CITY OF LOS ANGELES
CALIFORNIA

DEPARTMENT OF
BUILDING AND SAFETY
201 NORTH FIGUEROA STREET
LOS ANGELES, CA 90012

ANDREW A. ADELMAN, P.E.
GENERAL MANAGER

RAYMOND CHAN
EXECUTIVE OFFICER

Premier Building Systems
3434 West Papago St.
Phoenix, AZ 85009

Attn: Thomas L. Savoy
Technical Director
(912) 447-5213

RESEARCH REPORT: RR 25405
(CSI #13030)

BASED UPON ICC EVALUATION SERVICE
REPORT NO. NER-633

REEVALUATION DUE DATE:
June 1, 2009

GENERAL APPROVAL - Reevaluation/Clerical Modification - Premier Structural Sandwich Panels for walls, floors and roof.

DETAILS

The above assemblies and/or products are approved when in compliance with the description, use, identification and findings of Legacy Report No. NER-633, dated March 1, 2004, of the ICC Evaluation Service, Incorporated. The report, in its entirety, is attached and made part of this general approval.

The parts of Legacy Report No. NER-633 marked by the asterisks are modified by the Los Angeles Building Department from this approval.

The approval is subject to the following conditions:

1. Structural calculations and plans shall be prepared by an engineer or architect licensed in the state of California and approved by the structural plan check.

2. Fabrication of Premier Structural Panels shall be in a shop of a fabricator licensed by the City of Los Angeles Building Department, in accordance with the Manufacturing Standards submitted to the Department.

3. Panels are only used in buildings of Type V construction.

4. Allowable loads are noted in Tables 2 through11. The allowable panel capacity shall not be increased for wind and seismic.

5. Connectors used for connecting panels shall be the product approved by the City of Los Angeles.

DISCUSSION

The clerical modification is to change the phone number.

The approval is based on test and analysis.

This general approval of an equivalent alternate to the Code is only valid where an engineer and/or inspector of this Department has determined that all conditions of this approval have been met in the project in which it is to be used.

Addressee to whom this Research Report is issued is responsible for providing copies of it, complete with any attachments indicated, to architects, engineers and builders using items approved herein in design or construction which must be approved by Department of Building and Safety Engineers and Inspectors.

This general approval will remain effective provided the Evaluation Report is maintained valid and unrevised with the issuing organization. Any revisions to the report must be submitted to this Department, with appropriate fee, for review in order to continue the approval of the revised report.

The status of the referenced Legacy Report No. NER-633, dated March 1, 2004, which is currently beyond its reexamination date is still valid. The validity of the Legacy report was verified with ICC.

YEUAN CHOU, Chief
Engineering Research Section
2319 Dorris Place
Los Angeles, CA 90031
Phone (213) 485-2376
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RB:elcm
RR25405/wp 8.0
R07/26/07
7G4/2315

Attachments: ICC ES Legacy Report No. NER-633 (11 Pages).

LEGACY REPORT

NER-633

Re-Issued March 1, 2004

ICC Evaluation Service, Inc.
www.icc-es.org

Business/Regional Office ■ 5360 Workman Mill Road, Whittier, California 90601 ■ (562) 699-0543
Regional Office ■ 900 Montclair Road, Suite A, Birmingham, Alabama 35213 ■ (205) 599-9800
Regional Office ■ 4051 West Flossmoor Road, Country Club Hills, Illinois 60478 ■ (708) 799-2305

Legacy report on ~~the 2000 *International Building Code*®, the 2000 *International Residential Code*®, the *2002 Accumulative Supplement to the International Codes*™, the BOCA® *National Building Code*/1999, the 1999 *Standard Building Code*© and~~ the 1997 *Uniform Building Code*™ *

DIVISION 06 — WOOD AND PLASTICS
Section 06120 — Structural Panels

PREMIER INDUSTRIES, INC.
d.b.a. PREMIER BUILDING SYSTEMS
1019 PACIFIC AVENUE, SUITE 1501
TACOMA, WASHINGTON 98402
www.pbspanel.com

LISTEE:

Pulte Home Sciences
6600 Mount Elliot Street
Detroit, Michigan 48211

1.0 SUBJECT

Premier Structural Sandwich Panels:

1.1 Type S
1.2 Type I
1.3 Type L

2.0 PROPERTY FOR WHICH EVALUATION IS SOUGHT

2.1 Structural
2.2 Fire Resistance

3.0 DESCRIPTION

3.1 General

Premier Structural Sandwich Panels are factory assembled sandwich panels produced at locations listed in Table 1 of this report. The panels consist of expanded polystyrene (EPS) cores with wood structural sheathing facings. The panels are used as load bearing wall, roof and floor components, and components of fire resistant rated construction. Panels are produced in widths ranging from 4 feet (1219 mm) to 10 feet (3047 mm) and lengths ranging from 8 feet (2438 mm) to 24 feet (7315 mm). The panels are manufactured in a Type S, Type I, and Type L panel configuration shown in Figure 1, Figure 2, and Figure 3 of this report.

3.1.1 Type S Panel: The core for the Type S panel is recessed along the panel sides to receive nominal 4 inch (102 mm) wide OSB splines and recessed on the ends to receive solid sawn dimensional lumber sized to match the core thickness. See Figure 1, Table 2 and Table 5 of this report.

3.1.2 Type I Panel: The Type I panel is recessed along the panel side to receive I-joist splines and recessed on the ends to receive nominal 2 inch (51 mm) thick solid sawn lumber sized to match the core thickness. See Figure 2 and Table 3 of this report.

3.1.3 Type L Panel: The Type L panel is recessed along the panel sides and ends to receive nominal 2 inch (51 mm) thick solid sawn dimensional lumber sized to match the core thickness. See Figure 3, Table 4 and Table 6 of this report.

3.2 Materials:

3.2.1 Core: The core material is Insulfoam Type I EPS foam plastic with a nominal thickness of 3½ inches (89 mm) to 11¼ inches (285 mm) and a nominal density of 1 pcf (16 kg/m3). The EPS core has flame spread rating of not more than 75 and a smoked developed rating of not more than 450 when tested in accordance with ASTM E 84.

3.2.2 Facing: Panel facing material is $^{7}/_{16}$ inch (11 mm) to ¾ inch (19 mm) thick Structural 1, Exposure 1 wood sheathing complying with DOC PS-2.

3.2.3 Adhesive: The adhesive is Structural grade Type II, Class 2 laminating adhesive (APA AFG-01 specification).

3.2.4 Splines: The splines for the Type S panels are nominal 3 inches wide by $^{7}/_{16}$ inch thick (76 by 11 mm) OSB material. The splines for Type I panels are I-joists, sized in depth to match the core thickness. The splines for Type L panels are nominal 2 inches thick dimensional lumber sized in depth to match the core thickness.

4.0 INSTALLATION

The manufacturer's published installation instructions titled Premier Panel Design Manual, Premier Building Systems Structural Panel Detail Book (03/19/98), and this report shall be strictly adhered to and copies available at all times on the jobsite during installation.

* deleted by City of Los Angeles

4.1 One Hour Rated Bearing Wall
(UL Design No. U524)

1. Premier Building System composite panel consisting of a polystyrene foamed plastic core faced on both surfaces with minimum $^{7}/_{16}$ inch (11 mm) thick oriented strand board. Minimum 3⅝ inch (92 mm) thick polystyrene core Premier Industries structural panel loaded to maximum 61 percent of the recommended axial design load.

2. Splines - Nominal 4 inch (102 mm) wide by $^{7}/_{16}$ inch (11 mm) thick oriented strand board splines installed between vertical joints, in pre-cut channels in the Premier Building System. Splines secured to face in contact with oriented strand board with and adhesive (APA AF6-01 specification) and 1⅝ inch (41 mm) long Type S steel screws spaced 6 inches (152 mm) o.c. along the edges of each adjoining face.

3. End Plates - Nominal 2 inches (51 mm) thick (width determined by building units thickness) No. 2 Douglas Fir lumber installed at top and bottom of building units in pre-cut channels. End plates secured with adhesive (APA AF6-01 specification) to faces in contact with oriented strand board, with caulk (ASTM C 834 specification) on the face in contact with the polystyrene core, and 8d box nails space 8 inches (203 mm) o.c. along the edge of both faces.

4. National Gypsum Co. Type FSW gypsum wallboard, ⅝ inch (16 mm) thick, 4 feet (1219 mm) wide, applied vertically in two layers. First layer installed with 1⅝ inch (41 mm) long Type S steel screws spaced 24 inches (610 mm) o.c. vertically and 16 inches (406 mm) o.c. horizontally. First layer vertical joints offset minimum 16 inches (406 mm) from vertical spline joints of building units. Second layer installed with 2 inch (51 mm) long Type S screws spaced 12 inches (305 mm) o.c. vertically, offset 12 inches (305 mm) from first layer screws, and 16 inches (406 mm) o.c. horizontally, offset 8 inches (203 mm) from first layer screws. Second layer vertical joints offset minimum 16 inches (406 mm) from first layer vertical joints. Outer layer wallboard joints covered with joint tape and joint compound. Screw heads on outer layer of wallboard covered with joint compound.

4.2 One Hour Rated Bearing Wall

Premier Building System Structural Panels consisting of 5½ inches (140 mm) thick EPS core laminated between two sheets of $^{7}/_{16}$ inch (11 mm) OSB. The EPS core is recessed 1½ inches (38 mm) in from the edges of the OSB facers on the bottom and along both sides, and 3 inches along the top, to allow for the installation of nominal 2 by 6 wood studs (No. 2 Hem-Fir minimum), bottom plate and double top plate.

Nominal 2 by 6 wood studs are installed into the recesses in the panels. The studs are secured to the OSB with 6d common nails space 6 inches (152 mm) o.c. Double studs are assembled using two nominal 2 by 6 wood studs nailed together with 16d coated sinker nails space 24 inches (610 mm) o.c. staggered along the stud length. The double studs are installed in the recesses between adjoining panels and secured to the OSB with 6d common nails spaced 6 inches (152 mm) o.c. after caulking the surfaces to be in contact with the EPS core with mastic. The single bottom plate is installed into the recess along the bottom edge of the wall assembly and secured to the OSB with 6d common nails spaced 6 inches (152 mm) o.c. and to each wood stud with two 16d coated sinker nails after caulking the surfaces to be in contact with the EPS core with mastic. The first top plate is installed into the recess along the top of the wall assembly and secured to each wood stud with two 16d coated sinker nails after caulking the surfaces to be in contact with the EPS core with mastic. The second top plate is installed over the first and secured to the OSB with 6d common nails spaced 6 inches (152 mm) o.c. and to the first top plate with 16d coated sinker nails spaced 16 inches (406 mm) o.c. staggered along the top plate length.

Standard Gypsum's Type SG-C, ⅝ inch (16 mm) TE generation 3 (Type C) gypsum fire rated wallboard is installed in a single layer onto both faces of the wall. The wallboard is secured to the OSB panel facers with PC cupped head drywall nails, 1⅝ inches (41 mm) long, spaced 8 inches (203 mm) o.c. along the wall perimeter and 12 inches (305 mm) vertically and 16 inches (406 mm) o.c. horizontally.

The taped joints and screw heads shall be covered with joint compound.

The maximum allowable load is 2200 plf (32 KN/m) and the maximum allowable height is 10 feet (3048 mm).

4.3 One Hour Rated Floor/Ceiling Assembly

Panels are 7½ inches (191 mm) thick EPS core laminated between two sheets of $^{7}/_{16}$ inch (11 mm) OSB.

Panels are connected at the field joints by inserting a 3½ inch (89 mm) wide piece of OSB into pre-routed slots in the EPS and fastened with 1⅛ inch (29 mm) long drywall screws spaced 6 inches (152 mm) o.c.

The bottom side of the panel is clad with a base layer of ⅝ inch (16 mm) Type X gypsum wallboard applied with the joints parallel to the spline joints offset by 24 inches (610 mm) with 1¼ inch (32 mm) Type S drywall screws spaced 12 inches (305 mm) o.c. in rows 24 inches (610 mm) o.c. A face layer of ⅝ inch (16 mm) Type X gypsum wallboard is applied at right angles to the base layer with 2 inch (51 mm) Type S drywall screws spaced 12 inches (305 mm) o.c. in rows spaced 16 inches (406 mm) o.c.

The taped joints and screw heads shall be covered with joint compound.

The maximum allowable load is 40 psf (1915 Pa) and the maximum allowable span is 12 feet (3658 mm).

5.0 IDENTIFICATION

Premier Panels shall have a stamp containing the product name, panel type, name and address of the manufacturer, the ICC-ES Legacy report number, and the label of Underwriters Laboratories, Inc. (NER-QA403/AA-668).

6.0 EVIDENCE SUBMITTED

6.1 Manufacturer's descriptive literature and published installation instructions.

6.2 Test report on Transverse Load Test of Building Panels (Type S) in accordance with ASTM E 72, prepared by Wood Materials and Engineering Laboratory, dated March 9, 1999, signed by Ken Fridley.

6.3 Test report on Transverse Load Test of Building Panels (Type L) in accordance with ASTM E 72, prepared by Maxim Technologies, Project No. 99-06356, dated April 6, 1999, signed by John D. Lee, P.E.

6.4 Test report on Transverse Load Test of Building Panels (Type L) in accordance with ASTM E 72, prepared by Maxim Technologies, Project No. 97-53172, dated December 20, 1997, signed by John D. Lee, P.E.

6.5 Test report on Transverse Load Test of Building Panels (Type I - 4 Foot Span) in accordance with ASTM E 72, prepared by Maxim Technologies, Project No. 98-77345, dated March 31, 1999, signed by John D. Lee, P.E.

6.6 Test report on Transverse Load Test of Building Panels (Type I - 8 Foot Span) in accordance with ASTM E 72, prepared by Maxim Technologies, Project No. 98-77345, dated March 31, 1999, signed by John D. Lee, P.E.

6.7 Test report on Axial Load Test of Building Panels (Type S) in accordance with ASTM E 72, prepared by Maxim Technologies, Project No. 98-57451, dated July 13, 1998, signed by John D. Lee, P.E.

6.8 Test report on Axial Load Test of Building Panels (Type S) in accordance with ASTM E 72, prepared by Maxim Technologies, Project No. 98-62962, dated August 11, 1998, signed by John D. Lee, P.E.

6.9 Test report on Axial Load Test of Building Panels (Type L) in accordance with ASTM E 72, prepared by Maxim Technologies, Project No. 98-57451, dated July 13, 1998, signed by John D. Lee, P.E.

6.10 Test report on Point Load Test of Building Panels, prepared by Maxim Technologies, Project No. 98-57451, dated February 17, 1998, signed by John D. Lee, P.E.

6.11 Test report on Point Load Test of Building Panels, prepared by Maxim Technologies, Project No. 99-06356, dated April 6, 1999, signed by John D. Lee, P.E.

6.12 Test report on Load Test of Header Panels, prepared by Maxim Technologies, Project No. 98-62962, dated August 12, 1998, signed by John D. Lee, P.E.

6.13 Test report on Transverse/Cantilever Load Test of Building Panels, prepared by Maxim Technologies, Project No. 98-62962, dated August 12, 1998, signed by John D. Lee, P.E.

6.14 Test report on Shear Tests of CFI1 Screws Manufactured by Premier Industries, prepared by Maxim Technologies, Project No. 3018 98-67373.2, dated August 19, 1998, signed by Steve K. Manfred and Michael S. Karcher.

6.15 Test report on Screw-Head Pull-Through and Screw Pull-Out tests of Premier Panel CFI1 Screw, prepared by Maxim Technologies, Project No. 3018 98-62839.1, dated May 4, 1998, signed by Steve K. Manfred and Chad B. Johnson.

6.16 Test report on Nail Withdrawal Tests on OSB Panels, prepared by Maxim Technologies, Project No. 3018 98-67373.3, dated October 19, 1998, signed by Mathew N. Botz and Michael S. Karcher.

6.17 Test report on Diaphragm Load Tests of Building Panels, prepared by Wood Materials and Engineering Laboratory, dated August 13, 1999, by Ken Fridley.

6.18 Test report on Racking Shear Test for Premier Building Systems, prepared by Daniel H. Brown, P.E., signed and sealed by Daniel H. Brown, P.E.

6.19 Test report on Racking Shear Test for Premier Building Systems, prepared by Daniel H. Brown, P.E. Consultant, dated September 1, 1994, signed and sealed by Daniel H. Brown, P.E.

6.20 Test report in accordance with UL 1715, prepared by Underwriters Laboratories Inc., File R14340, Project 91SC17238, dated February 28, 1992, by Hans Hansen and Garrett Tom.

6.21 Test report on Building Units and Gypsum Wallboard in a Load Bearing Wall Assembly in accordance with ASTM E 119, prepared by Underwriters Laboratories Inc., File R14340, Project 92NK3429, dated April 7, 1992, by Mark Izydorek, signed by Nestor G. Sanchez.

6.22 Test report on Premier Building Panel Wall Assembly in accordance with ASTM E 119, prepared by Omega Point Laboratories, Project No. 15418-98840, dated August 12, 1995, signed by Herbert W. Stansberry II and William E. Fitch, P.E.

6.23 Test report on Loadbearing, Unrestrained Floor/Ceiling Assembly in accordance with ASTM E 119, prepared by Omega Point Laboratories, Project No. 15100-97136, dated July 19, 1994, signed by Deggary N. Priest and William E. Fitch, P.E.

6.24 Test report on Insulfoam Type I EPS in accordance with ASTM E 84, prepared by Omega Point Laboratories, Report No. 15936-103935, dated November 9, 1998, signed by Guy A. Haby and William E. Fitch, P.E.

6.25 Test report on Insulfoam Type I EPS in accordance with ASTM E 84, prepared by Omega Point Laboratories, Report No. 15936-103936, dated November 9, 1998, signed by Guy A. Haby and William E. Fitch, P.E.

6.26 Test report on Racking Shear Load Test, prepared by Stork/Twin City Testing Corporation, Project No. 032148-A, dated January 33, 2003, signed by Thaddeaus L. Harnois and John D. Lee, P.E.

6.27 Test report on Racking Shear Load Test, prepared by Stork/Twin City Testing Corporation, Project No. 032148-C, dated January 33, 2003, signed by Thaddeaus L. Harnois and John D. Lee, P.E.

6.28 Test report on Racking Shear Load Test, prepared by Stork/Twin City Testing Corporation, Project No. 032148-D, dated January 13, 2003, signed by Thaddeaus L. Harnois and John D. Lee, P.E.

6.29 Test report on Diaphragm Load Test of Structural Building Panels 7/16" OSB Spline, prepared by Stork/Twin City Testing Corporation, Project No. 032148, dated August 26, 2002, signed by Thaddeaus Harnois and John D. Lee, P.E.

6.30 Test report on Diaphragm Load Test of Structural Building Panels 23/32" OSB Spline, prepared by Stork/Twin City Testing Corporation, Project No. 032148, dated August 26, 2002, signed by Thaddeaus Harnois and John D. Lee, P.E.

6.31 Test report on Transverse Load Test of Structural Building Panels, prepared by Stork/Twin City Testing Corporation, Project No. 033157, dated November 11, 2003, signed by John D. Lee, P.E.

6.32 Quality Control Manual for Premier Building Systems Covering Premier Building Panels, Issued July 1992, Revised April 2003, signed by Thomas L. Savoy for Premier Industries, Ryan Rasmussen for Pulte Home Sciences, and John Pabian for Underwriters Laboratories, Inc.

7.0 CONDITIONS OF USE

The ICC-ES Subcommittee for the National Evaluation Service finds that the Premier Structural Panels described in this report comply with or are acceptable alternatives to those specified in ~~the 2000 *International Building Code*®~~, ~~the 2000 *International Residential Code*®~~, ~~the *2002 Accumulative Supplement to the International Codes*™~~, ~~the~~ BOCA® ~~*National Building Code*/1999,~~ ~~the 1999 *Standard Building Code*©~~ ~~and~~ the 1997 *Uniform Building Code*™ subject to the following conditions: *

*deleted by City of Los Angeles

7.1 Plans specifying the building panels described in this report shall comply with the design limitations of this report. Design calculations and details for the specific applications shall be furnished to the code official verifying compliance with this report and applicable codes. The individual preparing such documents shall posses the necessary credentials regarding competency and qualifications as required by the applicable code and the professional registration laws of the state where the construction is undertaken.

7.2 Splines shall be a minimum of No. 2 hem-fir with a specific gravity of 0.43.

7.3 The building panels shall be used only where combustible construction is allowed. In areas using the Uniform Building Code, the panels shall be limited to Type V-N construction.

7.4 The foam plastic shall be separated from the interior of the building by an approved 15 minute thermal barrier in accordance with the applicable code.

7.5 Connection and attachments of the panel are not within the scope of this report and shall be addressed in the design calculations and details.

7.6 All floor-to-wall and roof-to-wall details shall be designed such that gravity loads are applied over the entire wall panel thickness.

7.7 In jurisdictions which have adopted the Standard Building Code, the panels shall not be place within 6 inches of earth where the hazard of termite damage is very heavy in accordance with Figure 2304.1.4 of that code without an approved method of protecting the foam plastic and structure from subterranean termite damage. *

7.8 In jurisdictions which have adopted the International Residential Code, the panels shall not be place within 6 inches of earth where the hazard of termite damage is very heavy in accordance with Figure R301.2(6) of that code without an approved method of protecting the foam plastic and structure from subterranean termite damage.

7.9 In jurisdictions which have adopted the Uniform Building Code, the floor panels shall be limited to use in Group R-1 and R-3 occupancies.

7.10 Allowable spans and design loading shall not exceed the values found in this report.

7.11 This report is subject to periodic re-examination. For information on the current status of this report, consult the ICC-ES website.

* deleted by City of Los Angeles

FIGURE 1
TYPE S PANEL

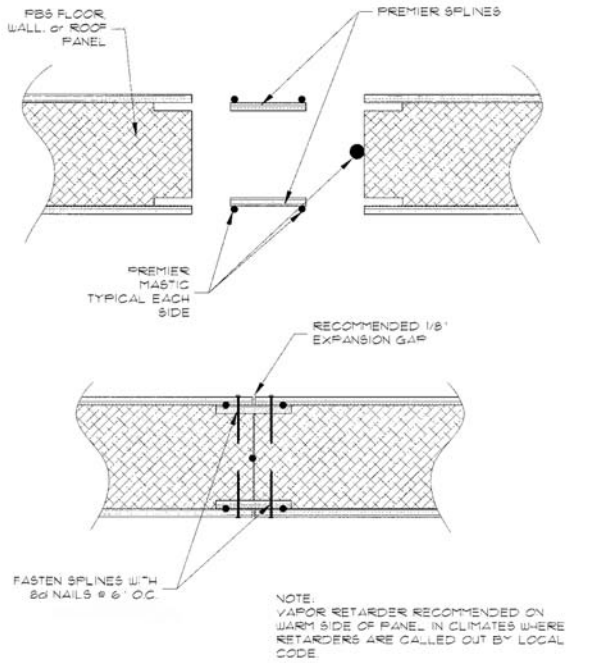


FIGURE 2
TYPE I PANEL

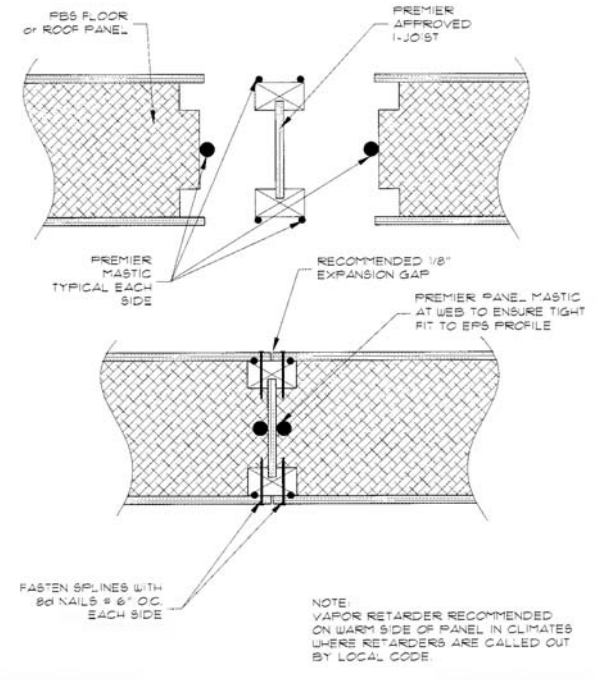
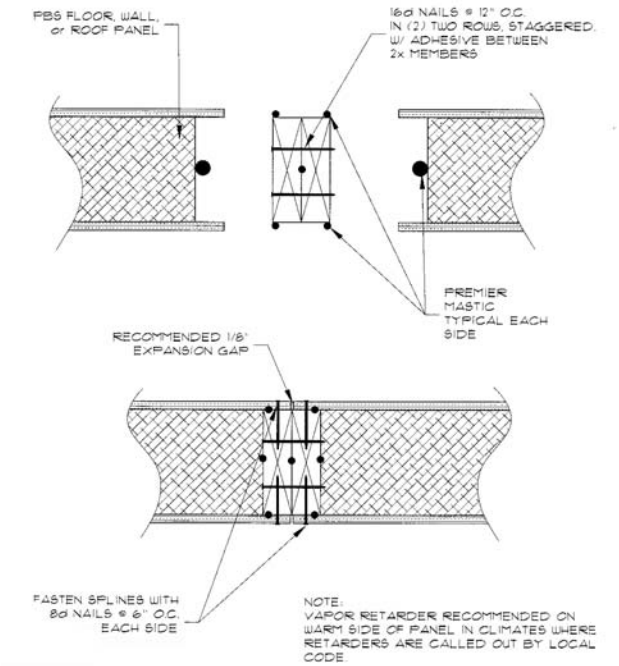
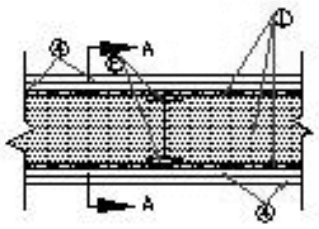


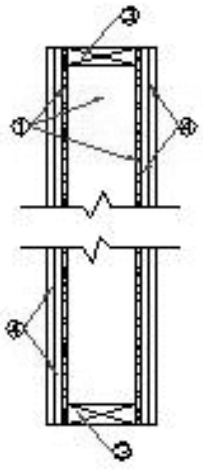
FIGURE 3
TYPE L PANEL



4.1 One Hour Rated Bearing Wall
(UL Design No. U524)



HORIZONTAL SECTION



SECT. A-A

TABLE 1

LOCATIONS OF PREMIER INDUSTRIES, INC / d.b.a.	LOCATION NUMBERS FOR PRODUCT IDENTIFICATION
Premier Building Systems 4609 70th Ave. E Fife, Washington 98424	PB-31
Premier Building Systems 3434 West Papago Street Phoenix, Arizona 85009-6733	PB-32
Pulte Home Sciences 6600 Mount Elliot Street Detroit, Michigan 48211	PHS-01

TABLE 2 — TYPE S PANELS[1]
MAXIMUM ALLOWABLE TRANSVERSE LOADS(psf)

PANEL CORE THICKNESS (inches)	DEFLECTION	PANEL SPAN								
		8 ft	10 ft	12 ft	14 ft	16 ft	18 ft	20 ft	22 ft	24 ft
3½[2]	$L/360$	40	30	20	15	10	----	----	----	----
	$L/240$	55	40	35	25	15	----	----	----	----
	$L/180$	60	55	45	35	20	----	----	----	----
5½[2]	$L/360$	50	40	30	25	20	15	10	----	----
	$L/240$	80	60	35	30	30	20	15	----	----
	$L/180$	80	60	45	40	35	30	20	----	----
7¼[3]	$L/360$	60	60	40	35	25	20	15	15	10
	$L/240$	85	75	60	50	40	30	25	20	20
	$L/180$	85	75	70	60	50	40	30	25	25
9¼[4]	$L/360$	80	65	50	40	35	25	20	20	20
	$L/240$	85	65	55	50	45	40	35	30	25
	$L/180$	85	65	55	50	45	40	40	35	35
11¼[4]	$L/360$	95	75	50	50	50	40	30	25	20
	$L/240$	95	75	60	65	50	45	40	35	30
	$L/180$	95	75	60	65	50	45	40	35	35

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

1. Floor panels shall have a minimum ¾ inch thick top skin or a minimum $^7/_{16}$ inch thick top skin overlaid with minimum $^7/_{16}$ inch thick finish flooring perpendicular to the panels.
2. 3½ inch and 5½ inch core panels shall be limited to a maximum span of 12 feet when used in roof applications.
3. 7¼ inch core panels shall be limited to a maximum span of 14 feet when used in roof applications.
4. 9¼ inch and 11¼ inch core panels shall be limited to a maximum span of 16 feet when used in roof applications.

TABLE 3 — TYPE I PANELS[1]
MAXIMUM ALLOWABLE TRANSVERSE LOADS (psf)

PANEL CORE THICKNESS (inches)	DEFLECTION	PANEL SPAN									
		4 ft	8 ft	10 ft	12 ft	14 ft	16 ft	18 ft	20 ft	22 ft	24 ft
7¼	$L/360$	130	135	95	60	50	40	30	20	20	15
	$L/240$	315	150	105	90	70	55	40	30	25	25
	$L/180$	320	150	105	90	85	55	50	40	35	30
9¼	$L/360$	195	165	125	70	65	60	50	35	30	25
	$L/240$	320	165	125	105	95	85	70	50	45	35
	$L/180$	320	165	125	105	95	85	75	65	55	45
11¼	$L/360$	260	145	105	85	85	75	60	40	35	30
	$L/240$	320	145	105	95	85	75	70	60	55	45
	$L/180$	320	145	105	95	85	75	70	60	55	50

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

1. Floor panels shall have a minimum ¾ inch thick top skin or a minimum $^7/_{16}$ inch thick top skin overlaid with minimum $^7/_{16}$ inch thick finish flooring perpendicular to the panels.
2. Panels spanning 4 feet shall be a minimum of 8 feet long spanning a minimum of two 4 foot spans. No single span conditions shall be permitted.

TABLE 4 — TYPE L PANELS[1]
MAXIMUM ALLOWABLE TRANSVERSE LOADS (psf)

PANEL CORE THICKNESS (inches)	DEFLECTION	PANEL SPAN									
		4 ft	8 ft	10 ft	12 ft	14 ft	16 ft	18 ft	20 ft	22 ft	24 ft
3½	$L/360$	105	45	35	25	15	10	----	----	----	----
	$L/240$	225	70	45	35	25	15	----	----	----	----
	$L/180$	300	90	60	45	35	25	----	----	----	----
5½	$L/360$	255	130	55	40	30	25	20	15	----	----
	$L/240$	290	180	85	60	50	35	30	20	----	----
	$L/180$	290	180	110	80	65	50	40	30	----	----
7¼	$L/360$	255	170	80	65	55	40	30	25	----	----
	$L/240$	290	190	130	100	80	60	50	35	----	----
	$L/180$	290	190	135	115	105	80	60	45	----	----
9¼	$L/360$	285	190	115	100	80	60	45	35	30	30
	$L/240$	325	190	145	135	120	90	70	50	45	40
	$L/180$	325	190	145	135	120	110	90	70	60	55
11¼	$L/360$	325	190	165	140	115	90	75	60	45	35
	$L/240$	325	190	165	155	130	110	95	85	70	55
	$L/180$	325	190	165	155	130	110	95	85	85	70

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

1. Floor panels shall have a minimum ¾ inch thick top skin or a minimum $^7/_{16}$ inch thick top skin overlaid with minimum $^7/_{16}$ inch thick finish flooring perpendicular to the panels.
2. Panels spanning 4 feet shall be a minimum of 8 feet long spanning a minimum of two 4 foot spans. No single span conditions shall be permitted.

TABLE 5 — TYPE S PANELS
MAXIMUM ALLOWABLE AXIAL LOADS (plf)

PANEL CORE THICKNESS (inches)	PANEL SPAN					
	8 ft	10 ft	12 ft	16 ft	20 ft	24 ft
3½	3500	2555	2450	2120	----	----
5½	4250	4040	3375	3920	2815	----
7¼	4915	4325	4475	4195	3495	3065

SI: 1 inch = 25.4 mm, 1 plf = 14.6 N/m

TABLE 6 — TYPE L PANELS
MAXIMUM ALLOWABLE AXIAL LOADS (plf)

PANEL CORE THICKNESS (inches)	PANEL SPAN					
	8 ft	10 ft	12 ft	16 ft	20 ft	24 ft
3½	4725	3905	3095	2620	----	----
5½	5850	5890	4280	4310	2935	----
7¼	6850	6110	5555	5180	4835	4080

SI: 1 inch = 25.4 mm, 1 plf = 14.6 N/m

TABLE 7 — ALL PREMIER WALL PANELS
MAXIMUM ALLOWABLE POINT LOADS (lbs)

	1½ inch Minimum Bearing Width	3 inch Minimum Bearing Width
Standard Detail	2040	2450
Additional Cap Plate[1]	4030	4680

SI: 1 inch = 25.4 mm, 1 lb. = 4.45 N

1. See Figure 4 of this report.

FIGURE 4 — PREMIER CAP PLATE

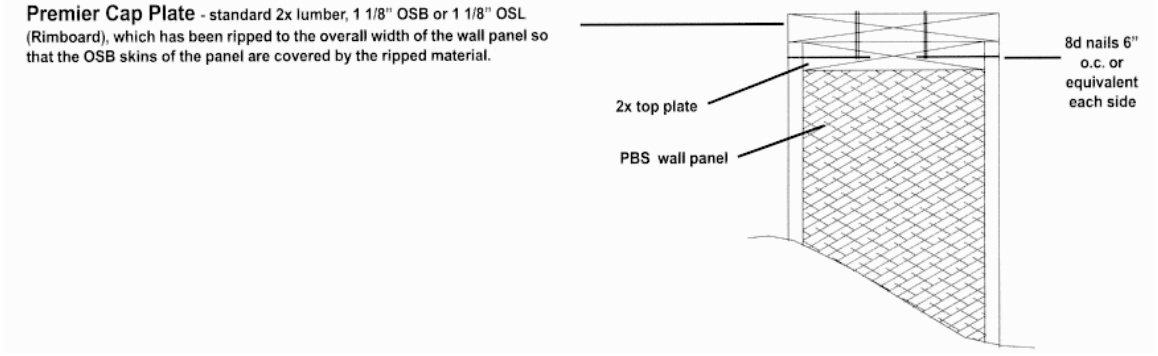


TABLE 8 — MAXIMUM ALLOWABLE HEADER LOADS WITHOUT SPLINES (plf)

HEADER DEPTH (inches)	DEFLECTION	HEADER SPAN			
		4 ft	6 ft	8 ft	10 ft
12	$L/360$	740	385	230	140
	$L/240$	740	385	230	140
	$L/180$	740	385	230	140
18	$L/360$	795	575	385	310
	$L/240$	795	575	385	310
	$L/180$	795	575	385	310
24	$L/360$	885	630	430	360
	$L/240$	885	630	430	360
	$L/180$	885	630	430	360

SI: 1 inch = 25.4 mm, 1 plf = 14.6 N/m

TABLE 9 — MAXIMUM ALLOWABLE HEADER LOADS WITH SPLINES (plf)

HEADER DEPTH (inches)	DEFLECTION	HEADER SPAN			
		4 ft	6 ft	8 ft	10 ft
12	$L/360$	345	245	155	100
	$L/240$	450	295	190	125
	$L/180$	630	380	235	155
18	$L/360$	705	390	255	235
	$L/240$	750	480	300	280
	$L/180$	750	480	300	280
24	$L/360$	700	580	370	350
	$L/240$	895	580	370	350
	$L/180$	895	580	370	350

SI: 1 inch = 25.4 mm, 1 plf = 14.6 N/m

TABLE 10A — PREMIER WALL PANELS[1, 2]
MAXIMUM ALLOWABLE SHEAR WALL LOADS

PANEL TYPE	MINIMUM OSB FACE THICKNESS	ATTACHMENTS				SHEAR (plf)
		2x Framing		Splines		
		Fasteners	Spacing	Fasteners	Spacing	
L or S	$7/16$ inch	8d box nail	6 inches	8d nail	6 inches	300
S	$7/16$ inch	8d box nail	4 inches	#6 Screw[3]	4 inches	600[4]

SI: 1 inch = 25.4 mm, 1 plf = 14.6 N/m

1. Framing lumber shall be a minimum of Douglas Fir-Larch having a minimum specific gravity of 0.50.
2. Minimum panel width shall be four feet. The maximum panel height-to-width ratio shall be 3½:1.
3. Screws are #6 x 1¼ inch Type W drywall screws.
4. Two top plates are required.

TABLE 10B — PREMIER WALL PANELS[1, 2]
MAXIMUM ALLOWABLE SHEAR WALL LOADS

PANEL TYPE	MINIMUM OSB FACE THICKNESS	ATTACHMENTS				SHEAR (plf)
		Top Plate	Bottom Plate	Vertical Framing	Splines[6]	
L or S	$^{7}/_{16}$ inch	8d box nail 6 in. o.c.	8d box nail 6 in. o.c.	8d box nail 6 in. o.c. - 2 rows[4]	8d box nail 6 in. o.c.	470[5]
L or S	$^{7}/_{16}$ inch	8d box nail 4 in. o.c. - 2 rows[3]	8d box nail 4 in. o.c.	8d box nail 4 in. o.c. - 2 rows[4]	8d box nail 4 in. o.c.	700[5]
L or S	$^{7}/_{16}$ inch	10d common nail 6 in. o.c. - 2 rows[3]	10d common nail 3 in. o.c.	10d common nail 6 in. o.c. - 2 rows[4]	10d common nail 3 in. o.c. - 2 rows	1010

SI: 1 inch = 25.4 mm, 1 plf = 14.6 N/m

1. Framing lumber shall be a minimum of Douglas Fir-Larch having a minimum specific gravity of 0.50.
2. Panel width shall be four feet. Panel height shall be eight feet. A minimum of two panels is required.
3. A double top plate is required.
4. A double stud or nominal 4x framing member is required.
5. Limited to two panel walls.
6. Splines are $^{7}/_{16}$ inch by 4 inch OSB.

TABLE 11 — PREMIER PANELS[1]
MAXIMUM ALLOWABLE DIAPHRAGM LOADS

MINIMUM OSB FACE THICKNESS	ATTACHMENTS						SHEAR (plf)
	Panel Supports[2]		Panel Joints - Top Only[3]		Panel Joints - Top & Bottom[4]		
	Fasteners	Spacing	Fasteners	Spacing	Fasteners	Spacing	
$^{7}/_{16}$ inch	PBS Screw[5]	12 inches	8d nail	3 inches	8d nail	6 inches	425
$^{7}/_{16}$ inch	PBS Screw[5]	3 inches	8d nail	2 inches	8d nail	4 inches	510

SI: 1 inch = 25.4 mm, 1 plf = 14.6 N/m

1. The maximum panel height-to-width ratio shall be 4½:1.
2. See Figure 5 of this report.
3. See Figure 6 of this report.
4. See Figure 7 of this report.
5. Premier Building Systems specially designed “Big Blue” screws.

FIGURE 5

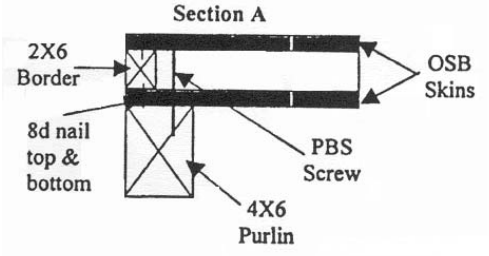


FIGURE 6

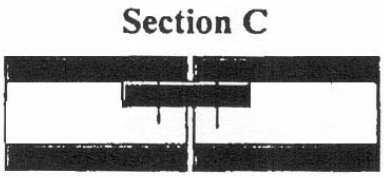


FIGURE 7