

# **ICC-ES Evaluation Report**

#### **ESR-1331**

Reissued November 2024

This report also contains:

- CA Supplement

Subject to renewal November 2026

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DIVISION: 06 00 00— WOOD, PLASTICS AND COMPOSITES

Section: 06 05 23— Wood, Plastic, and Composite Fastenings

# REPORT HOLDER: MAINE DECK BRACKET CO.

EVALUATION SUBJECT: MAINE DECK BRACKET



#### 1.0 EVALUATION SCOPE

#### Compliance with the following codes:

- 2024, 2021, 2018, 2015, 2012, 2009 and 2006 International Building Code® (IBC)
- 2024, 2021, 2018, 2015, 2012, 2009 and 2006 International Residential Code® (IRC)
- 2013 Abu Dhabi International Building Code (ADIBC)†

<sup>†</sup>The ADIBC is based on the 2009 IBC. 2009 IBC code sections referenced in this report are the same sections in the ADIBC.

#### **Property evaluated:**

■ Structural

#### **2.0 USES**

The Maine Deck Bracket is used to attach an exterior deck or balcony ledger to a solid sawn lumber rim board of an existing or new structure.

#### 3.0 DESCRIPTION

The bracket is manufactured from <sup>1</sup>/<sub>4</sub>-inch-thick (6.4 mm) aluminum alloy Grade 6061-T6, complying with ASTM B221. The bracket is H-shaped and predrilled with four <sup>9</sup>/<sub>16</sub>-inch-diameter (14.3 mm) holes on each flange. See Figures 1 and 2 for illustrations of the bracket.

### 4.0 DESIGN AND INSTALLATION

#### 4.1 General:

Installation of the Maine Deck Bracket must comply with this report and the manufacturer's published installation instructions. The manufacturer's published installation instructions must be available at the jobsite at all times during installation.

#### 4.2 Design:

The bracket must be bolted to the wood framing member (rim board) and to the wood deck header or ledger. Allowable design loads indicated in this report are limited to the use of <sup>1</sup>/<sub>2</sub>-inch-diameter (12.7 mm) hex head bolts and 1-inch-diameter (25.4 mm) washers. The bolts and washers must be hot-dipped, zinc-coated galvanized steel complying with the requirements of ASTM A307 Grade A or SAE Grade 2 (see Footnote 1 of Table 1). See Table 1 for the maximum allowable design loads per bracket.

Design information provided to the code official must include the following:

\_\_\_\_

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- Number, location and spacing of brackets.
- Maximum design loads anticipated at each bracket, in accordance with the applicable code.
- Allowable loads of the brackets, as specified in this report.
- Size, grade, type, quantity and corrosion protection covering of the bolts used to secure the brackets to the
  deck and building framing members, consistent with this report.
- Species, grade, size, and assigned specific gravity of the wood members to which the bracket is attached.

#### 4.3 Installation:

Refer to the manufacturer's published installation instructions for installation details. For installation on an existing structure, an area of the exterior wall covering equivalent to the area of the bracket face must be removed from the framing at the attachment location. Weather protection must be installed in accordance with IBC Section 1403.2 or IRC Section R703.1, as applicable.

#### 5.0 CONDITIONS OF USE:

The Maine Deck Bracket described in this report complies with, or is a suitable alternative to what is specified in, those codes listed in Section 1.0 of this report, subject to the following conditions:

- **5.1** Installation must comply with this report, the manufacturer's published installation instructions and the applicable code. In the event of a conflict between the manufacturer's published installation instructions and this report, this report governs.
- **5.2** Allowable loads in <u>Table 1</u> are based on brackets attached to nominally 2-inch-thick-by-6-inch-wide [1.5 by 5.5 inch (38 by 140 mm) actual] No. 2 southern pine or Douglas fir–larch solid sawn lumber with an assigned specific gravity of 0.50 or greater.
- **5.3** Design loads determined in accordance with the applicable code must not exceed the allowable loads for the Maine Deck Bracket as set forth in Table 1.
- 5.4 The maximum on-center spacing of the Maine Deck Bracket must be 8 feet (2428 mm).
- **5.5** Design calculations and details in accordance with Section 4.2 must be submitted to the code official at the time of permit application. The calculations must be prepared by a registered design professional where required by the statutes of the jurisdiction in which the project is to be constructed.
- 5.6 The design and construction of the deck supported by the deck bracket and the supporting construction of the deck bracket, including framing members and foundations, are outside the scope of this report and must comply with the applicable code.
- **5.7** The compatibility of the bracket with preservative-pressure-treated or fire-retardant-treated wood is outside the scope of this report.
- 5.8 Rim joists must be constructed with continuous fastening and support in accordance with Table 2304.10.2 of the 2024 and 2021 IBC [Table 2304.10.1 of the 2018 and 2015 IBC (Table 2304.9.1 of the 2012, 2009 and 2006 IBC)] or Table R602.3(1) of the IRC, as applicable. Details to resist the effects of torsion in the rim joist must be submitted to the code official.

#### **6.0 EVIDENCE SUBMITTED**

Data in accordance with the ICC-ES Acceptance Criteria for Joist Hangers and Similar Devices (AC13), dated April 2024.

#### 7.0 IDENTIFICATION

- 7.1 The ICC-ES mark of conformity, electronic labeling or the evaluation report number (ICC-ES ESR-1331) along with the name, registered trademark or registered logo of the report holder (Maine Deck Bracket Co.) must be included in the product label.
- 7.2 In addition, the Maine Deck Bracket described in this report is identified with the product name.
- **7.3** The report holder's contact information is the following:

MAINE DECK BRACKET CO. 176 GRANGE AVENUE MINOT, MAINE 04258 (207) 754-1530 www.deckbracket.com bracket@megalink.net

#### TABLE 1—MAXIMUM ALLOWABLE DESIGN CAPACITIES PER BRACKET<sup>1,2,3,4</sup>

	RIM BOARD AND LEDGER THICKNESS (inches)	VERTICAL DOWNLOAD CAPACITY (PARALLEL TO WEB FACE) (Ibf)	LATERAL CAPACITY (PERPENDICULAR TO WEB FACE) (lbf)
	1 <sup>1</sup> / <sub>2</sub>	1000	1115
ſ	3	1160	1115

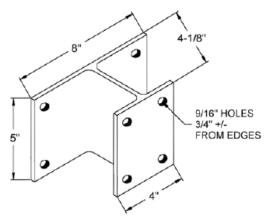
For SI: 1 inch = 25.4 mm, 1 lbf = 4.45 N, 1 in-lbf = 0.113 N-m.

<sup>1</sup>Allowable capacities are based on four <sup>1</sup>/<sub>2</sub>-inch-diameter-by-4<sup>1</sup>/<sub>2</sub>-inch-long hex head bolts through the rim board and four 1/2-inch-diameter-by-3-inch-long hex head bolts through the deck/balcony header complying with ASTM A307 Grade A or SAE Grade 2, with 1-inch-diameter washers on all wood surfaces. If longer length bolts are required, calculations must be submitted to the code official to verify compliance with the allowable design loads shown above.

<sup>2</sup>Capacities must be multiplied by the applicable wet service factor for dowel-type fasteners in accordance with the *National* Design Specification® for Wood Construction (NDS).

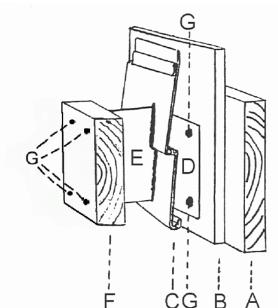
<sup>3</sup>Capacities are based on deck joist spacing not exceeding 24 inches (610 mm) on center.

<sup>4</sup>Capacities are limited to No. 2 Southern pine or Douglas fir–larch solid sawn lumber with an assigned specific gravity of 0.50 or greater.



For **SI**: 1 inch = 25.4 mm.

FIGURE 1—BRACKET DETAIL



- LARGE BRACKET FLANGE ATTACHED TO HOUSE

shown for clarity.

Note: Water-resistive barrier and flashing are not

- BRACKET WEB - DECK LEDGER - BOLTS

RIM BOARDSHEATHING - SIDING

G

**FIGURE 2—INSTALLATION DETAIL** 



## **ICC-ES Evaluation Report**

# **ESR-1331 CA Supplement**

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DIVISION: 06 00 00—WOOD, PLASTICS AND COMPOSITES Section: 06 05 23—Wood, Plastic, and Composite Fastenings

**REPORT HOLDER:** 

MAINE DECK BRACKET CO.

**EVALUATION SUBJECT:** 

MAINE DECK BRACKET

#### 1.0 REPORT PURPOSE AND SCOPE

#### Purpose:

The purpose of this evaluation report supplement is to indicate that the Maine deck bracket, described in ICC-ES evaluation report ESR-1331, has also been evaluated for compliance with the code(s) noted below.

#### Applicable code edition(s):

■ 2022 California Building Code (CBC)

For evaluation of applicable chapters adopted by the California Office of Statewide Health Planning and Development (OSHPD) AKA: California Department of Health Care Access and Information (HCAI) and the Division of State Architect (DSA), see section 2.1.1 and 2.1.2 below.

■ 2022 California Residential Code (CRC)

#### 2.0 CONCLUSIONS

#### 2.1 CBC:

The Maine deck bracket, described in Sections 2.0 through 7.0 of the evaluation report ESR-1331, complies with CBC Chapter 23, provided the design and installation are in accordance with the 2021 International Building Code® (IBC) provisions noted in the evaluation report and the applicable provisions in the CBC.

#### 2.1.1 OSHPD:

The applicable OSHPD Chapters and Sections of the CBC are beyond the scope of this supplement.

#### 2.1.2 DSA:

The applicable DSA Chapters and Sections of the CBC are beyond the scope of this supplement.

The Maine deck bracket, described in Sections 2.0 through 7.0 of the evaluation report ESR-1331, complies with CRC Chapter 6, provided the design and installation are in accordance with the 2021 International Residential Code® (IRC) provisions noted in the evaluation report.

This supplement expires concurrently with the evaluation report, reissued November 2024.

