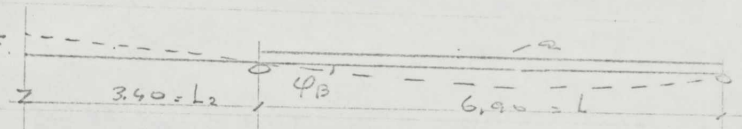


Verdeling van Overstelmoment  $M = 53000 \text{ Nm}$  (zie blad 3) over de beide overkroepende balken in sta 1 en sta E (zie schema blad 4); waarbij in rekening wordt gebracht de opbuigende werking tgv de hoekoverdraaiing in de beide achterwells van de desbetreffende ligger!

(Zinnere deze opbuigende effecten zouden niet in rekening gebracht behoeven te worden, indien de beide overkroepende armen volkomen stijf waren en geflexed)

A) Berekenen we ligger in sta E.

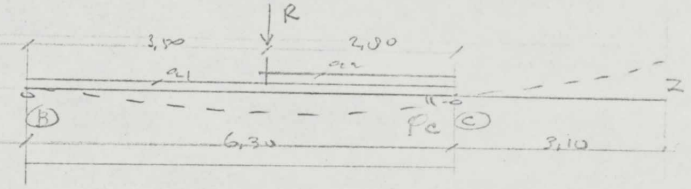


$$q = 0.70 \times 0.70 \times 2250 + 3 \times 100 = 1400 \text{ N/m} \quad (\text{E en I vallen in de berek weg})$$

$$\phi_B = \frac{1}{24} \times 6.90^3 \times 1400 = 19200 \rightarrow \delta_z = \phi_B \cdot L_2$$

$$\delta_z = 19200 \times 3.40 = 65200 \uparrow$$

B) Berekenen we ligger in sta 1.



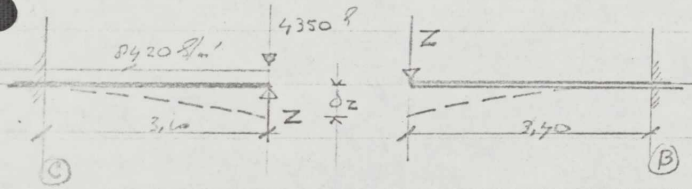
$$q_1 = 2920 \text{ N/m} \quad q_2 = 5500 \text{ N/m}$$

$$R = 4350 \text{ N}$$

$$R_B = 3.15 \times 2920 + 2.80 \times \frac{1}{2} \times \frac{1}{6.30} \times 5500 + 4350 \times \frac{2.00}{6.30} = 9200 + 3500 + 1930 = 14530 \text{ N}$$

$$DRL = 14530 - 3.15 \times 2920 = 4330 \text{ N}; \quad M = \frac{14530 + 4330}{2} \times 6.30 = 33000 \text{ Nm}$$

$$\sim \phi_C = \frac{1}{8} \times 33000 \times 6.30 = 69200 \rightarrow \delta_z = 69200 \times 3.10 = \sim 215000 \uparrow$$



$$M_C = (53000 - 3.1 Z) \text{ Nm}$$

$$M_B = 3.40 Z \text{ Nm}$$

$$\delta_z = \frac{(53000 - 3.1 Z) \times 6.3 \times 3.10}{3} - 215000 + \frac{4350 \times 3.10^3}{3} + \frac{8420 \times (3.10)^4}{8} - \frac{Z \times 3.10^3}{3} =$$

$$\delta_z = 345000 - 20.2 Z - 215000 + 33200 + 97000 - 9.9 Z =$$

$$\delta_z = 270200 - 30.1 Z \quad (1)$$

$$\delta_z = \frac{Z \cdot 3.4^3}{3} + \frac{3.4 Z \times 3.40 \times 6.90}{3} - 65200 =$$

$$= 13.1 Z + 26.6 Z - 65200 =$$

$$\delta_z = 39.7 Z - 65200 \quad (2)$$

