



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)

MetalTech, Inc.
 7635 West 2nd Court
 Hialeah, FL 33014

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: Maximum Impact 0.060" Aluminum Storm Panel Shutter

APPROVAL DOCUMENT: Drawing No. 99001, titled "0.060" Maximum Impact Storm Panel", sheets 1 through 7 of 7, prepared by Ramms Engineering, Inc., signed and sealed by Robert Monsour, P.E., on January 12, 2006, 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 # 06-0117.06** 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
 05/31/2007

NOA No 07-0125.09
Expiration Date: 07/01/2012
Approval Date: 05/31/2007
 Page 1

MetalTech, Inc.

NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED

1. EVIDENCE SUBMITTED UNDER PREVIOUS APPROVAL # 99-0217.07

A. DRAWINGS

1. *Drawing No. 99001, titled "0.060" Maximum Impact Storm Panel", prepared by Ramms Engineering, Inc., dated January 15, 1999, sheets 1 through 7 of 7, only sheets 4, 5, and 6 of 7 last revised on June 3, 1999, signed and sealed by Robert S. Monsour, P.E.*

B. TESTS

1. *Test report on Large Missile Impact Test, Cyclic Wind Pressure Test, and Uniform Static Air Pressure Test of 0.060" aluminum storm panels, prepared by Construction Testing Corporation, Report No. CTC 98-032, dated January 21, 1999, signed and sealed by Yamil Kuri, P.E.*
2. *Letter from Construction Testing Corporation, regarding Test Report No. CTC 98-032, dated June 4, 1999, signed by George Dotzler.*

C. CALCULATIONS

1. *Comparative Analysis and Anchor Analysis, dated January 19, 1999, pages 1 through 119, prepared by Ramms Engineering, Inc., signed and sealed by Robert S. Monsour, P.E.*

D. MATERIAL CERTIFICATIONS

1. *Mill Certified Inspection Report of coils, dated 07/15/98, for Aluminum Alloy 5052-H32 by Alumas Mill Products, with chemical composition and physical properties.*
2. *Tensile Test Report #CTL-301E, prepared by Certified Testing Laboratories, dated March 23, 1999, for Aluminum sample #98-32, signed and sealed by Ramish Patel, P.E.*

2. EVIDENCE SUBMITTED UNDER PREVIOUS APPROVAL # 02-0312.06

A. DRAWINGS

See NOA 99-0217.07

B. TESTS

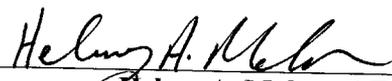
See NOA 99-0217.07

C. CALCULATIONS

See NOA 99-0217.07

D. MATERIAL CERTIFICATIONS

See NOA 99-0217.07



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

Product Control examiner

NOA No 07-0125.09

Expiration Date: 07/01/2012

Approval Date: 05/31/2007

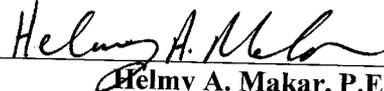
MetalTech, Inc.

NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED

- E. STATEMENTS**
See NOA 99-0217.07
- F. OTHER**
See NOA 99-0217.07

- 3. EVIDENCE SUBMITTED UNDER PREVIOUS APPROVAL # 02-0611.03**
 - A. DRAWINGS**
See NOA 02-0312.06
 - B. TESTS**
See NOA 02-0312.06
 - C. CALCULATIONS**
See NOA 02-0312.06
 - D. MATERIAL CERTIFICATIONS**
See NOA 02-0312.06
 - E. STATEMENTS**
 - 1. *See NOA 02-0312.06*
 - 2. *Letter from MetalTech, Inc., dated 6/5/02, stating that the product has not changed since it was originally approved.*
 - F. OTHER**
See NOA 02-0312.06

- 4. EVIDENCE SUBMITTED UNDER PREVIOUS APPROVAL # 06-0117.06**
 - A. DRAWINGS**
 - 1. *Drawing No. 99001, titled "0.060" Maximum Impact Storm Panel", sheets 1 through 7 of 7, prepared by Ramms Engineering, Inc., signed and sealed by Robert Monsour, P.E., on January 12, 2006.*
 - B. TESTS**
 - 1. *None.*
 - C. CALCULATIONS**
 - 1. *Anchor Calculations and details for 0.060" Aluminum Storm Panels, dated January 06, 2006, pages 1 through 47 of 47, prepared by Ramms Engineering, Inc., signed and sealed by Robert Monsour, P.E., on January 06, 2006.*



Helmy A. Makar, P.E., M.S.
Product Control examiner
NOA No 07-0125.09
Expiration Date: 07/01/2012
Approval Date: 05/31/2007

MetalTech, Inc.

NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED

D. QUALITY ASSURANCE

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

E. MATERIAL CERTIFICATIONS

1. *None.*

5. NEW EVIDENCE SUBMITTED

A. DRAWINGS

1. *None.*

B. TESTS

1. *None.*

C. CALCULATIONS

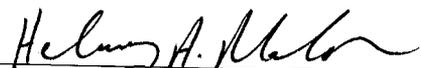
1. *None.*

D. QUALITY ASSURANCE

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

E. MATERIAL CERTIFICATIONS

1. *None.*



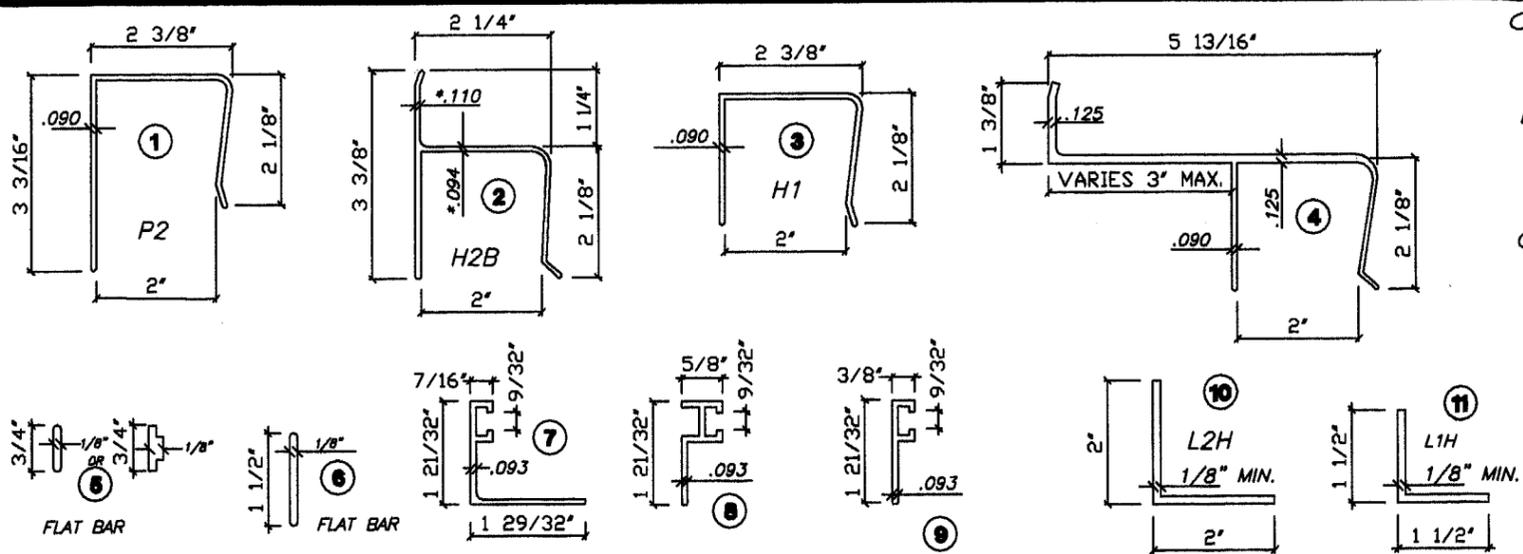
Helmy A. Makar, P.E., M.S.

Product Control examiner

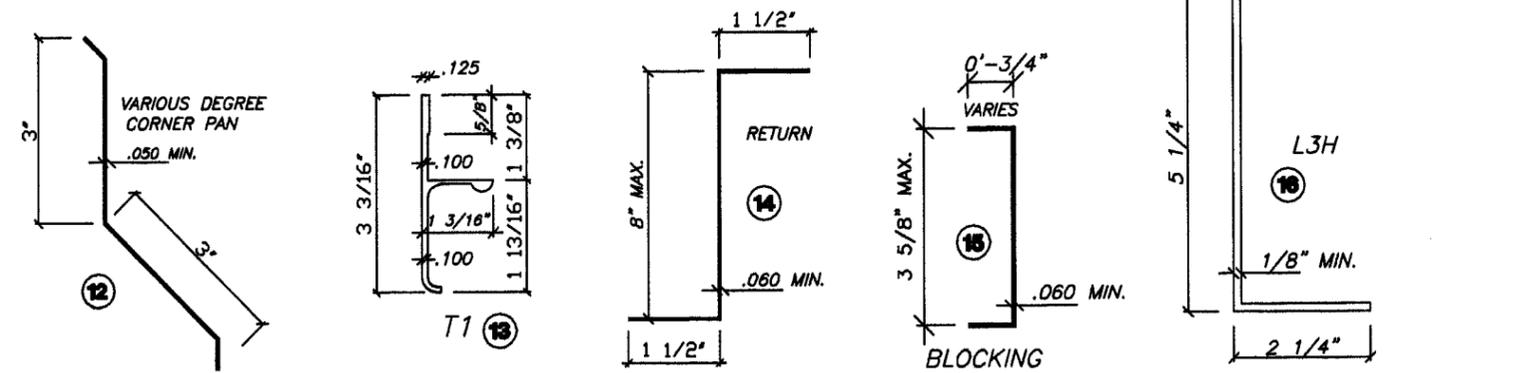
NOA No 07-0125.09

Expiration Date: 07/01/2012

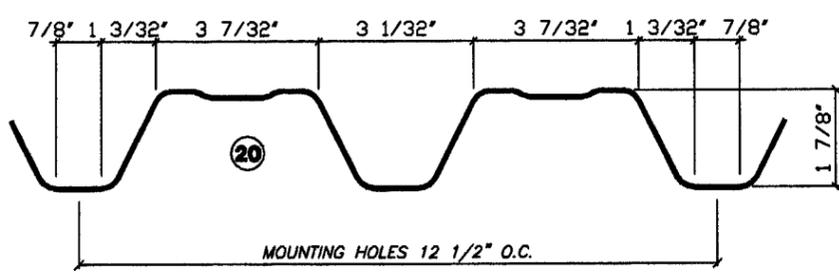
Approval Date: 05/31/2007



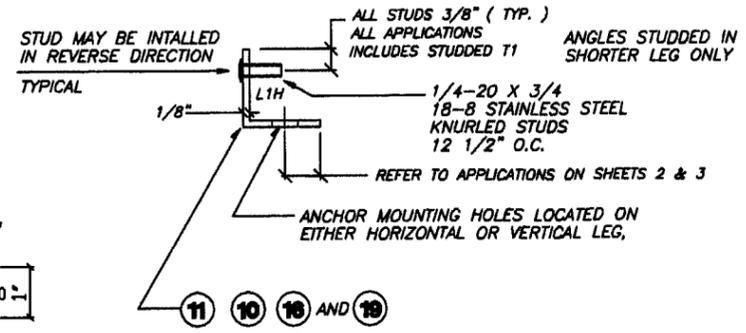
VARIOUS TYPES OF F-TRACK NOT SHOWN



SPECIAL NET PANEL SECTION



CROSS SECTIONS



STUDED ANGLE DETAIL

1/8" x 1 1/2" FLAT STUDED STRAP MAY BE USED IN PLACE OF ANGLE

COMPLIES WITH:
FLORIDA BUILDING CODE
TESTED TO TAS201, TAS202 AND TAS203

.060

DESIGN CRITERIA:
WIND LOADS TO BE CALCULATED AS PER ASCE 7
NO INCREASE IN ALLOWABLE STRESS WAS USED IN THE DESIGN OF THIS PRODUCT

GENERAL NOTES:
ALL ALUMINUM EXTRUSIONS TO BE ALLOY 6063-T6 OR EQUAL
STORM PANELS SHALL BE:
.060 5052 H-32 ALUMINUM OR EQUAL
SMOOTH OR EMBOSSED WITH A NOMINAL WIDTH OF 12 1/2"
THE STORM PANEL SHUTTER MAY BE INSTALLED VERTICALLY OR HORIZONTALLY,
IN ACCORDANCE TO THE DETAILED SPECIFICATIONS HEREIN.
PANELS MAY BE NOTCHED OR MITERED TO ACCOMMODATE AN OBSTRUCTION
ANCHORAGE OF THE SHUTTER SYSTEM TO CONCRETE OR MASONRY SHALL CONSIST OF
THE FOLLOWING OR EQUAL WITH MINIMUM ULTIMATE LOAD VALUES SHOWN
1/4" DIA. RAWL LOK/BOLT ANCHOR (SLEEVED DRIVE ANCHOR)
MIN. TENSILE 1190 - MIN. SHEAR 1520 - 1 1/8" MIN. EMBED. IN CONCRETE
MIN. TENSILE 1200 - MIN. SHEAR 1270 - 1 1/8" MIN. EMBED. IN MASONRY
1/4-20 RAWL CALK-IN ANCHOR (MACHINE SCREW ANCHOR) WITH 1/4-20 BOLTS
MIN. TENSILE 1870 - MIN. SHEAR 1730 - 7/8" MIN. EMBED. IN CONCRETE
MIN. TENSILE 880 - MIN. SHEAR 1340 - 7/8" MIN. EMBED. IN MASONRY
1/4" PERMA-SEAL TAPPER BY RAWL (MASONRY SCREWS VARIOUS HEAD TYPES)
MIN. TENSILE 1520 - MIN. SHEAR 1980 - 1 1/2" MEN. EMBED. IN CONCRETE
MIN. TENSILE 880 - MIN. SHEAR 1270 - 1 1/4" MIN. EMBED. IN MASONRY
1/4" ZAMAC NAILIN BY RAWL (ZAMAC HAMMER DRIVES)
MIN. TENSILE 980 - MIN. SHEAR 1400 - 1 3/8" MIN. EMBED. IN CONCRETE
MIN. TENSILE 730 - MIN. SHEAR 1320 - 1 1/4" MIN. EMBED. IN MASONRY

ANCHORAGE TO WOOD CONSTRUCTION SHALL BE 1/4" STEEL LAGS OR LARGER
WITH 1" MIN. THREAD PENETRATION, 1/4-20 BRASS WOOD BUSHINGS OR
1/4" ELCO PANEL MATES WITH 1 7/8" MIN. THREAD PENETRATION.

REFER TO SHEETS 5, 6 & 7 OF 7 FOR ANCHOR SPACING AND MINIMUM EMBEDMENTS
IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY THE SOUNDNESS OF THE
STRUCTURE TO WITHSTAND THE ADDITIONAL LOADS AND INSURE PROPER ANCHORAGE.

EACH PANEL SHALL BEAR A PERMANENT LABEL OR STAMP SHOWING
"METALTECH, INC. HIALEAH, FL" "DADE COUNTY PRODUCT CONTROL APPROVED"

WARNING TO OWNER OR TENANT LOCATED IN EACH HEADER OR ONE PANEL OF EACH OPENING,
STATING "STORM PANELS WILL NOT OFFER HURRICANE PROTECTION UNLESS ALL REINFORCING
STRAPS OR BOLTS ARE PROPERLY INSTALLED, WHEN REQUIRED"

PERMANENT FASTENER COMPONENTS, EMBEDDED ANCHOR BOLTS, THREADED CONES
OR METAL SHIELDS, NOT IN USE, MUST BE PROTECTED AGAINST CORROSION,
CONTAMINATION AND DAMAGE AT ALL TIME.

PRODUCT RENEWED
as complying with the Florida
Building Code
Acceptance No. 07-0125.09
Expiration Date 07/01/2012
By Helmut A. Meier
Miami Dade Product Control
Division

PRODUCT REVISED
as complying with the Florida
Building Code
Acceptance No. 06-0117.06
Expiration Date 07/01/2007
By Helmut A. Meier
Miami Dade Product Control
Division

ROBERT S. MONSOUR, PE
EB-0006024
RAMMS ENGINEERING, INC.

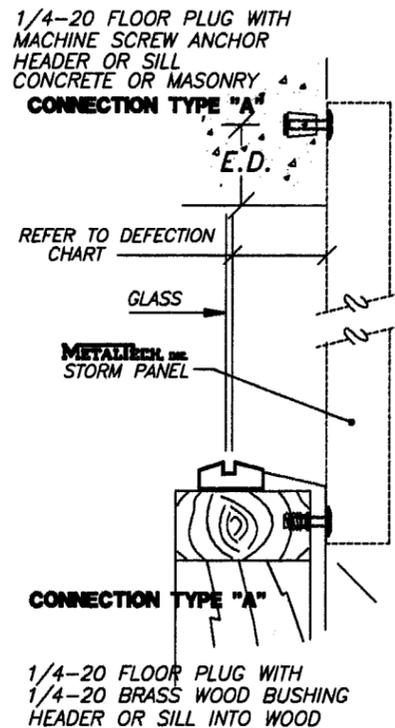
REVISIONS	BY
01/06/06	SP

RAMMS ENGINEERING, INC.
Structural Design
2100 W. 76th STREET, SUITE 311
HIALEAH, FLORIDA 33016
EB 0006024

METALTECH, INC.
EST. 1957
7635 W. SECOND CT. HIALEAH, FL 33014

DATE	APPROVED
SEP/JRB/RSM	
DATE	
01/15/99	
SCALE	
SHOWN	
NO.	
99001	
SHEET	
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7	

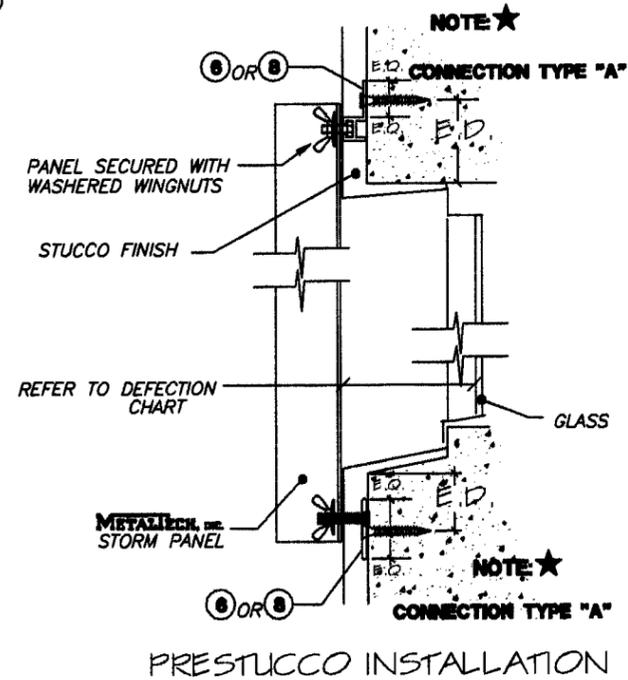
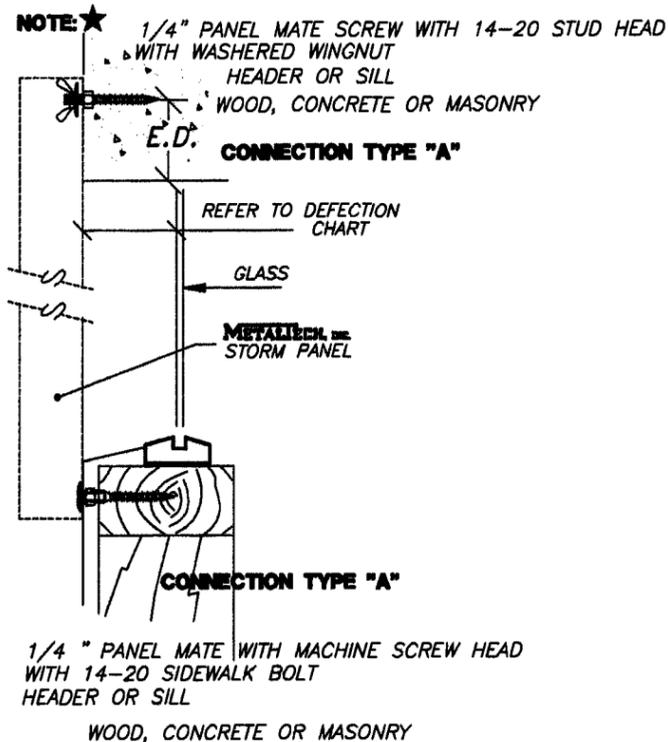
BUILDING CODE COMPLIANCE



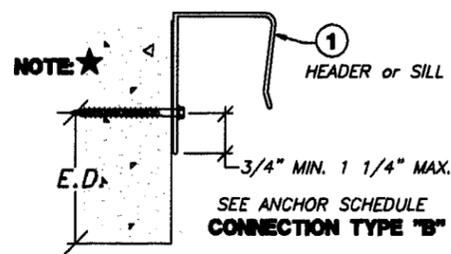
NOTE:
THE METALTECH STORM PANEL MAY BE INSTALLED WITHOUT THE USE OF AN EXTRUDED HEADER OR SILL. THE SHUTTER MAY BE ANCHORED DIRECTLY TO THE STRUCTURE WITH THE USE OF ONE OR A COMBINATION OF DETAIL 13

NOTE ★

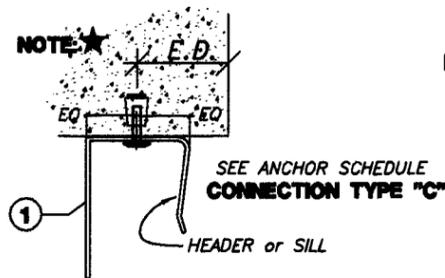
DETAIL 13



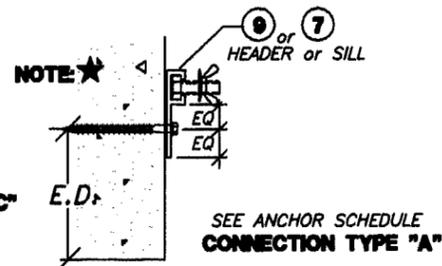
DETAIL 14



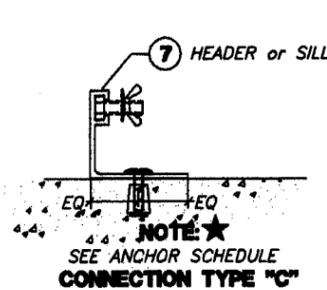
DETAIL 15



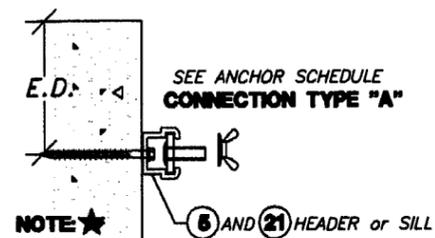
DETAIL 16



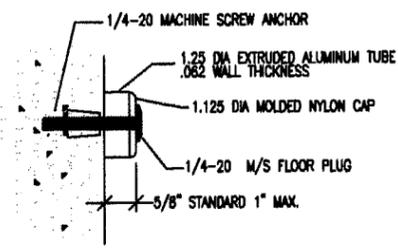
DETAIL 17



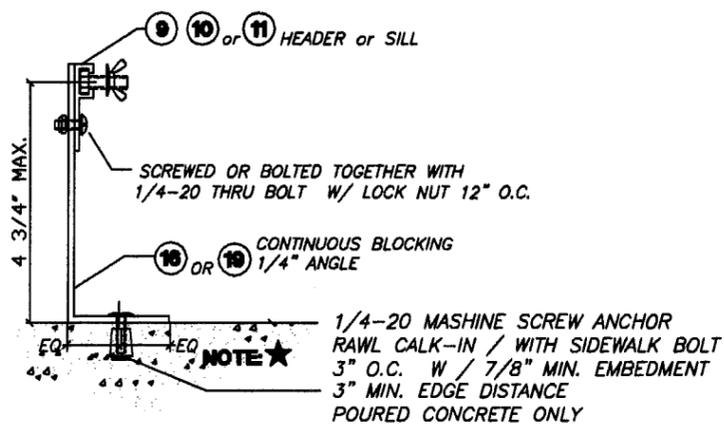
DETAIL 18



DETAIL 19



DETAIL 20



59.5 PSF MAXIMUM / PANEL HEIGHT 109" MAXIMUM

DETAIL 21

ADJUSTABLE HEADER OR SILL

NOTE ★

IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY THE SOUNDNESS OF THE STRUCTURE TO WITH STAND THE ADDITIONAL LOADS AND INSURE PROPER ANCHORAGE. SHUTTER SYSTEM MAY BE INTSALL INTO WOOD, CONCRETE, MASONRY.

WHEN ANCHORING TO WOOD, THE WOOD MUST BE A MINIMUM 2 X 4 EQUAL TO #2 SOUTHERN PINE WITH 0.55 SPECIFIC GRAVITY AND STRUCTURALLY PART OF THE FRAMING STRUCTURE OR SUCURELY ATTACHED TO FRAMING STRUCTURE

PRODUCT RENEWED as complying with the Florida Building Code Acceptance No 07-0125.09 Expiration Date 07/01/2012
By Helmut A. Miller Miami Dade Product Control Division

PRODUCT REVISED as complying with the Florida Building Code Acceptance No 06-0117.06 Expiration Date 07/01/2007
By Helmut A. Miller Miami Dade Product Control Division

Robert S. Monsour
ROBERT S. MONSOUR, PE
EB-0006024
RAMMS ENGINEERING, INC.

BUILDING CODE COMPLIANCE

REVISIONS	BY
01/12/06	SP

RAMMS ENGINEERING, INC.
Structural Design
2100 W. 70th STREET, SUITE 311
HALEAH, FLORIDA 33016
EB 0006024

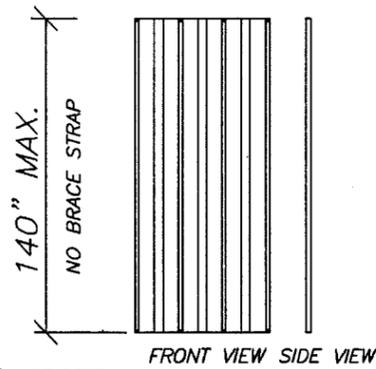
METALTECH, INC.
7635 W. SECOND CT. HIALEAH, FL 33014
EST. 1957

REGISTERED WORLD-WIDE

DATE	BY	REVISION
SEP / JRB / RSM		
DATE:		
01/15/09		
SCALE:		
SHOWN		
JOB:		
99001		
SHEET:		
3		
7		

THE METALTECH STORM PANELS MAY BE INSTALLED WITH OR WITHOUT THE HORIZONTAL BRACE STRAP. REFER TO PANEL DEFLECTION CHARTS.

.060 ALUMINUM MAXIMUM IMPACT STORM PANEL

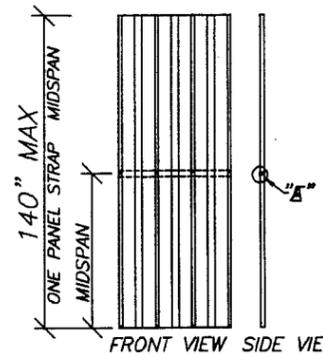


140" MAX. PANEL HEIGHT
NO PANEL STRAP
IS REQUIRED

PANEL DEFLECTION CHART WITHOUT HORIZONTAL STRAP

PANEL HEIGHT	0-78"	over 78"-96"	over 96"-140"
WALL MOUNT	2"	2 1/2"	4 1/8"
INSIDE MOUNT	2"	2 1/2"	4 1/8"
BUILD OUT	2"	2 1/2"	4 1/8"

MINIMUM DISTANCE BETWEEN GLASS AND PANEL



140" MAX. PANEL HEIGHT
ONE PANEL STRAP
LOCATED MIDSPAN

PANEL DEFLECTION CHART WITH HORIZONTAL STRAP

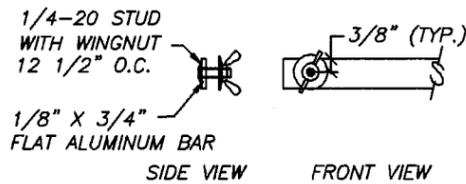
PANEL HEIGHT	over 96"-107"	over 107"-140"
WALL MOUNT	2 1/2"	2 13/16"
INSIDE MOUNT	2 1/2"	2 13/16"
BUILD OUT	2 1/2"	2 13/16"

MINIMUM DISTANCE BETWEEN GLASS AND PANEL

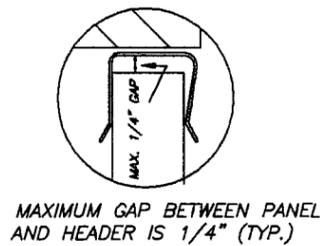
.060 ALUM

DESIGN PRESSURE	PANEL SPAN
36.88	140"
44.40	135"
47.81	132"
51.23	128"
58.06	120"
61.47	118"
66.85	113"
71.46	108"
75.30	106"
81.45	100"
86.83	94"
91.44	89"

HORIZONTAL BRACE STRAP



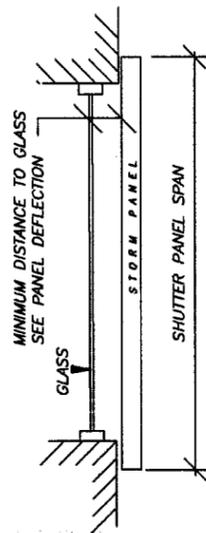
DETAIL "E"



DETAIL "F"

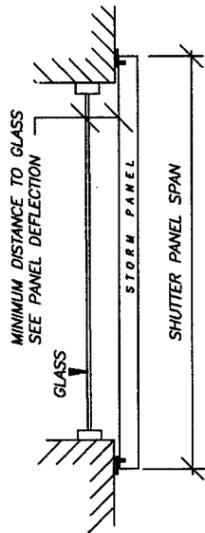
HEADER AND SILL TYPE MAY VARY, DEPENDING ON APPLICATION

DETAIL 13 ON SHEET 3



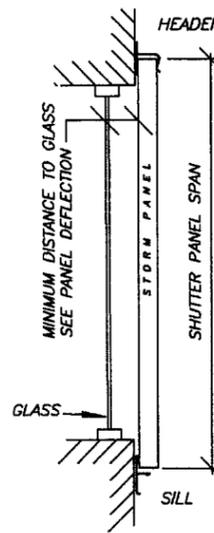
DETAIL 13 ON SHEET 3

DETAIL 3, 4, & 8 ON SHEET 2



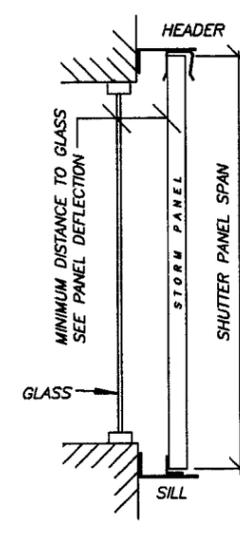
DETAIL 3, 4, & 8 ON SHEET 2

DETAIL 1 ON SHEET 2
DETAIL 15 ON SHEET 3



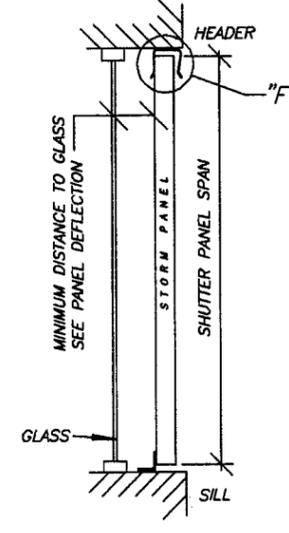
DETAILS 3, 4 AND 8 ON SHEET 2

DETAILS 5, 7, 9, 10 AND 11 ON SHEET 2

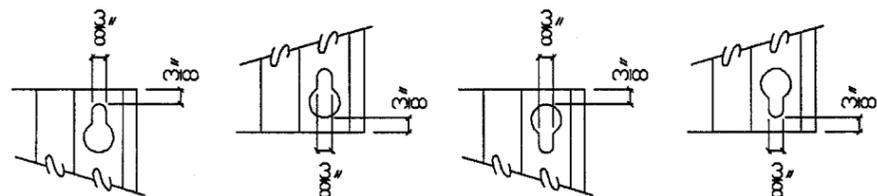


DETAILS 5, 7, 9, 10 AND 11 ON SHEET 2

DETAIL 2 ON SHEET 2
DETAIL 16 ON SHEET 3

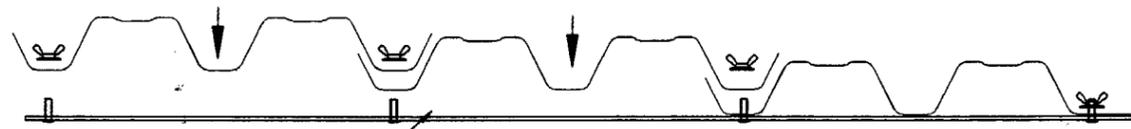


DETAIL 4 ON SHEET 2



FASTENER MUST BE IN NARROW PORTION OF KEY HOLE
MOUNTING HOLE MAY ALSO BE A 9/16" DIA. CIRCLE

DETAIL "G"



HORIZONTAL BRACE STRAP
HEADER AND SILL

PANELS MAY RUN CONTINUOUS BY WIDTH
EITHER HORIZONTALLY OR VERTICALLY

EXPLODED ASSEMBLY

WALL MOUNT

ANCHORING PANEL
TOP & BOTTOM
NO HDR. OR SILL

WALL MOUNT

ANCHORING PANEL
TOP & BOTTOM
WITH STUDDED HDR/SILL

WALL MOUNT

WITH HDR. AND SILL

BUILD OUT

WITH HDR. AND SILL

INSIDE MOUNT

WITH HDR. AND SILL

TYPICAL SECTION VIEWS

PRODUCT RENEWED
as complying with the Florida
Building Code
Acceptance No. 07-0125.09
Expiration Date 07/01/2012
By Helmut A. Miller
Miami Dade Product Control
Division

PRODUCT REVISED
as complying with the Florida
Building Code
Acceptance No. 06-0117.06
Expiration Date 07/01/2007
By Helmut A. Miller
Miami Dade Product Control
Division

ROBERT S. MONSOUR, PE
EB-0006024
RAMMS ENGINEERING, INC.

REVISIONS	BY
06/03/99	SP

RAMMS ENGINEERING, INC.
Structural Design
2100 W. 76th STREET, SUITE 311
HIALEAH, FLORIDA 33016
EB 0006024

METALTECH, INC.
7635 W. SECOND CT. HIALEAH, FL 33014
EST. 1957
WORLD-WIDE

BUILDING CODE COMPLIANCE

DATE	BY
SEP/JRB/RSM	APPROVED
01/15/99	DATE
SHOWN	SCALE
99001	SHEET
4	PAGES

ANCHOR SCHEDULE

ANCHOR SPACING vs DESIGN PRESSURE AND CONNECTION TYPE			UP TO 59.6 PSF										UPTO 71.5 PSF									
			POURED CONCTETE					CONCRETE BLOCK					POURED CONCTETE					CONCRETE BLOCK				
			CONNECTION TYPE					CONNECTION TYPE					CONNECTION TYPE					CONNECTION TYPE				
ANCHOR TYPE	PANEL	E.D.	A	B	C	D	E	A	B	C	D	E	A	B	C	D	E	A	B	C	D	E
	68" SPAN	3"	16	13	8	13	13	16	13	10	13	13	16	13	7	13	13	16	13	8	13	13
		2"	16	13	7	13	13	16	13	8	13	13	16	13	5	13	13	16	13	6	13	13
		1 1/4"	16	13	5	13	13	16	13	6	13	13	14	13	4	13	13	14	13	4	13	13
	88" SPAN	3"	16	13	6	13	13	16	13	7	13	13	14	6	5	9	10	14	6	6	9	10
		2"	15	11	5	13	13	15	11	6	13	13	12	6	4	8	9	12	6	5	8	9
		1 1/4"	13	10	4	13	13	13	10	5	13	13	11	5	3	7	8	11	5	4	7	8
	105" span	3"	14	6	5	9	10	14	7	6	9	10	11	4	4	5	4	12	4	5	5	4
		2"	12	6	4	8	9	12	6	5	8	9	10	4	4	5	4	10	4	4	5	4
		1 1/4"	11	5	3	7	8	11	5	4	7	8	9	3	3	4		9	3	3	4	
	126" span	3"	11	4	4	5	4	12	4	5	5	4	10	3	4	4		10	3	4	4	
		2"	10	4	4	5	4	10	4	4	5	4	8		3	3		9	3	3	3	
		1 1/4"	9	3	3	4	3	9	3	3	4	3	8		3	3		8		3	3	
150" span	3"	10	3	4	4	3	10	3	4	4	3											
	2"	9	3	3	3		9	3	3	3												
	1 1/4"	8			3		8		3	3												
	68" SPAN	3"	16	13	7	13	13	13	13	6	13	13	15	13	6	13	13	11	11	5	11	11
		2"	15	13	6	13	13	12	12	5	12	12	13	13	5	13	13	10	10	4	10	10
		1 1/4"	14	13	5	13	13	10	10	4	10	10	12	12	4	12	12	9	9	3	9	9
	88" SPAN	3"	13	10	6	13	13	10	8	5	10	10	11	5	5	7	8	8	4	4	5	6
		2"	12	9	5	12	12	9	7	4	9	9	10	5	4	6	7	7	3	3	5	5
		1 1/4"	11	8	4	11	11	8	6	3	8	8	9	4	3	6	6	7	3	3	4	5
	105" span	3"	11	5	5	7	8	8	4	4	5	6	9	3	4	4	3	7		3	3	3
		2"	10	5	4	7	7	7	4	3	5	6	8	3	3	4	3	6		3	3	
		1 1/4"	9	4	3	6	7	7	3	3	4	5	8	3	3	4	3	6		3	3	
	126" span	3"	9	3	4	4	3	7		3	3	3	8		3	3		6				
		2"	8	3	3	4	3	6		3	3		7		3	3		5				
		1 1/4"	8	3	3	4	3	6		3	3		6		3	3		5				
150" span	3"	8		3	3		6										5					
	2"	7		3	3		5															
	1 1/4"	6					5															
	68" SPAN	3"	16	13	11	13	13	16	13	7	13	13	16	13	9	13	13	13	13	6	13	13
		2"	16	13	9	13	13	14	13	6	13	13	16	13	8	13	13	12	12	5	12	12
		1 1/4"	16	13	8	13	13	13	13	5	13	13	16	13	6	13	13	10	10	4	10	10
	88" SPAN	3"	16	13	9	13	13	12	9	5	12	12	16	8	7	11	12	10	5	4	6	7
		2"	16	13	7	13	13	11	8	4	11	11	15	7	6	10	11	9	4	4	6	6
		1 1/4"	16	13	6	13	13	10	7	4	10	10	14	7	5	9	10	8	4	3	5	6
	105" span	3"	16	8	7	11	13	10	5	4	7	8	15	5	6	7	5	8	3	4	4	3
		2"	16	7	6	10	12	9	4	4	6	7	13	5	5	6	5	8	3	3	4	3
		1 1/4"	14	7	5	9	10	8	4	3	5	6	12	4	4	5	4	7		3	3	3
	126" span	3"	15	5	6	7	5	8	3	4	4	3	12	4	5	5	3	7		3	3	
		2"	13	5	5	6	5	8	3	3	4	3	11	3	4	4	3	6		3		
		1 1/4"	12	4	4	5	4	7		3	3	3	10	3	3	4	3	6				
150" span	3"	12	4	5	5	3	7		3	3												
	2"	11	3	4	4	3	6		3													
	1 1/4"	10	3	3	4	3	6															
	68" SPAN	3"	16	13	12	13	13	16	13	7	13	13	16	13	10	13	13	13	13	6	13	13
		2.5"	16	13	10	13	13	14	13	6	13	13	16	13	9	13	13	12	12	5	12	12
		2"	16	13	8	13	13	13	13	5	13	13	16	13	7	13	13	10	10	4	10	10
	88" SPAN	3"	16	13	9	13	13	12	9	5	12	12	16	10	8	13	13	10	5	4	6	7
		2.5"	16	13	8	13	13	11	8	5	11	11	16	9	7	12	13	9	4	4	6	6
		2"	16	13	6	13	13	10	7	4	10	10	16	8	5	11	12	8	4	3	5	6
	105" span	3"	16	10	8	13	13	10	5	4	7	8	16	6	7	8	3	8	3	4	4	3
		2.5"	16	9	7	13	13	9	4	4	6	7	16	6	6	8	3	8	3	3	4	3
		2"	16	8	5	11	13	8	4	3	5	6	14	5	4	7	3	7		3	3	3
	126" span	3"	16	6	7	8	7	8	3	4	4	3	15	4	6	6		7		3	3	
		2.5"	16	6	6	8	6	8	3	3	4	3	13	4	5	5		6		3		
		2"	14	5	4	7	5	7		3	3	3	12	4	4	5		6				
150" span	3"	15	4	6	6	4	7		3	3												
	2.5"	14	4	5	5	4	6		3													
	2"	12	4	4	5	3	6															

MONSOUR
 11/14/05

ROBERT S. MONSOUR, PE
 EB-0006024
 RAMMS ENGINEERING, INC.

NOTES:

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MINIMUM ENBEDMENT AND EDGE DISTANCE EXCLUDES STUCCO AND/OR WALL FINISHES.

SHADED AREAS REPRESENT ANCHOR CONDITIONS THAT ARE NOT ACCEPTABLE.

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PRODUCT RENEWED
 as complying with the Florida Building Code
 Acceptance No 07-0125.09
 Expiration Date 07/01/2012
 By *Helmut A. Weber*
 Miami Dade Product Control Division

PRODUCT REVISED
 as complying with the Florida Building Code
 Acceptance No 06-0117.06
 Expiration Date 07/01/2007
 By *Helmut A. Weber*
 Miami Dade Product Control Division

BUILDING CODE COMPLIANCE

REVISIONS	BY
06/03/99	SP
01/06/06	SP

RAMMS ENGINEERING, INC.
Structural Design

2100 W. 76th STREET, SUITE 311
 HIALEAH, FLORIDA 33016

EB 0006024

METALTECH, INC.

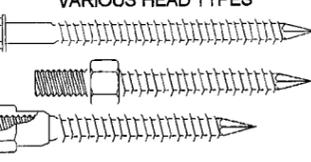
7635 W. SECOND CT. HIALEAH, FL 33014
 EST. 1957

DATE: 01/15/99
 SCALE: SHOWN
 JOB: 99001
 SHEET:

5

7

ANCHOR SCHEDULE

ANCHOR SPACING vs DESIGN PRESSURE AND CONNECTION TYPE			UP TO 81.5 PSF										UPTO 91.4 PSF									
			POURED CONCTETE					CONCRETE BLOCK					POURED CONCTETE					CONCRETE BLOCK				
			CONNECTION TYPE					CONNECTION TYPE					CONNECTION TYPE					CONNECTION TYPE				
ANCHOR TYPE	PANEL	E.D.	A	B	C	D	E	A	B	C	D	E	A	B	C	D	E	A	B	C	D	E
 1/4" RAWL LOK/BOLT (SLEEVE ANCHOR) 1 1/8" MIN. EMBEDMENT	68" SPAN	3"	15	10	6	13	13	16	10	7	13	13	13	7	5	9	11	13	7	6	9	11
		2"	14	9	5	13	13	14	9	6	13	13	12	6	4	8	9	12	6	5	8	10
		1 1/4"	12	8	4	12	12	12	8	4	12	12	11	5	3	7	9	11	5	4	7	9
	88" SPAN	3"	12	4	5	6	5	12	5	5	6	5	11	3	4	5	3	11	4	5	5	3
		2"	11	4	4	5	4	11	4	4	5	5	9	3	3	4	3	10	3	4	4	3
		1 1/4"	10	4	3	5	4	10	4	3	5	4	9	3	3	4	3	9	3	3	4	3
	105" span	3"	10	3	4	4	3	10	3	5	4	3										
		2"	9	3	3	4	3	9	3	4	4	3										
		1 1/4"	8			3		8		3	3											
	126" span	3"																				
		2"																				
		1 1/4"																				
150" span	3"																					
	2"																					
	1 1/4"																					
 1/4" RAWL ZAMAC NAILIN DRIVE (HAMMER DRIVE) 1 3/8" MIN. EMBEDMENT IN CONCRETE 1 1/4" MIN. EMBEDMENT IN BLOCK	68" SPAN	3"	13	8	5	12	13	9	6	4	9	9	11	5	5	8	9	8	4	4	6	7
		2"	11	7	5	11	11	8	5	4	8	8	10	5	4	7	8	8	4	3	5	6
		1 1/4"	10	7	4	10	10	8	5	3	7	8	9	4	3	6	7	7	3	3	4	5
	88" SPAN	3"	10	4	4	5	4	7	3	3	4	3	9	3	4	4	3	7		3	3	
		2"	9	3	3	4	4	7		3	3	3	8	3	3	3		6		3		
		1 1/4"	8	3	3	4	3	6		3	3		7		3	3		5				
	105" span	3"	8	3	4			6		3												
		2"	7		3			5														
		1 1/4"	7					5														
	126" span	3"																				
		2"																				
		1 1/4"																				
150" span	3"																					
	2"																					
	1 1/4"																					
 (MASONRY SCREWS) 1/4" RAWL PERMA-SEAL TAPPER 1/4" ELCO PANEL MATES 1 1/2" MIN. EMBEDMENT IN CONCRETE 1 1/4" MIN. EMBEDMENT IN BLOCK	68" SPAN	3"	16	13	8	13	13	11	7	5	11	11	16	8	7	12	13	10	5	4	7	8
		2"	16	11	7	13	13	10	6	4	10	10	16	8	6	10	12	9	4	4	6	7
		1 1/4"	16	10	6	13	13	9	6	3	9	9	14	7	5	9	11	8	4	3	5	6
	88" SPAN	3"	15	6	6	8	6	9	3	4	4	4	14	4	6	6	4	8	3	3	3	3
		2"	14	5	5	7	6	8	3	3	4	3	12	4	5	5	4	7		3	3	
		1 1/4"	12	5	4	6	5	7	3	3	4	3	11	4	4	5	3	6			3	
	105" span	3"	13	4	5	5	4	7		3	3											
		2"	11	3	4	5	3	7		3	3											
		1 1/4"	10	3	4	4	3	6														
	126" span	3"																				
		2"																				
		1 1/4"																				
150" span	3"																					
	2"																					
	1 1/4"																					
 1/4-20 x 7/8" , 1/2" DIA. RAWL CALK-IN (MACHINE SCREW ANCHOR) 7/8" MIN. EMBEDMENT	68" SPAN	3"	16	13	9	13	13	11	7	5	11	11	16	10	8	13	13	10	5	4	7	8
		2.5"	16	13	7	13	13	10	7	4	10	10	16	9	7	13	13	9	4	4	6	7
		2"	16	12	6	13	13	9	6	3	9	9	16	8	5	12	13	8	4	3	5	6
	88" SPAN	3"	16	7	7	9	8	9	3	4	4	4	16	5	6	7	5	8	3	3	3	3
		2.5"	16	6	6	8	7	8	3	3	4	3	15	5	5	6	5	7		3	3	
		2"	15	6	4	8	6	7	3	3	4	3	13	4	4	6	4	6			3	
	105" span	3"	16	5	6	6	4	7		3	3											
		2.5"	14	4	5	6	4	7		3	3											
		2"	13	4	4	5	4	6														
	126" span	3"																				
		2.5"																				
		2"																				
150" span	3"																					
	2"																					

NOTES:

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MINIMUM ENBEDMENT AND EDGE DISTANCE EXCLUDES STUCCO AND/OR WALL FINISHES.

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REVISIONS	BY
06/03/99	SP
01/06/06	SP

RAMMS ENGINEERING, INC.
Structural Design
 2100 W. 76th STREET, SUITE 311
 HIALEAH, FLORIDA 33016
 EB 0006024

METALTECH, INC.
 7635 W. SECOND CT. HIALEAH, FL 33014
 EST. 1957

PRODUCT RENEWED
 as complying with the Florida Building Code
 Acceptance No 07-0125.09
 Expiration Date 07/01/2012
 By *Helmy A. Matar*
 Miami Dade Product Control Division

PRODUCT REVISED
 as complying with the Florida Building Code
 Acceptance No 06-0117.06
 Expiration Date 07/01/2007
 By *Helmy A. Matar*
 Miami Dade Product Control Division

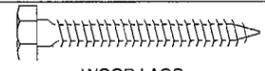
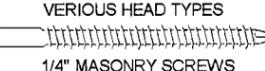
Monsour
 11/1/95

ROBERT S. MONSOUR, PE
 EB-0006024
 RAMMS ENGINEERING, INC.

BUILDING CODE COMPLIANCE

DATE: 01/15/99
 SCALE: SHOWN
 JOB: 99001
 SHEET: **6**
 7

ANCHOR SCHEDULE

WOOD APPLICATIONS			UP TO 59.5 PSF CONNECTION TYPE					UP TO 71.5 PSF CONNECTION TYPE					UP TO 81.5 PSF CONNECTION TYPE					UP TO 91.4 PSF CONNECTION TYPE				
ANCHOR TYPE	DIA.	SPAN	A	B	C	D	E	A	B	C	D	E	A	B	C	D	E	A	B	C	D	E
 BRASS WOOD BUSHING 1" MIN. PENETRATION	1/4-20	68" SPAN	14	13	5	13	13	12	12	5	12	12	10	7	4	10	10	9	4	4	6	7
		88" SPAN	11	8	4	11	11	9	4	3	6	7	8	3	3	4	3	7		3	3	
		105" SPAN	9	4	4	6	7	8	3	3	4	3	7			3						
		126" SPAN	8	3	3	4	3	6				3										
		150" SPAN	6																			
 WOOD LAGS 1" MINIMUM TREAD PENETRATION	1/4"	68" SPAN	16	13	8	13	13	15	13	6	13	13	14	9	6	13	13	12	6	5	8	9
		88" SPAN	14	11	6	13	13	12	6	5	8	9	10	4	4	5	4	9	3	4	4	3
		105" SPAN	12	6	5	8	9	10	4	4	5	4	9	3	4	4						
		126" SPAN	10	4	3	5	4	8		3	3	4										
		150" SPAN	8		3	3																
 WOOD LAGS 1" MINIMUM TREAD PENETRATION	5/16"	68" SPAN	16	13	10	13	13	16	13	8	13	13	16	10	7	13	13	14	7	6	9	11
		88" SPAN	16	13	7	13	13	14	7	6	9	10	12	5	5	6	5	11	4	5	5	3
		105" SPAN	14	7	6	9	10	12	4	5	6	4	10	3	5	4	3					
		126" SPAN	12	4	5	6	4	10	3	4	4	4										
		150" SPAN	10	3	4	4																
 WOOD LAGS 1" MINIMUM TREAD PENETRATION	3/8"	68" SPAN	16	13	11	13	13	16	13	9	13	13	16	12	8	13	13	16	8	7	11	13
		88" SPAN	16	13	9	13	13	16	8	7	10	12	14	5	6	7	6	13	4	6	5	4
		105" SPAN	16	8	7	11	12	14	5	6	6	5	12	4	5	5	3					
		126" SPAN	13	5	6	6	5	11	3	5	4	5										
		150" SPAN	11	3	5	4	3															
 WOOD LAGS 1" MINIMUM TREAD PENETRATION	7/16"	68" SPAN	16	13	12	13	13	16	13	10	13	13	16	13	9	13	13	16	9	8	12	13
		88" SPAN	16	13	9	13	13	16	8	8	12	13	16	6	7	8	7	14	5	6	6	4
		105" SPAN	16	9	8	12	13	15	5	7	7	6	13	4	6	5	4					
		126" SPAN	15	5	7	7	6	13	4	5	5	6										
		150" SPAN	13	4	5	5	3															
 ELCO PANEL MATES 1 7/8" MIN. THREAD PENETRATION	1/4"	68" SPAN	16	13	8	13	13	15	13	6	13	13	14	9	6	13	13	12	6	5	8	9
		88" SPAN	14	11	6	13	13	12	6	5	8	9	10	4	4	5	4	9	3	4	4	3
		105" SPAN	12	6	5	8	9	10	4	4	5	4	9	3	4	4						
		126" SPAN	10	4	3	5	4	8		3	3	4										
		150" SPAN	8		3	3																
 ELCO PANEL MATES 1 7/8" MIN. THREAD PENETRATION	1/4"	68" SPAN	16	13	8	13	13	15	13	6	13	13	14	9	6	13	13	12	6	5	8	9
		88" SPAN	14	11	6	13	13	12	6	5	8	9	10	4	4	5	4	9	3	4	4	3
		105" SPAN	12	6	5	8	9	10	4	4	5	4	9	3	4	4						
		126" SPAN	10	4	3	5	4	8		3	3	4										
		150" SPAN	8		3	3																
 VERIOUS HEAD TYPES 1/4" MASONRY SCREWS 1 7/8" MIN. THREAD PENETRATION	1/4"	68" SPAN	16	13	8	13	13	15	13	6	13	13	14	9	6	13	13	12	6	5	8	9
		88" SPAN	14	11	6	13	13	12	6	5	8	9	10	4	4	5	4	9	3	4	4	3
		105" SPAN	12	6	5	8	9	10	4	4	5	4	9	3	4	4						
		126" SPAN	10	4	3	5	4	8		3	3	4										
		150" SPAN	8		3	3																

NOTES:

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WHEN ANCHORING TO WOOD, THE WOOD MUST BE A MINIMUM 2 X 4 EQUAL TO #2 SOUTHERN PINE 0.55 SPECIFIC GRAVITY AND STRUCTURALLY PART OF THE FRAMING STRUCTURE OR SUCURELY ATTACHED TO FRAMING STRUCTURE

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Monson
11/2/06
11/2/05

ROBERT S. MONSOUR, PE
EB-0006024
RAMMS ENGINEERING, INC.

PRODUCT RENEWED
as complying with the Florida
Building Code
Acceptance No 07-0125.09
Expiration Date 07/01/2012
By *Helmut A. Mader*
Miami Dade Product Control
Division

PRODUCT REVISED
as complying with the Florida
Building Code
Acceptance No 06-0117-06
Expiration Date 07/01/2007
By *Helmut A. Mader*
Miami Dade Product Control
Division

BUILDING CODE COMPLIANCE

REVISIONS	BY
01/06/06	SP

RAMMS ENGINEERING, INC.
Structural Design
2100 W. 76th STREET, SUITE 311
HALEAH, FLORIDA 33016
EB 0006024

METALTECH, INC.
7635 W. SECOND CT. HIALEAH, FL 33014
EST. 1957
EXPANDED WORLD-WIDE

DATE	SEP/JRB/RSM
APPROVED	
DATE	01/15/99
SCALE	SHOWN
OR	99001
BY	7
OF	7