



DEPARTMENT OF PERMITTING, ENVIRONMENT, AND REGULATORY
AFFAIRS (PERA)
BOARD AND CODE ADMINISTRATION DIVISION

MIAMI-DADE COUNTY
PRODUCT CONTROL SECTION

11805 SW 26 Street, Room 208

Miami, Florida 33175-2474
T (786) 315-2590 F (786) 315-2599

www.miamidade.gov/building

NOTICE OF ACCEPTANCE (NOA)

Alutech United, Inc.
117 Dixon Street
Selbyville, DE 19975

SCOPE:

This NOA is being issued under the applicable rules and regulations governing the use of construction materials. The documentation submitted has been reviewed and accepted by Miami-Dade County PERA-Product Control Section 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 Section (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. PERA reserves the right to revoke this acceptance, if it is determined by Miami-Dade County Product Control Section 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: "Piranha" Aluminum Accordion Shutter

APPROVAL DOCUMENT: Drawing No. 09-06, titled "Piranha Aluminum Accordion Shutter ", sheets 1 through 7 of 7, prepared by Al-Farooq Corporation, dated August 25, 2009, last revision "B" dated December 09, 2011, signed and sealed by Javad Ahmad, P.E., on April 04, 2012, bearing the Miami-Dade County Product Control Revision stamp with the Notice of Acceptance number and the expiration date by the Miami-Dade County Product Control Section.

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, the following statement: "Miami-Dade County Product Control Approved", and NOA number, per TAS-201, TAS-202, and TAS-203, 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 # 09-1015.06 and consists of this page 1, evidence submitted pages E-1 & E-2 as well as approval document mentioned above.

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



Helmy A. Makar
04/19/2012

NOA No. 12-0124.07
Expiration Date: 06/30/2015
Approval Date: 04/19/2012

Alutech United, Inc.

NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED

1. EVIDENCE SUBMITTED UNDER PREVIOUS APPROVAL #09-1015.06

A. DRAWINGS

1. *Drawing No. 09-06, titled "Piranha Aluminum Accordion Shutter ", sheets 1 through 7 of 7, prepared by Al-Farooq Corporation, dated August 25, 2009, last revision "A" dated May 18, 2010, signed and sealed by Javad Ahmad, P.E.*

B. TESTS

1. *Test report on Large Missile Impact Test, Uniform Static Air Pressure Test and Cyclic Wind Pressure Test of Accordion Shutter System, prepared by Fenestration Testing Laboratory, Inc., Report No. 5874, dated February 27, 2009, signed and sealed by Carlos S. Rionda, P.E.*

C. CALCULATIONS

1. *Comparative analysis and anchor calculation, dated September 28, 2009, Sheets A-1 through A-30, AP-1 through AP-17, & C-1 through C-24, prepared by Al-Farooq Corporation, signed and sealed by Arshad Viqar, P.E.*

D. QUALITY ASSURANCE

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

E. MATERIAL CERTIFICATIONS

1. *Test Report marked-up drawings and die drawings from Fenestration Testing Laboratory, Inc., Report No. 5874, dated February 27, 2009, signed and sealed by Carlos S. Rionda, P.E.*

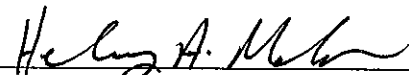
F. STATEMENTS

1. *Statement letter of conformance by Al-Farooq Corporation, dated September 28, 2009, signed and sealed by Arshad Viqar, P.E.*

2. NEW EVIDENCE SUBMITTED

A. DRAWINGS

1. *Drawing No. 09-06, titled "Piranha Aluminum Accordion Shutter ", sheets 1 through 7 of 7, prepared by Al-Farooq Corporation, dated August 25, 2009, last revision "B" dated December 09, 2011, signed and sealed by Javad Ahmad, P.E., on April 04, 2012.*



Helmy A. Makar, P.E., M.S.

PERA, Product Control Unit Supervisor

NOA No. 12-0124.07

Expiration Date: 06/30/2015

Approval Date: 04/19/2012

Alutech United, Inc.

NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED

B. TESTS

1. *None.*

C. CALCULATIONS

1. *Anchor calculation, dated December 12, 2011, 5 Sheets, prepared by Al-Farooq Corporation, signed and sealed by Javad Ahmad, P.E.*

D. QUALITY ASSURANCE

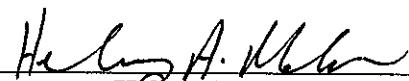
1. *By Miami-Dade County Department of Permitting, Environment, and Regulatory Affairs (PERA).*

E. MATERIAL CERTIFICATIONS

1. *None.*

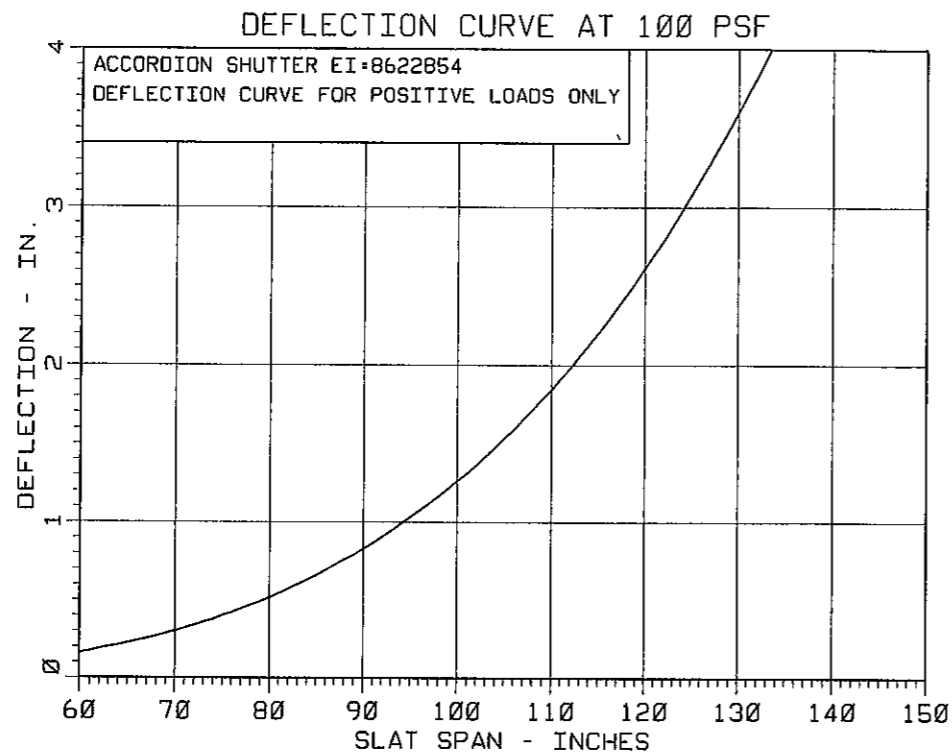
F. STATEMENTS

1. *Statement letter of FBC 2010 conformance by Al-Farooq Corporation, dated December 06, 2011, signed and sealed by Javad Ahmad, P.E.*

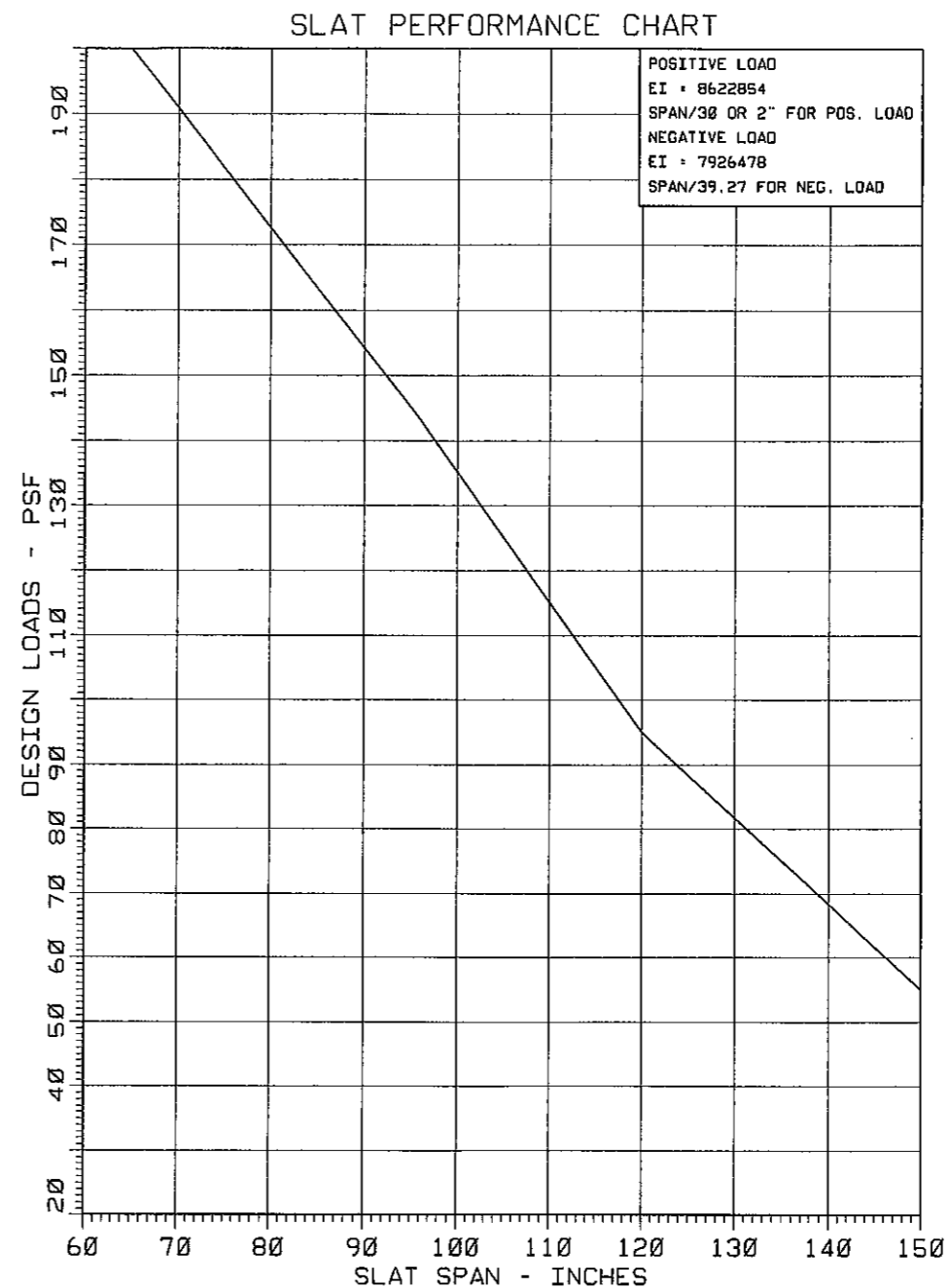


Helmy A. Makar, P.E., M.S.
PERA, Product Control Unit Supervisor
NOA No. 12-0124.07

Expiration Date: 06/30/2015
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MINIMUM SEPARATION FROM GLASS			
SEPARATION REQD. DUE TO WIND LOAD		SEPARATION REQD. DUE TO LARGE MISSILE IMPACT	
SHUTTER SPAN = H =	IN.	FOR SLAT SPANS UPTO	SEPARATION
DESIGN LOAD = Pd =	PSF	150"	3-1/2"
FACTOR = K = Pd/100 =	IN.		
READING FROM SPAN D. CURVE = D =	IN.		
DEFLECTION AT Pd = K*D =	IN.		
MIN. SEPARATION REQD. = K*D+1" =	IN.		
FOR INSTALLATIONS UPTO 30' OF GRADE USE MAXIMUM OF WIND LOAD OR IMPACT LOAD REQUIREMENTS SHOWN ABOVE			
FOR INSTALLATIONS ABOVE 30' OF GRADE IGNORE LARGE MISSILE IMPACT REQUIREMENT.			
NOTE: NO PART OF SHUTTER SHALL BE UNDER 30' ABOVE GRADE TO WAIVE LARGE MISSILE IMPACT REQUIREMENT.			



USE SLAT PERFORMANCE CHART TO VERIFY SLAT CAPACITY FOR THE REQUIRED DESIGN LOAD FOR THE PARTICULAR LOCATION.

DESIGN LOADS SHALL BE CALCULATED AS PER REQUIREMENTS OF ASCE 7-10.

GENERAL NOTES

1. THIS PRODUCT HAS BEEN DESIGNED AND TESTED TO COMPLY WITH THE REQUIREMENTS OF THE FLORIDA BUILDING CODE 2010 EDITION INCLUDING HIGH VELOCITY HURRICANE ZONE (HVHZ).
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 AS SHOWN
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 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, OR PLATED STEEL. WING NUTS TO BE OF ZINC ALLOY.
7. DESIGN CRITERIA FOR SLATS: MAX DEFLECTION ≤ THE LESSER OF L/30 OR 2".
8. ANCHORING OR LOADING CONDITIONS OTHER THAN THOSE SHOWN IN THESE DETAILS ARE NOT PART OF THIS APPROVAL.
9. A LOAD DURATION INCREASE IS USED IN DESIGN OF ANCHORS INTO WOOD ONLY.

PRODUCT MARKING

A LABEL SHALL BE AFFIXED ON LOCKING MEMBER OF UNIT ABOVE LOCK WITH THE FOLLOWING STATEMENT.
 ALUTECH UNITED INC. SELBYVILLE, DE.
 'MIAMI-DADE COUNTY PRODUCT CONTROL APPROVED'

Engr. JAVAD AHMAD
 CIVIL
 FLA. PE. # 70592
 C.A.N. 3538

APR 04 2012

FOR INSTALLATION DETAILS SEE SHEETS 3 THRU 6.

PRODUCT REVISED
 as complying with the Florida Building Code
 Acceptance No 12-0124.07
 Expiration Date 06/30/2015

By: *J. A. Ahmad*
 Miami Dade Product Control

afc

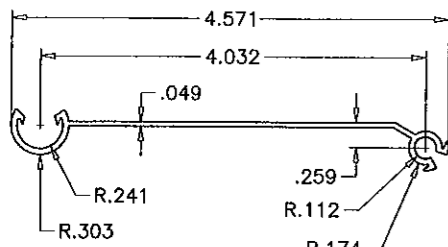
AL-FAROOQ CORPORATION
 ENGINEERS & PRODUCT DEVELOPMENT
 1235 S.W. 87 AVE
 MIAMI, FLORIDA 33174
 TEL. (305) 264-8100 FAX. (305) 262-6978

'PIRANHA' ALUMINUM ACCORDION SHUTTER

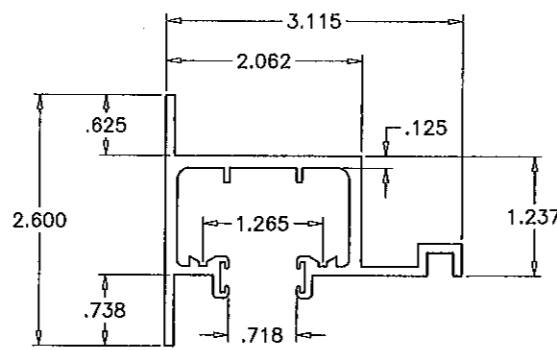
ALUTECH UNITED INC.
 15 DIXON STREET
 SELBYVILLE, DE. 19975
 TEL. (800) 233-1144 FAX. (302) 436-5100

date: 08-25-09	scale: 1/2" = 1"	dr. by: HAMID	chk. by:	drawing no. 09-06	sheet 1 of 7									
revisions: <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>no</th> <th>date</th> <th>description</th> </tr> </thead> <tbody> <tr> <td>A</td> <td>05.18.10</td> <td>REV. PER BCCO COMMENTS</td> </tr> <tr> <td>B</td> <td>12.09.11</td> <td>UPDATED TO 2010 FBC</td> </tr> </tbody> </table>						no	date	description	A	05.18.10	REV. PER BCCO COMMENTS	B	12.09.11	UPDATED TO 2010 FBC
no	date	description												
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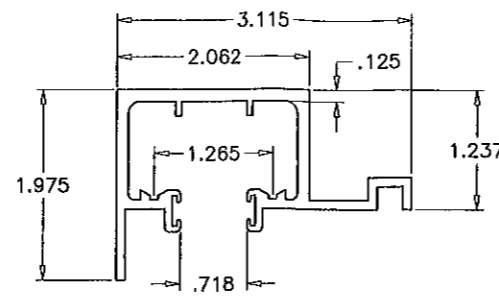
ACCORDION/09-06AUI



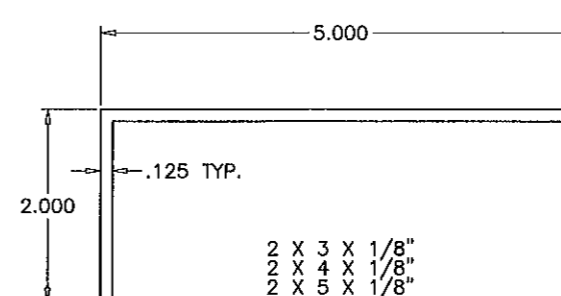
SLAT
6063-T6



WALL HEADER
6063-T6

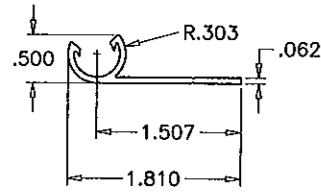


CEILING HEADER
6063-T6

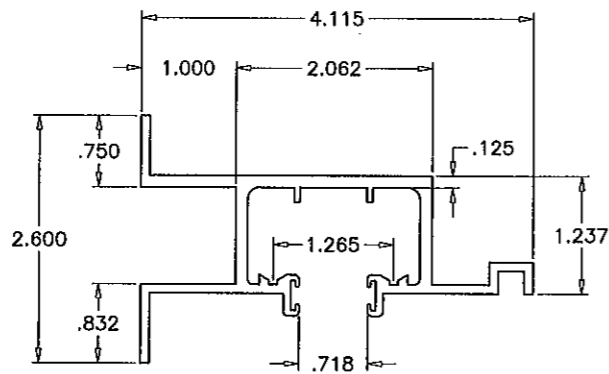


BUILT-OUT ANGLES
6063-T6

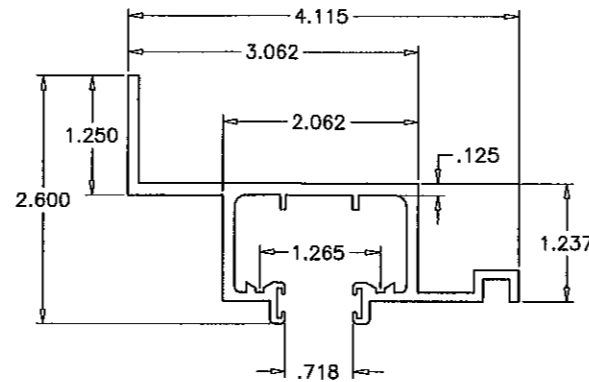
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2 X 4 X 1/8"
2 X 5 X 1/8"



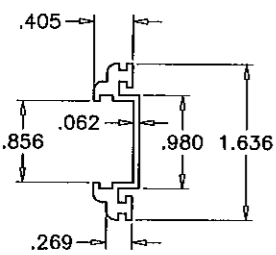
FEMALE END SLAT
6063-T6



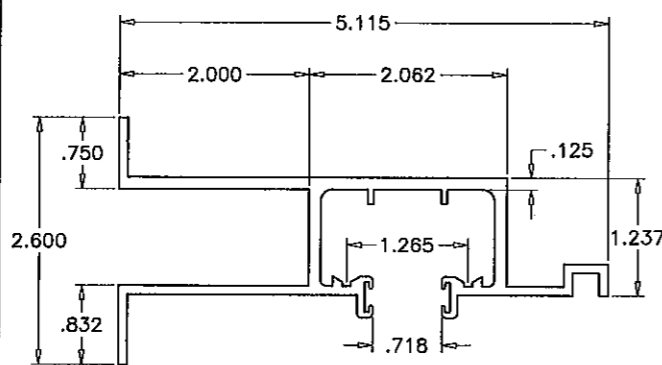
1" BUILT-OUT WALL HEADER
6063-T6



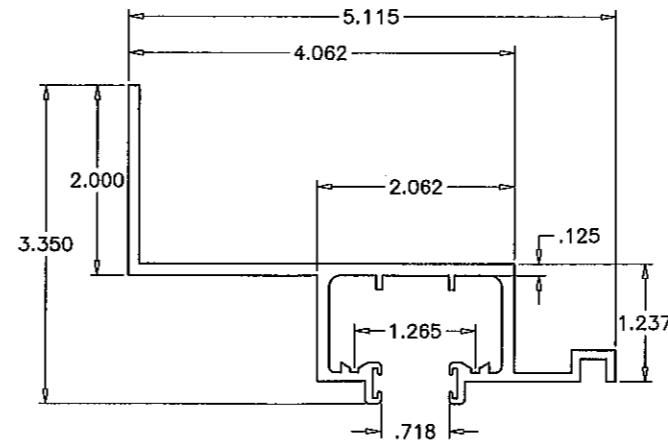
ALT. 1" BUILT-OUT WALL HEADER
6063-T6



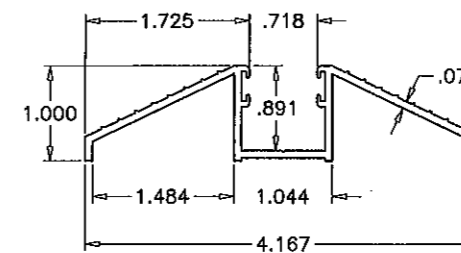
LOCKING SLAT INSERT
6063-T6



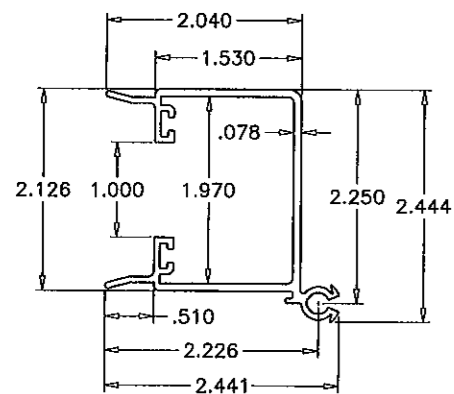
2" BUILT-OUT WALL HEADER
6063-T6



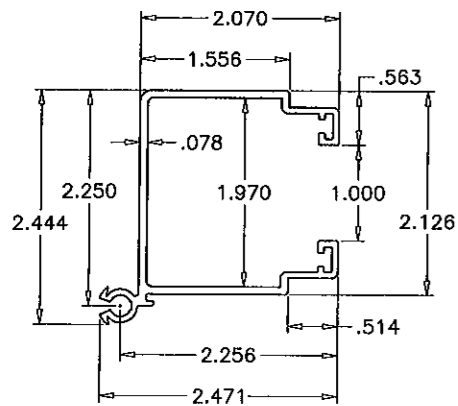
ALT. 2" BUILT-OUT WALL HEADER
6063-T6



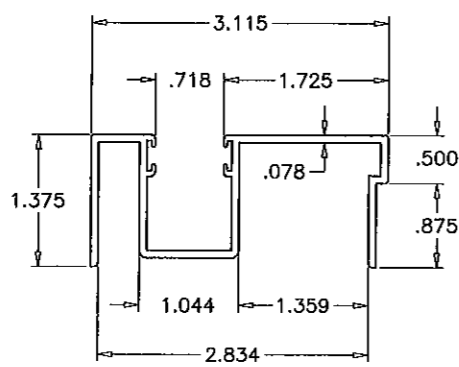
THRESHOLD TRACK
6063-T6



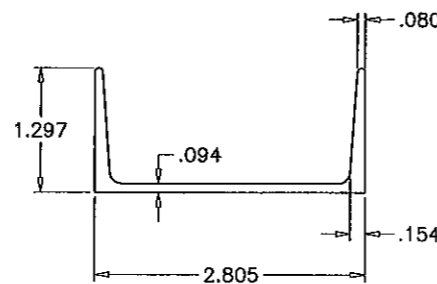
FEMALE LOCKING SLAT
6063-T6



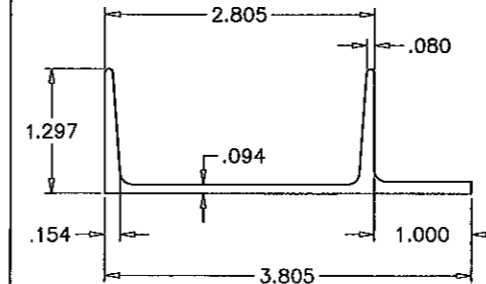
MALE LOCKING SLAT
6063-T6



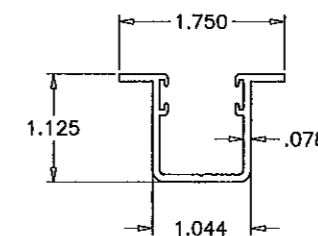
BOTTOM SILL TRACK
6063-T6



BOTTOM TRACK ADAPTER
6063-T6



ALT. BOTTOM TRACK ADAPTER
6063-T6



EMBEDDED TRACK
6063-T6

PRODUCT REVISED
as complying with the Florida
Building Code
Acceptance No 12-0124-07
Expiration Date 06/30/2015
By *Healy A. Healy*
Miami Dade Product Control

Engr: JAVAD AHMAD
CIVIL
FLA. PE # 70592
C.A.N. 3538

JA
APR 04 2012

'PIRANHA' ALUMINUM ACCORDION SHUTTER
ALUTECH UNITED INC.
15 DIXON STREET
SELBYVILLE, DE. 19975
TEL. (800) 233-1144 FAX. (302) 436-5100

NO	DATE	DESCRIPTION
A	05.18.10	REV. PER BCCO COMMENTS
B	12.09.11	NO CHANGE THIS SHEET

date: 08-25-09
scale: 1/2" = 1"
dr. by: HAMID
chk. by:

drawing no.
09-06

sheet 2 of 7

AL-FAROQ CORPORATION
ENGINEERS & PRODUCT DEVELOPMENT
1235 S.W. 87 AVE
MIAMI, FLORIDA 33174
TEL. (305) 264-8100 FAX. (305) 262-6978
ACCORDION/09-06AUI

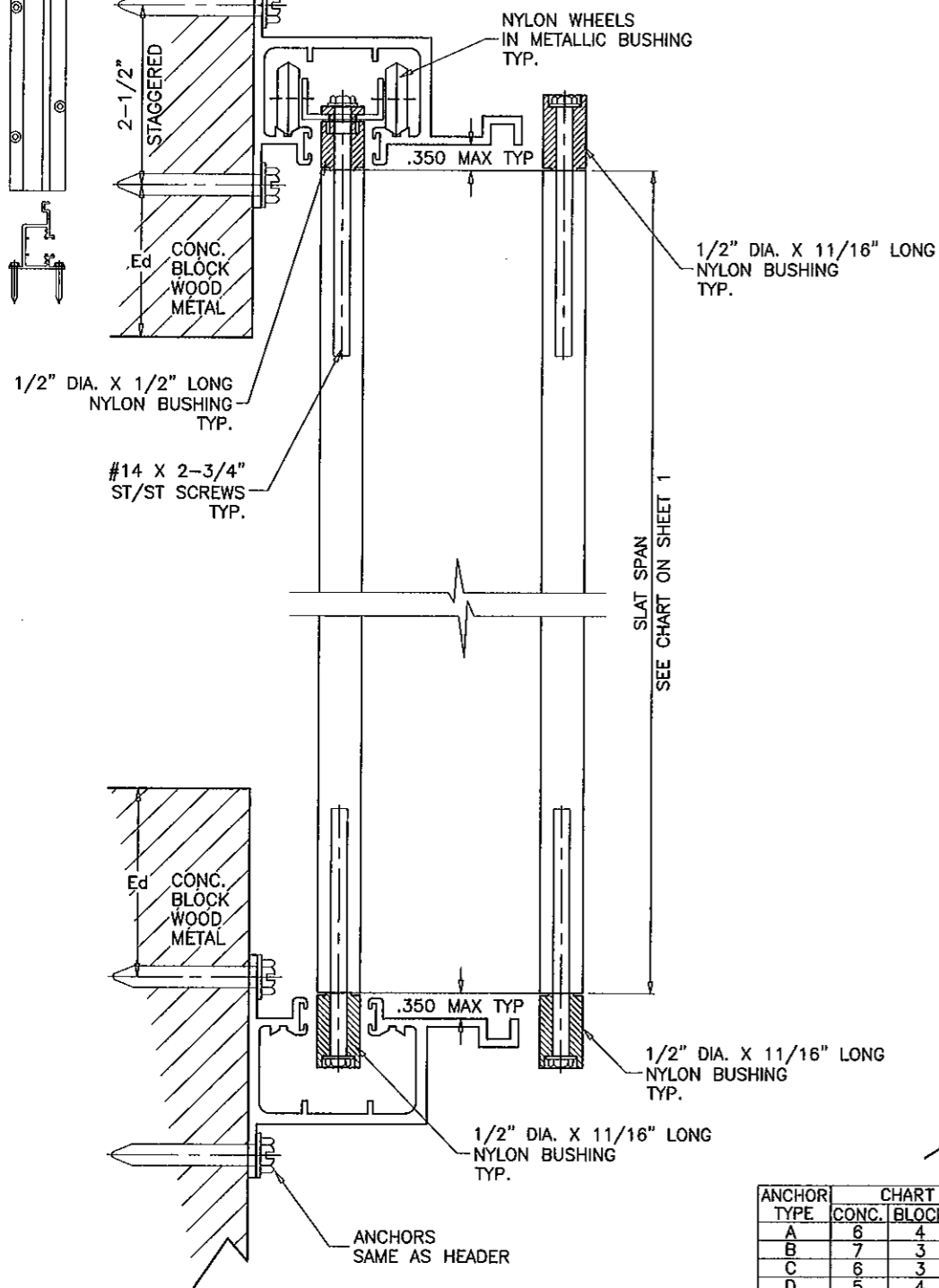
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WALL MOUNTS

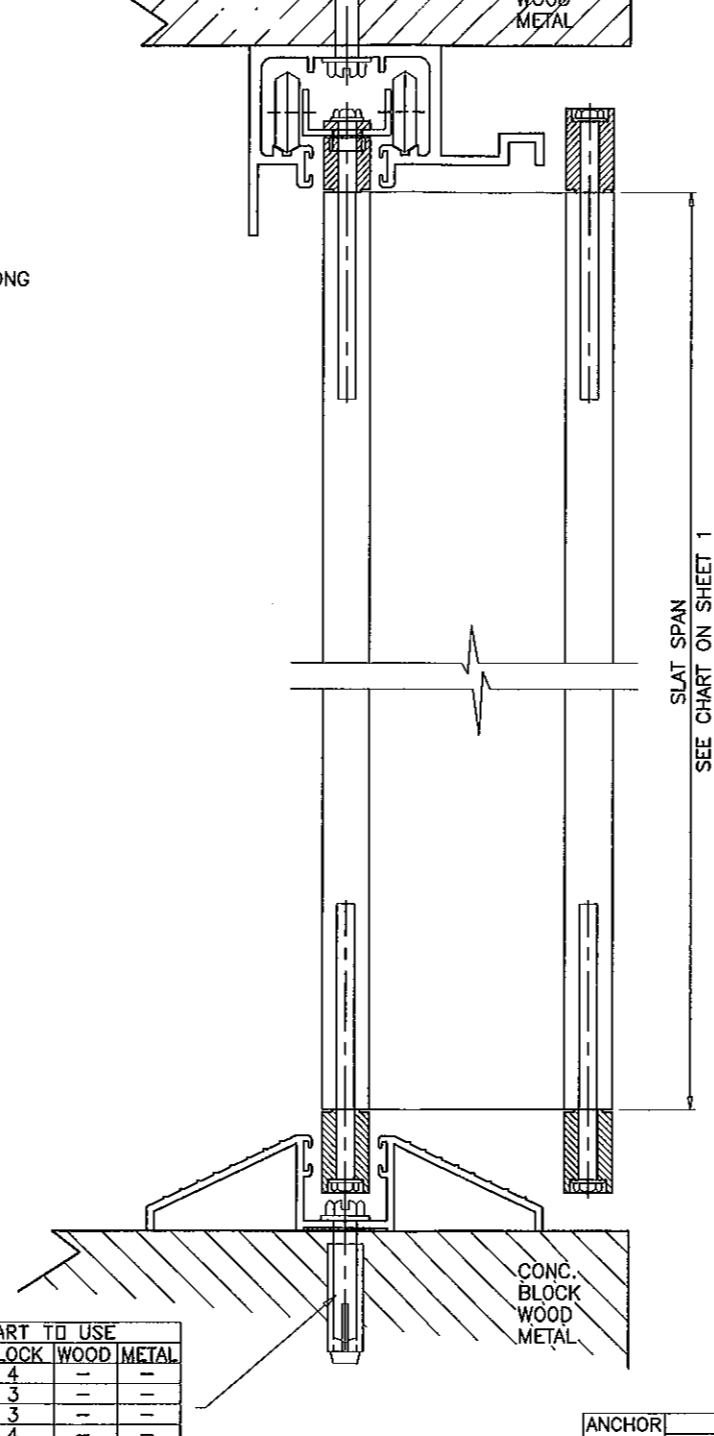
ANCHOR TYPE	CHART TO USE			
	CONC.	BLOCK	WOOD	METAL
A	8	6	-	-
B	8	6	-	-
C	8	4	-	-
D	8	5	-	-
E	-	-	8	-
F	-	-	-	5

INSIDE MOUNTS

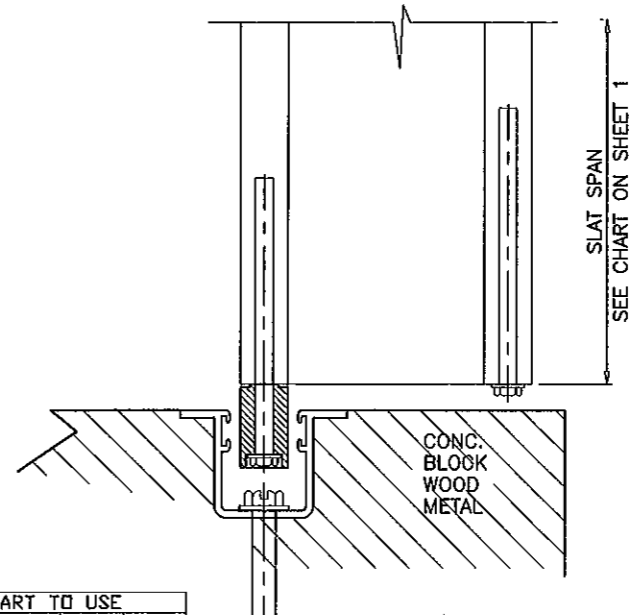
ANCHOR TYPE	CHART TO USE			
	CONC.	BLOCK	WOOD	METAL
A	4	2	-	-
B	5	2	-	-
C	5	1	-	-
D	4	2	-	-
E	-	-	3	-
G	-	-	-	3



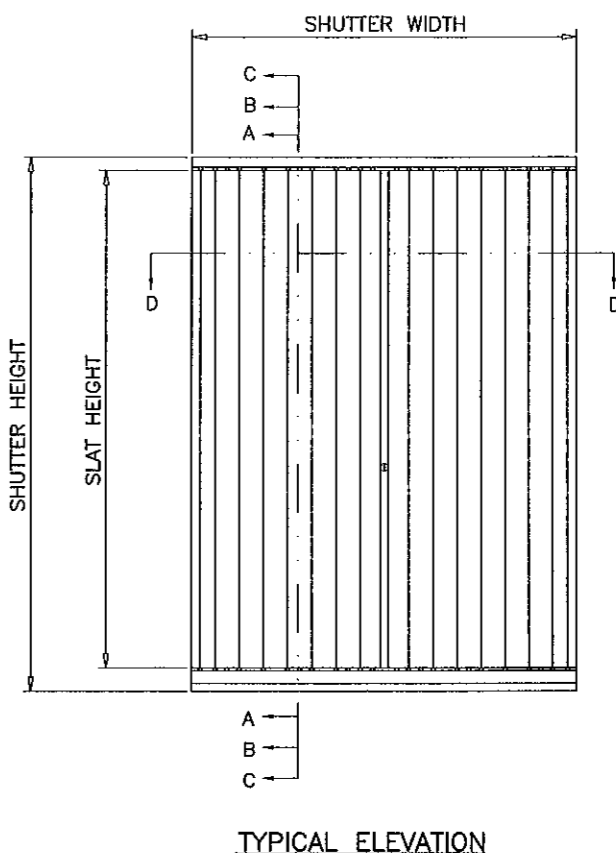
SECTION A-A



SECTION B-B



Engr. JAVAD AHMAD
CIVIL
FLA. PE # 70592
C.A.N. 3538
APR 04 2012



TYPICAL ELEVATION

ANCHOR TYPE	CHART TO USE			
	CONC.	BLOCK	WOOD	METAL
A	6	4	-	-
B	7	3	-	-
C	6	3	-	-
D	5	4	-	-
E	-	-	4	-
G	-	-	-	5

ANCHOR TYPE	CHART TO USE			
	CONC.	BLOCK	WOOD	METAL
A	7	5	-	-
B	8	4	-	-
C	8	5	-	-
D	7	5	-	-
E	-	-	5	-
G	-	-	-	7

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

Ed = TYPICAL EDGE DISTANCE
CONC. & BLOCK = 12d (12 ANCHOR DIAMETERS)
WOOD = 5d
FOR LESSER EDGE DISTANCES SEE SHEET 7 OF 7.

HEADER AND SILL DETAILS CAN BE USED IN ANY COMBINATIONS.

PRODUCT REVISED
as complying with the Florida
Building Code
Acceptance No 12-0124.07
Expiration Date 06/30/2015
By *Hedy A. Hamid*
Miami Dade Product Control

FOR GENERAL NOTES AND EXTRUSION DETAILS SEE SHEETS 1 & 2.
FOR WOOD INSTALLATIONS SEE SHEET 6.

af c
AL-FAROOQ CORPORATION
ENGINEERS & PRODUCT DEVELOPMENT
1235 S.W. 87 AVE
MIAMI, FLORIDA 33174
TEL. (305) 264-8100 FAX. (305) 262-6975
ACCORDION/09-06AUI

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revisions:	no.	date	by	description
	A	05.18.10		NO CHANGE THIS SHEET
	B	12.09.11		NO CHANGE THIS SHEET

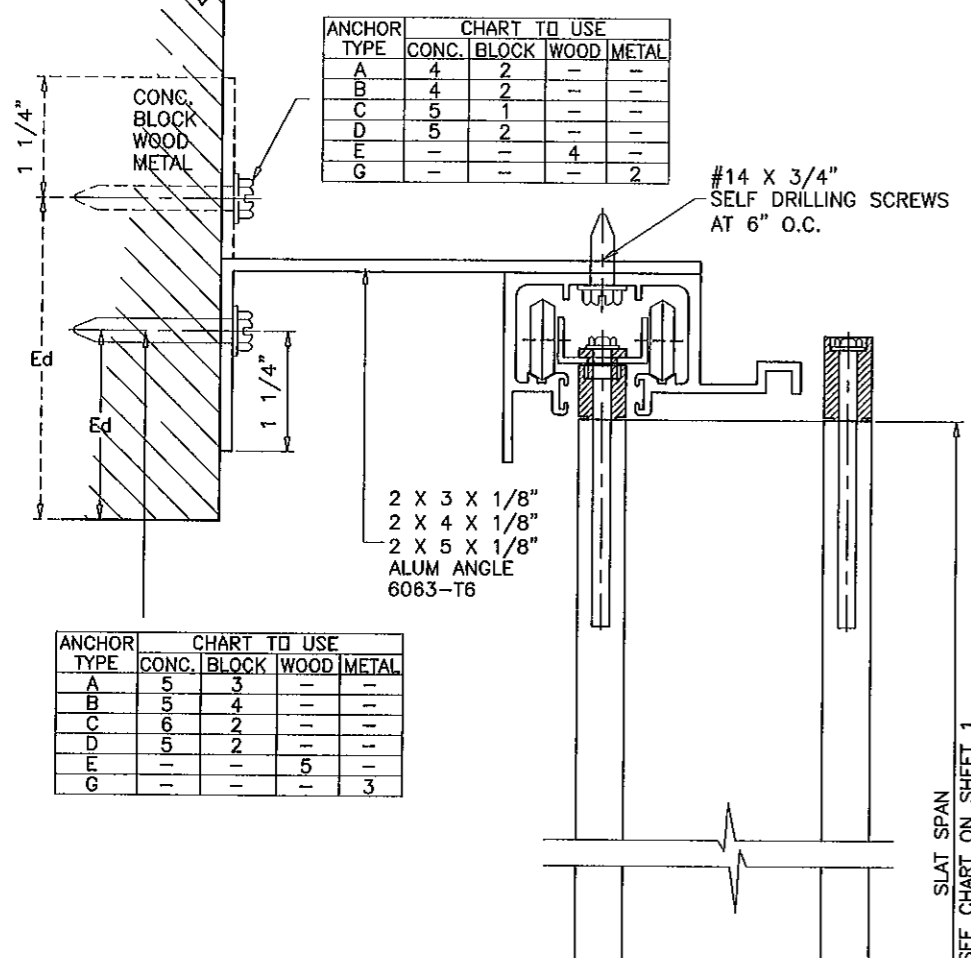
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dr. by: HAMID
chk. by:

drawing no.
09-06
sheet 3 of 7

BUILT-OUT CONDITION

BUILT-OUT HEADER

ALT. BUILT-OUT HEADER



ANCHOR TYPE	CHART TO USE			
	CONC.	BLOCK	WOOD	METAL
A	4	2	-	-
B	4	2	-	-
C	5	1	-	-
D	5	2	-	-
E	-	-	4	-
G	-	-	-	2

#14 X 3/4" SELF DRILLING SCREWS AT 6" O.C.

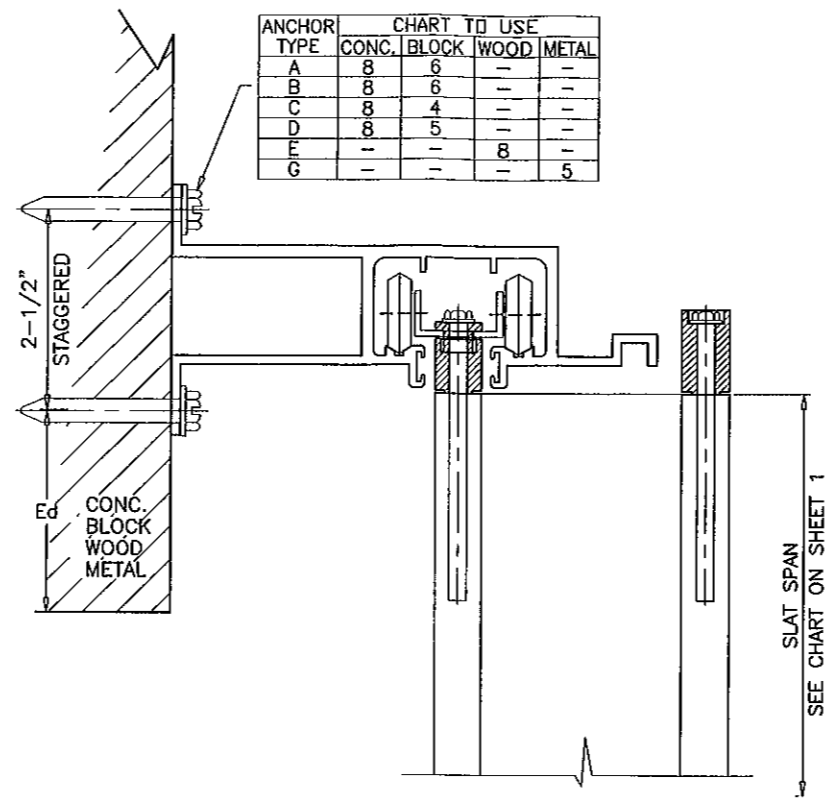
2 X 3 X 1/8"
2 X 4 X 1/8"
2 X 5 X 1/8"
ALUM ANGLE
6063-T6

ANCHOR TYPE	CHART TO USE			
	CONC.	BLOCK	WOOD	METAL
A	5	3	-	-
B	5	4	-	-
C	6	2	-	-
D	5	2	-	-
E	-	-	5	-
G	-	-	-	3

ANCHOR TYPE	CHART TO USE			
	CONC.	BLOCK	WOOD	METAL
A	4	2	-	-
B	5	3	-	-
C	5	1	-	-
D	5	2	-	-
E	-	-	5	-
G	-	-	-	2

ANCHOR TYPE	CHART TO USE			
	CONC.	BLOCK	WOOD	METAL
A	4	2	-	-
B	4	2	-	-
C	4	1	-	-
D	4	1	-	-
E	-	-	4	-
G	-	-	-	2

SECTION C-C

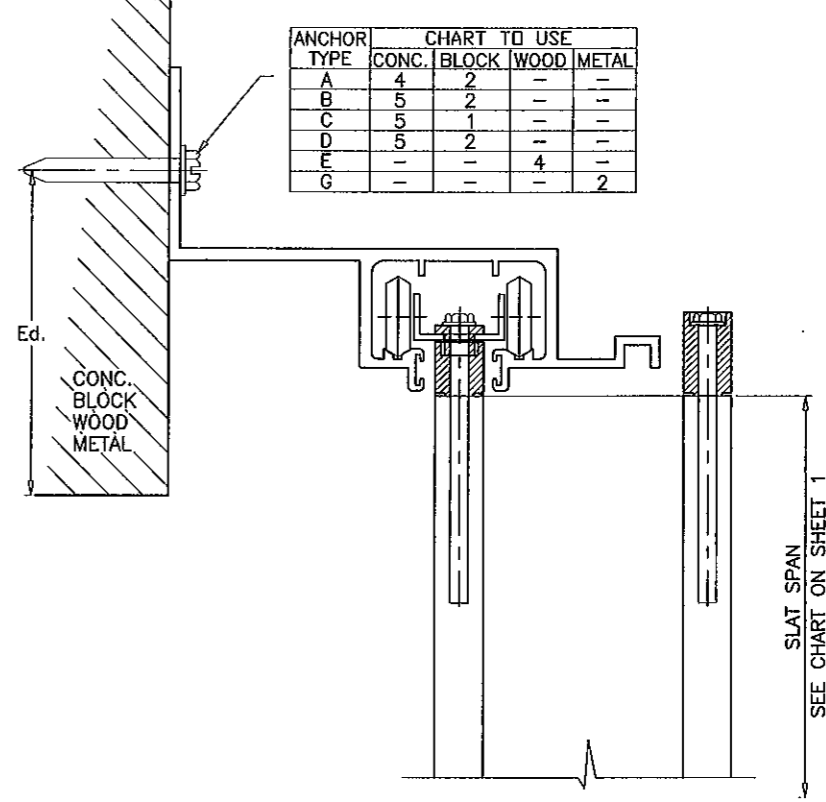


ANCHOR TYPE	CHART TO USE			
	CONC.	BLOCK	WOOD	METAL
A	8	6	-	-
B	8	6	-	-
C	8	4	-	-
D	8	5	-	-
E	-	-	8	-
G	-	-	-	5

#10 X 3/4" TEKS AT 6" O.C.

ANCHOR TYPE	CHART TO USE			
	CONC.	BLOCK	WOOD	METAL
A	5	3	-	-
B	5	2	-	-
C	5	2	-	-
D	4	2	-	-
E	-	-	4	-
G	-	-	-	3

ADJUSTABLE SILL



ANCHOR TYPE	CHART TO USE			
	CONC.	BLOCK	WOOD	METAL
A	4	2	-	-
B	5	2	-	-
C	5	1	-	-
D	5	2	-	-
E	-	-	4	-
G	-	-	-	2

#10 X 3/4" TEKS AT 6" O.C.

ANCHOR TYPE	CHART TO USE			
	CONC.	BLOCK	WOOD	METAL
A	3	1	-	-
B	3	1	-	-
C	3	1	-	-
D	3	1	-	-
E	-	-	2	-
G	-	-	-	1

ALT. ADJUSTABLE SILL

HEADER AND SILL DETAILS CAN BE USED IN ANY COMBINATIONS.

Engr. JAVAD AHMAD
CIVIL
FLA. PE # 70592
C.A.N. 3538

APR 04 2012

PRODUCT REVISED
as complying with the Florida Building Code
Acceptance No 12-0124.07
Expiration Date 06/30/2015

By *[Signature]*
Miami Door Product Control

af c
AL-FAROOQ CORPORATION
ENGINEERS & PRODUCT DEVELOPMENT
1235 S.W. 87 AVE
MIAMI, FLORIDA 33174
TEL. (305) 264-8100 FAX. (305) 262-6978
ACCORDION/09-06AU

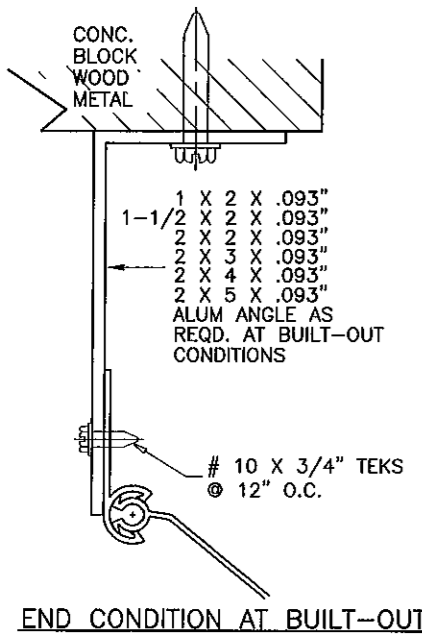
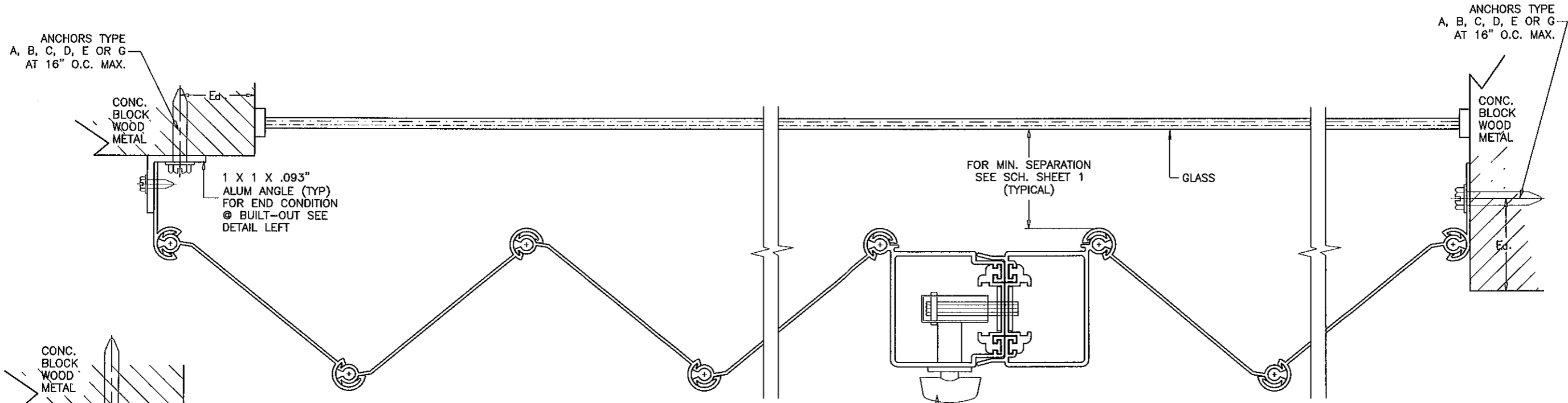
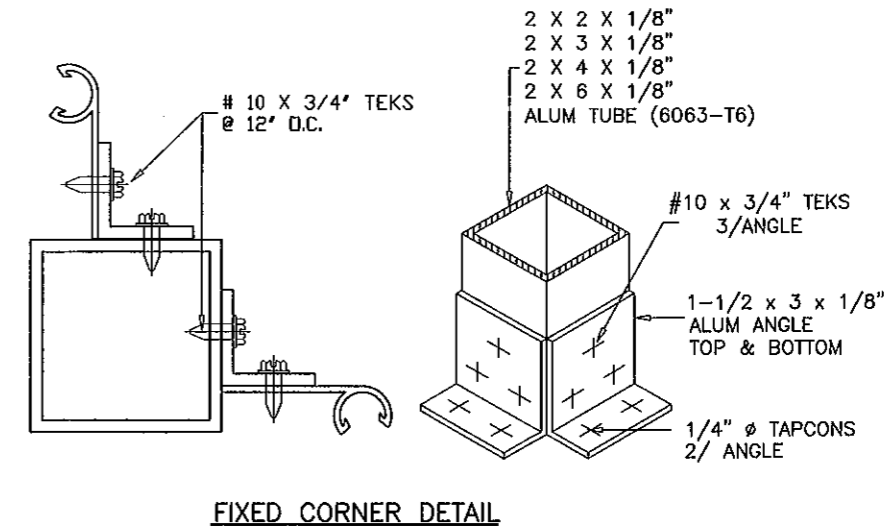
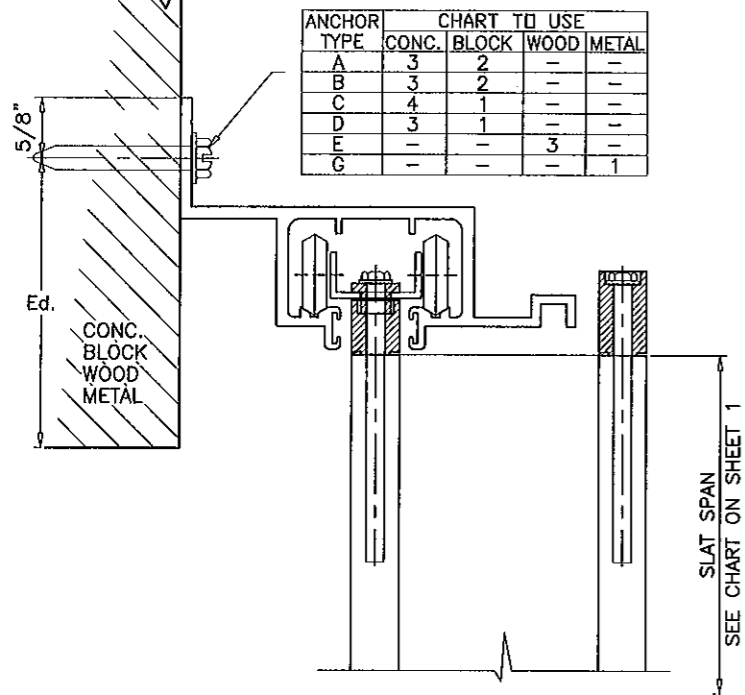
'PIRANHA' ALUMINUM ACCORDION SHUTTER
ALUTECH UNITED INC.
15 DIXON STREET
SELBYVILLE, DE. 19975
TEL. (800) 233-1144 FAX. (302) 436-5100

NO.	DATE	DESCRIPTION
A	05.18.10	NO CHANGE THIS SHEET
B	12.09.11	NO CHANGE THIS SHEET

date: 08-25-09
scale: 1/2" = 1"
dr. by: HAMID
chk. by:

drawing no. **09-06**
sheet 4 of 7

ALT. BUILT-OUT HEADER



LOCK HANDLE CAN BE INSTALLED INSIDE OR OUTSIDE
SECTION D-D

Engr: JAVAD AHMAD
CIVIL
FLA. PE # 70592
C.A.N. 3538
APR 04 2012

PRODUCT REVISED as complying with the Florida Building Code
Acceptance No 12-0120, 07
Expiration Date 06/30/2015
By *[Signature]*
Miami Dade Product Control

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ENGINEERS & PRODUCT DEVELOPMENT
1235 S.W. 87 AVE
MIAMI, FLORIDA 33174
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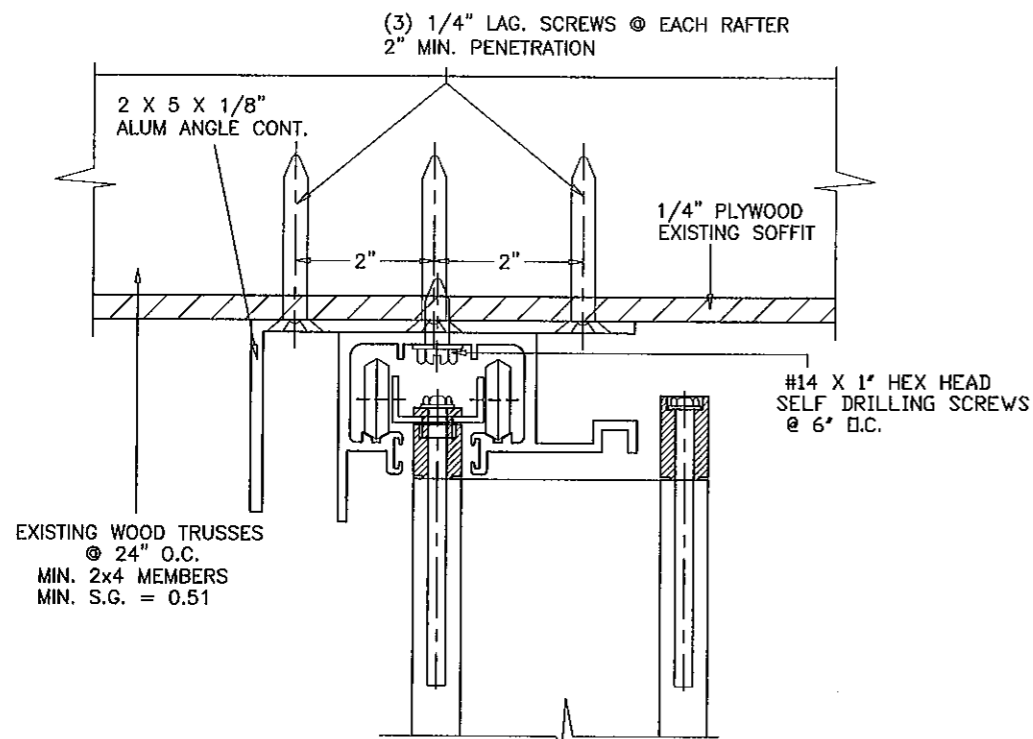
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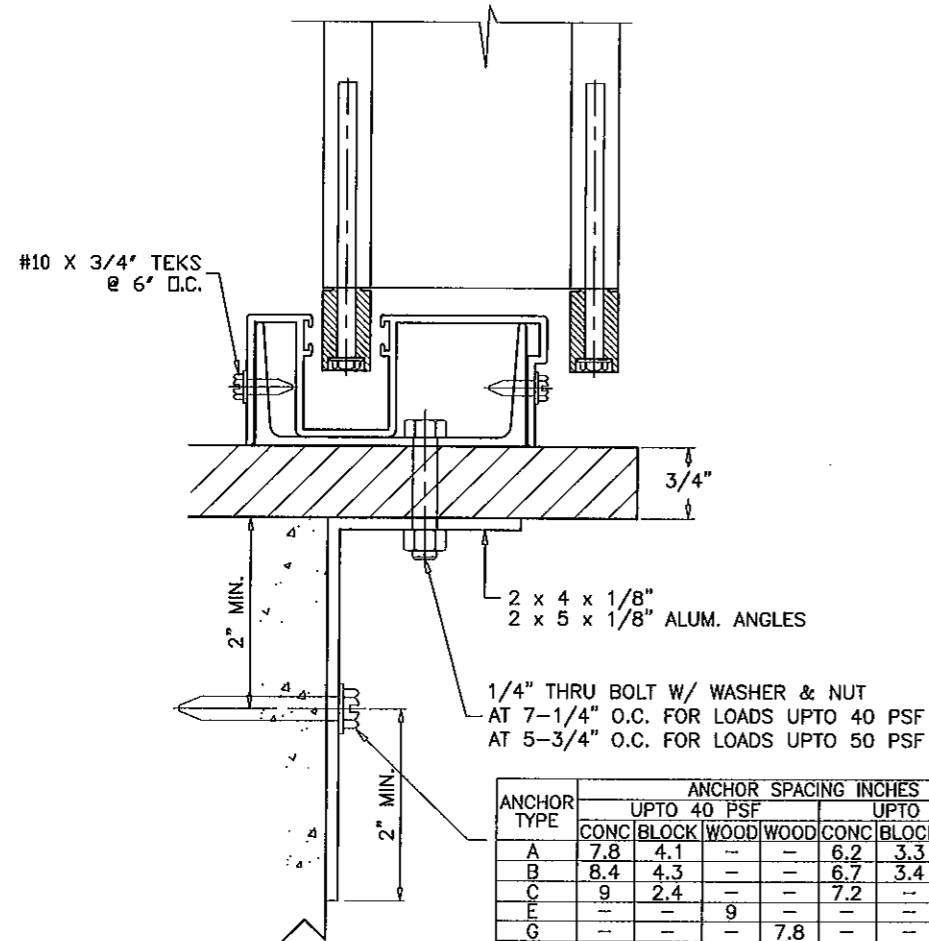
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chk. by:

drawing no. 09-06
sheet 5 of 7



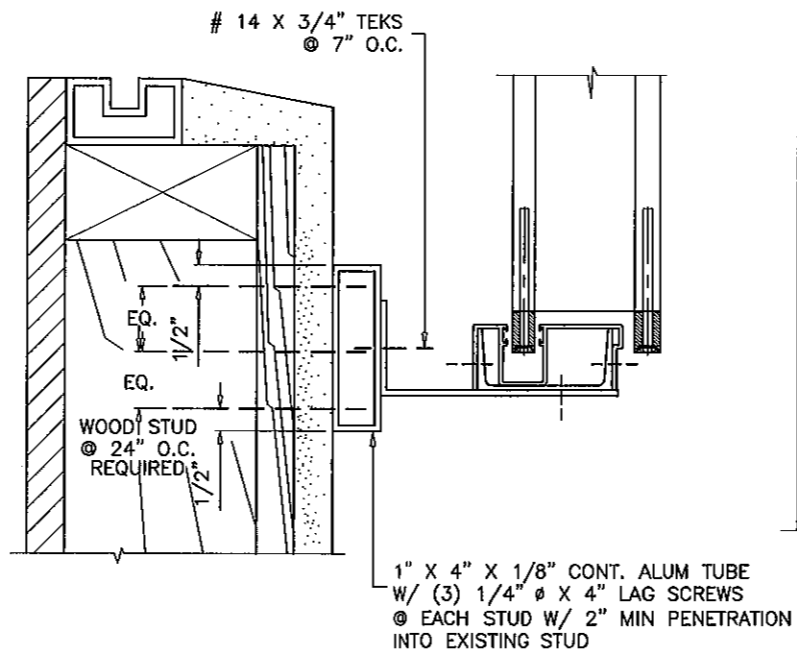
HEADER CONNECTION TO WOOD TRUSSES

FOR SHUTTER HEIGHT OF 72" MAX. DESIGN LOAD = 88 PSF
 FOR SHUTTER HEIGHT OF 84" MAX. DESIGN LOAD = 75 PSF
 FOR SHUTTER HEIGHT OF 96" MAX. DESIGN LOAD = 66 PSF
 FOR SHUTTER HEIGHT OF 108" MAX. DESIGN LOAD = 58 PSF



COUNTER TOP CONDITION
 (PASS THRU WINDOW)
 MAX SHUTTER HEIGHT = 6 FT.

ANCHOR TYPE	ANCHOR SPACING INCHES							
	UPTO 40 PSF				UPTO 50 PSF			
	CONC	BLOCK	WOOD	WOOD	CONC	BLOCK	WOOD	WOOD
A	7.8	4.1	-	-	6.2	3.3	-	-
B	8.4	4.3	-	-	6.7	3.4	-	-
C	9	2.4	-	-	7.2	-	-	-
E	-	-	9	-	-	-	9	-
G	-	-	-	7.8	-	-	-	6.3

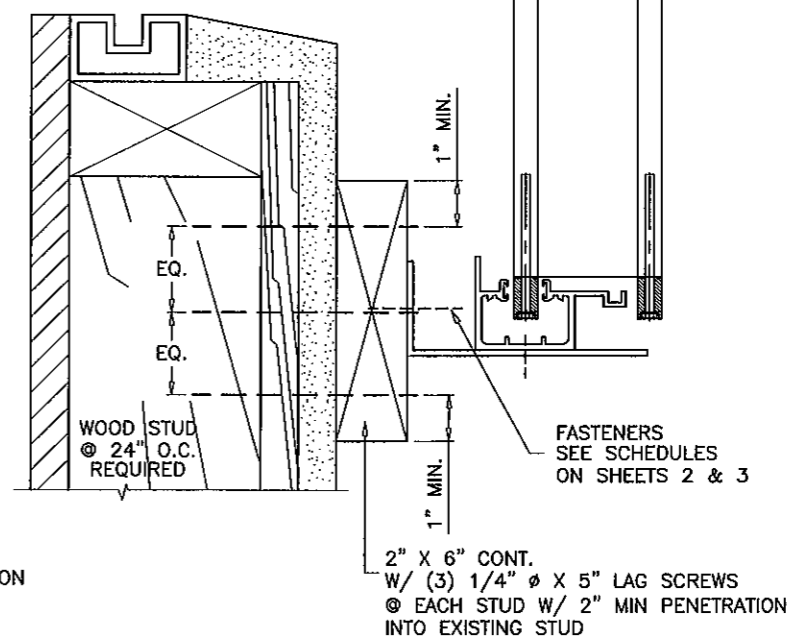
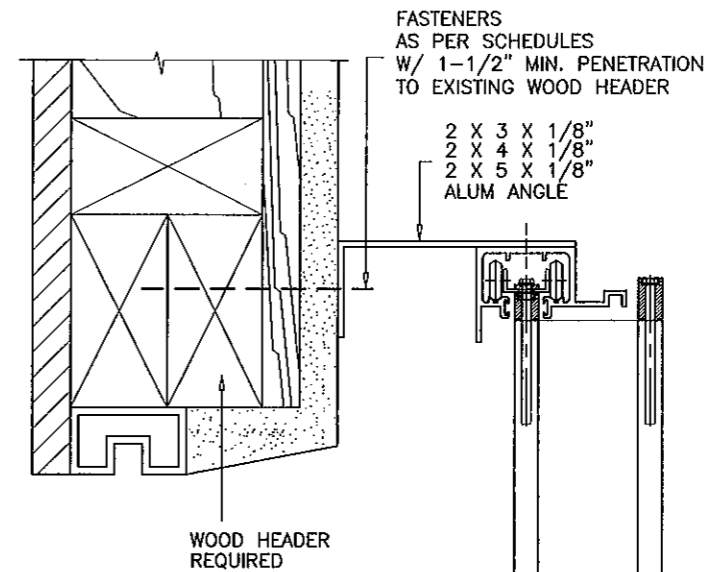


FOR SHUTTER HEIGHT OF 84" MAX. DESIGN LOAD = 80 PSF
 FOR SHUTTER HEIGHT OF 96" MAX. DESIGN LOAD = 70 PSF
 FOR SHUTTER HEIGHT OF 108" MAX. DESIGN LOAD = 62 PSF
 FOR SHUTTER HEIGHT OF 120" MAX. DESIGN LOAD = 56 PSF

INSTALLATION DETAIL ON EXISTING WOOD BUCKS SCALE: 1/4"=1"

ABOVE DETAILS SHOWS CONNECTION OF 2X6 BUCK & 1X4 ALUM TUBE TO WOOD STUDS TO PROVIDE A CONTINUOUS SURFACE FOR SHUTTER INSTALLATION.

FOR INSTALLATION DETAILS OF HEADER/SILL TO CONTINUOUS WOOD MEMBERS SEE SHEETS 3 THRU 4.



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 Miami Dade Product Control

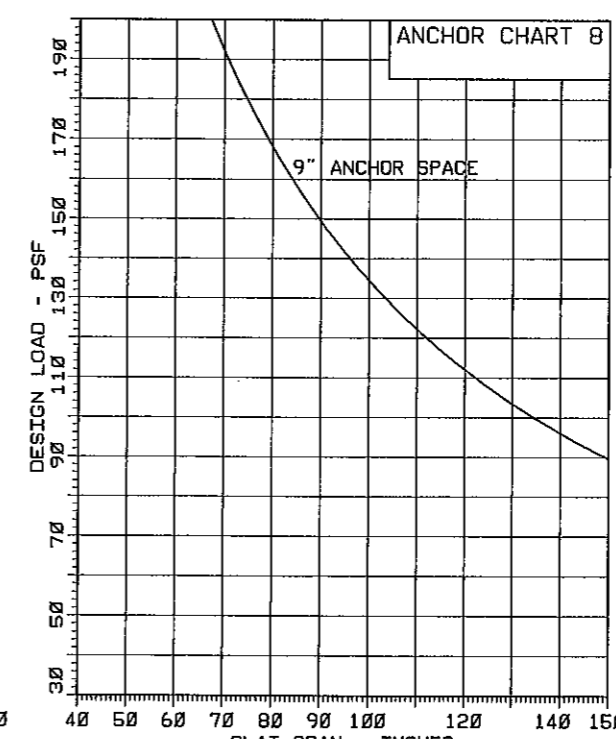
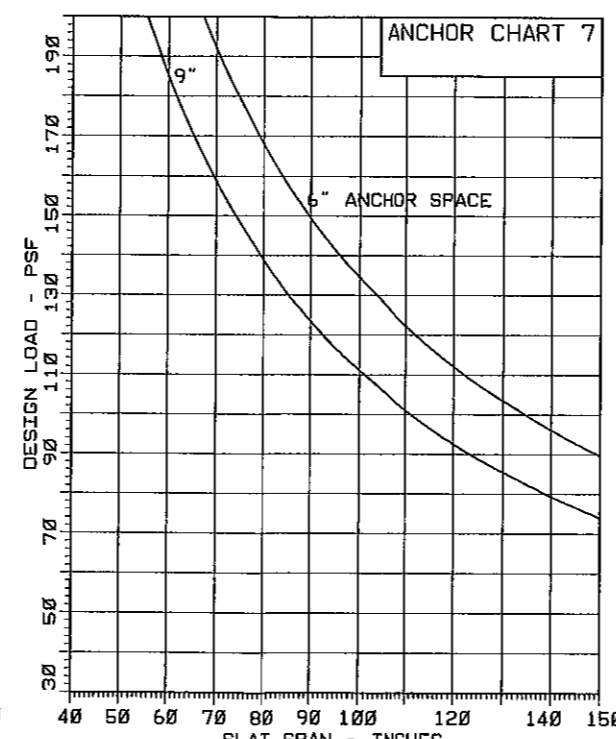
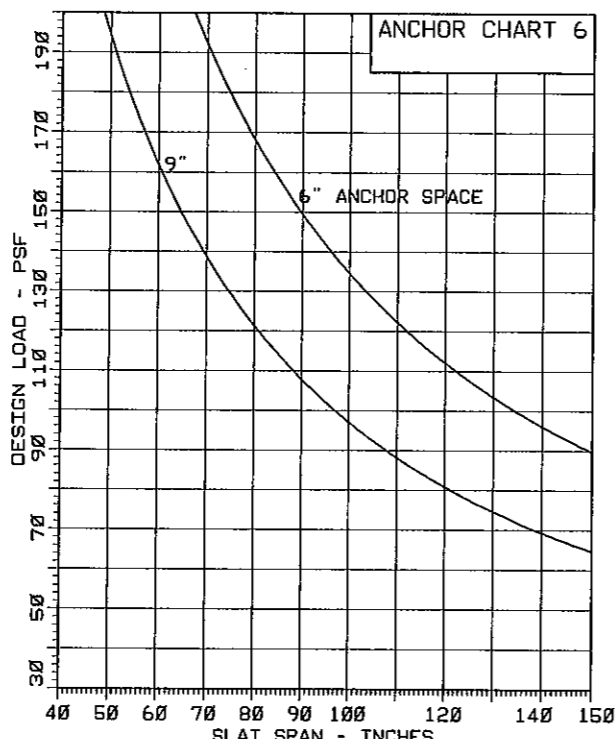
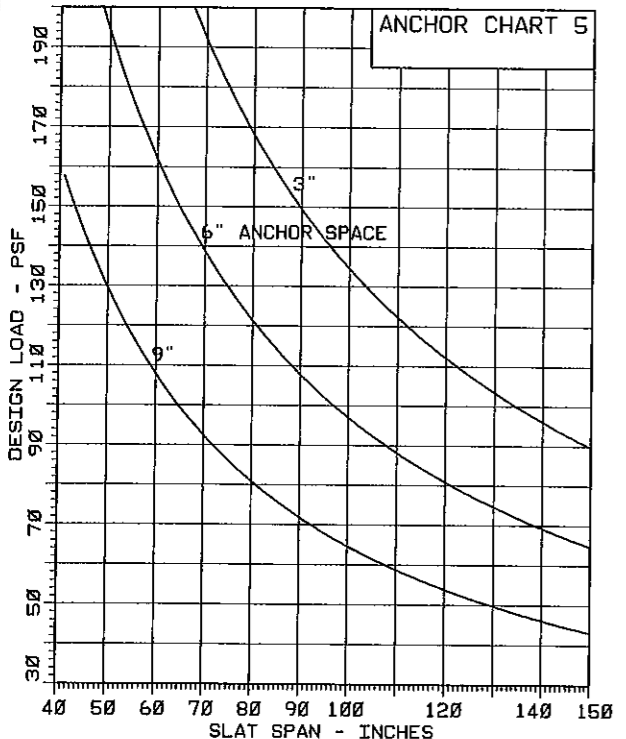
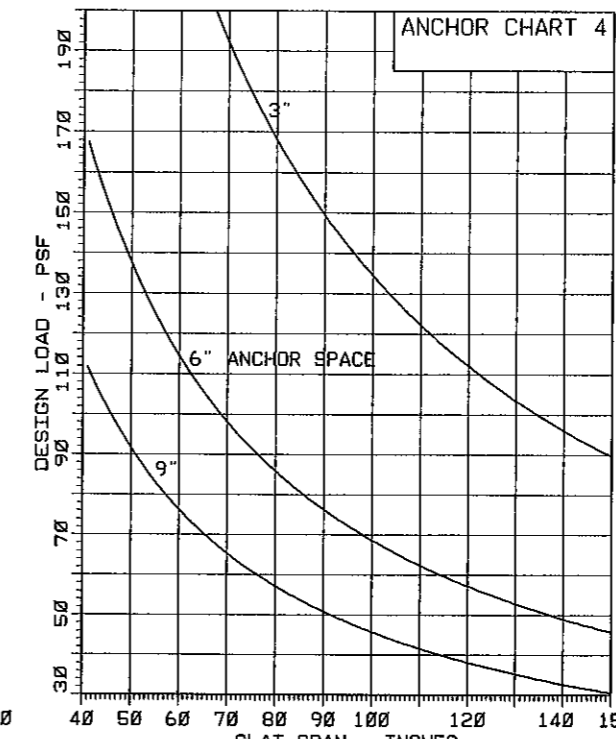
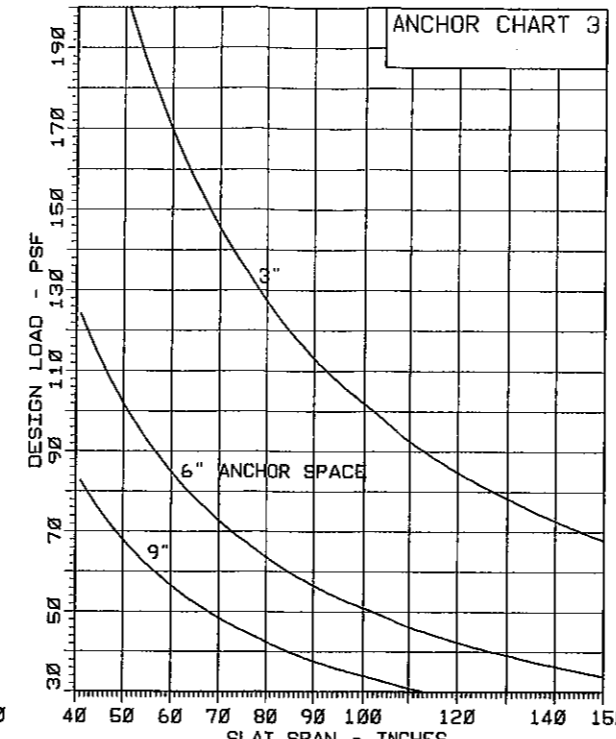
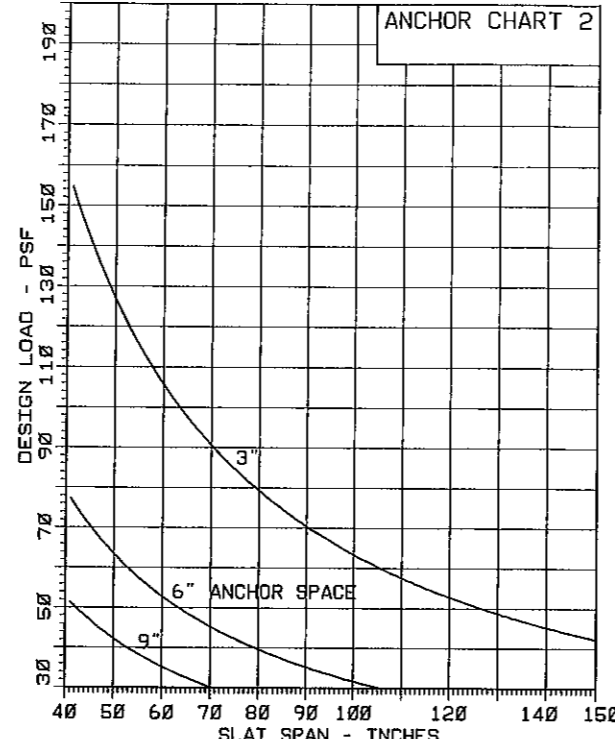
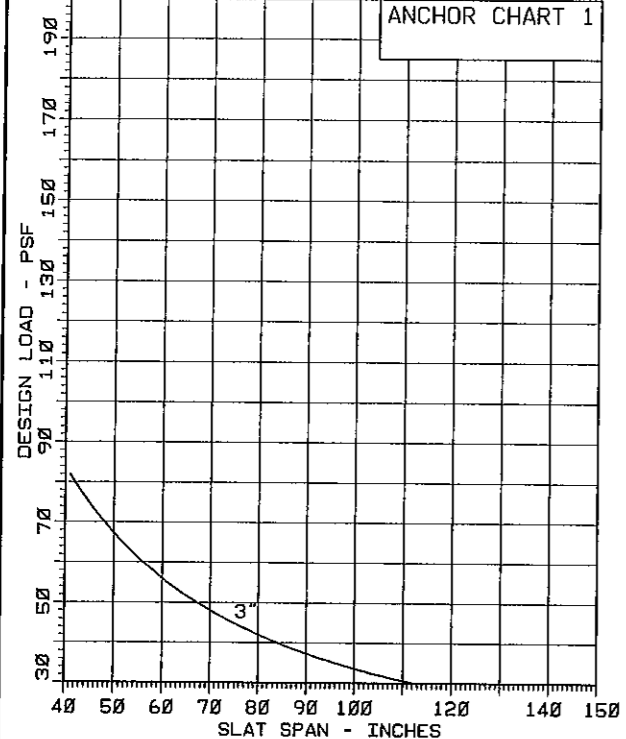
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09-06
 sheet 6 of 7



TYPICAL ANCHORS:

- ANCHOR (A) = 1/4" DIA. ULTRACON (BY ELCO)
 1-3/4" EMBEDMENT INTO 3000 PSI CONC.
 1-1/4" EMBEDMENT INTO C-90 BLOCK
- ANCHOR (B) = 5/16" DIA. ULTRACON (BY ELCO)
 1-3/4" EMBEDMENT INTO 3000 PSI CONC.
 1-1/4" EMBEDMENT INTO C-90 BLOCK
- ANCHOR (C) = 1/4" DIA. TAPCON (BY ITW)
 1-3/4" EMBEDMENT INTO 3000 PSI CONC.
 1-1/4" EMBEDMENT INTO C-90 BLOCK

- ANCHOR (D) = 1/4" RAWL CALK-IN (BY POWERS)
 TOTAL ANCHOR BODY INTO 3000 PSI CONC.
 OR C-90 BLOCK
 2" MIN. EDGE DIST.
- ANCHOR (E) = 1/4" DIA. LAG SCREWS
 1-1/2" MIN PENETRATION INTO WOOD(S.G.=0.55)
- ANCHOR (G) = 1/4" DIA. KWIK-FLEX SELF DRILLING SCREWS
 INTO METAL STRUCTURES
 (STEEL OR ALUMINUM 1/8" MIN. THICK.)

NOTE: ANCHORS EMBEDMENT SHOWN IS BEYOND WALL & FLOOR COVERINGS (STUCCO, TILES, ETC.)

USE CHARTS 1 THRU 8 TO VERIFY ANCHOR REQUIREMENTS AND STRESS LIMITATIONS OF LOAD/SPAN COMBINATIONS FOR HEADER AND SILL.

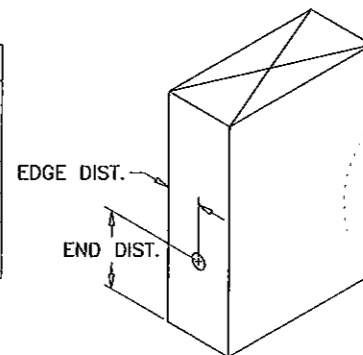
FASTENER SPACING IN MASONRY

CHARTS 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 CHART)
 FOR 2" EDGE DIST. SPACING = 12 X .71 = 8.5 O.C.

TYPICAL EDGE DISTANCE IN WOOD = 3/4"
 TYPICAL END DISTANCE IN WOOD = 1"
 NO REDUCTION FACTOR IS REQUIRED



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