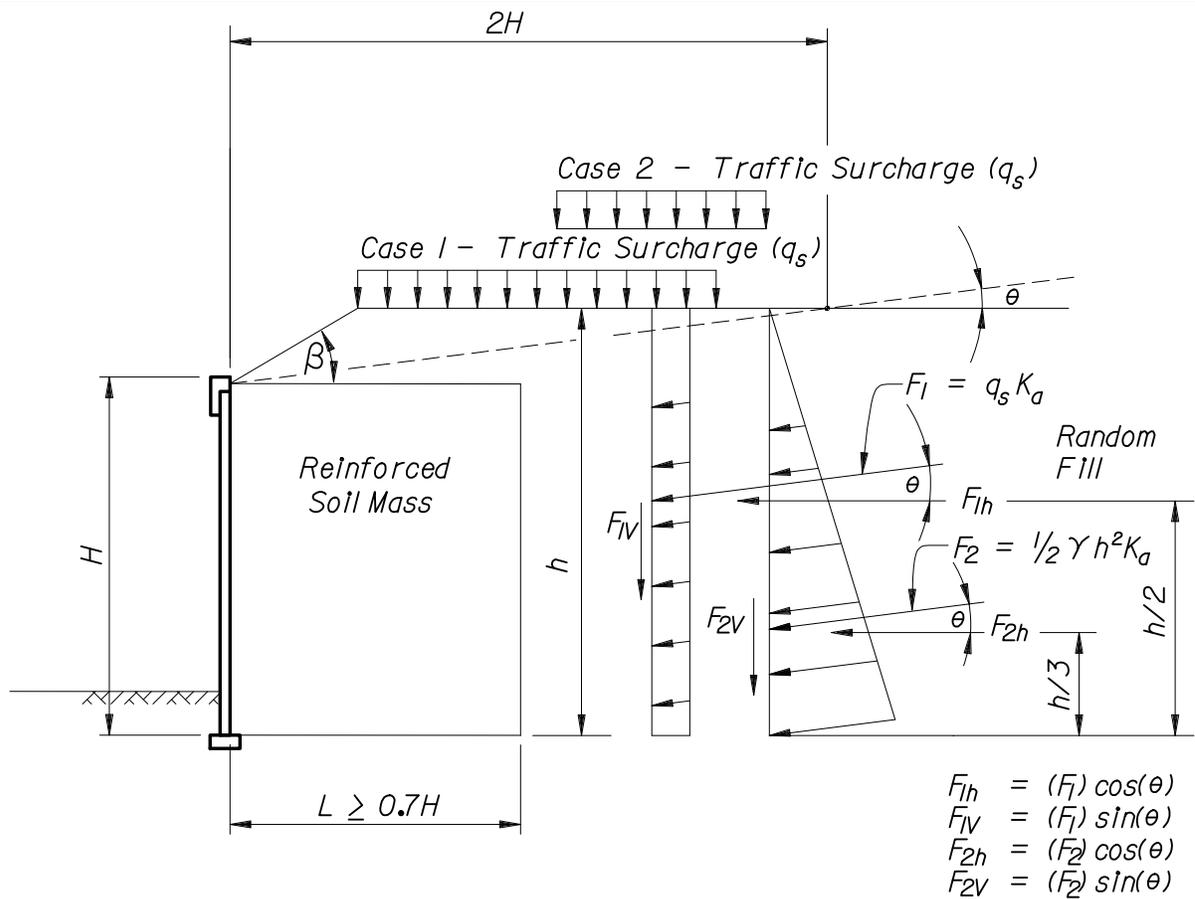


**Figure 3-16 Broken Backfill with Traffic Surcharge**



*Case 1 - used for bearing resistance, reinforcement tensile resistance and overall stability calculations.*

*Case 2 - used for sliding, eccentricity, and reinforcement pullout resistance calculations.*

$$K_a \text{ For Random Fill: } K_a = \cos(\theta) \left[ \frac{\cos(\theta) - \sqrt{\cos^2(\theta) - \cos^2\phi}}{\cos(\theta) + \sqrt{\cos^2(\theta) - \cos^2\phi}} \right]$$

$\phi$  = friction angle of back fill or foundation, whichever is lowest.

*Loads shown are unfactored. Use appropriate load and resistance factors in analysis. (See Volume 7 - Design Aids, for the LRFD External Stability Analysis for MSE Walls program).*

**BROKEN BACK BACKFILL CASE WITH TRAFFIC SURCHARGE**