



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)

Impact Shutter Technology, Inc.
7860 West 25th Avenue
Hialeah, Florida 33016

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: Accordion Shutter with Aluminum or Polycarbonate Blades

APPROVAL DOCUMENT: Drawing No. 08-ITI-0002, titled "Accordion Shutter with Alum. or Polycarbonate Blades", sheets 1 through 8 of 8, prepared by Engineering Express, dated September 23, 2008, signed and sealed by Frank L. Bennardo, P.E., on September 23, 2008, bearing the Miami-Dade County Product Control Approval stamp with the Notice of Acceptance number and the approval date by the Miami-Dade County Product Control Division.

MISSILE IMPACT RATING: Large and Small Missile Impact

LABELING: Each unit 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 consists of this page 1, evidence submitted page E-1 as well as approval document mentioned above. The submitted documentation was reviewed by **Helmy A. Makar, P.E., M.S.**



Helmy A. Makar
 10/16/2008

NOA No. 08-0310.03
Expiration Date: 10/16/2013
Approval Date: 10/16/2008
Page 1

Impact Shutter Technology, Inc.

NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED

A. DRAWINGS:

1. *Drawing No. 08-ITI-0002, titled "Accordion Shutter with Alum. or Polycarbonate Blades", sheets 1 through 8 of 8, prepared by Engineering Express, dated September 23, 2008, signed and sealed by Frank L. Bennardo, P.E., on September 23, 2008.*

B. TESTS

1. *See Association's generic approval under 08-0599.*

C. CALCULATIONS

1. *See Association's generic approval under 08-0599.*

D. QUALITY ASSURANCE

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

E. MATERIAL CERTIFICATIONS

1. *See Association's generic approval under 08-0599.*

F. STATEMENTS

1. *Release letter issued by Impact Technology Association, Inc., dated September 23, 2008, certifying this product to meet the criteria of product tested and approved, and allowing Impact Shutter Technology, Inc. to use the test results approved under Miami-Dade County Approval No. 08-0599, signed by Tanya Tarantino.*
2. *Acknowledgment letter by Impact Shutter Technology, Inc., dated September 23, 2008, signed by Tanya Tarantino.*
3. *Letter by Engineering Express, dated September 23, 2008, certifying that the drawing (No. 08-ITI-0002) prepared for Impact Shutter Technology, Inc., signed and sealed by Mr. Frank L. Bennardo, P.E., is engineering wise identical to Impact Technology Association, Inc., generic drawing (No. 08-ITI-0001).*



Helmy A. Makar, P.E., M.S.
Product Control Examiner
NOA No. 08-0310.03
Expiration Date: 10/16/2013
Approval Date: 10/16/2008

ACCORDION SHUTTER

WITH ALUMINUM OR POLYCARBONATE BLADES

FRANK L. BENNARDO, P.E.
PE0046549

09/23/2008

ENGINEERING EXPRESS

160 SW 12th AVENUE, # 106
DEERFIELD BEACH, FL 33442
Ph: (954) 354-0660 Fax: (954) 354-0443
WWW.ENGEXP.COM

CERT. OF AUTH. #9885
A FRANK L. BENNARDO, P.E., INC. INNOVATION

IMPACT SHUTTER TECHNOLOGY, INC.
7860 W 25TH AVENUE
HIALEAH, FL 33016
305 - 558 - 7739

ACCORDION SHUTTER
WITH ALUMINUM OR POLYCARBONATE BLADES
MIAMI-DADE NOTICE OF ACCEPTANCE

REMARKS	DRWN	CHKD	DATE
INIT ISSUE	KL	CL	09/23/08

08-ITI-0002
SCALE: 1/8" = 1'-0"
PAGE DESCRIPTION:

MINIMUM GLASS SEPARATION

SPAN LESS THAN:	ALUMINUM BLADES ONLY		WINDOW BLADES OR ALUMINUM/WINDOW BLADE COMBINATION	
	INSTALLATIONS 30' ABOVE GRADE OR LESS	INSTALLATIONS MORE THAN 30' ABOVE GRADE	INSTALLATIONS 30' ABOVE GRADE OR LESS	INSTALLATIONS MORE THAN 30' ABOVE GRADE
72	1.88"	1.88"		
90	2.13"	2.13"		
108	2.88"	2.78"	2.63"	2.63"
126	3.63"	3.00"		
144	3.63"	3.00"		

ALLOWABLE SPAN SCHEDULE

SLAT SPAN	MAXIMUM ALLOWABLE DESIGN PRESSURES			
	ALUMINUM BLADES ONLY		WINDOW BLADES OR ALUMINUM/WINDOW BLADE COMBINATION	
72"	+ 152.5 PSF	- 152.5 PSF		
90"	+ 117.8 PSF	- 117.8 PSF		
108"	+ 100.5 PSF	- 100.5 PSF	+ 93.6 PSF	- 93.6 PSF
126"	+ 61.2 PSF	- 76.2 PSF		
144"	+ 42.4 PSF	- 62.4 PSF		

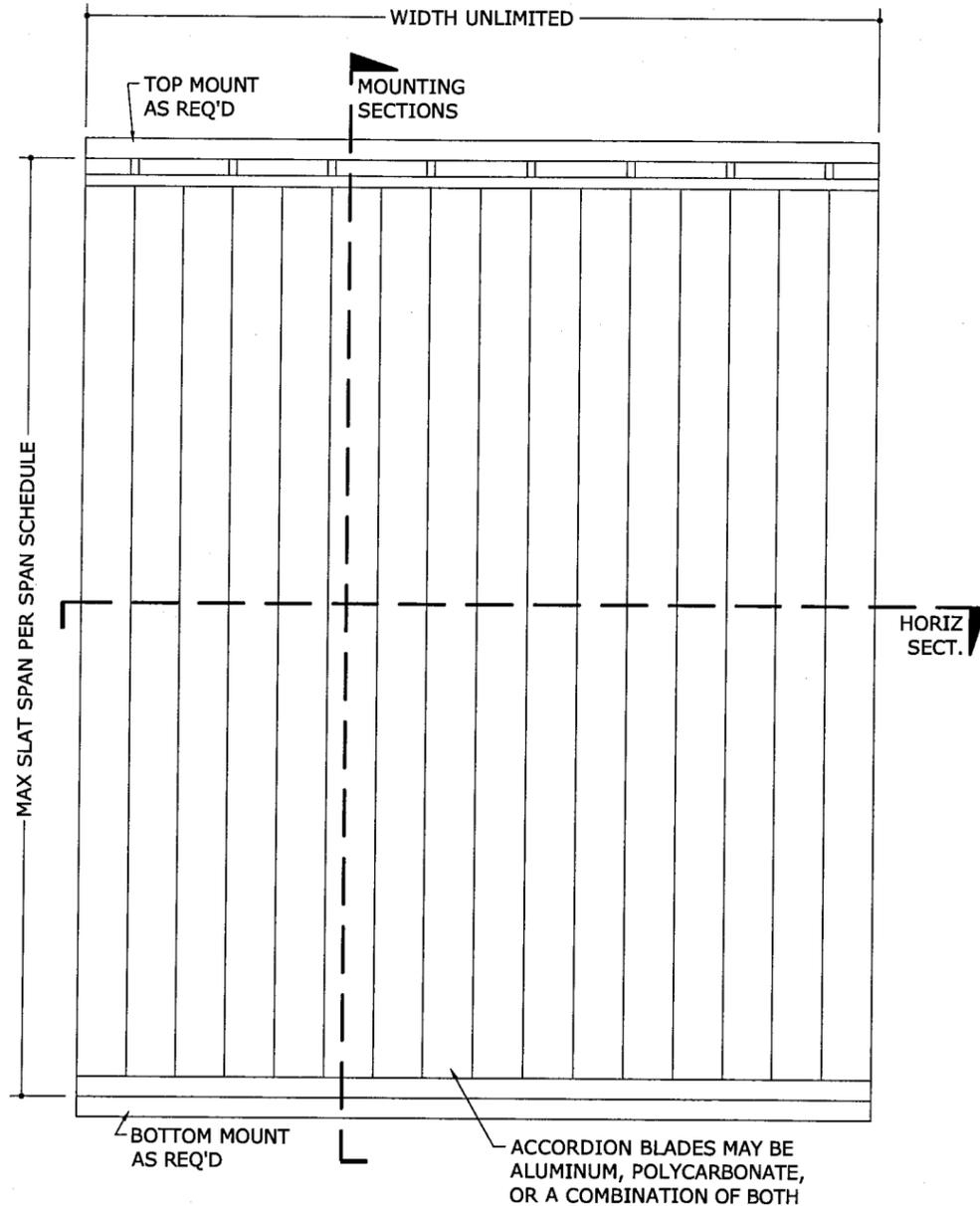
SPAN SCHEDULE NOTES:

- PRESSURES SHOWN IN "ALLOWABLE SPAN SCHEDULE" ARE MAXIMUM ALLOWABLE DESIGN PRESSURES AT EACH RESPECTIVE SHUTTER SPAN.

GENERAL NOTES

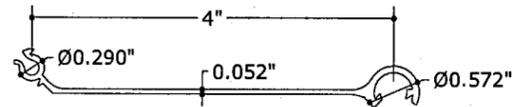
- THE SYSTEM DESCRIBED HEREIN HAS BEEN DESIGNED AND TESTED IN ACCORDANCE WITH THE 2004 AND 2007 EDITIONS OF THE FLORIDA BUILDING CODE, FOR USE WITHIN AND OUTSIDE THE HIGH VELOCITY HURRICANE ZONE, PER TAS 201 / 202 / 203.
- NO 33-1/3% INCREASE IN ALLOWABLE STRESS HAS BEEN USED IN THE DESIGN OF THIS SYSTEM. WIND LOAD DURATION FACTOR $C_d=1.6$ HAS BEEN USED FOR WOOD ANCHOR DESIGN.
- POSITIVE AND NEGATIVE DESIGN PRESSURES CALCULATED FOR USE WITH THIS SYSTEM SHALL BE DETERMINED BY OTHERS ON A JOB-SPECIFIC BASIS IN ACCORDANCE WITH THE GOVERNING CODE.
- ALL POLYCARBONATE PANELS SHALL BE EXTRUDED WITH THICKNESS $t=0.090"$ AND SHALL BE FABRICATED FROM 100% SABIC INNOVATIVE PLASTICS THERMOPLASTIC POLYMER LEXAN SHEET #XL10 2UV (UV STABILIZED), AS APPROVED UNDER MIAMI-DADE COUNTY NOTICE OF ACCEPTANCE #08-0305.02..
- THE SYSTEM DETAILED HEREIN IS GENERIC AND DOES NOT PROVIDE INFORMATION FOR A SPECIFIC SITE. FOR SITE CONDITIONS DIFFERENT FROM THE CONDITIONS DETAILED HEREIN, A LICENSED ENGINEER OR REGISTERED ARCHITECT SHALL PREPARE SITE SPECIFIC DOCUMENTS FOR USE IN CONJUNCTION WITH THIS DOCUMENT.
- PERMIT HOLDER SHALL VERIFY THE ADEQUACY OF THE EXISTING STRUCTURE TO WITHSTAND SUPERIMPOSED LOADS. WOOD BUCKS (BY OTHERS) SHALL BE ANCHORED PROPERLY TO TRANSFER LOADS TO THE EXISTING STRUCTURE.
- ALL EXTRUSIONS SHALL BE 6063-T6 ALUMINUM ALLOY, UNLESS NOTED OTHERWISE.
- EACH SHUTTER ASSEMBLY SHALL BE PERMANENTLY LABELED AS FOLLOWS:
IMPACT TECHNOLOGY, INC.
MIAMI-DADE PRODUCT CONTROL APPROVED
- TOP & BOTTOM DETAILS SHOWN MAY BE INTERCHANGED AS FIELD CONDITIONS DICTATE.
- ALL BOLTS & WASHERS SHALL BE ZINC COATED STEEL, GALVANIZED STEEL, OR STAINLESS STEEL WITH A MINIMUM TENSILE YIELD STRENGTH OF 60 KSI. ALL 3/16"Ø OR 1/4"Ø POP RIVETS SHALL BE 5056-H32 ALUMINUM ALLOY OR STRONGER.
- ALL STEEL IN CONTACT WITH ALUMINUM SHALL BE PAINTED OR PLATED.

Approved as complying with the
Florida Building Code
Date 10/16/2008
NOA# 08-0310-03
Miami Dade Product Control
Division
By *Heung A. Ma*

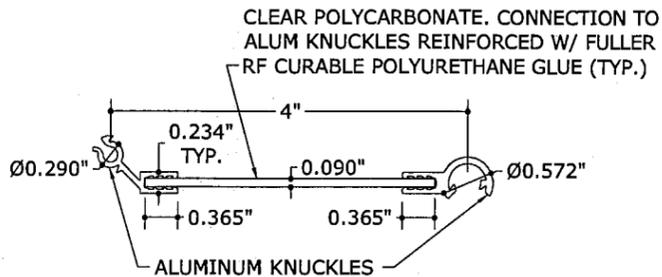


1 TYPICAL ELEVATION
1 N.T.S. EXTERIOR ELEV

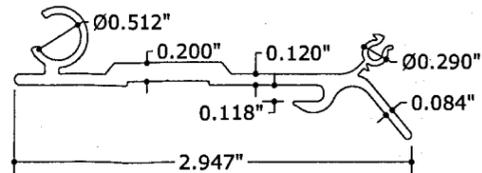
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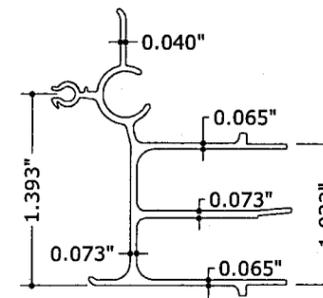
1 ALUMINUM BLADE
N.T.S. 6063-T6



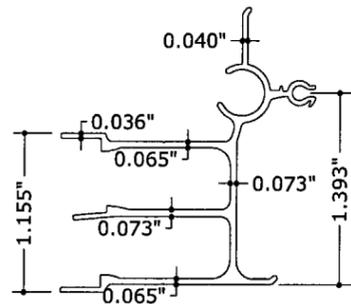
2 WINDOW BLADE
N.T.S. 6063-T6/POLYCARBONATE



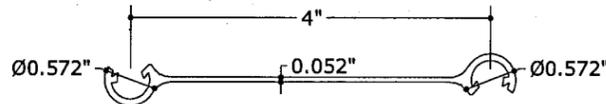
3 HERMAPHRODITIC CENTERMATE
N.T.S. 6063-T6



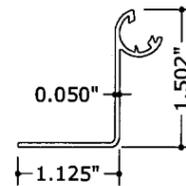
4 MALE CENTERMATE
N.T.S. 6063-T6



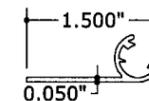
5 FEMALE CENTERMATE
N.T.S. 6063-T6



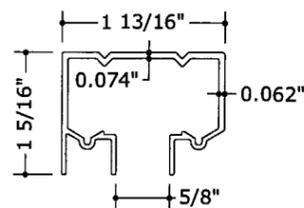
6 BLADE ADAPTER
N.T.S. 6063-T6



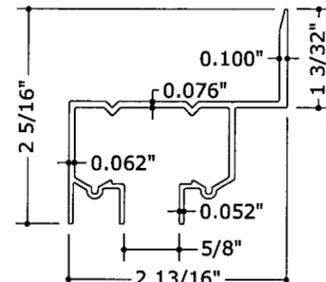
7 90° STARTER BLADE
N.T.S. 6063-T6



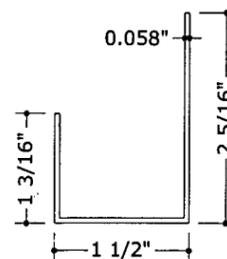
8 FLAT STARTER BLADE
N.T.S. 6063-T6



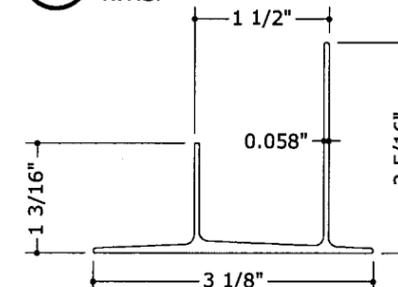
9 CEILING HEADER
N.T.S. 6063-T6



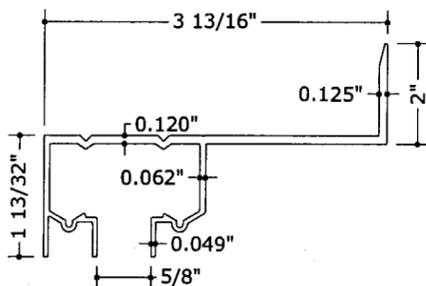
10 WALL HEADER
N.T.S. 6063-T6



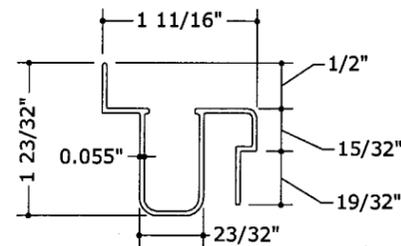
11 ADJUSTABLE SILL TRACK BOTTOM
N.T.S. 6063-T6



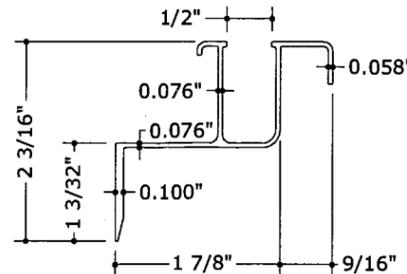
12 ALT. ADJUSTABLE SILL TRACK BOTTOM
N.T.S. 6063-T6



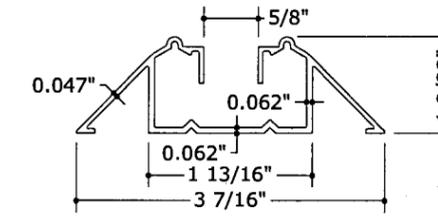
13 BUILD-OUT WALL HEADER
N.T.S. 6063-T6



14 ADJUSTABLE SILL TRACK TOP
N.T.S. 6063-T6



15 WALL SILL TRACK
N.T.S. 6063-T6



16 WALKOVER TRACK
N.T.S. 6063-T6

Approved as complying with the Florida Building Code
Date: 10/16/2008
NOA# 08-0310.03
Miami Dade Product Control
Division
By: *Helmy A. M...*

FRANK L. BENNARDO, P.E.
PE0046549

09/23/2008

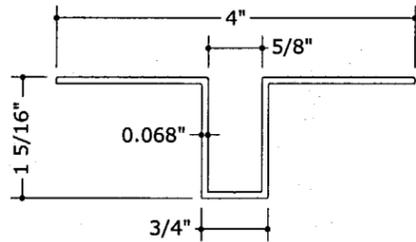
ENGINEERING EXPRESS
160 SW 12th AVENUE, #106
DEERFIELD BEACH, FL 33442
Ph: (954) 354-0660 FAX: (954) 354-0443
WWW.ENGEXP.COM
CERT. OF AUTH #9885
A FRANK L. BENNARDO, P.E., INC. INNOVATION

IMPACT SHUTTER TECHNOLOGY, INC.
7860 W 25TH AVENUE
HTALEAH, FL 33016
305 - 558 - 7739
ACCORDION SHUTTER
WITH ALUMINUM OR POLYCARBONATE BLADES
MIAMI-DADE NOTICE OF ACCEPTANCE

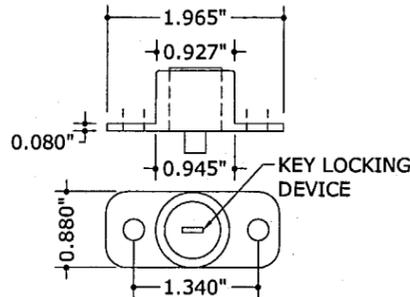
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INIT ISSUE	KL	CL	09/23/08

08-ITI-0002
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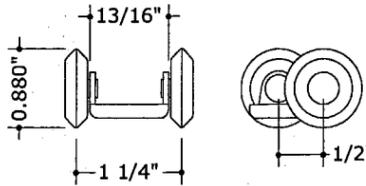
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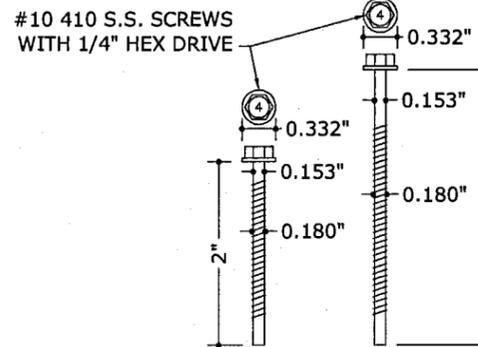
17 RECESSED TRACK
N.T.S. 6063-T5



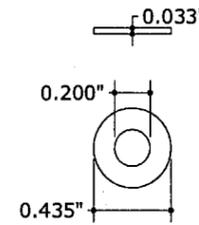
18 PUSH-BUTTON LOCK
N.T.S. 6063-T5



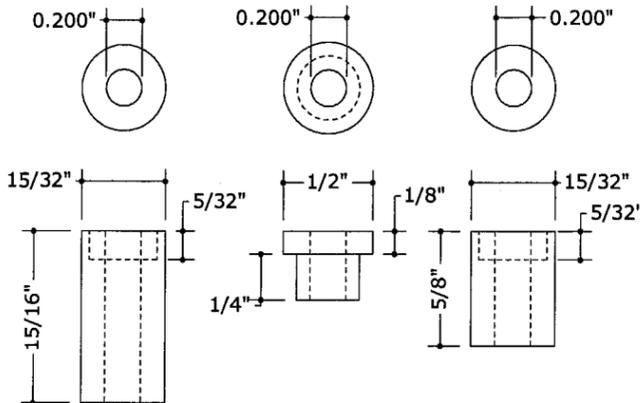
19 WHEEL CARRIAGE
N.T.S. NYLON/STAINLESS STEEL



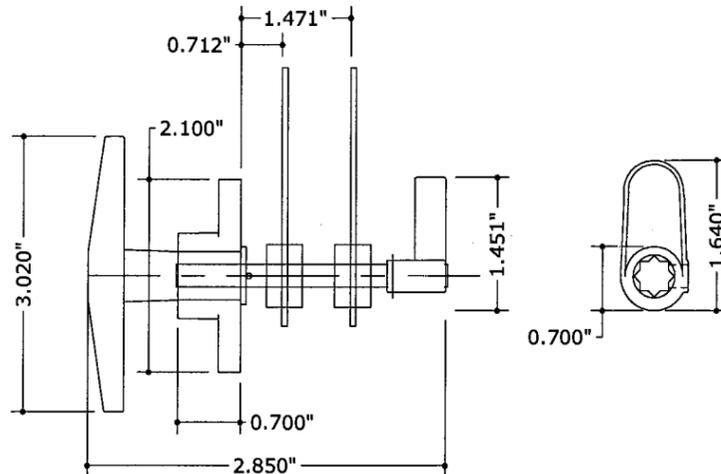
20 KNUCKLE SCREWS
N.T.S. STAINLESS STEEL



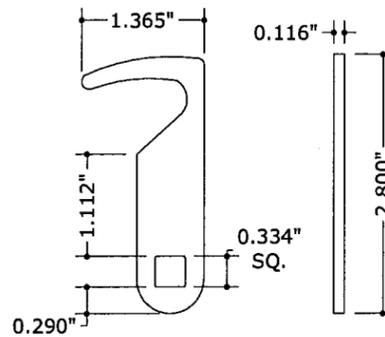
21 WASHER
N.T.S. STAINLESS STEEL



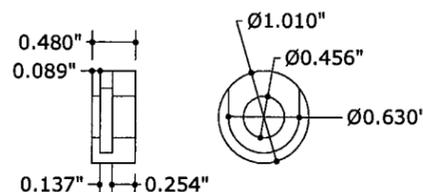
22 NYLON BUSHINGS
N.T.S. NYLON



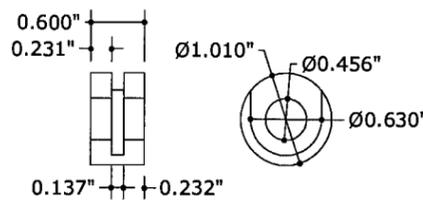
23 LOCK ASSEMBLY
N.T.S. ZINC ALLOY/STAINLESS STEEL



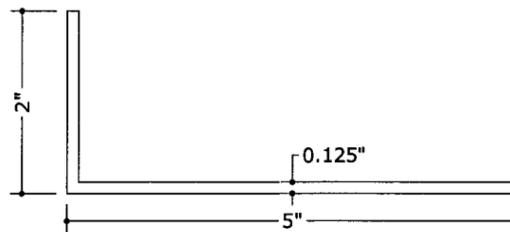
24 LOCKING ARM
N.T.S. 410 STAINLESS STEEL



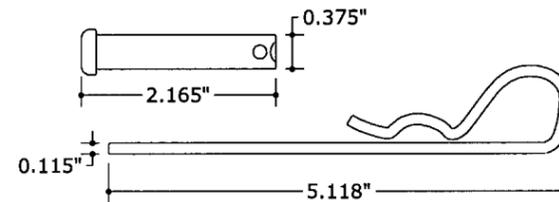
25 LEFT LOCKING ARM BUSHING
N.T.S. NYLON



26 RIGHT LOCKING ARM BUSHING
N.T.S. NYLON



27 2"x5"x0.125" ANGLE
N.T.S. 6063-T6



28 CLEVIS AND PIN
N.T.S. CADMIUM PLATED STEEL

Approved as complying with the Florida Building Code
Date 10/16/2008
NOA# 08-0310.03
Miami Dade Product Control Division
By Heley A. Meda

FRANK L. BENNARDO, P.E.
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REMARKS	DATE	DRWN	CHKD
INIT ISSUE	09/23/08	KL	CL

08-ITI-0002
SCALE: 1/1
PAGE DESCRIPTION:

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FRANK L. BENNARDO, P.E.
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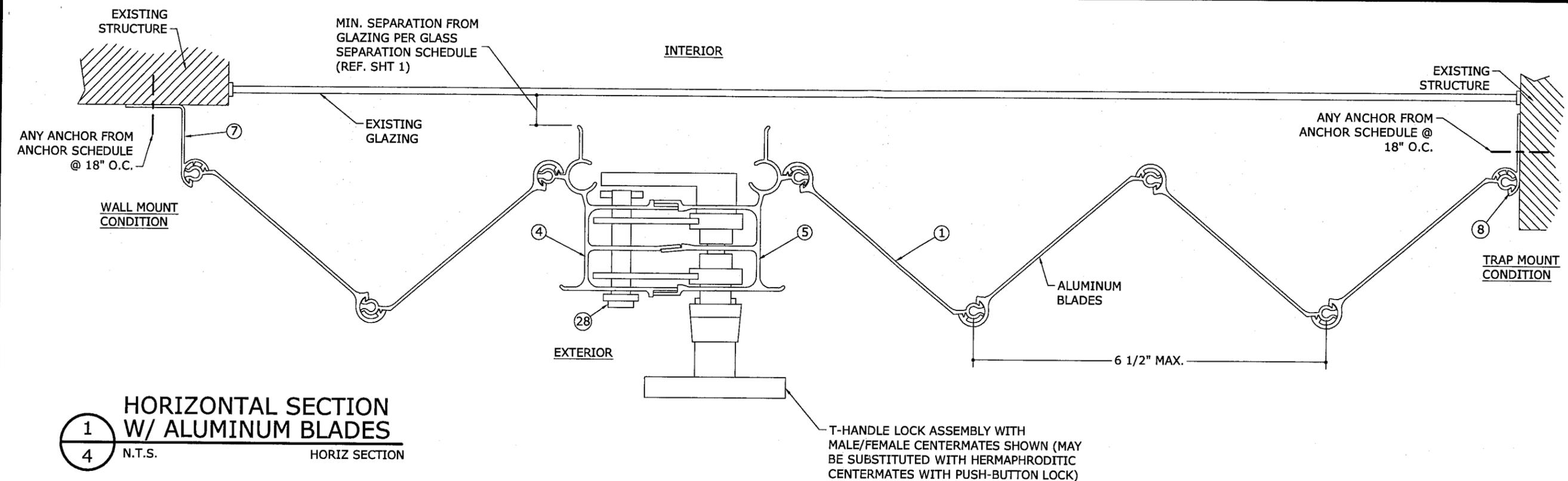
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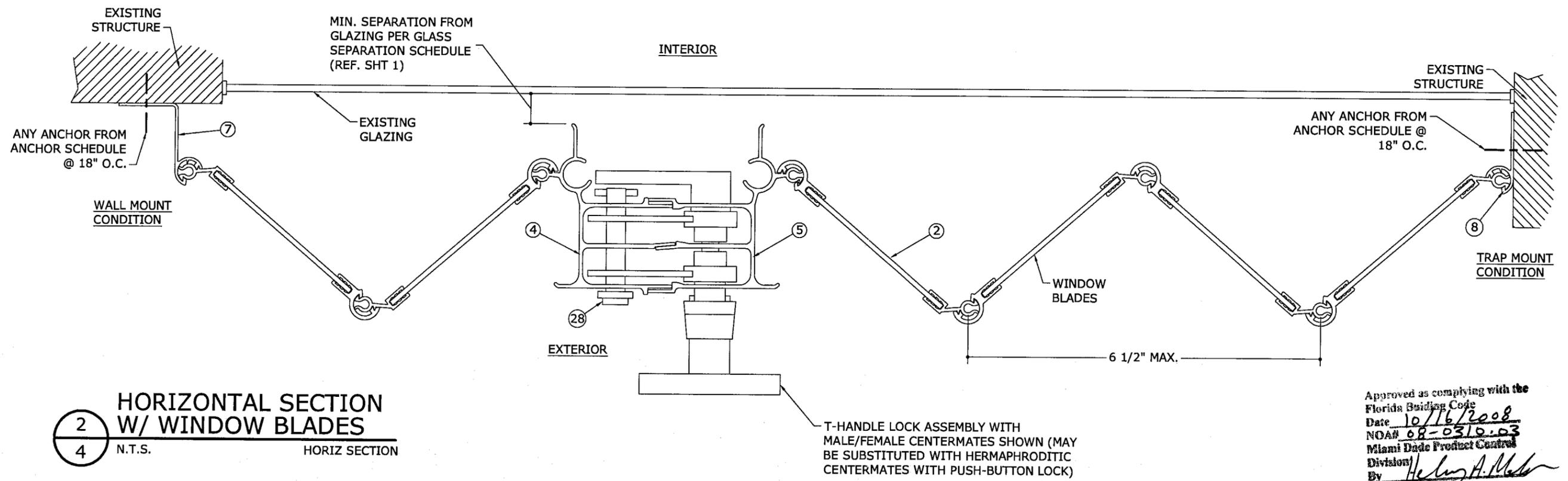
REMARKS	INIT	ISSUE	DRWN	CHKD	DATE
			KL	CL	09/23/08

08-ITI-0002
SCALE: 1/4" = 1'-0" 01
PAGE DESCRIPTION:
4



1
HORIZONTAL SECTION W/ ALUMINUM BLADES
4 N.T.S. HORIZ SECTION

T-HANDLE LOCK ASSEMBLY WITH MALE/FEMALE CENTERMATES SHOWN (MAY BE SUBSTITUTED WITH HERMAPHRODITIC CENTERMATES WITH PUSH-BUTTON LOCK)



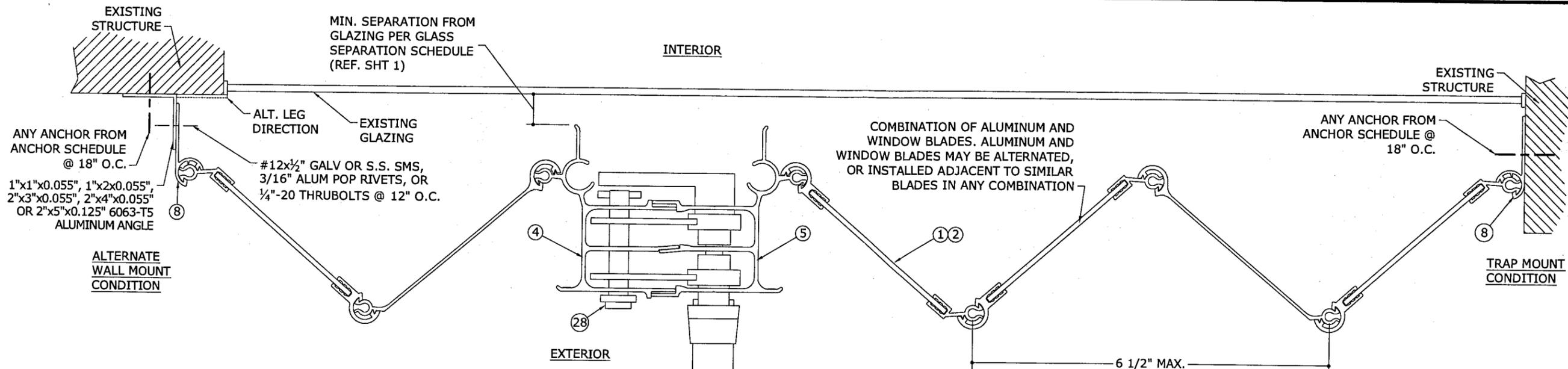
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HORIZONTAL SECTION W/ WINDOW BLADES
4 N.T.S. HORIZ SECTION

T-HANDLE LOCK ASSEMBLY WITH MALE/FEMALE CENTERMATES SHOWN (MAY BE SUBSTITUTED WITH HERMAPHRODITIC CENTERMATES WITH PUSH-BUTTON LOCK)

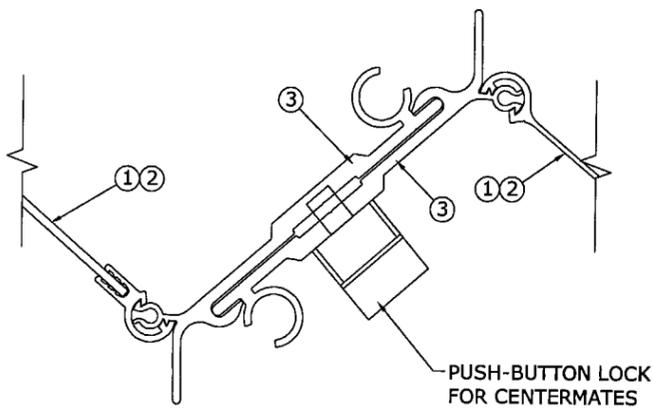
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Date 10/16/2008
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Miami Dade Product Control
Division
By Helmy A. M...

F:\01 Project Files\Impact Technology (ITI)\200808-ITI-0002 Impact Shutter Assn Member08-ITI-0002_01a Alum_Polycarb Accordion Shutter.dwg

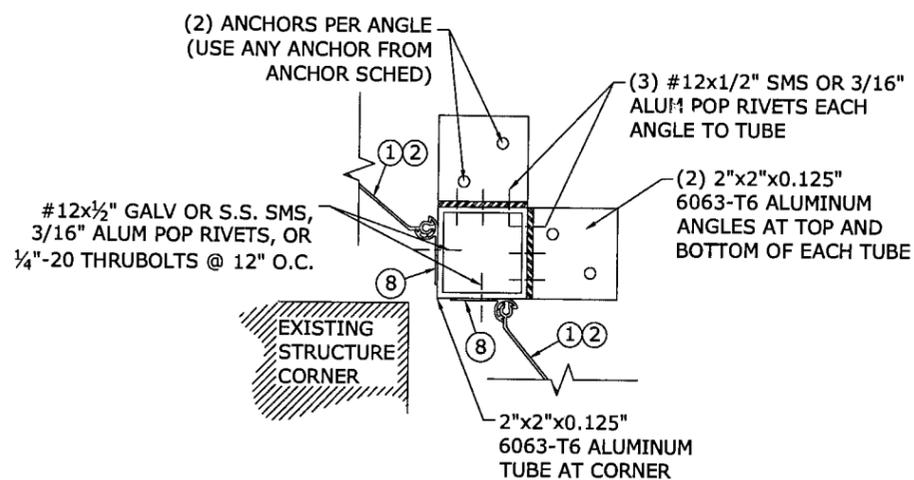
09/23/2008 - 3:37pm Keith



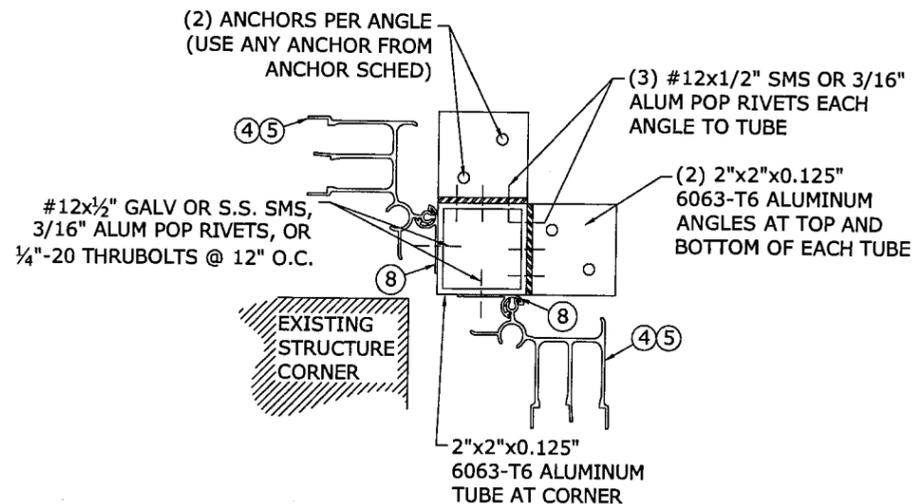
1
HORIZONTAL SECTION W/ COMBINATION BLADES
 5 N.T.S. HORIZ SECTION



2
ALT. PUSH-BUTTON CENTERMATE
 5 N.T.S. HORIZ SECTION



3
STANDARD CORNER CLOSURE
 5 N.T.S. HORIZ SECTION



4
ALTERNATE CORNER CLOSURE
 5 N.T.S. HORIZ SECTION

Approved as complying with the Florida Building Code
 Date 10/16/2008
 NOA# 08-0310-03
 Miami Dade Product Control
 Division
 By Helmy A. Mohr

FRANK L. BENNARDO, P.E.
 # PE0046549

09/23/2008

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		CL

08-ITI-0002
 SCALE: 1/16" = 1'-0"
 PAGE DESCRIPTION:

09/23/2008 - 3:37pm Keith F:\01 Project Files\Impact Technology (ITI)\200808-ITI-0002 Impact Shutter Assn Member\08-ITI-0002_01a Alum. Polycarb Accordion Shutter.dwg

FRANK L. BENNARDO, P.E.
PE0046549

09/23/2008

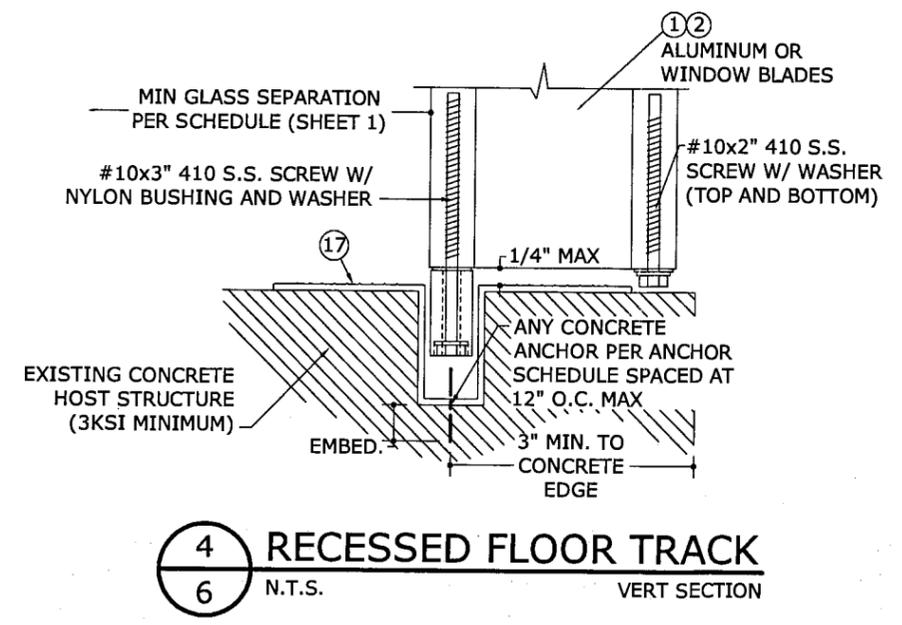
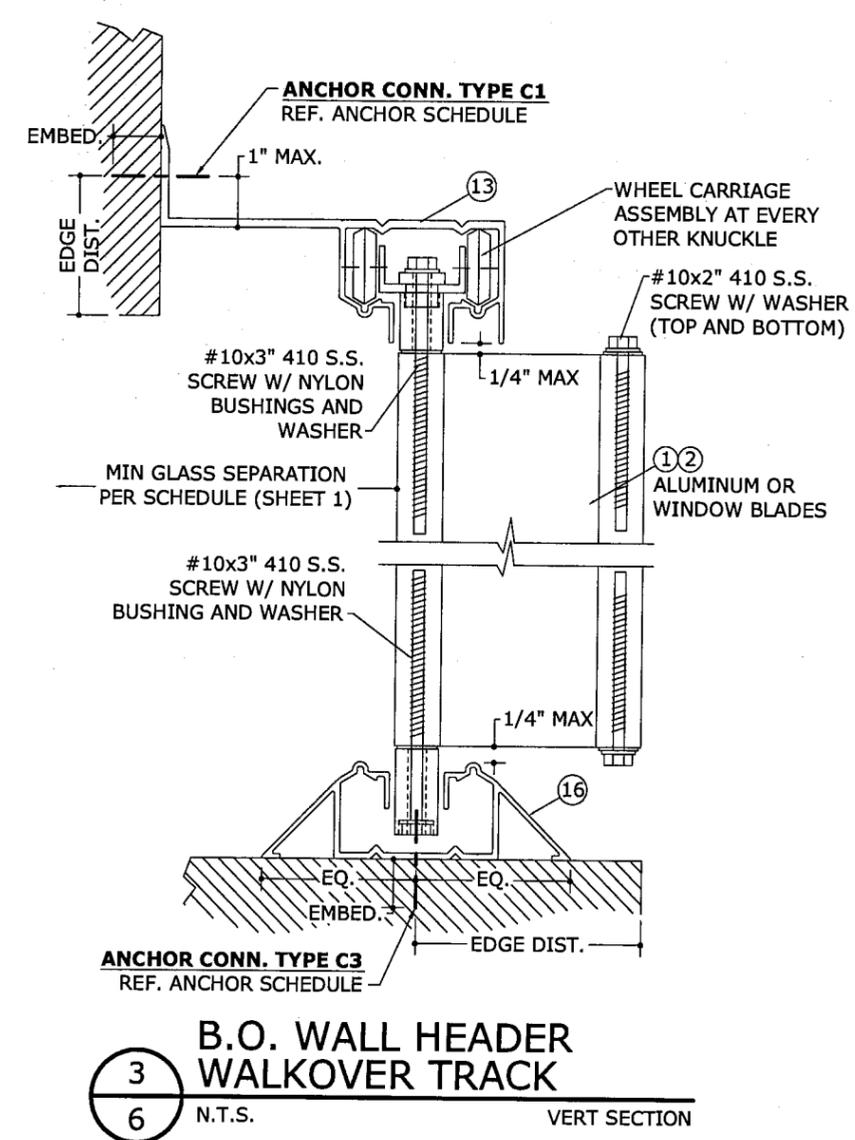
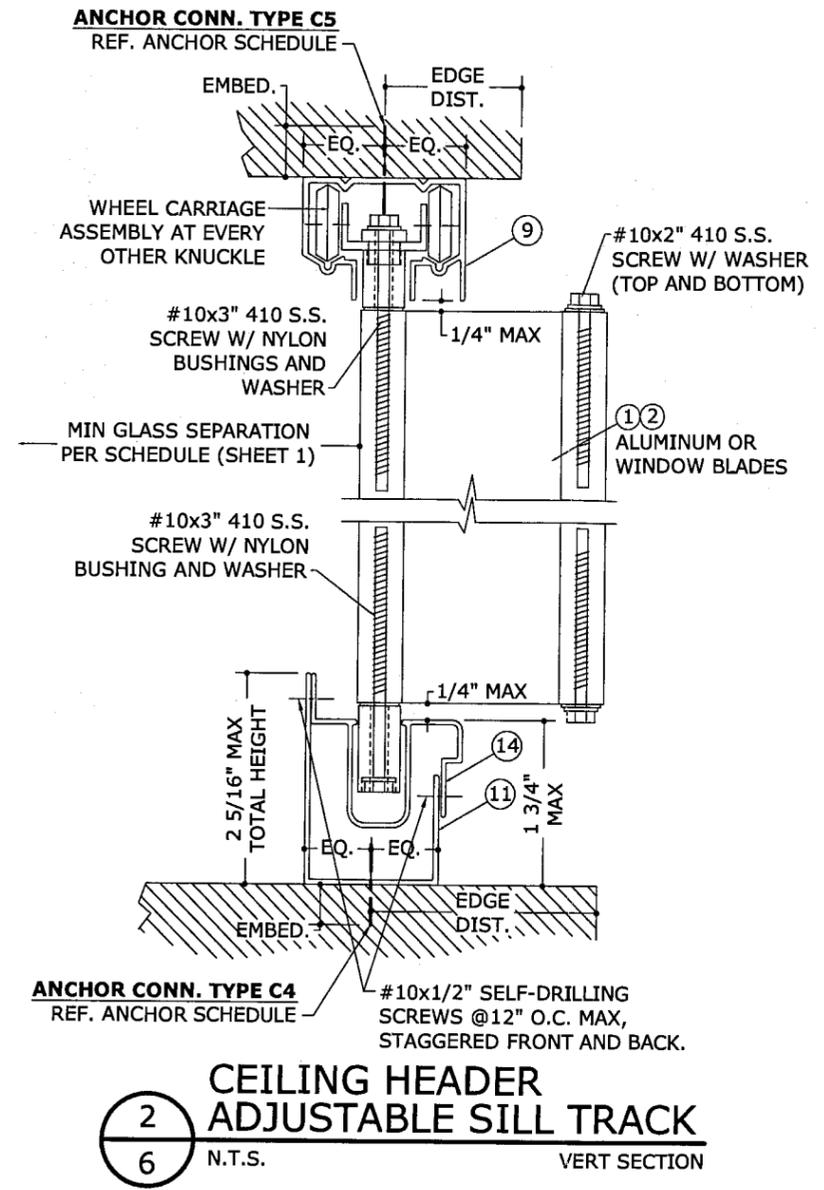
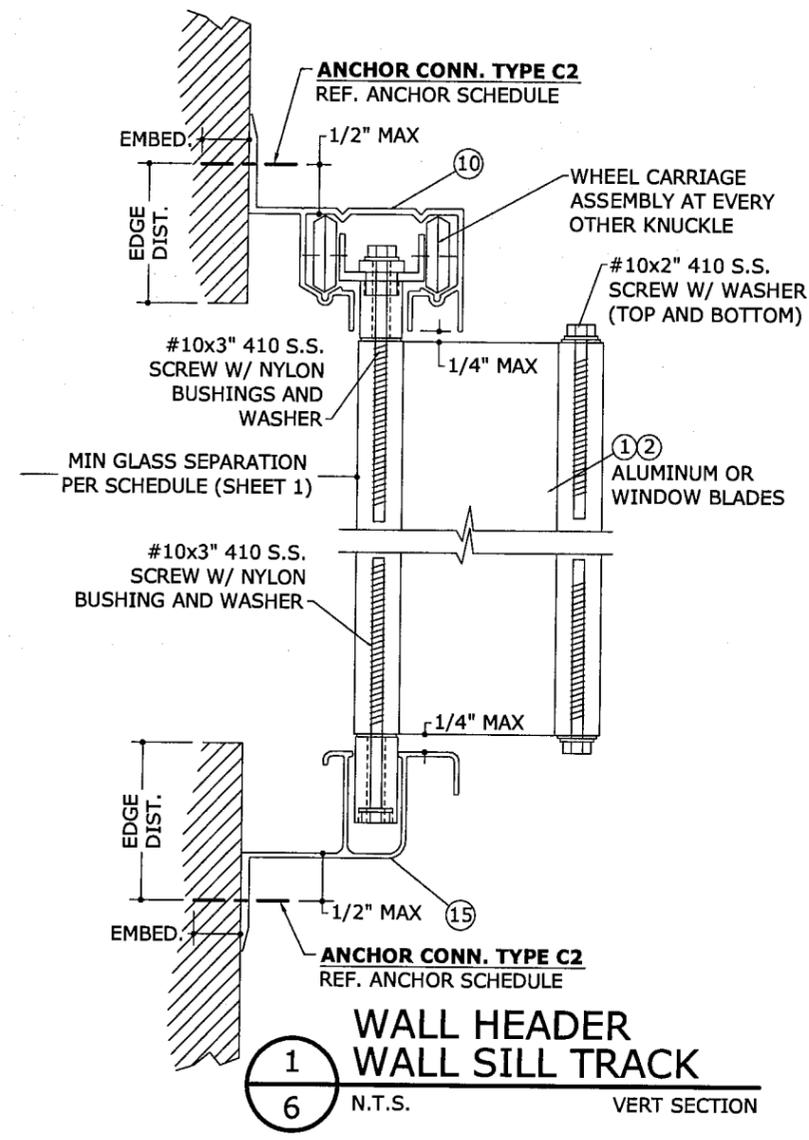
ENGINEERING EXPRESS
160 SW 12th AVENUE, # 106
DEERFIELD BEACH, FL 33442
Ph: (954) 354-0660 Fax: (954) 354-0443
WWW.ENGEXP.COM
CERT OF AUTH #9885
A FRANK L. BENNARDO, P.E., INC. INNOVATION

IMPACT SHUTTER TECHNOLOGY, INC.
7860 W 25TH AVENUE
HIALEAH, FL 33016
305 - 558 - 7739
ACCORDION SHUTTER
WITH ALUMINUM OR POLYCARBONATE BLADES
MIAMI-DADE NOTICE OF ACCEPTANCE

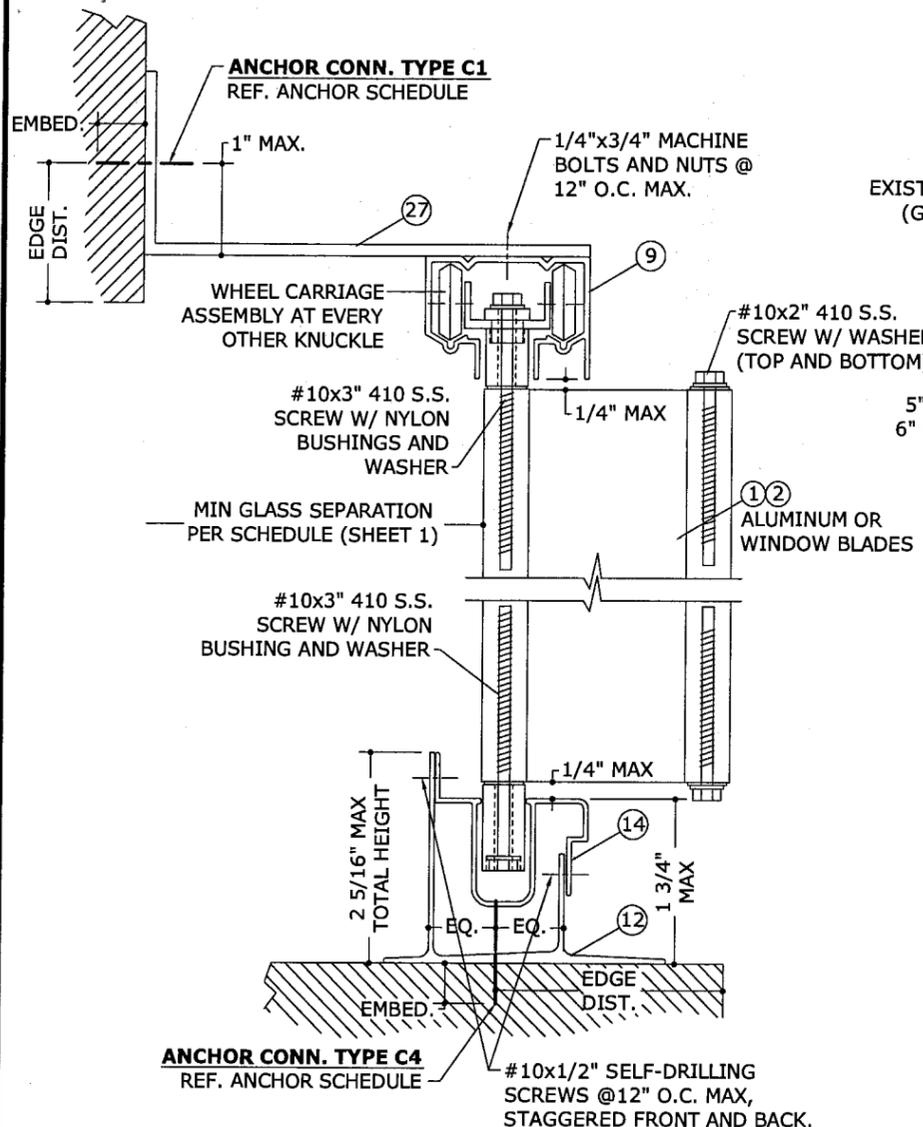
REMARKS	DRWN	CHKD	DATE
INIT ISSUE	KL	CL	09/23/08

Approved as complying with the Florida Building Code
Date 10/16/2008
NOA# 08-0310-03
Miami Dade Product Control
By Helmut A. Weber

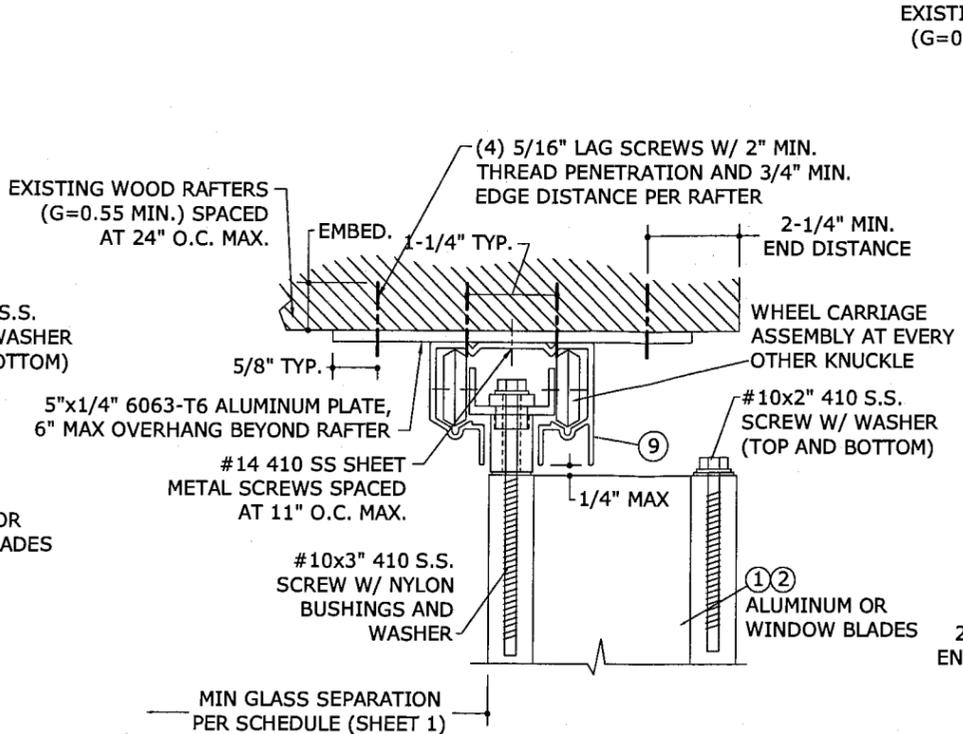
08-ITI-0002
SCALE: _____ 01
PAGE DESCRIPTION:
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09/23/2008 - 3:37pm keithl F:\01 Project Files\Impact Technology (ITI)\2008\08-ITI-0002 Impact Shutter Assn Member\08-ITI-0002_01a Alum. Polycarb Accordion Shutter.dwg



1 **2"x5" ANGLE W/ CEILING HEADER ALT. ADJUSTABLE SILL TRACK**
 7 N.T.S. VERT SECTION

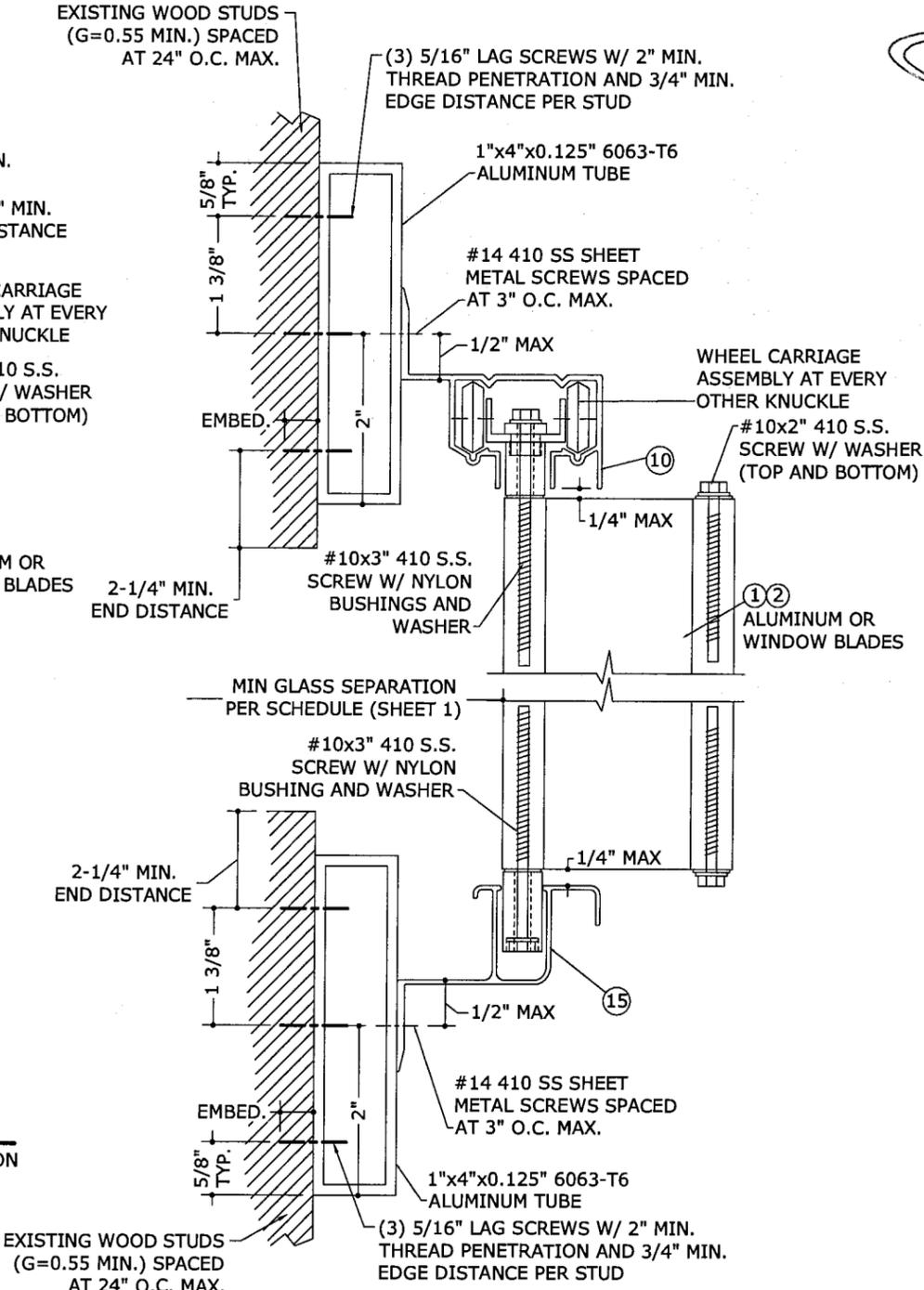


NOTE: MAXIMUM ALLOWABLE SPANS AND DESIGN PRESSURES FOR THIS MOUNTING CONDITION PER TABLE BELOW.

ALLOWABLE DESIGN PRESSURES FOR DETAIL 2/7:

SPAN:	MAX DESIGN PRESSURE:
72"	+124.8 psf / -124.8 psf
90"	+99.8 psf / -99.8 psf
108"	+83.2 psf / +83.2 psf
126"	+61.2 psf / -71.3 psf
144"	+42.4 psf / -62.4 psf

2 **5"x1/4" PLATE TO EXISTING RAFTERS**
 7 N.T.S. VERT SECTION



NOTE: MAXIMUM ALLOWABLE SPANS AND DESIGN PRESSURES FOR THIS MOUNTING CONDITION PER TABLE BELOW.

ALLOWABLE DESIGN PRESSURES FOR DETAIL 3/7:

SPAN:	MAX DESIGN PRESSURE:
72"	+111.5 psf / -111.5 psf
90"	+89.2 psf / -89.2 psf
108"	+74.3 psf / -74.3 psf
126"	+61.2 psf / -63.7 psf
144"	+42.4 psf / -55.7 psf

Approved as complying with the Florida Building Code
 Date 10/16/2008
 NOAH 08-0310.03
 Miami Dade Product Control
 Division
 By *Helmut A. Meier*

3 **1"x4"x0.125" TUBE TO EXISTING WALL STUDS**
 7 N.T.S. VERT SECTION

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 09/23/2008
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 MIAMI-DADE NOTICE OF ACCEPTANCE

DATE	DRWN	CHKD	INIT	ISSUE
09/23/08	KL	CL		

08-ITI-0002
 SCALE: 01
 PAGE DESCRIPTION:
 7

09/23/2008

ANCHOR SCHEDULE

HOST STRUCT.	ANCHOR	LOAD (psf)	2.5" MIN EDGE DISTANCE														
			Spans Up To 6'-0" CONN TYPE					Spans Up To 9'-0" CONN TYPE					Spans Up To 12'-0" CONN TYPE				
			C1	C2	C3	C4	C5	C1	C2	C3	C4	C5	C1	C2	C3	C4	C5
CONCRETE	1/4" ITW TAPCON WITH 1-3/4" EMBED (3192psi MIN CONC)	47	12.0"	12.0"	12.0"	12.0"	12.0"	12.0"	12.0"	12.0"	8.8"	12.0"	11.2"	8.9"	11.8"	6.5"	9.0"
		60	12.0"	12.0"	12.0"	10.5"	12.0"	12.0"	9.5"	12.0"	6.8"	9.4"	7.9"	6.4"	9.4"	5.0"	7.0"
		72	12.0"	12.0"	12.0"	8.6"	11.9"	9.2"	7.4"	10.3"	5.6"	7.8"	6.2"	5.1"	7.9"	4.2"	5.8"
		120	7.9"	6.4"	9.4"	5.0"	7.0"	5.8"	4.7"	7.4"	3.9"	5.5"	5.8"	4.7"	7.4"	3.9"	5.5"
		152	5.8"	4.7"	7.5"	3.9"	5.5"	5.8"	4.7"	7.4"	3.9"	5.5"	5.8"	4.7"	7.4"	3.9"	5.5"
	1/4" ELCO PANELMATE (FEMALE, MALE) W/ 1-3/4" MIN EMBED (3350psi MIN CONC)	47	12.0"	12.0"	12.0"	12.0"	12.0"	12.0"	12.0"	12.0"	8.9"	12.0"	11.2"	8.9"	12.0"	6.6"	9.2"
		60	12.0"	12.0"	12.0"	10.6"	12.0"	11.9"	9.5"	12.0"	6.9"	9.6"	7.9"	6.4"	9.6"	4.2"	5.9"
		72	12.0"	12.0"	12.0"	8.7"	12.0"	9.1"	7.3"	10.7"	5.7"	8.0"	6.2"	5.0"	8.1"	4.2"	5.9"
		120	7.9"	6.4"	9.6"	5.1"	7.1"	5.8"	4.7"	7.7"	4.0"	5.6"	5.8"	4.7"	7.7"	4.0"	5.6"
		152	5.8"	4.7"	7.7"	4.0"	5.6"	5.8"	4.7"	7.7"	4.0"	5.6"	5.8"	4.7"	7.7"	4.0"	5.6"
	1/4 ELCO CRETEFLEX W/ 1-3/4" MIN EMBED (3350psi MIN CONC)	47	12.0"	12.0"	12.0"	12.0"	12.0"	12.0"	12.0"	12.0"	11.6"	12.0"	12.0"	10.2"	12.0"	8.5"	12.0"
		60	12.0"	12.0"	12.0"	12.0"	12.0"	12.0"	10.9"	12.0"	8.9"	12.0"	9.1"	7.3"	12.0"	6.6"	9.7"
		72	12.0"	12.0"	12.0"	11.3"	12.0"	10.5"	8.4"	12.0"	7.4"	10.8"	7.1"	5.8"	11.8"	5.5"	8.1"
		120	9.1"	7.3"	12.0"	6.6"	9.7"	6.6"	5.4"	11.2"	5.1"	7.6"	6.6"	5.4"	11.2"	5.1"	7.6"
		152	6.7"	5.4"	11.2"	5.2"	7.6"	6.6"	5.4"	11.2"	5.1"	7.6"	6.6"	5.4"	11.2"	5.1"	7.6"
1/4-20 POWERS CALK-IN WITH 7/8" MIN EMBED (3000psi MIN CONC)	47	12.0"	12.0"	12.0"	10.6"	12.0"	12.0"	12.0"	11.1"	6.8"	9.1"	9.7"	7.7"	8.5"	5.1"	6.7"	
	60	12.0"	12.0"	12.0"	8.1"	10.7"	10.4"	8.2"	8.8"	5.3"	7.1"	6.9"	5.5"	6.7"	3.9"	5.3"	
	72	12.0"	11.7"	10.9"	6.7"	8.9"	7.9"	6.4"	7.4"	4.4"	5.8"	5.4"	4.4"	5.6"	3.3"	4.4"	
	120	6.9"	5.5"	6.7"	3.9"	5.3"	5.0"	4.1"	5.3"	3.1"	4.1"	5.0"	4.1"	5.3"	3.1"	4.1"	
	152	5.0"	4.1"	5.3"	3.1"	4.1"	5.0"	4.1"	5.3"	3.1"	4.1"	5.0"	4.1"	5.3"	3.1"	4.1"	
1/4 ELCO PANELMATE INSERT WITH 1-5/8" MIN EMBED (3000psi MIN CONC)	47	12.0"	12.0"	12.0"	9.0"	12.0"	11.3"	8.8"	10.6"	5.8"	8.2"	7.1"	5.6"	8.1"	4.3"	6.1"	
	60	12.0"	11.7"	12.0"	6.9"	9.7"	7.5"	6.0"	8.5"	4.5"	6.3"	5.0"	4.0"	6.5"	3.3"	4.7"	
	72	10.9"	8.5"	10.4"	5.7"	8.0"	5.8"	4.6"	7.1"	3.7"	5.3"	3.9"	3.2"	5.4"	3.9"	4.9"	
	120	5.0"	4.0"	6.5"	3.3"	4.7"	3.6"	3.0"	5.1"	3.7"	3.6"	3.0"	5.1"	3.7"	3.6"	3.0"	
	152	3.7"	3.0"	5.2"	3.7"	3.6"	3.0"	5.1"	3.7"	3.6"	3.0"	5.1"	3.7"	3.6"	3.0"	5.1"	
HOLLOW BLOCK	1/4" ITW TAPCON WITH 1-1/4" EMBED	47	12.0"	9.3"	10.8"	5.2"	8.1"	5.3"	4.1"	7.6"	3.4"	5.2"	3.3"	5.9"	3.9"	3.9"	
		60	7.2"	5.4"	8.8"	4.0"	6.2"	3.5"	6.1"	4.0"	4.0"	4.7"	4.0"	4.0"	3.0"	3.0"	
		72	5.1"	3.9"	7.5"	3.3"	5.1"	5.2"	5.2"	5.2"	4.0"	4.0"	4.7"	4.0"	4.0"	3.0"	3.0"
		120	4.7"	4.7"	4.7"	3.0"	3.8"	3.8"	3.8"	3.8"	3.8"	3.8"	3.8"	3.8"	3.8"	3.8"	3.8"
		152	3.8"	3.8"	3.8"	3.8"	3.8"	3.8"	3.8"	3.8"	3.8"	3.8"	3.8"	3.8"	3.8"	3.8"	3.8"
	1/4" ELCO PANELMATE (FEMALE, MALE) W/ 1-1/4" MIN EMBED	47	12.0"	12.0"	12.0"	7.5"	10.6"	9.0"	7.0"	9.2"	4.8"	6.9"	5.6"	4.5"	7.1"	3.6"	5.1"
		60	12.0"	9.3"	10.6"	5.8"	8.2"	6.0"	4.8"	7.3"	3.7"	5.4"	4.0"	3.2"	5.6"	4.0"	4.0"
		72	8.7"	6.7"	9.0"	4.7"	6.8"	4.6"	3.7"	6.2"	3.1"	4.5"	3.1"	4.5"	4.7"	3.3"	3.3"
		120	4.0"	3.2"	5.6"	4.0"	4.5"	4.5"	3.1"	4.5"	3.1"	4.5"	3.1"	4.5"	4.5"	3.1"	3.1"
		152	4.5"	4.5"	4.5"	3.1"	4.5"	4.5"	3.1"	4.5"	3.1"	4.5"	3.1"	4.5"	4.5"	3.1"	3.1"
	1/4 ELCO CRETEFLEX W/ 1-1/4" MIN EMBED	47	12.0"	12.0"	12.0"	8.9"	12.0"	10.0"	7.8"	11.5"	5.7"	8.4"	6.2"	5.0"	8.8"	4.2"	6.2"
		60	12.0"	10.3"	12.0"	6.8"	10.0"	6.7"	5.3"	9.2"	4.4"	6.5"	4.4"	3.6"	7.0"	3.3"	4.8"
		72	9.6"	7.5"	11.3"	5.6"	8.2"	5.1"	4.1"	7.8"	3.6"	5.4"	3.5"	5.9"	5.9"	4.0"	4.0"
		120	4.4"	3.6"	7.0"	3.3"	4.8"	3.2"	5.6"	3.8"	3.2"	5.6"	3.8"	3.2"	5.6"	3.8"	3.8"
		152	3.2"	3.2"	5.6"	3.8"	3.2"	5.6"	3.8"	3.2"	5.6"	3.8"	3.2"	5.6"	3.8"	3.2"	3.8"
1/4-20 POWERS CALK-IN WITH 7/8" MIN EMBED	47	12.0"	11.5"	11.2"	5.9"	8.7"	6.5"	5.1"	7.9"	3.8"	5.7"	4.1"	3.2"	6.0"	4.2"	4.2"	
	60	8.9"	6.7"	9.1"	4.5"	6.7"	4.3"	3.4"	6.3"	3.7"	4.4"	3.6"	4.4"	4.8"	3.3"	3.3"	
	72	6.3"	4.9"	7.7"	3.7"	5.5"	3.3"	5.3"	5.3"	3.6"	3.6"	4.1"	4.1"	4.1"	4.1"	4.1"	
	120	4.8"	4.8"	4.8"	3.3"	3.8"	3.8"	3.8"	3.8"	3.8"	3.8"	3.8"	3.8"	3.8"	3.8"	3.8"	
	152	3.9"	3.9"	3.9"	3.9"	3.8"	3.8"	3.8"	3.8"	3.8"	3.8"	3.8"	3.8"	3.8"	3.8"	3.8"	
1/4 ELCO PANELMATE INSERT WITH 1-1/4" MIN EMBED	47	12.0"	12.0"	12.0"	9.0"	12.0"	11.3"	8.8"	10.6"	5.8"	8.2"	7.1"	5.6"	8.1"	4.3"	6.1"	
	60	12.0"	11.7"	12.0"	6.9"	9.7"	7.5"	6.0"	8.5"	4.5"	6.3"	5.0"	4.0"	6.5"	3.3"	4.7"	
	72	10.9"	8.5"	10.4"	5.7"	8.0"	5.8"	4.6"	7.1"	3.7"	5.3"	3.9"	3.2"	5.4"	3.9"	4.9"	
	120	5.0"	4.0"	6.5"	3.3"	4.7"	3.6"	3.0"	5.1"	3.7"	3.6"	3.0"	5.1"	3.7"	3.6"	3.0"	
	152	3.7"	3.0"	5.2"	3.7"	3.6"	3.0"	5.1"	3.7"	3.6"	3.0"	5.1"	3.7"	3.6"	3.0"	5.1"	

HOST STRUCT.	ANCHOR	LOAD (psf)	3/4" MIN EDGE DISTANCE														
			Spans Up To 6'-0" CONN TYPE					Spans Up To 9'-0" CONN TYPE					Spans Up To 12'-0" CONN TYPE				
			C1	C2	C3	C4	C5	C1	C2	C3	C4	C5	C1	C2	C3	C4	C5
WOOD	1/4" ITW TAPCON OR #14 WOOD SCREW W/ 1-1/2" EMBED	47	12.0"	12.0"	10.4"	7.9"	9.4"	12.0"	12.0"	7.1"	5.1"	6.2"	10.3"	8.2"	5.3"	3.8"	4.6"
		60	12.0"	12.0"	8.2"	6.1"	7.3"	11.0"	8.7"	5.6"	4.0"	4.8"	7.3"	5.9"	4.2"	3.0"	3.6"
		72	12.0"	12.0"	6.9"	5.0"	6.1"	8.4"	6.7"	4.7"	3.3"	4.0"	5.7"	4.6"	3.5"	2.5"	3.0"
		120	7.3"	5.9"	4.2"	3.0"	3.6"	5.3"	4.3"	3.3"	2.3"	2.8"	5.3"	4.3"	3.3"	2.3"	2.8"
		152	5.3"	4.3"	3.3"	2.3"	2.8"	5.3"	4.3"	3.3"	2.3"	2.8"	5.3"	4.3"	3.3"	2.3"	2.8"
	1/4" ELCO PANELMATE (FEMALE, MALE) W/ 1-7/8" MIN EMBED	47	12.0"	12.0"	12.0"	12.0"	12.0"	12.0"	12.0"	12.0"	8.5"	10.9"	12.0"	10.8"	9.9"	6.3"	8.1"
		60	12.0"	12.0"	12.0"	10.1"	12.0"	12.0"	11.5"	10.3"	6.6"	8.5"	9.5"	7.7"	7.8"	4.9"	6.3"
		72	12.0"	12.0"	12.0"	8.3"	10.7"	11.0"	8.9"	8.6"	5.5"	7.0"	7.5"	6.1"	6.5"	4.1"	5.3"
		120	9.5"	7.7"	7.8"	4.9"	6.3"	7.0"	5.7"	6.2"	3.8"	5.0"	7.0"	5.7"	6.2"	3.8"	5.0"
		152	7.0"	5.7"	6.2"	3.8"	5.0"	7.0"	5.7"	6.2"	3.8"	5.0"	7.0"	5.7"	6.2"	3.8"	5.0"
	1/4" LAG SCREW WITH 1.5" MIN THREAD PENETR	47	12.0"	12.0"	9.9"	7.9"	9.2"	12.0"	12.0"	6.7"	5.2"	6.1"	12.0"	10.2"	5.0"	3.9"	4.5"
		60	12.0"	12.0"	7.8"	6.1"	7.1"	12.0"	10.9"	5.3"	4.0"	4.7"	9.0"	7.3"	4.0"	3.0"	3.5"
		72	12.0"	12.0"	6.5"	5.1"	5.9"	10.4"	8.4"	4.4"	3.4"	3.9"	7.1"	5.8"	3.3"	2.5"	2.9"
		120	9.0"	7.3"	4.0"	3.0"	3.5"	6.6"	5.4"	3.1"	2.4"	2.8"	6.6"	5.4"	3.1"	2.4"	2.8"
		152	6.6"	5.4"	3.1"	2.4"	2.8"	6.6"	5.4"	3.1"	2.4"	2.8"	6.6"	5.4"	3.1"	2.4"	2.8"

ANCHOR NOTES:

- ANCHORS SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURERS' RECOMMENDATIONS.
- TAPCONS MAY BE CARBON STEEL OR STAINLESS STEEL AND SHALL BE MANUFACTURED BY ITW.
- ENSURE MINIMUM 2.5" EDGE DISTANCE FOR ALL ANCHORS TO CONCRETE & TO HOLLOW BLOCK.
- WHERE ANCHORS FASTEN TO NARROW FACE OF STUD FRAMING, ANCHOR SHALL BE LOCATED IN CENTER OF NOMINAL 2x (MIN) WOOD STUD (i.e. 3/4" EDGE DISTANCE IS ACCEPTABLE FOR ANCHORS TO WOOD FRAMING).
- WOOD HOST STRUCTURE SHALL BE "SOUTHERN PINE" G=0.55 OR GREATER DENSITY.
- MINIMUM EMBEDMENT SHALL BE AS NOTED IN ANCHOR SCHEDULE. MINIMUM EMBEDMENT AND EDGE DISTANCE EXCLUDES STUCCO, FOAM, BRICK, AND OTHER WALL FINISHES.
- ANCHOR SCHEDULE APPLIES TO ALL PRODUCTS CERTIFIED HEREIN, BUT ONLY PROVIDES MAXIMUM ALLOWABLE ANCHOR SPACING. MAXIMUM ALLOWABLE SPANS AND PRESSURES INDICATED IN SPAN SCHEDULE SHALL APPLY.
- WHERE EXISTING STRUCTURE IS WOOD FRAMING, EXISTING CONDITIONS MAY VARY. FIELD VERIFY THAT FASTENERS ARE INTO ADEQUATE WOOD FRAMING MEMBERS, NOT INTO PLYWOOD.
- WOOD BUCKS (BY OTHERS) SHALL BE ANCHORED PROPERLY TO TRANSFER LOADS TO THE EXISTING STRUCTURE.
- MACHINE SCREWS SHALL HAVE MINIMUM OF 1/2" ENGAGEMENT OF THREADS IN BASE ANCHOR AND MAY HAVE EITHER A PAN HEAD, TRUSS HEAD, OR WAFER HEAD ("SIDEWALK BOLT") U.N.O.
- DESIGNATES ANCHOR CONDITIONS WHICH ARE NOT ACCEPTABLE FOR USE.
- * DESIGNATES ANCHORS WHICH ARE REMOVABLE.

Approved as complying with the Florida Building Code
Date 10/16/2008
NOA# 08-0310-03
Miami Dade Product Control
Division
By Helmut A. Helmut

ENGINEERING EXPRESS
160 SW 12th AVENUE, #106
DEERFIELD BEACH, FL 33442
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7860 W 25TH AVENUE
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305 - 558 - 7739
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WITH ALUMINUM OR POLYCARBONATE BLADES
MIAMI-DADE NOTICE OF ACCEPTANCE

REMARKS	DATE	DRWN	CHKD	INIT	ISSUE
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08-ITI-0002
SCALE: 1/8" = 1'-0"
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