

STRUCTALL BUILDING SYSTEMS PANEL SPAN TABLES:

| 3" x 0.024 x 1 - LB EPS PANELS (OPEN STRUCTURES-EXPOSURE B) | | | | | |
|--|--------------------------------------|--------------------------|-------|-------|-------|
| WIND SPEED | NET ULTIMATE LOAD (PSF) ¹ | MAX. ALLOWABLE SPAN (FT) | | | |
| | | L/60 & L/80 | L/120 | L/180 | L/240 |
| 110 | 23.03 | 17.22 | 15.68 | 13.36 | 11.64 |
| 120 | 27.41 | 15.73 | 14.63 | 12.32 | 10.59 |
| 130 | 32.16 | 14.34 | 13.67 | 11.36 | 9.63 |
| 140 | 37.30 | 13.09 | 12.78 | 10.47 | 8.74 |
| 150 | 42.82 | 12.03 | 11.95 | 9.64 | 7.92 |
| 160 | 48.72 | 11.11 | 11.18 | 8.87 | 7.14 |
| 180 | 61.66 | 10.15 | 9.76 | 7.46 | 5.73 |

| 3" x 0.024 x 1 - LB EPS PANELS (OPEN STRUCTURES-EXPOSURE C) | | | | | |
|--|--------------------------------------|--------------------------|-------|-------|-------|
| WIND SPEED | NET ULTIMATE LOAD (PSF) ¹ | MAX. ALLOWABLE SPAN (FT) | | | |
| | | L/60 & L/80 | L/120 | L/180 | L/240 |
| 110 | 27.96 | 15.63 | 14.51 | 12.20 | 10.47 |
| 120 | 33.28 | 14.05 | 13.47 | 11.15 | 9.43 |
| 130 | 39.06 | 12.73 | 12.50 | 10.19 | 8.47 |
| 140 | 45.30 | 11.62 | 11.61 | 9.30 | 7.58 |
| 150 | 52.00 | 10.68 | 10.79 | 8.48 | 6.75 |
| 160 | 59.16 | 9.86 | 10.01 | 7.70 | 5.98 |
| 180 | 74.88 | 9.16 | 8.60 | 6.29 | 4.57 |

¹ MULTIPLY ULTIMATE LOADS BY 0.6 FOR ALLOWABLE LOADS

| 3" x 0.024 x 1 - LB EPS PANELS (ENCLOSED STRUCTURES-EXPOSURE B) | | | | | |
|--|--------------------------------------|--------------------------|-------|-------|-------|
| WIND SPEED | NET ULTIMATE LOAD (PSF) ¹ | MAX. ALLOWABLE SPAN (FT) | | | |
| | | L/60 & L/80 | L/120 | L/180 | L/240 |
| 110 | 18.62 | 18.98 | 16.96 | 14.64 | 12.92 |
| 120 | 22.25 | 17.46 | 15.90 | 13.58 | 11.86 |
| 130 | 25.99 | 16.35 | 14.95 | 12.63 | 10.91 |
| 140 | 30.23 | 14.91 | 14.05 | 11.74 | 10.01 |
| 150 | 34.61 | 13.71 | 13.23 | 10.92 | 9.19 |
| 160 | 39.43 | 12.66 | 12.45 | 10.14 | 8.42 |
| 180 | 49.99 | 11.22 | 11.03 | 8.72 | 7.00 |

| 3" x 0.024 x 1 - LB EPS PANELS (ENCLOSED STRUCTURES-EXPOSURE C) | | | | | |
|--|--------------------------------------|--------------------------|-------|-------|-------|
| WIND SPEED | NET ULTIMATE LOAD (PSF) ¹ | MAX. ALLOWABLE SPAN (FT) | | | |
| | | L/60 & L/80 | L/120 | L/180 | L/240 |
| 110 | 22.53 | 17.87 | 15.82 | 13.50 | 11.78 |
| 120 | 26.91 | 16.01 | 14.74 | 12.43 | 10.70 |
| 130 | 31.54 | 14.53 | 13.80 | 11.48 | 9.76 |
| 140 | 36.52 | 13.27 | 12.91 | 10.60 | 8.87 |
| 150 | 41.93 | 12.19 | 12.08 | 9.77 | 8.05 |
| 160 | 47.69 | 11.26 | 11.30 | 8.99 | 7.27 |
| 180 | 60.38 | 10.25 | 9.89 | 7.58 | 5.86 |

¹ MULTIPLY ULTIMATE LOADS BY 0.6 FOR ALLOWABLE LOADS

| 3" x 0.024 x 1 - LB EPS PANELS (PARTIALLY ENCLOSED STRUCTURES) (EXPOSURE B) | | | | | |
|---|--------------------------------------|--------------------------|-------|-------|-------|
| WIND SPEED | NET ULTIMATE LOAD (PSF) ¹ | MAX. ALLOWABLE SPAN (FT) | | | |
| | | L/60 & L/80 | L/120 | L/180 | L/240 |
| 110 | 27.28 | 15.87 | 14.66 | 12.35 | 10.62 |
| 120 | 32.46 | 14.26 | 13.62 | 11.30 | 9.58 |
| 130 | 38.10 | 12.93 | 12.65 | 10.34 | 8.62 |
| 140 | 44.18 | 11.80 | 11.76 | 9.45 | 7.73 |
| 150 | 50.72 | 10.84 | 10.93 | 8.63 | 6.90 |
| 160 | 57.71 | 10.01 | 10.16 | 7.85 | 6.13 |
| 180 | 73.04 | 9.29 | 8.74 | 6.44 | 4.71 |

| 3" x 0.024 x 1 - LB EPS PANELS (PARTIALLY ENCLOSED STRUCTURES) (EXPOSURE C) | | | | | |
|---|--------------------------------------|--------------------------|-------|-------|-------|
| WIND SPEED | NET ULTIMATE LOAD (PSF) ¹ | MAX. ALLOWABLE SPAN (FT) | | | |
| | | L/60 & L/80 | L/120 | L/180 | L/240 |
| 110 | 33.12 | 14.09 | 13.49 | 11.18 | 9.46 |
| 120 | 39.42 | 12.66 | 12.45 | 10.14 | 8.41 |
| 130 | 46.26 | 11.47 | 11.49 | 9.18 | 7.45 |
| 140 | 53.65 | 10.47 | 10.60 | 8.29 | 6.56 |
| 150 | 61.59 | 9.62 | 9.77 | 7.46 | 5.74 |
| 160 | 70.08 | 8.89 | 8.99 | 6.69 | 4.96 |
| 180 | 88.69 | 8.31 | 7.58 | 5.28 | 3.55 |

¹ MULTIPLY ULTIMATE LOADS BY 0.6 FOR ALLOWABLE LOADS

PRODUCT APPROVAL DETAILS:

- BLDG CODE: 5TH EDITION FLORIDA BUILDING CODE (2014 FBC)
- LIMITS OF USE: FOR PATIO USE ONLY (RISK CATEGORY I).
 - CARPORTS
 - PATIO COVERS
 - SUNROOMS
 - SCREEN ENCLOSURES
 - CANOPIES
 - OTHER SIMILAR MINOR STRUCTURES

Note

- All product performance specifications and construction requirements shall be engineered by a licensed design professional in accordance with the Aluminum Design Manual, *Specifications & Guidelines for Aluminum Structures*, Washington, DC, for wind resistance in conformance to FBC Chapter 16 for Components and Cladding Loads, ASCE 7-10 Chapter 30 for Roof Components and Cladding for Enclosed and Open Structures. Effective area for wind load calculations based on 50 sq. feet (absolute value of controlling design wind pressure is shown on span tables).
- Span schedule show maximum roof panel spans between two sided clear supports as shown.
- Wind load design pressures in span tables are calculated in accordance to ASCE 7-10, Components & Cladding loads as required in FBC Table 2002.4. Mean roof height of structure shall not exceed 15 feet above grade. Span tables for open structures based on 7.5° max. roof slope and used the avg. of free flow and obstructed flow net pressure coefficients. Span tables for enclosed and partially enclosed structures based on 27° max. and 7° roof slope, respectively.
- Each roof panel shall be connected per design professional's instructions, but may use min. per details shown on this dwg. at each support (or other approved connection by design professional) w/ min. 0.040" thick, 6063-T6 aluminum base metal. Edge panels shall be supported on min. three sides or per design professional's instructions. Details 1 & 2 are reflective of the boundary conditions utilized in the testing of panels as referenced in the test reports.
- Composite panels shall be constructed using type 3105-H154 aluminum facings, 1 or 2 PCF ASTM C-578 Imperial Foam & Insulation Manufacturing brand EPS adhered to aluminum facings with Morad M640 Series adhesive (by Rohm and Haas Company). Fabrication to be by Structall panel products only in accordance with approved fabrication methods.
- Structall roof panels maintain a UL 1715 (int) class 'B' (ext) rating and are NER-501 approved.
- This specification has been designed and shall be fabricated in accordance with the requirements of the Florida Building Code 5th Edition (2014 FBC), composite panels comply with Chapter 7 Section 720, Chapter 8 Section 803, Class A interior finish, and Chapter 26 Section 2603. All local building code amendments shall be adhered to as required.
- The designer shall determine by accepted engineering practice the design loads for site specific load conditions (including load combinations) using the data from the loads tables and spans in this approval.
- Deflection limits and allowable spans have been listed to meet FBC including the HVHZ. In HVHZ, this product shall be used in structures meeting the requirements of Section 1626.1, unless impact resistance in accordance to the HVHZ requirements are met.
- Safety factor of 2.0 has been use to develop allowable loads and spans from testing in accordance to the Guidelines for Aluminum Structures Part 1 and conforms to the FBC Chapter 16 and 20.
- Testing has been conducted in accordance to ASTM E72-05: Strength Test of Panels for Building Construction.
- Linear interpolation shall be allowed for figures within the tables shown.
- Panels with fan beams shall be considered equivalent to similar panels without fan beams. Design professionals may include the strength of the fan beam to exceed shown figures as part of site-specific engineering.
- Reference test reports: Certified test reports STRL-002-03-01, STRL-002-03-02, STRL-004-03-01 by PRI-Construction Materials Technologies LLC.

DO KIM
& ASSOCIATES, LLC

**CONSULTING
STRUCTURAL
ENGINEERS**

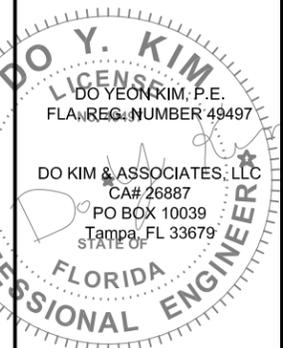
PO BOX 10039
Tampa, FL 33679
Tel: (813) 857-9955

| Rev./Date | Description |
|------------|-----------------------------|
| 10/21/2016 | ISSUED FOR PRODUCT APPROVAL |
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Structall Building Systems
 350 Burbank Road
 Oldsmar, FL 34677

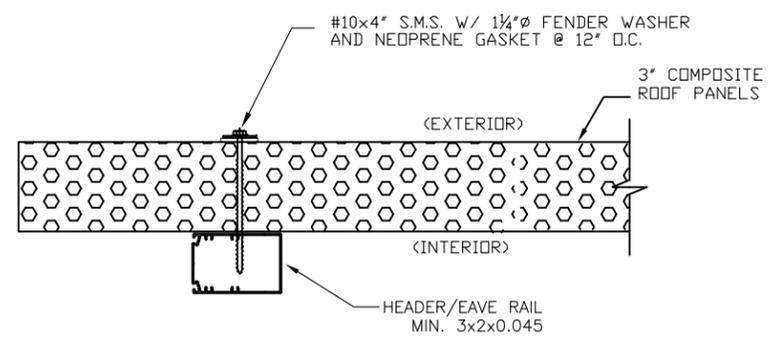
 3"x0.024"x1 LB EPS FOAM CORE
 COMPOSITE ALUMINUM SKIN PANELS
 FLORIDA STATEWIDE PRODUCT APPROVAL

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| CHECKED BY: | DYK |
| SCALE: | AS SHOWN |
| DATE: | 10/19/16 |

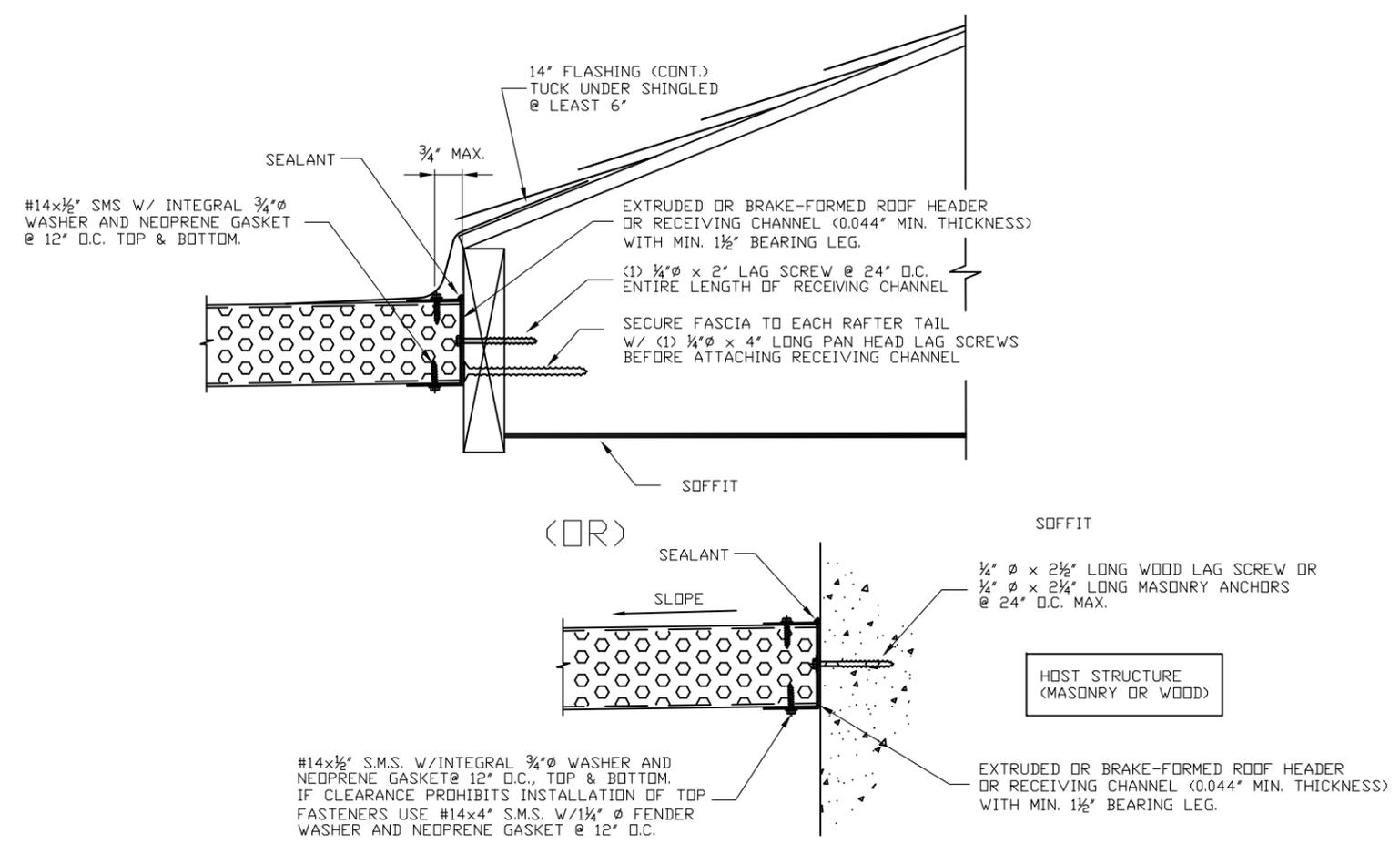


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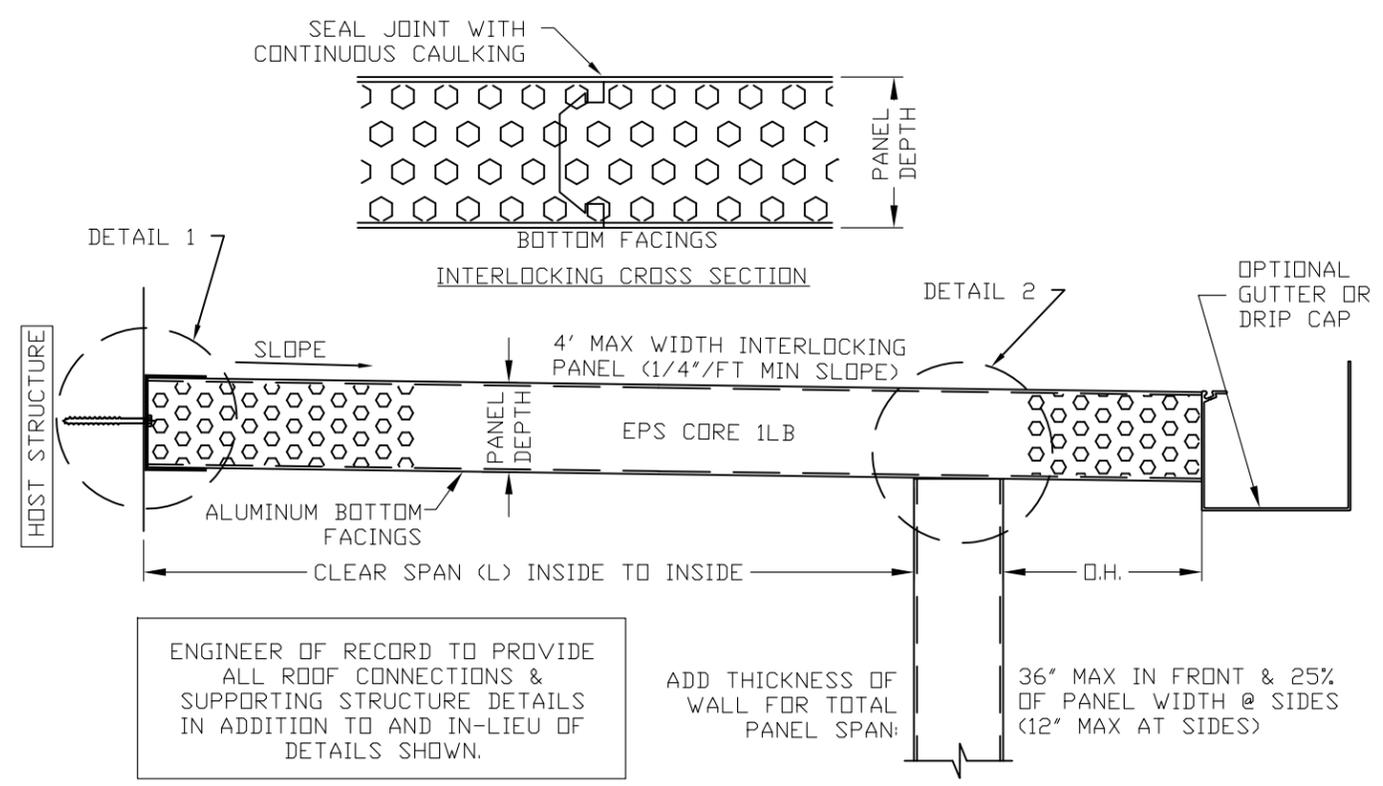
SHEET 1 OF 2



DETAIL 2



DETAIL 1



ENGINEER OF RECORD TO PROVIDE ALL ROOF CONNECTIONS & SUPPORTING STRUCTURE DETAILS IN ADDITION TO AND IN-LIEU OF DETAILS SHOWN.

ADD THICKNESS OF WALL FOR TOTAL PANEL SPAN:

36" MAX IN FRONT & 25% OF PANEL WIDTH @ SIDES (12" MAX AT SIDES)

3" EPS ROOF PANEL/ SPAN DESCRIPTION

DO KIM & ASSOCIATES, LLC

CONSULTING STRUCTURAL ENGINEERS

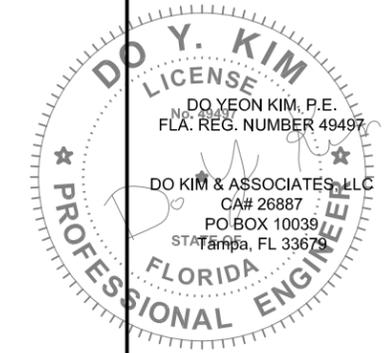
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Tel: (813) 857-9955

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|--------------|-----------------------------|
| △ 10/21/2016 | ISSUED FOR PRODUCT APPROVAL |
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Structall Building Systems
350 Burbank Road
Oldsmar, FL 34677

3"x0.024"x1 LB EPS FOAM CORE
COMPOSITE ALUMINUM SKIN PANELS
FLORIDA STATEWIDE PRODUCT APPROVAL

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Drawing No. - 161027

SHEET 2 OF 2