

# ICC-ES Evaluation Report

ESR-5623

Issued January 2026

Revised February 2026

Subject to renewal January 2027

This report also contains:

- [CA Supplement](#)

- [FL Supplement](#)

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|----------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| <p><b>DIVISION: 03 00 00—</b><br/><b>CONCRETE</b></p> <p><b>Section: 03 37 00—</b><br/><b>Specially placed</b><br/><b>Concrete</b></p> | <p><b>REPORT HOLDER:</b></p> <p><b>FORTIFIED</b><br/><b>STRUCTURAL</b><br/><b>SOLUTIONS LLC</b></p>  <p><b>FORTIFIED</b><br/>STRUCTURAL SOLUTIONS<br/>USA</p> | <p><b>EVALUATION SUBJECT:</b></p> <p><b>FORTIFIED</b><br/><b>STRUCTURAL</b><br/><b>SOLUTIONS (FSS)</b><br/><b>STRUCTURAL</b><br/><b>CONCRETE INSULATED</b><br/><b>PANEL (SCIP)</b></p> |  |
|----------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|

## 1.0 EVALUATION SCOPE

Compliance with the following codes:

- 2024, 2021, 2018, 2015, and 2012 [International Building Code® \(IBC\)](#)
- 2024, 2021, 2018, 2015, and 2012 [International Residential Code® \(IRC\)](#)
- 2013 *Abu Dhabi International Building Code* (ADIBC)<sup>†</sup>

<sup>†</sup>The ADIBC is based on the 2009 IBC as referenced under the ADIBC..

**Properties evaluated:**

- Structural
- Fire-resistance

## 2.0 USES

The Fortified Structural Solutions (FSS) Structural Concrete Insulated Panel (SCIP) is used in the construction of combustible walls, floors and roofs, in fire-resistance-rated and non-fire-resistance-rated construction, as an alternative to the systems permitted by IBC. When used in fire-resistance-rated construction, installation must comply with Section 4.2.3. For structures regulated under the IRC, FSS SCIP panels may be used where an engineering design is submitted in accordance with Section R301.1.3 and may be used where approved by the code official in accordance with IRC Section R104.2.2.

## 3.0 DESCRIPTION

### 3.1 General:

FSS SCIP panels consist of a three-dimensional welded-wire reinforcement incorporating parallel cross wires welded to the welded-wire reinforcement (WWR) on each side of the expanded polystyrene (EPS) foam insulation core. Once FSS SCIP panels are secured at the specified positions and locations, one layer (or one

wythe) of normal-weight concrete, cementitious structural mortar or shotcrete (concrete facing) is applied to both sides of the EPS core with the concrete facing covering the WWR by a minimum one-inch (25.4 mm) thick concrete cover for wall panels and 1.5 and 2 inches for floor and roof panels as specified in [Figure 3](#). The panels are structurally designed with two wythes of concrete facings acting compositely with the WWR and the parallel (transverse) cross wires. [Figures 1](#) and [2](#) describe panel variations recognized in this evaluation report. Each panel is shop-fabricated with automated and tolerance-controlled Fortified Structural Solutions equipment.

### 3.2 Materials:

**3.2.1 Expanded Polystyrene (EPS) Foam:** The insulation EPS core is Type I modified EPS foam that complies with ASTM C578, and that has a minimum density of 0.90 pound per cubic foot (14.4 kg/m<sup>3</sup>) and a flame-spread index less than or equal to 25 and a smoke-developed rating of 450 or less when tested in accordance with ASTM E84 at a 6-inch (152 mm) thickness as manufactured by Insulfoam™ LLC ([ESR-1788](#)). The EPS core can be shaped as required and the overall thickness may vary according to the structural and architectural design requirements. The EPS core thickness is limited to 6.3 inches (160 mm).

**3.2.2 Reinforcement:** The welded wire reinforcement (WWR) and parallel cross wires used in FSS SCIP panels are manufactured from galvanized or bright plain wires which comply with ASTM A1064 and satisfy the requirements of Section 1903 of the IBC, Section 3.5.3.6 of ACI 318-08 and -11 for the 2013 ADIBC and 2012 IBC, respectively, Section 20.2.1.7 of ACI 318-14 for the 2018 and 2015 IBC and Section 20.2.1.7 of ACI 318-19 for the 2021 and 2024 IBC. The steel wires used in fabricating the WWR in both concrete facings are positioned at 3.15-inch (80 mm) intervals between the longitudinal wires and at 2.95-inch (75 mm) intervals between the transverse wires, so that the typical mesh grid size is 3.15 inches by 2.95 inches (80 mm by 75 mm). The diameter of the wires in WWR and the diameter of the parallel cross-wires are 3 mm (0.118 inch) in diameter. Typical dimensions of reinforcement in FSS SCIP panels are indicated in [Figure 2](#). WWR and cross wires yield strength,  $f_y$  shall be limited to 56 ksi in all calculations to determine structural capacities.

**3.2.3 Concrete/Mortar:** Concrete must be normal-weight concrete, complying with the applicable code, having a maximum aggregate size of  $\frac{5}{8}$  inch (16 mm), a minimum slump of 2 inches (51 mm), and a minimum compressive strength of 2,500 psi (17.2 MPa) at 28 days [minimum of 24 MPa is required under ADIBC Appendix L, Section 5.1.1]. The concrete must comply with Chapter 19 of the IBC. When cementitious structural mortar is specified, the aggregate size must not exceed  $\frac{3}{8}$  inch (9.5 mm) and the minimum compressive strength must be 2,500 psi (17.2 MPa) at 28 days [minimum of 24 MPa is required under ADIBC Appendix L, Section 5.1.1]. Both concrete and structural mortar can be applied manually or sprayed. For the bottom side (soffit) of floor and roof slabs, mortar is applied pneumatically using different methods including shotcrete as per Section 3.2.4, or by using pressurized plastering equipment.

**3.2.4 Shotcrete Concrete/Mortar Applications:** Shotcrete, if specified by the engineer-of-record, must comply with 2021, 2018 and 2015 IBC Section 1908 (2012 IBC Section 1910), as applicable, and have a minimum specified compressive strength of 2,500 psi (17.2 MPa) [minimum of 24 MPa is required under ADIBC Appendix L, Section 5.1.1]. Shotcrete must be normal-weight concrete; aggregate size must not exceed  $\frac{3}{8}$  inch (9.5 mm) and the aggregate must conform to Gradation No. 1 in Table 2.1 of ACI 506R-90.

## 4.0 DESIGN AND INSTALLATION

### 4.1 Structural Design:

**4.1.1 General:** This report recognizes FSS SCIP strength and stiffness for wall, floor and roof applications. Information pertaining to the code conformance of other aspects of the building design, including but not limited to weather protection and interior finishes, is outside the scope of this evaluation report, and applicable data must be submitted to the code official for review and for approval of the product. Concrete walls, roof and floors constructed with FSS SCIP panels must be designed and constructed in accordance with Chapters 16 and 19 of the IBC and the design provisions found in this report, including [Table 1](#). For each building constructed with FSS SCIP panels, engineering plans, construction specifications, structural calculations must be submitted to the code official for approval, and details must be provided relating to job-specific design and construction. Structural calculations must be based on load requirements and loading combinations as required in the IBC. The structural calculations must confirm, considering each applicable limit state including both strength limit state and serviceability limit state, such that the load effects due to applied loads do not exceed corresponding structural capacities determined in accordance with IBC Chapter 19, with modifications provided in this section (Section 4.1 including Subsections 4.1.1 through 4.1.5). The structural design (engineering plans and structural calculations) must ensure that, under each applicable loading combination, both concrete wythes of wall, roof and floor assemblies, installed with equal or different concrete thickness on each face of the panel, share the total load in accordance with, and proportional to, their relative stiffnesses. For wall assemblies, load

application and support conditions must be designed and detailed to ensure that each wythe is loaded and supported equally. These design requirements require evaluation of a complete load path, considering the applied loading, the boundary conditions of each concrete facing and the adequacy of the parallel cross wires. The concrete facing thickness used in the design must be equal to the concrete facing thickness measured over the WWR.

**4.1.2 Flexural Strength (Out-of-plane Loading):** The flexural strength of concrete walls, roofs and floors constructed with FSS SCIP panels, subjected to out-of-plane flexural loads, must be determined in accordance with the applicable provisions of ACI 318 and Chapter 19 of the IBC. However, the following two limitations must be observed:

- (a) The contribution of compression WWR must be excluded.
- (b) The distance from the extreme compression fiber to the neutral axis,  $c$ , (see [Figure 3](#)) must not exceed the thickness of the compression cementitious face,  $t_f$  (i.e.,  $c \leq t_f$ ).
- (c) Strength reduction factors must comply with [Table 1](#).

The out-of-plane shear strength of the panels is outside the scope of the evaluation report.

**4.1.3 Out-of-plane Deflection:** Out-of-plane deflection of concrete walls, roofs and floors constructed with FSS SCIP panels must be calculated in accordance with the IBC (including Section 1604.4), ACI 318 and a mechanics-based rational structural analysis. When calculating out-of-plane deflection of a concrete structure constructed of FSS SCIP panels, the buckling resistance and flexural stiffness ( $EI$ ) must be determined using  $E_c$  per Section 19.2.2.1(a) of ACI 318-19 or ACI 318-14 (Section 8.5.1 of ACI 318-11 or -8), as applicable, and an effective moment of inertia ( $I_e$ ) of 0.2 times the gross moment of inertia ( $I_g$ ) of the total cross section consisting of two concrete facings.

The mid-span deflection equation for FSS SCIP panels loaded with a transverse concentrated load ( $P$ ) applied by dividing it into two equal concentrated loads symmetrically placed 15 inches (381 mm) off center on fixed and simply supported panels:

$$\Delta = \frac{1.2P}{h^4 E_c I_e} (7h - 60) [(h + 30)^3 (h - 30)^2 + (h - 30)^3 (h + 30)^2] \text{ Equation (1)}$$

where;

$h$  = unsupported height of wall, inches

$I_e = 0.2I_g$  = effective moment of inertia,  $\text{in}^4$

$I_g$  = gross moment of inertia of two concrete facings,  $\text{in}^4$

$P$  = concentrated load, lbs

$E_c$  = modulus of elasticity of concrete facing, psi

**4.1.4 Axial Compression and Combined Axial Compression with Out-of-plane Bending):** The strengths of wall, roof and floor members constructed from FSS SCIP panels, subjected to axial in-plane compression and combined axial in-plane compression with out-of-plane bending, must be determined in accordance with the provisions of the ACI 318. The buckling resistance and flexural stiffness ( $EI$ ) must be determined using  $E_c$  per Section 19.2.2.1(a) of ACI 318-19 or ACI 318-14 (Section 8.5.1 of ACI 318-11 or -8), as applicable, and an effective moment of inertia ( $I_e$ ) of 0.2 times the gross moment of inertia ( $I_g$ ) of the total cross section consisting of two concrete facings. Contribution of the WWR must not be considered in the design for axial compression.

The top deflection equation of an eccentrically axially loaded cantilever wall is:

$$\Delta = \frac{45Peh}{E_c I_e} \text{ Equation (2)}$$

where;

$P$  = axial compressive load, lbs

$e$  = eccentricity measured from center of panel, inches

$h$  = unsupported height of wall, inches

$E_c$  = modulus of elasticity of concrete facings, psi

$I_e$  = effective moment of inertia =  $0.2I_g$ ,  $\text{in}^4$

$I_g$  = gross moment of inertia of two concrete facings,  $\text{in}^4$

**4.1.5 Combined Axial and In-plane Flexure and In-plane Shear Strength:** The design of shearwalls constructed from FSS SCIP panels, subjected to combined axial and in-plane flexure and in plane shear must

be done in accordance with the provisions of the ACI 318, as special reinforced concrete structural walls for structures designated in Seismic Design Category A and B. The total thickness of the wall,  $t$ , is based on one concrete facing or wythe. The aspect ratio (height over length) of shear walls must be less than or equal to 0.94. The total lateral displacement,  $\Delta_c$ , at the top of the wall panel due to horizontal in plane lateral load is calculated as follows:

Cantilever wall:

$$\Delta_c = K(\Delta_b + \Delta_v) = K \left( \frac{Ph^3}{3E_c I_g} + \frac{1.2Ph}{E_v A} \right) \quad \text{Equation (3)}$$

where:

$\Delta_c$  = total lateral displacement at the top of the wall with respect to the bottom of the wall within a story, inches

$\Delta_b$  = in plane lateral displacement due to bending deflection, inches

$\Delta_v$  = in plane lateral displacement due to shear deflection, inches

$P$  = In plane lateral load, lbs

$h$  = wall height, inches

$E_c$  = modulus of elasticity of the concrete facing, psi

$I_g$  = gross moment of inertia, in<sup>4</sup>

$E_v$  = shear modulus or modulus of rigidity of concrete =  $0.4E_c$ , psi

$A$  = horizontal cross – sectional

area of one concrete wall wythe, in<sup>2</sup>

$K$  = amplification coefficient = 20 for cantilever

**4.1.6 Shear Connectors:** When the panel is subjected to horizontal shear forces, the horizontal shear force capacity of the transverse wires of FSS SCIP panels must be determined by the following equation:

$$F_h = \frac{\sqrt{3}}{4} A_s f_y \quad \text{Equation (4)}$$

where;

$F_h$  = Horizontal shear force capacity of one connector, kips

$A_s$  = cross – sectional area of the transverse wire described in Section 3.2.2 of this report, in<sup>2</sup>

$f_y$  = steel wire yield strength described in Section 3.2.2 of this report, ksi.

Only transverse wires included in the portion of the panel between zero and maximum moment are engaged in resisting horizontal shear forces.

## 4.2 Assembly and Construction:

**4.2.1 General:** FSS SCIP panels must be installed in accordance with the approved plans, which must show particular details relating to job-specific design and construction. Construction plans must comply with requirements of this report and the manufacturer's installation instructions. A copy of the manufacturer's installation instructions must be available at the jobsite at all times. FSS SCIP panels must be plumb, aligned and secured at the specified locations described in the approved construction documents. Allowable construction tolerances must be as noted in the Specifications for Structural Concrete for Buildings (ACI 301). Typical installation details are shown in [Figures 4, 5, 6 and 7](#) of this report and must be designed by the registered design professional.

During construction and until concrete has attained its specified compressive strength, panels must be temporarily shored per the design specifications provided by the registered design engineer for the construction to resist concrete/mortar self-weight and any potential labor traffic. Prior to pouring and/or spraying concrete/mortar, all electrical hardware and accessories to be embedded within the wall, floor, and roof assemblies must be securely installed in proper locations per the approved construction plans. Interior and exterior finishes for wall, roof and floor assemblies must be applied in accordance with the approved plans and the IBC. Evaluation of finishes is outside the scope of this evaluation report.

**4.2.2 Concrete/Mortar Application:** Concrete/mortar must be applied to both faces of each FSS SCIP to a uniform thickness specified in [Figure 3](#) and in the approved plans. The concrete/mortar wythes must be made with Portland cement and applied by one of the methods described in Sections 3.2.3 and 3.2.4 of this report. Special care must be taken to ensure complete filling of any void space between the insulation and the welded-wire reinforcement.

**4.2.3 Fire-resistance-rated Construction:**

**4.2.3.1 Wall Panels:** FSS SCIP wall panels, constructed with 3.15-inch-thick (80 mm) EPS core and 1<sup>3</sup>/<sub>4</sub>-inch-thick (44.5 mm) normal-weight concrete/mortar with a compressive strength of 6000 psi (41.4 MPa) on each face, with a total wall thickness of 6.75 inches (170 mm) and a height of 10 feet (3.05 m), when tested in accordance with ASTM E119 and subjected to a superimposed axial compression load of 8,969 plf (130.9 kN/m), have a one-hour fire resistance rating.

**4.2.3.2 Floor-Roof Panels:**

FSS SCIP floor-roof panels, constructed with EPS core with an undulated thickness of 6.3 inches (160 mm) and a total EPS thickness of 7.14 inches (181 mm); normal-weight concrete facings with a compressive strength of 6500 psi (44.8 MPa), consisting of 2-inch-thick (50.8 mm) concrete over the top of WWR mesh, and 1<sup>1</sup>/<sub>2</sub>-inch-thick (38.1 mm) shotcrete below the bottom of WWR mesh; with a total panel thickness of 10.65 inches (271 mm) and a span of 14 feet (4.27 m); when tested in accordance with ASTM E119 under a restrained condition and subjected to a superimposed load of 52 psf (2.49 kN/m<sup>2</sup>), have a one-hour fire-resistance rating.

**4.2.4 Special Inspection:** Special inspection must be performed in accordance with Sections 1705 and 1908 of the 2024, 2021, 2018 and 2015 IBC (Sections 1705 and 1910 of the 2012 IBC), as applicable.

The duties of the special inspector include verification of compliance with the approved plans, specifications, and this report, including, but not limited to, WWR grade, size, cover and spacing, and identification of panels in accordance with Section 7.0 of this report. For shotcrete application, the duties of special inspector include verification of sampling and preparation of test specimens, and conformance with the acceptance criteria in Section 1705.3 of the 2024 and 2021 IBC, Section 1908.10 of the 2018 and 2015 IBC (Section 1910.10 of the 2012 IBC), as applicable.

## 5.0 CONDITIONS OF USE:

The FSS SCIP panels comply with, or are suitable alternatives to what is specified in, those codes listed in Section 1.0 of this report, subject to the following conditions:

- 5.1** FSS SCIP panels must be installed in accordance with the manufacturer's installation instructions and this report. If there is any conflict between this report and the manufacturer's published installation instructions, this report governs.
- 5.2** FSS SCIP panels are delivered, stored and handled in such a manner that the insulation is not punctured and the WWR and cross wires are not deformed.
- 5.3** The construction documents prepared or reviewed by a registered design professional where required by the statutes of the jurisdiction in which the project is to be constructed specifying FSS SCIP panels must indicate compliance with this evaluation report and applicable codes and must be submitted to the code official for approval. The construction documents containing engineering plans, specifications and structural calculations, must ensure, under each applicable loading combination that both concrete facings of roof and floor assemblies, share the total load in accordance with, and proportional to, their relative stiffness. For wall assemblies, load application and support conditions must be designed and detailed to ensure that each wythe is loaded and supported equally.
- 5.4** Penetrations or other openings in panels are not permitted unless shown on the approved plans. Analysis of penetrations and openings are outside the scope of this evaluation report.
- 5.5** This report only recognizes the structural performance and fire resistance of wall, roof and floor structural assemblies incorporating FSS SCIP panels. Performance pertaining to the code conformance of the other aspects of the buildings, including but not limited to weather protection, durability and finishes, is outside the scope of this report.
- 5.6** Special inspection must comply with Section 4.2.4 of this report.
- 5.7** For FSS SCIP panels used as part of a roof assembly, justification must be submitted to the code official demonstrating that the panels with the roof covering comply as a Class A, B, or C roof assembly, as required by the IBC Section 2603.6, with the minimum classification requirements for the building.
- 5.8** When used as shearwalls, the use of FSS SCIP panels is limited to structures designated in Seismic Design Categories (SDC) A and B as indicated in Section 4.1.5.

6.0 EVIDENCE SUBMITTED

Data in accordance with the [ICC-ES Acceptance Criteria for Concrete Floor, Roof and Wall Systems, and Concrete Masonry Wall Systems \(AC15\)](#), dated February 2010 (editorially revised December 2024); fire tests in accordance with ASTM E119 and a quality control manual.

7.0 IDENTIFICATION

- 7.1 The ICC-ES mark of conformity, electronic labeling, or the evaluation report number (ICC-ES ESR-5623) along with the name, registered trademark, or registered logo of the report holder (Fortified Structural Solutions LLC) must be included in the product label.
- 7.2 For field identification, all packages of the delivered FSS SCIP panels covered by this report must bear a product label.
- 7.3 The report holder’s contact information is the following:

**FORTIFIED STRUCTURAL SOLUTIONS LLC**  
**423 E 15TH STREET**  
**PANAMA CITY, FL 32405**  
**(850) 920-9255**  
<https://www.fortifiedstructuralsolutions.com>

TABLE 1—STRENGTH REDUCTION FACTORS<sup>1</sup>

| DESIGN STRENGTH                                        | STRENGTH REDUCTION FACTOR,<br>Φ PER ACI 318 | FSS SCIP STRENGTH REDUCTION FACTORS,<br>Φ' |
|--------------------------------------------------------|---------------------------------------------|--------------------------------------------|
| Wall flexure                                           | 0.85                                        | 0.69                                       |
| Axial Compression Wall                                 | 0.65                                        | 1.00                                       |
| Combined axial compression and out-of-plane flexure    | 0.75 to 0.85                                | 0.88                                       |
| Combined axial and in-plane flexure and in-plane shear | 0.85                                        | 0.76                                       |
| Roof/floor flexure                                     | 0.85                                        | 1.00                                       |

<sup>1</sup>Strength reduction factors,  $\phi'$  provided in [Table 1](#) shall be multiplied by the respective strength reduction factors,  $\phi$  in ACI 318 for determination of design strength.

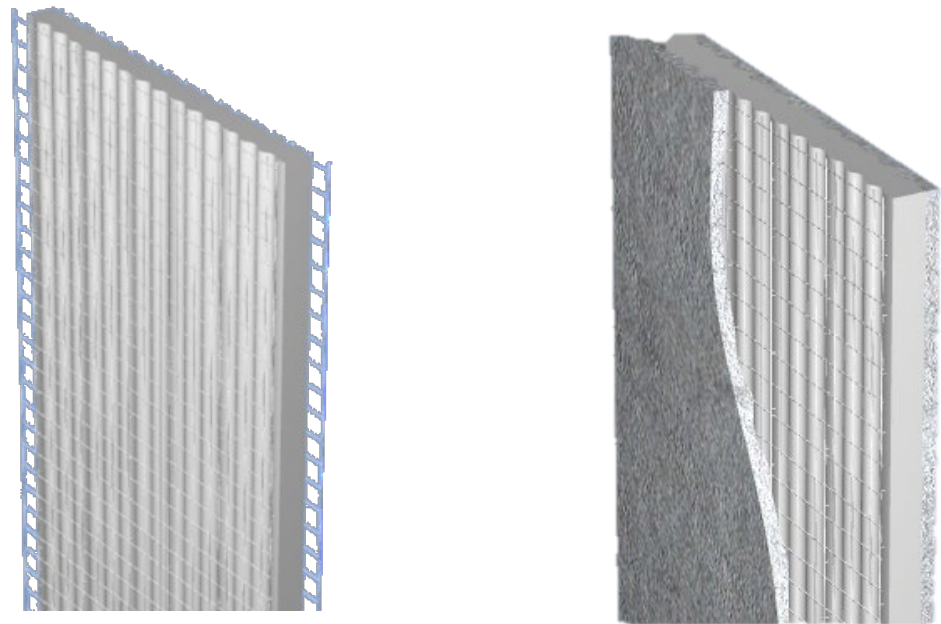
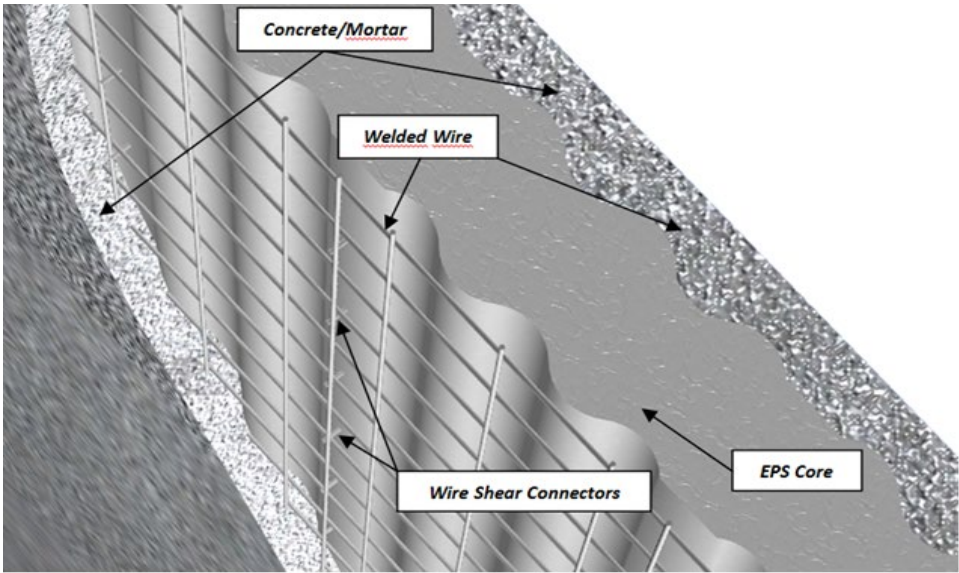
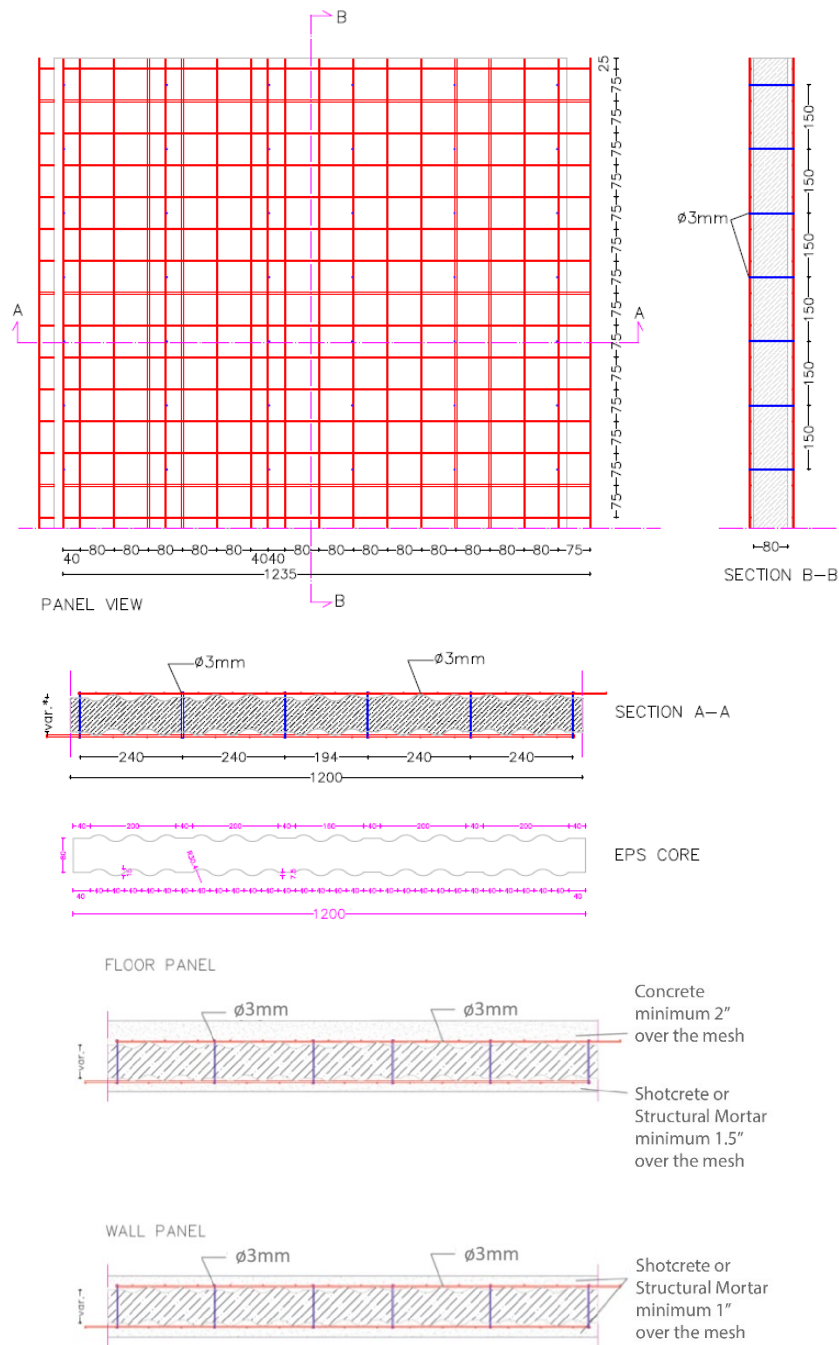


FIGURE 1—FORTIFIED STRUCTURAL SOLUTIONS (FSS) STRUCTURAL CONCRETE INSULATED PANEL (SCIP)



For SI: 1 inch= 25.4 mm

FIGURE 2—TYPICAL DIMENSIONS OF FORTIFIED STRUCTURAL SOLUTIONS (FSS) STRUCTURAL CONCRETE INSULATED PANEL (SCIP)

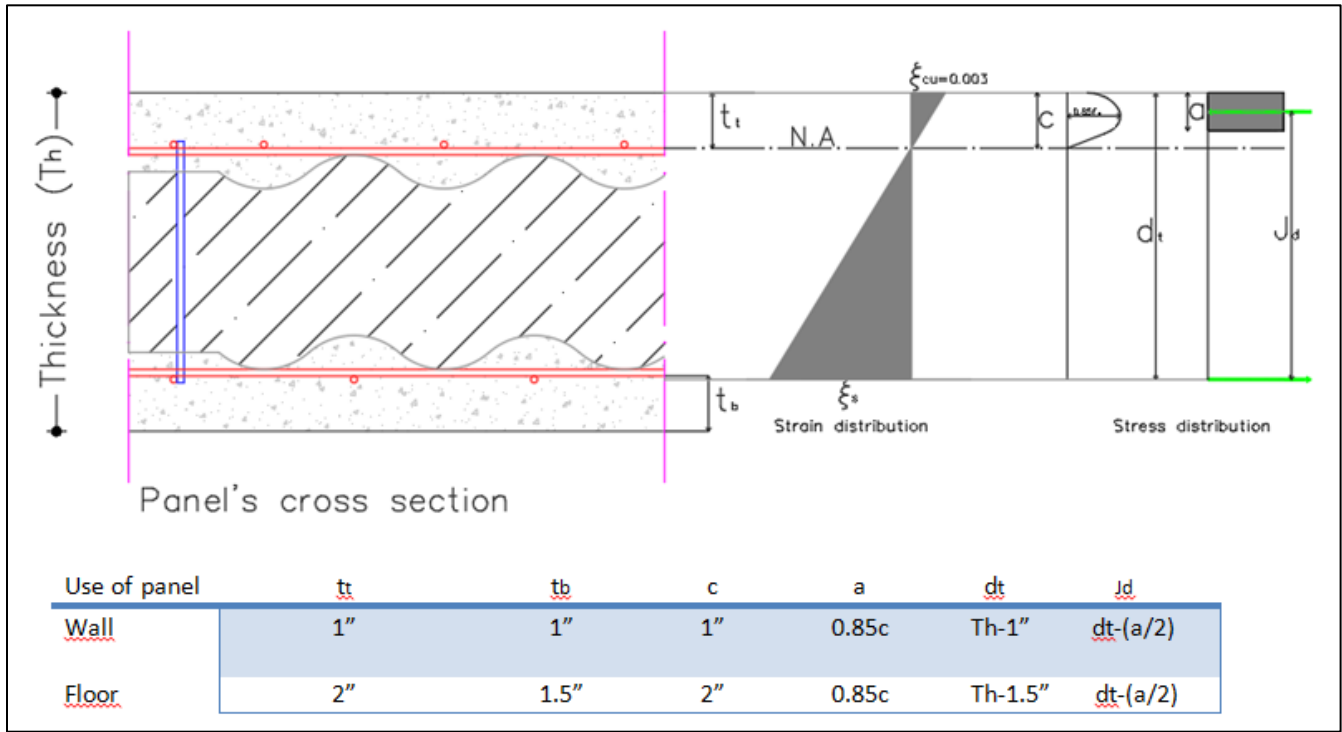


FIGURE 3—STRAIN AND STRESS DISTRIBUTION ACROSS THE DEPTH OF FSS SCIP SUBJECTED TO FLEXURE (BENDING)

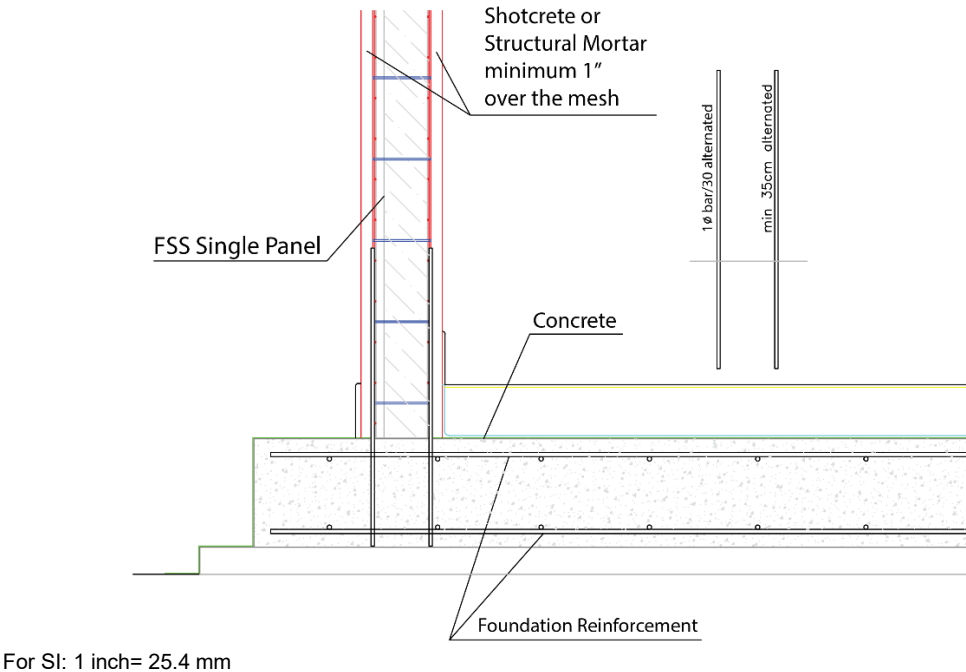


FIGURE 4—WALL-TO- FOUNDATION CONNECTION (TYPICAL)

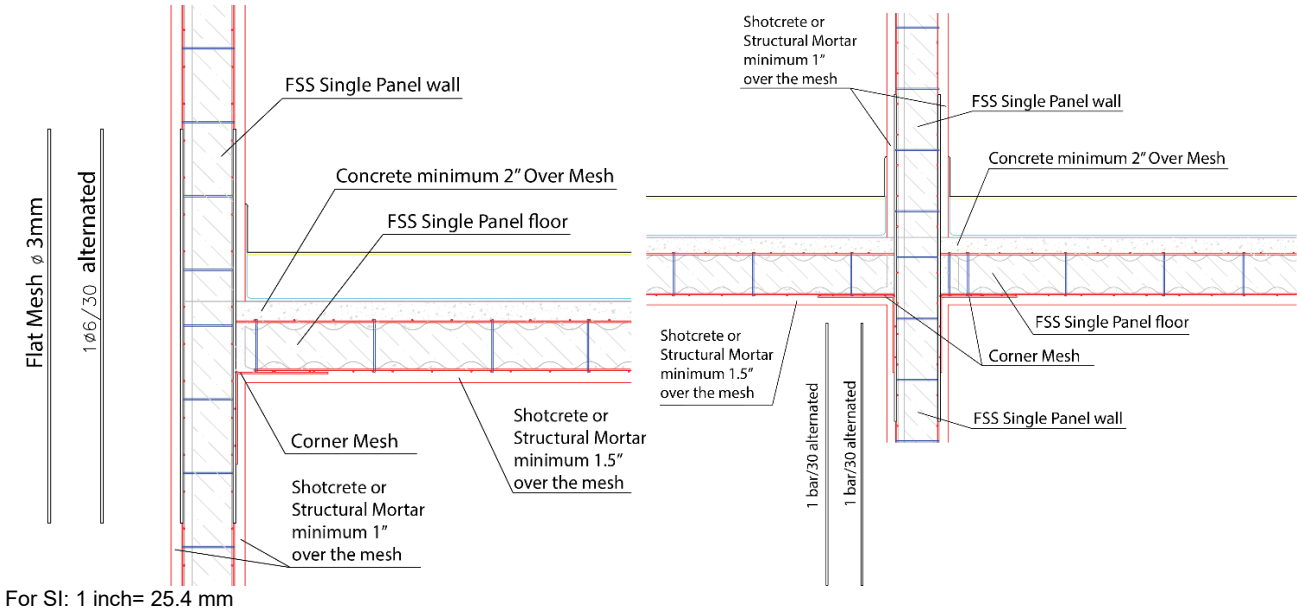


FIGURE 5—TYPICAL WALL-TO-FLOOR CONNECTION DETAIL (1 inch =25.4 mm)

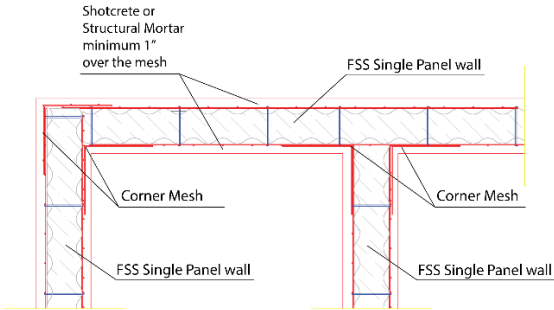


FIGURE 6—TYPICAL WALL-TO-WALL CONNECTION DETAIL

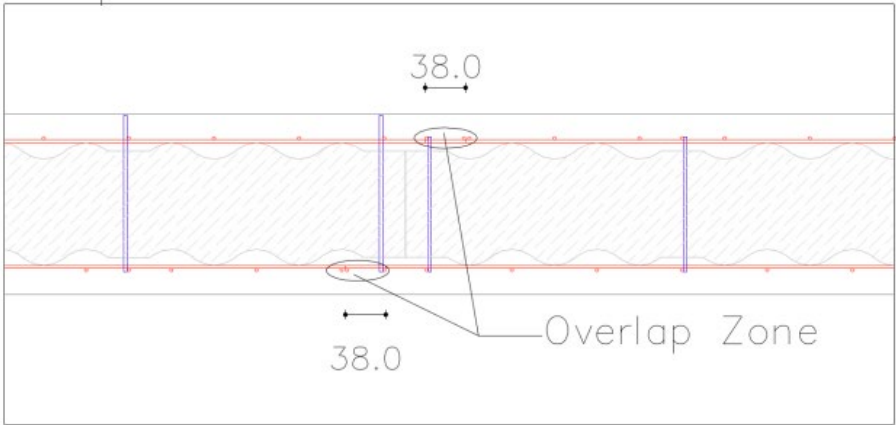


FIGURE 7—TYPICAL WWR OVERLAPPING BETWEEN PANELS (units in millimeters)

# ICC-ES Evaluation Report

# ESR-5623 CA Supplement

Issued January 2026

Revised February 2026

*This report is subject to renewal January 2027.*

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**DIVISION: 03 00 00—CONCRETE**

**Section: 03 37 00—Specially placed Concrete**

**REPORT HOLDER:**

**FORTIFIED STRUCTURAL SOLUTIONS LLC**

**EVALUATION SUBJECT:**

**FORTIFIED STRUCTURAL SOLUTIONS (FSS) STRUCTURAL CONCRETE INSULATED PANEL (SCIP)**

## 1.0 REPORT PURPOSE AND SCOPE

### Purpose:

The purpose of this evaluation report supplement is to indicate that the Fortified Structural Solutions (FSS) Structural Concrete Insulated Panel (SCIP), described in ICC-ES evaluation report ESR-5623, have also been evaluated for compliance with the codes noted below.

### Applicable code editions:

- 2022 California Building Code (CBC)

For evaluation of applicable Chapters adopted by the California Office of Statewide Health Planning and Development (OSHPD) AKA: California Department of Health Care Access and Information (HCAI) and the Division of State Architect (DSA), see Sections 2.1.1 and 2.1.2 below.

- 2022 California Residential Code (CRC)

## 2.0 CONCLUSIONS

### 2.1 CBC:

The Fortified Structural Solutions (FSS) Structural Concrete Insulated Panel (SCIP), described in Sections 2.0 through 7.0 of the evaluation report ESR-5623, complies with CBC Chapter 19, provided the design and installation is in accordance with the 2021 *International Building Code*® (IBC) provisions noted in the evaluation report and the additional requirements of CBC Chapters 16, 17 and 19, as applicable.

#### 2.1.1 OSHPD:

The applicable OSHPD Sections and Chapters of the CBC are beyond the scope of this supplement.

#### 2.1.2 DSA:

The applicable DSA Sections and Chapters of the CBC are beyond the scope of this supplement.

### 2.2 CRC:

The Fortified Structural Solutions (FSS) Structural Concrete Insulated Panel (SCIP), described in Sections 2.0 through 7.0 of the evaluation report ESR-5623, complies with CRC Chapter 3, provided the design and installation is in accordance with the 2021 *International Residential Code*® (IRC) provisions noted in the evaluation report.

This supplement expires concurrently with the evaluation report, issued January 2026, revised February 2026.

# ICC-ES Evaluation Report

# ESR-5623 FL Supplement

Issued January 2026

Revised February 2026

*This report is subject to renewal January 2027.*

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**DIVISION: 03 00 00—CONCRETE**

**Section: 03 37 00—Specialty Placed Concrete**

## REPORT HOLDER:

**FORTIFIED STRUCTURAL SOLUTIONS LLC**

## EVALUATION SUBJECT:

**FORTIFIED STRUCTURAL SOLUTIONS (FSS) STRUCTURAL CONCRETE INSULATED PANEL (SCIP)**

## 1.0 REPORT PURPOSE AND SCOPE

### Purpose:

The purpose of this evaluation report supplement is to indicate that the Fortified Structural Solutions (FSS) Structural Concrete Insulated Panel (SCIP), described in ICC-ES evaluation report ESR-5623, has also been evaluated for compliance with the codes noted below.

### Applicable code editions:

- 2023 *Florida Building Code—Building*
- 2023 *Florida Building Code—Residential*

## 2.0 CONCLUSIONS

The FSS SCIP, described in Sections 2.0 through 7.0 of ICC-ES evaluation report ESR-5623, complies with the *Florida Building Code—Building* and the *Florida Building Code—Residential*. The design requirements must be determined in accordance with the *Florida Building Code—Building* or the *Florida Building Code—Residential*, as applicable. The installation requirements noted in ICC-ES evaluation report ESR-5623 for the 2021 *International Building Code*® meet the requirements of the *Florida Building Code—Building* or the *Florida Building Code—Residential*, as applicable.

Use of the FSS SCIP for compliance with the High-Velocity Hurricane Zone provisions of the *Florida Building Code—Building* or the *Florida Building Code—Residential* has not been evaluated and is outside the scope of this supplemental report.

For products falling under Florida Rule 61G20-3, verification that the report holder's quality assurance program is audited by a quality assurance entity approved by the Florida Building Commission for the type of inspections being conducted is the responsibility of an approved validation entity (or the code official when the report holder does not possess an approval by the Commission).

This supplement expires concurrently with the evaluation report issued January 2026, revised February 2026.