



for non-yielding walls:

$$\Delta p_{HZ} = \frac{2q_b}{\pi} (\beta - \sin \beta \cos 2\alpha)$$

for yielding walls,
(walls at failure):

$$\Delta p_{HZ} = \frac{q_b}{\pi} (\beta - \sin \beta \cos 2\alpha)$$

β in radians

$$\beta = \tan^{-1} \left(\frac{X_2}{z} \right) - \tan^{-1} \left(\frac{X_1}{z} \right)$$

$$\alpha = \tan^{-1} \left(\frac{X_2 + X_1}{2z} \right)$$

Figure 3-27. Increase in pressure due to strip load