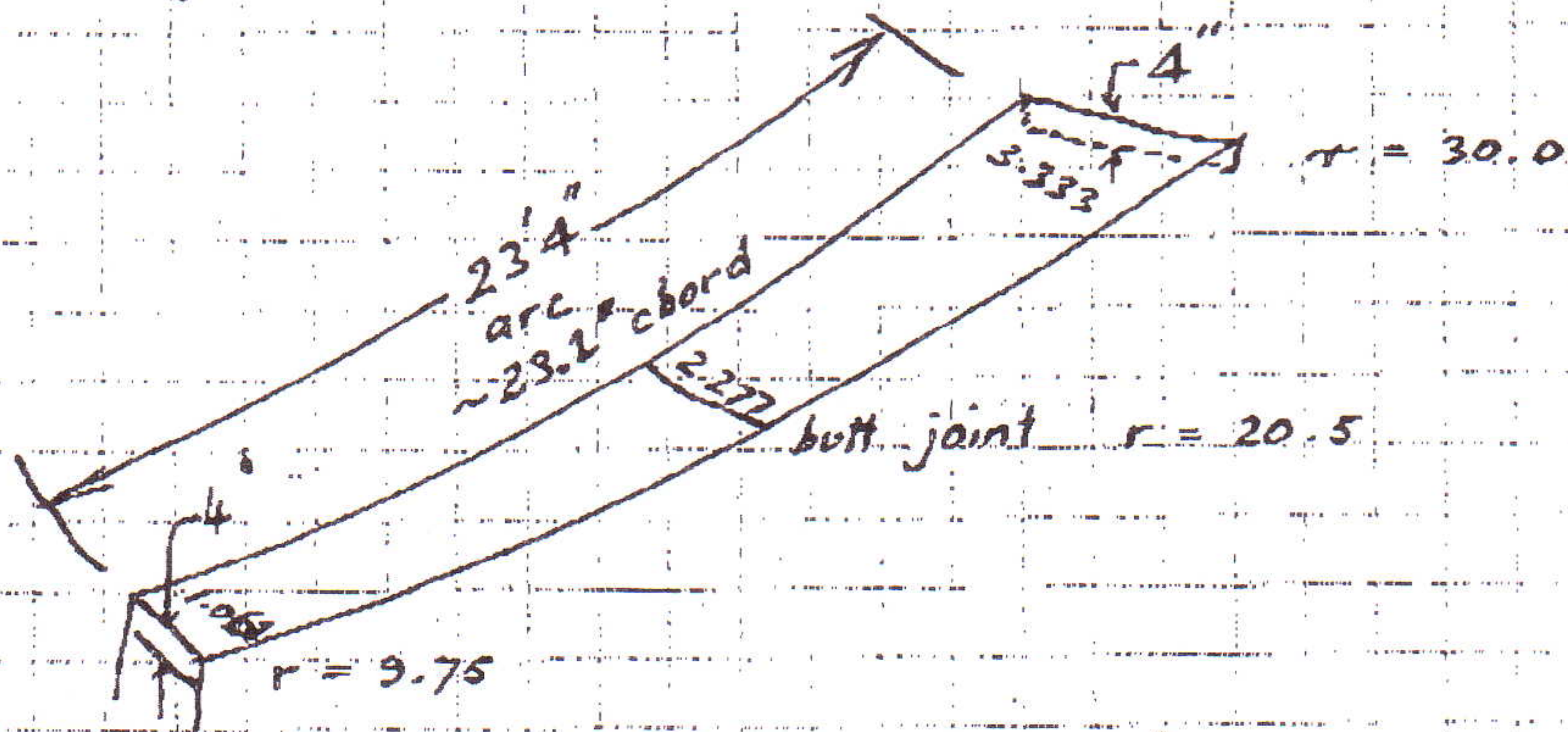


Composite Truss Panel Design

This design uses 12x4 sheet aluminum which is procurable without delay. There will be 56 identical sectors

$$\frac{360}{56} = 6\frac{3}{7}^\circ$$



Allowing 4" turn over at one end of each 12 ft. sheet, arc covered is 23'4". Corresponding chord is abt. 23.2 ft.

At outer rim allow 4" turn over. Then width is 3'4"

$$\text{Perimeter} / 56 = \frac{\pi \times 60}{56} = 3.366$$

$$\text{Gap between sectors} = \frac{0.033 \text{ ft.}}{3.366} = 0.4 \text{ in.}$$

$$\frac{3.366}{3.366} = 3'4"$$

$$\text{Width at butt joint} = \left(\frac{20.5}{30} \times 3.366 \right) - 0.033 = 2.277 \text{ ft.}$$

$$\text{Width at narrow end} = \left(\frac{9.75}{30} \times 3.366 \right) - 0.033 = 1.061 \text{ ft.} = 12.73"$$

