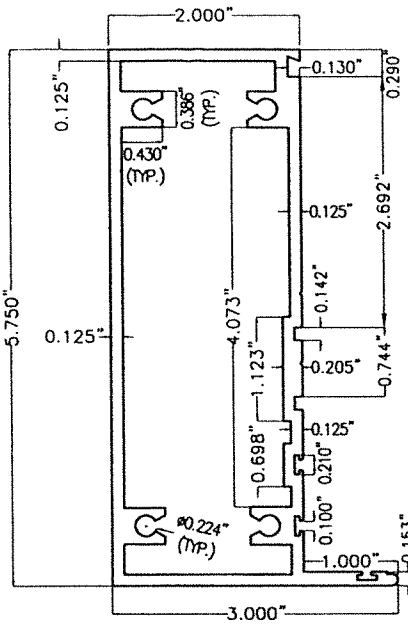


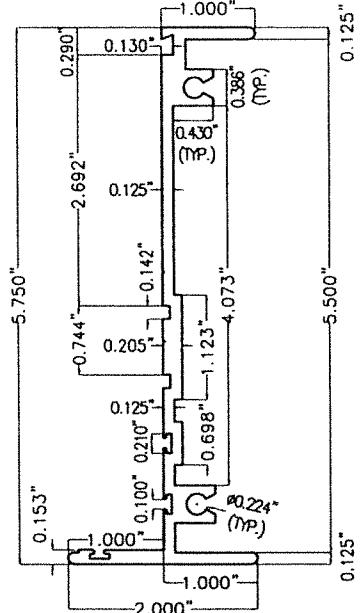
HIGH IMPACT GREEN WORLD FIXED GLASS WALL SERIES 12000 LARGE MISSILE LAMINATED & INSULATED GLASS						W.H. DRAWN BY	
			290 WEST 78 ROAD HIALEAH, FL. 33014 PH: (954)226-5555/(305)558-8103 FAX: (305)558-6665 www.gigwindows.com			09/12/2023 DATE	
						23-213 DRAWING No	
REV. No	DESCRIPTION	DATE	REV. No	DESCRIPTION	DATE		
1	OLD 21-118	09/12/23	3	--	--		
						SHEET 1 OF 51	

COMPONENTS FOR HIGH IMPACT GREEN WORLD FIXED GLASS WALL SERIES 12000

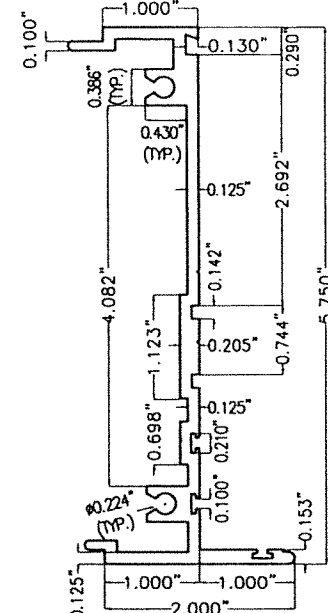
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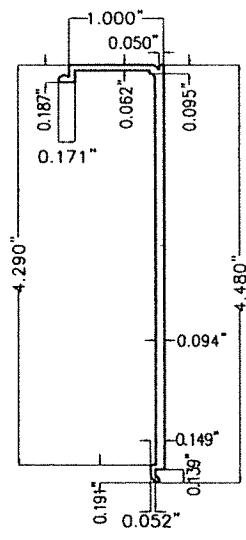
1 FRAME JAMB, HEAD & SILL
(1/8" THICK)



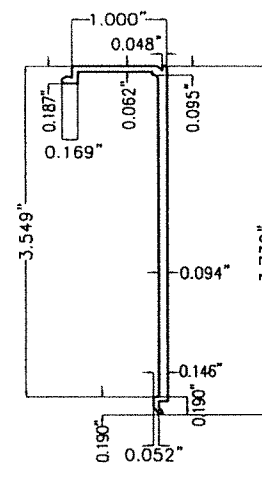
2 FEMALE MULLION
(1/8" THICK)



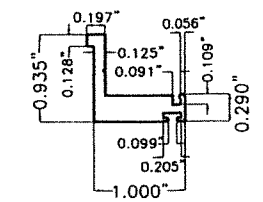
3 MALE MULLION
(1/8" THICK)



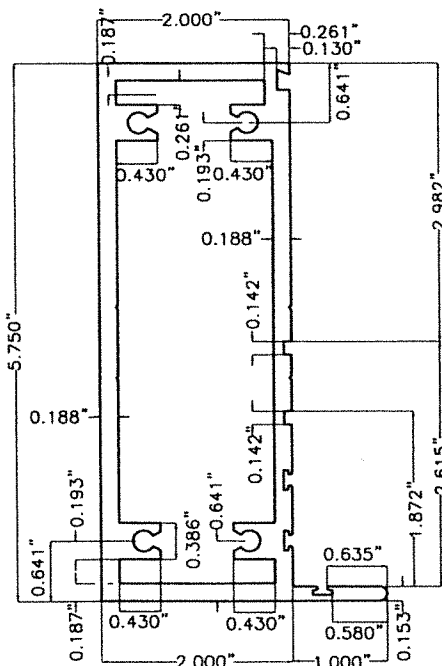
4A INSULATED WINDOW COVER



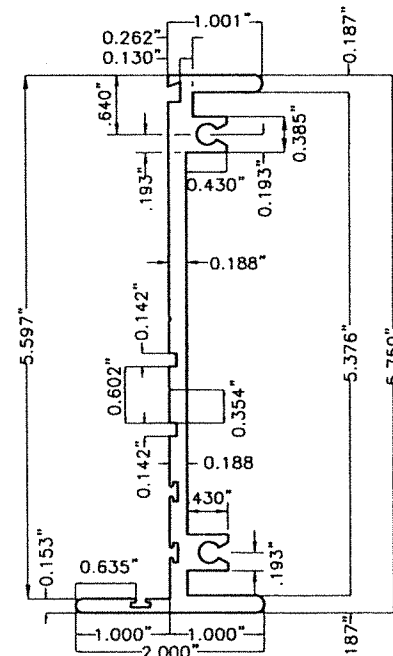
4 LAMINATED WINDOW COVER



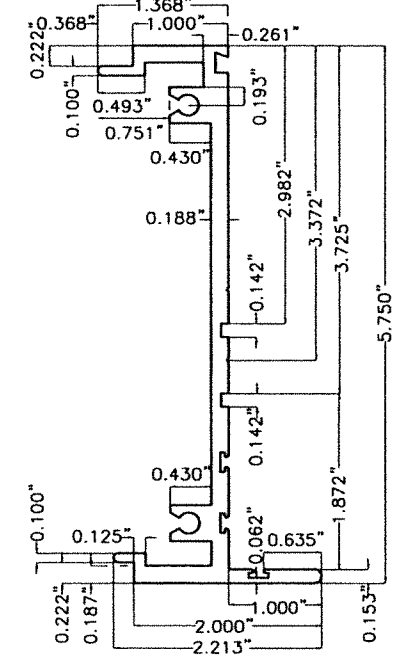
5 GLAZING BEAD ANGLE
6063-T6 ALUMINUM ALLOY



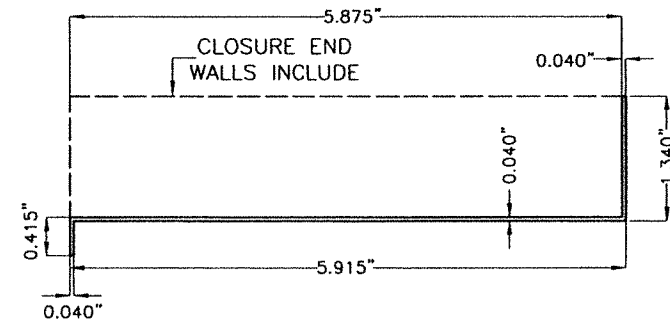
15 FRAME JAMB, HEAD & SILL
(3/16" THICK)



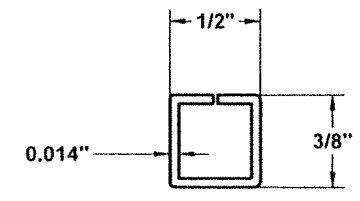
16 FEMALE MULLION
(3/16" THICK)



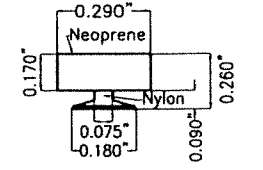
17 MALE MULLION
(3/16" THICK)



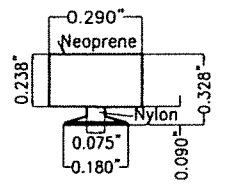
18 SILL FLASHING
(OPTIONAL)
3105-H14 ALUMINUM ALLOY



19 INSULATED GLASS
UNIT SPACER
NTS



6 SOLID RUBBER GASKET
NEOPRENE/NYLON
N.T.S.



6A SOLID RUBBER GASKET
NEOPRENE/NYLON
N.T.S.

COMPONENTS: OPTIONAL SYSTEM # 1

WALTER A. TILLIT JR.
LICENSE
No. 44167
STATE OF FLORIDA
PROFESSIONAL ENGINEER
P.E. SEAL/SIGNATURE/DATE

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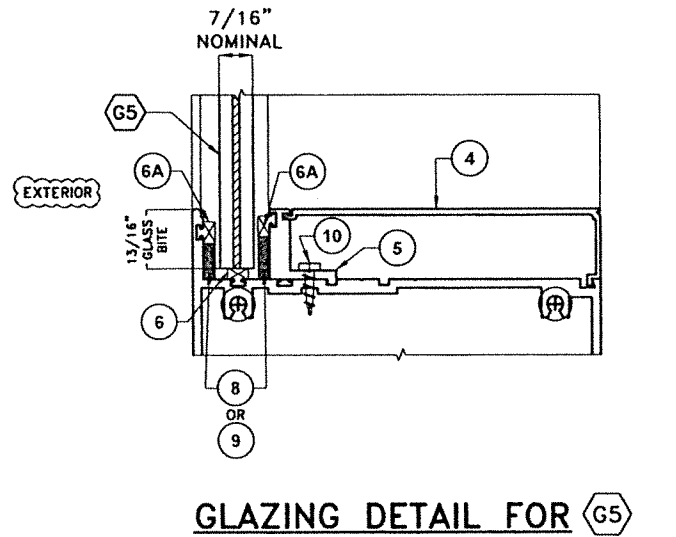
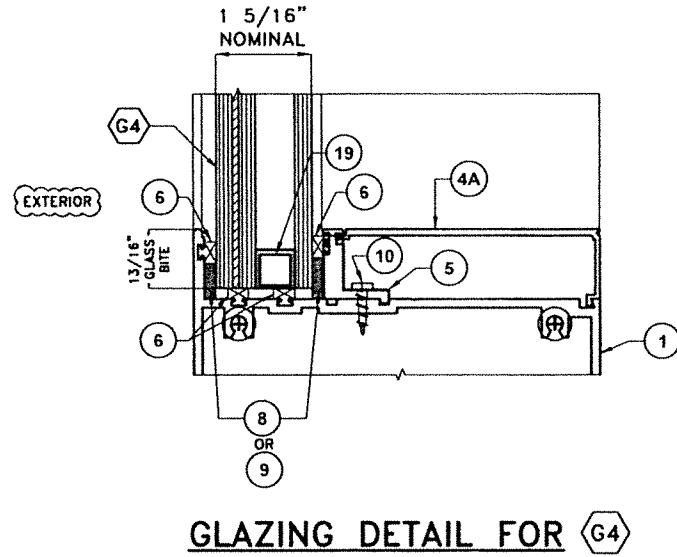
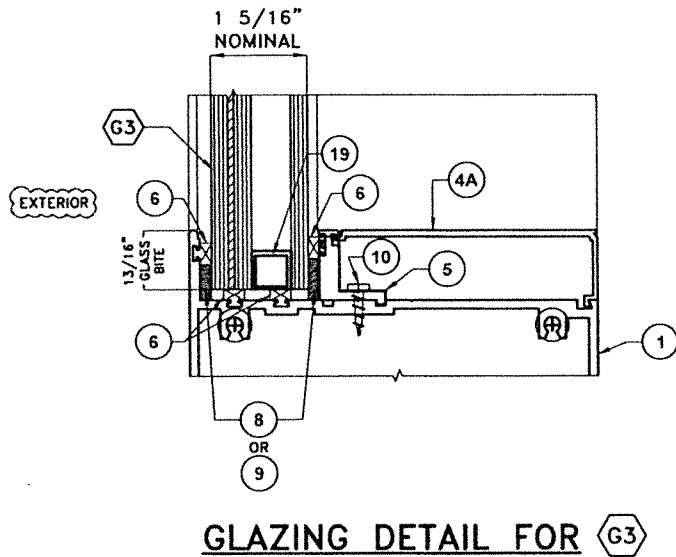
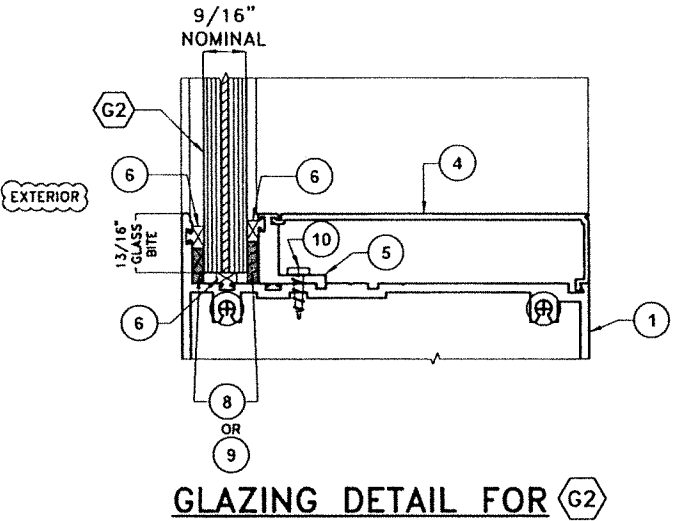
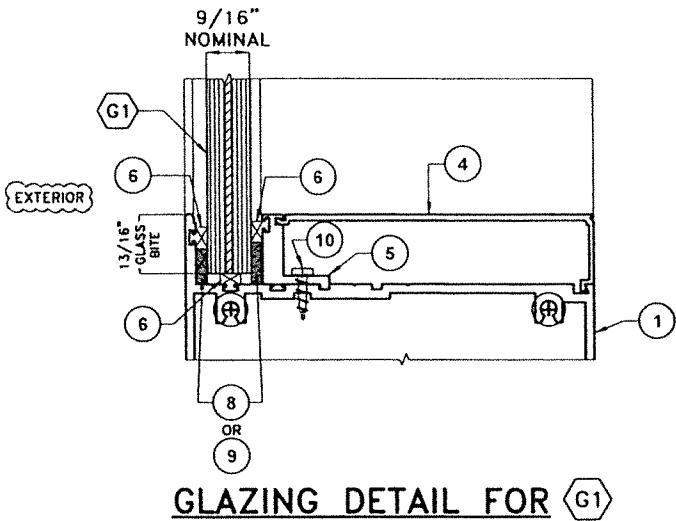
23-213
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1	OLD 21-118	09/12/23	3	-	-
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SHEET 2 OF 51

BILL OF MATERIALS: OPTIONAL SYSTEM # 1

ITEM #	DESCRIPTION	DIMENSIONS & REMARKS	MATERIAL
1	FRAME JAMB, HEAD & SILL	5.75"x3"x0.125" THK.	6063-T6 ALUMINUM
2	FEMALE MULLION	5.75"x2"x0.125" THK.	6063-T6 ALUMINUM
3	MALE MULLION	5.75"x2"x0.125" THK.	6063-T6 ALUMINUM
4	LAMINATED WINDOW COVER	4.682"x1"xVARIES THK.	6063-T6 ALUMINUM
4A	INSULATED WINDOW COVER	3.941"x1"xVARIES THK.	6063-T6 ALUMINUM
5	GLAZING BEAD ANGLE	0.929"x0.906"xVARIES THK.	6063-T6 ALUMINUM
6	SOLID RUBBER GASKET	0.260"x0.290"xVARIES THK.	NEOPRENE/NYLON
6A	SOLID RUBBER GASKET	0.328"x0.290"xVARIES THK.	NEOPRENE/NYLON
8	STRUCTURAL SILICONE DOW CORNING 995	ALL AROUND GLASS	SILICONE OPTIONAL TO 9
9	STRUCTURAL SILICONE DOW CORNING 795	ALL AROUND GLASS	SILICONE OPTIONAL TO 8
10	GLAZING BEAD ANGLE ASSEMBLY SCREW	1/4"x1" TEK SCREW @ 8" o.c.	STEEL
11	SPLINE ASSEMBLY SCREW	1/4"x2 3/4" F.H. TEK SCREW	STEEL
11A	ARCH SPLINE ASSEMBLY SCREW	1/4"x2 3/4" F.H. TEK SCREW	STEEL
12	JOINT DETAIL (METAL TO METAL) GASKET 1/16 XLP W/ RUBBER BASED PSA	OPTIONAL TO 13 FOR INTERNAL JOINT. MANUFACTURED BY FRANK LOWE RUBBER & GASKET CO.	CLOSED CELL POLYETHYLENE FOAM TAPE COATED IN ONE SIDE
13	STRUCTURAL SILICONE 795 DOW CORNING	OPTIONAL TO 12 FOR INTERNAL JOINT, PLUS EXTERIOR FRAME SEALANT ALL AROUND PERIMETER	SILICONE
14	MULLION ASSEMBLY BOLT	1/4"-20x2 1/2" THRU BOLT W/ NUT @ 12" O.C. (START @ 6" O.C. FROM TOP/BOTTOM)	STAINLESS STEEL AISI 304 SERIES
15	FRAME JAMB, HEAD & SILL	5.75"x3"x0.188" THK.	6063-T6 ALUMINUM
16	FEMALE MULLION	5.75"x2"x0.188" THK.	6063-T6 ALUMINUM
17	MALE MULLION	5.75"x2"x0.188" THK.	6063-T6 ALUMINUM
18	SILL FLASHING (OPTIONAL)	1.340" MIN.x5.915" MIN.x0.415" MIN.x0.040" THK.	3105-H14 ALUMINUM
G1	9/16" NOMINAL LAMINATED GLASS W/ 1/4" H.S. GLASS + 0.090" SENTRYGLAS® INTERLAYER + 1/4" H.S. GLASS.	KURARAY AMERICA, INC.	GLASS
G2	9/16" NOMINAL LAMINATED GLASS W/ 1/4" H.S. GLASS + 0.090" TROSIFOL® PVB INTERLAYER + 1/4" H.S. GLASS.	KURARAY AMERICA, INC.	GLASS
G3	1 5/16" NOMINAL INSULATED GLASS W/ 1/4" H.S. GLASS + 0.090" SENTRYGLAS® INTERLAYER + 1/4" H.S. GLASS + 1/2" AIR SPACE + 1/4" INTERIOR MONOLITHIC TEMPERED GLASS	KURARAY AMERICA, INC.	GLASS
G4	1 5/16" NOMINAL INSULATED GLASS W/ 1/4" H.S. GLASS + 0.090" TROSIFOL® PVB INTERLAYER + 1/4" H.S. GLASS + 1/2" AIR SPACE + 1/4" INTERIOR MONOLITHIC TEMPERED GLASS	KURARAY AMERICA, INC.	GLASS
G5	7/16" NOMINAL LAMINATED GLASS W/ 3/16" H.S. GLASS + 0.090" TROSIFOL® PVB INTERLAYER + 3/16" H.S. GLASS.	KURARAY AMERICA, INC.	GLASS
19	INSULATED GLASS UNIT SPACER	1/2"x 0.014" THK. (SEE SHT. 2)	3105-H24 ALUMINUM



GLAZING DETAILS:
OPTIONAL SYSTEM # 1
SCALE: 3/8" = 1"

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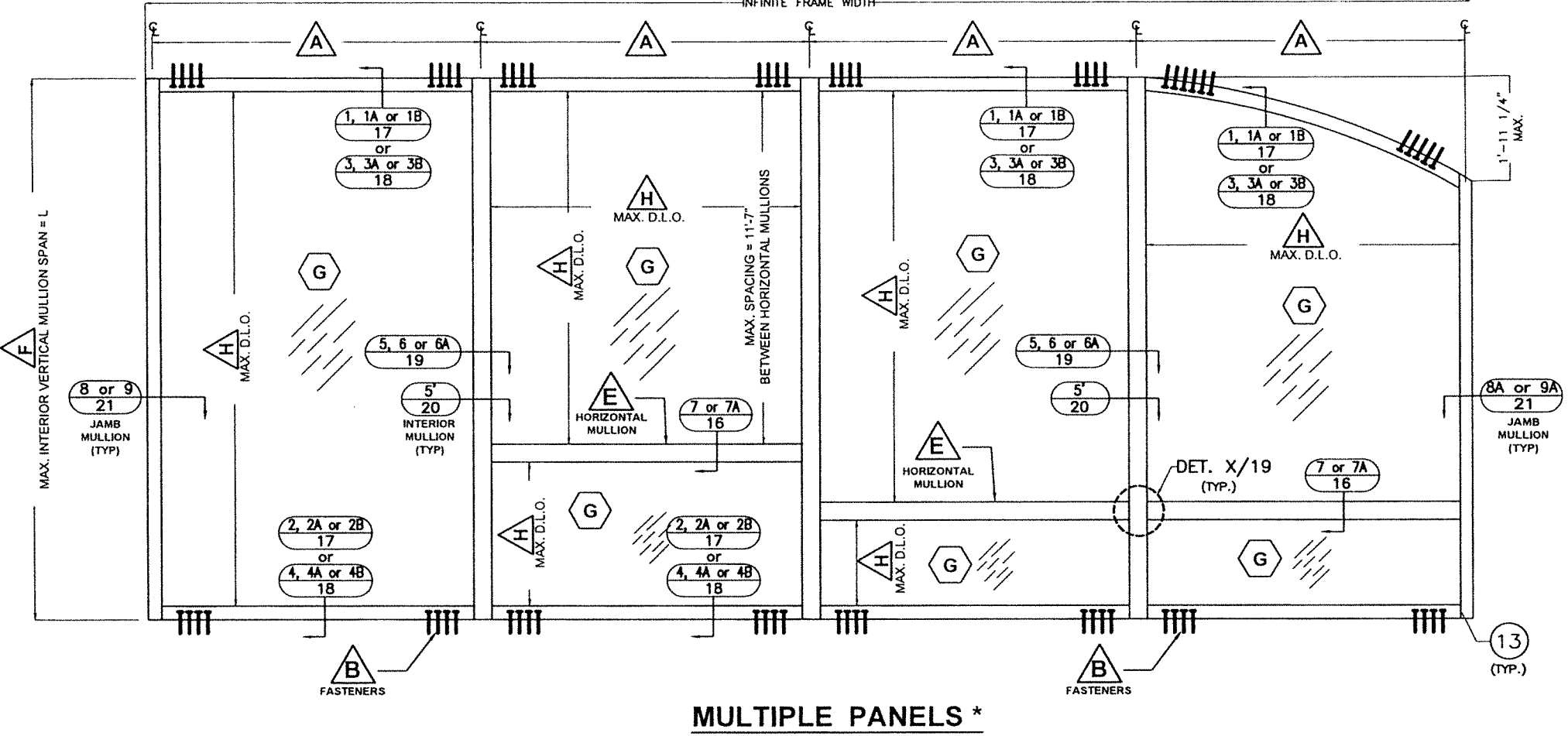
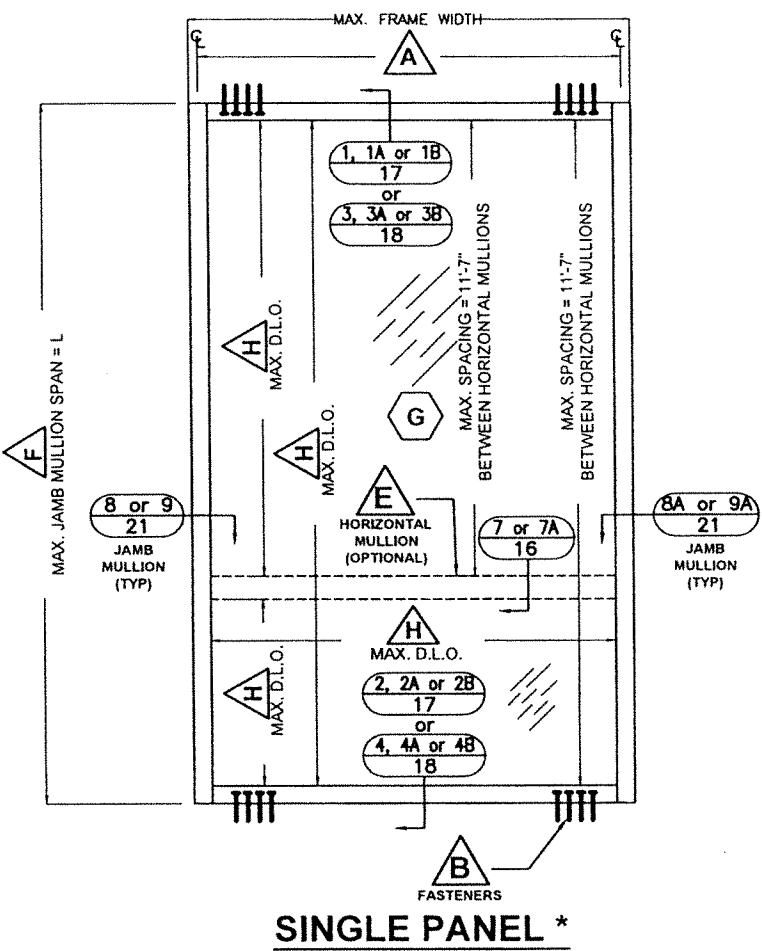
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1	OLD 21-118	09/12/23	3	-	-
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ELEVATIONS FOR HIGH IMPACT GREEN WORLD FIXED GLASS WALL SERIES 12000:
OPTIONAL SYSTEM # 1



FOOT NOTES:

- A** FOR MAXIMUM INTERIOR MULLION AND JAMB MULLION SPACING SEE SHEETS 6 & 7.
- B** FOR HEAD AND SILL FASTENERS QUANTITY, TYPES AND SPECS SEE SHEETS 8 THRU 13.
- E** USE OF HORIZONTAL MULLION LIMITED BY SCHEDULES ON SHEETS 14 & 15.
- F** FOR MAXIMUM INTERIOR VERTICAL MULLION AND JAMB MULLION SPAN SEE SHEETS 6 & 7.
- G** FOR GLAZING DETAILS SEE SHEET 3 AND SEE GLASS SCHEDULE ON SHEETS 5, 5A.
- H** FOR MAXIMUM D.L.O. SEE SCHEDULE ON SHEETS 5, 5A.

* NOTE: ELEVATIONS FOR SINGLE & MULTIPLE PANELS FIXED GLASS WALL SERIES 12000 MAY BE INSTALLED ROTATED 90° FROM ABOVE SHOWN ORIENTATION.

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DRAWING No

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1	OLD 21-118	09/12/23	3	-	-
2	-	-	4	-	-

SHEET 4 OF 51

MAXIMUM FRAME WIDTH "a" AND FRAME LENGTH "b" VERSUS A.S.D. DESIGN PRESSURE RATING (psf) SCHEDULE *
OPTIONAL SYSTEM # 1

GLASS TYPE G1		
DIMENSION "a"	DIMENSION "b"	MAX.A.S.D. DESIGN PRESSURE RATING (psf)
18" or less	18" or less	+130.0 -140.0
18"	18" to 139"	+130.0 -140.0
20"	20" to 139"	+130.0 -140.0
22"	22" to 139"	+130.0 -140.0
24"	24" to 139"	+130.0 -140.0
26"	26" to 139"	+130.0 -140.0
28"	28" to 139"	+130.0 -140.0
30"	30" to 139"	+130.0 -140.0
32"	32" to 139"	+130.0 -140.0
34"	34" to 139"	+130.0 -140.0
36"	36" to 139"	+130.0 -140.0
38"	38" to 139"	+130.0 -140.0
40"	40" to 139"	+130.0 -140.0
42"	42" to 139"	+130.0 -140.0
44"	44" to 137"	+130.0 -120.0
46"	46" to 131"	+130.0 -116.0
48"	48" to 126"	+130.0 -140.0
	> 126" to 139"	±20.0
50"	50" to 121"	+130.0 -111.0
52"	52" to 116"	+130.0 -111.0
54"	54" to 112"	+130.0 -140.0
	> 112" to 139"	±20.0
56"	56" to 108"	+130.0 110.0
58"	58" to 104"	+130.0 -111.0
	60" to 98"	+130.0 -140.0
60"	> 98" to 139"	±20.0
62"	62" to 97"	+130.0 -114.0
64"	64" to 94"	+130.0 -110.4
	66" to 84"	+130.0 -140.0
66"	> 84" to 90"	±99.5
	> 90" to 139"	±20.0
68"	68" to 89"	+130.0 -103.9
70"	70" to 86"	+130.0 -101.0
	72" to 82"	+130.0 -140.0
72"	>82" to 84"	±91.0
	>84" to 139"	±20.0
74"	74" to 78"	+130.0 -95.5
76"	76" to 79.7"	+130.0 -93.0

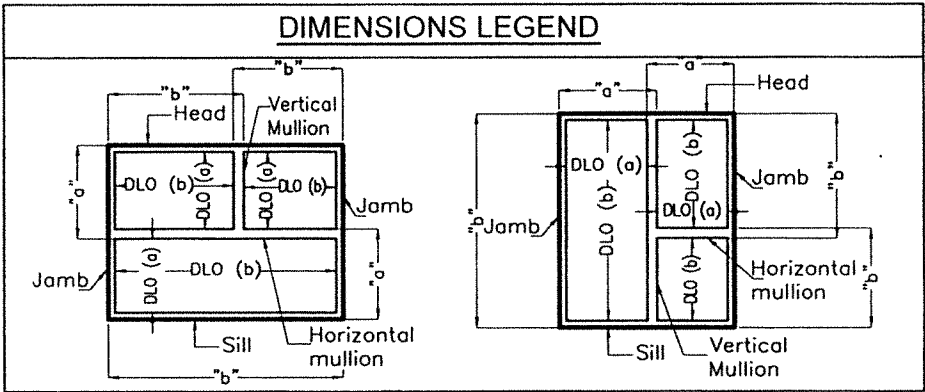
GLASS TYPE G2		
DIMENSION "a"	DIMENSION "b"	MAX.A.S.D. DESIGN PRESSURE RATING (psf)
18" or less	18" or less	±90.0
18"	18" to 139"	±90.0
20"	20" to 139"	±90.0
22"	22" to 139"	±90.0
24"	24" to 139"	±90.0
26"	26" to 139"	±90.0
28"	28" to 139"	±90.0
30"	30" to 139"	±90.0
32"	32" to 139"	±90.0
34"	34" to 139"	±90.0
36"	36" to 139"	±90.0
38"	38" to 132"	±90.0
40"	40" to 128"	±90.0
42"	42" to 120"	±90.0
	> 120" to 139"	±80.0
44"	44" to 117"	±90.0
	> 117" to 139"	±80.0
46"	46" to 112"	±90.0
	> 112" to 139"	±80.0
48"	48" to 107"	±90.0
	> 107" to 139"	±80.0
50"	50" to 103"	±90.0
52"	52" to 99"	±87.4
54"	54" to 95"	±84.1
56"	56" to 129"	±80.0
58"	58" to 124"	±80.0
60"	60" to 120"	±80.0
62"	62" to 116"	±80.0
64"	64" to 112"	±80.0
66"	66" to 108"	±79.6
68"	68" to 106"	±79.3
70"	70" to 103"	±79.3
72"	72" to 100"	±79.5
74"	74" to 97"	±79.8
76"	76" to 95"	±78.4
78"	78" to 92.5"	±76.4
80"	80" to 90"	±74.5
82"	82" to 88"	±72.6
84"	84" to 86"	±70.9

* DETERMINATION OF MAXIMUM DAY LIGHT OPENING (D.L.O.) AT EACH END OF GLASS
GIVEN "a" & "b"

SIDE	MAX. DAY LIGHT OPENING	
	(D.L.O.) Formula at vertical & horizontal mullions	(D.L.O.) Formula at jamb, head & sill frames
MAX. D.L.O. (a) (SHORT SIDE)	"a" - 6.00"	"a" - 6.00"
MAX. D.L.O. (b) (LONG SIDE)	"b" - 6.00"	"b" - 6.00"

NOTE:
1. SEE SHEET 3 FOR GLAZING DETAILS AND GLASS DESCRIPTIONS ON BILL OF MATERIALS.

** SIDE "a" IS ALWAYS EQUAL OR SHORTER THAN "b".
"a", "b", MAY BE ORIENTED IN ANY DIRECTION.



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SHEET 5 OF 51

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MAXIMUM FRAME WIDTH "a" AND FRAME LENGTH "b" VERSUS A.S.D. DESIGN PRESSURE RATING (psf) SCHEDULE *
OPTIONAL SYSTEM # 1

GLASS TYPE G3		
DIMENSION "a"	DIMENSION "b"	MAX.A.S.D. DESIGN PRESSURE RATING (psf)
18" or less	18" or less	+130.0 -140.0
18"	18" to 139"	+130.0 -140.0
20"	20" to 139"	+130.0 -140.0
22"	22" to 139"	+130.0 -140.0
24"	24" to 139"	+130.0 -140.0
26"	26" to 139"	+130.0 -140.0
28"	28" to 139"	+130.0 -140.0
30"	30" to 139"	+130.0 -140.0
32"	32" to 139"	+130.0 -140.0
34"	34" to 139"	+130.0 -140.0
36"	36" to 139"	+130.0 -140.0
38"	38" to 139"	+130.0 -140.0
40"	40" to 139"	+130.0 -140.0
42"	42" to 139"	+130.0 -140.0
44"	44" to 137"	+130.0 -126.0
46"	46" to 131"	+130.0 -121.0
48"	48" to 122"	+130.0 -140.0
	> 122" to 139"	±20.0
50"	50" to 121"	+130.0 -113.0
52"	52" to 116"	+130.0 -113.0
54"	54" to 108"	+130.0 -140.0
	> 108" to 139"	±20.0
56"	56" to 108"	+130.0 -108.0
58"	58" to 104"	+130.0 -117.0
60"	60" to 98"	+130.0 -140.0
	> 98" to 139"	±20.0
62"	62" to 96"	+130.0 -114.0
64"	64" to 94"	+130.0 -110.4
66"	66" to 87.5"	+130.0 -140.0
	> 87.5" to 90"	±107.1
	> 90" to 139"	±20.0
68"	68" to 89"	+130.0 -103.9
70"	70" to 86"	+130.0 -101.0
72"	72" to 80.5"	+130.0 -140.0
	>80.5" to 84"	±98.1
	>84" to 139"	±20.0
74"	74" to 81"	+130.0 -95.5
76"	76" to 79"	+130.0 -93.0

GLASS TYPE G4		
DIMENSION "a"	DIMENSION "b"	MAX.A.S.D. DESIGN PRESSURE RATING (psf)
18" or less	18" or less	±80.0
18"	18" to 139"	±80.0
20"	20" to 139"	±80.0
22"	22" to 139"	±80.0
24"	24" to 139"	±80.0
26"	26" to 139"	±80.0
28"	28" to 139"	±80.0
30"	30" to 139"	±80.0
32"	32" to 139"	±80.0
34"	34" to 139"	±80.0
36"	36" to 139"	±80.0
38"	38" to 139"	±80.0
40"	40" to 139"	±80.0
42"	42" to 139"	±80.0
44"	44" to 139"	±80.0
46"	46" to 139"	±80.0
48"	48" to 139"	±80.0
50"	50" to 139"	±80.0
52"	52" to 138"	±80.0
54"	54" to 133.5"	±80.0
56"	56" to 129"	±80.0
58"	58" to 124"	±80.0
60"	60" to 120"	±80.0
62"	62" to 116"	±80.0
64"	64" to 112"	±80.0
66"	66" to 108"	±80.0
	> 108" to 109.5"	±79.6
68"	68" to 106"	±79.3
70"	70" to 103"	±79.3
72"	72" to 96"	±80.0
	> 96" to 100"	±79.5
74"	74" to 97"	±79.8
76"	76" to 95"	±78.4
78"	78" to 91"	±76.1
80"	80" to 90"	±74.5
82"	82" to 88"	±72.6
84"	84" to 86"	±70.9

GLASS TYPE G5		
DIMENSION "a"	DIMENSION "b"	MAX.A.S.D. DESIGN PRESSURE RATING (psf)
18" or less	18" or less	±90.0
18"	18" to 139"	±90.0
20"	20" to 139"	±90.0
22"	22" to 139"	±90.0
24"	24" to 139"	±90.0
26"	26" to 139"	±90.0
28"	28" to 139"	±90.0
30"	30" to 139"	±90.0
32"	32" to 139"	±90.0
34"	34" to 139"	±90.0
36"	36" to 139"	±90.0
38"	38" to 132"	±90.0
40"	40" to 128"	±90.0
42"	42" to 120"	±90.0
44"	44" to 117"	±90.0
46"	46" to 111"	±90.0
48"	48" to 107"	±90.0
50"	50" to 103"	±90.0
52"	52" to 99"	±90.0
54"	54" to 95"	±84.1
56"	56" to 91"	±81.1
58"	58" to 88"	±78.3
60"	60" to 85.5"	±75.7
62"	62" to 83"	±73.3
64"	64" to 80"	±71.2
66"	66" to 78"	±68.8
68"	68" to 75"	±66.8
70"	70" to 73"	±64.3

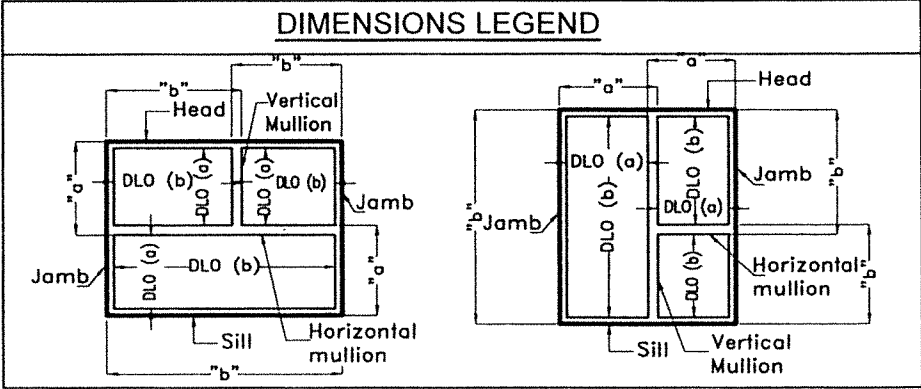
* DETERMINATION OF MAXIMUM DAY LIGHT OPENING (D.L.O.) AT EACH END OF GLASS

GIVEN "a" & "b"

SIDE	MAX. DAY LIGHT OPENING	
	(D.L.O.) Formula at vertical & horizontal mullions	(D.L.O.) Formula at jamb, head & sill frames
MAX. D.L.O. (a) (SHORT SIDE)	"a" - 6.00"	"a" - 6.00"
MAX. D.L.O. (b) (LONG SIDE)	"b" - 6.00"	"b" - 6.00"

NOTE:
1. SEE SHEET 3 FOR GLAZING DETAILS AND GLASS DESCRIPTIONS ON BILL OF MATERIALS.

** SIDE "a" IS ALWAYS EQUAL OR SHORTER THAN "b".
"a", "b", MAY BE ORIENTED IN ANY DIRECTION.



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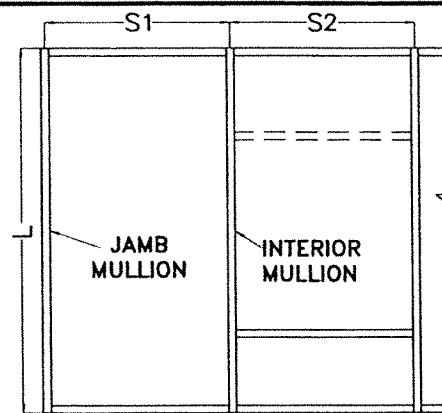
W.H.
DRAWN BY

09/12/2023
DATE

23-213
DRAWING No

SHEET 5A OF 51

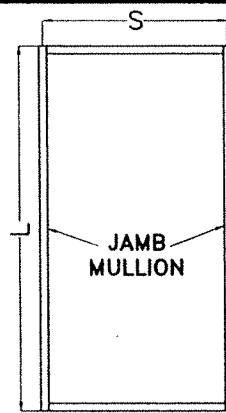
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2	-	-	4	-	-



ELEVATION W/ INTERIOR MULLION @ MULTIPLE PANELS

"L" = MAXIMUM INTERIOR MULLION SPAN

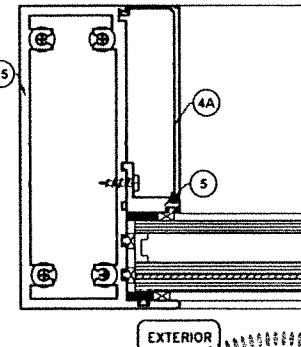
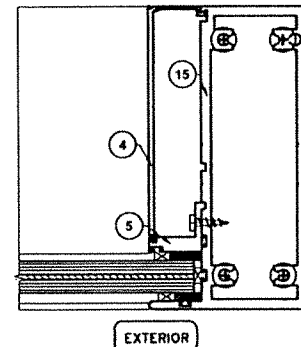
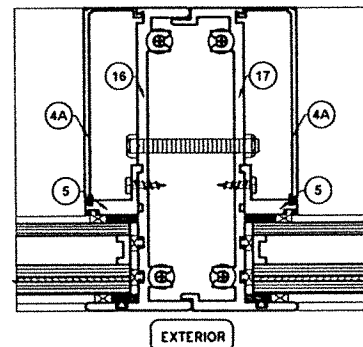
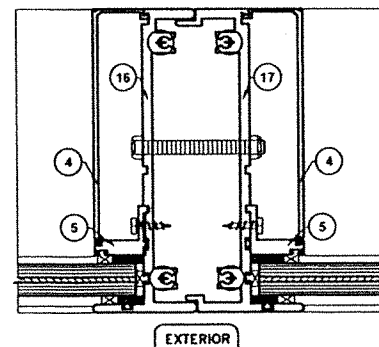
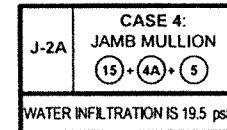
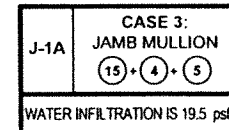
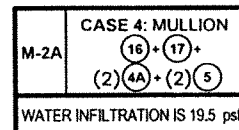
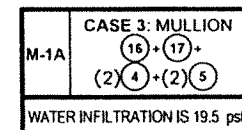
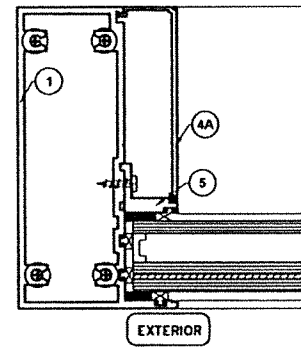
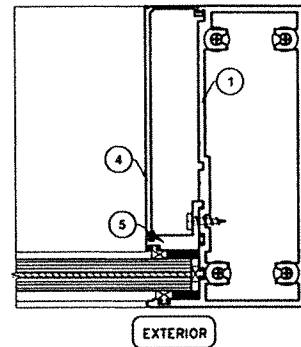
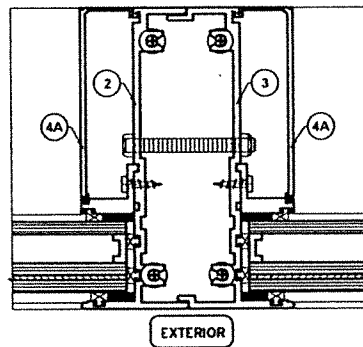
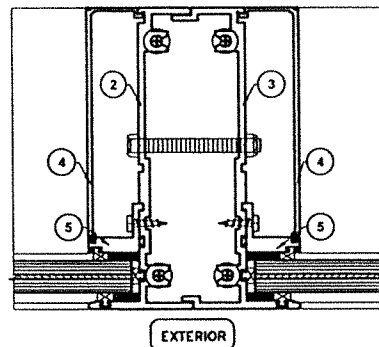
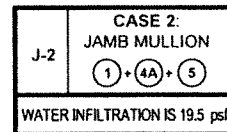
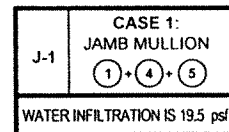
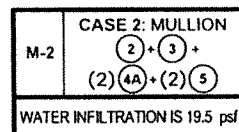
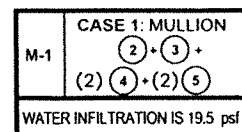
EFFECTIVE SPACING: "b" = $\frac{S_1 + S_2}{2}$, FOR MULTIPLE PANELS



ELEVATION W/ JAMB MULLION @ SINGLE PANEL

"L" = MAXIMUM JAMB MULLION SPAN

EFFECTIVE SPACING: "b" = S, FOR SINGLE PANEL.



OPTIONAL SYSTEM # 1

CASES DEFINITIONS

- CASE 1: M-1 INTERIOR MULLION: 1/8" THICK W/ LAMINATED GLASS (SEE DET. 5 ON SHEET 19)
 J-1 JAMB MULLION: 1/8" THICK W/ LAMINATED GLASS (SEE DET. 8 OR 8A ON SHEETS 20 & 21)
- CASE 2: M-2 INTERIOR MULLION: 1/8" THICK W/ INSULATED GLASS (SEE DET. 6 ON SHEET 19)
 J-2 JAMB MULLION: 1/8" THICK W/ INSULATED GLASS (SEE DET. 8 OR 8A ON SHEET 21)
- CASE 3: M-1A INTERIOR MULLION: 3/16" THICK W/ LAMINATED GLASS (SEE DET. 5 ON SHEET 19)
 J-1A JAMB MULLION: 3/16" THICK W/ LAMINATED GLASS (SEE DET. 8 OR 8A ON SHEETS 20 & 21)
- CASE 4: M-2A INTERIOR MULLION: 3/16" THICK W/ INSULATED GLASS (SEE DET. 6 ON SHEET 19)
 J-2A JAMB MULLION: 3/16" THICK W/ INSULATED GLASS (SEE DET. 8 OR 8A ON SHEET 21)

MAXIMUM INTERIOR MULLION & JAMB MULLION SPAN "L"(FT) SCHEDULE FOR A GIVEN A.S.D. DESIGN PRESSURE RATING (psf) & A GIVEN MULLION EFFECTIVE SPACING "b"					
MAXIMUM DESIGN PRESSURE RATING "W" (psf)	MAX. EFFECTIVE SPACING "b" (ft-in)	MAXIMUM 1/8" THICK MULLION SPAN "L"(FT)		MAXIMUM 3/16" THICK MULLION SPAN "L"(FT)	
		Laminated Glass	Insulated Glass	Laminated Glass	Insulated Glass
		CASE 1	CASE 2	CASE 3	CASE 4
		M-1/J-1	M-2/J-2	M-1AJJ-1A	M-2AJJ-2A
± 40.0	3'-6"	15'-9"	15'-9"	15'-9"	15'-9"
	4'-0"	15'-9"	15'-9"	15'-9"	15'-9"
	4'-6"	15'-9"	15'-6"	15'-9"	15'-9"
	5'-0"	15'-4"	14'-11"	15'-9"	15'-8"
	5'-6"	14'-10"	14'-6"	15'-7"	15'-3"
	6'-0"	14'-5"	14'-1"	15'-1"	14'-9"
	7'-0"	13'-8"	13'-4"	14'-4"	14'-0"
± 45.0	3'-6"	15'-9"	15'-9"	15'-9"	15'-9"
	4'-0"	15'-9"	15'-6"	15'-9"	15'-9"
	4'-6"	15'-3"	14'-10"	15'-9"	15'-8"
	5'-0"	14'-9"	14'-4"	15'-5"	15'-1"
	5'-6"	14'-3"	13'-11"	15'-0"	14'-8"
	6'-0"	13'-10"	13'-6"	14'-6"	14'-3"
	7'-0"	13'-2"	12'-10"	13'-10"	13'-6"
± 50.0	3'-6"	15'-9"	15'-7"	15'-9"	15'-9"
	4'-0"	15'-4"	14'-11"	15'-9"	15'-8"
	4'-6"	14'-9"	14'-4"	15'-5"	15'-1"
	5'-0"	14'-3"	13'-10"	14'-11"	14'-7"
	5'-6"	13'-9"	13'-5"	14'-5"	14'-2"
	6'-0"	13'-5"	13'-0"	14'-0"	13'-9"
	7'-0"	12'-7"	12'-5"	13'-4"	13'-0"
± 55.0	3'-6"	15'-6"	15'-1"	15'-9"	15'-9"
	4'-0"	14'-10"	14'-6"	15'-7"	15'-3"
	4'-6"	14'-3"	13'-11"	15'-0"	14'-8"
	5'-0"	13'-9"	13'-5"	14'-5"	14'-2"
	5'-6"	13'-4"	13'-0"	14'-0"	13'-8"
	6'-0"	12'-11"	12'-8"	13'-7"	13'-4"
	7'-0"	12'-0"	11'-10"	12'-11"	12'-7"
± 60.0	3'-6"	15'-1"	14'-8"	15'-9"	15'-5"
	4'-0"	14'-5"	14'-1"	15'-1"	14'-9"
	4'-6"	13'-10"	13'-6"	14'-6"	14'-3"
	5'-0"	13'-5"	13'-0"	14'-0"	13'-9"
	5'-6"	12'-11"	12'-8"	13'-7"	13'-4"
	6'-0"	12'-5"	12'-3"	13'-3"	12'-11"
	7'-0"	11'-6"	11'-9"	12'-10"	12'-6"
± 65.0	3'-6"	14'-8"	14'-4"	15'-5"	15'-1"
	4'-0"	14'-0"	13'-8"	14'-9"	14'-5"
	4'-6"	13'-6"	13'-2"	14'-2"	13'-10"
	5'-0"	13'-0"	12'-8"	13'-8"	13'-4"
	5'-6"	12'-5"	12'-4"	13'-3"	12'-11"
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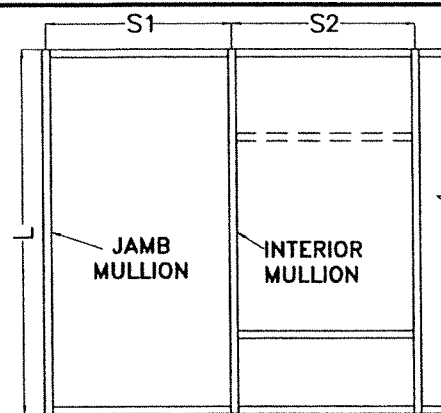
MAXIMUM INTERIOR MULLION & JAMB MULLION SPAN "L"(FT) SCHEDULE FOR A GIVEN A.S.D. DESIGN PRESSURE RATING (psf) & A GIVEN MULLION EFFECTIVE SPACING "b" (CONTINUED)					
MAXIMUM DESIGN PRESSURE RATING "W" (psf)	MAX. EFFECTIVE SPACING "b" (ft-in)	MAXIMUM 1/8" THICK MULLION SPAN "L"(FT)		MAXIMUM 3/16" THICK MULLION SPAN "L"(FT)	
		Laminated Glass	Insulated Glass	Laminated Glass	Insulated Glass
		CASE 1	CASE 2	CASE 3	CASE 4
		M-1/J-1	M-2/J-2	M-1AJJ-1A	M-2AJJ-2A
± 70.0	3'-6"	14'-4"	13'-11"	15'-0"	14'-8"
	4'-0"	13'-8"	13'-4"	14'-4"	14'-0"
	4'-6"	13'-2"	12'-10"	13'-10"	13'-6"
	5'-0"	12'-7"	12'-5"	13'-4"	13'-0"
	5'-6"	12'-0"	11'-10"	12'-11"	12'-7"
	6'-0"	11'-6"	11'-4"	12'-4"	12'-0"
	7'-0"	10'-7"	10'-6"	11'-5"	11'-2"
± 75.0	3'-6"	14'-0"	13'-8"	14'-8"	14'-4"
	4'-0"	13'-5"	13'-0"	14'-0"	13'-9"
	4'-6"	12'-9"	12'-6"	13'-6"	13'-2"
	5'-0"	12'-2"	12'-0"	13'-0"	12'-9"
	5'-6"	11'-7"	11'-6"	12'-5"	12'-2"
	6'-0"	11'-1"	11'-0"	11'-11"	11'-7"
	7'-0"	10'-8"	10'-7"	11'-5"	11'-2"
± 80.0	3'-6"	13'-8"	13'-4"	14'-4"	14'-0"
	4'-0"	13'-1"	12'-9"	13'-9"	13'-5"
	4'-6"	12'-5"	12'-3"	13'-3"	12'-11"
	5'-0"	11'-9"	11'-8"	12'-8"	12'-4"
	5'-6"	11'-2"	11'-1"	12'-1"	11'-9"
	6'-0"	10'-0"	10'-0"	10'-0"	10'-0"
	7'-0"	9'-11"	9'-10"	10'-0"	10'-0"
± 85.0	3'-6"	13'-5"	13'-1"	14'-1"	13'-9"
	4'-0"	12'-9"	12'-6"	13'-6"	13'-2"
	4'-6"	12'-0"	11'-11"	12'-11"	12'-7"
	5'-0"	11'-5"	11'-4"	12'-3"	11'-11"
	5'-6"	10'-10"	10'-9"	11'-8"	11'-5"
	6'-0"	10'-0"	10'-0"	10'-0"	10'-0"
	7'-0"	9'-8"	9'-7"	10'-0"	10'-0"
± 90.0	3'-6"	13'-2"	12'-10"	13'-10"	13'-6"
	4'-0"	12'-5"	12'-3"	13'-3"	12'-11"
	4'-6"	11'-8"	11'-7"	12'-7"	12'-3"
	5'-0"	11'-1"	11'-0"	11'-11"	11'-7"
	5'-6"	10'-7"	10'-6"	11'-4"	11'-1"
	6'-0"	10'-0"	10'-0"	10'-0"	10'-0"
	7'-0"	9'-9"	9'-8"	10'-0"	10'-0"
± 95.0	3'-6"	12'-11"	12'-7"	13'-7"	13'-3"
	4'-0"	12'-1"	11'-11"	13'-0"	12'-8"
	4'-6"	11'-4"	11'-3"	12'-3"	11'-11"
	5'-0"	10'-9"	10'-8"	11'-7"	11'-4"
	5'-6"	10'-3"	10'-2"	11'-1"	10'-9"
	6'-0"	9'-10"	9'-9"	10'-0"	10'-0"
	7'-0"	9'-5"	9'-4"	10'-0"	9'-11"

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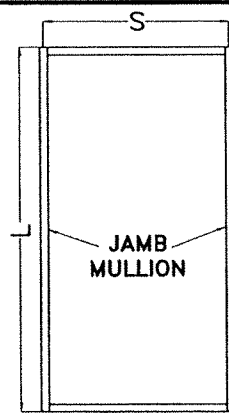
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290 WEST 78 ROAD HIALEAH, FL. 33014 PH: (954)226-5555/(305)558-8103 FAX: (305)558-6665 www.gigwindows.com			W.H. DRAWN BY		
9/12/2023 DATE			23-213 DRAWING No		
REV. No	DESCRIPTION	DATE	REV. No	DESCRIPTION	DATE
1	OLD 21-118	09/12/23	3	-	-
2	-	-	4	-	-



ELEVATION W/ INTERIOR MULLION @ MULTIPLE PANELS

"L" = MAXIMUM INTERIOR MULLION SPAN

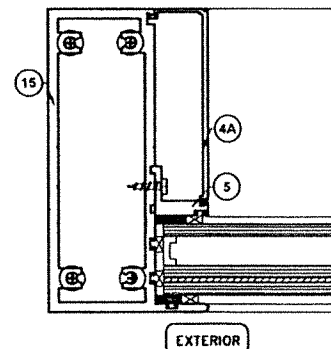
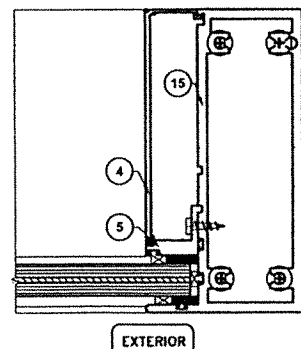
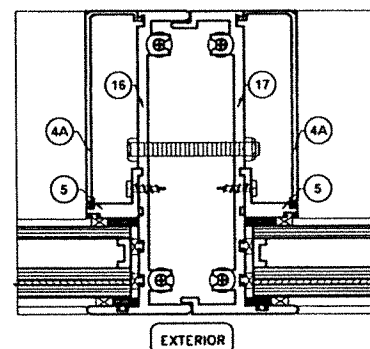
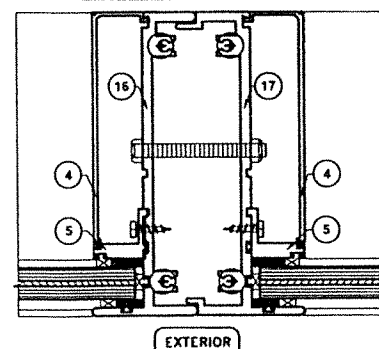
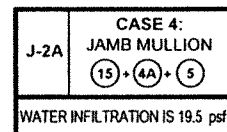
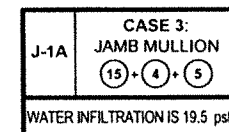
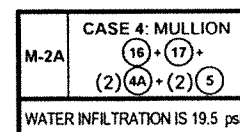
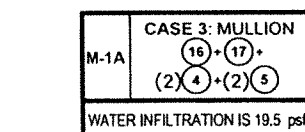
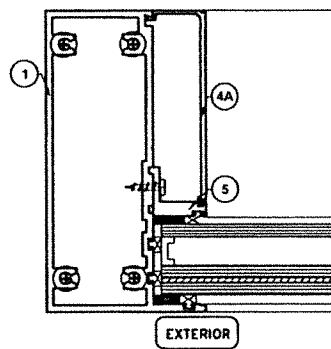
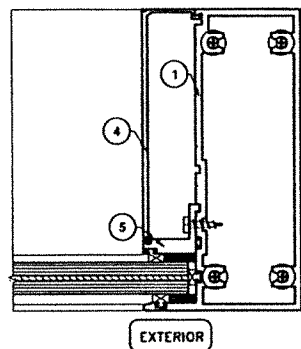
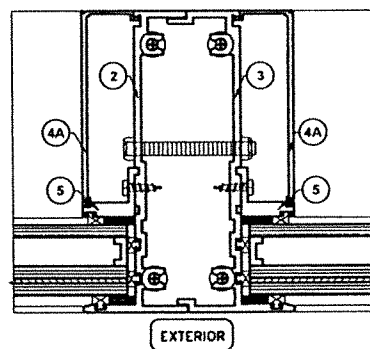
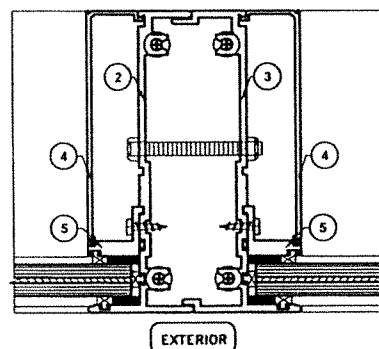
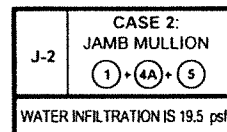
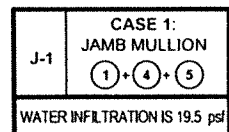
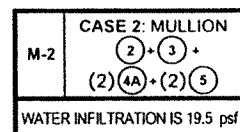
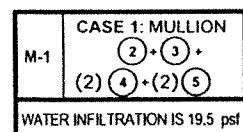
EFFECTIVE SPACING: "b" = $\frac{S_1 + S_2}{2}$, FOR MULTIPLE PANELS



ELEVATION W/ JAMB MULLION @ SINGLE PANEL

"L" = MAXIMUM JAMB MULLION SPAN

EFFECTIVE SPACING: "b" = S, FOR SINGLE PANEL



OPTIONAL SYSTEM # 1 (CONTINUED)

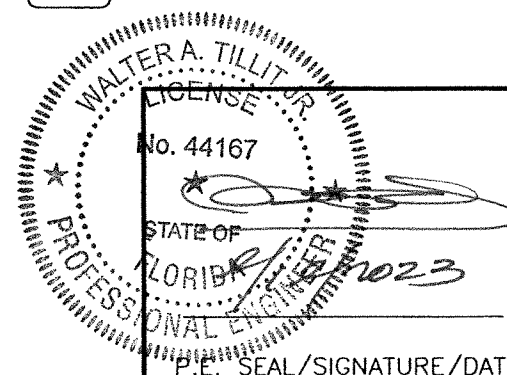
CASES DEFINITIONS

- CASE 1: M-1 INTERIOR MULLION: 1/8" THICK W/ LAMINATED GLASS (SEE DET. 5 ON SHEET 19)
 J-1 JAMB MULLION: 1/8" THICK W/ LAMINATED GLASS (SEE DET. 8 OR 8A ON SHEETS 20 & 21)
- CASE 2: M-2 INTERIOR MULLION: 1/8" THICK W/ INSULATED GLASS (SEE DET. 6 ON SHEET 19)
 J-2 JAMB MULLION: 1/8" THICK W/ INSULATED GLASS (SEE DET. 8 OR 8A ON SHEET 21)
- CASE 3: M-1A INTERIOR MULLION: 3/16" THICK W/ LAMINATED GLASS (SEE DET. 5 ON SHEET 19)
 J-1A JAMB MULLION: 3/16" THICK W/ LAMINATED GLASS (SEE DET. 8 OR 8A ON SHEETS 20 & 21)
- CASE 4: M-2A INTERIOR MULLION: 3/16" THICK W/ INSULATED GLASS (SEE DET. 6 ON SHEET 19)
 J-2A JAMB MULLION: 3/16" THICK W/ INSULATED GLASS (SEE DET. 8 OR 8A ON SHEET 21)

MAXIMUM INTERIOR MULLION AND JAMB MULLION SPAN "L"(FT) SCHEDULE FOR A GIVEN A.S.D. DESIGN PRESSURE RATING (psf) & A GIVEN MULLION EFFECTIVE SPACING "b" (CONTINUED)					
MAXIMUM DESIGN PRESSURE RATING "W" (psf)	MAX. EFFECTIVE SPACING "b" (ft-in)	MAXIMUM 1/8" THICK MULLION SPAN "L"(FT)		MAXIMUM 3/16" THICK MULLION SPAN "L"(FT)	
		Laminated Glass	Insulated Glass	Laminated Glass	Insulated Glass
		CASE 1	CASE 2	CASE 3	CASE 4
		M-1/J-1	M-2/J-2	M-1A/J-1A	M-2A/J-2A
± 100.0	3'-6"	12'-7"	12'-5"	13'-4"	13'-0"
	4'-0"	11'-9"	11'-8"	12'-8"	12'-4"
	4'-6"	11'-1"	11'-0"	11'-11"	11'-7"
	5'-0"	10'-6"	10'-5"	11'-4"	11'-0"
	5'-6"	10'-0"	9'-11"	10'-9"	10'-6"
	6'-0"	9'-7"	9'-6"	10'-0"	10'-0"
	6'-6"	9'-3"	9'-2"	9'-11"	9'-8"
	7'-0"	8'-11"	8'-10"	9'-7"	9'-4"
± 105.0	3'-6"	12'-3"	12'-2"	13'-1"	12'-10"
	4'-0"	11'-6"	11'-4"	12'-4"	12'-0"
	4'-6"	10'-10"	10'-9"	11'-8"	11'-4"
	5'-0"	10'-3"	10'-2"	11'-0"	10'-9"
	5'-6"	9'-9"	9'-8"	10'-6"	10'-3"
	6'-0"	9'-4"	9'-3"	10'-0"	9'-10"
	6'-6"	9'-0"	8'-11"	9'-8"	9'-5"
	7'-0"	8'-8"	8'-7"	9'-4"	9'-1"
± 110.0	3'-6"	12'-0"	11'-10"	12'-11"	12'-7"
	4'-0"	11'-2"	11'-1"	12'-1"	11'-9"
	4'-6"	10'-7"	10'-6"	11'-4"	11'-1"
	5'-0"	10'-0"	9'-11"	10'-9"	10'-6"
	5'-6"	9'-7"	9'-6"	10'-3"	10'-0"
	6'-0"	9'-2"	9'-1"	9'-10"	9'-7"
	6'-6"	8'-9"	8'-8"	9'-6"	9'-3"
	7'-0"	8'-6"	8'-5"	9'-1"	8'-11"
± 115.0	3'-6"	11'-9"	11'-7"	12'-7"	12'-3"
	4'-0"	10'-11"	10'-10"	11'-10"	11'-6"
	4'-6"	10'-4"	10'-3"	11'-1"	10'-10"
	5'-0"	9'-10"	9'-9"	10'-7"	10'-3"
	5'-6"	9'-4"	9'-3"	10'-1"	9'-10"
	6'-0"	8'-11"	8'-10"	9'-8"	9'-5"
	6'-6"	8'-7"	8'-6"	9'-3"	9'-0"
	7'-0"	8'-3"	8'-2"	8'-10"	8'-8"
± 120.0	3'-6"	11'-6"	11'-4"	12'-4"	12'-0"
	4'-0"	10'-9"	10'-8"	11'-7"	11'-3"
	4'-6"	10'-1"	10'-0"	10'-11"	10'-7"
	5'-0"	9'-7"	9'-6"	10'-4"	10'-1"
	5'-6"	9'-2"	9'-1"	9'-10"	9'-7"
	6'-0"	8'-9"	8'-8"	9'-5"	9'-2"
	6'-6"	8'-5"	8'-4"	9'-1"	8'-10"
	7'-0"	8'-1"	8'-0"	8'-6"	8'-6"
± 125.0	3'-6"	11'-3"	11'-2"	12'-1"	11'-9"
	4'-0"	10'-6"	10'-5"	11'-4"	11'-0"
	4'-6"	9'-11"	9'-10"	10'-8"	10'-5"
	5'-0"	9'-5"	9'-4"	10'-1"	9'-10"
	5'-6"	9'-0"	8'-11"	9'-8"	9'-5"
	6'-0"	8'-7"	8'-6"	9'-3"	9'-0"
	6'-6"	8'-3"	8'-2"	8'-9"	8'-8"
	7'-0"	7'-11"	7'-10"	8'-2"	8'-2"

MAXIMUM INTERIOR MULLION AND JAMB MULLION SPAN "L"(FT) SCHEDULE FOR A GIVEN A.S.D. DESIGN PRESSURE RATING (psf) & A GIVEN MULLION EFFECTIVE SPACING "b" (CONTINUED)					
MAXIMUM DESIGN PRESSURE RATING "W" (psf)	MAX. EFFECTIVE SPACING "b" (ft-in)	MAXIMUM 1/8" THICK MULLION SPAN "L"(FT)		MAXIMUM 3/16" THICK MULLION SPAN "L"(FT)	
		Laminated Glass	Insulated Glass	Laminated Glass	Insulated Glass
		CASE 1	CASE 2	CASE 3	CASE 4
		M-1/J-1	M-2/J-2	M-1A/J-1A	M-2A/J-2A
± 130.0	3'-6"	11'-0"	10'-11"	11'-10"	11'-7"
	4'-0"	10'-4"	10'-3"	11'-1"	10'-10"
	4'-6"	9'-9"	9'-8"	10'-6"	10'-2"
	5'-0"	9'-3"	9'-2"	9'-11"	9'-8"
	5'-6"	8'-9"	8'-8"	9'-6"	9'-3"
	6'-0"	8'-5"	8'-4"	9'-1"	8'-10"
	6'-6"	8'-1"	8'-0"	8'-5"	8'-5"
	7'-0"	7'-9"	7'-9"	7'-10"	7'-10"
+130.0, -135.0	3'-6"	10'-10"	10'-9"	11'-8"	11'-4"
	4'-0"	10'-1"	10'-0"	10'-11"	10'-7"
	4'-6"	9'-6"	9'-5"	10'-3"	10'-0"
	5'-0"	9'-0"	9'-0"	9'-9"	9'-6"
	5'-6"	8'-7"	8'-7"	9'-3"	9'-0"
	6'-0"	8'-3"	8'-2"	8'-10"	8'-8"
	6'-6"	7'-11"	7'-10"	8'-2"	8'-2"
	7'-0"	7'-7"	7'-7"	7'-7"	7'-7"
+130.0, -140.0	3'-6"	10'-7"	10'-6"	11'-5"	11'-2"
	4'-0"	9'-11"	9'-10"	10'-8"	10'-5"
	4'-6"	9'-4"	9'-3"	10'-1"	9'-10"
	5'-0"	8'-11"	8'-10"	9'-7"	9'-4"
	5'-6"	8'-6"	8'-5"	9'-1"	8'-11"
	6'-0"	8'-1"	8'-0"	8'-6"	8'-6"
	6'-6"	7'-9"	7'-10"	7'-10"	7'-10"
	7'-0"	7'-3"	7'-3"	7'-3"	7'-3"

FLORIDA BUILDING CODE (HIGH & NON HIGH VELOCITY HURRICANE ZONES)



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TILTECO INC.

TILLIT TESTING & ENGINEERING COMPANY
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 e-mail: tilteco@aol.com
 CA-0006719
 WALTER A. TILLIT Jr. P.E.
 FLORIDA Lic. # 44167

HIGH IMPACT GREEN WORLD FIXED GLASS WALL SERIES 12000 LARGE MISSILE LAMINATED & INSULATED GLASS					
				W.H. DRAWN BY	
290 WEST 78 ROAD HIALEAH, FL. 33014 PH: (954)226-5555/(305)558-8103 FAX: (305)558-6665 www.gigwindows.com				09/12/2023 DATE	
				23-213 DRAWING No	
REV. No	DESCRIPTION	DATE	REV. No	DESCRIPTION	DATE
1	OLD 21-118	09/12/23	3	-	-
2	-	-	4	-	-

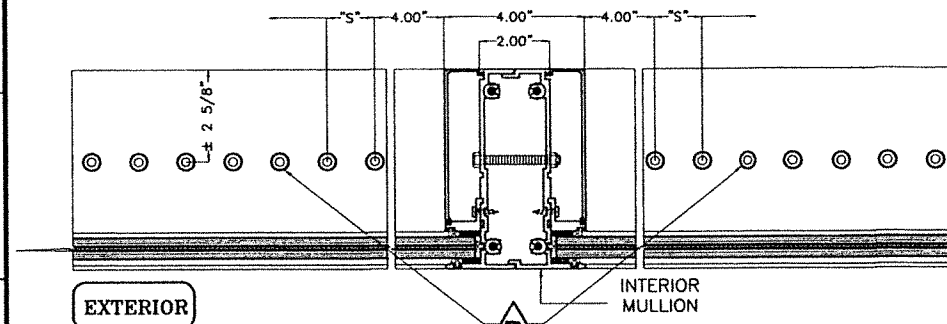
FASTENERS TYPES & SUBSTRATES REQUIREMENTS:

B - 3/8"Ø DEWALT INC., WEDGE-BOLT ANCHOR W/ 2" Min. EMBEDMENT INTO POURED CONCRETE (Min. $f_c = 3.0$ ksi), W/ S = 3" MIN. SPACING & 3 1/4" MIN. EDGE DISTANCE. FOR MAXIMUM SPACING, EMBEDMENT & EDGE DISTANCE ARE BEYOND ANY FINISH MATERIAL.

C - 1/4"Ø DEWALT INC., ULTRACON ANCHOR TO (2) 2" x WOOD BUCKS
(G=0.55) W/ 3" Min. PENETRATION INTO WOOD, W/ S = 2" Min. SPACING & 1" MIN. EDGE DISTANCE. FOR MAXIMUM SPACING, EMBEDMENT & EDGE DISTANCE ARE BEYOND ANY FINISH MATERIAL.

**D - 3/8"Ø LAG SCREW TO (2) 2" x WOOD BUCKS (G=0.55) W/ 3" Min. PENETRATION INTO WOOD,
W/ S = 2" Min. SPACING & 1 1/2" MIN. EDGE DISTANCE. FOR MAXIMUM SPACING,
EMBEDMENT & EDGE DISTANCE ARE BEYOND ANY FINISH MATERIAL.**

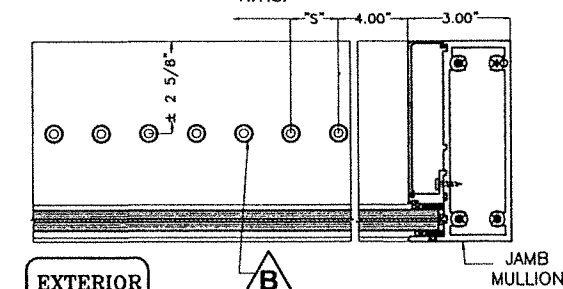
E - 3/8"Ø TYPE "F" BOLT TO 1/4" Min. THK. ASTM A-36 STEEL OR 1/4" 6063-T6 ALUMINUM (ALLOWED ONLY AT JAMBS) PER SHEET 21 W/ S = 2" MIN. SPACING & 1" MIN. EDGE DISTANCE OR 3/8"Ø SAE GRADE 5 GALVANIZED STEEL HHB THRU BOLT W/ NUT & LOCK WASHER.



"n" FASTENERS
n = TOTAL NUMBER OF FASTENERS PER CONNECTION AT HEAD/SILL
EQUALLY INSTALLED AT EACH SIDE OF INTERIOR MULLION

SILL OR HEAD CONNECTION DETAIL @
INTERIOR MULLION

(PLAN VIEW)
N.T.S.



"n/2" FASTENERS
n/2 = TOTAL NUMBER OF FASTENERS PER CONNECTION AT
HEAD/SILL, INSTALLED AT ONE SIDE OF JAMB MULLION

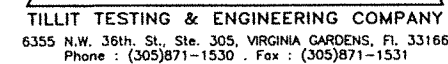
SILL OR HEAD CONNECTION DETAIL @ JAMB MULLION

(PLAN VIEW)
N.T.S.

MAXIMUM MULLION SPAN	EFFECTIVE SPACING	MAXIMUM DESIGN PRESSURE RATING W (psf) FOR 1/4" MAX. SHIM SPACE																												
		POURED CONCRETE SUBSTRATE												WOOD (2) 1 1/2" Min. THK. SUBSTRATE												STEEL 1/4" Min. THK. SUBSTRATE				
		FASTENERS TYPE						FASTENERS TYPE						FASTENERS TYPE						FASTENERS TYPE						FASTENERS TYPE				
		A (1/4"ø)						B (3/8"ø)						C (1/4"ø)						D (3/8"ø)						E (3/8"ø)				
"L" (Ft-in)	"b" (Ft-in)	n=4	n=6	n=8	n=10	n=12	n=4	n=6	n=8	n=10	n=12	n=4	n=6	n=8	n=10	n=12	n=4	n=6	n=8	n=10	n=12	n=4	n=6	n=8	n=10	n=12				
8' - 0"	3' - 6"	80.8	121.2	140.0	140.0	140.0	140.0	140.0	140.0	140.0	140.0	67.0	100.5	140.0	140.0	140.0	62.9	94.3	125.7	140.0	140.0	140.0	140.0	140.0	140.0	140.0	140.0			
	4' - 0"	70.7	106.1	140.0	140.0	140.0	140.0	140.0	140.0	140.0	140.0	58.7	88.0	140.0	140.0	140.0	55.0	82.5	110.0	137.5	140.0	140.0	140.0	140.0	140.0	140.0	140.0			
	4' - 6"	62.9	94.3	125.7	140.0	140.0	140.0	140.0	140.0	140.0	140.0	52.1	78.2	125.7	130.3	140.0	48.9	73.3	97.8	122.2	140.0	140.0	140.0	140.0	140.0	140.0	140.0			
	5' - 0"	56.6	84.8	113.1	140.0	140.0	140.0	140.0	140.0	140.0	140.0	46.9	70.4	113.1	117.3	140.0	44.0	66.0	88.0	110.0	132.0	140.0	140.0	140.0	140.0	140.0	140.0			
	5' - 6"	51.4	77.1	102.8	128.6	140.0	133.3	140.0	140.0	140.0	140.0	42.7	64.0	102.8	106.6	128.0	40.0	60.0	80.0	100.0	120.0	140.0	140.0	140.0	140.0	140.0	140.0			
	6' - 0"	47.1	70.7	94.3	117.8	140.0	122.2	140.0	140.0	140.0	140.0	39.1	58.7	94.3	97.8	117.3	36.7	55.0	73.3	91.7	110.0	140.0	140.0	140.0	140.0	140.0	140.0			
	6' - 6"	43.5	65.3	87.0	108.8	130.5	112.8	140.0	140.0	140.0	140.0	36.1	54.1	87.0	90.2	108.3	33.9	50.8	67.7	84.6	101.6	140.0	140.0	140.0	140.0	140.0	140.0			
8' - 6"	7' - 0"	40.4	60.6	80.8	101.0	121.2	104.7	140.0	140.0	140.0	140.0	33.5	50.3	80.8	83.8	100.5	31.4	47.2	62.9	78.6	94.3	130.2	140.0	140.0	140.0	140.0	140.0			
	3' - 6"	76.1	114.1	140.0	140.0	140.0	140.0	140.0	140.0	140.0	140.0	63.1	94.6	140.0	140.0	140.0	59.2	88.8	118.3	140.0	140.0	140.0	140.0	140.0	140.0	140.0				
	4' - 0"	66.5	99.8	133.1	140.0	140.0	140.0	140.0	140.0	140.0	140.0	55.2	82.8	133.1	138.0	140.0	51.8	77.7	103.6	129.4	140.0	140.0	140.0	140.0	140.0	140.0				
	4' - 6"	59.2	88.7	118.3	140.0	140.0	140.0	140.0	140.0	140.0	140.0	49.1	73.6	118.3	122.7	140.0	46.0	69.0	92.0	115.1	138.1	140.0	140.0	140.0	140.0	140.0				
	5' - 0"	53.2	79.9	106.5	133.1	140.0	138.0	140.0	140.0	140.0	140.0	44.2	66.2	106.5	110.4	132.5	41.4	62.1	82.8	103.6	124.3	140.0	140.0	140.0	140.0	140.0				
	5' - 6"	48.4	72.6	96.8	121.0	140.0	125.4	140.0	140.0	140.0	140.0	40.1	60.2	96.8	100.4	120.4	37.7	56.5	75.3	94.1	113.0	140.0	140.0	140.0	140.0	140.0				
	6' - 0"	44.4	66.5	88.7	110.9	133.1	115.0	140.0	140.0	140.0	140.0	36.8	55.2	88.7	92.0	110.4	34.5	51.8	69.0	86.3	103.6	140.0	140.0	140.0	140.0	140.0				
9' - 0"	6' - 6"	41.0	61.4	81.9	102.4	122.9	106.1	140.0	140.0	140.0	140.0	34.0	51.0	81.9	84.9	101.9	31.9	47.8	63.7	79.7	95.6	131.9	140.0	140.0	140.0	140.0	140.0			
	7' - 0"	38.0	57.0	76.1	95.1	114.1	98.6	140.0	140.0	140.0	140.0	31.5	47.3	76.1	78.9	94.6	29.6	44.4	59.2	74.0	88.8	122.5	140.0	140.0	140.0	140.0				
	3' - 6"	71.8	107.7	140.0	140.0	140.0	140.0	140.0	140.0	140.0	140.0	59.6	89.4	140.0	140.0	140.0	55.9	83.8	111.8	139.7	140.0	140.0	140.0	140.0	140.0	140.0				
	4' - 0"	62.9	94.3	125.7	140.0	140.0	140.0	140.0	140.0	140.0	140.0	52.1	78.2	125.7	130.3	140.0	48.9	73.3	97.8	122.2	140.0	140.0	140.0	140.0	140.0	140.0				
	4' - 6"	55.9	83.8	111.7	139.7	140.0	140.0	140.0	140.0	140.0	140.0	46.3	69.5	111.7	115.9	139.0	43.5	65.2	86.9	108.7	130.4	140.0	140.0	140.0	140.0	140.0				
	5' - 0"	50.3	75.4	100.6	125.7	140.0	130.3	140.0	140.0	140.0	140.0	41.7	62.6	100.6	104.3	125.1	39.1	58.7	78.2	97.8	117.4	140.0	140.0	140.0	140.0	140.0				
	5' - 6"	45.7	68.6	91.4	114.3	137.1	118.5	140.0	140.0	140.0	140.0	37.9	56.9	91.4	94.8	113.7	35.6	53.3	71.1	88.9	106.7	140.0	140.0	140.0	140.0	140.0				
9' - 6"	6' - 0"	41.9	62.9	83.8	104.8	125.7	108.6	140.0	140.0	140.0	140.0	34.8	52.1	83.8	86.9	104.3	32.6	48.9	65.2	81.5	97.8	135.0	140.0	140.0	140.0	140.0				
	6' - 6"	38.7	58.0	77.4	96.7	116.0	100.2	140.0	140.0	140.0	140.0	32.1	48.1	77.4	80.2	96.2	30.1	45.1	60.2	75.2	90.3	124.6	140.0	140.0	140.0	140.0				
	7' - 0"	35.9	53.9	71.8	89.8	107.7	93.1	139.6	140.0	140.0	140.0	29.8	44.7	71.8	74.5	89.4	27.9	41.9	55.9	69.9	83.8	115.7	140.0	140.0	140.0	140.0				
	3' - 6"	68.0	102.1	136.1	140.0	140.0	140.0	140.0	140.0	140.0	140.0	56.4	84.7	136.1	140.0	140.0	52.9	79.4	105.9	132.4	140.0	140.0	140.0	140.0	140.0	140.0				
	4' - 0"	59.5	89.3	119.1	140.0	140.0	140.0	140.0	140.0	140.0	140.0	49.4	74.1	119.1	123.5	140.0	46.3	69.5	92.7	115.8	139.0	140.0	140.0	140.0	140.0	140.0				
	4' - 6"	52.9	79.4	105.9	132.3	140.0	137.2	140.0	140.0	140.0	140.0	43.9	65.9	105.9	109.8	131.7	41.2	61.8	82.4	102.9	123.5	140.0	140.0	140.0	140.0	140.0				
	5' - 0"	47.6	71.5	95.3	119.1	140.0	123.5	140.0	140.0	140.0	140.0	39.5	59.3	95.3	98.8	118.5	37.1	55.6	74.1	92.7	111.2	140.0	140.0	140.0	140.0	140.0				
10' - 0"	5' - 6"	43.3	65.0	86.6	108.3	129.9	112.2	140.0	140.0	140.0	140.0	35.9	53.9	86.6	89.8	107.8	33.7	50.5	67.4	84.2	101.1	139.5	140.0	140.0	140.0	140.0				
	6' - 0"	39.7	59.5	79.4	99.2	119.1	102.9	140.0	140.0	140.0	140.0	32.9	49.4	79.4	82.3	99.8	30.9	46.3	61.8	77.2	92.7	127.9	140.0	140.0	140.0	140.0				
	6' - 6"	36.6	55.0	73.3	91.6	109.9	95.0	140.0	140.0	140.0	140.0	30.4	45.6	73.3	76.0	91.2	28.5	42.8	57.0	71.3	85.5	118.0	140.0	140.0	140.0	140.0				
	7' - 0"	34.0	51.0	68.0	85.1	102.1	88.2	132.3	140.0	140.0	140.0	28.2	42.3	68.0	70.6	84.7	26.5	39.7	52.9	66.2	79.4	109.6	140.0	140.0	140.0	140.0				
	3' - 6"	64.6	97.0	129.3	140.0	140.0	140.0	140.0	140.0	140.0	140.0	53.6	80.4	129.3	134.1	140.0	50.3	75.4	100.6	125.7	140.0	140.0	140.0	140.0	140.0	140.0				
	4' - 0"	56.6	84.8	113.1	140.0	140.0	140.0	140.0	140.0	140.0	140.0	46.9	70.4	113.1	117.3	140.0	44.0	66.0	88.0	110.0	132.0	140.0	140.0	140.0	140.0	140.0				
	4' - 6"	50.3	75.4	100.6	125.7	140.0	130.3	140.0	140.0	140.0	140.0	41.7	62.6	100.6	104.3	125.1	39.1	58.7	78.2	97.8	117.4	140.0	140.0	140.0	140.0	140.0				
10' - 6"	5' - 0"	45.3	67.9	90.5	113.1	135.8	117.3	140.0	140.0	140.0	140.0	37.5	56.3	90.5	93.8	112.6	35.2	52.8	70.4	88.0	105.6	140.0	140.0	140.0	140.0	140.0				
	5' - 6"	41.1	61.7	82.3	102.8	123.4	106.6	140.0	140.0	140.0	140.0	34.1	51.2	82.3	85.3	102.4	32.0	48.0	64.0	80.0	96.0	132.5	140.0	140.0	140.0	140.0				
	6' - 0"	37.7	56.6	75.4	94.3	113.1	97.7	140.0	140.0	140.0	140.0	31.3	46.9	75.4	78.2	93.8	29.3	44.0	58.7	73.3	88.0	121.5	140.0	140.0	140.0	140.0				
	6' - 6"	34.8	52.2	69.6	87.0	104.4	90.2	135.3	140.0	140.0	140.0	28.9	43.3	69.6	72.2	86.6	27.1	40.6	54.2	67.7	81.2	112.1	140.0	140.0	140.0	140.0				
	7' - 0"	32.3	48.5	64.6	80.8	97.0	83.8	125.7	140.0	140.0	140.0	26.8	40.2	64.6	67.0	80.4	25.1	37.7	50.3	62.9	75.4	104.1	140.0	140.0	140.0	140.0				
	3' - 6"	61.6	92.4	123.1	140.0	140.0	140.0	140.0	140.0	140.0	140.0	51.1	76.6	123.1	127.7	140.0	47.9	71.9	95.8	119.8	140.0	140.0	140.0	140.0	140.0	140.0				
	4' - 0"	53.9	80.8	107.7	134.7	140.0	139.6	140.0	140.0	140.0	140.0	44.7	67.0	107.7	111.7	134.1	41.9	62.9	83.8	104.8	125.7	140.0	140.0	140.0	140.0	140.0				
11' - 0"	4' - 6"	47.9	71.8	95.8	119.7	140.0	124.1	140.0	140.0	140.0	140.0	39.7	59.6	95.8	99.3	119.2	37.3	55.9	74.5	93.1	111.8	140.0	140.0	140.0	140.0	140.0				
	5' - 0"	43.1	64.6	86.2	107.7	129.3	111.7	140.0	140.0	140.0	140.0	35.7	53.6	86.2	89.4	107.2	33.5	50.3	67.1	83.8	100.6	138.8	140.0	140.0	140.0	140.0				
	5' - 6"	39.2	58.8	78.4	97.9	117.5	101.5	140.0	140.0	140.0	140.0	32.5	48.7	78.4	81.2	97.5	30.5	45.7	61.0	76.2	91.4	126.2	140.0	140.0	140.0	140.0				
	6' - 0"	35.9	53.9	71.8	89.8	107.7	93.1	139.6	140.0	140.0	140.0	29.8	44.7	71.8	74.5	89.4	27.9	41.9	55.9	69.9	83.8	115.7	140.0	140.0	140.0	140.0				
	6' - 6"																													

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MAXIMUM A.S.D. DESIGN PRESSURE RATING SCHEDULE FOR INTERIOR MULLION'S & JAMB MULLION'S HEAD/SILL CONNECTIONS: OPTIONAL SYSTEM # 1

MAXIMUM MULLION SPAN	EFFECTIVE SPACING	MAXIMUM DESIGN PRESSURE RATING W (psf) FOR 1/4" MAX. SHIM SPACE (CONTINUED)																												
		POURED CONCRETE SUBSTRATE												WOOD (2) 1 1/2" Min. THK. SUBSTRATE												STEEL 1/4" Min. THK.				
		FASTENERS TYPE						FASTENERS TYPE						FASTENERS TYPE						FASTENERS TYPE						FASTENERS TYPE				
		A (1/4")						B (3/8")						C (1/4")						D (3/8")						E (3/8")				
"L" (Ft-in)	"b" (Ft-in)	n=4	n=6	n=8	n=10	n=12	n=4	n=6	n=8	n=10	n=12	n=4	n=6	n=8	n=10	n=12	n=4	n=6	n=8	n=10	n=12	n=4	n=6	n=8	n=10	n=12				
11' - 6"	3' - 6"	56.2	84.3	112.4	140.0	140.0	140.0	140.0	140.0	140.0	140.0	46.6	69.9	112.4	116.6	139.9	43.7	65.6	87.5	109.3	131.2	140.0	140.0	140.0	140.0	140.0				
	4' - 0"	49.2	73.8	98.4	123.0	140.0	127.5	140.0	140.0	140.0	140.0	40.8	61.2	98.4	102.0	122.4	38.3	57.4	76.5	95.7	114.8	140.0	140.0	140.0	140.0	140.0				
	4' - 6"	43.7	65.6	87.4	109.3	131.2	113.3	140.0	140.0	140.0	140.0	36.3	54.4	87.4	90.7	108.8	34.0	51.0	68.0	85.0	102.1	140.0	140.0	140.0	140.0	140.0				
	5' - 0"	39.3	59.0	78.7	98.4	118.0	102.0	140.0	140.0	140.0	140.0	32.6	49.0	78.7	81.6	97.9	30.6	45.9	61.2	76.5	91.8	126.8	140.0	140.0	140.0	140.0				
	5' - 6"	35.8	53.7	71.5	89.4	107.3	92.7	139.1	140.0	140.0	140.0	29.7	44.5	71.5	74.2	89.0	27.8	41.7	55.7	69.6	83.5	115.2	140.0	140.0	140.0	140.0				
	6' - 0"	32.8	49.2	65.6	82.0	98.4	85.0	127.5	140.0	140.0	140.0	27.2	40.8	65.6	68.0	81.6	25.5	38.3	51.0	63.8	76.5	105.6	140.0	140.0	140.0	140.0				
	6' - 6"	30.3	45.4	60.5	75.7	90.8	78.5	117.7	140.0	140.0	140.0	25.1	37.7	60.5	62.8	75.3	23.6	35.3	47.1	58.9	70.7	97.5	140.0	140.0	140.0	140.0				
12' - 0"	7' - 0"	28.1	42.2	56.2	70.3	84.3	72.8	109.3	140.0	140.0	140.0	23.3	35.0	56.2	58.3	69.9	21.9	32.8	43.7	54.7	65.6	90.5	135.8	140.0	140.0	140.0				
	3' - 6"	53.9	80.8	107.7	134.7	140.0	139.6	140.0	140.0	140.0	140.0	44.7	67.0	107.7	111.7	134.1	41.9	62.9	83.8	104.8	125.7	140.0	140.0	140.0	140.0	140.0				
	4' - 0"	47.1	70.7	94.3	117.8	140.0	122.2	140.0	140.0	140.0	140.0	39.1	58.7	94.3	97.8	117.3	36.7	55.0	73.3	91.7	110.0	140.0	140.0	140.0	140.0	140.0				
	4' - 6"	41.9	62.9	83.8	104.8	125.7	108.6	140.0	140.0	140.0	140.0	34.8	52.1	83.8	86.9	104.3	32.6	48.9	65.2	81.5	97.8	135.0	140.0	140.0	140.0	140.0				
	5' - 0"	37.7	56.6	75.4	94.3	113.1	97.7	140.0	140.0	140.0	140.0	31.3	46.9	75.4	78.2	93.8	29.3	44.0	58.7	73.3	88.0	121.5	140.0	140.0	140.0	140.0				
	5' - 6"	34.3	51.4	68.6	85.7	102.8	88.9	133.3	140.0	140.0	140.0	28.4	42.7	68.6	71.1	85.3	26.7	40.0	53.3	66.7	80.0	110.4	140.0	140.0	140.0	140.0				
	6' - 0"	31.4	47.1	62.9	78.6	94.3	81.4	122.2	140.0	140.0	140.0	26.1	39.1	62.9	65.2	78.2	24.4	36.7	48.9	61.1	73.3	101.2	140.0	140.0	140.0	140.0				
12' - 6"	6' - 6"	29.0	43.5	58.0	72.5	87.0	75.2	112.8	140.0	140.0	140.0	24.1	36.1	58.0	60.2	72.2	22.6	33.9	45.1	56.4	67.7	93.4	140.0	140.0	140.0	140.0				
	7' - 0"	26.9	40.4	53.9	67.3	80.8	69.8	104.7	139.6	140.0	140.0	22.3	33.5	53.9	55.9	67.0	21.0	31.4	41.9	52.4	62.9	86.8	130.2	140.0	140.0	140.0				
	3' - 6"	51.7	77.6	103.4	129.3	140.0	134.0	140.0	140.0	140.0	140.0	42.9	64.3	103.4	107.2	128.7	40.2	60.4	80.5	100.6	120.7	140.0	140.0	140.0	140.0	140.0				
	4' - 0"	45.3	67.9	90.5	113.1	135.8	117.3	140.0	140.0	140.0	140.0	37.5	56.3	90.5	93.8	112.6	35.2	52.8	70.4	88.0	105.6	140.0	140.0	140.0	140.0	140.0				
	4' - 6"	40.2	60.3	80.4	100.6	120.7	104.3	140.0	140.0	140.0	140.0	33.4	50.0	80.4	83.4	100.1	31.3	46.9	62.6	78.2	93.9	129.6	140.0	140.0	140.0	140.0				
	5' - 0"	36.2	54.3	72.4	90.5	108.6	93.8	140.0	140.0	140.0	140.0	30.0	45.0	72.4	75.1	90.1	28.2	42.2	56.3	70.4	84.5	116.6	140.0	140.0	140.0	140.0				
	5' - 6"	32.9	49.4	65.8	82.3	98.7	85.3	127.9	140.0	140.0	140.0	27.3	40.9	65.8	68.2	81.9	25.6	38.4	51.2	64.0	76.8	106.0	140.0	140.0	140.0	140.0				
13' - 0"	6' - 0"	30.2	45.3	60.3	75.4	90.5	78.2	117.3	140.0	140.0	140.0	25.0	37.5	60.3	62.6	75.1	23.5	35.2	46.9	58.7	70.4	97.2	140.0	140.0	140.0	140.0				
	6' - 6"	27.8	41.8	55.7	69.6	83.5	72.2	108.3	140.0	140.0	140.0	23.1	34.6	55.7	57.7	69.3	21.7	32.5	43.3	54.2	65.0	89.7	134.6	140.0	140.0	140.0				
	7' - 0"	25.9	38.8	51.7	64.6	77.6	67.0	100.5	134.0	140.0	140.0	21.4	32.2	51.7	53.6	64.3	20.1	30.2	40.2	50.3	60.4	83.3	124.9	140.0	140.0	140.0				
	3' - 6"	49.7	74.6	99.5	124.3	140.0	128.9	140.0	140.0	140.0	140.0	41.2	61.9	99.5	103.1	123.7	38.7	58.0	77.4	96.7	116.1	140.0	140.0	140.0	140.0	140.0				
	4' - 0"	43.5	65.3	87.0	108.8	130.5	112.8	140.0	140.0	140.0	140.0	36.1	54.1	87.0	90.2	108.3	33.9	50.8	67.7	84.6	101.6	140.0	140.0	140.0	140.0	140.0				
	4' - 6"	38.7	58.0	77.4	96.7	116.0	100.2	140.0	140.0	140.0	140.0	32.1	48.1	77.4	80.2	96.2	30.1	45.1	60.2	75.2	90.3	124.6	140.0	140.0	140.0	140.0				
	5' - 0"	34.8	52.2	69.6	87.0	104.4	90.2	135.3	140.0	140.0	140.0	28.9	43.3	69.6	72.2	86.6	27.1	40.6	54.2	67.7	81.2	112.1	140.0	140.0	140.0	140.0				
13' - 6"	5' - 6"	31.6	47.5	63.3	79.1	94.9	82.0	123.0	140.0	140.0	140.0	26.2	39.4	63.3	65.6	78.7	24.6	36.9	49.2	61.6	73.9	101.9	140.0	140.0	140.0	140.0				
	6' - 0"	29.0	43.5	58.0	72.5	87.0	75.2	112.8	140.0	140.0	140.0	24.1	36.1	58.0	60.2	72.2	22.6	33.9	45.1	56.4	67.7	93.4	140.0	140.0	140.0	140.0				
	6' - 6"	26.8	40.2	53.6	66.9	80.3	69.4	104.1	138.8	140.0	140.0	22.2	33.3	53.6	55.5	66.6	20.8	31.2	41.7	52.1	62.5	86.3	129.4	140.0	140.0	140.0				
	7' - 0"	24.9	37.3	49.7	62.2	74.6	64.4	96.7	128.9	140.0	140.0	20.6	30.9	49.7	51.6	61.9	19.3	29.0	38.7	48.4	58.0	80.1	120.1	140.0	140.0	140.0				
	3' - 6"	47.9	71.8	95.8	119.7	140.0	124.1	140.0	140.0	140.0	140.0	39.7	59.6	95.8	99.3	119.2	37.3	55.9	74.5	93.1	111.8	140.0	140.0	140.0	140.0	140.0				
	4' - 0"	41.9	62.9	83.8	104.8	125.7	108.6	140.0	140.0	140.0	140.0	34.8	52.1	83.8	86.9	104.3	32.6	48.9	65.2	81.5	97.8	135.0	140.0	140.0	140.0	140.0				
	4' - 6"	37.2	55.9	74.5	93.1	111.7	96.5	140.0	140.0	140.0	140.0	30.9	46.3	74.5	77.2	92.7	29.0	43.5	58.0	72.4	86.9	120.0	140.0	140.0	140.0	140.0				
14' - 0"	5' - 0"	33.5	50.3	67.0	83.8	100.6	86.9	130.3	140.0	140.0	140.0	27.8	41.7	67.0	69.5	83.4	26.1	39.1	52.2	65.2	78.2	108.0	140.0	140.0	140.0	140.0				
	5' - 6"	30.5	45.7	60.9	76.2	91.4	79.0	118.5	140.0	140.0	140.0	25.3	37.9	60.9	63.2	75.8	23.7	35.6	47.4	59.3	71.1	98.2	140.0	140.0	140.0	140.0				
	6' - 0"	27.9	41.9	55.9	69.8	83.8	72.4	108.6	140.0	140.0	140.0	23.2	34.8	55.9	57.9	69.5	21.7	32.6	43.5	54.3	65.2	90.0	135.0	140.0	140.0	140.0				
	6' - 6"	25.8	38.7	51.6	64.5	77.4	66.8	100.2	133.7	140.0	140.0	21.4	32.1	51.6	53.5	64.2	20.1	30.1	40.1	50.2	60.2	83.1	124.6	140.0	140.0	140.0				
	7' - 0"	23.9	35.9	47.9	59.9	71.8	62.1	93.1	124.1	140.0	140.0	19.9	29.8	47.9	49.7	59.6	18.6	27.9	37.3	46.6	55.9	77.1	115.7	140.0	140.0	140.0				
	3' - 6"	46.2	69.3	92																										

MAXIMUM A.S.D. DESIGN PRESSURE RATING SCHEDULE FOR INTERIOR MULLION'S & JAMB MULLION'S HEAD/SILL CONNECTIONS: OPTIONAL SYSTEM # 1

MAXIMUM MULLION SPAN	EFFECTIVE SPACING	MAXIMUM DESIGN PRESSURE RATING W (psf) FOR 1/4" MAX. SHIM SPACE (CONTINUED)																								
		POURED CONCRETE SUBSTRATE										WOOD (2) 1 1/2" Min. THK. SUBSTRATE										STEEL 1/4" Min. THK.				
		FASTENERS TYPE					FASTENERS TYPE					FASTENERS TYPE					FASTENERS TYPE					FASTENERS TYPE				
		A (1/4")					B (3/8")					C (1/4")					D (3/8")					E (3/8")				
"L" (Ft-In)	"b" (Ft-In)	n=4	n=6	n=8	n=10	n=12	n=4	n=6	n=8	n=10	n=12	n=4	n=6	n=8	n=10	n=12	n=4	n=6	n=8	n=10	n=12	n=4	n=6	n=8	n=10	n=12
15' - 0"	3' - 6"	43.1	64.6	86.2	107.7	129.3	111.7	140.0	140.0	140.0	140.0	35.7	53.6	86.2	89.4	107.2	33.5	50.3	67.1	83.8	100.6	138.8	140.0	140.0	140.0	140.0
	4' - 0"	37.7	56.6	75.4	94.3	113.1	97.7	140.0	140.0	140.0	140.0	31.3	46.9	75.4	78.2	93.8	29.3	44.0	58.7	73.3	88.0	121.5	140.0	140.0	140.0	140.0
	4' - 6"	33.5	50.3	67.0	83.8	100.6	86.9	130.3	140.0	140.0	140.0	27.8	41.7	67.0	69.5	83.4	26.1	39.1	52.2	65.2	78.2	108.0	140.0	140.0	140.0	140.0
	5' - 0"	30.2	45.3	60.3	75.4	90.5	78.2	117.3	140.0	140.0	140.0	25.0	37.5	60.3	62.6	75.1	23.5	35.2	46.9	58.7	70.4	97.2	140.0	140.0	140.0	140.0
	5' - 6"	27.4	41.1	54.9	68.6	82.3	71.1	106.6	140.0	140.0	140.0	22.7	34.1	54.9	56.9	68.2	21.3	32.0	42.7	53.3	64.0	88.3	132.5	140.0	140.0	140.0
	6' - 0"	25.1	37.7	50.3	62.9	75.4	65.2	97.7	130.3	140.0	140.0	20.9	31.3	50.3	52.1	62.6	19.6	29.3	39.1	48.9	58.7	81.0	121.5	140.0	140.0	140.0
	6' - 6"	23.2	34.8	46.4	58.0	69.6	60.1	90.2	120.3	140.0	140.0	19.2	28.9	46.4	48.1	57.7	18.1	27.1	36.1	45.1	54.2	74.8	112.1	140.0	140.0	140.0
15' - 6"	7' - 0"	21.5	32.3	43.1	53.9	64.6	55.9	83.8	111.7	139.6	140.0	17.9	26.8	43.1	44.7	53.6	16.8	25.1	33.5	41.9	50.3	69.4	104.1	138.8	140.0	140.0
	3' - 6"	41.7	62.6	83.4	104.3	125.1	108.1	140.0	140.0	140.0	140.0	34.6	51.9	83.4	86.5	103.8	32.4	48.7	64.9	81.1	97.3	134.4	140.0	140.0	140.0	140.0
	4' - 0"	36.5	54.7	73.0	91.2	109.5	94.6	140.0	140.0	140.0	140.0	30.3	45.4	73.0	75.7	90.8	28.4	42.6	56.8	71.0	85.2	117.6	140.0	140.0	140.0	140.0
	4' - 6"	32.4	48.7	64.9	81.1	97.3	84.1	126.1	140.0	140.0	140.0	26.9	40.4	64.9	67.3	80.7	25.2	37.9	50.5	63.1	75.7	104.5	140.0	140.0	140.0	140.0
	5' - 0"	29.2	43.8	58.4	73.0	87.6	75.7	113.5	140.0	140.0	140.0	24.2	36.3	58.4	60.5	72.7	22.7	34.1	45.4	56.8	68.1	94.0	140.0	140.0	140.0	140.0
	5' - 6"	26.5	39.8	53.1	66.4	79.6	68.8	103.2	137.6	140.0	140.0	22.0	33.0	53.1	55.0	66.0	20.6	31.0	41.3	51.6	61.9	85.5	128.2	140.0	140.0	140.0
	6' - 0"	24.3	36.5	48.7	60.8	73.0	63.1	94.6	126.1	140.0	140.0	20.2	30.3	48.7	50.5	60.5	18.9	28.4	37.9	47.3	56.8	78.4	117.6	140.0	140.0	140.0
15' - 9"	6' - 6"	22.5	33.7	44.9	56.1	67.4	58.2	87.3	116.4	140.0	140.0	18.6	27.9	44.9	46.6	55.9	17.5	26.2	34.9	43.7	52.4	72.3	108.5	140.0	140.0	140.0
	7' - 0"	20.9	31.3	41.7	52.1	62.6	54.0	81.1	108.1	135.1	140.0	17.3	25.9	41.7	43.2	51.9	16.2	24.3	32.4	40.6	48.7	67.2	100.8	134.4	140.0	140.0
	3' - 6"	41.0	61.6	82.1	102.6	123.1	106.4	140.0	140.0	140.0	140.0	34.0	51.1	82.1	85.1	102.1	31.9	47.9	63.9	79.8	95.8	132.2	140.0	140.0	140.0	140.0
	4' - 0"	35.9	53.9	71.8	89.8	107.7	93.1	139.6	140.0	140.0	140.0	29.8	44.7	71.8	74.5	89.4	27.9	41.9	55.9	69.9	83.8	115.7	140.0	140.0	140.0	140.0
	4' - 6"	31.9	47.9	63.8	79.8	95.8	82.7	124.1	140.0	140.0	140.0	26.5	39.7	63.8	66.2	79.4	24.8	37.3	49.7	62.1	74.5	102.8	140.0	140.0	140.0	140.0
	5' - 0"	28.7	43.1	57.5	71.8	86.2	74.5	111.7	140.0	140.0	140.0	23.8	35.7	57.5	59.6	71.5	22.4	33.5	44.7	55.9	67.1	92.6	138.8	140.0	140.0	140.0
	5' - 6"	26.1	39.2	52.2	65.3	78.4	67.7	101.5	135.4	140.0	140.0	21.7	32.5	52.2	54.2	65.0	20.3	30.5	40.6	50.8	61.0	84.1	126.2	140.0	140.0	140.0
15' - 9"	6' - 0"	23.9	35.9	47.9	59.9	71.8	62.1	93.1	124.1	140.0	140.0	19.9	29.8	47.9	49.7	59.6	18.6	27.9	37.3	46.6	55.9	77.1	115.7	140.0	140.0	140.0
	6' - 6"	22.1	33.2	44.2	55.3	66.3	57.3	85.9	114.6	140.0	140.0	18.3	27.5	44.2	45.8	55.0	17.2	25.8	34.4	43.0	51.6	71.2	106.8	140.0	140.0	140.0
	7' - 0"	20.5	30.8	41.0	51.3	61.6	53.2	79.8	106.4	133.0	140.0	17.0	25.5	41.0	42.6	51.1	16.0	24.0	31.9	39.9	47.9	66.1	99.2	132.2	140.0	140.0

FASTENERS TYPES & SUBSTRATES REQUIREMENTS:

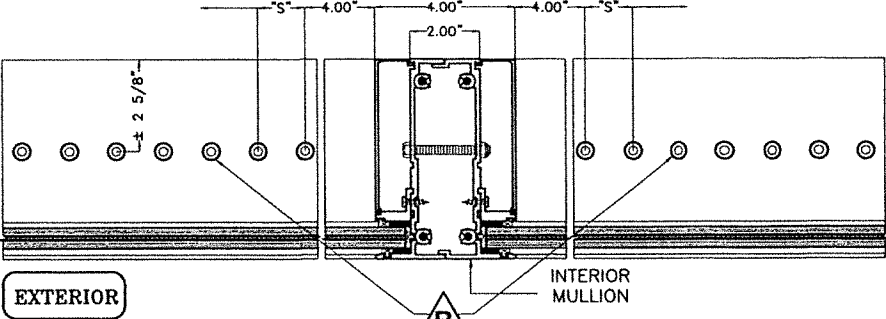
A - 1/4"Ø DEWALT INC., ULTRACON ANCHOR W/ 1 3/4" Min. EMBEDMENT INTO POURED CONCRETE (Min. f_c = 2.730 ksi), W/ S = 4" MIN. SPACING & 2 1/2" MIN. EDGE DISTANCE. FOR MAXIMUM SPACING, EMBEDMENT & EDGE DISTANCE ARE BEYOND ANY FINISH MATERIAL.

B - 3/8"Ø DEWALT INC., WEDGE-BOLT ANCHOR W/ 2" Min. EMBEDMENT INTO POURED CONCRETE (Min. f_c = 3.0 ksi), W/ S = 3" MIN. SPACING & 3 1/4" MIN. EDGE DISTANCE. FOR MAXIMUM SPACING, EMBEDMENT & EDGE DISTANCE ARE BEYOND ANY FINISH MATERIAL.

C - 1/4"Ø DEWALT INC., ULTRACON ANCHOR TO (2) 2" x WOOD BUCKS (G=0.55) W/ 3" Min. PENETRATION INTO WOOD, W/ S = 2" Min. SPACING & 1" MIN. EDGE DISTANCE. FOR MAXIMUM SPACING, EMBEDMENT & EDGE DISTANCE ARE BEYOND ANY FINISH MATERIAL.

D - 3/8"Ø LAG SCREW TO (2) 2" x WOOD BUCKS (G=0.55) W/ 3" Min. PENETRATION INTO WOOD, W/ S = 2" Min. SPACING & 1 1/2" MIN. EDGE DISTANCE. FOR MAXIMUM SPACING, EMBEDMENT & EDGE DISTANCE ARE BEYOND ANY FINISH MATERIAL.

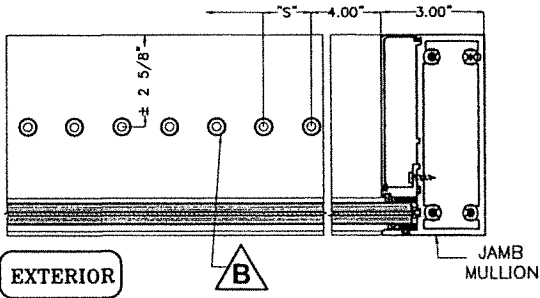
E - 3/8"Ø TYPE "F" BOLT TO 1/4" Min. THK. ASTM A-36 STEEL W/ S = 2" MIN. SPACING & 1" MIN. EDGE DISTANCE OR 3/8"Ø SAE GRADE 5 GALVANIZED STEEL HHB THRU BOLT W/ NUT & LOCK WASHER.



"n" FASTENERS
n = TOTAL NUMBER OF FASTENERS PER CONNECTION AT HEAD/SILL, EQUALLY INSTALLED AT EACH SIDE OF INTERIOR MULLION

SILL OR HEAD CONNECTION DETAIL @ INTERIOR MULLION

(PLAN VIEW)
N.T.S.



"n/2" FASTENERS
n/2 = TOTAL NUMBER OF FASTENERS PER CONNECTION AT HEAD/SILL, INSTALLED AT ONE SIDE OF JAMB MULLION

SILL OR HEAD CONNECTION DETAIL @ JAMB MULLION

(PLAN VIEW)
N.T.S.

WALTER A. TILLIT JR.
LICENSE
No. 44167
STATE OF FLORIDA
PROFESSIONAL ENGINEER
P.E. SEAL/SIGNATURE/DATE

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TILLIT TESTING & ENGINEERING COMPANY
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WALTER A. TILLIT Jr. P.E.
FLORIDA Lic. # 44167

FLORIDA BUILDING CODE (HIGH & NON HIGH VELOCITY HURRICANE ZONES)

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SERIES 12000 LARGE MISSILE LAMINATED & INSULATED GLASS

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DATE

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DRAWING No

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REV. No	DESCRIPTION	DATE	REV. No	DESCRIPTION	DATE
1	OLD 21-118	09/12/23	3	-	-
2	-	-	4	-	-

MAXIMUM A.S.D. DESIGN PRESSURE RATING SCHEDULE FOR INTERIOR MULLION'S & JAMB MULLION'S HEAD/SILL CONNECTIONS: OPTIONAL SYSTEM # 1

MAXIMUM MULLION SPAN	EFFECTIVE SPACING	MAXIMUM DESIGN PRESSURE RATING W (psf) FOR 3/8" MAX. LOAD BEARINGSHIM SPACE																												
		POURED CONCRETE SUBSTRATE												WOOD (2) 2" x THK. SUBSTRATE												STEEL 1/4" Min. THK. SUBSTRATE				
		FASTENERS TYPE					FASTENERS TYPE					FASTENERS TYPE					FASTENERS TYPE					FASTENERS TYPE								
		A (1/4")					B (3/8")					C (1/4")					D (3/8")					E (3/8")								
"L" (Ft-in)	"b" (Ft-in)	n=4	n=6	n=8	n=10	n=12	n=4	n=6	n=8	n=10	n=12	n=4	n=6	n=8	n=10	n=12	n=4	n=6	n=8	n=10	n=12	n=4	n=6	n=8	n=10	n=12				
8' - 0" OR LESS	3' - 6"	58.7	88.0	117.4	140.0	140.0	140.0	140.0	140.0	140.0	140.0	58.7	88.0	117.4	140.0	140.0	62.9	94.3	125.7	140.0	140.0	140.0	140.0	140.0	140.0	140.0				
	4' - 0"	51.4	77.0	102.7	128.4	140.0	140.0	140.0	140.0	140.0	140.0	51.4	77.0	102.7	128.4	140.0	55.0	82.5	110.0	137.5	140.0	140.0	140.0	140.0	140.0	140.0				
	4' - 6"	45.7	68.5	91.3	114.1	137.0	135.1	140.0	140.0	140.0	140.0	45.7	68.5	91.3	114.1	137.0	48.9	73.3	97.8	122.2	140.0	140.0	140.0	140.0	140.0	140.0				
	5' - 0"	41.1	61.6	82.2	102.7	123.3	121.6	140.0	140.0	140.0	140.0	41.1	61.6	82.2	102.7	123.3	44.0	66.0	88.0	110.0	132.0	138.5	140.0	140.0	140.0	140.0				
	5' - 6"	37.4	56.0	74.7	93.4	112.1	110.5	140.0	140.0	140.0	140.0	37.4	56.0	74.7	93.4	112.1	40.0	60.0	80.0	100.0	120.0	125.9	140.0	140.0	140.0	140.0				
	6' - 0"	34.2	51.4	68.5	85.6	102.7	101.3	140.0	140.0	140.0	140.0	34.2	51.4	68.5	85.6	102.7	36.7	55.0	73.3	91.7	110.0	115.4	140.0	140.0	140.0	140.0				
	6' - 6"	31.6	47.4	63.2	79.0	94.8	93.5	140.0	140.0	140.0	140.0	31.6	47.4	63.2	79.0	94.8	33.9	50.8	67.7	84.6	101.6	106.5	140.0	140.0	140.0	140.0				
8' - 6"	7' - 0"	29.3	44.0	58.7	73.4	88.0	86.8	130.3	140.0	140.0	140.0	29.3	44.0	58.7	73.4	88.0	31.4	47.2	62.9	78.6	94.3	98.9	140.0	140.0	140.0	140.0				
	3' - 6"	55.2	82.9	110.5	138.1	140.0	140.0	140.0	140.0	140.0	140.0	55.2	82.9	110.5	138.1	140.0	59.2	88.8	118.3	140.0	140.0	140.0	140.0	140.0	140.0	140.0				
	4' - 0"	48.3	72.5	96.7	120.8	140.0	140.0	140.0	140.0	140.0	140.0	48.3	72.5	96.7	120.8	140.0	51.8	77.7	103.6	129.4	140.0	140.0	140.0	140.0	140.0	140.0				
	4' - 6"	43.0	64.5	85.9	107.4	128.9	127.1	140.0	140.0	140.0	140.0	43.0	64.5	85.9	107.4	128.9	46.0	69.0	92.0	115.1	138.1	140.0	140.0	140.0	140.0	140.0				
	5' - 0"	38.7	58.0	77.3	96.7	116.0	114.4	140.0	140.0	140.0	140.0	38.7	58.0	77.3	96.7	116.0	41.4	62.1	82.8	103.6	124.3	130.3	140.0	140.0	140.0	140.0				
	5' - 6"	35.2	52.7	70.3	87.9	105.5	104.0	140.0	140.0	140.0	140.0	35.2	52.7	70.3	87.9	105.5	37.7	56.5	75.3	94.1	113.0	118.5	140.0	140.0	140.0	140.0				
	6' - 0"	32.2	48.3	64.5	80.6	96.7	95.4	140.0	140.0	140.0	140.0	32.2	48.3	64.5	80.6	96.7	34.5	51.8	69.0	86.3	103.6	108.6	140.0	140.0	140.0	140.0				
9' - 0"	6' - 6"	29.7	44.6	59.5	74.4	89.2	88.0	132.0	140.0	140.0	140.0	29.7	44.6	59.5	74.4	89.2	31.9	47.8	63.7	79.7	95.6	100.3	140.0	140.0	140.0	140.0				
	7' - 0"	27.6	41.4	55.2	69.1	82.9	81.7	122.6	140.0	140.0	140.0	27.6	41.4	55.2	69.1	82.9	29.6	44.4	59.2	74.0	88.8	93.1	139.7	140.0	140.0	140.0				
	3' - 6"	52.2	78.3	104.4	130.4	140.0	140.0	140.0	140.0	140.0	140.0	52.2	78.3	104.4	130.4	140.0	55.9	83.8	111.8	139.7	140.0	140.0	140.0	140.0	140.0	140.0				
	4' - 0"	45.7	68.5	91.3	114.1	137.0	135.1	140.0	140.0	140.0	140.0	45.7	68.5	91.3	114.1	137.0	48.9	73.3	97.8	122.2	140.0	140.0	140.0	140.0	140.0	140.0				
	4' - 6"	40.6	60.9	81.2	101.5	121.7	120.1	140.0	140.0	140.0	140.0	40.6	60.9	81.2	101.5	121.7	43.5	65.2	86.9	108.7	130.4	136.8	140.0	140.0	140.0	140.0				
	5' - 0"	36.5	54.8	73.0	91.3	109.6	108.1	140.0	140.0	140.0	140.0	36.5	54.8	73.0	91.3	109.6	39.1	58.7	78.2	97.8	117.4	123.1	140.0	140.0	140.0	140.0				
	5' - 6"	33.2	49.8	66.4	83.0	99.6	98.3	140.0	140.0	140.0	140.0	33.2	49.8	66.4	83.0	99.6	35.6	53.3	71.1	88.9	106.7	111.9	140.0	140.0	140.0	140.0				
9' - 6"	6' - 0"	30.4	45.7	60.9	76.1	91.3	90.1	135.1	140.0	140.0	140.0	30.4	45.7	60.9	76.1	91.3	32.6	48.9	65.2	81.5	97.8	102.6	140.0	140.0	140.0	140.0				
	6' - 6"	28.1	42.1	56.2	70.2	84.3	83.1	124.7	140.0	140.0	140.0	28.1	42.1	56.2	70.2	84.3	30.1	45.1	60.2	75.2	90.3	94.7	140.0	140.0	140.0	140.0				
	7' - 0"	26.1	39.1	52.2	65.2	78.3	77.2	115.8	140.0	140.0	140.0	26.1	39.1	52.2	65.2	78.3	27.9	41.9	55.9	69.9	83.8	87.9	131.9	140.0	140.0	140.0				
	3' - 6"	49.4	74.1	98.9	123.6	140.0	140.0	140.0	140.0	140.0	140.0	49.4	74.1	98.9	123.6	140.0	52.9	79.4	105.9	132.4	140.0	140.0	140.0	140.0	140.0	140.0				
	4' - 0"	43.3	64.9	86.5	108.1	129.8	128.0	140.0	140.0	140.0	140.0	43.3	64.9	86.5	108.1	129.8	46.3	69.5	92.7	115.8	139.0	140.0	140.0	140.0	140.0	140.0				
	4' - 6"	38.4	57.7	76.9	96.1	115.3	113.8	140.0	140.0	140.0	140.0	38.4	57.7	76.9	96.1	115.3	41.2	61.8	82.4	102.9	123.5	129.6	140.0	140.0	140.0	140.0				
	5' - 0"	34.6	51.9	69.2	86.5	103.8	102.4	140.0	140.0	140.0	140.0	34.6	51.9	69.2	86.5	103.8	37.1	55.6	74.1	92.7	111.2	116.6	140.0	140.0	140.0	140.0				
10' - 0"	5' - 6"	31.5	47.2	62.9	78.6	94.4	93.1	139.6	140.0	140.0	140.0	31.5	47.2	62.9	78.6	94.4	33.7	50.5	67.4	84.2	101.1	106.0	140.0	140.0	140.0	140.0				
	6' - 0"	28.8	43.3	57.7	72.1	86.5	85.3	128.0	140.0	140.0	140.0	28.8	43.3	57.7	72.1	86.5	30.9	46.3	61.8	77.2	92.7	97.2	140.0	140.0	140.0	140.0				
	6' - 6"	26.6	39.9	53.2	66.5	79.8	78.8	118.1	140.0	140.0	140.0	26.6	39.9	53.2	66.5	79.8	28.5	42.8	57.0	71.3	85.5	89.7	134.6	140.0	140.0	140.0				
	7' - 0"	24.7	37.1	49.4	61.8	74.1	73.1	109.7	140.0	140.0	140.0	24.7	37.1	49.4	61.8	74.1	26.5	39.7	52.9	66.2	79.4	83.3	125.0	140.0	140.0	140.0				
	3' - 6"	47.0	70.4	93.9	117.4	140.0	139.0	140.0	140.0	140.0	140.0	47.0	70.4	93.9	117.4	140.0	50.3	75.4	100.6	125.7	140.0	140.0	140.0	140.0	140.0	140.0				
	4' - 0"	41.1	61.6	82.2	102.7	123.3	121.6	140.0	140.0	140.0	140.0	41.1	61.6	82.2	102.7	123.3	44.0	66.0	88.0	110.0	132.0	138.5	140.0	140.0	140.0	140.0				
	4' - 6"	36.5	54.8	73.0	91.3	109.6	108.1	140.0	140.0	140.0	140.0	36.5	54.8	73.0	91.3	109.6	39.1	58.7	78.2	97.8	117.4	123.1	140.0	140.0	140.0	140.0				
10' - 6"	5' - 0"	32.9	49.3	65.7	82.2	98.6	97.3	140.0	140.0	140.0	140.0	32.9	49.3	65.7	82.2	98.6	35.2	52.8	70.4	88.0	105.6	110.8	140.0	140.0	140.0	140.0				
	5' - 6"	29.9	44.8	59.8	74.7	89.6	88.4	132.6	140.0	140.0	140.0	29.9	44.8	59.8	74.7	89.6	32.0	48.0	64.0	80.0	96.0	100.7	140.0	140.0	140.0	140.0				
	6' - 0"	27.4	41.1	54.8	68.5	82.2	81.1	121.6	140.0	140.0	140.0	27.4	41.1	54.8	68.5	82.2	29.3	44.0	58.7	73.3	88.0	92.3	138.5	140.0	140.0	140.0				
	6' - 6"	25.3	37.9	50.6	63.2	75.9	74.8	112.2	140.0	140.0	140.0	25.3	37.9	50.6	63.2	75.9	27.1	40.6	54.2	67.7	81.2	85.2	127.8	140.0	140.0	140.0				
	7' - 0"	23.5	35.2	47.0	58.7	70.4	69.5	104.2	139.0	140.0	140.0	23.5	35.2	47.0	58.7	70.4	25.1	37.7	50.3	622										

MAXIMUM A.S.D. DESIGN PRESSURE RATING SCHEDULE FOR INTERIOR MULLION'S & JAMB MULLION'S HEAD/SILL CONNECTIONS: OPTIONAL SYSTEM # 1

MAXIMUM MULLION SPAN	EFFECTIVE SPACING	MAXIMUM DESIGN PRESSURE RATING W (psf) FOR 3/8" MAX. LOAD BEARING SHIM SPACE (CONTINUED)																										
		POURED CONCRETE SUBSTRATE												WOOD (2) 2" x THK. SUBSTRATE										STEEL 1/4" Min. THK.				
		FASTENERS TYPE					FASTENERS TYPE					FASTENERS TYPE					FASTENERS TYPE					FASTENERS TYPE						
		A (1/4")					B (3/8")					C (1/4")					D (3/8")					E (3/8")						
"L" (Ft-In)	"b" (Ft-In)	n=4	n=6	n=8	n=10	n=12	n=4	n=6	n=8	n=10	n=12	n=4	n=6	n=8	n=10	n=12	n=4	n=6	n=8	n=10	n=12	n=4	n=6	n=8	n=10	n=12		
11' - 6"	3' - 6"	40.8	61.2	81.7	102.1	122.5	120.8	140.0	140.0	140.0	140.0	40.8	61.2	81.7	102.1	122.5	43.7	65.6	87.5	109.3	131.2	137.6	140.0	140.0	140.0	140.0		
	4' - 0"	35.7	53.6	71.5	89.3	107.2	105.7	140.0	140.0	140.0	140.0	35.7	53.6	71.5	89.3	107.2	38.3	57.4	76.5	95.7	114.8	120.4	140.0	140.0	140.0	140.0		
	4' - 6"	31.8	47.6	63.5	79.4	95.3	94.0	140.0	140.0	140.0	140.0	31.8	47.6	63.5	79.4	95.3	34.0	51.0	68.0	85.0	102.1	107.0	140.0	140.0	140.0	140.0		
	5' - 0"	28.6	42.9	57.2	71.5	85.7	84.6	126.9	140.0	140.0	140.0	28.6	42.9	57.2	71.5	85.7	30.6	45.9	61.2	76.5	91.8	96.3	140.0	140.0	140.0	140.0		
	5' - 6"	26.0	39.0	52.0	65.0	78.0	76.9	115.3	140.0	140.0	140.0	26.0	39.0	52.0	65.0	78.0	27.8	41.7	55.7	69.6	83.5	87.6	131.4	140.0	140.0	140.0		
	6' - 0"	23.8	35.7	47.6	59.5	71.5	70.5	105.7	140.0	140.0	140.0	23.8	35.7	47.6	59.5	71.5	25.5	38.3	51.0	63.8	76.5	80.3	120.4	140.0	140.0	140.0		
	6' - 6"	22.0	33.0	44.0	55.0	66.0	65.1	97.6	130.1	140.0	140.0	22.0	33.0	44.0	55.0	66.0	23.6	35.3	47.1	58.9	70.7	74.1	111.2	140.0	140.0	140.0		
7' - 0"	20.4	30.6	40.8	51.0	61.2	60.4	90.6	120.8	140.0	140.0	20.4	30.6	40.8	51.0	61.2	21.9	32.8	43.7	54.7	65.6	68.8	103.2	137.6	140.0	140.0			
12' - 0"	3' - 6"	39.1	58.7	78.3	97.8	117.4	115.8	140.0	140.0	140.0	140.0	39.1	58.7	78.3	97.8	117.4	41.9	62.9	83.8	104.8	125.7	131.9	140.0	140.0	140.0	140.0		
	4' - 0"	34.2	51.4	68.5	85.6	102.7	101.3	140.0	140.0	140.0	140.0	34.2	51.4	68.5	85.6	102.7	36.7	55.0	73.3	91.7	110.0	115.4	140.0	140.0	140.0	140.0		
	4' - 6"	30.4	45.7	60.9	76.1	91.3	90.1	135.1	140.0	140.0	140.0	30.4	45.7	60.9	76.1	91.3	32.6	48.9	65.2	81.5	97.8	102.6	140.0	140.0	140.0	140.0		
	5' - 0"	27.4	41.1	54.8	68.5	82.2	81.1	121.6	140.0	140.0	140.0	27.4	41.1	54.8	68.5	82.2	29.3	44.0	58.7	73.3	88.0	92.3	138.5	140.0	140.0	140.0		
	5' - 6"	24.9	37.4	49.8	62.3	74.7	73.7	110.5	140.0	140.0	140.0	24.9	37.4	49.8	62.3	74.7	26.7	40.0	53.3	66.7	80.0	83.9	125.9	140.0	140.0	140.0		
	6' - 0"	22.8	34.2	45.7	57.1	68.5	67.5	101.3	135.1	140.0	140.0	22.8	34.2	45.7	57.1	68.5	24.4	36.7	48.9	61.1	73.3	76.9	115.4	140.0	140.0	140.0		
	6' - 6"	21.1	31.6	42.1	52.7	63.2	62.4	93.5	124.7	140.0	140.0	21.1	31.6	42.1	52.7	63.2	22.6	33.9	45.1	56.4	67.7	71.0	106.5	140.0	140.0	140.0		
7' - 0"	19.6	29.3	39.1	48.9	58.7	57.9	86.8	115.8	140.0	140.0	19.6	29.3	39.1	48.9	58.7	21.0	31.4	41.9	52.4	62.9	65.9	98.9	131.9	140.0	140.0			
12' - 6"	3' - 6"	37.6	56.3	75.1	93.9	112.7	111.2	140.0	140.0	140.0	140.0	37.6	56.3	75.1	93.9	112.7	40.2	60.4	80.5	100.6	120.7	126.6	140.0	140.0	140.0	140.0		
	4' - 0"	32.9	49.3	65.7	82.2	98.6	97.3	140.0	140.0	140.0	140.0	32.9	49.3	65.7	82.2	98.6	35.2	52.8	70.4	88.0	105.6	110.8	140.0	140.0	140.0	140.0		
	4' - 6"	29.2	43.8	58.4	73.0	87.7	86.5	129.7	140.0	140.0	140.0	29.2	43.8	58.4	73.0	87.7	31.3	46.9	62.6	78.2	93.9	98.5	140.0	140.0	140.0	140.0		
	5' - 0"	26.3	39.4	52.6	65.7	78.9	77.8	116.7	140.0	140.0	140.0	26.3	39.4	52.6	65.7	78.9	28.2	42.2	56.3	70.4	84.5	88.6	132.9	140.0	140.0	140.0		
	5' - 6"	23.9	35.9	47.8	59.8	71.7	70.7	106.1	140.0	140.0	140.0	23.9	35.9	47.8	59.8	71.7	25.6	38.4	51.2	64.0	76.8	80.6	120.9	140.0	140.0	140.0		
	6' - 0"	21.9	32.9	43.8	54.8	65.7	64.8	97.3	129.7	140.0	140.0	21.9	32.9	43.8	54.8	65.7	23.5	35.2	46.9	58.7	70.4	73.9	110.8	140.0	140.0	140.0		
	6' - 6"	20.2	30.3	40.5	50.6	60.7	59.9	89.8	119.7	140.0	140.0	20.2	30.3	40.5	50.6	60.7	21.7	32.5	43.3	54.2	65.0	68.2	102.3	136.4	140.0	140.0		
7' - 0"	18.1	27.1	36.1	45.2	54.2	53.4	80.2	106.9	133.6	140.0	18.1	27.1	36.1	45.2	54.2	19.3	29.0	38.7	48.4	58.0	60.9	91.3	121.7	140.0	140.0			
13' - 0"	3' - 6"	36.1	54.2	72.2	90.3	108.4	106.9	140.0	140.0	140.0	140.0	36.1	54.2	72.2	90.3	108.4	38.7	58.0	77.4	96.7	116.1	121.7	140.0	140.0	140.0	140.0		
	4' - 0"	31.6	47.4	63.2	79.0	94.8	93.5	140.0	140.0	140.0	140.0	31.6	47.4	63.2	79.0	94.8	33.9	50.8	67.7	84.6	101.6	106.5	140.0	140.0	140.0	140.0		
	4' - 6"	28.1	42.1	56.2	70.2	84.3	83.1	124.7	140.0	140.0	140.0	28.1	42.1	56.2	70.2	84.3	30.1	45.1	60.2	75.2	90.3	94.7	140.0	140.0	140.0	140.0		
	5' - 0"	25.3	37.9	50.6	63.2	75.9	74.8	112.2	140.0	140.0	140.0	25.3	37.9	50.6	63.2	75.9	27.1	40.6	54.2	67.7	81.2	85.2	127.8	140.0	140.0	140.0		
	5' - 6"	23.0	34.5	46.0	57.5	69.0	68.0	102.0	136.0	140.0	140.0	23.0	34.5	46.0	57.5	69.0	24.6	36.9	49.2	61.6	73.9	77.5	116.2	140.0	140.0	140.0		
	6' - 0"	21.1	31.6	42.1	52.7	63.2	62.4	93.5	124.7	140.0	140.0	21.1	31.6	42.1	52.7	63.2	22.6	33.9	45.1	56.4	67.7	71.0	106.5	140.0	140.0	140.0		
	6' - 6"	18.7	28.1	37.5	46.8	56.2	55.4	83.1	110.8	138.6	140.0	18.7	28.1	37.5	46.8	56.2	20.1	30.1	40.1	50.2	60.2	63.1	94.7	126.3	140.0	140.0		
7' - 0"	17.4	26.1	34.8	43.5	52.2	51.5	77.2	102.9	128.7	140.0	17.4	26.1	34.8	43.5	52.2	18.6	27.9	37.3	46.6	55.9	58.6	87.9	117.2	140.0	140.0			
13' - 6"	3' - 6"	34.8	52.2	69.6	87.0	104.4	102.9	140.0	140.0	140.0	140.0	34.8	52.2	69.6	87.0	104.4	37.3	55.9	74.5	93.1	111.8	117.2	140.0	140.0	140.0	140.0		
	4' - 0"	30.4	45.7	60.9	76.1	91.3	90.1	135.1	140.0	140.0	140.0	30.4	45.7	60.9	76.1	91.3	32.6	48.9	65.2	81.5	97.8	102.6	140.0	140.0	140.0	140.0		
	4' - 6"	27.1	40.6	54.1	67.6	81.2	80.1	120.1	140.0	140.0	140.0	27.1	40.6	54.1	67.6	81.2	29.0	43.5	58.0	72.4	86.9	91.2	136.8	140.0	140.0	140.0		
	5' - 0"	24.3	36.5	48.7	60.9	73.0	72.1	108.1	140.0	140.0	140.0	24.3	36.5	48.7	60.9	73.0	26.1	39.1	52.2	65.2	78.2	82.1	123.1	140.0	140.0	140.0		
	5' - 6"	22.1	33.2	44.3	55.3	66.4	65.5	98.3	131.0	140.0	140.0	22.1	33.2	44.3	55.3	66.4	23.7	35.6	47.4	59.3	71.1	74.6	111.9	140.0	140.0	140.0		
	6' - 0"	18.9	28.3	37.8	47.2	56.7	55.9	83.9	111.8	139.8	140.0	18.9	28.3	37.8	47.2	56.7	20.2	30.4	40.5	50.6	60.7	63.7	95.5	127.3	140.0	140.0		
	6' - 6"	17.4	26.2	34.9	43.6	52.3	51.6	77.4	103.2	129.0	140.0	17.4	26.2	34.9	43.6	52.3	18.7	28.0	37.4	46.7	56.0	58.8	88.2	117.6	140.0	140.0		
7' - 0"	16.2	24.3	32.4	40.5	48.6	47.9	71.9	95.8	119.8	140.0	16.2	24.3	32.4	40.5	48.6	17.3	26.0	34.7	43.4	52.0	54.6	81.9	109.2	136.4	140.0			
14' - 6"	3' - 6"	32.4	48.6	64.8	81.0	97.2	95.8	140.0	140.0	140.0	140.0	32.4	48.6	64.8	81.0	97.2	34.7	52.0	69.4	86.7	104.1	109.2	140.0	140.0	140.0	140.0		
	4' - 0"	28.3	42.5	56.7	70.8	85.0	83.9	125.8	140.0	140.0	140.0	28.3	42.5	56.7	70.8	85.0	30.4	45.5	60.7	75.9	91.1	95.5	140.0	140.0	140.0	140.0		
	4' - 6"	25.2	37.8	50.4	63.0	75.6	74.5																					

FASTENERS TYPES & SUBSTRATES REQUIREMENTS:

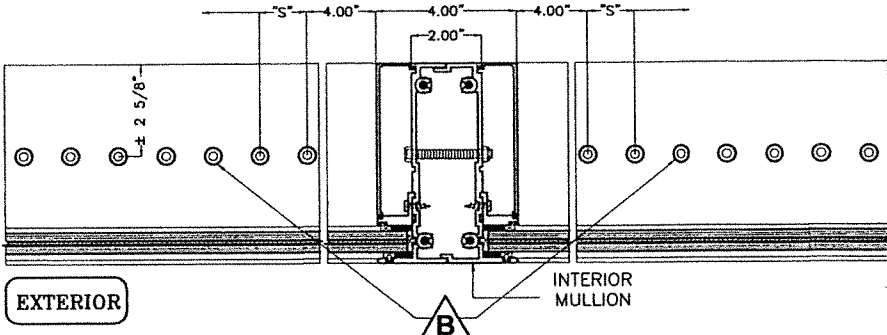
- A - 1/4"Ø DEWALT INC., ULTRACON ANCHOR W/ 1 3/4" Min. EMBEDMENT INTO POURED CONCRETE (Min. f_c = 2,730 ksi), W/ S = 4" MIN. SPACING & 2 1/2" MIN. EDGE DISTANCE. FOR

MAXIMUM A.S.D. DESIGN PRESSURE RATING SCHEDULE FOR INTERIOR MULLION'S & JAMB MULLION'S HEAD/SILL CONNECTIONS: OPTIONAL SYSTEM # 1

FASTENERS TYPES & SUBSTRATES REQUIREMENTS:

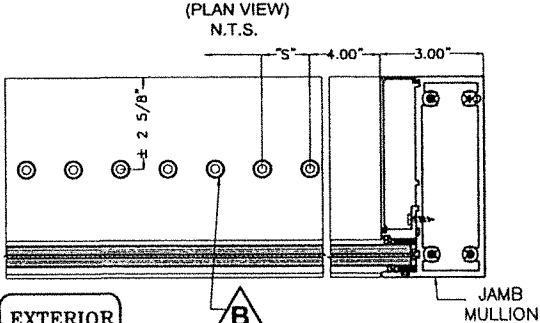
- A - 1/4"Ø DEWALT INC., ULTRACON ANCHOR W/ 1 3/4" Min. EMBEDMENT INTO POURED CONCRETE (Min. f_c = 2,730 ksi), W/ S = 4" MIN. SPACING & 2 1/2" MIN. EDGE DISTANCE. FOR MAXIMUM SPACING, EMBEDMENT & EDGE DISTANCE ARE BEYOND ANY FINISH MATERIAL.
- B - 3/8"Ø DEWALT INC., WEDGE-BOLT ANCHOR W/ 2" Min. EMBEDMENT INTO POURED CONCRETE (Min. f_c = 3,0 ksi), W/ S = 3" MIN. SPACING & 3 1/4" MIN. EDGE DISTANCE. FOR MAXIMUM SPACING, EMBEDMENT & EDGE DISTANCE ARE BEYOND ANY FINISH MATERIAL.
- C - 1/4"Ø DEWALT INC., ULTRACON ANCHOR TO (2) 2" x WOOD BUCKS (G=0.55) W/ 3" Min. PENETRATION INTO WOOD, W/ S = 2" Min. SPACING & 1" MIN. EDGE DISTANCE. FOR MAXIMUM SPACING, EMBEDMENT & EDGE DISTANCE ARE BEYOND ANY FINISH MATERIAL.
- D - 3/8"Ø LAG SCREW TO (2) 2" x WOOD BUCKS (G=0.55) W/ 3" Min. PENETRATION INTO WOOD, W/ S = 2" Min. SPACING & 1 1/2" MIN. EDGE DISTANCE. FOR MAXIMUM SPACING, EMBEDMENT & EDGE DISTANCE ARE BEYOND ANY FINISH MATERIAL.
- E - 3/8"Ø TYPE "F" BOLT TO 1/4" Min. THK. ASTM A-36 STEEL W/ S = 2" MIN. SPACING & 1" MIN. EDGE DISTANCE OR 3/8"Ø SAE GRADE 5 GALVANIZED STEEL HHB THRU BOLT W/ NUT & LOCK WASHER.

MAXIMUM MULLION SPAN	EFFECTIVE SPACING	MAXIMUM DESIGN PRESSURE RATING W (psf) FOR 3/8" MAX. LOAD BEARING SHIM SPACE (CONTINUED)																								
		POURED CONCRETE SUBSTRATE										WOOD (2) 2" x THK. SUBSTRATE										STEEL 1/4" Min. THK.				
		FASTENERS TYPE					FASTENERS TYPE					FASTENERS TYPE					FASTENERS TYPE					FASTENERS TYPE				
		A (1/4"Ø)					B (3/8"Ø)					C (1/4"Ø)					D (3/8"Ø)					E (3/8"Ø)				
"L" (Ft-in)	"b" (Ft-in)	n=4	n=6	n=8	n=10	n=12	n=4	n=6	n=8	n=10	n=12	n=4	n=6	n=8	n=10	n=12	n=4	n=6	n=8	n=10	n=12	n=4	n=6	n=8	n=10	n=12
15' - 0"	3' - 6"	31.3	47.0	62.6	78.3	93.9	92.6	139.0	140.0	140.0	140.0	31.3	47.0	62.6	78.3	93.9	33.5	50.3	67.1	83.8	100.6	105.5	140.0	140.0	140.0	140.0
	4' - 0"	27.4	41.1	54.8	68.5	82.2	81.1	121.6	140.0	140.0	140.0	27.4	41.1	54.8	68.5	82.2	29.3	44.0	58.7	73.3	88.0	92.3	138.5	140.0	140.0	140.0
	4' - 6"	24.3	36.5	48.7	60.9	73.0	72.1	108.1	140.0	140.0	140.0	24.3	36.5	48.7	60.9	73.0	26.1	39.1	52.2	65.2	78.2	82.1	123.1	140.0	140.0	140.0
	5' - 0"	21.2	31.8	42.4	53.0	63.6	62.8	94.1	125.5	140.0	140.0	21.2	31.8	42.4	53.0	63.6	22.7	34.1	45.4	56.8	68.1	71.5	107.2	140.0	140.0	140.0
	5' - 6"	19.3	28.9	38.6	48.2	57.8	57.0	85.6	114.1	140.0	140.0	19.3	28.9	38.6	48.2	57.8	20.6	31.0	41.3	51.6	61.9	65.0	97.5	130.0	140.0	140.0
	6' - 0"	17.7	26.5	35.3	44.2	53.0	52.3	78.4	104.6	130.7	140.0	17.7	26.5	35.3	44.2	53.0	18.9	28.4	37.9	47.3	56.8	59.6	89.3	119.1	140.0	140.0
	6' - 6"	16.3	24.5	32.6	40.8	48.9	48.3	72.4	96.5	120.7	140.0	16.3	24.5	32.6	40.8	48.9	17.5	26.2	34.9	43.7	52.4	55.0	82.5	110.0	137.5	140.0
7' - 0"	15.1	22.7	30.3	37.9	45.4	44.8	67.2	89.6	112.1	134.5	15.1	22.7	30.3	37.9	45.4	16.2	24.3	32.4	40.6	48.7	51.1	76.6	102.1	127.6	140.0	
15' - 6"	3' - 6"	30.3	45.4	60.6	75.7	90.9	89.6	134.5	140.0	140.0	140.0	30.3	45.4	60.6	75.7	90.9	32.4	48.7	64.9	81.1	97.3	102.1	140.0	140.0	140.0	140.0
	4' - 0"	26.5	39.8	53.0	66.3	79.5	78.4	117.7	140.0	140.0	140.0	26.5	39.8	53.0	66.3	79.5	28.4	42.6	56.8	71.0	85.2	89.3	134.0	140.0	140.0	140.0
	4' - 6"	23.2	34.8	46.4	58.0	69.6	68.6	102.9	137.2	140.0	140.0	23.2	34.8	46.4	58.0	69.6	24.8	37.3	49.7	62.1	74.5	78.2	117.2	140.0	140.0	140.0
	5' - 0"	20.9	31.3	41.7	52.2	62.6	61.8	92.6	123.5	140.0	140.0	20.9	31.3	41.7	52.2	62.6	22.4	33.5	44.7	55.9	67.1	70.3	105.5	140.0	140.0	140.0
	5' - 6"	19.0	28.5	37.9	47.4	56.9	56.1	84.2	112.3	140.0	140.0	19.0	28.5	37.9	47.4	56.9	20.3	30.5	40.6	50.8	61.0	63.9	95.9	127.9	140.0	140.0
	6' - 0"	17.4	26.1	34.8	43.5	52.2	51.5	77.2	102.9	128.7	140.0	17.4	26.1	34.8	43.5	52.2	18.6	27.9	37.3	46.6	55.9	58.6	87.9	117.2	140.0	140.0
	6' - 6"	16.1	24.1	32.1	40.1	48.2	47.5	71.3	95.0	118.8	140.0	16.1	24.1	32.1	40.1	48.2	17.2	25.8	34.4	43.0	51.6	54.1	81.2	108.2	135.3	140.0
7' - 0"	14.9	22.4	29.8	37.3	44.7	44.1	66.2	88.2	110.3	132.3	14.9	22.4	29.8	37.3	44.7	16.0	24.0	31.9	39.9	47.9	50.2	75.4	100.5	125.6	140.0	
15' - 9"	3' - 6"	29.8	44.7	59.6	74.5	89.4	88.2	132.3	140.0	140.0	140.0	29.8	44.7	59.6	74.5	89.4	31.9	47.9	63.9	79.8	95.8	100.5	140.0	140.0	140.0	140.0
	4' - 0"	26.1	39.1	52.2	65.2	78.3	77.2	115.8	140.0	140.0	140.0	26.1	39.1	52.2	65.2	78.3	27.9	41.9	55.9	69.9	83.8	87.9	131.9	140.0	140.0	140.0
	4' - 6"	23.2	34.8	46.4	58.0	69.6	68.6	102.9	137.2	140.0	140.0	23.2	34.8	46.4	58.0	69.6	24.8	37.3	49.7	62.1	74.5	78.2	117.2	140.0	140.0	140.0
	5' - 0"	20.9	31.3	41.7	52.2	62.6	61.8	92.6	123.5	140.0	140.0	20.9	31.3	41.7	52.2	62.6	22.4	33.5	44.7	55.9	67.1	70.3	105.5	140.0	140.0	140.0
	5' - 6"	19.0	28.5	37.9	47.4	56.9	56.1	84.2	112.3	140.0	140.0	19.0	28.5	37.9	47.4	56.9	20.3	30.5	40.6	50.8	61.0	63.9	95.9	127.9	140.0	140.0
	6' - 0"	17.4	26.1	34.8	43.5	52.2	51.5	77.2	102.9	19.7	140.0	17.4	26.1	34.8	43.5	52.2	18.6	27.9	37.3	46.6	55.9	58.6	87.9	117.2	140.0	140.0
	6' - 6"	16.1	24.1	32.1	40.1	48.2	47.5	71.3	95.0	19.7	140.0	16.1	24.1	32.1	40.1	48.2	17.2	25.8	34.4	43.0	51.6	54.1	81.2	108.2	135.3	140.0
7' - 0"	14.9	22.4	29.8	37.3	44.7	44.1	66.2	88.2	110.3	132.3	14.9	22.4	29.8	37.3	44.7	16.0	24.0	31.9	39.9	47.9	50.2	75.4	100.5	125.6	140.0	



"n" FASTENERS
n = TOTAL NUMBER OF FASTENERS PER CONNECTION AT HEAD/SILL, EQUALLY INSTALLED AT EACH SIDE OF INTERIOR MULLION

SILL OR HEAD CONNECTION DETAIL @ INTERIOR MULLION



"n/2" FASTENERS
n/2 = TOTAL NUMBER OF FASTENERS PER CONNECTION AT HEAD/SILL, INSTALLED AT ONE SIDE OF JAMB MULLION

SILL OR HEAD CONNECTION DETAIL @ JAMB MULLION

(PLAN VIEW)
N.T.S.

WALTER A. TILLIT JR.
LICENSE
No. 44167
STATE OF FLORIDA
PROFESSIONAL ENGINEER
12/19/2023

P.E. SEAL/SIGNATURE/DATE

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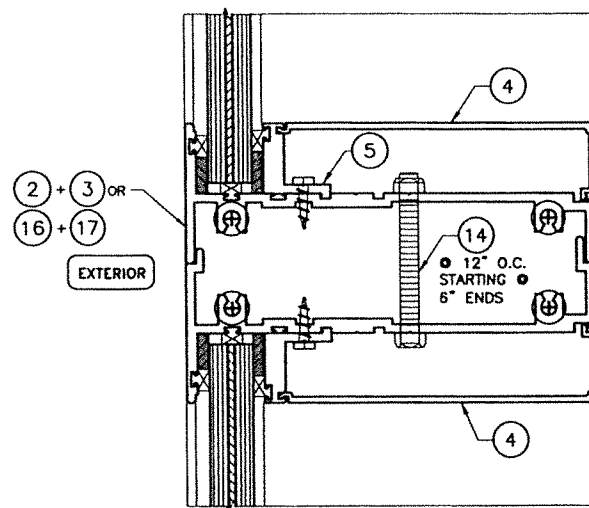
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09/12/2023
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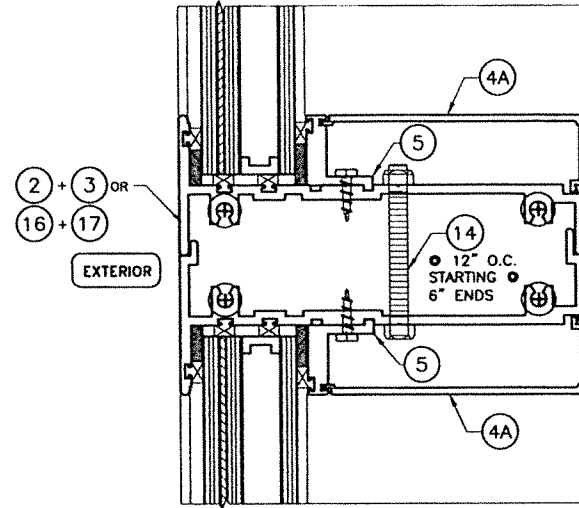
23-213
DRAWING No

SHEET 13 OF 51

REV. No	DESCRIPTION	DATE	REV. No	DESCRIPTION	DATE
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2	-	-	4	-	-

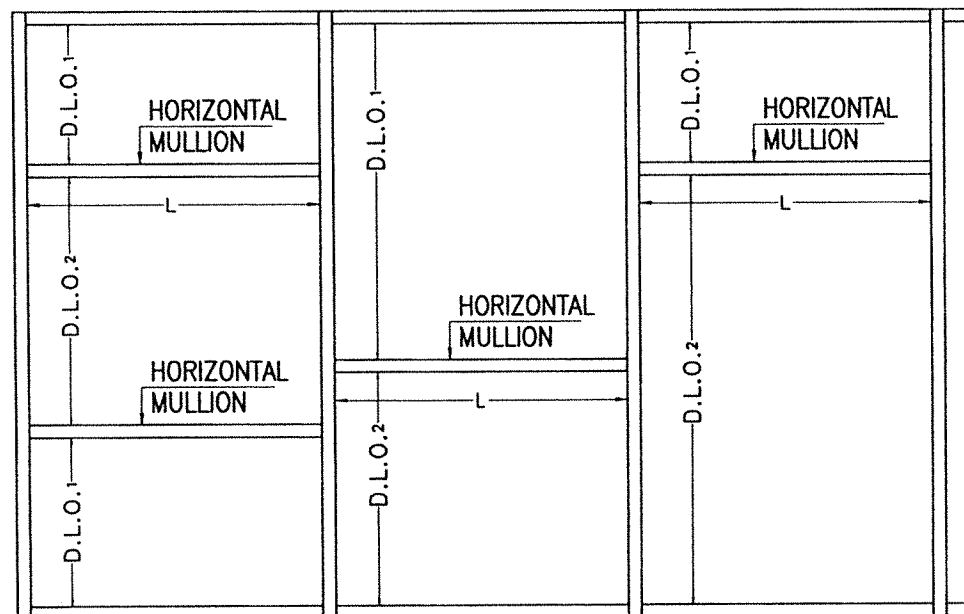


LAMINATED GLASS CASE

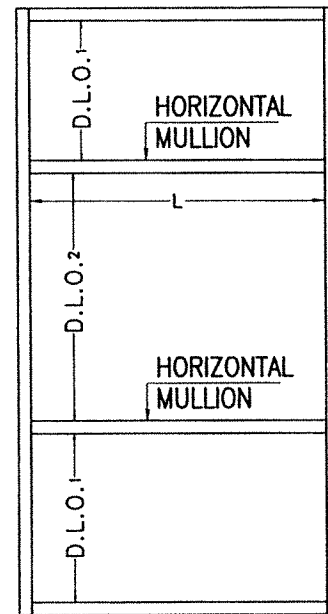


INSULATED GLASS CASE

SECTION AT HORIZONTAL MULLIONS: OPTIONAL SYSTEM # 1



MULTIPLE PANELS



SINGLE PANEL

ELEVATIONS W/ HORIZONTAL MULLIONS: OPTIONAL SYSTEM # 1

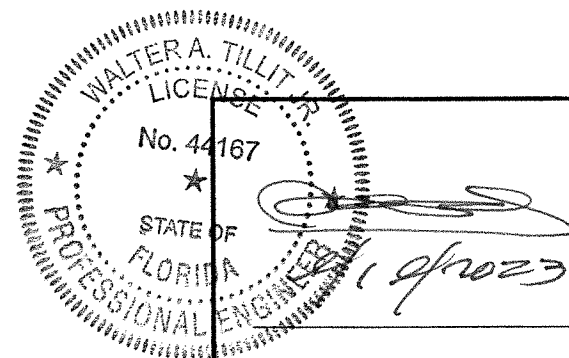
"L" = MAXIMUM HORIZONTAL MULLION SPAN

"D.L.O." = HORIZONTAL MULLION MAX. EFFECTIVE DAY LIGHT OPENING = $\frac{D.L.O.1 + D.L.O.2}{2}$

MAXIMUM HORIZONTAL MULLION SPAN "L"(FT) SCHEDULE FOR A GIVEN HORIZONTAL MULLION EFFECTIVE "D.L.O."(FT) AND A GIVEN A.S.D. DESIGN PRESSURE RATING (psf)		
MAXIMUM A.S.D. DESIGN PRESSURE RATING (psf)	MAX. EFFECTIVE DAY LIGHT OPENING "DLO" (Ft-in)	MAXIMUM 1/8" & 3/16" THICK HORIZONTAL MULLION SPAN
		LAMINATED/INSULATED GLASS "L" (Ft)
± 40.0	2' - 0"	7' - 0"
	2' - 6"	7' - 0"
	3' - 0"	7' - 0"
	3' - 6"	7' - 0"
	4' - 0"	7' - 0"
	4' - 6"	7' - 0"
	5' - 0"	7' - 0"
	5' - 6"	7' - 0"
	6' - 0"	7' - 0"
	6' - 6"	7' - 0"
± 45.0	2' - 0"	7' - 0"
	2' - 6"	7' - 0"
	3' - 0"	7' - 0"
	3' - 6"	7' - 0"
	4' - 0"	7' - 0"
	4' - 6"	7' - 0"
	5' - 0"	7' - 0"
	5' - 6"	7' - 0"
	6' - 0"	7' - 0"
	6' - 6"	7' - 0"
± 50.0	2' - 0"	7' - 0"
	2' - 6"	7' - 0"
	3' - 0"	7' - 0"
	3' - 6"	7' - 0"
	4' - 0"	7' - 0"
	4' - 6"	7' - 0"
	5' - 0"	7' - 0"
	5' - 6"	7' - 0"
	6' - 0"	7' - 0"
	6' - 6"	7' - 0"
± 55.0	2' - 0"	7' - 0"
	2' - 6"	7' - 0"
	3' - 0"	7' - 0"
	3' - 6"	7' - 0"
	4' - 0"	7' - 0"
	4' - 6"	7' - 0"
	5' - 0"	7' - 0"
	5' - 6"	7' - 0"
	6' - 0"	7' - 0"
	6' - 6"	7' - 0"

MAXIMUM HORIZONTAL MULLION SPAN "L"(FT) SCHEDULE FOR A GIVEN HORIZONTAL MULLION EFFECTIVE "D.L.O."(FT) AND A GIVEN A.S.D. DESIGN PRESSURE RATING (psf) (CONTINUED)		
MAXIMUM A.S.D. DESIGN PRESSURE RATING (psf)	MAX. EFFECTIVE DAY LIGHT OPENING "DLO" (Ft-in)	MAXIMUM 1/8" & 3/16" THICK HORIZONTAL MULLION SPAN
		LAMINATED/INSULATED GLASS "L" (Ft)
± 60.0	2' - 0"	7' - 0"
	2' - 6"	7' - 0"
	3' - 0"	7' - 0"
	3' - 6"	7' - 0"
	4' - 0"	7' - 0"
	4' - 6"	7' - 0"
	5' - 0"	7' - 0"
	5' - 6"	7' - 0"
	6' - 0"	7' - 0"
	6' - 6"	7' - 0"
± 65.0	2' - 0"	7' - 0"
	2' - 6"	7' - 0"
	3' - 0"	7' - 0"
	3' - 6"	7' - 0"
	4' - 0"	7' - 0"
	4' - 6"	7' - 0"
	5' - 0"	7' - 0"
	5' - 6"	7' - 0"
	6' - 0"	7' - 0"
	6' - 6"	7' - 0"
± 70.0	2' - 0"	7' - 0"
	2' - 6"	7' - 0"
	3' - 0"	7' - 0"
	3' - 6"	7' - 0"
	4' - 0"	7' - 0"
	4' - 6"	7' - 0"
	5' - 0"	7' - 0"
	5' - 6"	7' - 0"
	6' - 0"	7' - 0"
	6' - 6"	7' - 0"
± 75.0	2' - 0"	7' - 0"
	2' - 6"	7' - 0"
	3' - 0"	7' - 0"
	3' - 6"	7' - 0"
	4' - 0"	7' - 0"
	4' - 6"	7' - 0"
	5' - 0"	7' - 0"
	5' - 6"	7' - 0"
	6' - 0"	7' - 0"
	6' - 6"	7' - 0"

MAXIMUM HORIZONTAL MULLION SPAN "L"(FT) SCHEDULE FOR A GIVEN HORIZONTAL MULLION EFFECTIVE "D.L.O."(FT) AND A GIVEN A.S.D. DESIGN PRESSURE RATING (psf) (CONTINUED)		
MAXIMUM A.S.D. DESIGN PRESSURE RATING (psf)	MAX. EFFECTIVE DAY LIGHT OPENING "DLO" (Ft-in)	MAXIMUM 1/8" & 3/16" THICK HORIZONTAL MULLION SPAN
		LAMINATED/INSULATED GLASS "L" (Ft)
± 80.0	2' - 0"	7' - 0"
	2' - 6"	7' - 0"
	3' - 0"	7' - 0"
	3' - 6"	7' - 0"
	4' - 0"	7' - 0"
	4' - 6"	7' - 0"
	5' - 0"	7' - 0"
	5' - 6"	7' - 0"
	6' - 0"	7' - 0"
	6' - 6"	7' - 0"
± 85.0	2' - 0"	7' - 0"
	2' - 6"	7' - 0"
	3' - 0"	7' - 0"
	3' - 6"	7' - 0"
	4' - 0"	7' - 0"
	4' - 6"	7' - 0"
	5' - 0"	7' - 0"
	5' - 6"	7' - 0"
	6' - 0"	7' - 0"
	6' - 6"	6' - 10"
± 90.0	2' - 0"	7' - 0"
	2' - 6"	7' - 0"
	3' - 0"	7' - 0"
	3' - 6"	7' - 0"
	4' - 0"	7' - 0"
	4' - 6"	7' - 0"
	5' - 0"	7' - 0"
	5' - 6"	7' - 0"
	6' - 0"	6' - 11"
	6' - 6"	6' - 5"
± 95.0	2' - 0"	7' - 0"
	2' - 6"	7' - 0"
	3' - 0"	7' - 0"
	3' - 6"	7' - 0"
	4' - 0"	7' - 0"
	4' - 6"	7' - 0"
	5' - 0"	7' - 0"
	5' - 6"	7' - 0"
	6' - 0"	6' - 7"
	6' - 6"	6' - 1"



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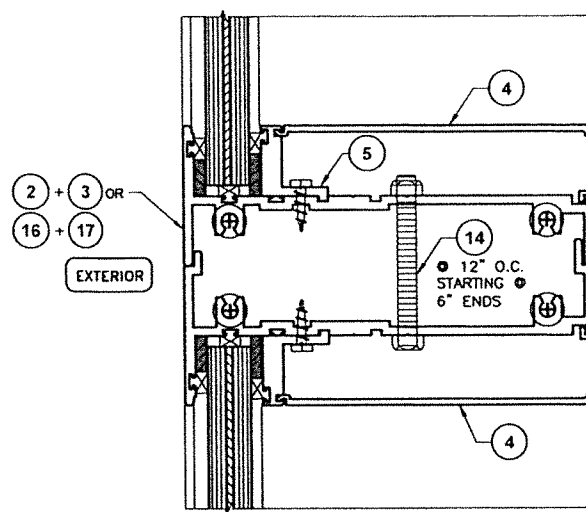
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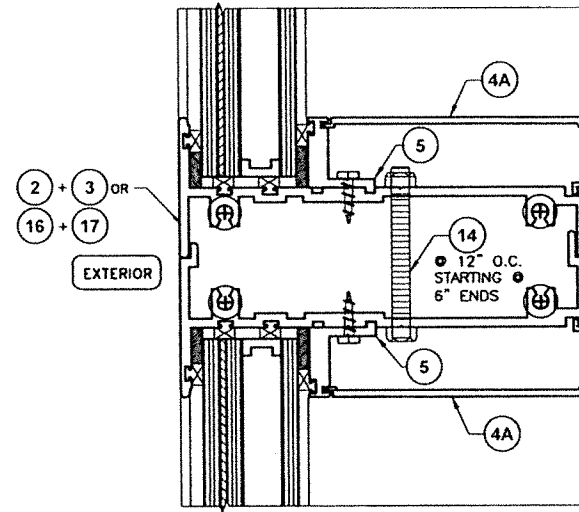
23-213
DRAWING No

REV. No	DESCRIPTION	DATE	REV. No	DESCRIPTION	DATE
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2	-	-	4	-	-

SHEET 14 OF 51

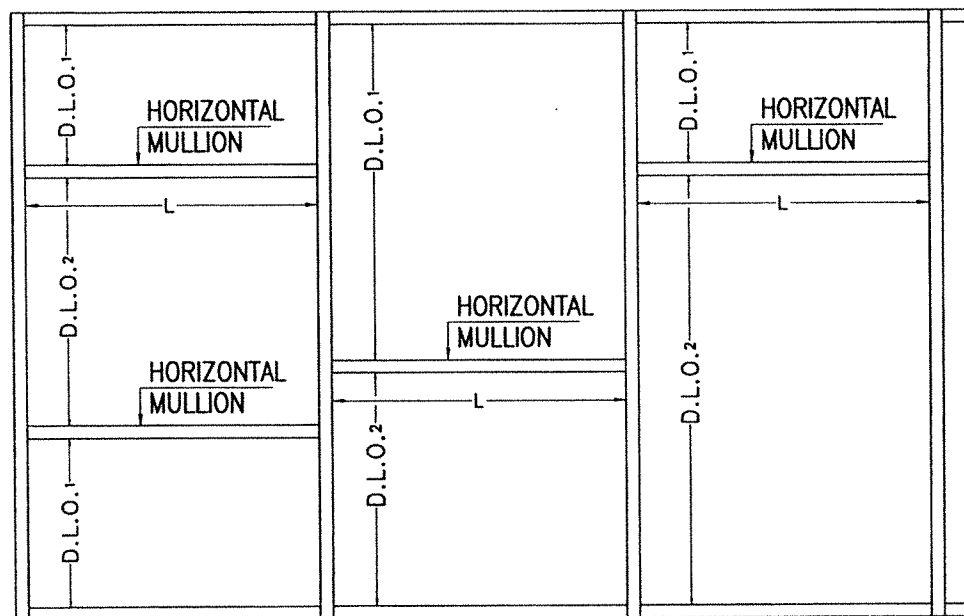


LAMINATED GLASS CASE

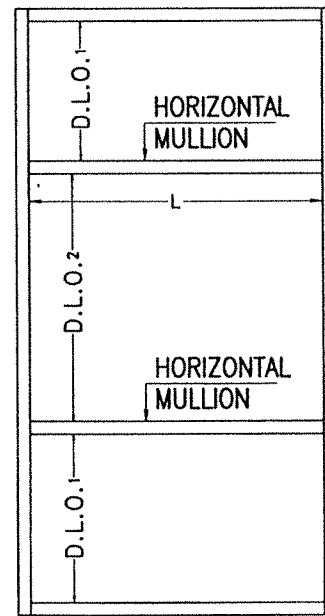


INSULATED GLASS CASE

SECTION AT HORIZONTAL MULLIONS: OPTIONAL SYSTEM # 1



MULTIPLE PANELS



SINGLE PANEL

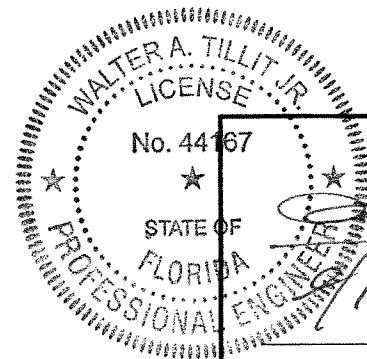
ELEVATIONS W/ HORIZONTAL MULLIONS: OPTIONAL SYSTEM # 1

"L" = MAXIMUM HORIZONTAL MULLION SPAN

"D.L.O." = HORIZONTAL MULLION EFFECTIVE DAY LIGHT OPENING = $\frac{D.L.O.1 + D.L.O.2}{2}$

MAXIMUM HORIZONTAL SPAN "L"(FT) SCHEDULE FOR A GIVEN HORIZONTAL MULLION EFFECTIVE "D.L.O."(FT) AND A GIVEN A.S.D. DESIGN PRESSURE RATING (psf) (CONTINUED)		
MAXIMUM A.S.D. DESIGN PRESSURE RATING (psf)	MAX. EFFECTIVE DAY LIGHT OPENING "DLO" (Ft-in)	MAXIMUM 1/8" & 3/16" THICK HORIZONTAL RAILS SPAN LAMINATED/INSULATED GLASS
		"L" (Ft)
± 100.0	2' - 0"	7' - 0"
	2' - 6"	7' - 0"
	3' - 0"	7' - 0"
	3' - 6"	7' - 0"
	4' - 0"	7' - 0"
	4' - 6"	7' - 0"
	5' - 0"	7' - 0"
	6' - 0"	6' - 3"
	6' - 6"	5' - 9"
	7' - 0"	5' - 4"
± 105.0	2' - 0"	7' - 0"
	2' - 6"	7' - 0"
	3' - 0"	7' - 0"
	3' - 6"	7' - 0"
	4' - 0"	7' - 0"
	4' - 6"	7' - 0"
	5' - 0"	7' - 0"
	6' - 0"	6' - 0"
	6' - 6"	5' - 6"
	7' - 0"	5' - 1"
± 110.0	2' - 0"	7' - 0"
	2' - 6"	7' - 0"
	3' - 0"	7' - 0"
	3' - 6"	7' - 0"
	4' - 0"	7' - 0"
	4' - 6"	7' - 0"
	5' - 0"	6' - 10"
	6' - 0"	5' - 8"
	6' - 6"	5' - 3"
	7' - 0"	4' - 11"
± 115.0	2' - 0"	7' - 0"
	2' - 6"	7' - 0"
	3' - 0"	7' - 0"
	3' - 6"	7' - 0"
	4' - 0"	7' - 0"
	4' - 6"	7' - 0"
	5' - 0"	6' - 6"
	6' - 0"	5' - 5"
	6' - 6"	5' - 0"
	7' - 0"	4' - 8"

MAXIMUM HORIZONTAL SPAN "L"(FT) SCHEDULE FOR A GIVEN HORIZONTAL MULLION EFFECTIVE "D.L.O."(FT) AND A GIVEN A.S.D. DESIGN PRESSURE RATING (psf) (CONTINUED)		
MAXIMUM A.S.D. DESIGN PRESSURE RATING (psf)	MAX. EFFECTIVE DAY LIGHT OPENING "DLO" (Ft-in)	MAXIMUM 1/8" & 3/16" THICK HORIZONTAL RAILS SPAN LAMINATED/INSULATED GLASS
		"L" (Ft)
± 120.0	2' - 0"	7' - 0"
	2' - 6"	7' - 0"
	3' - 0"	7' - 0"
	3' - 6"	7' - 0"
	4' - 0"	7' - 0"
	4' - 6"	6' - 11"
	5' - 0"	6' - 3"
	6' - 0"	5' - 3"
	6' - 6"	4' - 10"
	7' - 0"	4' - 6"
± 125.0	2' - 0"	7' - 0"
	2' - 6"	7' - 0"
	3' - 0"	7' - 0"
	3' - 6"	7' - 0"
	4' - 0"	7' - 0"
	4' - 6"	6' - 8"
	5' - 0"	6' - 0"
	6' - 0"	5' - 0"
	6' - 6"	4' - 7"
	7' - 0"	4' - 4"
± 130.0	2' - 0"	7' - 0"
	2' - 6"	7' - 0"
	3' - 0"	7' - 0"
	3' - 6"	7' - 0"
	4' - 0"	7' - 0"
	4' - 6"	6' - 5"
	5' - 0"	5' - 9"
	6' - 0"	4' - 10"
	6' - 6"	4' - 5"
	7' - 0"	4' - 2"
+130.0, - 135.0	2' - 0"	7' - 0"
	2' - 6"	7' - 0"
	3' - 0"	7' - 0"
	3' - 6"	7' - 0"
	4' - 0"	6' - 11"
	4' - 6"	6' - 2"
	5' - 0"	5' - 7"
	6' - 0"	4' - 8"
	6' - 6"	4' - 3"
	7' - 0"	4' - 0"
+130.0, - 140.0	2' - 0"	7' - 0"
	2' - 6"	7' - 0"
	3' - 0"	7' - 0"
	3' - 6"	7' - 0"
	4' - 0"	6' - 8"
	4' - 6"	6' - 0"
	5' - 0"	5' - 4"
	6' - 0"	4' - 6"
	6' - 6"	4' - 2"
	7' - 0"	3' - 10"



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REV. No	DESCRIPTION	DATE	REV. No	DESCRIPTION	DATE
1	OLD 21-118	09/12/23	3	-	-
2	-	-	4	-	-

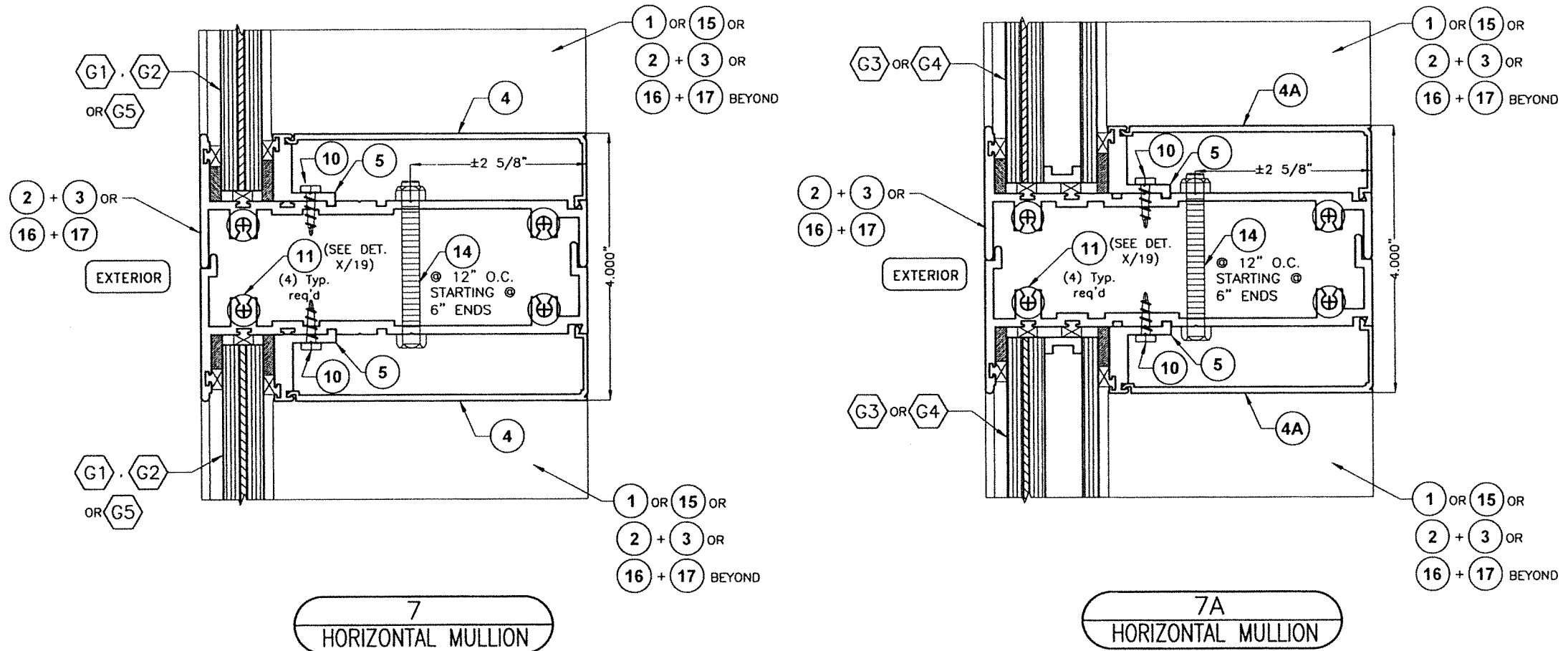
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HORIZONTAL MULLION DETAILS
OPTIONAL SYSTEM # 1



WALTER A. TILLIT JR.
LICENSE
No. 44167
STATE OF FLORIDA
PROFESSIONAL ENGINEER
12/2023

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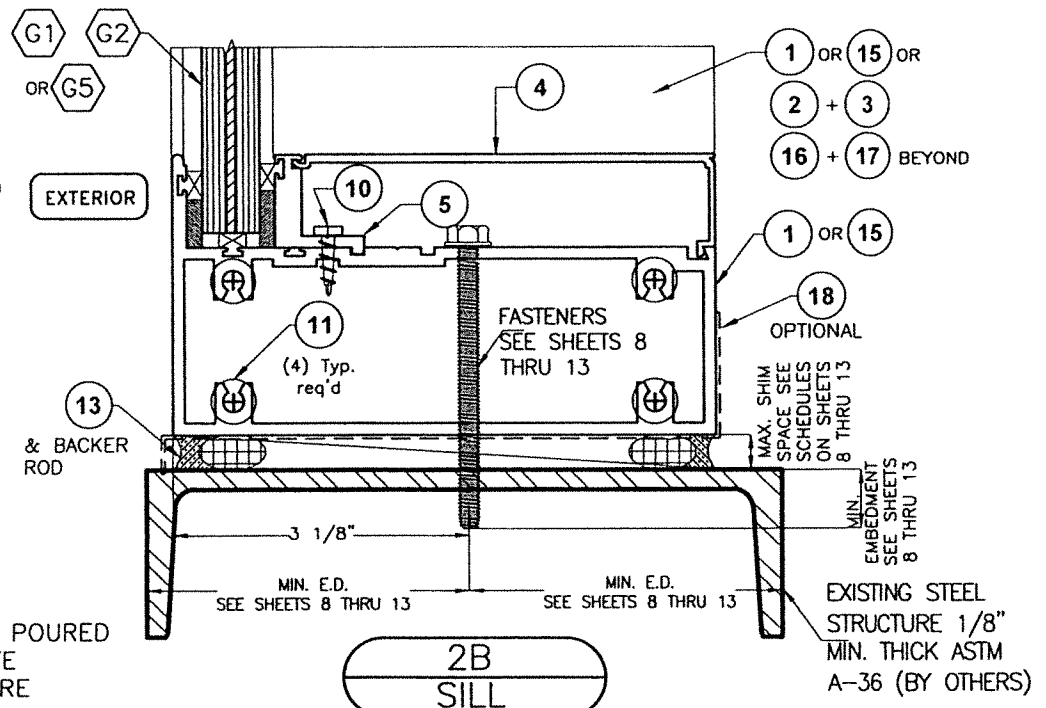
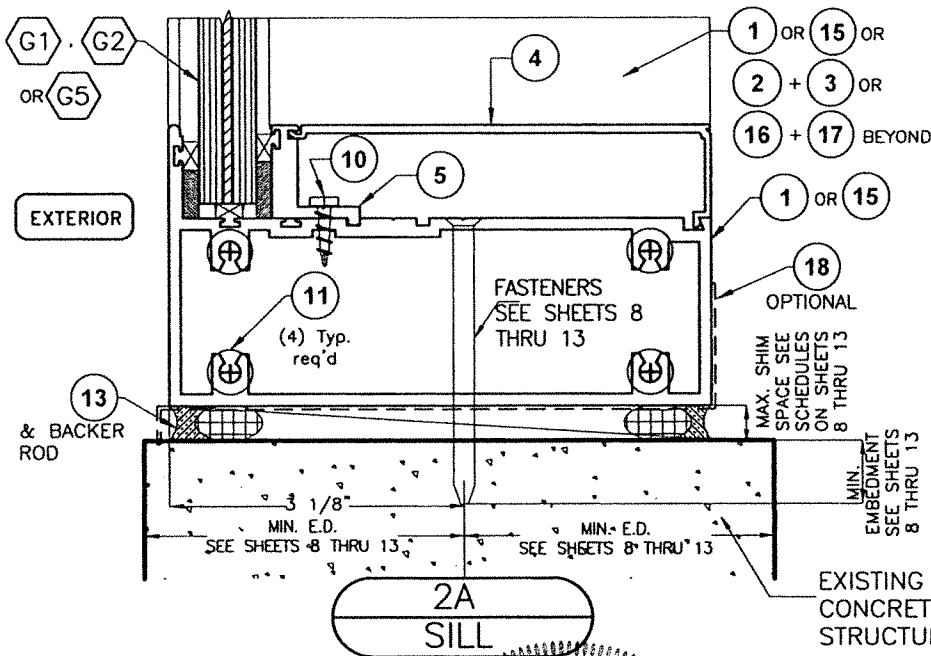
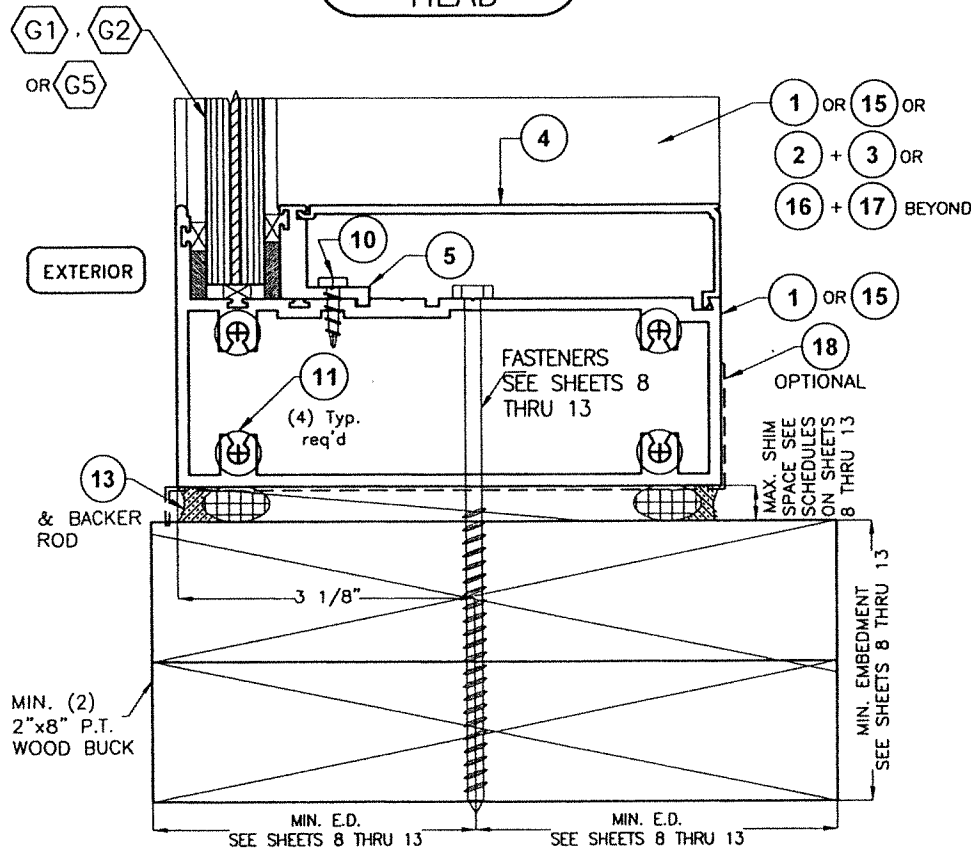
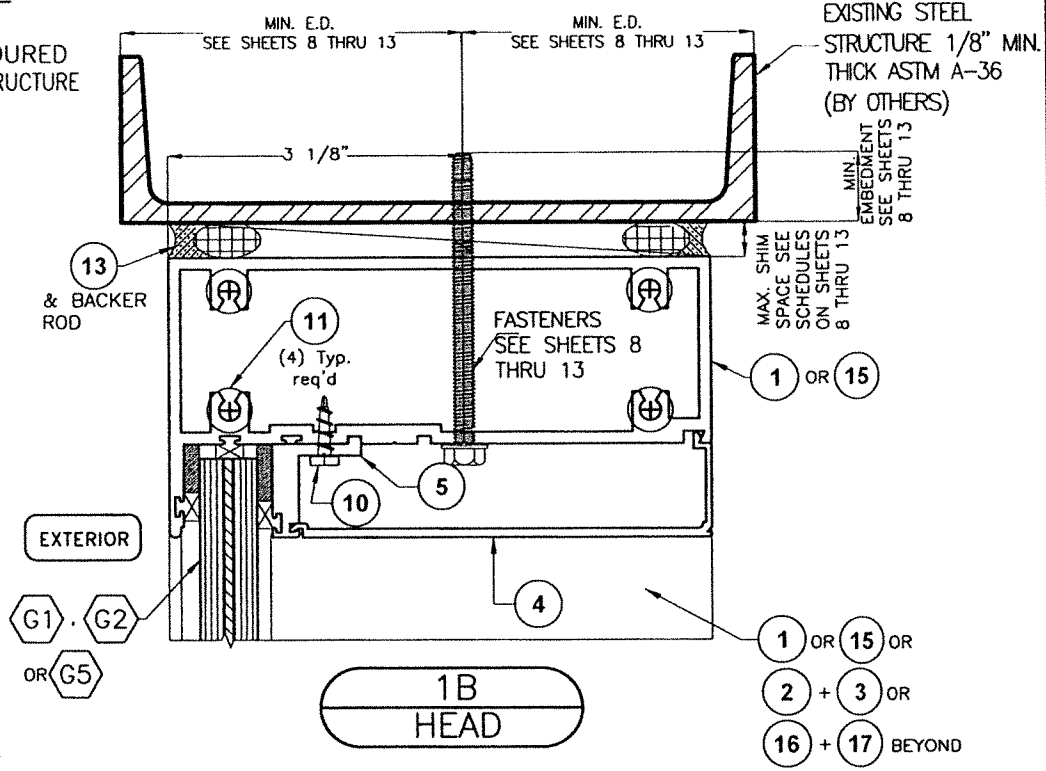
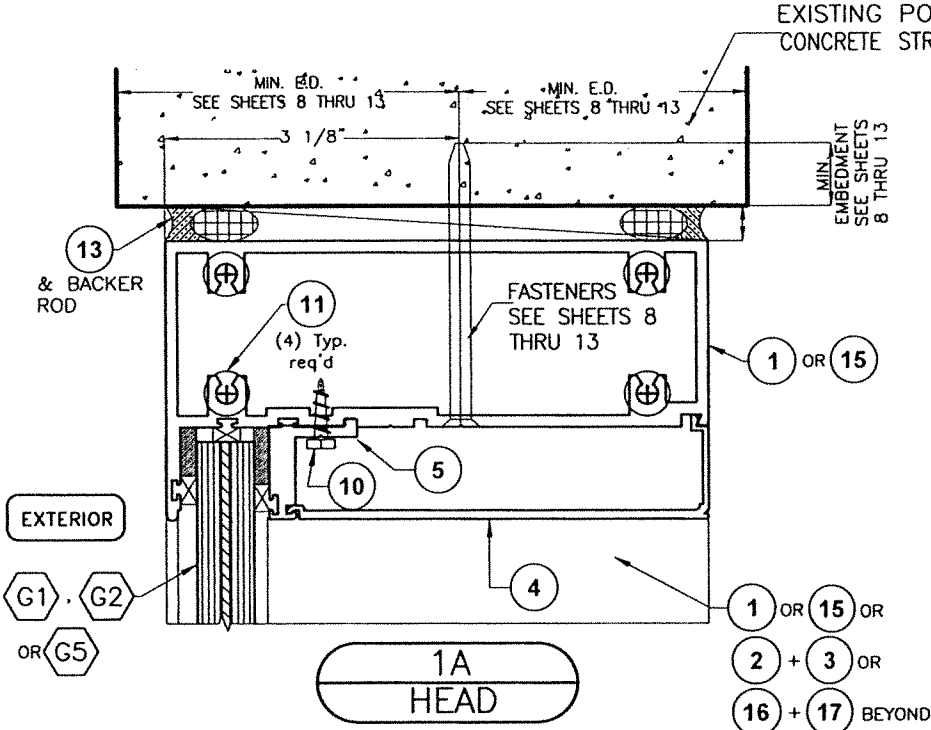
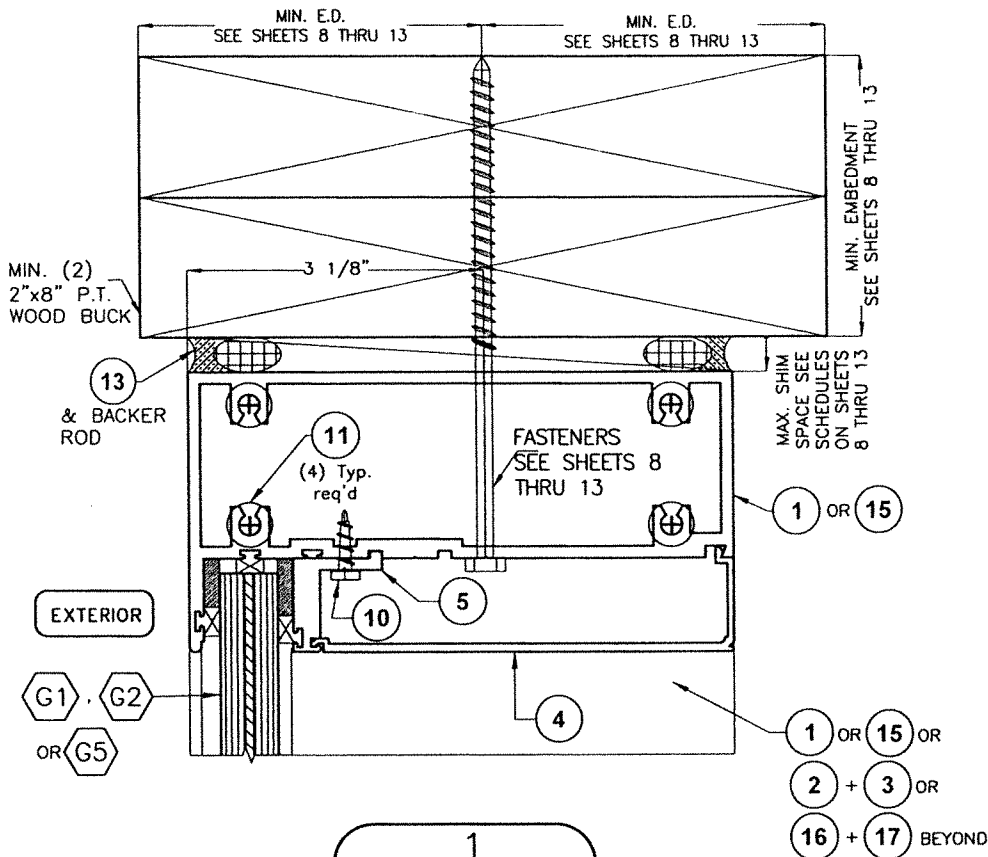
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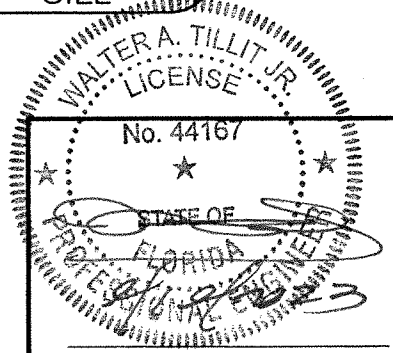
REV. No	DESCRIPTION	DATE	REV. No	DESCRIPTION	DATE
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2	-	-	4	-	-

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23-213
DRAWING No
SHEET 16 OF 51

HEAD & SILL CONNECTIONS DETAILS



OPTIONAL SYSTEM # 1



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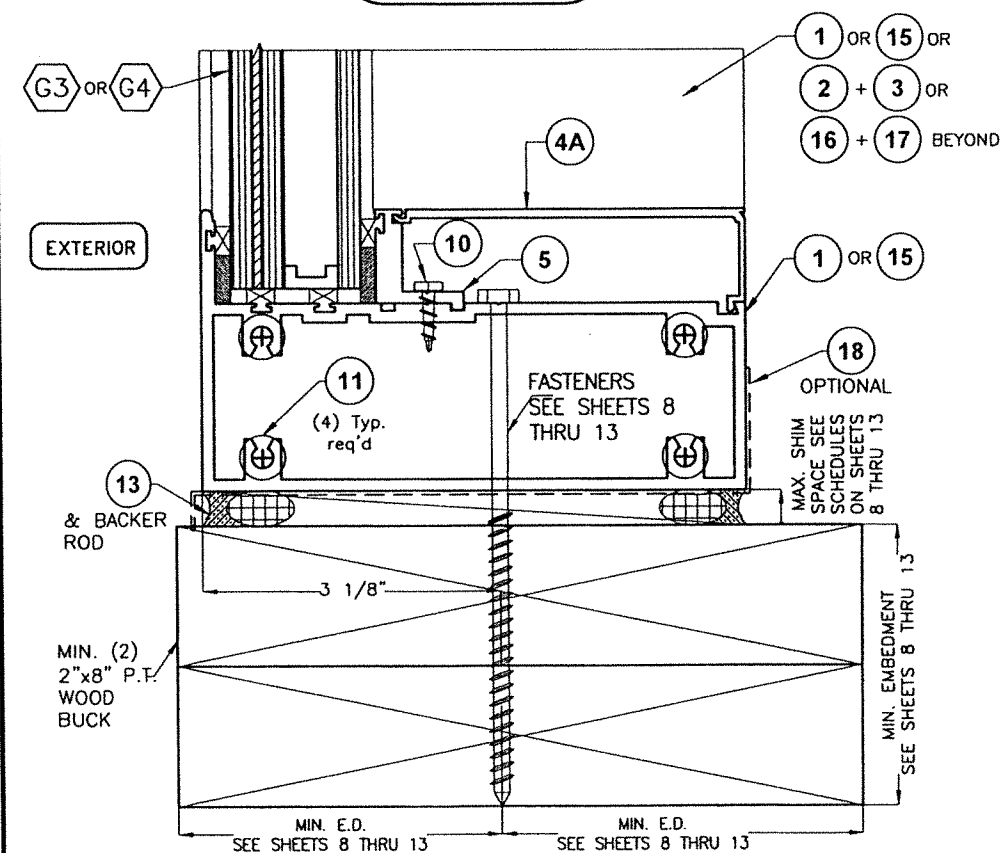
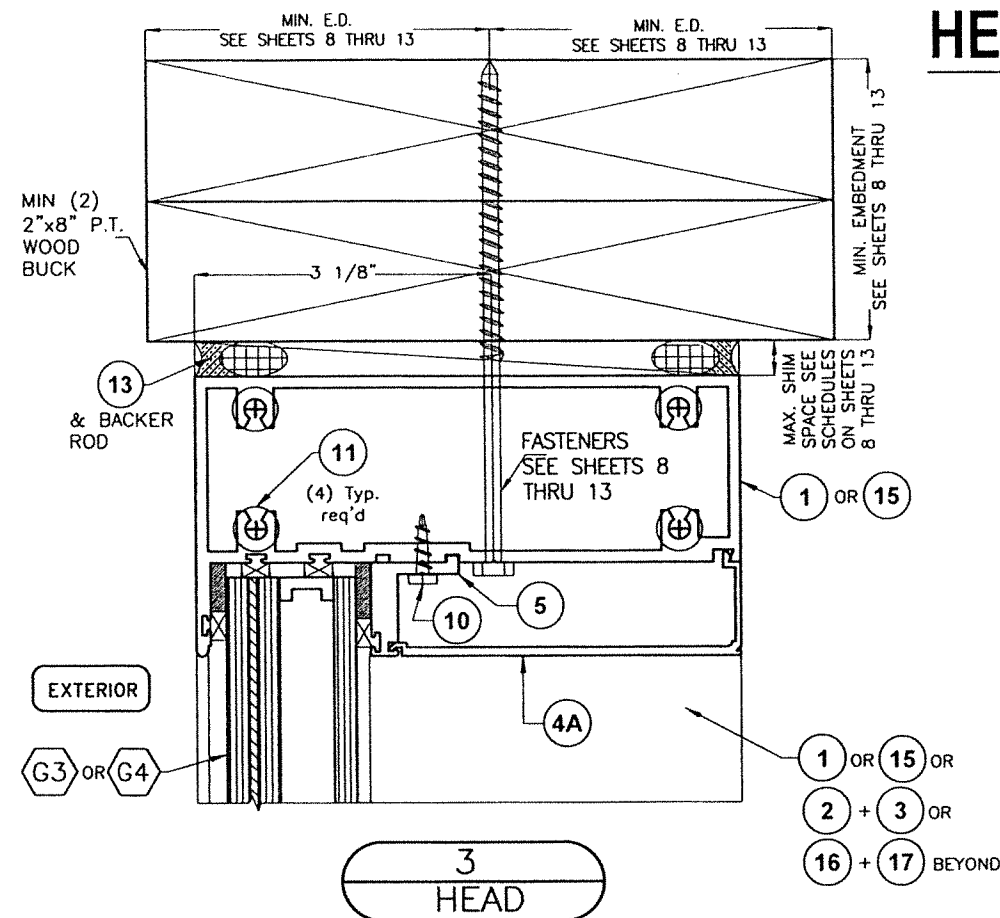
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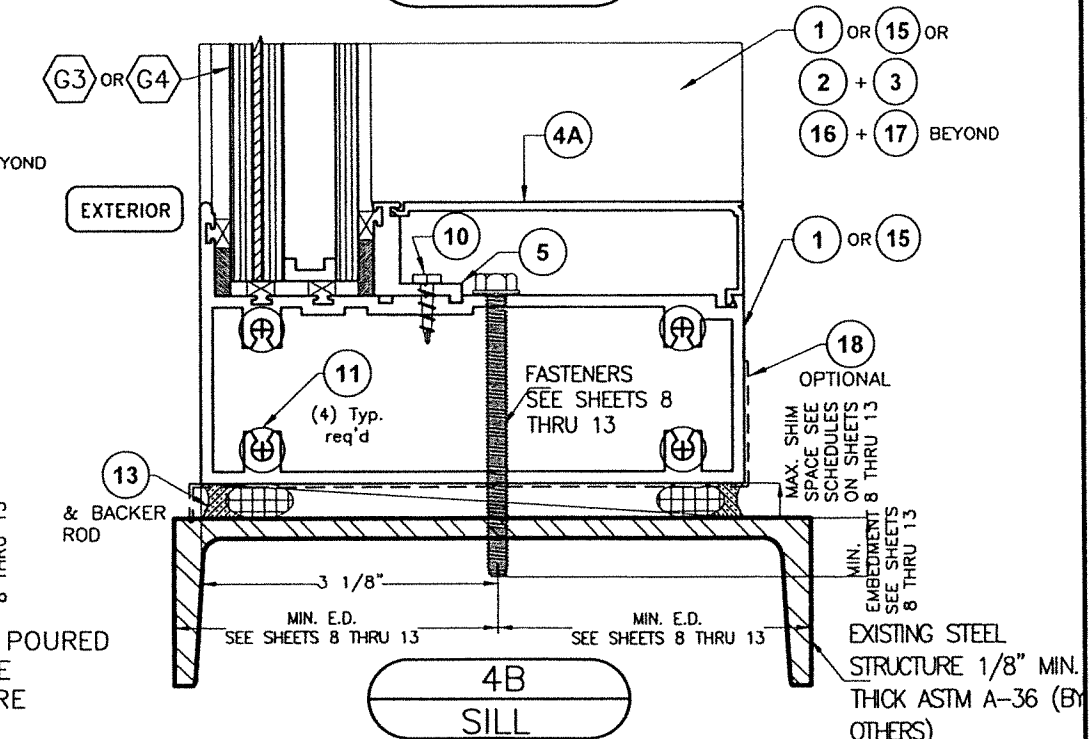
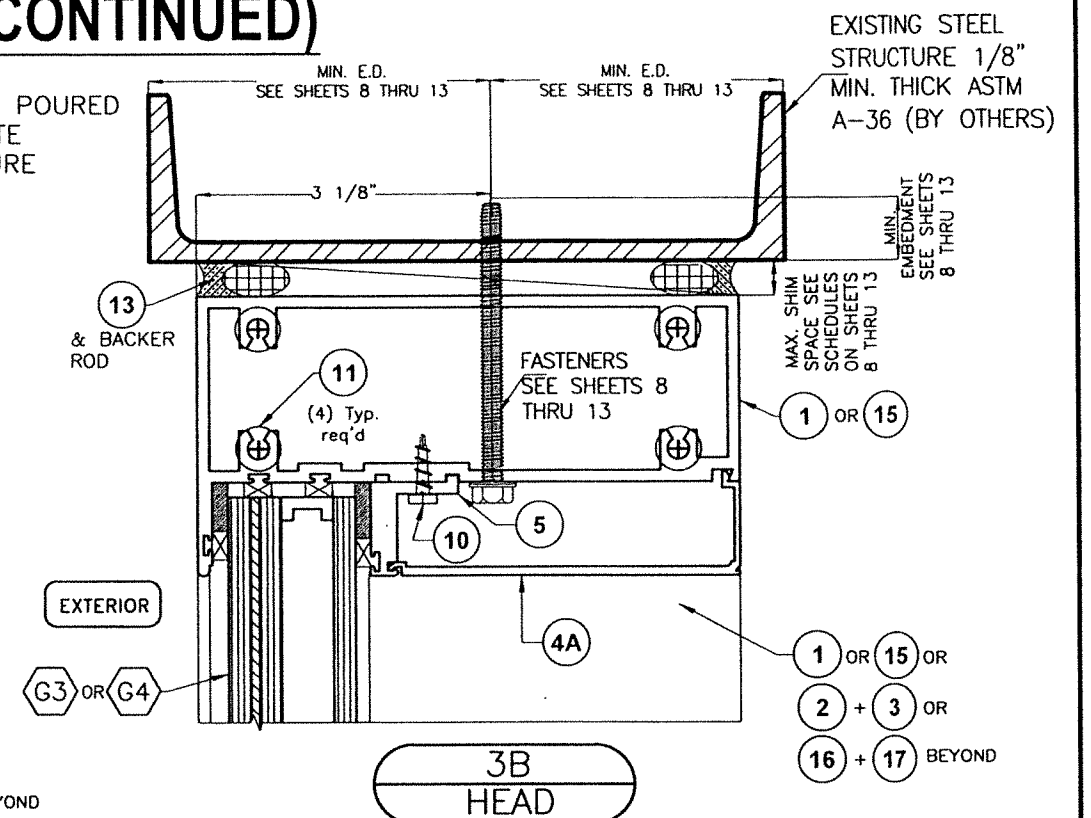
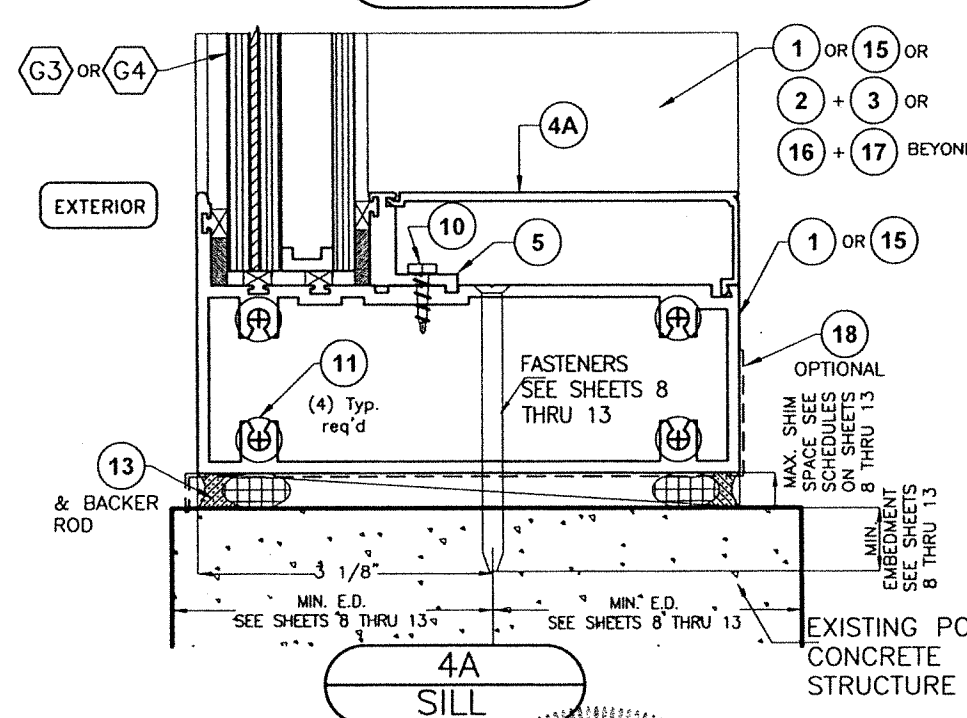
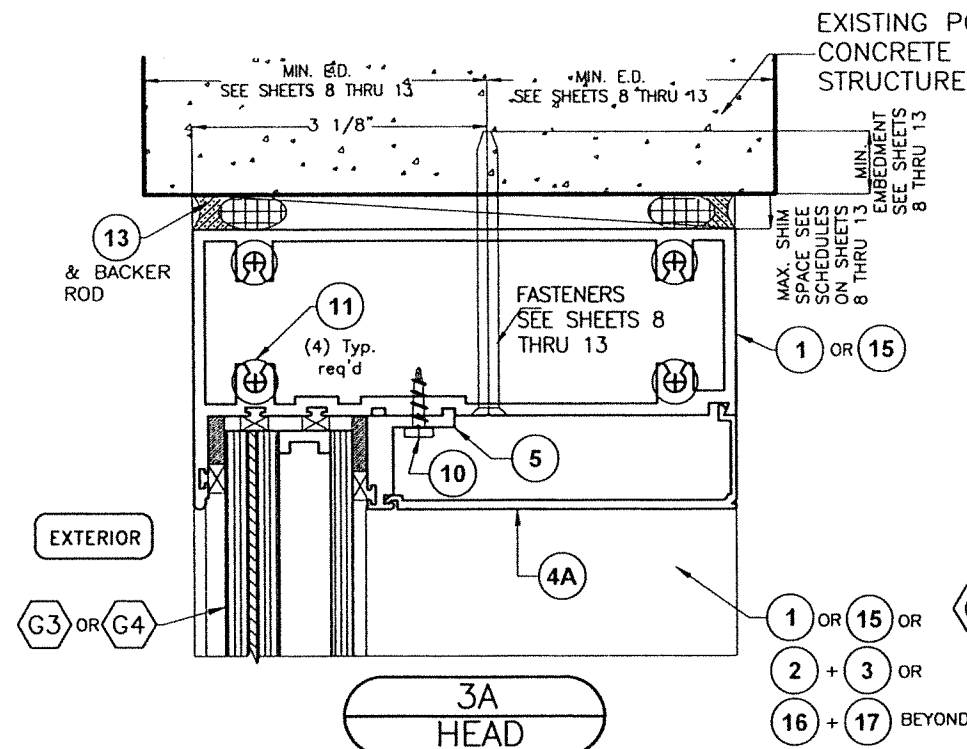
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2	-	-	4	-	-

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SHEET 17 OF 51

HEAD & SILL CONNECTIONS DETAILS (CONTINUED)



OPTIONAL SYSTEM # 1



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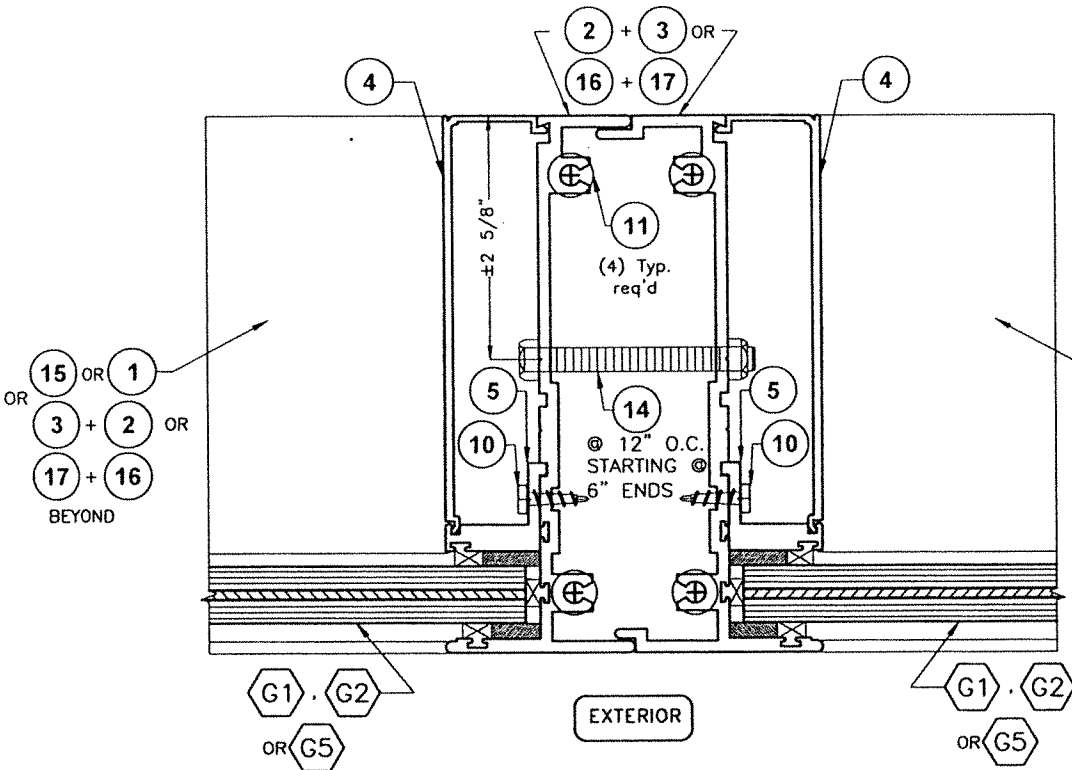
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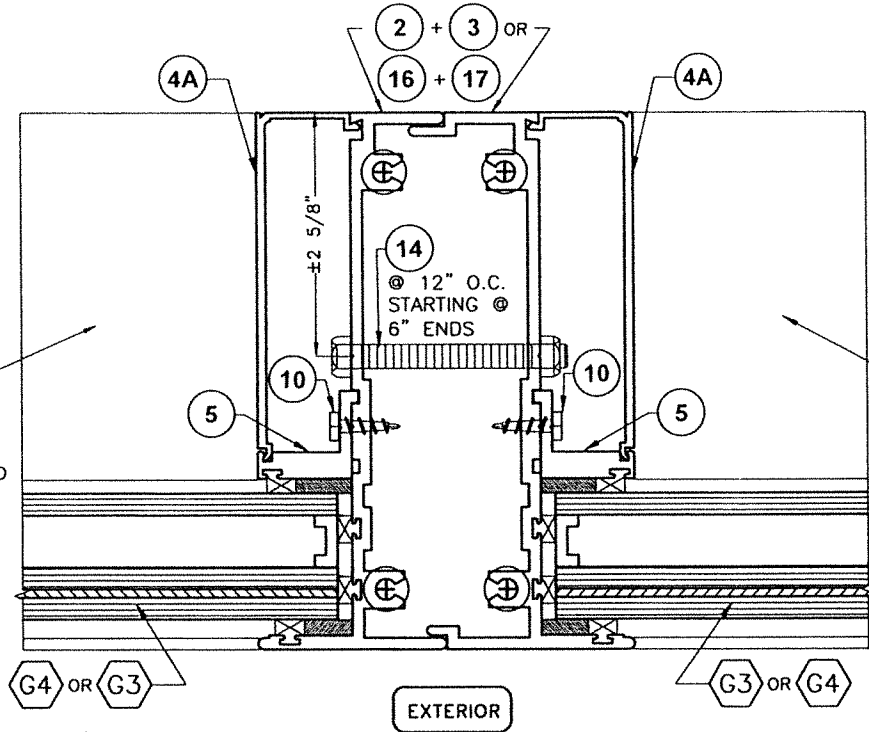
HIGH IMPACT GREEN WORLD FIXED GLASS WALL SERIES 12000 LARGE MISSILE LAMINATED & INSULATED GLASS						W.H. DRAWN BY
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						23-213 DRAWING No
REV. No	DESCRIPTION	DATE	REV. No	DESCRIPTION	DATE	SHEET 18 OF 51
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HORIZONTAL SECTIONS AT INTERIOR VERTICAL MULLIONS AT STRAIGHT GLASS WALL APPLICATIONS

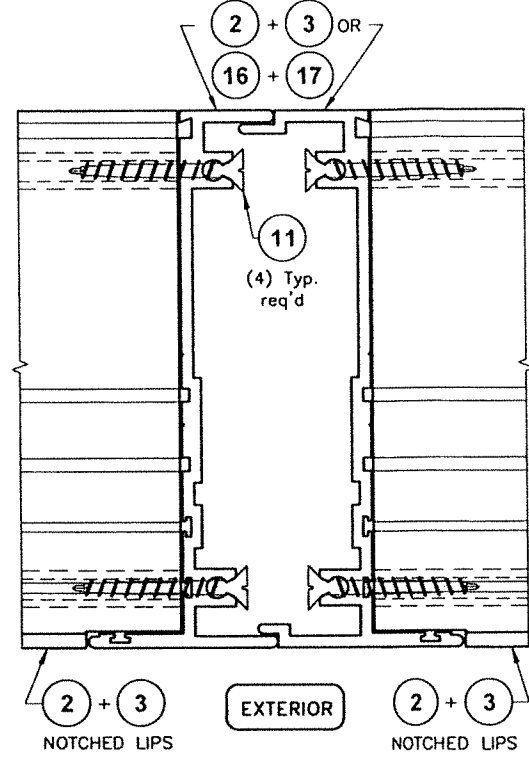
OPTIONAL SYSTEM # 1



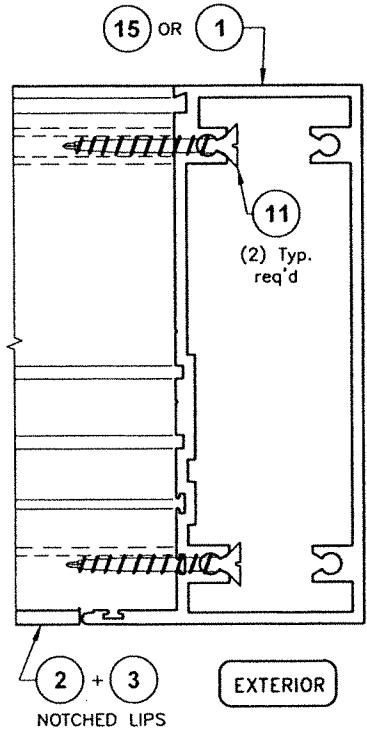
5
INTERIOR VERTICAL MULLION



6
INTERIOR VERTICAL MULLION



DETAIL X
HORIZONTAL MULLION TO
INTERIOR VERTICAL MULLION



DETAIL X
HORIZONTAL MULLION TO JAMB MULLION

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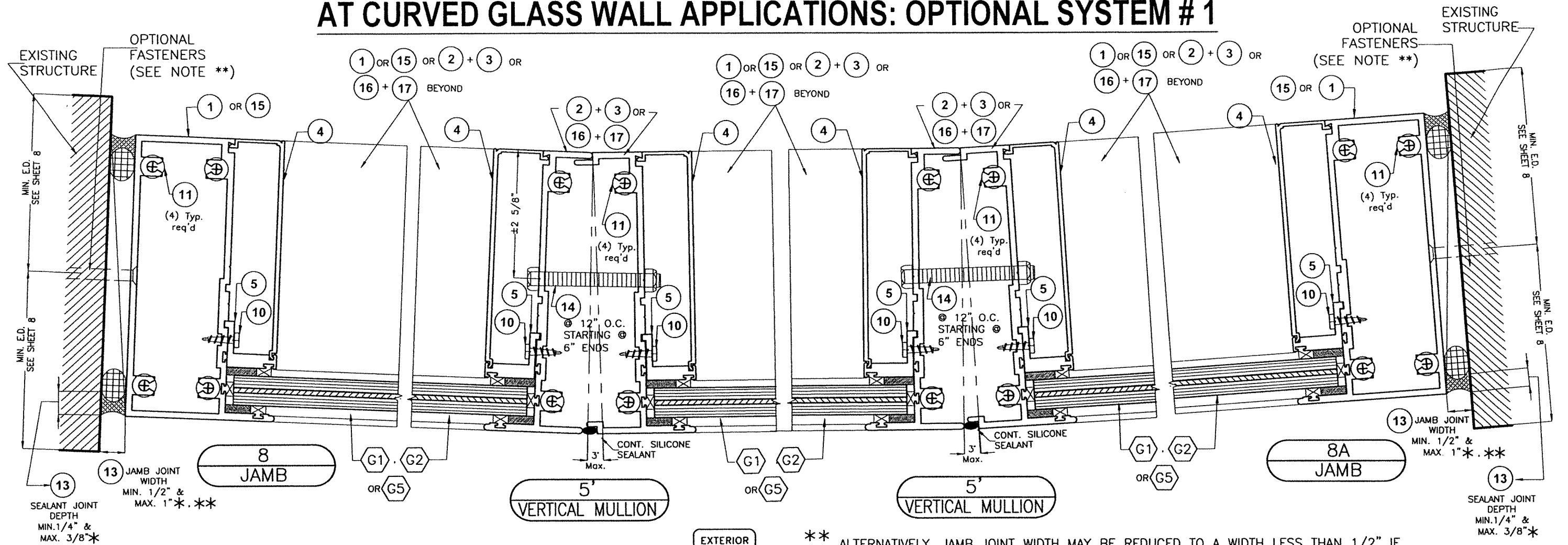
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2	-	-	4	-	-

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23-213
DRAWING No
SHEET 19 OF 51

HORIZONTAL SECTIONS AT INTERIOR VERTICAL MULLIONS PLUS JAMB MULLIONS

AT CURVED GLASS WALL APPLICATIONS: OPTIONAL SYSTEM # 1



* NOTE: ABOVE INDICATED MAXIMUM AND MINIMUM VALUES FOR SPECIFIED SEALANT VERTICAL JOINT WIDTH AT JAMBS NOT CONNECTED TO WALL (FREE STANDING) HAVE BEEN DETERMINED ONLY TAKING INTO CONSIDERATION THE ACTUAL MOVEMENT OF GLASS WALL AT JAMBS DUE TO THERMAL, WIND AND ITS OWN CONSTRUCTION TOLERANCE, AND NOT PERFORMANCE FACTORS FROM THE SURROUNDING STRUCTURE.

** ALTERNATIVELY, JAMB JOINT WIDTH MAY BE REDUCED TO A WIDTH LESS THAN 1/2" IF JAMB PROFILE IS ATTACHED TO WALL FULL HEIGHT W/ THE FOLLOWING FASTENERS.

SUBSTRATE Δ	FASTENERS TYPES Δ		SPACING
	3/8" SHIM SPACE OR LESS	>3/8", <1/2" SHIM SPACE	
POURED CONCRETE	FASTENER TYPE A	FASTENER TYPE B	6" O.C.
2500 psi GROUT FILLED ASTM C-90 CONCRETE BLOCK	FASTENER TYPE A	FASTENER TYPE B	6" O.C.
STEEL OR ALUMINUM	FASTENER TYPE E	FASTENER TYPE E	6" O.C.
WOOD	FASTENER TYPES C & D	FASTENER TYPE D	5" O.C.

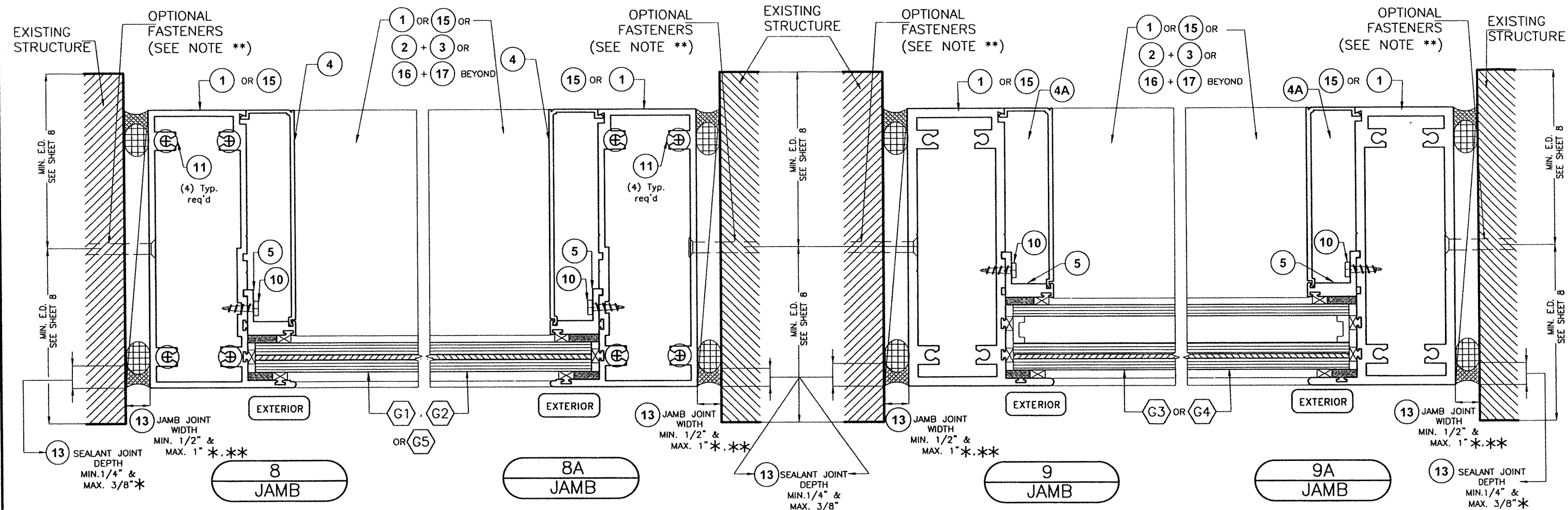
Δ CORRESPONDS TO FASTENERS TYPES AND SUBSTRATES CHARACTERISTICS (AS APPLICABLE) DESCRIBED ON SHEET'S 8 THRU 13.

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TILTECO INC. TILLIT TESTING & ENGINEERING COMPANY 6355 N.W. 38th. St., Ste. 305, VIRGINIA GARDENS, FL 33166 Phone : (305)871-1530 . Fax : (305)871-1531 e-mail: tilteco@aol.com CA-0006719 WALTER A. TILLIT Jr. P.E. FLORIDA Lic. # 44167		290 WEST 78 ROAD HALEAH, FL 33014 PH: (954)226-5555/(305)558-8103 FAX: (305)558-6665 www.gigwindows.com		09/12/2023 DATE	
23-213 DRAWING No		SHEET 20 OF 51			
REV. No	DESCRIPTION	DATE	REV. No	DESCRIPTION	DATE
1	OLD 21-118	09/12/23	3		
2			4		

HORIZONTAL SECTIONS AT JAMBS AT STRAIGHT GLASS WALL APPLICATIONS: OPTIONAL SYSTEM # 1



** ALTERNATIVELY, JAMB JOINT WIDTH MAY BE REDUCED TO A WIDTH LESS THAN 1/2" IF JAMB PROFILE IS ATTACHED TO WALL FULL HEIGHT W/ THE FOLLOWING FASTENERS.

* NOTE: ABOVE INDICATED MAXIMUM AND MINIMUM VALUES FOR SPECIFIED SEALANT VERTICAL JOINT WIDTH AT JAMBS NOT CONNECTED TO WALL (FREE STANDING) HAVE BEEN DETERMINED ONLY TAKING INTO CONSIDERATION THE ACTUAL MOVEMENT OF GLASS WALL AT JAMBS DUE TO THERMAL, WIND AND ITS OWN CONSTRUCTION TOLERANCE, AND NOT PERFORMANCE FACTORS FROM THE SURROUNDING STRUCTURE.

SUBSTRATE Δ	FASTENERS TYPES Δ		SPACING
	3/8" SHIM SPACE OR LESS	>3/8" , <1/2" SHIM SPACE	
POURED CONCRETE	FASTENER TYPE A	FASTENER TYPE B	6" O.C.
2500 psi GROUT FILLED ASTM C-90 CONCRETE BLOCK	FASTENER TYPE A	FASTENER TYPE B	6" O.C.
STEEL OR ALUMINUM	FASTENER TYPE E	FASTENER TYPE E	6" O.C.
WOOD	FASTENER TYPES C & D	FASTENER TYPE D	5" O.C.

Δ CORRESPONDS TO FASTENERS TYPES AND SUBSTRATES CHARACTERISTICS (AS APPLICABLE) DESCRIBED ON SHEET'S 8 THRU 13.

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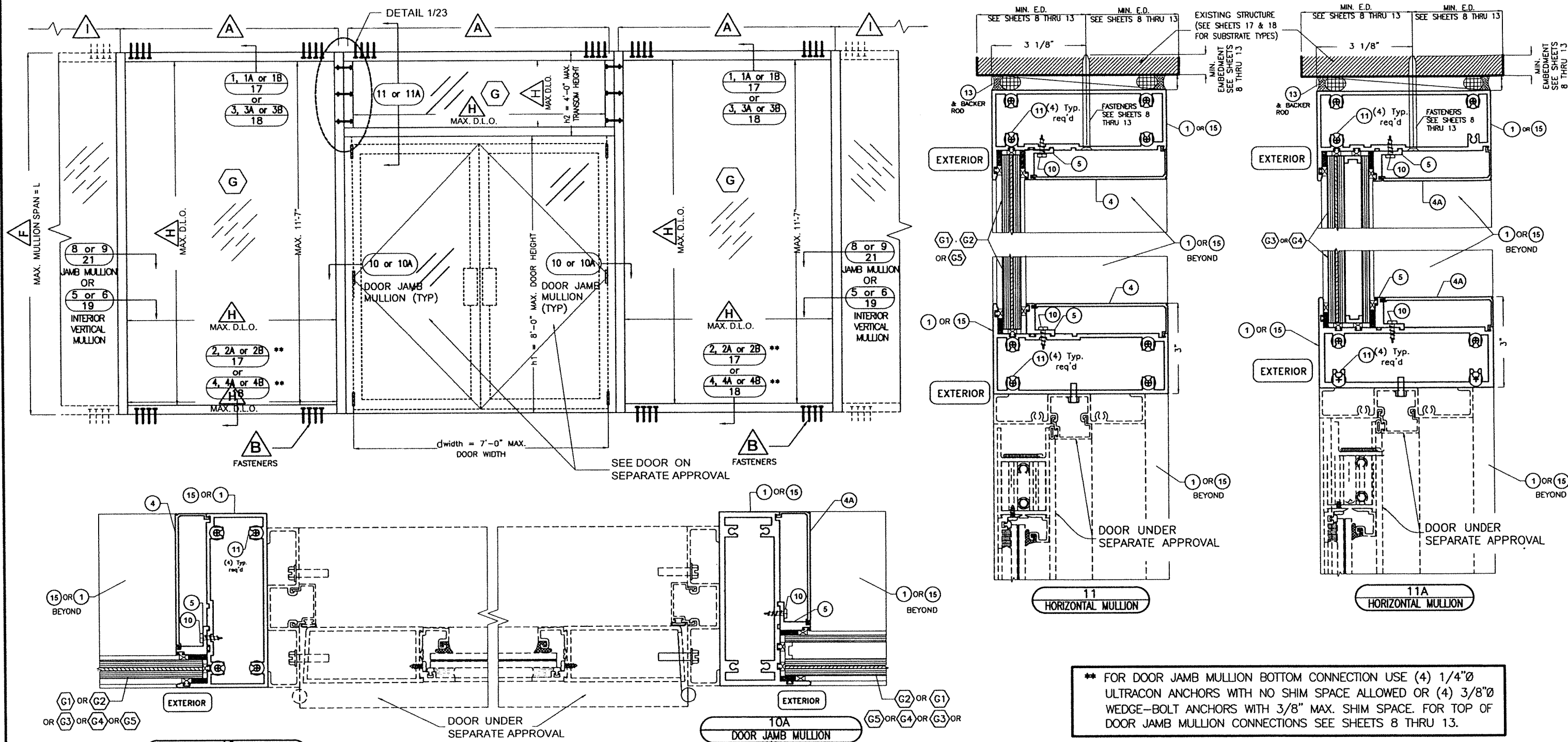
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2	-	-	4	-	-

SHEET 21 OF 51

ELEVATION FOR HIGH IMPACT GREEN WORLD FIXED GLASS WALL SERIES 12000 ADJACENT TO
APPROVED DOOR (ON SEPARATE APPROVAL): OPTIONAL SYSTEM # 1



- FOOT NOTES:
- A FOR MAXIMUM DOOR JAMB MULLION SPACING ON CENTERS SEE SHEET 23.
 - B FOR HEAD AND SILL FASTENERS QUANTITY, TYPES AND SPECS SEE SHEETS 8 THRU 13.
 - F FOR MAXIMUM VERTICAL MULLION SPAN SEE SHEET 23.
 - G FOR GLAZING DETAILS SEE SHEET 3 AND FOR GLASS SCHEDULE SEE SHEETS 5, 5A.
 - H FOR MAXIMUM D.L.O. SEE SCHEDULE ON SHEETS 5, 5A.
 - I FOR MAXIMUM INTERIOR VERTICAL MULLION SPACING ON CENTERS SEE SHEETS 6 & 7.

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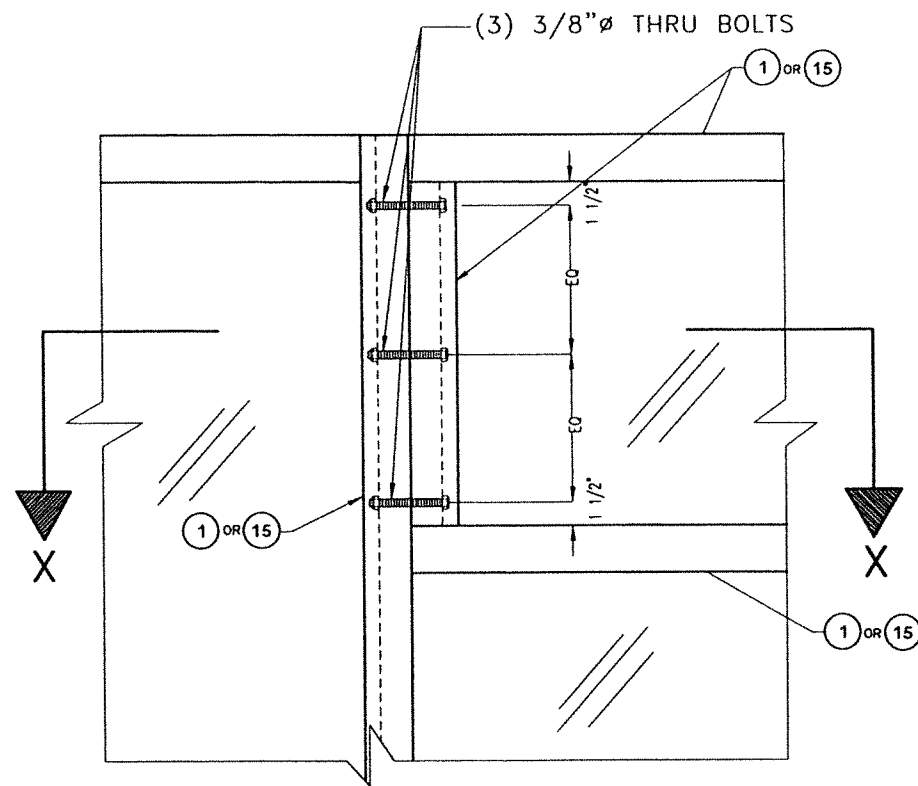
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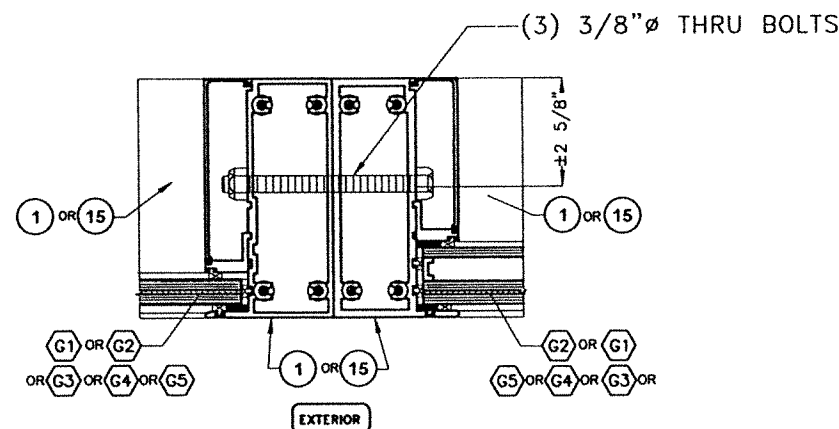
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SHEET 22 OF 51



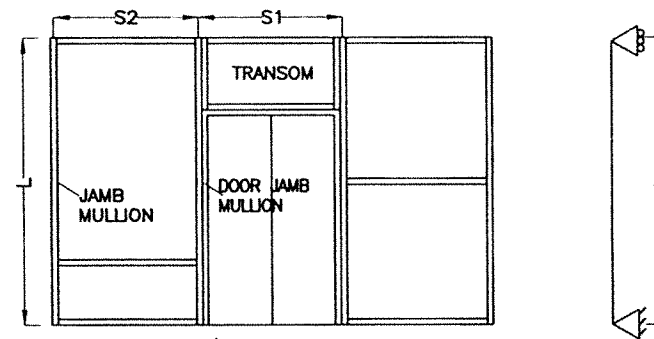
ELEVATION DETAIL 1

SCALE: 1"=1'-0"



SECTION X-X

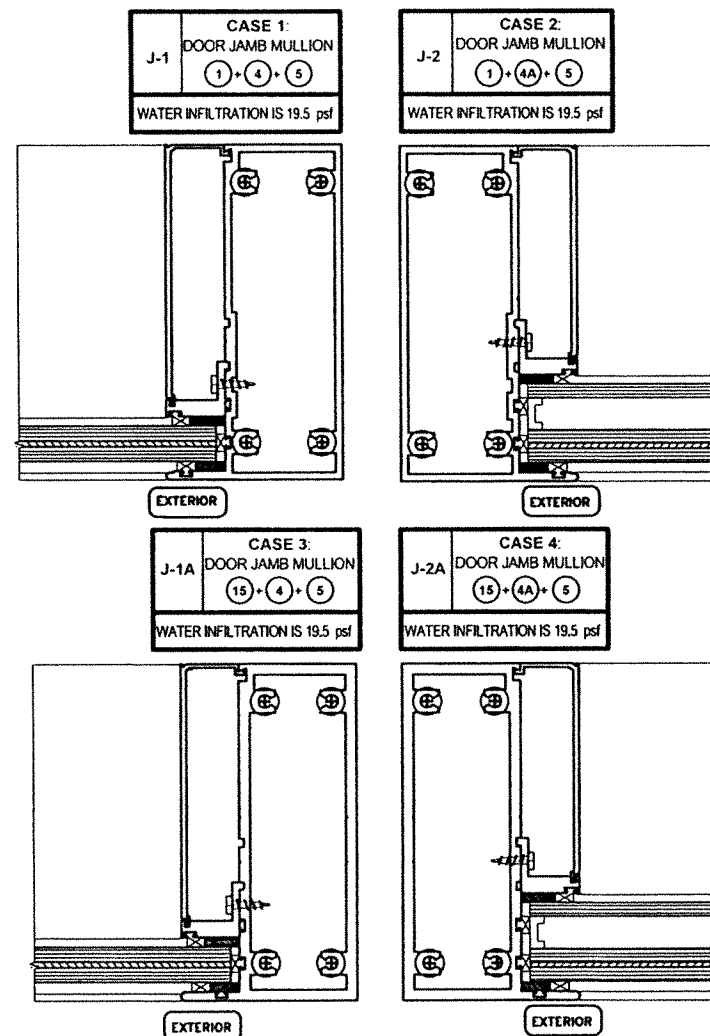
SCALE: 3/8"=1'-0"



ELEVATION W/ DOOR JAMB MULLION

"L" = MAXIMUM DOOR JAMB MULLION SPAN
DOOR JAMB MULLION EFFECTIVE SPACING: "b" = $\frac{S1+S2}{2}$

* MAXIMUM DESIGN PRESSURE RATING FOR DOOR JAMB MULLION WILL AUTOMATICALLY QUALIFY DESIGN PRESSURE RATINGS FOR JAMB MULLIONS FOR ANY GIVEN MULLION SPACING & PRESSURE RATING.



** MAXIMUM DOOR JAMB MULLION SPAN "L"(FT) SCHEDULE FOR A GIVEN A.S.D. DESIGN PRESSURE RATING (psf), DOOR JAMB MULLION EFFECTIVE SPACING "b"

MAXIMUM A.S.D. DESIGN PRESSURE RATING (psf)	MAX. EFFECTIVE SPACING "b" (Ft-in)	1/8" or 3/16" THICK INTERIOR DOOR JAMB MULLION SPAN "L"(FT) Laminated/Insulated Glass CASES: 1,2,3,4 J-1, J2, J-1A & J-2A
± 40.0	3'-6"	12'-0"
	4'-0"	12'-0"
	4'-6"	12'-0"
	5'-0"	12'-0"
	5'-6"	11'-9"
	6'-0"	11'-3"
	6'-6"	10'-10"
± 45.0	7'-0"	10'-5"
	3'-6"	12'-0"
	4'-0"	12'-0"
	4'-6"	12'-0"
	5'-0"	11'-7"
	5'-6"	11'-1"
	6'-0"	10'-7"
± 50.0	6'-6"	10'-10"
	7'-0"	9'-10"
	3'-6"	12'-0"
	4'-0"	12'-0"
	4'-6"	11'-7"
	5'-0"	11'-0"
	5'-6"	10'-6"
± 55.0	6'-0"	10'-1"
	6'-6"	9'-8"
	7'-0"	9'-4"
	3'-6"	12'-0"
	4'-0"	11'-9"
	4'-6"	11'-1"
	5'-0"	10'-6"
± 60.0	5'-6"	10'-0"
	6'-0"	9'-7"
	6'-6"	9'-3"
	7'-0"	8'-11"
	3'-6"	12'-0"
	4'-0"	11'-3"
	4'-6"	10'-7"
± 65.0	5'-0"	10'-1"
	5'-6"	9'-7"
	6'-0"	9'-2"
	6'-6"	8'-10"
	7'-0"	8'-6"
	3'-6"	11'-7"
	4'-0"	10'-10"

** MAXIMUM DOOR JAMB MULLION SPAN "L"(FT) SCHEDULE FOR A GIVEN A.S.D. DESIGN PRESSURE RATING (psf) & DOOR JAMB MULLION EFFECTIVE SPACING "b" (CONTINUED)

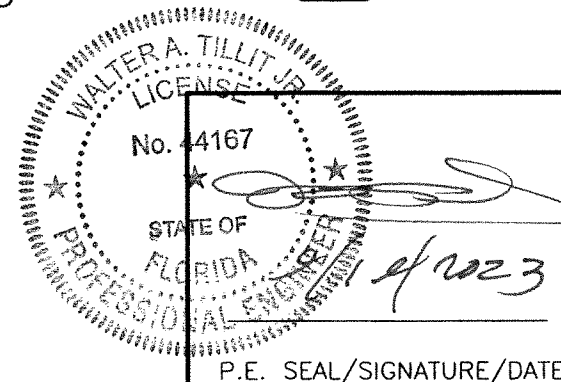
MAXIMUM A.S.D. DESIGN PRESSURE RATING (psf)	MAX. EFFECTIVE SPACING "b" (Ft-in)	1/8" or 3/16" THICK INTERIOR DOOR JAMB MULLION SPAN "L"(FT) Laminated/Insulated Glass CASES: 1,2,3,4 J-1, J2, J-1A & J-2A
± 70.0	3'-6"	11'-2"
	4'-0"	10'-5"
	4'-6"	9'-10"
	5'-0"	9'-4"
	5'-6"	8'-11"
	6'-0"	8'-6"
	6'-6"	7'-10"
± 75.0	7'-0"	7'-3"
	3'-6"	10'-9"
	4'-0"	10'-1"
	4'-6"	9'-6"
	5'-0"	9'-0"
	5'-6"	8'-7"
	6'-0"	7'-11"
± 80.0	6'-6"	7'-4"
	7'-0"	6'-9"
	3'-6"	10'-5"
	4'-0"	9'-9"
	4'-6"	9'-2"
	5'-0"	8'-9"
	5'-6"	8'-1"
± 85.0	6'-0"	7'-5"
	6'-6"	6'-10"
	7'-0"	6'-4"
	3'-6"	10'-1"
	4'-0"	9'-5"
	4'-6"	8'-11"
	5'-0"	8'-5"

** FOR DOOR JAMB MULLION BOTTOM CONNECTION USE (4) 1/4" ULTRACON ANCHORS WITH NO SHIM SPACE ALLOWED OR (4) 3/8" WEDGE-BOLT ANCHORS WITH 3/8" MAX. SHIM SPACE. FOR TOP OF DOOR JAMB MULLION CONNECTIONS SEE SHEETS 8 THRU 13.

CASES DEFINITIONS

CASE 1: J-1	JAMB MULLION: 1/8" THICK W/ LAMINATED GLASS (SEE DET. 8/ 21 & 10/22)
CASE 2: J-2	JAMB MULLION: 1/8" THICK W/ INSULATED GLASS (SEE DET. 8A/ 21 & 10/22)
CASE 3: J-1A	JAMB MULLION: 3/16" THICK W/ LAMINATED GLASS (SEE DET. 9/ 21 & 10A/22)
CASE 4: J-2A	JAMB MULLION: 3/16" THICK W/ INSULATED GLASS (SEE DET. 9A/21 & 10A/22)

OPTIONAL SYSTEM # 1



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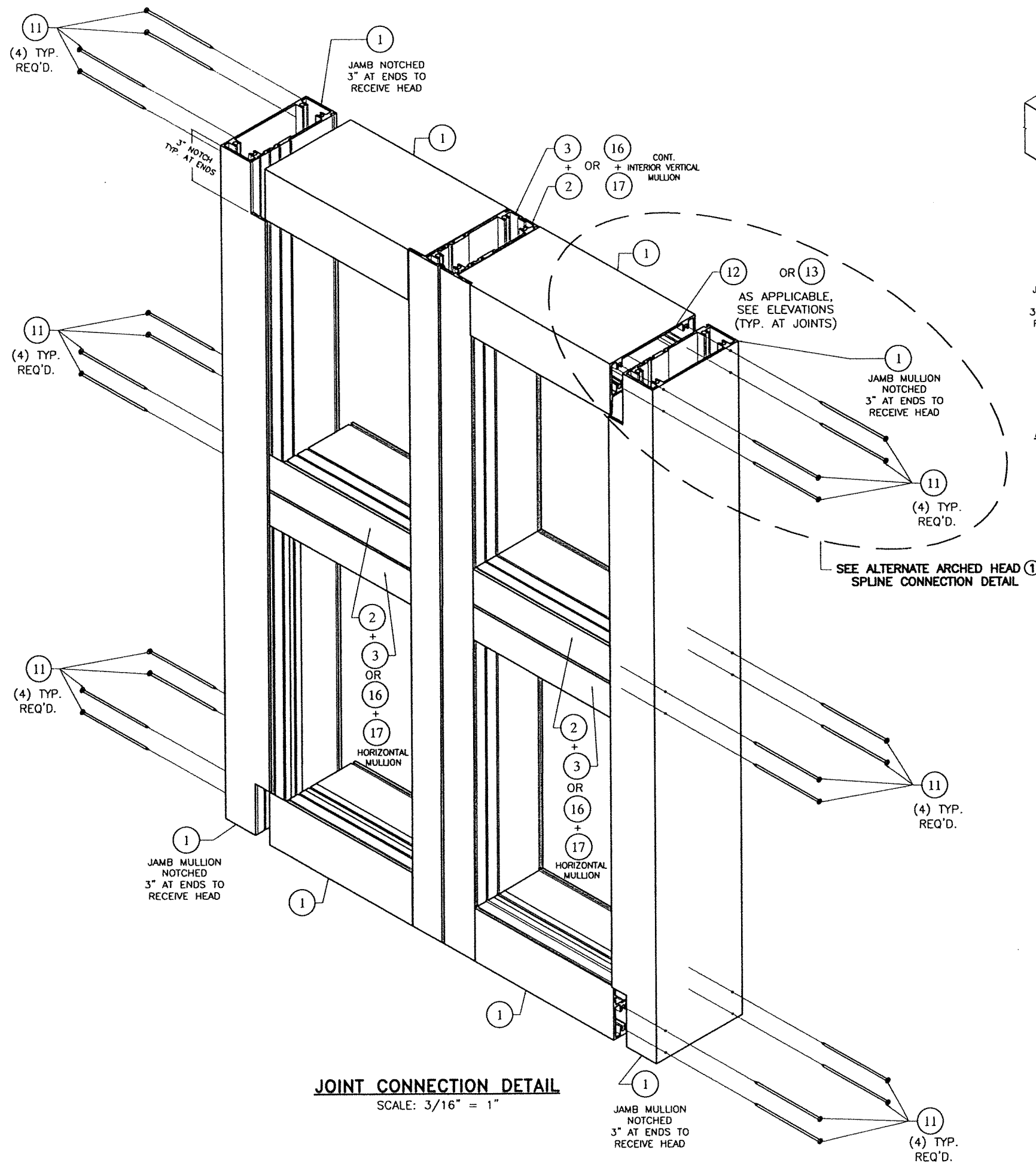
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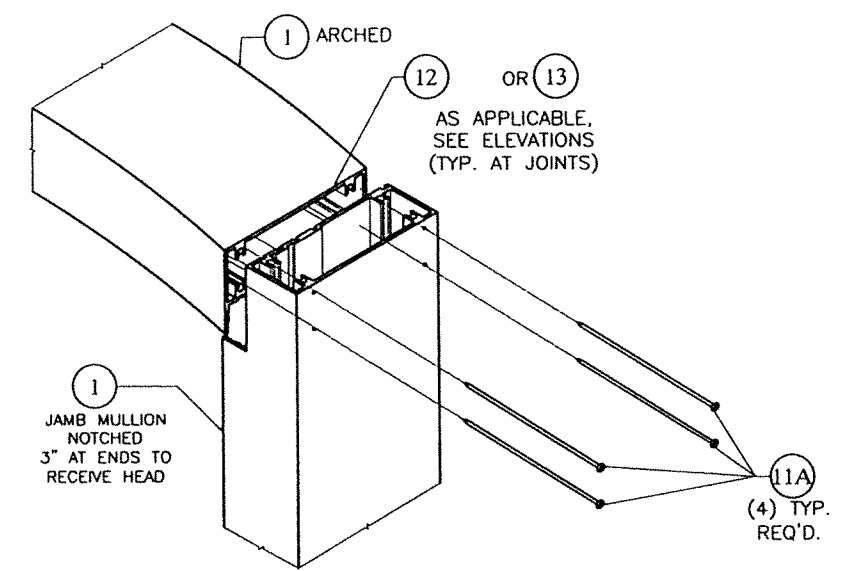
09/12/2023
DATE

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DRAWING No

SHEET 23 OF 51



JOINT CONNECTION DETAIL
SCALE: 3/16" = 1"



ARCHED HEAD ① SPLINE CONNECTION DETAIL
SCALE: 3/16" = 1"

OPTIONAL SYSTEM # 1
(ISOMETRIC)
NTS

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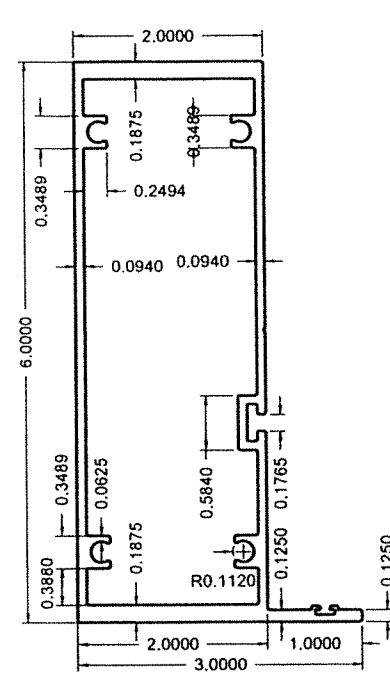
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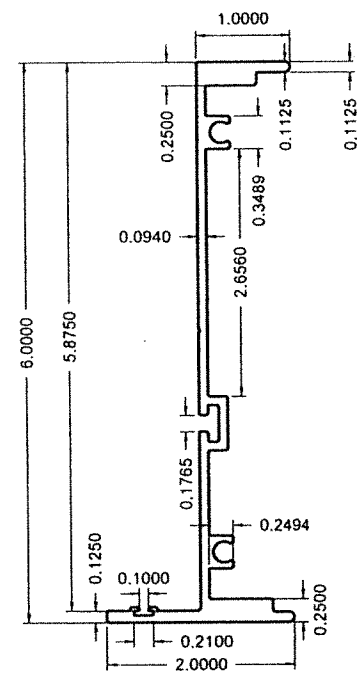
23-213
DRAWING No

SHEET 24 OF 51

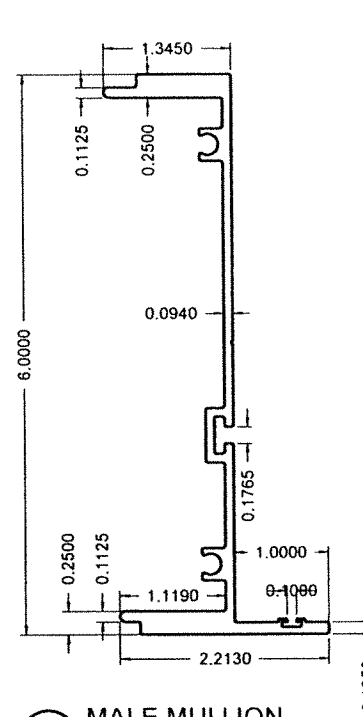
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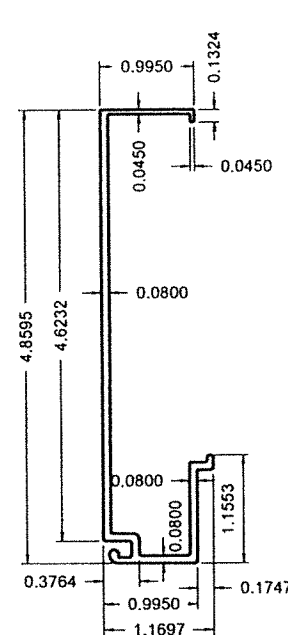
1 FRAME HEAD, SILL, JAMB



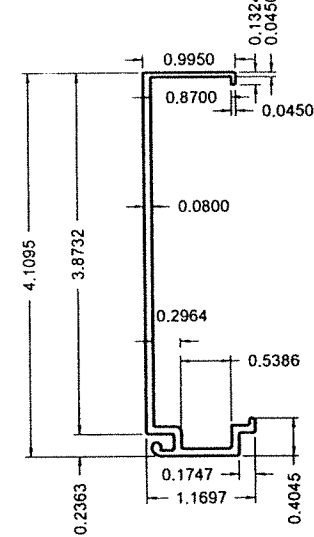
2 FEMALE MULLION



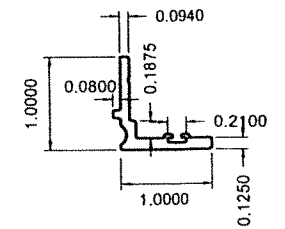
3 MALE MULLION



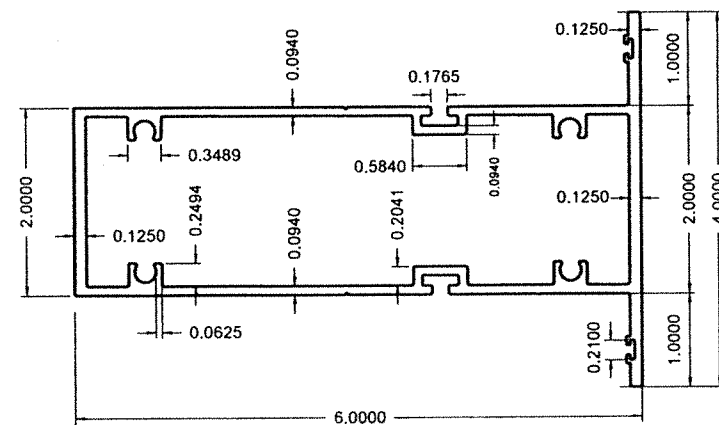
4 LAMINATED WINDOW COVER



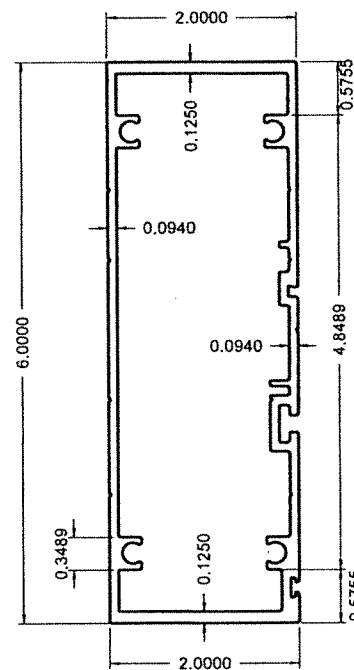
4A INSULATED WINDOW COVER



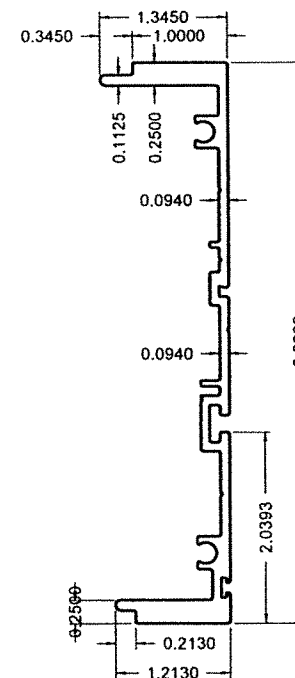
17 DOOR JAMB TRANSOM ADAPT



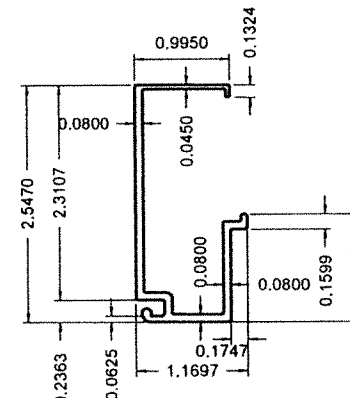
5 INTERMEDIATE HORIZONTAL



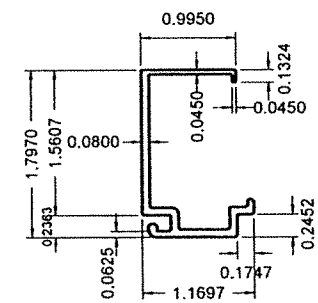
15 END DOOR JAMB MULLION



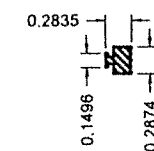
16 MALE INTERIOR DOOR JAMB MULLION & MALE TRANSOM BAR



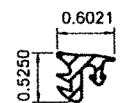
4B LAMINATED WINDOW COVER



4C INSULATED WINDOW COVER



6 SOLID RUBBER GASKET EPDM



6A WEDGE GASKET EPDM

COMPONENTS: OPTIONAL SYSTEM # 2

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LICENSE
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STATE OF FLORIDA
PROFESSIONAL ENGINEER
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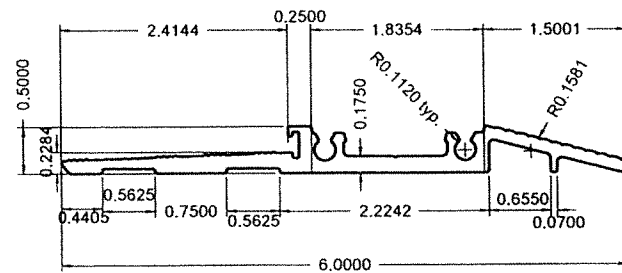
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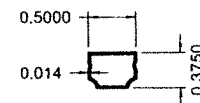
23-213
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REV. No	DESCRIPTION	DATE	REV. No	DESCRIPTION	DATE
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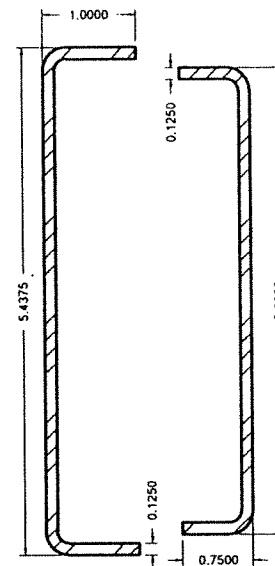
SHEET 25 OF 51



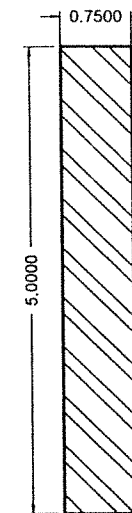
22 ADA THRESHOLD



28 INSULATED GLASS UNIT SPACER

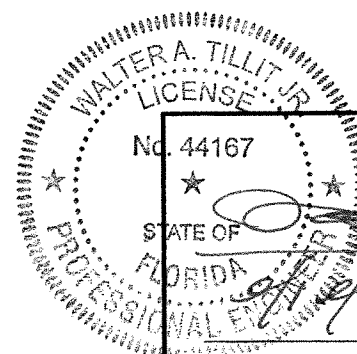


40 STEEL REINFORCEMENT
STEEL



41 OPTIONAL ALUMINUM REINFORCEMENT TO 40
6063-T6 ALLOY

COMPONENTS CONT'. : OPTIONAL SYSTEM # 2



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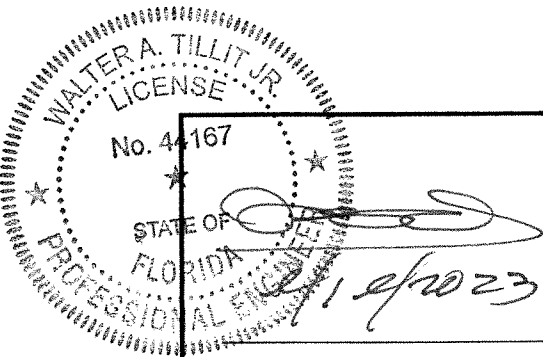
23-213
DRAWING No

REV. No	DESCRIPTION	DATE	REV. No	DESCRIPTION	DATE
1	OLD 21-118	09/12/23	3	-	-
2	-	-	4	-	-

SHEET 26 OF 51

BILL OF MATERIALS: OPTIONAL SYSTEM # 2

ITEM #	DESCRIPTION	DIMENSIONS & REMARKS	MATERIAL
①	FRAME JAMB, HEAD & SILL	6"x3"xVARIES THK.	6063-T6 ALUMINUM
②	FEMALE MULLION	6"x2"xVARIES THK.	6063-T6 ALUMINUM
③	MALE MULLION	6"x2.213"xVARIES THK.	6063-T6 ALUMINUM
④	LAMINATED WINDOW COVER	4.8595"x1.1697"xVARIES THK.	6063-T6 ALUMINUM
④A	INSULATED WINDOW COVER	4.1095"x1.1697"xVARIES THK.	6063-T6 ALUMINUM
④B	LAMINATED WINDOW COVER	2.5470"x1.1697"xVARIES THK.	6063-T6 ALUMINUM
④C	INSULATED WINDOW COVER	1.7970"x1.1697"xVARIES THK.	6063-T6 ALUMINUM
⑤	INTERMEDIATE HORIZONTAL	6"x4"xVARIES THK.	6063-T6 ALUMINUM
⑥	SOLID RUBBER GASKET	0.2874"x0.2835"xVARIES THK.	EPDM
⑥A	WEDGE GASKET	0.6021"x0.5250"xVARIES THK.	EPDM
⑧	STRUCTURAL SILICONE SIKASIL SG-500 CN OR DOWSIL 983	ALL AROUND GLASS	SILICONE
⑩	DOOR JAMB TRANSOM ADAPT. ASSEMBLY SCREW	#10x5/8" F.H. SCREW (START 3" & 8 O.C.)	S.S.
⑪	FRAME ASSEMBLY SCREW	#14x2 1/2" H.H. SCREW	STEEL
⑫	JOINT DETAIL (METAL TO METAL) GASKET 1/16 XLP W/ RUBBER BASED PSA	OPTIONAL TO ⑬ FOR INTERNAL JOINT. MANUFACTURED BY FRANK LOWE RUBBER & GASKET CO.	CLOSED CELL POLYETHYLENE FOAM TAPE COATED IN ONE SIDE
⑬	NON STRUCTURAL SILICONE	OPTIONAL TO ⑫ FOR INTERNAL JOINT, PLUS EXTERIOR FRAME SEALANT ALL AROUND PERIMETER	SILICONE
⑭	MULLION ASSEMBLY BOLT	1/4"-20x2 1/2" THRU BOLT W/NUT @ 12" O.C. (START @ 6" O.C. FROM TOP/BOT)	STAINLESS STEEL AISI 304 SERIES
⑮	END DOOR JAMB MULLION	6"x2"xVARIES THK.	6063-T6 ALUMINUM
⑮	MALE INTERIOR DOOR JAMB MULLION & MALE TRANSOM BAR	6"x1.2130"xVARIES THK.	6063-T6 ALUMINUM
⑰	DOOR JAMB TRANSOM ADAPT.	1"x1.0798"xVARIES THK.	6063-T6 ALUMINUM
⑱	SILL FLASHING (OPTIONAL)	1.340" MIN.x5.915" MIN.x0.415" MIN.x0.040" THK.	3105-H24 ALUMINUM
⑳	INSULATED GLASS UNIT SPACER	0.5"x0.375"x0.014" THK.	3105-H24 ALUMINUM
㉔	ANCHORS: SEE SHEETS 34 THRU 43	-	STEEL
㉙	SETTING BLOCK	0.133"x0.5" (ULTRAFAB)	EPDM
④①	STEEL REINFORCEMENT	VARIES	ASTM A-36 ZINC PLATED OR G-60 GALVANIZED STEEL
④①	OPTIONAL ALUMINUM REINFORCEMENT TO ④①	0.75"x5"	6061-T6 ALUMINUM



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1	OLD 21-118	09/12/23	3	-	-
2	-	-	4	-	-

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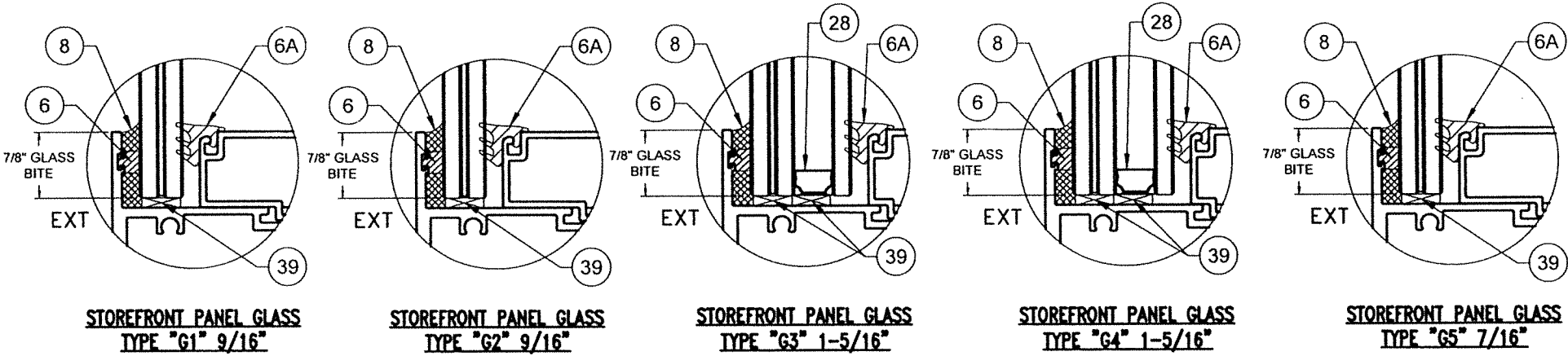
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 DATE

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 DRAWING No

SHEET 27 OF 51

BILL OF MATERIALS FOR GLASS : OPTIONAL SYSTEM # 2

COMP.#	DESCRIPTION	ALLOWED MISSILE TYPE
G1	9/16" NOMINAL LAMINATED GLASS W/ 1/4" H.S. GLASS + 0.090" KURARAY SENTRYGLAS®INTERLAYER BY KURARAY AMERICA, INC. + 1/4" H.S. GLASS.	LARGE & SMALL MISSILE
G2	9/16" NOMINAL LAMINATED GLASS W/ 1/4" H.S. GLASS + 0.090" TROSIFOL® PVB INTERLAYER BY KURARAY AMERICA INC. + 1/4" H.S. GLASS.	LARGE & SMALL MISSILE
G3	1 5/16" NOMINAL INSULATED GLASS W/ 1/4" H.S. GLASS + 0.090" KURARAY SENTRYGLAS® INTERLAYER BY KURARAY AMERICA, INC. + 1/4" H.S. GLASS + 1/2" AIR SPACE + 1/4" INTERIOR MONOLITHIC TEMPERED GLASS	LARGE & SMALL MISSILE
G4	1 5/16" NOMINAL INSULATED GLASS W/ 1/4" H.S. GLASS + 0.090" TROSIFOL® PVB INTERLAYER BY KURARAY AMERICA, INC. + 1/4" H.S. GLASS + 1/2" AIR SPACE + 1/4" INTERIOR MONOLITHIC TEMPERED GLASS	LARGE & SMALL MISSILE
G5	7/16" NOMINAL LAMINATED GLASS W/ 3/16" H.S. GLASS + 0.090" TROSIFOL® PVB INTERLAYER BY KURARAY AMERICA, INC. + 3/16" H.S. GLASS.	LARGE & SMALL MISSILE



GLASS CONFIGURATION
 SCALE: N.T.S

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 LICENSE
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 STATE OF FLORIDA
 PROFESSIONAL ENGINEER
 09/12/23
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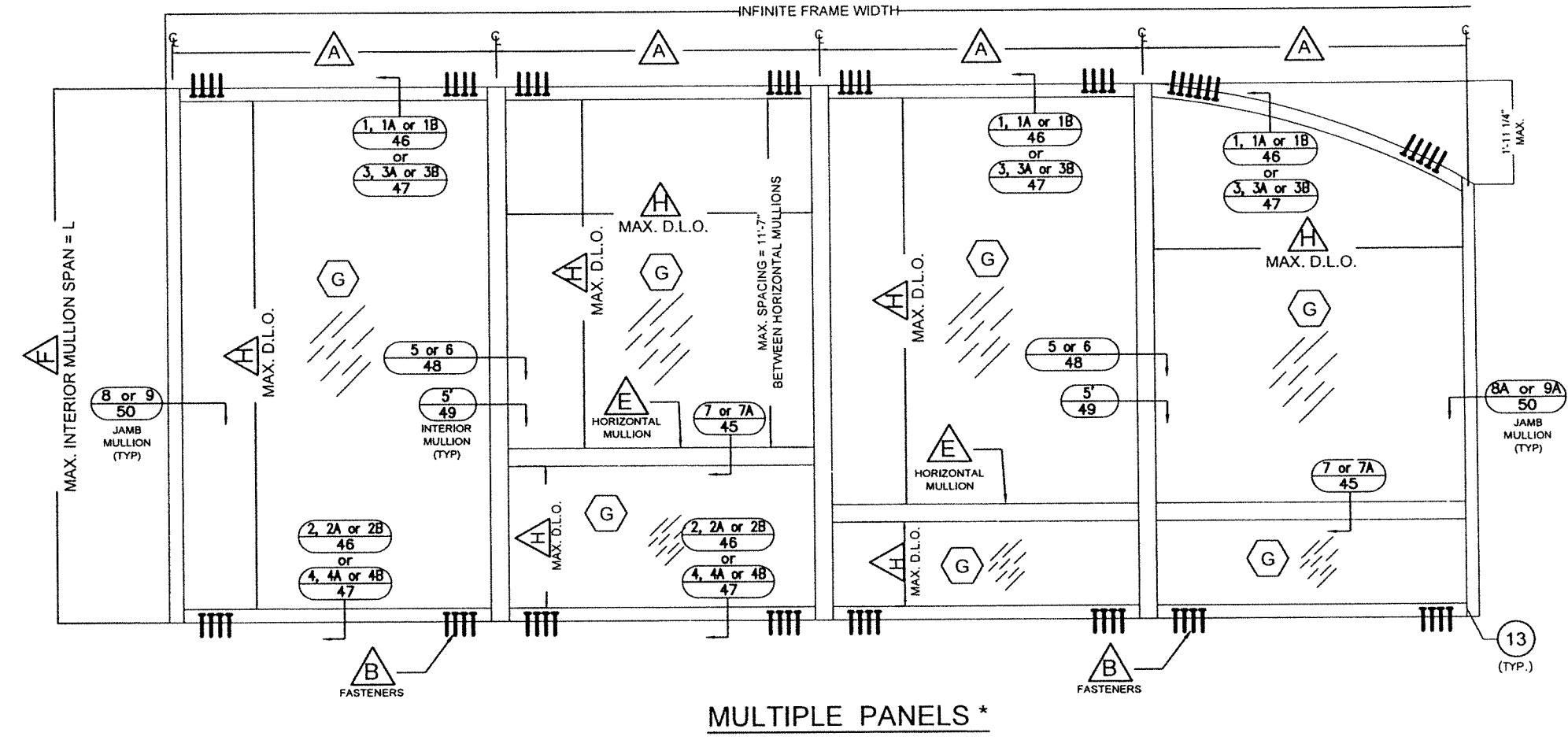
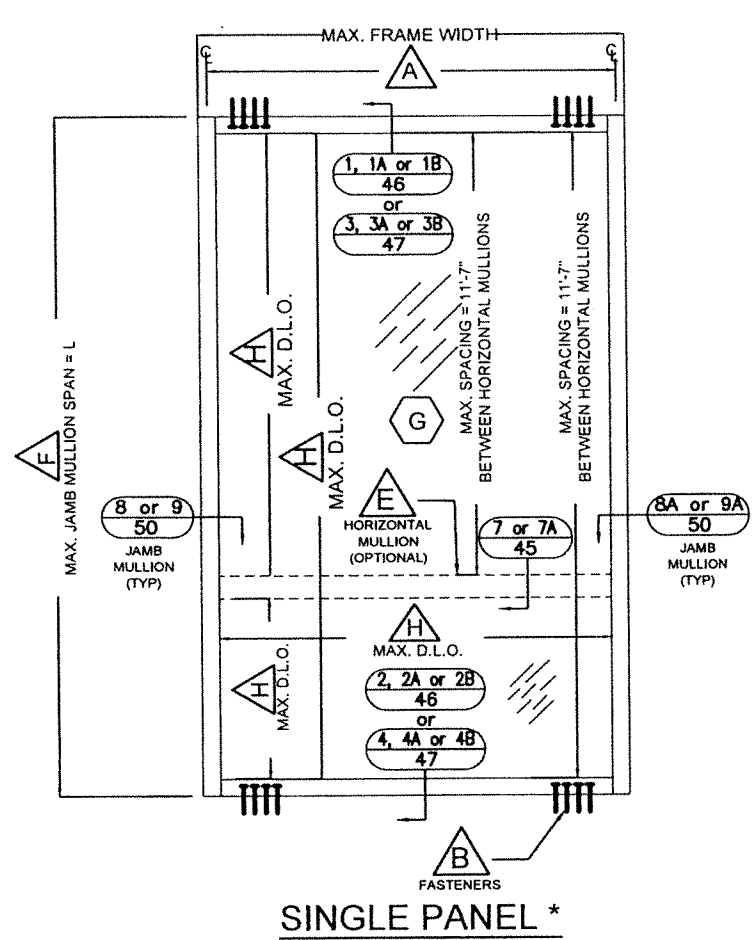
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 SHEET 28 OF 51

REV. No	DESCRIPTION	DATE	REV. No	DESCRIPTION	DATE
1	OLD 21-118	09/12/23	3	-	-
2	-	-	4	-	-

ELEVATIONS FOR HIGH IMPACT GREEN WORLD FIXED GLASS WALL SERIES 12000 :
OPTIONAL SYSTEM # 2



- FOOT NOTES:
- A FOR MAXIMUM REINFORCED OR UNREINFORCED INTERIOR MULLION & JAMB MULLION SPACING AT MULTIPLE PANELS OR BETWEEN JAMB MULLIONS AT SINGLE PANELS SEE SHEETS 32 , 32A.
 - B FOR HEAD AND SILL FASTENERS QUANTITY, TYPES AND SPECS SEE SHEETS 34 THRU 39.
 - E USE OF HORIZONTAL MULLION LIMITED BY SCHEDULES ON SHEETS 44 & 44A.
 - F FOR MAXIMUM REINFORCED OR UNREINFORCED INTERIOR DOOR AND END DOOR JAMB MULLION SPAN SEE SHEET 33.
 - G FOR GLAZING DETAILS SEE SHEET 28 AND FOR GLASS SCHEDULE SEE SHEETS 31, 31A.
 - H FOR MAXIMUM D.L.O. SEE SCHEDULE ON SHEETS 31, 31A.

* NOTE: SINGLE & MULTIPLE PANELS FIXED GLASS WALL SERIES 12000 MAY BE INSTALLED ROTATED 90° FROM ABOVE SHOWN ORIENTATION.

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PROFESSIONAL ENGINEER
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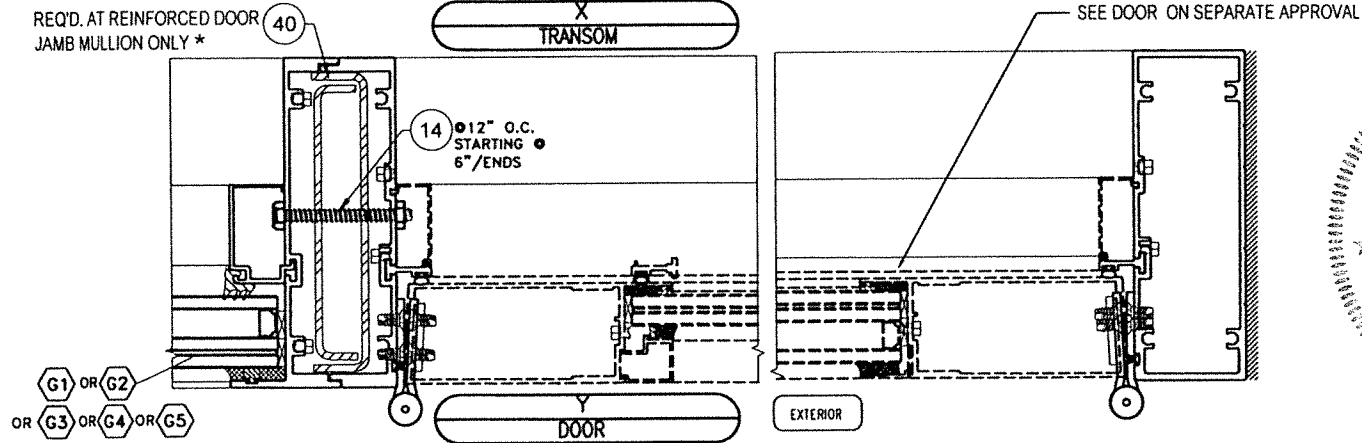
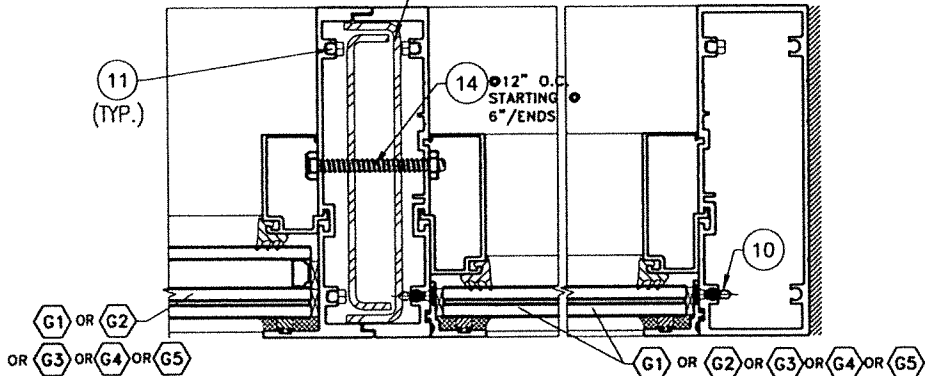
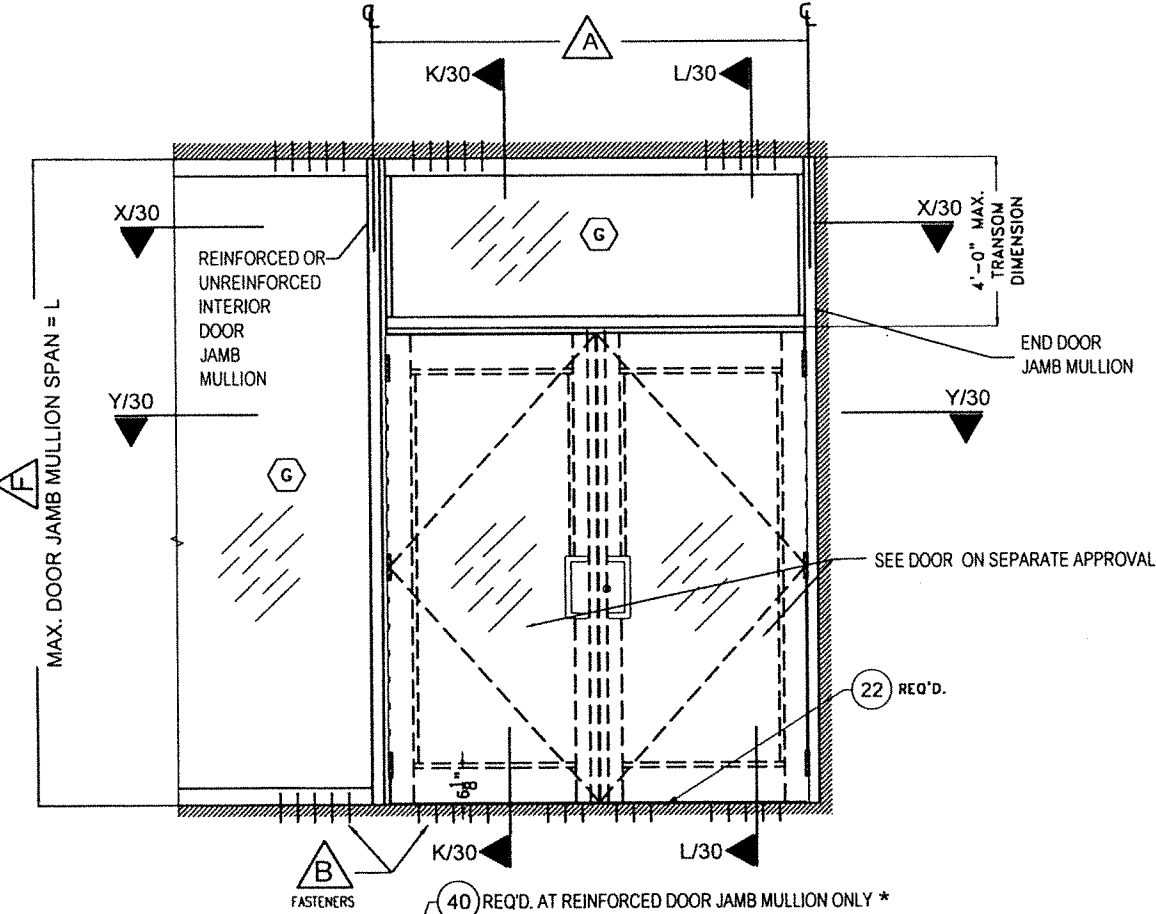
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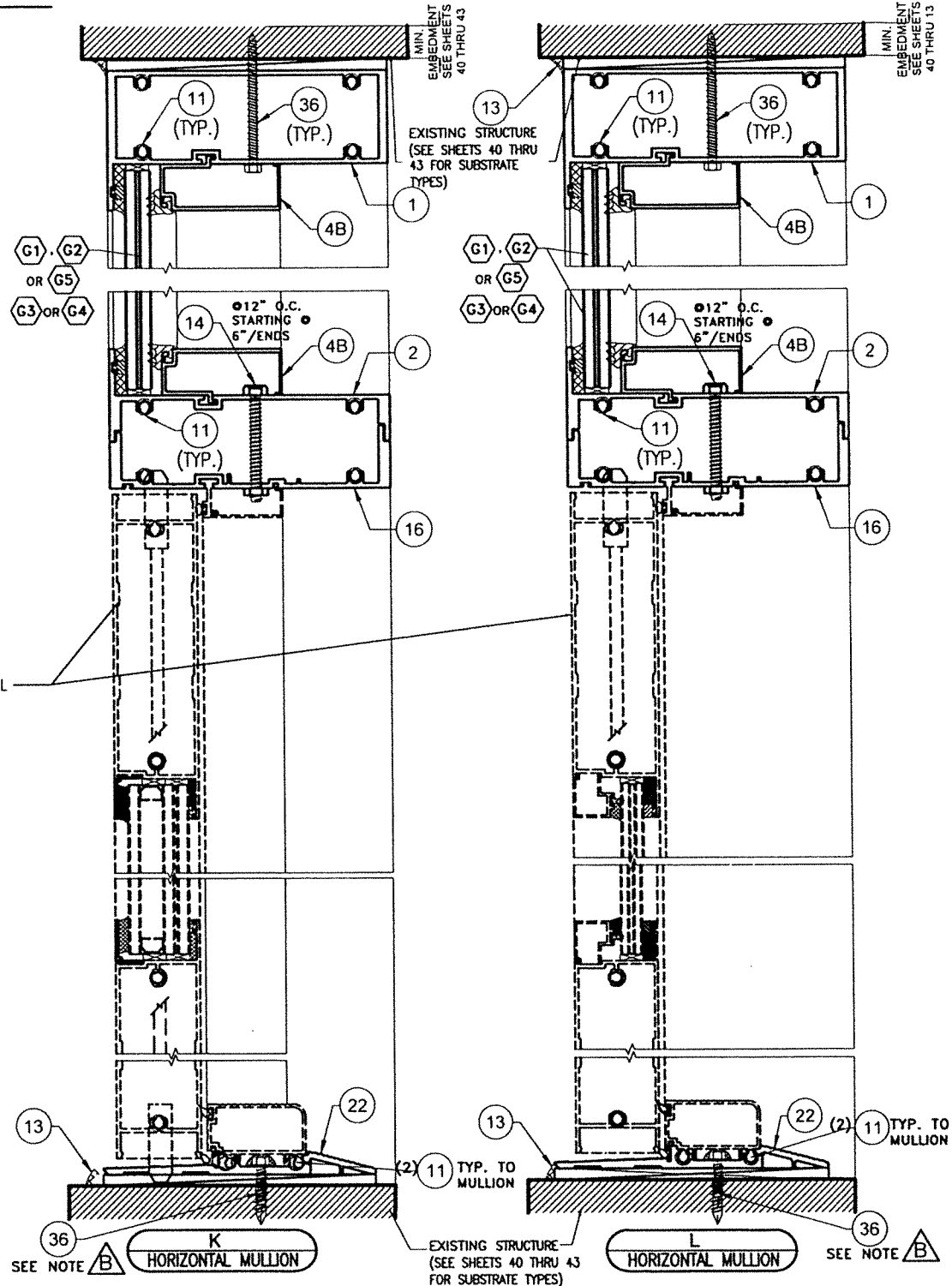
SHEET 29 OF 51

ELEVATION FOR HIGH IMPACT GREEN WORLD FIXED GLASS WALL SERIES 12000
ADJACENT TO APPROVED DOOR (ON SEPARATE APPROVAL)
OPTIONAL SYSTEM # 2 CONTINUED



FOOT NOTES:
A MAXIMUM ON CENTERS BETWEEN INTERIOR DOOR JAMB MULLION & END DOOR JAMB MULLION IS 6'-4".
B FOR HEAD AND SILL FASTENERS QUANTITY, TYPES AND SPECS SEE SHEETS 40 THRU 43.
F FOR MAXIMUM INTERIOR & END DOOR JAMB MULLION SPAN SEE SHEET 33.
G FOR GLAZING DETAILS SEE SHEET 28 AND FOR GLASS SCHEDULE SEE SHEETS 31 & 31A.
* COMPONENT (41) MAY BE USED AS AN OPTION TO COMPONENT (40).

SEE DOOR ON SEPARATE APPROVAL



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SHEET 30 OF 51

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MAXIMUM FRAME WIDTH "a" AND FRAME LENGTH "b" VERSUS A.S.D. DESIGN PRESSURE RATING (psf) SCHEDULE *
OPTIONAL SYSTEM # 2

GLASS TYPE G1		
DIMENSION "a"	DIMENSION "b"	MAX.A.S.D. DESIGN PRESSURE RATING (psf)
18" or less	18" or less	+130.0 -140.0
18"	18" to 139"	+130.0 -140.0
20"	20" to 139"	+130.0 -140.0
22"	22" to 139"	+130.0 -140.0
24"	24" to 139"	+130.0 -140.0
26"	26" to 139"	+130.0 -140.0
28"	28" to 139"	+130.0 -140.0
30"	30" to 139"	+130.0 -140.0
32"	32" to 139"	+130.0 -140.0
34"	34" to 139"	+130.0 -140.0
36"	36" to 139"	+130.0 -140.0
38"	38" to 139"	+130.0 -140.0
40"	40" to 139"	+130.0 -140.0
42"	42" to 139"	+130.0 -140.0
44"	44" to 137"	+130.0 -120.0
46"	46" to 131"	+130.0 -116.0
48"	48" to 126"	+130.0 -140.0
	> 126" to 139"	±20.0
50"	50" to 121"	+130.0 -111.0
52"	52" to 116"	+130.0 -111.0
54"	54" to 112"	+130.0 -140.0
	> 112" to 139"	±20.0
56"	56" to 108"	+130.0 110.0
58"	58" to 104"	+130.0 -111.0
60"	60" to 98"	+130.0 -140.0
	> 98" to 139"	±20.0
62"	62" to 97"	+130.0 -114.0
64"	64" to 94"	+130.0 -110.4
	66" to 84"	+130.0 -140.0
	> 84" to 90"	±99.5
	> 90" to 139"	±20.0
68"	68" to 89"	+130.0 -103.9
70"	70" to 86"	+130.0 -101.0
	72" to 82"	+130.0 -140.0
	>82" to 84"	±91.0
	>84" to 139"	±20.0
74"	74" to 78"	+130.0 -95.5
76"	76" to 79.7"	+130.0 -93.0

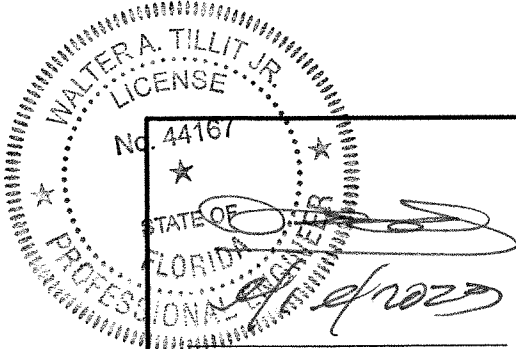
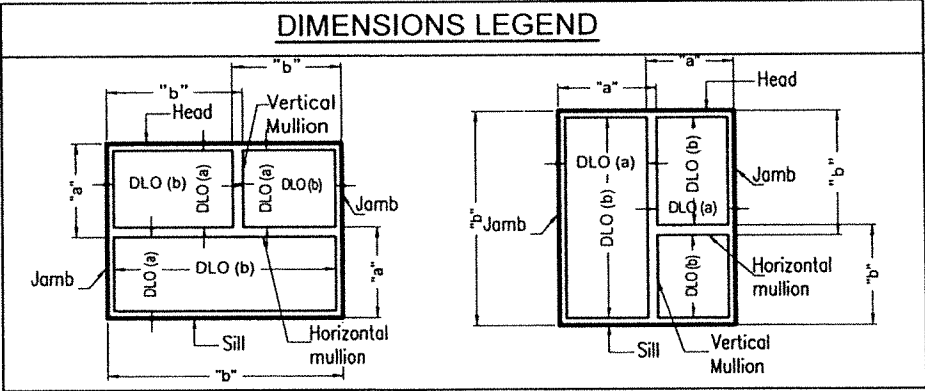
GLASS TYPE G2		
DIMENSION "a"	DIMENSION "b"	MAX.A.S.D. DESIGN PRESSURE RATING (psf)
18" or less	18" or less	±90.0
18"	18" to 139"	±90.0
20"	20" to 139"	±90.0
22"	22" to 139"	±90.0
24"	24" to 139"	±90.0
26"	26" to 139"	±90.0
28"	28" to 139"	±90.0
30"	30" to 139"	±90.0
32"	32" to 139"	±90.0
34"	34" to 139"	±90.0
36"	36" to 139"	±90.0
38"	38" to 132"	±90.0
40"	40" to 128"	±90.0
42"	42" to 120"	±90.0
	> 120" to 139"	±80.0
44"	44" to 117"	±90.0
	> 117" to 139"	±80.0
46"	46" to 112"	±90.0
	> 112" to 139"	±80.0
48"	48" to 107"	±90.0
	> 107" to 139"	±80.0
50"	50" to 103"	±90.0
52"	52" to 99"	±87.4
54"	54" to 95"	±84.1
56"	56" to 129"	±80.0
58"	58" to 124"	±80.0
60"	60" to 120"	±80.0
62"	62" to 116"	±80.0
64"	64" to 112"	±80.0
66"	66" to 108"	±79.6
68"	68" to 106"	±79.3
70"	70" to 103"	±79.3
72"	72" to 100"	±79.5
74"	74" to 97"	±79.8
76"	76" to 95"	±78.4
78"	78" to 92.5"	±76.4
80"	80" to 90"	±74.5
82"	82" to 88"	±72.6
84"	84" to 86"	±70.9

* DETERMINATION OF MAXIMUM DAY LIGHT OPENING (D.L.O.) AT EACH END OF GLASS
GIVEN "a" & "b"

SIDE	MAX. DAY LIGHT OPENING	
	(D.L.O.) Formula at vertical & horizontal mullions	(D.L.O.) Formula at jamb, head & sill frames
MAX. D.L.O. (a) (SHORT SIDE)	"a"-6.00"	"a"-6.00"
MAX. D.L.O. (b) (LONG SIDE)	"b"-6.00"	"b"-6.00"

NOTE:
1. SEE SHEET 28 FOR GLAZING DETAILS AND GLASS DESCRIPTIONS.

** SIDE "a" IS ALWAYS EQUAL OR SHORTER THAN "b".
"a", "b", MAY BE ORIENTED IN ANY DIRECTION.



P.E. SEAL/SIGNATURE/DATE

FLORIDA BUILDING CODE (HIGH & NON HIGH VELOCITY HURRICANE ZONES)

©2023 TILTECO, INC.		HIGH IMPACT GREEN WORLD FIXED GLASS WALL SERIES 12000 LARGE MISSILE LAMINATED & INSULATED GLASS		W.H. DRAWN BY	
TILTECO INC. TILLIT TESTING & ENGINEERING COMPANY 6355 N.W. 36th. St., Ste. 305, VIRGINIA GARDENS, FL 33166 Phone : (305)871-1530 . Fax : (305)871-1531 e-mail: tilteco@aol.com CA-0006719 WALTER A. TILLIT Jr. P.E. FLORIDA Lic. # 44167		 290 WEST 78 ROAD HIALEAH, FL. 33014 PH: (954)226-5555/(305)558-8103 FAX: (305)558-6665 www.gigwindows.com		09/12/2023 DATE	
REV. No		DESCRIPTION		DATE	
1		OLD 21-118		09/12/23	
2					
				23-213 DRAWING No	
				SHEET 31 OF 51	

MAXIMUM FRAME WIDTH "a" AND FRAME LENGTH "b" VERSUS A.S.D. DESIGN PRESSURE RATING (psf) SCHEDULE *
 OPTIONAL SYSTEM # 2

GLASS TYPE G3		
DIMENSION "a"	DIMENSION "b"	MAX.A.S.D. DESIGN PRESSURE RATING (psf)
18" or less	18" or less	+130.0 -140.0
18"	18" to 139"	+130.0 -140.0
20"	20" to 139"	+130.0 -140.0
22"	22" to 139"	+130.0 -140.0
24"	24" to 139"	+130.0 -140.0
26"	26" to 139"	+130.0 -140.0
28"	28" to 139"	+130.0 -140.0
30"	30" to 139"	+130.0 -140.0
32"	32" to 139"	+130.0 -140.0
34"	34" to 139"	+130.0 -140.0
36"	36" to 139"	+130.0 -140.0
38"	38" to 139"	+130.0 -140.0
40"	40" to 139"	+130.0 -140.0
42"	42" to 139"	+130.0 -140.0
44"	44" to 137"	+130.0 -126.0
46"	46" to 131"	+130.0 -121.0
48"	48" to 122"	+130.0 -140.0
	> 122" to 139"	±20.0
50"	50" to 121"	+130.0 -113.0
52"	52" to 116"	+130.0 -113.0
54"	54" to 108"	+130.0 -140.0
	> 108" to 139"	±20.0
56"	56" to 108"	+130.0 -108.0
58"	58" to 104"	+130.0 -117.0
60"	60" to 98"	+130.0 -140.0
	> 98" to 139"	±20.0
62"	62" to 96"	+130.0 -114.0
64"	64" to 94"	+130.0 -110.4
66"	66" to 87.5"	+130.0 -140.0
	> 87.5" to 90"	±107.1
	> 90" to 139"	±20.0
68"	68" to 89"	+130.0 -103.9
70"	70" to 86"	+130.0 -101.0
72"	72" to 80.5"	+130.0 -140.0
	>80.5" to 84"	±98.1
	>84" to 139"	±20.0
74"	74" to 81"	+130.0 -95.5
76"	76" to 79"	+130.0 -93.0

GLASS TYPE G4		
DIMENSION "a"	DIMENSION "b"	MAX.A.S.D. DESIGN PRESSURE RATING (psf)
18" or less	18" or less	±80.0
18"	18" to 139"	±80.0
20"	20" to 139"	±80.0
22"	22" to 139"	±80.0
24"	24" to 139"	±80.0
26"	26" to 139"	±80.0
28"	28" to 139"	±80.0
30"	30" to 139"	±80.0
32"	32" to 139"	±80.0
34"	34" to 139"	±80.0
36"	36" to 139"	±80.0
38"	38" to 139"	±80.0
40"	40" to 139"	±80.0
42"	42" to 139"	±80.0
44"	44" to 139"	±80.0
46"	46" to 139"	±80.0
48"	48" to 139"	±80.0
50"	50" to 139"	±80.0
52"	52" to 138"	±80.0
54"	54" to 133.5"	±80.0
56"	56" to 129"	±80.0
58"	58" to 124"	±80.0
60"	60" to 120"	±80.0
62"	62" to 116"	±80.0
64"	64" to 112"	±80.0
66"	66" to 108"	±80.0
	> 108" to 109.5"	±79.6
68"	68" to 106"	±79.3
70"	70" to 103"	±79.3
72"	72" to 96"	±80.0
	> 96" to 100"	±79.5
74"	74" to 97"	±79.8
76"	76" to 95"	±78.4
78"	78" to 91"	±76.1
80"	80" to 90"	±74.5
82"	82" to 88"	±72.6
84"	84" to 86"	±70.9

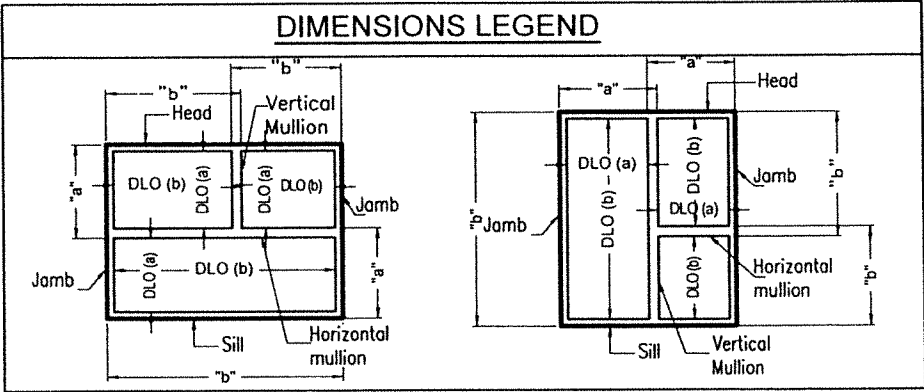
GLASS TYPE G5		
DIMENSION "a"	DIMENSION "b"	MAX.A.S.D. DESIGN PRESSURE RATING (psf)
18" or less	18" or less	±90.0
18"	18" to 139"	±90.0
20"	20" to 139"	±90.0
22"	22" to 139"	±90.0
24"	24" to 139"	±90.0
26"	26" to 139"	±90.0
28"	28" to 139"	±90.0
30"	30" to 139"	±90.0
32"	32" to 139"	±90.0
34"	34" to 139"	±90.0
36"	36" to 139"	±90.0
38"	38" to 132"	±90.0
40"	40" to 128"	±90.0
42"	42" to 120"	±90.0
44"	44" to 117"	±90.0
46"	46" to 111"	±90.0
48"	48" to 107"	±90.0
50"	50" to 103"	±90.0
52"	52" to 99"	±90.0
54"	54" to 95"	±84.1
56"	56" to 91"	±81.1
58"	58" to 88"	±78.3
60"	60" to 85.5"	±75.7
62"	62" to 83"	±73.3
64"	64" to 80"	±71.2
66"	66" to 78"	±68.8
68"	68" to 75"	±66.8
70"	70" to 73"	±64.3

* DETERMINATION OF MAXIMUM DAY LIGHT OPENING (D.L.O.) AT EACH END OF GLASS
 GIVEN "a" & "b"

SIDE	MAX. DAY LIGHT OPENING	
	(D.L.O.) Formula at vertical & horizontal mullions	(D.L.O.) Formula at jamb, head & sill frames
MAX. D.L.O. (a) (SHORT SIDE)	"a"-6.00"	"a"-6.00"
MAX. D.L.O. (b) (LONG SIDE)	"b"-6.00"	"b"-6.00"

NOTE:
 1. SEE SHEET 28 FOR GLAZING DETAILS AND GLASS DESCRIPTIONS.

** SIDE "a" IS ALWAYS EQUAL OR SHORTER THAN "b".
 "a", "b" ,MAY BE ORIENTED IN ANY DIRECTION.



WALTER A. TILLIT JR.
 LICENSE
 No 44167
 STATE OF FLORIDA
 PROFESSIONAL ENGINEER
 P.E. SEAL/SIGNATURE/DATE

FLORIDA BUILDING CODE (HIGH & NON HIGH VELOCITY HURRICANE ZONES)

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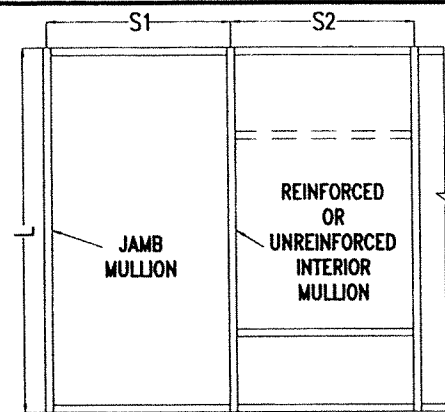
 TILLIT TESTING & ENGINEERING COMPANY
 6355 N.W. 38th. St., Ste. 305, VIRGINIA GARDENS, FL 33166
 Phone : (305)871-1530 : Fax : (305)871-1531
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HIGH IMPACT GREEN WORLD FIXED GLASS WALL
 SERIES 12000 LARGE MISSILE LAMINATED & INSULATED GLASS

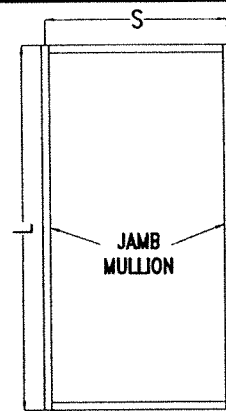
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W.H. DRAWN BY
 09/12/2023 DATE
 23-213 DRAWING No
 SHEET 31A OF 51

REV. No	DESCRIPTION	DATE	REV. No	DESCRIPTION	DATE
1	OLD 21-118	09/12/23	3	-	-
2	-	-	4	-	-



ELEVATION W/ REINFORCED OR UNREINFORCED
INTERIOR MULLION @ MULTIPLE PANELS



ELEVATION W/ JAMB MULLION @
SINGLE PANEL

"L" = MAXIMUM INTERIOR MULLION SPAN
EFFECTIVE
SPACING: "b" = $\frac{S_1 + S_2}{2}$ FOR MULTIPLE PANELS

"L" = MAXIMUM JAMB MULLION SPAN
EFFECTIVE
SPACING: "b" = S FOR SINGLE PANEL.

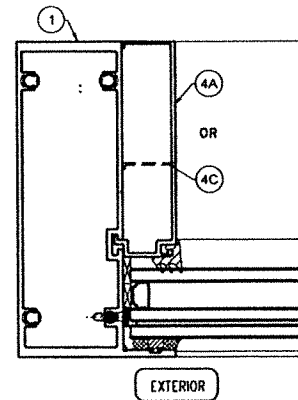
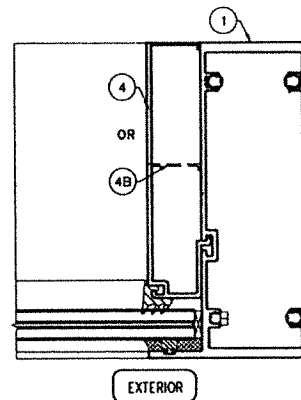
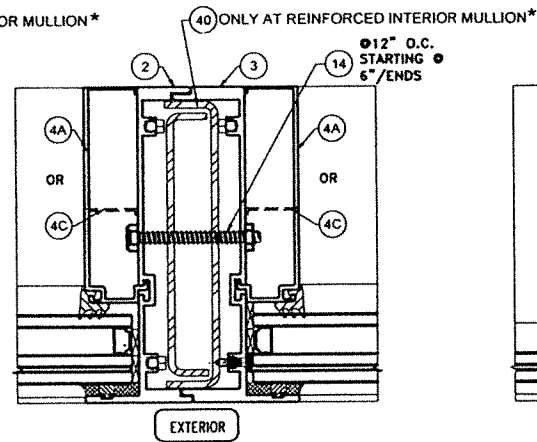
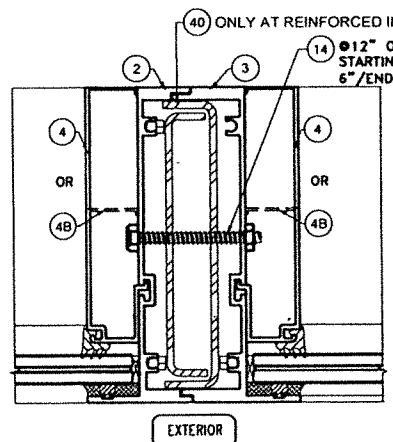
*COMPONENT (41) MAY BE USED AS AN OPTION TO COMPONENT (40).

CASE 1: INTERIOR MULLION	
M-1A	(2) + (3) W/ (40) REQ'D ONLY AT REINFORCED INTERIOR MULLION(*) + (2) (4) OR (2) (4B)

CASE 2: INTERIOR MULLION	
M-2A	(2) + (3) W/ (40) REQ'D ONLY AT REINFORCED INTERIOR MULLION(*) + (2) (4A) OR (2) (4C)

CASE 1: JAMB MULLION	
J-1A	(1) + (4) OR (4B)

CASE 2: JAMB MULLION	
J-2A	(1) + (4A) OR (4C)



OPTIONAL SYSTEM # 2

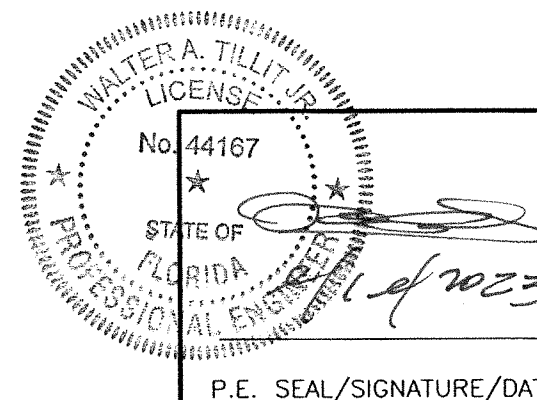
CASES DEFINITIONS

CASE 1: M-1A REINFORCED OR UNREINFORCED INTERIOR MULLION: W/ LAMINATED GLASS (SEE DET. 5 ON SHEET 48) J-1A JAMB MULLION: W/ LAMINATED GLASS (SEE DET. 8 OR 8A ON SHEET 50)
CASE 2: M-2A REINFORCED OR UNREINFORCED INTERIOR MULLION: W/ INSULATED GLASS (SEE DET. 6 ON SHEET 48) J-2A JAMB MULLION: 3/16\"

MAXIMUM UNREINFORCED INTERIOR MULLION AND JAMB MULLION SPAN "L"(FT) SCHEDULE FOR A GIVEN A.S.D. DESIGN PRESSURE RATING (psf) & A GIVEN MULLION EFFECTIVE SPACING "b" (CONTINUED)		
MAXIMUM DESIGN PRESSURE RATING "W"(psf)	MAX. EFFECTIVE SPACING "b"(Ft-in)	LAMINATED GLASS OR INSULATED GLASS CASE 1 OR CASE 2 M-1A/J-1A M-2A/J-2A
+103.0 , -94.0	5'-0"	9'-6"

MAXIMUM REINFORCED INTERIOR MULLION AND JAMB MULLION SPAN "L"(FT) SCHEDULE FOR A GIVEN A.S.D. DESIGN PRESSURE RATING (psf) & A GIVEN MULLION EFFECTIVE SPACING "b" (CONTINUED)		
MAXIMUM DESIGN PRESSURE RATING "W"(psf)	MAX. EFFECTIVE SPACING "b"(Ft-in)	LAMINATED GLASS OR INSULATED GLASS CASE 1 OR CASE 2 M-1A/J-1A M-2A/J-2A
± 40.0	3'-6"	15'-9"
	4'-0"	15'-9"
	4'-6"	15'-9"
	5'-0"	15'-9"
	5'-6"	15'-7"
	6'-0"	15'-1"
	6'-6"	14'-9"
± 45.0	7'-0"	14'-4"
	3'-6"	15'-9"
	4'-0"	15'-9"
	4'-6"	15'-9"
	5'-0"	15'-5"
	5'-6"	15'-0"
	6'-0"	14'-9"
± 50.0	6'-6"	14'-6"
	7'-0"	13'-10"
	3'-6"	15'-9"
	4'-0"	15'-9"
	4'-6"	15'-5"
	5'-0"	14'-11"
	5'-6"	14'-5"
± 55.0	6'-0"	14'-0"
	6'-6"	13'-7"
	7'-0"	13'-3"
	3'-6"	15'-9"
	4'-0"	15'-1"
	4'-6"	14'-6"
	5'-0"	14'-0"
± 60.0	5'-6"	13'-7"
	6'-0"	13'-3"
	6'-6"	12'-10"
	7'-0"	12'-4"
	3'-6"	15'-5"
	4'-0"	14'-9"
	4'-6"	14'-2"
± 65.0	5'-0"	13'-8"
	5'-6"	13'-3"
	6'-0"	12'-10"
	6'-6"	12'-4"
	7'-0"	11'-10"

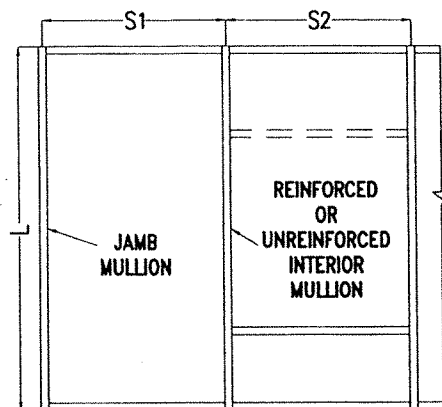
MAXIMUM REINFORCED INTERIOR MULLION AND JAMB MULLION SPAN "L"(FT) SCHEDULE FOR A GIVEN A.S.D. DESIGN PRESSURE RATING (psf) & A GIVEN MULLION EFFECTIVE SPACING "b" (CONTINUED)		
MAXIMUM DESIGN PRESSURE RATING "W"(psf)	MAX. EFFECTIVE SPACING "b"(Ft-in)	LAMINATED GLASS OR INSULATED GLASS CASE 1 OR CASE 2 M-1A/J-1A M-2A/J-2A
± 70.0	3'-6"	15'-0"
	4'-0"	14'-4"
	4'-6"	13'-10"
	5'-0"	13'-4"
	5'-6"	12'-11"
	6'-0"	12'-4"
	6'-6"	11'-10"
± 75.0	7'-0"	11'-5"
	3'-6"	14'-8"
	4'-0"	14'-0"
	4'-6"	13'-6"
	5'-0"	13'-0"
	5'-6"	12'-5"
	6'-0"	11'-11"
± 80.0	6'-6"	11'-5"
	7'-0"	11'-0"
	3'-6"	14'-4"
	4'-0"	13'-9"
	4'-6"	13'-3"
	5'-0"	12'-8"
	5'-6"	12'-1"
± 85.0	6'-0"	11'-8"
	6'-6"	10'-0"
	7'-0"	10'-0"
	3'-6"	14'-1"
	4'-0"	13'-6"
	4'-6"	12'-11"
	5'-0"	12'-3"
± 90.0	5'-6"	11'-8"
	6'-0"	10'-0"
	6'-6"	10'-0"
	7'-0"	10'-0"
	3'-6"	13'-10"
	4'-0"	13'-3"
	4'-6"	12'-7"
± 95.0	5'-0"	11'-11"
	5'-6"	11'-4"
	6'-0"	10'-0"
	6'-6"	10'-0"
	7'-0"	10'-0"
	3'-6"	13'-7"
	4'-0"	13'-0"
	4'-6"	12'-3"
	5'-0"	11'-7"
	5'-6"	11'-1"
	6'-0"	10'-0"
	6'-6"	10'-0"
	7'-0"	9'-10"



FLORIDA BUILDING CODE (HIGH & NON HIGH VELOCITY HURRICANE ZONES)

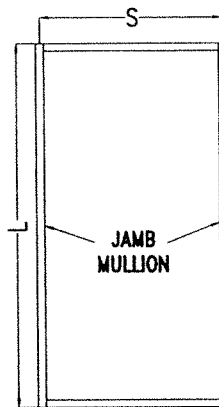
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TILTECO INC.
TILLIT TESTING & ENGINEERING COMPANY
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CA-0006719
WALTER A. TILLIT Jr. P.E.
FLORIDA Lic. # 44167

HIGH IMPACT GREEN WORLD FIXED GLASS WALL SERIES 12000 LARGE MISSILE LAMINATED & INSULATED GLASS						W.H. DRAWN BY
 290 WEST 78 ROAD HIALEAH, FL 33014 PH: (954)226-5555/(305)558-8103 FAX: (305)558-6665 www.gigwindows.com						09/12/2023 DATE
						23-213 DRAWING No
REV. No	DESCRIPTION	DATE	REV. No	DESCRIPTION	DATE	
1	OLD 21-118	09/12/23	3	-	-	
2	-	-	4	-	-	



ELEVATION W/ REINFORCED OR UNREINFORCED INTERIOR MULLION @ MULTIPLE PANELS

"L" = MAXIMUM INTERIOR MULLION SPAN
EFFECTIVE SPACING: "b" = $\frac{S_1 + S_2}{2}$ FOR MULTIPLE PANELS



ELEVATION W/ JAMB MULLION @ SINGLE PANEL

"L" = MAXIMUM JAMB MULLION SPAN
EFFECTIVE SPACING: "b" = S FOR SINGLE PANEL.

MAXIMUM UNREINFORCED INTERIOR MULLION AND JAMB MULLION SPAN "L"(FT) SCHEDULE FOR A GIVEN A.S.D. DESIGN PRESSURE RATING (psf) & A GIVEN MULLION EFFECTIVE SPACING "b" (CONTINUED)		
MAXIMUM DESIGN PRESSURE RATING "W"(psf)	MAX. EFFECTIVE SPACING "b"(ft-in)	LAMINATED GLASS OR INSULATED GLASS CASE 1 OR CASE 2 M-1A/J-1A M-2A/J-2A
+103.0, -94.0	5'-0"	9'-6"

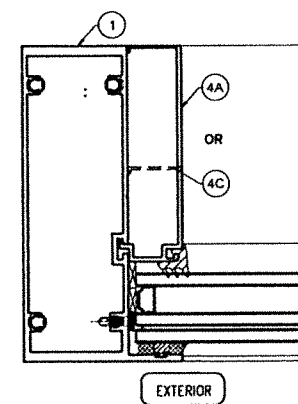
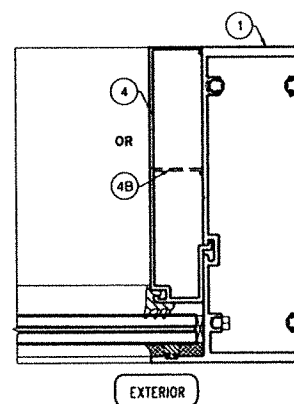
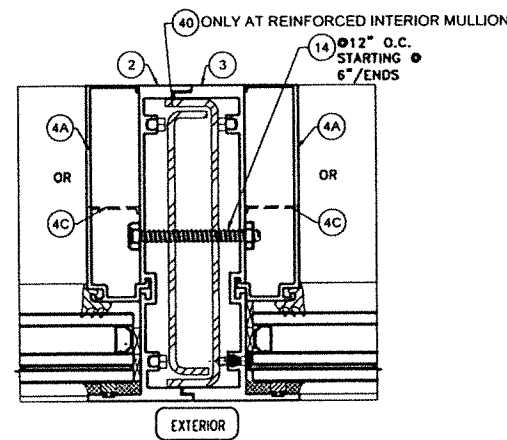
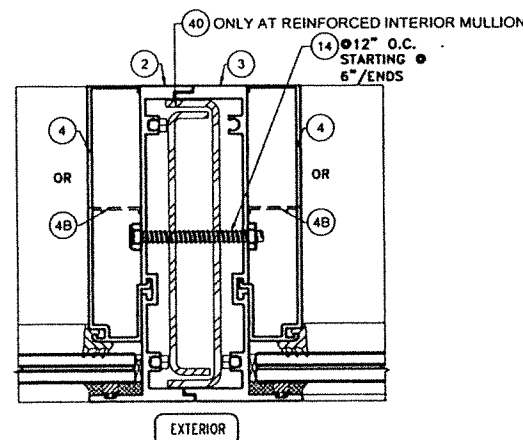
* COMPONENT (41) MAY BE USED AS AN OPTION TO COMPONENT (40).

CASE 1: INTERIOR MULLION	
M-1A	(2) + (3) W/ (40) REQ'D ONLY AT REINFORCED INTERIOR MULLION (+) + (2) (4) OR (2) (4B)

CASE 2: INTERIOR MULLION	
M-2A	(2) + (3) W/ (40) REQ'D ONLY AT REINFORCED INTERIOR MULLION (+) + (2) (4A) OR (2) (4C)

CASE 1: JAMB MULLION	
J-1A	(1) + (4) OR (4B)

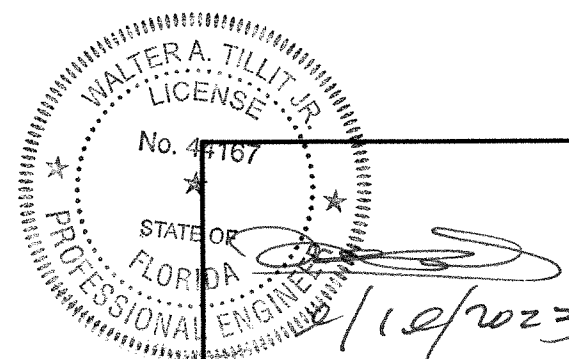
CASE 2: JAMB MULLION	
J-2A	(1) + (4A) OR (4C)



OPTIONAL SYSTEM # 2 (CONTINUED)

CASES DEFINITIONS

- CASE 1: M-1A REINFORCED OR UNREINFORCED INTERIOR MULLION: W/ LAMINATED GLASS (SEE DET. 5 ON SHEET 48)
J-1A JAMB MULLION: W/ LAMINATED GLASS (SEE DET. 8 OR 8A ON SHEET 50)
- CASE 2: M-2A REINFORCED OR UNREINFORCED INTERIOR MULLION: W/ INSULATED GLASS (SEE DET. 6 ON SHEET 48)
J-2A JAMB MULLION: W/ INSULATED GLASS (SEE DET. 9 OR 9A ON SHEET 50)



P.E. SEAL/SIGNATURE/DATE

MAXIMUM REINFORCED INTERIOR MULLION AND JAMB MULLION SPAN "L"(FT) SCHEDULE FOR A GIVEN A.S.D. DESIGN PRESSURE RATING (psf) & A GIVEN MULLION EFFECTIVE SPACING "b" (CONTINUED)		
MAXIMUM DESIGN PRESSURE RATING "W"(psf)	MAX. EFFECTIVE SPACING "b"(ft-in)	LAMINATED GLASS OR INSULATED GLASS CASE 1 OR CASE 2 M-1A/J-1A M-2A/J-2A
± 100.0	3'-6" 4'-0" 4'-6" 5'-0" 5'-6" 6'-0" 6'-6" 7'-0"	13'-4" 12'-8" 11'-11" 11'-4" 10'-9" 10'-0" 9'-11" 9'-7"
± 105.0	3'-6" 4'-0" 4'-6" 5'-0" 5'-6" 6'-0" 6'-6" 7'-0"	13'-1" 12'-4" 11'-8" 11'-0" 10'-6" 10'-0" 9'-8" 9'-4"
± 110.0	3'-6" 4'-0" 4'-6" 5'-0" 5'-6" 6'-0" 6'-6" 7'-0"	12'-11" 12'-1" 11'-4" 10'-9" 10'-3" 9'-10" 9'-6" 9'-1"
± 115.0	3'-6" 4'-0" 4'-6" 5'-0" 5'-6" 6'-0" 6'-6" 7'-0"	12'-7" 11'-10" 11'-1" 10'-7" 10'-1" 9'-8" 9'-3" 8'-10"
± 120.0	3'-6" 4'-0" 4'-6" 5'-0" 5'-6" 6'-0" 6'-6" 7'-0"	12'-4" 11'-7" 10'-11" 10'-4" 9'-10" 9'-5" 9'-1" 8'-6"
± 125.0	3'-6" 4'-0" 4'-6" 5'-0" 5'-6" 6'-0" 6'-6" 7'-0"	12'-1" 11'-4" 10'-8" 10'-1" 9'-8" 9'-3" 8'-9" 8'-2"

MAXIMUM REINFORCED INTERIOR MULLION AND JAMB MULLION SPAN "L"(FT) SCHEDULE FOR A GIVEN A.S.D. DESIGN PRESSURE RATING (psf) & A GIVEN MULLION EFFECTIVE SPACING "b" (CONTINUED)		
MAXIMUM DESIGN PRESSURE RATING "W"(psf)	MAX. EFFECTIVE SPACING "b"(ft-in)	LAMINATED GLASS OR INSULATED GLASS CASE 1 OR CASE 2 M-1A/J-1A M-2A/J-2A
± 130.0	3'-6" 4'-0" 4'-6" 5'-0" 5'-6" 6'-0" 6'-6" 7'-0"	11'-10" 11'-1" 10'-6" 9'-11" 9'-6" 9'-1" 8'-5" 7'-10"
+130.0, -135.0	3'-6" 4'-0" 4'-6" 5'-0" 5'-6" 6'-0" 6'-6" 7'-0"	11'-8" 11'-0" 10'-3" 9'-9" 9'-3" 8'-10" 8'-2" 7'-7"
+130.0, -140.0	3'-6" 4'-0" 4'-6" 5'-0" 5'-6" 6'-0" 6'-6" 7'-0"	11'-5" 11'-0" 10'-1" 9'-6" 9'-1" 8'-6" 7'-10" 7'-3"

FLORIDA BUILDING CODE (HIGH & NON HIGH VELOCITY HURRICANE ZONES)

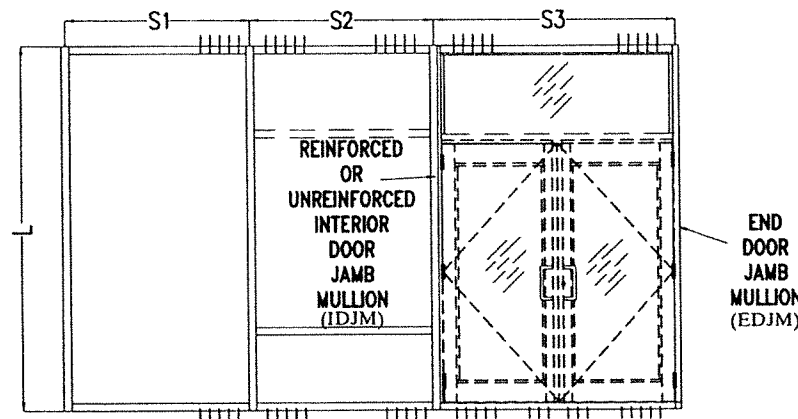
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TILTECO INC.

TILLIT TESTING & ENGINEERING COMPANY
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CA-0006719
WALTER A. TILLIT Jr. P.E.
FLORIDA Lic. # 44167

HIGH IMPACT GREEN WORLD FIXED GLASS WALL SERIES 12000 LARGE MISSILE LAMINATED & INSULATED GLASS				W.H. DRAWN BY	
 290 WEST 78 ROAD HIALEAH, FL 33014 PH: (954)226-5555/(305)558-8103 FAX: (305)558-6665 www.gigwindows.com				09/12/2023 DATE	
				23-213 DRAWING No	
REV. No	DESCRIPTION	DATE	REV. No	DESCRIPTION	DATE
1	OLD 21-118	09/12/23	3	-	-
2	-	-	4	-	-

SHEET 32A OF 51



ELEVATION W/ REINFORCED OR UNREINFORCED INTERIOR DOOR JAMB MULLION AND END DOOR JAMB MULLION @ MULTIPLE PANELS

"L" = MAXIMUM INTERIOR MULLION SPAN

EFFECTIVE SPACING FOR INTERIOR DOOR JAMB MULLION: $b = \frac{S_3 + S_2}{2}$

EFFECTIVE SPACING FOR END DOOR JAMB MULLION: $b = \frac{S_3}{2} \leq 3'-2"$

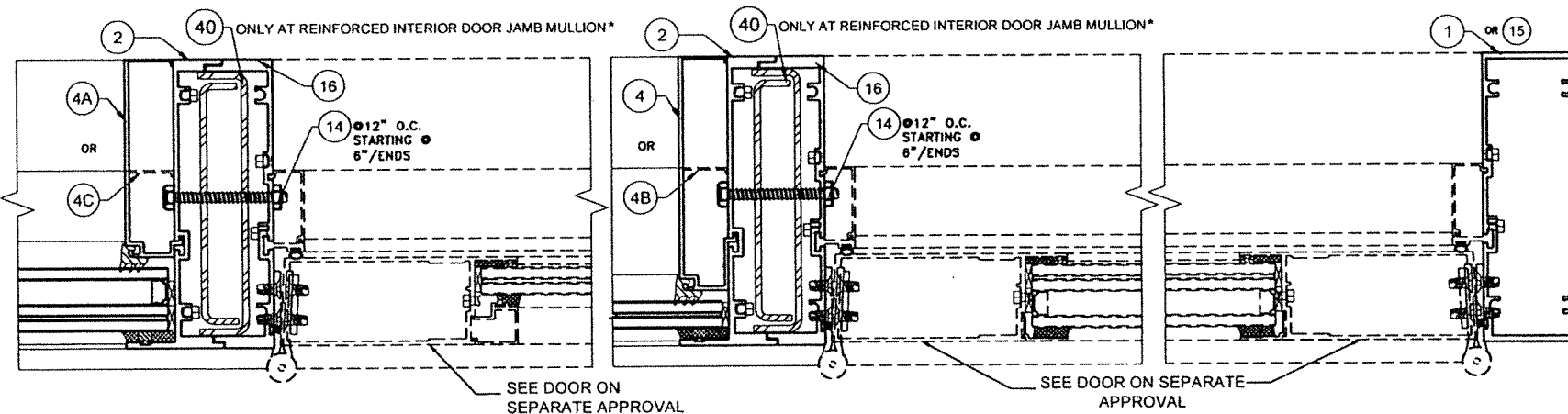
: OPTIONAL SYSTEM # 2

*COMPONENT (41) MAY BE USED AS AN OPTION TO COMPONENT (40).

CASE 1: INTERIOR DOOR JAMB MULLION	
IDJM-1	(2) + (16) W/ (40) REQ'D ONLY AT REINFORCED INTERIOR DOOR JAMB MULLION (*) + (4A) OR (4C)

CASE 2: INTERIOR DOOR JAMB MULLION	
IDJM-2	(2) + (16) W/ (40) REQ'D ONLY AT REINFORCED INTERIOR DOOR JAMB MULLION (*) + (4) OR (4B)

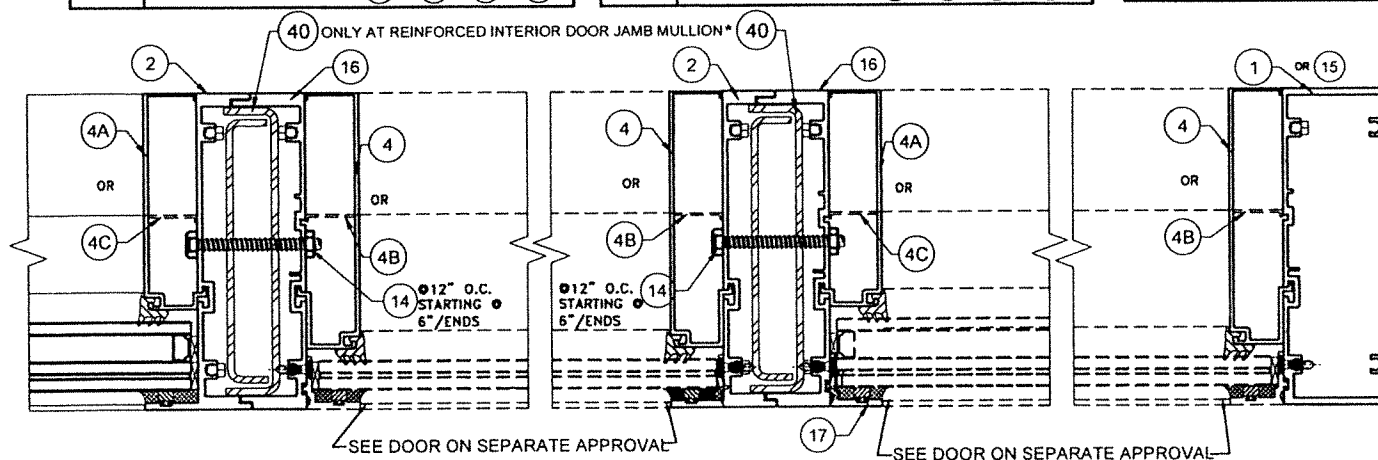
CASE 1: END DOOR JAMB MULLION W/ INSULATED GLASS	
EDJM-1	(1) OR (15)



CASE 3: INTERIOR DOOR JAMB MULLION & DOOR TRANSOM	
IDJM-3	(2) + (16) W/ (40) REQ'D ONLY AT REINFORCED INTERIOR DOOR JAMB MULLION (*) + (4A) OR (4C) + (4) OR (4B)

CASE 4: INTERIOR DOOR JAMB MULLION & DOOR TRANSOM	
IDJM-4	(2) + (16) W/ (40) REQ'D ONLY AT REINFORCED INTERIOR DOOR JAMB MULLION (*) + (4) OR (4B) + (4A) OR (4C)

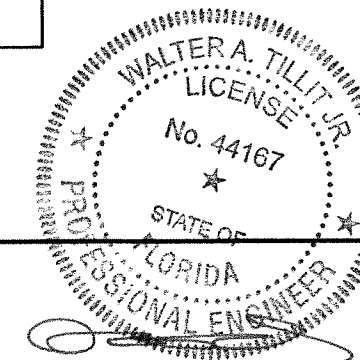
CASE 2: END DOOR JAMB MULLION W/ LAMINATED GLASS	
EDJM-2	(15) + (17) + (4) OR (4B)



MAXIMUM UNREINFORCED INTERIOR DOOR JAMB MULLION (IDJM) SPAN "L"(FT) SCHEDULE FOR A GIVEN A.S.D. DESIGN PRESSURE RATING (psf) & A GIVEN MULLION EFFECTIVE SPACING "b"		
MAXIMUM DESIGN PRESSURE RATING "W"(psf)	MAX. EFFECTIVE SPACING "b"(Ft-in)	LAMINATED & INSULATED GLASS CASE 1/CASE 2 IDJM-1/IDJM-2 & CASE 3/CASE 4 IDJM-3/IDJM-4
+103.0 , -94.0	5'-8"	9'-6"

MAXIMUM REINFORCED INTERIOR DOOR JAMB MULLION (IDJM) SPAN "L"(FT) SCHEDULE FOR A GIVEN A.S.D. DESIGN PRESSURE RATING (psf) & A GIVEN MULLION EFFECTIVE SPACING "b"		
MAXIMUM DESIGN PRESSURE RATING "W"(psf)	MAX. EFFECTIVE SPACING "b"(Ft-in)	LAMINATED & INSULATED GLASS CASE 1/CASE 2 IDJM-1/IDJM-2 & CASE 3/CASE 4 IDJM-3/IDJM-4
± 40.0	5'-2"	15'-9"
	5'-8"	15'-9"
± 45.0	5'-2"	15'-9"
	5'-8"	15'-5"
± 50.0	5'-2"	15'-9"
	5'-8"	14'-11"
± 55.0	5'-2"	15'-7"
	5'-8"	14'-5"
± 60.0	5'-2"	15'-1"
	5'-8"	14'-0"
± 65.0	5'-2"	14'-9"
	5'-8"	13'-8"
± 70.0	5'-2"	14'-4"
	5'-8"	13'-4"
± 75.0	5'-2"	14'-0"
	5'-8"	13'-0"
± 80.0	5'-2"	13'-9"
	5'-8"	12'-8"
± 85.0	5'-2"	13'-6"
	5'-8"	12'-3"
± 90.0	5'-2"	13'-3"
	5'-8"	11'-11"
± 95.0	5'-2"	13'-0"
	5'-8"	11'-7"
± 100.0	5'-2"	12'-8"
	5'-8"	11'-4"
± 105.0	5'-2"	12'-4"
	5'-8"	11'-0"
± 110.0	5'-2"	12'-1"
	5'-8"	10'-9"
± 115.0	5'-2"	11'-10"
	5'-8"	10'-7"
± 120.0	5'-2"	11'-7"
	5'-8"	10'-4"
± 125.0	5'-2"	11'-4"
	5'-8"	10'-1"
± 130.0	5'-2"	11'-1"
	5'-8"	9'-11"
+130.0, -135.0	5'-2"	11'-0"
	5'-8"	9'-9"
+130.0, -140.0	5'-2"	11'-0"
	5'-8"	9'-6"

MAXIMUM END DOOR JAMB MULLION (EDJM) SPAN "L"(FT) SCHEDULE FOR A GIVEN A.S.D. DESIGN PRESSURE RATING (psf) & A GIVEN MULLION EFFECTIVE SPACING "b"		
MAXIMUM DESIGN PRESSURE RATING "W"(psf)	MAX. EFFECTIVE SPACING "b"(Ft-in)	LAMINATED & INSULATED GLASS CASE 1 EDJM-1 & CASE 2 EDJM-2
± 40.0	3'-2"	15'-9"
± 45.0	3'-2"	15'-9"
± 50.0	3'-2"	15'-9"
± 55.0	3'-2"	15'-7"
± 60.0	3'-2"	15'-1"
± 65.0	3'-2"	14'-9"
± 70.0	3'-2"	14'-4"
± 75.0	3'-2"	14'-0"
± 80.0	3'-2"	13'-9"
± 85.0	3'-2"	13'-4"
± 90.0	3'-2"	13'-3"
± 95.0	3'-2"	13'-0"
± 100.0	3'-2"	12'-8"
± 105.0	3'-2"	12'-4"
± 110.0	3'-2"	12'-1"
± 115.0	3'-2"	11'-10"
± 120.0	3'-2"	11'-7"
± 125.0	3'-2"	11'-4"
± 130.0	3'-2"	11'-1"
+130.0, -135.0	3'-2"	11'-0"
+130.0, -140.0	3'-2"	11'-0"



2/12/2023
P.E. SEAL/SIGNATURE/DATE

FLORIDA BUILDING CODE (HIGH & NON HIGH VELOCITY HURRICANE ZONES)

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WALTER A. TILLIT Jr. P.E.
FLORIDA Lic. # 44167

HIGH IMPACT GREEN WORLD FIXED GLASS WALL SERIES 12000 LARGE MISSILE LAMINATED & INSULATED GLASS					
290 WEST 78 ROAD HIALEAH, FL 33014 PH: (954)226-5555/(305)558-8103 FAX: (305)558-6665 www.gigwindows.com				W.H. DRAWN BY	
9/12/2023 DATE				23-213 DRAWING No	
REV. No	DESCRIPTION	DATE	REV. No	DESCRIPTION	DATE
1	OLD 21-118	09/12/23	3	-	-
2	-	-	4	-	-

FASTENERS TYPES & SUBSTRATES REQUIREMENTS:

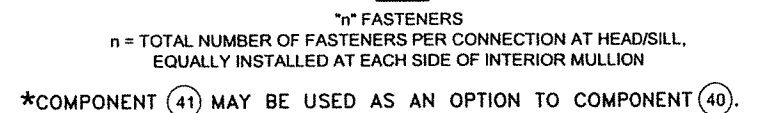
A - 1/4"Ø DEWALT INC., ULTRACON ANCHOR W/ 1 3/4" Min. EMBEDMENT INTO POURED CONCRETE (Min. f'c = 2.730 ksi), W/ S = 4" MIN. SPACING & 2 1/2" MIN. EDGE DISTANCE. FOR MAXIMUM SPACING, EMBEDMENT & EDGE DISTANCE ARE BEYOND ANY FINISH MATERIAL.

B - 3/8"Ø DEWALT INC., WEDGE-BOLT ANCHOR W/ 2" Min. EMBEDMENT INTO POURED CONCRETE (Min. f'c = 3.0 ksi), W/ S = 3" MIN. SPACING & 3 1/4" MIN. EDGE DISTANCE. FOR MAXIMUM SPACING, EMBEDMENT & EDGE DISTANCE ARE BEYOND ANY FINISH MATERIAL.

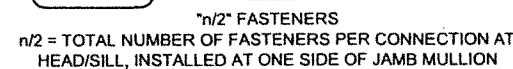
C - 1/4"Ø DEWALT INC., ULTRACON ANCHOR TO (2) 2" x WOOD BUCKS (G=0.55) W/ 3" Min. PENETRATION INTO WOOD, W/ S = 2" Min. SPACING & 1" MIN. EDGE DISTANCE. FOR MAXIMUM SPACING, EMBEDMENT & EDGE DISTANCE ARE BEYOND ANY FINISH MATERIAL.

D - 3/8"Ø LAG SCREW TO (2) 2" x WOOD BUCKS (G=0.55) W/ 3" Min. PENETRATION INTO WOOD, W/ S = 2" Min. SPACING & 1 1/2" MIN. EDGE DISTANCE. FOR MAXIMUM SPACING, EMBEDMENT & EDGE DISTANCE ARE BEYOND ANY FINISH MATERIAL.

E - 3/8"Ø TYPE "F" BOLT TO 1/4" Min. THK. ASTM A-36 STEEL OR 1/4" 6063-T6 ALUMINUM (ALLOWED ONLY AT JAMBS) PER SHEET 21 W/ S = 2" MIN. SPACING & 1" MIN. EDGE DISTANCE OR 3/8"Ø SAE GRADE 5 GALVANIZED STEEL HHB THRU BOLT W/ NUT & LOCK WASHER.



(PLAN VIEW)
N.T.S.



SILL OR HEAD CONNECTION DETAIL @ JAMB MULLION
(PLAN VIEW)
N T S

TILTECO INC.
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23-213
DRAWING No

REV. No	DESCRIPTION	DATE	REV. No	DESCRIPTION	DATE	DRAWING No SHEET 34 OF 5
1	OLD 21-118	09/12/23	3	-	-	
2	-	-	4	-	-	

MAXIMUM A.S.D. DESIGN PRESSURE RATING SCHEDULE FOR REINFORCED OR UNREINFORCED INTERIOR MULLIONS & JAMB MULLIONS HEAD/SILL CONNECTIONS: OPTIONAL SYSTEM # 2

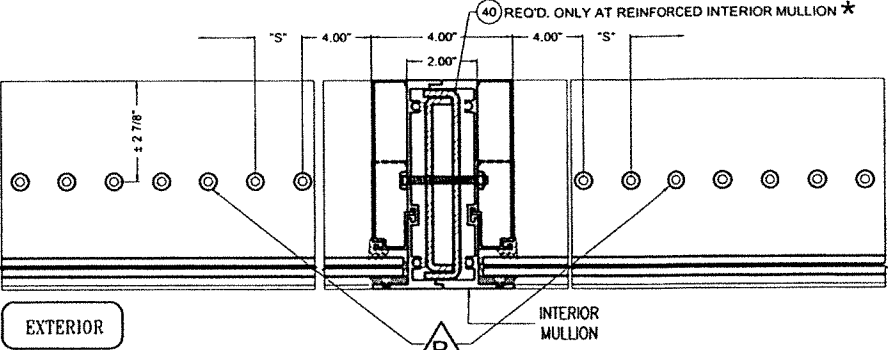
MAXIMUM MULLION SPAN	EFFECTIVE SPACING	MAXIMUM DESIGN PRESSURE RATING W (psf) FOR 1/4" MAX. SHIM SPACE (CONTINUED)																								
		POURED CONCRETE SUBSTRATE										WOOD (2) 1 1/2" Min. THK. SUBSTRATE										STEEL 1/4" Min. THK.				
		FASTENERS TYPE					FASTENERS TYPE					FASTENERS TYPE					FASTENERS TYPE					FASTENERS TYPE				
		A (1/4")					B (3/8")					C (1/4")					D (3/8")					E (3/8")				
"L" (Ft-In)	"b" (Ft-In)	n=4	n=6	n=8	n=10	n=12	n=4	n=6	n=8	n=10	n=12	n=4	n=6	n=8	n=10	n=12	n=4	n=6	n=8	n=10	n=12	n=4	n=6	n=8	n=10	n=12
11' - 6"	3' - 6"	56.2	84.3	112.4	140.0	140.0	140.0	140.0	140.0	140.0	140.0	46.6	69.9	112.4	116.6	139.9	43.7	65.6	87.5	109.3	131.2	140.0	140.0	140.0	140.0	140.0
	4' - 0"	49.2	73.8	98.4	123.0	140.0	127.5	140.0	140.0	140.0	140.0	40.8	61.2	98.4	102.0	122.4	38.3	57.4	76.5	95.7	114.8	140.0	140.0	140.0	140.0	140.0
	4' - 6"	43.7	65.6	87.4	109.3	131.2	113.3	140.0	140.0	140.0	140.0	36.3	54.4	87.4	90.7	108.8	34.0	51.0	68.0	85.0	102.1	140.0	140.0	140.0	140.0	140.0
	5' - 0"	39.3	59.0	78.7	98.4	118.0	102.0	140.0	140.0	140.0	140.0	32.6	49.0	78.7	81.6	97.9	30.6	45.9	61.2	76.5	91.8	126.8	140.0	140.0	140.0	140.0
	5' - 6"	35.8	53.7	71.5	89.4	107.3	92.7	139.1	140.0	140.0	140.0	29.7	44.5	71.5	74.2	89.0	27.8	41.7	55.7	69.6	83.5	115.2	140.0	140.0	140.0	140.0
	6' - 0"	32.8	49.2	65.6	82.0	98.4	85.0	127.5	140.0	140.0	140.0	27.2	40.8	65.6	68.0	81.6	25.5	38.3	51.0	63.8	76.5	105.6	140.0	140.0	140.0	140.0
	6' - 6"	30.3	45.4	60.5	75.7	90.8	78.5	117.7	140.0	140.0	140.0	25.1	37.7	60.5	62.8	75.3	23.6	35.3	47.1	58.9	70.7	97.5	140.0	140.0	140.0	140.0
12' - 0"	7' - 0"	28.1	42.2	56.2	70.3	84.3	72.8	109.3	140.0	140.0	140.0	23.3	35.0	56.2	58.3	69.9	21.9	32.8	43.7	54.7	65.6	90.5	135.8	140.0	140.0	140.0
	3' - 6"	53.9	80.8	107.7	134.7	140.0	139.6	140.0	140.0	140.0	140.0	44.7	67.0	107.7	111.7	134.1	41.9	62.9	83.8	104.8	125.7	140.0	140.0	140.0	140.0	140.0
	4' - 0"	47.1	70.7	94.3	117.8	140.0	122.2	140.0	140.0	140.0	140.0	39.1	58.7	94.3	97.8	117.3	36.7	55.0	73.3	91.7	110.0	140.0	140.0	140.0	140.0	140.0
	4' - 6"	41.9	62.9	83.8	104.8	125.7	108.6	140.0	140.0	140.0	140.0	34.8	52.1	83.8	86.9	104.3	32.6	48.9	65.2	81.5	97.8	135.0	140.0	140.0	140.0	140.0
	5' - 0"	37.7	56.6	75.4	94.3	113.1	97.7	140.0	140.0	140.0	140.0	31.3	46.9	75.4	78.2	93.8	29.3	44.0	58.7	73.3	88.0	121.5	140.0	140.0	140.0	140.0
	5' - 6"	34.3	51.4	68.6	85.7	102.8	88.9	133.3	140.0	140.0	140.0	28.4	42.7	68.6	71.1	85.3	26.7	40.0	53.3	66.7	80.0	110.4	140.0	140.0	140.0	140.0
	6' - 0"	31.4	47.1	62.9	78.6	94.3	81.4	122.2	140.0	140.0	140.0	26.1	39.1	62.9	65.2	78.2	24.4	36.7	48.9	61.1	73.3	101.2	140.0	140.0	140.0	140.0
12' - 6"	6' - 6"	29.0	43.5	58.0	72.5	87.0	75.2	112.8	140.0	140.0	140.0	24.1	36.1	58.0	60.2	72.2	22.6	33.9	45.1	56.4	67.7	93.4	140.0	140.0	140.0	140.0
	7' - 0"	26.9	40.4	53.9	67.3	80.8	69.8	104.7	139.6	140.0	140.0	22.3	33.5	53.9	55.9	67.0	21.0	31.4	41.9	52.4	62.9	86.8	130.2	140.0	140.0	140.0
	3' - 6"	51.7	77.6	103.4	129.3	140.0	134.0	140.0	140.0	140.0	140.0	42.9	64.3	103.4	107.2	128.7	40.2	60.4	80.5	100.6	120.7	140.0	140.0	140.0	140.0	140.0
	4' - 0"	45.3	67.9	90.5	113.1	135.8	117.3	140.0	140.0	140.0	140.0	37.5	56.3	90.5	93.8	112.6	35.2	52.8	70.4	88.0	105.6	140.0	140.0	140.0	140.0	140.0
	4' - 6"	40.2	60.3	80.4	100.6	120.7	104.3	140.0	140.0	140.0	140.0	33.4	50.0	80.4	83.4	100.1	31.3	46.9	62.6	78.2	93.9	129.6	140.0	140.0	140.0	140.0
	5' - 0"	36.2	54.3	72.4	90.5	108.6	93.8	140.0	140.0	140.0	140.0	30.0	45.0	72.4	75.1	90.1	28.2	42.2	56.3	70.4	84.5	116.6	140.0	140.0	140.0	140.0
	5' - 6"	32.9	49.4	65.8	82.3	98.7	85.3	127.9	140.0	140.0	140.0	27.3	40.9	65.8	68.2	81.9	25.6	38.4	51.2	64.0	76.8	106.0	140.0	140.0	140.0	140.0
13' - 0"	6' - 0"	30.2	45.3	60.3	75.4	90.5	78.2	117.3	140.0	140.0	140.0	25.0	37.5	60.3	62.6	75.1	23.5	35.2	46.9	58.7	70.4	97.2	140.0	140.0	140.0	140.0
	6' - 6"	27.8	41.8	55.7	69.6	83.5	72.2	108.3	140.0	140.0	140.0	23.1	34.6	55.7	57.7	69.3	21.7	32.5	43.3	54.2	65.0	89.7	134.6	140.0	140.0	140.0
	7' - 0"	25.9	38.8	51.7	64.6	77.6	67.0	100.5	134.0	140.0	140.0	21.4	32.2	51.7	53.6	64.3	20.1	30.2	40.2	50.3	60.4	83.3	124.9	140.0	140.0	140.0
	3' - 6"	49.7	74.6	99.5	124.3	140.0	128.9	140.0	140.0	140.0	140.0	41.2	61.9	99.5	103.1	123.7	38.7	58.0	77.4	96.7	116.1	140.0	140.0	140.0	140.0	140.0
	4' - 0"	43.5	65.3	87.0	108.8	130.5	112.8	140.0	140.0	140.0	140.0	36.1	54.1	87.0	90.2	108.3	33.9	50.8	67.7	84.6	101.6	140.0	140.0	140.0	140.0	140.0
	4' - 6"	38.7	58.0	77.4	96.7	116.0	100.2	140.0	140.0	140.0	140.0	32.1	48.1	77.4	80.2	96.2	30.1	45.1	60.2	75.2	90.3	124.6	140.0	140.0	140.0	140.0
	5' - 0"	34.8	52.2	69.6	87.0	104.4	90.2	135.3	140.0	140.0	140.0	28.9	43.3	69.6	72.2	86.6	27.1	40.6	54.2	67.7	81.2	112.1	140.0	140.0	140.0	140.0
13' - 6"	5' - 6"	31.6	47.5	63.3	79.1	94.9	82.0	123.0	140.0	140.0	140.0	26.2	39.4	63.3	65.6	78.7	24.6	36.9	49.2	61.6	73.9	101.9	140.0	140.0	140.0	140.0
	6' - 0"	29.0	43.5	58.0	72.5	87.0	75.2	112.8	140.0	140.0	140.0	24.1	36.1	58.0	60.2	72.2	22.6	33.9	45.1	56.4	67.7	93.4	140.0	140.0	140.0	140.0
	6' - 6"	26.8	40.2	53.6	66.9	80.3	69.4	104.1	138.8	140.0	140.0	22.2	33.3	53.6	55.5	66.6	20.8	31.2	41.7	52.1	62.5	86.3	129.4	140.0	140.0	140.0
	7' - 0"	24.9	37.3	49.7	62.2	74.6	64.4	96.7	128.9	140.0	140.0	20.6	30.9	49.7	51.6	61.9	19.3	29.0	38.7	48.4	58.0	80.1	120.1	140.0	140.0	140.0
	3' - 6"	47.9	71.8	95.8	119.7	140.0	124.1	140.0	140.0	140.0	140.0	39.7	59.6	95.8	99.3	119.2	37.3	55.9	74.5	93.1	111.8	140.0	140.0	140.0	140.0	140.0
	4' - 0"	41.9	62.9	83.8	104.8	125.7	108.6	140.0	140.0	140.0	140.0	34.8	52.1	83.8	86.9	104.3	32.6	48.9	65.2	81.5	97.8	135.0	140.0	140.0	140.0	140.0
	4' - 6"	37.2	55.9	74.5	93.1	111.7	96.5	140.0	140.0	140.0	140.0	30.9	46.3	74.5	77.2	92.7	29.0	43.5	58.0	72.4	86.9	120.0	140.0	140.0	140.0	140.0
14' - 0"	5' - 0"	33.5	50.3	67.0	83.8	100.6	86.9	130.3	140.0	140.0	140.0	27.8	41.7	67.0	69.5	83.4	26.1	39.1	52.2	65.2	78.2	108.0	140.0	140.0	140.0	140.0
	5' - 6"	30.5	45.7	60.9	76.2	91.4	79.0	118.5	140.0	140.0	140.0	25.3	37.9	60.9	63.2	75.8	23.7	35.6	47.4	59.3	71.1	98.2	140.0	140.0	140.0	140.0
	6' - 0"	27.9	41.9	55.9	69.8	83.8	72.4	108.6	140.0	140.0	140.0	23.2	34.8	55.9	57.9	69.5	21.7	32.6	43.5	54.3	65.2	90.0	135.0	140.0	140.0	140.0
	6' - 6"	25.8	38.7	51.6	64.5	77.4	66.8	100.2	133.7	140.0	140.0	21.4	32.1	51.6	53.5	64.2	20.1	30.1	40.1	50.2	60.2	83.1	124.6	140.0	140.0	140.0
	7' - 0"	23.9	35.9	47.9	59.9	71.8	62.1	93.1	124.1	140.0	140.0	19.9	29.8	47.9	49.7	59.6	18.6	27.9	37.3	46.6	55.9	77.1	115.7			

MAXIMUM A.S.D. DESIGN PRESSURE RATING SCHEDULE FOR REINFORCED OR UNREINFORCED INTERIOR MULLIONS & JAMB MULLIONS HEAD/SILL CONNECTIONS: OPTIONAL SYSTEM # 2

MAXIMUM MULLION SPAN	EFFECTIVE SPACING	MAXIMUM DESIGN PRESSURE RATING W (psf) FOR 1/4" MAX. SHIM SPACE (CONTINUED)																								
		POURED CONCRETE SUBSTRATE										WOOD (2) 1 1/2" Min. THK. SUBSTRATE										STEEL 1/4" Min. THK.				
		FASTENERS TYPE					FASTENERS TYPE					FASTENERS TYPE					FASTENERS TYPE					FASTENERS TYPE				
		A (1/4")					B (3/8")					C (1/4")					D (3/8")					E (3/8")				
"L" (Ft-in)	"b" (Ft-in)	n=4	n=6	n=8	n=10	n=12	n=4	n=6	n=8	n=10	n=12	n=4	n=6	n=8	n=10	n=12	n=4	n=6	n=8	n=10	n=12	n=4	n=6	n=8	n=10	n=12
15' - 0"	3' - 6"	43.1	64.6	86.2	107.7	129.3	111.7	140.0	140.0	140.0	140.0	35.7	53.6	86.2	89.4	107.2	33.5	50.3	67.1	83.8	100.6	138.8	140.0	140.0	140.0	140.0
	4' - 0"	37.7	56.6	75.4	94.3	113.1	97.7	140.0	140.0	140.0	140.0	31.3	46.9	75.4	78.2	93.8	29.3	44.0	58.7	73.3	88.0	121.5	140.0	140.0	140.0	140.0
	4' - 6"	33.5	50.3	67.0	83.8	100.6	86.9	130.3	140.0	140.0	140.0	27.8	41.7	67.0	69.5	83.4	26.1	39.1	52.2	65.2	78.2	108.0	140.0	140.0	140.0	140.0
	5' - 0"	30.2	45.3	60.3	75.4	90.5	78.2	117.3	140.0	140.0	140.0	25.0	37.5	60.3	62.6	75.1	23.5	35.2	46.9	58.7	70.4	97.2	140.0	140.0	140.0	140.0
	5' - 6"	27.4	41.1	54.9	68.6	82.3	71.1	106.6	140.0	140.0	140.0	22.7	34.1	54.9	56.9	68.2	21.3	32.0	42.7	53.3	64.0	88.3	132.5	140.0	140.0	140.0
	6' - 0"	25.1	37.7	50.3	62.9	75.4	65.2	97.7	130.3	140.0	140.0	20.9	31.3	50.3	52.1	62.6	19.6	29.3	39.1	48.9	58.7	81.0	121.5	140.0	140.0	140.0
	6' - 6"	23.2	34.8	46.4	58.0	69.6	60.1	90.2	120.3	140.0	140.0	19.2	28.9	46.4	48.1	57.7	18.1	27.1	36.1	45.1	54.2	74.8	112.1	140.0	140.0	140.0
7' - 0"	21.5	32.3	43.1	53.9	64.6	55.9	83.8	111.7	139.6	140.0	17.9	26.8	43.1	44.7	53.6	16.8	25.1	33.5	41.9	50.3	69.4	104.1	138.8	140.0	140.0	
15' - 6"	3' - 6"	41.7	62.6	83.4	104.3	125.1	108.1	140.0	140.0	140.0	140.0	34.6	51.9	83.4	86.5	103.8	32.4	48.7	64.9	81.1	97.3	134.4	140.0	140.0	140.0	140.0
	4' - 0"	36.5	54.7	73.0	91.2	109.5	94.6	140.0	140.0	140.0	140.0	30.3	45.4	73.0	75.7	90.8	28.4	42.6	56.8	71.0	85.2	117.6	140.0	140.0	140.0	140.0
	4' - 6"	32.4	48.7	64.9	81.1	97.3	84.1	126.1	140.0	140.0	140.0	26.9	40.4	64.9	67.3	80.7	25.2	37.9	50.5	63.1	75.7	104.5	140.0	140.0	140.0	140.0
	5' - 0"	29.2	43.8	58.4	73.0	87.6	75.7	113.5	140.0	140.0	140.0	24.2	36.3	58.4	60.5	72.7	22.7	34.1	45.4	56.8	68.1	94.0	140.0	140.0	140.0	140.0
	5' - 6"	26.5	39.8	53.1	66.4	79.6	68.8	103.2	137.6	140.0	140.0	22.0	33.0	53.1	55.0	66.0	20.6	31.0	41.3	51.6	61.9	85.5	128.2	140.0	140.0	140.0
	6' - 0"	24.3	36.5	48.7	60.8	73.0	63.1	94.6	126.1	140.0	140.0	20.2	30.3	48.7	50.5	60.5	18.9	28.4	37.9	47.3	56.8	78.4	117.6	140.0	140.0	140.0
	6' - 6"	22.5	33.7	44.9	56.1	67.4	58.2	87.3	116.4	140.0	140.0	18.6	27.9	44.9	46.6	55.9	17.5	26.2	34.9	43.7	52.4	72.3	108.5	140.0	140.0	140.0
7' - 0"	20.9	31.3	41.7	52.1	62.6	54.0	81.1	108.1	135.1	140.0	17.3	25.9	41.7	43.2	51.9	16.2	24.3	32.4	40.6	48.7	67.2	100.8	134.4	140.0	140.0	
15' - 9"	3' - 6"	41.0	61.6	82.1	102.6	123.1	106.4	140.0	140.0	140.0	140.0	34.0	51.1	82.1	85.1	102.1	31.9	47.9	63.9	79.8	95.8	132.2	140.0	140.0	140.0	140.0
	4' - 0"	35.9	53.9	71.8	89.8	107.7	93.1	139.6	140.0	140.0	140.0	29.8	44.7	71.8	74.5	89.4	27.9	41.9	55.9	69.9	83.8	115.7	140.0	140.0	140.0	140.0
	4' - 6"	31.9	47.9	63.8	79.8	95.8	82.7	124.1	140.0	140.0	140.0	26.5	39.7	63.8	66.2	79.4	24.8	37.3	49.7	62.1	74.5	102.8	140.0	140.0	140.0	140.0
	5' - 0"	28.7	43.1	57.5	71.8	86.2	74.5	111.7	140.0	140.0	140.0	23.8	35.7	57.5	59.6	71.5	22.4	33.5	44.7	55.9	67.1	92.6	138.8	140.0	140.0	140.0
	5' - 6"	26.1	39.2	52.2	65.3	78.4	67.7	101.5	135.4	140.0	140.0	21.7	32.5	52.2	54.2	65.0	20.3	30.5	40.6	50.8	61.0	84.1	126.2	140.0	140.0	140.0
	6' - 0"	23.9	35.9	47.9	59.9	71.8	62.1	93.1	124.1	140.0	140.0	19.9	29.8	47.9	49.7	59.6	18.6	27.9	37.3	46.6	55.9	77.1	115.7	140.0	140.0	140.0
	6' - 6"	22.1	33.2	44.2	55.3	66.3	57.3	85.9	114.6	140.0	140.0	18.3	27.5	44.2	45.8	55.0	17.2	25.8	34.4	43.0	51.6	71.2	106.8	140.0	140.0	140.0
7' - 0"	20.5	30.8	41.0	51.3	61.6	53.2	79.8	106.4	133.0	140.0	17.0	25.5	41.0	42.6	51.1	16.0	24.0	31.9	39.9	47.9	66.1	99.2	132.2	140.0	140.0	

FASTENERS TYPES & SUBSTRATES REQUIREMENTS:

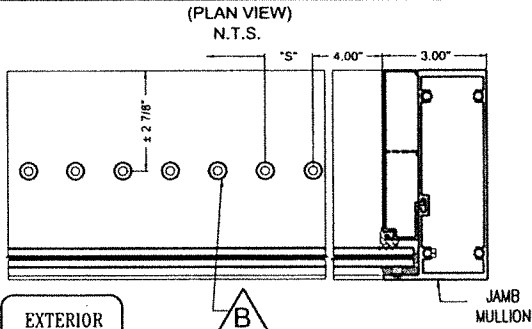
- A - 1/4"Ø DEWALT INC., ULTRACON ANCHOR W/ 1 3/4" Min. EMBEDMENT INTO POURED CONCRETE (Min. $f_c = 2,730$ ksi), W/ S = 4" MIN. SPACING & 2 1/2" MIN. EDGE DISTANCE. FOR MAXIMUM SPACING, EMBEDMENT & EDGE DISTANCE ARE BEYOND ANY FINISH MATERIAL.
- B - 3/8"Ø DEWALT INC., WEDGE-BOLT ANCHOR W/ 2" Min. EMBEDMENT INTO POURED CONCRETE (Min. $f_c = 3,0$ ksi), W/ S = 3" MIN. SPACING & 3 1/4" MIN. EDGE DISTANCE. FOR MAXIMUM SPACING, EMBEDMENT & EDGE DISTANCE ARE BEYOND ANY FINISH MATERIAL.
- C - 1/4"Ø DEWALT INC., ULTRACON ANCHOR TO (2) 2" x WOOD BUCKS (G=0.55) W/ 3" Min. PENETRATION INTO WOOD, W/ S = 2" Min. SPACING & 1" MIN. EDGE DISTANCE. FOR MAXIMUM SPACING, EMBEDMENT & EDGE DISTANCE ARE BEYOND ANY FINISH MATERIAL.
- D - 3/8"Ø LAG SCREW TO (2) 2" x WOOD BUCKS (G=0.55) W/ 3" Min. PENETRATION INTO WOOD, W/ S = 2" Min. SPACING & 1 1/2" MIN. EDGE DISTANCE. FOR MAXIMUM SPACING, EMBEDMENT & EDGE DISTANCE ARE BEYOND ANY FINISH MATERIAL.
- E - 3/8"Ø TYPE "F" BOLT TO 1/4" Min. THK. ASTM A-36 STEEL W/ S = 2" MIN. SPACING & 1" MIN. EDGE DISTANCE OR 3/8"Ø SAE GRADE 5 GALVANIZED STEEL HHB THRU BOLT W/ NUT & LOCK WASHER.



n = TOTAL NUMBER OF FASTENERS PER CONNECTION AT HEAD/SILL, EQUALLY INSTALLED AT EACH SIDE OF INTERIOR MULLION

*COMPONENT (41) MAY BE USED AS AN OPTION TO COMPONENT (40).

SILL OR HEAD CONNECTION DETAIL @ REINFORCED OR UNREINFORCED INTERIOR MULLION



n/2 = TOTAL NUMBER OF FASTENERS PER CONNECTION AT HEAD/SILL, INSTALLED AT ONE SIDE OF JAMB MULLION

SILL OR HEAD CONNECTION DETAIL @ JAMB MULLION

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1	OLD 21-118	09/12/23	3	-	-
2	-	-	4	-	-

W.H.
DRAWN BY
09/12/2023
DATE
23-213
DRAWING No
SHEET 36 OF 51

MAXIMUM A.S.D. DESIGN PRESSURE RATING SCHEDULE FOR REINFORCED OR UNREINFORCED INTERIOR MULLIONS & JAMB MULLIONS HEAD/SILL CONNECTIONS: OPTIONAL SYSTEM # 2

MAXIMUM MULLION SPAN	EFFECTIVE SPACING	MAXIMUM DESIGN PRESSURE RATING W (psf) FOR 3/8" MAX. LOAD BEARINGSHIM SPACE																									
		POURED CONCRETE SUBSTRATE										WOOD (2) 2" x THK. SUBSTRATE										STEEL 1/4" Min. THK. SUBSTRATE					
		FASTENERS TYPE					FASTENERS TYPE					FASTENERS TYPE					FASTENERS TYPE					FASTENERS TYPE					
		A (1/4")					B (3/8")					C (3/8")					D (3/8")					E (3/8")					
"L" (Ft-in)	"b" (Ft-in)	n=4	n=6	n=8	n=10	n=12	n=4	n=6	n=8	n=10	n=12	n=4	n=6	n=8	n=10	n=12	n=4	n=6	n=8	n=10	n=12	n=4	n=6	n=8	n=10	n=12	
8' - 0" OR LESS	3' - 6"	58.7	88.0	117.4	140.0	140.0	140.0	140.0	140.0	140.0	140.0	58.7	88.0	117.4	140.0	140.0	62.9	94.3	125.7	140.0	140.0	140.0	140.0	140.0	140.0	140.0	140.0
	4' - 0"	51.4	77.0	102.7	128.4	140.0	140.0	140.0	140.0	140.0	140.0	51.4	77.0	102.7	128.4	140.0	55.0	82.5	110.0	137.5	140.0	140.0	140.0	140.0	140.0	140.0	140.0
	4' - 6"	45.7	68.5	91.3	114.1	137.0	135.1	140.0	140.0	140.0	140.0	45.7	68.5	91.3	114.1	137.0	48.9	73.3	97.8	122.2	140.0	140.0	140.0	140.0	140.0	140.0	140.0
	5' - 0"	41.1	61.6	82.2	102.7	123.3	121.6	140.0	140.0	140.0	140.0	41.1	61.6	82.2	102.7	123.3	44.0	66.0	88.0	110.0	132.0	138.5	140.0	140.0	140.0	140.0	140.0
	5' - 6"	37.4	56.0	74.7	93.4	112.1	110.5	140.0	140.0	140.0	140.0	37.4	56.0	74.7	93.4	112.1	40.0	60.0	80.0	100.0	120.0	125.9	140.0	140.0	140.0	140.0	140.0
	6' - 0"	34.2	51.4	68.5	85.6	102.7	101.3	140.0	140.0	140.0	140.0	34.2	51.4	68.5	85.6	102.7	36.7	55.0	73.3	91.7	110.0	115.4	140.0	140.0	140.0	140.0	140.0
	6' - 6"	31.6	47.4	63.2	79.0	94.8	93.5	140.0	140.0	140.0	140.0	31.6	47.4	63.2	79.0	94.8	33.9	50.8	67.7	84.6	101.6	106.5	140.0	140.0	140.0	140.0	140.0
8' - 6"	7' - 0"	29.3	44.0	58.7	73.4	88.0	86.8	130.3	140.0	140.0	140.0	29.3	44.0	58.7	73.4	88.0	31.4	47.2	62.9	78.6	94.3	98.9	140.0	140.0	140.0	140.0	140.0
	3' - 6"	55.2	82.9	110.5	138.1	140.0	140.0	140.0	140.0	140.0	140.0	55.2	82.9	110.5	138.1	140.0	59.2	88.8	118.3	140.0	140.0	140.0	140.0	140.0	140.0	140.0	140.0
	4' - 0"	48.3	72.5	96.7	120.8	140.0	140.0	140.0	140.0	140.0	140.0	48.3	72.5	96.7	120.8	140.0	51.8	77.7	103.6	129.4	140.0	140.0	140.0	140.0	140.0	140.0	140.0
	4' - 6"	43.0	64.5	85.9	107.4	128.9	127.1	140.0	140.0	140.0	140.0	43.0	64.5	85.9	107.4	128.9	46.0	69.0	92.0	115.1	138.1	140.0	140.0	140.0	140.0	140.0	140.0
	5' - 0"	38.7	58.0	77.3	96.7	116.0	114.4	140.0	140.0	140.0	140.0	38.7	58.0	77.3	96.7	116.0	41.4	62.1	82.8	103.6	124.3	130.3	140.0	140.0	140.0	140.0	140.0
	5' - 6"	35.2	52.7	70.3	87.9	105.5	104.0	140.0	140.0	140.0	140.0	35.2	52.7	70.3	87.9	105.5	37.7	56.5	75.3	94.1	113.0	118.5	140.0	140.0	140.0	140.0	140.0
	6' - 0"	32.2	48.3	64.5	80.6	96.7	95.4	140.0	140.0	140.0	140.0	32.2	48.3	64.5	80.6	96.7	34.5	51.8	69.0	86.3	103.6	108.6	140.0	140.0	140.0	140.0	140.0
9' - 0"	6' - 6"	29.7	44.6	59.5	74.4	89.2	88.0	132.0	140.0	140.0	140.0	29.7	44.6	59.5	74.4	89.2	31.9	47.8	63.7	79.7	95.6	100.3	140.0	140.0	140.0	140.0	140.0
	6' - 0"	27.6	41.4	55.2	69.1	82.9	81.7	122.6	140.0	140.0	140.0	27.6	41.4	55.2	69.1	82.9	29.6	44.4	59.2	74.0	88.8	93.1	139.7	140.0	140.0	140.0	140.0
	3' - 6"	52.2	78.3	104.4	130.4	140.0	140.0	140.0	140.0	140.0	140.0	52.2	78.3	104.4	130.4	140.0	55.9	83.8	111.8	139.7	140.0	140.0	140.0	140.0	140.0	140.0	140.0
	4' - 0"	45.7	68.5	91.3	114.1	137.0	135.1	140.0	140.0	140.0	140.0	45.7	68.5	91.3	114.1	137.0	48.9	73.3	97.8	122.2	140.0	140.0	140.0	140.0	140.0	140.0	140.0
	4' - 6"	40.6	60.9	81.2	101.5	121.7	120.1	140.0	140.0	140.0	140.0	40.6	60.9	81.2	101.5	121.7	43.5	65.2	86.9	108.7	130.4	136.8	140.0	140.0	140.0	140.0	140.0
	5' - 0"	36.5	54.8	73.0	91.3	109.6	108.1	140.0	140.0	140.0	140.0	36.5	54.8	73.0	91.3	109.6	39.1	58.7	78.2	97.8	117.4	123.1	140.0	140.0	140.0	140.0	140.0
	5' - 6"	33.2	49.8	66.4	83.0	99.6	98.3	140.0	140.0	140.0	140.0	33.2	49.8	66.4	83.0	99.6	35.6	53.3	71.1	88.9	106.7	111.9	140.0	140.0	140.0	140.0	140.0
9' - 6"	6' - 0"	30.4	45.7	60.9	76.1	91.3	90.1	135.1	140.0	140.0	140.0	30.4	45.7	60.9	76.1	91.3	32.6	48.9	65.2	81.5	97.8	102.6	140.0	140.0	140.0	140.0	140.0
	6' - 6"	28.1	42.1	56.2	70.2	84.3	83.1	124.7	140.0	140.0	140.0	28.1	42.1	56.2	70.2	84.3	30.1	45.1	60.2	75.2	90.3	94.7	140.0	140.0	140.0	140.0	140.0
	7' - 0"	26.1	39.1	52.2	65.2	78.3	77.2	115.8	140.0	140.0	140.0	26.1	39.1	52.2	65.2	78.3	27.9	41.9	55.9	69.9	83.8	87.9	131.9	140.0	140.0	140.0	140.0
	3' - 6"	49.4	74.1	98.9	123.6	140.0	140.0	140.0	140.0	140.0	140.0	49.4	74.1	98.9	123.6	140.0	52.9	79.4	105.9	132.4	140.0	140.0	140.0	140.0	140.0	140.0	140.0
	4' - 0"	43.3	64.9	86.5	108.1	129.8	128.0	140.0	140.0	140.0	140.0	43.3	64.9	86.5	108.1	129.8	46.3	69.5	92.7	115.8	139.0	140.0	140.0	140.0	140.0	140.0	140.0
	4' - 6"	38.4	57.7	76.9	96.1	115.3	113.8	140.0	140.0	140.0	140.0	38.4	57.7	76.9	96.1	115.3	41.2	61.8	82.4	102.9	123.5	129.6	140.0	140.0	140.0	140.0	140.0
	5' - 0"	34.6	51.9	69.2	86.5	103.8	102.4	140.0	140.0	140.0	140.0	34.6	51.9	69.2	86.5	103.8	37.1	55.6	74.1	92.7	111.2	116.6	140.0	140.0	140.0	140.0	140.0
10' - 0"	5' - 6"	31.5	47.2	62.9	78.6	94.4	93.1	139.6	140.0	140.0	140.0	31.5	47.2	62.9	78.6	94.4	33.7	50.5	67.4	84.2	101.1	106.0	140.0	140.0	140.0	140.0	140.0
	6' - 0"	28.8	43.3	57.7	72.1	86.5	85.3	128.0	140.0	140.0	140.0	28.8	43.3	57.7	72.1	86.5	30.9	46.3	61.8	77.2	92.7	97.2	140.0	140.0	140.0	140.0	140.0
	6' - 6"	26.6	39.9	53.2	66.5	79.8	78.8	118.1	140.0	140.0	140.0	26.6	39.9	53.2	66.5	79.8	28.5	42.8	57.0	71.3	85.5	89.7	134.6	140.0	140.0	140.0	140.0
	7' - 0"	24.7	37.1	49.4	61.8	74.1	73.1	109.7	140.0	140.0	140.0	24.7	37.1	49.4	61.8	74.1	26.5	39.7	52.9	66.2	79.4	83.3	125.0	140.0	140.0	140.0	140.0
	3' - 6"	47.0	70.4	93.9	117.4	140.0	139.0	140.0	140.0	140.0	140.0	47.0	70.4	93.9	117.4	140.0	50.3	75.4	100.6	125.7	140.0	140.0	140.0	140.0	140.0	140.0	140.0
	4' - 0"	41.1	61.6	82.2	102.7	123.3	121.6	140.0	140.0	140.0	140.0	41.1	61.6	82.2	102.7	123.3	44.0	66.0	88.0	110.0	132.0	138.5	140.0	140.0	140.0	140.0	140.0
	4' - 6"	36.5	54.8	73.0	91.3	109.6	108.1	140.0	140.0	140.0	140.0	36.5	54.8	73.0	91.3	109.6	39.1	58.7	78.2	97.8	117.4	123.1	140.0	140.0	140.0	140.0	140.0
10' - 6"	5' - 0"	32.9	49.3	65.7	82.2	98.6	97.3	140.0	140.0	140.0	140.0	32.9	49.3	65.7	82.2	98.6	35.2	52.8	70.4	88.0	105.6	110.8	140.0	140.0	140.0	140.0	140.0
	5' - 6"	29.9	44.8	59.8	74.7	89.6	88.4	132.6	140.0	140.0	140.0	29.9	44.8	59.8	74.7	89.6	32.0	48.0	64.0	80.0	96.0	100.7	140.0	140.0	140.0	140.0	140.0
	6' - 0"	27.4	41.1	54.8	68.5	82.2	81.1	121.6	140.0	140.0	140.0	27.4	41.1	54.8	68.5	82.2	29.3	44.0	58.7	73.3	88.0	92.3	138.5	140.0	140.0	140.0	140.0
	6' - 6"	2																									

MAXIMUM A.S.D. DESIGN PRESSURE RATING SCHEDULE FOR REINFORCED OR UNREINFORCED INTERIOR MULLIONS & JAMB MULLIONS HEAD/SILL CONNECTIONS: OPTIONAL SYSTEM # 2

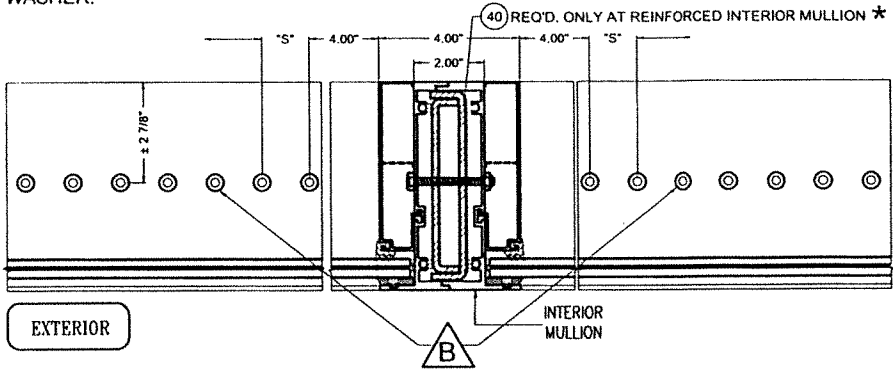
MAXIMUM MULLION SPAN	EFFECTIVE SPACING	MAXIMUM DESIGN PRESSURE RATING W (psf) FOR 3/8" MAX. LOAD BEARING SHIM SPACE (CONTINUED)																											
		POURED CONCRETE SUBSTRATE												WOOD (2) 2" x THK. SUBSTRATE												STEEL 1/4" Mn. THK.			
		FASTENERS TYPE						FASTENERS TYPE						FASTENERS TYPE						FASTENERS TYPE						FASTENERS TYPE			
		A (1/4"e)						B (3/8"e)						C (1/4"e)						D (3/8"e)						E (3/8"e)			
"L" (Ft-In)	"b" (Ft-In)	n=4	n=6	n=8	n=10	n=12	n=4	n=6	n=8	n=10	n=12	n=4	n=6	n=8	n=10	n=12	n=4	n=6	n=8	n=10	n=12	n=4	n=6	n=8	n=10	n=12			
11' - 6"	3' - 6"	40.8	61.2	81.7	102.1	122.5	120.8	140.0	140.0	140.0	140.0	40.8	61.2	81.7	102.1	122.5	43.7	65.6	87.5	109.3	131.2	137.6	140.0	140.0	140.0	140.0			
	4' - 0"	35.7	53.6	71.5	89.3	107.2	105.7	140.0	140.0	140.0	140.0	35.7	53.6	71.5	89.3	107.2	38.3	57.4	76.5	95.7	114.8	120.4	140.0	140.0	140.0	140.0			
	4' - 6"	31.8	47.6	63.5	79.4	95.3	94.0	140.0	140.0	140.0	140.0	31.8	47.6	63.5	79.4	95.3	34.0	51.0	68.0	85.0	102.1	107.0	140.0	140.0	140.0	140.0			
	5' - 0"	28.6	42.9	57.2	71.5	85.7	84.6	126.9	140.0	140.0	140.0	28.6	42.9	57.2	71.5	85.7	30.6	45.9	61.2	76.5	91.8	96.3	140.0	140.0	140.0	140.0			
	5' - 6"	26.0	39.0	52.0	65.0	78.0	76.9	115.3	140.0	140.0	140.0	26.0	39.0	52.0	65.0	78.0	27.8	41.7	55.7	69.6	83.5	87.6	131.4	140.0	140.0	140.0			
	6' - 0"	23.8	35.7	47.6	59.5	71.5	70.5	105.7	140.0	140.0	140.0	23.8	35.7	47.6	59.5	71.5	25.5	38.3	51.0	63.8	76.5	80.3	120.4	140.0	140.0	140.0			
	6' - 6"	22.0	33.0	44.0	55.0	66.0	65.1	97.6	130.1	140.0	140.0	22.0	33.0	44.0	55.0	66.0	23.6	35.3	47.1	58.9	70.7	74.1	111.2	140.0	140.0	140.0			
12' - 0"	7' - 0"	20.4	30.6	40.8	51.0	61.2	60.4	90.6	120.8	140.0	140.0	20.4	30.6	40.8	51.0	61.2	21.9	32.8	43.7	54.7	65.6	68.8	103.2	137.6	140.0	140.0			
	3' - 6"	39.1	58.7	78.3	97.8	117.4	115.8	140.0	140.0	140.0	140.0	39.1	58.7	78.3	97.8	117.4	41.9	62.9	83.8	104.8	125.7	131.9	140.0	140.0	140.0	140.0			
	4' - 0"	34.2	51.4	68.5	85.6	102.7	101.3	140.0	140.0	140.0	140.0	34.2	51.4	68.5	85.6	102.7	36.7	55.0	73.3	91.7	110.0	115.4	140.0	140.0	140.0	140.0			
	4' - 6"	30.4	45.7	60.9	76.1	91.3	90.1	135.1	140.0	140.0	140.0	30.4	45.7	60.9	76.1	91.3	32.6	48.9	65.2	81.5	97.8	102.6	140.0	140.0	140.0	140.0			
	5' - 0"	27.4	41.1	54.8	68.5	82.2	81.1	121.6	140.0	140.0	140.0	27.4	41.1	54.8	68.5	82.2	29.3	44.0	58.7	73.3	88.0	92.3	138.5	140.0	140.0	140.0			
	5' - 6"	24.9	37.4	49.8	62.3	74.7	73.7	110.5	140.0	140.0	140.0	24.9	37.4	49.8	62.3	74.7	26.7	40.0	53.3	66.7	80.0	83.9	125.9	140.0	140.0	140.0			
	6' - 0"	22.8	34.2	45.7	57.1	68.5	67.5	101.3	135.1	140.0	140.0	22.8	34.2	45.7	57.1	68.5	24.4	36.7	48.9	61.1	73.3	76.9	115.4	140.0	140.0	140.0			
12' - 6"	6' - 6"	21.1	31.6	42.1	52.7	63.2	62.4	93.5	124.7	140.0	140.0	21.1	31.6	42.1	52.7	63.2	22.6	33.9	45.1	56.4	67.7	71.0	106.5	140.0	140.0	140.0			
	7' - 0"	19.6	29.3	39.1	48.9	58.7	57.9	86.8	115.8	140.0	140.0	19.6	29.3	39.1	48.9	58.7	21.0	31.4	41.9	52.4	62.9	65.9	98.9	131.9	140.0	140.0			
	3' - 6"	37.6	56.3	75.1	93.9	112.7	111.2	140.0	140.0	140.0	140.0	37.6	56.3	75.1	93.9	112.7	40.2	60.4	80.5	100.6	120.7	126.6	140.0	140.0	140.0	140.0			
	4' - 0"	32.9	49.3	65.7	82.2	98.6	97.3	140.0	140.0	140.0	140.0	32.9	49.3	65.7	82.2	98.6	35.2	52.8	70.4	88.0	105.6	110.8	140.0	140.0	140.0	140.0			
	4' - 6"	29.2	43.8	58.4	73.0	87.7	86.5	129.7	140.0	140.0	140.0	29.2	43.8	58.4	73.0	87.7	31.3	46.9	62.6	78.2	93.9	98.5	140.0	140.0	140.0	140.0			
	5' - 0"	26.3	39.4	52.6	65.7	78.9	77.8	116.7	140.0	140.0	140.0	26.3	39.4	52.6	65.7	78.9	28.2	42.2	56.3	70.4	84.5	88.6	132.9	140.0	140.0	140.0			
	5' - 6"	23.9	35.9	47.8	59.8	71.7	70.7	106.1	140.0	140.0	140.0	23.9	35.9	47.8	59.8	71.7	25.6	38.4	51.2	64.0	76.8	80.6	120.9	140.0	140.0	140.0			
13' - 0"	6' - 0"	21.9	32.9	43.8	54.8	65.7	64.8	97.3	129.7	140.0	140.0	21.9	32.9	43.8	54.8	65.7	23.5	35.2	46.9	58.7	70.4	73.9	110.8	140.0	140.0	140.0			
	6' - 6"	20.2	30.3	40.5	50.6	60.7	59.9	89.8	119.7	140.0	140.0	20.2	30.3	40.5	50.6	60.7	21.7	32.5	43.3	54.2	65.0	68.2	102.3	136.4	140.0	140.0			
	7' - 0"	18.1	27.1	36.1	45.2	54.2	53.4	80.2	106.9	133.6	140.0	18.1	27.1	36.1	45.2	54.2	19.3	29.0	38.7	48.4	58.0	60.9	91.3	121.7	140.0	140.0			
	3' - 6"	36.1	54.2	72.2	90.3	108.4	106.9	140.0	140.0	140.0	140.0	36.1	54.2	72.2	90.3	108.4	38.7	58.0	77.4	96.7	116.1	121.7	140.0	140.0	140.0	140.0			
	4' - 0"	31.6	47.4	63.2	79.0	94.8	93.5	140.0	140.0	140.0	140.0	31.6	47.4	63.2	79.0	94.8	33.9	50.8	67.7	84.6	101.6	106.5	140.0	140.0	140.0	140.0			
	4' - 6"	28.1	42.1	56.2	70.2	84.3	83.1	124.7	140.0	140.0	140.0	28.1	42.1	56.2	70.2	84.3	30.1	45.1	60.2	75.2	90.3	94.7	140.0	140.0	140.0	140.0			
	5' - 0"	25.3	37.9	50.6	63.2	75.9	74.8	112.2	140.0	140.0	140.0	25.3	37.9	50.6	63.2	75.9	27.1	40.6	54.2	67.7	81.2	85.2	127.8	140.0	140.0	140.0			
13' - 6"	5' - 6"	23.0	34.5	46.0	57.5	69.0	68.0	102.0	136.0	140.0	140.0	23.0	34.5	46.0	57.5	69.0	24.6	36.9	49.2	61.6	73.9	77.5	116.2	140.0	140.0	140.0			
	6' - 0"	21.1	31.6	42.1	52.7	63.2	62.4	93.5	124.7	140.0	140.0	21.1	31.6	42.1	52.7	63.2	22.6	33.9	45.1	56.4	67.7	71.0	106.5	140.0	140.0	140.0			
	6' - 6"	18.7	28.1	37.5	46.8	56.2	55.4	83.1	110.8	138.6	140.0	18.7	28.1	37.5	46.8	56.2	20.1	30.1	40.1	50.2	60.2	63.1	94.7	126.3	140.0	140.0			
	7' - 0"	17.4	26.1	34.8	43.5	52.2	51.5	77.2	102.9	128.7	140.0	17.4	26.1	34.8	43.5	52.2	18.6	27.9	37.3	46.6	55.9	58.6	87.9	117.2	140.0	140.0			
	3' - 6"	34.8	52.2	69.6	87.0	104.4	102.9	140.0	140.0	140.0	140.0	34.8	52.2	69.6	87.0	104.4	37.3	55.9	74.5	93.1	111.8	117.2	140.0	140.0	140.0	140.0			
	4' - 0"	30.4	45.7	60.9	76.1	91.3	90.1	135.1	140.0	140.0	140.0	30.4	45.7	60.9	76.1	91.3	32.6	48.9	65.2	81.5	97.8	102.6	140.0	140.0	140.0	140.0			
	4' - 6"	27.1	40.6	54.1	67.6	81.2	80.1	120.1	140.0	140.0	140.0	27.1	40.6	54.1	67.6	81.2	29.0	43.5	58.0	72.4	86.9	91.2	136.8	140.0	140.0	140.0			
14' - 6"	5' - 0"	24.3	36.5	48.7	60.9	73.0	72.1	108.1	140.0	140.0	140.0	24.3	36.5	48.7	60.9	73.0	26.1	39.1	52.2	65.2	78.2	82.1	123.1	140.0	140.0	140.0			
	5' - 6"	22.1	33.2	44.3	55.3	66.4	65.5	98.3	131.0	140.0	140.0	22.1	33.2	44.3	55.3	66.4	23.7	35.6	47.4	59.3	71.1	74.6	111.9	140.0	140.0	140.0			
	6' - 0"	18.9	28.3	37.8	47.2	56.7	55.9	83.9	111.8	139.8	140.0	18.9	28.3	37.8	47.2	56.7	20.2	30.4	40.5	50.6	60.7	63.7	95.5	127.3	140.0	140.0			
	6' - 6"	17.4	26.2	34.9	43.6	52.3	51.6	77.4	103.2	129.0	140.0	17.4	26.2	34.9	43.6	52.3	18.7	28.0	37.4	46.7	56.0	58.8	88.2	117.6	140.0	140.0			
	7' - 0"	16.2	24.3	32.4	40.5	48.6	47.9	71.9	95.8	119.8	140.0	16.2	24.3	32.4	40.5	48.6	17.3	26.0	34.7	43.4	52.0	54.6	81.9	109.2	136.4	140.0			
	3' - 6"	32.4	48.6	64.8	81.0	97.2	95.8	140.0	140.0	140.0	140.0	32.4	48.6	64.8	81.0	97.2	34.7	52.0	69.4	86.7	104.1	109.2	140.0	140.0	140.0	140.0			
	4' - 0"	28.3	42.5	56.7	70.8	85.0	83.9	125.8	140.0	140.0	140.0	28.3	42.5	56.7	70.8	85.0	30.3												

MAXIMUM A.S.D. DESIGN PRESSURE RATING SCHEDULE FOR REINFORCED OR UNREINFORCED INTERIOR MULLIONS & JAMB MULLIONS HEAD/SILL CONNECTIONS: OPTIONAL SYSTEM # 2

MAXIMUM MULLION SPAN	EFFECTIVE SPACING	MAXIMUM DESIGN PRESSURE RATING W (psf) FOR 3/8" MAX. LOAD BEARING SHIM SPACE (CONTINUED)																												
		POURED CONCRETE SUBSTRATE												WOOD (2) 2" x THK. SUBSTRATE												STEEL 1/4" Min. THK.				
		FASTENERS TYPE A (1/4"ø)					FASTENERS TYPE B (3/8"ø)					FASTENERS TYPE C (1/4"ø)					FASTENERS TYPE D (3/8"ø)					FASTENERS TYPE E (3/8"ø)								
		n=4	n=6	n=8	n=10	n=12	n=4	n=6	n=8	n=10	n=12	n=4	n=6	n=8	n=10	n=12	n=4	n=6	n=8	n=10	n=12	n=4	n=6	n=8	n=10	n=12				
15' - 0"	3' - 6"	31.3	47.0	62.6	78.3	93.9	92.6	139.0	140.0	140.0	140.0	31.3	47.0	62.6	78.3	93.9	33.5	50.3	67.1	83.8	100.6	105.5	140.0	140.0	140.0	140.0				
	4' - 0"	27.4	41.1	54.8	68.5	82.2	81.1	121.6	140.0	140.0	140.0	27.4	41.1	54.8	68.5	82.2	29.3	44.0	58.7	73.3	88.0	92.3	138.5	140.0	140.0	140.0				
	4' - 6"	24.3	36.5	48.7	60.9	73.0	72.1	108.1	140.0	140.0	140.0	24.3	36.5	48.7	60.9	73.0	26.1	39.1	52.2	65.2	78.2	82.1	123.1	140.0	140.0	140.0				
	5' - 0"	21.2	31.8	42.4	53.0	63.6	62.8	94.1	125.5	140.0	140.0	21.2	31.8	42.4	53.0	63.6	22.7	34.1	45.4	56.8	68.1	71.5	107.2	140.0	140.0	140.0				
	5' - 6"	19.3	28.9	38.6	48.2	57.8	57.0	85.6	114.1	140.0	140.0	19.3	28.9	38.6	48.2	57.8	20.6	31.0	41.3	51.6	61.9	65.0	97.5	130.0	140.0	140.0				
	6' - 0"	17.7	26.5	35.3	44.2	53.0	52.3	78.4	104.6	130.7	140.0	17.7	26.5	35.3	44.2	53.0	18.9	28.4	37.9	47.3	56.8	59.6	89.3	119.1	140.0	140.0				
	6' - 6"	16.3	24.5	32.6	40.8	48.9	48.3	72.4	96.5	120.7	140.0	16.3	24.5	32.6	40.8	48.9	17.5	26.2	34.9	43.7	52.4	55.0	82.5	110.0	137.5	140.0				
7' - 0"	15.1	22.7	30.3	37.9	45.4	44.8	67.2	89.6	112.1	134.5	15.1	22.7	30.3	37.9	45.4	16.2	24.3	32.4	40.6	48.7	51.1	76.6	102.1	127.6	140.0					
15' - 6"	3' - 6"	30.3	45.4	60.6	75.7	90.9	89.6	134.5	140.0	140.0	140.0	30.3	45.4	60.6	75.7	90.9	32.4	48.7	64.9	81.1	97.3	102.1	140.0	140.0	140.0	140.0				
	4' - 0"	26.5	39.8	53.0	66.3	79.5	78.4	117.7	140.0	140.0	140.0	26.5	39.8	53.0	66.3	79.5	28.4	42.6	56.8	71.0	85.2	89.3	134.0	140.0	140.0	140.0				
	4' - 6"	23.2	34.8	46.4	58.0	69.6	68.6	102.9	137.2	140.0	140.0	23.2	34.8	46.4	58.0	69.6	24.8	37.3	49.7	62.1	74.5	78.2	117.2	140.0	140.0	140.0				
	5' - 0"	20.9	31.3	41.7	52.2	62.6	61.8	92.6	123.5	140.0	140.0	20.9	31.3	41.7	52.2	62.6	22.4	33.5	44.7	55.9	67.1	70.3	105.5	140.0	140.0	140.0				
	5' - 6"	19.0	28.5	37.9	47.4	56.9	56.1	84.2	112.3	140.0	140.0	19.0	28.5	37.9	47.4	56.9	20.3	30.5	40.6	50.8	61.0	63.9	95.9	127.9	140.0	140.0				
	6' - 0"	17.4	26.1	34.8	43.5	52.2	51.5	77.2	102.9	128.7	140.0	17.4	26.1	34.8	43.5	52.2	18.6	27.9	37.3	46.6	55.9	58.6	87.9	117.2	140.0	140.0				
	6' - 6"	16.1	24.1	32.1	40.1	48.2	47.5	71.3	95.0	118.8	140.0	16.1	24.1	32.1	40.1	48.2	17.2	25.8	34.4	43.0	51.6	54.1	81.2	108.2	135.3	140.0				
7' - 0"	14.9	22.4	29.8	37.3	44.7	44.1	66.2	88.2	110.3	132.3	14.9	22.4	29.8	37.3	44.7	16.0	24.0	31.9	39.9	47.9	50.2	75.4	100.5	125.6	140.0					
15' - 9"	3' - 6"	29.8	44.7	59.6	74.5	89.4	88.2	132.3	140.0	140.0	140.0	29.8	44.7	59.6	74.5	89.4	31.9	47.9	63.9	79.8	95.8	100.5	140.0	140.0	140.0	140.0				
	4' - 0"	26.1	39.1	52.2	65.2	78.3	77.2	115.8	140.0	140.0	140.0	26.1	39.1	52.2	65.2	78.3	27.9	41.9	55.9	69.9	83.8	87.9	131.9	140.0	140.0	140.0				
	4' - 6"	23.2	34.8	46.4	58.0	69.6	68.6	102.9	137.2	140.0	140.0	23.2	34.8	46.4	58.0	69.6	24.8	37.3	49.7	62.1	74.5	78.2	117.2	140.0	140.0	140.0				
	5' - 0"	20.9	31.3	41.7	52.2	62.6	61.8	92.6	123.5	140.0	140.0	20.9	31.3	41.7	52.2	62.6	22.4	33.5	44.7	55.9	67.1	70.3	105.5	140.0	140.0	140.0				
	5' - 6"	19.0	28.5	37.9	47.4	56.9	56.1	84.2	112.3	140.0	140.0	19.0	28.5	37.9	47.4	56.9	20.3	30.5	40.6	50.8	61.0	63.9	95.9	127.9	140.0	140.0				
	6' - 0"	17.4	26.1	34.8	43.5	52.2	51.5	77.2	102.9	19.7	140.0	17.4	26.1	34.8	43.5	52.2	18.6	27.9	37.3	46.6	55.9	58.6	87.9	117.2	140.0	140.0				
	6' - 6"	16.1	24.1	32.1	40.1	48.2	47.5	71.3	95.0	19.7	140.0	16.1	24.1	32.1	40.1	48.2	17.2	25.8	34.4	43.0	51.6	54.1	81.2	108.2	135.3	140.0				
7' - 0"	14.9	22.4	29.8	37.3	44.7	44.1	66.2	88.2	110.3	132.3	14.9	22.4	29.8	37.3	44.7	16.0	24.0	31.9	39.9	47.9	50.2	75.4	100.5	125.6	140.0					

FASTENERS TYPES & SUBSTRATES REQUIREMENTS:

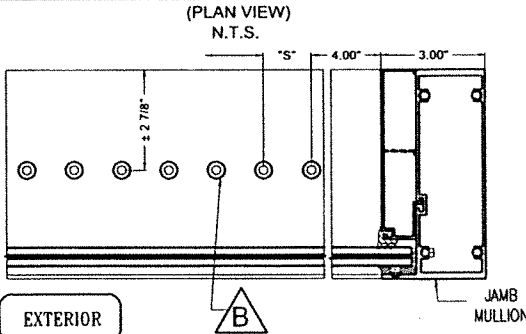
- A - 1/4"Ø DEWALT INC., ULTRACON ANCHOR W/ 1 3/4" Min. EMBEDMENT INTO POURED CONCRETE (Min. f_c = 2,730 ksi), W/ S = 4" MIN. SPACING & 2 1/2" MIN. EDGE DISTANCE. FOR MAXIMUM SPACING, EMBEDMENT & EDGE DISTANCE ARE BEYOND ANY FINISH MATERIAL.
- B - 3/8"Ø DEWALT INC., WEDGE-BOLT ANCHOR W/ 2" Min. EMBEDMENT INTO POURED CONCRETE (Min. f_c = 3.0 ksi), W/ S = 3" MIN. SPACING & 3 1/4" MIN. EDGE DISTANCE. FOR MAXIMUM SPACING, EMBEDMENT & EDGE DISTANCE ARE BEYOND ANY FINISH MATERIAL.
- C - 1/4"Ø DEWALT INC.S, ULTRACON ANCHOR TO (2) 2" x WOOD BUCKS (G=0.55) W/ 3" Min. PENETRATION INTO WOOD, W/ S = 2" Min. SPACING & 1" MIN. EDGE DISTANCE. FOR MAXIMUM SPACING, EMBEDMENT & EDGE DISTANCE ARE BEYOND ANY FINISH MATERIAL.
- D - 3/8"Ø LAG SCREW TO (2) 2" x WOOD BUCKS (G=0.55) W/ 3" Min. PENETRATION INTO WOOD, W/ S = 2" Min. SPACING & 1 1/2" MIN. EDGE DISTANCE. FOR MAXIMUM SPACING, EMBEDMENT & EDGE DISTANCE ARE BEYOND ANY FINISH MATERIAL.
- E - 3/8"Ø TYPE "F" BOLT TO 1/4" Min. THK. ASTM A-36 STEEL W/ S = 2" MIN. SPACING & 1" MIN. EDGE DISTANCE OR 3/8"Ø SAE GRADE 5 GALVANIZED STEEL HMB THRU BOLT W/ NUT & LOCK WASHER.



n = TOTAL NUMBER OF FASTENERS PER CONNECTION AT HEAD/SILL, EQUALLY INSTALLED AT EACH SIDE OF INTERIOR MULLION

*COMPONENT (41) MAY BE USED AS AN OPTION TO COMPONENT (40).

SILL OR HEAD CONNECTION DETAIL @ REINFORCED OR UNREINFORCED INTERIOR MULLION



SILL OR HEAD CONNECTION DETAIL @ JAMB MULLION

WALTER A. TILLIT JR.
LICENSE
No. 44167
STATE OF FLORIDA
PROFESSIONAL ENGINEER
P.E. SEAL/SIGNATURE/DATE

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CA-0006719
WALTER A. TILLIT Jr. P.E.
FLORIDA Lic. # 44167

HIGH IMPACT GREEN WORLD FIXED GLASS WALL SERIES 12000 LARGE MISSILE LAMINATED & INSULATED GLASS					W.H. DRAWN BY
 290 WEST 78 ROAD HIALEAH, FL. 33014 PH: (954)226-5555/(305)558-8103 FAX: (305)558-6665 www.gigwindows.com					09/12/2023 DATE
					23-213 DRAWING No
REV. No	DESCRIPTION	DATE	REV. No	DESCRIPTION	DATE
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2	-	-	4	-	-

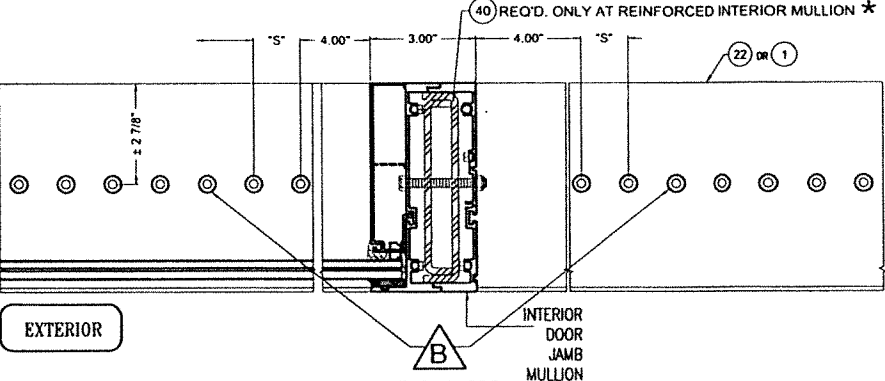
SHEET 39 OF 51

MAXIMUM A.S.D. DESIGN PRESSURE RATING SCHEDULE FOR REINFORCED OR UNREINFORCED
INTERIOR DOOR JAMB MULLIONS & END DOOR JAMB MULLIONS HEAD/SILL CONNECTIONS:
OPTIONAL SYSTEM # 2

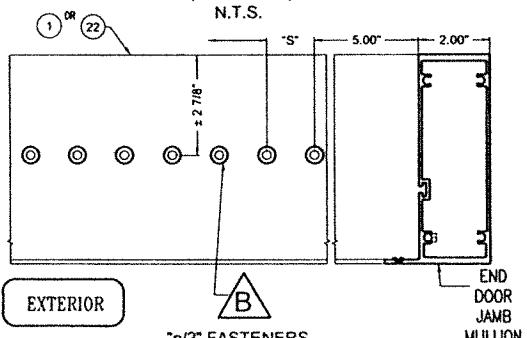
FASTENERS TYPES & SUBSTRATES REQUIREMENTS:

- A - 1/4"Ø DEWALT INC., ULTRACON ANCHOR W/ 1 3/4" Min. EMBEDMENT INTO POURED CONCRETE (Min. f_c = 2.730 ksi), W/ S = 4" MIN. SPACING & 2 1/2" MIN. EDGE DISTANCE. FOR MAXIMUM SPACING, EMBEDMENT & EDGE DISTANCE ARE BEYOND ANY FINISH MATERIAL.
- B - 3/8"Ø DEWALT INC., WEDGE-BOLT ANCHOR W/ 2" Min. EMBEDMENT INTO POURED CONCRETE (Min. f_c = 3.0 ksi), W/ S = 3" MIN. SPACING & 3 1/4" MIN. EDGE DISTANCE. FOR MAXIMUM SPACING, EMBEDMENT & EDGE DISTANCE ARE BEYOND ANY FINISH MATERIAL.
- C - 1/4"Ø DEWALT INC.S, ULTRACON ANCHOR TO (2) 2" x WOOD BUCKS (G=0.55) W/ 3" Min. PENETRATION INTO WOOD, W/ S = 2" Min. SPACING & 1" MIN. EDGE DISTANCE. FOR MAXIMUM SPACING, EMBEDMENT & EDGE DISTANCE ARE BEYOND ANY FINISH MATERIAL.
- D - 3/8"Ø LAG SCREW TO (2) 2" x WOOD BUCKS (G=0.55) W/ 3" Min. PENETRATION INTO WOOD, W/ S = 2" Min. SPACING & 1 1/2" MIN. EDGE DISTANCE. FOR MAXIMUM SPACING, EMBEDMENT & EDGE DISTANCE ARE BEYOND ANY FINISH MATERIAL.
- E - 3/8"Ø TYPE "F" BOLT TO 1/4" Min. THK. ASTM A-36 STEEL W/ S = 2" MIN. SPACING & 1" MIN. EDGE DISTANCE OR 3/8"Ø SAE GRADE 5 GALVANIZED STEEL HHB THRU BOLT W/ NUT & LOCK WASHER.

MAXIMUM MULLION SPAN	EFFECTIVE SPACING	MAXIMUM DESIGN PRESSURE RATING W (psf) FOR 1/4" MAX. SHIM SPACE																									
		POURED CONCRETE SUBSTRATE										WOOD (2) 1 1/2" MIN. THK. SUBSTRATE										STEEL 1/4" MIN. THK. SUBSTRATE					
		FASTENERS TYPE A (1/4"Ø)					FASTENERS TYPE B (3/8"Ø)					FASTENERS TYPE C (1/4"Ø)					FASTENERS TYPE D (3/8"Ø)					FASTENERS TYPE E (3/8"Ø)					
		n=4	n=6	n=8	n=10	n=12	n=4	n=6	n=8	n=10	n=12	n=4	n=6	n=8	n=10	n=12	n=4	n=6	n=8	n=10	n=12	n=4	n=6	n=8	n=10	n=12	
"L"(Ft-in)	"b"(Ft-in)	8'-0"	5'-2"	51.4	77.1	102.8	128.6	140.0	133.3	140.0	140.0	140.0	140.0	42.7	64.0	102.8	106.6	128.0	40.0	60.0	80.0	100.0	120.0	140.0	140.0	140.0	140.0
		5'-8"	47.1	70.7	94.3	117.8	140.0	122.2	140.0	140.0	140.0	140.0	39.1	58.7	94.3	97.8	117.3	36.7	55.0	73.3	91.7	110.0	140.0	140.0	140.0	140.0	140.0
8'-6"	5'-2"	48.4	72.8	96.8	121.0	140.0	125.4	140.0	140.0	140.0	140.0	40.1	60.2	96.8	100.4	120.4	37.7	58.5	75.3	94.1	113.0	140.0	140.0	140.0	140.0	140.0	
	5'-8"	44.4	66.5	88.7	110.9	133.1	115.0	140.0	140.0	140.0	140.0	36.8	55.2	88.7	92.0	110.4	34.5	51.8	69.0	86.3	103.6	140.0	140.0	140.0	140.0	140.0	
9'-0"	5'-2"	45.7	68.6	91.4	104.3	137.1	118.5	140.0	140.0	140.0	140.0	37.9	56.9	91.4	94.8	113.7	35.6	53.3	71.1	88.9	106.7	140.0	140.0	140.0	140.0	140.0	
	5'-8"	41.9	62.9	83.8	104.8	125.7	108.8	140.0	140.0	140.0	140.0	34.8	52.1	83.8	86.9	104.3	32.6	48.9	65.2	81.5	97.8	135.0	140.0	140.0	140.0	140.0	
9'-6"	5'-2"	43.3	65.0	86.6	108.3	129.9	112.2	140.0	140.0	140.0	140.0	36.9	53.9	86.6	89.8	107.8	33.7	50.5	67.4	84.2	101.1	139.5	140.0	140.0	140.0	140.0	
	5'-8"	39.7	59.5	79.4	99.2	119.1	102.9	140.0	140.0	140.0	140.0	32.9	49.4	79.4	82.3	98.8	30.9	46.3	61.8	77.2	92.7	127.9	140.0	140.0	140.0	140.0	
10'-0"	5'-2"	41.1	61.7	82.3	102.8	123.4	106.6	140.0	140.0	140.0	140.0	34.1	51.2	82.3	85.3	102.4	32.0	48.0	64.0	80.0	96.0	132.5	140.0	140.0	140.0	140.0	
	5'-8"	37.7	56.6	75.4	94.3	113.1	97.7	140.0	140.0	140.0	140.0	31.3	46.9	75.4	78.2	93.8	29.3	44.0	58.7	73.3	88.0	121.9	140.0	140.0	140.0	140.0	
10'-6"	5'-2"	43.1	64.6	86.2	107.7	129.3	111.7	140.0	140.0	140.0	140.0	35.7	53.6	86.2	89.4	107.2	33.5	50.3	67.1	83.8	100.6	138.8	140.0	140.0	140.0	140.0	
	5'-8"	39.2	58.8	78.4	97.9	117.5	101.5	140.0	140.0	140.0	140.0	32.5	48.7	78.4	81.2	97.5	30.5	45.7	61.0	76.2	91.4	126.2	140.0	140.0	140.0	140.0	
11'-0"	5'-2"	41.1	61.7	82.3	102.8	123.4	106.6	140.0	140.0	140.0	140.0	34.1	51.2	82.3	85.3	102.4	32.0	48.0	64.0	80.0	96.0	132.5	140.0	140.0	140.0	140.0	
	5'-8"	37.4	56.1	74.8	93.5	112.2	96.9	140.0	140.0	140.0	140.0	31.0	46.5	74.8	77.6	93.1	29.1	43.8	58.2	72.7	87.3	120.5	140.0	140.0	140.0	140.0	
11'-6"	5'-2"	35.8	53.7	71.5	89.4	107.3	92.7	139.1	140.0	140.0	140.0	29.7	44.5	71.5	74.2	89.0	27.8	41.7	55.7	69.6	83.5	115.2	140.0	140.0	140.0	140.0	
	5'-8"	32.8	49.2	65.6	82.0	98.4	85.0	127.5	140.0	140.0	140.0	27.2	40.8	65.6	68.0	91.6	25.5	38.3	51.0	63.8	76.5	105.6	140.0	140.0	140.0	140.0	
12'-0"	5'-2"	34.3	51.4	68.6	85.7	102.8	88.9	133.3	140.0	140.0	140.0	28.4	42.7	68.6	71.1	85.3	26.7	40.0	53.3	66.7	80.0	110.4	140.0	140.0	140.0	140.0	
	5'-8"	31.4	47.1	62.9	78.6	84.3	81.4	122.2	140.0	140.0	140.0	26.1	39.1	62.9	65.2	78.2	24.4	36.7	48.9	61.1	73.3	101.2	140.0	140.0	140.0	140.0	
12'-6"	5'-2"	32.9	49.4	65.8	82.3	98.7	85.3	127.9	140.0	140.0	140.0	27.3	40.9	65.8	68.2	81.9	25.6	38.4	51.2	64.0	76.8	106.0	140.0	140.0	140.0	140.0	
	5'-8"	30.2	45.3	60.3	75.4	90.5	78.2	117.3	140.0	140.0	140.0	25.0	37.5	60.3	62.6	75.1	23.5	35.2	46.9	58.7	70.4	97.2	140.0	140.0	140.0	140.0	
13'-0"	5'-2"	31.6	47.5	63.3	79.1	94.9	82.0	123.0	140.0	140.0	140.0	26.2	39.4	63.3	65.6	78.7	24.6	36.9	49.2	61.6	73.9	101.9	140.0	140.0	140.0	140.0	
	5'-8"	29.0	43.5	58.0	72.5	87.0	75.2	112.8	140.0	140.0	140.0	24.1	36.1	58.0	60.2	72.2	22.6	33.9	45.1	56.4	67.7	93.4	140.0	140.0	140.0	140.0	
13'-6"	5'-2"	30.5	45.7	60.9	76.2	91.4	79.0	118.5	140.0	140.0	140.0	25.3	37.9	60.9	63.2	75.8	23.7	35.6	47.4	59.3	71.1	98.2	140.0	140.0	140.0	140.0	
	5'-8"	27.9	41.9	55.9	69.8	83.8	72.4	108.6	140.0	140.0	140.0	23.2	34.8	55.9	57.9	69.5	21.7	32.6	43.5	54.3	65.2	90.0	135.0	140.0	140.0	140.0	



SILL OR HEAD CONNECTION DETAIL @ REINFORCED OR UNREINFORCED INTERIOR DOOR JAMB MULLION (IDJM 1 & 2)
(PLAN VIEW)
N.T.S.



SILL OR HEAD CONNECTION DETAIL @ END DOOR JAMB MULLION (EDJM 1 & 2)
(PLAN VIEW)
N.T.S.

FLORIDA BUILDING CODE (HIGH & NON HIGH VELOCITY HURRICANE ZONES)

WALTER A. TILIT JR.
LICENSE
No. 44167
STATE OF FLORIDA
PROFESSIONAL ENGINEER
P.E. SEAL/SIGNATURE/DATE

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TILTECO INC.
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e-mail: tilteco@aol.com
CA-0006719
WALTER A. TILLIT Jr. P.E.
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FAX: (305)558-6665
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W.H. DRAWN BY
09/12/2023 DATE
23-213 DRAWING No
SHEET 40 OF 51

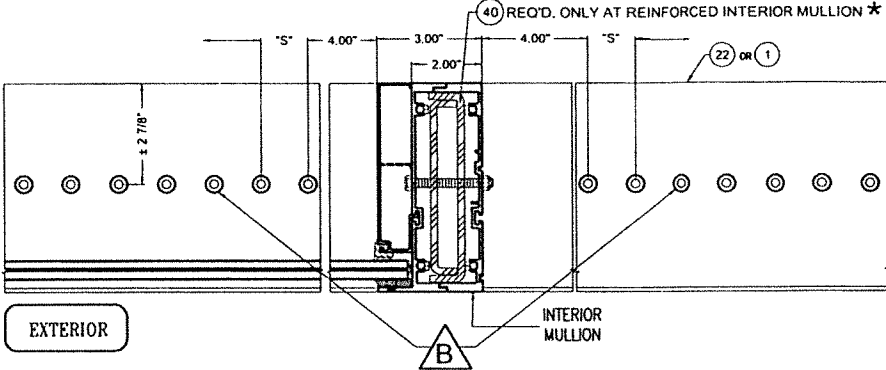
REV. No	DESCRIPTION	DATE	REV. No	DESCRIPTION	DATE
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2	-	-	4	-	-

MAXIMUM A.S.D. DESIGN PRESSURE RATING SCHEDULE FOR REINFORCED OR UNREINFORCED INTERIOR DOOR JAMB MULLIONS & END DOOR JAMB MULLIONS HEAD/SILL CONNECTIONS:
OPTIONAL SYSTEM # 2

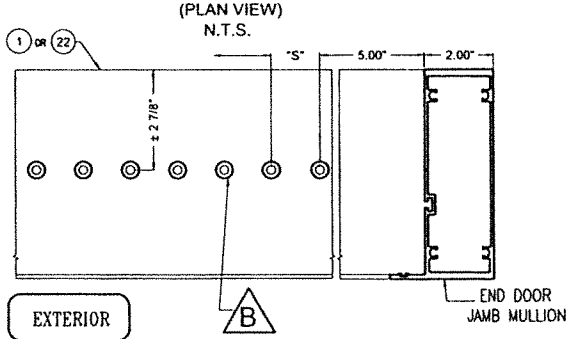
Table with 3 main columns: MAXIMUM MULLION SPAN, EFFECTIVE SPACING, and MAXIMUM DESIGN PRESSURE RATING W (psf) FOR 1/4" MAX. SHIM SPACE. The table is divided into three substrate types: POURED CONCRETE SUBSTRATE, WOOD (2) 1 1/2" MIN. THK. SUBSTRATE, and STEEL 1/4" MIN. THK. SUBSTRATE. Each substrate type has two fastener types (A, B, C, D, E) and a grid of values for different span and spacing combinations.

FASTENERS TYPES & SUBSTRATES REQUIREMENTS:

- A - 1/4"Ø DEWALT INC., ULTRACON ANCHOR W/ 1 3/4" Min. EMBEDMENT INTO POURED CONCRETE (Min. f'c = 2,730 ksi), W/ S = 4" MIN. SPACING & 2 1/2" MIN. EDGE DISTANCE. FOR MAXIMUM SPACING, EMBEDMENT & EDGE DISTANCE ARE BEYOND ANY FINISH MATERIAL.
- B - 3/8"Ø DEWALT INC., WEDGE-BOLT ANCHOR W/ 2" Min. EMBEDMENT INTO POURED CONCRETE (Min. f'c = 3.0 ksi), W/ S = 3" MIN. SPACING & 3 1/4" MIN. EDGE DISTANCE. FOR MAXIMUM SPACING, EMBEDMENT & EDGE DISTANCE ARE BEYOND ANY FINISH MATERIAL.
- C - 1/4"Ø DEWALT INC.S, ULTRACON ANCHOR TO (2) 2" x WOOD BUCKS (G=0.55) W/ 3" Min. PENETRATION INTO WOOD, W/ S = 2" Min. SPACING & 1" MIN. EDGE DISTANCE. FOR MAXIMUM SPACING, EMBEDMENT & EDGE DISTANCE ARE BEYOND ANY FINISH MATERIAL.
- D - 3/8"Ø LAG SCREW TO (2) 2" x WOOD BUCKS (G=0.55) W/ 3" Min. PENETRATION INTO WOOD, W/ S = 2" Min. SPACING & 1 1/2" MIN. EDGE DISTANCE. FOR MAXIMUM SPACING, EMBEDMENT & EDGE DISTANCE ARE BEYOND ANY FINISH MATERIAL.
- E - 3/8"Ø TYPE "F" BOLT TO 1/4" Min. THK. ASTM A-36 STEEL W/ S = 2" MIN. SPACING & 1" MIN. EDGE DISTANCE OR 3/8"Ø SAE GRADE 5 GALVANIZED STEEL HHB THRU BOLT W/ NUT & LOCK WASHER.



n = TOTAL NUMBER OF FASTENERS PER CONNECTION AT HEAD/SILL, EQUALLY INSTALLED AT EACH SIDE OF INTERIOR MULLION
*COMPONENT (41) MAY BE USED AS AN OPTION TO COMPONENT (40).
SILL OR HEAD CONNECTION DETAIL @ REINFORCED OR UNREINFORCED INTERIOR MULLION (IDJM 1 & 2)



n/2 = TOTAL NUMBER OF FASTENERS PER CONNECTION AT HEAD/SILL, INSTALLED AT ONE SIDE OF JAMB MULLION
SILL OR HEAD CONNECTION DETAIL @ END DOOR JAMB MULLION (EDJM 1 & 2)

Professional Engineer Seal for Walter A. Tillit Jr., State of Florida, License No. 44167. Includes a signature and the date 09/12/2023.

TILTECO INC. logo and contact information: TILLIT TESTING & ENGINEERING COMPANY, 6355 N.W. 36th St., Ste. 305, VIRGINIA GARDENS, FL 33166. Phone: (305)871-1530, Fax: (305)871-1531, e-mail: tilteco@aol.com. CA-0006719, WALTER A. TILLIT Jr. P.E., FLORIDA Lic. # 44167.

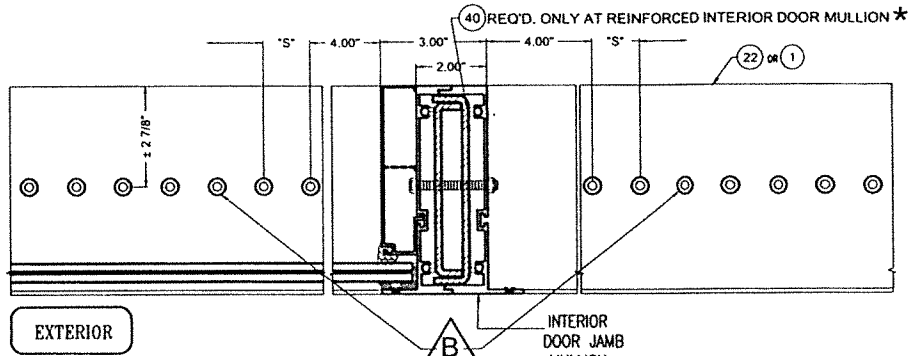
FLORIDA BUILDING CODE (HIGH & NON HIGH VELOCITY HURRICANE ZONES)
HIGH IMPACT GREEN WORLD FIXED GLASS WALL SERIES 12000 LARGE MISSILE LAMINATED & INSULATED GLASS
W.H. DRAWN BY: 09/12/2023 DATE
23-213 DRAWING No
SHEET 41 OF 51

MAXIMUM A.S.D. DESIGN PRESSURE RATING SCHEDULE FOR REINFORCED OR UNREINFORCED INTERIOR DOOR JAMB MULLIONS & END DOOR JAMB MULLIONS HEAD/SILL CONNECTIONS: OPTIONAL SYSTEM # 2

FASTENERS TYPES & SUBSTRATES REQUIREMENTS:

MAXIMUM MULLION SPAN	EFFECTIVE SPACING	MAXIMUM DESIGN PRESSURE RATING W (psf) FOR 3/8" MAX. SHIM SPACE																								
		POURED CONCRETE SUBSTRATE										WOOD (2) 1 1/2" MIN. THK. SUBSTRATE										STEEL 1/4" MIN. THK. SUBSTRATE				
		FASTENERS TYPE A (1/4"ø)					FASTENERS TYPE B (3/8"ø)					FASTENERS TYPE C (1/4"ø)					FASTENERS TYPE D (3/8"ø)					FASTENERS TYPE E (3/8"ø)				
		n=4	n=6	n=8	n=10	n=12	n=4	n=6	n=8	n=10	n=12	n=4	n=6	n=8	n=10	n=12	n=4	n=6	n=8	n=10	n=12	n=4	n=6	n=8	n=10	n=12
"L"(Ft-in)	"b"(Ft-in)																									
8'-0" OR LESS	5'-2"	37.4	56.0	74.7	93.4	112.1	110.5	140.0	140.0	140.0	140.0	37.4	64.0	102.8	106.6	128.0	40.0	60.0	80.0	100.0	120.0	25.9	140.0	140.0	140.0	140.0
	5'-8"	34.2	51.4	68.5	85.6	102.7	101.3	140.0	140.0	140.0	140.0	34.2	58.7	94.3	97.8	117.3	36.7	55.0	73.3	91.7	110.0	15.4	140.0	140.0	140.0	140.0
8'-6"	5'-2"	35.2	52.7	70.3	87.9	105.5	104.0	140.0	140.0	140.0	140.0	35.2	52.7	70.3	87.9	105.5	37.7	56.5	75.3	94.1	113.0	18.5	140.0	140.0	140.0	140.0
	5'-8"	32.2	48.3	64.5	80.6	96.7	95.4	140.0	140.0	140.0	140.0	32.2	48.3	64.5	80.6	96.7	34.5	51.8	69.0	86.3	103.6	108.6	140.0	140.0	140.0	140.0
9'-0"	5'-2"	33.2	49.8	66.4	83.0	99.6	98.3	140.0	140.0	140.0	140.0	33.2	49.8	66.4	83.0	99.6	35.6	53.3	71.1	88.9	106.7	111.9	140.0	140.0	140.0	140.0
	5'-8"	30.4	45.7	60.9	76.1	91.3	90.1	135.1	140.0	140.0	140.0	30.4	45.7	60.9	76.1	91.3	32.6	48.9	65.2	81.5	97.8	102.6	140.0	140.0	140.0	140.0
9'-6"	5'-2"	31.5	47.2	62.9	78.6	94.4	93.1	139.6	140.0	140.0	140.0	31.5	47.2	62.9	78.6	94.4	33.7	50.5	67.4	84.2	101.1	139.5	140.0	140.0	140.0	140.0
	5'-8"	28.8	43.3	57.7	72.1	86.5	85.3	128.0	140.0	140.0	140.0	28.8	43.3	57.7	72.1	86.5	30.9	46.3	61.8	77.2	92.7	127.9	140.0	140.0	140.0	140.0
10'-0"	5'-2"	29.9	44.8	59.8	74.7	89.6	88.4	132.6	140.0	140.0	140.0	29.9	44.8	59.8	74.7	89.6	32.0	48.0	64.0	80.0	96.0	132.5	140.0	140.0	140.0	140.0
	5'-8"	27.4	41.1	54.8	68.5	82.2	81.1	121.6	140.0	140.0	140.0	27.4	41.1	54.8	68.5	82.2	29.3	44.0	58.7	73.3	88.0	121.9	140.0	140.0	140.0	140.0
10'-6"	5'-2"	28.5	42.7	56.9	71.1	85.4	84.2	126.3	140.0	140.0	140.0	28.5	42.7	56.9	71.1	85.4	30.5	45.7	61.0	76.2	91.4	95.9	140.0	140.0	140.0	140.0
	5'-8"	26.1	39.1	52.2	65.2	78.3	77.2	115.8	140.0	140.0	140.0	26.1	39.1	52.2	65.2	78.3	27.9	41.9	55.9	69.9	83.8	87.9	131.0	140.0	140.0	140.0
11'-0"	5'-2"	27.2	40.7	54.3	67.9	81.5	80.4	120.6	140.0	140.0	140.0	27.2	40.7	54.3	67.9	81.5	29.1	43.6	58.2	72.7	87.3	91.6	137.3	140.0	140.0	140.0
	5'-8"	24.9	37.4	49.8	62.3	74.7	73.7	110.5	140.0	140.0	140.0	24.9	37.4	49.8	62.3	74.7	26.7	40.0	53.3	66.7	80.0	83.9	125.9	140.0	140.0	140.0
11'-6"	5'-2"	26.0	39.0	52.0	65.0	78.0	76.9	115.3	140.0	140.0	140.0	26.0	39.0	52.0	65.0	78.0	27.8	41.7	55.7	69.6	83.5	115.2	140.0	140.0	140.0	140.0
	5'-8"	23.8	35.7	47.6	59.5	71.5	70.5	105.7	140.0	140.0	140.0	23.8	35.7	47.6	59.5	71.5	25.5	38.3	51.0	63.8	76.5	105.6	140.0	140.0	140.0	140.0
12'-0"	5'-2"	24.9	37.4	49.8	62.3	74.7	73.7	110.5	140.0	140.0	140.0	24.9	37.4	49.8	62.3	74.7	26.7	40.0	53.3	66.7	80.0	110.4	140.0	140.0	140.0	140.0
	5'-8"	22.8	34.2	45.7	57.1	68.5	67.5	101.3	135.1	140.0	140.0	22.8	34.2	45.7	57.1	68.5	24.4	36.7	48.9	61.1	73.3	101.2	140.0	140.0	140.0	140.0
12'-6"	5'-2"	23.9	35.9	47.8	59.8	71.7	70.7	106.1	140.0	140.0	140.0	23.9	35.9	47.8	59.8	71.7	25.6	38.4	51.2	64.0	76.8	80.6	120.9	140.0	140.0	140.0
	5'-8"	21.9	32.9	43.8	54.8	65.7	64.8	97.3	129.7	140.0	140.0	21.9	32.9	43.8	54.8	65.7	23.5	35.2	46.9	58.7	70.4	73.9	110.8	140.0	140.0	140.0
13'-0"	5'-2"	23.0	34.5	46.0	57.5	69.0	68.0	102.0	136.0	140.0	140.0	23.0	34.5	46.0	57.5	69.0	24.6	36.9	49.2	61.6	73.9	77.5	116.2	140.0	140.0	140.0
	5'-8"	21.1	31.6	42.1	52.7	63.2	62.4	93.5	124.7	140.0	140.0	21.1	31.6	42.1	52.7	63.2	22.6	33.9	45.1	56.4	67.7	71.0	106.5	140.0	140.0	140.0
13'-6"	5'-2"	22.1	33.2	44.3	55.3	66.4	65.5	98.3	131.0	140.0	140.0	22.1	33.2	44.3	55.3	66.4	23.7	35.6	47.4	59.3	71.1	74.6	111.0	140.0	140.0	140.0
	5'-8"	18.9	28.3	37.8	47.2	56.7	55.9	83.9	111.8	140.0	140.0	18.9	28.3	37.8	47.2	56.7	20.2	30.4	40.5	50.6	60.7	63.7	95.5	127.3	140.0	140.0

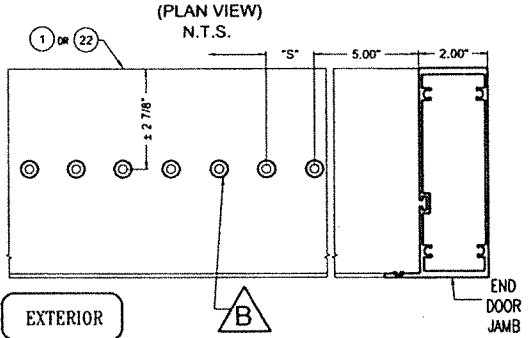
- A - 1/4"Ø DEWALT INC., ULTRACON ANCHOR W/ 1 3/4" Min. EMBEDMENT INTO POURED CONCRETE (Min. f_c = 2.730 ksi), W/ S = 4" MIN. SPACING & 2 1/2" MIN. EDGE DISTANCE. FOR MAXIMUM SPACING, EMBEDMENT & EDGE DISTANCE ARE BEYOND ANY FINISH MATERIAL.
- B - 3/8"Ø DEWALT INC., WEDGE-BOLT ANCHOR W/ 2" Min. EMBEDMENT INTO POURED CONCRETE (Min. f_c = 3.0 ksi), W/ S = 3" MIN. SPACING & 3 1/4" MIN. EDGE DISTANCE. FOR MAXIMUM SPACING, EMBEDMENT & EDGE DISTANCE ARE BEYOND ANY FINISH MATERIAL.
- C - 1/4"Ø DEWALT INC.S, ULTRACON ANCHOR TO (2) 2" x WOOD BUCKS (G=0.55) W/ 3" Min. PENETRATION INTO WOOD, W/ S = 2" Min. SPACING & 1" MIN. EDGE DISTANCE. FOR MAXIMUM SPACING, EMBEDMENT & EDGE DISTANCE ARE BEYOND ANY FINISH MATERIAL.
- D - 3/8"Ø LAG SCREW TO (2) 2" x WOOD BUCKS (G=0.55) W/ 3" Min. PENETRATION INTO WOOD, W/ S = 2" Min. SPACING & 1 1/2" MIN. EDGE DISTANCE. FOR MAXIMUM SPACING, EMBEDMENT & EDGE DISTANCE ARE BEYOND ANY FINISH MATERIAL.
- E - 3/8"Ø TYPE "F" BOLT TO 1/4" Min. THK. ASTM A-36 STEEL W/ S = 2" MIN. SPACING & 1" MIN. EDGE DISTANCE OR 3/8"Ø SAE GRADE 5 GALVANIZED STEEL HHB THRU BOLT W/ NUT & LOCK WASHER.



"n" FASTENERS
n = TOTAL NUMBER OF FASTENERS PER CONNECTION AT HEAD/SILL, EQUALLY INSTALLED AT EACH SIDE OF INTERIOR DOOR JAMB MULLION

*COMPONENT (41) MAY BE USED AS AN OPTION TO COMPONENT (40).

SILL OR HEAD CONNECTION DETAIL @ REINFORCED OR UNREINFORCED INTERIOR DOOR JAMB MULLION (IDJM 1 & 2)



"n/2" FASTENERS
n/2 = TOTAL NUMBER OF FASTENERS PER CONNECTION AT HEAD/SILL, INSTALLED AT ONE SIDE OF END JAMB MULLION

SILL OR HEAD CONNECTION DETAIL @ END DOOR JAMB MULLION (EDJM 1 & 2)

FLORIDA BUILDING CODE (HIGH & NON HIGH VELOCITY HURRICANE ZONES)

WALTER A. TILLIT JR.
LICENSE
No. 44167
STATE OF FLORIDA
PROFESSIONAL ENGINEER
P.E. SEAL/SIGNATURE/DATE

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TILTECO INC.

TILLIT TESTING & ENGINEERING COMPANY
6355 N.W. 36th. St., Ste. 305, VIRGINIA GARDENS, FL 33166
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e-mail: tilteco@aol.com
CA-0006719
WALTER A. TILLIT Jr. P.E.
FLORIDA Lic. # 44167

HIGH IMPACT GREEN WORLD FIXED GLASS WALL
SERIES 12000 LARGE MISSILE LAMINATED & INSULATED GLASS

290 WEST 78 ROAD
HIALEAH, FL 33014
PH: (954)226-5555/(305)558-8103
FAX: (305)558-6665
www.gigwindows.com

W.H. DRAWN BY

09/12/2023
DATE

23-213
DRAWING No

SHEET 42 OF 51

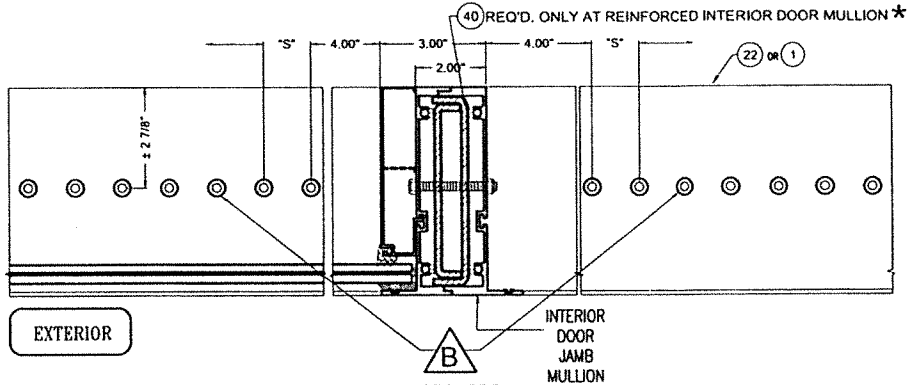
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2	-	-	4	-	-

MAXIMUM A.S.D. DESIGN PRESSURE RATING SCHEDULE FOR REINFORCED OR UNREINFORCED INTERIOR DOOR JAMB MULLIONS & END DOOR JAMB MULLIONS HEAD/SILL CONNECTIONS:
OPTIONAL SYSTEM # 2

Table with 3 main columns: MAXIMUM MULLION SPAN, EFFECTIVE SPACING, and MAXIMUM DESIGN PRESSURE RATING W (psf) FOR 3/8" MAX. SHIM SPACE. The table is divided into three substrate types: POURED CONCRETE SUBSTRATE, WOOD (2) 1 1/2" MIN. THK. SUBSTRATE, and STEEL 1/4" MIN. THK. SUBSTRATE. Each substrate type has two fastener types (A and B) and a grid of pressure ratings for different span and spacing combinations.

FASTENERS TYPES & SUBSTRATES REQUIREMENTS:

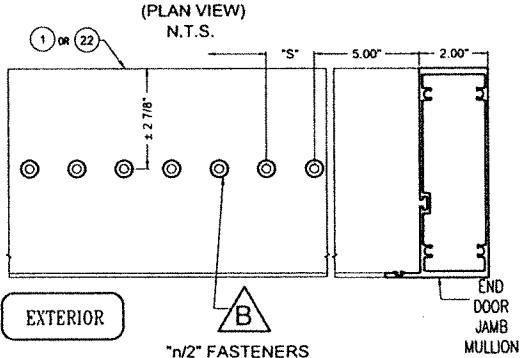
- A - 1/4"Ø DEWALT INC., ULTRACON ANCHOR W/ 1 3/4" Min. EMBEDMENT INTO POURED CONCRETE (Min. f'c = 2,730 ksi), W/ S = 4" MIN. SPACING & 2 1/2" MIN. EDGE DISTANCE. FOR MAXIMUM SPACING, EMBEDMENT & EDGE DISTANCE ARE BEYOND ANY FINISH MATERIAL.
- B - 3/8"Ø DEWALT INC., WEDGE-BOLT ANCHOR W/ 2" Min. EMBEDMENT INTO POURED CONCRETE (Min. f'c = 3.0 ksi), W/ S = 3" MIN. SPACING & 3 1/4" MIN. EDGE DISTANCE. FOR MAXIMUM SPACING, EMBEDMENT & EDGE DISTANCE ARE BEYOND ANY FINISH MATERIAL.
- C - 1/4"Ø DEWALT INC.S, ULTRACON ANCHOR TO (2) 2" x WOOD BUCKS (G=0.55) W/ 3" Min. PENETRATION INTO WOOD, W/ S = 2" Min. SPACING & 1" MIN. EDGE DISTANCE. FOR MAXIMUM SPACING, EMBEDMENT & EDGE DISTANCE ARE BEYOND ANY FINISH MATERIAL.
- D - 3/8"Ø LAG SCREW TO (2) 2" x WOOD BUCKS (G=0.55) W/ 3" Min. PENETRATION INTO WOOD, W/ S = 2" Min. SPACING & 1 1/2" MIN. EDGE DISTANCE. FOR MAXIMUM SPACING, EMBEDMENT & EDGE DISTANCE ARE BEYOND ANY FINISH MATERIAL.
- E - 3/8"Ø TYPE "F" BOLT TO 1/4" Min. THK. ASTM A-36 STEEL W/ S = 2" MIN. SPACING & 1" MIN. EDGE DISTANCE OR 3/8"Ø SAE GRADE 5 GALVANIZED STEEL HHB THRU BOLT W/ NUT & LOCK WASHER.



n = TOTAL NUMBER OF FASTENERS PER CONNECTION AT HEAD/SILL, EQUALLY INSTALLED AT EACH SIDE OF INTERIOR DOOR JAMB MULLION

*COMPONENT (41) MAY BE USED AS AN OPTION TO COMPONENT (40).

SILL OR HEAD CONNECTION DETAIL @ REINFORCED OR UNREINFORCED INTERIOR DOOR JAMB MULLION (IDJM 1 & 2)



SILL OR HEAD CONNECTION DETAIL @ END DOOR JAMB MULLION (EDJM 1 & 2)

(PLAN VIEW) N.T.S.

FLORIDA BUILDING CODE (HIGH & NON HIGH VELOCITY HURRICANE ZONES)

Professional Engineer Seal for Walter A. Tillit Jr., State of Florida, License No. 44167. Includes signature and date.

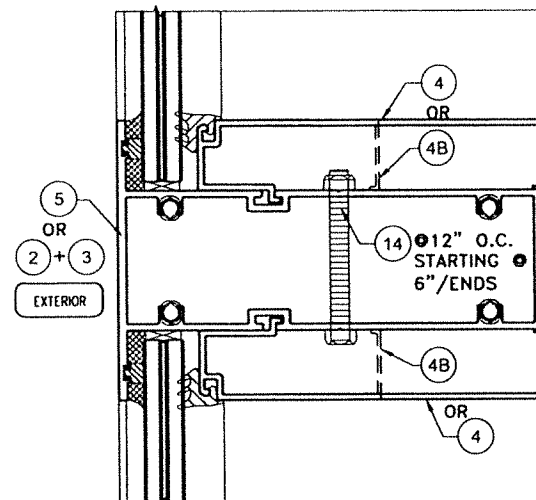
TILTECO INC. logo and contact information: 6355 N.W. 36th St., Ste. 305, Virginia Gardens, FL 33166. Phone: (305)871-1530, Fax: (305)871-1531, e-mail: tiltco@aol.com, CA-0006719, Walter A. Tillit Jr. P.E., Florida Lic. # 44167.

HIGH IMPACT GREEN WORLD FIXED GLASS WALL SERIES 12000 LARGE MISSILE LAMINATED & INSULATED GLASS

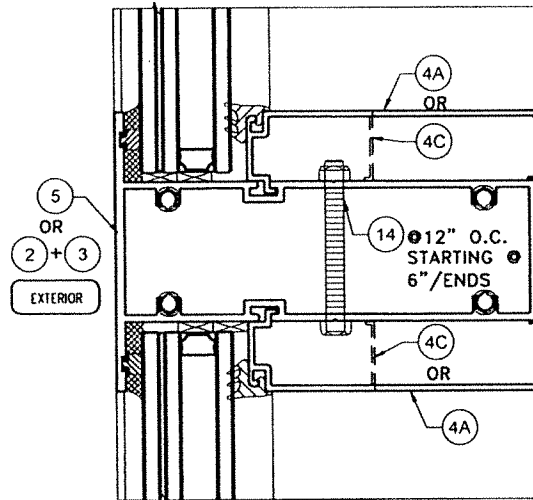
GIG logo and contact information: 290 WEST 78 ROAD HIALEAH, FL. 33014. PH: (954)226-5555/(305)558-8103, FAX: (305)558-6665, www.gigwindows.com.

Table with 6 columns: REV. No, DESCRIPTION, DATE, REV. No, DESCRIPTION, DATE. It contains two revision entries.

W.H. DRAWN BY, 09/12/2023 DATE, 23-213 DRAWING No, SHEET 43 OF 51

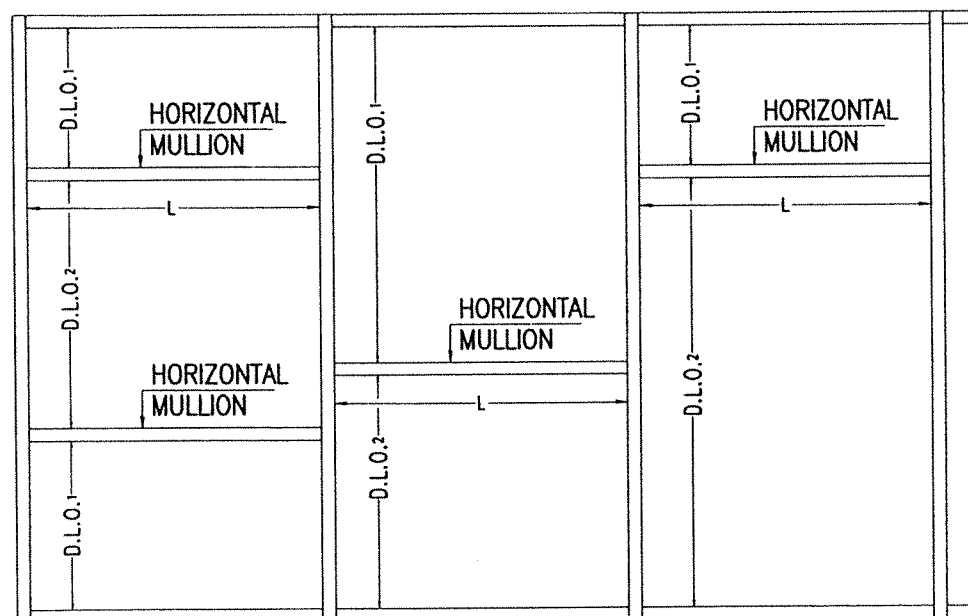


LAMINATED GLASS CASE

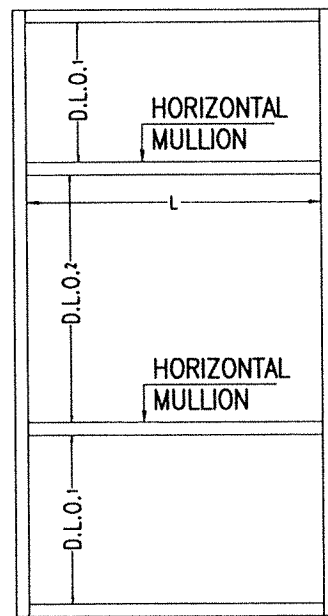


INSULATED GLASS CASE

SECTION AT HORIZONTAL MULLIONS



MULTIPLE PANELS



SINGLE PANEL

ELEVATIONS W/ HORIZONTAL MULLIONS

"L" = MAXIMUM HORIZONTAL MULLION SPAN

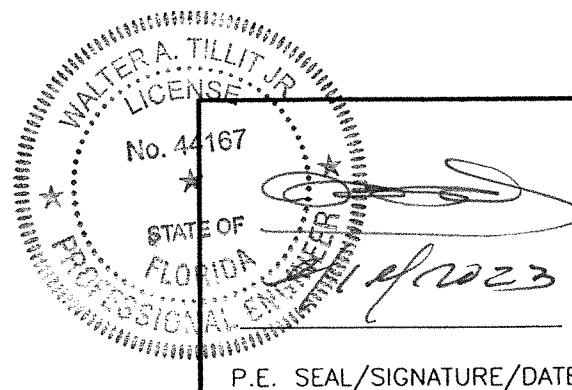
"D.L.O." = HORIZONTAL MULLION MAX. EFFECTIVE DAY LIGHT OPENING = $\frac{D.L.O.1 + D.L.O.2}{2}$

MAXIMUM HORIZONTAL MULLION SPAN "L"(FT) SCHEDULE FOR A GIVEN HORIZONTAL MULLION EFFECTIVE "D.L.O."(FT) AND A GIVEN A.S.D. DESIGN PRESSURE RATING (psf)		
MAXIMUM A.S.D. DESIGN PRESSURE RATING (psf)	MAX. EFFECTIVE DAY LIGHT OPENING "DLO" (Ft-in)	MAXIMUM HORIZONTAL MULLION SPAN
		LAMINATED/INSULATED GLASS "L" (Ft)
± 40.0	2'-0"	7'-0"
	2'-6"	7'-0"
	3'-0"	7'-0"
	3'-6"	7'-0"
	4'-0"	7'-0"
	4'-6"	7'-0"
	5'-0"	7'-0"
	5'-6"	7'-0"
	6'-0"	7'-0"
	6'-6"	7'-0"
± 45.0	2'-0"	7'-0"
	2'-6"	7'-0"
	3'-0"	7'-0"
	3'-6"	7'-0"
	4'-0"	7'-0"
	4'-6"	7'-0"
	5'-0"	7'-0"
	5'-6"	7'-0"
	6'-0"	7'-0"
	6'-6"	7'-0"
± 50.0	2'-0"	7'-0"
	2'-6"	7'-0"
	3'-0"	7'-0"
	3'-6"	7'-0"
	4'-0"	7'-0"
	4'-6"	7'-0"
	5'-0"	7'-0"
	5'-6"	7'-0"
	6'-0"	7'-0"
	6'-6"	7'-0"
± 55.0	2'-0"	7'-0"
	2'-6"	7'-0"
	3'-0"	7'-0"
	3'-6"	7'-0"
	4'-0"	7'-0"
	4'-6"	7'-0"
	5'-0"	7'-0"
	5'-6"	7'-0"
	6'-0"	7'-0"
	6'-6"	7'-0"

MAXIMUM HORIZONTAL MULLION SPAN "L"(FT) SCHEDULE FOR A GIVEN HORIZONTAL MULLION EFFECTIVE "D.L.O."(FT) AND A GIVEN A.S.D. DESIGN PRESSURE RATING (psf) (CONTINUED)		
MAXIMUM A.S.D. DESIGN PRESSURE RATING (psf)	MAX. EFFECTIVE DAY LIGHT OPENING "DLO" (Ft-in)	MAXIMUM HORIZONTAL MULLION SPAN
		LAMINATED/INSULATED GLASS "L" (Ft)
± 60.0	2'-0"	7'-0"
	2'-6"	7'-0"
	3'-0"	7'-0"
	3'-6"	7'-0"
	4'-0"	7'-0"
	4'-6"	7'-0"
	5'-0"	7'-0"
	5'-6"	7'-0"
	6'-0"	7'-0"
	6'-6"	7'-0"
± 65.0	2'-0"	7'-0"
	2'-6"	7'-0"
	3'-0"	7'-0"
	3'-6"	7'-0"
	4'-0"	7'-0"
	4'-6"	7'-0"
	5'-0"	7'-0"
	5'-6"	7'-0"
	6'-0"	7'-0"
	6'-6"	7'-0"
± 70.0	2'-0"	7'-0"
	2'-6"	7'-0"
	3'-0"	7'-0"
	3'-6"	7'-0"
	4'-0"	7'-0"
	4'-6"	7'-0"
	5'-0"	7'-0"
	5'-6"	7'-0"
	6'-0"	7'-0"
	6'-6"	7'-0"
± 75.0	2'-0"	7'-0"
	2'-6"	7'-0"
	3'-0"	7'-0"
	3'-6"	7'-0"
	4'-0"	7'-0"
	4'-6"	7'-0"
	5'-0"	7'-0"
	5'-6"	7'-0"
	6'-0"	7'-0"
	6'-6"	7'-0"

MAXIMUM HORIZONTAL MULLION SPAN "L"(FT) SCHEDULE FOR A GIVEN HORIZONTAL MULLION EFFECTIVE "D.L.O."(FT) AND A GIVEN A.S.D. DESIGN PRESSURE RATING (psf) (CONTINUED)		
MAXIMUM A.S.D. DESIGN PRESSURE RATING (psf)	MAX. EFFECTIVE DAY LIGHT OPENING "DLO" (Ft-in)	MAXIMUM HORIZONTAL MULLION SPAN
		LAMINATED/INSULATED GLASS "L" (Ft)
± 80.0	2'-0"	7'-0"
	2'-6"	7'-0"
	3'-0"	7'-0"
	3'-6"	7'-0"
	4'-0"	7'-0"
	4'-6"	7'-0"
	5'-0"	7'-0"
	5'-6"	7'-0"
	6'-0"	7'-0"
	6'-6"	7'-0"
± 85.0	2'-0"	7'-0"
	2'-6"	7'-0"
	3'-0"	7'-0"
	3'-6"	7'-0"
	4'-0"	7'-0"
	4'-6"	7'-0"
	5'-0"	7'-0"
	5'-6"	7'-0"
	6'-0"	7'-0"
	6'-6"	6'-10"
± 90.0	2'-0"	7'-0"
	2'-6"	7'-0"
	3'-0"	7'-0"
	3'-6"	7'-0"
	4'-0"	7'-0"
	4'-6"	7'-0"
	5'-0"	7'-0"
	5'-6"	7'-0"
	6'-0"	6'-11"
	6'-6"	6'-5"
± 95.0	2'-0"	7'-0"
	2'-6"	7'-0"
	3'-0"	7'-0"
	3'-6"	7'-0"
	4'-0"	7'-0"
	4'-6"	7'-0"
	5'-0"	7'-0"
	5'-6"	7'-0"
	6'-0"	6'-7"
	6'-6"	6'-1"

OPTIONAL SYSTEM # 2



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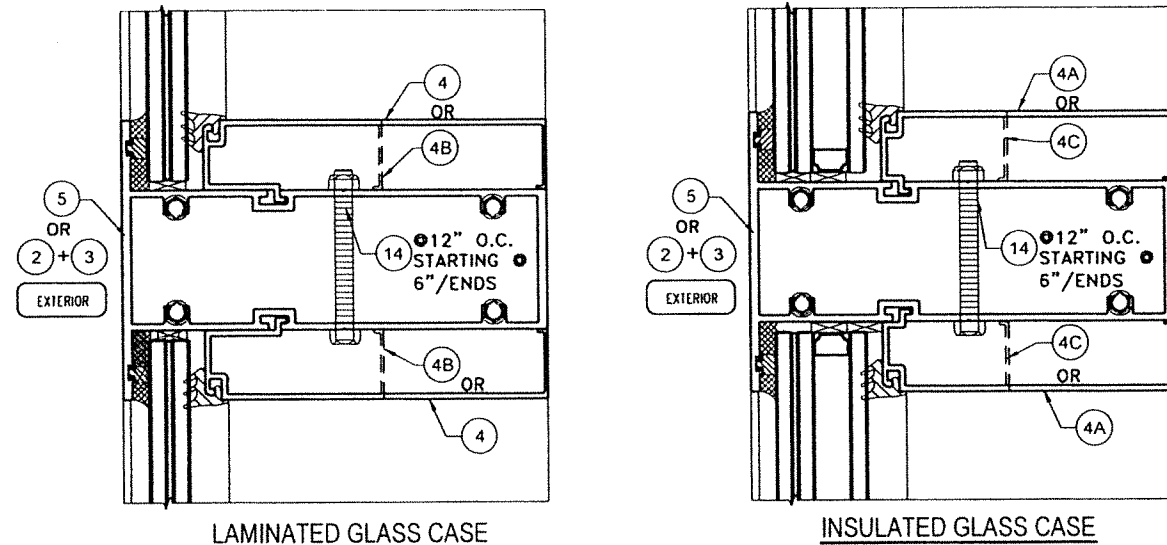
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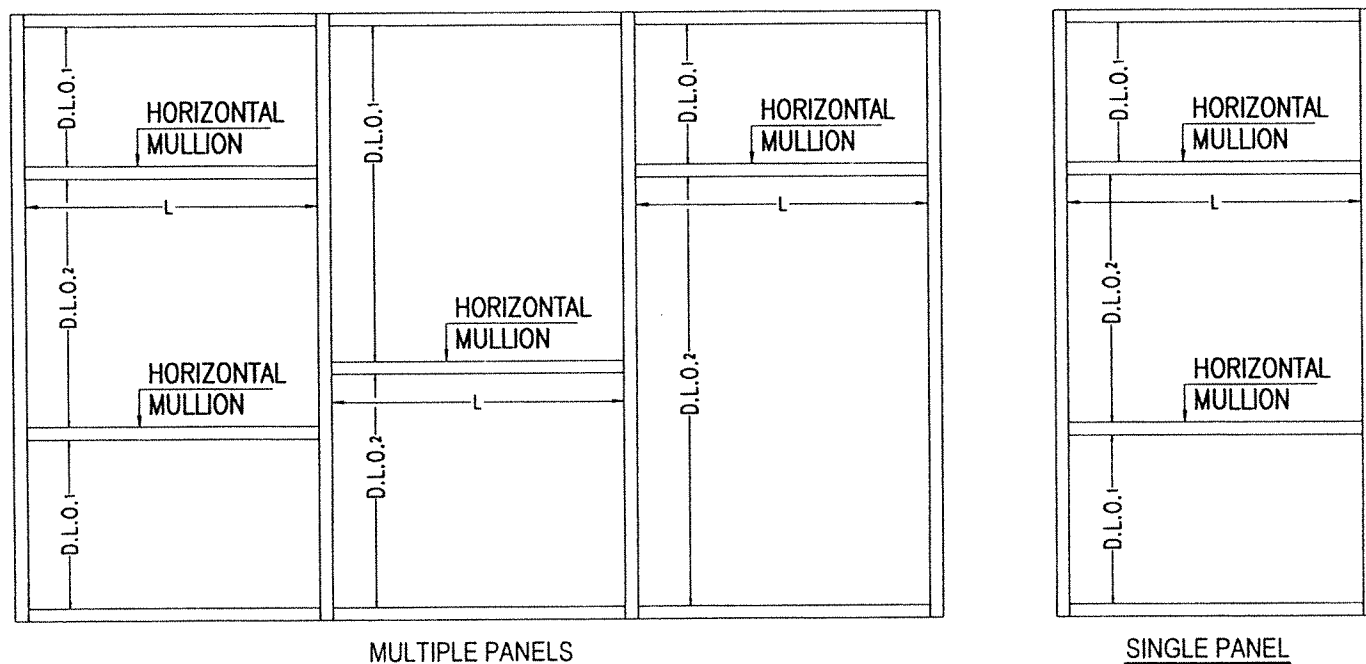
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SHEET 44 OF 51

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1	OLD 21-118	09/12/23	3	-	-
2	-	-	4	-	-



SECTION AT HORIZONTAL MULLIONS

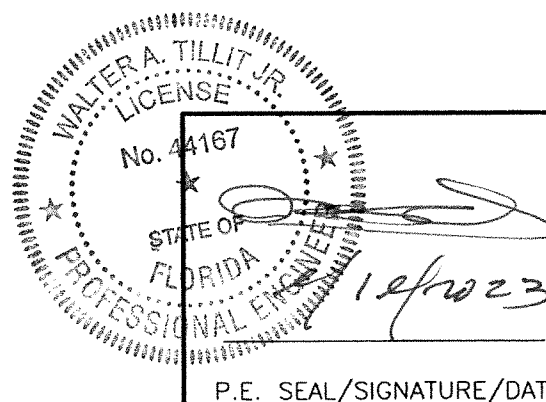


ELEVATIONS W/ HORIZONTAL MULLIONS

"L" = MAXIMUM HORIZONTAL MULLION SPAN

"D.L.O." = HORIZONTAL MULLION EFFECTIVE DAY LIGHT OPENING = $\frac{D.L.O.1 + D.L.O.2}{2}$

OPTIONAL SYSTEM # 2



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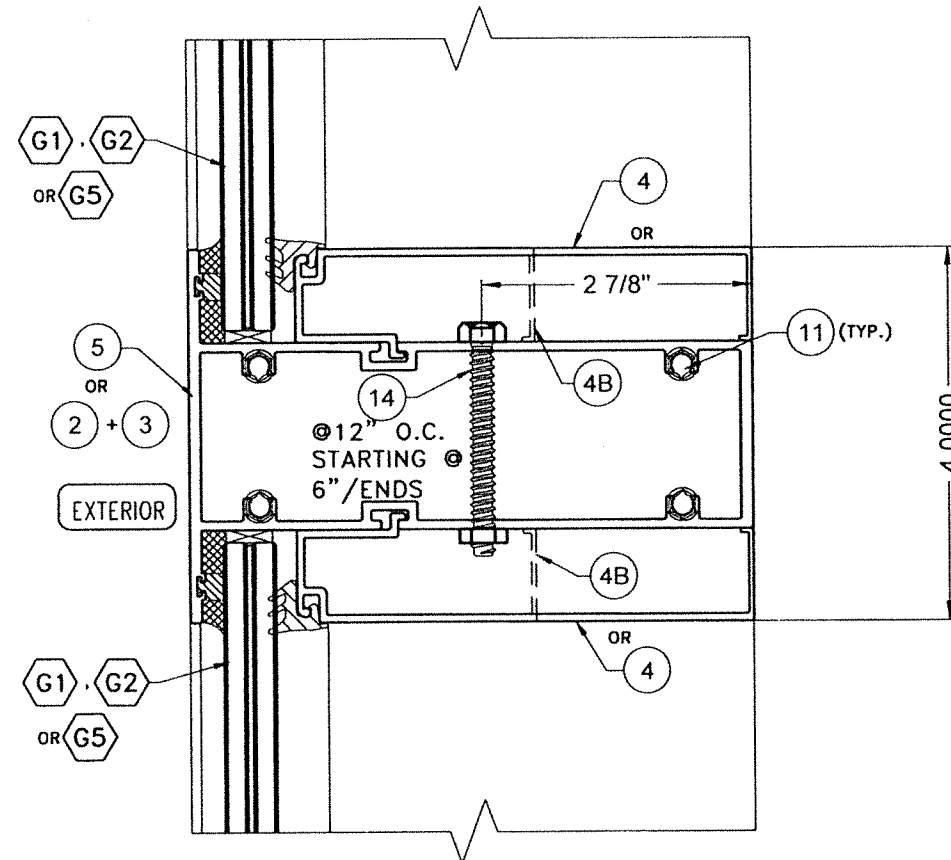
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DRAWING No

SHEET 44A OF 51

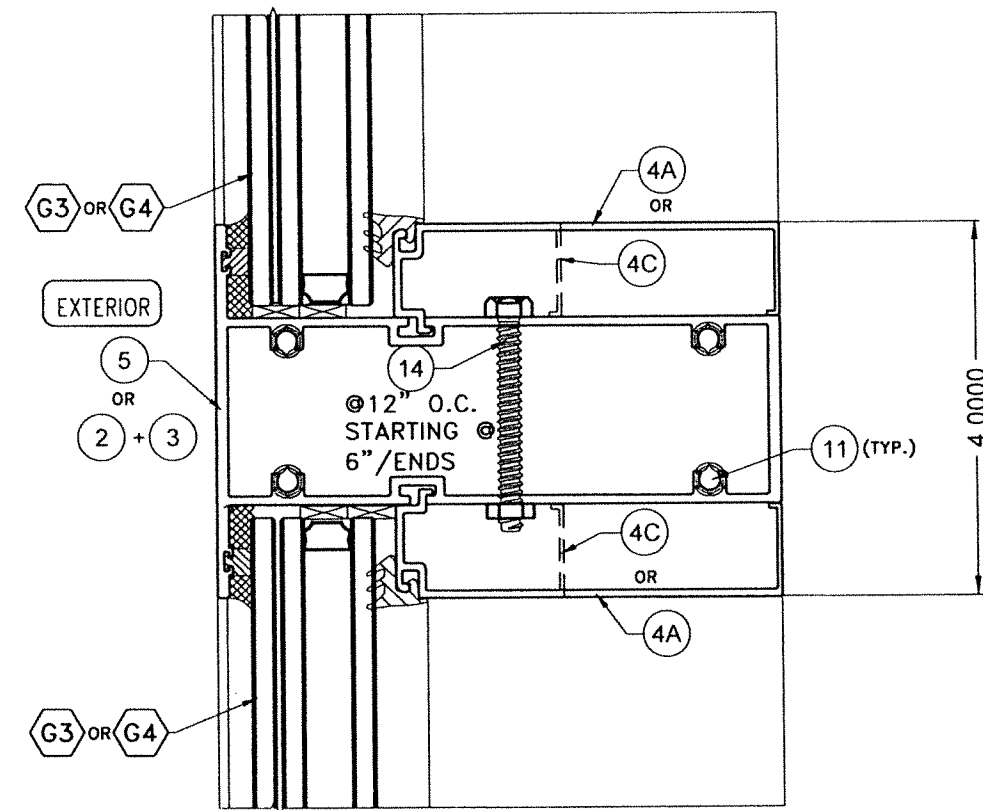
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HORIZONTAL MULLION DETAILS

OPTIONAL SYSTEM # 2



7
HORIZONTAL MULLION



7A
HORIZONTAL MULLION

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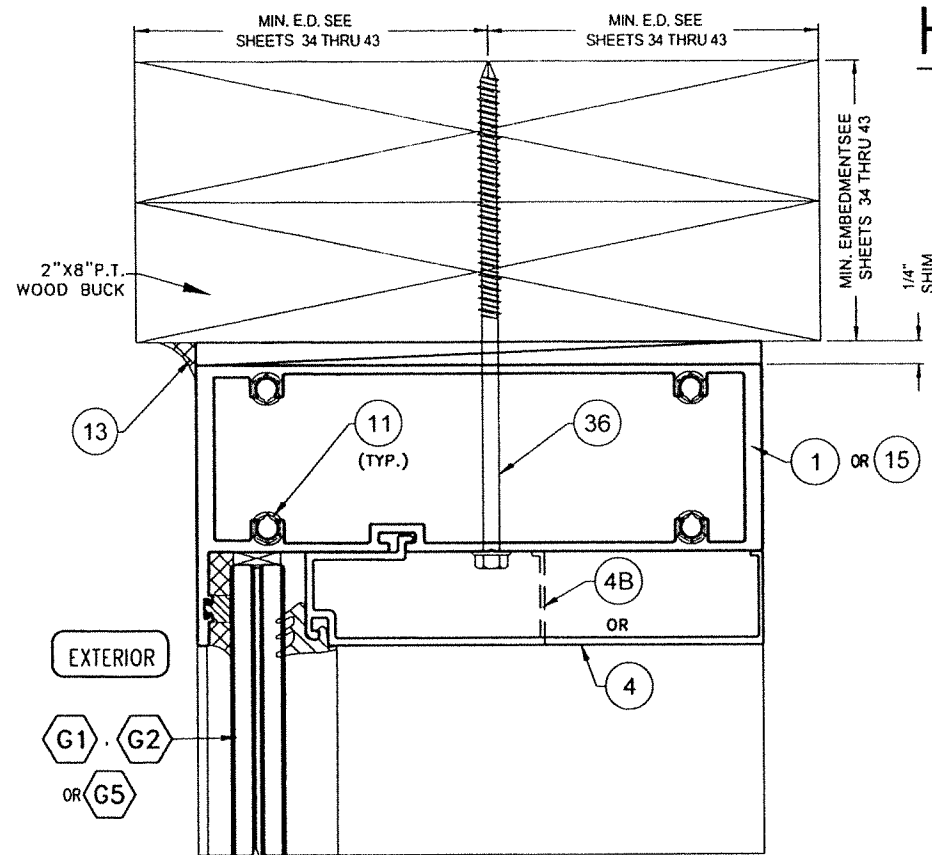
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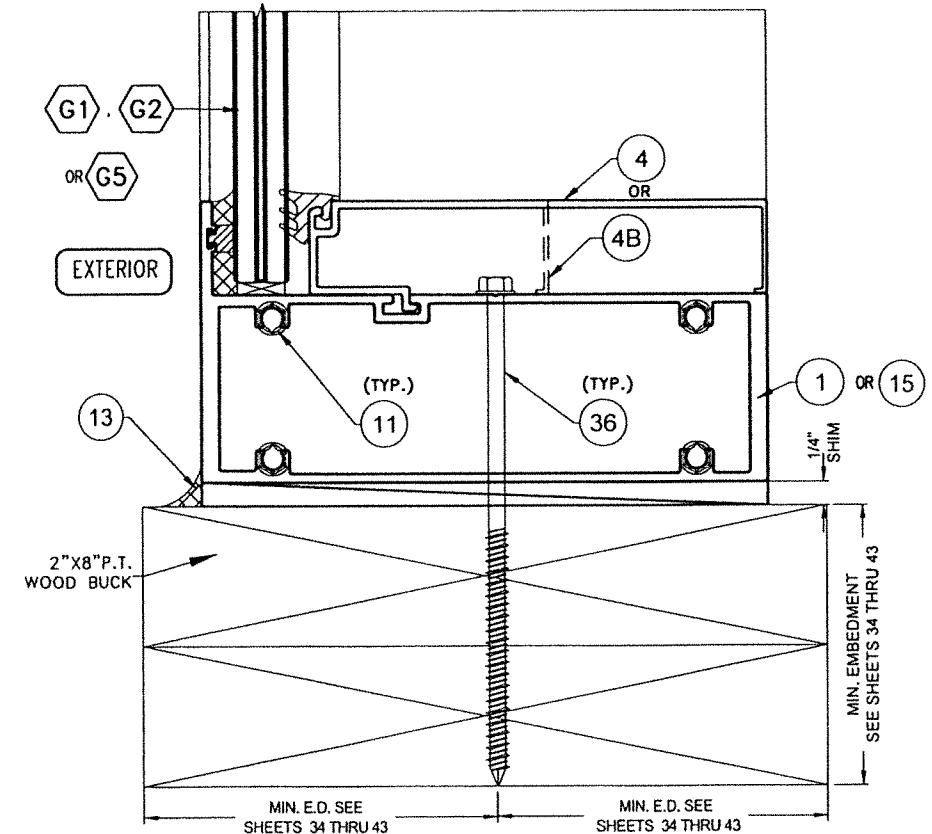
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SHEET 45 OF 51

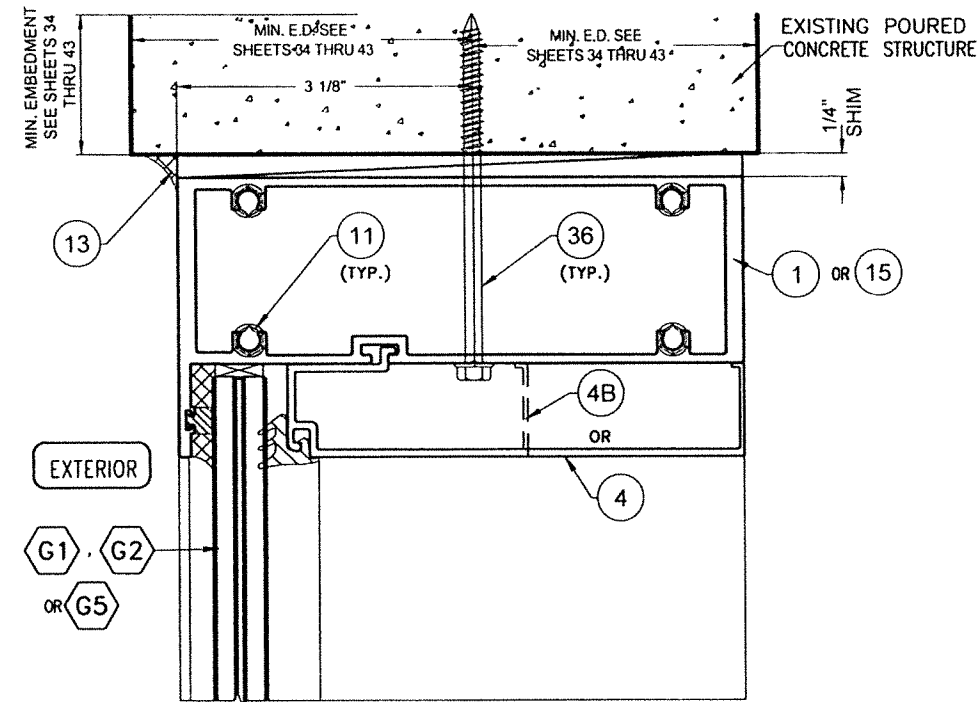
HEAD & SILL CONNECTIONS DETAILS



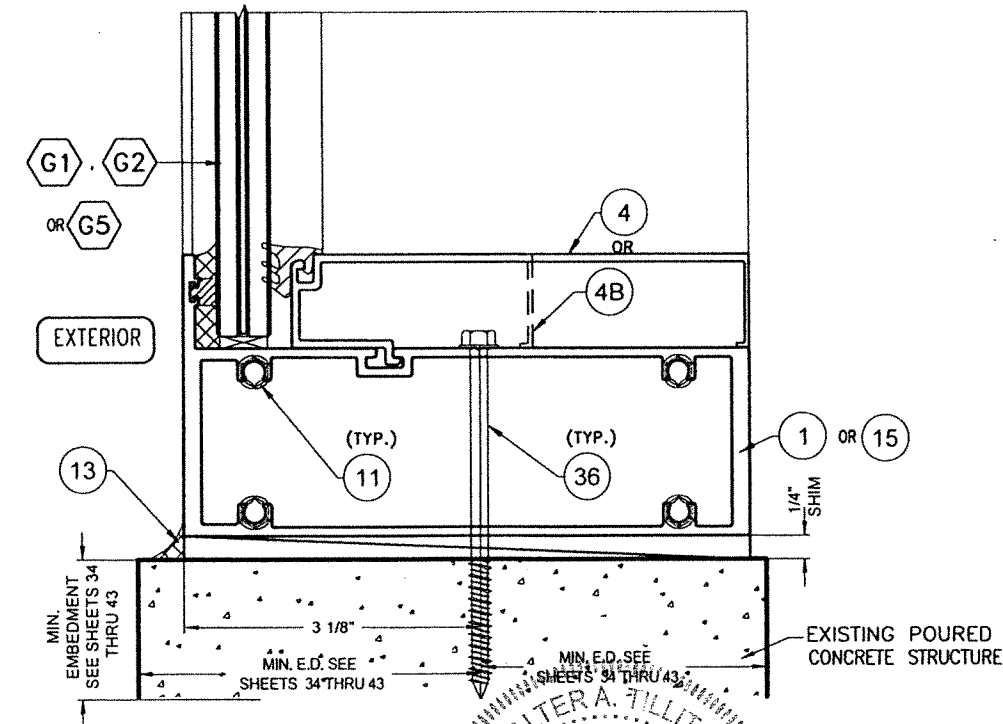
1 HEAD



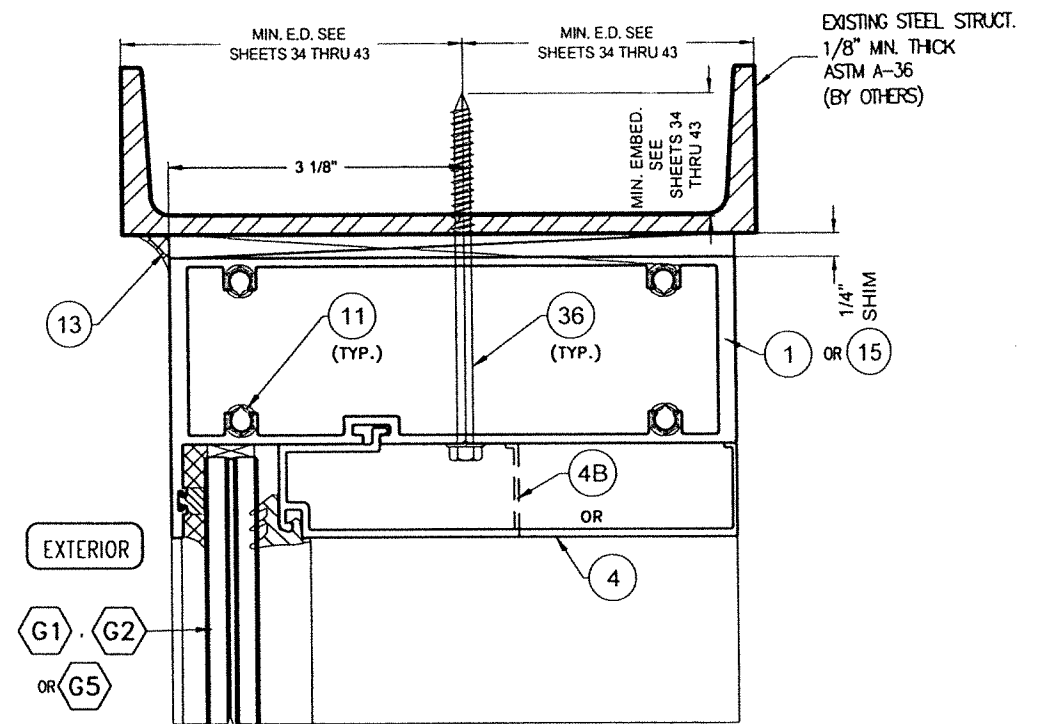
2 SILL



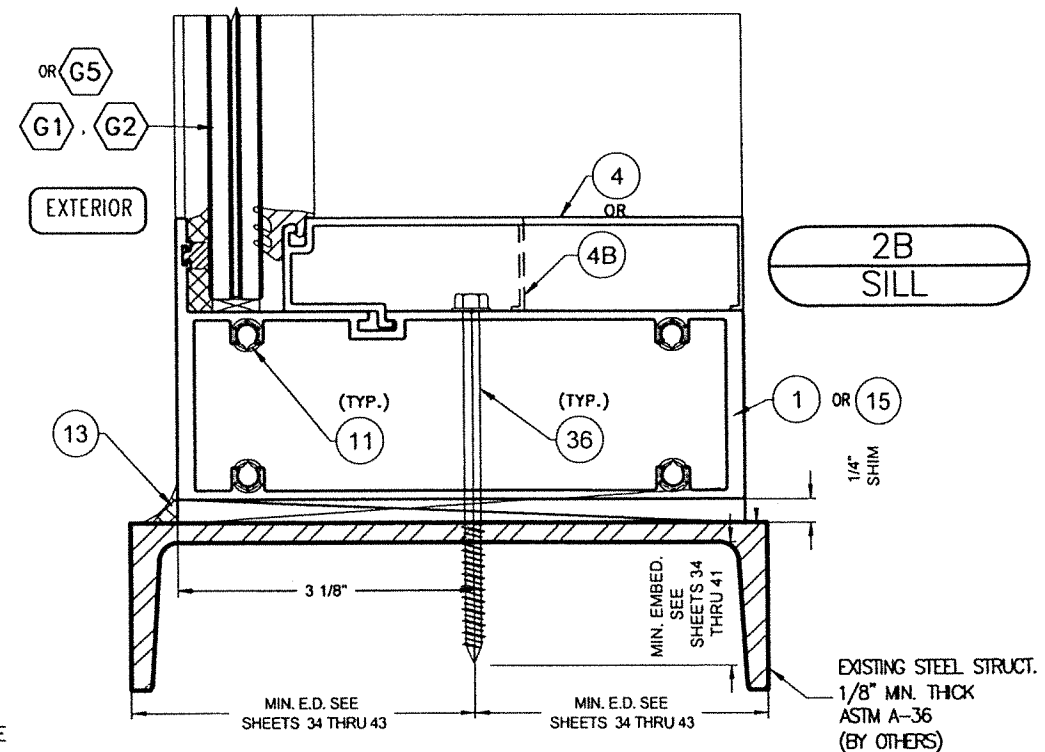
1A HEAD



2A SILL



1B HEAD



2B SILL

OPTIONAL SYSTEM # 2

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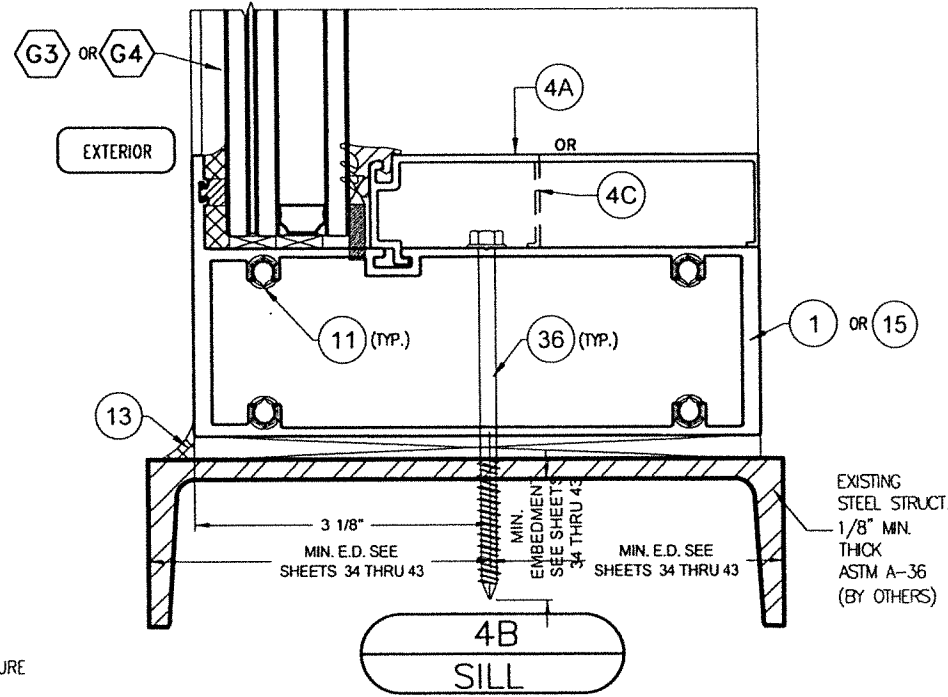
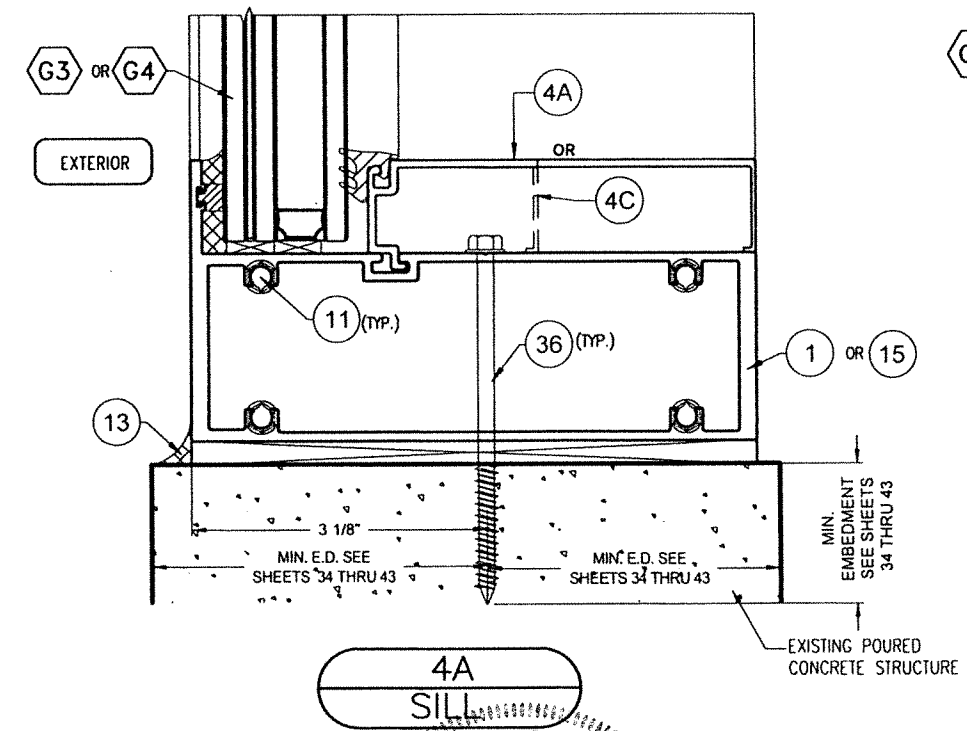
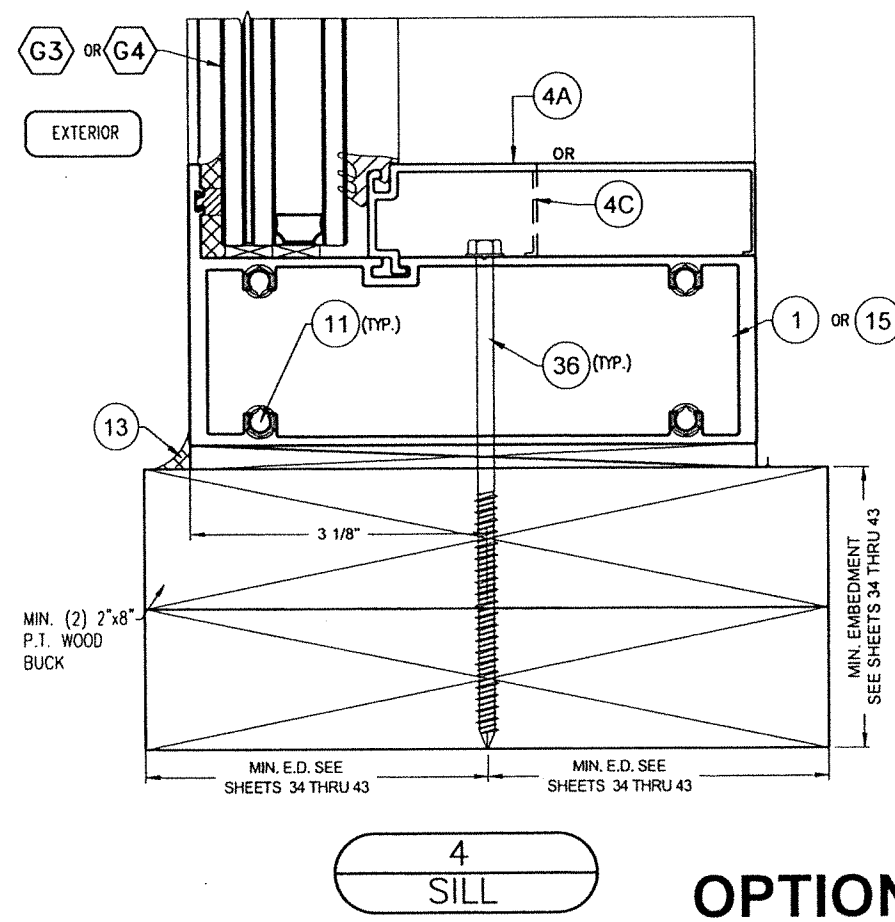
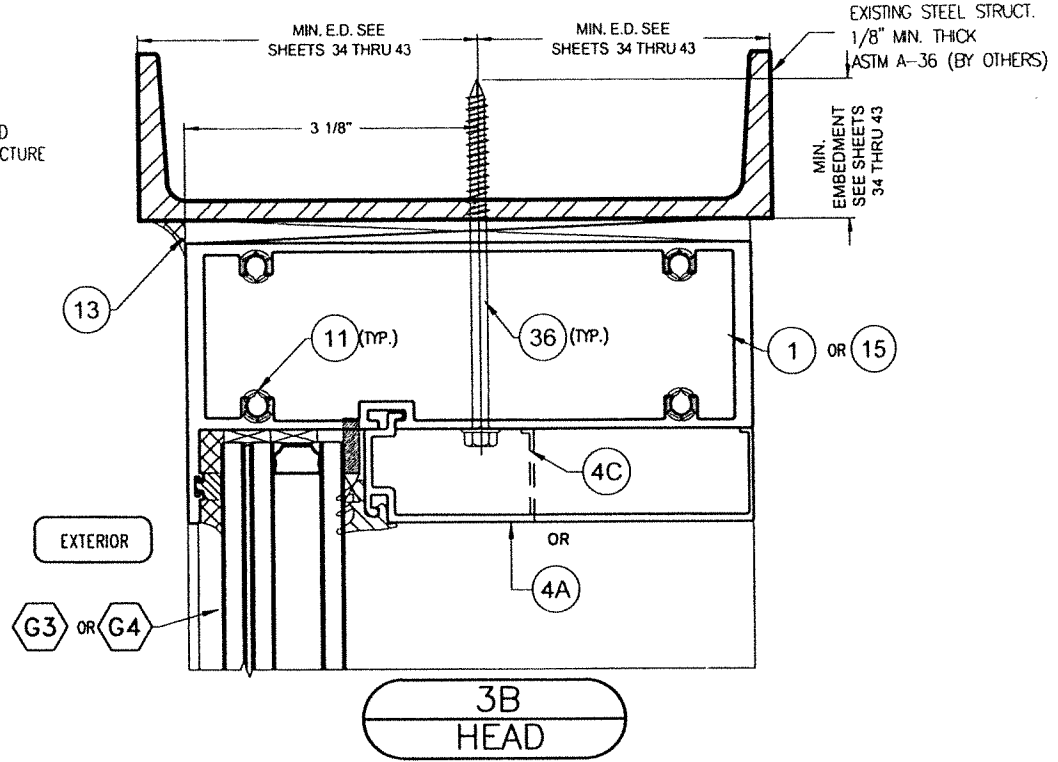
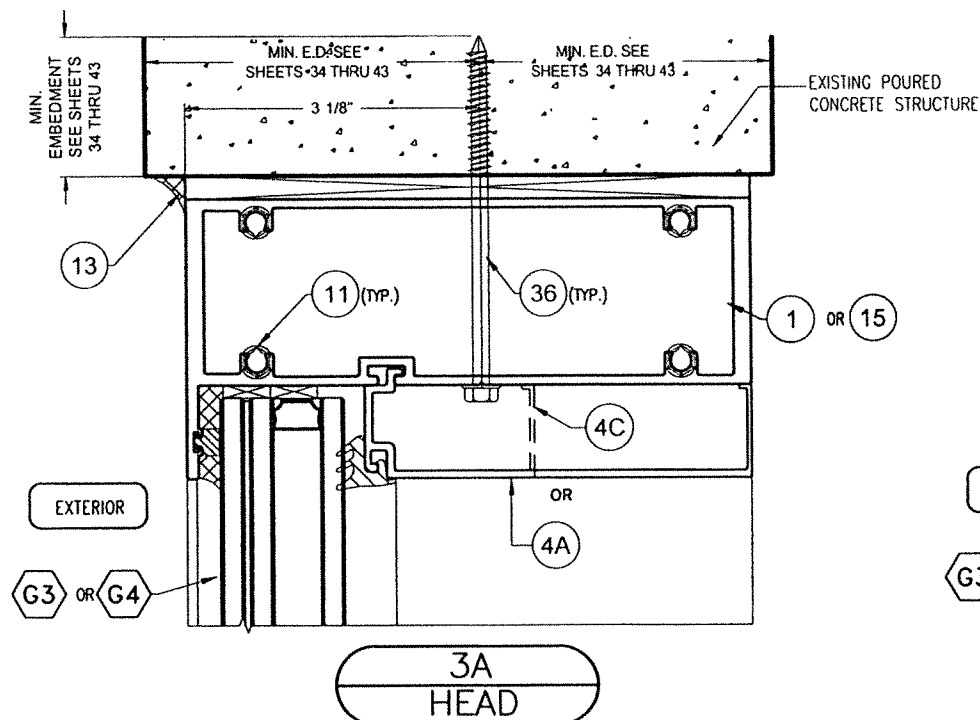
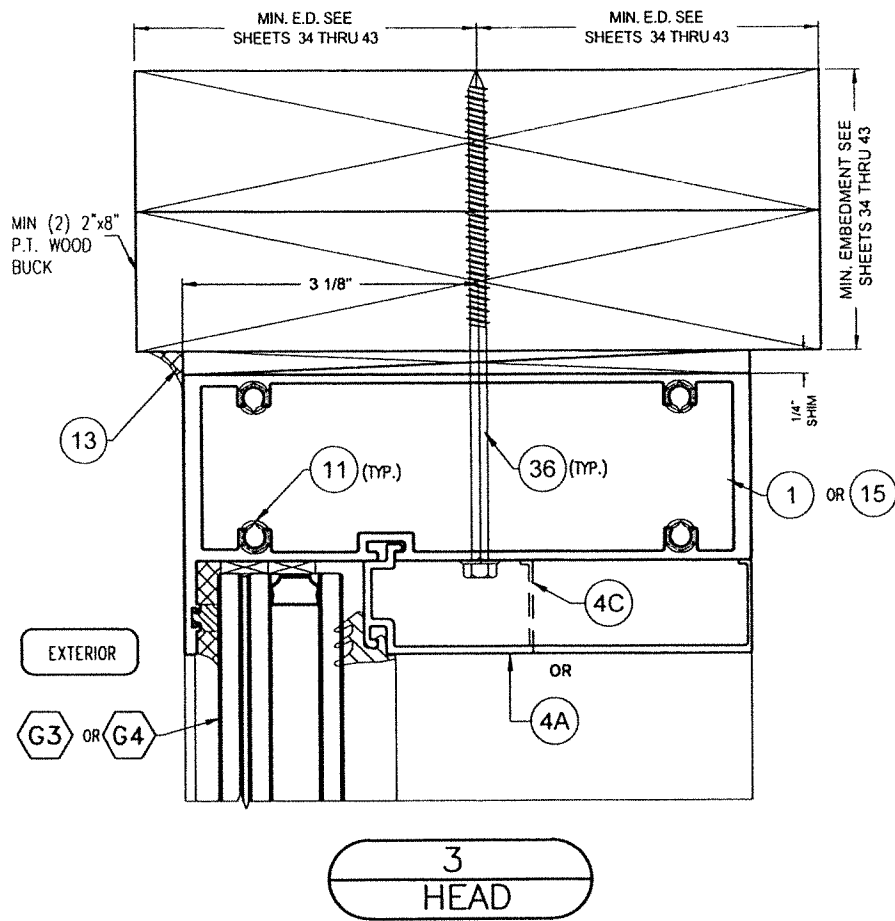
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1	OLD 21-118	09/12/23	3	-	-
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HEAD & SILL CONNECTIONS DETAILS (CONTINUED)



OPTIONAL SYSTEM # 2

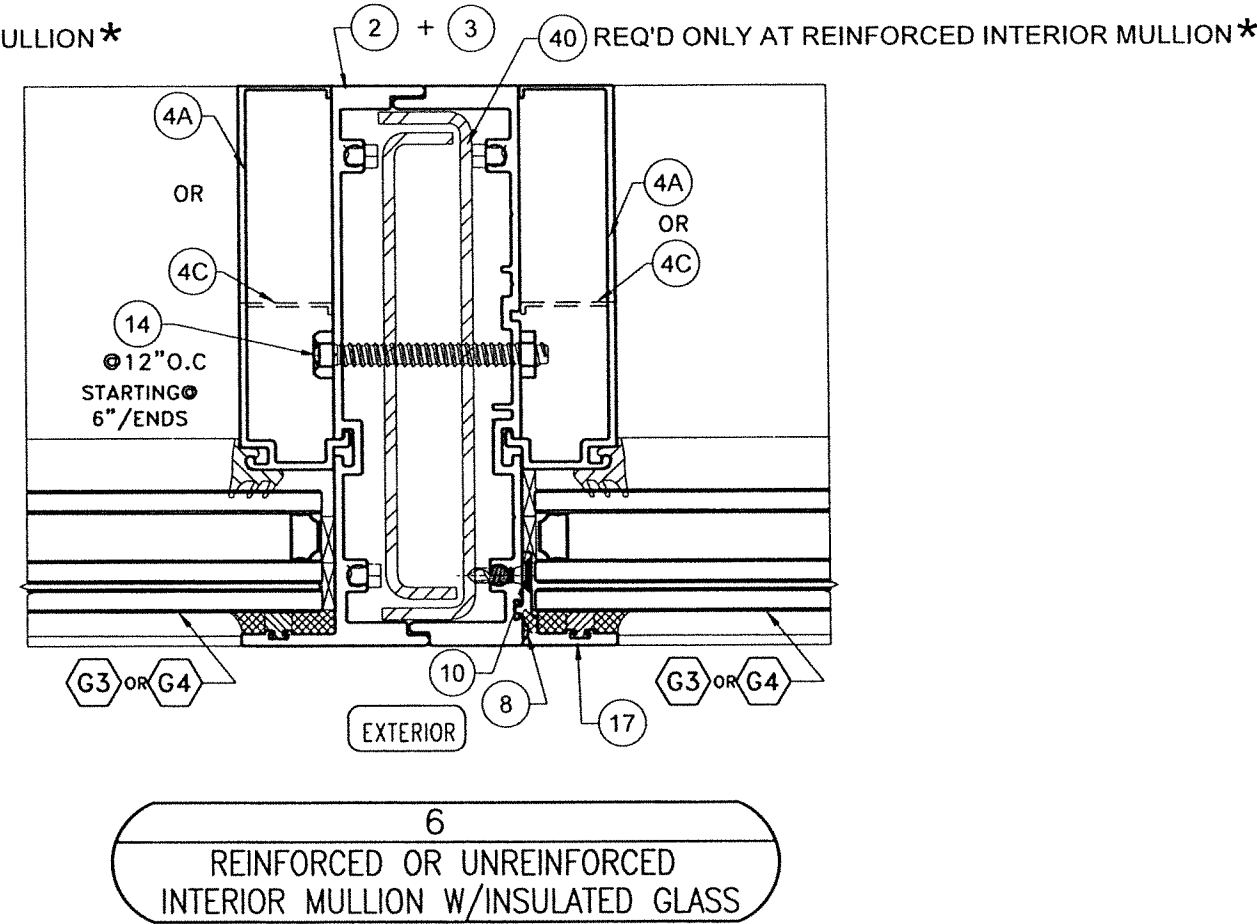
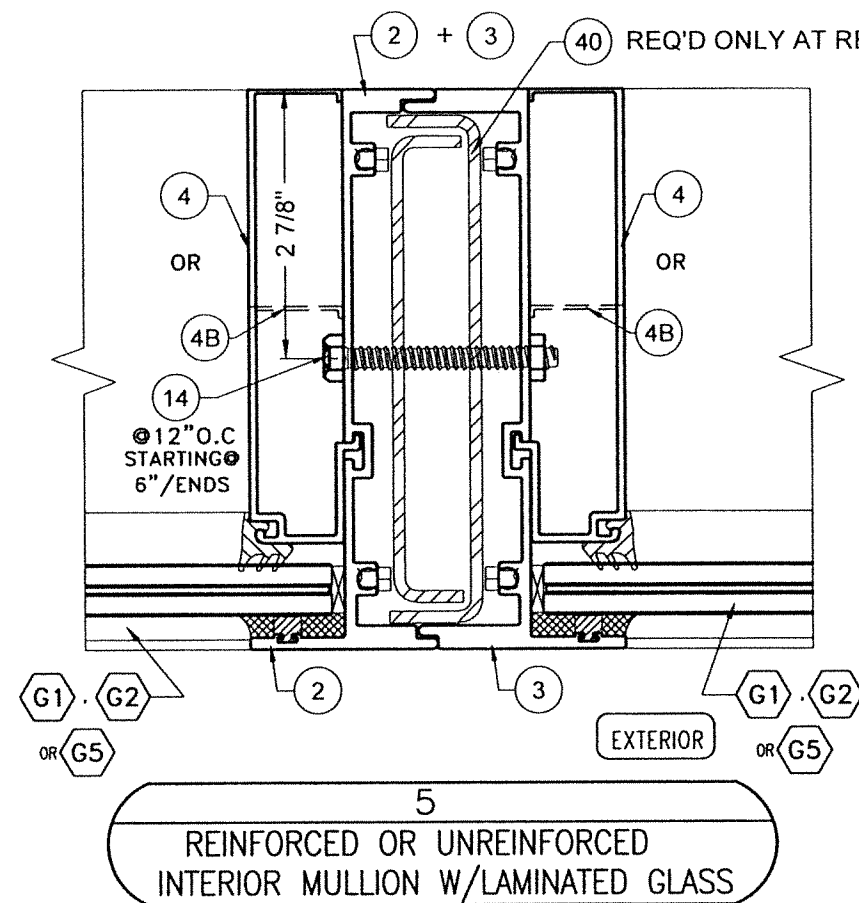
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HIGH IMPACT GREEN WORLD FIXED GLASS WALL SERIES 12000 LARGE MISSILE LAMINATED & INSULATED GLASS						W.H. DRAWN BY
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HORIZONTAL SECTIONS AT REINFORCED OR UNREINFORCED INTERIOR MULLIONS
AT STRAIGHT GLASS WALL APPLICATIONS
OPTIONAL SYSTEM # 2



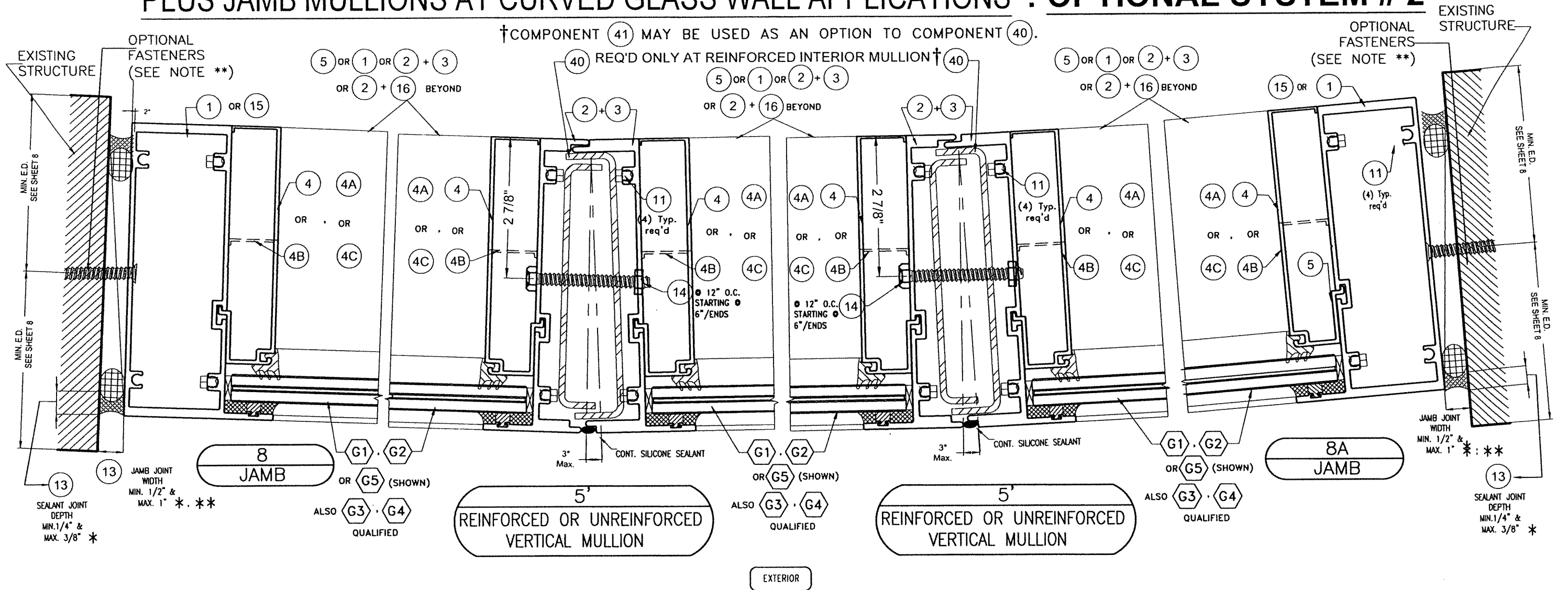
*COMPONENT (41) MAY BE USED AS AN OPTION TO COMPONENT (40).

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REV. No. DESCRIPTION DATE REV. No. DESCRIPTION DATE				23-213 DRAWING No			
1 OLD 21-118 09/12/23 3 - -				SHEET 48 OF 51			
2 - - 4 - -							

HORIZONTAL SECTIONS AT REINFORCED OR UNREINFORCED INTERIOR VERTICAL MULLIONS
PLUS JAMB MULLIONS AT CURVED GLASS WALL APPLICATIONS : **OPTIONAL SYSTEM # 2**



** ALTERNATIVELY, JAMB JOINT WIDTH MAY BE REDUCED TO A WIDTH LESS THAN 1/2" IF JAMB PROFILE IS ATTACHED TO WALL FULL HEIGHT W/ THE FOLLOWING FASTENERS.

* NOTE: ABOVE INDICATED MAXIMUM AND MINIMUM VALUES FOR SPECIFIED SEALANT VERTICAL JOINT WIDTH AT JAMBS NOT CONNECTED TO WALL (FREE STANDING) HAVE BEEN DETERMINED ONLY TAKING INTO CONSIDERATION THE ACTUAL MOVEMENT OF GLASS WALL AT JAMBS DUE TO THERMAL, WIND AND ITS OWN CONSTRUCTION TOLERANCE, AND NOT PERFORMANCE FACTORS FROM THE SURROUNDING STRUCTURE.

SUBSTRATE Δ	FASTENERS TYPES Δ		SPACING
	3/8" SHIM SPACE OR LESS	>3/8" , <1/2" SHIM SPACE	
POURED CONCRETE	FASTENER TYPE A	FASTENER TYPE B	6" O.C.
2500 psi GROUT FILLED ASTM C-90 CONCRETE BLOCK	FASTENER TYPE A	FASTENER TYPE B	6" O.C.
STEEL OR ALUMINUM	FASTENER TYPE E	FASTENER TYPE E	6" O.C.
WOOD	FASTENER TYPES C & D	FASTENER TYPE D	5" O.C.

Δ CORRESPONDS TO FASTENERS TYPES AND SUBSTRATES CHARACTERISTICS (AS APPLICABLE) DESCRIBED ON SHEET'S 34 THRU 43.

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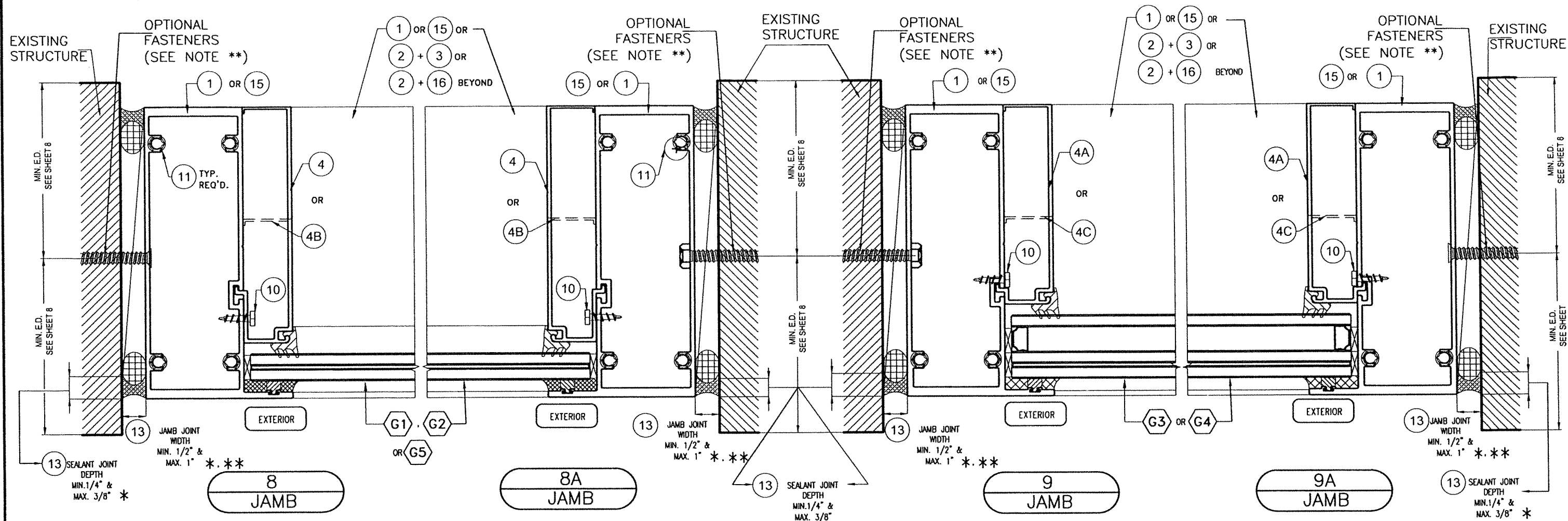
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HEET 49 OF 51

HORIZONTAL SECTIONS AT JAMB MULLION AT STRAIGHT GLASS WALL APPLICATIONS : **OPTIONAL SYSTEM # 2**



** ALTERNATIVELY, JAMB JOINT WIDTH MAY BE REDUCED TO A WIDTH LESS THAN 1/2" IF JAMB PROFILE IS ATTACHED TO WALL FULL HEIGHT W/ THE FOLLOWING FASTENERS.

* **NOTE:** ABOVE INDICATED MAXIMUM AND MINIMUM VALUES FOR SPECIFIED SEALANT VERTICAL JOINT WIDTH AT JAMBS NOT CONNECTED TO WALL (FREE STANDING) HAVE BEEN DETERMINED ONLY TAKING INTO CONSIDERATION THE ACTUAL MOVEMENT OF GLASS WALL AT JAMBS DUE TO THERMAL, WIND AND ITS OWN CONSTRUCTION TOLERANCE, AND NOT PERFORMANCE FACTORS FROM THE SURROUNDING STRUCTURE.

SUBSTRATE Δ	FASTENERS TYPES Δ		SPACING
	3/8" SHIM SPACE OR LESS	>3/8" , <1/2" SHIM SPACE	
POURED CONCRETE	FASTENER TYPE A	FASTENER TYPE B	6" O.C.
2500 psi GROUT FILLED ASTM C-90 CONCRETE BLOCK	FASTENER TYPE A	FASTENER TYPE B	6" O.C.
STEEL OR ALUMINUM	FASTENER TYPE E	FASTENER TYPE E	6" O.C.
WOOD	FASTENER TYPES C & D	FASTENER TYPE D	5" O.C.

Δ CORRESPONDS TO FASTENERS TYPES AND SUBSTRATES CHARACTERISTICS (AS APPLICABLE) DESCRIBED ON SHEET'S 34 THRU 43.

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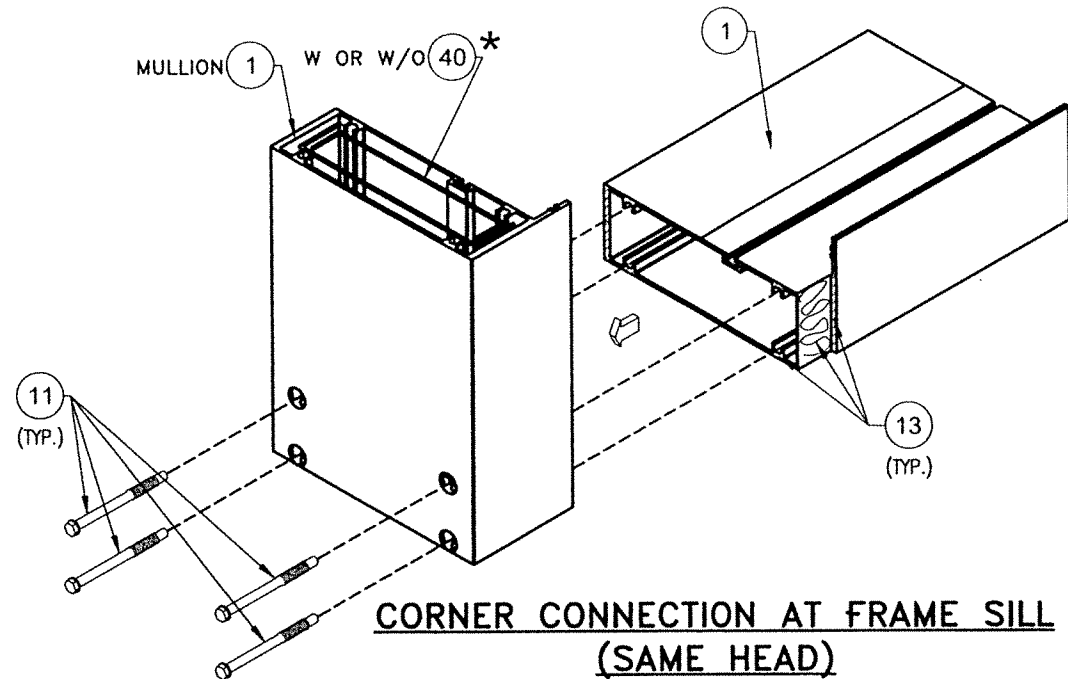
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SERIES 12000 LARGE MISSILE LAMINATED &
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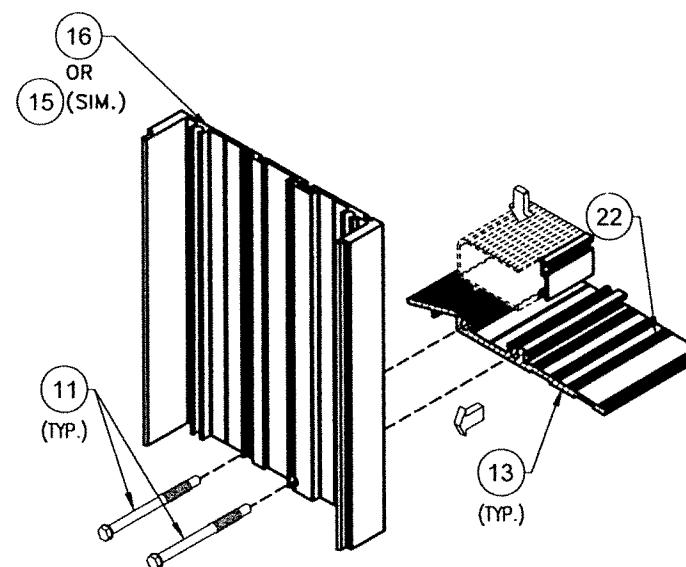
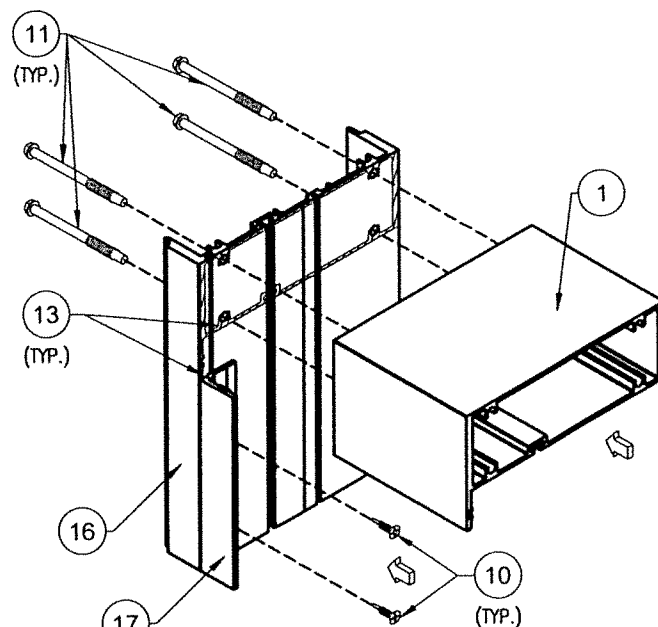
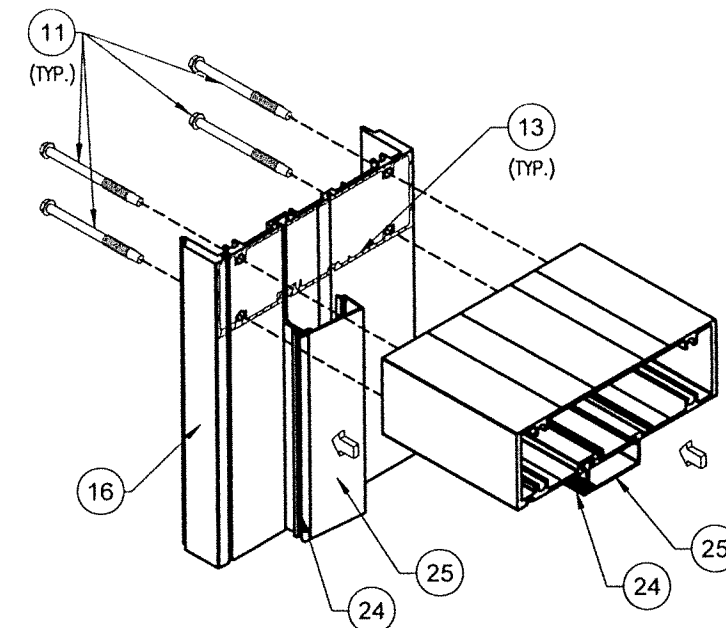
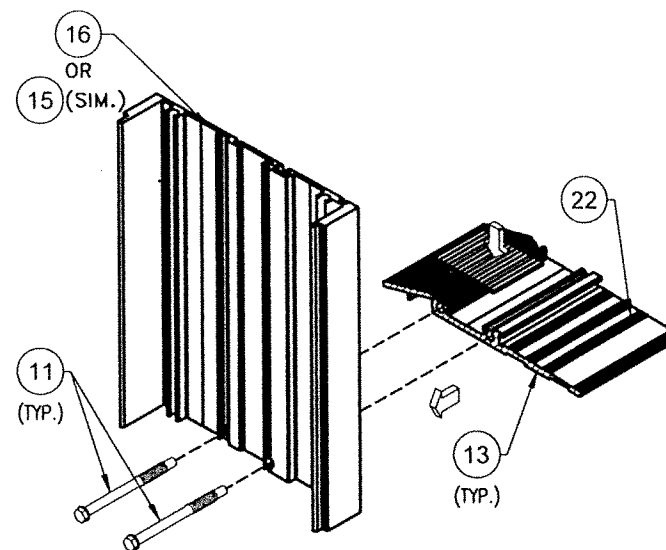
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SHEET 50 OF 51

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1	OLD 21-118	09/12/23	3	-	-
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*COMPONENT (41) MAY BE USED AS AN OPTION TO COMPONENT (40).



CORNER DETAILS: OPTIONAL SYSTEM # 2 (ISOMETRIC)

NTS

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2	-	-	4	-	-

SHEET 51 OF 51