

# 3-1/2 IN. & 4 IN. - 5/16 IN. Structural Screws

# DECK LEDGER CONNECTIONS





PROTECH® Ultra 4 coated



CAMO 5/16" Structural Ledger Screws have been tested for use in the attachment of deck ledgers to the building structure in a code-compliant manner. This includes attachments to SPF band joists and OSB band joists. When installed following the instructions in this bulletin, our Ledger Screws can be used in place of  $\frac{1}{2}$ " lag screws as described in IRC Section R507.9 and IBC Section 1604.8.3.

# **CORROSION STATEMENT**

Our proprietary PROTECH Ultra 4 coating system applied to our Ledger Screws has been tested in accordance with ASTM G198 and offers the same level of protection as code-approved hot-dip galvanized (ASTM A153, Class D) in ground contact general use pressure treated lumber (AWPA UC1-UC4A). Our Ledger screws with PROTECH Ultra 4 coating are recognized for use in untreated lumber, ground contact general use pressure-treated lumber, and fire retardant treated (FRT) lumber. A statement of compliance can be found in our DrJ TER reports.



# **PRODUCT FEATURES**

- Code listed per DrJ TER No. 2102-01 and 2102-02 and State of Florida FL 41741
- Flat head with T-40 star drive
- No pre-drilling necessary
- PROTECH Ultra 4 coating offers same level of protection as hot-dip galvanized coating
- Head markings provide easy identification after installation



# **INSTALLATION INSTRUCTIONS**

- 1) Choose the 3-½" or 4" length fastener so that the threads fully engage with the band joist material and the fastener tip extends beyond the back face of the band joist material when fully seated against the installed ledger.
- 2) Use a ½" (12.7mm) low rpm/high torque drill (450 rpm) and the driver bit supplied with the screws.
- **3)** Follow the minimum spacing and fastening patterns from Figure 1 and Table 1.
- 4) Install the screws through the ledger and sheathing into the band joist until the head is drawn firm and flush to the ledger board. Do not overdrive.









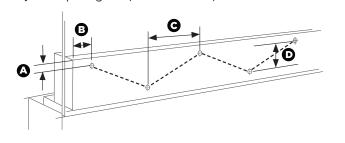


#### FIGURE 1

#### SPACING REQUIREMENTS

Fasteners should be staggered from top to bottom and spaced as follows:

- A) Minimum Edge Distance = 2 in.
- **B)** Minimum End Distance = 3-3/4 in.
- C) On-Center Spacing = Per Table 1
- **D)** Row Spacing = 1-5/8 in. Minimum / 5 in. Maximum



# CAMO® Deck ledger connection to band joist EXTERIOR SHEATHING STUD WALL 2x\_BAND JOIST OR 1" MINIMUM \_ EWP RIM BOARD CONTINUOUS FLASHING DECK JOIST 2" MIN. 1-5/8" MIN. 5" MAX. JOIST HANGER 2" MIN. FLOOR FRAMING CAMO\* FASTENERS MIN. EDGE DISTANCE = 2" MIN. END DISTANCE = 3-3/4" FOUNDATION WALL LEDGER BOARD: MUST BE GREATER THAN OR EQUAL TO THE DEPTH OF THE DECK JOIST AND NO GREATER THAN THE DEPTH OF THE BAND JOIST

**TABLE 1:** CAMO® 5/16" X 3½" AND 5/16" X 4" STRUCTURAL SCREW SPACING FOR ITEMS IN IRC TABLE R507.9.1.3(1)" AND OTHER MATERIALS AND LOADING CONDITIONS¹

FIGURE 2

FASTENER DESIGNATION <sup>2,3</sup>	LOAD CASE <sup>9</sup>	2X NOMINAL LEDGER SPECIES <sup>4,5,6</sup>	BAND JOIST MATERIAL 7,8	MAXIMUM ON-CENTER SPACING OF FASTENERS (in)  MAXIMUM DECK JOIST SPANS (ft)						
				5/16'' X 3-½'' Structural And 5/16'' X 4'' Structural	LL + DL 40 + 10	HF	2X SAWN LUMBER	29	21	17
1-1/8" OSB	26	20	16				8	7	6	5
SP	2X SAWN LUMBER	27	20			16	13	11	9	8
	1-1/8" OSB	28	21			17	10	9	8	7
SL + DL 50 + 10	HF	2X SAWN LUMBER	24		18	10	8	7	6	5
		1-1/8" OSB	22		16	8	7	6	5	4
	SP	2X SAWN LUMBER	23		17	13	10	9	8	7
		1-1/8" OSB	24		18	10	9	7	6	6
SL + DL 60 + 10	HF	2X SAWN LUMBER	20		11	8	7	6	5	4
		1-1/8" OSB	19		9	7	6	5	4	4
	SP	2X SAWN LUMBER	19		14	11	9	8	7	6
		1-1/8" OSB	20		11	9	7	6	5	5
SL + DL 70 + 10	HF	2X SAWN LUMBER	18		9	7	6	5	4	4
		11/8′′ OSB	16		8	6	5	4	4	3
	SP	2X SAWN LUMBER	17		12	9	8	7	6	5
		1-1/8′′′ OSB	18		10	8	6	5	5	4

# SI: 1 in = 25.4 mm, 1 psf = 0.0479 kN/m2

- 1. Based on load duration of 1.0. Spacing may be adjusted by the applicable load duration as specified in NDS.
- 2. Fasteners are required to have full thread penetration into the main member. Excess fastener length extending beyond the main member is not reflected in the table above.
- 3. Fasteners shall be installed per Section 6 of this TER.
- 4. Solid-sawn ledgers shall be HF or SP species (specific gravity of 0.43 and 0.55, respectively). Ledgers shall designed by others.
- 5. Minimum ledger board requirements: 1½" thickness and 7¼" depth.
- 6. Ledger materials tested in the wet service condition.
- 7. A maximum ½" structural sheathing may be installed between the ledger and band joist. Up to ½" thickness of stacked washers shall be permitted to substitute for up to ½" on allowable sheathing thickness where combined with wood structural panel or lumber sheathing.
- 8. Minimum band joist requirements: SPF (specific gravity of 0.42) solid-sawn lumber 1½" thick and 7½" depth; OSB 1" thick and 7½" depth.
- 9. Snow load shall not be assumed to act concurrently with live load.







