

GENERAL NOTES: FLORIDA BUILDING CODE 2014

1- CODE: THIS PRODUCT HAS BEEN TESTED AND DESIGNED IN ACCORDANCE WITH THE 5TH EDITION FLORIDA BUILDING CODE (2014) INCLUDING THE HIGH VELOCITY HURRICANE ZONE (HVHZ).

2- DEFINITION: THIS PRODUCT IS A CASEMENT OUT TYPE WINDOW DESIGNED, CONSTRUCTED AND TESTED TO PROVIDE PROTECTION FROM HURRICANE FORCE WINDS AND WIND BORNE DEBRIS (LARGE MISSILE) WITHIN THE ALLOWABLE DESIGNED PRESSURES AND LIMITATIONS STATED IN THIS APPROVAL. INSTALLATION OF HURRICANE PROTECTION DEVICES IS NOT REQUIRED.

3- DESIGN LOADS: THE DESIGNED LOADS MUST BE CALCULATED BY A PROFESSIONAL ARCHITECT OR ENGINEER FOR EACH SPECIFIC PROJECT. THE CALCULATED DESIGNED PRESSURE MUST NOT EXCEED THE ALLOWABLE WINDOW PRESSURE.

4- MATERIAL: GLAZING TO BE IMPACT LAMINATED GLASS AS SPECIFIED ON THIS APPROVAL.

5- FASTENERS: ASSEMBLY SCREWS AND ANCHORS SHALL BE AS SPECIFIED IN THE CURRENT SET OF DRAWINGS. INSTALLATION AND LOADS AS PER THIS APPROVAL. ANCHOR QUANTITY & SPACING MUST NOT EXCEED THE MAXIMUM LIMITS SPECIFIED BY THIS APPROVAL.

6- USE: IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR, ARCHITECT OR ENGINEER OF RECORD TO VERIFY THE FOLLOWING:

6.1- THE STABILITY OF THE STRUCTURE WHERE THE PRODUCT IS TO BE ATTACHED INSURING PROPER ANCHORAGE.

6.2- THE SITE SPECIFIC PROJECT CRITERIA, SUCH AS BUT NOT LIMITED TO, LOCAL CODE REQUIREMENTS, DESIGNED PRESSURES ETC.

6.3- THAT THIS APPROVAL IS ADEQUATE TO THE SPECIFIC PROJECT.

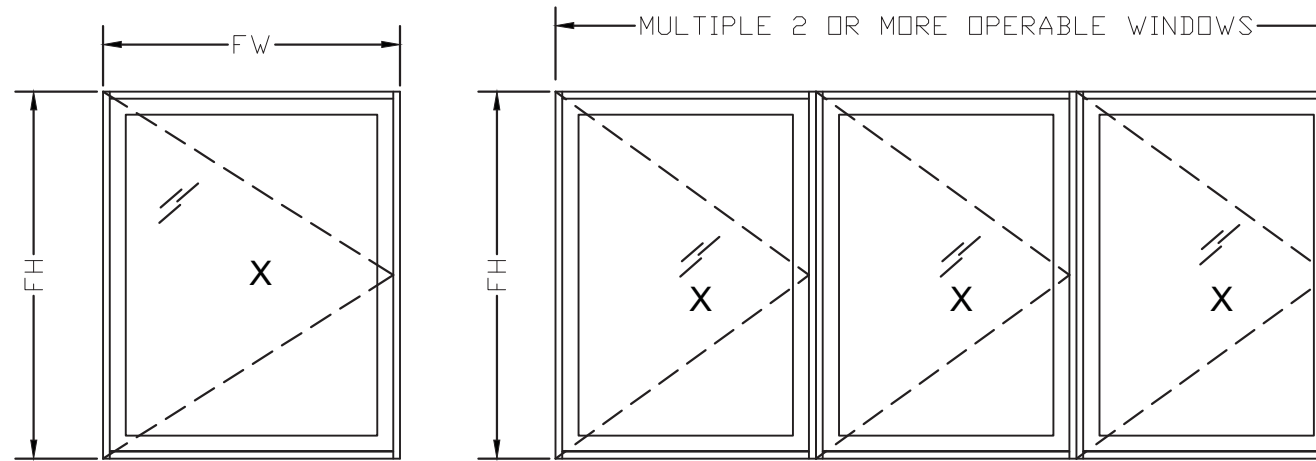
7- 33 1/3% INCREASE IN ALLOWABLE LOADS HAVE NOT BEEN USED IN THE DESIGN OF THE ANCHORS FOR THIS PRODUCT APPROVAL, HOWEVER, WOOD SCREWS WITH 1.6 INCREASE FOR WIND LOAD DURATION HAVE BEEN USED.

8- DISSIMILAR MATERIALS: MATERIALS, INCLUDING BUT NOT LIMITED TO STEEL, THAT COME IN CONTACT WITH OTHER DISSIMILAR MATERIALS SHALL MEET THE REQUIREMENTS OF THE 5TH EDITION FLORIDA BUILDING CODE (2014).

9- ULTIMATE DESIGN LOAD OBTAINED FROM ASCE-7-10, MULTIPLY BY 0.6 SHALL BE LESS THAN OR EQUAL TO MAX. DESIGN LOAD IN THIS DOCUMENT. THE DESIGN LOADS SHOWN IN THE DOCUMENT ARE ALLOWABLE DESIGN LOADS.

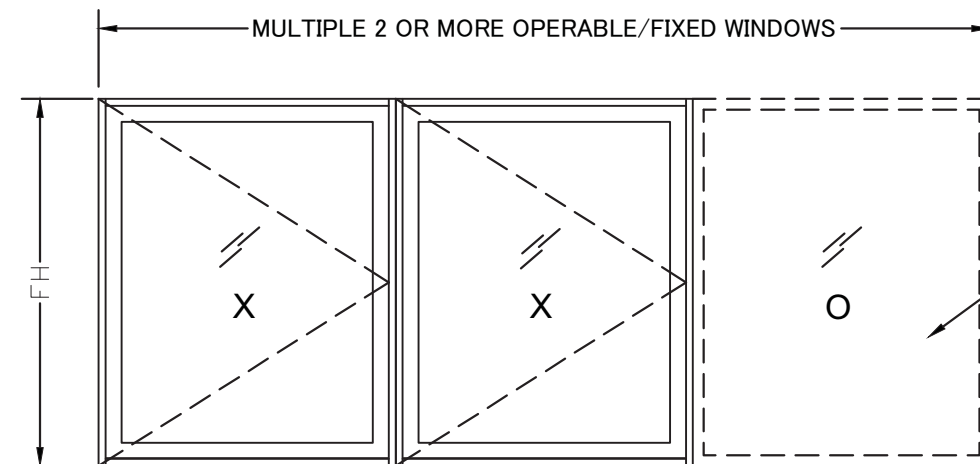
FOR ALLOWABLE SIZES AND PRESSURES REFER TO: SHEETS 2 AND 3

**TYPICAL ELEVATIONS
VIEW FROM OUTSIDE**



(X) SINGLE CASEMENT OUT WINDOW
SEE SHEET 2 FOR RATING

(XX, XXX, XXXn) MULTIPLE CASEMENT OUT WINDOWS
SEE SHEET 3 FOR RATING



(XO, XOx, OXO, OXXOXn) MULTIPLE COMBINATION OF CASEMENT OUT AND FIXED WINDOWS
SEE SHEET 3 FOR RATING

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LIMITATIONS OF USE

A- THIS PRODUCT EVALUATION DOCUMENT (P.E.D.) PREPARED BY THIS ENGINEER IS GENERIC AND DOES NOT PROVIDE INFORMATION FOR A SITE SPECIFIC PROJECT. I.e. WHERE THE SITE CONDITIONS DEVIATE FROM THE P.E.D.

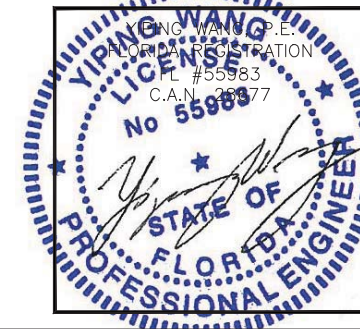
B- CONTRACTOR TO BE RESPONSIBLE FOR THE SELECTION, PURCHASE AND INSTALLATION OF THIS PRODUCT BASED ON THIS PRODUCT EVALUATION PROVIDED HE/SHE DOES NOT DEVIATE FROM THE CONDITIONS DETAILED ON THIS DOCUMENT.

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

D- 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.

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

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NR ARCHITECTURAL PRODUCTS
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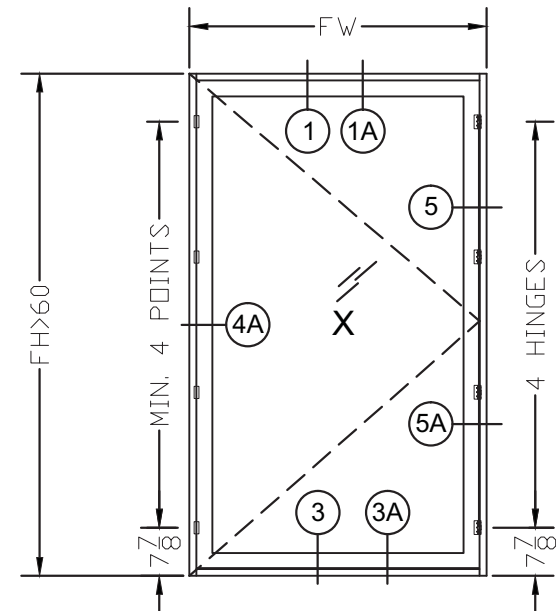
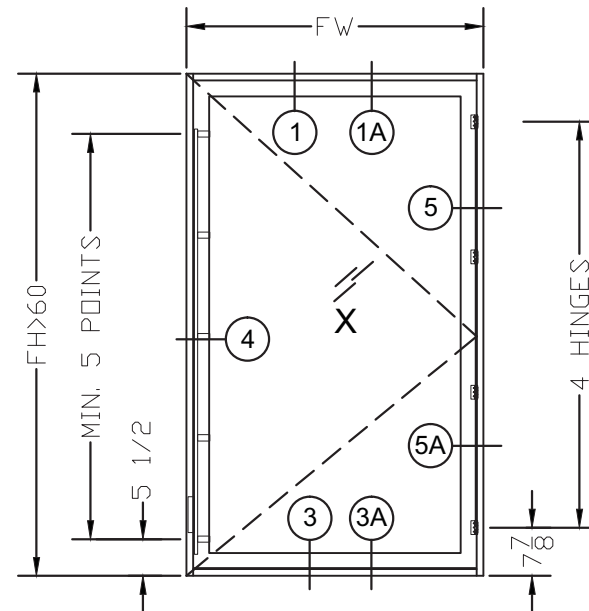
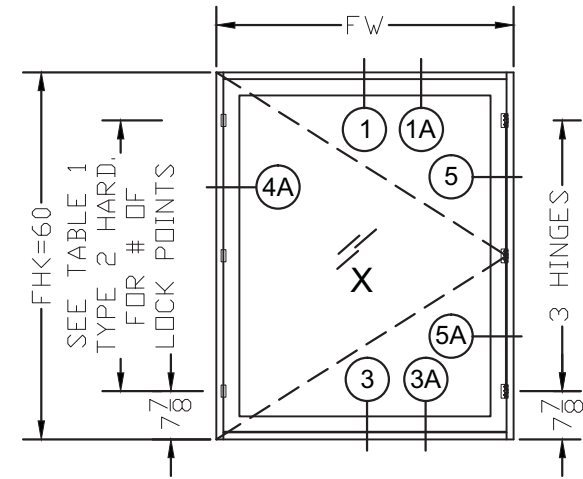
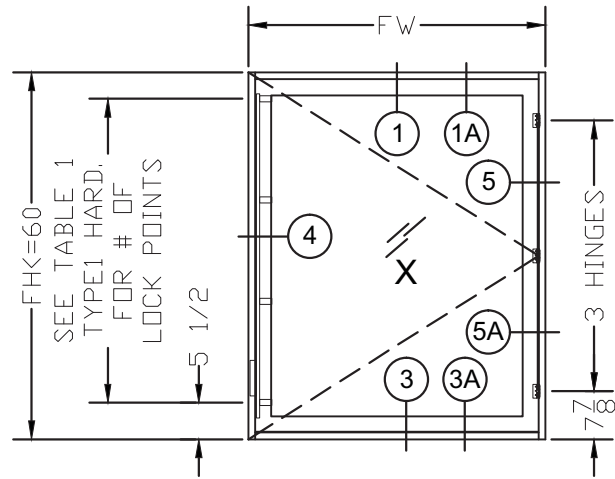
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**TABLE 1
DESIGNED RATING FOR
SINGLE CASEMENT OUT UNITS (PSF)**

MAX. FW	FRAME FH	HARDWARE TYPE 1			HARDWARE TYPE 2		
		EXT (+)	INT (-)	LOCK POINTS	EXT (+)	INT (-)	LOCK POINTS
32	38	120	120	3	120	120	3
	42	120	120	3	120	120	3
	48	120	120	4	120	120	3
	54	117	117	4	120	120	3
	60	101	101	4	120	120	3
	66	89	89	5	118	118	4
38.75	38	120	120	3	120	120	3
	42	120	120	3	120	120	3
	48	120	120	4	120	120	3
	54	106	106	4	120	120	3
	60	90	90	4	120	120	3
	66	78	78	5	86	86	4
44	38	105	105	3	105	105	3
	42	101	101	3	101	101	3
	48	101	101	4	101	101	3
	54	92	92	4	92	92	3
	60	83	83	4	83	83	3
	66	73	73	5	75	75	4
48.625	38	80	80	3	80	80	3
	42	77	77	3	77	77	3
	48	75	75	4	75	75	3
	54	75	75	4	75	75	3
	60	75	75	4	75	75	3
	54	38	50	50	3	50	50
42		47	47	3	47	47	3
48		45	45	4	45	45	3
54		44	44	4	44	44	3

FW- FRAME WIDTH IN INCHES
FH- FRAME HEIGHT IN INCHES
PRESSURES IN PSF
SEE ELEVATIONS ON THE RIGHT SIDE FOR HARDWARE TYPE
DLO= FH-7.5" OR FW-7.5"



(X) SINGLE CASEMENT OUT WINDOW WITH HARDWARE TYPE 1 MULTIPOINT LOCK (ADVANTAGE OR ROTD) 3-1/4" BUTT HINGE ADVANTAGE 1192

(X) SINGLE CASEMENT OUT WINDOW WITH HARDWARE TYPE 2 BRONZECRAFT CAMLOCK 3-1/4" BUTT HINGE ADVANTAGE 1192

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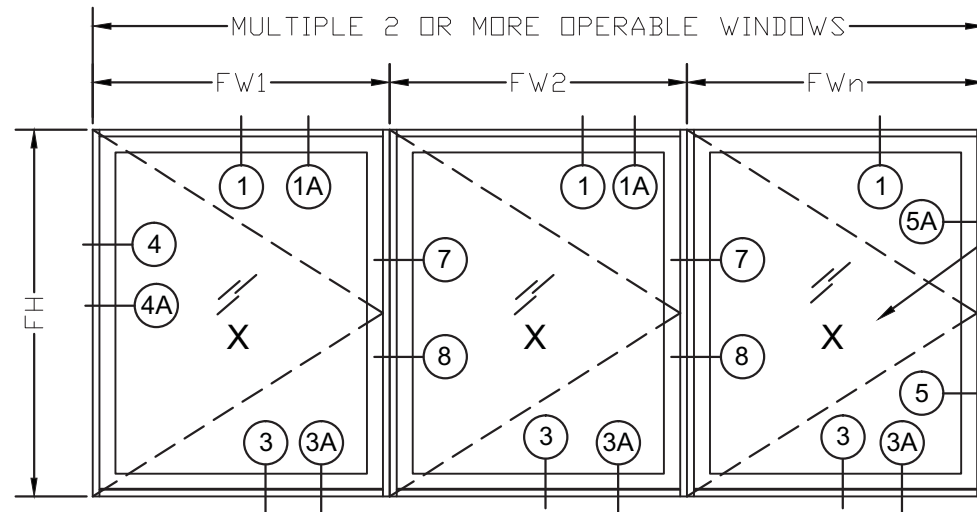
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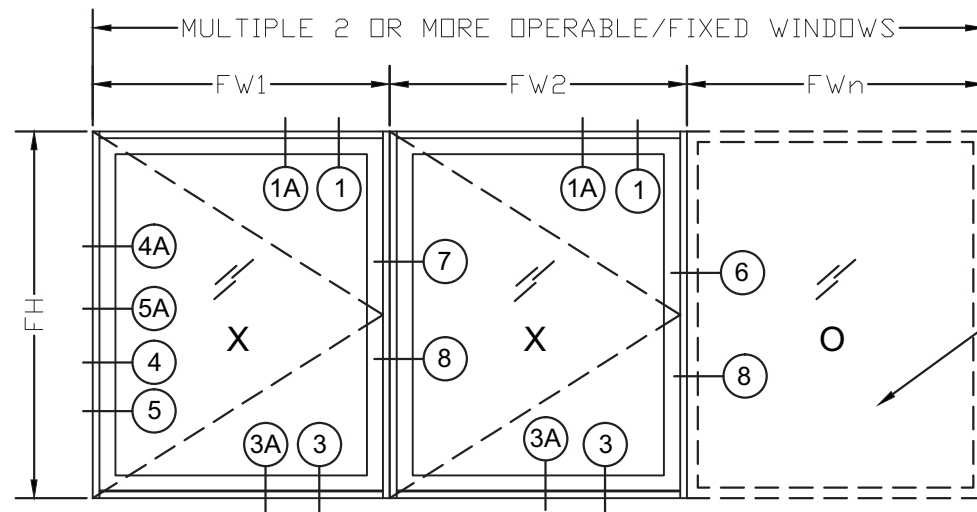
**TABLE 2
DESIGNED RATING FOR MULLIONS ON
MULTIPLE CASEMENT OR/AND FIXED UNITS (PSF)**

TM	FH	MULL TYPE 6		MULL TYPE 7		MULL TYPE 8	
		EXT (+)	INT (-)	EXT (+)	INT (-)	EXT (+)	INT (-)
32	38	120.0	120.0	120.0	120.0	120.0	120.0
	42	120.0	120.0	120.0	120.0	120.0	120.0
	48	120.0	120.0	120.0	120.0	115.0	115.0
	54	120.0	120.0	116.5	116.5	97.0	97.0
38.75	38	120.0	120.0	120.0	120.0	120.0	120.0
	42	120.0	120.0	120.0	120.0	120.0	120.0
	48	120.0	120.0	120.0	120.0	106.0	106.0
	54	120.0	120.0	105.6	105.6	88.0	88.0
44	38	120.0	120.0	120.0	120.0	120.0	120.0
	42	120.0	120.0	120.0	120.0	120.0	120.0
	48	120.0	120.0	120.0	120.0	103.0	103.0
	54	120.0	120.0	100.6	100.6	83.9	83.9
48.625	38	111.2	111.2	83.4	83.4	75.0	75.0
	42	120.0	120.0	120.0	120.0	120.0	120.0
	48	120.0	120.0	120.0	120.0	102.0	102.0
	54	120.0	120.0	98.1	98.1	81.8	81.8
54	38	105.4	105.4	79.1	79.1	75.0	75.0
	42	120.0	120.0	120.0	120.0	120.0	120.0
	48	120.0	120.0	120.0	120.0	102.0	102.0
	54	120.0	120.0	97.2	97.2	81.0	81.0

TW- MAXIMUM TRIBUTARY MODULE WIDTH IN INCHES
FH- MAXIMUM FINISHED HEIGHT IN INCHES
PRESSURES IN PSF
DLO= FH-7.5" OR FW-7.5"

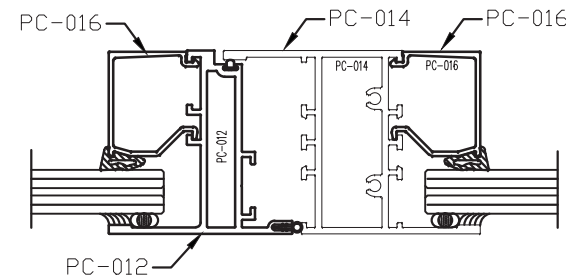


$$TM = (FW1 + FW2) / 2$$

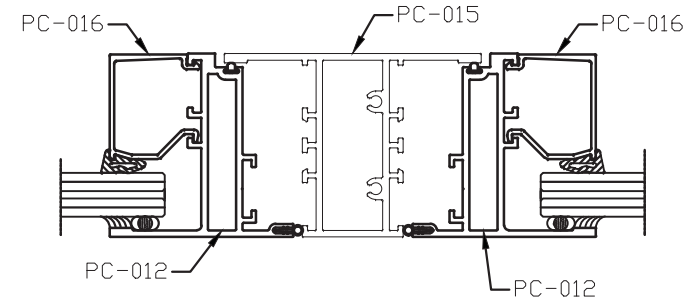


$$TM = (FW1 + FW2) / 2$$

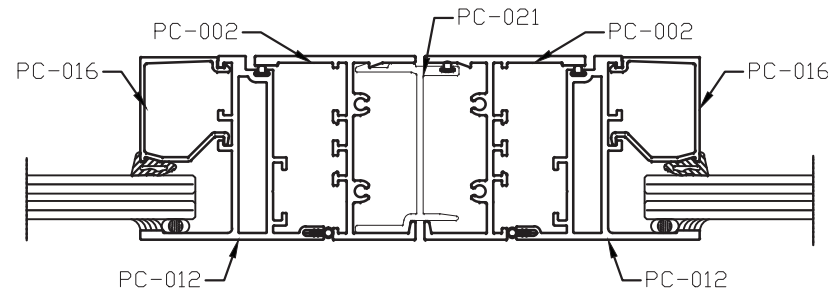
**6 MULLION 6
FIXED-CASEMENT**



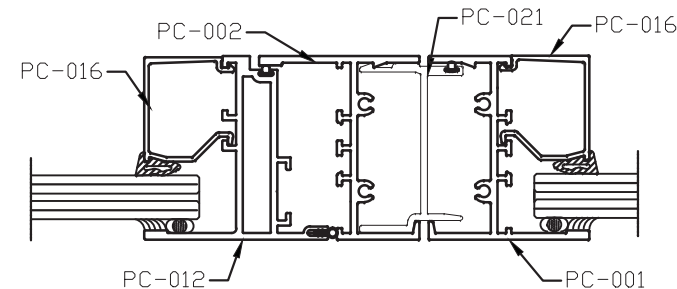
**7 MULLION 7
CASEMENT-CASEMENT**



**8 MULLION 8
CASEMENT - CASEMENT**



**8 MULLION 8
FIXED-CASEMENT**



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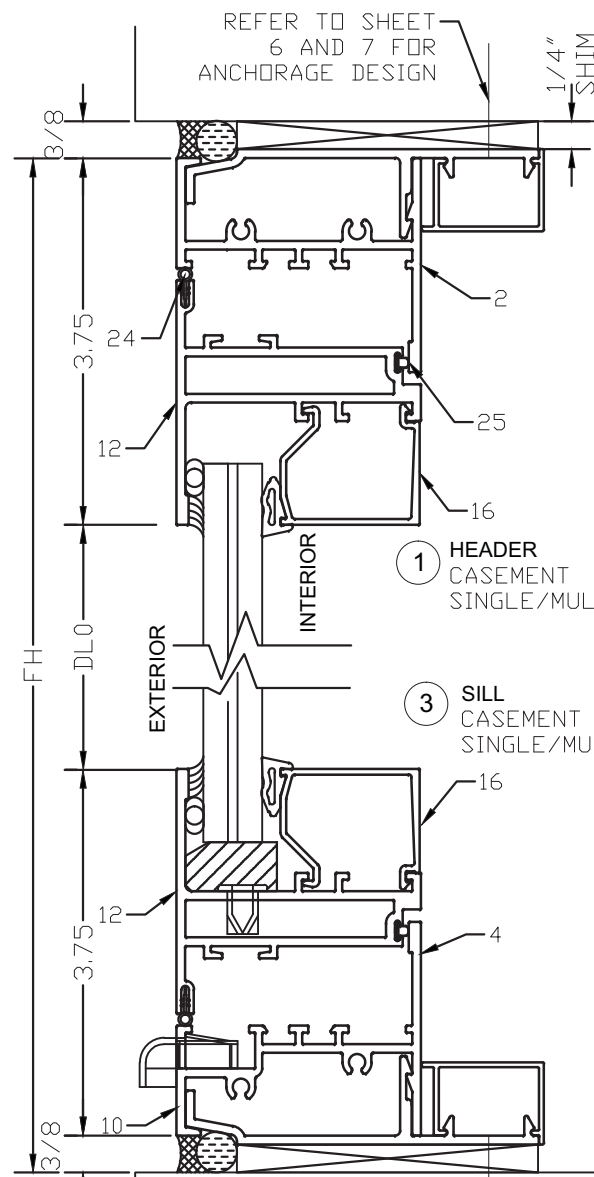
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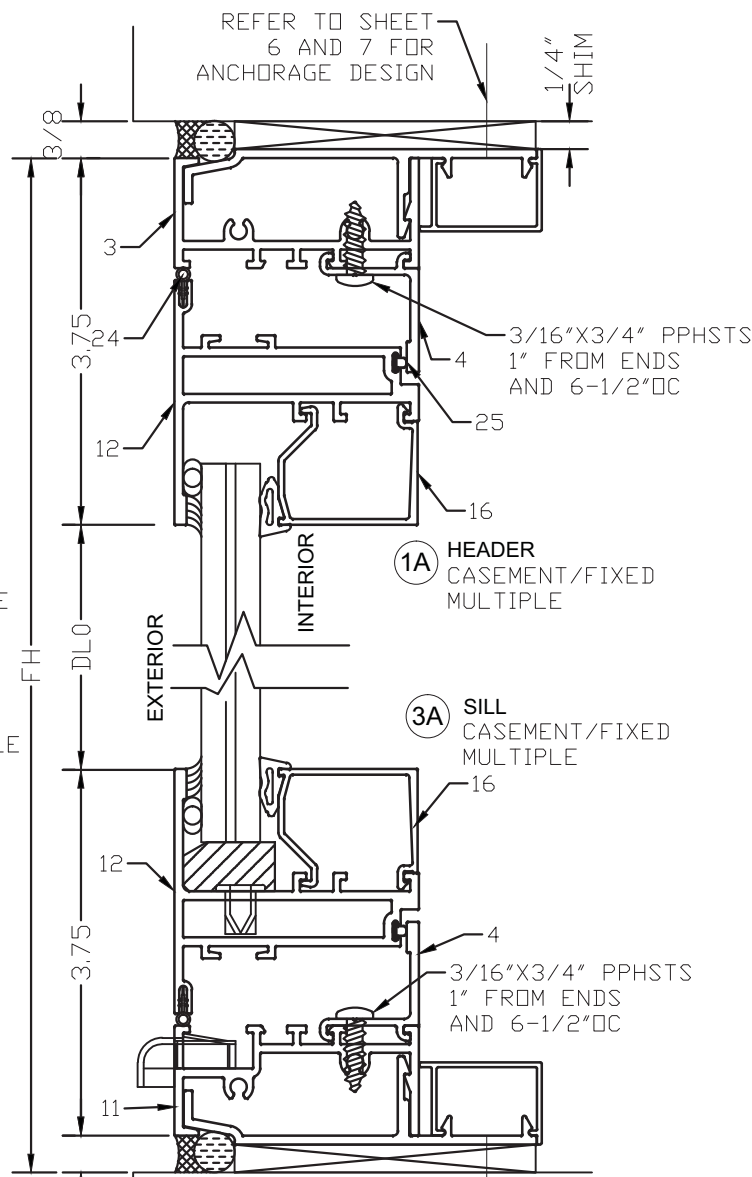
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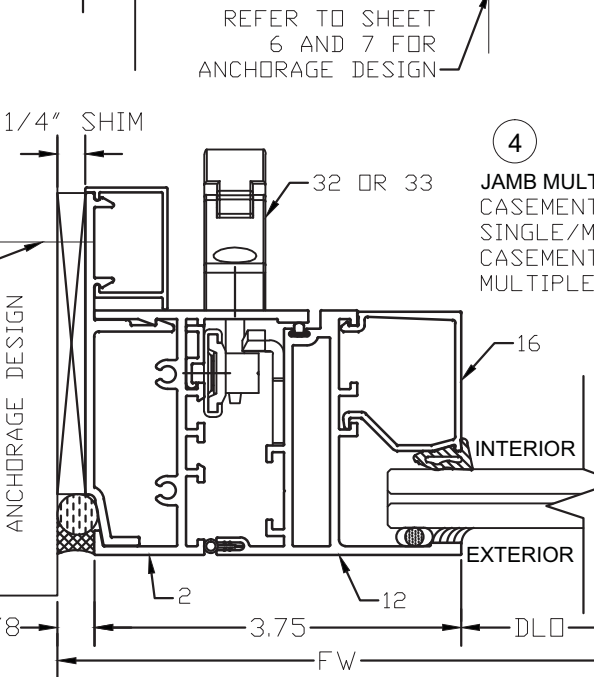
TYPICAL DETAILS



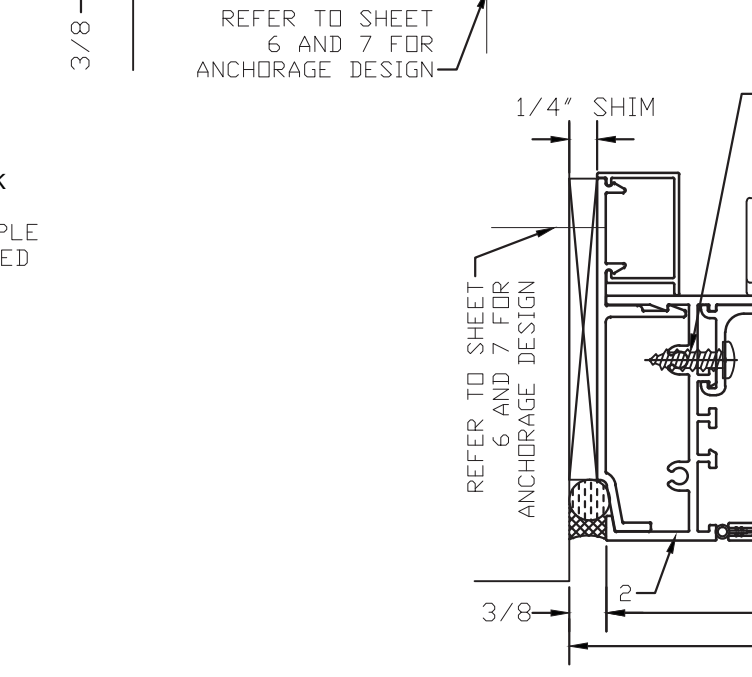
1 HEADER CASEMENT SINGLE/MULTIPLE



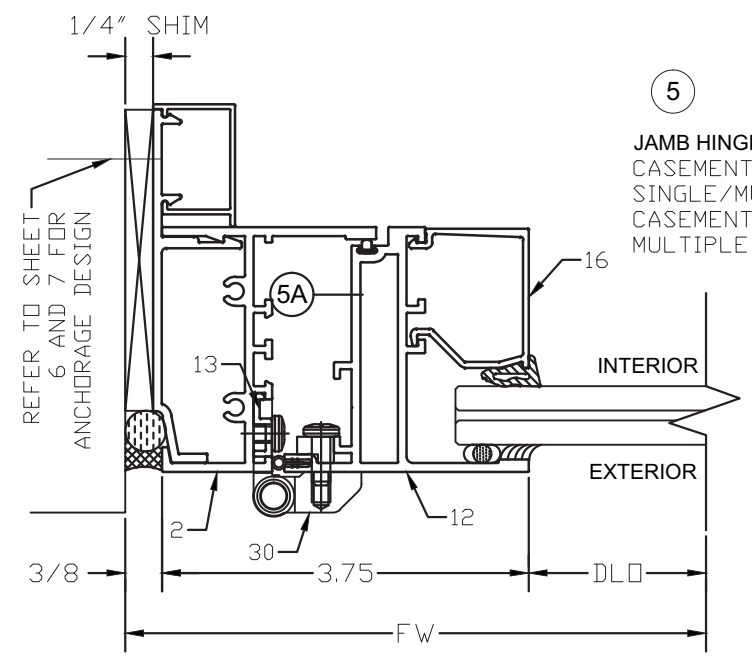
1A HEADER CASEMENT/FIXED MULTIPLE



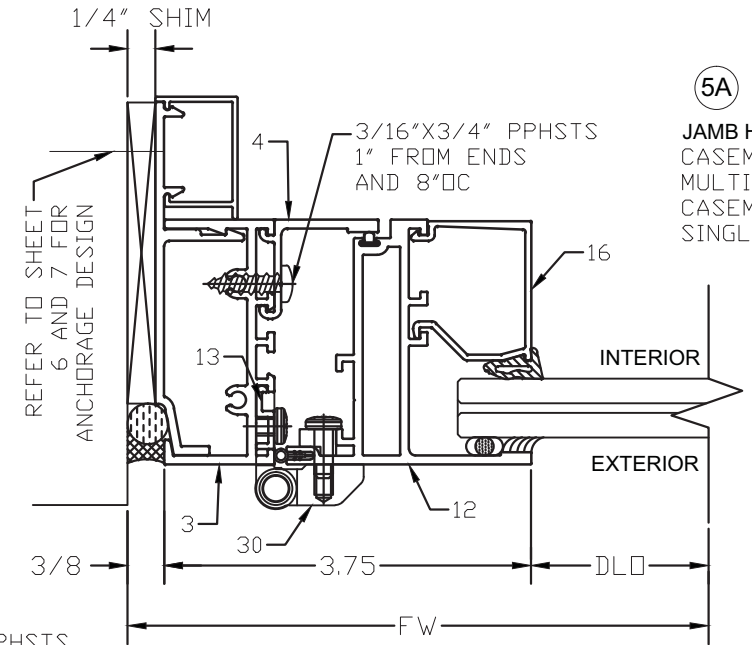
3 SILL CASEMENT SINGLE/MULTIPLE



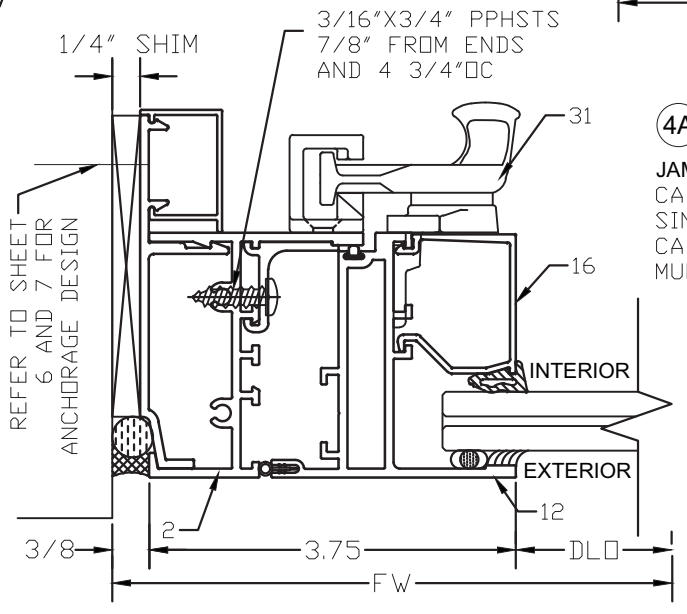
3A SILL CASEMENT/FIXED MULTIPLE



5 JAMB HINGE CASEMENT SINGLE/MULTIPLE CASEMENT/FIXED MULTIPLE



5A JAMB HINGE CASEMENT/FIXED MULTIPLE CASEMENT SINGLE/MULTIPLE



4A JAMB CAM LOCK CASEMENT SINGLE/MULTIPLE CASEMENT/FIXED MULTIPLE

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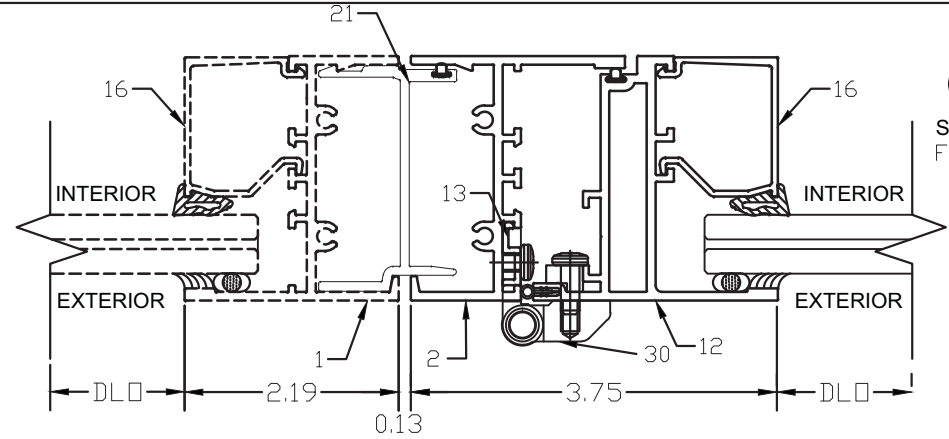
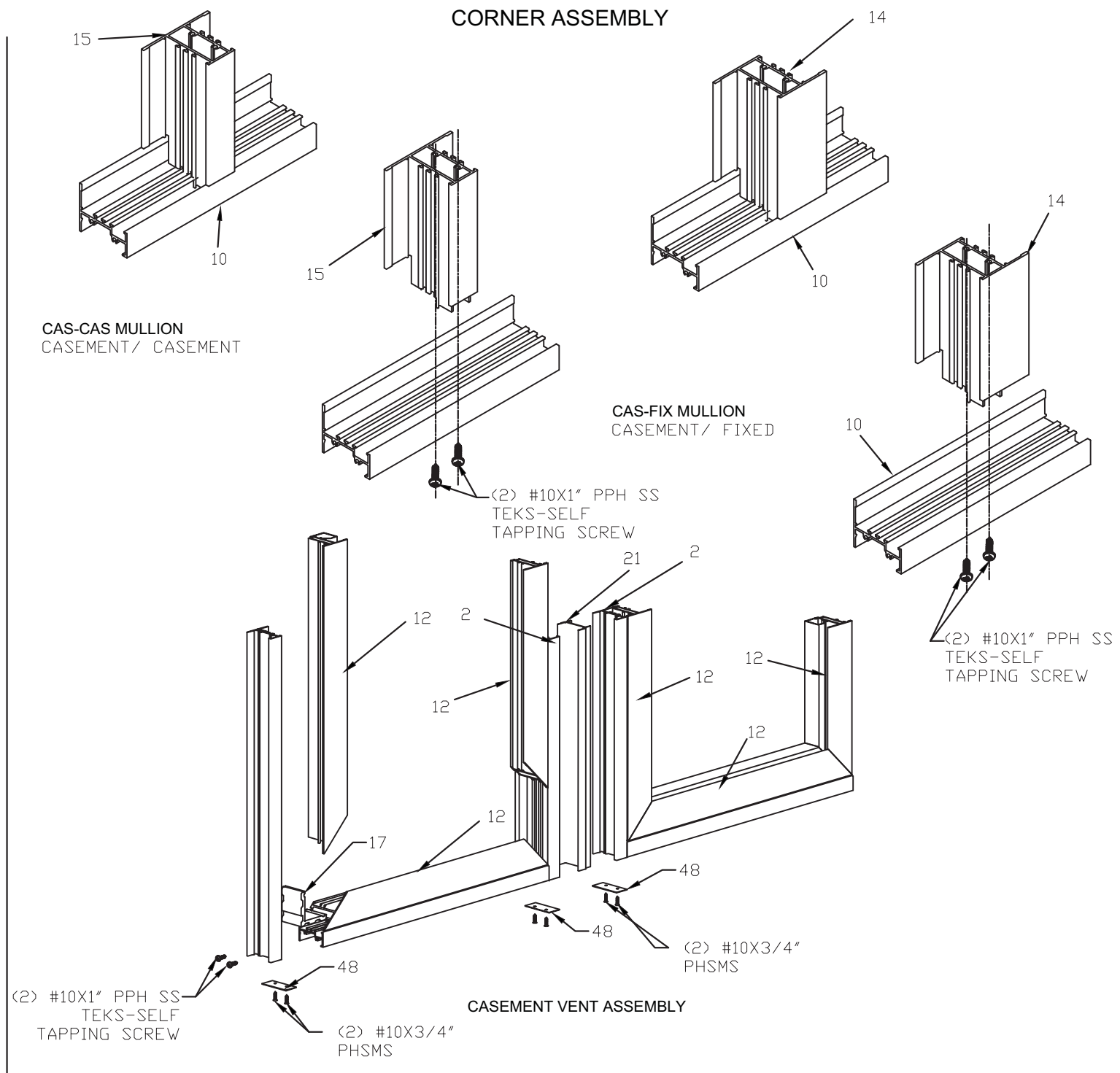
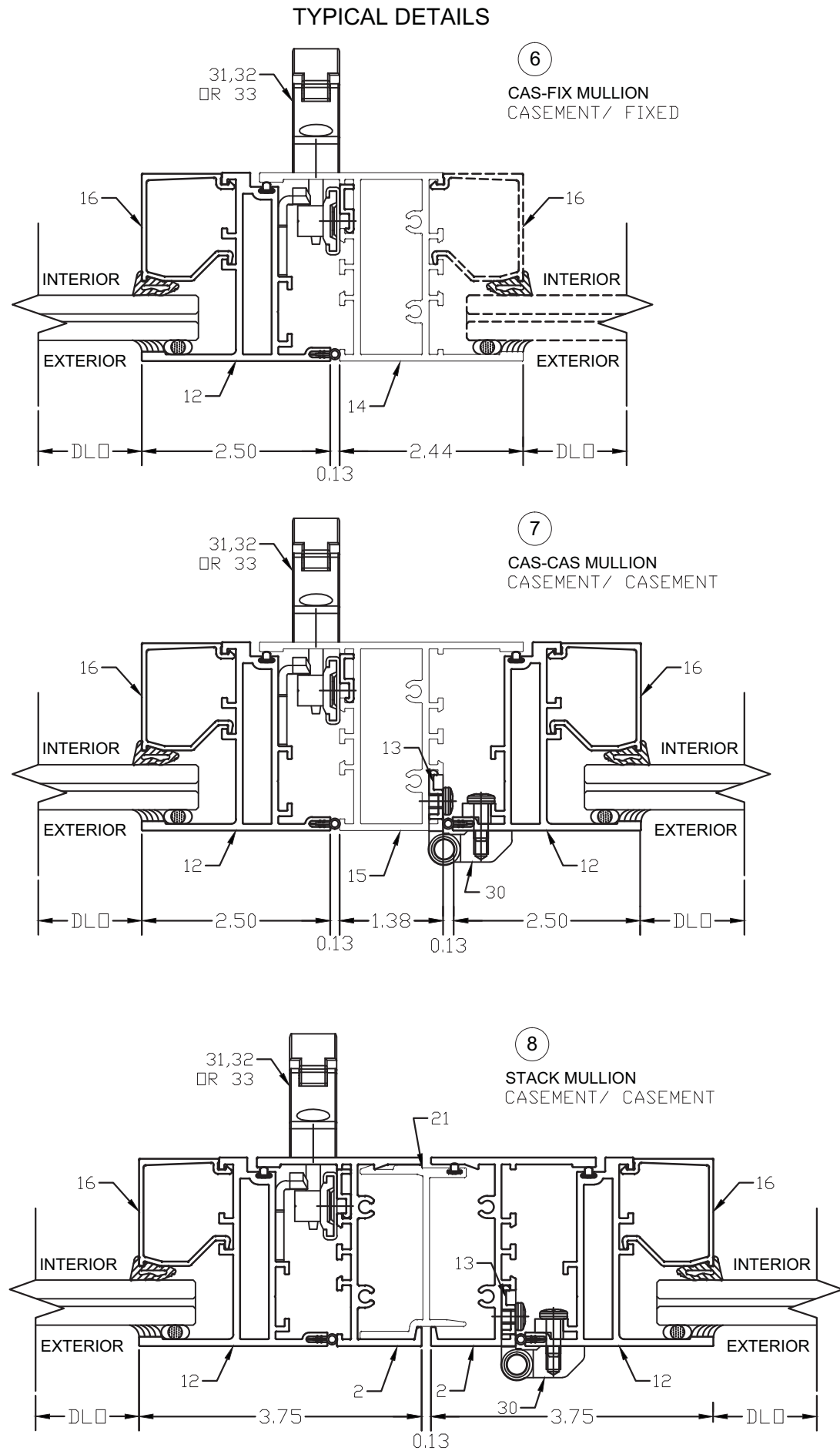
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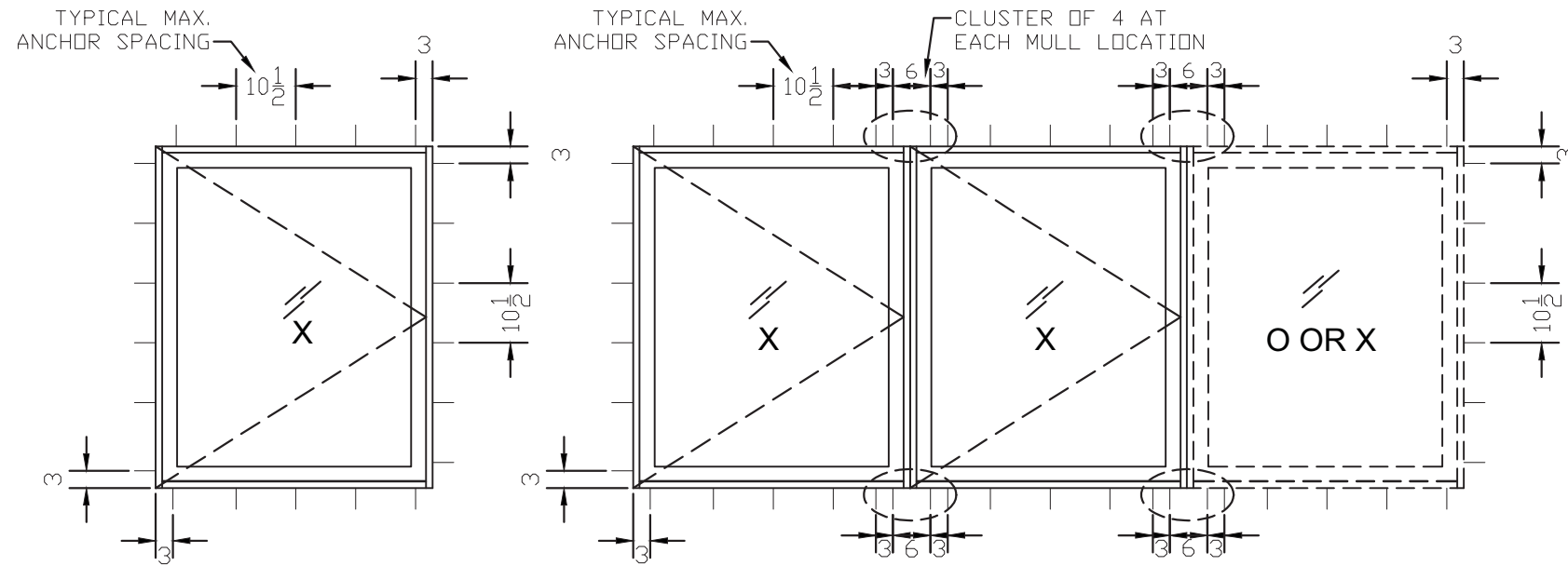
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ANCHORAGE LAY-OUT WITH STRAP

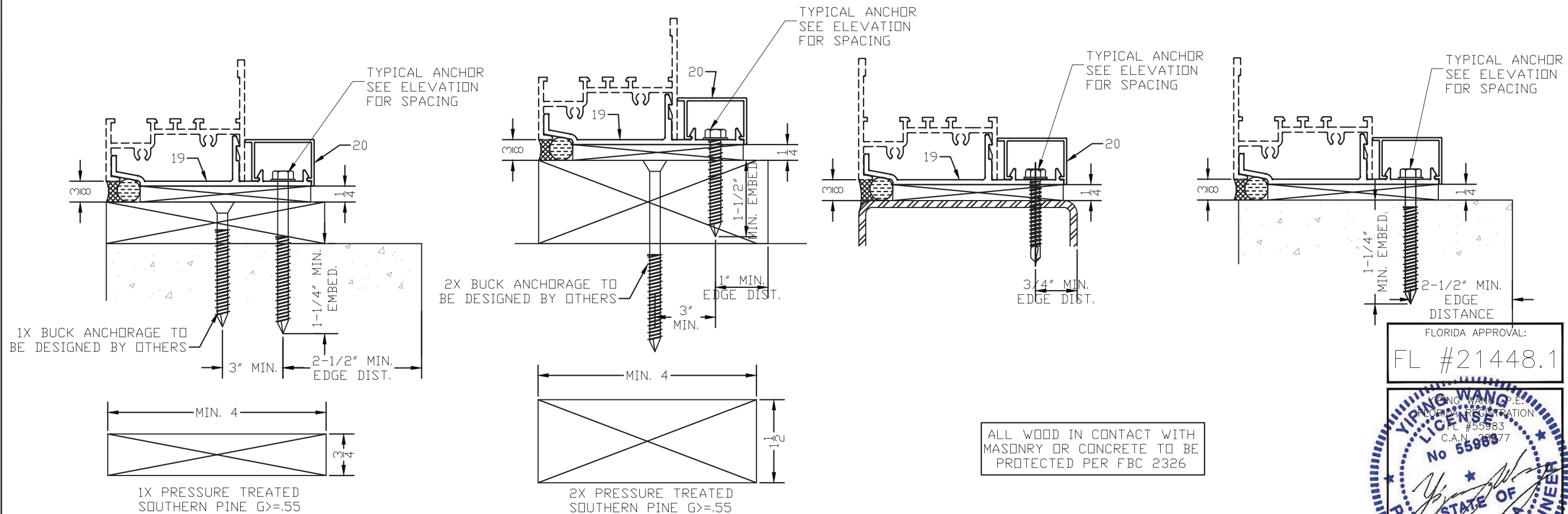
TYPICAL ANCHORS: (SEE ELEVATION FOR SPACING)

TYPE "A": 1/4" TAPCON BY 'ITW' (Fu=120 KSI, Fy=92 KSI)
 1/4" ULTRACON BY 'ELCO' (Fu=177 KSI, Fy=155 KSI)
 1-1/2" MIN. EMBED INTO WOOD STRUCTURES (SG>=0.55 MIN.)
 OR THRU WOOD BUCK WITH 1-1/4" EMBED INTO
 MASONRY/CONCRETE

1/4" TAPCON BY 'ITW' (Fu=120 KSI, Fy=92 KSI)
 1/4" ULTRACON BY 'ELCO' (Fu=177 KSI, Fy=155 KSI)
 1-1/4" EMBED INTO MASONRY/CONCRETE

TYPE "B": 1/4" DIA. TEKS/SELF-DRILLING SCREW, GRADE 5
 (Fu=100 KSI, Fy=65 KSI)
 INTO METAL STRUCTURES
 STEEL: 1/8" THK. MIN. (Fy=36 KSI)
 ALUMINUM: 1/8" THK. MIN. (6063-T5 MIN.)

MIN. EDGE DISTANCE:
 INTO CONCRETE = 2-1/2" MIN.
 INTO WOOD = 1" MIN.
 INTO METAL = 3/4" MIN.



ALL WOOD IN CONTACT WITH
 MASONRY OR CONCRETE TO BE
 PROTECTED PER FBC 2326

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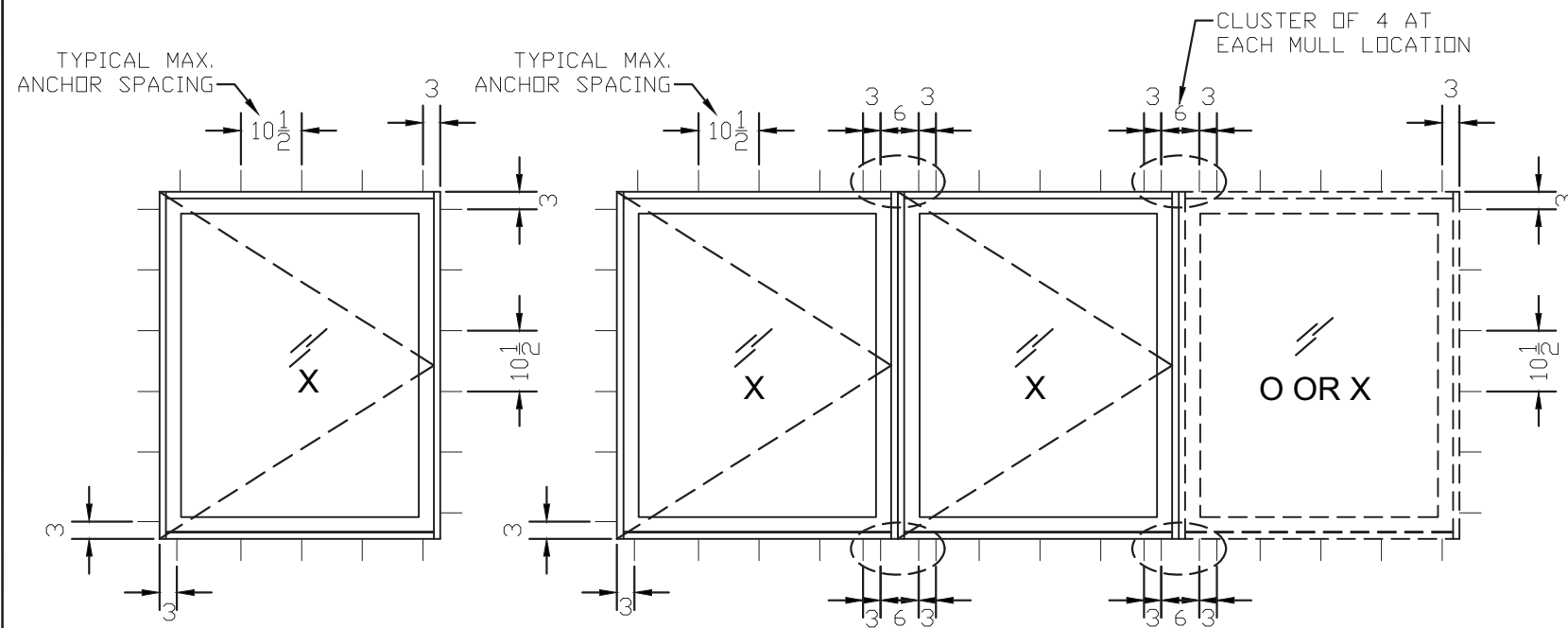
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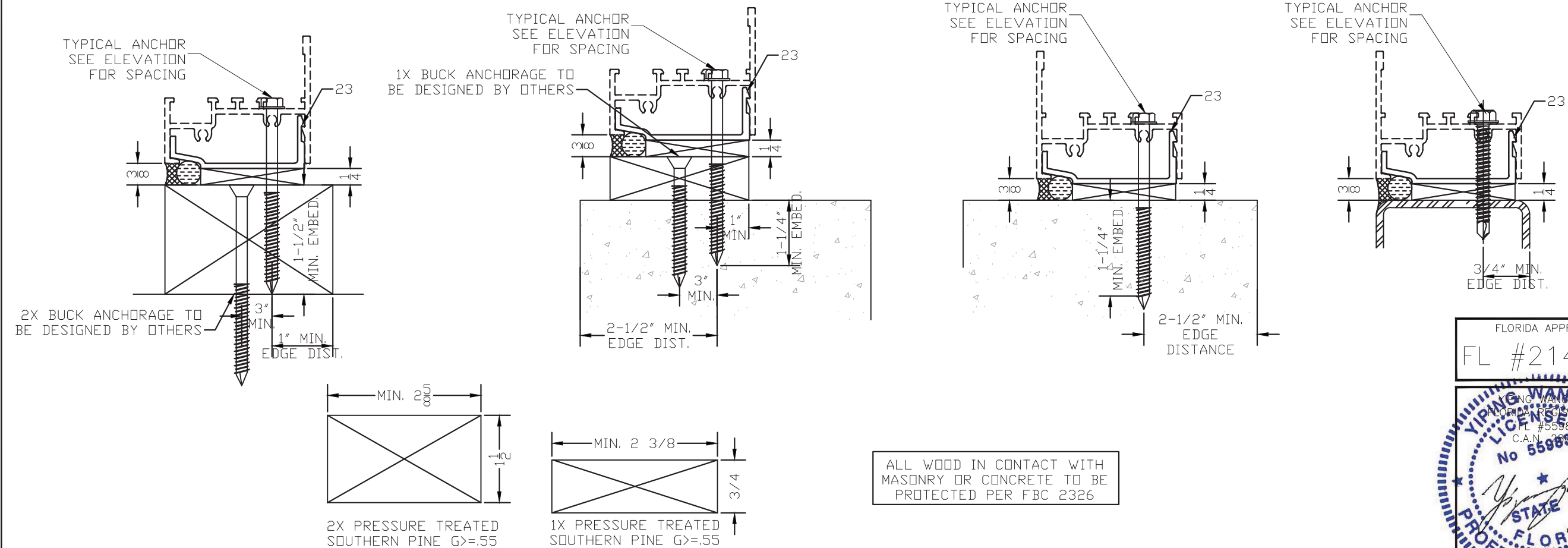
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ANCHORAGE LAY-OUT WITH SHEAR CLIP

FOR ANCHOR TYPES, SEE SHEET 6



ALL WOOD IN CONTACT WITH MASONRY OR CONCRETE TO BE PROTECTED PER FBC 2326

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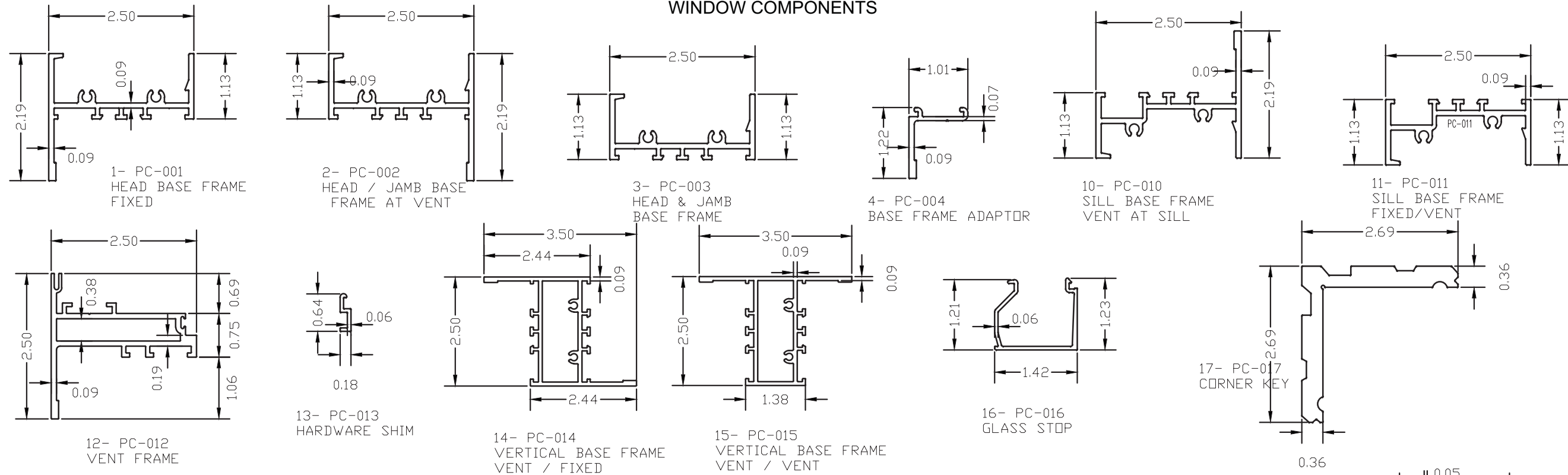
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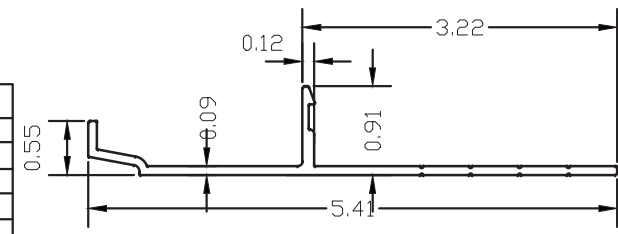
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WINDOW COMPONENTS

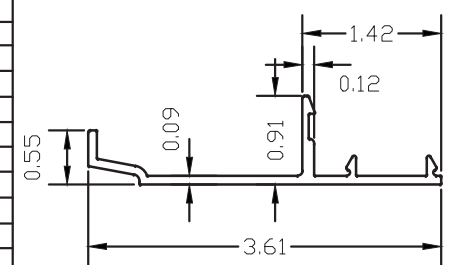


COMPONENTS LIST

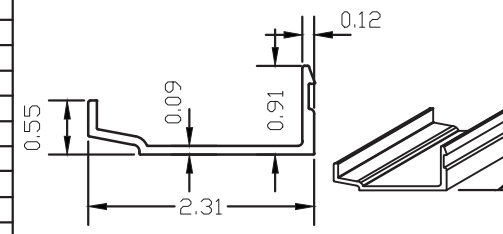
ITEM	PART#	DESCRIPTION	MATERIAL	SUPPLIER
1	PC-001	HEAD BASE FRAME (FIXED)	ALUMINUM 6063-T6	NR ARCHITECTURAL PRODUCTS
2	PC-002	HEAD /JAMB BASE FRAME (OPERABLE)	ALUMINUM 6063-T6	NR ARCHITECTURAL PRODUCTS
3	PC-003	HEAD AND JAMB BASE FRAME	ALUMINUM 6063-T6	NR ARCHITECTURAL PRODUCTS
4	PC-004	BASE FRAME ADAPTOR	ALUMINUM 6063-T6	NR ARCHITECTURAL PRODUCTS
10	PC-010	SILL BASE FRAME (OPERABLE)	ALUMINUM 6063-T6	NR ARCHITECTURAL PRODUCTS
11	PC-011	SILL BASE FRAME (FIXED/OPERABLE)	ALUMINUM 6063-T6	NR ARCHITECTURAL PRODUCTS
12	PC-012	CASEMENT WINDOW FRAME	ALUMINUM 6063-T6	NR ARCHITECTURAL PRODUCTS
13	PC-013	HARDWARE SHIM	ALUMINUM 6063-T6	NR ARCHITECTURAL PRODUCTS
14	PC-014	VERTICAL BASE FRAME (OPERABLE)	ALUMINUM 6063-T6	NR ARCHITECTURAL PRODUCTS
15	PC-015	VERTICAL BASE FRAME (FIXED)	ALUMINUM 6063-T6	NR ARCHITECTURAL PRODUCTS
16	PC-016	GLASS STOP	ALUMINUM 6063-T6	NR ARCHITECTURAL PRODUCTS
17	PC-017	CASEMENT CORNER KEY	ALUMINUM 6063-T6	NR ARCHITECTURAL PRODUCTS
18	PC-018	ALTERNATE STRAP ANCHOR	ALUMINUM 6063-T6	NR ARCHITECTURAL PRODUCTS
19	PC-019	STRAP ANCHOR	ALUMINUM 6063-T6	NR ARCHITECTURAL PRODUCTS
20	PC-020	STRAP ANCHOR COVER	ALUMINUM 6063-T6	NR ARCHITECTURAL PRODUCTS
21	PC-021	CONCEALED MULLION	ALUMINUM 6063-T6	NR ARCHITECTURAL PRODUCTS
22	PC-022	REINFORCEMENT CLIP	ALUMINUM 6063-T6	NR ARCHITECTURAL PRODUCTS
23	PC-023	CONCEALED STRAP ANCHOR	ALUMINUM 6063-T6	NR ARCHITECTURAL PRODUCTS
30	NR-A25	BUTT HINGE 1192 3-1/4"	NA	ADVANTAGE MANUFACTURING CORP.
31	NR-A22	CAMLOCK ASSEMBLY	BRONZE	BRONZECRAFT
32	NR-A26	MULTI-POINT LOCK	STEEL	ADVANTAGE MANUFACTURING CORP.
33	NR-A27	MULTI-POINT LOCK	STEEL	ROTO FRANK OF AMERICA
34	--	9/16" LAMINATED IMPACT GLASS	GLASS	KURARAY AMERICA, INC.
35	NR-A23	WEEP SLOT COVER	PLASTIC	NR ARCHITECTURAL PRODUCTS
36	NR-A24	VK2526 1/4" PVC SPACER	PVC	CAPITAL TAPE
37	--	GLAZING SEALANT DOW 983 II PART	SILICONE	DOW CORNING
38	--	GLAZING SEALANT DOW 995	SILICONE	DOW CORNING
39	NR-G20	PS 1126E POLY-WEDGE GASKET	70 DURO EPDM	TREMCO
40	NR-G21	EXT. WEATHERSEAL AP 150	EXTRUDED TAPE	SCHLEGEL
41	NR-G22	INT. WEATHERSEAL TLOK 150	POLYETHELENE	SCHLEGEL
42	NR-G23	VL 1026-107 WEEP VALVE	SILICONE	VERNAY
43	NR-G25	GLASS SETTING BLOCK TR-1365E	70 DURO EPDM	TREMCO
44	--	PERIMETER SEALANT DOW 795	SILICONE	DOW CORNING
45	--	FRAME JOINT SEALANT	SILICONE	CRL BUILDING PRODUCTS
46	NR-F12	BASE FRAME FIXING SCREWS	STAINLESS STEEL	#10X1 PPH TSEK SCREW
47	NR-F13	ADAPTOR FIXING SCREW	STAINLESS STEEL	#12 X 3/4" PP TEK SREW
48	NR-EP1	1/16"-2-1/2"X5/16" END PLATE	6063-T6 ALUMINUM	NR ARCHITECTURAL PRODUCTS



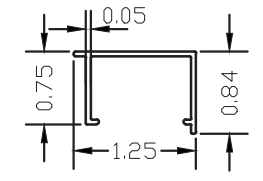
18- PC-018 - 3" LONG ALTERNATE STRAP ANCHOR



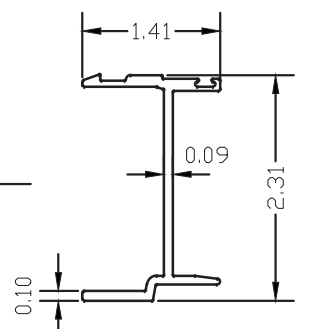
19- PC-019 - 3" LONG STRAP WITH COVER



23- PC-023 CONCEALED ANCHOR SHIM PLATE 3" LONG



20- PC-020 STRAP COVER



21- PC-021 CONCEALED MULLION

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SERIES NRAP 2500-CO CASEMENT WINDOWS (L.M.I.)

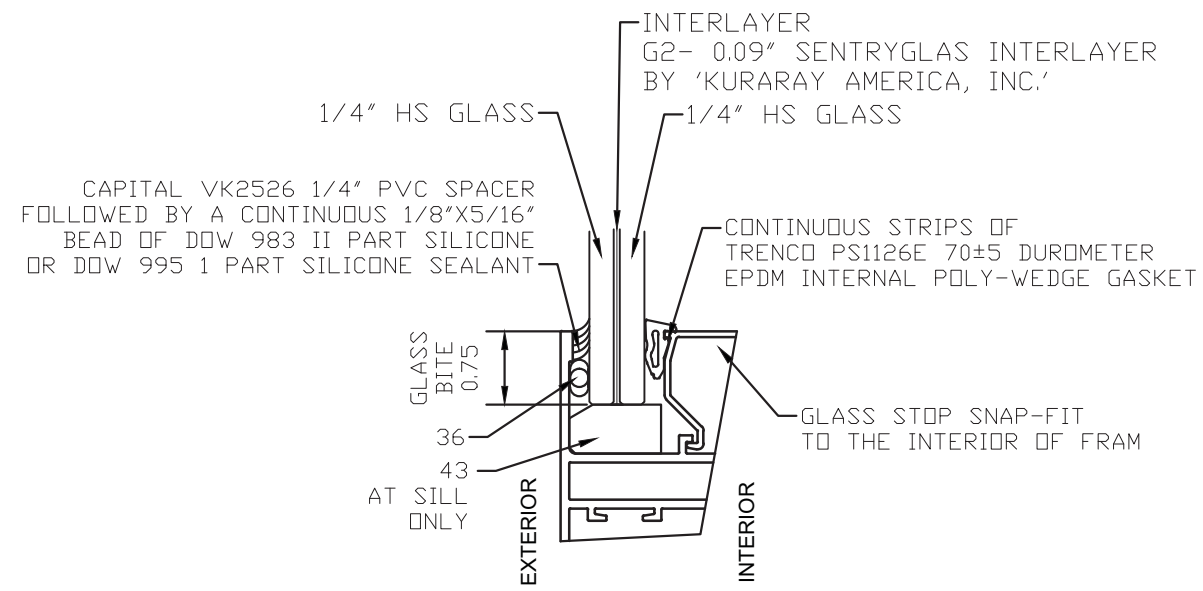
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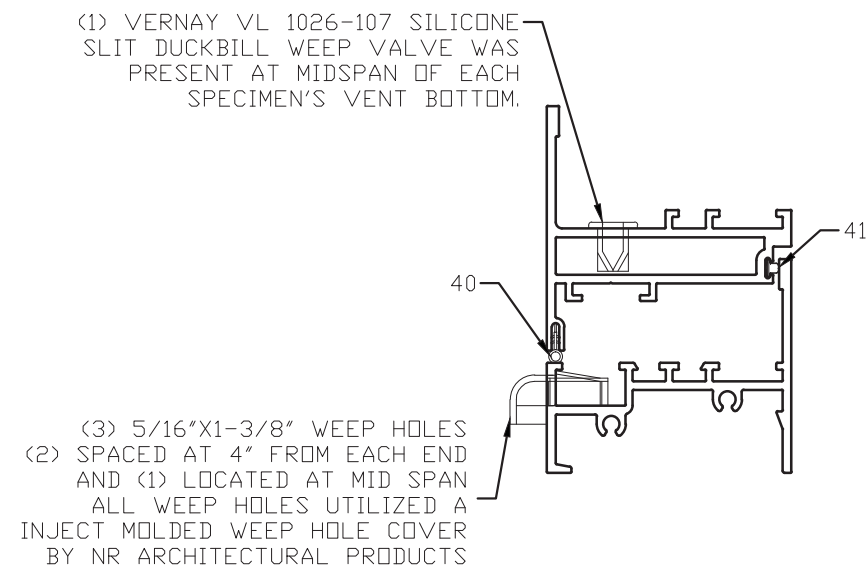
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GLAZING DETAIL



WEEP HOLES, WATER DIVERTERS, COVERS AND WEATHER STRIPPING



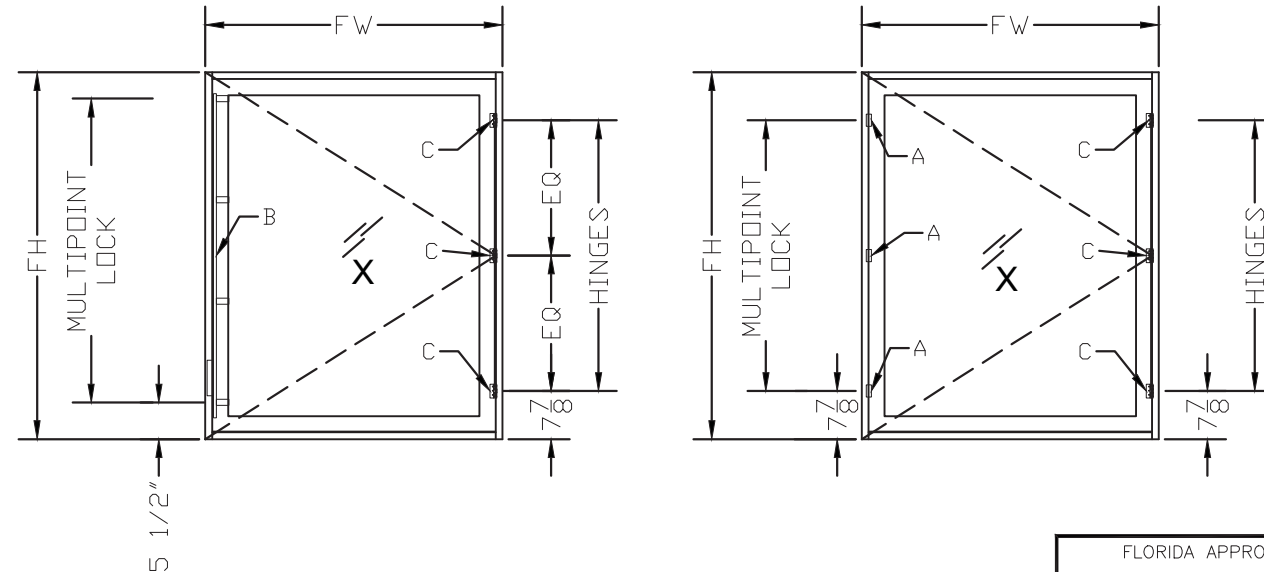
HARDWARE SCHEDULE:

A- BRONZECRAFT CAMLOCK ASSEMBLY CONSISTING OF THE HANDLE AND KEEPER. TWO LOCKS LOCATED 7-5/8" FROM THE TOP AND BOTTOM OF THE WINDOW TO CENTERLINE OF THE LOCKS AND THE OTHERS EQUALLY SPACED. THE HANDLE WAS ATTACHED WITH (2) 3/16"X3/4" PPHMS TO THE OPERABLE VENT JAMB WHILE THE KEEPER WAS FASTENED TO THE FRAME BASE WITH (4) 1/4-20X5/16" FHSTSS SCREWS

B- ADVANTAGE OR ROTO MULTI-POINT LOCK WITH TOP AND BOTTOM LOCK POINTS LOCATED AT 6" FROM THE WINDOW ENDS AND THE OTHER POINTS EQUALLY DISTRIBUTED. THE LOCK HANDLE WAS ATTACHED TO THE JAMB USING (2) #12X3/4" PHSMS. THE INTERNAL LOCK ROD IS ATTACHED AT TWO POINTS USING #10X1/2" FHSMS.

B- ALTERNATE- ROTO FRANK AMERICA, INC. MULTI-POINT LOCK WITH FIRST LOCATED AT 5-1/2" FROM THE BOTTOM OF THE BASE FRAME AND THE BALANCE EVENLY SPACED. THE LOCK HANDLE WAS ATTACHED TO THE JAMB USING (2) #8X1/2" PHSMS. THE INTERNAL LOCK BAR IS ATTACHED ON THE INSIDE FACE OF THE JAMB AT 6 LOCATIONS, FIRST AT 7-5/16" FROM THE BOTTOM AND THE BALANCE EVENLY SPACED FASTENED WITH (3) #8X3/4" FHSMS.

C- ADVANTAGE 1192 3-1/4" BUTT HINGE WITH TWO LOCATED 7-7/8" FROM THE TOP AND BOTTOM OF THE WINDOW AND THE OTHERS EQUALLY SPACED. THE HINGES WERE ATTACHED USING (3) #10X3/4" PPHSS SCREWS AT THE JAMB BASE FRAME AND (3) 8/32"X1/2" PPHSS PER OPERABLE VENT.



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GENERAL NOTES: FLORIDA BUILDING CODE

1- CODE: THIS PRODUCT HAS BEEN TESTED AND DESIGNED IN ACCORDANCE WITH THE 5TH EDITION FLORIDA BUILDING CODE (2014) INCLUDING THE HIGH VELOCITY HURRICANE ZONE (HVHZ).

2- DEFINITION: THIS PRODUCT IS A CASEMENT OUT TYPE WINDOW DESIGNED, CONSTRUCTED AND TESTED TO PROVIDE PROTECTION FROM HURRICANE FORCE WINDS AND WIND BORNE DEBRIS (SMALL MISSILE) WITHIN THE ALLOWABLE DESIGNED PRESSURES AND LIMITATIONS STATED IN THIS APPROVAL. INSTALLATION BELOW 30 FEET ELEVATION IT WILL REQUIRE APPROVED HURRICANE PROTECTION DEVICES.

3- DESIGN LOADS: THE DESIGNED LOADS MUST BE CALCULATED BY A PROFESSIONAL ARCHITECT OR ENGINEER FOR EACH SPECIFIC PROJECT. THE CALCULATED DESIGNED PRESSURE MUST NOT EXCEED THE ALLOWABLE WINDOW PRESSURE.

4- MATERIAL: GLAZING TO BE IMPACT LAMINATED GLASS AS SPECIFIED ON THIS APPROVAL.

5- FASTENERS: ASSEMBLY SCREWS AND ANCHORS SHALL BE AS SPECIFIED IN THE CURRENT SET OF DRAWINGS. INSTALLATION AND LOADS AS PER THIS APPROVAL. ANCHOR QUANTITY & SPACING MUST NOT EXCEED THE MAXIMUM LIMITS SPECIFIED BY THIS APPROVAL.

6- USE: IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR, ARCHITECT OR ENGINEER OF RECORD TO VERIFY THE FOLLOWING:

6.1- THE STABILITY OF THE STRUCTURE WHERE THE PRODUCT IS TO BE ATTACHED INSURING PROPER ANCHORAGE.

6.2- THE SITE SPECIFIC PROJECT CRITERIA, SUCH AS BUT NOT LIMITED TO, LOCAL CODE REQUIREMENTS, DESIGNED PRESSURES ETC.

6.3- THAT THIS APPROVAL IS ADEQUATE TO THE SPECIFIC PROJECT.

7- 33 1/3% INCREASE IN ALLOWABLE LOADS HAVE NOT BEEN USED IN THE DESIGN OF THE ANCHORS FOR THIS PRODUCT APPROVAL, HOWEVER, WOOD SCREWS WITH 1.6 INCREASE FOR WIND LOAD DURATION HAVE BEEN USED.

8- DISSIMILAR MATERIALS: MATERIALS, INCLUDING BUT NOT LIMITED TO STEEL, THAT COME IN CONTACT WITH OTHER DISSIMILAR MATERIALS SHALL MEET THE REQUIREMENTS OF THE 5TH EDITION FLORIDA BUILDING CODE (2014).

9- ULTIMATE DESIGN LOAD OBTAINED FROM ASCE-7-10, MULTIPLY BY 0.6, SHALL BE LESS THAN OR EQUAL TO MAX. DESIGN LOAD IN THIS DOCUMENT. THE DESIGN LOADS SHOWN IN THE DOCUMENT ARE ALLOWABLE DESIGN LOADS.

**FOR ALLOWABLE SIZES AND PRESSURES REFER TO:
SHEETS 2 AND 3**

**PRODUCT NOT TO BE INSTALLED BELOW 30 FEET ELEVATION
WITHOUT HURRICANE PROTECTION DEVICES**

TYPICAL ELEVATIONS

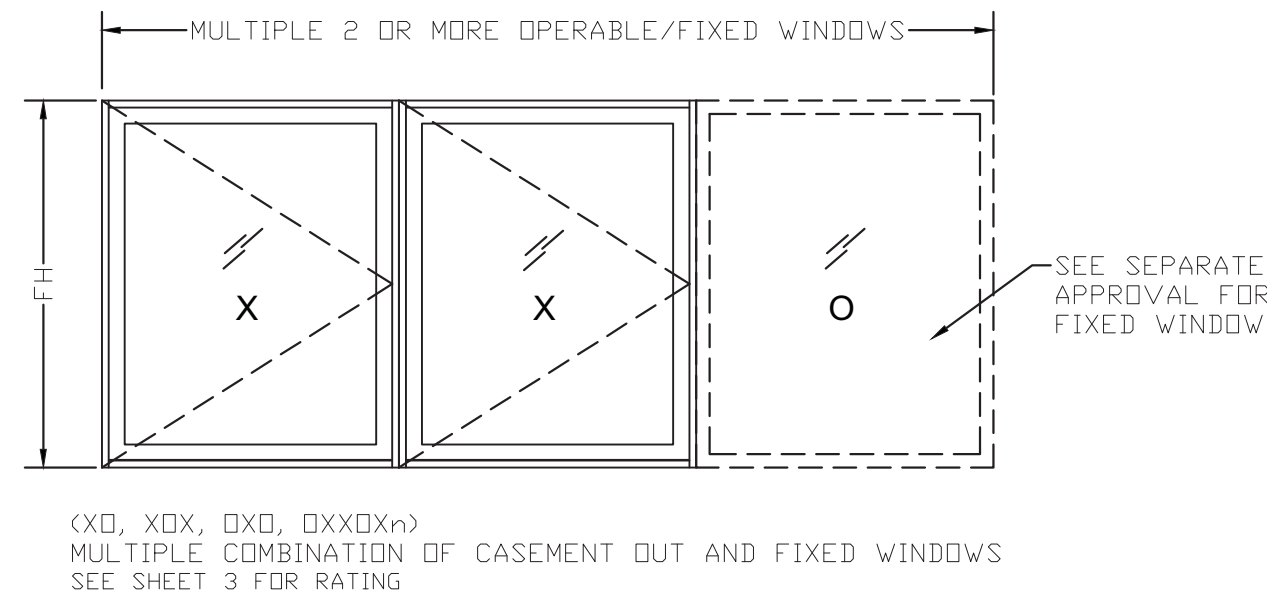
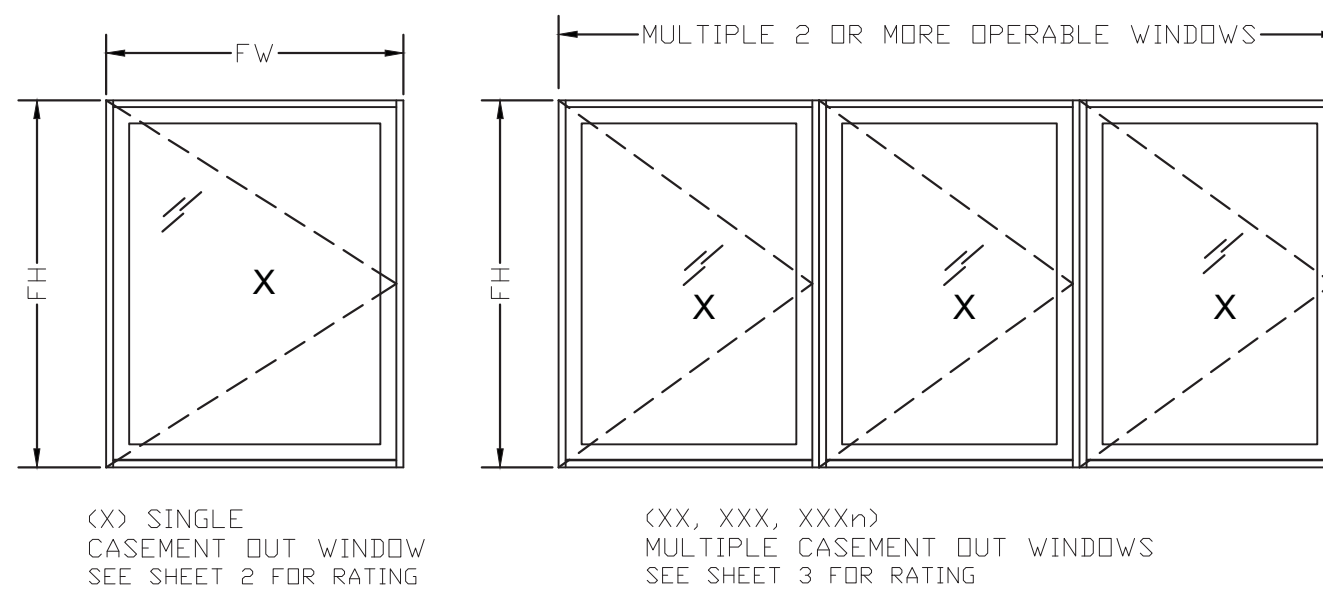


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LIMITATIONS OF USE

A- THIS PRODUCT EVALUATION DOCUMENT (P.E.D.) PREPARED BY THIS ENGINEER IS GENERIC AND DOES NOT PROVIDE INFORMATION FOR A SITE SPECIFIC PROJECT. I.e. WHERE THE SITE CONDITIONS DEVIATE FROM THE P.E.D.

B- 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.

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

D- 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.

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

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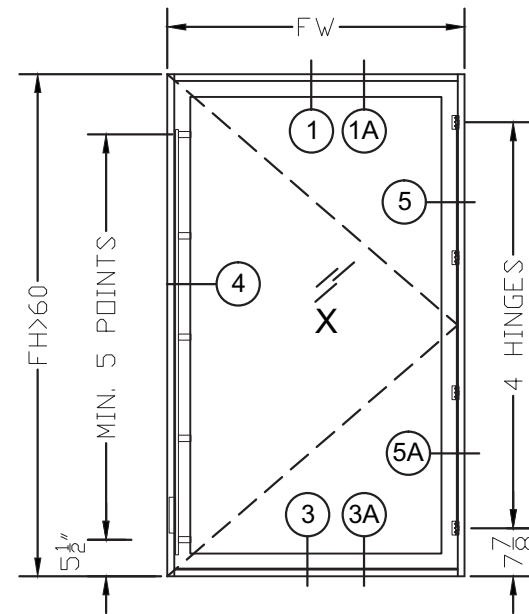
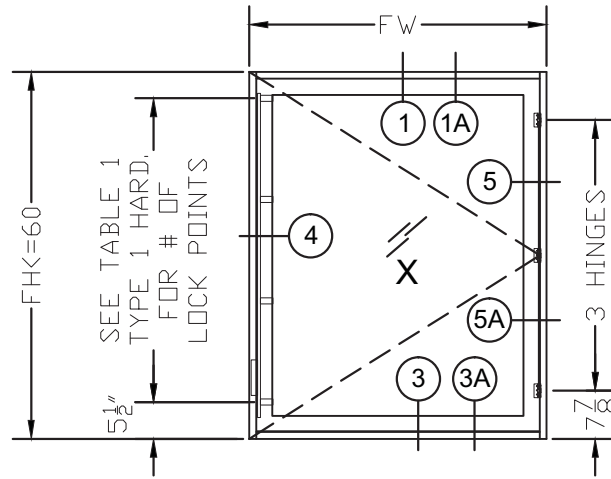
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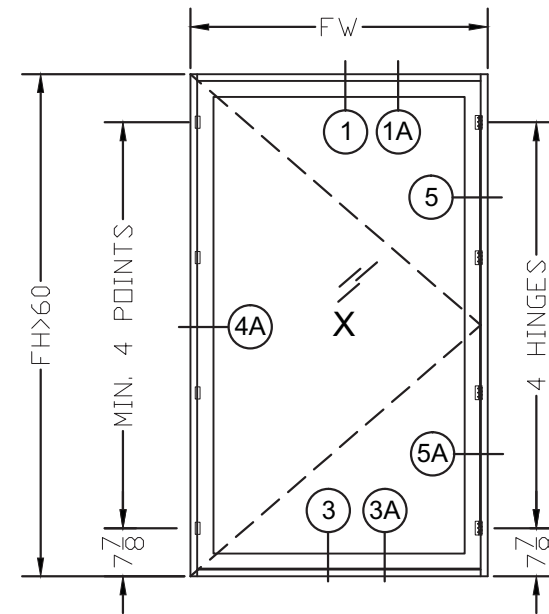
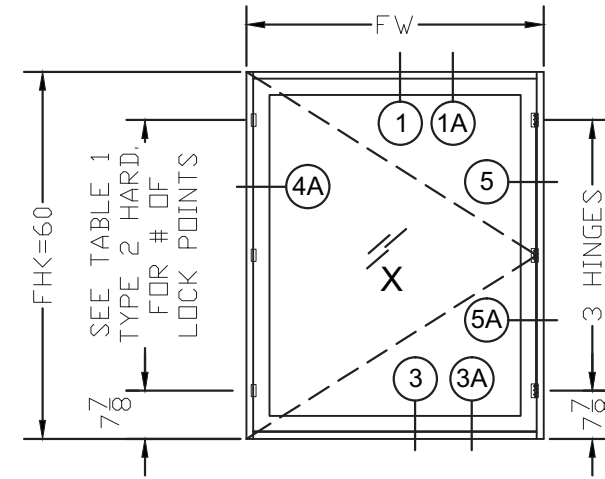
**TABLE 1
DESIGNED RATING FOR
SINGLE CASEMENT OUT UNITS (PSF)**

MAX. FW	FRAME FH	HARDWARE TYPE 1			HARDWARE TYPE 2		
		PRESSURES (+)	INT (-)	LOCK POINTS	PRESSURES (+)	INT (-)	LOCK POINTS
32	38	120	120	3	120	120	3
	42	120	120	3	120	120	3
	48	120	120	4	120	120	3
	54	117	117	4	120	120	3
	60	101	101	4	120	120	3
	66	89	89	5	118	118	4
	72	79	79	5	105	105	4
38.75	38	120	120	3	120	120	3
	42	120	120	3	120	120	3
	48	120	120	4	120	120	3
	54	106	106	4	120	120	3
	60	90	90	4	120	120	3
	66	78	78	5	86	86	4
	72	69	69	5	78	78	4
44	38	105	105	3	105	105	3
	42	101	101	3	101	101	3
	48	101	101	4	101	101	3
	54	92	92	4	92	92	3
	60	83	83	4	83	83	3
	66	73	73	5	75	75	4
	72	69	69	5	78	78	4
48.625	38	80	80	3	80	80	3
	42	77	77	3	77	77	3
	48	75	75	4	75	75	3
	54	75	75	4	75	75	3
	60	75	75	4	75	75	3
54	38	50	50	3	50	50	3
	42	47	47	3	47	47	3
	48	45	45	4	45	45	3
	54	44	44	4	44	44	3

FW- FRAME WIDTH IN INCHES
FH- FRAME HEIGHT IN INCHES
PRESSURES IN PSF
SEE ELEVATIONS ON THE RIGHT SIDE FOR HARDWARE TYPE
DLO= FH-7.5" OR FW-7.5"



(X) SINGLE CASEMENT OUT WINDOW WITH HARDWARE TYPE 1
MULTIPOINT LOCK (ADVANTAGE OR ROTO)
3-1/4" BUTT HINGE ADVANTAGE 1192



(X) SINGLE CASEMENT OUT WINDOW WITH HARDWARE TYPE 2
BRONZECRAFT CAMLOCK
3-1/4" BUTT HINGE ADVANTAGE 1192

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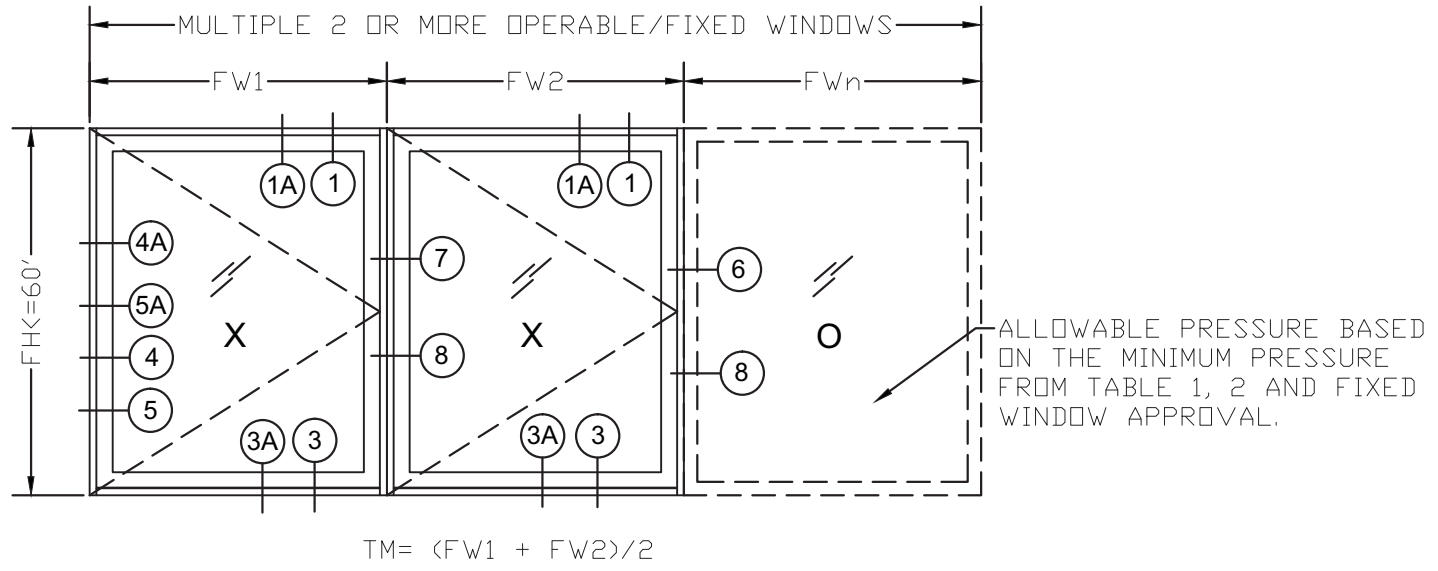
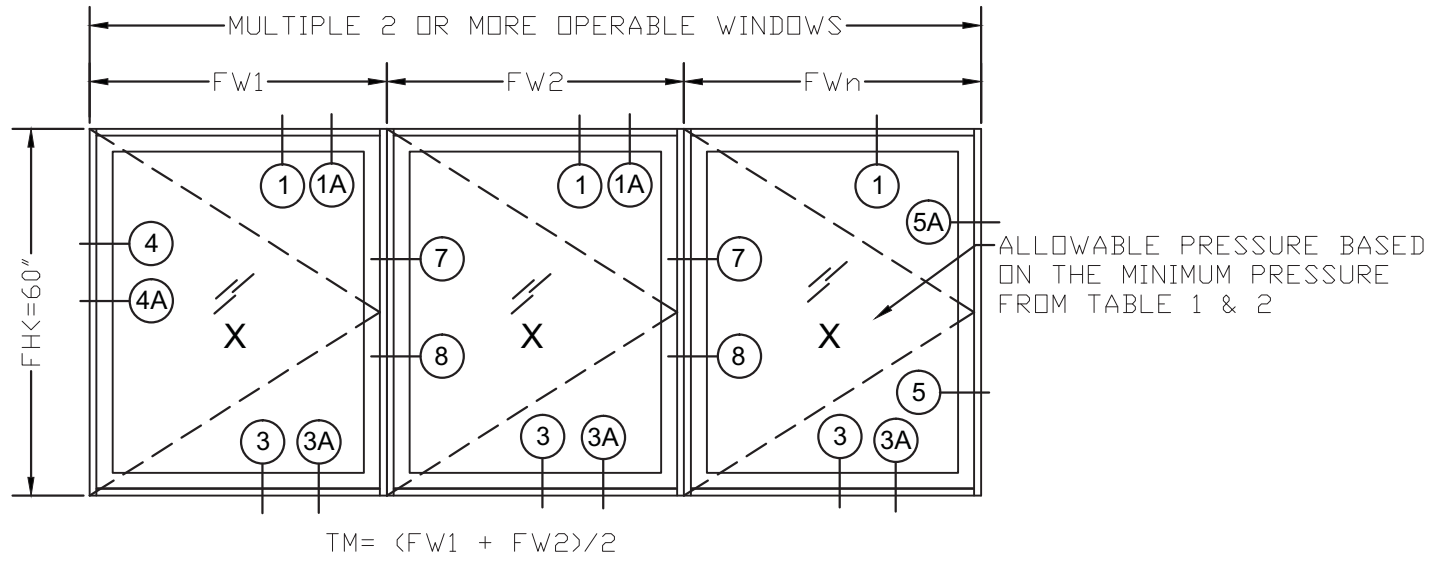
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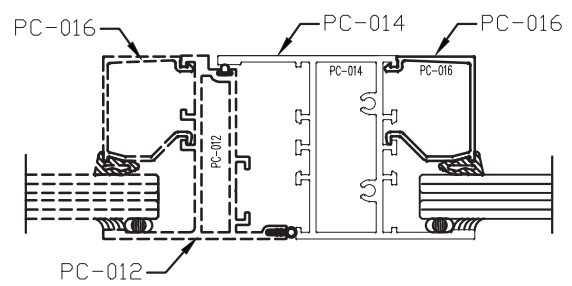
**TABLE 2
DESIGNED RATING FOR MULLIONS ON
MULTIPLE CASEMENT OR/AND FIXED UNITS (PSF)**

TM	FH	MULL TYPE 6		MULL TYPE 7		MULL TYPE 8	
		EXT (+)	INT (-)	EXT (+)	INT (-)	EXT (+)	INT (-)
32	38	120.0	120.0	120.0	120.0	120.0	120.0
	42	120.0	120.0	120.0	120.0	120.0	120.0
	48	120.0	120.0	120.0	120.0	115.0	115.0
	54	120.0	120.0	116.5	116.5	97.0	97.0
	60	120.0	120.0	100.6	100.6	83.9	83.9
38.75	38	120.0	120.0	120.0	120.0	120.0	120.0
	42	120.0	120.0	120.0	120.0	120.0	120.0
	48	120.0	120.0	120.0	120.0	106.0	106.0
	54	120.0	120.0	105.6	105.6	88.0	88.0
	60	120.0	120.0	90.0	90.0	75.0	75.0
44	38	120.0	120.0	120.0	120.0	120.0	120.0
	42	120.0	120.0	120.0	120.0	120.0	120.0
	48	120.0	120.0	120.0	120.0	103.0	103.0
	54	120.0	120.0	100.6	100.6	83.9	83.9
	60	111.2	111.2	83.4	83.4	75.0	75.0
48.625	38	120.0	120.0	120.0	120.0	120.0	120.0
	42	120.0	120.0	120.0	120.0	120.0	120.0
	48	120.0	120.0	120.0	120.0	102.0	102.0
	54	120.0	120.0	98.1	98.1	81.8	81.8
	60	105.4	105.4	79.1	79.1	75.0	75.0
54	38	120.0	120.0	120.0	120.0	120.0	120.0
	42	120.0	120.0	120.0	120.0	120.0	120.0
	48	120.0	120.0	120.0	120.0	102.0	102.0
	54	120.0	120.0	97.2	97.2	81.0	81.0

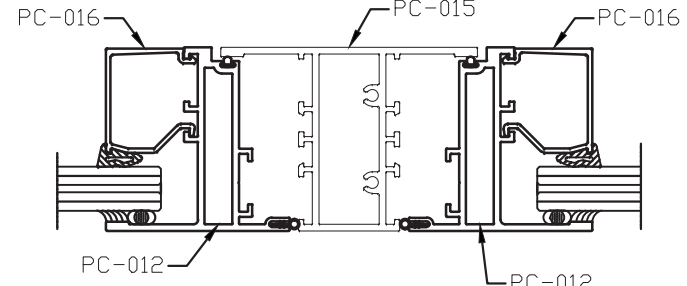
TW- MAXIMUM TRIBUTARY MODULE WIDTH IN INCHES
FH- MAXIMUM FINISHED HEIGHT IN INCHES
PRESSURES IN PSF
DLO= FH-7.5" OR FW-7.5"



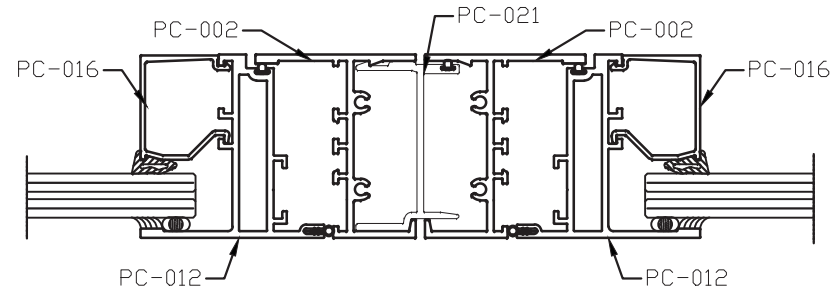
**6 MULLION 6
FIXED-CASEMENT**



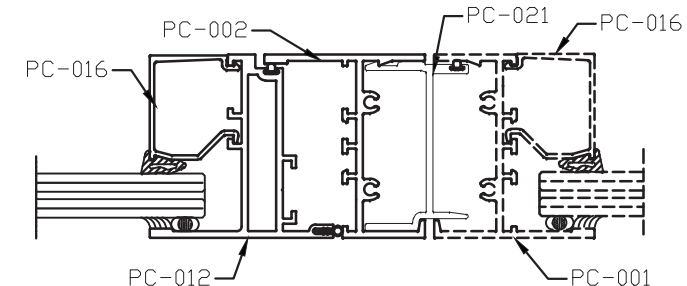
**7 MULLION 7
CASEMENT-CASEMENT**



**8 MULLION 8
CASEMENT - CASEMENT**



**8 MULLION 8
FIXED-CASEMENT**



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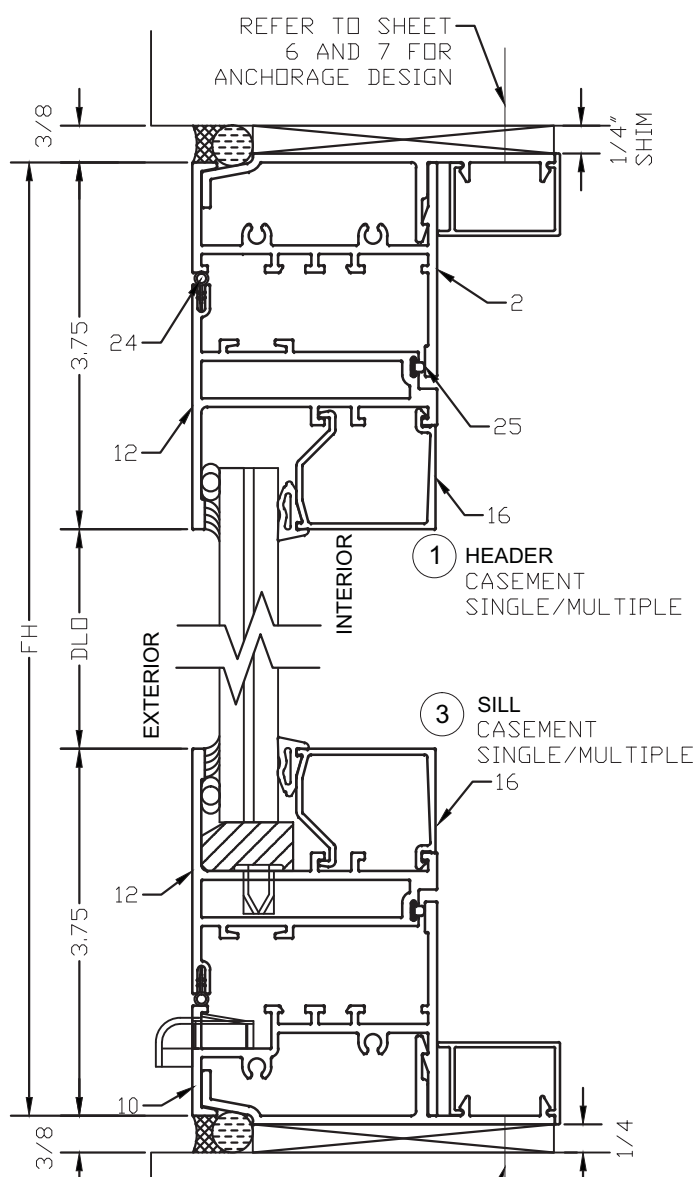
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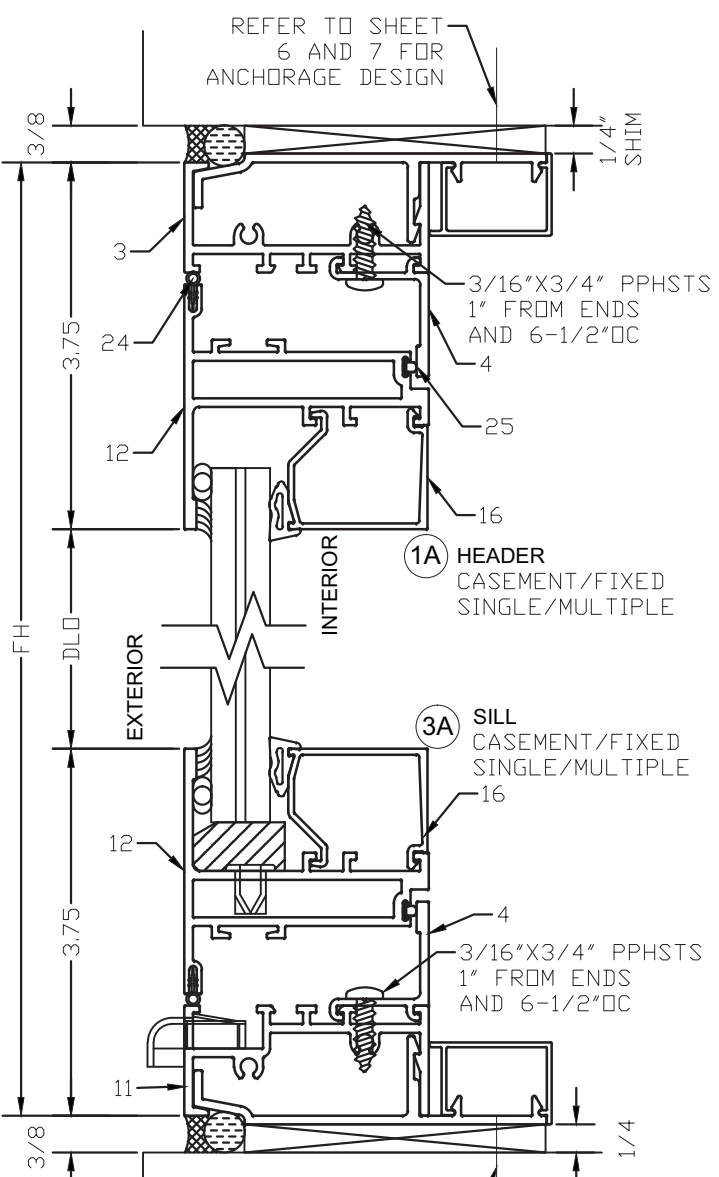
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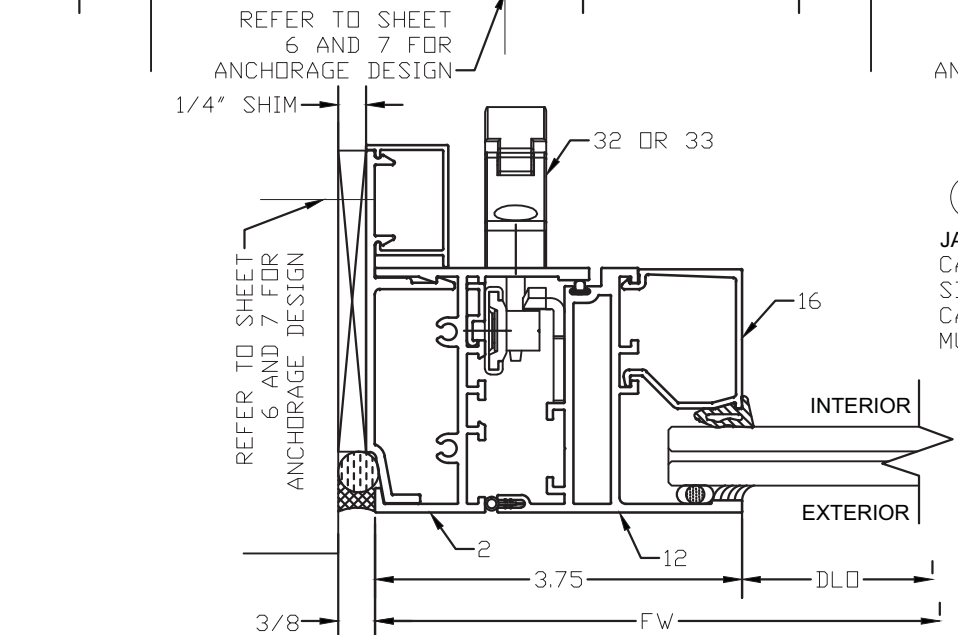
TYPICAL DETAILS



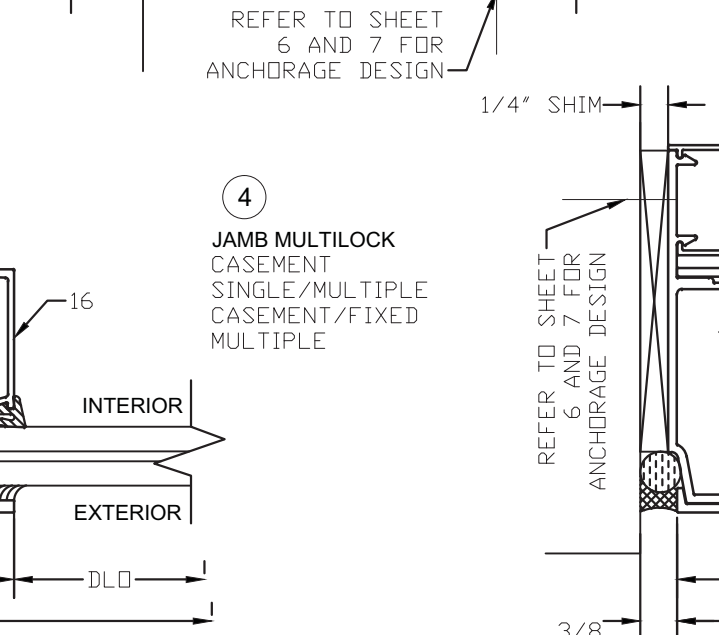
1 HEADER CASEMENT SINGLE/MULTIPLE



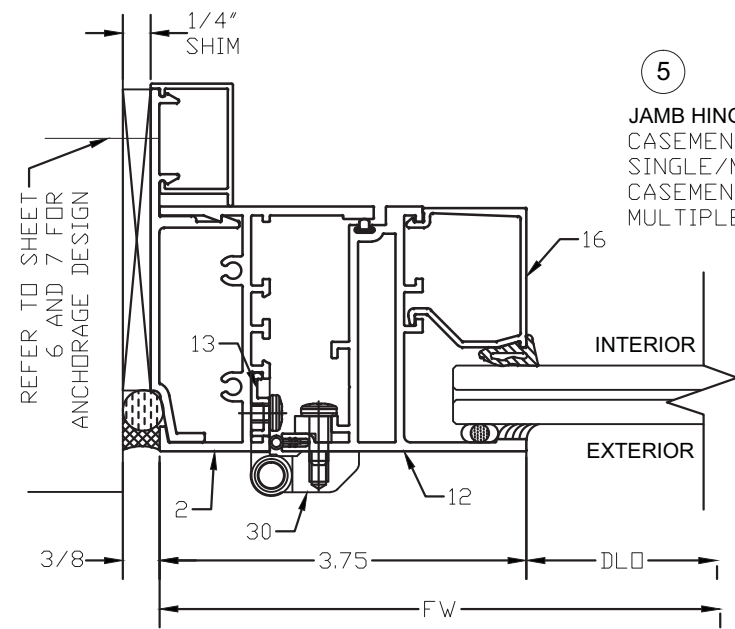
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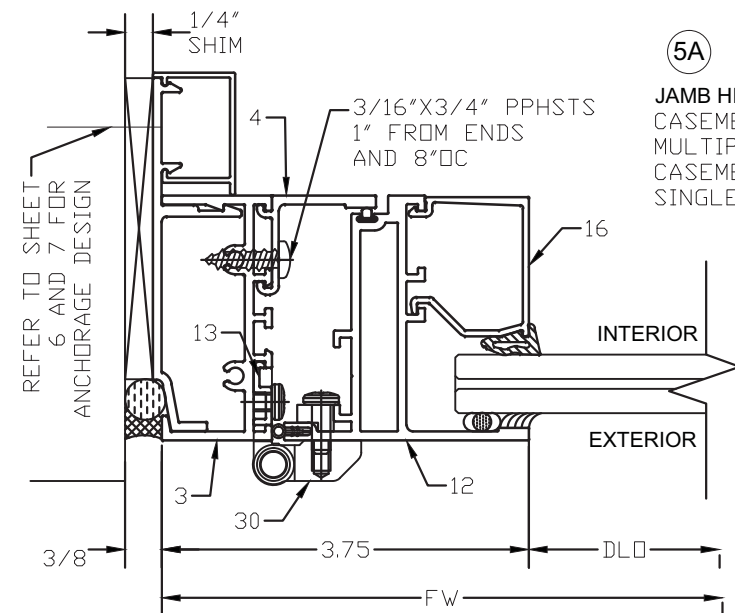
3 SILL CASEMENT SINGLE/MULTIPLE



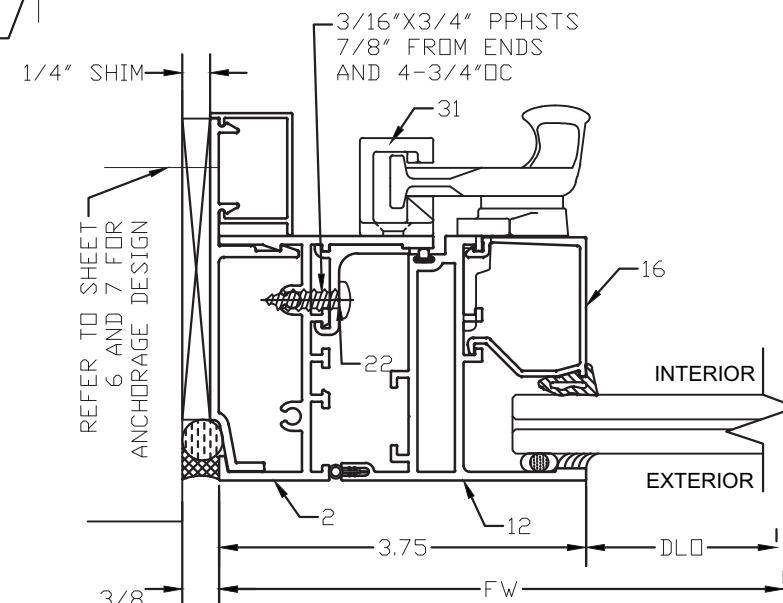
3A SILL CASEMENT/FIXED SINGLE/MULTIPLE



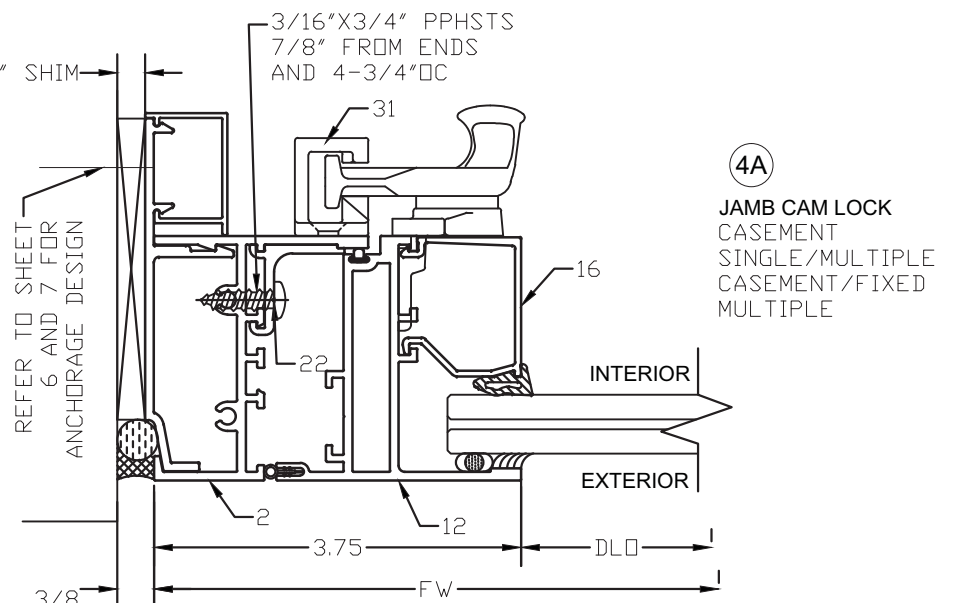
5 JAMB HINGE CASEMENT SINGLE/MULTIPLE CASEMENT/FIXED MULTIPLE



5A JAMB HINGE CASEMENT/FIXED MULTIPLE CASEMENT SINGLE/MULTIPLE



4 JAMB MULTILOCK CASEMENT SINGLE/MULTIPLE CASEMENT/FIXED MULTIPLE



4A JAMB CAM LOCK CASEMENT SINGLE/MULTIPLE CASEMENT/FIXED MULTIPLE

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SERIES NRAP 2500-CO CASEMENT OUT WINDOW (S.M.I.)

NR ARCHITECTURAL PRODUCTS
4348 WESTROADS DRIVE
WEST PALM BEACH, FL 33407
P: (561) 844 - 1121 F: (561) 844 - 6131

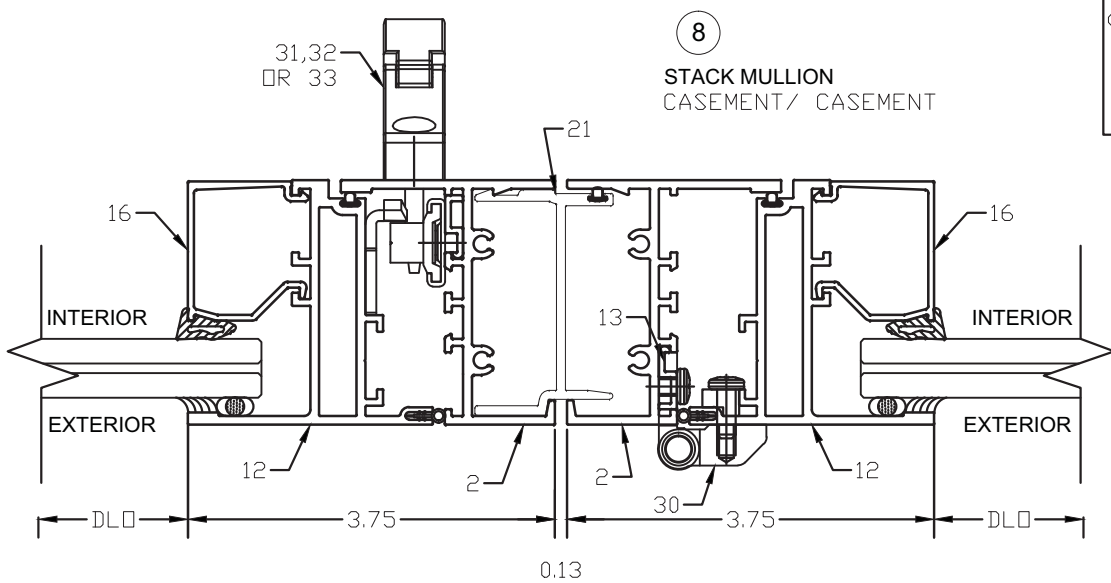
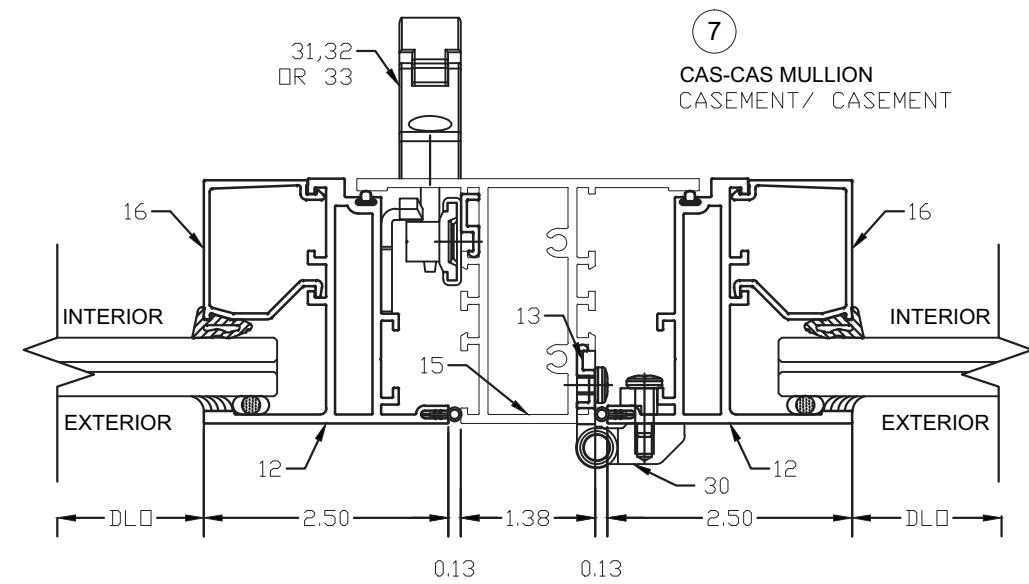
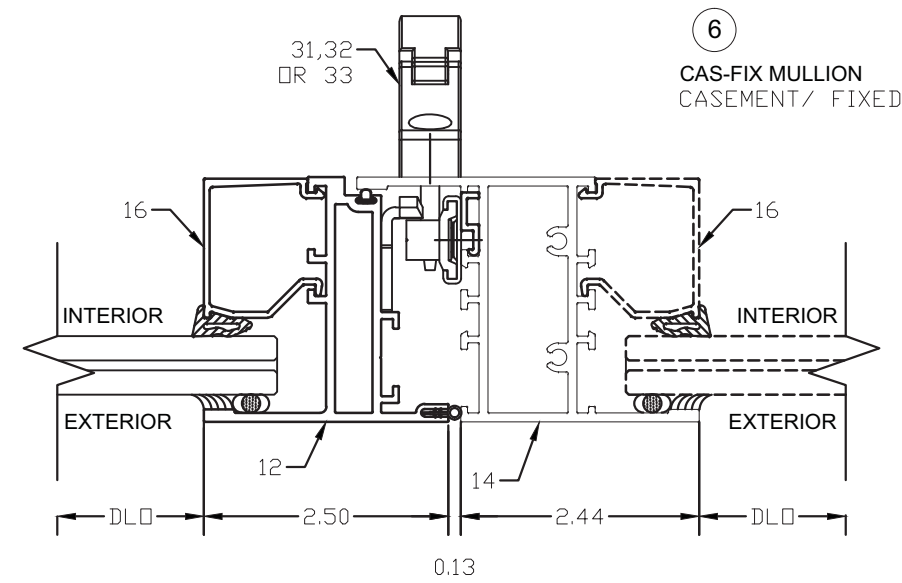
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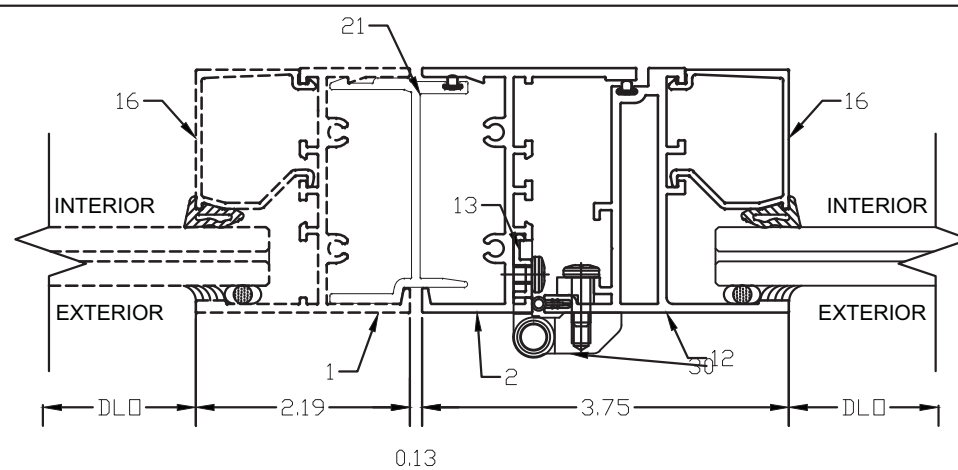
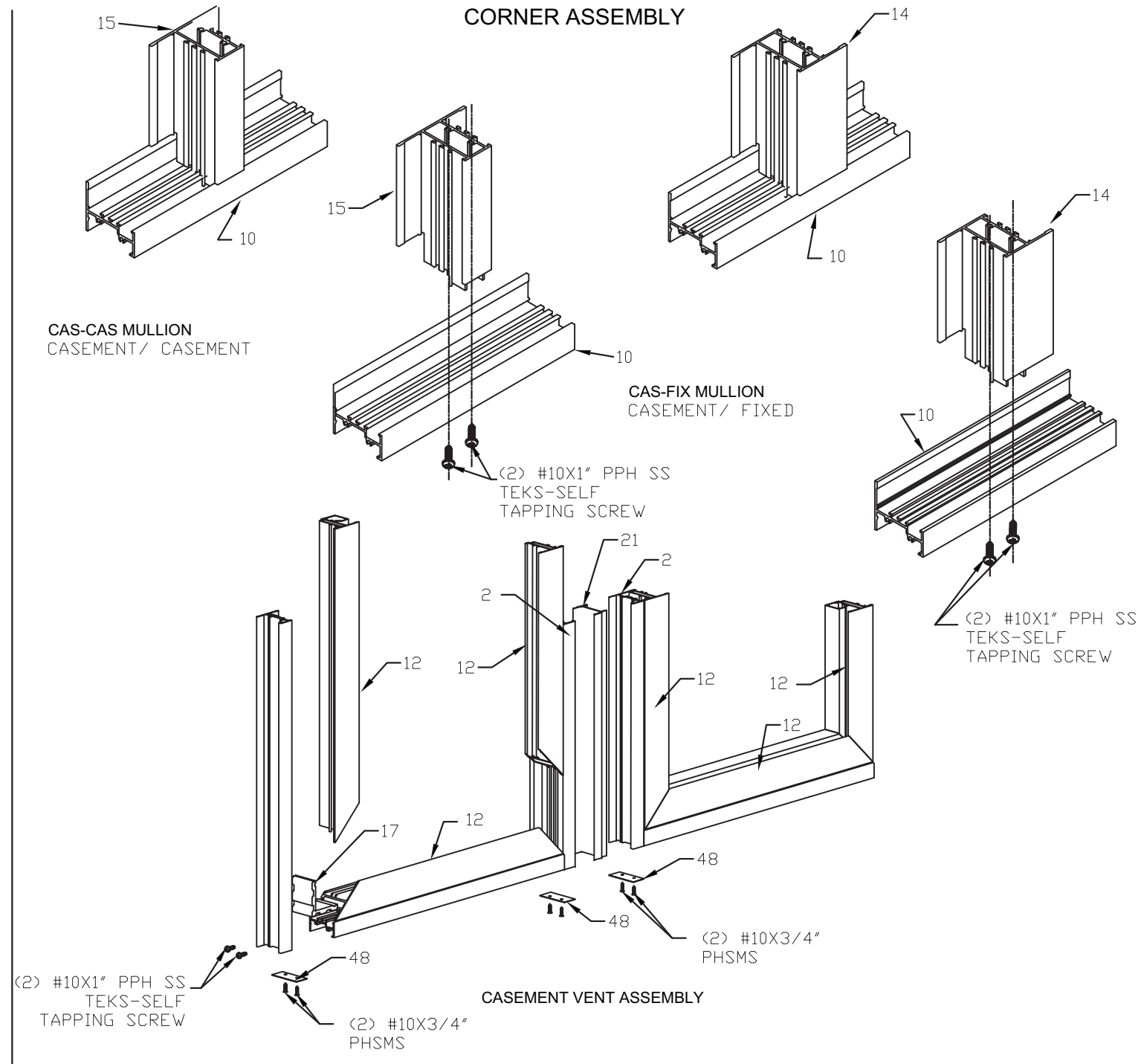
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TYPICAL DETAILS



CORNER ASSEMBLY



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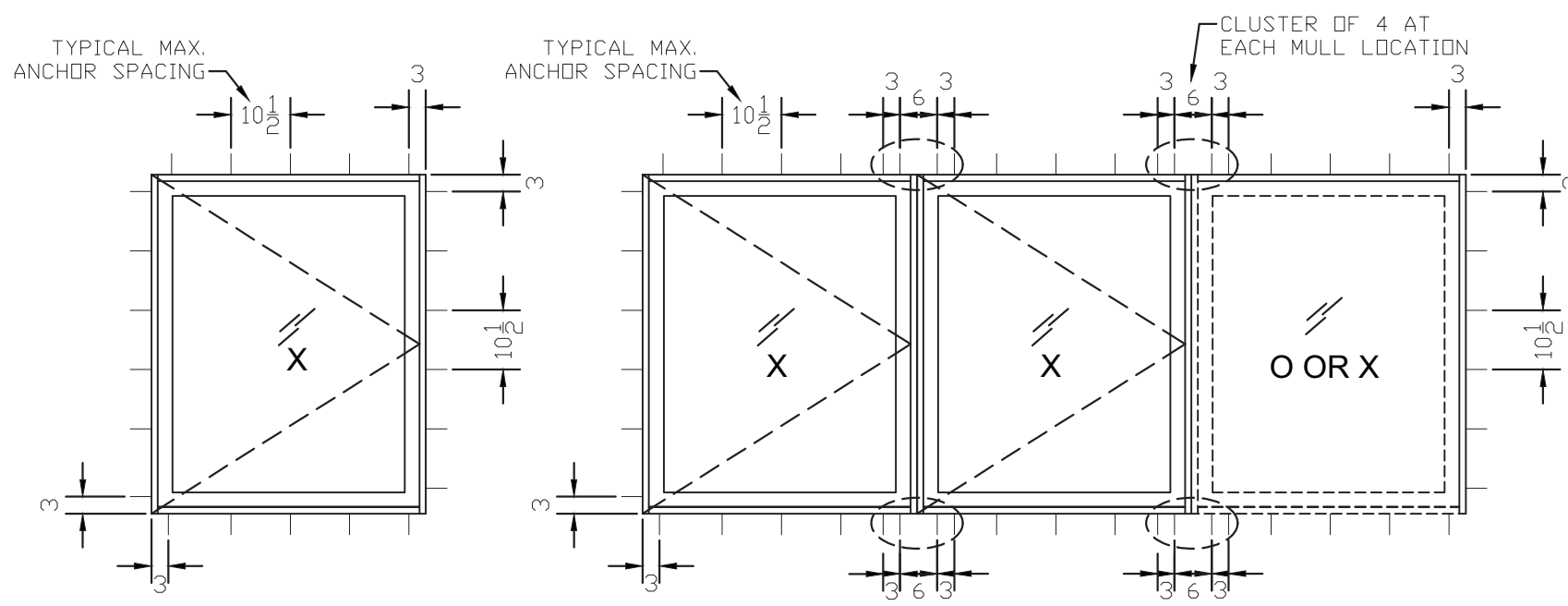
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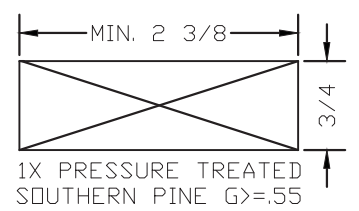
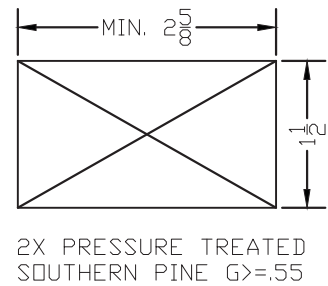
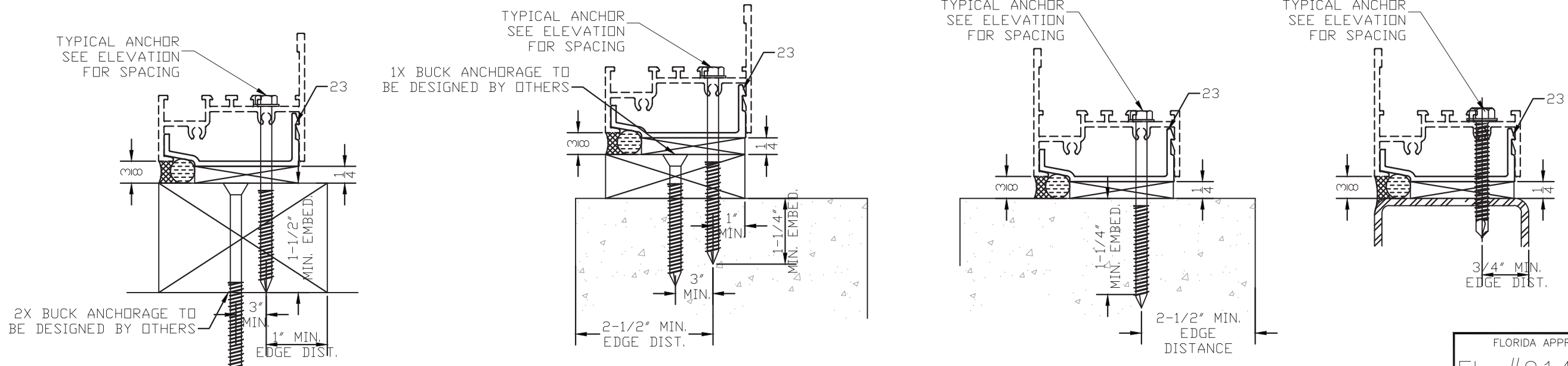
<p>MCY</p> <p>MCY ENGINEERING, INC. GLAZING CONSULTANTS</p> <p>8501 SW 124 Ave. Ste. 205A MIAMI, FL 33183</p> <p>P: 305.271.0117 F: 305.279.6818</p> <p>www.MCYEngineering.com MCY.Engineering@Att.net</p>	
<p>SERIES NRAP 2500-CO CASEMENT OUT WINDOW (S.M.I.)</p> <p>NR ARCHITECTURAL PRODUCTS</p> <p>4348 WESTROADS DRIVE WEST PALM BEACH, FL 33407</p> <p>P: (561) 844 - 1121 F: (561) 844 - 6131</p>	
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<p>11/02/2016</p>	<p>AS SHOWN</p>
<p>DRAWING NO. AD16-43</p>	
<p>Sheet No. 05 OF 09</p>	

December 16th, 2016



ANCHORAGE LAY-OUT WITH SHEAR CLIP

FOR ANCHOR TYPES, SEE SHEET 6



ALL WOOD IN CONTACT WITH MASONRY OR CONCRETE TO BE PROTECTED PER FBC 2326

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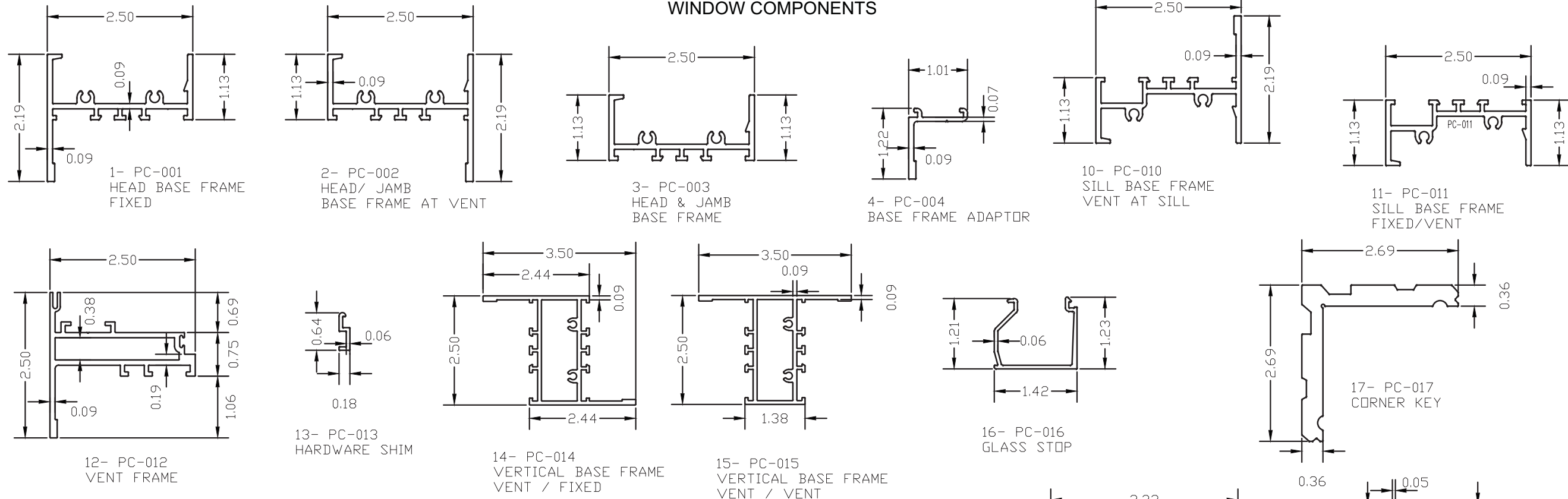
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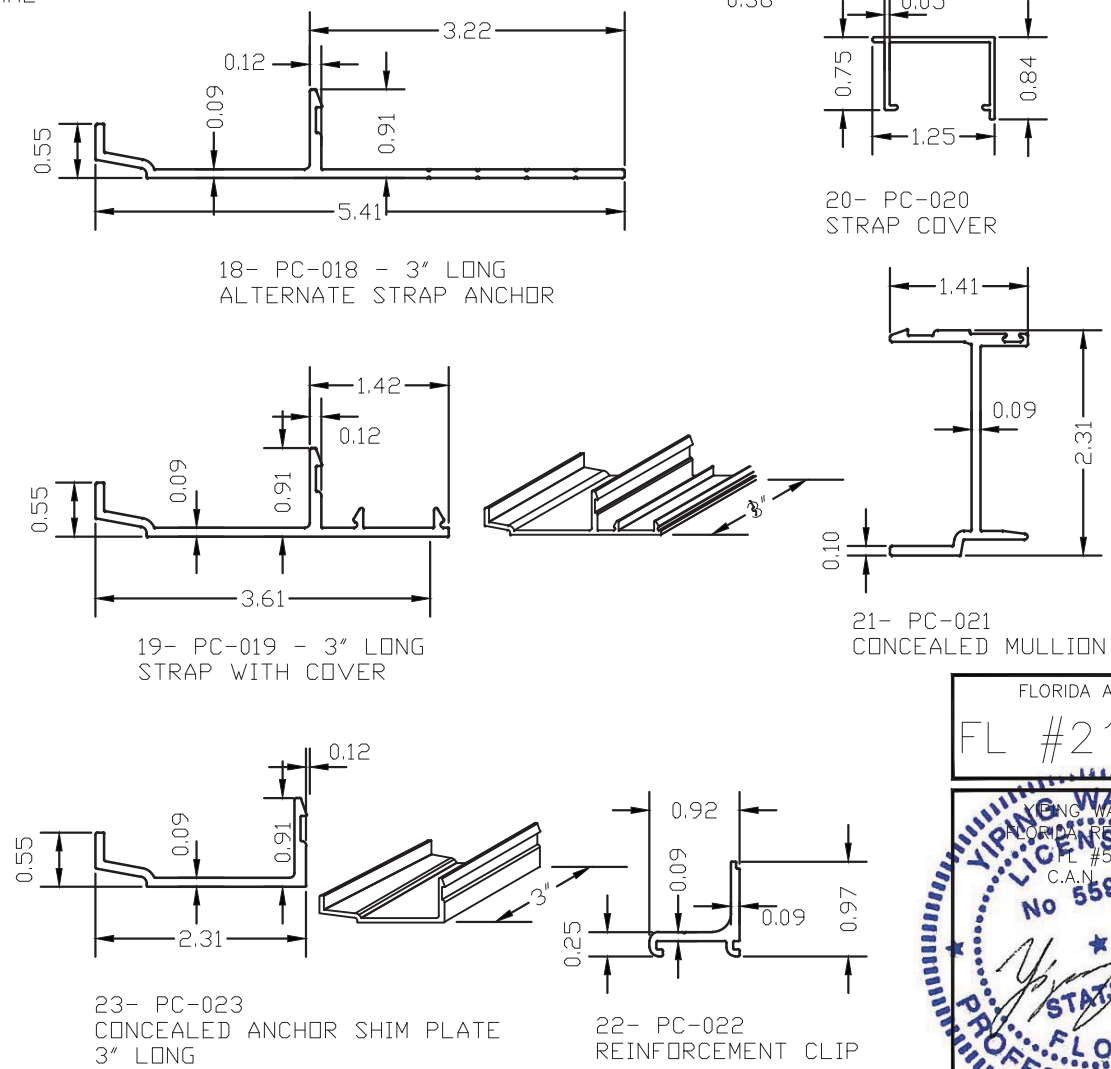
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WINDOW COMPONENTS



COMPONENTS LIST

ITEM	PART#	DESCRIPTION	MATERIAL	SUPPLIER
1	PC-001	HEAD BASE FRAME (FIXED)	ALUMINUM 6063-T6	NR ARCHITECTURAL PRODUCTS
2	PC-002	HEAD/JAMB BASE FRAME (OPERABLE)	ALUMINUM 6063-T6	NR ARCHITECTURAL PRODUCTS
3	PC-003	HEAD AND JAMB BASE FRAME	ALUMINUM 6063-T6	NR ARCHITECTURAL PRODUCTS
4	PC-004	BASE FRAME ADAPTOR	ALUMINUM 6063-T6	NR ARCHITECTURAL PRODUCTS
10	PC-010	SILL BASE FRAME (OPERABLE)	ALUMINUM 6063-T6	NR ARCHITECTURAL PRODUCTS
11	PC-011	SILL BASE FRAME (FIXED/OPERABLE)	ALUMINUM 6063-T6	NR ARCHITECTURAL PRODUCTS
12	PC-012	CASEMENT WINDOW FRAME	ALUMINUM 6063-T6	NR ARCHITECTURAL PRODUCTS
13	PC-013	HARDWARE SHIM	ALUMINUM 6063-T6	NR ARCHITECTURAL PRODUCTS
14	PC-014	VERTICAL BASE FRAME (OPERABLE)	ALUMINUM 6063-T6	NR ARCHITECTURAL PRODUCTS
15	PC-015	VERTICAL BASE FRAME (FIXED)	ALUMINUM 6063-T6	NR ARCHITECTURAL PRODUCTS
16	PC-016	GLASS STOP	ALUMINUM 6063-T6	NR ARCHITECTURAL PRODUCTS
17	PC-017	CASEMENT CORNER KEY	ALUMINUM 6063-T6	NR ARCHITECTURAL PRODUCTS
18	PC-018	ALTERNATE STRAP ANCHOR	ALUMINUM 6063-T6	NR ARCHITECTURAL PRODUCTS
19	PC-019	STRAP ANCHOR	ALUMINUM 6063-T6	NR ARCHITECTURAL PRODUCTS
20	PC-020	STRAP ANCHOR COVER	ALUMINUM 6063-T6	NR ARCHITECTURAL PRODUCTS
21	PC-021	CONCEALED MULLION	ALUMINUM 6063-T6	NR ARCHITECTURAL PRODUCTS
22	PC-022	REINFORCEMENT CLIP	ALUMINUM 6063-T6	NR ARCHITECTURAL PRODUCTS
23	PC-023	CONCEALED STRAP ANCHOR	ALUMINUM 6063-T6	NR ARCHITECTURAL PRODUCTS
30	NR-A25	BUTT HINGE 1192 3-1/4"	NA	ADVANTAGE MANUFACTURING CORP.
31	NR-A22	CAMLOCK ASSEMBLY	BRONZE	BRONZECRAFT
32	NR-A26	MULTI-POINT LOCK	STEEL	ADVANTAGE MANUFACTURING CORP.
33	NR-A27	MULTI-POINT LOCK	STEEL	ROTO FRANK OF AMERICA
34	--	9/16" LAMINATED IMPACT GLASS	GLASS	DUPONT
35	NR-A23	WEEP SLOT COVER	PLASTIC	NR ARCHITECTURAL PRODUCTS
36	NR-A24	VK2526 1/4" PVC SPACER	PVC	CAPITAL TAPE
37	--	GLAZING SEALANT DOW 983 II PART	SILICONE	DOW CORNING
38	--	GLAZING SEALANT DOW 995	SILICONE	DOW CORNING
39	NR-G20	PS 1126E POLY-WEDGE GASKET	70 DURO EPDM	TREMCO
40	NR-G21	EXT. WEATHERSEAL AP 150	EXTRUDED TAPE	SCHLEGEL
41	NR-G22	INT. WEATHERSEAL TLOK 150	POLYETHELENE	SCHLEGEL
42	NR-G23	VL 1026-107 WEEP VALVE	SILICONE	VERNAV
43	NR-G25	GLASS SETTING BLOCK TR-1365E	70 DURO EPDM	TREMCO
44	--	PERIMETER SEALANT DOW 795	SILICONE	DOW CORNING
45	--	FRAME JOINT SEALANT	SILICONE	CRL BUILDING PRODUCTS
46	NR-F12	BASE FRAME FIXING SCREWS	STAINLESS STEEL	#10X1 PPH TSEK SCREW
47	NR-F13	ADAPTOR FIXING SCREW	STAINLESS STEEL	#12 X 3/4" PP TEK SREW
48	NR-EP1	1/16"-2-1/2"X5/16" END PLATE	6063-T6 ALUMINUM	NR ARCHITECTURAL PRODUCTS



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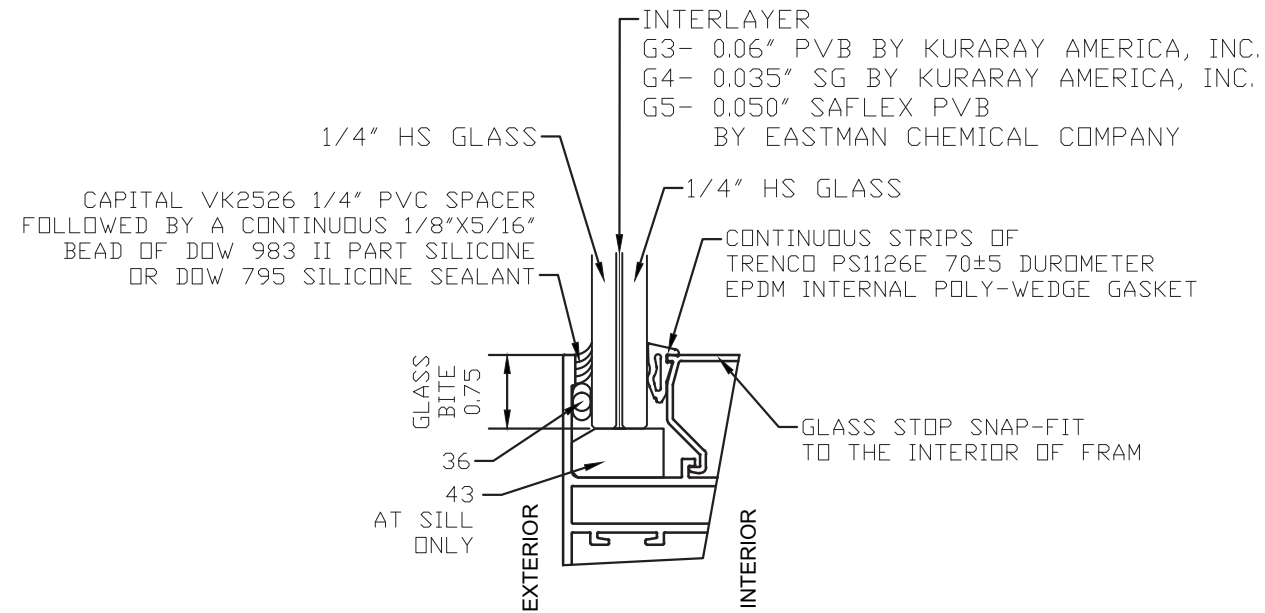
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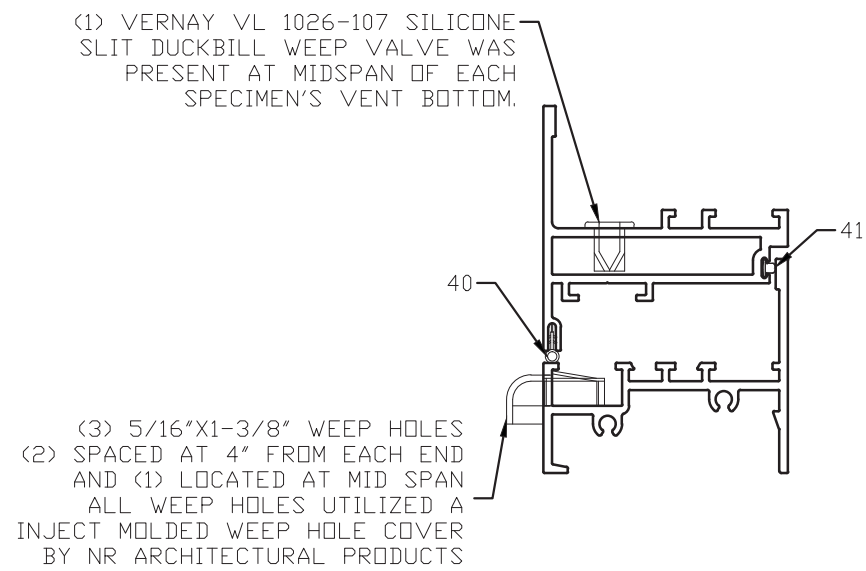
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GLAZING DETAIL



WEEP HOLES, WATER DIVERTERS, COVERS AND WEATHER STRIPPING



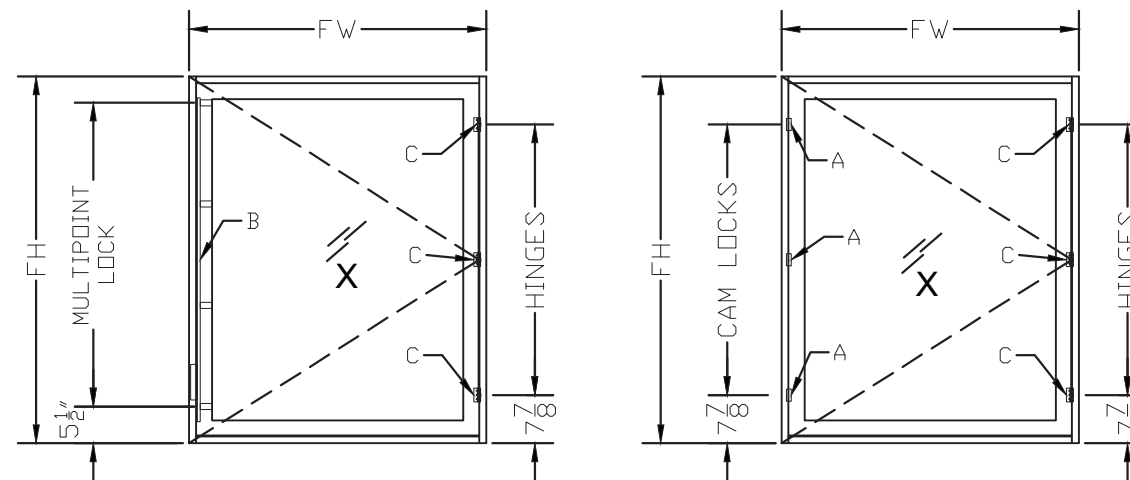
HARDWARE SCHEDULE:

A- BRONZECRAFT CAMLOCK ASSEMBLY CONSISTING OF THE HANDLE AND KEEPER.TWO LOCKS LOCATED 7-5/8" FROM THE TOP AND BOTTOM OF THE WINDOW TO CENTERLINE OF THE LOCKS AND THE OTHERS EQUALLY SPACED. THE HANDLE WAS ATTACHED WITH (2) 3/16"X3/4" PPHMS TO THE OPERABLE VENT JAMB WHILE THE KEEPER WAS FASTENED TO THE FRAME BASE WITH (4) 1/4-20X5/16" FHSTSS SCREWS

B- ADVANTAGE MULTI-POINT LOCK WITH FIRST LOCATED AT 5-1/2" FROM THE BOTTOM OF THE BASE FRAME AND THE BALANCE EVENLY SPACED. THE LOCK HANDLE WAS ATTACHED TO THE JAMB USING (2) #12X3/4" PHSMS. THE INTERNAL LOCK ROD IS ATTACHED ON THE INSIDE FACE OF THE JAMB AT 4 LOCATIONS, ONE AT TOP, ONE AT BOTTOM AND TWO AT 1/4" POINTS OF THE OVERALL LENGTH OF THE LOCKING BAR, FASTENED AT TWO POINTS EACH USING #10X1/2" FHSMS.

B ALTERNATE- ROTO FRANK AMERICA, INC. MULTI-POINT LOCK WITH FIRST LOCATED AT 5-1/2" FROM THE BOTTOM OF THE BASE FRAME AND THE BALANCE EVENLY SPACED. THE LOCK HANDLE WAS ATTACHED TO THE JAMB USING (2) #8X1/2" PHSMS. THE INTERNAL LOCK BAR IS ATTACHED ON THE INSIDE FACE OF THE JAMB AT 6 LOCATIONS, FIRST AT 7-5/16" FROM THE BOTTOM AND THE BALANCE EVENLY SPACED FASTENED WITH (3) #8X3/4" FHSMS..

C- ADVANTAGE 1192 3-1/4" BUTT HINGE WITH TWO LOCATED 7-7/8" FROM THE TOP AND BOTTOM OF THE WINDOW AND THE OTHERS EQUALLY SPACED. THE HINGES WERE ATTACHED USING (3) #10X3/4" PPHSS SCREWS AT THE JAMB BASE FRAME AND (3) 8/32"X1/2" PPHSS PER OPERABLE VENT.



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