



4268 WESTROADS DRIVE  
WEST PALM BEACH, FL 33407  
PH: 1-800-432-2204  
FAX: 561-841-0852

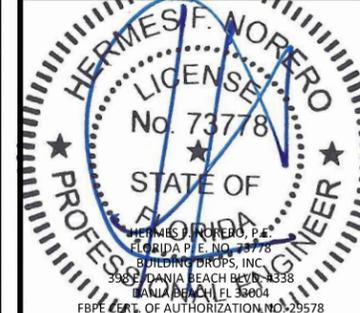
TITLE: 55 MMER ROLL SHUTTERS  
(HVHZ)(IMPACT)  
INSET MOUNT ANCHOR SPACING

PREPARED BY:  
BUILDING DROPS, INC.  
398 E. DANIA BEACH BLVD., STE. 338  
DANIA BEACH, FL 33004  
PH: (954)399-8478  
FAX: (954)744-4738  
WEB: www.buildingdrops.com



REMARKS	BY	DATE
DWG UPDATES	SM	02.18.19
B.O. UPDATES	SM	01.14.20
2020 FBC UPDATE	NUS	08.18.20
ANCHOR UPDATE	SM	02.08.21
GUIDE RAIL UPDATE	MS	04.07.22

THE INSTALLATION DETAILS DESCRIBED HEREIN ARE GENERIC AND MAY NOT REFLECT ACTUAL CONDITIONS FOR A SPECIFIC SITE. IF SITE CONDITIONS CAUSE INSTALLATION TO DEVIATE FROM THE REQUIREMENTS DETAILED HEREIN, A LICENSED ENGINEER OR ARCHITECT SHALL PREPARE SITE SPECIFIC DOCUMENTS FOR USE WITH THIS DOCUMENT.



FL22558

DATE:	06.06.17
DWG. BY:	SM
CHK. BY:	HFN
SCALE:	NTS
DWG. #:	EMS003
SHEET:	OF 23

11

TABLE 4 - ANCHOR SPACING						ANCHOR TYPE & SPACING 2X3 OR 3X3 INSET - MOUNT 3								ANCHOR TYPE & SPACING 2X4 OR 4X4 INSET - MOUNT 3								ANCHOR TYPE & SPACING 2X5 INSET - MOUNT 3							
TT	PD	Vx	Vy	Vs	Ts	A	B	C	D	E	F	G	H	A	B	C	D	E	F	G	H	A	B	C	D	E	F	G	H
120	40	0	17.58	17.58	32.79	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	
	45	0	19.78	19.78	36.89	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
	50	0	21.97	21.97	40.99	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
	55	0	24.17	24.17	45.09	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
	60	0	26.37	26.37	49.19	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
	65	0	28.57	28.57	53.29	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
	70	0	30.76	30.76	57.38	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
	75	0	32.96	32.96	61.48	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
	80	0	35.16	35.16	65.58	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
	85	0	37.36	37.36	69.68	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
	90	258.3246	39.55	39.55	674.80	5	-	-	-	-	-	-	-	-	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	95	258.3246	41.75	41.75	678.90	5	-	-	-	-	-	-	-	-	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	100	258.3246	43.95	43.95	683.00	5	-	-	-	-	-	-	-	-	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	105	258.3246	46.15	46.15	687.09	5	-	-	-	-	-	-	-	-	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	110	258.3246	48.34	48.34	691.19	5	-	-	-	-	-	-	-	-	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-
115	258.3246	50.54	50.54	695.29	5	-	-	-	-	-	-	-	-	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
120	258.3246	52.74	52.74	699.39	5	-	-	-	-	-	-	-	-	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
125	258.3246	54.93	54.93	703.49	5	-	-	-	-	-	-	-	-	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
130	258.3246	57.13	57.13	707.59	5	-	-	-	-	-	-	-	-	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
135	258.3246	59.33	59.33	711.69	5	-	-	-	-	-	-	-	-	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
140	258.3246	61.53	61.53	715.79	5	-	-	-	-	-	-	-	-	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
145	258.3246	63.72	63.72	719.89	5	-	-	-	-	-	-	-	-	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
150	258.3246	65.92	65.92	723.98	5	-	-	-	-	-	-	-	-	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
132	40	0	19.25	19.25	35.90	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	
	45	0	21.65	21.65	40.39	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	
	50	0	24.06	24.06	44.87	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	
	55	0	26.46	26.46	49.36	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	
	60	0	28.87	28.87	53.85	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	
	65	0	31.27	31.27	58.34	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	
	70	0	33.68	33.68	62.82	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	
	75	0	36.09	36.09	67.31	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	
	80	0	38.49	38.49	71.80	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	
	85	282.0454	40.90	40.90	732.49	5	-	-	-	-	-	-	-	-	5	-	-	-	-	-	-	-	-	-	-	-	-	-	
	90	282.0454	43.30	43.30	736.98	5	-	-	-	-	-	-	-	-	5	-	-	-	-	-	-	-	-	-	-	-	-	-	
	95	282.0454	45.71	45.71	741.47	5	-	-	-	-	-	-	-	-	5	-	-	-	-	-	-	-	-	-	-	-	-	-	
	100	282.0454	48.11	48.11	745.96	5	-	-	-	-	-	-	-	-	5	-	-	-	-	-	-	-	-	-	-	-	-	-	
	105	282.0454	50.52	50.52	750.44	5	-	-	-	-	-	-	-	-	5	-	-	-	-	-	-	-	-	-	-	-	-	-	
	110	282.0454	52.93	52.93	754.93	5	-	-	-	-	-	-	-	-	5	-	-	-	-	-	-	-	-	-	-	-	-	-	
115	282.0454	55.33	55.33	759.42	5	-	-	-	-	-	-	-	-	5	-	-	-	-	-	-	-	-	-	-	-	-	-		
120	282.0454	57.74	57.74	763.91	5	-	-	-	-	-	-	-	-	5	-	-	-	-	-	-	-	-	-	-	-	-	-		
125	282.0454	60.14	60.14	768.39	5	-	-	-	-	-	-	-	-	5	-	-	-	-	-	-	-	-	-	-	-	-	-		
130	282.0454	62.55	62.55	772.88	5	-	-	-	-	-	-	-	-	5	-	-	-	-	-	-	-	-	-	-	-	-	-		
135	282.0454	64.95	64.95	777.37	5	-	-	-	-	-	-	-	-	5	-	-	-	-	-	-	-	-	-	-	-	-	-		

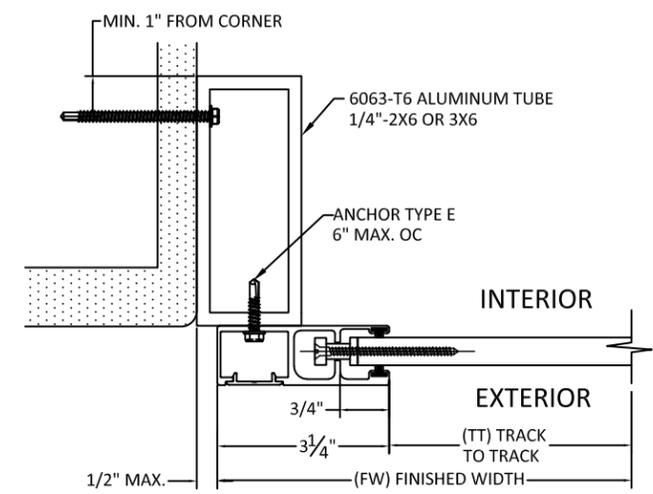
TABLE 4 - ANCHOR SPACING						ANCHOR TYPE & SPACING 2X3 OR 3X3 INSET - MOUNT 3								ANCHOR TYPE & SPACING 2X4 OR 4X4 INSET - MOUNT 3								ANCHOR TYPE & SPACING 2X5 INSET - MOUNT 3							
TT	PD	Vx	Vy	Vs	Ts	A	B	C	D	E	F	G	H	A	B	C	D	E	F	G	H	A	B	C	D	E	F	G	H
144	40	0	20.91	20.91	39.01	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5		
	45	0	23.53	23.53	43.88	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5		
	50	0	26.14	26.14	48.76	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5		
	55	0	28.75	28.75	53.64	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5		
	60	0	31.37	31.37	58.51	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5		
	65	0	33.98	33.98	63.39	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5		
	70	0	36.60	36.60	68.27	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5		
	75	0	39.21	39.21	73.14	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5		
	80	301.517	41.83	41.83	779.53	5	-	-	-	-	-	-	-	-	5	-	-	-	-	-	-	-	-	-	-	-	-		
	85	301.517	44.44	44.44	784.40	5	-	-	-	-	-	-	-	-	5	-	-	-	-	-	-	-	-	-	-	-	-		
	90	301.517	47.05	47.05	789.28	5	-	-	-	-	-	-	-	-	5	-	-	-	-	-	-	-	-	-	-	-	-		
	95	301.517	49.67	49.67	794.16	5	-	-	-	-	-	-	-	-	5	-	-	-	-	-	-	-	-	-	-	-	-		
	100	301.517	52.28	52.28	799.03	5	-	-	-	-	-	-	-	-	5	-	-	-	-	-	-	-	-	-	-	-	-		
	105	301.517	54.90	54.90	803.91	5	-	-	-	-	-	-	-	-	5	-	-	-	-	-	-	-	-	-	-	-	-		
	110	301.517	57.51	57.51	808.78	5	-	-	-	-	-	-	-	-	5	-	-	-	-	-	-	-	-	-	-	-	-		
115	301.517	60.12	60.																										



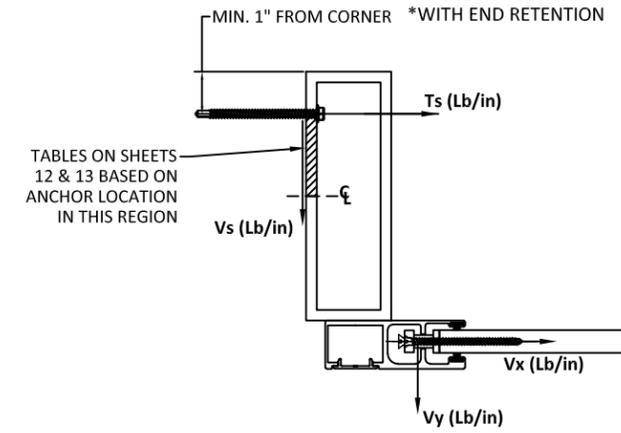
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TABLE 5 - ANCHOR SPACING						ANCHOR TYPE & SPACING 2X6 OR 3X6 OFFSET ANCHOR INSET - MOUNT 4								
TT	PD	Vx	Vy	Vs	Ts	A	B	C	D	E	F	G	H	
72	40	0	10.91	10.91	30.53	5	5	5	5	5	5	5	5	
	45	0	12.28	12.28	34.35	5	5	5	5	5	5	5	5	
	50	0	13.64	13.64	38.17	5	5	5	5	5	5	5	5	
	55	0	15.00	15.00	41.98	5	5	5	5	5	5	5	5	
	60	0	16.37	16.37	45.80	5	5	5	5	5	5	5	5	
	65	0	17.73	17.73	49.62	5	5	5	5	5	5	5	5	
	70	0	19.10	19.10	53.43	5	5	5	5	5	5	5	5	
	75	0	20.46	20.46	57.25	5	5	5	5	5	5	5	5	
	80	0	21.83	21.83	61.07	5	5	5	5	5	5	5	5	
	85	0	23.19	23.19	64.88	5	5	5	5	5	5	5	5	
	90	0	24.55	24.55	68.70	5	5	5	5	5	5	5	5	
	95	138.268	25.92	25.92	969.86	3	-	-	-	-	-	-	-	-
	100	138.268	27.28	27.28	973.68	3	-	-	-	-	-	-	-	-
	105	138.268	28.65	28.65	977.50	3	-	-	-	-	-	-	-	-
	110	138.268	30.01	30.01	981.31	3	-	-	-	-	-	-	-	-
	115	138.268	31.37	31.37	985.13	3	-	-	-	-	-	-	-	-
	120	138.268	32.74	32.74	988.95	3	-	-	-	-	-	-	-	-
	125	138.268	34.10	34.10	992.76	3	-	-	-	-	-	-	-	-
	130	138.268	35.47	35.47	996.58	3	-	-	-	-	-	-	-	-
	135	138.268	36.83	36.83	1000.40	3	-	-	-	-	-	-	-	-
140	138.268	38.19	38.19	1004.21	3	-	-	-	-	-	-	-	-	
145	138.268	39.56	39.56	1008.03	3	-	-	-	-	-	-	-	-	
150	138.268	40.92	40.92	1011.85	3	-	-	-	-	-	-	-	-	
155	138.268	42.29	42.29	1015.66	3	-	-	-	-	-	-	-	-	
160	138.268	43.65	43.65	1019.48	3	-	-	-	-	-	-	-	-	
165	138.268	45.01	45.01	1023.30	3	-	-	-	-	-	-	-	-	
170	138.268	46.38	46.38	1027.11	3	-	-	-	-	-	-	-	-	
175	138.268	47.74	47.74	1030.93	3	-	-	-	-	-	-	-	-	
180	138.268	49.11	49.11	1034.75	3	-	-	-	-	-	-	-	-	
185	138.268	50.47	50.47	1038.56	3	-	-	-	-	-	-	-	-	
190	138.268	51.83	51.83	1042.38	3	-	-	-	-	-	-	-	-	
195	138.268	53.20	53.20	1046.19	3	-	-	-	-	-	-	-	-	
200	138.268	54.56	54.56	1050.01	3	-	-	-	-	-	-	-	-	
84	40	0	12.58	12.58	35.20	5	5	5	5	5	5	5	5	
	45	0	14.15	14.15	39.60	5	5	5	5	5	5	5	5	
	50	0	15.72	15.72	44.00	5	5	5	5	5	5	5	5	
	55	0	17.30	17.30	48.40	5	5	5	5	5	5	5	5	
	60	0	18.87	18.87	52.79	5	5	5	5	5	5	5	5	
	65	0	20.44	20.44	57.19	5	5	5	5	5	5	5	5	
	70	0	22.01	22.01	61.59	5	5	5	5	5	5	5	5	
	75	0	23.59	23.59	65.99	5	5	5	5	5	5	5	5	
	80	0	25.16	25.16	70.39	5	5	5	5	5	5	5	5	
	85	0	26.73	26.73	74.79	5	5	5	5	5	5	5	5	
90	0	28.30	28.30	79.19	5	5	5	5	5	5	5	5		
96	80	0	14.25	14.25	39.86	5	5	5	5	5	5	5	5	
	45	0	16.03	16.03	44.84	5	5	5	5	5	5	5	5	
	50	0	17.81	17.81	49.82	5	5	5	5	5	5	5	5	
	55	0	19.59	19.59	54.81	5	5	5	5	5	5	5	5	
	60	0	21.37	21.37	59.79	5	5	5	5	5	5	5	5	
	65	0	23.15	23.15	64.77	5	5	5	5	5	5	5	5	
	70	0	24.93	24.93	69.75	5	5	5	5	5	5	5	5	
	75	0	26.71	26.71	74.74	5	5	5	5	5	5	5	5	
	80	0	28.49	28.49	79.72	5	5	5	5	5	5	5	5	
	85	0	30.27	30.27	84.70	5	5	5	5	5	5	5	5	
90	0	32.05	32.05	89.68	5	5	5	5	5	5	5	5		

## TYPICAL HORIZONTAL SECTIONS OFFSET ANCHOR INSET MOUNT



**K 12**  
**HORIZONTAL SECTION**  
MOUNT TYPE 4 - OFFSET ANCHOR  
INSET MOUNT



CONTRACTOR TO VERIFY ADEQUACY OF STRUCTURE  
NOTE: LOADS Vy AND Vx ARE LOADS IMPOSED BY  
SLAT ON TRACK. LOADS Ts AND Vs ARE LOADS  
IMPOSED ON STRUCTURE BY ANCHORS.

**ANCHOR SCHEDULE:**

ANCHOR	DESCRIPTION	MATERIAL	EDGE DISTANCE	EMBEDMENT
A	3/8" DEWALT SCREW-BOLT+	MIN. 3000 PSI CONCRETE	3 3/4"	3 1/2"
B	5/16" ITW TAPCON	MIN. 3000 PSI CONCRETE	2 3/16"	2 1/4"
C	3/8" DEWALT SCREW-BOLT+	GROUT FILLED C-90 BLOCK f'm > 1500 PSI	2"	2 1/2"
D	5/16" ITW TAPCON	GROUT FILLED C-90 BLOCK f'm > 2000 PSI	4"	2 1/4"
E	#14 ELCO DRIL-FLEX SELF DRILLING SCREW	MIN 1/4" 6063-T6 ALUM. A36 3/16" STEEL	1/2" 3/8"	3 THREADS PENETRATION
F	5/16" DEWALT/ELCO ULTRACON	MIN. SG = 0.55 WOOD	1 1/2"	2"
G	5/16" DEWALT/ELCO ULTRACON	MIN. 3515 PSI CONCRETE	3 1/8"	2"
H	5/16" DEWALT/ELCO ULTRACON	GROUT FILLED C-90 BLOCK f'm > 1500 PSI	2 1/2"	2 1/4"

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**12**



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TABLE 5 - ANCHOR SPACING						ANCHOR TYPE & SPACING 2X6 OR 3X6 OFFSET ANCHOR INSET - MOUNT 4							
TT	PD	Vx	Vy	Vs	Ts	A	B	C	D	E	F	G	H
108	80	0	15.91	15.91	44.52	5	5	5	5	5	5	5	5
	45	0	17.90	17.90	50.09	5	5	5	5	5	5	5	5
	50	0	19.89	19.89	55.65	5	5	5	5	5	5	5	5
	55	0	21.88	21.88	61.22	5	5	5	5	5	5	5	5
	60	0	23.87	23.87	66.78	5	5	5	5	5	5	5	5
	65	0	25.86	25.86	72.35	5	5	5	5	5	5	5	5
	70	0	27.85	27.85	77.92	5	5	5	5	5	5	5	5
	75	0	29.84	29.84	83.48	5	5	5	5	5	5	5	5
	80	0	31.83	31.83	89.05	5	5	5	5	5	5	5	5
	85	0	33.81	33.81	94.61	5	5	5	5	5	5	5	5
90	0	35.80	35.80	100.18	5	5	5	5	5	5	5	5	
120	40	0	17.58	17.58	49.19	5	5	5	5	5	5	5	5
	45	0	19.78	19.78	55.33	5	5	5	5	5	5	5	5
	50	0	21.97	21.97	61.48	5	5	5	5	5	5	5	5
	55	0	24.17	24.17	67.63	5	5	5	5	5	5	5	5
	60	0	26.37	26.37	73.78	5	5	5	5	5	5	5	5
	65	0	28.57	28.57	79.93	5	5	5	5	5	5	5	5
	70	0	30.76	30.76	86.08	5	5	5	5	5	5	5	5
	75	0	32.96	32.96	92.22	5	5	5	5	5	5	5	5
80	0	35.16	35.16	98.37	5	5	5	5	5	5	5	5	
85	0	37.36	37.36	104.52	5	5	5	5	5	5	5	4	
132	40	0	19.25	19.25	53.85	5	5	5	5	5	5	5	5
	45	0	21.65	21.65	60.58	5	5	5	5	5	5	5	5
	50	0	24.06	24.06	67.31	5	5	5	5	5	5	5	5
	55	0	26.46	26.46	74.04	5	5	5	5	5	5	5	5
	60	0	28.87	28.87	80.77	5	5	5	5	5	5	5	5
	65	0	31.27	31.27	87.51	5	5	5	5	5	5	5	5
	70	0	33.68	33.68	94.24	5	5	5	5	5	5	5	5
	75	0	36.09	36.09	100.97	5	5	5	5	5	5	5	5
80	0	38.49	38.49	107.70	5	5	5	5	5	5	5	4	

TABLE 5 - ANCHOR SPACING						ANCHOR TYPE & SPACING 2X6 OR 3X6 OFFSET ANCHOR INSET - MOUNT 4							
TT	PD	Vx	Vy	Vs	Ts	A	B	C	D	E	F	G	H
144	40	0	20.91	20.91	58.51	5	5	5	5	5	5	5	5
	45	0	23.53	23.53	65.83	5	5	5	5	5	5	5	5
	50	0	26.14	26.14	73.14	5	5	5	5	5	5	5	5
	55	0	28.75	28.75	80.46	5	5	5	5	5	5	5	5
	60	0	31.37	31.37	87.77	5	5	5	5	5	5	5	5
	65	0	33.98	33.98	95.08	5	5	5	5	5	5	5	5
	70	0	36.60	36.60	102.40	5	5	5	5	5	5	5	5
	75	0	39.21	39.21	109.71	5	5	5	5	5	5	5	4
168	40	0	24.25	24.25	67.84	5	5	5	5	5	5	5	5
	45	0	27.28	27.28	76.32	5	5	5	5	5	5	5	5
	50	0	30.31	30.31	84.80	5	5	5	5	5	5	5	5
	55	0	33.34	33.34	93.28	5	5	5	5	5	5	5	5
	60	0	36.37	36.37	101.76	5	5	5	5	5	5	5	5
65	0	39.40	39.40	110.24	5	5	5	5	5	5	5	4	
204	40	0	29.25	29.25	81.83	5	5	5	5	5	5	5	5
	45	0	32.90	32.90	92.06	5	5	5	5	5	5	5	5
	50	92.97349	36.56	36.56	705.68	5	-	-	-	-	-	-	-
	55	112.6951	40.21	40.21	843.90	4	-	-	-	-	-	-	-
	60	129.1298	43.87	43.87	960.78	3	-	-	-	-	-	-	-
65	143.0361	47.52	47.52	1061.26	3	-	-	-	-	-	-	-	
216	40	0	30.91	30.91	86.49	5	5	5	5	5	5	5	5
	45	0	34.78	34.78	97.30	5	5	5	5	5	5	5	5
	50	93.89875	38.64	38.64	717.51	5	-	-	-	-	-	-	-
	55	113.8167	42.50	42.50	857.59	4	-	-	-	-	-	-	-
240	40	38.68479	34.25	34.25	346.88	5	3	-	3	3	3	4	-
	45	68.77296	38.53	38.53	554.13	5	-	-	-	-	-	-	-
	50	92.8435	42.81	42.81	722.32	5	-	-	-	-	-	-	-
264	40	73.11576	37.58	37.58	3.00	5	5	5	5	5	5	5	5
	45	97.48768	42.28	42.28	750.98	5	-	-	-	-	-	-	-
286.5	40	65.92552	40.70	40.70	541.74	5	-	-	-	-	-	-	-

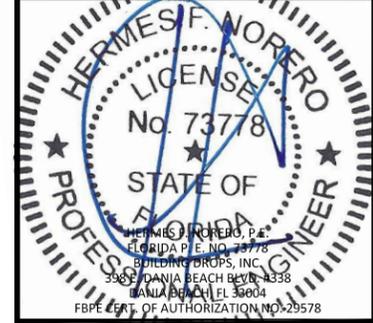
TITLE: 55 MMER ROLL SHUTTERS  
(HVHZ)(IMPACT)  
OFFSET ANCHOR INSET MOUNT  
ANCHOR SPACING

PREPARED BY:  
BUILDING DROPS, INC.  
398 E. DANIA BEACH BLVD., STE. 338  
DANIA BEACH, FL 33004  
PH: (954)399-8478  
FAX: (954)744-4738  
WEB: www.buildingdrops.com



REMARKS	BY	DATE
DWG UPDATES	SM	02.18.19
B.O. UPDATES	SM	01.14.20
2020 FBC UPDATE	NUS	08.18.20
ANCHOR UPDATE	SM	02.08.21
GUIDE RAIL UPDATE	MS	04.07.22

THE INSTALLATION DETAILS DESCRIBED HEREIN ARE GENERIC AND MAY NOT REFLECT ACTUAL CONDITIONS FOR A SPECIFIC SITE. IF SITE CONDITIONS CAUSE INSTALLATION TO DEVIATE FROM THE REQUIREMENTS DETAILED HEREIN, A LICENSED ENGINEER OR ARCHITECT SHALL PREPARE SITE SPECIFIC DOCUMENTS FOR USE WITH THIS DOCUMENT.



FL22558

DATE:	06.06.17
DWG. BY:	SM
CHK. BY:	HFN
SCALE:	NTS
DWG. #:	EMS003
SHEET:	OF 23

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4268 WESTROADS DRIVE  
WEST PALM BEACH, FL 33407  
PH: 1-800-432-2204  
FAX: 561-841-0852

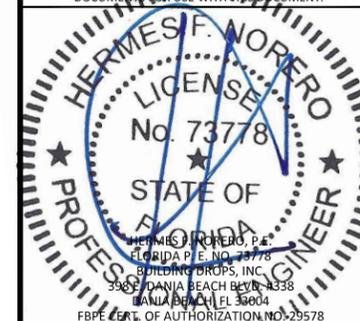
TITLE: 55 MMER ROLL SHUTTERS  
(HVHZ)(IMPACT)  
CORNER ANGLE MOUNT  
ANCHOR SPACING

PREPARED BY:  
BUILDING DROPS, INC.  
398 E. DANIA BEACH BLVD., STE. 338  
DANIA BEACH, FL 33004  
PH: (954)399-8478  
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REMARKS	BY	DATE
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FL22558

DATE: 06.06.17

DWG. BY: SM  
CHK. BY: HFN

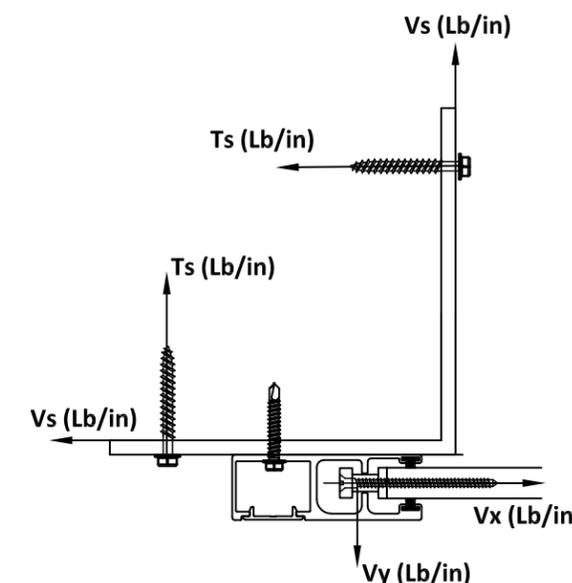
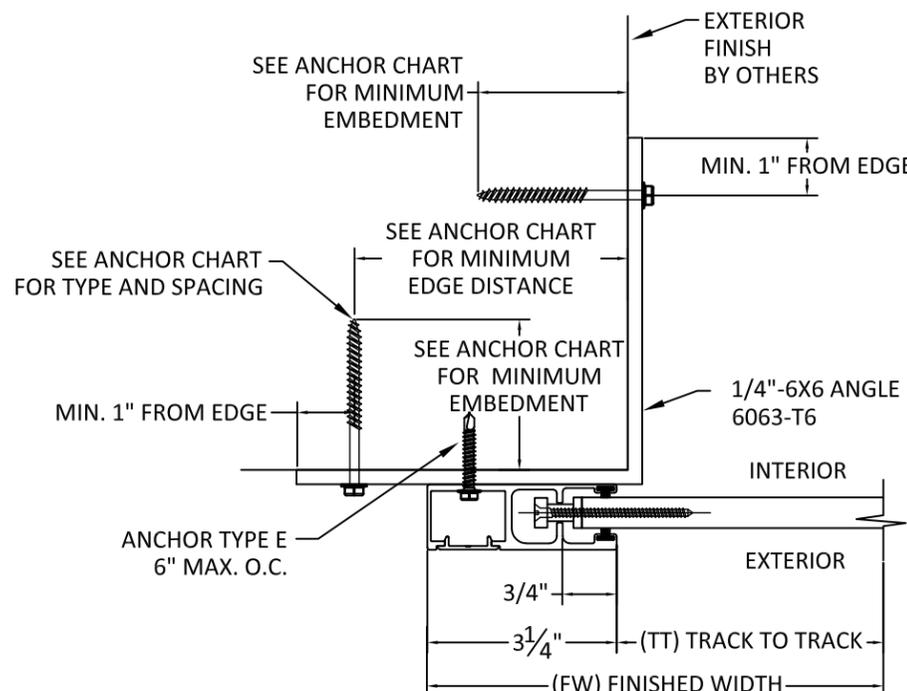
SCALE: NTS

DWG. #: EMS003

SHEET: OF 23

14

### TYPICAL HORIZONTAL SECTIONS CORNER ANGLE



CONTRACTOR TO VERIFY ADEQUACY OF STRUCTURE  
NOTE: LOADS Vy AND Vx ARE LOADS IMPOSED BY SLAT ON TRACK. LOADS Ts AND Vs ARE LOADS IMPOSED ON STRUCTURE BY ANCHORS.

### HORIZONTAL SECTION

MOUNT TYPE 5  
CORNER ANGLE MOUNT  
\*WITH END RETENTION

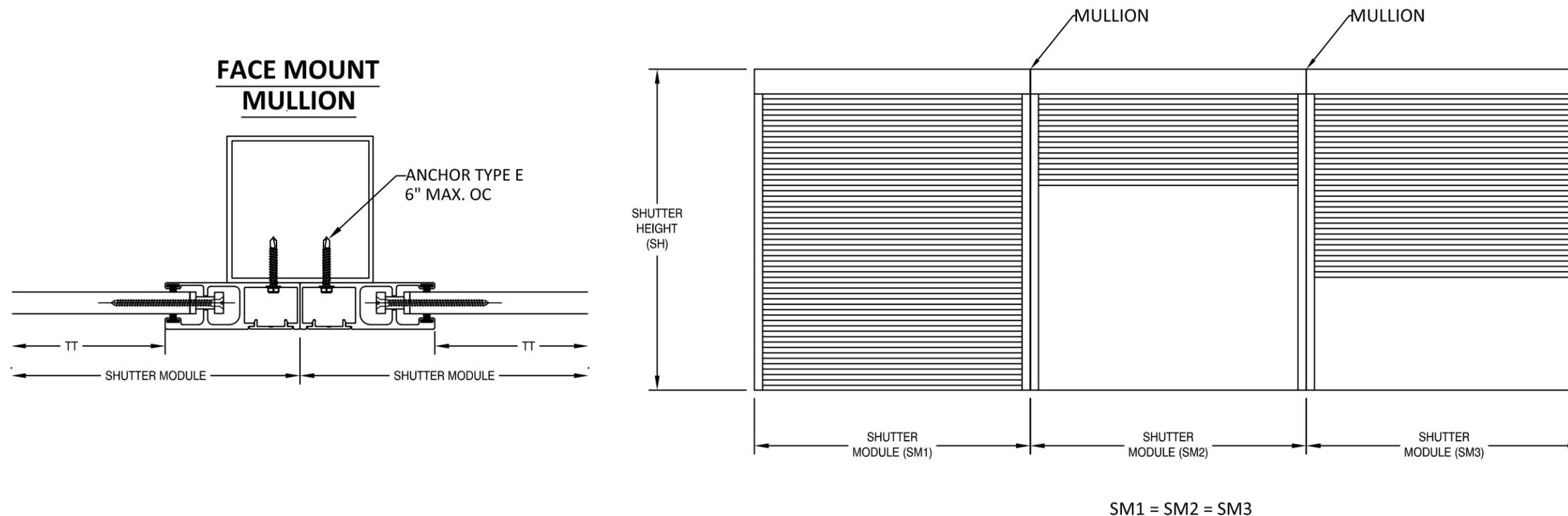
ANCHOR SCHEDULE:

ANCHOR	DESCRIPTION	MATERIAL	EDGE DISTANCE	EMBEDMENT
A	3/8" DEWALT SCREW-BOLT+	MIN. 3000 PSI CONCRETE	3 3/4"	3 1/2"
B	5/16" ITW TAPCON	MIN. 3000 PSI CONCRETE	2 3/16"	2 1/4"
C	3/8" DEWALT SCREW-BOLT+	GROUT FILLED C-90 BLOCK f'm ≥ 1500 PSI	2"	2 1/2"
D	5/16" ITW TAPCON	GROUT FILLED C-90 BLOCK f'm ≥ 2000 PSI	4"	2 1/4"
E	#14 ELCO DRIL-FLEX SELF DRILLING SCREW	MIN 1/4" 6063-T6 ALUM. A36 3/16" STEEL	1/2" 3/8"	3 THREADS PENETRATION
F	5/16" DEWALT/ELCO ULTRACON	MIN. SG = 0.55 WOOD	1 1/2"	2"
G	5/16" DEWALT/ELCO ULTRACON	MIN. 3515 PSI CONCRETE	3 1/8"	2"
H	5/16" DEWALT/ELCO ULTRACON	GROUT FILLED C-90 BLOCK f'm ≥ 1500 PSI	2 1/2"	2 1/4"

TABLE 6 ANCHOR SPACING						ANCHOR TYPE & SPACING 6X6 CORNER ANGLE ANCHOR - MOUNT 5							
TT	PD	Vx	Vy	Vs	Ts	A	B	C	D	E	F	G	H
72	40	0	10.91	0.00	10.91	5	5	5	5	5	5	5	5
	45	0	12.28	0.00	12.28	5	5	5	5	5	5	5	5
	50	0	13.64	0.00	13.64	5	5	5	5	5	5	5	5
	55	0	15.00	0.00	15.00	5	5	5	5	5	5	5	5
	60	0	16.37	0.00	16.37	5	5	5	5	5	5	5	5
	65	0	17.73	0.00	17.73	5	5	5	5	5	5	5	5
	70	0	19.10	0.00	19.10	5	5	5	5	5	5	5	5
	75	0	20.46	0.00	20.46	5	5	5	5	5	5	5	5
	80	0	21.83	0.00	21.83	5	5	5	5	5	5	5	5
	85	0	23.19	0.00	23.19	5	5	5	5	5	5	5	5
	90	0	24.55	0.00	24.55	5	5	5	5	5	5	5	5
	95	138.268	25.92	138.27	25.92	5	5	4	5	5	5	5	4
	100	138.268	27.28	138.27	27.28	5	5	4	5	5	5	5	4
	105	138.268	28.65	138.27	28.65	5	5	4	5	5	5	5	4
	110	138.268	30.01	138.27	30.01	5	5	4	5	5	5	5	4
	115	138.268	31.37	138.27	31.37	5	5	4	5	5	5	5	4
	120	138.268	32.74	138.27	32.74	5	5	4	5	5	5	5	4
	125	138.268	34.10	138.27	34.10	5	5	4	5	5	5	5	4
	130	138.268	35.47	138.27	35.47	5	5	4	5	5	5	5	4
	135	138.268	36.83	138.27	36.83	5	5	4	5	5	5	5	4
140	138.268	38.19	138.27	38.19	5	5	4	5	5	5	5	4	
145	138.268	39.56	138.27	39.56	5	5	4	5	5	5	5	4	
150	138.268	40.92	138.27	40.92	5	5	4	5	5	5	5	4	
155	138.268	42.29	138.27	42.29	5	5	4	5	5	5	5	4	
160	138.268	43.65	138.27	43.65	5	5	4	5	5	5	5	4	
165	138.268	45.01	138.27	45.01	5	5	4	5	5	5	5	4	
170	138.268	46.38	138.27	46.38	5	5	4	5	5	5	5	4	
175	138.268	47.74	138.27	47.74	5	5	4	5	5	5	5	4	
180	138.268	49.11	138.27	49.11	5	5	4	5	5	5	5	4	
185	138.268	50.47	138.27	50.47	5	5	4	5	5	5	5	4	
190	138.268	51.83	138.27	51.83	5	5	4	5	5	5	5	4	
195	138.268	53.20	138.27	53.20	5	5	4	5	5	5	5	4	
200	138.268	54.56	138.27	54.56	5	5	4	5	5	5	5	3	
84	40	0	12.58	0.00	12.58	5	5	5	5	5	5	5	5
	45	0	14.15	0.00	14.15	5	5	5	5	5	5	5	5
	50	0	15.72	0.00	15.72	5	5	5	5	5	5	5	5
	55	0	17.30	0.00	17.30	5	5	5	5	5	5	5	5
	60	0	18.87	0.00	18.87	5	5	5	5	5	5	5	5
	65	0	20.44	0.00	20.44	5	5	5	5	5	5	5	5
	70	0	22.01	0.00	22.01	5	5	5	5	5	5	5	5
	75	0	23.59	0.00	23.59	5	5	5	5	5	5	5	5
	80	0	25.16	0.00	25.16	5	5	5	5	5	5	5	5
	85	0	26.73	0.00	26.73	5	5	5	5	5	5	5	5
	90	0	28.30	0.00	28.30	5	5	5	5	5	5	5	5
	95	170.1704	29.88	170.17	29.88	5	5	3	5	5	5	5	3
	100	170.1704	31.45	170.17	31.45	5	5	3	5	5	5	5	3
	105	170.1704	33.02	170.17	33.02	5	5	3	5	5	5	5	3
	110	170.1704	34.59	170.17	34.59	5	5	3	5	5	5	5	3
115	170.1704	36.17	170.17	36.17	5	5	3	5	5	5	5	3	
120	170.1704	37.74	170.17	37.74	5	5	3	5	5	5	5	3	
125	170.1704	39.31	170.17	39.31	5	5	3	5	5	5	5	3	
130	170.1704	40.88	170.17	40.88	5	5	3	5	5	5	5	3	
135	170.1704	42.45	170.17	42.45	5	5	3	5	5	5	5	3	
140	170.1704	44.03	170.17	44.03	5	5	3	5	5	5	5	3	
145	170.1704	45.60	170.17	45.60	5	5	3	5	5	5	5	3	
150	170.1704	47.17	170.17	47.17	5	5	3	5	5	5	5	3	
155	170.1704	48.74	170.17	48.74	5	5	3	5	5	5	5	3	
160	170.1704	50.32	170.17	50.32	5	5	3	5	5	5	5	3	
165	170.1704	51.89	170.17	51.89	5	5	3	5	5	5	5	3	
170	170.1704	53.46	170.17	53.46	5	5	3	5	5	5	5	3	
175	170.1704	55.03	170.17	55.03	5	5	3	5	5	5	5	3	
180	170.1704	56.61	170.17	56.61	5	5	3	5	5	5	5	-	
185	170.1704	58.18	170.17	58.18	5	5	3	5	5	5	5	-	



## EQUALLY SPACED MULLIONS SELECTION



SM1 = SM2 = SM3

**MAXIMUM MULLION DESIGN PRESSURE (PSF)**

TT Max.	1/4-4x8 MULLION SPAN			1/4-4x6 MULLION SPAN			1/4-4x4 MULLION SPAN		
	144	120	96	144	120	96	144	120	96
286.5	34	40	40	N/A	29	40	N/A	N/A	21
264	37	45	45	N/A	31	45	N/A	N/A	23
240	41	50	50	20	35	50	N/A	N/A	25
216	45	55	55	22	39	55	N/A	N/A	28
204	48	75	75	23	41	75	N/A	N/A	30
168	58	100	100	29	50	98	N/A	N/A	36
144	68	118	125	33	58	114	N/A	22	42
132	74	129	135	36	63	124	N/A	24	46
120	82	142	150	40	70	137	N/A	26	51
108	91	158	160	45	78	152	N/A	29	57
96	103	175	175	50	87	171	N/A	33	64
84	117	185	185	58	100	185	21	37	73
72	137	200	200	67	117	200	25	44	85

**NOTES:**

- MULLIONS WERE DESIGNED BY RATIONAL ANALYSIS BASED ON THE ALUMINUM DESIGN MANUAL AND THE FLORIDA BUILDING CODE. ABOVE LOADS ARE ALSO LIMITED BY THE MAX. CAPACITY OF THE PRODUCT.
- DEFLECTION CRITERIA: MAX. SPAN/180
- VALUES ABOVE ARE APPLICABLE ONLY FOR EQUAL MODULES SM1=SM2=SM3
- UNEQUAL MODULES ARE TO BE DESIGNED BY RATIONAL ANALYSIS IN A CASE BY CASE BASIS.

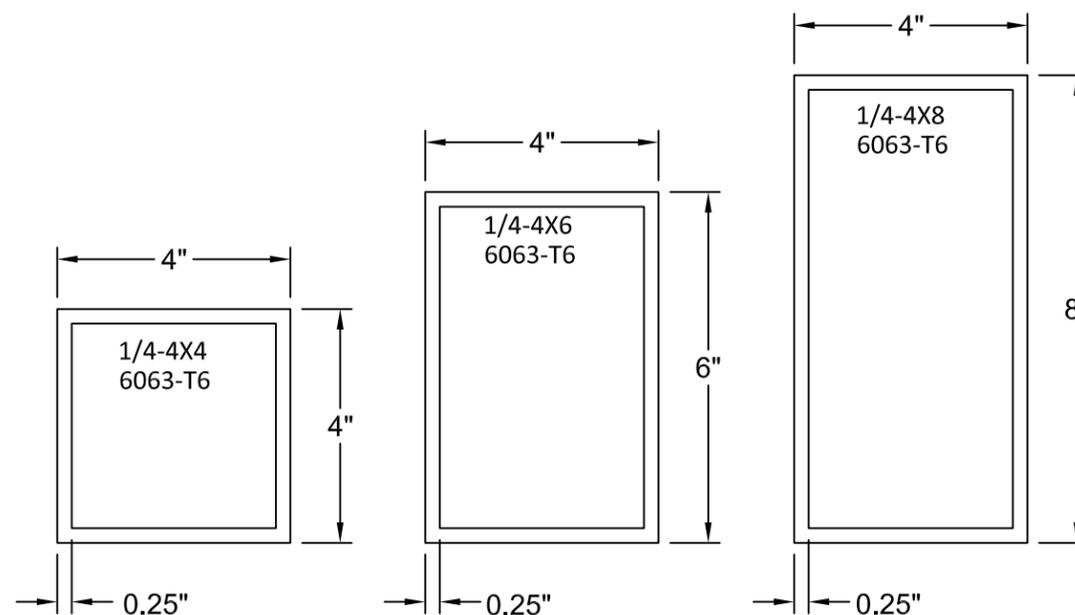


Exhibit "A"



4268 WESTROADS DRIVE  
WEST PALM BEACH, FL 33407  
PH: 1-800-432-2204  
FAX: 561-841-0852

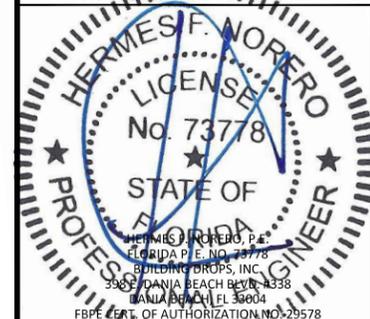
TITLE: 55 MMER ROLL SHUTTERS (HVHZ)(IMPACT) EQUALLY SPACED MULLION

PREPARED BY: BUILDING DROPS, INC.  
398 E. DANIA BEACH BLVD., STE. 338  
DANIA BEACH, FL 33004  
PH: (954)399-8478  
FAX: (954)744-4738  
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REMARKS	BY	DATE
DWG UPDATES	SM	02.18.19
B.O. UPDATES	SM	01.14.20
2020 FBC UPDATE	NUS	08.18.20
ANCHOR UPDATE	SM	02.08.21
GUIDE RAIL UPDATE	MS	04.07.22

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FL22558

DATE: 06.06.17

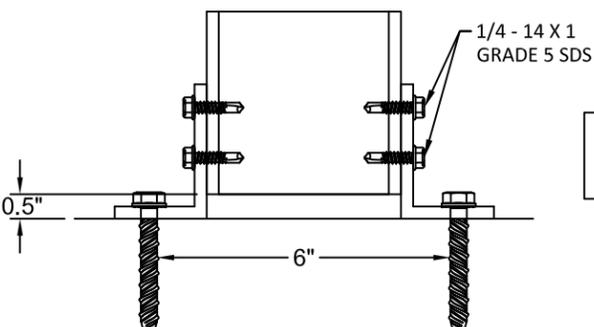
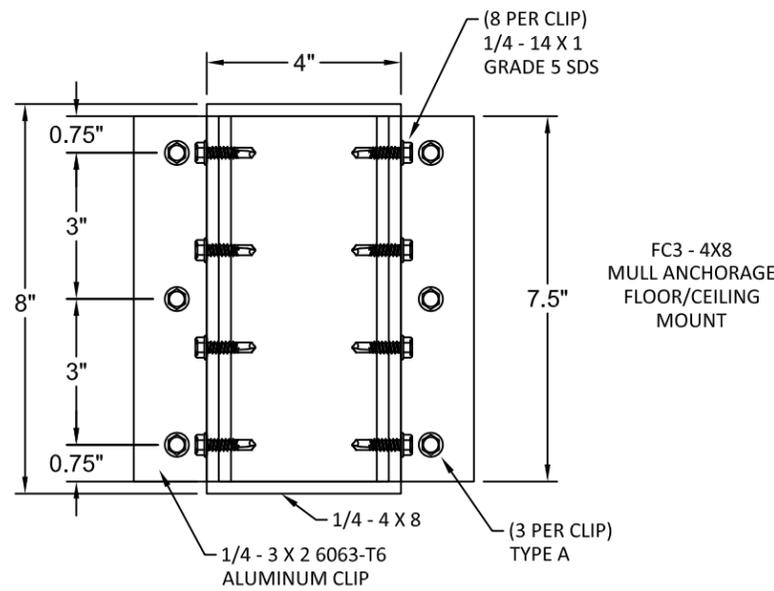
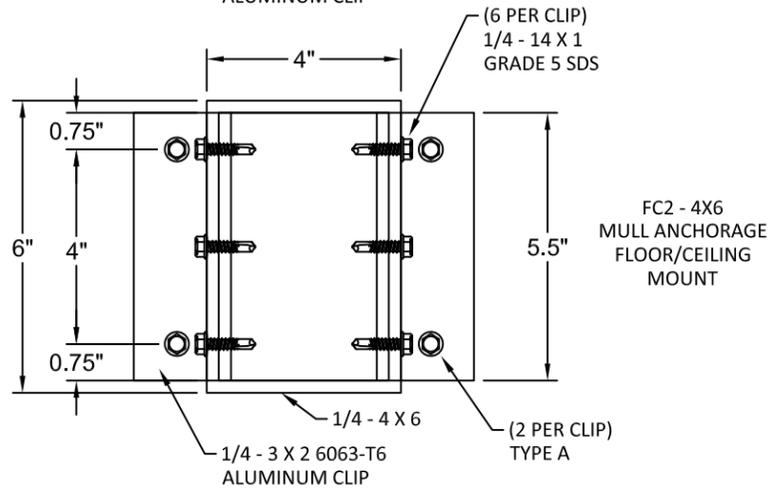
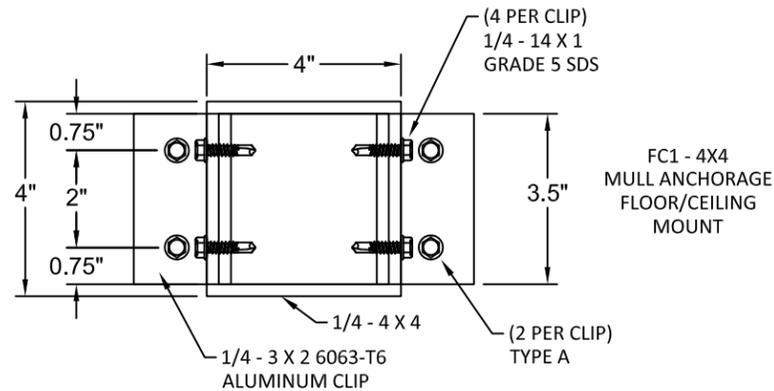
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SCALE: NTS

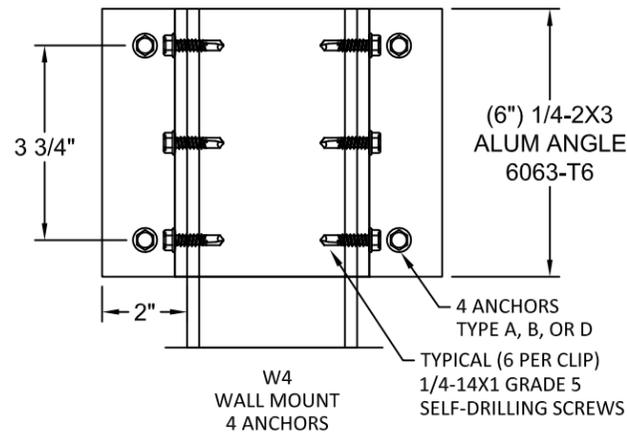
DWG. #: EMS003

SHEET: OF 23

### EQUALLY SPACED MULLIONS WALL AND INSET CONNECTIONS



NOTE: ANGLE CLIP TO BE PLACED OUTSIDE OR INSIDE TUBE



ANCHOR TYPE	WALL MOUNT ANCHOR SELECTION		
	4X4	4X6	4X8
A	W4	W4	W4
B	W4	N/A	N/A
D	W4	N/A	N/A
G	W4	N/A	N/A

ANCHOR TYPE	FLOOR/CEILING MOUNT ANCHOR SELECTION		
	4X4	4X6	4X8
A	FC1	FC2	FC3

**ANCHOR SCHEDULE:**

ANCHOR	DESCRIPTION	MATERIAL	EDGE DISTANCE	EMBEDMENT
A	3/8" DEWALT SCREW-BOLT+	MIN. 3000 PSI CONCRETE	3 3/4"	3 1/2"
B	5/16" ITW TAPCON	MIN. 3000 PSI CONCRETE	2 3/16"	2 1/4"
D	5/16" ITW TAPCON	GROUT FILLED C-90 BLOCK f'm ≥ 2000 PSI	4"	2 1/4"
G	5/16" DEWALT/ELCO ULTRACON	MIN. 3515 PSI CONCRETE	3 1/8"	2"

Exhibit "A"



4268 WESTROADS DRIVE  
WEST PALM BEACH, FL 33407  
PH: 1-800-432-2204  
FAX: 561-841-0852

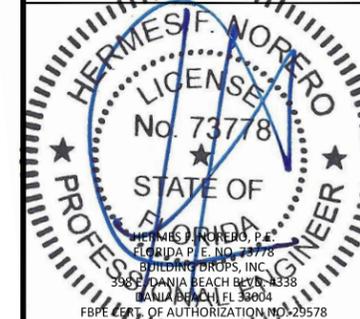
TITLE: 55 MMER ROLL SHUTTERS (HVHZ)(IMPACT) EQUALLY SPACED MULLION ANCHORS

PREPARED BY:  
BUILDING DROPS, INC.  
398 E. DANIA BEACH BLVD., STE. 338  
DANIA BEACH, FL 33004  
PH: (954)399-8478  
FAX: (954)744-4738  
WEB: www.buildingdrops.com



REMARKS	BY	DATE
DWG UPDATES	SM	02.18.19
B.O. UPDATES	SM	01.14.20
2020 FBC UPDATE	NUS	08.18.20
ANCHOR UPDATE	SM	02.08.21
GUIDE RAIL UPDATE	MS	04.07.22

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**FL22558**

DATE: 06.06.17

DWG. BY: SM CHK. BY: HFN

SCALE: NTS

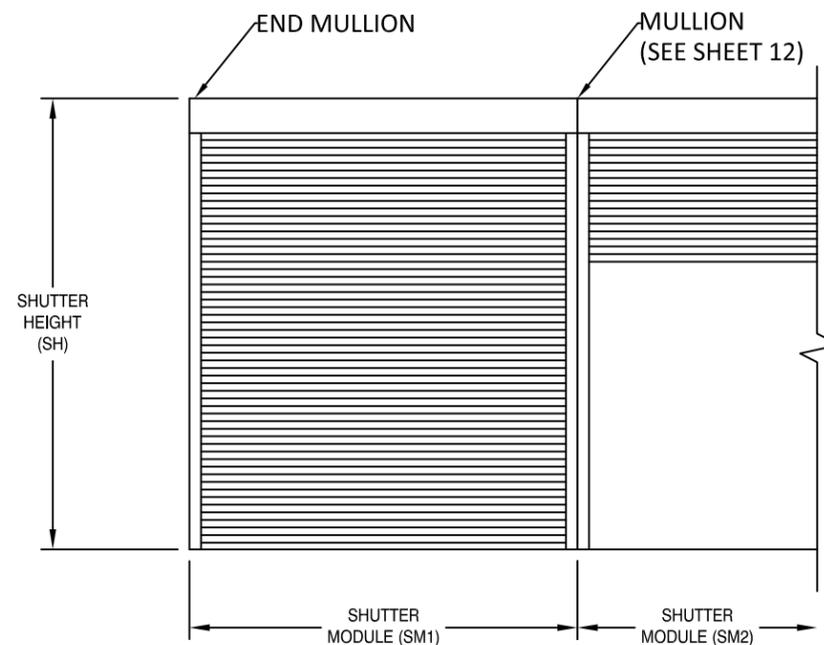
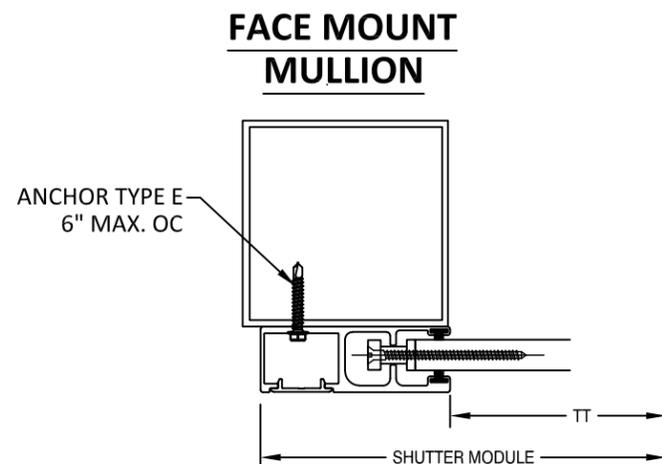
DWG. #: EMS003

SHEET: OF 23



4268 WESTROADS DRIVE  
WEST PALM BEACH, FL 33407  
PH: 1-800-432-2204  
FAX: 561-841-0852

### END MULLION SELECTION

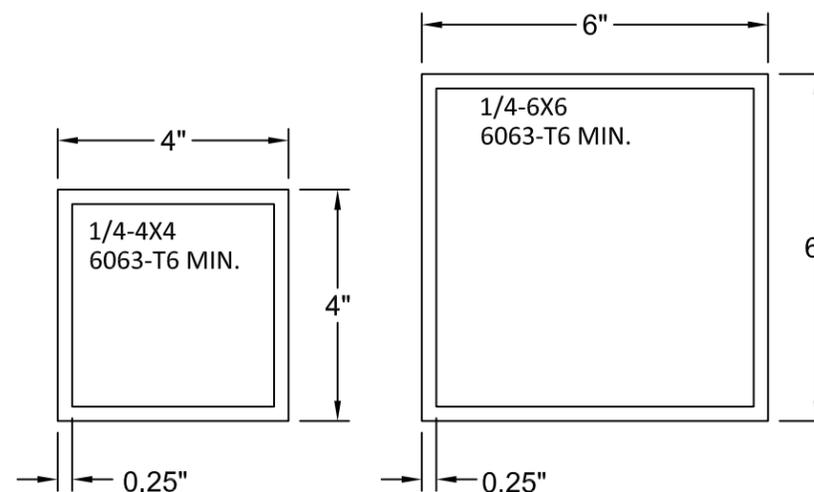


SM1 = SM2

MAXIMUM END MULLION SPANS AND DESIGN PRESSURES			
TT MAX (in)	ALLOWABLE DP (PSF)	ALLOWABLE MULLION SPANS (FT)	
		4" x 4" X 0.25" 6063-T6 MIN.	6" x 6" X 0.25" 6063-T6 MIN.
72	200	12.00	12.00
84	185	12.00	12.00
96	175	12.00	12.00
108	160	11.93	12.00
120	150	11.49	12.00
132	135	11.16	12.00
144	125	10.92	12.00
168	100	10.65	12.00
204	75	10.04	12.00
216	55	9.70	12.00
240	50	10.82	12.00
264	45	11.03	12.00
286.5	40	11.41	12.00

NOTES:

- MULLIONS WERE DESIGNED BY RATIONAL ANALYSIS BASED ON THE ALUMINUM DESIGN MANUAL AND THE FLORIDA BUILDING CODE. ABOVE LOADS ARE ALSO LIMITED BY THE MAX. CAPACITY OF THE PRODUCT.
- VALUES ABOVE ARE APPLICABLE FOR END MULLIONS ONLY



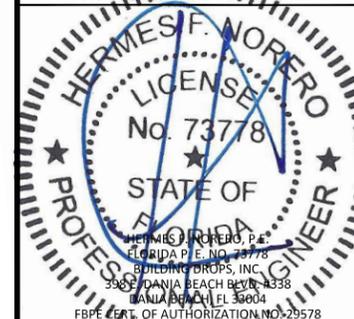
TITLE: 55 MMER ROLL SHUTTERS (HVHZ)(IMPACT) END MULLION

PREPARED BY:  
BUILDING DROPS, INC.  
398 E. DANIA BEACH BLVD., STE. 338  
DANIA BEACH, FL 33004  
PH: (954)399-8478  
FAX: (954)744-4738  
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REMARKS	BY	DATE
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B.O. UPDATES	SM	01.14.20
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ANCHOR UPDATE	SM	02.08.21
GUIDE RAIL UPDATE	MS	04.07.22

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FL22558

DATE: 06.06.17

DWG. BY: SM  
CHK. BY: HFN

SCALE: NTS

DWG. #: EMS003

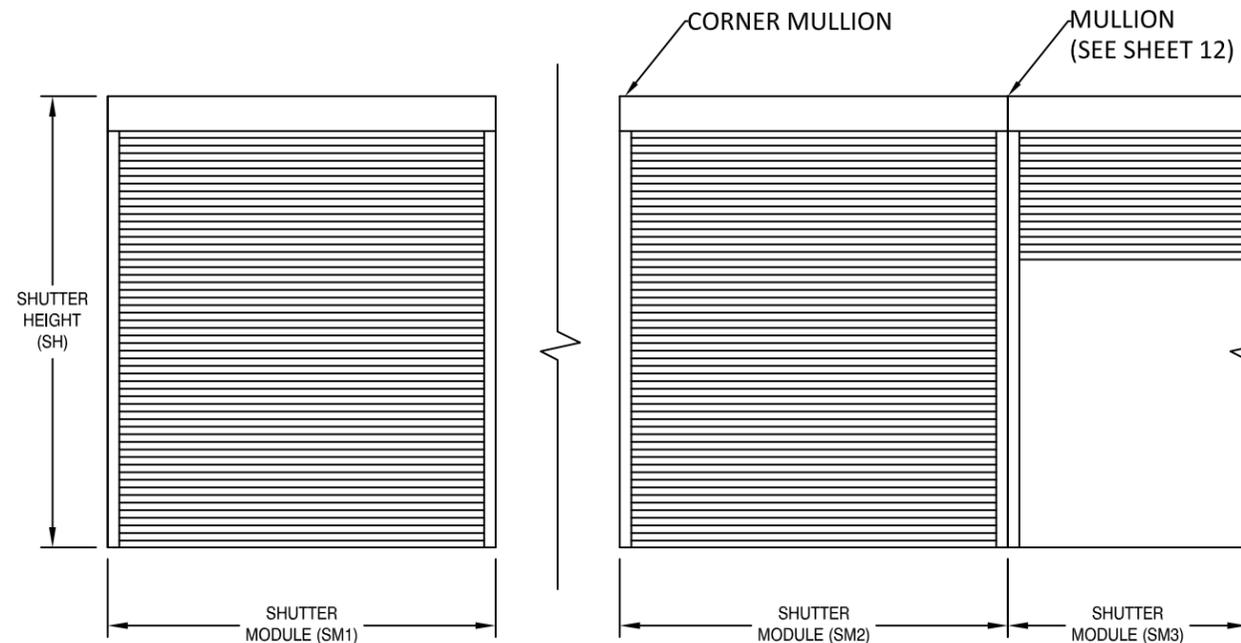
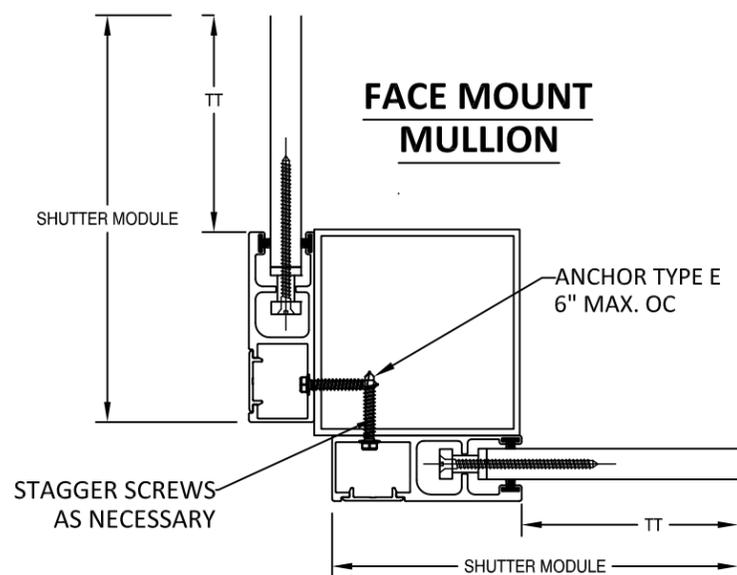
SHEET: OF 23

18



4268 WESTROADS DRIVE  
WEST PALM BEACH, FL 33407  
PH: 1-800-432-2204  
FAX: 561-841-0852

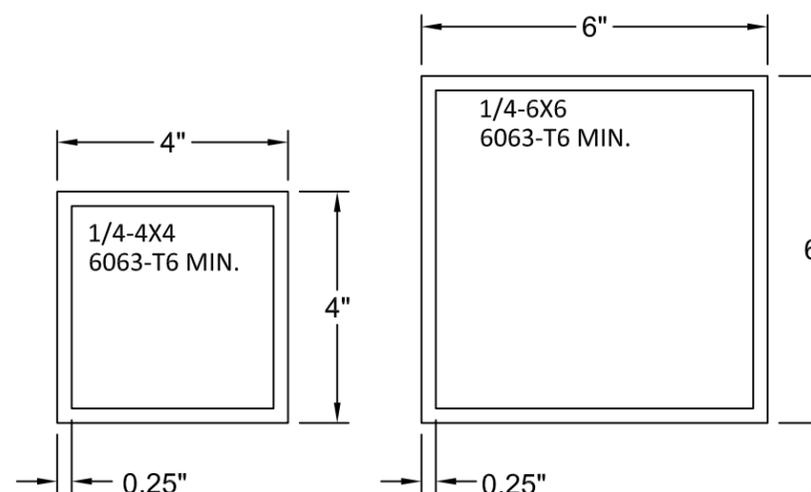
### CORNER MULLION SELECTION



SM1 = SM2 = SM3

MAXIMUM CORNER MULLION SPANS AND DESIGN PRESSURES			
TT MAX (in)	ALLOWABLE DP (PSF)	ALLOWABLE MULLION SPANS (FT)	
		4" x 4" X 0.25" 6063-T6 MIN.	6" x 6" X 0.25" 6063-T6 MIN.
72	200	10.75	12.00
84	185	9.88	12.00
96	175	9.19	12.00
108	160	8.70	12.00
120	150	8.29	12.00
132	135	8.02	12.00
144	125	7.80	12.00
168	100	7.61	11.78
204	75	7.10	10.99
216	55	6.87	10.63
240	50	7.95	12.00
264	45	8.16	12.00
286.5	40	8.56	12.00

- NOTES:
- MULLIONS WERE DESIGNED BY RATIONAL ANALYSIS BASED ON THE ALUMINUM DESIGN MANUAL AND THE FLORIDA BUILDING CODE. ABOVE LOADS ARE ALSO LIMITED BY THE MAX. CAPACITY OF THE PRODUCT.
  - VALUES ABOVE ARE APPLICABLE FOR CORNER MULLIONS ONLY WITH EQUAL WIDTH SHUTTERS ON BOTH SIDES, UNEQUAL SHUTTERS SHALL BE EVALUATED ON A CASE BY CASE BASIS.

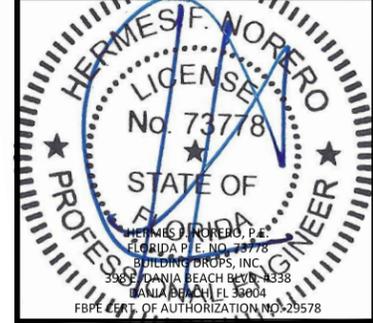


TITLE: 55 MMER ROLL SHUTTERS (HVHZ)(IMPACT)  
CORNER MULLION

PREPARED BY:  
BUILDING DROPS, INC.  
398 E. DANIA BEACH BLVD., STE. 338  
DANIA BEACH, FL 33004  
PH: (954)399-8478  
FAX: (954)744-4738  
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**FL22558**

DATE: 06.06.17

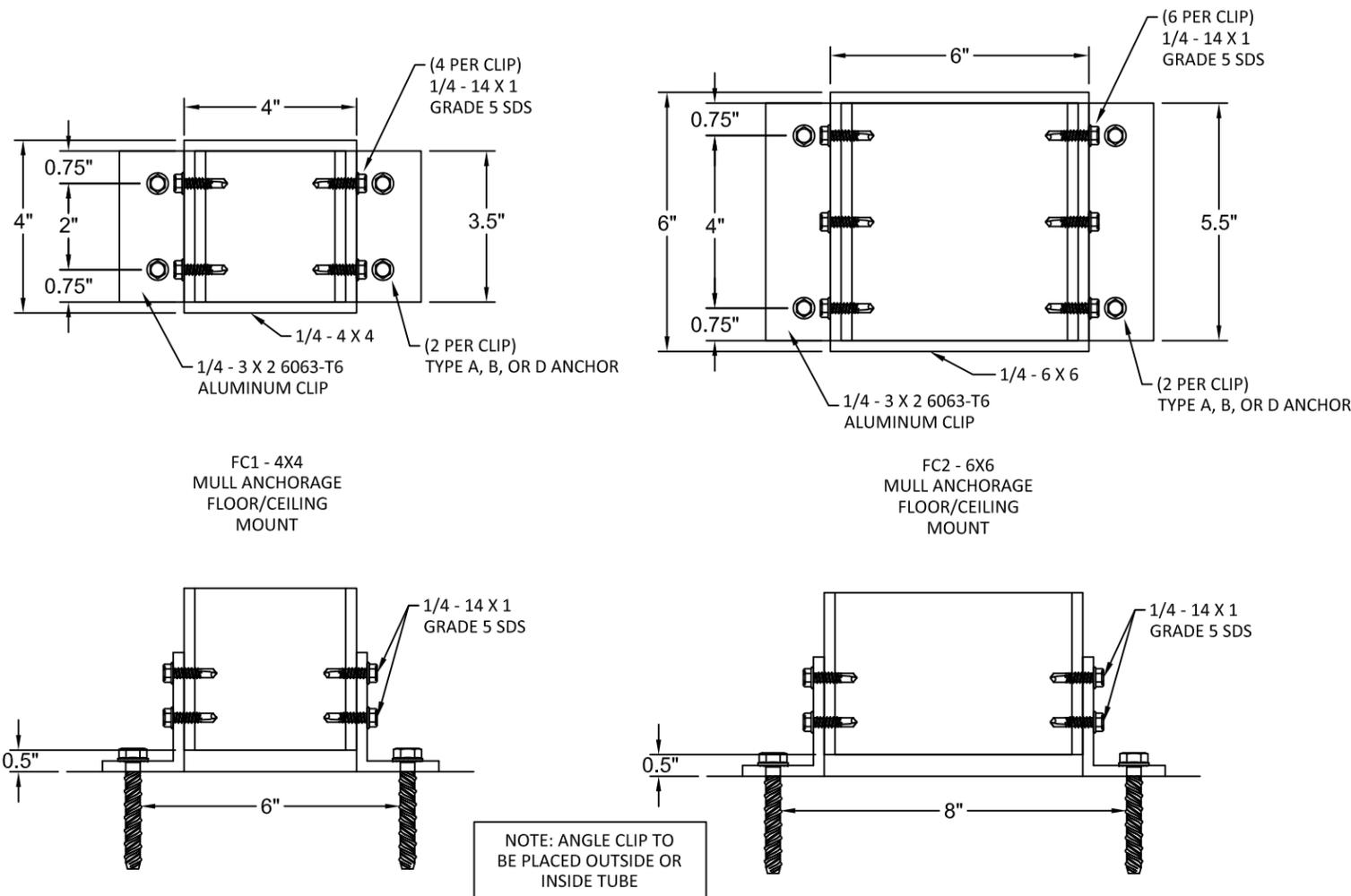
DWG. BY: SM      CHK. BY: HFN

SCALE: NTS

DWG. #: EMS003

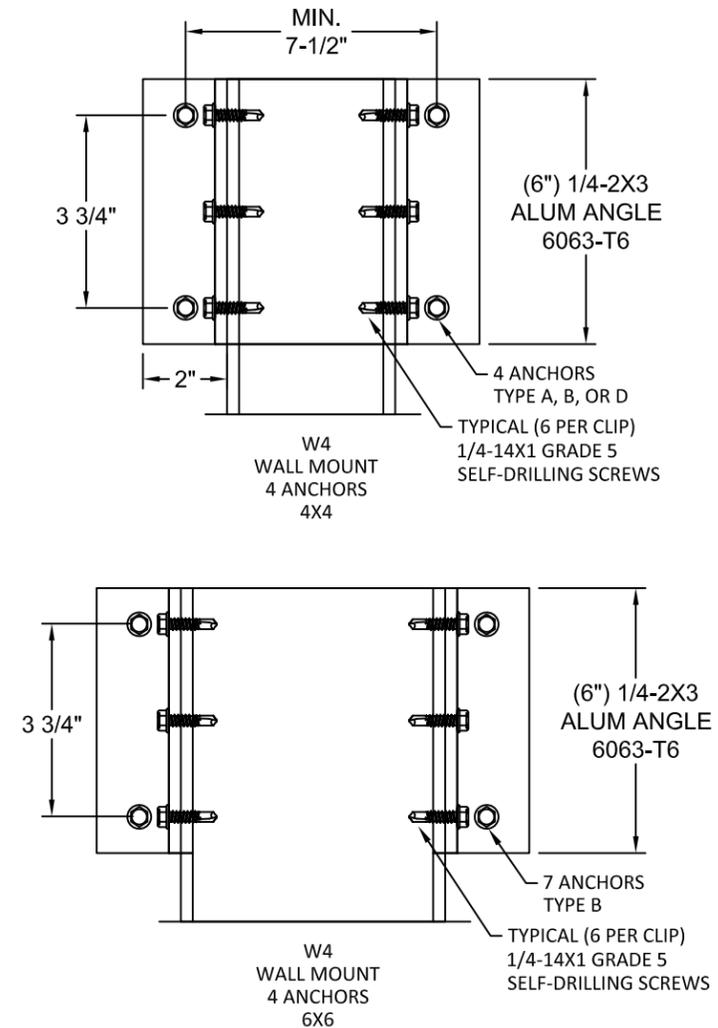
SHEET:                      OF 23

### END MULLION AND CORNER MULLION WALL AND INSET CONNECTIONS



MULL FLOOR/CEILING MOUNT ANCHOR SELECTION				
ANCHOR TYPE	END MULLION TYPE		CORNER MULLION TYPE	
	4X4	6X6	4X4	6X6
A	FC1	FC2	FC1	FC2
B	N/A	FC2	N/A	N/A
D	N/A	FC2	N/A	N/A
G	N/A	FC2	N/A	N/A

### END MULLION WALL CONNECTIONS



WALL MOUNT ANCHOR SELECTION		
ANCHOR TYPE	END MULLION TYPE	
	4X4	6X6
A	W4	W4
B	W4	W4
D	W4	W4
G	W4	W4

#### ANCHOR SCHEDULE:

ANCHOR	DESCRIPTION	MATERIAL	EDGE DISTANCE	EMBEDMENT
A	3/8" DEWALT SCREW-BOLT+	MIN. 3000 PSI CONCRETE	3 3/4"	3 1/2"
B	5/16" ITW TAPCON	MIN. 3000 PSI CONCRETE	2 3/16"	2 1/4"
D	5/16" ITW TAPCON	GROUT FILLED C-90 BLOCK f'm ≥ 2000 PSI	4"	2 1/4"
G	5/16" DEWALT/ELCO ULTRACON	MIN. 3515 PSI CONCRETE	3 1/8"	2"

Exhibit "A"



4268 WESTROADS DRIVE  
WEST PALM BEACH, FL 33407  
PH: 1-800-432-2204  
FAX: 561-841-0852

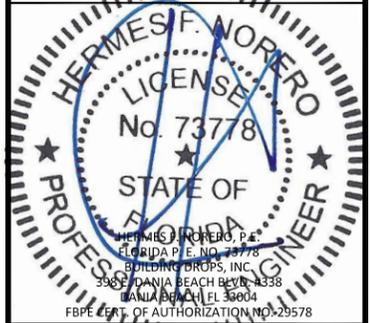
TITLE: 55 MMER ROLL SHUTTERS (HVHZ)(IMPACT)  
CORNER MULLION ANCHORS

PREPARED BY:  
BUILDING DROPS, INC.  
398 E. DANIA BEACH BLVD., STE. 338  
DANIA BEACH, FL 33004  
PH: (954)399-8478  
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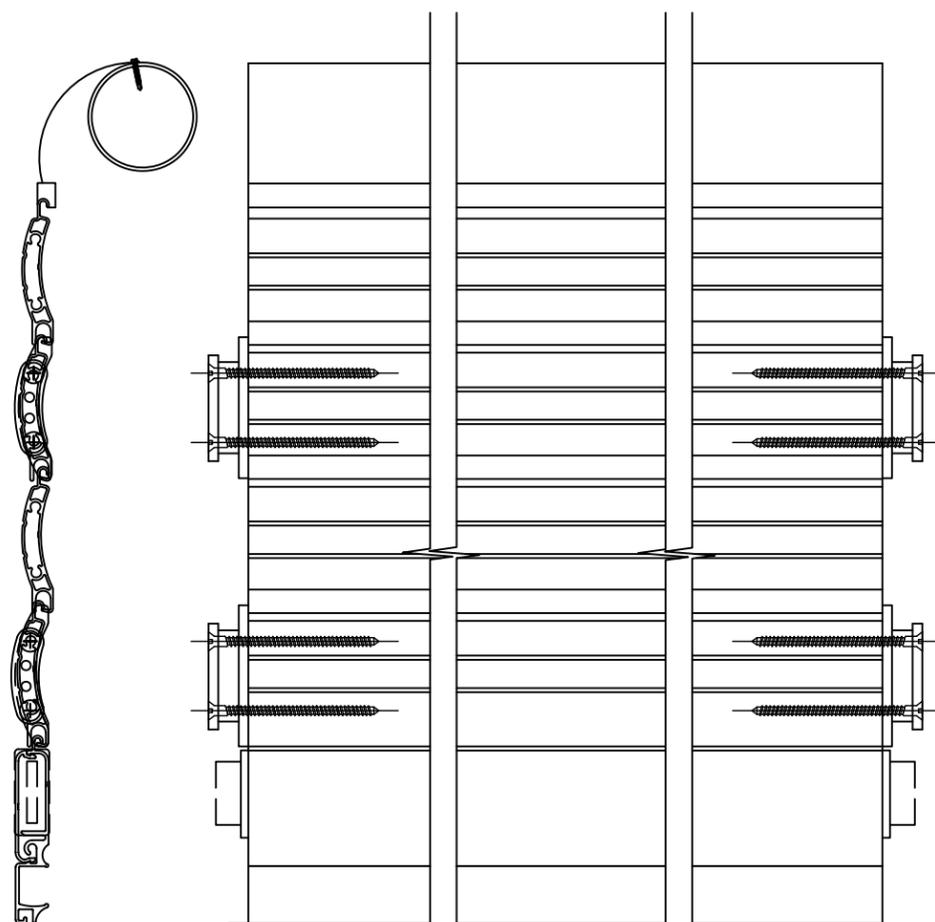
DATE:	06.06.17
DWG. BY:	SM
CHK. BY:	HFN
SCALE:	NTS
DWG. #:	EMS003
SHEET:	OF 23

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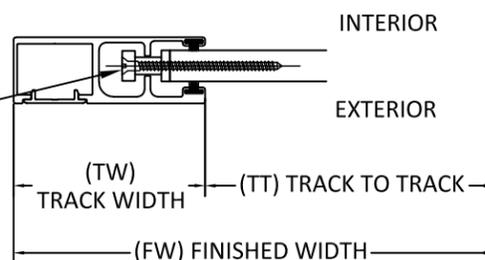


4268 WESTROADS DRIVE  
WEST PALM BEACH, FL 33407  
PH: 1-800-432-2204  
FAX: 561-841-0852

### SLAT END RETENTION LAY-OUT

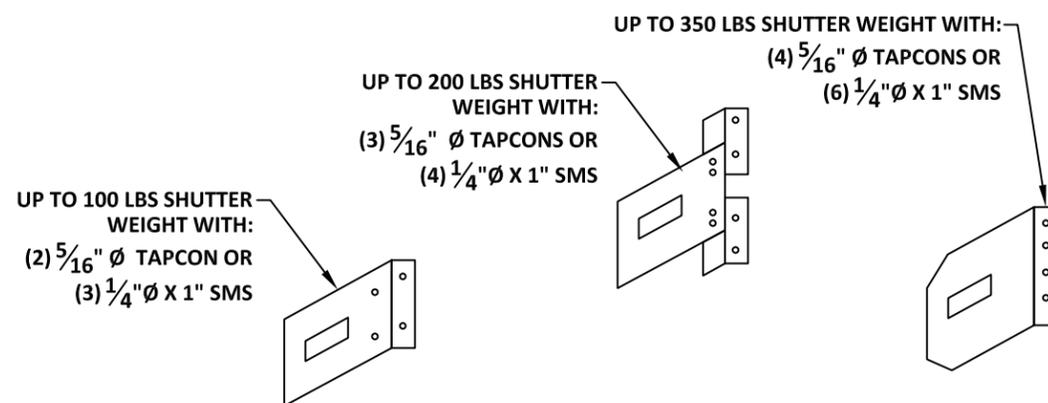


#10 X 2.5" PFH 18-8 S/S SMS, TWO (2) PER END RETENTION SLAT LOCK GUIDE, WITH A HV COATING SYSTEM AS MANUFACTURED BY AN APPROVED COATING APPLICATOR REGISTERED WITH THE AMERICAN SHUTTER SYSTEMS ASSOCIATION.

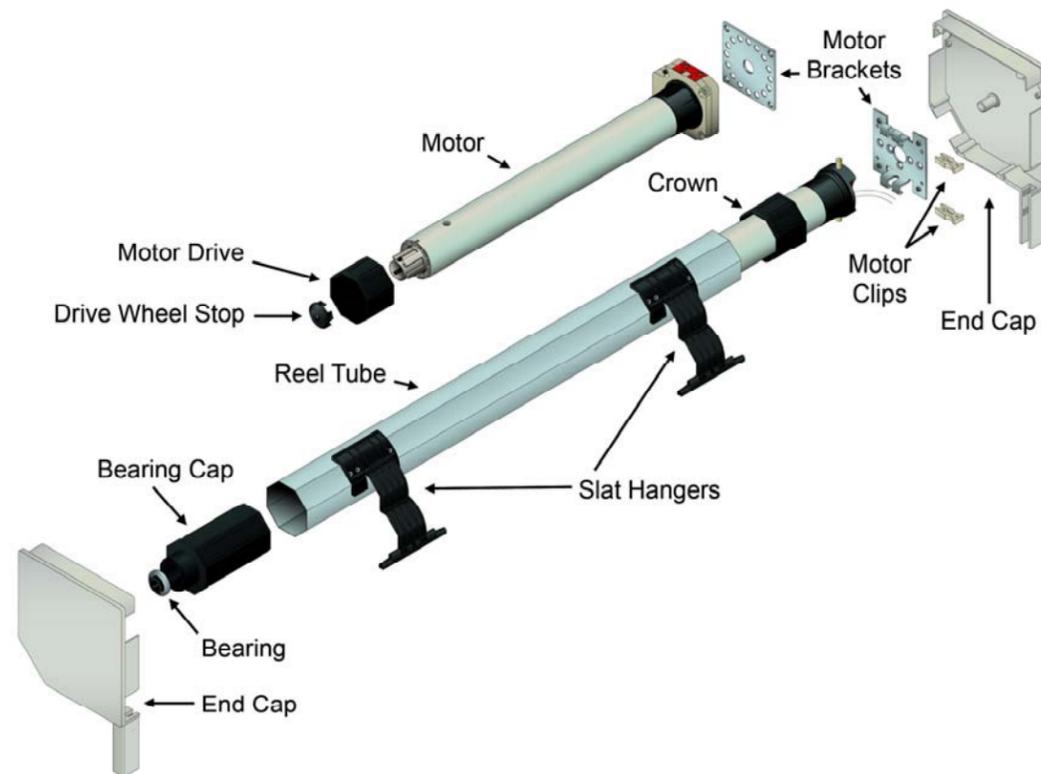


- NOTES:
1. SLAT END RETENTION LOCK TO BE AT EVERY OTHER SLAT
  2. INSTALLATION SCREWS SHALL BE COATED WITH A HV COATING SYSTEM AS MANUFACTURED BY AN APPROVED COATING APPLICATOR REGISTERED WITH THE AMERICAN SHUTTER SYSTEMS ASSOCIATION.

### MOUNTING BRACKET



### ROLL-UP MECHANISM EXPLODED



- NOTES:
1. THE ROLL-UP MECHANISM (GEARS, MOTOR, SUPPORTING END PLATES) ARE NOT A PART OF THIS APPROVAL AND SHALL BE SELECTED BASED ON MANUFACTURER'S SPECIFICATIONS.
  2. 60MM, 70MM, OR 94MM DIAMETER REEL TUBE PER MANUFACTURER SPECIFICATION
  3. TUBULAR MOTOR MAY BE REPLACED WITH GEAR FOR MANUAL OPERATION.
  4. OPTIONAL BOTTOM LOCK IS NOT REQUIRED FOR STRUCTURAL OR FORCED ENTRY RESISTANCE PERFORMANCE. FOR USE ON MAXIMUM 20' WIDE UNIT.
  5. BASE SLAT IS OPTIONAL AND IS NOT REQUIRED FOR STRUCTURAL OR FORCED ENTRY RESISTANCE PERFORMANCE. FOR USE ON MAXIMUM 20' WIDE UNIT.

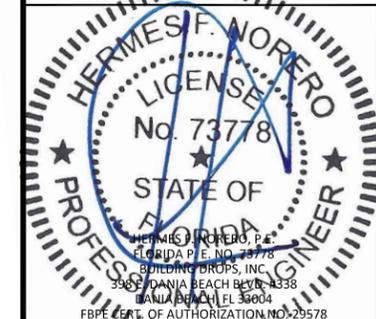
TITLE: 55 MMER ROLL SHUTTERS (HVHZ)(IMPACT) SLAT END RETENTION & HOOD ASSEMBLY

PREPARED BY:  
BUILDING DROPS, INC.  
398 E. DANIA BEACH BLVD., STE. 338  
DANIA BEACH, FL 33004  
PH: (954)399-8478  
FAX: (954)744-4738  
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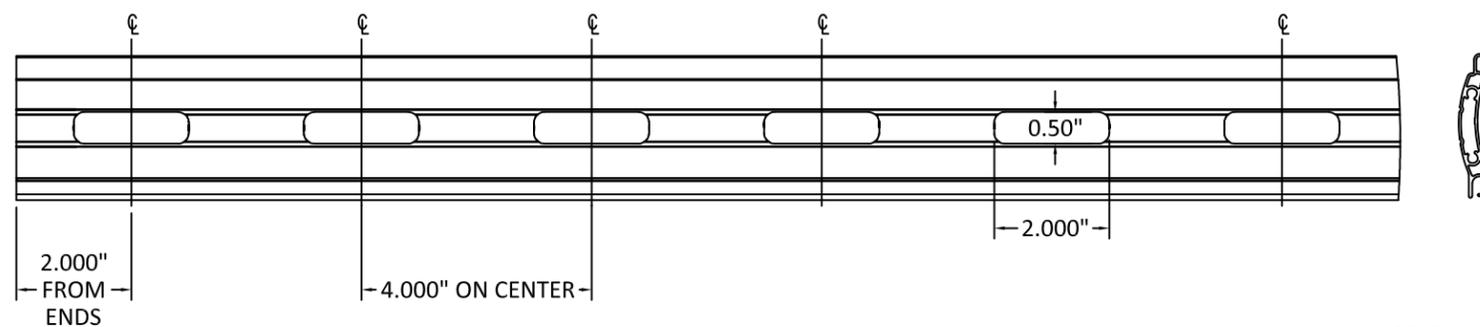
FL22558

DATE:	06.06.17
DWG. BY:	SM
CHK. BY:	HFN
SCALE:	NTS
DWG. #:	EMS003
SHEET:	OF 23

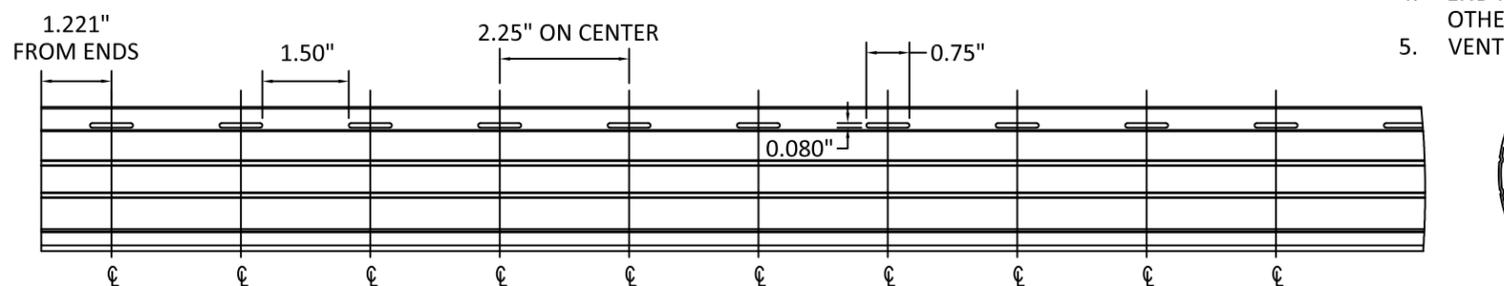


4268 WESTROADS DRIVE  
WEST PALM BEACH, FL 33407  
PH: 1-800-432-2204  
FAX: 561-841-0852

### VIEWPORT SLAT DETAIL



### VENTED SLAT DETAIL



**NOTES:**

1. USE OF VIEWPORT SLATS SHALL BE LIMITED TO EVERY OTHER SLAT. MAY BE USED FOR FULL DOOR HEIGHT, EXCEPT FOR WITHIN 36" OF BOTTOM OF FRAME.
2. VIEWPORT SLATS MAY ONLY BE USED ON SLATS WITH END RETENTION.
3. VIEWPORTS USE MAKROLON POLYCARBONATE INSERT WITH CURRENT NOA.
4. END RETENTION LOCKS ARE REQUIRED EVERY OTHER SLAT.
5. VENTED OR UN-VENTED SLATS QUALIFIED.

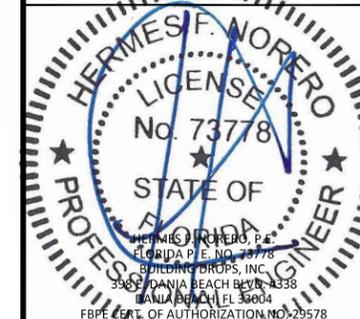
TITLE: 55 MMER ROLL SHUTTERS (HVHZ)(IMPACT)  
VIEWPORT AND VENT DETAILS

PREPARED BY:  
**BUILDING DROPS, INC.**  
398 E. DANIA BEACH BLVD., STE. 338  
DANIA BEACH, FL 33004  
PH: (954)399-8478  
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DATE: 06.06.17

DWG. BY: SM      CHK. BY: HFN

SCALE: NTS

DWG. #: EMS003

SHEET: OF 23

**22**

### BILL OF MATERIALS

ITEM NO.	DESCRIPTION	MATERIAL
1	55 mm SLAT	6063-T6
2	LARGE GUIDE RAIL	6063-T6
2A	LARGE GUIDE RAIL - ENCLOSED	6063-T6
3	SMALL GUIDE RAIL	6063-T6
3A	SMALL GUIDE RAIL - ENCLOSED	6063-T6
4	COVER CAP	6063-T6
5	SLAT LOCK - 2 PIECE	POLYACETAL
5A	SLAT LOCK - 1 PIECE	POLYACETAL
6	BOTTOM SLAT COVER	6063-T6
7	BOTTOM SLAT	6063-T6

Exhibit "A"



4268 WESTROADS DRIVE  
WEST PALM BEACH, FL 33407  
PH: 1-800-432-2204  
FAX: 561-841-0852

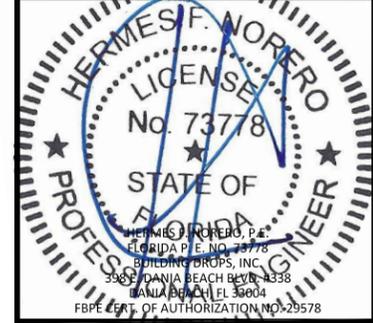
TITLE: 55 MMER ROLL SHUTTERS  
(HVHZ)(IMPACT)  
BOM & COMPONENTS

PREPARED BY:  
BUILDING DROPS, INC.  
398 E. DANIA BEACH BLVD., STE. 338  
DANIA BEACH, FL 33004  
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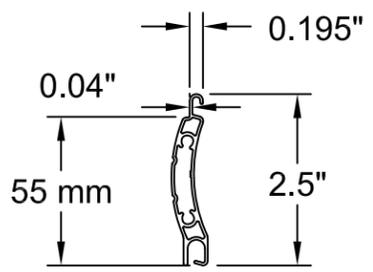


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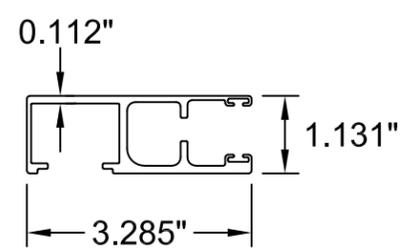
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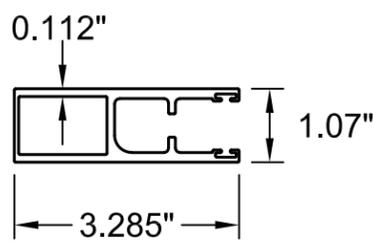
1 SLAT  
6063-T6



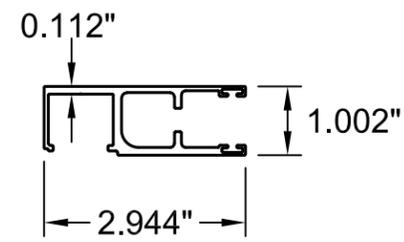
2 LARGE GUIDE RAIL  
6063-T6



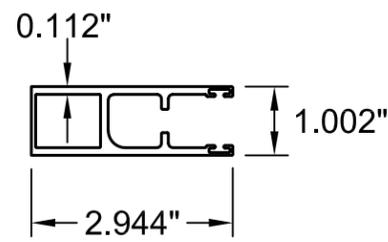
2A LARGE GUIDE RAIL  
ENCLOSED  
6063-T6



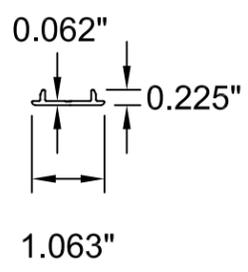
3 SMALL GUIDE RAIL  
6063-T6



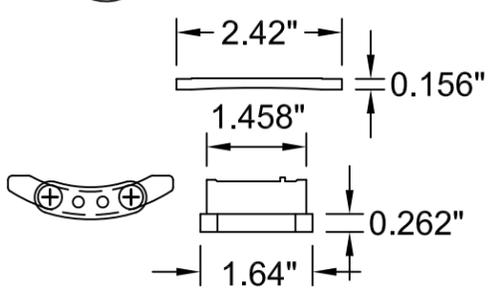
3A SMALL GUIDE RAIL  
ENCLOSED  
6063-T6



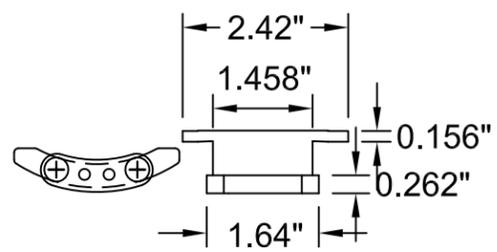
4 COVER CAP  
6063-T6



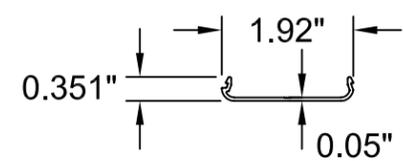
5 SLAT LOCK - 2 PIECE  
POLYACETAL



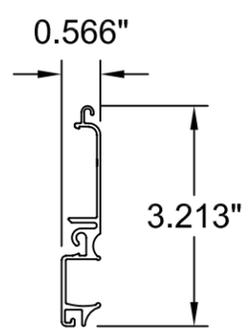
5A SLAT LOCK - 1 PIECE  
POLYACETAL



6 BOTTOM SLAT  
COVER



7 BOTTOM SLAT



FL22558

DATE: 06.06.17

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CHK. BY: HFN

SCALE: NTS

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SHEET: OF 23

SHEET NO.	DESCRIPTION
1	COVER PAGE, GENERAL NOTES
1.1 & 1.2	GLAZING DETAILS
2, 2.1 & 2.2	SINGLE & DOUBLE DOORS TYP. ELEVATIONS & CAPACITY
3 & 3.1	SINGLE & DOUBLE DOORS WITH TRANSOM, ELEVATIONS & CAPACITY CHART
4 THRU 4.2	LOCK OPTIONS & LIMITATIONS
5 & 5.1	HORIZONTAL RAILS, HEAD / SILL DETAILS & TYPICAL ANCHORS
6	VERTICAL STILES, JAMB DETAILS
7	TRANSOM HEAD / SILL / JAMB DETAILS
7.1 & 7.2	WATER INFILTRATION RESISTANT DOOR DETAILS
7.3	ADA COMPLIANT THRESHOLD DETAILS
8	PARTS DRAWINGS
9	BILL OF MATERIALS & HINGE OPTIONS
10	CORNER CONSTRUCTION DETAILS

**SERIES ENV-350  
ALUMINUM OUTSWING ENTRANCE DOOR**

DOORS WITH STANDARD SECTION DETAILS NOT APPROVED FOR INSTALLATIONS WHERE WATER INFILTRATION RESISTANCE IS REQUIRED. SEE SHEET 5 & 6 FOR DETAILS.

DOORS WITH WATER RESISTANT COMPONENTS APPROVED FOR INSTALLATIONS WHERE WATER INFILTRATION RESISTANCE IS REQUIRED. SEE SHEET 7.1 & 7.2 FOR DETAILS.

THESE DOORS MAY BE USED IN CONJUNCTION WITH F.B.C. APPROVED LARGE MISSILE IMPACT RESISTANT STOREFRONT SYSTEM. LOWER DESIGN PRESSURE FROM DOOR OR STOREFRONT APPROVAL WILL APPLY TO ENTIRE SYSTEM.

CODE REQUIREMENTS FOR SAFEGUARDS MUST BE OBSERVED.

THIS PRODUCT HAS BEEN DESIGNED AND TESTED TO COMPLY WITH THE REQUIREMENTS OF THE 2020 (7TH EDITION) FLORIDA BUILDING CODE INCLUDING HIGH VELOCITY HURRICANE ZONE (HVHZ).

1BY OR 2BY WOOD BUCKS & BUCK FASTENERS BY OTHERS, MUST BE DESIGNED AND INSTALLED ADEQUATELY TO TRANSFER APPLIED PRODUCT LOADS TO THE BUILDING STRUCTURE.

ANCHORS SHALL BE CORROSION RESISTANT, SPACED AS SHOWN ON DETAILS AND INSTALLED PER MANUF'S INSTRUCTIONS. SPECIFIED EMBEDMENT TO BASE MATERIAL SHALL BE BEYOND WALL DRESSING OR STUCCO.

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

ALL SHIMS TO BE HIGH IMPACT, NON-METALLIC AND NON-COMPRESSIBLE.

MATERIALS INCLUDING BUT NOT LIMITED TO STEEL / METAL SCREWS, THAT COME INTO CONTACT WITH OTHER DISSIMILAR MATERIALS SHALL MEET THE REQUIREMENTS OF THE 2020 (7TH EDITION) FLORIDA BLDG. CODE & ADOPTED STANDARDS.

THIS PRODUCT APPROVAL IS GENERIC AND DOES NOT PROVIDE INFORMATION FOR A SITE SPECIFIC PROJECT, i.e. LIFE SAFETY OF THIS PRODUCT, ADEQUACY OF STRUCTURE RECEIVING THIS PRODUCT AND SEALING AROUND OPENING FOR WATER INFILTRATION RESISTANCE ETC. CONDITIONS NOT SHOWN IN THIS DRAWING ARE TO BE ANALYZED SEPARATELY, AND TO BE REVIEWED BY BUILDING OFFICIAL.

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

SEALANT  
ALL DOOR STOP, HINGES, DRIP CAP, FRAME CORNERS, JOINTS, MULLION SEAMS AND PERIMETER OF GLAZING BEAD TO FRAME SEALED WITH SILICONE SEALANT.

**INSTRUCTIONS:**

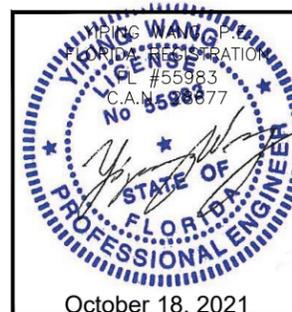
USE DRAWING AS FOLLOWS.

1. SELECT SINGLE OR DOUBLE DOORS FROM SHEETS 2 & 2.1 OR SINGLE OR DOUBLE DOORS WITH TRANSOM FROM SHEETS 3 & 3.1.
2. SELECT DOOR AND FRAME SIZE.
3. DETERMINE IF THE DOOR WILL BE INSTALLED IN AN OPENING WHERE THE WATER REQUIREMENT IS NEEDED OR NOT.
4. DETERMINE Dp RATING FROM SHEET 2, 2.1 OR 3 & 3.1.
5. SELECT GLASS TYPE FROM SHEET 1.1.
6. SELECT LOCK OPTION AND CORRESPONDING MAX. DESIGN LOAD FROM SHEET 4 THRU 4.2.
7. SELECT ANCHORING CONDITION AND CORRESPONDING ANCHOR TYPE AND NUMBER OF ANCHORS FROM SHEET 5.
8. SELECT JAMB OPTIONS FROM SHEET 6.
9. SELECT HINGE OPTION FROM SHEET 9.
10. DETERMINE FINAL DESIGN PRESSURE FOR THE SYSTEM, TAKEN AS THE LOWEST OF ALL Dp VALUES OBTAINED.

DOORS ARE RATED FOR LARGE & SMALL MISSILE IMPACT. SHUTTERS ARE NOT REQUIRED.

- A - CONTRACTOR TO BE RESPONSIBLE FOR THE SELECTION, PURCHASE AND INSTALLATION OF THIS PRODUCT BASED ON THIS PRODUCT EVALUATION PROVIDED HE/SHE DOES NOT DEVIATE FROM THE CONDITIONS DETAILED ON THIS DOCUMENT.
- B - THIS PRODUCT EVALUATION DOCUMENT WILL BE CONSIDERED INVALID IF ALTERED BY ANY MEANS.
- C - SITE SPECIFIC PROJECTS SHALL BE PREPARED BY A FLORIDA REGISTERED ENGINEER OR ARCHITECT WHICH WILL BECOME THE ENGINEER OF RECORD (E.O.R.) FOR THE PROJECT AND WHO WILL BE RESPONSIBLE FOR THE PROPER USE OF THE P.E.D. ENGINEER OF RECORD, ACTING AS A DELEGATED ENGINEER TO THE P.E.D. ENGINEER SHALL SUBMIT TO THIS LETTER THE SITE SPECIFIC DRAWINGS FOR REVIEW.
- D - THIS P.E.D. SHALL BEAR THE DATE AND ORIGINAL SEAL AND SIGNATURE OF THE PROFESSIONAL ENGINEER OF RECORD THAT PREPARED IT.

FLORIDA APPROVAL:  
FL#20701.5



**MCY ENGINEERING, INC.**  
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Series ENV-350E Aluminum Outswing Entrance Door - L.M.I  
**ENVIRALUM INDUSTRIES INC.**  
5110 N.W. 72 AVENUE BLDG.C  
MIAMI, FL 33166  
TEL:(305)752-4411 FAX:(305)406-3877

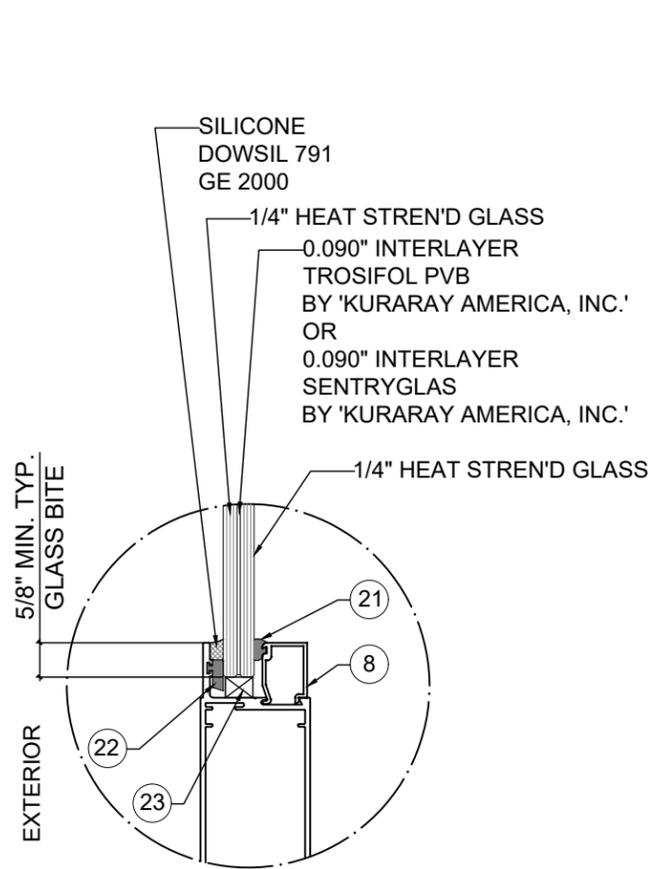
Rev. No.	Date	Drawn By	Description
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1	12/30/20	James	

Drawn Date: 10/09/2021 Scale: \_\_\_\_\_

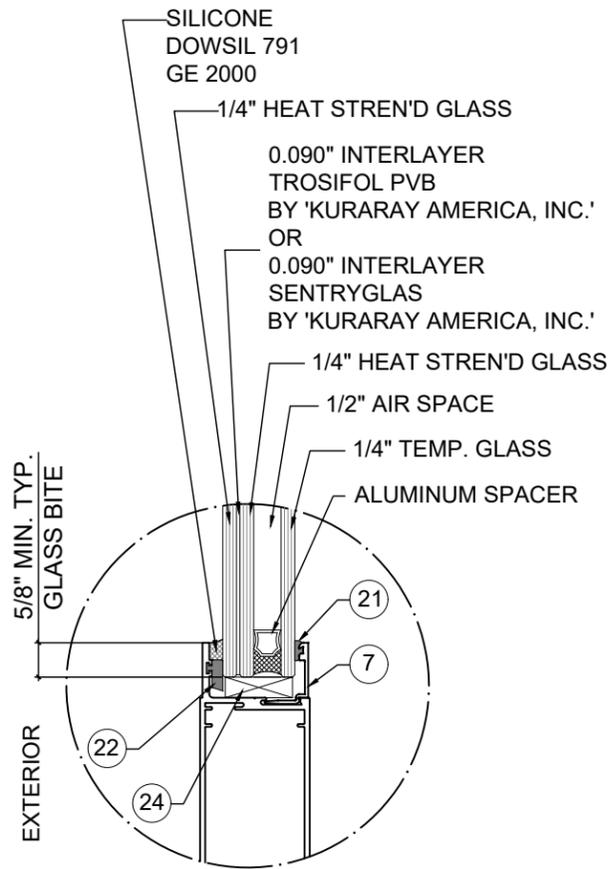
DRAWING NO. AD20-44

COVER

1 OF 10

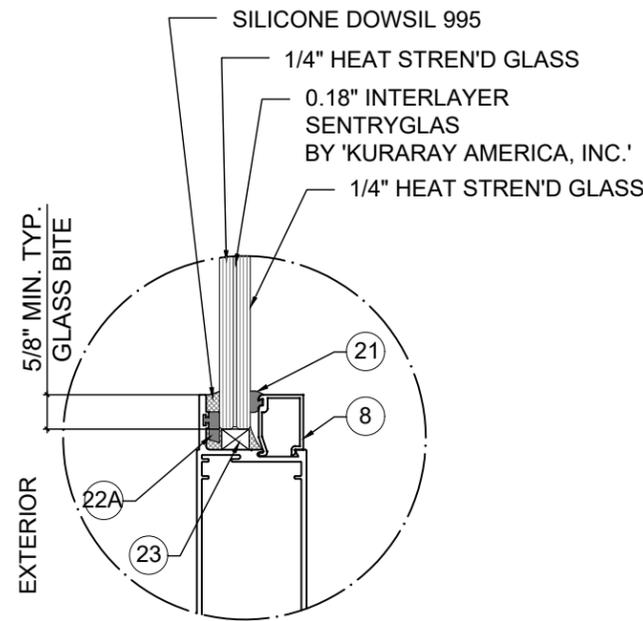


GLASS TYPE 'A'

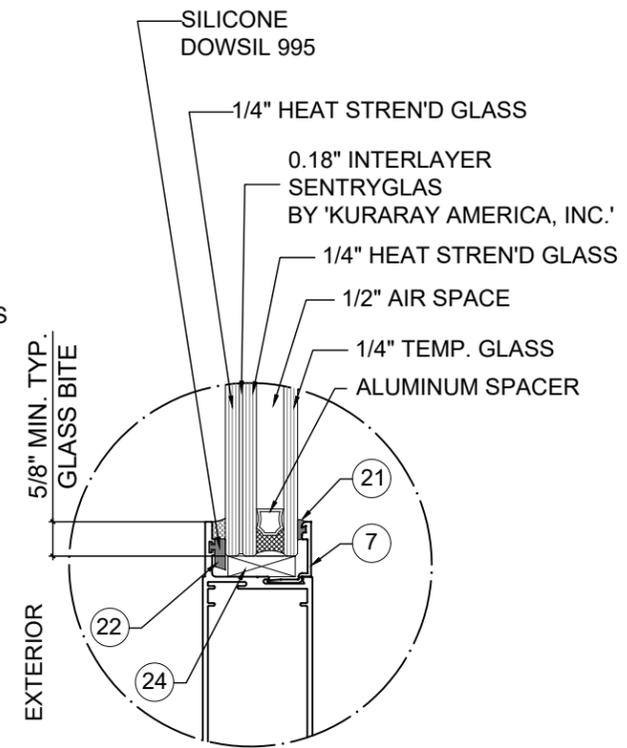


GLASS TYPE 'A1'

GLAZING DETAILS DOOR  
LEVEL 'D' IMPACT

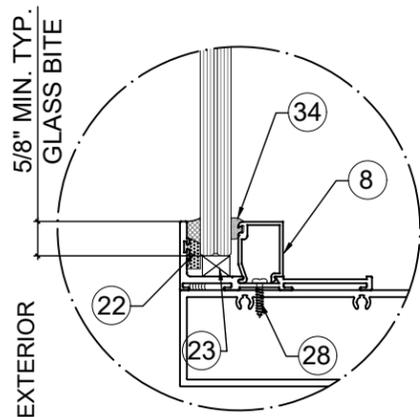


GLASS TYPE 'B'

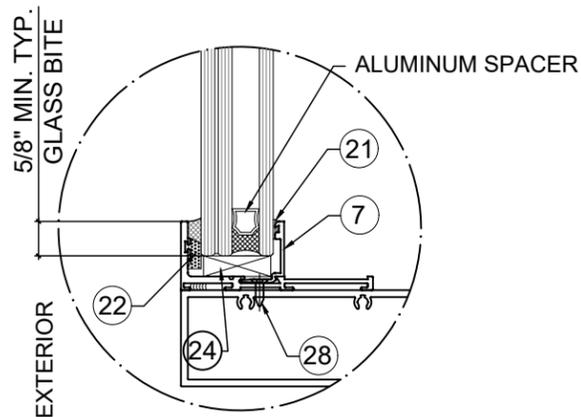


GLASS TYPE 'B1'

GLAZING DETAILS DOOR  
LEVEL 'E' IMPACT

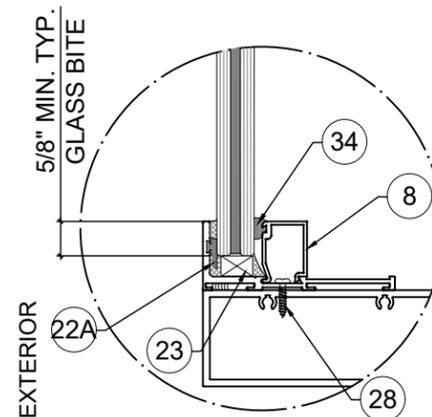


GLASS TYPE 'A'

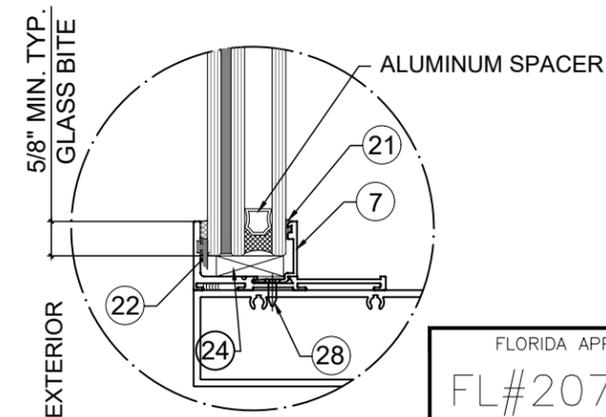


GLASS TYPE 'A1'

GLAZING DETAILS TRANSOM  
LEVEL 'D' IMPACT



GLASS TYPE 'B'



GLASS TYPE 'B1'

GLAZING DETAILS TRANSOM  
LEVEL 'E' IMPACT

1/2" AIR SPACE CONSISTING OF:  
SPACER:  
ALUMINUM BOX SPACER AROUND  
THE PERIMETER OF THE GLASS  
PERIMETER SEALANT:  
SILICONE  
DOWSIL 791  
GE 2000

FLORIDA APPROVAL:  
FL#20701.5

Professional Engineer Seal for Yirong Wang, License No. 55983, State of Florida. Approved on October 18, 2021.

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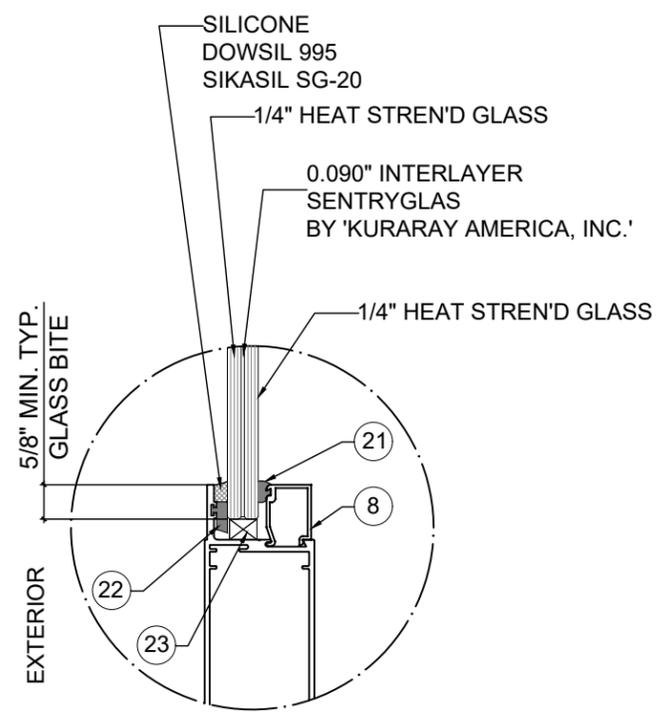
Rev. No.	Date	Drawn By	Description
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1	12/30/20	James	FBC 2020 UPDATE

Drawn Date: 10/09/2021 Scale: \_\_\_\_\_

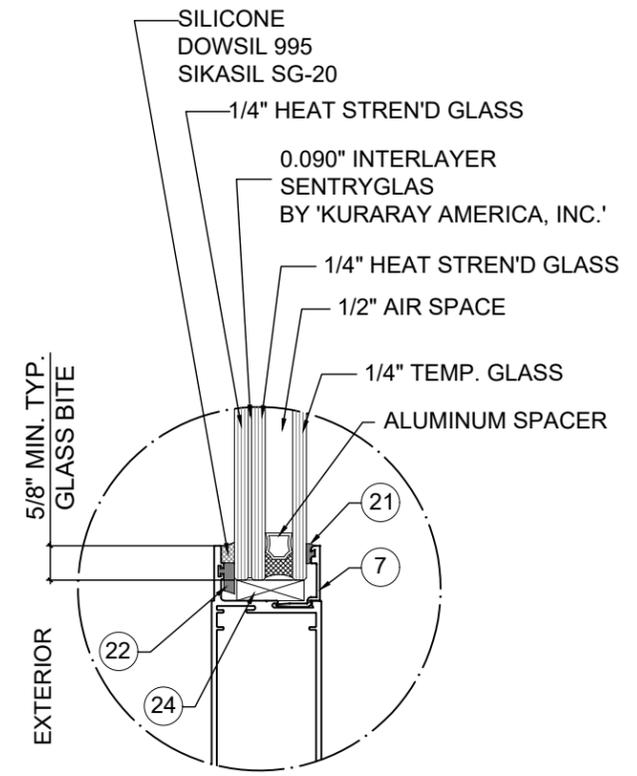
DRAWING NO. AD20-44

G1

1.1 OF 10



GLASS TYPE 'C'



GLASS TYPE 'C1'

GLAZING DETAILS DOOR LEVEL 'D' IMPACT

1/2" AIR SPACE CONSISTING OF:  
SPACER:  
 ALUMINUM BOX SPACER AROUND THE PERIMETER OF THE GLASS  
PERIMETER SEALANT:  
 SILICONE  
 DOWSIL 791  
 GE 2000

FLORIDA APPROVAL:  
 FL#20701.5

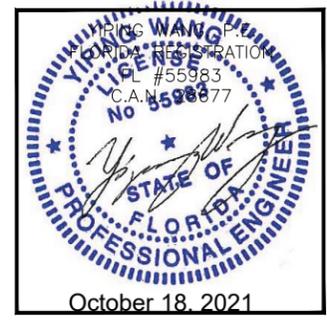


Exhibit "A"

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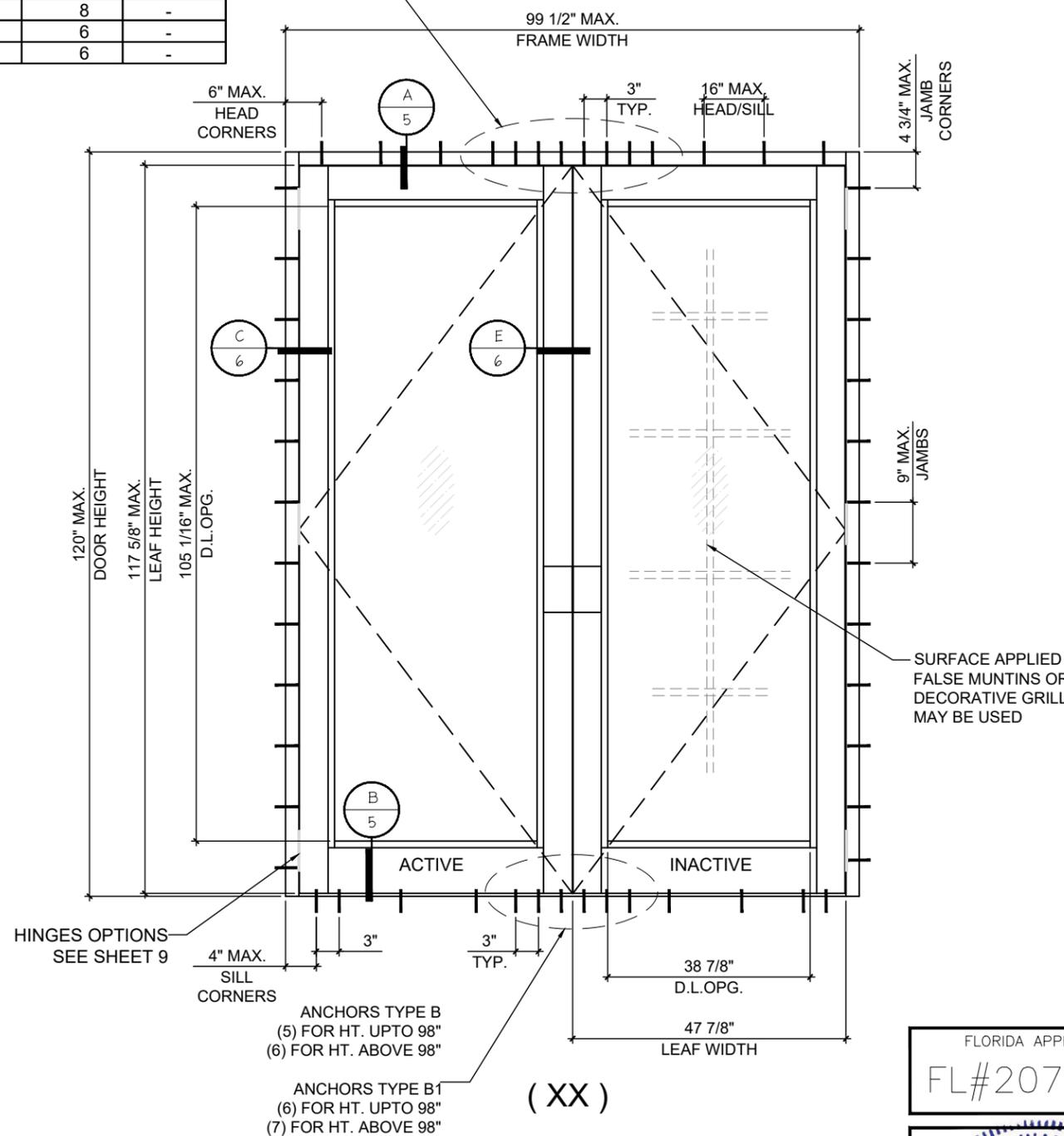
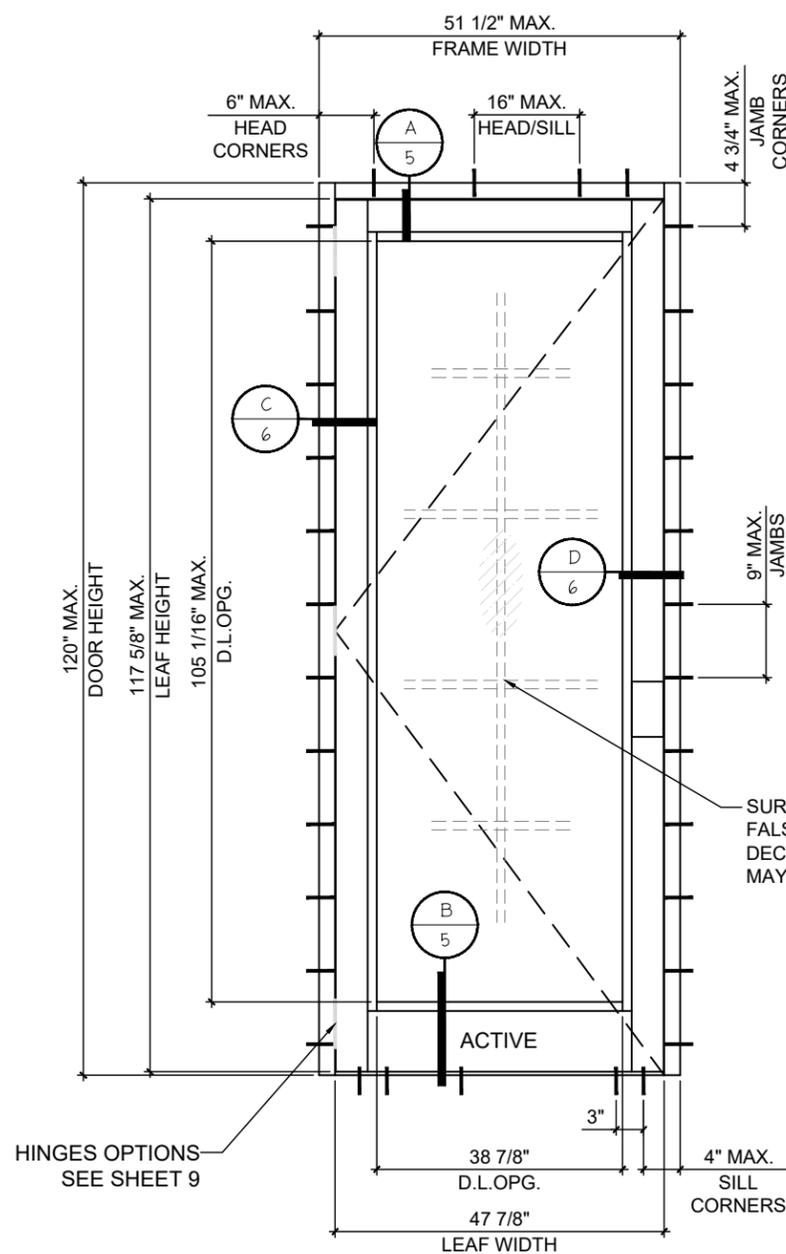
Series ENV-350E Aluminum Outswing Entrance Door - L.M.I

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2	10/09/21	James	REVISION
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Drawn Date	Scale
10/09/2021	
DRAWING NO.	
AD20-44	
G2	
1.2 OF 10	

ANCHORS TYPES	NO. OF ANCHORS AT MTG. STILE ENDS	
	1/4" SHIM	3/8" SHIM
A	6	8
B	6	8
C	5	6
A1	8	-
B1	6	-
C1	6	-



(X)

(XX)

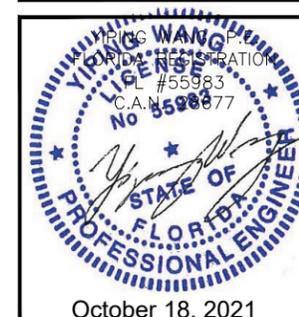
LEVEL 'D' IMPACT

DESIGN PRESSURE RATING (GLASS TYPE 'A' & 'A1')	REMARKS	
	WHERE WATER INFILTRATION REQUIREMENT IS NEEDED	WHERE WATER INFILTRATION REQUIREMENT IS NOT NEEDED
POSITIVE	+60 PSF	+100 PSF
NEGATIVE	-100 PSF	-100 PSF
	WITH WATER RESISTANT COMPONENTS ADDED SEE SHEETS 7.1 & 7.2	WITH STANDARD DOOR SECTIONS SEE SHEETS 5 & 6

NOTE:  
GLASS CAPACITIES ON THIS SHEET ARE BASED ON ASTM E1300-09 (3 SEC. GUSTS) AND FLORIDA BUILDING COMMISSION DECLARATORY STATEMENT DCA05-DEC-219

GLASS D.L.O. DIMS.  
D.L.O. HEIGHT = DOOR FRAME HEIGHT - 14.9375"  
D.L.O. WIDTH (X DOORS) = FRAME WIDTH - 12.8125"  
D.L.O. WIDTH (XX DOORS) = (FRAME WIDTH - 21.875")/2

FLORIDA APPROVAL:  
FL#20701.5



Series ENV-350E Aluminum Outswing Entrance Door - L.M.I

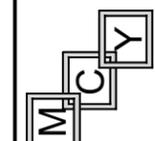
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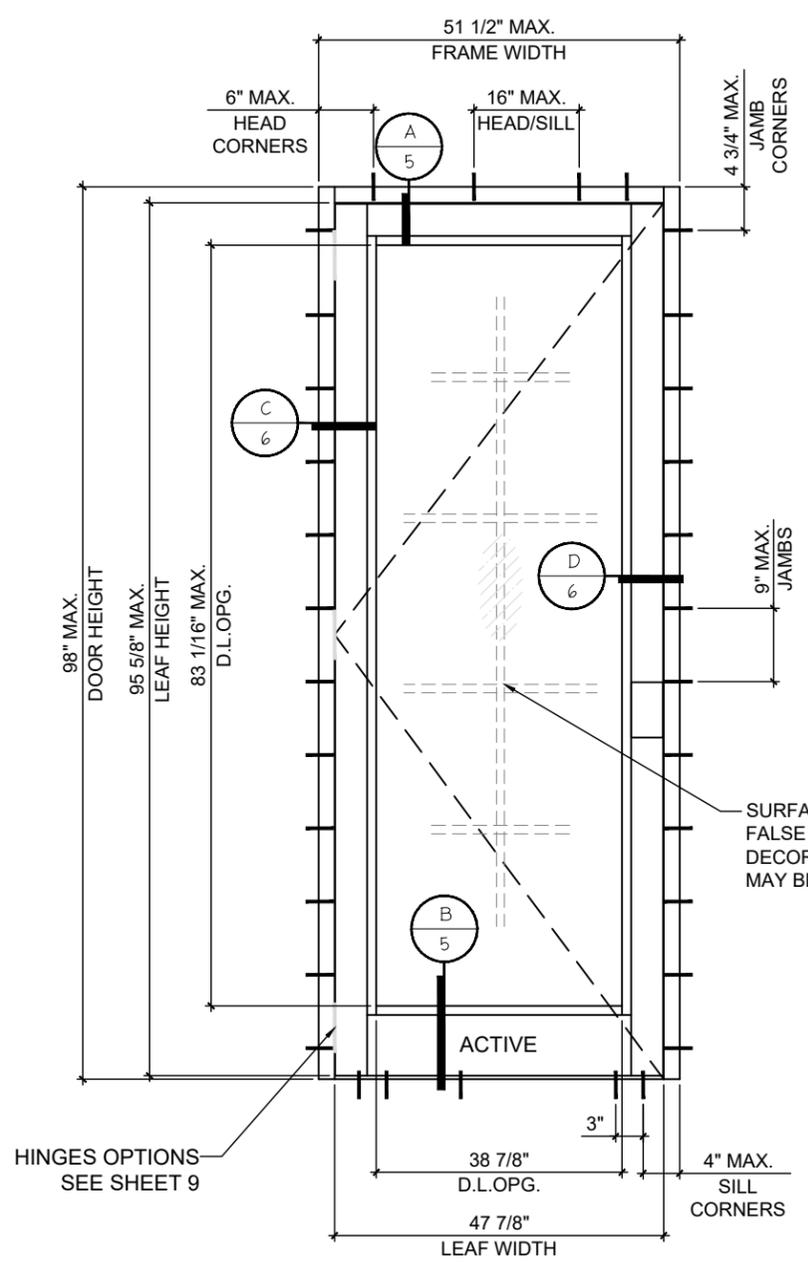
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mcy@mcyengineering.com

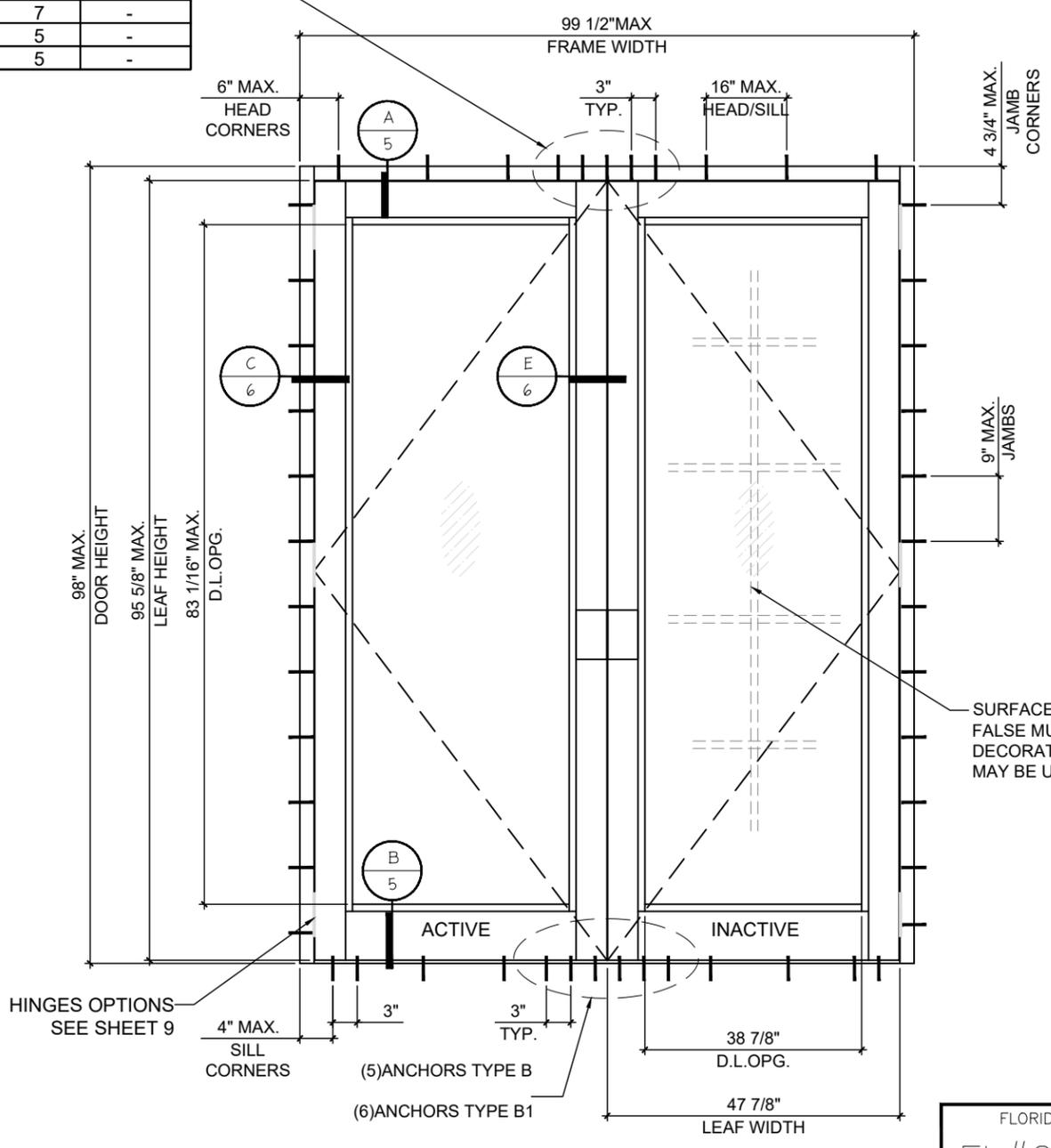
REV.	DATE	DESCRIPTION
2	10/09/21	James
1	12/30/20	James

Drawn Date	Scale
10/09/2021	
DRAWING NO.	
AD20-44	
E1	
2 OF 10	

ANCHORS TYPES	NO. OF ANCHORS AT MTG. STILE ENDS	
	1/4" SHIM	3/8" SHIM
A	5	7
B	5	7
C	4	5
A1	7	-
B1	5	-
C1	5	-



(X) LEVEL 'E' IMPACT



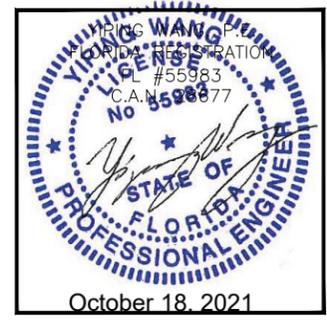
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DESIGN PRESSURE RATING (GLASS TYPE 'B' & 'B1')			REMARKS
	WHERE WATER INFILTRATION REQUIREMENT IS NEEDED	WHERE WATER INFILTRATION REQUIREMENT IS NOT NEEDED	
POSITIVE	+60 PSF	+100 PSF	SEE SHEETS 4.2 FOR LOCK OPTIONS AND LIMITATIONS
NEGATIVE	-100 PSF	-100 PSF	
	WITH WATER RESISTANT COMPONENTS ADDED SEE SHEETS 7.1 & 7.2	WITH STANDARD DOOR SECTIONS SEE SHEETS 5 & 6	

NOTE:  
GLASS CAPACITIES ON THIS SHEET ARE BASED ON ASTM E1300-09 (3 SEC. GUSTS) AND FLORIDA BUILDING COMMISSION DECLARATORY STATEMENT DCA05-DEC-219

GLASS D.L.O. DIMS.  
D.L.O. HEIGHT = DOOR FRAME HEIGHT - 14.9375"  
D.L.O. WIDTH (X DOORS) = FRAME WIDTH - 12.8125"  
D.L.O. WIDTH (XX DOORS) = (FRAME WIDTH - 21.875")/2

FLORIDA APPROVAL:  
FL#20701.5



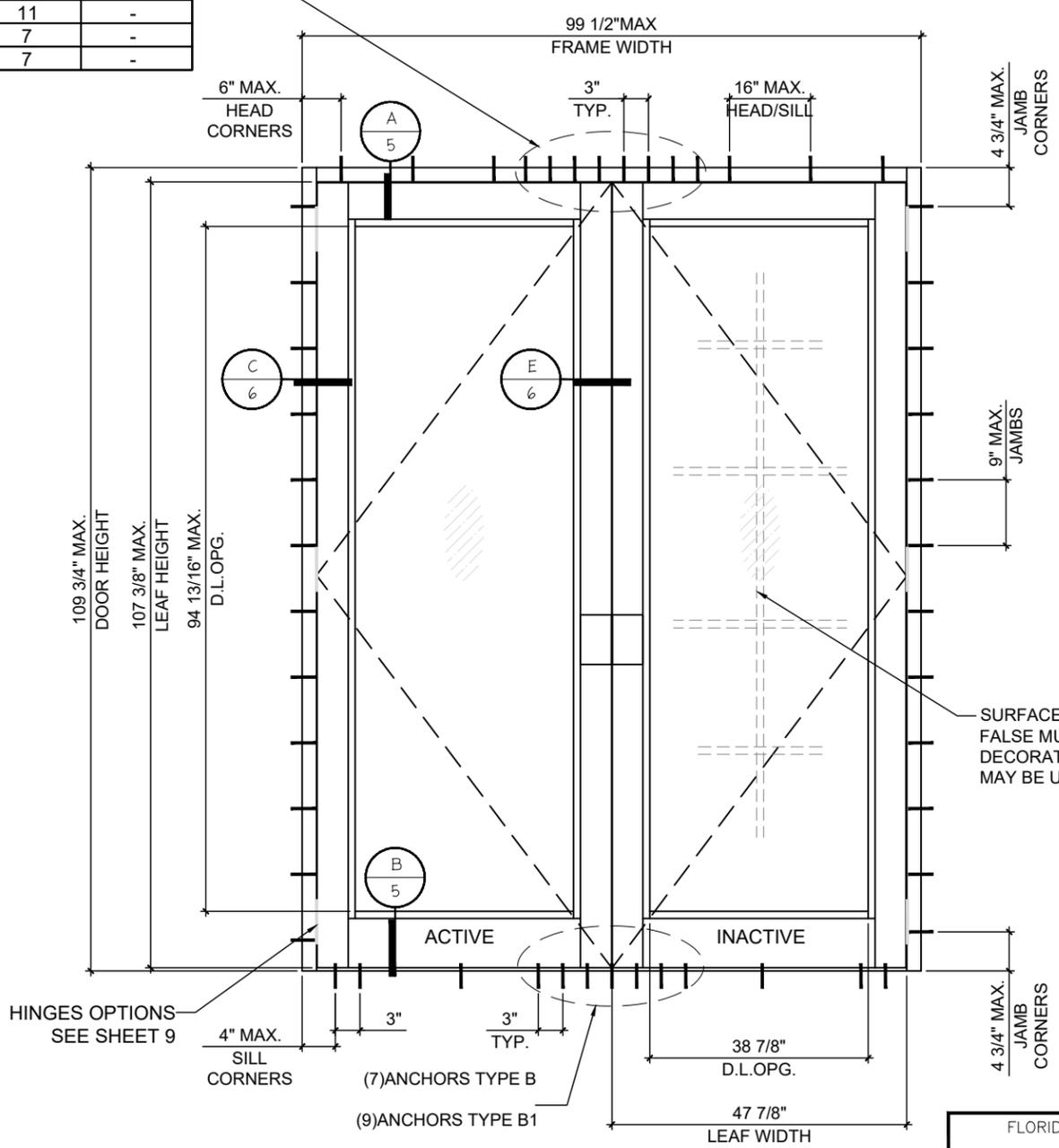
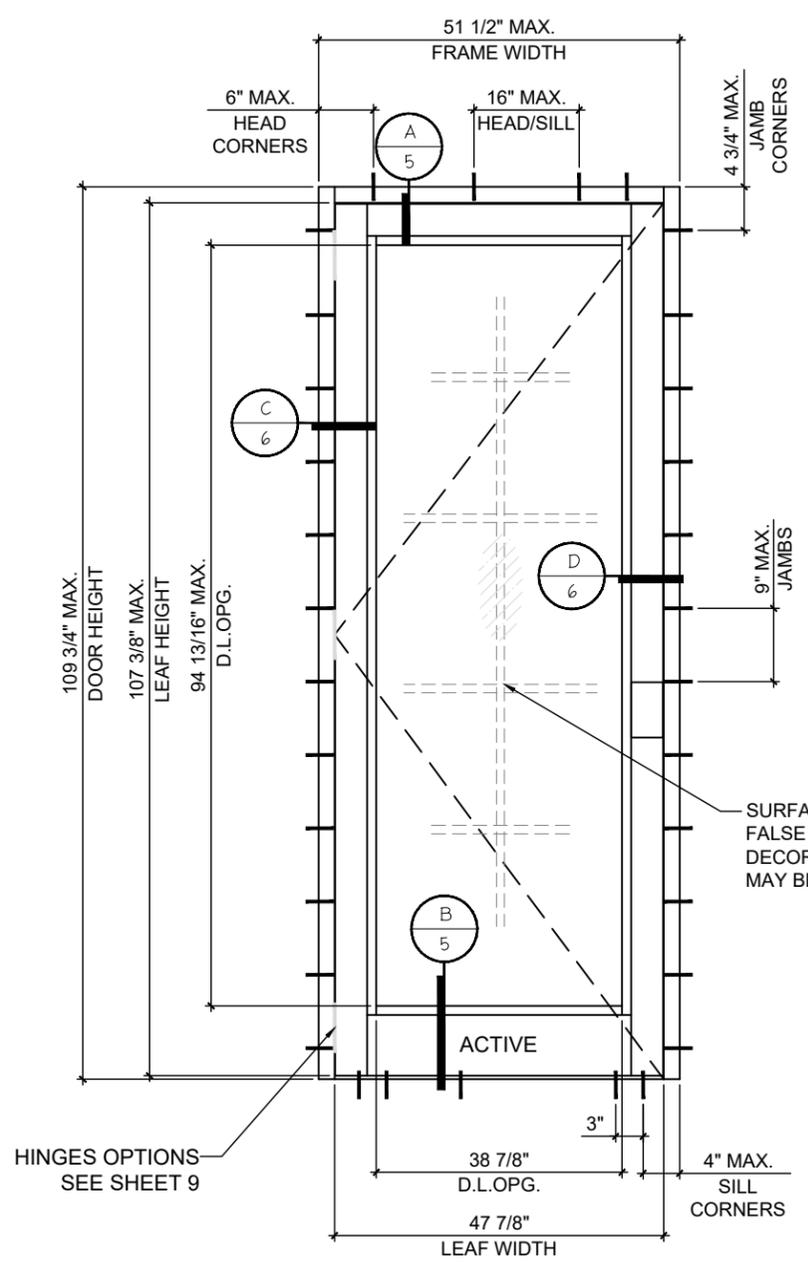
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Drawn Date: 10/09/2021  
Scale:  
DRAWING NO.  
AD20-44  
E2  
2.1 OF 10

ANCHORS TYPES	NO. OF ANCHORS AT MTG. STILE ENDS	
	1/4" SHIM	3/8" SHIM
A	8	10
B	6	10
C	6	8
A1	11	-
B1	7	-
C1	7	-



(X)

(XX)

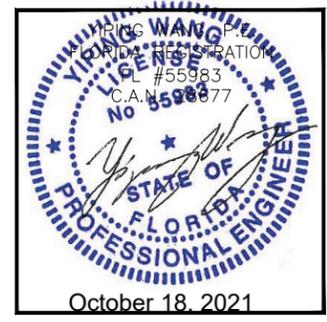
**LEVEL 'D' IMPACT**

DESIGN PRESSURE RATING (GLASS TYPE 'C' & 'C1')		REMARKS
	WHERE WATER INFILTRATION REQUIREMENT IS NOT NEEDED	SEE SHEETS 4 & 4.1 FOR LOCK OPTIONS AND LIMITATIONS
POSITIVE	+100 PSF	
NEGATIVE	-144 PSF	
WITH STANDARD DOOR SECTIONS SEE SHEETS 5 & 6		

NOTE:  
GLASS CAPACITIES ON THIS SHEET ARE BASED ON ASTM E1300-09 (3 SEC. GUSTS) AND FLORIDA BUILDING COMMISSION DECLARATORY STATEMENT DCA05-DEC-219

GLASS D.L.O. DIMS.  
D.L.O. HEIGHT = DOOR FRAME HEIGHT - 14.9375"  
D.L.O. WIDTH (X DOORS) = FRAME WIDTH - 12.8125"  
D.L.O. WIDTH (XX DOORS) = (FRAME WIDTH - 21.875)"/2

FLORIDA APPROVAL:  
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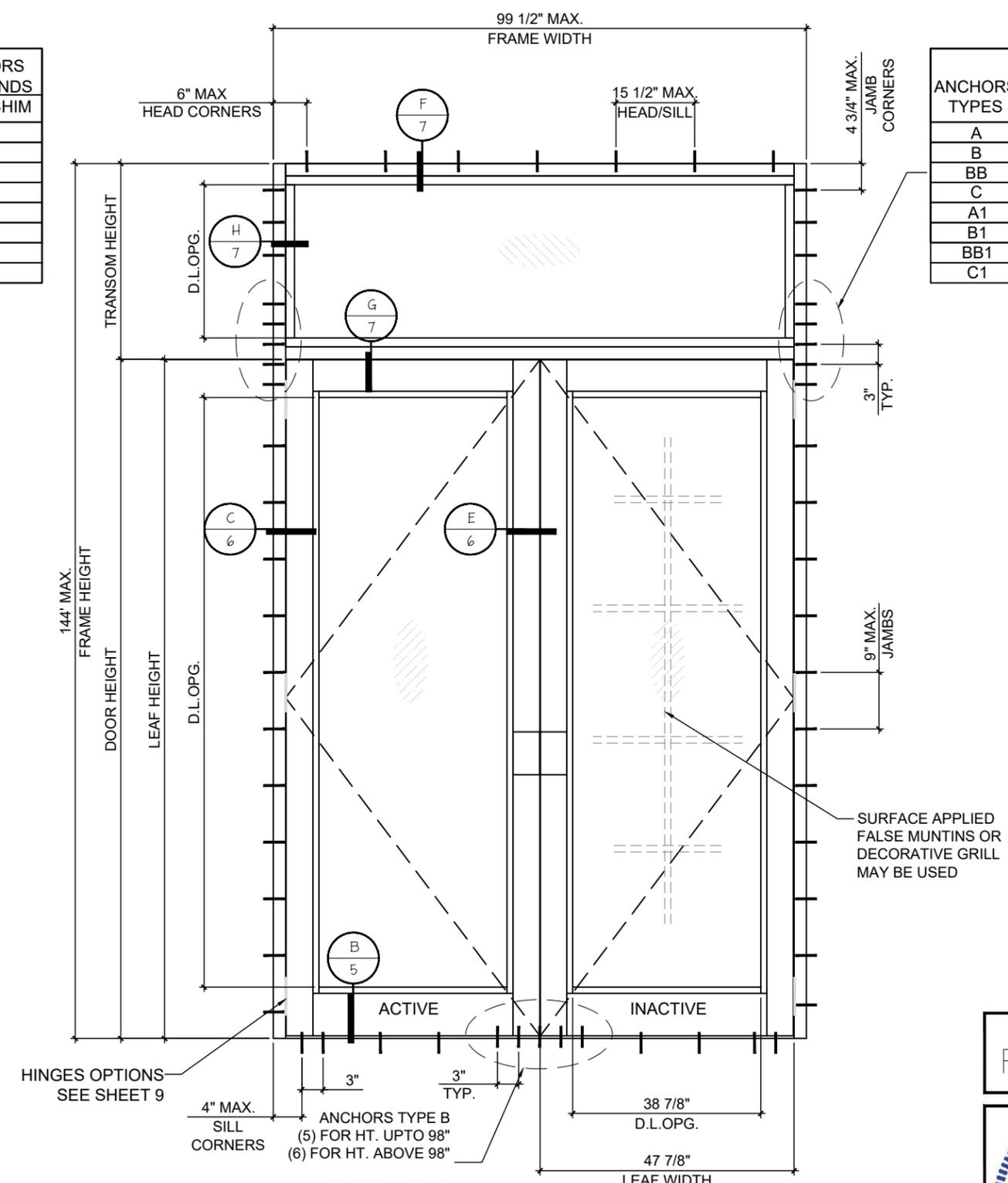
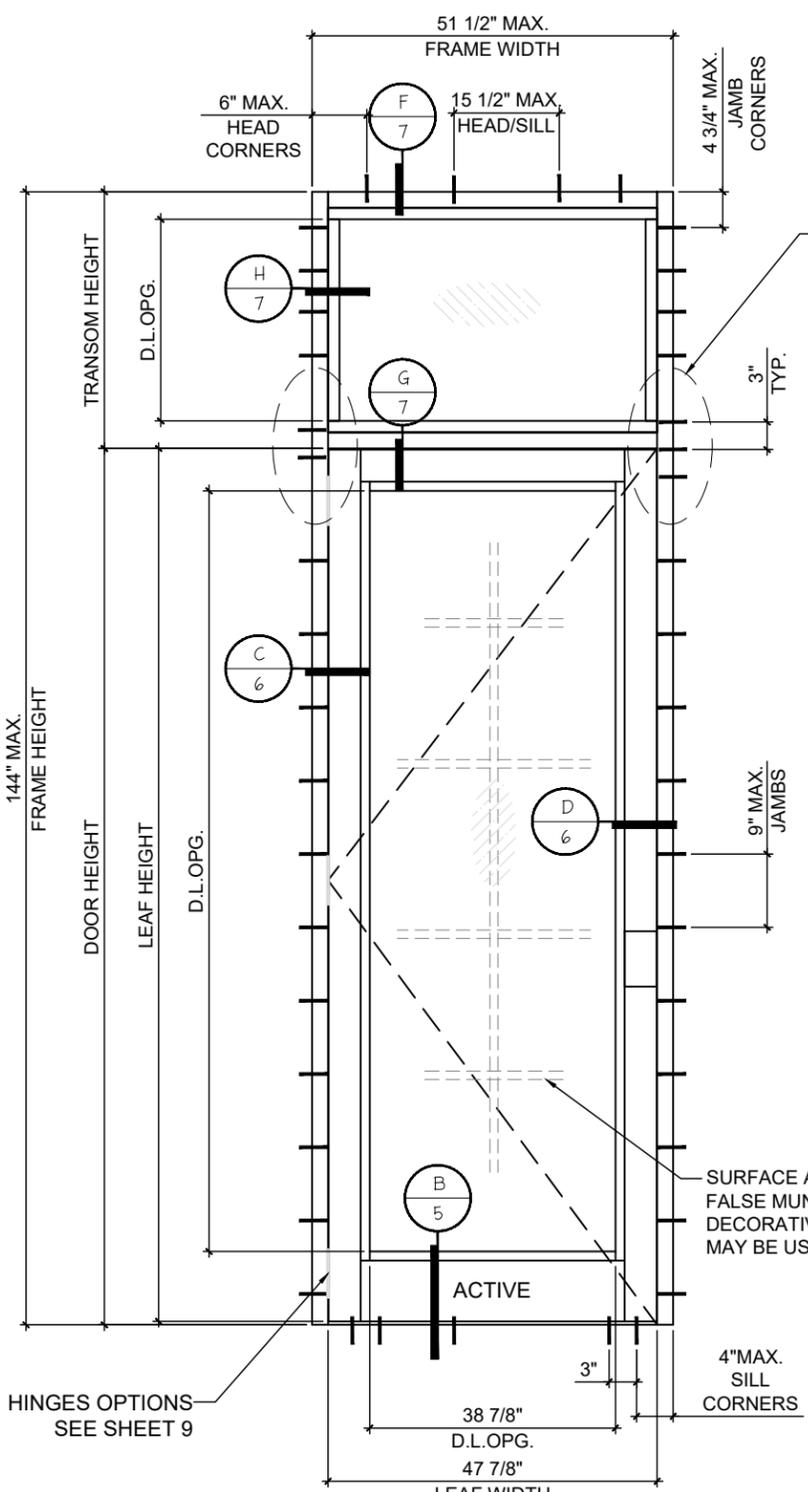
DRAWING NO. **AD20-44**

**E3**

2.2 OF 10

ANCHORS TYPES	NO. OF ANCHORS AT TRANSOM ENDS	
	1/4" SHIM	3/8" SHIM
A	2	2
B	2	2
BB	2	3
C	2	2
A1	3	-
B1	2	-
BB1	3	-
C1	2	-

ANCHORS TYPES	NO. OF ANCHORS AT TRANSOM ENDS	
	1/4" SHIM	3/8" SHIM
A	5	4
B	3	4
BB	5	5
C	3	3
A1	6	-
B1	3	-
BB1	6	-
C1	3	-



DOOR WITH TRANSOM.

SEE SHEET 3.1 FOR TRANSOM (HORIZ. MULLION) DESIGN LOAD CAPACITY.

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FLORIDA APPROVAL:  
FL#20701.5

YIPAC WANG  
PROFESSIONAL ENGINEER  
FLORIDA  
LICENSE #55983  
C.A. #55983  
No 55983  
October 18, 2021

Rev. No.	Date	Drawn By	Description
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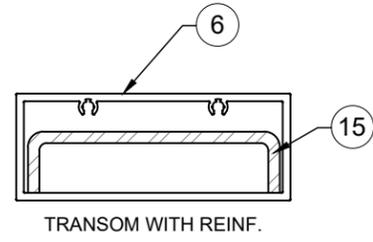
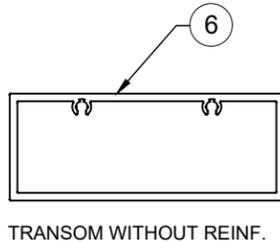
DRAWING NO. AD20-44

E4

3 OF 10

		SINGLE OR DOUBLE DOORS WITH TRANSOM CAPACITY- PSF				
FRAME/ TRANSOM WIDTH (INCH)	DOOR HEIGHT (INCH)	TRANSOM HEIGHT (INCH)	INSIDE GLAZING METHOD FOR LEVEL D & LEVEL E		OUTSIDE GLAZING METHOD FOR LEVEL D	
			WITHOUT REIN. (PSF)	WITH REIN. (PSF)	WITHOUT REIN. (PSF)	
37-3/4 (X)	75-1/2 (XX)	80	24	78.3	100.0	75.0
			30	72.2	100.0	72.2
			36	66.7	100.0	66.7
			42	61.7	95.7	61.7
			48	57.2	87.8	57.2
40-3/4 (X)	81-1/2 (XX)	80	24	65.7	100.0	65.7
			30	60.3	95.1	60.3
			36	55.4	86.4	55.4
			42	50.9	78.6	50.9
43-3/4 (X)	87-1/2 (XX)	80	48	46.9	71.4	46.9
			24	55.7	88.7	55.7
			30	50.7	79.9	50.7
46-3/4 (X)	93-1/2 (XX)	80	36	46.3	72.0	46.3
			42	42.4	64.8	42.4
			48	38.8	58.3	38.8
49-3/4 (X)	99-1/2 (XX)	80	24	47.5	75.6	47.5
			30	43.0	67.5	43.0
			36	39.0	60.2	39.0
37-3/4 (X)	75-1/2 (XX)	84	42	35.4	53.6	35.4
			24	40.8	64.8	40.8
			30	36.7	57.2	36.7
			36	33.0	50.5	33.0
			24	75.4	100.0	75.0
40-3/4 (X)	81-1/2 (XX)	84	30	69.7	100.0	69.7
			36	64.4	100.0	64.4
			42	59.7	92.7	59.7
			48	55.4	85.1	55.4
			24	63.3	100.0	63.3
43-3/4 (X)	87-1/2 (XX)	84	30	58.1	91.8	58.1
			36	53.5	83.5	53.5
			42	49.3	76.1	49.3
			48	45.5	69.3	45.5
			24	53.6	85.4	53.6
46-3/4 (X)	93-1/2 (XX)	84	30	49.0	77.1	49.0
			36	44.8	69.6	44.8
			42	41.0	62.8	41.0
			48	37.6	56.6	37.6
			24	45.7	72.8	45.7
49-3/4 (X)	99-1/2 (XX)	84	30	41.5	65.1	41.5
			36	37.7	58.2	37.7
			42	34.3	51.9	34.3
			24	39.3	62.4	39.3
			30	35.4	55.2	35.4
37-3/4 (X)	75-1/2 (XX)	90	36	31.9	48.8	31.9
			24	71.5	100.0	71.5
			30	66.2	100.0	66.2
			42	57.0	88.5	57.0
			48	53.0	81.4	53.0
40-3/4 (X)	81-1/2 (XX)	90	24	60.0	95.6	60.0
			30	55.2	87.2	55.2
			36	51.0	79.6	51.0
			42	47.1	72.6	47.1
			48	43.5	66.3	43.5
43-3/4 (X)	87-1/2 (XX)	90	24	50.8	80.9	50.8
			30	46.5	73.2	46.5
			36	42.7	66.3	42.7
			42	39.2	59.9	39.2
46-3/4 (X)	93-1/2 (XX)	90	24	43.3	69.0	43.3
			30	39.5	61.9	39.5
			36	35.9	55.1	35.9
49-3/4 (X)	99-1/2 (XX)	90	24	37.2	59.1	37.2
			30	33.6	52.5	33.6

		SINGLE OR DOUBLE DOORS WITH TRANSOM CAPACITY- PSF				
FRAME/ TRANSOM WIDTH (INCH)	DOOR HEIGHT (INCH)	TRANSOM HEIGHT (INCH)	INSIDE GLAZING METHOD FOR LEVEL D & LEVEL E		OUTSIDE GLAZING METHOD FOR LEVEL D	
			WITHOUT REIN. (PSF)	WITH REIN. (PSF)	WITHOUT REIN. (PSF)	
37-3/4 (X)	75-1/2 (XX)	96	24	67.9	100.0	67.9
			30	63.0	99.7	63.0
			36	58.6	91.8	58.6
			42	54.5	84.6	54.5
			48	50.8	78.0	50.8
40-3/4 (X)	81-1/2 (XX)	96	24	57.0	90.9	57.0
			30	52.6	83.1	52.6
			36	48.7	75.9	48.7
			42	45.0	69.5	45.0
43-3/4 (X)	87-1/2 (XX)	96	48	41.7	63.5	41.7
			24	48.2	76.9	48.2
			30	44.3	69.7	44.3
46-3/4 (X)	93-1/2 (XX)	96	36	40.7	63.2	40.7
			24	41.2	65.5	41.2
			30	37.6	58.9	37.6
49-3/4 (X)	99-1/2 (XX)	96	24	35.4	56.1	35.4
			24	64.7	100.0	64.7
			30	60.2	95.1	60.2
37-3/4 (X)	75-1/2 (XX)	102	36	56.0	87.8	56.0
			42	52.3	81.1	52.3
			24	54.2	86.5	54.2
			30	50.2	79.8	50.2
			36	46.5	72.6	46.5
43-3/4 (X)	87-1/2 (XX)	102	42	43.2	66.6	43.2
			24	45.9	73.2	45.9
			30	42.3	66.6	42.3
46-3/4 (X)	93-1/2 (XX)	102	24	39.2	62.4	39.2
			24	61.7	98.5	61.7
			30	57.5	91.0	57.5
37-3/4 (XX)	75-1/2 (XX)	108	36	53.7	84.1	53.7
			24	51.8	82.6	51.8
			30	48.0	75.8	48.0
40-3/4 (X)	81-1/2 (XX)	108	36	44.6	69.6	44.6
			24	43.9	69.9	43.9
			43-3/4 (X)	87-1/2 (XX)	108	24



NOTE:  
GLASS CAPACITIES ON THIS ARE  
BASED ON ASTM E1300-09 (3 SEC. GUSTS)  
AND FLORIDA BUILDING COMMISSION  
DECLARATORY STATEMENT DCA05-DEC-219

FLORIDA APPROVAL:  
FL#20701.5

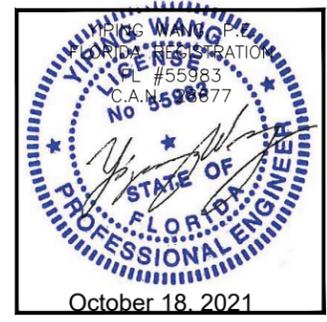


Exhibit "A"

**MCY ENGINEERING, INC.**  
GLAZING CONSULTANTS  
12781 MIRAMAR PARKWAY, #301 P. 305.271.0117  
MIRAMAR, FL 33027  
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**ENVIRALUM INDUSTRIES INC.**  
5110 N.W. 72 AVENUE BLDG.C  
MIAMI, FL 33166  
TEL:(305)752-4411 FAX:(305)406-3877

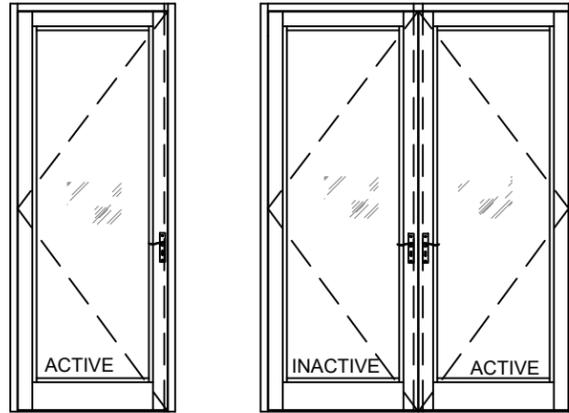
Series ENV-350E Aluminum Outswing Entrance Door - L.M.I.	REVISION	Drawn By
	James	James
	10/09/21	12/30/20
	2	1
Drawn Date	Scale	Description
10/09/2021		FBC 2020 UPDATE
DRAWING NO.		
AD20-44		
CHART		
3.1 OF 10		

**LOCK OPTIONS: LEVEL 'D' IMPACT**

**STD.3 POINT LOCK (LEVEL 'D' IMPACT ONLY)**  
 MAX. FRAME HEIGHT = 120 IN.  
 MAX. LEAF WIDTH = 48 IN.  
 MAX. DESIGN LOAD = 100 PSF

**ACTIVE LEAF:**  
 3 POINT LOCK SYSTEM BY 'INTERLOCK' AT 40" FROM BOTTOM  
 FROM BOTTOM  
 HANDLE ACTIVATES DEAD BOLT AND SHOOT BOLTS ENGAGING AT HEAD AND SILL  
 KEY OPERATED ON EXTERIOR AND THUMB TURN ON INTERIOR  
 FASTENED TO ACTIVE LEAF LOCK STILE WITH (2) #8-32X2" OH MS

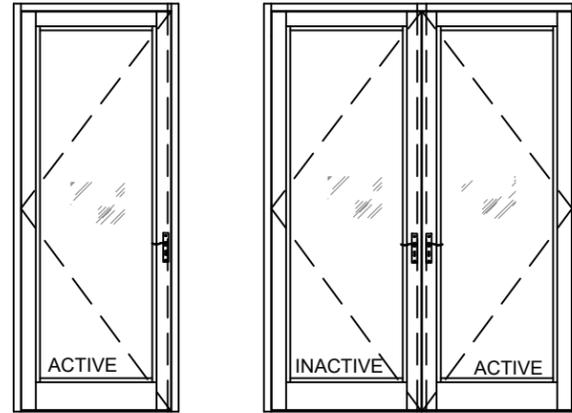
**INACTIVE LEAF:**  
 2 POINT LOCK SYSTEM BY 'INTERLOCK' AT 40" FROM BOTTOM  
 FROM BOTTOM  
 HANDLE ACTIVATES SHOOT BOLTS ENGAGING AT HEAD AND SILL  
 FASTENED TO INACTIVE LEAF LOCK STILE WITH (2) #8-32 X2" OH MS



**STD.3 POINT LOCK (LEVEL 'D' IMPACT ONLY)**  
 MAX. FRAME HEIGHT = 120 IN.  
 MAX. LEAF WIDTH = 48 IN.  
 MAX. DESIGN LOAD = 100 PSF

**ACTIVE LEAF:**  
 THREE POINT LOCK SYSTEM SERIES 2222 BY 'REGENT HARDWARE'  
 KEY OPERATED FROM EXTERIOR AND THUMB TURN ON INTERIOR WITH CONCEALED FLUSH BOLTS AT TOP & BOTTOM OF LOCK STILE  
 LOCATED AT 40" FROM BOTTOM OF LEAF

**INACTIVE LEAF:**  
 MANUALLY OPERATED TWO POINT LOCK SYSTEM BY 'REGENT HARDWARE' WITH CONCEALED FLUSH BOLTS AT TOP & BOTTOM OF LOCK STILE  
 FASTENED WITH (2) #8-32 X 1/4" PH MACHINE SCREWS

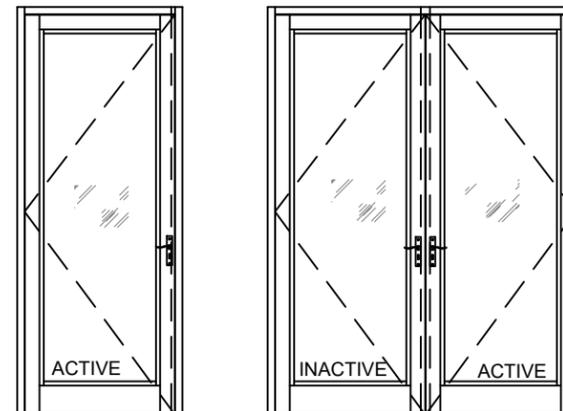


**STD.3 POINT LOCK (LEVEL 'D' IMPACT ONLY)**  
 MAX. FRAME HEIGHT = 109-3/4 IN.  
 MAX. LEAF WIDTH = 48 IN.  
 MAX. DESIGN LOAD = 144 PSF

**STD.3 POINT LOCK (LEVEL 'D' IMPACT ONLY)**  
 MAX. FRAME HEIGHT = 120 IN.  
 MAX. LEAF WIDTH = 48 IN.  
 MAX. DESIGN LOAD = 100 PSF

**ACTIVE LEAF:**  
 KEY OPERATED THREE POINT LOCK SYSTEM BY 'ADAMS RITE' WITH CONCEALED FLUSH BOLTS AT TOP & BOTTOM OF LOCK STILE AND A THUMB TURN ON THE INTERIOR, LOCATED AT 40" FROM BOTTOM OF PANEL  
 FASTENED WITH (2) #12-24 X 1/2" FH MACHINE SCREWS

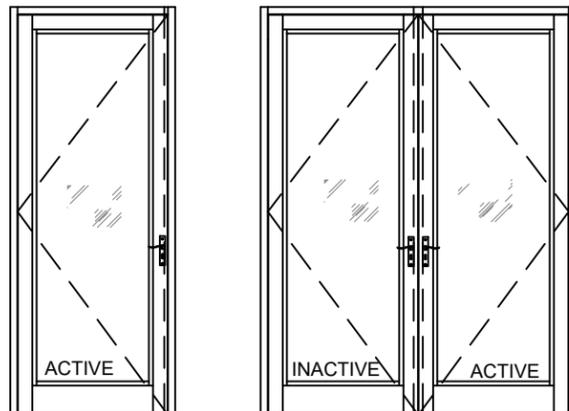
**INACTIVE LEAF:**  
 MANUALLY OPERATED TWO POINT LOCK SYSTEM BY 'ADAMS RITE' WITH CONCEALED FLUSH BOLTS AT TOP & BOTTOM OF LOCK STILE  
 FASTENED WITH (2) #8-32 X 1/4" PH MACHINE SCREWS



FRAME HEIGHT DOES INCLUDE OPTIONAL TRANSOM

**MULTI- POINT LOCK (LEVEL 'D' IMPACT ONLY)**  
 MAX. FRAME HEIGHT = 109-3/4 IN.  
 MAX. LEAF WIDTH = 48 IN.  
 MAX. DESIGN LOAD = 144 PSF

**ACTIVE & INACTIVE LEAF:**  
 MULTI POINT LOCK SYSTEM '7000 SERIES' BY 'SARGENT'  
 LEVER TYPE HANDLE WITH KEY CYLINDER ON EXTERIOR AND INTERIOR, LOCATED AT 40" FROM BOTTOM, ACTIVATES CONCEALED FLUSH BOLTS ENGAGING AT HEAD AND SILL



FLORIDA APPROVAL:  
 FL#20701.5

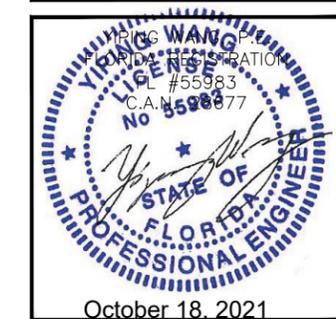


Exhibit "A"

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 MIRAMAR, FL 33027  
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 mcy@mcyengineering.com

Series ENV-350E Aluminum Outswing Entrance Door - L.M.I

**ENVIRALUM INDUSTRIES INC.**  
 5110 N.W. 72 AVENUE BLDG.C  
 MIAMI, FL 33166  
 TEL:(305)752-4411 FAX:(305)406-3877

Rev. No.	Date	Drawn By	Description
2	10/09/21	James	REVISION
1	12/30/20	James	FBC 2020 UPDATE

Drawn Date: 10/09/2021 Scale:

DRAWING NO. AD20-44

CONFIGURATION

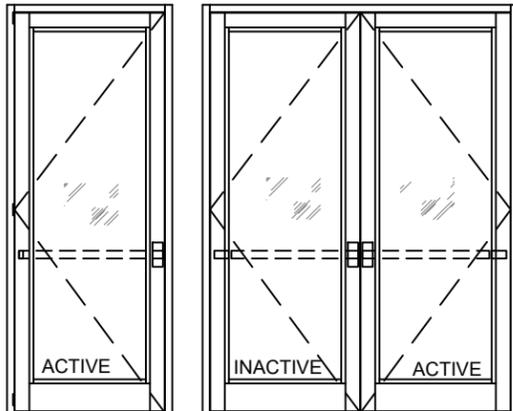
4 OF 10

**LOCK OPTIONS: LEVEL 'D' IMPACT**

**PANIC EXIT DEVICE (LEVEL 'D' IMPACT ONLY)**  
 MAX. FRAME HEIGHT = 98 IN.  
 MAX. LEAF WIDTH = 48 IN.  
 MAX. DESIGN LOAD = 75 PSF

**ACTIVE & INACTIVE LEAF:**

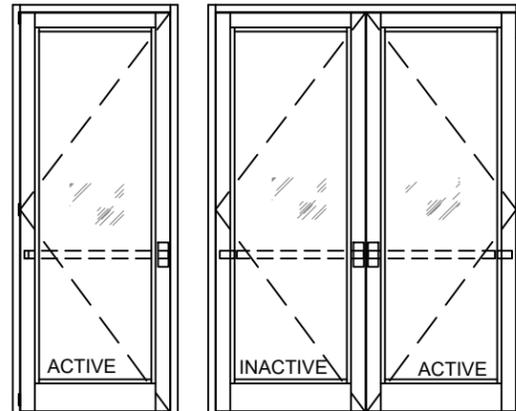
CONCEALED VERTICAL ROD PANIC EXIT DEVICE # 5770 BY 'REGENT HARDWARE' LOCATED AT 40" FROM SILL AT EACH LEAF.  
 FASTENED WITH .  
 (1) #10 X 3/8" FH SELF DRILLING SCREW AT ONE END AND  
 (2) #10 X 1/2" FH SELF DRILLING SCREWS AT OTHER END



**PANIC EXIT DEVICE (LEVEL 'D' IMPACT ONLY)**  
 MAX. FRAME HEIGHT = 120 IN.  
 MAX. LEAF WIDTH = 48 IN.  
 MAX. DESIGN LOAD = 100 PSF

**ACTIVE & INACTIVE LEAF:**

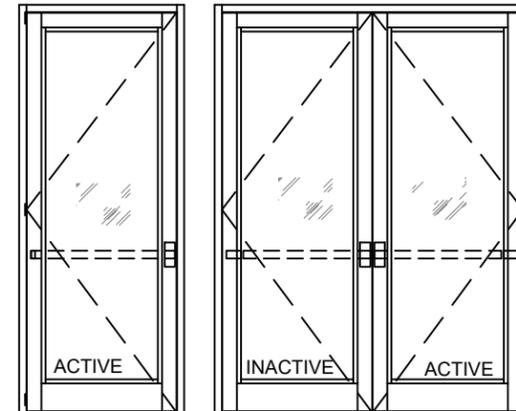
CONCEALED VERTICAL ROD PANIC EXIT DEVICE # G86 OR EX76 BY 'ADAMS RITE' LOCATED AT 40" FROM SILL AT EACH LEAF.  
 FASTENED WITH  
 (2) #10-32 X 3/4" FH MACHINE SCREWS AT ONE END AND  
 (2) #10-24 X 1/2" FH MACHINE SCREWS AT OTHER END



**PANIC EXIT DEVICE (LEVEL 'D' IMPACT ONLY)**  
 MAX. FRAME HEIGHT = 120 IN.  
 MAX. LEAF WIDTH = 48 IN.  
 MAX. DESIGN LOAD = 100 PSF

**ACTIVE & INACTIVE LEAF:**

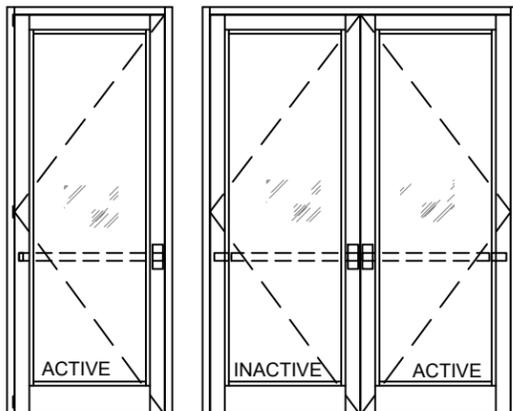
CONCEALED VERTICAL ROD PANIC EXIT DEVICE PRECISION 2800 BY 'STANLEY' LOCATED AT 40" FROM SILL AT EACH LEAF.  
 FASTENED WITH  
 (2) #10-32 X 3/4" FH MACHINE SCREWS AT ONE END AND  
 (2) #10-24 X 1/2" FH MACHINE SCREWS AT OTHER END



**PANIC EXIT DEVICE (LEVEL 'D' IMPACT ONLY)**  
 MAX. FRAME HEIGHT = 109-3/4 IN.  
 MAX. LEAF WIDTH = 48 IN.  
 MAX. DESIGN LOAD = 144 PSF

**ACTIVE & INACTIVE LEAF:**

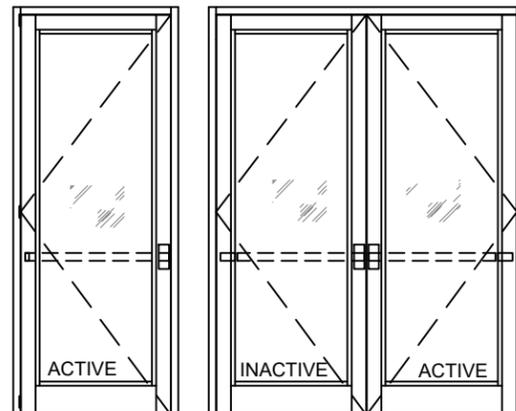
CONCEALED VERTICAL ROD PANIC EXIT DEVICE SERIES 8400 / 8600 BY 'SARGENT ASSA ABLOY' LOCATED AT 40" FROM SILL AT EACH LEAF.  
 FASTENED WITH .  
 (2) #12 X 1" HH SELF DRILLING SCREW AT ONE END AND  
 (2) #14 X 3/4" PH SELF DRILLING SCREWS AT OTHER END



**PANIC EXIT DEVICE (LEVEL 'D' IMPACT ONLY)**  
 MAX. FRAME HEIGHT = 98 IN.  
 MAX. LEAF WIDTH = 48 IN.  
 MAX. DESIGN LOAD = 100 PSF

**ACTIVE & INACTIVE LEAF:**

'VON DUPRIN 98 / 99' CONCEALED VERTICAL ROD PANIC EXIT DEVICE LOCATED AT 40" FROM BOTTOM FASTENED TO ACTIVE LEAF WITH WITH  
 (6) 10-24 X 1-1/8" PH MS



**MCY ENGINEERING, INC.**  
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 mcy@mcyengineering.com

Series ENV-350E Aluminum Outswing Entrance Door - L.M.I  
**ENVIRALUM INDUSTRIES INC.**  
 5110 N.W. 72 AVENUE BLDG.C  
 MIAMI, FL 33166  
 TEL:(305)752-4411 FAX:(305)406-3877

FLORIDA APPROVAL:  
 FL#20701.5

YI-PING WANG  
 PROFESSIONAL ENGINEER  
 LICENSE #55983  
 C.A.N. #5598377  
 October 18, 2021

Rev. No.	Date	Drawn By	Description
2	10/09/21	James	REV/ISION
1	12/30/20	James	FBC 2020 UPDATE

Drawn Date: 10/09/2021 Scale: \_\_\_\_\_

DRAWING NO. AD20-44

CONFIGURATION

4.1 OF 10

**LOCK OPTIONS: LEVEL 'E' IMPACT**

**STD.3 POINT LOCK (LEVEL 'E' IMPACT)**

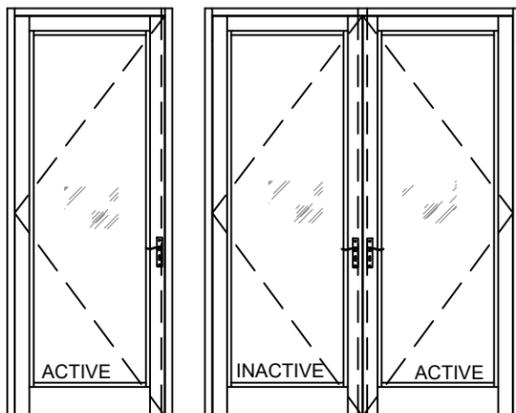
MAX. FRAME HEIGHT =98 IN.  
MAX. LEAF WIDTH = 48 IN.  
MAX. DESIGN LOAD = 100 PSF

**ACTIVE LEAF:**

THREE POINT LOCK SYSTEM SERIES 2222 BY 'REGENT HARDWARE'  
KEY OPERATED FROM EXTERIOR AND THUMB TURN ON INTERIOR WITH CONCEALED FLUSH BOLTS AT TOP & BOTTOM OF LOCK STILE LOCATED AT 40" FROM BOTTOM OF LEAF

**INACTIVE LEAF:**

MANUALLY OPERATED TWO POINT LOCK SYSTEM BY 'REGENT HARDWARE' WITH CONCEALED FLUSH BOLTS AT TOP & BOTTOM OF LOCK STILE FASTENED WITH (2) #8-32 X 1/4" PH MACHINE SCREWS



**STD.3 POINT LOCK (LEVEL 'E' IMPACT)**

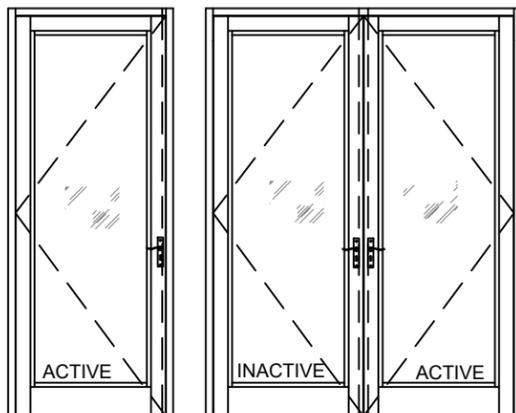
MAX. FRAME HEIGHT =98 IN.  
MAX. LEAF WIDTH = 48 IN.  
MAX. DESIGN LOAD = 100 PSF

**ACTIVE LEAF:**

KEY OPERATED THREE POINT LOCK SYSTEM BY 'ADAMS RITE' WITH CONCEALED FLUSH BOLTS AT TOP &c BOTTOM OF LOCK STILE AND A THUMB TURN ON THE INTERIOR, LOCATED AT 40" FROM BOTTOM OF PANEL FASTENED WITH (2) #12-24 X 1/2" FH MACHINE SCREWS

**INACTIVE LEAF:**

MANUALLY OPERATED TWO POINT LOCK SYSTEM BY 'ADAMS RITE' WITH CONCEALED FLUSH BOLTS AT TOP & BOTTOM OF LOCK STILE FASTENED WITH (2) #8-32 X 1/4"PH MACHINE SCREWS

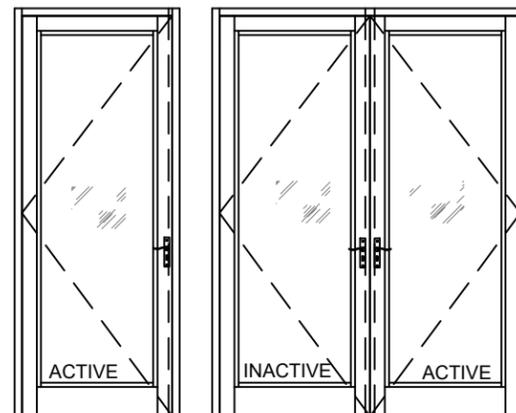


**MULTI- POINT LOCK (LEVEL 'E' IMPACT)**

MAX. FRAME HEIGHT = 98 IN.  
MAX. LEAF WIDTH = 48 IN.  
MAX. DESIGN LOAD = 100 PSF

**ACTIVE & INACTIVE LEAF:**

MULTI POINT LOCK SYSTEM '7000 SERIES' BY 'SARGENT'  
LEVER TYPE HANDLE WITH KEY CYLINDER ON EXTERIOR AND INTERIOR, LOCATED AT 40" FROM BOTTOM, ACTIVATES CONCEALED FLUSH BOLTS ENGAGING AT HEAD AND SILL

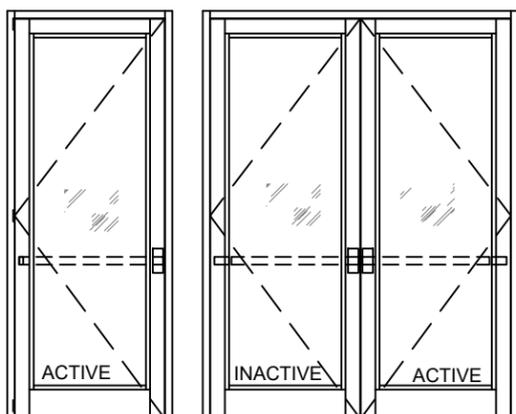


**PANIC EXIT DEVICE (LEVEL 'E' IMPACT)**

MAX. FRAME HEIGHT = 98 IN.  
MAX. LEAF WIDTH = 48 IN.  
MAX. DESIGN LOAD = 100 PSF

**ACTIVE & INACTIVE LEAF:**

CONCEALED VERTICAL ROD PANIC EXIT DEVICE PRECISION 2800 BY 'STANLEY' LOCATED AT 40" FROM SILL AT EACH LEAF. FASTENED WITH (2) #10-32 X 3/4" FH MACHINE SCREWS AT ONE END AND (2) #10-24 X 1/2" FH MACHINE SCREWS AT OTHER END

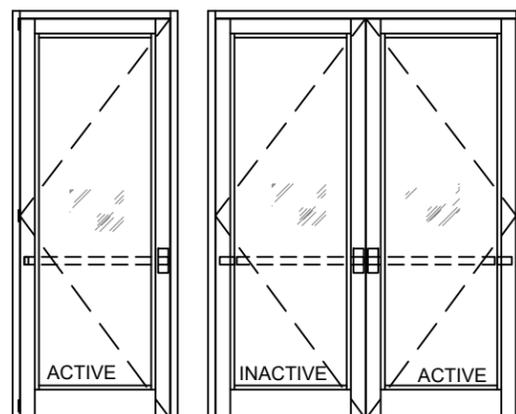


**PANIC EXIT DEVICE (LEVEL 'E' IMPACT)**

MAX. FRAME HEIGHT = 98 IN.  
MAX. LEAF WIDTH = 48 IN.  
MAX. DESIGN LOAD = 100 PSF

**ACTIVE & INACTIVE LEAF:**

CONCEALED VERTICAL ROD PANIC EXIT DEVICE PRECISION 8400 / 8600 BY 'SARGENT ASSA ABLOY' LOCATED AT 40" FASTENED WITH (2) #12 X 1" HH SELF DRILLING SCREW AT ONE END AND (2) #14 X 3/4" PH SELF DRILLING SCREWS AT OTHER END



**PANIC EXIT DEVICE (LEVEL 'E' IMPACT)**

MAX. FRAME HEIGHT = 98 IN.  
MAX. LEAF WIDTH = 48 IN.  
MAX. DESIGN LOAD = 100 PSF

**ACTIVE & INACTIVE LEAF:**

'VON DUPRIN 98 / 99' CONCEALED VERTICAL ROD PANIC EXIT DEVICE LOCATED AT 40" FROM BOTTOM FASTENED TO ACTIVE LEAF WITH WITH (6) 10-24 X 1-1/8" PH MS

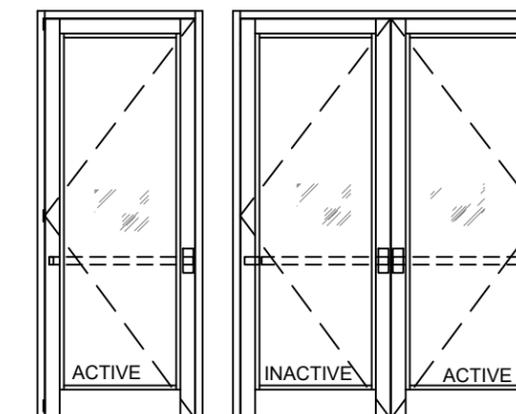
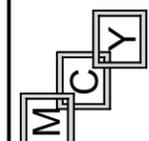


Exhibit "A"

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Series ENV-350E Aluminum Outswing Entrance Door - L.M.I

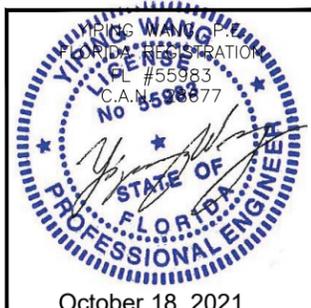
**ENVIRALUM INDUSTRIES INC.**

5110 N.W. 72 AVENUE BLDG.C  
MIAMI, FL 33166

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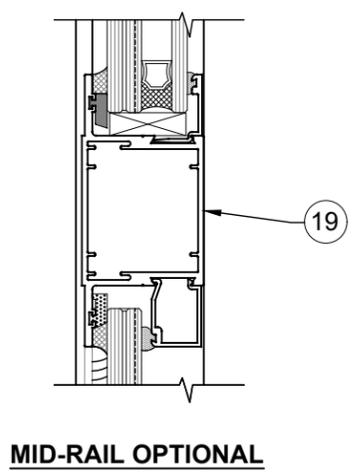
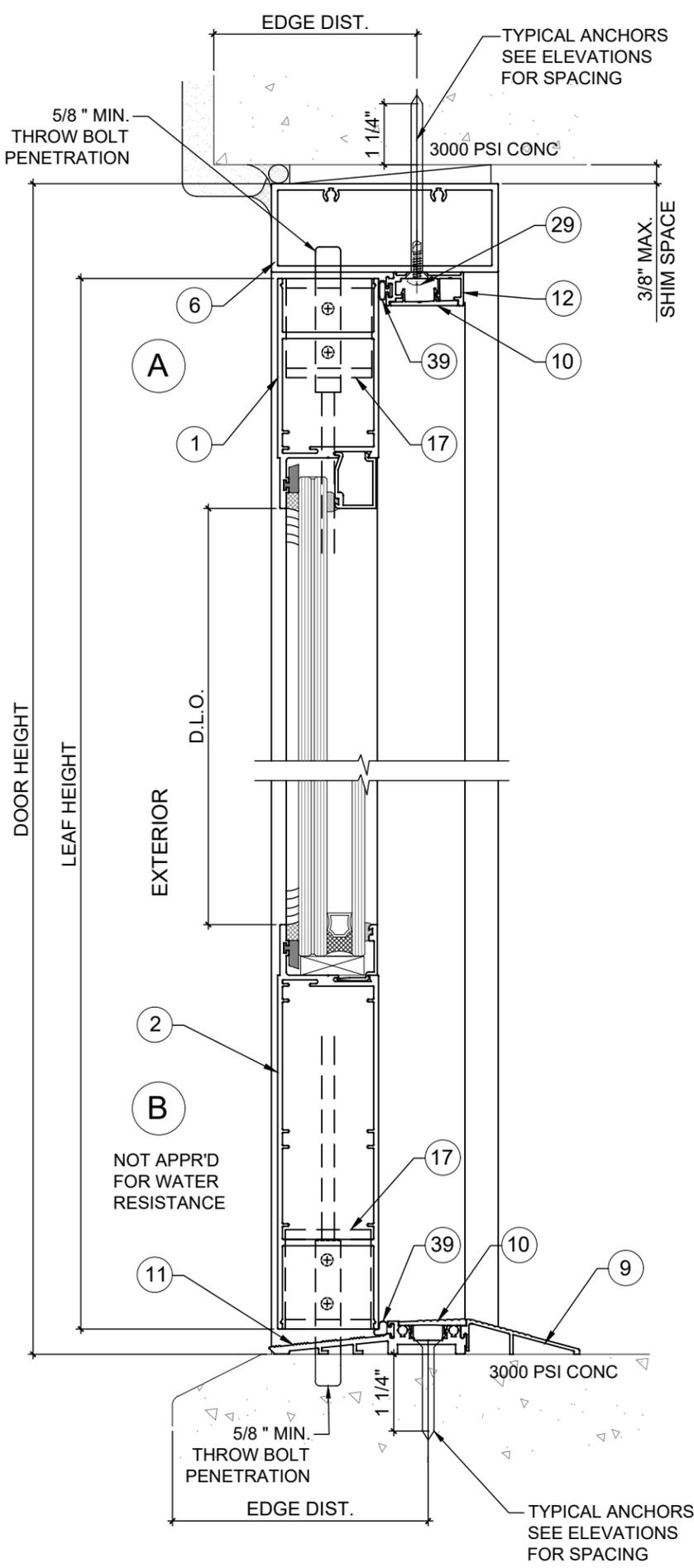
Rev. No.	Date	Drawn By	Description
2	10/09/21	James	FBC 2020 UPDATE
1	12/30/20	James	

FLORIDA APPROVAL:  
FL#20701.5

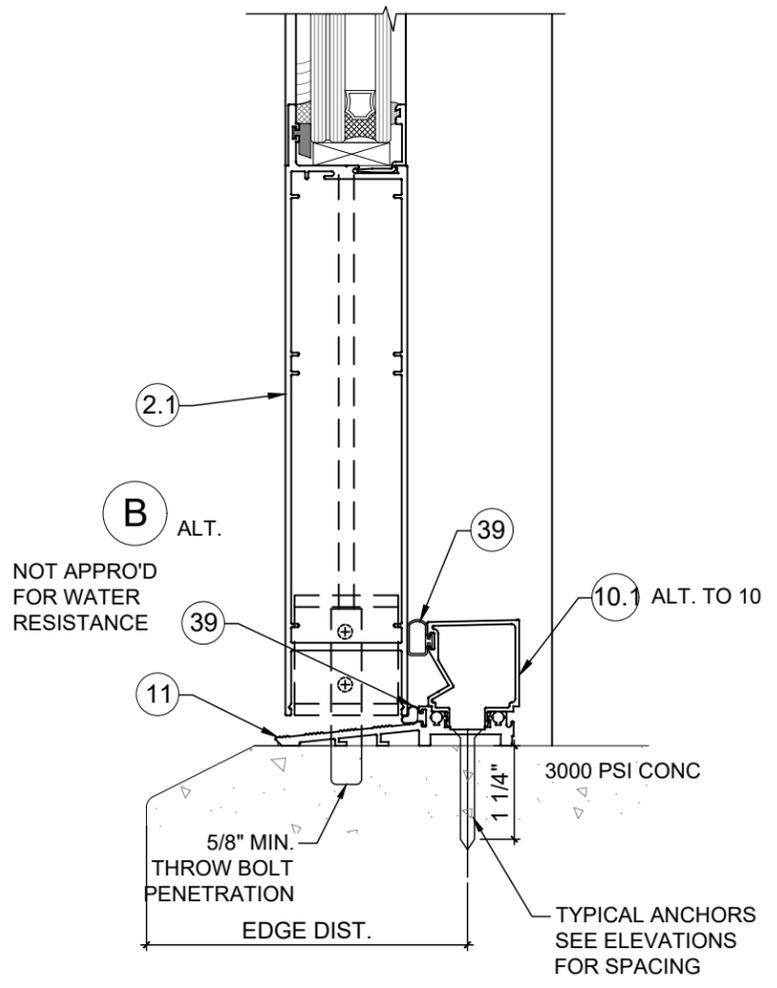


Drawn Date 10/09/2021	Scale
DRAWING NO. AD20-44	
CONFIGURATION 4.2 OF 10	

October 18, 2021



**THRESHOLD NOT ADA COMPLIANT**  
SEE SHEET 7.3 FOR ADA COMPLIANCE



FLORIDA APPROVAL:  
**FL#20701.5**

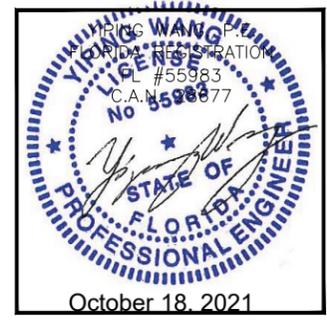


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Rev. No.	Date	Drawn By	Description
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1	12/30/20	James	FBC 2020 UPDATE

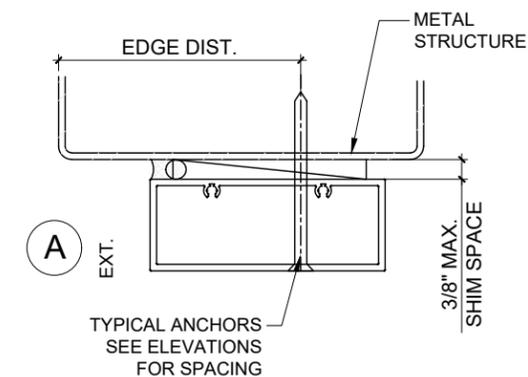
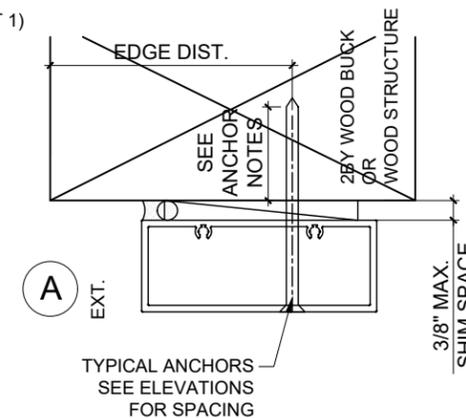
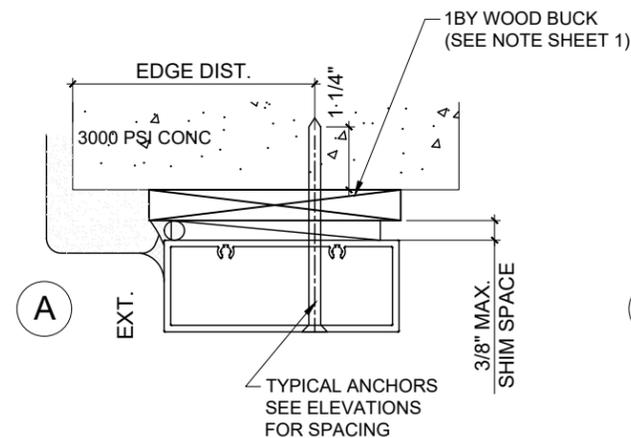
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DRAWING NO. **AD20-44**

D1

5 OF 10

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



TYPICAL ANCHORS: SEE ELEV. FOR SPACING

TYPE 'A'- **5/16" DIA ULTRACON BY 'DEWALT'** (Fu=177 KSI, Fy=155 KSI)  
 INTO WOOD STRUCTURES  
 2" MIN. PENETRATION INTO WOOD (HEAD / JAMBS)  
  
 THRU 1BY OR 2BY BUCKS INTO CONC. OR MASONRY  
 1-3/4" MIN. EMBED INTO CONCRETE (HEAD / JAMBS)  
 1- 3/4" MIN. EMBED INTO FILLED BLOCKS (JAMBS)

DIRECTLY INTO MASONRY  
 1- 3/4" MIN. EMBED INTO FILLED BLOCKS (JAMBS)

**ANCHOR EDGE DISTANCES**  
 INTO CONCRETE AND MASONRY = 2-1/2" MIN.  
 INTO WOOD STRUCTURE = 1-1/4" MIN.

**ANCHOR CL TO CL DISTANCE**  
 INTO CONCRETE = 3" MIN.  
 INTO FILLED BLOCKS = 4" MIN.

TYPE 'B'- **5/16" DIA ULTRACON BY 'DEWALT'** (Fu=177 KSI, Fy=155 KSI)  
 DIRECTLY INTO CONCRETE  
 1-3/4" MIN. EMBED INTO CONCRETE (HEAD / SILL / JAMBS)

TYPE 'BB'- **5/16" DIA ULTRACON BY 'DEWALT'** (Fu=177 KSI, Fy=155 KSI)  
 DIRECTLY INTO GROUT FILLED BLOCKS  
 1-3/4" MIN. EMBED INTO FILLED BLOCKS (JAMBS)

**ANCHOR EDGE DISTANCES**  
 INTO CONCRETE = 2- 3/16" MIN.  
 INTO FILLED BLOCKS = 2-1/2" MIN.

**ANCHOR CL TO CL DISTANCE**  
 INTO CONCRETE = 3" MIN.  
 INTO FILLED BLOCKS = 5" MIN.

TYPE 'C'- **5/16" DIA. TEKS OR SELF DRILLING SCREWS** (GRADE 5 CRS)  
 INTO F.B.C. APPROVED MULLIONS  
 OR  
 INTO METAL STRUCTURES.  
 (3) THREADS MIN. PENETRATION BEYOND METAL SUBSTRATE  
 ALUMINUM: 1/8" THK. MIN. (6063-T5 MIN.)  
 STEEL: 1/8" THK. MIN. (Fy = 36 KSI MIN.)  
 (STEEL IN CONTACT WITH ALUMINUM TO BE PLATED OR PAINTED)

**ANCHOR EDGE DISTANCES**  
 INTO METAL STRUCTURE = 1/2" MIN.

WOOD AT HEAD, SILL OR JAMBS SG = 0.55 MIN.  
 CONCRETE AT HEAD, SILL OR JAMBS f<sub>c</sub> = 3000 PSI MIN.  
 C-90 GROUT FILLED BLOCK AT JAMBS f<sub>m</sub> = 2000 PSI MIN.

TYPE 'A1'- **1/4" DIA ULTRACON+ BY 'DEWALT'** (Fu=164 KSI, Fy=148 KSI)  
 INTO 2BY WOOD BUCKS OR WOOD STRUCTURES  
 1-1/2" MIN. PENETRATION INTO WOOD (HEAD / JAMBS)

THRU 1BY INTO CONC. OR MASONRY  
 1-3/4" MIN. EMBED INTO CONCRETE (HEAD / JAMBS)  
 1-3/4" MIN. EMBED INTO FILLED BLOCKS (JAMBS)

DIRECTLY INTO MASONRY  
 1-3/4" MIN. EMBED INTO FILLED BLOCKS (JAMBS)

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

**ANCHOR CL TO CL DISTANCE**  
 INTO CONCRETE = 3" MIN.  
 INTO FILLED BLOCKS = 3" MIN.

TYPE 'B1'- **1/4" DIA ULTRACON+ BY 'DEWALT'** (Fu=164 KSI, Fy=148 KSI)  
 DIRECTLY INTO CONCRETE  
 1-3/4" MIN. EMBED INTO CONCRETE (HEAD / SILL / JAMBS)

TYPE 'BB1'- **1/4" DIA ULTRACON+ BY 'DEWALT'** (Fu=164 KSI, Fy=148 KSI)  
 DIRECTLY INTO GROUT FILLED BLOCKS  
 1-3/4" MIN. EMBED INTO FILLED BLOCKS (JAMBS)

**ANCHOR EDGE DISTANCES**  
 INTO CONCRETE = 2- 1/2" MIN.

**ANCHOR CL TO CL DISTANCE**  
 INTO CONCRETE = 3" MIN.  
 INTO FILLED BLOCKS = 4" MIN.

TYPE 'C1'- **1/4" DIA. TEKS OR SELF DRILLING SCREWS** (GRADE 5 CRS)  
 INTO F.B.C. APPROVED MULLIONS  
 OR  
 INTO METAL STRUCTURES  
 (3) THREADS MIN. PENETRATION BEYOND METAL SUBSTRATE  
 ALUMINUM: 1/8" THK. MIN. (6063-T5 MIN.)  
 STEEL: 1/8" THK. MIN. (Fy = 36 KSI MIN.)  
 (STEEL IN CONTACT WITH ALUMINUM TO BE PLATED OR PAINTED)

**ANCHOR EDGE DISTANCES**  
 INTO METAL STRUCTURE = 1/2" MIN.

WOOD AT HEAD, SILL OR JAMBS SG = 0.55 MIN.  
 CONCRETE AT HEAD, SILL OR JAMBS f<sub>c</sub> = 3000 PSI MIN.  
 C-90 GROUT FILLED BLOCK AT JAMBS f<sub>m</sub> = 2000 PSI MIN.

NOTE : FOR ALL 1/4" DIA. ANHORS LIMIT SHIMS TO 1/4" MAX.

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 www.MCYEngineering.com  
 mcy@mcyengineering.com

Series ENV-350E Aluminum Outswing Entrance Door - L.M.I  
**ENVIRALUM INDUSTRIES INC.**  
 5110 N.W. 72 AVENUE BLDG.C  
 MIAMI, FL 33166  
 TEL:(305)752-4411 FAX:(305)406-3877

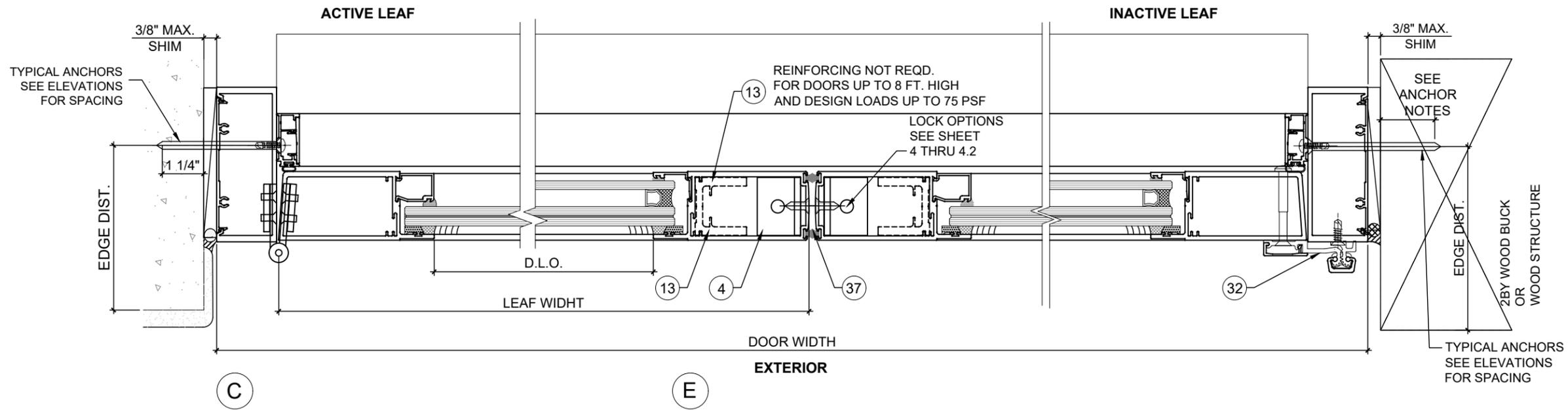
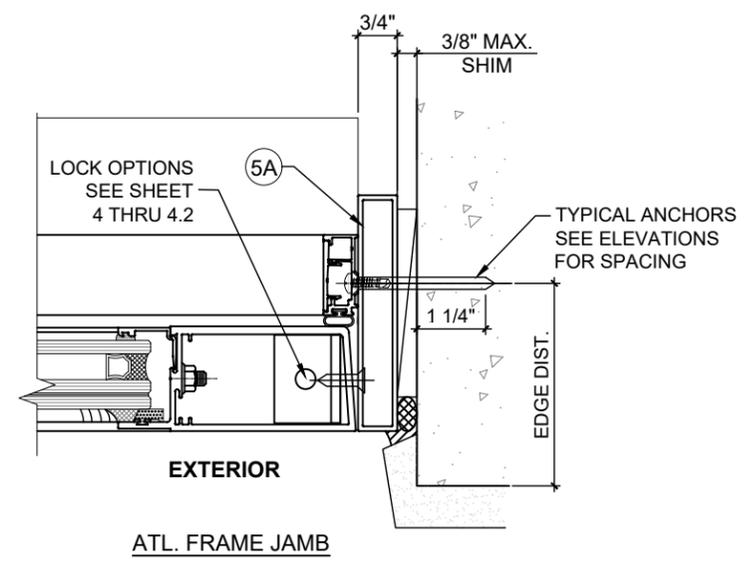
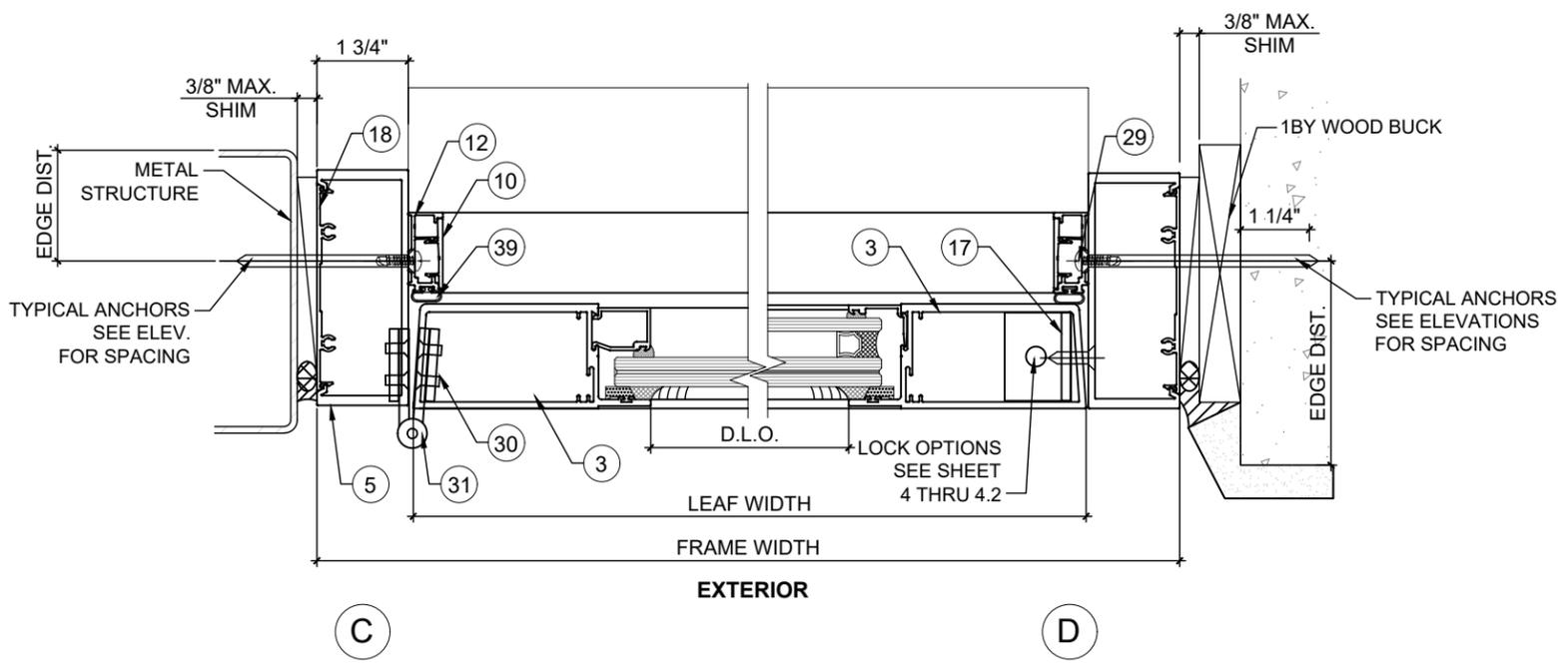
FLORIDA APPROVAL:  
**FL#20701.5**

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2	10/09/21	James	FBC 2020 UPDATE
1	12/30/20	James	

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**AD20-44**

CONFIGURATION  
 5.1 OF 10

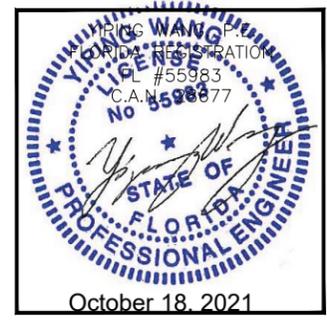


DOOR DETAILS

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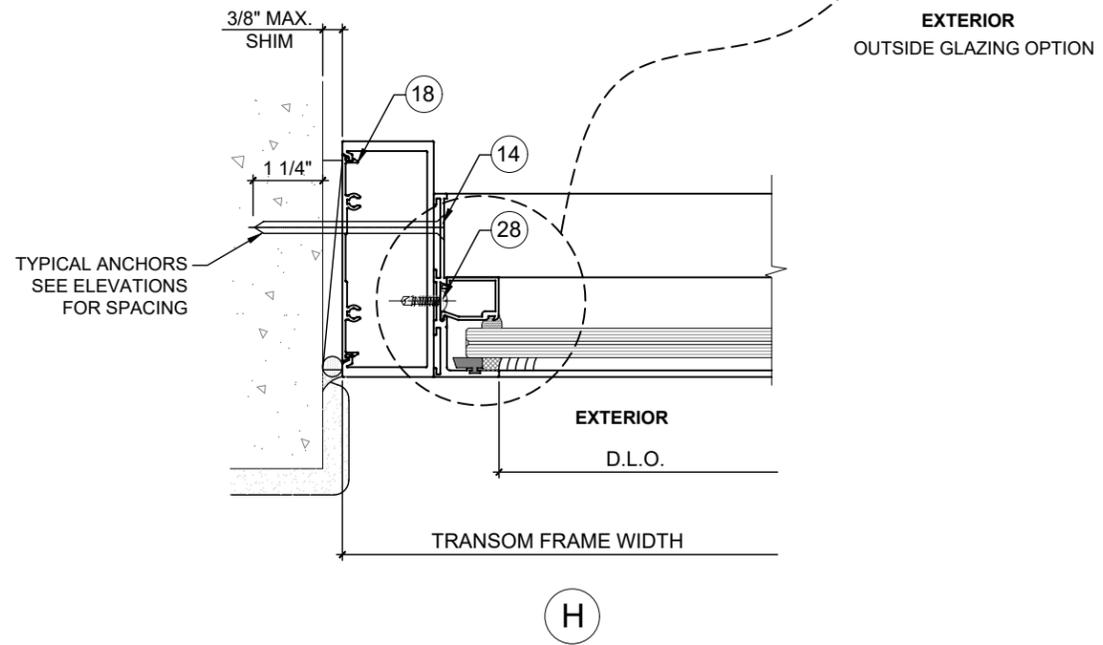
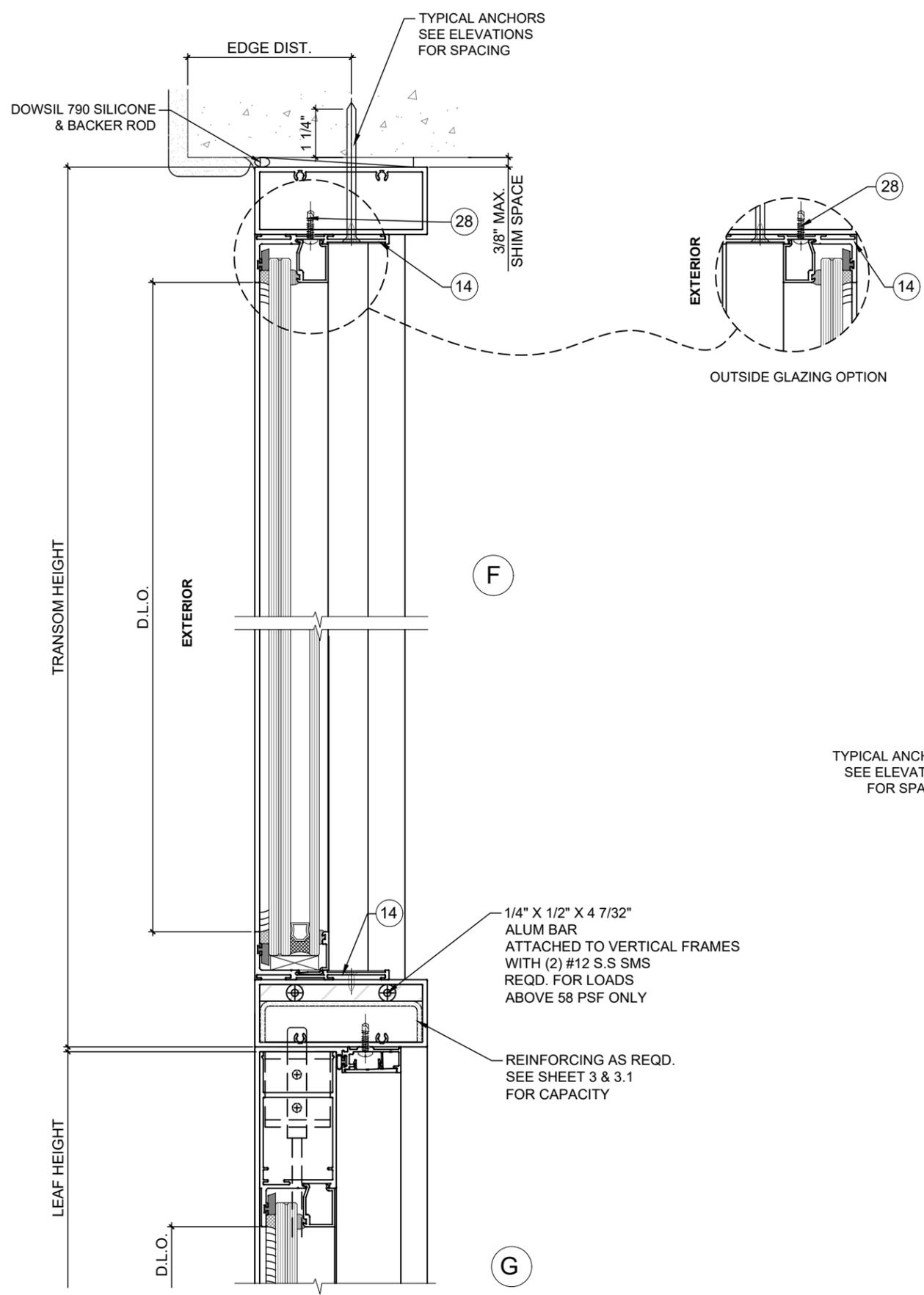
Series ENV-350E Aluminum Outswing Entrance Door - L.M.I  
**ENVIRALUM INDUSTRIES INC.**  
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MIAMI, FL 33166  
TEL:(305)752-4411 FAX:(305)406-3877

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10/09/2021	
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AD20-44	
D2	
6 OF 10	



TRANSOM DETAILS

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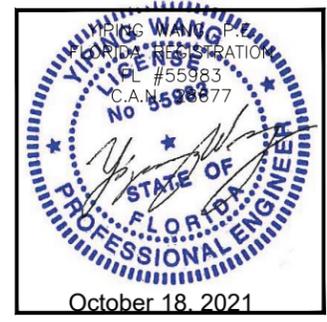


Exhibit "A"

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Drawn Date: 10/09/2021

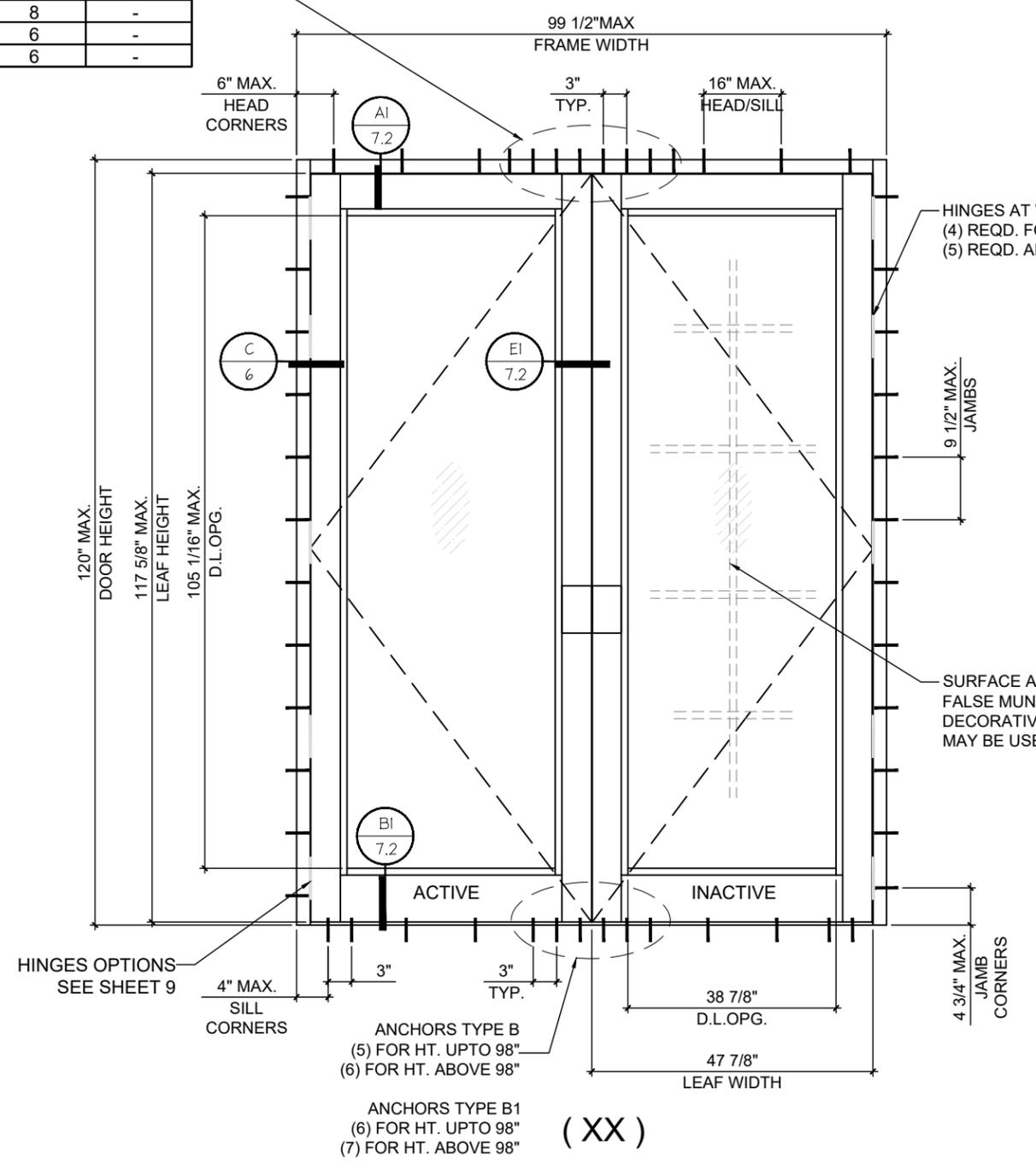
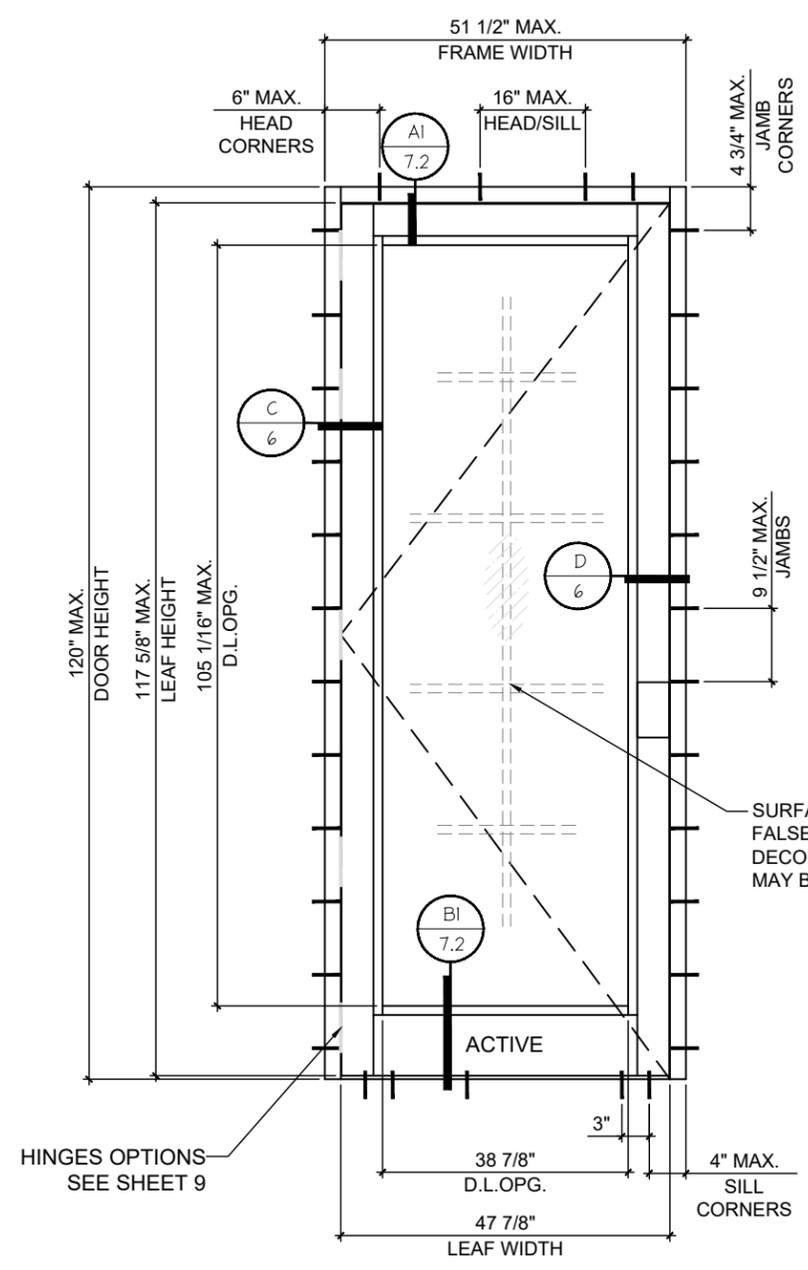
Scale:

DRAWING NO. AD20-44

D3

7 OF 10

ANCHORS TYPES	NO. OF ANCHORS AT MTG. STILE ENDS	
	1/4" SHIM	3/8" SHIM
A	6	8
B	6	8
C	5	6
A1	8	-
B1	6	-
C1	6	-



(X)

(XX)

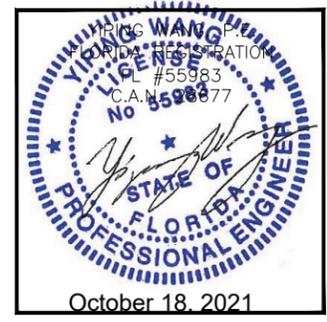
TYPICAL ELEVATIONS  
DOORS TO MEET WATER REQUIREMENTS

NOTE:  
FOR DOORS WITH GLASS TYPE 'B' (LEVEL 'E' IMPACT)  
LIMIT MAX. DOOR HEIGHTS TO 98 INCHES.

HINGES AT WATER RESISTANT DOORS  
(4) REQD. FOR DOOR HEIGHTS UPTO 90 1/2"  
(5) REQD. ABOVE 90 1/2" HEIGHTS

SURFACE APPLIED  
FALSE MUNTINS OR  
DECORATIVE GRILL  
MAY BE USED

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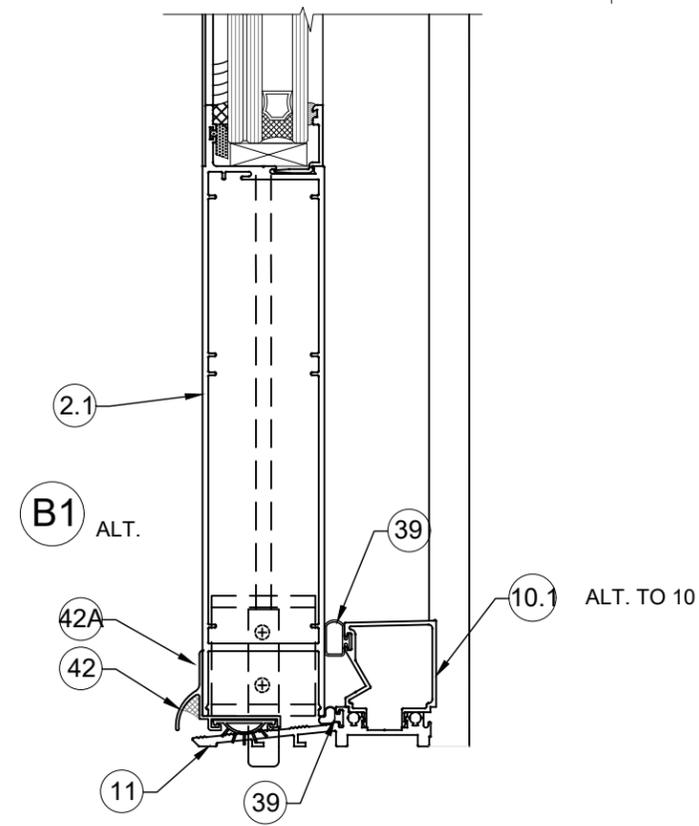
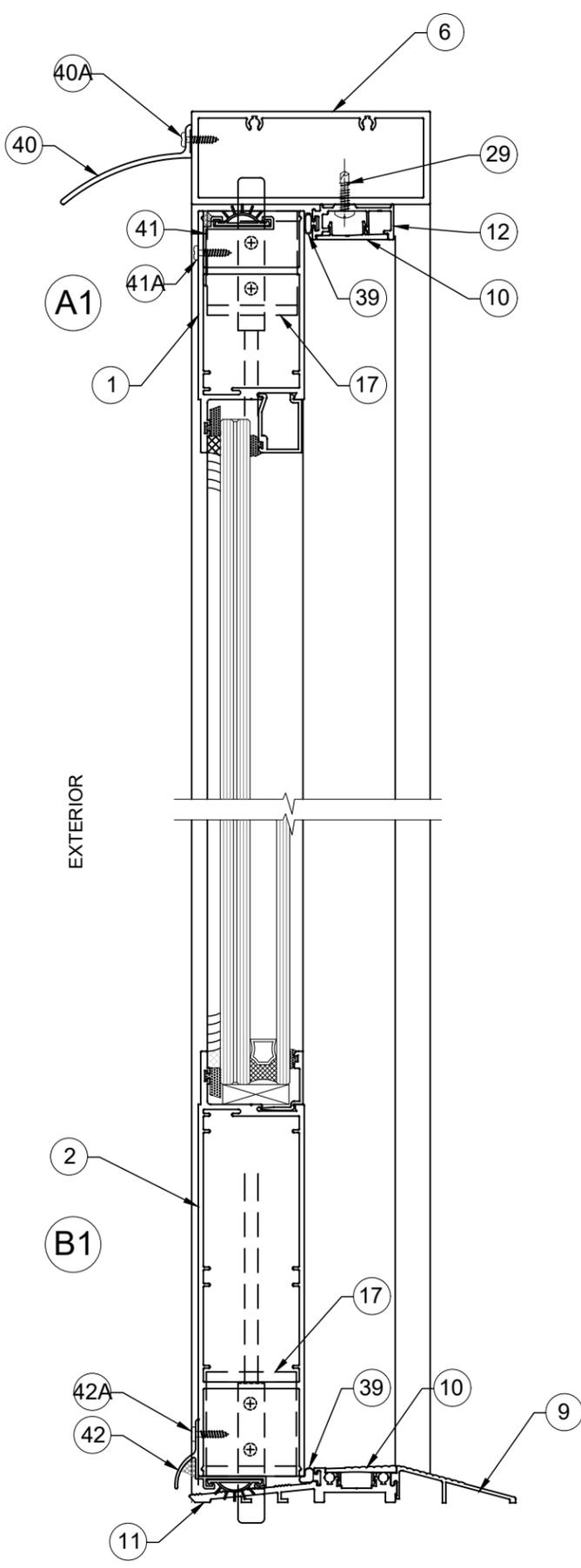


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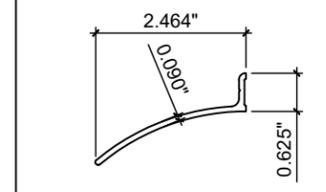
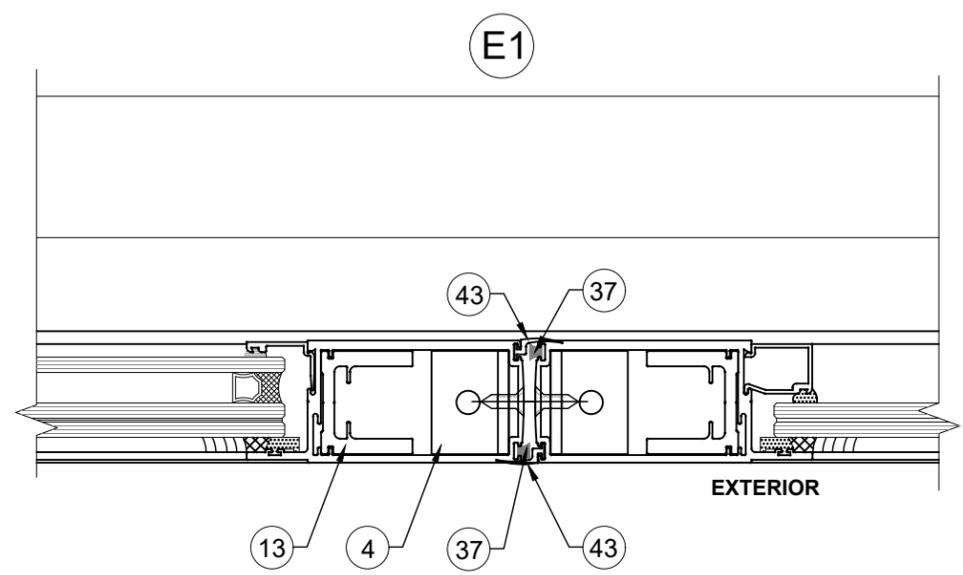
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DRAWING NO.  
AD20-44  
E5  
7.1 OF 10



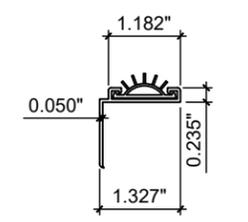
**DETAILS**

**DOORS TO MEET WATER REQUIREMENTS**

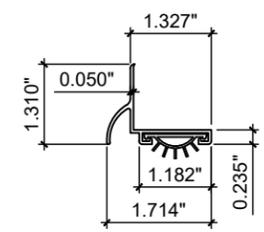
ITEM NUMBERS 40, 41, 42, AND 43 ADDED TO STANDARD DOOR SECTIONS TO MEET WATER INFILTRATION RESISTANT REQUIREMENT. SEE SHEETS 5 AND 6 FOR STD. DOOR DETAILS.



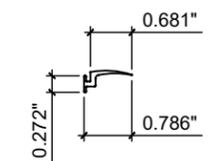
40 DRIP CAP



41 DOOR SWEEP (TOP)



42 DOOR SWEEP (BOTTOM)



43 WATER FLAP

**WATER RESISTANT DOOR COMPONENTS**

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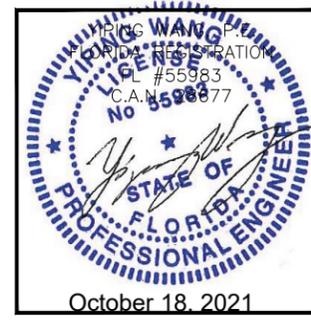


Exhibit "A"

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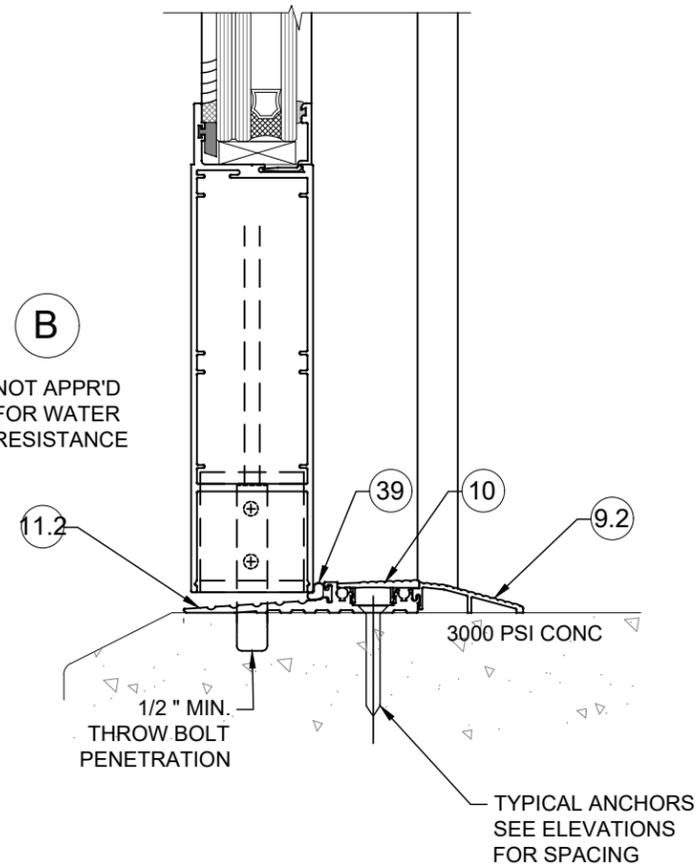
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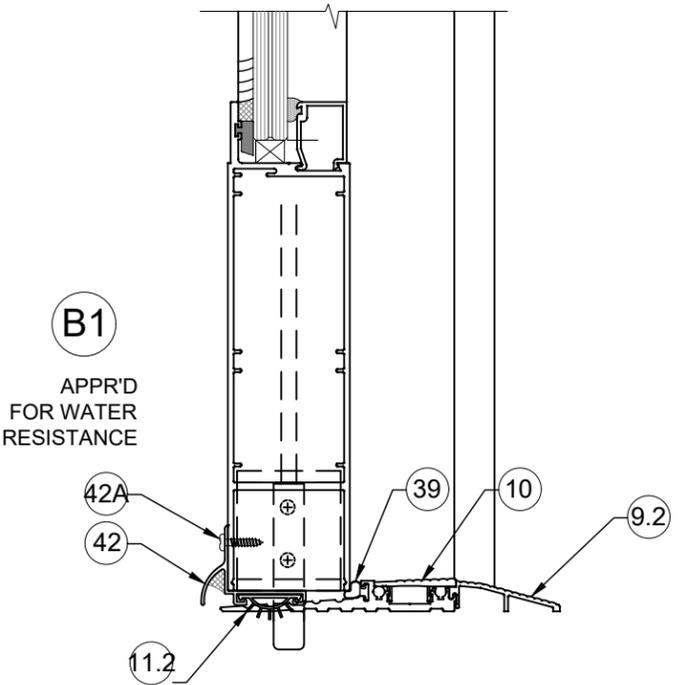
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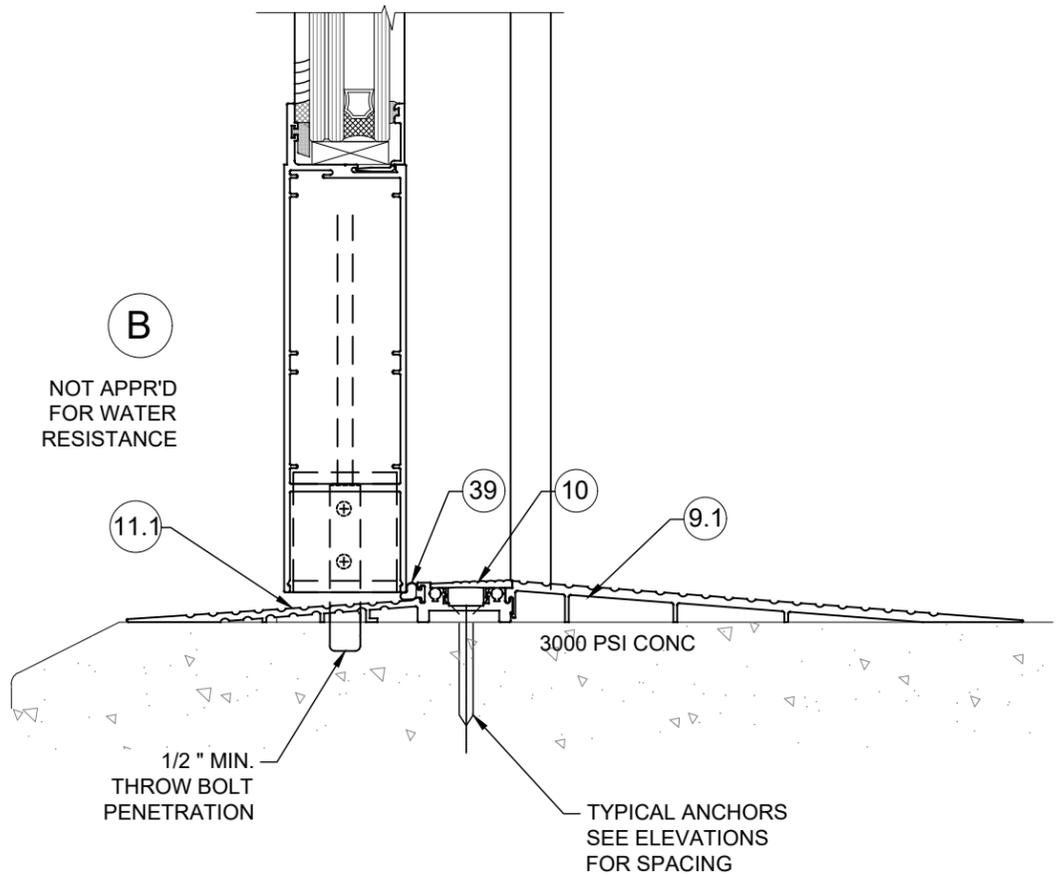
**B**  
NOT APPR'D  
FOR WATER  
RESISTANCE



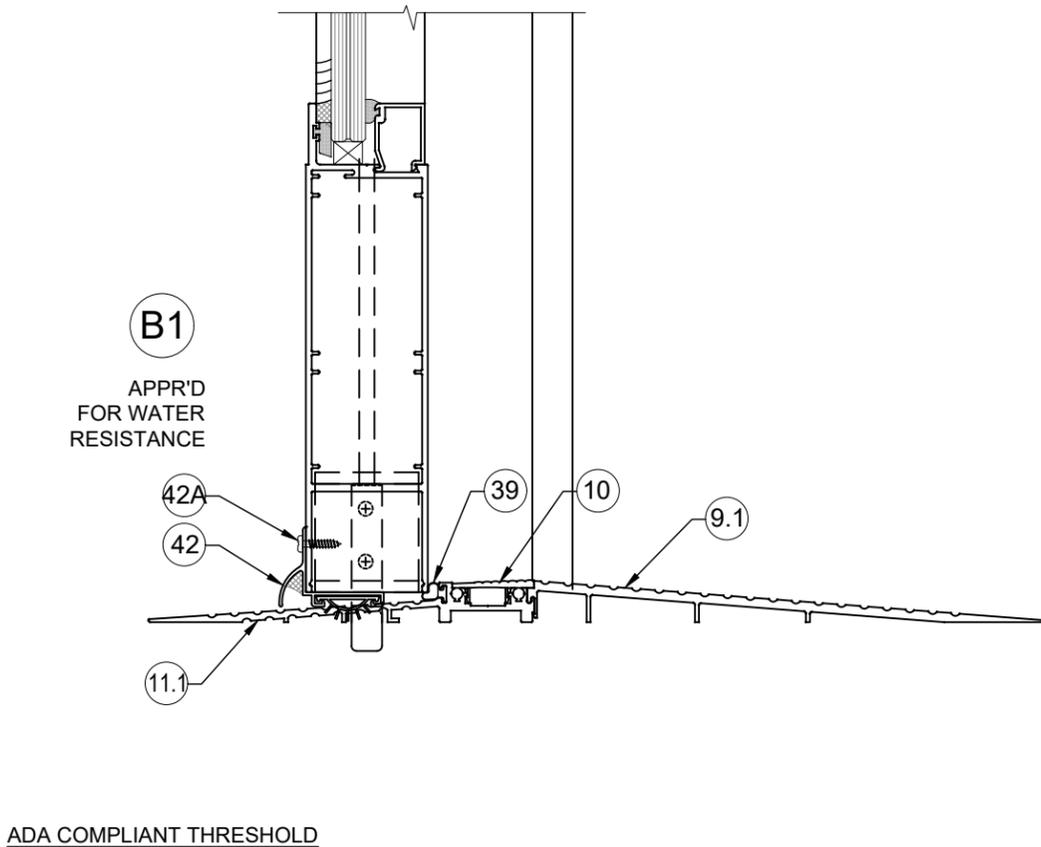
**B1**  
APPR'D  
FOR WATER  
RESISTANCE



**B**  
NOT APPR'D  
FOR WATER  
RESISTANCE



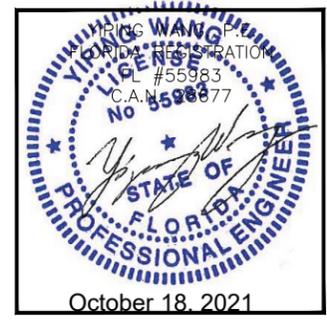
**B1**  
APPR'D  
FOR WATER  
RESISTANCE



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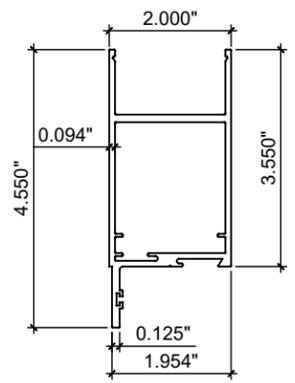
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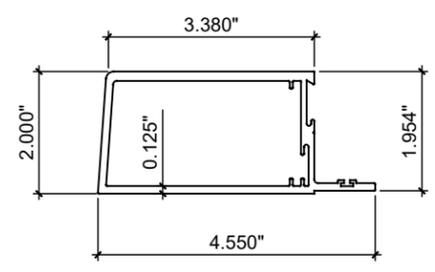
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D4

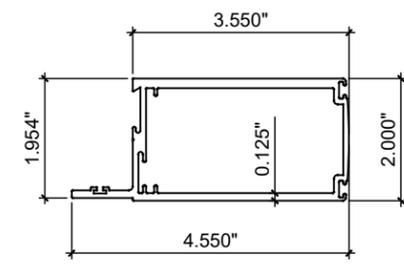
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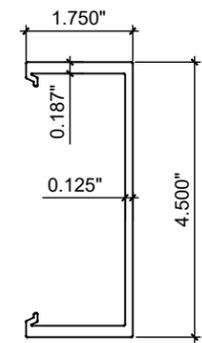
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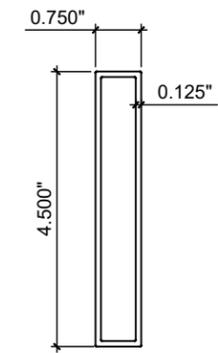
3 HINGE STILE



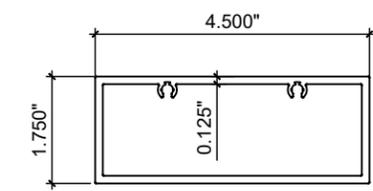
4 LOCK STILE



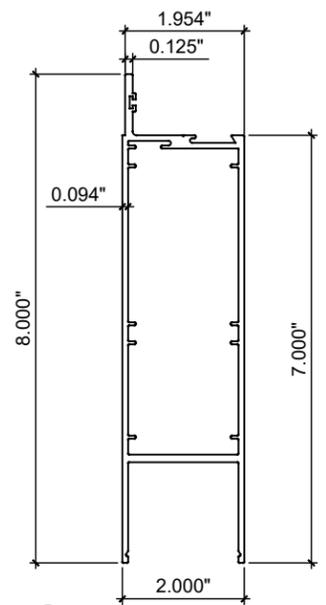
5 FRAME JAMB



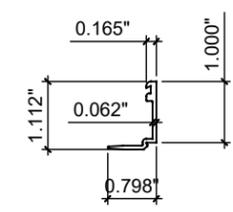
5A ALT.FRAME JAMB



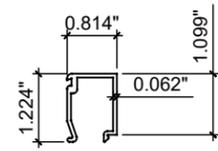
6 FRAME HEAD



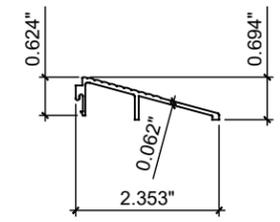
2 BOTTOM RAIL



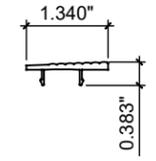
7 GLASS STOP (INSUL. LAM. GLASS)



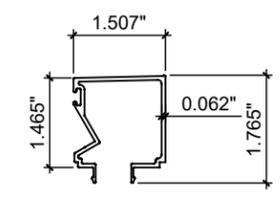
8 GLASS STOP (LAM. GLASS)



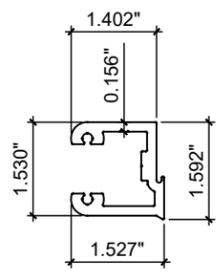
9 RAMP THRESHOLD TYPE 1



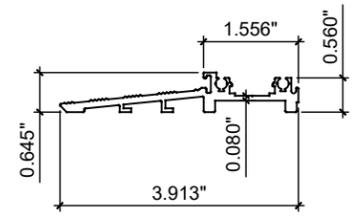
10 THRESHOLD / DOOR STOP COVER



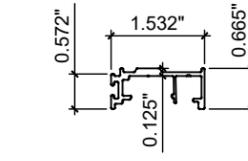
10.1 ALT. THRESHOLD COVER



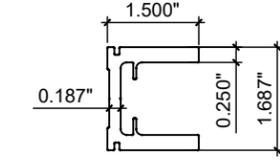
16 SHEAR BLOCK



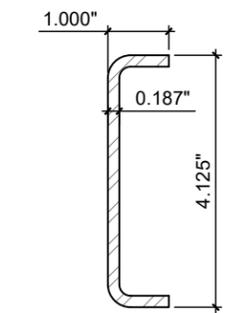
11 THRESHOLD TYPE 1



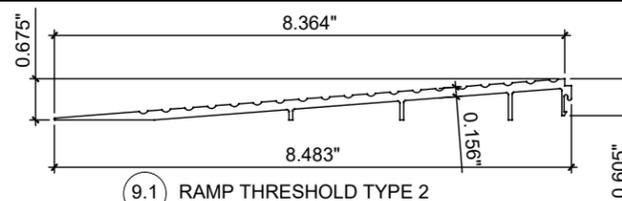
12 DOOR STOP



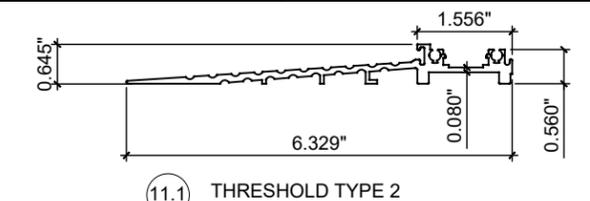
13 STILE REINFORCEMENT



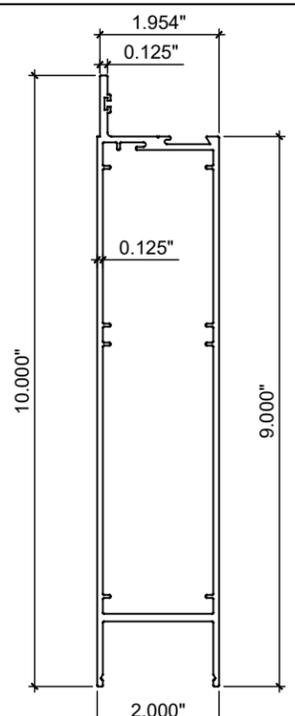
15 STEEL CHANNEL REINF.



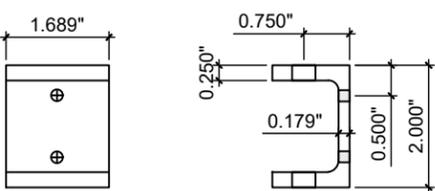
9.1 RAMP THRESHOLD TYPE 2



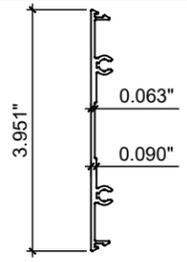
11.1 THRESHOLD TYPE 2



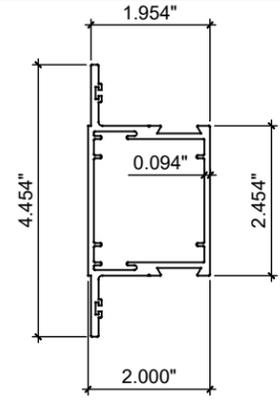
2.1 ALT.BOTTOM RAIL



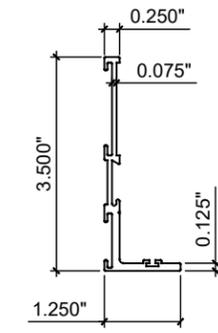
17 GUIDE CHANNEL FOR TOP & BOTTOM PIN



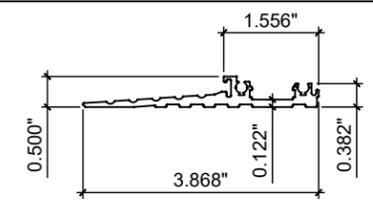
18 FLAT FILLER



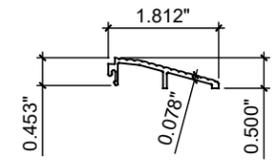
19 MID - RAIL



14 TRANSOM SASH



11.2 THRESHOLD TYPE 3



9.2 RAMP THRESHOLD TYPE 3

FLORIDA APPROVAL:  
FL#20701.5

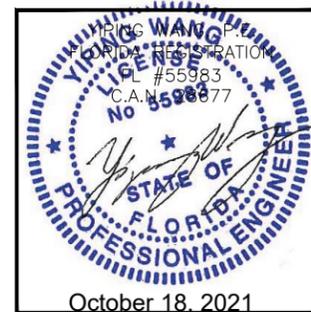


Exhibit "A"  
**MCY ENGINEERING, INC.**  
GLAZING CONSULTANTS  
12781 MIRAMAR PARKWAY, #301 P. 305.271.0117  
MIRAMAR, FL 33027  
www.MCYEngineering.com  
mcy@mcyengineering.com

Series ENV-350E Aluminum Outswing Entrance Door - L.M.I  
**ENVIRALUM INDUSTRIES INC.**  
5110 N.W. 72 AVENUE BLDG.C  
MIAMI, FL 33166  
TEL:(305)752-4411 FAX:(305)406-3877

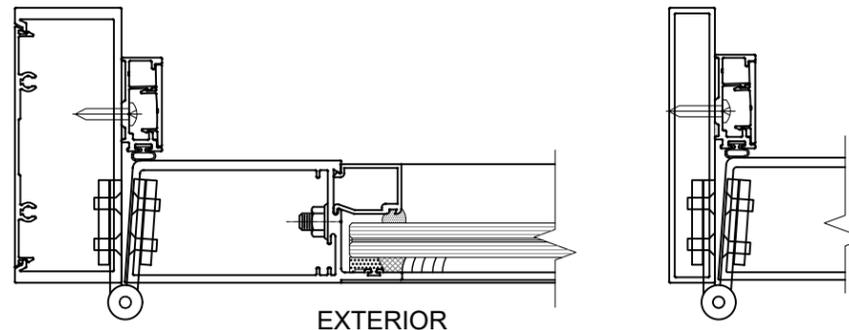
Rev. No.	Date	Drawn By	Description
2	10/09/21	James	REVISION
1	12/30/20	James	FBC 2020 UPDATE

Drawn Date: 10/09/2021  
Scale:  
DRAWING NO.  
AD20-44  
MATERIAL  
8 OF 10

ITEM NO.	PART NUMBER	QUANTITY	DESCRIPTION	MATERIAL	MANF./SUPPLIER/REMARKS
1	ENV-351	1/ LEAF	TOP RAIL	6063-T6	ENVIRALUM
2.1	ENV-352	1/ LEAF	BOTTOM RAIL (8" HIGH)	6063-T6	ENVIRALUM
2	ENV-3521	1/ LEAF	ALT. BOTTOM RAIL(10" HIGH)	6063-T6	ENVIRALUM
3	ENV-353	1/ LEAF	HINGE STILE	6063-T6	ENVIRALUM
4	ENV-354	1/ LEAF	LOCK STLE	6063-T6	ENVIRALUM
5	ENV-355	2/ DOOR	STANDARD JAMB	6063-T6	ENVIRALUM
5A	ENV-3517	2/ DOOR	NARROW HEAD/ JAMB	6063-T6	ENVIRALUM
6	ENV-356	1/ DOOR	FRAME HEAD	6063-T6	ENVIRALUM
7	ENV-357	4/ LITE	GLASS STOP (INSULATED GLASS)	6063-T6	ENVIRALUM
8	ENV-358	4/ LITE	GLASS STOP (LAMINATED GLASS)	6063-T6	ENVIRALUM
9	ENV-359	AS REOD.	RAMP THRESHOLD TYPE 1	6063-T6	ENVIRALUM
9.1	ENV-3520	AS REQD.	RAMP THRESHOLD TYPE 2	6063-T6	ENVIRALUM
9.2	ENV-3527	AS REQD.	RAMP THRESHOLD TYPE 3	6063-T6	ENVIRALUM
10	ENV-3510	AS REQD.	THRESHOLD/DOOR STOP COVER	6063-T6	ENVIRALUM
10.1	ENV-3518	AS REQD.	ALT. THRESHOLD COVER (HI-RISE)	6063-T6	ENVIRALUM
11	ENV-3511	1/ DOOR	THRESHOLD TYPE 1	6063-T6	ENVIRALUM
11.1	ENV-3519	1/ DOOR	THRESHOLD TYPE 2	6063-T6	ENVIRALUM
11.2	ENV-3526	1/ DOOR	THRESHOLD TYPE 3	6063-T6	ENVIRALUM
12	ENV-3512	3/ DOOR	DOOR STOP	6063-T6	ENVIRALUM
13	ENV-3513	AS REQD.	STILE REINFORCEMEN, REQD. FOR DOORS ABOVE 8 FT. HIGH	6063-T6	ENVIRALUM
14	ENV-3515	4/ TRANSOM	TRANSOM SASH	6063-T6	ENVIRALUM
15	ENV-ST2	AS REQD.	1" x 4-1/8" x 1" x 3/16" THK, CHANNEL	STEEL	ENVIRALUM
16	ENV-3516	1/ LEAF CORNER	SHEAR BLOCK	6063-T6	ENVIRALUM
17	ENV-G01	2/ LEAF	GUIDE CHANNEL FOR TOP & BOTTOM PIN	6063-T6	ENVIRALUM
18	ENV-454	ASREQD.	FLAT SNAP. 3" LONG	6063-T6	ENVIRALUM
19	ENV-3514	AS REQD.	MID-RAIL (OPTIONAL)	6063-T5	ENVIRALUM
21	ENV-G04	AS REOD.	INTERIOR GASKET	EPDM	GLAZING RUBBER PRODUCTS
22	ENV-G06	AS REQD.	SPACER GASKET	EPDM	GLAZING RUBBER PRODUCTS
22A	ENV-C06	1/ QUARTER POINT	SPACER GASKET, 1" LONG	EPDM	GLAZING RUBBER PRODUCTS
23	ENV-SB01	1/ QUARTER POINT	3/8" x 1/2" x 2" SETTING BLOCKS, DUROMETER 80±5	EPDM	GLAZING RUBBER PRODUCTS
24	ENV-SB02	1/ QUARTER POINT	3/8" x 1-1/4" x 2" SETTING BLOCKS, DUROMETER 80±5	EPDM	GLAZING RUBBER PRODUCTS
25	DOW 791	AS REQD.	GLAZING COMPOUND	SILICONE	DOWSIL
26	CE SCS2000	AS REQD.	GLAZING COMPOUND	SILICONE	GE MOMENTIVE
27	#12 x1-1/2	4/ CORNER	FRAME ASSEMBLY SCREWS	ST. STEEL	HWH SMS. AT 16" O.C.
28	#8 x 5/8"	AS REQD.	TRANSOM SASH SCREWS	ST. STEEL	AT 3" FROM ENDS & 12" O.C.
29	#8 x 5/8"	AS REQD.	DOOR STOP ASSEMBLY SCREWS, @ 3" FROM ENDS & 20" O.C.	ST. STEEL	HWH SMS
30	ENV-BP1	2/ HINGE	HINGE BACKING PLATE, 1-1/2" x 1/4" THK. x 8-3/8" LONG	ALUMINUM	-
31	-	3/ LEAF	4-1/2" x 4" BUTT HINGES	ST. STEEL	-
32	SL-21	1/ LEAF	CONT. GEAR HINGE	ALUMINUM	SELECT PRODUCTS LTD.
32A	PEMKO-FS	1/ LEAF	CONT. GEAR HINGE	ALUMINUM	PEMKO
33	1/4 - 20 x 1"	10/ LEAF	CORNER BLOCK ASSEMBLY	ST. STEEL	HEX HEAD BOLT W/ WASHER
34	ENV-C01	AS REQD.	FIXED INTERIOR GASKET	EPDM	GLAZING RUBBER PRODUCTS
37	ENV-WP1	AS REQD.	WOOL PILE W'STRIPPING	TRGLOBAL YARN	ULTRAFAB
38	ENV-WP2	AS REQD.	WOOL PILE W'STRIPPING	TRGLOBAL YARN	ULTRAFAB
39	ENV-BG1	AS REQD.	BULB W'STRIPPING, (.475 BULB W/ FLAP x .270 BK.)	EPDM	ULTRAFAB
40	ENV-3518	AS REQD.	DRIP CAP	ALUMINUM	PEMKO
40A	#8 x 5/8"	AS REQD.	DRIP CAP FASTENERS, AT 3" FROM ENDS & 6" O.C.	ST. STEEL	HWH SELF DRILLING SCREWS
41	ENV-3512	AS REQD.	DOOR SWEEP (TOP)	ALUMINUM	PEMKO
41A	#8 x 1/2"	AS REQD.	DOOR SWEEP FASTENERS, AT 3" FROM ENDS & 6" O.C.	ST. STEEL	FH SELF DRILLING SCREWS
42	ENV-3523	AS REQD.	DOOR SWEEP (BOTTOM)	ALUMINUM	PEMKO
42A	#8 x 3/4"	AS REQD.	DOOR SWEEP FASTENERS, AT 3" FROM ENDS & 6" O.C.	ST. STEEL	HH SELF DRILLING SCREWS
43	ENV-WF1	AS REQD.	WATER FLAP	EPDM	ULTRAFAB
44	DOW 790	AS REQD.	PERIMETER SEALANT	SILICONE	DOWSIL

**HINGE OPTION #1:**

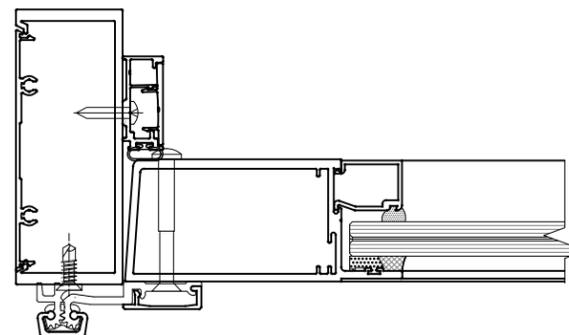
4"X4-1/2" X.130" THK. ST. STEEL KNUCKLE HINGE SERIES 4001 BY 'REGENT HARDWARE' OR SERIES FBB 191 BY 'STANLEY SECURITY SOLUTIONS' OR SERIES TA2314/TA2714 BY 'MCKINNEY ASSA ABLOY' 3 PER LEAF TOP/BOTTOM HINGES AT 7" FROM EACH END CENTER HINGE AT MIDSPAN FASTENED TO FRAME JAMB WITH (4) 12-24 X 1/2" FH MS DOOR STILE WITH (4) 12-24 X 1/2" FH MS



EXTERIOR

**HINGE OPTION #2:**

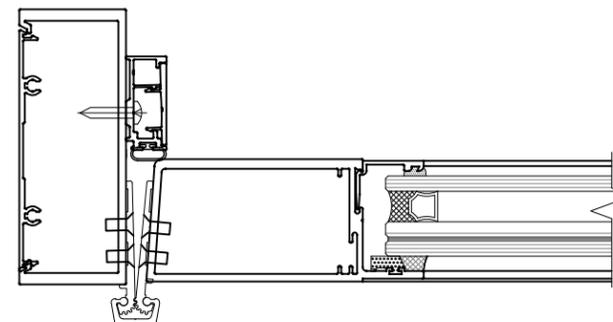
CONTINUOUS GEAR ALUMINUM HINGE 'PEMKO-FS' OR 'SELECT SL-21' FASTENED TO FRAME JAMB WITH #12 X 3/4" FH SCREWS AT 6" O.C. DOOR STILE WITH 1/4-20 X 1-1/4" FH MS WITH HEX BOLT AT 6" O.C.



EXTERIOR

**HINGE OPTION #3:**

CONTINUOUS ALUMINUM ROTTON HINGE 'PEMKO-FM' OR 'SELECT SL 27' FASTENED TO FRAME JAMB AND TO JAMB STILE WITH (22) #12-24 X 1/2" FH MS SCREWS



EXTERIOR

Exhibit "A"

**MCY ENGINEERING, INC.**  
GLAZING CONSULTANTS  
12781 MIRAMAR PARKWAY, #301 P. 305.271.0117  
MIRAMAR, FL 33027  
www.MCYEngineering.com  
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Series ENV-350E Aluminum Outswing Entrance Door - L.M.I  
**ENVIRALUM INDUSTRIES INC.**  
5110 N.W. 72 AVENUE BLDG.C  
MIAMI, FL 33166  
TEL:(305)752-4411 FAX:(305)406-3877

REV.	DATE	DESCRIPTION
2	10/09/21	James
1	12/30/20	James

Drawn Date: 10/09/2021 Scale:

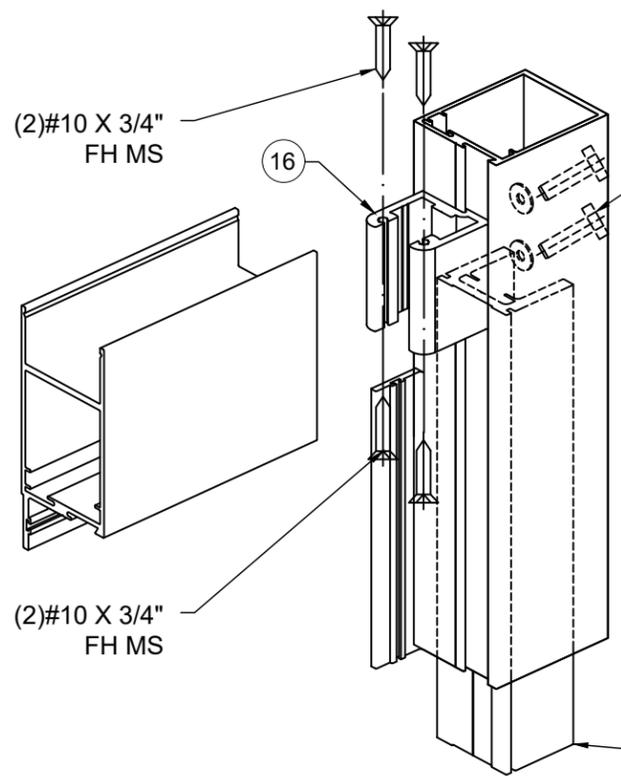
DRAWING NO. AD20-44

BOM

9 OF 10

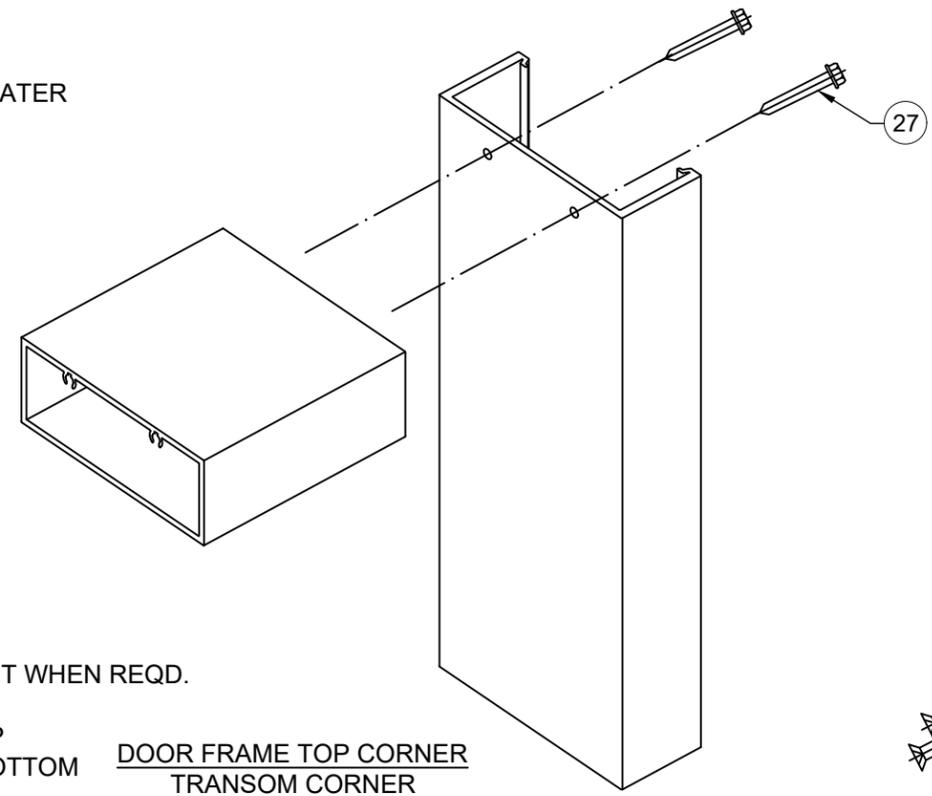
FLORIDA APPROVAL:  
FL#20701.5

YIPING WANG  
PROFESSIONAL ENGINEER  
FLORIDA  
LICENSE #55983  
C.A.N. #5598377  
October 18, 2021

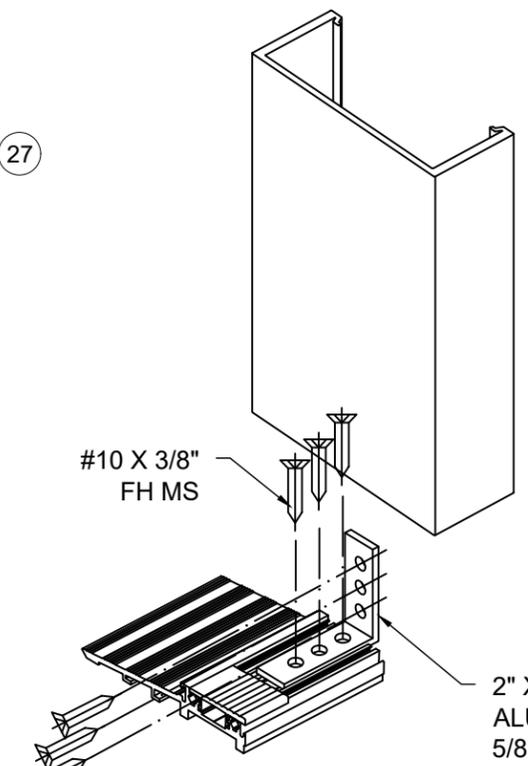


DOOR LEAF TOP CORNER

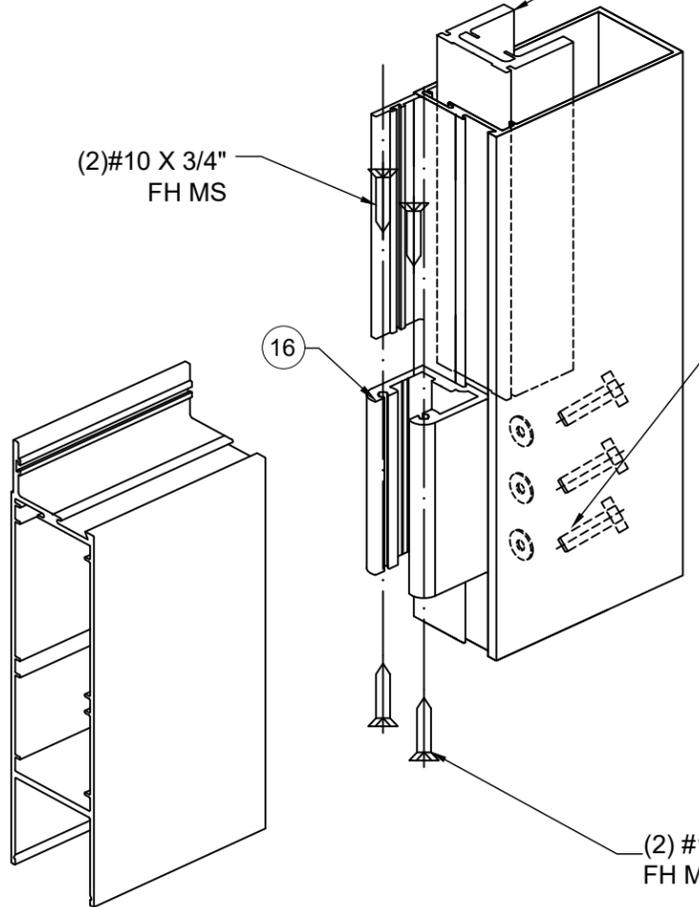
REINFORCEMENT WHEN REQD.  
TO BE WITH  
3-1/2" FROM TOP  
AND 7" FROM BOTTOM



DOOR FRAME TOP CORNER  
TRANSOM CORNER

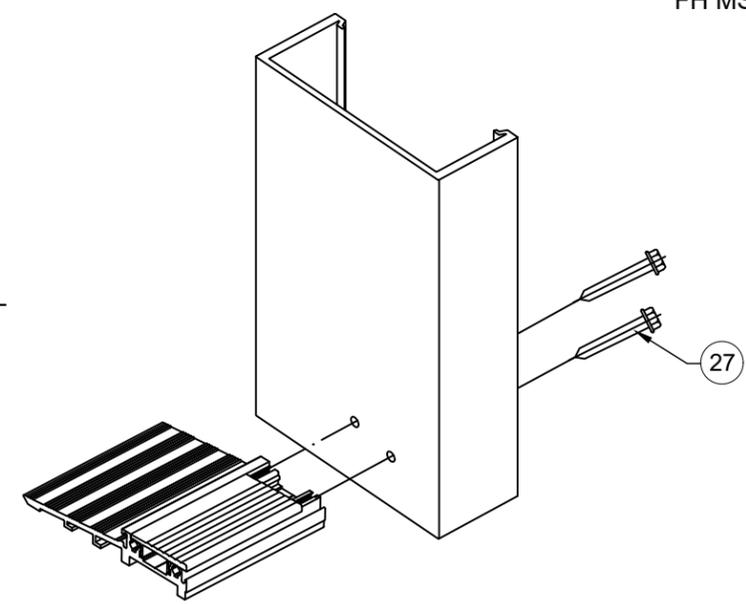


DOOR FRAME BOTTOM CORNER  
APPLICABLE AT STD. NARROW JAMBS

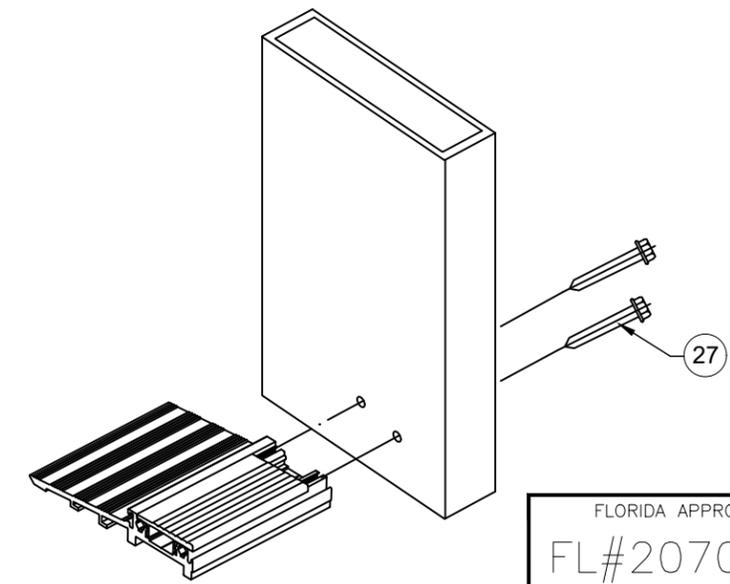


DOOR LEAF BOTTOM CORNER

(2) #10 X 3/4" FH MS

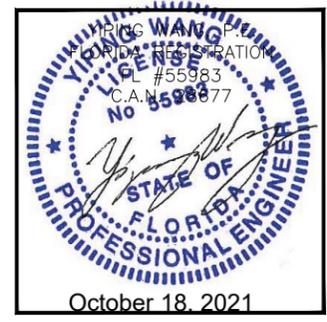


DOOR FRAME BOTTOM CORNER



DOOR FRAME BOTTOM CORNER

FLORIDA APPROVAL:  
FL#20701.5



**MCY ENGINEERING, INC.**  
GLAZING CONSULTANTS  
12781 MIRAMAR PARKWAY, #301 P. 305.271.0117  
MIRAMAR, FL 33027  
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Series ENV-350E Aluminum Outswing Entrance Door - L.M.I  
**ENVIRALUM INDUSTRIES INC.**  
5110 N.W. 72 AVENUE BLDG.C  
MIAMI, FL 33166  
TEL:(305)752-4411 FAX:(305)406-3877

REV. NO.	DATE	DESCRIPTION
2	10/09/21	James
1	12/30/20	James

Drawn Date: 10/09/2021  
Scale:  
DRAWING NO.: AD20-44  
ASSEMBLE  
10 OF 10





















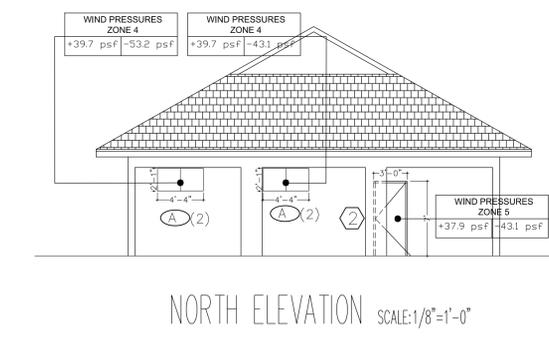
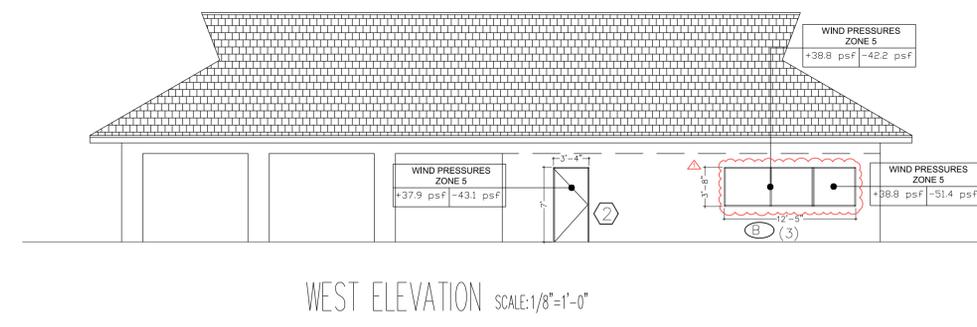
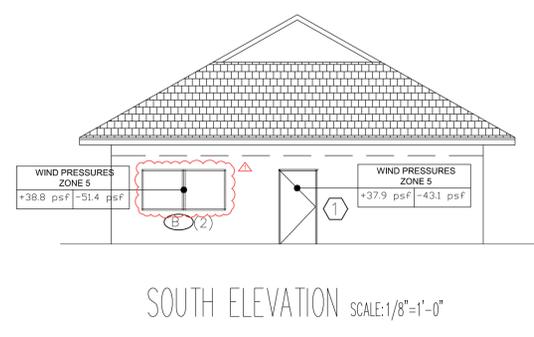
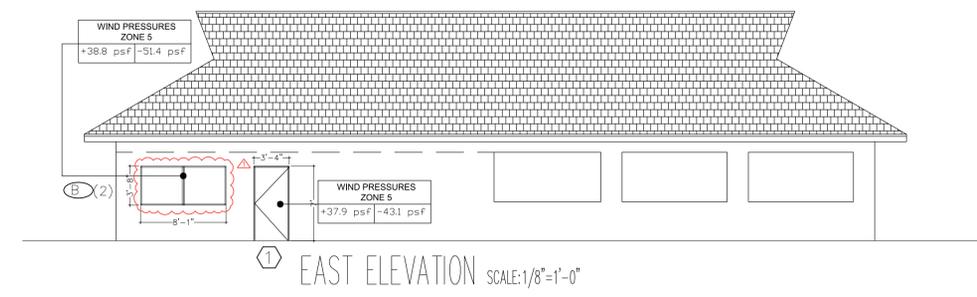




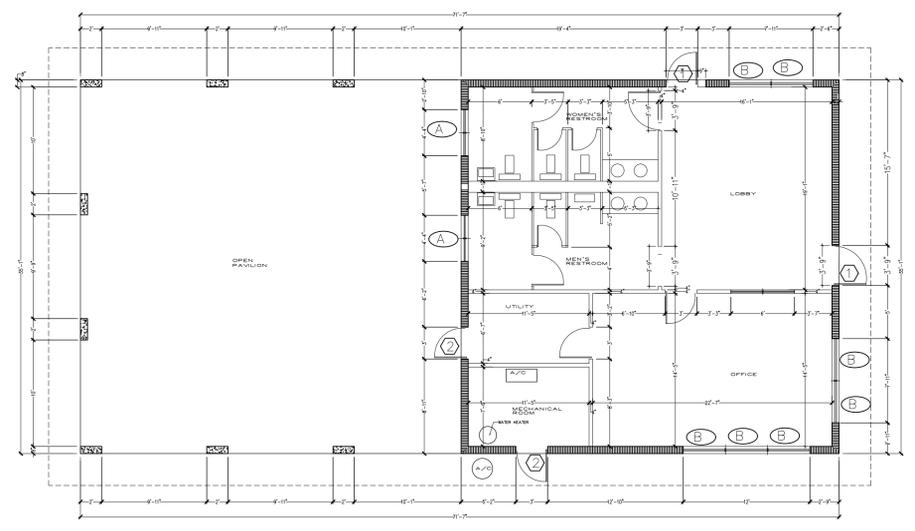


**SYNALOVSKI ROMANIK SAYE**  
Architecture • Planning • Interior Design

1800 Eller Drive, Suite 500  
Fort Lauderdale, FL 33316  
T 954.961.6806  
F 954.961.6807  
www.synalovsk.com



**4 ELEVATIONS**  
SCALE: 1/8" = 1' - 0"



FLOOR PLAN SCALE: 1/8" = 1'-0"

**3 PLANS**  
SCALE: 1/8" = 1' - 0"

MARK	DIMENSIONS		FRAME		TYPE	HARDWARE	DESIGN PRESSURES P(ASD)			PROD. APPROV	ENERGY		NOTES
	DOOR	FRAME	MATERIAL	COLOR			POSITIVE	NEGATIVE	CORNER		U VALUE	SGHC	
1	3'-0" X 7'-0"	3'-4" X 7'-2"	ALUM/GLASS	ANODIZED ALUM	SINGLE SWING	TYPE #1	37.9	43.1		FL # 20701.5	1.0	0.50	
2	3'-0" X 7'-0"	3'-4" X 7'-2"	METAL	ANODIZED ALUM	SINGLE SWING	TYPE #1	37.9	43.1		NOA # 22-0427.01	1.0	0.50	

HARDWARE TYPE #1:  
3-POINT HOOKBOLT MORTISE LOCK,  
PUSH/PULL BAR (SFD 5010718 BY  
DELTA SYSTEMS), THRESHOLD CLEAR  
ANODIZED ALUMINUM - ADA  
COMPLIANT - WATER INFILTRATION  
RESISTANT.

**2 DOOR SCHEDULE**

WIND LOADS	
ASCE 7 - 16	
V (ULTIMATE) = 170 MPH	
V (ASD) = 132.6 MPH	
EXPOSURE = C	
a = 3.5 FT (CORNER)	
ALL PRESSURES BASED ON V (ASD)	

MARK	DIMENSIONS		FRAME		GLASS		TYPE	DESIGN PRESSURES P(ASD)			PROD. APPROV	ENERGY		NOTES
	W	H	MATERIAL	COLOR	IMPACT	TINT		POSITIVE	NEGATIVE	CORNER		U VALUE	SGHC	
A	26 1/2"	28"	ALUMINUM	TBD	YES	TBD	FIXED	39.7	43.1	53.2	FL # 40528	1.0	0.50	MULLION REQ.
B	48"	48"	ALUMINUM	TBD	YES	TBD	FIXED	38.8	42.2	51.4	FL # 40528	1.0	0.50	MULLIONS REQ.

**1 WINDOW SCHEDULE**

**PEMBROKE PINES WINDOWS AND DOORS REPLACEMENT**  
 1200 SW 72ND AVE  
 PEMBROKE PINES, FL  
 CLIENT: CITY OF PEMBROKE PINES

REV	DATE	DESCRIPTION
1	03/28/2025	WINDOW TYPE COORDINATION

DESIGN DELIVERABLE: PERMIT SET  
ISSUE DATE: 12/01/2023

PROJECT NUMBER: 1500-230227  
DRAWN BY: ML  
CHECKED BY: MS

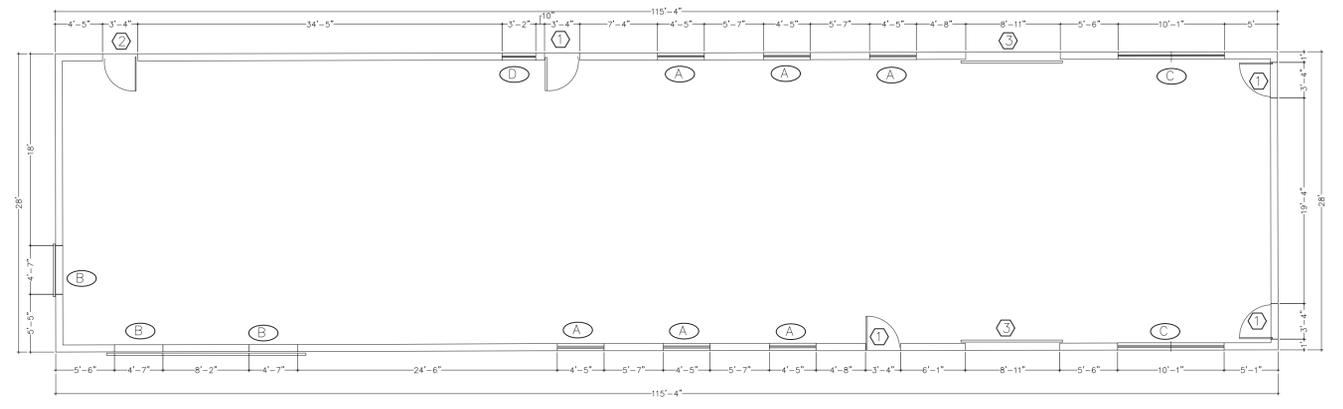
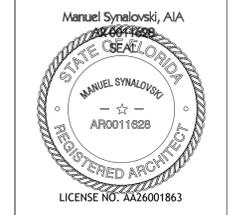
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SHEET TITLE:  
**MAXWEL PARK TENNIS BUILDING WINDOW AND DOOR RETROFIT**

SHEET NUMBER:  
**A-101**



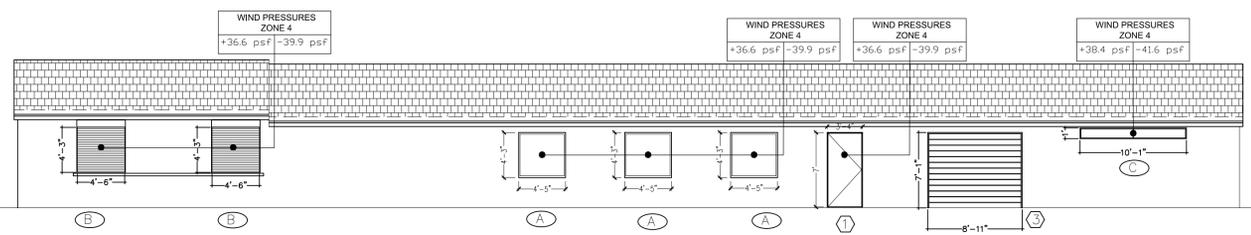
**SYNALOVSKI ROMANIK SAYE**  
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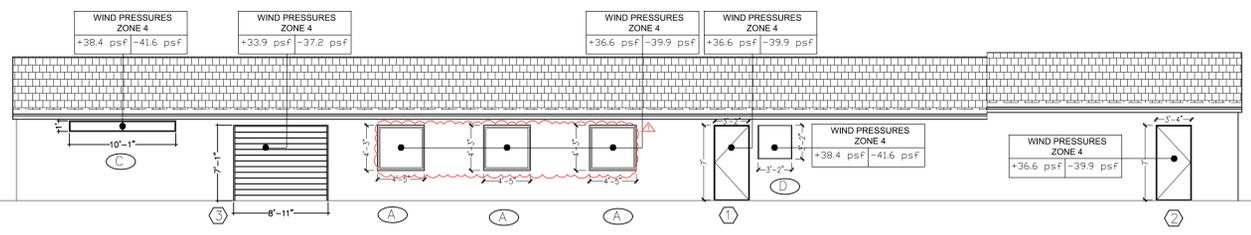


FLOOR PLAN SCALE: 1/8" = 1'-0"

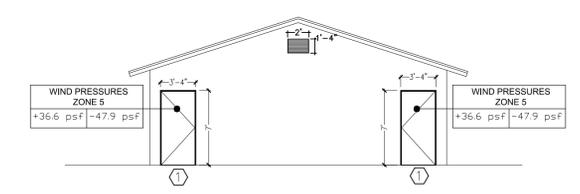
**4 PLANS**  
SCALE: 1/8" = 1'-0"



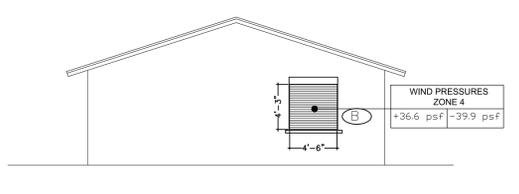
EAST ELEVATION SCALE: 1/8" = 1'-0"



WEST ELEVATION SCALE: 1/8" = 1'-0"



SOUTH ELEVATION SCALE: 1/8" = 1'-0"



NORTH ELEVATION SCALE: 1/8" = 1'-0"

**3 ELEVATIONS**  
SCALE: 1/8" = 1'-0"

MARK	DIMENSIONS		FRAME		TYPE	HARDWARE	DESIGN PRESSURES P(ASD)			PROD. APPROV	ENERGY		NOTES
	DOOR	FRAME	MATERIAL	COLOR			POSITIVE	NEGATIVE	CORNER		U VALUE	SGHC	
1	3'-4" X 6'-10"	40" X 84"	ALUM/ GLASS	TBD	SINGLE	TYPE #1	36.6	39.9	47.9	FL # 20701.5	1.0	0.50	FROSTED INTERLAYER
2	3'-4" X 7'-0"	40" X 86"	METAL	TBD	SINGLE	TYPE #1	36.6	39.9	N/A	FL # 20701.5	1.0	0.50	
3	9'-0" X 7'-2"	N/A	METAL	TBD	ROLL UP	SLIDE LATCH	33.9	37.2	N/A	FL # 14444.2	N/A	N/A	

HARDWARE TYPE #1:  
3-POINT HOOKBOLT MORTISE LOCK,  
PUSH/PULL BAR (SFD 5010718 BY  
DELTA SYSTEMS), THRESHOLD CLEAR  
ANODIZED ALUMINUM - ADA  
COMPLIANT - WATER INFILTRATION  
RESISTANT.

**2 DOOR SCHEDULE**

WIND LOADS	
ASCE 7 - 16	
V (ULTIMATE) = 170 MPH	
V (ASD) = 132.6 MPH	
EXPOSURE = C	
a = 3FT (CORNER)	
ALL PRESSURES BASED ON V (ASD)	

MARK	DIMENSIONS		FRAME		GLASS		TYPE	DESIGN PRESSURES P(ASD)			PROD. APPROV	ENERGY		NOTES
	W	H	MATERIAL	COLOR	IMPACT	TINT		POSITIVE	NEGATIVE	CORNER		U VALUE	SGHC	
A	54"	51"	ALUMINUM	TBD	YES	TBD	FIXED	36.6	39.9		FL # 40528	1.0	0.50	
B	58"	52"	ALUMINUM	TBD	N/A	N/A	ROLL UP	36.6	39.9		FL # 22558.1	N/A	N/A	
C	12"	120"	ALUMINUM	TBD	YES	TBD	FIXED	38.4	41.6		FL # 40528	1.0	0.50	
D	38"	51"	ALUMINUM	TBD	YES	TBD	FIXED	38.4	41.6		FL # 40528	1.0	0.50	

**1 WINDOW SCHEDULE**

**PEMBROKE PINES WINDOWS AND DOORS REPLACEMENT**  
 1900 NW 122ND TERR  
 PEMBROKE PINES, FL  
 CLIENT: CITY OF PEMBROKE PINES

REV	DATE	DESCRIPTION
1	03/28/2025	WINDOW TYPE COORDINATION

DESIGN  
DELIVERABLE: PERMIT SET  
ISSUE DATE: 12/01/2023

PROJECT NUMBER: 1500-230227  
DRAWN BY: ML  
CHECKED BY: MS

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SHEET TITLE:  
**FLAMINGO PARK MAINTENANCE BUILDING WINDOW AND DOOR RETROFIT**

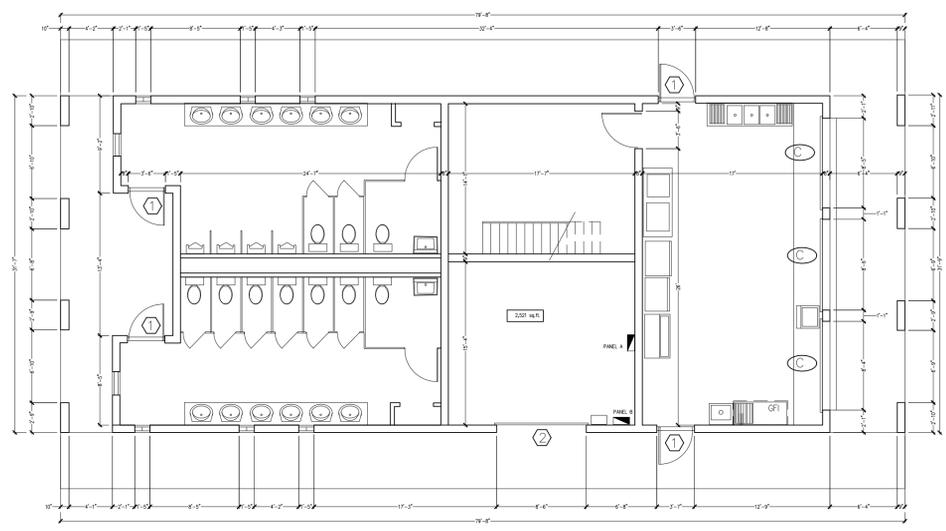
SHEET NUMBER:  
**A-101**



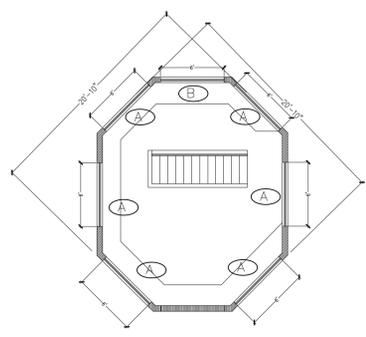
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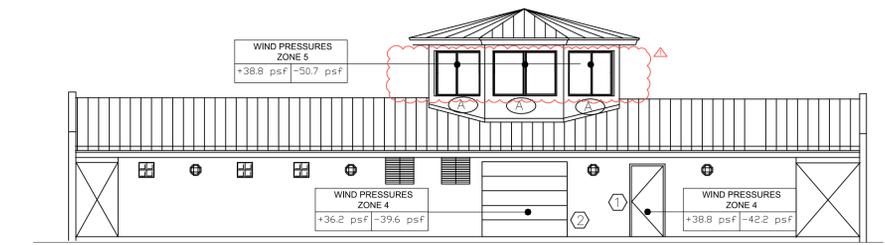


1ST FLOOR PLAN SCALE: 1/8"=1'-0"

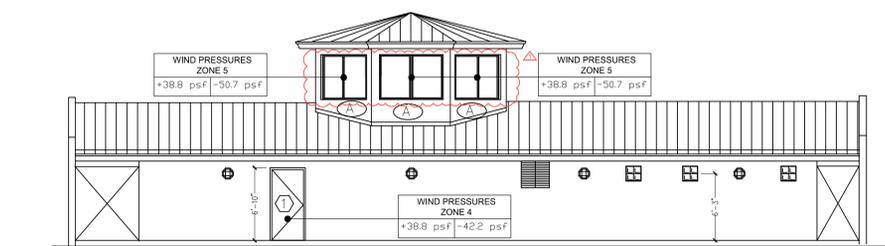


2ND FLOOR PLAN SCALE: 1/8"=1'-0"

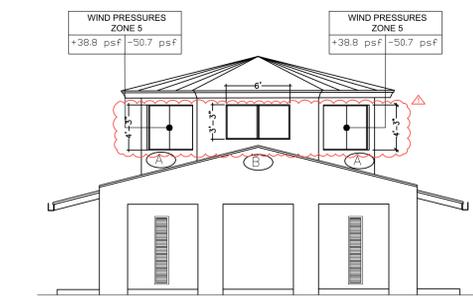
**4 PLANS**  
SCALE: 1/8" = 1' - 0"



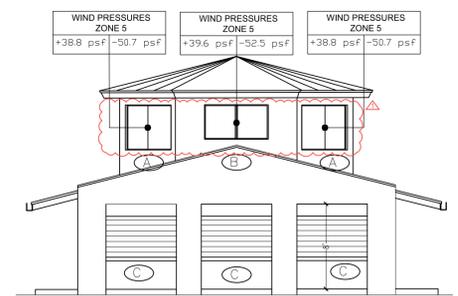
WEST ELEVATION SCALE: 1/8"=1'-0"



EAST ELEVATION SCALE: 1/8"=1'-0"



SOUTH ELEVATION SCALE: 1/8"=1'-0"



NORTH ELEVATION SCALE: 1/8"=1'-0"

**3 ELEVATIONS**  
SCALE: 1/8" = 1' - 0"

MARK	DIMENSIONS		FRAME		TYPE	HARDWARE	DESIGN PRESSURES P(ASD)			PROD. APPROV	ENERGY		NOTES
	DOOR	FRAME	MATERIAL	COLOR			POSITIVE	NEGATIVE	CORNER		U VALUE	SGHC	
1	3'-0" X 6'-8"	40" X 82"	ALUM/GLASS	TBD	SINGLE SWING	TYPE #1	38.8	42.2	51.4	FL # 20701.5	1.0	0.50	FROSTED INTERLAYER
2	8'-0" X 7'-0"	N/A	STEEL	TBD	ROLL-UP	SLIDE LATCH	36.2	39.6	N/A	FL # 14444.2	N/A	N/A	

HARDWARE TYPE #1:  
3-POINT HOOKBOLT MORTISE LOCK,  
PUSH/PULL BAR (SFD 50107B BY  
DELTA SYSTEMS), THRESHOLD CLEAR  
ANODIZED ALUMINUM - ADA  
COMPLIANT - WATER INFILTRATION  
RESISTANT.

**2 DOOR SCHEDULE**

<b>WIND LOADS</b>
ASCE 7 - 16
V (ULTIMATE) = 170 MPH
V (ASD) = 132.6 MPH
EXPOSURE = C
a = 3FT (CORNER)
ALL PRESSURES BASED ON V (ASD)

MARK	DIMENSIONS		FRAME		GLASS		TYPE	DESIGN PRESSURES P(ASD)			PROD. APPROV	ENERGY		NOTES
	W	H	MATERIAL	COLOR	IMPACT	TINT		POSITIVE	NEGATIVE	CORNER		U VALUE	SGHC	
A	72"	42"	ALUMINUM	TBD	YES	TBD	FIXED	38.8	N/A	50.7	FL # 40528	1.0	0.50	MULLION REQ.
B	72"	34"	ALUMINUM	TBD	YES	TBD	FIXED	39.7	N/A	50.7	FL # 40528	1.0	0.50	MULLION REQ.
C	96"	44"	ALUMINUM	TBD	N/A	N/A	ROLL-UP				FL # 22558.1	N/A	N/A	

**1 WINDOW SCHEDULE**

**PEMBROKE PINES**  
**WINDOWS AND DOORS REPLACEMENT**  
 1800 NW 122ND TERR  
 PEMBROKE PINES, FL  
 CLIENT: CITY OF PEMBROKE PINES

REV	DATE	DESCRIPTION
1	03/28/2023	WINDOW TYPE COORDINATION

DESIGN  
DELIVERABLE: PERMIT SET  
ISSUE DATE: 12/01/2023

PROJECT NUMBER: 1500-230227

DRAWN BY: ML  
CHECKED BY: MS

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**FLAMINGO PARK**  
**CONCESSION BUILDING**  
**WINDOW AND DOOR**  
**RETROFIT**

SHEET NUMBER:



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**PEMBROKE PINES WINDOWS AND DOORS REPLACEMENT**  
901 NW 155TH AVE  
PEMBROKE PINES, FL  
CLIENT: CITY OF PEMBROKE PINES

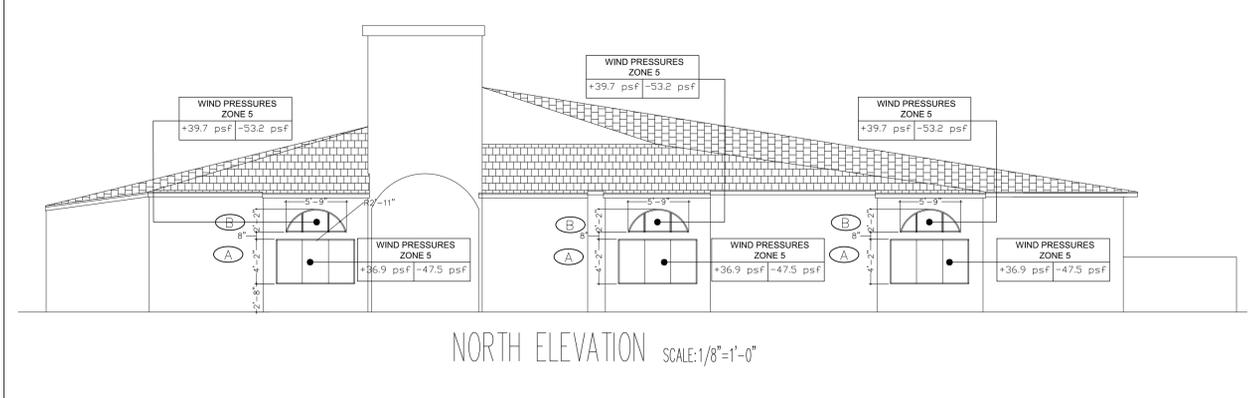
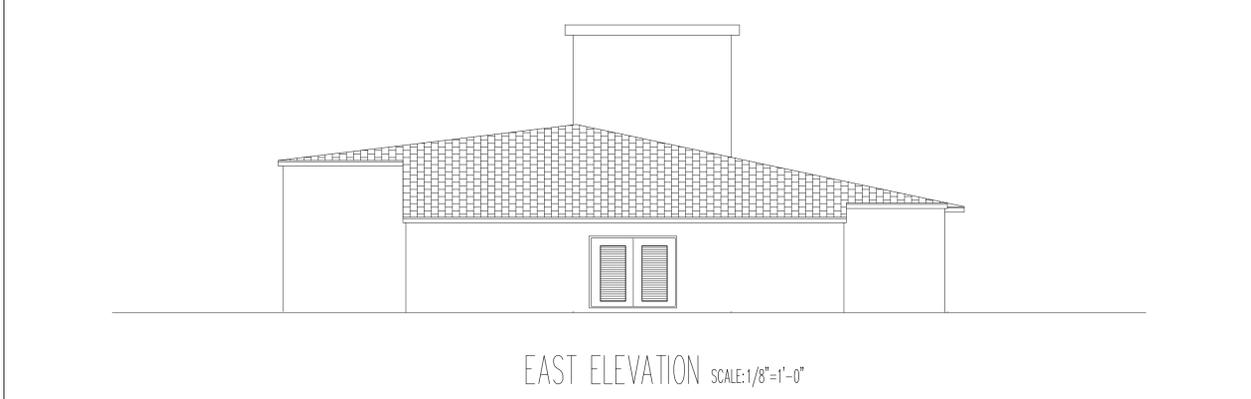
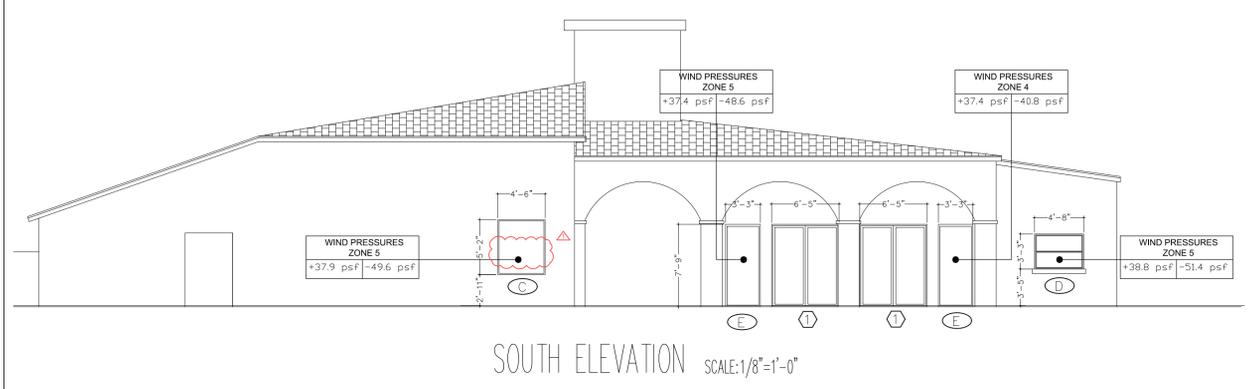
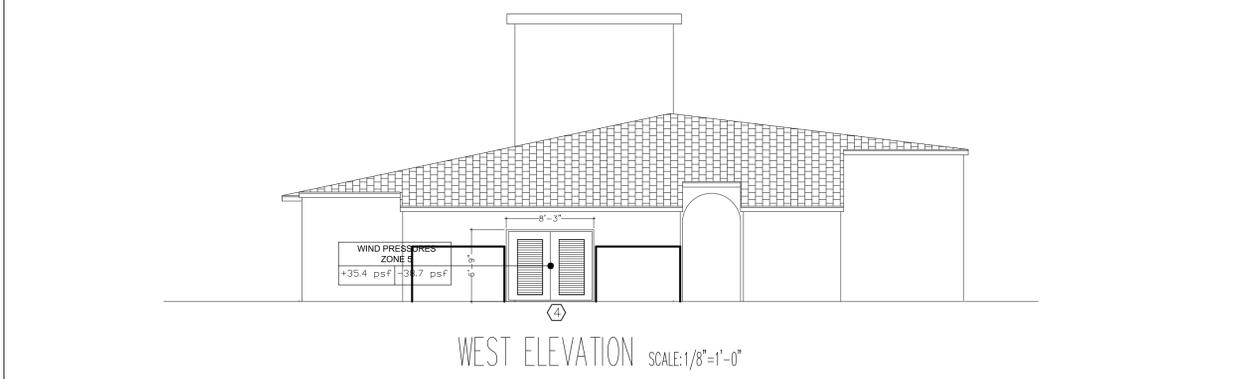
REV	DATE	DESCRIPTION
1	03/29/2023	WINDOW TYPE COORDINATION

DESIGN DELIVERABLE: PERMIT SET  
ISSUE DATE: 12/01/2023

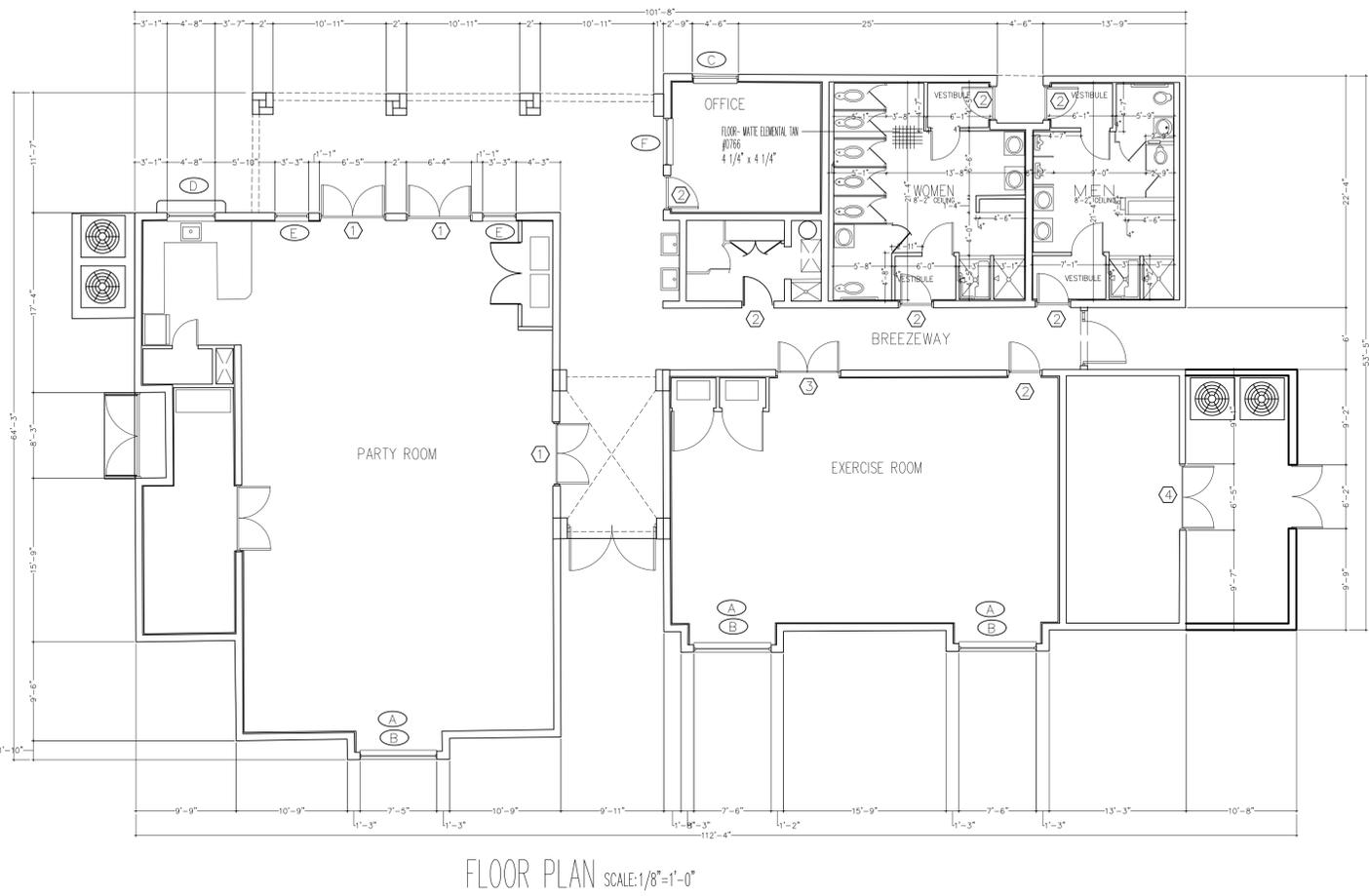
PROJECT NUMBER: 1500-230227  
DRAWN BY: ML  
CHECKED BY: MS

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SHEET TITLE:  
**TOWNGATE CLUB HOUSE WINDOW AND DOOR RETROFIT**

SHEET NUMBER:  
**A-101**



**3 ELEVATIONS** SCALE: 1/8" = 1'-0"



**4 PLANS** SCALE: 1/8" = 1'-0"

MARK	DIMENSIONS		FRAME		TYPE	HARDWARE	DESIGN PRESSURES P(ASD)			PROD. APPROV	ENERGY		NOTES
	DOOR	FRAME	MATERIAL	COLOR			POSITIVE	NEGATIVE	CORNER		U VALUE	SGHC	
1	6'-0" X 8'-0"	6'-4" X 8'-0"	ALUM/ GLASS	TBD	DOUBLE SWING	TYPE #1	37.0	N/A	47.1	FL # 20701.5	1.0	0.50	
2	3'-0" X 6'-8"	3'-4" X 6'-10"	ALUM/ GLASS	TBD	SINGLE SWING	TYPE #2	38.8	42.2	51.4	FL # 20701.5	1.0	0.50	FROSTED INTERLAYER
3	6'-0" X 6'-8"	6'-4" X 6'-10"	ALUM/ GLASS	TBD	DOUBLE SWING	TYPE #2	37.0	40.4	N/A	FL # 20701.5	1.0	0.50	
4	6'-0" X 6'-8"	6'-4" X 6'-10"	METAL / LOUVERED	TBD	DOUBLE SWING	TYPE #2	37.0	40.4	N/A	NOA # 23-0913.10	1.0	0.50	

HARDWARE TYPE #1:  
PANIC BAR, THRESHOLD CLEAR ANODIZED ALUMINUM - ADA COMPLIANT - WATER INFILTRATION RESISTANT.

HARDWARE TYPE #2:  
3-POINT HOOKBOLT MORTISE LOCK, PUSH/PULL BAR (SPD 50107/B BY DELTA SYSTEMS), THRESHOLD CLEAR ANODIZED ALUMINUM - ADA COMPLIANT - WATER INFILTRATION RESISTANT.

**2 DOOR SCHEDULE**

<b>WIND LOADS</b>
ASCE 7 - 16
V (ULTIMATE) = 170 MPH
V (ASD) = 132.6 MPH
EXPOSURE = C
a = 5.5FT (CORNER)
ALL PRESSURES BASED ON V (ASD)

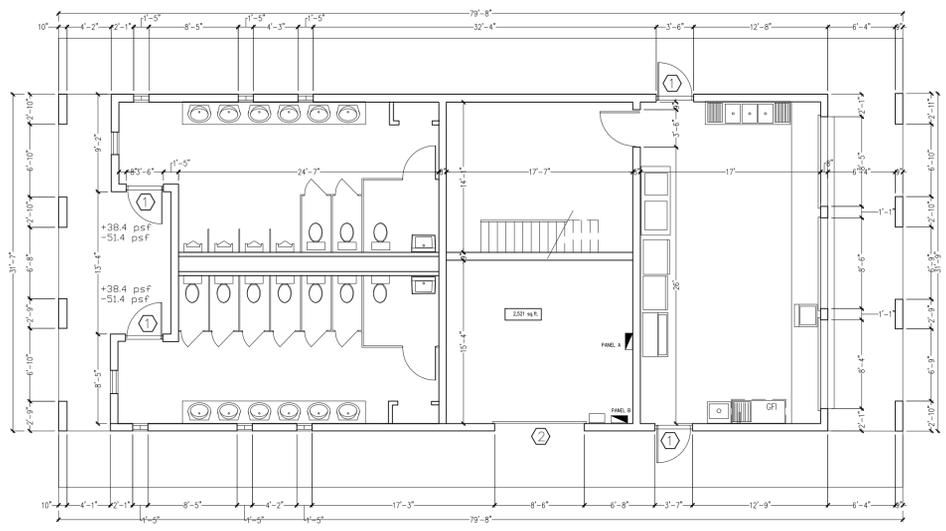
MARK	DIMENSIONS		FRAME		GLASS		TYPE	DESIGN PRESSURES P(ASD)			PROD. APPROV	ENERGY		NOTES
	W	H	MATERIAL	COLOR	IMPACT	TINT		POSITIVE	NEGATIVE	CORNER		U VALUE	SGHC	
A	90'	51'	ALUMINUM	TBD	YES	TBD	FIXED	36.9	N/A	47.5	FL # 40528	1.0	0.50	MULLIONS TO MATCH EXIST.
B	66'	26'	ALUMINUM	TBD	YES	TBD	ARCH FIXED	39.7	N/A	53.2	FL # 40528	1.0	0.50	MULLIONS TO MATCH EXIST.
C	53'	63'	ALUMINUM	TBD	YES	TBD	FIXED	37.9	N/A	49.6	FL # 40528	1.0	0.50	
D	53'	38'	ALUMINUM	TBD	YES	TBD	SINGLE HUNG	38.8	N/A	51.4	FL # 40528	1.0	0.50	
E	37'	96'	ALUMINUM	TBD	YES	TBD	STOREFRONT	37.4	40.8	48.6	FL # 19002.1	1.0	0.50	
F	51'	64'	ALUMINUM	TBD	YES	TBD	FIXED	37.9	N/A	49.6	FL # 40528	1.0	0.50	

**1 WINDOW SCHEDULE**

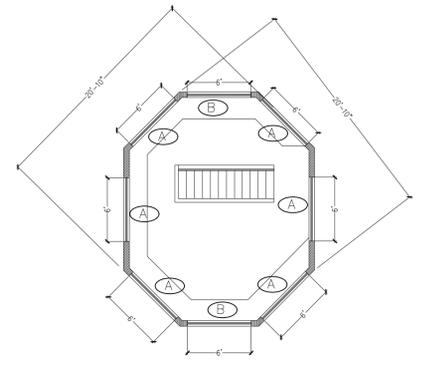


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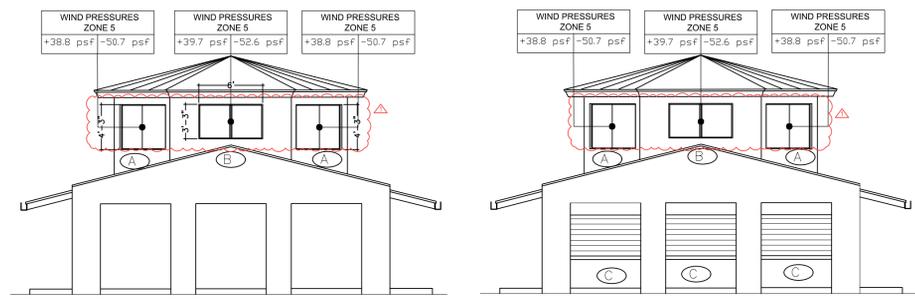


1ST FLOOR PLAN SCALE: 1/8" = 1'-0"



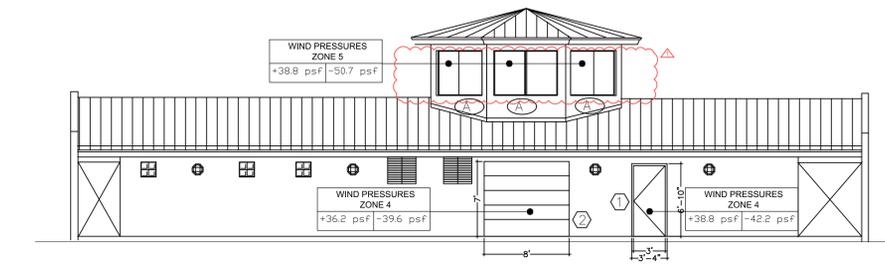
2ND FLOOR PLAN SCALE: 1/8" = 1'-0"

**4 PLANS**  
SCALE: 1/8" = 1'-0"

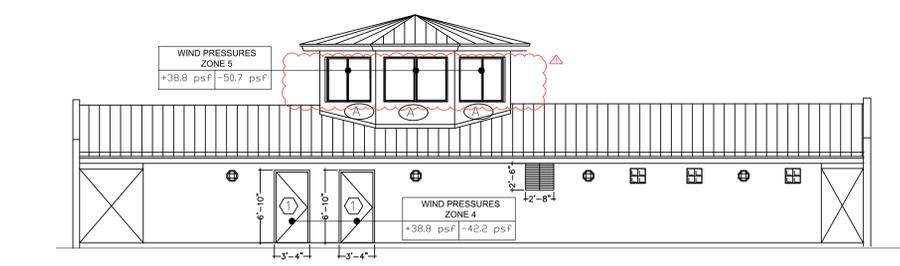


EAST ELEVATION SCALE: 1/8" = 1'-0"

SOUTH ELEVATION SCALE: 1/8" = 1'-0"



NORTH ELEVATION SCALE: 1/8" = 1'-0"



SOUTH ELEVATION SCALE: 1/8" = 1'-0"

**3 ELEVATIONS**  
SCALE: 1/8" = 1'-0"

MARK	DIMENSIONS		FRAME		TYPE	HARDWARE	DESIGN PRESSURES P(ASD)			PROD. APPROV	ENERGY		NOTES
	DOOR	FRAME	MATERIAL	COLOR			POSITIVE	NEGATIVE	CORNER		U VALUE	SGHC	
1	3'-0" X 6'-6"	40" X 82"	ALUM/GLASS	TBD	SINGLE SWING	TYPE #1	38.8	42.2	51.4	FL # 20701.5	1.0	0.50	FROSTED INTERLAYER
2	8'-0" X 7'-0"	N/A	STEEL	TBD	ROLL-UP	SLIDE LATCH	36.2	39.6	N/A	FL # 14444.2	N/A	N/A	

HARDWARE TYPE #1:  
3-POINT HOOKBOLT MORTISE LOCK,  
PUSH/PULL BAR (SFD 5010718 BY  
DELTA SYSTEMS), THRESHOLD CLEAR  
ANODIZED ALUMINUM - ADA  
COMPLIANT - WATER INFILTRATION  
RESISTANT.

**2 DOOR SCHEDULE**

WIND LOADS	
ASCE 7 - 16	
V (ULTIMATE) = 170 MPH	
V (ASD) = 132.6 MPH	
EXPOSURE = C	
a = 3.5FT (CORNER)	
ALL PRESSURES BASED ON V (ASD)	

MARK	DIMENSIONS		FRAME		GLASS		TYPE	DESIGN PRESSURES P(ASD)			PROD. APPROV	ENERGY		NOTES
	W	H	MATERIAL	COLOR	IMPACT	TINT		POSITIVE	NEGATIVE	CORNER		U VALUE	SGHC	
A	72"	42"	ALUMINUM	TBD	YES	TBD	FIXED	38.8	N/A	50.7	FL # 40528	1.0	0.50	MULLION REQ.
B	72"	34"	ALUMINUM	TBD	YES	TBD	FIXED	39.7	N/A	50.7	FL # 40528	1.0	0.50	MULLION REQ.
C	96"	44"	ALUMINUM	TBD	N/A	N/A	ROLL-UP				FL # 22558.1	N/A	N/A	

**1 WINDOW SCHEDULE**

**PEMBROKE PINES WINDOWS AND DOORS REPLACEMENT**  
 701 SW 172ND AVE  
 PEMBROKE PINES, FL  
 CLIENT: CITY OF PEMBROKE PINES

REV	DATE	DESCRIPTION
1	02/08/2025	WINDOW TYPE COORDINATION

DESIGN  
DELIVERABLE: PERMIT SET  
ISSUE DATE: 12/01/2023

PROJECT NUMBER: 1500-230227  
DRAWN BY: ML  
CHECKED BY: MS

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SHEET TITLE:  
**PEMBROKE SHORES SOUTH CONSESSION BUILDING WINDOW AND DOOR RETROFIT**

SHEET NUMBER:  
**A-101**





















