



Product Evaluation Report
CARTER ARCHITECTURAL PANELS, INC.

Fusion "Drillfree" Architectural Panel System

Florida Product Approval # 30069.2 R1

Florida Building Code 2020

Per Rule 61G20-3

Method: 1 –d

Category: Panel Walls

Subcategory: Siding

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

NON HVHZ

Product Manufacturer:

Carter Architectural Panels, Inc.

221 E. Willis Rd.

Building A, Unit #18

Chandler, AZ 85286

Engineer Evaluator:

Johnathan Green, P.E. #88223

Florida Evaluation ANE ID: 12901

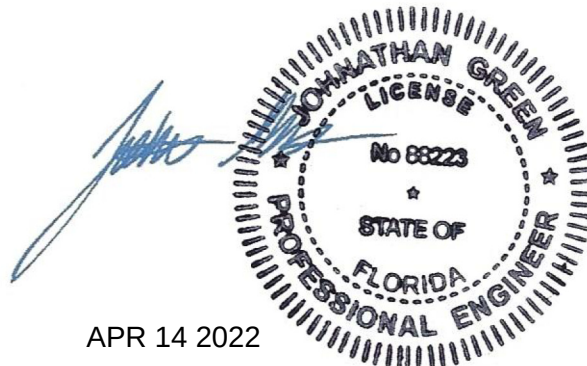
Validator:

Gary Hartman, P.E. # 73227

Florida Evaluation ANE ID: 11725

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Compliance Statement: The product as described in this report has demonstrated compliance with the 7th Edition (2020) Florida Building Code.

Panel Name: Fusion “Drillfree” Architectural Panel System.

Panel Description: Fusion “Drillfree” Rainscreen System with Etalbond FR ACM.
Maximum Panel Size: 56.75” x 115.00”
Panel Reveal: 0.563”
Total Height: 2”

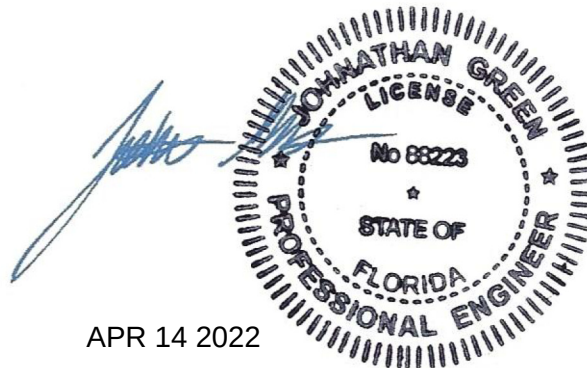
Panel Materials:

ACM:	Etalbond FR ACM 4mm total thickness.
Panel Int./Ext.:	Two sheets of 0.5mm thick 3105-H44 aluminum. Minimum materials properties Fy = 19 ksi, Fu = 23 ksi.
Panel Core:	3mm thick mineral fire-retardant core.
Extrusions:	6061-T6 Aluminum, continuous around perimeter of panel.
Extrusion Clips:	6061-T6 Aluminum, 3” long.
Stiffeners:	6061-T6 Alum. Fusion Integrated stiffener at 18” O.C. attached to the interior sheet with 3M VHB 2-way tape.
Rivets:	4.8mm diameter Fusion Drillfree Aluminum/Stainless Steel rivets at 16” O.C. attaching the ACM return leg to the perimeter extrusions. Corrosion Resistance Per FBC 2020.
Screws:	#10-22 x 3/4” T4 EVO Torxalig Self-drilling Screw attaching the extrusion clips to minimum 18 Ga. steel sub-girts at 16” O.C. in vertical and horizontal reveals. Corrosion Resistance Per FBC 2020.

Reveal Filler Strip: 2” wide ACM strip installed in horizontal and verticals reveals.

Substrate Description: The panel system is a rainscreen system therefore a waterproofing/moisture barrier system must be installed on the substrate. The waterproofing/moisture barrier system must be designed in accordance w/ Florida Building Code 2020.

Min. 18 Ga. Steel Framing at 16” O.C. maximum. Substrate must be designed in accordance w/ Florida Building Code 2020.



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Allowable Design Pressures:

Table "A"

Maximum Design Pressures:	+/- 75.0 psf
Panel Clip/Screw Spacing at Horizontal and Vertical Reveals:	16" O.C.

Code Compliance:

The product described herein has demonstrated compliance with 7th Edition (2020) Florida Building Code.

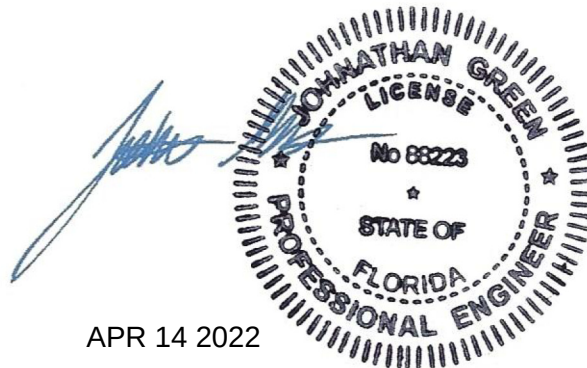
Evaluation Report Scope:

The product evaluation is limited to compliance with the structural wind load requirements of the Florida Building Code 2020, as relates to Rule 61G20-3.

Performance Standards:

The product described herein has demonstrated compliance with:

- ASTM E 283-04 (2012) - Test Report #20-06-B0075-1 RV1 dated 08/19/2020 by Element
- ASTM E 331-02 (2009) - Test Report #20-06-B0075-1 RV1 dated 08/19/2020 by Element
- ASTM E 330-14 (2014) - Test Report #20-06-B0075-1 RV1 dated 08/19/2020 by Element
- NFPA 285-19 (2019) – Test Report #103843210SAT-003 dated 04/03/2019 by Intertek
- ASTM E84-16 Test Report #QD111 by Thomas Bell-Wright International Consultants
 1. Flame Spread Index = 25
 2. Smoke Developed Index = 30
- ASTM D1929-16 Test Report #G4558.01-106.31 by Intertek
 1. Self-Ignition Temperature = 470° F
 2. Flash-Ignition Temperature = 470° F
- Certificate of Independence
By Johnathan Green, P.E. (No. 88223) at Force Engineering Testing
(FBC Organization # ANE ID: 12901)



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Test Standard Equivalency:

1. The NFPA 285-2019 Fire Propagation Testing test standard is equivalent to the NFPA 285-2012 Fire Propagation Testing test standard.

Quality Assurance Entity:

The manufacturer has established compliance of wall 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.

Installation and Height Limitations:

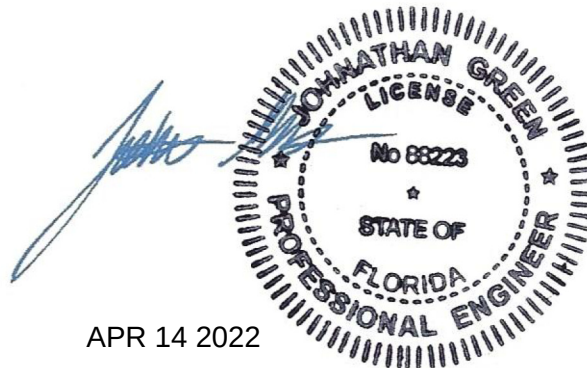
Type I, II, III and IV construction up to 40 feet above grade plane. See installation details in NFPA 285 Test Report #103843210SAT-003 dated 04/03/2019 by Intertek for Type I, II, III and IV construction installation greater than 40 feet above grade plane. See Sections 1407.10 of Florida Building Code 2020 for installation limitations, height limitations and restrictions.

Shear Diaphragm:

Shear diaphragm values are outside the scope of this report.

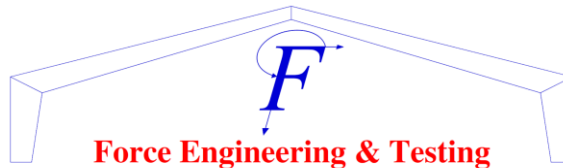
Design Procedure:

Based on the dimensions of the structure, appropriate wind loads are determined using Chapter 16 of the Florida Building Code 2020 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 his structure and analyze the panel fasteners for pullout and pullover. Support framing must be in compliance with Florida Building Code 2020 Chapter 22 for steel, and Chapter 16 for structural loading.



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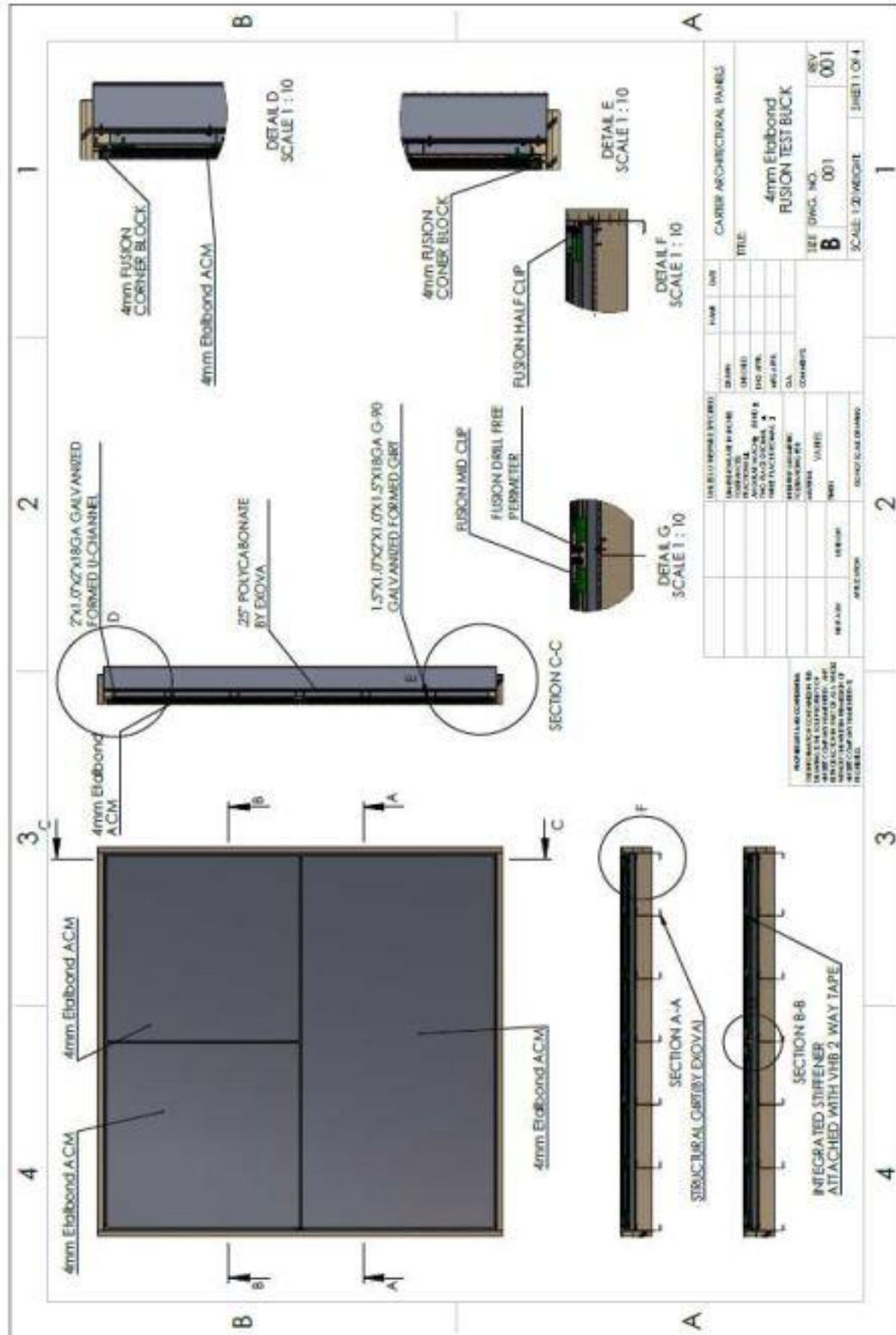
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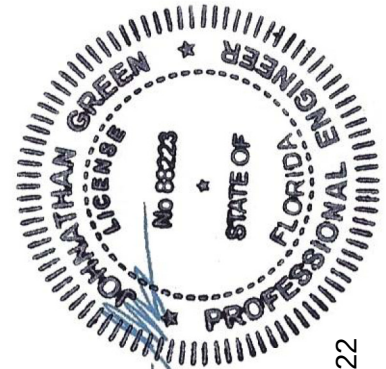
19530 Ramblewood Drive
Humble, Texas 77338

Phone: (281) 540-6603 FAX: (281) 540-9966
Website: www.forceengineeringtesting.com



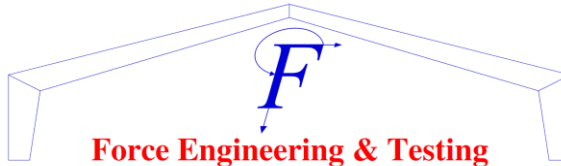
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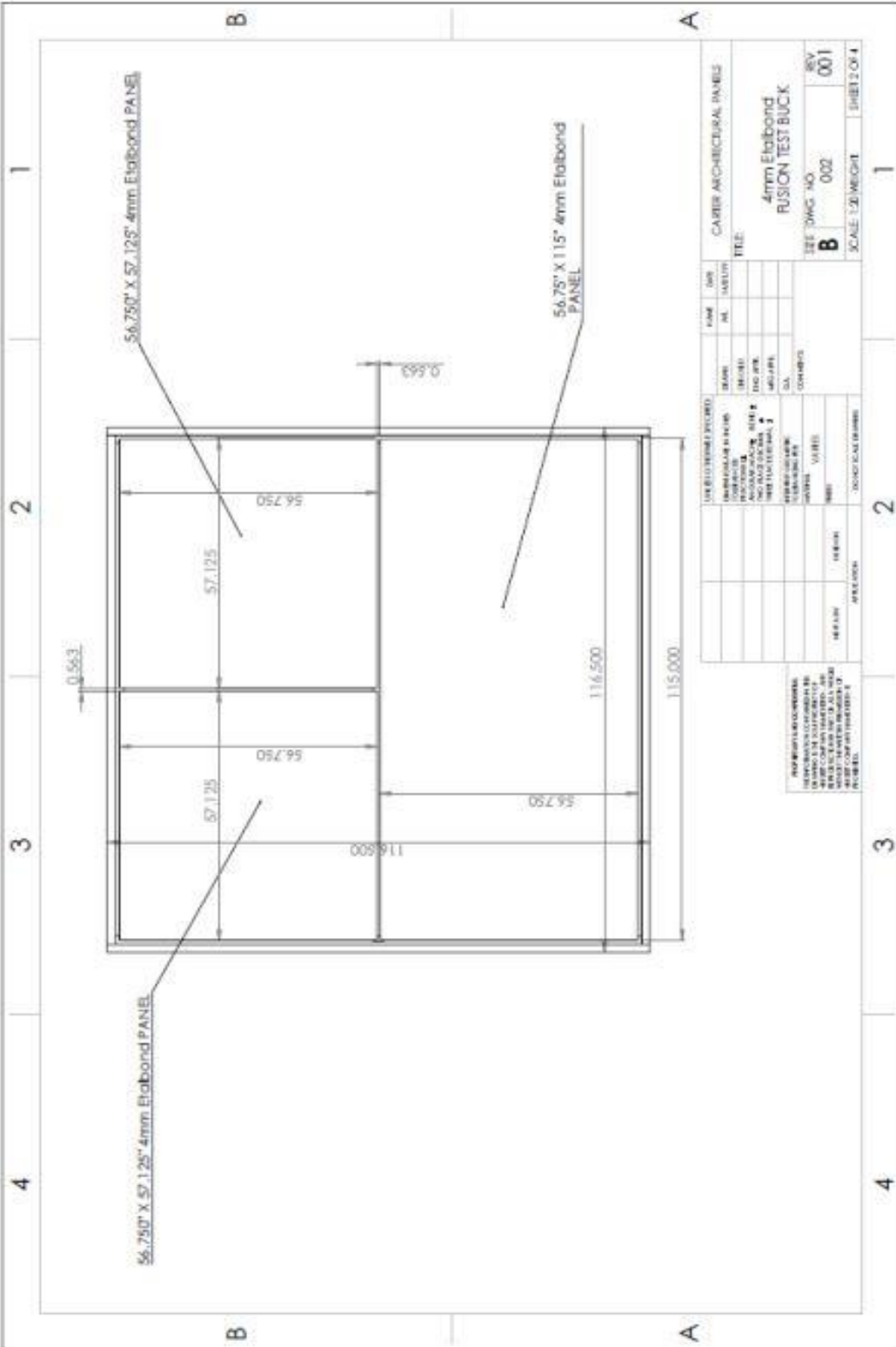
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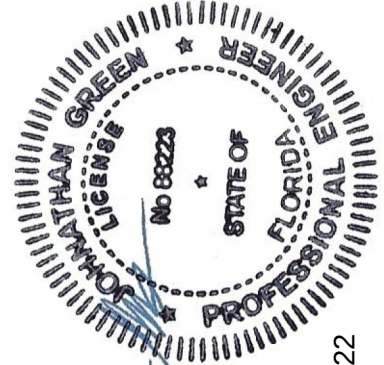
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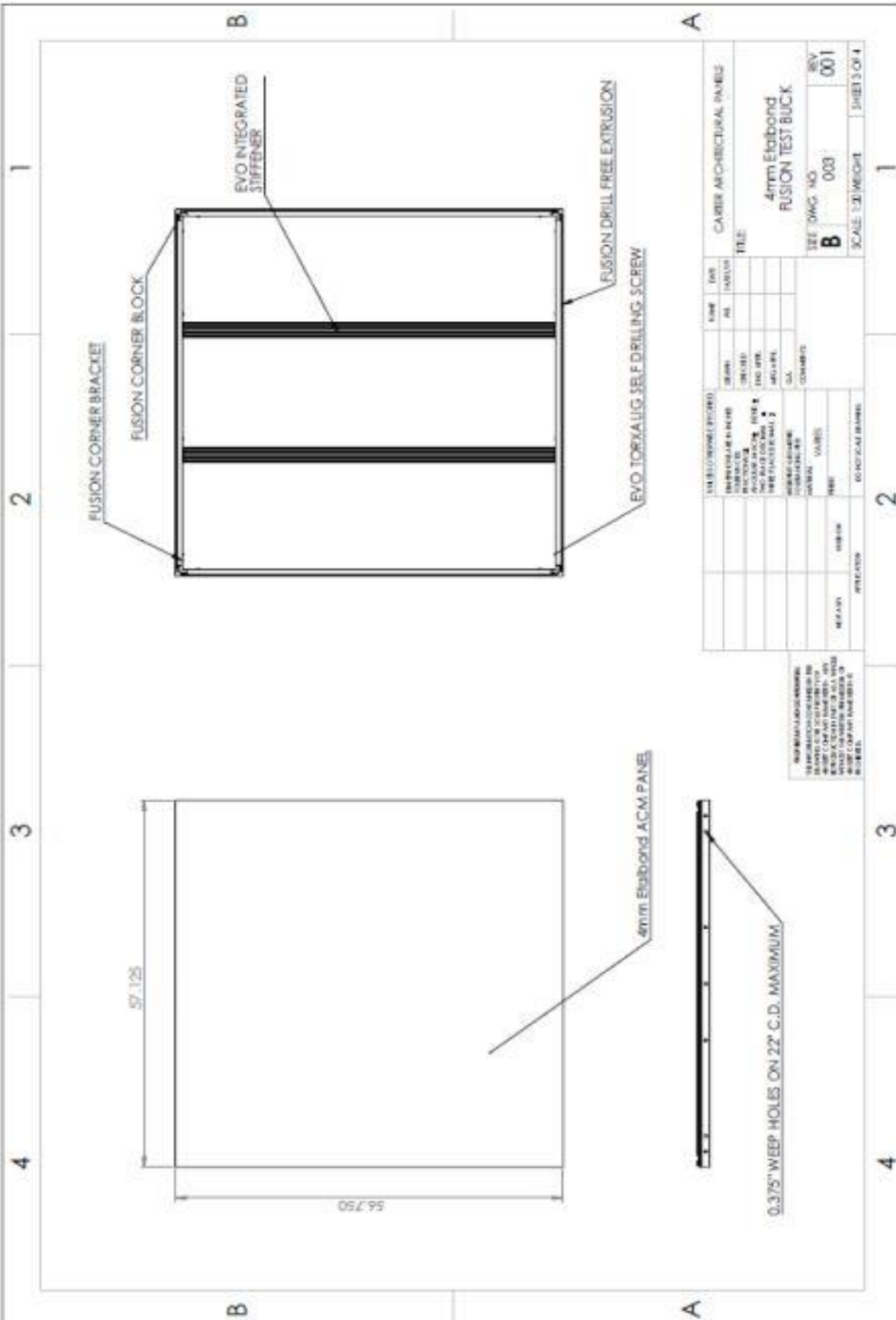
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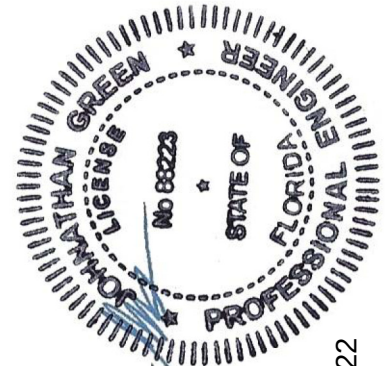
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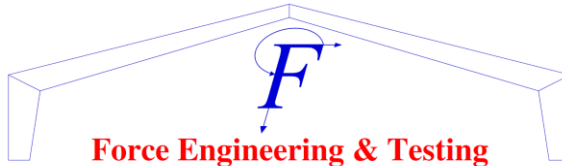


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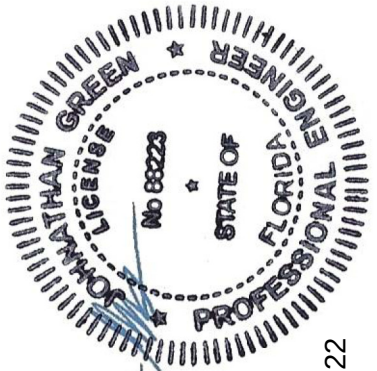
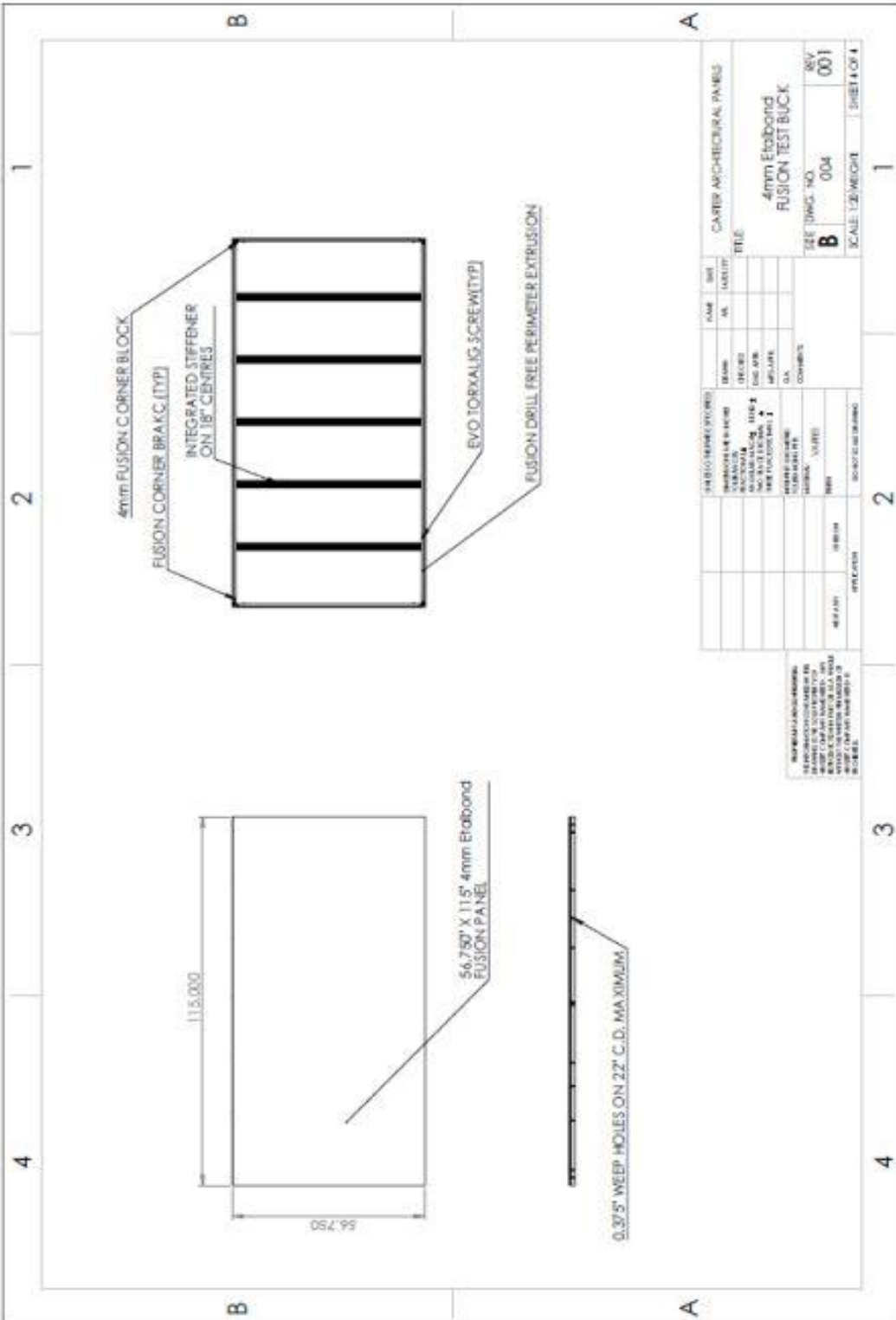
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