



**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)

**E.S. Windows, Inc.
5220 N.W. 72nd Ave. Bay #4
Miami, FL 33166**

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 High Velocity Hurricane Zone of the Florida Building Code.

DESCRIPTION: Series 1500 Aluminum Fixed Window

APPROVAL DOCUMENT: Drawing No. **W03-57**, titled "Series-1500 Aluminum Fixed Window (L.M.I.)", sheets 1 through 4 of 4, prepared by Al Farooq Corporation, dated 07/31/03, with revision date 09/25/03, signed and sealed by Humayoun Farooq, P.E., bearing the Miami-Dade County Product Control Approval stamp with the Notice of Acceptance number and approval date by the Miami-Dade County Product Control Division.

MISSILE IMPACT RATING: Large and Small Missile Impact

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 consists of this page 1 as well as approval document mentioned above.

The submitted documentation was reviewed by **Theodore Berman, P.E.**

TB
10/16/2003



**NOA No 03-0910.01
Expiration Date: November 06, 2008
Approval Date: November 06, 2003**

NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED

A. DRAWINGS

1. Manufacturer's die drawings and sections.
2. Drawing No. **W03-57**, titled "Series-1500 Aluminum Fixed Window (L.M.I.)", sheets 1 through 4 of 4, prepared by Al Farooq Corporation, dated 07/31/03, with revision date 09/25/03, signed and sealed by Humayoun Farooq, P.E.

B. TESTS

1. Test reports on
 - 1) Air Infiltration Test, per FBC, TAS 202-94
 - 2) Uniform Static Air Pressure Test, Loading per FBC, TAS 202-94
 - 3) Water Resistance Test, per FBC, TAS 202-94
 - 4) Large Missile Impact Test, per FBC, TAS 201-94
 - 5) Cyclic Wind Pressure Loading, per FBC, TAS 203-94along with marked-up drawings and installation diagram of an aluminum fixed window, prepared by Certified Testing Laboratories, Test Report No. **FTL-03079**, dated 05/16/03, signed and sealed by Joseph Chan, P.E.
2. Test reports on
 - 1) Air Infiltration Test, per FBC, TAS 202-94
 - 2) Uniform Static Air Pressure Test, Loading per FBC, TAS 202-94
 - 3) Water Resistance Test, per FBC, TAS 202-94
 - 4) Large Missile Impact Test, per FBC, TAS 201-94
 - 5) Cyclic Wind Pressure Loading, per FBC, TAS 203-94along with marked-up drawings and installation diagram of an aluminum horizontal sliding window, prepared by Certified Testing Laboratories, Test Report No. **FTL-03081**, dated 06/09/03, signed and sealed by Joseph Chan, P.E.

C. CALCULATIONS

1. Anchor Calculations, ASTM-E1300-98 and structural analysis, prepared by Al Farooq Corporation, dated 09/06/03, with revision date 9/25/03, signed and sealed by Humayoun Farooq, P.E.

D. MATERIAL CERTIFICATIONS

1. Notice of Acceptance **No. 01-1204.01** issued to E.I. Dupont DeNemours for "Sentry Glass (R.) Plus", dated 01/17/02, expiring on 01/14/07.
2. Notice of Acceptance **No. 00-1212.04** issued to E.I. Dupont DeNemours for "Dupont Butacite ® PVB", dated 02/15/01, expiring on 12/11/05.

E. QUALITY ASSURANCE

1. Miami-Dade County Building Code Compliance Office



Theodore Berman, P.E.
Deputy Director, Product Control Division
NOA No 03-0910.01
Expiration Date: November 06, 2008
Approval Date: November 06, 2003

NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED

F. STATEMENTS

1. Statement letter of conformance, dated 09/08/03, signed and sealed by Humayoun Farooq, P.E.
2. Statement letter of no financial interest, dated 09/08/03, signed and sealed by Humayoun Farooq, P.E.
3. Laboratory compliance letters for Test Report no. **FTL 03078 and FTL 03081** issued by Fenestration Testing Laboratory, Inc., dated 07/14/03, signed and sealed by Joseph Chan, P.E.

G. OTHER

1. Letter from the consultant stating that the product is compliance with the Florida Building Code (FBC).

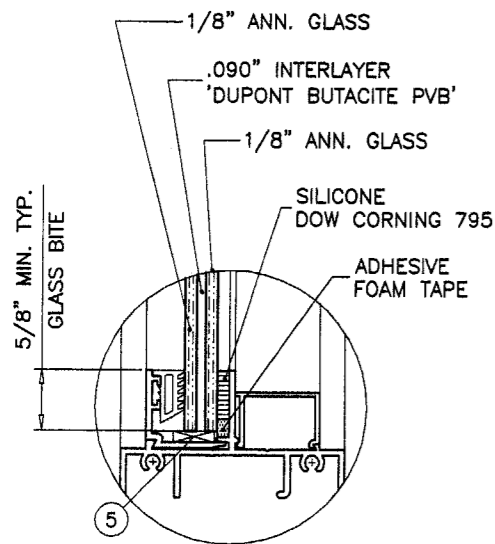


Theodore Berman, P.E.
Deputy Director, Product Control Division

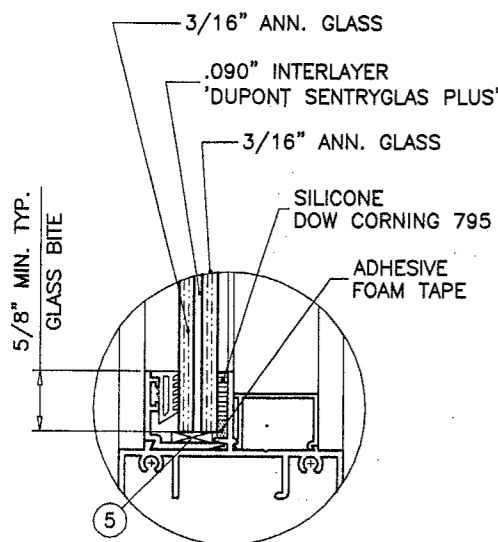
NOA No 03-0910.01

Expiration Date: November 06, 2008

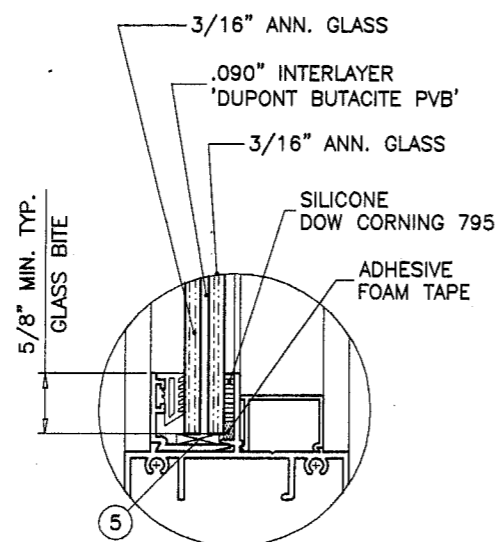
Approval Date: November 06, 2003



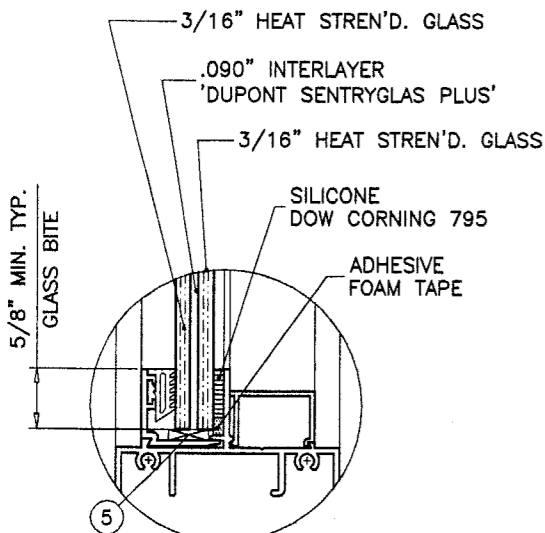
GLASS TYPE 'A'



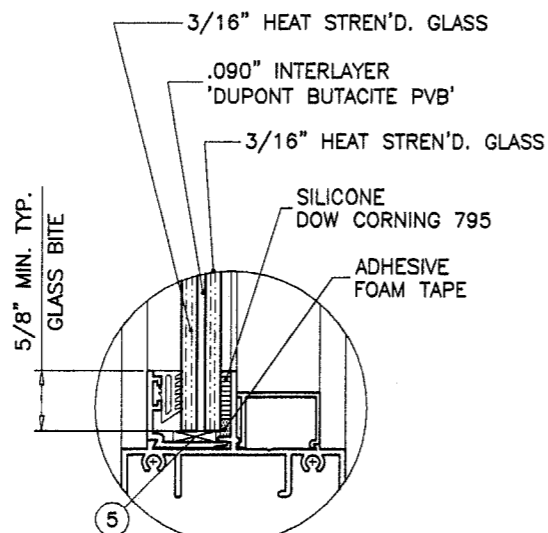
GLASS TYPE 'B'



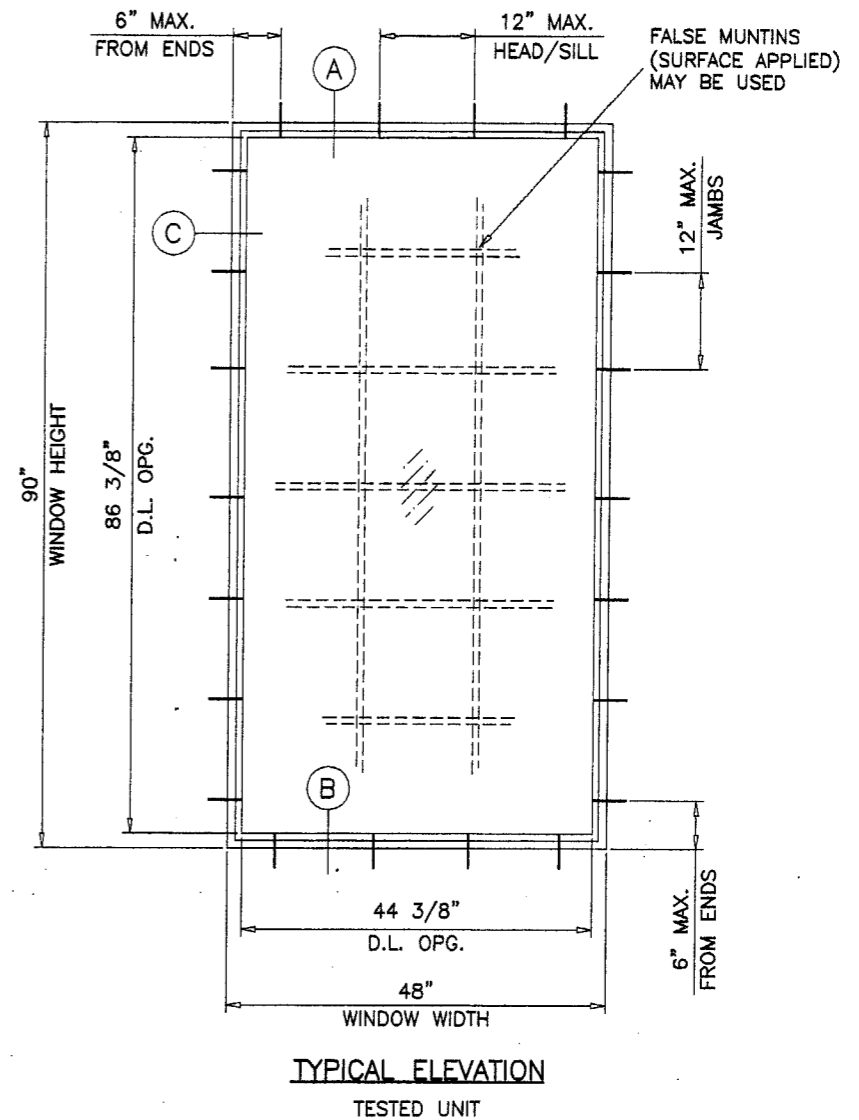
GLASS TYPE 'B1'



GLASS TYPE 'C'



GLASS TYPE 'C1'



SERIES-1500 ALUMINUM FIXED WINDOW (L.M.I.)

DESIGN LOAD RATINGS FOR THESE WINDOWS TO BE AS PER CHARTS SHOWN ON SHEET 2.

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

APPROVAL APPLIES TO SINGLE UNITS OR SIDE BY SIDE COMBINATIONS OF FIXED/FIXED OR FIXED WITH OTHER WINDOW TYPES IN MODULES OF TWO OR MORE WINDOWS USING APPROVED MULLIONS.

THIS PRODUCT IS DESIGNED TO COMPLY WITH THE HIGH VELOCITY HURRICANE ZONE OF THE 2001 FLORIDA BUILDING CODE. ALSO FOR WIND LOADS AS PER ASCE 7-88, ASCE 7-93, ASCE 7-95 OR ASCE 7-98 AS REQUIRED BY PREVAILING BUILDING CODE.

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

ANCHORS SHALL BE AS LISTED, SPACED AS SHOWN ON DETAILS. ANCHOR 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.

Approved as complying with the Florida Building Code
Date 11/06/03
NOAS 03-0910.01
Miami Data Product Control
By *Sherrill Beaman*

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

OCT - 2 2003



AL-FAROOQ CORPORATION
ENGINEERS, PLANNERS & PRODUCT DESIGN
1235 SW 87 AVE
MIAMI, FLORIDA 33174
TEL. (305) 264-8100 FAX. (305) 262-6978
COMP-ANI\W03-57ESW

SERIES-1500 ALUMINUM FIXED WINDOW (L.M.I.)

E.S. WINDOWS
5220 N.W. 72 AVE. BAY #4
MIAMI, FL. 33166
TEL. (305) 640-9857 FAX. (305) 593-2074

no	date	description
A	09.25.03	NO CHANGE THIS SHEET

date: 07-31-03	scale: 1/2" = 1'-0"
dr. by: HAMID	chk. by:

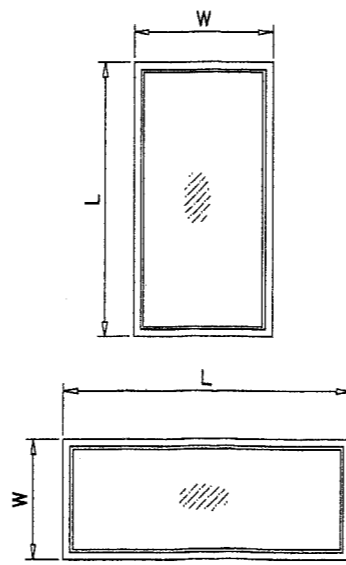
drawing no.
W03-57

sheet 1 of 4

DESIGN LOAD CAPACITY - PSF										
WINDOW DIMS.		ANCHOR TYPES 'A'- 'C'- 'D'						ANCHOR TYPES 'B'- 'C'- 'D'		
		GLASS TYPE 'A'		GLASS TYPE 'B' & 'B1'		GLASS TYPE 'C' & 'C1'		GLASS TYPE 'C' & 'C1'		
WIDTH	HEIGHT	EXT.(+)	INT.(-)	EXT.(+)	INT.(-)	EXT.(+)	INT.(-)	EXT.(+)	INT.(-)	
18"	36"	70.0	70.0	70.0	90.0	70.0	80.0	70.0	80.0	
24"		70.0	70.0	70.0	90.0	70.0	80.0	70.0	80.0	
30"		70.0	70.0	70.0	90.0	70.0	80.0	70.0	80.0	
36"		70.0	70.0	70.0	90.0	70.0	80.0	70.0	80.0	
42"		62.4	62.4	70.0	90.0	70.0	80.0	70.0	80.0	
48"		54.3	54.3	70.0	90.0	70.0	80.0	70.0	80.0	
54"		47.2	47.2	70.0	90.0	70.0	80.0	70.0	80.0	
60"		41.2	41.2	70.0	90.0	70.0	80.0	70.0	80.0	
18"	48"	70.0	70.0	70.0	90.0	70.0	80.0	70.0	80.0	
24"		70.0	70.0	70.0	90.0	70.0	80.0	70.0	80.0	
30"		64.3	64.3	70.0	90.0	70.0	80.0	70.0	80.0	
36"		54.3	54.3	70.0	90.0	70.0	80.0	70.0	80.0	
42"		56.7	56.7	70.0	90.0	70.0	80.0	70.0	80.0	
48"		-	-	70.0	79.0	70.0	80.0	70.0	80.0	
54"		-	-	70.0	70.9	70.0	80.0	70.0	80.0	
60"		-	-	64.0	64.0	70.0	80.0	70.0	80.0	
18"	60"	70.0	70.0	70.0	90.0	70.0	80.0	70.0	80.0	
24"		70.0	70.0	70.0	90.0	70.0	80.0	70.0	80.0	
30"		49.9	49.9	70.0	90.0	70.0	80.0	70.0	80.0	
36"		41.2	41.2	70.0	90.0	70.0	80.0	70.0	80.0	
42"		-	-	70.0	74.0	70.0	80.0	70.0	80.0	
48"		-	-	64.0	64.0	70.0	80.0	70.0	80.0	
54"		-	-	-	-	62.2	71.1	62.2	71.1	
60"		-	-	-	-	56.0	64.0	56.0	64.0	
18"	72"	70.0	70.0	70.0	90.0	70.0	80.0	70.0	80.0	
24"		69.5	69.5	70.0	90.0	70.0	80.0	70.0	80.0	
30"		42.6	42.6	70.0	90.0	70.0	80.0	70.0	80.0	
36"		-	-	70.0	76.9	70.0	80.0	70.0	80.0	
42"		-	-	-	-	70.0	77.4	70.0	80.0	
48"		-	-	-	-	70.0	72.0	70.0	80.0	
54"		-	-	-	-	62.2	68.3	62.2	71.1	
60"		-	-	-	-	56.0	64.0	56.0	64.0	
18"	84"	70.0	70.0	70.0	90.0	70.0	80.0	70.0	80.0	
24"		65.5	65.5	70.0	90.0	70.0	80.0	70.0	80.0	
30"		-	-	70.0	90.0	70.0	80.0	70.0	80.0	
36"		-	-	-	-	70.0	80.0	70.0	80.0	
42"		-	-	-	-	70.0	73.1	70.0	80.0	
48"		-	-	-	-	67.2	67.2	70.0	80.0	
18"		90"	70.0	70.0	70.0	90.0	70.0	80.0	70.0	80.0
24"			63.1	63.1	70.0	90.0	70.0	80.0	70.0	80.0
30"	-		-	70.0	90.0	70.0	80.0	70.0	80.0	
36"	-		-	-	-	70.0	80.0	70.0	80.0	
42"	-		-	-	-	70.0	76.3	70.0	80.0	
48"	-		-	-	-	69.8	69.8	70.0	80.0	
18"	96"		-	-	70.0	90.0	70.0	80.0	70.0	80.0
24"			-	-	70.0	90.0	70.0	80.0	70.0	80.0
30"		-	-	70.0	90.0	70.0	80.0	70.0	80.0	
36"		-	-	-	-	70.0	78.8	70.0	80.0	
42"		-	-	-	-	70.0	70.2	70.0	80.0	

DESIGN LOAD CAPACITY - PSF									
WINDOW DIMS.		ANCHOR TYPES 'A'- 'C'- 'D'						ANCHOR TYPES 'B'- 'C'- 'D'	
		GLASS TYPE 'A'		GLASS TYPE 'B' & 'B1'		GLASS TYPE 'C' & 'C1'		GLASS TYPE 'C' & 'C1'	
WIDTH	HEIGHT	EXT.(+)	INT.(-)	EXT.(+)	INT.(-)	EXT.(+)	INT.(-)	EXT.(+)	INT.(-)
18"	108"	-	-	70.0	90.0	70.0	80.0	70.0	80.0
24"		-	-	70.0	90.0	70.0	80.0	70.0	80.0
30"		-	-	-	-	70.0	80.0	70.0	80.0
36"		-	-	-	-	70.0	76.8	70.0	80.0
18"	120"	-	-	70.0	90.0	70.0	80.0	70.0	80.0
24"		-	-	70.0	90.0	70.0	80.0	70.0	80.0
30"		-	-	-	-	70.0	80.0	70.0	80.0
36"		-	-	-	-	70.0	75.3	70.0	80.0

DESIGN LOAD CAPACITY - PSF							
WINDOW DIMS.		ANCHOR TYPES 'A'- 'C'- 'D'					
		GLASS TYPE 'A'		GLASS TYPE 'B' & 'B1'		GLASS TYPE 'C' & 'C1'	
WIDTH	HEIGHT	EXT.(+)	INT.(-)	EXT.(+)	INT.(-)	EXT.(+)	INT.(-)
19-1/8"	26"	70.0	70.0	70.0	90.0	70.0	80.0
26-1/2"		70.0	70.0	70.0	90.0	70.0	80.0
37"		70.0	70.0	70.0	90.0	70.0	80.0
48"		70.0	70.0	70.0	90.0	70.0	80.0
53-1/8"	38-3/8"	70.0	70.0	70.0	90.0	70.0	80.0
19-1/8"		70.0	70.0	70.0	90.0	70.0	80.0
26-1/2"		70.0	70.0	70.0	90.0	70.0	80.0
37"		65.6	65.6	70.0	90.0	70.0	80.0
48"	61.6	61.6	70.0	90.0	70.0	80.0	
53-1/8"	50-5/8"	55.1	55.1	70.0	90.0	70.0	80.0
19-1/8"		70.0	70.0	70.0	90.0	70.0	80.0
26-1/2"		70.0	70.0	70.0	90.0	70.0	80.0
37"		49.9	49.9	70.0	90.0	70.0	80.0
48"	-	-	70.0	75.3	70.0	80.0	
53-1/8"	58"	-	-	66.4	67.7	66.4	75.9
19-1/8"		70.0	70.0	70.0	90.0	70.0	80.0
26-1/2"		62.8	62.8	70.0	90.0	70.0	80.0
37"		42.2	42.2	70.0	89.7	70.0	80.0
48"	-	-	66.1	66.1	70.0	80.0	
53-1/8"	63"	-	-	-	-	63.2	72.3
19-1/8"		70.0	70.0	70.0	90.0	70.0	80.0
26-1/2"		59.2	59.2	70.0	90.0	70.0	80.0
37"		-	-	70.0	82.9	70.0	80.0
48"	-	-	-	-	70.0	80.0	
53-1/8"	74-1/4"	-	-	-	-	63.2	72.3
19-1/8"		70.0	70.0	70.0	90.0	70.0	80.0
26-1/2"		54.4	54.4	70.0	90.0	70.0	80.0
37"		-	-	70.0	71.5	70.0	80.0
48"	-	-	-	-	70.0	80.0	
53-1/8"	-	-	-	-	63.2	72.3	



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

Approved as complying with the
Florida Building Code
Date: 11/06/03
NOAS 03-0910.01
Miami Dade Product Control
Div. 1
By: *[Signature]*

Engr: DR. HUMAYOUN FAROOQ
STRUCTURES
FLA. PE # 16557
C.A.N. 3538
[Signature]
OCT - 2 2003

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AL-FAROOQ CORPORATION
ENGINEERS, PLANNERS & PRODUCT DESIGN
1235 SW 87 AVE
MIAMI, FLORIDA 33174
TEL. (305) 264-8100 FAX. (305) 262-6978
COMP-ANL\W03-57ESW

SERIES-1500 ALUMINUM FIXED WINDOW (L.M.I.)

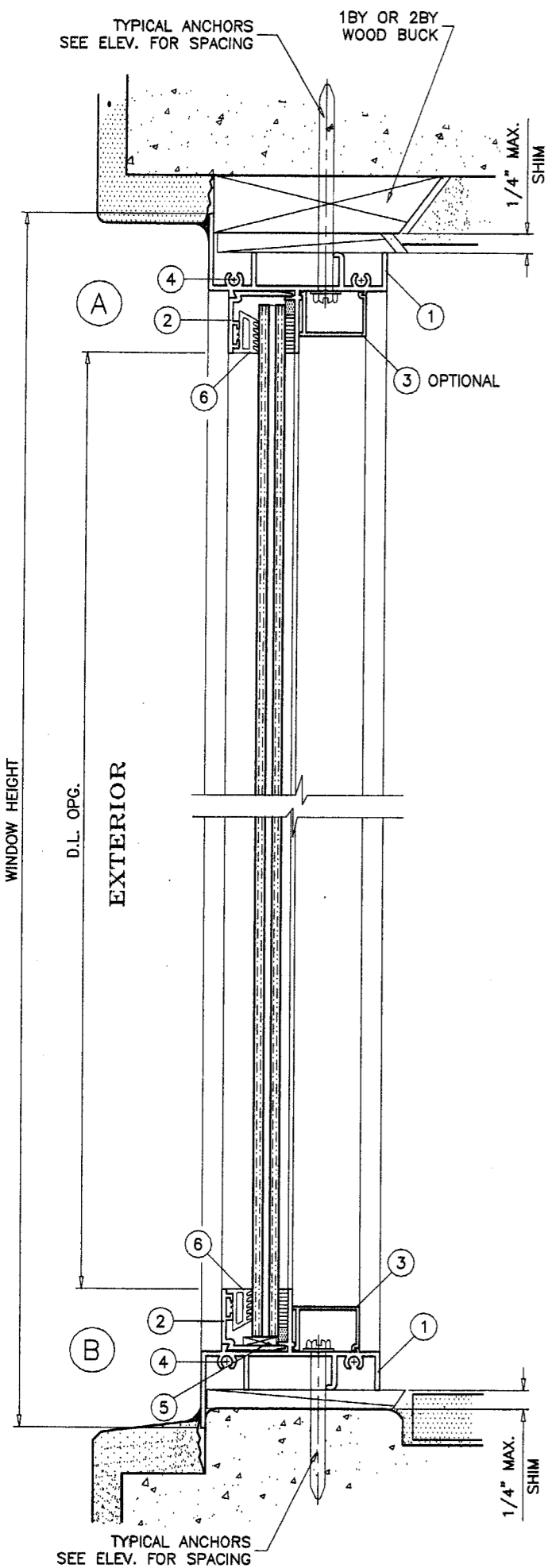
E.S. WINDOWS
5220 N.W. 72 AVE. BAY #4
MIAMI, FL. 33166
TEL. (305) 640-9857 FAX. (305) 593-2074

NO	DATE	DESCRIPTION
A	09.25.03	REV. PER BCCO COMMENTS

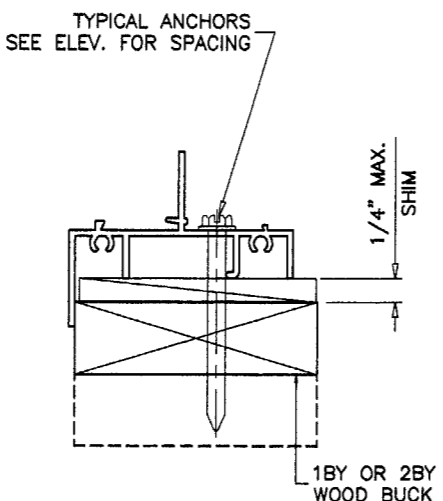
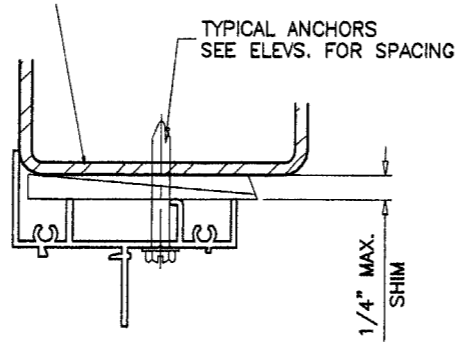
date: 07-31-03
scale: 1/2"=1'-0"
dr. by: HAMID
chk. by:

drawing no.
W03-57

sheet 2 of 4



METAL STRUCTURES
(STEEL OR ALUM. 1/8" MIN. THICK)
STEEL : $F_y = 36$ KSI MIN.
ALUMINUM : 6063-T5 MIN.

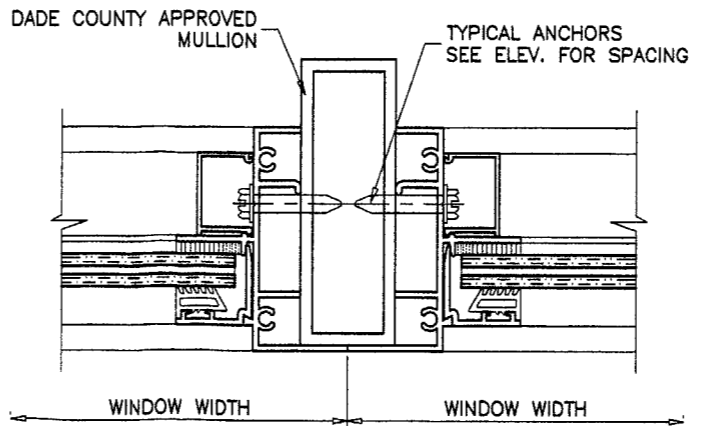
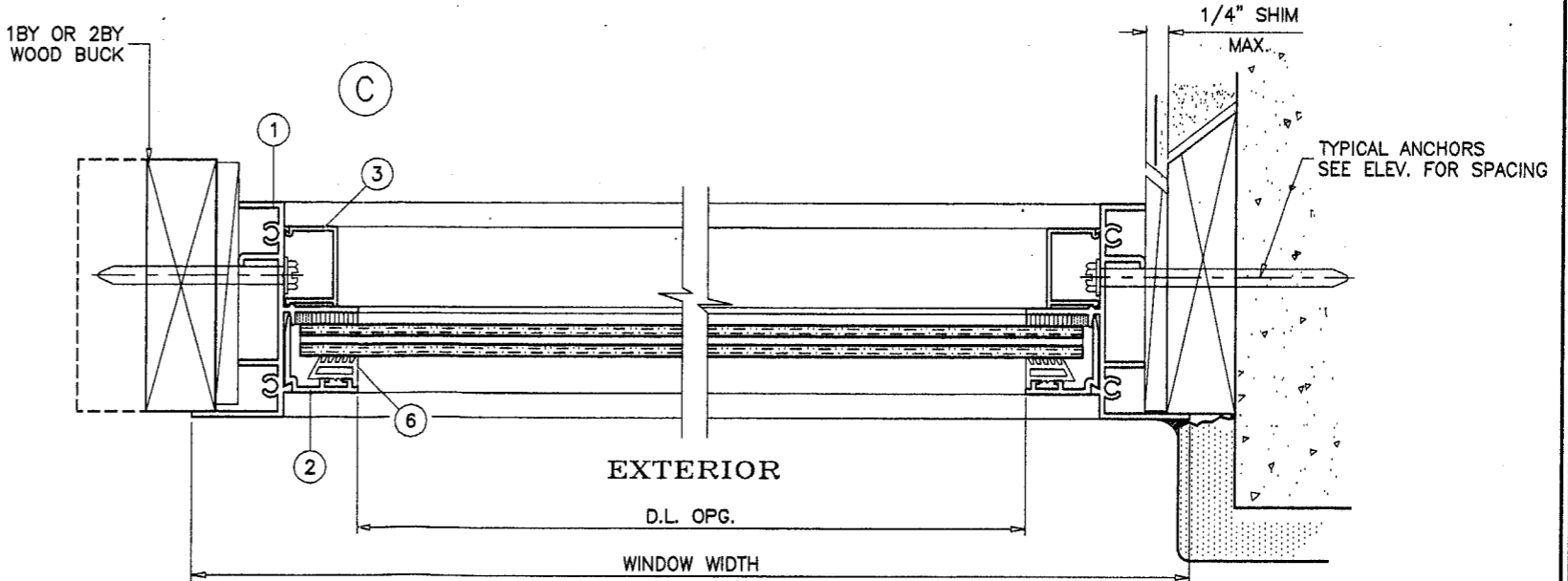


- TYPICAL ANCHORS:** SEE ELEV. FOR SPACING
- TYPE 'A' - 3/16" TAPCONS**
 INTO 2BY WOOD BUCKS OR WOOD STRUCTURE
 1-3/8" MIN. PENETRATION INTO WOOD
 THRU 1BY BUCKS INTO CONC. OR MASONRY
 1-1/4" MIN. EMBED INTO CONC. OR MASONRY
 DIRECTLY INTO CONC. OR MASONRY
 1-1/4" MIN. EMBED INTO CONC. OR MASONRY
- TYPE 'B' - 1/4" TAPCONS**
 INTO 2BY WOOD BUCKS OR WOOD STRUCTURE
 1-3/8" 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
- TYPE 'C' - 3/16" TEKS OR SELF DRILLING SCREWS (GRADE 5 CRS)**
 INTO METAL STRUCTURES (1/8" MIN. THICKNESS)
 (1/4" MAX. SHIM SPACE)
- TYPE 'D' - #10 SMS OR SELF DRILLING SCREWS**
 INTO DADE COUNTY APPROVED MULLIONS
 (NO SHIM SPACE)

WOOD BUCKS NOT BY E.S. WINDOWS, MUST SUSTAIN LOADS IMPOSED BY GLAZING SYSTEM AND TRANSFER THEM TO THE BUILDING STRUCTURE.

SEALANT:
 ALL JOINTS AND FRAME CONNECTIONS SEALED WITH WHITE/ALUM COLOR SILICONE.

Approved as complying with the
 Florida Building Code
 Date 11/06/03
 NOAS 03-0910.01
 Miami Dade Product Control
 Division
 By: *Clayton Beaman*



Engr: DR. HUMAYOUN FAROOQ
 STRUCTURES
 FLA. PE # 16557
 C.A.N. 3538
 OCT - 2 2003

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AL-FAROOQ CORPORATION
 ENGINEERS, PLANNERS & PRODUCT DESIGN
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SERIES-1500 ALUMINUM FIXED WINDOW (L.M.I.)

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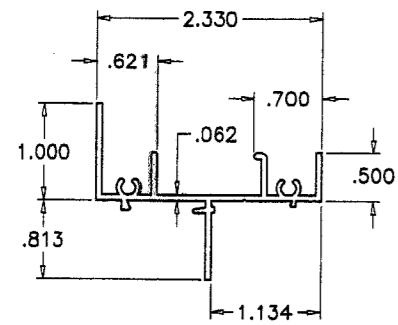
no	date	by	description
A	09.25.03	REV. PER BCCO	COMMENTS

revisions:

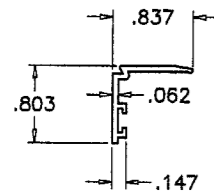
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 scale: 1/2" = 1"
 dr. by: HAMID
 chk. by:

drawing no.
W03-57

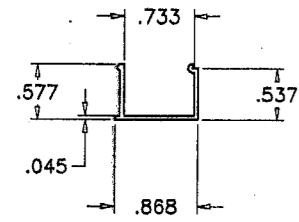
sheet 3 of 4



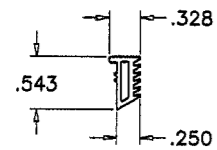
FRAME



GLAZING STOP

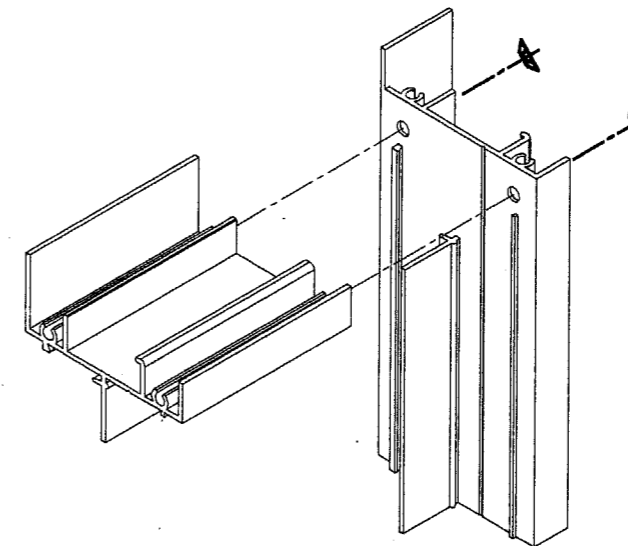


FRAME COVER (OPTIONAL)



BULB VINYL

ITEM	PART #	QUANTITY	DESCRIPTION	MATERIAL	MANF./SUPPLIER/REMARKS
1	ES5001	4	WINDOW FRAME	6063-T5	-
2	ES2000-8	4	GLAZING STOP	6063-T6	-
3	ES5002	4	FRAME COVER (OPTIONAL)	6063-T5	-
4	#8 X 1"	2/ CORNER	ASSEMBLY SCREWS	CRS	PH SMS
5	-	2/ LITE	SETTING BLOCK	NEOPRENE	7/16" X 3/16" X 3-1/2" LONG
6	ES2000-10	AS REQD.	GLAZING GASKET	SOFT PVC	-



TYPICAL CORNER CONSTRUCTION

Approved as complying with the
 Florida Building Code
 Date 11/06/03
 NOAS 02-0910.01
 Miami Trade Product Control
 Division
 By *Gerardine Beerman*

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

H
 OCT - 2 2003

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\W03-57ESW

SERIES-1500 ALUMINUM FIXED WINDOW (L.M.I.)
E.S. WINDOWS
 5220 N.W. 72 AVE. BAY #4
 MIAMI, FL. 33166
 TEL. (305) 640-9857 FAX. (305) 593-2074

no	date	description	by
A	09.25.03	NO CHANGE THIS SHEET	

date: 07-31-03
 scale: 1/2" = 1"
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 sheet 4 of 4