

**CHAPTER 4
COMBINED EXTERIOR WALL CONSTRUCTION**

404.5 Connection to concrete, masonry, or ICF wall.

404.5.1 Regions With a Basic Wind Speed of 100 MPH: For construction in regions with a basic wind speed of 100 mph the cold-formed exterior wall shall be attached to the concrete, masonry, or ICF wall by a direct track as shown in Figure 404.5.1. A minimum of ½ inch (12.7 mm) diameter ~~Grade~~ ASTM A 307 or ASTM F1554 anchor bolt shall be embedded in the concrete. The track shall be reinforced at each anchor bolt location by stud blocking. The stud blocking shall have at least the same thickness as the wall studs. The stud blocking shall be as wide as the inside dimension of the track and have a minimum length of 6 inches (152 mm). The stud blocking shall be attached to the track by a minimum of four (4) No. 8 screws in each flange. The steel stud shall be attached to the track by a No. 8 screw on each side of the stud. The anchor bolt shall be embedded a minimum of 7 inches (178 mm) into concrete with a minimum edge distance to the edge of the concrete of 2-½ inches (64 mm) or placed in the middle third of the wall. Anchor bolts shall be located not more than 12 inches (305 mm) from wall corners or wall ends.

404.5.2 Regions With a Basic Wind Speed Greater Than 100 MPH: For construction in regions with a basic wind speed of greater than 100 mph the cold-formed exterior wall shall be attached to the concrete, masonry, or ICF wall by a track and wood sill as shown in Figure 404.5.2. A minimum of ½ inch (12.7 mm) diameter ~~Grade~~ ASTM A 307 or ASTM F1554 anchor bolt shall be embedded in the concrete. A minimum 1-¼ inches by 33 mil (0.88 mm) steel strap shall attach the wood sill to the track and steel stud. The steel strap shall be attached to the track by a No. 8 screw on each side of the track. The steel strap shall be attached to the steel studs on each side of the stud in accordance with Table 404.5.2. The anchor bolt shall be embedded a minimum of 7 inches (178 mm) into concrete with a minimum edge distance to the edge of the concrete of 2-½ inches (64 mm) or placed in the middle third of the wall. Anchor bolts shall be located not more than 12 inches (305 mm) from wall corners or wall ends. The spacing of the anchor bolts shall be in accordance with Section 303.2.3.

TABLE 404.5.2

Steel Stud to Steel Strap Connected (Number of No. 8 Screws per side)			
Framing Spacing (inches)	Basic <u>Design</u> Wind Speed (mph)		
	130 or less	140	150
16	1	2	3
24	2	3	4