



Product Evaluation Report
E.F. BAVIS & ASSOCIATES, INC.

12' Fixed Trimless Window with Vertical Mullions

Florida Product Approval # 6587.11 R8

Florida Building Code 2023

Per Rule 61G20-3

Method: 1 –D

Category: Windows

Subcategory: Fixed

Compliance Method: 61G20-3.005(1)(d)

HVHZ

Product Manufacturer:

E.F. Bavis & Associates, Inc.

201 Grandin Road

Maineville, Ohio 45039

Engineer Evaluator:

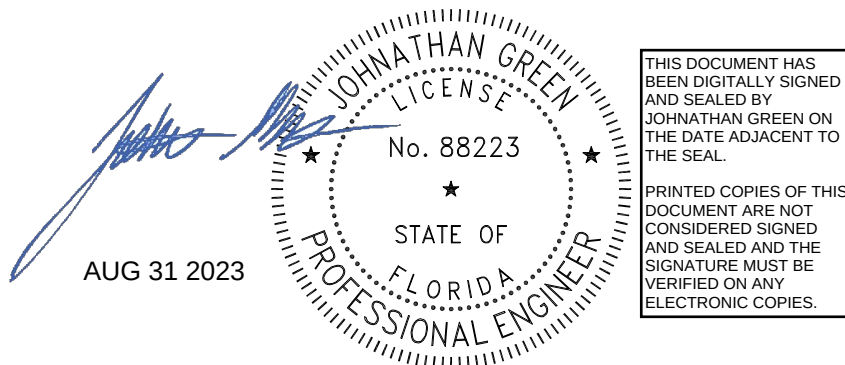
Johnathan Green, P.E. #88223

Florida Evaluation ANE ID: 12901

Contents:

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Installation Detail: Page 4 - 23





Compliance Statement:	The product as described in this report has demonstrated compliance with the Florida Building Code 2023 including High Velocity Hurricane Zone.
Product Description:	12' Fixed Trimless Window with Vertical Mullions Model #12103999.
Window Frame Size:	11'-6 1/8" wide x 2'-8 3/4" high x 6 3/4" deep
Window Frame:	Material: 14 Ga. ASTM A653 Grade 50, Galvannealed A60 Frame Coating: Nominal 3 mils Powder Coat
Window Vertical Mullions:	Three piece, 11 Ga. & 14 Ga. steel and aluminum stop bar.
Glazing:	1 1/4" (nominal) thick bullet resistant glass. The glass consists of 3/32" annealed on interior face, 3/8" annealed, 1/2" annealed and 1/4" annealed on the exterior side. A layer of 0.030" Kuraray Trosifol PVB is placed between each layer of glass.
Glazing Interlayer:	Kuraray America, Inc. 0.030" Kuraray Trosifol PVB Interlayer Miami Dade NOA NO: 23-0717.28
Window Frame Anchorage:	Header: Ten fasteners equally spaced, 7 1/4" from each end then 13 3/4" O.C. Sill: Twelve fasteners located in pairs of two at 2" apart, 8", 37" and 54 1/2" from each end. Jamb: Three fasteners located 6", 17 1/4" and 28 1/2" from bottom of frame for each jamb. All fasteners shall be corrosion resistance per Florida Building Code 2023.
Substrate:	Minimum 14 Ga. Stud framed opening or Minimum Grout filled C90 Concrete Block Nominal 8" or Minimum No 2 S.P.F. Wood frame Substrate must be designed in accordance w/ Florida Building Code 2023.
Anchor Edge Distance:	Minimum 3/4" edge distance for 14 Ga. steel framing Minimum 3" edge distance for Grout filled C90 Concrete Block Nominal 8" Minimum 1 1/4" edge distance for No 2 S.P.F. Wood frame
Design Wind Pressures:	+ / - 75.0 psf



Performance Standards:

The product described herein has demonstrated compliance with:

- TAS 201-94: Large Missile Impact Test.
- TAS 202-94: Criteria for Testing Impact and Non-Impact Resistance Building Envelope Components Using Static Air Pressure.
- TAS 203-94: Criteria for Testing Products Subject to Cyclic Wind Pressure Loading.
- ASTM F588: Type D Hand & Tool Manipulation Test

Reference Data:

1. Test Reports T197-08
Farabaugh Engineering & Testing, Inc.
2. Anchor Calculations
Terrence E. Wolfe, P.E. # 44923
3. Certificate of Independence
By Johnathan Green, P.E. (No. 88223) @ Force Engineering & Testing
(FBC Organization # ANE ID: 12901)

Quality Assurance Entity:

The manufacturer has established compliance of roof panel products in accordance with the Florida Building Code and Rule 61G20-3.005 (3) for manufacturing under a quality assurance program audited by an approved quality assurance entity.

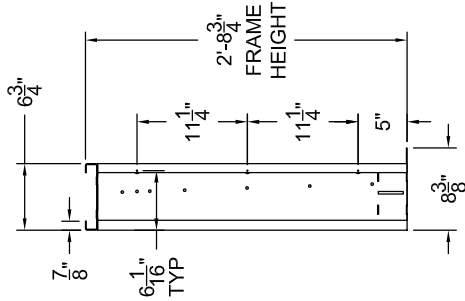
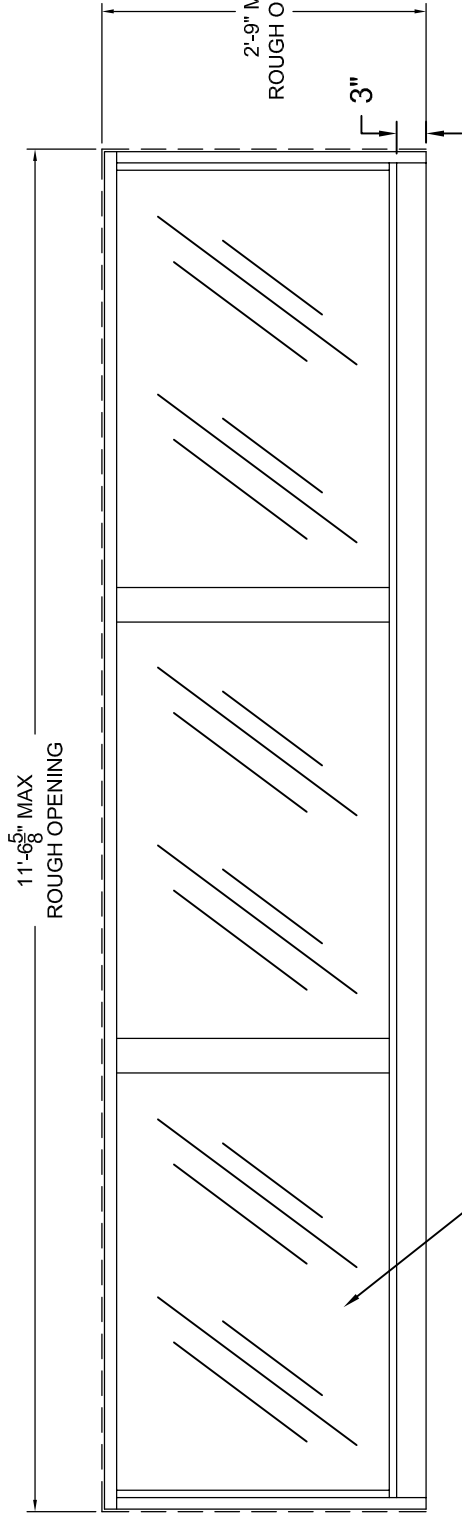
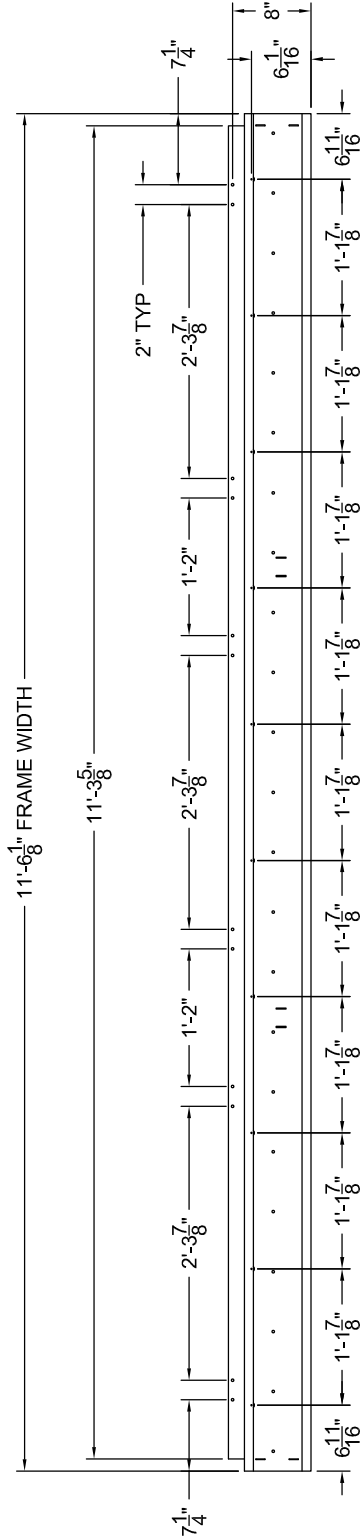
Installation:

Install per manufacturer's recommended details.

Design Procedure:

Based on the dimensions of the structure, appropriate wind loads are determined using Chapter 16 of the Florida Building Code 2023 for wall cladding wind loads. These component wind loads for wall cladding are compared to the allowable pressure listed above. The design professional shall select the appropriate erection details to reference in his drawings for proper fastener attachment to the structure. Support framing must be in compliance with Florida Building Code 2023.

REVISION RECORD		DATE	ECN	OR	CK
12/29/15	17013	12/29/15	17013	MC MB	MC MB
01/09/18	18736	01/09/18	18736	MC MB	MC MB
10/01/20	21505	10/01/20	21505	MC MB	MC MB
01/24/23	23581	01/24/23	23581	MC MB	MC MB



FL 6587.11 R8

3'-7 3/8" x 2'-4" U.L. LISTED LEVEL 1
BULLET RESISTANT GLASS

FOR INSTALLATION AND MOUNTING REQUIREMENTS,
GO TO THE FLORIDA BUILDING CODE WEBSITE AT:
http://www.floridabuilding.org/pr/pr_app_srch.aspx

SEARCH:
CODE VERSION: 2023
FL#: 6587

CATEGORY: WINDOWS
SUBCATEGORY: FIXED
APPLICATION STATUS: APPROVED

WINDOW MODEL #
12103999

PROPRIETARY

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E.F.BAVIS & ASSOCIATES INC.
201 GRANDIN RD.
MAINEVILLE, OH 45039
T: 513-677-0500 F: 513-677-0552 E: info@bavfs.com www.bavfs.com

DIMENSIONS ARE IN
FT & IN
UNLESS OTHERWISE
SPECIFIED

TITLE
HVHZ 12' TRIMLESS WINDOW

REVIEWED
10/01/20

DRAWN
M. CRAVEN

DATE
12/28/15

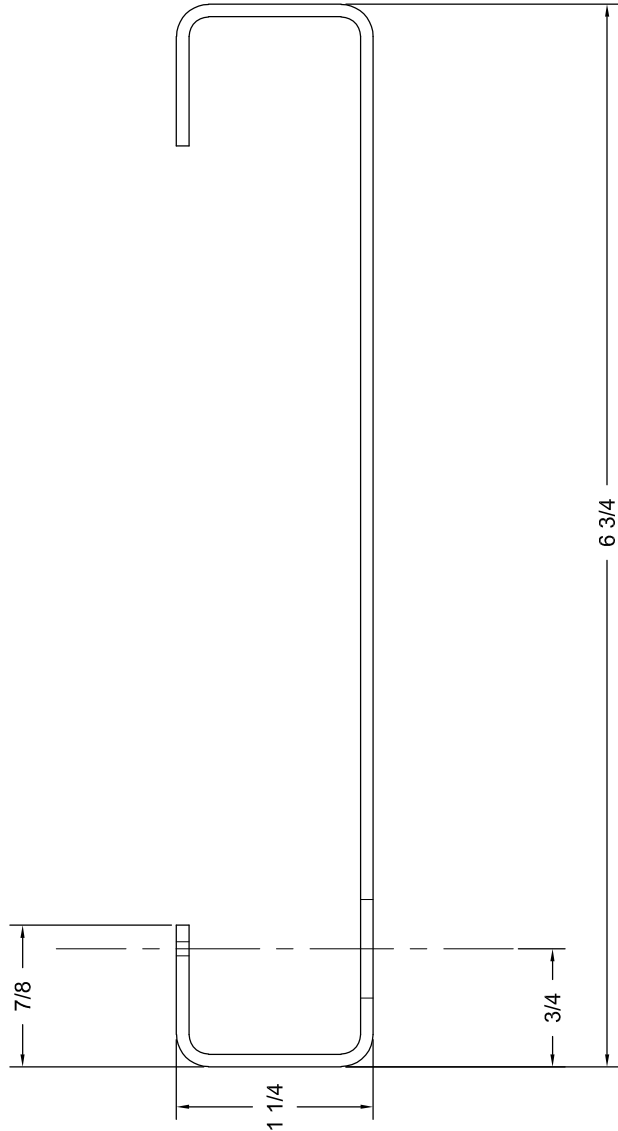
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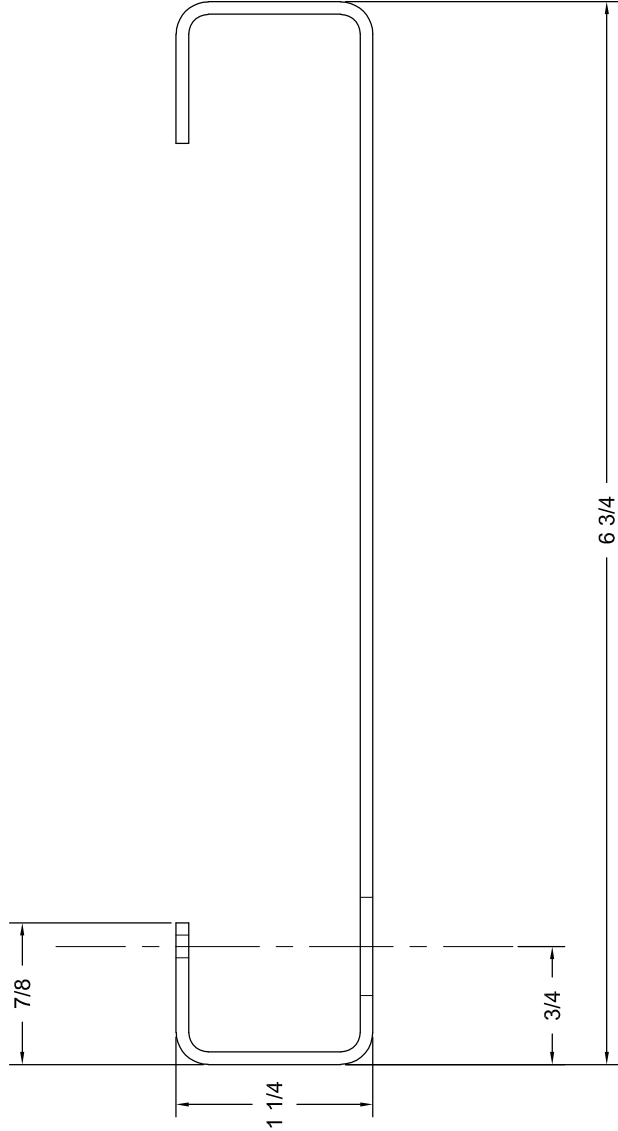
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	201 GRANDIN RD. P.O. BOX 337 MAINEVILLE, OH. 45039 0337 PH 513-677-0500 FAX 513-677-0552		THIS DOCUMENTATION AND INFORMATION CONTAINED ARE THE SOLE PROPERTY OF E.F.BAVIS & ASSOC. INC. IT SHALL BE RETURNED UPON REQUEST AND SHALL NOT BE REPRODUCED IN WHOLE OR IN PART, OR DISCLOSED TO ANYONE ELSE, OR USED, WITHOUT WRITTEN CONSENT OF E.F.BAVIS & ASSOC. INC.				DWG. 40022		DATE CREATED: 7-14-05 BAP	
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							DATE:			

VERTICAL FRAME CROSS SECTION, FOR PLANT QUALITY CONTROL



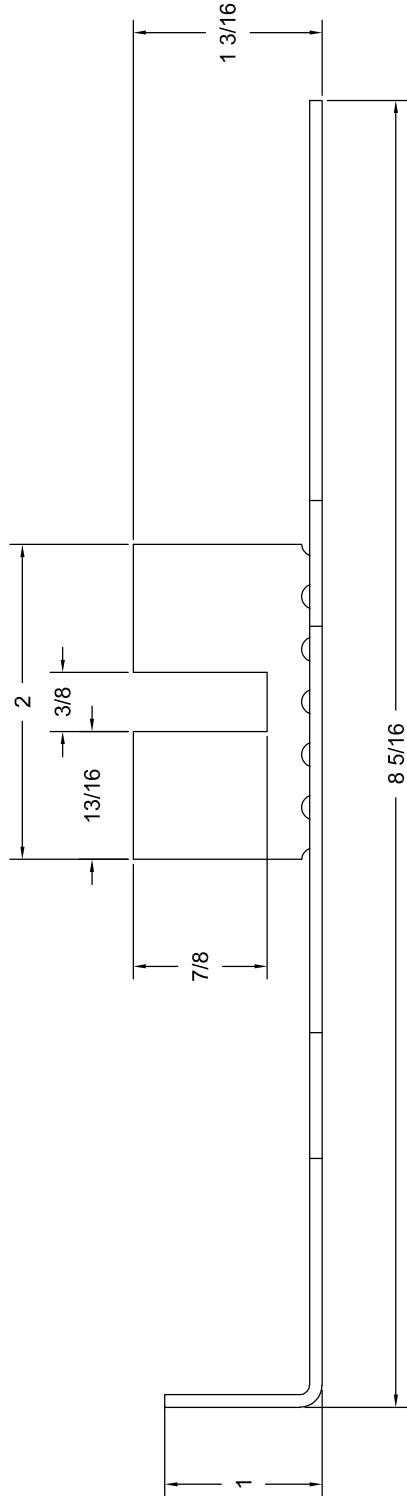
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TOP FRAME CROSS SECTION, FOR PLANT QUALITY CONTROL



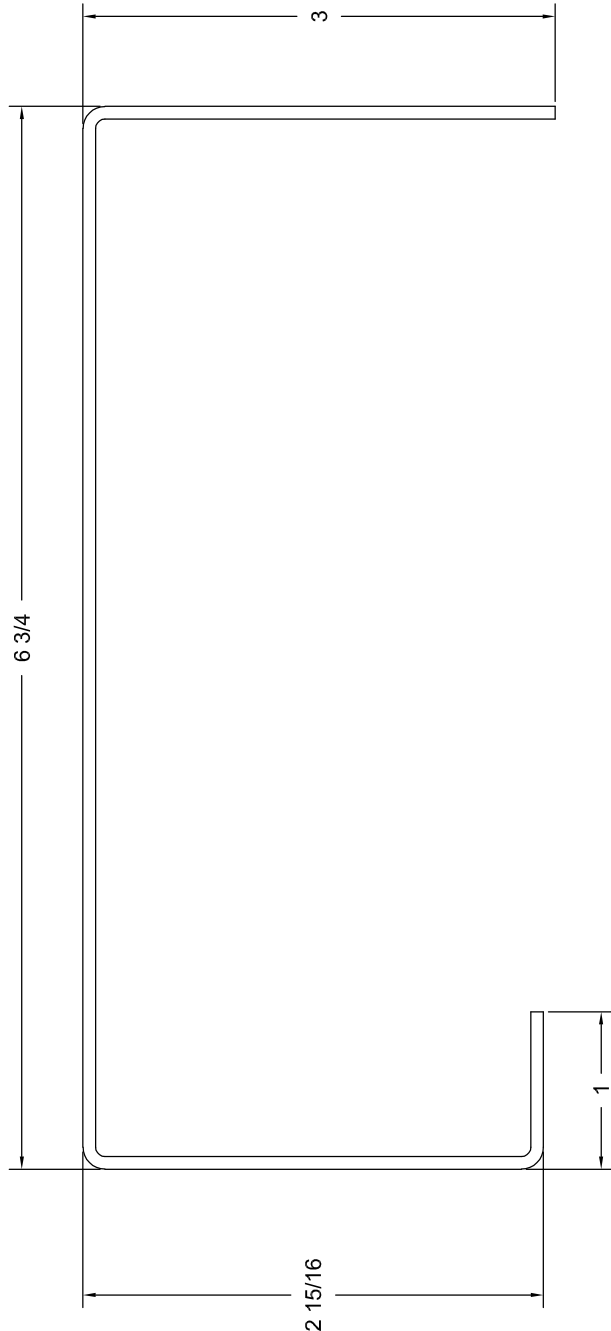
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	PH 513-677-0500 FAX 513-677-0552						DATE:			COPYRIGHT 2005 E.F.Bavis & Assoc. Inc.

LOWER SILL CROSS SECTION, FOR PLANT QUALITY CONTROL



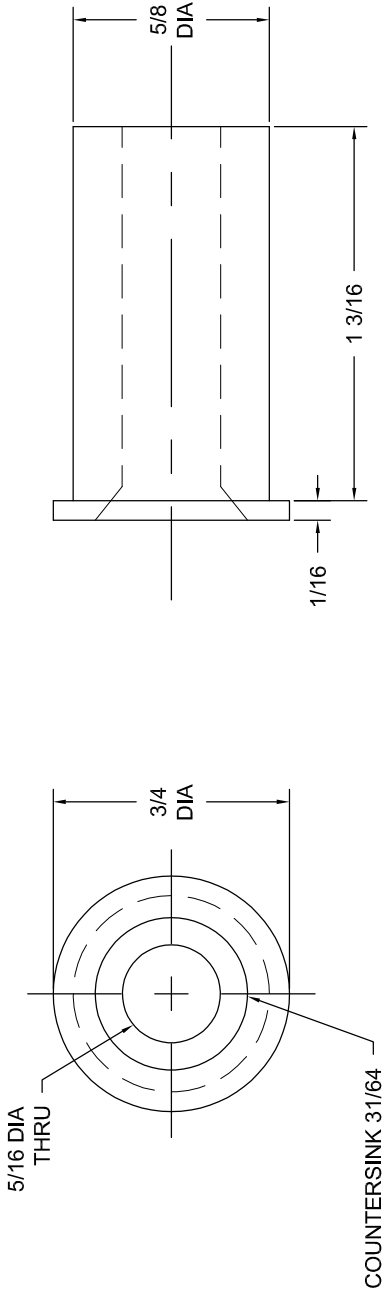
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UPPER SILL CROSS SECTION, FOR PLANT QUALITY CONTROL



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							DATE:			

WINDOW FILLER PLUG, FOR PLANT QUALITY CONTROL

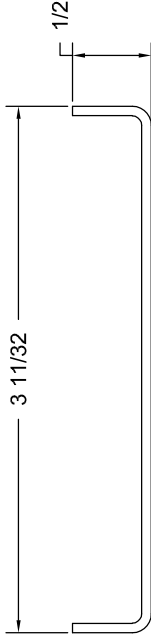
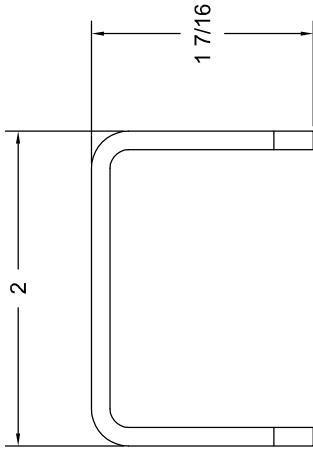


ITEM - 5
MATERIAL: 12L14 STEEL

	E.F.BAVIS & ASSOC. INC.		UNLESS OTHERWISE SPECIFIED ALL DIMENSIONS ARE IN INCHES DECIMALS: .XX ± .01 ; .XXX ± .005 FRACTIONS: + - 1/32" ANGLES: ± .30° REMOVE ALL BURRS AND SHARP EDGES TO R .02 OR .02 X .02 CHAMFER MAX.		12' FIXED TRIMLESS WINDOW		MODEL	12103999	PAGE	7 OF 17
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							DATE:			

WINDOW DIVIDER CROSS SECTION, FOR PLANT QUALITY CONTROL

NO.	ECN
1	7351

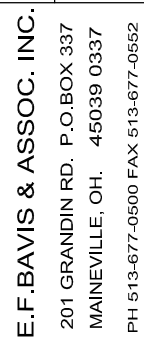


ITEM - 7

MATERIAL: ASTM A653 .118 (11 GAUGE) COLD FINISHED

ITEM - 8

MATERIAL: ASTM A653 .0785 (14 GAUGE) GALVANNEALED A60



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12' FIXED
TRIMLESS WINDOW

MODEL	12103999
DWG.	40022
REV. DATE:	04/11/14

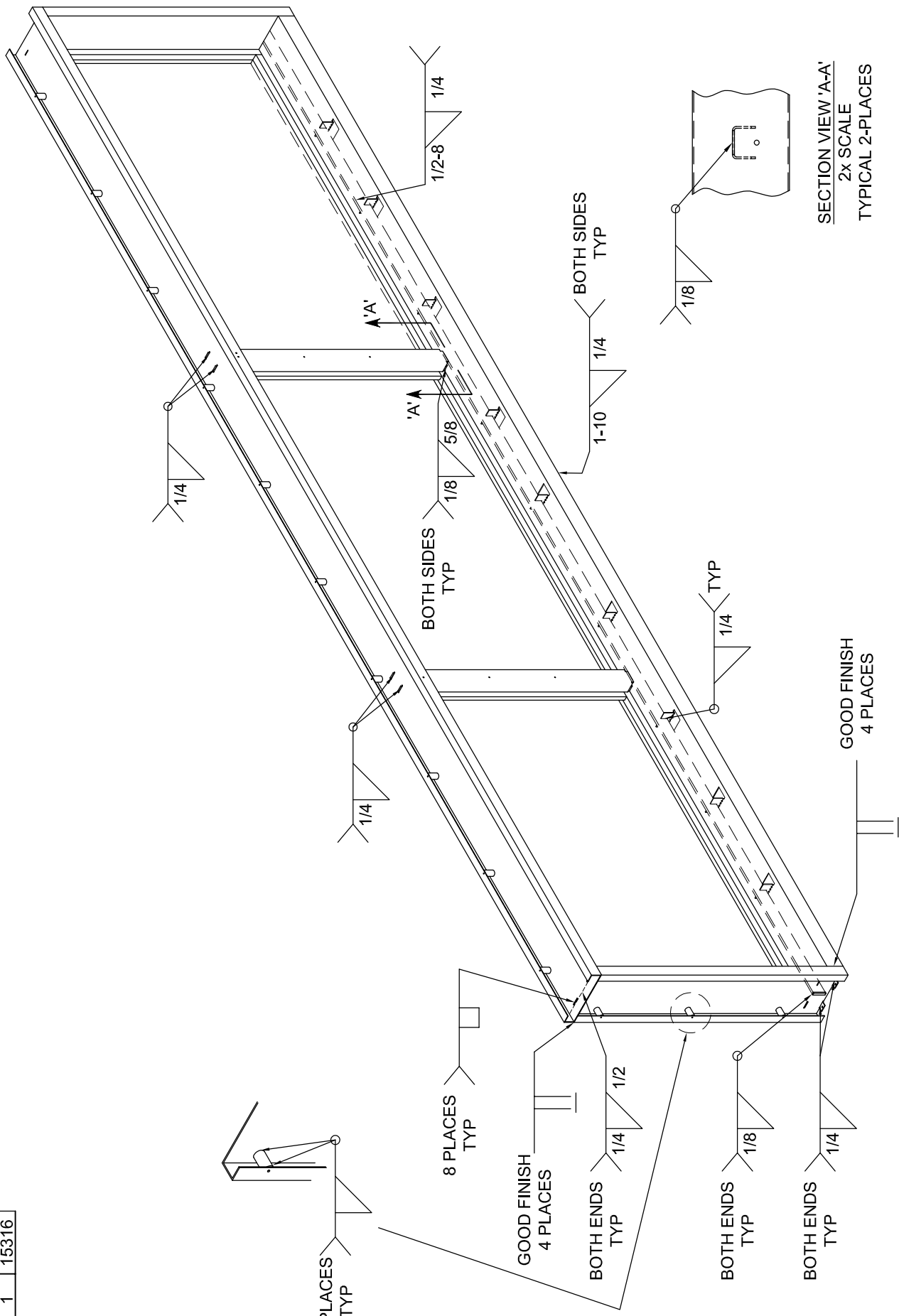
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DATE CREATED: 7-14-05 BAP

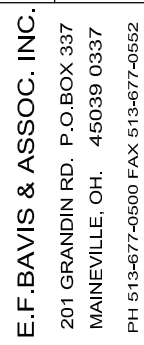
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WINDOW WELDMENT DETAIL, FOR PLANT QUALITY CONTROL

NO.	ECN
1	15316



FL 6587.11 R8

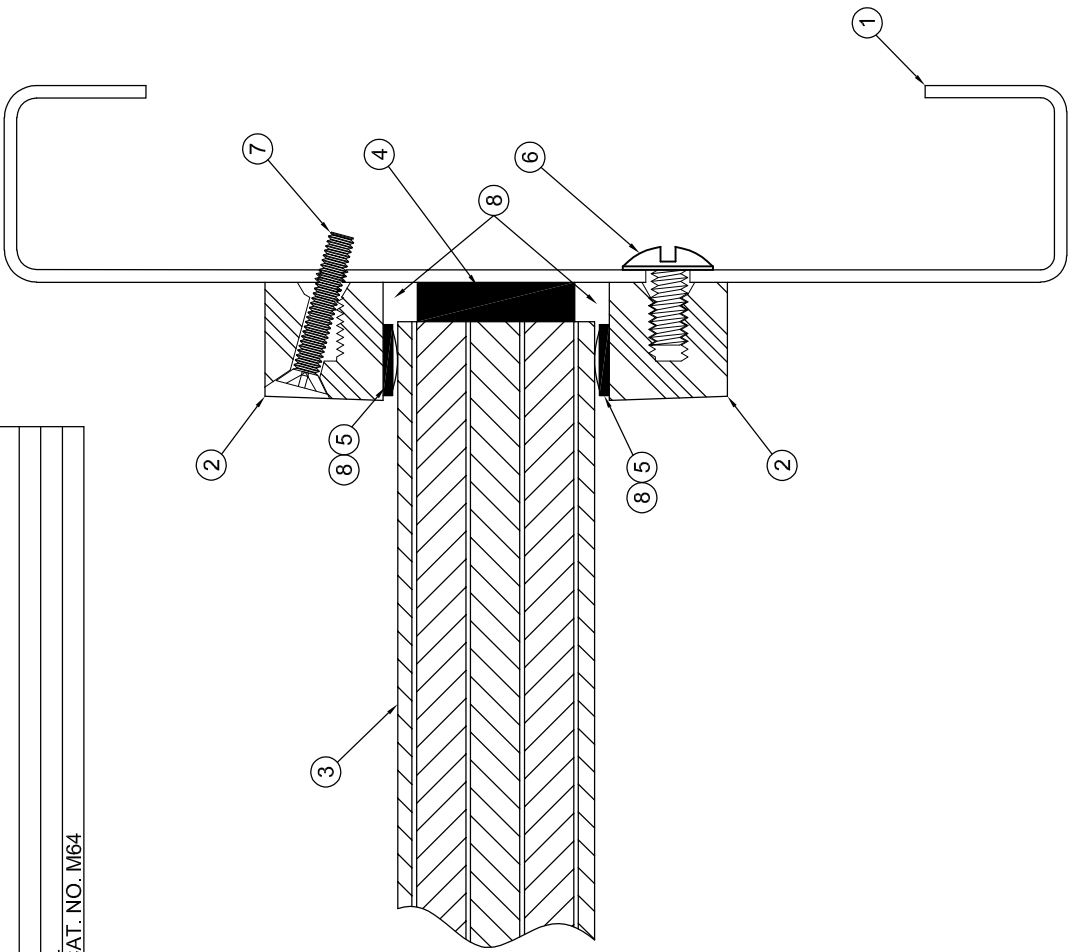


12' FIXED
TRIMLESS WINDOW

UNINSULATED GLASS WINDOW GLAZING DETAIL, FOR PLANT QUALITY CONTROL

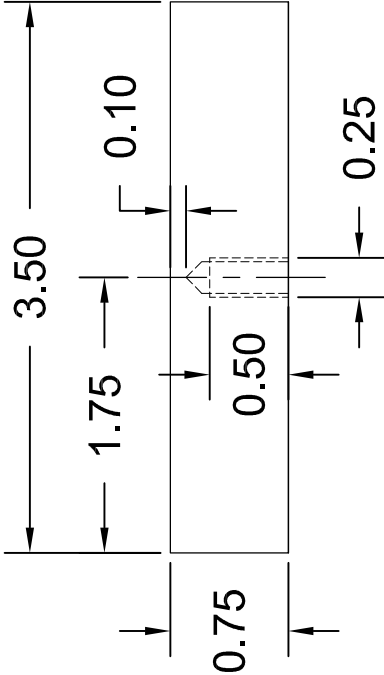
ITEM	DESCRIPTION
1	VERTICAL FRAME
2	3/4" X 3/4" ALUMINUM EXTRUSION
3	UL LISTED 78CL LEVEL 1 BULLET RESISTANT GLASS
	STANDARD MAKE-UP: 1/4" ANNEALED, 1/2" ANNEALED, 3/8" ANNEALED & 3/32" ANNEALED GLASS WITH 0.030" KURARAY TROSIFOL PVB (POLYVINYL BUTYRAL) INTERLAYERS
	INSULATED MAKE-UP: 1/4" ANNEALED, 1/4" AIR SPACE, 1/4" ANNEALED, 1/2" ANNEALED, 3/8" ANNEALED & 3/32" ANNEALED GLASS WITH 0.030" KURARAY TROSIFOL PVB (POLYVINYL BUTYRAL) INTERLAYERS
4	1" X 4" X 3/16" THICK, RUBBER SETTING BLOCK
5	1/16" BUTYL TAPE, TREMCO T242YA1760
6	1/4-20 X 1/2" PHILIPS TRUSS HEAD, ZINC COATED
7	#8-32 X 1" SPANNER FLAT HEAD, STAINLESS STEEL
8	CRL POLYURETHANE CONSTRUCTION SEALANT. CAT. NO. M64

NO.	ECN
1	18555
2	23581



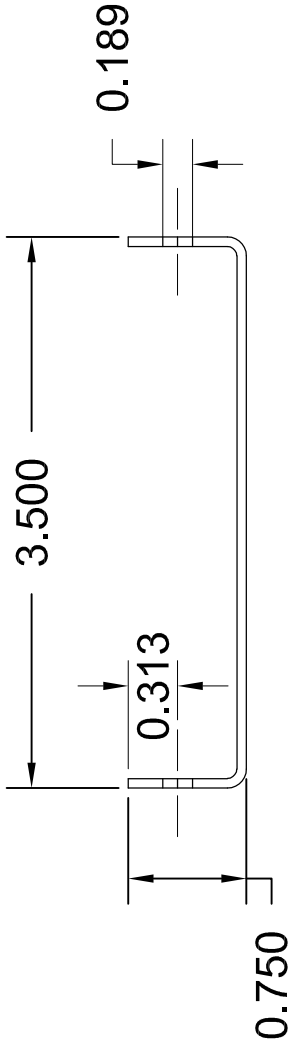
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						REV. DATE:	BB
						COPYRIGHT 2005 E.F.Bavis & Assoc. Inc.	
OUTSIDE WINDOW STOP BAR CROSS SECTION, FOR PLANT QUALITY CONTROL							

NO.	ECN
1	7351



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							DATE:			
WINDOW DIVIDER INSIDE COVER CROSS SECTION, FOR PLANT QUALITY CONTROL										

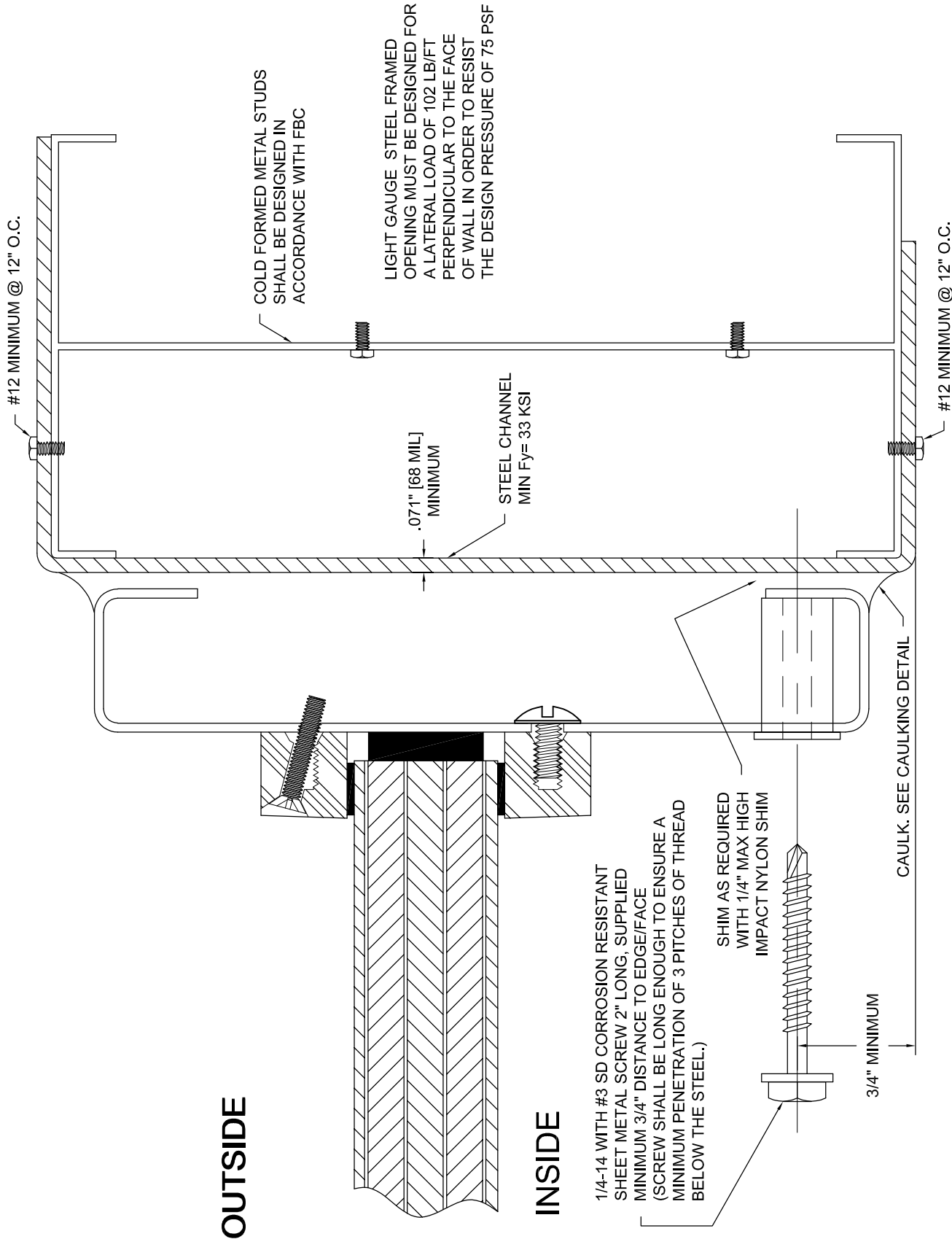
NO.	ECN
1	7351



ITEM - 6

MATERIAL: 16 GAUGE GALVANNEALED STEEL

FASTENER INSTALLATION DETAIL: METAL, HEAD AND JAMB, FIELD VERIFIED

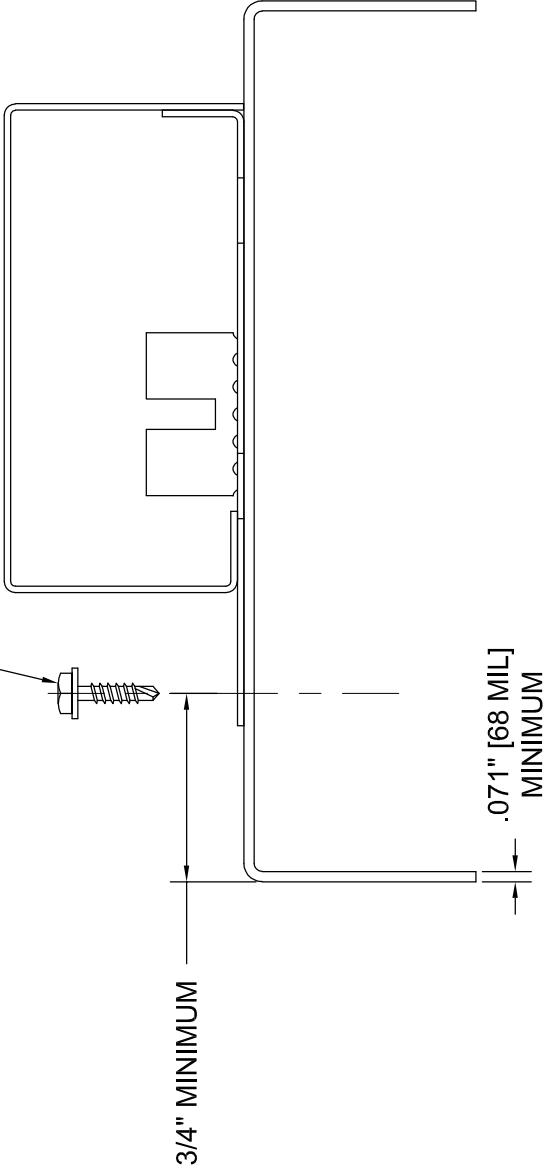


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	MAINEVILLE, OH. 45039 0337						REV.			
	PH 513-677-0500 FAX 513-677-0552						DATE:			COPYRIGHT 2005 E.F.Bavis & Assoc. Inc.
FASTENER INSTALLATION DETAIL: SILL, METAL WALL, FIELD VERIFIED										

COLD FORMED METAL STUDS
SHALL BE DESIGNED IN
ACCORDANCE WITH FBC

LIGHT GAUGE STEEL FRAMED
OPENING MUST BE DESIGNED FOR
A LATERAL LOAD OF 102 LB/FT
PERPENDICULAR TO THE FACE
OF WALL IN ORDER TO RESIST
THE DESIGN PRESSURE OF 75 PSF

1/4-14 WITH #3 SD SHEET METAL SCREW 1" LONG, SUPPLIED
MINIMUM 3/4" DISTANCE TO EDGE/FACE
(SCREW SHALL BE LONG ENOUGH TO ENSURE A MINIMUM
PENETRATION OF 3 PITCHES OF THREAD BELOW THE STEEL.)



MODEL	12103999	PAGE	17 OF 17
DWG.	40022	DATE ORDERED	7-14-05 BAP
REV.	06/27/08	MJC	COPYRIGHT 2005 E.F.BAVIS & ASSOC. INC.
DATE:			

12' FIXED
TRIMLESS WINDOW

UNLESS OTHERWISE SPECIFIED ALL DIMENSIONS ARE IN INCHES
DECIMALS: XX +-.01 ; .XXX +-.005 FRACTIONS: + - 1/32" ANGLES: + - 30'
REMOVE ALL BURRS AND SHARP EDGES TO R .02 OR .02 X .02 CHAMFER MAX.

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E

F

E.F.BAVIS & ASSOC. INC.

201 GRANDIN RD. P.O.BOX 337

MAINEVILLE, OH. 45039 0337

PH 513-677-0500 FAX 513-677-0552

FINISH CAULKING, FIELD VERIFIED

