Remarks: See §7.2, example 2, page 250 till 252

Answers:

a. $n = 5000\,\mathrm{N/m}$

b. at the ring beam: $n_v = 3000\,\mathrm{N/m}$

$\rightarrow q_{ringbeam} \geq 3000\,\mathrm{N/m}$

c. The horizontal load on the ring belt is an equally distributed load pointing to the inside of the structure and equal to the horizontal component of the membrane force: $n_h = 4000\,\mathrm{N/m}$

This creates a compressive force in the ring beam:

$N_{ringbeam} = -60\ \mathrm{kN}$