

CONCRETE BREAKOUT STRENGTH IN TENSION D.5.2

$$N_{cbg} = \frac{A_{nc}}{A_{Nco}} \sqrt{f_{cc,N}} \cdot \sqrt{f_{ed,N}} \cdot \sqrt{f_{c,N}} \cdot \sqrt{f_{ct,N}} \cdot N_b$$

$$A_{Nco} = 9(h_{ef})^2$$

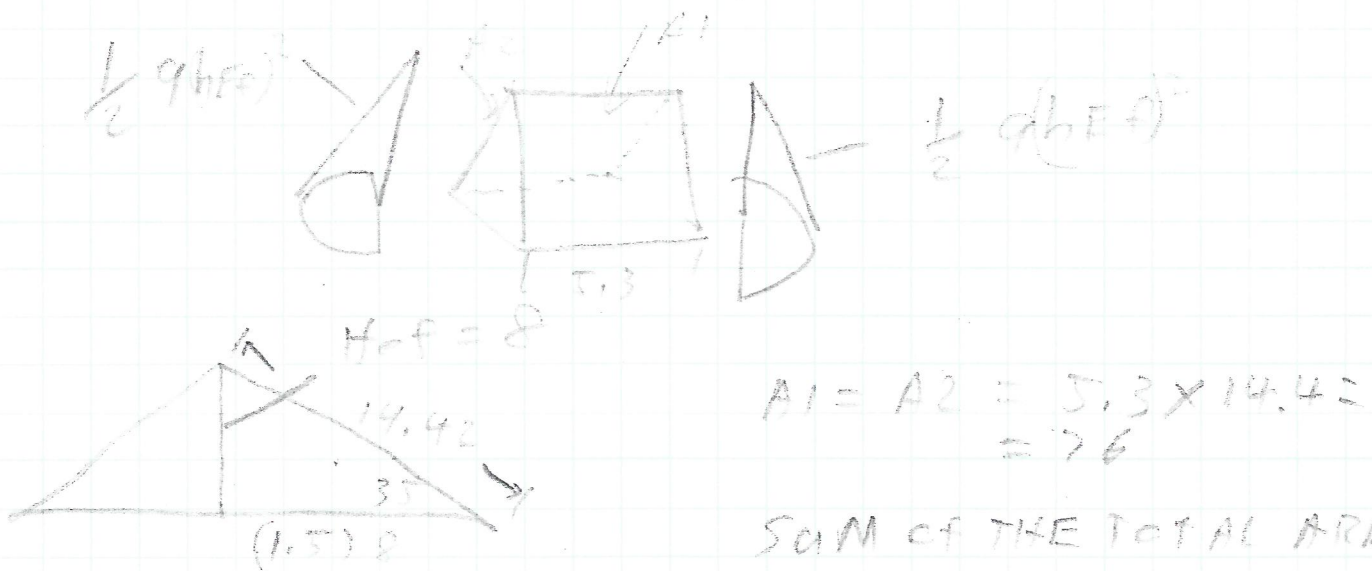
$$h_{ef} = \min 8"$$

$$\underline{A_{Nco} = 9 \cdot 8^2 = 576 \text{ in}^2}$$

Drill Depth 8.5" min

A_{nc} = AREA OF THE ANCHOR GROUP UNDER BREAKOUT LOAD

THE AREAS ARE $2 \frac{1}{2}$ CORNER AND THE PRISM BETWEEN



$$\underline{A_{nc} = 576 + 76 + 76 = 728}$$

$$\sqrt{f_{cc,N}} = \frac{1}{1 + \frac{2e_n}{3h_{ef}}} \Rightarrow e_n$$

ANCHORS IN THIS GROUP UNDER TENSION ARE NOT LOADED

ECCENTRICALLY $\therefore e_n = 0$
(D.5.2.4)

$$\underline{\sqrt{f_{cc,N}} = 1}$$