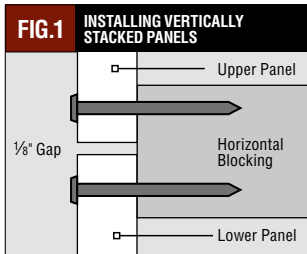
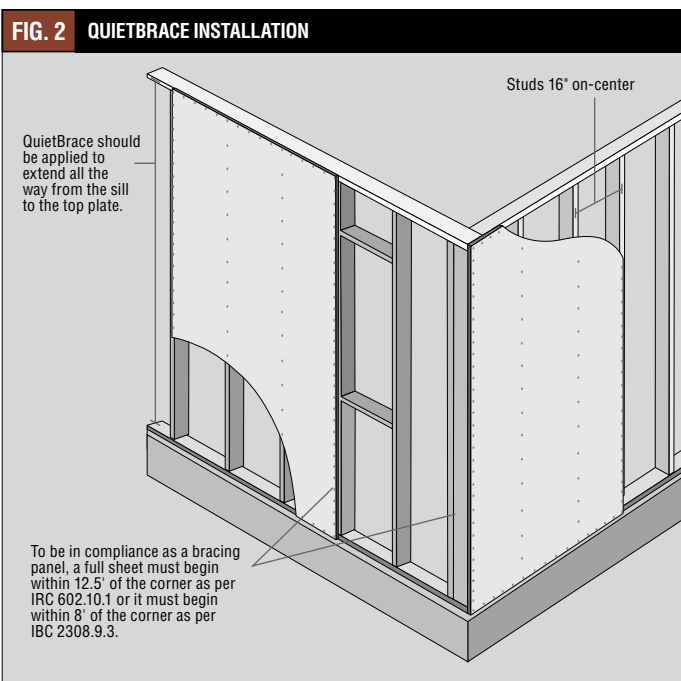


When handled and installed according to these installation guidelines, QuietBrace™ will provide wall strength and racking resistance required in the building codes. Check with your local code authority for any specific requirements.



### Storage

Store QuietBrace flat on stringers in a well-ventilated building with at least 6 inches of clearance between each stack of units, or outside away from standing water. Stacks should not exceed 3 units in height.



To provide optimum performance as structural bracing, air barrier and water-repellent sheathing, it should be applied to extend all the way from the sill to the top plate.

QuietBrace may be installed vertically with the long edges parallel to the studs or horizontally with the long edges perpendicular to the studs. Vertical joints should be centered on framing members with a 1/8" gap between edges.

Horizontal joints should be backed with supporting framing in order to provide adequate reinforcement for fastening. A 1/8" gap should be left between the lower and the upper panel.

**(FIG. 1)**

Leave a minimum 1/8" gap around all window and door openings as well.

When used as bracing panels, full sheets must be installed. Bracing panels may be installed at the corners or within a prescribed distance from the corner depending on the building code referenced. The International Residential Code (IRC 602.10.1) requires bracing panels to begin within 12.5 feet of the corner. The International Building Code (IBC 2308.9.3) requires bracing panels to start within 8 feet of the corner. **(FIG. 2)**

Test data shows QuietBrace surpasses the IRC and the IBC requirements for wind pressure resistance in 130 mph wind speed

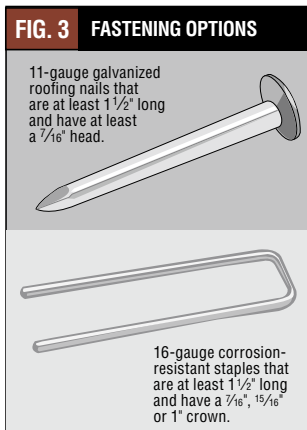
areas for walls in buildings having a mean roof height up to 30 feet and located in Exposure B (urban, suburban) areas. These values also indicate QuietBrace meets allowable design loads for walls where the building mean roof height is up to 60 feet in Exposure B areas, up to 40 feet in Exposure C areas (open terrain) and up to 15 feet in Exposure D areas (flat, unobstructed areas exposed to wind over open water). For detailed code wind pressure requirements, reference IRC Tables R301.2(2) and (3), and IBC Tables 1609.2.1(2) and (4).

QuietBrace is acceptable in seismic design categories A-D2. Seismic suitability is in categories A, B, C with conventional light frame provisions for other categories in 2308.11 and 2308.12.

QuietBrace is allowable on one-story and all stories of two- and three-story structures under IRC and IBC conventional frame construction provisions. Refer to the specific code for details of panel placement, amount required and wind or seismic restrictions.

### Fastening:

QuietBrace can be installed using either 11-gauge galvanized roofing nails that are minimum 1 1/2" long and have at least a 7/16" head or 16-gauge corrosion-resistant staples that are minimum 1 1/2" long and have a 7/16", 15/16" or 1" crown. **(FIG. 3)**

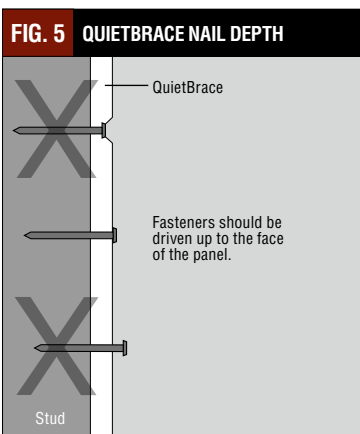
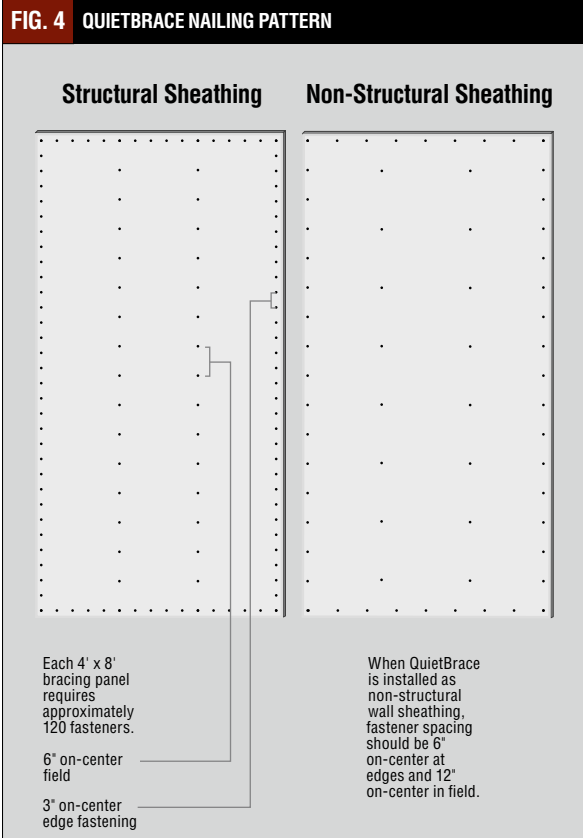


### Cutting

Use a utility knife or fine-toothed power saw. Panels can be cut prior to installation or applied first and trimmed in place when appropriate.

### Application

QuietBrace should be installed on exterior walls with studs spaced no more than 16" o.c.



Fasteners should be placed no closer than  $\frac{3}{8}$ " from the edge and should be driven perpendicular to the face. Where two panels meet on a framing member, care must be taken in placing the fasteners so that both panels are fastened correctly on the common framing member.

For bracing panels, fasteners must be spaced no more than 3" o.c. along the edges and 6" o.c. along intermediate studs. Each 4' x 8' bracing panel requires approximately 120 fasteners. (FIG. 4)

When panels are installed as non-structural wall sheathing, fasteners should be spaced no more than 6" o.c. along the edges and 12" o.c. along intermediate studs.

**Overdriven Fasteners: (FIG. 5)**

Temple-Inland and building codes require that for fasteners to be properly installed, they should be driven snugly up to the face of the panel. When nail heads or staple crowns are imbedded below the face of the sheet, they are overdriven. This weakens the connection between the sheathing and the framing and reduces the holding power of the fastener.

Unfortunately, field application of fasteners makes it difficult to flush drive 100% of them consistently. Some overdriving will occur and can be acceptable if not in excess.

A QuietBrace installation with less than 25-30% of the fasteners overdriven no more than  $\frac{3}{16}$ " is acceptable and will perform as intended. However, good

building practice and quality workmanship includes use of the correct fasteners, flush-driven and properly spaced. This will assure the full benefits of QuietBrace are utilized for structural bracing. (For more complete information, see separate Overdriven Fastener Bulletin)

**Penetrations and Cut-Outs:**

It is not uncommon for an exterior wall and even a panel serving as structural wall sheathing to be penetrated for such reasons as utility routing. The issue is whether the penetrated bracing panel can serve as structural bracing in view of the requirement in the building codes for structural fiberboard bracing to be 4' x 8' panels.

The building codes do not address the number and size of penetrations or cut-outs allowable in wall bracing panels. The question is, what maximum size penetration or cut-out does not materially affect the panel strength?

For QuietBrace, Temple-Inland recommends limiting the total penetration area to 144 square inches. This yields a  $9\frac{1}{4}$ " x  $14\frac{1}{2}$ " maximum acceptable size of penetration or cut-out between 16" o.c. framing, or a combination of smaller openings, in any one panel without materially affecting its strength. (For more complete information, see separate Penetrations and Cut-Outs Bulletin.)

*Contact Temple-Inland for special construction applications not covered in this publication.*