

SERIES 3000R ALUMINUM STOREFRONT SYSTEM INSIDE GLAZED LARGE MISSILE IMPACT (L.M.I.)



http://www.trulite.com

403 WESTPARK COURT, Suite 201
PEACHTREE, GA 30269
p. 800-432-8132 | f. 954-724-2083

PRODUCT:

Resistor
3000R ALUMINUM
STOREFRONT WALL-LMI



REVN	DATE/REMARKS
REV2	ADD NEW GLASS INTERLAYER AND GLASS SPACER

ENGINEER:



MCY ENGINEERING, INC.
GLAZING CONSULTANT

12781 MIRAMAR PARKWAY #301
MIRAMAR, FL 33027
P: 305-271-0117
Email: MCY@MCYEngineering.com
www.MCYEngineering.com

STAMP:



September 6th, 2022

PRODUCT CONTROL APPROVAL:

GENERAL NOTES:

- THIS PRODUCT HAS BEEN DESIGNED AND TESTED TO COMPLY WITH THE REQUIREMENTS OF 2018 INTERNATIONAL RESIDENTIAL CODE AND 2018 INTERNATIONAL BUILDING CODE INCLUDING HIGH VELOCITY HURRICANE ZONE (HVHZ)
- WINDOW WALL RATED FOR LARGE AND SMALL MISSILE IMPACT. IMPACT SHUTTERS ARE NOT REQUIRED.
- 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.
- METAL STRUCTURES NOT BY TRULITE GLASS AND ALUMINUM SOLUTION TO BE DESIGNED TO SUPPORT THE LOADS IMPOSED BY GLAZING SYSTEM AND TO BE TRANSFER SUCH LOADS TO THE BUILDING MAIN STRUCTURE.
- MATERIALS INCLUDING BUT NOT LIMITED TO STEEL/METAL SCREWS, THAT COME INTO CONTACT WITH OTHER DISSIMILAR MATERIALS SHALL MEET THE REQUIREMENTS OF 2018 INTERNATIONAL RESIDENTIAL CODE AND 2018 INTERNATIONAL BUILDING CODE
- ULTIMATE LOAD OBTAINED FROM ASCE 7-16, MULTIPLY BY 0.6 SHALL BE LESS THAN OR EQUAL TO MAX. DESIGN LOAD IN THIS DOCUMENT. THE DESIGN LOADS SHOWN IN THIS DOCUMENT ARE ALLOWABLE DESIGN LOADS.

INSTRUCTIONS

USE CHARTS AS FOLLOWS.

- STEP 1: DETERMINE DESIGN WIND LOAD REQUIREMENTS BASED ON WIND VELOCITY, BLDG. HEIGHT, WIND ZONE USING APPLICABLE ASCE 7-16 STANDARD.
- STEP 2: SEE CHARTS ON SHEET 4 FOR DESIGN LOAD CAPACITY OF DESIRED GLASS SIZE BASED ON APPLICABLE WIND DURATION.
- STEP 3: CHECK MULLION AND JAMB CAPACITY FOR A GIVEN SPACING AND HEIGHT USING CHARTS ON SHEET 5 THROUGH 6. THE CAPACITY SHOULD EXCEED THE DESIGN LOAD.
- STEP 4: USING CHART ON SHEETS 7 THROUGH 8 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.

PRODUCT COMPLIES WITH REQUIREMENTS OF ANSI Z97.1.

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 TEXAS 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.

DRAWN: YIN
DATE: 08/29/22
DWG: TA18-05

DRAWING No:
1 OF 13

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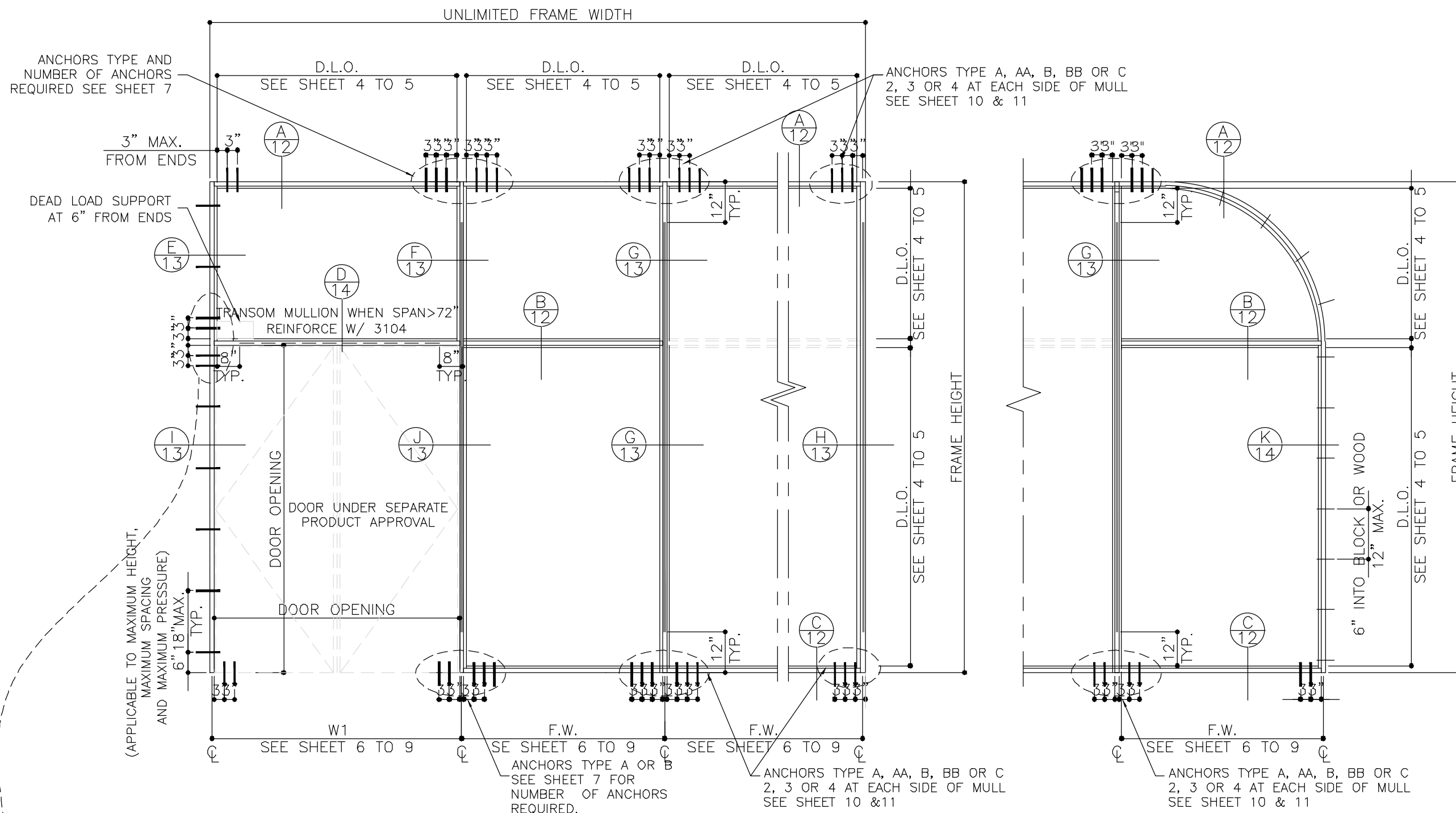
DRAWN: YIN

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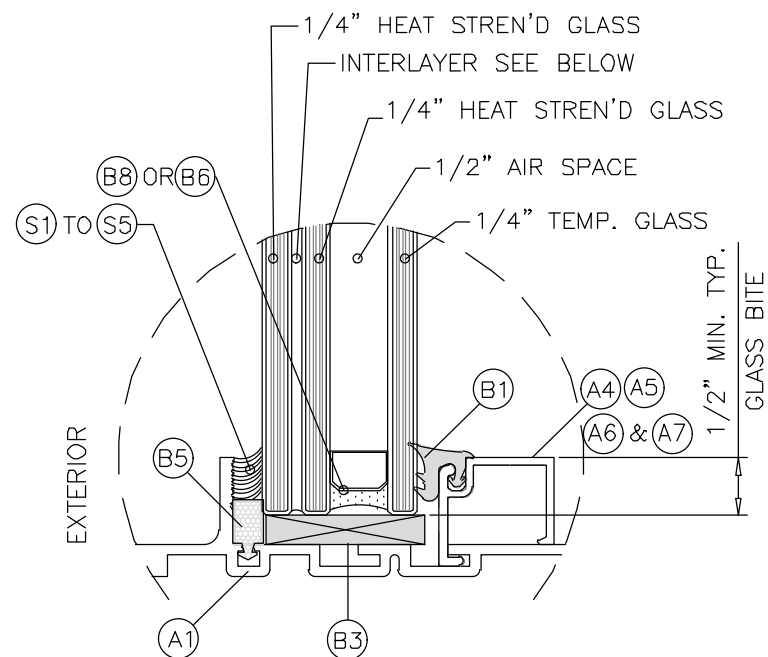
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TRANSOM END ANCHOR CHART

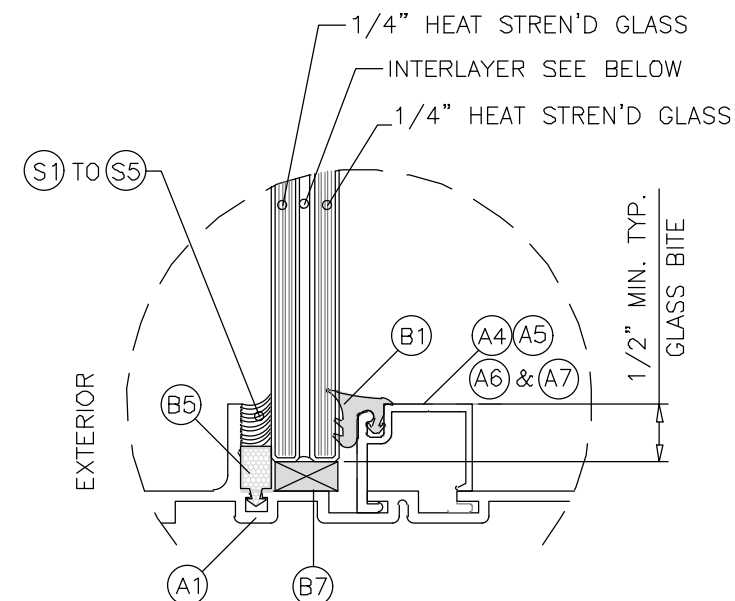
ANCHOR TYPE	SUBSTRATE	NO. ANCHORS REQUIRED AT TRANSOM MULLION END
AA	WOOD	5
A	BLOCK	5
A	CONCRETE	4
BB	WOOD	4
B	BLOCK	5
B	CONCRETE	3
C	METAL	3

TYPICAL EXTERIOR ELEVATION



INSULATED LAMINATED GLASS
1-5/16" NOMINAL OVERALL

- INSULATED LAMINATED GLASS INTERLAYER TYPE:
- TYPE "A": 0.075" SAFLEX CP VS02 INTERLAYER BY 'EASTMAN CHEMICAL COMPANY'
 - TYPE "B": 0.100" SAFLEX HP INTERLAYER BY 'EASTMAN CHEMICAL COMPANY'
 - TYPE "C": 0.090" SAFLEX PVB INTERLAYER BY 'EASTMAN CHEMICAL COMPANY'
 - TYPE "G": 0.09" EVERLAM™ LAM50 PVB GLASS INTERLAYER
 - TYPE "H": 0.09" EVERLAM™ SUPER TOUGH PVB INTERLAYER



LAMINATED GLASS
9/16" NOMINAL OVERALL

- LAMINATED GLASS INTERLAYER TYPE:
- TYPE "D": 0.090" KURARAY SENTRYGLAS INTERLAYER BY 'KURARAY AMERICA, INC.'
 - TYPE "E": 0.100" SAFLEX HP INTERLAYERS BY 'EASTMAN CHEMICAL COMPANY'
 - TYPE "F": 0.090" SAFLEX PVB GLASS INTERLAYERS BY 'EASTMAN CHEMICAL COMPANY'
 - TYPE "I": 0.09" EVERLAM™ LAM50 PVB GLASS INTERLAYER
 - TYPE "J": 0.09" EVERLAM™ SUPER TOUGH PVB INTERLAYER

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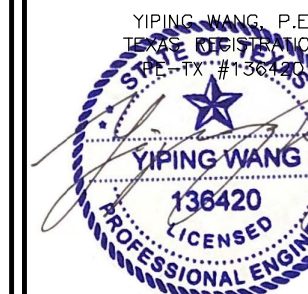
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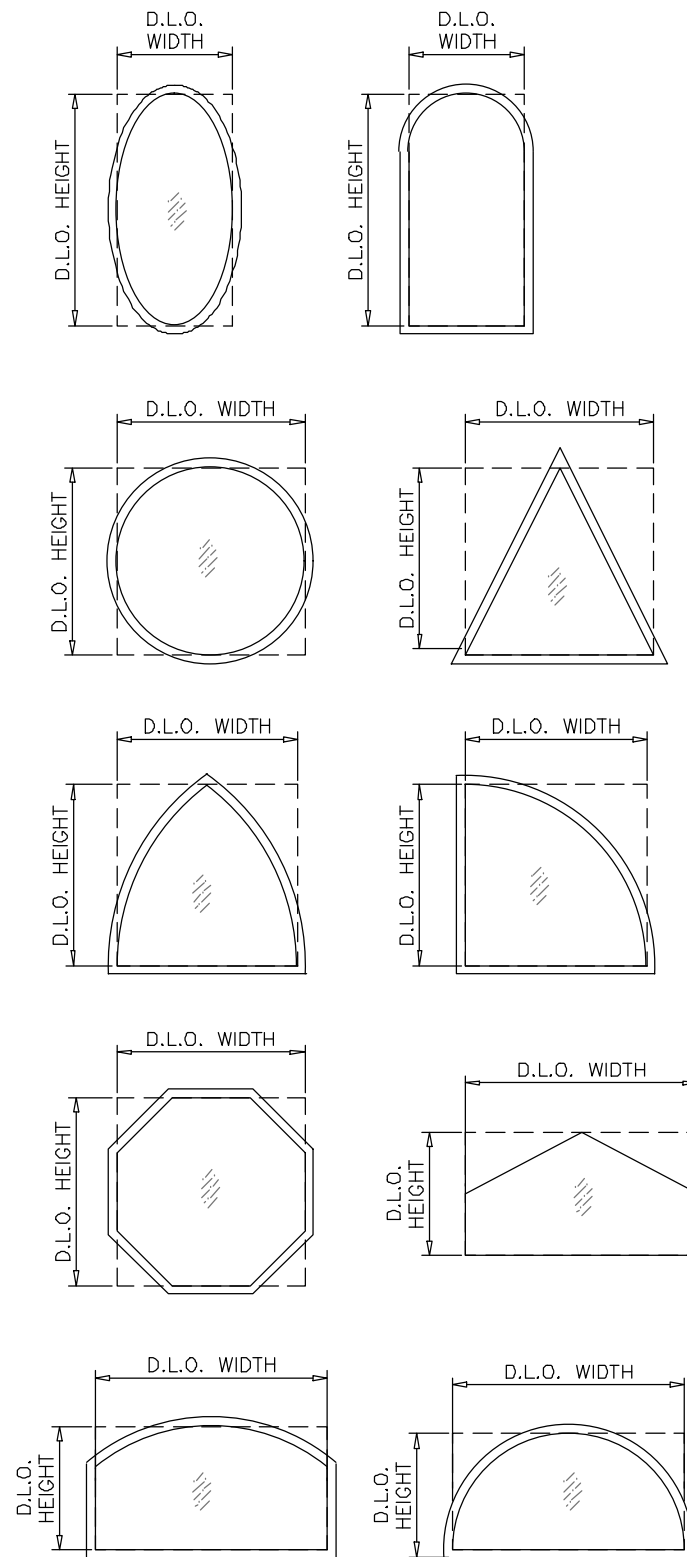
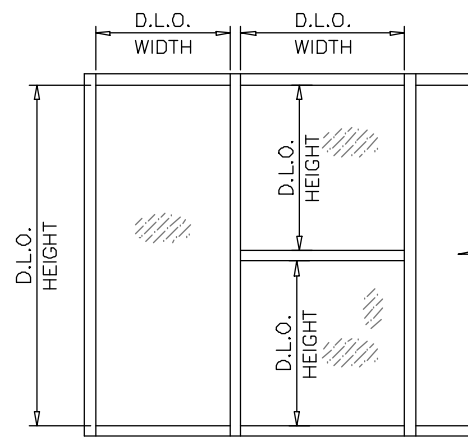
DRAWN: YIN
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DWG: TA18-05

DRAWING No:

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SILICONE SEALANT
(S1) POWELL 005

GLASS TYPE	TEST REPORT	TEST SIZE (D.L.O) (in)		TEST DESING LOAD	
				TAS 202	
		WIDTH	HEIGHT	(+) PSF	(-) PSF
GLASS A	FTL-9683	52 1/2	122	70	70
GLASS B	FTL-9683	57 1/4	92	60	60
GLASS C	FTL-9683	45 1/4	93	50	47
GLASS E	FTL-3633	58 3/4	116	100	100
GLASS D	FTL-2631	55 7/8	114 1/2	100	100
GLASS F	FTL-3787	58 3/4	116	87	87
GLASS G & I	M3224.01-450-18	39 1/4	92	65	75
GLASS H & J	M3224.01-450-18	45 1/4	92	70	85



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. SINGLE LITES MAY BE INSTALLED VERTICALLY AS SHOWN ABOVE OR HORIZONTALLY.

FOR ALTERNATE SHAPES LIMIT MAX. LOADS TO ±90.0 PSF

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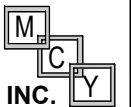
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YIPING WANG, P.E.
TEXAS REGISTRATION
#136420



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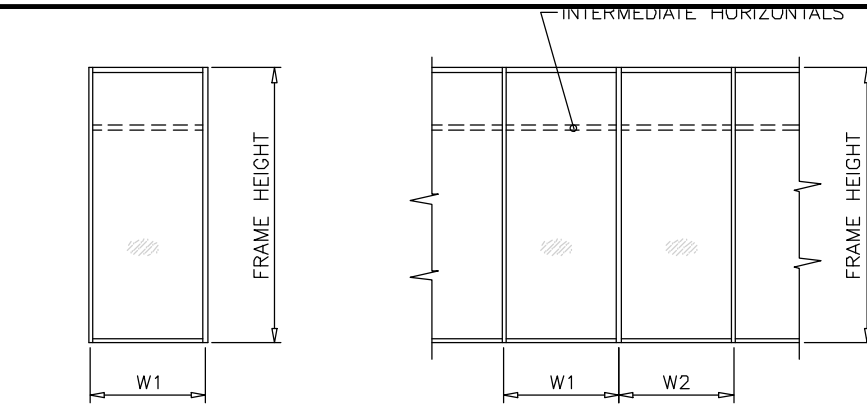
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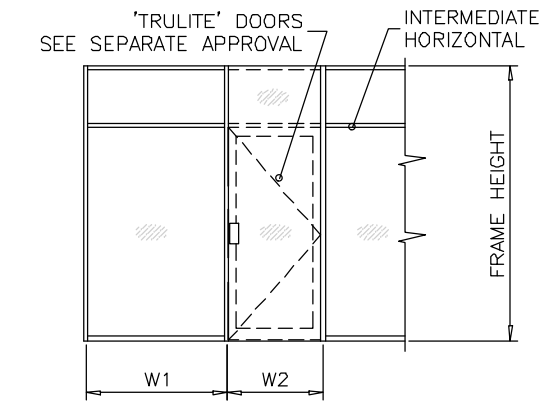
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MULLION LOAD CAPACITY - PSF WITH/WITHOUT INTERMEDIATE HORIZONTALS					
NOMINAL DIMS.		WITHOUT REINFORCING		WITH REINFORCING	
WIDTH (W)	FRAME HEIGHT	EXT.(+)	INT.(-)	EXT.(+)	INT.(-)
24"	78"	65.0	80.0	85.0	105.0
30"		65.0	80.0	85.0	105.0
36"		65.0	80.0	85.0	105.0
42"		65.0	80.0	85.0	105.0
48"		65.0	80.0	85.0	105.0
54"		65.0	80.0	85.0	105.0
60"		65.0	74.0	85.0	104.0
24"	84"	65.0	80.0	85.0	105.0
30"		65.0	80.0	85.0	105.0
36"		65.0	80.0	85.0	105.0
42"		65.0	80.0	85.0	105.0
48"		65.0	80.0	85.0	105.0
54"		65.0	72.0	85.0	105.0
60"		65.0	65.0	85.0	97.0
24"	90"	65.0	80.0	85.0	105.0
30"		65.0	80.0	85.0	105.0
36"		65.0	80.0	85.0	105.0
42"		65.0	80.0	85.0	105.0
48"		65.0	71.0	85.0	105.0
54"		63.0	63.0	85.0	100.0
60"		57.0	57.0	85.0	90.0
24"	96"	65.0	80.0	85.0	105.0
30"		65.0	80.0	85.0	105.0
36"		65.0	80.0	85.0	105.0
42"		65.0	71.0	85.0	105.0
48"		62.0	62.0	85.0	105.0
54"		55.0	55.0	85.0	94.0
60"		50.0	50.0	85.0	85.0
24"	102"	65.0	80.0	85.0	105.0
30"		65.0	80.0	85.0	105.0
36"		65.0	69.0	85.0	105.0
42"		59.0	59.0	85.0	105.0
48"		52.0	52.0	85.0	100.0
55.25"		46.0	46.0	85.0	88.0

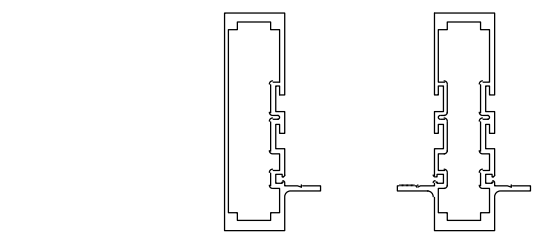
MULLION LOAD CAPACITY - PSF WITH/WITHOUT INTERMEDIATE HORIZONTALS					
NOMINAL DIMS.		WITHOUT REINFORCING		WITH REINFORCING	
WIDTH (W)	FRAME HEIGHT	EXT.(+)	INT.(-)	EXT.(+)	INT.(-)
24"	108"	65.0	80.0	85.0	105.0
30"		65.0	70.0	85.0	105.0
36"		58.0	58.0	85.0	105.0
42"		50.0	50.0	85.0	105.0
48"		44.0	44.0	85.0	94.0
55.25"		-	-	84.0	84.0
24"		114"	65.0	74.0	85.0
30"	59.0		59.0	85.0	105.0
36"	50.0		50.0	85.0	105.0
42"	42.0		42.0	85.0	102.0
48"	37.0		37.0	85.0	89.0
55.25"	-		-	79.0	79.0
24"	120"		64.0	64.0	85.0
30"		51.0	51.0	85.0	105.0
36"		42.0	42.0	85.0	105.0
42"		36.0	36.0	85.0	97.0
48"		32.0	32.0	83.0	85.0
54"		-	-	76.0	75.0
36"		126"	37.0	37.0	85.0
42"	31.0		31.0	85.0	90.0
48"	-		-	79.0	79.0
54"	-		-	70.0	70.0
36"	132"	32.0	32.0	85.0	96.0
42"		27.0	27.0	82.0	82.0
48"		-	-	72.0	72.0
36"		138"	28.0	28.0	85.0
42"	-		-	75.0	75.0
48"	-		-	66.0	66.0
36"	144"	25.0	25.0	78.0	78.0
42"		-	-	67.0	67.0
48"		-	-	58.0	58.0



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

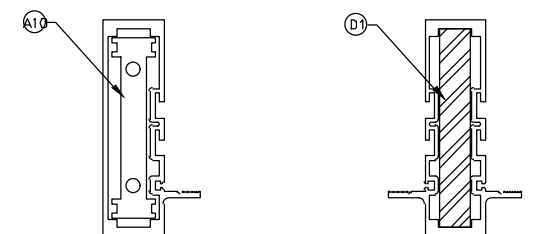


WIDTH (W) = $\frac{W1 + W2}{2}$



	Ix IN^4	Sx IN^3		Ix IN^4	Sx IN^3
3001R	4.0776	1.7355	3002R	4.2973	1.7729

WITHOUT REINFORCING



	Ix IN^4	Sx IN^3		Ix IN^4	Sx IN^3
3001R	4.0776	1.7355	3002R	4.2973	1.7729
3104	2.7136	1.4473	STL. BAR	9.6670	(IN ALUM.)
TOTAL	6.7912		TOTAL	13.964	

WITH ALUM. REINFORCING WITH STEEL REINFORCING

TEST REPORT	TEST SIZE (in)	TEST DESING LOAD TAS 202	
		(+) PSF	(-) PSF
FTL-9683	52.5" X 126"	70	70
FTL-9683	60" X 96"	60	60

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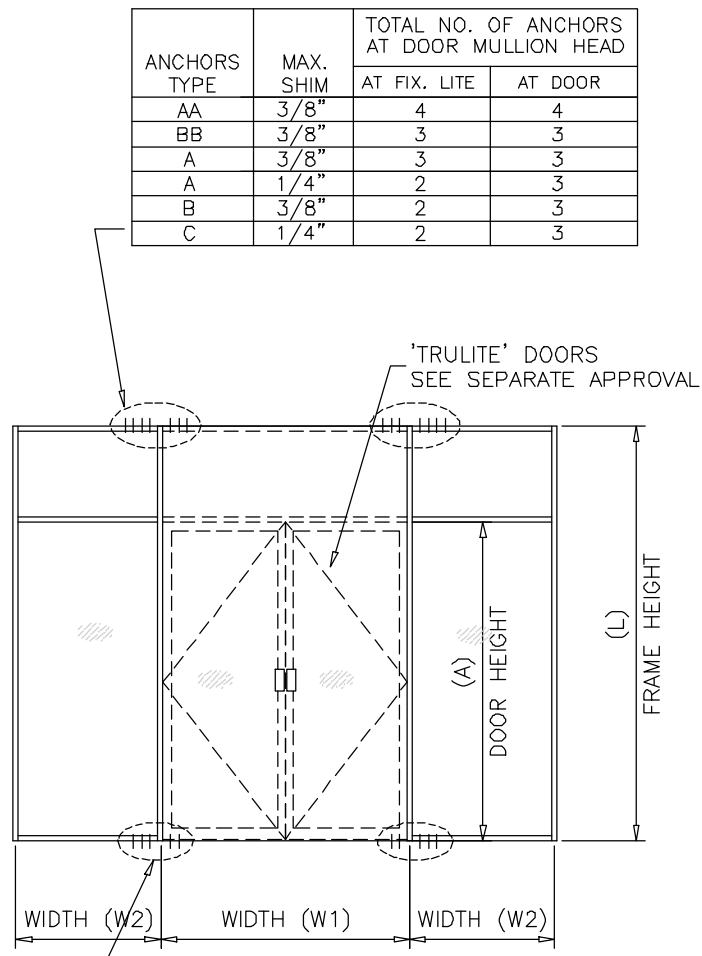
STAMP:
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#136420
YIPING WANG
136420
PROFESSIONAL ENGINEER
September 6th, 2022

PRODUCT CONTROL APPROVAL:

DRAWN: YIN DRAWING No:
DATE: 08/29/22 **5 OF 13**
DWG: TA18-05

MULLION LOAD CAPACITY – PSF AT DOUBLE DOOR WITH/WITHOUT TRANSOM					
NOMINAL DIMS.				WITH REINFORCING	
WIDTH (W1)	WIDTH (W2)	HEIGHT (A)	HEIGHT (L)	EXT.(+)	INT.(-)
72"	30"	84"	108"	60.0	75.0
	36"			60.0	73.0
	42"			60.0	69.0
	48"			60.0	65.0
	54"			60.0	62.0
60"	59.0	59.0			
72"	30"	84"	114"	60.0	75.0
	36"			60.0	66.0
	42"			60.0	62.0
	48"			59.0	59.0
	54"			56.0	56.0
60"	56.0	56.0			
72"	30"	84"	120"	60.0	72.0
	36"			60.0	67.0
	42"			60.0	63.0
	48"			57.0	57.0
	54"			54.0	54.0
60"	54.0	54.0			
72"	30"	84"	126"	60.0	69.0
	36"			60.0	65.0
	42"			60.0	61.0
	48"			58.0	58.0
	54"			54.0	54.0
60"	51.0	51.0			
72"	30"	84"	132"	60.0	67.0
	36"			60.0	62.0
	42"			58.0	58.0
	48"			55.0	55.0
	60"			49.0	49.0
72"	30"	84"	138"	60.0	62.0
	36"			59.0	59.0
	42"			52.0	52.0
	48"			49.0	49.0
	54"			46.0	46.0
60"	46.0	46.0			
72"	30"	84"	144"	56.0	56.0
	36"			53.0	53.0
	48"			47.0	47.0
54"	45.0	45.0			

MULLION LOAD CAPACITY – PSF AT DOUBLE DOOR WITH/WITHOUT TRANSOM					
NOMINAL DIMS.				WITH REINFORCING	
WIDTH (W1)	WIDTH (W2)	HEIGHT (A)	HEIGHT (L)	EXT.(+)	INT.(-)
73.24"	30"	90"	114"	60.0	73.0
	36"			60.0	69.0
	42"			60.0	65.0
	48"			60.0	61.0
72"	30"	90"	120"	60.0	70.0
	36"			60.0	66.0
	42"			60.0	62.0
	48"			59.0	59.0
72"	30"	90"	126"	60.0	68.0
	36"			60.0	64.0
	42"			60.0	60.0
	48"			57.0	57.0
72"	30"	90"	132"	60.0	66.0
	36"			60.0	62.0
	42"			58.0	58.0
	48"			56.0	56.0
72"	30"	90"	138"	60.0	64.0
	36"			60.0	60.0
	42"			56.0	56.0
	48"			52.0	52.0
72"	30"	90"	144"	58.0	58.0
	36"			54.0	54.0
	42"			52.0	52.0
	48"			49.0	49.0
72"	30"	96"	120"	60.0	69.0
	36"			60.0	65.0
	42"			60.0	61.0
	48"			58.0	58.0
72"	30"	96"	126"	60.0	67.0
	36"			60.0	63.0
	42"			59.0	59.0
	48"			56.0	56.0
72"	30"	96"	138"	60.0	65.0
	36"			60.0	61.0
	42"			57.0	57.0
	48"			54.0	54.0
72"	30"	96"	144"	60.0	63.0
	36"			59.0	59.0
	42"			55.0	55.0
	48"			52.0	52.0
72"	30"	96"	144"	60.0	60.0
	36"			56.0	56.0
	42"			53.0	53.0
	48"			50.0	50.0



ANCHORS TYPE	MAX. SHIM	TOTAL NO. OF ANCHORS AT DOOR MULLION HEAD	
		AT FIX. LITE	AT DOOR
AA	3/8"	4	4
BB	3/8"	3	3
A	3/8"	3	3
A	1/4"	2	3
B	3/8"	2	3
C	1/4"	2	3

ANCHORS TYPE	MAX. SHIM	TOTAL NO. OF ANCHORS AT DOOR MULLION HEAD	
		AT FIX. LITE	AT DOOR
A	3/8"	3	2
B	3/8"	3	2

	Ix IN^4	Sx IN^3
3001R	4.0776	1.7355
STL. BAR	9.6670 (IN ALUM.)	
TOTAL	13.7446	

TEST REPORT	TEST SIZE (in)				TEST DESING LOAD TAS 202	
	WIDHT (W2)	WIDHT (W1)	HEIGHT (A)	HEIGHT (L)	(+) PSF	(-) PSF
FTL-9683	48"	73 1/2"	96"	144"	50	47



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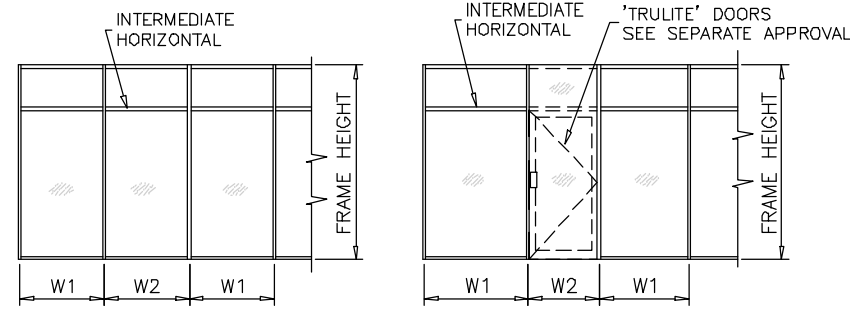
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 TEXAS REGISTRATION
 P.E. - TX #136420
YIPING WANG
 136420
 LICENSED PROFESSIONAL ENGINEER
 September 6th, 2022

PRODUCT CONTROL APPROVAL:

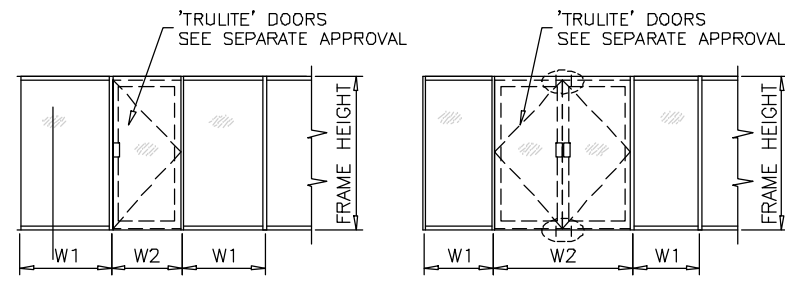
DRAWN: YIN
 DATE: 08/29/22
 DWG: TA18-05
 DRAWING No:
6 OF 13

ANCHOR LOAD CAPACITY - PSF
EXT.(+) & INT.(-)

NOMINAL DIMS.		3/8" SHIM			3/8" SHIM			3/8" SHIM			1/4" SHIM		3/8" SHIM		1/4" SHIM
		ANCHOR TYPE 'AA'			ANCHOR TYPE 'BB'			ANCHOR TYPE 'A'			ANCHOR TYPE 'A'		ANCHOR TYPE 'B'		TYPE 'C'
WIDTH (W)	FRAME HEIGHT	'AA2'	'AA3'	'AA4'	'BB2'	'BB3'	'BB4'	'A2'	'A3'	'A4'	'A2'	'A3'	'B2'	'B3'	'C2'
36"	78"	81.2	105.0	105.0	96.4	105.0	105.0	102.2	105.0	105.0	105.0	105.0	105.0	105.0	105.0
42"		69.6	104.4	105.0	82.6	105.0	105.0	87.6	105.0	105.0	105.0	105.0	105.0	105.0	105.0
48"		60.9	91.4	105.0	72.3	105.0	105.0	76.6	105.0	105.0	95.1	105.0	105.0	105.0	105.0
54"		54.2	81.2	105.0	64.3	96.4	105.0	68.1	102.2	105.0	84.5	105.0	100.6	105.0	105.0
60"		48.7	73.1	97.5	57.8	86.8	105.0	61.3	91.9	105.0	76.1	105.0	90.6	105.0	105.0
36"	84"	75.4	105.0	105.0	89.5	105.0	105.0	94.9	105.0	105.0	105.0	105.0	105.0	105.0	105.0
42"		64.7	97.0	105.0	76.7	105.0	105.0	81.3	105.0	105.0	100.9	105.0	105.0	105.0	105.0
48"		56.6	84.9	105.0	67.1	100.7	105.0	71.1	105.0	105.0	88.3	105.0	105.0	105.0	105.0
54"		50.3	75.4	100.6	59.7	89.5	105.0	63.2	94.9	105.0	78.5	105.0	93.5	105.0	105.0
60"		45.3	67.9	90.5	53.7	80.6	105.0	56.9	84.4	105.0	70.6	105.0	84.1	105.0	104.7
36"	90"	70.4	105.0	105.0	83.6	105.0	105.0	88.5	105.0	105.0	105.0	105.0	105.0	105.0	105.0
42"		60.3	90.5	105.0	71.6	105.0	105.0	75.9	105.0	105.0	94.2	105.0	105.0	105.0	105.0
48"		52.8	79.2	105.0	62.7	94.0	105.0	66.4	99.6	105.0	82.4	105.0	98.1	105.0	105.0
54"		46.9	70.4	93.9	55.7	83.6	105.0	59.0	88.5	105.0	73.2	105.0	87.2	105.0	105.0
60"		42.2	63.4	84.5	50.1	75.2	100.3	53.1	79.7	105.0	65.9	98.9	78.5	105.0	97.7
36"	96"	60.0	99.0	105.0	78.3	105.0	105.0	83.0	105.0	105.0	103.0	105.0	105.0	105.0	105.0
42"		56.6	84.9	105.0	67.1	100.7	105.0	71.1	105.0	105.0	88.3	105.0	105.0	105.0	105.0
48"		49.5	74.3	99.0	58.8	88.1	105.0	62.3	93.4	105.0	77.3	105.0	92.0	105.0	105.0
54"		44.0	66.0	88.0	52.2	78.3	104.4	55.3	83.0	105.0	68.7	103.0	81.8	105.0	101.8
60"		39.6	59.4	79.2	47.0	70.5	94.0	49.8	74.7	99.6	61.8	92.7	73.6	105.0	91.6
36"	102"	62.1	93.2	105.0	73.7	105.0	105.0	78.1	105.0	105.0	96.9	105.0	105.0	105.0	105.0
42"		53.2	79.9	105.0	63.2	94.8	105.0	67.0	100.4	105.0	83.1	105.0	99.0	105.0	105.0
48"		46.6	69.9	93.2	55.3	82.9	105.0	58.9	87.9	105.0	72.7	105.0	86.6	105.0	105.0
54"		41.4	62.1	82.8	49.2	73.7	98.3	52.1	78.1	104.2	64.6	96.9	77.0	105.0	95.8
60"		37.3	55.9	74.5	44.2	66.4	88.5	46.9	70.3	93.7	58.2	87.2	69.3	103.9	86.2
36"	108"	58.7	88.0	105.0	69.6	104.4	105.0	73.8	105.0	105.0	91.6	105.0	105.0	105.0	105.0
42"		50.3	75.4	100.6	59.7	89.5	105.0	63.2	94.9	105.0	78.5	105.0	93.5	105.0	105.0
48"		44.0	66.0	88.0	52.2	78.3	104.4	55.3	83.0	105.0	68.7	103.0	81.8	105.0	101.8
54"		39.1	58.7	78.2	46.4	69.6	92.8	49.2	73.8	98.4	61.0	91.6	72.7	105.0	90.5
60"		35.2	52.8	70.4	41.8	62.7	83.6	44.3	66.4	88.5	54.9	82.4	65.4	98.1	81.4
36"	114"	55.6	83.4	105.0	66.0	98.9	105.0	69.9	104.8	105.0	86.7	105.0	103.3	105.0	105.0
42"		47.6	71.5	95.3	56.5	84.8	105.0	59.9	89.9	105.0	74.3	105.0	88.5	105.0	105.0
48"		41.7	62.5	83.4	49.5	74.2	98.9	52.4	78.6	104.8	65.1	97.6	77.5	105.0	96.4
54"		37.4	55.6	74.1	44.0	66.0	88.0	46.6	69.9	93.2	57.8	86.7	68.9	103.3	85.7
60"		33.3	50.0	66.7	39.6	59.4	79.2	41.9	62.9	83.9	52.0	78.1	62.0	93.0	77.1
36"	120"	52.8	79.2	105.0	62.7	94.0	105.0	66.4	99.6	105.0	82.4	105.0	98.1	105.0	105.0
42"		45.3	67.9	90.5	53.7	80.6	105.0	56.9	85.4	105.0	70.6	105.0	84.1	105.0	104.7
48"		39.6	59.4	79.2	47.0	70.5	94.0	49.8	74.7	99.6	61.8	92.7	73.6	105.0	91.6
54"		35.2	52.8	70.4	41.8	62.7	83.6	44.3	66.4	88.5	54.9	82.4	65.4	98.1	81.4

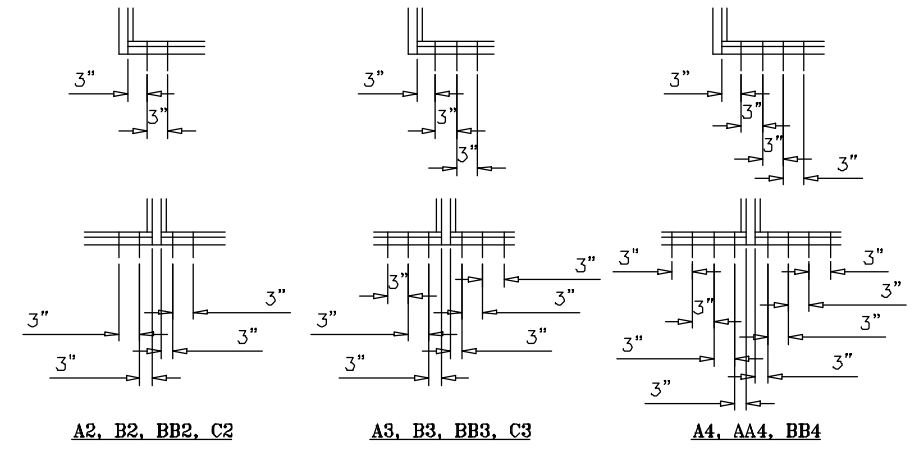


WIDTH (W) = W1 AT FRAME JAMB
 WIDTH (W) = $\frac{W2 + W1}{2}$ AT FRAME MULLION



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

ANCHORS TYPES: SEE SHEET 12 FOR DESCRIPTION
AA2 = (2) ANCHORS TYPE 'AA' AT EACH SIDE OF MULLION OR JAMB
A2 = (2) ANCHORS TYPE 'A' AT EACH SIDE OF MULLION OR JAMB
B2 = (2) ANCHORS TYPE 'B' AT EACH SIDE OF MULLION OR JAMB
BB2 = (2) ANCHORS TYPE 'BB' AT EACH SIDE OF MULLION OR JAMB
C2 = (2) ANCHORS TYPE 'C' AT EACH SIDE OF MULLION OR JAMB
AA3 = (3) ANCHORS TYPE 'AA' AT EACH SIDE OF MULLION OR JAMB
A3 = (3) ANCHORS TYPE 'A' AT EACH SIDE OF MULLION OR JAMB
B3 = (3) ANCHORS TYPE 'B' AT EACH SIDE OF MULLION OR JAMB
BB3 = (3) ANCHORS TYPE 'BB' AT EACH SIDE OF MULLION OR JAMB
AA4 = (4) ANCHORS TYPE 'AA' AT EACH SIDE OF MULLION OR JAMB
A4 = (4) ANCHORS TYPE 'A' AT EACH SIDE OF MULLION OR JAMB
BB4 = (4) ANCHORS TYPE 'BB' AT EACH SIDE OF MULLION OR JAMB
 ALL OTHER ANCHORS TO BE SPACED AS PER ELEVATION.



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PRODUCT:
Resistor
3000R ALUMINUM
STOREFRONT WALL-LMI
Resistor
 PRODUCT SERIES

REVN	DATE/REMARKS
REV2	ADD NEW GLASS INTERLAYER AND GLASS SPACER

ENGINEER:

MCY ENGINEERING, INC.
 GLAZING CONSULTANT
 12781 MIRAMAR PARKWAY #301
 MIRAMAR, FL 33027
 P: 305-271-0117
 Email: MCY@MCYEngineering.com
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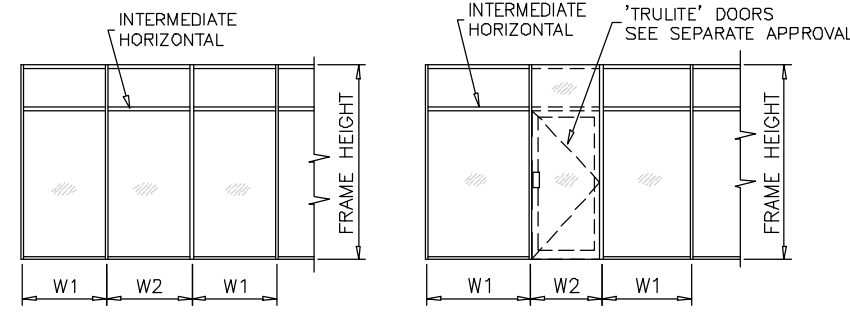
STAMP:

 YIPING WANG, P.E.
 TEXAS REGISTRATION
 P.E. - TX #136420
YIPING WANG
 136420
 PROFESSIONAL ENGINEER
 September 6th, 2022

PRODUCT CONTROL APPROVAL:
 DRAWN: YIN
 DATE: 08/29/22
 DWG: TA18-05
 DRAWING No:
7 OF 13

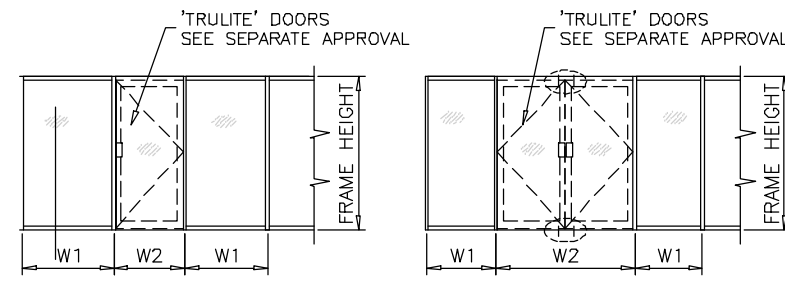
ANCHOR LOAD CAPACITY - PSF
EXT.(+) & INT.(-)

NOMINAL DIMS.		3/8" SHIM			3/8" SHIM			3/8" SHIM			1/4" SHIM		3/8" SHIM		1/4" SHIM
		ANCHOR TYPE 'AA'			ANCHOR TYPE 'BB'			ANCHOR TYPE 'A'			ANCHOR TYPE 'A'		ANCHOR TYPE 'B'		TYPE 'C'
WIDTH (W)	FRAME HEIGHT	'AA2'	'AA3'	'AA4'	'BB2'	'BB3'	'BB4'	'A2'	'A3'	'A4'	'A2'	'A3'	'B2'	'B3'	'C2'
36"	126"	50.3	75.4	100.6	59.7	89.5	105.0	63.2	94.9	105.0	78.5	105.0	93.5	105.0	105.0
42"		43.1	64.7	86.2	51.2	76.7	102.3	54.2	81.3	105.0	67.3	100.9	80.1	105.0	99.7
48"		37.7	56.6	75.4	44.8	67.1	89.5	47.4	71.1	94.9	58.9	88.3	70.1	105.0	87.2
54"		33.5	50.3	67.0	39.8	59.7	79.6	42.2	63.2	84.3	52.3	78.5	62.3	93.5	77.5
36"	132"	48.0	72.0	96.0	57.0	85.5	105.0	60.4	90.5	105.0	74.9	105.0	89.2	105.0	105.0
42"		41.1	61.7	82.3	48.8	73.2	97.7	51.7	77.6	103.5	64.2	96.3	76.5	105.0	95.2
48"		36.0	54.0	72.0	42.7	64.1	85.5	45.3	67.9	90.5	56.21	84.3	66.9	100.4	83.3
36"	138"	45.9	68.9	91.8	54.5	81.7	105.0	57.7	86.6	105.0	71.7	105.0	85.3	105.0	105.0
42"		39.4	59.0	78.7	46.7	70.1	93.4	49.5	74.2	99.0	61.9	92.1	73.1	105.0	91.0
48"		34.4	51.7	68.9	40.9	61.3	81.7	43.3	65.0	86.6	53.7	80.6	64.0	96.0	79.7
36"	144"	44.0	66.0	88.0	52.2	78.3	104.4	55.3	83.0	105.0	68.7	103.0	81.8	105.0	101.8
42"		37.7	56.6	75.4	44.8	67.1	89.5	47.4	71.1	94.9	58.9	88.3	70.1	105.0	87.2
48"		33.0	49.5	66.0	39.2	58.8	78.3	41.5	62.3	83.0	51.5	77.3	61.3	92.0	76.3



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

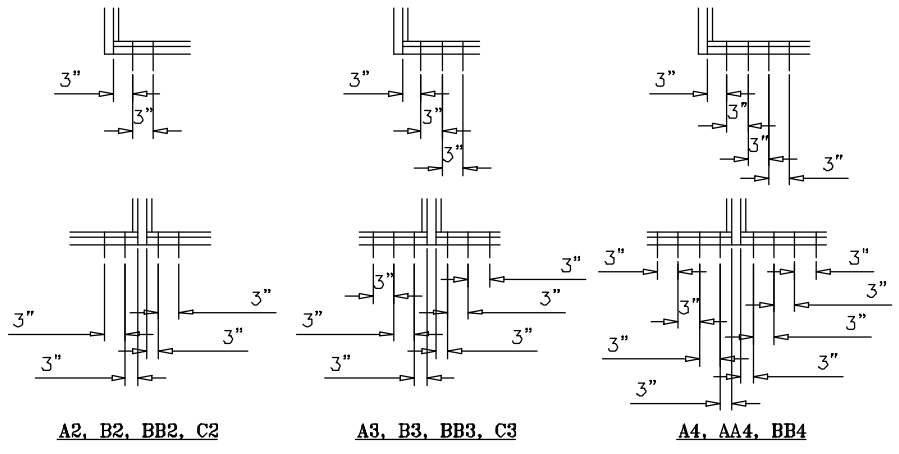
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ANCHORS TYPES: SEE SHEET 12 FOR DESCRIPTION
AA2 = (2) ANCHORS TYPE 'AA' AT EACH SIDE OF MULLION OR JAMB
A2 = (2) ANCHORS TYPE 'A' AT EACH SIDE OF MULLION OR JAMB
B2 = (2) ANCHORS TYPE 'B' AT EACH SIDE OF MULLION OR JAMB
BB2 = (2) ANCHORS TYPE 'BB' AT EACH SIDE OF MULLION OR JAMB
C2 = (2) ANCHORS TYPE 'C' AT EACH SIDE OF MULLION OR JAMB
AA3 = (3) ANCHORS TYPE 'AA' AT EACH SIDE OF MULLION OR JAMB
A3 = (3) ANCHORS TYPE 'A' AT EACH SIDE OF MULLION OR JAMB
B3 = (3) ANCHORS TYPE 'B' AT EACH SIDE OF MULLION OR JAMB
BB3 = (3) ANCHORS TYPE 'BB' AT EACH SIDE OF MULLION OR JAMB
AA4 = (4) ANCHORS TYPE 'AA' AT EACH SIDE OF MULLION OR JAMB
A4 = (4) ANCHORS TYPE 'A' AT EACH SIDE OF MULLION OR JAMB
BB4 = (4) ANCHORS TYPE 'BB' AT EACH SIDE OF MULLION OR JAMB
 ALL OTHER ANCHORS TO BE SPACED AS PER ELEVATION.



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PRODUCT:
Resistor
3000R ALUMINUM
STOREFRONT WALL-LMI
Resistor
PRODUCT SERIES

REVN	DATE/REMARKS
REV2	ADD NEW GLASS INTERLAYER AND GLASS SPACER

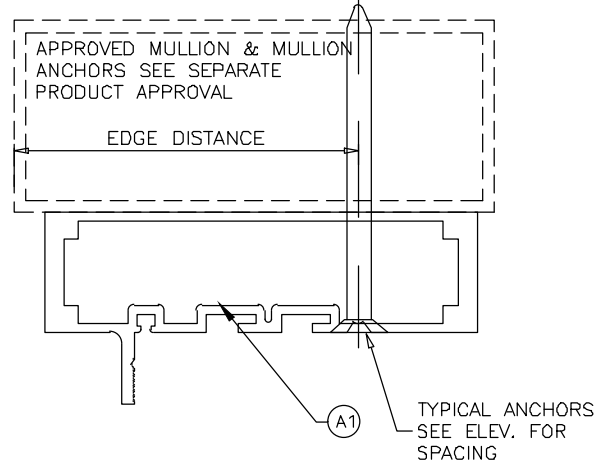
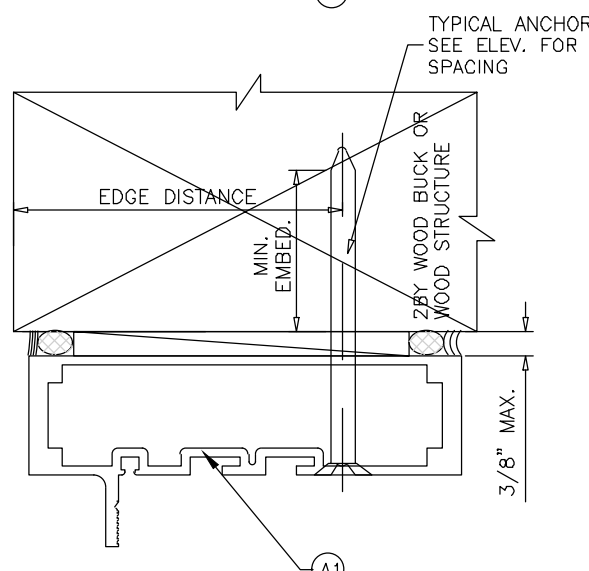
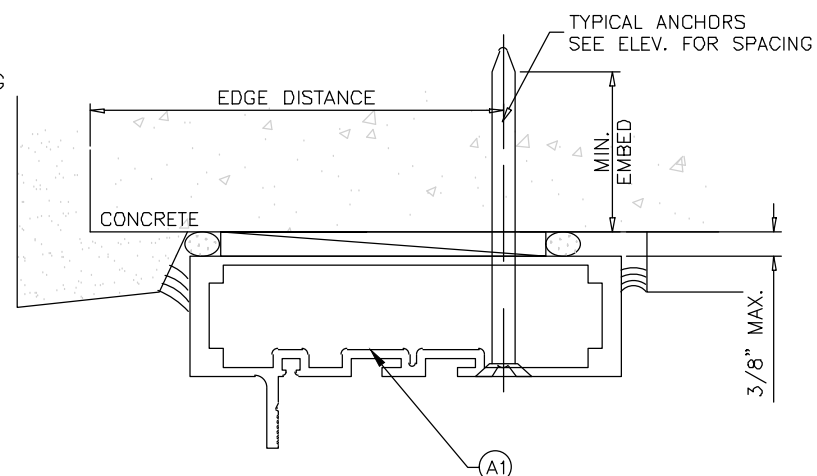
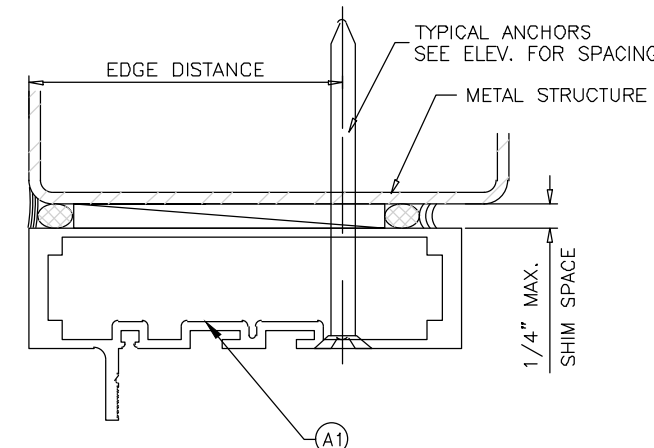
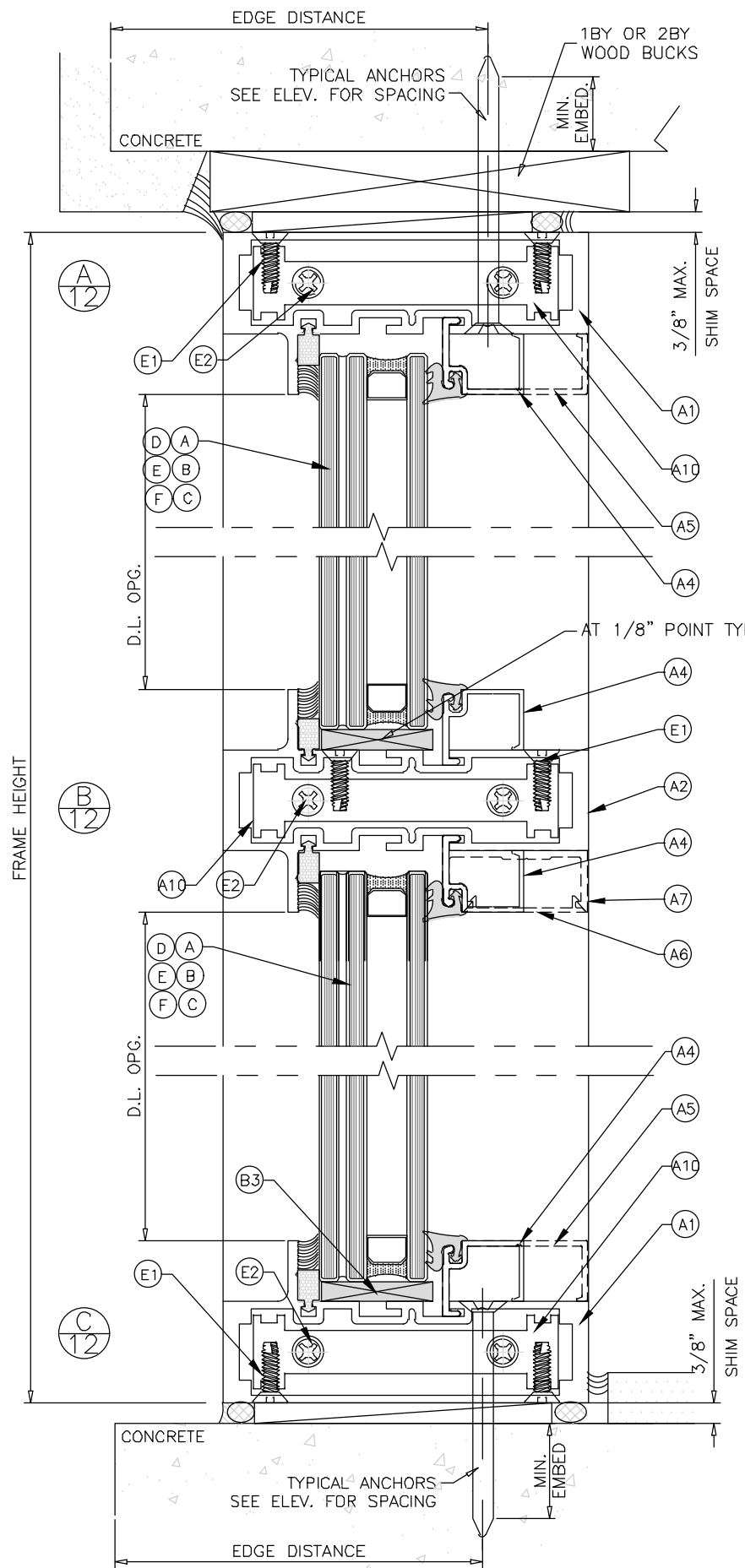
ENGINEER:
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STAMP:
YIPING WANG, P.E.
TEXAS REGISTRATION
#136420
YIPING WANG
136420
PROFESSIONAL ENGINEER
September 6th, 2022

PRODUCT CONTROL APPROVAL:

DRAWN: YIN
DATE: 08/29/22
DWG: TA18-05
DRAWING No:
8 OF 13

EXTERIOR OR INTERIOR



WOOD BUCKS AND METAL STRUCTURES NOT BY TRULITE. MUST SUSTAIN LOADS IMPOSED BY GLAZING SYSTEM AND TRANSFER THEM TO THE BUILDING STRUCTURE.

TYPICAL ANCHORS:
SEE ELEVATIONS FOR SPACING

TYPE 'AA' 1/4" DIA. TAPCON BY 'ITW' (Fu=120 KSI, Fy=92 KSI) INTO 2BY WOOD BUCKS OR WOOD STRUCTURES
1-1/2" MIN. PENETRATION INTO WOOD THRU WOOD BUCKS INTO CONC. OR MASONRY*
1-3/4" MIN. EMBED INTO MASONRY*
1-3/4" MIN. EMBED INTO CONC.

TYPE 'A' 1/4" TAPCON BY 'ITW' (Fu=120 KSI, Fy=92 KSI) DIRECTLY INTO CONCRETE OR MASONRY*
1-3/4" MIN. EMBED INTO CONCRETE OR MASONRY*

TYPE 'BB' 1/4" DIA. ULTRACON+ BY 'DEWALT' (Fu=164 KSI, Fy=148 KSI) INTO 2BY WOOD BUCKS OR WOOD STRUCTURES
1-1/2" MIN. PENETRATION INTO WOOD THRU WOOD BUCKS INTO CONC. OR MASONRY*
1-3/4" MIN. EMBED INTO MASONRY*
1-3/4" MIN. EMBED INTO CONC.

TYPE 'B' 1/4" DIA. ULTRACON+ BY 'DEWALT' (Fu=164 KSI, Fy=148 KSI) DIRECTLY INTO CONCRETE OR MASONRY*
1-3/4" MIN. EMBED INTO CONCRETE OR MASONRY*

TYPE 'C' #14 SMS (GRADE 2) (Fu=74 KSI, Fy=57 KSI) OR SELF DRILLING SCREWS (GRADE 5)(Fu=120 KSI, Fy=92 KSI) INTO MIAMI-DADE COUNTY APPROVED MULLIONS (1/8" THK. MIN.) INTO METAL STRUCTURE.

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)

SEALANTS:

GLAZING BEAD AT FRAME SILL SEALED TO GLASS WITH SILICONE
GLAZING OPTIONS S1 TO S5
FRAME CORNERS SEALED WITH DOWSIL 999 OR EQUAL COMPATIBLE.

*MASONRY - GROUT FILLED CONCRETE BLOCK (f'c=2000 PSI MIN.)
NOTE: MASONRY USED AT JAMB SUBSTRATE ONLY

TYPICAL EDGE DISTANCE

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

CONCRETE f'c = 3000 PSI MIN.
C-90 HOLLOW/FILLED BLOCK f'm = 2000 PSI MIN.



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PRODUCT:

Resistor
3000R ALUMINUM
STOREFRONT WALL-LMI

Resistor
PRODUCT SERIES

REVN	DATE/REMARKS
REV2	ADD NEW GLASS INTERLAYER AND GLASS SPACER

ENGINEER:

MCY ENGINEERING, INC.
GLAZING CONSULTANT

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MIRAMAR, FL 33027
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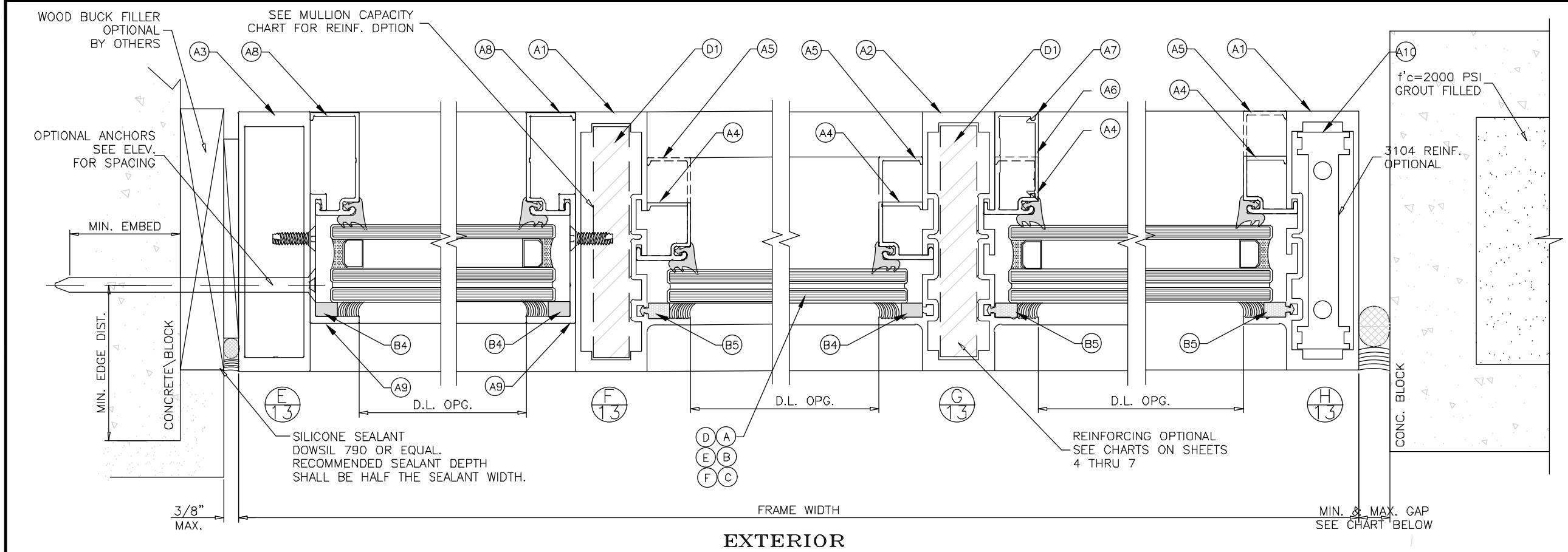
STAMP:

YIPING WANG, P.E.
STATE OF TEXAS
LICENSE #136420
PROFESSIONAL ENGINEER

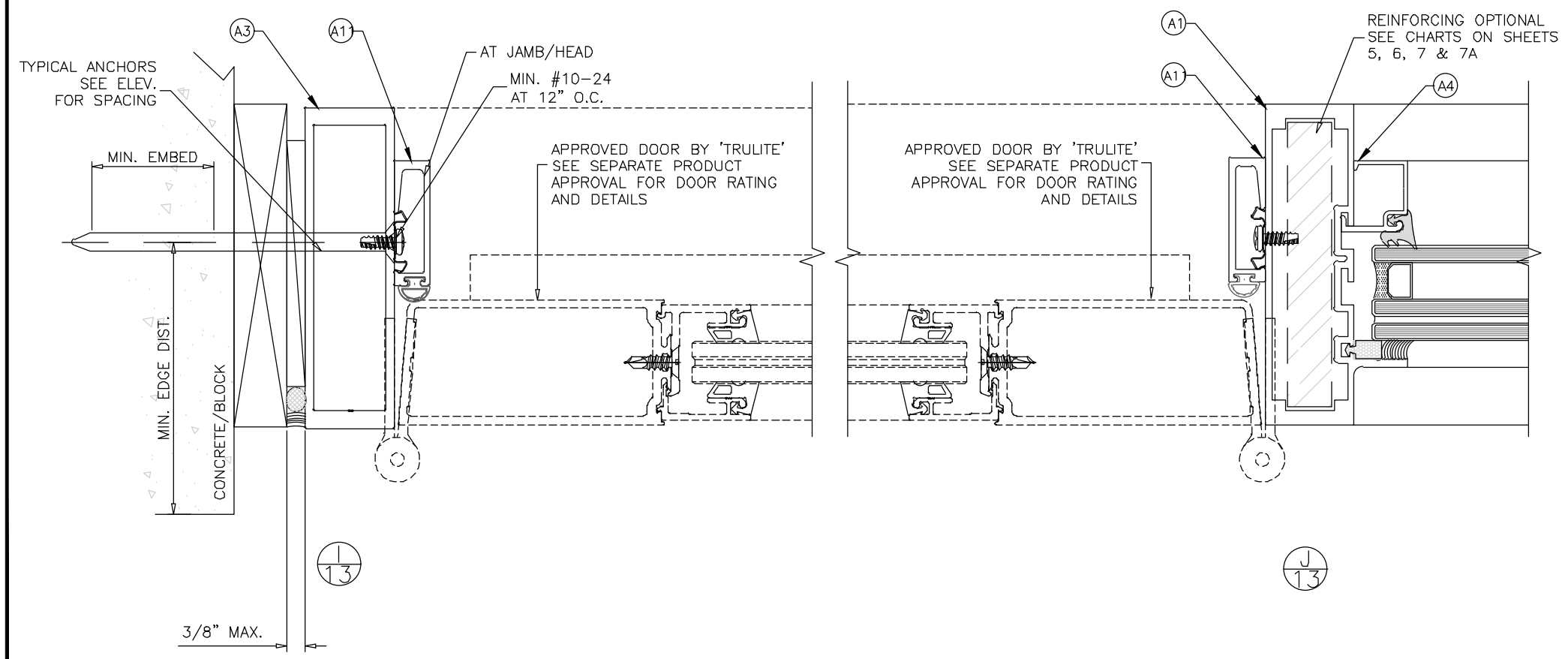
September 6th, 2022

PRODUCT CONTROL APPROVAL:

DRAWN: YIN	DRAWING No:
DATE: 08/29/22	9 OF 13
DWG: TA18-05	



EXTERIOR



MAX. FRAME HEIGHT	GAP	
	MIN.	MAX.
96"	1/2"	1"
108"	5/8"	1 1/2"
120"	1/2"	1-1/8"
144"	3/4"	1-1/8"

MAX. FRAME WIDTH	MAX. GAP AT EACH SIDE
30 FT.	1-1/8"
60 FT.	1-1/8"

ALTERNATE SEALANTS AT JAMB GAPS CAN BE DESIGNED BY ENGINEER OF RECORD BASED ON MANUFACTURER GUIDE LINES.



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PRODUCT:

Resistor
3000R ALUMINUM
STOREFRONT WALL-LMI



REV#	DATE/REMARKS
REV2	ADD NEW GLASS INTERLAYER AND GLASS SPACER

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PRODUCT:

Resistor
3000R ALUMINUM
STOREFRONT WALL-LMI

Resistor
PRODUCT SERIES

REVN	DATE/REMARKS
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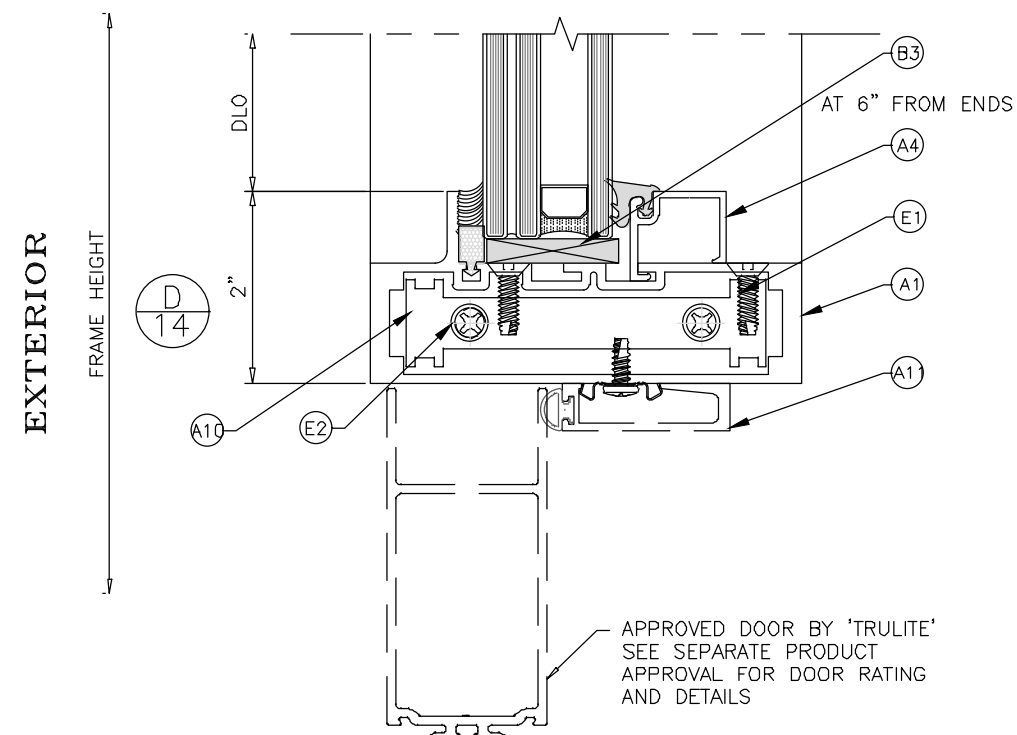
September 6th, 2022

PRODUCT CONTROL APPROVAL:

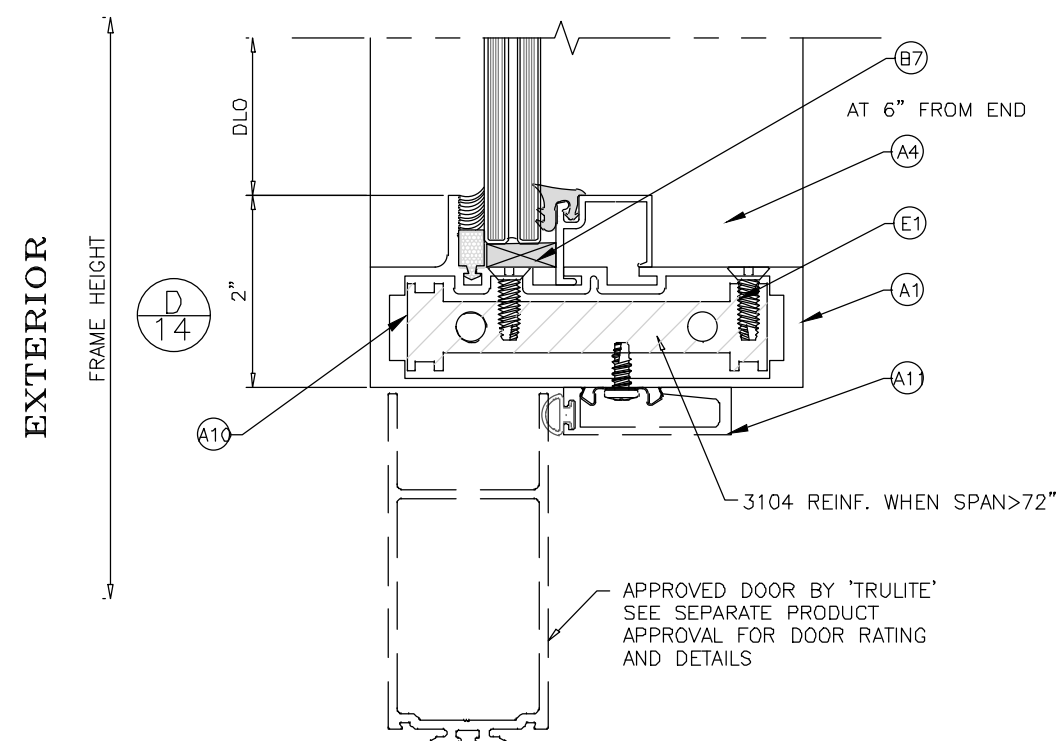
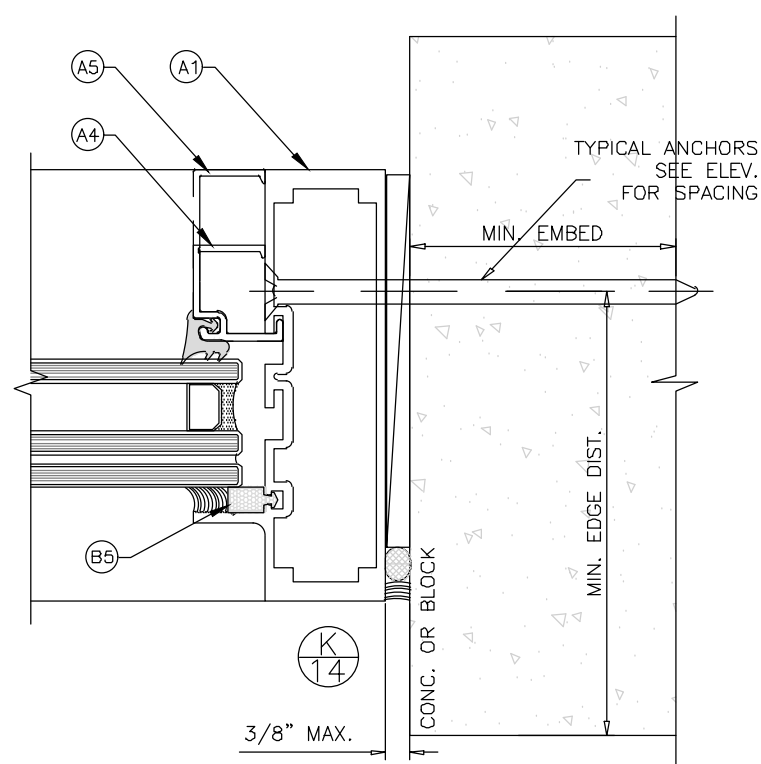
DRAWN: YIN
DATE: 08/29/22
DWG: TA18-05

DRAWING No:

11 OF 13



WITH INSULATED LAMINATED GLASS OPTION SHOWN



WITH LAMINATED GLASS OPTION SHOWN

PRODUCT:

Resistor 3000R ALUMINUM STOREFRONT WALL-LMI

Resistor
PRODUCT SERIES

REV#	DATE/REMARKS
REV2	ADD NEW GLASS INTERLAYER AND GLASS SPACER

ENGINEER:

MCY ENGINEERING, INC.
GLAZING CONSULTANT

12781 MIRAMAR PARKWAY #301
MIRAMAR, FL 33027
P: 305-271-0117
Email: MCY@MCYEngineering.com
www.MCYEngineering.com

STAMP:



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A1.) 3001R HEAD /SILL /JAMB	A2.) 3002R INT. VERTICAL	A3.) 3000 DOOR JAMB	A4.) 3003 GLASS STOP	A5.) 3103 GLASS STOP
A6.) 3303 GLASS STOP (COVER) (OPTIONAL)	A7.) 3304 GLASS STOP (GUTTER) (OPTIONAL)	A13) 3003 GLASS STOP	A8.) 3109 GLASS STOP (OPTIONAL)	A9.) 3108 GLASS STOP
A10.) 3104 SHEAR CLIP / REINF.	A11.) 10029 DOOR STOP	B1.) RG-1 GLAZ. GASKET	B2.) RG-5 GLAZ. GASKET	
B3.) H62F SETTING BLOCK	B4.) V2108 VHB TAPE	B5.) RG-18 SPONGE GASKET	D1.) ST310-5/8" x 4" STEEL REINF.	
B6.) SPACER	D2.) 23501 SPRINGCLIP	E1.) 23163 #12-24 x 3/4" UC-PFH 23	E2.) 23233 1/4-20 x 1 1/2" PPH 23	E3.) 23097 #10-24 x 1/2" PPH 23

BILL OF MATERIAL

PART #'S	DESCRIPTION	MATERIAL	SUPPLIER/MANUF.
A.FRAME EXTRUSIONS			
A1.) 3001R	HEAD/SILL/JAMB	6063-T6	TRULITE
A2.) 3002R	INTERMEDIATE VERTICAL/HORIZONTAL	6063-T6	TRULITE
A3.) 3000	INTERMEDIATE VERTICAL/HORIZONTAL	6063-T6	TRULITE
A4.) 3003	GLASS STOP	6063-T6	TRULITE
A5.) 3103	GLASS STOP	6063-T6	TRULITE
A6.) 3303	GLASS STOP(COVER)	6063-T6	TRULITE
A7.) 3304	GLASS STOP(GUTTER)	6063-T6	TRULITE
A8.) 3109	GLASS STOP	6063-T6	TRULITE
A9.) 3108	GLASS STOP	6063-T6	TRULITE
A10.) 3104	SHEAR CLIP/REINFORCEMENT	6063-T6	TRULITE
A11.) 10029	DOOR STOP	6063-T6	TRULITE
A13.) 3003	GLASS STOP	6063-T6	TRULITE
B.GASKETS/SETTING BLOCKS			
B1.) RG-1	GLAZING GASKET	EPDM	TRULITE
B2.) RG-5	DOOR GASKET	EPDM	TRULITE
B3.) H62F	SETTING BLOCK	EPDM	TRULITE
B4.) V2108	GLAZING TAPE	EPDM	CAPITAL TAPE/ST. GOBAIN
B5.) RG-18	0.236 X 0.375 SPONGE GASKET	EPDM	TRULITE
B6.) -	ALUMINUM SPACER	ALUMINUM	HELIMA HELVATION/ VARIES
B7.) H62C	1/2" X 1/8" X 4" LG SETTING BLOCK	EPDM	TRULITE
B8.) -	KODISPACE 4SG WARM EDGE SPACER	THERMOPLASTIC	HB FULLER/KOMMERLING
C.STRUCTURAL SILICON SEALANTS			
S1.) DOWSIL 795	STRUCTURAL SEALANT		DOWSIL
S2.) DOWSIL 995	STRUCTURAL SEALANT		DOWSIL
S3.) PROGLAZE SSG	STRUCTURAL SEALANT		TREMCO
S4.) SPECTREM 2	STRUCTURAL SEALANT		TREMCO
S5.) SCS2000	STRUCTURAL SEALANT		GE
D.MISCELLANEOUS ITEMS			
D1.) ST310	5/8" X 4" A36 STEEL REINFORCEMENT		VARIES
D2.) 23501	SPRING CLIP		EVANS
E.FASTENERS/ANCHORS			
E1.) 23163	SHEAR CLIP SCREWS #12-24X3/4" PFH-23		ALLOY FASTENER
E2.) 23233	HORIZ. FRAME SCREWS 1/4-20X1 1/2" PPH-23		ALLOY FASTENER
E3.) 23097	DOOR STOP SCREWS #10-24X2" PPH-23		ALLOY FASTENER



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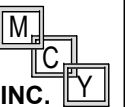
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