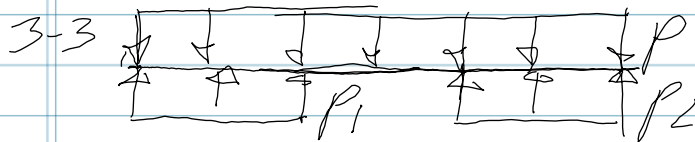
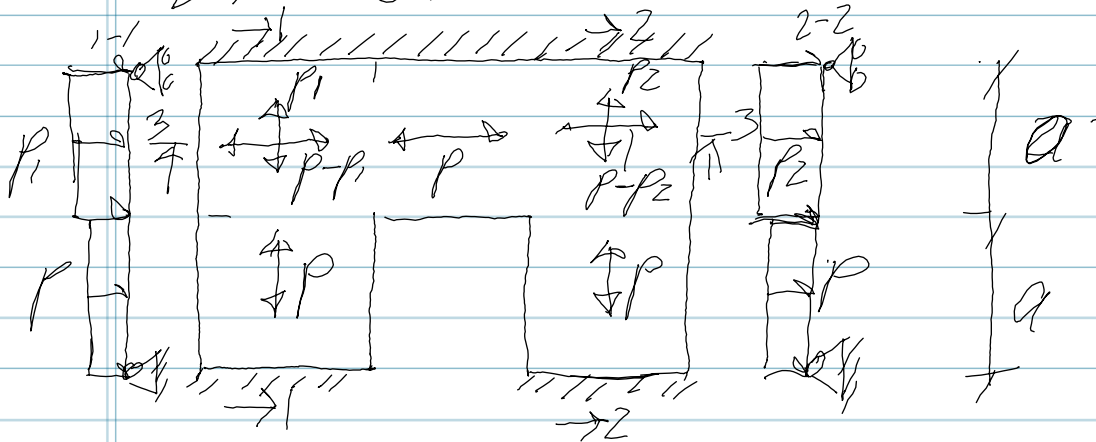


DTU - Betonkonstruktioner



MODEL

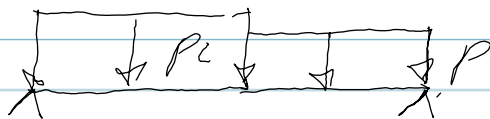
Strimmel 3

Moment lige vægt $\Rightarrow P_1 = P_2$

Lodret ligevægt $\Rightarrow p \cdot 3a = P_1 a + P_2 a = 2P_1 a \Rightarrow P_1 = \frac{3}{2} p a$

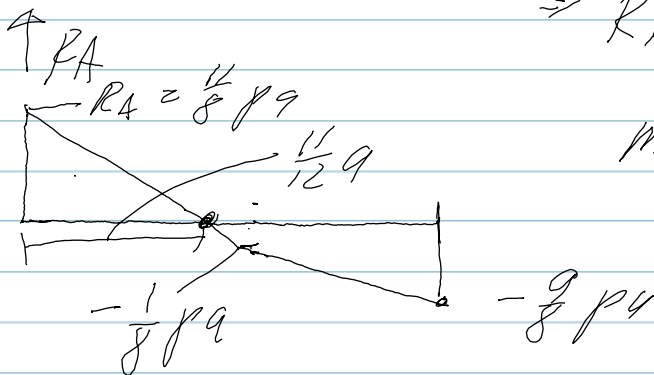
$$M_{\max} = p_1 a \cdot a - \frac{3}{2} p a \cdot \frac{3}{4} a = \frac{3}{8} p a^2 \leq M_{\max} \Rightarrow p_3^{(-)} = \frac{8}{3} \frac{M_{\max}}{a^2}$$

Strimmel 2



Moment lige vægt

$$R_A \cdot 2a = p_2 a \cdot \frac{3}{2} a + p a \cdot \frac{a}{2} \Rightarrow R_A = \frac{11}{8} p a$$



$$M_{\max} = R_A \cdot \frac{11}{12} a - (p_2 \frac{11}{12} a) \cdot \frac{1}{2} \cdot (\frac{11}{12} a)$$

$$= \frac{121}{192} p a^2 \leq M_{uy}$$

$$\Rightarrow p_2^{(-)} = \frac{192}{121} \frac{M_{uy}}{a^2}$$

Strimmel 1 = Strimmel 2

$$p^{(-)} = \min(p_1^{(-)}, p_2^{(-)}, p_3^{(-)})$$