



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](http://www.miamidade.gov/economy)

**Construction Specialties, Inc.**  
**49 Meeker Avenue**  
**Cranford, NJ 07016**

**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 DC-9614 Aluminum Louver**

**APPROVAL DOCUMENT:** Drawing No. **RD-1457**, titled "DC-9614 Submittal Drawings", sheets 1 through 13 of 13, dated 11/20/2015, with revision 2 dated 05/12/2021, prepared by Construction Specialties, Inc., signed and sealed by Wayne K. Helmila, P.E. on 08/27/2021, 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, Del Rio, TX, model/ series, and following statement: "Miami-Dade County Product Control Approved", unless otherwise noted herein.

**LIMITATION:** This louver has not been evaluated for compliance with the impact testing standard ANSI/AMCA 540.

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

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

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

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

This NOA **renews** and **revises** **NOA # 17-1218.26** and consists of this page 1 and evidence pages E-1, E-2 and E-3, as well as approval document mentioned above.

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



**NOA No. 20-1222.13**  
**Expiration Date: July 28, 2026**  
**Approval Date: October 21, 2021**  
Page 1

**NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED**

**1. EVIDENCE SUBMITTED UNDER PREVIOUS NOA's**

**A. DRAWINGS “Submitted under NOA # 16-1129.08”**

1. Drawing No. **RD-1457**, titled “DC-9614 Submittal Drawings”, sheets 1 through 13 of 13, dated 11/20/2015, with revision **1** dated 11/21/2016, prepared by Construction Specialties, Inc., signed and sealed by L. David Rice, P.E.

**B. TESTS “Submitted under NOA # 16-0222.04”**

1. Test reports on 1) Uniform Static Air Pressure Test, Loading per FBC TAS 202-94  
2) Large Missile Impact Test per FBC, TAS 201-94  
3) Cyclic Wind Pressure Loading per FBC, TAS 203-94  
along with marked-up drawings and installation diagram of DC-9614 Aluminum Louvers, prepared by Intertek/Architectural Testing, Inc., Report No. **F1331.01-109-18**, dated 12/21/2015, signed and sealed by Joseph A. Reed, P.E.
2. Test Report on High Velocity Wind Driven Rain Resistance per AMCA 550-09 of a Model DC-9614 Aluminum Louver, prepared by Intertek/Architectural Testing, Inc, Test Report No. **E4141.02-602-44**, dated 01/14/2015, with revision **2** dated 06/26/2015, signed and sealed by Joseph A. Reed, P.E.

**C. CALCULATIONS “Submitted under NOA # 16-0222.04”**

1. Anchor and structural calculations prepared by Rice Engineering, dated 02/11/2016, signed and sealed by L. David Rice, 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 # 16-0222.04”**

1. Statement letter of code conformance to the 5<sup>th</sup> edition (2014) FBC issued by Rice Engineering, dated 02/11/2015, signed and sealed by L. David Rice, P.E.
2. Statement letter of no financial interest issued by Rice Engineering, dated 02/11/2015, signed and sealed by L. David Rice, P.E.



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**Carlos M. Utrera, P.E.**  
**Product Control Examiner**  
**NOA No. 20-1222.13**  
**Expiration Date: July 28, 2026**  
**Approval Date: October 21, 2021**

**NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED**

**2. EVIDENCE SUBMITTED UNDER NOA # 17-1218.26**

**A. DRAWINGS**

1. None.

**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 6<sup>th</sup> Edition (2017) FBC issued by Rice Engineering, dated 11/29/2017, signed and sealed by Wayne K. Helmila, P.E.
2. Statement letters of no financial interest issued by Rice Engineering, dated 01/20/2018, signed and sealed by Wayne K. Helmila, P.E.



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**Product Control Examiner**  
**NOA No. 20-1222.13**  
**Expiration Date: July 28, 2026**  
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**NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED**

**3. NEW EVIDENCE SUBMITTED**

**A. DRAWINGS**

1. Drawing No. **RD-1457**, titled “DC-9614 Submittal Drawings”, sheets 1 through 13 of 13, dated 11/20/2015, with revision 2 dated 05/12/2021, prepared by Construction Specialties, Inc., signed and sealed by Wayne K. Helmila, P.E. on 08/27/2021.

**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.

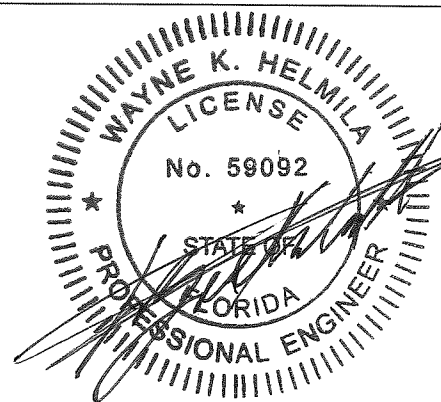
**F. STATEMENTS**

1. Statement letter of code conformance to the 7<sup>th</sup> Edition (2020) of the FBC issued by Rice Engineering, dated 11/11/2020, signed and sealed by Wayne K. Helmila, P.E.
2. Statement letter of no financial interest issued by Rice Engineering, dated 11/11/2020, signed and sealed by Wayne K. Helmila, P.E.

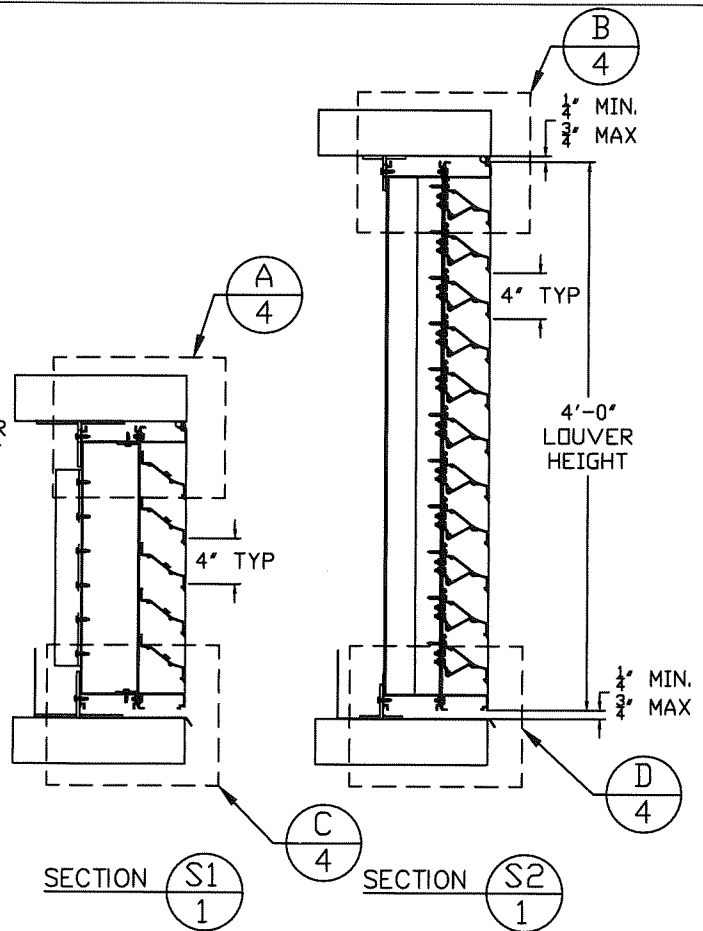
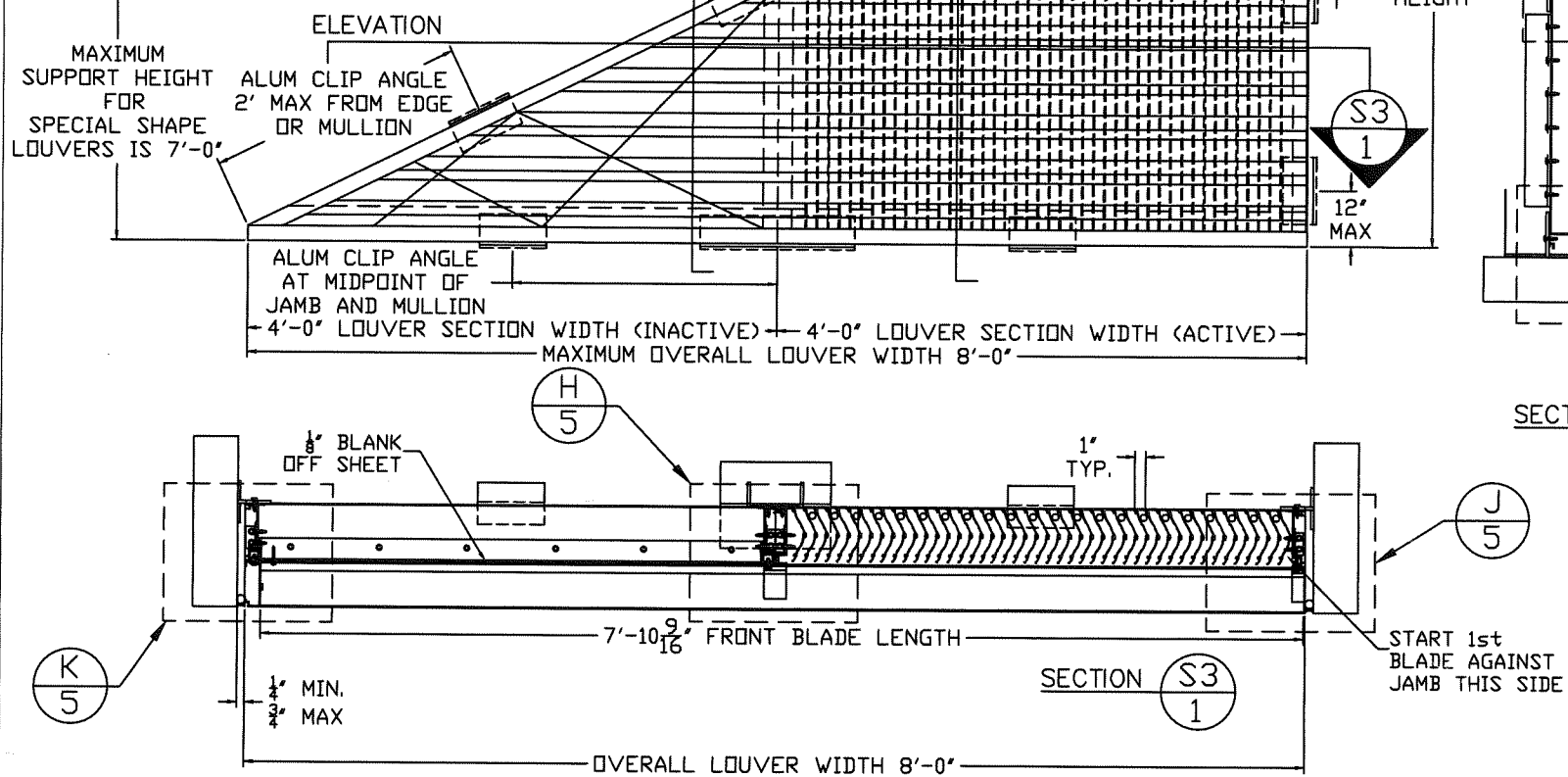


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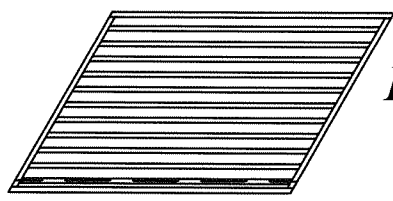


AUG 27 2021



SPECIMEN 1 +/- 160 PSF

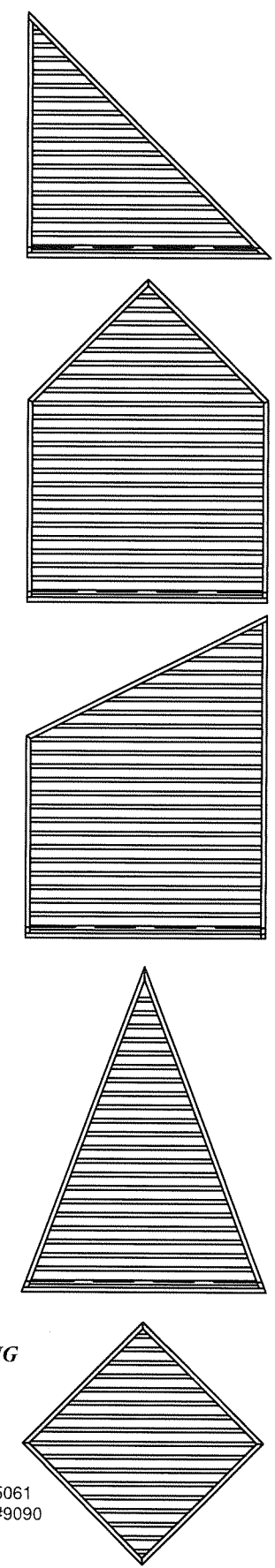
**PRODUCT REVISED**  
 as complying with the Florida  
 Building Code  
 NOA-No. 20-1222.13  
 Expiration Date 07/28/2026  
 By *[Signature]*  
 Miami-Dade Product Control



**RICE**  
 ENGINEERING

105 School Creek Trail  
 Luxemburg, WI 54217  
 Phone: (920) 617-1042  
 Fax: (920) 617-1100  
 www.rice-inc.com  
 Florida Firm No: F-01000005061  
 Certificate of Authorization: #9090  
 Wayne K. Helmila  
 Registration No: 59092

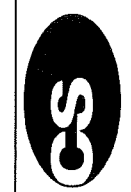
EXAMPLES OF SPECIAL SHAPES AVAILABLE  
 (NO ROUND OR CIRCULAR FRAMES PERMITTED.)



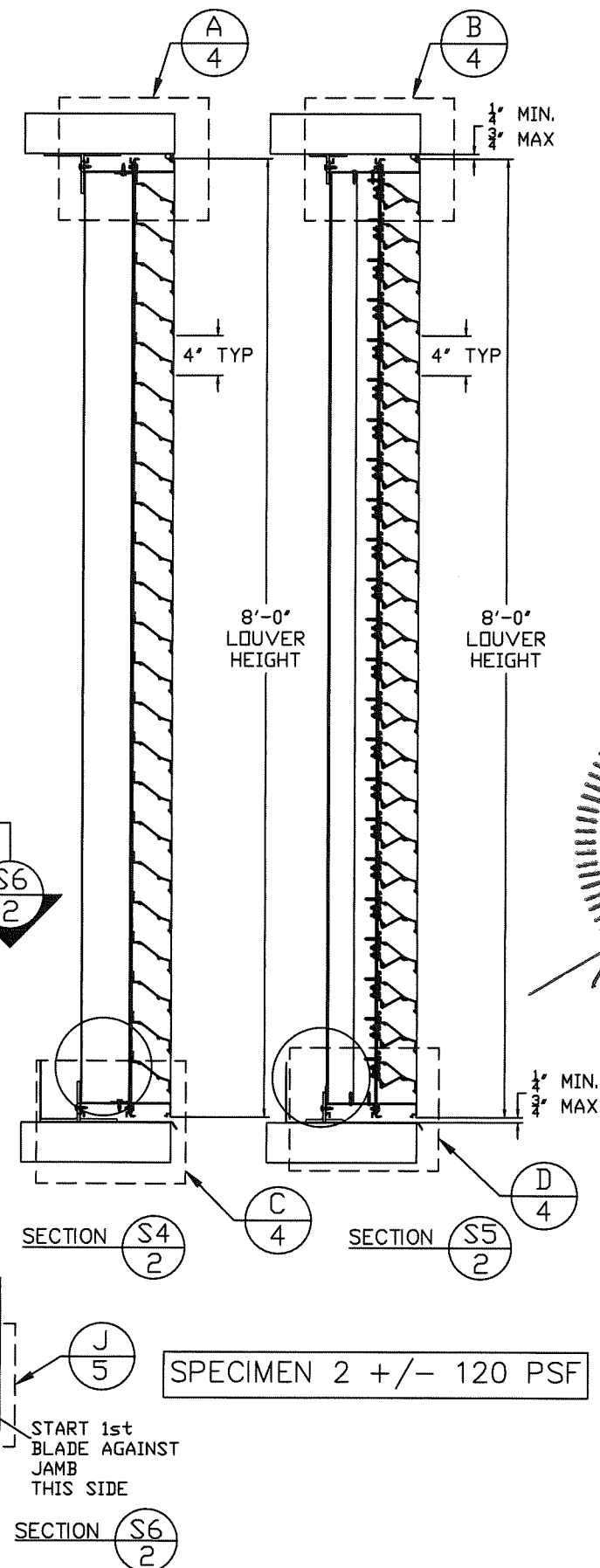
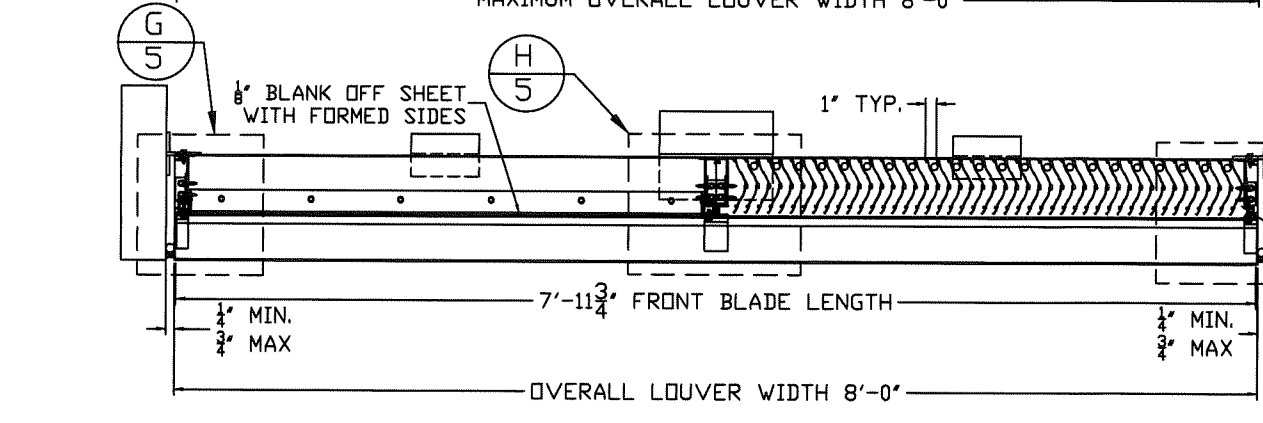
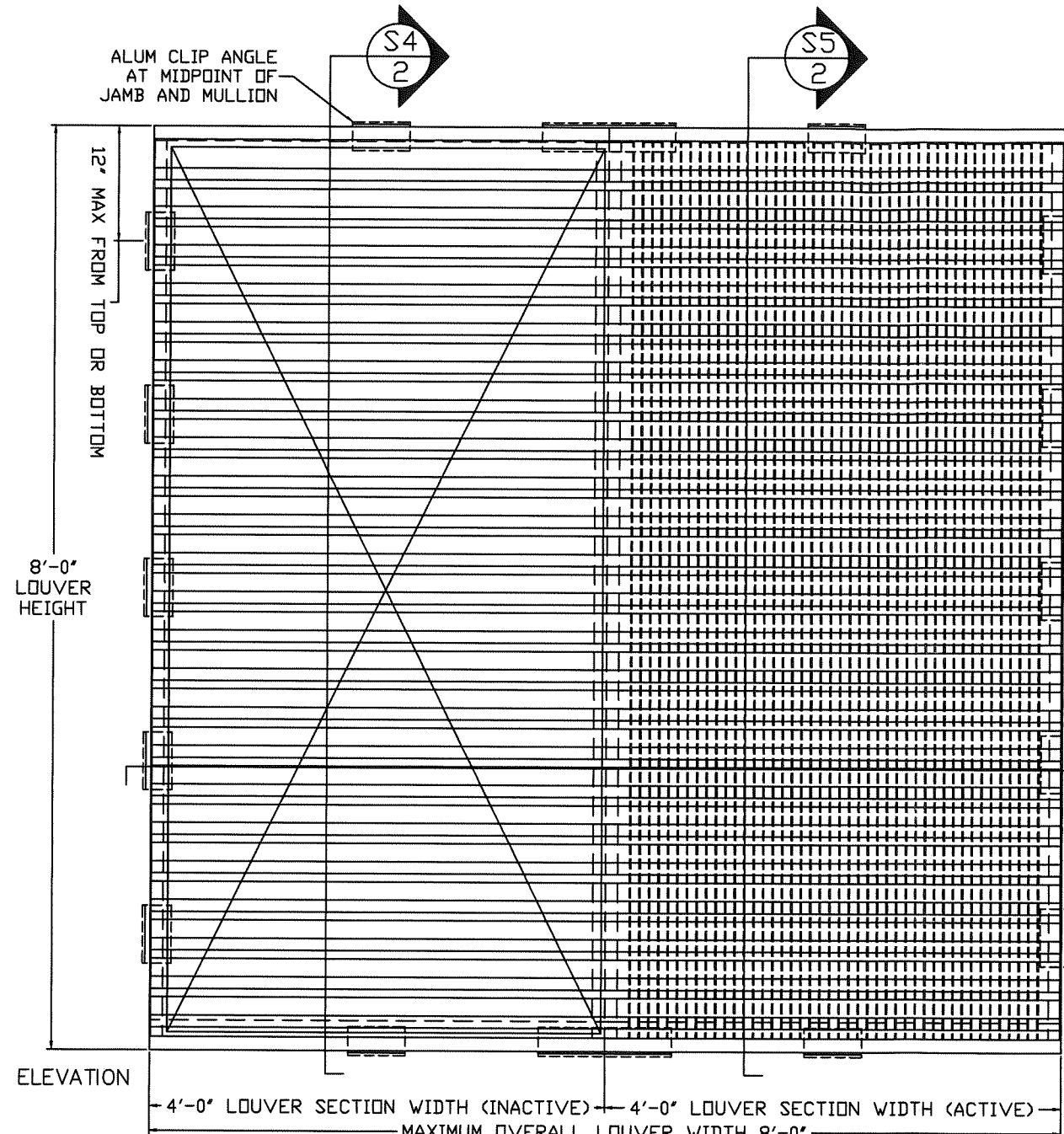
- 1) It shall be the responsibility of the Structural Engineer of Record to verify the capacity of the structure to support the loads imposed by the louvers.
- 2) These louvers have been designed according to the Florida Building Code and the Aluminum Design Manual. They are tested in accordance with Dade County protocols TAS 201, TAS 202 and TAS 203.
- 3) All fasteners shall be Series 300, condition CW Fy = 65 ksi, Fu = 110 ksi minimum, except the fasteners specified in note 12 of this sheet 1 as "Head, sill and jambs are constructed of extruded aluminum. The corners are coped and butted, secured with (2) #8 x 1-1/2" screws at each corner".
- 4) All block grout substrate shall be designed by others (1500 PSI, ASTM C90, Type II with min. 2000 PSI Grout).
- 5) Section widths and heights are limited as shown in elevations and details.
- 6) The louver may be installed in a location where the room behind the louver is NOT DESIGNED to drain water penetrating into the room and the room will house non waterproof or non water resistant equipment, components or supplies.
- 7) Each fastener used must be detailed on the drawing and verified on the NOA.
- 8) Separation of unpainted aluminum and dissimilar materials per Aluminum Design Manual to be maintained by the installer.
- 10) This louver system has been tested, analyzed and approved for design pressures up to and including +/-160 PSF and +/- 120 PSF as noted in this drawing package.
- 11) Stack sections horizontally to an unlimited opening width.
- 12) Louver Construction - Head, sill and jambs are constructed of extruded aluminum. The corners are coped and butted, secured with (2) #8 x 1 1/2" screws at each corner, through the sill into the jambs and through the head into the jambs. The jambs are also secured to the head and sill with a 1"x1 1/2"x3/8"x2"LG alum. angle with (4)1/4-14x1"LG SS HH TEK Screws. The rear blades are secured to the head and sill using (2) #8 x 1 1/2" hex head screws. Front blades are secured using a blade brace, and then a #12x2"LG SS HH TEK Screw (field installed) through the top of the blade at each blade end. For special shape louvers, louvers are supplied with front blades shop attached and welded.
- 13) These louvers have been designed and tested in accordance with AMCA 550 Test Method for High Velocity Wind Driven Rain Resistant Louvers. Minimum section size to be 16" x 16". AMCA 550 only applies to square/rectangular louvers. Silicone sealant is required to seal louvers into opening based on testing in accordance with AMCA 550. Per the testing to AMCA 550, a sill pan is required on all louvers and to be a minimum of 6" tall.
- 14) A horizontal rod and tube spacer is used on the rear blades if the section height is greater than 96".
- 15) For louver areas requiring intake or exhaust airflow (active), both front and rear blades must be used. For all other areas where no airflow is required (inactive) a fully blanked off louver section can be supplied using the 1/8" aluminum blank off sheet with formed sides.

PROJECT: DC-9614 SUBMITTAL DRAWINGS	REVISION: 2	05-12-21
TITLE: SPECIMEN 1 AND AVAILABLE SPECIAL SHAPES	DATE: 11-20-15	
SCALE: 3/4" = 1'-0"	SHEET: 1 OF 13	
DRW BY: R. GEIST	DRW NO: RD-1457	

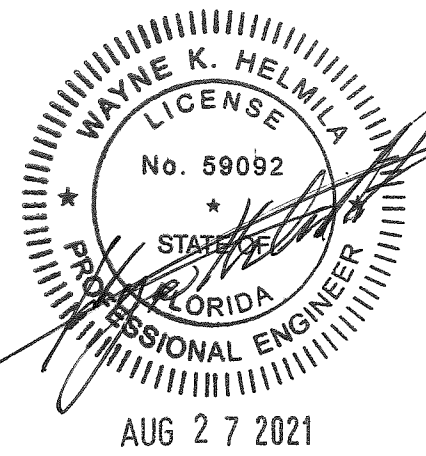
**Construction Specialties™**  
 49 MEEKER AVENUE, CRANFORD, NEW JERSEY  
 PHONE: 1-800-651-7379 / FAX: 908-272-5844







**RICE**  
**ENGINEERING**  
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 www.rice-inc.com  
 Florida Firm No: F-0100005061  
 Certificate of Authorization: #9090  
 Wayne K. Helmila  
 Registration No: 59092



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SPECIMEN 2 +/- 120 PSF

REVISION: 2	05-12-21
DATE: 11-20-15	
SHEET: 2 OF 13	
DRW NO: RD-1457	
PROJECT: DC-9614, SUBMITTAL DRAWINGS	
TITLE: SPECIMEN 2	
SCALE: 3/4" = 1'-0"	
DRW BY: R. GEIST	

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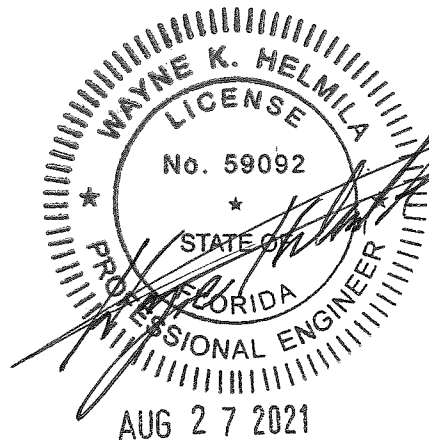


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NOA-No. 20-1222.13

Expiration Date 07/28/2026

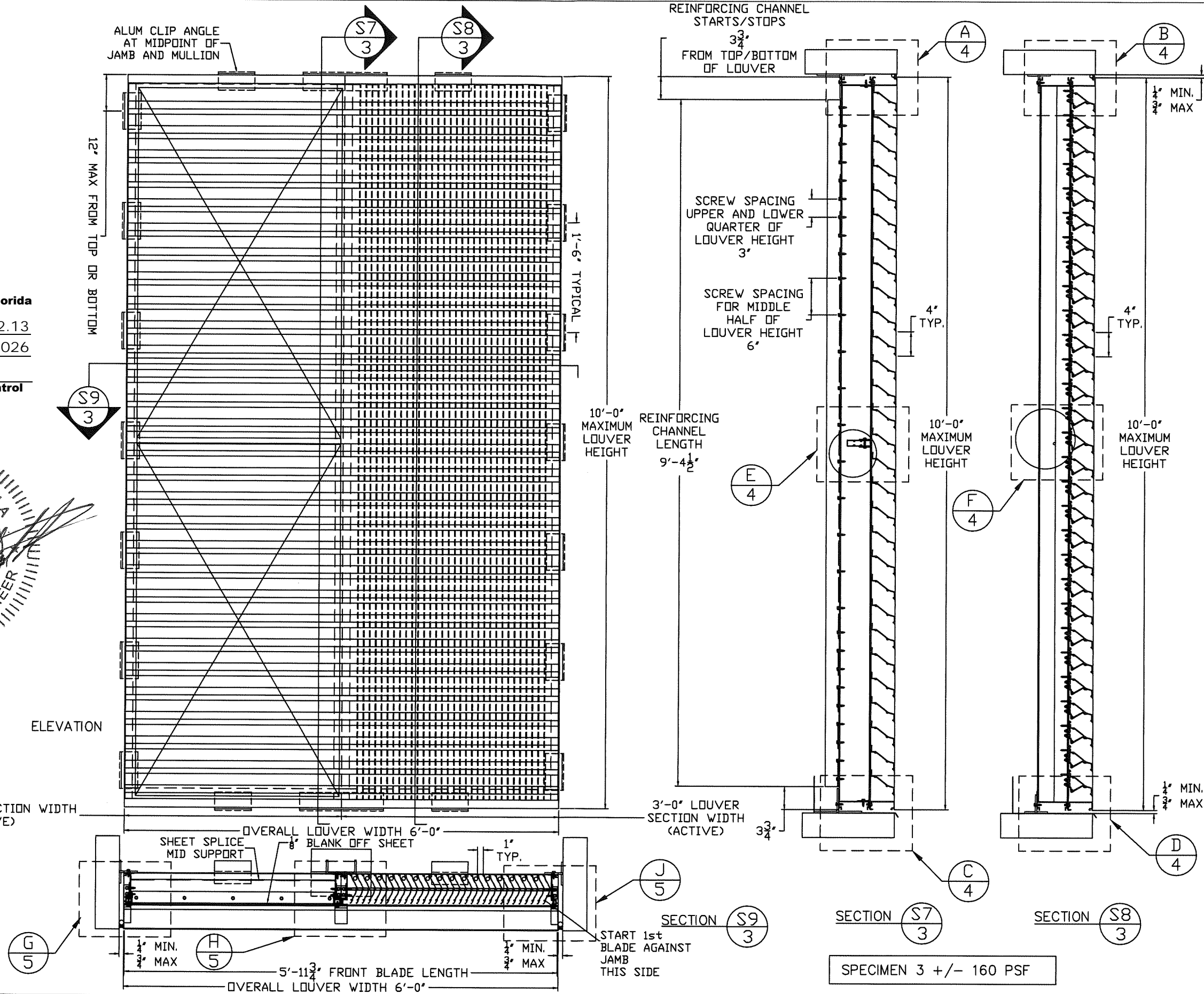
By *[Signature]*  
Miami-Dade Product Control



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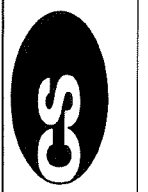
105 School Creek Trail  
Luxemburg, WI 54217  
Phone: (920) 617-1042  
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www.rice-inc.com  
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Wayne K. Helmila  
Registration No: 59092

ELEVATION



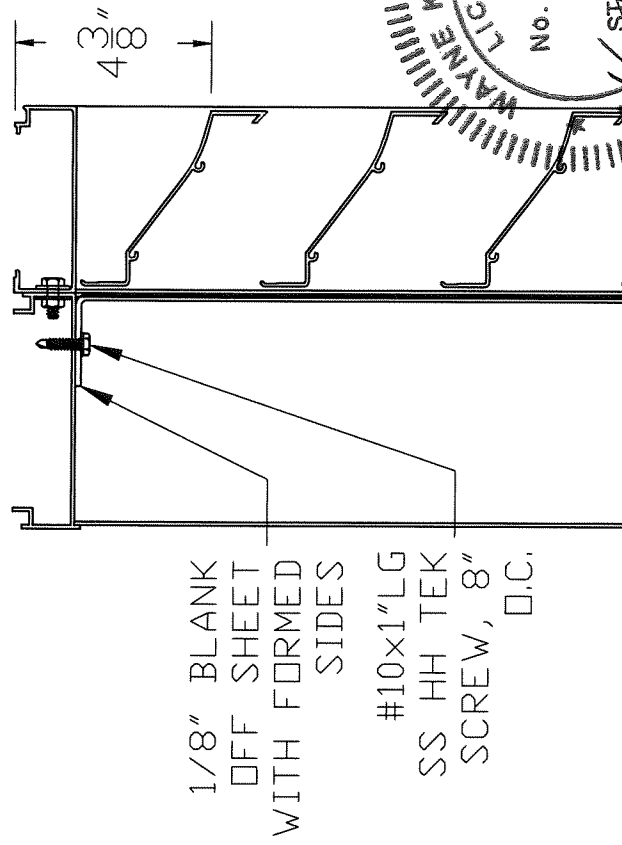
PROJECT: DC-9614 SUBMITTAL DRAWINGS	REVISION: 2	05-12-21
TITLE: SPECIMEN 3	DATE: 11-20-15	
SCALE: 3/4" = 1'-0"	SHEET: 3 OF 13	
DRW BY: R. GEIST	DRW NO: RD-1457	

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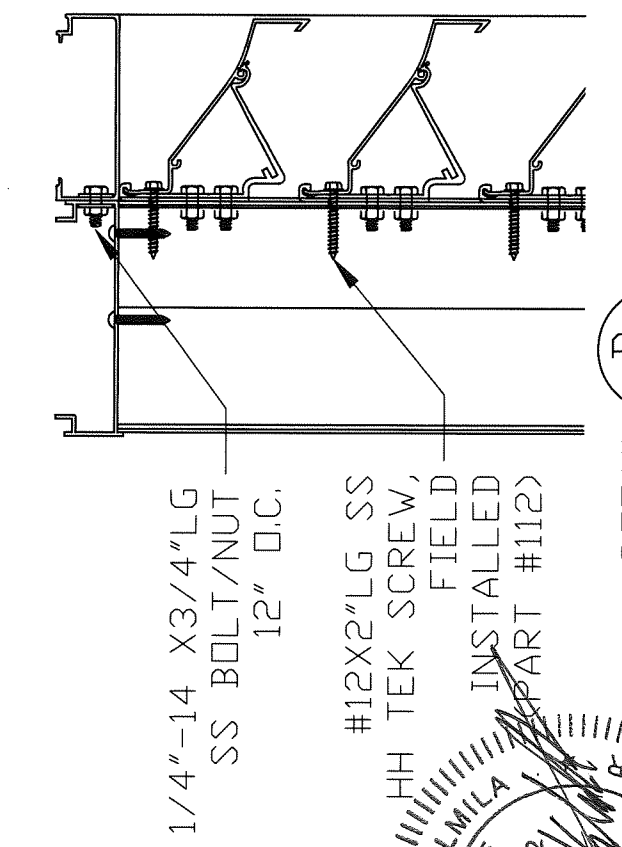
SPECIMEN 3 +/- 160 PSF





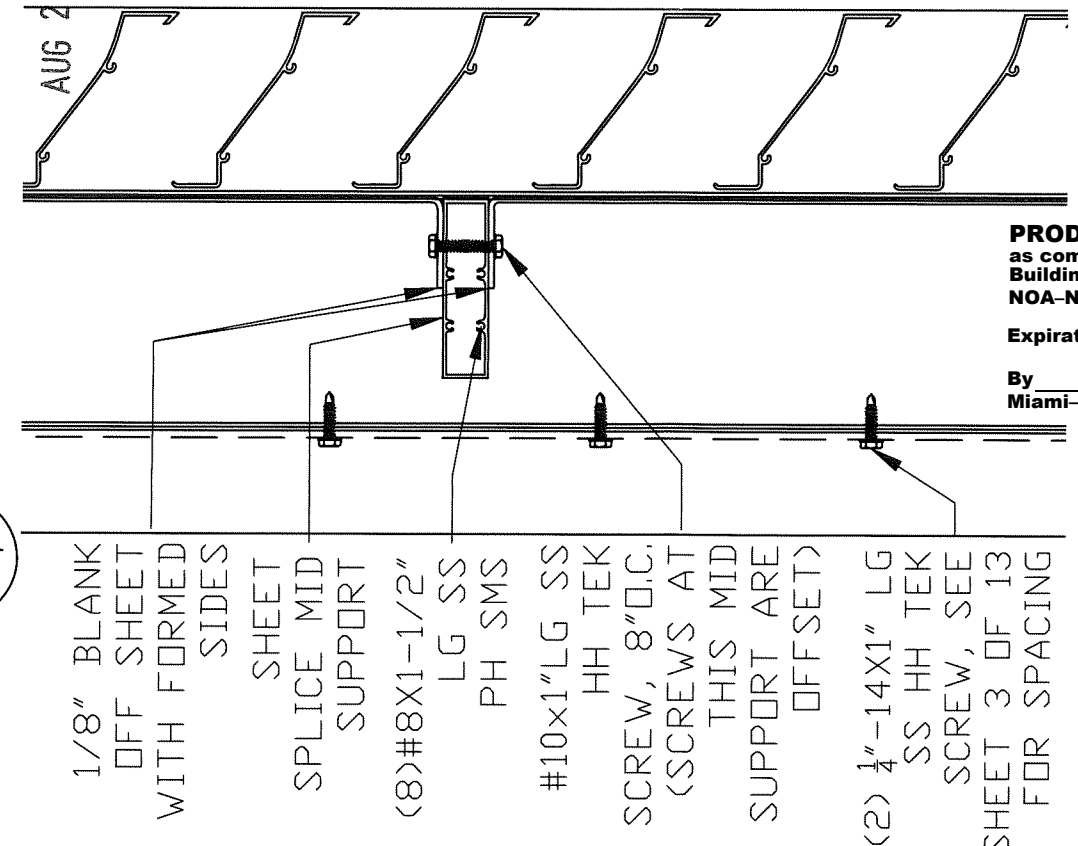
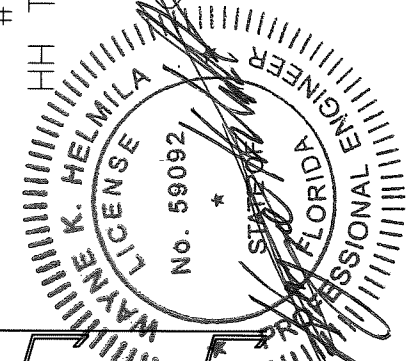
1/8" BLANK OFF SHEET WITH FORMED SIDES  
 #10x1" LG SS HH TEK SCREW, 8" D.C.

DETAIL A  
 4



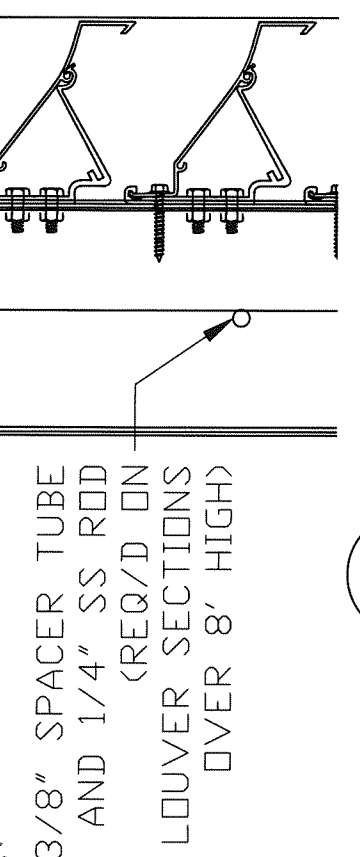
1/4"-14 X 3/4" LG SS BOLT/NUT 12" D.C.  
 #12X2" LG SS HH TEK SCREW, FIELD INSTALLED (PART #112)

DETAIL B  
 4



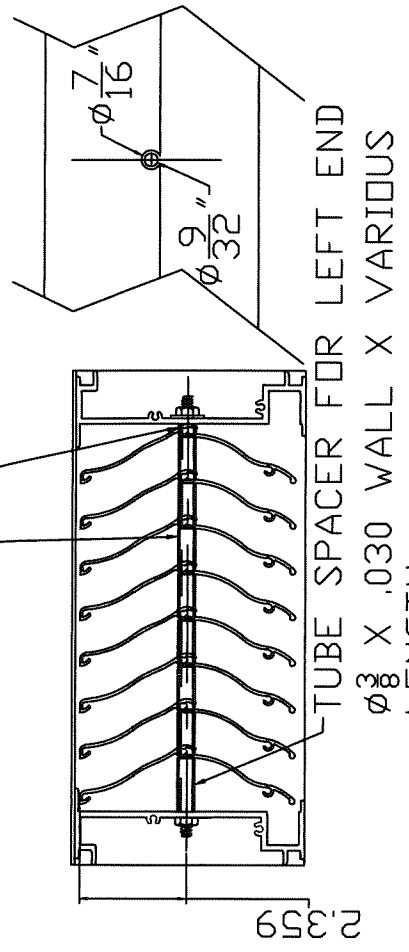
1/8" BLANK OFF SHEET WITH FORMED SIDES  
 SPLICE MID-SUPPORT (8)#8X1-1/2" LG SS PH SMS  
 #10x1" LG SS HH TEK SCREW, 8" D.C. (SCREWS AT THIS MID-SUPPORT ARE OFFSET)  
 (2) 1/4"-14X1" LG SS HH TEK SCREW, SEE SHEET 3 OF 13 FOR SPACING

DETAIL E  
 4

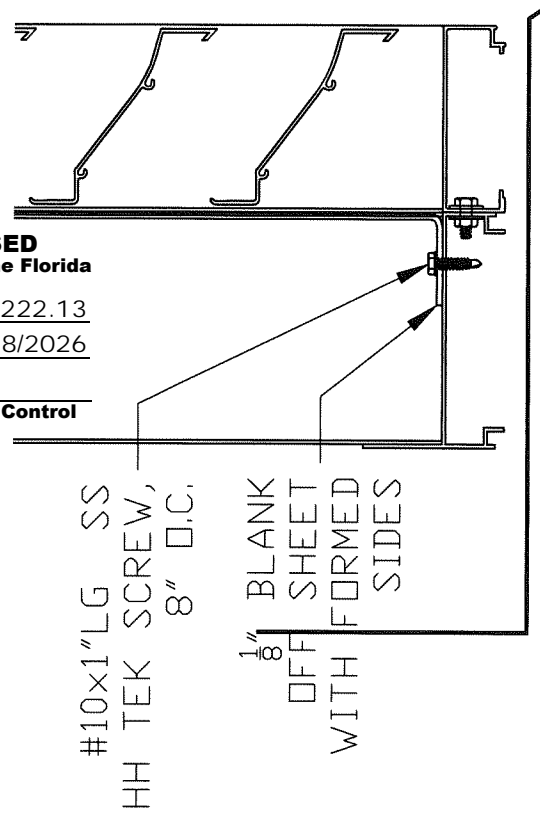


3/8" SPACER TUBE AND 1/4" SS ROD (REQ/D ON LOUVER SECTIONS OVER 8' HIGH)  
 TYP. TUBE SPACER 3/8" X .030 WALL X NOMINAL 15/16" LENGTH  
 MAKE-UP SPACER 3/8" X .030 WALL X NOMINAL 7/32" LENGTH

DETAIL F  
 4

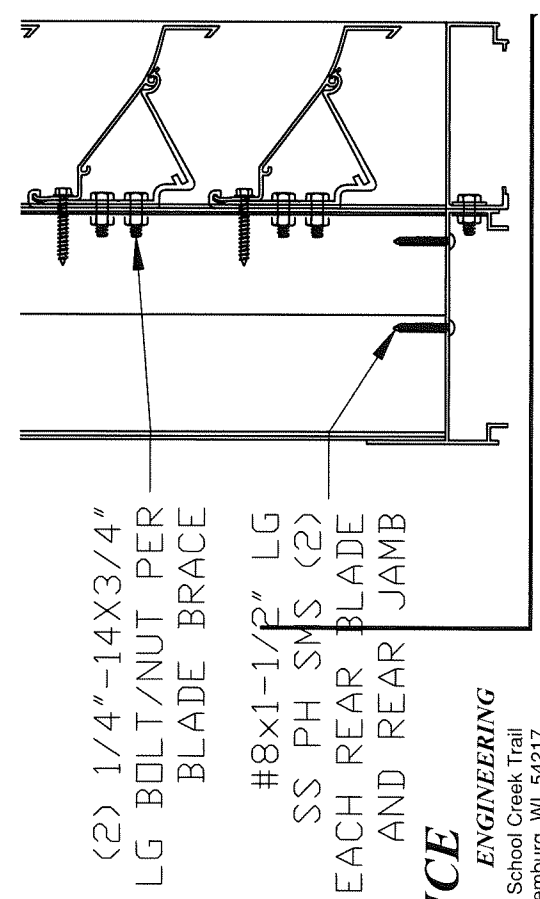


TUBE SPACER FOR LEFT END 3/8" X .030 WALL X VARIOUS LENGTH  
 3/8" SPACER TUBE AND 1/4" INCH SS ROD LAYOUT



#10x1" LG SS HH TEK SCREW, 8" D.C.  
 1/8" BLANK OFF SHEET WITH FORMED SIDES

DETAIL C  
 4



(2) 1/4"-14X3/4" LG BOLT/NUT PER BLADE BRACE  
 #8x1-1/2" LG SS PH SMS (2) EACH REAR BLADE AND REAR JAMB

DETAIL D  
 4

**PRODUCT REVISED**  
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 Miami-Dade Product Control

**RICE ENGINEERING**

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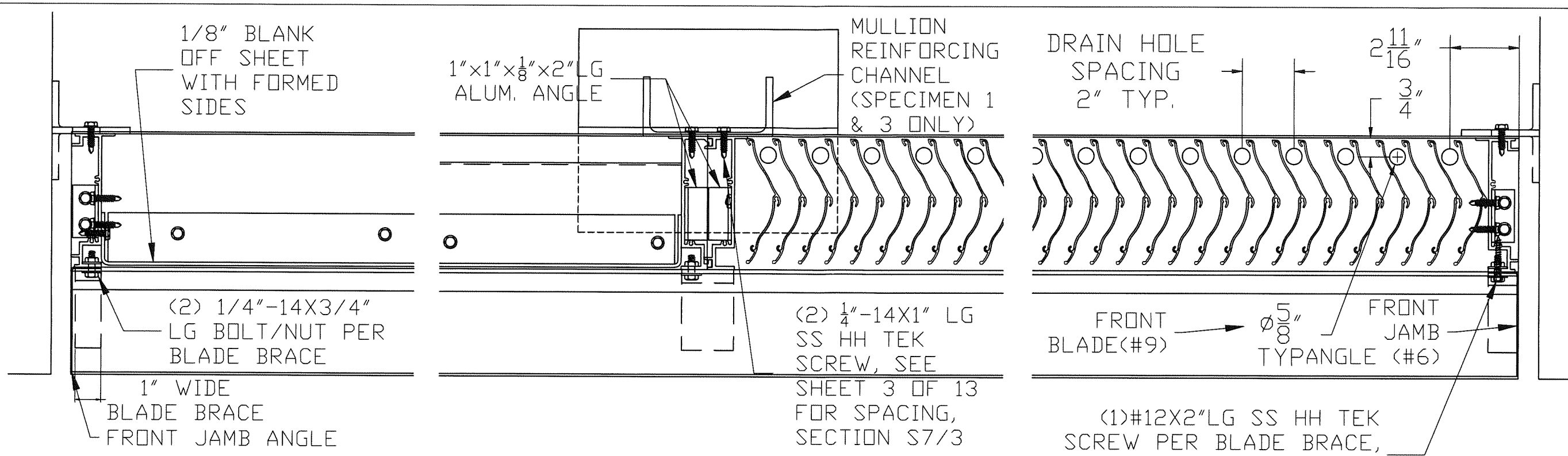
Florida Firm No: F-0100005061  
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 Wayne K. Helmila  
 Registration No: 59092



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PROJECT: DC-9614 SUBMITTAL DRAWINGS	REVISION: 2	05-12-21
TITLE: LOUVER ASSEMBLY DETAILS PART A	DATE: 11-20-15	
SCALE: 3" = 1'-0"	SHEET: 4 OF 13	
DRW BY: R. GEIST	DRW NO: RD-1457	





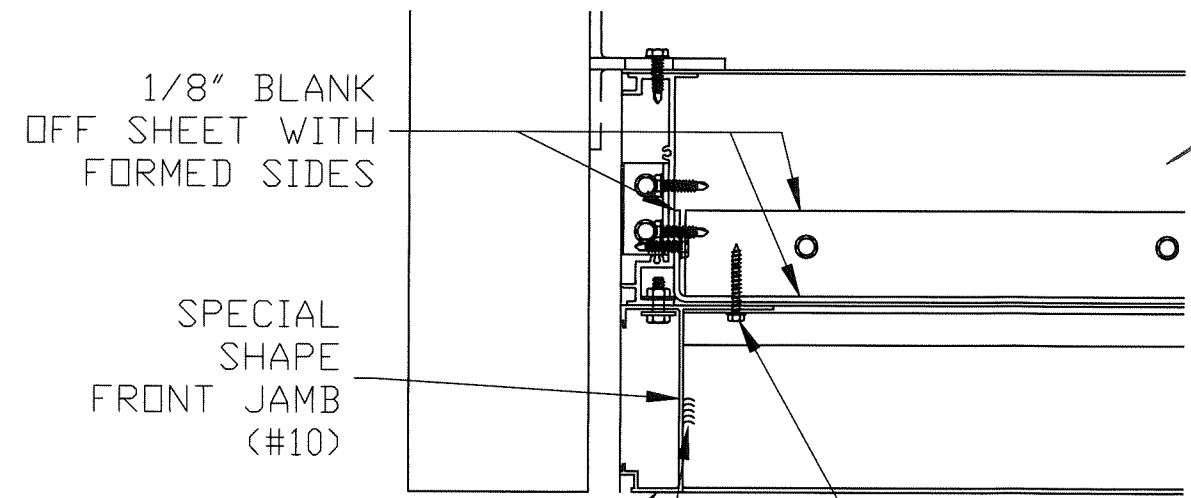
DETAIL G  
5

DETAIL H  
5

DETAIL J  
5

DETAIL K  
5

SPECIAL SHAPE LOUVERS ONLY

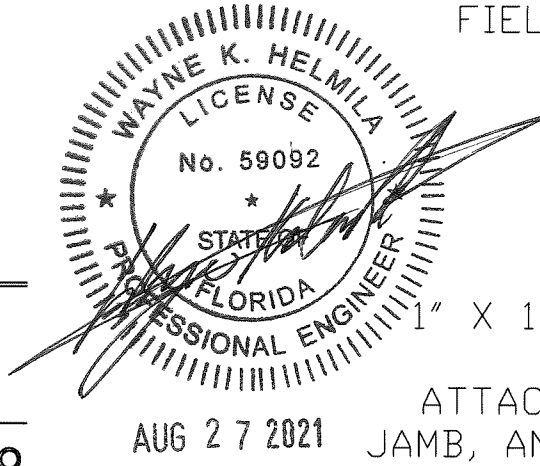


FOR "SHAPE" SIDE OF LOUVER, USE FULL FRONT HEAD EXTRUSION. DO NOT RIP LEG OFF OF EXTRUSION.

1/4"X1"LG SHOP WELD BLADE TO SPECIAL SHAPE JAMB

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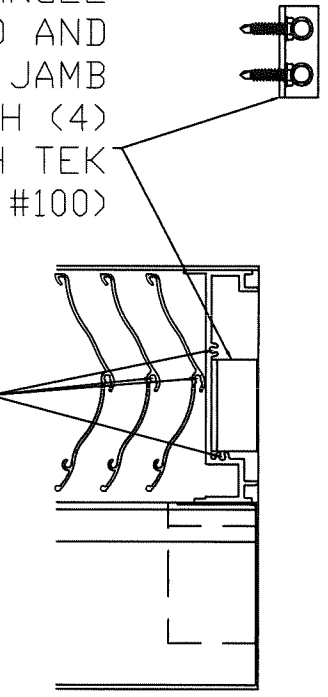


AUG 27 2021

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Expiration Date 07/28/2026  
By *[Signature]*  
Miami-Dade Product Control

1" X 1-1/2" X 1/8" X 2" LG ALUM ANGLE ATTACHED TO HEAD AND JAMB, AND SILL AND JAMB (SECURED WITH (4) 1/4"-14X1"LG SS HH TEK SCREW, ITEM #100)

#8 X 1-1/2" LG SS PH SMS FOR ASSEMBLING JAMBS AND BLADES TO HEAD AND SILL (REAR COMPONENTS ONLY)



PROJECT: DC-9614 SUBMITTAL DRAWINGS	REVISION: 2	05-12-21
TITLE: LOUVER ASSEMBLY DETAILS PART B	DATE: 11-20-15	
SCALE: 3" = 1'-0"	SHEET: 5 OF 13	
DRW BY: R. GEIST	RD-1457	

**Construction Specialties™**  
49 MEEKER AVENUE, CRANFORD, NEW JERSEY  
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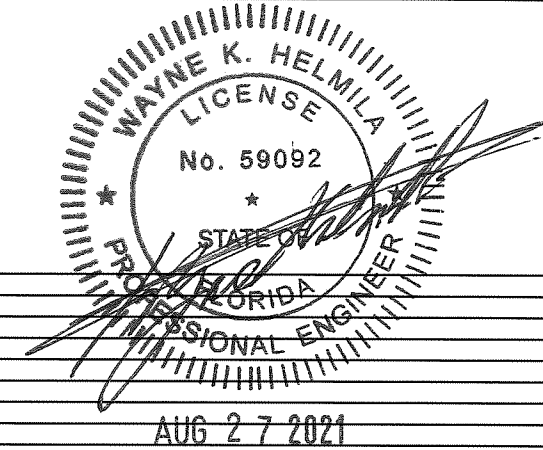


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1	REAR HEAD	6063-T6 ALUMINUM 0.080 THK
2	REAR SILL	6063-T6 ALUMINUM 0.080 THK
3	REAR JAMB/MULLION HALF	6063-T6 ALUMINUM 0.125 THK
4	REAR MULLION HALF	6063-T6 ALUMINUM 0.125 THK
5	FRONT HEAD AND SILL	6063-T6 ALUMINUM 0.080 THK
6	FRONT JAMB ANGLE	1-3/8"x4.077"x0.080" FORMED ALUMINUM ANGLE
7	FRONT BLADE BRACE	6063-T6 ALUMINUM - 1" WIDE AT JAMBS, 2" WIDE AT MULLIONS
8	REAR BLADE	6063-T6 ALUMINUM 0.060 THK
9	FRONT BLADE	6063-T6 ALUMINUM 0.068 THK
10	SPECIAL SHAPE FRONT JAMB	6063-T6 ALUMINUM 0.080 THK
11	MULLION REINFORCING CHANNEL	5" X 2.212# ALUMINUM ASSOCIATION CHANNEL 6061-T6
12	SHEET SPLICE MID SUPPORT	6063-T6 ALUMINUM EXTRUSION TUBE 0.068 MIN. THICKNESS
13	SHEET BLANK OFF	1/8" ALUMINUM SHEET BLANK OFF WITH 2" FORMED SIDES, 1/8" MINIMUM THICKNESS
14	ALUMINUM SILL PAN	0.050" ALUMINUM SILL PAN, 6" TALL MINIMUM
50	JAMB AND MID SPAN ALUM. CLIP ANGLE	3"x2"x1/4"x6" LG 6061-T6 ALUMINUM (WOOD SUBSTRATE)
51	ALUM. JAMB CLIP ANGLE	3"x2"x1/4"x4" LG 6061-T6 ALUMINUM (STRUCTURAL STEEL, CONCRETE AND CMU SUBSTRATES)
52	ALUM. JAMB SHELF ANGLE	6"x4"x3/8"x4-1/2" LG 6061-T6 ALUMINUM (CONCRETE SUBSTRATE)
53	ALUM. JAMB SHELF ANGLE	6"x4"x3/8"x10" LG 6061-T6 ALUMINUM (CMU SUBSTRATE)
54	ALUM. JAMB CLIP ANGLE	3"x2"x1/4"x4" LG 6061-T6 ALUMINUM (STEEL STUD AND ALUMINUM SUBSTRATES)
55	ALUM CLIP ANGLE (MID-SPAN JAMB TO MULLION)	3"x2"x1/4"x6" LG 6061-T6 ALUMINUM (STEEL STUD SUBSTRATE)
56	ALUM CLIP ANGLE (MID-SPAN JAMB TO MULLION)	3"x2"x1/4"x6" LG 6061-T6 ALUMINUM (STRUCTURAL STEEL AND CMU SUBSTRATE)
57	ALUM CLIP ANGLE (MID-SPAN JAMB TO MULLION)	3"x3"x1/4"x6" LG 6061-T6 ALUMINUM (CONCRETE SUBSTRATE)
58	ALUM. SHELF ANGLE (MID-SPAN JAMB TO MULLION)	6"x4"x3/8"x6" LG 6061-T6 ALUMINUM (CONCRETE SUBSTRATE)
59	ALUM. SHELF ANGLE (MID-SPAN JAMB TO MULLION)	6"x6"x3/8"x10" LG 6061-T6 ALUMINUM (CMU SUBSTRATE)
60	ALUM CLIP ANGLE (MID-SPAN JAMB TO MULLION)	3"x2"x1/4"x6" LG 6061-T6 ALUMINUM (ALUMINUM SUBSTRATE)
61	ALUM CLIP ANGLE (MID-SPAN JAMB TO MULLION)	6"x4"x3/8"x4" LG 6061-T6 ALUMINUM (CONCRETE SUBSTRATE)
63	ALUM. MULLION CLIP ANGLE	4"x4"x1/4"x11" LG 6061-T6 ALUMINUM (STEEL STUD SUBSTRATE)
64	ALUM. MULLION CLIP ANGLE	4"x4"x1/4"x11" LG 6061-T6 ALUMINUM (STRUCTURAL STEEL SUBSTRATE)
65	ALUM. MULLION CLIP ANGLE	4"x4"x1/4"x11" LG 6061-T6 ALUMINUM (CONCRETE SUBSTRATE)
66	ALUM. MULLION SHELF ANGLE	6"x4"x3/8"x27" LG 6061-T6 ALUMINUM (CONCRETE SUBSTRATE)
67	ALUM. MULLION CLIP ANGLE	4"x4"x1/4"x20" LG 6061-T6 ALUMINUM (CMU SUBSTRATE)
68	ALUM. MULLION SHELF ANGLE	8"x6"x5/8"x34" LG 6061-T6 ALUMINUM (CMU SUBSTRATE)
69	ALUM. MULLION CLIP ANGLE	4"x4"x1/4"x20" LG 6061-T6 ALUMINUM (WOOD SUBSTRATE)
70	ALUM. MULLION CLIP ANGLE	4"x4"x1/4"x11" LG 6061-T6 ALUMINUM (ALUMINUM SUBSTRATE)
71	ALUM. MULLION CLIP ANGLE	6"x4"x3/8"x20" LG 6061-T6 ALUMINUM (CONCRETE SUBSTRATE)
80	STEEL STUD	16 GA MINIMUM GALVANIZED STRUCTURAL STEEL STUD, Fy=33Ksi
81	STRUCTURAL STEEL	1/8" THK MIN. (ASTM A36)
82	ALUMINUM	1/8" THK. MIN (6063-T5)
83	CONCRETE	4000 LB MIN. CONCRETE - CRACKED, NORMAL WEIGHT
84	CMU	GROUT FILLED CONCRETE MASONRY UNIT (1500 PSI, ASTM C90, TYPE II WITH MIN. 2000 PSI GROUT)
85	WOOD	G = 0.42 MINIMUM, SPRUCE PINE-FIR, 3" MIN. THICKNESS
100	1/4"-14 X 1" LG TEK SELF DRILLING SCREW	THREAD FORMING OR SELF DRILL S.S FOR ALUM. AND FOR STEEL
101	1/4"-14 X 1-1/2" LG SCREW	THREAD FORMING OR SELF DRILL S.S FOR ALUM. AND FOR STEEL
102	1/2" HILTI KWIK BOLT TZ	SS 304/316, EMBEDMENT MINIMUM OF 3-5/8"
103	1/2"x3" LAG SCREW	SS WOOD SCREW, MIN. EMBEDMENT 2-3/4", MIN EDGE/END DISTANCE 2" (PREDRILL HOLES @40-70% DIAMETER)
104	1/2" HILTI HIT-HY 70 HYBRID	ADHESIVE ANCHOR W/ASTM F593 CW 304/316 S.S. THREADED RODS, *ONLY ONE ANCHOR PER MASONRY CELL
105	1/2" HILTI KWIK BOLT TZ	SS 304/316, EMBEDMENT MINIMUM OF 2-3/8"
110	1/4"-14 X 1-1/2" LG (MIN) BOLT, NUT & WASHER	1/4 - 14 SS ALLOY GROUP 1, 2 OR 3 CONDITION CW NUT, BOLT AND LOCKWASHER
111	3/8"-12 X 1-1/2" LG (MIN) NUT AND BOLT	3/8 - 12 S.S. ALLOY GROUP 1, 2, OR 3 CONDITION CW WITH LOCK WASHER
112	#12 SELF DRILLING SCREW	#12-24 x 2" S.S. ELCO BIFLEX SELF DRILLING SCREW WITH NO 5 POINT

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\*ALL S.S FASTENERS SPECIFIED ON THIS SHEET MUST BE PROVIDED AS SERIES 300 S.S. CONDITION CW, Fy=65 ksi, Fu=110 ksi MINIMUM.

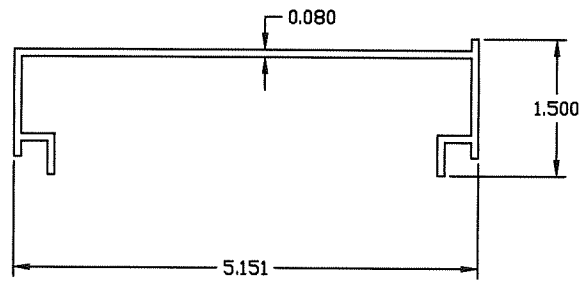


PROJECT: DC-96/4 SUBMITTAL DRAWINGS  
TITLE: PARTS LIST  
SCALE: 3" = 1'-0"  
DRW BY: R. GEIST

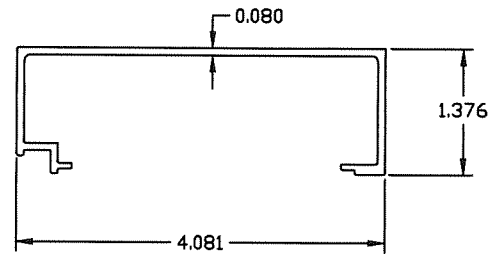
REVISION: 2 05-12-21  
DATE: 11-20-15  
SHEET: 6 OF 13  
DRW NO: RD-1457



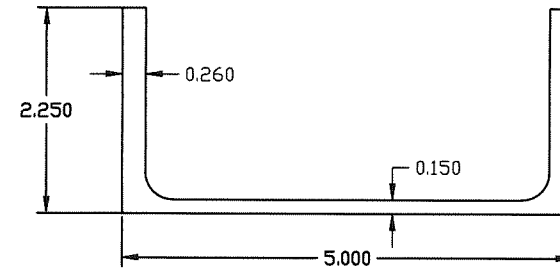
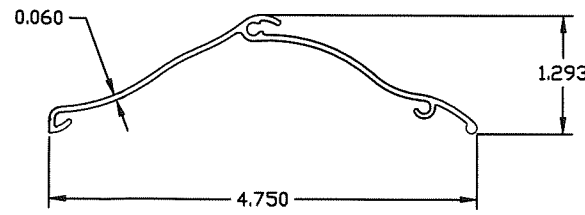
1 - REAR HEAD



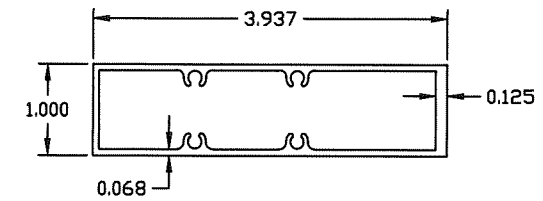
5 - FRONT HEAD & SILL



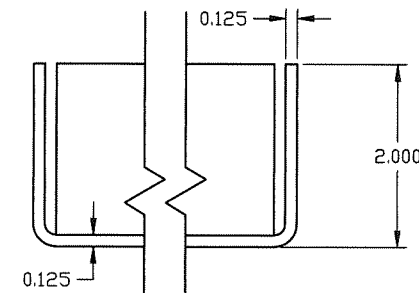
8 - REAR BLADE



11 - MULLION REINFORCING CHANNEL

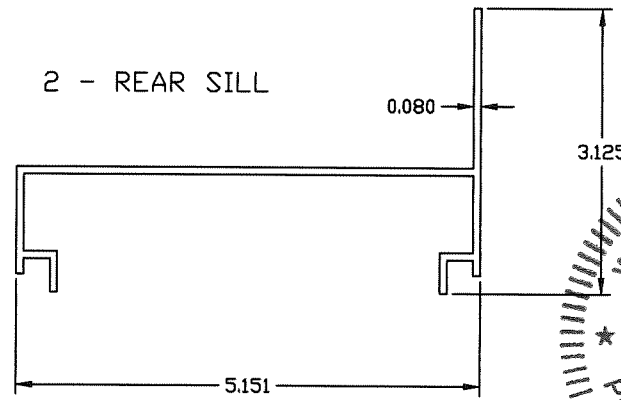


12 - SHEET SPLICE MID SUPPORT

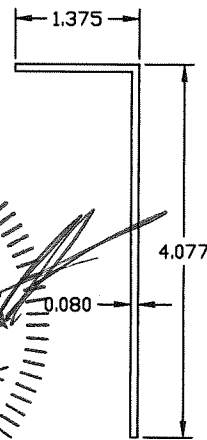


13 - SHEET BLANK OFF FOR INACTIVE LOUVERS

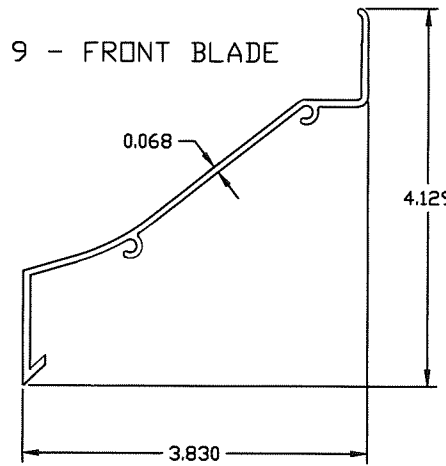
2 - REAR SILL



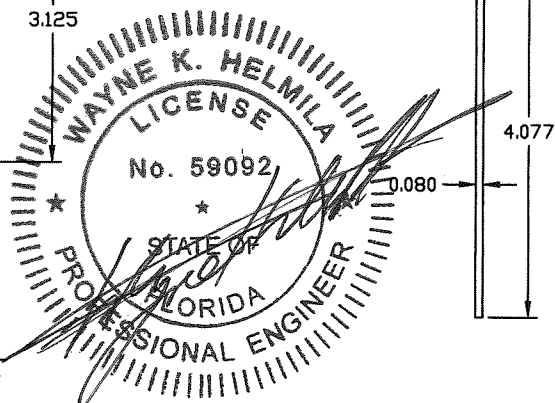
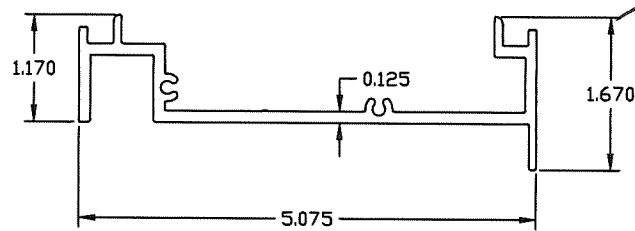
6 - FRONT JAMB ANGLE



9 - FRONT BLADE

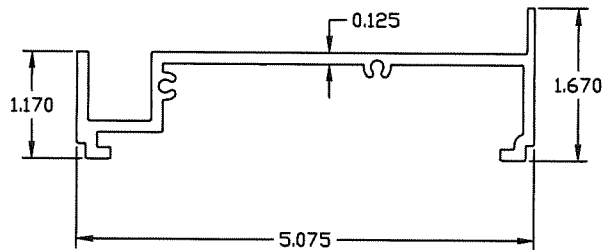


3 - REAR JAMB/MULLION HALF

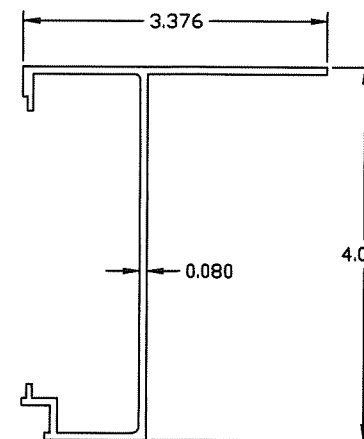
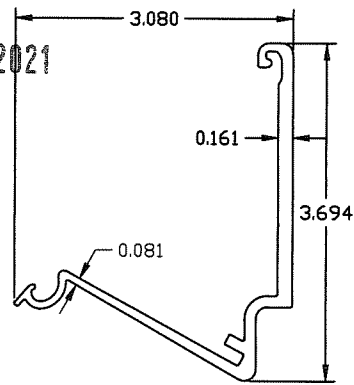


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4 - REAR MULLION HALF



7 - FRONT BLADE BRACE

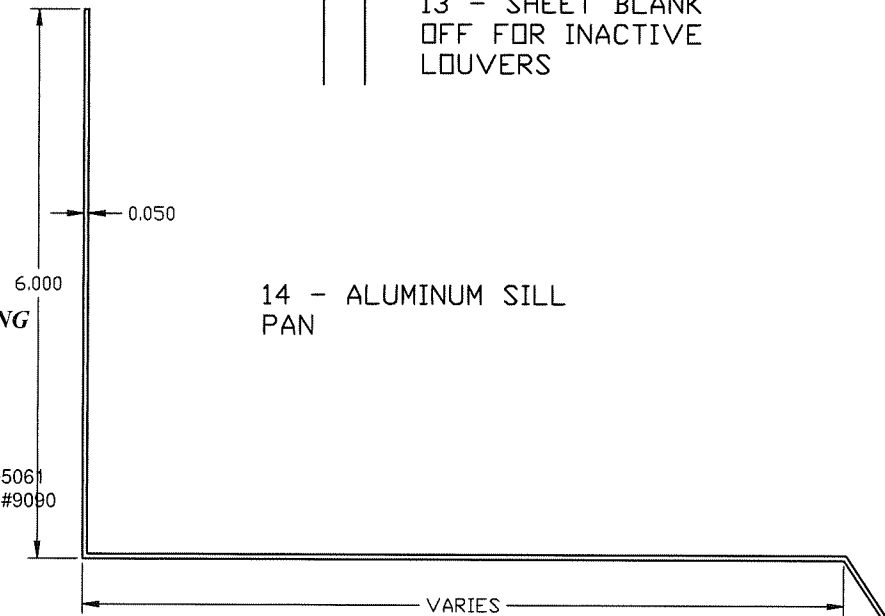


10 - SPECIAL SHAPE FRONT JAMB

**RICE ENGINEERING**

105 School Creek Trail  
Luxemburg, WI 54217  
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Fax: (920) 617-1100  
www.rice-inc.com

Florida Firm No: F-01000005061  
Certificate of Authorization: #9090  
Wayne K. Helmila  
Registration No: 59092



14 - ALUMINUM SILL PAN

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as complying with the Florida  
Building Code

NOA-No. 20-1222.13

Expiration Date 07/28/2026

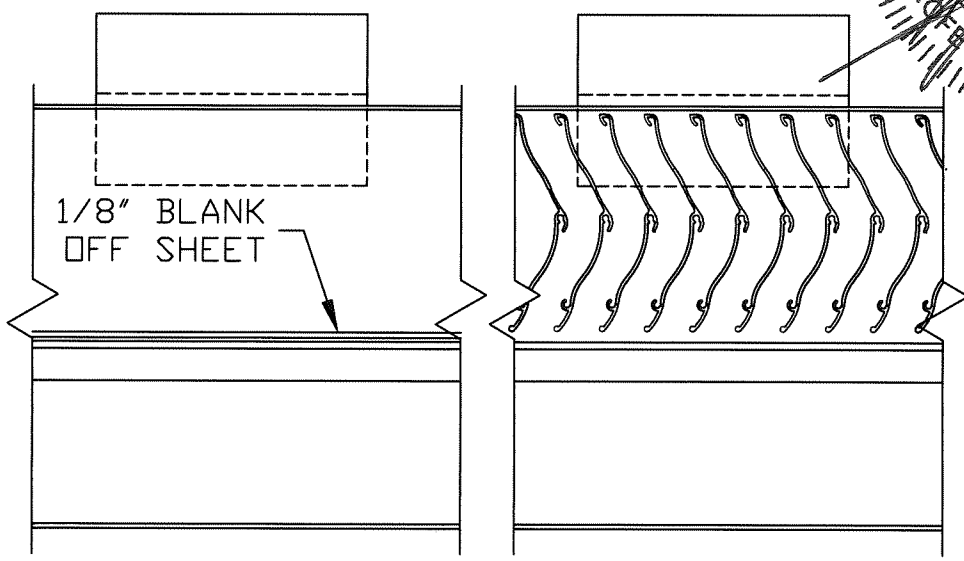
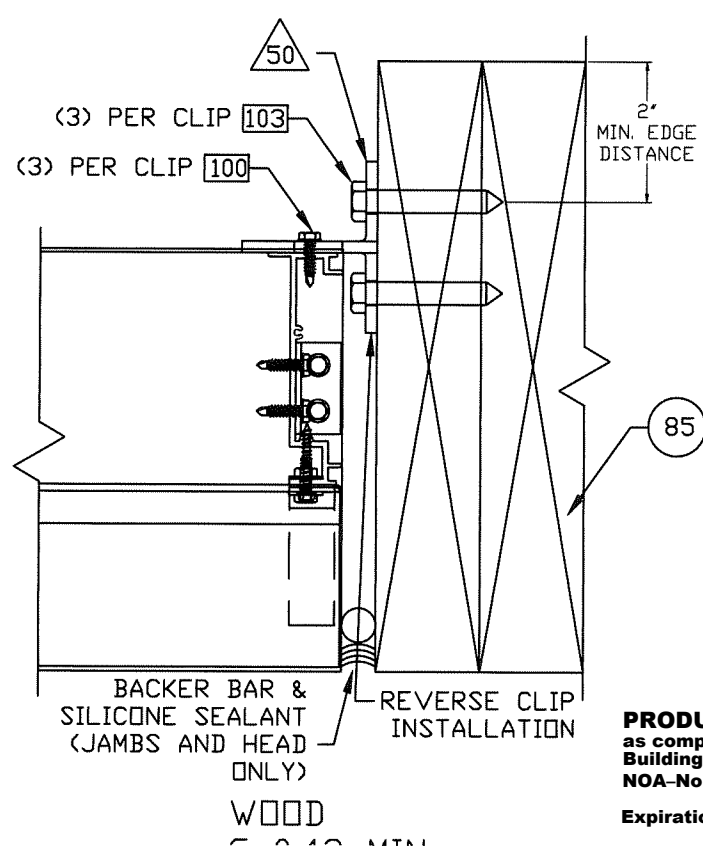
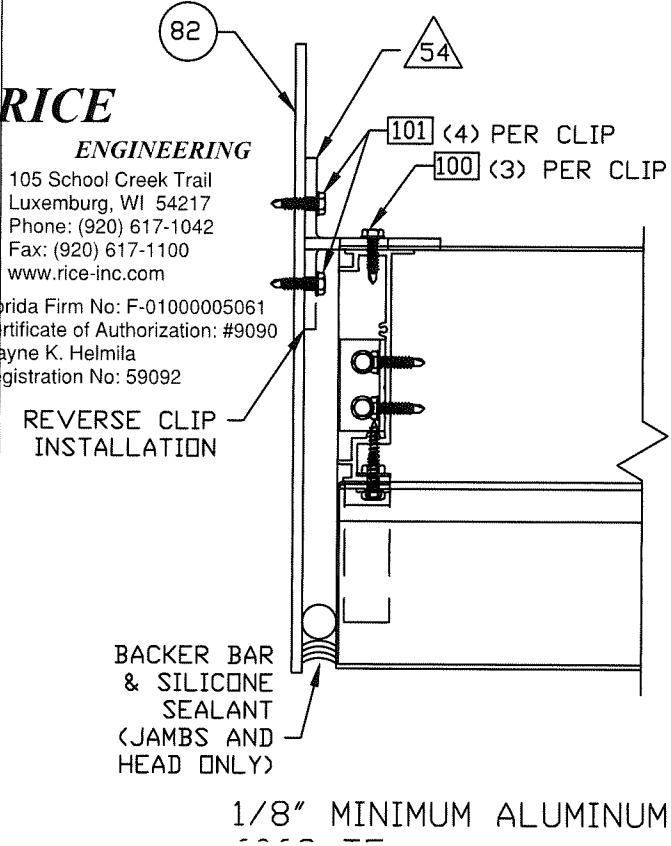
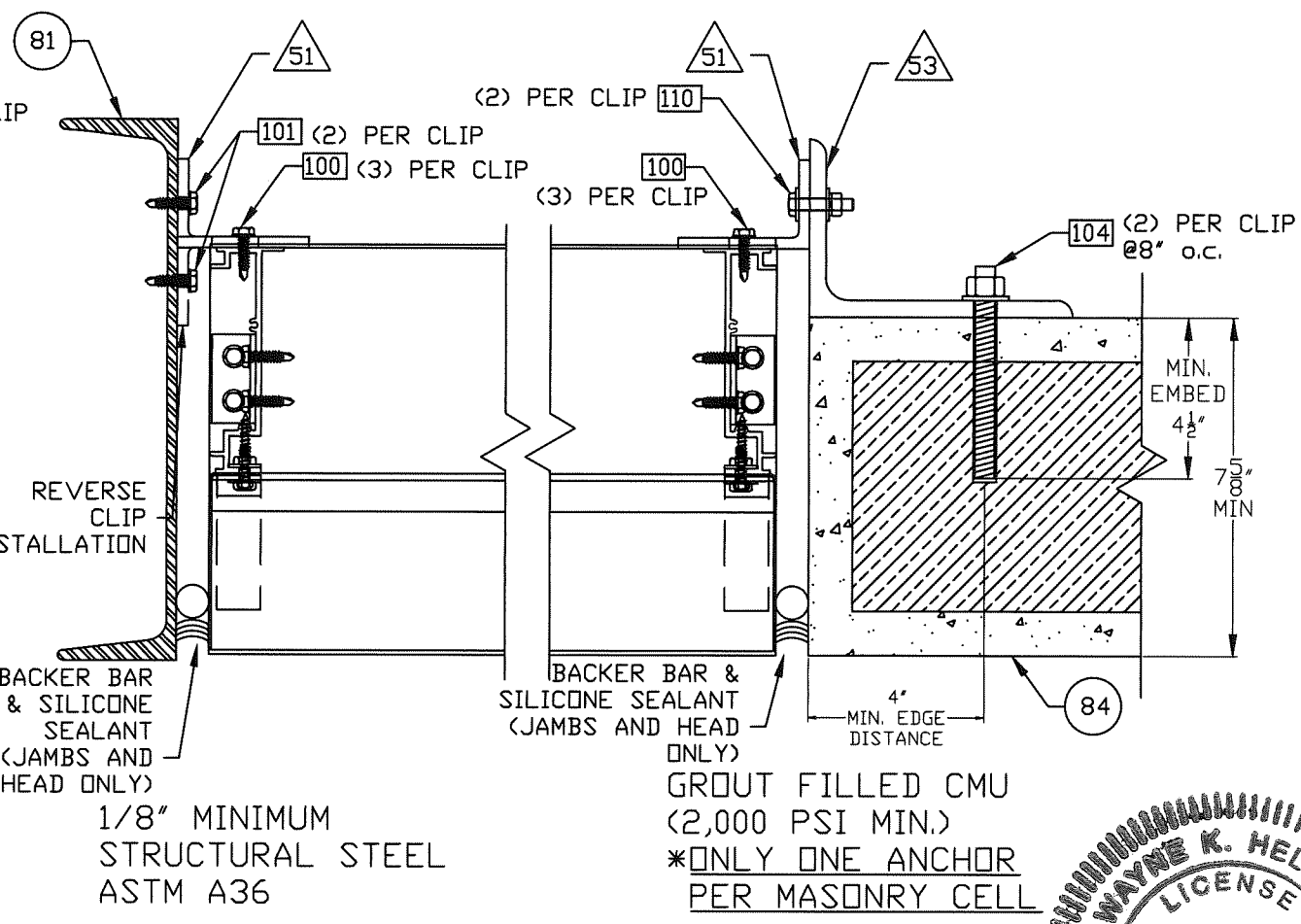
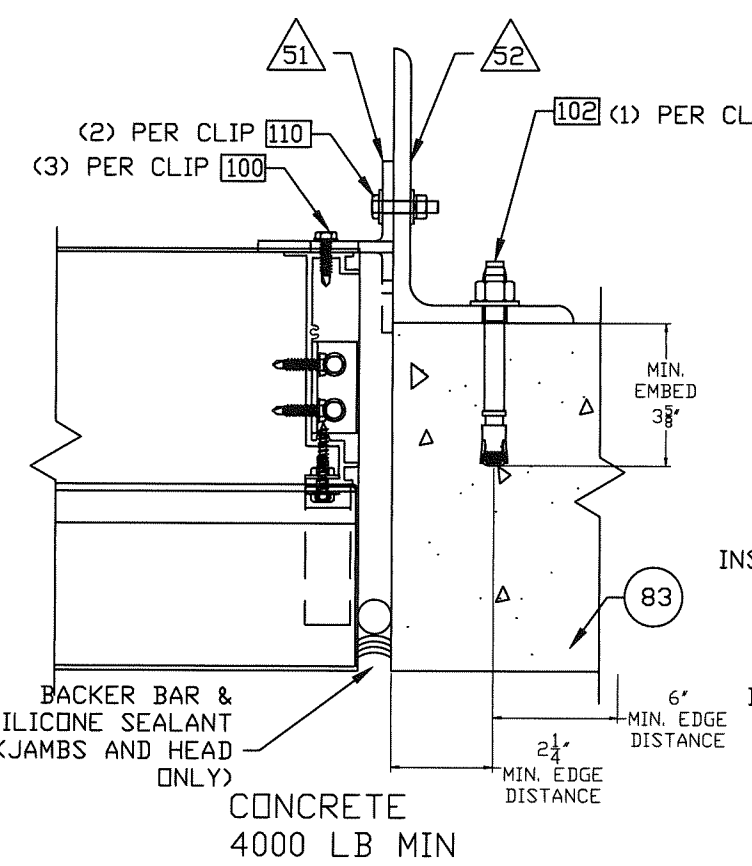
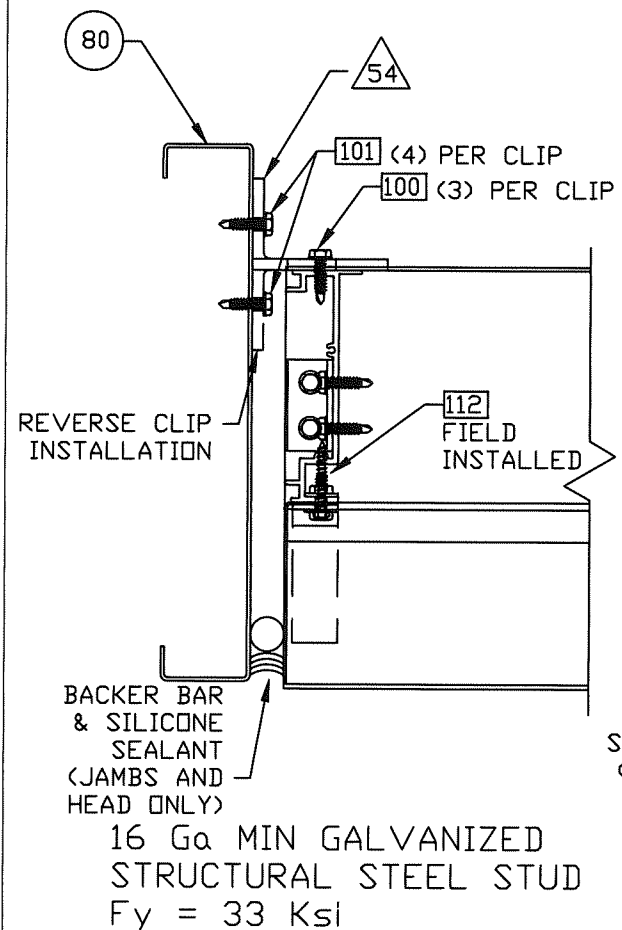
By *[Signature]*  
Miami-Dade Product Control

PROJECT: DC-9614 SUBMITTAL DRAWINGS	REVISION: 2	05-12-21
TITLE: PARTS DRAWING	DATE: 11-20-15	
SCALE: 6" = 1'-0"	SHEET: 7 OF 13	
DRW BY: R. GEIST	DRW NO: RD-1457	

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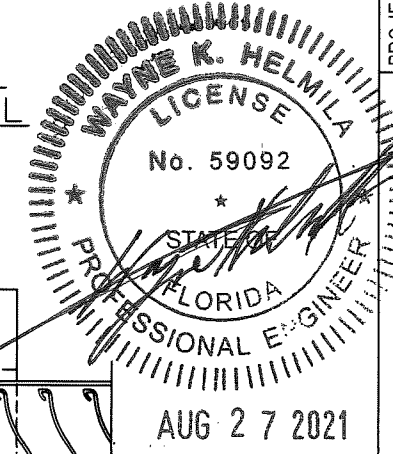




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as complying with the Florida Building Code  
NOA-No. 20-1222.13  
Expiration Date 07/28/2026  
By *R. Helmla*  
Miami-Dade Product Control

SEE MID-SPAN MOUNTING CONDITIONS (FOLLOWING SHEET) FOR ANGLES TO BE USED BETWEEN JAMBS AND MULLIONS. LOUVERS OF SPECIAL SHAPE (TRIANGULAR) USE MID-SPAN ANGLES ALONG THE SLOPED SIDE FOR ALL ATTACHMENTS EXCEPT MULLION ATTACHMENTS, WHICH WILL USE THE STANDARD MULLION ATTACHMENT FOR THE APPROPRIATE SUBSTRATE.

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Certificate of Authorization: #9090  
Wayne K. Helmla  
Registration No: 59092



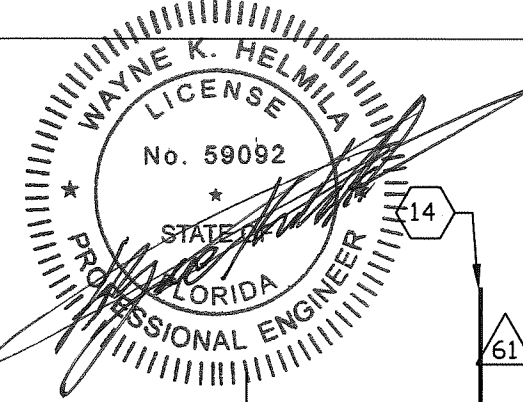
**Construction Specialties**  
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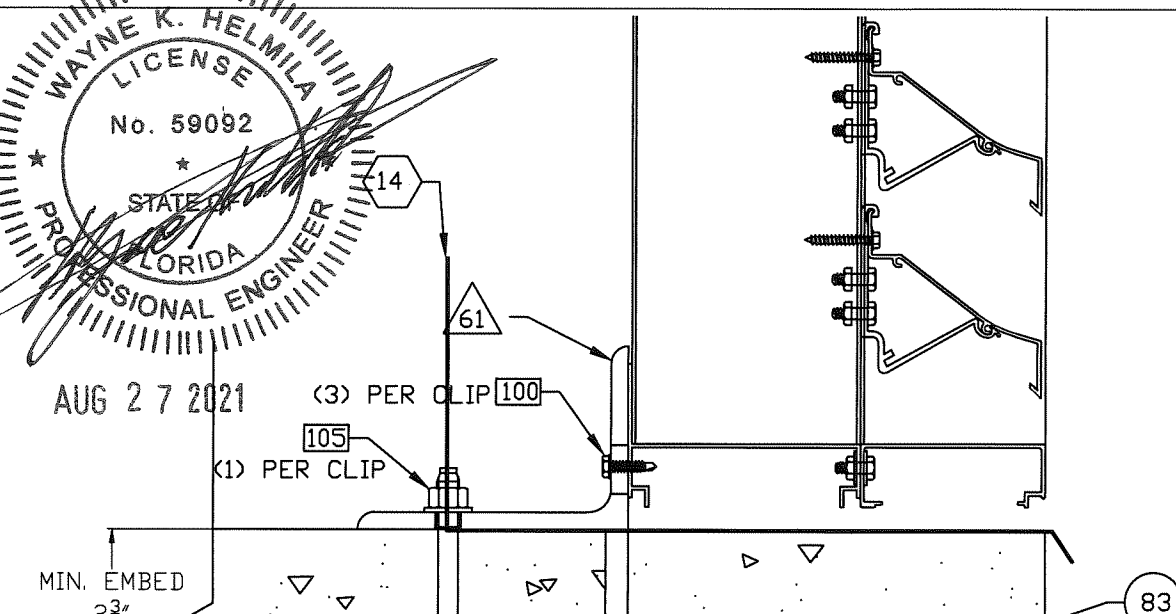
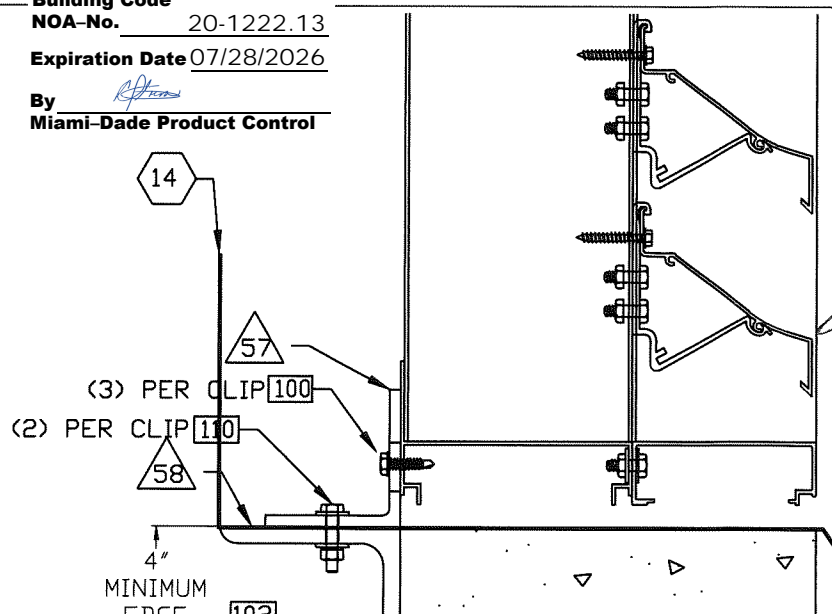
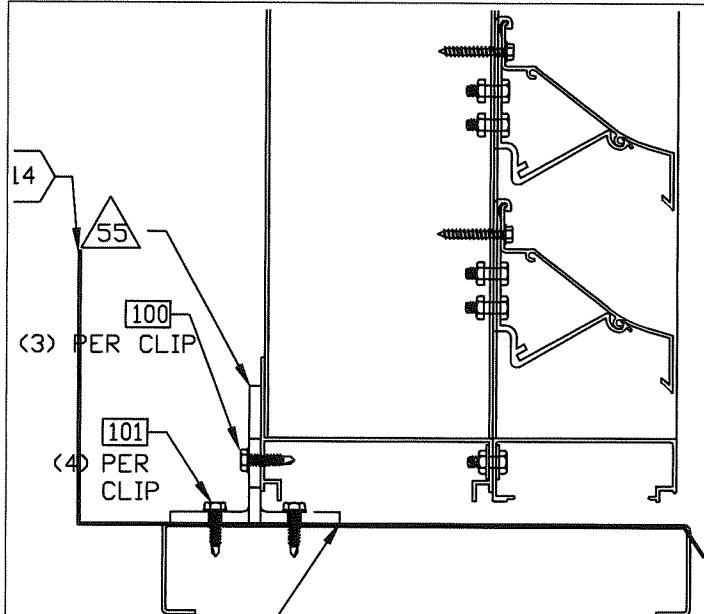
PROJECT: DC-9614 SUBMITTAL DRAWINGS  
TITLE: JAMB MOUNTING CONDITIONS  
SCALE: 3" = 1'-0"  
DRAWN BY: R. GEIST  
REVISION: 2 05-12-21  
DATE: 11-20-15  
SHEET: 8 OF 13  
DRW NO.: RD-1457

REAR BLADES AND 1/8" ALUM. BLANK OFF HIDDEN FOR CLARITY

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 Building Code  
 NOA-No. 20-1222.13  
 Expiration Date 07/28/2026  
 By *R. Geist*  
 Miami-Dade Product Control



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REVERSE CLIP INSTALLATION

MINIMUM EDGE DISTANCE 4"

MIN. EMBED 2 3/8"

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CONCRETE  
 4000 PSI  
 MIN

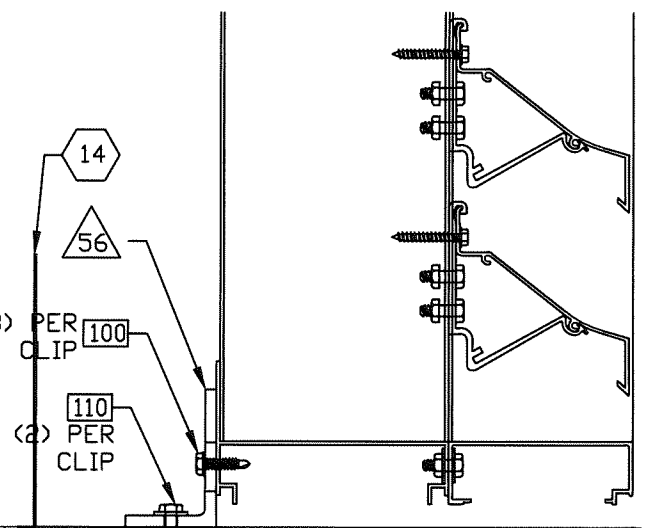
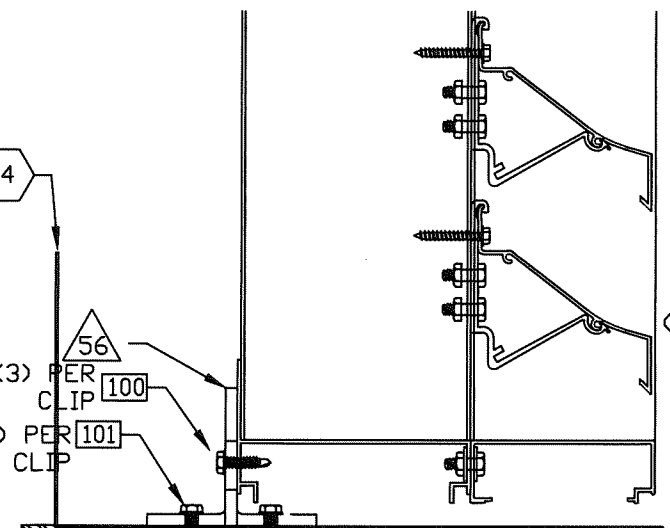
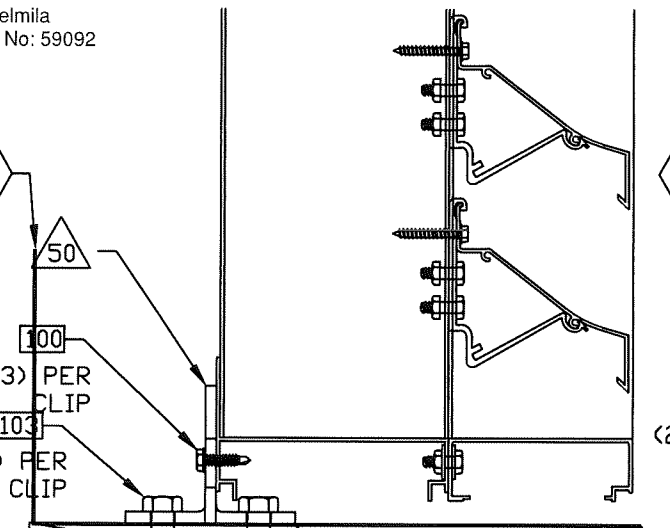
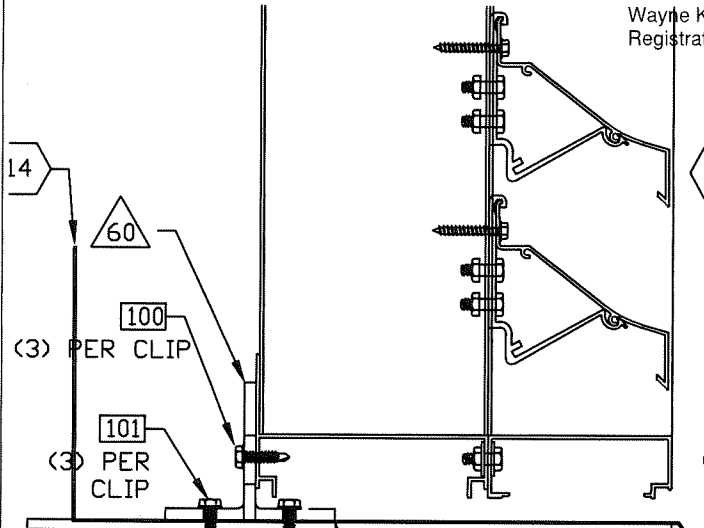
CONCRETE  
 4000 PSI  
 MIN

16 Ga MIN GALVANIZED  
 STRUCTURAL STEEL STUD  
 Fy = 33 Ksi

Florida Firm No: F-01000005061  
 Certificate of Authorization: #9090  
 Wayne K. Helmila  
 Registration No: 59092

MIN. EMBED 3 5/8"

MIN. EDGE DISTANCE 3 1/2"  
 4"



REVERSE CLIP INSTALLATION

2" MIN. EDGE DISTANCE

1/8" MINIMUM ALUMINUM  
 6063-T5

WOOD  
 G=0.42 MIN.  
 3" MIN. THICKNESS

REVERSE CLIP INSTALLATION

1/8" MINIMUM  
 STRUCTURAL STEEL  
 ASTM A36

GROUT FILLED CMU  
 (2,000 PSI MIN.)

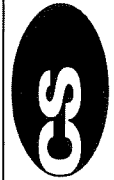
MIN. EMBED 4 1/2"

7 5/8" MIN

REAR BLADES AND 1/8" ALUM. BLANK OFF HIDDEN FOR CLARITY

PROJECT: DC-9614 SUBMITTAL DRAWINGS	REVISION: 2	05-12-21
TITLE: MID SPAN MOUNTING CONDITIONS	DATE: 11-20-15	
SCALE: 3" = 1'-0"	SHEET: 9 OF 13	
DRW BY: R. GEIST	DRW NO: RD-1457	

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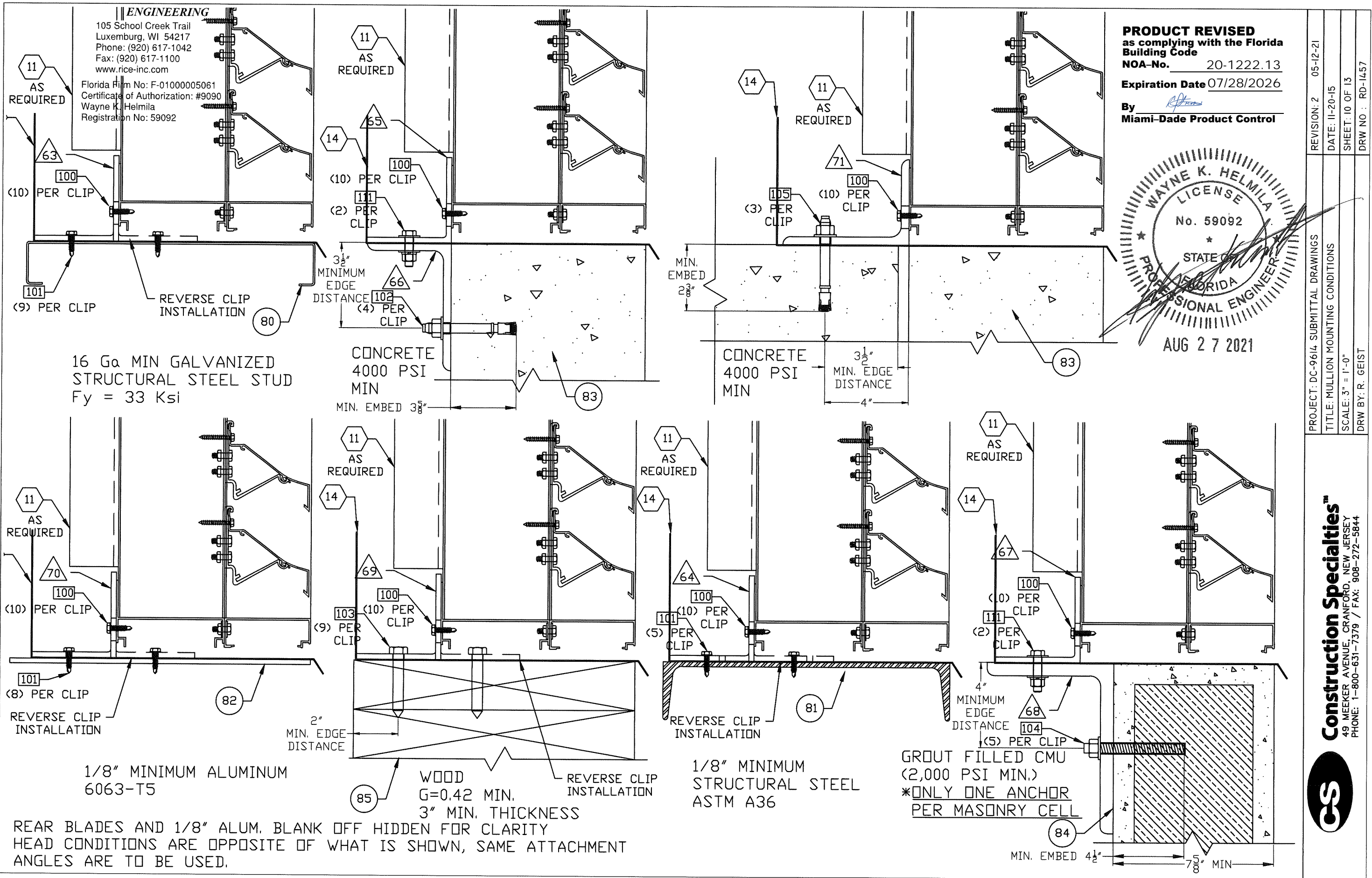
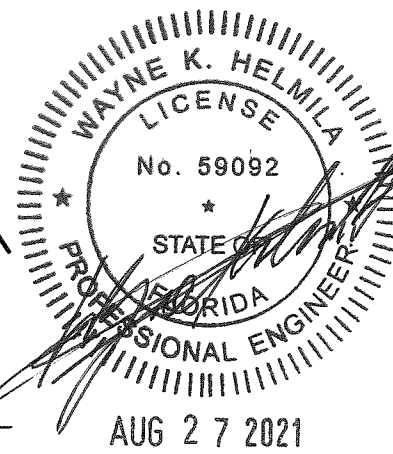
**RICE**

**ENGINEERING**

105 School Creek Trail  
Luxemburg, WI 54217  
Phone: (920) 617-1042  
Fax: (920) 617-1100  
www.rice-inc.com

Florida Firm No: F-01000005061  
Certificate of Authorization: #9090  
Wayne K. Helmila  
Registration No: 59092

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Building Code  
NOA-No. 20-1222.13  
Expiration Date 07/28/2026  
By *[Signature]*  
Miami-Dade Product Control



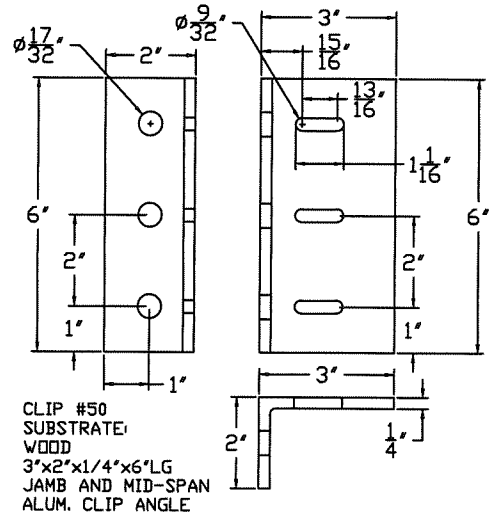
REAR BLADES AND 1/8" ALUM. BLANK OFF HIDDEN FOR CLARITY  
HEAD CONDITIONS ARE OPPOSITE OF WHAT IS SHOWN, SAME ATTACHMENT ANGLES ARE TO BE USED.

REVISION: 2	05-12-21
DATE: 11-20-15	
SHEET: 10 OF 13	
DRW NO: RD-1457	
PROJECT: DC-9614	SUBMITTAL DRAWINGS
TITLE: MULLION MOUNTING CONDITIONS	
SCALE: 3" = 1'-0"	
DRW BY: R. GEIST	

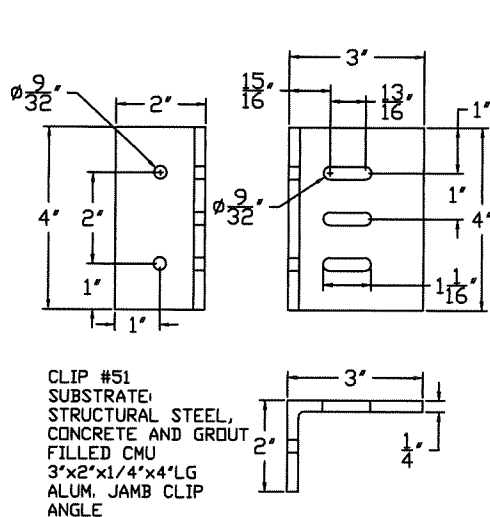
**Construction Specialties™**  
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PHONE: 1-800-631-7379 / FAX: 908-272-5844



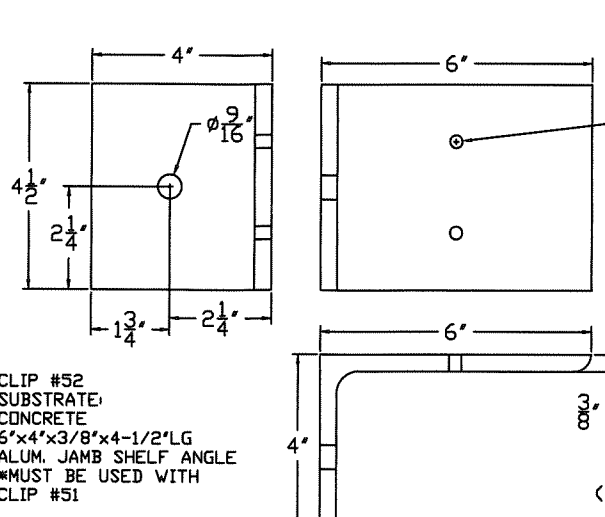




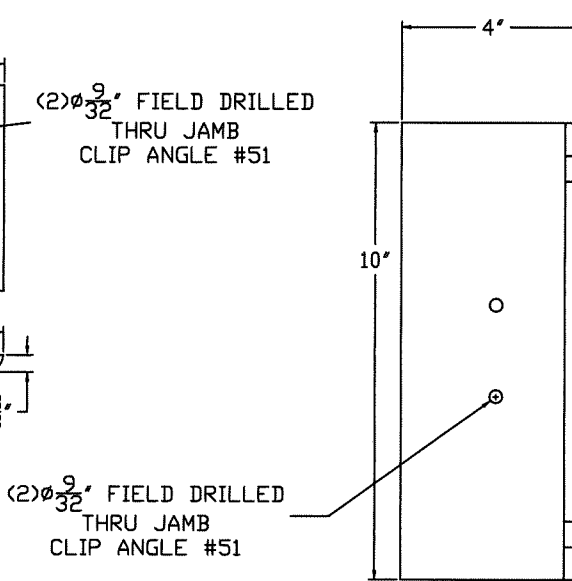
CLIP #50  
SUBSTRATE:  
WOOD  
3"x2"x1/4"x6" LG  
JAMB AND MID-SPAN  
ALUM. CLIP ANGLE



CLIP #51  
SUBSTRATE:  
STRUCTURAL STEEL,  
CONCRETE AND GROUT  
FILLED CMU  
3"x2"x1/4"x4" LG  
ALUM. JAMB CLIP  
ANGLE

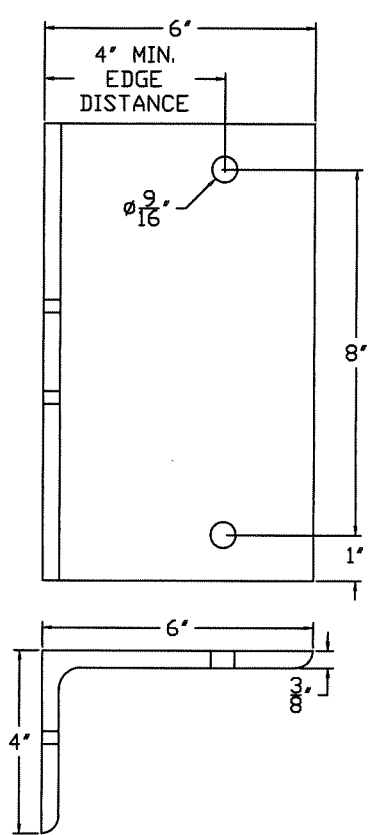


CLIP #52  
SUBSTRATE:  
CONCRETE  
6"x4"x3/8"x4-1/2" LG  
ALUM. JAMB SHELF ANGLE  
\*MUST BE USED WITH  
CLIP #51

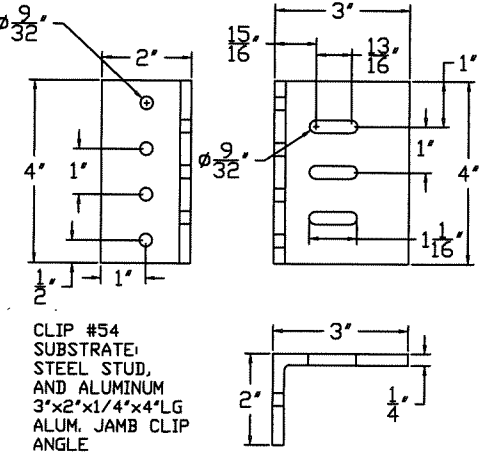


(2) 9/32" FIELD DRILLED  
THRU JAMB  
CLIP ANGLE #51

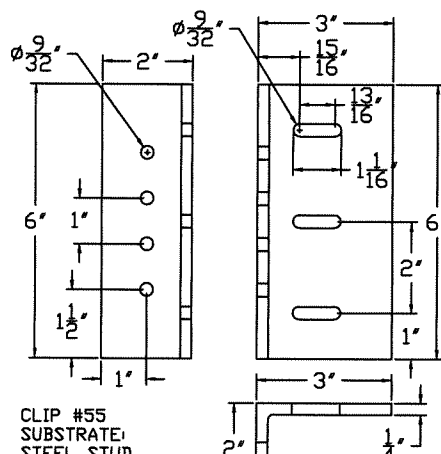
(2) 9/32" FIELD DRILLED  
THRU JAMB  
CLIP ANGLE #51



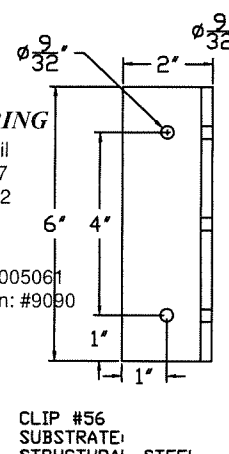
CLIP #53  
SUBSTRATE:  
GROUT FILLED CMU  
6"x4"x3/8"x10" LG  
ALUM. JAMB SHELF ANGLE  
\*MUST BE USED WITH  
CLIP #51



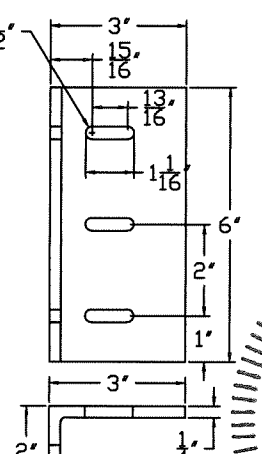
CLIP #54  
SUBSTRATE:  
STEEL STUD,  
AND ALUMINUM  
3"x2"x1/4"x4" LG  
ALUM. JAMB CLIP  
ANGLE



CLIP #55  
SUBSTRATE:  
STEEL STUD  
3"x2"x1/4"x6" LG  
ALUM. CLIP ANGLE  
MID-SPAN B/W  
JAMB AND MULLION



CLIP #56  
SUBSTRATE:  
STRUCTURAL STEEL  
AND GROUT FILLED CMU  
3"x2"x1/4"x6" LG  
ALUM. CLIP ANGLE  
MID-SPAN B/W JAMB  
AND MULLION

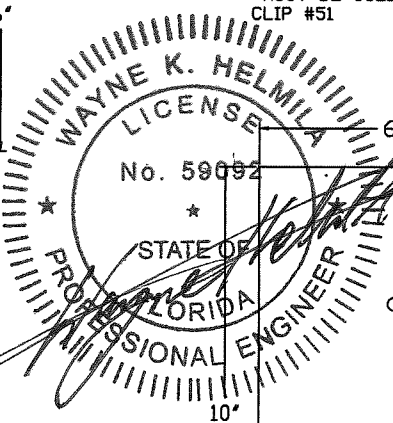


CLIP #57  
SUBSTRATE:  
CONCRETE  
3"x3"x1/4"x6" LG  
ALUM. CLIP ANGLE  
MID-SPAN B/W JAMB  
AND MULLION

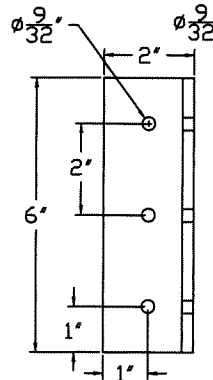
(2) 9/32" FIELD DRILLED  
THRU JAMB  
CLIP ANGLE #57

CLIP #58  
SUBSTRATE:  
CONCRETE  
6"x4"x3/8"x6" LG  
ALUM. SHELF ANGLE  
MID-SPAN B/W JAMB  
AND MULLION  
\*MUST BE USED WITH  
CLIP #57

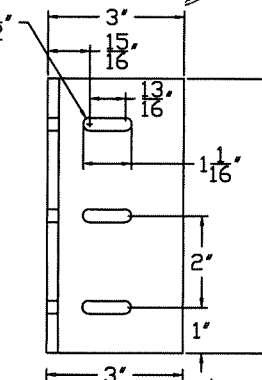
**RICE  
ENGINEERING**  
105 School Creek Trail  
Luxemburg, WI 54217  
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Florida Firm No: F-0100005061  
Certificate of Authorization: #9090  
Wayne K. Helmila  
Registration No: 59092



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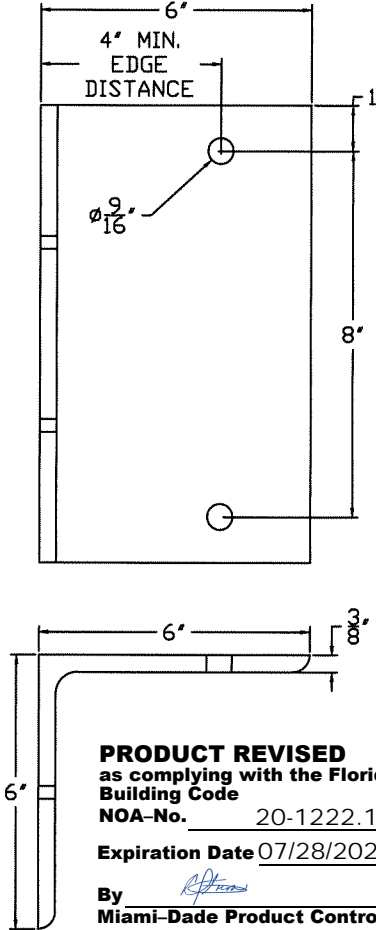


CLIP #60  
SUBSTRATE:  
ALUMINUM  
3"x2"x1/4"x6" LG  
ALUM. CLIP ANGLE  
MID-SPAN B/W  
JAMB AND MULLION



CLIP #59  
SUBSTRATE:  
GROUT FILLED CMU  
6"x6"x3/8"x10" LG  
ALUM. SHELF ANGLE  
MID-SPAN B/W JAMB  
AND MULLION  
\*MUST BE USED WITH  
CLIP #56

(2) 9/32" FIELD DRILLED  
THRU JAMB  
CLIP ANGLE #56

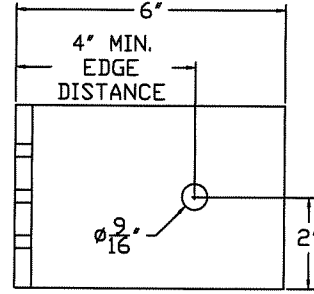
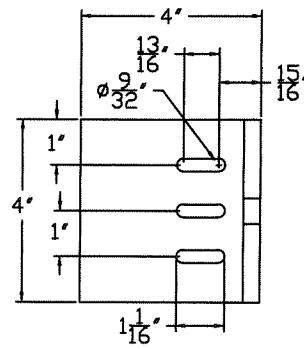


**PRODUCT REVISED**  
as complying with the Florida  
Building Code  
NOA-No. 20-1222.13  
Expiration Date 07/28/2026  
By   
Miami-Dade Product Control

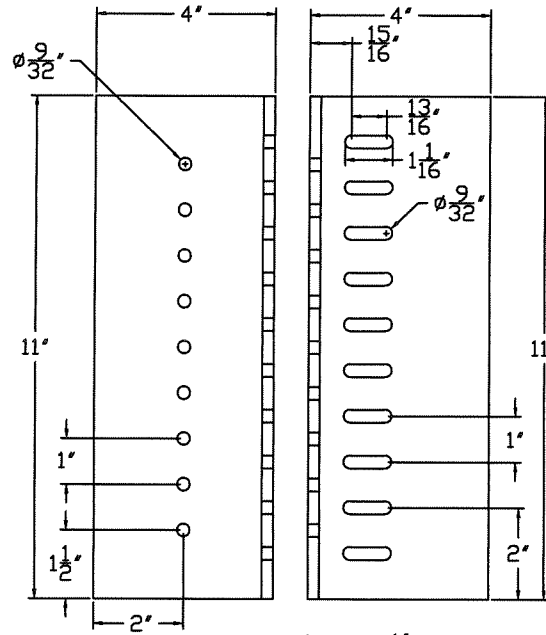
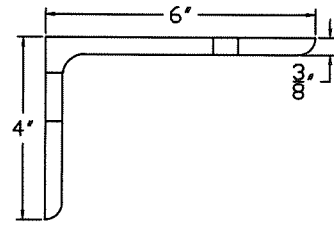
PROJECT: DC-9614 SUBMITTAL DRAWINGS	REVISION: 2	05-12-21
TITLE: CLIP ANGLES PART A	DATE: 11-20-15	
SCALE: 3" = 1'-0"	SHEET: 11 OF 13	
DRAWN BY: R. GEIST	DRW NO: RD-1457	

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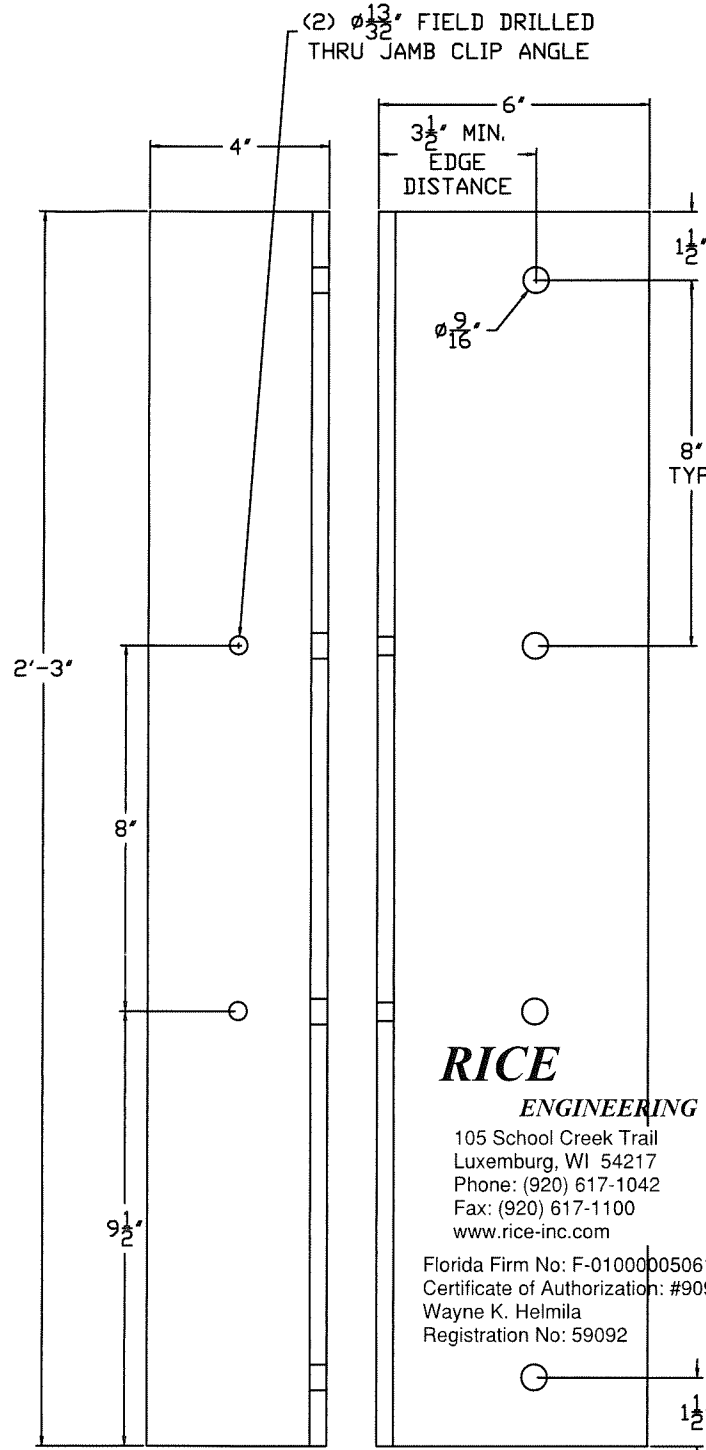
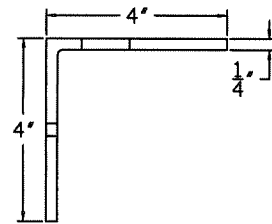




CLIP #61  
SUBSTRATE:  
CONCRETE  
6"x4"x3/8"x4" LG  
ALUM. CLIP ANGLE  
MID-SPAN B/W JAMB  
AND MULLION

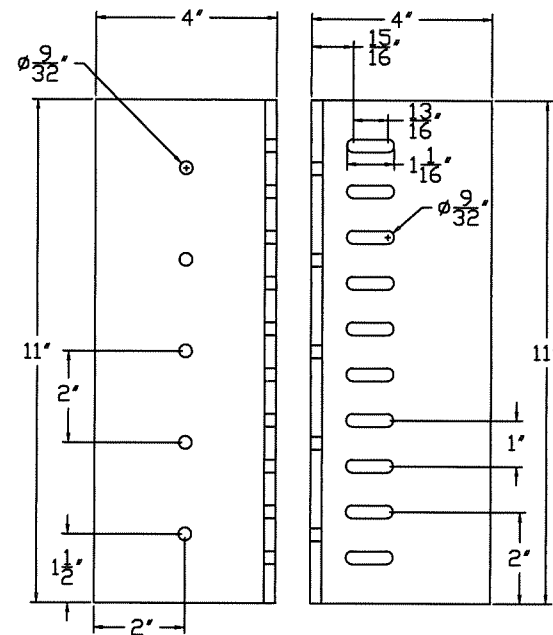
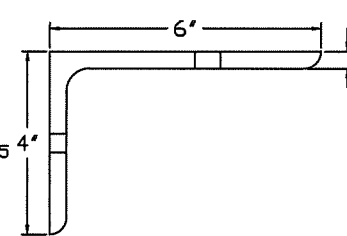


CLIP #63  
SUBSTRATE:  
STEEL STUD  
4"x4"x1/4"x11" LG  
ALUM. MULLION CLIP  
ANGLE

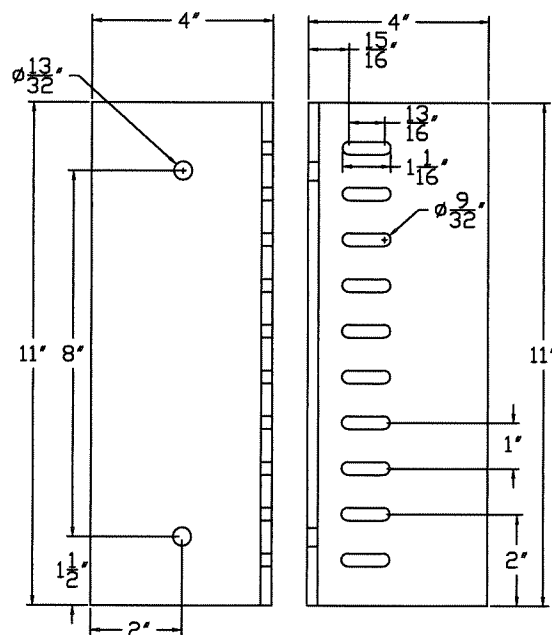
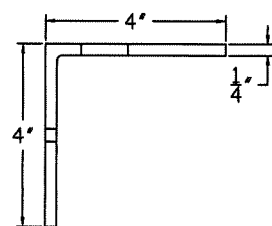


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Florida Firm No: F-01000005061  
Certificate of Authorization: #9090  
Wayne K. Helmila  
Registration No: 59092

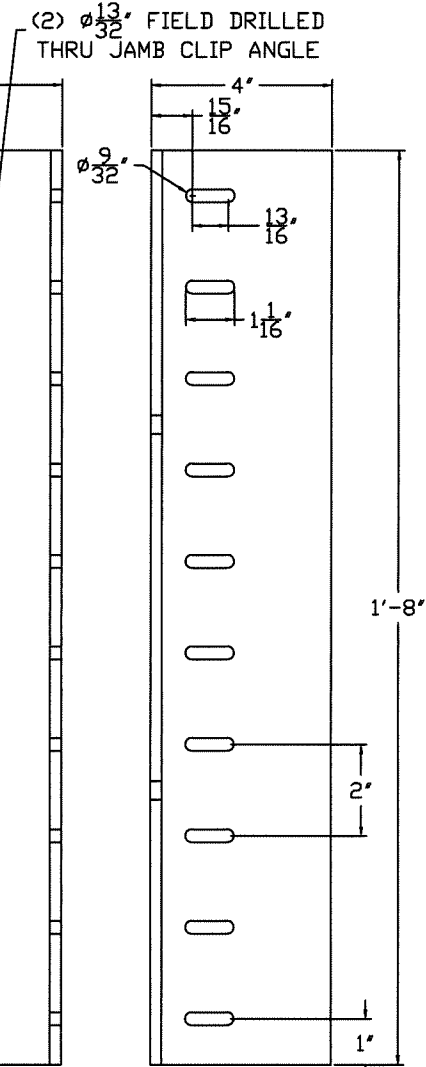
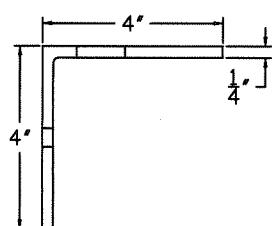
CLIP #66  
SUBSTRATE:  
CONCRETE  
6"x4"x3/8"x27" LG  
ALUM. MULLION SHELF ANGLE  
\*MUST BE USED WITH CLIP #65



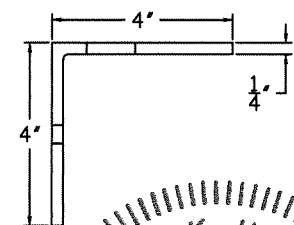
CLIP #64  
SUBSTRATE:  
STRUCTURAL STEEL  
4"x4"x1/4"x11" LG  
ALUM. MULLION CLIP  
ANGLE



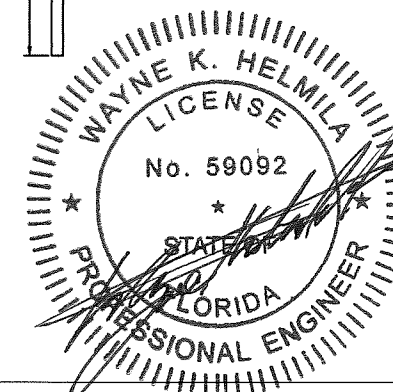
CLIP #65  
SUBSTRATE:  
CONCRETE  
4"x4"x1/4"x11" LG  
ALUM. MULLION CLIP  
ANGLE



CLIP #67  
SUBSTRATE:  
GROUT FILLED CMU  
4"x4"x1/4"x20" LG  
ALUM. MULLION CLIP  
ANGLE



**PRODUCT REVISED**  
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NOA-No. 20-1222.13  
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By *R. Helms*  
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PROJECT: DC-9614 SUBMITTAL DRAWINGS	REVISION: I	11-21-16
TITLE: CLIP ANGLES PART B	DATE: 11-20-15	
SCALE: 3" = 1'-0"	SHEET: 12 OF 13	
DRW BY: R. GEIST	DRW NO.: RD-1457	

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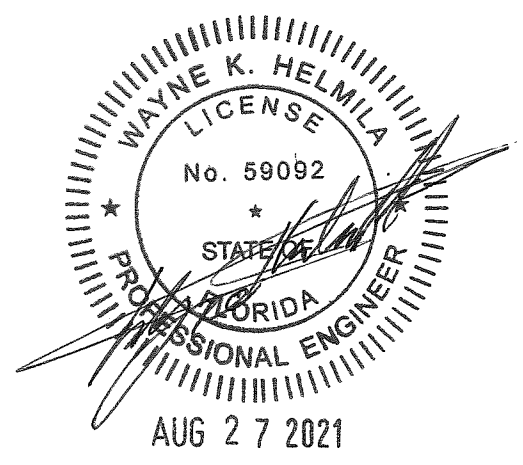
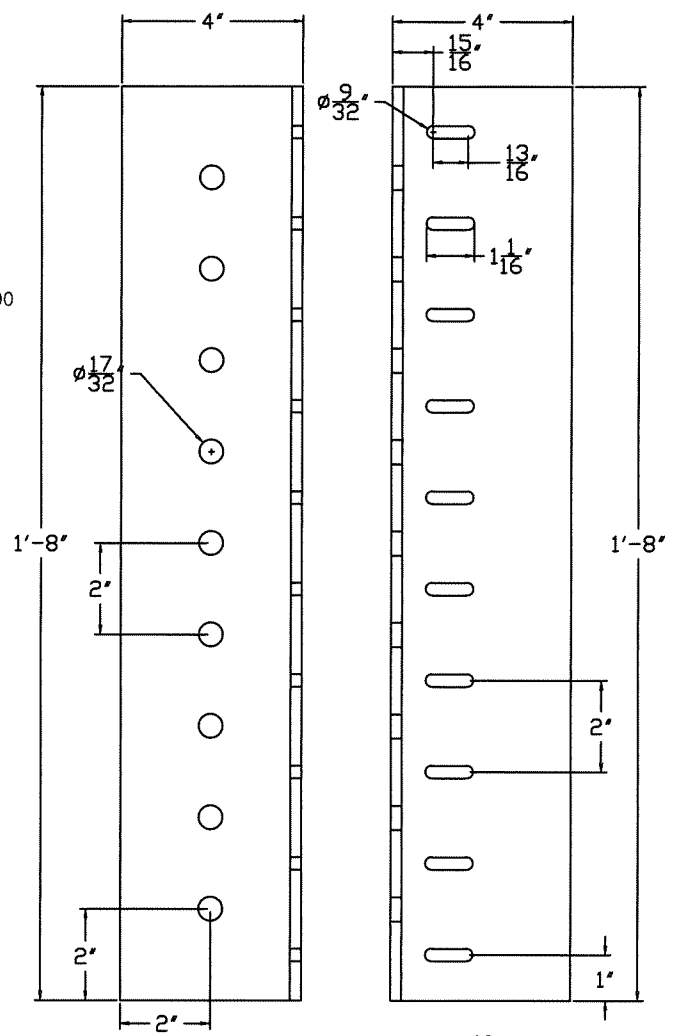
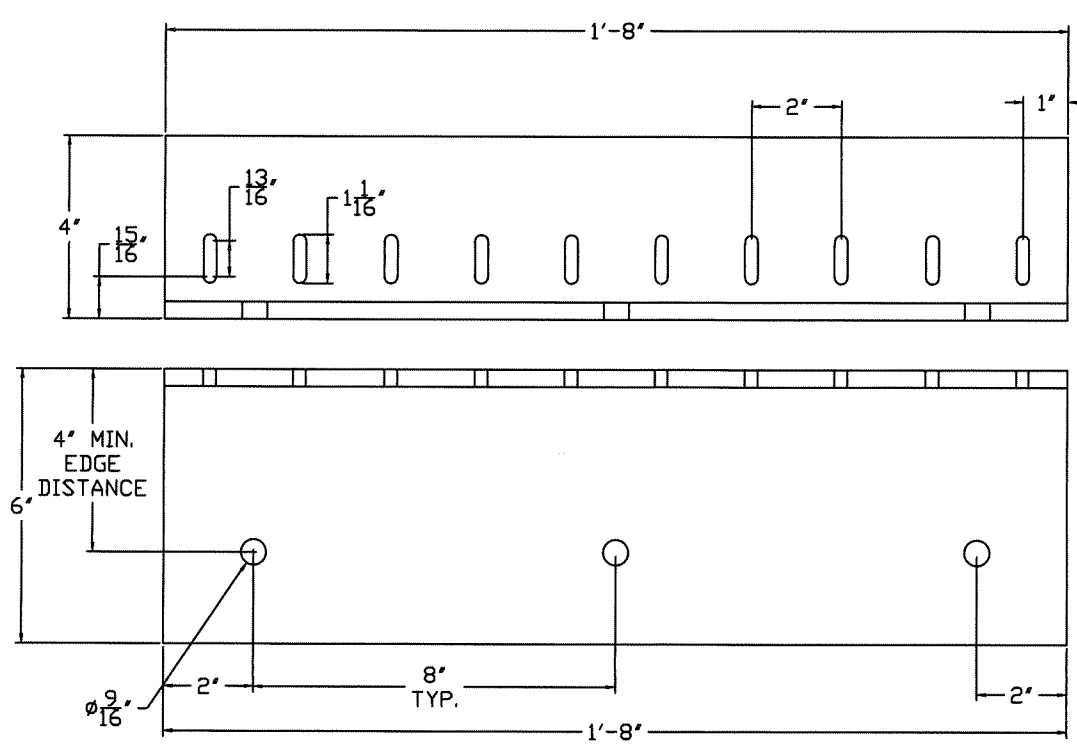
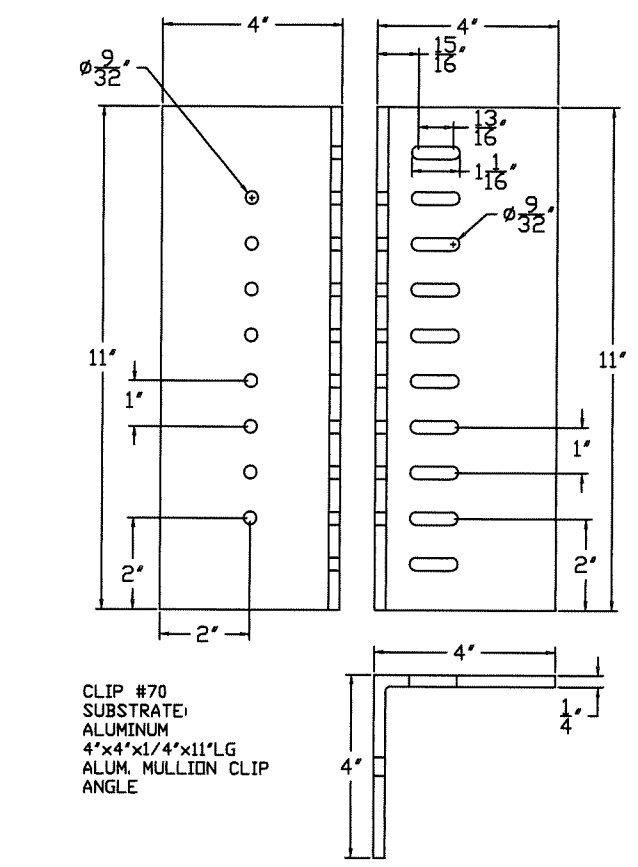
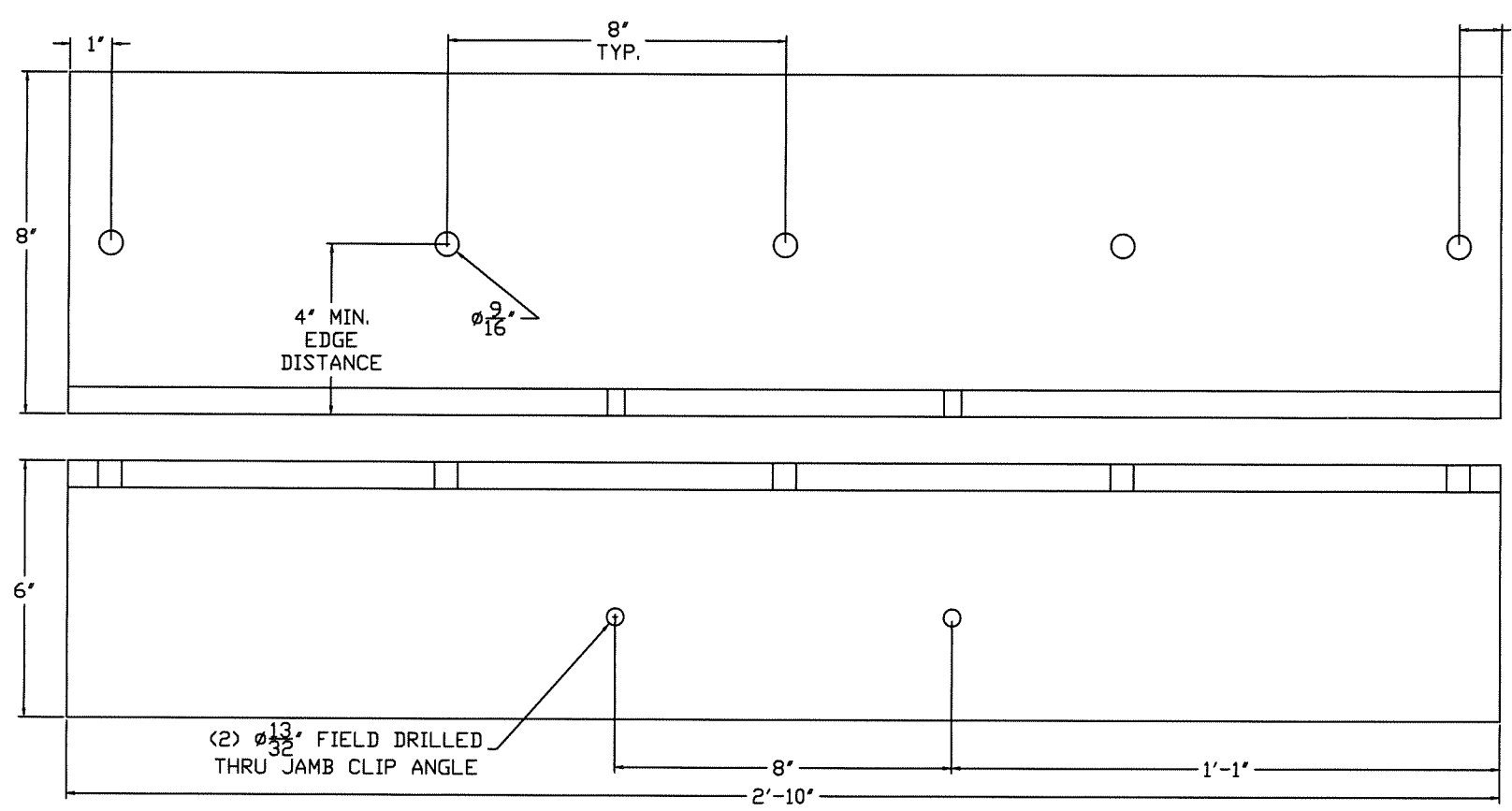
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 Certificate of Authorization: #9090  
 Wayne K. Helmila  
 Registration No: 59092

CLIP #68  
 SUBSTRATE:  
 GROUT FILLED CMU  
 8"x6"x5/8"x34"LG  
 ALUM. MULLION SHELF ANGLE  
 \*MUST BE USED WITH CLIP #67

**PRODUCT REVISED**  
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 Expiration Date 07/28/2026  
 By *R. Helmila*  
 Miami-Dade Product Control

CLIP #69  
 SUBSTRATE:  
 WOOD  
 4"x4"x1/4"x20"LG  
 ALUM. MULLION CLIP  
 ANGLE

CLIP #71  
 SUBSTRATE:  
 CONCRETE  
 6"x4"x3/8"x20"LG  
 ALUM. MULLION CLIP  
 ANGLE



PROJECT: DC-9614, SUBMITTAL DRAWINGS	REVISION: 1	11-21-16
TITLE: CLIP ANGLES PART C	DATE: 11-20-15	
SCALE: 3" = 1'-0"	SHEET: 13 OF 13	
DRW BY: R. GEIST	DRW NO: RD-1457	

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