SERIES SMI-245 ALUMINUM STOREFRONT SYSTEM.

THIS SYSTEM MAY BE USED IN CONJUNCTION WITH "ALDORA ALUMINUM & GLASS PRODUCTS" APPROVED DOOR PRODUCTS.
LOWER DESIGN PRESSURE FROM STOREFRONT OR DOOR APPROVAL WILL APPLY TO ENTIRE SYSTEM.

CODE REQUIREMENTS FOR SAFEGUARDS MUST BE OBSERVED.

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

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

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

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

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

INSTRUCTIONS:

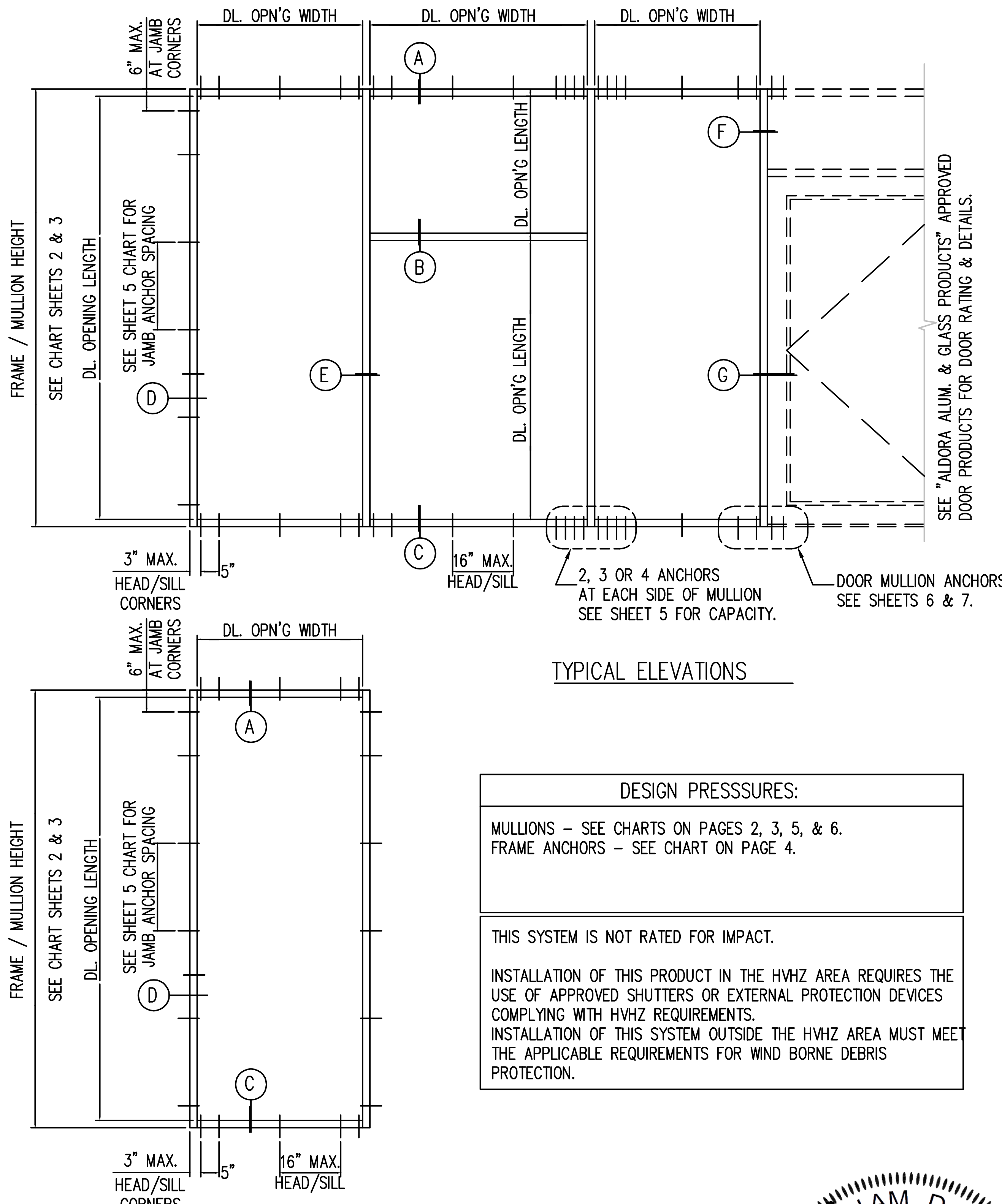
USE CHARTS AS FOLLOWS

STEP 1.– DETERMINE DESIGN WIND LOAD REQUIREMENT BASED ON THE WIND VELOCITY, BUILDING HEIGHT, WIND ZONE USING APPLICABLE ASCE 7 STANDARD.

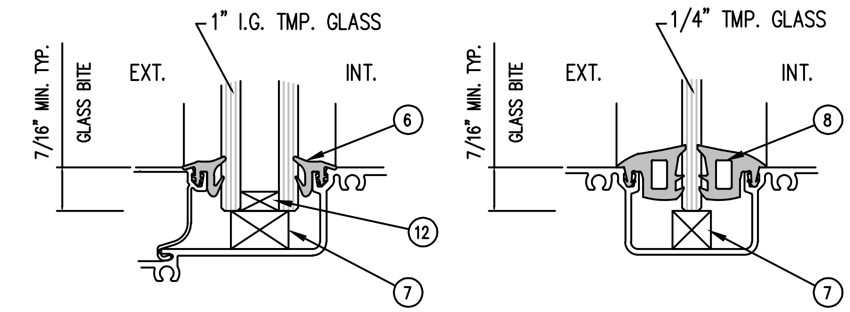
STEP 2.– CHECK MULLION CAPACITY FOR A GIVEN SPACING AND HEIGHT USING CHARTS ON SHEETS 2 & 3 FOR STOREFRONT MULLION AND SHEETS 5 & 6 FOR DOOR MULLION.
THE CAPACITY SHOULD EXCEED THE DESIGN LOAD.

STEP 3.– USING CHART ON SHEET 4 SELECT ANCHOR OPTION WITH DESIGN RATING MORE THAN DESIGN LOAD SPECIFIED IN STEP 1 ABOVE.

STEP 4.– THE LOWEST VALUE RESULTING FROM STEPS 2, 3 AND 4 SHALL APPLY TO THE ENTIRE SYSTEM.



TYPICAL ELEVATIONS



GLASS TYPE –G1

1" INSULATED TEMPERED GLASS
1/4" TEMPERED –
1/2" AIRSPACE –
1/4" TEMPERED

GLASS TYPE –G2

1/4" TEMPERED GLASS

GLAZING DETAILS

GLASS TYPES G1 & G2 ARE APPROVED FOR ALL MULLION CONFIGURATIONS SHOWN ON SHEETS 2-5.

DESIGN PRESSSURES:
MULLIONS – SEE CHARTS ON PAGES 2, 3, 5, & 6. FRAME ANCHORS – SEE CHART ON PAGE 4.

THIS SYSTEM IS NOT RATED FOR IMPACT.

INSTALLATION OF THIS PRODUCT IN THE HVHZ AREA REQUIRES THE USE OF APPROVED SHUTTERS OR EXTERNAL PROTECTION DEVICES COMPLYING WITH HVHZ REQUIREMENTS.
INSTALLATION OF THIS SYSTEM OUTSIDE THE HVHZ AREA MUST MEET THE APPLICABLE REQUIREMENTS FOR WIND BORNE DEBRIS PROTECTION.

PROJECT NAME: SMI 245 SERIES STOREFRONT SYSTEM		
DRAWING NUMBER: SMI-245-PA-1	DRAW BY: M.G.	PRODUCT APPROVAL NO.: FL 35263.1
SHT. 1 OF 10	SCALE:	DATE: 04/08/2021

ALDORA
ALUMINUM AND GLASS PRODUCTS, INC.

4250 CORAL RIDGE DRIVE
CORAL SPRINGS, FL 33065
PHONE: 954–784–6900
FAX: 954–688–9816

SEAL
WILLIAM D. COOK LICENSE No. 43904 STATE OF FLORIDA PROFESSIONAL ENGINEER

04/19/2021
William D. Cook, PE
Digitally signed by William D. Cook, PE Date: 2021.04.19 10:20:17 -04'00'

WILLIAM D. COOK P.E.
FLA P.E. #43904, FLA S.I. #2008

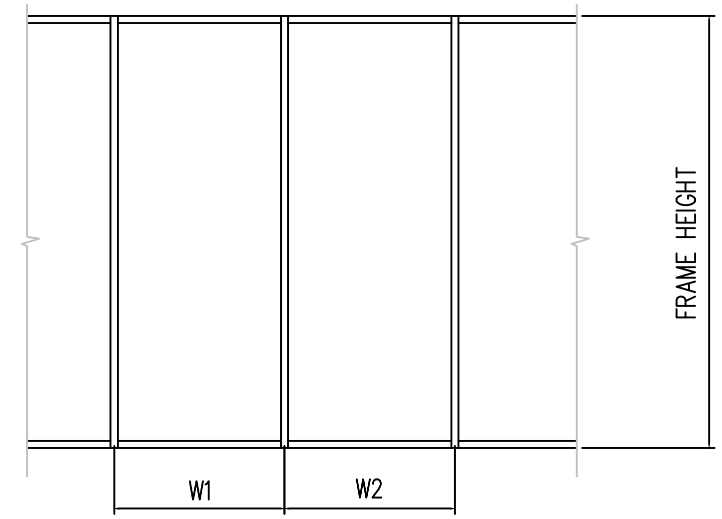
BROMLEY·COOK ENGINEERING, INC.
STRUCTURAL ENGINEERING SERVICES
5440 N.W. 33RD AVENUE SUITE 100
FORT LAUDERDALE, FLORIDA 33309
TEL: (954) 772–4624 FAX: (954) 772–4634

MULLION LOAD CAPACITY – PSF
WITHOUT INTERMEDIATE HORIZONTALS

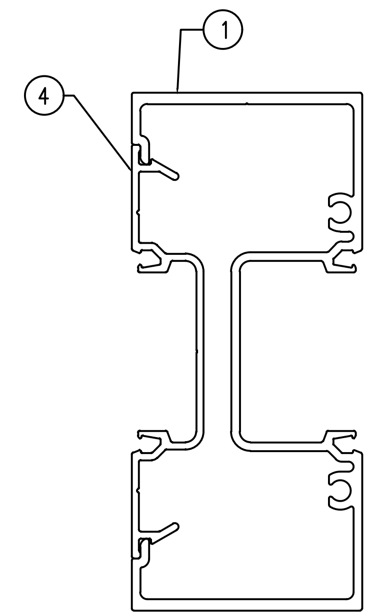
NOMINAL DIMS.		WITHOUT REINFORCING		WITH REINFORCING	
WIDTH (W)	FRAME HEIGHT	EXT.(+)	INT.(–)	EXT.(+)	INT.(–)
24"	66"	80	120	80	120
30"		80	120	80	120
36"		80	120	80	120
42"		80	120	80	120
48"		80	120	80	120
54"		80	120	80	120
60"		80	120	80	120
66"		80	120	80	120
72"		80	120	80	120
24"	72"	80	120	80	120
30"		80	120	80	120
36"		80	120	80	120
42"		80	106	80	120
48"		80	96.5	80	120
54"		80	89.9	80	120
60"		80	85.5	80	120
66"		80	83.0	80	120
72"		80	82.1	80	120
24"	78"	80	120	80	120
30"		80	120	80	120
36"		80	100	80	120
42"		80	88.5	80	120
48"		80	80.1	80	120
54"		74.0	74.0	80	120
60"		69.8	69.8	80	116
66"		66.8	66.8	80	111
72"		65.2	65.2	80	109
24"	84"	80	120	80	120
30"		80	101	80	120
36"		80	85.7	80	120
42"		75.2	75.2	80	120
48"		67.7	67.7	80	113
54"		62.2	62.2	80	104
60"		58.2	58.2	80	97.0
66"		55.3	55.3	80	92.1
24"	90"	80	108	80	120
30"		80	87.4	80	120
36"		74.0	74.0	80	120
42"		64.8	64.8	80	108
48"		58.1	58.1	80	96.8
54"		53.1	53.1	80	88.5
60"		49.4	49.4	80	82.3

MULLION LOAD CAPACITY – PSF
WITHOUT INTERMEDIATE HORIZONTALS

NOMINAL DIMS.		WITHOUT REINFORCING		WITH REINFORCING	
WIDTH (W)	FRAME HEIGHT	EXT.(+)	INT.(–)	EXT.(+)	INT.(–)
24"	96"	80.0	94.4	80	120
30"		76.4	76.4	80	120
36"		64.7	64.7	80	108
42"		56.4	56.4	80	94
48"		50.4	50.4	80	84
54"		45.9	45.9	76.5	76.5
60"		42.5	42.5	70.8	70.8
24"	102"	80.0	83.4	80	120
30"		67.4	67.4	80	112
36"		56.9	56.9	80	94.9
42"		49.6	49.6	80	82.7
48"		44.2	44.2	73.7	73.7
54"		40.1	40.1	66.9	66.9
24"	108"	74.3	74.3	80	120
30"		59.9	59.9	80	99.9
36"		50.6	50.6	80	84.3
42"		44.0	44.0	73.3	73.3
48"		39.1	39.1	65.2	65.2
24"	114"	66.5	66.5	80	111
30"		53.7	53.7	80	89.5
36"		45.2	45.2	75.3	75.3
42"		39.2	39.2	65.4	65.4
48"		34.8	34.8	58	58
24"	120"	59.9	59.9	80	99.9
30"		48.3	48.3	80	80.5
36"		40.7	40.7	67.8	67.8
42"		35.2	35.2	58.7	58.7
48"		31.2	31.2	52.1	52.1
24"	126"	51.2	51.2	80	99.9
30"		41.2	41.2	80	80.5
36"		34.6	34.6	67.8	67.8
42"		30.4	30.4	58.7	58.7
24"	132"	45.3	45.3	75.6	75.6
30"		36.5	36.5	60.8	60.8
36"		30.6	30.6	51.1	51.1
42"		26.5	26.5	44.2	44.2
24"	138"	39.4	39.4	65.6	65.6
30"		31.7	31.7	52.8	52.8
36"		26.6	26.6	44.3	44.3
24"	144"	34.7	34.7	57.8	57.8
30"		27.9	27.9	46.5	46.5
36"		23.4	23.4	39	39

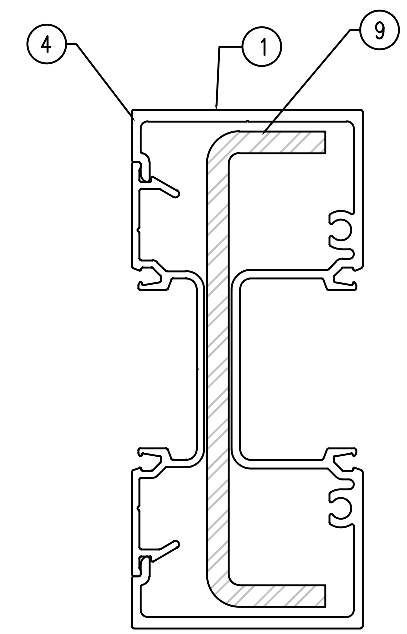


WIDTH (W) = $\frac{W1 + W2}{2}$



MULLION
W / O REINFORCING

Ix IN^4	Sx IN^3
3.421	1.52



MULLION
W / REINFORCING

	Ix IN^4	Sx IN^3
ALUMINUM	3.421	1.52
STEEL	2.260	1.064
TOTAL Ix ALUM. + Ix STL. X 2.9	9.975	

PROJECT NAME: SMI 245 SERIES STOREFRONT SYSTEM

DRAWING NUMBER: SMI-245-PA-1

DRAW BY: M.G.

PRODUCT APPROVAL NO.: FL 35263.1

SCALE:

DATE: 04/08/2021

SHT. 2 OF 10

ALDORA
ALUMINUM AND GLASS PRODUCTS, INC.

4250 CORAL RIDGE DRIVE
CORAL SPRINGS, FL 33065
PHONE: 954-784-6900
FAX: 954-688-9816

SEAL: WILLIAM D. COOK LICENSE No. 43904 STATE OF FLORIDA PROFESSIONAL ENGINEER

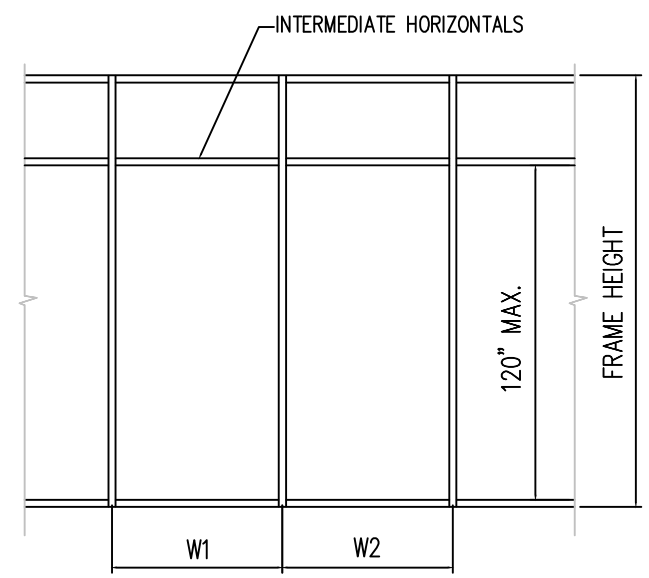
04/19/2021

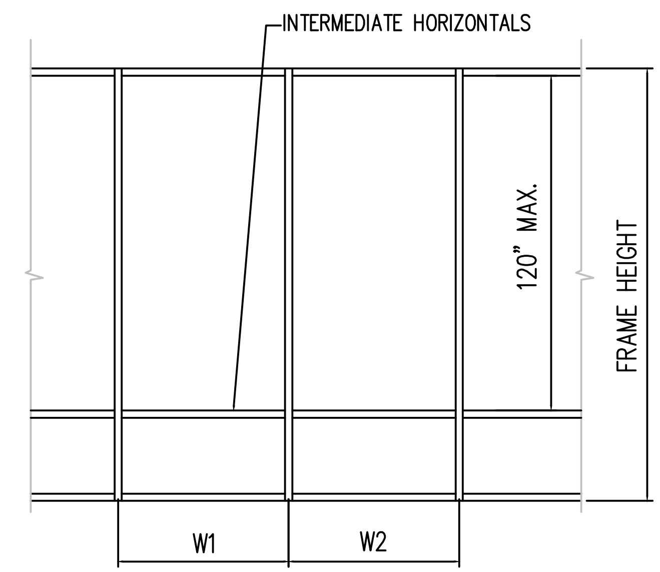
WILLIAM D. COOK P.E.
FLA P.E. #43904, FLA S.I. #2008

BROMLEY·COOK ENGINEERING, INC.
STRUCTURAL ENGINEERING SERVICES
5440 N.W. 33RD AVENUE SUITE 100
FORT LAUDERDALE, FLORIDA 33309
TEL: (954) 772-4624 FAX: (954) 772-4634

MULLION LOAD CAPACITY – PSF WITH INTERMEDIATE HORIZONTALS					
NOMINAL DIMS.		WITHOUT REINFORCING		WITH REINFORCING	
WIDTH (W)	FRAME HEIGHT	EXT.(+)	INT.(–)	EXT.(+)	INT.(–)
24"	60"	80	120	80	120
30"		80	120	80	120
36"		80	120	80	120
42"		80	114	80	120
48"		80	99.4	80	120
54"		80	88.4	80	120
60"		80	79.5	80	120
66"		80	72.3	80	117
72"		66.3	66.3	80	120
24"	66"	80	120	80	120
30"		80	120	80	120
36"		80	110	80	120
42"		80	93.9	80	120
48"		80	82.2	80	120
54"		73	73	80	120
60"		65.7	65.7	80	120
66"		59.8	59.8	80	120
72"		65.2	65.2	80	118
24"	72"	80	120	80	120
30"		80	120	80	120
36"		80	110	80	120
42"		80	93.9	80	120
48"		80	82.2	80	120
54"		73	73	80	120
60"		65.7	65.7	80	109
66"		59.8	59.8	80	99.6
72"		54.8	54.8	80	91.3
24"	78"	80	120	80	120
30"		80	112	80	120
36"		80	93.3	80	120
42"		80	80	80	120
48"		70	70	80	117
54"		62.3	62.3	80	104
60"		56	56	80	93.4
66"		50.9	50.9	80	84.9
72"		46.7	46.7	77.8	77.8
24"	84"	80	120	80	120
30"		80	96.6	80	120
36"		80	40.9	80	120
42"		69	69	80	115
48"		60.4	60.4	80	100
54"		53.7	53.7	80	89.4
60"		48.36	48.6	80	80.5
66"		43.9	43.9	73.2	73.2
24"	90"	80	108	80	120
30"		80	87.4	80	120
36"		74	74	80	120
42"		64.8	64.8	80	108
48"		58.1	58.1	80	96.8
54"		53.1	53.1	80	88.5
60"		49.4	49.4	80	82.3

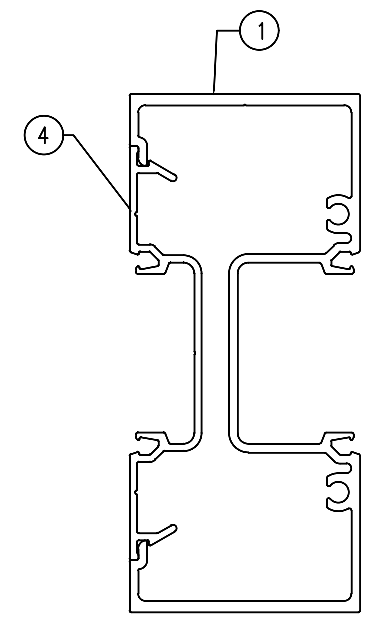
MULLION LOAD CAPACITY – PSF WITH INTERMEDIATE HORIZONTALS					
NOMINAL DIMS.		WITHOUT REINFORCING		WITH REINFORCING	
WIDTH (W)	FRAME HEIGHT	EXT.(+)	INT.(–)	EXT.(+)	INT.(–)
24"	96"	80	94.4	80	120
30"		76.4	76.4	80	120
36"		64.7	64.7	80	108
42"		56.4	56.4	80	94
48"		50.4	50.4	80	84
54"		45.9	45.9	76.5	76.5
60"		42.5	42.5	70.8	70.8
24"	102"	80	83.4	80	120
30"		67.4	67.4	80	112
36"		56.9	56.9	80	94.9
42"		49.6	49.6	80	82.7
48"		44.2	44.2	73.7	73.7
54"		40.1	40.1	66.9	66.9
24"	108"	74.3	74.3	80	120
30"		59.9	59.9	80	99.9
36"		50.6	50.6	80	84.3
42"		44	44	73.3	73.3
48"		39.1	39.1	65.2	65.2
24"	114"	66.5	66.5	80	111
30"		53.7	53.7	80	89.5
36"		45.2	45.2	75.3	75.3
42"		39.2	39.2	65.4	65.4
48"		34.8	34.8	58	58
24"	120"	59.9	59.9	80	99.9
30"		48.3	48.3	80	80.5
36"		40.7	40.7	67.8	67.8
42"		35.2	35.2	58.7	58.7
48"		31.2	31.2	52.1	52.1
24"	126"	51.2	51.2	80	99.9
30"		41.2	41.2	80	80.5
36"		34.6	34.6	67.8	67.8
42"		30.4	30.4	58.7	58.7
24"	132"	45.3	45.3	75.6	75.6
30"		36.5	36.5	60.8	60.8
36"		30.6	30.6	51.1	51.1
42"		26.5	26.5	44.2	44.2
24"	138"	39.4	39.4	65.6	65.6
30"		31.7	31.7	52.8	52.8
36"		26.6	26.6	44.3	44.3
24"	144"	34.7	34.7	57.8	57.8
30"		27.9	27.9	46.5	46.5
36"		23.4	23.4	39	39





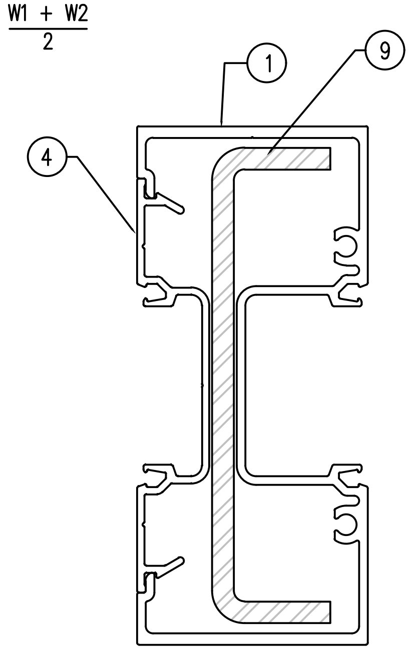
MAX. SPACING BETWEEN HORIZONTALS ≤ 120 INCHES

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



MULLION
W / O REINFORCING

Ix IN^4	Sx IN^3
3.421	1.52



MULLION
W / REINFORCING

	Ix IN^4	Sx IN^3
ALUMINUM	3.421	1.52
STEEL	2.260	1.064
TOTAL Ix ALUM. + Ix STL. X 2.9	9.975	

PROJECT NAME: SMI 245 SERIES STOREFRONT SYSTEM		
DRAWING NUMBER: SMI-245-PA-1	DRAW BY: M.G.	PRODUCT APPROVAL NO.: FL 35263.1
SHT. 3 OF 10	SCALE:	DATE: 04/08/2021

ALDORA
ALUMINUM AND GLASS PRODUCTS, INC.

4250 CORAL RIDGE DRIVE
CORAL SPRINGS, FL 33065
PHONE: 954-784-6900
FAX: 954-688-9816

WILLIAM D. COOK LICENSE No. 43904 STATE OF FLORIDA PROFESSIONAL ENGINEER

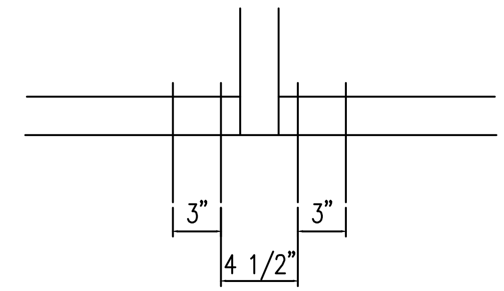
04/19/2021

WILLIAM D. COOK P.E.
FLA P.E. #43904, FLA S.I. #2008

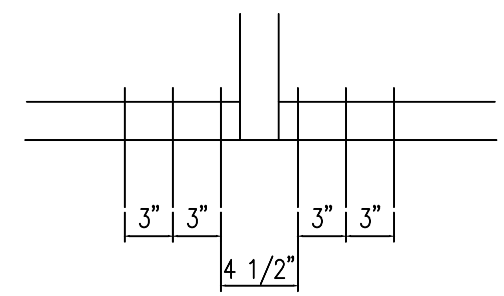
BROMLEY·COOK ENGINEERING, INC.
STRUCTURAL ENGINEERING SERVICES
5440 N.W. 33RD AVENUE SUITE 100
FORT LAUDERDALE, FLORIDA 33309
TEL: (954) 772-4624 FAX: (954) 772-4634

ANCHOR LOAD CAPACITY – PSF EXT. (+) & INT. (-)						
NOMINAL DIMS.		ANCHORS TYPE "A"			TYPE "B" & "C"	
WIDTH (W)	FRAME HEIGHT	A2	A3	A4	B2/C2	B3/C3
24"	60"	120	120	120	120	120
30"		115	120	120	120	120
36"		96.5	120	120	120	120
42"		82.7	120	120	120	120
48"		72.4	108	120	120	120
54"		64.4	96.6	120	120	120
60"		57.9	86.8	115.8	108	120
66"		52.6	78.9	105.2	98.6	120
72"		48.3	72.4	96.6	90.4	120
24"	66"	120	120	120	120	120
30"		105	120	120	120	120
36"		87.7	120	120	120	120
42"		75.2	112.8	120	120	120
48"		65.8	98.7	120	120	120
54"		58.5	87.7	117	109.5	120
60"		52.6	78.9	105.2	98.6	120
66"		47.9	71.8	95.8	89.6	120
72"		43.9	65.8	87.8	82.2	118
24"	72"	120	120	120	120	120
30"		96.5	120	120	120	120
36"		80.4	120	120	120	120
42"		68.9	103.3	120	120	120
48"		60.3	90.4	120	113	120
54"		53.6	80.4	107.2	100.4	120
60"		48.2	42.3	96.4	90.4	120
66"		43.9	65.8	87.6	82.2	120
72"		40.2	60.3	80.4	75.3	120
24"	78"	111.4	120	120	120	120
30"		89.1	120	120	120	120
36"		74.2	11.3	120	120	120
42"		63.6	95.4	120	119.2	120
48"		55.7	83.5	11.4	104.3	120
54"		49.5	74.2	99	92.7	120
60"		44.5	66.7	89	83.4	116
66"		40.5	60.7	81	75.9	111
72"		37.1	55.6	74.2	69.5	109
24"	84"	103.4	120	120	120	120
30"		82.7	120	120	120	120
36"		69	103.5	120	120	120
42"		56.1	88.6	115	110.7	120
48"		51.7	77.5	100	96.8	113
54"		46	69	89.4	86.1	104
60"		41.4	62.1	80.5	77.5	97
66"		37.6	56.4	73.2	70.4	92.1
24"	90"	96.5	120	120	120	120
30"		77.2	115.8	120	120	120
36"		64.3	96.4	120	120	120
42"		55.2	82.6	108	103.3	108
48"		48.2	72.3	96.4	90.4	96.8
54"		42.9	64.3	85.8	80.3	88.5
60"		38.6	57.9	77.2	72.3	82.3

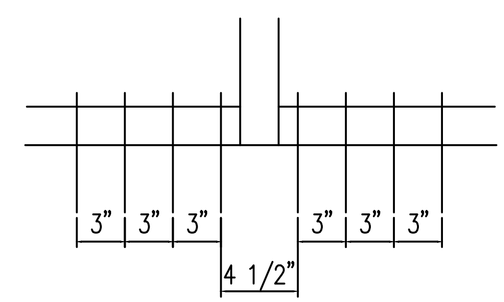
ANCHOR LOAD CAPACITY – PSF EXT. (+) & INT. (-)						
NOMINAL DIMS.		ANCHORS TYPE "A"			TYPE "B" & "C"	
WIDTH (W)	FRAME HEIGHT	A2	A3	A4	B2/C2	B3/C3
24"	96"	90.5	120	120	120	120
30"		72.4	108.6	120	120	120
36"		60.3	90.4	108	108	108
42"		51.7	77.5	94	94	94
48"		45.2	67.8	84	84	84
54"		40.2	60.3	76.5	75.3	76.5
60"		36.2	54.3	70.8	67.8	70.8
24"	102"	85.2	120	120	120	120
30"		68.1	102.2	112	112	112
36"		57.8	86.7	94.9	94.9	94.9
42"		48.7	73.1	82.7	82.7	82.7
48"		42.6	63.9	73.7	73.7	73.7
54"		37.8	56.7	66.9	66.9	66.9
24"	108"	80.4	120	120	120	120
30"		64.3	96.4	99.9	99.9	99.9
36"		53.6	80.4	84.3	84.3	84.3
42"		46	69	73.3	73.3	73.3
48"		40.2	60.3	65.2	65.2	65.2
24"	114"	76.2	111	111	111	111
30"		60.9	89.5	89.5	89.5	89.5
36"		50.8	75.3	75.3	75.3	75.3
42"		43.5	65.2	65.4	65.4	65.4
48"		38.1	57.1	58	58	58
24"	120"	72.4	99.9	99.9	99.9	99.9
30"		57.9	80.5	80.5	80.5	80.5
36"		48.2	67.8	67.8	67.8	67.8
42"		41.4	58.7	58.7	58.7	58.7
48"		36.2	52.1	52.1	52.1	52.1
24"	126"	68.9	99.9	99.9	99.9	99.9
30"		55.2	80.5	80.5	80.5	80.5
36"		46	67.8	67.8	67.8	67.8
42"		39.4	58.7	58.7	58.7	58.7
24"	132"	65.8	75.6	75.6	75.6	75.6
30"		52.6	60.8	60.8	60.8	60.8
36"		43.9	51.1	51.1	51.1	51.1
42"		37.6	44.2	44.2	44.2	44.2
24"	138"	63.9	65.6	65.6	65.6	65.6
30"		50.4	52.8	52.8	52.8	52.8
36"		41.9	44.3	44.3	44.3	44.3
24"	144"	57.8	57.8	57.8	57.8	57.8
30"		46.5	46.5	46.5	46.5	46.5
36"		39	39	39	39	39



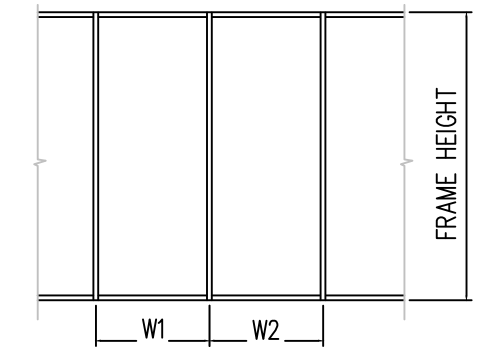
A2, B2, C2

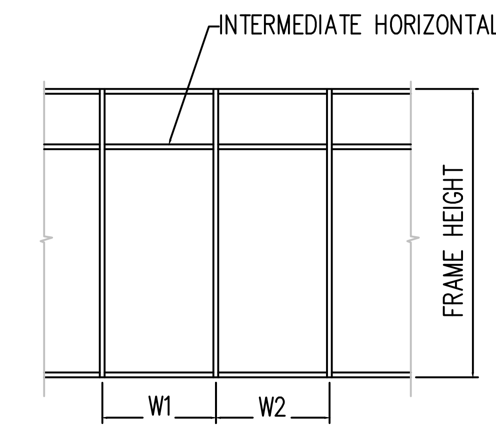


A3, B3, C3



A4





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

JAMB ANCHOR SPACING CHART			
ANCHOR TYPE	DESIGN PRESSURE (PSF)	WIDTHS ≤ 48" MAX. SPACING (IN.)	WIDTHS > 48" MAX. SPACING (IN.)
A	<50 50 TO 80 >80	21 13 9	14 9 6
B	<50 50 TO 80 >80	24 24 17	24 18 11
C	<50 50 TO 80 >80	24 24 15	24 16 10

ANCHORS TYPES: SEE SHEET 8 FOR DESCRIPTION

A2 = (2) ANCHORS TYPE "A" AT EACH SIDE OF THE MULLION
A3 = (3) ANCHORS TYPE "A" AT EACH SIDE OF THE MULLION
A4 = (4) ANCHORS TYPE "A" AT EACH SIDE OF THE MULLION

B2 = (2) ANCHORS TYPE "B" AT EACH SIDE OF THE MULLION
B3 = (3) ANCHORS TYPE "B" AT EACH SIDE OF THE MULLION

C2 = (2) ANCHORS TYPE "C" AT EACH SIDE OF THE MULLION
C3 = (3) ANCHORS TYPE "C" AT EACH SIDE OF THE MULLION

ALL OTHER ANCHORS TO BE SPACED AS PER ELEVATION.

PROJECT NAME: SMI 245 SERIES STOREFRONT SYSTEM		
DRAWING NUMBER: SMI-245-PA-1	DRAW BY: M.G.	PRODUCT APPROVAL NO.: FL 35263.1
SHT. 4 OF 10	SCALE:	DATE: 04/08/2021

ALDORA
ALUMINUM AND GLASS PRODUCTS, INC.

4250 CORAL RIDGE DRIVE
CORAL SPRINGS, FL 33065
PHONE: 954-784-6900
FAX: 954-688-9816

WILLIAM D. COOK LICENSE No. 43904 STATE OF FLORIDA PROFESSIONAL ENGINEER

04/19/2021

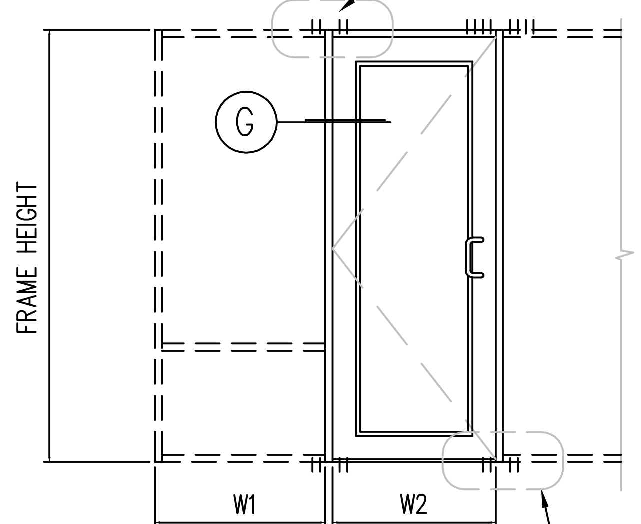
WILLIAM D. COOK P.E.
FLA P.E. #43904, FLA S.I. #2008

BROMLEY·COOK ENGINEERING, INC.
STRUCTURAL ENGINEERING SERVICES
5440 N.W. 33RD AVENUE SUITE 100
FORT LAUDERDALE, FLORIDA 33309
TEL: (954) 772-4624 FAX: (954) 772-4634

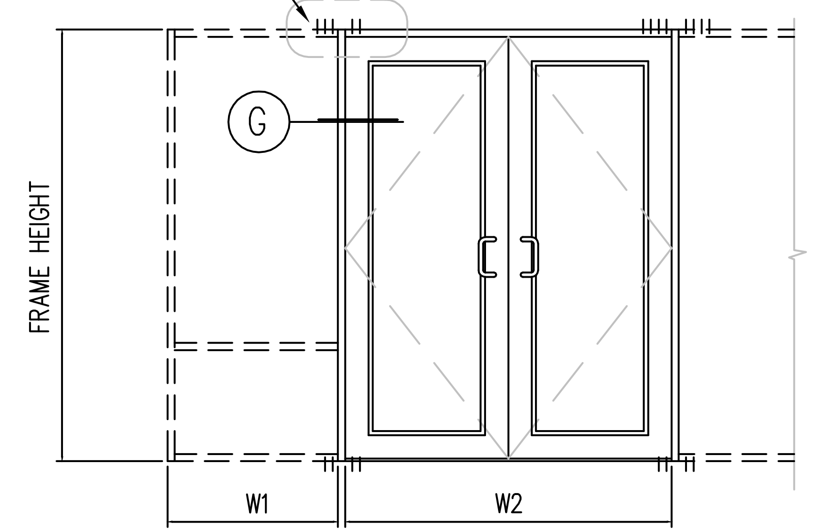
DOOR MULLION LOAD CAPACITY – PSF

WIDTH (W) INCHES	FRAME HEIGHT INCHES	WITHOUT REINF. EXT.(+) & INT.(-)	WITH REINF. EXT.(+) & INT.(-)
30"	80"	106	120
36"		88.7	120
42"		76.1	120
48"		66.5	111
54"		59.2	98.6
60"		53.2	88.7
30"	84"	80	120
36"		80	120
42"		69	115
48"		60.4	100
54"		53.7	89.4
60"		48.3	80.5
30"	90"	68.2	120
36"		56.8	117
42"		48.7	100.2
48"		42.6	87.6
54"		37.9	77.9
60"		42.1	70.1
30"	96"	73.9	120
36"		61.6	120
42"		52.8	103
48"		46.2	77
54"		41.1	68.5
60"		37	61.6
30"	102"	65.5	109
36"		54.6	100
42"		46.8	78
48"		40.9	68.2
54"		36.4	60.7
60"		32.7	54.6
30"	108"	58.4	97.4
36"		48.7	81.2
42"		41.7	69.5
48"		36.5	60.9
54"		32.5	54.1
60"		29.2	48.7
30"	114"	52.4	87.4
36"		43.7	72.8
42"		37.4	62.4
48"		32.8	54.6
54"		29.2	48.5
60"		26.2	43.7
30"	120"	47.3	78.9
36"		39.4	65.7
42"		33.8	56.3
48"		29.6	49.3
54"		26.3	43.8
60"		23.6	39.4

ANCHOR TYPES	TOTAL NO. OF ANCHORS AT DOOR MULLION HEAD
A	8
B	5
C	4

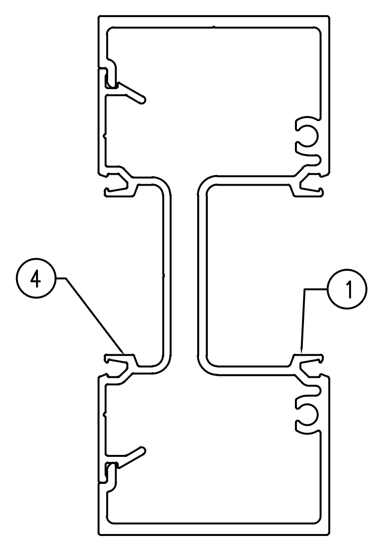


WIDTH (W) = $\frac{W1 + W2}{2}$



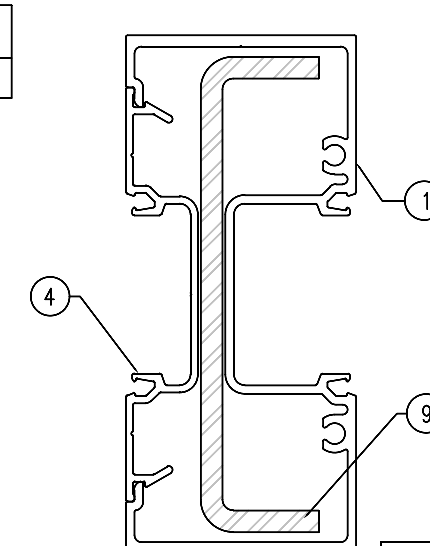
WIDTH (W) = $\frac{W1}{2} + \frac{W2}{4}$

ANCHOR TYPE	TOTAL NO. OF ANCHORS AT DOOR MULLION SILL
B	4



MULLION
W / O REINFORCING

Ix IN^4	Sx IN^3
3.421	1.52



MULLION
W / REINFORCING

	Ix IN^4	Sx IN^3
ALUMINUM	3.421	1.52
STEEL	2.260	1.064
TOTAL Ix ALUM. + Ix STL. X 2.9	9.975	

PROJECT NAME: SMI 245 SERIES STOREFRONT SYSTEM		
DRAWING NUMBER: SMI-245-PA-1	DRAW BY: M.G.	PRODUCT APPROVAL NO.: FL 35263.1
SHT. 5 OF 10	SCALE:	DATE: 04/08/2021

ALDORA
ALUMINUM AND GLASS PRODUCTS, INC.

4250 CORAL RIDGE DRIVE
CORAL SPRINGS, FL 33065
PHONE: 954-784-6900
FAX: 954-688-9816

SEAL
WILLIAM D. COOK
LICENSE
No. 43904
STATE OF FLORIDA
PROFESSIONAL ENGINEER

04/19/2021

WILLIAM D. COOK P.E.
FLA P.E. #43904, FLA S.I. #2008

BROMLEY·COOK ENGINEERING, INC.
STRUCTURAL ENGINEERING SERVICES
5440 N.W. 33RD AVENUE SUITE 100
FORT LAUDERDALE, FLORIDA 33309
TEL: (954) 772-4624 FAX: (954) 772-4634

DOOR MULLION LOAD CAPACITY

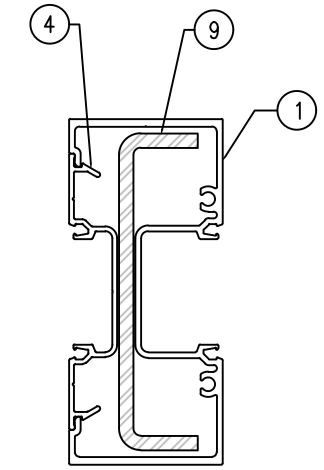
DOOR WIDTH W2	SIDELITE WIDTH W1	DOOR HEIGHT A	FRAME SPAN L	LOADS – PSF EXT. (+) INT. (–)
60"	30"	84"	96"	83.8
	36"			78.8
	42"			74.3
	48"			70.3
	54"			66.8
72"	30"			74.3
	36"			70.3
	42"			66.8
	48"			63.5
	54"			60.6
60"	30"	84"	102"	76.5
	36"			71.9
	42"			67.8
	48"			64.2
	54"			60.9
72"	30"			67.8
	36"			64.2
	42"			60.9
	48"			65
	54"			55.3
60"	30"	84"	108"	67.8
	36"			63.7
	42"			60.1
	48"			56.9
	54"			54
72"	30"			60.1
	36"			56.9
	42"			54
	48"			51.4
	54"			49
60"	30"	84"	114"	60
	36"			56.4
	42"			53.2
	48"			50.4
	54"			47.8
72"	30"			53.2
	36"			50.4
	42"			47.8
	48"			45.5
	54"			43.4
60"	30"	84"	120"	47.9
	36"			51
	42"			48.1
	48"			45.5
	54"			43.2
72"	30"			48.1
	36"			45.5
	42"			43.2
	48"			41.1

DOOR MULLION LOAD CAPACITY

DOOR WIDTH W2	SIDELITE WIDTH W1	DOOR HEIGHT A	FRAME SPAN L	LOADS – PSF EXT. (+) INT. (–)
60"	30"	90"	102"	77.9
	36"			73.2
	42"			69
	48"			65.3
	54"			62
72"	30"			69
	36"			65.3
	42"			62
	48"			59
	54"			56.3
60"	30"	90"	108"	69.7
	36"			64.6
	42"			61
	48"			57.7
	54"			54.8
72"	30"			61
	36"			57.7
	42"			54.8
	48"			52.1
	54"			49.7
60"	30"	90"	114"	60.7
	36"			57.1
	42"			53.8
	48"			51
	54"			48.4
72"	30"			53.8
	36"			50.9
	42"			48.4
	48"			46
	54"			43.9
60"	30"	90"	120"	55
	36"			51.7
	42"			48.8
	48"			46.3
	54"			43.9
72"	30"			48.8
	36"			46.3
	42"			43.9
	48"			41.7

DOOR MULLION LOAD CAPACITY

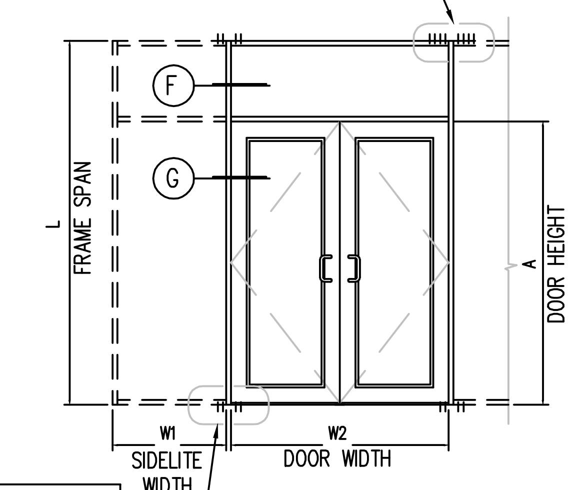
DOOR WIDTH W2	SIDELITE WIDTH W1	DOOR HEIGHT A	FRAME SPAN L	LOADS – PSF EXT. (+) INT. (–)
60"	30"	96"	108"	69.7
	36"			65.5
	42"			61.8
	48"			58.5
	54"			55.5
72"	30"			61.8
	36"			58.5
	42"			55.5
	48"			52.8
	54"			50.4
60"	30"	96"	114"	61.9
	36"			58.2
	42"			54.9
	48"			52
	54"			49.4
72"	30"			54.9
	36"			52
	42"			49.4
	48"			47
	54"			44.8
60"	30"	96"	120"	55.7
	36"			52.3
	42"			49.4
	48"			46.7
	54"			44.3
72"	30"			49.4
	36"			46.7
	42"			44.3
	48"			42.2



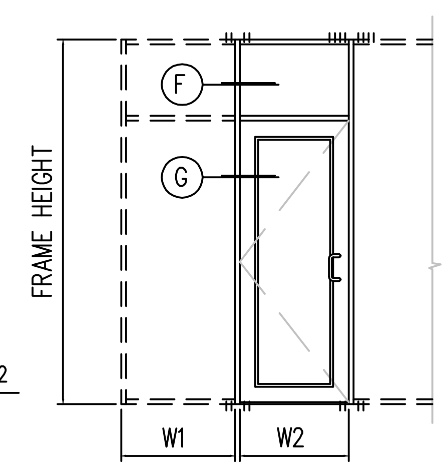
MULLION
W / REINFORCING

	Ix IN^4	Sx IN^3
ALUMINUM	3.421	1.52
STEEL	2.260	1.064
TOTAL Ix ALUM. + Ix STL. X 2.9	9.975	

ANCHOR TYPES	TOTAL NO. OF ANCHORS AT DOOR MULLION HEAD
A	8
B	5
C	4



ANCHOR TYPE	TOTAL NO. OF ANCHORS AT DOOR MULLION SILL
B	4



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

PROJECT NAME: SMI 245 SERIES STOREFRONT SYSTEM

DRAWING NUMBER: SMI-245-PA-1

DRAW BY: M.G.

PRODUCT APPROVAL NO.: FL 35263.1

SCALE:

DATE: 04/08/2021

SHT. 6 OF 10

ALDORA
ALUMINUM AND GLASS PRODUCTS, INC.

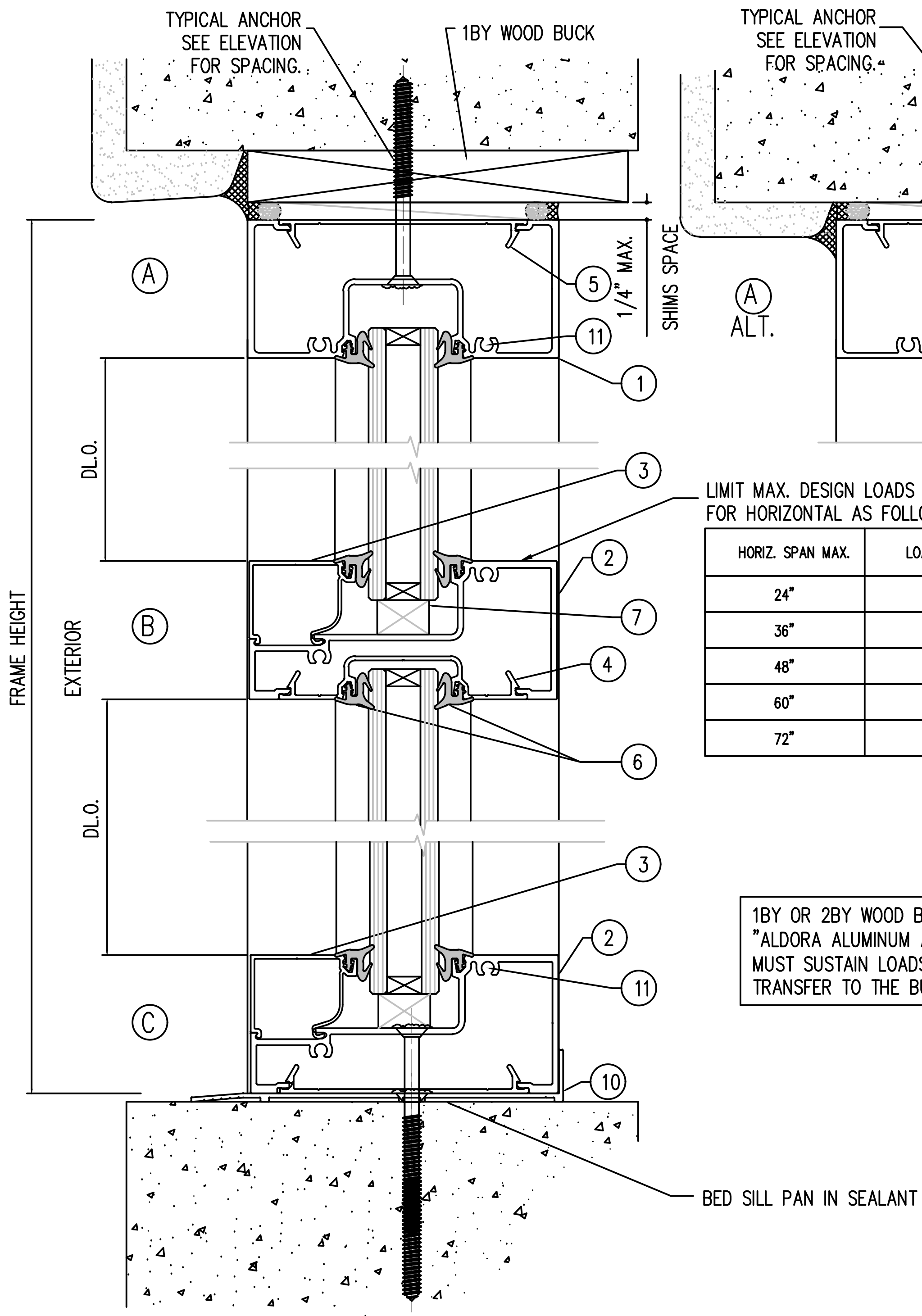
4250 CORAL RIDGE DRIVE
CORAL SPRINGS, FL 33065
PHONE: 954-784-6900
FAX: 954-688-9816

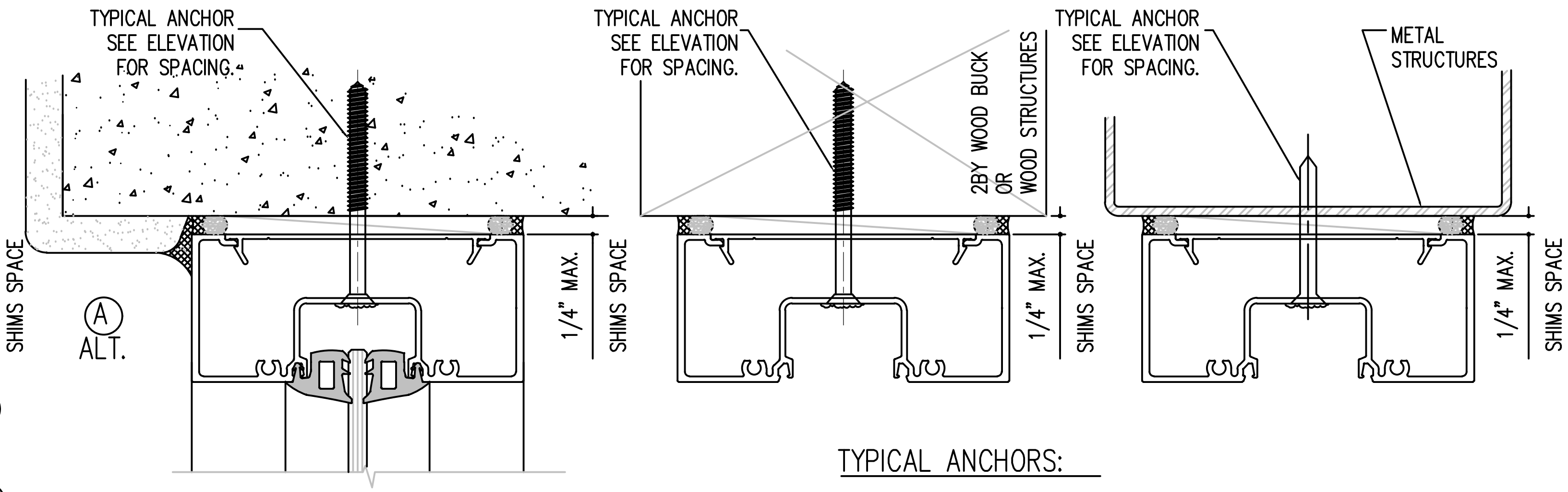
SEAL: WILLIAM D. COOK LICENSE No. 43904 STATE OF FLORIDA PROFESSIONAL ENGINEER

04/19/2021

WILLIAM D. COOK P.E.
FLA P.E. #43904, FLA S.I. #2008

BROMLEY·COOK ENGINEERING, INC.
STRUCTURAL ENGINEERING SERVICES
5440 N.W. 33RD AVENUE SUITE 100
FORT LAUDERDALE, FLORIDA 33309
TEL: (954) 772-4624 FAX: (954) 772-4634





LIMIT MAX. DESIGN LOADS
FOR HORIZONTAL AS FOLLOWS

HORIZ. SPAN MAX.	LOAD CAPACITY - PSF
24"	120
36"	79.2
48"	44.5
60"	28.5
72"	19.8

1BY OR 2BY WOOD BUCKS AND METAL STRUCTURE NOT BY "ALDORA ALUMINUM AND GLASS PRODUCTS"
MUST SUSTAIN LOADS IMPOSED BY GLAZING SYSTEM AND TRANSFER TO THE BUILDING STRUCTURE.

TYPICAL ANCHORS:

SEE ELEVATION FOR SPACING

TYPE "A"

1/4" DIA. ULTRACON BY "DeWalt" (Fu= 177 KSI, Fy= 155 KSI)
INTO 2BY WOOD BUCKS OR WOOD STRUCTURES
WITH 1-3/8" MIN. PENETRATION INTO WOOD
THRU 1BY WOOD BUCKS INTO CONCRETE OR MASONRY
WITH 1-1/4" MIN. EMBED. INTO THE CONC. OR MASONRY.

ANCHOR EDGE DISTANCES
INTO CONCRETE = 2-1/2" MIN.
INTO THE WOOD STRUCTURE = 1" MIN.

TYPE "B"

1/4" DIA. ULTRACON BY "DeWalt" (Fu= 177 KSI, Fy= 155 KSI)
DIRECTLY INTO CONCRETE OR MASONRY
WITH 1-1/4" MIN. EMBED INTO CONC. OR MASONRY

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

TYPE "C"

#14 SMS OR SELF DRILLING SCREWS ST/ST (GRADE 2 CRS)
INTO METAL STRUCTURES
STEEL: 1/8" THK. MIN. (Fy = 36 KSI MIN.)
ALUMINUM: 1/8" THK. MIN. (6063-T5 MIN.)
(STEEL IN CONTACT WITH THE ALUMINUM TO BE PLATED OR PAINTED)

ANCHOR EDGE DISTANCES
INTO METAL STRUCTURE = 3/4" MIN.

CONCRETE AT HEAD, SILL OR JAMBS f'c = 3000 psi MIN.
C-90 HOLLOW/ FILLED BLOCK AT JAMBS f'm = 2000 PSI. MIN.

PROJECT NAME: SMI 245 SERIES STOREFRONT SYSTEM
DRAWING NUMBER: SMI-245-PA-1
DRAW BY: M.G.
PRODUCT APPROVAL NO.: FL 35263.1
SCALE:
DATE: 04/08/2021
SHT. 7 OF 10

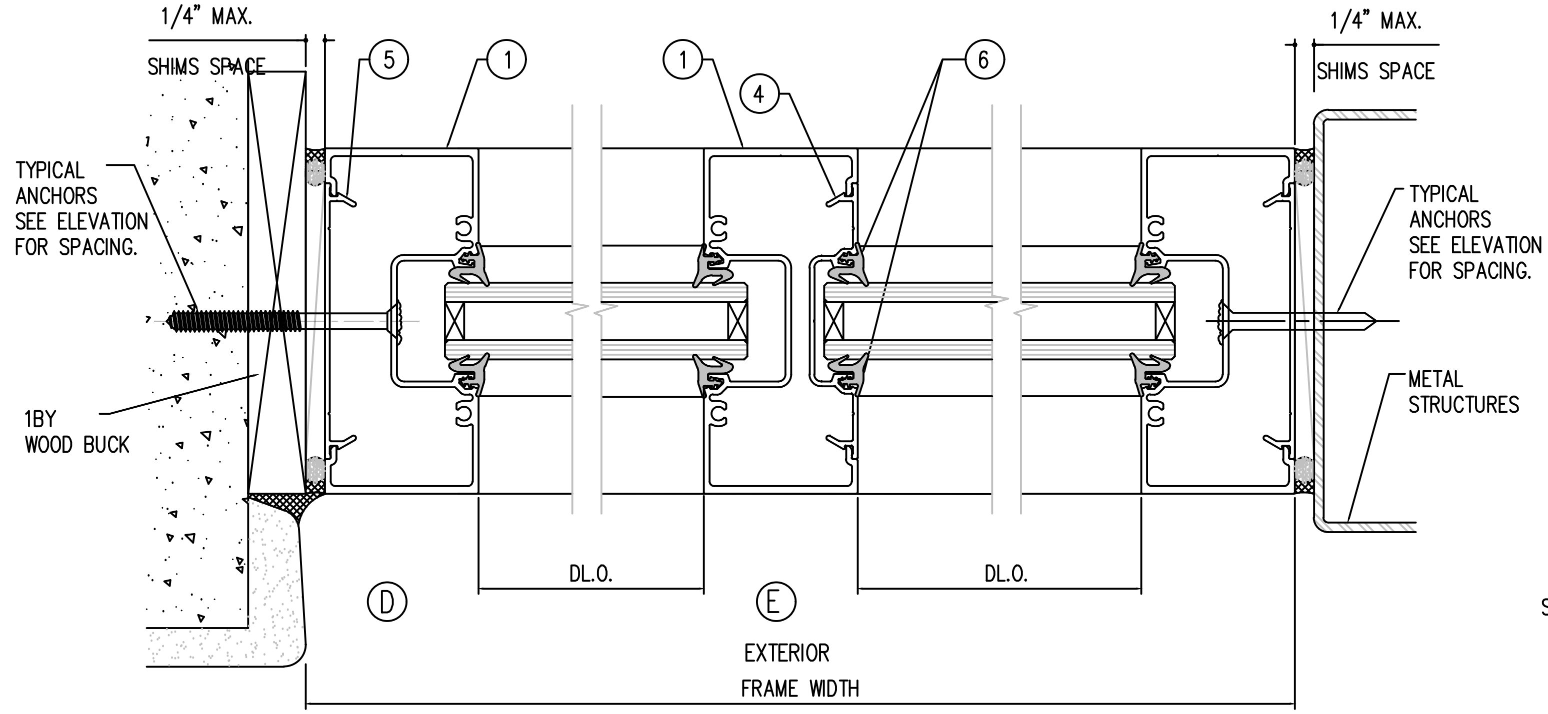
ALDORA
ALUMINUM AND GLASS PRODUCTS, INC.
4250 CORAL RIDGE DRIVE
CORAL SPRINGS, FL 33065
PHONE: 954-784-6900
FAX: 954-688-9816

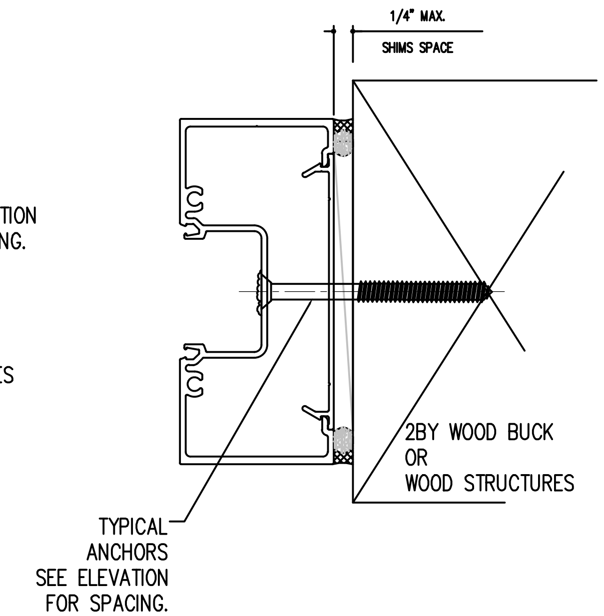
SEAL
WILLIAM D. COOK
LICENSE
No. 43904
STATE OF FLORIDA
PROFESSIONAL ENGINEER

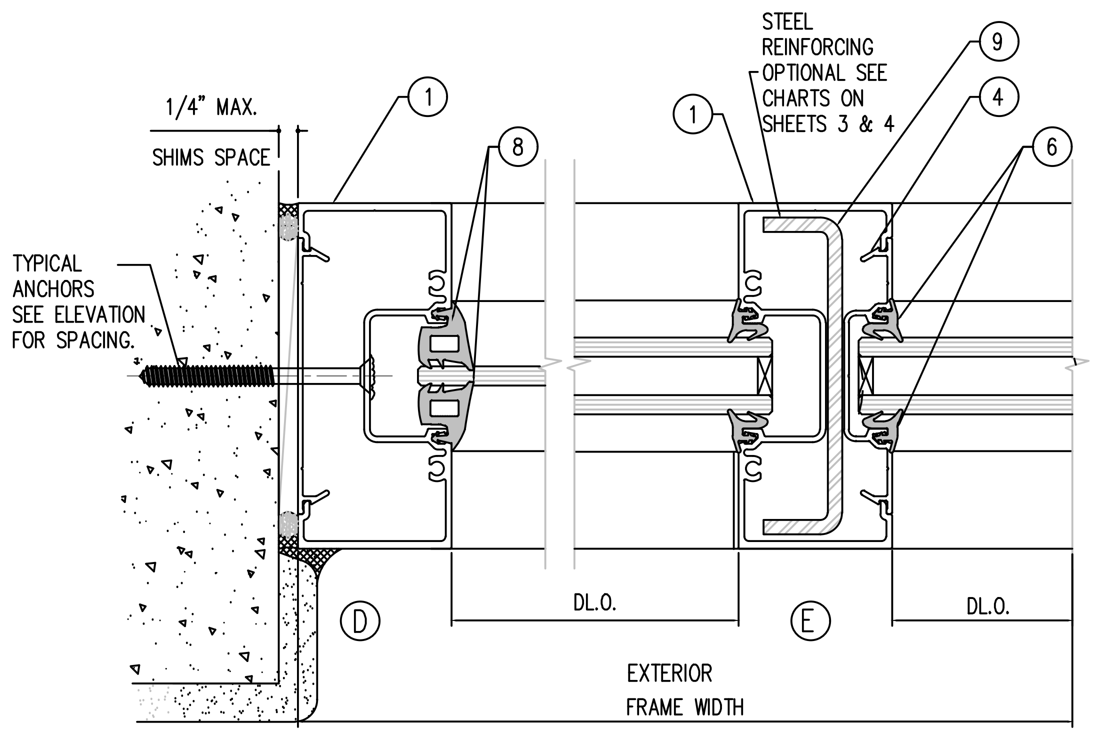
04/19/2021

WILLIAM D. COOK P.E.
FLA P.E. #43904, FLA S.I. #2008

BROMLEY·COOK ENGINEERING, INC.
STRUCTURAL ENGINEERING SERVICES
5440 N.W. 33RD AVENUE SUITE 100
FORT LAUDERDALE, FLORIDA 33309
TEL: (954) 772-4624 FAX: (954) 772-4634







PROJECT NAME: SMI 245 SERIES STOREFRONT SYSTEM			
DRAWING NUMBER: SMI-245-PA-1	DRAW BY: M.G.	PRODUCT APPROVAL NO.: FL 35263.1	
	SCALE:	DATE: 04/08/2021	
SHT. 8 OF 10			

ALDORA
ALUMINUM AND GLASS PRODUCTS, INC.

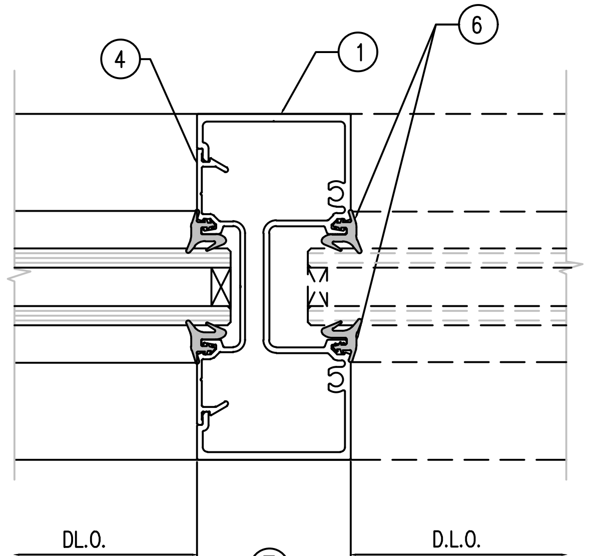
4250 CORAL RIDGE DRIVE
CORAL SPRINGS, FL 33065
PHONE: 954-784-6900
FAX: 954-688-9816

SEAL: WILLIAM D. COOK LICENSE No. 43904 STATE OF FLORIDA PROFESSIONAL ENGINEER

04/19/2021

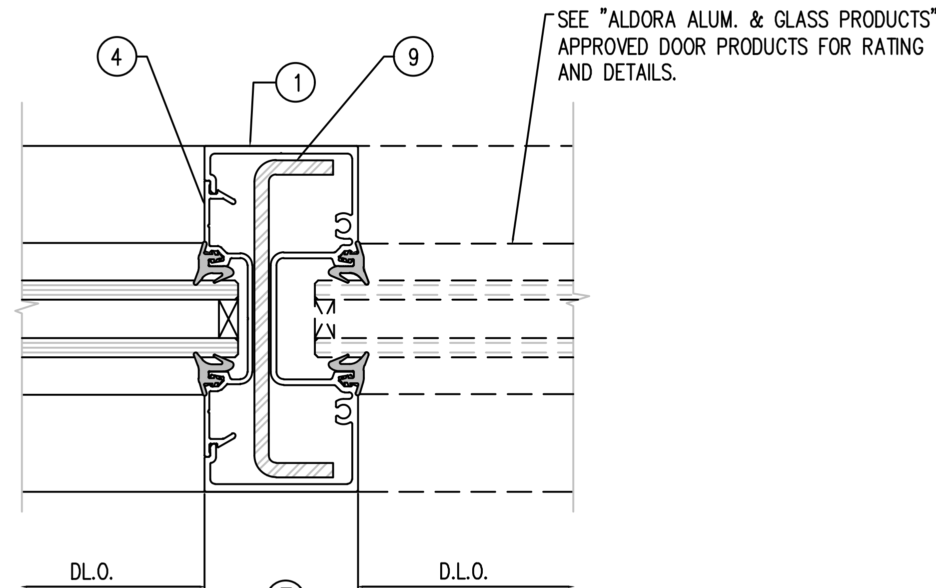
WILLIAM D. COOK P.E.
FLA P.E. #43904, FLA S.I. #2008

BROMLEY·COOK ENGINEERING, INC.
STRUCTURAL ENGINEERING SERVICES
5440 N.W. 33RD AVENUE SUITE 100
FORT LAUDERDALE, FLORIDA 33309
TEL: (954) 772-4624 FAX: (954) 772-4634



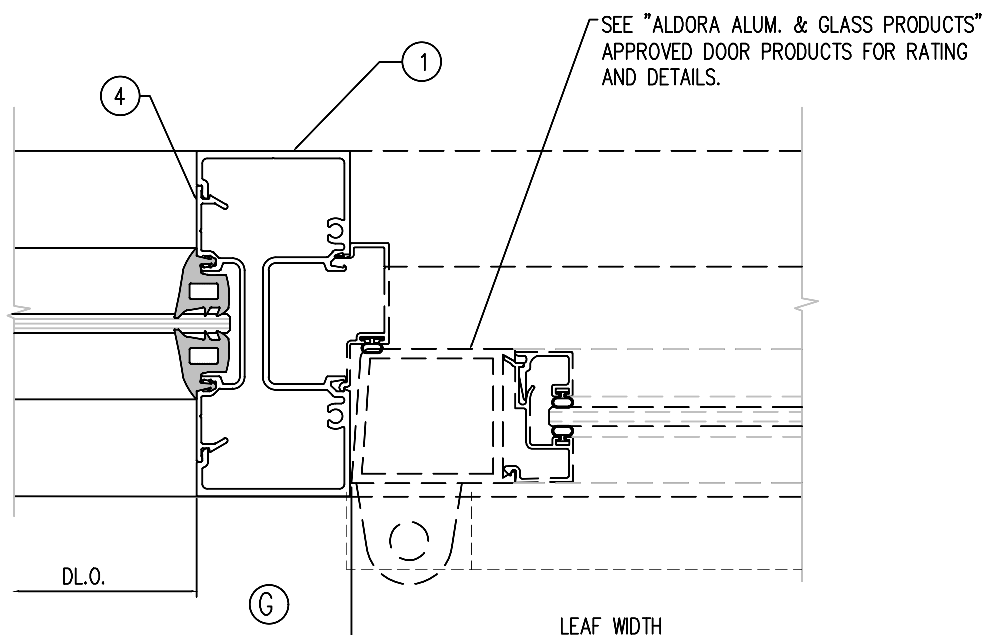
F

EXTERIOR



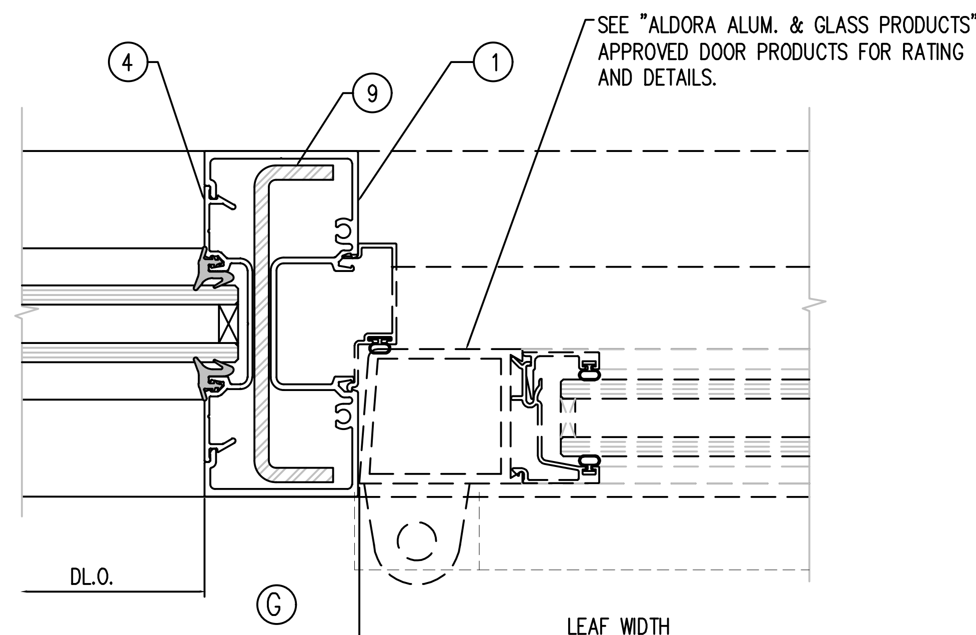
F

EXTERIOR



G

EXTERIOR



G

EXTERIOR

PROJECT NAME: SMI 245 SERIES STOREFRONT SYSTEM		
DRAWING NUMBER: SMI-245-PA-1	DRAW BY: M.G.	PRODUCT APPROVAL NO.: FL 35263.1
	SCALE:	DATE: 04/08/2021
SHT. 9 OF 10		

ALDORA
ALUMINUM AND GLASS PRODUCTS, INC.

4250 CORAL RIDGE DRIVE
CORAL SPRINGS, FL 33065
PHONE: 954-784-6900
FAX: 954-688-9816

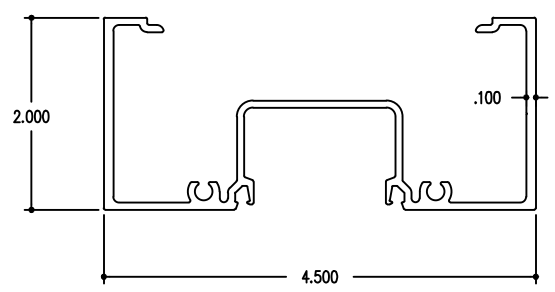
SEAL

WILLIAM D. COOK LICENSE No. 43904 STATE OF FLORIDA PROFESSIONAL ENGINEER

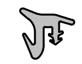
04/19/2021

WILLIAM D. COOK P.E.
FLA P.E. #43904, FLA S.I. #2008

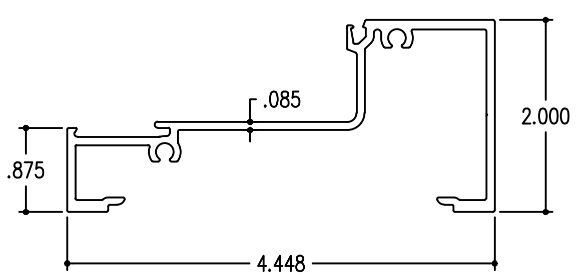
BROMLEY·COOK ENGINEERING, INC.
STRUCTURAL ENGINEERING SERVICES
5440 N.W. 33RD AVENUE SUITE 100
FORT LAUDERDALE, FLORIDA 33309
TEL: (954) 772-4624 FAX: (954) 772-4634



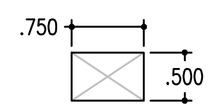
(1) SMI-213
HEAD, JAMB AND MULLION.



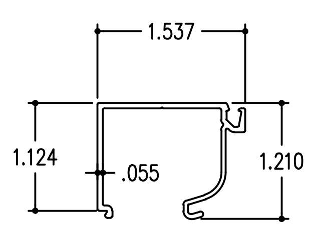
(6) SMI-G04
GASKET



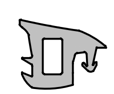
(2) SMI-214
SILL, INTERM. HORIZONTAL.



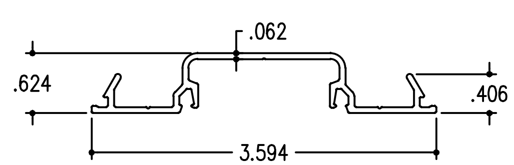
(7) SMI-SB10
SETTING BLOCK



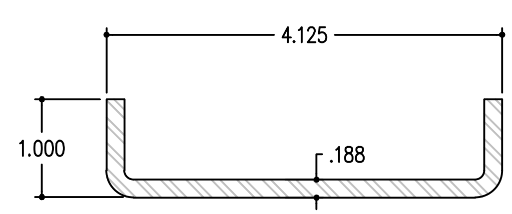
(3) SMI-216
GLASS STOP.



(8) SMI-G08
GASKET



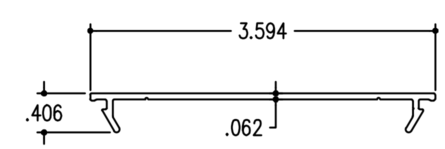
(4) SMI-217
POCKET FILLER.



(9) PART# NI-1
STEEL REINFORCING.

BILL OF MATERIALS

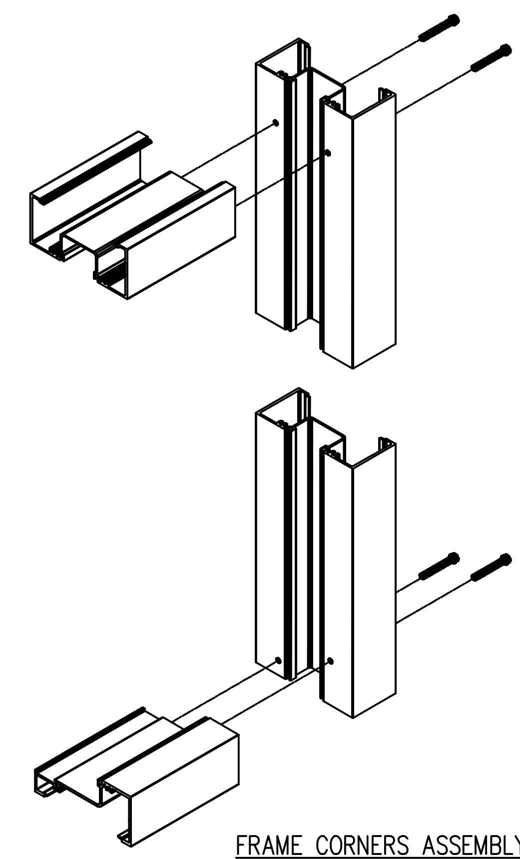
ITEM #	PART #	REQ'D	DESCRIPTION	MATERIAL	MANF. / SUPPLIER / REMARKS
1	SMI-213	AS REQ'D	HEAD, JAMB AND MULLION	6063-T6	-
2	SMI-214	AS REQ'D	SILL, INTERM. HORIZONTAL.	6063-T6	-
3	SMI-216	AS REQ'D	GLASS STOP.	6063-T6	-
4	SMI-217	AS REQ'D	POCKET FILLER.	6063-T6	-
5	SMI-118	AS REQ'D	PLAIN SNAP.	6063-T6	-
6	SMI-G04	AS REQ'D	GASKET	EPDM	GLAZING RUBBER PRODUCTS.
7	SMI-SB10	2 PER GL.	SETTING BLOCKS (1/2" X 3/4" X 2" LG.)	EPDM	TREMCO.
8	SMI-G08	AS REQ'D	GASKET	EPDM	GLAZING RUBBER PRODUCTS.
9	NI-1	OPTIONAL	REINFORCING CHANNEL (1" X 4 1/8" X 1" X 3/16" THK.)	STEEL	-
10	SMI-122	AS REQ'D	SUB-SILL	6063-T6	-
11	#12 X 1 1/2" LG.	2/CORNER	ASSEMBLY SCREWS	ST. STEEL	HEX. HEAD SHEET METAL SCREW.
12	SPACER BAR	AS REQ'D	LPX AIR SPACER	ALUM.	ALLMETAL



(5) SMI-118
PLAIN SNAP.

(10) SMI-122
SUB-SILL

NOTE:
END DAM REQ'D



FRAME CORNERS ASSEMBLY

NOTE: SEAL JOINTS DURING ASSEMBLY

PROJECT NAME: SMI 245 SERIES STOREFRONT SYSTEM			
DRAWING NUMBER: SMI-245-PA-1	DRAW BY: M.G.	PRODUCT APPROVAL NO.: FL 35263.1	
	SCALE:	DATE: 04/08/2021	
SHT. 10 OF 10			

ALDORA
ALUMINUM AND GLASS PRODUCTS, INC.

4250 CORAL RIDGE DRIVE
CORAL SPRINGS, FL 33065
PHONE: 954-784-6900
FAX: 954-688-9816

SEAL
WILLIAM D. COOK
LICENSE
No. 43904
STATE OF
FLORIDA
PROFESSIONAL ENGINEER

04/19/2021

WILLIAM D. COOK P.E.
FLA P.E. #43904, FLA S.I. #2008

BROMLEY·COOK ENGINEERING, INC.
STRUCTURAL ENGINEERING SERVICES
5440 N.W. 33RD AVENUE SUITE 100
FORT LAUDERDALE, FLORIDA 33309
TEL: (954) 772-4624 FAX: (954) 772-4634