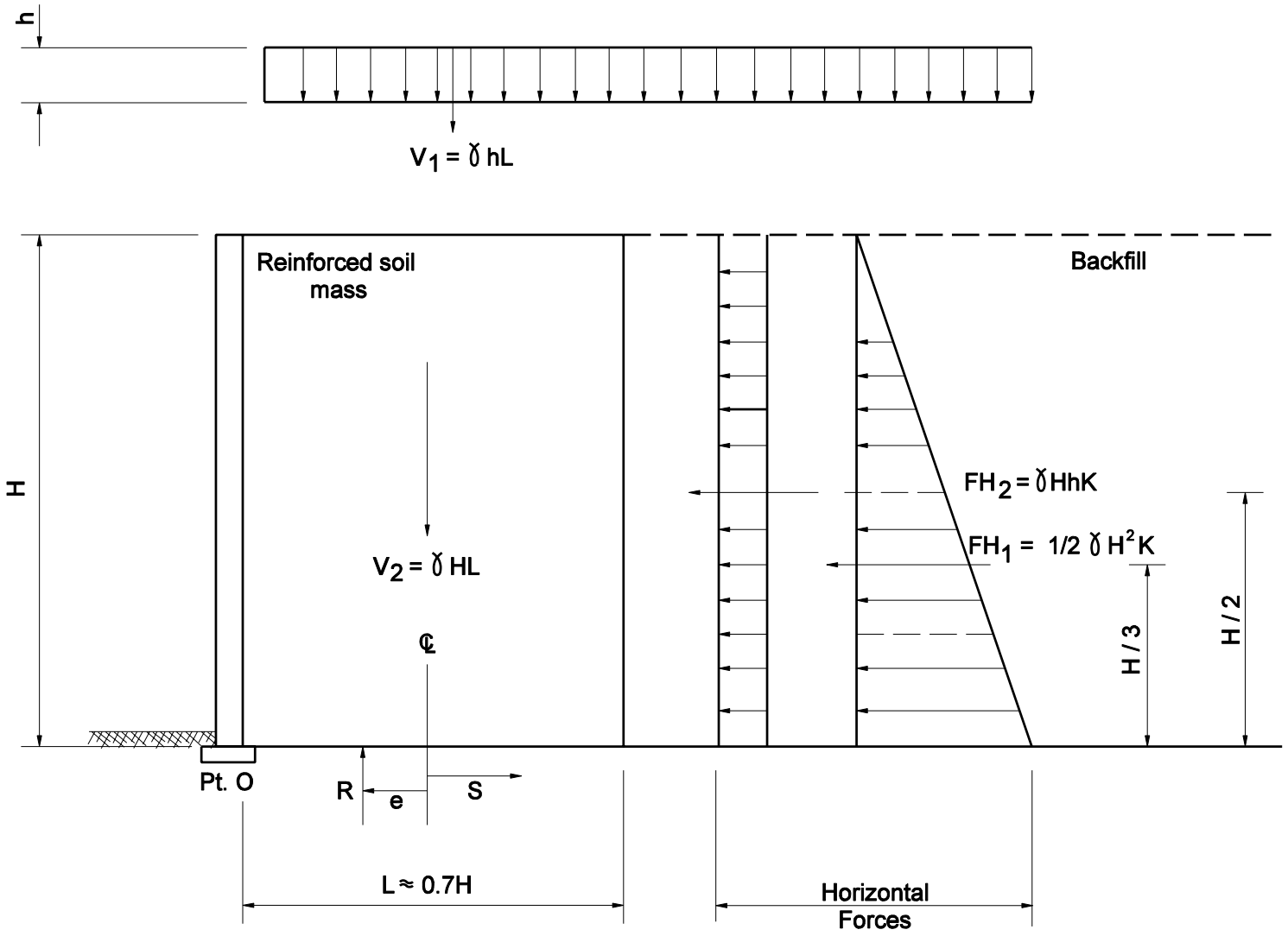

SAFETY FACTOR AGAINST OVERTURNING (MOMENTS ABOUT PT.O):

$$S.F.\ (O) = \frac{\Sigma\ \text{Moments Resisting (Mr)}}{\Sigma\ \text{Moments Overturning (Mo)}} = \frac{V_1\ (L/2) + V_2\ (L/2)}{F_1\ (H/3) + F_2\ (H/2)} \geq 2.0$$

SAFETY FACTOR AGAINDT SLIDING:

$$S.F.\ (S) = \frac{\Sigma\ \text{Horizontal Resisting Force(s)}}{\Sigma\ \text{Horizonal Driving Force(s)}} = \frac{(V_1 + V_2)\ \text{TanS}^*}{FH_1 + FH_2} \geq 1.5$$

*S = Coefficient of Sliding Friction.

$$e = \frac{L}{2} - \frac{Mr\text{-}Mo}{R} \leq \frac{L}{6} \qquad \sigma v = \frac{R}{L - 2e}$$

where: e = Eccentricity R = Resultant of vertical forces $(V_1 + V_2)$

HORIZONTAL BACKFILL WITH TRAFFIC SURCHARGE
Figure 68-4B