

**RoyOMartin WINDBRACE OSB for Combined Shear
and Wind Uplift
Martco, L.L.C.**

PR-N137

Issued July 31, 2018

Product: RoyOMartin WINDBRACE OSB Sheathing for Combined Shear and Wind Uplift
RoyOMartin, P.O. Box 1110, Alexandria, LA 71309
(800) 299-5174
www.royomartin.com

1. Basis of the product report:
 - 2018 and 2015 International Building Code (IBC): Sections 2304.1.5 Wood structural panels and 2305 General Design Requirements for Lateral-Force-Resisting Systems
 - 2012 and 2009 IBC: Sections 2303.1.4 Wood structural panels and 2305 General Design Requirements for Lateral-Force-Resisting Systems
 - DOC PS 2-10 Performance Standard for Wood-Based Structural-Use Panels
 - 2018 ANSI/AWC Special Design Provisions for Wind and Seismic (SDPWS)
 - 2018 ANSI/AWC Wood Frame Construction Manual (WFCM)
 - APA System Report SR-101, Design for Combined Shear and Uplift from Wind
 - PS2 qualification data
2. Product description:

RoyOMartin 7/16 Performance Category WINDBRACE OSB is an APA Rated Sheathing meeting a Span Rating of 24/16 in accordance with PS 2, and is made with strands of southern pine in accordance with the in-plant manufacturing standard approved by APA. The scope of this report covers 7/16 Performance Category RoyOMartin WINDBRACE OSB sheathing manufactured in typical 4 feet in width by 97-1/8, 109-1/8, 121-1/8, and 145-1/8 inches in length.
3. Design properties:

Nominal unit shear capacities for shear walls using RoyOMartin 7/16 Performance Category WINDBRACE OSB sheathing shall be in accordance with Table 4.3A of the 2015 SDPWS. The unit shear capacities for shear walls using RoyOMartin 7/16 Performance Category WINDBRACE OSB sheathing applied over 1/2-inch or 5/8-inch gypsum wallboard or gypsum sheathing board shall be in accordance with Table 4.3B of the 2015 SDPWS.

RoyOMartin 7/16 Performance Category WINDBRACE OSB shall be permitted for use to resist combined shear and wind uplift in accordance with Section 4.4, and Tables 4.4.1, 4.4.1.6, and 4.4.2 of the 2015 SDPWS, Section 3.2.3 and Table 3.4B of the 2018 WFCM, or APA System Report SR-101.
4. Product installation:

RoyOMartin 7/16 Performance Category WINDBRACE OSB shall be installed in accordance with recommendations provided by the manufacturer and APA Design & Construction Guide: *Engineered Wood Construction Guide*, Form E30 (www.apawood.org/resource-library). The maximum span shall be in accordance with the Span Rating shown in the trademark. When used in combined shear and wind uplift, RoyOMartin 7/16 Performance Category WINDBRACE OSB shall be installed in accordance with Figures 4F through 4I of the 2015 SDPWS or Figures 1 through 6 of this report.
5. Fire-resistant construction:

Wood structural panels that are not fire-treated have been shown to meet a Class III (or C) category for flame spread. Where otherwise specified, fire-resistant construction shall be in

accordance with the recommendations for 7/16 Performance Category wood structural panels in APA Product Guide: *Fire-Rated Systems*, Form W305 (www.apawood.org/resource-library).

6. Limitations:

- a) RoyOMartin 7/16 Performance Category WINDBRACE OSB sheathing recognized in this report is limited to dry service conditions where the average equilibrium moisture content of sawn lumber is less than 16 percent.
- b) RoyOMartin 7/16 Performance Category WINDBRACE OSB sheathing shall be permitted for use as wall sheathing to resist lateral shear when designed in accordance with SDPWS.
- c) RoyOMartin 7/16 Performance Category WINDBRACE OSB sheathing shall be permitted for use as wall sheathing to resist combined shear and wind uplift when designed in accordance with SDPWS, WFCM, or APA System Report SR-101.
- d) RoyOMartin 7/16 Performance Category WINDBRACE OSB is produced at RoyOMartin facilities at Oakdale, LA, and Corrigan, TX under a quality assurance program audited by APA.
- e) This report is subject to re-examination in one year.

7. Identification:

RoyOMartin 7/16 Performance Category WINDBRACE OSB described in this report is identified by a label bearing the manufacturer's name (RoyOMartin/Martco) and/or trademark, the APA assigned plant number (511 for Oakdale, LA or 551 for Corrigan, TX), the product thickness, the Span Rating, the Exposure Rating, the APA logo, the report number PR-N137, and a means of identifying the date of manufacture.

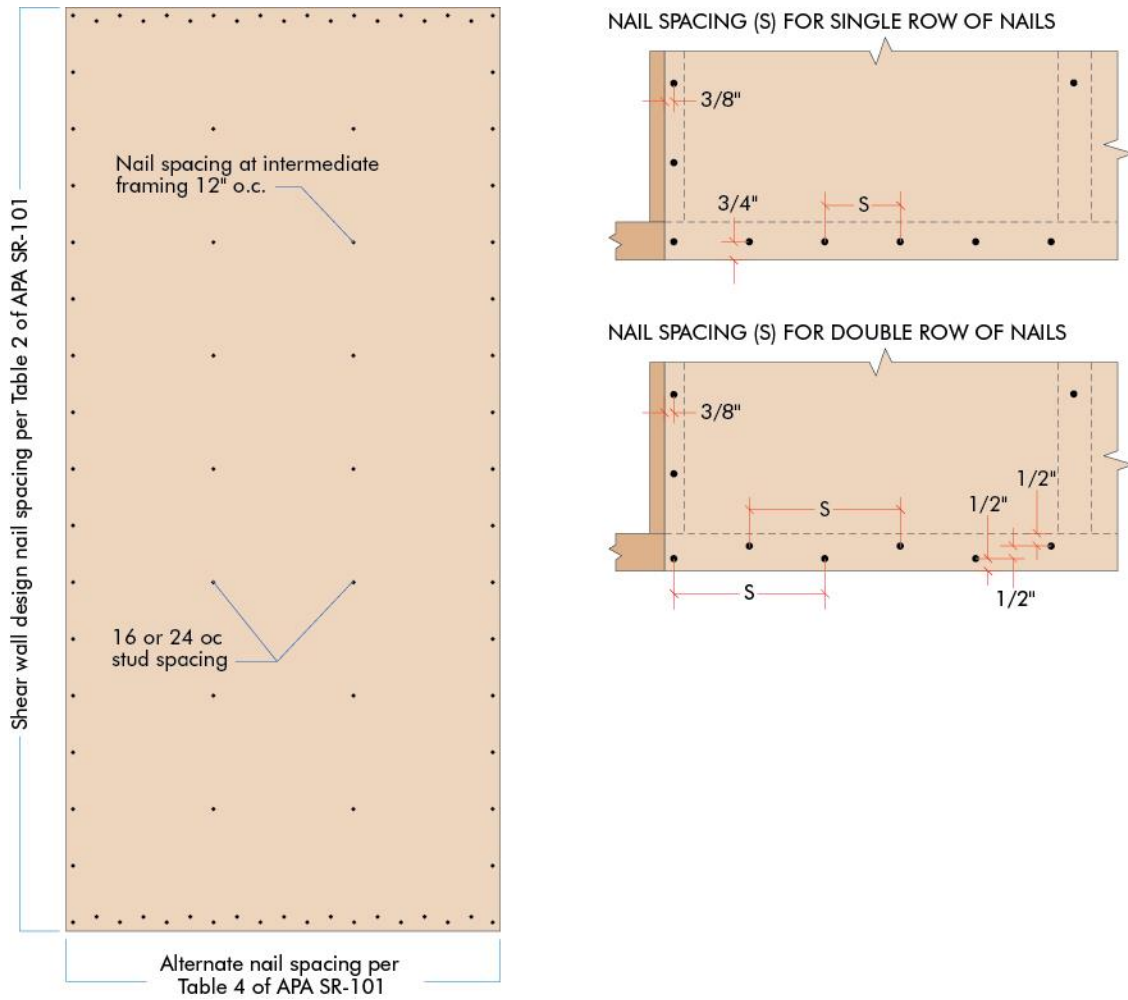


Figure 1. Panel attachment for shear and wind uplift

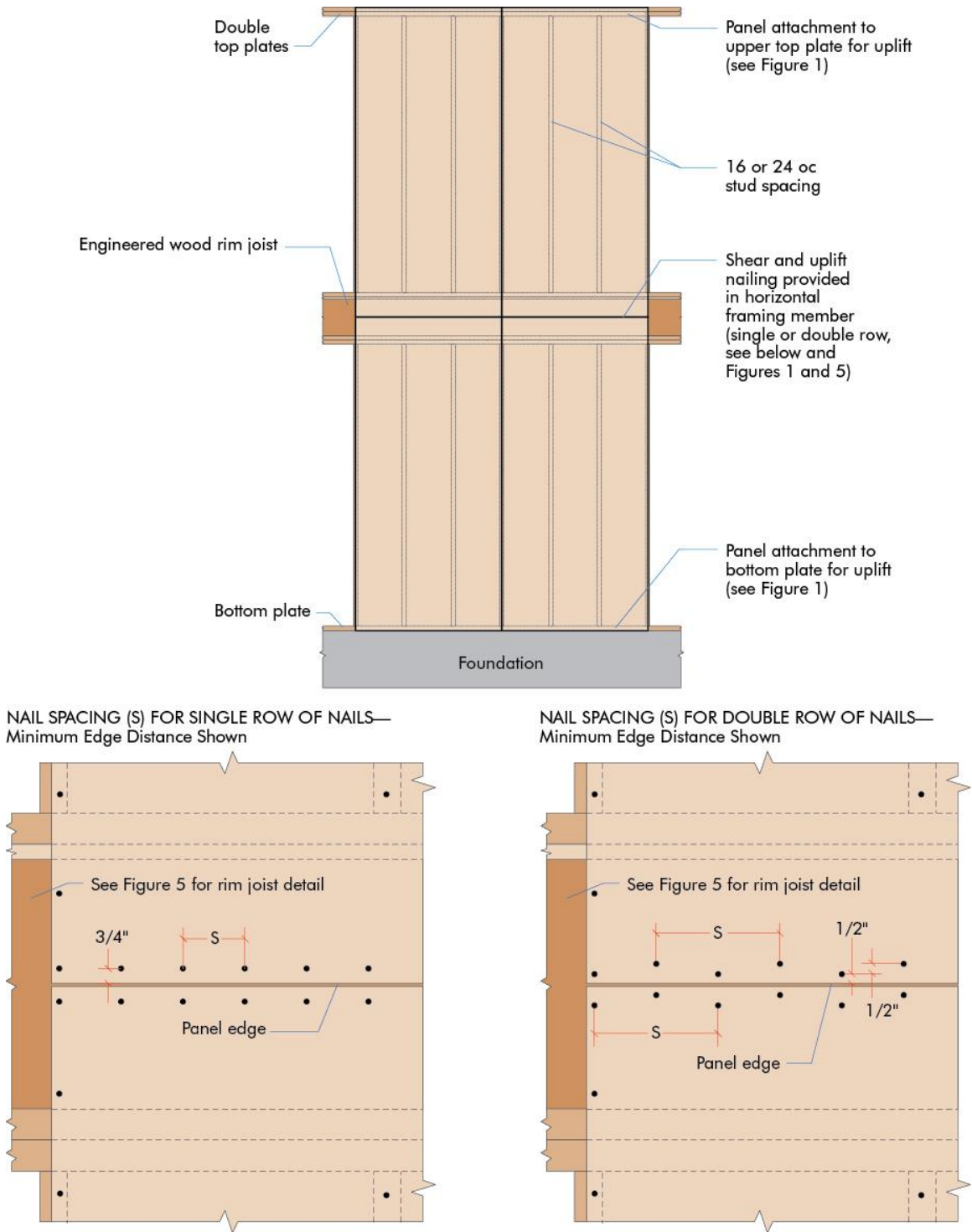


Figure 2. Panel attachment for shear and uplift at rim joist

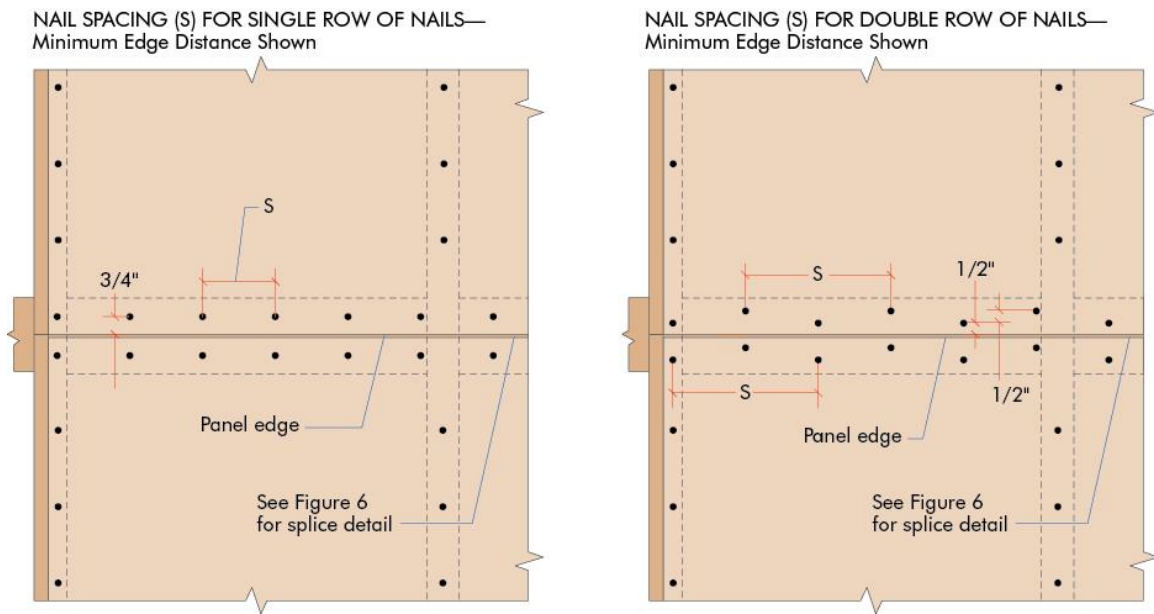
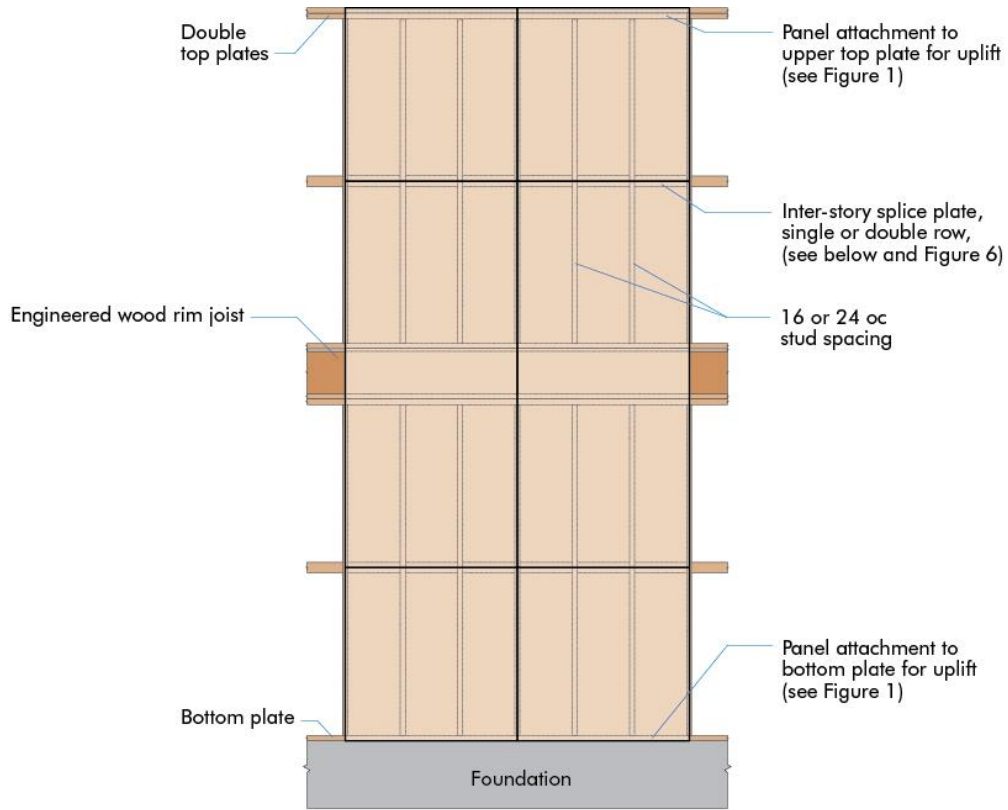


Figure 3. Panel attachment for shear and uplift at inter-story splice plate

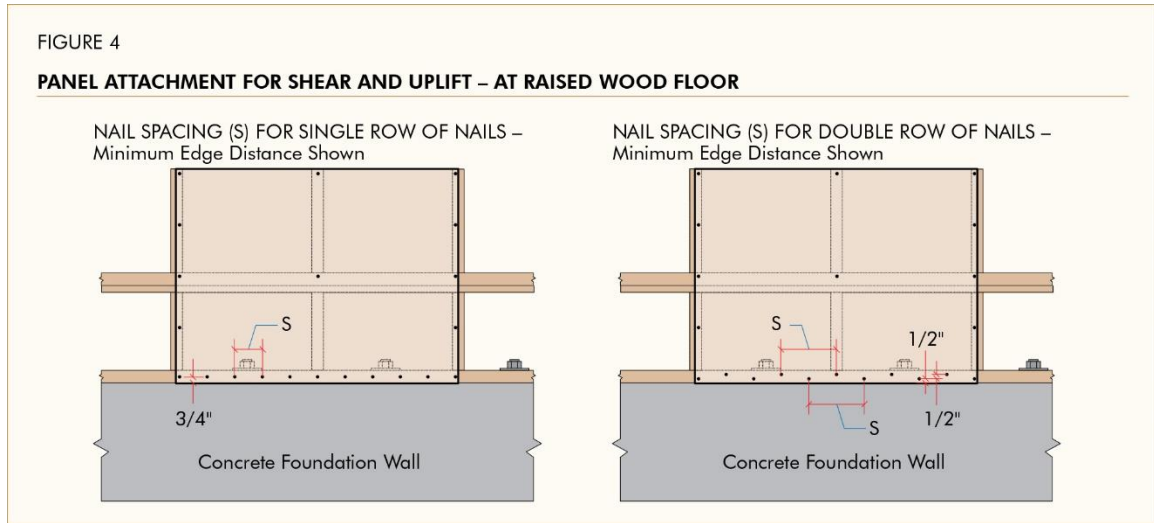
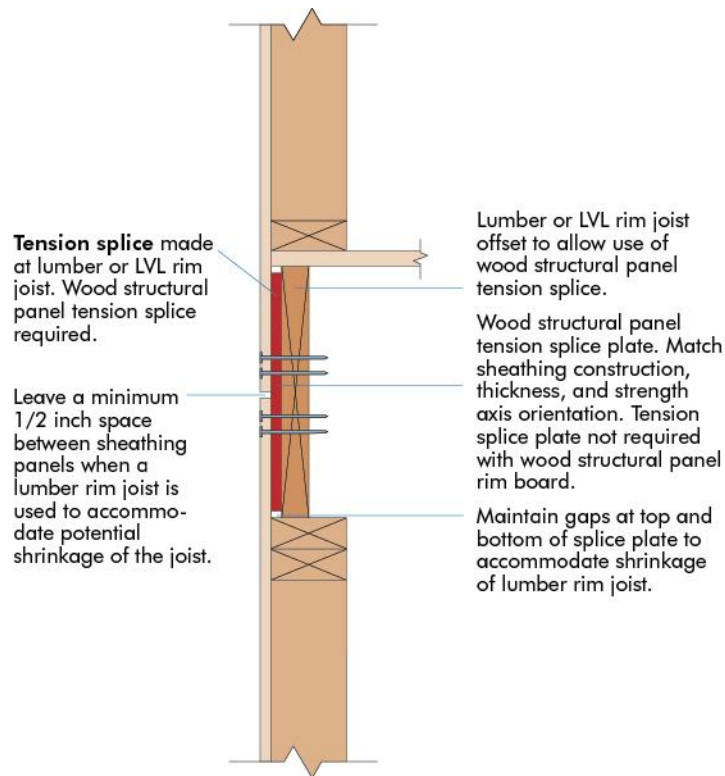


Figure 4. Panel attachment for shear and uplift at raised wood floor



Note: Only the uplift nailing at the splice is shown for clarity. A complete load path may include additional nails in the panel tension splice plate's upper and lower half and additional nails for shear transfer. Number of nails shown is for example only. Actual number required will depend on design uplift, panel thickness (Performance Category), nail size, dead-load weight of overlying structure and lumber species.

Figure 5. Tension splice

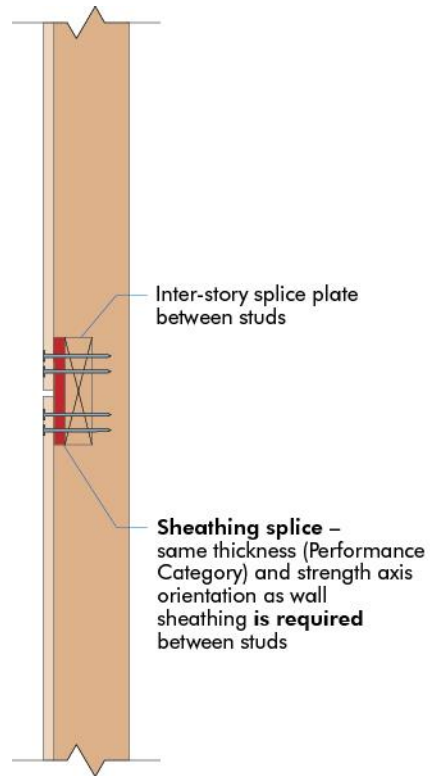


Figure 6. Sheathing/siding shear and uplift splice between plates

APA – The Engineered Wood Association is an approved national standards developer accredited by American National Standards Institute (ANSI). APA publishes ANSI standards and Voluntary Product Standards for wood structural panels and engineered wood products. APA is an accredited certification body under ISO/IEC 17065 by Standards Council of Canada (SCC), an accredited inspection agency under ISO/IEC 17020 by International Code Council (ICC) International Accreditation Service (IAS), and an accredited testing organization under ISO/IEC 17025 by IAS. APA is also an approved Product Certification Agency, Testing Laboratory, Quality Assurance Entity, and Validation Entity by the State of Florida, and an approved testing laboratory by City of Los Angeles.

**APA – THE ENGINEERED WOOD ASSOCIATION
HEADQUARTERS**

7011 So. 19th St. ▪ Tacoma, Washington 98466
Phone: (253) 565-6600 ▪ Fax: (253) 565-7265 ▪ Internet Address: www.apawood.org

PRODUCT SUPPORT HELP DESK
(253) 620-7400 ▪ *E-mail Address:* help@apawood.org

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