

DEPARTMENT OF PERMITTING, ENVIRONMENT, AND REGULATORY AFFAIRS (PERA)

BOARD AND CODE ADMINISTRATION DIVISION

NOTICE OF ACCEPTANCE (NOA)

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/pera/

Alutech United, Inc. 15 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 Florida Building Code, including the High Velocity Hurricane Zone.

DESCRIPTION: Barracuda End Retention Aluminum Roll-up Hurricane Abatement System

APPROVAL DOCUMENT: Drawing No. 11-205, titled "Barracuda End Retention Hurricane Abatement, sheets 1 to 6 of 6, dated 12/01/2011, with revision 2 dated 05/29/2012, prepared by Tilteco Inc., signed and sealed on 05/30/2012 by Walter A. Tillit, Jr., P.E., 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 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 # 07-0416.05 and consists of this page 1 and evidence page E-1, as well as approval document mentioned above.

The submitted documentation was reviewed by Carlos M. Utrera, P.E.



107/18/2012

NOA No. 12-0307.01 Expiration Date: May 31, 2017 Approval Date: July 26, 2012 Page 1

NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED

A. DRAWINGS

1. Drawing No. 11-205, titled "Barracuda End Retention Hurricane Abatement, sheets 1 to 6 of 6, dated 12/01/2011, with revision 2 dated 05/29/2012, prepared by Tilteco Inc., signed and sealed on 05/30/2012 by Walter A. Tillit, Jr., P.E.

B. TESTS "Submitted under NOA # 07-0416.05"

1. Architectural Testing Report No. 66443.01-109-18 of 34 pages, dated 01/19/2007, signed and sealed on 03/20/2007 by Joseph A. Reed, P.E., for testing on Large Missile Impact Test per FBC TAS-201, Uniform Static Air Pressure Test per FBC TAS 202 and Cyclical Pressure Test per FBC TAS 203.

C. CALCULATIONS "Submitted under NOA # 07-0416.05"

1. Structural calculations for slats, side rails and anchorage connections to concrete or grout filled block jamb or wood frame wall, prepared by Tilteco Inc., signed and sealed on 03/23/2007 by Walter A. Tillit, Jr., P.E.

D. QUALITY ASSURANCE

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

D. MATERIAL CERTIFICATIONS "Submitted under NOA # 07-0416.05"

1. Material Certificate letter by the Manufacturer "Indalex Aluminum Solutions", dated 03/29/2007.

E. STATEMENTS

1. Statement letter of code conformance to 2007 and 2010 FBC, issued by Tilteco Inc, dated 01/16/2012, signed and sealed by Walter A. Tillit, Jr., P.E.

"Submitted under NOA # 07-0416.05"

2. 2004 FBC Compliance letter and no financial interest letter, dated 03/23/2007, signed and sealed by Walter A. Tillit, Jr., P.E.

Carlos M. Utrera, P.E. Product Control Examiner NOA No. 12-0307.01

Expiration Date: May 31, 2017 Approval Date: July 26, 2012

GENERAL NOTES:

HURRICANE ABATEMENT SHOWN ON THIS PRODUCT APPROVAL DOCUMENT (P.A.D.) HAS BEEN VERIFIED FOR COMPLIANCE IN ACCORDANCE WITH THE 2007 & 2010 EDITIONS OF THE FLORIDA BUILDING CODE.

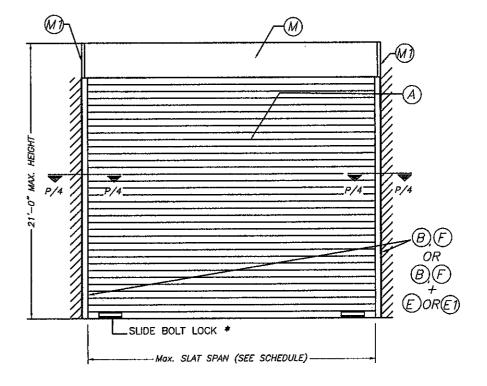
DESIGN WIND LOADS SHALL BE DETERMINED AS PER SECTION 1620 OF THE ABOVE MENTIONED CODES, USING ASCE 7-05 STANDARD FOR INSTALLATIONS UNDER 2007 FBC & ASCE 7-10 FOR INSTALLATIONS UNDER 2010 FBC AND SHALL NOT EXCEED THE MAXIMUM (A.S.D.) DESIGN PRESSURE RATINGS INDICATED ON SHEET 6.

IN ORDER TO VERIFY THE ABOVE CONDITION, ULTIMATE DESIGN WIND LOADS DETERMINED PER ASCE 7-10 SHALL BE FIRST REDUCED TO A.S.D. DESIGN WIND LOADS BY MULTIPLYING THEM BY 0.6 IN ORDER TO TO COMPARE THESE W/ MAX. (A.S.D) DESIGN PRESSURE RATINGS INDICATED ON SHEET 6.

IN ORDER TO VERIFY THAT COMPONENTS AND ANCHORS ON THIS P.A.D. AS TESTED WERE NOT OVER STRESSED, A 33% INCREASE IN ALLOWABLE STRESS FOR WIND LOADS WAS NOT USED IN THEIR ANALYSIS. A DURATION FACTOR CD=1.60 WAS USED FOR VERIFICATION OF FASTENERS IN WOOD. ROLL-UP DOOR'S ADEQUACY FOR IMPACT AND FATIGUE RESISTANCE HAS BEEN VERIFIED IN ACCORDANCE WITH SECTION 1626 OF THE ABOVE MENTIONED CODES AS PER ARCHITECTURAL TESTING, INC. REPORT # 66443.01-109-18 PER TAS-201, TAS-202 & TAS-203 PROTOCOLS, THIS PRODUCT IS MANUFACTURED AND ERECTED TO EASILY ENCLOSE AN AREA, PROVIDING PROTECTION FROM HURRICANE FORCE WINDS WITHIN THE LIMITATIONS INCLUDED IN THIS P.A.D.

- ALL ALUMINUM EXTRUSIONS SHALL BE MADE OF ALLOYS AND TEMPERS, AS INDICATED ON SHEET 2 OF THIS DRAWING. THE THICKNESS OF ALL EXTRUSIONS SHALL BE AS SHOWN ON THIS DRAWING WITH STANDARD TOLERANCES IN ACCORDANCE WITH THE "ALUMINUM STANDARDS AND DATA 2002 EDITION". ALUMINUM ASSOCIATION INCORPORATED, WASHINGTON D.C.
- EVERY OTHER SLAT (INCLUDING BASE SLAT) SHALL INCLUDE ONE RETAIN SCREW (C), AISI 304 SERIES STAINLESS STEEL (SEE SHEET 2).
- ALL SCREWS (EXCEPT COMPONENT # (C)) TO BE STAINLESS STEEL 304 OR 316 AISI SERIES OR ITW BUILDEX CORROSION RESISTANT COATED CARBON STEEL TEK SCREWS, AS PER DIN 50018 AND SHALL COMPLY W/ FLORIDA BUILDING CODE SECTION 2411.3.3.4.
- 5. BOLTS TO BE ASTM A-307 GALVANIZED STEEL OR AISI 304 SERIES STAINLESS STEEL, WITH 35 kgi MINIMUM YIELD STRENGTH.
- 6. ANCHORS TO WALL FOR SIDE RAILS CONNECTION SHALL BE AS FOLLOWS:
- TO EXISTING POURED CONCRETE (MIN. f'c = 2899 psi) OR GROUT FILLED CELL ASTM C-90 CONCRETE BLOCK: - 5/16" TAPCON XL ANCHORS, AS MANUFACTURED BY ITW/BUILDEX, INC.
- A.1) MINIMUM EMBEDMENT OF ANCHORS INTO POURED CONCRETE OR GROUT FILLED CELL CONCRETE BLOCK IS 2 1/4". NO EMBEDMENT INTO STUCCO SHALL BE CONSIDERED AS PART OF THE REQUIRED EMBEDMENT
- A.2) IN CASE THAT PRECAST STONE, PRECAST CONCRETE OR BRICK PANELS, VENEER OR PAVERS BE FOUND ON THE EXISTING WALL , ANCHORS SHALL BE LONG ENOUGH TO REACH THE MAIN SUBSTRATE BEHIND SUCH PANELS, MINIMUM EMBEDMENT SHALL BE AS INDICATED ON NOTE A.1 ABOVE.
- TO EXISTING WOOD FRAME WALL: MIN. SPECIFIC GRAVITY G = 0,46 OR G = 0.55 (SEE SCHEDULE) - #14 (0.242" O.D.) N.D.S. WOOD SCREWS.

- B.1) MINIMUM EMBEDMENT OF ANCHORS INTO WOOD STUDS SHALL BE 3".
- B.2) IN CASE THAT PRECAST STONE, PRECAST CONCRETÉ OR BRICK PANELS, VENEER OR PAVERS BE FOUND ON THE EXISTING WALL, ANCHORS SHALL BE LONG ENOUGH TO REACH THE MAIN SUBSTRATE BEHIND SUCH PANELS. MINIMUM EMBEDMENT SHALL BE AS INDICATED ON NOTE B.1 ABOVE.
- ANCHORS SHALL BE INSTALLED FOLLOWING ALL OF THE RECOMMENDATIONS AND SPECIFICATIONS OF THE ANCHOR'S MANUFACTURER.
- IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY THE SOUNDNESS OF THE STRUCTURE WHERE DOOR IS TO BE ATTACHED TO INSURE PROPER ANCHORAGE THIS DOOR SHALL ONLY BE ATTACHED TO POURED CONCRETE ,GROUT FILLED CELL CONCRETE BLOCK, AND WOOD FRAME BUILDINGS.
- IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY THAT THE EXISTING STRUCTURE IS DESIGNED TO SUPPORT Vx AND Vy FORCES AT BOTH JAMBS. SEE SHEET 6 OF FOR Vx & Vy VALUES.
- THE INSTALLATION CONTRACTOR IS TO SEAL/CAULK ALL PRODUCT COMPONENT EDGES WHICH REMAIN IN CONTINUOUS CONTACT WITH THE BUILDING TO PREVENT WIND/RAIN INTRUSION.
- ROLL-UP MECHANISM NOT PART OF THIS APPROVAL, BUT SHALL BE CERTIFIED BY AN INDEPENDENT TESTING AGENCY.
- HURRICANE ABATEMENT INSTALLATION SHALL COMPLY WITH SPECS INDICATED IN THIS DRAWING PLUS ANY BUILDING AND ZONING REGULATIONS PROVIDED BY THE JURISDICTION WHERE PERMIT IS APPLIED TO.
- 12. (a) THIS P.A.D. PREPARED BY THIS ENGINEER IS GENERIC AND DOES NOT PROVIDE INFORMATION FOR A SITE SPECIFIC PROJECT; i.e. WHERE THE SITE CONDITIONS DEVIATE FROM THE P.A.D.
 - (b) CONTRACTOR TO BE RESPONSIBLE FOR THE SELECTION, PURCHASE AND INSTALLATION INCLUDING LIFE SAFETY OF THIS PRODUCT, BASED ON THIS P.A.D. PROVIDED HE/SHE DOES NOT DEVIATE FROM THE CONDITIONS DETAILED ON THIS DOCUMENT. CONSTRUCTION SAFETY AT SITE IS THE CONTRACTOR'S RESPONSIBILITY.
 - (c) THIS P.A.D. WILL BE CONSIDERED INVALID IF ALTERED BY ANY MEANS.
 - (d) SITE SPECIFIC PROJECTS SHALL BE PREPARED BY A FLORIDA REGISTERED ENGINEER OR ARCHITECT WHICH WILL BECOME THE ENGINEER OF RECORD (E.O.R.) FOR THE PROJECT AND WHO WILL BE RESPONSIBLE FOR THE PROPER USE OF THE P.A.D. ENGINEER OF RECORD, ACTING AS A DELEGATED ENGINEER TO THE P.A.D. ENGINEER, SHALL SUBMIT TO THIS LATTER THE SITE SPECIFIC DRAWINGS FOR REVIEW.
 - (e) THIS P.A.D. SHALL BEAR THE DATE AND ORIGINAL SEAL AND SIGNATURE OF THE PROFESSIONAL ENGINEER OF RECORD THAT PREPARED IT.



TYPICAL DOOR ELEVATION (EXTERIOR OR INTERIOR)

* Typ. EA. END, INTERIOR, OPTIONAL, ONLY FOR SECURITY PURPOSES.

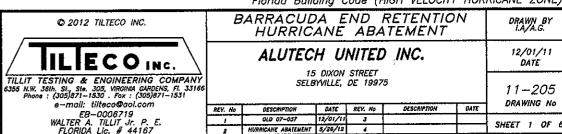
SEE SHEETS 2 & 3 FOR COMPONENTS NOMENCLATURE.

SEE SECTIONS ON SHEETS 4 & 5

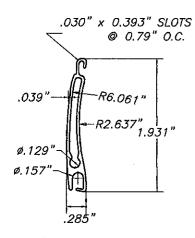
SEE SCHEDULES ON SHEET 6

PRODUCT REVISED as complying with the Florida **Building Code** Acceptance No [2-0307.0] Expiration Date 05/31/2017 Minmi/Dade Product Control

Florida Building Code (HIGH VELOCITY HURRICANE ZONE)

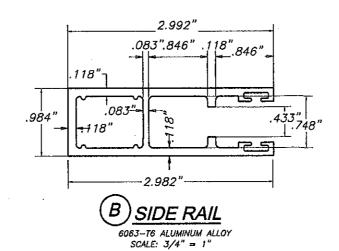


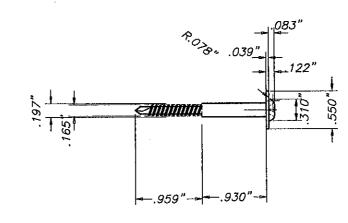




A SLAT

6063-T6 ALUMINUM ALLOY
SCALE: 3/4"= 1"





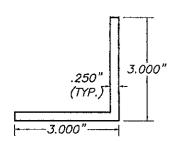
C RETAIN SCREW

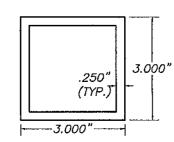
(1 EVERY OTHER SLAT INCLUDING BASE SLAT

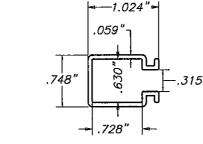
AND SHALL BE INSTALLED W/A 0.576" MIN. SLIP AS SHOWN ON SECTIONS)

AISI/SAE 304 SERIES STAINLESS STEEL

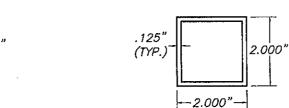
SCALE: 3/4" = 1"

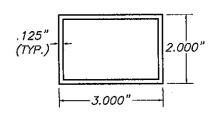






SCALE: 3/4" = 1"





E 3"x3"x1/4" INSIDE MOUNT ANGLE

6061-T6 ALUMINUM ALLOY SCALE: 3/8" = 1"



SCALE: 3/8" = 1"

RETAIN SCREW ENCASEMENT

DENSITY = 0.970 (ASTM D792)

TENSILE STRENGTH = 5400 PSI (ASTM D638)

FLEXURAL MODULUS = 200,000 PSI (ASTM D790)

FLEXURAL STRENGTH = 6300 PSI (ASTM D790)





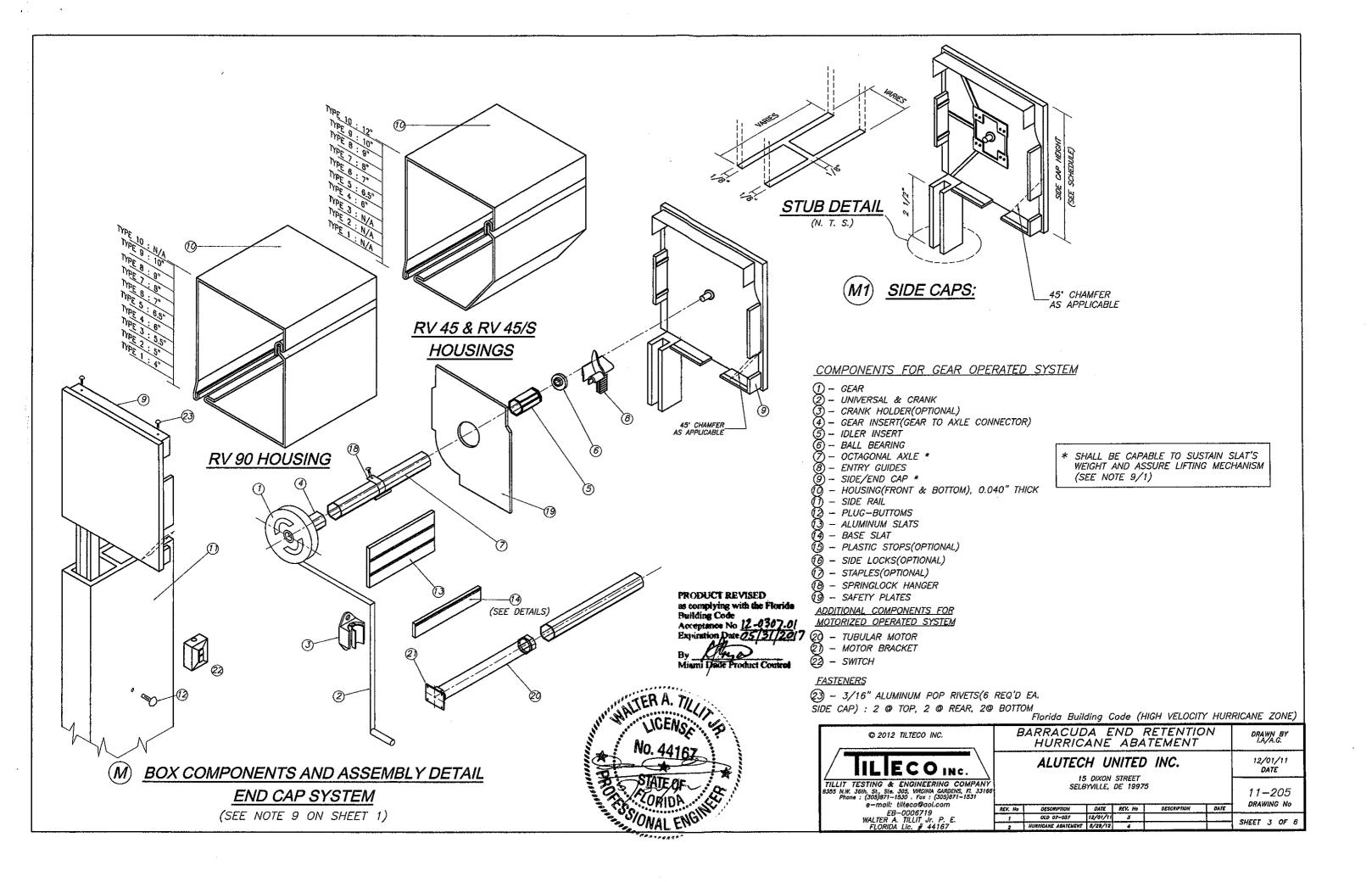
COMPONENTS

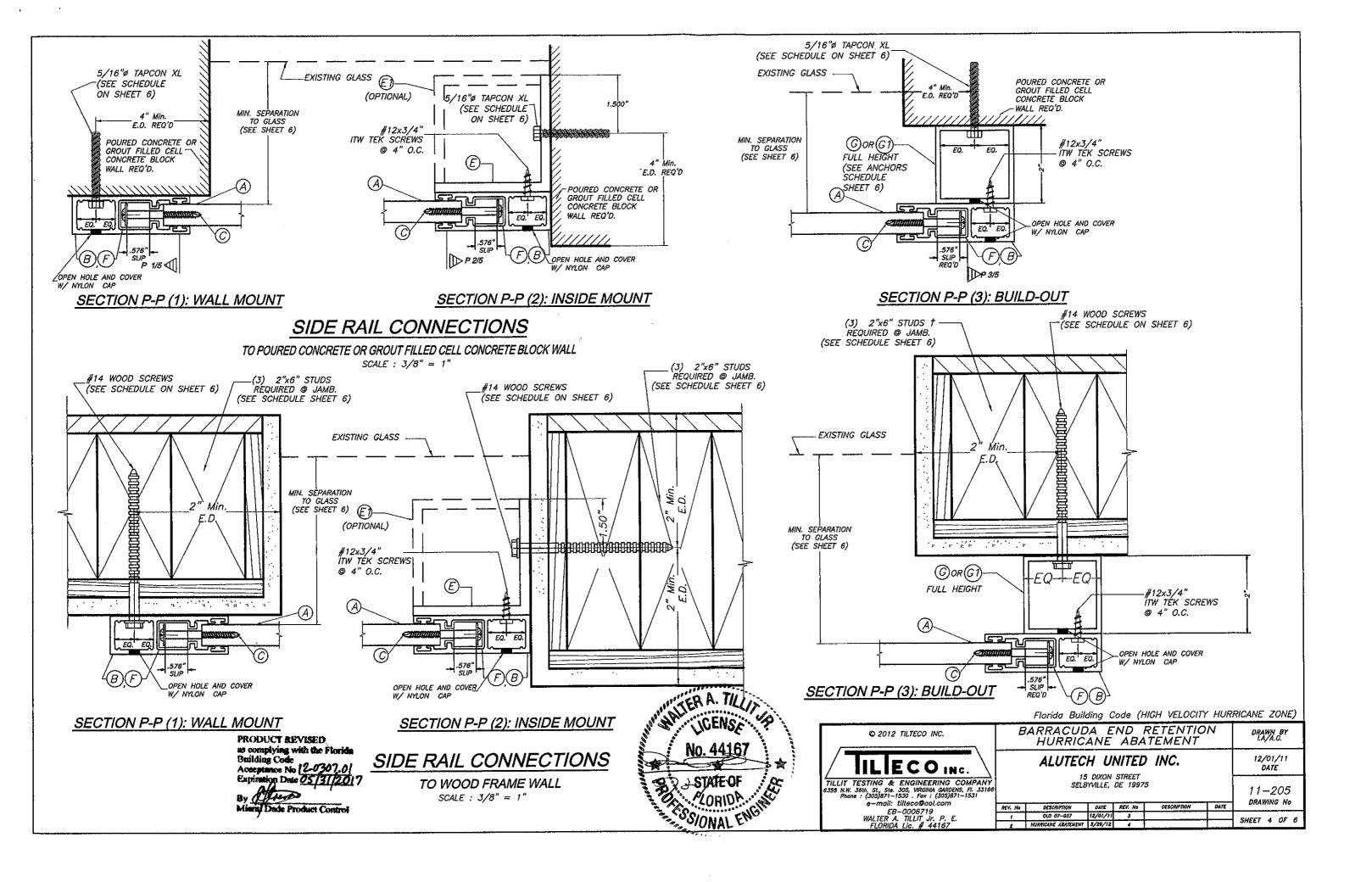
PRODUCT REVISED
as complying with the Florida
Building Code
Acceptance No [2-0307.0]
Expiration Date 05/31/2017
By
Miami Date Product Control

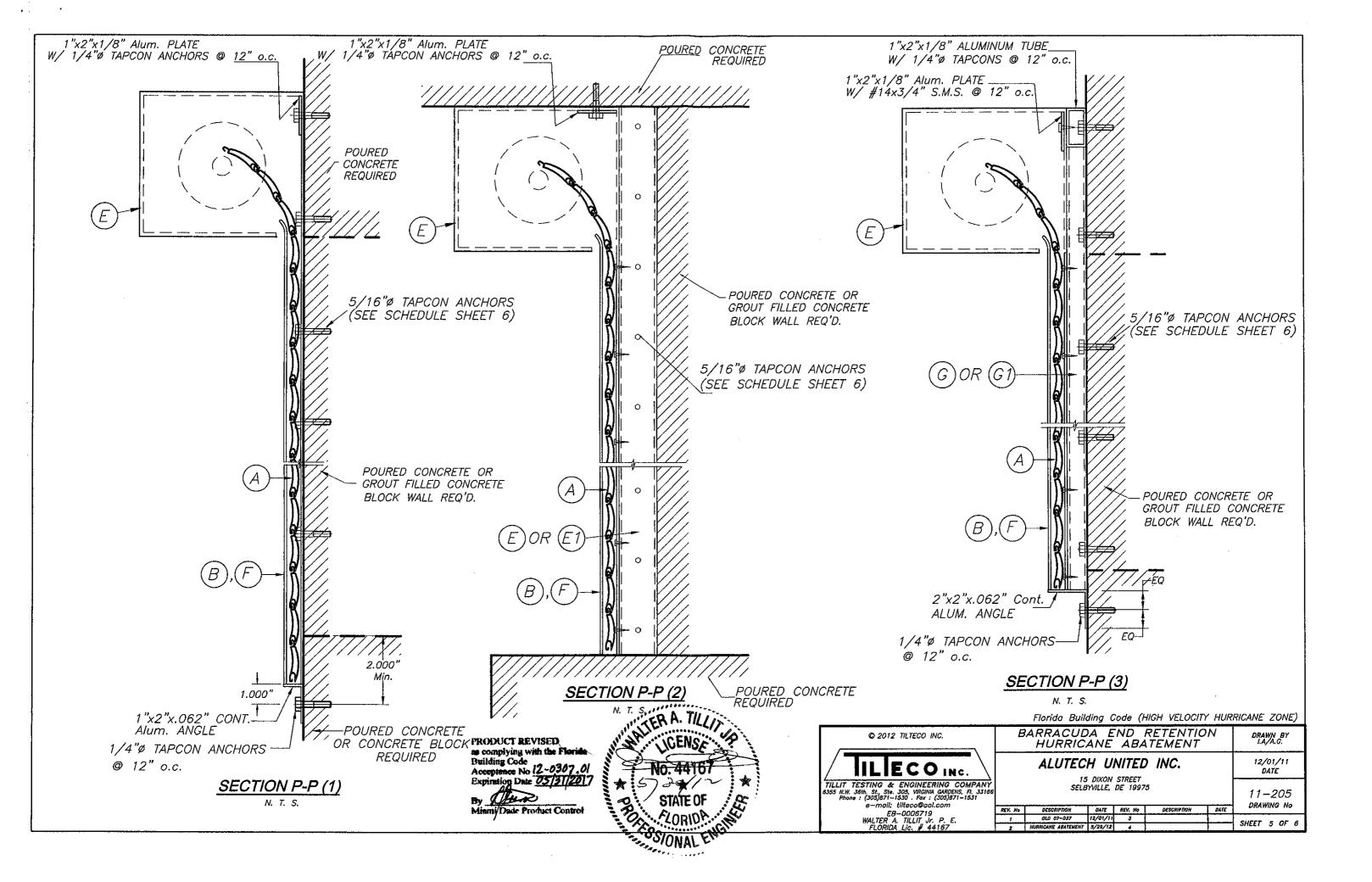


Florida Building Code (HIGH VELOCITY HURRICANE ZONE)

		Fibrido Dane	Jilly C	OUG (HOLL VELOCIT	, ,,,,,,,,	MONTH EUNE)
© 2012 TILTECO INC. BARRACUDA END RETENTION HURRICANE ABATEMENT							DRAWN BY I.A./A.G.
ALUTECH UNITED INC.							
TILLIT TESTING & ENGINEERING COMPANY 155 N.W. 36th. St., Ste. 305, VIRGINIA GARDENS, P. 33166 Phone : (305)871-1530 . Fax : (305)871-1531	15 DIXON STREET SELBYVILLE, DE 19975						11-205 DRAWING No
e-mall: tilteco@aol.com	REV. No	DESCRIPTION	DATE	REV. No	DESCRIPTION	DATE	DAMINIO NO
EB-0006719 WALTER A. TILLIT Jr. P. E.	1	OLD 07-057	12/01/11	J			SHEET 2 OF 6
FLORIDA Lic. # 44167	2	HURRICANE ABATEMENT	3/20/12	4			SHEET 2 OF 6

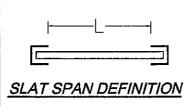






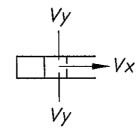
MAXIMUM SLAT SPAN "L" (ft) SCHEDULE.

MAX. A.S.D. DESIGN PRESSURE RATING (p.s.f)	REQUIRED SUBSTATE	MAX. SPAN "L" (FT.)	REMARKS	MIN. SEPARATION TO GLASS				
1.45 45	POURED CONCRETE OR GROUT FILLED CONC. BLOCK.	12'-0"	SEE NOTE 8 ON SHEET 1	8"				
+45, -45	WOOD	12'-0"	SEE NOTE 8 ON SHEET 1	8"				
150 50	POURED CONCRETE OR GROUT FILLED CONC. BLOCK.	7'-0"	SEE NOTE 8 ON SHEET 1	9 1/2"				
+50, -50	WOOD	7'-0"	SEE NOTE 8 ON SHEET 1	9 1/2"				



Vx & Vy REACTIONS AT JAMB.

	<u>`</u>				
MAX. A.S.D. DESIGN PRESSURE RATING (p.s.f)	MAX. SLAT SPAN	REQ'D SLIP (In)	SLIP Vx		
	6'-0"	0.576" 255		135	
	7'-0"	0.576"	385	158	
+45.0, -45.0	12'-0"	0.576"	971	270	
	6'-0"	0.576"	297	150	
	7'-0"	0.576"	436	175	
+50.0, -50.0	12'-0"	N/A	N/A	N/A	



PRODUCT REVISED as complying with the Florida. Building Code Acceptance No 12-0307.0/ Expiration Date 05/3//2017



MAXIMUM ANCHOR SPACING SCHEDULE FOR INSTALLATIONS INTO CONCRETE OR GROUT FILLED CONCRETE BLOCK.

MAX. A.S.D. DESIGN PRESSURE RATING (p.s.f)	SPAN L (ft)	WALL MOUNTING		TRAPP		BUILD-OUT MOUNTING	
	, ,	POURED CONCRETE		POURED CONCRETE	GROUT FILLED BLOCK	POURED CONCRETE	GROUT FILLED BLOCK
	≤ 6'-0"	4"	4"	4"	4"	4"	4"
+45, -45	>6'-0" TO 7'-0"	4"	4"	4"	4"	4"	4"
	>7'-0" TO 12'-0"	4"	4"	4"	4"	♦ 3 3/4"	◊ 3 3/4"
	≤ 6'-0"	4"	4"	4"	4"	4"	4"
+50, -50	>6'-0" TO 7'-0"	4"	4"	4"	4"	4"	4"

[♦] REQUIRES INSTALLATION TO BE PERFORMED ONLY W/ (3) (2"x3"x1/8") B.O. TUBE.

MAXIMUM ANCHOR SPACING SCHEDULE FOR INSTALLATIONS INTO WOOD FRAME BUILDINGS.

MAX. A.S.D. DESIGN PRESSURE RATING (p.s.f)	SPAN L (ft)	WALL MOUNTING		TRAPP MOUN		BUILD-OUT MOUNTING	
	, ,	G=0.46	G=0.55	G=0.46	G=0.46	G=0.46	G=0.55
+45, -45	≤ 6'-0"	4"	4"	4"	4"	4"	4"
	>6'-0" TO 7'-0"	4"	4"	4"	4"	4"	4"
	>7'-0" TO 12'-0"	3"	3 1/2"	4"	4"	[□] 2 1/2"	3 1/2"
+50, -50	≤ 6'-0"	4"	4"	4"	4"	4"	4"
	>6'-0" TO 7'-0"	4"	4"	4"	4"	4"	4"

alternatively, MAX. SPACING MAY BE 3" o.c. IF B.O. TUBE (1) (2"x3"x1/8") IS USED IN LIEU OF (3) (2"x2"x1/8").

Florida Building Code (HIGH VELOCITY HURRICANE ZONE)

© 2012 TILTECO INC.	BARRACUDA END RETENTION HURRICANE ABATEMENT					DRAWN BY I.A./A.G.		
ILLECO INC.		ALUTEC		12/01/11 DATE				
TILLIT TESTING & ENGINEERING COMPANY 6355 N.W. 36th. St., Ste. 305, VIRGINIA GARDENS, FL. 33166 Phone : (305)871-1530 . Fax : (305)871-1531	15 DIXON STREET SELBYVILLE, DE 19975						11-205 DRAWING No	
e−mail: tilteco@aol.com	REV. No	DESCRIPTION	DATE	REV. No	DESCRIPTION	DATE	DAMINIO NO	
EB0006719 WALTER A. TILLIT Jr. P. E.	1	OLD 07-057	12/01/11	5			SHEET 6 OF 6	
FLORIDA Lic. # 44167	2	HURRICANE ABATEMENT	5/20/12	4			SHEET O' OF O	