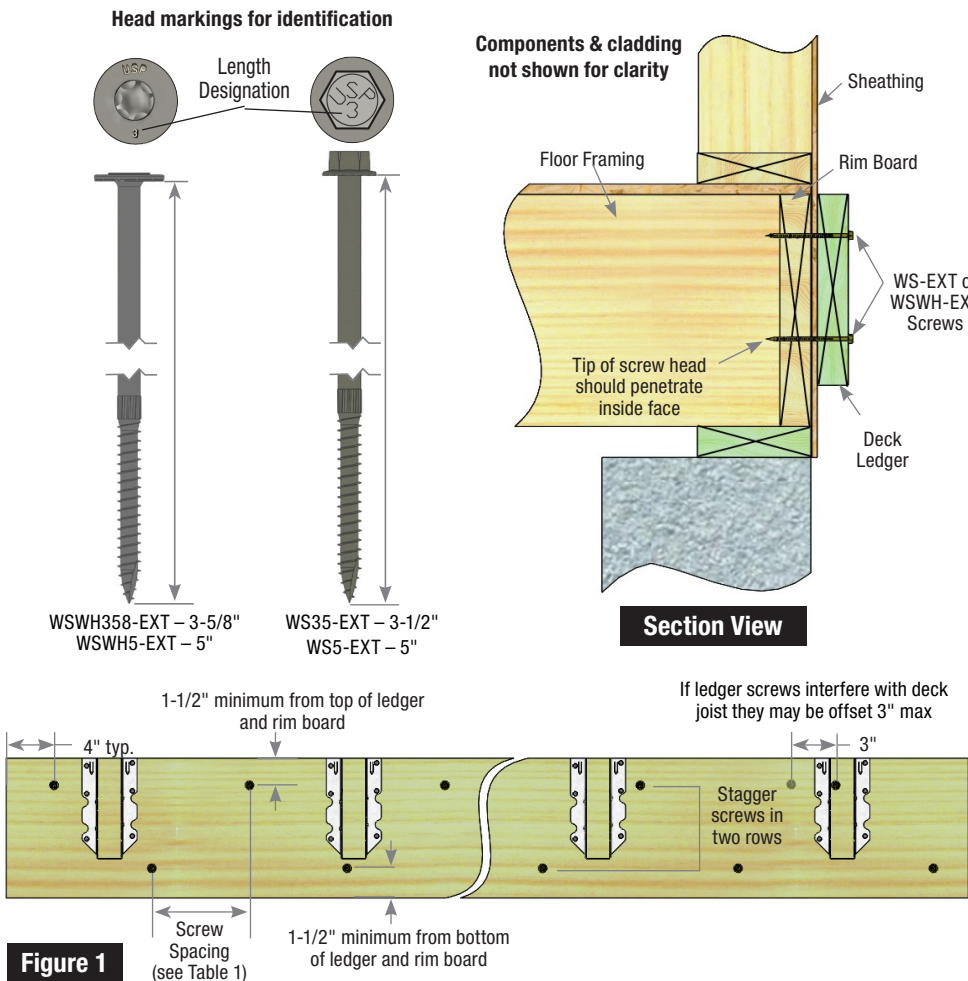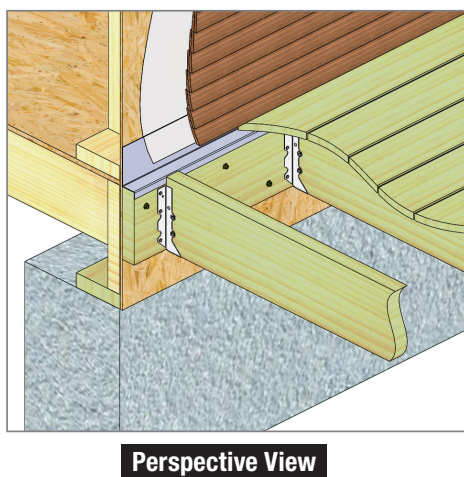**MiTek**
USP®
Structural Connectors

Attaching Deck Ledger to Rim Board in North Carolina Using MiTek USP WS Series Wood Screws

As of January 1st, 2019, the requirements for deck ledger attachment to the rim board (AKA band/rim joist) found in the 2018 North Carolina Residential Code Appendix AM104.1 have been updated and allows the use of Self-Drilling Screw Fasteners. The MiTek-USP WS-EXT and WSWH-EXT wood screws meet the fastener requirements of Appendix AM104.1. Reference Table 1 below for fastener spacing requirements.

Head markings for identification

Length Designation

WSWH358-EXT – 3-5/8"
WSWH5-EXT – 5"

WS35-EXT – 3-1/2"
WS5-EXT – 5"

Components & cladding not shown for clarity

Sheathing

Floor Framing

Rim Board

WS-EXT or WSWH-EXT Screws

Tip of screw head should penetrate inside face

Deck Ledger

Section View

Perspective View

1-1/2" minimum from top of ledger and rim board

4" typ.

If ledger screws interfere with deck joist they may be offset 3" max

3"

Stagger screws in two rows

Figure 1

Screw Spacing (see Table 1)

1-1/2" minimum from bottom of ledger and rim board

Installation:

1. Select the proper WS-EXT or WSWH-EXT screw length so that the threads have full engagement with the rim board with the tip of the screw protruding and visible beyond the inside face of the rim board member. See **Section View**.

2. With appropriate screw length selected, drive the screw through the ledger, sheathing, and rim board with a high torque variable speed drill.

3. Drive screw so head is firm and flush with surface of deck ledger, but do not overdrive.

4. Repeat these steps and install the appropriate number of screws at the prescribed edge, end distance, and spacing as called out in **Table 1** and **Figure 1**.

Table 1

MiTek USP Stock No.	Spacing Between WS / WSWH Screws Based on Joist Span (in)						
	≤ 6-ft	≤ 8-ft	≤ 10-ft	≤ 12-ft	≤ 14-ft	≤ 16-ft	≤ 18-ft
WS35-EXT, WSWH358-EXT, WS5-EXT, WSWH5-EXT	13	12	10	9	7	6	4

1) Minimum edge distance shall be 1-1/2".
2) Spacing based on linear interpolation of spacing table in Appendix AM104.1 of North Carolina Building Code.
3) Rim board shall have a minimum thickness of 1-1/8".
4) A maximum 1/2" wood structural panel may be installed between the deck ledger and the rim board.
5) Ledger board shall be designed according North Carolina Building Code requirements.
6) 6" length screws may be used with no reduction.
7) Adjust design values in accordance to the NDS® as appropriate.

Customer Service & Technical Assistance

Phone: 1-800-328-5934 • **Fax:** 1-952-898-8605 • **Email:** USPcustomerservice@mii.com

MiTek-US.com