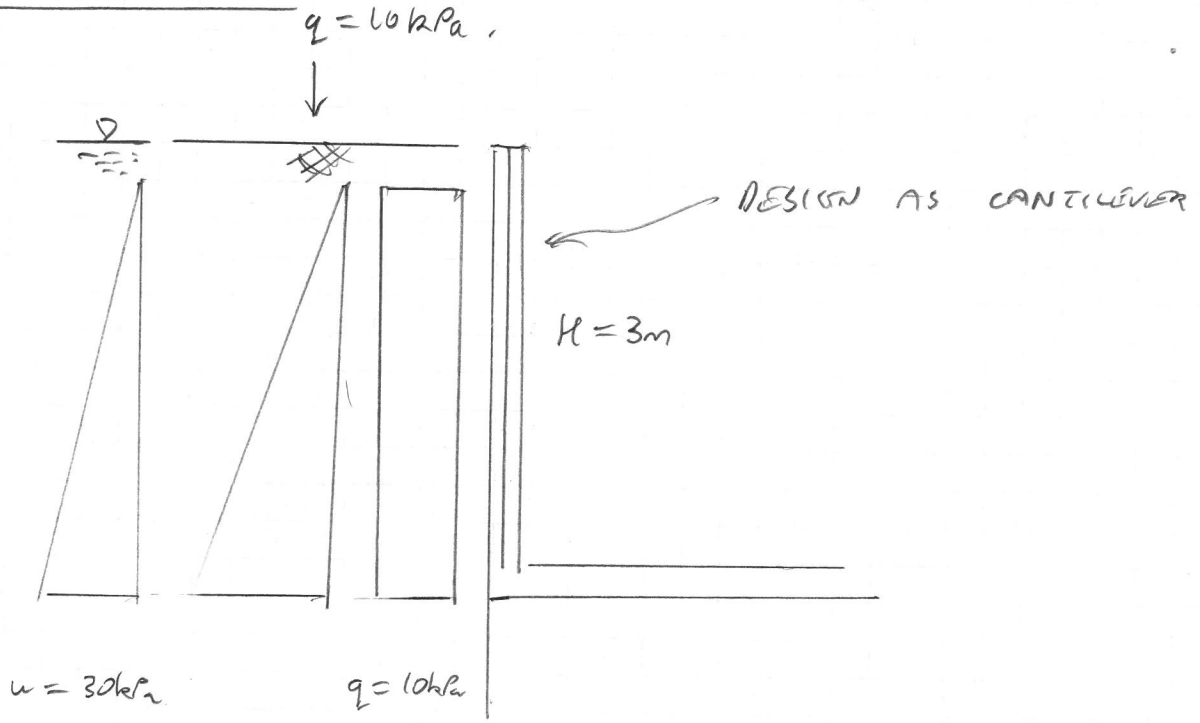
RETAINING WALL



$\sigma_v = 3 \times 18$
$= 54 kPa.$

Moment on wall $= K_o \frac{\sigma_v}{2} \cdot H \cdot \frac{H}{3} + \frac{wH}{2} \cdot \frac{H}{3} + qH \cdot \frac{H}{2} V_{1.0}$

$= 0.66 \times \frac{54}{2} \times \frac{9}{3} + \frac{10 \times 9}{6} + \frac{10 \times 9}{2} \times 0.66$

$= 98 \text{ kNm/m}$ SLS.

$1.4 \times 98 = 137 \text{ kNm/m}$ ULS.

$M_{ult} = \frac{0.156 \times 30 \times 1000 \times 225^2}{10^6} = 240 \text{ kNm/m}$

⇒ 300 RC RETAINING WALL OK AS TEMPORARY CANTILEVER. PROPPED AT HEAD IN PERMANENT CASE.