SINGLE ANCHOR STRENGTH OF STEEL
IN TENSION ACI 318-11 D.5

D.5.1.2 $N_{sa} = A_{se,N} \cdot f_{uta}$

$A_{se,N} = \frac{\pi}{4}\left(d_o - \frac{0.9743}{n}\right)^2$

$d_o = 0.75''$

$n = 10$ coarse
position

$A_{se,N} = \frac{\pi}{4}\left(.75 - \frac{0.9743}{10}\right)^2$

$A_{se,N} = 0.3345 \ in^2$

$f_{uta} = .f_y$

$f_{uta} = 42,000$

$\phi = .75$ P.4.3

$\phi N_{sa} = .3345 \cdot (.75) \cdot 42000$

$\phi N_{sa} = 10536.75 \ LW$

9.2 Load Factors
the greatest
Load from equation
Eq (9-2) where

$D = 0$
$L = 0$
$L_r = 0$
$S = 0$
$R = 0$

W = WIND IS THE ONLY
LOAD ON THE POLE
TO CREATE ANCHOR
LOAD

∴ The max An Design
Load for the 3/4"
THREADED ROD IS 10,535 ANCHOR
THIS RESULTS IN

$\phi N_{sa} \geq N_{ua i}$

maximum $N_{ua i} = 10,535$