FWANZ

Foundation Wall Angles

The FWANZ foundation anchor connects the foundation or basement wall to the floor system to resist out-of-plane forces imposed by soil pressure. The foundation wall angle fastens to the mudsill with nails, relying on other anchorage (by designer) to anchor the sill plate to the foundation.

Special Features:

- Compatible with solid sawn joists, I-joists and floor trusses
- Testing performed on most common rim materials and types
- Addresses design needs set forth in Section 1610.1 in the 2015/2018/2021 IBC and Section R404.1 in the 2015/2018/2021 IRC
- Eliminates the need of costly cantilevered foundation designs

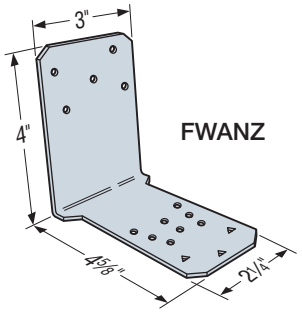
Material: 14 gauge

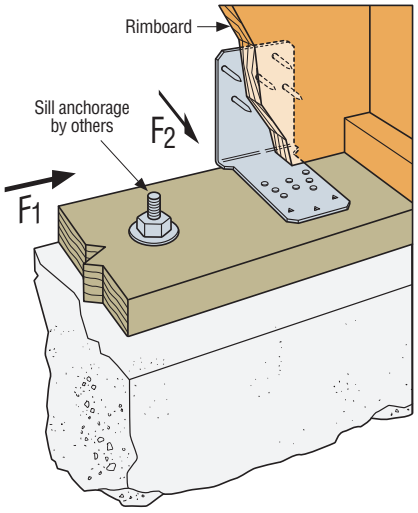
Finish: ZMAX® coating; See Corrosion Information, pp. 12–15

Installation:

- Use all specified fasteners; see General Notes.
- Connector must be fastened directly to the outside face of the rim board with (5) 0.148" x 1½" long nails.
- Connector must be located within 4" of adjacent joist/blocking for floor joist spacing up to 48" o.c. and may be centered between joists/blocking for 16" o.c. floor joist spacing.
- When floor joists are parallel to the rim board, full depth blocking shall be used in the first two bays of the floor per 2012/2015/2018/2021 IRC Section R404.1.
- Splice joint not permitted on rim board in same bay unless blocking is placed on both sides of the splice.
- When I-joist rim material is used, backer blocks must be used. Installed per manufacturer's recommendations.

Codes: See p. 11 for Code Reference Key Chart; refer to IBC 1610.1





Typical FWANZ Installation

These products are available with additional corrosion protection. For more information, see p. 14.

Model No.	Sill Plate	Fastener (in.) (Quantity) Type		Rim Board Material	Allowable F_2 Load (DF/SP Sill Plate)			Allowable F_2 Load (HF Sill Plate)			Code Ref.
		Sill Plate	Rim Board		(90)	(100)	(160)	(90)	(100)	(160)	
FWANZ	2x4, (2) 2x4, 3x4, 4x4	(8) 0.148 x 1½	(5) 0.148 x 1½	1" OSB rim	750	750	750	750	750	750	IBC, FL, LA
				1⅛" OSB rim	815	815	815	815	815	815	
				1¾" I-joist rim	940	1,045	1,070	815	905	1,070	
				1¼" LSL rim	940	1,045	1,105	815	905	1,105	
				2x rim	940	1,045	1,390	815	905	1,345	
				1¾" LVL rim	940	1,045	1,245	815	905	1,245	
	2x6, (2) 2x6, 3x6, 4x6	(11) 0.148 x 1½	(5) 0.148 x 1½	1" OSB rim	750	750	750	750	750	750	
				1⅛" OSB rim	935	935	935	935	935	935	
				1¾" I-joist rim	955	955	955	955	955	955	
				1¼" LSL rim	1,025	1,025	1,025	1,025	1,025	1,025	
				2x rim	1,295	1,440	1,445	1,120	1,245	1,445	
				1¾" LVL rim	1,295	1,385	1,385	1,120	1,245	1,385	

1. FWANZ may be used to transfer F_1 loads up to 260 lb. No further increase in load permitted.
2. For simultaneous loads in more than one direction, the connector must be evaluated using the Unity Equation, as described in General Instructions for the Designer on p. 19.
3. Designer shall evaluate rim board and sill plate design based on demand load.
4. FWANZ spacing and sill plate anchorage are to be specified by the designer.
5. When floor joists are parallel to the rim board, designer must ensure proper load transfer from the rim board into the diaphragm.
6. Values are based on a load duration factor of C_D = 0.90.
7. **Fasteners:** Nail dimensions are listed diameter by length. See pp. 21–22 for fastener information.