MIAMI-DADE COUNTY
DEPARTMENT OF REGULATORY AND ECONOMIC RESOURCES (RER)
BOARD AND CODE ADMINISTRATION DIVISION

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

NOTICE OF ACCEPTANCE (NOA)

The Smart Companies
6182 Idlewild Street
Fort Myers, FL 33966

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 High Velocity Hurricane Zone of the Florida Building Code.

DESCRIPTION: "Storm Catcher " Wind Abatement System

APPROVAL DOCUMENT: Drawing No. 14-1249, titled "Storm Catcher Wind Abatement System ", prepared by Engineering Express, last revision dated June 25, 2014, sheets 1 through 10 of 10, signed and sealed by Frank L. Bennardo, P.E., on June 25, 2014, 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 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 consists of this page 1, evidence submitted page E1 as well as approval document mentioned above. The submitted documentation was reviewed by **Helmy A. Makar, P.E., M.S.**

MIAMI-DADE COUNTY APPROVED

07/04/2014

NOA No. 14-0207.01
Expiration Date: 07/04/2019
Approval Date: 07/04/2014

The Smart Companies

NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED

A. DRAWINGS

1. *Drawing No. 14-1249, titled "Storm Catcher Wind Abatement System ", prepared by Engineering Express, last revision dated June 25, 2014, sheets 1 through 10 of 10, signed and sealed by Frank L. Bennardo, P.E., on June 25, 2014.*

B. TESTS

1. *Fenestration Testing Laboratory, Inc.* ***Report No. 7561, dated 10/28/2013****, signed and Sealed by Marlin D. Brinson, P.E., for Testing Standards TAS 201, TAS 202 and TAS 203.*
1. *Fenestration Testing Laboratory, Inc.* ***Report No. 7812, dated 05/08/2014****, signed and Sealed by Idalmis Ortega, P.E., for Testing Standards TAS 201, TAS 202 and TAS 203.*

C. CALCULATIONS

1. *Structural calculations and design for Wind Abatement System,* ***37 pages****, prepared by Engineering Express,* ***dated 10/31/13****, signed and sealed by Frank L. Bennardo, P.E.*
2. *Structural calculations and design for Wind Abatement System,* ***29 pages****, prepared by Engineering Express,* ***dated 02/11/14,*** *signed and sealed by Frank L. Bennardo, P.E.*
3. *Structural calculations and design for Wind Abatement System,* ***43 pages****, prepared by Engineering Express,* ***dated 05/14/14****, signed and sealed by Frank L. Bennardo, P.E.*
4. *Structural calculations and design for Wind Abatement System,* ***6 pages****, prepared by Engineering Express,* ***dated 06/06/14****, signed and sealed by Frank L. Bennardo, P.E.*

D. QUALITY ASSURANCE

1. *By Miami-Dade County Department of Regulatory and Economic Resources.*

E. MATERIAL CERTIFICATIONS

1. *Fenestration Testing Laboratory, Inc.* ***Report No. 7790, revise on 05/21/2014****, signed and Sealed by Idalmis Ortega, P.E., for Testing Standards ASTM D635-10, D1929-10, D2843-10.*
1. *Fenestration Testing Laboratory, Inc.* ***Report No. 7589, dated 10/30/2013****, signed and Sealed by Marlin D. Brinson, P.E., for Testing Standards ASTM D635-10, D1929-10, D2843-10.*

F. STATEMENTS

1. *None.*

Helmy A. Makar, P.E., M.S.
Product Control Unit Supervisor
NOA No. 14-0207.01
Expiration Date: 07/04/2019
Approval Date: 07/04/2014

THE SMART COMPANIES

STORM CATCHER
WIND ABATEMENT SYSTEM

MAXIMUM ALLOWABLE DESIGN PRESSURES: AS NOTED IN SCHEDULES

DESIGN NOTES:

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. SITE-SPECIFIC WIND LOAD REQUIREMENTS SHALL BE DETERMINED IN ACCORDANCE WITH ASCE 7 AND THE 2010 FLORIDA BUILDING CODE BY SEPARATE ENGINEERING CERTIFICATION AND SHALL BE LESS THAN OR EQUAL TO THE POSITIVE OR NEGATIVE DESIGN PRESSURE CAPACITY VALUE LISTED HEREIN FOR ANY ASSEMBLY WITHIN THE LIMITATIONS STATED HEREIN.

GENERAL NOTES:

1. THE SYSTEM DESCRIBED HEREIN HAS BEEN DESIGNED AND TESTED IN ACCORDANCE WITH THE 2010 FLORIDA BUILDING CODE, FOR USE WITHIN THE HIGH VELOCITY HURRICANE ZONE PER TAS 201/202/203 PER TEST REPORT FTL-7561 & FTL-7812 BY FENESTRATION TESTING LABORATORY.
2. THIS PRODUCT MAY BE INSTALLED WITHIN AND OUTSIDE OF THE HIGH VELOCITY HURRICANE ZONE.
3. NO 33-1/3% INCREASE IN ALLOWABLE STRESS HAS BEEN USED IN THE DESIGN OF THIS SYSTEM.
4. DESIGN PRESSURES NOTED HEREIN ARE BASED ON MAXIMUM TESTED PRESSURES DIVIDED BY A 1.5 SAFETY FACTOR. SCREENS HAVE BEEN DESIGNED WITH A TOTAL 2" PRE-LOAD SLACK.
5. 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.
6. PERMIT HOLDER SHALL VERIFY THE ADEQUACY OF THE EXISTING STRUCTURE TO WITHSTAND SUPERIMPOSED LOADS.
7. UNLESS OTHERWISE NOTED HEREIN, ALL CARBON STEEL ANCHORS SHALL BE SAE GRADE 5 OR BETTER. STAINLESS STEEL ANCHORS SHALL BE 304 OR 316 STAINLESS STEEL.
8. MAXIMUM ALLOWABLE NON-FIRE RATED FABRIC PANEL SPAN (PER DESIGN SCHEDULES): 26'-0". MAXIMUM ALLOWABLE FIRE RATED FABRIC PANEL SPAN (PER DESIGN SCHEDULES): 18'-0".
9. SCREEN MAY BE MOUNTED WITH OPPOSING PRIMARY ANCHORED PERIMETERS (SPAN) IN A VERTICAL, HORIZONTAL, OR ANY ALLIGNMENT APPROPRIATE TO THE STRUCTURE BEING PROTECTED.
10. IF THE SCREEN DOES NOT RETURN TO THE STRUCTURE, IT SHOULD EXTEND PAST PROTECTED OPENING BY A DISTANCE EQUAL TO OR GREATER THAN 1.5 TIMES THE OFFSET. FOR TRAPPED OPENINGS THE SCREEN SHOULD EXTEND COMPLETE PERIMETER OF THE OPENING.
11. THE SCREENS MAY BE INSTALLED AT ANY HEIGHT ON THE STRUCTURE AS LONG AS THE DESIGN PRESSURE RATING FOR THE SCREENS IS NOT EXCEEDED.
12. ANCHORS ON THE NON-PRIMARY PERIMETER SIDE (NON-SPAN SIDE) OF THE SCREEN ARE OPTIONAL (e.g. TO LIMIT POTENTIAL SAG IN THE SCREEN OR REDUCE MOVEMENT ON THE FREE SIDE OR OTHER SITE SPECIFIC REASONS).
13. MAXIMUM ALLOWABLE DESIGN PRESSURE (SEE DESIGN SCHEDULES FOR APPLICABLE PANEL SPANS AT VARYING PRESSURES): +130/-130 PSF.
14. THE CONTRACTOR IS RESPONSIBLE TO INSULATE ALL MEMBERS FROM DISSIMILAR MATERIALS TO PREVENT ELECTROLYSIS, I.E. ALUMINUM PER F.B.C. 2003.8.4.
15. EXCEPT AS EXPRESSLY PROVIDED HEREIN, NO ADDITIONAL CERTIFICATIONS OR AFFIRMATIONS ARE INTENDED.
16. ENGINEER SEAL AFFIXED HERE TO VALIDATES STRUCTURAL DESIGN AS SHOWN ONLY. USE OF THIS SPECIFICATION BY CONTRACTOR, et. al. INDEMNIFIES & SAVES HARMLESS THIS ENGINEER FOR ALL COST & DAMAGES INCLUDING LEGAL FEES & APPELLATE FEES RESULTING FROM MATERIAL FABRICATION, SYSTEM ERECTION, & CONSTRUCTION PRACTICES BEYOND THAT WHICH IS CALLED FOR BY LOCAL, STATE, & FEDERAL CODES & FROM DEVIATIONS OF THIS PLAN.
17. ALTERATIONS, ADDITIONS OR OTHER MARKINGS TO THIS DOCUMENT ARE NOT PERMITTED AND INVALIDATE THIS CERTIFICATION.
18. PANELS SHALL BE PERMANENTLY LABELED WITH A MINIMUM OF ONE LABEL PER PANEL CONTAINING THE FOLLOWING. PANEL LABELS SHALL INDICATE IF THE FABRIC IS "FIRE RATED" OR "NON-FIRE RATED FABRIC (ILLUSTRATED BELOW):

THE SMART COMPANIES
6182 IDLEWILD STREET
FORT MYERS, FL 33966
239-938-1000
MIAMI-DADE COUNTY PRODUCT CONTROL APPROVED
APPROVAL #14-0207.01 PER TAS-201, TAS-202, AND TAS-203
FIRE RATING: ***FIRE RATED*** FABRIC

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FORT MYERS, FL 33966
239-938-1000
MIAMI-DADE COUNTY PRODUCT CONTROL APPROVED
APPROVAL #14-0207.01 PER TAS-201, TAS-202, AND TAS-203
FIRE RATING: ***NON-FIRE RATED*** FABRIC

FIRE RATING VS. NON-FIRE RATING DESIGN TABLE:

	FIRE RATED FABRIC		NON-FIRE RATED FABRIC	
STITCHING THREAD TYPE	SOLAR FIX PTFE	138 DENIER POLYESTER	SOLAR FIX PTFE	138 DENIER POLYESTER
MAX ALLOWABLE DESIGN PRESSURE (PSF)	+90/-90	+90/-90	+130/ -130	+60/-60
MAX ALLOWABLE FABRIC SPAN	15'-10"	18'-0"	15'-10"	26'-0"

- FIRE RATED FABRIC SHALL BE 100% POLYPROPYLENE TENCATE BLACK HURRICANE BARRIER WITH FIRE RATED ADDITIVE AND 3/6 BASKET WEAVE (20 MIL STRAND). ONLY FIRE RATED FABRIC CAN BE ATTACHED TO THE BUILDING PERMANENTLY.
- NON FIRE RATED FABRIC SHALL BE 100% POLYPROPYLENE TENCATE BLACK HURRICANE BARRIER WITH 3/4 BASKET WEAVE (20 MIL STRAND). NON FIRE RATED FABRIC MUST BE REMOVED AFTER HIGH WIND EVENTS AND STORED IN A SAFE PLACE.

Approved as complying with the Florida Building Code
Date 07/02/2014
NOA# 14-0207.01
Miami Dade Product Control
By

PRODUCT NOTES:

THE STORM CATCHER SCREEN SHALL BE MANUFACTURED FROM 100% WOVEN POLYPROPYLENE MONOFILAMENT WITH CALENDARED FINISH AND SHALL CONFORM TO THE FOLLOWING MECHANICAL/PHYSICAL PROPERTIES:

	TEST SPECIFICATION	NON-FIRE RATED VALUE	FIRE RATED VALUE
GRAB TEXTILE STRENGTH	ASTM D4632	560 x 550 LBS	560 x 500 LBS
PUNCTURE STRENGTH	ASTM D4833	200 LBS	200 LBS
MULLEN BURST	ASTM D3786	750 PSI	750 PSI
TRAPEZOIDAL TEAR STRENGTH	ASTM D4533	250 x 250 LBS	250 x 250 LBS
PERCENTAGE OF OPEN AREA	COE-02215	5%	5%
AIR FLOW	ASTM D737	175 CFM	175 CFM
WEIGHT	ASTM D5261	9.7 oz/yd²	9.07 oz/yd²
THICKNESS / CONSTRUCTION	ASTM D5199	20 MIL (60X63 EPI/PPI)	20 MIL (60X63 EPI/PPI)
SELF-IGNITION TEMP.	ASTM D1929	NOT APPLICABLE	695° F
RATE OF BURNING	ASTM D635		2.43 IN/MIN
AVERAGE TIME OF BURN	ASTM D635		52 SEC
AVERAGE EXTENT OF BURN	ASTM D635		75 MM
SMOKE DENSITY	ASTM D2843		23.10

SEWING (SEE SEWING DETAILS ON SHEET 7):

BUCKLE/STRAP EDGES: (3) EQUALLY SPACED ROWS OF STRAIGHT STITCH ACROSS A 3.580" WIDE BUCKLE HEM, (1) AT 0.375" FROM EACH EDGE AND INTERMEDIATE STITCHES AT APPROX. 1.415". (3) EQUALLY SPACED ROWS OF STRAIGHT STITCH ACROSS A 3.730" WIDE STRAP HEM, (1) AT 0.375" FROM EACH EDGE AND INTERMEDIATE STITCHES AT APPROX. 1.490". UTILIZE ALLOWABLE THREADS REFERENCED HEREIN.

LOOP ATTACHMENT EDGES: (4) EQUALLY SPACED ROWS OF STRAIGHT STITCH ACROSS A 3.770" WIDE HEM. UTILIZE (1) STITCH AT 0.375" FROM EDGES AND INTERMEDIATE STITCHES AT APPROXIMATELY 1" O.C.. UTILIZE ALLOWABLE THREADS REFERENCED HEREIN.

SLIDE-SCREEN RAIL EDGE: (3) EQUALLY SPACED ROWS OF STRAIGHT STITCH SECURING NYLON LUFT TAPE WITH 0.25" MINIMUM SPACING BETWEEN ROWS & (1) ROW ALONG RIGHT SIDE OF HEM LOCATED 0.375" FROM EDGE (TOTAL HEM WIDTH 3.610"). UTILIZE ALLOWABLE THREADS REFERENCED HEREIN.

PANEL EDGE HEM: (1) ROW OF STRAIGHT STITCH EACH SIDE OF A 2.130" WIDE HEM WITH STITCHES LOCATED 0.375" FROM EDGES USING ALLOWABLE THREADS REFERENCED HEREIN.

100% POLYESTER STRAP:

WIDTH: 1.90" (+/- 0.10")
THICKNESS: 0.0465" (+/- 0.035")
AVERAGE BREAK STRENGTH: 6000LB
WEIGHT: 11.9 LBS PER 100 YARDS

BUCKLE: AMCEL KP20

PATTERN: SPIKE TEETH GRIP
WIDTH/DIAMETER: 2.50 (+/- 0.10)
MATERIAL: ACETAL COPOLYMER

BRACKET:

PATTERN: BENT PLATE
DIMENSIONS: 2.78"x2.967"x0.125"
HOLE SIZE: 0.50"Ø
MATERIAL: 304 STAINLESS STEEL

PATTERN: 90° OR 45° BENT PLATE
DIMENSIONS: 2.50"x1.385"x0.125"
HOLE SIZE: 0.50"Ø
MATERIAL: 304 STAINLESS STEEL

PATTERN: METALLIC STRAP BRACKET
DIMENSIONS: 4.00"x0.75"x0.100"
HOLE SIZE: 0.310"Ø
MATERIAL: 304 STAINLESS STEEL

Frank L. Bennardo, P.E.
#PE0046549
06/25/2014
FRANK L. BENNARDO LICENSE No. 46549 STATE OF FLORIDA PROFESSIONAL ENGINEER

ENGINEERING EXPRESS
CORPORATE OFFICE: #1062
160 SW 12th AVENUE
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(888) 962-7283

STORM CATCHER
WIND ABATEMENT SYSTEM
MIAMI-DADE COUNTY NOTICE OF ACCEPTANCE

REMARKS	DRWN	CHKD	DATE
INIT ISSUE	CSL	TSB	03-10-14
REV. FOR ADD. TESTING	CSL	TSB	05-14-14
REV. FOR COMMENTS	CSL	TSB	06-06-14
REV FOR PRESS	TSB	FLB	6-25-14
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14-1249

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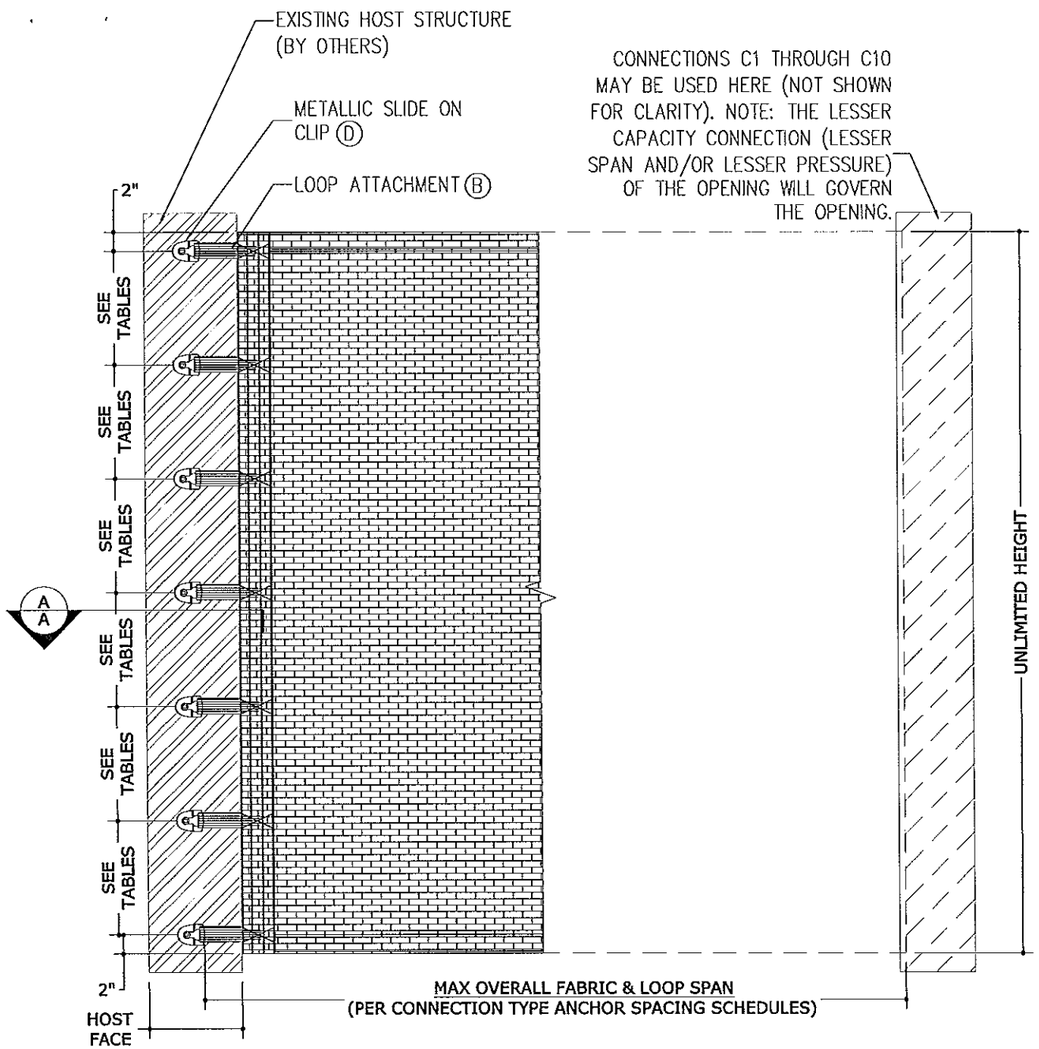
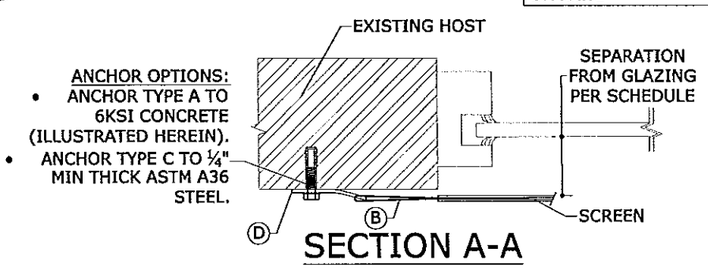


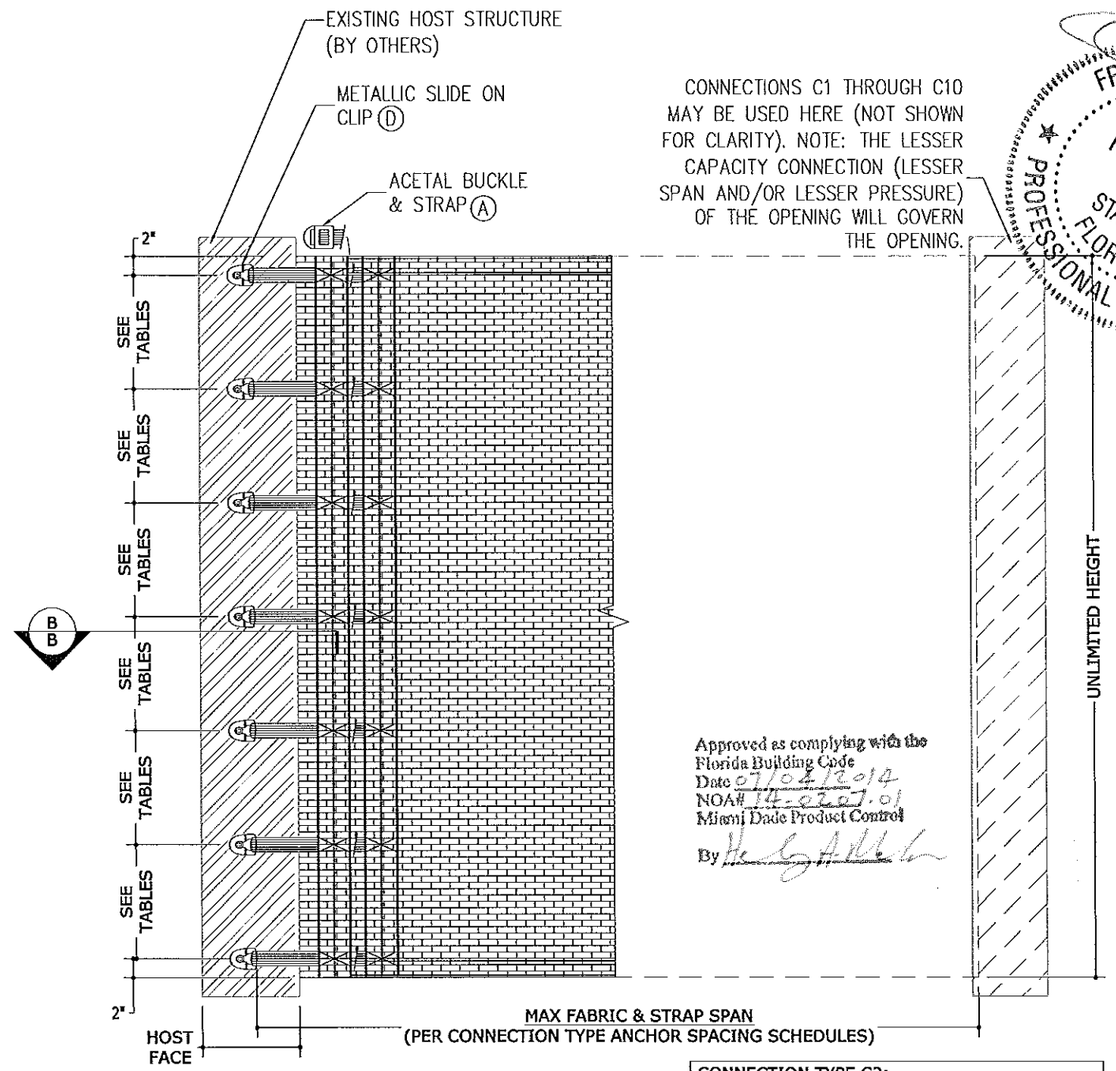
1/2 CONNECTION TYPE C1 FACE-MOUNT

1/16" = 1'-0" ELEVATION

CONNECTION TYPE C1:
LOOP ATTACHMENT WITH METALLIC SLIDE ON CLIP ATTACHED AS A FACE MOUNT TO THE EXISTING HOST STRUCTURE. SEE DESIGN SCHEDULES FOR METALLIC SLIDE ON CLIP SPACING



SECTION A-A

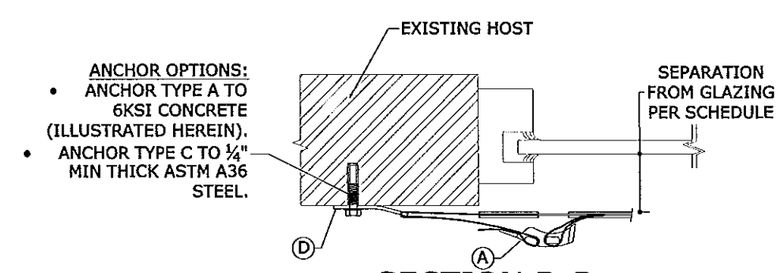


Approved as complying with the Florida Building Code
Date 07/02/2014
NOA# 14-0220.01
Miami Dade Product Control
By

2/2 CONNECTION TYPE C2 FACE-MOUNT

1/16" = 1'-0" ELEVATION

CONNECTION TYPE C2:
STRAP ATTACHMENT WITH ACETAL BUCKLE AND METALLIC SLIDE ON CLIP ATTACHED AS A FACE MOUNT TO THE EXISTING HOST STRUCTURE. SEE DESIGN SCHEDULES FOR METALLIC SLIDE ON CLIP SPACING



SECTION B-B

Frank L. Bennardo, P.E.
#PE0046549
06/25/2014
FRANK L. BENNARDO
LICENSE NO. 46549
STATE OF FLORIDA
PROFESSIONAL ENGINEER

ENGINEERING EXPRESS®
CORPORATE OFFICE:
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(888) 962-7283

STORM CATCHER
WIND ABATEMENT SYSTEM
MIAMI-DADE COUNTY NOTICE OF ACCEPTANCE

REMARKS	DRWN	CHKD	DATE
INIT. ISSUE	CSL	TSB	03-10-14
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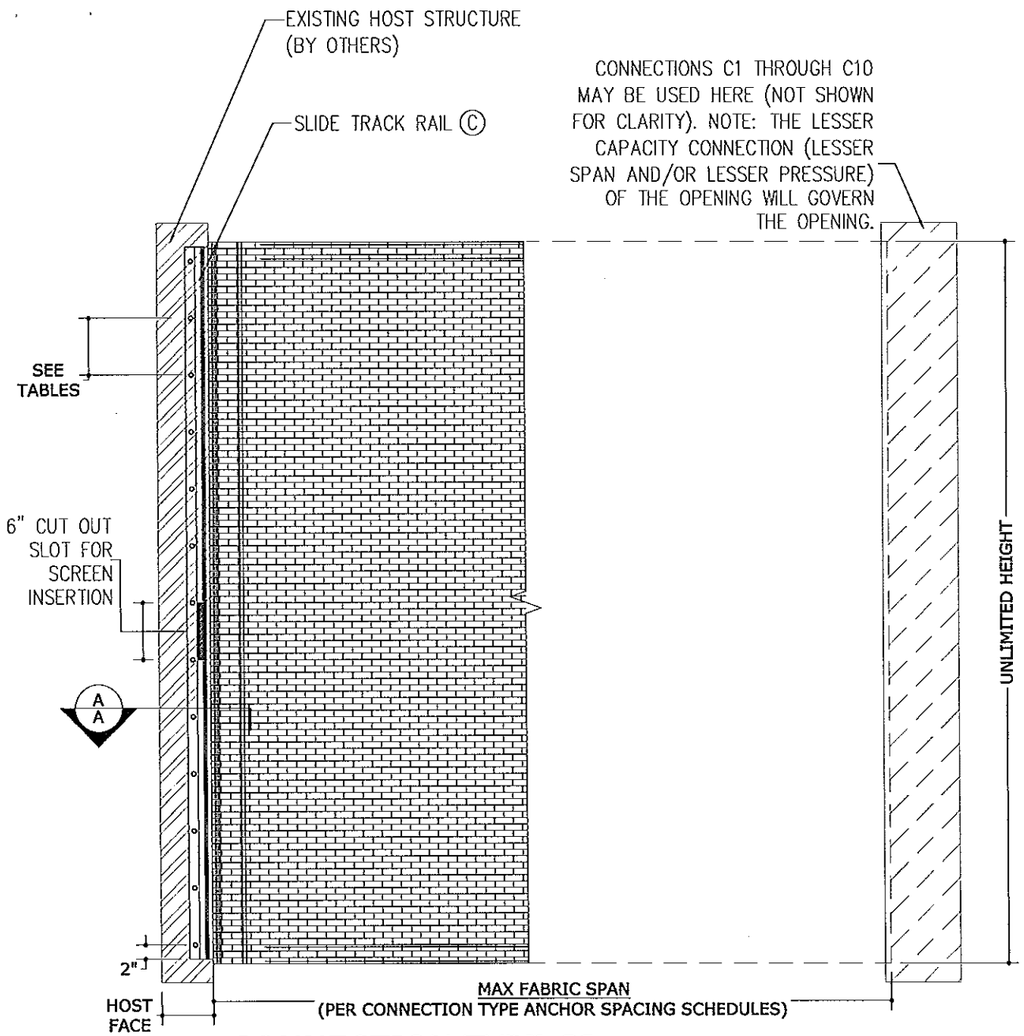
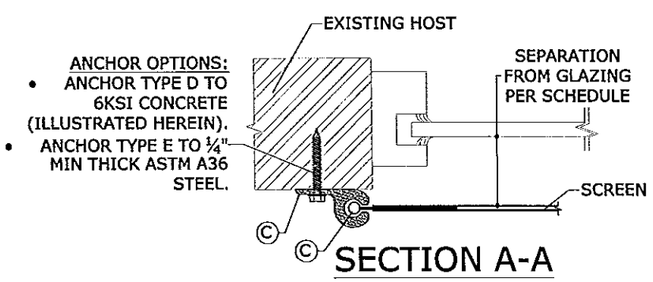


1/3 CONNECTION TYPE C3 FACE-MOUNT

1/16" = 1'-0" ELEVATION

CONNECTION TYPE C3:
SLIDE TRACK RAIL FACE MOUNTED TO THE EXISTING HOST STRUCTURE. SEE DESIGN SCHEDULES FOR ANCHOR SPACING



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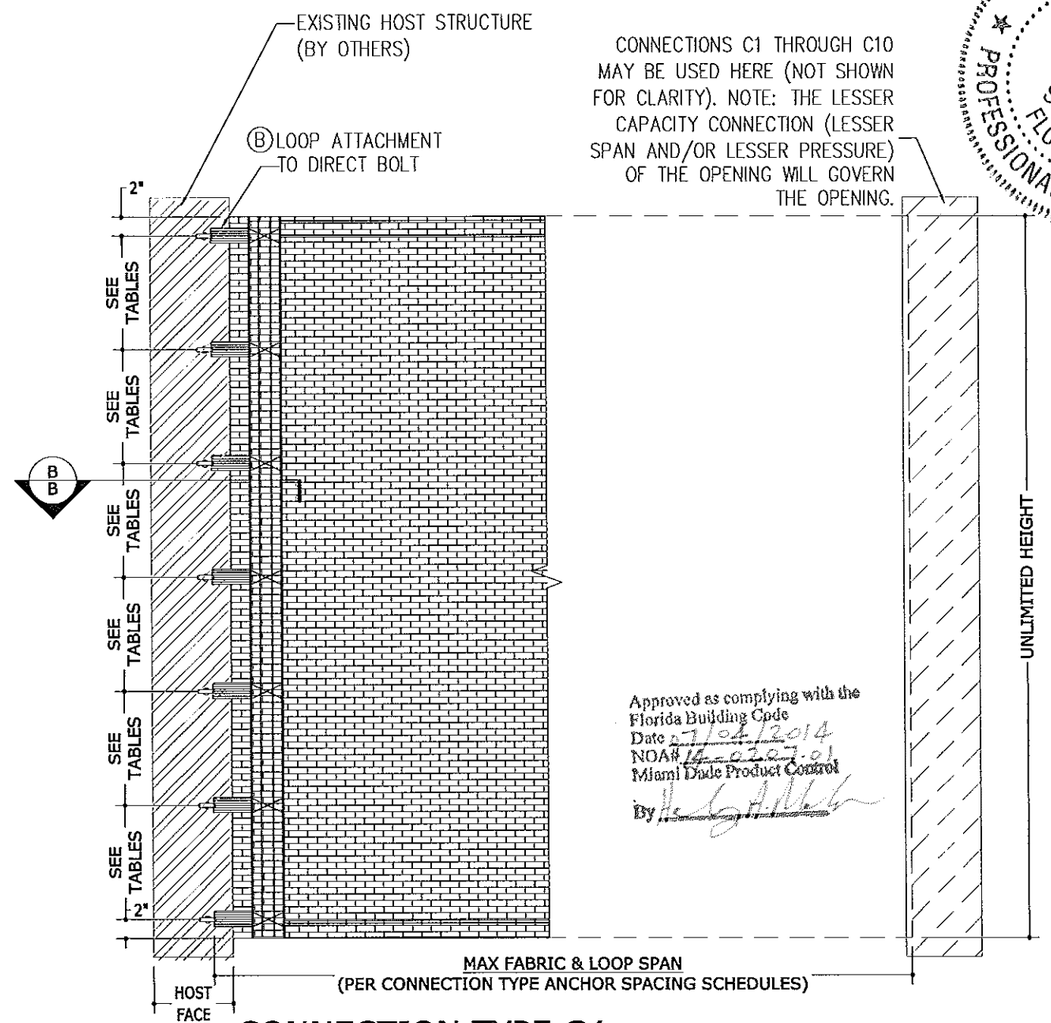

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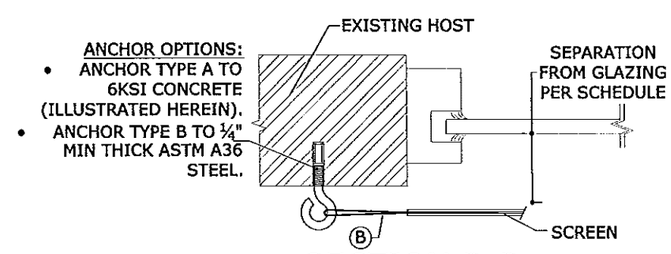
Date 07/04/2014
NOA# 14-0207.01
Miami Dade Product Control
By [signature]

2/3 CONNECTION TYPE C4 FACE-MOUNT

1/16" = 1'-0" ELEVATION

CONNECTION TYPE C4:
LOOP ATTACHMENT CONNECTED TO DIRECT FACE MOUNTED ANCHOR. SEE DESIGN SCHEDULES FOR ANCHOR SPACING



SECTION B-B

Frank L. Bennardo, P.E.
#PE0046549
06/23/2014

FRANK L. BENNARDO LICENSE No. 46549 STATE OF FLORIDA PROFESSIONAL ENGINEER

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STORM CATCHER
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3 OF 10

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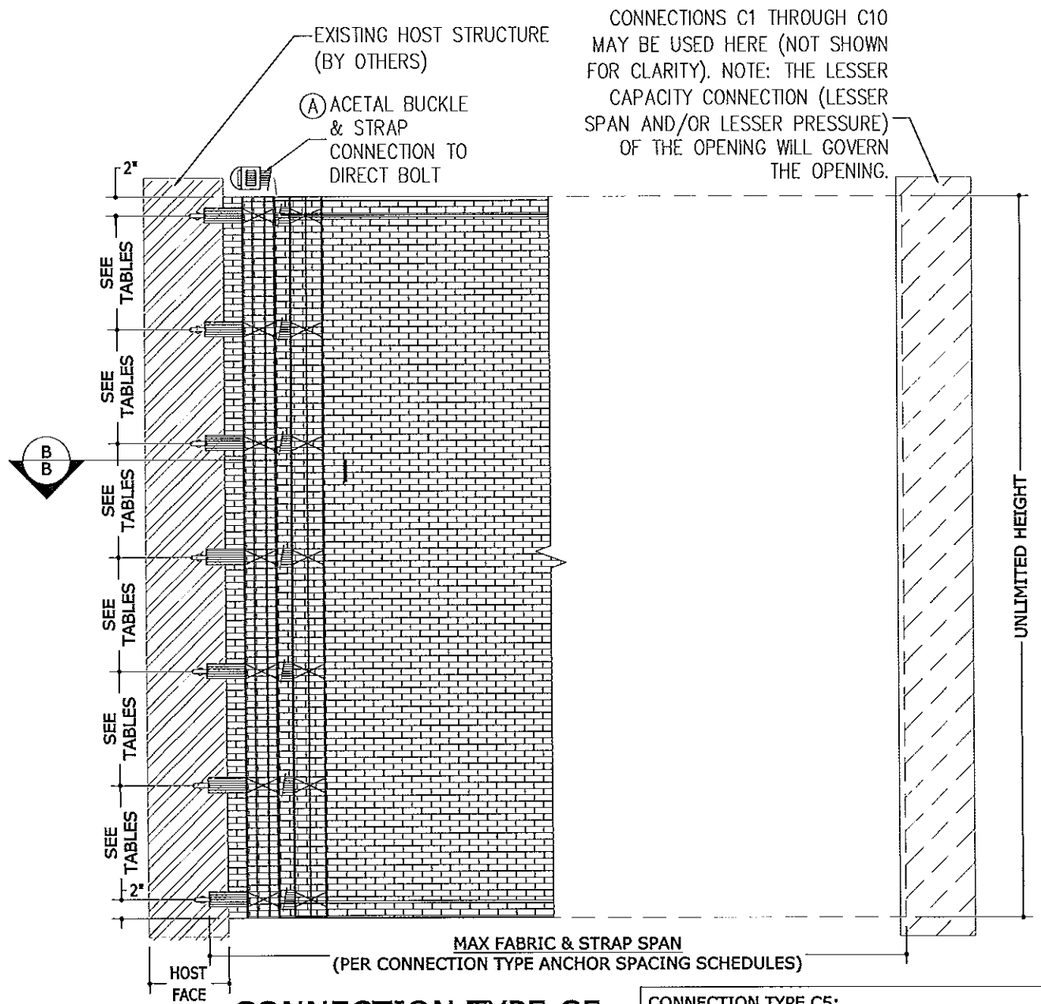
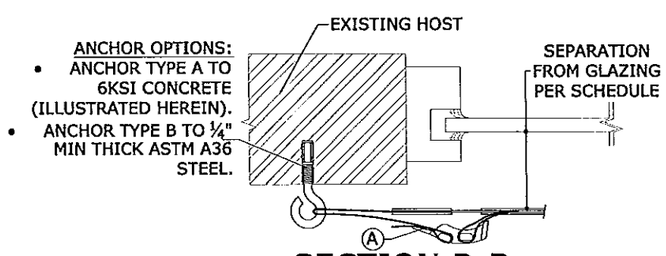


1/4 CONNECTION TYPE C5 FACE-MOUNT

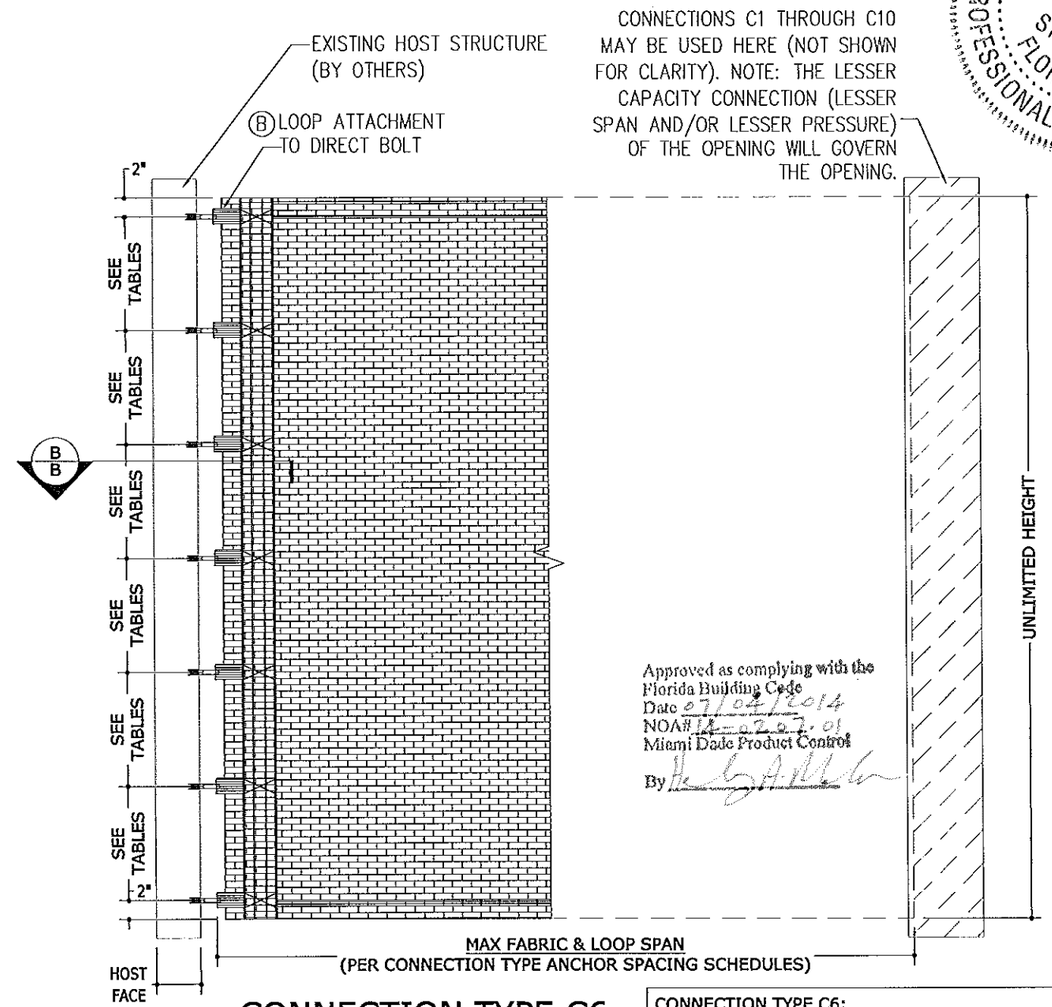
1/16" = 1'-0" ELEVATION

CONNECTION TYPE C5:
STRAP ATTACHMENT WITH ACETAL BUCKLE ATTACHED TO DIRECT FACE MOUNTED ANCHOR. SEE DESIGN SCHEDULES FOR ANCHOR SPACING.



ANCHOR OPTIONS:
- ANCHOR TYPE A TO 6KSI CONCRETE (ILLUSTRATED HEREIN).
- ANCHOR TYPE B TO ¼" MIN THICK ASTM A36 STEEL.

SECTION B-B



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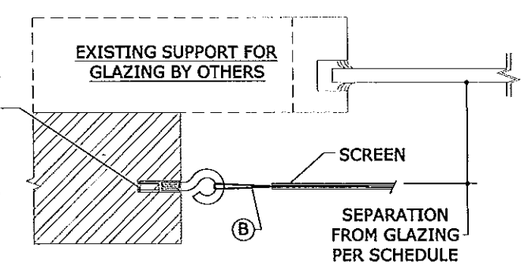
Date 07/04/2014
NOA# 14-0207.01
Miami Dade Product Control
By

2/4 CONNECTION TYPE C6 INSIDE-MOUNT

1/16" = 1'-0" ELEVATION

CONNECTION TYPE C6:
LOOP ATTACHMENT TO DIRECT INSIDE MOUNTED ANCHOR. SEE DESIGN SCHEDULES FOR ANCHOR SPACING.



ANCHOR OPTIONS:
- ANCHOR TYPE A TO 6KSI CONCRETE (ILLUSTRATED HEREIN).
- ANCHOR TYPE B TO ¼" MIN THICK ASTM A36 STEEL.

SECTION B-B

Frank L. Bennardo, P.E.
#PE0046549
06/25/2014

FRANK L. BENNARDO LICENSE No. 46549 STATE OF FLORIDA PROFESSIONAL ENGINEER

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INIT ISSUE	CSL	TSB	03-10-14
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REV. FOR COMMENTS	CSL	TSB	06-06-14
REV FOR PRESS	TSB	FLB	6-25-14
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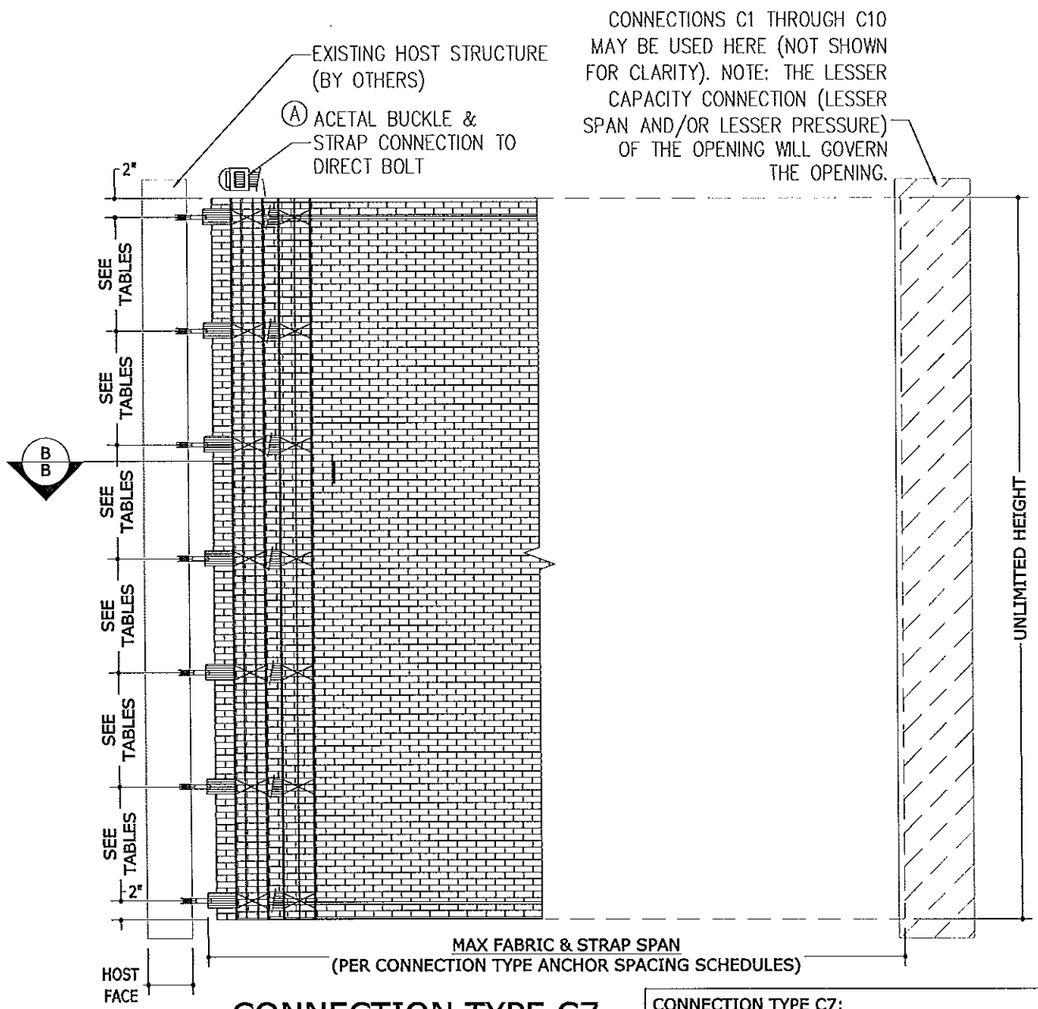
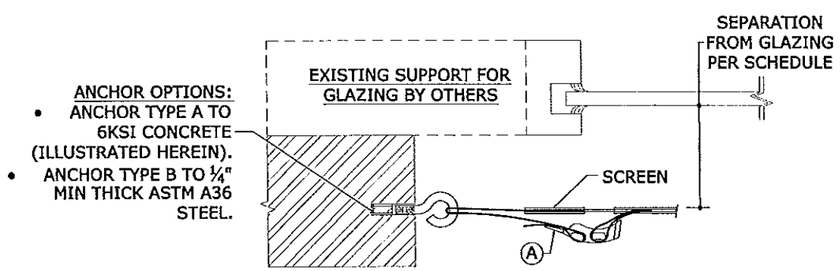


CONNECTION TYPE C7 INSIDE-MOUNT

1/5 — 1/16" = 1'-0" ELEVATION

CONNECTION TYPE C7:
STRAP ATTACHMENT WITH ACETAL BUCKLE ATTACHED TO DIRECT INSIDE MOUNTED ANCHOR. SEE DESIGN SCHEDULES FOR ANCHOR SPACING.



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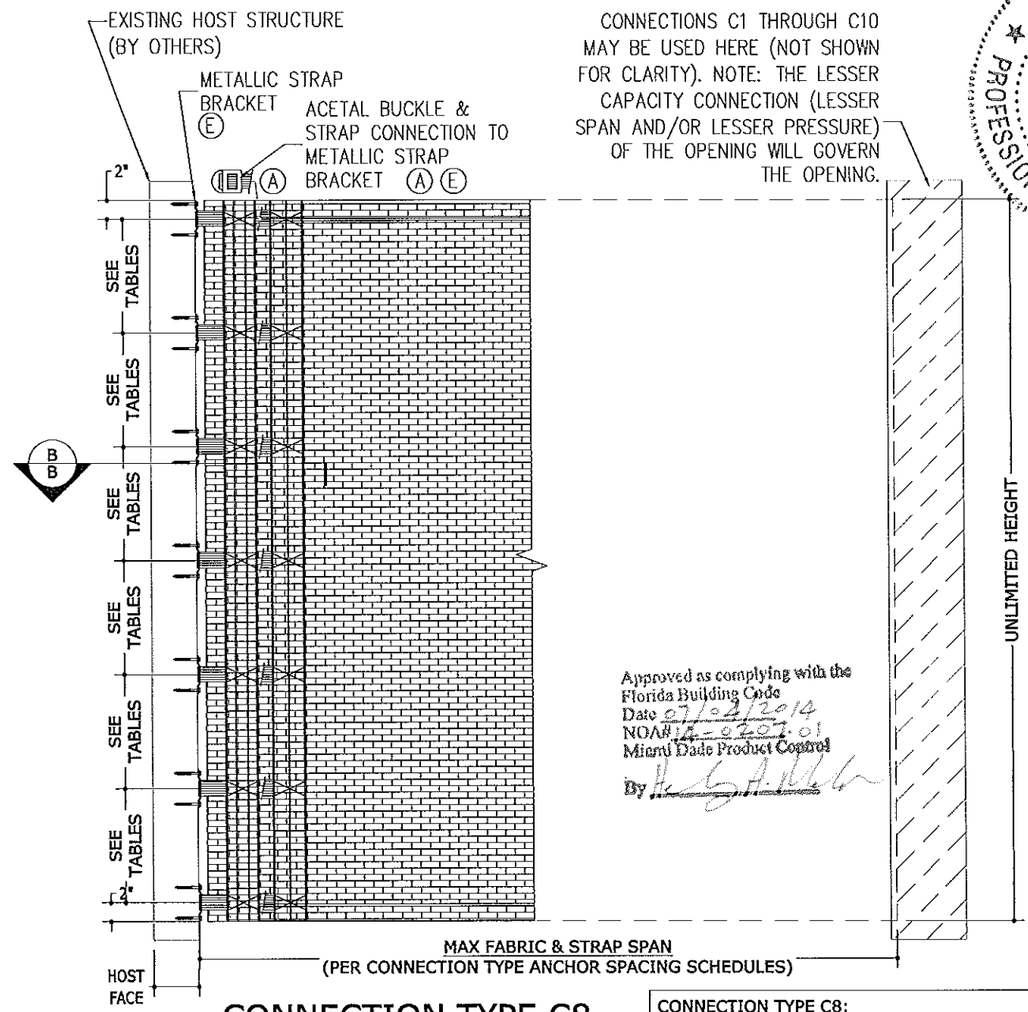

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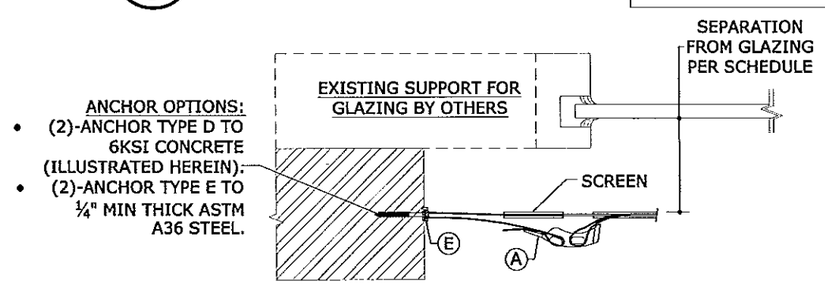
By

CONNECTION TYPE C8 INSIDE-MOUNT

2/5 — 1/16" = 1'-0" ELEVATION

CONNECTION TYPE C8:
STRAP ATTACHMENT WITH ACETAL BUCKLE ATTACHED TO INSIDE MOUNTED METALLIC STRAP BRACKET. SEE DESIGN SCHEDULES FOR METALLIC STRAP BRACKET SPACING.



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#PE0046549
06/25/2014
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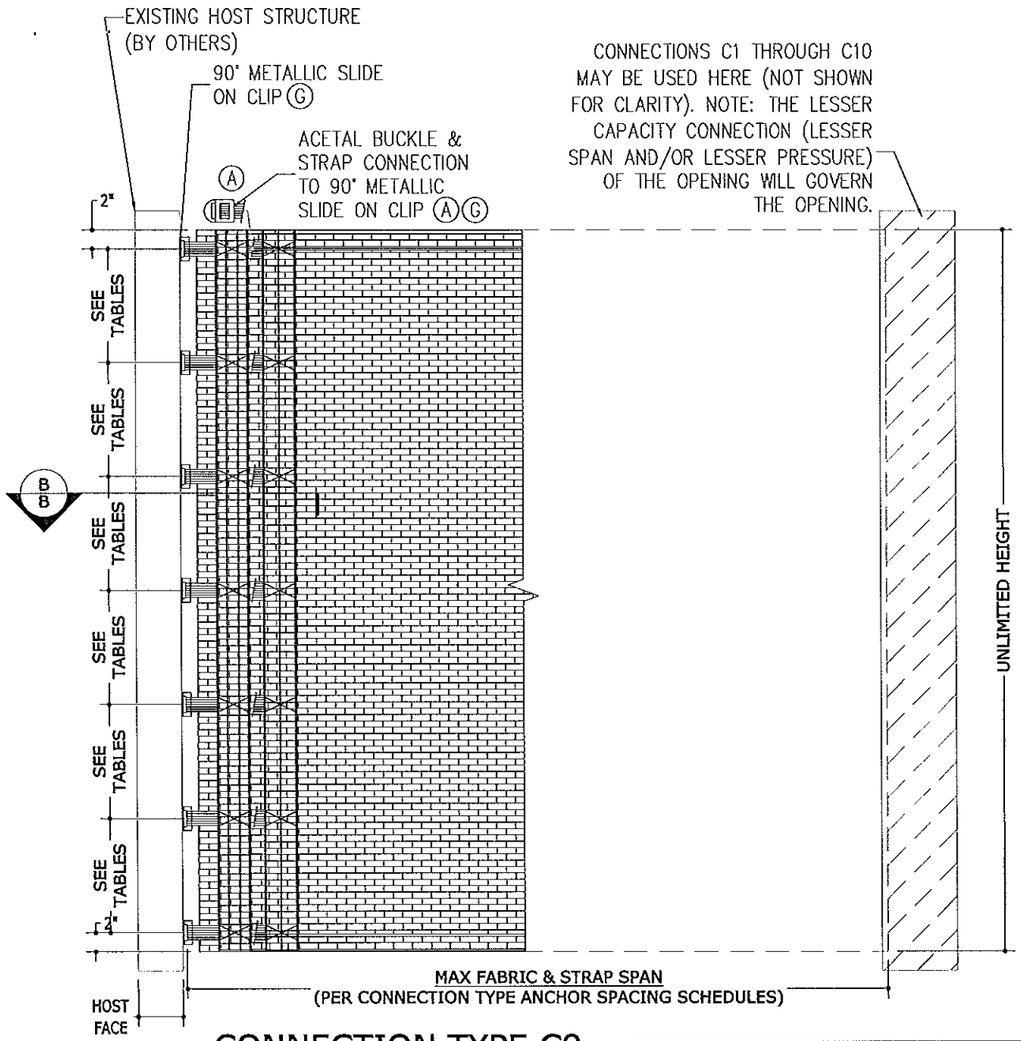
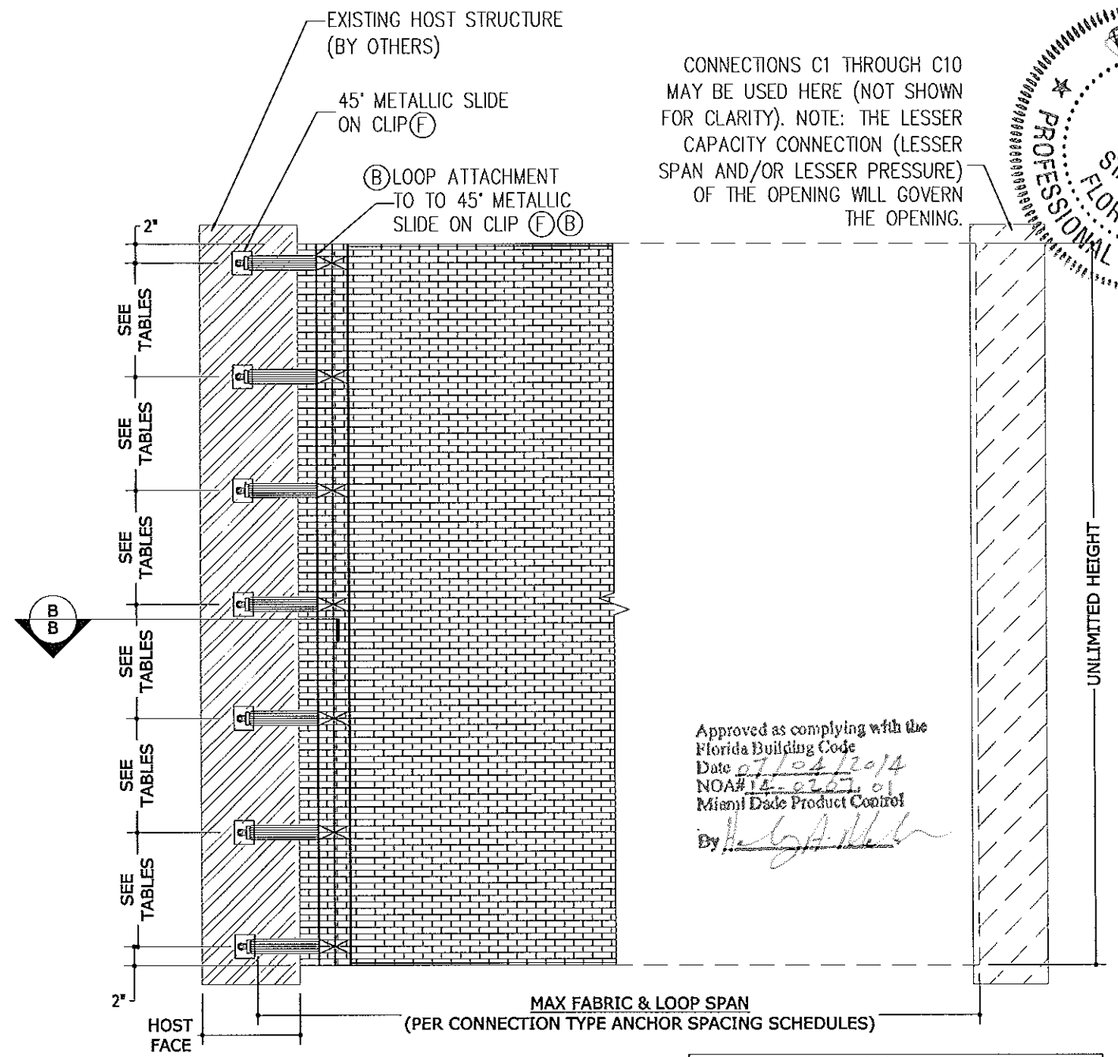


CONNECTION TYPE C9 INSIDE-MOUNT

1/6

1/16" = 1'-0" ELEVATION

CONNECTION TYPE C9:
STRAP ATTACHMENT WITH ACETAL BUCKLE & 90° METALLIC SLIDE ON CLIP ATTACHED AS A INSIDE MOUNT TO THE EXISTING HOST STRUCTURE. SEE DESIGN SCHEDULES FOR 90° METALLIC SLIDE ON CLIP SPACING



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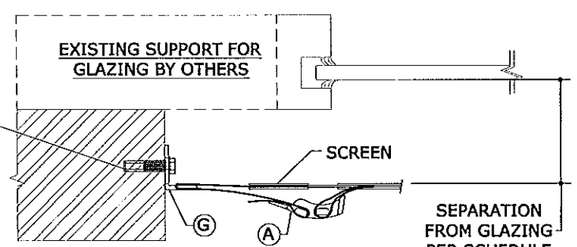
CONNECTION TYPE C10 FACE-MOUNT

2/6

1/16" = 1'-0" ELEVATION

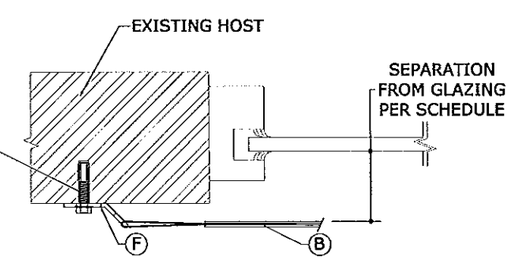
CONNECTION TYPE C10:
LOOP ATTACHMENT CONNECTED TO 45° METALLIC SLIDE ON CLIP ATTACHED AS A FACE MOUNT TO THE EXISTING HOST STRUCTURE. SEE DESIGN SCHEDULES FOR 45° METALLIC SLIDE ON CLIP SPACING

ANCHOR OPTIONS:
- ANCHOR TYPE A TO 6KSI CONCRETE (ILLUSTRATED HEREIN).
- ANCHOR TYPE C TO ¼" MIN THICK ASTM A36 STEEL.



SECTION B-B

ANCHOR OPTIONS:
- ANCHOR TYPE A TO 6KSI CONCRETE (ILLUSTRATED HEREIN).
- ANCHOR TYPE C TO ¼" MIN THICK ASTM A36 STEEL.



SECTION B-B

Frank L. Bennardo, P.E.
#PE0046549
06/25/2014

FRANK L. BENNARDO
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STATE OF FLORIDA
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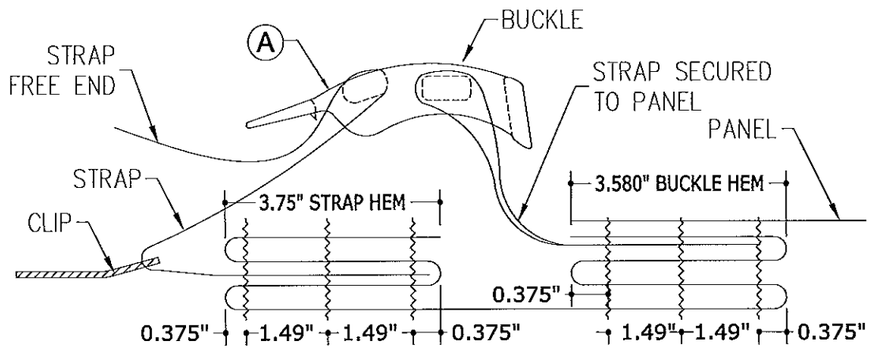
STITCHING OPTIONS:

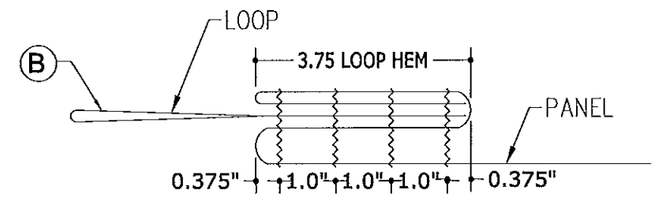


STRUCTURAL ATTACHMENT FOR STRAP & BUCKLE:
(3) ROWS STITCHING & BOX STITCH @ EACH HEM

A BUCKLE / STRAP ATTACHMENT

NO SCALE

THREAD: SOLAR FIX PTFE
THREAD: 138 DENIER POLYESTER

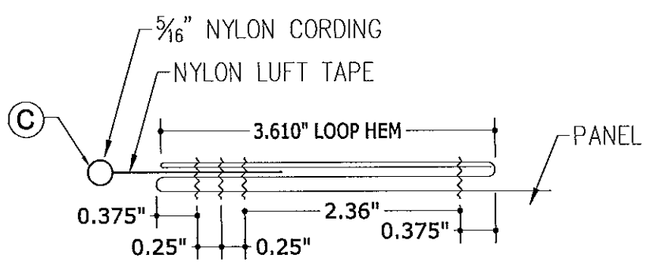


STRUCTURAL ATTACHMENT FOR LOOP:
(4) ROWS STITCHING & BOX STITCH

B LOOP ATTACHMENT

NO SCALE

THREAD: SOLAR FIX PTFE
THREAD: 138 DENIER POLYESTER



C SLIDE SCREEN RAIL

NO SCALE

THREAD: SOLAR FIX PTFE
THREAD: 138 DENIER POLYESTER

SPAN DIRECTION HEM: (2) ROWS STITCHING

PANEL EDGE HEM

NO SCALE

THREAD: SOLAR FIX PTFE
THREAD: 138 DENIER POLYESTER

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Florida Building Code
Date 07/02/2014
NOA# 14-0207.01
Miami Dade Product Control
By

Frank L. Bennardo, P.E.
#PE0046549
06/25/2014
FRANK L. BENNARDO
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No. 46549
STATE OF FLORIDA
PROFESSIONAL ENGINEER

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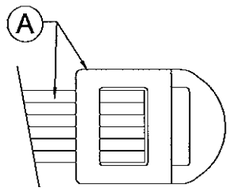
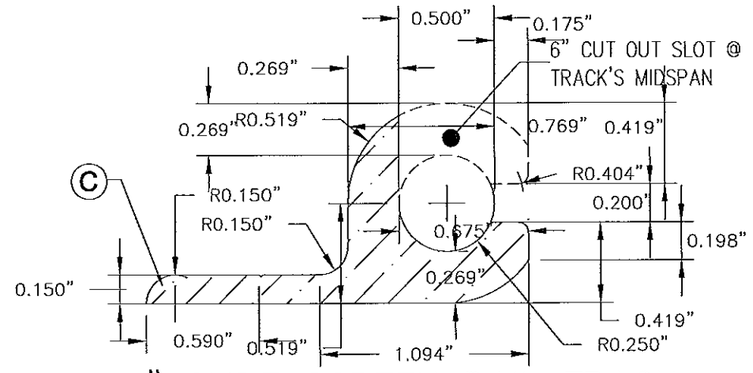
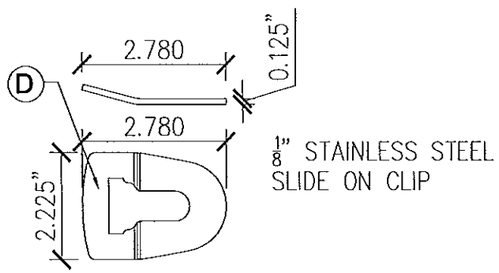
HARDWARE OPTIONS AT HOST:



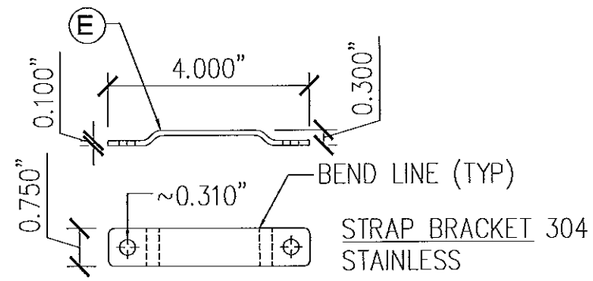
A STRAP BUCKLE
NO SCALE



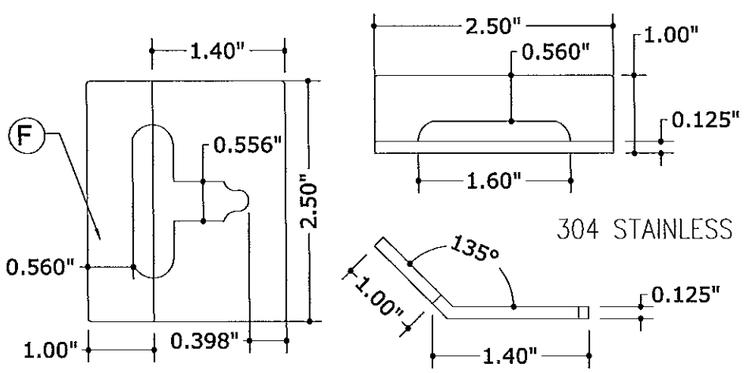
C 2" SLIDE SCREEN RAIL TRACK
NO SCALE 6063-T6



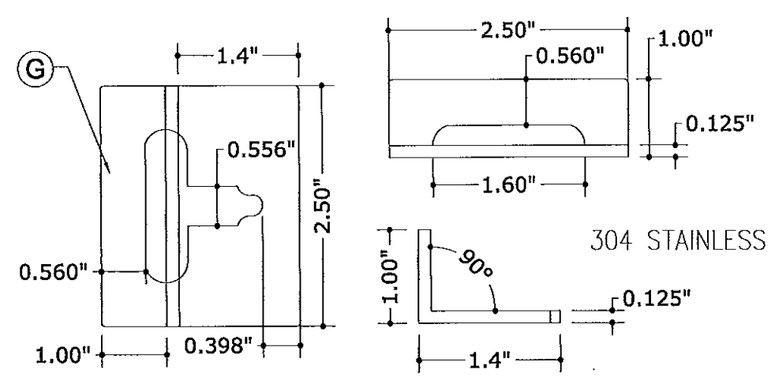
D SLIDE-ON CLIP
NO SCALE 304 SS



E METALLIC STRAP BRACKET
NO SCALE 304 SS



F 45° CLIP SLIDE ON CLIP
N.T.S. 304 SS



G 90° CLIP SLIDE ON CLIP
N.T.S. 304 SS

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Miami Dade Product Control
By [signature]

Frank L. Bennardo, P.E.
#PE0046549
06/25/2014

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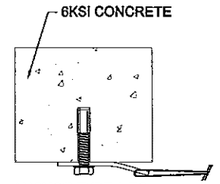
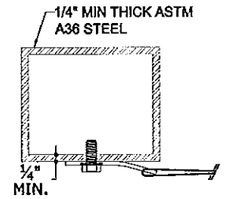
troyb
06/25/2014 - 5:31pm

CONNECTION TYPE ANCHOR SPACING SCHEDULES:

CONNECTION TYPE	MAXIMUM ALLOWABLE FABRIC SPAN	MAXIMUM ALLOWABLE ANCHOR SPACING (IN O.C.) VS. MAXIMUM ALLOWABLE DESIGN PRESSURES							
		ANCHOR TYPE A TO 6KSI CONCRETE				ANCHOR TYPE C TO 1/4" MIN THICK ASTM A36 STEEL			
		+60/-60 (PSF)	+80/-80 (PSF)	+90/-90 (PSF)	+130/-130 (PSF)†	+60/-60 (PSF)	+80/-80 (PSF)	+90/-90 (PSF)	+130/-130 (PSF)†
C1	48 "	12.0 "	12.0 "	12.0 "	12.0 "	12.0 "	12.0 "	12.0 "	12.0 "
	68 "	12.0 "	12.0 "	12.0 "	12.0 "	12.0 "	12.0 "	12.0 "	12.0 "

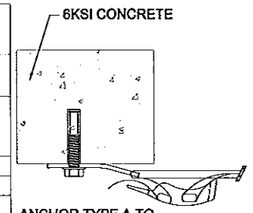


ANCHOR TYPE A TO 6KSI CONCRETE

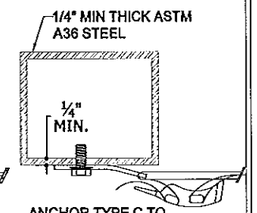


ANCHOR TYPE C TO 1/4" MIN THICK ASTM A36 STEEL

CONNECTION TYPE	MAXIMUM ALLOWABLE FABRIC SPAN	MAXIMUM ALLOWABLE ANCHOR SPACING (IN O.C.) VS. MAXIMUM ALLOWABLE DESIGN PRESSURES							
		ANCHOR TYPE A TO 6KSI CONCRETE				ANCHOR TYPE C TO 1/4" MIN THICK ASTM A36 STEEL			
		+60/-60 (PSF)	+80/-80 (PSF)	+90/-90 (PSF)	+130/-130 (PSF)†	+60/-60 (PSF)	+80/-80 (PSF)	+90/-90 (PSF)	+130/-130 (PSF)†
C2	48 "	12.0 "	12.0 "	12.0 "	12.0 "	12.0 "	12.0 "	12.0 "	12.0 "
	68.375 "	12.0 "	12.0 "	12.0 "	12.0 "	12.0 "	12.0 "	12.0 "	12.0 "
	187.625 "	9.7 "	7.7 "	7.0 "	N/A	9.1 "	9.1 "	9.1 "	8.8 "
	190 "	9.0 "	7.6 "	6.9 "		9.0 "	9.0 "	9.0 "	8.7 "
	312"*	N/A	N/A	N/A		9.0 "	N/A		



ANCHOR TYPE A TO 6KSI CONCRETE



ANCHOR TYPE C TO 1/4" MIN THICK ASTM A36 STEEL

CONNECTION TYPE	MAXIMUM ALLOWABLE FABRIC SPAN	MAXIMUM ALLOWABLE ANCHOR SPACING (IN O.C.) VS. MAXIMUM ALLOWABLE DESIGN PRESSURES							
		ANCHOR TYPE D TO 3KSI CONCRETE				ANCHOR TYPE E TO 1/4" MIN THICK ASTM A36 STEEL			
		+60/-60 (PSF)	+80/-80 (PSF)	+90/-90 (PSF)	+130/-130 (PSF)†	+60/-60 (PSF)	+80/-80 (PSF)	+90/-90 (PSF)	+130/-130 (PSF)†
C3	48 "	6.0 "	6.0 "	6.0 "	6.0 "	6.0 "	6.0 "	6.0 "	6.0 "
	68.375 "	6.0 "	6.0 "	6.0 "	6.0 "	6.0 "	6.0 "	6.0 "	6.0 "
	187.625 "	6.0 "	5.2 "	4.8 "	N/A	6.0 "	6.0 "	6.0 "	5.1 "
	190 "	6.0 "	5.1 "	4.7 "		6.0 "	6.0 "	6.0 "	5.0 "
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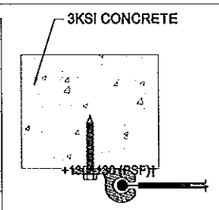
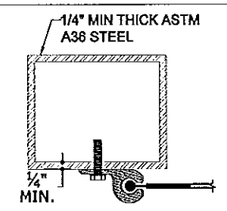
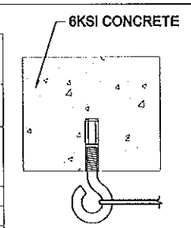


ANCHOR TYPE D TO 3KSI CONCRETE

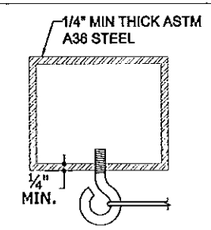


ANCHOR TYPE E TO 1/4" MIN THICK ASTM A36 STEEL

CONNECTION TYPE	MAXIMUM ALLOWABLE FABRIC SPAN	MAXIMUM ALLOWABLE ANCHOR SPACING (IN O.C.) VS. MAXIMUM ALLOWABLE DESIGN PRESSURES					
		ANCHOR TYPE A TO 6KSI CONCRETE			ANCHOR TYPE B TO 1/4" MIN THICK ASTM A36 STEEL		
		+60/-60 (PSF)	+80/-80 (PSF)	+90/-90 (PSF)	+60/-60 (PSF)	+80/-80 (PSF)	+90/-90 (PSF)
C4	48 "	12.0 "	12.0 "	12.0 "	12.0 "	12.0 "	12.0 "
	68.375 "	12.0 "	12.0 "	12.0 "	12.0 "	12.0 "	12.0 "
	187.625 "	12.0 "	9.9 "	9.1 "	12.0 "	12.0 "	12.0 "

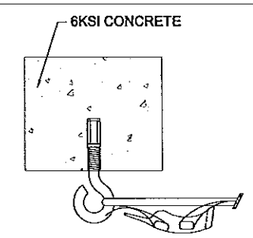


ANCHOR TYPE A TO 6KSI CONCRETE

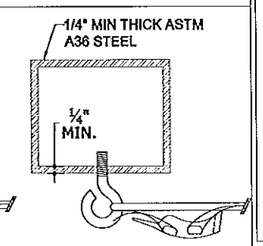


ANCHOR TYPE B TO 1/4" MIN THICK ASTM A36 STEEL

CONNECTION TYPE	MAXIMUM ALLOWABLE FABRIC SPAN	MAXIMUM ALLOWABLE ANCHOR SPACING (IN O.C.) VS. MAXIMUM ALLOWABLE DESIGN PRESSURES					
		ANCHOR TYPE A TO 6KSI CONCRETE			ANCHOR TYPE B TO 1/4" MIN THICK ASTM A36 STEEL		
		+60/-60 (PSF)	+80/-80 (PSF)	+90/-90 (PSF)	+60/-60 (PSF)	+80/-80 (PSF)	+90/-90 (PSF)
C5	48 "	12.0 "	12.0 "	12.0 "	12.0 "	12.0 "	12.0 "
	68.375 "	12.0 "	12.0 "	12.0 "	12.0 "	12.0 "	12.0 "
	187.625 "	12.0 "	9.9 "	9.1 "	12.0 "	12.0 "	12.0 "
	216"*	10.5 "	8.6 "	7.9 "	12.0 "	12.0 "	12.0 "



ANCHOR TYPE A TO 6KSI CONCRETE



ANCHOR TYPE B TO 1/4" MIN THICK ASTM A36 STEEL

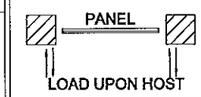
NOTE: ALL FIRE RATED PANELS ARE LIMITED TO A MAXIMUM 18'-0" SPAN WITH +90/-90 PSF AND SHALL BE ATTACHED PER THE CONNECTION TABLES ILLUSTRATED HEREIN

† PRESSURES HIGHER THAN +90/-90 PSF AND/OR MORE THAN 18'-0" ARE FOR NON-FIRE RATED FABRIC ONLY.

*ALL FABRIC SPANS MARKED WITH AN (*) CANNOT UTILIZE "SOLAR FIX PTFE" THREADS. SEE SHEET 1 FOR A SUMMARY OF THREAD TYPES AND APPLICABLE PANE SPANS AND/OR ALLOWABLE DESIGN PRESSURES.

LOAD REACTIONS:

LOAD ON EXISTING STRUCTURE FROM SCREEN SYSTEM CATENARY LOAD REACTION (LB/FT), Fx				
MAX FABRIC SPAN	DESIGN PRESSURE			
	+60 PSF/ -60 PSF	+80 PSF/ -80 PSF	+90 PSF/ -90 PSF	+130 PSF/ -130 PSF
48 "	314	380	411	525
68.375 "	471	570	617	788
180.000 "	1387	1681	1818	2323
187.625 "	1450	1756	1900	2427
190 "	1469	1780	1925	2460
216 "	1684	2040	2206	2819
312 "	2477	3000	3245	4147



LOAD ON EXISTING STRUCTURE FROM SCREEN SYSTEM RECTANGULAR LOAD NORMAL TO WIND DIRECTION (LB/FT), Fy				
MAX FABRIC SPAN	DESIGN PRESSURE			
	+60 PSF/ -60 PSF	+80 PSF/ -80 PSF	+90 PSF/ -90 PSF	+130 PSF/ -130 PSF
48 "	120	160	180	260
68 "	171	228	256	370
180 "	450	600	675	975
188 "	469	625	704	1016
190 "	475	633	713	1029
216 "	540	720	810	1170
312 "	780	1040	1170	1690

SEPARATION FROM GLAZING:

FABRIC SPAN	DESIGN PRESSURE (+/-PSF)			
	+60 PSF/ -60 PSF†	+80 PSF/ -80 PSF†	+90 PSF/ -90 PSF†	+130 PSF/ -130 PSF†
48 "	5.75 "	6.23 "	6.44 "	7.15 "
68 "	13.10 "	13.10 "	13.10 "	13.10 "
180 "	20.10 "	20.10 "	21.00"	21.00"
188 "	21.10 "	21.10 "	21.30 "	21.30 "
190 "	22.00 "	22.10 "	22.50 "	22.60 "
216 "	23.60 "	23.60 "	27.50 "	27.90 "
312 "	26.50 "	26.50 "	27.50 "	29.47 "

NOTES:
1. SEPARATION FROM GLAZING IS REQUIRED FOR ALL INSTALLATIONS WITHIN THE HIGH VELOCITY HURRICANE ZONE.
2. INTERPOLATION OF THIS TABLE IS NOT PERMITTED. UTILIZE NEXT HIGHEST SEPARATION FROM GLAZING VALUE IF NEEDED.

Approved as complying with the Florida Building Code
Date 07/04/2014
NOA# 14-0207.01
Miami Dade Product Control
By

Frank L. Bennardo, P.E.
#PE0046549
06/25/2014
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STORM CATCHER
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MIAMI-DADE COUNTY NOTICE OF ACCEPTANCE

REMARKS	DRWN	CHKD	DATE
INIT ISSUE	CSL	TSB	03-10-14
REV. FOR ADD. TESTING	CSL	TSB	05-14-14
REV. FOR COMMENTS	CSL	TSB	06-06-14
REV FOR PRESS	TSB	FLB	6-25-14

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14-1249

SCALE: SEE DETAILS

PAGE DESCRIPTION:

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troyb
06/25/2014 - 5:31pm

CONNECTION TYPE ANCHOR SPACING SCHEDULES CONTINUED:

CONNECTION TYPE	MAXIMUM ALLOWABLE FABRIC SPAN	MAXIMUM ALLOWABLE ANCHOR SPACING (IN O.C.) VS. MAXIMUM ALLOWABLE DESIGN PRESSURES					
		ANCHOR TYPE A TO 6KSI CONCRETE			ANCHOR TYPE B TO 1/4" MIN THICK ASTM A36 STEEL		
		+60/-60 (PSF)	+80/-80 (PSF)	+90/-90 (PSF)	+60/-60 (PSF)	+80/-80 (PSF)	+90/-90 (PSF)
C6	48 "	12.0 "	12.0 "	12.0 "	12.0 "	12.0 "	12.0 "
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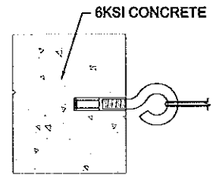
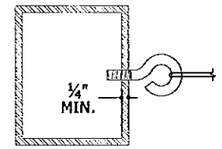
	187.625 "	12.0 "	10.1 "	9.3 "	12.0 "	12.0 "	12.0 "
	216"*	10.7 "	8.7 "	8.0 "	12.0 "	12.0 "	12.0 "

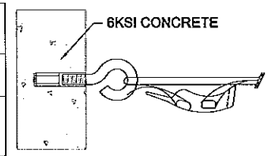


ANCHOR TYPE A TO 6KSI CONCRETE

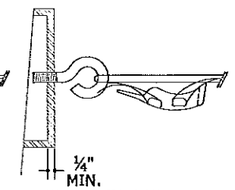


ANCHOR TYPE B TO 1/4" MIN THICK ASTM A36 STEEL

CONNECTION TYPE	MAXIMUM ALLOWABLE FABRIC SPAN	MAXIMUM ALLOWABLE ANCHOR SPACING (IN O.C.) VS. MAXIMUM ALLOWABLE DESIGN PRESSURES					
		ANCHOR TYPE A TO 6KSI CONCRETE			ANCHOR TYPE B TO 1/4" MIN THICK ASTM A36 STEEL		
		+60/-60 (PSF)	+80/-80 (PSF)	+90/-90 (PSF)	+60/-60 (PSF)	+80/-80 (PSF)	+90/-90 (PSF)
C7	48 "	12.0 "	12.0 "	12.0 "	12.0 "	12.0 "	12.0 "
	68.375 "	12.0 "	12.0 "	12.0 "	12.0 "	12.0 "	12.0 "
	187.625 "	12.0 "	10.1 "	9.3 "	12.0 "	12.0 "	12.0 "
	216"*	10.7 "	8.7 "	8.0 "	12.0 "	12.0 "	12.0 "

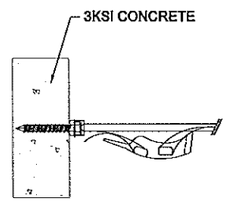


ANCHOR TYPE A TO 6KSI CONCRETE

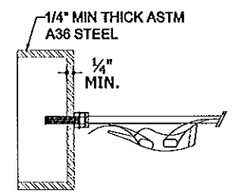


ANCHOR TYPE B TO 1/4" MIN THICK ASTM A36 STEEL

CONNECTION TYPE	MAXIMUM ALLOWABLE FABRIC SPAN	MAXIMUM ALLOWABLE ANCHOR SPACING (IN O.C.) VS. MAXIMUM ALLOWABLE DESIGN PRESSURES					
		ANCHOR TYPE D PAIR (2X) TO 3KSI CONCRETE			ANCHOR TYPE E PAIR (2X) TO 1/4" MIN THICK ASTM A36 STEEL		
		+60/-60 (PSF)	+80/-80 (PSF)	+90/-90 (PSF)	+60/-60 (PSF)	+80/-80 (PSF)	+90/-90 (PSF)
C8	48 "	12.0 "	12.0 "	12.0 "	12.0 "	12.0 "	12.0 "
	68.375 "	12.0 "	12.0 "	12.0 "	12.0 "	12.0 "	12.0 "
	187.625 "	10.5 "	8.6 "	7.9 "	12.0 "	12.0 "	12.0 "
	216"*	9.0 "	7.4 "	6.8 "	12.0 "	12.0 "	12.0 "



ANCHOR TYPE D PAIR TO 3KSI CONCRETE



ANCHOR TYPE E PAIR TO 1/4" MIN THICK ASTM A36 STEEL

CONNECTION TYPE	MAXIMUM ALLOWABLE FABRIC SPAN	MAXIMUM ALLOWABLE ANCHOR SPACING (IN O.C.) VS. MAXIMUM ALLOWABLE DESIGN PRESSURES					
		ANCHOR TYPE A TO 6KSI CONCRETE			ANCHOR TYPE C TO 1/4" MIN THICK ASTM A36 STEEL		
		+60/-60 (PSF)	+80/-80 (PSF)	+90/-90 (PSF)	+60/-60 (PSF)	+80/-80 (PSF)	+90/-90 (PSF)
C9	48 "	10.0 "	10.0 "	10.0 "	10.0 "	10.0 "	10.0 "
	68.375 "	10.0 "	10.0 "	10.0 "	10.0 "	10.0 "	10.0 "
	180 "	10.0 "	10.0 "	7.0 "	10.0 "	10.0 "	7.0 "
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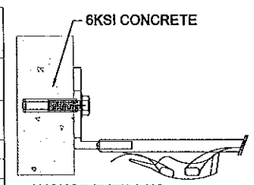
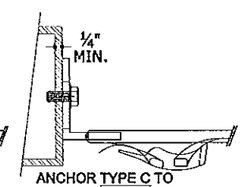
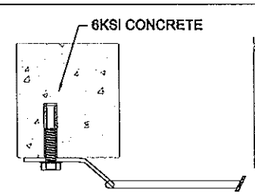


ANCHOR TYPE A TO 6KSI CONCRETE

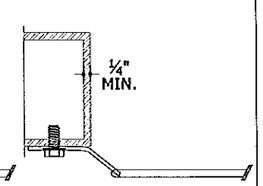


ANCHOR TYPE C TO 1/4" MIN THICK ASTM A36 STEEL

CONNECTION TYPE	MAXIMUM ALLOWABLE FABRIC SPAN	MAXIMUM ALLOWABLE ANCHOR SPACING (IN O.C.) VS. MAXIMUM ALLOWABLE DESIGN PRESSURES					
		ANCHOR TYPE A TO 6KSI CONCRETE			ANCHOR TYPE C TO 1/4" MIN THICK ASTM A36 STEEL		
		+60/-60 (PSF)	+80/-80 (PSF)	+90/-90 (PSF)	+60/-60 (PSF)	+80/-80 (PSF)	+90/-90 (PSF)
C10	48 "	12.0 "	12.0 "	12.0 "	12.0 "	12.0 "	12.0 "
	68 "	12.0 "	12.0 "	12.0 "	12.0 "	12.0 "	12.0 "
	180 "	10.0 "	7.9 "	7.2 "	12.0 "	12.0 "	12.0 "



ANCHOR TYPE A TO 6KSI CONCRETE



ANCHOR TYPE C TO 1/4" MIN THICK ASTM A36 STEEL

NOTE: ALL FIRE RATED PANELS ARE LIMITED TO A MAXIMUM 18'-0" SPAN WITH +90/-90 PSF AND SHALL BE ATTACHED PER THE CONNECTION TABLES ILLUSTRATED HEREIN

*ALL FABRIC SPANS MARKED WITH AN (*) CANNOT UTILIZE "SOLAR FIX PTFE" THREADS. SEE SHEET 1 FOR A SUMMARY OF THREAD TYPES AND APPLICABLE PANE SPANS AND/OR ALLOWABLE DESIGN PRESSURES.

ANCHOR SCHEDULE:

ANCHOR	SUBSTRATE	DESCRIPTION
A	6000 PSI MIN. CONCRETE	1/2" POWERS DROP-IN ANCHOR WITH 1/2"-13 304 STAINLESS STEEL THREADED (ASTM F593) EYE BOLT OR CARRIAGE BOLTS WITH UNC ROLL THREADS PER ASME B1.1 CLASS 1A, 2" EMBED TO CONCRETE, 7" EDGE DISTANCE, SPACED PER ANCHOR SCHEDULES (ANCHORS SHALL NOT BE SPACED CLOSER THAN 6" O.C.)
B	ASTM A36 STEEL	1/2"-13 304 STAINLESS STEEL THREADED (ASTM F593) EYE BOLT WITH UNC ROLL THREADS PER ASME B1.1 CLASS 1A, SPACED PER ANCHOR SPACING SCHEDULES (ANCHORS SHALL NOT BE SPACED CLOSER THAN 1-1/2" O.C.)
C		1/2"-13 304 STAINLESS STEEL THREADED (ASTM F593) CARRIAGE BOLT WITH UNC ROLL THREADS PER ASME B1.1 CLASS 1A, SPACED PER ANCHOR SPACING SCHEDULES (ANCHORS SHALL NOT BE SPACED CLOSER THAN 1-1/2" O.C.)
D	3000 PSI MIN. CONCRETE	5/16" ITW TAPCONS, 2-1/4" MIN. EMBED, 3-1/8" MIN. EDGE DISTANCE, SPACED PER ANCHOR SPACING SCHEDULES • WHEN UTILIZED IN A SINGLE ROW WITH THE SLIDE TRACK SYSTEM, ANCHORS SHALL NOT BE SPACED CLOSER THAN 3-3/4" O.C. ALONG THE SLIDE TRACK RAIL . • WHEN UTILIZED AS A PAIR INSTALLED TO THE METALLIC STRAP BRACKET, THE ANCHOR GROUP SHALL UTILIZE AN ANCHOR CENTER TO CENTER PAIR SPACING OF 3-1/4". METALLIC STRAP BRACKETS SHALL NOT BE SPACED CLOSER THAN 3-3/4" O.C.
E	ASTM A36 STEEL	5/16"-18 304 STAINLESS STEEL THREADED (ASTM F593) BOLTS WITH UNC ROLL THREADS PER ASME B1.1 CLASS 1A, SPACED PER ANCHOR SPACING SCHEDULES (ANCHORS SHALL NOT BE SPACED CLOSER THAN 1" O.C.)

Approved as complying with the Florida Building Code
Date 07/08/2014
NOA# 14-0219.01
Miami Dade Product Control
By

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06/25/2014
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REMARKS	DRWN	CHKD	DATE
INIT ISSUE	CSL	TSB	02-10-14
REV. FOR ADD. TESTING	CSL	TSB	05-14-14
REV. FOR COMMENTS	CSL	TSB	06-06-14
REV FOR PRESS	TSB	FLB	6-25-14

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PAGE DESCRIPTION:

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06/25/2014 - 5:30pm troyb