

"450TB SERIES" ALUMINUM STOREFRONT SYSTEM

IMPACT • +60 / -67

FL # 48353.1

INSTRUCTIONS:

USE CHARTS AS FOLLOWS.

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

THIS SYSTEM IS RATED FOR LARGE & SMALL MISSILE IMPACT RESISTANT

CODES / STANDARDS USED:

2023 FLORIDA BUILDING CODE (FBC), 8TH EDITION
ASTM E1300-16

ANSI/AWC NDS-2018 FOR WOOD CONSTRUCTION ADM1-2020
ALUMINUM DESIGN MANUAL

AISI S100-16 (2020) SPECIFICATION FOR COLD-FORMED
STEEL STRUCTURAL MEMBERS

TESTS PERFORMED:

TAS 202	AIR INFILTRATION, WATER PENETRATION, STRUCTURAL
ASTM E283	AIR INFILTRATION LEAKAGE
ASTM E331	WATER PENETRATION
ASTM E330	UNIFORM STATIC AIR PRESS. (STRUCTURAL)
(FBC 1626.2, HVHZ) TAS 201 & 203 ASTM E1886/E1996	LARGE MISSILE IMPACT & CYCLIC LEVEL D

NOTE:

2023 FLORIDA BUILDING CODE IS BASED ON THE 2021 IBC WITH FLORIDA AMENDMENTS.

THIS PRODUCT HAS BEEN DESIGNED AND TESTED TO COMPLY WITH THE REQUIREMENTS OF THE FLORIDA BUILDING CODE 8TH EDITION (2023).

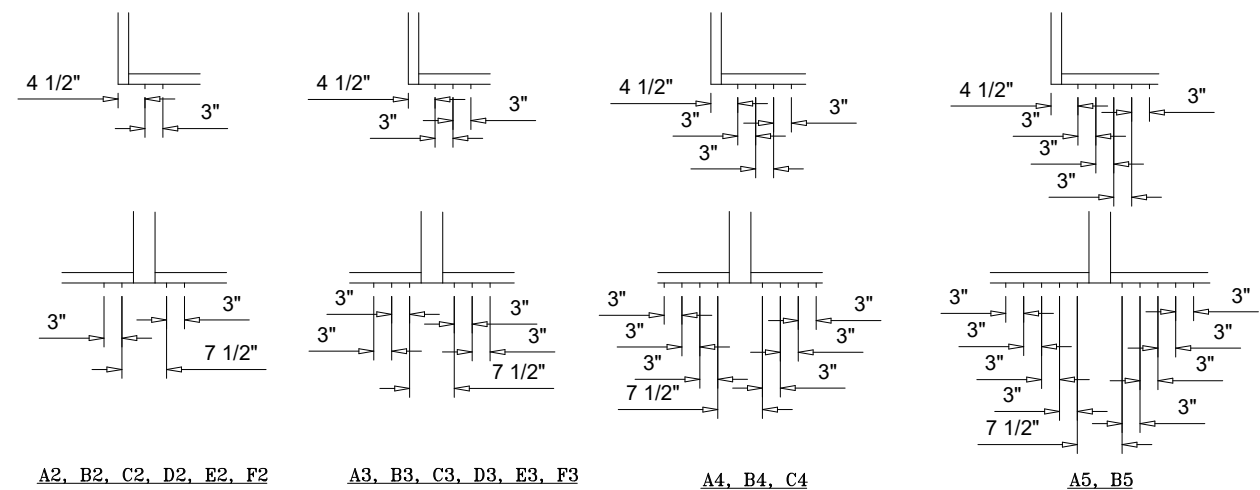
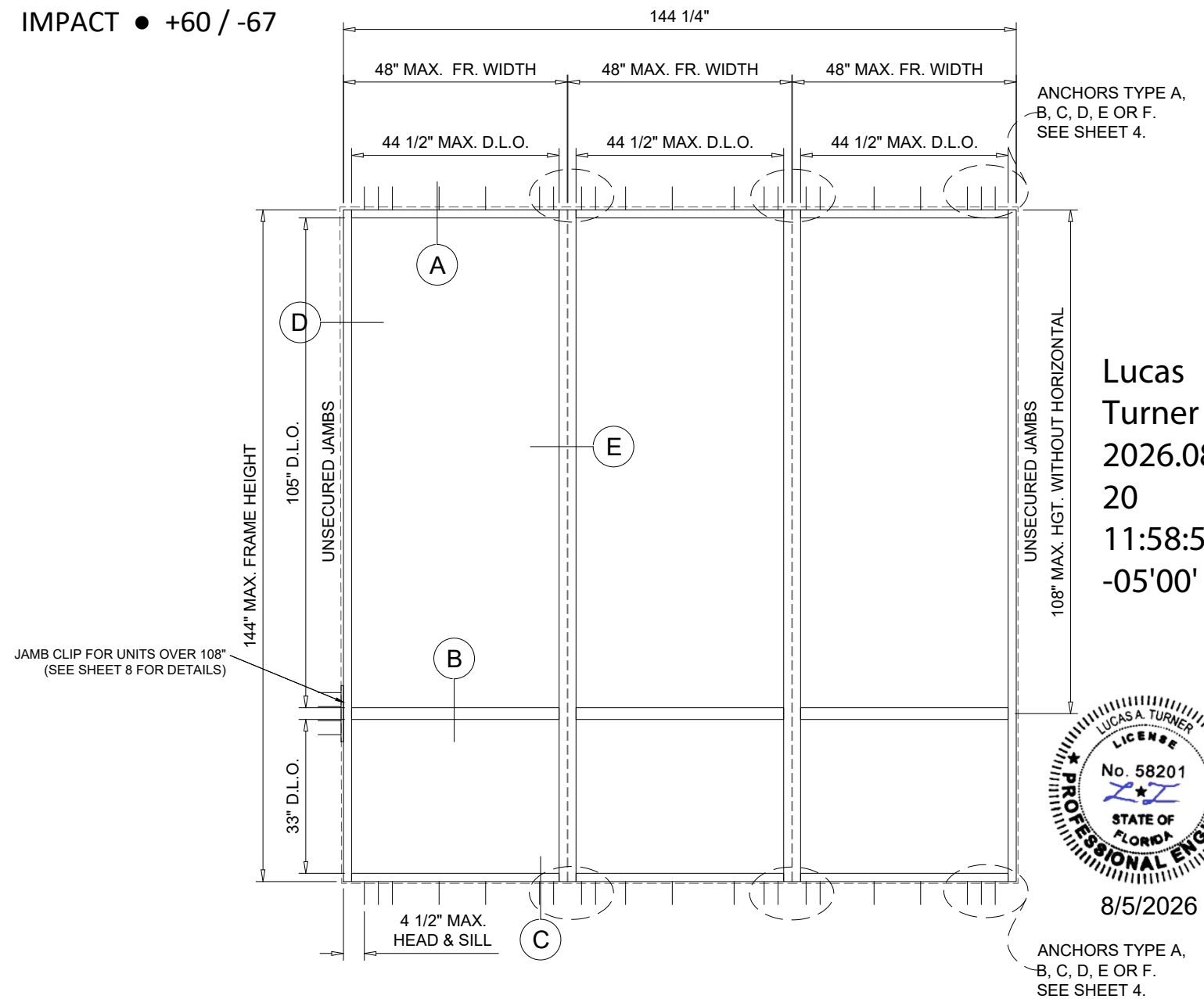
WOOD BUCKS BY OTHERS, MUST BE ANCHORED PROPERLY TO TRANSFER LOADS TO THE STRUCTURE.

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

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

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

MATERIALS INCLUDING BUT NOT LIMITED TO STEEL/METAL SCREWS, THAT COME INTO CONTACT WITH OTHER DISSIMILAR MATERIALS SHALL MEET THE REQUIREMENTS OF 2023 FLORIDA BLDG. CODE.



ENGINEER:
TURNER ENGINEERING
& CONSULTING, INC.
2428 Old Natchez Trace Trail, Camden, TN
Ph. 941-380-1574
Lucas A. Turner, P.E. #58201

CHAMPION GLASS INC
4720 NW 15TH AVENUE, UNIT 4A,
FT. LAUDERDALE, FL. 33309
954-564-3435 · CHAMPION-GLASS.NET

PRODUCT:
"450TB SERIES"
ALUM. STOREFRONT SYSTEM
(IMPACT)

PRODUCT APPROVAL #:
FL #48353

SCALE: NOTED
DATE: 12/03/2025
DWG NO. CHGL-450TB SF-25

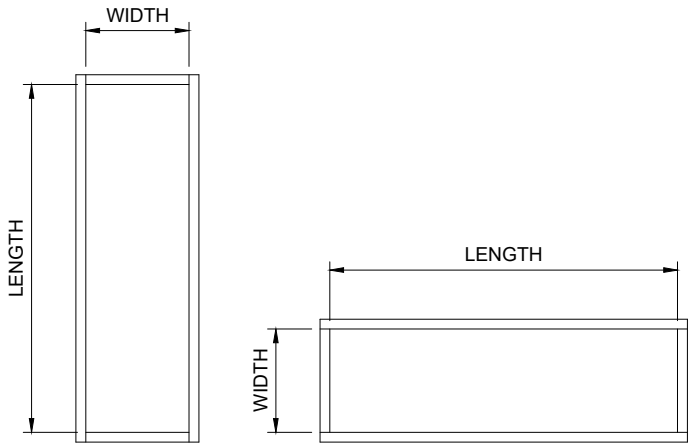
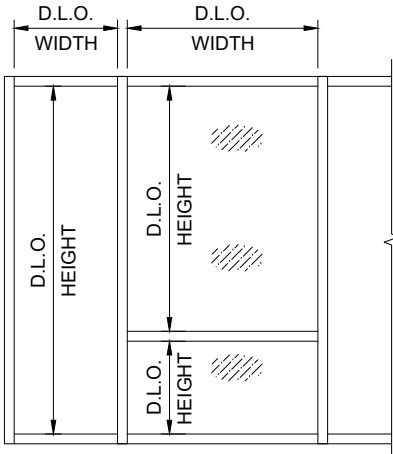
SHEET No:
01 OF 08

GLASS LOAD CAPACITY - PSF			
NOMINAL DIMS.		GLASS TYPE 'A'	
D.L.O. WIDTH	D.L.O. HEIGHT	POS (+)	NEG (-)
24"	42 "	+ 60	- 67
30"		+ 60	- 67
36"		+ 60	- 67
42 "		+ 60	- 67
44 1/2"	48 "	+ 60	- 67
24"		+ 60	- 67
30"		+ 60	- 67
36"		+ 60	- 67
42 "		+ 60	- 67
44 1/2"	54 "	+ 60	- 67
24"		+ 60	- 67
30"		+ 60	- 67
36"		+ 60	- 67
42 "		+ 60	- 67
44 1/2"	60 "	+ 60	- 67
24"		+ 60	- 67
30"		+ 60	- 67
36"		+ 60	- 67
42 "		+ 60	- 67
44 1/2"	66 "	+ 60	- 67
24"		+ 60	- 67
30"		+ 60	- 67
36"		+ 60	- 67
42 "		+ 60	- 67
44 1/2"	72 "	+ 60	- 67
24"		+ 60	- 67
30"		+ 60	- 67
36"		+ 60	- 67
42 "		+ 60	- 67
44 1/2"	78 "	+ 60	- 67
24"		+ 60	- 67
30"		+ 60	- 67
36"		+ 60	- 67
42 "		+ 60	- 67
44 1/2"	84 "	+ 60	- 67
24"		+ 60	- 67
30"		+ 60	- 67
36"		+ 60	- 67
42 "		+ 60	- 67
44 1/2"	90 "	+ 60	- 67
24"		+ 60	- 67
30"		+ 60	- 67
36"		+ 60	- 67
42 "		+ 60	- 67
44 1/2"	96 "	+ 60	- 67
24"		+ 60	- 67
30"		+ 60	- 67
36"		+ 60	- 67
42 "		+ 60	- 67
44 1/2"	102 "	+ 60	- 67
24"		+ 60	- 67
30"		+ 60	- 67
36"		+ 60	- 67
42 "		+ 60	- 67
44 1/2"	105 "	+ 60	- 67
24"		+ 60	- 67
30"		+ 60	- 67
36"		+ 60	- 67
42 "		+ 60	- 67
44 1/2"		+ 60	- 67
24"		+ 60	- 67
30"		+ 60	- 67
36"		+ 60	- 67
42 "		+ 60	- 67
44 1/2"		+ 60	- 67

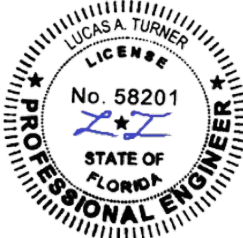
NOTE:
TESTED GLASS SIZE = 45-1/2" X106" = 33.49 SQ. FT.;
ALTERNATE GLASS SIZES ACCEPTABLE SO LONG AS
PROJECT AREA OF GLASS (SQ. FT.) DOES NOT
EXCEED TESTED AREA OF GLASS (SQ. FT.)

NOTE:
GLASS CAPACITIES ON THIS SHEET ARE
BASED ON ASTM E1300-02 (3 SEC. GUSTS).

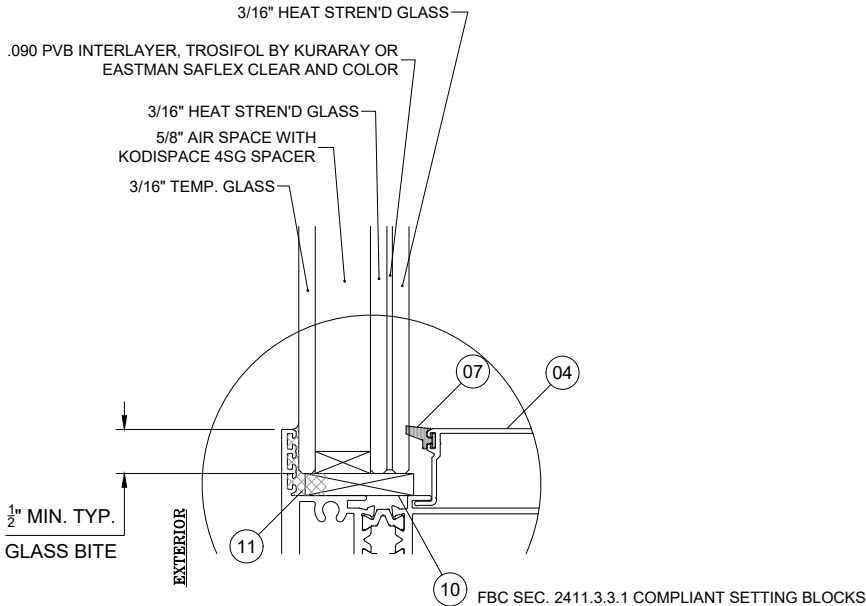
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NOMINAL DIMS.		GLASS TYPE 'A'	
D.L.O. WIDTH	D.L.O. HEIGHT	POS (+)	NEG (-)
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24"		+ 60	- 67
30"		+ 60	- 67
36"		+ 60	- 67
42 "		+ 60	- 67
44 1/2"	90 "	+ 60	- 67
24"		+ 60	- 67
30"		+ 60	- 67
36"		+ 60	- 67
42 "		+ 60	- 67
44 1/2"	96 "	+ 60	- 67
24"		+ 60	- 67
30"		+ 60	- 67
36"		+ 60	- 67
42 "		+ 60	- 67
44 1/2"	102 "	+ 60	- 67
24"		+ 60	- 67
30"		+ 60	- 67
36"		+ 60	- 67
42 "		+ 60	- 67
44 1/2"	105 "	+ 60	- 67
24"		+ 60	- 67
30"		+ 60	- 67
36"		+ 60	- 67
42 "		+ 60	- 67
44 1/2"		+ 60	- 67
24"		+ 60	- 67
30"		+ 60	- 67
36"		+ 60	- 67
42 "		+ 60	- 67
44 1/2"		+ 60	- 67



NOTE:
WIDTH AND LEGTH DIMENSIONS CAN
BE ORIENTED VERTICALLY OR
HORIZONTALLY AS SHOWN ABOVE.



8/5/2026



GLASS TYPE 'A'
IMPACT "LAMINATED INSULATED" GLASS

REVISIONS:		DESCRIPTION:	
NO.	DATE	NO.	DATE
1		1	
2		2	
3		3	
4		4	
5		5	
6		6	
7		7	
8		8	
9		9	
10		10	

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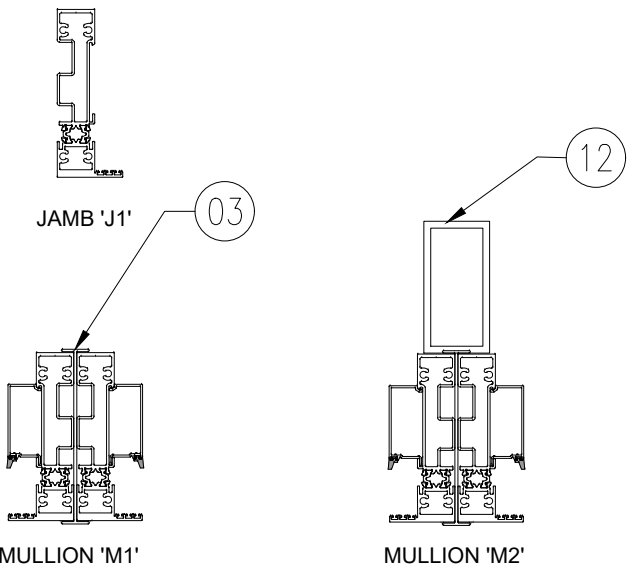
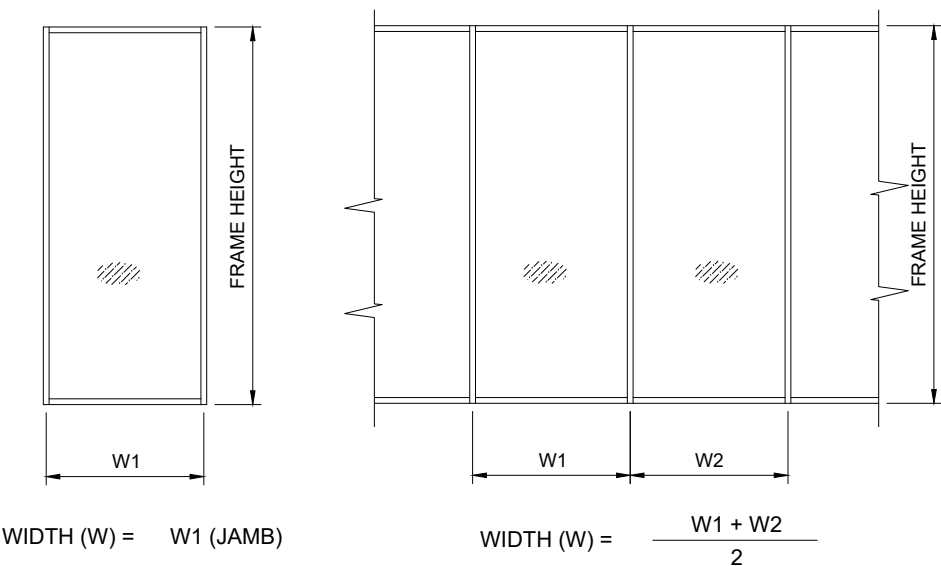
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(IMPACT)

PRODUCT APPROVAL #:
FL #48353

SCALE: NOTED
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DWG NO. CHGL-450TB SF-25

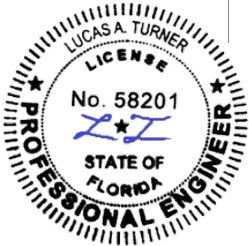
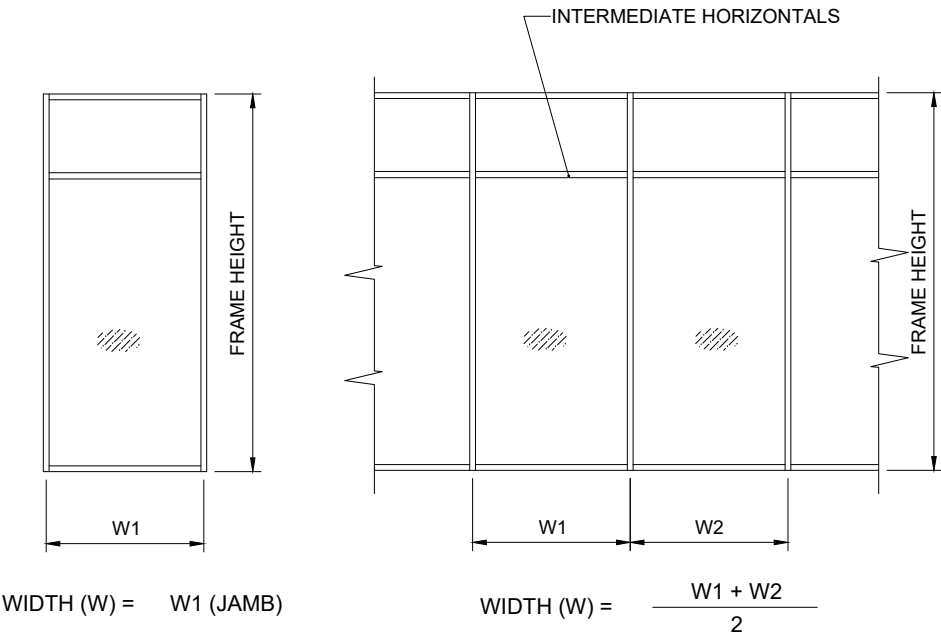
SHEET No:
02 OF 08

JAMB / MULLION LOAD CAPACITIES (PSF)					
FRAME SIZES (IN.)		'J1' JAMB UNSUPPORTE D	'J1' JAMB W/ F-ANCHOR @ HORIZONTAL	'M1' MULL	'M2' MULL
WIDTH (W)	MULL LENGTH				
30	78	+60.0/-67.0	+60.0/-67.0	+60.0/-67.0	+60.0/-67.0
36		+60.0/-67.0	+60.0/-67.0	+60.0/-67.0	+60.0/-67.0
42		+60.0/-67.0	+60.0/-67.0	+60.0/-67.0	+60.0/-67.0
48		+60.0/-67.0	+60.0/-67.0	+60.0/-67.0	+60.0/-67.0
30	84	+60.0/-67.0	+60.0/-67.0	+60.0/-67.0	+60.0/-67.0
36		+60.0/-67.0	+60.0/-67.0	+60.0/-67.0	+60.0/-67.0
42		+60.0/-67.0	+60.0/-67.0	+60.0/-67.0	+60.0/-67.0
48		+60.0/-67.0	+60.0/-67.0	+60.0/-67.0	+60.0/-67.0
30	90	+60.0/-67.0	+60.0/-67.0	+60.0/-67.0	+60.0/-67.0
36		+60.0/-67.0	+60.0/-67.0	+60.0/-67.0	+60.0/-67.0
42		+60.0/-67.0	+60.0/-67.0	+60.0/-67.0	+60.0/-67.0
48		+60.0/-67.0	+60.0/-67.0	+60.0/-67.0	+60.0/-67.0
30	96	+60.0/-67.0	+60.0/-67.0	+60.0/-67.0	+60.0/-67.0
36		+60.0/-67.0	+60.0/-67.0	+60.0/-67.0	+60.0/-67.0
42		+60.0/-67.0	+60.0/-67.0	+60.0/-67.0	+60.0/-67.0
48		+60.0/-67.0	+60.0/-67.0	+60.0/-67.0	+60.0/-67.0
30	102	+60.0/-67.0	+60.0/-67.0	+60.0/-67.0	+60.0/-67.0
36		+60.0/-67.0	+60.0/-67.0	+60.0/-67.0	+60.0/-67.0
42		+60.0/-67.0	+60.0/-67.0	+60.0/-67.0	+60.0/-67.0
48		+60.0/-67.0	+60.0/-67.0	+60.0/-67.0	+60.0/-67.0
30	108	+60.0/-67.0	+60.0/-67.0	+60.0/-67.0	+60.0/-67.0
36		+60.0/-67.0	+60.0/-67.0	+60.0/-67.0	+60.0/-67.0
42		+60.0/-67.0	+60.0/-67.0	+60.0/-67.0	+60.0/-67.0
48		+60.0/-67.0	+60.0/-67.0	+60.0/-67.0	+60.0/-67.0



JAMB / MULLION LOAD CAPACITIES (PSF)					
FRAME SIZES (IN.)		'J1' JAMB UNSUPPORTE D	'J1' JAMB W/ F-ANCHOR @ HORIZONTAL	'M1' MULL	'M2' MULL
WIDTH (W)	MULL LENGTH				
30	114 *	+60.0/-67.0	+60.0/-67.0	+60.0/-67.0	+60.0/-67.0
36		+60.0/-67.0	+60.0/-67.0	+60.0/-67.0	+60.0/-67.0
42		+60.0/-65.5	+60.0/-67.0	+60.0/-67.0	+60.0/-67.0
48		+57.5/-57.5	+60.0/-67.0	+60.0/-67.0	+60.0/-67.0
30	120 *	+60.0/-67.0	+60.0/-67.0	+60.0/-67.0	+60.0/-67.0
36		+60.0/-65.2	+60.0/-67.0	+60.0/-67.0	+60.0/-67.0
42		+56.0/-56.0	+60.0/-67.0	+60.0/-67.0	+60.0/-67.0
48		+49.2/-49.2	+60.0/-67.0	+60.0/-60.9	+60.0/-67.0
30	126 *	+60.0/-67.0	+60.0/-67.0	+60.0/-67.0	+60.0/-67.0
36		+56.2/-56.2	+60.0/-67.0	+60.0/-67.0	+60.0/-67.0
42		+48.4/-48.4	+60.0/-67.0	+59.0/-59.0	+60.0/-67.0
48		+42.5/-42.5	+60.0/-67.0	+52.3/-52.3	+60.0/-67.0
30	132 *	+58.5/-58.5	+60.0/-67.0	+60.0/-67.0	+60.0/-67.0
36		+48.9/-48.9	+60.0/-67.0	+58.9/-58.9	+60.0/-67.0
42		+42.0/-42.0	+60.0/-67.0	+51.1/-51.1	+60.0/-67.0
48		+36.9/-36.9	+60.0/-67.0	+45.3/-45.3	+60.0/-67.0
30	138 *	+51.2/-51.2	+60.0/-67.0	+60.0/-61.2	+60.0/-67.0
36		+42.7/-42.7	+60.0/-67.0	+51.4/-51.4	+60.0/-67.0
42		+36.7/-36.7	+60.0/-67.0	+44.5/-44.5	+60.0/-67.0
48		+32.2/-32.2	+60.0/-67.0	+39.4/-39.4	+60.0/-67.0
30	144 *	+45.0/-45.0	+60.0/-67.0	+53.8/-53.8	+60.0/-67.0
36		+37.6/-37.6	+60.0/-67.0	+45.2/-45.2	+60.0/-67.0
42		+32.3/-32.3	+60.0/-67.0	+39.1/-39.1	+60.0/-67.0
48		+28.3/-28.3	+60.0/-67.0	+34.6/-34.6	+60.0/-67.0

* HORIZONTALS REQUIRED



8/5/2026

REVISIONS:		DESCRIPTION:	
NO.	DATE	NO.	DATE

ENGINEER:
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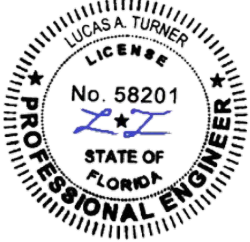
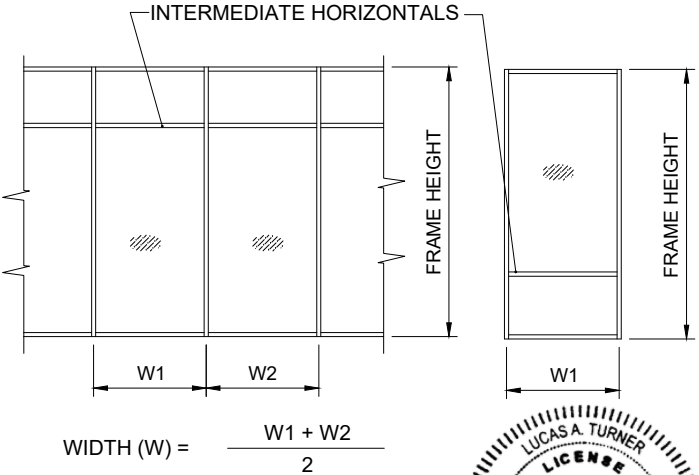
SHEET No:
03 OF 08

ANCHOR LOAD CAPACITIES (PSF) - EXT. (+) AND INT. (-) CLUSTERS AT HEAD/SILL																		
FRAME SIZES (IN.)		ANCHOR TYPES / QUANTITIES																
WIDTH (W)	MULL LENGTH	A2	B2	C2	D2	E2	F2	A3	B3	C3	D3	E3	F3	A4	B4	C4	A5	B5
30	78	67.0	67.0	67.0	67.0	67.0	67.0	67.0	67.0	67.0	67.0	67.0	67.0	67.0	67.0	67.0	67.0	67.0
36		67.0	66.1	67.0	67.0	67.0	67.0	67.0	67.0	67.0	67.0	67.0	67.0	67.0	67.0	67.0	67.0	67.0
42		62.2	56.6	67.0	67.0	67.0	67.0	67.0	67.0	67.0	67.0	67.0	67.0	67.0	67.0	67.0	67.0	67.0
48		54.5	49.5	67.0	67.0	67.0	67.0	67.0	67.0	67.0	67.0	67.0	67.0	67.0	67.0	67.0	67.0	67.0
30	84	67.0	67.0	67.0	67.0	67.0	67.0	67.0	67.0	67.0	67.0	67.0	67.0	67.0	67.0	67.0	67.0	67.0
36		67.0	61.3	67.0	67.0	67.0	67.0	67.0	67.0	67.0	67.0	67.0	67.0	67.0	67.0	67.0	67.0	67.0
42		57.8	52.6	67.0	67.0	67.0	67.0	67.0	67.0	67.0	67.0	67.0	67.0	67.0	67.0	67.0	67.0	67.0
48		50.6	46.0	66.3	67.0	67.0	67.0	67.0	67.0	67.0	67.0	67.0	67.0	67.0	67.0	67.0	67.0	67.0
30	90	67.0	67.0	67.0	67.0	67.0	67.0	67.0	67.0	67.0	67.0	67.0	67.0	67.0	67.0	67.0	67.0	67.0
36		62.9	57.2	67.0	67.0	67.0	67.0	67.0	67.0	67.0	67.0	67.0	67.0	67.0	67.0	67.0	67.0	67.0
42		53.9	49.1	67.0	67.0	67.0	67.0	67.0	67.0	67.0	67.0	67.0	67.0	67.0	67.0	67.0	67.0	67.0
48		47.2	42.9	61.9	67.0	67.0	67.0	67.0	64.4	67.0	67.0	67.0	67.0	67.0	67.0	67.0	67.0	67.0
30	96	67.0	64.4	67.0	67.0	67.0	67.0	67.0	67.0	67.0	67.0	67.0	67.0	67.0	67.0	67.0	67.0	67.0
36		59.0	53.7	67.0	67.0	67.0	67.0	67.0	67.0	67.0	67.0	67.0	67.0	67.0	67.0	67.0	67.0	67.0
42		50.6	46.0	66.3	67.0	67.0	67.0	67.0	67.0	67.0	67.0	67.0	67.0	67.0	67.0	67.0	67.0	67.0
48		44.3	40.3	58.0	67.0	67.0	67.0	66.4	60.4	67.0	67.0	67.0	67.0	67.0	67.0	67.0	67.0	67.0
30	102	66.6	60.6	67.0	67.0	67.0	67.0	67.0	67.0	67.0	67.0	67.0	67.0	67.0	67.0	67.0	67.0	67.0
36		55.5	50.5	67.0	67.0	67.0	67.0	67.0	67.0	67.0	67.0	67.0	67.0	67.0	67.0	67.0	67.0	67.0
42		47.6	43.3	62.4	67.0	67.0	67.0	67.0	64.9	67.0	67.0	67.0	67.0	67.0	67.0	67.0	67.0	67.0
48		41.6	37.9	54.6	67.0	67.0	67.0	62.5	56.8	67.0	67.0	67.0	67.0	67.0	67.0	67.0	67.0	67.0
30	108	62.9	57.2	67.0	67.0	67.0	67.0	67.0	67.0	67.0	67.0	67.0	67.0	67.0	67.0	67.0	67.0	67.0
36		52.4	47.7	67.0	67.0	67.0	67.0	67.0	67.0	67.0	67.0	67.0	67.0	67.0	67.0	67.0	67.0	67.0
42		45.0	40.9	58.9	67.0	67.0	67.0	67.0	61.3	67.0	67.0	67.0	67.0	67.0	67.0	67.0	67.0	67.0
48		39.3	35.8	51.6	64.4	67.0	67.0	59.0	53.7	67.0	67.0	67.0	67.0	67.0	67.0	67.0	67.0	67.0
30	114 *	59.6	54.2	67.0	67.0	67.0	67.0	67.0	67.0	67.0	67.0	67.0	67.0	67.0	67.0	67.0	67.0	67.0
36		49.7	45.2	65.1	67.0	67.0	67.0	67.0	67.0	67.0	67.0	67.0	67.0	67.0	67.0	67.0	67.0	67.0
42		42.6	38.7	55.8	67.0	67.0	67.0	63.9	58.1	67.0	67.0	67.0	67.0	67.0	67.0	67.0	67.0	67.0
48		37.3	33.9	48.8	61.1	67.0	67.0	55.9	50.8	67.0	67.0	67.0	67.0	67.0	67.0	67.0	67.0	67.0
30	120 *	56.6	51.5	67.0	67.0	67.0	67.0	67.0	67.0	67.0	67.0	67.0	67.0	67.0	67.0	67.0	67.0	67.0
36		47.2	42.9	61.9	67.0	67.0	67.0	67.0	64.4	67.0	67.0	67.0	67.0	67.0	67.0	67.0	67.0	67.0
42		40.5	36.8	53.0	66.3	67.0	67.0	60.7	55.2	67.0	67.0	67.0	67.0	67.0	67.0	67.0	67.0	67.0
48		35.4	32.2	46.4	58.0	67.0	66.2	53.1	48.3	67.0	67.0	67.0	67.0	67.0	64.4	67.0	67.0	67.0
30	126 *	53.9	49.1	67.0	67.0	67.0	67.0	67.0	67.0	67.0	67.0	67.0	67.0	67.0	67.0	67.0	67.0	67.0
36		45.0	40.9	58.9	67.0	67.0	67.0	67.0	61.3	67.0	67.0	67.0	67.0	67.0	67.0	67.0	67.0	67.0
42		38.5	35.0	50.5	63.1	67.0	67.0	57.8	52.6	67.0	67.0	67.0	67.0	67.0	67.0	67.0	67.0	67.0
48		33.7	30.7	44.2	55.2	63.8	63.0	50.6	46.0	66.3	67.0	67.0	67.0	67.0	61.3	67.0	67.0	67.0
30	132 *	51.5	46.8	67.0	67.0	67.0	67.0	67.0	67.0	67.0	67.0	67.0	67.0	67.0	67.0	67.0	67.0	67.0
36		42.9	39.0	56.2	67.0	67.0	67.0	64.4	58.5	67.0	67.0	67.0	67.0	67.0	67.0	67.0	67.0	67.0
42		36.8	33.5	48.2	60.3	67.0	67.0	55.2	50.2	67.0	67.0	67.0	67.0	67.0	66.9	67.0	67.0	67.0
48		32.2	29.3	42.2	52.7	60.9	60.2	48.3	43.9	63.3	67.0	67.0	67.0	64.4	58.5	67.0	67.0	67.0
30	138 *	49.3	44.8	64.6	67.0	67.0	67.0	67.0	67.0	67.0	67.0	67.0	67.0	67.0	67.0	67.0	67.0	67.0
36		41.0	37.3	53.8	67.0	67.0	67.0	61.6	56.0	67.0	67.0	67.0	67.0	67.0	67.0	67.0	67.0	67.0
42		35.2	32.0	46.1	57.6	66.6	65.8	52.8	48.0	67.0	67.0	67.0	67.0	67.0	64.0	67.0	67.0	67.0
48		30.8	28.0	40.3	50.4	58.3	57.6	46.2	42.0	60.5	67.0	67.0	67.0	61.6	56.0	67.0	67.0	67.0
30	144 *	47.2	42.9	61.9	67.0	67.0	67.0	67.0	64.4	67.0	67.0	67.0	67.0	67.0	67.0	67.0	67.0	67.0
36		39.3	35.8	51.6	64.4	67.0	67.0	59.0	53.7	67.0	67.0	67.0	67.0	67.0	67.0	67.0	67.0	67.0
42		33.7	30.7	44.2	55.2	63.8	63.0	50.6	46.0	66.3	67.0	67.0	67.0	67.0	61.3	67.0	67.0	67.0
48		29.5	26.8	38.7	48.3	55.8	55.2	44.3	40.3	58.0	67.0	67.0	67.0	59.0	53.7	67.0	67.0	67.0

* HORIZONTALS REQUIRED

NOTE:
ALTERNATE ANCHOR TYPES / CONDITIONS
SHALL BE DESIGNED BY A FLORIDA LICENSED
ENGINEER FOR PROJECT SPECIFIC DESIGN
CRITERIA

WOOD BUCKS AND METAL STRUCTURES, NOT BY
CHAMPION GLASS, MUST SUPPORT LOADS IMPOSED BY
GLAZING SYSTEM AND TRANSFER THEM TO THE BUILDING
STRUCTURE. FRAME BITE INSIDE RECEPTORS MIN. 7/16".



8/5/2026

TYPICAL ANCHORS: SEE ELEV. FOR SPACING

TYPE 'A' 1/4" ITW TAPCONS OR DEWALT ULTRAICON+
INTO 2BY WOOD BUCKS OR WOOD STRUCTURES
(NO. 2 SOUTHERN YELLOW PINE)
1-1/2" MIN. PENETRATION INTO WOOD
1" MIN. EDGE DISTANCE

TYPE 'B' 1/4" ITW TAPCONS
INTO ASTM C-90 CBS (GROUT FILLED OR HOLLOW)
1 BY WOOD BUCKS OPTIONAL
1" MIN. EMBED INTO BLOCK
2" MIN. EDGE DISTANCE

TYPE 'C' 1/4" ITW TAPCONS
DIRECTLY INTO 2000 PSI MIN. SOLID UNCRACKED CONCRETE
1 BY WOOD BUCKS OPTIONAL
1-1/2" MIN. EMBED INTO CONC.
1-1/2" MIN. EDGE DISTANCE

TYPE 'D' 1/4" DEWALT ULTRAICON+
INTO ASTM C-90 CBS (GROUT FILLED OR HOLLOW)
1 BY WOOD BUCKS OPTIONAL
1-1/4" MIN. EMBEDMENT INTO BLOCK
2 -1/2" EDGE DISTANCE

TYPE 'E' 1/4" DEWALT ULTRAICON+
3050 PSI MIN. SOLID UNCRACKED CONCRETE
1 BY WOOD BUCKS OPTIONAL
1" MIN. EMBEDMENT INTO CONCRETE
2-1/2" MIN. EDGE DISTANCE

TYPE 'F' #14 SMS OR 1/4" SELF DRILLING SCREWS
INTO METAL STRUCTURES (STEEL OR ALUMINUM)
MIN. (3) THREADS BEYOND METAL THICKNESS
STEEL : 18 GA MIN.
ALUMINUM : .080" THICK, 6063-T5 MIN.
1/2" MIN. EDGE DISTANCE

REVISIONS:		DESCRIPTION:	
NO	DATE		
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ENGINEER:
**TURNER ENGINEERING
& CONSULTING, INC.**
2428 Old Natchez Trace Trail, Camden, TN
Ph. 941-380-1674
Lucas A. Turner, P.E. #58201

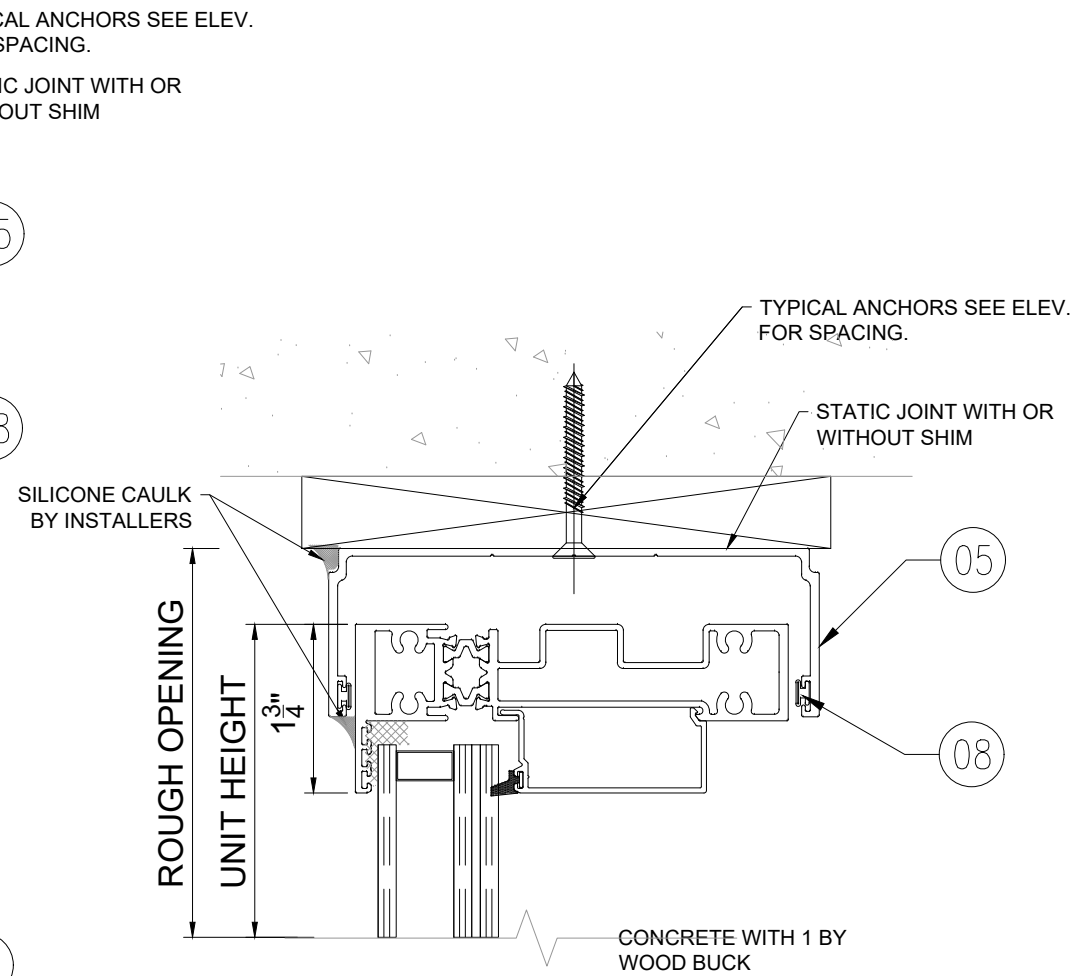
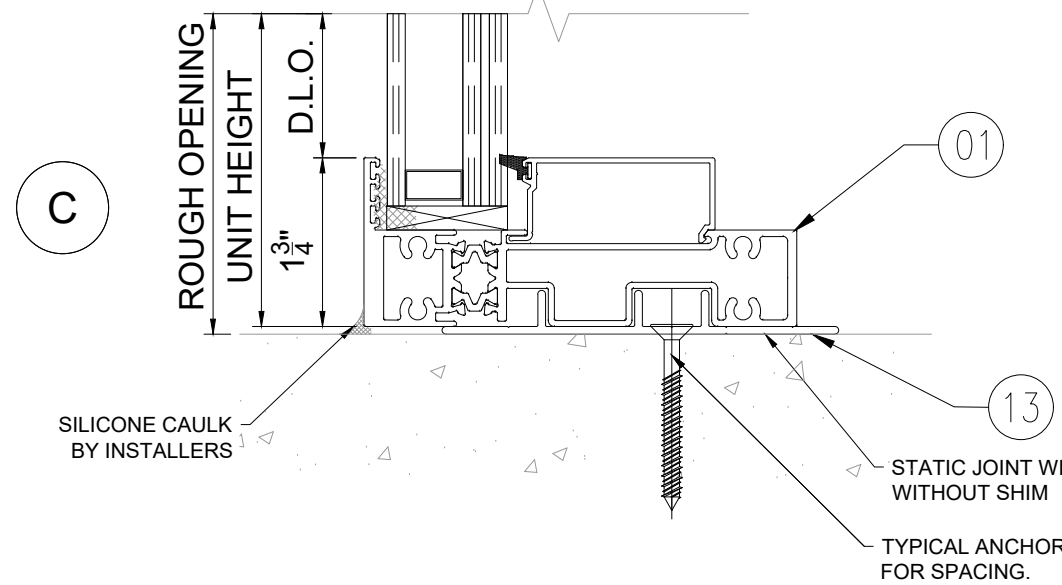
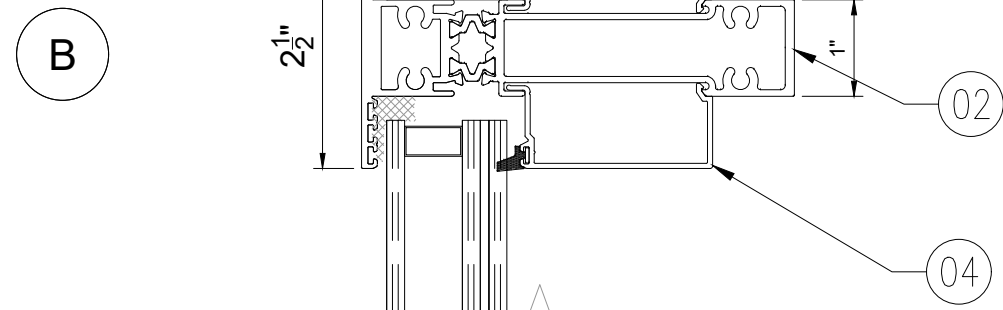
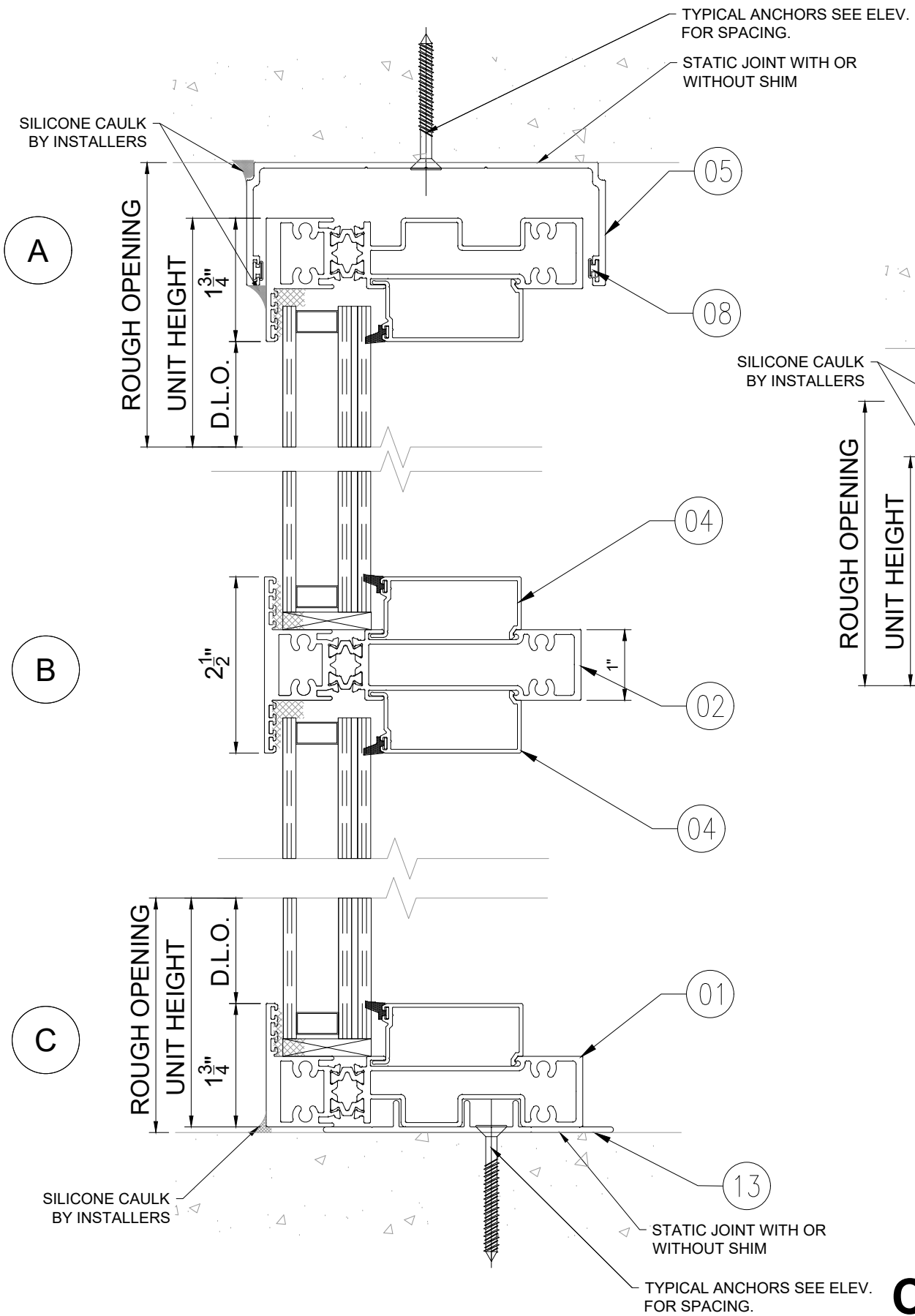
CHAMPION GLASS INC
4720 NW 15TH AVENUE, UNIT 4A,
FT. LAUDERDALE, FL. 33309
954-564-3435 · CHAMPION-GLASS.NET

PRODUCT:
"USOTB SERIES"
ALUM. STOREFRONT SYSTEM
(IMPACT)

PRODUCT APPROVAL #:
FL #48353

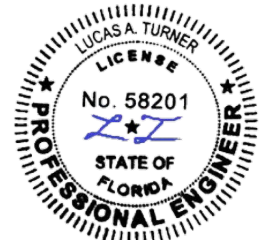
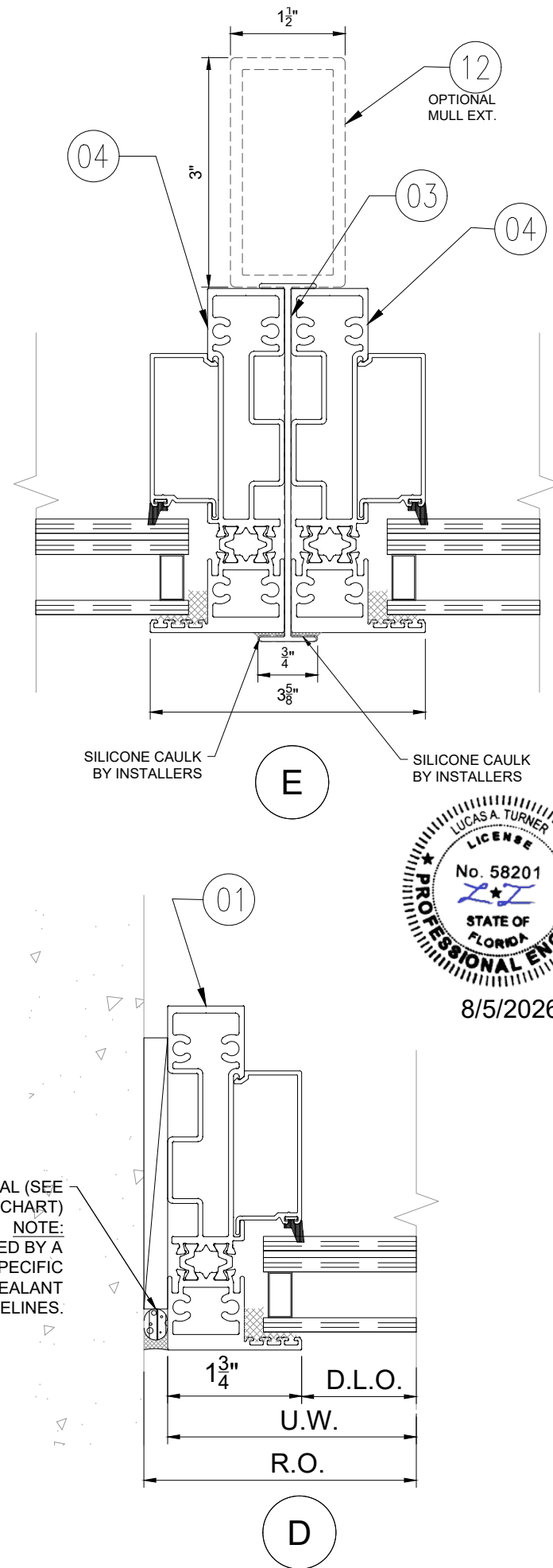
SCALE: NOTED
DATE: 12/03/2025
DWG NO. CHGL-450TB SF-25

SHEET No:
04 OF 08



SILICONE SEALANT DOWSIL 790 OR EQUAL (SEE CHART)
NOTE:
ALTERNATE SEALANT SHALL BE DESIGNED BY A
FLORIDA LICENSED ENGINEER FOR PROJECT SPECIFIC
DESIGN CRITERIA BASED ON SEALANT
MANUFACTURERS GUIDELINES.

CONCRETE



8/5/2026

REVISIONS:	NO.	DATE	DESCRIPTION
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ENGINEER:
TURNER ENGINEERING & CONSULTING, INC.
2428 Old Natchez Trace Trail, Camden, TN
Ph: 941-380-1574
Lucas A. Turner, P.E. #58201

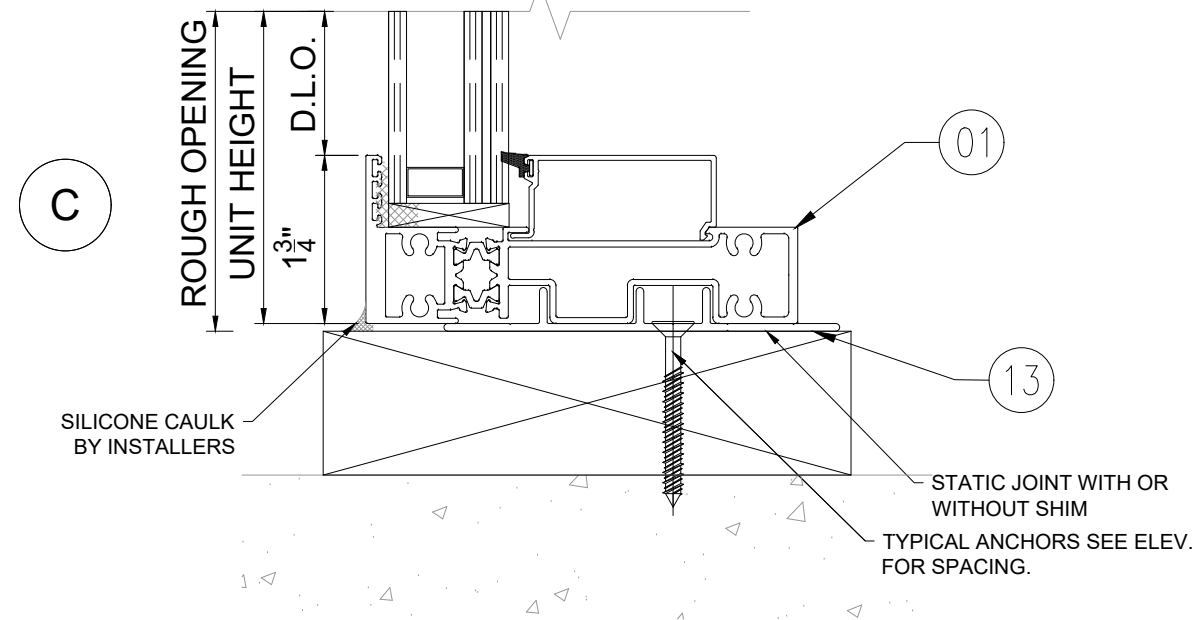
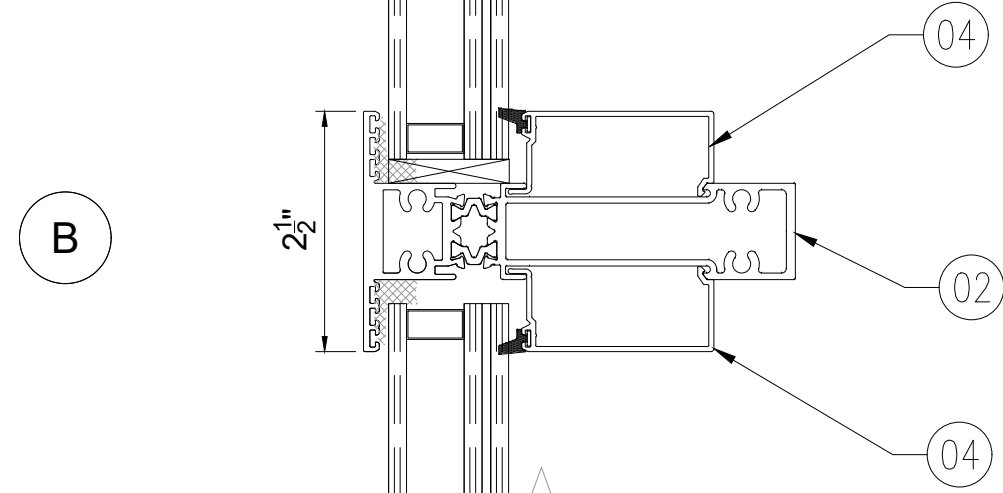
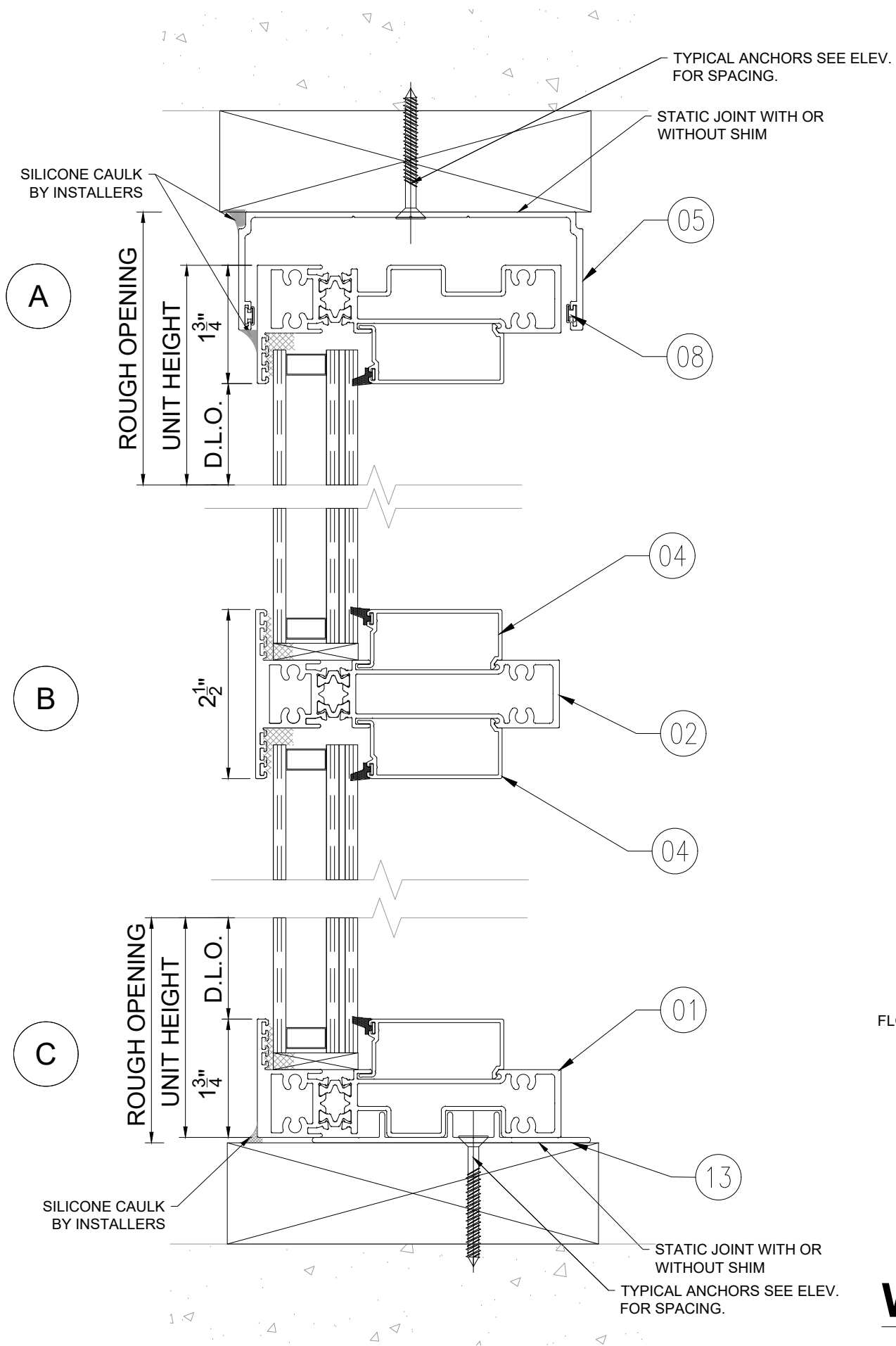
CHAMPION GLASS INC
4720 NW 15TH AVENUE, UNIT 4A,
FT. LAUDERDALE, FL. 33309
954-564-3435 · CHAMPION-GLASS.NET

PRODUCT:
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ALUM. STOREFRONT SYSTEM
(IMPACT)

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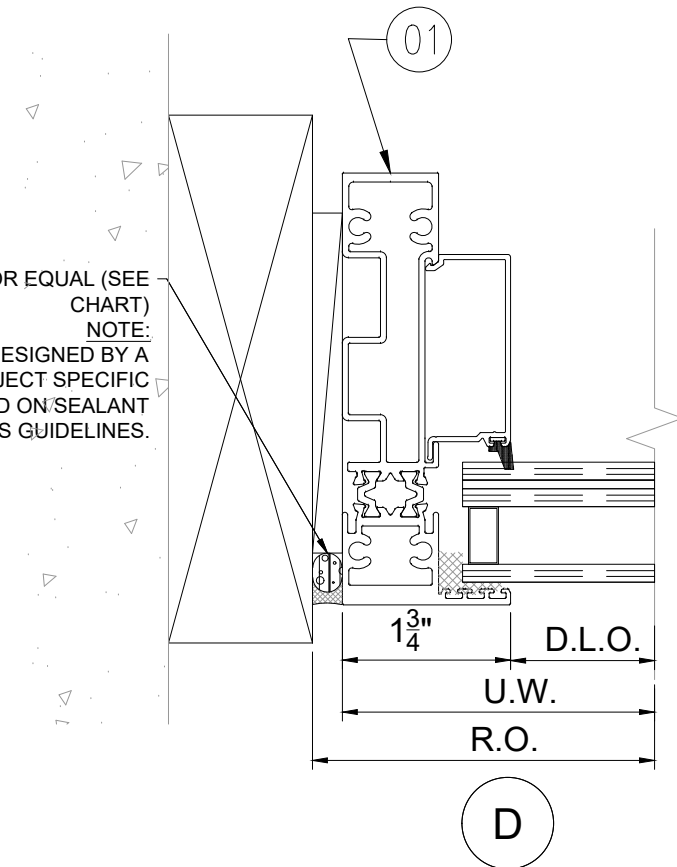
SCALE: NOTED
DATE: 12/03/2025
DWG NO. CHGL-450TB SF-25

SHEET No:
05 OF 08



SILICONE SEALANT DOWSIL 790 OR EQUAL (SEE CHART)
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WOOD



8/5/2026

CHAMPION GLASS
 INC

4720 NW 15TH AVENUE, UNIT 4A,
 FT. LAUDERDALE, FL. 33309
 954-564-3435 · CHAMPION-GLASS.NET

PRODUCT: **"450TB SERIES"**
 ALUM. STOREFRONT SYSTEM
 (IMPACT)

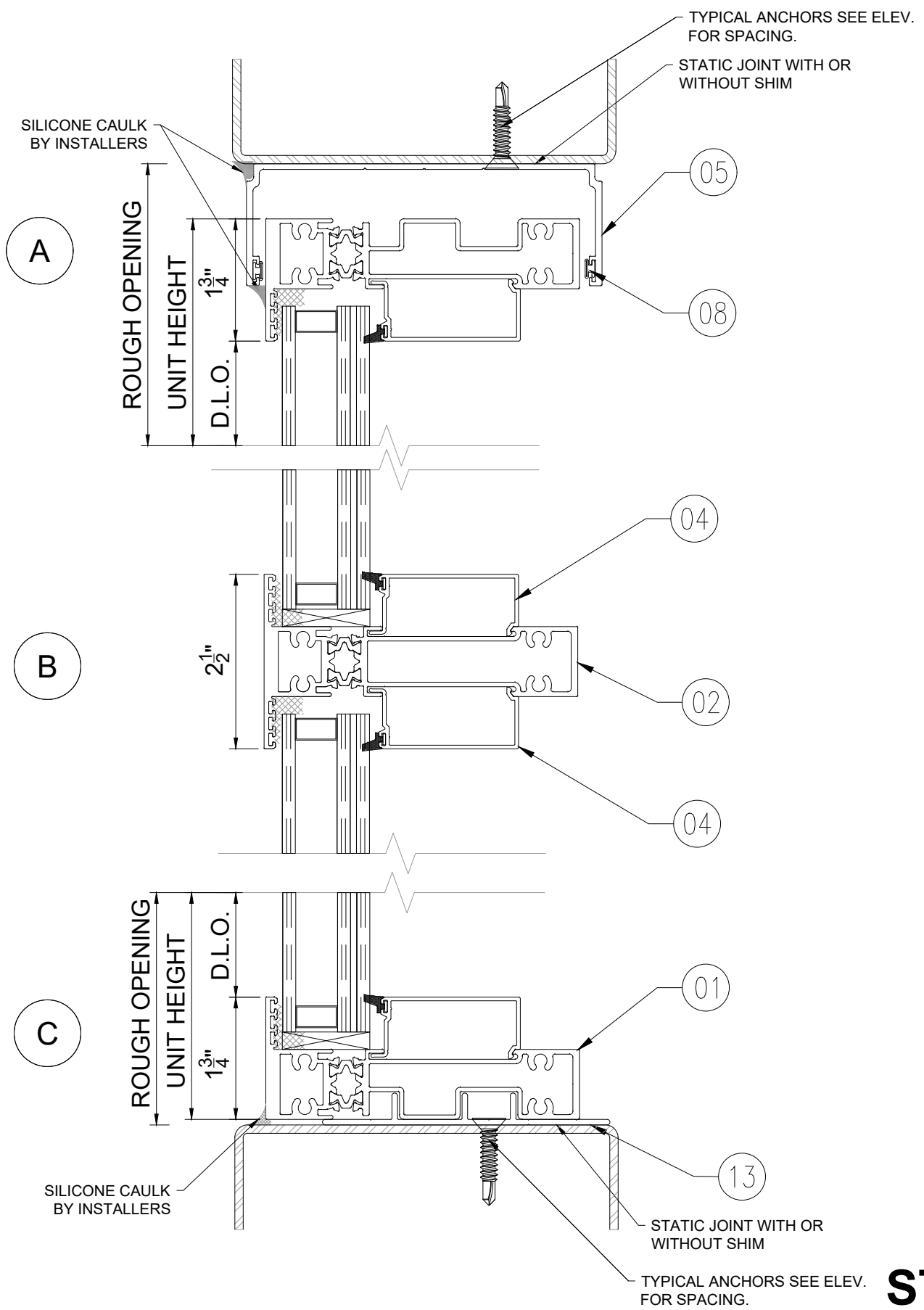
PRODUCT APPROVAL #:
FL #48353

SCALE: NOTED
 DATE: 12/03/2025
 DWG NO. CHGL-450TB SF-25

SHEET No:
06 OF 08

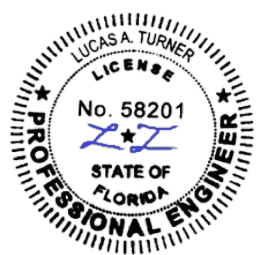
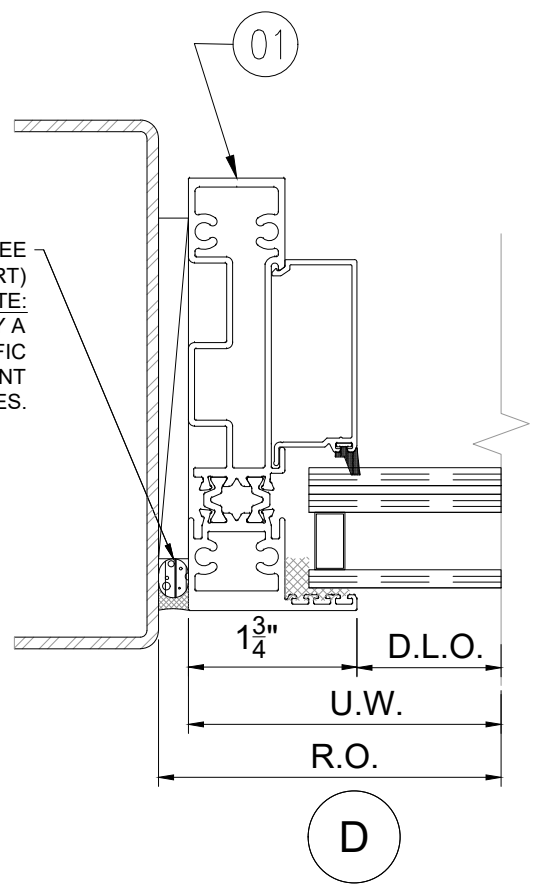
ENGINEER:
TURNER ENGINEERING & CONSULTING, INC.
 2428 Old Natchez Trace Trail, Camden, TN
 Ph. 941-380-1574
 Lucas A. Turner, P.E. #58201

REVISIONS:	NO.	DATE	DESCRIPTION:
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STEEL

SILICONE SEALANT DOWSIL 790 OR EQUAL (SEE CHART)
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8/5/2026

REVISIONS:		DATE	DESCRIPTION
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ENGINEER:
TURNER ENGINEERING & CONSULTING, INC.
2428 Old Natchez Trace Trail, Camden, TN
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CHAMPION GLASS — **INC**
4720 NW 15TH AVENUE, UNIT 4A,
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954-564-3435 · CHAMPION-GLASS.NET

PRODUCT:
"450TB SERIES"
ALUM. STOREFRONT SYSTEM
(IMPACT)

PRODUCT APPROVAL #:
FL #48353

SCALE: NOTED
DATE: 12/03/2025
DWG NO. CHGL-450TB SF-25

SHEET No:
07 OF 08

BILL OF MATERIALS				
NO.	NO.	DESCRIPTION	MATERIAL	MANUFACTURER
01	CHGL-452TB	HEAD/SILL/JAMB	ALLOY 6063-T6	CHAMPION GLASS
02	CHGL-454TB	HORIZONTAL MULLION	ALLOY 6063-T6	CHAMPION GLASS
03	CHGL-455	VERTICAL H-MULLION	ALLOY 6063-T6	CHAMPION GLASS
04	CHGL-456	GLASS STOP FOR 1-1/4" GLASS	ALLOY 6063-T6	CHAMPION GLASS
05	CHGL-9	HEAD RECEPTOR (PATENT # 11,414,914 B2)	ALLOY 6063-T6	CHAMPION GLASS
06	CHGL-21	SILL RECEPTOR (PATENT # 11,414,914 B2)	ALLOY 6063-T6	CHAMPION GLASS
07	CHGL-G33	GLAZING VINYL	SANTOPRENE_PROPOLENE	MELTPPOINT
08	CHGL-G36	RECEPTOR VINYL	TPV_PROPOLENE	MELTPPOINT
09	CHGL-S34	FABRICATION SCREWS	ST. STEEL	12X1.5
10	CHGL-SB35	SETTING BLOCKS	TPV	.25 X 1.25 X 4
11	-	983 DOW CORNING	-	-
12	CHGL-460	V-EXTENDED MULL	ALLOY 6063-T6	CHAMPION GLASS
13	CHGL-459	SILL RECEIVER	ALLOY 6063-T6	CHAMPION GLASS

NOTE:
THE RECEPTORS AND INSTALLATION PROCESS IS COVERED UNDER THE PATENT #11,414,914 B2

