

$$(h_{ef})^{1.5} = 22.62$$

$$N_b = K_c \cdot \gamma_g \cdot \sqrt{f_c'} \cdot (h_{ef})^{1.5}$$

$$N_b = 17 \cdot 1 \cdot 70.7 \cdot 22.62$$

$$N_b = 27,186 \text{ Lbf}$$

$$\sqrt{f_{c,c}} = 89.46$$

$$\sqrt{5000} = 70.7$$

$$N_{cbg} = \frac{A_{nc}}{A_{nc0}} \cdot \lambda \cdot \lambda \cdot \lambda \cdot \lambda \cdot N_b$$

$$N_{cbg} = \frac{728}{576} \cdot (1) \cdot (1) \cdot (1.4) \cdot \begin{pmatrix} .83 \\ 1.00 \\ 1.0 \end{pmatrix} \cdot 27,186$$

$$N_{cbg,4} = 38,484$$

$$N_{cbg,6} = 40,588$$

$$N_{cbg,8} = 43,293$$

$$N_{cbg,12} = 48,104$$

$$\phi N_{cbg,4} \geq N_{uag}$$

$$(.70) 38,484 = 26,938$$

PASS

$$\phi N_{cbg,6} \geq N_{uag}$$

$$(.70) 40,588 = 28,621$$

PASS

$$\phi N_{cbg,8} \geq N_{uag}$$

$$(.70) 43,293 = 30,305$$

$$\phi N_{cbg,12} \geq N_{uag}$$

$$(.70) 48,104 = 33,672$$

ALL EDGE DISTANCES
PASS WITH REINFORCED
concrete.

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