

ICC-ES Evaluation Report

ESR-5025

Reissued January 2026

Revised September 2026

This report remains under an active [continuous compliance program](#) through the end of January 2027.

This report also contains:

- [CA Supplement](#)

- [FL Supplement](#)

ICC-ES Evaluation Reports are not to be construed as representing aesthetics or any other attributes not specifically addressed, nor are they to be construed as an endorsement of the subject of the report or a recommendation for its use. There is no warranty by ICC Evaluation Service, LLC, express or implied, as to any finding or other matter in this report, or as to any product covered by the report.

Copyright © 2026 ICC Evaluation Service, LLC. All rights reserved.



DIVISION: 03 00 00 — CONCRETE Section: 03 41 00 — Precast Structural Concrete DIVISION: 04 00 00 — MASONRY Section: 04 22 26 — Autoclaved Aerated Concrete Unit Masonry	REPORT HOLDER: LITECON CORPORATION 	EVALUATION SUBJECT: LITECON PRECAST AUTOCLAVED AERATED CONCRETE (PAAC) PANELS	
---	---	--	---

1.0 EVALUATION SCOPE

Compliance with the following codes:

- 2024, 2021, 2018 and 2015 [International Building Code® \(IBC\)](#)
- 2024, 2021, 2018 and 2015 [International Residential Code® \(IRC\)](#)

Properties evaluated:

- Structural
- Non-Combustibility
- Thermal conductivity
- Fire resistance
- Sound Transmission

2.0 USES

Litecon Precast Autoclaved Aerated Concrete (PAAC) Panels are used as exterior and interior wall panels and subfloor panels in wood or steel-framed construction. The PAAC panels may also be used under the IRC where an engineering design is submitted in accordance with Section R301.1.3 of the IRC. The panels may also be used in fire-resistance-rated construction as indicated in Sections 4.2.2.1 and 4.2.3.1 of this report.

3.0 DESCRIPTION

3.1 General:

Litecon PAAC panels, shown in [Figure 1A](#) and [Figure 1B](#), are reinforced precast, noncombustible panels manufactured from autoclaved aerated concrete (AAC), and comply with ASTM C1694 and ASTM C1693. The panels are reinforced with plain steel wire complying with ASTM A82, as required by ASTM C1694. For the PAAC wall panels, the reinforcing steel wires are nominally $\frac{7}{64}$ inch (3 mm) in diameter. For the PAAC

subfloor panels, the reinforcing steel wires are nominally $\frac{5}{32}$ inch (4 mm) in diameter. All reinforcing wire is protected with rust inhibitor in compliance with ASTM C1694. The panels are manufactured with square edges. The PAAC panels come in three nominal thicknesses of 2, 2.36 and 3 inches (50, 60 and 756 mm). The panels come in the dimensions shown in [Figures 1A](#) (for wall panels), [1B](#) (for subfloor panels) and [1C](#) (for firewall panels) of this report. The PAAC panels weight approximately 5.12 psf (25 kg/m²) for the 2-inch-thick, 6.14 psf (30 kg/m²) for the 2.36-inch-thick or 7.67 psf (37.4 kg/m²) for the 3-inch-thick.

The Litecon PAAC panels comply with ASTM C1694 and are available in strength class AAC-4 in accordance with ASTM C1693. See [Table 1](#) for the panel physical properties and thermal characteristics. The PAAC panels are classified as noncombustible when tested in accordance with ASTM E136.

3.2 Framing: The PAAC panels must be mechanically fastened to wood or cold-formed steel framing complying with applicable sections of IBC Chapters 22 and 23, respectively. The framing must be designed by registered design professional where required by the statutes of the authority having jurisdiction.

3.3 Fasteners: The fasteners used to attach the PAAC panels to the wood framing must be corrosion-resistant No. 10 coarse-thread Type 17 point screws. The fasteners used to attach the PAAC panels to the cold-formed steel framing must be corrosion-resistant No. 8 self-drilling screws, unless noted otherwise in this report.

3.4 Thin-Bed Mortar:

The thin-bed mortar must comply with the autoclaved aerated concrete thin-bed mortar requirements of Section 2103.2.1 of the IBC (ASTM C1660).

4.0 DESIGN AND INSTALLATION

4.1 Design: The Litecon PAAC wall panels must not exceed the allowable design loads noted in [Table 2](#) and [Table 3](#) of this report. When used as shearwalls, PAAC panels are limited to Seismic Design Categories A and B. The framing supporting the PAAC panels must be designed to resist the applicable forces. The Litecon PAAC subfloor panels must not exceed the allowable design loads noted in [Table 4](#) and [5](#) of this report.

4.2 Installation:

4.2.1 General: The Litecon PAAC panels must be installed in accordance with this report and the approved construction plans. A copy of the plans and this report must be available at the jobsite at all times during installation.

4.2.2 Subfloor Panels: The Litecon PAAC subfloor panels must be fastened to wood or cold-formed steel framing spaced as indicated in [Table 4](#) and [Table 5](#) of this report and indicated below using fasteners described in Section 3.3 of this report, as applicable. The location of the fasteners attaching PAAC panels to framing must be as indicated in [Table 4](#) and [Table 5](#) and as shown in Sections 4.2.2.1 and 4.2.2.2 of this report, as applicable. The PAAC panels must be installed in a running bond pattern over floor framing. A thin layer of $\frac{1}{8}$ -inch-thick (3.2 mm) adhesive mortar (Section 3.4) must be applied on the mating faces of the PAAC panels.

4.2.2.1 Fire Resistance-rated Construction: The following floor/ceiling assemblies are based on testing in accordance with IBC Section 703.2 (ASTM E119):

4.2.2.1.1 One-Hour Floor Ceiling Assembly: See [Table 9](#) of this report.

4.2.2.1.2 Two-hour Floor Ceiling Assembly: See [Table 10](#) of this report.

4.2.2.2 Sound Transmission Floor-Ceiling Assemblies: The following floor-ceiling assemblies have a Sound Transmission Class of 50 or greater in accordance with IBC Section 1206.2 and an Impact Insulation Class Rating of 50 or greater in accordance with IBC Section 1206.3.

4.2.2.2.1 Assembly 1 (STC of 52 and IIC of 72): The following floor-ceiling assembly (top of floor to ceiling):

- **Floor Covering:** 12.6 mm thick Shaw ECO Beauty carpet installed over 11 mm thick Shaw Support Plus carpet pad. Floor covering must be installed on top of the subfloor panel in accordance with floor covering manufacturer's installation instructions.
- **Subfloor Panel:** PAAC subfloor panels 3 inches (76 mm) thick installed over floor joists with fasteners penetrating into wood minimum of 1.5 inches and spaced 6 inches (152 mm) on center. Fastener edge spacing to panel joint must be $\frac{1}{2}$ inch (12.7 mm). A thin layer of $\frac{1}{8}$ -inch-thick (3.2 mm) adhesive mortar (Section 3.4) must be applied on the mating faces of the PAAC panels.
- **Floor Joists:** 2x10 solid sawn lumber spaced maximum of 16 inches on center.

- **Furring Channels:** No. 25 gage galvanized steel hat channel measuring 2.5 inch by 7/8-inch spaced 16 inches on center installed perpendicular to floor joists and fastened to floor joists using two (2) 15/8-inch long Type S bugle head steel screws at each joist location.
- **Insulation-** Minimum 3.5-inch-thick (89 mm), Class A, R-13 fiberglass insulation blanket installed in the cavity between floor joists and draped over the resilient channels at the bottom of the cavity.
- **Gypsum Ceiling Board-** One layer of 5/8-inch-thick Type X gypsum board complying with ASTM C1396 fastened to furring channels with 1.25-inch-long Type S bugle head screws spaced a maximum of 12 inches (305 mm) on center. Gypsum board seams must be sealed and covered with an approved pressure sensitive tape.

4.2.2.2.2 Assembly 2 (STC of 54 and IIC of 50):

- **Floor Covering:** 5 mm thick luxury vinyl tile (Shaw 4063V Soundscape) adhered to the underlayment with approved adhesives. Adhesives must be allowed to cure per manufacturer's specifications.
- **Underlayment:** 3 mm thick Shaw AcoustiWorx underlayment. Underlayment adhered to plastic using approved adhesive in accordance with manufacturer's specifications. A sheet of 2 mil polyethylene plastic adhered to subfloor panel with Sprayway Fast Tack 85 spray adhesive.
- **Subfloor Panel:** PAAC subfloor panels 3 inches (76 mm) thick installed over floor joists with fasteners penetrating into wood minimum of 1.5 inches and spaced 6 inches (152 mm) on center. Fastener edge spacing to panel joint must be 1/2 inch (12.7 mm). A thin layer of 1/8-inch-thick (3.2 mm) adhesive mortar (Section 3.4) must be applied on the mating faces of the PAAC panels.
- **Floor Joists:** Nominal 2x10 solid sawn lumber spaced maximum of 16 inches on center.
- **Furring Channels:** No. 25 gage galvanized steel hat channel measuring 2.5 inch by 7/8-inch spaced 16 inches on center installed perpendicular to floor joists and fastened to floor joists using two (2) 15/8-inch-long Type S bugle head steel screws at each joist location.
- **Insulation-** Minimum 3.5-inch-thick (89 mm), Class A, R-13 fiberglass insulation blanket installed in the cavity between floor joists and draped over the resilient channels at the bottom of the cavity.
- **Gypsum Ceiling Board-** One layer of 5/8-inch-thick Type X gypsum board complying with ASTM C1396 fastened to furring channels with 1.25-inch-long Type S bugle head screws spaced a maximum of 12 inches (305 mm) on center. Gypsum board seams must be sealed and covered with an approved pressure sensitive tape.

4.2.2.2.3 Assembly 3 (STC of 55 and IIC of 70): The following floor-ceiling assembly(top of floor to ceiling):

- **Floor Covering:** 12.6 mm thick Shaw ECO Beauty carpet installed over 11 mm thick Shaw Support Plus carpet pad. Floor covering must be installed on top of the subfloor panel in accordance with floor covering manufacturer's installation instructions.
- **Subfloor Panel:** PAAC subfloor panels 3 inches (76 mm) thick installed over floor joists with fasteners penetrating into wood minimum of 1.5 inches and spaced 6 inches (152 mm) on center. Fastener edge spacing to panel joint must be 1/2 inch (12.7 mm). A thin layer of 1/8-inch-thick (3.2 mm) adhesive mortar (Section 3.4) must be applied on the mating faces of the PAAC panels.
- **Floor Joists:** 1000S162-54 cold formed steel joist spaced maximum of 24 inches on center.
- **Furring Channels:** No. 25 gage galvanized steel hat channel measuring 2.5 inch by 7/8-inch spaced 16 inches on center installed perpendicular to floor joists and fastened to floor joists using two (2) 15/8-inch long Type S bugle head steel screws at each joist location.
- **Insulation-** Minimum 3.5-inch-thick (89 mm), Class A, R-13 fiberglass insulation blanket installed in the cavity between floor joists and draped over the resilient channels at the bottom of the cavity.
- **Gypsum Ceiling Board-** Two layers of 5/8-inch-thick Type X gypsum board complying with ASTM C1396 fastened to furring channels. Base layer attached to furring channels with 1-inch-long Type S bugle head screws at 12 inches on center. Face layer attached to furring channels using 1.25-inch-long Type S bugle head screws spaced a maximum of 12 inches (305 mm) on center. Face gypsum board seams must be sealed and covered with an approved pressure sensitive tape.

4.2.2.2.4 Assembly 4 (STC of 54 and IIC of 50):

- **Floor Covering:** 2 mm thick luxury vinyl tile (Shaw Expo) adhered to the underlayment with approved adhesives. Adhesives must be allowed to cure per manufacturer's specifications.
- **Underlayment:** 1.4 mm thick Shaw GroundWoks underlayment. Underlayment adhered to plastic using

approved adhesive in accordance with manufacturer's specifications. A sheet of 2 mil polyethylene plastic adhered to subfloor panel with approved adhesives as recommended by manufacturer's specifications.

- **Subfloor Panel:** PAAC subfloor panels 3 inches (76 mm) thick installed over floor joists with fasteners penetrating into wood minimum of 1.5 inches and spaced 6 inches (152 mm) on center. Fastener edge spacing to panel joint must be ½ inch (12.7 mm). A thin layer of 1/8-inch-thick (3.2 mm) adhesive mortar (Section 3.4) must be applied on the mating faces of the PAAC panels.
- **Floor Joists:** 1000S162-54 cold formed steel joist spaced maximum of 24 inches on center.
- **Furring Channels:** No. 25 gage galvanized steel hat channel measuring 2.5 inch by 7/8-inch spaced 16 inches on center installed perpendicular to floor joists and fastened to floor joists using two (2) 1⁵/₈-inch-long Type S bugle head steel screws at each joist location.
- **Insulation-** Minimum 3.5-inch-thick (89 mm), Class A, R-13 fiberglass insulation blanket installed in the cavity between floor joists and draped over the resilient channels at the bottom of the cavity.
- **Gypsum Ceiling Board:** Two layers of 5/8-inch-thick Type X gypsum board complying with ASTM C1396 fastened to furring channels. Base layer attached to furring channels with 1-inch-long Type S bugle head screws at 12 inches on center. Face layer attached to furring channels using 1.25-inch-long Type S bugle head screws spaced a maximum of 12 inches (305 mm) on center. Face gypsum board seams must be sealed and covered with an approved pressure sensitive tape.

4.2.3 Wall Panels: The Litecon PAAC wall panels must be fastened to wood or cold-formed steel framing spaced as indicated in [Table 2](#) and [Table 3](#) of this report and indicated below using fasteners described in Section 3.3 of this report, as applicable. The location of the fasteners attaching PAAC panels to framing must be as indicated in [Table 2](#) and [Table 3](#) and Sections 4.2.3.1 and 4.2.3.2 of this report, as applicable. The PAAC panels must be installed in a running bond pattern staggered up the wall. A thin layer of 1/8-inch-thick (3.2 mm) adhesive mortar (Section 3.4) must be applied on the mating faces of the PAAC panels.

4.2.3.1 Fire Resistance-rated Construction: The following wall assemblies are based on testing in accordance with IBC Section 703.2 (ASTM E119):

4.2.3.1.1 One-hour Load-bearing Wood Stud Wall Assembly (Rated Both Sides): Nominal 2-by-4 studs spaced up to 16 inches on center. The interior side of the framing must be cladded with one layer of 5/8-inch-thick (15.9 mm) Type X gypsum wallboard complying with ASTM C1396. The exterior side of the wall must be cladded with minimum 2-inch-thick (50.8 mm) PAAC panels. The gypsum board must be installed in a vertical orientation secured to the framing members with No. 6 by 15/8-inch-long (41.3 mm) coarse-thread, bugle head drywall screws spaced at 8 inches on center (203.2 mm) around the perimeter and field. Gypsum board joints must be treated with tape and joint compound complying with ASTM C840 or GA216. Screw heads are finished with a layer of joint compound. The PAAC panels must be installed so that all panel vertical joints are backed by framing. No blocking is needed on the panels horizontal joints. The panels must be secured to the framing using No. 10 corrosion resistant screws with sufficient length to penetrate 1.5-inches (38.1 mm) into framing, spaced at a maximum 8 inches on center (203.2 mm) with fasteners installed at a minimum of ½-inch (12.7 mm) from the vertical joints or edges and 3 inches (76.2 mm) from the horizontal joints. The fasteners must be countersunk ½-inch (12.7 mm) from the panel surface and filled with mortar. Allowable bearing loads must not exceed 2,086 pounds per stud (946.2 kg per stud), 100 percent of the allowable F_c or 100 percent of the calculated stress with studs having a slenderness ratio, l/d of 33, whichever is less. The panels must also be installed in accordance with Section 4.2.2 of this report.

4.2.3.1.2 One-hour Non-load Bearing Cold-formed Steel Framed Wall Assembly (Rated Both Sides): Nominal 3.5-inch-deep by 20 gage cold-formed steel studs spaced up to 16 inches on center. The interior side of the framing must be cladded with one layer of 5/8-inch-thick (15.9 mm) Type X gypsum wallboard complying with ASTM C1396. The exterior side of the wall must be cladded with minimum 2-inch-thick (50.8 mm) PAAC panels. The gypsum board must be installed in a vertical orientation secured to the framing members with No. 6 by 15/8-inch-long (41.3 mm) coarse-thread, bugle head drywall screws spaced at 8 inches on center (203.2 mm) around the perimeter and field. Gypsum board joints must be treated with tape and joint compound complying with ASTM C840 or GA216. Screw heads are finished with a layer of joint compound. The PAAC panels must be installed so that all panel vertical joints are backed by framing. No blocking is needed on the panels horizontal joints. The panels must be secured to the framing using No. 8 corrosion-resistant self-drilling screws with sufficient length to penetrate framing with at least three screw threads, spaced at a maximum 8 inches on center (203.2 mm) with fasteners installed a minimum of ½-inch (12.7 mm) from the vertical joints or edges and 3 inches (76.2 mm) from the horizontal joints. The fasteners must be countersunk ½-inch (12.7

mm) from the panel surface and filled with mortar. The panels must also be installed in accordance with Section 4.2.2 of this report.

4.2.3.1.3 Two-Hour Load Bearing Wall Assembly (Rated Both Sides): See [Table 6](#) of this report.

4.2.3.1.4 Two-Hour Load Bearing Wall Assembly (Rated from Exterior Side): See [Table 7](#) of this report.

4.2.3.1.5 Two-Hour Nonloadbearing Wall Assembly Area Separation Wall (Rated Both Sides): See [Table 8](#) of this report.

4.2.3.2 Sound Transmission Wall Assemblies: The wall assemblies listed in below have a Sound Transmission Class of 50 or greater in accordance with IBC Section 1206.2.

4.2.3.2.1 Assembly 1 (STC of 52 without insulation; STC of 56 with insulation): The following wall assembly:

- **Gypsum wallboard:** One-layer 5/8-inch-thick Type X gypsum wallboard complying with ASTM C1396 applied vertically to framing on both sides with No. 6 coarse thread, bugle head screws at 8 inches on center. Gypsum board joints must be treated with a Level 2 tape and joint compound finish complying with ASTM C840 or GA216. Screw heads are finished with a layer of joint compound.
- **Framing:** Nominal 2 x 4 wood framing spaced maximum 16 inches on center must be installed on both sides of the wall.
- **Insulation (Optional):** Stud cavity filled with 3.5-inch-thick R-13 fiberglass insulation.
- **PAAC Wall Panel:** Minimum 2-inch-thick PAAC wall panels were installed in a running bond pattern staggered up the wall. The panels were attached to framing members using aluminum breakaway clips. A thin layer approximately 1/8-inch-thick of adhesive mortar must be applied on the mating faces of the panels.
- **Aluminum Breakaway Clips:** 0.050-inch thick by 2-inch-by-2½-inch angle dimensions by 2 inches long aluminum clips. The clips come with predrilled holes used to fasten framing to PAAC panels. A ½ -inch air gap must be maintained between the framing and the back side of the panels. The clips must be attached to the framing using two (2) No. 8 by 1.5-inch-long Type W screws and one (1) No. 8 by 1.5-inch-long sharp point screws with wafer head to attach the clip to the back of the PAAC panels. The clips must be spaced no more than 24 inches on center vertically and 12 inches from the top and bottom of the wood frame. The clips must also be attached on alternated sides of the studs in the field of the assembly.

4.2.3.2.2 Assembly 2 (STC of 56 without insulation; STC of 58 with insulation): The following wall assembly:

- **Gypsum wallboard:** One-layer 5/8-inch-thick Type X gypsum wallboard complying with ASTM C1396 applied vertically to framing on both sides with No. 6 coarse thread, bugle head screws at 8 inches on center. Gypsum board joints must be treated with a Level 2 tape and joint compound finish complying with ASTM C840 or GA216. Screw heads are finished with a layer of joint compound.
- **Framing:** 362S162-33 cold formed steel studs spaced maximum 16 inches on center must be installed on both sides of the wall.
- **Insulation(Optional):** Stud cavity filled with 3.5-inch-thick R-13 fiberglass insulation.
- **PAAC Wall Panel:** Minimum 2-inch-thick PAAC wall panels were installed in a running bond pattern staggered up the wall. The panels were attached to framing members using aluminum breakaway clips. A thin layer approximately 1/8-inch-thick of adhesive mortar must be applied on the mating faces of the panels.
- **Aluminum Breakaway Clips:** 0.050-inch thick by 2-inch-by-2½-inch angle dimensions by 2 inches long aluminum clips. The clips come with predrilled holes used to fasten framing to PAAC panels. A ½ -inch air gap must be maintained between the framing and the back side of the panels. The clips must be attached to the framing using two (2) No. 8 by 1.5-inch-long Type W screws and one (1) No. 8 by 1.5-inch-long sharp point screws with wafer head to attach the clip to the back of the PAAC panels. The clips must be spaced no more than 24 inches on center vertically and 12 inches from the top and bottom of the wood frame. The clips must also be attached on alternated sides of the studs in the field of the assembly.

4.3 Thermal Insulation: The PAAC panels, tested in accordance with ASTM C518, have overall thermal transmission values as shown in [Table 1](#).

4.4 Special Inspections: Special inspections must conform to Section 1704 of the IBC. The special inspector's duties are, at minimum, to verify panel and mortar identification, panel placement, mortar preparation and application.

5.0 CONDITIONS OF USE:

The Litecon Precast Autoclaved Aerated Concrete (PAAC) Panels as described in this report comply with, or are suitable alternatives to the codes noted in this report, subject to the following conditions:

- 5.1 The published installation manual, the approved construction plans and this report must be available at all times at the jobsite during construction. The instructions within this report govern if there are any conflicts between the manufacturer's installation manual and this report.
- 5.2 Framing members supporting the panels must be designed by registered design professional and must be able to resist the applied loads noted in [Tables 2, 3, 4](#) and [5](#) of this report.
- 5.3 The PAAC wall panels must be installed on exterior walls on buildings over 40 feet (12 192 mm) in height above the grade plane of Types I, II III and IV construction with water-resistive barrier complying with Exception 2 of 2021 and 2018 IBC Section 1402.5 (Exception 2 of 2015 IBC Section 1403.5).
- 5.4 The PAAC wall panels must be installed with an approved exterior wall covering.
- 5.5 Litecon Precast Autoclaved Aerated Concrete (PAAC) panels are manufactured under a quality control program with inspections by ICC Evaluation Service, LLC.

6.0 EVIDENCE SUBMITTED

- 6.1 Data in accordance with the requirements of ASTM C518.
- 6.2 Data in accordance with the requirements of ASTM C1660, ASTM C1694 and ASTM C1693.
- 6.3 Data in accordance with the transverse load testing requirements of ASTM E330.
- 6.4 Data in accordance with racking shear load testing requirements of ASTM E72.
- 6.5 Data in accordance with the fire-resistance requirements of ASTM E119.
- 6.6 Data in accordance with the noncombustibility requirements of ASTM E136.
- 6.7 Data in accordance with uniform load tests in accordance with ASTM E72 for subfloor panels.
- 6.8 Data in accordance with diaphragm tests of in accordance with ASTM E455 for subfloor panels.
- 6.9 Data in accordance with the sound transmission requirements of ASTM E90 and ASTM E492.
- 6.10 Quality Documentation in accordance with the [ICC-ES Acceptance Criteria for Quality Documentation \(AC10\)](#).

7.0 IDENTIFICATION

- 7.1 The ICC-ES mark of conformity, electronic labeling, or the evaluation report number (ICC-ES ESR-5025) along with the name, registered trademark, or registered logo of the report holder must be included in the product label.
- 7.2 In addition, each pallet of Litecon AAC panels must be identified by a stamp or a label on the pallet that includes the name of the report holder (LITECON Corporation), identification of the manufacturing facility, production date or lot number as designation as cladding, subfloor or firewall panel.
- 7.3 The report holder's contact information is the following:

LITECON CORPORATION
18911 HARDY OAK BOULEVARD NO. 190
SAN ANTONIO, TEXAS 78258
(210) 605-7052
www.liteconusa.com

TABLE 1—PHYSICAL PROPERTIES AND THERMAL CHARACTERISTICS OF PAAC PANELS PER INCH OF THICKNESS

STRENGTH CLASS	NOMINAL DRY BULK DENSITY (pcf)	THERMAL RESISTANCE R (ft ² · h · F/Btu-in)	THERMAL CONDUCTIVITY k (Btu · in / ft ² · h · F)	NOMINAL COMPRESSIVE STRENGTH (psi)
AAC-4	31.0	1.193	0.839	580

For SI: 1 inch = 25.4 mm, 1 pcf = 16.02 kg/m³, 1 ft²·h·°F/Btu = 0.1761 m²·k/W, 1 Btu · in./h·ft²·°F = 0.144 W/m·K, 1 psi = 6894.8 Pa.

TABLE 2—ALLOWABLE POSITIVE AND NEGATIVE TRANSVERSE LOADS PAAC WALL PANELS¹

Minimum PAAC Panel Nominal Thickness, inches	Framing Member Type	Framing Member Maximum Spacing, inches	Fastener	Fastener Locations	Allowable Positive Transverse Loads, psf			Allowable Negative Transverse Loads, psf		
					Strength	Deflection		Strength	Deflection	
						L/120	L/180		L/120	L/180
2	Minimum 2 by 4 Southern Yellow Pine	16	Section 3.3 with minimum length to penetrate 1.5 inches	See Figure 3	68	68	63	55	55	48
2	Minimum 600S162-43 C-stud, 33 ksi	24	Section 3.3 with minimum length to penetrate three screw threads	See Figure 4 ²	66	66	66	34	34	34

For SI: 1 inch= 25.4 mm, 1 psf= 47.9 Pa.

¹ Vertical panel joints must be installed over framing. No blocking on horizontal panel joints.

² See [Figure 3](#) for fastener locations at 16 inches on center.

TABLE 3—ALLOWABLE RACKING SHEAR LOADS PAAC WALL PANELS^{1,4}

Shearwall Assembly No.	Minimum PAAC Panel Nominal Thickness, inches	Framing Member Type	Framing Member Maximum Spacing, inches	Fastener	Fastener Locations	Allowable Racking Shear Loads, plf		
						Strength	Net Deflection, inches	
							0.125	0.20
1	2	Minimum 2 by 4 Southern Yellow Pine ²	16	Section 3.3 with minimum length to penetrate 1.5 inches	See Figure 3	142	103	138
2	2	Minimum 2 by 4 Southern Yellow Pine	16	Section 3.3 with minimum length to penetrate 1.5 inches	See Figure 5	269	170	324
3	2	Minimum 2 by 6 Southern Yellow Pine	16	Section 3.3 with minimum length to penetrate 1.5 inches	See Figure 5	269	315	441
4	2	Minimum 2 by 6 Southern Yellow Pine	12	Section 3.3 with minimum length to penetrate 1.5 inches	See Figure 6	294	399	536
5	2	Minimum 600S162-43 C-stud, 33 ksi ²	24	Section 3.3 with minimum length to penetrate three screw threads	See Figure 4 ³	108	38	54
6	2	Minimum 600S162-43 C-stud, 33 ksi	16	Section 3.3 with minimum length to penetrate three screw threads	See Figure 7	256	325	434

For SI: 1 inch= 25.4 mm, 1 plf= 14.59 N/m

¹ Allowable racking shear loads are based on testing 8 foot by 8 foot assembly in accordance with ASTM E72.

² Vertical panel joints must be installed over framing. No blocking on horizontal joints.

³ See [Figure 3](#) for fastener locations at 16 inches on center.

⁴ See corresponding figures for shearwall installation and fastener details.

TABLE 4—ALLOWABLE UNIFORM TRANSVERSE LOADS OF PAAC SUBFLOOR PANELS^{1,2,3}

Minimum PAAC Panel Thickness, inches	Maximum Framing Member Spacing, inches	Allowable Uniform Load (Single Span)		Allowable Uniform Load (2 or more Spans)	
		Deflection Limit		Deflection Limit	
		L/240	L/360	L/240	L/360
2	24	67	67	105	105
2.36	24	174	174	224	224
3	24	132	132	226	226

For SI: 1 inch= 25.4 mm, 1 psf= 47.9 Pa.

¹The load is applied uniformly with PAAC panels supported in either a single-span or multi-span (2 or more spans) configuration.

²The PAAC panel must bear a minimum of ¾ inch on the supporting framing member.

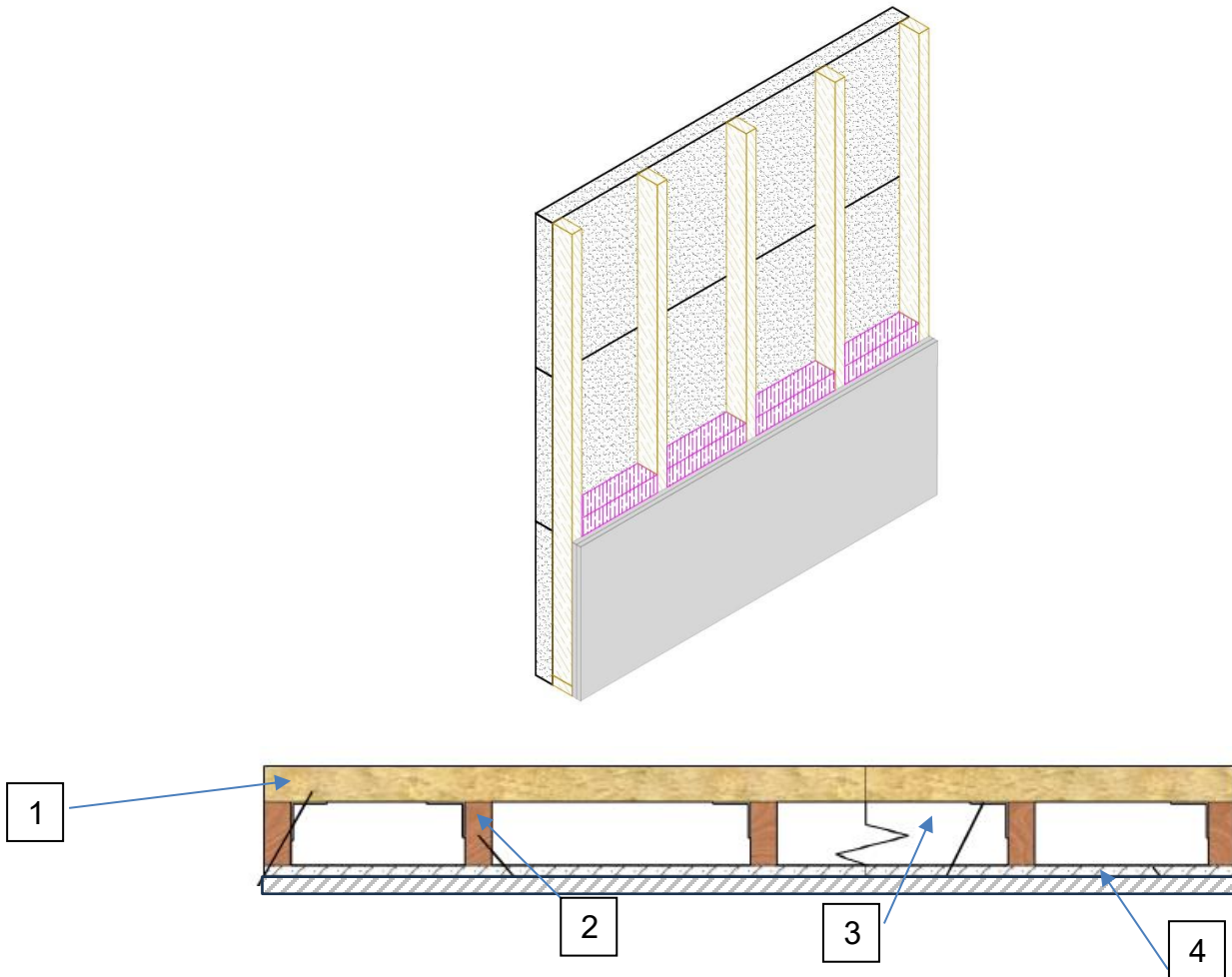
³The design of the framing member supporting the applied forces is outside scope of this report and must be designed by registered design professional.

TABLE 5—ALLOWABLE IN-PLANE SHEAR LOADS FOR HORIZONTAL DIAPHRAGMS (CANTILEVER DIAPHRAGM)^{1,2}

Minimum PAAC panel thickness, inches	Load Direction	Framing Configuration	Fastener	Allowable In-plane Shear Load (plf)	Apparent Shear Stiffness, Ga (kips/in)
3	Parallel to Joists	2x10 Southern Yellow Pine at 16 inches on center	No. 10 by 4.5 inch-long self-drilling screws installed 6 inches on center perimeter and field (See Figure 8 for additional details)	277	12.4
3	Perpendicular to Joists	2x10 Southern Yellow Pine at 16 inches on center	No. 10 by 4.5 inch-long self-drilling screws installed 6 inches on center perimeter and field (See Figure 8 for additional details)	282	15.7
3	Parallel to Joists	1000S162-54 C-stud, 50 ksi at 24 inches on center	No. 10 x 4 inch-long self-drilling screws installed 6 inches on center perimeter and field (See Figure 9 for additional details)	223	10.0
3	Perpendicular to Joists	1000S162-54 C-stud, 50 ksi at 24 inches on center	No. 10 x 4 inch-long self-drilling screws installed 6 inches on center perimeter and field (See Figure 9 for additional details)	222	10.7

For SI: 1 inch= 25.4 mm, 1 plf= 14.59 N/m, 1 kip/inch= 176 N/m.

TABLE 6 – TWO-HOUR LOAD-BEARING WALL (RATED FROM BOTH SIDES)^{1,2}



ITEM NO.	COMPONENTS	MATERIALS
1	Litecon PAAC Panels (Exposed to Fire)	Nominal 2-inch-thick precast autoclaved aerated concrete panels measuring 2 feet by 4 feet, 2 feet by 7 feet, 2 feet by 8 feet or 2 feet by 10 feet; or 3-inch-thick precast autoclaved aerated concrete panels measuring 2 feet by 4 feet, 2 feet by 7 feet, 2 feet by 8 feet, or 2 feet by 10 feet installed in a running bond pattern staggered up the wall. A thin layer approximately 1/16-inch-thick of adhesive mortar must be applied on the mating faces of the panels. The panels were installed in a horizontal or vertical orientation. The PAAC panels must be through-fastened into the framing members using No. 10 by 3½-inch-long self drilling wood screws for 2-inch-thick PAAC panels or No. 10 by 4½-inch-long self drilling wood screws for 3-inch-thick PAAC panels. The fasteners must be spaced no more than 8 inches and maximum edge spacing of 3 inches. PAAC panels vertical joints must be placed over framing. PAAC panels horizontal joints do not need to be blocked by framing.
2	Wall Framing	Nominal 2 x 6 Southern Pine No. 2 wood studs spaced maximum 16 inches on center. The studs must be secured to double top plates and single bottom plate of similar grade and species using 3-inch-long by 0.131-inch diameter smooth shank framing nails. Lateral bracing was installed at mid-height and staggered across the horizontal centerline of the assembly. Lateral bracing consists of Southern Pine No. 2 secured to studs using 3-inch-long by 0.131-inch diameter smooth shank framing nails. Optional wood-based sheathing may be added over framing (behind PAAC panels).
3	Insulation	Stud cavity must be filled with 5½-inch-thick mineral wool insulation.

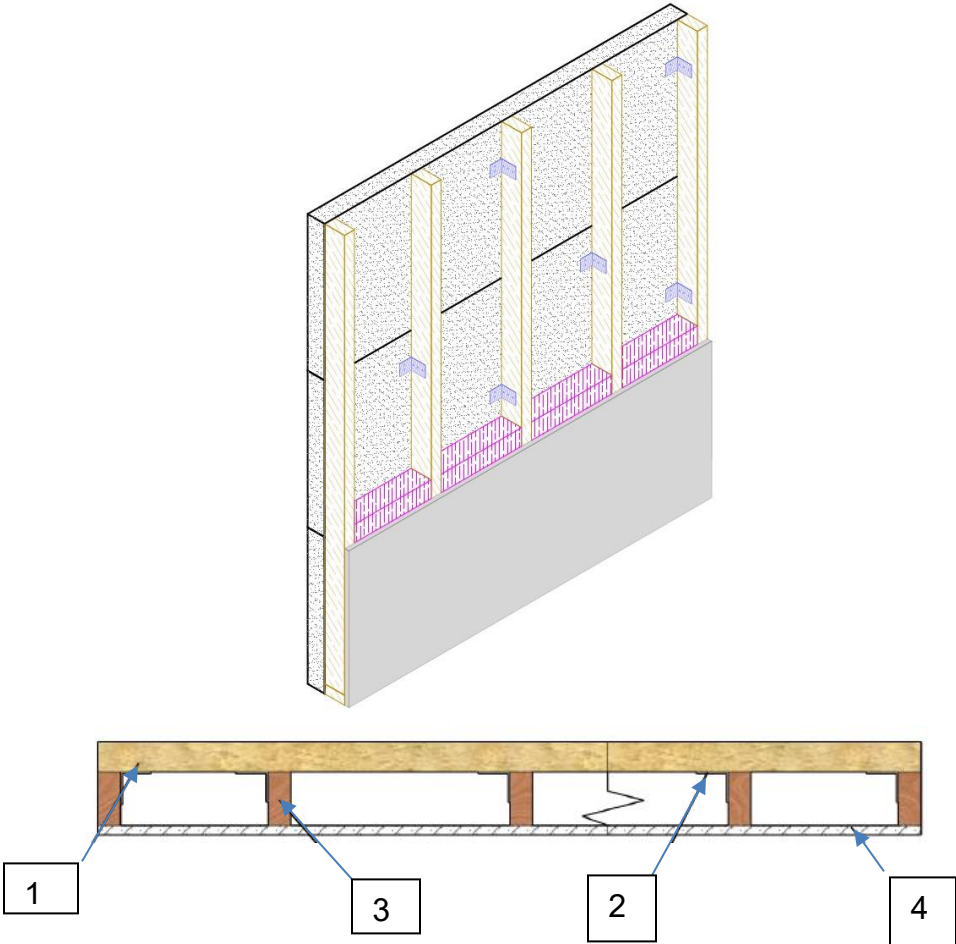
ITEM NO.	COMPONENTS	MATERIALS
4	Gypsum Wallboard	Two layers of 5/8-inch-thick Type X gypsum wallboard, complying with ASTM C1396, are secured directly to the framing. The base layer must be secured to the framing using 6d coated nails, 1 7/8-inch-long, 0.085-inch-diameter shank, 1/4-inch-diameter heads spaced at 8 inches on center along the perimeter and 12 inches on center in the field of the board. Nails around the perimeter must be spaced minimum 3/8-inch from the edge of the panel. Gypsum wallboard interior sheathing must be installed vertically to the studs. The face layer, with vertical panel joints staggered from the base layer, must be secured to the framing using 8d coated nails, 2 3/8-inch-long, 0.100-inch-diameter shank, 1/4 inch-diameter heads, spaced at 8 inches on center, with the face layer nails staggered from the base layer nails. Nails around the perimeter must be spaced minimum 3/8-inch from the edge of the panel. Face layer must be installed vertically to the studs. All vertical seams of the face layer must be backed by studs and must be staggered from vertical seams of the face layer on the opposite side of the assembly by a minimum of one stud cavity. All face layer sheathing edge joints must be treated with nominal 2-inch wide paper tape and level 2 finish joint compound. All fastener heads must be covered with two layers of joint compound.

For SI: 1 inch = 25.4 mm, 1 foot = 304.8 mm, 1 lbs./ft³ = 16.01 kg/m³.

¹The design loads (ASD) used in testing for the load-bearing wood-framed walls are determined based on the allowable compressive axial load of the wall framing studs and support bracing (if applicable) in accordance with the NDS (National Design Specification for Wood Construction). Sheathing was not considered in the calculation of the design loads.

²Use of fire-retardant-treated wood studs is permitted, provided that the load-bearing values of the fire-retardant-treated wood are established in accordance with the applicable code and do not exceed the axial compressive load values of untreated wood framing studs.

TABLE 7 – TWO-HOUR LOAD-BEARING WALL (RATED FROM EXTERIOR SIDE)^{1,2}

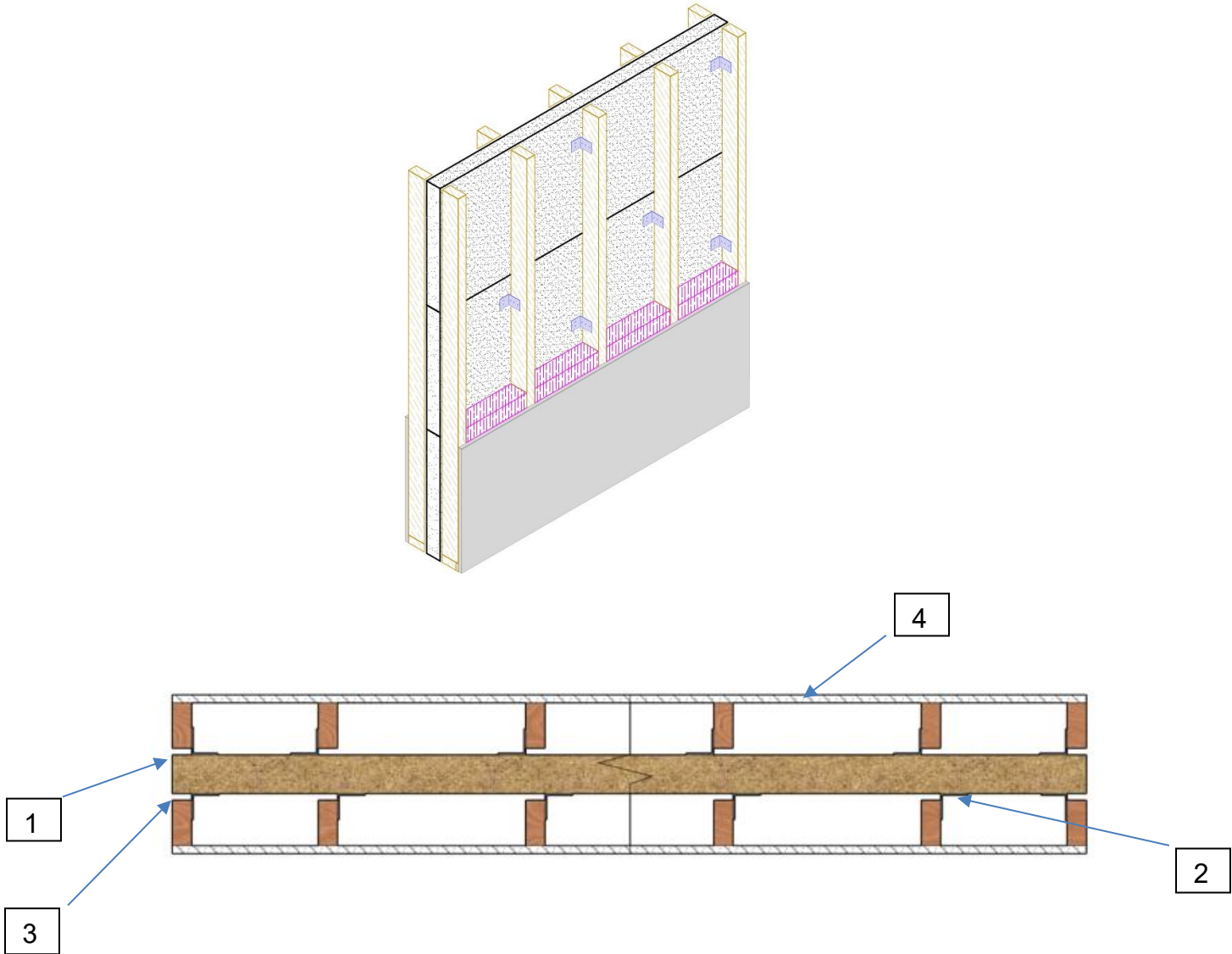


ITEM NO.	COMPONENTS	MATERIALS
1	Litecon PAAC Panels (Exposed to Fire)	Nominal 2-inch-thick precast autoclaved aerated concrete panels measuring 2 feet by 7 feet, 2 feet by 8 feet or 2 feet by 10 feet; or 3-inch-thick precast autoclaved aerated concrete panels measuring 2 feet by 7 feet, 2 feet by 8 feet, or 2 feet by 10 feet installed in a running bond pattern staggered up the wall. A thin layer approximately $\frac{1}{8}$ -inch-thick of adhesive mortar must be applied on the mating faces of the panels. The panels were installed in a vertical orientation.
2	Aluminum Breakaway Clips	PAAC panels must be secured to wood framing using 0.060-inch thick by 2-inch-by-2½-inch angle dimensions by 2 inches long aluminum clips. The clips come with predrilled holes used to fasten framing (No. 3) to PAAC panels (No. 1). The 2½-inch leg must be secured to wood stud using two (2) No. 6 by 1¼-inch-long, coarse thread, Type W wood screw. The 2-inch leg must be secured to backside of PAAC panel using two (2) No. 8 by 1½-inch-long, self-piercing, modified truss screw with wafer head. The clips must be spaced no more than 24 inches on center vertically and 12 inches from the top and bottom of the wood frame. The clips must also be attached on alternated sides of the studs in the field of the assembly.
3	Framing	Nominal 2 x 4 Southern Pine No. 2 wood studs spaced maximum 16 inches on center. The studs were secured to single top and single bottom plate of similar grade and species using 3-inch-long by 0.131-inch diameter smooth shank framing nails. Lateral bracing was installed at mid-height and staggered across the horizontal centerline of the assembly. Lateral bracing consists of Southern Pine No. 2 secured to studs using 3-inch-long by 0.131-inch diameter smooth shank framing nails.
4	Gypsum Wallboard (Not Exposed to Fire)	One-layer $\frac{5}{8}$ -inch-thick Type X gypsum wallboard complying with ASTM C1396 applied vertically to wood framing on both sides with No. 6 coarse thread, bugle head screws at 8 inches on center around the perimeter and 12 inches on-center in the field. Gypsum board joints must be treated with a Level 2 tape and joint compound finish complying with ASTM C840 or GA216. Screw heads are finished with a layer of joint compound

For SI: 1 inch = 25.4 mm, 1 foot = 304.8 mm, 1 lbs./ft³ = 16.01 kg/m³.

¹The design loads (ASD) used in testing for the load-bearing wood-framed walls are determined based on the allowable compressive axial load of the wall framing studs and support bracing (if applicable) in accordance with the NDS (National Design Specification for Wood Construction). Sheathing was not considered in the calculation of the design loads.

**TABLE 8 – TWO-HOUR NONLOAD-BEARING AREA SEPARATION WALL (RATED FROM BOTH SIDES) HAVING
MAXIMUM WALL HEIGHT OF 60 FEET**

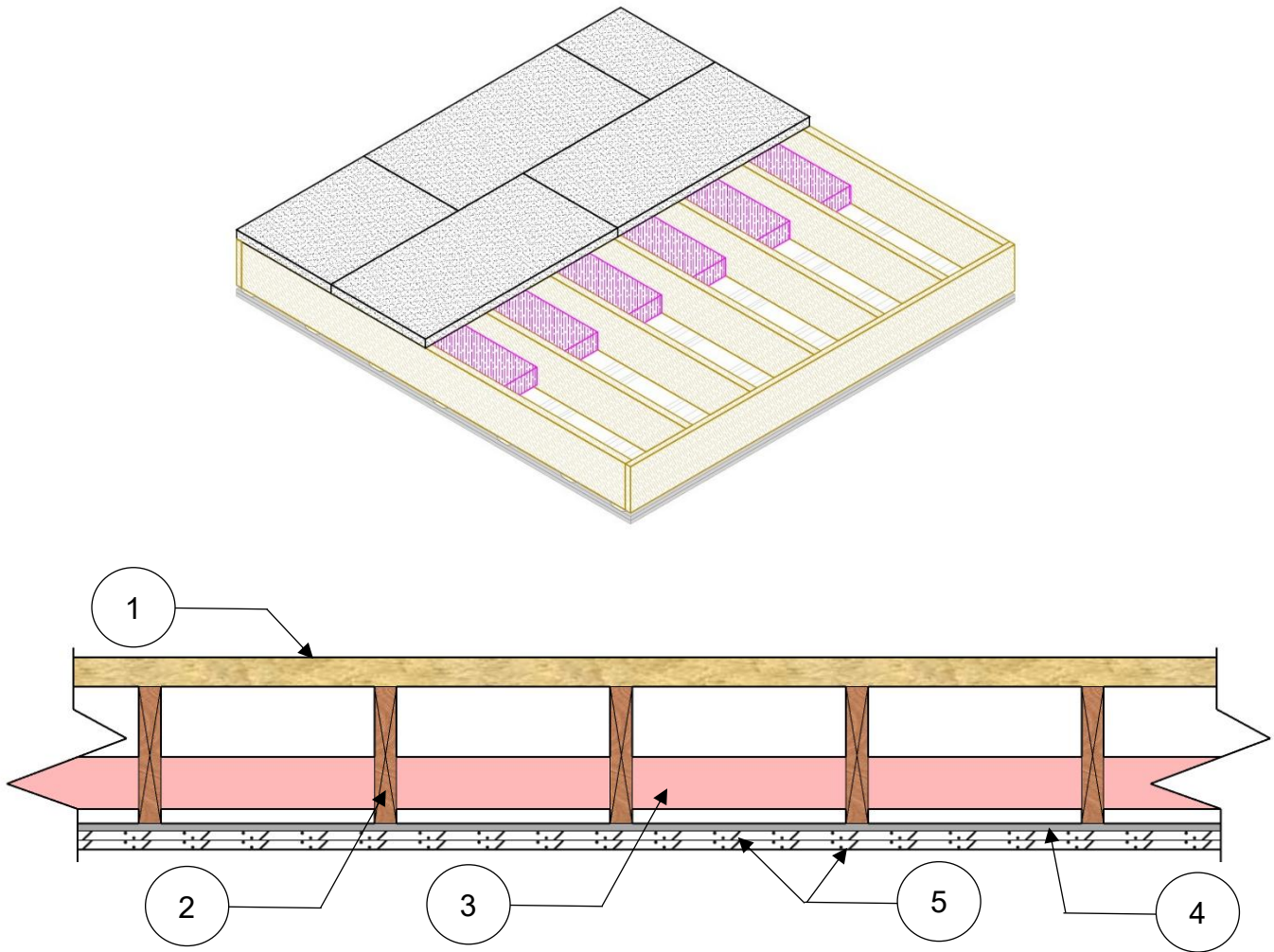


ITEM NO.	COMPONENTS	MATERIALS
1	Litecon PAAC Panels	Nominal 3-inch-thick precast autoclaved aerated concrete panels measuring 2 feet by 4 feet or 2 feet by 7 feet installed in a running bond pattern staggered up the wall. A thin layer approximately 1/8-inch-thick of adhesive mortar must be applied on the mating faces of the panels.
2	Aluminum Breakaway Clips	0.050-inch thick by 2-inch-by-2½-inch angle dimensions by 2 inches long aluminum clips. The clips come with predrilled holes used to fasten framing (No. 3) to PAAC panels (No. 1). A ½ -inch air gap must be maintained between the wood framing and the back side of the panels. The clips must be attached to the wood framing using two (2) No. 6 by 1.25-inch-long Type W screws and two (2) No. 8 by 2-inch-long sharp point screws with wafer head to attach the clip to the back of the PAAC panels. The clips must be spaced no more than 24 inches on center vertically and 12 inches from the top and bottom of the wood frame. The clips must also be attached on alternated sides of the studs in the field of the assembly.
3	Framing	Nominal 2 x 4 wood framing spaced maximum 16 inches on center.

ITEM NO.	COMPONENTS	MATERIALS
4	Gypsum Wallboard	One-layer 5/8-inch-thick Type X gypsum wallboard complying with ASTM C1396 applied vertically to wood framing on both sides with No. 6 coarse thread, bugle head screws at 8 inches on center. Gypsum board joints must be treated with a Level 2 tape and joint compound finish complying with ASTM C840 or GA216. Screw heads are finished with a layer of joint compound.

For SI: 1 inch = 25.4 mm, 1 foot = 304.8 mm.

TABLE 9 – ONE-HOUR FLOOR CEILING ASSEMBLY 1 (UNRESTRAINED)¹

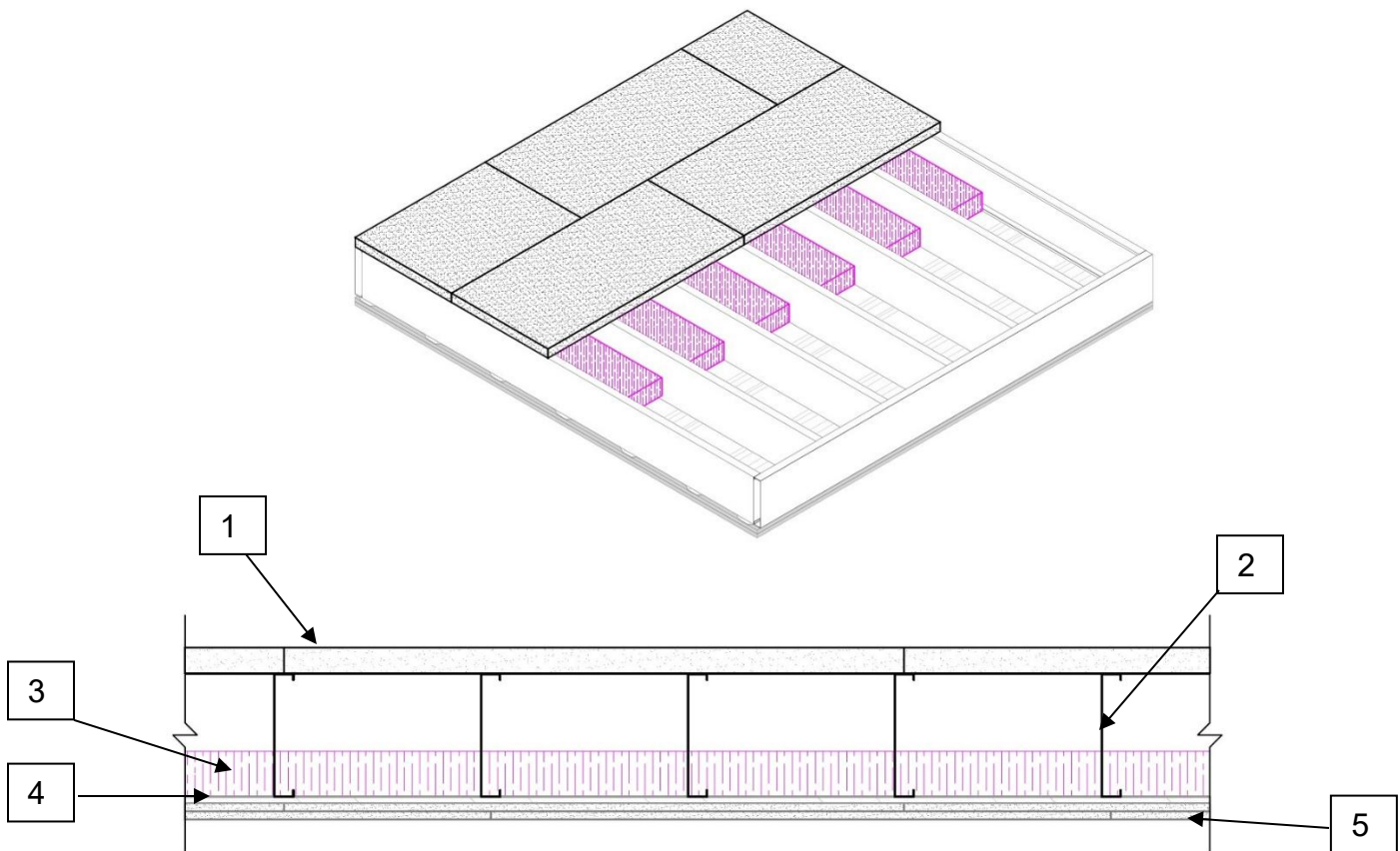


ITEM NO.	COMPONENTS	MATERIALS
1	Flooring System Use Either A, B or C	A - 2-inch (50.8 mm) thick LITECON PAAC Subfloor Panels with long edges perpendicular to the framing members with end joints staggered minimum 16-inches (406.4 mm). The PAAC Subfloor Panels must be secured to the floor joists using minimum 3 ¼-inch (82.6 mm) long x 0.131-inch (3.3 mm) smooth shank nails or No. 10 – 3 ½-inch long, Type W screws spaced maximum 6-inches (152.4 mm) on center along each joist. Fasteners must be positioned a minimum 2-inches (50.8 mm) from the corner of panels. LITECON Adhesive must be applied ⅛-inch (3.2 mm) thick entirely across each mating face of the LITECON Subfloor Panels. B – 2.36-inch (60 mm) thick LITECON PAAC Subfloor Panels with long edges perpendicular to the framing members with end joints staggered minimum 16-inches (406.4 mm). The PAAC Subfloor Panels must be secured to the floor joists using minimum 3 ¼-inch (82.6 mm) long x 0.131-inch (3.3 mm) smooth shank

ITEM NO.	COMPONENTS	MATERIALS
		nails or No. 10 – 4 ½-inch long, Type W screws spaced maximum 6-inches (152.4 mm) on center along each joist. Fasteners must be positioned a minimum 2-inches (50.8 mm) from the corner of panels. LITECON Adhesive must be applied ¼-inch (3.2 mm) thick entirely across each mating face of the LITECON Subfloor Panels. B - 3-inch (76.2 mm) thick LITECON PAAC Subfloor Panels with long edges perpendicular to the framing members with end joints staggered minimum 16-inches (406.4 mm). The PAAC Subfloor Panels must be secured to the floor joists using minimum No. 10 - 4 ½-inch (114.3 mm) long Type W screws spaced maximum 6-inches (152.4 mm) on center along each joist. Fasteners must be positioned a minimum 2-inches (50.8 mm) from the corner of panels. LITECON Adhesive must be applied ¼-inch (3.2 mm) thick entirely across each mating face of the LITECON Subfloor Panels.
2	Floor Framing	Minimum 2-inch by 10-inch (50.8 mm by 254 mm) wood joists spaced maximum 16-inch (406.4 mm) on center. Minimum 2-inch by 10-inch (50.8 mm by 254 mm) solid blocking installed at mid-span of joists.
3	Insulation	Minimum 3 ½-inch (88.9 mm) thick, Class A fiberglass batt insulation or non-combustible mineral wool batt insulation complying with Type I per ASTM C665, draped over 0.087-inch (2.2 mm) diameter steel insulation support wire spaced 16-inches (406.4 mm) on-center within each stud cavity. Additional insulation support wire must be placed 2-inches (50.8 mm) from each end of insulation batts. Insulation support wire must be positioned 1-inch (25.4 mm) above the hat channel.
4	Furring Type (Hat Channel)	¾-inch (22.2 mm) deep, minimum GSG No. 20 galvanized steel hat channel installed perpendicular to framing members and secured to the underside of the framing members using 1 ¾-inch (41.3 mm) long No. 6 Type W bugle-head screws. The channels must be spaced a maximum 16-inches (406.4 mm) on center. The channels must be overlapped a minimum of 4-inches (101.6) at splices. Additional channels must be installed 3-inches (76.2 mm) from ceiling membrane board end joints and secured to adjacent framing members.
5	Ceiling Membrane	Two layers of minimum ⅝-inch (15.9 mm) thick, Type X Gypsum Board conforming to ASTM C1396 must be installed with long dimension perpendicular to furring channels with end joints staggered a minimum of 4-feet (1219.2 mm). The base layer of Gypsum board must be secured to channels using minimum 1 ¼-inch (31.8 mm) long No. 6 Type S bugle-head steel drywall screws spaced 8-inches (203.2 mm) on center. The face layer of Gypsum board must be secured to the channels through the base layer gypsum board using minimum 1 ¾-inch (47.6 mm) long, No. 6 Type S bugle-head steel drywall screws spaced 8-inches (230.2 mm) on-center. Fasteners along the long edge of panel are spaced 1-inch (25.4mm) away from the edge, and 3-inches (76.2 mm) from the butt joints into the resilient channel at the end of the panel. All panel edge joints must be treated with two coats of joint compound with nominal 2-inch (50.8 mm) wide paper tape embedded in the first layer of compound over all joints. All fastener heads must be covered with two layers of joint compound.

For SI: 1 inch = 25.4 mm, 1 foot = 304.8 mm, 1 lbs./ft³ = 16.01 kg/m³.

¹The design loads (ASD) used in testing for the wood-framed load-bearing floor/ceiling assemblies are based on allowable bending moment and allowable shear of the floor framing member calculated in accordance with the NDS (National Design Specification for Wood Construction), unless noted otherwise.

TABLE 10 – TWO-HOUR FLOOR CEILING ASSEMBLY 1 (UNRESTRAINED)¹

ITEM NO.	COMPONENTS	MATERIALS
1	Flooring System Use Either A, B or C	A - 2-inch (50.8 mm) thick LITECON PAAC Subfloor Panels with long edges perpendicular to the framing members with end joints staggered minimum 16-inches (406.4 mm). The PAAC Subfloor Panels must be secured to the floor joists using minimum 3 ¼-inch (82.6 mm) long x 0.131-inch (3.3 mm) smooth shank nails or No. 10 – 3 ½-inch long, Type W screws spaced maximum 6-inches (152.4 mm) on center along each joist. Fasteners must be positioned a minimum 2-inches (50.8 mm) from the corner of panels. LITECON Adhesive must be applied ⅛-inch (3.2 mm) thick entirely across each mating face of the LITECON Subfloor Panels. B – 2.36-inch (60 mm) thick LITECON PAAC Subfloor Panels with long edges perpendicular to the framing members with end joints staggered minimum 16-inches (406.4 mm). The PAAC Subfloor Panels must be secured to the floor joists using minimum 3 ¼-inch (82.6 mm) long x 0.131-inch (3.3 mm) smooth shank nails or No. 10 – 4 ½-inch long, Type W screws spaced maximum 6-inches (152.4 mm) on center along each joist. Fasteners must be positioned a minimum 2-inches (50.8 mm) from the corner of panels. LITECON Adhesive must be applied ⅛-inch (3.2 mm) thick entirely across each mating face of the LITECON Subfloor Panels. C - 3-inch (76.2 mm) thick LITECON PAAC Subfloor Panels with long edges perpendicular to the framing members with end joints staggered minimum 16-inches (406.4 mm). The PAAC Subfloor Panels must be secured to the floor joists using minimum No. 10 - 4 ½-inch (114.3 mm) long Type W screws spaced maximum 6-inches (152.4 mm) on center along each joist. Fasteners must be positioned a minimum 2-inches (50.8 mm) from the corner of panels. LITECON Adhesive must be applied ⅛-inch (3.2 mm) thick entirely across each mating face of the LITECON Subfloor Panels.
2	Floor Framing	Minimum cold-formed steel joist 1000S162-54 spaced maximum 24-inch (610 mm) on center having minimum yield strength of 50 ksi (345 MPa). Minimum blocking of 1000S162-43 cold-formed steel members at maximum of 48 inches on center (1220 mm).
3	Insulation	Minimum 3 ½-inch (88.9 mm) thick, Class A fiberglass batt insulation or non-combustible mineral wool batt insulation complying with Type I per ASTM C665, draped over 0.087-inch (2.2 mm) diameter steel insulation support wire spaced 16-inches (406.4 mm) on-center within each stud cavity. Additional insulation support wire must be placed 2-inches (50.8 mm) from each end of insulation batts. Insulation support wire must be positioned 1-inch (25.4 mm) above the hat channel.

ITEM NO.	COMPONENTS	MATERIALS
4	Furring Type (Hat Channel)	¾-inch (22.2 mm) deep, minimum No. 25 GA galvanized steel hat channel installed perpendicular to framing members and secured to the underside of the framing members using ¾-inch (19 mm) long No. 8 Type W bugle-head screws. The channels must be spaced a maximum 8-inches (203 mm) on center. The channels must be overlapped a minimum of 4-inches (101.6) at splices. Additional channels must be installed 3-inches (76.2 mm) from ceiling membrane board end joints and secured to adjacent framing members.
5	Ceiling Membrane	Two layers of minimum ⅝-inch (15.9 mm) thick, Type X Gypsum Board conforming to ASTM C1396 must be installed with long dimension perpendicular to furring channels with end joints staggered a minimum of 4-feet (1219.2 mm). The base layer of Gypsum board must be secured to channels using minimum 1 ¼-inch (31.8 mm) long No. 6 Type S bugle-head steel drywall screws spaced 8-inches (203.2 mm) on center. The face layer of Gypsum board must be secured to the channels through the base layer gypsum board using minimum 1 ⅞-inch (47.6 mm) long, No. 6 Type S bugle-head steel drywall screws spaced 8-inches (203.2 mm) on-center. Fasteners along the long edge of panel are spaced 1-inch (25.4mm) away from the edge, and 3-inches (76.2 mm) from the butt joints into the resilient channel at the end of the panel. All panel edge joints must be treated with two coats of joint compound with nominal 2-inch (50.8 mm) wide paper tape embedded in the first layer of compound over all joints. All fastener heads must be covered with two layers of joint compound.

For SI: 1 inch = 25.4 mm, 1 foot = 304.8 mm, 1 lbs./ft³ = 16.01 kg/m³.

¹The design loads (ASD) used in testing for the wood-framed load-bearing floor/ceiling assemblies are based on allowable capacity of floor framing member calculated in accordance with the AISI S100 provisions (American Iron and Steel Institute), unless noted otherwise.

LITECON CLADDING DIMENSIONS

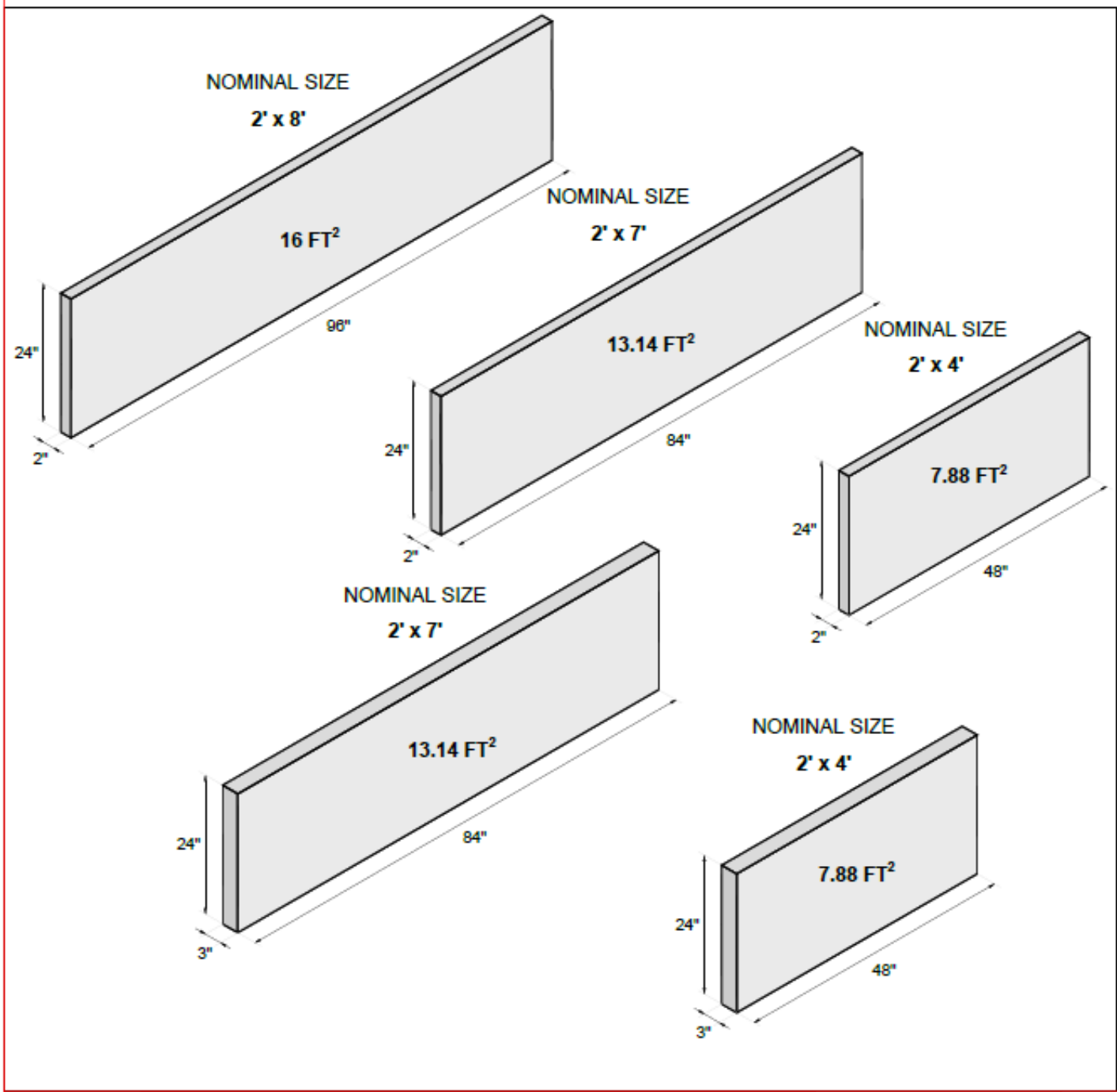


FIGURE 1A – ILLUSTRATION OF PAAC WALL PANELS

LITECON SUBFLOOR DIMENSIONS

Nominal Size - Subfloor		
Thickness (T)	Height (H)	Length (L)
2"	2'	4'
		5'
		6'
		7'
		8'

Nominal Size - Subfloor		
Thickness (T)	Height (H)	Length (L)
2 3/8"	2'	4'
		5'
		6'
		7'
		8'

Nominal Size - Subfloor		
Thickness (T)	Height (H)	Length (L)
3"	2'	4'
		5'
		6'
		7'
		8'

Actual Size - Subfloor		
Thickness (T)	Height (H)	Length (L)
1.96"	24.00"	48.00"
		63.98"
		72.05"
		80.12"
		96.00"

Actual Size - Subfloor		
Thickness (T)	Height (H)	Length (L)
2.36"	24.00"	48.00"
		63.98"
		72.05"
		80.12"
		96.00"

Actual Size - Subfloor		
Thickness (T)	Height (H)	Length (L)
2.95"	24.00"	48.00"
		63.98"
		72.05"
		80.12"
		96.00"

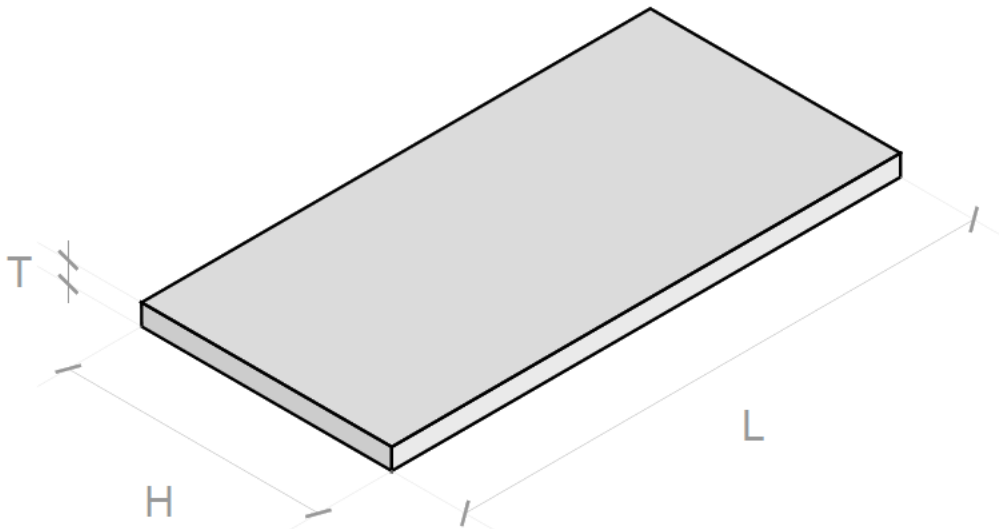


FIGURE 1B – ILLUSTRATION OF PAAC SUBFLOOR PANELS

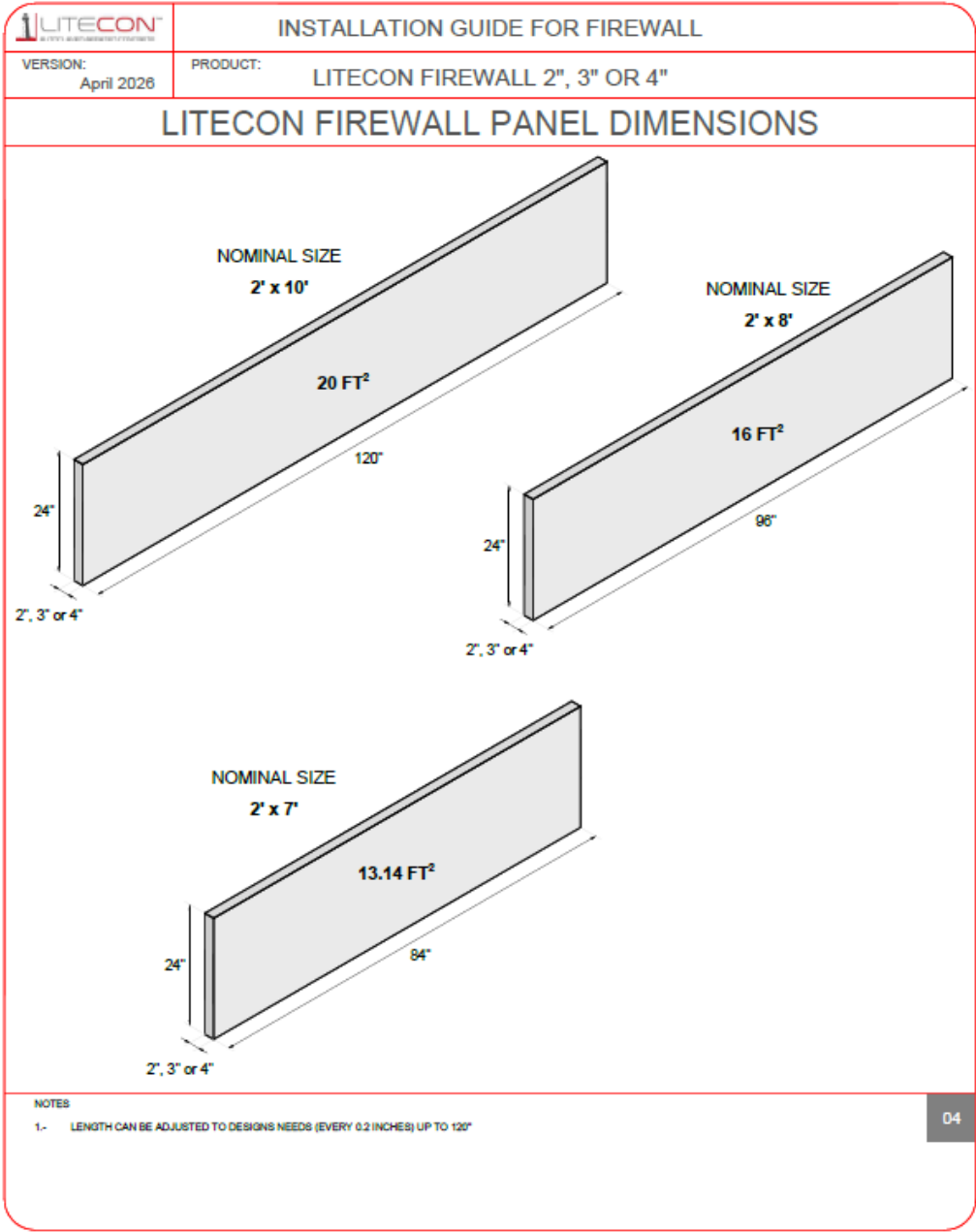


FIGURE 1C – ILLUSTRATION OF PAAC FIRE WALL PANELS



INSTALLATION GUIDE

VERSION:
NOVEMBER 22

PRODUCT:
LITECON CLADDING 2"

FIRST ROW AND ADHESIVE APPLICATION

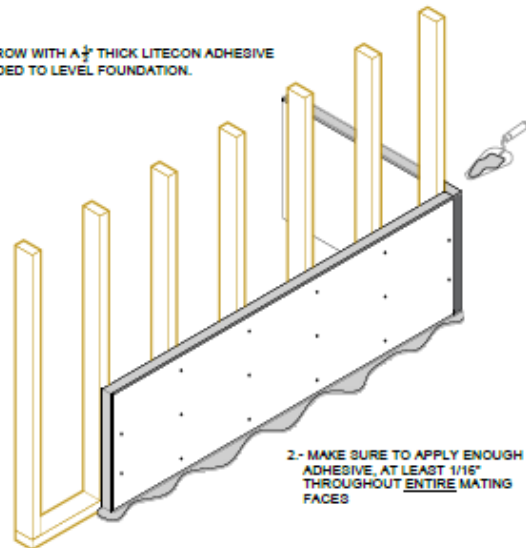


+



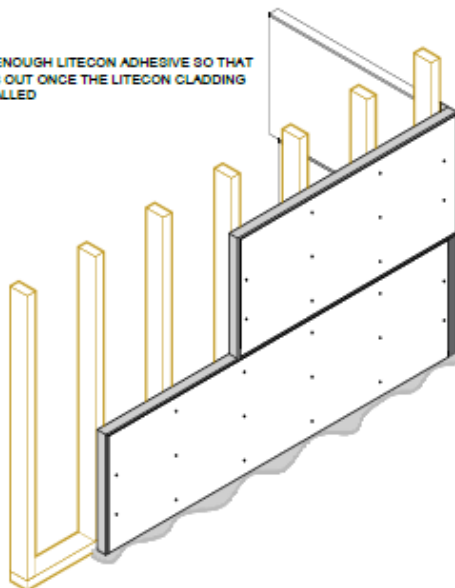
MIX 4/5 gal OF WATER FOR EACH 55 lb OF LITECON ADHESIVE. MIX TO OBTAIN A UNIFORM WORKABLE CONSISTENCY WITH NO CLUMPS. LET REST FOR 5 MINUTES, MIX AGAIN AND APPLY

1.- SET FIRST ROW WITH A $\frac{1}{2}$ " THICK LITECON ADHESIVE OR AS NEEDED TO LEVEL FOUNDATION.



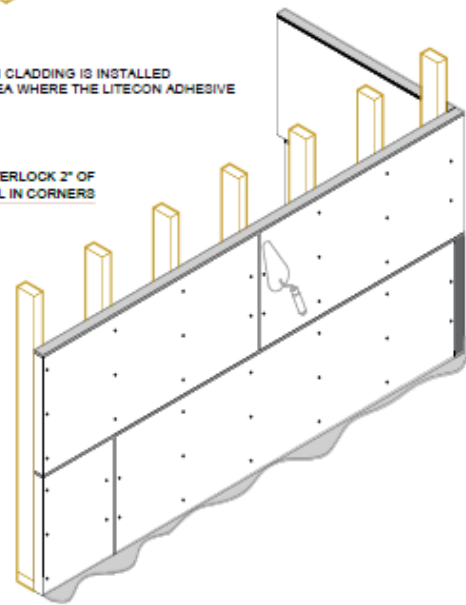
2.- MAKE SURE TO APPLY ENOUGH ADHESIVE, AT LEAST 1/16" THROUGHOUT ENTIRE MATING FACES

3.- APPLY ENOUGH LITECON ADHESIVE SO THAT IT SPITS OUT ONCE THE LITECON CLADDING IS INSTALLED



4.- AFTER THE LITECON CLADDING IS INSTALLED SMOOTHEN THE AREA WHERE THE LITECON ADHESIVE SPAT OUT

BE SURE TO INTERLOCK 2" OF PANEL IN CORNERS



NOTES

- 1.- LEVEL FIRST ROW WITH LITECON ADHESIVE
- 2.- MAKE SURE TO APPLY ENOUGH ADHESIVE, AT LEAST 1/16" THROUGHOUT THE ENTIRE MATING FACES
- 3.- BE SURE TO INTERLOCK 2" OF PANEL IN CORNERS
- 4.- WHEN DRILLING THROUGH THE PANELS, MAKE SURE THE SCREW ENTERS THE WOOD STUD
- 5.- FASTENERS HEADS MUST BE COUNTERSUNK $\frac{1}{2}$ " INTO THE PANEL
- 6.- FILL THE $\frac{1}{2}$ " GAP GENERATED BY THE FASTENER WITH LITECON ADHESIVE TO PREVENT WATER INTRUSION TO THE STUD
- 7.- ALLOW LITECON ADHESIVE TO DRY FOR A MINIMUM OF 24 HOURS PRIOR TO APPLYING ANY LOAD
- 8.- ONCE THE ADHESIVE IS MADE OR MIXED WITH WATER IT SHOULD BE USED WITHIN A MAXIMUM OF 30 MINUTES

FIGURE 2 – TYPICAL INSTALLATION PAAC WALL PANELS ON LIGHT-FRAME STRUCTRE

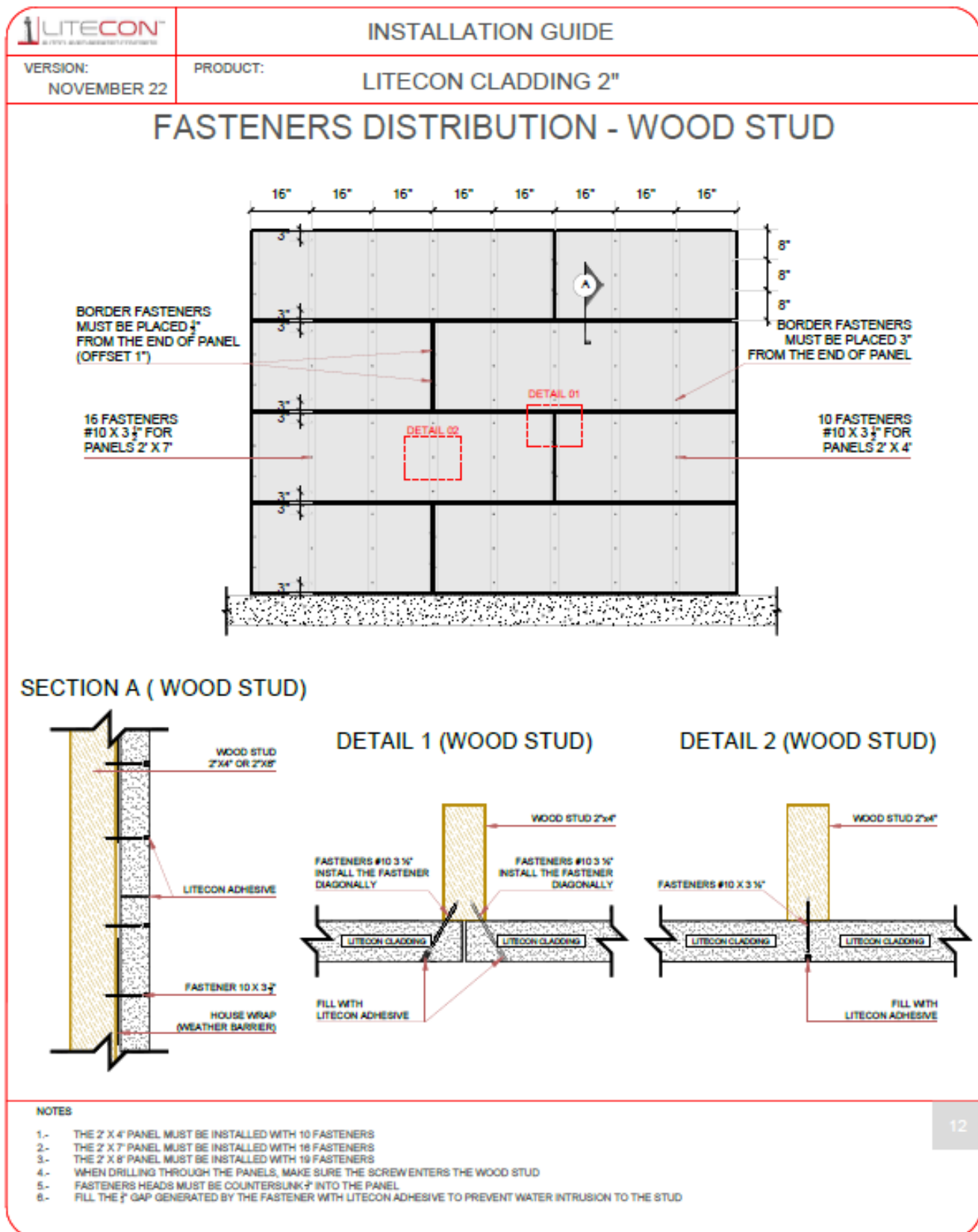


FIGURE 3 – FASTENING DETAILS FOR LIGHT-FRAMED ASSEMBLIES AT MAXIMUM STUD SPACING OF 16 INCHES ON CENTER (SHEARWALL ASSEMBLY 1)

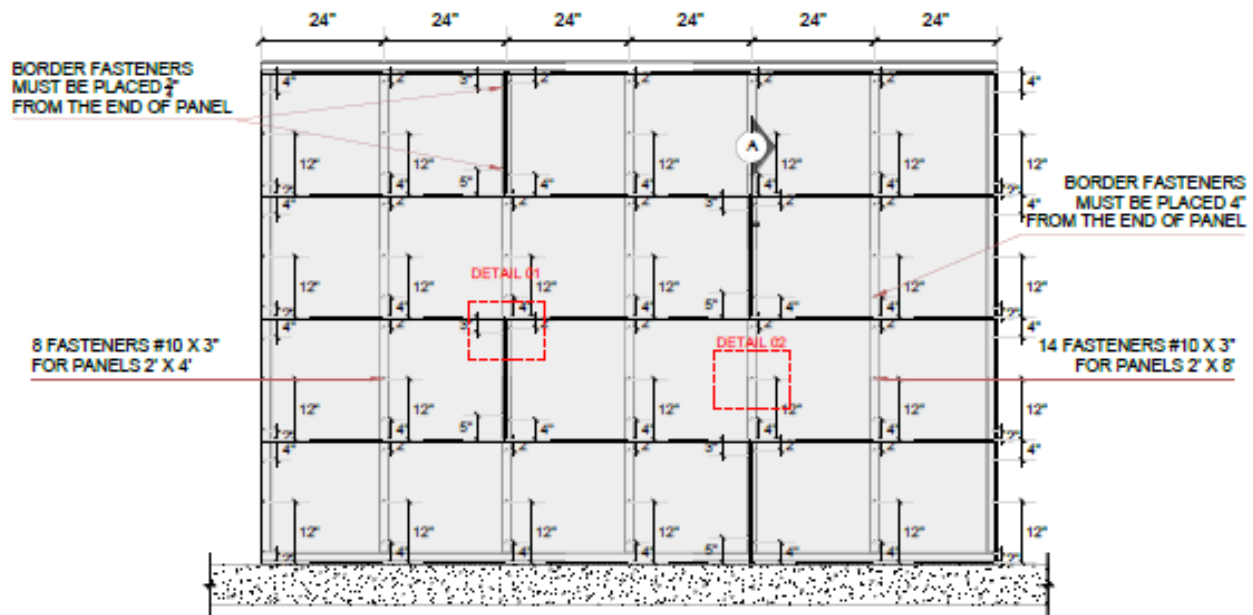


INSTALLATION GUIDE

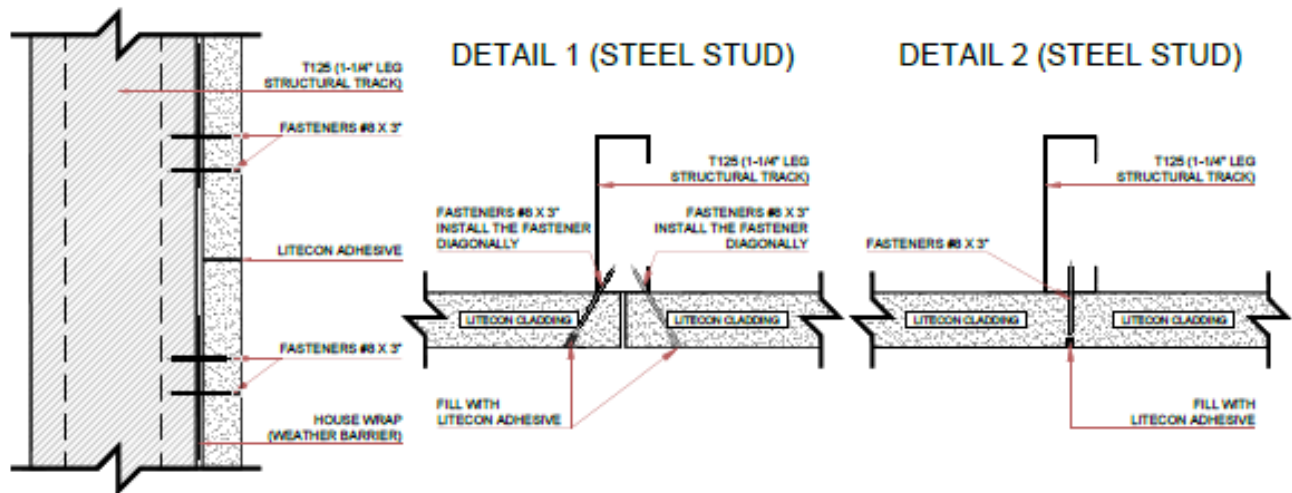
VERSION:
NOVEMBER 22

PRODUCT:
LITECON CLADDING 2"

FASTENERS DISTRIBUTION - STEEL STUD



SECTION A (STEEL STUD)



NOTES

- 1.- THE 2' X 4' PANEL MUST BE INSTALLED WITH 8 FASTENERS
- 2.- THE 2' X 7' PANEL MUST BE INSTALLED WITH 11 FASTENERS
- 3.- THE 2' X 8' PANEL MUST BE INSTALLED WITH 14 FASTENERS
- 4.- WHEN DRILLING THROUGH THE PANELS, MAKE SURE THE SCREW ENTERS THE WOOD STUD
- 5.- FASTENERS HEADS MUST BE COUNTERSUNK 1/2" INTO THE PANEL
- 6.- FILL THE 1/2" GAP GENERATED BY THE FASTENER WITH LITECON ADHESIVE TO PREVENT WATER INTRUSION TO THE STUD

FIGURE 4 – FASTENING DETAILS FOR STEEL FRAMED ASSEMBLIES (SHEARWALL ASSEMBLY 5)

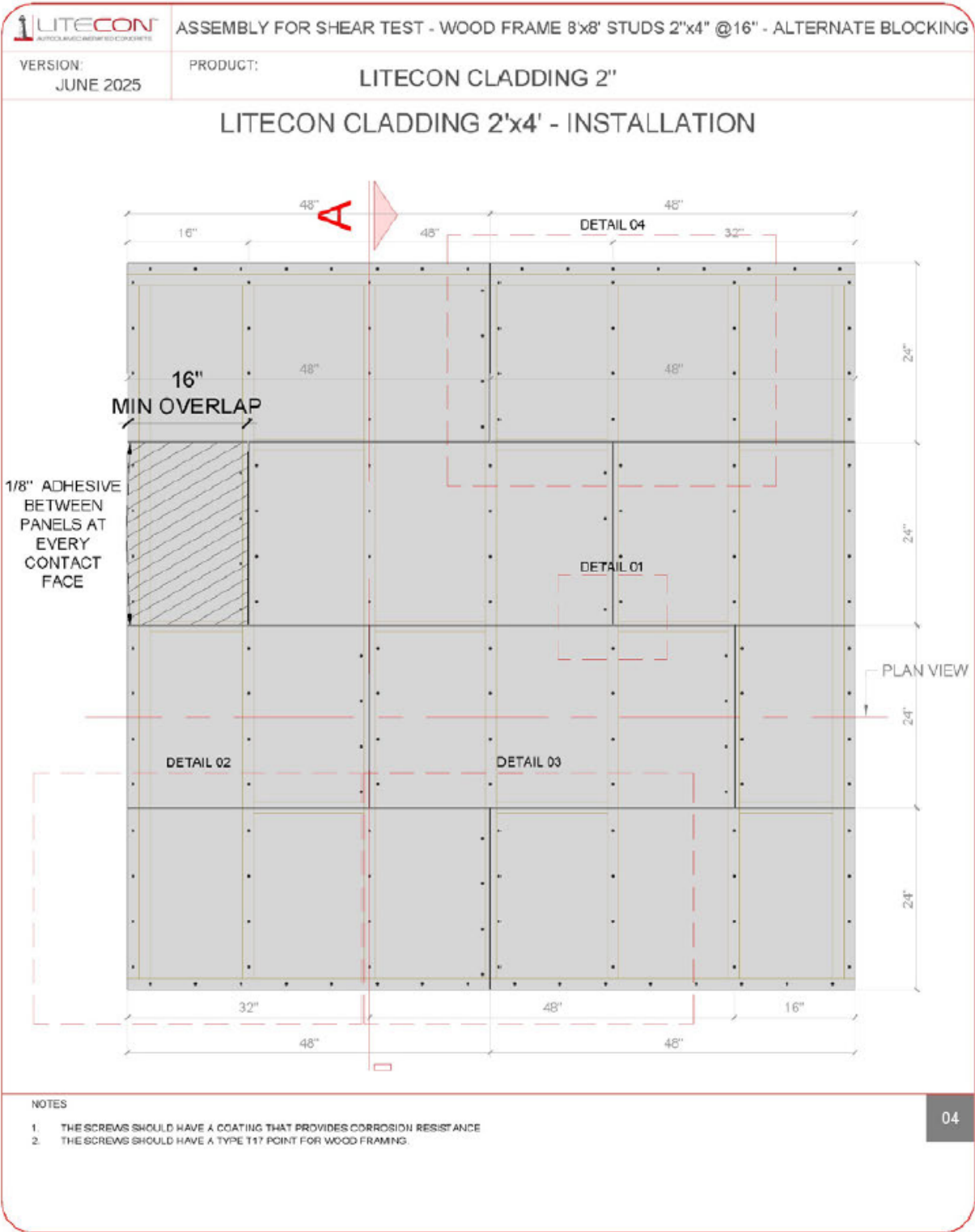


FIGURE 5 – FASTENING DETAILS FOR WOO -FRAMED ASSEMBLIES (SHEARWALL ASSEMBLY 2 AND 3)

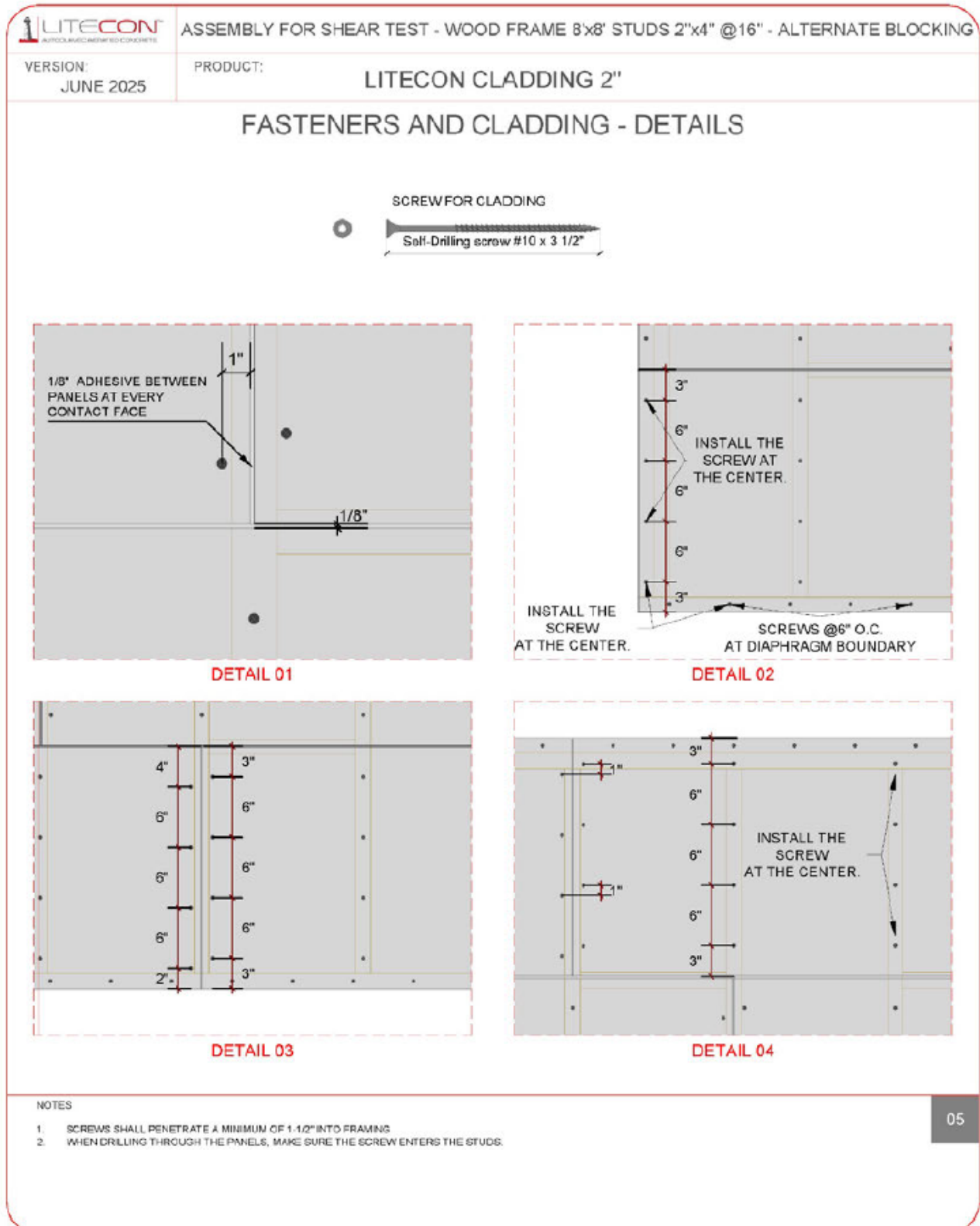


FIGURE 5 (cont'd) – FASTENING DETAILS FOR WOO-FRAMED ASSEMBLIES (SHEARWALL ASSEMBLY 2 AND 3)

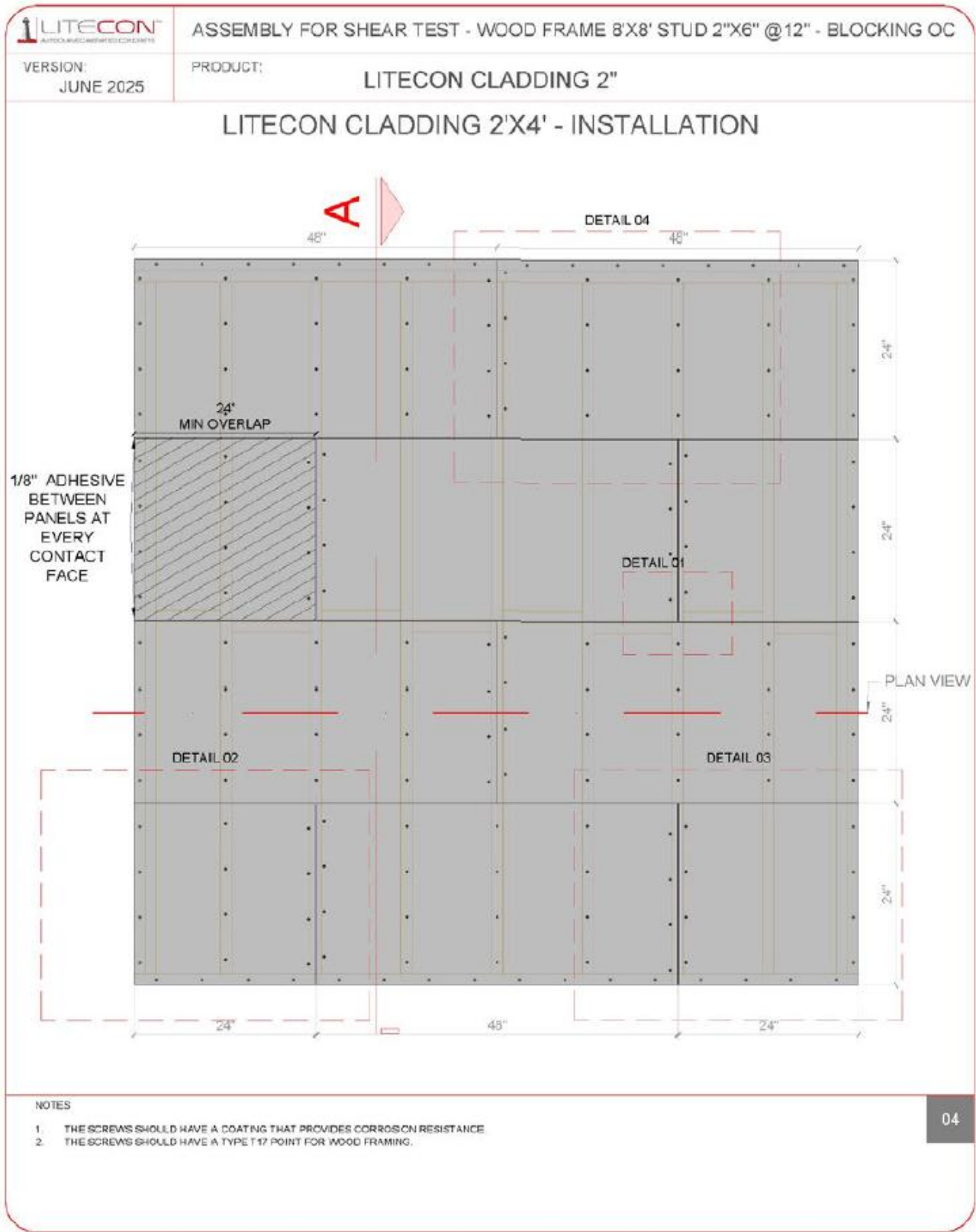


FIGURE 6 – FASTENING DETAILS FOR WOO-FRAMED ASSEMBLIES (SHEARWALL ASSEMBLY 4)



ASSEMBLY FOR SHEAR TEST - WOOD FRAME 8'X8' STUD 2"X6" @ 12" - BLOCKING OC

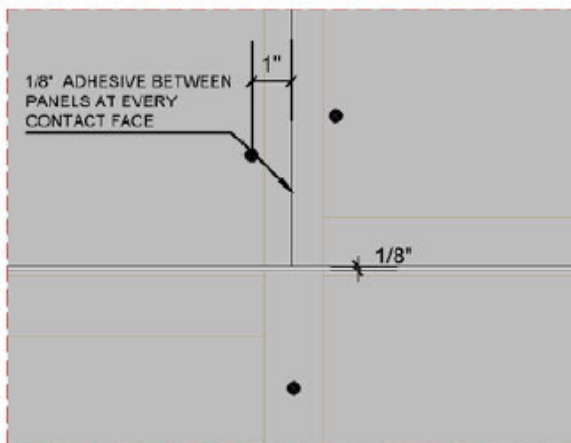
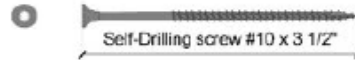
VERSION:
JUNE 2025

PRODUCT:

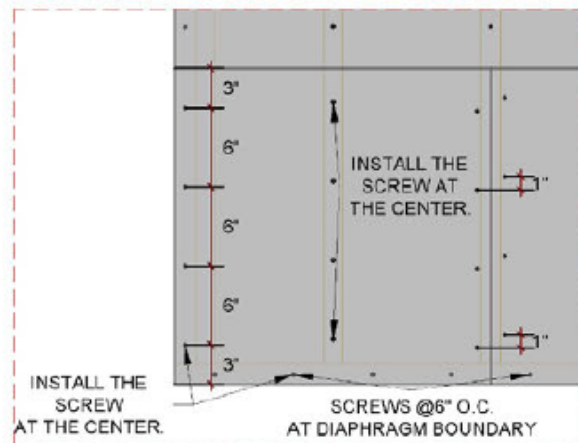
LITECON CLADDING 2"

FASTENERS AND CLADDING - DETAILS

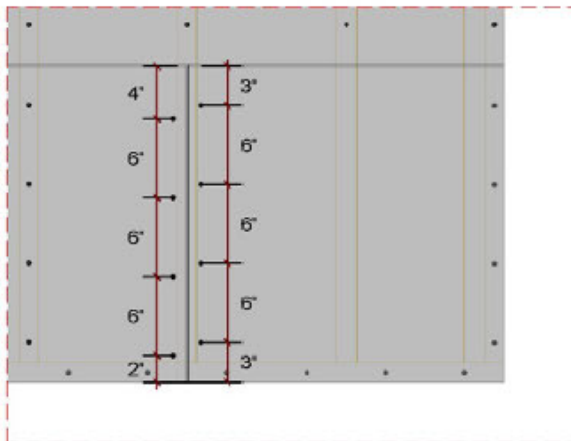
SCREW FOR CLADDING



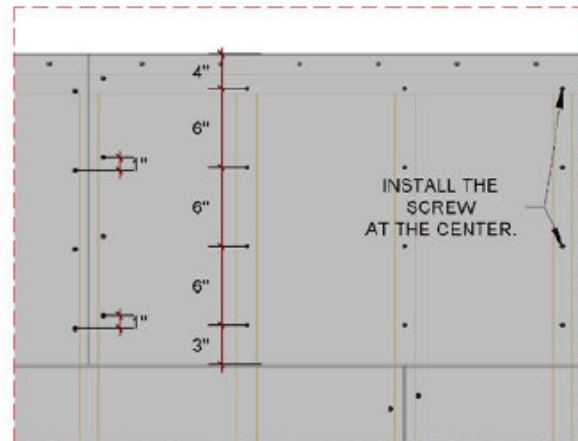
DETAIL 01



DETAIL 02



DETAIL 03



DETAIL 04

NOTES

1. SCREWS SHALL PENETRATE A MINIMUM OF 1-1/2" INTO FRAMING
2. WHEN DRILLING THROUGH THE PANELS, MAKE SURE THE SCREW ENTERS THE STUDS.

05

FIGURE 6 (cont'd) – FASTENING DETAILS FOR WOO-FRAMED ASSEMBLIES (SHEARWALL ASSEMBLY 4)

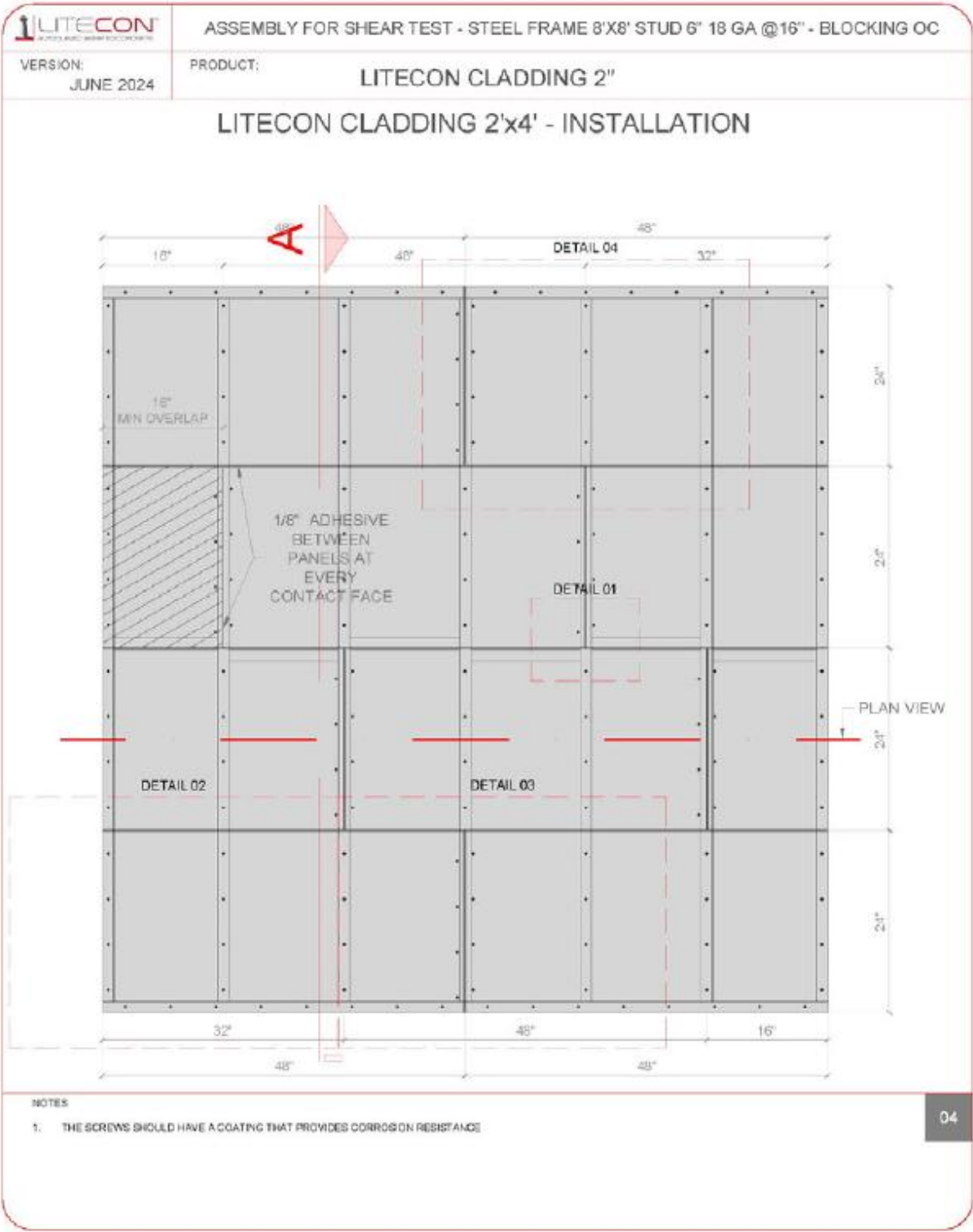


FIGURE 7 – FASTENING DETAILS FOR STEEL-FRAMED ASSEMBLIES (SHEARWALL ASSEMBLY 6)

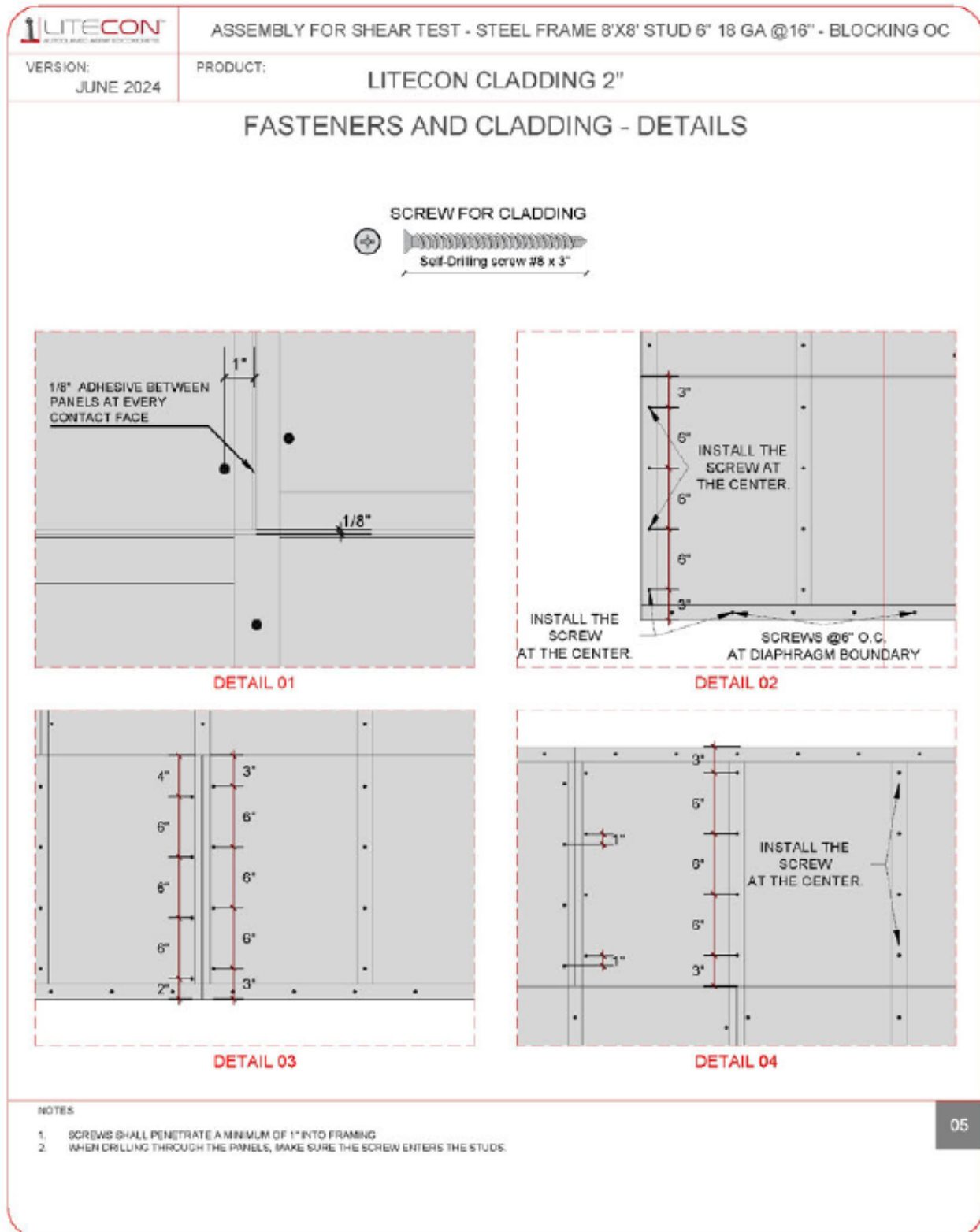


FIGURE 7 (cont'd) – FASTENING DETAILS FOR STEEL-FRAMED ASSEMBLIES (SHEARWALL ASSEMBLY 6)

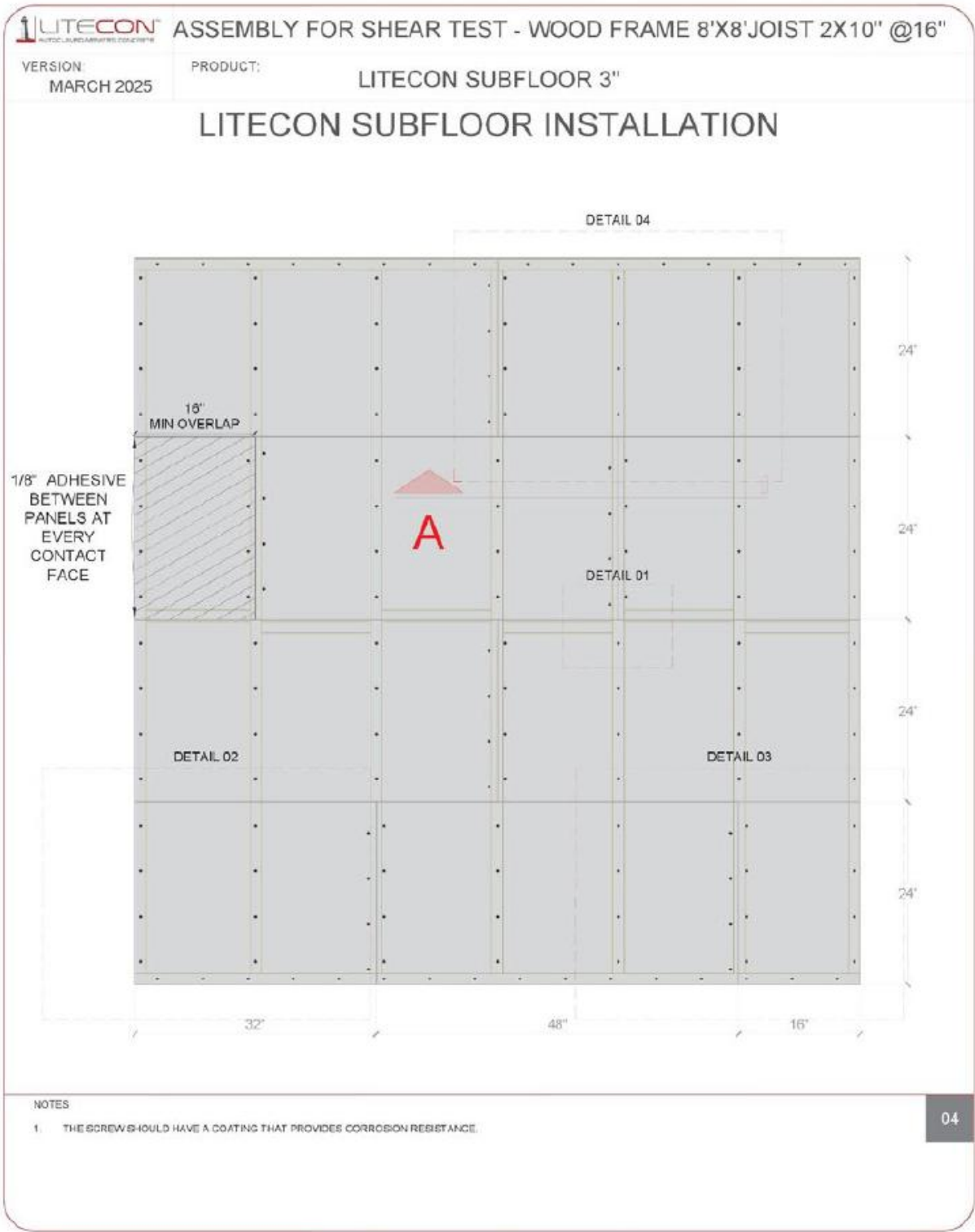
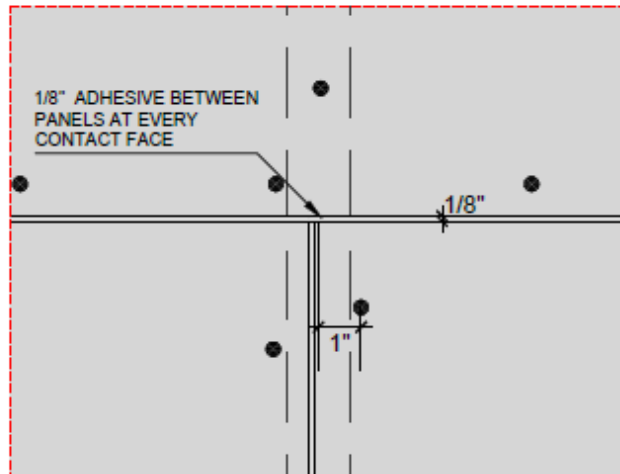
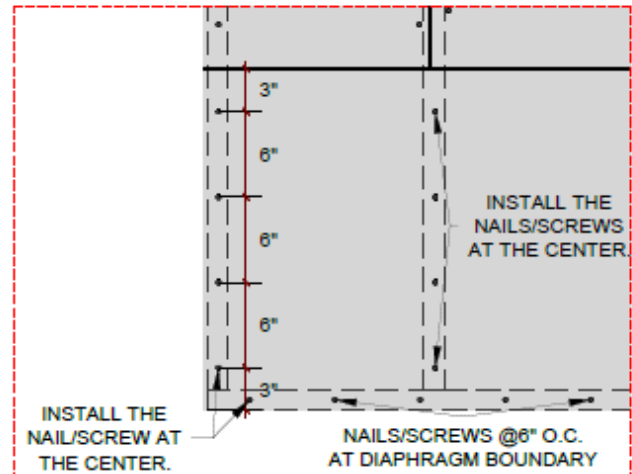


FIGURE 8 – PAAC SUBFLOOR PANEL WOOD-FRAMED DIAPHRAGM ASSEMBLY

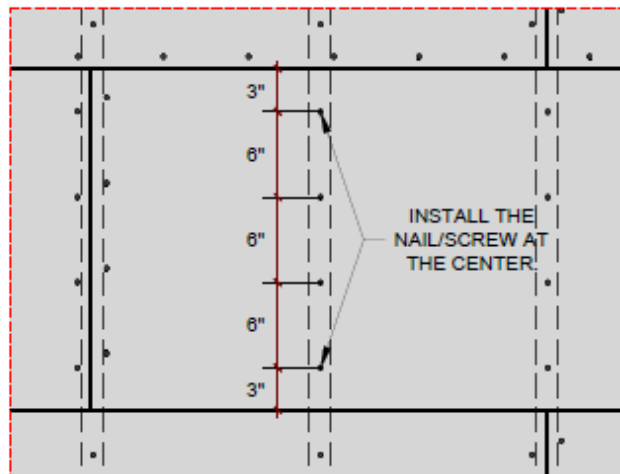
FASTENERS DETAILS



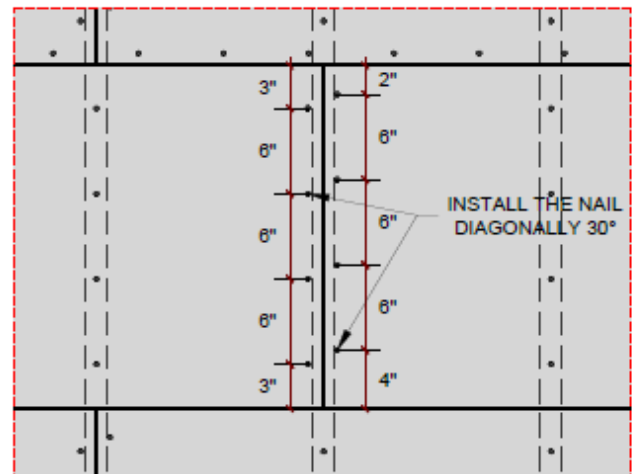
DETAIL 01



DETAIL 02



DETAIL 03



DETAIL 04

NOTES

1. NAILS SHALL PENETRATE A MINIMUM OF 1-1/2" INTO FRAMING
2. SCREW SHALL PENETRATE A MINIMUM OF 1" INTO FRAMING
3. WHEN DRILLING THROUGH THE PANELS, MAKE SURE THE NAILS OR SCREW ENTERS THE TRUSS/JOIST.

FIGURE 8 (cont'd) – PAAC SUBFLOOR PANEL WOOD-FRAMED DIAPHRAGM ASSEMBLY

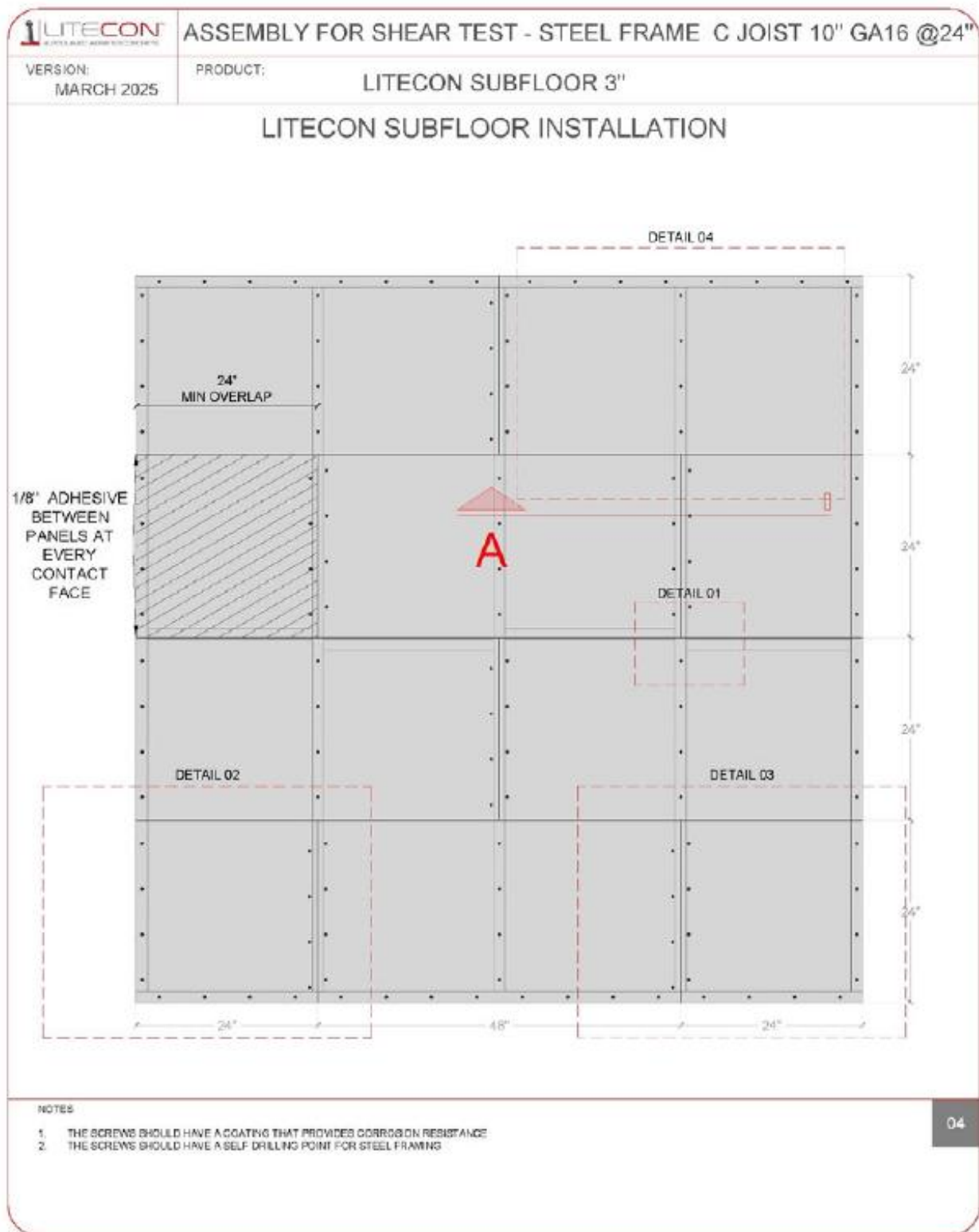
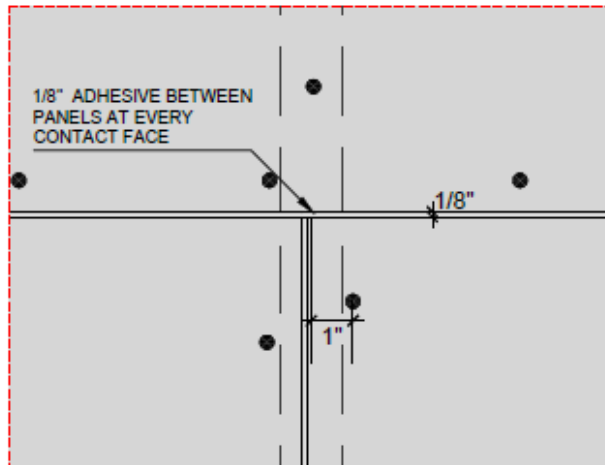
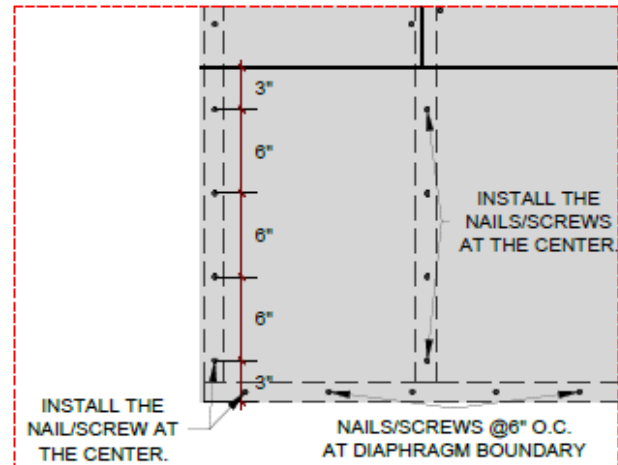


FIGURE 9 – PAAC SUBFLOOR PANEL STEEL-FRAMED DIAPHRAGM ASSEMBLY

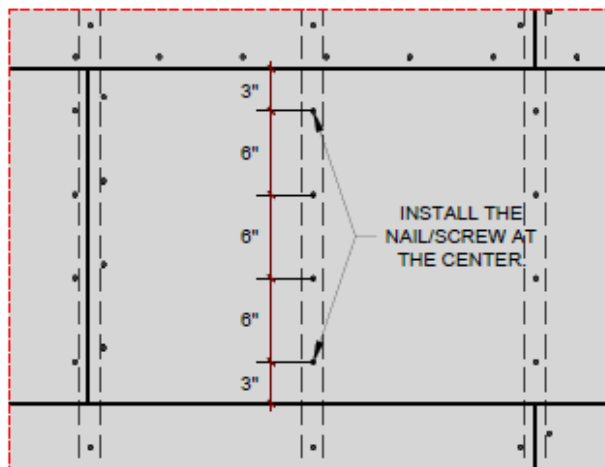
FASTENERS DETAILS



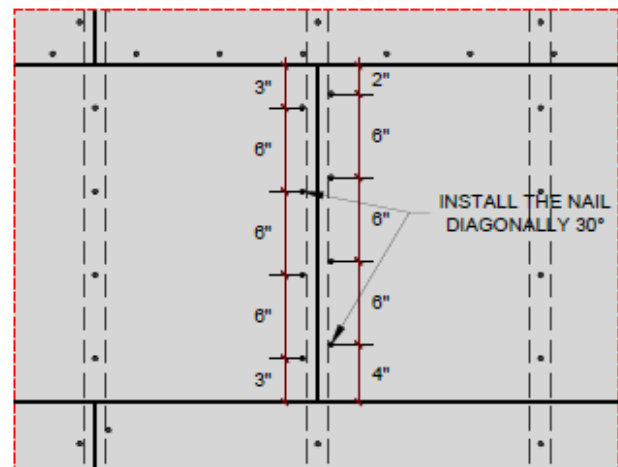
DETAIL 01



DETAIL 02



DETAIL 03



DETAIL 04

NOTES

1. NAILS SHALL PENETRATE A MINIMUM OF 1-1/2" INTO FRAMING
2. SCREW SHALL PENETRATE A MINIMUM OF 1" INTO FRAMING
3. WHEN DRILLING THROUGH THE PANELS, MAKE SURE THE NAILS OR SCREW ENTERS THE TRUSS/JOIST.

FIGURE 9 (cont'd) – PAAC SUBFLOOR PANEL STEEL-FRAMED DIAPHRAGM ASSEMBLY

ICC-ES Evaluation Report

ESR-5025 CA Supplement

Issued September 2026

This report remains under an active [continuous compliance program](#) through the end of January 2027.

www.icc-es.org | (800) 423-6587 | (562) 699-0543

A Subsidiary of the International Code Council®

DIVISION: 03 00 00—CONCRETE

Section: 03 41 00—Precast Structural Concrete

DIVISION: 04 00 00—MASONRY

Section: 04 22 26—Autoclaved Aerated Concrete Unit Masonry

REPORT HOLDER:

LITECON CORPORATION

EVALUATION SUBJECT:

LITECON PRECAST AUTOCLAVED AERATED CONCRETE (PAAC) PANELS

1.0 REPORT PURPOSE AND SCOPE

Purpose:

The purpose of this evaluation report supplement is to indicate that Litecon Precast Autoclaved Aerated Concrete Panels, described in ICC-ES evaluation report [ESR-5025](#), have also been evaluated for compliance with the codes noted below.

Applicable code editions:

- 2025 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.

- 2025 California Residential Code (CRC)

2.0 CONCLUSIONS

2.1 CBC:

The Litecon Precast Autoclaved Aerated Concrete Panels, described in Sections 2.0 through 7.0 of the evaluation report [ESR-5025](#), comply with CBC Chapter 21, provided the design and installation are in accordance with the 2024 *International Building Code*® (IBC) provisions noted in the evaluation report and the additional requirements of 16, 17 and 21, 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 Litecon Precast Autoclaved Aerated Concrete Panels, described in Sections 2.0 through 7.0 of the evaluation report [ESR-5025](#), comply with CRC Chapter 3, provided the design and installation are in accordance with the 2024 *International Residential Code*® (IRC) provisions noted in the evaluation report.

This supplement expires concurrently with the evaluation report, reissued January 2026 and revised September 2026.

ICC-ES Evaluation Report

ESR-5025 FL Supplement

Reissued January 2026

Revised September 2026

This report remains under an active [continuous compliance program](#) through the end of January 2027.

www.icc-es.org | (800) 423-6587 | (562) 699-0543

A Subsidiary of the International Code Council®

DIVISION: 03 00 00—CONCRETE

Section: 03 41 00—Precast Structural Concrete

DIVISION: 04 00 00—MASONRY

Section: 04 22 26—Autoclaved Aerated Concrete Unit Masonry

REPORT HOLDER:

LITECON CORPORATION

EVALUATION SUBJECT:

LITECON PRECAST AUTOCLAVED AERATED CONCRETE (PAAC) PANELS

1.0 REPORT PURPOSE AND SCOPE

Purpose:

The purpose of this evaluation report supplement is to indicate that the Litecon PAAC panels, described in ICC-ES evaluation report [ESR-5025](#), have also been evaluated for compliance with the codes noted below.

Applicable code editions:

- 2026 and 2023 *Florida Building Code—Building*
- 2026 and 2023 *Florida Building Code—Residential*

2.0 CONCLUSIONS

The Litecon PAAC panels, described in Sections 2.0 through 7.0 of ICC-ES evaluation report [ESR-5025](#), comply with the *Florida Building Code—Building* and *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-5025](#) for the 2024 and 2021 *International Building Code*® meet the requirements of the *Florida Building Code—Building* or the *Florida Building Code—Residential*, as applicable, with the following conditions:

- For use within 3,000 feet of a saltwater coastline under the 2026 *Florida Building Code—Building* or the 2026 *Florida Building Code—Residential*, fasteners and connectors must comply with Section 1711 and Table 1711.1 of the 2026 *Florida Building Code—Building* or Section R332 and Table R332.1 of the 2026 *Florida Building Code—Residential*, as applicable.
- The panels must be installed on exterior walls of buildings over 40 feet (12.2 m) in height above the grade plane of Types I, II, III and IV construction with a water-resistive barrier complying with Exception 2 of the 2026 *Florida Building Code—Building* Section 1403.6 or Exception 2 of 2021 *Florida Building Code—Building* Section 1403.5, as applicable.

Use of the Litecon PAAC panels 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). Florida Rule 61G20-3 is applicable to products and/or systems which comprise the building envelope and structural frame for compliance with the structural requirements of the Florida Building Code.

This supplement expires concurrently with the evaluation report, reissued January 2026 and revised September 2026.