



MIAMI-DADE COUNTY
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.miamidade.gov

NOTICE OF ACCEPTANCE (NOA)

Florida Storm Panels, Inc.
14475 N. W. 26th Avenue
Opa Locka, Florida 33054

SCOPE:

This NOA is being issued under the applicable rules and regulations governing the use of construction materials. The documentation submitted has been reviewed by Miami-Dade County Product Control Division and accepted by the Board of Rules and Appeals (BORA) to be used in Miami Dade County and other areas where allowed by the Authority Having Jurisdiction (AHJ).

This NOA shall not be valid after the expiration date stated below. The Miami-Dade County Product Control Division (In Miami Dade County) and/or the AHJ (in areas other than Miami Dade County) reserve the right to have this product or material tested for quality assurance purposes. If this product or material fails to perform in the accepted manner, the manufacturer will incur the expense of such testing and the AHJ may immediately revoke, modify, or suspend the use of such product or material within their jurisdiction. BORA reserves the right to revoke this acceptance, if it is determined by Miami-Dade County Product Control Division that this product or material fails to meet the requirements of the applicable building code.

This product is approved as described herein, and has been designed to comply with the High Velocity Hurricane Zone of the Florida Building Code.

DESCRIPTION: 0.060" Aluminum Storm Panels Shutter

APPROVAL DOCUMENT: Drawing No. 05-535, titled " 0.060" Aluminum Storm Panel ", sheets 1 through 4 of 4, prepared by Thornton-Tomasetti Group, dated January 06, 2006, last revision #0 dated January 06, 2006, signed and sealed by J. W. Knezevich, 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

LABELING: Each panel shall bear a permanent label with the manufacturer's name or logo, city, state and the 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** NOA # **02-0826.06** and consists of this page 1, evidence submitted pages E-1, E-2, & E-3 as well as approval document mentioned above.

The submitted documentation was reviewed by **Helmy A. Makar, P.E., M.S.**



Helmy A. Makar
 03/08/2007

NOA No 06-0110.02
Expiration Date: 08/26/2007
Approval Date: 03/08/2007
Page 1

Florida Storm Panels, Inc.

NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED

1. EVIDENCE SUBMITTED UNDER PREVIOUS APPROVAL # 96-0304.01

A. DRAWINGS

1. *Drawing No. 95-549, Florida Storm Panels, Inc. Storm Panel, Sheets 1 through 4 of 4 prepared by Knezevich & Associates Inc., dated 01/04/96, Revision No. 2, dated 06/06/96, signed and sealed by V.J. Knezevich, P.E.*

B. TESTS

1. *Test report on: Uniform Static Air Pressure Test, Impact Test, and Cyclic Wind Load Test prepared by Construction Testing Corporation, Report No. CTC-95-036, dated November 14, 1995, signed and sealed by Christopher G. Tyson, P.E.*

C. CALCULATIONS

1. *Comparative analysis and anchor calculations, dated 12/18/95, prepared by Knezevich & Associates Inc., signed and sealed by V.J. Knezevich, P.E.*

D. MATERIAL CERTIFICATIONS

1. *Mill Certified Inspection Reports issued by MSC Metals, dated 09/29/95.*
2. *Certified Tensile Test Report issued by QC Metallurgical, Inc., QCM Job No. 5KM-2636, dated November 15, 1995, signed and sealed by James Roese, P.E.*

2. EVIDENCE SUBMITTED UNDER PREVIOUS APPROVAL # 99-0726.01

A. DRAWINGS

1. *Drawing No. 99-230, titled "0.060" Aluminum Storm Panel", prepared by Knezevich & Associates, Inc., signed and sealed by V. J. Knezevich, P.E., dated July 19, 1999, last revision #2 dated August 5, 1999, sheets 1 through 4 of 4.*

B. TESTS

1. *None. See Product Approval # 96-0304.01.*

C. CALCULATIONS

1. *Anchor Calculations and details for 0.060" Aluminum Storm Panels, dated July 20, 1999, pages 1 through 28, prepared by Knezevich & Associates, Inc., signed and sealed by V.J. Knezevich, P.E.*

D. MATERIAL CERTIFICATIONS

1. *None. See Product Approval # 96-0304.01.*



Henry A. Makar, P. E., M.S.
Product Control Examiner
NOA No 06-0110.02
Expiration Date: 08/26/2007
Approval Date: 03/08/2007

Florida Storm Panels, Inc.

NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED

3. EVIDENCE SUBMITTED UNDER PREVIOUS APPROVAL # 02-0531.05

A. DRAWINGS

1. *Drawing No. 99-230, titled " 0.060" Aluminum Storm Panel ", sheets 1 through 4 of 4, prepared by Knezevich & Associates, Inc., dated July 19, 1999, last revision #4 dated May 23, 2002, signed and sealed by V. J. Knezevich, P.E.*

B. TESTS

1. *None.*

C. CALCULATIONS

1. *None.*

D. MATERIAL CERTIFICATIONS

1. *None.*

4. EVIDENCE SUBMITTED UNDER PREVIOUS APPROVAL # 02-0826.06

A. DRAWINGS

1. *None.*

B. TESTS

1. *None.*

C. CALCULATIONS

1. *None.*

D. MATERIAL CERTIFICATIONS

1. *None.*

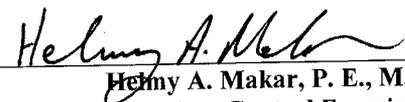
5. NEW EVIDENCE SUBMITTED

A. DRAWINGS

1. *Drawing No. 05-535, titled " 0.060" Aluminum Storm Panel ", sheets 1 through 4 of 4, prepared by Thornton-Tomasetti Group, dated January 06, 2006, last revision #0 dated January 06, 2006, signed and sealed by J. W. Knezevich, P.E.*

B. TESTS

1. *None.*



Henry A. Makar, P. E., M.S.
Product Control Examiner
NOA No 06-0110.02
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Florida Storm Panels, Inc.

NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED

C. CALCULATIONS

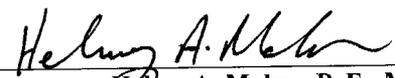
1. *Revised Anchor Calculations and details for 0.060" Aluminum Storm Panels, dated December 20, 2005, pages 1 through 24 of 24, prepared by Thornton-Tomasetti Group, signed and sealed by J. W. Knezevich, P.E.*

D. QUALITY ASSURANCE

1. *By Miami-Dade County Building Code Compliance Office.*

E. MATERIAL CERTIFICATIONS

1. *None.*

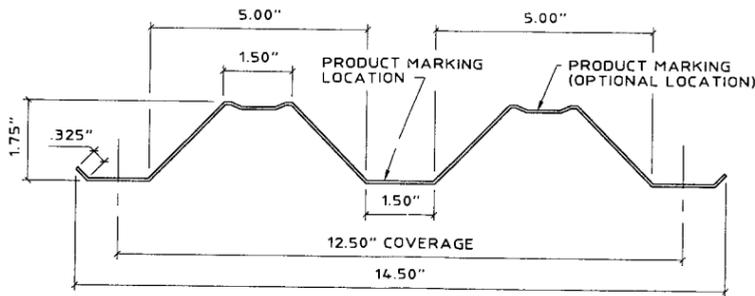


Helmy A. Makar, P. E., M.S.
Product Control Examiner
NOA No 06-0110.02
Expiration Date: 08/26/2007
Approval Date: 03/08/2007

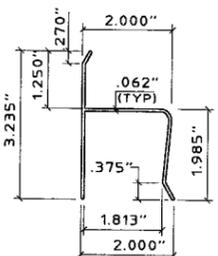
GENERAL NOTES:

1. THESE APPROVAL DOCUMENTS REPRESENT A SHUTTER SYSTEM ANALYZED WITH THE PROVISION SET FOR THE ISSUANCE OF A NOTICE OF ACCEPTANCE (NOA) BY MIAMI-DADE COUNTY PRODUCT CONTROL DIVISION FOR THE HIGH VELOCITY HURRICANE ZONE (HVHZ) OF THE FLORIDA BUILDING CODE 2004 WITH 2005 SUPPLEMENT.
2. NO INCREASE IN ALLOWABLE STRESS HAS BEEN USED IN THE DESIGN OF THIS PRODUCT. WIND LOAD DURATION FACTOR $C_d = 1.6$ WAS USED FOR WOOD SCREW DESIGN.
3. DETERMINE THE POSITIVE AND NEGATIVE DESIGN LOADS TO USE WHEN REFERENCING THESE DOCUMENTS IN ACCORDANCE WITH THE GOVERNING CODE AND GOVERNING WIND VELOCITY. FOR WIND LOAD CALCULATIONS IN ACCORDANCE WITH ASCE 7-02, A DIRECTIONALITY FACTOR OF $K_d = 0.85$ SHALL BE USED.
4. THESE APPROVAL DOCUMENTS ARE GENERIC AND DO NOT INCLUDE INFORMATION FOR SITE-SPECIFIC APPLICATION OF THIS SHUTTER SYSTEM.
5. USE OF THESE APPROVAL DOCUMENTS SHALL COMPLY WITH CHAPTER 61G15-23 OF THE FLORIDA ADMINISTRATIVE CODE.
6. THESE APPROVAL DOCUMENTS ARE SUITABLE TO BE APPLIED BY THE CONTRACTOR PROVIDED THE CONTRACTOR DOES NOT DEVIATE FROM THE CONDITIONS DETAILED HEREIN AND THE CONTRACTOR VERIFIES THAT THE EXISTING STRUCTURE DOES NOT DEVIATE IN EITHER FORM OR MATERIAL FROM THE STRUCTURAL SUBSTRATES DETAILED HEREIN.
7. ANY MODIFICATIONS OR ADDITIONS TO THESE APPROVAL DOCUMENTS WILL VOID THE APPROVAL DOCUMENTS.
8. WHEN THE SITE CONDITIONS DEVIATE FROM THESE APPROVAL DOCUMENTS, THE BUILDING OFFICIAL MAY ELECT ONE OF THE FOLLOWING OPTIONS:
 - A) REQUIRE THAT SITE SPECIFIC DOCUMENTS BE PREPARED, SIGNED, DATED AND SEALED BY A LICENSED ENGINEER OR REGISTERED ARCHITECT, WHICH DETAIL AND JUSTIFY THE DEVIATION. SAID DOCUMENTS SHALL BE SUBMITTED TO THE PRODUCT ENGINEER FOR REVIEW AS A CONDITION TO THE BUILDING OFFICIAL GRANTING HIS/HER APPROVAL.
 - B) REQUIRE THAT A ONE-TIME SITE SPECIFIC APPROVAL BE APPLIED FOR AND SECURED FROM THE MIAMI-DADE COUNTY PRODUCT CONTROL DIVISION
9. STORM PANELS SHALL BE 3003-H14 ALUMINUM ALLOY, 0.060" THICK, WITH A MIN. Fy. (BEFORE ROLLING) OF 21 KSI.
10. PRODUCT MARKINGS SHALL BE WITHIN 12" OF ONE END OF THE PANEL WITH A MINIMUM OF ONE MARKING PER PANEL AND SHALL BE PERMANENTLY LABELED AS FOLLOWS:

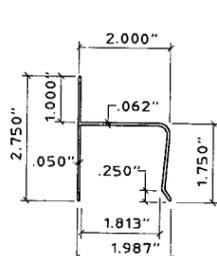
FLORIDA STORM PANELS, INC.
OPA LOCKA, FLORIDA
MIAMI-DADE COUNTY PRODUCT CONTROL APPROVED
11. ALL BOLTS AND WASHERS SHALL BE GALVANIZED OR STAINLESS STEEL WITH A MINIMUM TENSILE STRENGTH OF 60 KSI.
12. ALL EXTRUSIONS SHALL BE 6063-T6 ALUMINUM ALLOY, U.O.N
13. TOP & BOTTOM DETAILS SHOWN MAY BE INTERCHANGED AS FIELD CONDITIONS DICTATE. PANELS MAY BE MOUNTED HORIZONTALLY WHERE APPLICABLE, EXCEPT FOR "h" AND "u" HEADER MOUNTING CONDITIONS.
14. PANELS UTILIZING A STEEL TUBE SHALL BE FASTENED TO OVERLAPS AT MIDSPAN TO A 1" x 1" x 16 GAGE STEEL TUBE USING 1/4-20 x 3-1/2" BOLTS W/ DIE CAST ALUMINUM WASHED WINGNUTS OR JACKNUTS (SEE TYPICAL ELEVATION 15 & 16). PANELS NOT UTILIZING STEEL TUBE SHALL BE FASTENED AT OVERLAPS (12-1/2" O.C.) AT MIDSPAN W/ 1/4-20 x 1" MACHINE BOLTS WITH DIE CAST ALUMINUM WASHED WINGNUTS OR JACKNUTS (SEE TYPICAL ELEVATIONS 15 OR 16). FOR PANEL SPANS LESS THAN 33" OVERLAP FASTENERS & TUBE ARE NOT REQUIRED.
15. AT LEAST ONE WARNING NOTE PER OPENING SHALL BE PLACED IN A CONSPICUOUS LOCATION ON ANY OF THE COMPONENTS OF THE STORM PANELS SYSTEM ADVISING THE HOME OWNER OR TENANT THAT THE STORM PANELS WILL NOT OFFER HURRICANE PROTECTION UNLESS ALL REINFORCING BOLTS AND/OR STRAPS ARE PROPERLY INSTALLED WHEN REQUIRED. WARNING LABEL SHALL BE FASTENED WITH PERMANENT ADHESIVE OR MECHANICALLY.



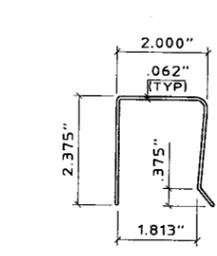
1 STORM PANEL
SCALE: 3" = 1'-0"



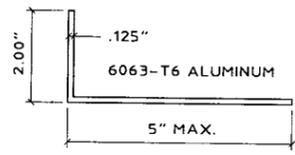
2 "h" HEADER
SCALE: 3" = 1'-0"



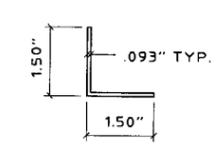
3 "h" HEADER
SCALE: 3" = 1'-0"



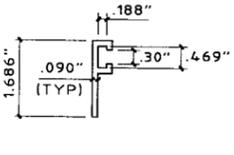
4 "u" HEADER
SCALE: 3" = 1'-0"



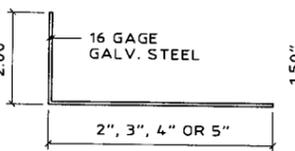
5a ANGLE
SCALE: 3" = 1'-0"



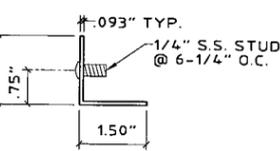
6 ANGLE
SCALE: 3" = 1'-0"



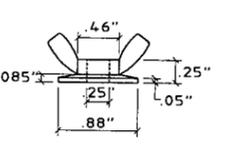
8 "F" TRACK
SCALE: HALF SIZE



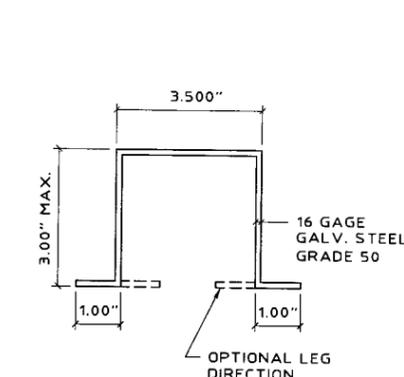
5 ANGLE
SCALE: 3" = 1'-0"



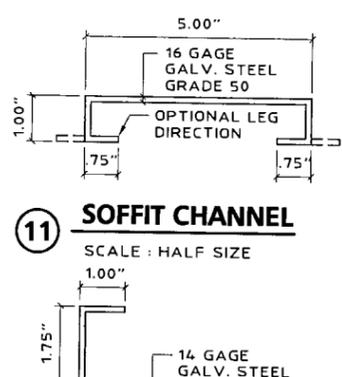
7 STUDDED ANGLE
SCALE: 3" = 1'-0"



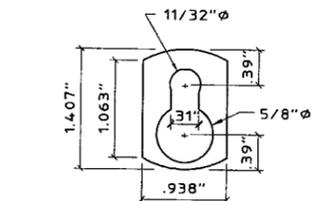
9 WINGNUT
SCALE: HALF SIZE



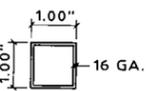
10 STANDARD CHANNEL
SCALE: HALF SIZE



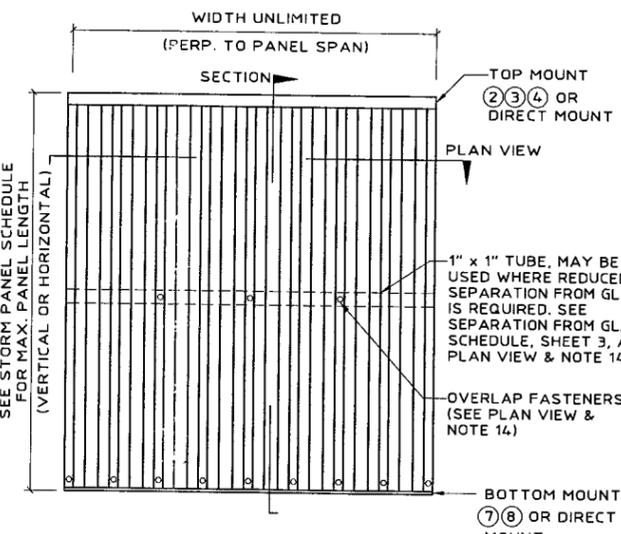
11 SOFFIT CHANNEL
SCALE: HALF SIZE



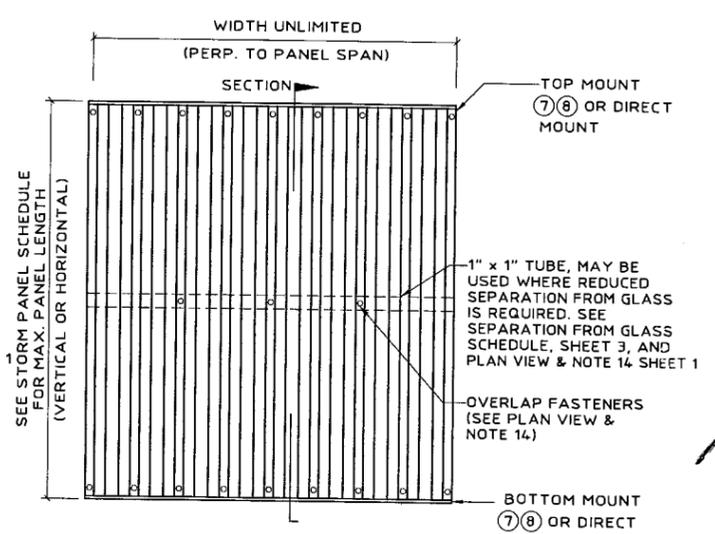
13 KEYHOLE WASHER
SCALE: HALF SIZE



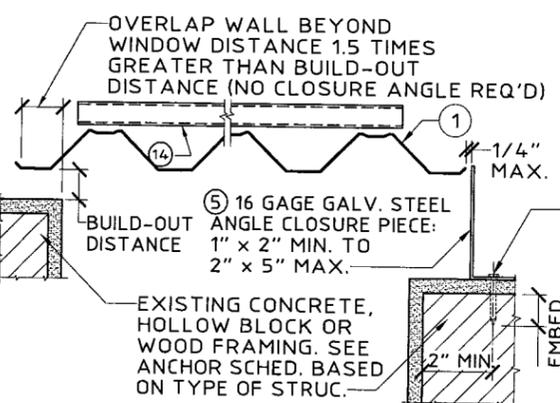
14 STEEL TUBE
SCALE: 3" = 1'-0"



15 TYPICAL ELEVATION (SYSTEM 1)
OVERLAP FASTENERS OR REINFORCING TUBE REQUIRED. TOP MOUNTS SHALL BE "h" OR "u" HEADERS OR DIRECT MOUNTS WITH ANCHORS @ 6-1/4" O.C. OR 12-1/2" O.C. BOTTOM MOUNTS SHALL BE "F" TRACK OR STUDDED ANGLES WITH STUDS @ 6-1/4" O.C. OR DIRECT MOUNTS WITH ANCHORS @ 6-1/4" O.C. OR 12-1/2" O.C.

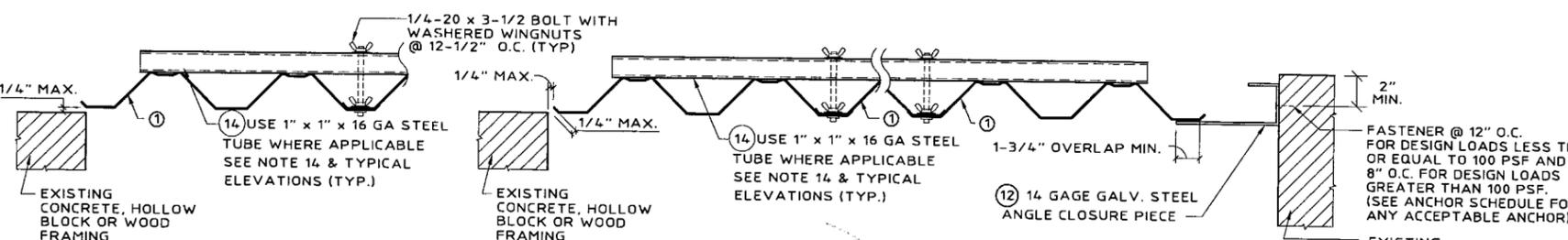


16 TYPICAL ELEVATION (SYSTEM 2)
OVERLAP FASTENERS OR REINFORCING TUBE REQUIRED. TOP & BOTTOM MOUNTS SHALL BE "F" TRACK OR STUDDED ANGLES WITH STUDS @ 6-1/4" O.C. OR DIRECT MOUNTS WITH ANCHORS @ 6-1/4" O.C.



PRODUCT REVISED
 as complying with the Florida Building Code
 Acceptance No. 06-0110.02
 Expiration Date 08/26/2007
 By Helmut A. Mahr
 Miami Dade Product Control Division

FASTENER @ 12" O.C. FOR DESIGN LOADS LESS THAN OR EQUAL TO 100 P.S.F. & @ 8" O.C. FOR DESIGN LOADS GREATER THAN 100 P.S.F. (SEE ANCHOR SCHED. FOR ANY ACCEPTABLE ANCHOR)



PLAN VIEW
SCALE: 1-1/2" = 1'-0"

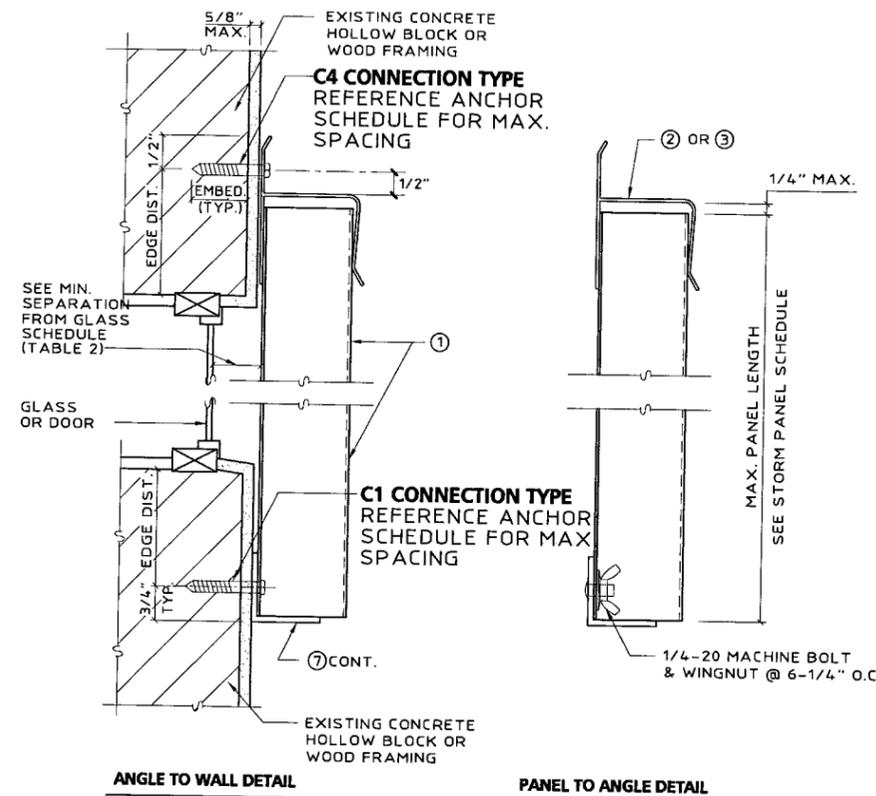
Thornton-Tomasetti Group
 330 N. Andrews Ave., Suite 450 • Ft. Lauderdale, FL 33301
 Tel. (954) 522-3690 • Fax (954) 522-3691 • COA # 7519
 Website: www.TheTTGroup.com
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0.060" ALUMINUM STORM PANEL
FLORIDA STORM PANELS, INC.
 14475 N.W. 26TH AVE.
 OPA LOCKA, FL 33054
 PHONE: (305) 685-9000
 FAX: (305) 685-7511

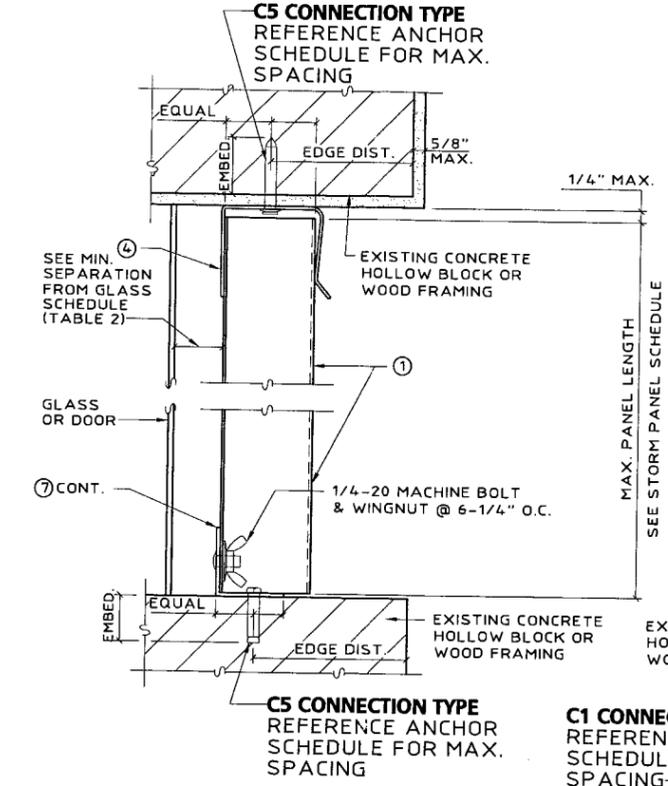
J.W. Knezevich
 Professional Engineer
 FL License No.: PE 0041961

no.	date	by	description
0	01/06/06	NW	PREVIOUSLY DRAWING NO. 99-230

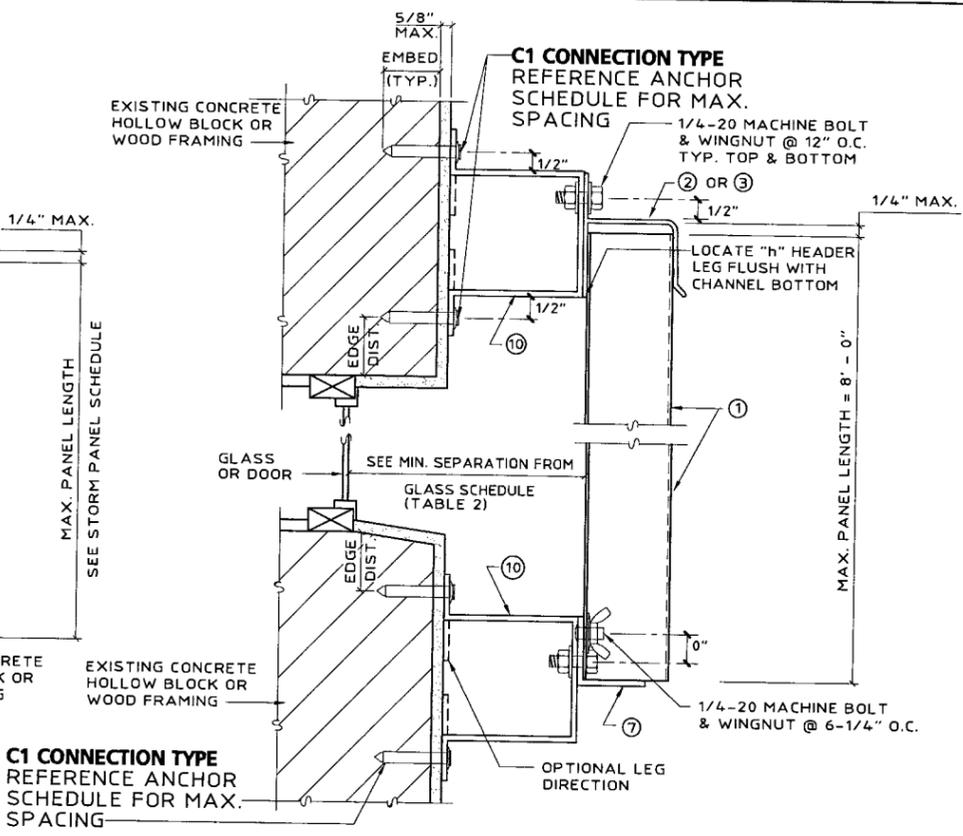
date: 01/06/2006
 scale: AS NOTED
 design by: NW
 drawn by: MCR
 checked by: VJK
 drawing no.: 05-535
 sheet 1 of 4



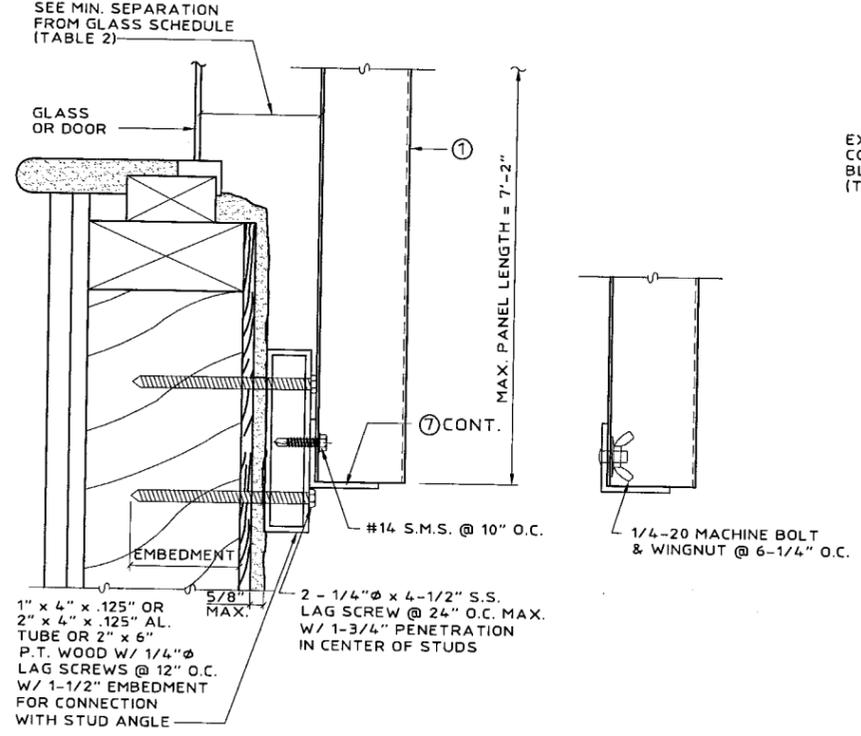
A WALL MOUNT SECTION
SCALE: 3" = 1'-0"



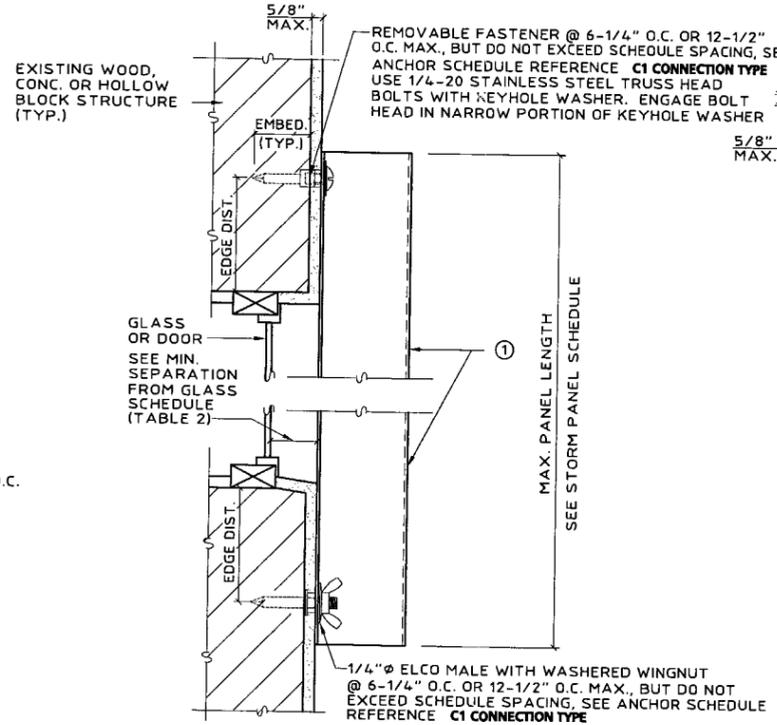
B CEILING/INSIDE MOUNT SECTION
SCALE: 3" = 1'-0"



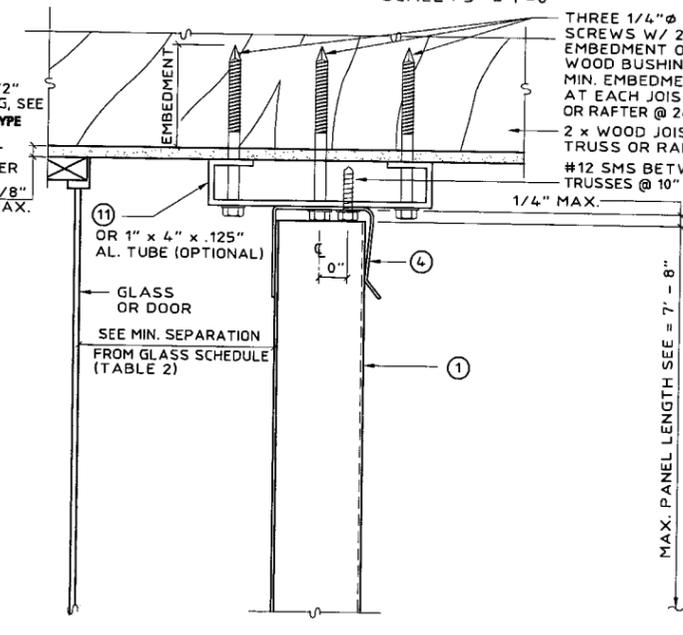
C BUILD-OUT MOUNT SECTION
SCALE: 3" = 1'-0"
NOTE: USE OF THIS DETAIL IS LIMITED TO ±72 PSF.



D WALL MOUNT SECTION (BOTTOM)
SCALE: 3" = 1'-0"
NOTE: USE OF THIS DETAIL IS LIMITED TO ±72 PSF.



E WALL MOUNT SECTION (DIRECT MOUNT)
SCALE: 3" = 1'-0"



F SOFFIT MOUNT DETAIL
SCALE: 3" = 1'-0"
NOTE: USE OF THIS DETAIL IS LIMITED TO ±80 PSF.

Thornton-Tomasetti Group
330 N. Andrews Ave., Suite 450 • Ft. Lauderdale, FL 33301
Tel. (954) 522-3690 • Fax (954) 522-3691 • COA # 7519
Website: www.TheTTGroup.com
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FAX: (305) 685-7511

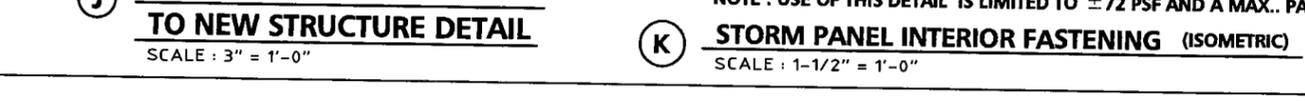
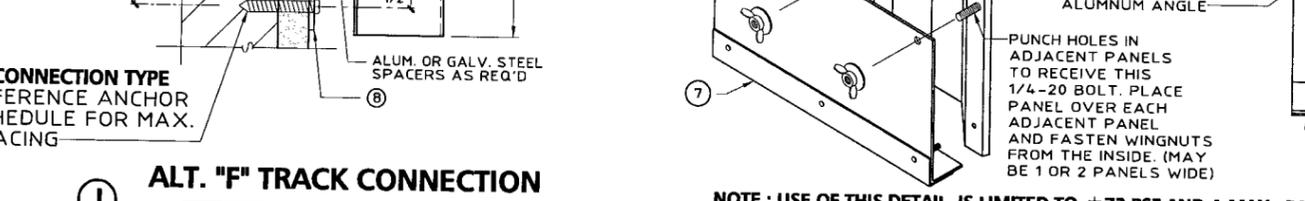
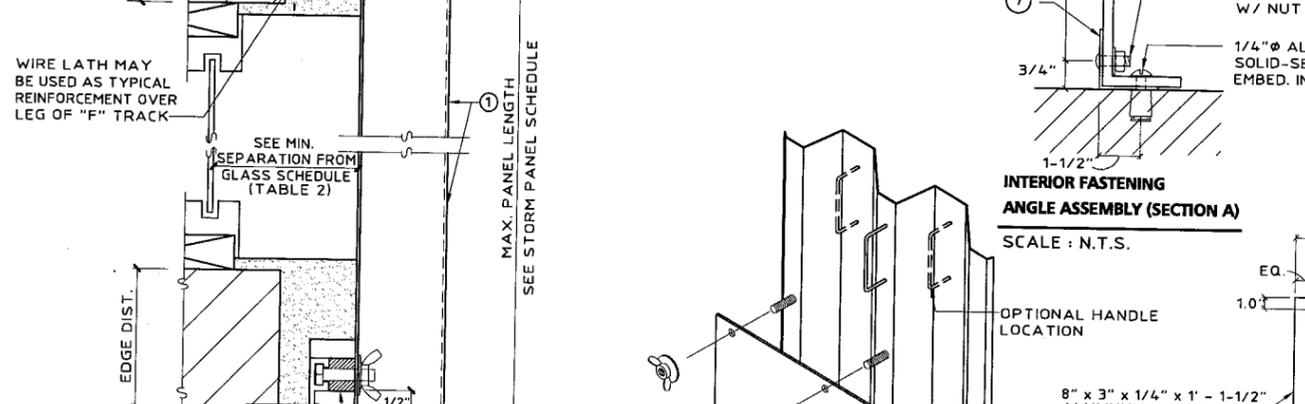
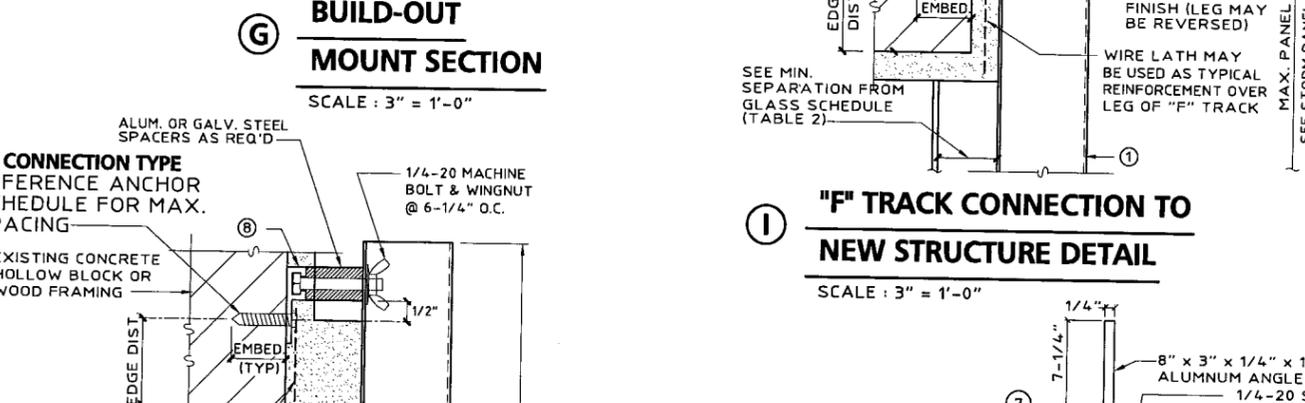
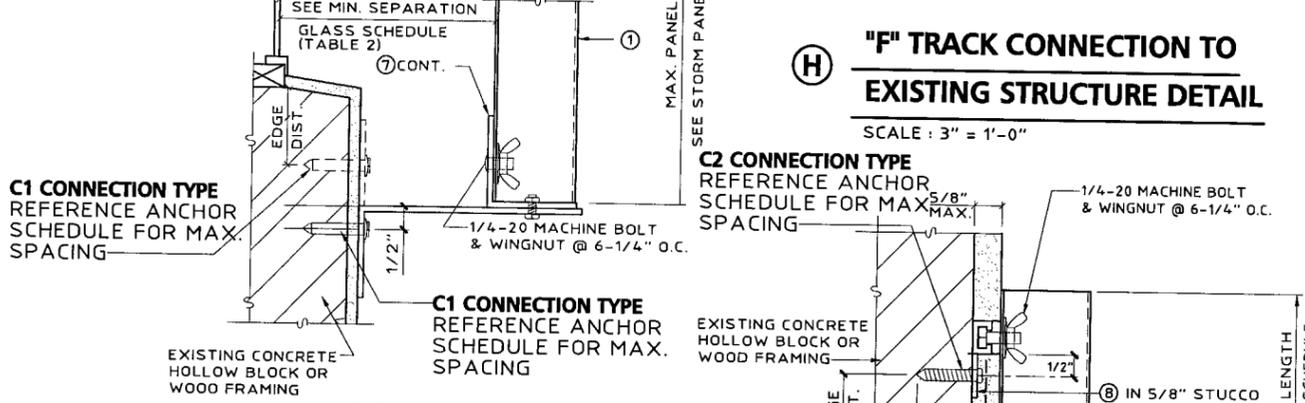
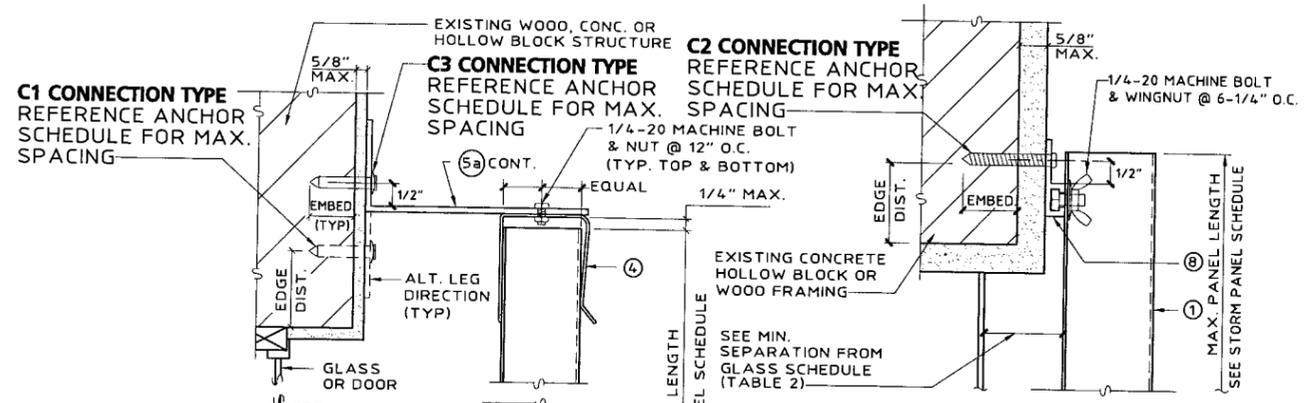
J.W. Kriezevich
Professional Engineer
FL License No.: PE 0641961

[Signature]
1/6/06

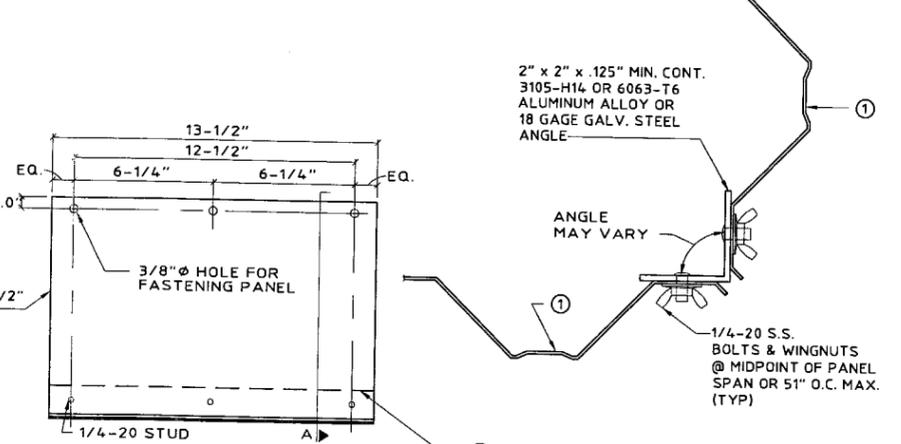
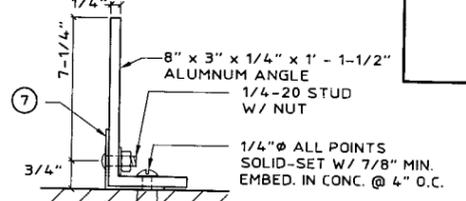
no.	date	by	description
0	01/06/06	NW	PREVIOUSLY DRAWING NO. 99-230

PRODUCT REVISED
as complying with the Florida Building Code
Acceptance No. 06-0110-02
Expiration Date 08/26/2007
By *[Signature]*
Miami Dept. Product Control Division

date	01/06/2006
scale	AS NOTED
drawn by	MCR
design by	NW
checked by	VJK
drawing no.	05-535
sheet	2 of 4



MIN. STORM PANEL SEPARATION FROM GLASS SCHEDULE				
TABLE 2 POSITIVE DESIGN LOAD (W) (PSF)	ACTUAL SHUTTER SPAN (L) (FT - IN)	MINIMUM SEPARATION FOR INSTALLATIONS 30' OR LESS ABOVE GRADE (INCHES)		MINIMUM SEPARATION FOR INSTALLATIONS GREATER THAN 30' ABOVE GRADE (INCHES)
		SYSTEMS 1 & 2		SYSTEMS 1 & 2
		MIDSPAN TUBE	MIDSPAN BOLTS	ALL CONDITIONS
40.0	3'-0"	2-1/4	3	1-1/4
	4'-0"	2-1/4	3	1-1/4
	5'-0"	2-1/4	3	1-3/8
	6'-0"	2-1/4	3	1-1/2
	7'-0"	2-1/4	3	1-5/8
50.0	3'-0"	2-1/4	3	1-1/4
	4'-0"	2-1/4	3	1-1/4
	5'-0"	2-1/4	3	1-3/8
	6'-0"	2-1/4	3	1-1/2
	7'-0"	2-1/4	3	1-3/4
60.0	3'-0"	2-1/4	3	1-1/4
	4'-0"	2-1/4	3	1-1/4
	5'-0"	2-1/4	3	1-3/8
	6'-0"	2-1/4	3	1-5/8
	7'-0"	2-1/4	3	1-7/8
70.0	3'-0"	2-1/4	3	1-5/8
	4'-0"	2-1/4	3	1-1/4
	5'-0"	2-1/4	3	1-3/8
	6'-0"	2-1/4	3	1-5/8
	7'-0"	2-1/4	3	2
	7'-9"	2-1/2	3	2-1/2



PRODUCT REVISED as complying with the Florida Building Code
 Acceptance No. 06-0110-02
 Expiration Date 08/26/2007
 By *Heather A. Mel...*
 Miami Dade Product Control Division

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0.060" ALUMINUM STORM PANEL

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 OPA LOCKA, FL 33054
 PHONE: (305) 685-9000
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J.W. Knezevich
 Professional Engineer
 FL License No.: PE 0041961

REVISIONS
 no. | date | by | description
 0 | 01/06/06 | NW | PREVIOUSLY DRAWING NO. 99-230

date: 01/06/2006

scale: AS NOTED

drawn by: MCR

design by: NW

checked by: VJK

drawing no.: 05-535

sheet 3 of 4

