



DEPARTMENT OF REGULATORY AND ECONOMIC RESOURCES (RER)
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/economy

Carnes Company, Inc.
448 South Main Street
Verona, WI 53593

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 RER-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. RER 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: Model FRVB/FSVB Aluminum Louver with or without CD-151 Damper

APPROVAL DOCUMENT: Drawing No. 17-271, titled "Carnes Model FRVB/FSVB", sheets 1 through 7 of 7, dated 09/29/2017, prepared by Tilteco, Inc., signed and sealed 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 and 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 **revises** NOA #15-0720.07 and consists of this page 1 and evidence pages E-1 and E-2, as well as approval document mentioned above.

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



[Signature]
12/22/2017

NOA No. 17-1016.29
Expiration Date: August 18, 2020
Approval Date: December 28, 2017
Page 1

NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED

- I. Evidence submitted under previous NOA's**
- A. DRAWINGS *"Submitted under NOA #15-0720.07"***
 1. Drawing No. **15-246**, titled "Carnes Model FRVB/FSVB", sheets 1 through 7 of 7, dated 07/15/2015, prepared by Tilteco, Inc., signed and sealed by Walter A. Tillit Jr., P.E.
- B. TESTS *"Submitted under NOA # 05-0314.02"***
 1. Test report on Uniform Static Air Pressure Test per TAS 202-94, Large Missile Impact Test per TAS 201-94 and Cyclic Wind Pressure Loading per TAS 203-94 of 144" x 96" of aluminum louver system with damper prepared by American Test Lab of South Florida, Test Report No. **0203.01-05**, dated 03/10/2005, signed and sealed by W. R. Mehner, P.E. and H. Hattem, P.E.
 2. Test report of Wind Driven Rain Resistance per TAS (A) 95 on VV-10-D Louver w/ CD151 Parallel Blade Damper, prepared by PRI Asphalt Technologies, Inc, Test Report No. **PRI05014**, dated 02/08/2005, signed and sealed by C. L. Thomas, P.E.
 3. Test report on Tensile Strength per ASTM E-8 of 6 samples, Test Report No. **5BM-187**, dated 03/07/2005, signed by Frank Grate.
- C. CALCULATIONS *"Submitted under NOA # 09-0203.10"***
 1. Anchoring calculations, prepared by Tilteco Inc, dated 01/13/09, sheets 1 through 3 of 3, complying with F.B.C. 2007, signed and sealed by Walter A. Tillit Jr., P.E.
- D. QUALITY ASSURANCE**
 1. Miami-Dade Department of Regulatory and Economic Resources (RER)
- E. MATERIAL CERTIFICATIONS**
 1. None.
- F. STATEMENTS *"Submitted under NOA #15-0720.07"***
 1. Statement letter of code conformance to the 5th edition (2014) FBC issued by Tilteco, Inc, dated 07/15/2015, signed and sealed by Walter A. Tillit Jr., P.E.

"Submitted under NOA # 10-0511.07"
 2. Letter of code compliance with FBC 2007, issued by Tilteco, Inc., dated 05/04/2010, signed and sealed by Walter A. Tillit, Jr., P.E.
 3. Letter of no financial interest issued by Tilteco, Inc., dated 05/04/2010, signed and sealed by Walter A. Tillit, Jr., P.E.

 - "Submitted under NOA # 07-0524.02"*
 4. Private Labeling Agreement dated 05/22/2007.



12/22/2017

Carlos M. Utrera, P.E.
Product Control Examiner
NOA No. 17-1016.29
Expiration Date: August 18, 2020
Approval Date: December 28, 2017

NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED

2. New evidence submitted

A. DRAWINGS

1. Drawing No. **17-271**, titled "Carnes Model FRVB/FSVB", sheets 1 through 7 of 7, dated 09/29/2017, prepared by Tilteco, Inc., signed and sealed by Walter A. Tillit Jr., P.E.

B. TESTS

1. None.

C. CALCULATIONS

1. None.

D. QUALITY ASSURANCE

1. Miami-Dade Department of Regulatory and Economic Resources (RER)

E. MATERIAL CERTIFICATIONS

1. None.

F. STATEMENTS

1. Statement letter of code conformance to the 6th edition (2017) FBC issued by Tilteco, Inc, dated 09/29/2017, signed and sealed by Walter A. Tillit Jr., P.E.



12/22/2017

Carlos M. Utrera, P.E.
Product Control Examiner
NOA No. 17-1016.29
Expiration Date: August 18, 2020
Approval Date: December 28, 2017

GENERAL NOTES:

- 1.) ALUMINUM LOUVER SYSTEM W/ OR W/O DAMPER SHOWN ON THIS PRODUCT APPROVAL DOCUMENT (P.A.D.) HAS BEEN VERIFIED FOR COMPLIANCE IN ACCORDANCE WITH THE 2017 (6TH EDITION) OF THE FLORIDA BUILDING CODE. THIS ALUMINUM LOUVER SYSTEM W/ OR W/O DAMPER MAY BE INSTALLED AT HIGH VELOCITY HURRICANE ZONES.
- DESIGN WIND LOADS SHALL BE DETERMINED AS PER SECTION 1620 OF THE ABOVE MENTIONED CODE, USING ASCE 7-10 AND SHALL NOT EXCEED THE MAXIMUM (A.S.D.) DESIGN PRESSURE RATINGS INDICATED ON THIS SHEET.
- 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 THIS SHEET.
- ALUMINUM LOUVER SYSTEM W/ OR W/O DAMPER'S ADEQUACY FOR IMPACT AND FATIGUE RESISTANCE HAS BEEN VERIFIED IN ACCORDANCE WITH SECTION 1626 OF THE ABOVE MENTIONED CODE AS PER AMERICAN TESTING LAB REPORT #0203.01-05, AS PER TAS-201, TAS-202, TAS-203, AS WELL AS PER ANSI/AMCA IMPACT STANDARD 540, PER INTERTEK/ARCHITECTURAL TESTING REPORT # F 3136.01-550-44 & PRI TECHNOLOGIES LAB REPORT #UEC-001-02-01, PER TAS-100A (WIND DRIVEN RAIN, EXCEEDS ANSI/AMCA 550-15 STANDARD). THE LOUVER MUST HAVE THE CD-151 DAMPER INSTALLED BEHIND IT (AND IN THE CLOSED BLADE POSITION) TO MEET THE TAS 100(A) OR AMCA 550 REQUIREMENTS.
- 2.) ALL ALUMINUM EXTRUSIONS SHALL BE 6063-T5 ALLOY W/ MIN. SPECIFIC YIELD STRENGTHS AS SHOWN ON SHEET 2.
- 3.) ALL SCREWS TO BE STAINLESS STEEL 304 OR 316 SERIES WITH 50 ksi YIELD POINT AND 90 ksi TENSILE STRENGTH OR CORROSION RESISTANT CARBON STEEL AS PER DIN 50018 AND SHALL COMPLY W/ FLORIDA BUILDING CODE SECTION 2411.3.3.4.
- 4.) ALL WELDING OF ALUMINUM FRAMING SHALL BE IN ACCORDANCE WITH THE AMERICAN WELDING SOCIETY A.W.S. D.1.2 REGULATIONS. USE CERTIFIED WELDERS. USE ER-5356 ELECTRODES.
- 5.) ANCHORS TO EXISTING STRUCTURE SHALL BE AS FOLLOWS (SEE SHEET 6):
- (A) ANCHORS SHALL BE INSTALLED FOLLOWING ALL OF THE RECOMMENDATIONS AND SPECIFICATIONS OF THE ANCHOR'S MANUFACTURER. E.D. IS BEYOND ANY WALL FINISH.

ANCHOR TYPE	MANUFACTURER	DIAMETER OR GAGE	MIN. EMBEDMENT				MIN. EDGE DISTANCE (E.D.)		
			TO CONCRETE (f'c=3192 psi) MIN.	TO CONCRETE BLOCK ASTM (C-90 UNIT)	TO 1/8" MIN. STEEL Fy=33 ksi (MIN.)	TO WOOD (G ≥ 0.55)	CONCRETE OR CONCRETE BLOCK	STEEL	WOOD
TAPCONS	ITW/ BUILDEX	1/4"	1-3/4"	1-1/4"	N/A	1 1/2"	3"	N/A	2"
TEK SCREWS	ITW/ BUILDEX	1/4"	N/A	N/A	3/4"	N/A	N/A	1"	N/A

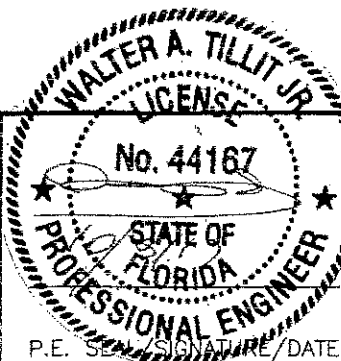
- 6.) ALUMINUM LOUVER SYSTEM W/O DAMPER SHALL ONLY BE INSTALLED IN A LOCATION WHERE THE ROOM BEHIND THE LOUVER IS DESIGNED TO DRAIN WATER PENETRATING INTO THE ROOM, AND THE ROOM WILL HOUSE WATER RESISTANT/WATER PROOF EQUIPMENT, COMPONENTS, OR SUPPLIES.
- 7.) ALUMINUM LOUVER SYSTEM W/ DAMPER MAY BE INSTALLED IN LOCATIONS WHERE THE ROOM BEHIND THE LOUVER IS NOT DESIGNED TO DRAIN WATER PENETRATING INTO THE ROOM, OR THE ROOM WILL HOUSE NON-WATER RESISTANT EQUIPMENT, COMPONENTS, OR SUPPLIES. INSTALLATION ON LOUVER W/ DAMPER IS LIMITED TO 40 FT IN HEIGHT ACCORDING TO TABLE 3 OF TAS 100(A)-95.
- 8.) CD-151 DAMPER IS AN OPERABLE ASSEMBLY. IT MAY BE OPERATED BY MEANS OF A HAND QUADRANT HANDLE MECHANISM (AS SHOWN ON SHEET 7) OR THROUGH AN ELECTRICAL OR PNEUMATIC ACTUATOR. DAMPER'S OPERATIVE MECHANISM IS NOT PART OF THIS APPROVAL, BUT SHALL BE CERTIFIED BY AN INDEPENDENT TESTING AGENCY.
9. ALL ALUMINUM IN CONTACT W/ DISSIMILAR MATERIALS SHALL COMPLY WITH SECTION III-6 OF THE 2015 ALUMINUM DESIGN MANUAL.

- 10.) IT SHALL BE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY THE SOUNDNESS OF THE STRUCTURE WHERE LOUVER SYSTEM IS TO BE ATTACHED TO INSURE PROPER ANCHORAGE.
- 11.) (a) THIS PRODUCT APPROVAL DOCUMENT (P.A.D.) PREPARED BY THIS ENGINEER IS GENERIC AND DOES NOT PROVIDE INFORMATION FOR A 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 PRODUCT APPROVAL DOCUMENT WILL BE CONSIDERED INVALID IF MODIFIED.
- (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.
- (E) ORIGINAL P.A.D. SHALL BEAR THE DATE AND ORIGINAL SEAL AND SIGNATURE OF THE PROFESSIONAL ENGINEER THAT PREPARED IT.
- 12). PRODUCT MANUFACTURER'S LABEL SHALL BE LOCATED ON A READILY VISIBLE LOCATION AT PRODUCT IN ACCORDANCE WITH SECTION 1709.9.3 OF FLORIDA BUILDING CODE. ONE LABEL SHALL BE PLACED FOR EVERY OPENING. LABELING TO COMPLY WITH SECTION 1709.9.2 OF THE FLORIDA BUILDING CODE. CARNES COMPANY, INC. VERONA, WI MIAMI-DADE COUNTY PRODUCT CONTROL APPROVED.

A.S.D. DESIGN PRESSURE RATING:
+150, -150 psf.

THIS DRAWING SHALL ONLY BE USED TO
OBTAIN PERMITS IN THE STATE OF FLORIDA

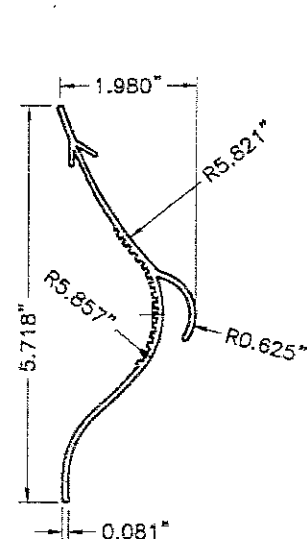
PRODUCT REVISED
as complying with the Florida
Building Code
NOA-No. **17-1016.29**
Expiration Date **08/18/2020**
By 
Miami-Dade Product Control
MIAMI-DADE COUNTY



© 2017 TILTECO, INC.
TILTECO INC.
TILLIT TESTING & ENGINEERING COMPANY
6335 N.W. 38th St., Ste. 305, VIRGINIA GARDENS, FL 33166
Phone : (305)871-1530 . Fax : (305)871-1531
EB-0006719
WALTER A. TILLIT Jr. P.E.
FLORIDA Lic. # 44167

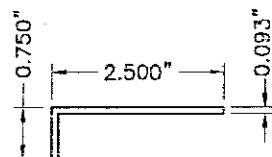
FLORIDA BUILDING CODE (High Velocity Hurricane Zone)

CARNES MODEL FRVB/FSVB. UNITED ENERTECH, INC. W-100 ALUMINUM LOUVER W/ OR W/O CD-151 DAMPER ASSEMBLY						DRAWN BY: L.C.
CARNES COMPANY, INC 448 S. MAIN STREET VERONA, WI 53593 PH: (608) 845-8411 FAX: (608) 845-8470						09/29/17 DATE
						17-271 DRAWING No
REV. No	DESCRIPTION	DATE	REV. No	DESCRIPTION	DATE	SHEET 1 OF 7
1	OLD 15-246	09/29/17	3			
2			4			



1L VERTICAL BLADE

MATERIAL:
(6063-T5 ALUMINUM ALLOY)
Fy(MIN.)=31.6 ksi

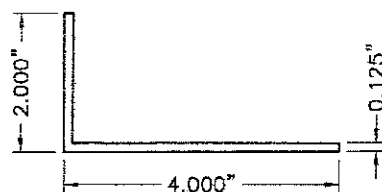


4L 1ST BLADE BLANK-OFF

MATERIAL:
FORMED ALUMINUM
(6063-T5 ALUMINUM ALLOY)

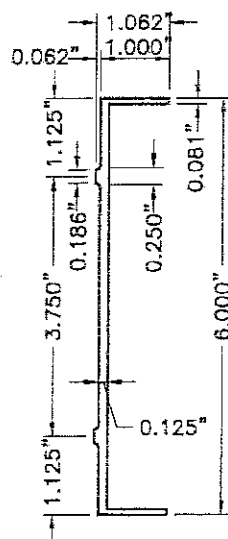
7L BLANK-OFF PANEL

3 3/4" X .093" CONT ALUM. PLATE
(6063-T5 ALUMINUM ALLOY)



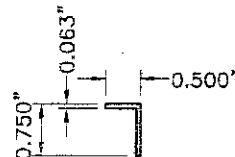
10L TOP & BOTTOM ALUM. ANGLE

MATERIAL:
(6063-T5 ALUMINUM ALLOY)



2L JAMB & HEAD

MATERIAL:
(6063-T5 ALUMINUM ALLOY)
Fy(MIN.)=25.3 ksi

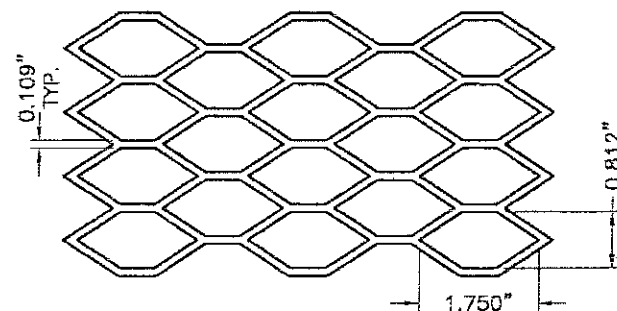


5L BLADE'S SPACER

MATERIAL:
(6063-T5 ALUMINUM ALLOY)

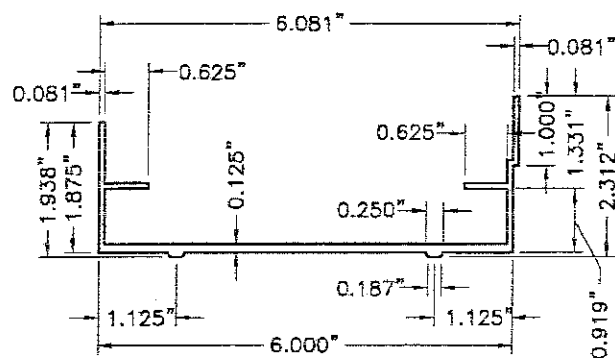
8L BLANK-OFF PANEL

3 1/8" X .093" CONT ALUM. PLATE
(6063-T5 ALUMINUM ALLOY)



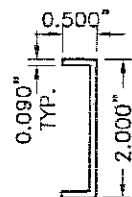
11L REAR MESH

MATERIAL:
NOMINAL 3/4"x0.050" THICK (0.17 lb/SQ. Ft)
(3003-H14 ALUMINUM ALLOY)



3L SILL

MATERIAL:
(6063-T5 ALUMINUM ALLOY)
Fy(MIN.)=32.7 ksi

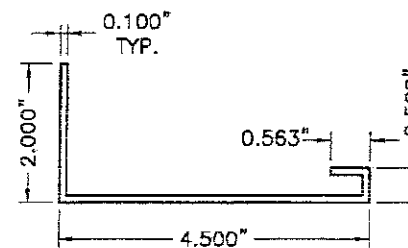


6L ALUM. CHANNEL

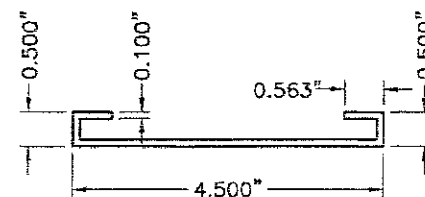
MATERIAL:
FORMED ALUMINUM
(6063-T5 ALUMINUM ALLOY)

9L COVER STRIP

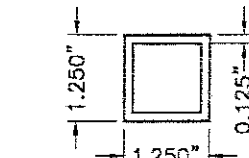
2" X 1/8" X 92" MAX. ALUM. PLATE
(6063-T5 ALUMINUM ALLOY)



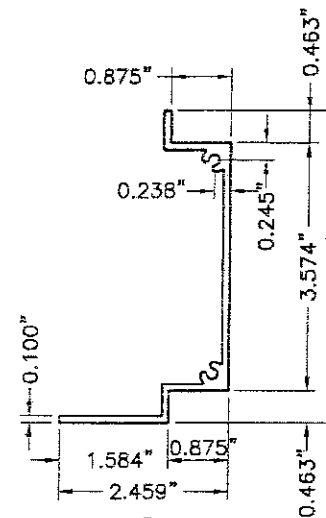
1D HEAD & SILL



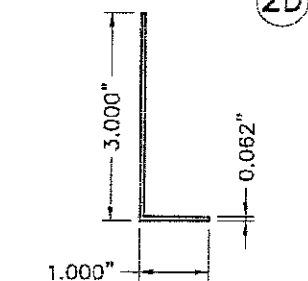
7D MID-HEIGHT HEAD or SILL



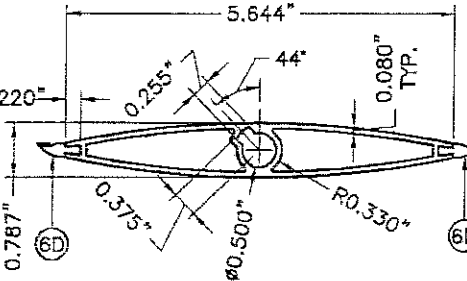
1I INTERMEDIATE TUBE FRAME



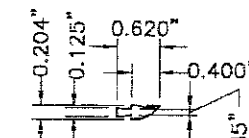
2D JAMB



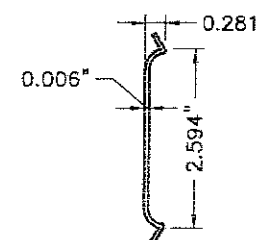
8D ALUM. ANGLE BLADE STOP



3D DAMPER BLADE



6D BLADE SEAL



9D JAMB SEAL

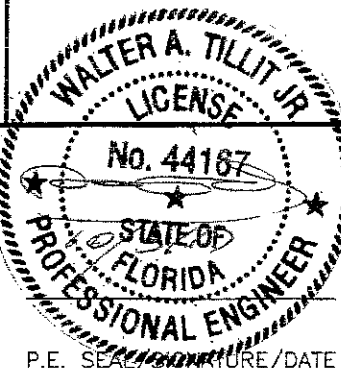
CD-151 DAMPER AND INTERMEDIATE TUBE FRAME COMPONENTS

(EXCLUDES COMPONENTS FOR OPERATIVE MECHANISM, SEE NOTE 8/1)

BILL OF MATERIALS

ITEM	DESCRIPTION	MATERIAL	SIZE	REMARKS
1D	EXTRUDED ALUM HEAD & SILL	6063-T5 ALUMINUM ALLOY	SEE DETAIL	Fy(MIN.)=33.4 ksi
2D	EXTRUDED ALUM JAMB	6063-T5 ALUMINUM ALLOY	SEE DETAIL	Fy(MIN.)=31.6 ksi
3D	EXTRUDED ALUM DAMPER BLADE	6063-T5 ALUMINUM ALLOY	SEE DETAIL	Fy(MIN.)=31.8 ksi
4D	BUSHING	BRONZE	1/2" I.D.(5/8" O.D.)x1/4"	0.059"THICK @ WASHER SIDE
5D	AXLE PIN	ZAMAC No. 3 ZINC	1/2"x3 1/8"	WITH NYLON WASHER & LOCK RING
6D	BLADE SEAL	SILICONE	SEE DETAIL	ASTM D-2000, 60-65 DUROMETER
7D	MID-HEIGHT EXTRUDED ALUM. HEAD or SILL	6063-T5 ALUMINUM ALLOY	SEE DETAIL	Fy(MIN.)=29.8 ksi
8D	ALUM. ANGLE BLADE STOP	6063-T5 ALUMINUM ALLOY	SEE DETAIL	WITH VINYL WEATHER STRIP AT END OF 3" LEG
9D	JAMB SEAL	STAINLESS STEEL 316 SERIES	SEE DETAIL	ATTACHED TO 2D W/(3) DOUBLE SIDED (1"x1/8") TAPES
10D	SDS TEK SCREWS ITW / BUILDEX	ZINC PLATED STEEL	1/4"x1" LONG	FASTEN TO 6D @ 12" O.C., 2 1/2" FROM ENDS
1I	INTERMEDIATE TUBE FRAME	6063-T5 ALUMINUM ALLOY	SEE DETAIL THIS SHEET AND SHEET 5.	Fy(MIN.)=31.9 ksi INSTALL BETWEEN DAMPER & LOUVER FRAME.

PRODUCT REVISED
as complying with the Florida
Building Code
NOA-No. **17-1016.29**
Expiration Date **08/18/2020**
By *[Signature]*
Miami-Dade Product Control
MIAMI-DADE COUNTY

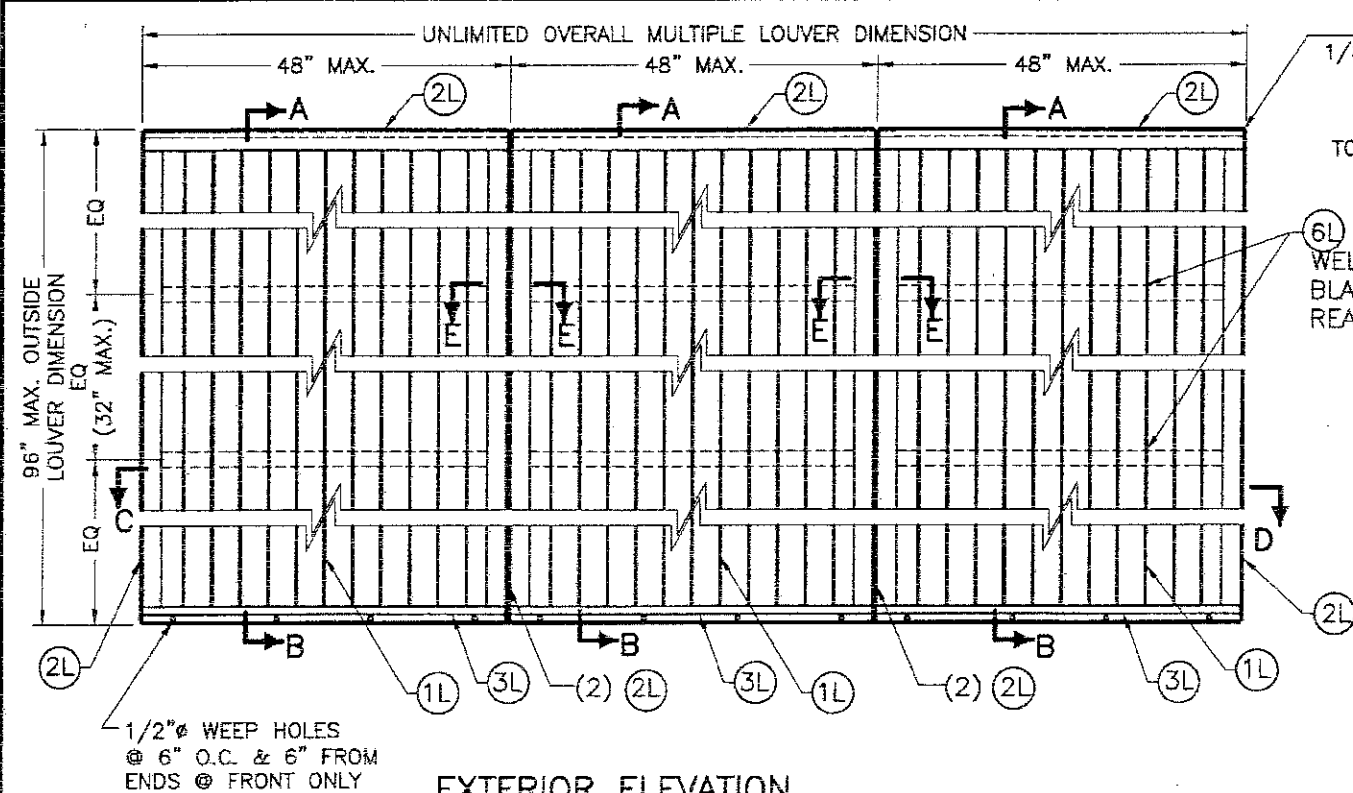


© 2017 TILTECO, INC.
TILTECO INC.
TILLIT TESTING & ENGINEERING COMPANY
6355 N.W. 36th St., Ste. 305, VIRGINIA GARDENS, FL 33166
Phone: (305)871-1530 Fax: (305)871-1531
EB-0006719
WALTER A. TILLIT Jr. P.E.
FLORIDA Lic. # 44167

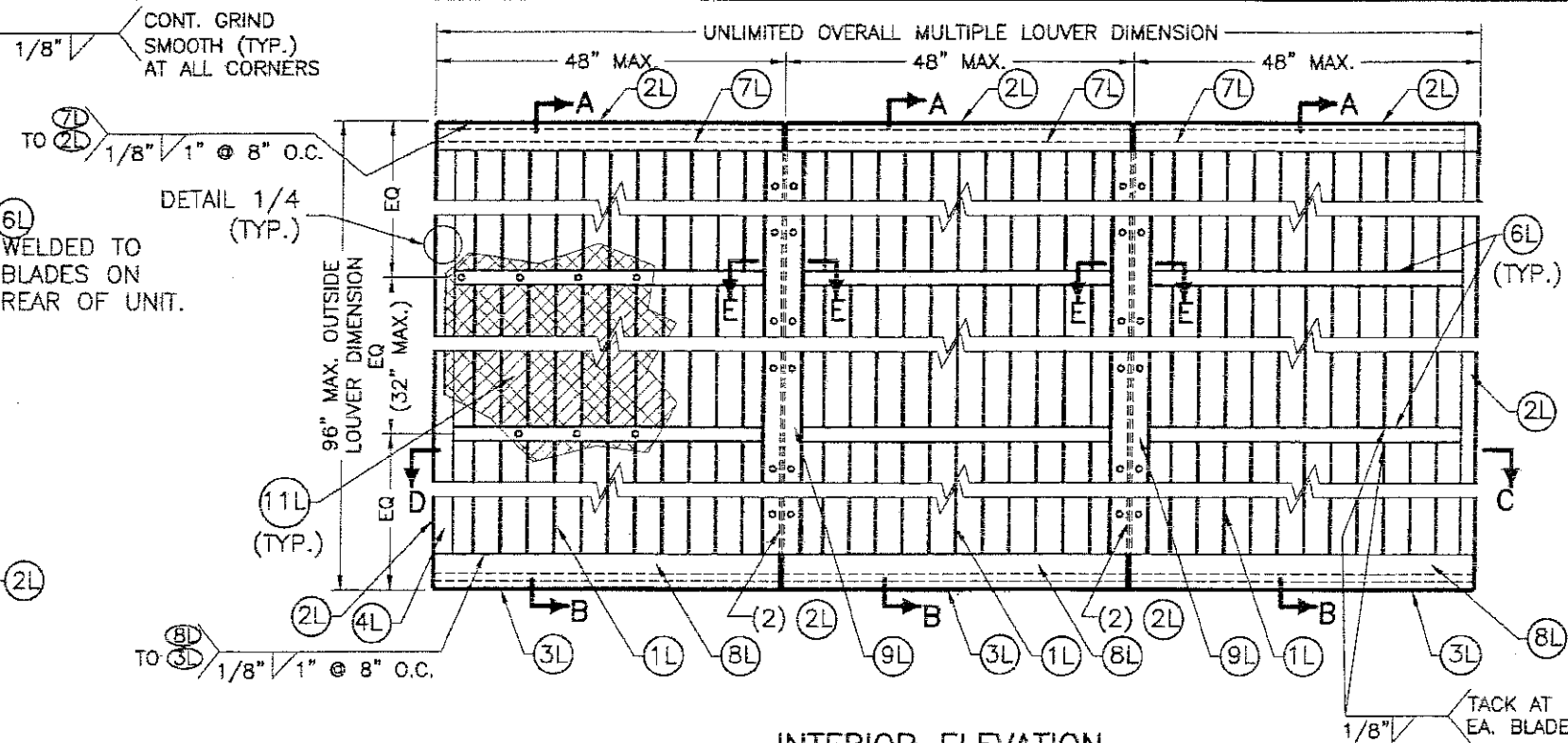
FLORIDA BUILDING CODE (High Velocity Hurricane Zone)

CARNES MODEL FRVB/FSVB. UNITED ENERTECH, INC. VV-10-D ALUMINUM LOUVER W/ OR W/O CD-151 DAMPER ASSEMBLY			DRAWN BY: L.C.		
CARNES COMPANY, INC 448 S. MAIN STREET VERONA, WI 53593 PH: (608) 845-6411 FAX: (608) 845-6470			09/29/17 DATE		
REV. No. DESCRIPTION DATE REV. No. DESCRIPTION DATE			17-271 DRAWING No		
1	OLD 15-246	09/29/17	3		
2			4		
			SHEET 2 OF 7		

W-10D LOUVER COMPONENTS



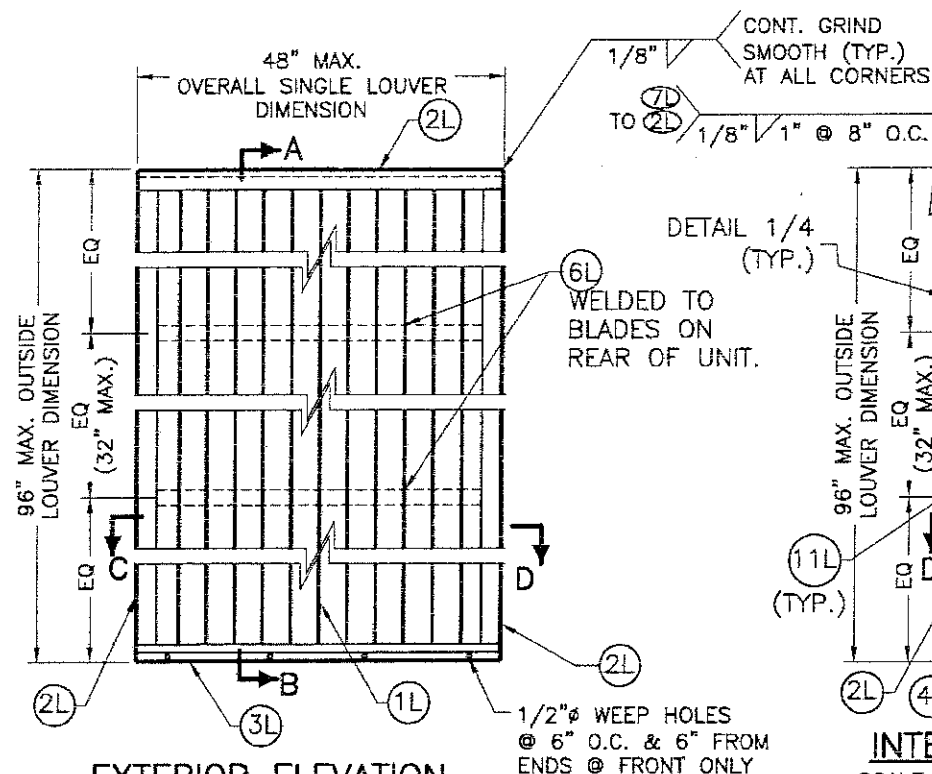
EXTERIOR ELEVATION
SCALE: 1/2"=1'-0"



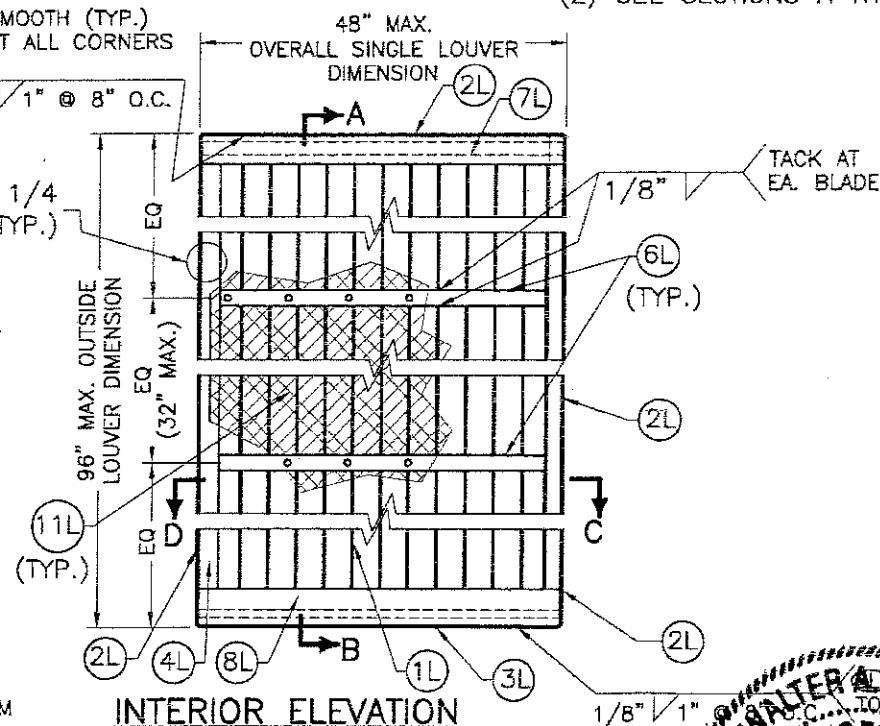
INTERIOR ELEVATION
SCALE: 1/2"=1'-0"

MULTIPLE VV-10D LOUVER UNITS

- NOTES: (1) SEE COMPONENTS ON SHEET 2.
(2) SEE SECTIONS A THRU D ON SHEET 4.



EXTERIOR ELEVATION
SCALE: 1/2"=1'-0"

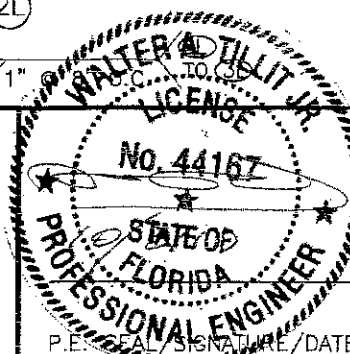


INTERIOR ELEVATION
SCALE: 1/2"=1'-0"

SINGLE VV-10D LOUVER UNITS

- NOTES: (1) SEE COMPONENTS ON SHEET 2.
(2) SEE SECTIONS A THRU D ON SHEET 4.

PRODUCT REVISED
as complying with the Florida
Building Code
NOA-No. **17-1016.29**
Expiration Date **08/18/2020**
By *[Signature]*
Miami-Dade Product Control
MIAMI-DADE COUNTY



© 2017 TILTECO, INC.
TILTECO INC.
TILLIT TESTING & ENGINEERING COMPANY
6355 N.W. 36th St., Ste. 305, VIRGINIA GARDENS, FL 33166
Phone: (305) 871-1530, Fax: (305) 871-1531
EB-0006719
WALTER A. TILLIT Jr. P.E.
FLORIDA Lic. # 44167

FLORIDA BUILDING CODE (High Velocity Hurricane Zone)

CARNES MODEL FRVB/FSVB.
UNITED ENERTECH, INC. VV-10-D ALUMINUM LOUVER W/ OR W/O CD-151 DAMPER ASSEMBLY

CARNES COMPANY, INC
448 S. MAIN STREET
VERONA, WI 53593
PH: (608) 845-6411 FAX: (608) 845-6470

DRAWN BY:
L.C.

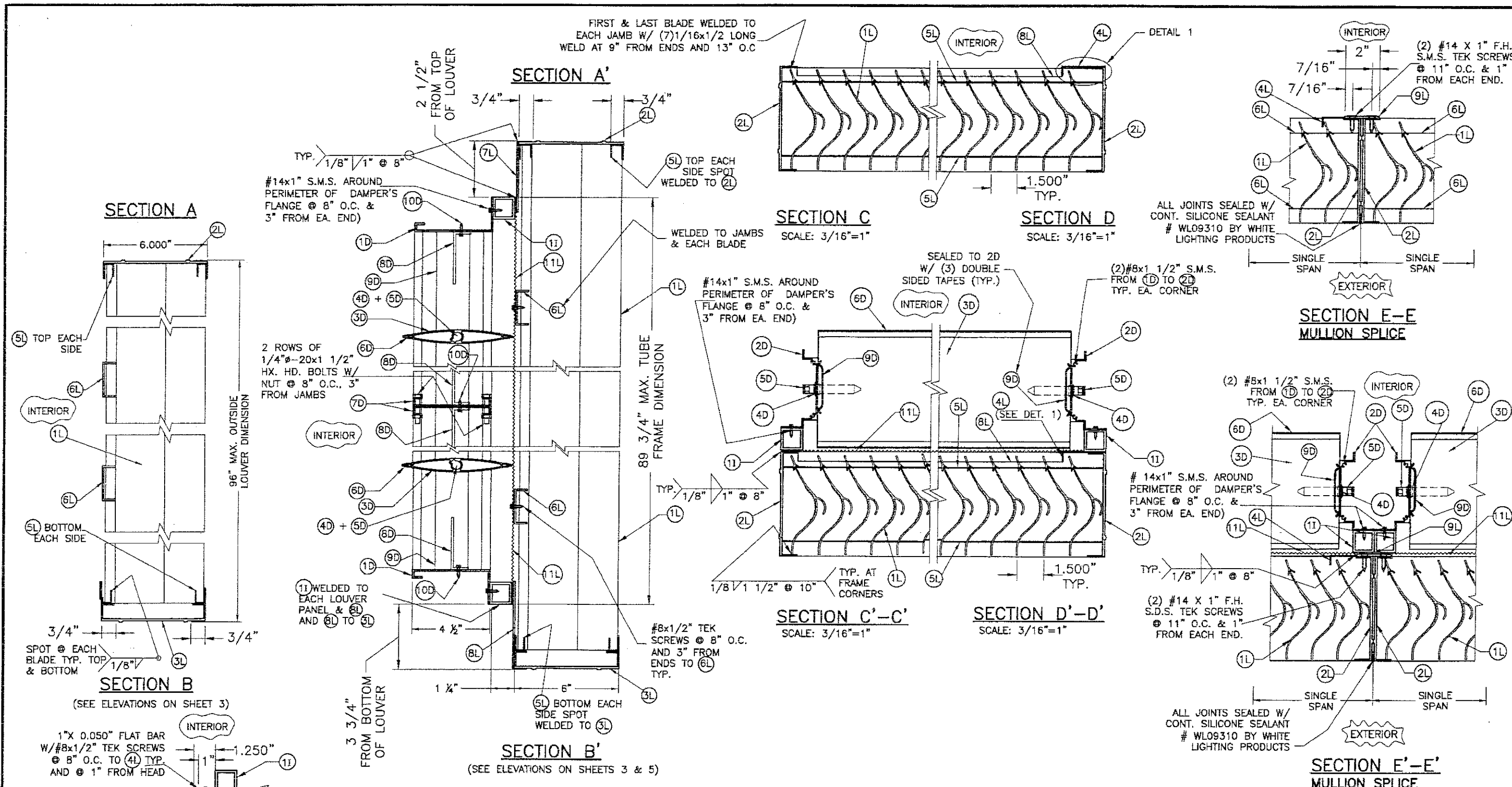
09/29/17
DATE

17-271

DRAWING No

SHEET 3 OF 7

REV. No	DESCRIPTION	DATE	REV. No	DESCRIPTION	DATE
1	OLD 15-246	09/29/17	3		
2			4		



DETAIL 1 (PLAN)
1ST LOUVER BLANK-OFF LOCATION
N.T.S.

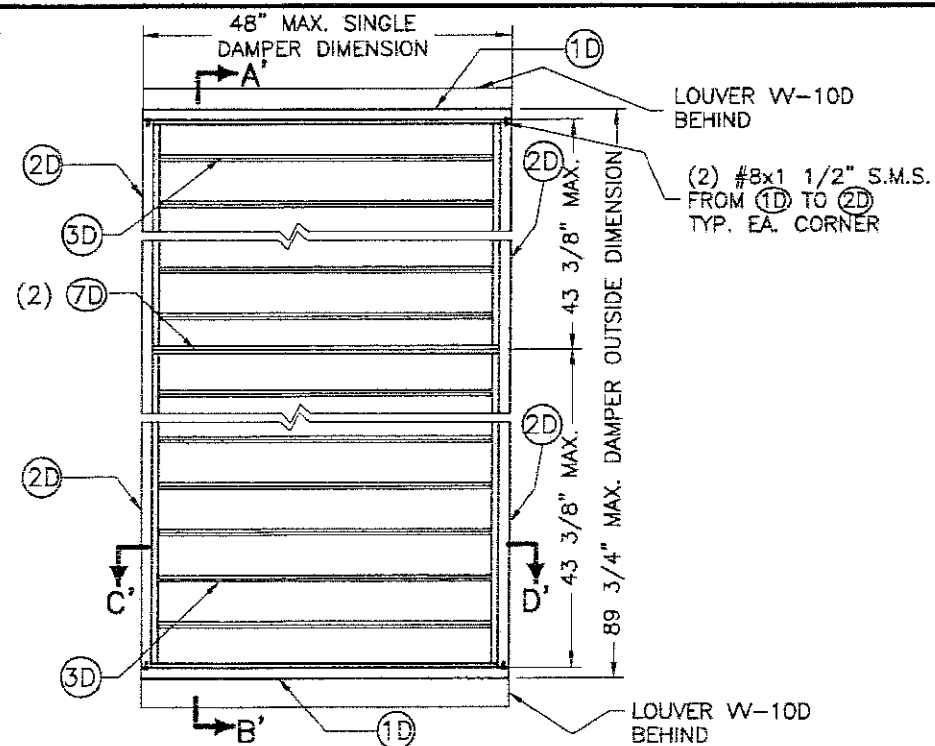
PRODUCT REVISED
as complying with the Florida Building Code
NOA-No. **17-1016.29**
Expiration Date **08/18/2020**
By *[Signature]*
Miami-Dade Product Control
MIAMI-DADE COUNTY

WALTER A. TILLIT JR.
LICENSE
No. 44167
STATE OF FLORIDA
PROFESSIONAL ENGINEER
P.E. SIGNATURE/DATE

© 2017 TILTECO, INC.
TILTECO INC.
TILLIT TESTING & ENGINEERING COMPANY
6355 N.W. 36th St., Ste. 305, VIRGINIA GARDENS, FL 33165
Phone: (305) 871-1530, Fax: (305) 871-1531
EB-0006719
WALTER A. TILLIT JR., P.E.
FLORIDA Lic. # 44167

FLORIDA BUILDING CODE (High Velocity Hurricane Zone)
CARNES MODEL FRVB/FSVB.
UNITED ENERTECH, INC. W-10-D ALUMINUM LOUVER W/ W/O CD-151 DAMPER ASSEMBLY
CARNES COMPANY, INC
448 S. MAIN STREET
VERONA, WI 53593
PH: (608) 845-6411 FAX: (608) 845-6470
DRAWN BY: L.C.
09/29/17
DATE
17-271
DRAWING No
SHEET 4 OF 7

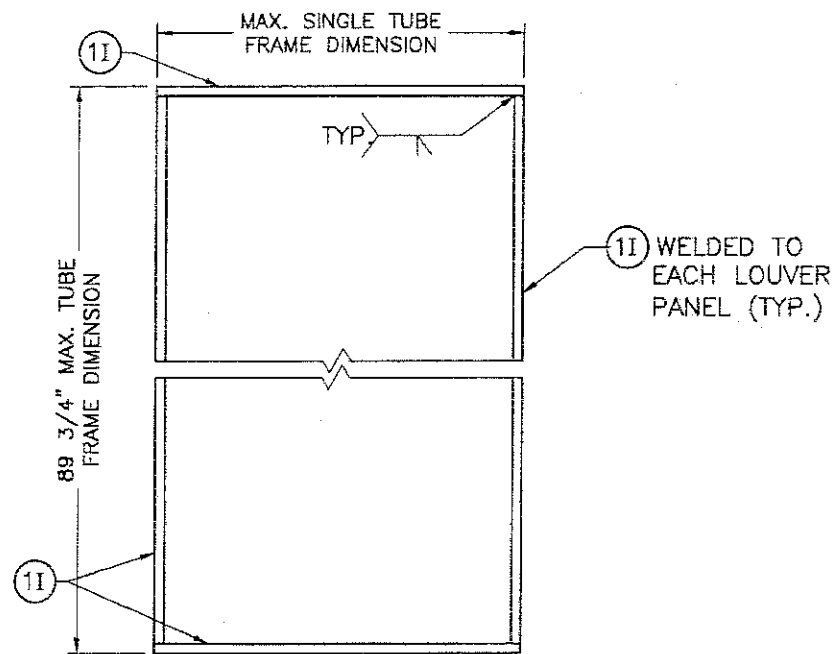
REV. No	DESCRIPTION	DATE	REV. No	DESCRIPTION	DATE
1	OLD 15-246	06/29/17	3		
2			4		



**INTERIOR ELEVATION
CD-151 DAMPER SINGLE UNITS**

SCALE: 1/2"=1'-0"

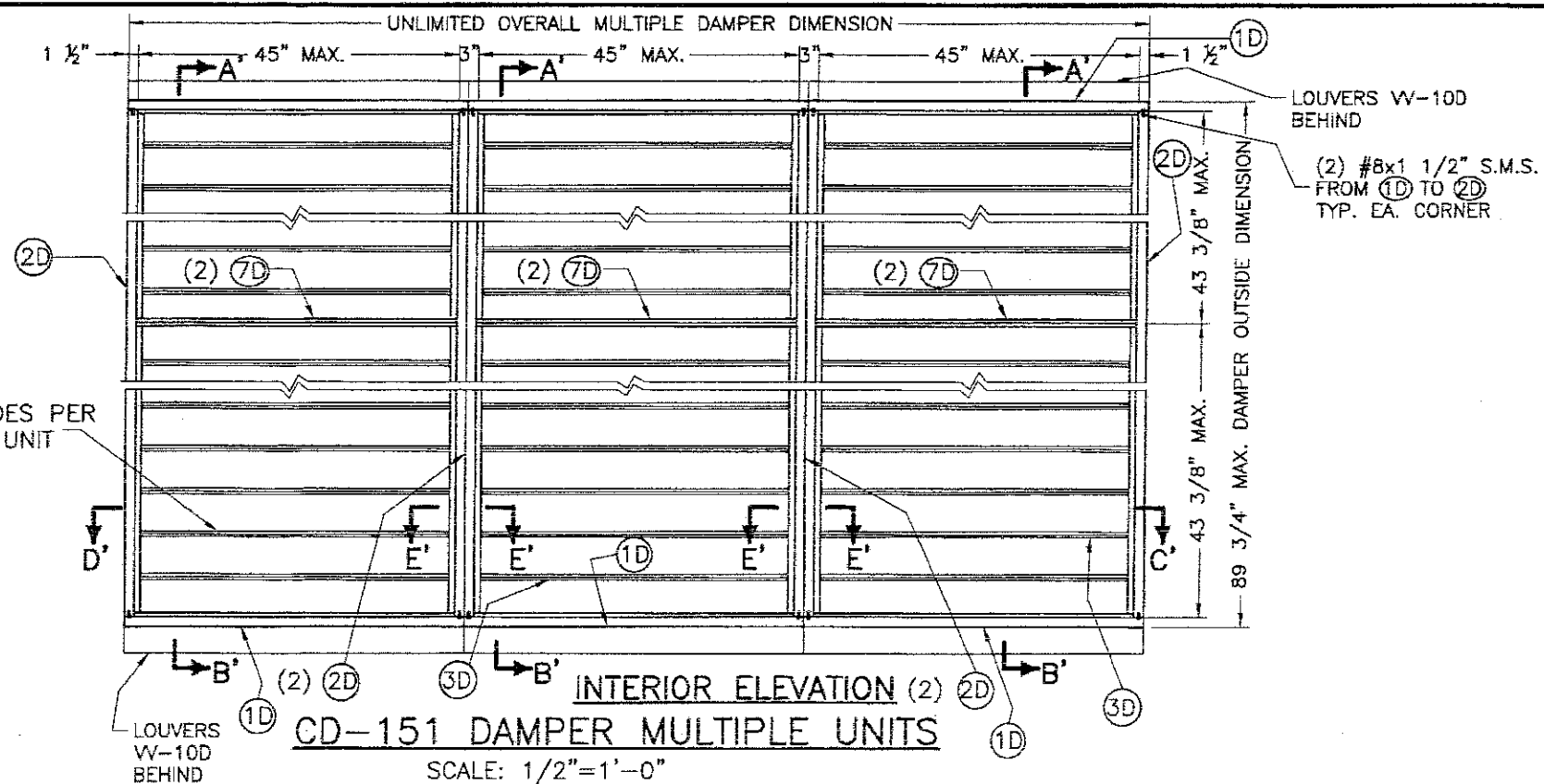
- (1) SEE COMPONENTS ON SHEET 2.
(2) SEE SECTIONS A' THRU D' ON SHEET 4.



ELEVATION

**INTERMEDIATE TUBE FRAME FOR CD-151
DAMPER ATTACHMENT AT SINGLE UNITS**

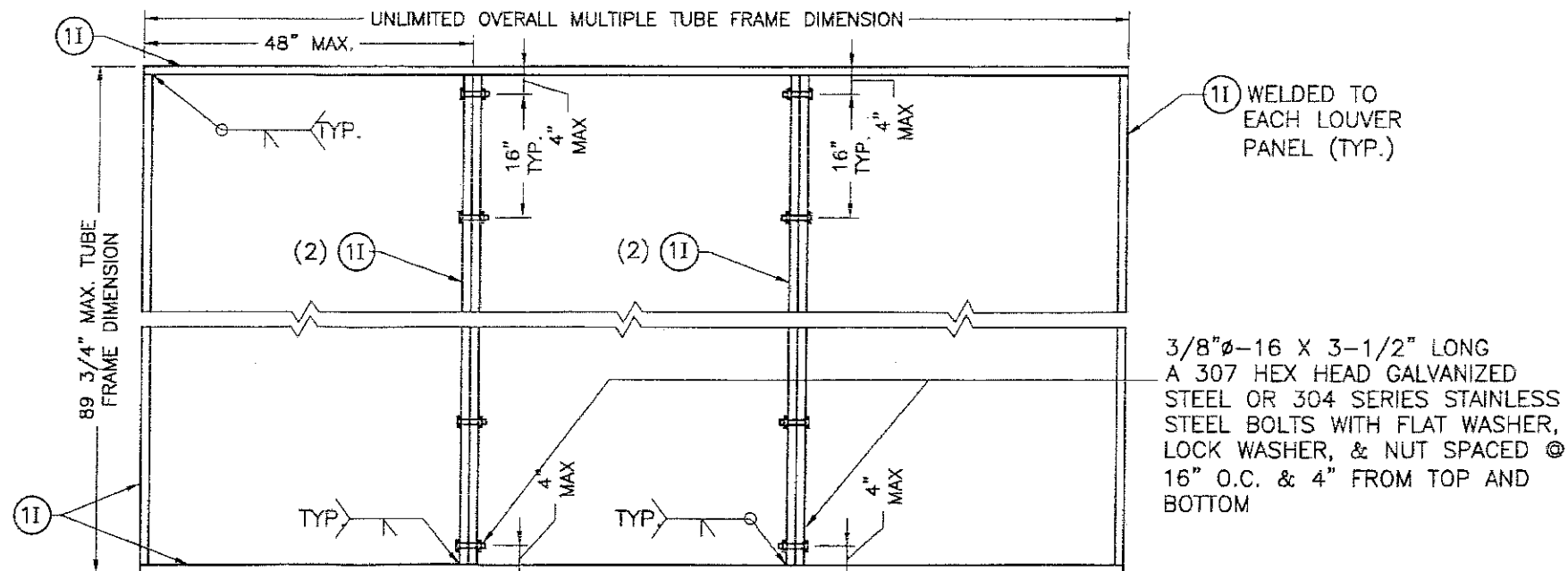
SCALE: 1/2"=1'-0"



**INTERIOR ELEVATION (2)
CD-151 DAMPER MULTIPLE UNITS**

SCALE: 1/2"=1'-0"

- (1) SEE COMPONENTS ON SHEET 2.
(2) SEE SECTIONS A' THRU D' ON SHEET 4.



INTERMEDIATE TUBE FRAME FOR CD-151 DAMPER ATTACHMENT AT MULTIPLE UNITS

SCALE: 1/2"=1'-0"

PRODUCT REVISED
as complying with the Florida
Building Code
NOA-No. 17-1016.29
Expiration Date 08/18/2020
By *[Signature]*
Miami-Deade Product Control
MIAMI-DADE COUNTY

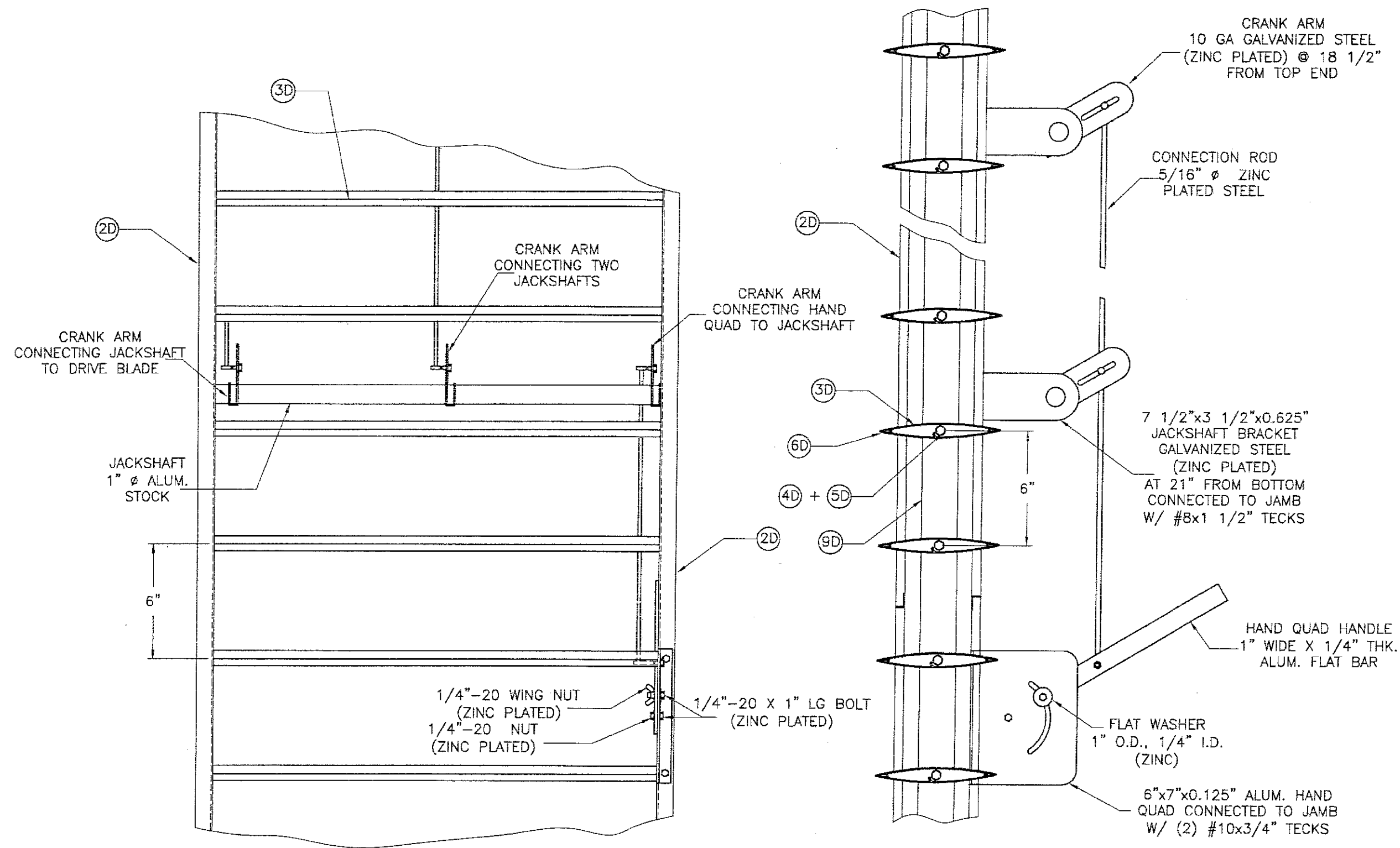
WALTER A. TILITCO, P.E.
No. 44167
STATE OF FLORIDA
PROFESSIONAL ENGINEER
P.E. SEAL SIGNATURE/DATE

© 2017 TILTECO, INC.
TILTECO Inc.
TILLIT TESTING & ENGINEERING COMPANY
6355 N.W. 36th St., Ste. 305, VIRGINIA GARDENS, FL 33166
Phone: (305) 871-1530 Fax: (305) 871-1531
EB-0006719
WALTER A. TILITCO, P.E.
FLORIDA Lic. # 44167

CARNES MODEL FRVB/FSVB.
UNITED ENERTECH, INC. VV-10-D ALUMINUM LOUVER W/ OR W/O CD-151 DAMPER ASSEMBLY
CARNES COMPANY, INC.
448 S. MAIN STREET
VERONA, WI 53593
PH: (608) 845-6411 FAX: (608) 845-6470

REV. No	DESCRIPTION	DATE	REV. No	DESCRIPTION	DATE
1	OLD 15-246	08/29/17	3		
2			4		

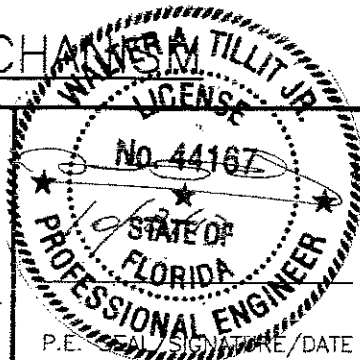
DRAWN BY:
L.C.
09/29/17
DATE
17-271
DRAWING No
SHEET 5 OF 7



HAND QUADRANT HANDLE MECHANISM

(SEE GENERAL NOTE 8/1)

PRODUCT REVISED
as complying with the Florida
Building Code
NOA-No. **17-1016.29**
Expiration Date **08/18/2020**
By *[Signature]*
Miami-Dade Product Control
MIAMI-DADE COUNTY



© 2017 TILTECO, INC.
TILTECO INC.
TILLIT TESTING & ENGINEERING COMPANY
6355 N.W. 36th St., Ste. 305, VIRGINIA GARDENS, FL 33166
Phone: (305) 871-1530, Fax: (305) 871-1531
EB-0006719
WALTER A. TILLIT Jr. P.E.
FLORIDA Lic. # 44167

FLORIDA BUILDING CODE (High Velocity Hurricane Zone)					
CARNES MODEL FRVB/FSVB.				DRAWN BY:	
UNITED ENERTECH, INC. VV-10-D ALUMINUM LOUVER W/ OR W/O CD-151 DAMPER ASSEMBLY				L.C.	
CARNES COMPANY, INC				09/29/17	
448 S. MAIN STREET VERONA, WI 53593 PH: (608) 845-8411 FAX: (608) 845-6470				DATE	
				17-271	
				DRAWING No	
REV. No	DESCRIPTION	DATE	REV. No	DESCRIPTION	DATE
1	OLD 15-246	09/29/17	3		
2			4		
SHEET 7 OF 7					