Static Load per linear ft. each Truss 850 lbs = \( \theta \)

Variable Rolling \( \cdots \) \( \cdots \) \( \cdots \) \( \cdots \) \( 2250 \text{ lbs} = \theta' \)

Concentrated \( \cdots \) \( \cdots \) \( \cdots \) \( \cdots \) \( 3375 \text{ lbs} = \theta'' \)

\( \theta = \) Angle made by short diagonals with vertical

\( \theta' = \) \( \cdots \) \( \cdots \) \( \cdots \) \( \cdots \) \( \text{ long} \)

See \( \theta = 1.13 \), Tang \( \theta = 0.517 \)

See \( \theta' = 1.44 \), Tang \( \theta' = 1.03 \)

Panel Live load = \( 850 \times 12\frac{1}{2} = 10625 \text{ lbs} \)

\( \cdots \) Variable Rolling \( \cdots \) = \( 2250 \times 12\frac{1}{2} = 28125 \text{ lbs} \)

\( \cdots \) Concentrated \( \cdots \) = \( 3375 \times 12\frac{1}{2} = 42187.5 \text{ lbs} \)

Height of Trusses = 24 ft 2 in.

Length of inclined end piece = 27 ft 2 in.

I shall first calculate the strains in the diagonals due to the three loads acting...