

ICC-ES Evaluation Report

ESR-2435

Reissued April 2025

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Subject to renewal April 2026

This report also contains:

- [City of LA Supplement](#)
- [CA Supplement](#)
- [FL Supplement](#)

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<p>DIVISION: 03 00 00— CONCRETE</p> <p>Section: 03 37 00— Specialty Placed Concrete</p>	<p>REPORT HOLDER:</p> <p>RE-STRUCTURE GROUP, LLC (USA)</p>	<p>EVALUATION SUBJECT:</p> <p>RSG 3-D STRUCTURAL PANEL (3-D/EVG Panels™)</p>	
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1.0 EVALUATION SCOPE

Compliance with the following codes:

- 2024, 2021, 2018, 2015, 2012 and 2009 [International Building Code® \(IBC\)](#)
- 2024, 2021, 2018, 2015, 2012 and 2009 [International Residential Code® \(IRC\)](#)
- 2013 *Abu Dhabi International Building Code (ADIBC)*[†]

[†]The ADIBC is based on the 2009 IBC. 2009 IBC code sections referenced in this report are the same sections in the ADIBC.

Properties evaluated:

- Structural
- Fire resistance

2.0 USES

The RSG 3-D Structural Panels (3-D/EVG Panels™) are used in the construction of exterior and interior, load-bearing and non-load-bearing, shear walls and non-shear walls, and floors and roofs, in fire-resistance-rated and non-fire-resistance-rated construction. For structures regulated under the IRC, the RSG 3-D Structural Panels (3-D/EVG Panels™) may be used where an engineering design is submitted in accordance with IRC Section R301.1.3 and may be used where approved by the code official in accordance with Section R104.2.2 of the 2024 IRC (Section R104.11 of the 2021 IRC and earlier editions).

3.0 DESCRIPTION

3.1 General:

The RSG 3-D Structural Panel (3-D/EVG Panel™) consists of a three-dimensional welded-wire space truss incorporating diagonal cross wires welded to welded-wire reinforcement (WWR) on each side of an integral core, which is an expanded polystyrene (EPS) foam plastic insulation board. The RSG 3-D Structural Panel (3-D/EVG Panel™) wall, floor and roof panels must be placed in position, and a wythe of concrete or shotcrete (concrete facing) is applied to each side of the EPS core with the concrete facing covering the welded wire reinforcement. The panels are structurally designed with two wythes of concrete facings acting compositely with the diagonal cross wires. [Figure 1](#) describes all panel variations recognized in this evaluation report. See [Figures 2](#) through [17](#) for typical construction details. The RSG 3-D Structural Panel (3-D/EVG Panel™) is shop-fabricated with fully automated and tolerance-controlled equipment. For use in fire-resistance-rated

construction, see Section 4.2.3. The materials identified in Section 3.2 may be used to determine thermal resistance properties in accordance with the IBC Chapter 13.

3.2 Materials:

3.2.1 Expanded Polystyrene (EPS) Foam Plastic: The core is a Type I modified EPS foam plastic complying with ASTM C578, having a nominal density of 1.0 pound per cubic foot (16 kg/m³) as manufactured by Insulfoam LLC ([ESR-1788](#)) and Fanosa S.A. de C.V ([ESR-2744](#)). The insulation has a flame-spread index of 25 or less and a smoke-developed index of 450 or less when tested in accordance with ASTM E84 at a 6-inch (152 mm) thickness for EPS boards recognized under [ESR-1788](#) and at a 4-inch (102 mm) thickness for EPS boards recognized under [ESR-2744](#).

3.2.2 Reinforcement: The welded-wire reinforcement, manufactured from galvanized and bright welded wire, complies with ASTM A185 with the welded-wire reinforcement spaced 1/2 inch (12.7 mm) from the insulation core faces. See [Figure 1](#). The diagonal (through-the-core) truss wires act as shear transfer elements and comply with ASTM A82. The welded-wire reinforcement, including the diagonal wires, have a minimum yield stress of 60 ksi (420 MPa). Deformed steel reinforcing bars, when used as additional or main reinforcement (i.e. special reinforced concrete structural walls), must have a minimum yield stress of 60 ksi (420 MPa) and must comply with Section 20.2.1 of ACI 318-19 or ACI 318-14 (Section 3.5.3 of ACI 318-11 or ACI 318-08) and IBC Section 1903.

3.2.3 Concrete: Concrete must be normal-weight concrete complying with the applicable code, and have a maximum aggregate size of 3/8 inch (9.5 mm), a minimum slump of 2 inches (51 mm), and a minimum compressive strength of 2,500 psi (17.2 MPa) [minimum of 24 MPa is required under ADIBC Appendix L, Section 5.1.1] at 28 days. Aggregate must comply with ASTM C33. The concrete must comply with Chapter 19 of the IBC. The top concrete facing of a roof or floor system can be applied manually to the RSG 3-D Structural Panels (3-D/EVG Panels™) as specified by the registered design professional. For walls and the bottom side (soffit) of floor and roof panels, concrete can be applied either pneumatically (mechanically applied by different techniques including shotcrete, or pressurized plastering equipment) or manually (hand applied).

3.2.4 Shotcrete: Shotcrete, if specified by the registered design professional, must be normal-weight concrete complying with 2024, 2021, 2018 and 2015 IBC Section 1908 (2012 IBC Section 1910, 2009 IBC Section 1913), and must 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] at 28 days. Aggregate size must not exceed 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 only recognizes panel strength and fire-resistance ratings. 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 must be submitted to the code official for review and approval. Concrete walls, roofs and floors formed by the RSG 3-D Structural Panels (3-D/EVG Panels™) must be designed and constructed in accordance with Chapters 16 and 19 of the IBC. For each building structure constructed with concrete walls, floors or roofs formed by the RSG 3-D Structural Panels (3-D/EVG Panels™), engineering plans, construction specifications, and structural calculations must be submitted to the code official for approval, and must provide details relating to job-specific design and construction. The structural calculations must be based on load requirements and loading combinations as required by the IBC. The structural calculations must confirm, considering each applicable limit state including both strength limit state and serviceability limit state, 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). The structural design (engineering plans and structural calculations) must ensure, under each applicable loading combination, that both concrete facings of walls, roof and floor assemblies, installed with equal or different concrete thickness on both faces of the panel, share the total load in accordance with, and proportional to, their relative stiffnesses. 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 diagonal wires.

4.1.2 Flexural Strength for Resisting Out-of-plane Loading: The flexural strength of concrete walls, roofs and floors constructed with the RSG 3-D Structural Panels (3-D/EVG Panels™), subjected to out-of-plane flexural loads, must be determined in accordance with the applicable provisions of ACI 318 and IBC

Chapter 19 and a rational analysis using principles of mechanics with due consideration of the effect of EPS core and diagonal wires. However, the following two limitations must be observed:

- The compression contribution of the welded wire steel mesh in the concrete faces must be excluded.
- The distance from the extreme compression fiber to the neutral axis, c , must be maintained to be equal to, or less than, the thickness of the compression concrete facing, t_c (i.e., $c \leq t_c$).

4.1.3 Axial Compression and Axial Compression with Flexure (Eccentric Axial Loads): The strength of axial compression and combined axial compression and flexural strength for load-bearing structural members constructed from RSG 3-D Structural Panels (3-D/EVG Panels™) must be determined in accordance with the applicable provisions of ACI 318. The design strengths typically must be calculated by constructing Load-Moment (P_n - M_n) interaction diagrams using moment magnification in accordance with Sections 6.6.4.1 through 6.6.4.6 of ACI 318-19 or ACI 318-14 (Section 10.10.5 through 10.10.7 of ACI 318-11 or ACI 318-08). The buckling load and flexural stiffness (EI) must be calculated using procedures described in Section 6.6.4.4 of ACI 318 or ACI 318-14 (Section 10.10.6 of ACI 318-11 or ACI 318-08).

4.1.4 Deflection:

4.1.4.1 Out-of-plane Deflection: The out-of-plane deflection of the RSG 3-D Structural Panels (3-D/EVG Panels™) due to transverse loads must be determined in accordance with the IBC, ACI 318 and a rational analysis using principles of mechanics with due consideration of the effect of EPS core and diagonal wires. When calculating out-of-plane deflection of a concrete structure constructed of RSG 3-D Structural Panels (3-D/EVG Panels™), the effective moment of inertia (I_e) must be taken as 0.4 of the gross moment of inertia (I_g).

4.1.4.2 In-plane Deflection: For a structural wall constructed of the RSG 3-D Structural Panels (3-D/EVG Panels™) subjected to in-plane shear load, both flexural and shear deformation must be considered in calculating the displacement. In this case, the displacement at the top of the wall panel due to lateral in-plane force (V) is calculated as follows:

For a cantilever wall:

$$\Delta_c = \Delta_b + \Delta_v = \frac{Vh^3}{3E_c I_{eff}} + \frac{1.2Vh}{E_v A} \quad (4-1)$$

For a fixed-fixed wall:

$$\Delta_c = \Delta_b + \Delta_v = \frac{Vh^3}{12E_c I_{eff}} + \frac{1.2Vh}{E_v A} \quad (4-2)$$

where:

Δ_c = Total in-plane lateral deflection at the top of a wall with respect to the bottom of the wall within a story, in. (mm)

Δ_b = In-plane lateral deflection due to bending (flexure) deformation, in. (mm)

Δ_v = In-plane lateral deflection due to shear deformation, in. (mm)

V = In-plane lateral load at nominal load or at strength level load, kips (kN)

H = Wall height, in. (mm)

E_c = Modulus of elasticity of concrete, ksi (MPa)

A = Horizontal cross-sectional area of the concrete wall facings, in.² (mm²)

I_{eff} = Effective moment of inertia, in.⁴ (mm⁴)

E_v = Shear modulus or modulus of rigidity = 0.4 E_c , ksi (MPa).

The relative rigidity or stiffness of a shear wall (k_w) is defined as the inverse of its total lateral deflection:

$$k_w = \frac{1}{\Delta_b + \Delta_v} \quad (4-3)$$

The calculated relative rigidities of shear walls can be used to determine the lateral load distribution to each shear wall in accordance with IBC Section 1604.4.

4.1.5 In-plane Shear Load Resistance: Structural walls constructed of RSG 3-D Structural Panels (3-D/EVG Panels™) must be designed in accordance with applicable provisions of ACI 318 and IBC Chapter 19. Structural walls constructed of RSG 3-D Structural Panels (3-D/EVG Panels™) that are part of structures assigned to Seismic Design Category (SDC) C, D, E or F, must be designed in accordance with Chapter 18 of ACI 318-19 or ACI 318-14, including Sections 18.2, 18.5, 18.10 and 18.11 (Chapter 21 of ACI 318-11 or ACI 318-08, including Sections 21.1, 21.4, 21.9 and 21.10, as special reinforced concrete structural walls with the modifications noted in Sections 1905.2 and 1905.3 of the 2024 IBC (Sections 1905.1.1 through 1905.1.4 of the 2021, 2018 and 2015 IBC, Sections 1905.1.1 through 1905.1.5 of the 2012 IBC, Sections 1908.1.1 through 1908.1.5 of the 2009 IBC), and conforming to limitations prescribed in ASCE/SEI 7 for special reinforced concrete shear walls, including but not limited to seismic response modification factor, R ; the deflection amplification factor, C_d ; and the system overstrength factor, Ω_o . As required by Section 4.1.1 above, load application and support condition must be designed and detailed to ensure each wythe, as applicable, shares the total load in accordance with, and proportional to, their relative stiffnesses. For Seismic Design Category (SDC) A and B, shear walls constructed of RSG 3-D Structural Panels (3-D/EVG Panels™), with an aspect ratio (height-to-length ratio) (or AR) less than or equal to 1.0 (*i.e.*, $AR \leq 1.0$), the seismic design must be based on the following parameters: a seismic response modification factor, $R = 3.5$; the deflection amplification factor, $C_d = 3.5$; and the system overstrength factor, $\Omega_o = 3.0$. Concrete shear walls constructed of RSG 3-D Structural Panels (3-D/EVG Panels™) for Seismic Design Category (SDC) A and B, with aspect ratios larger than 1 are outside of the scope of this evaluation report.

4.1.6 Openings in Walls: The portion of the RSG 3-D Structural Panel (3-D/EVG Panel™) wall above openings must be designed as a beam in accordance with reinforced concrete strength design principles and the requirements of ACI 318 (refer to [Figures 6](#), [7](#), and [17](#) of this report), including ACI 318-19 or ACI 318-14 Section 18.10 (ACI 318-11 or ACI 318-08 Section 21.9), as applicable. Wall sections adjacent to such openings must be designed to resist additional loads due to the presence of the opening (refer to [Figures 15](#) and [17](#) of this report).

4.2 Assembly and Construction:

4.2.1 General: The RSG 3-D Structural Panels (3-D/EVG Panels™) must be installed in accordance with the approved plans, which must show particular details relating to job-specific design and construction. Typical details and Technical Manual Parts 1 & 2 (August 2012 Issue) can be retrieved from the manufacturer's website: www.rsg3d.com. At all times, a copy of the manufacturer's instructions must be available on the jobsite during installation. Foundation walls, footings, and other supporting structures receiving RSG 3-D Structural Panels (3-D/EVG Panels™) must be level and free of dirt and loose material. Reinforcement for anchoring panels to supports must be as shown on the approved plans. The RSG 3-D Structural Panels (3-D/EVG Panels™) must be plumb and true in their final location, with location and alignment conforming to the approved plans. Allowable construction tolerances must be as noted in the Specifications for Structural Concrete for Buildings (ACI 301).

Panels must be temporarily braced as determined by the registered design professional to resist wind pressure and loading related to the application of concrete. Embedded electrical, plumbing and mechanical hardware and accessories shown on approved plans must be installed in the proper location and fastened by wires or other appropriate means. The interior and exterior finishes must be applied as described on the approved plans and in accordance with the IBC. Evaluation of the finishes is beyond the scope of this report.

4.2.2 Concrete Application: Concrete must be applied to both faces of the RSG 3-D Structural Panels (3-D/EVG Panels™) to the thickness shown on the approved plans. Concrete must be applied as described in Section 3.2.3 or 3.2.4 of this report. In lieu of applying concrete by methods described in Section 3.2.3, the wall panels can be set between forms. The concrete is then placed from the top, in a manner that complies with the IBC. Poured wythes of concrete facings must be at least 1.25 inches (32 mm) thick. 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: For use in fire-resistance-rated construction, walls consisting of the RSG 3-D Structural Panels (3-D/EVG Panels™), designed in accordance with this report and Table 1, have fire-resistance ratings as shown in Table 1 of this report.

4.3 Special Inspection:

Special inspection must be performed in accordance with the 2024, 2021, 2018, 2015 and 2012 IBC Section 1705.3 (2009 IBC Section 1704.4) and 2024, 2021, 2018 and 2015 IBC Section 1908 (2012 IBC Section 1910 and 2009 IBC Section 1913), 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, welded-wire reinforcement size, cover, and spacing; and identification of RSG 3-D Structural Panels (3-D/EVG Panels™) in accordance with Section 7.0 of this report. In addition to items prescribed in the 2021, 2018, 2015 and 2012 IBC Table 1705.3 (2009 IBC Table 1704.4), for shotcrete application, the duties of the special inspector include verification of sampling and preparation of test specimens, and conformance with acceptance criteria in Section 1908.1 of the 2024 and 2021 IBC (2018 and 2015 IBC Section 1908.10.3, 2012 IBC Section 1910.10.3 or 2009 IBC Section 1913.10.3) as applicable.

5.0 CONDITIONS OF USE:

The RSG 3-D Structural Panel (3-D/EVG Panels™) panels described in this report comply with, or are suitable alternatives to what is specified in, the code indicated in Section 1.0 of this report, subject to the following conditions:

- 5.1 The RSG 3-D Structural Panels (3-D/EVG Panels™) must be installed in accordance with this report, the manufacturer's installation instructions as noted in Section 4.2 of this report, and applicable code provisions. If there is a conflict between the manufacturer's published installation instructions and this report, this report governs.
- 5.2 The RSG 3-D Structural Panels (3-D/EVG Panels™) must be delivered, stored and handled in such a manner that the insulation is not punctured, and the welded-wire fabric is not deformed.
- 5.3 Plans, specifications and structural calculations, showing compliance with this report and the code, must be submitted to the code official for approval. The structural design (engineering plans, specifications and structural calculations) must ensure, under each applicable loading combination, that both concrete facings of wall, roof and floor assemblies share the total load in accordance with, and proportional to, their relative stiffness. The plans, specifications and structural calculations incorporating the RSG 3-D Structural Panels (3-D/EVG Panels™) must be prepared by a registered design professional when required by the statutes of the jurisdiction in which the project is to be constructed.
- 5.4 Concrete walls incorporating the RSG 3-D Structural Panels (3-D/EVG Panels™) wall panels, when used as seismic force-resisting systems in Seismic Design Categories C, D, E and F, must be designed and detailed as special reinforced concrete structural walls as defined in ASCE/SEI 7 (special structural walls defined in IBC Chapter 19), in accordance with Sections 4.1.5 and 4.1.6 of this report.
- 5.5 Cuts in panel wythes, and holes or other openings in panels, are not permitted unless shown on the approved plans.
- 5.6 This report only recognizes the structural performance of wall, roof and floor structural assemblies incorporating the RSG 3-D Structural Panels (3-D/EVG Panels™), and fire-resistance ratings of walls incorporating the RSG 3-D Structural Panels (3-D/EVG Panels™). Performance pertaining to the code conformance of other aspects of the buildings, including but not limited to weather protection and interior finishes, is outside the scope of this evaluation report.
- 5.7 Special inspection must be performed in accordance with Section 4.3 of this report.
- 5.8 For RSG 3-D Structural Panel (3-D/EVG Panels™) 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 IBC Section 2603.6, with the classification complying with the minimum classification requirements for the building.

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); 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-2435) along with the name, registered trademark, or registered logo of the report holder (Re-Structure Group, LLC) must be included in the product label.
- 7.2 In addition, for field identification, the package of the delivered RSG 3-D Structural Panels (3-D/EVG Panels™) covered by this report must bear product label and the face or edge of the insulation on each

RSG 3-D Structural Panels (3-D/EVG Panels™) panel must be identified in accordance with [ESR-1788](#) or [ESR-2744](#).

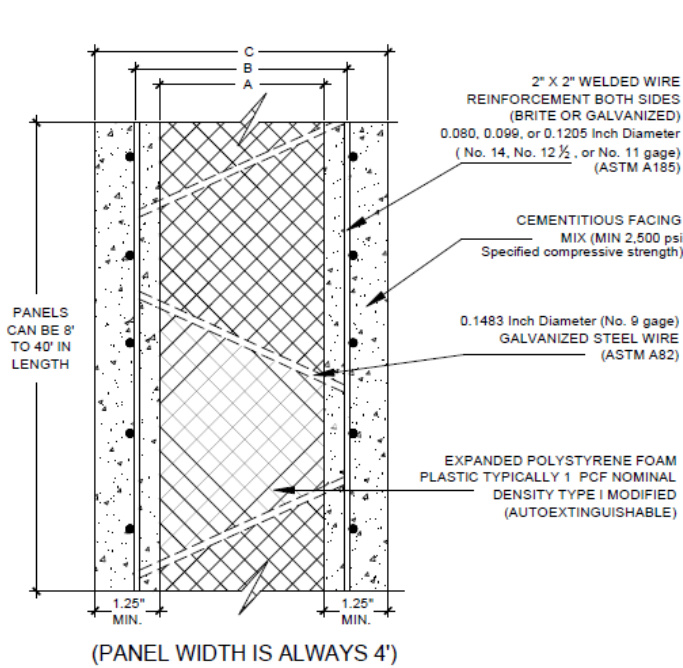
7.3 The report holder’s contact information is the following:

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OLD WESTBURY, NEW YORK 11568
(760) 693-1340
(516) 456-8237
www.rsg3d.com
igm@rsg3d.com
info@rsg3d.com

TABLE 1—FIRE-RESISTANCE RATINGS OF RSG 3-D Structural Panels (3-D/EVG Panels™) WALLS¹

CONCRETE FACING THICKNESS (BASED ON EQUAL THICKNESS ON BOTH FACE)		FIRE-RESISTANCE RATINGS	
Inches	mm	Carbonate Aggregate	Siliceous Aggregate
1.5	38	1.5 hours	1 hour
2	51	2 hours	2 hours

¹The fire-resistance ratings are applicable only to concrete walls consisting of RSG 3-D Structural Panels (3-D/EVG Panels™) recognized under this evaluation report (see [Figure 1](#)) and jobsite-applied concrete facings.



WELDED WIRE REINFORCEMENT TYPES (BRITE OR GALVANIZED)

GAUGE	Ø IN	Ø MM	W
14	0.080	2.032	0.5
12.5	0.099	2.512	-
11	0.1205	3.061	1.2

(BOTH SIDES OF PANEL)

A	B	C	PRODUCTION
1.5"	2.5"	4.0"	STD
2.0"	3.0"	4.5"	STD
2.5"	3.5"	5.0"	STD
3.0"	4.0"	5.5"	SPECIAL
3.5"	4.5"	6.0"	SPECIAL
4.0"	5.0"	6.5"	STD
4.5"	5.5"	7.0"	SPECIAL
5.0"	6.0"	7.5"	STD

Scale: None

FIGURE 1
RSG 3-D Structural Panels (3-D/EVG Panels™)
PANEL DIMENSIONS

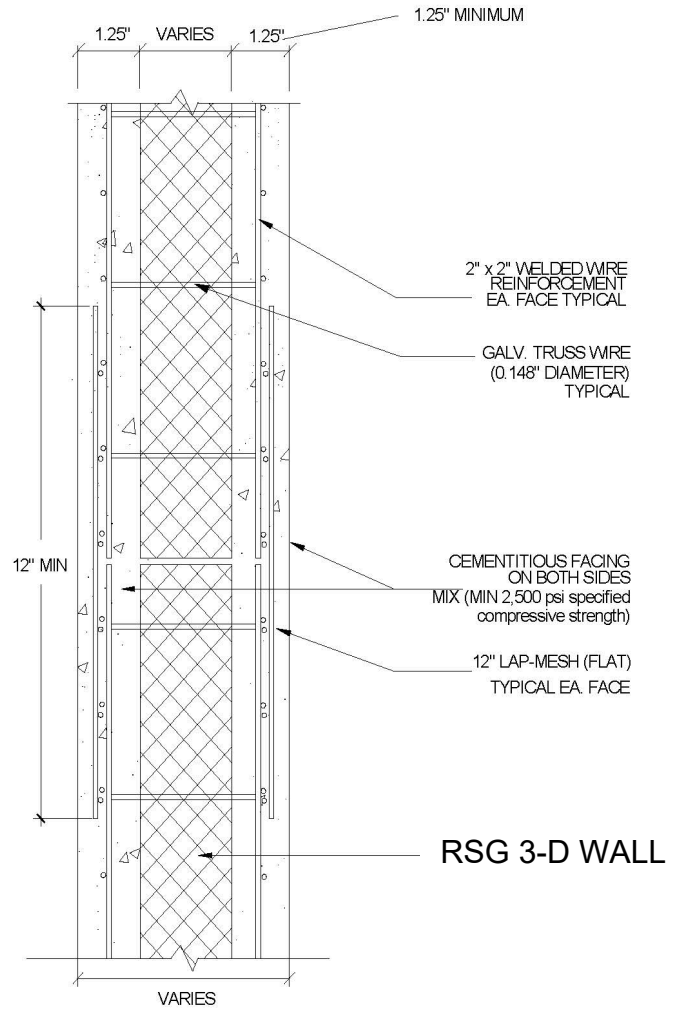


FIGURE 2
RSG 3-D Structural Panels (3-D/EVG Panels™)
DETAIL OF WALL JOINT

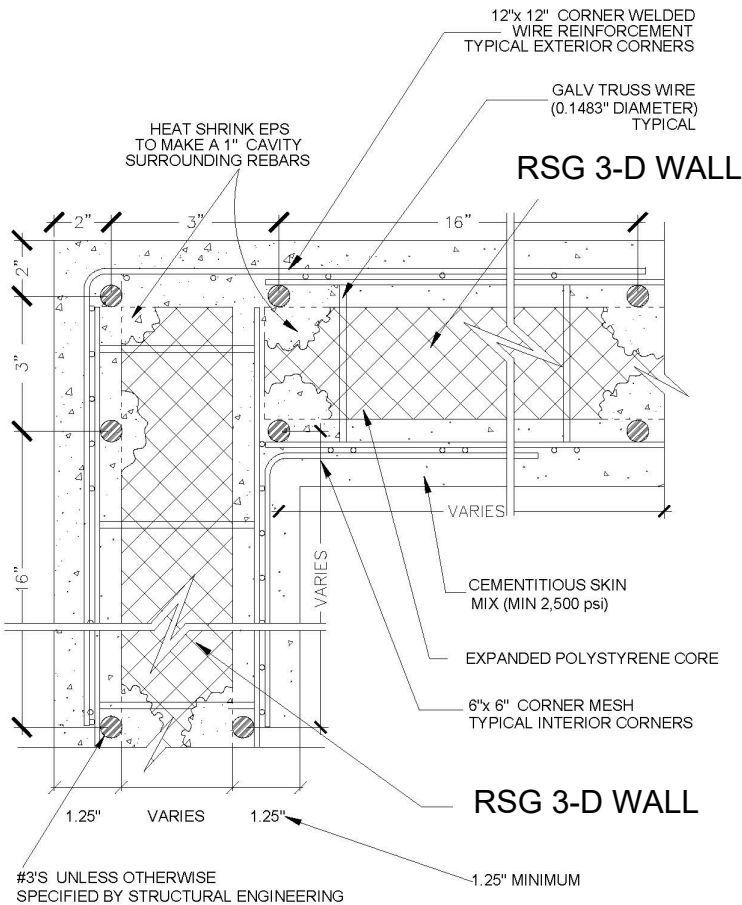


FIGURE 3
RSG 3-D Structural Panels (3-D/EVG Panels™)
SHEAR WALL CORNER DETAIL

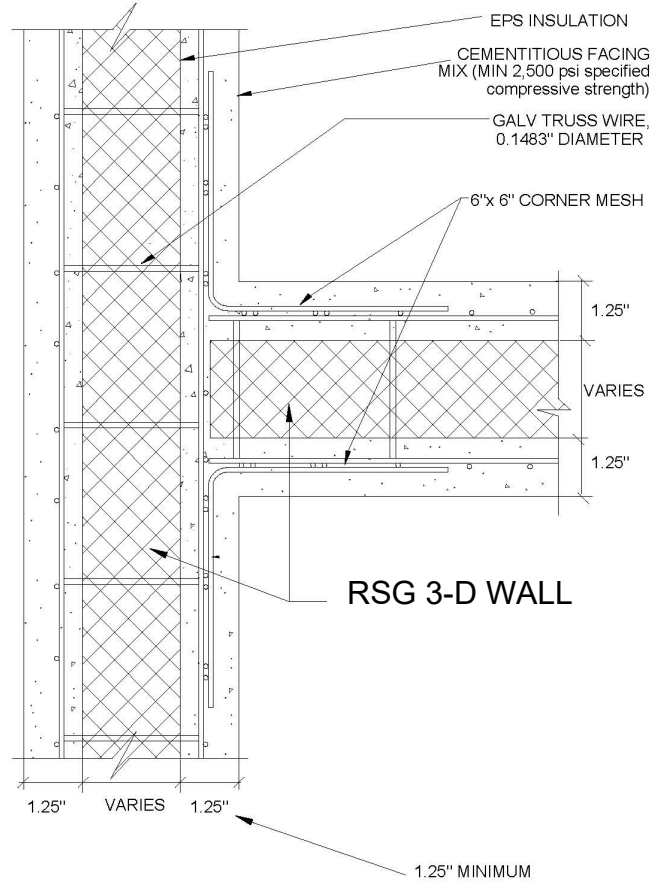
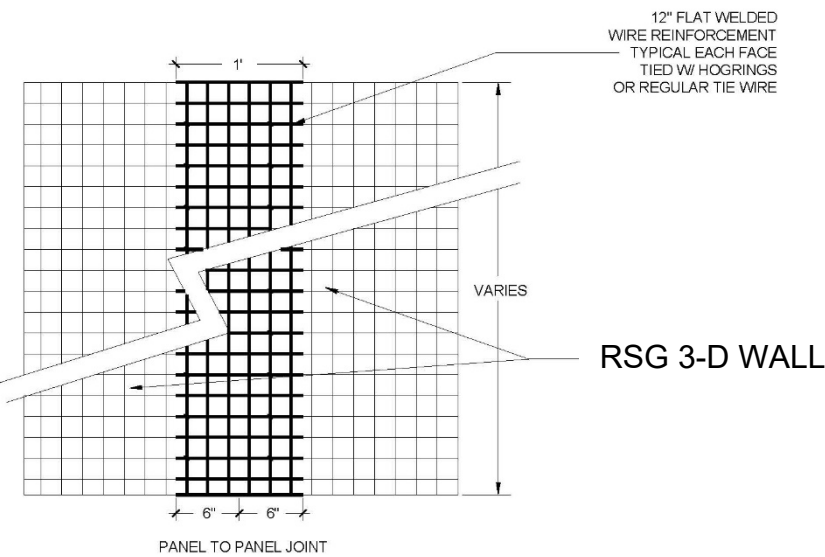


FIGURE 4
RSG 3-D Structural Panels (3-D/EVG Panels™)
WALL INTERSECTION DETAIL



NOTE: THE OVERLAP WIRE SIZE SHOULD BE THE SAME SIZE OR GREATER THAN THE PANEL WIRE SIZE.

FIGURE 5
RSG 3-D Structural Panels (3-D/EVG Panels™)
WALL JOINT OVERLAP

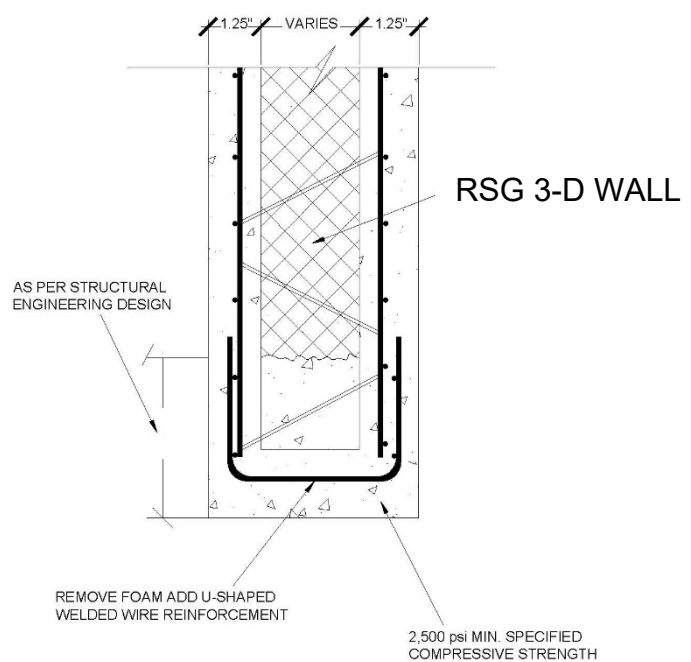


FIGURE 6
RSG 3-D Structural Panels (3-D/EVG Panels™)
LINTEL BEAM (ABOVE OPENINGS)

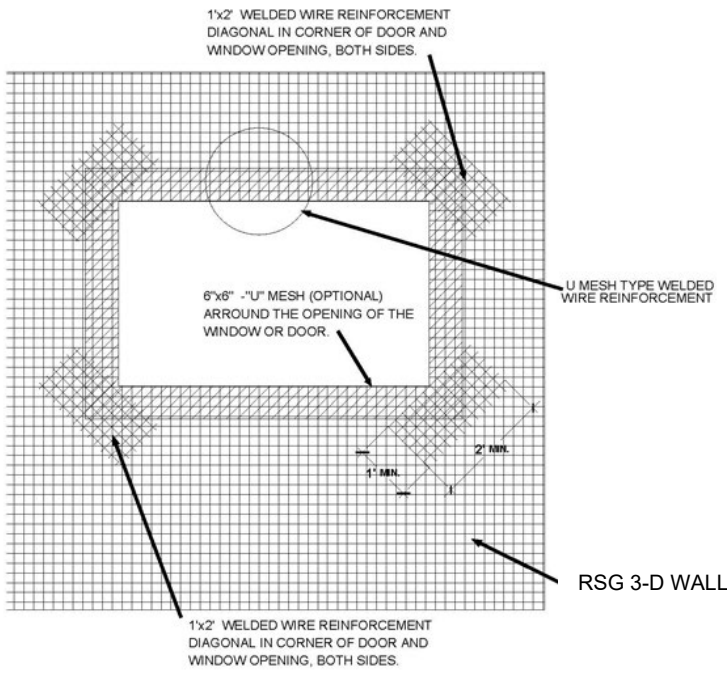


FIGURE 7
RSG 3-D Structural Panel (3-D/EVG Panels™)
DOOR AND WINDOW CORNERS REINFORCEMENT

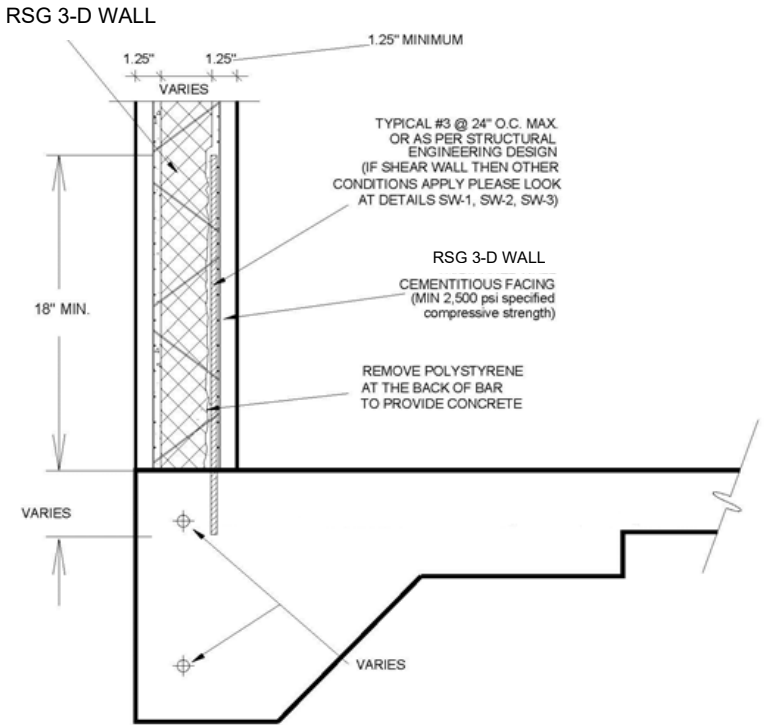


FIGURE 8
RSG 3-D Structural Panel (3-D/EVG Panels™)
EXTERIOR WALL - FOUNDATION CONNECTION

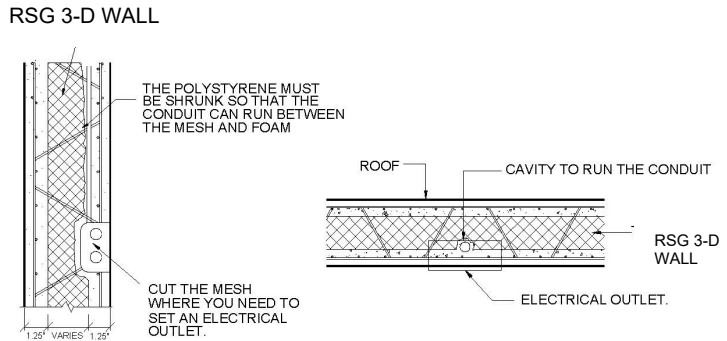
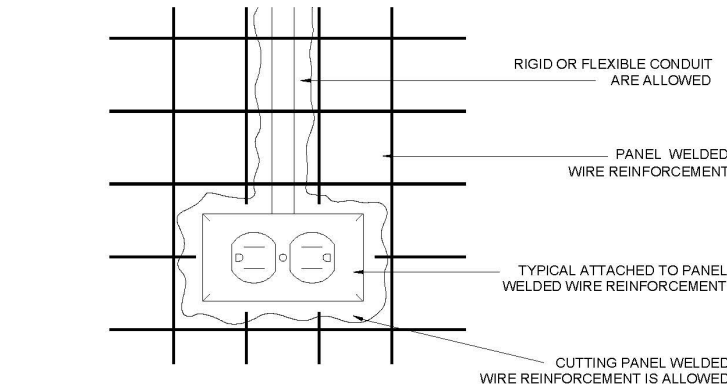


FIGURE 9
RSG 3-D Structural Panel (3-D/EVG Panels™)
ELECTRICAL INSTALLATION

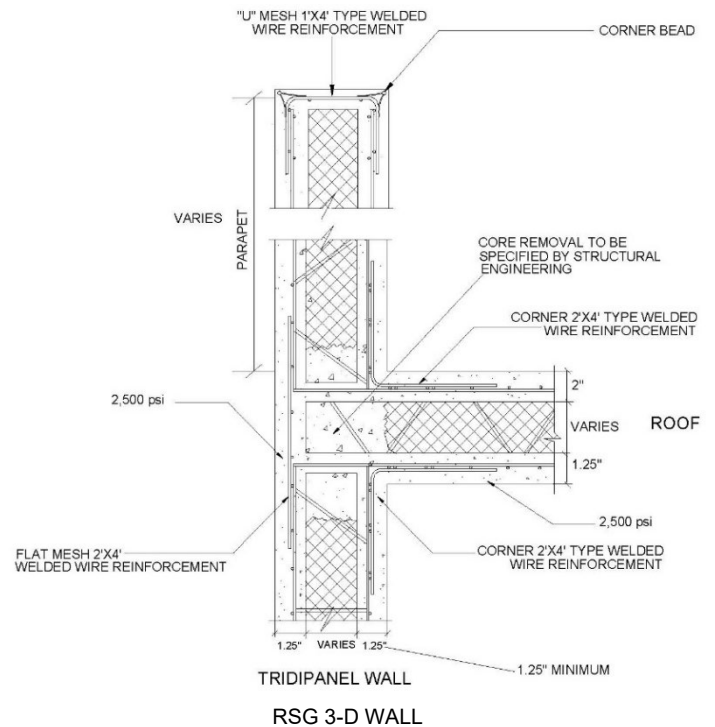


FIGURE 10
RSG 3-D Structural Panel (3-D/EVG Panels™)
PARAPET DETAIL

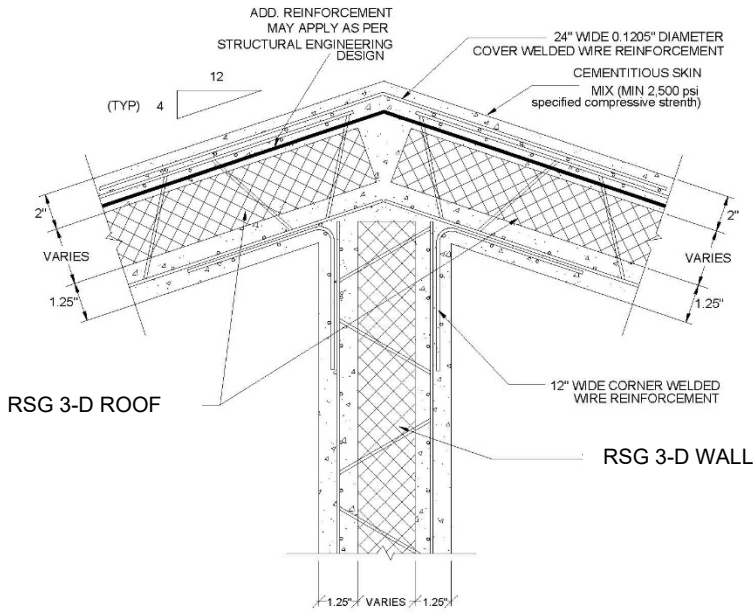


FIGURE 11
RSG 3-D Structural Panel (3-D/EVG Panels™)
WALL - RIDGE BEAM - ROOF CONNECTION

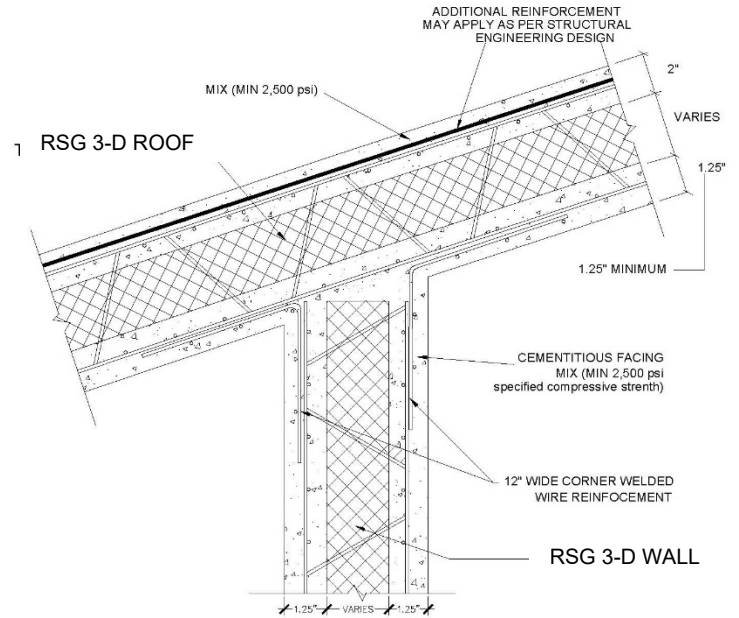


FIGURE 12
RSG 3-D Structural Panel (3-D/EVG Panels™)
WALL - ROOF CONNECTION

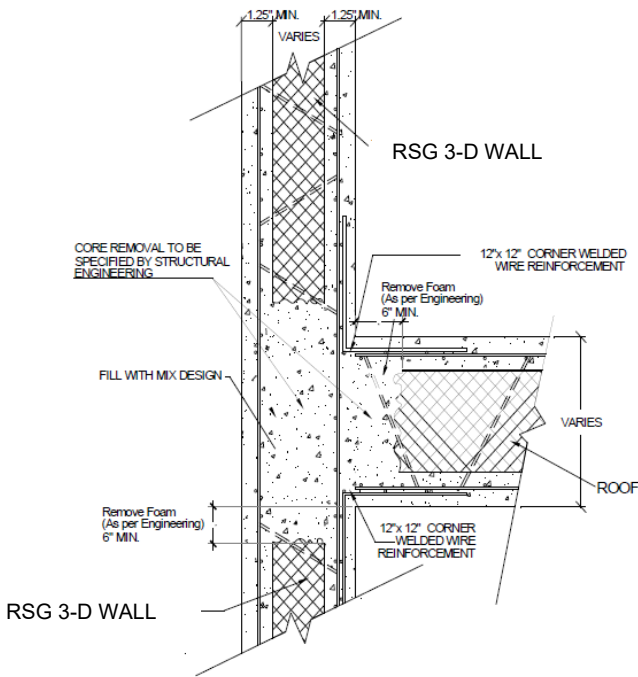
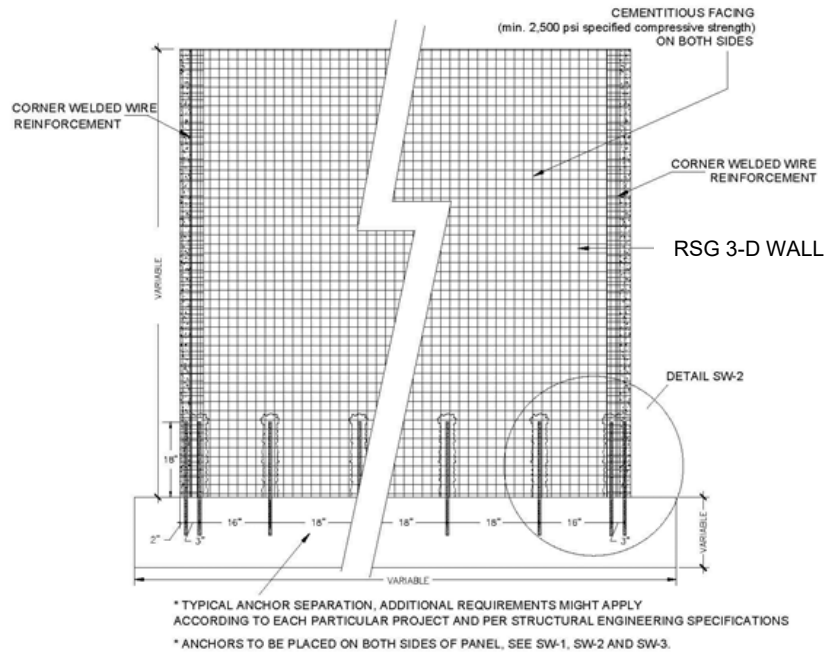


FIGURE 13
RSG 3-D Structural Panel (3-D/EVG Panels™)
WALL - INTERMEDIATE FLOOR
WALL - ROOF - PARAPET



* TYPICAL ANCHOR SEPARATION, ADDITIONAL REQUIREMENTS MIGHT APPLY ACCORDING TO EACH PARTICULAR PROJECT AND PER STRUCTURAL ENGINEERING SPECIFICATIONS
* ANCHORS TO BE PLACED ON BOTH SIDES OF PANEL, SEE SW-1, SW-2 AND SW-3.

FIGURE 14
RSG 3-D Structural Panel (3-D/EVG Panels™)
SHEAR WALL ANCHOR DETAIL SW-1

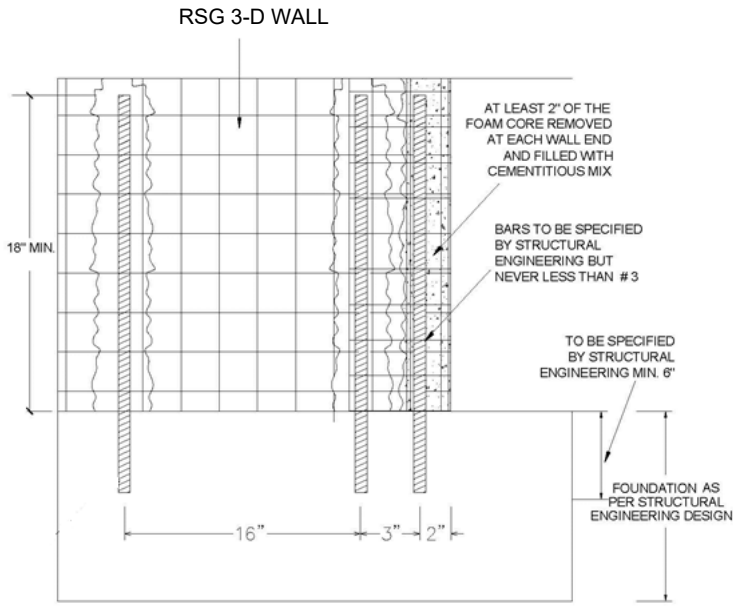


FIGURE 15
RSG 3-D Structural Panel (3-D/EVG Panels™)
SHEAR WALL END ANCHORAGE SW-2

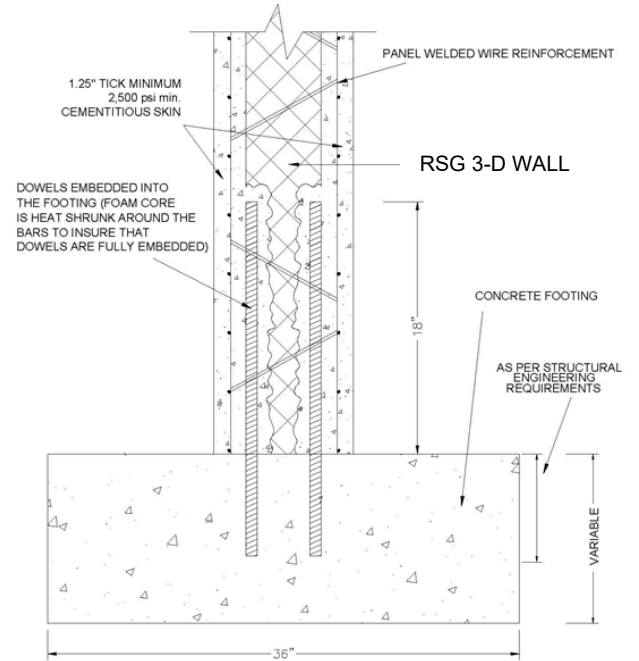


FIGURE 16
RSG 3-D Structural Panel (3-D/EVG Panels™)
SHEAR WALL ANCHOR CONNECTION SW-3

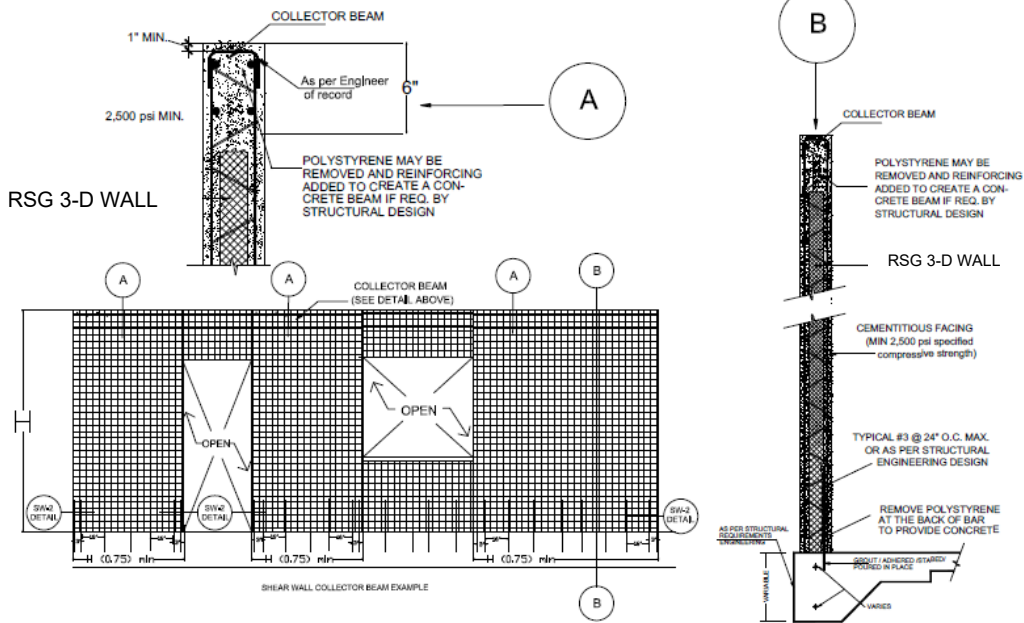


FIGURE 17
RSG 3-D Structural Panel (3-D/EVG Panels™)
TYPICAL COLLECTOR BEAM SW-4

DIVISION: 03 00 00—CONCRETE

Section: 03 37 00—Specialty Placed Concrete

REPORT HOLDER:

RE-STRUCTURE GROUP, LLC (USA)

EVALUATION SUBJECT:

RSG 3-D STRUCTURAL PANEL (3-D/EVG Panels™)

1.0 REPORT PURPOSE AND SCOPE

Purpose:

The purpose of this evaluation report supplement is to indicate that RSG 3-D Structural Panels (3-D/EVG Panels™), described in ICC-ES evaluation report [ESR-2435](#), have also been evaluated for compliance with the codes noted below as adopted by the Los Angeles Department of Building and Safety (LADBS).

Applicable code editions:

- 2023 *City of Los Angeles Building Code* ([LABC](#))
- 2023 *City of Los Angeles Residential Code* ([LARC](#))

2.0 CONCLUSIONS

The RSG 3-D Structural Panels (3-D/EVG Panels™), described in Sections 2.0 through 7.0 of the evaluation report [ESR-2435](#), comply with the LABC Chapter 19, and the LARC, and are subject to the conditions of use described in this supplement.

3.0 CONDITIONS OF USE

The RSG 3-D Structural Panels (3-D/EVG Panels™) described in this evaluation report supplement must comply with all of the following conditions:

- All applicable sections in the evaluation report [ESR-2435](#).
- The design, installation, conditions of use and identification of the RSG 3-D Structural Panels (3-D/EVG Panels™) are in accordance with the 2021 *International Building Code*® (IBC) and 2021 *International Residential Code*® (IRC) provisions, as applicable, noted in the evaluation report [ESR-2435](#).
- The design, installation and inspection are in accordance with additional requirements of LABC Chapters 16, 17 and 19, as applicable.
- Under the LARC, an engineered design in accordance with LARC Section R301.1.3 must be submitted.

This supplement expires concurrently with the evaluation report, reissued April 2025 and revised April 8, 2025.

DIVISION: 03 00 00—CONCRETE
Section: 03 37 00—Specialty Placed Concrete

REPORT HOLDER:

RE-STRUCTURE GROUP, LLC (USA)

EVALUATION SUBJECT:

RSG 3-D STRUCTURAL PANEL (3-D/EVG Panels™)

1.0 REPORT PURPOSE AND SCOPE**Purpose:**

The purpose of this evaluation report supplement is to indicate that the RSG 3-D Structural Panels (3-D/EVG Panels™), described in ICC-ES evaluation report ESR-2435, 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 RSG 3-D Structural Panels (3-D/EVG Panels™), described in Sections 2.0 through 7.0 of the evaluation report ESR-2435, comply with CBC Chapter 19, provided the design and installation are 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 RSG 3-D Structural Panels (3-D/EVG Panels™), described in Sections 2.0 through 7.0 of the evaluation report ESR-2435, comply with CRC Chapter 3, provided the design and installation are in accordance with the 2021 *International Residential Code*® (IRC) provisions noted in the evaluation report.

This supplement expires concurrently with the evaluation report, reissued April 2025 and revised in April 8, 2025.

DIVISION: 03 00 00—CONCRETE
Section: 03 37 00—Specialty Placed Concrete

REPORT HOLDER:

RE-STRUCTURE GROUP, LLC (USA)

EVALUATION SUBJECT:

RSG 3-D STRUCTURAL PANEL (3-D/EVG Panels™)

1.0 REPORT PURPOSE AND SCOPE**Purpose:**

The purpose of this evaluation report supplement is to indicate that RSG 3-D Structural Panel (3-D/EVG Panel™), described in ICC-ES evaluation report ESR-2435, 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 RSG 3-D Structural Panel (3-D/EVG Panel™), described in Sections 2.0 through 7.0 of ICC-ES evaluation report ESR-2435, 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-2435 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 RSG 3-D Structural Panel (3-D/EVG Panel™) for compliance with the High-Velocity Hurricane Zone provisions of the *Florida Building Code—Building* and 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 ESR-2435, reissued April 2025 and revised April 8, 2025.