

D.G.1 CONTINUED

$$\phi = .75$$

$$V_{u9} = 8429 \text{ lbf}$$

$$\phi V_{cn} \geq V_{u9}$$

$$(.75) 2079 \geq 6322 \text{ lbf / ANCHOR}$$

$$V_{u9} \text{ Actual max } 670 \text{ lbf}$$

CONCRETE BREAKOUT IN SHEAR D.G.2

$$V_{cbg} = \frac{A_{vc}}{A_{vc0}} \sqrt{e_{cn}} \cdot \sqrt{e_{cn}} \cdot \sqrt{e_{cn}} \cdot V_D$$

$$\underline{A_{vc}} = 4.7 (c_{o1})^2 = 4.7 (4)^2 = \underline{72}$$

$$A_{vc} = [2(1.7 c_{o1}) + s_1] (c_{o1} \cdot 1.5)$$

$$= [2(1.7(4)) + 5.3] (4 \cdot 1.5)$$

$$\underline{A_{vc}} = \underline{103}$$

$$\underline{V_{ecn}} = \underline{1} \quad \text{NOT ECCENTRICALLY LOADED}$$

$$\underline{V_{ed,v}} = 0.7 + c_{i3} \left(\frac{V_{u9}}{1.7 c_{o1}} \right) = \underline{1.9} \quad c_{o1} = c_{o2}$$

$$V_{c,v} = 1.4$$