



**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)

**YKK AP America
332 Firetower Road
Dublin, GA 31021**

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 "YOW-225 TUH" Aluminum Fixed Window

APPROVAL DOCUMENT: Drawing No. **W03-73**, titled "YOW-225H Aluminum Fixed Window (L.M.I.)", sheets 1 through 4 of 4, prepared by Al Farooq Corporation, dated 08/25/03, with revision "A" dated 01/24/04, 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 and evidence pages E-1 and E-2, as well as approval document mentioned above.

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

3/9/2004

**NOA No 03-1211.02
Expiration Date: April 01, 2009
Approval Date: April 01, 2004
Page 1**

YKK AP America

NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED

A. DRAWINGS

1. Manufacturer's die drawings and sections.
2. Drawing No. **W03-73**, titled "YOW-225H Aluminum Fixed Window (L.M.I.)", sheets 1 through 4 of 4, prepared by Al Farooq Corporation, dated 08/25/03, with revision "A" dated 01-24/04, 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) Small Missile Impact Test per FBC, TAS 201-94
5) Cyclic Wind Pressure Loading per FBC, TAS 203-94
along with installation diagram of an aluminum fixed window prepared by Hurricane Test Laboratory, test report No. **HTL-0231-0810-02**, dated from 08/16/02 to 08/19/02, signed and sealed by Vinu Abraham, P.E
2. Test reports on 1) Large Missile Impact Test per FBC, TAS 201-94
2) Cyclic Wind Pressure Loading per FBC, TAS 203-94
along with installation diagram of an aluminum fixed window prepared by Hurricane Test Laboratory, test report No. **HTL-0231-1210-02**, dated 12/11/02, signed and sealed by Vinu Abraham, P.E
3. Test reports on 1) Large Missile Impact Test per FBC, TAS 201-94
2) Cyclic Wind Pressure Loading per FBC, TAS 203-94
along with installation diagram of an aluminum fixed window prepared by Hurricane Test Laboratory, test report No. **HTL-0231-0622-03-03**, dated 06/10/03, signed and sealed by Vinu Abraham, P.E.
4. Test reports on 1) Large Missile Impact Test per FBC, TAS 201-94
2) Cyclic Wind Pressure Loading per FBC, TAS 203-94
3) Uniform Static Air Pressure Test, Loading per FBC,TAS 202-94
along with installation diagram of an aluminum fixed window prepared by Hurricane Test Laboratory, test report No. **HTL-0231-0811-03**, dated from 08/12/03 to 08/21/03, signed and sealed by Vinu Abraham, P.E

C. CALCULATIONS

1. Anchor Calculations, ASTM-E1300-98, and structural analysis, prepared by Al Farooq Corporation, dated 09/24/03, signed and sealed by Al Farooq, P.E.

D. MATERIAL CERTIFICATIONS

1. Notice of Proposed Action No. **00-0822.03**, issued to Solutia, Inc. for their Saflex HP, dated 10/19/00, expiring on 4/14/03


Theodore Berman, P.E.

Deputy Director, Product Control Division

NOA No 03-1211.02

Expiration Date: April 01, 2009

Approval Date: April 01, 2004

YKK AP America

NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED

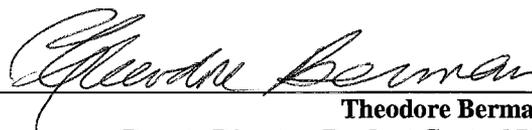
2. Notice of Proposed Action No. **03-0421.01**, issued to Solutia, Inc. for their Saflex HP, dated 05/22/03, expiring on 04/14/08.
3. Notice of Acceptance No. **00-0329.03** issued to Security Impact Glass Holdings L.L.C. for their "SAF-GLAS Polycarbonate Laminate" dated 01/02/03, expiring on 12/16/07.
4. Notice of Acceptance No. **03-0514.15** issued to Oldcastle Glass, Inc. for their "StormGlass" dated 12/11/03, expiring on 12/11/08.

E. STATEMENTS

1. Statement letter of conformance, dated 10/01/03, signed and sealed by Humayoun Farooq, P.E.
2. Statement letter of no financial interest, dated 10/01/03, signed and sealed by Humayoun Farooq, P.E.
3. Laboratory compliance letter for Test Report no. **HTL-0231-0810.02**, **HTL-0231-1210-02**, and **HTL-0231-0323.03**, issued by Hurricane Test Laboratory, Inc., dated 05/29/03, signed and sealed by Vinu Abraham, P.E.
4. Laboratory compliance letter for Test Report no. **HTL-0231-0622-03**, issued by Hurricane Test Laboratory, Inc., dated 06/26/03, signed and sealed by Vinu Abraham, P.E.

F. OTHER

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



Theodore Berman, P.E.
Deputy Director, Product Control Division
NOA No 03-1211.02
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YOW-225H 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.

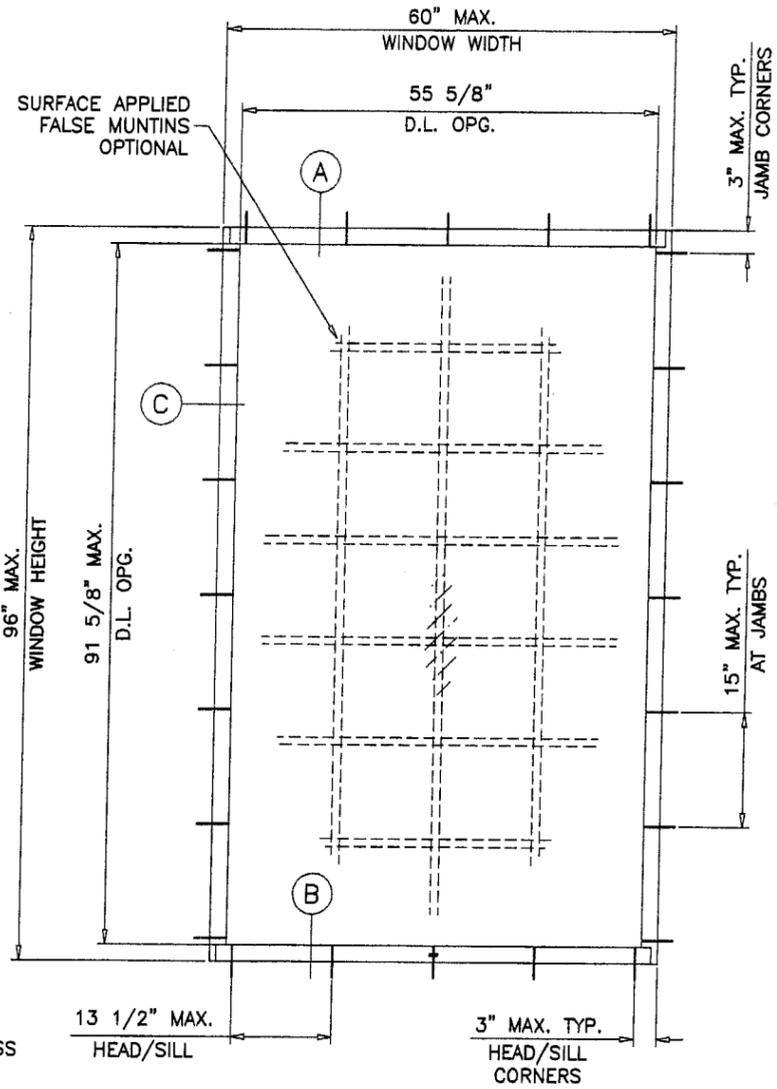
APPROVAL APPLIES TO SINGLE UNITS OR SIDE BY SIDE COMBINATIONS OF FIXED/FIXED OR FIXED WITH OTHER WINDOW TYPES IN MODULES OF TWO OR MORE WINDOWS USING APPROVED MULLIONS.

THIS PRODUCT IS DESIGNED TO COMPLY WITH THE HIGH VELOCITY HURRICANE ZONE OF THE 2001 FLORIDA BUILDING CODE.

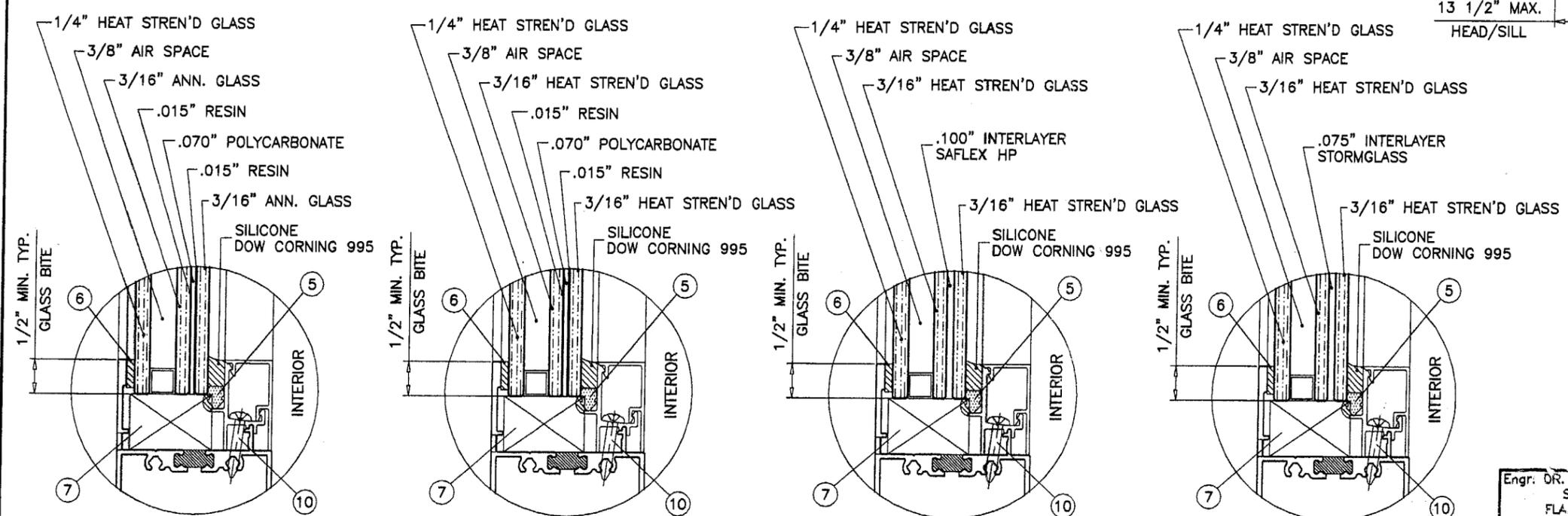
WOOD BUCKS BY OTHERS, MUST BE ANCHORED PROPERLY TO TRANSFER LOADS TO THE STRUCTURE.

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.



TYPICAL ELEVATION
TESTED UNIT



GLASS TYPE 'A'

GLASS TYPE 'B'

GLASS TYPE 'C'

GLASS TYPE 'D'

1-1/16" OVERALL LAMINATED GLASS
LARGE MISSILE IMPACT RESISTANT

GLAZING OPTIONS

Approved as complying with the Florida Building Code
Date: 04/01/04
NOA# 03-1211-02
Miami Dade Product Control
Division
By: *[Signature]*

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

JAN 27 2004

af c
AL-FAROOQ CORPORATION
ENGINEERS, PLANNERS & PRODUCT DESIGN
1235 SW 87 AVE
MIAMI, FLORIDA 33174
TEL. (305) 264-8100 FAX. (305) 262-6978
COMP-ANL W03-73YKK

YKK AP AMERICA INC.
332 FIRETOWER ROAD
DUBLIN, GEORGIA 31021
TEL(478) 277-1955 FAX(478) 277-1978

YKK AP
YOW-225H ALUMINUM FIXED WINDOW (L.M.I.)

no	date	description	REV. PER	COMMENTS
A	01.24.04			

date: 08-25-03
scale: 1/2"=1'-0"
dr. by: HAMID
chk. by:

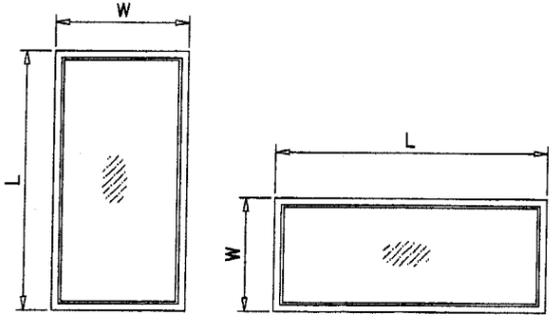
drawing no.
W03-73

sheet 1 of 4

DESIGN LOAD CAPACITY - PSF							
WINDOW DIMS.		GLASS TYPE 'A'		GLASS TYPES 'B' & 'D'		GLASS TYPE 'C'	
WIDTH	HEIGHT	EXT.(+)	INT.(-)	EXT.(+)	INT.(-)	EXT.(+)	INT.(-)
18"	36"	65.0	65.0	70.0	90.0	65.0	65.0
24"		65.0	65.0	70.0	90.0	65.0	65.0
30"		65.0	65.0	70.0	90.0	65.0	65.0
36"		65.0	65.0	70.0	90.0	65.0	65.0
42"		65.0	65.0	70.0	90.0	65.0	65.0
48"		65.0	65.0	70.0	90.0	65.0	65.0
54"		65.0	65.0	70.0	90.0	65.0	65.0
60"		65.0	65.0	70.0	90.0	65.0	65.0
18"	48"	65.0	65.0	70.0	90.0	65.0	65.0
24"		65.0	65.0	70.0	90.0	65.0	65.0
30"		65.0	65.0	70.0	90.0	65.0	65.0
36"		65.0	65.0	70.0	90.0	65.0	65.0
42"		65.0	65.0	70.0	90.0	65.0	65.0
48"		65.0	65.0	70.0	90.0	65.0	65.0
54"		65.0	65.0	70.0	90.0	65.0	65.0
60"		64.9	64.9	70.0	90.0	65.0	65.0
18"	60"	65.0	65.0	70.0	90.0	65.0	65.0
24"		65.0	65.0	70.0	90.0	65.0	65.0
30"		65.0	65.0	70.0	90.0	65.0	65.0
36"		65.0	65.0	70.0	90.0	65.0	65.0
42"		65.0	65.0	70.0	90.0	65.0	65.0
48"		64.9	64.9	70.0	90.0	65.0	65.0
54"		62.5	62.5	70.0	90.0	65.0	65.0
60"		59.8	59.8	70.0	84.0	65.0	65.0
18"	72"	65.0	65.0	70.0	90.0	65.0	65.0
24"		65.0	65.0	70.0	90.0	65.0	65.0
30"		65.0	65.0	70.0	90.0	65.0	65.0
36"		65.0	65.0	70.0	90.0	65.0	65.0
42"		63.2	63.2	70.0	90.0	65.0	65.0
48"		53.0	53.0	70.0	90.0	65.0	65.0
54"		46.3	46.3	70.0	90.0	65.0	65.0
60"		-	-	70.0	84.0	-	-
18"	84"	65.0	65.0	70.0	90.0	65.0	65.0
24"		65.0	65.0	70.0	90.0	65.0	65.0
30"		65.0	65.0	70.0	90.0	65.0	65.0
36"		65.0	65.0	70.0	90.0	65.0	65.0
42"		54.6	54.6	70.0	90.0	65.0	65.0
48"		45.2	45.2	70.0	90.0	65.0	65.0
54"		-	-	70.0	86.8	-	-
60"		-	-	70.0	84.0	-	-
18"	90"	65.0	65.0	70.0	90.0	65.0	65.0
24"		65.0	65.0	70.0	90.0	65.0	65.0
30"		65.0	65.0	70.0	90.0	65.0	65.0
36"		65.0	65.0	70.0	90.0	65.0	65.0
42"		51.4	51.4	70.0	90.0	65.0	65.0
48"		-	-	70.0	84.4	-	-
54"		-	-	70.0	80.4	-	-
60"		-	-	70.0	78.4	-	-

DESIGN LOAD CAPACITY - PSF								
WINDOW DIMS.		GLASS TYPE 'A'		GLASS TYPES 'B' & 'D'		GLASS TYPE 'C'		
WIDTH	HEIGHT	EXT.(+)	INT.(-)	EXT.(+)	INT.(-)	EXT.(+)	INT.(-)	
18"	96"	65.0	65.0	70.0	90.0	65.0	65.0	
24"		65.0	65.0	70.0	90.0	65.0	65.0	
30"		65.0	65.0	70.0	90.0	65.0	65.0	
36"		65.0	65.0	70.0	90.0	65.0	65.0	
42"		48.5	48.5	70.0	90.0	65.0	65.0	
48"		-	-	70.0	80.2	-	-	
54"		-	-	70.0	75.0	-	-	
60"		-	-	70.0	73.5	-	-	
18"	108"	65.0	65.0	70.0	90.0	65.0	65.0	
24"		65.0	65.0	70.0	90.0	65.0	65.0	
30"		65.0	65.0	70.0	90.0	65.0	65.0	
36"		63.7	63.7	70.0	90.0	65.0	65.0	
42"		-	-	70.0	90.0	-	-	
48"		-	-	70.0	72.6	-	-	
18"		120"	65.0	65.0	70.0	90.0	65.0	65.0
24"			65.0	65.0	70.0	90.0	65.0	65.0
30"	65.0		65.0	70.0	90.0	65.0	65.0	
36"	-		-	70.0	90.0	-	-	
42"	-		-	70.0	90.0	-	-	
48"	-		-	68.7	68.7	-	-	

DESIGN LOAD CAPACITY - PSF								
WINDOW DIMS.		GLASS TYPE 'A'		GLASS TYPES 'B' & 'D'		GLASS TYPE 'C'		
WIDTH	HEIGHT	EXT.(+)	INT.(-)	EXT.(+)	INT.(-)	EXT.(+)	INT.(-)	
19-1/8"	26"	65.0	65.0	70.0	90.0	65.0	65.0	
26-1/2"		65.0	65.0	70.0	90.0	65.0	65.0	
37"		65.0	65.0	70.0	90.0	65.0	65.0	
48"		65.0	65.0	70.0	90.0	65.0	65.0	
53-1/8"		65.0	65.0	70.0	90.0	65.0	65.0	
19-1/8"		38-3/8"	65.0	65.0	70.0	90.0	65.0	65.0
26-1/2"			65.0	65.0	70.0	90.0	65.0	65.0
37"			65.0	65.0	70.0	90.0	65.0	65.0
48"	65.0		65.0	70.0	90.0	65.0	65.0	
53-1/8"	65.0		65.0	70.0	90.0	65.0	65.0	
19-1/8"	50-5/8"		65.0	65.0	70.0	90.0	65.0	65.0
26-1/2"			65.0	65.0	70.0	90.0	65.0	65.0
37"			65.0	65.0	70.0	90.0	65.0	65.0
48"		65.0	65.0	70.0	90.0	65.0	65.0	
53-1/8"		65.0	65.0	70.0	90.0	65.0	65.0	
19-1/8"		58"	65.0	65.0	70.0	90.0	65.0	65.0
26-1/2"			65.0	65.0	70.0	90.0	65.0	65.0
37"			65.0	65.0	70.0	90.0	65.0	65.0
48"	65.0		65.0	70.0	90.0	65.0	65.0	
53-1/8"	59.9		59.9	70.0	90.0	65.0	65.0	
19-1/8"	63"		65.0	65.0	70.0	90.0	65.0	65.0
26-1/2"			65.0	65.0	70.0	90.0	65.0	65.0
37"			65.0	65.0	70.0	90.0	65.0	65.0
48"		61.4	61.4	70.0	90.0	65.0	65.0	
53-1/8"		54.5	54.5	70.0	90.0	65.0	65.0	
19-1/8"		74-1/4"	65.0	65.0	70.0	90.0	65.0	65.0
26-1/2"			65.0	65.0	70.0	90.0	65.0	65.0
37"			65.0	65.0	70.0	90.0	65.0	65.0
48"	51.4		51.4	70.0	90.0	65.0	65.0	
53-1/8"	45.9		45.9	70.0	90.0	65.0	65.0	



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

Approved as complying with the
Florida Building Code
Date 04/01/04
NOAR 09-1211.02
Miami Dade Product Control
Division
By [Signature]

Engr: DR. HUMAYOUN FAROOQ
STRUCTURES
FLA. PE # 16557
C.A.N. 3538
[Signature]
JAN 27 2004

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/W03-73YKK

YKK AP AMERICA INC.
352 FIRETOWER ROAD
DUBLIN, GEORGIA 31021
TEL.(478) 277-1955 FAX(478) 277-1978

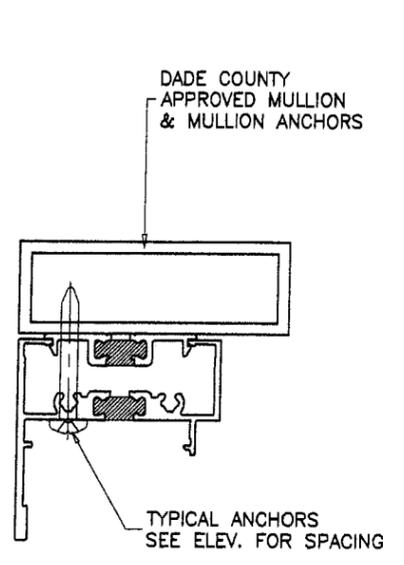
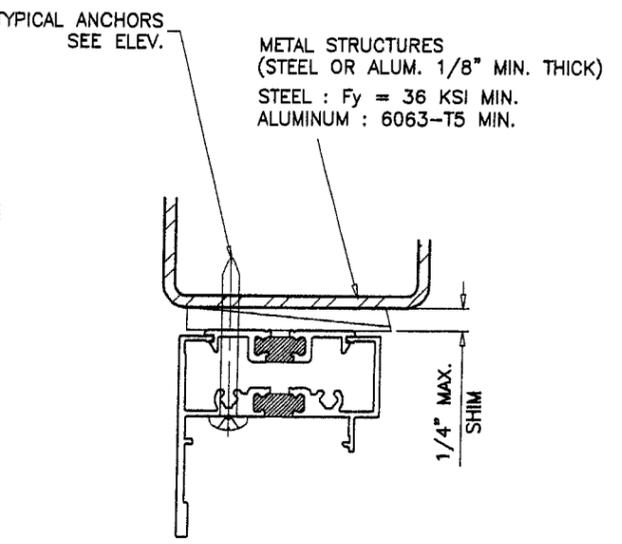
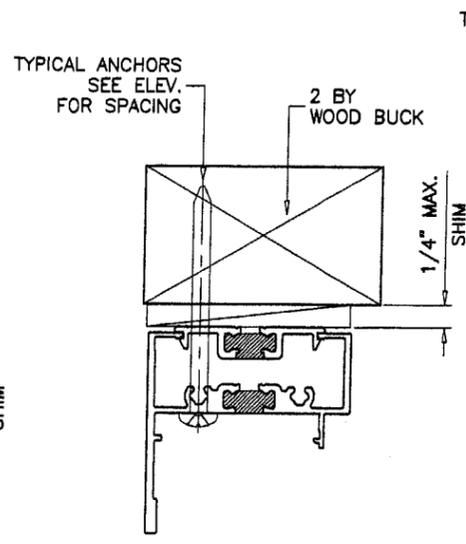
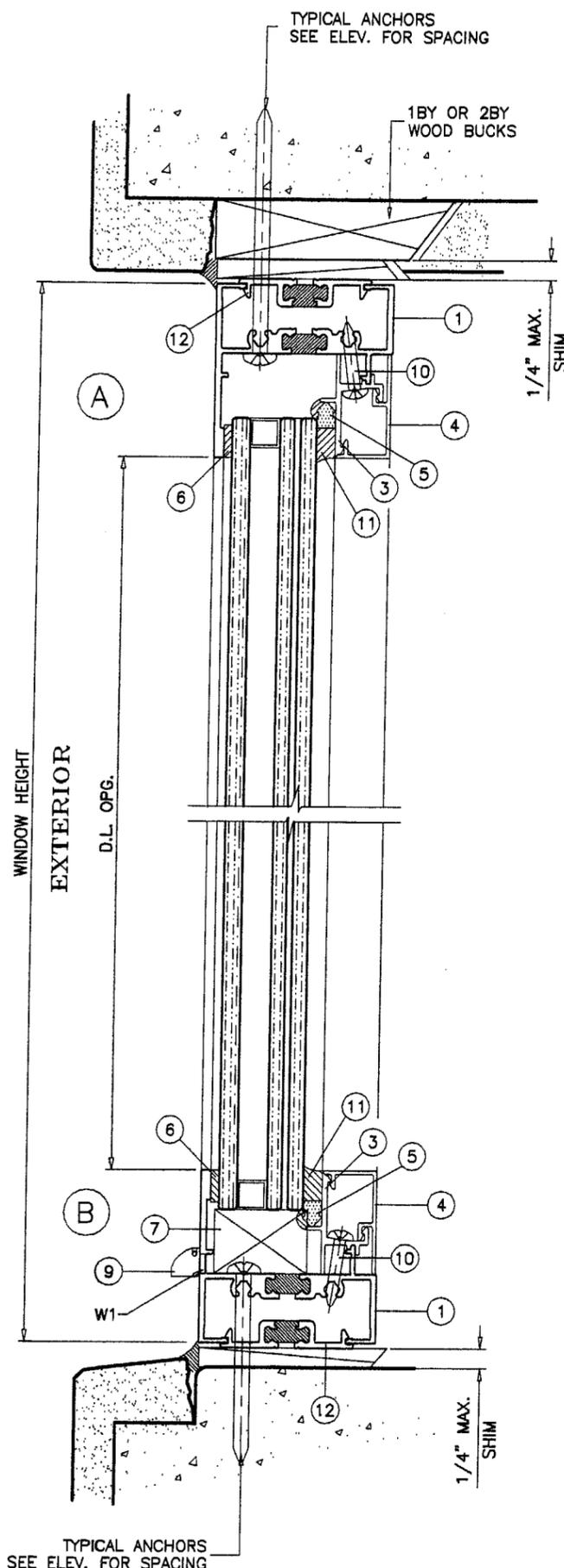
YOW-225H ALUMINUM FIXED WINDOW (L.M.I.)

no	date	description
A	101.24.04	REV. PER BCCO COMMENTS

date: 08-25-03
scale: 1/2" = 1"
dr. by: HAMID
chk. by:

drawing no.
W03-73

sheet 2 of 4



WOOD BUCKS NOT BY YKK AMERICA INC. MUST SUSTAIN LOADS IMPOSED BY GLAZING SYSTEM AND TRANSFER THEM TO THE BUILDING STRUCTURE.

TYPICAL ANCHORS: SEE ELEV. FOR SPACING

- 1/4" TAPCONS**
- INTO 2BY WOOD BUCKS OR WOOD STRUCTURE
1-3/8" MIN. PENETRATION INTO WOOD
- THRU 1BY WOOD BUCKS INTO MASONRY OR CONC.
1-1/4" MIN. EMBED INTO MASONRY OR CONC.
- DIRECTLY INTO MASONRY OR CONC.
1-1/4" MIN. EMBED INTO MASONRY OR CONC.

- 1/4" DIA. ELCO DRILLFLEX OR EQUIV.**
- INTO STEEL OR ALUMINUM MULLIONS
(NO SHIM SPACE)
- INTO METAL STRUCTURES (1/8" MIN. THICKNESS)
(1/4" MAX. SHIM SPACE)

SEALANTS:
 FRAME CORNERS SEALED WITH BUTYL RUBBER CORNER GASKET (#E2-0644).
 TREMCO SPECTRUM 2 SILICONE SEALANT AT PERIMETER.

WEEP HOLES:
 W1 = 1/4" X 1-1/16" WEEP SLOT AT CENTERLINE.

Approved as complying with the
 Florida Building Code
 Date 04/01/04
 NOA# 03-1211-02
 Miami Dade Product Control
 Division
 By: *[Signature]*

Engr: DR. HUMAYOUN FAROOQ
 STRUCTURES
 FLA. PE # 18557
 C.A.N. 3538
[Signature]
 JAN 27 2004

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\W03-73YKK

YOW-225H ALUMINUM FIXED WINDOW (L.M.I.)

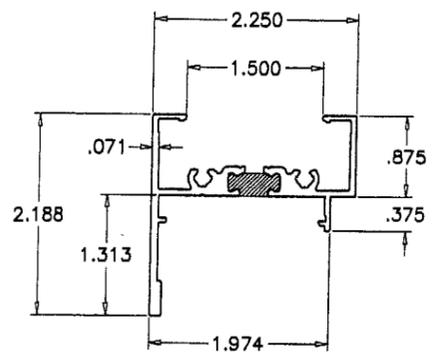
YKK AP AMERICA INC.
 332 FIRETOWER ROAD
 DUBLIN, GEORGIA 31021
 TEL(478) 277-1955 FAX(478) 277-1978

YKK AP

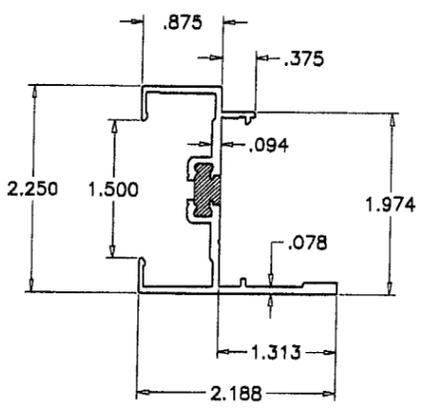
no	date	by	description
A	01.24.04		REV. PER BCCO COMMENTS

date: 08-25-03
 scale: 1/2" = 1"
 dr. by: HAMID
 chk. by:

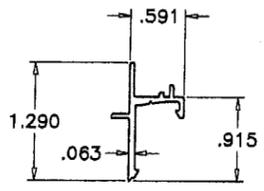
drawing no. **W03-73**
 sheet 3 of 4



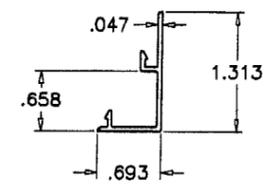
FRAME HEAD/SILL



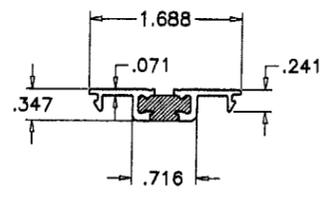
FRAME JAMB



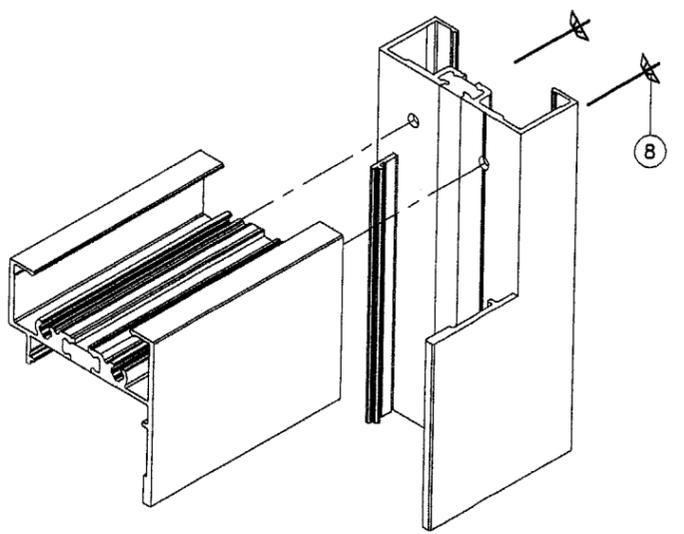
GLASS STOP



SNAP COVER

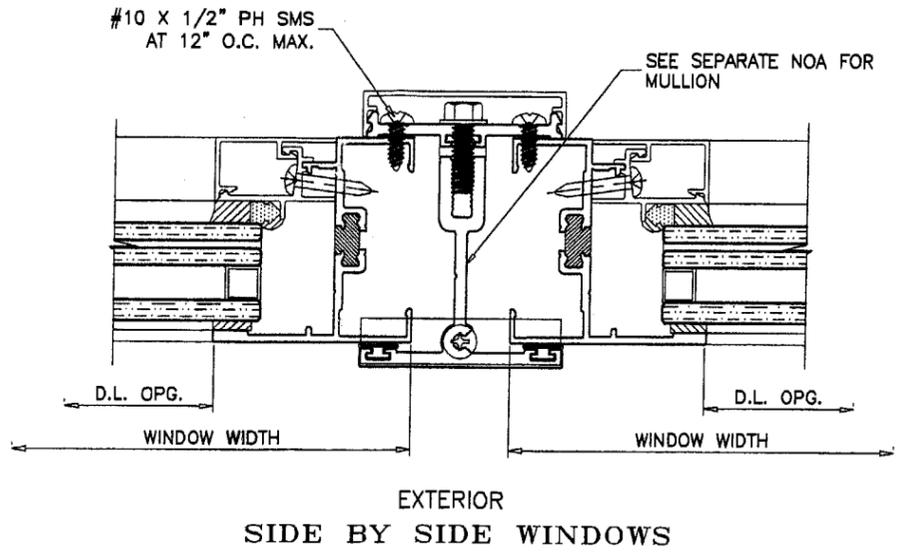
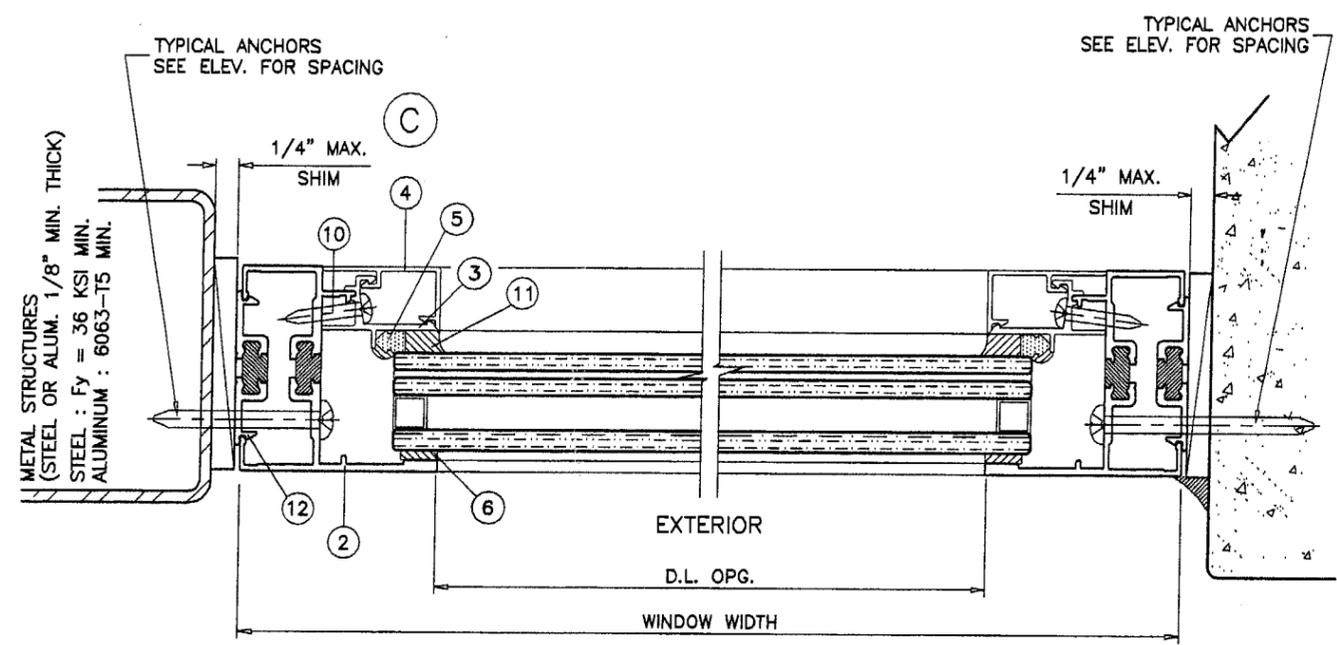


FILLER PLATE



FRAME CORNER

ITEM NO.	PART NUMBER	QUANTITY	DESCRIPTION	MATERIAL	MANF./SUPLIER/REMARKS
1	BE9-4501	2/ WDW	FRAME HEAD/SILL	6063-T5	YKK AMERICA INC.
2	BE9-4502	2/ WDW	FRAME JAMB	6063-T5	YKK AMERICA INC.
3	E9-4524	4/ WDW	GLAZING STOP	6063-T5	YKK AMERICA INC.
4	E9-4525	4/ WDW	GLAZING STOP COVER	6063-T5	YKK AMERICA INC.
5	E2-0359	AS REQD.	ARROW SPACER, 1" LONG	EPDM SPONGE	AT 3" FROM ENDS & 10" O.C. MAX.
6	E2-0848	AS REQD.	GLAZING TAPE (.196 X .406)	-	CLOSED CELL EPDM SPONGE
7	E2-0846	AS REQD.	SETTING BLOCKS	EPDM	13/16" X 1-3/16" X 4" LONG
8	#10 X 1"	2/ CORNER	FRAME ASSEMBLY SCREWS	STEEL	PH SMS
9	E3-1101	2/ WDW	WEEP COVER	NYLON	AT WEEP SLOTS
10	#10 X 1"	-	GLAZING STOP SCREWS	-	PH SMS AT 3" FROM ENDS & 10" O.C.
11	995	AS REQD.	GLAZING COMPOUND	SILICONE	DOW CORNING
12	E1-1727	AS REQD.	FILLER PLATE, 2-1/2" LONG AT ANCHOR LOCATIONS	6063-T5	YKK AMERICA INC.



Approved as complying with the Florida Building Code
 Date: 04/01/04
 NOA: 03-1211.02
 Miami Dade Product Control Division
 By: *Cherese Berna*

Engr: DR. HUMAYOON FAROOQ
 STRUCTURES
 FLA. PE # 16557
 C.A.N. 3538
 JAN 27 2004

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\W03-73YKK

YOW-225H ALUMINUM FIXED WINDOW (L.M.I.)
YKK AP AMERICA INC.
 332 FIRETOWER ROAD
 DUBLIN, GEORGIA 31021
 TEL(478) 277-1955 FAX(478) 277-1978

revisions:	no	date	description
	A	01.24.04	REV. PER BCCO COMMENTS

date: 08-25-03
 scale: 1/2" = 1"
 dr. by: HAMID
 chk. by:

drawing no.
W03-73
 sheet 4 of 4