

## Manual calculations for soil stress

$$P_1 := 51.6 \text{ kN}$$

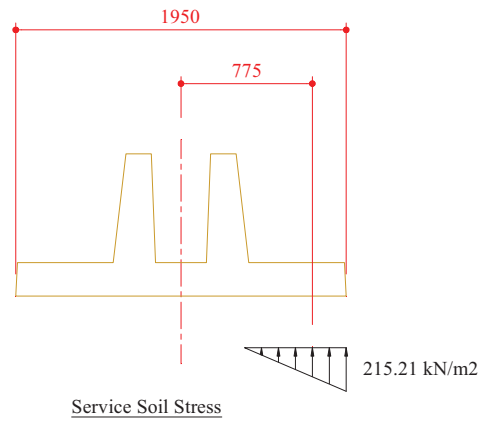
$$M_1 := 40 \text{ kN}\cdot\text{m}$$

$$ecc_1 := \frac{M_1}{P_1} = 0.775 \text{ m} > 1.95/6 = 0.325 \text{ ..... outside middle third, soil stress distribution is triangular}$$

$$B_1 := 0.8 \text{ m}$$

$$L_1 := 1.95 \text{ m}$$

$$\sigma_{ax1} := \frac{P_1 \cdot 2}{B_1 \left( \frac{L_1}{2} - ecc_1 \right) \cdot 3} = 215.209 \text{ kN/m}^2$$



SAFE software results, maximum soil stress = 90 kN/m<sup>2</sup>

