



BUILDING CODE COMPLIANCE OFFICE (BCCO)
PRODUCT CONTROL DIVISION

MIAMI-DADE COUNTY, FLORIDA
METRO-DADE FLAGLER BUILDING
140 WEST FLAGLER STREET, SUITE 1107
MIAMI, FLORIDA 33130-1563
(305) 375-2902 FAX (305) 372-6339

NOTICE OF ACCEPTANCE (NOA)

www.miamidade.gov/buildingcode

Kawneer Company, Inc.
555 Guthridge Court
Norcross, GA 30092

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 "1600 System 1" No Steel Reinforcement Aluminum Curtain Wall – L.M.I.

APPROVAL DOCUMENT: Drawing No. **NOA162-100**, titled "Product Approval Drawings 1600 System1-L.M.I. (No Steel) 9/16" & 1 5/16" (0.090 PVB) Protocols- TAS 201/202/203 ASTM E 1886/ 1996", sheets 1 through 8, prepared by manufacturer, dated 05/27/05, with the latest revision "D", dated 06/30/10, signed and sealed by Ballard L. Argus, P. E., bearing the Miami-Dade County Product Control Revision 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 **revises and renews NOA No. 06-0320.19** and consists of this page 1, evidence pages E-1 and E-2, as well as approval document mentioned above.

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



J. Gascon
8/3/10

NOA No. 08-1103.09
Expiration Date: June 22, 2016
Approval Date: July 14, 2010
Page 1

NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED

- A. DRAWINGS**
1. Manufacturer's die drawings and sections.
 2. Drawing No **NOA162-100**, titled "Product Approval Drawings 1600 System1-L.M.I. (No Steel) $9/16$ " & $1^{5}/16$ " (0.090 PVB) Protocols – TAS 201/202/203 ASTM E 1886/1996", sheets 1 through 8, prepared by manufacturer, dated 05/27/05, with the latest revision "**D**", dated 06/30/10, signed and sealed by Ballard L. Argus, P. E.
- B. TESTS**
1. Test reports on: 1) Uniform Static Air Pressure Test, Loading per FBC, TAS 202-94
2) Large Missile Impact Test per FBC, TAS 201-94
3) Cyclic Wind Pressure Loading per FBC, TAS 203-94
along with marked-up drawings and installation diagram of unit of O-O, prepared by Hurricane Test Laboratory, LLC, Test Report No. **HTL- 0049-0202-05**, dated 2/7-21/05, signed and sealed by Vinu J. Abraham, P. E.
(Submitted under previous NOA No.06 -0320.19)
- C. CALCULATIONS**
1. Anchor verification calculations and structural analysis, complying with FBC-2007, dated 06/07/10, prepared, signed and sealed by Ballard L. Argus, P. E.
Complies with ASTM E1300-98/ 04
- D. QUALITY ASSURANCE**
1. Miami-Dade Building Code Compliance Office (BCCO).
- E. MATERIAL CERTIFICATIONS**
1. Notice of Acceptance No. **09-0312.02** issued to E.I. DuPont DeNemours & Co., Inc. for their "**DuPont Butacite® PVB, Interlayer**" dated 05/13/09, expiring on 12/11/10.
 2. Notice of Acceptance No. **06-0216.06** issued to Solutia Inc. for their "**Saflex III G Clear or colored interlayer**" dated 05/04/06, expiring on 05/21/11.
- F. STATEMENTS**
1. Statement letter of compliance with the FBC-2007, dated April 19, 2010, signed and sealed by Ballard L. Argus, P. E.
 2. Statement letter of conformance, dated April 19, 2010, signed and sealed by Ballard L. Argus, P. E.
 3. Statement letter of no financial interest, dated April 19, 2010, signed and sealed by Ballard L. Argus, P. E.



Jaime D. Gascon, P. E.
Chief, Product Control Division
NOA No. 08-1103.09
Expiration Date: June 22, 2016
Approval Date: July 14, 2010

Kawneer Company, Inc.

NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED

F. STATEMENTS (CONTINUED)

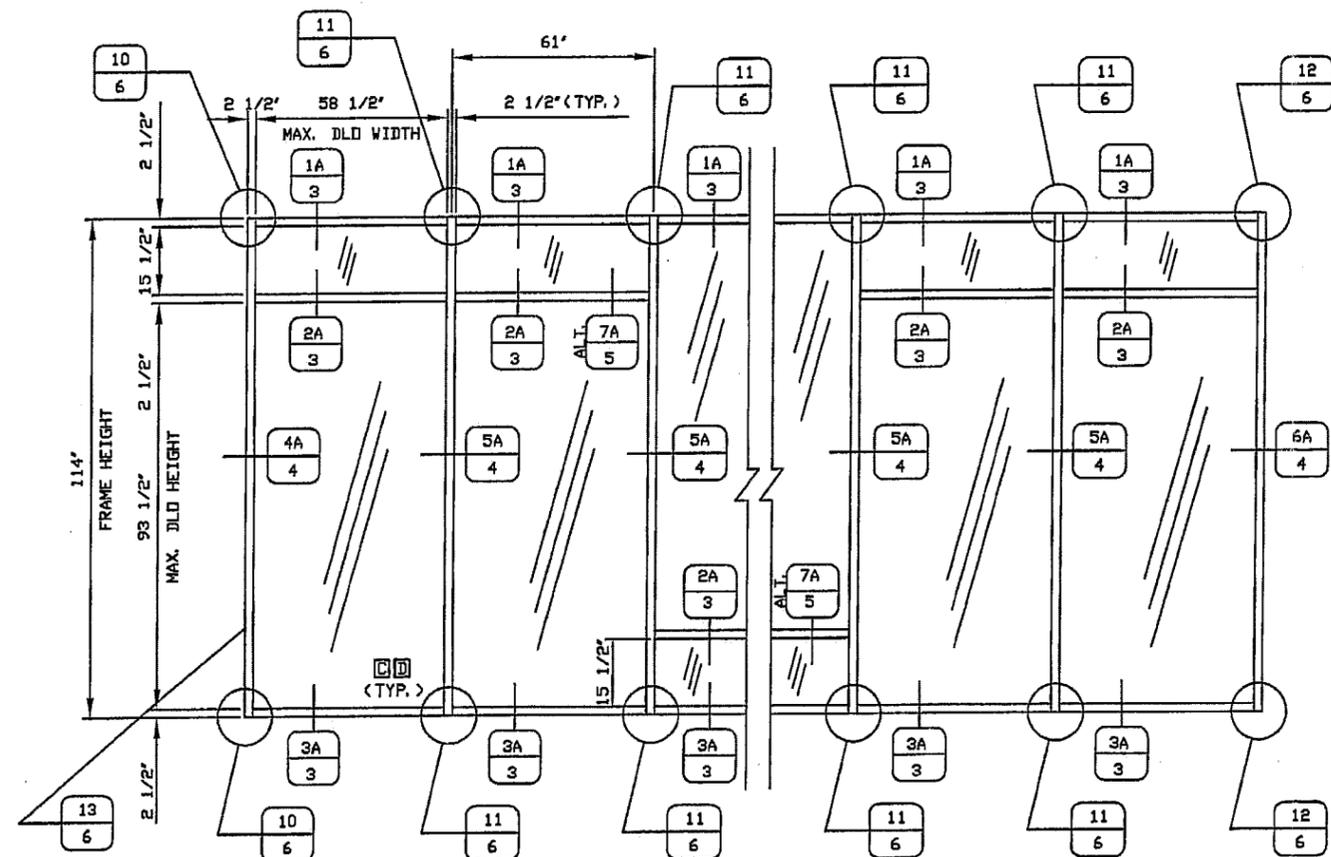
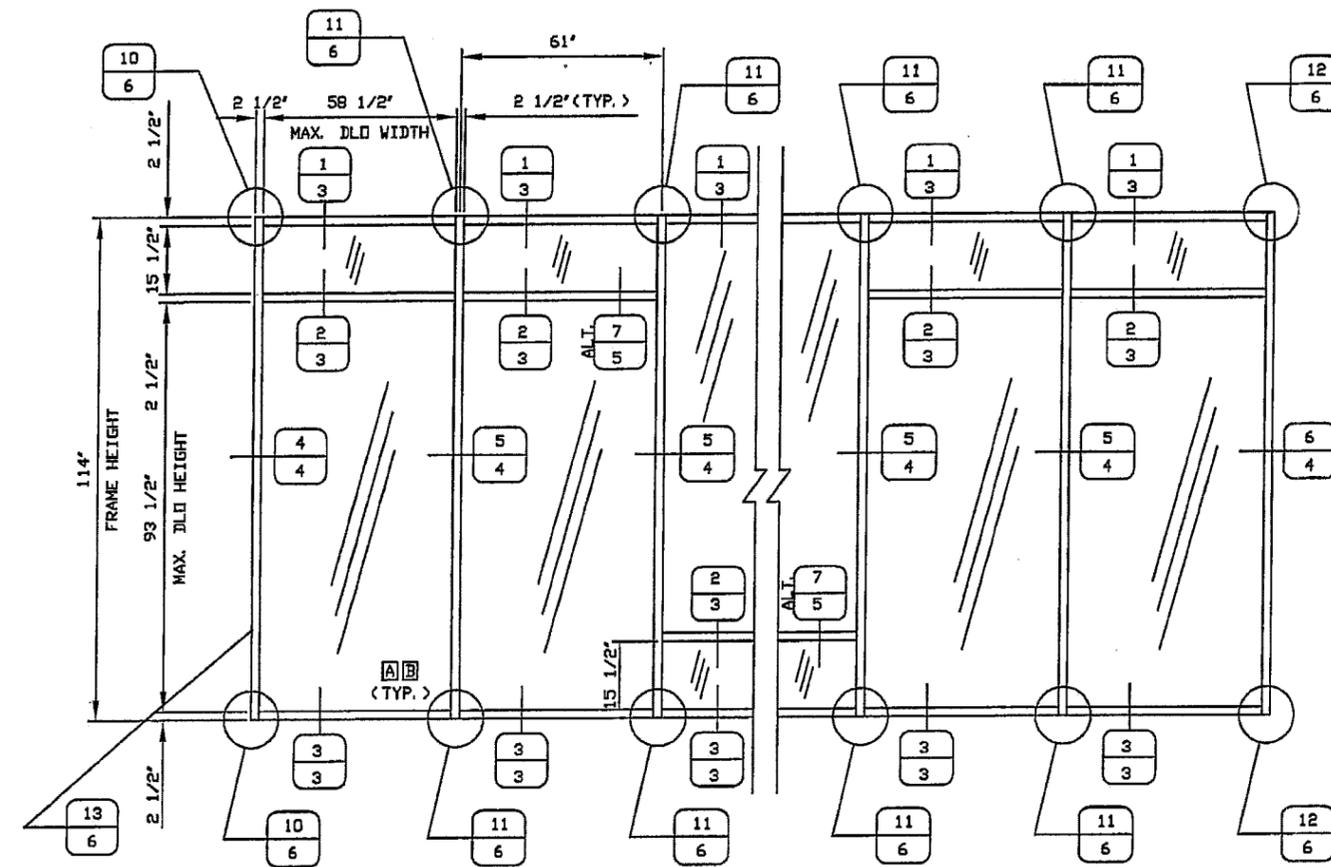
4. Laboratory compliance letter for Test Report No. **HTL- 0049-0202-05**, issued by Hurricane Test Laboratory, LLC, dated February 21, 2005, signed and sealed by Vinu J. Abraham, P. E.
(Submitted under previous NOA No.06 -0320.19)

G. OTHERS

1. Notice of Acceptance No. **06-0320.19**, issued to Kawneer Company, Inc. for their Series "1600 System 1 No Steel Reinforcement Aluminum Curtain Wall - L.M.I.", approved on 06/22/06 and expiring on 06/22/11.



Jaime D. Gascon, P. E.
Chief, Product Control Division
NOA No. 08-1103.09
Expiration Date: June 22, 2016
Approval Date: July 14, 2010



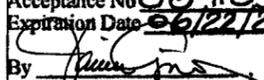
DADE COUNTY PRODUCT APPROVAL DWGS
 KAWNEER 1600 SYSTEM1 CURTAIN WALL
 LARGE MISSILE IMPACT
 9/16" & 1 5/16" (0.090PVB)
 LAMINATED GLASS

TYPICAL ELEVATION
 SINGLE SPAN WITH
 NO STEEL REINFORCEMENT

DESIGN PRESSURE
 162-016:9/16" LAM. (+/- 65 PSF)
 162-004:1-5/16" IG LAM. (+/- 90 PSF)

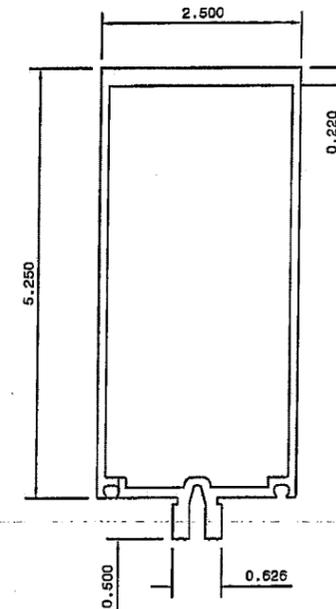
- NOTES:**
- THE CURTAIN WALL SYSTEM HAS BEEN DESIGNED IN ACCORDANCE WITH THE 2007 FLORIDA BUILDING CODE (FBC) INCLUDING HIGH VELOCITY HURRICANE ZONES (HVHZ), PROTOCOLS TAS 201, 202 & 203, AND ASTM1300-02.
 - NO 33-1/3% INCREASE IN ALLOWABLE STRESS HAS BEEN USED IN THE DESIGN OF THIS SYSTEM, WIND LOAD DURATION FACTOR Cd=1.6 HAS BEEN USED FOR WOOD ANCHOR DESIGN.
 - PROPER SUPPORT AT HEAD, SILL, AND/OR JAMB MUST BE PROPERLY DESIGNED, CONSTRUCTED & INSTALLED TO SUPPORT LOADS TRANSFERRED FROM CURTAIN WALL SYSTEM.
 - THERE SHALL BE NO LIMIT TO THE NUMBER OF HORIZONTAL & VERTICAL PANELS USED FOR ANY JOB PROVIDING ALL RESTRICTIONS ARE MET PER THE ELEVATIONS, EXCEPT AS FOLLOWS:
 FOR DESIGN PRESSURE = +/- 90 PSF & VERTICAL MULLION SPAN = 114"
 • MAXIMUM HORIZONTAL MULLION C/L LOCATIONS, FROM TOP OR BOTTOM OF OPENING = 30", AT VERTICAL MULLION SPACING = 61" O.C.
 • FOR HORIZONTAL MULLION C/L LOCATIONS > 30" FROM TOP OR BOTTOM OF OPENING, MAXIMUM VERTICAL SPACING = 55"
 5. HORIZONTAL MULLION (DETAIL 7 & 7A/5 IS OPTIONAL AT ANY LOCATION IN ANY BAY UP TO MAX. DLO HEIGHT OF 93-1/2" X 59-1/2" MAX. DLO WIDTH. EXCEPT AS FOLLOWS:
 FOR DESIGN PRESSURE = +/- 90 PSF & VERTICAL MULLION SPAN = 114"
 • MAXIMUM HORIZONTAL MULLION C/L LOCATIONS, FROM TOP OR BOTTOM OF OPENING = 30", AT VERTICAL MULLION SPACING = 61" O.C.
 • FOR HORIZONTAL MULLION C/L LOCATIONS > 30" FROM TOP OR BOTTOM OF OPENING, MAXIMUM VERTICAL SPACING = 55"
 6. SEE SHEET 6 OF 8 FOR PERIMETER FASTENER AND PERIMETER ANCHOR FASTENER INFORMATION.
 7. ALL SUBSTRATE SHALL HAVE THE FOLLOWING MINIMUM REQUIREMENTS.
 a) ALL CONCRETE SUBSTRATE SHALL BE MIN. 3000 PSI, M_{in}t = 6 1/2".
 b) ALL WOOD SUBSTRATE SHALL BE MIN. G = 0.55 DENSITY, M_{in}t = 3".
 c) ALL METAL STUD SUBSTRATE SHALL BE MIN:
 FOR DESIGN PRESSURE = +/- 90 PSF & VERTICAL MULLION SPAN = 114"
 • AT VERTICAL MULLION END "T" ANCHOR = LIGHT GAGE STEEL t=13 ga (.0897"), F_y=50 ksi.
 • AT ALL OTHER CONDITIONS, LIGHT GAGE STEEL t=16 ga (.0598"), F_y=50 ksi
 8. SEE SHEET 2 OF 8 FOR GLAZING OPTIONS [A] [B] [C] [D].
 9. STANDARD INSTALLATION INSTRUCTIONS ARE TO BE USED IN CONJUNCTION WITH THESE PRODUCT DRAWINGS.
 10. DLO = DAYLIGHT OPENING.
 11. ALUMINUM ALLOY 6063-T6.
 12. MINIMUM JOINT SIZE = 1/2", MAXIMUM JOINT SIZE = 1 3/8", MAXIMUM JOINT THICKNESS = 1/2". PERIMETER SEALANT TO BE RECOMMENDED BY A SEALANT MANUFACTURER. NOTING THAT THE PERIMETER CAULKING SHALL NOT BE RECOMMENDED BY KAWNEER AND MUST BE RECOMMENDED BY AN ENGINEER/ARCHITECT OF RECORD.

HURRICANE PROTECTION SYSTEM (SHUTTERS):
 THE INSTALLATION OF THIS PRODUCT WILL NOT REQUIRE THE USE OF A HURRICANE PROTECTION SYSTEM.

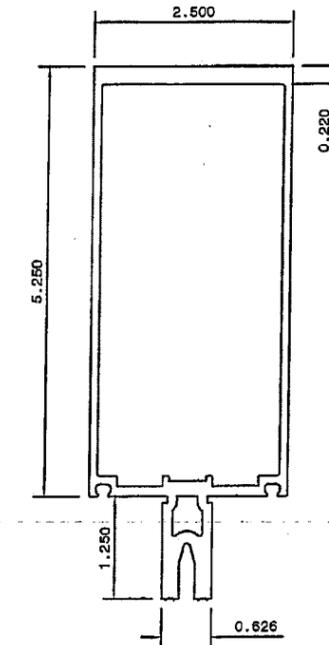
REV.	DATE	REQUEST LETTER	BY
C	12-21-09	FBC 2007 UPDATE	TAD
EC 95502-10 ESTABLISHED 2/01/06			
BALLARD L. ARGUS, P. E. 530 WEST PINE STREET SUITE 5 PONCHATOULA, LA 70454 985-386-4599			
			
12/21/09 FLORIDA #35686, CIVIL			
THIS DRAWING IS FOR DADE COUNTY PRODUCT APPROVAL ONLY			
PRODUCT REVISED as complying with the Florida Building Code Acceptance No. 08-1103.09 Expiration Date 06/22/2016 By:  Miami Dade Product Control Division			
 An Alcoa Company 555 GUTHRIE COURT NIKORUSS, GEORGIA 30092 PHONE (770) 449-5555 FAX (770) 734-1560		PRODUCT APPROVAL DRAWINGS 1600 SYSTEM1-LMI (NO STEEL) 9/16" & 1-5/16" (.090 PVB) PROTOCOLS-TAS 201/202/203 ASTM E1886/1996 SCALE	
DRAWN BY DEH		DATE 05/27/05	
DRWG. NO. NOA162-100			
SHEET 1 of 8		NOA162-100-001	

MATERIAL LIST

#	PART NO.	DESCRIPTION	DIMENSIONS	MATERIAL
GLAZING ACCESORIES AND SEALANTS				
1	027-850	FIXED GASKET	0.250 SPACE	EPDM, DUROM.60+/-5
2	027-857	FIXED GASKET	0.250 SPACE	EPDM, DUROM.70+/-5
3	127-095	V2100 NORTON TAPE	0.250 x 0.250 TAPE	NORTON FOAM TAPE DUROMETER 35
4	162-310	THERMAL SEPARATOR	0.250 SPACE	EPDM, DUROM.60+/-5
5	027-081	SETTING BLOCK	0.188 x 1.250 x 4.125	EPDM, DUROM.85+/-5
6	027-342	SETTING BLOCK	0.188 x 0.563 x 4.125	NEOPRENE, DUR.80+/-5
9	-	STRUCTURAL SILICONE	0.563 x 0.250	DOW CORNING 995 TREMCO SPECTREM2
MISC. FASTENERS				
14	028-843	MULLION TO JAMB ANCHOR	#12 x 1/2" B FHTF	300 SERIES S.S.
15	128-284	SHEAR BLOCK ATTACHMENT SCREW	#12 x 1-1/2" FHTFS	300 SERIES S.S.
16	128-394	SHEAR BLOCK ATTACHMENT SCREW	#12 x 1 7/8" B PHTF	430 SERIES S.S.
17	128-396	SHEAR BLOCK ATTACHMENT SCREW	#12 x 7/16" PHTFS	300 SERIES S.S.
18	128-405	SHEAR BLOCK ATTACHMENT SCREW	#12 x 7/8" AB FHTF	300 SERIES S.S.
19	128-406	PRESSURE PLATE SCREW	1/4" x 1" HWHTF	300 SERIES S.S.
PARTS				
24	162-332	HEAD/SILL SHEAR BLOCK	2.115 x 4.520 x 0.125 x 1.562	6063-T6 ALUMINUM
25	162-312	"T" ANCHOR	8.000 x 3.250 x 0.250 x 4.875	6063-T6 ALUMINUM
26	162-518	PER. OFFSET PRESSURE PLATE	2.500 x 1.347 x 0.100	6063-T6 ALUMINUM
27	162-097	HEAD /SILL HORIZONTAL	2.500 x 5.750 x 0.100	6063-T6 ALUMINUM
28	162-006	COVER	2.500 x 0.504 x 0.050	6063-T6 ALUMINUM
29	162-378	INT. HORIZ. SHEAR BLOCK	2.270 x 4.520 x 0.125 x 1.562	6063-T6 ALUMINUM
30	162-519	INT. HORIZ. SHEAR BLOCK	2.270 x 4.750 x 0.125 x 1.250	6063-T6 ALUMINUM
31	162-517	OFFSET PRESSURE PLATE	2.500 x 0.847 x 0.100	6063-T6 ALUMINUM
32	162-016	MULLION	2.500 x 5.750 x 0.100	6063-T6 ALUMINUM
33	162-176	"F" PERIMETER	1.125 x 3.250 x 0.125	6063-T6 ALUMINUM
34	162-516	PER. OFFSET PRESSURE PLATE	2.500 x 0.847 x 0.100	6063-T6 ALUMINUM
35	162-004	MULLION	2.500 x 6.500 x 0.100	6063-T6 ALUMINUM
36	162-017	"F" PERIMETER	1.125 x 4.000 x 0.125	6063-T6 ALUMINUM
37	162-528	PER. OFFSET PRESSURE PLATE	2.500 x 2.097 x 0.100	6063-T6 ALUMINUM
38	162-095	HEAD/SILL HORIZONTAL	2.500 x 6.500 x 0.100	6063-T6 ALUMINUM
39	162-320	JAMB MULLION ANCHOR	2.270 x 4.750 x 0.125 x 1.460	6063-T6 ALUMINUM



162-016
VERTICAL MULLION
(NON-REINFORCED SECTION)
I = 9.594 IN⁴
S = 3.163 IN³



162-004
VERTICAL MULLION
(NON-REINFORCED SECTION)
I = 12.736 IN⁴
S = 3.791 IN³

GLAZING OPTIONS			
TYPE	NOMINAL THICKNESS	DESCRIPTION	STANDARD MULLION
A	9/16"	1/4" HS OUTBOARD / 0.090" PVB INTERLAYER (SOLUTIA) / 1/4" HS INBOARD	162-016
B	9/16"	1/4" HS OUTBOARD / 0.090 PVB INTERLAYER (DUPONT) / 1/4" HS INBOARD	162-016
C	1 5/16"	1/4" HS INBOARD / 0.090" PVB INTERLAYER (SOLUTIA) / 1/4" HS / 1/2" AIR SPACE / 1/4" HS OUTBOARD	162-004
D	1 5/16"	1/4" HS INBOARD / 0.090" PVB INTERLAYER (DUPONT) / 1/4" HS / 1/2" AIR SPACE / 1/4" HS OUTBOARD	162-004

REV.	DATE	REQUEST LETTER	BY
A	6-18-08	Part number rev.	TAD
C	12-21-09	FBC 2007 UPDATE	TAD
EC	95502-10	ESTABLISHED	2/01/06

BALLARD L. ARGUS, P.E.
530 WEST PINE STREET
SUITE 5
PONCHATOULA, LA 70454
985-386-4599

Bl

12/21/09
FLORIDA #35686, CIVIL

THIS DRAWING IS FOR
DADE COUNTY
PRODUCT APPROVAL
ONLY

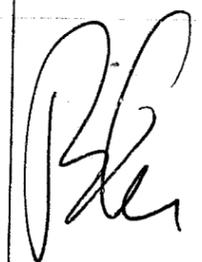
PRODUCT REVISED
as complying with the Florida
Building Code
Acceptance No 08-1103.09
Expiration Date 06/24/2016
By *[Signature]*
Miami Dade Product Control
Division

Kawneer
An Alcoa Company
555 GUTHRIE COURT
NORCROSS, GEORGIA 30092
PHONE (770) 449-5555
FAX (770) 794-1580
PRODUCT APPROVAL DRAWINGS
1600 SYSTEM1-LMI (NO STEEL)
9/16" & 1-5/16" (.090PVB)
PROTOCOLS-TAS 201/202/203
ASTM E1886/1996
SCALE:

DRAWN BY DEH DATE 05/27/05
DRWG. NO. **NOA162-100**
SHEET 2 of 8
NOA162-100-002

REV.	DATE	REQUEST LETTER	BY
A	6-18-08	Part number rev.	TAD
C	12-21-09	FBC 2007 UPDATE	TAD

EC 95502-10 ESTABLISHED 2/01/06
 BALLARD L. ARGUS, P.E.
 530 WEST PINE STREET
 SUITE 5
 PONCHATOULA, LA 70454
 985-386-4599



12/21/09
 FLORIDA #35686, CIVIL

THIS DRAWING IS FOR
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 PRODUCT APPROVAL
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PRODUCT REVISED
 as complying with the Florida
 Building Code
 Acceptance No 08-1103-09
 Expiration Date 06/23/2016
 By 
 Miami Dade Product Control
 Division

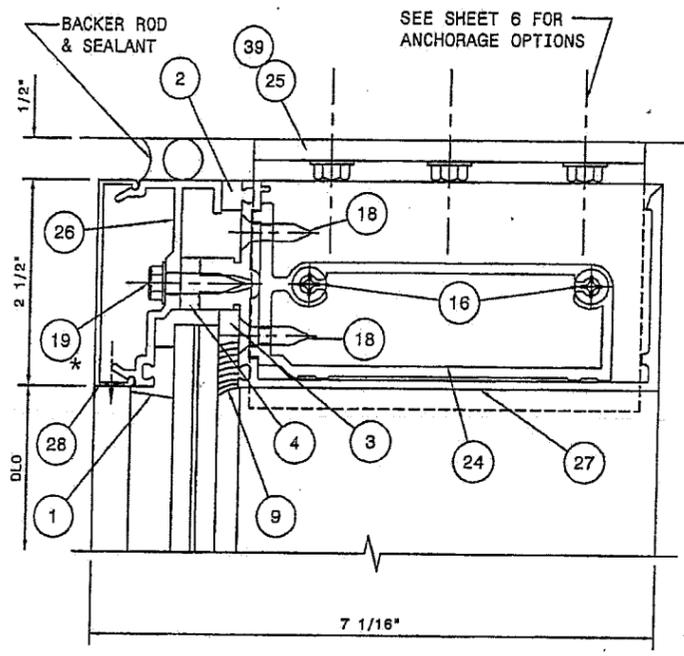
Kamneer
 An Alcos Company
 555 GUTHRIE COURT
 NORCROSS, GEORGIA 30092
 PHONE (770) 448-5555
 FAX (770) 734-1560

PRODUCT APPROVAL DRAWINGS
 1600 SYSTEM1-LMI (NO STEEL)
 9/16" & 1-5/16" (O90 PVB)
 PROTOCOLS-TAS 201/202/203
 ASTM E1886/1996
 SCALE:

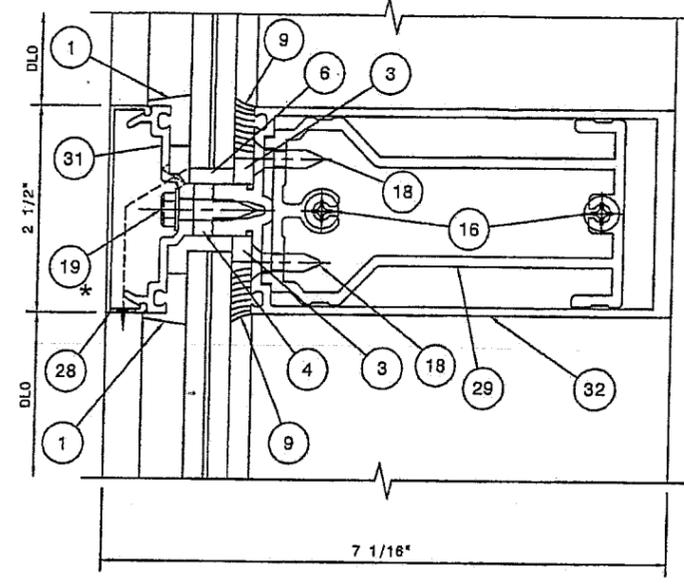
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DRWG. NO. NOA162-100

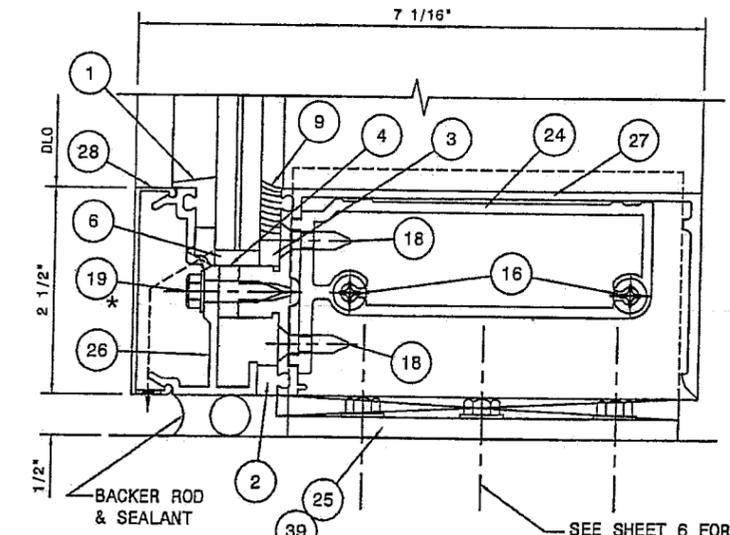
SHEET 3 of 8 NOA162-100-003



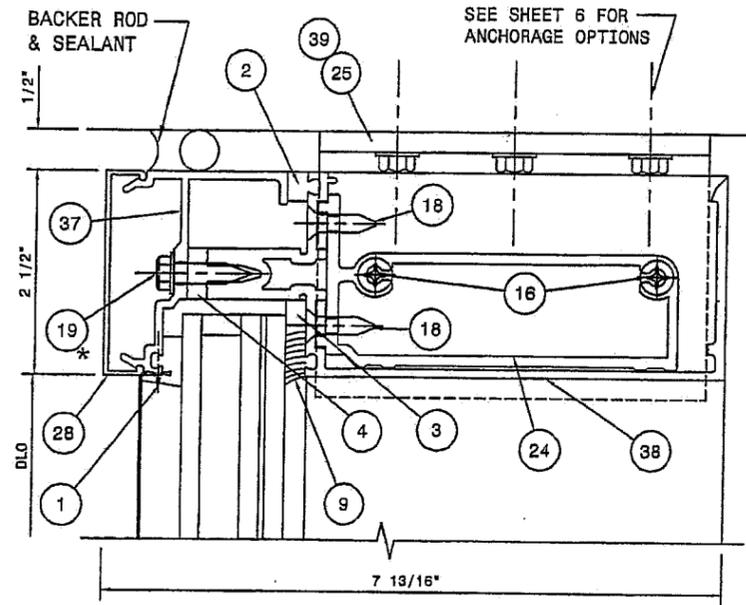
EXTERIOR **1**
 HEAD



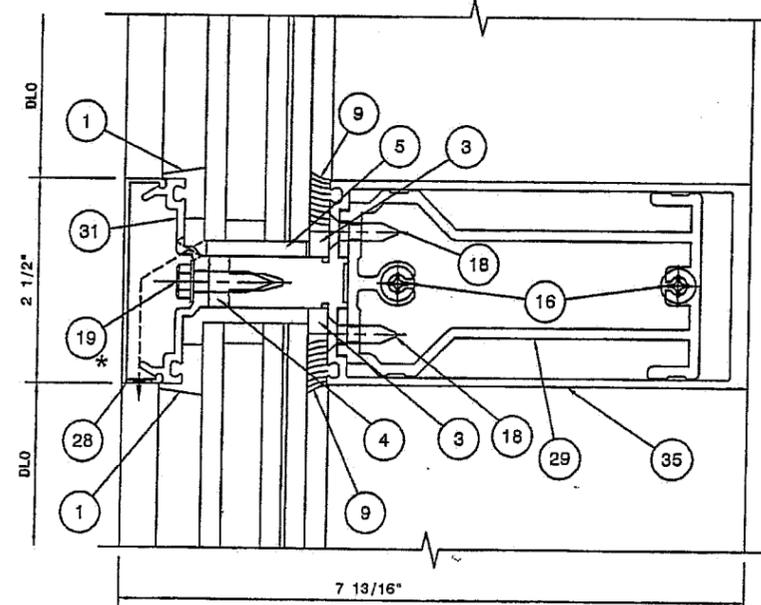
EXTERIOR **2**
 INT. HORIZONTAL



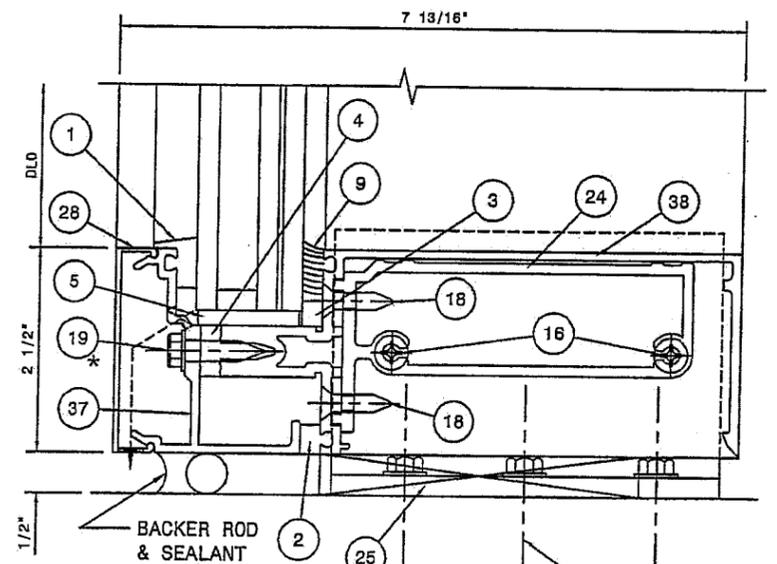
EXTERIOR **3**
 SILL



EXTERIOR **1A**
 HEAD



EXTERIOR **2A**
 INT. HORIZONTAL

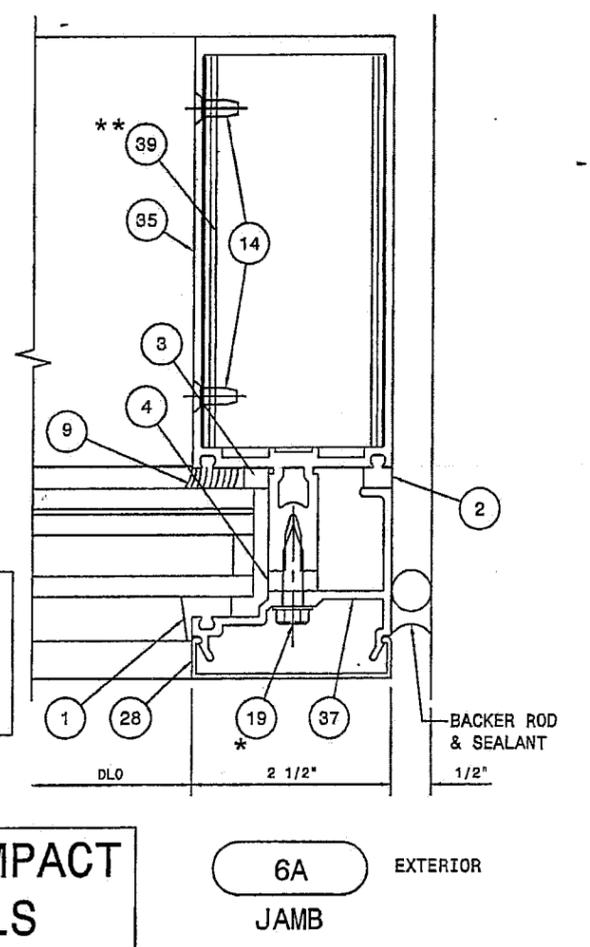
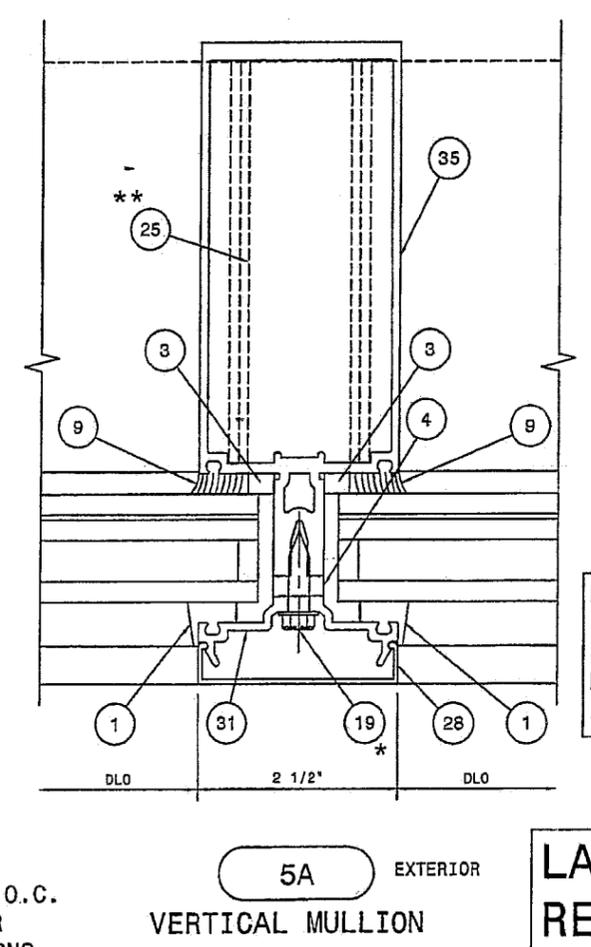
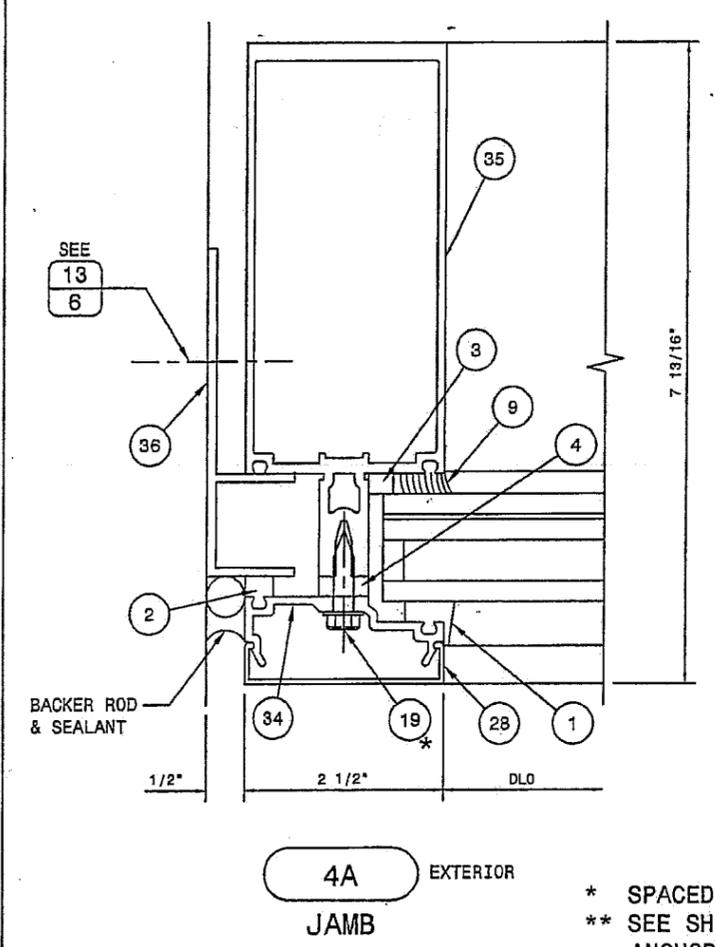
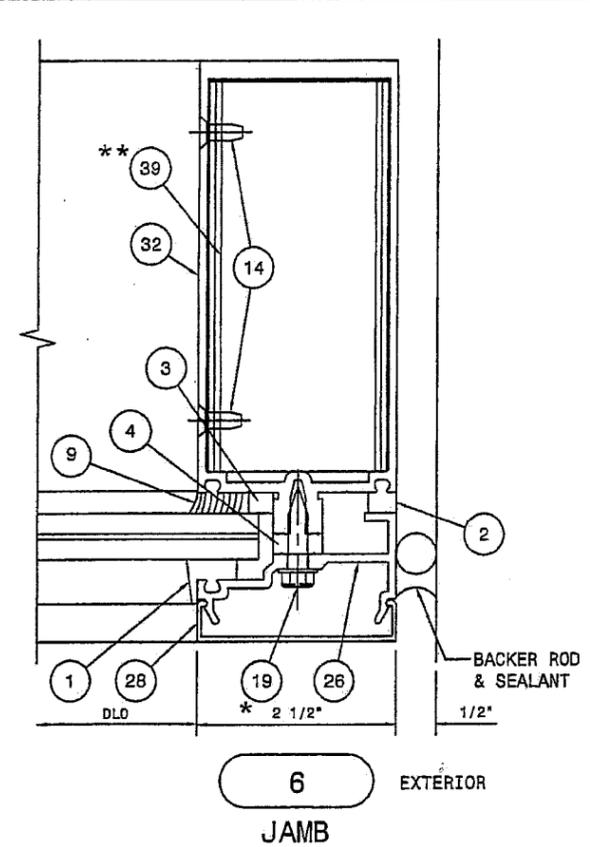
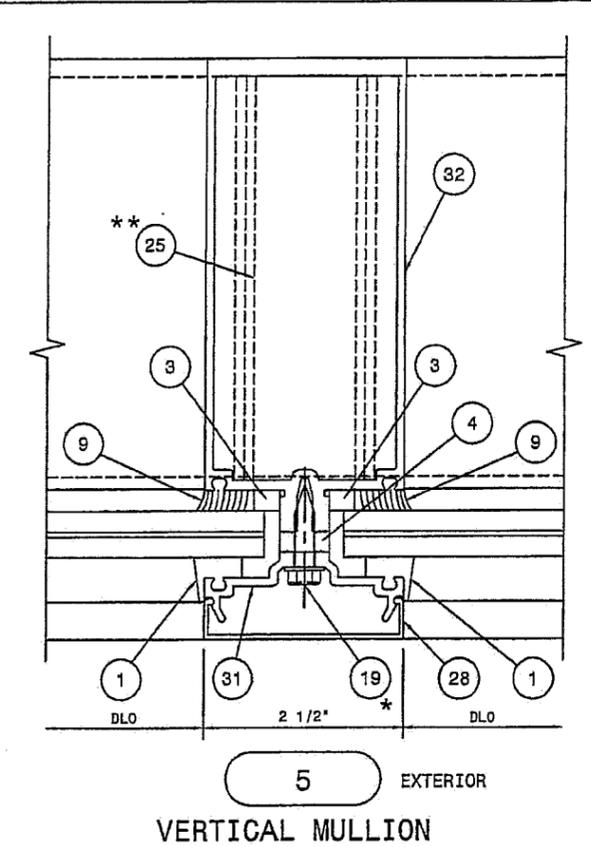
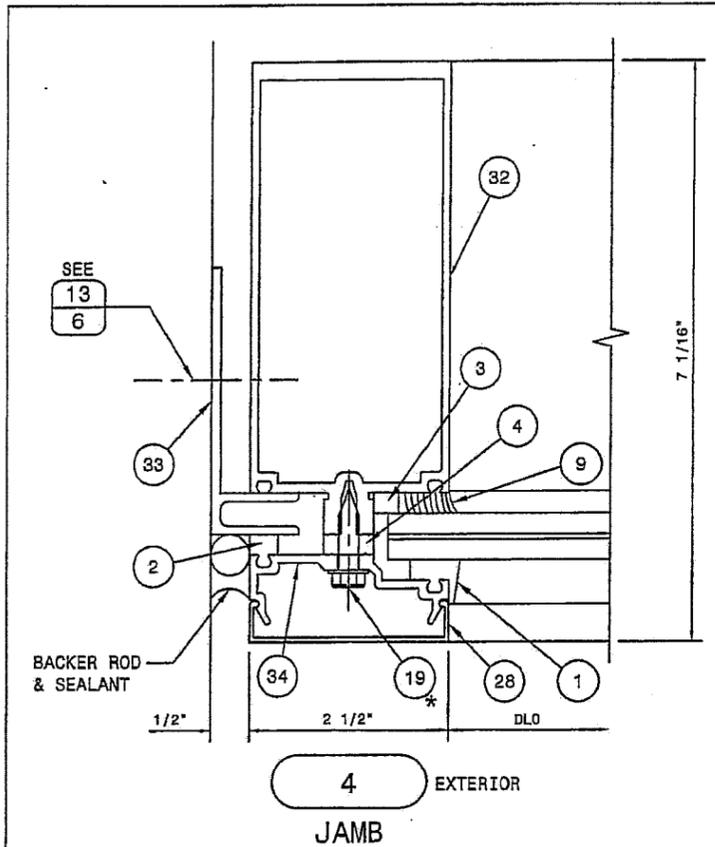


EXTERIOR **3A**
 SILL

REFER TO GLAZING DETAILS ON SHEET 7, 8 OF 8
 FOR SPECIFIC INFORMATION REGARDING GLAZING
 MATERIALS AND GLASS BITE

* SPACED MAX. 9" O.C.

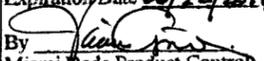
**LARGE MISSILE IMPACT
 RESISTANT DETAILS**



REFER TO GLAZING DETAILS ON SHEET 7, 8 OF 8 FOR SPECIFIC INFORMATION REGARDING GLAZING MATERIALS AND GLASS BITE

LARGE MISSILE IMPACT RESISTANT DETAILS

* SPACED MAX. 9" O.C.
 ** SEE SHEET 6 FOR ANCHORAGE OPTIONS

REV.	DATE	REQUEST LETTER	BY
C	12-21-09	FBC 2007 UPDATE	TAD
EG 95502-10 ESTABLISHED 2/01/06			
BALLARD L. ARGUS, P.E. 530 WEST PINE STREET SUITE 5 PONCHATOLA, LA 70454 985-386-4599			
 12/21/09 FLORIDA #35686, CIVIL			
THIS DRAWING IS FOR DADE COUNTY PRODUCT APPROVAL ONLY			
PRODUCT REVISED as complying with the Florida Building Code Acceptance No <u>08-1103.09</u> Expiration Date <u>06/22/2016</u> By  Miami Dade Product Control Division			
Kamneer An Alcoa Company 555 GUTHRIE COURT NORCROSS, GEORGIA 30092 PHONE (770) 449-5555 FAX (770) 734-1580		PRODUCT APPROVAL DRAWINGS 1600 SYSTEM1-LMI (NO STEEL) 9/16" & 1-5/16" (090 PVB) PROTOCOLS-TAS 201/202/203 ASTM E1886/1996 SCALE:	
DRAWN BY DEH		DATE 05/27/05	
DRWG. NO. NOA162-100			
SHEET 4 of 8		NOA162-100-004	

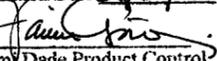
REV.	DATE	REQUEST LETTER	BY
C	12-21-09	FBC 2007 UPDATE	TAD
EC 95502-10		ESTABLISHED	2/01/06

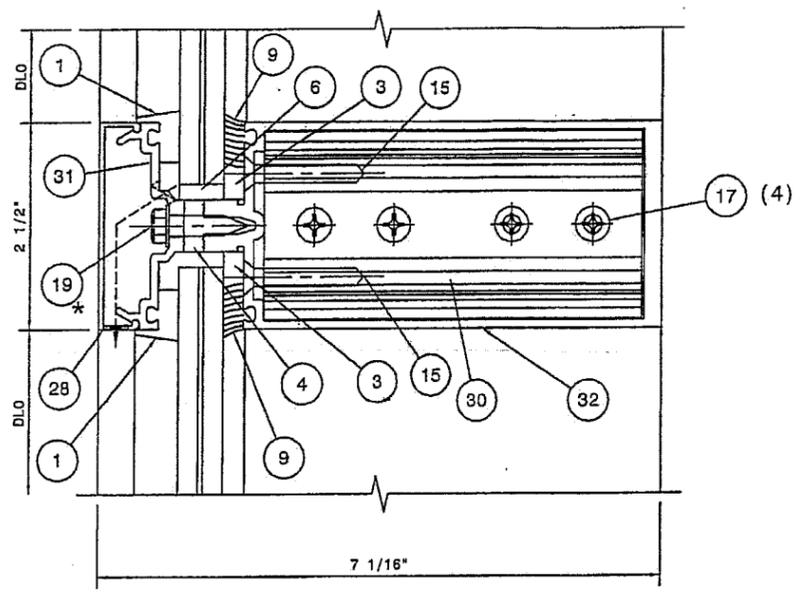
BALLARD L. ARGUS, P.E.
 530 WEST PINE STREET
 SUITE 5
 PONCHATOULA, LA 70454
 985-386-4599



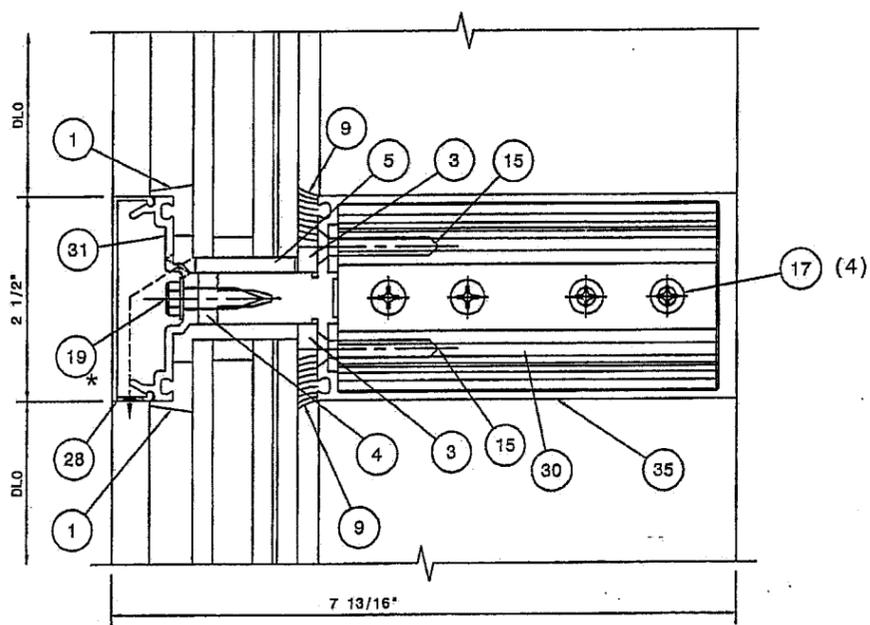
12/21/09
 FLORIDA #35686, CIVIL

THIS DRAWING IS FOR
 DADE COUNTY
 PRODUCT APPROVAL
 ONLY

PRODUCT REVISED
 as complying with the Florida
 Building Code
 Acceptance No 08-1103.09
 Expiration Date 06/22/2016
 By 
 Miami Dade Product Control
 Division



EXTERIOR **7**
 ALT. INT. HORIZONTAL MAY BE
 USED AT ANY HORIZONTAL LOCATION



EXTERIOR **7A**
 ALT. INT. HORIZONTAL MAY BE
 USED AT ANY HORIZONTAL LOCATION

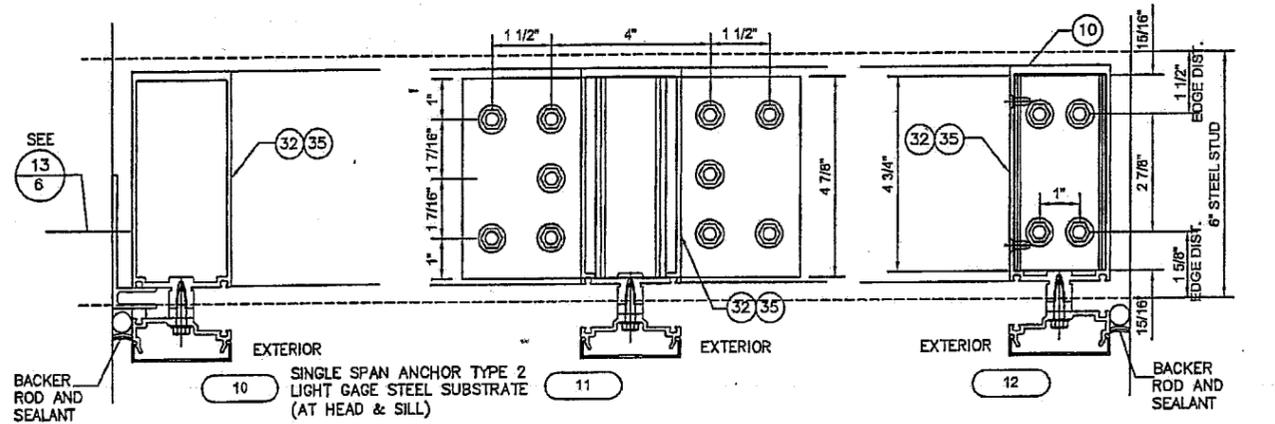
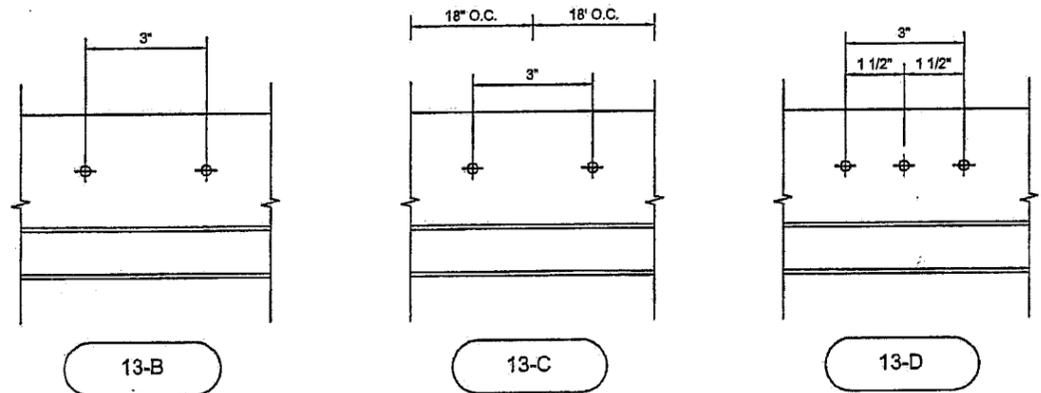
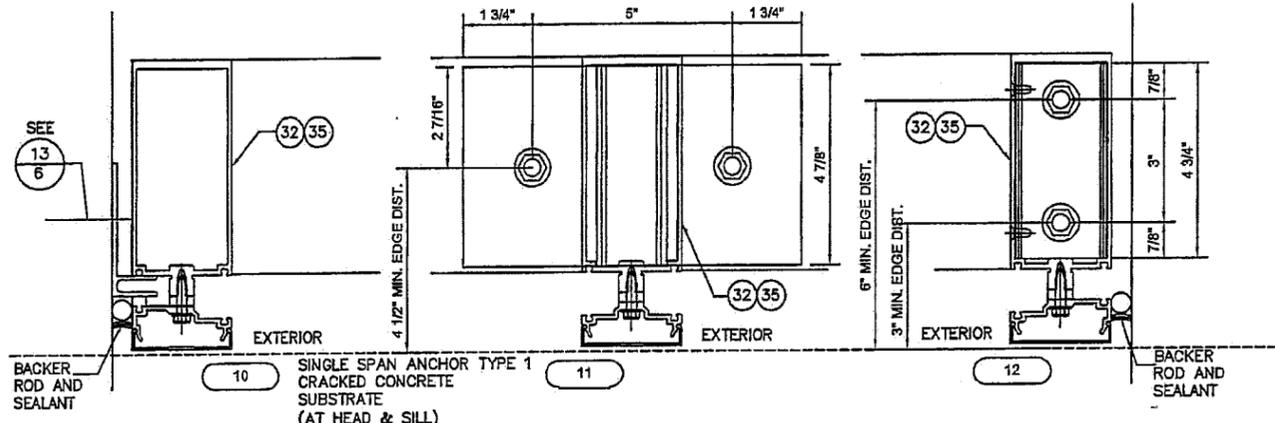
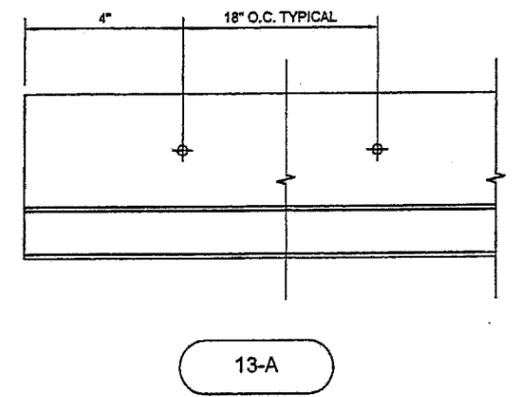
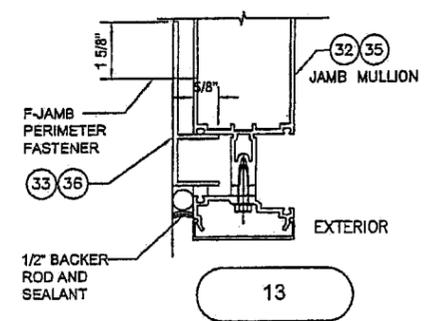
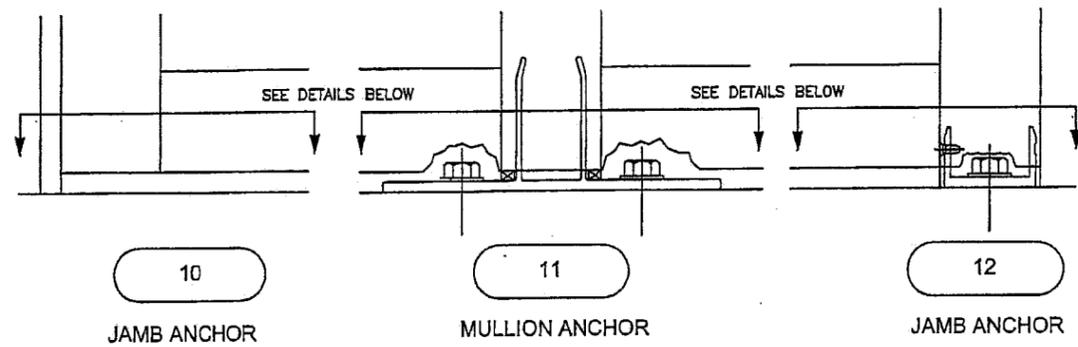
**LARGE MISSILE IMPACT
 RESISTANT DETAILS**

REFER TO GLAZING DETAILS ON SHEET 7, 8 OF 8
 FOR SPECIFIC INFORMATION REGARDING GLAZING
 MATERIALS AND GLASS BITE

* SPACED MAX. 9" O.C.

 An Alcoa Company 555 GUTHRIE COURT NORCROSS, GEORGIA 30092 PHONE (770) 449-6555 FAX (770) 734-1560	PRODUCT APPROVAL DRAWINGS 1600 SYSTEM1-LMI (NO STEEL) 9/16" & 1-5/16" (090 PVB) PROTOCOLS-TAS 201/202/203 ASTM E1886/1996 SCALE:
	DRAWN BY DEH DATE 05/27/05 DRWG. NO. NOA162-100 SHEET 5 of 8 NOA162-100-005

ANCHOR REQUIREMENTS AT 65 PSF

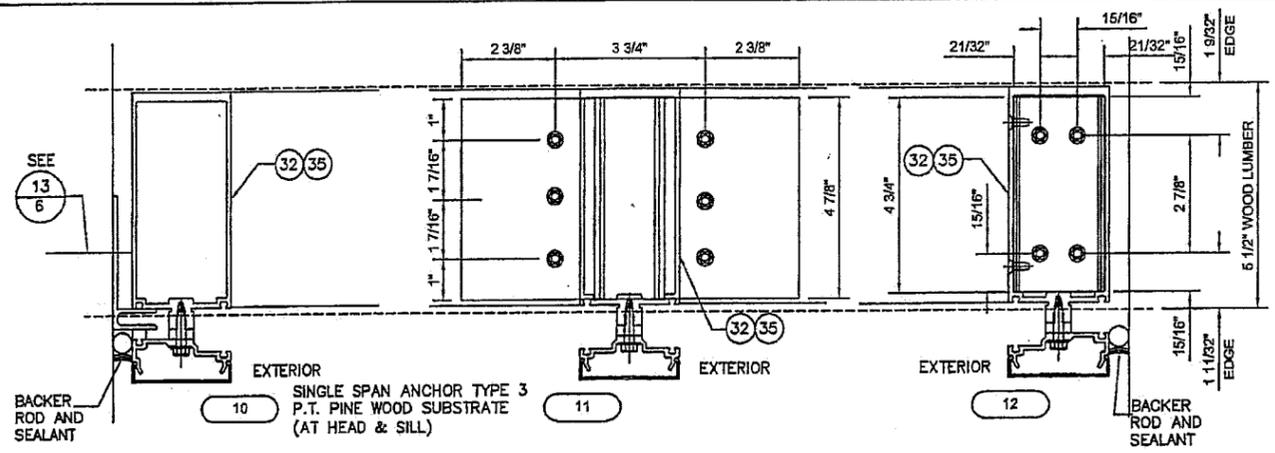


VERTICAL JAMB "F" PERIMETER FASTENER SCHEDULE

DESCRIPTION	MATERIAL	SUBSTRATE	MIN. EMBED.	EDGE DIST.	TYPICAL SPACING VERTICAL JAMB	SPACING AT HORIZONTAL MULLION CENTER LINE
TITEN HD SCREW ANCHOR 3/8" X 3"	HEAT-TREATED CARBON STEEL, SAE J403, GRADE 10B21, ZINC PL., ASTM B633 SC1, TYPE III	CONCRETE OR CMU *SEE NOTE ABOVE	2 1/2"	2 1/8"	1 ANCHOR @ MAX. 18" O.C. (SEE 13-A)	AT HORIZ. MULLION 2 @ 3" O.C. MIN. (SEE 13-B)
1/4" x 1-1/2" TEK SCREW	SAE GRADE 5 STEEL	16GA (.0598) 50KSI STEEL	FULL	2 1/8"	2 ANCHORS @ MAX. 18" O.C. (SEE 13-C)	AT HORIZ. MULLION 2 @ 3" O.C. MIN. (SEE 13-B)
1. 1/4"-14 x 2", TYPE AB PHSMS 2. 1/4"-14 x 2", HH LAG SCREW	SAE GRADE 5 STEEL	WOOD *SEE NOTE BELOW	1 1/2"	2 1/8"	2 ANCHORS @ MAX. 18" O.C. (13-C)	AT HORIZ. MULLION 3 @ 1 1/2" O.C. MIN. (SEE 13-D)

NOTE: FASTENER SPACING NOT TO EXCEED 18" O.C.

*SUBSTRATE NOTE:
2,500 PSI CONCRETE OR 7 5/8" CMU WITH FIRST CELL FILLED W/ 2,500 PSI CONCRETE



ANCHOR SCHEDULE

ANCHOR TYPE	NUM.	DESCRIPTION	MATERIAL	SUBSTRATE	MIN. EMBED.
1	-	TITEN HD SCREW AN. @ T-ANCHOR 1/2" X 5" @ U-ANCHOR 3/8" X 3"	HEAT-TREATED CARBON STEEL, SAE J403, GRADE 10B21, ZINC PLATED, ASTM B633 SC1, TYPE III	CONCRETE MIN. 3000 PSI 6 1/2" SLAB THICKNESS REQ'D	4" @ T-AN. 2 1/2" @ U-AN
2	-	1/4"-20 TEK SCREW	SAE GRADE 5 STEEL	16GA (.0598) X 50KSI STEEL	FULL
3	-	1. 5/16"-12 X 3" PHSMS 2. 5/16"-12 X 3" HH LAG W/ 5/8" X 1/16" ROUND WASHER	SAE GRADE 5 STEEL	WOOD *SEE NOTE BELOW	2 1/2"

*BASED ON ACQ PRESSURE TREATED PINE: SMS OR LAG BOLT TO BE GALVANIZED FINISH OR OTHER PROPRIETARY FINISH BY MANUFACTURE SUITABLE FOR USE INTO ACQ TREATED WOOD.

REV.	DATE	REQUEST LETTER	BY
C	12-21-09	FBC 2007 UPDATE	TAD

EC 95502-10 ESTABLISHED 2/01/06
BALLARD L. ARGUS, P.E.
530 WEST PINE STREET
SUITE 5
PONCHATOULA, LA 70454
985-386-4599

12/21/09
FLORIDA #35686, CIVIL

THIS DRAWING IS FOR
DADE COUNTY
PRODUCT APPROVAL
ONLY

PRODUCT REVISED
as complying with the Florida
Building Code
Acceptance No 08-1103.09
Expiration Date 06/23/2016
By [Signature]
Miami Dade Product Control
Division

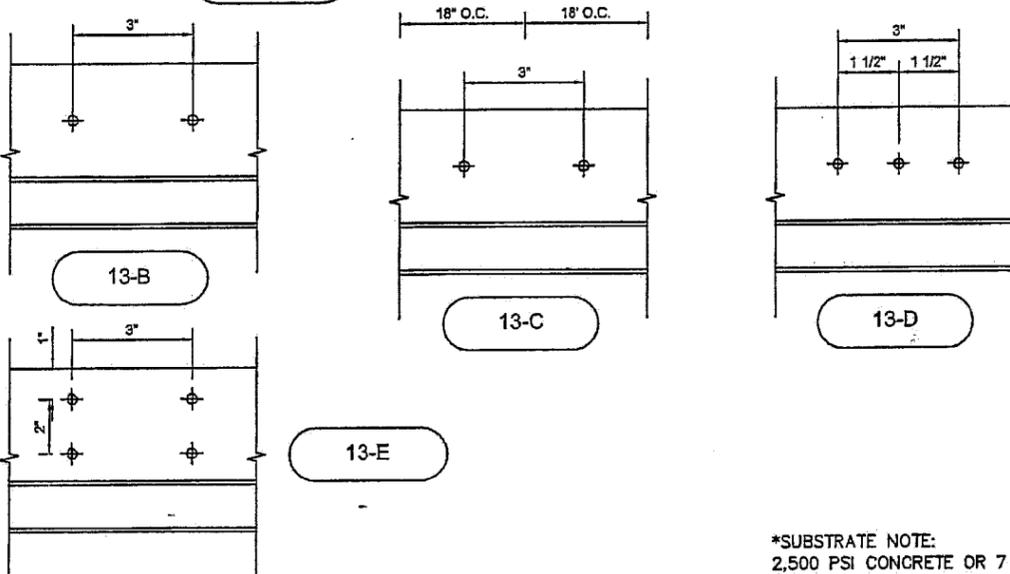
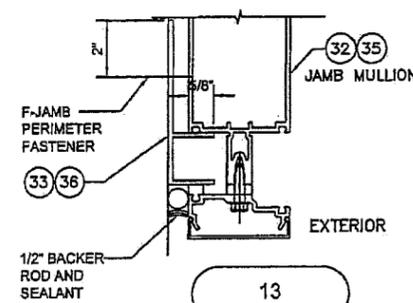
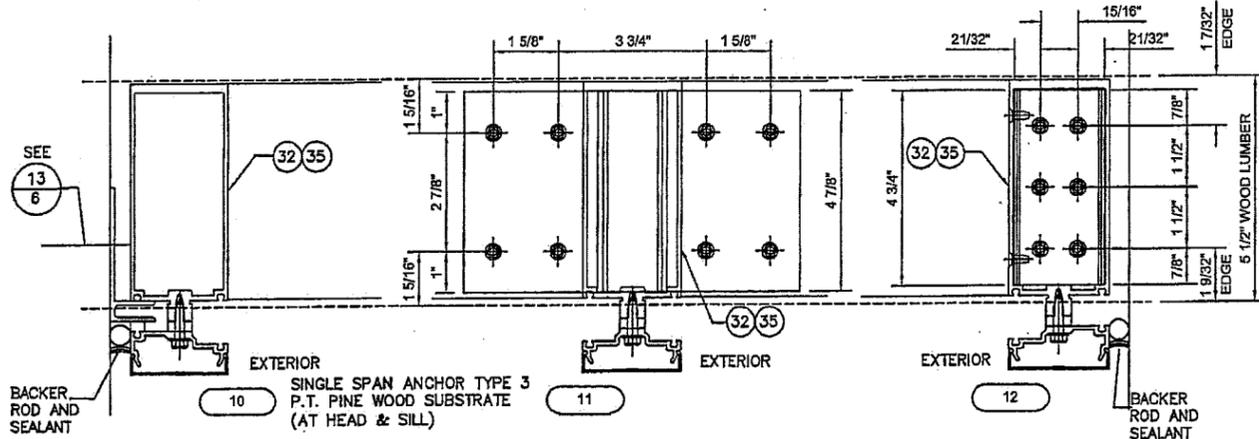
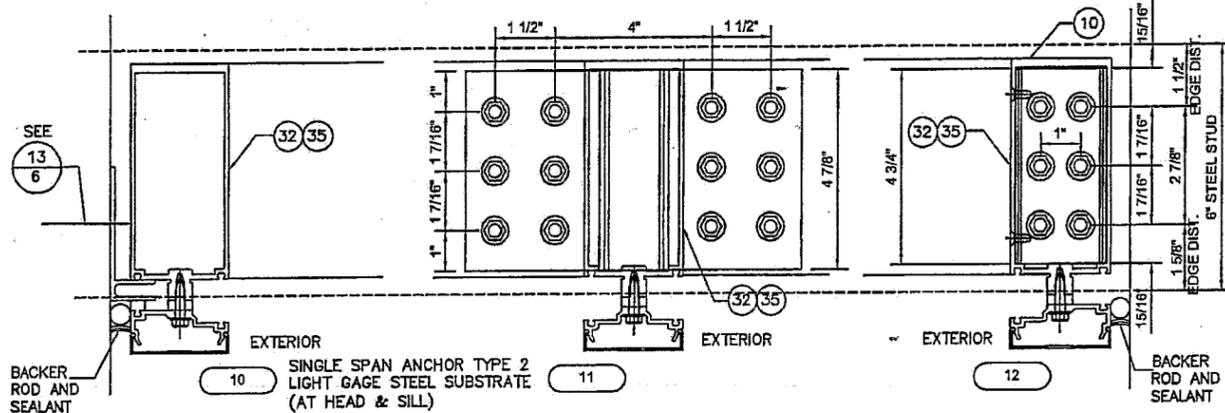
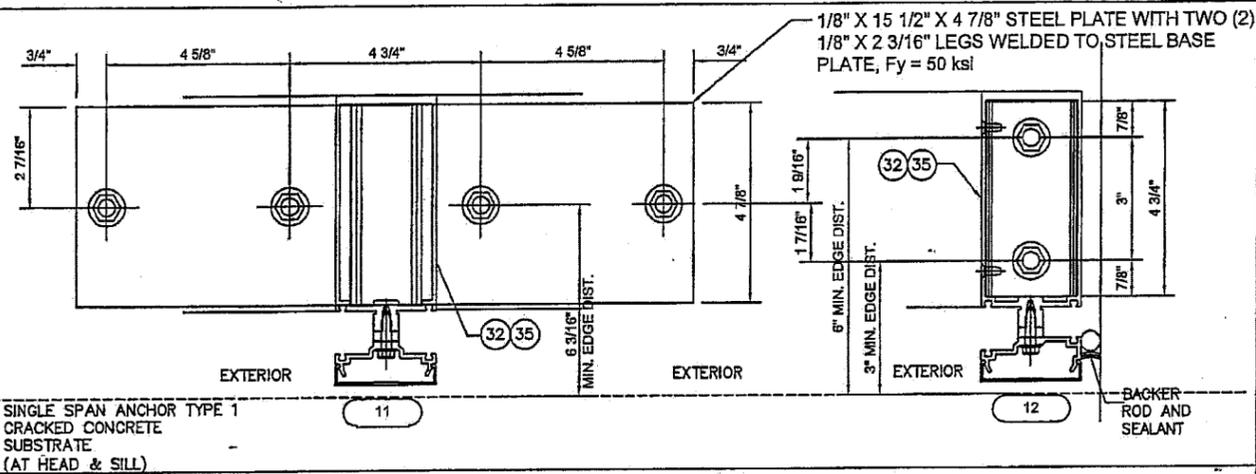
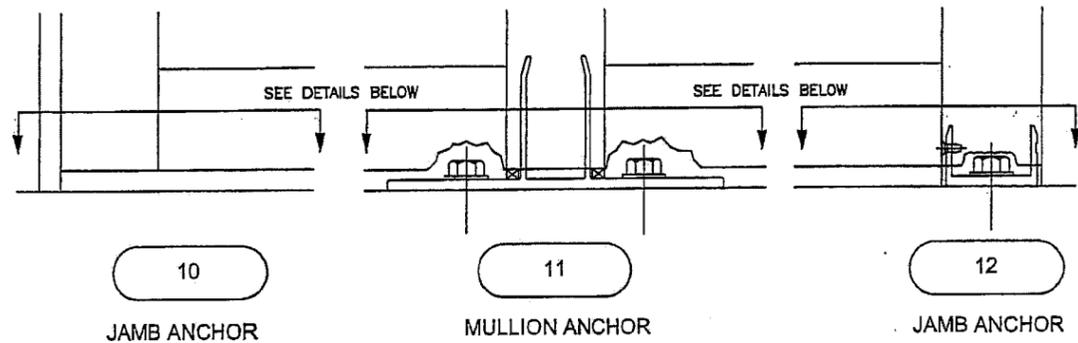
Kamneer
An Alcoa Company

565 GUTHRIE COURT
NORCROSS, GEORGIA 30092
PHONE (770) 448-5555
FAX (770) 734-1660

PRODUCT APPROVAL DRAWINGS
1600 SYSTEM 1 - LMI (NO STEEL)
9/16" & 1-5/16" (.090 PVB)
PROTOCOLS-TAS 201/202/203
ASTM E1886/1996

DRAWN BY	DEH	DATE	05/27/05
DRWG. NO.	NOA162-100		
SHEET	6 of 8	NOA162-100-006	

ANCHOR REQUIREMENTS AT 90 PSF



VERTICAL JAMB "F" PERIMETER FASTENER SCHEDULE

DESCRIPTION	MATERIAL	SUBSTRATE	MIN. EMBED.	EDGE DIST.	TYPICAL SPACING VERTICAL JAMB	SPACING AT HORIZONTAL MULLION CENTER LINE
TITEN HD SCREW ANCHOR 3/8" X 3"	HEAT-TREATED CARBON STEEL, SAE J403, GRADE 10B21, ZINC PL., ASTM B633 SC1, TYPE III	*CONCRETE SEE NOTE ABOVE	2 1/2"	2 1/2"	1 ANCHOR @ MAX. 18" O.C. (SEE 13-A)	AT HORIZ. MULLION 2 @ 3" O.C. MIN. (SEE 13-B)
1/4" x 1-1/2" TEK SCREW	SAE GRADE 5 STEEL	16GA (.0598) 50KSI STEEL	FULL	2 1/2"	2 ANCHORS @ MAX. 18" O.C. (SEE 13-C)	AT HORIZ. MULLION 3 @ 1 1/2" O.C. MIN. (SEE 13-D)
1. 1/4"-14 x 2", TYPE AB PHSMS 2. 1/4"-14 x 2", HH LAG SCREW	SAE GRADE 5 STEEL	WOOD *SEE NOTE BELOW	1 1/2"	1 1/2" @ HOR. 2 1/2" @ VERT	2 ANCHORS @ MAX. 18" O.C. (13-C)	AT HORIZ. MULLION 4 @ LAYOUT SHOWN (SEE 13-E)

NOTE: FASTENER SPACING NOT TO EXCEED 18" O.C.

ANCHOR SCHEDULE

ANCHOR TYPE	NUM.	DESCRIPTION	MATERIAL	SUBSTRATE	MIN. EMBED.
1	-	TITEN HD SCREW AN. @ T-ANCHOR 1/2" X 5" @ U-ANCHOR 3/8" X 4"	HEAT-TREATED CARBON STEEL, SAE J403, GRADE 10B21, ZINC PLATED, ASTM B633 SC1, TYPE III	CONCRETE MIN. 3000 PSI 6 1/2" SLAB THICKNESS REQ'D	4" @ T-AN. 3 1/4" @ U-AN
2	-	1/4"-20 TEK SCREW	SAE GRADE 5 STEEL	T-AN 13GA (.0897) U-AN 16GA (.0598) 50KSI STEEL	FULL
3	-	1. 5/16"-12 X 3" PHSMS W/ 5/8" 1/16" ROUND WASHER 2. 5/16"-12 X 3" HH LAG W/ 5/8" X 1/16" ROUND WASHER	SAE GRADE 5 STEEL	WOOD *SEE NOTE BELOW	2 1/2"

*BASED ON ACQ PRESSURE TREATED PINE: SMS OR LAG BOLT TO BE GALVANIZED FINISH OR OTHER PROPRIETARY FINISH BY MANUFACTURE SUITABLE FOR USE INTO ACQ TREATED WOOD.

REV.	DATE	REQUEST LETTER	BY
C	12-21-09	FBC 2007 UPDATE	TAD
EC 95502-10		ESTABLISHED	2/01/06

BALLARD L. ARGUS, P.E.
530 WEST PINE STREET
SUITE 5
PONCHATOULA, LA 70454
985-386-4599

[Signature]
12/21/09
FLORIDA #35686, CIVIL

THIS DRAWING IS FOR
DADE COUNTY
PRODUCT APPROVAL
ONLY

PRODUCT REVISED
as complying with the Florida
Building Code
Acceptance No. 08-1103-09
Expiration Date 06/22/2016
By *[Signature]*
Miami Trade Product Control
Division

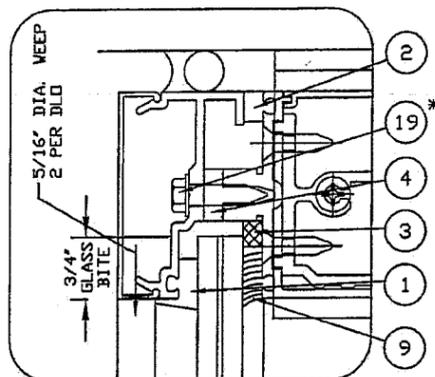
Kameer
An Alcoa Company
555 BATHURIDGE COURT
NORCROSS, GEORGIA 30052
PHONE (770) 449-8556
FAX (770) 794-1680

PRODUCT APPROVAL DRAWINGS
1600 SYSTEM1 - LMI (NO STEEL)
9/16" & 1-5/16" (.090 PVB)
PROTOCOLS-TAS 201/202/203
ASTM E1886/1996
SCALE:

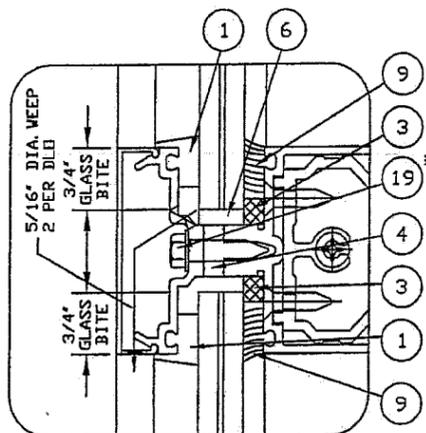
DRAWN BY DEH DATE 05/27/05
DRWG. NO. NOA162-100
SHEET 6A of 8 NOA162-100-006A

GLAZING DETAILS

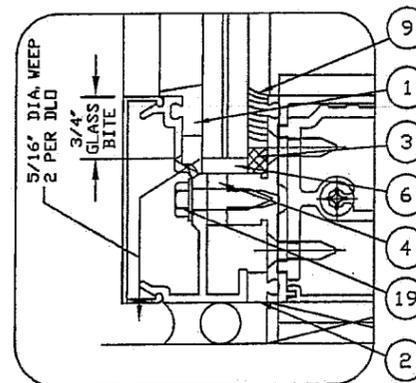
9/16" LARGE MISSILE



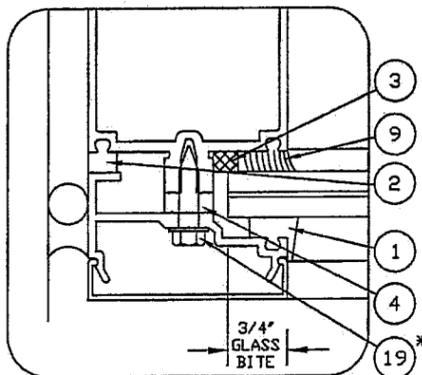
TYPICAL HEAD GLAZING DETAIL
9/16" LAMINATED GLASS



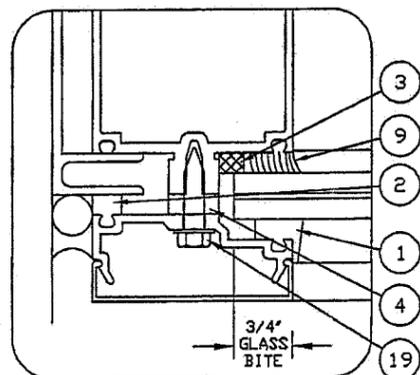
TYPICAL HORIZONTAL GLAZING DETAIL
9/16" LAMINATED GLASS



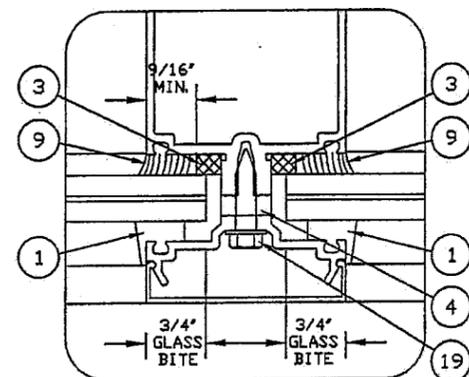
TYPICAL SILL GLAZING DETAIL
9/16" LAMINATED GLASS



TYPICAL JAMB GLAZING DETAIL
9/16" LAMINATED GLASS



TYPICAL "F" PERIMETER
JAMB GLAZING DETAIL
9/16" LAMINATED GLASS



TYPICAL VERTICAL GLAZING DETAIL
9/16" LAMINATED GLASS

LARGE MISSILE IMPACT
RESISTANT DETAILS

GLASS SIZE FORMULA DLO + 1-1/2"
UNLESS OTHERWISE NOTED

* SPACED MAX. 9" O. C.

REV.	DATE	REQUEST LETTER	BY
C	12-21-09	FBC 2007 UPDATE	TAD
EC 95502-10 ESTABLISHED 2/01/06			
BALLARD L. ARGUS, P.E. 530 WEST PINE STREET SUITE 5 PONCHATOULA, LA 70454 985-386-4599			

12/21/09
FLORIDA #35686, CIVIL

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Miami Dade Product Control
Division

Kamneer
An Alcoa Company

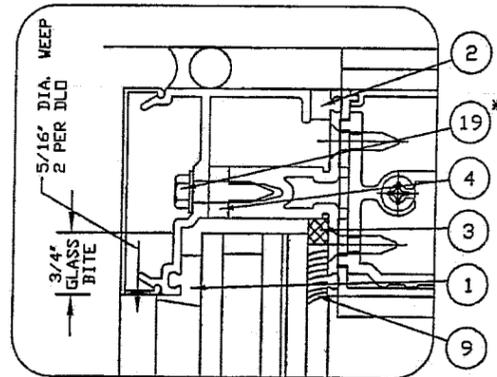
535 GUTHRIE COURT
NORCROSS, GEORGIA 30092
PHONE (770) 449-5555
FAX (770) 734-1560

PRODUCT APPROVAL DRAWINGS
1600 SYSTEM1 - LMI (NO STEEL)
9/16" & 1-5/16" (, 090 PVB)
PROTOCOLS-TAS 201/202/203
ASTM E1886/1996

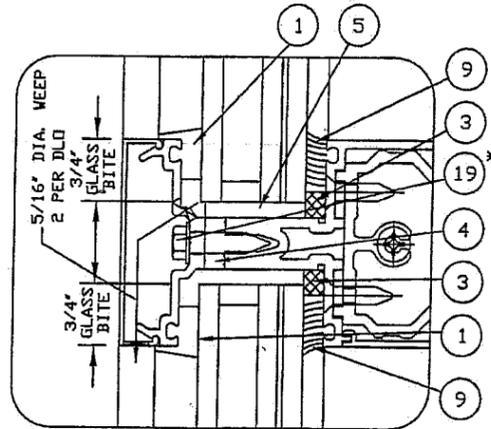
DRAWN BY DEH	DATE 05/27/05
DRVG. NO. NOA162-100	
SHEET 7 of 8	NOA162-100-007

GLAZING DETAILS

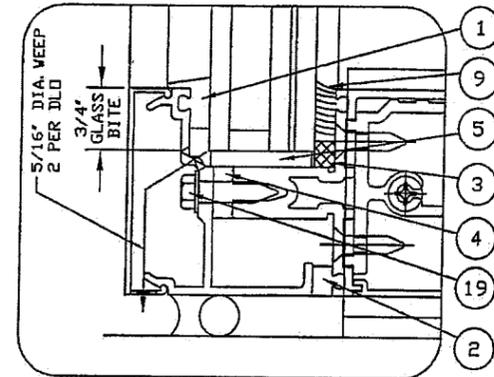
1-5/16" INSULATING LARGE MISSILE



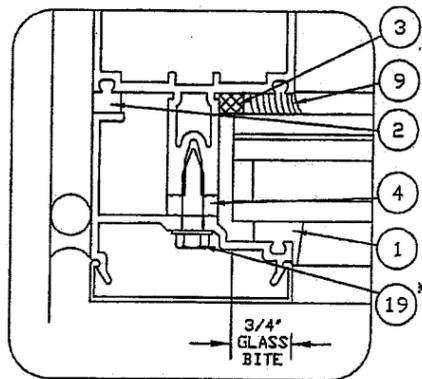
TYPICAL HEAD GLAZING DETAIL
1-5/16" LAMINATED GLASS



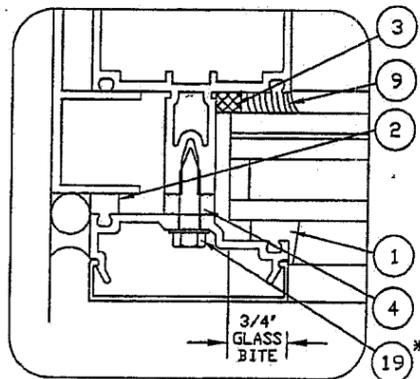
TYPICAL HORIZONTAL GLAZING DETAIL
1-5/16" LAMINATED GLASS



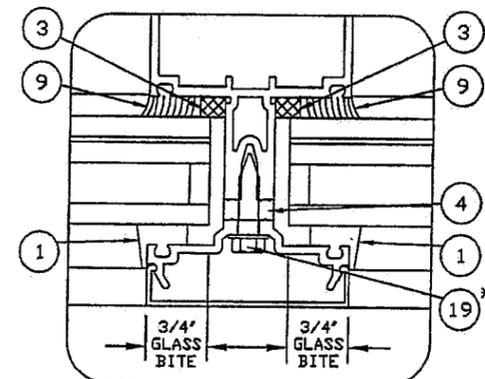
TYPICAL SILL GLAZING DETAIL
1-5/16" LAMINATED GLASS



TYPICAL JAMB GLAZING DETAIL
1-5/16" LAMINATED GLASS



TYPICAL "F" PERIMETER
JAMB GLAZING DETAIL
1-5/16" LAMINATED GLASS



TYPICAL VERTICAL GLAZING DETAIL
1-5/16" LAMINATED GLASS

LARGE MISSILE IMPACT
RESISTANT DETAILS

GLASS SIZE FORMULA DLO + 1-1/2"
UNLESS OTHERWISE NOTED

* SPACED MAX. 9" O. C.

REV.	DATE	REQUEST LETTER	BY
C	12-21-09	FBC 2007 UPDATE	TAD
EC 95502-10 ESTABLISHED 2/01/06			
BALLARD L. ARGUS, P. E. 530 WEST PINE STREET SUITE 5 PONCHATOLA, LA 70454 985-386-4599			

12/21/09
FLORIDA #35686, -CIVIL

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Acceptance No 08-1103.09
Expiration Date 06/22/2016
By
Miami Dade Product Control
Division

Kamneer
An Alcoa Company
555 GUTHRIE COURT
NORCROSS, GEORGIA 30092
PHONE (770) 449-5555
FAX (770) 734-1960
PRODUCT APPROVAL DRAWINGS
1600 SYSTEM - LMI (NO STEEL)
9/16" & 1-5/16" (.090 PVB)
PROTOCOLS-TAS 201/202/203
ASTM E1886/1996
SCALE:

DRAWN BY DEH	DATE 05/27/05
DRWG. NO. NOA162-100	
SHEET 8 of 8	NOA162-100-008