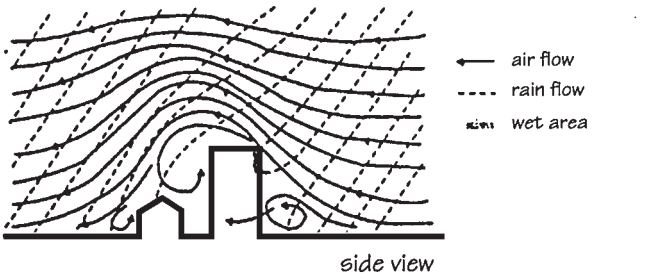


PATTERNS OF WIND-DRIVEN RAIN AGAINST BUILDINGS

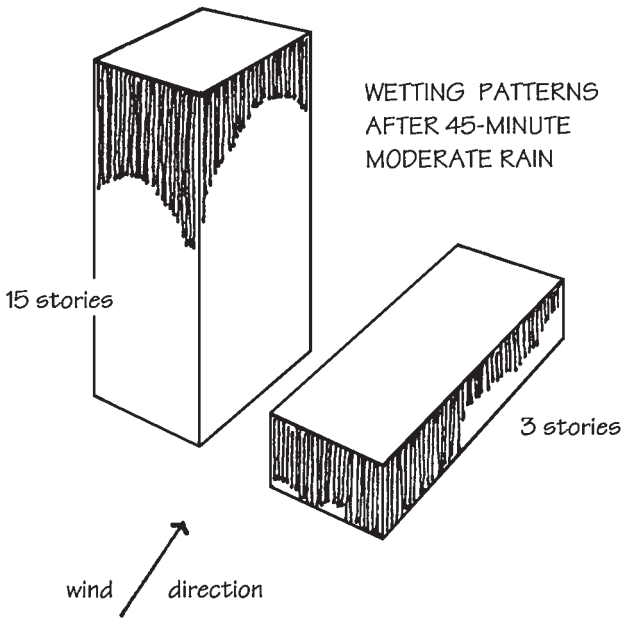
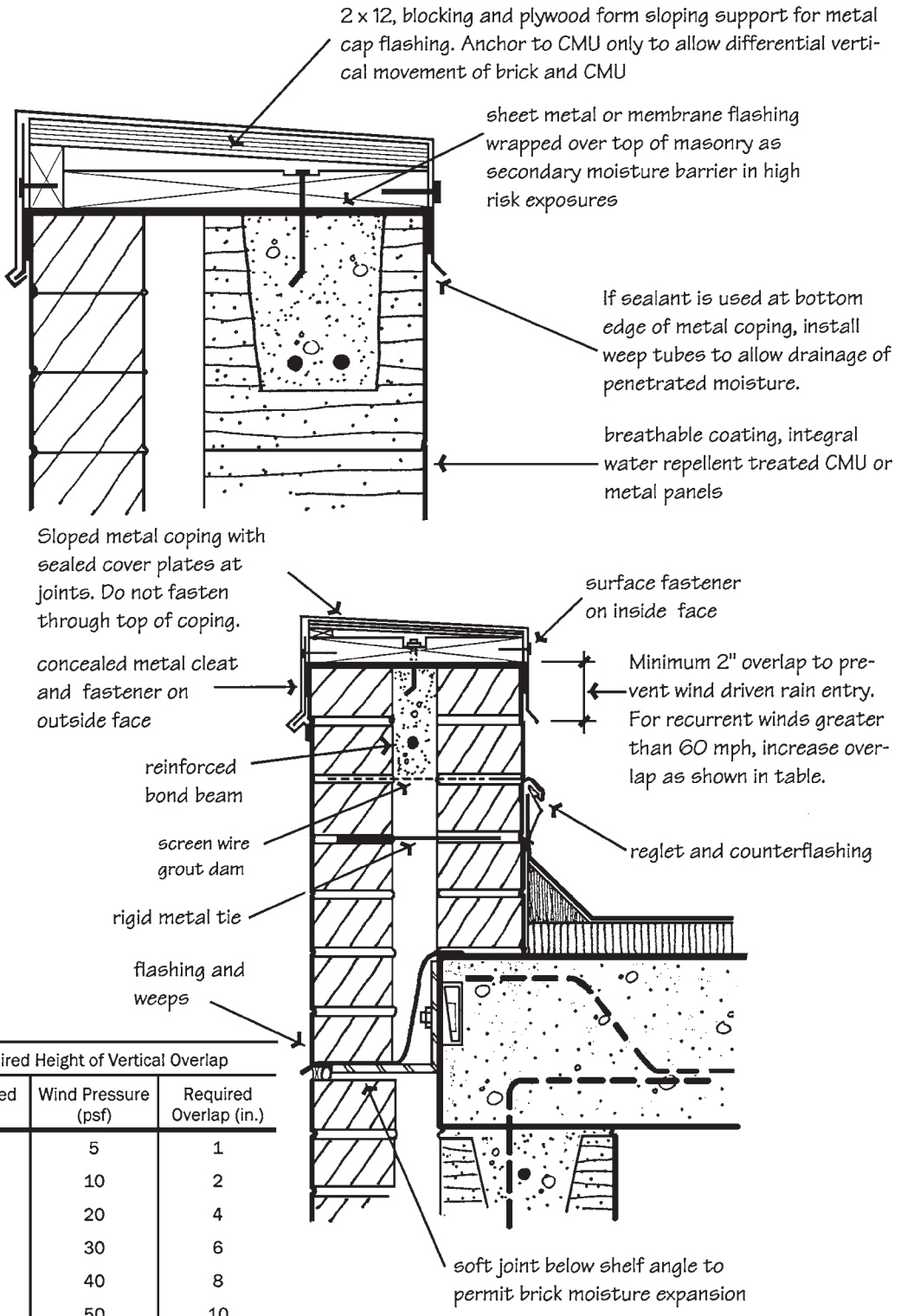


Figure 9-47 Wind and wetting patterns at the tops of buildings subject parapets and parapet copings to extreme weather exposure.

to ASTM C216, Grade MW or SW, depending on the severity of expected conditions (see Chapter 3). High-suction brick usually produces walls with poor bond. High-suction brick and porous concrete block can absorb excessive water from the mortar, thus preventing complete cement hydration at the unit surface. Mortar generally bonds best to clay masonry units with moderate initial rates of absorption (IRAs) between 5 and 25 g/min/30 sq in. Brick with initial rates of absorption higher than 25 or 30 g/min should be thoroughly wetted and then allowed to surface-dry before laying. This produces better bond and more weather-resistant joints. To test units in the field for high IRA, draw a circle on the bed surface of the brick with a wax pencil, using a 25-cent coin as a guide. With a medicine dropper, place 20 drops of water inside the circle and note the time required for it to be absorbed. If the time exceeds 1½ minutes, initial absorption is low to moderate and the unit need not be wetted. If the time is less than $1^1/_2$ minutes, initial absorption is high and the brick should be thoroughly wetted and allowed to surface-dry before



Required Height of Vertical Overlap		
Wind Speed (mph)	Wind Pressure (psf)	Required Overlap (in.)
45	5	1
60	10	2
90	20	4
110	30	6
125	40	8
140	50	10

(*From AAMA* Aluminum Curtain Wall Design Guide Manual)

Figure 9-48 Metal parapet caps.