Veneer Anchor Spacing	
Maximum Spacing, Horizontal x Vertical (in. x in.)	Maximum Wall Area Per Anchor (sq.ft.)
32 x 18	adjustable two-piece anchors of W1.7 (9 gauge) wire and 22 gauge corrugated sheet metal anchors, 2.67 all others, 3.5

Recommended Corrosion Protection for Veneer Anchors and Joint Reinforcement	
Application	Corrosion Protection
Interior	mill galvanized ASTM A653, Class G60
Exterior walls and interior walls exposed to mean relative humidity of 75% or more	hot-dip galvanized ASTM A153

Figure 10-41 Requirements for masonry veneer anchors.

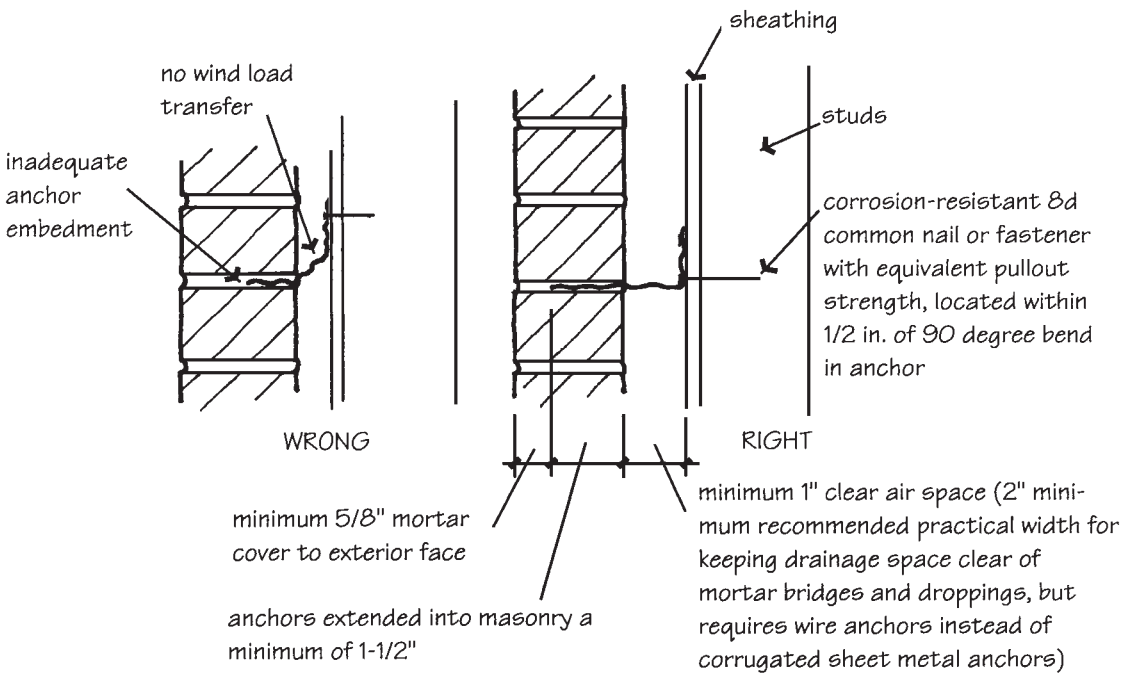

Figure 10-42 Requirements for corrugated anchors.

gauge. Stud spacing should not exceed 16 in., and galvanizing should be by hot-dip process, in accordance with ASTM A525, G60 or G90 coating.

Masonry veneers are designed as drainage wall systems because moisture will always be present, even with good design, good detailing, and good workmanship. Moist environments promote the corrosion of metals, so studs, tracks, and other components must be protected. When galvanized, self-tap-

ping sheet metal screws are driven through galvanized metal studs, both contact surfaces are abraded of their coating, leaving the underlying steel unprotected from moisture corrosion from the outset of its service life. Since fastener head corrosion is often a failure mechanism, galvanized screws are no longer considered adequate corrosion protection. Stainless steel fasteners with a neoprene or EPDM rubber washer will provide a relatively tight seal at the screw penetration and provide a longer service life for the screws themselves. Although this provides a longer service life for the screw itself, questions still remain concerning the pullout strength from the stud if any corrosion is present at the stud penetration. The best defense against such corrosion problems is adequate design for differential movement, proper detailing to limit moisture penetration, and good drainage through a system of flashing and weep holes. (Refer to Chapter 9.)

Grade SW brick is recommended for exterior veneers in most areas of the United States, because the facing is isolated from the rest of the wall and therefore exposed to temperature extremes. Type N mortar is suitable for most veneer construction (refer to Chapter 6 for mortar recommendations). Basic residential and commercial veneer details are shown in *Figs. 10-43 and 10-44*.

Since the overall thickness of a brick veneer wall is approximately 10 in., a foundation wall of at least the same thickness is required for adequate support (*Fig. 10-28*). Many codes permit a nominal 8-in. masonry foundation provided that the top of the wall is corbeled as shown in Chapter 12. The total projection of the corbel cannot exceed 2 in., with individual corbels projecting not more than one-third the height of the unit. Brick veneer should start on a brick ledge below the finish floor line. Moisture entering the wall must be drained to the outside by flashing and weep holes located above grade at the bottom of the wall. Flashing should also be installed at the heads and sills of all openings (*see Figs. 10-45 and 10-46*). The fundamentals of flashing wrap at rough window openings and window sill pan installation are detailed in Chapter 9. The flashing material should be of high quality, because replacement in the event of failure is very costly. Weep holes must be located in the masonry course immediately above all flashing, spaced no more than 24 in. on center horizontally (refer to Chapter 9 for additional flashing and weep-hole details).

In lieu of steel lintels over openings, brick veneer can be reinforced with $^1/_4$-in.-diameter deformed steel bars or joint reinforcement placed horizontally in the bed joints above the opening. Where spans and loading permit, this method offers a more efficient use of materials (see Chapter 11 for design of masonry lintels).

Four-in. concrete block veneer construction has increased in use with the variety of colors, textures, and patterns of decorative concrete masonry units now available. CMU veneers may be attached in the same manner as clay brick. Anchor spacing is the same as for brick veneers.

Joint reinforcement is used in concrete masonry to control shrinkage cracks. As the stress increases, it is transferred to and redistributed by the steel. The effectiveness of joint reinforcement depends on the type of mortar used and the bond it creates with the wire. Greater bond strength means greater efficiency in crack control. Type N mortar is recommended. Minimum mortar cover to the outside face of the block should be $^5/_8$ in. for the exterior and $^1/_2$ in. for the interior wall face. Prefabricated corner and T-type reinforcement is recommended for corners and intersecting walls. Splices should be lapped 6 in. Joint reinforcement and control joint spacing should be as rec-