TUBELITE, INC.

SERIES E34000/T34000 STOREFRONT (HVHZ)(IMPACT)

GENERAL NOTES:

- 1. THE PRODUCT SHOWN HEREIN IS DESIGNED AND MANUFACTURED TO COMPLY WITH THE CURRENT FLORIDA BUILDING CODE (FBC), **INCLUDING** HVHZ AND HAS BEEN EVALUATED ACCORDING TO THE FOLLOWING:
 - TAS 201-94
 - TAS 202-94
 - TAS 203-94
 - ASTM E1996-17
 - ASTM E1886-19
 - ASTM E283-04(12) ASTM E331-00(09)
 - ASTM E330-14
 - AAMA 501-15
- 2. ADEQUACY OF THE EXISTING STRUCTURAL CONCRETE/MASONRY, 2X FRAMING AND METAL STUD FRAMING AS A MAIN WIND FORCE RESISTING SYSTEM CAPABLE OF WITHSTANDING AND TRANSFERRING APPLIED PRODUCT LOADS TO THE FOUNDATION IS THE RESPONSIBILITY OF THE ENGINEER OR ARCHITECT OF RECORD FOR THE PROJECT OF INSTALLATION.
- 3. 1X AND 2X BUCKS (WHEN USED) SHALL BE DESIGNED AND ANCHORED TO PROPERLY TRANSFER ALL LOADS TO THE STRUCTURE. BUCK DESIGN AND INSTALLATION IS THE RESPONSIBILITY OF THE ENGINEER OR ARCHITECT OF RECORD FOR THE PROJECT OF INSTALLATION.
- 4. 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.
- 5. APPROVED IMPACT PROTECTIVE SYSTEM IS NOT REQUIRED ON THIS PRODUCT IN AREAS REQUIRING IMPACT RESISTANCE.
- 6. FRAME MATERIAL: ALUMINUM 6063-T5 & ALUMINUM 6063-T6
- 7. ALL STRUCTURAL MATERIALS & DISSIMILAR METALS SHALL BE PROTECTED, TREATED, PAINTED, COATED, AND/OR ISOLATED AS REQUIRED IN THE APPLICABLE SECTIONS OF THE CURRENT FLORIDA BUILDING CODE AND REFERENCED DESIGN SPECIFICATIONS.
- 8. GLASS MEETS THE REQUIREMENTS OF ASTM E 1300 GLASS CHARTS. SEE SHEET 3 FOR GLAZING DETAILS.
- 9. GLASS SHALL BE SET WITH THE USE OF SETTING BLOCKS IN ACCORDANCE WITH CHAPTER 24 OF THE CURRENT FLORIDA BUILDING
- 10. GLAZING GASKETS MEETS THE MINIMUM PERFORMANCE REQUIREMENTS AS APPLICABLE IN CHAPTER 24 OF THE FLORIDA BUILDING CODE.

TABLE OF CONTENTS							
SHEET	SHEET DESCRIPTION						
1	GENERAL NOTES & TABLE OF CONTENTS						
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3	GLAZING DETAILS AND DESIGN PRESSURE TABLE						
4	E34000 VERTICAL SECTIONS						
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7	MULLION CAPACITY CHART						
8	ANCHOR SCHEDULE AND INSTALLATION NOTES						
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MISSILE IMPACT RATING	DESIGN PRESSURE
LARGE MISSILE IMPACT RATED	SEE SHEETS 3, 7, AND 9 FOR DESIGN PRESSURE LIMITATIONS. THE LOWEST APPLICABLE VALUE SHALL BE APPLIED TO THE ENTIRE SYSTEM.

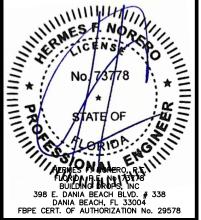


3056 WALKER RIDGE DRIVE N.W. WALKER, MICHIGAN 49544 PH: 800 866 2227 FX: 616 301 0008

REMARKS

BY DATE **FBC 2023 REVISION** FB 08/25/23

UILDING 1 398 E. DANIA BEA DANIA BEA



FL17192

DATE: 02/24/2021

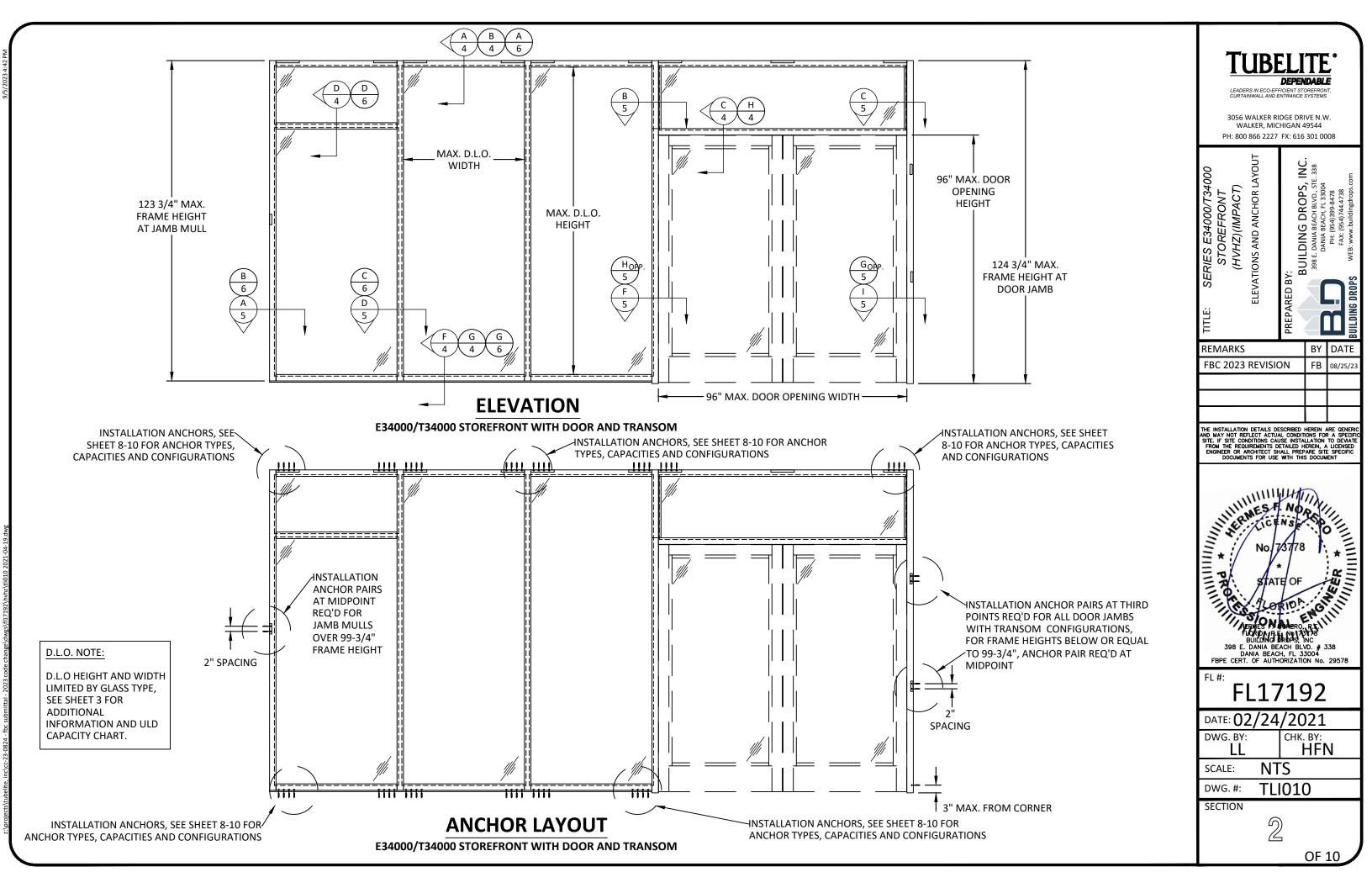
DWG. BY:

CHK. BY: NTS

SCALE: DWG. #:

TLI010 SECTION

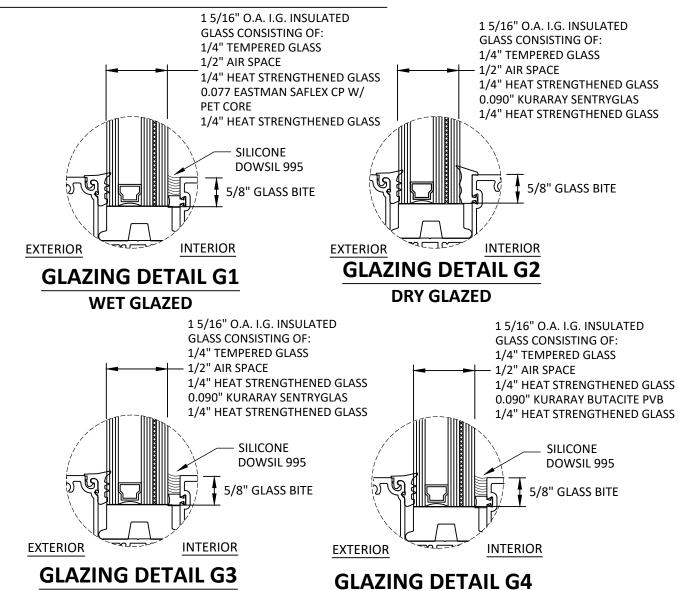




GLAZING DETAILS AND DESIGN PRESSURE TABLE

	GLASS LOAD CAPACITY (PSF)								
NOMINA	NOMINAL DIMS.								
DLO WIDTH	DLO HEIGHT	G1 & G3	G2						
(in.)	(in.)	EXT. (+) INT. (-)	EXT. (+)	INT. (-)					
	58	70.0	70.0	61.0					
	70	70.0	70.0	61.0					
47	82	70.0	70.0	61.0					
47	94	70.0	70.0	61.0					
	106	70.0	70.0	61.0					
	118.75	70.0	70.0	61.0					
	58	66.8	66.8	58.2					
	70	66.8	66.8	58.2					
49	82	66.8	66.8	58.2					
	94	66.8	66.8	58.2					
	106	66.8	66.8	58.2					
	58	62.9	62.9	54.8					
	70	62.9	62.9	54.8					
52	82	62.9	62.9	54.8					
	94	62.9	62.9	54.8					
	106	62.9	62.9	54.8					
	58	59.5	59.5	51.9					
	70	59.5	59.5	51.9					
55	82	59.5	59.5	51.9					
	94	59.5	59.5	51.9					
	58	56.4	56.4	49.2					
5 0	70	56.4	56.4	49.2					
58	82	56.4	56.4	49.2					
	94	56.4	56.4	49.2					
	58	56.4	56.4	49.2					
61	70	53.6	53.6	46.8					
	82	53.6	53.6	46.8					
	58	56.4	56.4	49.2					
64	70	51.1	51.1	44.6					
	82	51.1	51.1	44.6					

GL	ASS LOAD CA	PACITY (PSF)		
NOMIN	AL DIMS.			
DLO WIDTH	DLO HEIGHT	G4		
(in.)	(in.)	EXT. (+) INT. (-)		
	34	70.0		
	46	70.0		
	58	70.0		
47	70	70.0		
	82	70.0		
	92.50	70.0		
	34	70.0		
	46	70.0		
49	58	66.8		
	70	66.8		
	82	66.8		
	34	70.0		
	46	70.0		
52	58	62.9		
	70	62.9		
	82	62.9		
	34	70.0		
	46	70.0		
55	58	59.5		
	70	59.5		
	34	70.0		
Ε0	46	70.0		
58	58	56.4		
	70	56.4		
	34	70.0		
61	46	70.0		
	58	56.4		
	70	53.6		
64	34	70.0		
64	46	70.0		



WET GLAZED

GLAZING NOTES:

WET GLAZED

- 1. GLASS TYPE COMPLIES WITH ASTM E1300 REQUIREMENTS AS WELL AS APPLICABLE SAFETY GLAZING REQUIREMENTS PER THE FBC. TEMPER AND SAFETY GLAZING REQUIREMENTS SHALL BE REVIEWED ON A SITE SPECIFIC BASIS.
- 2. SETTING BLOCK DUROMETER HARDNESS OF 70-90 (SHORE A) AS REFERENCED IN FBC CHAPTER 24.
- 3. TWO APPROVED SETTING BLOCKS SHALL BE USED FOR GLASS WIDER THAN 36" AS PER FBC CHAPTER 24.
- D.L.O. AND DESIGN PRESSURES MAY NOT EXCEED MAX VALUES IN SIZE CHARTS.



3056 WALKER RIDGE DRIVE N.W. WALKER, MICHIGAN 49544 PH: 800 866 2227 FX: 616 301 0008

(HVHZ)(IMPACT) GLAZING DETAILS AND DESIGN PRESSURE TABLE

SUILDING DROPS, I 398 E. DANIA BEACH BLVD., STE. DANIA BEACH, FL 33004

REMARKS BY DATE **FBC 2023 REVISION** 08/25/23

THE INSTALLATION DETAILS DESCRIBED HEREIN ARE GENERI NAD MAY NOT REFLECT ACTUAL CONDITIONS FOR A SPECIF SITE. IF SITE CONDITIONS CAUSE INSTALLATION TO DEWATH FROM THE REQUIREMENTS DETAILED HEREIN, A LICENSED ENGINEER OF ARCHITECT SHALL PREPARE SITE SPECIFIC DOCUMENTS FOR USE WITH THIS DOCUMENT



FL17192

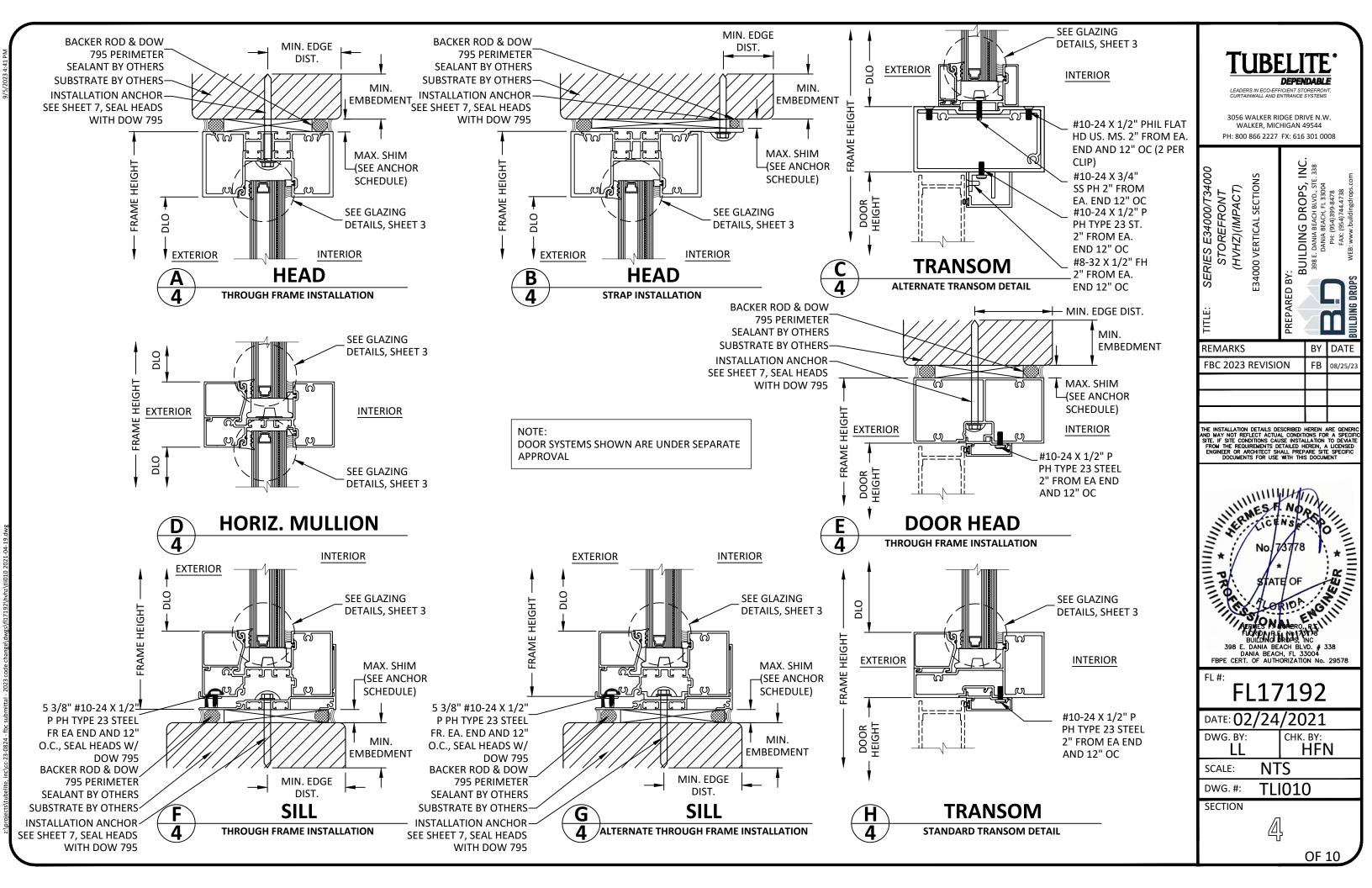
DATE: 02/24/2021 DWG. BY: CHK. BY:

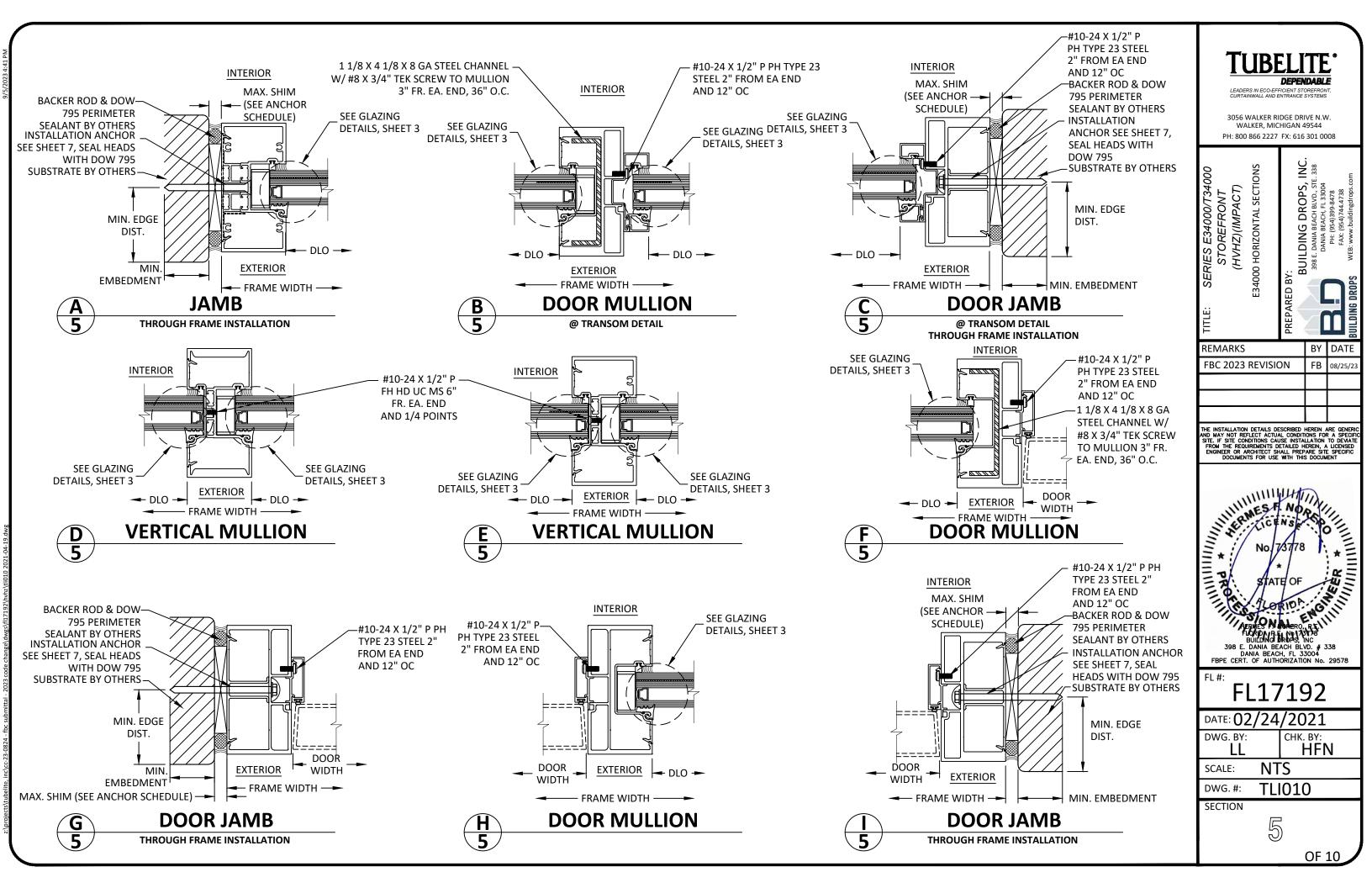
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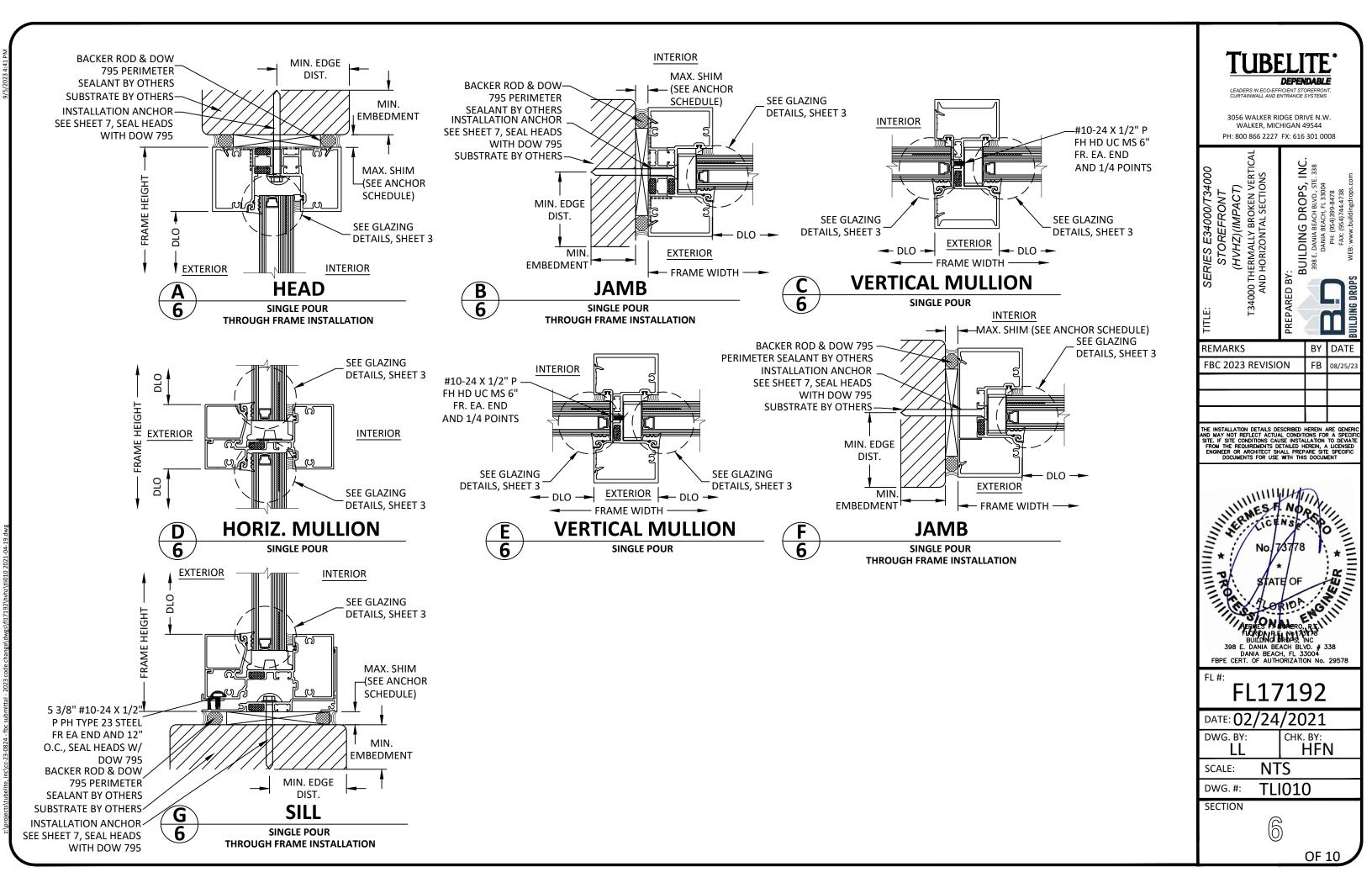
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SECTION

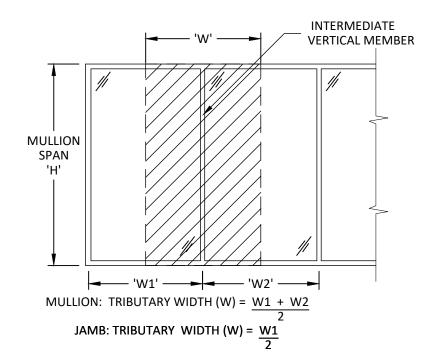


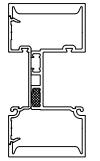




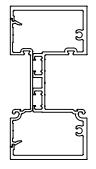
MULLION CAPACITY CHART

DESIGN PRESSURE TABLE: VERTICAL SECTION CAPACITY - SINGLE SPAN											
TRIBUTARY WIDTH 'W' (INCH)	SPAN HEIGHT 'H' (INCH)	MULLION M1 (PSF)	MULLION M3(PSF)	MULLION M5 OR M5 (PSF)	MULLION MR4 OR MR5 (PSF)		TRIBUTARY WIDTH 'W' (INCH)	SPAN HEIGHT 'H' (INCH)	MULLION M2, M6 OR M7 (PSF)		
49		+58/-55	70.0	+70/-61	+70/-68		49		50.0		
54		+58/-55	70.0	+70/-61	+70/-68		54		50.0		
57		+58/-55	70.0	+70/-61	+70/-68		57		50.0		
60	87	+58/-55	70.0	+70/-61	+70/-68	1 [60	63	50.0		
63		+58/-55	70.0	+70/-61	+70/-68		63		50.0		
66		+58/-55	70.0	+70/-61	+70/-68		66		50.0		
69		+58/-55	70.0	+70/-61	+70/-68		69		50.0		
49		+58/-55	70.0	+70/-61	+70/-68		49		50.0		
54	99	00	00	+58/-55	70.0	+70/-61	+70/-68		54		50.0
57		+58/-55	70.0	+70/-61	+70/-68		57	75	50.0		
60		+58/-55	70.0	+70/-61	+70/-68		60		50.0		
42		+58/-55	70.0	+70/-61	+70/-68		63		50.0		
45]	+58/-55	70.0	+70/-61	+70/-68		49	0.7	50.0		
48	87	+58/-55	70.0	+70/-61	+70/-68		54	87	50.0		
49		+58/-55	70.0	+70/-61	+70/-68		49	99.75	50.0		
54		+58/-55	70.0	+70/-61	+70/-68			•			
36		+58/-55	70.0	+70/-61	+70/-68						
39	123.75	+58/-55	70.0	+70/-61	+70/-68						
42		+58/-55	70.0	+70/-61	+70/-68						
45		+58/-55	70.0	+70/-61	+70/-68						
48		+58/-55	70.0	+70/-61	+70/-68						
49	1	+58/-55	70.0	+70/-61	+70/-68						

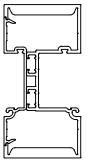




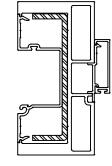
SINGLE POUR **HD MULLION** "M1"



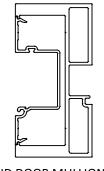
NON-THERMAL STANDARD MULLION "M2"



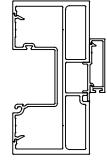
NON-THERMAL HD MULLION "M3"



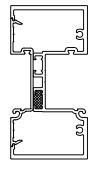
REINFORCED HD DOOR MULLION "MR4" + "MR5"



HD DOOR MULLION "M4" + "M5"



STANDARD DOOR MULLION "M6"



SINGLE POUR STANDARD MULLION "M7"

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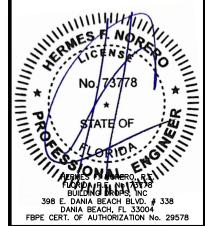
(HVHZ)(IMPACT)

MULLION CAPACITY CHART

BUILDING DROPS, II
398 E. DANIA BEACH BLVD., STE. 3
DANIA BEACH, FL 33004
PH: (954)399-8478

REMARKS BY DATE **FBC 2023 REVISION** 08/25/23

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



FL17192

DATE: 02/24/2021 DWG. BY:

CHK. BY: NTS SCALE:

DWG. #: **TLI010**

SECTION

		ANCHOR SCHEDULE			
TYPE	ANCHOR	SUBSTRATE	MIN. EMBEDMENT	MIN. EDGE DISTANCE	MAX. SHIM SPACE
۸	#14 WOOD SCREW	2X WOOD MIN. S.G.=0.55	1.50"	1.00"	0.25"
Α	3/8" LAG SCREW	2X WOOD MIN. S.G.=0.55	1.50"	1.50"	0.125"
		3050 PSI CONCRETE MIN.		2.50"	0.50"
	1/4"DEWALT/ ELCO ULTRACON (CARBON STEEL)	GROUT FILLED CMU PER ASTM C-90 W/ MIN. F'C=2000 PSI	1.25"	2.50"	0.50"
		3000 PSI CONCRETE MIN.	1.75"	2.50"	0.50"
	1/4" ITW TAPCON (CARBON OR STAINLESS STEEL)	GROUT FILLED CMU PER ASTM C-90 W/ MIN. F'C=2000 PSI	1.00"	2.50"	0.50"
	1/4" HILTI KWIK-CON II+ (CARBON OR STAINLESS STEEL)	2000 PSI CONCRETE MIN.	1.00"	1.50"	0.50"
В	1/4 THEIT KWIN CONTIT (CANDON ON STAINLESS STEEL)	GROUT FILLED CMU PER ASTM C-90 W/ MIN. F'C=2000 PSI	1.00"	1.50"	0.50"
		3000 PSI CONCRETE MIN.	1.25"	2.50"	0.50"
	3/8" DEWALT/POWERS TAPPER (CARBON STEEL)	GROUT FILLED CMU PER ASTM C-90 W/ MIN. F'C=2000 PSI	1.75"	3.00"	0.50"
		3000 PSI CONCRETE MIN.	1.50"	2.50"	0.50"
	3/8" ITW LDT (CARBON STEEL)	GROUT FILLED CMU PER ASTM C-90. MIN. F'C=2000 PSI	1.50"	3.00"	0.50"
	3/8" ITW TRUBOLT WEDGE (CARBON STEEL OR SS)	3000 PSI CONCRETE MIN.	1.50"	2.50"	0.50"
	1/4" CD F CELE TARRING (DRILLING COREW)	MIN. 0.090" 6063-T5 ALUMINUM			
	1/4" GR. 5 SELF-TAPPING/DRILLING SCREW	MIN. 18 GA STEEL STUD (0.0478") 33 KSI	a = = = a#	1.00"	
С	5/16" GR. 5 SELF-TAPPING/DRILLING SCREW	MIN. 0.090" 6063-T5 ALUMINUM	3 THREADS*		0.50"
	5/10 GR. 5 SELI-TAPPING/DRILLING SCREW	MIN. 18 GA STEEL STUD (0.0478") 33 KSI			

ANCHOR SCHEDITIE

INSTALLATION NOTES:

- 1. *FOR STEEL AND ALUMINUM, ANCHOR SHALL BE OF SUFFICIENT LENGTH TO ACHIEVE 3 THREADS OF PENETRATION BEYOND THE WALL OF THE METAL.
- 2. ONE (1) INSTALLATION ANCHOR IS REQUIRED AT EACH ANCHOR LOCATION SHOWN.
- 3. THE NUMBER OF INSTALLATION ANCHORS DEPICTED IS THE MINIMUM NUMBER OF ANCHORS TO BE USED FOR PRODUCT INSTALLATION.
- 4. INSTALL INDIVIDUAL INSTALLATION ANCHORS WITHIN A TOLERANCE OF ±1/2 INCH OF THE DEPICTED LOCATION IN THE ANCHOR LAYOUT DETAIL (I.E., WITHOUT CONSIDERATION OF TOLERANCES). TOLERANCES ARE NOT CUMULATIVE FROM ONE INSTALLATION ANCHOR TO THE NEXT.
- 5. SHIM AS REQUIRED AT EACH INSTALLATION ANCHOR WITH LOAD BEARING SHIM(S). MAXIMUM ALLOWABLE SHIM STACK TO BE 1/2 INCH. SHIM WHERE SPACE OF 1/16 INCH OR GREATER OCCURS. SHIM(S) SHALL BE CONSTRUCTED OF HIGH DENSITY PLASTIC OR BETTER.
- 6. MINIMUM EMBEDMENT AND EDGE DISTANCE EXCLUDE WALL FINISHES, INCLUDING BUT NOT LIMITED TO STUCCO, FOAM, BRICK VENEER, AND SIDING.
- 7. INSTALLATION ANCHORS AND ASSOCIATED HARDWARE MUST BE MADE OF CORROSION RESISTANT MATERIAL OR HAVE A CORROSION RESISTANT COATING.
- 8. INSTALLATION ANCHORS SHALL BE INSTALLED IN ACCORDANCE WITH ANCHOR MANUFACTURER'S INSTALLATION INSTRUCTIONS, AND ANCHORS SHALL NOT BE USED IN SUBSTRATES WITH STRENGTHS LESS THAN THE MINIMUM STRENGTH SPECIFIED BY THE ANCHOR MANUFACTURER.



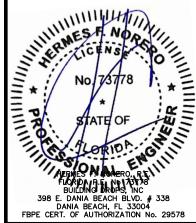
3056 WALKER RIDGE DRIVE N.W. WALKER, MICHIGAN 49544 PH: 800 866 2227 FX: 616 301 0008

SERIES E34000/T34000 STOREFRONT (HVHZ)(IMPACT) ANCHOR SCHEDULE AND INSTALLATION NOTES

398 E. DANIA BEACH BLVD., STE. : 3 DANIA BEACH, FL 33004 PH (954)399-8478 FAX: (954)744.4738 函

REMARKS BY DATE **FBC 2023 REVISION** FB 08/25/23

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FL #: FL17192

DATE: 02/24/2021

DWG. BY: CHK. BY: HFN

SCALE:

TLI010 DWG. #:

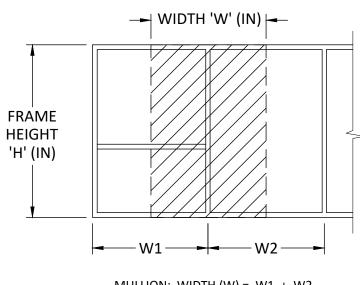
SECTION



NTS

ANCHOR CAPACITY CHART

			PSF -	EXT. (+) 8	(INT. (-)	RED ON EA				
NOMINAL	DIMS. (IN.)	A			В			С		
WIDTH (W)	FRAME HEIGHT (H)	1	2	3	1	2	3	1	2	
36		70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0	
39		69.9	70.0	70.0	70.0	70.0	70.0	70.0	70.0	
42		66.4	70.0	70.0	70.0	70.0	70.0	70.0	70.0	
45		63.4	70.0	70.0	67.5	70.0	70.0	70.0	70.0	
48		60.9	70.0	70.0	64.8	70.0	70.0	70.0	70.0	
49	0.7	59.9	70.0	70.0	63.8	70.0	70.0	70.0	70.0	
54	87	56.8	70.0	70.0	60.4	70.0	70.0	70.0	70.0	
57		55.2	70.0	70.0	58.7	70.0	70.0	70.0	70.0	
60		53.8	70.0	70.0	57.3	70.0	70.0	70.0	70.0	
63		52.6	70.0	70.0	56.0	70.0	70.0	70.0	70.0	
66	1	51.6	70.0	70.0	54.9	70.0	70.0	69.6	70.0	
69		50.8	70.0	70.0	54.1	70.0	70.0	68.5	70.0	
36	99.75	63.1	70.0	70.0	67.2	70.0	70.0	70.0	70.0	
39		59.4	70.0	70.0	63.2	70.0	70.0	70.0	70.0	
42		56.2	70.0	70.0	59.8	70.0	70.0	70.0	70.0	
45		53.5	70.0	70.0	56.9	70.0	70.0	70.0	70.0	
48		51.1	70.0	70.0	54.4	70.0	70.0	68.9	70.0	
49		50.3	70.0	70.0	53.5	70.0	70.0	67.8	70.0	
54		47.3	70.0	70.0	50.4	70.0	70.0	63.8	70.0	
57		45.8	70.0	70.0	48.7	70.0	70.0	61.7	70.0	
60		44.5	70.0	70.0	47.3	70.0	70.0	59.9	70.0	
36		55.0	70.0	70.0	58.5	70.0	70.0	70.0	70.0	
39		51.6	70.0	70.0	54.9	70.0	70.0	69.5	70.0	
42		48.7	70.0	70.0	51.8	70.0	70.0	65.6	70.0	
45	111	46.2	70.0	70.0	49.2	70.0	70.0	62.3	70.0	
48		44.1	70.0	70.0	46.9	70.0	70.0	59.4	70.0	
49		43.3	70.0	70.0	46.1	70.0	70.0	58.4	70.0	
54		40.6	70.0	70.0	43.2	70.0	70.0	54.7	70.0	
36	100 75	48.3	70.0	70.0	51.4	70.0	70.0	65.2	70.0	
39		45.3	70.0	70.0	48.2	70.0	70.0	61.0	70.0	
42		42.6	70.0	70.0	45.4	70.0	70.0	57.5	70.0	
45	123.75	40.4	70.0	70.0	43.0	70.0	70.0	54.4	70.0	
48	-	38.4	70.0	70.0	40.9	70.0	70.0	51.8	70.0	
49	1	37.7	70.0	70.0	40.1	70.0	70.0	50.9	70.0	



MULLION: WIDTH (W) = W1 + W2

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



3056 WALKER RIDGE DRIVE N.W. WALKER, MICHIGAN 49544 PH: 800 866 2227 FX: 616 301 0008

SERIES E34000/T34000 STOREFRONT (HVHZ)(IMPACT)

PREPARED BY:

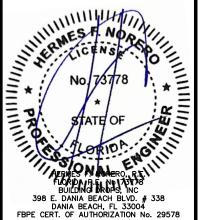
BUILDING DROPS, INC.

398 E. DANIA BEACH BLVD., STE. 338

DANIA BEACH, FL 33004

PH: (954) 339-8478

PH: (954) 339-8478 **REMARKS** BY DATE FBC 2023 REVISION



FL17192

DATE: 02/24/2021 DWG. BY:

SCALE:

CHK. BY: NTS

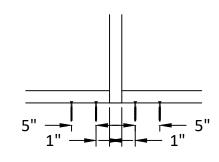
DWG. #:

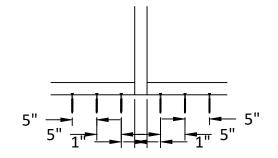
TLI010

SECTION

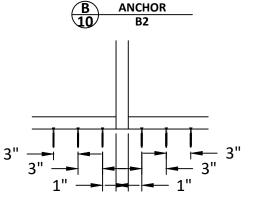


MULLION ANCHOR CONFIGURATIONS





ANCHOR



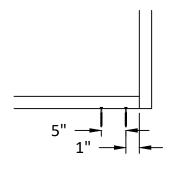
ANCHOR

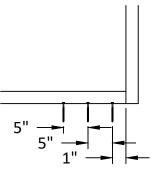
A3, C3

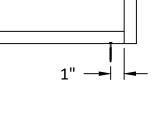
NOTE:

DEPICTED SPACING SHOWS MINIMUM REQUIREMENTS TO ACHIEVE FULL CAPACITY FOR ALL INSTALLATION ANCHORS REFERENCED ON ANCHOR SCHEDULE AND CHARTS.

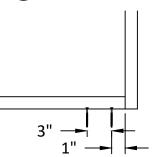
JAMB ANCHOR CONFIGURATIONS



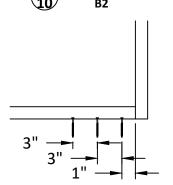




ANCHOR A1, B1, C1

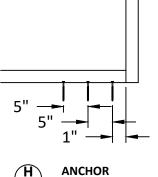


ANCHOR A2, C2



ANCHOR

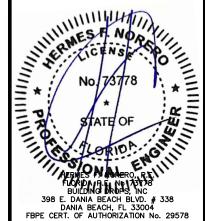
ANCHOR



3056 WALKER RIDGE DRIVE N.W. WALKER, MICHIGAN 49544 PH: 800 866 2227 FX: 616 301 0008

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

REMARKS BY DATE **FBC 2023 REVISION** 08/25/23



FL17192

DATE: 02/24/2021 DWG. BY:

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CHK. BY: NTS

TLI010 DWG. #:

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