MIAMI-DADE

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)

Industrial Millwork Corp.
West Highway 36
Seneca, KS 66538

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: Direct Set Wood Fixed Window

APPROVAL DOCUMENT: Drawing No. **LAG-1000**, titled "Direct Set Fixed Window", sheets 1 through 3 of 3, dated 1/27/04, prepared by Bromley Cook Engineering, Inc., signed and sealed by William D. Cook, 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 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 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 **Manuel Perez, P.E.**

NOA No 04-0206.02
Expiration Date: July 1, 2009
Approval Date: July 1, 2004
Page 1

Industrial Millwork Corp.

NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED

A. DRAWINGS

1. Manufacturer's die drawings and sections.
2. Drawing No. **LAG-1000**, titled "Direct Set Fixed Window", sheets 1 through 3 of 3, dated 1/27/04, prepared by Bromley Cook Engineering, Inc., signed and sealed by William D. Cook, 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) Forced Entry Test, per FBC 3603.2 (b) and TAS 202-94
   along with marked-up drawings and installation diagram of a rectangular fixed wood window, prepared by Hurricane Test Laboratory, Inc., Test Report No. **HTL-0210-0509-03, Specimen #1**, dated 4/30/03, and addendum letter dated 5/18/04, all signed and sealed by Vinu J. 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 marked-up drawings and installation diagram of a rectangular fixed wood window, prepared by Hurricane Test Laboratory, Inc., Test Report No. **HTL-0210-0509-03, Specimen #2**, dated 4/30-5/1/03, and addendum letter dated 5/18/04, all signed and sealed by Vinu J. 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 marked-up drawings and installation diagram of a rectangular fixed wood window, prepared by Hurricane Test Laboratory, Inc., Test Report No. **HTL-0210-0325-03, Specimen #2**, dated 3/24-25/03, and addendum letter dated 5/18/04, all signed and sealed by Vinu J. Abraham, P.E.
4. 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) Forced Entry Test, per FBC 3603.2 (b) and TAS 202-94
   along with marked-up drawings and installation diagram of a half round fixed wood window, prepared by Hurricane Test Laboratory, Inc., Test Report No. **HTL-0210-0325-03, Specimen #3**, dated 3/26/03, and addendum letter dated 5/18/04, all signed and sealed by Vinu J. Abraham, P.E.

Manuel Perez, P.E.
Product Control Examiner
NOA No 04-0206.02
Expiration Date: July 1, 2009
Approval Date: July 1, 2004

NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED

5. 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 marked-up drawings and installation diagram of a rectangular fixed wood window, prepared by Hurricane Test Laboratory, Inc., Test Report No. **HTL-0210-0620-03, Specimen #1**, dated 6/9/03, and addendum letter dated 5/18/04, all signed and sealed by Vinu J. Abraham, P.E.
6. 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 marked-up drawings and installation diagram of a "springline" fixed wood window, prepared by Hurricane Test Laboratory, Inc., Test Report No. **HTL-0210-0620-03, Specimen #2**, dated 6/9/03, and addendum letter dated 5/18/04, all signed and sealed by Vinu J. Abraham, P.E.

C. CALCULATIONS

1. Anchor Calculations and structural analysis, prepared by Bromley-Cook Engineering, dated 01/27/04 and revised on 5/17/04, signed and sealed by William D. Cook, P.E.

D. QUALITY ASSURANCE

1. Miami Dade Building Code Compliance Office (BCCO).

E. MATERIAL CERTIFICATIONS

1. Notice of Acceptance No. **03-0225.10** issued to Glasslam NGI Inc. for their "**Safety Plus - Laminated Glass**" dated 08/07/03, expiring on 08/07/08.

F. STATEMENTS

1. Statement letter of compliance, dated January 28, 2004, signed and sealed by William D. Cook, P.E.
2. Statement letter of no financial interest, dated January 28, 2004, signed and sealed by William D. Cook, P.E.
3. Laboratory compliance letter for Test Reports No. HTL-0210-0325-03 Specimen #2, HTL-0210-0509-03 Specimens #1 & #2 and HTL-0210-0620-03 Specimens #1 and 2, issued by Hurricane Test Laboratory, Inc., dated December 11, 2003, signed and sealed by Vinu J. Abraham, P.E.

G. OTHER

1. None.

Manuel Perez, P.E.
Product Control Examiner
NOA No 04-0206.02
Expiration Date: July 1, 2009
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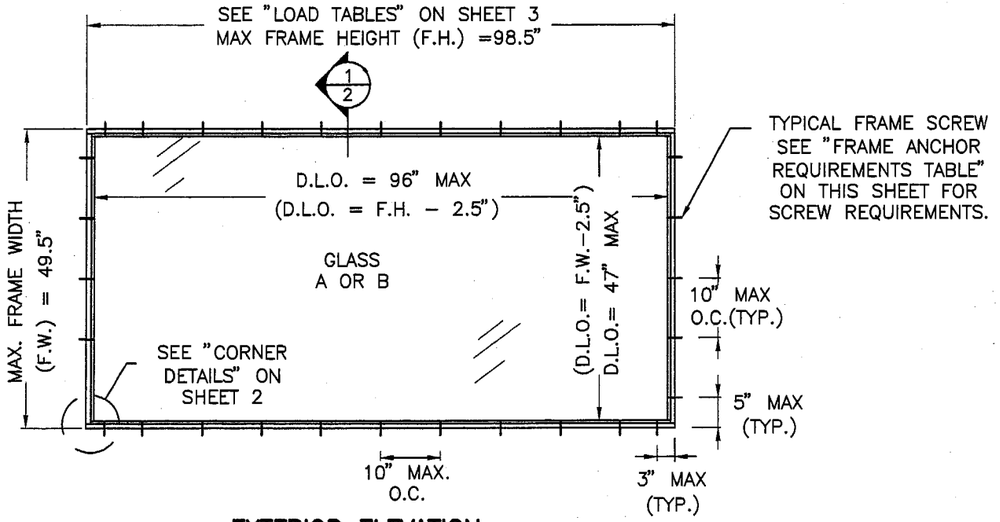
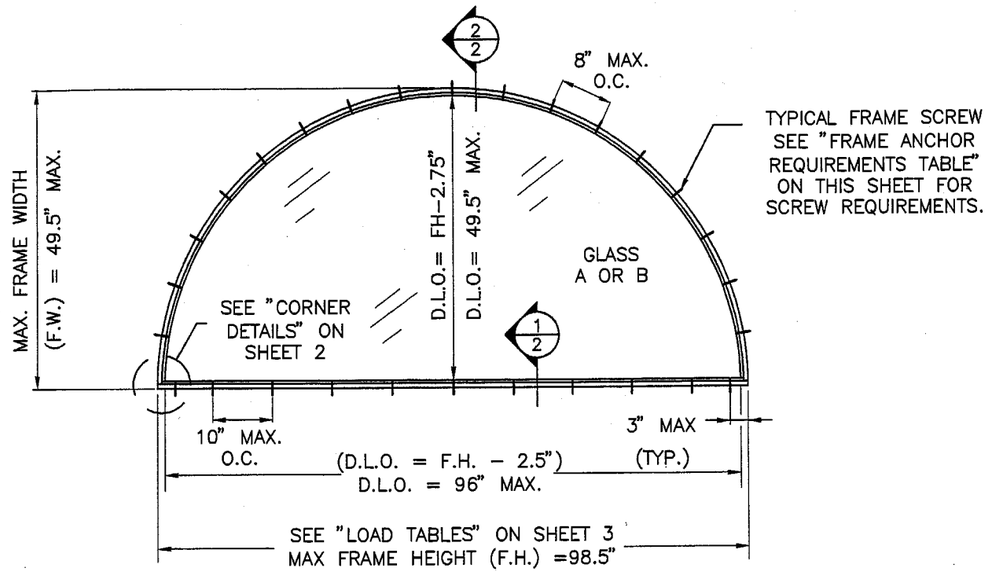
DIRECT SET FIXED WOOD WINDOW



EXTERIOR ELEVATION
RECTANGULAR WINDOW



EXTERIOR ELEVATION
HALF ROUND WINDOW
(OTHER RADIUS/CURVE SHAPES SIMILAR)

GENERAL NOTES:

1. BUCKING, OPENINGS & BUCKING FASTENERS MUST BE PROPERLY DESIGNED & INSTALLED TO TRANSFER WIND LOADS TO THE STRUCTURE.
2. ALL HARDWARE & FASTENERS SHALL BE IN ACCORDANCE WITH THESE DRAWINGS & MAY NOT VARY UNLESS SPECICALLY MENTIONED ON THESE DRAWINGS.
3. THE DETAILS & SPECIFICATIONS SHOWN HEREIN REPRESENT THE PRODUCTS TESTED & PROPOSED FOR WATER, AIR, IMPACT, CYCLIC & UNIFORM STATIC AIR PRESSURE TESTING IN CONFORMANCE WITH DADE COUNTY PROTOCOLS TAS 201, 202 & 203 FOR LARGE MISSLE IMPACT WINDOWS.
4. THESE WINDOW SYSTEMS HAVE BEEN DESIGNED IN ACCORDANCE WITH THE FLORIDA BUILDING CODE,
5. IMPACT SHUTTERS ARE NOT REQUIRED WITH THESE WINDOWS.
6. ALL ANCHORS SHALL BE INSTALLED AS SPECIFIED ON THESE DRAWINGS. SPECIFIED EMBEDMENT TO BASE MATERIAL SHALL BE BEYOND WALL FINISH OR STUCCO.

ANCHOR SCHEDULE

	FRAME ANCHOR REQUIREMENTS TABLE		
OPENING TYPE (SUBSTRATE)	JAMB TO OPENING FASTENER TYPE	MINIMUM EMBEDMENT	MINIMUM EDGE DISTANCE
2X WOOD BUCK	#12 WOOD SCREWS	1 1/2"	2"
CMU/CONCRETE	1/4" TAPCON	1 1/2"	2 1/2"
STEEL/ METAL STUD 1/8" THK. ASTM A36	#12 S.M.S.	–	–

GLAZING SCHEDULE
(LARGE MISSILE IMPACT)

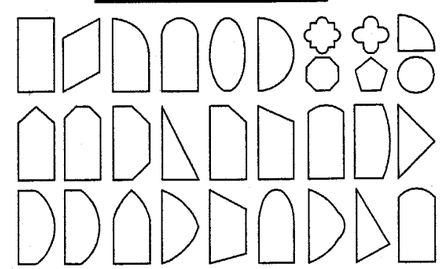
TYPE A	7/16" LAMINATED "SAFETY–PLUS II" 3/16" ANNEALED WITH 0.1" RESIN WITH PET FILM BY GLASS LAM–NGI INC. 3/16" ANNEALED
TYPE B	7/16" LAMINATED "SAFETY–PLUS II" 3/16" ANNEALED WITH 0.1" RESIN WITH PET FILM BY GLASS LAM–NGI INC. 3/16" ANNEALED

ALLOWABLE DESIGN PRESSURE FOR IMPACT WINDOWS

SEE LOAD TABLES FOR ALLOWABLE FOR ALLOWABLE ALLOWABLE WIND PRESSURES BASED ON WINDOW SIZE

TYPE A	WATER TEST 8.25 psi	TYPE B	WATER TEST 10.5 psi

APPROVED SHAPES



NOTES:
1. OTHER SHAPES MAY APPLY PROVIDING THEY ARE SIMILAR TO THOSE SHOWN & HAVE CORNER CONSTRUCTION PER CORNER DETAILS.
2. ALL SHAPED UNITS MUST FIT INSCRIBED INTO THE ALLOWABLE RECTANGULAR UNITS & BE GOVERNED BY THE ALLOWABLE PRESSURE OF THE RESPECTIVE RECTANGULAR UNIT.

Approved as complying with the Florida Building Code
Date JULY 1, 2004
NOA# 04-0206.02
Miami Dade Product Control Division
By Manuel Perez

NO.	REVISION DESCRIPTION	BY	DATE
1			
2			
3			
4			

DRAWING TITLE
DIRECT SET FIXED WINDOW

MANUFACTURER
LAG DESIGN
INDUSTRIAL MILLWORK CORP
WEST HWAY 36 SENECA, KS 66538
(800)462-3667

BROMLEY COOK ENGINEERING, INC.
STRUCTURAL ENGINEERING SERVICES
2004 N.E. 49th STREET
FORT LAUDERDALE, FLORIDA 33308
TEL: (954) 772-4824 FAX: (954) 772-4834

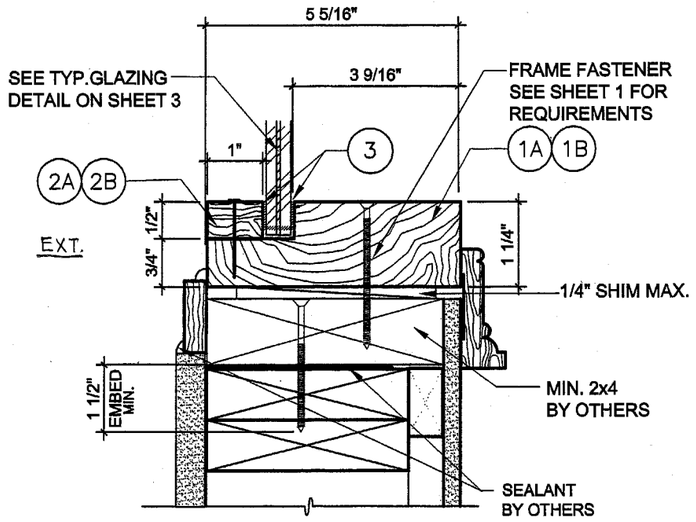
CERTIFICATION

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

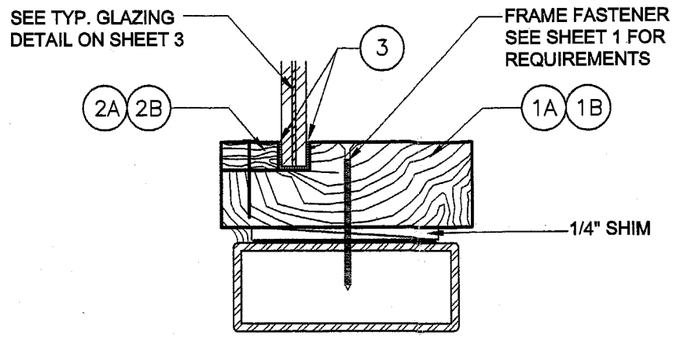
DATE:
1/27/04

DRAWING NO:
LAG-1000

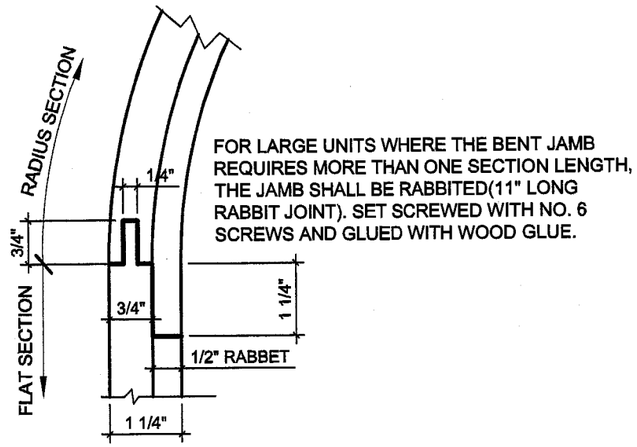
SHEET NO:
1 OF 3



1/2 TYP. JAMB HEAD & SILL SECTION INSTALLATION DETAIL AT WOOD WALL

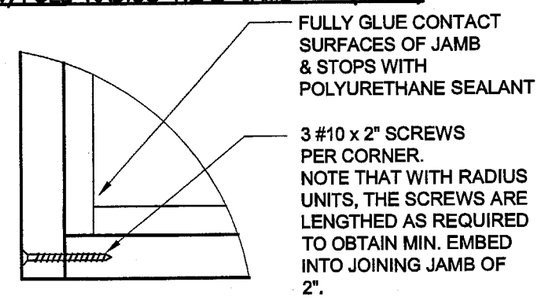


1/2 TYP. JAMB HEAD & SILL SECTION INSTALLATION DETAIL AT METAL FRAME

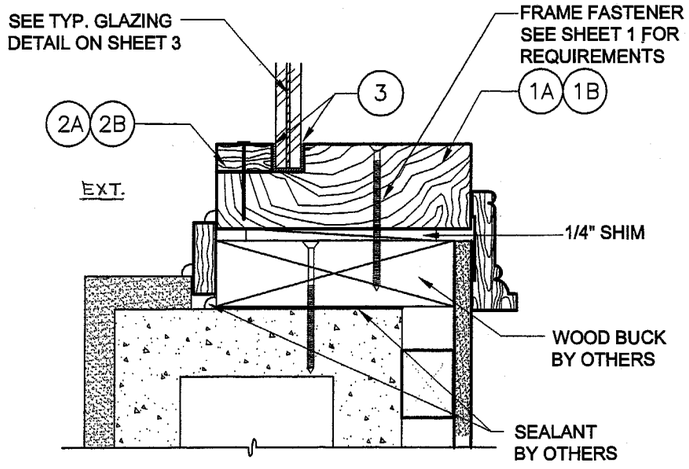


FOR LARGE UNITS WHERE THE BENT JAMB REQUIRES MORE THAN ONE SECTION LENGTH, THE JAMB SHALL BE RABBITED(11" LONG RABBIT JOINT). SET SCREWED WITH NO. 6 SCREWS AND GLUED WITH WOOD GLUE.

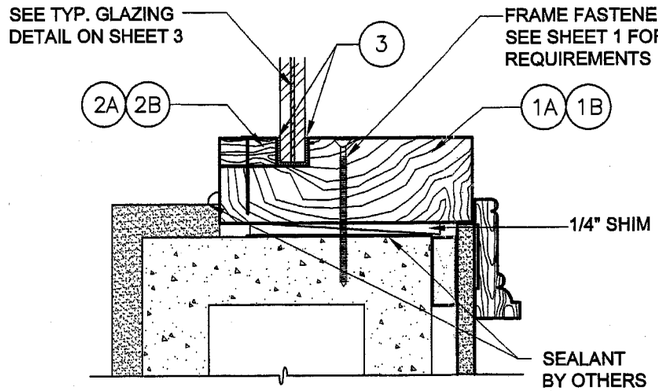
ALTERNATE JOINT CONDTRUCTION DETAIL
SINGLE RABBITED JAMB INTERSECTION @ SIDE JAMB w/FULL RADIUS HEAD JAMB (N.T.S.)



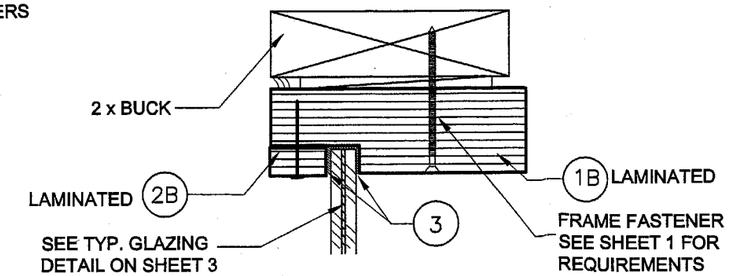
TYPICAL CORNER DETAIL
TYP. AT ALL WINDOW SHAPES



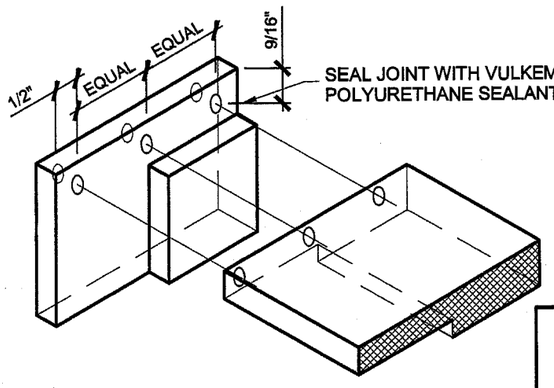
1/2 TYP. JAMB HEAD & SILL SECTION INSTALLATION DETAIL AT BLOCK WALL w/ 2 x BUCK



1/2 TYP. JAMB HEAD & SILL SECTION INSTALLATION DETAIL AT BLOCK WALL



2/2 TYP.RADIUS SECTION INSTALLATION



TYP. FRAME CORNER DETAIL
(ALL MEETING JAMB MEMBERS TO BE SCREWED AT ALL CORNERS) (N.T.S.)

Approved as complying with the Florida Buiding Code
Date JULY 1, 2004
NOA# 04-0206.02
Miami Dade Product Control Division
By

NO.	REVISION DESCRIPTION	BY	DATE
1			
2			
3			
4			

DRAWING TITLE
DIRECT SET FIXED WOOD WINDOW

MANUFACTURER
LAG DESIGN INDUSTRIAL MILLWORK CORP
WEST HWAY 36 SENECA, KS 66538 (800)462-3667

BROMLEY COOK ENGINEERING, INC.
STRUCTURAL ENGINEERING SERVICES
2004 N.E. 49th STREET
FORT LAUDERDALE, FLORIDA 33308
TEL: (954) 772-4624 FAX: (954) 772-4634

CERTIFICATION

WILLIAM D. COOK P.E.
FLA. P.E. # 43044
FLA. S.I. 2068

DATE: 1/27/04
DRAWING NO: LAG-1000
SHEET NO: 2 OF 3

ALLOWABLE DESIGN LOADS FOR IMPACT WINDOWS					
MODULAR WINDOW SIZE		GLASS TYPE A		GLASS TYPE B	
WIDTH	HEIGHT	EXT(+)	EXT(−)	EXT(+)	EXT(−)
24	24	55	70	70	70
30		55	70	70	70
36		55	70	70	70
42		55	70	70	70
48		55	70	70	70
54		55	70	70	70
60		55	70	70	70
66		55	70	70	70
72		55	70	70	70
78		55	70	70	70
84		55	70	70	70
90		55	70	70	70
96		55	70	70	70
102		55	70	70	70
108		55	70	70	70
114		55	70	70	70
120		55	70	70	70
24	30	55	70	70	70
30		55	70	70	70
36		55	70	70	70
42		55	70	70	70
48		55	70	70	70
54		55	70	70	70
60		55	70	70	70
66		55	70	70	70
72		55	70	70	70
78		55	70	70	70
84		55	70	70	70
90		55	70	70	70
96		55	70	70	70
102		55	70	70	70
108		55	70	70	70
114		55	68.9	70	70
120		55	67.8	70	70
24	36	55	70	70	70
30		55	70	70	70
36		55	70	70	70
42		55	70	70	70
48		55	70	70	70
54		55	70	70	70
60		55	70	70	70
66		55	66.9	70	70
72		55	62.1	70	70
78		55	59.3	70	70
84		55	56.7	70	70
90		54.5	54.5	70	70
96		52.7	52.7	70	70
102		51	51	70	70
108		49.6	49.6	70	70
114		48.3	48.3	70	70
120		47.2	47.2	70	70

ALLOWABLE DESIGN LOADS FOR IMPACT WINDOWS					
MODULAR WINDOW SIZE		GLASS TYPE A		GLASS TYPE B	
WIDTH	HEIGHT	EXT(+)	EXT(−)	EXT(+)	EXT(−)
24	42	55	70	70	70
30		55	70	70	70
36		55	70	70	70
42		55	70	70	70
48		55	70	70	70
54		55	66.4	70	70
60		55	60.1	70	70
66		55	55.1	70	70
72		50.8	50.8	70	70
78		46.9	46.9	70	70
84		44.4	44.4	70	70
96		40.3	40.3	70	70
102		38.7	38.7	70	70
108		37.6	37.6	70	70
114		36.6	36.6	70	70
120		35.7	35.7	70	70
24	48	55	70	70	70
30		55	70	70	70
36		55	70	70	70
42		55	70	70	70
48		55	66.6	70	70
54		55	58.9	70	70
60		53.3	53.3	70	70
66		47.3	47.3	70	70
72		43.5	43.5	70	70
78		40.1	40.1	70	70
84		37.3	37.3	70	70
90		35.5	35.5	70	70
96		33.6	33.6	70	70
24	54	55	70	70	70
30		55	70	70	70
36		55	70	70	70
42		55	66.4	70	70
48		55	58.9	70	70
54		53.9	53.9	70	70
60		47.6	47.6	70	70
66		43.6	43.6	70	70
72		39.6	39.6	70	70
78		36.8	36.8	70	70
84		34	34	70	70
24	60	55	70	70	70
30		55	70	70	70
36		55	70	70	70
42		55	60.1	70	70
48		53.3	53.3	70	70
54		47.6	47.6	70	70
60		52.7	52.7	70	70
66		47.7	47.7	70	70
72		44.2	44.2	70	70

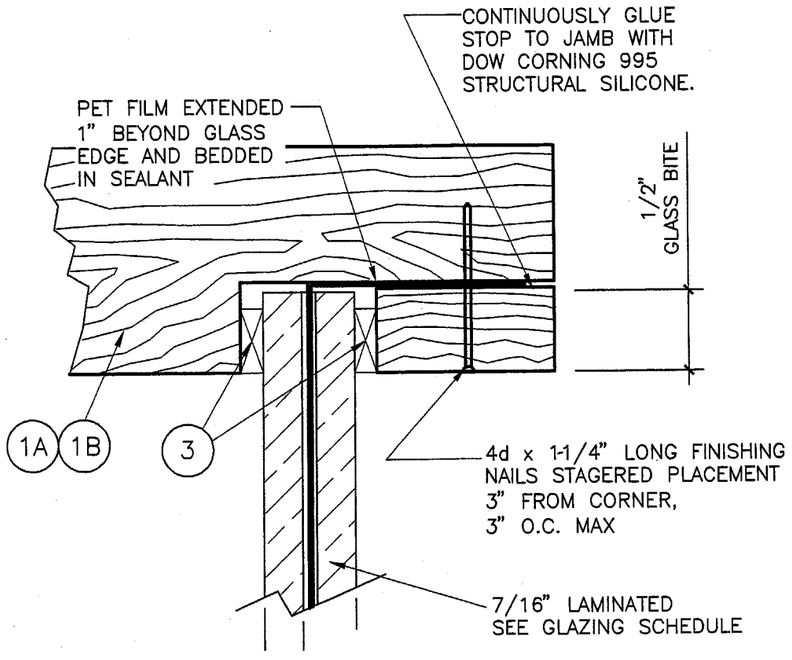
ALLOWABLE DESIGN LOADS FOR IMPACT WINDOWS					
MODULAR WINDOW SIZE		GLASS TYPE A		GLASS TYPE B	
WIDTH	HEIGHT	EXT(+)	EXT(−)	EXT(+)	EXT(−)
24	66	55	70	70	70
30		55	70	70	70
36		55	66.9	70	70
42		55	55.1	70	70
48		47.3	47.3	70	70
54		43.6	43.6	70	70
60		47.7	47.7	70	70
66		44.6	44.6	70	70
24	72	55	70	70	70
30		55	70	70	70
36		55	62.1	70	70
42		50.8	50.8	70	70
48		43.5	47.3	70	70
54		39.6	39.6	70	70
60		44.2	44.2	70	70
24	78	55	70	70	70
30		55	70	70	70
36		55	59.3	70	70
42		46.9	46.9	70	70
48		40.1	40.1	70	70
54		36.8	36.8	70	70
24	84	55	70	70	70
30		55	70	70	70
36		55	56.7	70	70
42		44.4	44.4	70	70
48		37.3	37.3	70	70
54		34	34	70	70
24	90	55	70	70	70
30		55	70	70	70
36		54.5	54.5	70	70
42		42.2	42.2	70	70
48		35.5	35.5	70	70
24	96	55	70	70	70
30		55	70	70	70
36		52.7	52.7	70	70
42		40.3	40.3	70	70
48		33.6	33.6	70	70
24	102	55	70	70	70
30		55	70	70	70
36		51	51	70	70
42		38.7	38.7	70	70
24	108	55	70	70	70
30		55	70	70	70
36		49.6	49.6	70	70
42		37.6	37.6	70	70
24	114	55	70	70	70
30		55	68.9	70	70
36		48.3	48.3	70	70
24	120	55	70	70	70
30		55	67.8	70	70
36		47.2	47.2	70	70

TESTED FRAME SIZE: 49.5" X 98.5" @ +/− 70 PSF (TEMPERED)
TESTED FRAME SIZE: 49.5" X 98.5" @ +/− 55 PSF (ANNEALED)

MATERIAL LIST

ITEM #	DESCRIPTION	NOTES
1A	STRAIGHT WINDOW JAMB	* WOOD
1B	RADIUS JAMB	LVL
2A	STOP (STRAIGHT JAMB)	* WOOD
2B	STOP (RADIUS JAMB)	LVL
3	1/16"x 3/8"DOUBLE FACED GLAZING TAPE	NORTON

* WOOD USED WITH TEST WAS GRADE 2 MAHOGONY. WOOD SPECIES TO BE APPLICABLE WITH THESE WINDOWS IS MIN. GRADE 2 MAHOGANY, OR ANY WOOD STRONGER.



GLAZING DETAIL

NTS

Approved as complying with the Florida Buiding Code
Date JULY 1, 2004
NOA# 04-0206.02
Miami Dade Product Control Division
By Manuel Perez

NO.	REVISION DESCRIPTION	BY	DATE
1			
2			
3			
4			

DRAWING TITLE
DESIGNER SERIES
MANUFACTURER
LAG DESIGN INDUSTRIAL MILLWORK CORP
WEST H/WAY 36 SENECA, KS 66538 (800)462-3667

BROMLEY COOK ENGINEERING, INC.
STRUCTURAL ENGINEERING SERVICES
2004 N.E. 49th STREET
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