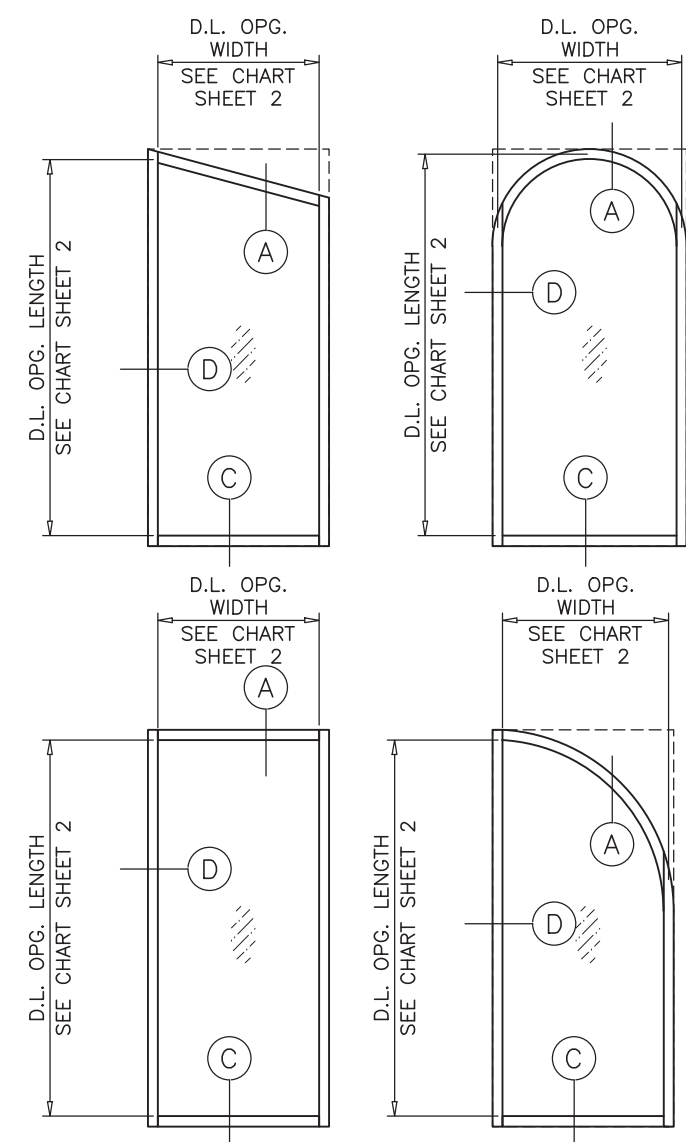


TYPICAL ELEVATIONS



**NRAP SERIES 6000 FIXED WINDOW WALL SYSTEM**

THIS SYSTEM IS RATED FOR LARGE MISSILE IMPACT SHUTTERS ARE NOT REQUIRED.

CODE REQUIREMENTS FOR SAFEGUARDS MUST BE OBSERVED.

THIS PRODUCT HAS BEEN DESIGNED AND TESTED TO COMPLY WITH THE REQUIREMENTS OF THE 5TH EDITION FLORIDA BUILDING CODE (2014) INCLUDING HIGH VELOCITY HURRICANE ZONE (HVHZ).

WOOD BUCKS BY OTHERS, MUST BE ANCHORED PROPERLY TO TRANSFER LOADS TO THE STRUCTURE.

ANCHORS SHALL BE AS LISTED, SPACED AS SHOWN ON DETAILS, ANCHORS EMBEDMENT TO BASE MATERIAL SHALL BE BEYOND WALL DRESSING OR STUCCO.

ANCHORING OR LOADING CONDITIONS NOT SHOWN IN THESE DETAILS ARE NOT PART OF THIS APPROVAL.

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

MATERIALS INCLUDING BUT NOT LIMITED TO STEEL/METAL SCREWS, THAT COME INTO CONTACT WITH OTHER DISSIMILAR MATERIALS SHALL MEET THE REQUIREMENTS OF THE 5TH EDITION FLORIDA BUILDING CODE (2014).

ALLOWABLE LOADS FOR ALTERNATE SHAPES AS SHOWN ABOVE OR SIMILAR CAN BE VERIFIED BY INSCRIBING PICTURE WINDOW SHAPE WITHIN SQUARE OR RECTANGLE AS SHOWN IN DOTTED LINES AND OBTAINING ALLOWABLE LOADS FROM THOSE SHAPES.

**INSTRUCTIONS:**

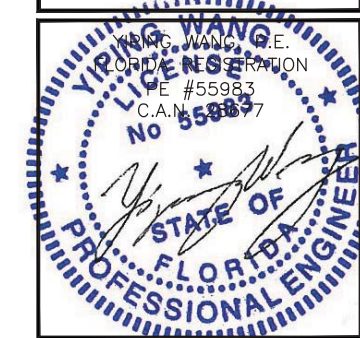
USE CHARTS AS FOLLOWS.

- STEP 1** DETERMINE DESIGN WIND LOAD REQUIREMENT BASED ON WIND VELOCITY, BLDG. HEIGHT, WIND ZONE USING APPLICABLE ASCE 7 STANDARD.
- STEP 2** SEE CHARTS ON SHEET 2 FOR DESIGN LOAD CAPACITY OF DESIRED GLASS SIZE.
- STEP 3** CHECK MULLION CAPACITY FOR A GIVEN SPACING AND HEIGHT USING CHARTS ON SHEET 3 THE CAPACITY SHOULD EXCEED THE DESIGN LOAD.
- STEP 4** USING CHARTS ON SHEET 4 & 5 SELECT ANCHOR OPTION WITH DESIGN RATING MORE THAN DESIGN LOAD SPECIFIED IN STEP 1 ABOVE.
- STEP 5** THE LOWEST VALUE RESULTING FROM STEPS 2, 3 AND 4 SHALL APPLY TO ENTIRE SYSTEM.

**LAMINATED GLASS  
LARGE MISSILE IMPACT**

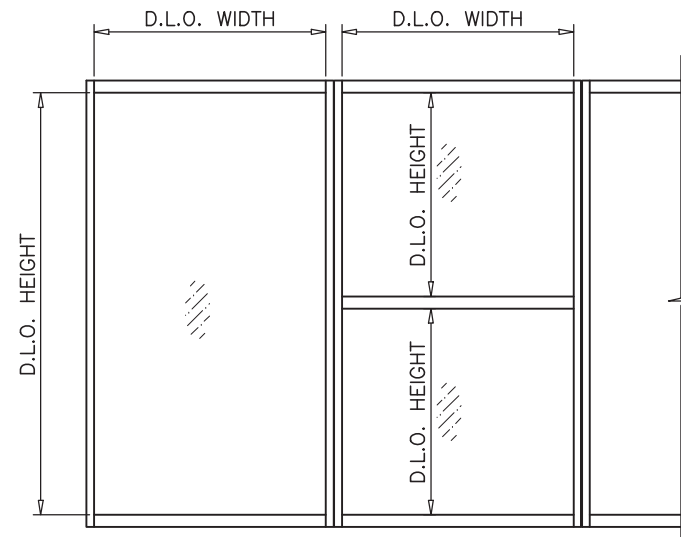
**LIMITATIONS OF USE**

- 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.



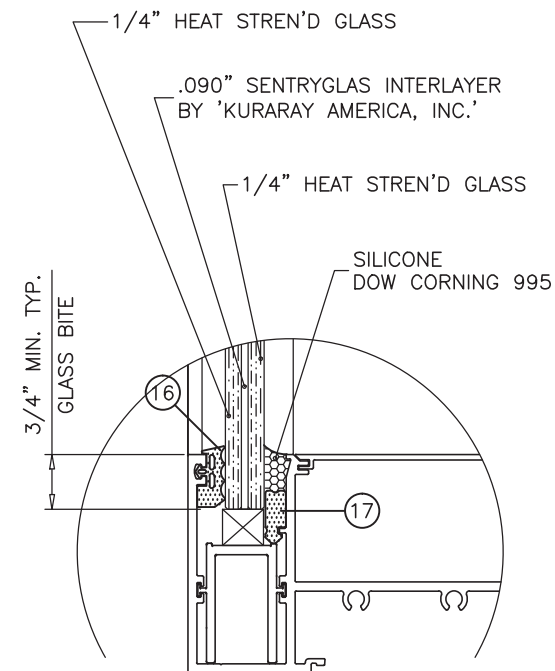
<p><b>MCY ENGINEERING, INC.</b> GLAZING CONSULTANTS</p> <p>8501 SW 124 AVE. STE. 205A P: 305.271.0117 MIAMI, FL 33183 F: 786.573.5063 www.MCYEngineering.com MCY.Engineering@Att.net</p>	
<p>NRAP FIXED WINDOW WALL SYS. SERIES 6000 (L.M.I.)</p> <p><b>NR ARCHITECTURAL PRODUCTS, INC.</b> 4348 WESTROADS DRIVE WEST PALM BEACH, FL. 33407 P: (561) 844 - 1121 F: (561) 844 - 6131</p>	
<p>FLORIDA APPROVAL FL #21446.1</p>	
DATE	11-09-16
SCALE	AS NOTED
DRAWN	S.L.
PROJECT	16-087
DRAWING NO. AD16-40	
SHEET 1 of 8	

GLASS LOAD CAPACITY - PSF		
NOMINAL DIMS.		LAM. GLASS
D.L.O. WIDTH	D.L.O. HEIGHT	EXT.(+)/INT.(-)
32-1/4"	78"	140.0
38-1/4"		140.0
44-1/4"		140.0
50-1/4"		140.0
56-1/4"		140.0
62-1/4"		137.5
68-1/4"	133.7	
32-1/4"	84"	140.0
38-1/4"		140.0
44-1/4"		140.0
50-1/4"		140.0
56-1/4"		136.6
62-1/4"		132.5
68-1/4"	124.4	
32-1/4"	90"	140.0
38-1/4"		140.0
44-1/4"		140.0
50-1/4"		139.0
56-1/4"		131.9
62-1/4"		122.9
68-1/4"	115.2	
32-1/4"	96"	140.0
38-1/4"		140.0
44-1/4"		140.0
50-1/4"		131.2
56-1/4"		122.7
62-1/4"		113.7
32-1/4"	102"	140.0
38-1/4"		140.0
44-1/4"		139.5
50-1/4"		126.5
56-1/4"		114.7
62-1/4"		106.7
32-1/4"	108"	140.0
38-1/4"		140.0
44-1/4"		133.3
50-1/4"		119.4
56-1/4"		107.6
62-1/4"		100.9
32-1/4"	113"	140.0
38-1/4"		140.0
44-1/4"		128.9
50-1/4"		114.4
56-1/4"		102.5
57-1/2"		100.9

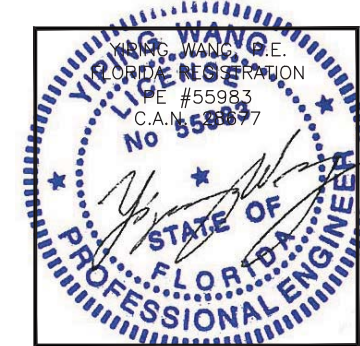


D.L.O. WIDTH = PANEL WIDTH - 3.75"  
D.L.O. HEIGHT = PANEL HEIGHT - 6.0"

NOTE:  
GLASS CAPACITIES ON THIS SHEET ARE  
BASED ON ASTM E1300-09 (3 SEC. GUSTS).



9/16" OVERALL LAM. GLASS



REVISIONS	
NO.	DATE

**MCY ENGINEERING, INC.**  
GLAZING CONSULTANTS

**MCY**

8501 SW 124 AVE. STE. 205A P: 305.271.0117  
MIAMI, FL 33183 F: 786.573.5063  
www.MCYEngineering.com MCY.Engineering@Att.net

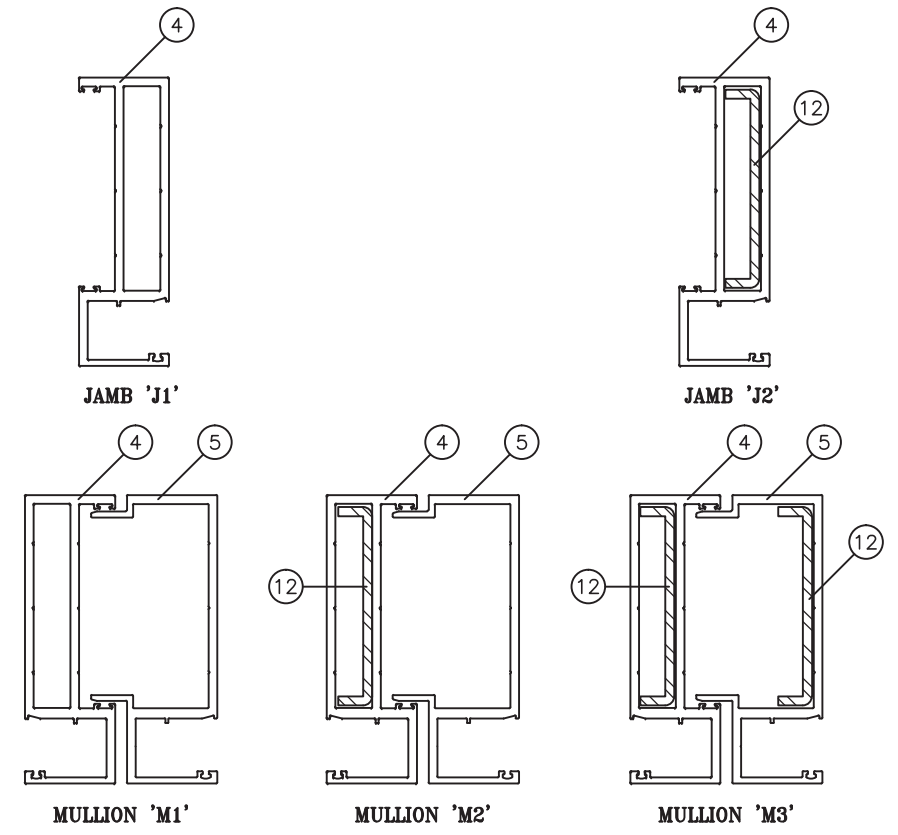
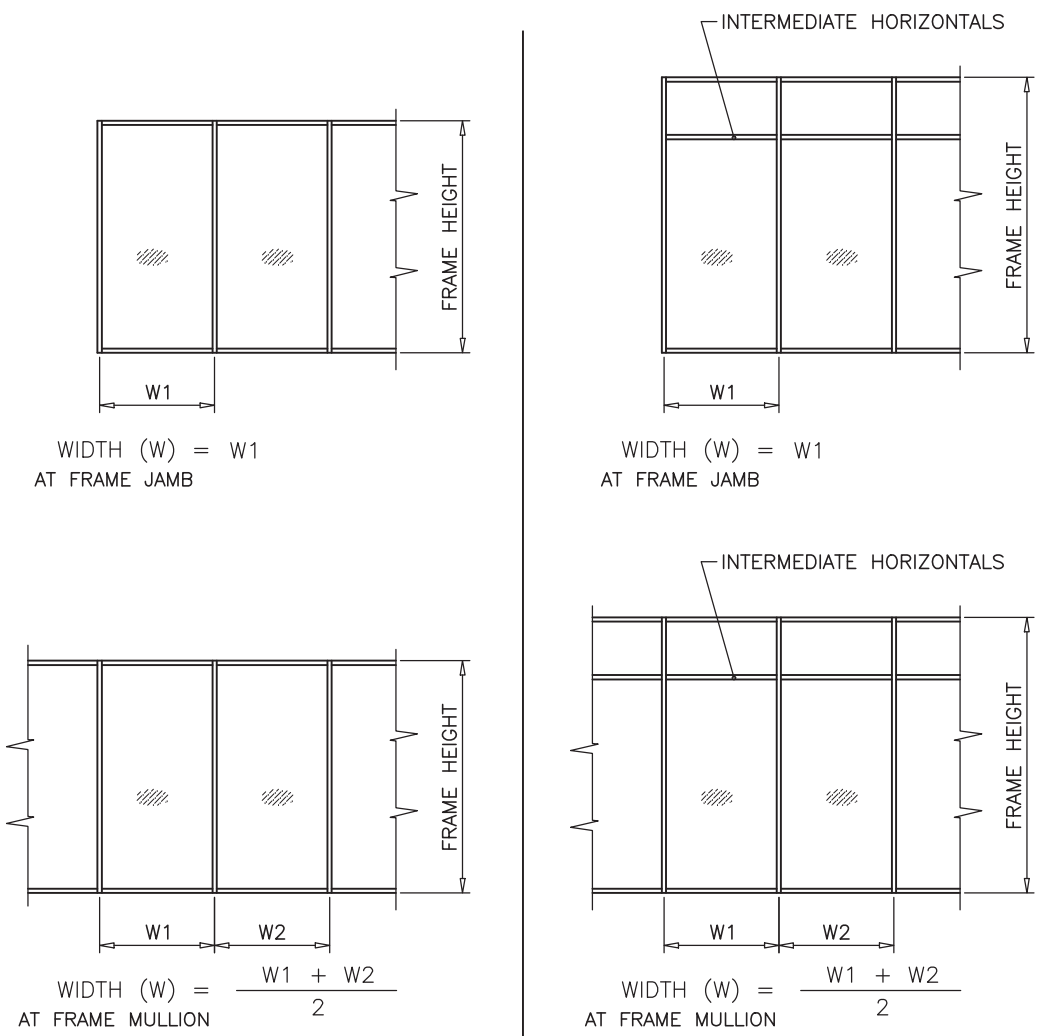
NRAP FIXED WINDOW WALL SYS. SERIES 6000 (L.M.I.)

**NR ARCHITECTURAL PRODUCTS, INC.**

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

FLORIDA APPROVAL FL #21446.1	
DATE	11-09-16
SCALE	AS NOTED
DRAWN	S.L.
PROJECT	16-087
DRAWING NO. AD16-40	
SHEET 2 of 8	

MULLION LOAD CAPACITY - PSF MULLIONS WITHOUT INTERMEDIATE HORIZONTALS							
NOMINAL DIMS.		JAMB 'J1' MULL 'M1'		MULL 'M2'		JAMB 'J2' MULL 'M3'	
WIDTH (W)	FRAME HEIGHT	EXT.(+)	INT.(-)	EXT.(+)	INT.(-)	EXT.(+)	INT.(-)
36"	84"	100.0	100.0	120.0	140.0	120.0	140.0
42"		100.0	100.0	120.0	140.0	120.0	140.0
48"		100.0	100.0	120.0	140.0	120.0	140.0
54"		100.0	100.0	120.0	140.0	120.0	140.0
60"		100.0	100.0	120.0	140.0	120.0	140.0
66"		100.0	100.0	120.0	140.0	120.0	140.0
72"		100.0	100.0	120.0	140.0	120.0	140.0
72"		100.0	100.0	120.0	140.0	120.0	140.0
36"	90"	100.0	100.0	120.0	140.0	120.0	140.0
42"		100.0	100.0	120.0	140.0	120.0	140.0
48"		100.0	100.0	120.0	140.0	120.0	140.0
54"		100.0	100.0	120.0	140.0	120.0	140.0
60"		100.0	100.0	120.0	140.0	120.0	140.0
66"		100.0	100.0	120.0	140.0	120.0	140.0
72"		100.0	100.0	120.0	140.0	120.0	140.0
72"		100.0	100.0	120.0	140.0	120.0	140.0
36"	96"	100.0	100.0	120.0	140.0	120.0	140.0
42"		100.0	100.0	120.0	140.0	120.0	140.0
48"		100.0	100.0	120.0	140.0	120.0	140.0
54"		100.0	100.0	120.0	140.0	120.0	140.0
60"		100.0	100.0	120.0	140.0	120.0	140.0
66"		100.0	100.0	120.0	140.0	120.0	140.0
72"		100.0	100.0	120.0	140.0	120.0	140.0
72"		100.0	100.0	120.0	140.0	120.0	140.0
36"	102"	100.0	100.0	120.0	140.0	120.0	140.0
42"		100.0	100.0	120.0	140.0	120.0	140.0
48"		100.0	100.0	120.0	140.0	120.0	140.0
54"		100.0	100.0	120.0	140.0	120.0	140.0
60"		100.0	100.0	120.0	140.0	120.0	140.0
66"		100.0	100.0	120.0	140.0	120.0	140.0
72"		100.0	100.0	120.0	140.0	120.0	140.0
72"		100.0	100.0	120.0	138.4	120.0	138.4
36"	108"	100.0	100.0	120.0	140.0	120.0	140.0
42"		100.0	100.0	120.0	140.0	120.0	140.0
48"		100.0	100.0	120.0	140.0	120.0	140.0
54"		100.0	100.0	120.0	140.0	120.0	140.0
60"		100.0	100.0	120.0	140.0	120.0	140.0
66"		100.0	100.0	120.0	140.0	120.0	140.0
66"		100.0	100.0	120.0	140.0	120.0	140.0
66"		100.0	100.0	120.0	140.0	120.0	140.0
36"	114"	100.0	100.0	120.0	140.0	120.0	140.0
42"		100.0	100.0	120.0	140.0	120.0	140.0
48"		100.0	100.0	120.0	140.0	120.0	140.0
54"		100.0	100.0	120.0	140.0	120.0	140.0
60"		100.0	100.0	120.0	140.0	120.0	140.0
60"		100.0	100.0	120.0	140.0	120.0	140.0
36"	119"	100.0	100.0	120.0	140.0	120.0	140.0
42"		100.0	100.0	120.0	140.0	120.0	140.0
48"		100.0	100.0	120.0	140.0	120.0	140.0
54"		100.0	100.0	120.0	140.0	120.0	140.0
60"		100.0	100.0	120.0	135.9	120.0	140.0
60"		100.0	100.0	120.0	135.9	120.0	140.0
61"		100.0	100.0	120.0	134.0	120.0	140.0



MULLION LOAD CAPACITY - PSF MULLIONS WITH INTERMEDIATE HORIZONTALS							
NOMINAL DIMS.		JAMB 'J1' MULL 'M1'		MULL 'M2'		JAMB 'J2' MULL 'M3'	
WIDTH (W)	FRAME HEIGHT	EXT.(+)	INT.(-)	EXT.(+)	INT.(-)	EXT.(+)	INT.(-)
36"	84"	100.0	100.0	120.0	140.0	120.0	140.0
42"		100.0	100.0	120.0	140.0	120.0	140.0
48"		100.0	100.0	120.0	140.0	120.0	140.0
54"		100.0	100.0	120.0	140.0	120.0	140.0
60"		100.0	100.0	120.0	140.0	120.0	140.0
66"		100.0	100.0	120.0	140.0	120.0	140.0
72"		100.0	100.0	120.0	140.0	120.0	140.0
72"		100.0	100.0	120.0	140.0	120.0	140.0
36"	90"	100.0	100.0	120.0	140.0	120.0	140.0
42"		100.0	100.0	120.0	140.0	120.0	140.0
48"		100.0	100.0	120.0	140.0	120.0	140.0
54"		100.0	100.0	120.0	140.0	120.0	140.0
60"		100.0	100.0	120.0	140.0	120.0	140.0
66"		100.0	100.0	120.0	140.0	120.0	140.0
72"		100.0	100.0	120.0	140.0	120.0	140.0
72"		100.0	100.0	120.0	140.0	120.0	140.0
36"	96"	100.0	100.0	120.0	140.0	120.0	140.0
42"		100.0	100.0	120.0	140.0	120.0	140.0
48"		100.0	100.0	120.0	140.0	120.0	140.0
54"		100.0	100.0	120.0	140.0	120.0	140.0
60"		100.0	100.0	120.0	140.0	120.0	140.0
66"		100.0	100.0	120.0	140.0	120.0	140.0
72"		100.0	100.0	120.0	140.0	120.0	140.0
72"		100.0	100.0	120.0	140.0	120.0	140.0
36"	102"	100.0	100.0	120.0	140.0	120.0	140.0
42"		100.0	100.0	120.0	140.0	120.0	140.0
48"		100.0	100.0	120.0	140.0	120.0	140.0
54"		100.0	100.0	120.0	140.0	120.0	140.0
60"		100.0	100.0	120.0	140.0	120.0	140.0
66"		100.0	100.0	120.0	140.0	120.0	140.0
72"		100.0	100.0	120.0	140.0	120.0	140.0
72"		100.0	100.0	120.0	138.4	120.0	140.0
36"	108"	100.0	100.0	120.0	140.0	120.0	140.0
42"		100.0	100.0	120.0	140.0	120.0	140.0
48"		100.0	100.0	120.0	140.0	120.0	140.0
54"		100.0	100.0	120.0	140.0	120.0	140.0
60"		100.0	100.0	120.0	140.0	120.0	140.0
66"		100.0	100.0	120.0	140.0	120.0	140.0
66"		100.0	100.0	120.0	137.5	120.0	140.0
66"		100.0	100.0	120.0	137.5	120.0	140.0
36"	114"	100.0	100.0	120.0	140.0	120.0	140.0
42"		100.0	100.0	120.0	140.0	120.0	140.0
48"		100.0	100.0	120.0	140.0	120.0	140.0
54"		100.0	100.0	120.0	140.0	120.0	140.0
60"		100.0	100.0	120.0	140.0	120.0	140.0
60"		100.0	100.0	120.0	135.8	120.0	140.0
36"	119"	100.0	100.0	120.0	140.0	120.0	140.0
42"		100.0	100.0	120.0	140.0	120.0	140.0
48"		100.0	100.0	120.0	140.0	120.0	140.0
54"		100.0	100.0	120.0	140.0	120.0	140.0
60"		100.0	100.0	120.0	124.6	120.0	140.0
60"		100.0	100.0	120.0	124.6	120.0	140.0
61"		100.0	100.0	120.0	122.6	120.0	140.0

REVISEMENTS	DESCRIPTION
NO	DATE

**MCY**

**MCY ENGINEERING, INC.**  
GLAZING CONSULTANTS

8501 SW 124 AVE. STE. 205A P: 305.271.0117  
MIAMI, FL 33183 F: 786.573.5063

www.MCYEngineering.com MCY.Engineering@Att.net

NRAP FIXED WINDOW WALL SYS. SERIES 6000 (L.M.I.)

**NR ARCHITECTURAL PRODUCTS, INC.**

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

FLORIDA APPROVAL  
FL #21446.1

YIPING WANG, P.E.  
LICENSED PROFESSIONAL ENGINEER  
E #55983  
C.A.N. #55987

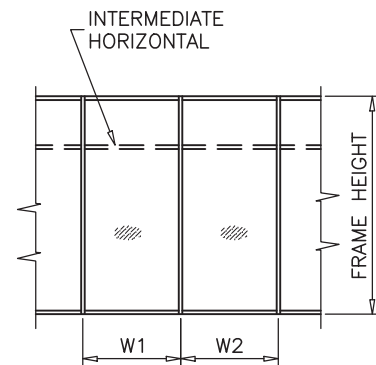
DATE 11-09-16  
SCALE AS NOTED  
DRAWN S.L.  
PROJECT 16-087

DRAWING NO.  
AD16-40

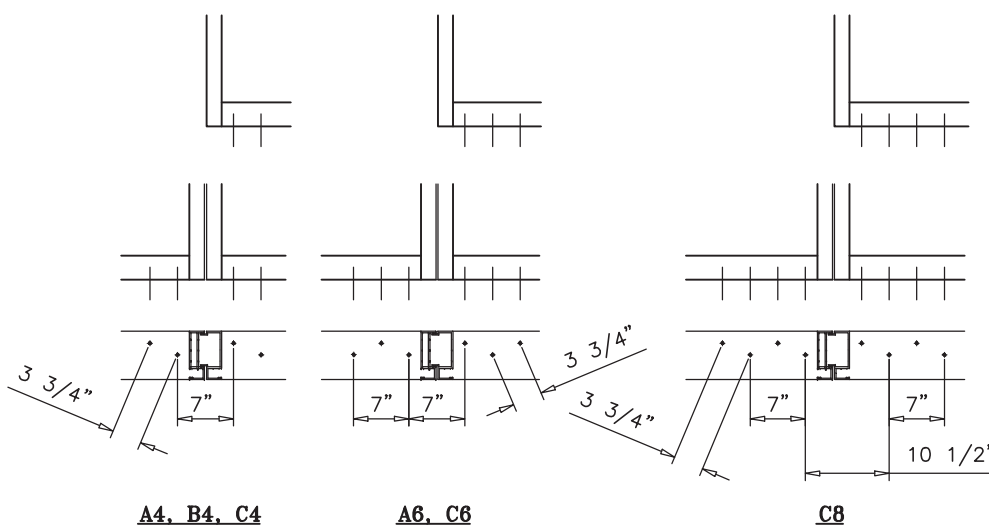
SHEET 3 of 8

**ANCHOR LOAD CAPACITY - PSF**  
**MULLIONS WITH OR WITHOUT INTERMEDIATE HORIZONTALS**  
 EXT.(+) & INT.(-)

NOMINAL DIMENSION		ANCHOR TYPE 'A'		ANCHOR TYPE 'C'			ANCHOR TYPE 'B'
WIDTH (W)	FRAME HEIGHT	1/2" MAX. SHIM					3/8" MAX. SHIM
		A4	A6	C4	C6	C8	B4
36"	84'	140.0	140.0	102.5	140.0	140.0	140.0
42"		140.0	140.0	131.8	131.8	140.0	140.0
48"		140.0	140.0	115.3	140.0	140.0	140.0
54"		140.0	140.0	102.5	136.6	140.0	140.0
60"		140.0	140.0	123.0	123.0	140.0	140.0
66"		140.0	140.0	111.8	139.7	139.7	140.0
72"	140.0	140.0	102.5	128.1	140.0	140.0	
36"	90'	140.0	140.0	95.6	140.0	140.0	140.0
42"		140.0	140.0	123.0	123.0	140.0	140.0
48"		140.0	140.0	107.6	140.0	140.0	140.0
54"		140.0	140.0	95.6	127.5	140.0	140.0
60"		140.0	140.0	114.8	114.8	140.0	140.0
66"		140.0	140.0	104.3	130.4	130.4	140.0
72"	140.0	140.0	95.6	119.6	140.0	140.0	
36"	96'	140.0	140.0	89.7	134.5	140.0	140.0
42"		140.0	140.0	115.3	115.3	140.0	140.0
48"		140.0	140.0	100.9	134.5	134.5	140.0
54"		140.0	140.0	89.7	119.6	140.0	140.0
60"		140.0	140.0	107.6	107.6	134.5	140.0
66"		140.0	140.0	97.8	122.3	122.3	140.0
72"	140.0	140.0	89.7	112.1	134.5	140.0	
36"	102'	140.0	140.0	84.4	126.6	140.0	140.0
42"		140.0	140.0	108.5	108.5	140.0	140.0
48"		140.0	140.0	94.9	126.6	126.6	140.0
54"		140.0	140.0	84.4	112.5	140.0	140.0
60"		140.0	140.0	101.3	101.3	126.6	140.0
66"		140.0	140.0	92.1	115.1	115.1	140.0
72"	140.0	140.0	84.4	105.5	126.6	140.0	
36"	108'	140.0	140.0	79.7	119.6	140.0	140.0
42"		140.0	140.0	102.5	102.5	136.6	140.0
48"		140.0	140.0	89.7	119.6	119.6	140.0
54"		140.0	140.0	79.7	106.3	132.8	140.0
60"		140.0	140.0	95.6	95.6	119.6	140.0
66"		140.0	140.0	86.9	108.7	108.7	140.0
36"	114'	133.6	140.0	75.5	113.3	140.0	140.0
42"		140.0	140.0	97.1	97.1	129.4	140.0
48"		140.0	140.0	84.9	113.3	113.3	140.0
54"		133.6	140.0	75.5	100.7	125.8	140.0
60"		140.0	140.0	90.6	90.6	113.3	140.0
66"		140.0	140.0	86.9	108.7	108.7	140.0
36"	119'	128.0	140.0	72.3	108.5	140.0	140.0
42"		140.0	140.0	93.0	93.0	124.0	140.0
48"		140.0	140.0	81.4	108.5	108.5	140.0
54"		128.0	140.0	72.3	96.4	120.6	140.0
60"		140.0	140.0	86.8	86.8	108.5	140.0
61"		140.0	140.0	85.4	85.4	106.7	140.0



WIDTH (W) = W1 (JAMB)  
 WIDTH (W) =  $\frac{W1 + W2}{2}$  (MULLION)



- ANCHORS TYPES:** SEE SHEET 6 FOR DESCRIPTION
- A4** = (2) ANCHORS TYPE 'A' AT EACH SIDE OF JAMB & MULLION
  - B4** = (2) ANCHORS TYPE 'B' AT EACH SIDE OF JAMB & MULLION
  - C4** = (2) ANCHORS TYPE 'C' AT EACH SIDE OF JAMB & MULLION
  - A6** = (3) ANCHORS TYPE 'A' AT EACH SIDE OF JAMB & MULLION
  - C6** = (3) ANCHORS TYPE 'C' AT EACH SIDE OF JAMB & MULLION
  - C8** = (4) ANCHORS TYPE 'C' AT EACH SIDE OF JAMB & MULLION

ALL OTHER ANCHORS TO BE SPACED AS PER ELEVATION.

REVISIONS	DESCRIPTION
NO. DATE	

**MCY**

**MCY ENGINEERING, INC.**  
 GLAZING CONSULTANTS

8501 SW 124 AVE. STE. 205A P: 305.271.0117  
 MIAMI, FL 33183 F: 786.573.5063

www.MCYEngineering.com MCY.Engineering@Att.net

**NRAP FIXED WINDOW WALL SYS. SERIES 6000 (L.M.I.)**

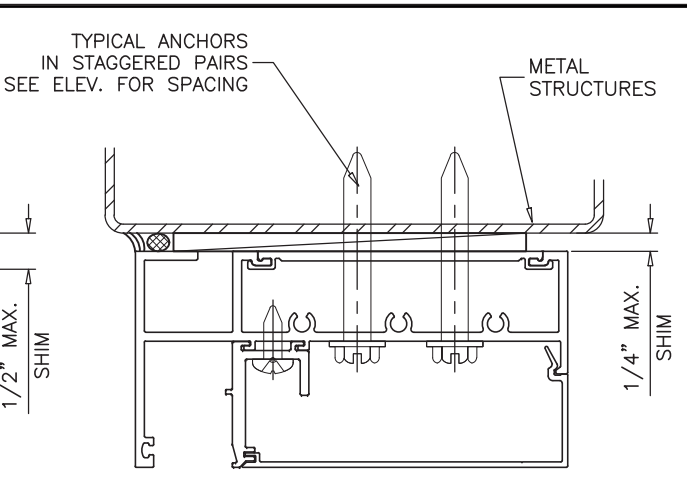
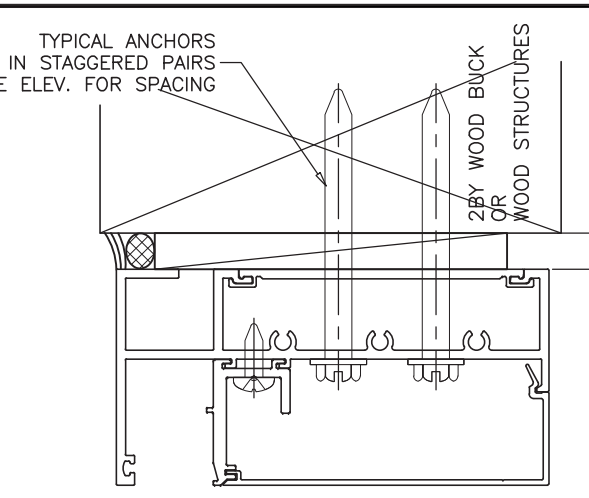
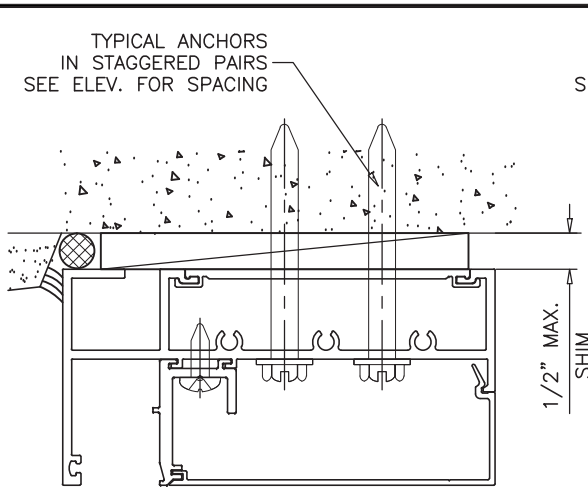
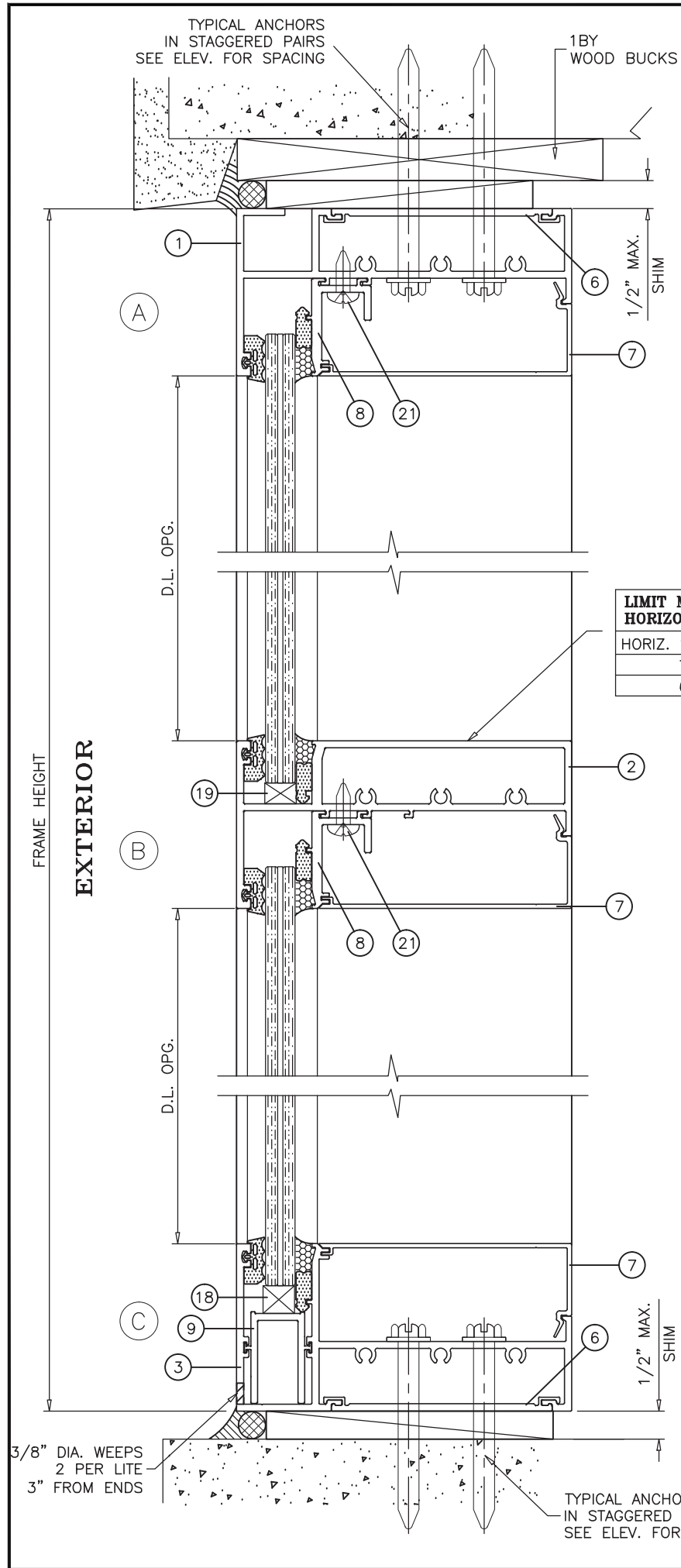
**NR ARCHITECTURAL PRODUCTS, INC.**

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

YIPING WANG  
 P.E.  
 LICENSE #55983  
 C.A.N. 55983

STATE OF FLORIDA  
 PROFESSIONAL ENGINEER

FLORIDA APPROVAL FL #21446.1	
DATE	11-09-16
SCALE	AS NOTED
DRAWN	S.L.
PROJECT	16-087
DRAWING NO. AD16-40	
SHEET 4 of 8	



**LIMIT MAX. DESIGN LOADS FOR HORIZONTAL AS FOLLOWS**

HORIZ. SPAN MAX.	LAM. GLASS
72"	132 PSF
66"	140 PSF

WOOD BUCKS AND METAL STRUCTURES NOT BY N.R. WD.W. MUST SUPPORT LOADS IMPOSED BY GLAZING SYSTEM AND TRANSFER THEM TO THE BUILDING STRUCTURE.

**TYPICAL ANCHORS:** SEE ELEV. FOR SPACING

**TYPE 'A'** - 3/8" DIA. WEDGE-BOLT ANCHOR BY 'POWERS' (Fu = 100 KSI, Fy = 65 KSI) INTO WOOD STRUCTURES SG=0.55 WITH 2-1/4" MIN. EMBED.

3/8" DIA. WEDGE-BOLT ANCHOR BY 'POWERS' (Fu = 100 KSI, Fy = 65 KSI) DIRECTLY INTO CONCRETE fc'=3000 PSI WITH 2" MIN. EMBED.

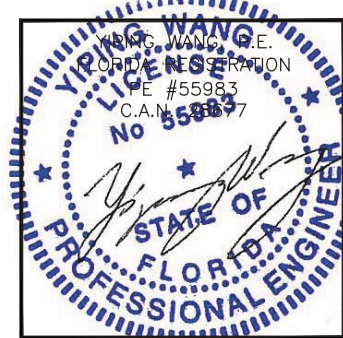
5/16" DIA. ULTRACON (Fu = 177 KSI, Fy=155 KSI) DIRECTLY INTO CONCRETE fc'=3000 PSI WITH 1-3/4" MIN. EMBED.

**TYPE 'B'** - 3/8" DIA. MACHINE BOLT GRADE 5 W/ WASHER & NUT (Fu = 120 KSI, Fy = 92 KSI) INTO METAL STRUCTURES  
 STEEL : 12 GA. MIN. (Fy = 36 KSI MIN.)  
 ALUMINUM : 1/8" THK. MIN. (6063-T5 MIN.)  
 (STEEL IN CONTACT WITH ALUMINUM TO BE PLATED OR PAINTED)

**TYPE 'C'** - 5/16" DIA. ULTRACON (Fu = 177 KSI, Fy=155 KSI) INTO WOOD STRUCTURES (SG=0.55) OR THRU 1X OR 2X WOOD BUCK WITH 1-1/4" MIN. EMBED. INTO CONCRETE

**ANCHOR EDGE DISTANCES**  
 INTO CONCRETE = 3" MIN.  
 INTO WOOD STRUCTURE = 1-1/2" MIN.  
 INTO METAL STRUCTURE = 1" MIN.

**SEALANTS:**  
 ALL FRAME CORNERS AND JOINTS SEALED WITH DOW-795 OR TREMCO SPECTREM 2 SILICONE SEALANT.

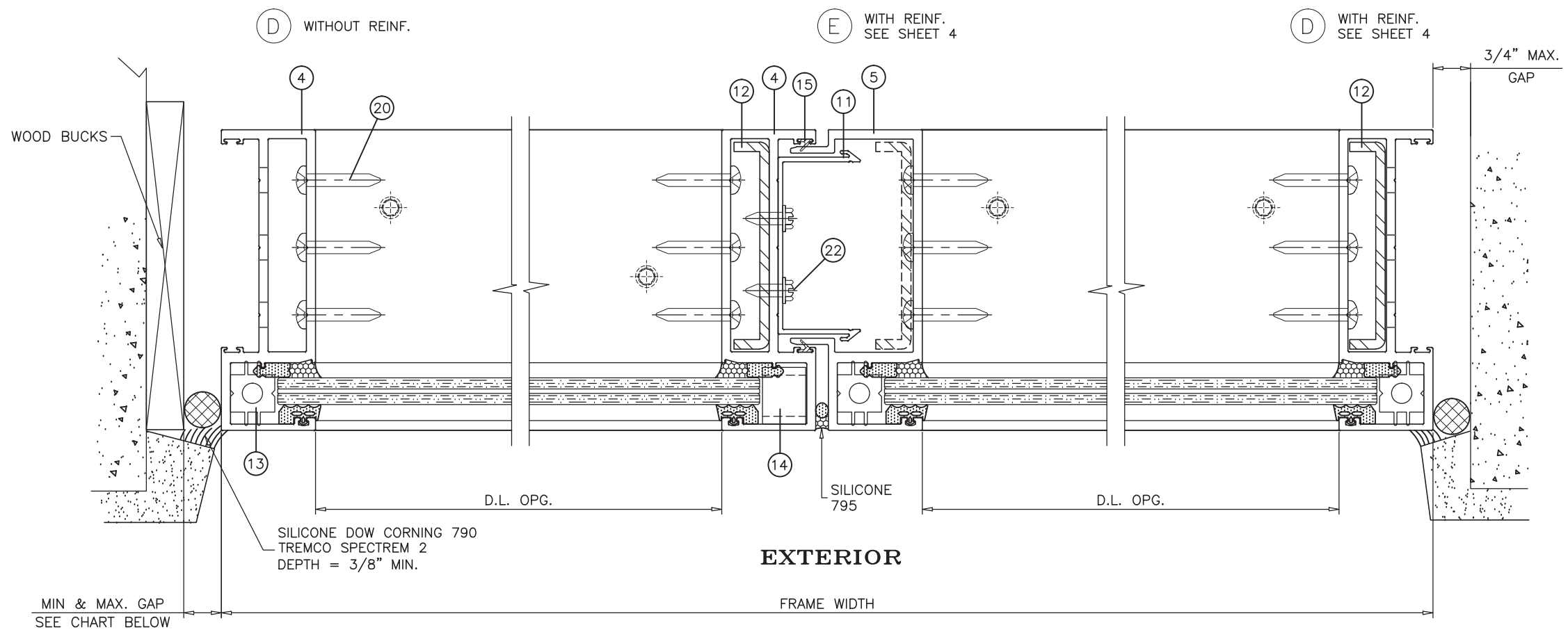


NO.	DATE	DESCRIPTION

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**MCY ENGINEERING, INC.**  
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 8501 SW 124 AVE. STE. 205A P: 305.271.0117  
 MIAMI, FL 33183 F: 786.573.5063  
 www.MCYEngineering.com MCY.Engineering@Att.net

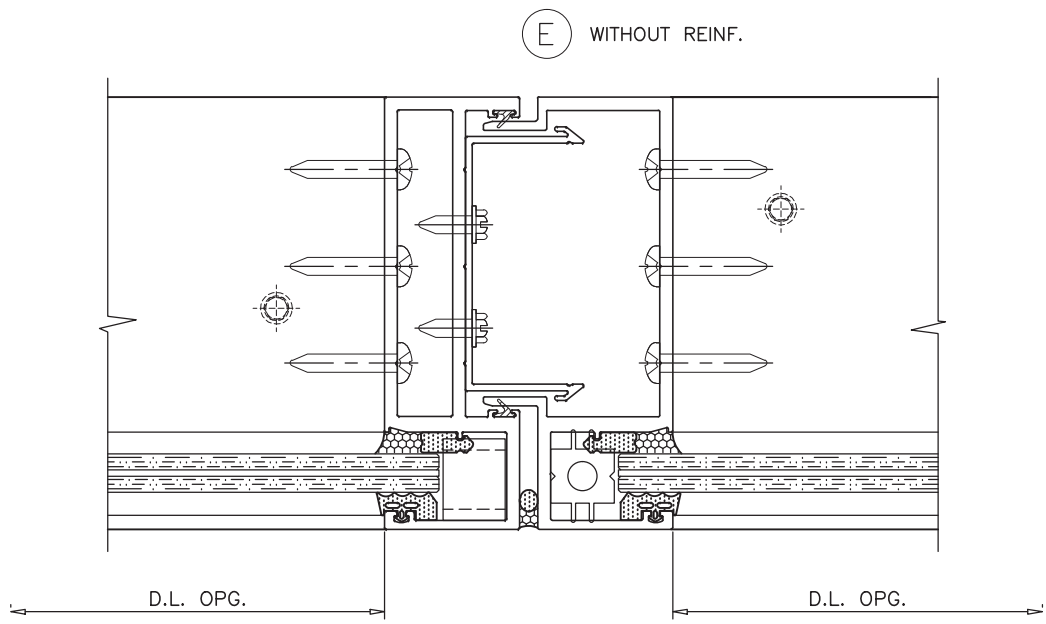
**NR AP FIXED WINDOW WALL SYS. SERIES 6000 (L.M.I.)**  
**NR ARCHITECTURAL PRODUCTS, INC.**  
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FLORIDA APPROVAL FL #21446.1	
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SHEET 5 of 8	



MIN & MAX. GAP  
SEE CHART BELOW

MAX. FRAME HEIGHT	GAP	
	MIN.	MAX.
114"	3/8"	1/2"
119"	1/2"	3/4"



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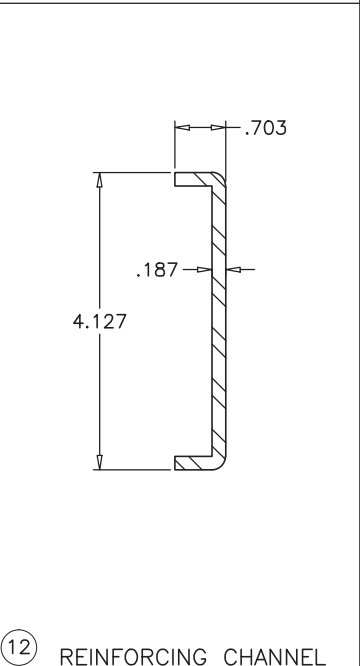
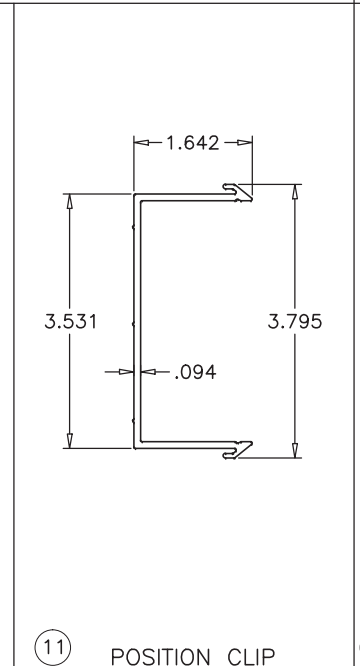
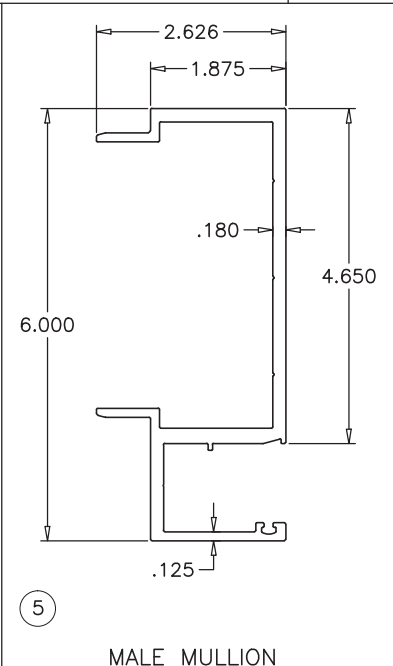
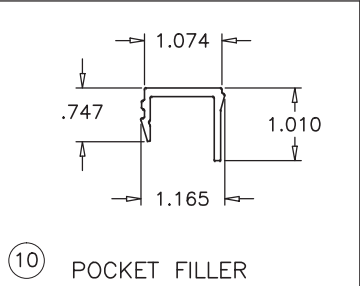
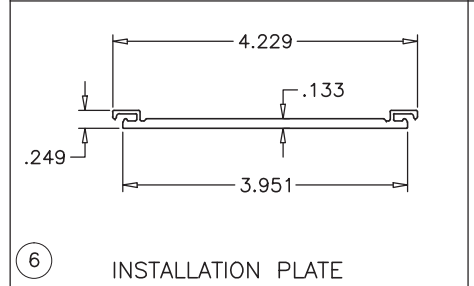
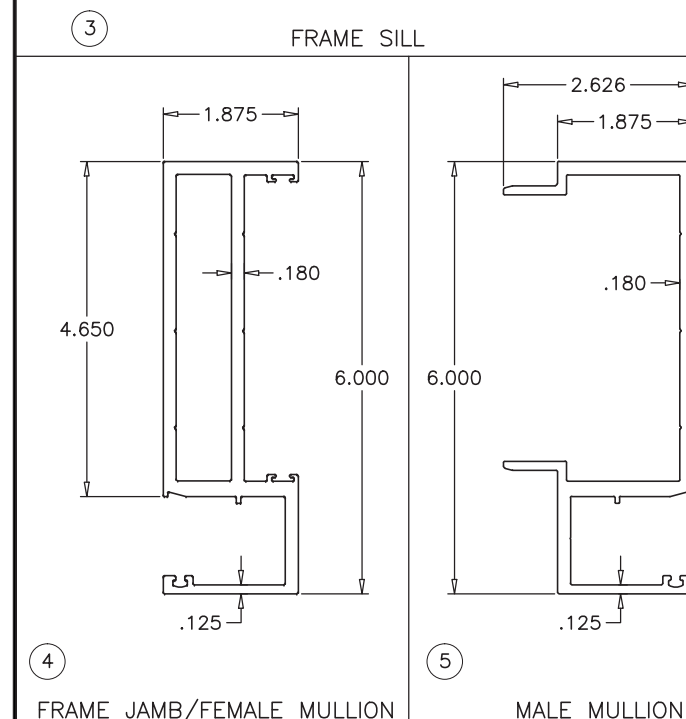
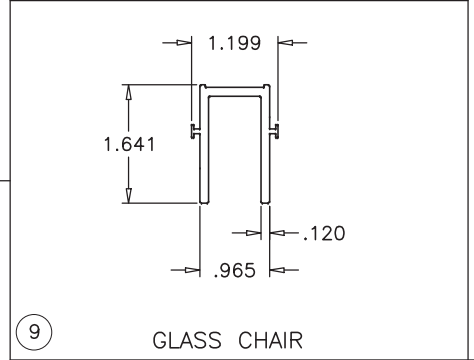
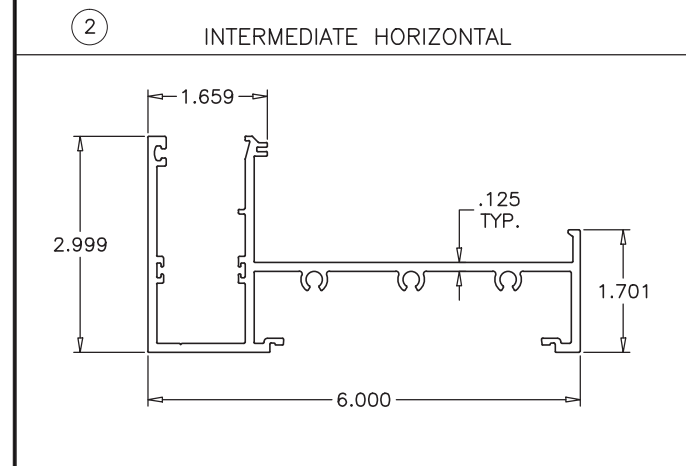
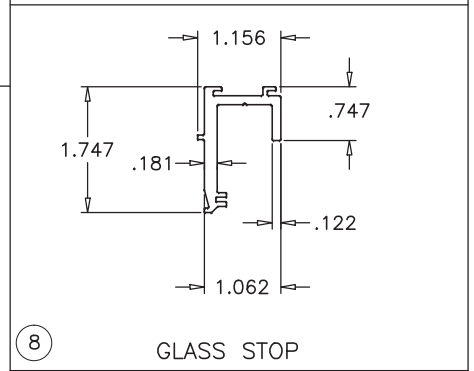
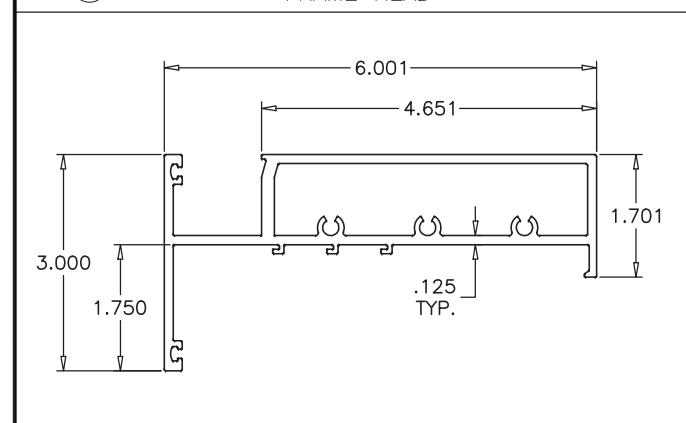
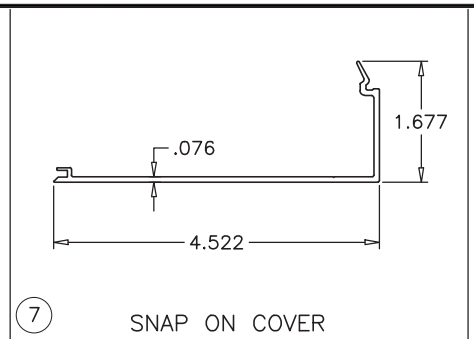
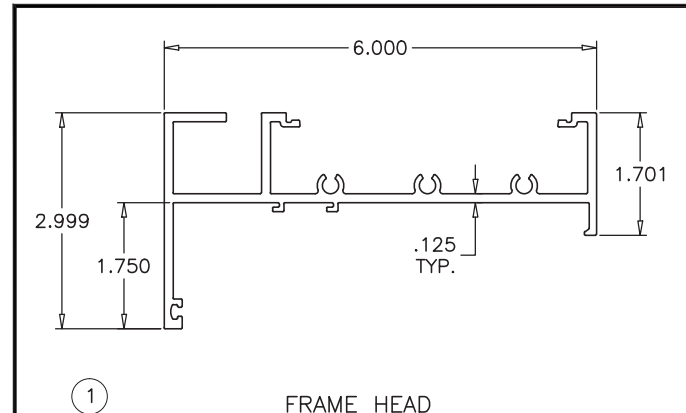
**NR ARCHITECTURAL PRODUCTS, INC.**

4948 WESTROADS DRIVE  
WEST PALM BEACH, FL. 33407  
P: (561) 844 - 1121 F: (561) 844 - 6131



FLORIDA APPROVAL FL #21446.1	
DATE	11-09-16
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DRAWN	S.L.
PROJECT	16-087
DRAWING NO. AD16-40	
SHEET 6 of 8	

ITEM NO.	PART NUMBER	QUANTITY	DESCRIPTION	MATERIAL	MANF./SUPPLIER/REMARKS
1	FW001S	AS REQD.	FRAME HEAD	6063-T6	-
2	FW002S	AS REQD.	INTERMEDIATE HORIZONTAL	6063-T6	-
3	FW003S	AS REQD.	FRAME SILL	6063-T6	-
4	FW004S	AS REQD.	FRAME JAMB/ FEMALE MULLION	6063-T6	-
5	FW005S	AS REQD.	MALE MULLION	6063-T6	-
6	FW006S	AS REQD.	INSTALLATION PLATE	6063-T6	-
7	FW007S	AS REQD.	SNAP ON COVER	6063-T5	-
8	FW008S	AS REQD.	GLASS STOP	6063-T5	-
9	FW009S	2/ LITE	GLASS CHAIR, 4" LONG	6063-T5	-
10	FW010S	AS REQD.	POCKET FILLER	6063-T5	-
11	FW011S	3/ MULL	POSITION CLIPS, 6" LONG AT 1/3 POINTS	6063-T5	-
12	SI	AS REQD.	REINFORCING CHANNEL	STEEL	-
13	NR-G1	AS REQD.	SIDE BLOCKS (TR-1456E)	EPDM	-
14	NR-G2	AS REQD.	W BLOCKS (TR-3508E)	EPDM	-
15	NR-G3	AS REQD.	WEATHER FIN (TR-1311E)	EPDM	-
16	NR-G4	AS REQD.	CUSTOM PRE-SET GASKET (TR-13915E)	EPDM	-
17	NR-G5	AS REQD.	FRICTION FIT SPACER (TR-13885W)	EPDM	-
18	NR-G6	AS REQD.	SETTING BLOCK (1/2" X 9/16" X 4" LONG) (TR-1990E)	EPDM	-
19	NR-G7	AS REQD.	SETTING BLOCK (3/8" X 9/16" X 4" LONG) (TR-1008S)	EPDM	-
20	NR-F1	3/ CORNER	FRAME ASS'Y SCREWS (1/4" X 1-1/2" PHP SELF TAPPING)	ST/ST	-
21	NR-F2	AS REQD.	GLASS STOP SCREWS (1/4" X 3/4" PHP SELF TAPPING)	ST/ST	AT 1" FROM ENDS & 18" O.C.
22	NR-F3	2/ CLIP	POSITION CLIP SCREWS (1/4" X 1" HEX H SELF DRILLING)	ST/ST	-

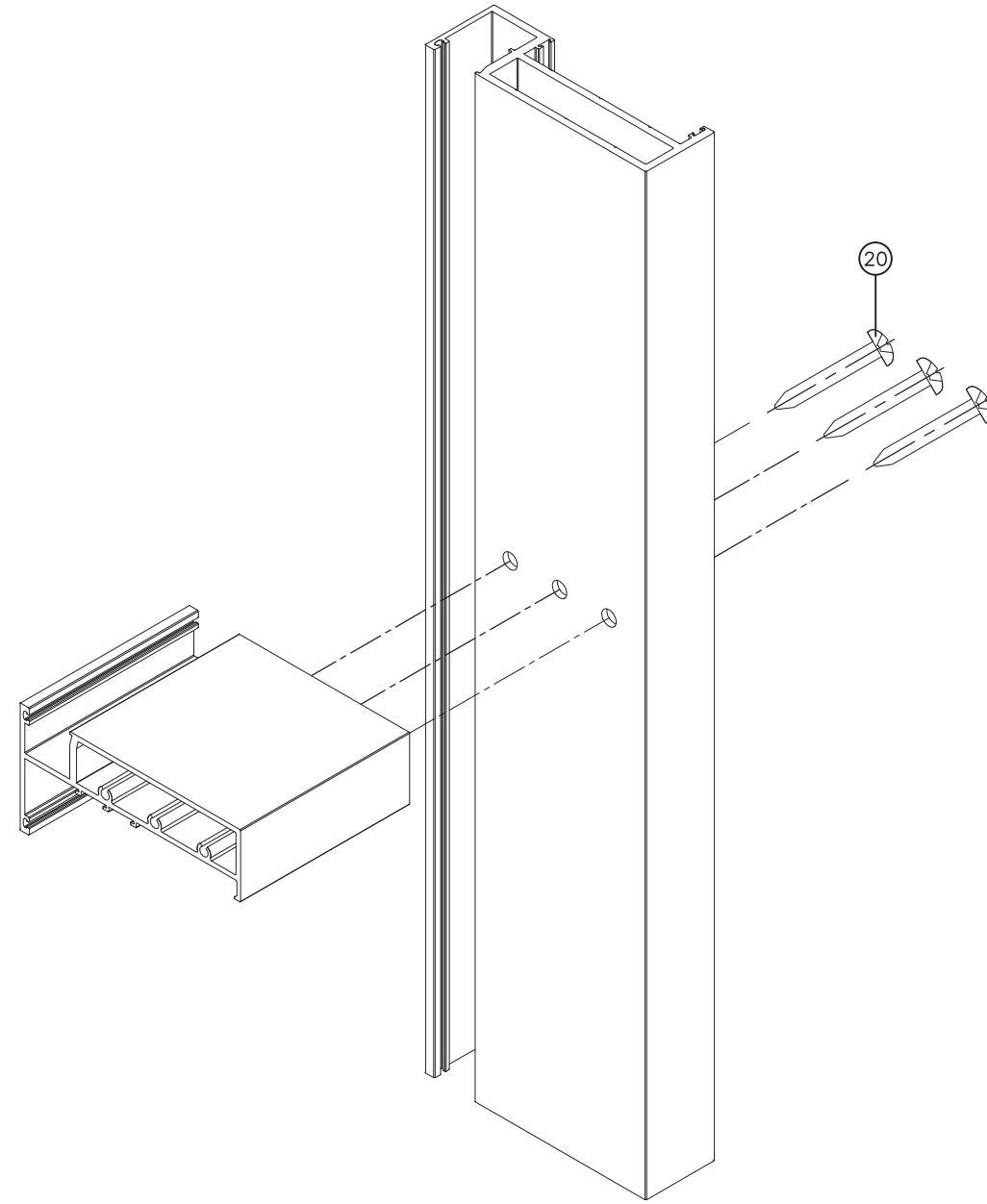
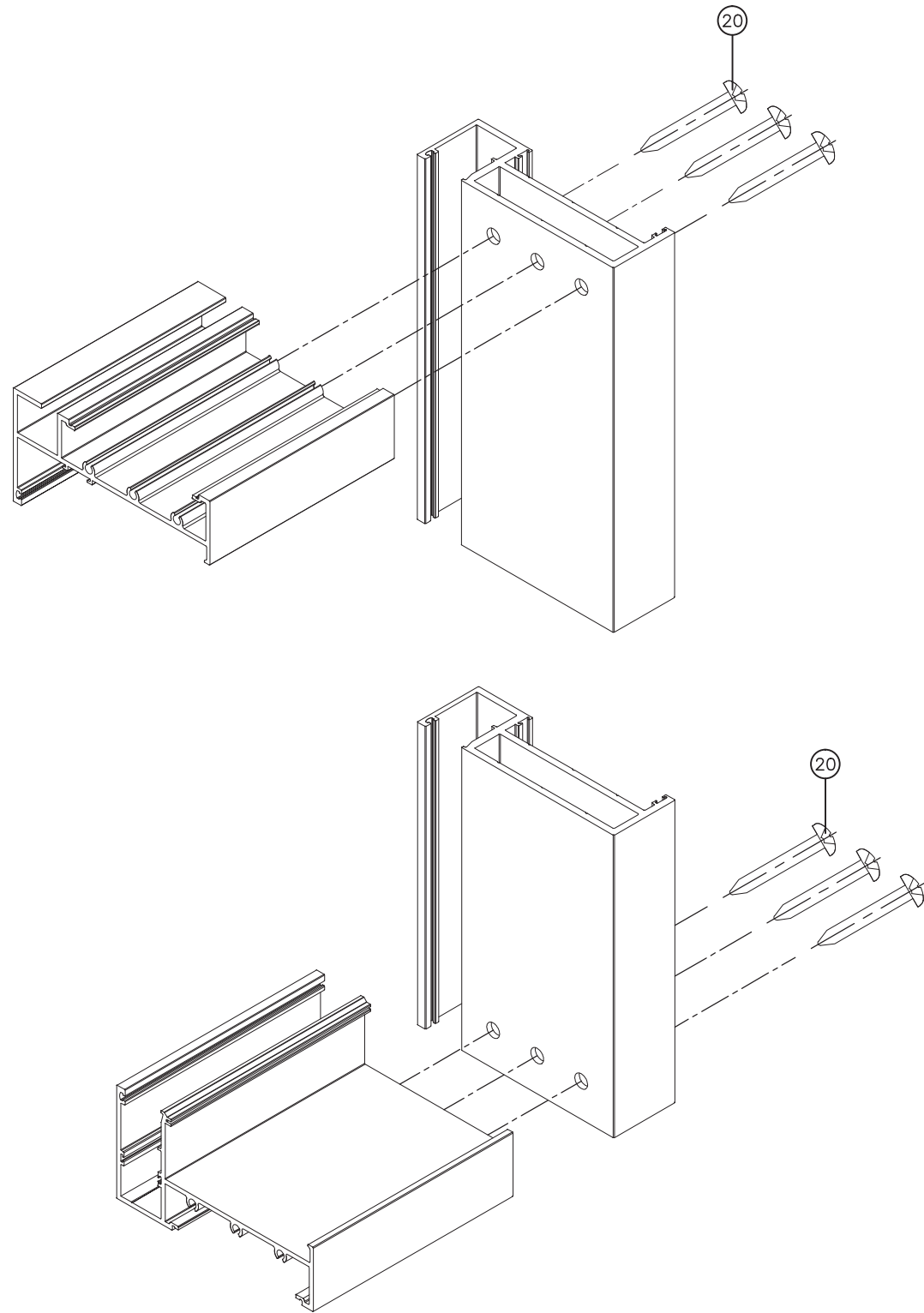


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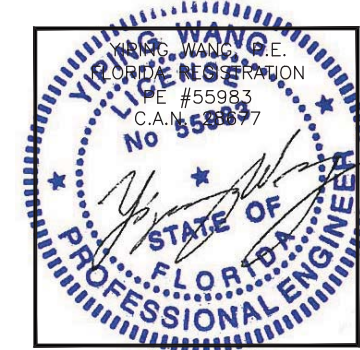
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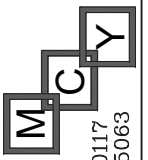
FLORIDA APPROVAL  
 FL #21446.1  
 DATE 11-09-16  
 SCALE AS NOTED  
 DRAWN S.L.  
 PROJECT 16-087  
 DRAWING NO. AD16-40  
 SHEET 7 of 8



FRAME CORNERS



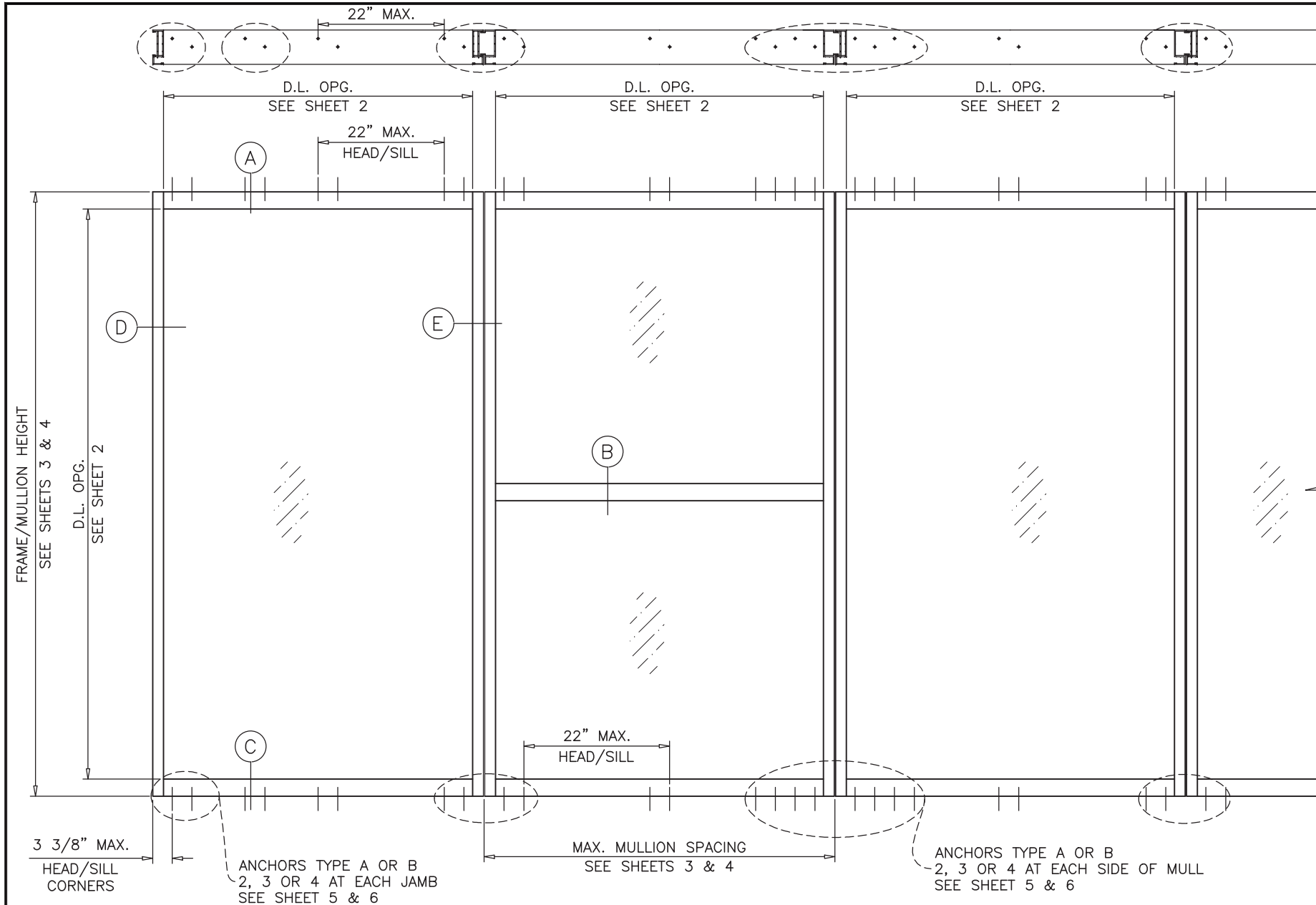
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SHEET 8 of 8	





TYPICAL ELEVATIONS

**NRAP FIXED WINDOW WALL SYSTEM SERIES 6000**

THIS SYSTEM IS RATED FOR SMALL MISSILE IMPACT. MIAMI-DADE COUNTY APPROVED IMPACT RESISTANT SHUTTERS REQUIRED FOR INSTALLATIONS UP TO 30 FT. OF GRADE. SHUTTERS NOT REQD. FOR INSTALLATIONS ABOVE 30 FT. OF GRADE.

CODE REQUIREMENTS FOR SAFEGUARDS MUST BE OBSERVED.

THIS PRODUCT HAS BEEN DESIGNED AND TESTED TO COMPLY WITH THE REQUIREMENTS OF THE 5TH EDITION FLORIDA BUILDING CODE (2014) INCLUDING HIGH VELOCITY HURRICANE ZONE (HVHZ).

WOOD BUCKS BY OTHERS, MUST BE ANCHORED PROPERLY TO TRANSFER LOADS TO THE STRUCTURE.

ANCHORS SHALL BE AS LISTED, SPACED AS SHOWN ON DETAILS, ANCHORS EMBEDDING TO BASE MATERIAL SHALL BE BEYOND WALL DRESSING OR STUCCO.

ANCHORING OR LOADING CONDITIONS NOT SHOWN IN THESE DETAILS ARE NOT PART OF THIS APPROVAL.

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

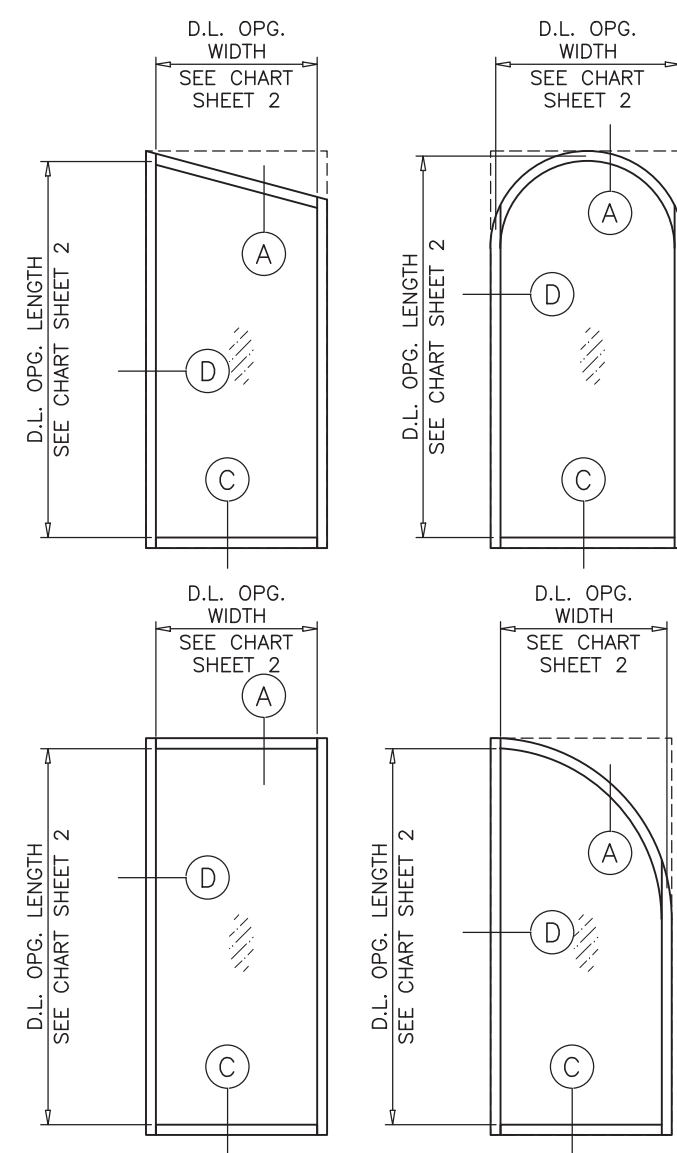
MATERIALS INCLUDING BUT NOT LIMITED TO STEEL/METAL SCREWS, THAT COME INTO CONTACT WITH OTHER DISSIMILAR MATERIALS SHALL MEET THE REQUIREMENTS OF THE 5TH EDITION FLORIDA BUILDING CODE (2014).

**INSTRUCTIONS:**

USE CHARTS AS FOLLOWS.

- STEP 1** DETERMINE DESIGN WIND LOAD REQUIREMENT BASED ON WIND VELOCITY, BLDG. HEIGHT, WIND ZONE USING APPLICABLE ASCE 7 STANDARD.
- STEP 2** SEE CHARTS ON SHEET 2 FOR DESIGN LOAD CAPACITY OF DESIRED GLASS SIZE.
- STEP 3** CHECK MULLION CAPACITY FOR A GIVEN SPACING AND HEIGHT USING CHARTS ON SHEETS 3 & 4 THE CAPACITY SHOULD EXCEED THE DESIGN LOAD.
- STEP 4** USING CHARTS ON SHEET 5 & 6 SELECT ANCHOR OPTION WITH DESIGN RATING MORE THAN DESIGN LOAD SPECIFIED IN STEP 1 ABOVE.
- STEP 5** THE LOWEST VALUE RESULTING FROM STEPS 2, 3 AND 4 SHALL APPLY TO ENTIRE SYSTEM.

ALLOWABLE LOADS FOR ALTERNATE SHAPES AS SHOWN ABOVE OR SIMILAR CAN BE VERIFIED BY INSCRIBING PICTURE WINDOW SHAPE WITHIN SQUARE OR RECTANGLE AS SHOWN IN DOTTED LINES AND OBTAINING ALLOWABLE LOADS FROM THOSE SHAPES.



**LAMINATED GLASS  
SMALL MISSILE IMPACT**

**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.

FLORIDA APPROVAL  
**FL #21446.2**  
 DATE 11-18-16  
 SCALE AS NOTED  
 DRAWN S.L.  
 PROJECT 16-088  
 DRAWING NO. AD16-41  
 SHEET 1 of 9

**YIPING WANG, P.E.**  
 FLORIDA REGISTRATION  
 PE #55983  
 C.A.N. No 55983

NO	DATE	REVISIONS DESCRIPTION

**MCY ENGINEERING, INC.**  
 GLAZING CONSULTANTS

**MCY**

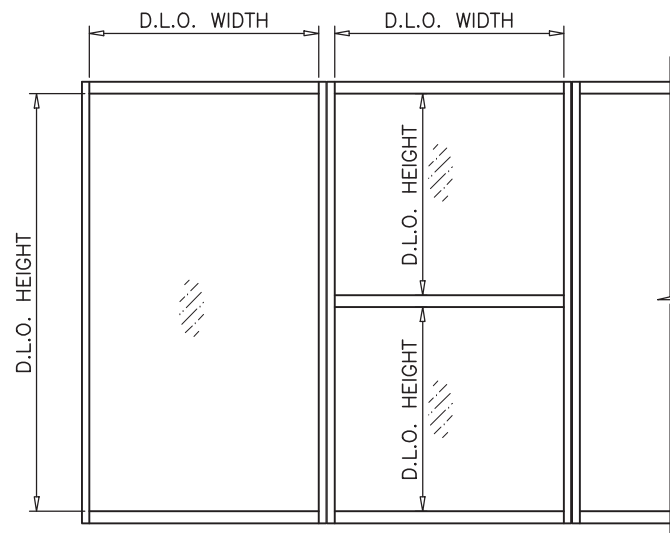
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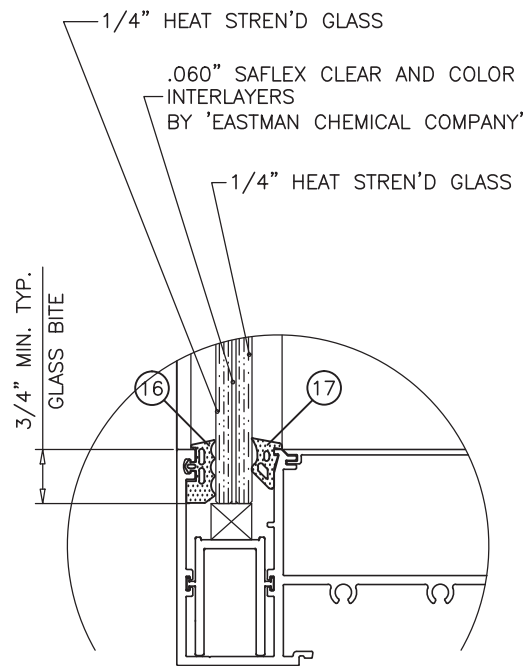
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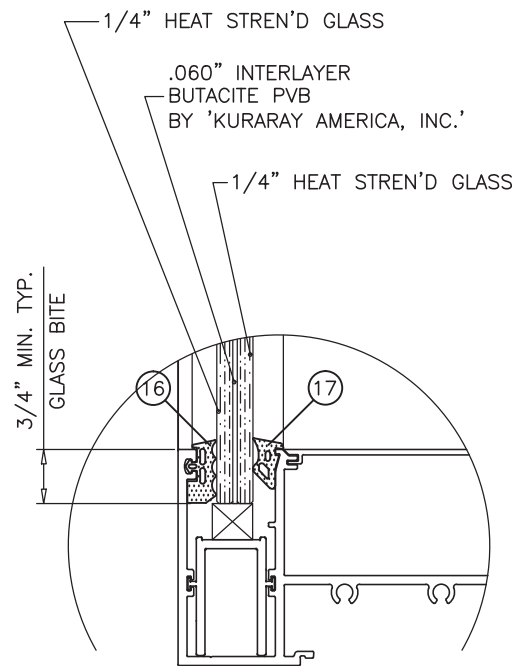
GLASS LOAD CAPACITY - PSF		
NOMINAL DIMS.		LAM. GLASS
D.L.O. WIDTH	D.L.O. HEIGHT	EXT.(+)/INT.(-)
32-1/4"	78"	140.0
38-1/4"		140.0
44-1/4"		140.0
50-1/4"		140.0
56-1/4"		140.0
62-1/4"		137.5
68-1/4"	133.7	
32-1/4"	84"	140.0
38-1/4"		140.0
44-1/4"		140.0
50-1/4"		140.0
56-1/4"		136.6
62-1/4"		132.5
68-1/4"	124.4	
32-1/4"	90"	140.0
38-1/4"		140.0
44-1/4"		140.0
50-1/4"		139.0
56-1/4"		131.9
62-1/4"		122.9
68-1/4"	115.2	
32-1/4"	96"	140.0
38-1/4"		140.0
44-1/4"		140.0
50-1/4"		131.2
56-1/4"		122.7
62-1/4"		113.7
32-1/4"	102"	140.0
38-1/4"		140.0
44-1/4"		139.5
50-1/4"		126.5
56-1/4"		114.7
62-1/4"		106.7
32-1/4"	108"	140.0
38-1/4"		140.0
44-1/4"		133.3
50-1/4"		119.4
56-1/4"		107.6
62-1/4"		
32-1/4"	113"	140.0
38-1/4"		140.0
44-1/4"		128.9
50-1/4"		114.4
56-1/4"		102.5
57-1/2"		100.9
32-1/4"	120"	140.0
38-1/4"		140.0
44-1/4"		126.3
32-1/4"	125"	140.0
38-1/4"		140.0
44-1/4"		122.4



D.L.O. WIDTH = PANEL WIDTH - 3.75"  
D.L.O. HEIGHT = PANEL HEIGHT - 6.0"



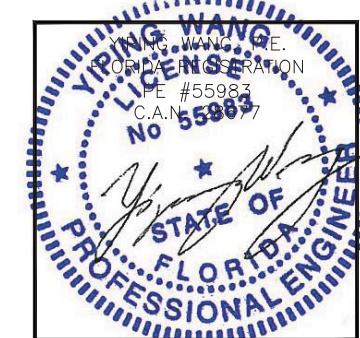
**GLASS TYPE 'A'**



**GLASS TYPE 'B'**

**GLAZING OPTIONS**

NOTE:  
GLASS CAPACITIES ON THIS SHEET ARE  
BASED ON ASTM E1300-09 (3 SEC. GUSTS).



NO	DATE	REVISIONS DESCRIPTION

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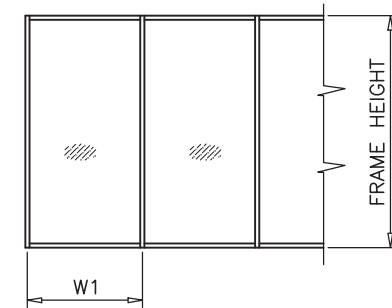
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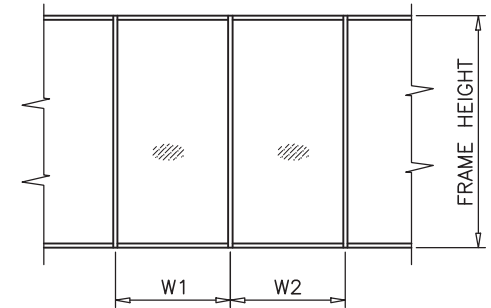
FLORIDA APPROVAL	
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DRAWING NO.	
AD16-41	
SHEET 2 of 9	

**MULLION LOAD CAPACITY - PSF**  
**MULLIONS WITHOUT INTERMEDIATE HORIZONTALS**

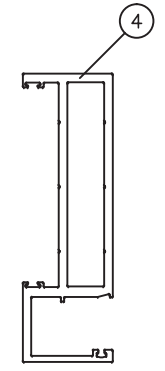
NOMINAL DIMS.		JAMB 'J1'		MULL 'M1'		MULL 'M2'		JAMB 'J2'		MULL 'M4'		JAMB 'J3'	
WIDTH (W)	FRAME HEIGHT	EXT.(+)	INT.(-)	EXT.(+)	INT.(-)	EXT.(+)	INT.(-)	EXT.(+)	INT.(-)	EXT.(+)	INT.(-)	EXT.(+)	INT.(-)
36"	84"	120.0	140.0	120.0	140.0	120.0	140.0	120.0	140.0	102.0	102.0	120.0	140.0
42"		120.0	140.0	120.0	140.0	120.0	140.0	120.0	140.0	102.0	102.0	120.0	140.0
48"		120.0	140.0	120.0	140.0	120.0	140.0	120.0	140.0	102.0	102.0	120.0	140.0
54"		120.0	140.0	120.0	140.0	120.0	140.0	120.0	140.0	102.0	102.0	120.0	140.0
60"		120.0	140.0	120.0	140.0	120.0	140.0	120.0	140.0	102.0	102.0	120.0	140.0
66"		120.0	140.0	120.0	140.0	120.0	140.0	120.0	140.0	102.0	102.0	120.0	140.0
72"		120.0	140.0	120.0	140.0	120.0	140.0	120.0	140.0	102.0	102.0	120.0	140.0
36"	90"	120.0	140.0	120.0	140.0	120.0	140.0	120.0	140.0	102.0	102.0	120.0	140.0
42"		120.0	140.0	120.0	140.0	120.0	140.0	120.0	140.0	102.0	102.0	120.0	140.0
48"		120.0	140.0	120.0	140.0	120.0	140.0	120.0	140.0	102.0	102.0	120.0	140.0
54"		120.0	140.0	120.0	140.0	120.0	140.0	120.0	140.0	102.0	102.0	120.0	140.0
60"		120.0	140.0	120.0	140.0	120.0	140.0	120.0	140.0	102.0	102.0	120.0	140.0
66"		120.0	140.0	120.0	140.0	120.0	140.0	120.0	140.0	102.0	102.0	120.0	140.0
72"		120.0	140.0	120.0	140.0	120.0	140.0	120.0	140.0	102.0	102.0	120.0	140.0
36"	96"	120.0	140.0	120.0	140.0	120.0	140.0	120.0	140.0	102.0	102.0	120.0	140.0
42"		120.0	140.0	120.0	140.0	120.0	140.0	120.0	140.0	102.0	102.0	120.0	140.0
48"		120.0	140.0	120.0	140.0	120.0	140.0	120.0	140.0	102.0	102.0	120.0	140.0
54"		120.0	140.0	120.0	140.0	120.0	140.0	120.0	140.0	102.0	102.0	120.0	140.0
60"		120.0	140.0	120.0	140.0	120.0	140.0	120.0	140.0	102.0	102.0	120.0	140.0
66"		120.0	140.0	120.0	140.0	120.0	140.0	120.0	140.0	102.0	102.0	120.0	140.0
72"		120.0	140.0	120.0	140.0	120.0	140.0	120.0	140.0	102.0	102.0	120.0	140.0
36"	102"	120.0	140.0	120.0	140.0	120.0	140.0	120.0	140.0	102.0	102.0	120.0	140.0
42"		120.0	140.0	120.0	140.0	120.0	140.0	120.0	140.0	102.0	102.0	120.0	140.0
48"		120.0	140.0	120.0	140.0	120.0	140.0	120.0	140.0	102.0	102.0	120.0	140.0
54"		120.0	140.0	120.0	140.0	120.0	140.0	120.0	140.0	102.0	102.0	120.0	140.0
60"		120.0	140.0	120.0	140.0	120.0	140.0	120.0	140.0	102.0	102.0	120.0	140.0
66"		120.0	140.0	120.0	140.0	120.0	140.0	120.0	140.0	102.0	102.0	120.0	132.8
72"		120.0	138.4	120.0	138.4	120.0	138.4	120.0	138.4	100.8	100.8	120.0	125.6
36"	108"	120.0	140.0	120.0	140.0	120.0	140.0	120.0	140.0	102.0	102.0	120.0	140.0
42"		120.0	140.0	120.0	140.0	120.0	140.0	120.0	140.0	102.0	102.0	120.0	140.0
48"		120.0	140.0	120.0	140.0	120.0	140.0	120.0	140.0	102.0	102.0	120.0	140.0
54"		120.0	140.0	120.0	140.0	120.0	140.0	120.0	140.0	102.0	102.0	120.0	134.7
60"		120.0	140.0	120.0	140.0	120.0	140.0	120.0	140.0	102.0	102.0	120.0	123.8
66"		120.0	140.0	120.0	140.0	120.0	140.0	120.0	140.0	102.0	102.0	115.4	115.4
72"		120.0	140.0	120.0	140.0	120.0	140.0	120.0	140.0	102.0	102.0	120.0	140.0
36"	114"	120.0	140.0	120.0	140.0	120.0	140.0	120.0	140.0	102.0	102.0	120.0	140.0
42"		120.0	140.0	120.0	140.0	120.0	140.0	120.0	140.0	102.0	102.0	120.0	140.0
48"		120.0	140.0	120.0	140.0	120.0	140.0	120.0	140.0	102.0	102.0	120.0	131.4
54"		120.0	140.0	120.0	140.0	120.0	140.0	120.0	140.0	102.0	102.0	118.8	118.8
60"		120.0	140.0	120.0	140.0	120.0	140.0	120.0	140.0	102.0	102.0	108.9	108.9
36"	119"	120.0	140.0	120.0	140.0	120.0	140.0	120.0	140.0	102.0	102.0	120.0	140.0
42"		120.0	140.0	120.0	140.0	120.0	140.0	120.0	140.0	102.0	102.0	120.0	134.5
48"		120.0	140.0	120.0	140.0	120.0	140.0	120.0	140.0	102.0	102.0	119.2	119.2
54"		120.0	139.9	120.0	139.9	120.0	140.0	120.0	140.0	102.0	102.0	107.6	107.6
60"		120.0	128.1	120.0	128.1	120.0	135.9	120.0	140.0	102.0	102.0	98.5	98.5
61"		120.0	126.4	120.0	126.4	120.0	134.0	120.0	140.0	102.0	102.0	97.2	97.2
36"	126"	102.0	120.0	-	-	102.0	120.0	-	-	-	-	-	-
42"		102.0	120.0	-	-	102.0	120.0	-	-	-	-	-	-
48"		102.0	108.7	-	-	102.0	108.7	-	-	-	-	-	-
36"	131"	102.0	120.0	-	-	102.0	120.0	-	-	-	-	-	-
42"		102.0	115.2	-	-	102.0	115.2	-	-	-	-	-	-
48"		102.0	103.6	-	-	102.0	103.6	-	-	-	-	-	-



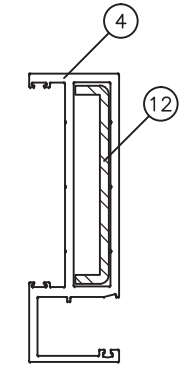
WIDTH (W) = W1  
AT FRAME JAMB



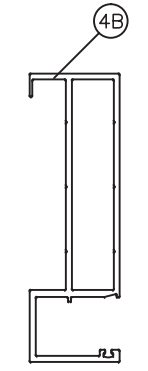
WIDTH (W) =  $\frac{W1 + W2}{2}$   
AT FRAME MULLION



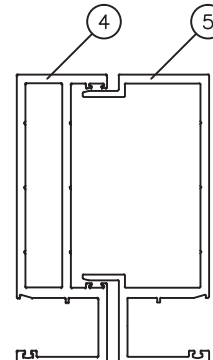
JAMB 'J1'



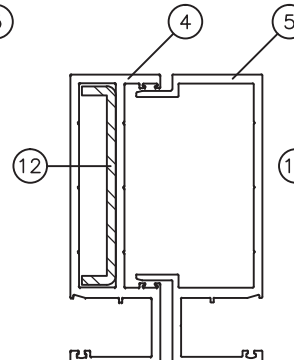
JAMB 'J2'



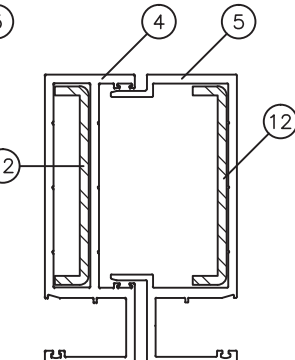
JAMB 'J3'



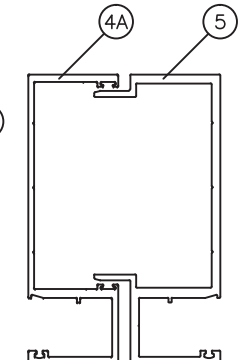
MULLION 'M1'



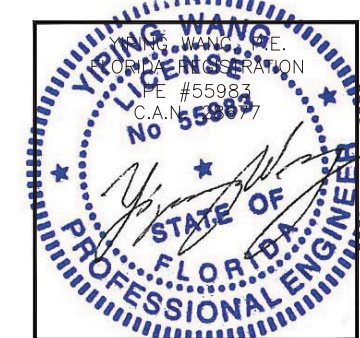
MULLION 'M2'



MULLION 'M3'



MULLION 'M4'



NO.	DATE	DESCRIPTION

**MCY**

**MCY ENGINEERING, INC.**  
GLAZING CONSULTANTS

8501 SW 124 AVE. STE. 205A P: 305.271.0117  
MIAMI, FL. 33183 F: 786.573.5063

www.MCYEngineering.com MCY.Engineering@Att.net

**NRAP FIXED WINDOW WALL SYS. SERIES 6000 (S.M.I.)**

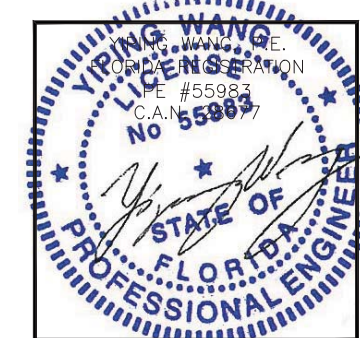
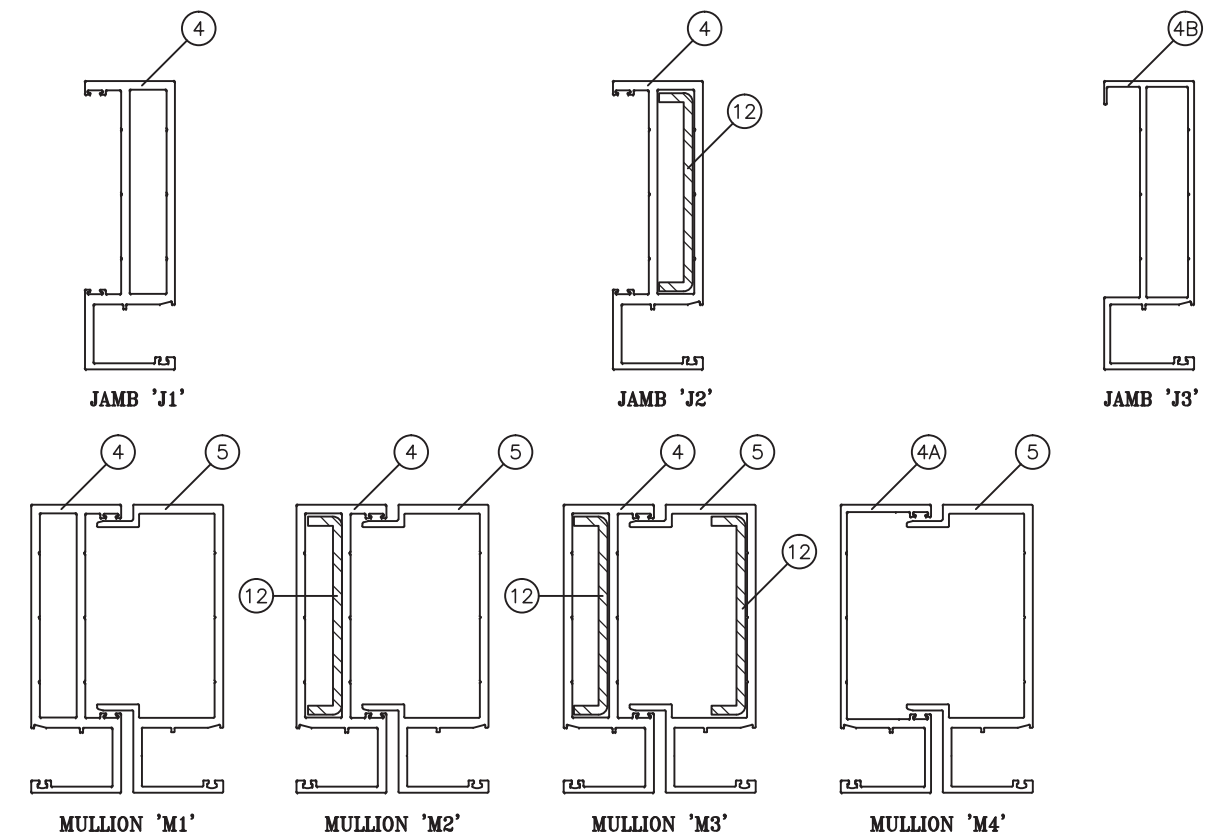
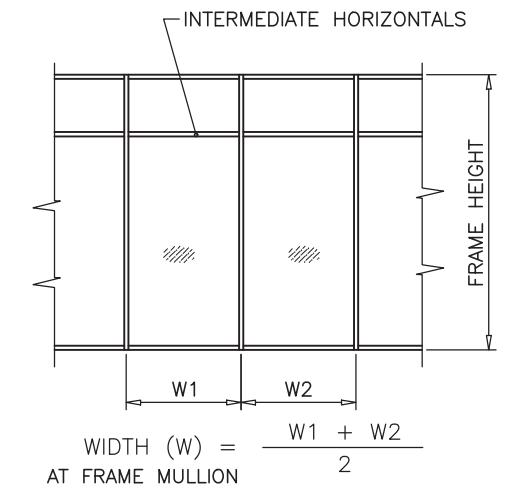
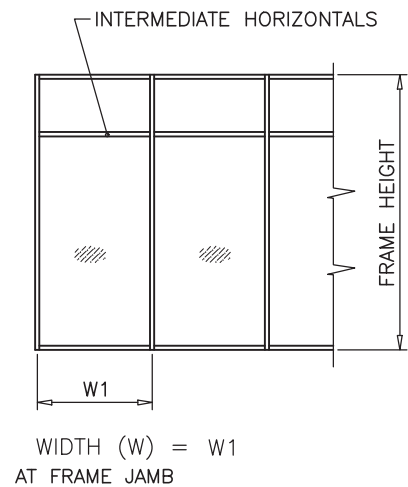
**NR ARCHITECTURAL PRODUCTS, INC.**

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

FLORIDA APPROVAL	
FL #21446.2	
DATE	11-18-16
SCALE	AS NOTED
DRAWN	S.L.
PROJECT	16-088
DRAWING NO.	
AD16-41	
SHEET 3 of 9	

**MULLION LOAD CAPACITY - PSF**  
**MULLIONS WITH INTERMEDIATE HORIZONTALS**

NOMINAL DIMS.		JAMB 'J1'		MULL 'M1'		MULL 'M2'		JAMB 'J2'		MULL 'M4'		JAMB 'J3'	
WIDTH (W)	FRAME HEIGHT	EXT.(+)	INT.(-)	EXT.(+)	INT.(-)	EXT.(+)	INT.(-)	EXT.(+)	INT.(-)	EXT.(+)	INT.(-)	EXT.(+)	INT.(-)
36"	84"	120.0	140.0	120.0	140.0	120.0	140.0	120.0	140.0	102.0	102.0	120.0	140.0
42"		120.0	140.0	120.0	140.0	120.0	140.0	120.0	140.0	102.0	102.0	120.0	140.0
48"		120.0	140.0	120.0	140.0	120.0	140.0	120.0	140.0	102.0	102.0	120.0	140.0
54"		120.0	140.0	120.0	140.0	120.0	140.0	120.0	140.0	102.0	102.0	120.0	140.0
60"		120.0	140.0	120.0	140.0	120.0	140.0	120.0	140.0	102.0	102.0	120.0	140.0
66"		120.0	140.0	120.0	140.0	120.0	140.0	120.0	140.0	102.0	102.0	120.0	140.0
72"		120.0	140.0	120.0	140.0	120.0	140.0	120.0	140.0	102.0	102.0	120.0	140.0
36"	90"	120.0	140.0	120.0	140.0	120.0	140.0	120.0	140.0	102.0	102.0	120.0	140.0
42"		120.0	140.0	120.0	140.0	120.0	140.0	120.0	140.0	102.0	102.0	120.0	140.0
48"		120.0	140.0	120.0	140.0	120.0	140.0	120.0	140.0	102.0	102.0	120.0	140.0
54"		120.0	140.0	120.0	140.0	120.0	140.0	120.0	140.0	102.0	102.0	120.0	140.0
60"		120.0	140.0	120.0	140.0	120.0	140.0	120.0	140.0	102.0	102.0	120.0	140.0
66"		120.0	140.0	120.0	140.0	120.0	140.0	120.0	140.0	102.0	102.0	120.0	140.0
72"		120.0	140.0	120.0	140.0	120.0	140.0	120.0	140.0	102.0	102.0	120.0	140.0
36"	96"	120.0	140.0	120.0	140.0	120.0	140.0	120.0	140.0	102.0	102.0	120.0	140.0
42"		120.0	140.0	120.0	140.0	120.0	140.0	120.0	140.0	102.0	102.0	120.0	140.0
48"		120.0	140.0	120.0	140.0	120.0	140.0	120.0	140.0	102.0	102.0	120.0	140.0
54"		120.0	140.0	120.0	140.0	120.0	140.0	120.0	140.0	102.0	102.0	120.0	140.0
60"		120.0	140.0	120.0	140.0	120.0	140.0	120.0	140.0	102.0	102.0	120.0	140.0
66"		120.0	140.0	120.0	140.0	120.0	140.0	120.0	140.0	102.0	102.0	120.0	134.6
72"		120.0	140.0	120.0	140.0	120.0	140.0	120.0	140.0	102.0	102.0	120.0	123.3
36"	102"	120.0	140.0	120.0	140.0	120.0	140.0	120.0	140.0	102.0	102.0	120.0	140.0
42"		120.0	140.0	120.0	140.0	120.0	140.0	120.0	140.0	102.0	102.0	120.0	140.0
48"		120.0	140.0	120.0	140.0	120.0	140.0	120.0	140.0	102.0	102.0	120.0	140.0
54"		120.0	140.0	120.0	140.0	120.0	140.0	120.0	140.0	102.0	102.0	120.0	140.0
60"		120.0	140.0	120.0	140.0	120.0	140.0	120.0	140.0	102.0	102.0	120.0	129.9
66"		120.0	140.0	120.0	140.0	120.0	140.0	120.0	140.0	102.0	102.0	118.1	118.1
72"		120.0	138.4	120.0	138.4	120.0	138.4	120.0	140.0	100.8	100.8	108.2	108.2
36"	108"	120.0	140.0	120.0	140.0	120.0	140.0	120.0	140.0	102.0	102.0	120.0	140.0
42"		120.0	140.0	120.0	140.0	120.0	140.0	120.0	140.0	102.0	102.0	120.0	140.0
48"		120.0	140.0	120.0	140.0	120.0	140.0	120.0	140.0	102.0	102.0	120.0	140.0
54"		120.0	140.0	120.0	140.0	120.0	140.0	120.0	140.0	102.0	102.0	120.0	127.5
60"		120.0	140.0	120.0	140.0	120.0	140.0	120.0	140.0	102.0	102.0	114.8	114.8
66"		120.0	135.0	120.0	135.0	120.0	137.5	120.0	140.0	102.0	102.0	104.4	104.4
72"		120.0	140.0	120.0	140.0	120.0	140.0	120.0	140.0	102.0	102.0	120.0	140.0
36"	114"	120.0	140.0	120.0	140.0	120.0	140.0	120.0	140.0	102.0	102.0	120.0	140.0
42"		120.0	140.0	120.0	140.0	120.0	140.0	120.0	140.0	102.0	102.0	120.0	140.0
48"		120.0	140.0	120.0	140.0	120.0	140.0	120.0	140.0	102.0	102.0	120.0	127.6
54"		120.0	140.0	120.0	140.0	120.0	140.0	120.0	140.0	102.0	102.0	113.4	113.4
60"		120.0	132.2	120.0	132.2	120.0	135.8	120.0	140.0	102.0	102.0	102.1	102.1
36"	119"	120.0	140.0	120.0	140.0	120.0	140.0	120.0	140.0	102.0	102.0	120.0	140.0
42"		120.0	140.0	120.0	140.0	120.0	140.0	120.0	140.0	102.0	102.0	120.0	132.9
48"		120.0	140.0	120.0	140.0	120.0	140.0	120.0	140.0	102.0	102.0	116.3	116.3
54"		120.0	134.0	120.0	134.0	120.0	138.5	120.0	140.0	102.0	102.0	103.4	103.4
60"		120.0	120.6	120.0	120.6	120.0	124.6	120.0	140.0	98.8	98.8	93.0	93.0
61"		118.6	118.6	118.6	118.6	120.0	122.6	120.0	140.0	97.2	97.2	91.5	91.5
36"	126"	102.0	117.3	-	-	102.0	117.3	-	-	-	-	-	-
42"		100.6	100.6	-	-	100.6	100.6	-	-	-	-	-	-
48"		88.0	88.0	-	-	88.0	88.0	-	-	-	-	-	-
36"	131"	102.0	112.9	-	-	102.0	112.9	-	-	-	-	-	-
42"		96.7	96.7	-	-	96.7	96.7	-	-	-	-	-	-
48"		84.7	84.7	-	-	84.7	84.7	-	-	-	-	-	-



NO.	DATE	DESCRIPTION

**MCY**

**MCY ENGINEERING, INC.**  
GLAZING CONSULTANTS

8501 SW 124 AVE. STE. 205A P: 305.271.0117  
MIAMI, FL 33183 F: 786.573.5063

www.MCYEngineering.com MCY.Engineering@Att.net

**NRAP FIXED WINDOW WALL SYS. SERIES 6000 (S.M.I.)**

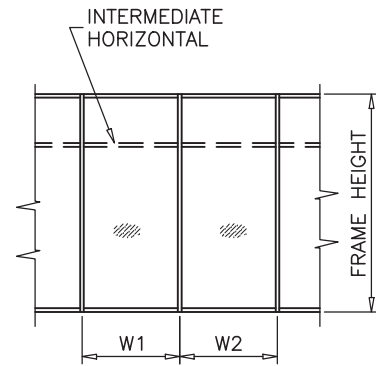
**NR ARCHITECTURAL PRODUCTS, INC.**

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

FLORIDA APPROVAL	
FL #21446.2	
DATE	11-18-16
SCALE	AS NOTED
DRAWN	S.L.
PROJECT	16-088
DRAWING NO.	
AD16-41	
SHEET 4 of 9	

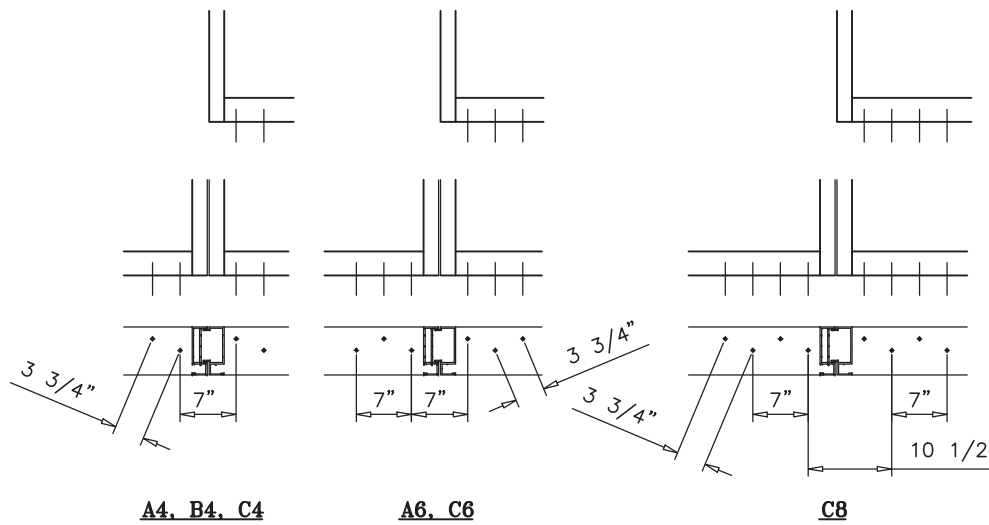
ANCHOR LOAD CAPACITY - PSF MULLIONS WITH OR WITHOUT INTERMEDIATE HORIZONTALS EXT.(+) & INT.(-)								
NOMINAL DIMENSION		ANCHOR TYPE 'A'		ANCHOR TYPE 'C'			ANCHOR TYPE 'B'	
		1/2" MAX. SHIM					3/8" MAX. SHIM	
WIDTH (W)	FRAME HEIGHT	A4	A6	C4	C6	C8	B4	
36"	84"	140.0	140.0	102.5	140.0	140.0	140.0	
42"		140.0	140.0	131.8	131.8	140.0	140.0	
48"		140.0	140.0	115.3	140.0	140.0	140.0	
54"		140.0	140.0	102.5	136.6	140.0	140.0	
60"		140.0	140.0	123.0	123.0	140.0	140.0	
66"		140.0	140.0	111.8	139.7	139.7	140.0	
72"		140.0	140.0	102.5	128.1	140.0	140.0	
36"		90"	140.0	140.0	95.6	140.0	140.0	140.0
42"	140.0		140.0	123.0	123.0	140.0	140.0	
48"	140.0		140.0	107.6	140.0	140.0	140.0	
54"	140.0		140.0	95.6	127.5	140.0	140.0	
60"	140.0		140.0	114.8	114.8	140.0	140.0	
66"	140.0		140.0	104.3	130.4	130.4	140.0	
72"	140.0		140.0	95.6	119.6	140.0	140.0	
36"	96"		140.0	140.0	89.7	134.5	140.0	140.0
42"		140.0	140.0	115.3	115.3	140.0	140.0	
48"		140.0	140.0	100.9	134.5	134.5	140.0	
54"		140.0	140.0	89.7	119.6	140.0	140.0	
60"		140.0	140.0	107.6	107.6	134.5	140.0	
66"		140.0	140.0	97.8	122.3	122.3	140.0	
72"		140.0	140.0	89.7	112.1	134.5	140.0	
36"		102"	140.0	140.0	84.4	126.6	140.0	140.0
42"	140.0		140.0	108.5	108.5	140.0	140.0	
48"	140.0		140.0	94.9	126.6	126.6	140.0	
54"	140.0		140.0	84.4	112.5	140.0	140.0	
60"	140.0		140.0	101.3	101.3	126.6	140.0	
66"	140.0		140.0	92.1	115.1	115.1	140.0	
72"	140.0		140.0	84.4	105.5	126.6	140.0	
36"	108"		140.0	140.0	79.7	119.6	140.0	140.0
42"		140.0	140.0	102.5	102.5	136.6	140.0	
48"		140.0	140.0	89.7	119.6	119.6	140.0	
54"		140.0	140.0	79.7	106.3	132.8	140.0	
60"		140.0	140.0	95.6	95.6	119.6	140.0	
66"		140.0	140.0	86.9	108.7	108.7	140.0	
36"		114"	133.6	140.0	75.5	113.3	140.0	140.0
42"			140.0	140.0	97.1	97.1	129.4	140.0
48"	140.0		140.0	84.9	113.3	113.3	140.0	
54"	133.6		140.0	75.5	100.7	125.8	140.0	
60"	140.0		140.0	90.6	90.6	113.3	140.0	
36"	119"		128.0	140.0	72.3	108.5	140.0	140.0
42"			140.0	140.0	93.0	93.0	124.0	140.0
48"			140.0	140.0	81.4	108.5	108.5	140.0
54"		128.0	140.0	72.3	96.4	120.6	140.0	
60"		140.0	140.0	86.8	86.8	108.5	140.0	
61"		140.0	140.0	85.4	85.4	106.7	140.0	

ANCHOR LOAD CAPACITY - PSF MULLIONS WITH OR WITHOUT INTERMEDIATE HORIZONTALS EXT.(+) & INT.(-)							
NOMINAL DIMENSION		ANCHOR TYPE 'A'		ANCHOR TYPE 'C'			ANCHOR TYPE 'B'
		1/2" MAX. SHIM					3/8" MAX. SHIM
WIDTH (W)	FRAME HEIGHT	A4	A6	C4	C6	C8	B4
36"	126"	120.9	140.0	68.3	102.5	136.6	140.0
42"		140.0	140.0	87.8	87.8	117.1	140.0
48"		136.0	140.0	76.9	102.5	102.5	140.0
36"	131"	116.3	140.0	65.7	98.6	131.4	140.0
42"		140.0	140.0	84.5	84.5	112.6	140.0
48"		130.8	140.0	73.9	98.6	98.6	140.0



WIDTH (W) = W1 (JAMB)

WIDTH (W) =  $\frac{W1 + W2}{2}$  (MULLION)



**ANCHORS TYPES:** SEE SHEET 6 FOR DESCRIPTION

- A4** = (2) ANCHORS TYPE 'A' AT EACH SIDE OF JAMB & MULLION
- B4** = (2) ANCHORS TYPE 'B' AT EACH SIDE OF JAMB & MULLION
- C4** = (2) ANCHORS TYPE 'C' AT EACH SIDE OF JAMB & MULLION
- A6** = (3) ANCHORS TYPE 'A' AT EACH SIDE OF JAMB & MULLION
- C6** = (3) ANCHORS TYPE 'C' AT EACH SIDE OF JAMB & MULLION
- C8** = (4) ANCHORS TYPE 'C' AT EACH SIDE OF JAMB & MULLION

ALL OTHER ANCHORS TO BE SPACED AS PER ELEVATION.

NO	DATE	DESCRIPTION

**MCY ENGINEERING, INC.**  
GLAZING CONSULTANTS

**MCY**

8501 SW 124 AVE. STE. 205A P: 305.271.0117  
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www.MCYEngineering.com MCY.Engineering@Att.net

**NRAP FIXED WINDOW WALL SYS. SERIES 6000 (S.M.I.)**

**NR ARCHITECTURAL PRODUCTS, INC.**

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

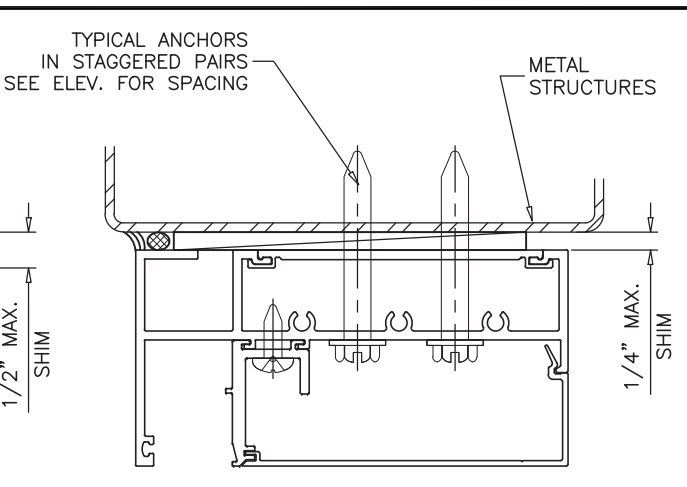
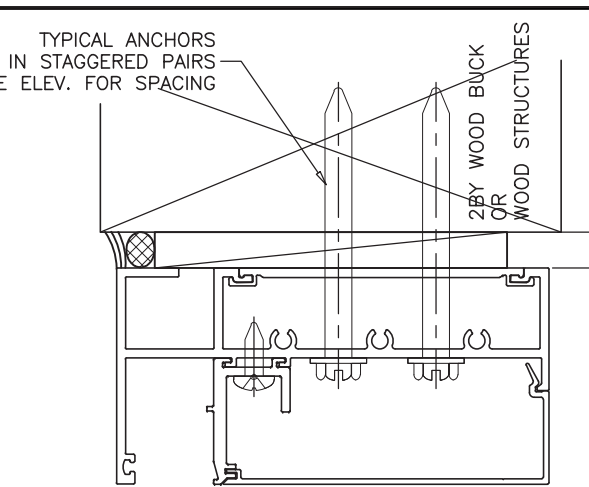
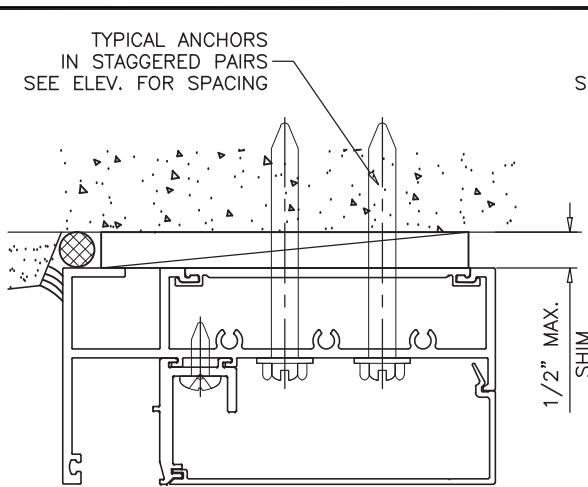
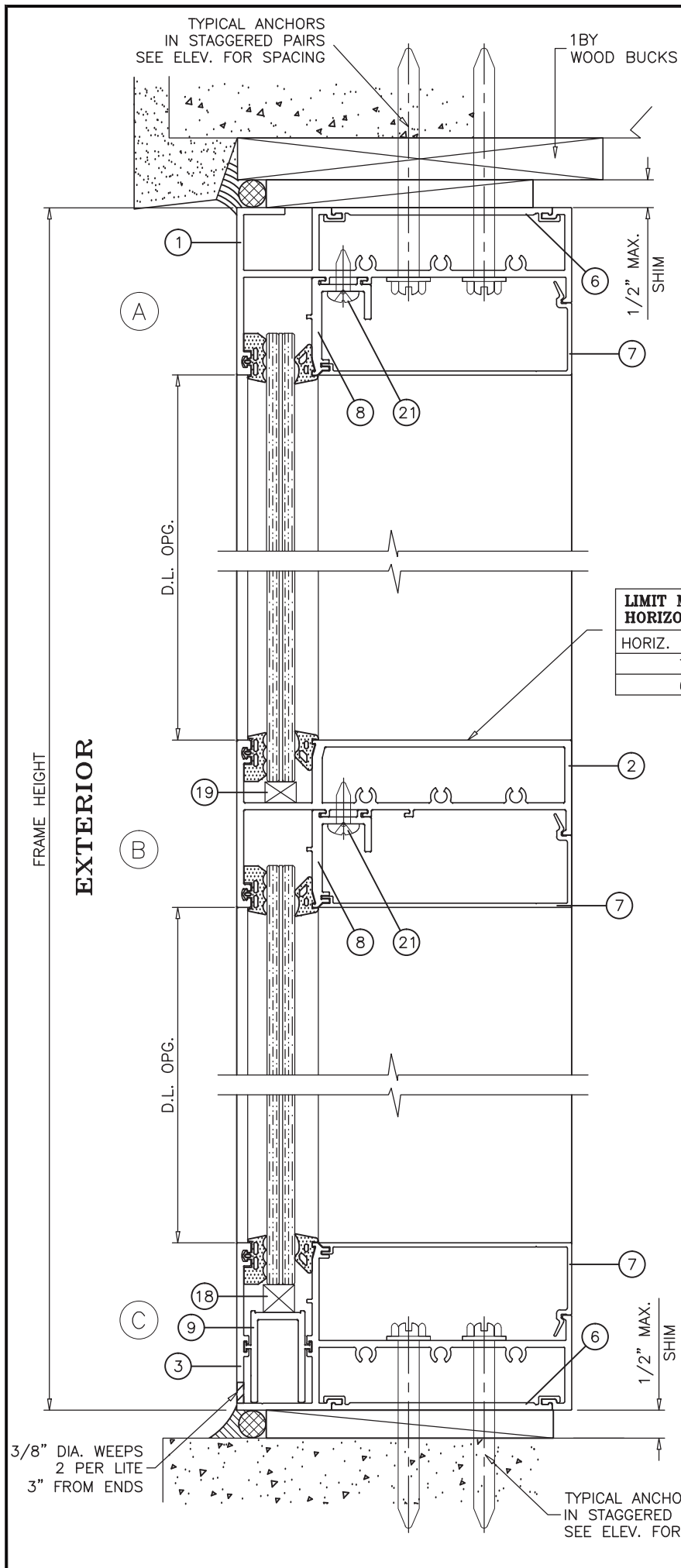
FLORIDA APPROVAL  
FL #21446.2

DATE 11-18-16  
SCALE AS NOTED  
DRAWN S.L.  
PROJECT 16-088

DRAWING NO.  
AD16-41

SHEET 5 of 9

YIPING WANG, P.E.  
PROFESSIONAL ENGINEER  
STATE OF FLORIDA  
LICENSE #55983  
C.A.N. No 55983



WOOD BUCKS AND METAL STRUCTURES NOT BY N.R. WDW. MUST SUPPORT LOADS IMPOSED BY GLAZING SYSTEM AND TRANSFER THEM TO THE BUILDING STRUCTURE.

**LIMIT MAX. DESIGN LOADS FOR HORIZONTAL AS FOLLOWS**

HORIZ. SPAN MAX.	LAM. GLASS
72"	132 PSF
66"	140 PSF

**TYPICAL ANCHORS:** SEE ELEV. FOR SPACING

**TYPE 'A'** - 3/8" DIA. WEDGE-BOLT ANCHOR BY 'POWERS' (Fu = 100 KSI, Fy = 65 KSI) INTO WOOD STRUCTURES SG=0.55 WITH 2-1/4" MIN. EMBED.

3/8" DIA. WEDGE-BOLT ANCHOR BY 'POWERS' (Fu = 100 KSI, Fy = 65 KSI) DIRECTLY INTO CONCRETE fc'=3000 PSI WITH 2" MIN. EMBED.

5/16" DIA. ULTRACON (Fu = 177 KSI, Fy=155 KSI) DIRECTLY INTO CONCRETE fc'=3000 PSI WITH 1-3/4" MIN. EMBED.

**TYPE 'B'** - 3/8" DIA. MACHINE BOLT GRADE 5 W/ WASHER & NUT (Fu = 120 KSI, Fy = 92 KSI) INTO METAL STRUCTURES  
 STEEL : 12 GA. MIN. (Fy = 36 KSI MIN.)  
 ALUMINUM : 1/8" THK. MIN. (6063-T5 MIN.)  
 (STEEL IN CONTACT WITH ALUMINUM TO BE PLATED OR PAINTED)

**TYPE 'C'** - 5/16" DIA. ULTRACON (Fu = 177 KSI, Fy=155 KSI) INTO WOOD STRUCTURES (SG=0.55) OR THRU 1X OR 2X WOOD BUCK WITH 1-1/4" MIN. EMBED. INTO CONCRETE

**ANCHOR EDGE DISTANCES**  
 INTO CONCRETE = 3" MIN.  
 INTO WOOD STRUCTURE = 1-1/2" MIN.  
 INTO METAL STRUCTURE = 1" MIN.

**SEALANTS:**

ALL FRAME CORNERS AND JOINTS SEALED WITH DOW-795 OR TREMCO SPECTREM 2 SILICONE SEALANT.

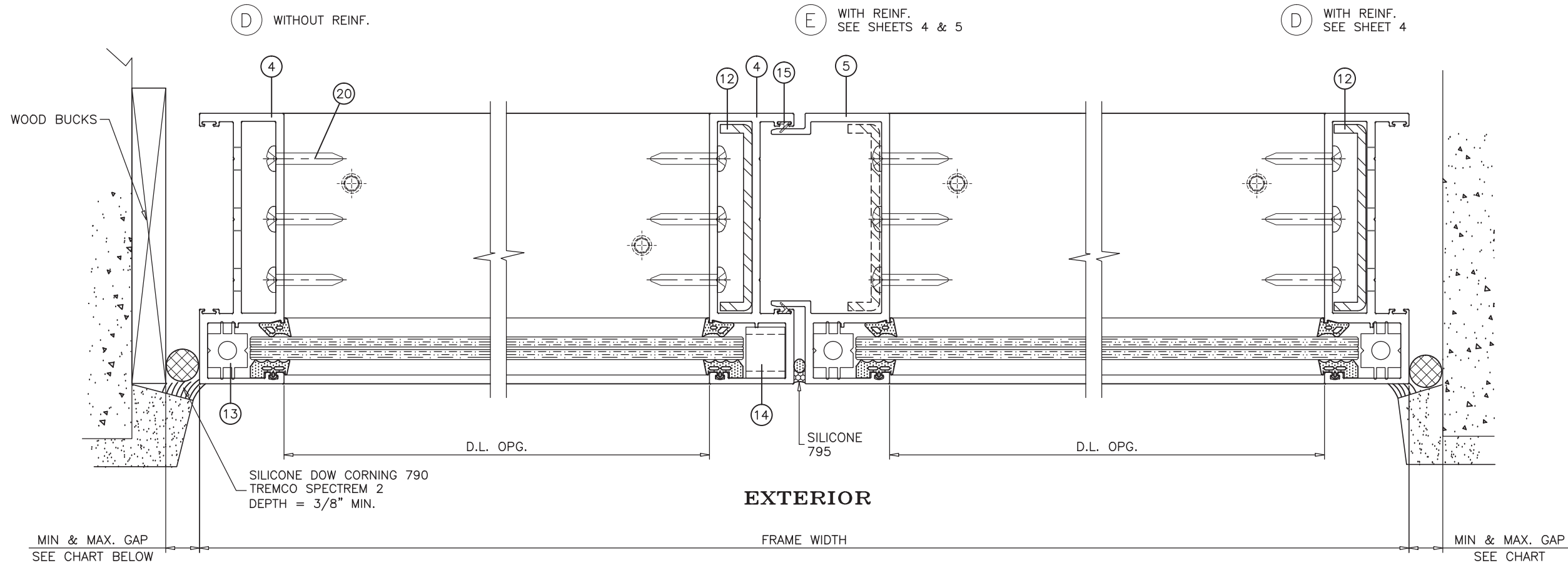
NO	DATE	REVISIONS DESCRIPTION

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 GLAZING CONSULTANTS  
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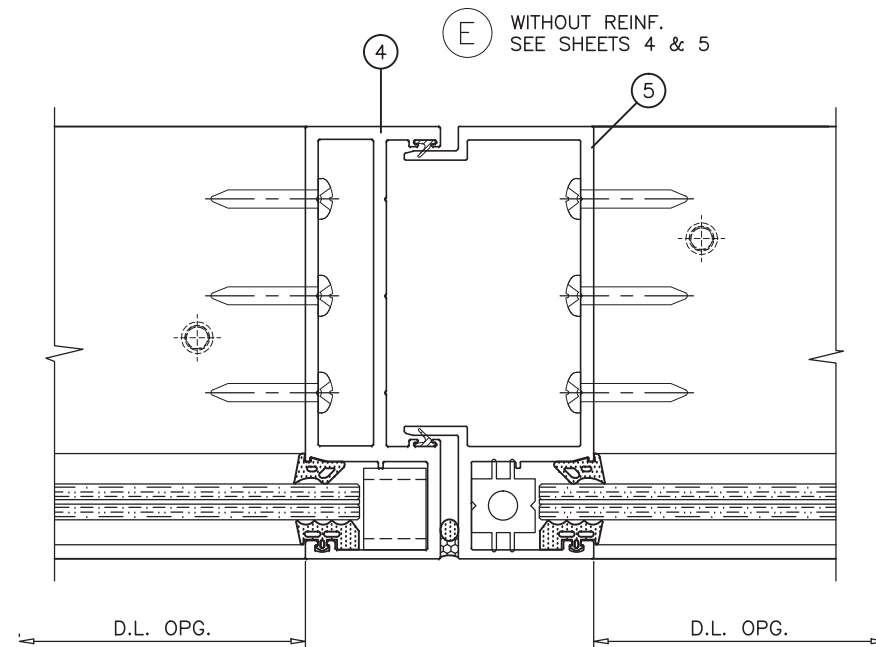
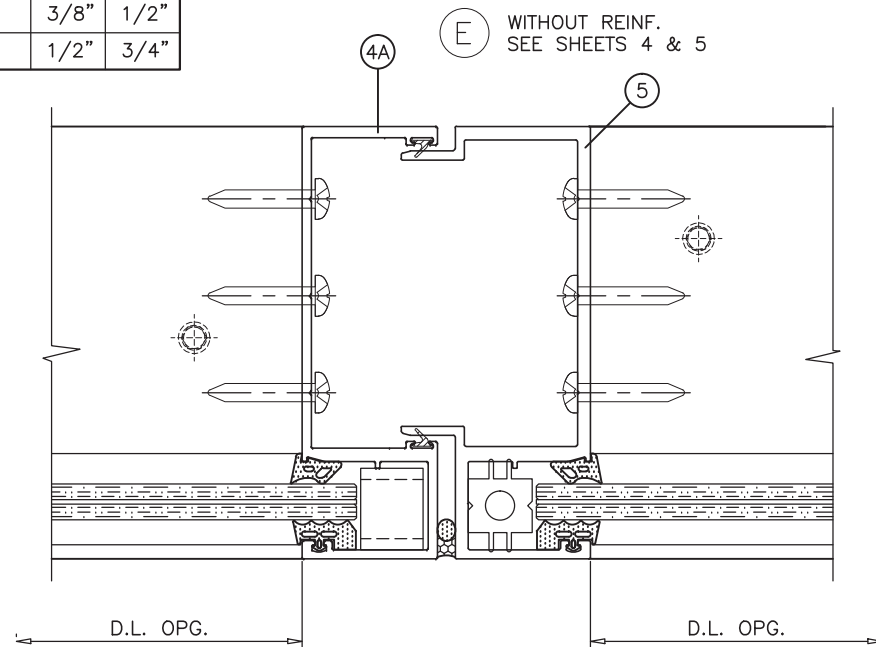
FLORIDA APPROVAL	
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PROJECT	16-088
DRAWING NO.	
AD16-41	
SHEET 6 of 9	



MIN & MAX. GAP  
SEE CHART BELOW

MIN & MAX. GAP  
SEE CHART

MAX. FRAME HEIGHT	GAP	
	MIN.	MAX.
114"	3/8"	1/2"
131"	1/2"	3/4"



NO.	DATE	DESCRIPTION

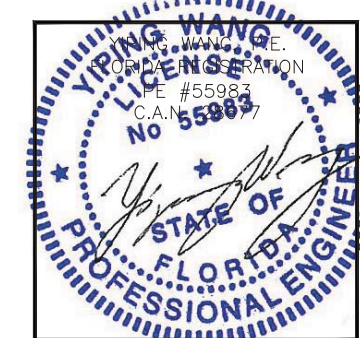
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**MCY**

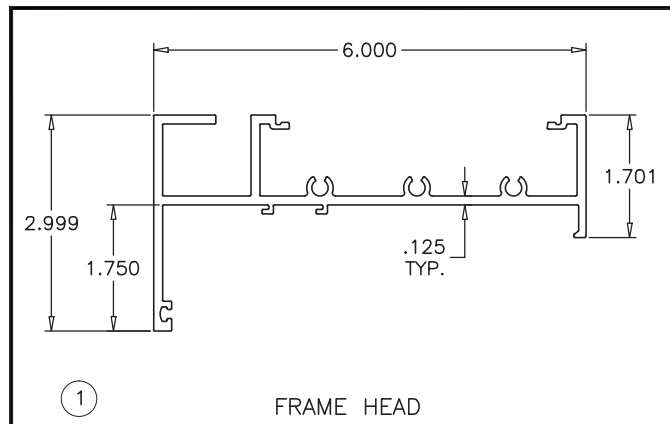
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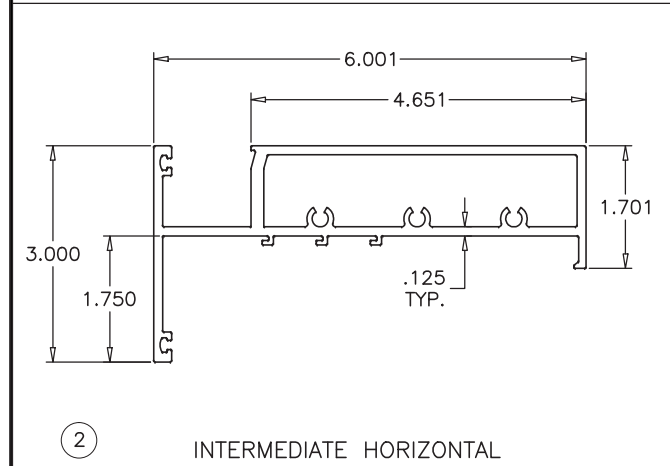
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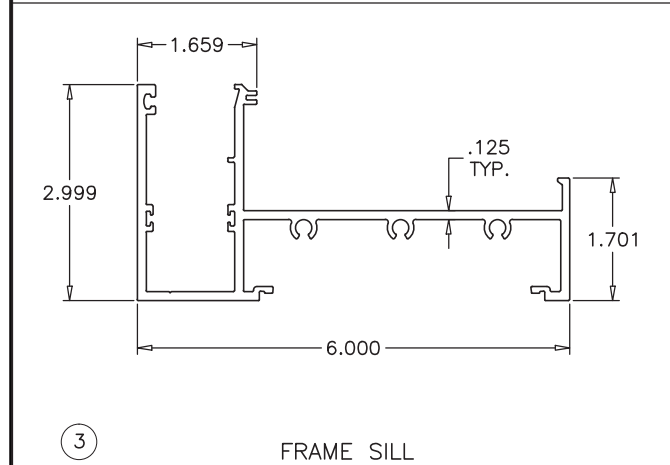
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SHEET 7 of 9	



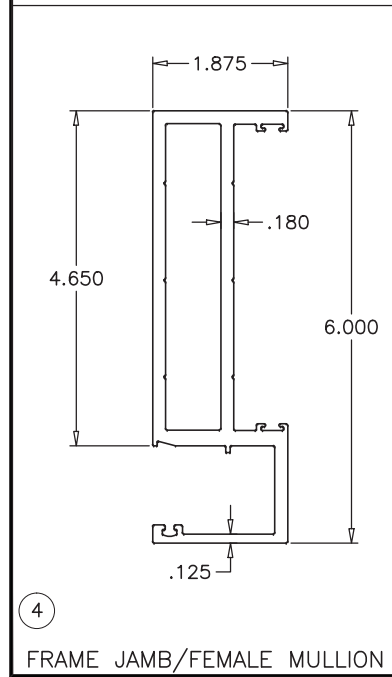
① FRAME HEAD



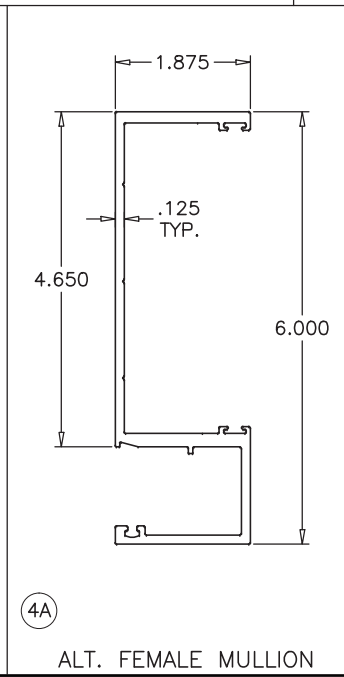
② INTERMEDIATE HORIZONTAL



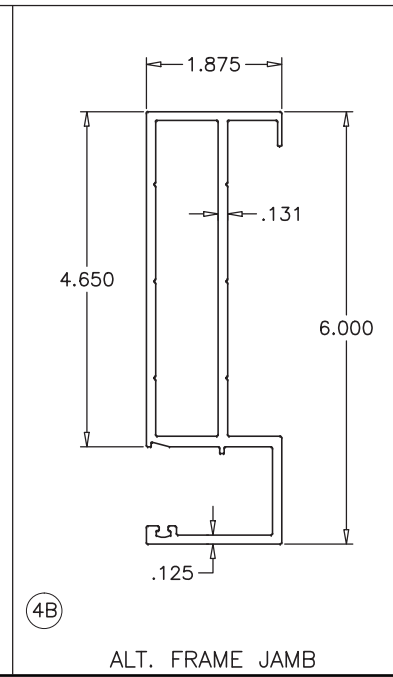
③ FRAME SILL



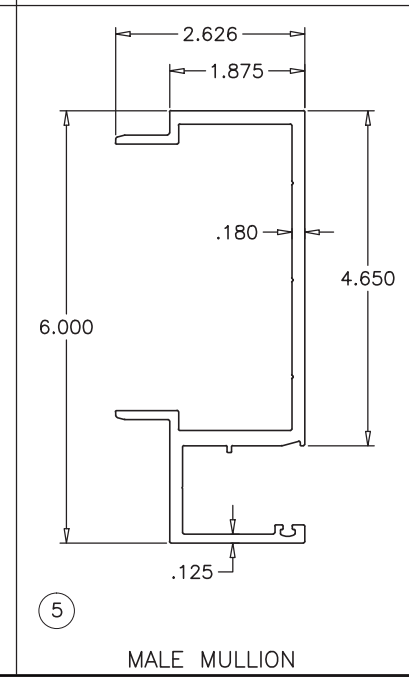
④ FRAME JAMB/FEMALE MULLION



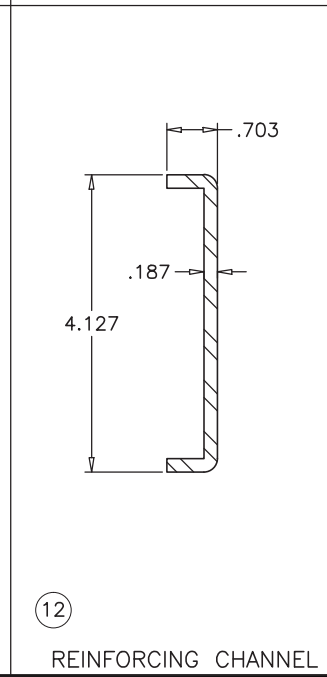
④A ALT. FEMALE MULLION



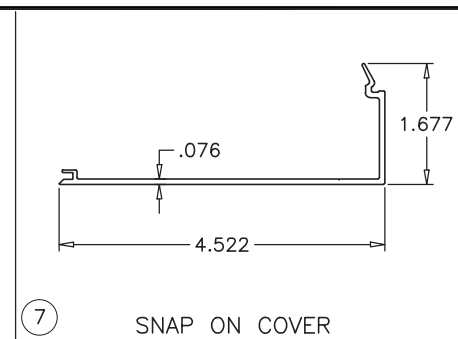
④B ALT. FRAME JAMB



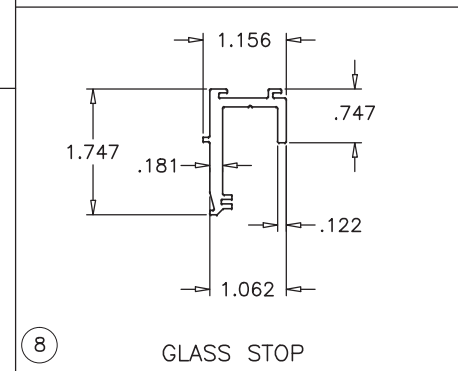
⑤ MALE MULLION



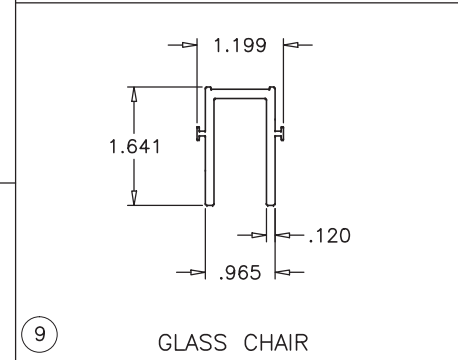
⑫ REINFORCING CHANNEL



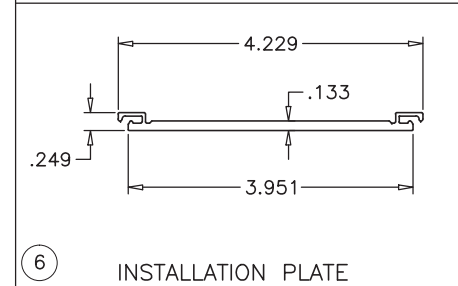
⑦ SNAP ON COVER



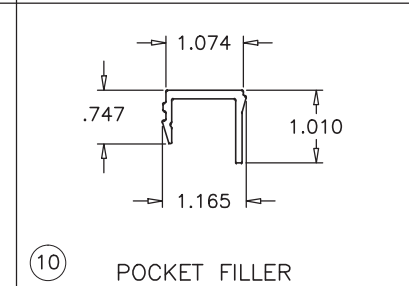
⑧ GLASS STOP



⑨ GLASS CHAIR



⑥ INSTALLATION PLATE



⑩ POCKET FILLER

ITEM NO.	PART NUMBER	QUANTITY	DESCRIPTION	MATERIAL	MANF./SUPPLIER/REMARKS
1	FW001S	AS REQD.	FRAME HEAD	6063-T6	-
2	FW002S	AS REQD.	INTERMEDIATE HORIZONTAL	6063-T6	-
3	FW003S	AS REQD.	FRAME SILL	6063-T6	-
4	FW004S	AS REQD.	FRAME JAMB/ FEMALE MULLION	6063-T6	-
4A	FW012S	AS REQD.	ALT. FEMALE MULLION	6063-T6	-
4B	FW013S	AS REQD.	ALT. FRAME JAMB	6063-T6	-
5	FW005S	AS REQD.	MALE MULLION	6063-T6	-
6	FW006S	AS REQD.	INSTALLATION PLATE	6063-T6	-
7	FW007S	AS REQD.	SNAP ON COVER	6063-T5	-
8	FW008S	AS REQD.	GLASS STOP	6063-T5	-
9	FW009S	2/ LITE	GLASS CHAIR, 4" LONG	6063-T5	-
10	FW010S	AS REQD.	POCKET FILLER	6063-T5	-
12	SI	AS REQD.	REINFORCING CHANNEL	STEEL	-
13	NR-G1	AS REQD.	SIDE BLOCKS (TR-1456E)	EPDM	-
14	NR-G2	AS REQD.	W BLOCKS (TR-3508E)	EPDM	-
15	NR-G3	AS REQD.	WEATHER FIN (TR-1311E)	EPDM	-
16	NR-G4	AS REQD.	CUSTOM PRE-SET GASKET (TR-13915E)	EPDM	-
17	NR-G5	AS REQD.	INTERIOR WEDGE GASKET (TR-1507E)	EPDM	-
18	NR-G6	AS REQD.	SETTING BLOCK (1/2" X 9/16" X 4" LONG) (TR-1990E)	EPDM	-
19	NR-G7	AS REQD.	SETTING BLOCK (3/8" X 9/16" X 4" LONG) (TR-1008S)	EPDM	-
20	NR-F1	3/ CORNER	FRAME ASS'Y SCREWS (1/4" X 1-1/2" PHP SELF TAPPING)	ST/ST	-
21	NR-F2	AS REQD.	GLASS STOP SCREWS (1/4" X 3/4" PHP SELF TAPPING)	ST/ST	AT 1" FROM ENDS & 18" O.C.

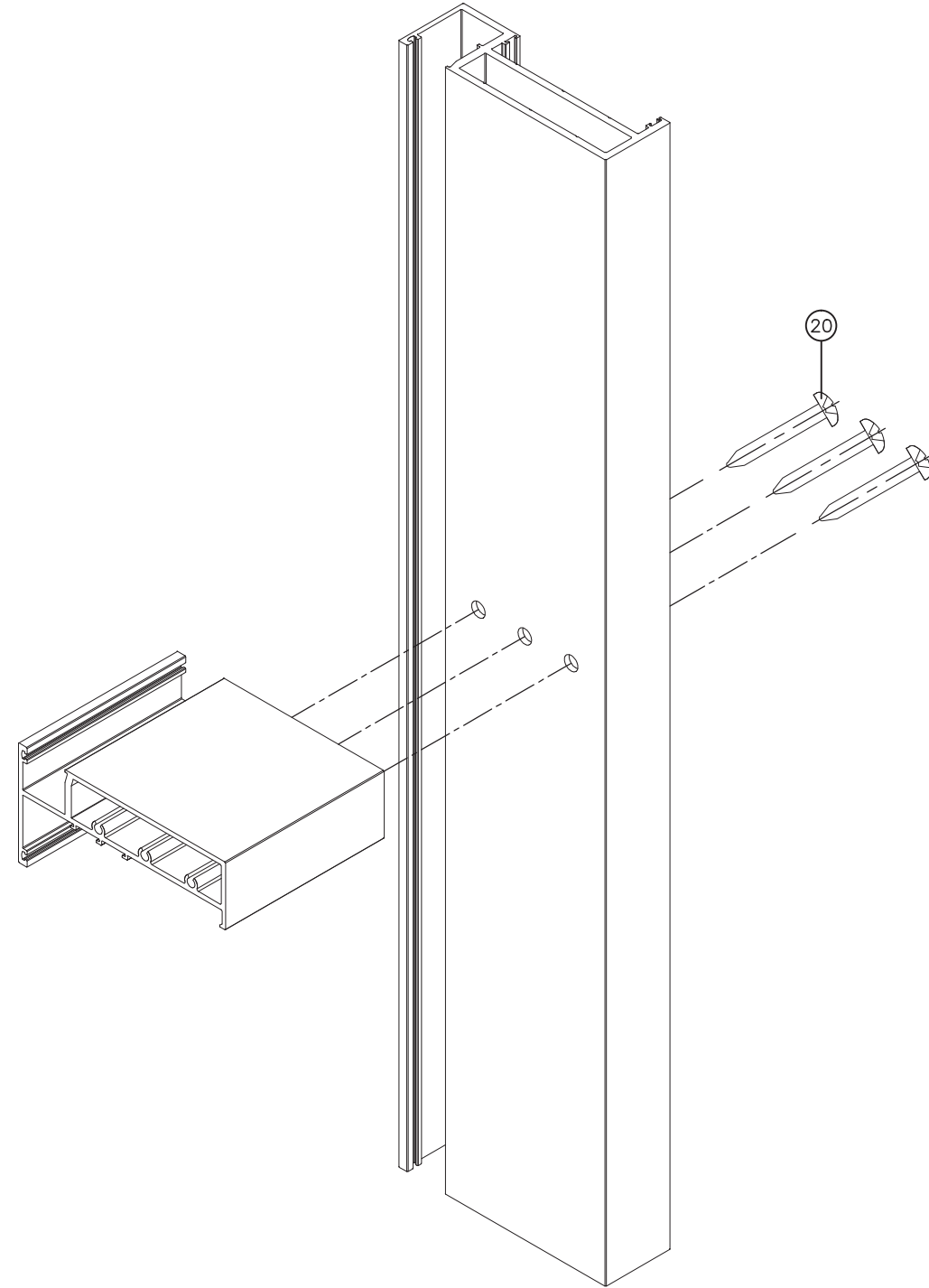
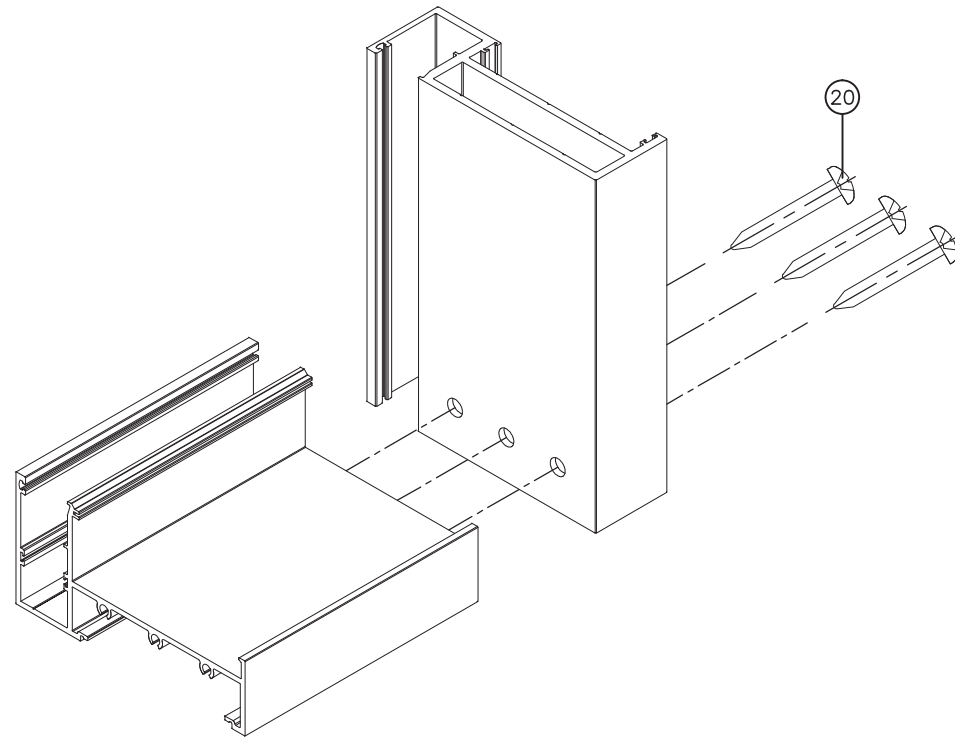
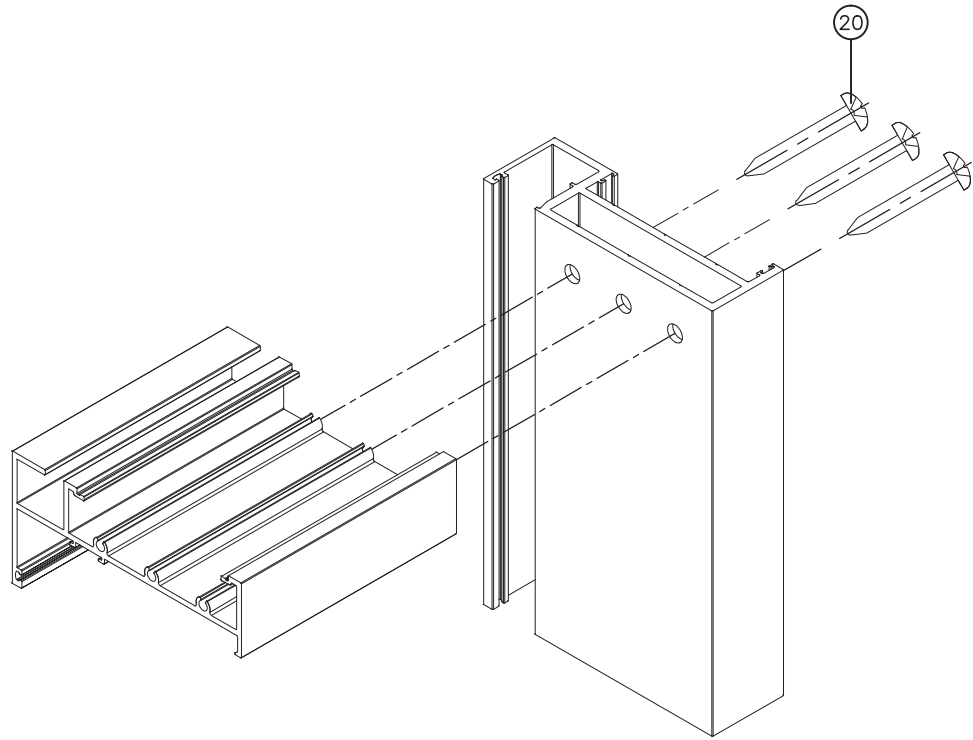
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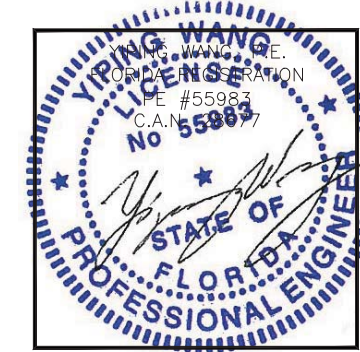
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FLORIDA APPROVAL  
**FL #21446.2**  
 YIPING WANG, P.E.  
 PROFESSIONAL ENGINEER  
 LICENSE #55983  
 C.A.N. #55983  
 DATE 11-18-16  
 SCALE AS NOTED  
 DRAWN S.L.  
 PROJECT 16-088  
 DRAWING NO. AD16-41  
 SHEET 8 of 9

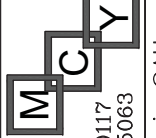




FRAME CORNERS



NO	DATE	REVISIONS DESCRIPTION

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