

Manufacturers:

Greenheck Fan Corporation, PO Box 410, 400 Ross Ave, Schofield, WI 54476
The Airolite Company, LLC, PO Box 410, 400 Ross Ave, Schofield, WI 54476

Product Lines:

Greenheck Louver Model EACA-601D and equivalent nameplated Airolite Louver Model K8206AMD.

Compliance Method:

The above products have been evaluated for compliance with the requirements of the Florida Department of Business and Professional Regulation for Statewide Acceptance per Rule 61G20-3 of the FL Administrative Code and comply with the 8th Edition (2023) Florida Building Code.

Product Description:

Aluminum louver with fixed and adjustable blades and butt-type frame corner construction with blade/frame material as noted in its Miami-Dade NOA.

Performance Summary (for entire product line):

Tested design pressure is +/- 110 PSF. Passed ANSI/AMCA Standard 540-13 (including TAS 203-94) at Basic Impact Missile Level D (50 fps impact speed). Passed ANSI/AMCA Standard 550-09 with the adjustable blades in the closed position. Passed TAS 201-94 (large missile, 50 fps impact speed), TAS 202-94, and TAS 203-94. Product can be used inside and outside of the HVHZ and is impact resistant.

Performance Standards:

1. ANSI/AMCA Standard 540-13, Test Method for Louvers Impacted by Wind Borne Debris.
2. ANSI/AMCA Standard 550-09, Test Method for High Velocity Wind Driven Rain Resistant Louvers.
3. FBC TAS 201-94, Impact Test Procedures.
4. FBC TAS 202-94, Criteria for Testing Impact & Non-Impact Resistant Building Envelope Components Using Uniform Static Air Pressure.
5. FBC TAS 203-94, Criteria for Testing Products Subject to Cyclic Wind Pressure Loading.

Supporting Technical Documents:

1. Approval Documents:
 - a. NOA 23-07026.02 for EACA-601D, approved on 11/16/2023
 - b. NOA 23-07026.02 (same as above NOA) for K8206AMD, approved on 11/16/2023
2. Listing Documents:
 - a. AMCA License Agreement to use the AMCA Listing Label for ANSI/AMCA 540 (Basic Impact Missile Level D, 50 fps):
 - i. EACA-601D, dated 3/5/2020
 - ii. K8206AMD, dated 3/5/2020
3. Test Reports:
 - a. C6839.01-602-18, signed and on 08/12/2013 sealed by Shawn G. Collins, P.E., Architectural Testing, Inc., Schofield, WI
 - i. FBC TAS 201-94, FBC TAS 202-94, and FBC TAS 203-94
 - b. C6839.02-602-18, signed and on 08/13/2013 sealed by Shawn G. Collins, P.E., Architectural Testing, Inc., Schofield, WI
 - i. ANSI/AMCA Standard 550-09
 - c. C6840.01-602-44, signed and sealed on 08/13/2013 by Shawn G. Collins, P.E., Architectural Testing, Inc., Schofield, WI
 - i. ANSI/AMCA Standard 540-13 and FBC TAS 203-94

Limits and Conditions Use (for entire product line):

1. Limits/Conditions are as per their Miami-Dade NOA and AMCA Listing documents.
2. Constructed from materials as noted in the NOA Approval Document.
3. Maximum Design Pressure is +/- 110 PSF.
4. Maximum Panel Size is 60" wide x 120" high.
5. Rated to be used inside and outside of the HVHZ.
6. Impact resistant for Basic Impact Missile Level D (50 fps).
7. Adjustable blades must be fully closed to comply with ANSI/AMCA Standard 550.
8. If the adjustable blades are NOT intended to be fully closed during a high wind and rain event, then the louver may be installed in a location where the room behind the louver is designed to drain water penetrating into the room and the room will house water resistant/proof equipment, components, and/or supplies.
9. If the adjustable blades are intended to be fully closed during a high wind and rain event, then 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-water resistant/proof equipment, components, and/or supplies.

Installation:

Must be installed in accordance with its Miami-Dade NOA document.

Certification of Independence:

Design Dynamics, Inc. and Robert V. Nangia, P.E. do not have and will not acquire a financial interest in any company manufacturing or distributing the products for which this report is being issued. Design Dynamics, Inc., and Robert V. Nangia, P.E. do not have and will not acquire a financial interest in any other entity involved in the approval process of the above listed products.

Statement of Standard Equivalency:

The requirements of ANSI/AMCA 550-09 (as tested) meet or exceed the requirements of ANSI/AMCA 550-15 (Rev 9-18) for the purpose of evaluating the above referenced product testing for High Velocity Wind Driven Rain per the 8th Edition (2023) Florida Building Code.

Evaluation Report By and PE Stamp:

Prepared by:



Thomas M. Shingler, PE, M.ASCE
Design Dynamics, Inc.

Reviewed by:

Robert V. Nangia, PE, SE





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

Greenheck Fan Corporation
P.O. Box 410
Schofield, WI 54476

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 EACA-601D Aluminum Louver System with Damper

APPROVAL DOCUMENT: Drawing No. **EACA-601D**, titled "EACA-601D", sheets 1 through 10 of 10, dated 07/07/2023, prepared by Greenheck Fan Corporation, signed and sealed by Robert V. Nangia, P.E. on 09/25/2023, bearing the Miami-Dade County Product Control revision stamp with the Notice of Acceptance number and expiration date by the Miami-Dade County Product Control Section.

MISSILE IMPACT RATING: Large and Small Missile Impact Resistant

LABELING: Each unit shall bear a permanent label with the manufacturer's name or logo, city, state, model/series, and following statement: "Miami-Dade County Product Control Approved", unless otherwise noted herein.

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

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

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

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

This NOA **renews** and **revises** NOA # **21-0526.08** 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 23-0726.02
Expiration Date: December 5, 2028
Approval Date: November 16, 2023
Page 1

NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED

1. **Evidence submitted under previous NOA's**
- A. **DRAWINGS “Submitted under NOA # 13-0919-05”**
 1. Drawing No. **EACA-601D**, titled “EACA-601D”, sheets 1 through 10 of 10, dated 08/22/2013, prepared by the manufacturer, signed and sealed by Chander P. Nangia, P.E.
- B. **TESTS “Submitted under NOA # 13-0919-05”**
 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 EACA-601D louvers, prepared by Architectural Testing, Inc., Test Report No. **C6839.01-602-18**, dated 08/12/2013, signed and sealed by Shawn G. Collins, P.E.
 2. Test report on High Velocity Wind Driven Rain Resistance per AMCA 550, prepared by Architectural Testing, Inc., Test Report No. **C6839.02-602-18**, dated 08/12/2013, signed and sealed by Shawn G. Collins, P.E.
- C. **CALCULATIONS “Submitted under NOA # 13-0919-05”**
 1. Structural calculations prepared by the manufacturer, dated 08/22/2013, signed and sealed by Chander P. Nangia, 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 # 16-0201.06”**
 1. Statement letter of code conformance to the 5th edition (2014) FBC issued by Chander P. Nangia, P.E., dated 01/11/2016, signed and sealed by Chander P. Nangia, P.E.

“Submitted under NOA # 13-0919-05”

 2. Statement letter of code conformance to 2010 FBC, issued by Chander P. Nangia, P.E., dated 09/08/2013, signed and sealed by Chander P. Nangia, P.E.
 3. No financial interest letter issued by Chander P. Nangia, P.E., dated 09/08/2013, signed and sealed by Chander P. Nangia, P.E.



Carlos M. Utrera, P.E.
Product Control Examiner
NOA No 23-0726.02

Expiration Date: December 05, 2028
Approval Date: November 16, 2023

NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED

2. Evidence submitted under NOA # 18-0918.02

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 6th edition (2017) FBC and of no financial interest issued by Chander P. Nangia, P.E., dated 08/29/2018, signed and sealed by Chander P. Nangia, P.E.



Carlos M. Utrera, P.E.
Product Control Examiner
NOA No 23-0726.02

Expiration Date: December 05, 2028
Approval Date: November 16, 2023

NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED

3. Evidence submitted under NOA # 21-0526.08 and new

A. DRAWINGS

1. Drawing No. **EACA-601D**, titled “EACA-601D”, sheets 1 through 10 of 10, dated 07/07/2023, prepared by Greenheck Fan Corporation, signed and sealed by Robert V. Nangia, P.E. on 09/25/2023.

B. TESTS

1. None.

C. CALCULATIONS

1. Structural load calculations, prepared by Greenheck Fan Corporation, dated 07/19/2023, signed and sealed by Robert V. Nangia, P.E.

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 FBC 2023 (8th edition) and of no financial interest issued by Robert V. Nangia, P.E., dated July 10, 2023, signed and sealed by Robert V. Nangia, P.E.
2. Statement letter of code conformance to the FBC 2020 (7th edition) and of no financial interest issued by Chander P. Nangia, P.E., dated May 15, 2021, signed and sealed by Chander P. Nangia, P.E.



Carlos M. Utrera, P.E.
Product Control Examiner
NOA No 23-0726.02

Expiration Date: December 05, 2028
Approval Date: November 16, 2023

STAMPING BLOCK

STAMPING BLOCK

2

DETAIL CALLOUT (TYPICAL)

DETAIL #

PAGE #

7

5



8

5



9

5



2

MODEL NAME EQUIVALENTS		
BRAND	GREENHECK	AIRQLITE
MODEL	EACA-601D	K8206AMD
DESIGN PRESSURE	+/- 115 PSF	

1

2

& ALSO

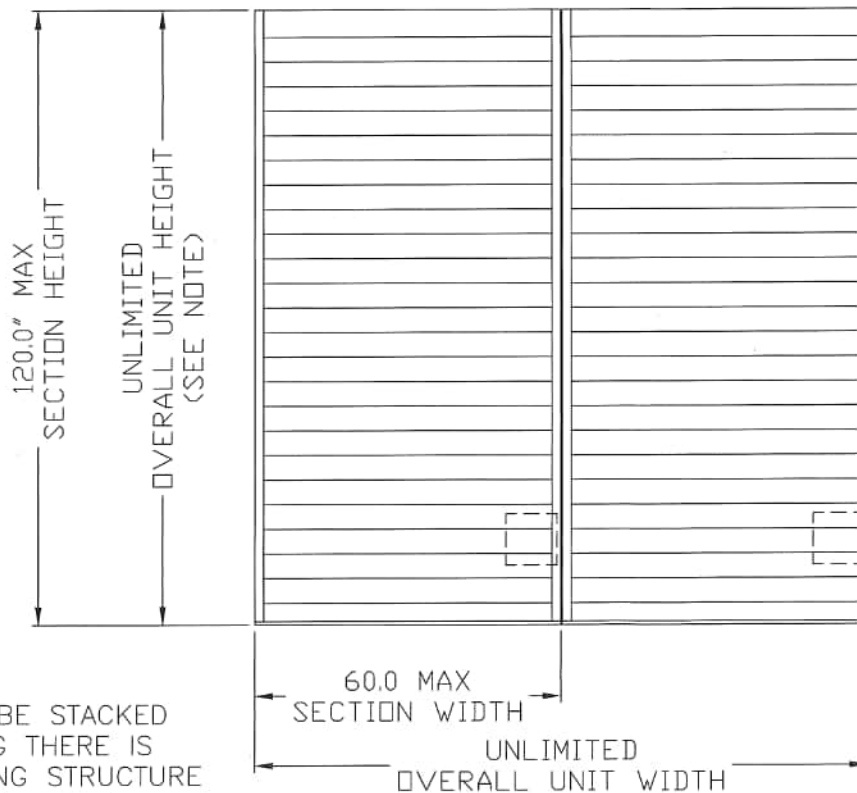
3

3

OR

5

4



TYP. ACTUATOR LOCATION
(LOCATION ALLOWED TO VARY, MULTIPLE ACTUATORS PER SECTION ARE ALLOWED IF NEEDED)

10

6

2

2

& ALSO

4

3

OR

6

4

NOTE: SECTIONS MAY BE STACKED VERTICALLY PERMITTING THERE IS SUITABLE LOAD-BEARING STRUCTURE (BY OTHERS) AT THE HEAD/SILL LOCATIONS FOR ATTACHMENT OF THE CONTINUOUS MOUNTING ANGLES.

Robert V. Nangia P.E.
7423 Hollow Ridge Drive
Houston, Texas 77095

REVISION 2, 7/7/23: RE-PRINTED ALL PAGES TO ALLOW MORE ROOM FOR STAMPING, UPDATED DRAWINGS DATE ON ALL PAGES, ADDED STAMPING BLOCKS TO ALL PAGES, ADDED COMPANY AND MODEL NAMES TO TITLE BLOCK. ADDED DESIGN PRESSURE, AND ADDED MODEL NAME EQUIVALENTS.

DATE 7/7/23

DRAWN BY MES

SCALE

SHEET NO. 1 OF 10

CAD DRAWING NO. EACA-601D

GREENHECK

P.O.BOX 410 SCHOFIELD, WISCONSIN 54476-0410

GREENHECK EACA-601D

AIRQLITE K8206AMD

ELEVATION

PRODUCT REVISED as complying with the Florida Building Code

NOA-No. 23-0726.02

Expiration Date 12/05/2028

By [Signature] Miami-Dade Product Control

STRUCTURAL ONLY

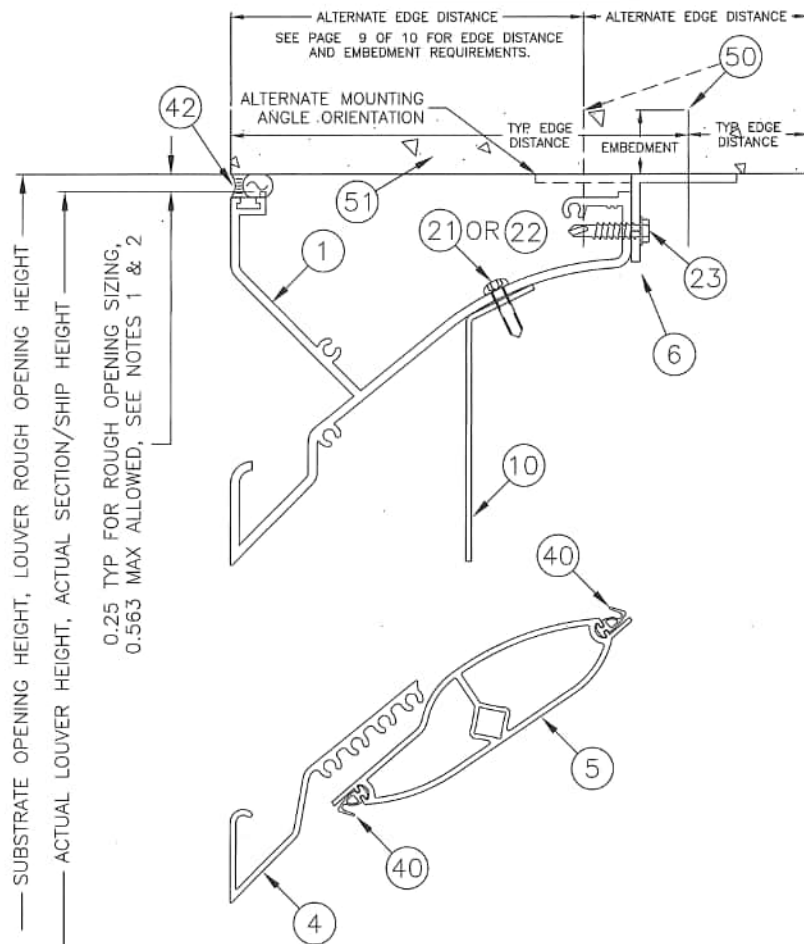
STAMPING BLOCK

ROBERT V. NANGIA

LICENSE No. 69555

STATE OF FLORIDA

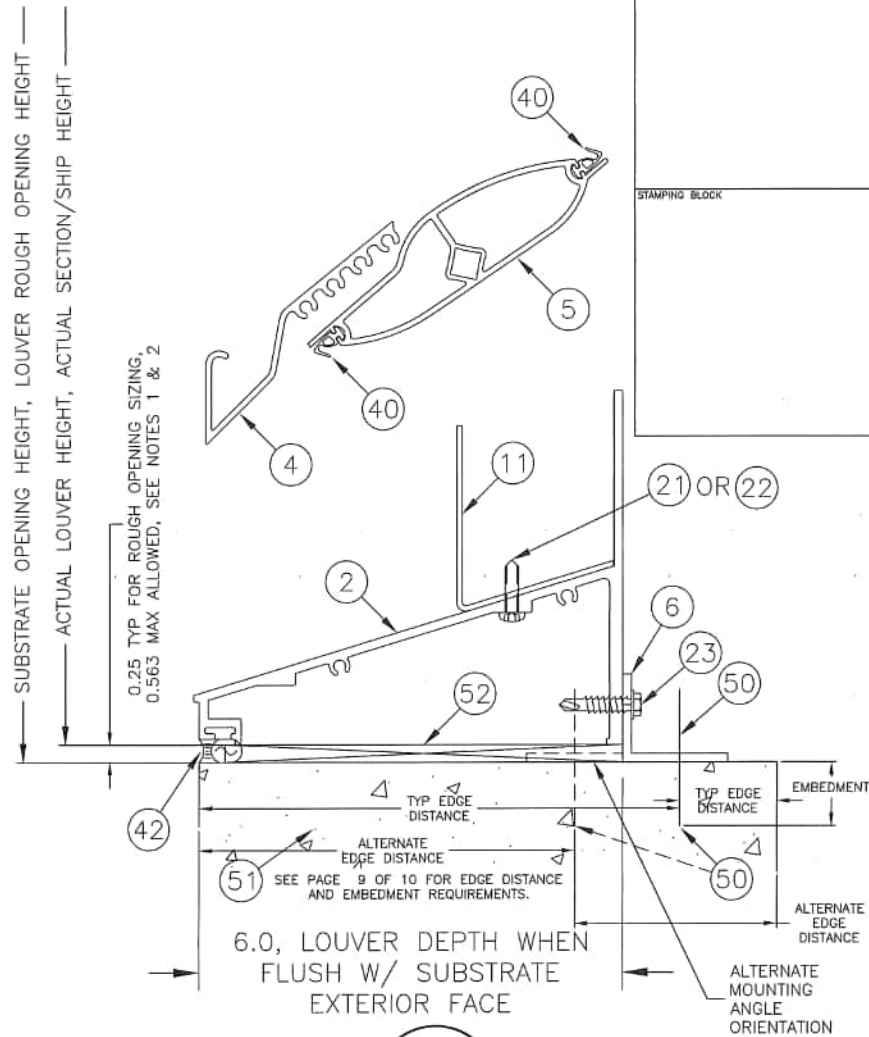
PROFESSIONAL ENGINEER



1
2
HEAD DETAIL
SCALE: 1:1.75

NOTE 1: THE SUM OF THE MINIMUM GAP ALLOCATED TO EACH LOUVER SECTION AT THE JAMBS MUST BE ≥ 0.125 TO ACCOMMODATE POSSIBLE THERMAL MOVEMENT.

NOTE 2: END GAP MUST COMPLY TO SEALANT MANUFACTURE'S JOINT PERFORMANCE RECOMMENDATIONS.



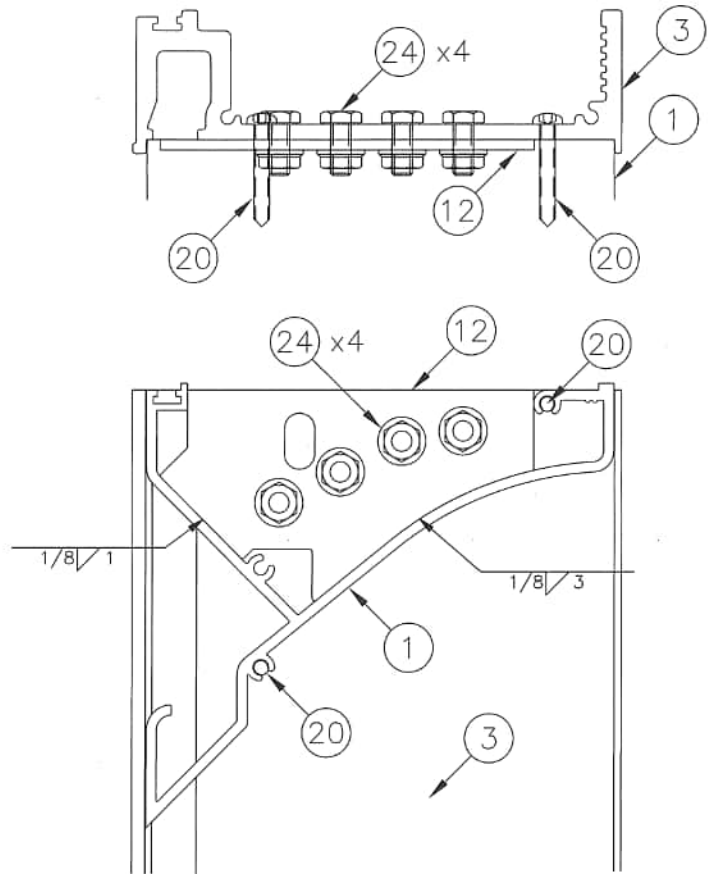
2
2
SILL DETAIL
SCALE: 1:1.75

DRAWN BY MES	DATE 7/7/23	SHEET NO. 2 OF 10	CAD DRAWING NO. EACA-601D
	SCALE		
GREENHECK P.O. BOX 410 SCHOFIELD, WISCONSIN 54476-0410 TITLE GREENHECK EACA-601D AIROLITE K8206AMD HEAD & SILL DETAILS			
PRODUCT REVISED as complying with the Florida Building Code NOA-No. 23-0726.02 Expiration Date 12/05/2028 By Miami-Dade Product Control			
ROBERT V. NANGA LICENSE No. 69555 STATE OF FLORIDA PROFESSIONAL ENGINEER			

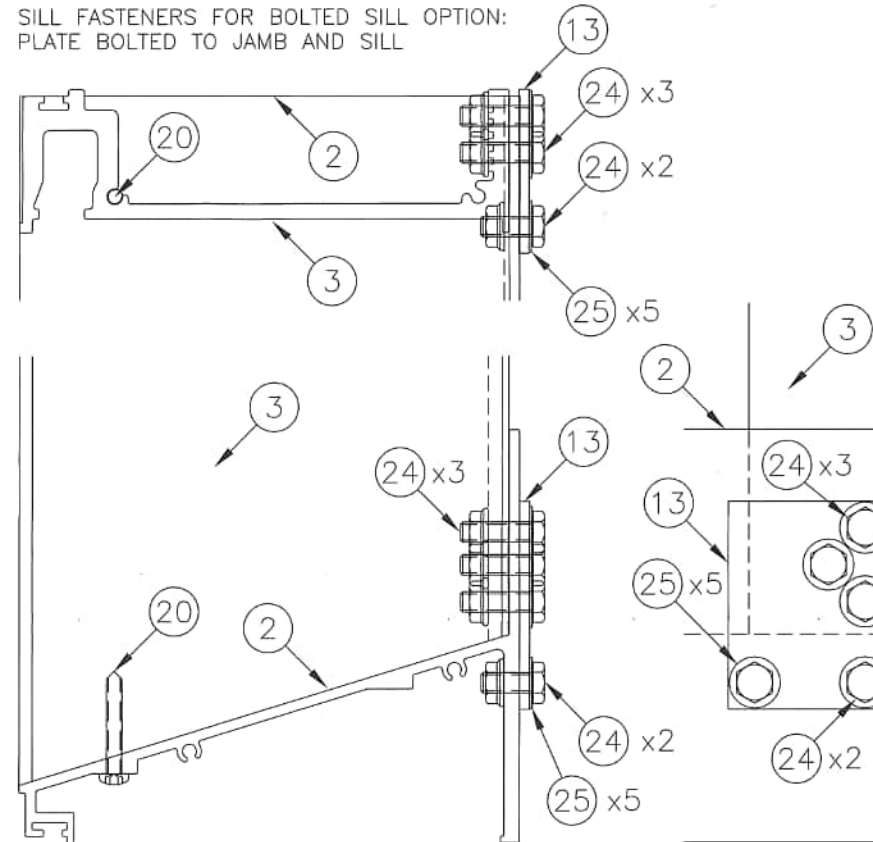
SEP 25 2023

HEAD FASTENERS FOR BOLTED HEAD OPTION:
PLATE WELDED TO HEAD AND PLATE BOLTED TO JAMB

SILL FASTENERS FOR BOLTED SILL OPTION:
PLATE BOLTED TO JAMB AND SILL



3
3
BOLTED HEAD, PROJECTED VIEWS
SCALE: 1:1.5



4
3
BOLTED SILL, PROJECTED VIEWS
SCALE: 1:1.5

DRAWN BY MES	DATE 7/7/23	SHEET NO. 3 OF 10	CAD DRAWING NO. EACA-601D
	SCALE		
 GREENHECK P.O. BOX 410 SCHOFIELD, WISCONSIN 54476-0410		TITLE GREENHECK EACA-601D AIROLITE K8206AMD BOLTED HEAD & SILL SETUP	
STAMPING BLOCK PRODUCT REVISED as complying with the Florida Building Code NOA-No. 23-0726.02 Expiration Date 12/05/2028 By  Miami-Dade Product Control			
STAMPING BLOCK		STAMPING BLOCK 	

25 2023

5 WELDED HEAD, PROJECTED VIEWS
4 SCALE: 1:1.5

Technical drawing of a mechanical part. The part features a horizontal base with a vertical section on the left and a serrated edge on the right. A dimension line indicates a length of $1/8$ with a 45° angle. Callout numbers 2, 3, and 20 point to specific features: 2 points to the base, 3 points to the serrated edge, and 20 points to a small circular feature on the left.

6
4

WELDED SILL, PROJECTED VIEWS
SCALE: 1:1.5

 GREENHECK P.O. BOX 410 SCHOFIELD, WISCONSIN 54476-0410	DRAWN BY MES		DATE 7/7/23
	SCALE		
TITLE GREENHECK EACA-601D AIROLITE K8206AMD WELDED HEAD & SILL SETUP	SHEET NO. 4 OF 10		
	CAD DRAWING NO. EACA-601D		

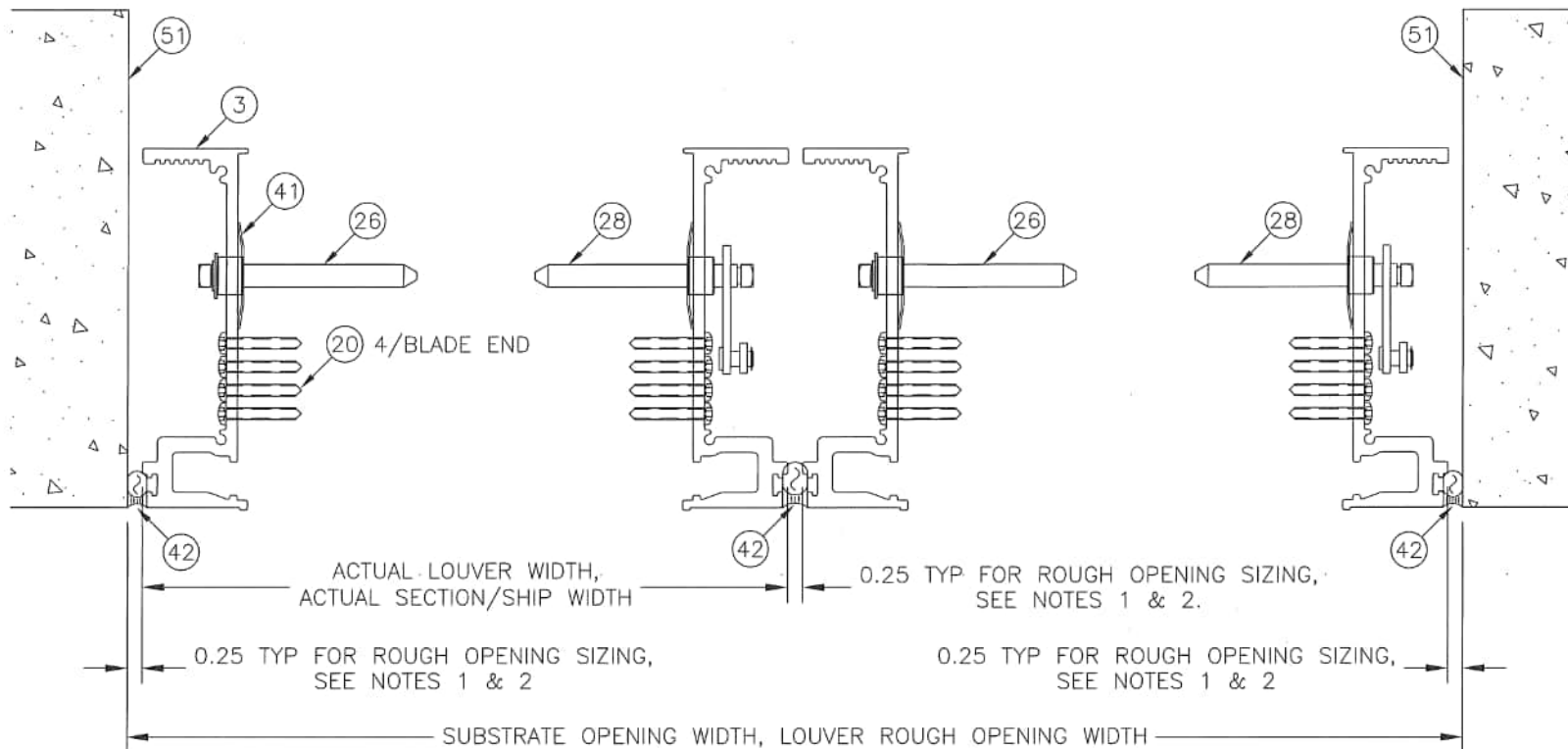
STAMPING BLOCK

PRODUCT REVISED
as complying with the Florida
Building Code
NOA-No. **23-0726.02**
Expiration Date **12/05/2028**

By 
Miami-Dade Product Control

A circular professional engineer seal for Robert V. Nangia. The outer ring contains the text "ROBERT V. NANGIA" at the top and "PROFESSIONAL ENGINEER" at the bottom, separated by two stars. Inside the ring, the word "LICENSE" is at the top, "No. 69535" is in the center, and "STATE OF FLORIDA" is at the bottom, also separated by two stars. A diagonal line is drawn across the seal from the bottom left to the top right.

SEP 25 2023



7
5 JAMB, NON-DRIVE SIDE
SCALE: 1:2

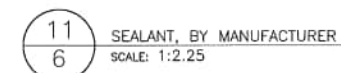
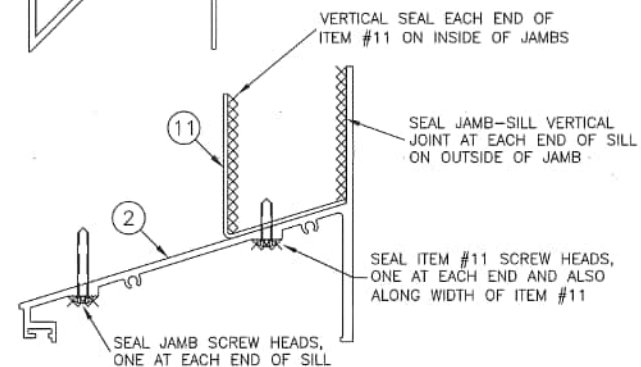
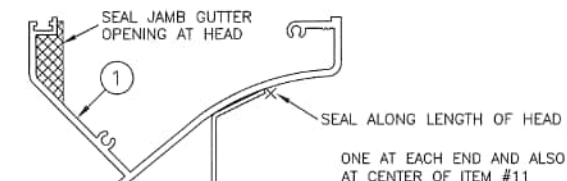
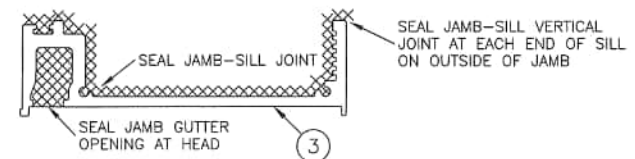
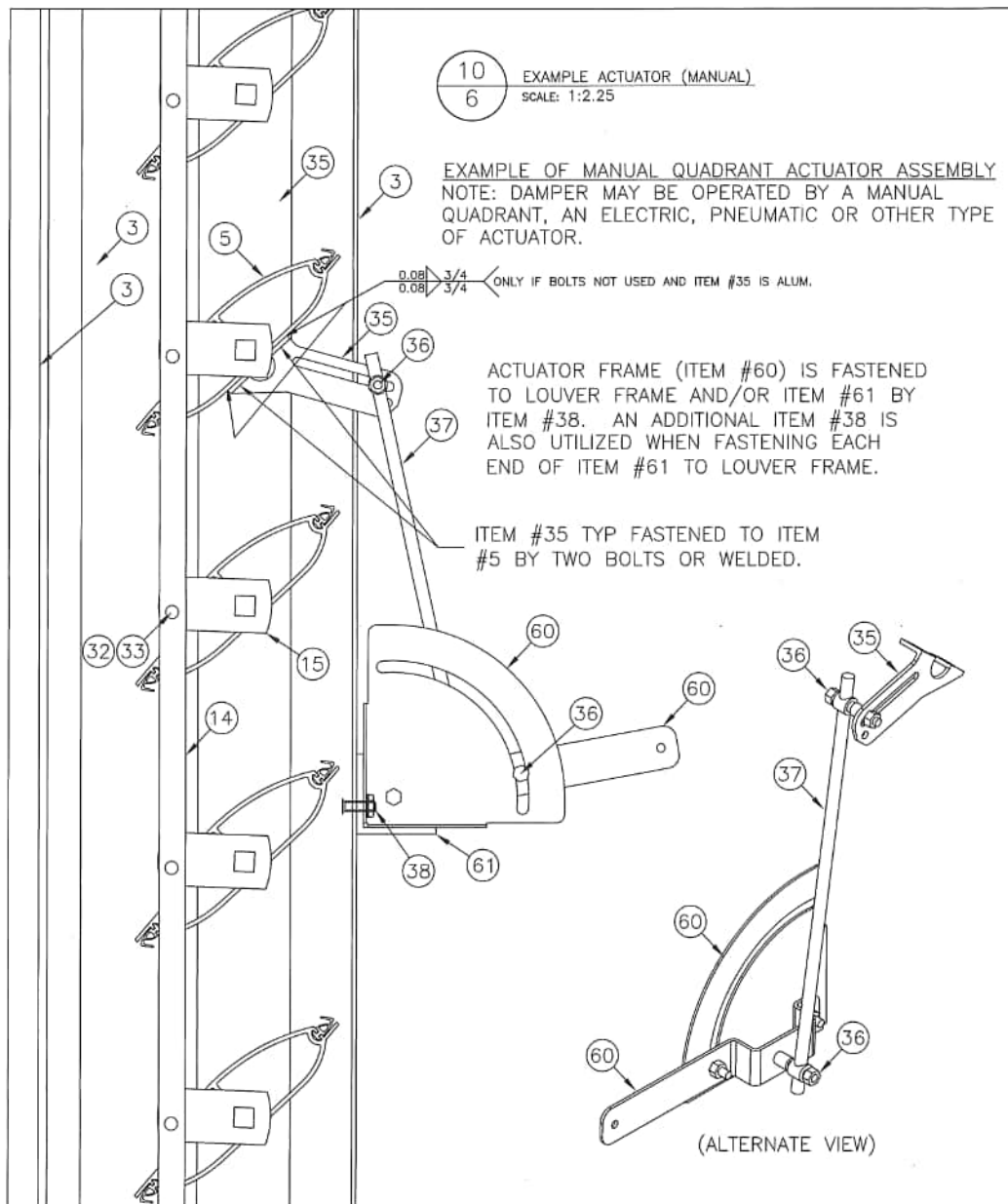
8
5 MULLION
SCALE: 1:2

9
5 JAMB, DRIVE SIDE
SCALE: 1:2

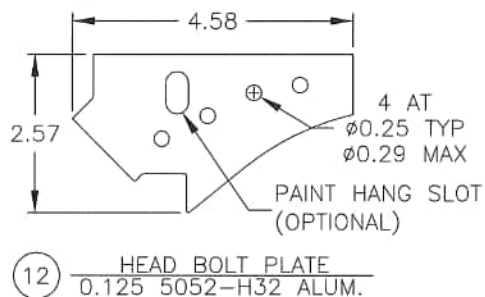
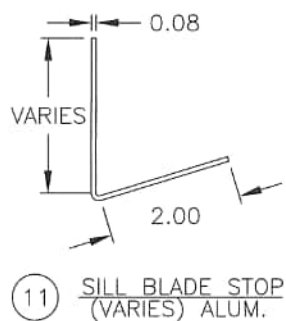
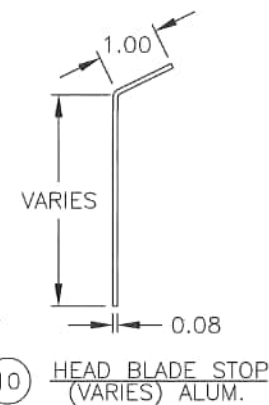
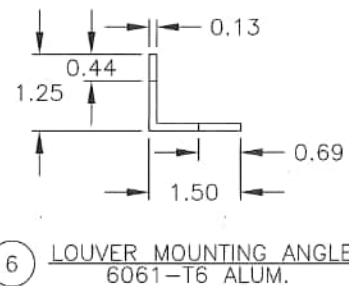
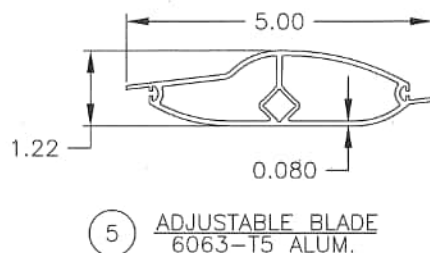
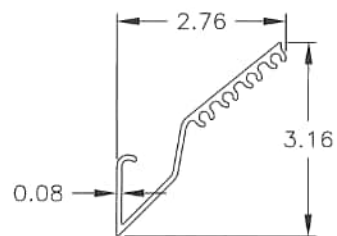
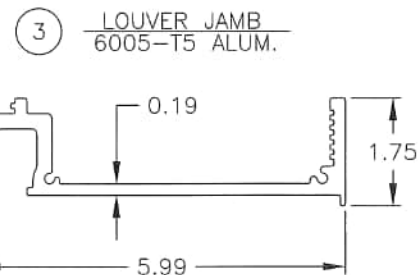
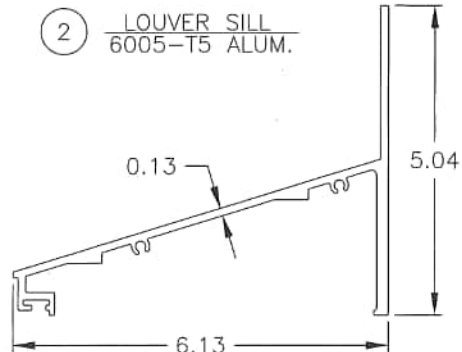
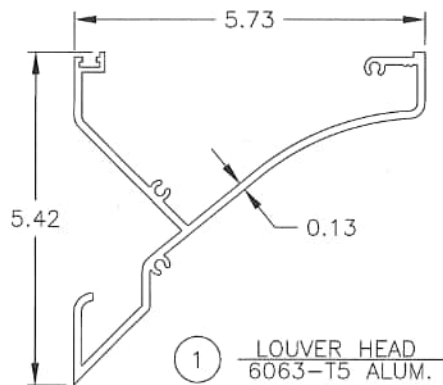
NOTE 1: THE SUM OF THE MINIMUM GAP ALLOCATED TO EACH LOUVER SECTION AT THE JAMBS MUST BE ≥ 0.125 TO ACCOMMODATE POSSIBLE THERMAL MOVEMENT.

NOTE 2: END GAP MUST COMPLY TO SEALANT MANUFACTURE'S JOINT PERFORMANCE RECOMMENDATIONS.

DRAWN BY MES	DATE 7/7/23	SHEET NO. 5 OF 10	CAD DRAWING NO. EACA-601D
	SCALE		
GREENHECK P.O. BOX 410 SCHOFIELD, WISCONSIN 54476-0410		TITLE GREENHECK EACA-601D AIROLITE K8206AMD JAMB AND MULLION DETAILS	
STAMPING BLOCK			
PRODUCT REVISED as complying with the Florida Building Code NOA-No. 23-0726.02 Expiration Date 12/05/2028 By Miami-Dade Product Control			
STAMPING BLOCK		STAMPING BLOCK	
STAMPING BLOCK			



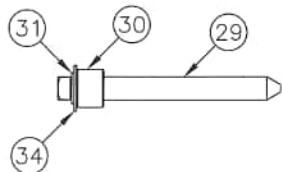
DRAWN BY MES	DATE 7/7/23	SHEET NO. 6 OF 10	CAD DRAWING NO. EACA-601D
SCALE			
GREENHECK P.O. BOX 410 SCHOFIELD, WISCONSIN 54476-0410		TITLE GREENHECK EACA-601D AIROLITE K8206AMD EXAMPLE ACTUATOR & SEALING	
STAMPING BLOCK		PRODUCT REVISED as complying with the Florida Building Code NOA-No. 23-0726.02 Expiration Date 12/05/2028 By <i>[Signature]</i> Miami-Dade Product Control	
STAMPING BLOCK	STAMPING BLOCK	STAMPING BLOCK SEP 25 2023	



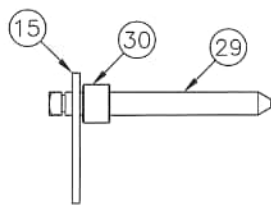
ALL SHOWN DIMENSIONS ARE MINIMUMS
SS = STAINLESS STEEL
PCS = PLATED OR COATED STEEL

REVISION 2, 7/7/23: MOVED ITEMS 13 THRU 15 TO
PAGE 8 TO ALLOW ROOM FOR STAMPING BOXES.

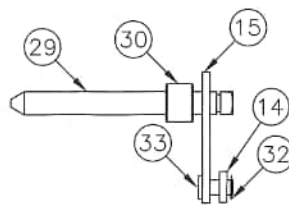
DRAWN BY MES	DATE 7/7/23	SHEET NO. 7 OF 10	CAD DRAWING NO. EACA-601D
SCALE			
 P.O. BOX 410 SCHOFIELD, WISCONSIN 54476-0410		TITLE GREENHECK EACA-601D AIROLITE K8206AMD PART PROFILES	
STAMPING BLOCK		PRODUCT REVISED as complying with the Florida Building Code NOA-No. 23-0726.02 Expiration Date 12/05/2028 By Miami-Dade Product Control	
STAMPING BLOCK		 ROBERT V. NANGA LICENSE No. 69555 STATE OF FLORIDA PROFESSIONAL ENGINEER EXPIRATION DATE 12/31/2023	



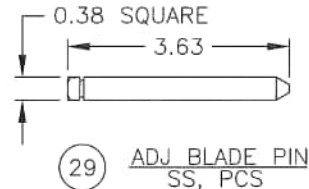
(26) NON-DRIVE PIN ASSEMBLY



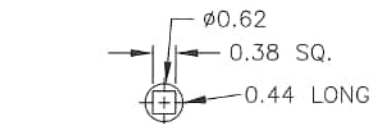
(27) NON-DRIVE PIN ASSEMBLY



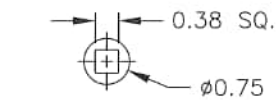
(28) DRIVE PIN ASSEMBLY



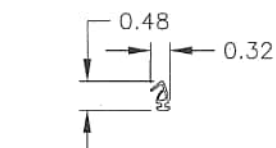
(29) ADJ BLADE PIN
SS, PCS



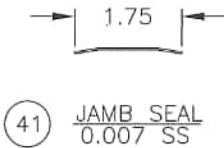
(30) PIN BUSHING
SS, BRONZE, DELRIN



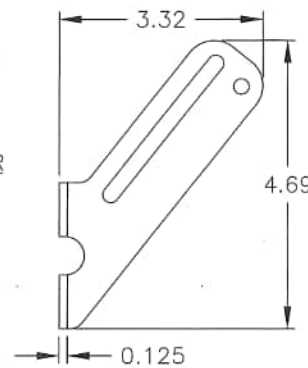
(34) SQUARE WASHER
0.04 SS, PCS



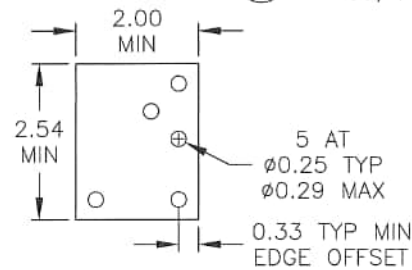
(40) ADJ. BLADE SEAL
VINYL-SILICONE



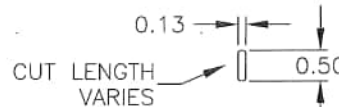
(41) JAMB SEAL
0.007 SS



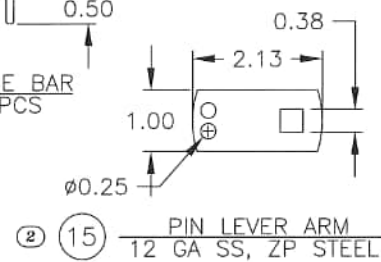
(35) ADJUSTABLE BLADE DRIVE LEVER
SS, ALUM, PCS



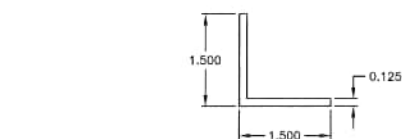
(2) (13) SILL BOLT PLATE
0.125 5052-H32 ALUM.



(14) LINKAGE BAR
SS, PCS



(2) (15) PIN LEVER ARM
12 GA SS, ZP STEEL



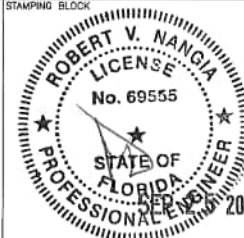
(61) ACTUATOR MTG. ANGLE (OPTIONAL)
(SIZE AND MAT'L TYPE VARIES) ALUM.

EXACT SIZE/PROFILE DEPENDS
ON ACTUATOR SETUP SELECTED

ALL SHOWN DIMENSIONS ARE MINIMUMS
PCS = PLATED OR COATED STEEL
SS = STAINLESS STEEL

REVISION 2, 7/7/23: MOVED ITEMS 13 THRU 15 TO THIS PAGE.

DRAWN BY MES	DATE 7/7/23	SCALE	SHEET NO. 8 OF 10
GREENHECK P.O. BOX 410 SCHOFIELD, WISCONSIN 54476-0410	TITLE GREENHECK EACA-601D AIROLITE K8206AMD PART PROFILES (CON.) & SUBSTRATE FASTENER TABLE	STAMPING BLOCK	STAMPING BLOCK
CAD DRAWING NO. EACA-601D	PRODUCT REVISED as complying with the Florida Building Code NOA-No. 23-0726.02 Expiration Date 12/05/2028 By Miami-Dade Product Control	STAMPING BLOCK	STAMPING BLOCK



3/8" HILTI ANCHOR TABLE ②				
FASTENER NUMBER	50A			
SUBSTRATE	CONCRETE (CRACKED), NORMAL WEIGHT, MIN 6" DEEP			
MINIMUM	2.5 KSI	3 KSI		2.5 KSI
EDGE DISTANCE (MIN)	2 IN	1.82 IN	1.75 IN	2.5 IN
DESCRIPTION	3/8" HILTI SCREW ANCHOR, KWIK HUS-EZ (KH-EZ), SS316		3/8" HILTI WEDGE ANCHOR, KWIK BOLT TZ2 (KB-TZ2), SS304 OR SS316	
PURCHASE INFO	KH-EZ SS316 3/8"x3" (4" LENGTH REQ. IF SHIM > 0.375 IS USED UNDER MOUNTING ANGLE)		KH-EZ SS316 3/8"x4" KB-TZ2 SS304 3/8"x5" OR KB-TZ2 SS316 3/8"x5"	
PENETRATION (MIN)	2.5 NDM		2.5 NDM, 2.0 EFF	
LOUVER HEIGHT (IN)	SPACING (IN)		SPACING (IN)	
≤ 120	MIN 6, MAX 6		MIN 6, MAX 6	
≤ 95			MIN 8, MAX 8	
≤ 90				

LAG SCREW, SCREW, & BOLT W/NUT ANCHOR TABLE					
FASTENER NUMBER	50C	50D	50E		
SUBSTRATE	WOOD		STEEL		ALUMINUM
DESCRIPTION (2)	1/4" LAG SCREW 300 SS	3/8" LAG SCREW 300 SS	1/4"-20 SCREW OR BOLT W/NUT 300 SS		
MINIMUM	G ≥ 0.42		A36 STEEL OR Fy ≥36 KSI		STRESSES ≥ 6063-T5
EDGE DISTANCE (MIN)	1 IN	1-1/2 IN	1/2 IN		1/2 IN
CORNER DISTANCE (MIN)	1 IN	1-1/2 IN	1/2 IN		1/2 IN
PENETRATION (MIN)	2-3/4 IN, PURCHASE LENGTH SHALL BE ≥ (2.875 + ANY SHIM THICKNESS UNDER MOUNTING ANGLE)		16 GA (0.06 IN)	3/16 IN	16 GA (0.06 IN)
LOUVER HEIGHT (IN)	SPACING (IN) (2)		SPACING (IN) (2)		SPACING (IN) (2)
≤ 120	MIN 4, MAX 4	MIN 6, MAX 6	MIN 4, MAX 4	MIN 6, MAX 6	MIN 4, MAX 4
≤ 96		MIN 6, MAX 8	MIN 4, MAX 6		MIN 4, MAX 6
≤ 84					
≤ 72	MIN 4, MAX 6				

REVISION 2, 7/7/23: ITEM 50A TABLE WAS UPDATED FROM A 3/8" POWERS WEDGE BOLT ANCHOR TO 3/8" HILTI ANCHORS, CLARIFIED SUBSTRATE REQUIREMENTS OF ITEM 50B, ADDED ALLOY AND COATING REQUIREMENTS OF ITEM 50B, ADDED PURCHASE INFORMATION TO ITEM 50B, ADJUSTED AND CLARIFIED SPACING MIN AND MAX OF ITEM 50B, ADDED ALLOY TO ITEMS 50C THRU 50E, CLARIFIED SPACING MIN AND MAX OF ITEMS 50C THRU 50E, REFORMATTED ITEM 23 TABLE, AND REMOVED ASTERISK NOTE.

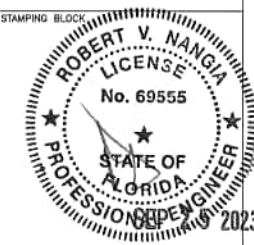
1/4" TAPCON SCREW ANCHOR TABLE			
FASTENER NUMBER	50B		
SUBSTRATE ②	CONCRETE (UNCRACKED) MIN 6" DEEP, OR CONCRETE MASONRY (CMU) MIN 8" DEEP		
DESCRIPTION ②	1/4" TAPCON SCREW, 410 SS W/ CLIMASHIELD OR STEEL W/ ULTRASHIELD/CLIMASHIELD/CLIMASEAL		
MINIMUM	CONCRETE: 3 KSI ACI 301 CONCRETE CMU: ASTM C90, 3 KSI GROUT FILLED, LIGHT-WIGHT ≥ 95 PCF, MEDIUM-WEIGHT ≥ 117 PCF		
EDGE DISTANCE (MIN)	1 IN	1-1/2 IN	2-1/2 IN
SLAB/BLOCK CORNER DISTANCE (MIN)	1 IN	1-1/2 IN	2-1/2 IN
PENETRATION (MIN)	1-3/4 IN, PURCHASE LENGTH SHALL BE ≥ (1.875 + ANY SHIM THICKNESS UNDER MOUNTING ANGLE) ③		
LOUVER HEIGHT (IN)	SPACING (IN)		③
CONCRETE ≤ 120	NOT ALLOWED	NOT ALLOWED	NOT ALLOWED
CONCRETE ≤ 98		MIN 4, MAX 4	MIN 4, MAX 4
CONCRETE ≤ 70			MIN 4, MAX 6
CONCRETE ≤ 66			
CONCRETE ≤ 54		MIN 4, MAX 4	MIN 4, MAX 6
CONCRETE ≤ 46	MIN 4, MAX 6		
CONCRETE ≤ 36	MIN 4, MAX 6	MIN 4, MAX 6	
CMU ≤ 120	NOT ALLOWED	NOT ALLOWED	NOT ALLOWED
CMU ≤ 88		MIN 4, MAX 4	MIN 4, MAX 4
CMU ≤ 62			MIN 4, MAX 6
CMU ≤ 58			
CMU ≤ 48	MIN 4, MAX 4	MIN 4, MAX 6	
CMU ≤ 42	MIN 4, MAX 6	MIN 4, MAX 6	
CMU ≤ 32	MIN 4, MAX 6	MIN 4, MAX 6	

CONTINUOUS ANGLE TO LOUVER FRAME SCREW

FASTENER NUMBER	23
LOUVER HEIGHT (IN)	MAXIMUM SPACING (IN)
≤ 120	3.75
≤ 108	4

STAMPING BLOCK

STAMPING BLOCK

DRAWN BY MES	DATE 7/7/23	SHEET NO. 9 OF 10	CAD DRAWING NO. EACA-601D
	SCALE		
 P.O. BOX 410 SCHOFIELD, WISCONSIN 54476-0410		TITLE GREENHECK EACA-601D AIROLITE K8206AMD FASTENER TABLES	
STAMPING BLOCK PRODUCT REVISED as complying with the Florida Building Code NOA-No. 23-0726.02 Expiration Date 12/05/2028 By  Miami-Dade Product Control			
STAMPING BLOCK 			

ITEM	DESCRIPTION	MATERIAL	NOTES
1	LOUVER HEAD	ALUM	
2	LOUVER SILL	ALUM	
3	LOUVER JAMB	ALUM	
4	LOUVER FIXED BLADE	ALUM	4.8" SPACING
5	LOUVER ADJUSTABLE BLADE	ALUM	4.8" SPACING
6	LOUVER MOUNTING ANGLE, CONTINUOUS	ALUM	AT HEAD & SILL ONLY
10	HEAD BLADE STOP	ALUM	
11	SILL BLADE STOP	ALUM	
12	HEAD BOLT PLATE	ALUM	NOT REQUIRED IF HEAD IS WELDED DIRECTLY TO JAMB
13	SILL BOLT PLATE	ALUM	NOT REQUIRED IF SILL IS WELDED DIRECTLY TO JAMB
14	LINKAGE BAR	SS/PCS	
15	PIN LEVER ARM	SS/PCS	CRIMPED TO PIN
20	#10 x 1.25 MIN SCREW	SS/PCS	
21	#10 x 3/4 MIN SCREW, 4" MAX END DISTANCE	SS/PCS	24" MAX O.C. ALONG BLADE STOP
22	1/8 MIN DIA. RIVET, 4" MAX END DISTANCE	SS/ALUM/PC	24" MAX O.C. ALONG BLADE STOP
23	1/4-20 x 1 SCREW, 4" MAX END DISTANCE	SS/PCS	SEE FASTENER TABLE
24A	1/4-20 x 5/8 LONG MIN BOLT W/ FLANGE NUT	SS/PCS	AT HEAD AND UNDER SLOPED SILL
24B	1/4-20 x 7/8 LONG MIN BOLT W/ FLANGE NUT	SS/PCS	AT SILL ABOVE SLOPED SILL
25	0.04 x 1/4 x 5/8 WASHER	SS/PCS	
26	NON-DRIVE PIN ASSEMBLY	VARIOUS	
27	NON-DRIVE PIN ASSEMBLY	VARIOUS	ALLOWED TO REPLACE ITEM 26
28	DRIVE PIN ASSEMBLY	VARIOUS	ALLOWED TO REPLACE ITEM 26
29	ADJUSTABLE BLADE PIN	SS/PCS	
30	PIN BUSHING	SS/BRONZE/DELTRIN	
31	1/4 E-CLIP	SS/PCS	
32	7/32 E-CLIP	SS/PCS	
33	1/4 x 0.5 KNURL PIN	SS/PCS	PRESS FIT INTO PIN LEVER ARM
34	0.04 x 3/8 SQUARE x 3/4 WASHER	SS/PCS	
35	ADJUSTABLE BLADE DRIVE LEVER	SS/ALUM/PCS	
36	1/4-20 x 9/16 BALL SWIVEL W/ NUT	SS/PCS	
37	5/16 DIA. LINKAGE ROD	SS/PCS	
38	#10-32 x 5/8 THREAD STUD W/ NUT	SS/PCS	
40	ADJUSTABLE BLADE SEAL	VINYL/SILICONE	
41	JAMB SEAL	SS	
42	SEALANT AND BACKER ROD	VARIES	NOT BY MANUFACTURER
50A	3/8 HILTI SCREW OR WEDGE ANCHOR (B)	SS (B)	SEE ANCHOR TABLE
50B	1/4 TAPCON, BY OTHERS	SS/PCS	SEE ANCHOR TABLE
50C	1/4 LAG SCREW, BY OTHERS	SS (B)	SEE ANCHOR TABLE
50D	3/8 LAG SCREW, BY OTHERS	SS (B)	SEE ANCHOR TABLE
50E	1/4-20 SCREW OR BOLT W/NUT, BY OTHERS	SS (B)	SEE ANCHOR TABLE
51A	CONCRETE, 2.5 OR 3 KSI, BY OTHERS (B)	CONCRETE	SEE ANCHOR TABLE
51B	CMU, 3 KSI GROUT FILLED, BY OTHERS (B)	CONCRETE	SEE ANCHOR TABLE
51C	STRUCTURAL STEEL, 3/16 36 KSI, BY OTHERS	STEEL	SEE ANCHOR TABLE
51D	STEEL STUD, 16 GA FY 36 KSI, BY OTHERS	STEEL	SEE ANCHOR TABLE
51E	WOOD, G 0.42, BY OTHERS	WOOD	SEE ANCHOR TABLE
51F	ALUMINUM, 1/8 6063-T5, BY OTHERS	ALUM	SEE ANCHOR TABLE
52	INCOMPRESSIBLE SHIM, OPTIONAL, AS REQUIRED	VARIES	BY OTHERS
60	ACTUATOR, COMPONENTS VARY AMONG TYPES	VARIES	TYPE VARIES, NOT ALWAYS BY MANUFACTURER
61	ACTUATOR MOUNTING ANGLE (MAY OR MAY NOT BE REQUIRED BASED ON ACTUATOR MOUNT TYPE)	ALUM	BY MANUFACTURER WHEN MANUFACTURER MOUNTS ACTUATOR

GENERAL NOTES:

1. IT SHALL BE THE RESPONSIBILITY OF THE PERMIT HOLDER TO VERIFY THE STRUCTURAL INTEGRITY OF THE EXISTING STRUCTURE TO SUPPORT THE LOADS IMPOSED BY THE LOUVER ASSEMBLY.
2. THIS LOUVER HAS BEEN DESIGNED AND TESTED IN ACCORDANCE WITH MIAMI-DADE COUNTY PROTOCOLS [AND QUALIFIED IN ACCORDANCE WITH THE CURRENT FLORIDA BUILDING CODE (FBC) AND TEST PROTOCOLS/STANDARDS]: TAS-201 (LARGE MISSILE IMPACT TEST), TAS-202 (UNIFORM STATIC WIND PRESSURE TEST), TAS-203 (UNIFORM CYCLIC WIND PRESSURE TEST), & AMCA STANDARD 550-09 (HIGH VELOCITY WIND-DRIVEN RAIN TEST).
3. THIS LOUVER HAS BEEN DESIGNED, TESTED, AND APPROVED TO WITHSTAND DESIGN PRESSURES OF UP TO AND INCLUDING +/-110 PSF (ASD). (B)
4. THE LOUVER MAY BE INSTALLED IN A LOCATION WHERE THE ROOM BEHIND THE LOUVER IS NOT DESIGNED TO DRAIN WATER PENETRATING INTO THE ROOM OR THE ROOM WILL HOUSE NON-WATER RESISTANT OR NON-WATER PROOF EQUIPMENT, COMPONENTS, OR SUPPLIES.
5. THE MAXIMUM SINGLE SECTION SIZE IS 60" WIDE BY 120" HIGH. THE MAXIMUM OVERALL/ASSEMBLED SIZE IS UNLIMITED WIDE (BY USE OF MULTIPLE SECTIONS OF 60" WIDE OR LESS) BY 120" HIGH. SECTIONS/ASSEMBLIES MAY BE STACKED VERTICALLY PROVIDED THERE IS SUITABLE STRUCTURAL SUPPORT (DESIGNED AND INSTALLED BY OTHERS) TO SUPPORT ALL LOADS TRANSFERRED FROM THE LOUVER HEAD AND/OR SILL TO THE SUBSTRATE.
6. WOOD SUBSTRATE SHALL HAVE SPECIFIC GRAVITY (G) $\geq$ 0.42. STEEL STUD SUBSTRATE SHALL BE MIN 16 GA, FY $\geq$ 36 KSI. STRUCTURAL STEEL SUBSTRATE SHALL BE MIN 3/16" THICK, FY $\geq$ 36 KSI. CONCRETE SUBSTRATE SHALL BE RATED $\geq$ 2.5 KSI OR $\geq$ 3 KSI AS REQUIRED BASED ON FASTENER TYPE USED. CONCRETE MASONRY (CMU) SHALL BE $\geq$ THE FOLLOWING: 6" DEEP, GRADE N, TYPE II, LIGHT/MEDIUM/NORMAL-WEIGHT CMU CONFORMING TO ASTM C90, AND 3 KSI GROUT-FILLED. ALUMINUM SUBSTRATE SHALL BE MIN 1/8" THICK, WITH ALLOWABLE STRESSES $\geq$ THAT OF 6063-T5. (B)
7. LOUVER CONSTRUCTION: HEAD, SILL, JAMBS, AND BLADES ARE SQUARE CUT AT BOTH ENDS. FIXED AND ADJUSTABLE BLADE SPACING IS 4.8". FIXED BLADES ARE SECURED TO THE JAMBS WITH (4) SCREWS PER BLADE END. ADJUSTABLE BLADES ARE SECURED TO THE JAMBS WITH (1) PIN PER BLADE END. EACH JAMB IS SECURED TO THE SILL WITH (1) SCREW AND TO THE HEAD WITH (2) SCREWS. THE HEAD IS ALSO EACH JAMB IS SECURED TO THE SILL WITH (1) SCREW AND TO THE HEAD WITH (2) SCREWS. THE HEAD IS ALSO SECURED TO THE JAMB WITH (4) BOLTS PER HEAD END OR WELDED DIRECTLY TO THE JAMBS. THE SILL IS ALSO SECURED TO THE JAMB WITH (3) BOLTS PER SILL END OR WELDED DIRECTLY TO THE JAMBS.
8. INSTALLER TO PROVIDE SEPARATION OF DISSIMILAR MATERIALS AS REQUIRED PER FBC.
9. ALL STAINLESS STEEL AND PLATED/COATED STEEL PARTS PROVIDED BY MANUFACTURER ARE INHERENTLY CORROSION RESISTANT OR HAVE A CORROSION RESISTANT COATING.
10. STEEL, STAINLESS STEEL, & ALUMINUM PARTS MAY BE MADE OUT OF ALTERNATE ALLOY THAT HAS $\geq$ YIELD STRENGTH.

ITEM TABLE NOTES:

PCS = PLATED OR COATED STEEL. SS = STAINLESS STEEL.
ALL SHOWN "DESCRIPTION" DIMENSIONS ARE MINIMUMS.
FLANGE NUT ALLOWED TO BE REPLACED WITH A STANDARD NUT AND WASHER.

REVISION 2, 7/7/23: ADDED ASD TO NOTE 3, CONSOLIDATED OLD NOTES 6-11 INTO A SINGLE NOTE 6 AND RENUMBERED, CONCRETE MIN NOW 2.5 FOR NOTE 6 & ITEM 51A, REMOVED 1.5 FROM NOTE 6 CMU & ITEM 51B, ITEMS 50A & 50C-50E NOW ONLY SS, AND UPDATED ITEM 50A TO HILTI BRAND.

DRAWN BY MES SCALE 	DATE 7/7/23	SHEET NO. 10 OF 10 	CAD DRAWING NO. EACA-601D
	TITLE GREENHECK EACA-601D AIROLITE K8206AMD NOTES		
STAMPING BLOCK		STAMPING BLOCK	
STAMPING BLOCK		STAMPING BLOCK	
PRODUCT REVISED as complying with the Florida Building Code NOA-No. 23-0726.02 Expiration Date 12/05/2028 By  Miami-Dade Product Control			
