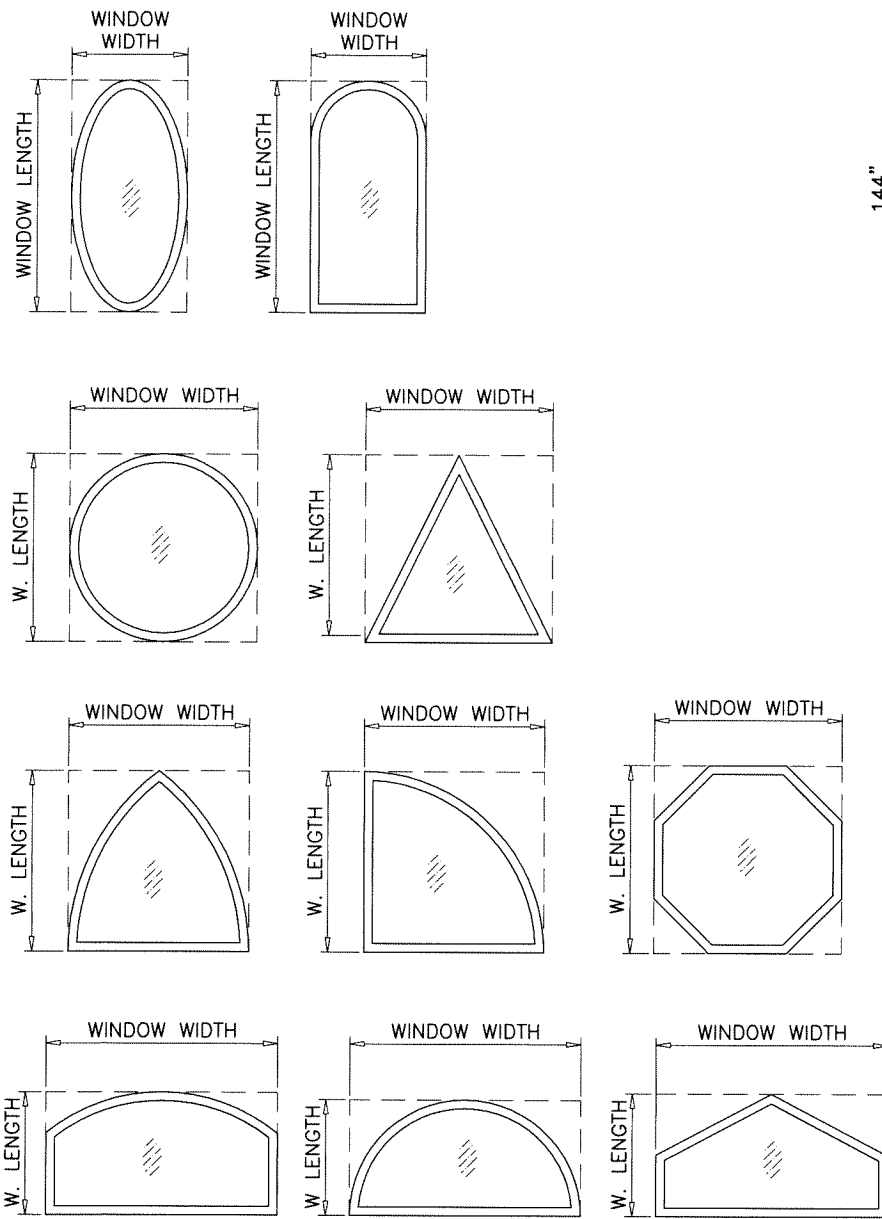
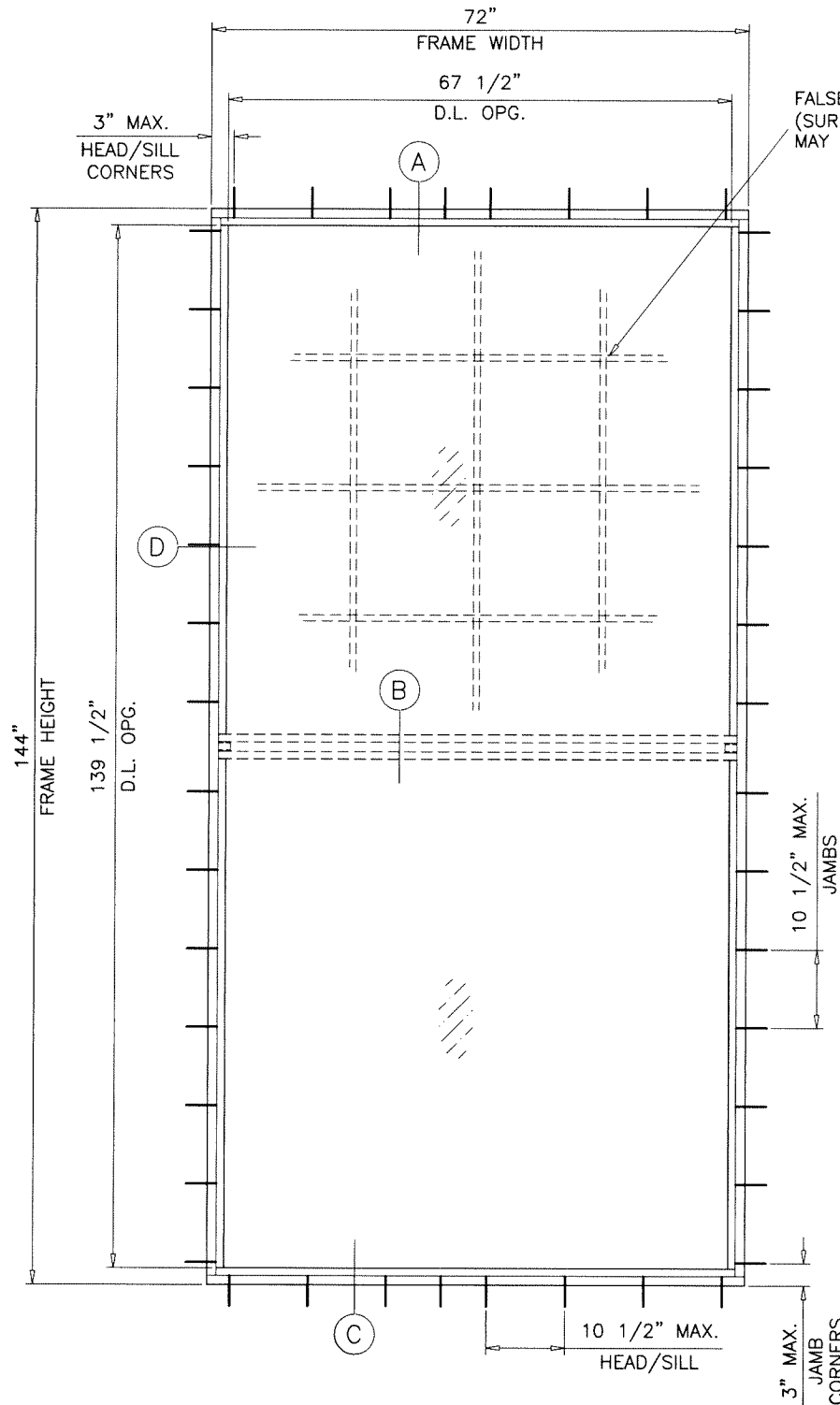


DAYLITE OPENINGS:

DLO WIDTH = FRAME WIDTH - 4.50"
 DLO HEIGHT = FRAME HEIGHT - 4.50"



ALLOWABLE LOADS FOR ALTERNATE SHAPES AS SHOWN ABOVE OR SIMILAR CAN BE VERIFIED BY INSCRIBING PICTURE WINDOW SHAPE WITHIN SQUARE OR RECTANGLE AS SHOWN IN DOTTED LINES AND OBTAINING ALLOWABLE LOADS FROM THOSE SHAPES.



TYPICAL ELEVATION

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

Coastline Direct Glaze IZ4

SEE SHEET 3 FOR SINGLE WINDOW DESIGN LOAD CAPACITIES. FOR FIXED/FIXED COMBINATIONS IN MODULES OF TWO OR MORE WINDOWS USING 'H' MULLION IN BETWEEN SEE CHART ON SHEET 8. FOR COMBINATION MULLION ANCHOR CAPACITY SEE CHART ON SHEET 9. LOWER DESIGN PRESSURE FROM WINDOW, MULLION OR MULLION ANCHOR CHART WILL APPLY TO ENTIRE SYSTEM.

THIS PRODUCT HAS BEEN DESIGNED AND TESTED TO COMPLY WITH THE REQUIREMENTS OF THE 2020 (7TH EDITION)/2023 (8TH EDITION) FLORIDA BUILDING CODE INCLUDING HIGH VELOCITY HURRICANE ZONE (HVHZ).

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

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

A LOAD DURATION INCREASE IS USED IN DESIGN OF ANCHORS INTO WOOD ONLY. ALL SHIMS TO BE HIGH IMPACT, NON-METALLIC AND NON-COMPRESSIBLE.

MATERIALS INCLUDING BUT NOT LIMITED TO STEEL/METAL SCREWS, THAT COME INTO CONTACT WITH OTHER DISSIMILAR MATERIALS SHALL MEET THE REQUIREMENTS OF THE 2020/2023 FLORIDA BLDG. CODE & ADOPTED STANDARDS.

THIS PRODUCT APPROVAL IS GENERIC AND DOES NOT PROVIDE INFORMATION FOR A SITE SPECIFIC PROJECT, i.e. LIFE SAFETY OF THIS PRODUCT, ADEQUACY OF STRUCTURE RECEIVING THIS PRODUCT AND SEALING AROUND OPENING FOR WATER INFILTRATION RESISTANCE ETC.

CONDITIONS NOT SHOWN IN THIS DRAWING ARE TO BE ANALYZED SEPARATELY, AND TO BE REVIEWED BY BUILDING OFFICIAL.

DESIGN LOADS SHOWN ARE BASED ON 'ALLOWABLE STRESS DESIGN (ASD)'.

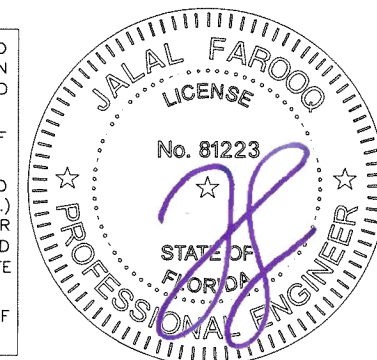
MANUFACTURER'S LABEL SHALL BE LOCATED ON A READILY VISIBLE LOCATION IN ACCORDANCE WITH SECTION 1709.9.3 OF FLORIDA BUILDING CODE. LABELING TO COMPLY WITH SECTION 1709.9.2.

THIS PRODUCT WITH GLASS TYPES 'A', 'A1' & 'A2' COMPLY WITH REQUIREMENTS OF ANSI Z97.1.

Sealed: 7/25/2023

FL #33666

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



afC
AL-FAROOQ CORPORATION
 ENGINEERS & PRODUCT DEVELOPMENT
 9360 SUNSET DRIVE, SUITE 220
 MIAMI, FLORIDA 33173 (C.A.N. 3538)
 TEL. (305) 264-8100 FAX. (305) 262-6978
 COMP-ANL\W15-81SIW

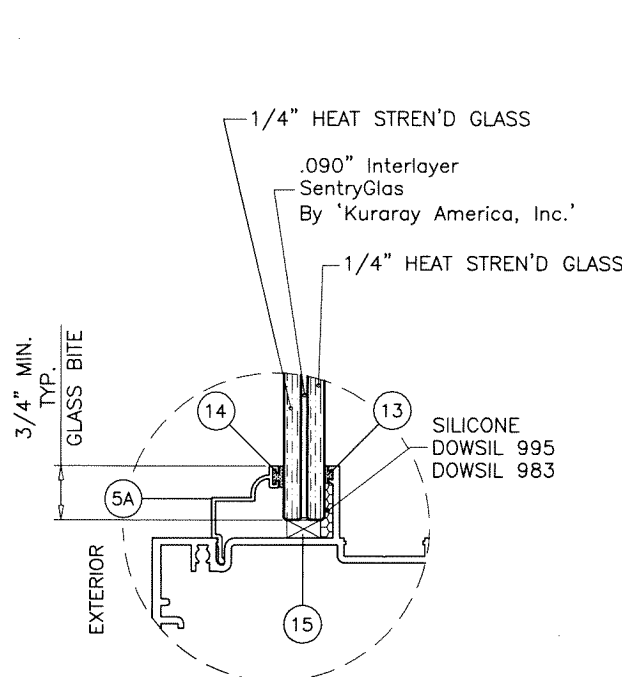
Coastline Direct Glaze IZ4
MARVIN
 PO Box 100, 401 State Ave. N.
 Warroad, MN. 56763
 Tel. (218) 386-1430 Ext. 2143

no	date	description
A	11.27.17	UPDATED TO 2017 FBC
B	12.10.18	COMPANY NAME REV.
C	08.27.20	UPDATED TO 2020 FBC
D	07.25.23	UPDATED TO 2023 FBC

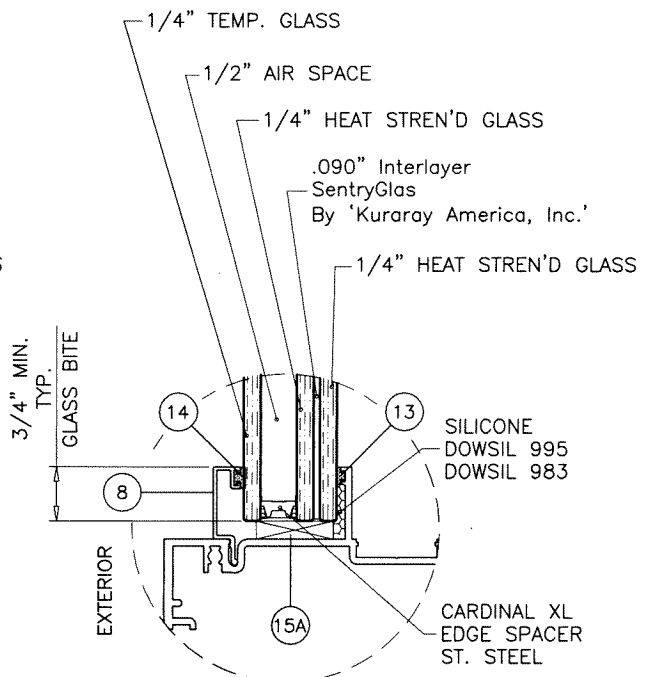
date: 10-22-15
 scale: 1/2"=1'-0"
 dr. by: TARIQ
 chk. by:

drawing no.
W15-81

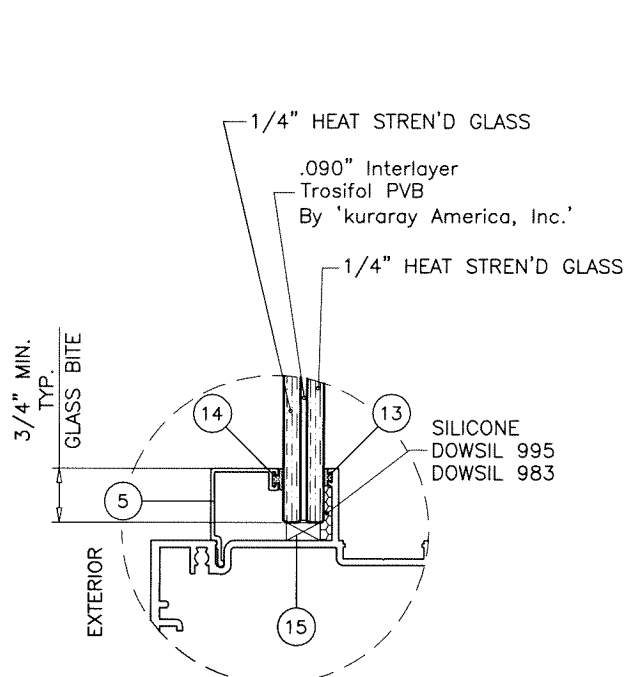
sheet 1 of 9



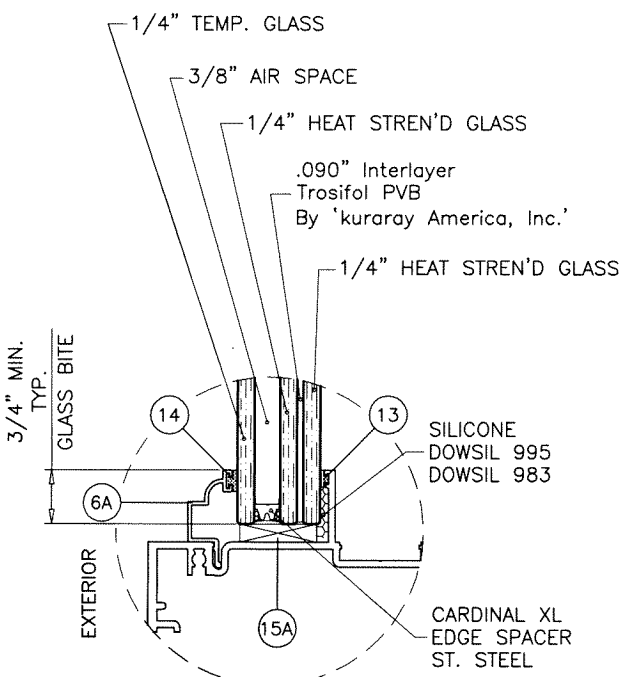
GLASS TYPE 'A'
9/16" LAM. GLASS



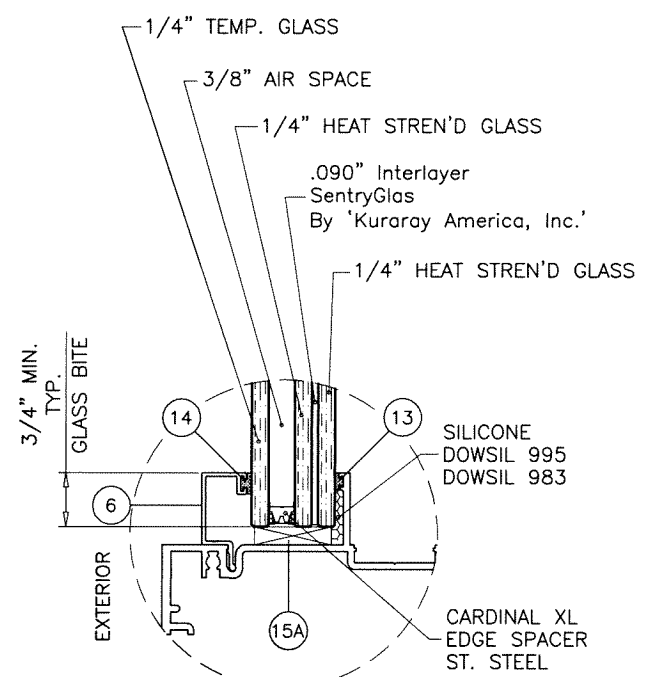
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1-5/16" INSUL. LAM. GLASS



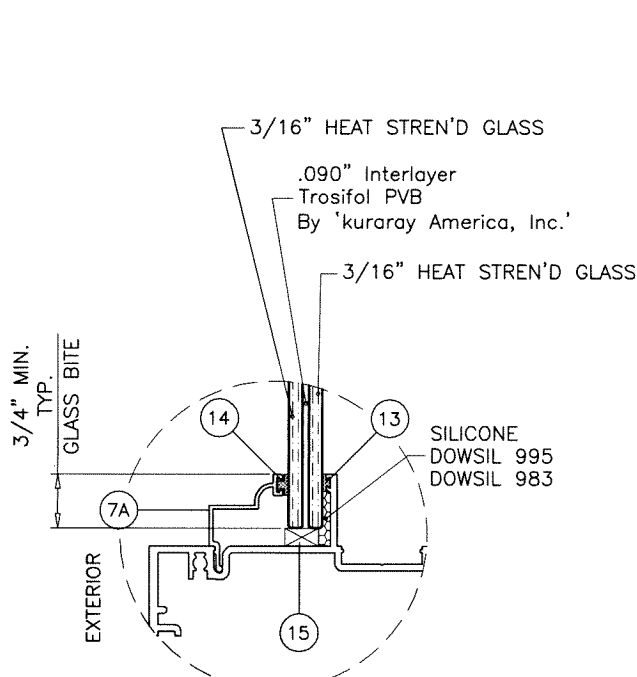
GLASS TYPE 'B'
9/16" LAM. GLASS



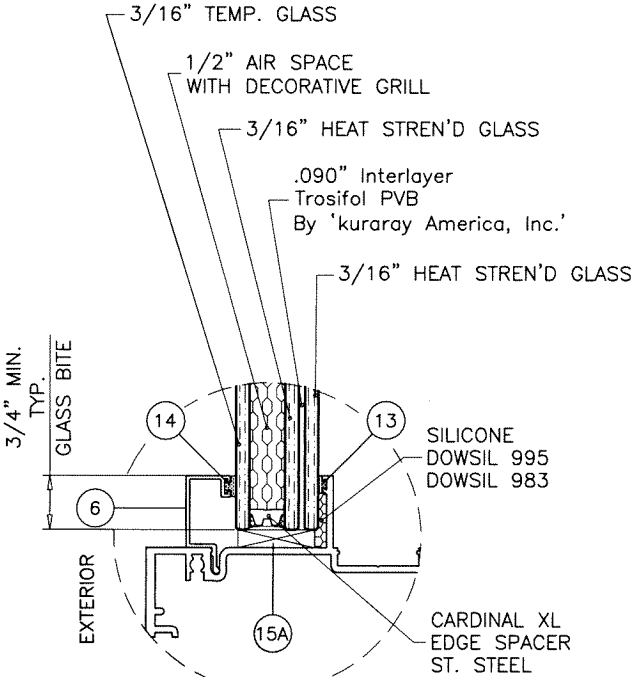
GLASS TYPE 'BI'
1-3/16" INSUL. LAM. GLASS



GLASS TYPE 'A2'
1-3/16" INSUL. LAM. GLASS



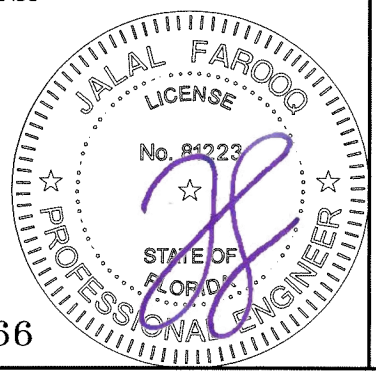
GLASS TYPE 'C'
9/16" LAM. GLASS



GLASS TYPE 'CI'
1-1/8" INSUL. LAM. GLASS

GLAZING OPTIONS

Sealed: 7/25/2023



FL #33666

afc
AL-FAROOQ CORPORATION
ENGINEERS & PRODUCT DEVELOPMENT
9360 SUNSET DRIVE, SUITE 220
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TEL. (305) 264-8100 FAX. (305) 262-6978
COMP-ANL W15-81SW

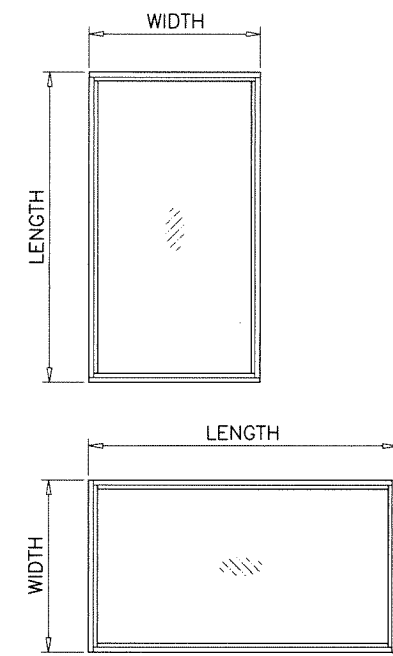
Coastline Direct Glaze IZ4
MARVIN
PO Box 100, 401 State Ave. N.
Warroad, MN. 56763
Tel. (218) 386-1430 Ext. 2143

revisions:	no	date	by	description

date: 10-22-15
scale: 3/8" = 1"
dr. by: TARIQ
chk. by:
drawing no.
W15-81
sheet 2 of 9

DESIGN LOAD CAPACITY - PSF													
WINDOW DIMS.		GLASS TYPE 'A'		GLASS TYPE 'A1'		GLASS TYPE 'A2'		GLASS TYPES 'B' & 'B1'		GLASS TYPE 'C'		GLASS TYPE 'C1'	
WIDTH	LENGTH	EXT.(+)	INT.(-)	EXT.(+)	INT.(-)	EXT.(+)	INT.(-)	EXT.(+)	INT.(-)	EXT.(+)	INT.(-)	EXT.(+)	INT.(-)
36"	72"	100.0	110.0	70.0	70.0	100.0	110.0	60.0	60.0	70.0	70.0	60.0	60.0
42"		100.0	110.0	70.0	70.0	100.0	110.0	60.0	60.0	70.0	70.0	60.0	60.0
48"		100.0	110.0	70.0	70.0	100.0	110.0	60.0	60.0	70.0	70.0	60.0	60.0
54"		91.2	100.3	70.0	70.0	91.2	100.3	54.6	54.6	63.8	63.8	60.0	60.0
60"		82.1	90.3	70.0	70.0	82.1	90.3	49.1	49.1	57.5	57.5	57.5	57.5
66"		74.6	82.1	70.0	70.0	74.6	82.1	44.7	44.7	52.2	52.2	52.2	52.2
72"		70.0	70.0	70.0	70.0	-	-	40.9	40.9	47.9	47.9	47.9	47.9
36"		78"	100.0	110.0	70.0	70.0	100.0	110.0	60.0	60.0	70.0	70.0	60.0
42"	100.0		110.0	70.0	70.0	100.0	110.0	60.0	60.0	70.0	70.0	60.0	60.0
48"	100.0		110.0	70.0	70.0	100.0	110.0	60.0	60.0	70.0	70.0	60.0	60.0
54"	91.2		100.3	70.0	70.0	91.2	100.3	54.6	54.6	63.8	63.8	60.0	60.0
60"	82.1		90.3	70.0	70.0	82.1	90.3	49.1	49.1	57.5	57.5	57.5	57.5
66"	70.0		70.0	70.0	70.0	-	-	44.7	44.7	52.2	52.2	52.2	52.2
72"	70.0		70.0	70.0	70.0	-	-	40.9	40.9	-	-	-	-
36"	84"		100.0	110.0	70.0	70.0	100.0	110.0	60.0	60.0	70.0	70.0	60.0
42"		100.0	110.0	70.0	70.0	100.0	110.0	60.0	60.0	70.0	70.0	60.0	60.0
48"		100.0	110.0	70.0	70.0	100.0	110.0	60.0	60.0	70.0	70.0	60.0	60.0
54"		91.2	100.3	70.0	70.0	91.2	100.3	54.6	54.6	63.8	63.8	60.0	60.0
60"		70.0	70.0	70.0	70.0	-	-	49.1	49.1	57.5	57.5	57.5	57.5
66"		70.0	70.0	70.0	70.0	-	-	44.7	44.7	-	-	-	-
72"		70.0	70.0	70.0	70.0	-	-	40.9	40.9	-	-	-	-
36"		90"	100.0	110.0	70.0	70.0	100.0	110.0	60.0	60.0	70.0	70.0	60.0
42"	100.0		110.0	70.0	70.0	100.0	110.0	60.0	60.0	70.0	70.0	60.0	60.0
48"	100.0		110.0	70.0	70.0	100.0	110.0	60.0	60.0	70.0	70.0	60.0	60.0
54"	91.2		100.3	70.0	70.0	91.2	100.3	54.6	54.6	63.8	63.8	60.0	60.0
60"	70.0		70.0	70.0	70.0	-	-	49.1	49.1	-	-	-	-
66"	70.0		70.0	70.0	70.0	-	-	44.7	44.7	-	-	-	-
72"	70.0		70.0	70.0	70.0	-	-	40.9	40.9	-	-	-	-
36"	96"		100.0	110.0	70.0	70.0	100.0	110.0	60.0	60.0	70.0	70.0	60.0
42"		100.0	110.0	70.0	70.0	100.0	110.0	60.0	60.0	70.0	70.0	60.0	60.0
48"		100.0	110.0	70.0	70.0	100.0	110.0	60.0	60.0	70.0	70.0	60.0	60.0
54"		70.0	70.0	70.0	70.0	-	-	54.6	54.6	63.8	63.8	60.0	60.0
60"		70.0	70.0	70.0	70.0	-	-	49.1	49.1	-	-	-	-
66"		70.0	70.0	70.0	70.0	-	-	44.7	44.7	-	-	-	-
72"		70.0	70.0	70.0	70.0	-	-	-	-	-	-	-	-
36"		102"	100.0	110.0	70.0	70.0	100.0	110.0	60.0	60.0	70.0	70.0	60.0
42"	100.0		110.0	70.0	70.0	100.0	110.0	60.0	60.0	70.0	70.0	60.0	60.0
48"	100.0		108.0	70.0	70.0	100.0	108.0	60.0	60.0	70.0	70.0	60.0	60.0
54"	70.0		70.0	70.0	70.0	-	-	54.6	54.6	-	-	-	-
60"	70.0		70.0	70.0	70.0	-	-	49.1	49.1	-	-	-	-
66"	70.0		70.0	70.0	70.0	-	-	-	-	-	-	-	-
72"	70.0		70.0	70.0	70.0	-	-	-	-	-	-	-	-
36"	108"		100.0	110.0	70.0	70.0	100.0	110.0	60.0	60.0	70.0	70.0	60.0
42"		100.0	110.0	70.0	70.0	100.0	110.0	60.0	60.0	70.0	70.0	60.0	60.0
48"		70.0	70.0	70.0	70.0	-	-	60.0	60.0	70.0	70.0	60.0	60.0
54"		70.0	70.0	70.0	70.0	-	-	54.6	54.6	-	-	-	-
60"		70.0	70.0	70.0	70.0	-	-	49.1	49.1	-	-	-	-
66"		70.0	70.0	70.0	70.0	-	-	-	-	-	-	-	-
72"		70.0	70.0	70.0	70.0	-	-	-	-	-	-	-	-
36"		114"	100.0	110.0	70.0	70.0	100.0	110.0	60.0	60.0	70.0	70.0	60.0
42"	100.0		110.0	70.0	70.0	100.0	110.0	60.0	60.0	70.0	70.0	60.0	60.0
48"	70.0		70.0	70.0	70.0	-	-	60.0	60.0	-	-	-	-
54"	70.0		70.0	70.0	70.0	-	-	54.6	54.6	-	-	-	-
60"	70.0		70.0	70.0	70.0	-	-	-	-	-	-	-	-
66"	70.0		70.0	70.0	70.0	-	-	-	-	-	-	-	-
72"	70.0		70.0	70.0	70.0	-	-	-	-	-	-	-	-

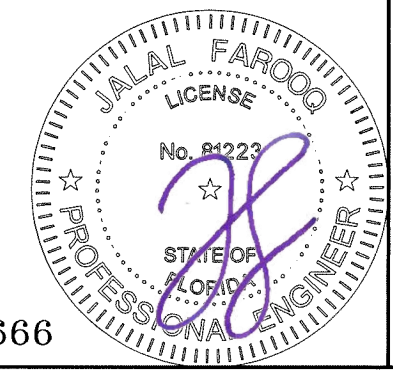
DESIGN LOAD CAPACITY - PSF													
WINDOW DIMS.		GLASS TYPE 'A'		GLASS TYPE 'A1'		GLASS TYPE 'A2'		GLASS TYPES 'B' & 'B1'		GLASS TYPE 'C'		GLASS TYPE 'C1'	
WIDTH	LENGTH	EXT.(+)	INT.(-)	EXT.(+)	INT.(-)	EXT.(+)	INT.(-)	EXT.(+)	INT.(-)	EXT.(+)	INT.(-)	EXT.(+)	INT.(-)
36"	120"	100.0	110.0	70.0	70.0	100.0	110.0	60.0	60.0	70.0	70.0	60.0	60.0
42"		70.0	70.0	70.0	70.0	-	-	60.0	60.0	70.0	70.0	60.0	60.0
48"		70.0	70.0	70.0	70.0	-	-	60.0	60.0	-	-	-	-
54"		70.0	70.0	70.0	70.0	-	-	54.6	54.6	-	-	-	-
60"		70.0	70.0	70.0	70.0	-	-	-	-	-	-	-	-
66"		70.0	70.0	70.0	70.0	-	-	-	-	-	-	-	-
72"		70.0	70.0	70.0	70.0	-	-	-	-	-	-	-	-
36"		126"	100.0	110.0	70.0	70.0	100.0	110.0	60.0	60.0	70.0	70.0	60.0
42"	70.0		70.0	70.0	70.0	-	-	60.0	60.0	70.0	70.0	60.0	60.0
48"	70.0		70.0	70.0	70.0	-	-	60.0	60.0	-	-	-	-
54"	70.0		70.0	70.0	70.0	-	-	-	-	-	-	-	-
60"	70.0		70.0	70.0	70.0	-	-	-	-	-	-	-	-
66"	70.0		70.0	70.0	70.0	-	-	-	-	-	-	-	-
72"	70.0		70.0	70.0	70.0	-	-	-	-	-	-	-	-
36"	132"		100.0	110.0	70.0	70.0	100.0	110.0	60.0	60.0	70.0	70.0	60.0
42"		70.0	70.0	70.0	70.0	-	-	60.0	60.0	-	-	-	-
48"		70.0	70.0	70.0	70.0	-	-	60.0	60.0	-	-	-	-
54"		70.0	70.0	70.0	70.0	-	-	-	-	-	-	-	-
60"		70.0	70.0	70.0	70.0	-	-	-	-	-	-	-	-
66"		70.0	70.0	70.0	70.0	-	-	-	-	-	-	-	-
72"		70.0	70.0	70.0	70.0	-	-	-	-	-	-	-	-
36"		138"	100.0	110.0	70.0	70.0	100.0	110.0	60.0	60.0	70.0	70.0	60.0
42"	70.0		70.0	70.0	70.0	-	-	60.0	60.0	-	-	-	-
48"	70.0		70.0	70.0	70.0	-	-	-	-	-	-	-	-
54"	70.0		70.0	70.0	70.0	-	-	-	-	-	-	-	-
60"	70.0		70.0	70.0	70.0	-	-	-	-	-	-	-	-
66"	70.0		70.0	70.0	70.0	-	-	-	-	-	-	-	-
72"	70.0		70.0	70.0	70.0	-	-	-	-	-	-	-	-
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42"		70.0	70.0	70.0	70.0	-	-	60.0	60.0	-	-	-	-
48"		70.0	70.0	70.0	70.0	-	-	-	-	-	-	-	-
54"		70.0	70.0	70.0	70.0	-	-	-	-	-	-	-	-
60"		70.0	70.0	70.0	70.0	-	-	-	-	-	-	-	-
66"		70.0	70.0	70.0	70.0	-	-	-	-	-	-	-	-
72"		70.0	70.0	70.0	70.0	-	-	-	-	-	-	-	-
36"		148"	70.0	70.0	70.0	70.0	-	-	-	-	-	-	-
42"	70.0		70.0	70.0	70.0	-	-	-	-	-	-	-	-
48"	70.0		70.0	70.0	70.0	-	-	-	-	-	-	-	-
54"	70.0		70.0	70.0	70.0	-	-	-	-	-	-	-	-
60"	70.0		70.0	70.0	70.0	-	-	-	-	-	-	-	-
66"	70.0		70.0	70.0	70.0	-	-	-	-	-	-	-	-
72"	70.0		70.0	70.0	70.0	-	-	-	-	-	-	-	-
36"	152"		70.0	70.0	70.0	70.0	-	-	-	-	-	-	-
42"		70.0	70.0	70.0	70.0	-	-	-	-	-	-	-	-
48"		70.0	70.0	70.0	70.0	-	-	-	-	-	-	-	-
54"		70.0	70.0	70.0	70.0	-	-	-	-	-	-	-	-
60"		70.0	70.0	70.0	70.0	-	-	-	-	-	-	-	-
66"		70.0	70.0	70.0	70.0	-	-	-	-	-	-	-	-
36"	156"	70.0	70.0	70.0	70.0	-	-	-	-	-	-	-	-
42"		70.0	70.0	70.0	70.0	-	-	-	-	-	-	-	-
48"		70.0	70.0	70.0	70.0	-	-	-	-	-	-	-	-
54"		70.0	70.0	70.0	70.0	-	-	-	-	-	-	-	-
66"		70.0	70.0	70.0	70.0	-	-	-	-	-	-	-	-



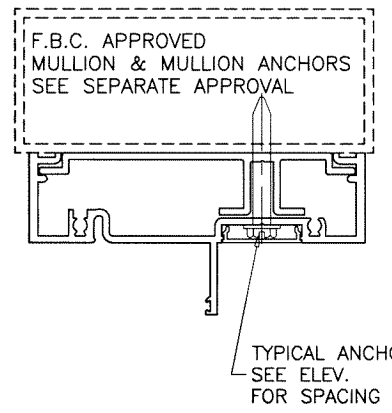
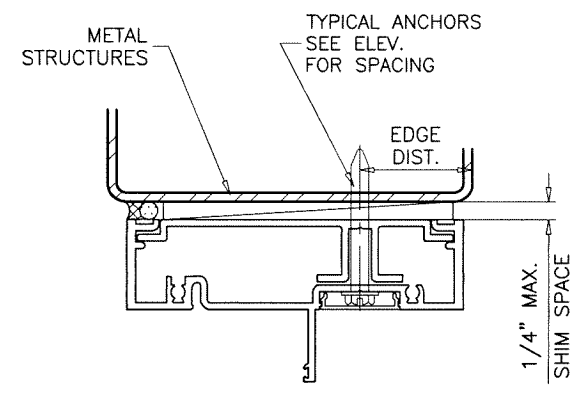
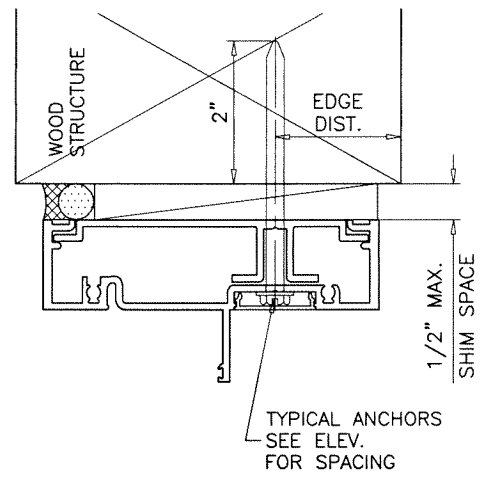
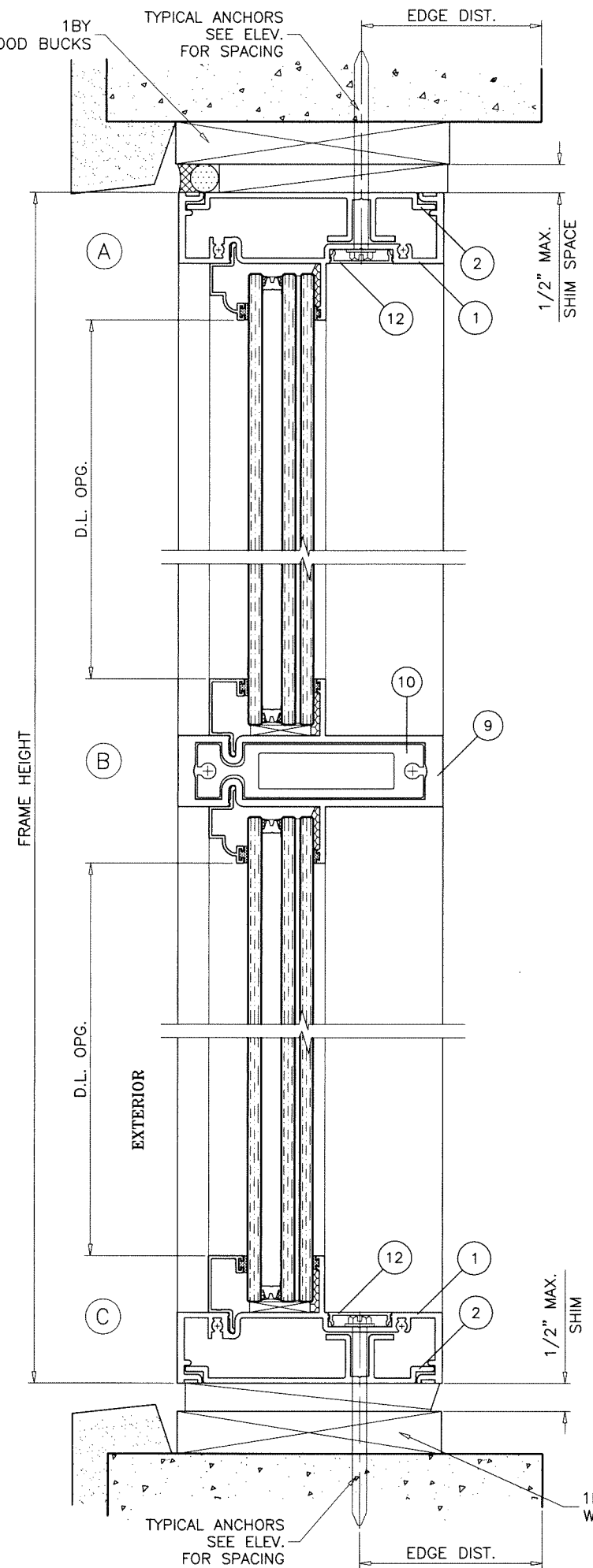
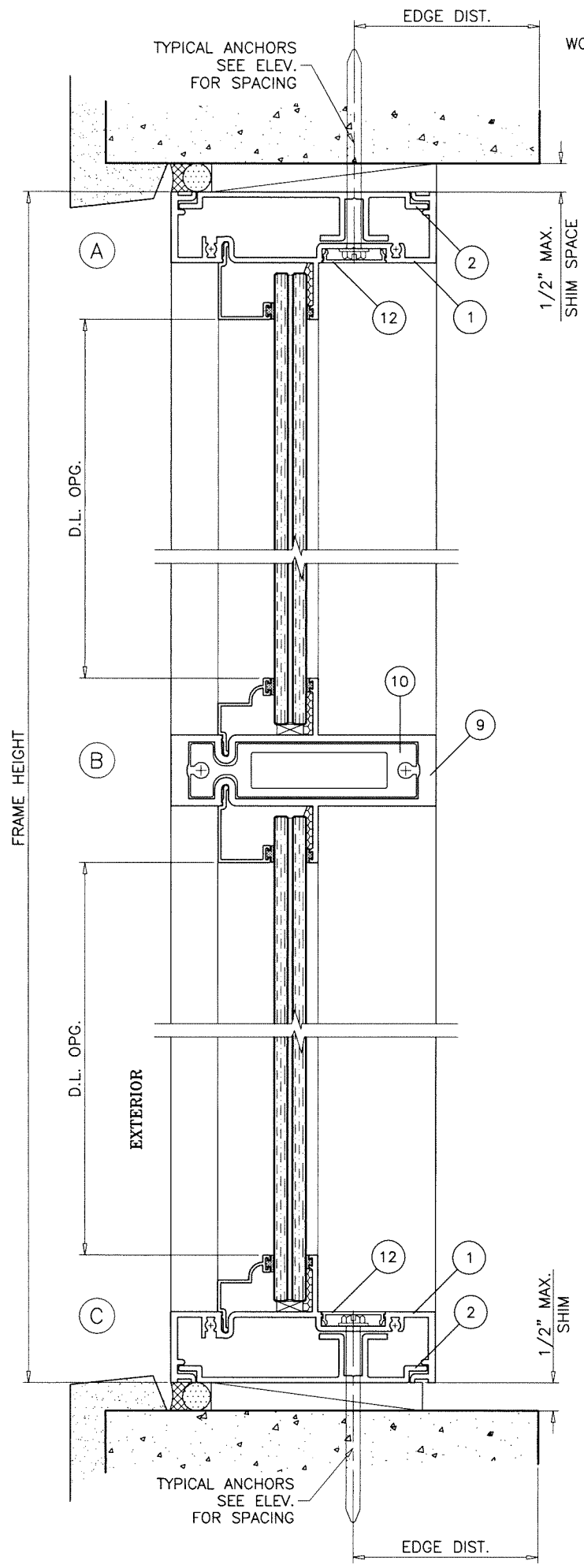
NOTE:
WIDTH AND LENGTH DIMENSIONS CAN
BE ORIENTED VERTICALLY OR
HORIZONTALLY AS SHOWN ABOVE.

NOTE:
GLASS CAPACITIES ON THIS SHEET ARE
BASED ON ASTM E1300-09 (3 SEC. GUSTS).

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FL #33666

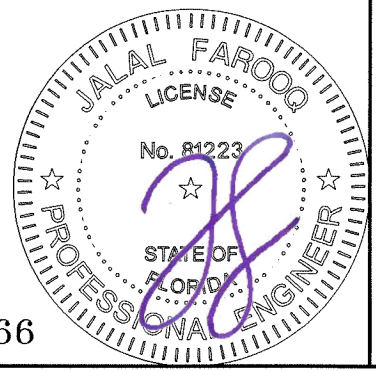


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9360 SUNSET DRIVE, SUITE 220
MIAMI, FLORIDA 33173 (C.A.N. 3536)



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 TEL. (305) 264-8100 FAX. (305) 262-6978
 COMP-ANL \ W15-81SW

Coastline Direct Glaze IZ4
MARVIN
 PO Box 100, 401 State Ave. N.
 Warroad, MN, 56763
 Tel. (218) 386-1430 Ext. 2143

revisions:

no	date	by	description

date: 10-22-15
 scale: 3/8" = 1"
 dr. by: TARIQ
 chk. by:
 drawing no.
W15-81
 sheet 4 of 9

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

TYPICAL ANCHORS: SEE ELEV. FOR SPACING

TYPE 'A' - 1/4" DIA. ULTRACON+ BY 'DEWALT' (Fu=164 KSI, Fy=148 KSI)

- INTO WOOD STRUCTURES
- 2" MIN. PENETRATION INTO WOOD (HEAD/SILL/JAMBS)
- THRU 1BY BUCKS INTO CONC. OR BLOCKS
- 2" MIN. EMBED INTO CONCRETE (HEAD/SILL/JAMBS)
- 2" MIN. EMBED INTO FILLED BLOCKS (JAMBS)
- DIRECTLY INTO BLOCKS
- 2" MIN. EMBED INTO FILLED BLOCKS (JAMBS)

ANCHOR EDGE DISTANCES

- INTO CONCRETE AND BLOCKS = 2-1/2" MIN.
- INTO WOOD STRUCTURE = 1" MIN.

ANCHOR CL TO CL DISTANCE

- INTO CONCRETE AND BLOCKS = 3" MIN.

TYPE 'B' - 1/4" DIA. ULTRACON+ BY 'DEWALT' (Fu=164 KSI, Fy=148 KSI)

- DIRECTLY INTO CONCRETE
- 2" MIN. EMBED INTO CONCRETE (HEAD/SILL/JAMBS)

ANCHOR EDGE DISTANCES

- INTO CONCRETE = 2-1/2" MIN.

ANCHOR CL TO CL DISTANCE

- INTO CONCRETE = 3" MIN.

TYPE 'C' - 5/16" DIA. ULTRACON BY 'DEWALT' (Fu=177 KSI, Fy=155 KSI)

- DIRECTLY INTO CONCRETE OR BLOCKS
- 2" MIN. EMBED INTO CONCRETE (HEAD/SILL/JAMBS)
- 2" MIN. EMBED INTO FILLED BLOCKS (JAMBS)

ANCHOR EDGE DISTANCES

- INTO CONCRETE AND BLOCKS = 2-1/2" MIN.

ANCHOR CL TO CL DISTANCE

- INTO CONCRETE = 3" MIN.
- INTO FILLED BLOCKS = 5" MIN.

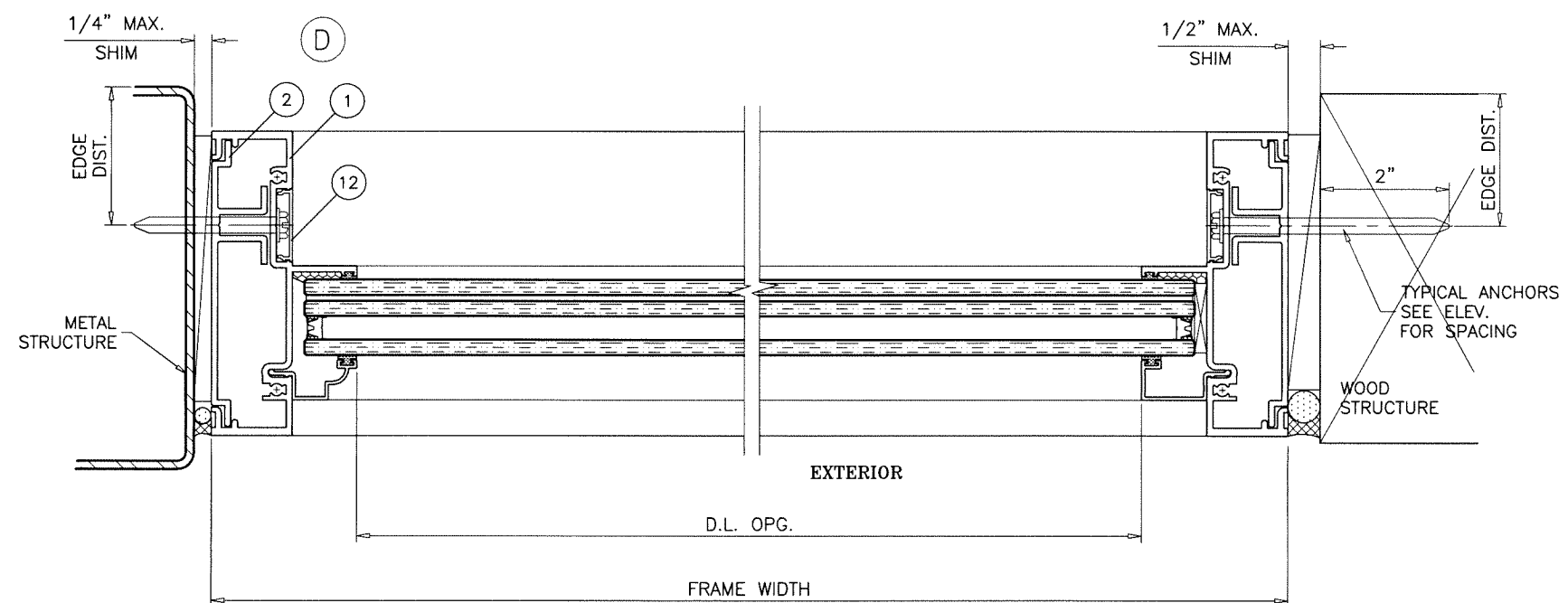
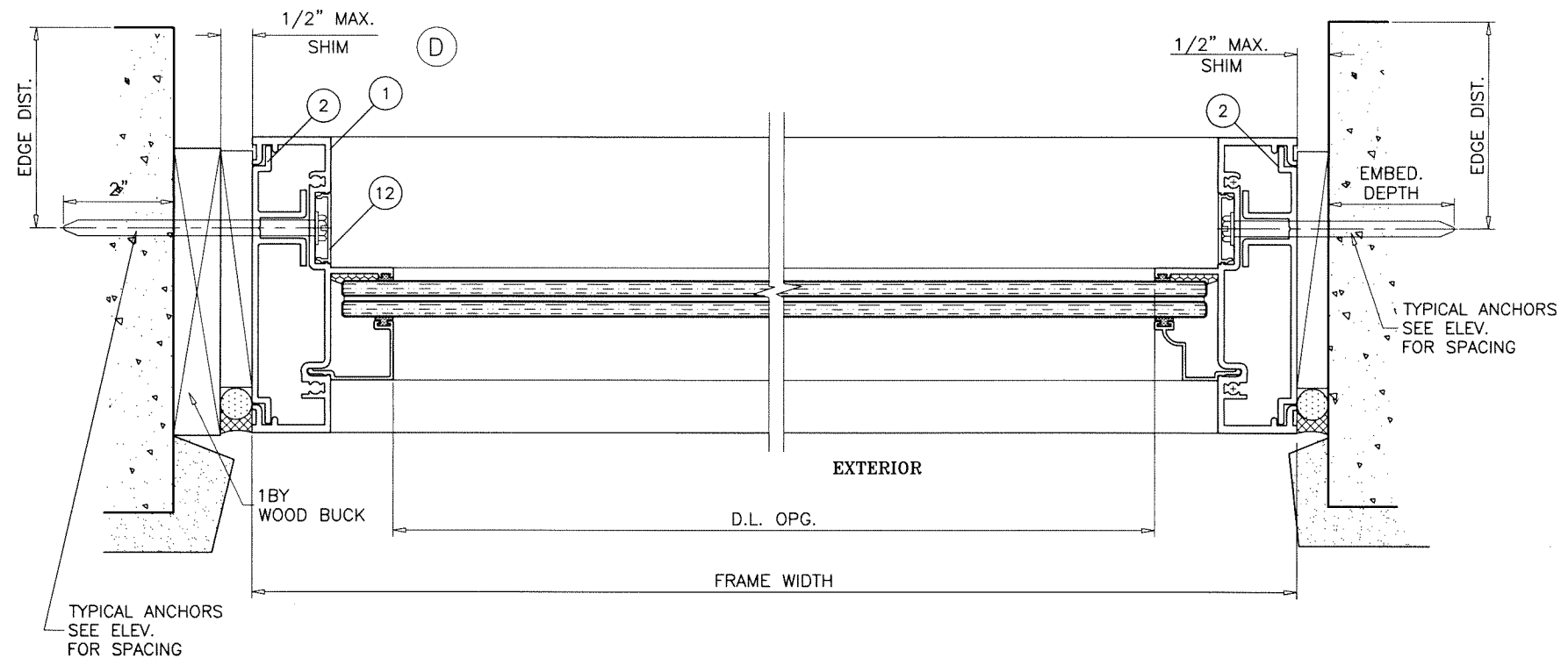
TYPE 'D' - #14 SMS OR SELF DRILLING SCREWS (GRADE 2 CRS)

- INTO F.B.C. APPROVED MULLIONS
- OR
- INTO METAL STRUCTURES
- (3) THREADS MIN. PENETRATION BEYOND METAL SUBSTRATE
- ALUMINUM: 1/8" THK. MIN. (6063-T5 MIN.)
- STEEL: 1/8" THK. MIN. (Fy = 36 KSI MIN.)
- (STEEL IN CONTACT WITH ALUMINUM TO BE PLATED OR PAINTED)

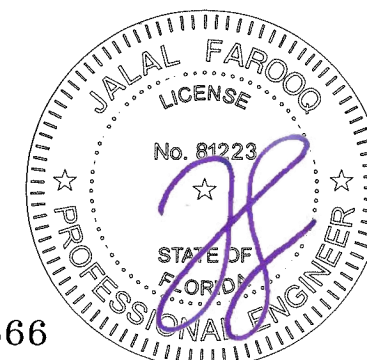
ANCHOR EDGE DISTANCES

- INTO METAL STRUCTURE = 1/2" MIN.

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



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FL #33666

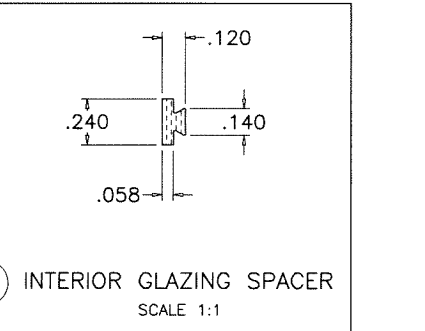
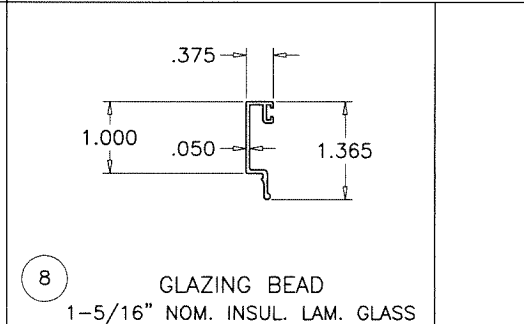
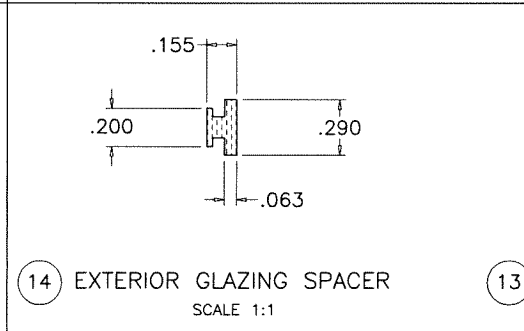
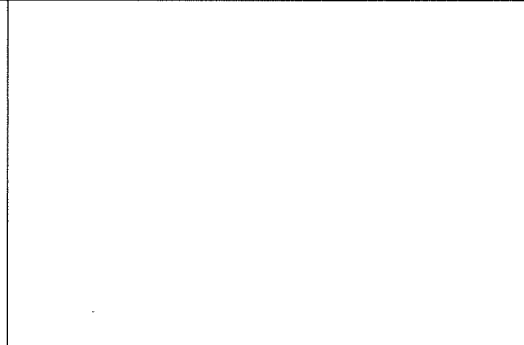
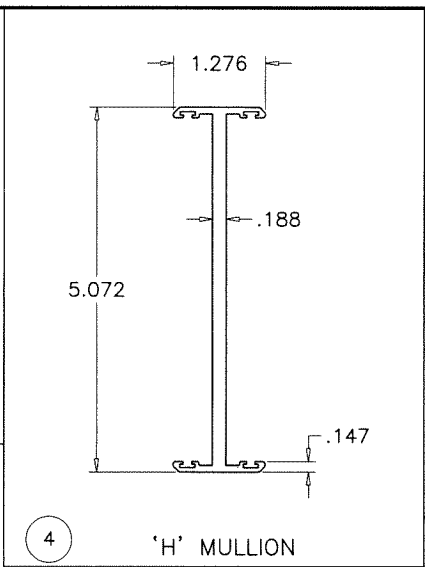
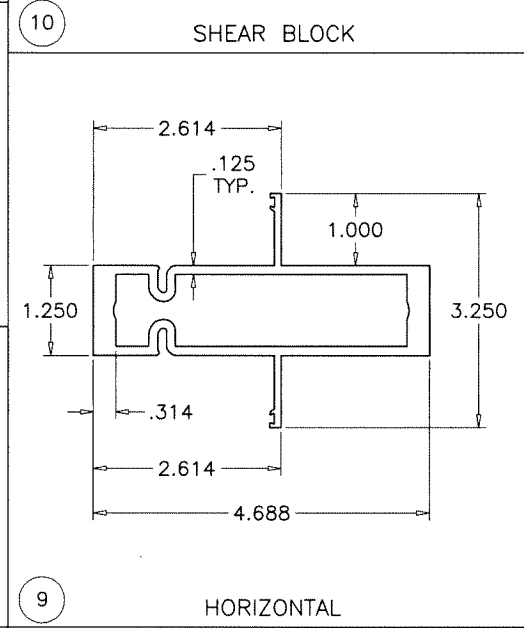
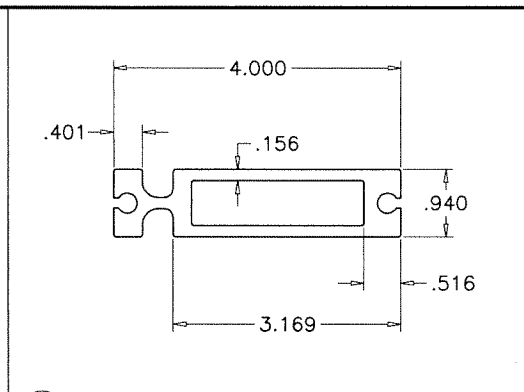
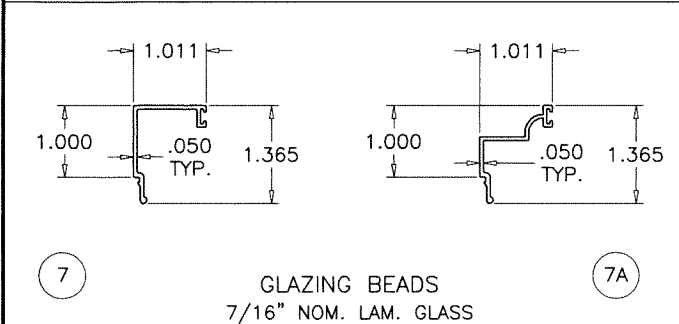
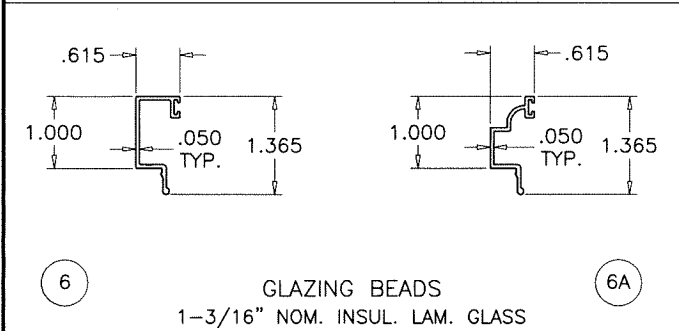
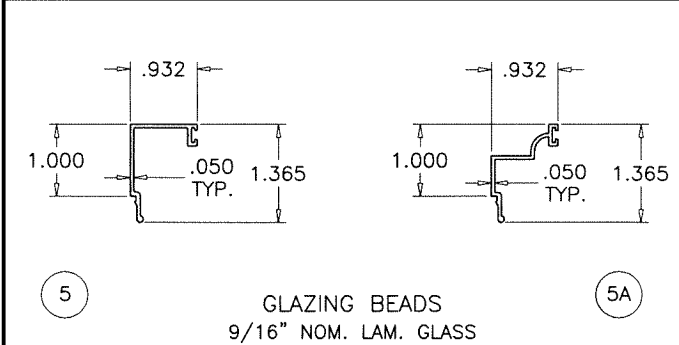
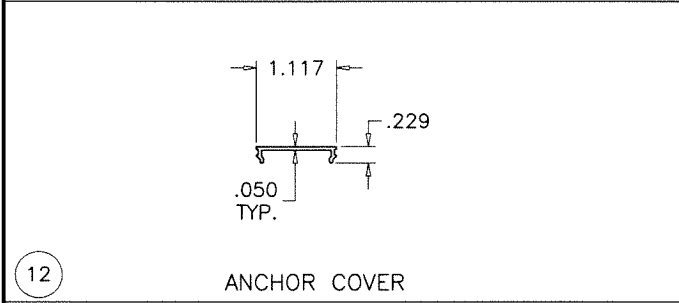
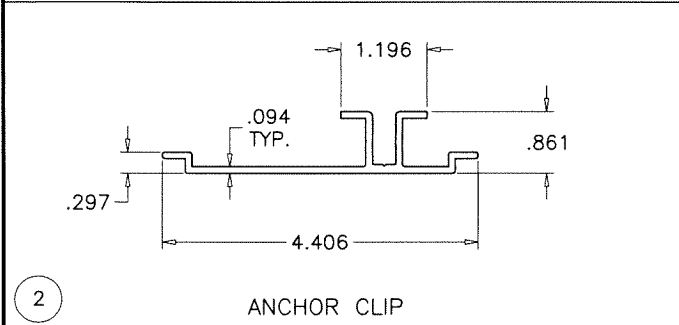
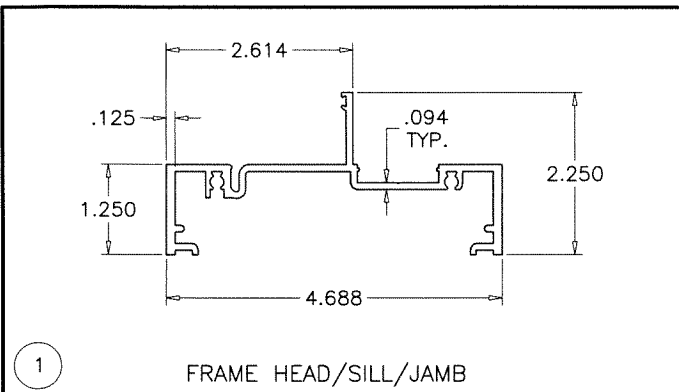
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9360 SUNSET DRIVE, SUITE 220 (C.A.N. 3538)
MIAMI, FLORIDA 33173
TEL. (305) 264-8100 FAX. (305) 262-6978
COMP-ANL W15-81SIW

Coastline Direct Glaze IZ4
MARVIN
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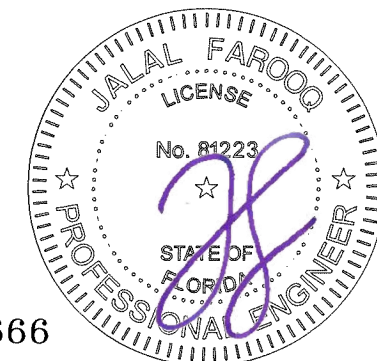
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scale: 3/8" = 1"
dr. by: TARIQ
chk. by:

drawing no.
W15-81
sheet 5 of 9



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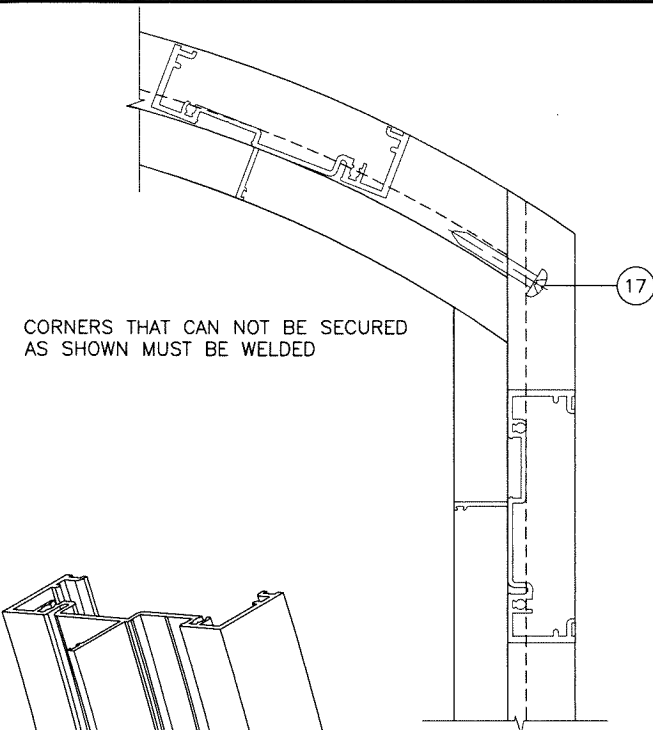


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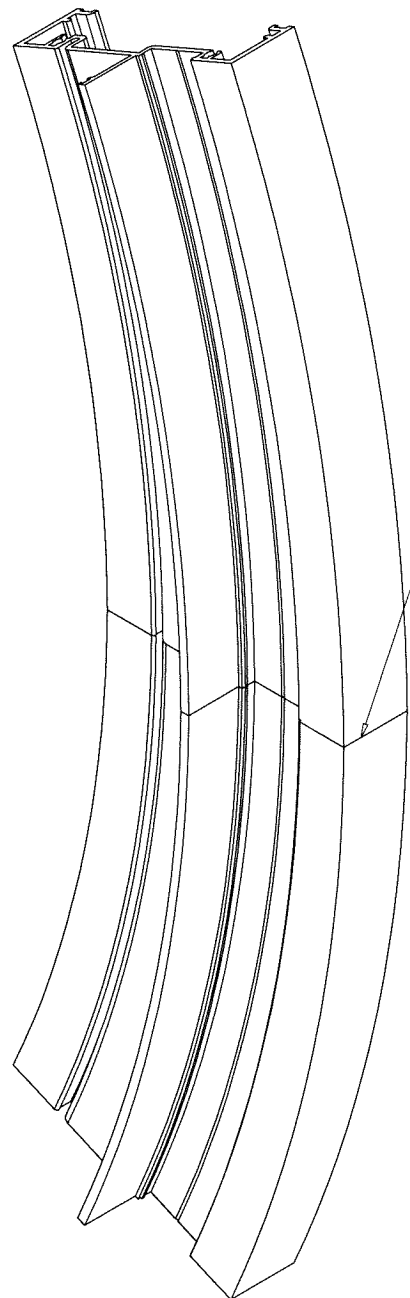
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 dr. by: TARIO
 chk. by:
 drawing no.
W15-81
 sheet 6 of 9

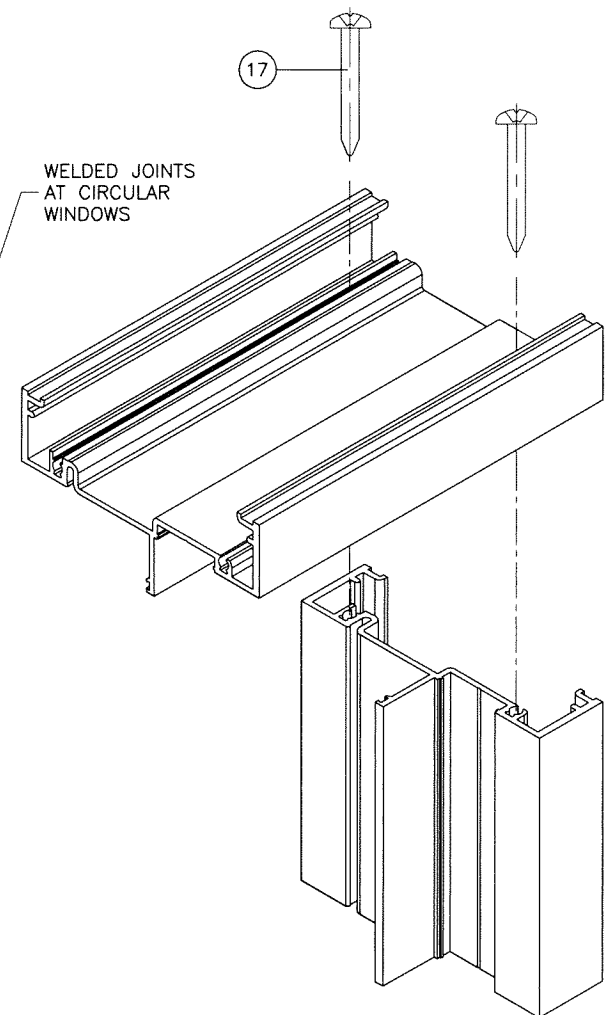


CORNERS THAT CAN NOT BE SECURED AS SHOWN MUST BE WELDED

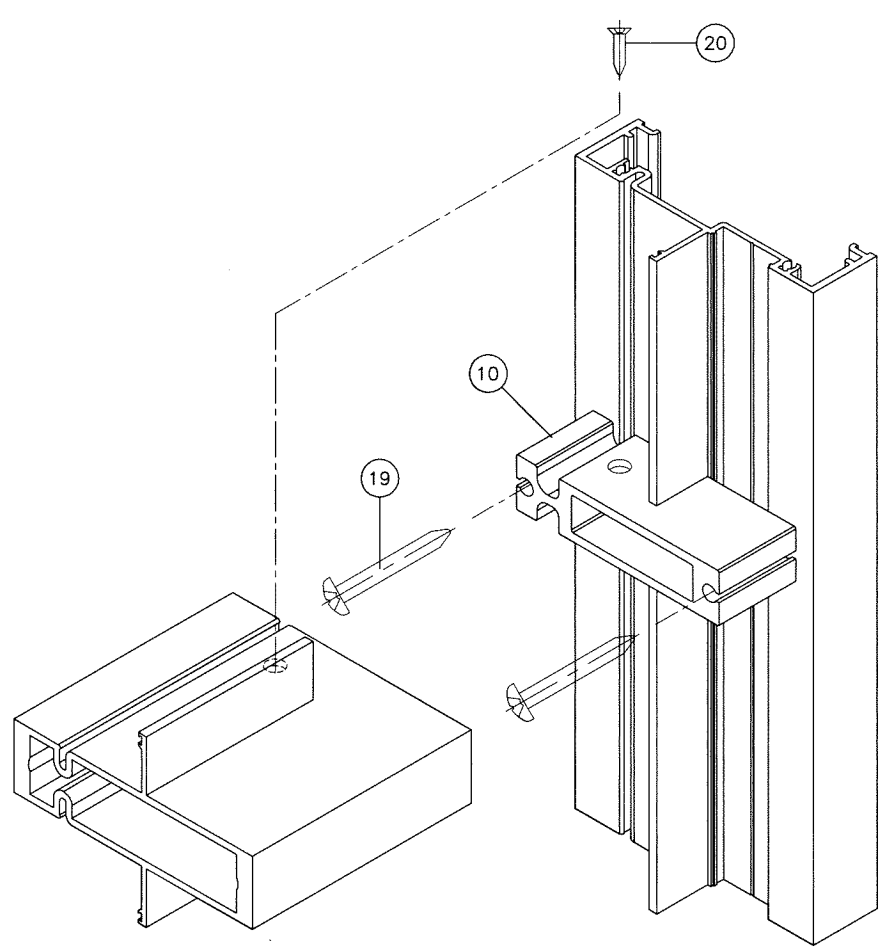


CIRCULAR WINDOWS

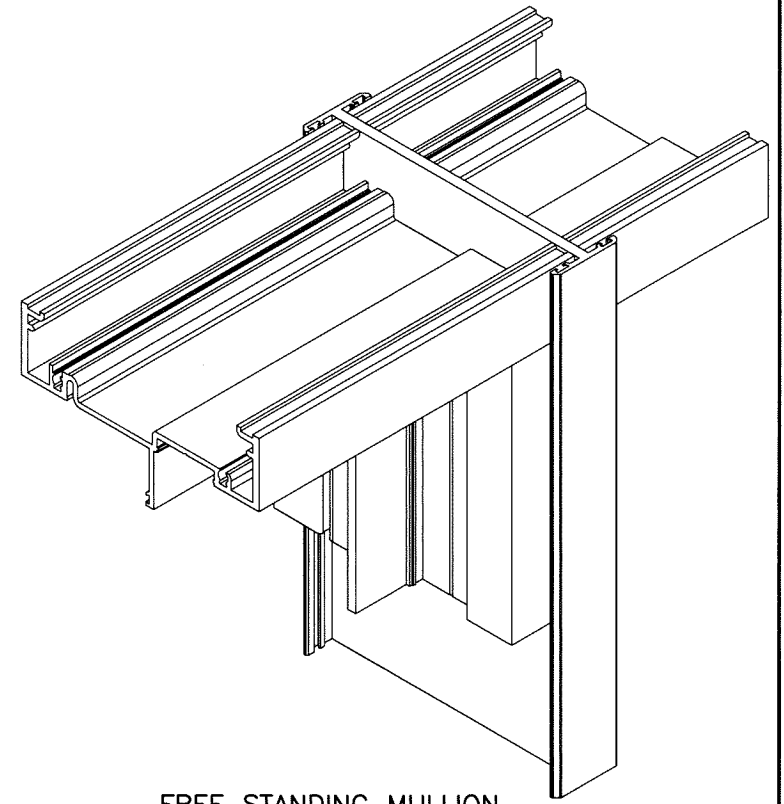
FRAME CORNER



RECT. OR SQUARE WINDOWS



HORIZONTAL CORNER

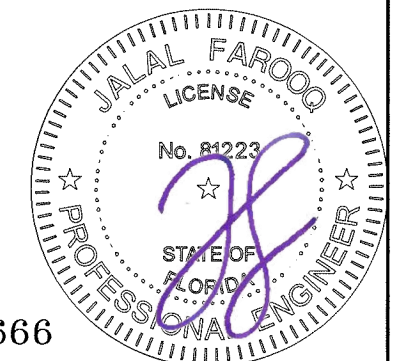


FREE STANDING MULLION

ITEM NO.	PART NUMBER	QUANTITY	DESCRIPTION	MATERIAL	MANF./SUPPLIER/REMARKS
1	SIW1004	AS REQD.	FRAME HEAD/SILL/JAMB	6063-T6	-
2	SIW1005	AS REQD.	ANCHOR CLIP	6063-T6	-
4	SIW543	AS REQD.	'H' MULLION	6063-T6	-
5	SIW1010	4/ LITE	GLAZING BEAD (9/16" LAM. GLASS)	6063-T6	-
5A	SIW1009	4/ LITE	ALT. GLAZING BEAD (9/16" LAM. GLASS)	6063-T6	-
6	SIW1008	4/ LITE	GLAZING BEAD (1-3/16" INSUL. LAM. GLASS)	6063-T6	-
6A	SIW1007	4/ LITE	ALT. GLAZING BEAD (1-3/16" INSUL. LAM. GLASS)	6063-T6	-
7	SIW1013	4/ LITE	GLAZING BEAD (7/16" LAM. GLASS)	6063-T6	-
7A	SIW1012	4/ LITE	ALT. GLAZING BEAD (7/16" LAM. GLASS)	6063-T6	-
8	SIW1017	4/ LITE	GLAZING BEAD (1-5/16" INSUL. LAM. GLASS)	6063-T6	-
9	SIW1001	AS REQD.	HORIZONTAL	6063-T6	-
10	SIW1002	AS REQD.	SHEAR BLOCK AT HORIZONTAL ENDS, 1-1/2" LONG	6063-T6	-
12	-	AS REQD.	ANCHOR COVER	6063-T6	-
13	E20218	4/ LITE	INTERIOR GLAZING SPACER (DUROMETER 70±5) SHORE A	TPE	ULTRAFAB
14	5530	4/ LITE	EXTERIOR GLAZING SPACER (DUROMETER 70±5) SHORE A	SANTOPRENE	CENTRAL PLASTICS
15	5532	2/ LITE	SETTING BLOCKS (1/4" X 1/2" X 2" LONG), AT 1/4 POINTS	EPDM	DUROMETER 80±5 SHORE A
15A	5533	2/ LITE	SETTING BLOCKS (INSUL. LAM. GLASS), AT 1/4 POINTS	EPDM	DUROMETER 80±5 SHORE A
17	#14 X 2"	AS REQD.	ASSEMBLY FASTENERS	-	PH SELF DRILLING
19	#14 X 2"	-	SHEAR BLOCK FASTENERS AT HORIZONTAL	-	PH SELF DRILLING
20	#10 X 3/4"	-	HORIZONTAL FASTENER	-	FH SELF DRILLING
21	#14 X 1-1/4"	AS REQD.	FRAME FASTENERS AT 'H' MULLION	-	FH SELF DRILLING

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 TEL: (305) 264-8100
 COMP-ANL\W15-81SW

Coastline Direct Glaze IZ4
MARVIN
 PO Box 100, 401 State Ave. N.
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 Tel. (218) 586-1430 Ext. 2143

revisions:	no.	date	by	description

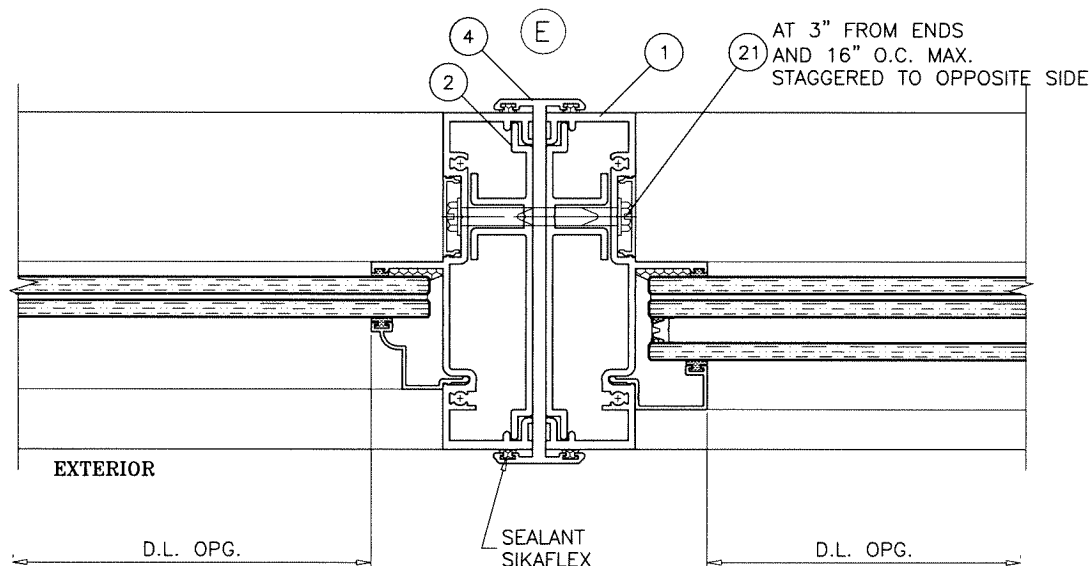
date: 10-22-15
 scale: 3/8" = 1"
 dr. by: TARIQ
 chk. by:
 drawing no.
W15-81
 sheet 7 of 9

MULLION LOAD CAPACITY - PSF			
WINDOW DIMS.		'H' MULLION	
WIDTH (W)	LENGTH (L)	EXT.(+)	INT.(-)
36"	72"	110.0	110.0
42"		110.0	110.0
48"		110.0	110.0
54"		110.0	110.0
60"		110.0	110.0
66"		110.0	110.0
69"		110.0	110.0
72"		70.0	70.0
36"	78"	110.0	110.0
42"		110.0	110.0
48"		110.0	110.0
54"		110.0	110.0
60"		110.0	110.0
64"		110.0	110.0
66"		70.0	70.0
68"		70.0	70.0
72"	60.0	60.0	
36"	84"	110.0	110.0
42"		110.0	110.0
48"		110.0	110.0
54"		110.0	110.0
59"		110.0	110.0
60"		70.0	70.0
63"		70.0	70.0
66"		60.0	60.0
72"	60.0	60.0	
36"	90"	110.0	110.0
42"		110.0	110.0
48"		110.0	110.0
54"		110.0	110.0
55"		110.0	110.0
59"		70.0	70.0
60"		60.0	60.0
66"		60.0	60.0
36"	96"	110.0	110.0
42"		110.0	110.0
48"		110.0	110.0
52"		110.0	110.0
54"		70.0	70.0
55"		70.0	70.0
60"		60.0	60.0
66"		60.0	60.0
36"	102"	110.0	110.0
42"		110.0	110.0
48"		110.0	110.0
52"		70.0	70.0
54"		60.0	60.0
60"	60.0	60.0	
36"	108"	70.0	70.0
42"		70.0	70.0
48"		70.0	70.0
54"		60.0	60.0

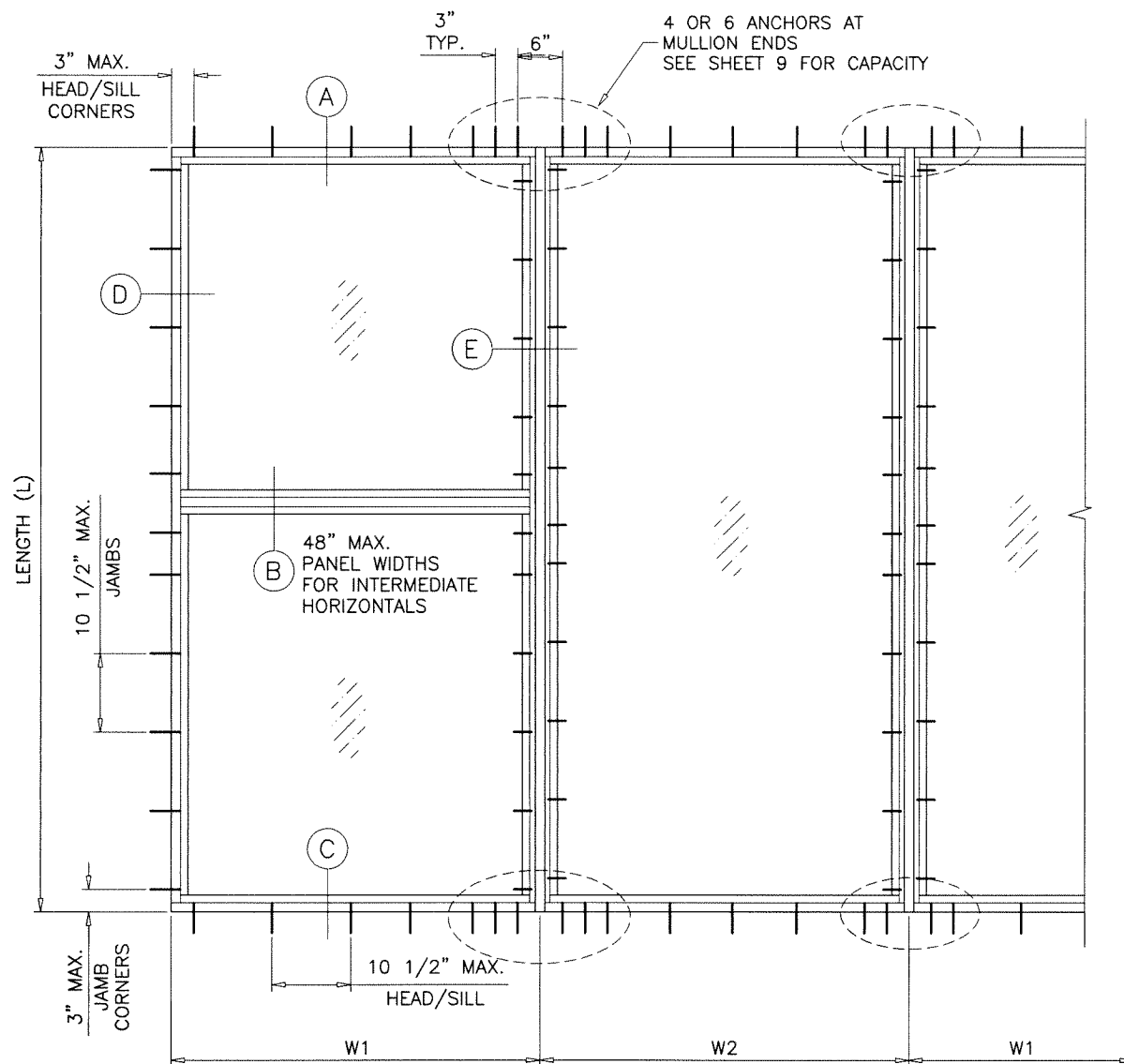
MULLION LOAD CAPACITY - PSF			
WINDOW DIMS.		'H' MULLION	
WIDTH (W)	LENGTH (L)	EXT.(+)	INT.(-)
36"	114"	60.0	60.0
42"		60.0	60.0
48"		60.0	60.0
54"		60.0	60.0
36"	120"	60.0	60.0
42"		60.0	60.0
48"		60.0	60.0
36"	126"	60.0	60.0
42"		60.0	60.0
48"		60.0	60.0
36"	132"	60.0	60.0
42"		60.0	60.0
48"		60.0	60.0

NOTES:

1. USE CHART ON THIS SHEET FOR SIDE BY SIDE CONNECTION CAPACITY OF WINDOW MULLION.
2. USE CHARTS ON SHEET 9 FOR MULLION ANCHOR CAPACITY.
3. FOR FIXED WINDOW CAPACITY SEE SHEET 3.
4. LOWER VALUES FROM STEPS 1, 2 OR 3 WILL APPLY TO ENTIRE SYSTEM.



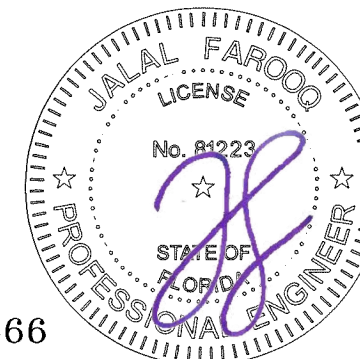
TOTAL PRPERTIES
 Ix = 11.214 IN⁴
 Sx = 2.536 IN³



TYPICAL ELEVATIONS
 SIDE BY SIDE WINDOWS
 SIDE BY SIDE APPLIES TO TWO OR MORE WINDOWS

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

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FL #33666



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dr. by: TARIQ

chk. by:

drawing no.
W15-81

sheet 8 of 9

MULLION ANCHOR LOAD CAPACITY - PSF

ANCHOR TYPE		ANCHOR TYPE 'A'						ANCHOR TYPE 'B'						ANCHOR TYPE 'C'						ANCHOR TYPE 'D'	
SHIM SPACE		1/4" MAX. SHIM		3/8" MAX. SHIM		1/2" MAX. SHIM		1/4" MAX. SHIM		3/8" MAX. SHIM		1/2" MAX. SHIM		1/4" MAX. SHIM		3/8" MAX. SHIM		1/2" MAX. SHIM		1/4" MAX. SHIM	
WIDTH (W)	LENGTH (L)	4 ANCHORS		6 ANCHORS		4 ANCHORS		6 ANCHORS		4 ANCHORS		6 ANCHORS		4 ANCHORS		6 ANCHORS		4 ANCHORS		6 ANCHORS	
		EXT. (+) INT. (-)	EXT. (+) INT. (-)	EXT. (+) INT. (-)	EXT. (+) INT. (-)	EXT. (+) INT. (-)	EXT. (+) INT. (-)	EXT. (+) INT. (-)	EXT. (+) INT. (-)	EXT. (+) INT. (-)	EXT. (+) INT. (-)	EXT. (+) INT. (-)	EXT. (+) INT. (-)	EXT. (+) INT. (-)	EXT. (+) INT. (-)	EXT. (+) INT. (-)	EXT. (+) INT. (-)	EXT. (+) INT. (-)	EXT. (+) INT. (-)	EXT. (+) INT. (-)	EXT. (+) INT. (-)
36"	72"	110.0	110.0	108.7	110.0	84.5	110.0	110.0	110.0	108.7	110.0	84.5	110.0	110.0	110.0	110.0	110.0	110.0	110.0	110.0	110.0
42"		110.0	110.0	98.6	110.0	76.7	110.0	110.0	110.0	98.6	110.0	76.7	110.0	110.0	110.0	110.0	110.0	110.0	110.0	110.0	110.0
48"		110.0	110.0	91.7	110.0	71.3	107.0	110.0	110.0	91.7	110.0	71.3	107.0	110.0	110.0	110.0	110.0	103.0	110.0	110.0	110.0
54"		110.0	110.0	86.9	110.0	67.6	101.4	110.0	110.0	86.9	110.0	67.6	101.4	110.0	110.0	110.0	110.0	97.7	110.0	110.0	110.0
60"		110.0	110.0	83.8	110.0	65.2	97.8	110.0	110.0	83.8	110.0	65.2	97.8	110.0	110.0	110.0	110.0	94.2	110.0	110.0	110.0
66"		110.0	110.0	82.1	110.0	63.8	95.7	110.0	110.0	82.1	110.0	63.8	95.7	110.0	110.0	110.0	110.0	92.2	110.0	110.0	110.0
72"		70.0	70.0	70.0	70.0	63.4	70.0	70.0	70.0	63.4	70.0	70.0	70.0	63.4	70.0	70.0	70.0	70.0	70.0	70.0	70.0
36"	78"	110.0	110.0	97.8	110.0	76.1	110.0	110.0	110.0	97.8	110.0	76.1	110.0	110.0	110.0	110.0	110.0	109.9	110.0	110.0	110.0
42"		110.0	110.0	88.3	110.0	68.6	102.9	110.0	110.0	88.3	110.0	68.6	102.9	110.0	110.0	110.0	110.0	99.1	110.0	110.0	110.0
48"		110.0	110.0	81.5	110.0	63.4	95.1	110.0	110.0	81.5	110.0	63.4	95.1	110.0	110.0	110.0	110.0	91.6	110.0	110.0	110.0
54"		104.6	110.0	76.7	110.0	59.6	89.5	110.0	110.0	76.7	110.0	59.6	89.5	110.0	110.0	109.2	110.0	86.2	110.0	110.0	110.0
60"		100.0	110.0	73.4	110.0	57.0	85.6	110.0	110.0	73.4	110.0	57.0	85.6	110.0	110.0	104.4	110.0	82.4	110.0	110.0	110.0
66"		70.0	70.0	70.0	70.0	55.3	70.0	70.0	70.0	55.3	70.0	70.0	70.0	55.3	70.0	70.0	70.0	70.0	70.0	70.0	70.0
72"		60.0	60.0	60.0	60.0	54.3	60.0	60.0	60.0	54.3	60.0	60.0	60.0	54.3	60.0	60.0	60.0	60.0	60.0	60.0	60.0
36"	84"	110.0	110.0	88.9	110.0	69.1	103.7	110.0	110.0	88.9	110.0	69.1	103.7	110.0	110.0	110.0	110.0	99.9	110.0	110.0	110.0
42"		108.8	110.0	79.8	110.0	62.1	93.1	110.0	110.0	79.8	110.0	62.1	93.1	110.0	110.0	110.0	110.0	89.7	110.0	110.0	110.0
48"		100.0	110.0	73.4	110.0	57.0	85.6	110.0	110.0	73.4	110.0	57.0	85.6	110.0	110.0	104.4	110.0	82.4	110.0	110.0	110.0
54"		93.6	110.0	68.6	103.0	53.4	80.1	110.0	110.0	68.6	103.0	53.4	80.1	110.0	110.0	97.7	110.0	77.1	110.0	110.0	110.0
60"		70.0	70.0	65.2	70.0	50.7	70.0	70.0	70.0	65.2	70.0	50.7	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0
66"		60.0	60.0	60.0	60.0	48.8	60.0	60.0	60.0	48.8	60.0	60.0	60.0	48.8	60.0	60.0	60.0	60.0	60.0	60.0	60.0
72"		60.0	60.0	60.0	60.0	47.5	60.0	60.0	60.0	47.5	60.0	60.0	60.0	47.5	60.0	60.0	60.0	60.0	60.0	60.0	60.0
36"	90"	110.0	110.0	81.5	110.0	63.4	95.1	110.0	110.0	81.5	110.0	63.4	95.1	110.0	110.0	110.0	110.0	91.6	110.0	110.0	110.0
42"		99.4	110.0	72.9	109.4	56.7	85.0	110.0	110.0	72.9	109.4	56.7	85.0	110.0	110.0	103.8	110.0	81.9	110.0	110.0	110.0
48"		90.9	110.0	66.7	100.0	51.9	77.8	110.0	110.0	66.7	100.0	51.9	77.8	110.0	110.0	94.9	110.0	74.9	110.0	110.0	110.0
54"		84.7	110.0	62.1	93.2	48.3	72.4	110.0	110.0	62.1	93.2	48.3	72.4	110.0	110.0	88.4	110.0	69.8	104.6	110.0	110.0
60"		60.0	60.0	58.7	60.0	45.6	60.0	60.0	60.0	58.7	60.0	45.6	60.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0
66"		60.0	60.0	56.2	60.0	43.7	60.0	60.0	60.0	56.2	60.0	60.0	60.0	43.7	60.0	60.0	60.0	60.0	60.0	60.0	60.0
72"		60.0	60.0	56.2	60.0	43.7	60.0	60.0	60.0	56.2	60.0	60.0	60.0	43.7	60.0	60.0	60.0	60.0	60.0	60.0	60.0
36"	96"	102.6	110.0	75.2	110.0	58.5	87.8	110.0	110.0	75.2	110.0	58.5	87.8	110.0	110.0	107.1	110.0	84.5	110.0	110.0	110.0
42"		91.4	110.0	67.1	100.6	52.2	78.2	110.0	110.0	67.1	100.6	52.2	78.2	110.0	110.0	95.5	110.0	75.3	110.0	110.0	110.0
48"		83.3	110.0	61.1	91.7	47.5	71.3	110.0	110.0	61.1	91.7	47.5	71.3	110.0	110.0	87.0	110.0	68.7	103.0	110.0	110.0
54"		70.0	70.0	56.7	70.0	44.1	66.1	70.0	70.0	56.7	70.0	44.1	66.1	70.0	70.0	70.0	70.0	63.7	70.0	70.0	70.0
60"		60.0	60.0	53.4	60.0	41.5	60.0	60.0	60.0	53.4	60.0	41.5	60.0	60.0	60.0	60.0	60.0	59.9	60.0	60.0	60.0
66"		60.0	60.0	50.8	60.0	39.5	59.3	60.0	60.0	50.8	60.0	60.0	60.0	39.5	59.3	60.0	60.0	57.1	60.0	60.0	60.0
72"		60.0	60.0	50.8	60.0	39.5	59.3	60.0	60.0	50.8	60.0	60.0	60.0	39.5	59.3	60.0	60.0	57.1	60.0	60.0	60.0
36"	102"	95.2	110.0	69.9	104.8	54.3	81.5	110.0	110.0	69.9	104.8	54.3	81.5	110.0	110.0	99.4	110.0	78.5	110.0	110.0	110.0
42"		84.7	110.0	62.1	93.2	48.3	72.4	110.0	110.0	62.1	93.2	48.3	72.4	110.0	110.0	88.4	110.0	69.8	104.6	110.0	110.0
48"		76.9	110.0	56.4	84.6	43.9	65.8	110.0	110.0	56.4	84.6	43.9	65.8	104.3	110.0	80.3	110.0	63.4	95.1	110.0	110.0
54"		60.0	60.0	52.2	60.0	40.6	60.0	60.0	60.0	52.2	60.0	40.6	60.0	60.0	60.0	60.0	60.0	58.6	60.0	60.0	60.0
60"		60.0	60.0	48.9	60.0	38.0	57.0	60.0	60.0	48.9	60.0	38.0	57.0	60.0	60.0	60.0	60.0	54.9	60.0	60.0	60.0
36"	108"	70.0	70.0	65.2	70.0	50.7	70.0	70.0	70.0	65.2	70.0	50.7	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0
42"		70.0	70.0	57.8	70.0	45.0	67.4	70.0	70.0	57.8	70.0	45.0	67.4	70.0	70.0	70.0	70.0	64.9	70.0	70.0	70.0
48"		70.0	70.0	52.4	70.0	40.7	61.1	70.0	70.0	52.4	70.0	40.7	61.1	70.0	70.0	70.0	70.0	58.9	70.0	70.0	70.0
54"		60.0	60.0	48.3	60.0	37.6	56.3	60.0	60.0	48.3	60.0	37.6	56.3	60.0	60.0	60.0	60.0	54.3	60.0	60.0	60.0
60"		60.0	60.0	48.3	60.0	37.6	56.3	60.0	60.0	48.3	60.0	37.6	56.3	60.0	60.0	60.0	60.0	54.3	60.0	60.0	60.0
36"	114"	60.0	60.0	60.0	60.0	47.5	60.0	60.0	60.0	60.0	60.0	47.5	60.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0
42"		60.0	60.0	54.1	60.0	42.1	60.0	60.0	60.0	54.1	60.0	42.1	60.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0
48"		60.0	60.0	48.9	60.0	38.0	57.0	60.0	60.0	48.9	60.0	38.0	57.0	60.0	60.0	60.0	60.0	54.9	60.0	60.0	60.0
54"		60.0	60.0	45.0	60.0	35.0	52.5	60.0	60.0	45.0	60.0	35.0	52.5	60.0	60.0	60.0	60.0	50.5	60.0	60.0	60.0
36"	120"	60.0	60.0	57.5	60.0	44.7	60.0	60.0	60.0	57.5	60.0	44.7	60.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0
42"		60.0	60.0	50.8	60.0	39.5	59.3	60.0	60.0	50.8	60.0	39.5	59.3	60.0	60.0	60.0	60.0	57.1	60.0	60.0	60.0
48"		60.0	60.0	45.9	60.0	35.7	53.5	60.0	60.0	45.9	60.0	35.7	53.5	60.0	60.0	60.0	60.0	51.5	60.0	60.0	60.0
36"	126"	60.0	60.0	54.3	60.0	42.3	60.0	60.0	60.0	54.3	60.0	42.3	60.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0
42"		60.0	60.0	47.9	60.0	37.3	55.9	60.0	60.0	47.9	60.0	37.3	55.9	60.0	60.0	60.0	60.0	53.8	60.0	60.0	60.0
48"		58.8	60.0	43.2	60.0	33.6	50.3	60.0	60.0	43.2	60.0	33.6	50.3	60.0	60.0	60.0	60.0	48.5	60.0	60.0	60.0
36"	132"	60.0	60.0	51.5	60.0	40.0	60.0	60.0	60.0	51.5	60.0	40.0	60.0	60.0	60.0	60.0	60.0	57.8	60.0	60.0	60.0
42"		60.0	60.0	45.3	60.0	35.2	52.9	60.0	60.0	45.3	60.0	35.2	52.9	60.0	60.0	60.0	60.0	50.9	60.0	60.0	60.0
48"		55.6	60.0	40.8	60.0	31.7	47.5	60.0	60.0	40.8	60.0	31.7	47.5	60.0	60.0	58.0	60.0	45.8	60.0	60.0	