



**BUILDING CODE COMPLIANCE OFFICE (BCCO)  
PRODUCT CONTROL DIVISION**

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

**NOTICE OF ACCEPTANCE (NOA)**

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**Rolladen, Inc.  
550 Ansin Boulevard  
Hallandale, Florida 33009**

**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: 0.050" Aluminum Storm Panels Shutter**

**APPROVAL DOCUMENT:** Drawing No. 98-19, titled "Storm Panels Details", sheets 1 through 4 of 4, prepared by Al-Farooq Corporation, dated May 18, 1998, last revision # "B" dated January 22, 1999, bearing the Miami-Dade County Product Control Renewal 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.

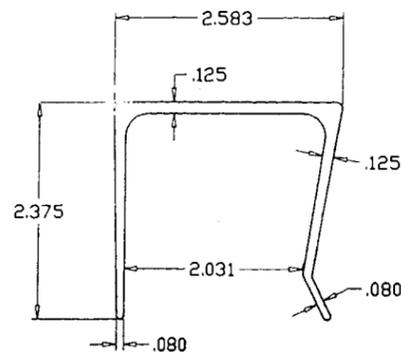
**ADVERTISEMENT:** The NOA number preceded by the words Miami-Dade County, Florida, and followed by the expiration date may be displayed in advertising literature. If any portion of the NOA is displayed, then it shall be done in its entirety.

**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.

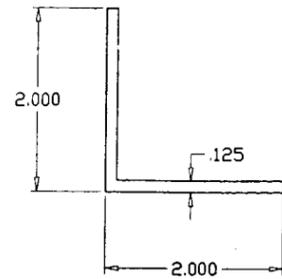
This NOA **renews NOA # 98-0811.09** and consists of this page 1 as well as approval document mentioned above. The submitted documentation was reviewed by **Helmy A. Makar, P.E.**



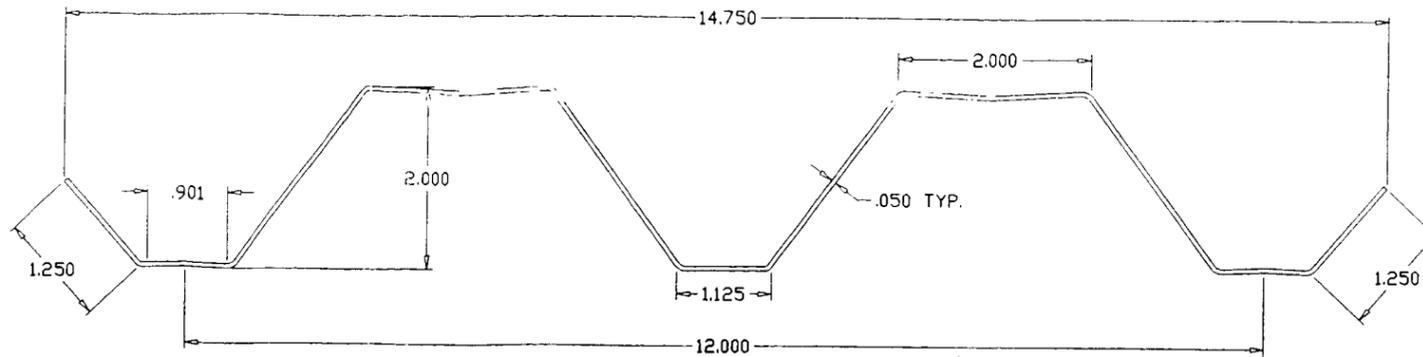
**NOA No 02-0226.09  
Expiration Date: 04/18/2007  
Approval Date: 04/18/2002  
Page 1**



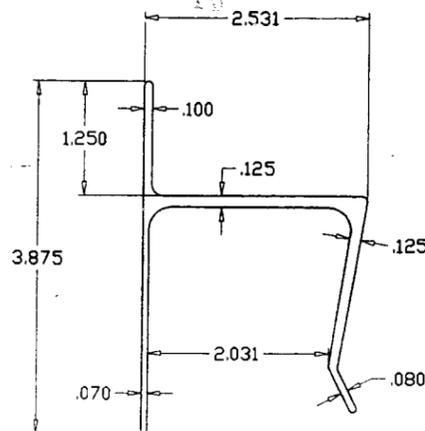
**CEILING MOUNT HEADER**  
6063-T6



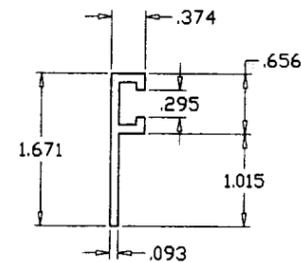
**SILL ANGLE**  
6063-T6



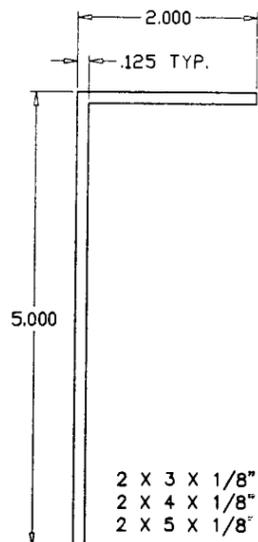
**ROLL FORMED PANEL**  
ALUMINUM 3003-H14 (FY = 23 KSI MIN.)



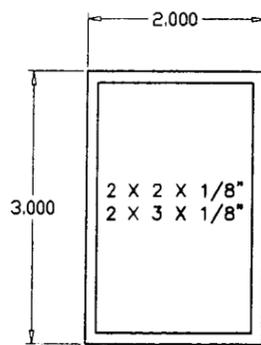
**WALL MOUNT HEADER**  
6063-T6



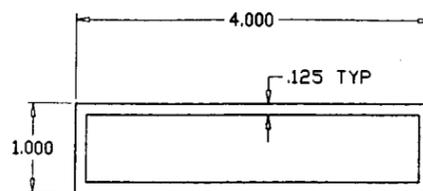
**F- ANGLE CHANNEL**  
6063-T6



**BUILT-OUT ANGLES**  
6063-T6



**BUILT-OUT TUBES**  
6063-T6



**ALUMINUM TUBE**  
6063-T6

**GENERAL NOTES**

1. THIS STRUCTURE IS DESIGNED AS PER THE FLORIDA BUILDING CODE
2. DESIGN CRITERIA FOR ALUMINUM, MINIMUM MECHANICAL PROPERTIES, AND SAFETY FACTORS ARE IN ACCORDANCE WITH THE "ALUMINUM CONSTRUCTION MANUAL" LATEST EDITION.
3. ALUMINUM ALLOYS: ALL EXTRUSIONS SHALL BE ALLOY 6063-T6.
4. STEEL SURFACES TO BE PLACED IN CONTACT WITH ALUMINUM SHALL BE GIVEN ONE COAT OF ZINC CHROMATE PRIMER IN ACCORDANCE WITH FEDERAL SPEC. NO. TTP-645, OR BE GALVANIZED.
5. ANCHORS SHALL BE AS LISTED, SPACED AS SHOWN ON DETAILS. ANCHOR EMBEDMENT TO BASE MATERIAL SHALL BE BEYOND WALL DRESSING OR STUCCO.
6. ALL BOLTS SHALL BE STAINLESS STEEL, ALUMINUM ALLOY 2024-T4 OR 7075-T6. WING NUTS SHALL BE OF ZINC ALLOY.
7. DESIGN CRITERIA FOR PANELS: MAX DEFLECTION  $\leq L/30$  FOR NEGATIVE LOAD AND THE LESSER OF  $L/30$  OR 2" FOR POSITIVE LOAD.
8. ANCHORING OR LOADING CONDITIONS OTHER THAN THOSE SHOWN IN THESE DETAILS ARE NOT PART OF THIS APPROVAL.
9. EXISTING STRUCTURES MUST BE CAPABLE OF SUSTAINING LOADS IMPOSED BY SHUTTER.
10. DETAILS AND THE SPECIFICATIONS SHOWN HEREIN REPRESENT THE PRODUCT TESTED FOR IMPACT, CYCLIC AND UNIFORM STATIC AIR PRESSURE, IN CONFORMANCE WITH MIAMI DADE COUNTY PROTOCOLS PA 201,203 & 202.

DESIGN LOADS SHALL BE CALCULATED AS PER REQUIREMENTS OF ASCE 7-88, BASED ON 110 MPH WIND VELOCITY.

**PRODUCT MARKING**

A LABEL SHALL BE AFFIXED AT BOTTOM OF EACH PANEL WITH THE FOLLOWING STATEMENT.

**ROLLADEN INC. HALLANDALE, FL.**  
**"DADE COUNTY PRODUCT CONTROL APPROVED"**

**DESIGN PRESSURE RATING = + 60 PSF**  
**- 66 PSF**

Engr. DR. HUMAYOUN FAROOQ  
STRUCTURES  
FLA. PE # 18557

APPROVED AS COMPLYING WITH THE  
SOUTH FLORIDA BUILDING CODE

DATE February 11, 1999

BY Helmy A. Maher

PRODUCT CONTROL DIVISION

BUILDING CODE COMPLIANCE OFFICE

ACCEPTANCE NO. 98-0811-09

JAN 26 1999

**PRODUCT RENEWED**  
as complying with the Florida  
Building Code  
Acceptance No. 02-0226-09  
Expiration Date 04/18/2007  
By Helmy A. Maher  
Miami Dade Product Control  
Division

FASTENER SPACING IN MASONRY					
TABLES ARE BASED ON TYPICAL EDGE DISTANCE = 12d. FOR LESSER EDGE DISTANCE DECREASE SPACING BY MULTIPLYING WITH THE FACTOR BELOW					
EDGE DIST.	12d=3"	10d=2-1/2"	8d=2"	6d=1-1/2"	5d=1-1/4"
FACTOR	1.00	0.86	0.71	0.57	0.50
EXAMPLE: FOR 3" EDGE DIST. SPACING = 12" O.C. (FROM TABLE) FOR 2" EDGE DIST. SPACING = 12 X .71 = 8.5 O.C.					

TYPICAL EDGE DISTANCE IN WOOD = 1-1/4"  
NO REDUCTION FACTOR IS REQUIRED

**TYPICAL ANCHORS**

ANCHOR (A) = 1/4" DIA. TAPCONS, BY ITW NOA. # 96-1226.03  
1-3/4" EMBEDMENT TO CONC.  
1-1/4" EMBEDMENT TO BLOCK

ANCHOR (D) = 1/4" RAWL CALK-IN.  
7/8" MIN. EMBED INTO CONC. OR BLOCK (3000 PSI MIN.)

ANCHOR (E) = #14 SMS / LAG SCREWS  
1-1/2" MIN PENETRATION INTO WOOD(S.G.=0.47)

ANCHOR (F) = 1/4" DIA. PANELMATE ANCHORS (ELCO-TEXTRON)  
1-7/8" EMBEDMENT TO CONC.  
1-1/4" EMBEDMENT TO BLOCK  
1-7/8" MIN PENETRATION INTO WOOD(S.G.=0.47)

NOTE: ANCHORS, USE FULL EMBEDMENT IN CONCRETE BEYOND THE COVERING (STUCCO, TILES, ETC.)

FOR INSTALLATION DETAILS SEE SHEET 2, 3 & 4.

**AL-FAROOQ CORPORATION**  
ENGINEERS, PLANNERS & PRODUCT DESIGN  
1235 SW 87 AVE  
MIAMI, FLORIDA 33174  
TEL. (305) 264-8100 FAX. (305) 262-6978  
PANELS' 98-19RNI

**STORM PANELS DETAILS**  
**ROLLADEN INC.**  
550 ANSIN BOULEVARD  
HALLANDALE, FL. 33009  
TEL. (305) 757-8591

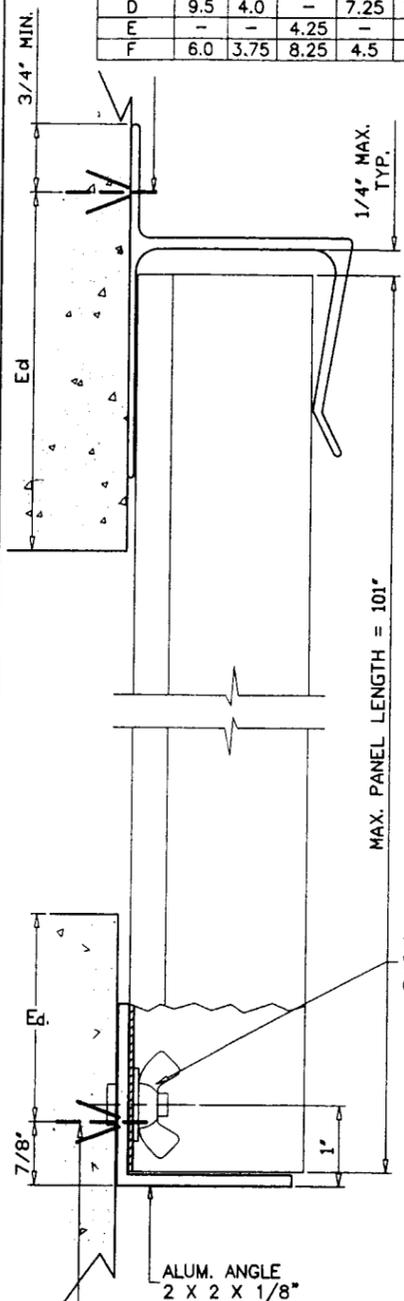
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	B	01.22.99		NOTE #10 ADDED

date: 05-18-98  
scale: 1/2" = 1"  
dr. by: HAMID  
chk. by:

drawing no.  
**98-19**  
sheet 1 of 4

**WALL MOUNTS**

ANCHOR TYPE	SPACING INCHES					
	UPTO 50 PSF			UPTO 66 PSF		
	CONC.	BLK.	WOOD	CONC.	BLK.	WOOD
A	7.75	-	-	5.75	-	-
D	9.5	4.0	-	7.25	3.0	-
E	-	-	4.25	-	-	3.0
F	6.0	3.75	8.25	4.5	-	6.25

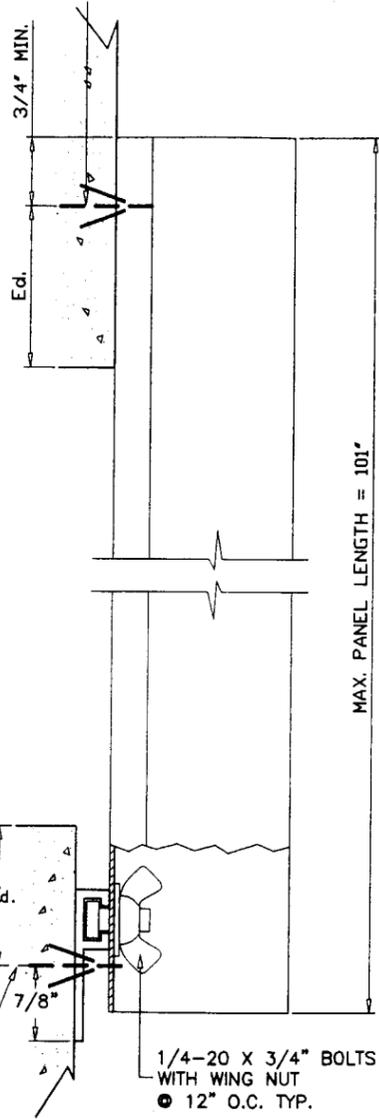


ANCHOR TYPE	SPACING INCHES					
	UPTO 50 PSF			UPTO 66 PSF		
	CONC.	BLK.	WOOD	CONC.	BLK.	WOOD
A	15.0	8.75	-	15.0	6.75	-
D	15.0	12.25	-	15.0	9.75	-
E	-	-	12.25	-	-	9.75
F	15.0	11.0	15.0	14.75	8.75	15.0

**SECTION A-A**

**DIRECT MOUNTS**

ANCHOR TYPE	SPACING INCHES					
	UPTO 50 PSF			UPTO 66 PSF		
	CONC.	BLK.	WOOD	CONC.	BLK.	WOOD
D	12.0	12.0	-	12.0	12.0	-
F	12.0	12.0	12.0	12.0	6.0	12.0

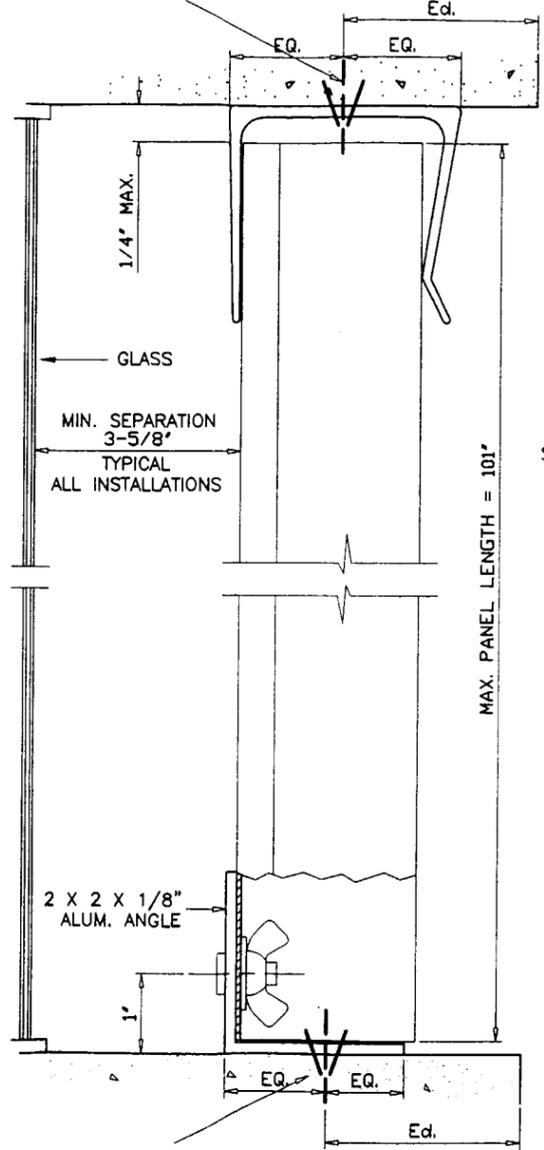


ANCHOR TYPE	SPACING INCHES					
	UPTO 50 PSF			UPTO 66 PSF		
	CONC.	BLK.	WOOD	CONC.	BLK.	WOOD
A	15.0	6.25	-	13.25	5.0	-
D	15.0	9.0	-	15.0	7.0	-
E	-	-	9.0	-	-	7.25
F	13.75	8.0	15.0	10.75	6.25	14.0

**SECTION B-B**

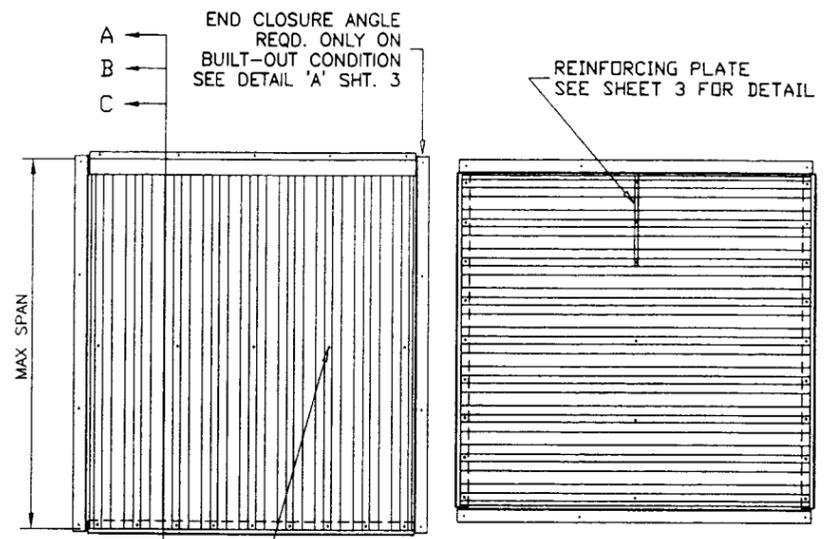
**INSIDE MOUNTS**

ANCHOR TYPE	SPACING INCHES					
	UPTO 50 PSF			UPTO 66 PSF		
	CONC.	BLK.	WOOD	CONC.	BLK.	WOOD
A	13.25	5.75	-	10.0	4.25	-
D	15.0	7.75	-	11.5	6.0	-
E	-	-	6.75	-	-	5.0
F	12.0	6.25	11.0	9.25	4.5	8.25



ANCHOR TYPE	SPACING INCHES					
	UPTO 50 PSF			UPTO 66 PSF		
	CONC.	BLK.	WOOD	CONC.	BLK.	WOOD
A	15.0	7.25	-	12.25	5.5	-
D	15.0	10.0	-	13.75	7.5	-
E	-	-	8.25	-	-	6.0
F	15.0	7.5	12.75	11.75	5.75	9.75

**SECTION C-C**



**TYPICAL ELEVATION**

PANELS CAN BE INSTALLED VERTICALLY OR HORIZONTALLY USING APPLICABLE ANCHORING DETAILS.

Ed = TYPICAL EDGE DISTANCE  
 CONC. & BLOCK = 12d (12 ANCHOR DIAMETERS)  
 WOOD = 5d  
 FOR LESSER EDGE DISTANCES SEE SHEET 1 OF 4.

HEADER AND SILL DETAILS CAN BE USED IN ANY COMBINATIONS.

**PRODUCT RENEWED**  
 as complying with the Florida Building Code  
 Acceptance No 02-0226.09  
 Expiration Date 04/18/2007  
 By *Helmy A. Makher*  
 Miami Dade Product Control Division

Engr. DR. HUMAYOUN FAROOQ  
 STRUCTURES  
 FLA. PE # 18557

**JAN 26 1999**

APPROVED AS COMPLYING WITH THE SOUTH FLORIDA BUILDING CODE  
 DATE February 11 19 99  
 BY *Helmy A. Makher*  
 PRODUCT CONTROL DIVISION  
 BUILDING CODE COMPLIANCE OFFICE  
 ACCEPTANCE NO. 98-0811.09

**AL-FAROOQ CORPORATION**  
 ENGINEERS, PLANNERS & PRODUCT DESIGN  
 1235 SW 87 AVE  
 MIAMI, FLORIDA 33174  
 TEL. (305) 264-8100 FAX. (305) 262-6978

**ROLLADEN INC.**  
 550 ANSIN BOULEVARD  
 HALLANDALE, FL. 33009  
 TEL. (305) 757-8591

revisions:	no	date	by	description

date: 05-18-98  
 scale: 1/2" = 1"  
 dr. by: HAMID  
 chk. by:

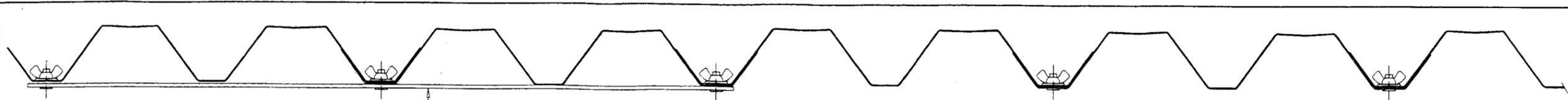
drawing no.  
**98-19**

sheet 2 of 4

FOR GENERAL NOTES AND EXTRUSION DETAILS SEE SHEET 1 OF 4.

ANCHORS: EMBEDMENT & EDGE DISTANCES SHOWN ARE BEYOND THE WALL & FLOOR COVERING (STUCCO, TILES, ETC.)

PANELS 98-19RNI

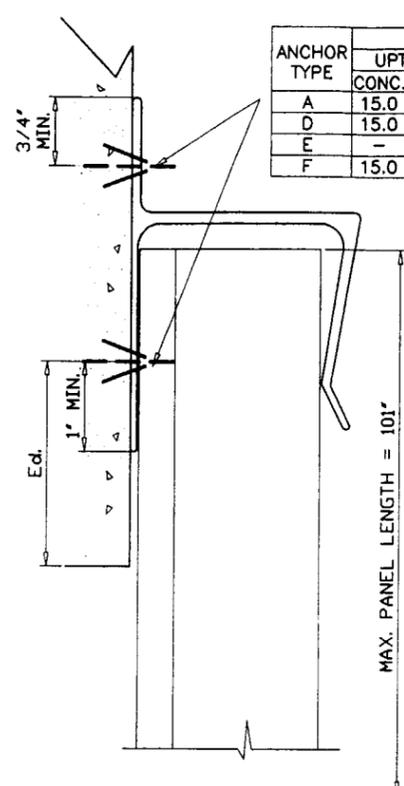
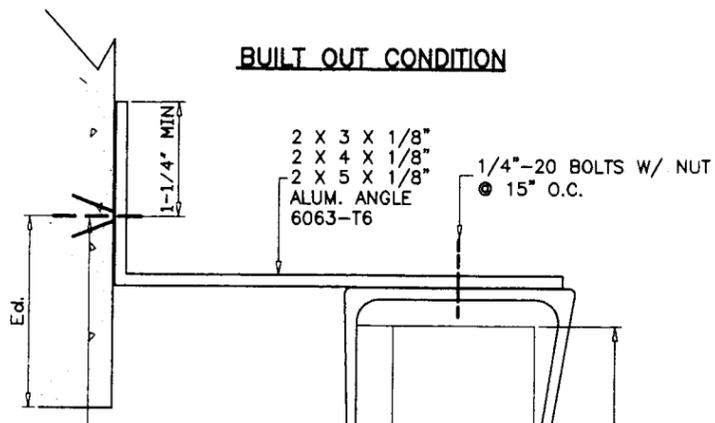


1/8" X 1" X 25-1/2" LONG  
ALUMINUM BAR (6063-T6)  
WITH REINFORCING BOLTS  
AT END PANELS

OVERLAPPING PANELS FASTENED AT  
MIDSPAN WITH 1/4"-20 STUDS  
& WING NUTS.

**BUILT OUT CONDITION**

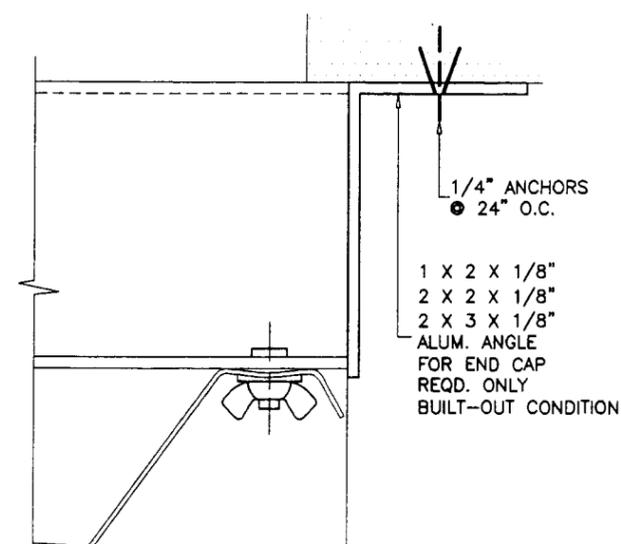
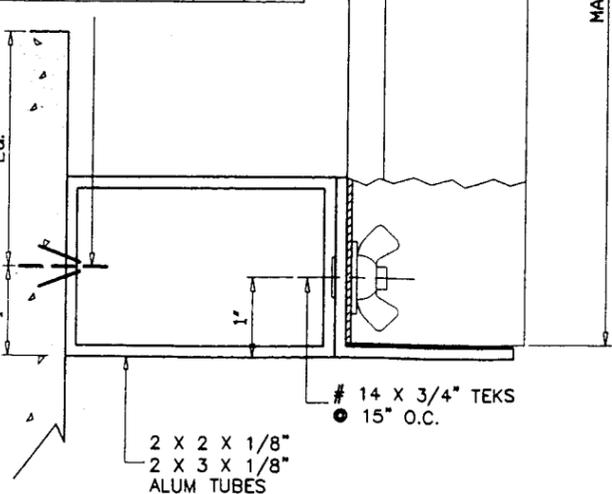
**ALT. WALL MOUNTS**



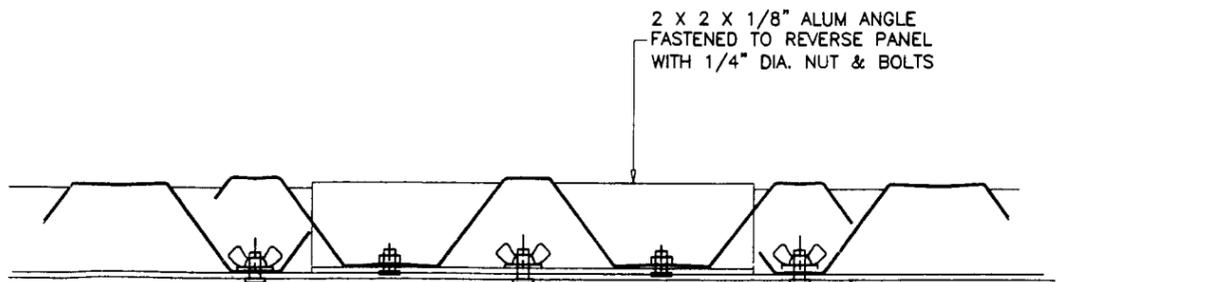
ANCHOR TYPE	SPACING INCHES					
	UPTO 50 PSF			UPTO 66 PSF		
	CONC.	BLK.	WOOD	CONC.	BLK.	WOOD
A	15.0	11.0	-	15.0	8.5	-
D	15.0	15.0	-	15.0	12.5	-
E	-	-	15.0	-	-	12.75
F	15.0	15.0	15.0	15.0	11.25	15.0

ANCHOR TYPE	SPACING INCHES					
	UPTO 50 PSF			UPTO 66 PSF		
	CONC.	BLK.	WOOD	CONC.	BLK.	WOOD
A	10.25	3.75	-	7.75	3.0	-
D	12.75	5.25	-	9.75	4.0	-
E	-	-	5.5	-	-	4.25
F	8.25	4.75	11.25	6.25	3.75	8.5

ANCHOR TYPE	SPACING INCHES					
	UPTO 50 PSF			UPTO 66 PSF		
	CONC.	BLK.	WOOD	CONC.	BLK.	WOOD
A	15.0	8.25	-	15.0	6.75	-
D	15.0	11.75	-	15.0	9.75	-
E	-	-	11.75	-	-	9.75
F	15.0	10.5	15.0	14.75	8.75	15.0



**END CAP BUILT-OUT CONDITION  
DETAIL A**



**REVERSE PANEL DETAIL  
FOR EGRESS WINDOWS**

**PRODUCT RENEWED**  
as complying with the Florida  
Building Code  
Acceptance No. 02-0226.09  
Expiration Date: 04/18/2007  
By: Helmy A. Matar  
Miami Dade Product Control  
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PANELS 98-19RNI

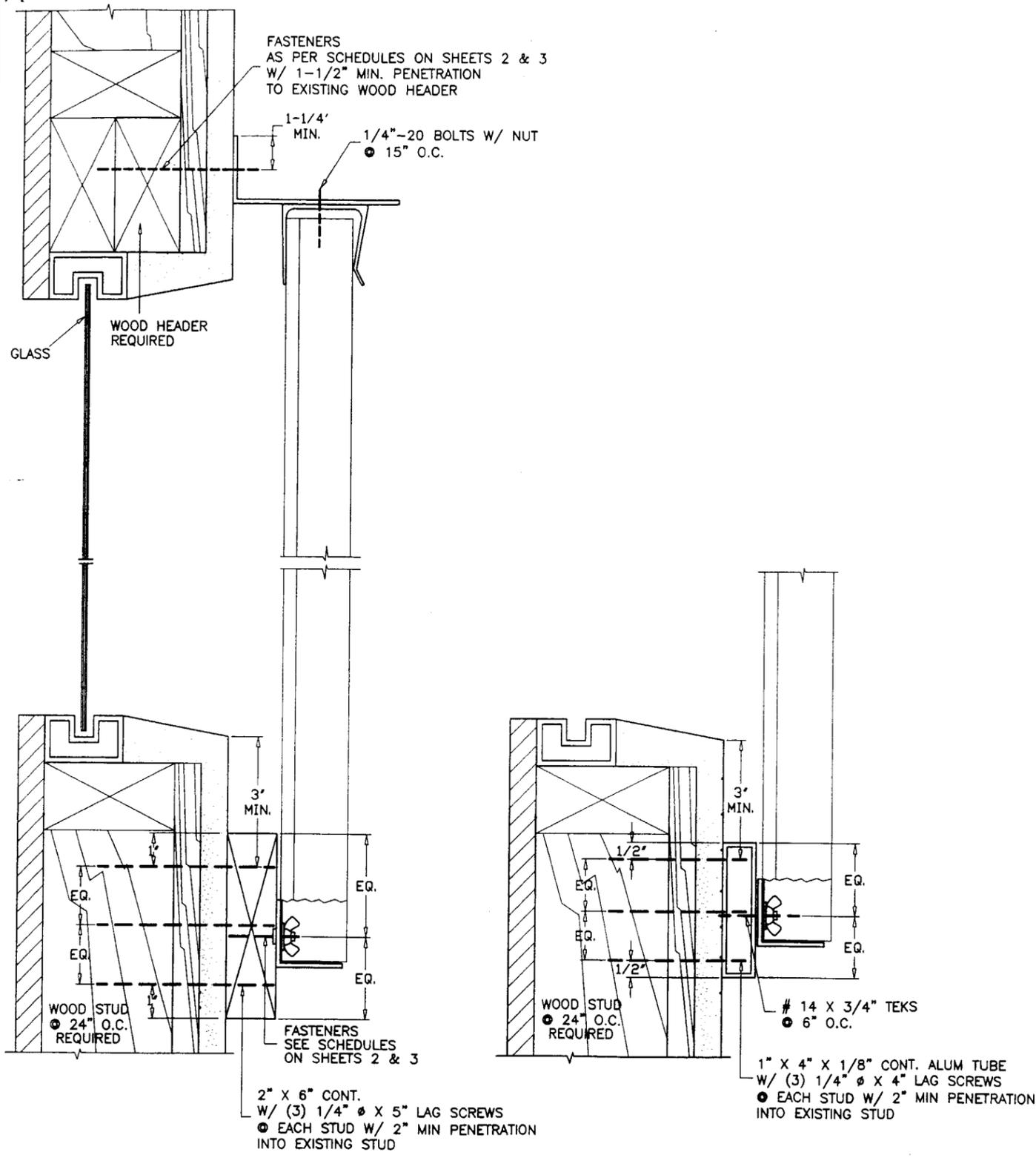
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revisions:	no	date	by	description

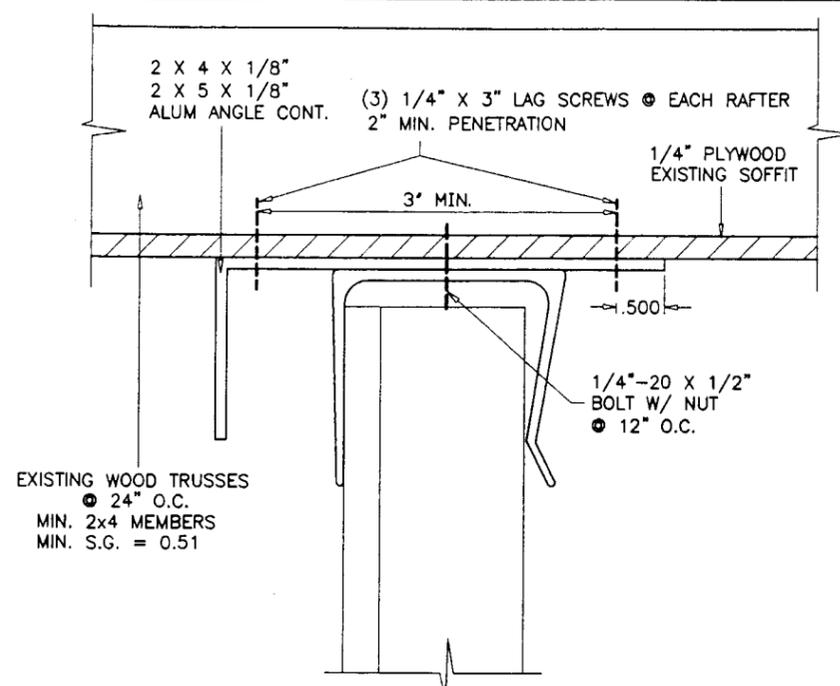
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chk. by:

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**98-19**

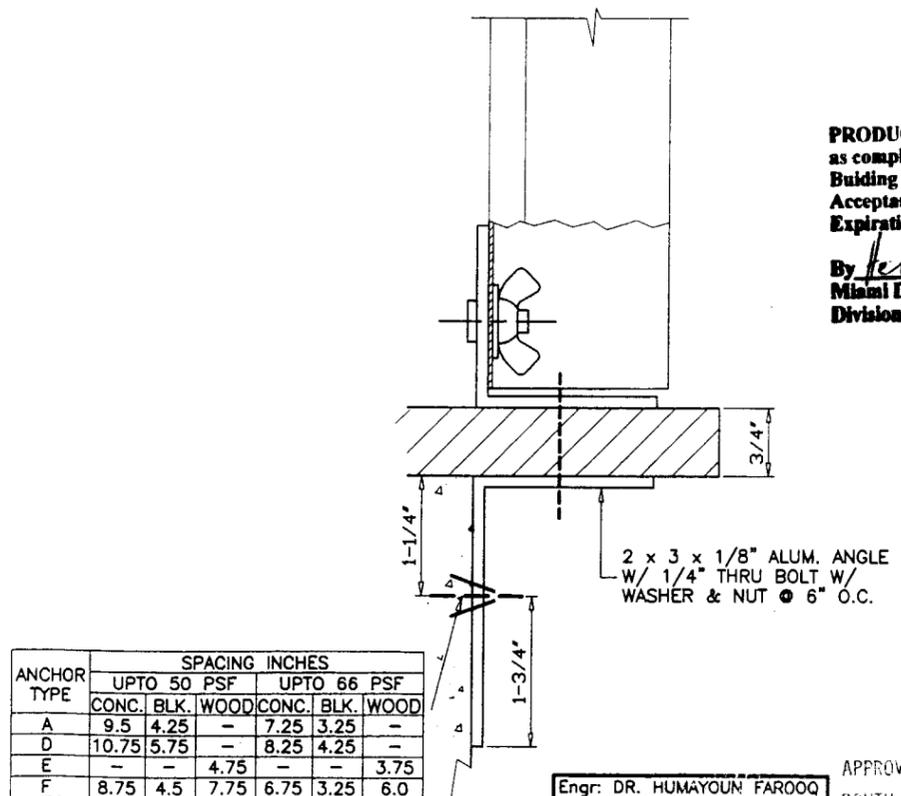
sheet 3 of 4



**INSTALLATION DETAIL ON EXISTING WOOD BUCKS** SCALE: 1/4"=1"  
 FOR SHUTTER HEIGHT OF 101" MAX. DESIGN LOAD = 66.0 PSF  
 FOR HEADER/SILL DETAILS CONNECTED TO CONTINUOUS WOOD MEMBERS SEE SHEET 2



**HEADER CONNECTION TO WOOD TRUSSES**  
 FOR SHUTTER HEIGHT OF 101" MAX. DESIGN LOAD = 60 PSF  
 FOR SHUTTER HEIGHT OF 86" MAX. DESIGN LOAD = 66 PSF



ANCHOR TYPE	SPACING INCHES					
	UPTO 50 PSF		UPTO 66 PSF			
	CONC.	BLK.	WOOD	CONC.	BLK.	WOOD
A	9.5	4.25	-	7.25	3.25	-
D	10.75	5.75	-	8.25	4.25	-
E	-	-	4.75	-	-	3.75
F	8.75	4.5	7.75	6.75	3.25	6.0

**COUNTER TOP CONDITION**  
 (PASS THRU WINDOW)  
 MAX SHUTTER HEIGHT = 6 FT.  
 MAX DESIGN LOAD = 66 PSF.

**PRODUCT RENEWED**  
 as complying with the Florida Building Code  
 Acceptance No. 02-0266.09  
 Expiration Date 04/18/2007  
 By Helmut A. Mader  
 Miami Dade Product Control Division

Engr. DR. HUMAYOUN FAROOQ STRUCTURES FLA. PE # 16557  
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 BUILDING CODE COMPLIANCE OFFICE  
 ACCEPTANCE NO. 98-0811.09

**af**

**AL-FAROOQ CORPORATION**  
 ENGINEERS, PLANNERS & PRODUCT DESIGN  
 1235 SW 87 AVE  
 MIAMI, FLORIDA 33174  
 TEL. (305) 264-8100 FAX. (305) 262-6978  
 PANELS 98-19RNI

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STORM PANELS DETAILS

**ROLLADEN INC.**  
 550 ANSIN BOULEVARD  
 HALLANDALE, FL. 33009  
 TEL. (305) 757-8591

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revisions:

no	date	by	description

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date: 05-18-98  
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drawing no. 98-19  
 sheet 4 of 4