



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" 0.041" (min.) Galvanized Steel Storm Panels Shutter – L.M.I.

APPROVAL DOCUMENT: Drawing No. 99002, titled "20 ga. 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 Revision stamp with the Notice of Acceptance number and expiration date by the Miami-Dade County Product Control Division.

MISSILE IMPACT RATING: Large and Small Missile Impact

LABELING: Each panel shall bear a permanent label with the manufacturer's name or logo, city, state and the following statement: "Miami-Dade County Product Control Approved", unless otherwise noted herein.

RENEWAL of this NOA shall be considered after a renewal application has been filed and there has been no change in the applicable building code negatively affecting the performance of this product.

TERMINATION of this NOA will occur after the expiration date or if there has been a revision or change in the materials, use, and/or manufacture of the product or process. Misuse of this NOA as an endorsement of any product, for sales, advertising or any other purposes shall automatically terminate this NOA. Failure to comply with any section of this NOA shall be cause for termination and removal of NOA.

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

INSPECTION: A copy of this entire NOA shall be provided to the user by the manufacturer or its distributors and shall be available for inspection at the job site at the request of the Building Official.

This NOA **renews** NOA # **06-0117.04** and consists of this page 1, evidence submitted pages E-1 as well as approval document mentioned above.

The submitted documentation was reviewed by **Jaime D. Gascon, P.E.**



J. Gascon
 4/5/07

NOA No 07-0125.08
Expiration Date: 04/05/2012
Approval Date: 04/05/2007
 Page 1

MetalTech, Inc.

NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED

A. DRAWINGS

1. *Drawing No. 99002, titled "20 ga. Maximum Impact Storm Panel", prepared by Ramms Engineering, Inc., dated April 10, 1999, sheets 1 through 7 of 7, with the latest revision on January 12, 2006, 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 20 gauge galvanized steel storm panels shutter, prepared by Construction Testing Corporation, Report No. CTC 99-018, dated May 7, 1999, signed and sealed by Yamil Kuri, P.E.*

C. CALCULATIONS

1. *Comparative Analysis and Anchor Analysis, dated May 11, 1999, pages 1 through 124, prepared by Ramms Engineering, Inc., signed and sealed by Robert S. Monsour, P.E. Comparative Analysis, pages 1 through 5, prepared by Ramms Engineering, Inc., signed and sealed by Robert S. Monsour, P.E. on June 28, 1999.*
2. *Anchor Calculations and details for 0.060" Aluminum Storm Panels, dated January 06, 2006, pages 1 through 7 of 7, prepared by Ramms Engineering, Inc., signed and sealed by Robert Monsour, P.E., on January 06, 2006*

D. QUALITY ASSURANCE

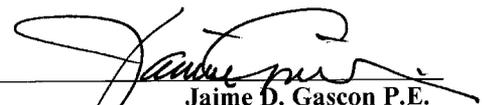
1. *By Miami-Dade County Building Code Compliance Office.*

E. MATERIAL CERTIFICATIONS

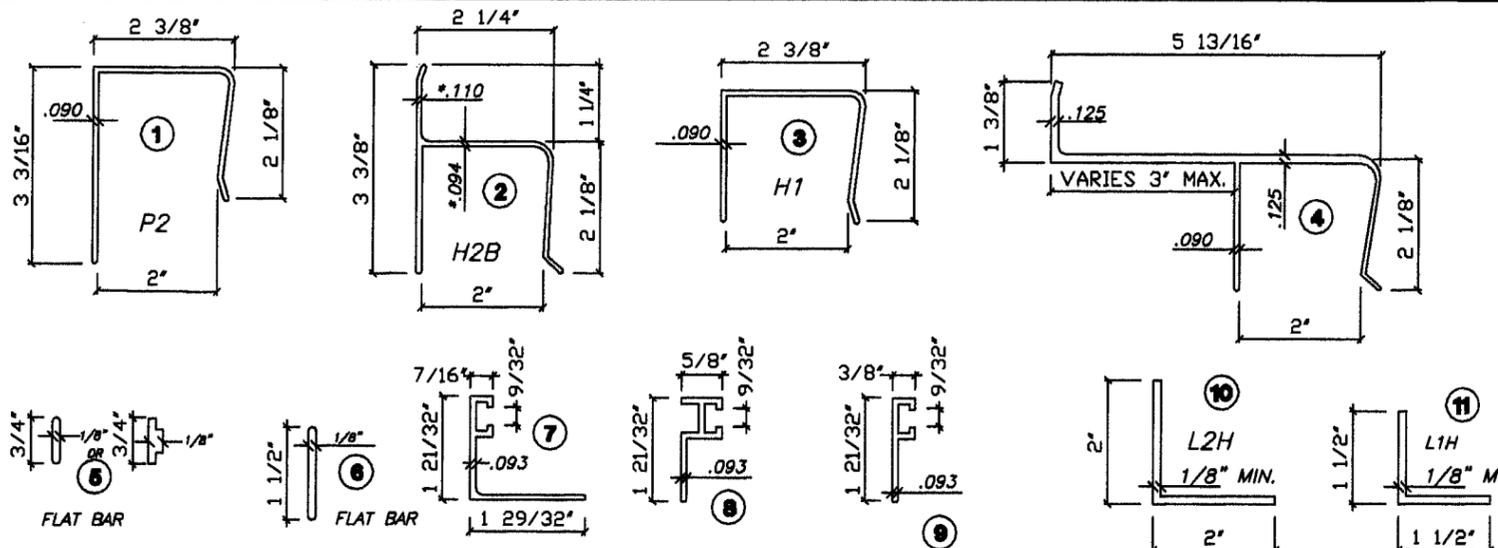
1. *Mill Certified Inspection Report of coils, dated 04/07/99, for 20 gauge galvanized steel by Pacesetter Steel Service, with chemical composition and physical properties.*
2. *Tensile Test Report #CTL-420E, prepared by Certified Testing Laboratories, dated April 19, 1999, for 20 gauge galvanized steel sample #99-018, signed and sealed by Ramish Patel, P.E.*

F. STATEMENTS

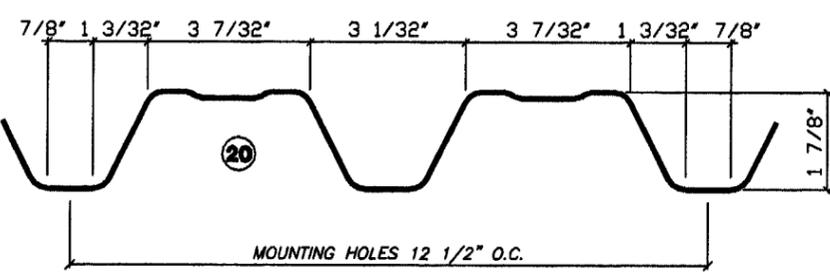
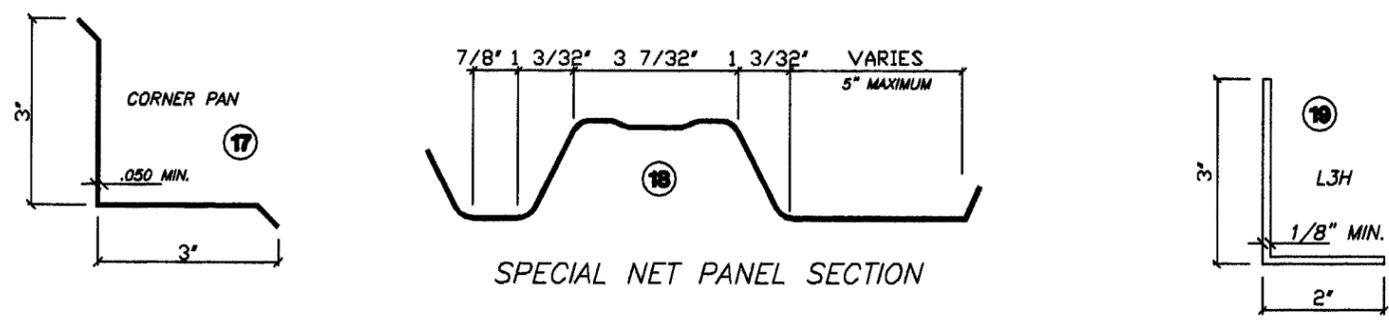
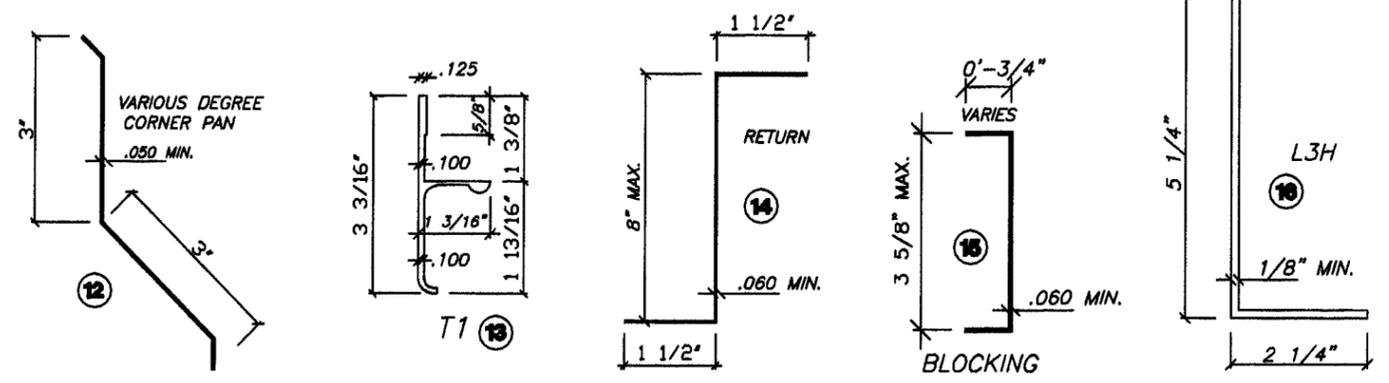
1. *Statement letter from MetalTech, Inc., dated June 10, 2002, signed by Steven Pulliam, stating that this product have not changed from the original approval.*



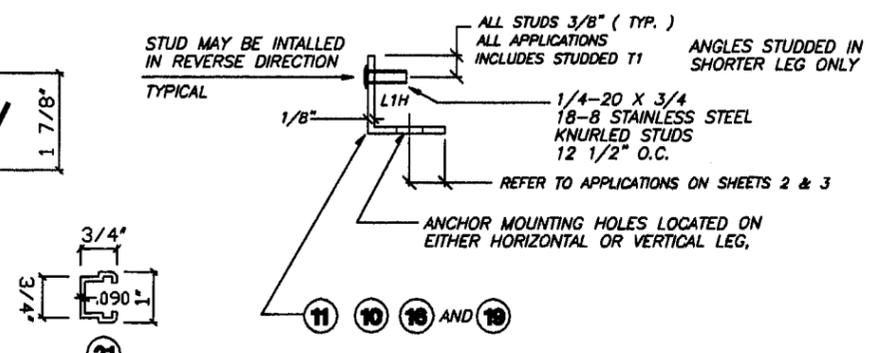
Jaime D. Gascon P.E.
Chief, Product Control Division
NOA No 07-0125.08
Expiration Date: 04/05/2012
Approval Date: 04/05/2007



VARIOUS TYPES OF F-TRACK NOT SHOWN



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

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:

20 GAUGE STEEL, ASTM A653 SQ GRADE E MIN Fy=80 K.S.I. MINIMUM VALUE HOT DIP COATED. 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 PANELS MAY HAVE A RIPPLED SURE GRIP OR A HEMMED EDGE

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 07-0125.08 Expiration Date 04/05/2012

By *[Signature]* Miami Dade Product Control Division

PRODUCT REVISED as complying with the Florida Building Code Acceptance No 06-0117.04 Expiration Date 07/22/2007

By *[Signature]* Miami Dade Product Control Division

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

20ga

MAXIMUM IMPACT STORM PANEL

REVISIONS	BY
06/04/99	SP
06/25/99	SP
01/06/06	SP

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

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

BUILDING CODE COMPLIANCE

SEP/JRB/RSM	DATE	SCALE	SHEET
APPROVED	04/10/99	SHOWN	1

ANCHOR SCHEDULE

ANCHOR SPACING vs DESIGN PRESSURE AND CONNECTION TYPE			UP TO 59.6 PSF										UPTO 71.5 PSF									
			POURED CONCRETE					CONCRETE BLOCK					POURED CONCRETE					CONCRETE BLOCK				
			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	4	9	3	3	4	4
	126" span	3"	11	4	4	5	4	12	4	5	5	4	10	3	4	4	4	10	3	4	4	4
		2"	10	4	4	5	4	10	4	4	5	4	8	3	3	3	3	9	3	3	3	3
		1 1/4"	9	3	3	4	3	9	3	3	4	3	8	3	3	3	3	8	3	3	3	3
	140" span	3"	10	3	4	4	3	10	3	4	4	3										
		2"	9	3	3	3	3	9	3	3	3	3										
		1 1/4"	8	3	3	3	3	8	3	3	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	3
		2"	10	5	4	7	7	7	4	3	5	6	8	3	3	4	3	6	3	3	3	3
		1 1/4"	9	4	3	6	7	7	3	3	4	5	8	3	3	4	3	6	3	3	3	3
	126" span	3"	9	3	4	4	3	7	3	3	3	3	8	3	3	3	3	6	3	3	3	3
		2"	8	3	3	4	3	6	3	3	3	3	7	3	3	3	3	5	3	3	3	3
		1 1/4"	8	3	3	4	3	6	3	3	3	3	6	3	3	3	3	5	3	3	3	3
	140" span	3"	8	3	3	3	3	6	3	3	3	3										
		2"	7	3	3	3	3	5	3	3	3	3										
		1 1/4"	6	3	3	3	3	5	3	3	3	3										
	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	3
	126" span	3"	15	5	6	7	5	8	3	4	4	3	12	4	5	5	3	7	3	3	3	3
		2"	13	5	5	6	5	8	3	3	4	3	11	3	4	4	3	6	3	3	3	3
		1 1/4"	12	4	4	5	4	7	3	3	3	3	10	3	3	4	3	6	3	3	3	3
	140" span	3"	12	4	5	5	3	7	3	3	3	3										
		2"	11	3	4	4	3	6	3	3	3	3										
		1 1/4"	10	3	3	4	3	6	3	3	3	3										
	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	3
	126" span	3"	16	6	7	8	7	8	3	4	4	3	15	4	6	6	3	7	3	3	3	3
		2.5"	16	6	6	8	6	8	3	3	4	3	13	4	5	5	3	6	3	3	3	3
		2"	14	5	4	7	5	7	3	3	3	3	12	4	4	5	3	6	3	3	3	3
	140" span	3"	15	4	6	6	4	7	3	3	3	3										
		2.5"	14	4	5	5	4	6	3	3	3	3										
		2"	12	4	4	5	3	6	3	3	3	3										

NOTES:

SPANS AND LOADS SHOWN IN THIS SCHEDULE ARE FOR DETERMINING ANCHOR SPACING ONLY. FOR ALLOWABLE SPANS VS. DESIGN LOADS REFER TO SHEET 4.

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

SHADED AREAS REPRESENT ANCHOR CONDITIONS THAT ARE NOT ACCEPTABLE.

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 INTALL INTO WOOD, CONCRETE OR MASONRY .

REVISIONS	BY
06/04/99	SP
06/25/99	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
 EXPANDED WORLD-WIDE

PRODUCT RENEWED
 as complying with the Florida Building Code
 Acceptance No **07-0125.08**
 Expiration Date **04/05/2012**

By *[Signature]*
 Miami Dade Product Control Division

PRODUCT RENEWED
 as complying with the Florida Building Code
 Acceptance No **06-0117.04**
 Expiration Date **07/22/2007**

By *[Signature]*
 Miami Dade Product Control Division

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

BUILDING CODE COMPLIANCE

SEP/JRB
 APPROVED
 DATE 01/15/99
 SCALE SHOWN
 99002
5
7

ANCHOR SCHEDULE

ANCHOR SPACING vs DESIGN PRESSURE AND CONECTION TYPE			UP TO 81.5 PSF										UPTO 91.4 PSF									
			POURED CONCTETE					CONCRETE BLOCK					POURED CONCTETE					CONCRETE BLOCK				
			CONECTION TYPE					CONECTION TYPE					CONECTION TYPE					CONECTION 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"	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	9		3	3		9	3	4	3	
		2"	9	3	3	4	3	9	3	4	4	3	8		3	3		8		3	3	
		1 1/4"	8			3		8		3	3		7			3		7		3	3	
	126" span	3"																				
		2"																				
		1 1/4"																				
140" span	3"																					
	2"																					
	1 1/4"																					
	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	3	
		1 1/4"	8	3	3	4	3	6			3	3	7		3	3		5				
	105" span	3"	8	3	4			6		3			7		3	3		5		3		
		2"	7		3			5					7		3			5				
		1 1/4"	7					5					6					4				
	126" span	3"																				
		2"																				
		1 1/4"																				
140" span	3"																					
	2"																					
	1 1/4"																					
	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		11	3	5	4	3	7		3		
		2"	11	3	4	5	3	7		3	3		10	3	4	4		6				
		1 1/4"	10	3	4	4	3	6					9	3	3	3		5				
	126" span	3"																				
		2"																				
		1 1/4"																				
140" span	3"																					
	2"																					
	1 1/4"																					
	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		14	4	5	5	3	7		3		
		2.5"	14	4	5	6	4	7		3	3		13	4	4	5		6				
		2"	13	4	4	5	4	6					11	3	3	4		5				
	126" span	3"																				
		2.5"																				
		2"																				
140" span	3"																					
	2.5"																					

NOTES:

SPANS AND LOADS SHOWN IN THIS SCHEDULE ARE FOR DETERMINING ANCHOR SPACING ONLY. FOR ALLOWABLE SPANS VS. DESIGN LOADS REFER TO SHEET 4.

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

SHADED AREAS REPRESENT ANCHOR CONDITIONS THAT ARE NOT ACCEPTABLE.

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 OR MASONRY.

REVISIONS	BY
06/04/99	SP
06/25/99	SP
01/06/06	SP

RAMS 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 07-0125.08
Expiration Date 04/05/2012

By [Signature]
Miami Dade Product Control Division

PRODUCT REVISED
as complying with the Florida Building Code
Acceptance No 06-0117.04
Expiration Date 07/22/2007

By [Signature]
Miami Dade Product Control Division

Monsour
11/12/04
1/1/05

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

BUILDING CODE COMPLIANCE

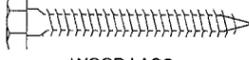
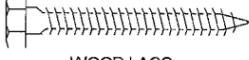
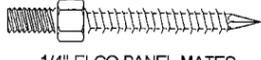
DATE
SEP/JRB/RSM
APPROVED

DATE
01/15/99
BY
SHOWN
99002
SHEET

6

7

ANCHOR SCHEDULE

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

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 SECURELY ATTACHED TO FRAMING STRUCTURE

SHADED AREAS REPRESENT ANCHOR CONDITIONS THAT ARE NOT ACCEPTABLE.

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Monson
11/2/06
1955

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

PRODUCT RENEWED
as complying with the Florida Building Code
Acceptance No 07-0125.08
Expiration Date 04/09/2012
By *[Signature]*
Miami Dade Product Control Division

PRODUCT REVISED
as complying with the Florida Building Code
Acceptance No 06-0117.04
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EST. 1957
EXPERIENCED WORLD-WIDE

SEP/JRB/RSM
DATE 01/15/99
BY SHOWN
99002
7