



# Technical Bulletin

## How to Read ICC-ES Evaluation Service® ESR-1539® Part VII Los Angeles Building Code & Residential Code Supplement Florida Building Code Supplement

### Preface:

This is the last in a series of technical bulletins designed to provide a greater understanding of the ICC Evaluation Service® evaluation report ESR-1539® providing information on Appendix A; mathematical formulas for calculating fastener withdrawal, lateral design values for both nails and staples, specific gravity, dowel bearing strength and staple deformation information and Appendix B the recognized products of the listees in ESR-1539®.

The driven fasteners (nails and staples) described in the evaluation report are used in engineered and non-engineered (prescriptive) structural connections and are primarily installed using power tools. This technical bulletin references **ESR-1539® Reissue Date 01/2019.**  
[http://www.icc-es.org/Reports/pdf\\_files/ESR-1539.pdf](http://www.icc-es.org/Reports/pdf_files/ESR-1539.pdf)

### Background:

The first technical bulletin in this series, Terminology Used In ICC Evaluation Service® Report ESR-1539®, provides a brief description of several technical and administrative terms used.

Part I: Basic ESR Information covers the first four pages of ESR-1539® and provides insight on the format of the document, subject matter and product descriptions.

Part II: Fastener Basics and Tables 1-3 provides information on nail and staple terminology, collation, and the referenced codes in the evaluation report.

Part III: Fastener Withdrawal & Diaphragm Allowable Shear Tables addresses values for nail and staple withdrawal for a variety of wood specific gravities and details on the allowable shear tables for wood structural products.

Part IV: Shear Wall Allowable Shear Tables provides information on shear walls made of wood structural products (plywood and OSB) and fiberboard sheathing, gypsum lath, and other materials.

Part V: Framing Tables addresses the different fasteners (code prescribed) and alternatives for the multiple framing connections referenced in the IBC® and IRC®.

Part VI: Appendices A & B addresses the reference design values for lateral design of nailed and stapled connections, referenced fastener withdrawal values and deflection calculation for diaphragms and shear walls in Appendix A. Appendix B address the recognized products by each listee.

### **2017 Los Angeles Building Code (LABC) & Los Angeles Residential Code (LARC) Supplement & 2017 Florida Building Code (FBC) Supplement**

In May 2018, the LA and Florida Code supplements were added to ESR-1539. Each supplement has a specific condition of use based on these unique codes. These supplements renew when the master report renews.



## ICC-ES Evaluation Report

## ESR-1539 LABC and LARC Supplement

Reissued July 2018

Revised January 16, 2019

This report is subject to renewal July 2020.

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A Subsidiary of the International Code Council®

DIVISION: 06 00 00—WOOD, PLASTICS AND COMPOSITES

Section: 06 05 23.13—Nails

Section: 06 05 23.15—Staples

### REPORT HOLDER:

INTERNATIONAL STAPLE, NAIL AND TOOL ASSOCIATION (ISANTA)

### EVALUATION SUBJECT:

POWER-DRIVEN STAPLES AND NAILS

### 1.0 REPORT PURPOSE AND SCOPE

#### Purpose:

The purpose of this evaluation report supplement is to indicate that the Power-Driven Staples and Nails described in ICC-ES master evaluation report [ESR-1539](#), 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:

- 2017 *City of Los Angeles Building Code* (LABC)
- 2017 *City of Los Angeles Residential Code* (LARC)

### 2.0 CONCLUSIONS

The Power-Driven Staples and Nails, described in Sections 2.0 through 7.0 of the master evaluation report [ESR-1539](#), comply with the LABC Chapter 23 and the LARC and are subject to the conditions of use described in this supplement.

### 3.0 CONDITIONS OF USE

The Power-Driven Staples and Nails described in this evaluation report must comply with all of the following conditions:

- All applicable sections in the master evaluation report [ESR-1539](#).
- The design, installation, conditions of use and identification of the nails and staples are in accordance with the 2015 *International Building Code*® (2015 IBC) provisions noted in the master evaluation report [ESR-1539](#).
- The design, installation and inspection are in accordance with additional requirements of LABC Chapters 16 and 17, and Sections 2304.10, 2305, 2306 and 2308, and LARC Sections R502, R503, R602, R802 and R803, as applicable.
- In accordance with LABC Sections 2306.2 and 2306.3, engineered diaphragms and shear walls constructed with staples as described in Section 4.1.2 of the master evaluation report [ESR-1539](#) are permitted only for structures assigned to Seismic Design Category A, B or C.
- Nails and staples made from bright steel wire must not be used in exterior or exposed conditions.
- The hillside building provisions in LABC Section 2301.1 are excluded from this supplement.

This supplement expires concurrently with the master report, reissued July 2018 and revised January 16, 2019.

## ICC-ES Evaluation Report

## ESR-1539 LABC and LARC Supplement

Reissued July 2018

Revised January 16, 2019

This report is subject to renewal July 2020.

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**DIVISION: 06 00 00—WOOD, PLASTICS AND COMPOSITES**

**Section: 06 05 23.13—Nails**

**Section: 06 05 23.15—Staples**

### REPORT HOLDER:

INTERNATIONAL STAPLE, NAIL AND TOOL ASSOCIATION (ISANTA)

### EVALUATION SUBJECT:

POWER-DRIVEN STAPLES AND NAILS

### 1.0 REPORT PURPOSE AND SCOPE

#### Purpose:

The purpose of this evaluation report supplement is to indicate that the Power-Driven Staples and Nails described in ICC-ES master evaluation report [ESR-1539](#), 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:

- 2017 City of Los Angeles Building Code (LABC)
- 2017 City of Los Angeles Residential Code (LARC)

### 2.0 CONCLUSIONS

The Power-Driven Staples and Nails, described in Sections 2.0 through 7.0 of the master evaluation report [ESR-1539](#), comply with the LABC Chapter 23 and the LARC and are subject to the conditions of use described in this supplement.

### 3.0 CONDITIONS OF USE

The Power-Driven Staples and Nails described in this evaluation report must comply with all of the following conditions:

- All applicable sections in the master evaluation report [ESR-1539](#).
- The design, installation, conditions of use and identification of the nails and staples are in accordance with the 2015 *International Building Code*® (2015 IBC) provisions noted in the master evaluation report [ESR-1539](#).
- The design, installation and inspection are in accordance with additional requirements of LABC Chapters 16 and 17, and Sections 2304.10, 2305, 2306 and 2308, and LARC Sections R502, R503, R602, R802 and R803, as applicable.
- In accordance with LABC Sections 2306.2 and 2306.3, engineered diaphragms and shear walls constructed with staples as described in Section 4.1.2 of the master evaluation report [ESR-1539](#) are permitted only for structures assigned to Seismic Design Category A, B or C.
- Nails and staples made from bright steel wire must not be used in exterior or exposed conditions.
- The hillside building provisions in LABC Section 2301.1 are excluded from this supplement.

This supplement expires concurrently with the master report, reissued July 2018 and revised January 16, 2019.

## ICC-ES Evaluation Report

## ESR-1539 FBC Supplement

Reissued July 2018

Revised January 16, 2019

This report is subject to renewal July 2020.

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DIVISION: 06 00 00—WOOD, PLASTICS AND COMPOSITES  
Section: 06 05 23.13—Nails  
Section: 06 05 23.15—Staples

### REPORT HOLDER:

INTERNATIONAL STAPLE, NAIL AND TOOL ASSOCIATION (ISANTA)

### EVALUATION SUBJECT:

POWER-DRIVEN STAPLES AND NAILS

### 1.0 REPORT PURPOSE AND SCOPE

#### Purpose:

The purpose of this evaluation report supplement is to indicate that Power-Driven Staples and Nails recognized in ICC-ES master evaluation report ESR-1539, have also been evaluated for compliance with the codes noted below.

#### Applicable code editions:

- 2017 Florida Building Code—Building
- 2017 Florida Building Code—Residential

### 2.0 CONCLUSIONS

The Power-Driven Staples and Nails, described in Sections 2.0 through 7.0 and Appendix B of the master evaluation report ESR-1539, comply with the *Florida Building Code—Building* and the *Florida Building Code—Residential*, provided the design and installation are in accordance with the 2015 *International Building Code*® (IBC) provisions noted in the master report under the following conditions:

- For stainless steel nails, the reference withdrawal design value must be determined in accordance with the 2018 ANSI/AWC National Design Specification (NDS).
- For nails shown as having round heads in Appendix B of the master report, reference head pull-through values must be determined in accordance with Section 12.2.5 of the 2018 NDS.

Use of the Power-Driven Staples and Nails has also been found to be in compliance with the High-Velocity Hurricane Zone provisions of the *Florida Building Code—Building* and the *Florida Building Code—Residential*.

For products falling under Florida Rule 9N-3, verification that the report holder's quality assurance program is audited by a quality assurance entity approved by the Florida Building Commission for the type of inspections being conducted is the responsibility of an approved validation entity (or the code official, when the report holder does not possess an approval by the Commission).

This supplement expires concurrently with the master report, reissued July 2018 and revised January 16, 2019.



**Referenced Documents:**

*ANSI/AWC NDS-2018 National Design Specification for Wood* © American Wood Council 2017

*ASTM F1667-18a Standard Specifications for Driven Fasteners: Nails, Spikes and Staples*  
© ASTM International December 2018

*2018, 2015, 2012, 2009, 2006 International Building Code (IBC)* © International Code Council Inc. ®

*2018, 2015, 2012, 2009, 2006 International Residential Code (IRC)* © International Code Council Inc. ®

*AC116 ICC-ES Acceptance Criteria for Nails*  
© ICC Evaluation Service (ICC-ES) ® March 2018

*AC201 ICC-ES Acceptance Criteria for Staples*  
© ICC Evaluation Service (ICC-ES) ® March 2018

*ICC-ES Evaluation Report ESR-1539*  
© ICC Evaluation Service (ICC-ES) ® January 2019

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