



BUILDING CODE COMPLIANCE OFFICE (BCCO)
PRODUCT CONTROL DIVISION

MIAMI-DADE COUNTY, FLORIDA
METRO-DADE FLAGLER BUILDING
140 WEST FLAGLER STREET, SUITE 1603
MIAMI, FLORIDA 33130-1563
(305) 375-2901 FAX (305) 375-2908

NOTICE OF ACCEPTANCE (NOA)

www.buildingcodeonline.com

Construction Glass Industries Corp.
10100 NW 25th Street
Miami, FL 33172

SCOPE:

This NOA is being issued under the applicable rules and regulations governing the use of construction materials. The documentation submitted has been reviewed by Miami-Dade County Product Control Division and accepted by the Board of Rules and Appeals (BORA) to be used in Miami Dade County and other areas where allowed by the Authority Having Jurisdiction (AHJ).

This NOA shall not be valid after the expiration date stated below. The Miami-Dade County Product Control Division (In Miami Dade County) and/or the AHJ (in areas other than Miami Dade County) reserve the right to have this product or material tested for quality assurance purposes. If this product or material fails to perform in the accepted manner, the manufacturer will incur the expense of such testing and the AHJ may immediately revoke, modify, or suspend the use of such product or material within their jurisdiction. BORA reserves the right to revoke this acceptance, if it is determined by Miami-Dade County Product Control Division that this product or material fails to meet the requirements of the applicable building code.

This product is approved as described herein, and has been designed to comply with the Florida Building Code, including the High Velocity Hurricane Zone.

DESCRIPTION: Series 238 Aluminum Project-Out Window – LMI

APPROVAL DOCUMENT: Drawing No. **W99-04**, titled "Series 238 Alum Project Out Window", sheets 1 through 6 of 6, dated 01/21/99, prepared by Al-Farooq Corporation, with last revision on 11/11/06, signed and sealed by Humayoun Farooq, P.E., bearing the Miami-Dade County Product Control Renewal stamp with the Notice of Acceptance number and expiration date by the Miami-Dade County Product Control Division.

MISSILE IMPACT RATING: Large and Small Missile Impact Resistant

LABELING: Each unit shall bear a permanent label with the manufacturer's name or logo, city, state and following statement: "Miami-Dade County Product Control Approved", unless otherwise noted herein.

RENEWAL of this NOA shall be considered after a renewal application has been filed and there has been no change in the applicable building code negatively affecting the performance of this product.

TERMINATION of this NOA will occur after the expiration date or if there has been a revision or change in the materials, use, and/or manufacture of the product or process. Misuse of this NOA as an endorsement of any product, for sales, advertising or any other purposes shall automatically terminate this NOA. Failure to comply with any section of this NOA shall be cause for termination and removal of NOA.

ADVERTISEMENT: The NOA number preceded by the words Miami-Dade County, Florida, and followed by the expiration date may be displayed in advertising literature. If any portion of the NOA is displayed, then it shall be done in its entirety.

INSPECTION: A copy of this entire NOA shall be provided to the user by the manufacturer or its distributors and shall be available for inspection at the job site at the request of the Building Official.

This NOA **renews and revises** consists of this page 1 and evidence pages E-1, E-2, E-3 and E-4, as well as approval document mentioned above.

The submitted documentation was reviewed by **Jaime D. Gascon, P.E.**



J. Gascon
12/8/06

NOA No. 06-1010.01
Expiration Date: October 31, 2007
Approval Date: December 7, 2006
Page 1

Construction Glass Industries Corp.

NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED

A. DRAWINGS

1. Manufacturer's die drawings and sections.
2. Drawing No. **W99-04**, titled "Series 238 Alum Project Out Window", sheets 1 through 6 of 6, dated 01/21/99, prepared by Al-Farooq Corporation, with last revision on 11/11/06, signed and sealed by Humayoun Farooq, P.E.

B. TESTS

TESTS PERFORMED:

RESULTS:

7.1 NON-IMPACT WINDOWS					
GLAZING:		3/16" ANNEALED GLASS		3/16" TEMPERED GLASS	
TEST		TEST LOADS	DESIGN LOADS	TEST LOADS	DESIGN LOADS
AIR INFILTRATION @ 1.57 PSF SFBC PA 202-94 (0.37 CFM/FT ²)		0.03 CFM/FT ² FTL-1019	-----	0.033 CFM/FT ² FTL-1055	-----
AIR INFILTRATION @ 6.24 PSF SFBC PA 202-94 (0.37 CFM/FT ²)		0.04 CFM/FT ² FTL-1019	-----	0.04 CFM/FT ² FTL-1055	-----
UNIFORM STATIC PRESSURE- DESIGN LOADS SFBC PA 202-94 POSITIVE		+60.0 PSF FTL-1019	+60.0 PSF FTL-1019	+117.0 PSF FTL-1055	+117.0 PSF FTL-1055
UNIFORM STATIC PRESSURE- DESIGN LOADS SFBC PA 202-94 NEGATIVE		-60.0 PSF FTL-1019	-60.0 PSF FTL-1019	-117.0 PSF FTL-1055	-117.0 PSF FTL-1055
WATER RESISTANCE (PSF) SFBC PA 202-94		+16.50 PSF FTL-1019	+110.0 PSF FTL-1019	+16.50 PSF FTL-1055	+110.0 PSF FTL-1055
UNIFORM STATIC PRESSURE-FULL TEST LOAD SFBC PA 202-94 POSITIVE		+90.0 PSF FTL-1019	+60.0 PSF FTL-1019	+165.0 PSF FTL-1055	+110.0 PSF FTL-1055
UNIFORM STATIC PRESSURE -FULL TEST LOAD SFBC PA 202-94 NEGATIVE		-90.0 PSF FTL-1019	-60.0 PSF FTL-1019	-190.0 PSF FTL-1055	-127.0 PSF FTL-1055
FORCED-ENTRY RESISTANCE (FER) AAMA 1302.5-76		SATISFACTORY FTL-1019	-----	SATISFACTORY FTL-1055	-----
LARGE MISSILE IMPACT TEST SFBC PA 201-94		NONE	NONE	NONE	NONE
CYCLIC WIND PRESSURE TEST SFBC PA 203-94 POSITIVE (4,500 cycles)		NONE	NONE	NONE	NONE
CYCLIC WIND PRESSURE TEST SFBC PA 203-94 NEGATIVE (4,500 cycles)		NONE	NONE	NONE	NONE
Design Pressure Rating (Positive)			+60.0 PSF		+110.0 PSF
Design Pressure Rating (Negative)			-60.0 PSF		-117.0 PSF
Comparative Analysis		See Section 9.1		See Sections 9.2 and 9.3	
Hurricane Protective System		REQUIRED		REQUIRED	



Jaime D. Gascon, P.E.
 Chief, Product Control Division
 NOA No. 06-1010.01
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Construction Glass Industries Corp.

NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED

TESTS PERFORMED: continued

RESULTS:

7.2 IMPACT WINDOWS w/"SENTRYGLAS"				
GLAZING:	3/16" ANNEALED "SENTRYGLAS"		3/16" TEMPERED "SENTRYGLAS"	
TEST	TEST LOADS	DESIGN LOADS	TEST LOADS	DESIGN LOADS
AIR INFILTRATION @ 1.57 PSF SFBC PA 202-94 (0.37 CFM/FT ²)	0.03 CFM/FT ² FTL-1019	-----	0.03 CFM/FT ² FTL-1055	-----
AIR INFILTRATION @ 6.24 PSF SFBC PA 202-94 (0.37 CFM/FT ²)	0.04 CFM/FT ² FTL-1019	-----	0.04 CFM/FT ² FTL-1055	-----
UNIFORM STATIC PRESSURE- DESIGN LOADS SFBC PA 202-94 POSITIVE	+60.0 PSF FTL-1019	+60.0 PSF FTL-1019	+110.0 PSF FTL-1055	+110.0 PSF FTL-1055
UNIFORM STATIC PRESSURE- DESIGN LOADS SFBC PA 202-94 NEGATIVE	-60.0 PSF FTL-1019	-60.0 PSF FTL-1019	-110.0 PSF FTL-1055	-110.0 PSF FTL-1055
WATER RESISTANCE (PSF) SFBC PA 202-94	+16.50 PSF FTL-1019	+110.0 PSF FTL-1019	+16.50 PSF FTL-1055	+110.0 PSF FTL-1055
UNIFORM STATIC PRESSURE-FULL TEST LOAD SFBC PA 202-94 POSITIVE	+90.0 PSF FTL-1019	+60.0 PSF FTL-1019	+165.0 PSF FTL-1055	+110.0 PSF FTL-1055
UNIFORM STATIC PRESSURE -FULL TEST LOAD SFBC PA 202-94 NEGATIVE	-90.0 PSF FTL-1019	-60.0 PSF FTL-1019	-190.0 PSF FTL-1055	-127.0 PSF FTL-1055
FORCED-ENTRY RESISTANCE (FER) AAMA 1302.5-76	SATISFACTORY FTL-1019	-----	SATISFACTORY FTL-1055	-----
LARGE MISSILE IMPACT TEST SFBC PA 201-94	SATISFACTORY ATL-1209.01-94	-----	SATISFACTORY ATL-1209.01-94	-----
CYCLIC WIND PRESSURE TEST SFBC PA 203-94 POSITIVE (4,500 cycles)	+70.0 PSF ATL-1209.01-94	+70.0 PSF ATL-1209.01-94	+70.0 PSF ATL-1209.01-94	+70.0 PSF ATL-1209.01-94
CYCLIC WIND PRESSURE TEST SFBC PA 203-94 NEGATIVE (4,500 cycles)	-70.0 PSF ATL-1209.01-94	-70.0 PSF ATL-1209.01-94	-70.0 PSF ATL-1209.01-94	-70.0 PSF ATL-1209.01-94
Design Pressure Rating (Positive)	See Sections 9.1 and 9.4		See Sections 9.2, 9.3 and 9.4	
Design Pressure Rating (Negative)	(The lesser of the two.)		(The lesser of the three.)	
Additional Analysis	See Sections 9.1 and 9.4		See Sections 9.2, 9.3 and 9.4	
Hurricane Protective System	NOT REQUIRED		NOT REQUIRED	



Jaime D. Gascon, P.E.
 Chief, Product Control Division
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NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED

B. TESTS continued

TESTS PERFORMED: continued

RESULTS:

IMPACT WINDOWS w/LAMINATED "SAFLEX" GLASS				
GLAZING:	5/16" ANNEALED LAMINATED "SAFLEX" GLASS		5/16" TEMPERED LAMINATED "SAFLEX" GLASS	
	TEST	TEST LOADS	DESIGN LOADS	TEST LOADS
AIR INFILTRATION @ 1.57 PSF SFBC PA 202-94 (0.37 CFM/FT ²)	0.03 CFM/FT ² FTL-1019	-----	0.03 CFM/FT ² FTL-1055	-----
AIR INFILTRATION @ 6.24 PSF SFBC PA 202-94	0.04 CFM/FT ² FTL-1019	-----	0.04 CFM/FT ² FTL-1055	-----
UNIFORM STATIC PRESSURE- DESIGN LOADS SFBC PA 202-94 POSITIVE	+60.0 PSF FTL-1019	+60.0 PSF FTL-1019	+110.0 PSF FTL-1055	+110.0 PSF FTL-1055
UNIFORM STATIC PRESSURE- DESIGN LOADS SFBC PA 202-94 NEGATIVE	-60.0 PSF FTL-1019	-60.0 PSF FTL-1019	-110.0 PSF FTL-1055	-110.0 PSF FTL-1055
WATER RESISTANCE (PSF) SFBC PA 202-94	+16.50 PSF FTL-1019	+110.0 PSF FTL-1019	+16.50 PSF FTL-1055	+110.0 PSF FTL-1055
UNIFORM STATIC PRESSURE-FULL TEST LOAD SFBC PA 202-94 POSITIVE	+90.0 PSF FTL-1019	+60.0 PSF FTL-1019	+165.0 PSF FTL-1055	+110.0 PSF FTL-1055
UNIFORM STATIC PRESSURE -FULL TEST LOAD SFBC PA 202-94 NEGATIVE	-90.0 PSF FTL-1019	-60.0 PSF FTL-1019	-190.0 PSF FTL-1055	-127.0 PSF FTL-1055
FORCED-ENTRY RESISTANCE (FER) AAMA 1302.5-76	SATISFACTORY FTL-1019	-----	SATISFACTORY FTL-1055	-----
LARGE MISSILE IMPACT TEST SFBC PA 201-94	SATISFACTORY HTL-0080-0303-96	-----	SATISFACTORY HTL-0080-0303-96	-----
CYCLIC WIND PRESSURE TEST (16.2 sq. ft.) SFBC PA 203-94 POSITIVE (4,500 cycles)	+110.0 PSF HTL-0080-0303-96	+110.0 PSF HTL-0080-0303-96	+110.0 PSF HTL-0080-0303-96	+110.0 PSF HTL-0080-0303-96
CYCLIC WIND PRESSURE TEST (16.2 sq. ft.) SFBC PA 203-94 NEGATIVE (4,500 cycles)	-120.0 PSF HTL-0080-0303-96	-120.0 PSF HTL-0080-0303-96	-120.0 PSF HTL-0080-0303-96	-120.0 PSF HTL-0080-0303-96
CYCLIC WIND PRESSURE TEST (9.3 sq. ft.) SFBC PA 203-94 POSITIVE (4,500 cycles)	+110.0 PSF HTL-0080-0303-96	+110.0 PSF HTL-0080-0303-96	+110.0 PSF HTL-0080-0303-96	+110.0 PSF HTL-0080-0303-96
CYCLIC WIND PRESSURE TEST (9.3 sq. ft.) SFBC PA 203-94 NEGATIVE (4,500 cycles)	-220.0 PSF HTL-0080-0303-96	-220.0 PSF HTL-0080-0303-96	-220.0 PSF HTL-0080-0303-96	-220.0 PSF HTL-0080-0303-96
Design Pressure Rating (Positive)	See Sections 9.1 and 9.5 (The lesser of the two.)		See Sections 9.2, 9.3 and 9.5 (The lesser of the three.)	
Design Pressure Rating (Negative)	See Sections 9.1 and 9.5		See Sections 9.2, 9.3 and 9.5	
Additional Analysis	See Sections 9.1 and 9.5		See Sections 9.2, 9.3 and 9.5	
Hurricane Protective System	NOT REQUIRED		NOT REQUIRED	

C. CALCULATIONS

- Revised Anchor Calculations and structural analysis, complying with FBC-2004, prepared by Al-Farooq Corporation, dated 11/08/06, signed and sealed by Humayoun Farooq, P.E.
Complies with ASTM E1300-98/02

D. QUALITY ASSURANCE

- Miami Dade Building Code Compliance Office (BCCO).


Jaime D. Gascon, P.E.

Chief, Product Control Division
NOA No. 06-1010.01

Expiration Date: October 31, 2007

Approval Date: December 7, 2006

Construction Glass Industries Corp.

NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED

E. MATERIAL CERTIFICATIONS

1. Notice of Acceptance No. 06-0216.06 issued to Solutia Inc. for their “Saflex IIIIG Clear or Colored Interlayer’s” dated 05/04/06, expiring on 05/21/11.

F. STATEMENTS

1. Statement letter of conformance, dated September 01, 2006, signed and sealed by Humayoun Farooq, P.E.
2. Statement letter of no financial interest, dated September 01, 2006, signed and sealed by Humayoun Farooq, P.E.

G. OTHER

1. Notice of Acceptance No. 01/1019.03, issued to Construction Glass Industries Corporation, for their “Series 238 Aluminum Project Out Window”, dated 11/21/01, expiring on 10/31/06.



Jaime D. Gascon, P.E.

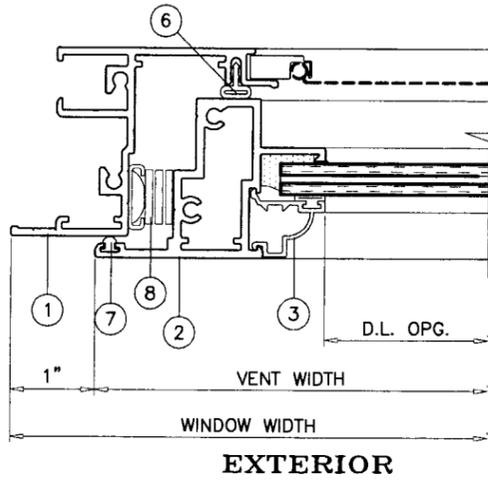
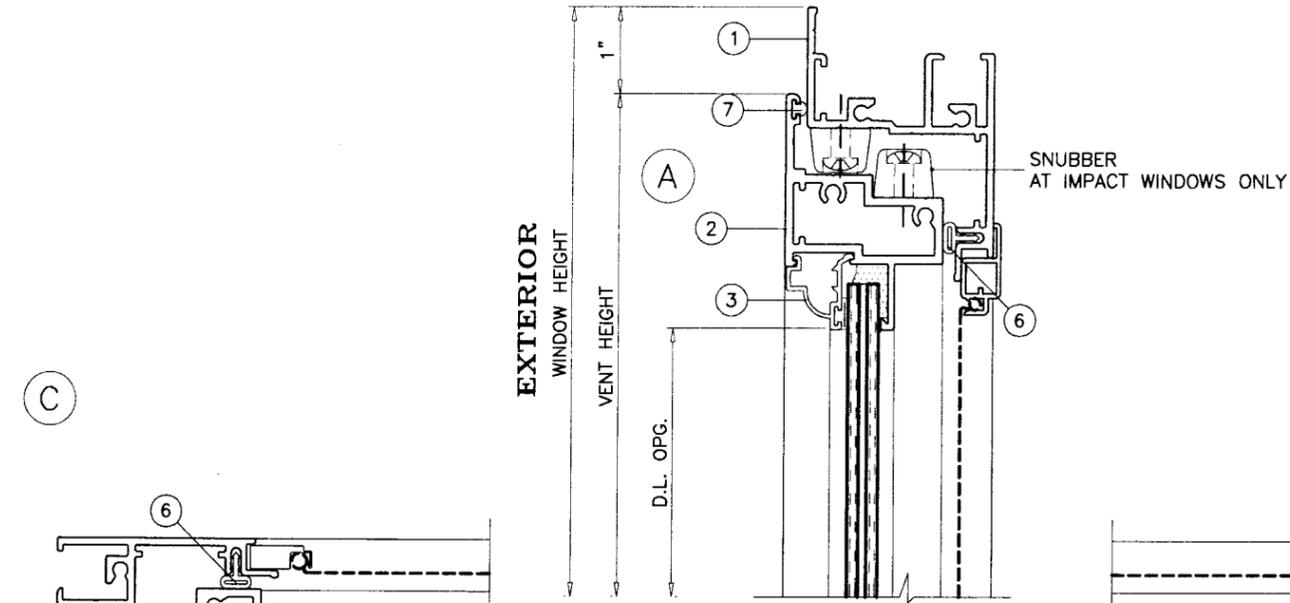
Chief, Product Control Division

NOA No. 06-1010.01

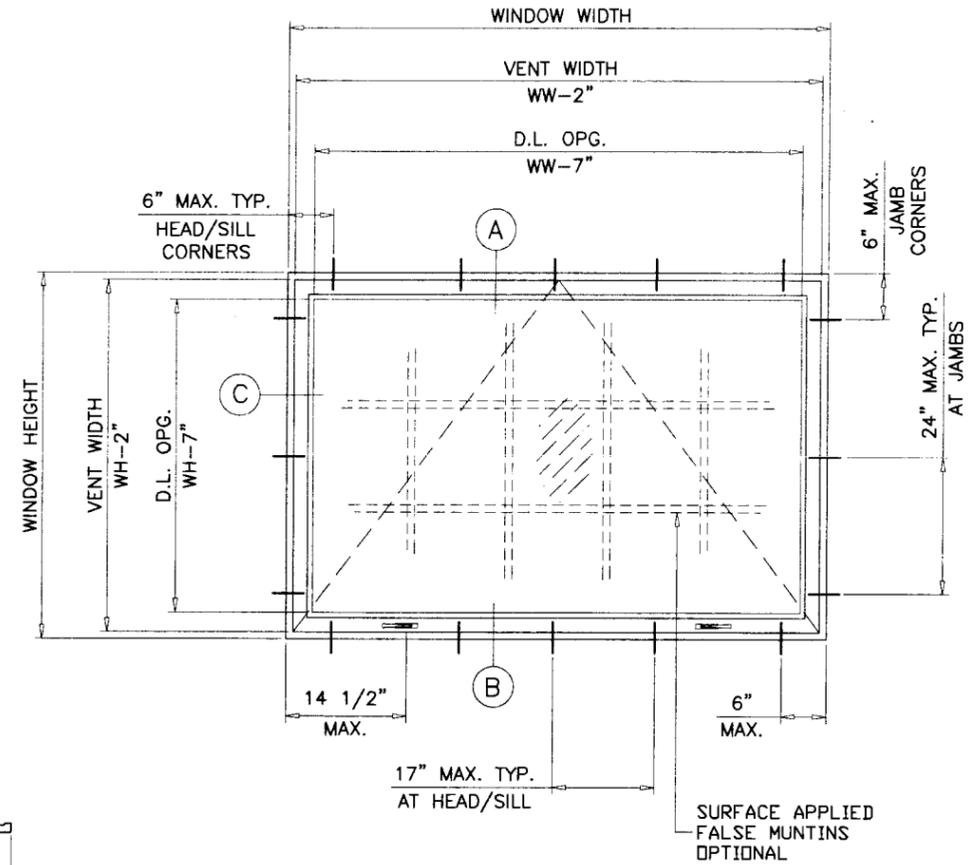
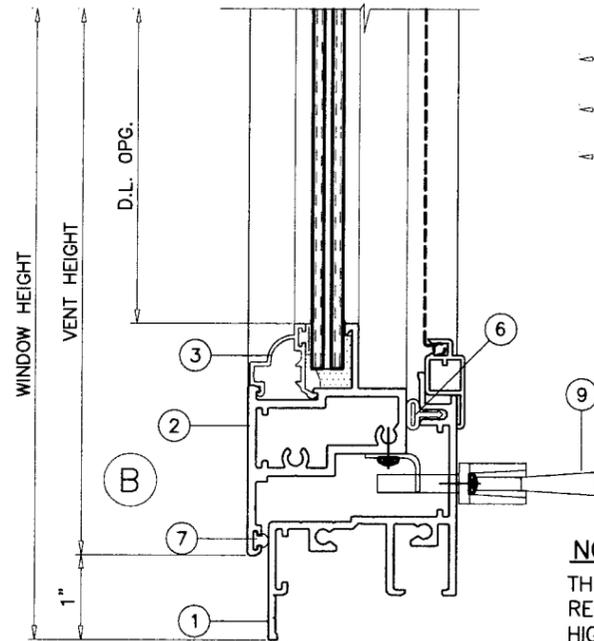
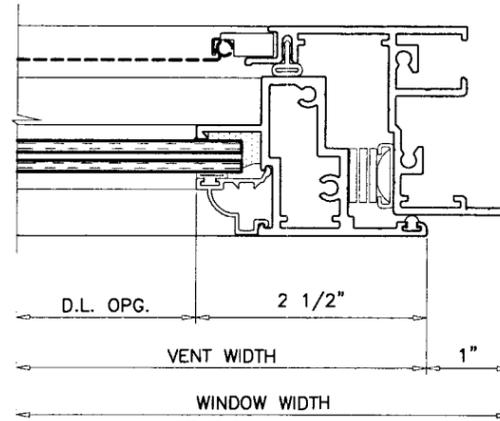
Expiration Date: October 31, 2007

Approval Date: December 7, 2006

GENERAL WINDOW SECTIONS



FOR GLASS TYPES, REFER TO SHEETS 3 AND 4.



FOR MULLION/MULTIPLE UNITS, REFER TO SEPARATE CGI MULLION N.O.A.

INSTRUCTIONS:

USE CHARTS AS FOLLOWS.

- STEP 1** DETERMINE DESIGN WIND LOAD REQUIREMENT BASED ON WIND VELOCITY, BLDG. HEIGHT, WIND ZONE USING APPLICABLE ASCE 7 STANDARD.
- STEP 2** SEE CHARTS ON SHEETS 3 AND 4 FOR DESIGN LOAD CAPACITY OF DESIRED GLASS SIZE BASED ON APPLICABLE WIND DURATION.
- STEP 3** USING CHART ON SHEET 6 SELECT ANCHOR OPTION WITH DESIGN RATING MORE THAN DESIGN LOAD SPECIFIED IN STEP 1 ABOVE.
- STEP 4** THE LOWEST VALUE RESULTING FROM STEPS 2 AND 3 SHALL APPLY TO ENTIRE SYSTEM.

NOTES:

THIS PRODUCT HAS BEEN DESIGNED AND TESTED TO COMPLY WITH THE REQUIREMENTS OF THE FLORIDA BUILDING CODE 2004 EDITION INCLUDING HIGH VELOCITY HURRICANE ZONE (HVHZ).

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

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

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

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

MATERIALS INCLUDING BUT NOT LIMITED TO STEEL/METAL SCREWS, THAT COME INTO CONTACT WITH OTHER DISSIMILAR MATERIALS SHALL MEET THE REQUIREMENTS OF 2004 FLORIDA BLDG. CODE SECTION 2003.8.4.

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

Engr: DR. HUMAYOUN FAROOQ
STRUCTURES
FLA. FE # 16557
C.A.N. 3538

NOV 08 2006

PRODUCT REVIEWED
as complying with the Florida
Building Code
Acceptance No. 06-1010.01
Expiration Date 10/31/07
By: *[Signature]*
Miami Dade Product Control
Division

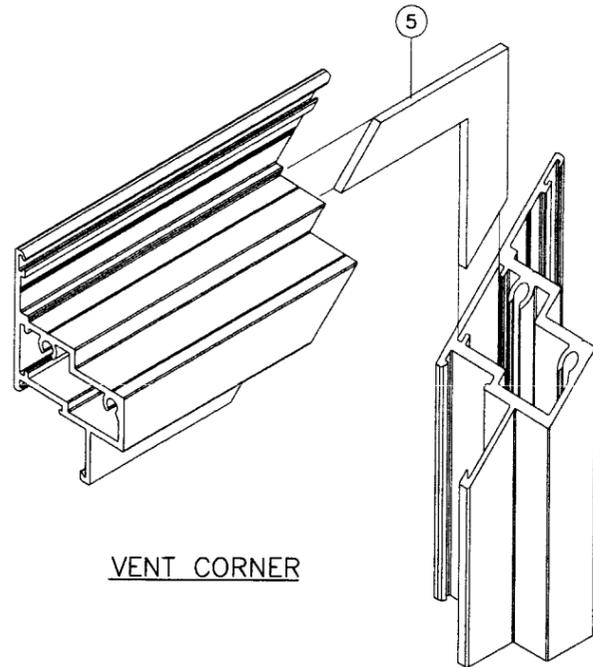
AL-FAROOQ CORPORATION
ENGINEERS, PLANNERS & PRODUCT DESIGN
1235 SW 87 AVE
MIAMI, FLORIDA 33174
TEL. (305) 264-8100 FAX. (305) 262-6978
COMP-ANL\W99-04CGI

SERIES-238 ALUM PROJECT OUT WINDOW
CONSTRUCTION GLASS IND. CORP.
10100 N.W. 25TH STREET
MIAMI, FL. 33172
TEL. (305) 593-6590 FAX. (305) 593-6592

no	date	description
A	10.16.01	CHARTS REV. PER ASTM E-1300
B	09.14.06	UPDATED FOR 2004 FBC
C	11.11.06	NO CHANGE THIS SHEET

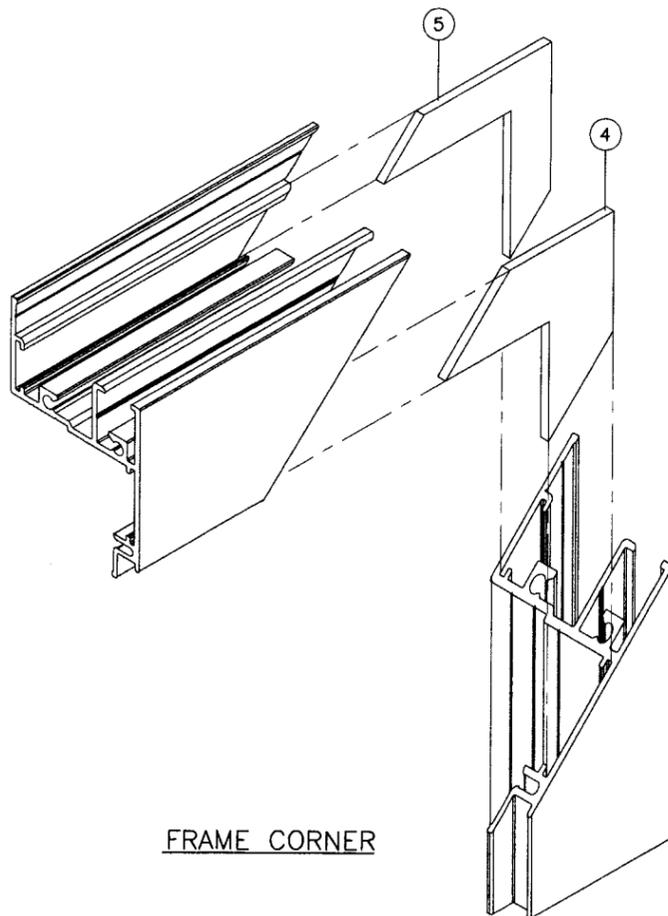
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scale: 1/2" = 1"
dr. by: HAMID
chk. by:

drawing no.
W99-04
sheet 1 of 6

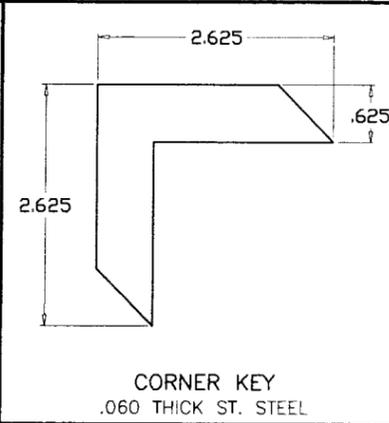


VENT CORNER

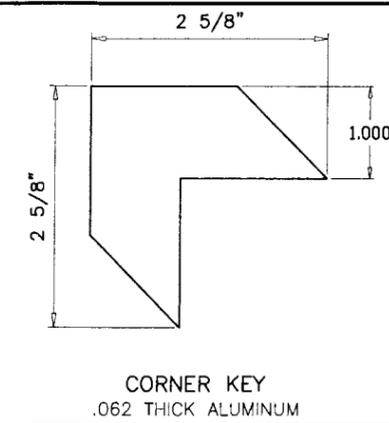
ALL FRAME AND VENT CORNERS TO BE SEALED WITH GE SILPRUF OR EQUIV.



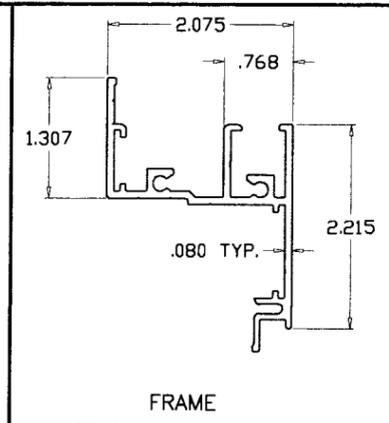
FRAME CORNER



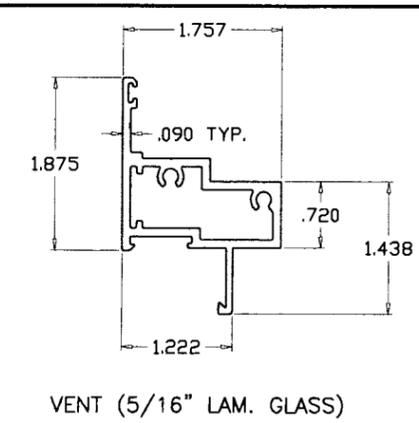
CORNER KEY
.060 THICK ST. STEEL



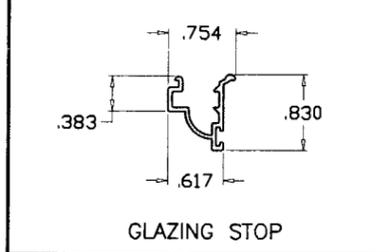
CORNER KEY
.062 THICK ALUMINUM



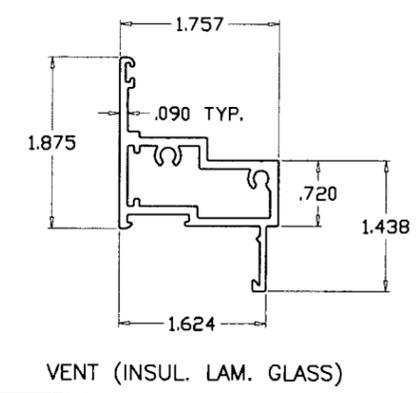
FRAME



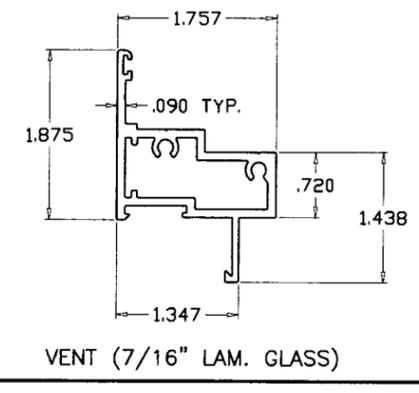
VENT (5/16" LAM. GLASS)



GLAZING STOP



VENT (INSUL. LAM. GLASS)



VENT (7/16" LAM. GLASS)

ITEM	PART #	QUANTITY	DESCRIPTION	MATERIAL	MANF./SUPPLIER/REMARKS
1	CGI-373	4	FRAME	6063-T6	INDALEX OR EQUIV.
2	CGI-378	4	VENT (5/16" LAM. GLASS)	6063-T6	INDALEX OR EQUIV.
2B	-	4	VENT (INSUL. LAM. GLASS)	6063-T6	INDALEX OR EQUIV.
2C	CGI-385	4	VENT (7/16" LAM. GLASS)	6063-T6	INDALEX OR EQUIV.
3	CGI-375	4	GLAZING BEAD	6063-T5	INDALEX OR EQUIV.
4	-	4	.060 THICK CORNER KEY	ALUMINUM	-
5	-	8	.060 THICK CORNER KEY	STEEL	-
6	AP-425	AS REQD.	FRAME WEATHERSTRIPPING	-	SCHLEGEL APTUS
7	Q200 X190	AS REQD.	VENT WEATHERSTRIPPING	-	SCHLEGEL Q-LON
8	35-10-00-101	2/ VENT	4 BAR HINGE, AT TOP AND BOTTOM	STEEL	TRUTH, ATTACHED W/ (6) #8 X 3/8" SS SMS
9	24-13-00-202	2/ VENT	FACE MOUNT LOCK	STEEL	TRUTH, ATTACHED W/ (2) #8 X 3/8" SMS
10	-	2/ VENT	.110 THICK LOCK KEEPER, AT FRAME JAMB FACING LOCK	STEEL	CGI, ATTACHED W/ (2) #10 X 3/8" SS SMS
11	-	2/ CORNER	FRAME AND VENT ASSEMBLY SCREWS	-	#10 X 1-1/4" SS SMS

PRODUCT RENEWED
as complying with the Florida
Building Code
Acceptance No. 06-1010.01
Expiration Date 10/31/07
By [Signature]
Miami Dade Product Control
Division

Engr: DR. HUMAYOON FAROOQ
STRUCTURES
FLA. PE # 18557
C.A.N. 3538

NOV 08 2006

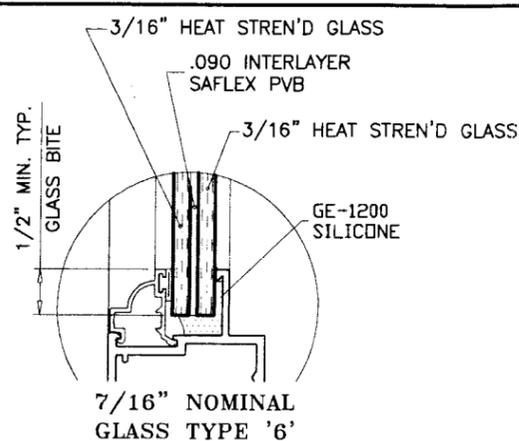
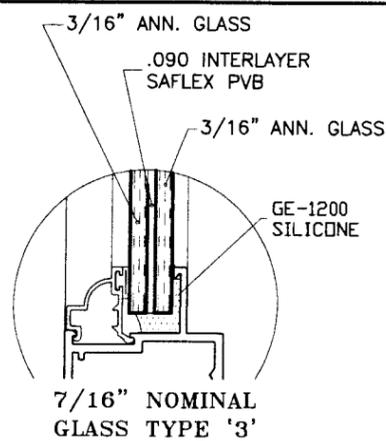
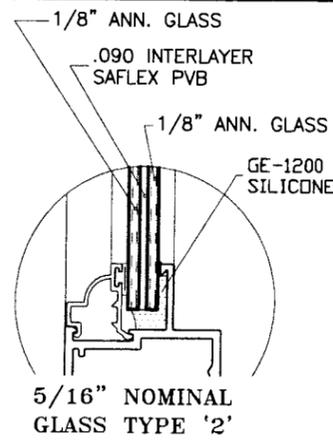
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MIAMI, FL. 33172
TEL. (305) 593-6590 FAX. (305) 593-6592

no	date	by	description
A	10.16.01	REVISOR	REVISED
B	09.14.06	REVISOR	UPDATED FOR 2004 FBC
C	11.11.06	REVISOR	NO CHANGE THIS SHEET

date: 01-21-99
scale: 1/2" = 1"
dr. by: HAMID
chk. by:

drawing no. **W99-04**
sheet 2 of 6



PERFORMANCE VALUES OF IMPACT RESISTANT WINDOWS
NO SHUTTERS REQUIRED
REFER TO SHEETS 5 AND 6 FOR INSTALLATION DETAILS

WINDOW DIMS.		GLASS TYPE '2'		GLASS TYPE '3'		GLASS TYPE '6'	
WIDTH	HEIGHT	EXT. (+)	INT. (-)	EXT. (+)	INT. (-)	EXT. (+)	INT. (-)
24"	24"	110.0	210.0	110.0	210.0	110.0	210.0
	30"	110.0	194.3	110.0	210.0	110.0	210.0
	36"	110.0	161.9	110.0	210.0	110.0	210.0
	42"	110.0	138.8	110.0	210.0	110.0	210.0
	48"	110.0	121.4	110.0	210.0	110.0	210.0
	54"	98.0	107.9	110.0	197.8	110.0	197.8
	60"	85.8	95.4	110.0	120.0	110.0	120.0
	66"	73.4	73.4	110.0	120.0	110.0	120.0
	72"	56.1	56.1	102.8	102.8	102.8	102.8
	78"	43.8	43.8	80.3	80.3	80.3	80.3
84"	34.9	34.9	64.0	64.0	64.0	64.0	
30"	24"	110.0	194.3	110.0	210.0	110.0	210.0
	30"	100.0	155.4	110.0	210.0	110.0	210.0
	36"	110.0	129.5	110.0	209.5	110.0	210.0
	42"	110.0	111.0	110.0	203.5	110.0	203.5
	48"	99.8	97.1	110.0	120.0	110.0	120.0
	54"	84.4	86.3	110.0	120.0	110.0	120.0
	60"	73.2	77.7	110.0	120.0	110.0	120.0
	66"	60.6	60.6	110.0	111.1	110.0	111.1
	72"	46.0	46.0	84.4	84.4	84.4	84.4
	84"	34.9	34.9	64.0	64.0	64.0	64.0
36"	24"	110.0	161.9	110.0	210.0	110.0	210.0
	30"	110.0	129.5	110.0	209.5	110.0	210.0
	36"	110.0	107.9	110.0	196.5	110.0	197.8
	42"	110.0	92.5	110.0	120.0	110.0	120.0
	48"	91.5	80.9	110.0	120.0	110.0	120.0
	54"	76.2	71.9	110.0	120.0	110.0	120.0
	60"	65.3	64.8	110.0	111.7	110.0	118.7
42"	24"	110.0	138.8	110.0	210.0	110.0	210.0
	30"	110.0	111.0	110.0	203.5	110.0	203.5
	36"	110.0	92.5	110.0	120.0	110.0	120.0
	42"	105.7	79.3	110.0	120.0	110.0	120.0
	48"	85.0	69.4	110.0	120.0	110.0	120.0
	54"	71.3	61.7	110.0	113.1	110.0	113.1

PERFORMANCE VALUES OF IMPACT RESISTANT WINDOWS
NO SHUTTERS REQUIRED
REFER TO SHEETS 5 AND 6 FOR INSTALLATION DETAILS

WINDOW DIMS.		GLASS TYPE '2'		GLASS TYPE '3'		GLASS TYPE '6'	
WIDTH	HEIGHT	EXT. (+)	INT. (-)	EXT. (+)	INT. (-)	EXT. (+)	INT. (-)
48"	24"	110.0	121.4	110.0	210.0	110.0	210.0
	30"	99.8	97.1	110.0	120.0	110.0	120.0
	36"	91.5	80.9	110.0	120.0	110.0	120.0
	42"	85.0	69.4	110.0	120.0	110.0	120.0
	48"	75.5	60.7	110.0	111.3	110.0	111.3
54"	24"	98.0	107.9	110.0	197.8	110.0	197.8
	30"	84.4	86.3	110.0	120.0	110.0	120.0
	36"	76.2	71.9	110.0	120.0	110.0	120.0
60"	24"	85.8	95.4	110.0	120.0	110.0	120.0
	30"	73.2	77.7	110.0	120.0	110.0	120.0
	36"	65.3	64.8	110.0	118.7	110.0	118.7
66"	24"	73.4	73.4	110.0	120.0	110.0	120.0
	30"	60.6	60.6	110.0	111.1	110.0	111.1
72"	24"	56.1	56.1	102.8	102.8	102.8	102.8
	30"	46.0	46.0	84.4	84.4	84.4	84.4
78"	24"	43.8	43.8	80.3	80.3	80.3	80.3
	30"	34.9	34.9	64.0	64.0	64.0	64.0
84"	24"	34.9	34.9	64.0	64.0	64.0	64.0
	30"	34.9	34.9	64.0	64.0	64.0	64.0
	36"	34.9	34.9	64.0	64.0	64.0	64.0
19-1/8"	26"	110.0	210.0	110.0	210.0	110.0	210.0
	38-3/8"	110.0	190.6	110.0	210.0	110.0	210.0
	50-5/8"	110.0	144.5	110.0	210.0	110.0	210.0
26-1/2"	26"	110.0	203.0	110.0	210.0	110.0	210.0
	38-3/8"	110.0	137.5	110.0	210.0	110.0	210.0
	50-5/8"	99.7	104.3	110.0	191.1	110.0	191.1
37"	26"	110.0	145.4	110.0	210.0	110.0	210.0
	38-3/8"	110.0	98.5	110.0	120.0	110.0	120.0
	50-5/8"	83.1	74.7	110.0	120.0	110.0	120.0
53-1/8"	26"	94.7	101.3	110.0	120.0	110.0	120.0
	38-3/8"	75.9	68.6	110.0	120.0	110.0	120.0
	63"	74.9	77.9	110.0	120.0	110.0	120.0

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

Engr: DR. HUMAYUN FAROOQ
STRUCTURES
FLA. PE # 16557
C.A.N. 3538

NOV 08 2006

afc

AL-FAROOQ CORPORATION
ENGINEERS, PLANNERS & PRODUCT DESIGN
1235 SW 87 AVE
MIAMI, FLORIDA 33174
TEL. (305) 264-8100 FAX. (305) 262-6978
COMP-ANL\W99-04CGI

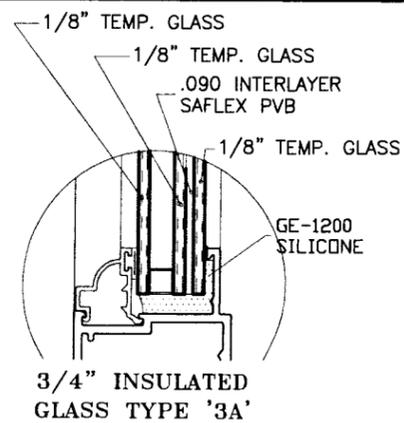
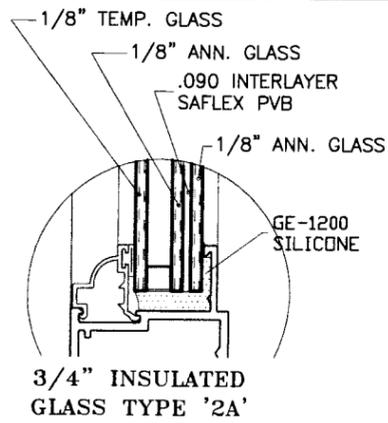
SERIES-238 ALUM PROJECT OUT WINDOW
CONSTRUCTION GLASS IND. CORP.
10100 N.W. 25TH STREET
MIAMI, FL. 33172
TEL. (305) 593-6590 FAX. (305) 593-6592

no	date	description
A	10.16.01	CHARTS REV. PER ASTM E-1300
B	09.14.06	UPDATED FOR 2004 FBC
C	11.11.06	NO CHANGE THIS SHEET

date: 01-21-99
scale: 1/2" = 1"
dr. by: HAMID
chk. by:

drawing no.
W99-04

sheet 3 of 6



PERFORMANCE VALUES OF IMPACT RESISTANT WINDOWS					
NO SHUTTERS REQUIRED					
REFER TO SHEETS 5 AND 6 FOR INSTALLATION DETAILS					
WINDOW DIMS.		GLASS TYPE '2A'		GLASS TYPE '3A'	
WIDTH	HEIGHT	EXT. (+)	1NT. (-)	EXT. (+)	1NT. (-)
24"	24"	110.0	210.0	110.0	210.0
	30"	110.0	194.3	110.0	210.0
	36"	110.0	161.9	110.0	210.0
	42"	110.0	138.8	110.0	210.0
	48"	110.0	121.4	110.0	210.0
	54"	98.0	107.9	110.0	197.8
	60"	85.8	95.4	110.0	120.0
	66"	73.4	73.4	110.0	120.0
	72"	56.1	56.1	102.8	102.8
	78"	43.8	43.8	80.3	80.3
84"	34.9	34.9	64.0	64.0	
30"	24"	110.0	194.3	110.0	210.0
	30"	110.0	155.4	110.0	210.0
	36"	110.0	129.5	110.0	210.0
	42"	110.0	111.0	110.0	203.5
	48"	99.8	97.1	110.0	120.0
	54"	84.4	86.3	110.0	120.0
	60"	73.2	77.7	110.0	120.0
	66"	60.6	60.6	110.0	111.1
	72"	46.0	46.0	84.4	84.4
	36"	24"	110.0	161.9	110.0
30"		110.0	129.5	110.0	210.0
36"		110.0	107.9	110.0	197.8
42"		110.0	92.5	110.0	120.0
48"		91.5	80.9	110.0	120.0
54"		76.2	71.9	110.0	120.0
60"		65.3	64.8	110.0	118.7
42"	24"	110.0	138.8	110.0	210.0
	30"	110.0	111.0	110.0	203.5
	36"	110.0	92.5	110.0	120.0
	42"	110.0	79.3	110.0	120.0
	48"	87.1	69.4	110.0	120.0
	54"	71.3	61.7	110.0	113.1

PERFORMANCE VALUES OF IMPACT RESISTANT WINDOWS					
NO SHUTTERS REQUIRED					
REFER TO SHEETS 5 AND 6 FOR INSTALLATION DETAILS					
WINDOW DIMS.		GLASS TYPE '2A'		GLASS TYPE '3A'	
WIDTH	HEIGHT	EXT. (+)	1NT. (-)	EXT. (+)	1NT. (-)
48"	24"	110.0	121.4	110.0	210.0
	30"	99.8	97.1	110.0	120.0
	36"	91.5	80.9	110.0	120.0
	42"	87.1	69.4	110.0	120.0
	48"	80.2	60.7	110.0	111.3
54"	24"	98.0	107.9	110.0	197.8
	30"	84.4	86.3	110.0	120.0
	36"	76.2	71.9	110.0	120.0
	42"	71.3	61.7	110.0	113.1
60"	24"	85.8	95.4	110.0	120.0
	30"	73.2	77.7	110.0	120.0
	36"	65.3	64.8	110.0	118.7
66"	24"	73.4	73.4	110.0	120.0
	30"	60.6	60.6	110.0	111.1
72"	24"	56.1	56.1	102.8	102.8
	30"	46.0	46.0	84.4	84.4
78"	24"	43.8	43.8	80.3	80.3
	24"	34.9	34.9	64.0	64.0
19-1/8"	26"	110.0	210.0	110.0	210.0
	38-3/8"	110.0	190.6	110.0	210.0
	50-5/8"	110.0	144.5	110.0	210.0
26-1/2"	63"	96.7	104.2	110.0	191.1
	26"	110.0	203.0	110.0	210.0
	38-3/8"	110.0	137.5	110.0	210.0
37"	50-5/8"	99.7	104.3	110.0	191.1
	63"	74.9	77.9	110.0	120.0
	26"	110.0	145.4	110.0	210.0
53-1/8"	38-3/8"	110.0	98.5	110.0	120.0
	50-5/8"	83.1	74.7	110.0	120.0
	63"	60.0	60.0	110.0	110.0
37"	26"	94.7	101.3	110.0	120.0
	38-3/8"	75.9	68.6	110.0	120.0

PRODUCT RENEWED
as complying with the Florida
Building Code
Acceptance No. 06-1010.01
Expiration Date 10/31/07
By [Signature]
Miami Date Product Control
Division

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

Engr: DR. HUMAYOON FAROOQ
STRUCTURES
FLA. PE # 16557
C.A.N. 3538
NOV 18 2006

AL-FAROOQ CORPORATION
ENGINEERS, PLANNERS & PRODUCT DESIGN
1235 SW 87 AVE
MIAMI, FLORIDA 33174
TEL. (305) 264-8100 FAX. (305) 262-6978
COMP-ANLW99-04CGI

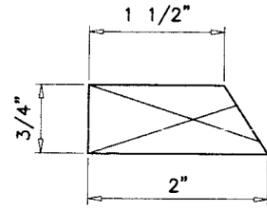
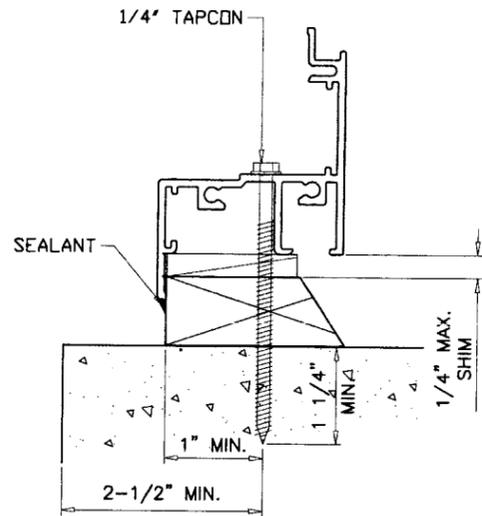
SERIES-238 ALUM PROJECT OUT WINDOW
CONSTRUCTION GLASS IND. CORP.
10100 N.W. 25TH STREET
MIAMI, FL. 33172
TEL. (305) 593-6590 FAX. (305) 593-6592

no	date	description
A	10.16.01	CHARTS REV. PER ASTM E-1300
B	09.14.06	UPDATED FOR 2004 FBC
C	11.11.06	NO CHANGE THIS SHEET

date: 01-21-99
scale: 1/2" = 1"
dr. by: HAMID
chk. by:
drawing no.
W99-04
sheet 4 of 6

INSTALLATION CONDITIONS (APPLIES TO ALL FOUR SIDES)

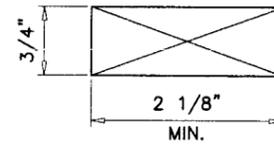
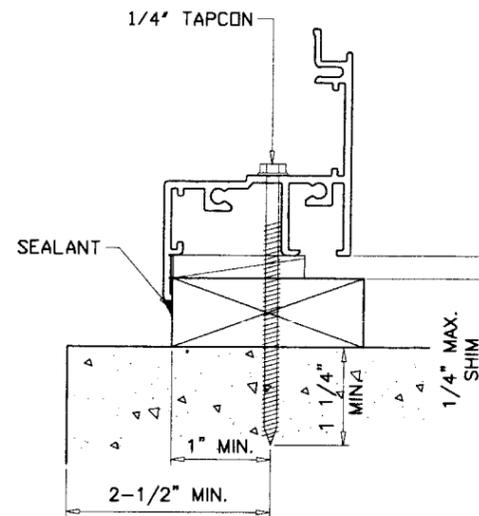
FOR ANCHOR PERFORMANCE VALUES SEE SHEET 6



INSTALLATION TYPE '1'

WOOD BUCK TYPE '1'
MATERIAL: PRESSURE TREATED

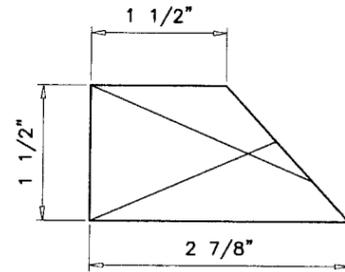
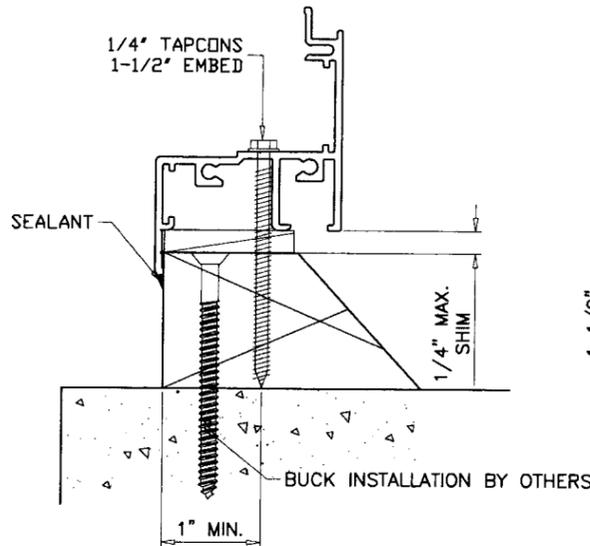
TYPICAL INSTALLATION DETAIL
ON ALL FOUR SIDES/USING WOOD



INSTALLATION TYPE '2'

WOOD BUCK TYPE '2'
MATERIAL: PRESSURE TREATED

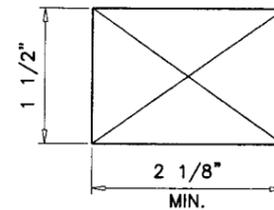
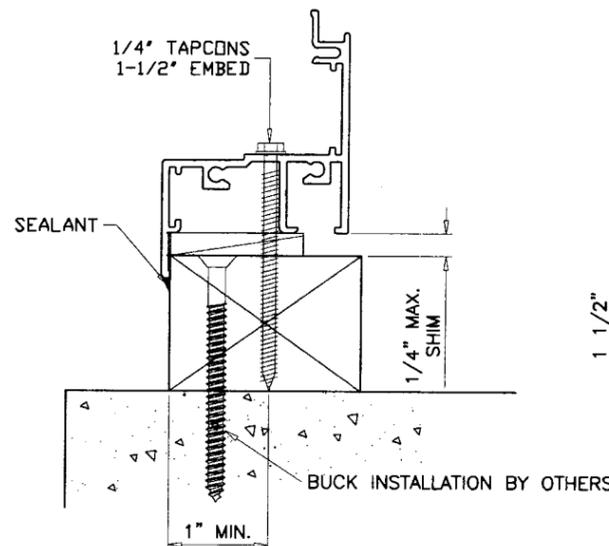
TYPICAL INSTALLATION DETAIL
ON ALL FOUR SIDES/USING WOOD



INSTALLATION TYPE '3'

WOOD BUCK TYPE '3'
MATERIAL: PRESSURE TREATED

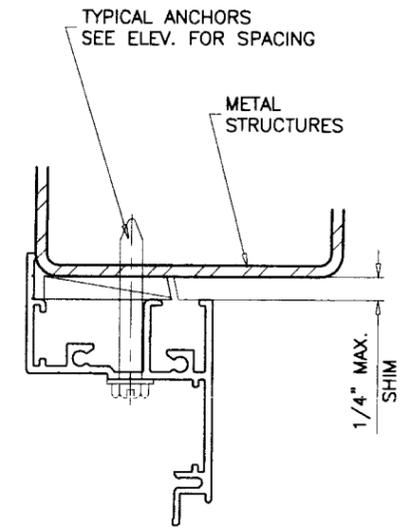
TYPICAL INSTALLATION DETAIL
ON ALL FOUR SIDES/USING WOOD



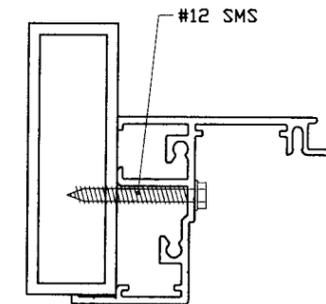
INSTALLATION TYPE '4'

WOOD BUCK TYPE '4'
MATERIAL: PRESSURE TREATED

TYPICAL INSTALLATION DETAIL
ON ALL FOUR SIDES/USING WOOD



ATTACHMENT TO
METAL STRUCTURES



ATTACHMENT TO
APPROVED MULLIONS

WOOD BUCKS NOT BY CGI CORP., MUST SUSTAIN LOADS IMPOSED BY GLAZING SYSTEM AND TRANSFER THEM TO THE BUILDING STRUCTURE.

Engr: DR. HUMAYOUN FAROOQ
STRUCTURES
FLA. PE # 16557
C.A.N. 3538

[Signature]

NOV 8 2006

PRODUCT RENEWED
as complying with the Florida
Building Code
Acceptance No 06-1010.01
Expiration Date 10/31/06

By *[Signature]*
Miami/Dade Product Control
Division



AL-FAROOQ CORPORATION
ENGINEERS, PLANNERS & PRODUCT DESIGN
1235 SW 87 AVE
MIAMI, FLORIDA 33174
TEL. (305) 264-8100 FAX. (305) 262-6978

SERIES-238 ALUM PROJECT OUT WINDOW
CONSTRUCTION GLASS IND. CORP.
10100 N.W. 25TH STREET
MIAMI, FL. 33172
TEL. (305) 593-6590 FAX. (305) 593-6592

no	date	description
A	10.16.01	REVISED
B	09.14.06	UPDATED FOR 2004 FBC
C	11.11.06	REV. PER BCCO COMMENTS

date: 01-21-99
scale: 1/2" = 1"
dr. by: HAMID
chk. by:

drawing no.
W99-04
sheet 5 of 6

COMP-ANL\W99-04CGI

PERFORMANCE VALUES OF INSTALLATION ANCHORS REFER TO SHEET 5 FOR DETAILS		
WINDOW DIMS.		EXT. (+) INT. (-)
WIDTH	HEIGHT	
24"	24"	210.0
	30"	210.0
	36"	210.0
	42"	210.0
	48"	210.0
	54"	210.0
	60"	210.0
	66"	210.0
	72"	192.7
	78"	177.8
84"	165.1	
30"	24"	210.0
	30"	210.0
	36"	210.0
	42"	198.2
	48"	173.4
	54"	154.1
	60"	138.7
	66"	126.1
	72"	115.6
	24"	210.0
30"	210.0	
36"	192.7	
42"	165.1	
48"	144.5	
54"	128.4	
60"	115.6	
42"	24"	210.0
	30"	198.2
	36"	165.1
	42"	141.6
	48"	123.9
54"	110.1	

PERFORMANCE VALUES OF INSTALLATION ANCHORS REFER TO SHEET 5 FOR DETAILS		
WINDOW DIMS.		EXT. (+) INT. (-)
WIDTH	HEIGHT	
48"	24"	210.0
	30"	210.0
	36"	192.7
	42"	165.1
	48"	144.5
54"	24"	210.0
	30"	205.5
	36"	171.3
60"	42"	146.8
	24"	210.0
	30"	185.0
66"	36"	154.1
	24"	210.0
72"	30"	210.0
	24"	192.7
78"	24"	210.0
	24"	210.0
84"	24"	210.0
	26"	210.0
	38-3/8"	210.0
19-1/8"	50-5/8"	210.0
	63"	210.0
	26"	210.0
26-1/2"	38-3/8"	210.0
	50-5/8"	210.0
	63"	199.4
37"	26"	210.0
	38-3/8"	175.9
	50-5/8"	133.3
53-1/8"	63"	107.1
	26"	210.0
38-3/8"	210.0	163.3

TYPICAL ANCHORS: SEE ELEV. FOR SPACING

1/4" TAPCONS

INTO 2BY WOOD BUCKS OR WOOD STRUCTURES
1-1/2" MIN. PENETRATION INTO WOOD

THRU 1BY BUCKS INTO CONC. OR MASONRY
1-1/4" MIN. EMBED INTO CONC. OR MASONRY

DIRECTLY INTO CONC. OR MASONRY
1-1/4" MIN. EMBED INTO CONC. OR MASONRY

#14 SMS OR SELF DRILLING SCREWS

INTO METAL STRUCTURES

STEEL : 12 GA. MIN. (Fy = 36 KSI MIN.)

ALUMINUM : 1/8" THK. MIN. (6063-T5 MIN.)

(STEEL IN CONTACT WITH ALUMINUM TO BE PLATED OR PAINTED)

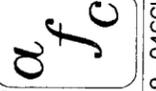
#12 SMS OR SELF DRILLING SCREWS

INTO MIAMI-DADE APPROVED MULLIONS (MIN. THK. = 1/8")
(NO SHIM SPACE)

Engr: DR. HUMAYOUN FAROOQ
STRUCTURES
FLA. PE # 16557
C.A.N. 3538

NOV 08 2005

PRODUCT RENEWED
as complying with the Florida
Building Code
Acceptance No. 06-1010.01
Expiration Date 10/3/10
By [Signature]
Miami Dade Product Control
Division



AL-FAROOQ CORPORATION
ENGINEERS, PLANNERS & PRODUCT DESIGN
1235 SW 87 AVE
MIAMI, FLORIDA 33174
TEL. (305) 264-8100 FAX. (305) 262-6978
COMP-ANL W99-04CGI

SERIES-238 ALUM PROJECT OUT WINDOW

CONSTRUCTION GLASS IND. CORP.
10100 N.W. 25TH STREET
MIAMI, FL. 33172
TEL. (305) 593-6590 FAX. (305) 593-6592

no	date	description
A	10.16.01	CHARTS REV. PER 1997 NDS
B	09.14.06	UPDATED FOR 2004 FBC
C	11.11.06	NO CHANGE THIS SHEET

date: 01-21-99
scale: 1/2" = 1"
dr. by: HAMID
chk. by:

drawing no.
W99-04

sheet 6 of 6