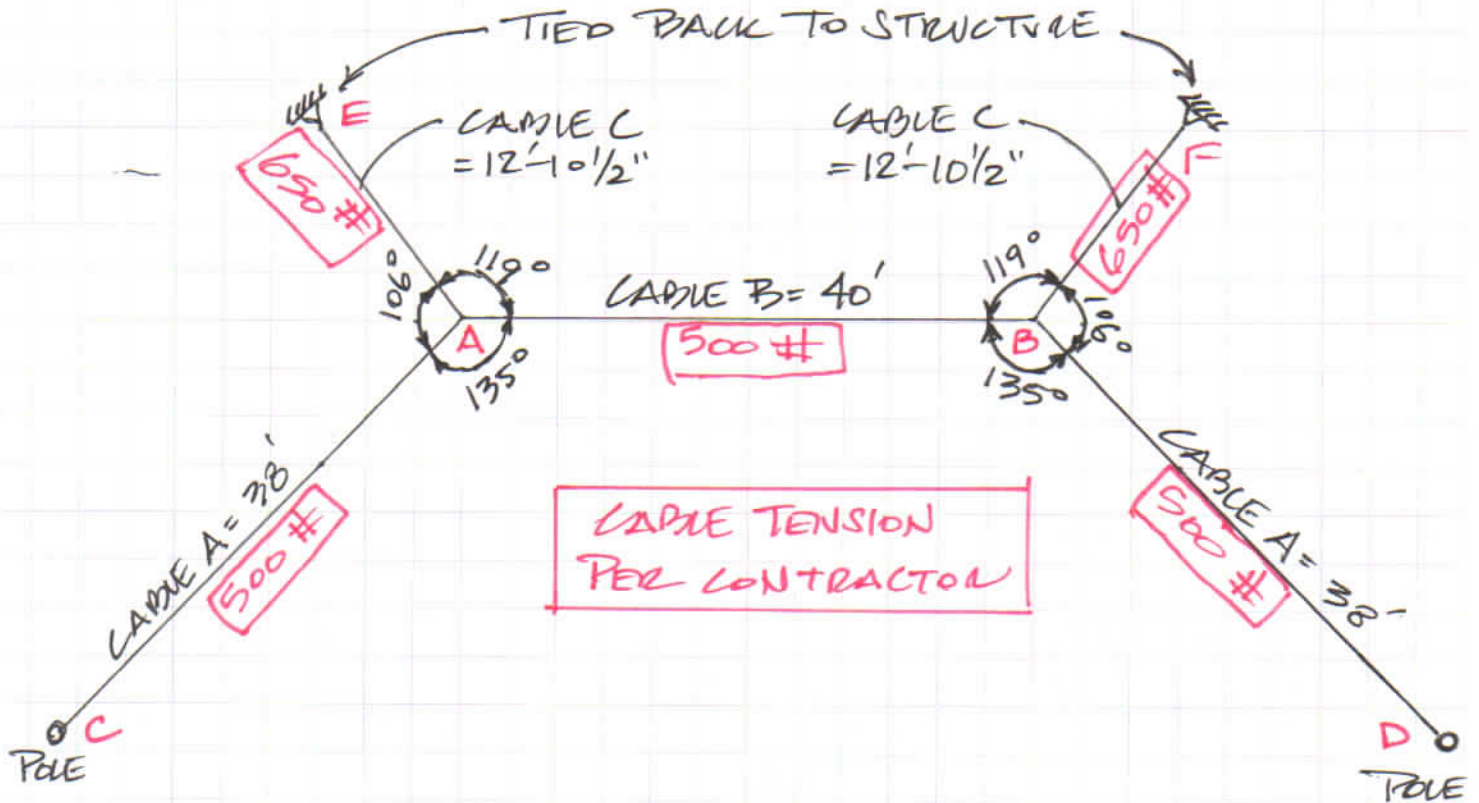


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- PER CONTRACTOR □ POINTS A, B, C & D WILL BE BROUGHT TO THE SAME ELEVATION
- MAX SAG = 3"

~~□ IF CABLE A AND B CAN "SLIP" @ POINT "A" AND "B" THE HORIZONTAL TENSION IS THE SAME IN THE CABLES.~~ (X)

□ 40' SPAN:  $y_c = \frac{w s^2}{8 t}$   $0.25' = \frac{(50 \text{ PLF})(40')^2}{8 t}$   $t = 40000 \text{ #!}$   
3" of sag VS 500 #

GIVEN: 1/4 INCH CABLE WT, WIND, ICE, ETC.

NET WEIGHT = 2 PSF }  $w = 50 \text{ PLF}$   
 NET WEIGHT = 25' }

IF  $t = 500 \text{ #}$   $y_c = \frac{(50 \text{ PLF})(40')^2}{8 (500 \text{ #})} = \underline{20' \text{ OF SAG FOR A 25' TALL NET?}}$

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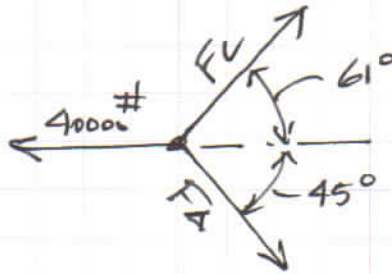
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CABLES A & B CANNOT HAVE SAME FORCE (TENSION) DUE TO ANGLE — USE CLEVIS

POINT B  
HORIZONTAL  
FORCE



SIMULT. EQU.

$$\sum F_x: F_A(\cos 45) + F_C(\cos 61) - 40000 = 0$$

$$\sum F_y: -F_A(\sin 45) + F_C(\sin 61) = 0$$

$$0.707 F_A + 0.485 F_C = 40000$$

$$-0.707 F_A + 0.875 F_C = 0$$

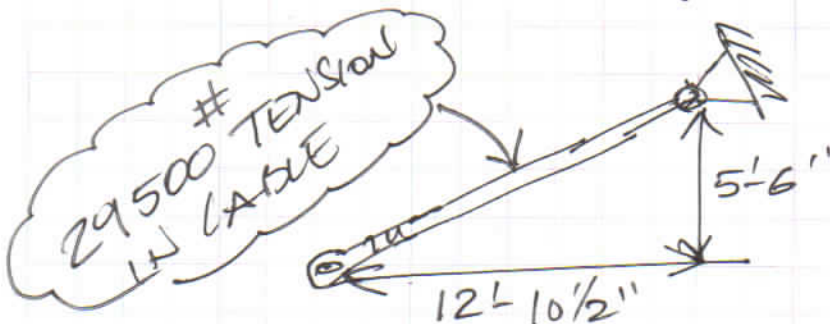
$$1.360 F_C = 40000$$

$$F_C \text{ HORIZ} = 29412 \#$$

VERT FORCE = WT. OF NET =  $50 \text{ PF} \left( \frac{40'}{2} \right) + \left( \frac{38'}{2} \right) = 1950 \#$

$$F_C \text{ VERT} = 1950 \#$$

$$RESULTANT = \sqrt{(29412)^2 + (1950)^2} = 29476 \#$$



**#**  
29,500 TENSION  
VS 650# PER  
CONTRACTION