

## 5 IN. - 5/16 IN. Structural Screws

**DECK LEDGER CONNECTIONS**

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 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
- 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**

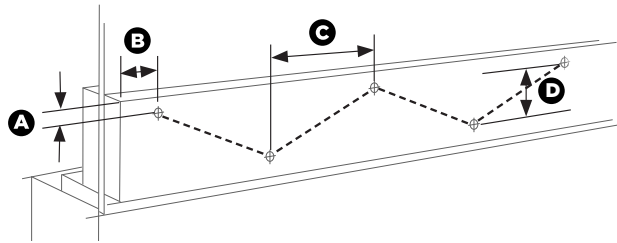
- 1) Choose the 5" length fastener so that the threads fully engage with the band joist material and the fastener tip extends beyond the back face of the band joist material when fully seated against the installed ledger.
- 2) Use a 1/2" (12.7mm) low rpm/high torque electric drill (450 rpm) and the driver 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**

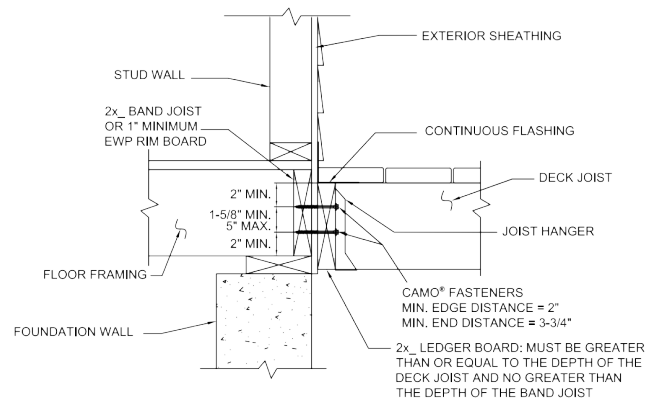
Fasteners should be staggered from top to bottom and spaced as follows:

- 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



**FIGURE 2**

**CAMO® Deck ledger connection to band joist**



**TABLE 1: CAMO® 5/16" X 5" STRUCTURAL SCREW SPACING FOR ITEMS IN IRC TABLE R507.9.1.3(1)<sup>11</sup> AND OTHER MATERIALS AND LOADING CONDITIONS<sup>1</sup>**

FASTENER DESIGNATION <sup>2,3</sup>	LOAD CASE <sup>9</sup>	2X NOMINAL LEDGER SPECIES <sup>4,5,6</sup>	BAND JOIST MATERIAL <sup>7,8</sup>	MAXIMUM ON-CENTER SPACING OF FASTENERS (in)						
				MAXIMUM DECK JOIST SPANS (ft)						
				UP TO 6'	UP TO 8'	UP TO 10'	UP TO 12'	UP TO 14'	UP TO 16'	UP TO 18'
5" STRUCTURAL L	LL + DL 40 + 10	HF	2X SAWN LUMBER	30	23	18	15	10	8	7
			1-1/8" OSB	29	22	17	9	8	7	6
		SP	2X SAWN LUMBER	27	20	16	14	12	10	9
			1-1/8" OSB	28	21	17	13	11	10	9
	SL + DL 50 + 10	HF	2X SAWN LUMBER	27	20	16	9	8	7	6
			1-1/8" OSB	24	18	9	8	7	6	5
		SP	2X SAWN LUMBER	23	17	14	12	10	9	8
			1-1/8" OSB	24	18	13	11	9	8	7
	SL + DL 60 + 10	HF	2X SAWN LUMBER	23	17	10	8	7	6	5
			1-1/8" OSB	21	16	8	7	6	5	4
		SP	2X SAWN LUMBER	19	15	12	10	8	7	6
			1-1/8" OSB	20	14	11	9	8	7	6
	SL + DL 70 + 10	HF	2X SAWN LUMBER	20	11	8	7	6	5	4
			1-1/8" OSB	18	9	7	6	5	4	4
		SP	2X SAWN LUMBER	17	13	10	9	7	6	6
			1-1/8" OSB	18	13	10	8	7	6	5

Sl: 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: 1 1/2" thickness and 7/4" depth.
6. Ledger materials tested in the wet service condition.
7. A maximum 1/2" structural sheathing may be installed between the ledger and band joist. Up to 1/2" thickness of stacked washers shall be permitted to substitute for up to 1/2" 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 1 1/2" thick and 7/4" depth; OSB 1" thick and 7/2" depth.
9. Snow load shall not be assumed to act concurrently with live load.