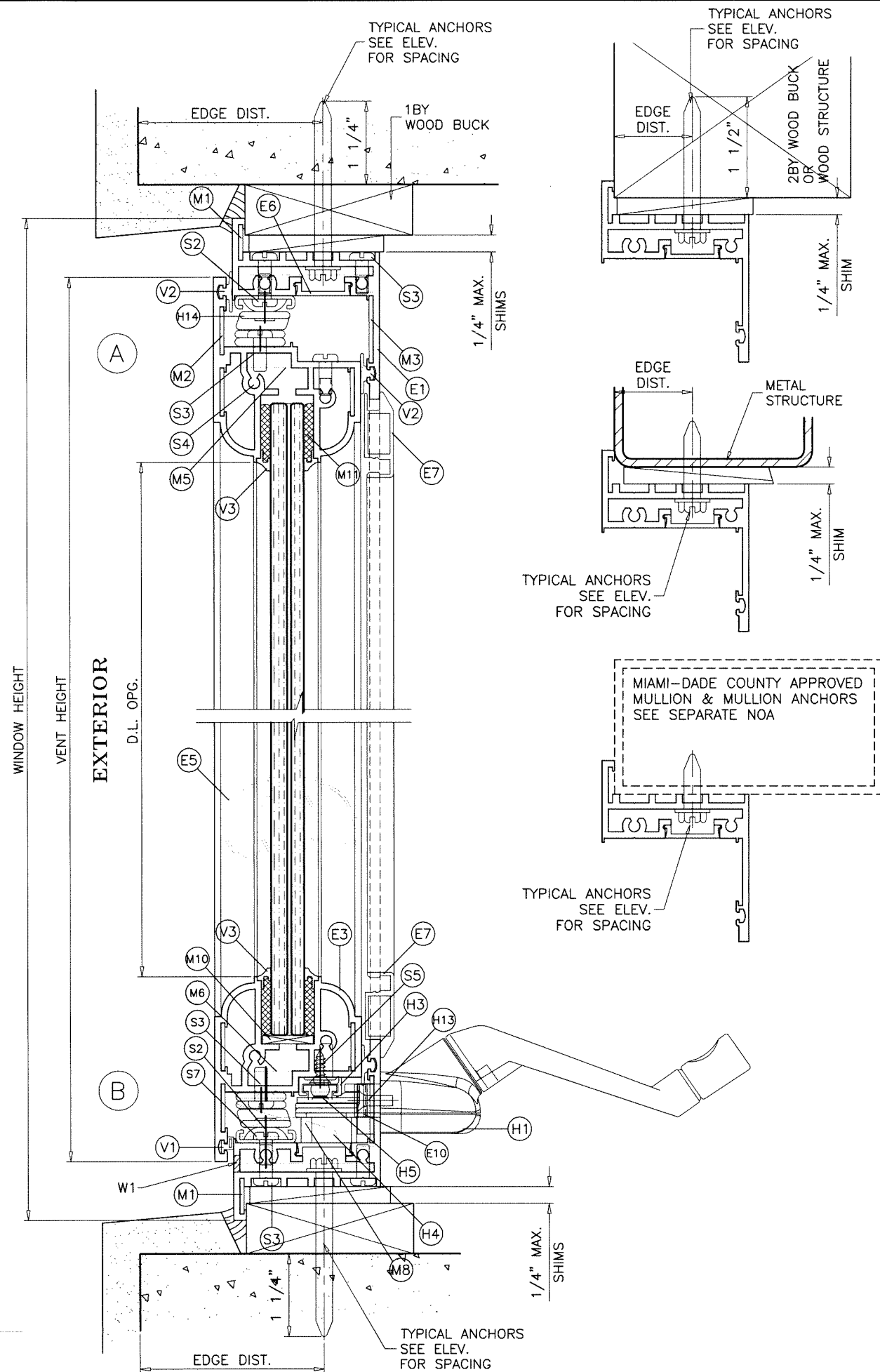
SERIES HC200 ALUMINUM CASEMENT WDW. (S.M.I.)

TECNOGLASS, LLC
3550 N.W. 49 STREET
MIAMI, FL. 33142
TEL. (305) 638-5151 FAX. (305) 638-5158

revisions:	no	date	by	description
	A	12.14.20		UPDATED TO 2020 FBC
	B	09.11.23		UPDATED TO 2023 FBC
	C	07.27.26		UPDATED TO 2026 FBC

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dr. by: TARIQ
chk. by:

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sheet 1 of 5



WOOD BUCKS AND METAL STRUCTURE NOT BY 'TECNOGLASS'
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' ($F_u=164$ KSI, $F_y=148$ 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 MIAMI-DADE COUNTY APPROVED MULLIONS
OR
INTO METAL STRUCTURES (HEAD/SILL/JAMBS)
(3) THREADS MIN. TO EXTEND BEYOND METAL THICKNESS
ALUMINUM: 1/8" THK. MIN. (6063-T5 MIN.)
STEEL: 1/8" THK. MIN. ($F_y = 36$ KSI MIN.)
(STEEL IN CONTACT WITH ALUMINUM TO BE PLATED OR PAINTED)

CRITICAL EDGE DISTANCE
INTO CONCRETE AND BLOCKS = 2-3/4" MIN.
INTO WOOD STRUCTURE = 1" MIN.
INTO METAL STRUCTURE = 3/4" MIN.

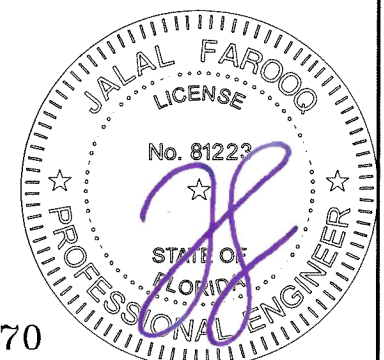
WOOD AT HEAD, SILL OR JAMBS SG = 0.55 MIN.
CONCRETE AT HEAD, SILL OR JAMBS $f'_c = 3000$ PSI MIN.
C-90 HOLLOW/FILLED BLOCK AT JAMBS $f'_m = 2000$ PSI MIN.

SEALANTS:
ALL FRAME AND VENT CORNERS SEALED WITH SILICONE.

WEEP HOLES:
W1 = 1/4" X 1/2" WEEP SLOT AT 4" FROM EACH END

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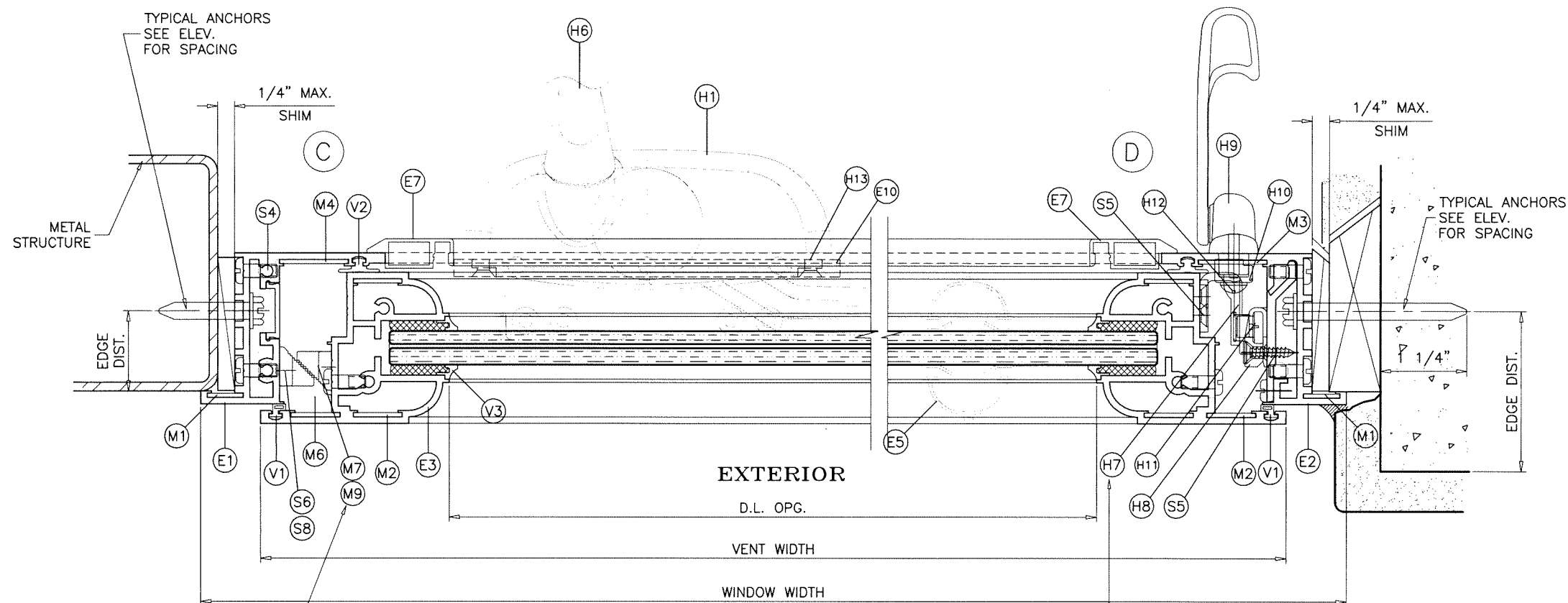
SERIES HC200 ALUMINUM CASEMENT WDW. (S.M.I.)

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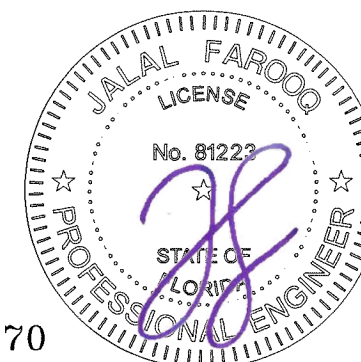
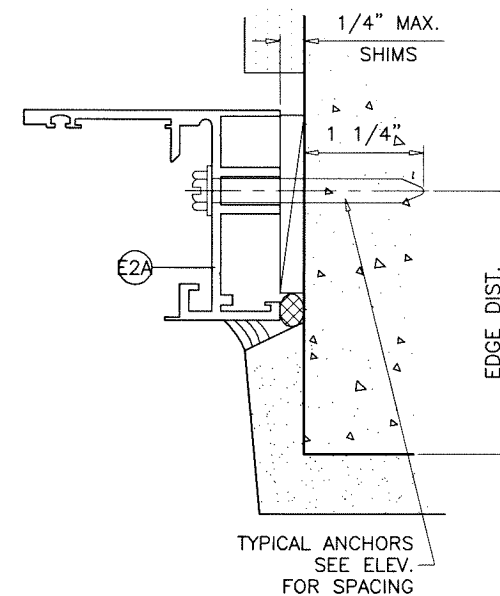
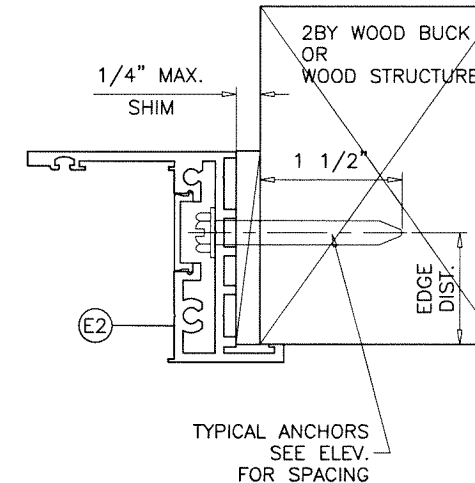
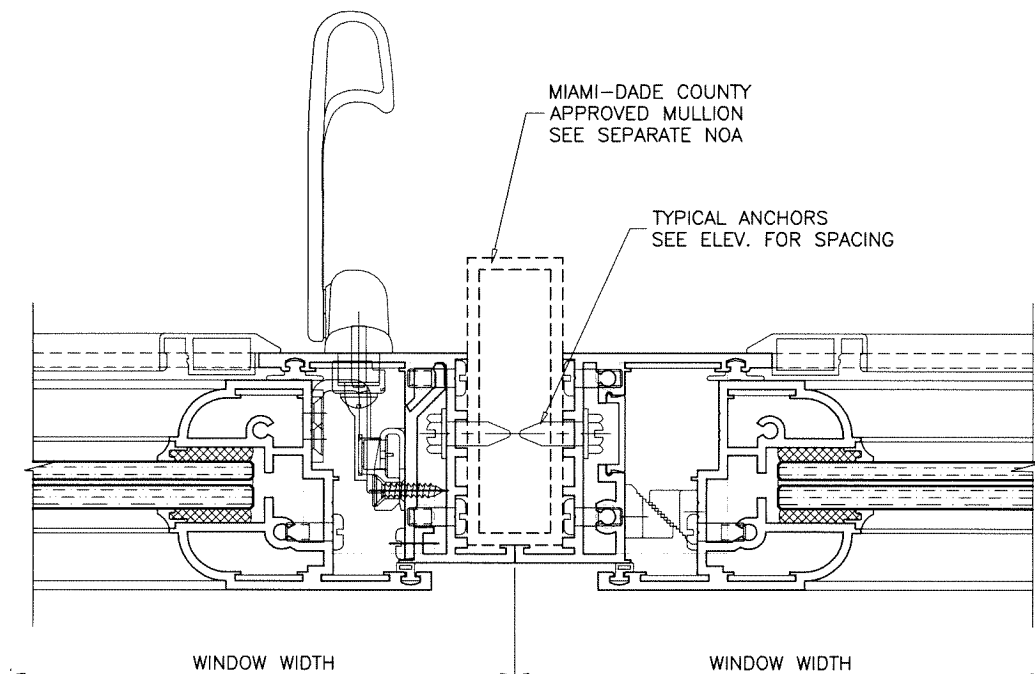
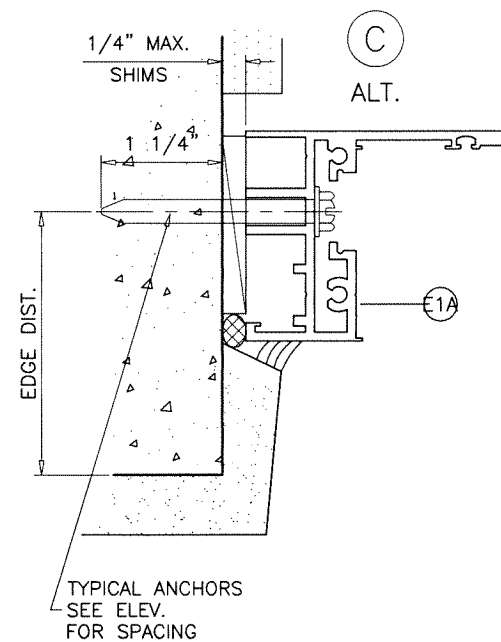
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drawing no.	sheet 2 of 5
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SNUBBERS
 3 PLASTIC SNUBBERS UP TO 38-3/8" WDW. HTS.
 2 ALUM + 2 PLASTIC SNUBBERS UP TO 60" WDW. HTS.
 3 ALUM + 2 PLASTIC SNUBBERS OVER 60" WDW. HTS.

LATCH KEEPER
 3 PER JAMB UP TO 38-3/8" WDW. HTS.
 4 PER JAMB UP TO 63" WDW. HTS.
 5 PER JAMB OVER 63" WDW. HTS.



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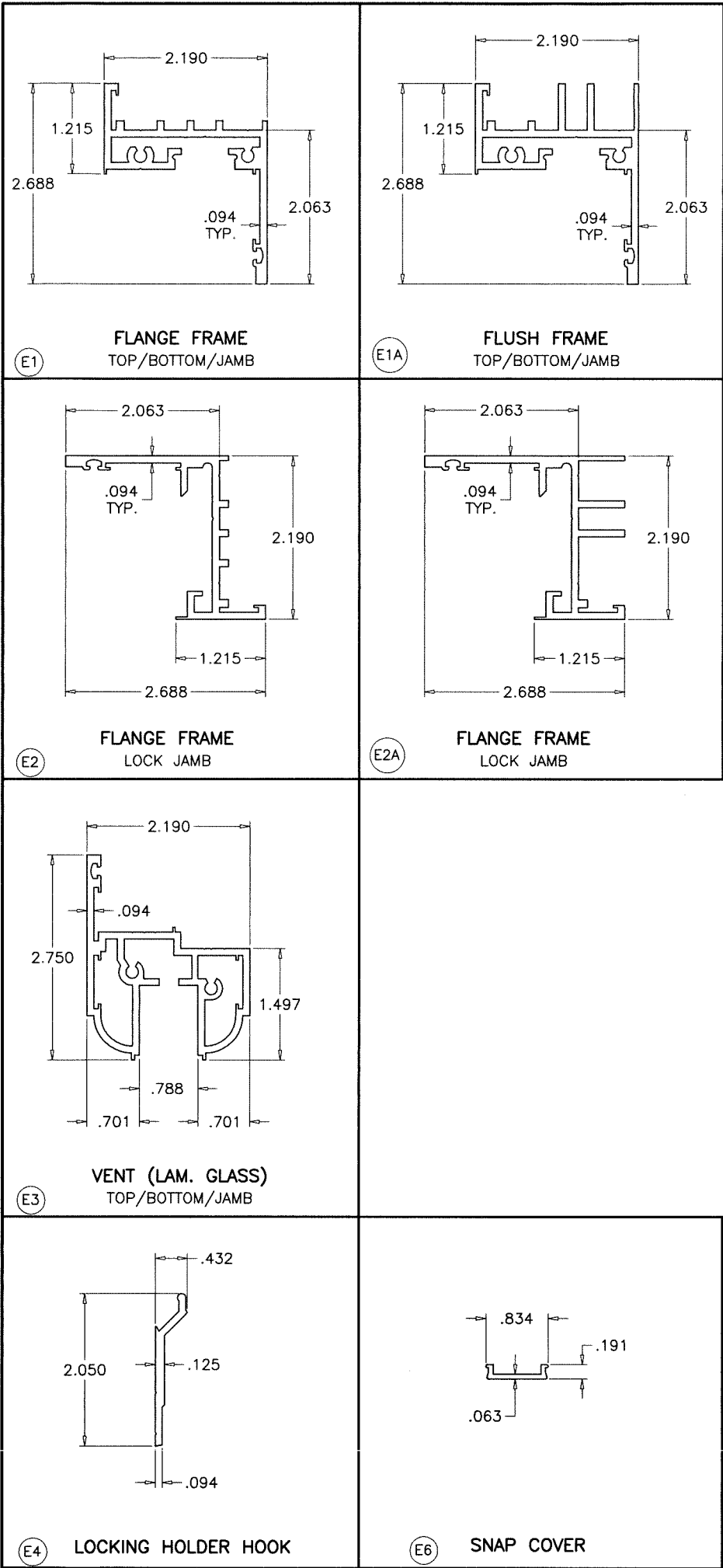
SERIES HC200 ALUMINUM CASEMENT WDW. (S.M.I.)

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 3550 N.W. 49 STREET
 MIAMI, FL. 33142
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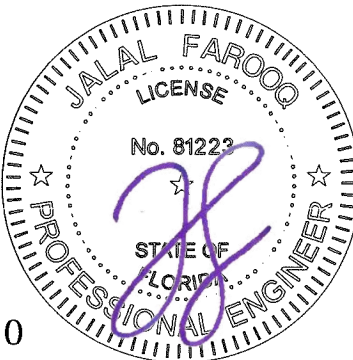
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18-126F
 sheet 3 of 5



ITEM	PART #	QUANTITY	DESCRIPTION	MATERIAL	MANF./SUPPLIER/REMARKS
E1	HC200-001	3/ WDW.	FLANGE FRAME TOP , BOTTOM & JAMB (NON LOCK)	6063-T6	-
E1A	HC200-008	3/ WDW.	FLUSH FRAME TOP , BOTTOM & JAMB (NON LOCK)	6063-T6	-
E2	HC200-002	1/ WDW.	FLANGE FRAME LOCK JAMB	6063-T6	-
E2A	HC200-009	1/ WDW.	FLUSH FRAME LOCK JAMB	6063-T6	-
E3	HC200-003	4/ WDW.	VENT TOP , BOTTOM & JAMBS (LAM. GLASS)	6063-T6	-
E4	HC200-004	1/ WDW.	LOCKING HOLDER HOOK	6063-T6	-
E5	HC200-005	AS REQD.	OPTIONAL MUNTIN	ALUMINUM	-
E6	BD4500-015	4/ WDW.	SNAP COVER (OPTIONAL)	ALUMINUM	-
E7	1/ WDW.	-	SCREEN (OPTIONAL)	ALUMINUM	-
E10	CM100-022	-	ANCHOR ARM FOR ROTO OPERATOR	-	-
V1	V-059	AS REQD.	EXTERIOR W/STP. VINYL	PVC	-
V2	V-033A	AS REQD.	TR-5804N COMPRESSION GASKET	NEOPRENE	TREMCO
V3	P-021 (OPTIONAL)	AS REQD.	COSMETIC COVER SEAL MELTPOINT	-	-
M1	HC200-M01	1/ CORNER	FRAME SMALL CORNER LOCK	16 GA. ST/ST	ALT. MATERIAL ALUM. 6063-T6
M2	HC200-M02	3/ CORNER	VENT CORNER LOCK	16 GA. ST/ST	ALT. MATERIAL ALUM. 6063-T6
M3	HC200-M03	1/ CORNER	FRAME LARGE CORNER LOCK	16 GA. ST/ST	ALT. MATERIAL ALUM. 6063-T6
M4	HC200-M04	1	FRAME LARGE CORNER LOCK (AT ROTO OPERATOR ONLY)	16 GA. ST/ST	ALT. MATERIAL ALUM. 6063-T6
M5	HC200-M05	1/ CORNER	LEFT HAND FRAME CORNER LOCK	6063-T6	-
M6	HC200-M06	1/ CORNER	RIGHT HAND FRAME CORNER LOCK	6063-T6	-
M7	HC200-M07	-	ALUMINUM SNUBBER	-	-
M8	P-030	-	NYLON CAM	-	-
M9	P#12206	-	NYLON SNUBBERS	-	-
M10		2/ LITE	1/8" X 3/4" SETTING BLOCK, AT 1/4 POINTS	EPDM	DUROMETER 80±5 SHORE A
M12	HC200-M08	-	GUIDE HOUSING	ALUMINUM	-
M13	P-031	-	SHIM ANTI FRICTION	PLASTIC	-
H1	CD25	-	9.5" SINGLE ARM OPERATOR	ST/ST	ROTO HARDWARE
H3	CB304	1/ WDW.	SURFACE MOUNT OPERATOR	-	ROTO HARDWARE
H4	CB253	1	8.5 MM. OPERATOR BOTTOM SPACER	-	ROTO HARDWARE
H5	CB201	1	OPERATOR TOP SPACER	-	ROTO HARDWARE
H7	L1305-2111	3	KEEPERS	ST/ST	ROTO HARDWARE
H8	GT553	-	GUIDE HOUSING	-	ROTO HARDWARE
H9	LH088-7510	-	WHITE HANDLE	-	ROTO HARDWARE
H10	G2-HND-LPLT-02	-	HANDLE FASTENER PLATE	-	ROTO HARDWARE
H11	LB06	1	LOCK POINT STAINLESS STEEL	-	ROTO HARDWARE
H12	GT990	-	#10-32X 3/8" LG. PH. MACHINE SCREW (LOCKING HANDLE)	ST/ST	-
H13	M1000	-	#8-32X 3/4" LG. PHL. FH. THREAD CUTTING (ANCHOR ARM)	ST/ST	-
H14		2	4 BAR HINGE	-	TRUTH OR BRONZE CRAFT
S2		-	#10 X 3/8" LG. PH. PHL. SMS. (ARM-FRAME)	ST/ST	-
S3		-	#10 X 1/2" LG. PH. PHL. SMS. (ARM-VENT)	ST/ST	-
S4		-	#10 X 1-1/2" LG. PH. PHL. SMS. (ASSEMBLY)	ST/ST	-
S5		-	#8-32 X 1/2" LG. FH. PHL. (GUIDES-SURFACE MOUNT)	ST/ST	-
S6		-	#6 X 1/2" LG. FH. PHL. SMS. (SNUBBERS)	ST/ST	-
S7		-	#10 X 1/2" LG. PHL. FH. SMS.	ST/ST	-
S8		-	#6 X 1/2" LG. PH. SMS. ST/ST AT ALUM. SNUBBER	-	-

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FL #28670



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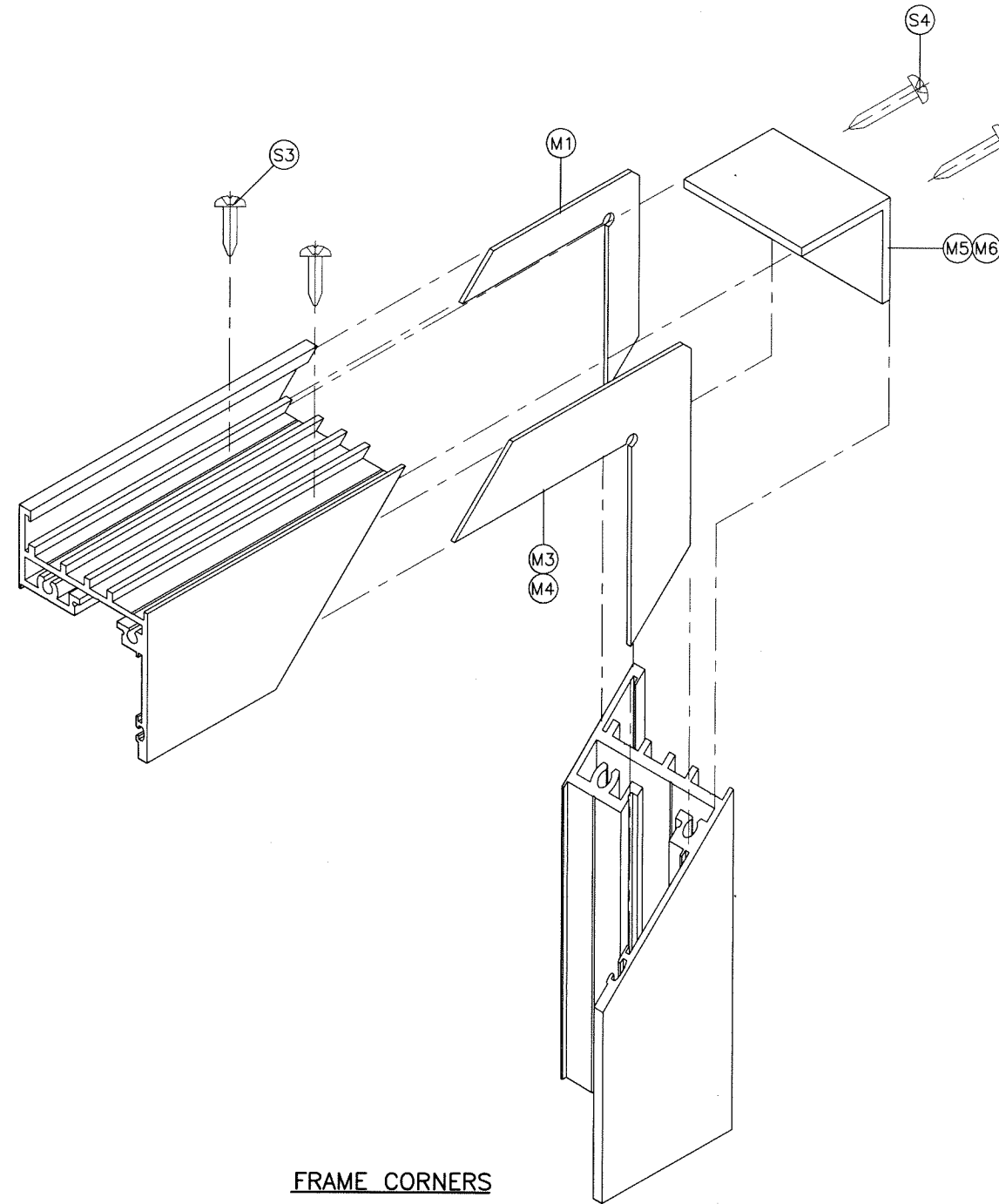
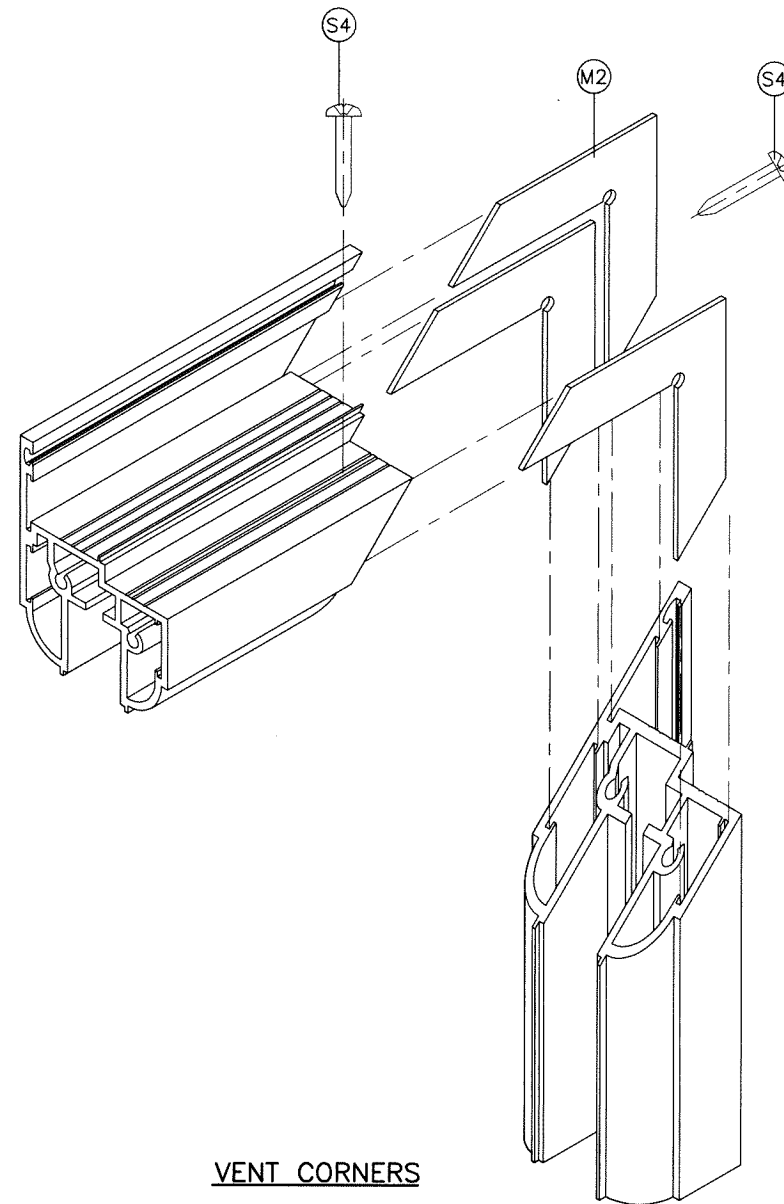
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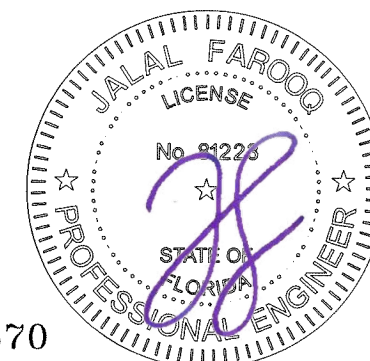
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sheet 4 of 5

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FL #28670



af c AL-FAROOQ CORPORATION ENGINEERS & PRODUCT DEVELOPMENT 9360 SUNSET DRIVE, SUITE 220 MIAMI, FLORIDA 33173 (C.A.N. 3538) TEL. (305) 264-8100 FAX. (305) 262-6978		SERIES HC200 ALUMINUM CASEMENT WDW. (S.M.I.) TECNOGLASS, LLC 3550 N.W. 49 STREET MIAMI, FL. 33142 TEL. (305) 638-5151 FAX. (305) 638-5158																									
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