

ICC-ES Evaluation Report


ESR-5284

Issued March 2024

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<p>DIVISION: 06 00 00 – WOOD, PLASTICS AND COMPOSITES</p> <p>Section: 06 12 00 – Structural Panels</p>	<p>REPORT HOLDER: COMPONENT CONSTRUCTION SYSTEMS LLC</p>	<p>EVALUATION SUBJECT: COMPONENT CONSTRUCTION SYSTEM PANELS</p>	
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1.0 EVALUATION SCOPE

1.1 Compliance with the following codes:

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

Properties evaluated:

- Structural

2.0 USES

Component Construction System panels, consist of wall panels, floor panels and roof/ceiling panels, to be used in load- and nonload-bearing exterior and interior wall, floor and roof/ceiling assemblies for one story Type V construction. When Component Construction Systems are installed under the IRC, an engineered design is required in accordance with IRC Section R301.1.3.

This report evaluates Component Construction Systems panels for structural performance only. For consideration of other performance aspects by the authority having jurisdiction, see Section 3.3 for material specific information.

3.0 DESCRIPTION

3.1 General:

Component Construction System panels are factory-assembled structural panels consisting of sheathings which are fastened to wood or steel framing members, with insulation placed inside cavities, finished with sidings and windows/doors as applicable. Refer to [Figures 1, 2](#) and [3](#) for illustrations of installed Component Construction System panels.

3.2 Panels:

3.2.1 Exterior and Interior Wall Panels: The exterior and interior wall panels are identified and available in sizes indicated in [Table 1](#). Panels with openings are configured with wood headers. Studs, headers and plates are connected using 16d common nails per fastening schedule on IBC Table 2304.10.2.

The exterior panels are manufactured with sheathings and siding, which are nailed to 2x4 wood studs spaced at 24 inches (610 mm) max. or to 2-2x12 headers.

The nails and spacings used for the sheathings and siding of exterior panels are as follows:

Exterior sheathing	8d at 6 in. edge o.c. / 12 in. field o.c.
Interior sheathing	8d at 8 in. edge o.c. / 8 in. field o.c.
Exterior Siding	8d at 8 in. edge o.c. / 8 in. field o.c.

For SI: 1 in = 25.4 mm

The exterior panels are filled with faced insulation in the wall cavities. When applicable, doors and windows will be nailed to the panels with corresponding trims and caulking.

The exterior panels are manufactured with a preservative treated wood, single 2x4 bottom plate and a wood single 2x4 top plate. Light gage connectors used with the exterior panels are indicated in [Table 1](#).

The interior panels are manufactured with sheathing, which is nailed to 2x4 wood studs spaced at 24 inches (610 mm) max. or to flat 2x4 headers.

The nails and spacings used for the sheathings of interior panels are 8d at 8 in. (203 mm) o.c. at the perimeter and 8d at 12 in. (304 mm) o.c. in the field.

The interior panels are not insulated. When applicable, doors will be nailed to the panels with corresponding trims and caulking.

The interior panels are manufactured with a wood single 2x4 bottom plate and a single 2x4 top plate. Light gage connectors used with the interior panels are indicated in [Table 1](#).

See [Figure 4](#) for additional information.

3.2.2 Roof/Ceiling Panels: The roof/ceiling panels are available in the sizes indicated in [Table 1](#). The roof/ceiling panels are manufactured with pre-engineered kingpost 2x4 wood trusses, in accordance with ANSI/TP1, spaced up to 24 inches (610 mm) on center. Truss blocking to wall exterior wall panel top plate, ridge blocking and truss centerline bracing are connected using common nails per fastening schedule on IBC Table 2304.10.2. 2x4 fascia lumber is connected to truss ends with 16d common end nails or via light gage steel connectors.

The sheathings are attached to the top and bottom chord of the trusses with nails. The nails and spacing used for the sheathing of the roof/ceiling panels are as follows:

Top chord sheathing	6d at 6 in. edge o.c. / 6 in. field o.c.
Bott. chord sheathing	8d at 8 in. edge o.c. / 8 in. field o.c.

For SI: 1 in = 25.4 mm

A 6 in (152 mm) open strip at the roof ridge and a 1 ft $\frac{3}{4}$ in. (324 mm) open perimeter ceiling soffit strip, are sheathed on site after inspections.

Roof/ceiling panels are filled with faced insulation from the bottom chord.

Light gage connectors used with the roof/ceiling panels to connect to exterior wall panels are indicated in [Table 1](#).

See [Figure 2](#) for additional information.

3.2.3 Floor Panels: The typical floor panel is available in the size indicated in [Table 1](#). The floor panel is manufactured with 14 gage 6 in x 2 in (152 mm x 51 mm) steel tubes and 3 in x 1.5 in (76 mm x 38 mm) channels members. The steel framing members are welded with full penetration welds and spaced as shown in [Figure 3](#).

The screws and spacing used for the sheathing are #10 x $1\frac{7}{16}$ in (37 mm) self-tapping screws at 6 in (152 mm) o.c. at the perimeter and 12 in (304 mm) o.c. in the field.

A 12 in (304 mm) access panel at both longitudinal sides is sheathed on site after inspections.

The floor panels are insulated with unfaced insulation in the foundation cavities and with a radiant barrier on the underside of the panel.

The floor panels are to be designed with foundation supports at the floor panel corners and at midspan along the long side, when floor panels support exterior walls.

3.3 Materials:

3.3.1 Wood Framing: The wood framing members are Spruce Pine-Fir (South), No. 2 or better sawn lumber, having a minimum specific gravity of 0.42 and the reference design values complying with American Wood Council *National Design Specification*[®] (NDS) for Wood Construction.

3.3.2 Steel Framing: The steel framing members are ASTM A513 (Fy = 46 ksi) for the tubes and ASTM A513 (Fy = 38 ksi) for the channels.

3.3.3 Sheathing:

3.3.3.1 Exterior Wall Panels: The exterior sheathing consist of Zip System[®] Wall Sheathing (ESR-1474), which is a wood structural panel having a laminated facer. The $\frac{7}{16}$ in. (11.11 mm) thick wood structural panel complies with US DOC PS2 for OSB, and is used as a combination wall sheathing, air barrier and water-resistive barrier. The interior sheathing consists of $\frac{1}{2}$ in. (12.7 mm) thick sanded plywood.

3.3.3.2 Interior Wall Panels: The sheathing for both panel faces, consists of $\frac{1}{2}$ in. (12.7 mm) thick sanded plywood.

3.3.3.3 Roof/Ceiling Panels: The top chord sheathing consists of LP Techshield Radiant Barrier $\frac{7}{16}$ in. (11.11 mm) thick sheathing, complying with US DOC PS2 for OSB. The bottom chord sheathing consists of $\frac{1}{2}$ in. (12.7 mm) thick sanded plywood.

3.3.3.4 Floor Panels: The sheathing consist of pressure treated, $\frac{3}{4}$ in. (19 mm) thick Southern Yellow Pine plywood, as indicated in ESR-2240 for Micropro[®]/Lifewood[®] preservative-treated wood.

3.3.4 Fasteners: The fasteners used with Component Construction System panels are of bright finish, vinyl coated, zinc plated, galvanized or stainless steel.

3.3.4.1 Screws: Screws are either code prescribed or proprietary screws. SST screws are used with SST products.

3.3.4.2 Nails: Nails are either code prescribed or proprietary. SST nails are used with SST products.

3.3.4.3 Bolts: Bolts are zinc plated hex bolts complying with ASTM A307.

3.3.5 Light gage steel connectors: Light gage steel connectors used with components that are exposed to the exterior, are listed under Simpson Strong Tie (SST) ESR-2523.

3.3.5.1 Exterior Wall Panel Top Plate Connection: Trusses are connected to exterior wall panel top plates using SST H3 and/or LTP5 connectors. See [Table 1](#) and [Figure 4](#) for more information.

3.3.5.2 Exterior Wall Panel Bottom Plate Connections: Bottom plate is connected to Floor Panels using SST LTP5 and HTS16 connectors. See [Table 1](#) and [Figure 4](#) for more information.

3.3.5.3 Roof/Ceiling Panel Connection: For end trusses supported by 2x4 fascia lumber, SST A23 clips are attached to the roof/ceiling panel truss ends. See [Figure 2](#) for more information.

3.3.5.4 Interior Wall Panel Bottom Plate Connection: Bottom plate is connected to Floor Panels using $1\frac{1}{2}$ in. x $1\frac{1}{2}$ in. x 14 gage (38.1 mm x 38.1 mm x 1.5 mm) L-brackets. See [Table 1](#) and [Figure 4](#) for more information.

3.3.6 Insulation: The insulation placed in the cavities of the Component Construction System panels is as follows:

3.3.6.1 Exterior Wall Panels: Owens Corning[®] PINK Next Gen[™] R-13 faced fiberglass insulation is installed in the wall panel cavities.

3.3.6.2 Roof/Ceiling Panels: Owens Corning[®] PINK Next Gen[™] R-38 faced fiberglass insulation is installed along the truss bottom chord of the roof/ceiling panel.

3.3.6.3 Floor Panels: Owen Corning[®] PINK Next Gen[™] R-19 unfaced fiberglass insulation and EcoFoil Double Bubble Foil insulation are installed in the floor panel cavities.

3.3.7 Exterior Siding: The exterior wall panels are finished and covered with LP[®] SmartSide[®] Lap Siding (ESR-1301). The roof/ceiling panel vented soffit is finished and covered with LP[®] SmartSide[®] Soffit.

4.0 DESIGN AND INSTALLATION

4.1 General:

Design and installation of Component Construction System panels must be in accordance with this evaluation report, the applicable code provisions and the report holder's published Component Construction System panels' installation instructions.

The Component Construction System panels must be designed to resist gravity and lateral loads as described in IBC Chapter 16, including load combinations in accordance with IBC Section 1605.

When used as shear walls to resist seismic loads under the IBC, the Component Construction System exterior wall panels can be designed for Seismic Design Categories A through F, and the design coefficient and factors in ASCE/SEI 7-16 Table 12.2-1 for light-frame (wood) walls sheathed with wood structural panels rated for shear resistance, must be used.

4.2 Allowable Design Values:

[Table 2](#) provides allowable transverse, axial, and in-plane shear design values of exterior and interior wall panels, described in Section 3.2.1 and used under dry service condition where the moisture content in lumber in service is less than 16 percent, as in most covered structures. The allowable design values in [Table 2](#) are intended for Allowable Stress Design (ASD) method in accordance with the American Wood Council *National Design Specification*[®] (NDS) for Wood Construction. No adjustment factor increases are permitted.

For the wall panels, a registered design professional must provide a design and/or calculations for the field installed upper top plate, intermediate and end connections, based on the design in consideration (i.e. span between supports for interior walls, collector design for exterior shear walls).

[Table 3](#) provides the allowable transverse and diaphragm shear design values for floor and roof/ceiling panels, described in Section 3.2.2 and used under dry service condition where the moisture content in lumber in service is less than 16 percent, as in most covered structures. The allowable design values are intended for ASD method in accordance with the NDS. No adjustment factor increases are permitted.

4.3 Installation: The report holder's installation instructions must be available at the jobsite at all times during installation.

4.3.1 Wall Panels: Wall panels must be continuously supported on top of the floor panels. The entire thickness of axially loaded wall panels must be supported by supporting structural elements. See [Figure 1](#) for additional information.

4.3.1.1 Exterior Wall Panels: Panels bottom plate connecting to floor panels with SST LTP5 are installed with (6) #10 x ¾ in. SST Strong Drive XE Exterior Structural Metal screws. Panels bottom plate connecting to floor panels with HTS16 are installed with (6) #10 x ¾ in. (19 mm) SST Strong Drive XE Exterior Structural Metal screws. The field installed upper top plate is spliced to the lower top plate with a minimum of #10 x 3 in. (76.2 mm) screws at 16 in. (406.4 mm) o.c.

Bottom chord of the roof/ceiling panel connecting perpendicular to exterior panels top plate with SST H3, are installed with 0.131 in. x 2½ in. (3.3 mm x 63.5 mm) SST SD wood screws.

Bottom chord of the roof/ceiling panel connecting parallel to exterior panels top plate with LTP5, are installed with 0.131 in. x 1½ in. (3.3 mm x 63.5 mm) nails.

Applicable on site installation elements of the Zip System[®] wall sheathing and LP[®] SmartSide[®] Lap Siding must be in accordance with ESR-1474 and ESR-1301 respectively.

4.3.1.2 Interior Wall Panels: Panels bottom plate are connected to floor panels with L-brackets with (2) #6 x 1 in. (3.3 mm x 25.4 mm) wood screws to the floor panel and (2) #6 in. x 1 in. (3.3 mm x 25.4 mm) wood screw to the stud. The field installed upper top plate is connected with #10 x 3 in. (76.2 mm) screws at 16 in (406.4 mm) o.c. to the interior wall panel lower top plate. The upper top plate ends are interlocked with other panel top plates with (1) #10 x 3 in. (76.2 mm) screw.

4.3.2 Roof/Ceiling Panels: Ceiling roof panels must be supported continuously, spanning between exterior wall panels. Adjacent panels must be connected at both sides of ridge and trusses' top and bottom chord support point, with (2) #10 x 3 in. (76.2 mm) for a total of (6) screws. See [Figure 2](#) for additional information.

After inspections, ridge open strip is closed with 7/16 in. thick sheathing with 6d at 6 in. (152.4 mm) o.c at the edge and field. Perimeter ceiling open soffit strip is closed with LP[®] SmartSide[®] Soffit with 0.092 in. x 2¼ in. (2.33 mm x 57.2 mm) ring shank nails or 0.131 in. x 2½ in. (3.3 mm x 63.5 mm) SST SD wood screws at 6 in. (152.4 mm) o.c. at the edge and field.

Floor Panels: Floor panels must be supported by a foundation system designed by a registered design professional, with individual foundation supports spaced no further than the floor panel corners. Adjacent floor panels are connected longitudinally, with (8) ½ in x 6 in. (12.7 mm x 152.4 mm) bolts. Access panels are sheathed with ¾ in. (19 mm) thick pressure treated southern yellow pine plywood, with #10 x 1⁷/₁₆ in (37 mm) self-tapping screws at 6 in (152 mm) o.c. at the perimeter and 12 in (304 mm) o.c. in the field.

4.3.3 Roof Covering: The exterior (top) face of the roof panels must be protected by a roof covering complying with Chapter 15 of the IBC or Chapter 9 of the IRC, as applicable.

4.3.4 Interior Finishes: Interior finishes for walls and roof must be provided and comply with Chapter of the IBC or Chapter 3 of the IRC.

4.4 Special Inspection:

Special inspections shall be required by IBC Chapter 17, as applicable.

5.0 CONDITIONS OF USE:

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

- 5.1** Component Construction System panels are fabricated, identified and erected in accordance with this report and the manufacturer's published installation instructions. If there are any conflicts between the manufacturer's published installation instructions and this report, the more restrictive governs.
- 5.2** Design loads to be resisted by the panels must be determined in accordance with the applicable code, and must not exceed the allowable design loads noted in this report.
- 5.3** Construction documents, including engineering calculations and drawings providing floor plans, wall details, including window and door details, and connection details, must be submitted to the code official when application is made for a permit, verifying compliance with this report and the applicable code. The design calculations and details must be prepared by a registered design professional where required by the statutes of the jurisdiction in which the project is to be constructed.
- 5.4** Building must be protected by an approved exterior wall, interior finishes and roof assemblies. Evaluation of the exterior wall, interior finishes and roof assemblies are outside the scope of this report and shall comply with the following provisions:
 - Exterior wall shall be designed in accordance with the IBC Chapter 14 or IRC Chapter 7.
 - Interior finishes shall be designed in accordance with the IBC Chapter 8 or IRC Chapter 3.
 - Roof assemblies shall be designed in accordance with the IBC Chapter 15 or IRC Chapter 9.
- 5.5** The panels and their attachments must be subject to inspection by the code official prior to exterior covering, as applicable. Special inspection shall be as required in Section 4.4. Implementation of the special inspections is outside the scope of this report.
- 5.6** Use of the panels is limited to Type V residential occupancies under the IBC and one and two-family dwellings under the IRC.
- 5.7** The panels must be protected against decay and termites in accordance with IBC Sections 2304.12 or IRC Sections R317 and R318, as applicable.
- 5.8** For use of the panels under the IRC, the panels are limited to an engineered design under IRC Section R301.1.3, engineered in accordance with the provisions in this evaluation report.
- 5.9** The foundation supporting the building's floor panels is outside the scope of this report and must be designed by a registered design professional.
- 5.10** On-site inspection of components of the building not evaluated under this acceptance criteria shall be conducted in accordance with Section 104.3 of ICC/MBI 1200 and ICC/MBI 1205.
- 5.11** Manufacturing of the Component Construction System panels is not recognized under this ICC-ES Evaluation report until the manufacturing locations are qualified and under an inspection program with inspections by ICC-ES.

6.0 EVIDENCE SUBMITTED

- 6.1** Data in accordance with applicable sections of [ICC-ES Acceptance Criteria for Structural performance of Modular Building \(AC543\)](#), dated October 2022.

7.0 IDENTIFICATION

- 7.1 The ICC-ES mark of conformity, electronic labeling, or the evaluation report number (ICC-ES ESR-5284) along with the name, registered trademark, or registered logo of the report holder must be included in the product label.
- 7.2 In addition, Component Construction System panels shall be identified with a label that includes the manufacturing address.
- 7.3 The report holder’s contact information is the following:

COMPONENT CONSTRUCTION SYSTEMS LLC.
9720 COIT ROAD
SUITE 220-274
PLANO, TEXAS 75025
eric@componentconstructionsystems.com
(469) 951-7033

TABLE 1—PANEL IDs AND DIMENSIONS

PANEL ID	WALL PANELS						
	WIDTH (in.)	HEIGHT (in.)	THICKNESS (in.)	OPENINGS width (in) x ht. (in)	No. of SST Tension Ties (HTS16)	No. of Bottom Shear Connectors ⁴	No. of SST Roof Ties (H3 + LTP5) ²
EWPW32	72	96	4.5	32 x 60	4	2	4
EWP72F	72	96	4.5	N/A	4	2	4 + 1
EWP48F	48	96	4.5	N/A	2	1	2 + 1
EWPW36	72	96	4.5	36 x 60	4	2	4
EWPD36 ¹	72	96	4.5	38.5 x 82.5	4	2	4
EWP24F	24	96	4.5	N/A	N/A	1	N/A
EWP16F	16	96	4.5	N/A	N/A	1	N/A
IWPBR1	116	96	4.5	N/A	N/A	6	N/A
IWPCKT	116	96	4.5	N/A	N/A	6	N/A ³
IWPCBT ¹	116	96	4.5	N/A	N/A	6	N/A
IWPHP	116	96	4.5	32.5 x 82.5	N/A	6	N/A
IWPBD	116	96	4.5	(2) 48x80	N/A	6	N/A
IWPBR2	116	96	4.5	32.5 x 82.5 24.5 x 82.5	N/A	6	N/A
IWPBT	76	96	4.5	N/A	N/A	4	N/A
IWPHD	44	96	4.5	32.5 x 82.5	N/A	4	N/A
IWPCLF	28	96	4.5	N/A	N/A	4	N/A
IWP36F	36	96	4.5	N/A	N/A	4	N/A
IWP16F	16	96	4.5	N/A	N/A	2	N/A
IWP11F	11	96	4.5	N/A	N/A	2	N/A
IWPBD92	132	96	4.5	(2) 48x80	N/A	6	N/A
PANEL ID	ROOF PANEL						
	WIDTH (in.)	LENGTH (in.)	HEIGHT (in.)	PITCH			
RPG	84	192	36	4/12			
RPF	72	192	36	4/12			
PANEL ID	FLOOR PANEL						
	WIDTH (in.)	LENGTH (in.)	THICKNESS (in.)	No. of Panel to Panel bolts used along edge			
FP14	72	168	6.75	6 along length (36 in o.c. max spacing)			

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

¹ Panels with removable interior sheathing for inspection purposes.

² For exterior wall panels (EWPxxx) connected parallel to the bottom chord of roof/ceiling panels, only LTP5 must be used (minimum of 2).

³ When used as a shear wall, a minimum of (2) LTP5 top connectors must be used, connecting to the bottom truss chord of the roof/ceiling panels.

⁴ Bottom connector for exterior wall panels (EWPxxx) consist of LTP5. For interior wall panels (IWPxxx) consists of L-brackets as indicated in Section 3.3.5.4.

TABLE 2—EXTERIOR AND INTERIOR WALL PANEL ALLOWABLE LOADS^{1,2,4,5}

PANEL ID	WALL ALLOWABLE LOADS (ASD)							
	AXIAL LOAD (plf)	TRANSVERSE LOAD (psf)			WIND ³		SEISMIC ³	
		L/120	L/240	L/360	Shear (lbf)	Drift at Allow. Shear (in.)	Shear (lbf)	Drift at Allow. Shear (in.)
EWPW32	1475	18	18	18	345 ⁶	0.61	345 ⁶	0.61
EWP72F	1475	29	29	29	840 ⁶	0.62	840 ⁶	0.62
EWP48F	1475	29	29	29	575 ⁶	0.63	575 ⁶	0.63
EWPW36	1475	18	18	18	N/A		N/A	
EWPD36	1475	18	18	18	N/A		N/A	
EWP24F	1475	29	29	29	N/A		N/A	
EWP16F	1475	29	29	29	N/A		N/A	
IWPBR1	1475	8	8	8	N/A		N/A	
IWPCKT	1475	8	8	8	840 ⁷	-. ⁷	840 ⁷	-. ⁷
IWPCBT	1475	8	8	8	N/A		N/A	
IWPHP	1475	8	8	8	N/A		N/A	
IWPBD	1475	8	8	8	N/A		N/A	
IWPBR2	1475	8	8	8	N/A		N/A	
IWPBT	1475	8	8	8	N/A		N/A	
IWPHD	1475	8	8	8	N/A		N/A	
IWPCLF	1475	8	8	8	N/A		N/A	
IWP36F	1475	8	8	8	N/A		N/A	
IWP16F	1475	8	8	8	N/A		N/A	
IWP11F	1475	8	8	8	N/A		N/A	
IWPBD92	1475	8	8	8	N/A		N/A	

For SI: 1 inch = 25.4 mm, 1 foot = 304.8 mm, 1 plf = 14.6 N/m, 1 psf = 0.0479 kPa. 1 lbf = 4.45 N

¹ The tabulated values are design values intended for Allowable Stress Design (ASD). No adjustment factor increases are permitted.

² Combined axial and transverse loading must satisfy the following relationship: $P_{actual}/P_{allowable} + W_{actual}/W_{allowable} \leq 1.0$.

³ The seismic and wind shear load are based on a maximum shearwall height-to-length ratio of 3.5:1 and the NDS requirements. Uplift component is included in the determination for allowable shear and drift, unless noted otherwise.

⁴ The tabulated load values are based on wall panels simply supported by continuous 3 1/2-inch-wide support. Other support conditions are outside the scope of this report and must be determined by registered design professional.

⁵ Wall panels must be installed in accordance with Section 4 of this report.

⁶ Capacity is governed by SST connectors. HTS16 hold down considered in the design, has a tension capacity of 1,215 lbf.

⁷ Capacity is based on SST LTP5 top connectors. Registered design professional must provide a hold down design and calculations for the shear wall boundary elements connection to the floor panel. Interior panel location is limited to edge of floor panel.

TABLE 3—ROOF/CEILING AND FLOOR PANEL ALLOWABLE LOADS^{1,2,3}

PANEL ID	ROOF/CEILING ALLOWABLE LOADS (ASD) ⁴				
	TRANSVERSE LOAD (psf)			WIND DIAPHRAGM SHEAR LOAD ⁵ (plf)	SEISMIC DIAPHRAGM SHEAR LOAD ⁵ (plf)
	L/120	L/240	L/360		
RPG	40	40	40	160	157
RPF	40	40	40	160	157
FLOOR ALLOWABLE LOADS					
	TRANSVERSE LOAD (psf)			WIND DIAPHRAGM SHEAR LOAD ⁶ (plf)	SEISMIC DIAPHRAGM SHEAR LOAD ⁶ (plf)
	L/120	L/240	L/360		
FP14	70	50	35	333	333

For SI: 1 inch = 25.4 mm, 1 foot = 304.8 mm, 1 plf = 14.6 N/m, 1 psf = 0.0479 kPa.

¹ The tabulated values are design values intended for Allowable Stress Design (ASD). No adjustment factor increases are permitted.

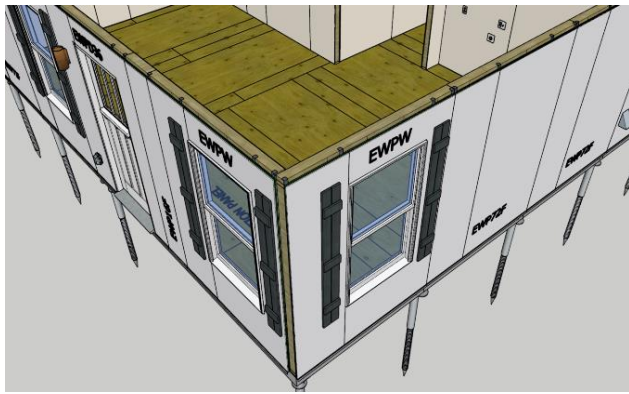
² The tabulated load values are based on floor and roof panels simply supported by continuous 3 1/2-inch-wide support. Other support conditions are outside the scope of this report and must be determined by registered design professional.

³ Floor and roof panels must be installed in accordance with Section 4 of this report.

⁴ The ceiling truss bottom chord has been designed for a 10 psf live load nonconcurrent with other live loads.

⁵ The wind and seismic diaphragm shear load is based on a building's maximum aspect ratio of 3:1 and the NDS design values.

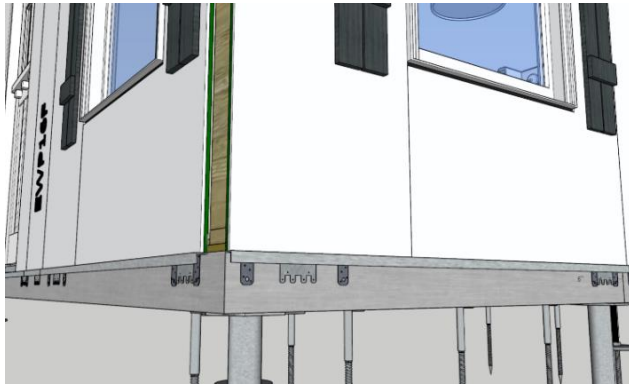
⁶ The wind and seismic diaphragm shear load is based on a building's maximum aspect ratio of 4:1 and the AISI design values.



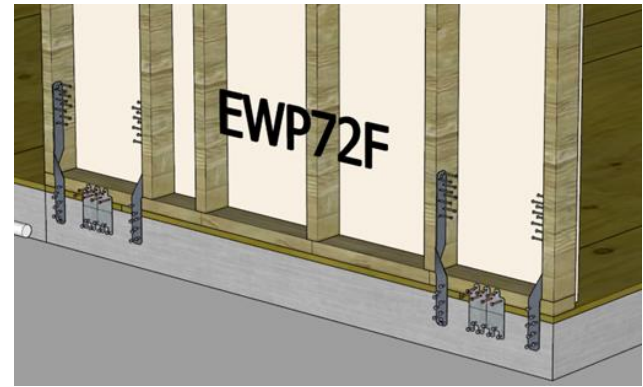
1). Exterior Panels EWPW installed at a corner



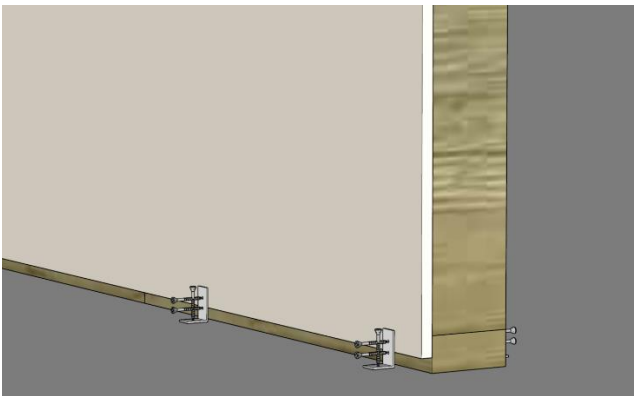
2). Exterior Panels EWPW and EWP16F installed in line



3). Connection of exterior wall panel to the floor panel

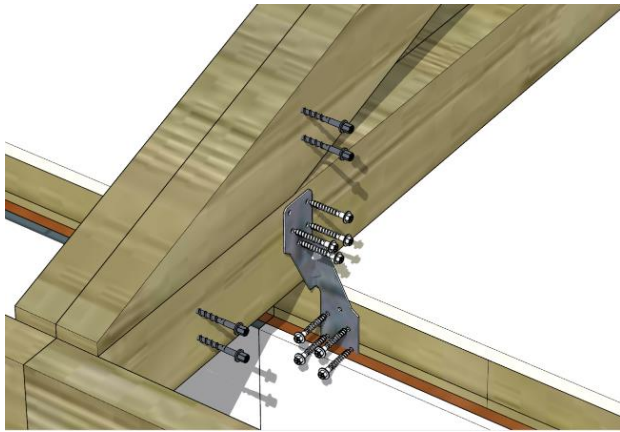


4). Connection of exterior wall panel to the floor panel



5). Connection of interior wall panel to the floor panel

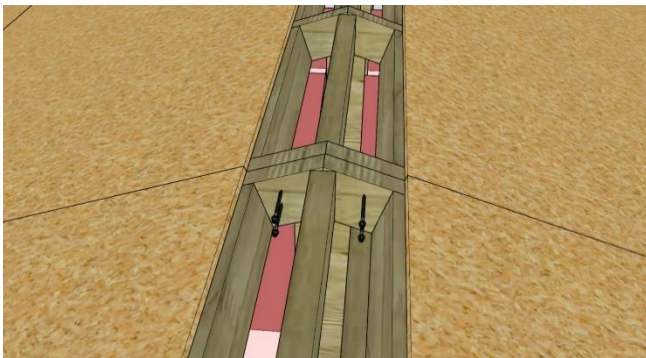
FIGURE 1—ILLUSTRATION OF TYPICAL WALL PANELS INSTALLED



1). Roof/ceiling panel to roof/ceiling panel connection at truss end



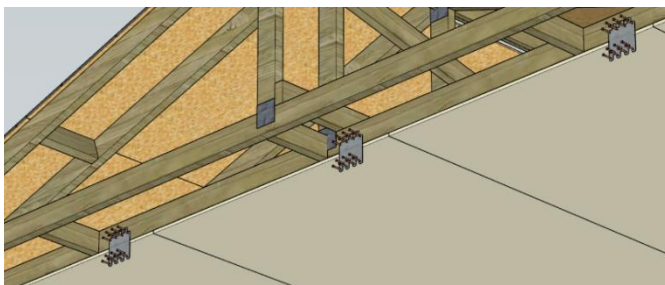
2). Roof/ceiling panel to panel schematics



3). Open strip at roof/ceiling panel, sheathed on site and connection between roof/ceiling panels at the ridge



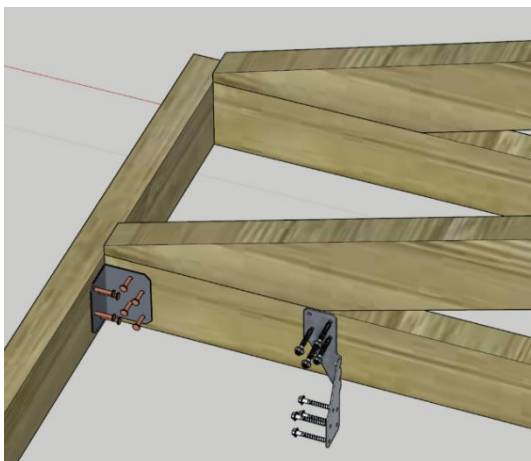
4). Roof/ceiling panel connection perpendicular to wall



5). Roof/ceiling panel connection parallel to wall

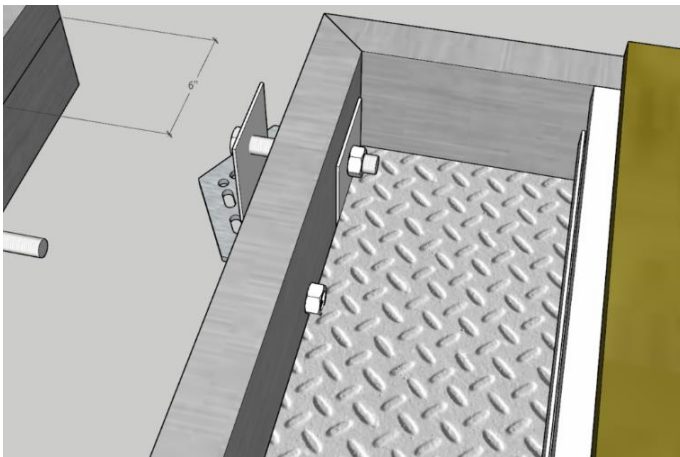


6). Blocking at roof/ceiling panels

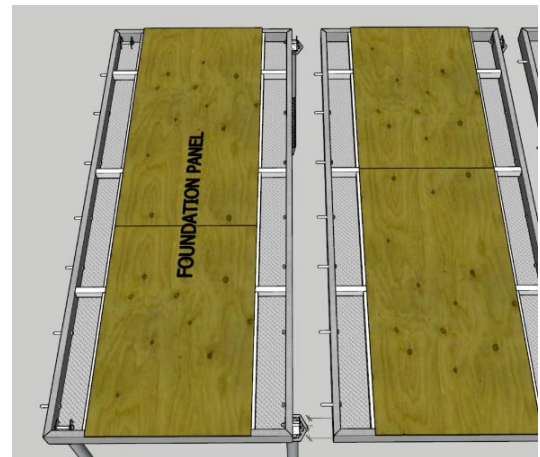


7). Fascia to roof/ceiling panel end truss connection

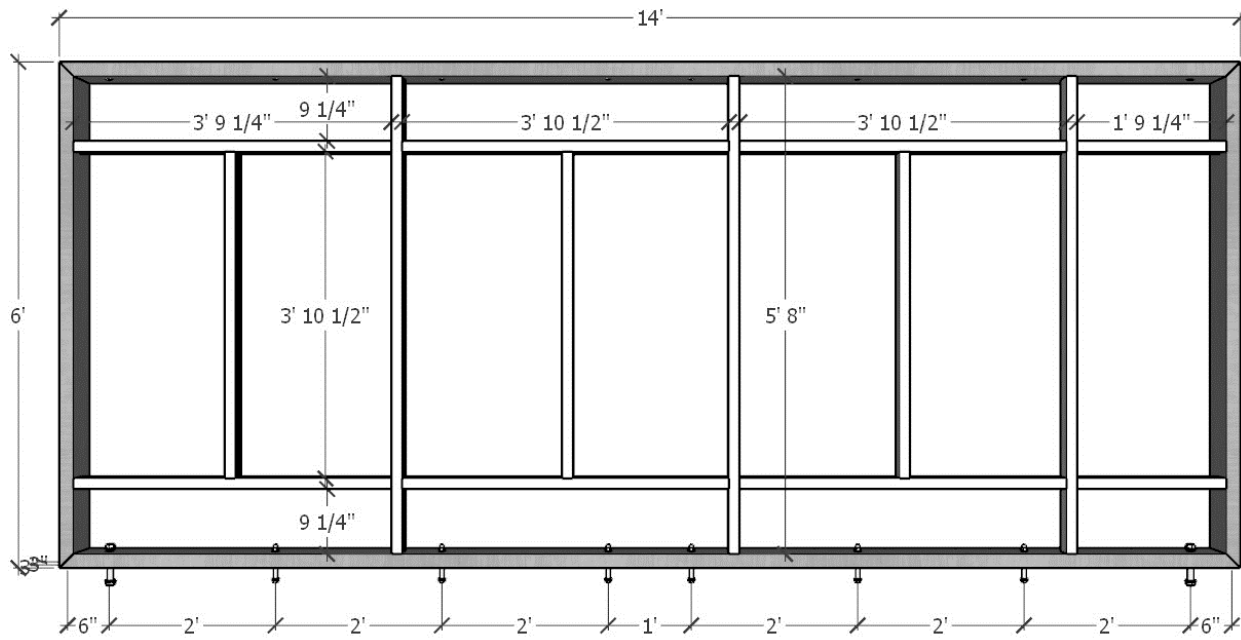
FIGURE 2—TYPICAL ROOF/CEILING PANELS INSTALLED



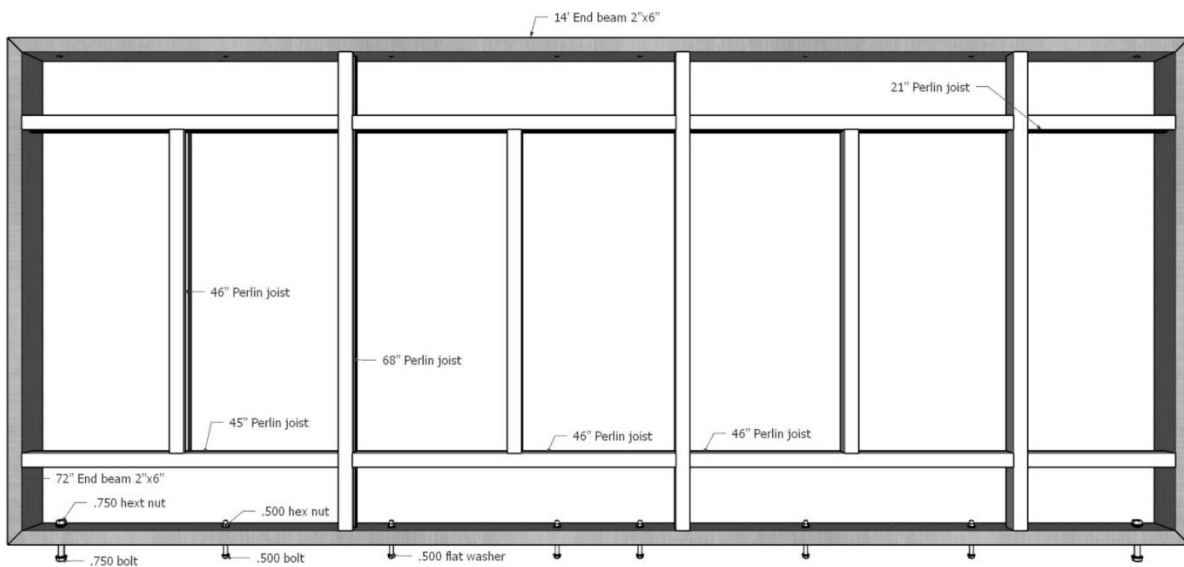
1). Bolt connection detail for adjacent floor panels



2). Floor panel to panel schematics



3). Floor panel schematics



4). Floor panel schematics

FIGURE 3—TYPICAL FLOOR PANELS INSTALLED



FIGURE 4—WALL PANELS WITH IDs



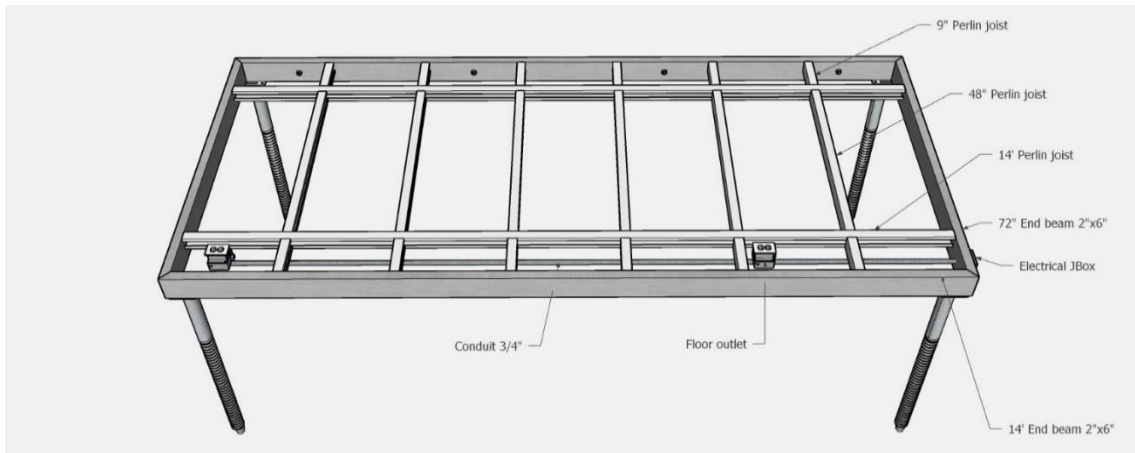
FIGURE 4—WALL PANELS WITH IDs (CONTINUED)



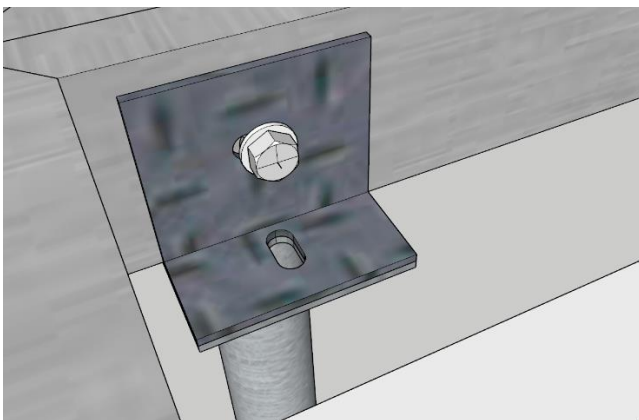
FIGURE 4—WALL PANELS WITH IDs (CONTINUED)



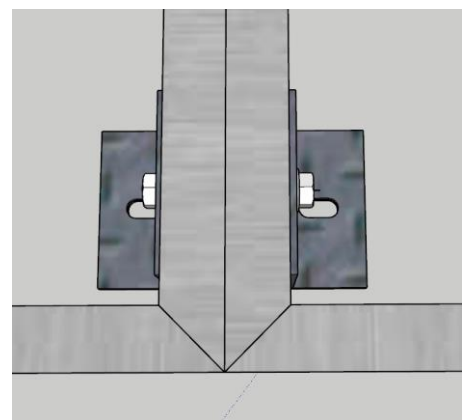
FIGURE 5—DOUBLE TOP PLATE CONNECTIONS AT WALL PANEL SAMPLE



1). Typical Floor Plan

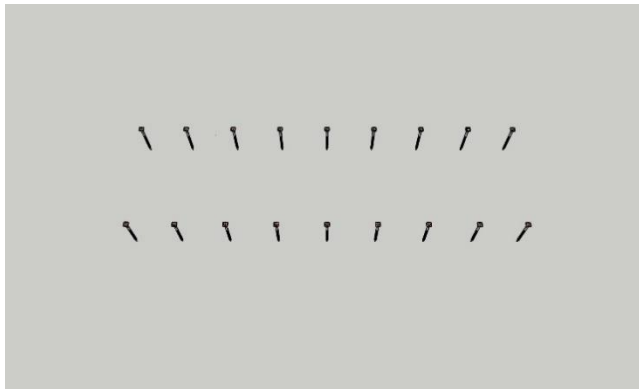


2). Foundation connection sample

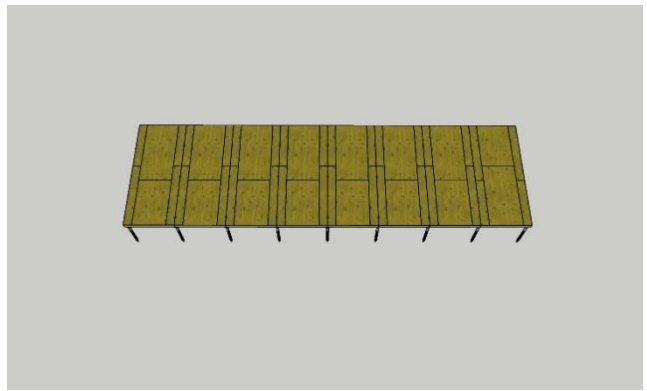


3). Foundation connection sample

FIGURE 6—TYPICAL INSTALLATION DETAILS OF FLOOR PANEL TO FOUNDATION



1) Foundation installation



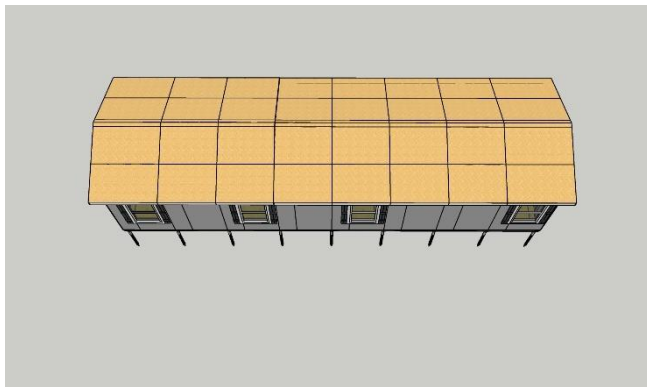
2) Floor panel installation



3). Exterior wall panel installation



4) Interior wall panel installation



5) Roof/ceiling panel installation



6) Roof finishes installation

FIGURE 7—TYPICAL INSTALLATION SEQUENCE FOR A SINGLE STORY BUILDING