



**Fig. R17.5.1.2—Failure modes for anchors.**

**17.5.1.3** Strength of anchors shall be permitted to be determined in accordance with 17.6 for 17.5.1.2(a) through (e), and 17.7 for 17.5.1.2(f) through (h). For adhesive anchors that resist sustained tension, the requirements of 17.5.2.2 shall apply.

**R17.5.1.3** The method for concrete breakout design deemed to comply with the requirements of 17.5.1.2 was developed from the concrete capacity design (CCD) Method (Fuchs et al. (1995); Eligehausen and Balogh (1995), which was an adaptation of the Kappa Method (Eligehausen and Fuchs 1988; Eligehausen et al. 2006a) with a breakout failure surface angle of approximately 35 degrees (Fig.