Static admissibility #3

Let us consider a closed tube associated with a cylindrical coordinate system $(\underline{O}, \underline{e}_r, \underline{e}_\theta, \underline{e}_z)$.

The tube is subjected to an internal pressure p_i. All other surfaces are free of stresses.

Question: Write all the equations defining static admissibility for $\underline{\underline{\sigma}}$ (no expansion needed at this time).

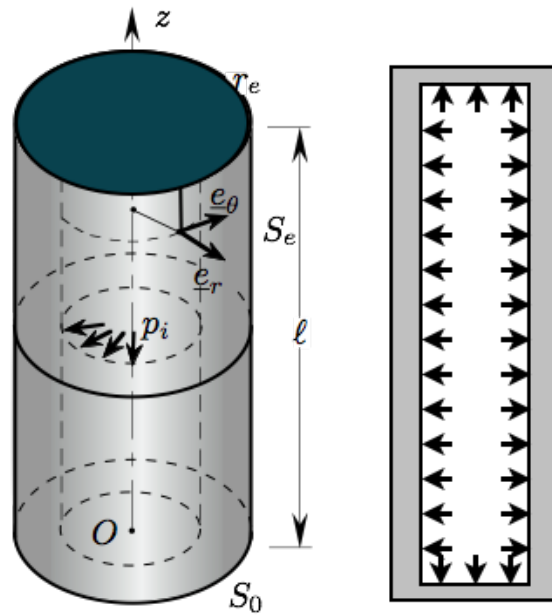**Question:** Expand these equations.

Figure 1: A cylindrical coordinate system $(\underline{O}, \underline{e}_r, \underline{e}_\theta, \underline{e}_z)$