



BUILDING CODE COMPLIANCE OFFICE
METRO-DADE FLAGLER BUILDING
140 WEST FLAGLER STREET, SUITE 1603
MIAMI, FLORIDA 33130-1563
(305) 375-2901 FAX (305) 375-2908

CONTRACTOR LICENSING SECTION
(305) 375-2527 FAX (305) 375-2558

CONTRACTOR ENFORCEMENT DIVISION
(305) 375-2966 FAX (305) 375-2908

PRODUCT CONTROL DIVISION
(305) 375-2902 FAX (305) 372-6339

PRODUCT CONTROL NOTICE OF ACCEPTANCE

Atlantic Shutters Inc.
15421 West Dixie Hwy. Bay 23
North Miami Beh ,FL 33162

Your application for Notice of Acceptance (NOA) of:

0.035" (min.) Galvanized Steel Storm Panels Shutter

under Chapter 8 of the Code of Miami-Dade County governing the use of Alternate Materials and Types of Construction, and completely described herein, has been recommended for acceptance by the Miami-Dade County Building Code Compliance Office (BCCO) under the conditions specified herein.

This NOA shall not be valid after the expiration date stated below. BCCO reserves the right to secure this product or material at any time from a jobsite or manufacturer's plant for quality control testing. If this product or material fails to perform in the approved manner, BCCO may revoke, modify, or suspend the use of such product or material immediately. BCCO reserves the right to revoke this approval, if it is determined by BCCO that this product or material fails to meet the requirements of the South Florida Building Code.

The expense of such testing will be incurred by the manufacturer.

Raul Rodriguez
Chief Product Control Division

ACCEPTANCE NO.: 01-0814.02
EXPIRES: 11/09/2006

**THIS IS THE COVERSHEET, SEE ADDITIONAL PAGES FOR SPECIFIC AND GENERAL
CONDITIONS
BUILDING CODE & PRODUCT REVIEW COMMITTEE**

This application for Product Approval has been reviewed by the BCCO and approved by the Building Code and Product Review Committee to be used in Miami-Dade County, Florida under the conditions set forth above.

Francisco J. Quintana, R.A.
Director
Miami-Dade County
Building Code Compliance Office

APPROVED: 10/04/2001



Atlantic Shutters, Inc.

ACCEPTANCE No. : 01-0814.02

APPROVED : 10/04/2001

EXPIRES : 11/09/2006

NOTICE OF ACCEPTANCE: SPECIFIC CONDITIONS

1. SCOPE

This renews the Notice of Acceptance No. 99-0208.01, which was approved on March 4, 1999. It approves a 0.035" (min.) galvanized steel storm panels shutter, as described in Section 2 of this Notice of Acceptance, designed to comply with the South Florida Building Code, 1994 Edition for Miami-Dade County, for the locations where the pressure requirements, as determined by SFBC Chapter 23, do not exceed the Design Pressure Rating values indicated in the approved drawings.

2. PRODUCT DESCRIPTION

This 0.035" (min.) galvanized steel storm panels shutter and its components shall be constructed in strict compliance with the following documents: Drawing No. 98-312, titled "20 Ga. Galvanized Steel Storm Panel", prepared by Knezevich & Associates, Inc., dated December 16, 1998, sheets 1 through 9 of 9, signed and sealed by V. J. Knezevich, P.E., bearing the Miami-Dade County Product Control approval and renewal stamps with the Notice of Acceptance numbers and approval dates by the Miami-Dade County Product Control Division. These documents shall hereinafter be referred to as the approved drawings.

3. LIMITATIONS

All permanent set components, included but not limited to embedded anchor bolts, threaded cones, metal shields, headers and sills, must be protected against corrosion, contamination and damage at all times.

4. INSTALLATION

This 0.035" (min.) galvanized steel storm panels shutter and its components shall be installed in strict compliance with the approved drawings.

5. 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".

6. BUILDING PERMIT REQUIREMENTS

6.1 Application for building permit shall be accompanied by copies of the following:

6.1.1 This Notice of Acceptance.

6.1.2 Duplicate copies of the approved drawings, as identified in Section 2 of this Notice of Acceptance, clearly marked to show the components selected for the proposed installation.

6.1.3 Any other documents required by the Building Official or the South Florida Building Code (SFBC) in order to properly evaluate the installation of this system.



Helmy A. Makar, P. E. - Product Control Examiner
Product Control Division

Atlantic Shutters, Inc.

ACCEPTANCE No. : 01-0814.02

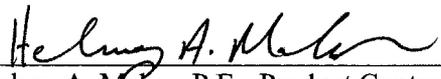
APPROVED : 10/04/2001

EXPIRES : 11/09/2006

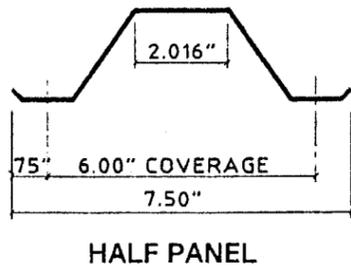
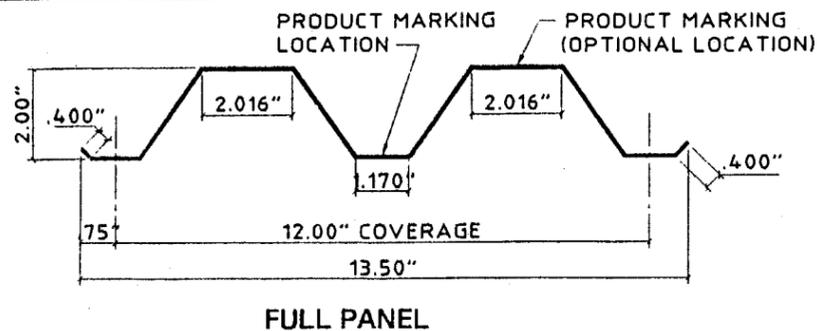
NOTICE OF ACCEPTANCE: STANDARD CONDITIONS

1. Renewal of this Acceptance (approval) shall be considered after a renewal application has been filed and the original submitted documents, including test-supporting data, engineering documents, are no older than eight (8) years.
2. Any and all approved products shall be permanently labeled with the manufacturer's name, city, state, and the following statement: "Miami-Dade County Product Control Approved", or as specifically stated in the specific conditions of this Acceptance.
3. Renewals of Acceptance will not be considered if:
 - a. There has been a change in the South Florida Building Code affecting the evaluation of this product and the product is not in compliance with the code changes.
 - b. The product is no longer the same product (identical) as the one originally approved.
 - c. If the Acceptance holder has not complied with all the requirements of this acceptance, including the correct installation of the product.
 - d. The engineer, who originally prepared, signed and sealed the required documentation initially submitted, is no longer practicing the engineering profession.
4. Any revision or change in the materials, use, and/or manufacture of the product or process shall automatically be cause for termination of this Acceptance, unless prior written approval has been requested (through the filing of a revision application with appropriate fee) and granted by this office.
5. Any of the following shall also be grounds for removal of this Acceptance:
 - a. Unsatisfactory performance of this product or process.
 - b. Misuse of this Acceptance as an endorsement of any product, for sales, advertising or any other purposes.
6. The Notice of Acceptance 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 Notice of Acceptance is displayed, then it shall be done in its entirety.
7. A copy of this Acceptance as well as approved drawings and other documents, where it applies, shall be provided to the user by the manufacturer or its distributors and shall be available for inspection at the job site at all time. The engineer needs not reseal the copies.
8. Failure to comply with any section of this Acceptance shall be cause for termination and removal of Acceptance.
9. This Notice of Acceptance consists of pages 1, 2 and this last page 3.

END OF THIS ACCEPTANCE

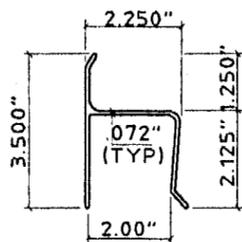


Helmy A. Makar, P.E. -Product Control Examiner
Product Control Division



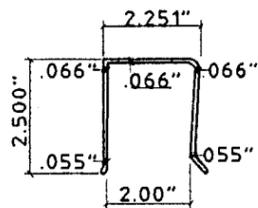
① STORM PANEL

SCALE: 3" = 1'-0"



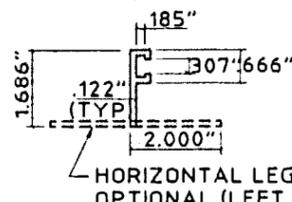
② "h" HEADER

SCALE: 3" = 1'-0"



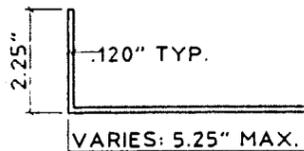
③ "U" HEADER

SCALE: 3" = 1'-0"



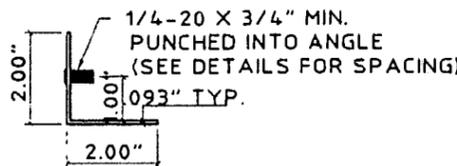
④ OPTIONAL ANGLE

SCALE: 3" = 1'-0"



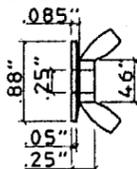
⑤ ANGLE

SCALE: 3" = 1'-0"



⑥ STUDDED ANGLE

SCALE: 3" = 1'-0"



⑦ WASHERED WINGNUT

SCALE: HALF SIZE

FASTENER @ 12" O.C. FOR DESIGN LOADS LESS THAN OR EQUAL TO 100 PSF & @ 6" O.C. FOR DESIGN LOADS GREATER THAN 100 PSF & LESS THAN OR EQUAL TO 200 PSF.

OVERLAP FASTENERS TYP. (SEE NOTE # 6)
ALUM. ANGLE CLOSURE PIECE: 1" x 2" x .125" MIN. TO 2" x 5" x .125" MAX.

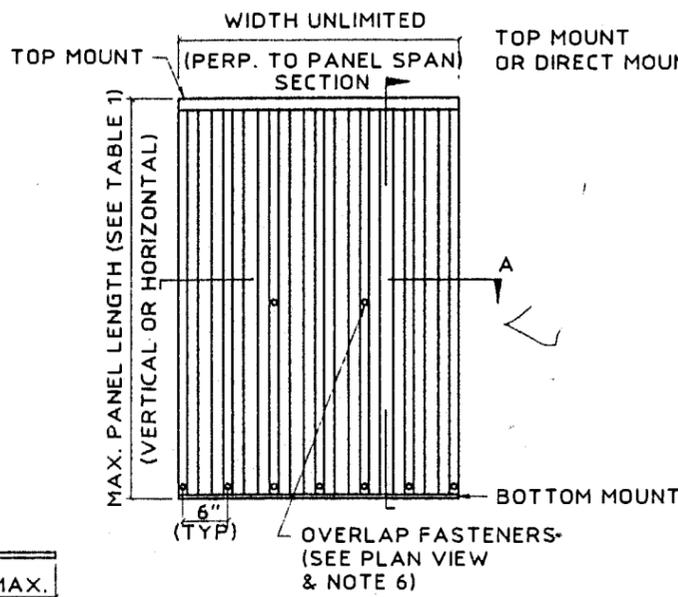
EXISTING CONCRETE, HOLLOW BLOCK OR WOOD FRAMING. (SEE ANCHOR SCHED. BASED ON TYPE OF STRUCTURE)

EXISTING CONCRETE, HOLLOW BLOCK OR WOOD FRAMING. (SEE ANCHOR SCHED. BASED ON TYPE OF STRUCTURE)

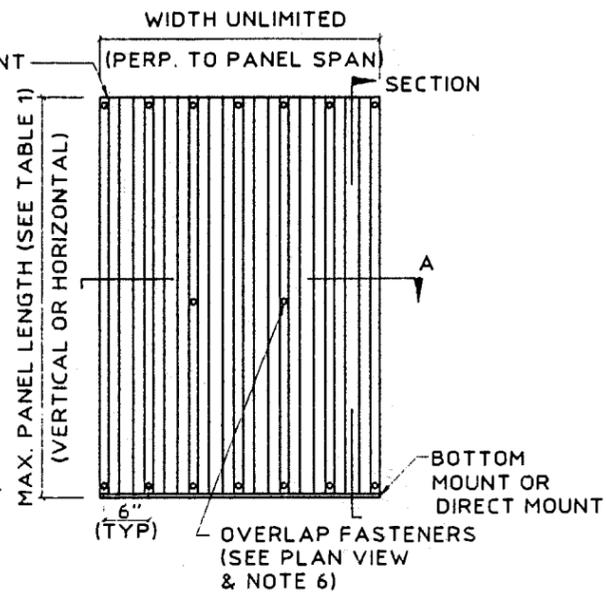
ALUM. ANGLE CLOSURE PIECE: CONTINUOUS FROM TOP TRACK THROUGH BOTTOM TRACK 1" x 2" x .125" MIN. TO 2" x 5" x .125" MAX.

SECTION A

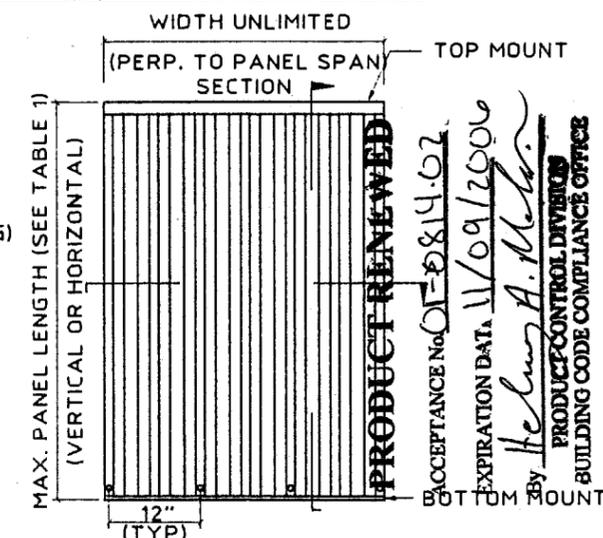
SCALE: 1-1/2" = 1'-0"



TYPICAL ELEVATION - TYPE I

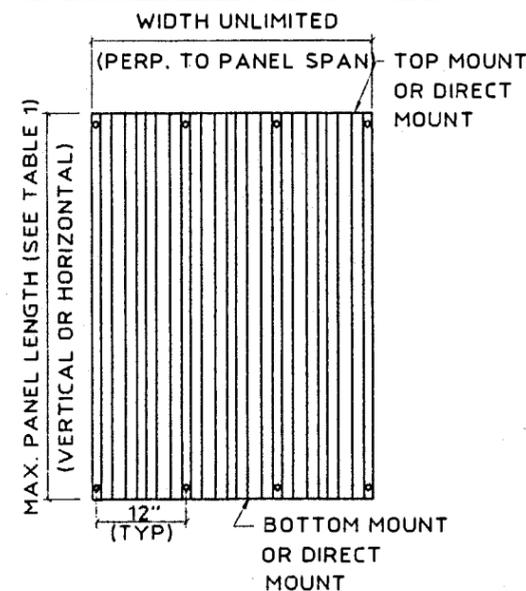


TYPICAL ELEVATION - TYPE II



TYPICAL ELEVATION - TYPE III

(NO BOLTS REQUIRED TO HOLD PANEL SEAMS TOGETHER FOR THESE MOUNTING CONDITIONS.)



TYPICAL ELEVATION - TYPE IV

GENERAL NOTES:

- THIS SHUTTER SYSTEM IS DESIGNED IN ACCORDANCE WITH THE SOUTH FLORIDA BUILDING CODE 1994 EDITION.
- POSITIVE AND NEGATIVE DESIGN PRESSURE CALCULATIONS SHALL BE PERFORMED FOR SPECIFIC JOBS IN ACCORDANCE WITH ASCE 7-88 "MINIMUM DESIGN LOADS FOR BUILDINGS AND OTHER STRUCTURES". TABLES SHALL BE REFERENCED AT THE APPROPRIATE DESIGN LOADS.
- STORM PANELS SHALL BE 20 GAUGE STEEL (t = .035") CONFORMING TO ASTM A653, STRUCTURAL QUALITY, GRADE 50, G60 GALVANIZED COATING. ALUMINUM EXTRUSIONS SHALL BE 6063-T6, U.O.N.
- PRODUCT MARKINGS SHALL BE WITHIN 12" OF ONE END OF THE PANEL WITH A MIN. OF ONE MARKING PER PANEL, AND SHALL BE LABELED AS FOLLOWS:
ATLANTIC SHUTTERS, INC.
NORTH MIAMI BEACH, FL
MIAMI-DADE COUNTY PRODUCT CONTROL APPROVED
- ALL BOLTS AND WASHERS SHALL BE GALVANIZED OR STAINLESS STEEL WITH A MINIMUM TENSILE STRENGTH OF 60 K.S.I.
- TYPE I & II PANELS LESS THAN OR EQUAL TO 88" IN HEIGHT SHALL BE FASTENED AT OVERLAPS AT MIDSPAN W/ 1/4-20 x 1" SIDEWALK BOLTS W/ DIE CAST ALUMINUM WASHERED WINGNUTS (SEE TYPICAL ELEVATIONS). TYPE I & II PANEL SPANS GREATER THAN 88" BUT LESS THAN 144" USE FASTENERS AT 1/3 SPANS. FOR TYPE I & II PANEL SPANS LESS THAN 33" FASTENERS ARE NOT REQUIRED. TYPE III & IV, NO BOLTS AT PANEL OVERLAPS ARE REQUIRED.
- MATERIAL SPECIFICATIONS NOTED HEREIN ARE THE MANUFACTURER'S REPRESENTATION OF MATERIALS USED IN PRODUCT TESTING.
- THE DETAILS AND SPECIFICATIONS SHOWN HEREIN REPRESENT THE PRODUCTS TESTED FOR IMPACT, CYCLIC AND UNIFORM STATIC AIR PRESSURE TESTING IN CONFORMANCE WITH DADE COUNTY PROTOCOLS PA 201, 203, AND 202.
REFERENCE CONSTRUCTION TESTING CORPORATION (CTC) TEST REPORTS No. 95-007, No. 95-026, 96-006 AND 96-006R.
- TOP & BOTTOM DETAILS SHOWN MAY BE INTERCHANGED AS FIELD CONDITIONS DICTATE. PANELS MAY BE MOUNTED HORIZONTALLY WHERE APPLICABLE.
- ANCHORS SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS. EMBEDMENT LENGTHS SHALL BE AS NOTED AND DO NOT INCLUDE STUCCO OR OTHER FINISHES.
- AT LEAST ONE WARNING NOTE PER OPENING SHALL BE PLACED IN A CONSPICUOUS LOCATION ON ANY OF THE COMPONENTS OF STORM PANEL SYSTEM ADVISING THE HOME OWNER OR TENANT THAT THE STORM PANELS WILL NOT OFFER HURRICANE PROTECTION UNLESS ALL REINFORCING BOLTS ARE PROPERLY INSTALLED AS SHOWN ON THESE APPROVED DRAWING.



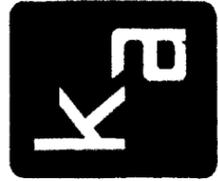
KNEZEVICH & ASSOCIATES, INC.
CONSULTING ENGINEERS • PRODUCT TESTING
641 MOKENA DRIVE • MIAMI SPRINGS, FLORIDA 33166
MIAMI (305) 883-9571 FT. LAUDERDALE (954) 677-9500
FAX: (305) 883-9572
COPYRIGHT 1998 KNEZEVICH & ASSOCIATES, INC.

20 GA. GALVANIZED
STEEL STORM PANEL
ATLANTIC SHUTTERS, inc.
15421 West Dixie
Highway Bay 23
North Miami Beach,
Florida 33162
ph: (305) 945-7277
fax: (305) 945-1131

no.	date	description

V.J. KNEZEVICH
PROFESSIONAL ENGINEER
FL License No:
PE 0010983
FEB 03 1999
date 12/16/98
scale AS NOTED drawn by MC
design by VJK checked by VJK
drawing no. 98-312
sheet 1 of 9

99-0208.01



KNEZEVICH & ASSOCIATES, INC.
CONSULTING ENGINEERS - PRODUCT TESTING
6411 MOKENA DRIVE-MIAMI SPRINGS, FLORIDA 33166
MIAMI (305) 883-9571 FT. LAUDERDALE (954) 677-9500
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15421 West Dixie Highway Bay 23
North Miami Beach, Florida 33162
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fax: (305) 945-1131
ATLANTIC SHUTTERS, inc.

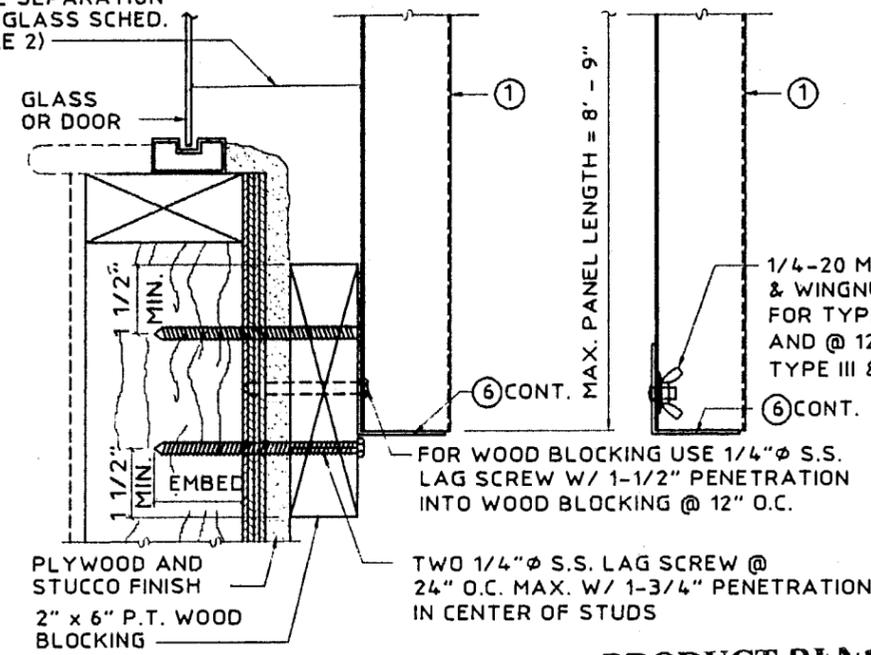
revisions	no.	date	description

V.J. KNEZEVICH
PROFESSIONAL ENGINEER
FL License No:
PE 000963

APPROVED AS COMPLYING WITH THE SOUTH FLORIDA BUILDING CODE
DATE March 04 1999
BY Helmut A. Melen
PRODUCT CONTROL DIVISION
BUILDING CODE COMPLIANCE OFFICE
ACCEPTANCE NO. 99-0208-01

FEB 03 1999
date 12/16/98
scale AS NOTED drawn by MC
design by VJK checked by VJK
drawing no. 98-312
sheet 3 of 9

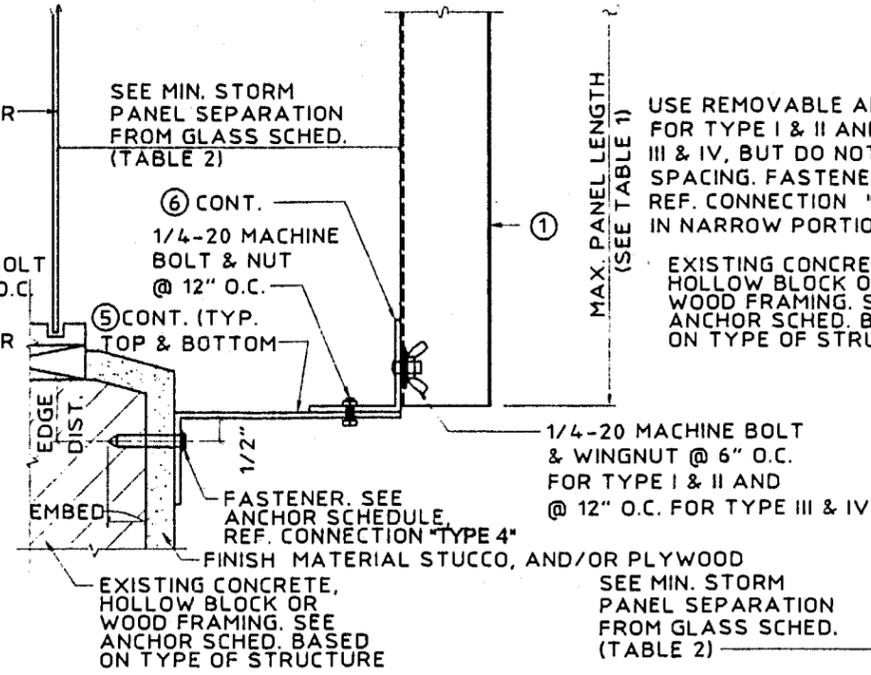
SEE MIN. STORM PANEL SEPARATION FROM GLASS SCHED. (TABLE 2)



(F) WALL MOUNT SECTION (BOTTOM)
SCALE: 3" = 1'-0"

PRODUCT RENEWED
ACCEPTANCE No. 01-0814-02
EXPIRATION DATE: 11/09/2006
By Helmut A. Melen
PRODUCT CONTROL DIVISION
BUILDING CODE COMPLIANCE OFFICE

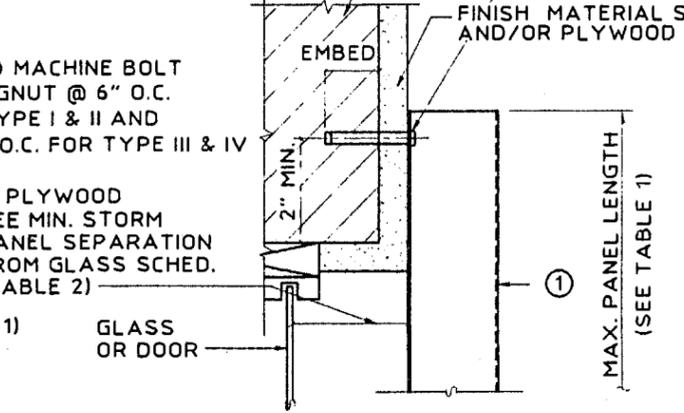
SEE MIN. STORM PANEL SEPARATION FROM GLASS SCHED. (TABLE 2)



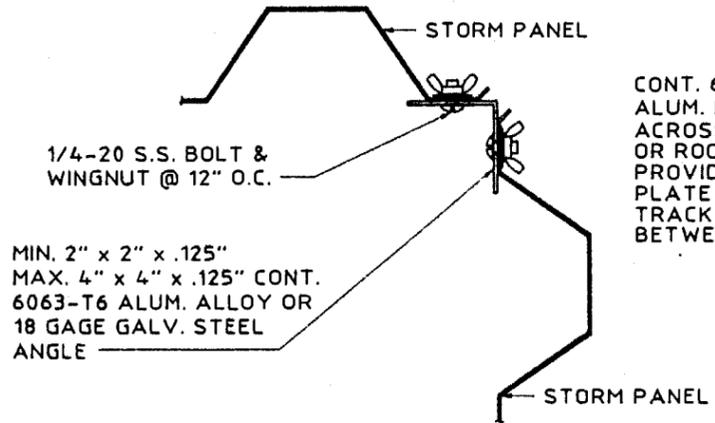
(G) ALT. BUILD-OUT MOUNT SECTION
SCALE: 3" = 1'-0"

USE REMOVABLE ANCHORS ONLY @ 6" O.C. MAX. FOR TYPE I & II AND @ 12" O.C. MAX. FOR TYPE III & IV, BUT DO NOT EXCEED ANCHOR SCHEDULE SPACING. FASTENER SEE ANCHOR SCHEDULE REF. CONNECTION "TYPE 1" (LOCATE FASTENER IN NARROW PORTION OF KEYHOLE SLOT)

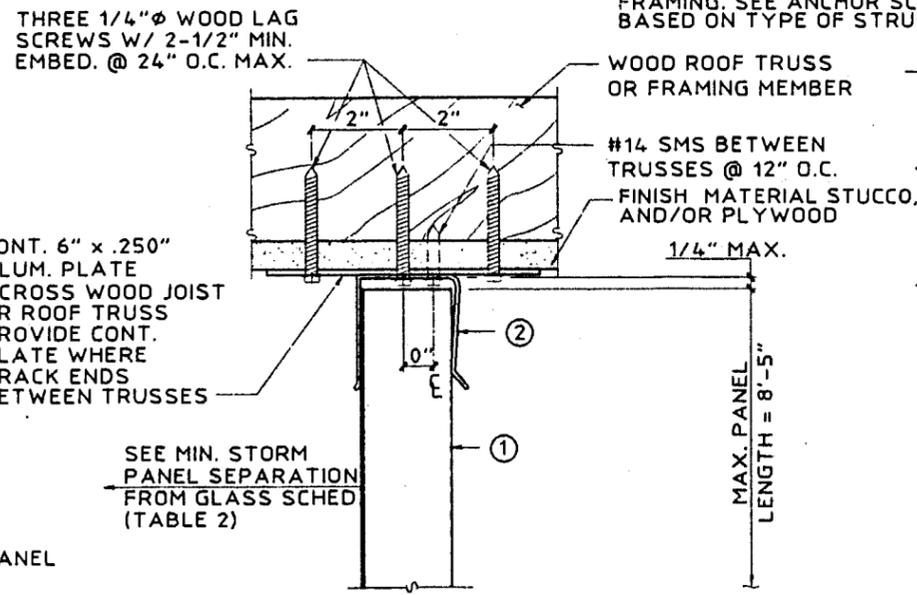
EXISTING CONCRETE, HOLLOW BLOCK OR WOOD FRAMING. SEE ANCHOR SCHED. BASED ON TYPE OF STRUCTURE



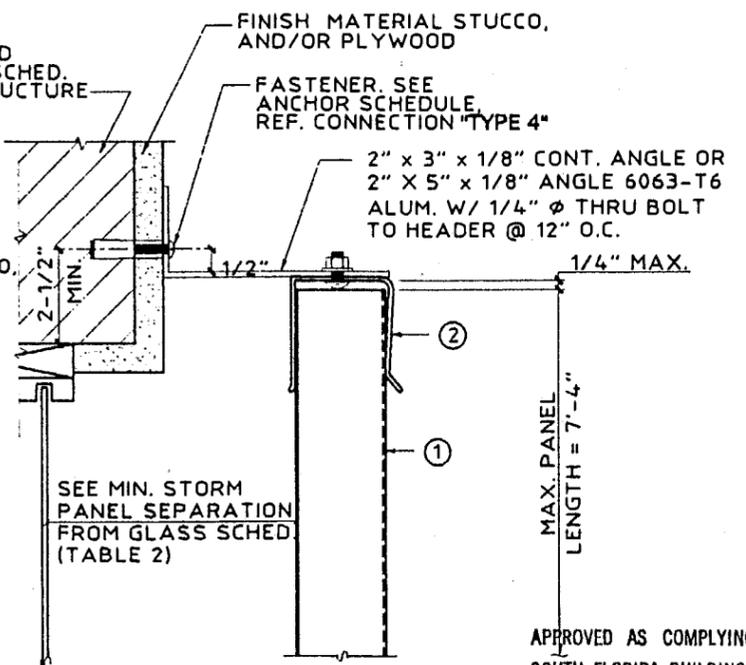
(H) DIRECT MOUNT DETAIL
SCALE: 3" = 1'-0"



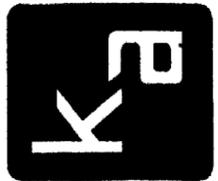
(I) CORNER DETAIL
SCALE: 3" = 1'-0"



(J) SOFFIT CONNECTION DETAIL
SCALE: 3" = 1'-0"



(K) ANGLE BUILD-OUT
SCALE: 3" = 1'-0"



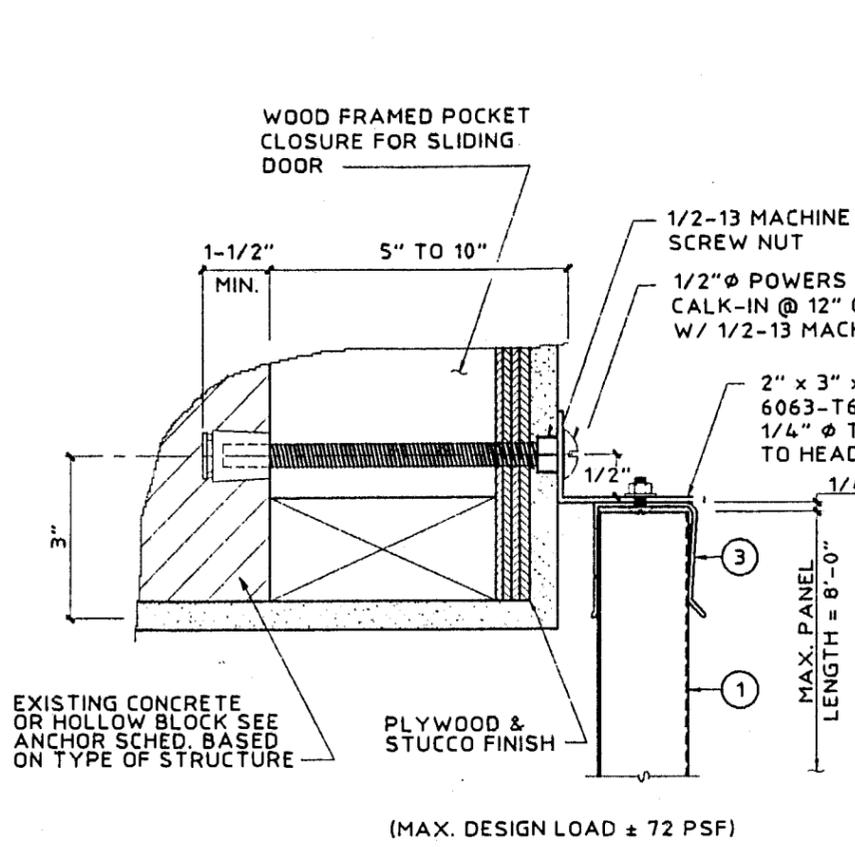
KNEZEVICH & ASSOCIATES, INC.
 CONSULTING ENGINEERS - PRODUCT TESTING
 641 MOKENA DRIVE-MIAMI SPRINGS, FLORIDA 33166
 MIAMI (305) 883-9571 FT. LAUDERDALE (954) 677-9500
 FAX: (305) 883-9572
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20 GA. GALVANIZED STEEL STORM PANEL
 15421 West Dixie Highway Bay 23
 North Miami Beach, Florida 33162
 Tel: (305) 945-7277 Fax: (305) 945-1131
ATLANTIC SHUTTERS, inc.

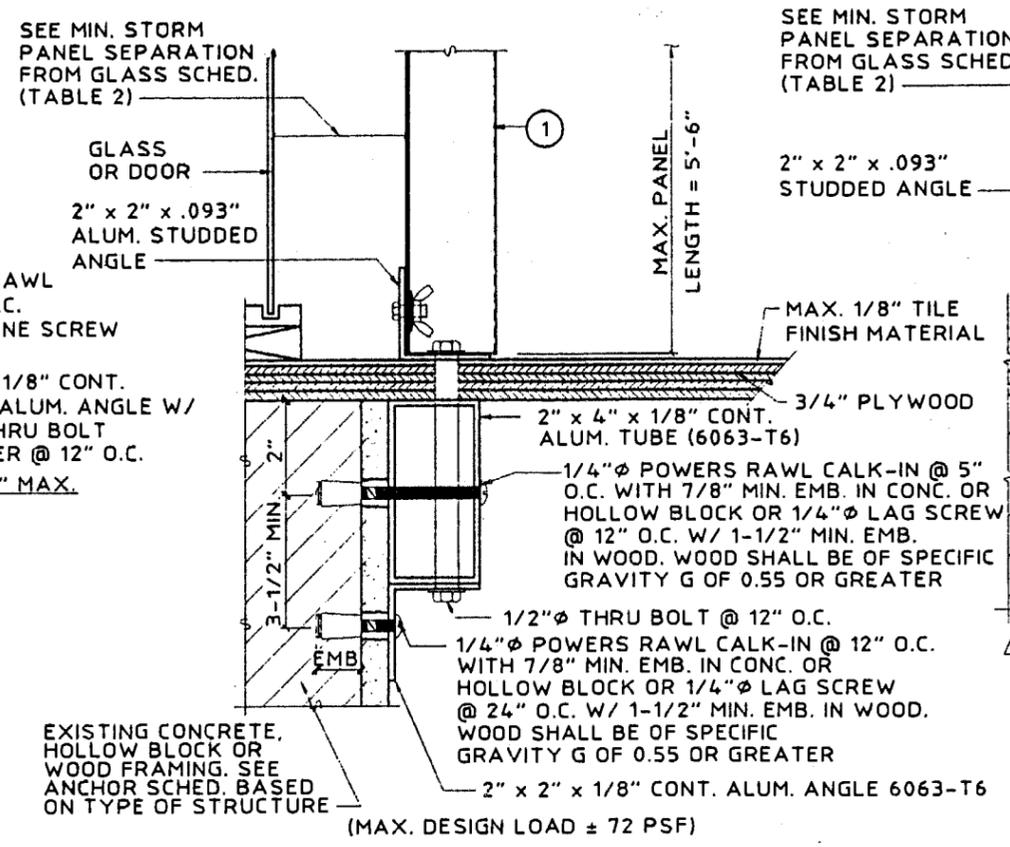
no	date	description

V.J. KNEZEVICH
 PROFESSIONAL ENGINEER
 FL License No. PE 0070983

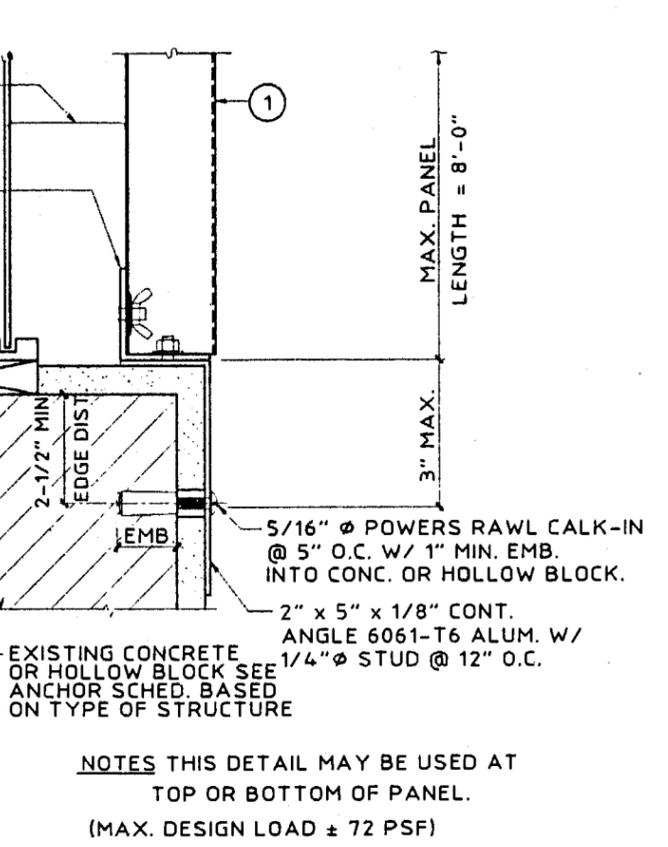
FEB 03 1999
 date 12/16/98
 scale AS NOTED drawn by MC
 design by VJK checked by VJK
 drawing no. 98-312
 sheet 4 of 9



L POCKET DOOR DETAIL
 SCALE: 3" = 1'-0"

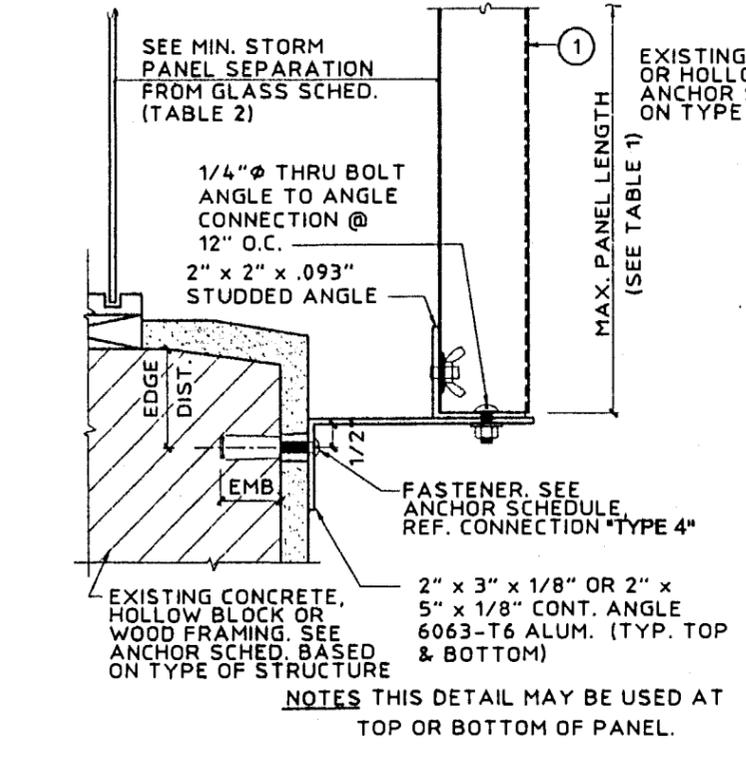


M "PASS THRU" DETAIL
 SCALE: 3" = 1'-0"

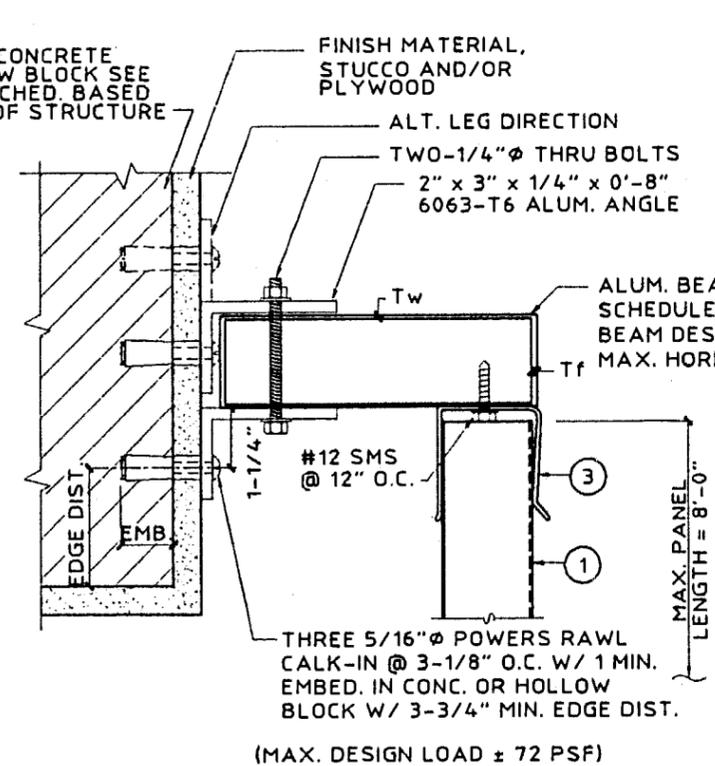


N EDGE MOUNT DETAIL
 SCALE: 3" = 1'-0"

NOTES THIS DETAIL MAY BE USED AT TOP OR BOTTOM OF PANEL.
 (MAX. DESIGN LOAD ± 72 PSF)

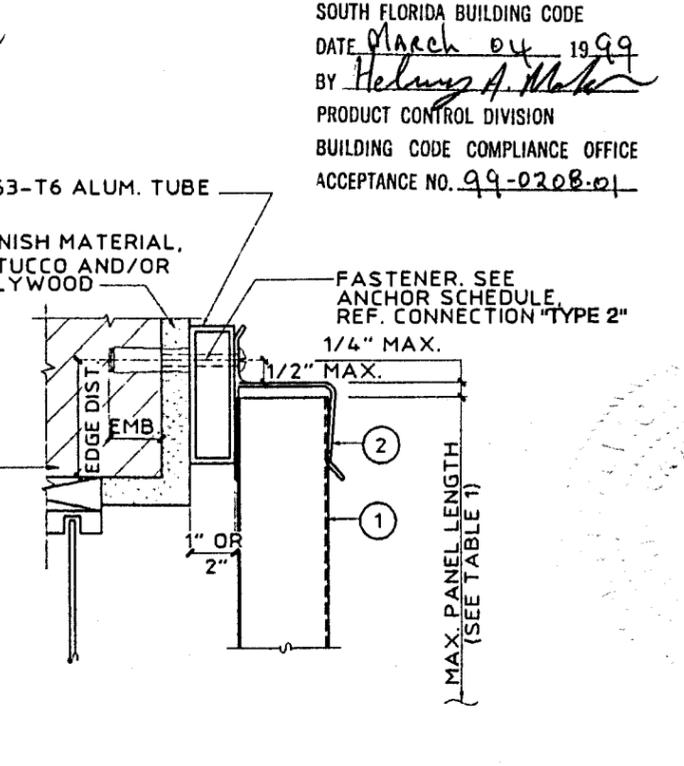


O ANGLE BUILD-OUT
 SCALE: 3" = 1'-0"

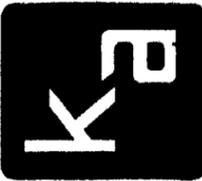


P HEADER MOUNT DETAIL
 SCALE: 3" = 1'-0"

BEAM SCHEDULE		
DESCRIPTION	PANEL LENGTH	BEAM SPAN
2" x 5"	5'-0"	9'-5"
Tw = .125"	8'-0"	8'-1"
Tf = .125"	8'-0"	8'-1"



Q HEADER MOUNT DETAIL
 SCALE: 3" = 1'-0"

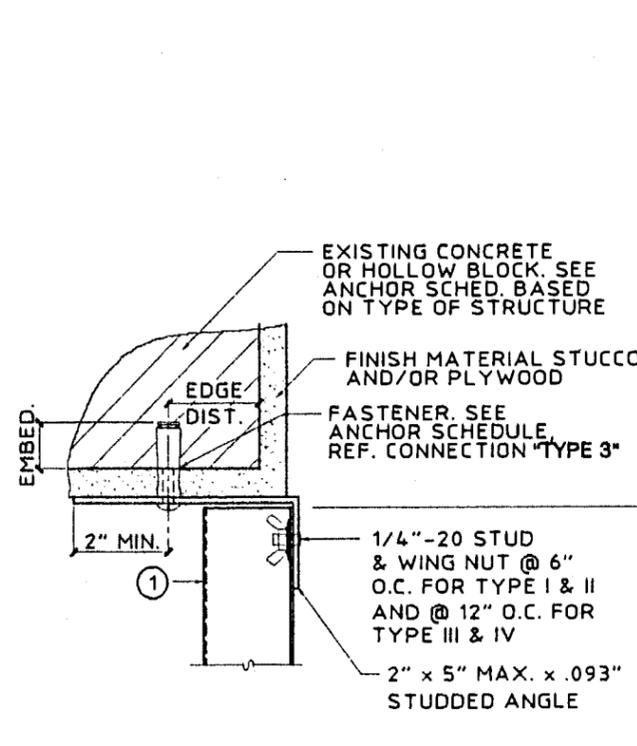


KNEZEVICH & ASSOCIATES, INC.
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 641 MOKENA DRIVE - MIAMI SPRINGS, FLORIDA 33166
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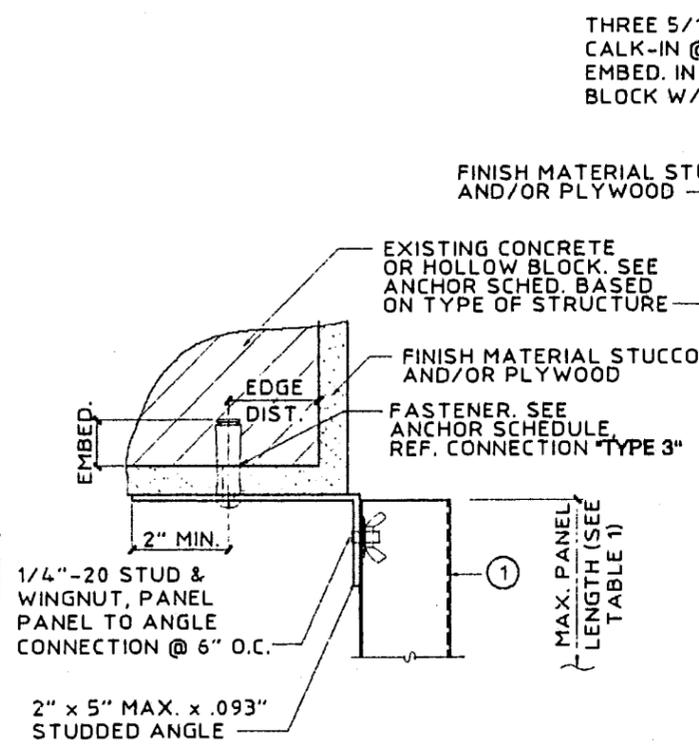
20 GA. GALVANIZED STEEL STORM PANEL
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no.	date	description

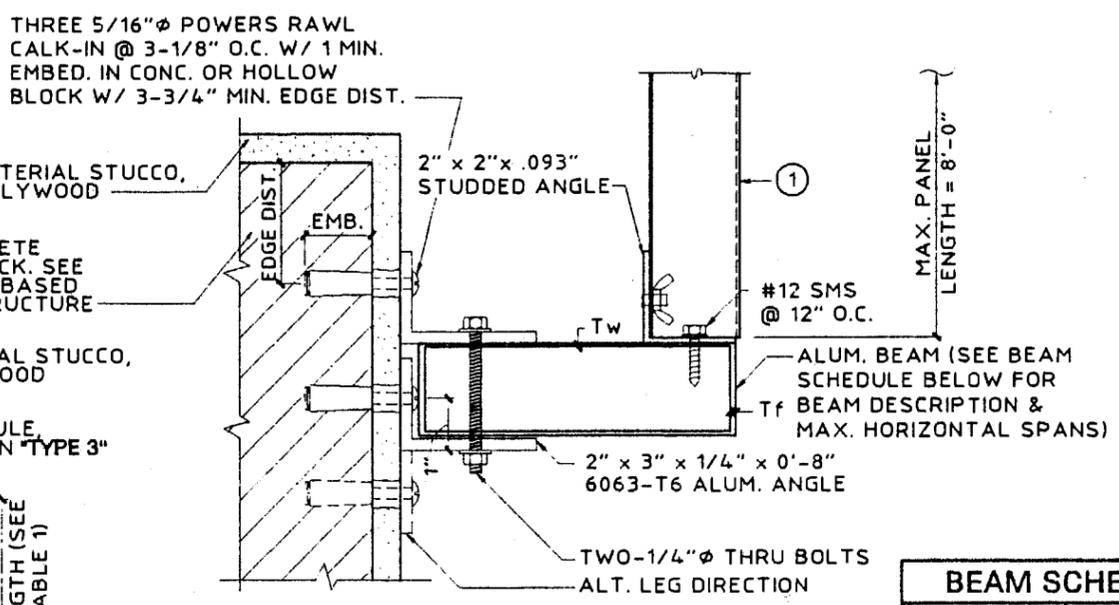
V.J. KNEZEVICH
 PROFESSIONAL ENGINEER
 FL License No: PE 0040983
 FEB 03 1999
 date 12/16/98
 AS NOTED drawn by MC
 design by VJK checked by VJK
 drawing no. 98-312
 sheet 5 of 9



(R) TRAP MOUNT DETAIL
 SCALE: 3" = 1'-0"



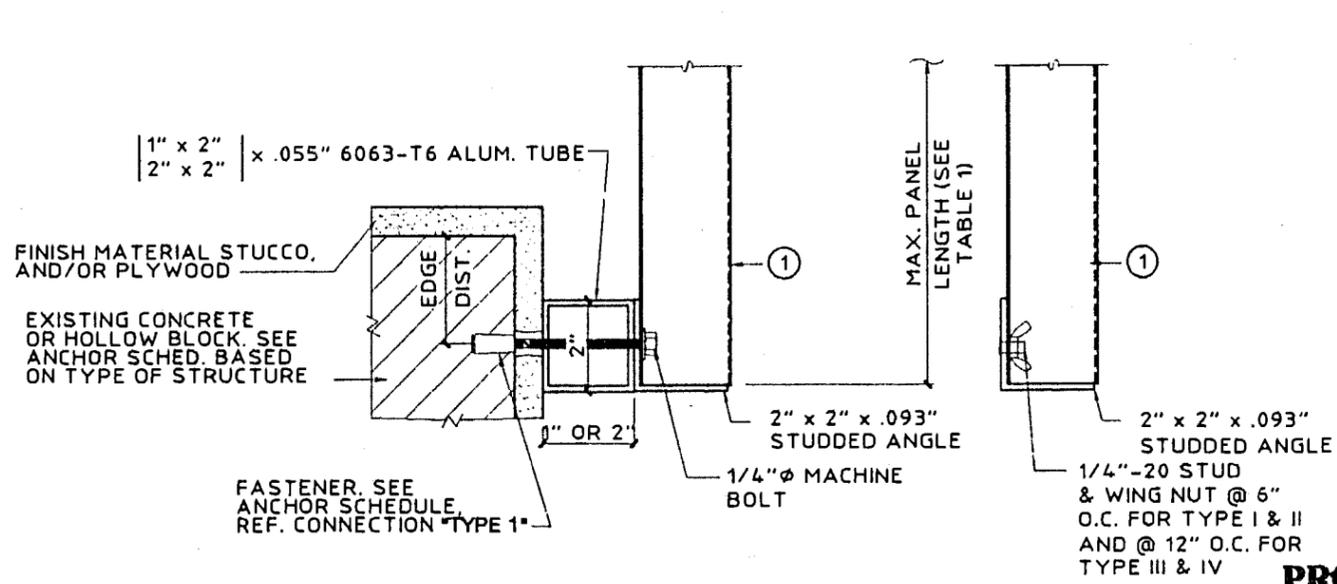
(S) ALT. TRAP MOUNT DETAIL
 SCALE: 3" = 1'-0"



NOTE: THIS DETAIL MAY BE USED AT TOP OR BOTTOM OF PANEL.
 (MAX. DESIGN LOAD ± 72 PSF)

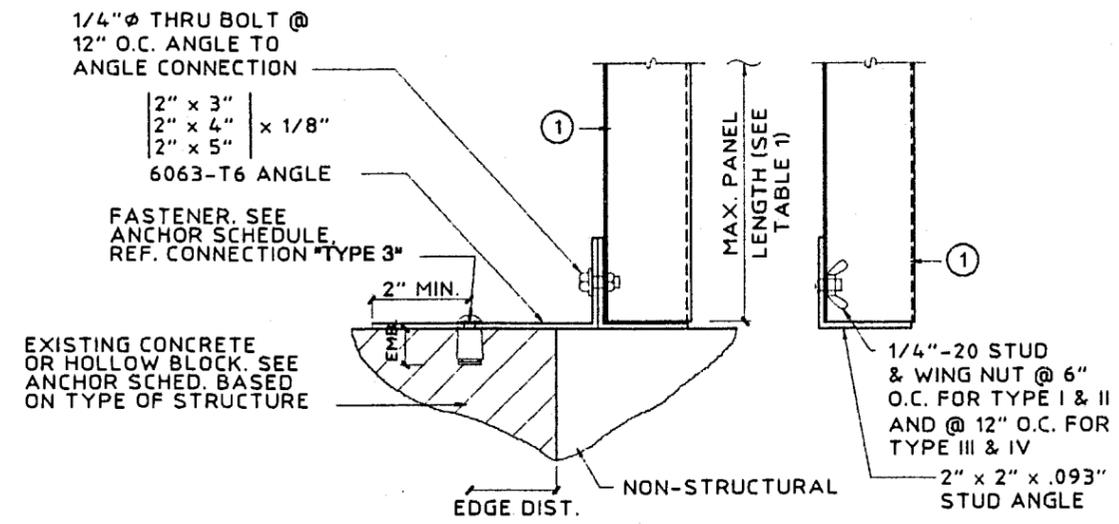
BEAM SCHEDULE		
DESCRIPTION	PANEL LENGTH	BEAM SPAN
2" x 5"	5'-0"	9'-5"
T _w = .125"	8'-0"	8'-1"
T _f = .125"		

(T) STORM PANEL SUPPORT BEAM
 SCALE: 3" = 1'-0"



NOTE: THIS DETAIL MAY BE USED AT TOP OR BOTTOM OF PANEL.

(U) 2" x 2" ALUM. TUBE BUILD-OUT
 SCALE: 3" = 1'-0"



NOTE: THIS DETAIL MAY BE USED AT TOP OR BOTTOM OF PANEL.

(V) STORM PANEL BUILD-OUT
 SCALE: 3" = 1'-0"

PRODUCT RENEWED

ACCEPTANCE No. 01-0814-02
 EXPIRATION DATE 11/09/2006
 By *Helmut A. Mahr*
 PRODUCT CONTROL DIVISION
 BUILDING CODE COMPLIANCE OFFICE

APPROVED AS COMPLYING WITH THE SOUTH FLORIDA BUILDING CODE
 DATE March 04 1999
 BY *Helmut A. Mahr*
 PRODUCT CONTROL DIVISION
 BUILDING CODE COMPLIANCE OFFICE
 ACCEPTANCE NO. 99-0208-01



TABLE 1 - STORM PANEL SCHEDULE

NEGATIVE DESIGN LOAD W (PSF)	TYPE I	TYPE II	TYPE III	TYPE IV
	"U" & "H" HEADERS WITH STUD SILLS @ 6" O.C. OR "F" TRACK WITH BOLTS @ 6" O.C.	FOR STUDDED ANGLE MOUNTS, "F" TRACK MOUNTS W/ STUDS @ 6" O.C. & DIRECT MOUNTS W/ ANCHORS @ 6" O.C. (TOP & BOTTOM)	"U" & "H" HEADERS WITH STUD SILLS @ 12" O.C. OR "F" TRACK WITH BOLTS @ 12" O.C.	FOR STUDDED ANGLE MOUNTS, "F" TRACK MOUNTS W/ STUDS @ 12" O.C. & DIRECT MOUNTS W/ ANCHORS @ 12" O.C. MAX. (TOP & BOTTOM)
	*	*	* *	* *
	L MAX. (FT-IN)	L MAX. (FT-IN)	L MAX. (FT-IN)	L MAX. (FT-IN)
30.0	8 - 8	12 - 0	8 - 8	12 - 0
40.0	8 - 8	11 - 10	8 - 8	11 - 6
50.0	8 - 8	11 - 1	8 - 8	10 - 3
60.0	8 - 8	10 - 2	8 - 8	9 - 4
70.0	8 - 8	9 - 5	8 - 8	8 - 8
80.0	8 - 6	8 - 9	8 - 1	8 - 1
90.0	8 - 0	8 - 3	7 - 2	7 - 8
100.0	7 - 4	7 - 10	6 - 6	7 - 3
110.0	6 - 8	7 - 6	5 - 10	6 - 11
120.0	6 - 2	7 - 2	5 - 5	6 - 7
130.0	5 - 7	6 - 10	5 - 0	6 - 4
140.0	5 - 3	6 - 7	4 - 7	6 - 1
150.0	4 - 10	6 - 5	4 - 3	5 - 11
160.0	4 - 7	6 - 2	4 - 0	5 - 9
170.0	4 - 4	5 - 10	3 - 9	5 - 7
180.0	4 - 0	5 - 6	3 - 7	5 - 5
190.0	3 - 10	5 - 3	3 - 5	5 - 3
200.0	3 - 8	4 - 11	3 - 3	4 - 11
210.0	3 - 6	4 - 9	3 - 1	4 - 9
220.0	3 - 4	4 - 6	2 - 11	4 - 6
230.0	3 - 2	4 - 4	2 - 9	4 - 4

TABLE 1 AND 2 NOTES:

- ENTER TABLE 1 WITH NEGATIVE DESIGN LOAD TO DETERMINE MAX. ALLOWABLE STORM PANEL SPAN.
- FOR DESIGN LOADS BETWEEN TABULATED VALUES, USE NEXT HIGHER LOAD OR LINEAR INTERPOLATION MAY BE USED TO DETERMINE MAX. ALLOWABLE STORM PANEL SPANS.
- ENTER TABLE 2 WITH POSITIVE DESIGN LOAD TO DETERMINE MIN. STORM PANEL SEPARATION FROM GLASS.
- * = FOR TYPE I & II - BOLTS REQUIRED @ MIDSPAN TO HOLD PANEL SEAMS TOGETHER.
* * = FOR TYPE III & IV - NO BOLTS REQUIRED TO HOLD PANEL SEAMS TOGETHER.

TABLE 2 - SEPARATION FROM GLASS SCHEDULE

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)
30.0	5 - 0	2-5/8	1-1/8
	7 - 4	2-5/8	1-3/8
	11 - 3 1/2	2-7/8	2-1/4
	12 - 0	3-1/4	2-5/8
40.0	5 - 0	2-5/8	1-1/8
	7 - 4	2-5/8	1-3/8
	11 - 3 1/2	2-7/8	2-5/8
	11 - 10	3-1/4	3
50.0	5 - 0	2-3/4	1-1/8
	7 - 4	2-3/4	1-1/2
	11 - 2	3	3
60.0	5 - 0	2-5/8	1-1/4
	7 - 4	2-5/8	1-1/2
	10 - 8	3	3
70.0	5 - 0	2-5/8	1-1/4
	7 - 4	2-5/8	1-5/8
	10 - 3	3	3
80.0	5 - 0	2-5/8	1-1/8
	7 - 4	2-5/8	1-5/8
	9 - 11	3	3
90.0	4 - 0	2-5/8	1-1/8
	7 - 4	2-5/8	1-3/4
	9 - 7	3	3
100.0	4 - 0	2-5/8	1-1/8
	7 - 4	2-5/8	1-7/8
	9 - 1	3	3
110.0	4 - 0	2-5/8	1-1/8
	7 - 4	2-5/8	1-1/2
	8 - 8	3	3
120.0	4 - 0	2-5/8	1-1/8
	7 - 4	2-5/8	1-1/2
	8 - 4	2-7/8	2-5/8

PRODUCT RENEWED

ACCEPTANCE No. 01-0814-02
 EXPIRATION DATE: 11/09/2006
 By Helmut A. Moke
 PRODUCT CONTROL DIVISION
 BUILDING CODE COMPLIANCE OFFICE

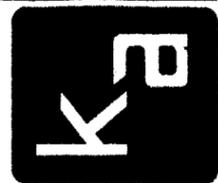
APPROVED AS COMPLYING WITH THE SOUTH FLORIDA BUILDING CODE
 DATE March 04 1999
 BY Helmut A. Moke
 PRODUCT CONTROL DIVISION
 BUILDING CODE COMPLIANCE OFFICE
 ACCEPTANCE NO. 99-0208-01

KNEZEVICH & ASSOCIATES, INC.
 CONSULTING ENGINEERS • PRODUCT TESTING
 641 MOKENA DRIVE • MIAMI SPRINGS, FLORIDA 33166
 MIAMI (305) 883-9571 FT. LAUDERDALE (954) 677-9500
 FAX: (305) 883-9572
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20 GA. GALVANIZED STEEL STORM PANEL
 ATLANTIC SHUTTERS, inc.
 15421 West Dixie Highway Bay 23
 North Miami Beach, Florida 33162
 Tel: (305) 945-7277
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revisions	no	date	by	description

V.J. KNEZEVICH
 PROFESSIONAL ENGINEER
 FL License No: PE 0070963
 FEB 03 1999
 date 12/16/98
 scale AS NOTED
 drawn by MC
 design by VJK
 checked by VJK
 drawing no. 98-312
 sheet 6 of 9



KNEZEVICH & ASSOCIATES, INC.
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revisions	no.	date	by	description

V.J. KNEZEVICH
 PROFESSIONAL ENGINEER
 FL License No: PE 0070283
 FEB 03 1999
 date 12/16/98
 AS NOTED drawn by MC
 design by VJK checked by VJK
 drawing no. 98-312
 sheet 7 of 9

ANCHOR SCHEDULE																	
FASTENER SPACING (INCHES) REQUIRED FOR VARIOUS DESIGN LOADS AND SPANS																	
EXISTING STRUCTURE	ANCHOR TYPE	LOAD (W) PSF MAX. (SEE NOTE 1)	MIN. 3/4" EDGE DISTANCE														
			SPANS UP TO 5'-0" (SEE NOTE 1)					SPANS UP TO 8'-6" (SEE NOTE 1)					SPANS UP TO 12'-0" (SEE NOTE 1)				
			CONNECTION TYPE					CONNECTION TYPE					CONNECTION TYPE				
			1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
WOOD	 1/4" φ WOOD LAG SCREW W/ 1-3/4" THREAD PENETRATION (SHEAR PARALLEL TO GRAIN)	48.0	12	12	12	12	12	12	12	9	12	12	12	6	6	12	12
		62.0	12	12	12	12	12	12	7	7	12	12	12	5	6	12	11
		72.0	12	12	10	12	12	12	5	6	12	12	12	5	6	12	11
		92.0	12	9	8	12	12	12	5	6	12	11	12	5	6	12	11
		200.0	12	5	6	12	11	12	5	6	12	11	12	5	6	12	11
	 1/4" φ WOOD LAG SCREW W/ 1-3/4" THREAD PENETRATION (SHEAR PERPENDICULAR TO GRAIN)	48.0	12	12	12	12	12	12	12	7	12	12	12	6	5	12	12
		62.0	12	12	9	12	12	12	7	5	12	12	12	5	4	12	11
		72.0	12	12	8	12	12	12	5	4	12	12	12	5	4	12	11
		92.0	12	9	6	12	12	12	5	4	12	11	12	5	4	12	11
		200.0	12	5	4	12	11	12	5	4	12	11	12	5	4	12	11
	 1/4" φ ELCO MALE/FEMALE "PANELMATE" W/ 1-7/8 MIN. EMBEDMENT & 1/4-20 MACHINE SCREW WITH NUT	48.0	12	12	12	12	12	12	12	12	12	12	12	7	9	12	12
		62.0	12	12	12	12	12	12	8	9	12	12	12	6	8	12	12
		72.0	12	12	12	12	12	12	6	8	12	12	12	6	8	12	12
		92.0	12	10	11	12	12	12	6	8	12	12	12	6	8	12	12
		200.0	12	6	8	12	12	12	6	8	12	12	12	6	8	12	12
	 7/16" φ BRASS WOOD BUSHING W/ 5/8" EMBED. AND 3/4" MIN. EDGE DISTANCE	48.0	12	12	12	12	12	5	7	12	12	10	3	5	10	8	
		62.0	12	12	9	12	12	3	5	11	11	9	4	9	5		
		72.0	12	7	8	12	12	4	10	6	9	4	9	5			
		92.0	12	4	6	12	12	4	9	5	9	4	9	5			
		200.0	9	4	9	5	9	4	9	5	9	4	9	5			

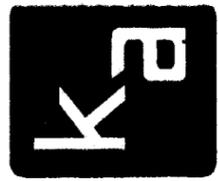
ANCHOR NOTES:

- SPANS & LOADS SHOWN HERE ARE FOR DETERMINING ANCHOR SPACING ONLY. ALLOWABLE SHUTTER SPANS FOR SPECIFIC LOADS MUST BE LIMITED TO THOSE SHOWN IN TABLE 1, SHEET 6.
- ENTER TABLE BASED ON THE EXISTING STRUCTURE MATERIAL, ANCHOR TYPE AND EDGE DISTANCE. SELECT DESIGN LOAD GREATER THAN OR EQUAL TO NEGATIVE DESIGN LOAD ON SHUTTER AND SELECT SPAN GREATER THAN OR EQUAL TO SHUTTER SPAN.
- EXISTING STRUCTURE MAY BE CONCRETE, HOLLOW BLOCK OR WOOD FRAMING. REFERENCE ANCHOR SCHEDULE FOR PROPER ANCHOR TYPE BASED ON TYPE OF EXISTING STRUCTURE AND APPROPRIATE CONNECTION TYPE. SEE CONNECTION DETAILS FOR IDENTIFICATION OF CONNECTION TYPE.
- ANCHORS SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURERS' RECOMMENDATIONS.
- MINIMUM EMBEDMENT AND EDGE DISTANCE EXCLUDES WALL FINISH OR STUCCO.
- WHERE EXISTING STRUCTURE IS WOOD FRAMING, WOOD FRAMING CONDITIONS VARY. FIELD VERIFY THAT FASTENERS ARE INTO ADEQUATE WOOD FRAMING MEMBERS, NOT PLYWOOD.
- WHERE LAG SCREWS FASTEN TO NARROW FACE OF STUD FRAMING, FASTENER SHALL BE LOCATED IN CENTER OF NOMINAL 2"x4" (MIN.) WOOD STUD. 3/4" EDGE DISTANCE IS ACCEPTABLE FOR WOOD FRAMING. WOOD STUD SHALL BE "SOUTHERN PINE" G=0.55 OR GREATER DENSITY. LAG SCREWS SHALL HAVE PHILLIPS PAN HEAD OR HEX HEAD.
- MACHINE SCREWS SHALL HAVE MINIMUM OF 1/2" ENGAGEMENT OF THREADS IN BASE ANCHOR AND MAY HAVE EITHER A PAN HEAD, TRUSS HEAD, OR WAFER HEAD (SIDEWALK BOLT), U.O.N.
- DESIGNATES ANCHOR CONDITIONS WHICH ARE NOT ACCEPTABLE USES.
- * DESIGNATES ANCHOR WHICH ARE REMOVABLE BY REMOVING WASHERED WINGNUT, NUT OR MACHINE SCREW.

PRODUCT RENEWED

ACCEPTANCE No. 01-0814.02
 EXPIRATION DATE 11/09/2006
 By Helmut A. M...
 PRODUCT CONTROL DIVISION
 BUILDING CODE COMPLIANCE OFFICE

APPROVED AS COMPLYING WITH THE SOUTH FLORIDA BUILDING CODE
 DATE March 04 1999
 BY Helmut A. M...
 PRODUCT CONTROL DIVISION
 BUILDING CODE COMPLIANCE OFFICE
 ACCEPTANCE NO. 99-0208.01



ANCHOR SCHEDULE

FASTENER SPACING (INCHES) REQUIRED FOR VARIOUS DESIGN LOADS AND SPANS

Table with columns for Existing Structure, Anchor Type, Load (W) PSF Max., and Edge Distances (2" and 3") for various spans (5'-0", 8'-6", 12'-0").

ANCHOR NOTES:

- 1. SPANS & LOADS SHOWN HERE ARE FOR DETERMINING ANCHOR SPACING ONLY. ALLOWABLE SHUTTER SPANS FOR SPECIFIC LOADS MUST BE LIMITED TO THOSE SHOWN IN TABLE 1, SHEET 6.
2. ENTER TABLE BASED ON THE EXISTING STRUCTURE MATERIAL, ANCHOR TYPE AND EDGE DISTANCE.
3. EXISTING STRUCTURE MAY BE CONCRETE, HOLLOW BLOCK OR WOOD FRAMING.
4. ANCHORS SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURERS' RECOMMENDATIONS.
5. MINIMUM EMBEDMENT AND EDGE DISTANCE EXCLUDES WALL FINISH OR STUCCO.
6. WHERE EXISTING STRUCTURE IS WOOD FRAMING, WOOD FRAMING CONDITIONS VARY.
7. WHERE LAG SCREWS FASTEN TO NARROW FACE OF STUD FRAMING, FASTENER SHALL BE LOCATED IN CENTER OF NOMINAL 2"x4" (MIN.) WOOD STUD.
8. MACHINE SCREWS SHALL HAVE MINIMUM OF 1/2" ENGAGEMENT OF THREADS IN BASE ANCHOR.
9. DESIGNATES ANCHOR CONDITIONS WHICH ARE NOT ACCEPTABLE USES.
* DESIGNATES ANCHOR WHICH ARE REMOVABLE BY REMOVING WASHERED WINGNUT, NUT OR MACHINE SCREW.

KNEZEVICH & ASSOCIATES, INC. CONSULTING ENGINEERS - PRODUCT TESTING 641 MOKENA DRIVE-MIAMI SPRINGS, FLORIDA 33166 MIAMI (305) 883-9571 FT. LAUDERDALE (954) 677-9500 FAX: (305) 883-9572

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EXPIRATION DATE 11/09/2006

By Helmut A. M... PRODUCT CONTROL DIVISION BUILDING CODE COMPLIANCE OFFICE

APPROVED AS COMPLYING WITH THE SOUTH FLORIDA BUILDING CODE DATE March 04, 1999 BY Helmut A. M... PRODUCT CONTROL DIVISION BUILDING CODE COMPLIANCE OFFICE ACCEPTANCE NO. 99-0208-01

Revisions table with columns for revision number, date, and description.

Professional Engineer stamp for V.J. KNEZEVICH, PE 0010993, dated FEB 03 1999, with fields for scale, design, and drawing number (98-312).