



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

www.buldingcodeonline.com

NOTICE OF ACCEPTANCE (NOA)

Gamma U.S.A. Inc.
2115 SW 2nd Street
Pompano Beach, FL 33069

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 81 "Tilt-Out" Aluminum Projected Window – L.M.I.

APPROVAL DOCUMENT: Drawing No. T-81, titled "Test # 81 Bottom Hinge Opening Out 76" x 36" +110/-150 PSF – Large Impact", sheets 1 through 5 of 5, dated 08/29/07 with revision R2 dated 08/29/07, prepared by manufacturer, signed and sealed by Farrokh Rasekhi, 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 page E-1, as well as approval document mentioned above. The submitted documentation was reviewed by **Manuel Perez, P.E.**



NOA No. 07-0521.01
Expiration Date: March 13, 2013
Approval Date: March 13, 2008

NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED

A. DRAWINGS

1. Manufacturer's die drawings and sections.
2. Drawing No **T-81**, Sheets 1 through 5 of 5, titled "Test # 81 Bottom Hinge Opening Out 76" x 36" +110/-150 PSF – Large Impact", dated 08/29/07 with revision R2 dated 08/29/07, prepared by manufacturer, signed and sealed by Farrokh Rasekhi, 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 203-94
6) Forced Entry Test, per FBC 2411 3.2.1, TAS 202-94
along with marked-up drawings and installation diagram of a Series 81 aluminum tilt window, prepared by Fenestration Testing Laboratory Inc., Test Report No. **FTL-4777**, dated 12/23/05, signed and sealed by Edmundo Largaespada, P.E.

C. CALCULATIONS

1. Anchor verification calculations and structural analysis, complying with FBC-2004, prepared by Structural Design, Inc, dated 05/29/06, signed and sealed by Farrokh Rasekhi, P.E.
Complies with ASTM E1300-02

D. QUALITY ASSURANCE

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

E. MATERIAL CERTIFICATIONS

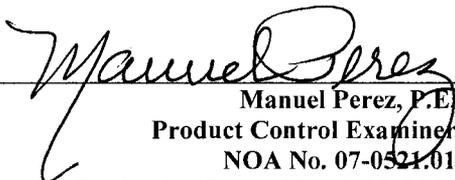
1. Notice of Acceptance No. **06-1205.10** issued to E.I. DuPont DeNemours for their "DuPont SentryGlass ® Plus" dated 02/15/07, expiring on 01/14/08.

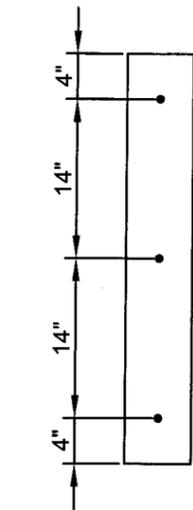
F. STATEMENTS

1. Statement letter of conformance, dated January 24, 2007, signed and sealed by Farrokh Rasekhi, P.E.
2. Statement letter of no financial interest, dated January 24, 2007, signed and sealed by Farrokh Rasekhi, P.E.
3. Laboratory compliance letter for Test Report no. **FTL- 4777**, issued by Fenestration Testing Laboratory, Inc., dated January 18, 2006, signed and sealed by Carlos S. Rionda, P.E.

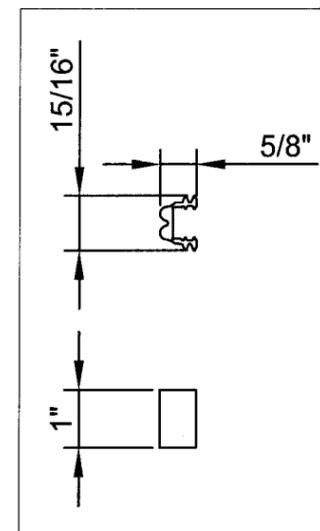
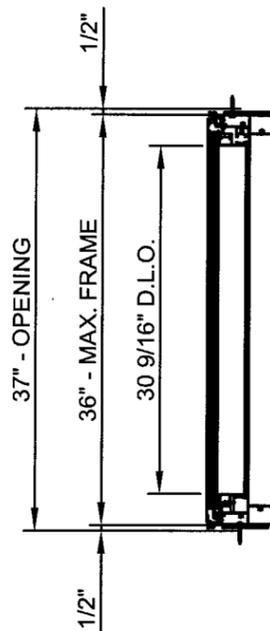
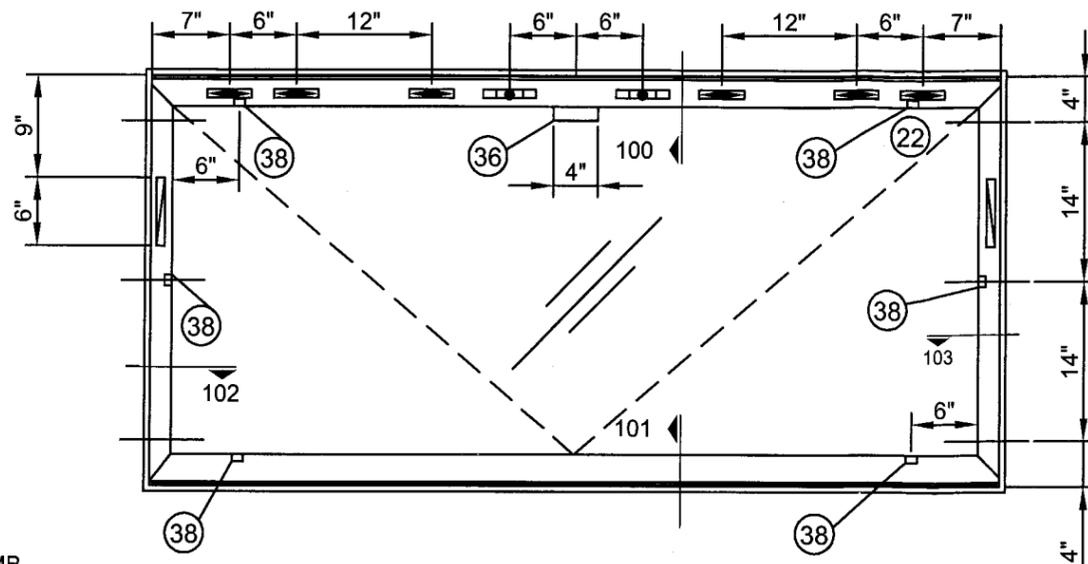
G. OTHER

1. None.

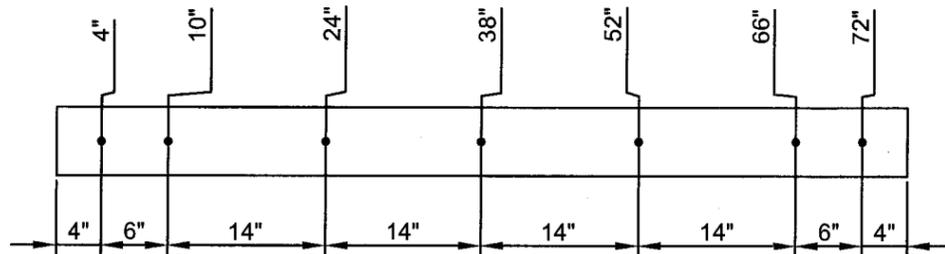

Manuel Perez, P.E.
Product Control Examiner
NOA No. 07-0521.01
Expiration Date: March 13, 2013
Approval Date: March 13, 2008



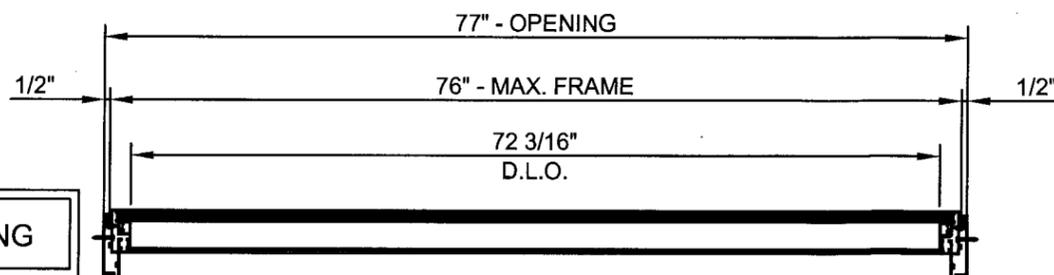
SCREW PATTERN - JAMB



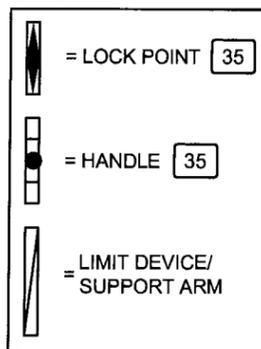
38 SITTING BLOCK



SCREW PATTERN - HEAD & SILL



LEGEND:



DESIGN PRESSURE RATING

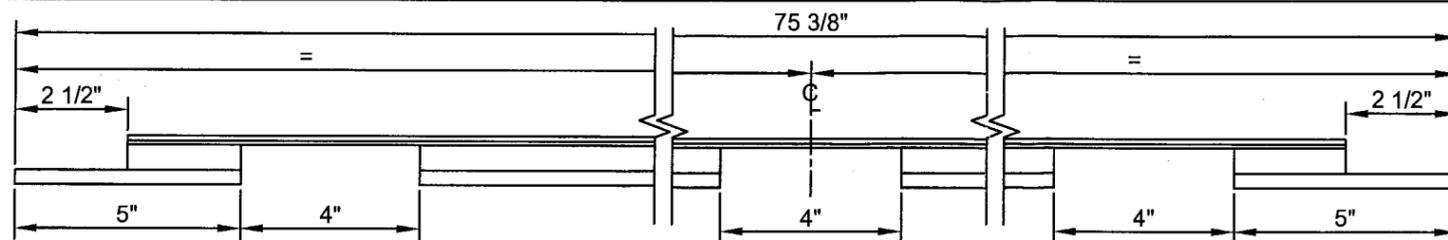
+ 100 PSF, - 150 PSF

GENERAL NOTES

- 22 -GLASS TYPE: 9/16" LAMINATED GLASS
- 1/4" CLEAR HEAT STRENGTHENED GLASS
- 0.100" SENTRY GLASS PLUS by DUPONT
- 1/4" CLEAR HEAT STRENGTHENED GLASS
- MAXIMUM GLASS DIMENSION 73 5/8" X 32"
- ALL ALUMINUM IS 6063 T6
- GLAZING PENETRATION: 3/4"
- 1/2" MAX. SHIM SPACE
- CONCRETE APPLICATION
- FRAME CORNERS & MEETING RAIL SEAM SEALED WITH CLEAR SEALANT
- REFER TO BILL OF MATERIEL FOR COMPLETE DESCRIPTION
- MIN EDGE DISTANCE FOR 5/8" DIAMETER TAPCON (TO ASSUME FULL CAPACITY) IS 3 3/4"

SHUTTER REQUIREMENTS:
1- INSTALLATION OF THIS UNIT ABOVE GRADE WILL NOT REQUIRE SHUTTERS

#4464



ALUMINUM HINGE HOOK (DRAINING HOLES PATTERN)

SCALE: 3" = 1'-0"

Approved as complying with the Florida Building Code
Date MARCH 13, 2008
NOA# 07-0521.01
Miami Dade Product Control Division
By Mmanuel Perez

REVISIONS:	BY:
R1 01/13/2006	D.L.
R2 02/14/2006	J.P.
R2 08/29/2007	J.C.

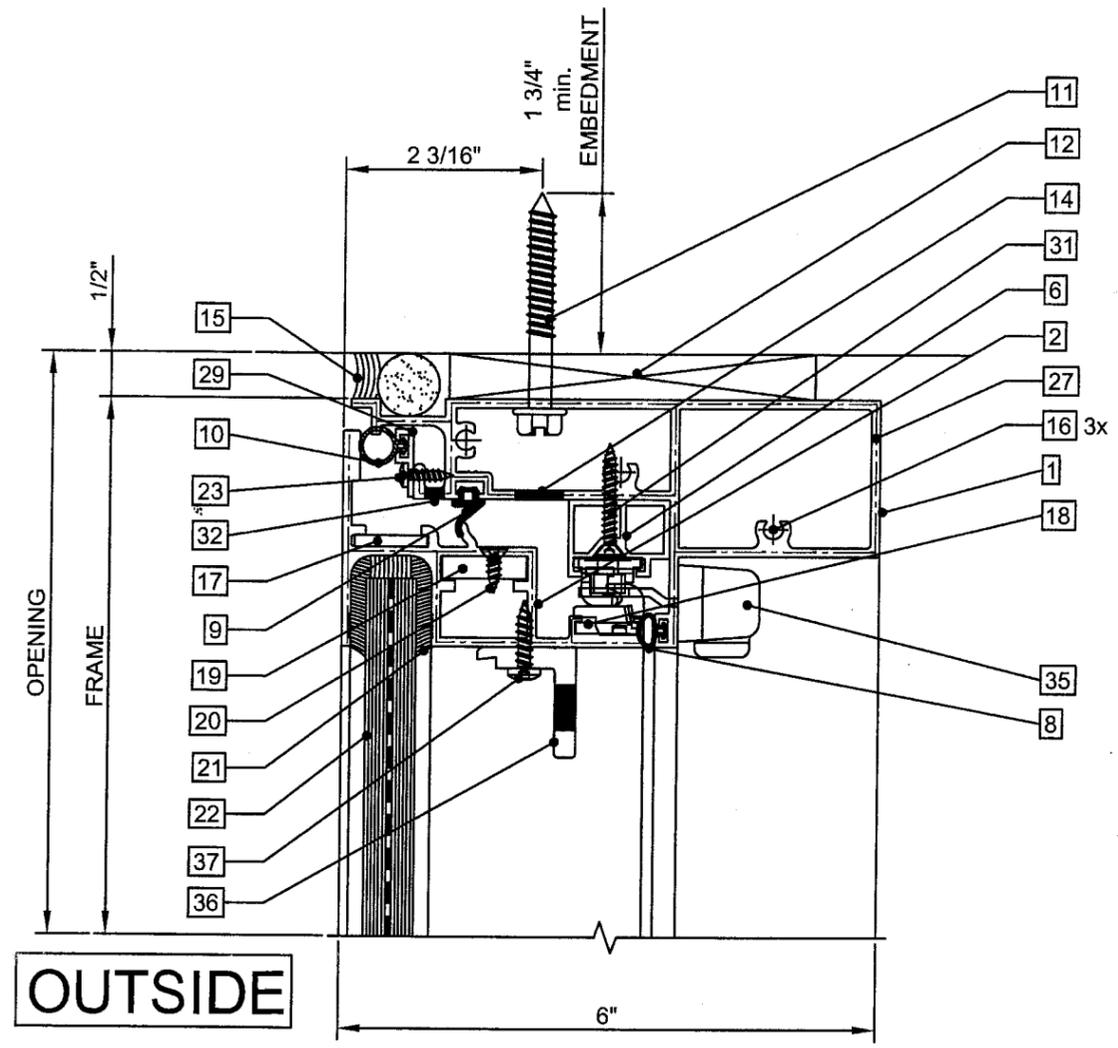
STRUCTURAL DESIGN INC.
CONSULTING STRUCTURAL ENGINEERS
9545 N. KENDALL DR. SUITE NO. 209
MIAMI, FLORIDA 33178 CERTIFICATE #: 8903
Farrokh Rasekhi
7/14/07
TEL: (305) 595-8965 FARROKH RASEKHI, P.E.
FAX: (305) 595-8966 FL. REG. #38001

MANUFACTURER:
Gamma
Gamma Industrie Inc.
15407 West Dixie Highway
North Miami Beach, FL 33162
Phone: (305) 957-7004 Fax: (305) 957-7006
Web site: www.gamma-online.com
Email: tech@gamma-online.com

TITLE:
TEST #81
Bottom Hinge Opening Out
76" X 36"
+110/-150 PSF
LARGE IMPACT
ELEVATION

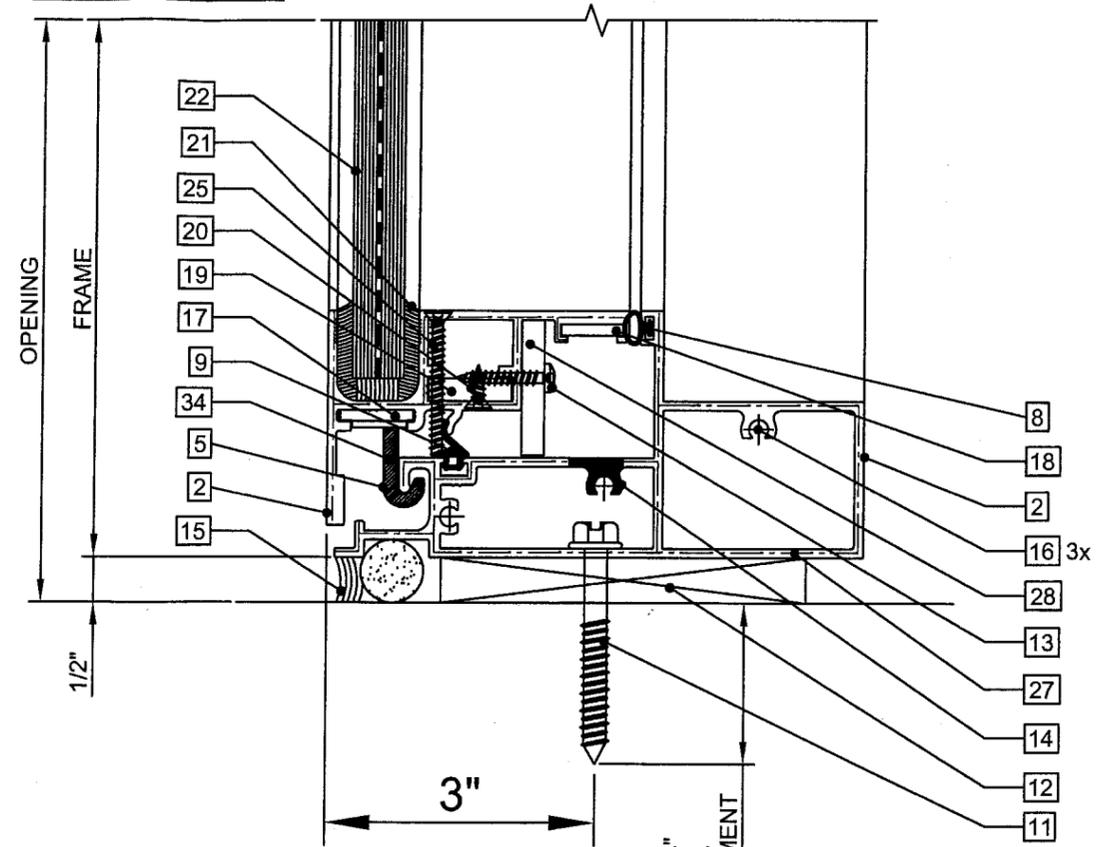
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DATE: 08/29/2007	DRAWING NO. T-81	SHEET NO. 1 OF 5

Licence RBQ 1159-527-22



**HEAD
detail 100**

OUTSIDE



**SILL
detail 101**

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Florida Building Code
Date MARCH 13 2008
NOA# 07-0521.01
Miami Dade Product Control
Division
By Manuel Perez

REVISIONS:	BY:
R2 08/29/2007	J.C.

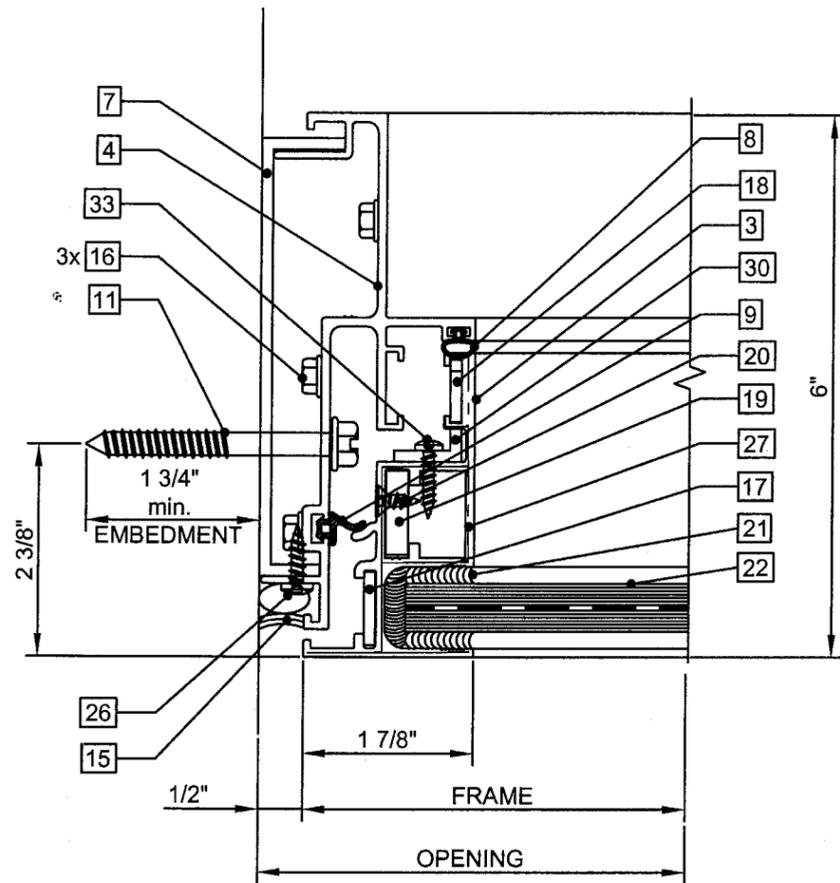
STRUCTURAL DESIGN INC.
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9595 N. KENDALL DR. SUITE NO. 209
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9/14/07
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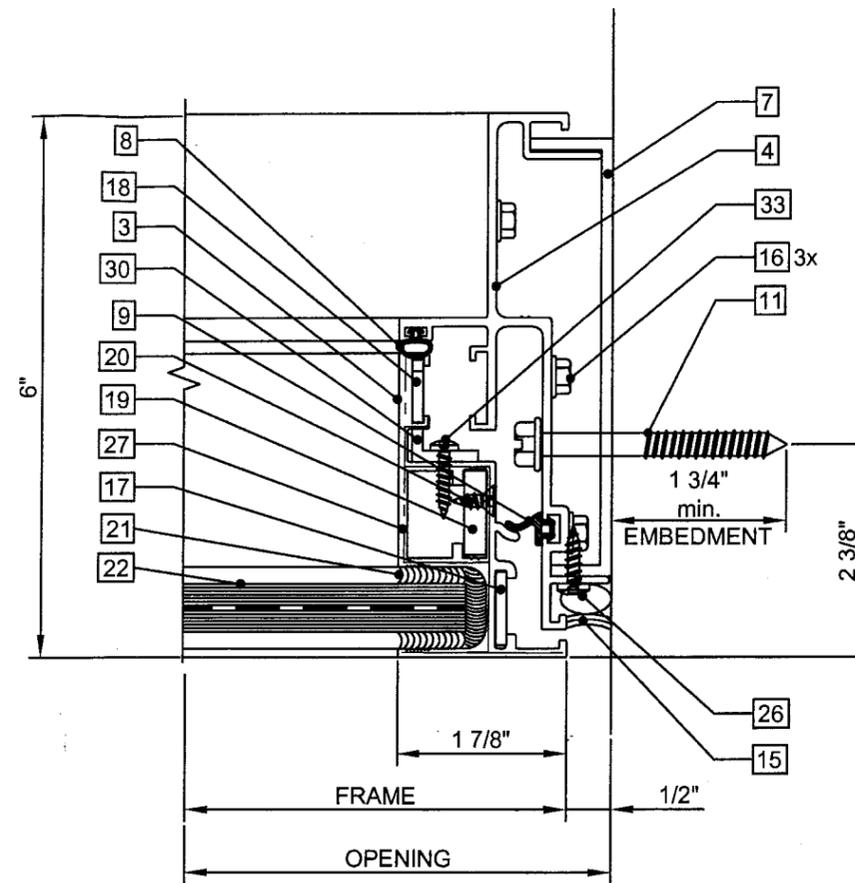
TITLE:
**TEST #81
Bottom Hinge Opening Out
76" X 36"
+110/-150 PSF
LARGE IMPACT
DETAIL #100 & #101**

SCALE: 1:2	DRAWN BY: J.C.R.	
DATE: 08/29/2007	DRAWING NO. T-81	SHEET NO. 2 OF 5

Licence RBQ 1159-5627-Z2



detail 102



detail 103

Approved as complying with the
 Florida Building Code
 Date MAR 13, 2008
 NOA# 07-0521-01
 Miami Dade Product Control
 Division
 By Manuel Perez

REVISIONS:	BY:
R2 08/29/2007	J.C.

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Farrokh Rasekhi
 9/19/07
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 FAX: (305) 595-8966 FL. REG. #38001

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 Web site: www.gamma-online.com
 Email: tech@gamma-online.com

TITLE:
TEST #81
Bottom Hinge Opening Out
76" X 36"
+110/-150 PSF
LARGE IMPACT
DETAIL #102 & #103

SCALE: 1:2	DRAWN BY: J.C.R.	
DATE: 08/29/2007	DRAWING NO. T-81	SHEET NO. 3 OF 5

Licence RQC 1158-5527-22

Approved as complying with the Florida Building Code
 Date MARCH 13, 2008
 NOA# 07-0521.01
 Miami Dade Product Control Division
 By Manuel Perez

REVISIONS:	BY:
R1 02/14/2006	J.P.
R2 08/29/2007	J.C.

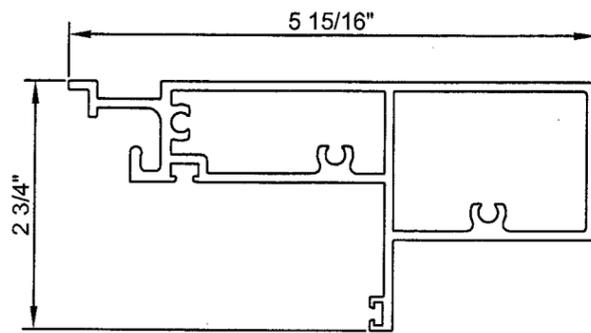
STRUCTURAL DESIGN INC.
 CONSULTING STRUCTURAL ENGINEERS
 9595 N. KENDALL DR. SUITE NO. 209
 MIAMI, FLORIDA 33176 CERTIFICATE # 8809
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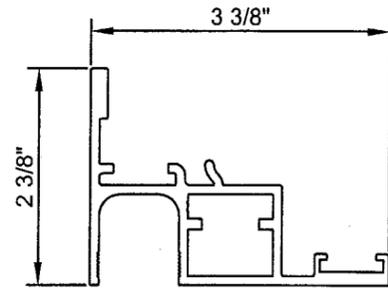
TITLE:
TEST #81
Bottom Hinge Opening Out
76" X 36"
+110/-150 PSF
LARGE IMPACT
GAMMA'S EXTRUSIONS

SCALE:	DRAWN BY:	
1:2	J.C.R.	
DATE:	DRAWING NO.	SHEET NO.
08/29/2007	T-81	4 OF 5

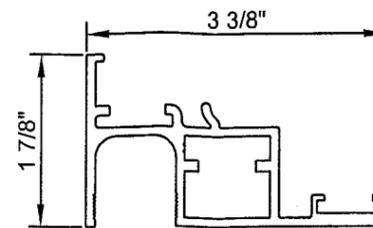
License RBQ 1159-5527-22



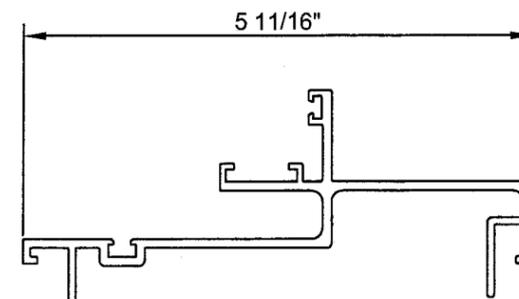
1
 #4462
 ALUMINUM SASH FRAME
 HEAD AND SILL



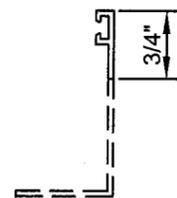
2
 #4461
 ALUMINUM SASH PANEL
 HEAD & SILL



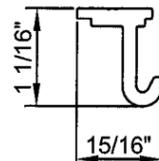
3
 #4463
 ALUMINUM SASH PANEL JAMB
 & PANEL MEETING



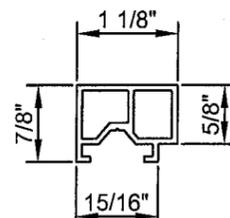
4
 #4467
 ALUMINUM SASH FRAME JAMB



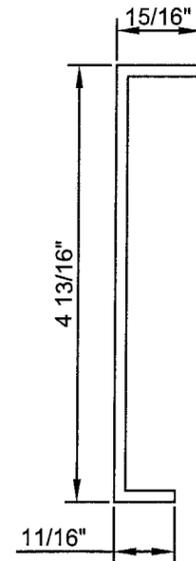
29
 #4403-mod
 GASKET ANGLE
 MODIFIED



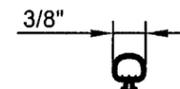
5
 #4464
 ALUMINUM
 HINGE HOOK



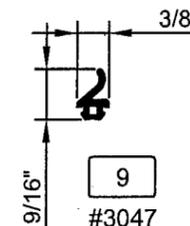
6
 #4476
 HARDWARE ADAPTOR



7
 ALUMINUM PL 1/8\"
 x 11/16\" x 4 13/16\" x
 15/16\" x 4\" LONG



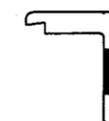
8
 #3004
 SANTOPRENE
 GASKET



9
 #3047
 SANTOPRENE
 WEATHERSTRIP



10
 #3080
 SANTOPRENE
 GASKET



36
 #4143
 ALUMINUM ANGLE
 (4\" LONG) WITH Ø1/2\" HOLE

ITEM	PART #	DESCRIPTION
1	#4462	ALUMINUM SASH FRAME HEAD AND SILL
2	#4461	ALUMINUM SASH PANEL HEAD & SILL
3	#4463	ALUMINUM SASH PANEL JAMB & PANEL MEETING
4	#4467	ALUMINUM SASH FRAME JAMB
5	#4464	ALUMINUM HINGE HOOK
6	#4476	HARDWARE ADAPTOR
7	-	ALUMINUM PL 1/4" x 11/16" x 4 13/16" x 15/16" x 4" LONG
8	#3004	SANTOPRENE GASKET
9	#3047	SANTOPRENE WEATHERSTRIP
10	#3080	SANTOPRENE GASKET
11	-	5/16" TAPCON SCREW - 1 3/4" min. EMBEDMENT
12	-	PVC SHIM
13	-	(2) #8 RH SS SCREW x 1" LONG
14	-	ACCESS HOLE 5/8" DIA.
15	-	BACKER ROD & SEALANT SPECTREM 2
16	-	#14 RH SS SCREW x 1 1/2" LONG (3X AT THE TOP AND BOTTOM)
17	-	ALUMINUM ANGLE 1 1/2" x 1 1/2" x 1/8" x 13/16" LONG (PUNCHED)
18	-	ALUMINUM ANGLE 1 1/2" x 1 1/2" x 1/8" x 11/16" LONG (PUNCHED)
19	-	ALUMINUM ANGLE 1 1/2" x 1 1/2" x 1/4" x 15/16" LONG (AT SASH CORNERS)
20	-	#8 FH SS SCREW x 1/2" LONG (4 PER CORNERS)
21	-	STRUCTURAL SILICONE PROGLAZE II
22	-	9/16" LAMINATED GLASS
23	-	#6 RH SS SCREW x 3/4" LONG
24	-	(NOT USED)
25	-	(4X) #8 FH SS SCREW x 1 3/4" LONG
26	-	#8 RH SS SCREW x 3/4" LONG
27	-	FRAME CORNERS & HORIZ. MULLION SEAMS SEALED W/ CLEAR SPECTREM 2
28	-	ALUMINUM PLATE 1/4" x 1 1/2" x 4" LONG
29	-	GASKET ANGLE MODIFIED (#4403-mod)
30	-	ALUMINUM ANGLE 3/4" x 1" x 1/8" x 6" LONG
31	-	#8 FH SS SCREW x 1 1/4" LONG
32	-	WEEP HOLES (ONE AT EACH ENDS)
33	-	(2) #8 RH SS SCREW x 3/4" LONG
34	-	EXTRUSION INTERRUPTED FOR DRAINING - (see 1 of 5 for draining holes location)
35	-	MULTI-POINT LOCKING 24.84.32.101
36	#4143	ALUMINUM ANGLE (4" LONG) WITH Ø1/2" HOLE
37	-	(2x) #10 RH SS SCREW - 3/4" LONG AT 2" O.C.
38	-	SITTING BLOCK (6 TOTAL) - 1" LONG

Approved as complying with the
Florida Building Code
Date: MARCH 13, 2008
NDA# 07-0521-D1
Miami Dade Product Control
Division
By: Manuel Perez

REVISIONS:	BY:
R1 01/13/2006	D.L.
R2 02/14/2006	J.P.
R2 08/29/2007	J.C.

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Farrokh Rasekhi
9/14/07

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Phone: (305) 957-7004 Fax: (305) 957-7006
Web site: www.gamma-online.com
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TITLE:

TEST # 81
Bottom Hinge Opening Out
76 " X 36 "
+ 110 / - 150 PSF
LARGE IMPACT
BILL OF MATERIAL

SCALE:	DRAWN BY:	
N.T.S.	J.C.R.	
DATE:	DRAWING NO.	SHEET NO.
08/29/2007	T-81	5 OF 5