

$$c.g + ub \quad \left(\frac{2,18 + 1,40}{2} \right) \times 1020 = 2540 \text{ kg/m}$$

$$q_1 = -940 \text{ ---}$$

$$q_2 = 1600 \text{ kg/m}^2$$

$$P = 2550 \text{ kg} ; \text{ zie pagina 128.}$$

$$R_A = 940 \times 5,50 \times \frac{1}{2} + \frac{1600 \times 2,0^3}{2 \times 5,50^3} (2 \times 5,5 - 2,0) + \frac{2550 \times 3,25^2}{5,50^3} (3 \times 5,50 - 2 \times 2,25) = 4380 \text{ kg}$$

$$M_{\max} = 4380 \times 2,25 - 940 \times 2,25^2 \times \frac{1}{2} = 7470 \text{ kgm}$$

$$M_A = 940 \times 5,50^2 \times \frac{1}{2} + 2550 \times 2,25 \times 3,25^2 \times \frac{1}{5,5^2} + \frac{1600 \times 2,0^3}{12 \times 5,5^2} (4 \times 5,5 - 3 \times 2,00) = 4970 \text{ kgm}$$

$$M_B = 940 \times 5,50^2 \times \frac{1}{2} + \frac{2550 \times 2,25^2 \times 3,25}{5,50^2} + \frac{1600 \times 2,0^2}{12 \times 5,5^2} [2(2 \times 5,5 - 2,0)^2 - (2 \times 5,5^2 - 2,0^2)] = 5650 \text{ kgm}$$

$$M_{\max, AB} = 7470 - \frac{4970 + 5650}{2} = 2160 \text{ kgm}$$

Wapening
Stutzing A

$$M_A = 4970 \text{ kgm}$$

$$h = 16,5 \text{ cm} \quad b = 100 \text{ cm}$$

$$K = 0,234 ; \omega = 0,975 ; A = 14,60 \text{ cm}^2$$

$$\text{toegepast } \Phi 14 - 10 \text{ cm} ; A = 15,39 \text{ cm}^2$$

veld A-B $M_{AB} = 2160 \text{ kgm}$

$$b = 100 \text{ cm} ; h = 16,5 \text{ cm}$$

$$K = 0,354 ; \omega = 0,383 ; A = 6,34 \text{ cm}^2$$

$$\text{toegepast } \Phi 10 - 12 ; A = 6,54$$