

**DO KIM & ASSOCIATES, LLC**  
**CONSULTING STRUCTURAL ENGINEERS**

Florida Board of Engineers Certificate of Authorization No. 26887

**Product Evaluation Report**

Date: August 14, 2026

Florida Product Approval: **#FL 9190-R13**

Product Category: Panel Walls

Product sub-category: Siding

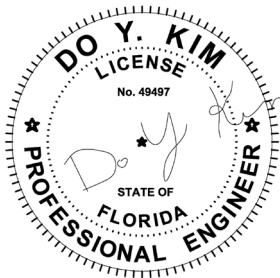
Product Name: LP® SmartSide® Siding

Manufacturer: LP Building Solutions  
1610 West End Ave, Suite 200  
Nashville, TN 37203  
(888) 820-0325

**Scope:**

This product evaluation report issued by Do Kim & Associates, LLC and Do Kim, P.E. for LP Building Solutions is based on Florida Department of Business and Professional Regulation Rule 61G20-3 Method (2) (b) of the State of Florida Product Approval. Re-evaluation of this product shall be required following pertinent Florida Building Code modifications or updates.

Do Kim & Associates, LLC and Do Kim, P.E. do not have nor will acquire financial interest in the company manufacturing or distributing the product or in any other entity involved in the approval process of the product named herein. This product has been evaluated for use in locations adhering to the Florida Building Code 9th Edition (FBC).



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Kim

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Do Kim, P.E.  
FL #49497

## **Supporting Documents**

1. Drawings and Reports:
  - a. Application Instructions, LP® SmartSide® Siding.
  - b. APA-The Engineered Wood Association Product Report PR-N124, Revised July 2, 2026.
  - c. Joint Evaluation Report ESR-1301, ICC Evaluation Service, LLC, ICC-ES, 800-423-6587, 562-699-0543, [www.icc-es.org](http://www.icc-es.org) and APA Product Report, APA-The Engineered Wood Association, Tacoma, WA, Reissued February 2026.
  - d. LP® Building Solutions Technical Note No.014, Installing LP SmartSide® Trim and Lap Siding on Concrete or Masonry Walls over Furring Strips.
2. Testing
  - a. Approved test lab: Architectural Testing, Inc., 130 Derry Court, York, PA 17406. Test reports referenced:
    - i. Report No. 79279.01-122-18 (01/07/08)
      1. Testing per Miami-Dade County Checklist #0475 For the Approval of: Durability of Wood-base Structural Composite Lumber and Panels
      2. ASTM D4761-02 Standard Test Methods for Mechanical Properties of Lumber and Wood-Based Structural Material.
      3. ASTM D1761-06 Standard Test Methods for Mechanical Fasteners in Wood.
    - ii. Report No. 78294.01-401-18 (12/03/07)
      1. TAS 202-94, Criteria for Testing Impact and Non-Impact Resistant Building Envelope Components Using Uniform Static Air Pressure Loading. Design Pressure @ +/-57.6 psf.
      2. TAS 203-94, Criteria for Testing Products Subject to Cyclic Wind Pressure Loading. Design Pressure @ +/-57.6 psf.
3. Calculations
  - a. Standards referenced:
    - i. ASCE 7-22, Chapter 30, Wind Loads: Components and Cladding.
      1. Calculations are based on Enclosed Building condition and assumed design parameters in PR-N124. Design wind speed and exposure information in the PR-N124 tables are consistent with calculations of ASCE 7-22.
    - ii. ICC Evaluation Service, Inc. Acceptance Criteria for Treated-Engineered-Wood Siding, AC321 (2026).
4. LP® SmartSide® Model Product Names
  - a. LP® SmartSide® is a primed siding product.
  - b. LP® SmartSide® ExpertFinish® is a prefinished siding product.
  - c. Lap, Nickel Gap, Shake, and Panel Siding:
    - i. 38 and 76 Series Lap Siding. 38, 76, 190 Series Primed Panel Siding including SilverTech® & SmartFinish®.
    - ii. Nickel Gap, Lap Siding
    - iii. 38 Series, Shake, Lap Siding
    - iv. 38 Series, Vertical Siding

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5. Application Instructions
  - a. Strand Substrate Models:
    - i. Installation fastening requirements as outlined in the APA PR-N124 and Joint Evaluation Report ESR-1301 documents have been reviewed and evaluated by Do Kim, P.E. based on comparative and/or rational analysis and has been determined to be in accordance to accepted engineering practice. Installation loads per APA PR-N124 and Joint Evaluation Report ESR-1301 shall be the minimum design pressures as determined in accordance with the FBC 9<sup>th</sup> Edition (FBC).
    - ii. For maximum design pressures, see product report (APA PR-N124) for various fastener types and substrates.
    - iii. When stainless steel nails are required under Section 1711, embedment lengths in PR-N124 shall be increased by a factor of 1.3 or as approved by a licensed design professional.
6. Applicable FBC Sections
  - a. Chapter 14 Exterior Walls
    - i. Section 1404.1 General
    - ii. Section 1405.2 Weather Protection
    - iii. Section 1405.5 Wood Veneers
    - iv. Section 1405.17 Fastening
  - b. Chapter 16 Structural Design
    - i. Section 1604.3.1 Deflections
    - ii. Section 1609.1 Applications
    - iii. Section 1616.3.1 HVHZ Allowable Deflections
  - c. Chapter 17 Special Inspections and Tests
    - i. Section 1711 Corrosion Resistance-Saltwater Environments
      1. Section 1711.1 Fasteners and connectors exposed to saltwater environments.
      2. Table 1711.1-CORROSION RESISTANCE OF FASTENERS AND CONNECTORS
  - d. Chapter 23 Wood
    - i. Section 2304.6 Exterior Wall Sheathing
    - ii. Section 2304.6.1 Wood Structural Panel Sheathing
    - iii. Section 2315.1.11
7. Other
  - a. Quality Assurance of LP® SmartSide® products by APA - The Engineered Wood Association (FBC Organization #QUA2521) that manufacturer is within a quality assurance program for this product under Rule 61G20-3.

### **Limitations and Condition of Use**

1. This product has been designed and tested in accordance to the Florida Building Code 9<sup>th</sup> Edition (FBC).
2. No missile impact resistance testing has been conducted.
3. Each product listed above shall be installed in strict compliance with its respective Product Evaluation Document along with all components noted herein.
4. Application instructions in PR-N124 and ESR-1301 are based on enclosed building condition for wind design pressure.
5. Use of each product shall be in strict accordance with its Product Approval Evaluation Documents.
6. Fasteners shall meet or exceed the Corrosion Resistance requirements of Section 1711 and Table 1711.1.
7. 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 in APA Product Guide: Fire-Rated Systems, Form W305.
8. Deflection limits and allowable spans per Product Approval Evaluation Documents are in accordance to L/120 in non-HVHZ per Chapter 16 Table 1604.3 deflection limits. Deflection limits and allowable spans per Product Approval Evaluation Documents are in accordance to L/180 in HVHZ per Chapter 16 Section 1616.3.1 deflection limits.
9. All supporting host structures shall be designed to resist all superimposed loads.
10. All components which are permanently installed shall be protected against corrosion, contamination, and other such damage.

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# PRODUCT REPORT<sup>®</sup>

**LP<sup>®</sup> SmartSide<sup>®</sup> and LP<sup>®</sup> SmartSide<sup>®</sup> ExpertFinish<sup>®</sup>  
Treated-Engineered-Wood Lap, Panel, Shake Lap,  
Nickel Gap Lap, and Vertical Siding  
Louisiana-Pacific Corporation**

**PR-N124**

Revised July 2, 2026

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Product: LP<sup>®</sup> SmartSide<sup>®</sup> and LP<sup>®</sup> SmartSide<sup>®</sup> ExpertFinish<sup>®</sup> Treated-Engineered-Wood Lap,  
Panel, Shake Lap, Nickel Gap Lap, and Vertical Siding  
Louisiana-Pacific Corporation, 1610 West End Ave, Suite 200, Nashville, TN 37203  
(888) 820-0325  
[www.lpcorp.com](http://www.lpcorp.com)

1. Basis of the product report:
  - 2024 International Building Code (IBC): Section 104.2.3 Alternative materials
  - 2021, 2018, and 2015 International Building Code (IBC): Section 104.11 Alternative materials
  - 2024 International Residential Code (IRC): Section R104.2.2 Alternative materials
  - 2021, 2018, and 2015 International Residential Code (IRC): Section R104.11 Alternative materials
  - 2021 and 2015, and 2008 ANSI/AWC Special Design Provisions for Wind and Seismic (SDPWS) recognized in the 2024 and 2021, and 2018 and 2015 IBC, respectively.
  - ASCE 7-22, ASCE 7-16 and ASCE 7-10 Minimum Design Loads for Buildings and Other Structures recognized in the 2024 IBC and IRC, 2021 and 2018 IBC and IRC, and 2015 IBC and IRC, respectively
  - APA PRP-108 Performance Standards and Qualification Policy for Structural-Use Panels
  - NES Evaluation Protocol for Determination of Flood-Resistance Properties of Building Elements
  - APA Reports R&D 87Q-1, T87Q-45, T91Q-11, T91Q-20, T97Q-4, T97Q-10, T98Q-13, T98Q-17, T99Q-23, T2008Q-12, T2008P-73, T2008P-74, T2009Q-54, T2011Q-59, T2012P-22, T2015Q-38, T2015Q-39, T2017P-03, T2017P-05, T2018P-05, T2022Q-25, T2023Q-30, and T2026Q-18, and other qualification data
2. Product description:

Louisiana-Pacific Corporation (LP<sup>®</sup>) SmartSide<sup>®</sup> and LP<sup>®</sup> SmartSide<sup>®</sup> ExpertFinish<sup>®</sup> Treated-Engineered-Wood Lap, Panel, Shake Lap, Nickel Gap Lap, and Vertical Siding is overlaid with a resin-treated paper and is available with either a smooth or embossed surface texture. The siding is treated with Zinc Borate for decay and insect resistance. The efficacy of the preservative treatment of the LP SmartSide and ExpertFinish Treated-Engineered-Wood Lap, Panel, Shake Lap, Nickel Gap Lap, and Vertical Siding is outside the scope of this report and the APA certification program. All edges are factory-sealed with a primer.

LP SmartSide and LP SmartSide ExpertFinish Lap Siding is available in 3/8 and 7/16 Performance Categories, in nominal widths of 5, 6, 7, 8, 9-1/2, and 12 inches and in lengths up to 16 feet. **The Lap Siding may be installed horizontally or vertically.**

LP SmartSide and LP SmartSide ExpertFinish Panel Siding is available in 3/8, 7/16, and 19/32 Performance Categories, 4 feet in width, and up to 18 feet in length. The 3/8 Performance Category panels are available without grooves or with grooves spaced 8 inches on center. The 7/16 and 19/32 Performance Category panels are available without grooves or with grooves spaced either 4 or 8 inches on center. Minimum thicknesses at the groove and shiplap are documented in the plant Quality Manual.

LP SmartSide and LP SmartSide ExpertFinish Shake Lap Siding includes shiplap ends, which results in a seamless appearance when installed, and is available in 3/8 Performance Category with a nominal width of 8 and 12 inches and in lengths up to 4 feet. **The Shake Lap Siding can only be installed horizontally.**

LP SmartSide and LP SmartSide ExpertFinish Nickel Gap Lap Siding includes shiplap edges, which results in a flat siding profile when installed, and is available in 1/2 Performance Category with a nominal width of 8 inches and in lengths up to 16 feet. **The Nickel Gap Lap Siding may be installed horizontally or vertically.**

LP SmartSide and LP SmartSide ExpertFinish Vertical Siding is a narrow-width panel siding and is available in 3/8 Performance Category, nominal width of 16 inches, and in 16-foot lengths. **The Vertical Siding can only be installed vertically.**

3. Design properties:

Allowable racking shear values for LP SmartSide and LP SmartSide ExpertFinish Panel Siding are listed in Table 1. For 3/8 Performance Category panels nailed at shiplap edges, use 5/16 Performance Category shear values. For 7/16 and 19/32 Performance Category panel sidings nailed at shiplap edges, use 3/8 Performance Category shear values. Design wind loads for LP SmartSide and LP SmartSide ExpertFinish Lap and Panel Siding are listed in Tables 2 and 3, respectively. Design wind loads for LP SmartSide and LP SmartSide ExpertFinish Lap and Panel Siding when installed over the facer of structural insulated panels (SIPs) and wood structural panel (WSP) sheathing are listed in Tables 4 and 5, respectively. Design wind loads for LP SmartSide and LP SmartSide ExpertFinish Vertical Siding and Lap Siding applied vertically are listed in Table 6.

4. Product installation:

LP SmartSide and LP SmartSide ExpertFinish Treated-Engineered-Wood Lap, Panel, Shake Lap, Nickel Gap Lap, and Vertical Siding shall be installed in accordance with recommendations provided by the manufacturer ([www.lpcorp.com/products/siding-trim](http://www.lpcorp.com/products/siding-trim)) and *APA Engineered Wood Construction Guide*, Form E30 ([www.apawood.org/resource-library](http://www.apawood.org/resource-library)), as applicable. The maximum span shall be in accordance with the Span Rating shown in the trademark. The LP SmartSide and LP SmartSide ExpertFinish Lap, Nickel Gap Lap, and Panel Siding shall be permitted to be installed over the facer of structural insulated panels (SIPs) and WSP sheathing in accordance with Tables 4 and 5, respectively.

LP SmartSide and LP SmartSide ExpertFinish Lap and Nickel Gap Lap Siding, when installed vertically, shall be installed over a minimum 7/16 Performance Category wood structural panel sheathing meeting DOC PS 1 or DOC PS 2 requirements, and shall be covered by a batten at the siding joint or shall be overlapped with another Vertical Lap Siding in accordance with the recommendations provided by the manufacturer (see link above). Lap Siding installed vertically can only span one floor plate-to-plate. Each vertical application shall not span beyond one floor to ceiling distance, or one floor to top of gable distance.

LP SmartSide and LP SmartSide ExpertFinish Vertical Siding shall be installed over a minimum 7/16 Performance Category wood structural sheathing meeting DOC PS 1 or DOC PS 2 requirements and shall be covered by a batten at the panel joint in accordance with the recommendations provided by the manufacturer (see link above). Vertical Siding can only span one floor plate-to-plate. Each vertical application shall not span beyond one floor to ceiling distance, or one floor to top of gable distance.

5. Fire-resistant construction:

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

be in accordance with the recommendations in APA *Fire-Rated Systems*, Form W305 (see link above).

6. Flood resistance evaluation:  
Selected properties critical to flood resistance of 3/8 and 7/16 Performance Category panel siding, including uniform loads, concentrated static loads, concentrated hard body and soft body impact loads, fastener performance, wall racking resistance, edge thickness swell, linear expansion, hygroscopicity, exterior bond performance and large panel and small specimen bending properties were evaluated at a 16 o.c. Span Rating in accordance with NES Evaluation Protocol for Determination of Flood-Resistance Properties of Building Elements. Test results in the dry (as-received) condition and after moisture cycling in accordance with the NES protocol were compared to the requirements specified in ICC Evaluation Service (ICC-ES) Acceptance Criteria for Treated-Engineered-Wood Siding (AC321).
7. Limitations:
  - a) LP SmartSide and LP SmartSide ExpertFinish Treated-Engineered-Wood Lap, Panel, Shake Lap, Nickel Gap Lap, and Vertical Siding used outdoors must be finished in accordance with recommendations provided by the manufacturer (see link above) and *APA Engineered Wood Construction Guide*, Form E30 (see link above).
  - b) The efficacy of the preservative treatment of the LP SmartSide and LP SmartSide ExpertFinish Treated-Engineered-Wood Lap, Panel, Shake Lap, Nickel Gap Lap, and Vertical Siding is outside the scope of this report and the APA certification program.
  - c) LP SmartSide and LP SmartSide ExpertFinish Treated-Engineered-Wood panel siding is flood resistant on the properties listed in Section 6. This evaluation applies to 3/8 and 7/16 Performance Category panel siding at a 16 o.c. Span Rating.
  - d) LP SmartSide and LP SmartSide ExpertFinish Treated-Engineered-Wood Lap and Panel Siding is produced at Louisiana-Pacific Corporation facilities at Dawson Creek, BC, Hayward, WI, Houlton, ME, Newberry, MI, Sagola, MI, Swan Valley, MB, Tomahawk, WI, and Two Harbors, MN, and LP SmartSide Treated-Engineered-Wood Vertical Siding is produced at Louisiana-Pacific Corporation facility at Tomahawk, WI, under a quality assurance program audited by APA.
  - e) This report is subject to re-examination in one year.
8. Identification:  
LP SmartSide and LP SmartSide ExpertFinish Treated-Engineered-Wood Lap, Panel, Shake Lap, Nickel Gap Lap, and Vertical Siding described in this report are identified by a label bearing the manufacturer's name (Louisiana-Pacific Corporation) and/or trademark, the APA assigned plant number (402 for the Dawson Creek, BC plant, 357 for the Hayward, WI plant, 368 for the Houlton, ME plant, 416 for the Newberry, MI plant, 407 for the Sagola, MI plant, 457 for the Swan Valley, MB plant, 435 for the Tomahawk, WI plant, or 399 for the Two Harbors, MN plant), the product Performance Category, the Span Rating, the Exposure Rating, the APA logo, the report number PR-N124, and a means of identifying the date of manufacture.

Table 1. Allowable Racking Shear (plf) for LP SmartSide and LP SmartSide ExpertFinish Treated-Engineered-Wood Panel Siding Shear Walls with Framing of Douglas-Fir-Larch or Southern Pine for Wind or Seismic Loading<sup>(1,2,3)</sup>

| Performance Category  | Min. Nail Penetration in Framing (inches) | Panels Applied Directly to Framing                    |                                      |     |                    |                  | Panels Applied Over Max. 5/8-inch Gypsum Sheathing    |                                      |     |                    |                  |
|-----------------------|-------------------------------------------|-------------------------------------------------------|--------------------------------------|-----|--------------------|------------------|-------------------------------------------------------|--------------------------------------|-----|--------------------|------------------|
|                       |                                           | Nail Size (common or galvanized box) <sup>(7,8)</sup> | Nail Spacing at Panel Edges (inches) |     |                    |                  | Nail Size (common or galvanized box) <sup>(7,8)</sup> | Nail Spacing at Panel Edges (inches) |     |                    |                  |
|                       |                                           |                                                       | 6                                    | 4   | 3                  | 2 <sup>(4)</sup> |                                                       | 6                                    | 4   | 3                  | 2 <sup>(4)</sup> |
| 5/16 <sup>(5,6)</sup> | 1-1/4                                     | 6d                                                    | 180                                  | 270 | 350                | 450              | 8d                                                    | 180                                  | 270 | 350                | 450              |
| 3/8 <sup>(5,6)</sup>  |                                           |                                                       | 200                                  | 300 | 390                | 510              |                                                       | 200                                  | 300 | 390                | 510              |
| 3/8 <sup>(5,6)</sup>  | 1-1/2                                     | 8d                                                    | 220                                  | 320 | 410                | 530              | 10d                                                   | 260                                  | 380 | 490 <sup>(4)</sup> | 640              |
| 7/16 <sup>(5)</sup>   |                                           |                                                       | 240                                  | 350 | 450                | 585              |                                                       | 260                                  | 380 | 490 <sup>(4)</sup> | 640              |
| 19/32 <sup>(5)</sup>  | 1-5/8                                     | 10d                                                   | 340                                  | 510 | 665 <sup>(4)</sup> | 870              | -                                                     | -                                    | -   | -                  | -                |

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

- <sup>(1)</sup> For framing of other species: (a) find specific gravity for species of lumber in the National Design Specification for Wood Construction (NDS); (b) find shear value from table for nails size; (c) multiply value by 0.82 for species with specific gravity greater than or equal to 0.42 but less than 0.49, or 0.65 for species with specific gravity less than 0.42.
- <sup>(2)</sup> All panel edges must be backed with 2-inch nominal or wider framing. Panels must be installed with the long dimension oriented in the vertical direction. Space nails 12 inches o.c. on intermediate supports.
- <sup>(3)</sup> For shear loads of normal or permanent load duration, the values in the table shall be multiplied by 0.63 or 0.56, respectively. For wind load applications, the values in the table shall be permitted to be multiplied by 1.4.
- <sup>(4)</sup> Framing at panel edges must be 3 inches nominal or wider and nails must be staggered where nails are spaced 2 inches o.c., and where 10d nails having penetration into framing of more than 1-5/8 inches are spaced 3 inches or less, o.c. **Exception:** Unless otherwise required, 2-inch nominal framing may be used where full nailing surface is available and nails are staggered.
- <sup>(5)</sup> Except as noted in Footnote 7, panel thickness at point of nailing at panel edges determines applicable shear values, except that 3/8 Performance Category panels nailed at shiplap edges use 5/16 Performance Category shear values, and 7/16 and 19/32 Performance Category panel sidings nailed at shiplap edges use 3/8 Performance Category shear values.
- <sup>(6)</sup> Shiplap edges must be double-nailed; one nail must be placed in the underlap and a second nail must be placed in the full panel thickness at the nail spacing specified for the applicable shear value. Follow manufacturer's recommendations.
- <sup>(7)</sup> Fasteners must not be installed in panel siding grooves in the field of the panel siding or when the panel siding grooves occur at cut edges of the panel siding.
- <sup>(8)</sup> Fastener dimensions are as specified in ASTM F1667.

Table 2a. **Maximum  $V_{ult}$  or  $V^{(1)}$**  for Lap Siding Installed Horizontally with 0.113" Nails<sup>(2)</sup>

| Performance Category | Max. Stud Spacing <sup>(3)</sup> (inches) | Siding Width (inches) | Max. Ultimate Wind Pressure (psf) | Maximum $V_{ult}$ or $V^{(4)}$ (mph) |     |     |
|----------------------|-------------------------------------------|-----------------------|-----------------------------------|--------------------------------------|-----|-----|
|                      |                                           |                       |                                   | Wind Exposure Category               |     |     |
|                      |                                           |                       |                                   | B                                    | C   | D   |
| 3/8 and 7/16         | 16                                        | 5, 6, 7               | 133                               | 200 <sup>(5)</sup>                   | 180 | 180 |
|                      |                                           | 8                     | 122                               | 200 <sup>(5)</sup>                   | 180 | 170 |
|                      |                                           | 9.5                   | 101                               | 200 <sup>(5)</sup>                   | 170 | 150 |
|                      |                                           | 12                    | 78                                | 170                                  | 150 | 130 |
| 7/16                 | 24                                        | 6                     | 114                               | 200 <sup>(5)</sup>                   | 180 | 160 |
|                      |                                           | 7                     | 95                                | 180                                  | 160 | 150 |
|                      |                                           | 8                     | 81                                | 180                                  | 150 | 140 |
|                      |                                           | 9.5                   | 67                                | 160                                  | 140 | 120 |
| 1/2 Nickel Gap       | 16                                        | 8                     | 107                               | 200 <sup>(5)</sup>                   | 170 | 160 |
|                      | 24                                        |                       | 71                                | 170                                  | 140 | 130 |
|                      |                                           |                       |                                   |                                      |     |     |

For **SI**: 1 inch = 25.4 mm, 1 psf = 47.88 Pa, 1 mph = 0.447 m/s.

- (1) For 3/8 and 7/16 performance category lap siding, one fastener for each stud located 3/4 inch from the top edge of the siding. Each successive course of lap siding must overlap a minimum of 1 inch. For Nickel Gap Lap, one fastener for each stud located in center of fastener groove in accordance with the manufacturer's recommendation. Fasteners shall be a hot-dip galvanized plain (smooth) shank nail, with a minimum shank diameter of 0.113 inch, and long enough to penetrate structural framing or wood structural panels and structural framing a minimum of 2 inches. **Lap siding is not a bracing material.**
- (2) Fasteners shall be permitted to be substituted on a one-for-one basis if the fastener has a minimum overall allowable withdrawal capacity and allowable fastener head pull-through capacity of 57 lbf/fastener or greater based on the load duration factor of 1.6. The fastener shall meet or exceed the corrosion-resistance of hot-dip galvanized steel wire nails meeting the requirements of ASTM A153, Class D.
- (3) Wall studs must have a minimum specific gravity of 0.42.
- (4) Three-second-gust; based on wind pressures acting toward and away from building surfaces, at 30-ft height in Zone 5 with the smallest effective area in accordance with Chapter 26 of ASCE 7-22, ASCE 7-16, and ASCE 7-10, Section R301.2.1 of the 2024 through 2015 IRC, and Section 1609.1.1 of the 2024 through 2015 IBC.
- (5) Table R301.2.1(1) of the 2024 and 2021 IRC and Table R301.2(2) of the 2018 and 2015 IRC are limited to a maximum ultimate design wind speed,  $V_{ult}$ , of 180 mph.

Table 2b. **Maximum  $V_{ult}$  or  $V^{(1)}$**  for Lap Siding Installed Horizontally with 0.092" Nails<sup>(2)</sup>

| Performance Category | Max. Stud Spacing <sup>(3)</sup> (inches) | Siding Width (inches) | Max. Ultimate Wind Pressure (psf) | Maximum $V_{ult}$ or $V^{(4)}$ (mph) |     |     |
|----------------------|-------------------------------------------|-----------------------|-----------------------------------|--------------------------------------|-----|-----|
|                      |                                           |                       |                                   | Wind Exposure Category               |     |     |
|                      |                                           |                       |                                   | B                                    | C   | D   |
| 3/8 and 7/16         | 16                                        | 5                     | 131                               | 200 <sup>(5)</sup>                   | 180 | 180 |
|                      |                                           | 6                     | 105                               | 200 <sup>(5)</sup>                   | 170 | 160 |
|                      |                                           | 7                     | 87                                | 180                                  | 160 | 140 |
|                      |                                           | 8                     | 75                                | 170                                  | 140 | 130 |
|                      |                                           | 9.5                   | 61                                | 150                                  | 130 | 120 |
|                      |                                           | 12                    | 48                                | 140                                  | 115 | 105 |
| 7/16                 | 24                                        | 6                     | 70                                | 170                                  | 140 | 130 |
|                      |                                           | 7                     | 58                                | 150                                  | 130 | 120 |
|                      |                                           | 8                     | 50                                | 140                                  | 120 | 110 |
|                      |                                           | 9.5                   | 41                                | 130                                  | 110 | -   |
|                      |                                           | 12                    | 32                                | 110                                  | -   | -   |
| 1/2 Nickel Gap       | 16                                        | 8                     | 65                                | 160                                  | 130 | 120 |
|                      | 24                                        |                       | 44                                | 130                                  | 110 | -   |

For **SI**: 1 inch = 25.4 mm, 1 psf = 47.88 Pa, 1 mph = 0.447 m/s.

- (1) For 3/8 and 7/16 performance category lap siding, one fastener for each stud located 3/4 inch from the top edge of the siding. Each successive course of lap siding must overlap a minimum of 1 inch. For Nickel Gap Lap, one fastener for each stud located in center of fastener groove in accordance with the manufacturer's recommendation. Fasteners shall be a hot-dip galvanized plain (smooth) shank nail, with a minimum shank diameter of 0.092 inch, and long enough to penetrate structural framing or wood structural panels and structural framing a minimum of 1.5 inches. **Lap siding is not a bracing material.**
- (2) Fasteners shall be permitted to be substituted on a one-for-one basis if the fastener has a minimum overall allowable withdrawal capacity and allowable fastener head pull-through capacity of 35 lbf/fastener based on the load duration factor of 1.6. The fastener shall meet or exceed the corrosion-resistance of hot-dip galvanized steel wire nails meeting the requirements of ASTM A153, Class D.
- (3) Wall studs must have a minimum specific gravity of 0.42.
- (4) Three-second-gust; based on wind pressures acting toward and away from building surfaces, at 30-ft height in Zone 5 with the smallest effective area in accordance with Chapter 26 of ASCE 7-22, ASCE 7-16, and ASCE 7-10, Section R301.2.1 of the 2024 through 2015 IRC, and Section 1609.1.1 of the 2024 through 2015 IBC.
- (5) Table R301.2.1(1) of the 2024 and 2021 IRC and Table R301.2(2) of the 2018 and 2015 IRC are limited to a maximum ultimate design wind speed,  $V_{ult}$ , of 180 mph.

Table 3a. **Maximum  $V_{ult}$  or  $V^{(1)}$  for Panel Siding Installed Vertically with 0.113" Nails<sup>(2)</sup>**

| Performance Category | Max. Stud Spacing <sup>(3)</sup> (inches) | Fastener Spacing (inches o.c.) |       | Max. Ultimate Wind Pressure (psf) | Maximum V <sub>ult</sub> or V <sup>(4)</sup> (mph) |     |     |
|----------------------|-------------------------------------------|--------------------------------|-------|-----------------------------------|----------------------------------------------------|-----|-----|
|                      |                                           | Edges                          | Field |                                   | Wind Exposure Category                             |     |     |
|                      |                                           |                                |       |                                   | B                                                  | C   | D   |
| 3/8, 7/16 and 19/32  | 16                                        | 6                              | 12    | 71                                | 170                                                | 140 | 130 |
|                      |                                           |                                | 6     | 133                               | 200 <sup>(5)</sup>                                 | 180 | 180 |
| 19/32                | 24                                        | 6                              | 12    | 48                                | 140                                                | 115 | -   |
|                      |                                           |                                | 6     | 95                                | 180                                                | 160 | 150 |

For **SI**: 1 inch = 25.4 mm, 1 psf = 47.88 Pa, 1 mph = 0.447 m/s.

- (1) Fasteners shall be a hot-dip galvanized plain (smooth) shank nail, with a minimum shank diameter of 0.113 inch, and long enough to penetrate structural framing or wood structural panels and structural framing a minimum of 2 inches.
- (2) Fasteners shall be permitted to be substituted on a one-for-one basis if the fastener has a minimum overall allowable withdrawal capacity and allowable fastener head pull-through capacity of 57 lbf/fastener based on the load duration factor of 1.6. The fastener shall meet or exceed the corrosion-resistance of hot-dip galvanized steel wire nails meeting the requirements of ASTM A153, Class D.
- (3) Wall studs must have a minimum specific gravity of 0.42.
- (4) Three-second-gust; based on wind pressures acting toward and away from building surfaces, at 30-ft height in Zone 5 with the smallest effective area in accordance with Chapter 26 of ASCE 7-22, ASCE 7-16, and ASCE 7-10, Section R301.2.1 of the 2024 through 2015 IRC, and Section 1609.1.1 of the 2024 through 2015 IBC.
- (5) Table R301.2.1(1) of the 2024 and 2021 IRC and Table R301.2(2) of the 2018 and 2015 IRC are limited to a maximum ultimate design wind speed,  $V_{ult}$ , of 180 mph.

Table 3b. **Maximum  $V_{ult}$  or  $V^{(1)}$ , for Panel Siding Installed Vertically with 0.092" Nails<sup>(2)</sup>**

| Performance Category | Max. Stud Spacing <sup>(3)</sup> (inches) | Fastener Spacing (inches o.c.) |       | Max. Ultimate Wind Pressure (psf) | Maximum V <sub>ult</sub> or V <sup>(4)</sup> (mph) |     |     |
|----------------------|-------------------------------------------|--------------------------------|-------|-----------------------------------|----------------------------------------------------|-----|-----|
|                      |                                           | Edges                          | Field |                                   | Wind Exposure Category                             |     |     |
|                      |                                           |                                |       |                                   | B                                                  | C   | D   |
| 3/8, 7/16 and 19/32  | 16                                        | 6                              | 12    | 44                                | 130                                                | 110 | -   |
|                      |                                           |                                | 6     | 87                                | 180                                                | 160 | 140 |
| 19/32                | 24                                        | 6                              | 6     | 58                                | 150                                                | 130 | 120 |

For **SI**: 1 inch = 25.4 mm, 1 psf = 47.88 Pa, 1 mph = 0.447 m/s.

- (1) Fasteners shall be a hot-dip galvanized plain (smooth) shank nail, with a minimum shank diameter of 0.092 inch, and long enough to penetrate structural framing or wood structural panels and structural framing a minimum of 1.5 inches. **Configuration cannot be used for lateral bracing due to nail size.**
- (2) Fasteners shall be permitted to be substituted on a one-for-one basis if the fastener has a minimum overall allowable withdrawal capacity and allowable fastener head pull-through capacity of 35 lbf/fastener based on the load duration factor of 1.6. The fastener shall meet or exceed the corrosion-resistance of hot-dip galvanized steel wire nails meeting the requirements of ASTM A153, Class D.
- (3) Wall studs must have a minimum specific gravity of 0.42.
- (4) Three-second-gust; based on wind pressures acting toward and away from building surfaces, at 30-ft height in Zone 5 with the smallest effective area in accordance with Chapter 26 of ASCE 7-22, ASCE 7-16, and ASCE 7-10, Section R301.2.1 of the 2024 through 2015 IRC, and Section 1609.1.1 of the 2024 through 2015 IBC.

Table 4. **Maximum  $V_{ult}$  or  $V^{(1)}$**  for Lap Siding Installed Horizontally to SIPs<sup>(2)</sup> or WSP Sheathing<sup>(3)</sup>

| Performance Category | Max. Ring Shank Nail Spacing <sup>(4,5)</sup> (inches) | Siding Width (inches) | Max. Ultimate Wind Pressure (psf) | Maximum $V_{ult}$ or $V^{(6)}$ (mph) |     |     |
|----------------------|--------------------------------------------------------|-----------------------|-----------------------------------|--------------------------------------|-----|-----|
|                      |                                                        |                       |                                   | Wind Exposure Category               |     |     |
|                      |                                                        |                       |                                   | B                                    | C   | D   |
| 3/8 and 7/16         | 8                                                      | 5, 6, 7, 8            | 133                               | 200 <sup>(7)</sup>                   | 180 | 180 |
|                      |                                                        | 9.5                   | 128                               | 200 <sup>(7)</sup>                   | 180 | 170 |
|                      |                                                        | 12                    | 99                                | 200 <sup>(7)</sup>                   | 170 | 150 |
|                      | 12                                                     | 5, 6                  | 133                               | 200 <sup>(7)</sup>                   | 180 | 180 |
|                      |                                                        | 7                     | 121                               | 200 <sup>(7)</sup>                   | 180 | 170 |
|                      |                                                        | 8                     | 104                               | 200 <sup>(7)</sup>                   | 170 | 160 |
|                      |                                                        | 9.5                   | 86                                | 180                                  | 150 | 140 |
|                      |                                                        | 12                    | 66                                | 160                                  | 140 | 120 |
| 1/2 Nickel Gap       | 8                                                      | 8                     | 133                               | 200 <sup>(7)</sup>                   | 180 | 180 |
|                      | 12                                                     |                       | 91                                | 180                                  | 160 | 150 |
|                      | 16                                                     |                       | 68                                | 160                                  | 140 | 130 |
|                      | 24                                                     |                       | 45                                | 130                                  | 115 | -   |

For **SI**: 1 inch = 25.4 mm, 1 psf = 47.88 Pa, 1 mph = 0.447 m/s.

- (1) The tabulated values represent the capacity of the LP Lap Siding installed in accordance with the requirements of this table. **The tabulated wind speed shall not exceed the SIP capacity for wind load resistance.**
- (2) The facer of the structural insulated panels (SIPs) shall be 7/16 Performance Category or thicker OSB sheathing meeting DOC PS 2 requirements.
- (3) Wood structural panel (WSP) sheathing shall be minimum 7/16 Performance Category OSB or Group 1 plywood meeting DOC PS 1 or DOC PS 2 requirements.
- (4) Fasteners shall be a hot-dip galvanized ring shank nail, with a minimum shank diameter of 0.092 inch. Length shall be long enough to fully penetrate wood structural facer panel. For 3/8 and 7/16 performance category lap siding, one ring shank fastener located 3/4 inch from the top edge of the siding. Each successive course of lap siding must overlap a minimum of 1 inch. For Nickel Gap Lap, ring shank fasteners spaced per Table 4b, through the top nail flange, placed in the center of fasteners groove in accordance with the manufacturer's recommendation.
- (5) Fasteners shall be permitted to be substituted on a one-for-one basis if the fastener has a minimum overall allowable withdrawal capacity and allowable fastener head pull-through capacity of 36 lbf/fastener based on the load duration factor of 1.6. The fastener shall meet or exceed the corrosion-resistance of hot-dip galvanized steel wire nails meeting the requirements of ASTM A153, Class D.
- (6) Three-second-gust; based on wind pressures acting toward and away from building surfaces, at 30-ft height in Zone 5 with the smallest effective area in accordance with Chapter 26 of ASCE 7-22, ASCE 7-16, and ASCE 7-10, Section R301.2.1 of the 2024 through 2015 IRC, and Section 1609.1.1 of the 2024 through 2015 IBC.
- (7) Table R301.2.1(1) of the 2024 and 2021 IRC and Table R301.2(2) of the 2018 and 2015 IRC are limited to a maximum ultimate design wind speed,  $V_{ult}$ , of 180 mph.

Table 5. **Maximum  $V_{ult}$  or  $V^{(1)}$  for Panel Siding Installed Vertically to SIPs<sup>(2)</sup> or WSP Sheathing<sup>(3)</sup>**

| Performance Category | Max. Ring Shank Nail Spacing <sup>(4,5)</sup> (inches o.c.) |            | Max. Ultimate Wind Pressure (psf) | Maximum $V_{ult}$ or $V^{(6)}$ (mph) |     |     |
|----------------------|-------------------------------------------------------------|------------|-----------------------------------|--------------------------------------|-----|-----|
|                      |                                                             |            |                                   | Wind Exposure Category               |     |     |
|                      | Vertical                                                    | Horizontal |                                   | B                                    | C   | D   |
| 3/8, 7/16 and 19/32  | 8                                                           | 8          | 133                               | 200 <sup>(7)</sup>                   | 180 | 180 |
|                      | 10                                                          | 10         | 87                                | 180                                  | 160 | 140 |
|                      | 12                                                          | 12         | 61                                | 150                                  | 130 | 120 |
|                      | 16                                                          | 16         | 34                                | 115                                  | -   | -   |

For **SI**: 1 inch = 25.4 mm, 1 psf = 47.88 Pa, 1 mph = 0.447 m/s.

- <sup>(1)</sup> The tabulated values represent the capacity of the LP Panel Siding installed in accordance with the requirements of this table. **The tabulated wind speed shall not exceed the SIP capacity for wind load resistance.**
- <sup>(2)</sup> The facer of the structural insulated panels (SIPs) shall be 7/16 Performance Category or thicker OSB sheathing meeting DOC PS 2 requirements.
- <sup>(3)</sup> Wood structural panel (WSP) sheathing shall be minimum 7/16 Performance Category OSB or Group 1 plywood meeting DOC PS 1 or DOC PS 2 requirements.
- <sup>(4)</sup> Fasteners shall be a hot-dip galvanized ring shank nail, with a minimum shank diameter of 0.092 inch. Length shall be long enough to fully penetrate wood structural facer panel. Ring shank nails fastened in a grid as specified.
- <sup>(5)</sup> Fasteners shall be permitted to be substituted on a one-for-one basis if the fastener has a minimum overall allowable withdrawal capacity and allowable fastener head pull-through capacity of 36 lbf/fastener based on the load duration factor of 1.6. The fastener shall meet or exceed the corrosion-resistance of hot-dip galvanized steel wire nails meeting the requirements of ASTM A153, Class D.
- <sup>(6)</sup> Three-second-gust; based on wind pressures acting toward and away from building surfaces, at 30-ft height in Zone 5 with the smallest effective area in accordance with Chapter 26 of ASCE 7-22, ASCE 7-16, and ASCE 7-10, Section R301.2.1 of the 2024 through 2015 IRC, and Section 1609.1.1 of the 2024 through 2015 IBC.
- <sup>(7)</sup> Table R301.2.1(1) of the 2024 and 2021 IRC and Table R301.2(2) of the 2018 and 2015 IRC are limited to a maximum ultimate design wind speed,  $V_{ult}$ , of 180 mph.

Table 6. **Maximum  $V_{ult}$  or  $V^{(1)}$  for Vertical Siding or Lap Siding Installed Vertically to WSP Sheathing**

| Perf. Category | Siding Type                     | Siding Width (inches) | Max. Ring Shank Nail Edge Spacing (inches o.c.) | Max. Ultimate Wind Pressure (psf) | Maximum $V_{ult}$ or $V^{(8)}$ (mph) |     |     |
|----------------|---------------------------------|-----------------------|-------------------------------------------------|-----------------------------------|--------------------------------------|-----|-----|
|                |                                 |                       |                                                 |                                   | Wind Exposure Category               |     |     |
|                |                                 |                       |                                                 |                                   | B                                    | C   | D   |
| 3/8 and 7/16   | Vertical Siding                 | 16 <sup>(2)</sup>     | 6 <sup>(4,7)</sup>                              | 133                               | 200 <sup>(9)</sup>                   | 180 | 180 |
|                |                                 |                       | 12 <sup>(4,7)</sup>                             | 91                                | 180                                  | 160 | 150 |
|                |                                 |                       | 16 <sup>(4,7)</sup>                             | 68                                | 160                                  | 140 | 130 |
|                | Lap Siding Installed Vertically | 5 <sup>(3)</sup>      | 12 <sup>(5,7)</sup>                             | 133                               | 200 <sup>(9)</sup>                   | 180 | 180 |
|                |                                 | 6 <sup>(3)</sup>      |                                                 | 121                               | 200 <sup>(9)</sup>                   | 180 | 170 |
|                |                                 | 7 <sup>(3)</sup>      |                                                 | 104                               | 200 <sup>(9)</sup>                   | 170 | 160 |
|                |                                 | 8 <sup>(3)</sup>      |                                                 | 91                                | 180                                  | 160 | 150 |
|                |                                 | 9.5 <sup>(3)</sup>    |                                                 | 77                                | 170                                  | 150 | 130 |
|                |                                 | 12 <sup>(3)</sup>     |                                                 | 61                                | 150                                  | 130 | 120 |
| 1/2 Nickel Gap | Lap Siding Installed Vertically | 8                     | 8 <sup>(6,7)</sup>                              | 133                               | 200 <sup>(9)</sup>                   | 180 | 180 |
|                |                                 |                       | 12 <sup>(6,7)</sup>                             | 91                                | 180                                  | 160 | 150 |
|                |                                 |                       | 16 <sup>(6,7)</sup>                             | 68                                | 160                                  | 140 | 130 |
|                |                                 |                       | 24 <sup>(6,7)</sup>                             | 45                                | 130                                  | 115 | -   |

For SI: 1 inch = 25.4 mm, 1 psf = 47.88 Pa, 1 mph = 0.447 m/s.

- (1) Siding shall be installed over 7/16 Performance Category or thicker wood structural panel sheathing meeting DOC PS 1 or DOC PS 2 requirements.
- (2) Vertical Siding installed in accordance with manufacturer's recommendations.
- (3) Lap Siding installed vertically in accordance with manufacturer's recommendations.
- (4) Fasteners must be ring shank nails with a minimum shank diameter of 0.092 inch. Length shall be long enough to fully penetrate wood structural panel wall sheathing. Fasteners must be spaced a maximum of tabulated value on-center spacing along the siding perimeter in accordance with manufacturer's recommendations.
- (5) Fasteners must be ring shank nails with a minimum shank diameter of 0.092 inch. Length shall be long enough to fully penetrate wood structural panel wall sheathing. Fasteners must be spaced a maximum of tabulated value on-center spacing along alternating edges of the length of the batten in accordance with manufacturer's recommendations.
- (6) Fasteners shall be a hot-dip galvanized ring shank nail, with a minimum shank diameter of 0.092 inch. Length shall be long enough to fully penetrate wood structural facer panel. Ring shank fastener located in center of fastener groove in accordance with the manufacturer's recommendation.
- (7) Fasteners shall be permitted to be substituted on a one-for-one basis if the fastener has a minimum overall allowable withdrawal capacity and allowable fastener head pull-through capacity of 36 lbf/fastener based on the load duration factor of 1.6. The fastener shall meet or exceed the corrosion-resistance of hot-dip galvanized steel wire nails meeting the requirements of ASTM A153, Class D.
- (8) Three-second-gust; based on wind pressures acting toward and away from building surfaces, at 30-ft height in Zone 5 with the smallest effective area in accordance with Chapter 26 of ASCE 7-22, ASCE 7-16, and ASCE 7-10, Section R301.2.1 of the 2024 through 2015 IRC, and Section 1609.1.1 of the 2024 through 2015 IBC.
- (9) Table R301.2.1(1) of the 2024 and 2021 IRC and Table R301.2(2) of the 2018 and 2015 IRC are limited to a maximum ultimate design wind speed,  $V_{ult}$ , of 180 mph.

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# Joint Evaluation Report

ESR-1301

Reissued February 2026

This report also contains:

- [City of LA Supplement](#)

Subject to renewal February 2028

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|                                                                                                                                                                                                                                                       |                                                                                                                                                       |                                                                                                                                                                                                         |                                                                                     |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| <p><b>DIVISION: 06 00 00—<br/>WOOD, PLASTICS AND<br/>COMPOSITES</b></p> <p><b>Section: 06 16 00—<br/>Sheathing</b></p> <p><b>DIVISION: 07 00 00—<br/>THERMAL AND<br/>MOISTURE<br/>PROTECTION</b></p> <p><b>Section: 07 46 23—<br/>Wood Siding</b></p> | <p><b>REPORT HOLDER:<br/>LOUISIANA-PACIFIC<br/>CORPORATION</b></p>  | <p><b>EVALUATION SUBJECT:</b></p> <p>LP® SMARTSIDE® AND<br/>LP® SMARTSIDE®<br/>EXPERTFINISH®<br/>TREATED-ENGINEERED-<br/>WOOD LAP, PANEL,<br/>SHAKE LAP, NICKEL<br/>GAP LAP AND VERTICAL<br/>SIDING</p> |  |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|

## 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:

- Exterior siding
- Structural

## 2.0 USES

LP® SmartSide® and LP® SmartSide® ExpertFinish® Treated-Engineered-Wood Lap, Panel, Shake Lap, Nickel Gap Lap, and Vertical Siding are used as exterior wall covering materials on buildings where combustible materials are permitted.

LP® SmartSide® and LP® SmartSide® ExpertFinish® Treated-Engineered-Wood Panel Siding may be used as the WSP Bracing Method as specified in 2024 IBC Section 2308.10, 2021, 2018 and 2015 IBC Section 2308.6 and IRC Section R602.10.

LP® SmartSide® and LP® SmartSide® ExpertFinish® Treated-Engineered-Wood Panel Siding may be used as sheathing for wood structural panel shear walls having allowable shear loads specified for PS 2-compliant wood-based sheathing in accordance with IBC Section 2306.3.

## 3.0 DESCRIPTION

### 3.1 General:

LP® SmartSide® and LP® SmartSide® ExpertFinish® Treated-Engineered-Wood Lap and Panel Siding, LP® SmartSide® and LP® SmartSide® ExpertFinish® Shake Lap Siding, Nickel Gap Lap Siding and Vertical Siding are engineered-wood exterior wall covering materials that are suitable for long-term exposure to weather or conditions of similar severity, when fastened to vertical supports or approved nailable wood substrates in

accordance with their span ratings and this evaluation report. The lap siding and panel siding products consist of a mat-formed wood substrate treated with zinc borate preservative in accordance with AWP Standard T1, and a resin-impregnated overlay material bonded to the face of the lap and panel siding products intended to be exposed to the weather. Additionally, all lap, panel, and vertical siding edges are factory-sealed with a sealer in accordance with the approved quality-control manual.

### 3.2 LP® SmartSide® and LP® SmartSide® ExpertFinish® Treated-Engineered-Wood Lap Siding:

LP® SmartSide® and LP® SmartSide® ExpertFinish® Treated-Engineered-Wood Lap Siding are available in widths of 5, 6, 7, 8, 9½ and 12 inches (127, 152, 178, 203, 241 and 305 mm); 3/8 and 7/16 Performance Categories; and lengths up to 16 feet (4877 mm). The 8-inch-wide (203 mm), 7/16 Performance Category lap siding is also available with an optional self-alignment edge.

LP® SmartSide® and LP® SmartSide® ExpertFinish® Shake Lap Siding include shiplap ends, which result in a seamless appearance when installed, and are available in 3/8 Performance Category, nominal width of 12 inches (305 mm), and 4 feet (1219 mm) in length. The Shake Lap Siding must only be installed horizontally.

LP® SmartSide® and LP® SmartSide® ExpertFinish® Nickel Gap Lap Siding include shiplap edges, which result in a flat siding profile when installed, and are available in 1/2 Performance Category, nominal width of 8 inches (203 mm), and 16 feet (4877 mm) in length. The Nickel Gap Lap Siding may be installed horizontally or vertically.

### 3.3 LP® SmartSide® and LP® SmartSide® ExpertFinish® Treated-Engineered-Wood Panel Siding:

LP® SmartSide® and LP® SmartSide® ExpertFinish® Treated-Engineered-Wood Panel Siding is 4 feet (1219 mm) wide and available in lengths up to 18 feet (5486 mm). LP® SmartSide® and LP® SmartSide® ExpertFinish® Treated-Engineered-Wood Panel Siding are available in 3/8, 7/16, and 19/32 Performance Categories. The 3/8 Performance Category panel has grooves spaced at 8 inches (203 mm), with a minimum thickness at the grooves of 0.164 inch (4 mm) and a minimum thickness at the shiplap of 0.136 inch (4 mm), or no groove. The 7/16 Performance Category panel has grooves spaced at 4 or 8 inches (102 or 203 mm), with a minimum thickness at the grooves of 0.235 inch (6 mm) and a minimum thickness at the shiplap of 0.150 inch (4 mm) or no groove. The 19/32 Performance Category panel has grooves spaced at 8 inches (203 mm), with a minimum thickness at the groove of 0.311 inch (8 mm) and a minimum shiplap thickness of 0.194 inch (5 mm).

LP® SmartSide® and LP® SmartSide® ExpertFinish® Treated-Engineered-Wood Panel Siding are classified as Rated Siding-Sheathing or Rated-Sheathing Ceiling Deck. The classification is noted in the label on the panel. Exterior Rated Siding is intended to be installed in applications in accordance with the 2024 IBC Section 2308.10, 2021, 2018 and 2015 IBC Section 2308.6 and IRC Section R602.10 as an exterior siding suitable for long-term exposure to weather or conditions of similar severity. In addition to the intended application for Rated Siding-Sheathing, Rated-Sheathing Ceiling Deck is intended to be installed in applications in accordance with IBC Section 2306.4.1 and IBC Section 2306.3.

### 3.4 LP® SmartSide® LP® SmartSide® ExpertFinish® Treated-Engineered-Wood Vertical Siding:

LP® SmartSide® and LP® SmartSide® ExpertFinish® Treated-Engineered-Wood Vertical Siding is a narrow width siding and is available in 3/8 Performance Category, nominal width of 16 inches (406 mm), and 16 feet (4877 mm) in length. The vertical siding shall only be installed vertically.

## 4.0 INSTALLATION

### 4.1 General:

LP® SmartSide® and LP® SmartSide® ExpertFinish® Treated-Engineered-Wood Lap, Panel, Shake Lap, Nickel Gap Lap, and Vertical Siding must be installed in accordance with the manufacturer's published Application Instructions: *LP® SmartSide® - Lap Siding*, *LP® SmartSide® ExpertFinish® - Lap Joint Siding*, *LP® SmartSide® - Panel Siding*, *LP® SmartSide® ExpertFinish® - Panel Siding*, *LP® SmartSide® - Cedar Shake*, *LP® SmartSide® Nickel Gap Siding*, *LP® SmartSide® ExpertFinish® - Nickel Gap Siding*, and *Technical Note No. 028 LP® SmartSide® and LP® SmartSide® ExpertFinish® 38 Series Vertical Siding for Board & Batten Applications*, and this report. In the event of conflicts, this report governs. A copy of the manufacturer's Application Instructions must be on the job site at all times during installation.

LP® SmartSide® and LP® SmartSide® ExpertFinish® Treated-Engineered-Wood Lap, Panel, Shake Lap, Nickel Gap Lap, and Vertical Siding must be installed with an approved water-resistive barrier as required by the applicable code. Openings in, penetrations through, and terminations of the LP® SmartSide® and LP® SmartSide® ExpertFinish® Treated-Engineered-Wood siding products described in this report are outside the scope of this report and must be specifically approved by the code official in accordance with the applicable code.

Unless otherwise noted in this report, fasteners and fastener spacing must be as noted in the applicable code.

#### **4.2 LP® SmartSide® and LP® SmartSide® ExpertFinish® Treated-Engineered-Wood Lap Siding:**

LP® SmartSide® and LP® SmartSide® ExpertFinish® Treated-Engineered-Wood Lap Siding must be attached to framing members spaced a maximum of 16 inches (406 mm) on center for 3/8 Performance Category siding and a maximum of 24 inches (610 mm) on center for 7/16 Performance Category siding.

Self-aligning LP® SmartSide® and LP® SmartSide® ExpertFinish® Treated-Engineered-Wood Lap Siding is installed with nails placed at the top of the LP® SmartSide® and LP® SmartSide® ExpertFinish® Treated-Engineered-Wood Lap Siding,  $\frac{3}{4}$  inch (19 mm) down from the upper edge. Each successive course of lap siding must rest on the back rabbet and must self-align at an overlap of 1 inch (25 mm).

Nails must be of sufficient length to penetrate a minimum of  $1\frac{1}{2}$  inches (38 mm) and 2 inches (51 mm), respectively, for 0.113-inch and 0.092-inch nails, through the sheathing and into framing at each stud location.

LP® SmartSide® or LP® SmartSide® ExpertFinish® Treated-Engineered-Wood Lap Siding, when installed vertically, must be installed over a minimum 7/16 Performance Category wood structural panel sheathing meeting DOC PS 1 or DOC PS 2 requirements, and must be covered by a batten at the siding joint or must be overlapped with another vertical lap siding in accordance with the application instructions provided by the manufacturer. Lap siding installed vertically can only span one floor plate-to-plate. Each vertical application shall not span beyond one floor to ceiling distance, or one floor to top of gable distance.

LP® SmartSide® and LP® SmartSide® ExpertFinish® Shake Lap are installed identically to LP® SmartSide® and LP® SmartSide® ExpertFinish® Treated-Engineered-Wood Lap Siding.

LP® SmartSide® and LP® SmartSide® ExpertFinish® Nickel Gap Lap are installed similarly to LP® SmartSide® and LP® SmartSide® ExpertFinish® Treated-Engineered-Wood Lap Siding. However, the board includes shiplap edges, which result in a flat siding profile, unlike the other lap sidings. The blind nailing is achieved by placing fasteners in the center of fastener groove in accordance with the manufacturer's application instructions.

#### **4.3 LP® SmartSide® and LP® SmartSide® ExpertFinish® Treated-Engineered-Wood Panel Siding:**

LP® SmartSide® and LP® SmartSide® ExpertFinish® Treated-Engineered-Wood Panel Siding must be installed with its long dimension oriented vertically.

When LP® SmartSide® and LP® SmartSide® ExpertFinish® Treated-Engineered-Wood Panel Siding is applied directly to the framing, the maximum spacing of the framing must be consistent with the span rating of the LP® SmartSide® Panel Siding, which is identified on the panel's label.

Allowable loads for shearwalls sheathed with LP® SmartSide® and LP® SmartSide® ExpertFinish® Treated-Engineered-Wood Panel Siding—Sheathing are noted in [Table 1](#).

The 4-foot-by-8-foot (1219 mm by 2438 mm) LP® SmartSide® and LP® SmartSide® ExpertFinish® Treated-Engineered-Wood Panel Siding—Sheathing installed vertically, directly to framing, with a single row of nails penetrating both laps, spaced 6 inches (152 mm) on center at panel edges and 12 inches (305 mm) on center at intermediate supports may be used to satisfy the wall bracing requirements for conventional light frame construction specified in the code for prescriptive construction. Install per code requirements for bracing method 3 with wood structural panels or WSP bracing method.

All LP® SmartSide® and LP® SmartSide® ExpertFinish® Treated-Engineered-Wood Panel Siding joints must occur at framing members and must be protected with a continuous wood batt, approved caulking, flashing, or vertical or horizontal shiplap, or otherwise made waterproof.

#### **4.4 LP® SmartSide® and LP® SmartSide® ExpertFinish® Treated-Engineered-Wood Vertical Siding:**

LP® SmartSide® Vertical Siding shall be installed over a minimum 7/16 Performance Category wood structural sheathing meeting DOC PS 1 or DOC PS 2 requirements, and shall be covered by a batten at the panel joint in accordance with the recommendations provided by the manufacturer. Vertical Siding can only span one floor plate-to-plate. Each vertical application shall not span beyond one floor to ceiling distance, or one floor to top of gable distance.

#### **4.5 Component and Cladding Wind Pressure Capacity:**

Maximum allowable component and cladding wind loads (wall, zone 5) for LP® SmartSide® Treated-Engineered-Wood Lap and Panel Siding based on a minimum fastener schedule, are provided in [Tables 2](#) through 6. [Tables 2](#) and [3](#), for lap and panel siding, respectively, are based on  $1\frac{1}{2}$  inches (38 mm) of penetration for 0.092-inch (2.34 mm) diameter nails and 2 inches (51 mm) of penetration for 0.113-inch (2.87 mm) diameter nails. Design wind loads for LP® SmartSide® Treated-Engineered-Wood Lap Siding when

installed over the facer of structural insulated panels (SIPs) or wood structural panel sheathing are listed in [Table 4](#). Design wind loads for LP® SmartSide® Treated-Engineered-Wood Panel Siding when installed over the facer of structural insulated panels (SIPs) or wood structural panel sheathing are listed in [Table 5](#). Design wind loads for LP® SmartSide Treated-Engineered-Wood Vertical Siding and Lap Siding applied vertically are listed in [Table 6](#).

## 5.0 CONDITIONS OF USE:

The LP® SmartSide® and LP® SmartSide® ExpertFinish® Treated-Engineered-Wood Lap, Panel, Shake Lap, Nickel Gap Lap, and Vertical Siding 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 LP® SmartSide® and LP® SmartSide® ExpertFinish® Treated-Engineered-Wood Lap and Vertical Siding must not be used to satisfy the bracing requirements specified in the code.
- 5.2 LP® SmartSide® and LP® SmartSide® ExpertFinish® Treated-Engineered-Wood Panel Siding—Sheathing, when installed as set forth in this report, may be used as the WSP Bracing Method as specified in 2024 IBC Section 2308.10, 2021, 2018 and 2015 IBC Section 2308.6 and IRC Section R602.10.
- 5.3 In areas where seismic analysis is required by the applicable code, the applicable code requirements for wood structural panel shear walls must be consulted for additional detailing requirements, restrictions concerning certain usages, required modifications to the allowable shear loads tabulated in this report, and additional inspection requirements.
- 5.4 LP® SmartSide® and LP® SmartSide® ExpertFinish® Treated-Engineered-Wood Lap, Panel, and Vertical Siding must not be installed in contact with concrete or masonry.
- 5.5 LP® SmartSide® and LP® SmartSide® ExpertFinish® Treated-Engineered-Wood Lap, Panel, and Vertical Siding must be installed with a minimum 6 inches (152 mm) of clearance from finished grade.
- 5.6 When field cuts are made to LP® SmartSide® and LP® SmartSide® ExpertFinish® Treated-Engineered-Wood Lap, Panel, and Vertical Siding, all exposed surfaces must be finished according to the paint or caulk/sealant manufacturers' specifications.
- 5.7 LP® SmartSide® and LP® SmartSide® ExpertFinish® Treated-Engineered-Wood Lap, Panel, and Vertical Siding are manufactured by Louisiana-Pacific Corporation in Dawson Creek, British Columbia (Mill No. 402); Hayward, Wisconsin (Mill No. 357); Houlton, Maine (Mill No. 368); Newberry, Michigan (Mill No. 416); Sagola, Michigan (Mill No. 407); Swan Valley, Minitonas, Manitoba, Canada (Mill No. 457); Tomahawk, Wisconsin (Mill No. 435); and Two Harbors, Minnesota (Mill No. 399); under a quality control program with inspections by APA – The Engineered Wood Association and ICC-ES.

## 6.0 EVIDENCE SUBMITTED

Data in accordance with the [ICC-ES Acceptance Criteria for Treated-engineered-wood Siding \(AC321\)](#), dated April 2019 (Editorially revised February 2025).

## 7.0 IDENTIFICATION

- 7.1 The ICC-ES mark of conformity, electronic labeling, or the evaluation report number (ICC-ES ESR-1301) along with the name, registered trademark, or registered logo of the report holder must be included in the product label.
- 7.2 In addition, LP® SmartSide® Strand Substrate Lap, Panel, and Vertical Siding must be labeled with the product designation and the name of Louisiana-Pacific Corp. The label must provide the following information:
  1. Mill number.
  2. The evaluation report number (ESR-1301).
  3. Grade/exposure classification.
  4. Span rating.
  5. Performance category (based on customary inch fractions).
- 7.3 The report holder's contact information is the following:

**LOUISIANA-PACIFIC CORPORATION**

**1610 West End Ave, Suite 200**

**NASHVILLE, TENNESSEE 37203**

**(888) 820-0325**

**[www.LPcorp.com](http://www.LPcorp.com)**

**TABLE 1—ALLOWABLE RACKING SHEAR (plf) FOR LP<sup>®</sup> SMARTSIDE<sup>®</sup> AND LP<sup>®</sup> SMARTSIDE<sup>®</sup> EXPERTFINISH<sup>®</sup> TREATED-WOOD PANEL SIDING—SHEATHING SHEAR WALLS WITH FRAMING OF DOUGLAS FIR–LARCH OR SOUTHERN PINE FOR WIND OR SEISMIC LOADING<sup>1,2,3,7,8</sup>**

| PERFORMANCE CATEGORY | MINIMUM NAIL PENETRATION IN FRAMING (inches) | PANELS APPLIED DIRECTLY TO FRAMING                  |                                      |     |                  |                | PANELS APPLIED OVER 5/8-INCH GYPSUM SHEATHING       |                                      |     |                  |                |
|----------------------|----------------------------------------------|-----------------------------------------------------|--------------------------------------|-----|------------------|----------------|-----------------------------------------------------|--------------------------------------|-----|------------------|----------------|
|                      |                                              | Nail Size (Common or Galvanized Box) <sup>7,8</sup> | Nail Spacing at Panel Edges (inches) |     |                  |                | Nail Size (Common or Galvanized Box) <sup>7,8</sup> | Nail Spacing at Panel Edges (inches) |     |                  |                |
|                      |                                              |                                                     | 6                                    | 4   | 3                | 2 <sup>4</sup> |                                                     | 6                                    | 4   | 3                | 2 <sup>4</sup> |
| 5/16 <sup>5,6</sup>  | 1 <sup>1</sup> / <sub>4</sub>                | 6d                                                  | 180                                  | 270 | 350              | 450            | 8d                                                  | 180                                  | 270 | 350              | 450            |
| 3/8 <sup>5,6</sup>   |                                              |                                                     | 200                                  | 300 | 390              | 510            |                                                     | 200                                  | 300 | 390              | 510            |
| 3/8 <sup>5,6</sup>   | 1 <sup>1</sup> / <sub>2</sub>                | 8d                                                  | 220                                  | 320 | 410              | 530            | 10d                                                 | 260                                  | 380 | 490 <sup>4</sup> | 640            |
| 7/16 <sup>5</sup>    |                                              |                                                     | 240                                  | 350 | 450              | 585            |                                                     | 260                                  | 380 | 490 <sup>4</sup> | 640            |
| 19/32 <sup>5</sup>   | 1 <sup>5</sup> / <sub>8</sub>                | 10d                                                 | 340                                  | 510 | 665 <sup>4</sup> | 870            | --                                                  | --                                   | --  | --               | --             |

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

<sup>1</sup>For framing of other species: (a) Find specific gravity for species of lumber in AWC National Design Specification; (b) find shear value from table for nails size; c) multiply value by 0.82 for species with specific gravity greater than or equal to 0.42 but less than 0.49, or 0.65 for species with specific gravity less than 0.42.

<sup>2</sup>All panel edges must be backed with 2-inch nominal or wider framing. Panels must be installed with the long dimension oriented in the vertical direction. Space nails 6 inches o.c. along intermediate framing members for 3/8 and 7/16 Performance Categories panels installed on studs spaced 24 inches o.c. For other conditions and panel thicknesses, space nails 12 inches o.c. on intermediate supports.

<sup>3</sup>The values are for short-term loads due to earthquake and must be reduced by 25 percent for normal duration of loading. For wind load applications, the values in the table shall be permitted to be multiplied by 1.4.

<sup>4</sup>Framing at panel edges must be 3 inches nominal or wider and nails must be staggered where nails are spaced 2 inches o.c., and where 10d nails having penetration into framing of more than 1<sup>5</sup>/<sub>8</sub> inches are spaced 3 inches, or less, o.c. **Exception:** Unless otherwise required, 2-inch nominal framing may be used where full nailing surface is available and nails are staggered.

<sup>5</sup>Except as noted in Footnote 7, panel thickness at point of nailing at panel edges determines applicable shear values, except that 3/8 Performance Category panels nailed at shiplap edges use shear values for 5/16 Performance Category panels, and 7/16 and 19/32 Performance Categories panel sidings nailed at shiplap edges use shear values for 3/8 Performance Category panels.

<sup>6</sup>Shiplap edges must be double-nailed; one nail must be placed in the underlap and the second nail must be placed 1 inch from the panel edge, not in the overlap, at the nail spacing specified for the applicable shear value.

<sup>7</sup>Fasteners must not be installed in panel siding grooves in the field of the panel siding or when the panel siding grooves occur at cut edges of the panel siding.

<sup>8</sup>Fasteners shall be carbon steel, hot-dipped galvanized plain (smooth) shank box or common nails and meet dimensions as specified in ASTM F1667.

**TABLE 2A—LAP SIDING INSTALLED HORIZONTALLY WITH 0.113-INCH-DIAMETER NAILS  
MAXIMUM ULTIMATE COMPONENT AND CLADDING DESIGN WIND SPEED, V<sub>ult</sub><sup>1,2</sup>**

| PERFORMANCE CATEGORY | MAXIMUM WALL STUD SPACING <sup>3</sup> (inches) | SIDING WIDTH (inches)         | MAXIMUM ULTIMATE WIND PRESSURE (psf) | MAXIMUM ULTIMATE DESIGN WIND SPEED, V <sub>ult</sub> <sup>4</sup> (mph) |     |     |
|----------------------|-------------------------------------------------|-------------------------------|--------------------------------------|-------------------------------------------------------------------------|-----|-----|
|                      |                                                 |                               |                                      | Wind Exposure Category                                                  |     |     |
|                      |                                                 |                               |                                      | B                                                                       | C   | D   |
| 3/8 and 7/16         | 16                                              | 5, 6, 7                       | 133                                  | 200 <sup>5</sup>                                                        | 180 | 180 |
|                      |                                                 | 8                             | 122                                  | 200 <sup>5</sup>                                                        | 180 | 170 |
|                      |                                                 | 9 <sup>1</sup> / <sub>2</sub> | 101                                  | 200 <sup>5</sup>                                                        | 170 | 150 |
|                      |                                                 | 12                            | 78                                   | 170                                                                     | 150 | 130 |
| 7/16                 | 24                                              | 6                             | 114                                  | 200 <sup>5</sup>                                                        | 180 | 160 |
|                      |                                                 | 7                             | 95                                   | 180                                                                     | 160 | 150 |
|                      |                                                 | 8                             | 81                                   | 180                                                                     | 150 | 140 |
|                      |                                                 | 9 <sup>1</sup> / <sub>2</sub> | 67                                   | 160                                                                     | 140 | 120 |
|                      |                                                 | 12                            | 52                                   | 140                                                                     | 120 | 110 |
| 1/2 Nickel Gap       | 16                                              | 8                             | 107                                  | 200 <sup>5</sup>                                                        | 170 | 160 |
|                      | 24                                              |                               | 71                                   | 170                                                                     | 140 | 130 |

For **SI**: 1 inch = 25.4 mm, 1 psf = 47.88 Pa, 1 mph = 1.6 kph.

<sup>1</sup>For 3/8 and 7/16 Performance Categories, one fastener per stud located <sup>3</sup>/<sub>4</sub> inch from the top edge of the siding. Each successive course of lap siding must overlap a minimum of 1 inch. For Nickel Gap Lap, one fastener for each stud located in center of fastener groove in accordance with the manufacturer's application instructions. Fasteners must be hot dip galvanized plain (smooth) shank nails, with a minimum shank diameter of 0.113 inch, and long enough to penetrate structural framing or wood structural panels and structural framing a minimum of 2 inches. Lap siding is not a bracing material.

<sup>2</sup>Tabulated values assume nails penetrate a minimum of 2 inches into the studs.

<sup>3</sup>Wall studs must have a minimum specific gravity of 0.42.

<sup>4</sup>Three-second-gust; based on wind pressures acting toward and away from building surfaces, at 30-foot height in Zone 5 with smallest effective area per Chapter 26 of ASCE 7-22, ASCE 7-16 and ASCE 7-10, IRC Section R301.2.1, and IBC Section 1609.1.1.

<sup>5</sup>2024 and 2021 IRC Table R301.2.1(1) and 2018 and 2015 IRC Table R301.2(2) are limited to a maximum ultimate design wind speed, V<sub>ult</sub>, of 180 mph.

**TABLE 2B—LAP SIDING INSTALLED HORIZONTALLY WITH 0.092-INCH-DIAMETER NAILS**  
**MAXIMUM ULTIMATE COMPONENT AND CLADDING DESIGN WIND SPEED,  $V_{ult}$ <sup>1,2</sup>**

| PERFORMANCE CATEGORY | MAXIMUM WALL STUD SPACING <sup>3</sup> (inches) | SIDING WIDTH (inches) | MAXIMUM ULTIMATE WIND PRESSURE (psf) | MAXIMUM ULTIMATE DESIGN WIND SPEED, $V_{ult}$ <sup>4</sup> (mph) |     |     |
|----------------------|-------------------------------------------------|-----------------------|--------------------------------------|------------------------------------------------------------------|-----|-----|
|                      |                                                 |                       |                                      | Wind Exposure Category                                           |     |     |
|                      |                                                 |                       |                                      | B                                                                | C   | D   |
| 3/8 and 7/16         | 16                                              | 5                     | 131                                  | 200 <sup>5</sup>                                                 | 180 | 180 |
|                      |                                                 | 6                     | 105                                  | 200 <sup>5</sup>                                                 | 170 | 160 |
|                      |                                                 | 7                     | 87                                   | 180                                                              | 160 | 140 |
|                      |                                                 | 8                     | 75                                   | 170                                                              | 140 | 130 |
|                      |                                                 | 9 1/2                 | 61                                   | 150                                                              | 130 | 120 |
|                      |                                                 | 12                    | 48                                   | 140                                                              | 115 | --  |
| 7/16                 | 24                                              | 6                     | 70                                   | 170                                                              | 140 | 130 |
|                      |                                                 | 7                     | 58                                   | 150                                                              | 130 | 120 |
|                      |                                                 | 8                     | 50                                   | 140                                                              | 120 | 110 |
|                      |                                                 | 9 1/2                 | 41                                   | 130                                                              | 110 | --  |
|                      |                                                 | 12                    | 32                                   | 110                                                              | --  | --  |
| 1/2 Nickel Gap Lap   | 16                                              | 8                     | 65                                   | 160                                                              | 130 | 120 |
|                      | 24                                              |                       | 44                                   | 130                                                              | 110 | —   |

For SI: 1 inch = 25.4 mm, 1 psf = 47.88 Pa, 1 mph = 1.6 kph.

<sup>1</sup>For 3/8 and 7/16 Performance Categories lap siding, one fastener per stud located 3/4 inch from the top edge of the siding. Each successive course of lap siding must overlap a minimum of 1 inch. For Nickel Gap Lap, one fastener for each stud located in center of fastener groove in accordance with the manufacturer's application instructions. Fasteners must be hot dip galvanized plain (smooth) shank nails, with a minimum shank diameter of 0.092 inch, and long enough to penetrate structural framing or wood structural panels and structural framing a minimum of 1 1/2 inches. Lap siding is not a bracing material.

<sup>2</sup>Tabulated values assume nails penetrate a minimum of 1 1/2 inches into the studs.

<sup>3</sup>Wall studs must have a minimum specific gravity of 0.42.

<sup>4</sup>Three-second-gust; based on wind pressures acting toward and away from building surfaces, at 30-foot height in Zone 5 with smallest effective area per Chapter 26 of ASCE 7-22, ASCE 7-16 and ASCE 7-10, IRC Section R301.2.1, and IBC Section 1609.1.1.

<sup>5</sup>2024 and 2021 Table R301.2.1(1) and 2018 and 2015 Table R301.2(2) are limited to a maximum ultimate design wind speed,  $V_{ult}$ , of 180 mph.

**TABLE 3A—PANEL SIDING INSTALLED VERTICALLY WITH 0.113-INCH NAILS**  
**MAXIMUM ULTIMATE COMPONENT AND CLADDING DESIGN WIND SPEED,  $V_{ult}$ <sup>1</sup>**

| PERFORMANCE CATEGORY | MAXIMUM WALL STUD SPACING <sup>2</sup> (inches) | FASTENER SPACING (inches o.c.) |       | MAXIMUM ULTIMATE WIND PRESSURE (psf) | MAXIMUM ULTIMATE DESIGN WIND SPEED, V <sub>ult</sub> <sup>3</sup> (mph) |     |     |
|----------------------|-------------------------------------------------|--------------------------------|-------|--------------------------------------|-------------------------------------------------------------------------|-----|-----|
|                      |                                                 | Edges                          | Field |                                      | Wind Exposure Category                                                  |     |     |
|                      |                                                 |                                |       |                                      | B                                                                       | C   | D   |
| 3/8, 7/16 and 19/32  | 16                                              | 6                              | 12    | 71                                   | 170                                                                     | 140 | 130 |
|                      |                                                 |                                | 6     | 133                                  | 200 <sup>4</sup>                                                        | 180 | 180 |
| 19/32                | 24                                              | 6                              | 12    | 48                                   | 140                                                                     | 115 | --  |
|                      |                                                 |                                | 6     | 95                                   | 180                                                                     | 160 | 150 |

For SI: 1 inch = 25.4 mm, 1 psf = 47.88 Pa, 1 mph = 1.6 kph.

<sup>1</sup>Fasteners shall be hot dipgalvanized plain (smooth) shank nails, with a minimum shank diameter of 0.113 inch, and long enough to penetrate structural framing or wood structural panels and structural framing a minimum of 2 inches for the tabulated values.

<sup>2</sup>Wall studs must have a minimum specific gravity of 0.42.

<sup>3</sup>Three-second-gust; based on wind pressures acting toward and away from building surfaces, at 30-foot height in Zone 5 with smallest effective area per Chapter 26 of ASCE 7-22, ASCE 7-16 and ASCE 7-10, and IRC Section R301.2.1 and IBC Section 1609.1.1.

<sup>4</sup>2024 and 2021 Table R301.2.1(1) and 2018 and 2015 Table R301.2(2) are limited to a maximum ultimate design wind speed,  $V_{ult}$ , of 180 mph.

**TABLE 3B—PANEL SIDING INSTALLED VERTICALLY WITH 0.092-INCH NAILS**  
**MAXIMUM ULTIMATE COMPONENT AND CLADDING DESIGN WIND SPEED,  $V_{ult}$ <sup>1</sup>**

| PERFORMANCE CATEGORY | MAXIMUM WALL STUD SPACING <sup>2</sup><br>(inches) | FASTENER SPACING <sup>3</sup><br>(inches o.c.) |       | MAXIMUM ULTIMATE WIND PRESSURE<br>(psf) | MAXIMUM ULTIMATE DESIGN WIND SPEED, V <sub>uit</sub> <sup>4</sup> (mph) |     |     |
|----------------------|----------------------------------------------------|------------------------------------------------|-------|-----------------------------------------|-------------------------------------------------------------------------|-----|-----|
|                      |                                                    | Edges                                          | Field |                                         | Wind Exposure Category                                                  |     |     |
|                      |                                                    |                                                |       |                                         | B                                                                       | C   | D   |
| 3/8, 7/16 and 19/32  | 16                                                 | 6                                              | 12    | 44                                      | 130                                                                     | 110 | --  |
|                      |                                                    |                                                | 6     | 87                                      | 180                                                                     | 160 | 140 |
| 19/32                | 24                                                 | 6                                              | 6     | 58                                      | 150                                                                     | 130 | 120 |

For SI: 1 inch = 25.4 mm, 1 psf = 47.88 Pa, 1 mph = 1.6 kph.

<sup>1</sup>Tabulated values assume nails penetrate a minimum of 1½ inches into the studs.

<sup>2</sup>Wall studs must have a minimum specific gravity of 0.42.

<sup>3</sup>Fasteners shall be hot dip galvanized plain (smooth) shank nails, with a minimum shank diameter of 0.092 inch, and long enough to penetrate structural framing or wood structural panels and structural framing a minimum of 1½ inches. Configuration cannot be used for lateral bracing due to nail size.

<sup>4</sup>Three-second-gust; based on wind pressures acting toward and away from building surfaces, at 30-foot height in Zone 5 with smallest effective area per Chapter 26 of ASCE 7-22, ASCE 7-16 and ASCE 7-10, and IRC Section R301.2.1 and IBC Section 1609.1.1.

**TABLE 4—LAP SIDING INSTALLED HORIZONTALLY TO SIPS OR WOOD STRUCTURAL PANEL SHEATHING**  
**MAXIMUM ULTIMATE COMPONENT AND CLADDING DESIGN WIND SPEED,  $V_{ult}$ <sup>1,2</sup>**

| PERFORMANCE CATEGORY | MAXIMUM RING SHANK NAIL SPACING <sup>3</sup> (inches) | SIDING WIDTH (inches) | MAXIMUM ULTIMATE WIND PRESSURE (psf) | MAXIMUM ULTIMATE DESIGN WIND SPEED, $V_{ult}$ <sup>4</sup> (mph) |     |     |
|----------------------|-------------------------------------------------------|-----------------------|--------------------------------------|------------------------------------------------------------------|-----|-----|
|                      |                                                       |                       |                                      | Wind Exposure Category                                           |     |     |
|                      |                                                       |                       |                                      | B                                                                | C   | D   |
| 3/8 and 7/16         | 8                                                     | 5                     | 133                                  | 200 <sup>5</sup>                                                 | 180 | 180 |
|                      |                                                       | 6                     | 133                                  | 200 <sup>5</sup>                                                 | 180 | 180 |
|                      |                                                       | 7                     | 133                                  | 200 <sup>5</sup>                                                 | 180 | 180 |
|                      |                                                       | 8                     | 133                                  | 200 <sup>5</sup>                                                 | 180 | 180 |
|                      |                                                       | 9½                    | 128                                  | 200 <sup>5</sup>                                                 | 180 | 170 |
|                      |                                                       | 12                    | 99                                   | 200 <sup>5</sup>                                                 | 170 | 150 |
|                      | 12                                                    | 5                     | 133                                  | 200 <sup>5</sup>                                                 | 180 | 180 |
|                      |                                                       | 6                     | 133                                  | 200 <sup>5</sup>                                                 | 180 | 180 |
|                      |                                                       | 7                     | 121                                  | 200 <sup>5</sup>                                                 | 180 | 170 |
|                      |                                                       | 8                     | 104                                  | 200 <sup>5</sup>                                                 | 170 | 160 |
|                      |                                                       | 9½                    | 86                                   | 180                                                              | 150 | 140 |
|                      |                                                       | 12                    | 66                                   | 160                                                              | 140 | 120 |
| 1/2 Nickel Gap       | 8                                                     | 8                     | 133                                  | 200 <sup>5</sup>                                                 | 180 | 180 |
|                      | 12                                                    |                       | 91                                   | 180                                                              | 160 | 150 |
|                      | 16                                                    |                       | 68                                   | 160                                                              | 140 | 130 |
|                      | 24                                                    |                       | 45                                   | 130                                                              | 115 | --  |

For SI: 1 inch = 25.4 mm, 1 psf = 47.88 Pa, 1 mph = 1.6 kph.

<sup>1</sup>The facer of the structural insulated panels (SIPs) shall be 7/16 Performance Category or thicker OSB sheathing meeting DOC PS 2 requirements. Wood structural panel (WSP) sheathing shall be minimum 7/16 Performance Category OSB or Group 1 plywood meeting DOC PS 1 or DOC PS 2 requirements.

<sup>2</sup>The tabulated values represent the capacity of the LP Lap Siding installed in accordance with the requirements of this table. The tabulated wind speed shall not exceed the SIP capacity for wind load resistance.

<sup>3</sup>For 3/8 and 7/16 Performance Categories lap siding, one ring shank fastener located ¾ inch from the top edge of the siding. Each successive course of lap siding must overlap a minimum of 1 inch. For Nickel Gap Lap, one fastener for each stud located in center of fastener groove in accordance with the manufacturer's application instructions. Fasteners must be a hot dip galvanized ring shank nails, with a minimum shank diameter of 0.092 inch. The length shall be long enough to fully penetrate wood structural facer panel.

<sup>4</sup>Three-second-gust; based on wind pressures acting toward and away from building surfaces, at 30-ft height in Zone 5 with smallest effective area in accordance with Chapter 26 of ASCE 7-22, ASCE 7-16 and ASCE 7-10, IRC Section R301.2.1, and IBC Section 1609.1.1.

<sup>5</sup>2024 and 2021 Table R301.2.1(1) and 2018 and 2015 Table R301.2(2) are limited to a maximum ultimate design wind speed,  $V_{ult}$ , of 180 mph.

**TABLE 5—PANEL SIDING INSTALLED VERTICALLY TO SIPS OR WOOD STRUCTURAL PANEL Sheathing  
MAXIMUM ULTIMATE COMPONENT AND CLADDING DESIGN WIND SPEED,  $V_{ult}^{1,2}$** 

| PERFORMANCE CATEGORY | MAXIMUM RING SHANK NAIL SPACING <sup>3</sup><br>(inches) |            | MAXIMUM ULTIMATE WIND PRESSURE<br>(psf) | MAXIMUM ULTIMATE DESIGN WIND SPEED, $V_{ult}^{4}$ (mph) |     |     |
|----------------------|----------------------------------------------------------|------------|-----------------------------------------|---------------------------------------------------------|-----|-----|
|                      |                                                          |            |                                         | Wind Exposure Category                                  |     |     |
|                      | Vertical                                                 | Horizontal |                                         | B                                                       | C   | D   |
| 3/8, 7/16 and 19/32  | 8                                                        | 8          | 133                                     | 200 <sup>5</sup>                                        | 180 | 180 |
|                      | 10                                                       | 10         | 87                                      | 180                                                     | 160 | 140 |
|                      | 12                                                       | 12         | 61                                      | 150                                                     | 130 | 120 |
|                      | 16                                                       | 16         | 34                                      | 115                                                     | --  | --  |

For SI: 1 inch = 25.4 mm, 1 psf = 47.88 Pa, 1 mph = 1.6 kph.

<sup>1</sup>The facer of the structural insulated panels (SIPs) shall be 7/16 Performance Category or thicker OSB sheathing meeting DOC PS 2 requirements. Wood structural panel (WSP) sheathing shall be minimum Performance Category 7/16 OSB or Group 1 plywood meeting DOC PS 1 or DOC PS 2 requirements.

<sup>2</sup>The tabulated values represent the capacity of the LP Panel Siding installed in accordance with the requirements of this table. The tabulated wind speed shall not exceed the SIP capacity for wind load resistance.

<sup>3</sup>One ring shank fastener located  $\frac{3}{4}$  inch from the top edge of the siding. Each successive course of lap siding must overlap a minimum of 1 inch. Fasteners must be a hot dip galvanized ring shank nails, with a minimum shank diameter of 0.092 inch. The length shall be long enough to fully penetrate wood structural facer panel. Ring shank nails fastened in a grid as specified.

<sup>4</sup>Three-second-gust; based on wind pressures acting toward and away from building surfaces, at 30-ft height in Zone 5 with smallest effective area in accordance with Chapter 26 of ASCE 7-22, ASCE 7-10, and ASCE 7-10, IRC Section R301.2.1, and IBC Section 1609.1.1.

<sup>5</sup>2024 and 2021 IRC Table R301.2.1(1) and 2018 and 2015 IRC Table R301.2(2) are limited to a maximum ultimate design wind speed,  $V_{ult}$ , of 180 mph.

**TABLE 6—VERTICAL SIDING OR LAP SIDING INSTALLED VERTICALLY  
MAXIMUM ULTIMATE COMPONENT AND CLADDING DESIGN WIND SPEED,  $V_{ult}^{1,2}$** 

| PERFORMANCE CATEGORY | SIDING TYPE                     | SIDING WIDTH<br>(inches)     | FASTENER EDGE SPACING<br>(inches o.c.) | MAXIMUM ALLOWABLE WIND PRESSURE<br>(psf) | MAXIMUM NOMINAL (ALLOWABLE) WIND SPEED, $V_{asd}^{6}$ (mph) |     |     |
|----------------------|---------------------------------|------------------------------|----------------------------------------|------------------------------------------|-------------------------------------------------------------|-----|-----|
|                      |                                 |                              |                                        |                                          | Wind Exposure Category                                      |     |     |
|                      |                                 |                              |                                        |                                          | B                                                           | C   | D   |
| 3/8 and 7/16         | Vertical Siding                 | 16 <sup>2</sup>              | 6 <sup>4</sup>                         | 133                                      | 200 <sup>7</sup>                                            | 180 | 180 |
|                      |                                 |                              | 12 <sup>4</sup>                        | 91                                       | 180                                                         | 160 | 150 |
|                      |                                 |                              | 16 <sup>4</sup>                        | 68                                       | 160                                                         | 140 | 130 |
|                      | Lap Siding Installed Vertically | 5 <sup>3</sup>               | 12 <sup>5</sup>                        | 133                                      | 200 <sup>7</sup>                                            | 180 | 180 |
|                      |                                 | 6 <sup>3</sup>               |                                        | 121                                      | 200 <sup>7</sup>                                            | 180 | 170 |
|                      |                                 | 7 <sup>3</sup>               |                                        | 104                                      | 200 <sup>7</sup>                                            | 170 | 160 |
|                      |                                 | 8 <sup>3</sup>               |                                        | 91                                       | 180                                                         | 160 | 150 |
|                      |                                 | 9 $\frac{1}{2}$ <sup>3</sup> |                                        | 77                                       | 170                                                         | 150 | 130 |
|                      |                                 | 12 <sup>3</sup>              |                                        | 61                                       | 150                                                         | 130 | 120 |
|                      |                                 |                              |                                        |                                          |                                                             |     |     |
|                      |                                 |                              |                                        |                                          |                                                             |     |     |
| 1/2 Nickel Gap       | Lap Siding Installed Vertically | 8 <sup>3</sup>               | 8                                      | 133                                      | 200 <sup>7</sup>                                            | 180 | 180 |
|                      |                                 |                              | 12                                     | 91                                       | 180                                                         | 160 | 150 |
|                      |                                 |                              | 16                                     | 68                                       | 160                                                         | 140 | 130 |
|                      |                                 |                              | 24                                     | 45                                       | 130                                                         | 115 | -   |

For SI: 1 inch = 25.4 mm, 1 psf = 47.88 Pa, 1 mph = 1.6 kph.

<sup>1</sup>Siding shall be installed over 7/16 Performance Category or thicker wood structural panel sheathing meeting DOC PS 1 or DOC PS 2 requirements.

<sup>2</sup>Vertical Siding installed in accordance with manufacturer's application instructions.

<sup>3</sup>Lap Siding installed vertically in accordance with manufacturer's application instructions.

<sup>4</sup>Fasteners must be hot dip galvanized ring shank nails with a minimum shank diameter of 0.092 inch. Length shall be long enough to fully penetrate wood structural panel wall sheathing. Fasteners must be spaced a maximum of 6 inches on center along the siding perimeter in accordance with the manufacturer's application instructions.

<sup>5</sup>Fasteners must be hot dip galvanized ring shank nails with a minimum shank diameter of 0.092 inch. Length shall be long enough to fully penetrate wood structural panel wall sheathing. Fasteners must be spaced at a maximum of 12 inches on center along alternating edges of the length of the trim/batten in accordance with manufacturer's application instructions.

<sup>6</sup>Three-second-gust; based on wind pressures acting toward and away from building surfaces, at 30-foot height in Zone 5 with smallest effective area per Chapter 26 of ASCE 7-22, ASCE 7-16 and ASCE 7-10, IRC Section R301.2.1 and IBC Section 1609.1.1.

**DISCLAIMER**

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## ICC-ES Evaluation Report

## ESR-1301 City of LA Supplement

Reissued February 2026

*This report is subject to renewal February 2028.*

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**DIVISION: 06 00 00—WOOD, PLASTICS AND COMPOSITES**  
**Section: 06 16 00—Sheathing**

**DIVISION: 07 00 00—THERMAL AND MOISTURE PROTECTION**  
**Section: 07 46 23—Wood Siding**

### REPORT HOLDER:

LOUISIANA-PACIFIC CORPORATION

### EVALUATION SUBJECT:

LP® SMARTSIDE® AND LP SMARTSIDE® EXPERTFINISH® TREATED-ENGINEERED-WOOD LAP, PANEL, SHAKE LAP, NICKEL GAP LAP, AND VERTICAL SIDING

### 1.0 REPORT PURPOSE AND SCOPE

#### Purpose:

The purpose of this evaluation report supplement is to indicate that LP® SmartSide® and LP® SmartSide® ExpertFinish® Treated-Engineered-Wood Lap, Panel, Shake Lap, Nickel Gap Lap, and Vertical Siding, described in ICC-ES evaluation report [ESR-1301](#), have also been evaluated for compliance with the codes noted below as adopted by the Los Angeles Department of Building and Safety (LADBS).

#### Applicable code editions:

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

### 2.0 CONCLUSIONS

The LP® SmartSide® and LP® SmartSide® ExpertFinish® Treated-Engineered-Wood Lap, Panel, Shake Lap, Nickel Gap Lap and Vertical Siding, described in Sections 2.0 through 7.0 of the evaluation report [ESR-1301](#), comply with the LABC Chapters 14 and 23, and the LARC, and are subject to the conditions of use described in this supplement.

### 3.0 CONDITIONS OF USE

The LP® SmartSide® and LP® SmartSide® ExpertFinish® Treated-Engineered-Wood Lap, Panel, Shake Lap, Nickel Gap Lap and Vertical Siding described in this evaluation report supplement must comply with all of the following conditions:

- All applicable sections in the evaluation report [ESR-1301](#).
- The design, installation, conditions of use and identification are in accordance with the 2021 *International Building Code*® (IBC) and 2021 *International Residential Code* (IRC) provisions noted in the evaluation report [ESR-1301](#).
- The design, installation and inspection are in accordance with additional requirements of LABC Chapters 16 and 17, as applicable.
- Panels must be used only in locations where combustible materials are permitted in the LABC.
- Under the LARC, an engineered design in accordance with LARC Section R301.1.3 must be submitted.
- The LP® SmartSide® and LP® SmartSide® ExpertFinish® Treated-Engineered-Wood Lap, Panel, Shake Lap, Nickel Gap Lap, and Vertical Siding have not been evaluated under the LABC Chapter 7A or the LARC Section R337 for use in the exterior design and construction of new buildings located in any Fire Hazard Severity Zone within State Responsibility Areas of any Wildland – Urban Interface Area.

This supplement expires concurrently with the evaluation report, reissued February 2026.

# Technical Note No. 014



## Installing LP® SmartSide® Trim and Lap Siding on Concrete or Masonry Walls over Furring Strips ( $V_{ult}$ Wind Speeds)

This Technical Note is an addendum to the LP® SmartSide® Trim and Fascia, and LP® SmartSide® Lap siding Application Instructions ("Instructions"). It is intended to provide an alternative fastening option for LP SmartSide trim and lap siding on concrete or masonry walls over furring strips. The Instructions remain effective except as may be modified by this Note. Refer to the Instructions for all other aspects of product installation.

### Trim and lap siding may be installed on concrete or masonry walls over furring strips:

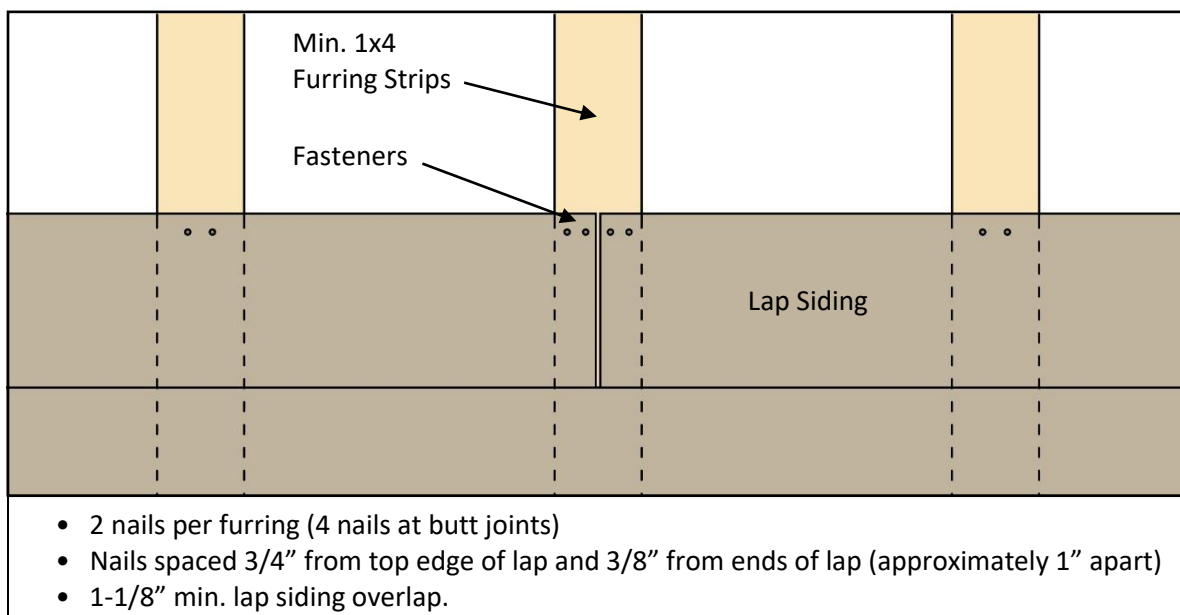
- Trim and lap siding must be installed over a minimum 1x4 nominal size Southern Pine furring strips with a specific gravity greater than or equal to 0.55.
  - Install furring strips no more than 16" o.c. in wind speed areas less than or equal to 200 MPH<sup>1</sup>
- Siding shall be installed to safely support all loads, including wind loads, of the locally adopted building codes. The installation of siding shall result in a system that provides a load path that meets the requirements for the transfer of loads from their point of origin through the load-resisting elements to the structure. The mechanical connection of the furring strip to the concrete or masonry structure is the responsibility of a design professional. LP assumes no liability for any loss or damage caused by the design of the mechanical connection of the furring strip to the concrete or masonry structure and is expressly released by the purchaser or owner from any such loss or liability.
- Minimum Fastener Type:
  - Corrosion Resistant – Hot Dipped Galvanized or equal (ASTM A153)<sup>2</sup>
  - Ring Shank<sup>3</sup>
  - Shank diameter = 0.120 inch
  - Head diameter = 0.270 inch
  - Length = fastener shall fully penetrate a minimum 1/2 inch into nailable furring

**Caution:** fastener shall not bottom out on masonry wall leaving the fastener head less than flush with the face of trim or siding.

- The IRC and Florida Residential Code require a water-resistant barrier be used on all exterior walls, except over concrete or masonry walls per Exception 1 in Section R703.1.1 of both Codes. LP always requires the use of a WRB behind LP® SmartSide® products. LP has no responsibility for any damage arising from a failure to use a WRB.

## Lap Siding

- Limitations:
  - For use with Strand substrate lap (all widths) and/or Fiber substrate lap (up to 8 inches wide only)
  - Excluding Cedar Shake Fiber Lap, Bold Profiles Fiber Lap, Self-Aligning Fiber Lap, and SmartLock™ Strand Lap
- Fastening Requirements:
  - Place fasteners 3/4 inch from top edge of lap siding
  - Increase minimum lap siding overlap to 1-1/8 inch
  - Blind nail two fasteners per furring strip (**every 16" o.c.**)



## Trim

- Limitations:
  - In Hurricane-Prone Regions or locations where negative wind loads are a concern, box or common nails should be used.
    - Trim nails may be used in Non-Hurricane-Prone Regions with the following cautions: Do not overdrive or counter sink the fastener, nail flush with the surface of trim. Detachment of trim is not covered by the LP® SmartSide® limited warranty whether common, box, or trim nails are used.
- Fastening Requirements:
  - Two fasteners spaced a maximum of every 24 inches o.c. along the length of the trim, or two fasteners at both ends with additional fasteners spaced a maximum of every 12 inches o.c. along alternating edges the length of the trim.
  - Trim under 7 inches wide use a minimum of 2 nails per width. Trim 7 to 12 inches wide use a minimum of 3 nails per width. Trim over 12 inches wide use a minimum of 4 nails per width.

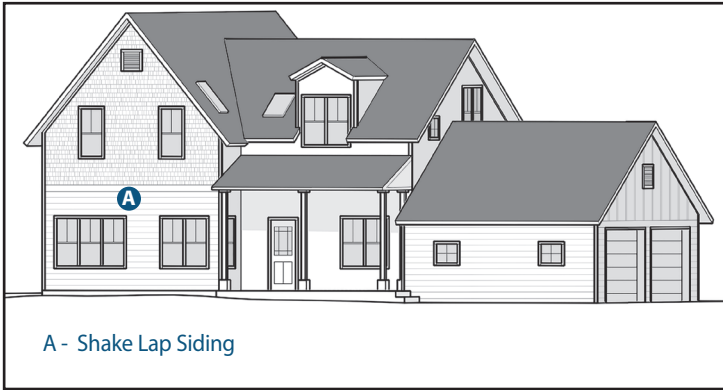
<sup>1</sup> Wind speed is Ultimate Design Wind Speed/ Zone 5/ 10 ft<sup>2</sup>/ 30 foot height.

<sup>2</sup> Corrosion resistance and capable of preventing rust, stain and deterioration of the fasteners under normal outdoor environmental conditions for a period of no less than 50 years. For further information or guidance, consult your nail supplier/manufacturer.

<sup>3</sup> Ring shank nails shall be capable of the performance specified in Table 1A Ring-Shank Nail Withdrawal Loads of APA publication TT-109, *Wood Structural Panels Used as Nailable Sheathing* when tested in accordance with ASTM D 1761, *Standard Test Method for Mechanical Fasteners in Wood* and NDS-2015. For further information or guidance, consult your nail supplier/manufacturer.



## LP SMARTSIDE SHAKE BRUSHED SMOOTH OR CEDAR TEXTURE PRIMED LAP SIDING



### ON SITE STORAGE

#### HANDLING

- Handle siding with care during storage, temporary placement, and application.
  - Additional care is required to ensure shiplap edges are not damaged.

#### STORAGE

- Store siding:
  - Under a roof or waterproof covering (like a unit cover/bonnet).
  - Off the ground, on a flat-drained surface using supports that provide a min. 1-1/2" (38 mm) clearance from surface.
    - This includes when staging siding around jobsite during installation.
- LP is not responsible for damage due to improper handling and storage of the siding.



Diagram 1a

### PREPARATION

#### General Information

- At the time of manufacture, siding meets or exceeds the performance standards set forth in ICC-ES AC321 and has achieved code recognition under ESR-1301 and CCMC 11826-L, APA recognition under PR-N124, and HUD-MR1318c. For copies of these reports, call LP Customer Support at 888-334-3551 or go online at <https://lpcorp.com/product-literature>
- LP's application instructions describe the minimum requirements needed to assure LP® SmartSide® Limited Warranty coverage.
- Failure to follow the LP application instructions could result in reduced product service life and may lead to denial of coverage under the LP SmartSide Limited Warranty.

#### Before You Begin

- Minimum 6 inch (152 mm) clearance must be maintained between siding and finish grade (ground cover).
- Siding applied adjacent to porches, patios, walks, roofs or other hard finished surfaces must have a clearance of at least 1 inch (25 mm) above that surface. (Diagram 2a)
- Siding must not be in direct contact with masonry, concrete, brick, stone, stucco or mortar. Backer rod is recommended to properly space materials at these locations.
- Apply siding in a manner that prevents moisture intrusion and water accumulation.
- All wood substrate exposed to the weather must be sealed in a manner the prevents moisture intrusion and water accumulation.
  - Seal ALL exposed cuts of siding and trim. Field spray applied coatings on cuts are not recommended.
  - Sealing can be accomplished by applying a coating or sealant according to the manufacturer's requirements.
- Do not use staples.
- **Siding is designed to be installed directly to wood structural panel wall sheathing**, or can be installed directly to studs spaced a maximum of 16 inches (406 mm) on-center (o.c.), or over rigid foam insulation or to furring strips over concrete/masonry walls.

## PREPARATION

### Trim

- Trim should be thick enough so the shake does not extend beyond the face of the trim.
  - LP SmartSide 540 Series Trim is recommended when the shake reveal selected ranges between a maximum of 10 inches (254 mm) to a minimum of 7 inches (178 mm).
- Trim and fascia must be applied in a manner that will not allow moisture intrusion or water accumulation.

### Moisture Control

- Moisture control and moisture vapor control are critical elements of proper housing design and construction. Check your local building codes for application procedures for handling moisture and water vapor in your area.
- Follow all applicable building code specifications relating to prevention of moisture intrusion into the wall assembly. LP® SmartSide® siding is a wood product, and, as with all wood products, must be kept free from excessive moisture. Lack of proper ventilation; exposure to constant or repetitive sources of water such as sprinklers, condensation, inadequate flashing; improper sealing; or failure to follow common building practices that prevent moisture intrusion into the wall system may cause damage, and products subject to such treatment will be excluded from warranty coverage.
- As with all wood products, do not apply engineered wood siding to a structure having excessive moisture conditions such as drying concrete, plaster, or wet blown cellulose insulation. If such conditions exist, the building should be well ventilated to allow it to dry prior to the application of the siding.
- Gutters with kick-out flashing and eave drip edge are recommended for control of roof water run off. (Diagram 2a)

### Flashing Windows, Doors & Openings

- All openings must be properly sealed or flashed in a manner that prevents moisture intrusion or accumulation.
- Follow window and door manufacturers' instructions for flashing these components.
- Refer to LP SmartSide Trim & Fascia Application Instructions for additional flashing information and details.

### Water-Resistant Barrier (WRB)

- A properly installed, code approved water-resistive barrier is required behind the siding. Consult your local building code for details.
- LP will assume no responsibility for water penetration or damage it may cause.

### Water Run-Off Control

- Properly installed flashing materials will help direct water away from common water collecting areas.
- All flashing material shall be metal or another durable material that under normal outdoor environmental conditions will last for a period of not less than 50 years.
- All flashing materials must have a minimum 4 inch (102 mm) upper leg.
  - Add a 4 inch (102 mm) wide adhesive flashing to flash legs less than 4 inches (102 mm).
- Properly integrate flashing with the secondary WRB according to the WRB manufacturer's instructions. Use housewrap, flashing tape, kickout flashing, step flashing, Z-flashing, drip edge, gutters or other items as needed to maintain counter-flashing principle.
- Install kickout flashing to direct the water into the gutter. (Diagram 2a)
- Install step flashing that has a minimum 4 inch (102 mm) upper leg. (Diagram 2a)
- Maintain a minimum 1 inch (25 mm) clearance between the end of the gutter and the adjoining wall to allow for proper maintenance of the siding. (Diagram 2a)
- Seal ALL exposed cut edges.

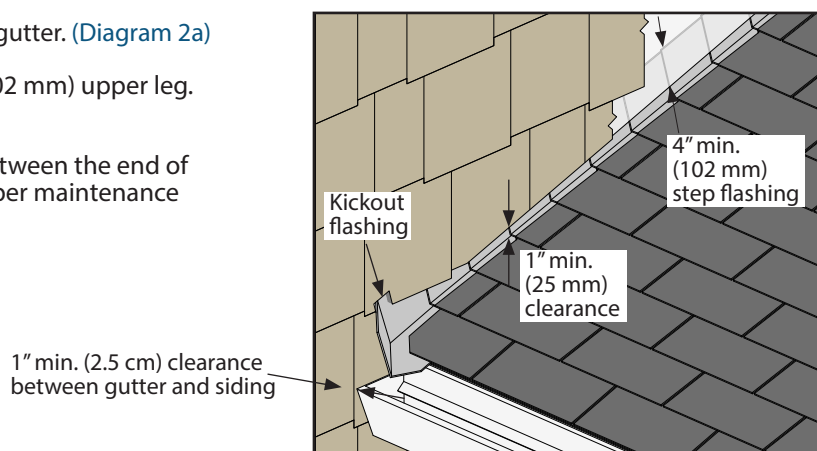


Diagram 2a

## PREPARATION

### Cutting

- For the cleanest cut and longer blade life, a fine-tooth carbide tipped blade is recommended.
- Siding is manufactured with a special edge coating which reduces moisture intrusion. If siding is ripped you must take special care to prime, paint and seal all exposed wood fiber as described in the Finishing Instructions on page 8.
- Climb cut the surface of the siding such that the rotation of the blade cuts downward on the primed or prefinished surface.
- **Do not miter edges.**

### General Application Equipment

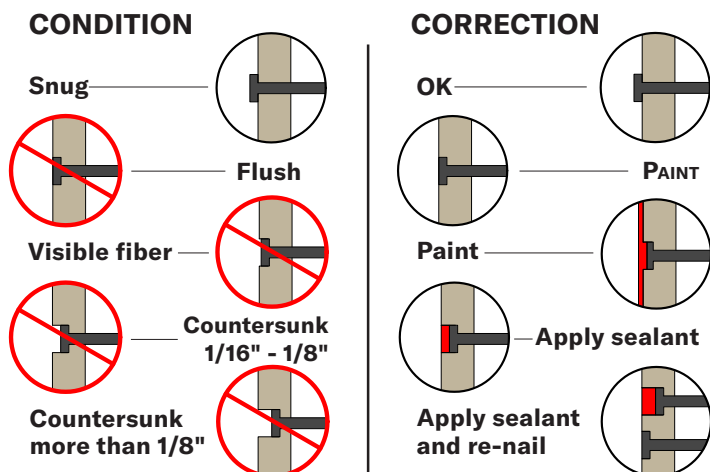


Diagram 3a

- **Fasteners:** Apply and correct overdriven fasteners as shown in [Diagram 3a](#).
- **Sealant:** Use an exterior-quality, non-hardening, paintable sealant. Use a Class 25 or higher exterior sealant meeting the ASTM C920 Standard for Specification for Elastomeric Joint Sealants. Follow the sealant manufacturer's instructions for application.
- **Paint:** A premium quality exterior 100% acrylic latex paint, specially formulated for use on wood or engineered wood substrates is highly recommended. Semi-gloss or satin finish oil or alkyd paints are acceptable. For flat alkyd paint, check with the coating manufacturer to ensure it is suitable for engineered wood siding.

## INSTALLATION

### Fastening Instructions - Sheathing Only

- Install over wood structural panels a minimum 7/16 Category with an APA® Trademark that contains the consensus Standard DOC PS 1 or DOC PS 2.
  - Exception: LP® FlameBlock® Fire-Rated OSB Sheathing.
- **Fastener size:** Use a minimum **0.092 inch** diameter **ring shank** nail, hot-dipped galvanized (ASTM A153) or equivalent. Fasteners shall be corrosion resistant and capable of preventing rust, stain and deterioration under normal outdoor environmental conditions for a period of no less than 50 years.
- **Fastener placement:** A minimum 3/4 inch (19 mm) down from top edge of siding. Fasteners shall be placed 1 inch (25 mm) from ends. ([Diagram 3b & 4b](#))
- **Fastener length:** Long enough to fully penetrate wood structural panel sheathing by at least 1/4 inch (6 mm). Ensure that the ring shanks of the nail fully engage the wood structural panel sheathing. ([Diagram 3b](#))
- **Fastener spacing:** Space ring shank nails a maximum of 8 inches (203 mm) o.c. across the top of siding. ([Diagram 4a](#))
- Apply siding to wall assembly directly to wood structural panel sheathing.
- Begin by nailing a starter strip approximately 3/8 inch (10 mm) thick x 1-1/2 inches (38 mm) wide flush with bottom edge of sill plate. ([Diagram 5d](#))
  - Starter strip serves two purposes
    - o Provides separation of siding from CMU or poured concrete foundation.
    - o Provides proper angle to first course of siding.
  - Exception: starter strip may be omitted if separation from concrete is maintained. Separation can also be achieved by ensuring WRB is placed behind siding.

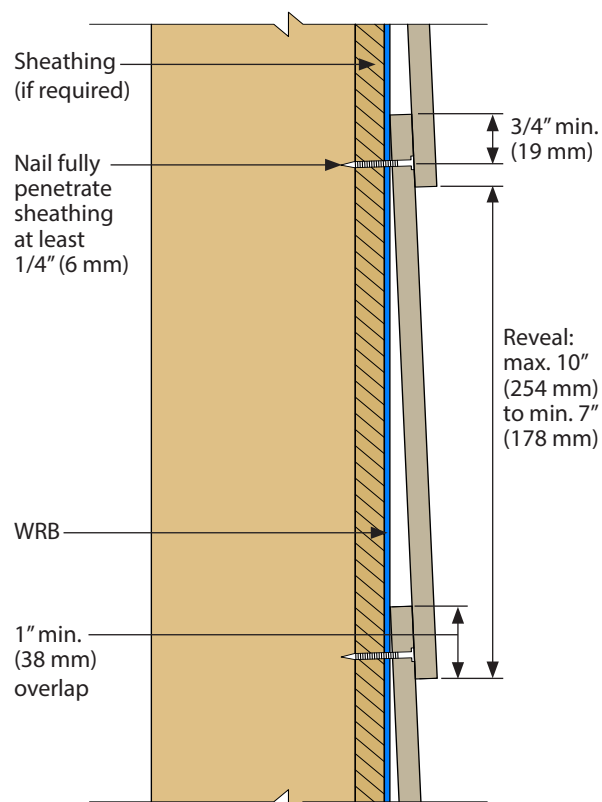


Diagram 3b

## INSTALLATION

### Fastening Instructions - Sheathing Only *(continued)*

- LP® SmartSide® Shake is a reversible siding product that can be applied with either a staggered edge appearance or rotated 180 degrees to achieve straight edge appearance. (Diagrams 4a & 4b)
- Staggered Edge:** Starting from **left** to right, level and install shake so bottom edge is no more than 1/2 inch (13 mm) below the starter strip (Diagrams 4a), or
- Straight Edge:** Starting from **right** to left, level and install shake so bottom edge is no more than 1/2 inch (13 mm) below the starter strip. (Diagrams 4b)
- Use the alignment groove in shiplap edge as a spacing guide. Do not overlap the alignment groove. (Diagrams 4b & 5b)
  - Alternate reveals are allowed. Trim should be thick enough so the shake does not extend beyond its face.
- To obtain the best shake appearance using **staggered edge or straight edge**, cut and fasten the starter pieces for each course using a 12 inch (305 mm) stair-step method as shown in (Diagrams 4a & 4b).
- Overlap shakes using the alignment notch to conceal nail heads and achieve uniform reveal. The alignment notch provides for an overlap of at least 1 inch (25 mm) at the shortest staggered edge to a maximum of 1-3/4 inches (45 mm) at the longest staggered edge regardless of whether the staggered or straight edge is exposed.
- The shake should fit against the window/door trim or the corner board leaving a 3/16 inch (5 mm) gap.
  - Shiplap at this location must be removed to full panel thickness and caulked.
  - The opposite shiplap edge is facing up, to receive the next piece of siding.

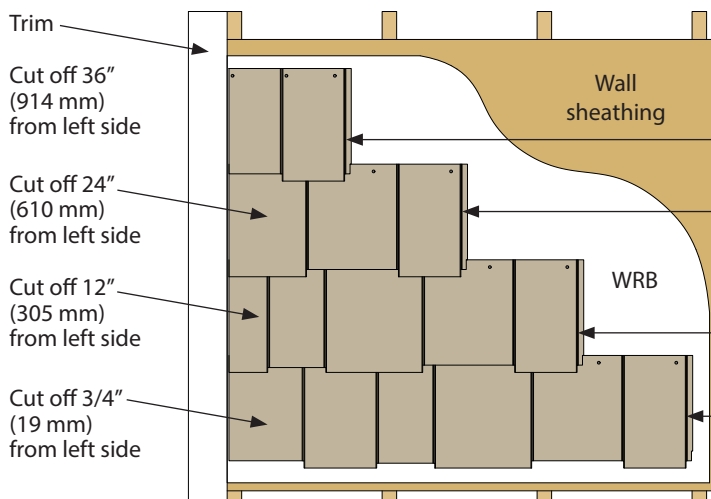


**Diagram 4a**  
**Staggered Edge**

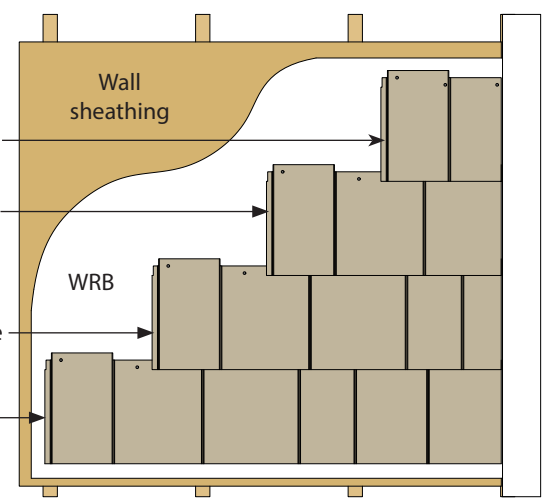


**Diagram 4b**  
**Straight Edge**

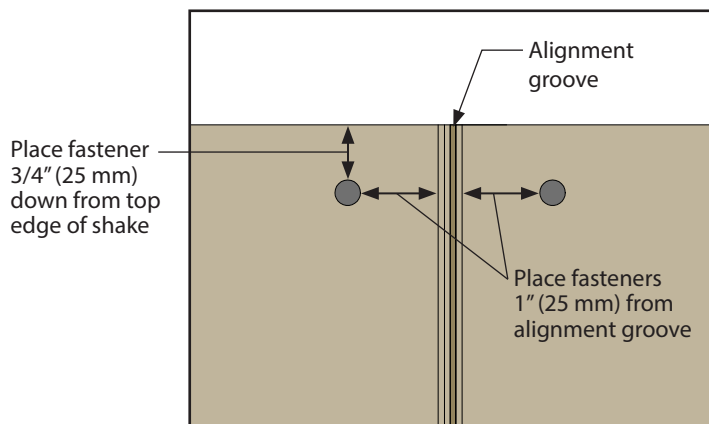


**Diagram 4c**

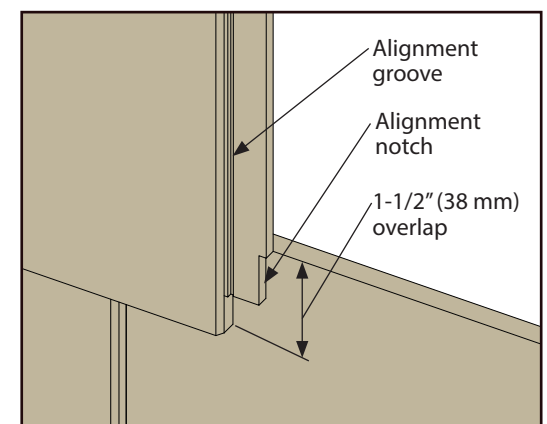


**Diagram 4d**

INSTALLATION

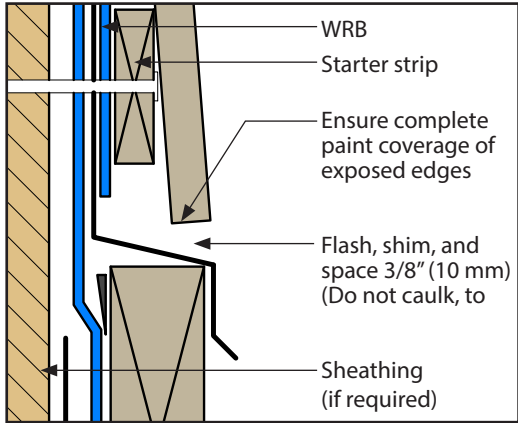


Diagram 5a

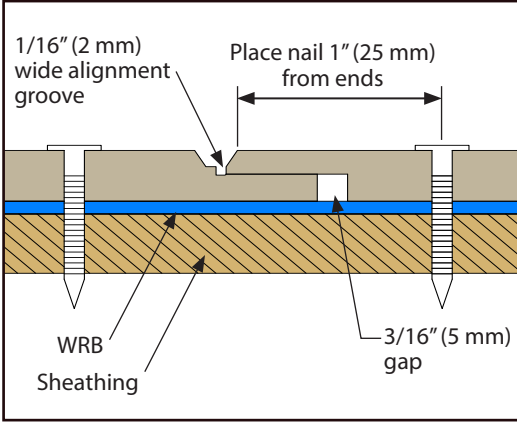


Diagram 5b

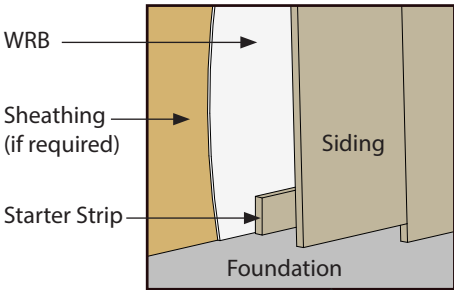


Diagram 5d

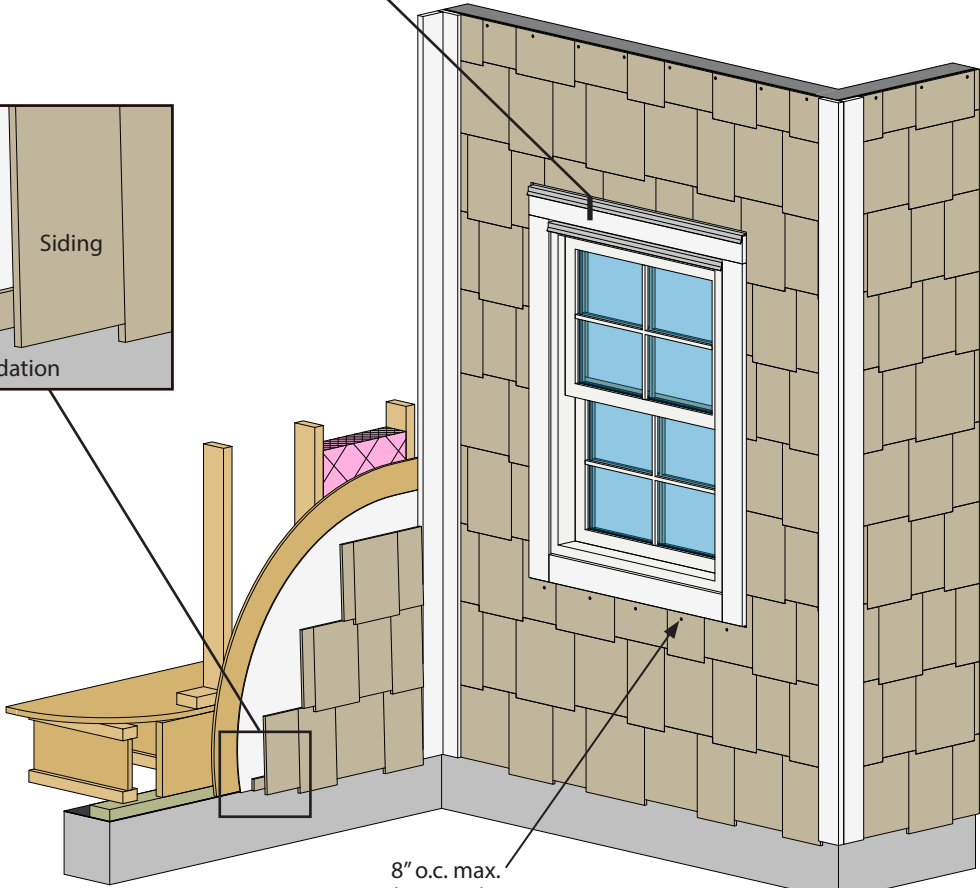
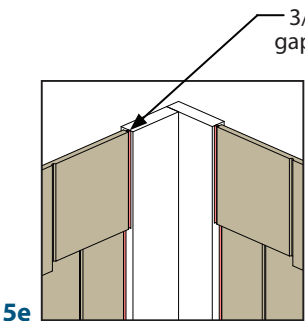
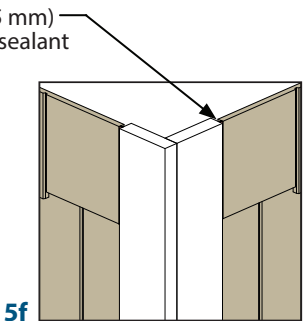


Diagram 5c



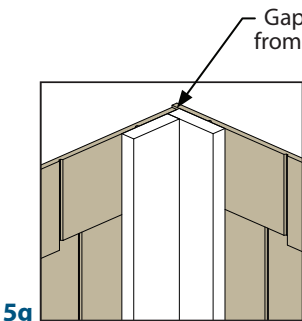
5e

**PREFERRED  
INSIDE CORNER**



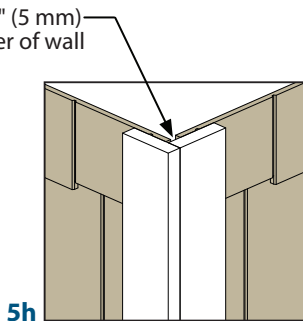
5f

**PREFERRED  
OUTSIDE CORNER**



5g

**ALTERNATE  
INSIDE CORNER**



5h

**ALTERNATE  
OUTSIDE CORNER**

## INSTALLATION

### Alternative Fastening Option: Fastening Instructions - Direct to Stud

- Siding may be installed directly to studs spaced no greater than 16" (406 mm) o.c. that have adequate corner bracing.
- Use a minimum **0.092 inch** diameter **smooth shank** nail, hot-dipped galvanized (ASTM A153) or equivalent. Fasteners shall be corrosion resistant and capable of preventing rust, stain and deterioration under normal outdoor environmental conditions for a period of no less than 50 years.
- Fastener placement:** A minimum 3/4 inch (19 mm) down from top edge of siding. Do not place fastener through top shiplap, place fastener 1 inch (25 mm) from end. (Diagram 6b) Place fastener into bottom shiplap a minimum 3/4 inch (19 mm) down from top edge of siding. (Diagram 6b)
- Fastener length:** Long enough to fully penetrate studs by 1-1/2 inch (38 mm). (Diagram 6b)
- Fastener spacing:** Space nails a maximum of 16 inches (406 mm) o.c. across the top of siding. (Diagram 6a)
- Begin by nailing a starter strip approximately 3/8 inch (10 mm) thick x 1-1/2 inches (38 mm) wide flush with bottom edge of sill plate. (Diagram 5d)
  - Starter strip serves two purposes
    - Provides separation of siding from CMU or poured concrete foundation.
    - Provides proper angle to first course of siding.
  - Exception: starter strip may be omitted if separation from concrete is maintained. Separation can also be achieved by ensuring WRB is placed behind siding.
- Staggered Edge:** Starting from **left** to right, level and install shake so bottom edge is no more than 1/2 inch (13 mm) below the starter strip, or
- Straight Edge:** Starting from **right** to left, level and install shake so bottom edge is no more than 1/2 inch (13 mm) below the starter strip.
- Use the alignment groove in shiplap edge as a spacing guide. Do not overlap the alignment groove. (Diagrams 4b & 5b)
  - Alternate reveals are allowed. Trim should be thick enough so the shake does not extend beyond its face.
- To obtain **staggered edge** appearance, cut and fasten starter pieces for each course using a 16 inch (406 mm) stair-step method as shown in (Diagrams 6a).
- To obtain **straight edge** appearance, rotate shake siding drip edge 180 degrees, cut and fasten starter pieces for each course using a 16 inch (406 mm) stair-step method.
- Overlap shakes using the alignment notch to conceal nail heads and achieve uniform reveal. The alignment notch provides for an overlap of at least 1 inch (25 mm) at the shortest staggered edge to a maximum of 1-3/4 inches (45 mm) at the longest staggered edge regardless of whether the staggered or straight edge is exposed.
- The shake should fit against the window/door trim or the corner board leaving a 3/16 inch (5 mm) space.
  - Shiplap at this location must be removed to full panel thickness and caulked.
  - The opposite shiplap edge is facing up, to receive the next piece of siding.
- When fastening direct to stud, every other shake line (or keyway) will fall in line with the shake lines on the courses above and below. (Diagram 6a)

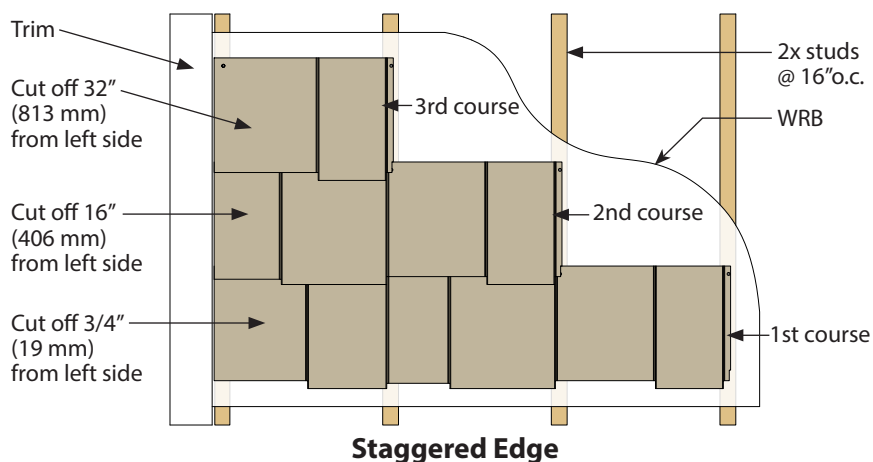


Diagram 6a

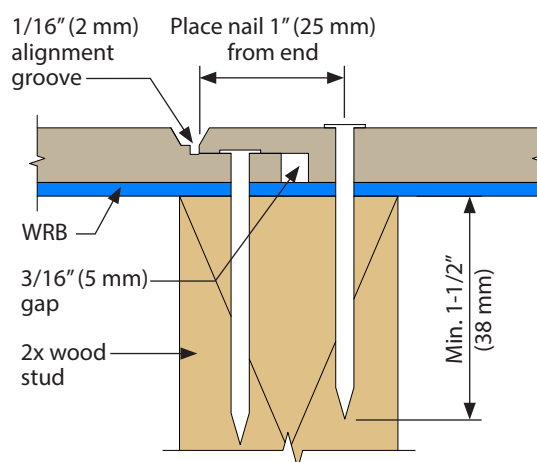


Diagram 6b

## INSTALLATION

### Alternative Fastening Option:

#### Attachment to Furring Strips over Rigid Foam Insulation > 1 inch, or Furring Strips over Concrete/Masonry Walls

- For rigid foam insulation greater than 1 inch (25 mm), install over a minimum 1x4 (25 mm x 102 mm) nominal size Southern Pine furring strips with a specific gravity greater than or equal to 0.55, no more than 12 inches (305 mm) o.c. in wind speed areas less than or equal to 200 mph.
- Use a minimum **0.120 inch** diameter **ring shank** nail, hot-dipped galvanized (ASTM A153) or equivalent.
- Fastener placement:** A minimum 3/4 inch (19 mm) down from top edge of the siding.
- Fastener length:** Shall fully penetrate a minimum 1/2 inch (13 mm) into furring strips. Caution: fastener shall not bottom out on a masonry wall leaving the fastener head less than flush with the face of trim or siding. (Diagram 7b)
- Blind nail with a minimum of two ring shank nails per furring strip. (Diagram 7a)
- Shiplap joints shall occur over furring strips and joints should be staggered. (Diagram 7b)
- Overlap shakes using the alignment notch to conceal nail heads and achieve uniform reveal. The alignment notch provides for an overlap of at least 1 inch (25 mm) at the shortest staggered edge to a maximum of 1-3/4 inch (45 mm) at the longest staggered edge regardless if whether the staggered or straight edge is exposed.
- Siding shall be installed to safely resist all loads, including wind loads, of the locally adopted building codes. The installation of siding shall result in a system that provides a load path that meets the requirements for the transfer of loads from their point of origin through the load-resisting elements to the structure. The mechanical connection of the furring strip to structure is the responsibility of a design professional. LP assumes no liability for any loss or damage caused by the design of the mechanical connection of the furring strip to the structure and is expressly released by the purchaser or owner from any such loss or liability.
- Exception:** Shakes may be nailed directly to rigid foam insulation less than or equal to 1 inch (25 mm) thick, unless a drainage plane is required by the local building code. Nail length must be increased to ensure a minimum 1-1/2 inch (38 mm) fastener penetration into the structural framing or wood structural panels and structural framing
- Louisiana-Pacific Corporation will assume no responsibility for any damage or condition arising from the use of rigid foam insulation.

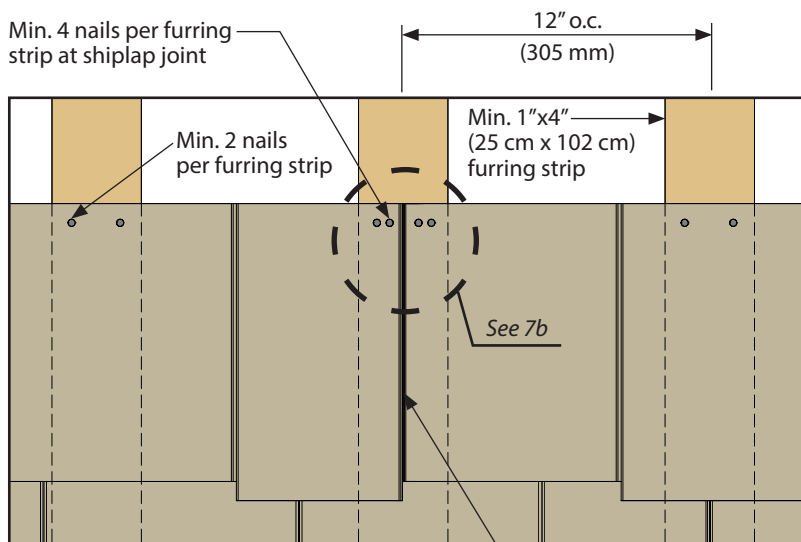


Diagram 7a

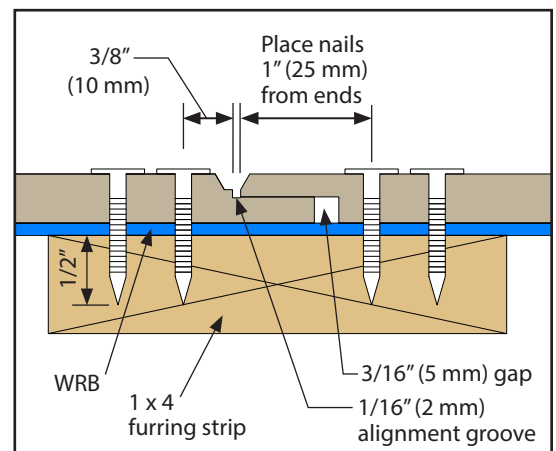


Diagram 7b

## INSTALLATION

### Finishing Instructions

- When caulk is required, use a high-quality, non-hardening, paintable sealant meeting ASTM C920, minimum Class 25.
  - Follow sealant manufacturer's instructions for application.
- Paint all exposed surfaces, including all drip edges or where water will hang. For best results, use a high-quality 100% acrylic exterior paint specially formulated for use on wood and engineered wood substrates; oil paint is acceptable.
  - DO NOT USE stain or vinyl-based paint.
  - Apply paint as soon as possible or within 180 days.
  - Follow paint manufacturer's instructions for application.
  - Follow LP's Care & Maintenance Instructions.

#### CEDAR TEXTURE Shake Lap Siding:

- For best results use semi-gloss finish.

#### BRUSHED SMOOTH Shake Lap Siding:

- Either flat, satin or semi-gloss coatings can be applied to brushed smooth finish siding.
  - Each offers different appearance & maintenance benefits.

### LIMITED WARRANTY

LP® SmartSide® Trim & Siding is covered under the LP® SmartSide® Prorated 50-Year Limited Warranty. Refer to the warranty, which is available online, for complete terms and conditions. Product must be transported, stored, handled, installed, finished, and maintained in accordance with all published application, finishing, care, and maintenance instructions, technical notes, and bulletins (collectively, "Instructions") in effect at the time of installation.

Failure to follow such Instructions will make the limited warranty inapplicable as to the products affected by such failure. No modification or exception to these Instructions and no non-published recommendations are valid unless issued in writing on a project-specific basis by LP's Sr. Director of Technology prior to application. Always check and comply with local building codes. Even where these instructions approve installation over certain substrates or incorporate requirements of building codes, LP's liability for the performance of the product is limited as expressly provided in the Limited Warranty.

FIND ALL LP® SMARTSIDE® PRODUCT LITERATURE AT [LPCORP.COM/PRODUCT-LITERATURE](http://LPCORP.COM/PRODUCT-LITERATURE)

**⚠ WARNING: Drilling, sawing, sanding or machining wood products can expose you to wood dust, a substance known to the State of California to cause cancer. Avoid inhaling wood dust or use a dust mask or other safeguards for personal protection.**

For more information go to [www.P65Warnings.ca.gov/wood](http://www.P65Warnings.ca.gov/wood).

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