The value of f_e obtained from Equation 4.29, is used to obtain the factored compressive resistance $\left(C_r\right)$ in Equation 4.24.

(b) Singly symmetric sections *(Clause 13.3.2(b))*

(i) For singly symmetric sections with symmetry about the y-axis (e.g. T-sections)

$$\boxed{x_o = 0} \tag{4.33}$$

Substituting Equation 4.33 into Equation 4.22 or 4.23, we get

$$\left(f_{ex} - f_e\right)\cdot\left\{\left(\bar{r}_o^2 + y_o^2\right)\left(f_{ey} - f_e\right)\left(f_{ez} - f_e\right) - \left(f_e y_o\right)^2\right\} = 0 \tag{4.34}$$

The solution of Equation 4.34 is the lesser of $\left(f_{ex}\right)$ and $\left(f_{eyz}\right)$ where

$$\boxed{f_{eyz} = \frac{f_{ey} + f_{ez}}{2\Omega}\left[1 - \sqrt{1 - \frac{4 f_{ey} f_{ez} \Omega}{\left(f_{ey} + f_{ez}\right)^2}}\right]} \tag{4.35}$$

in which

$$\boxed{\Omega = 1 - \frac{y_o^2}{\bar{r}_o^2}} \tag{4.36}$$

$$\therefore \quad f_e = \min\left\{f_{ex},\ f_{eyz}\right\} \tag{4.37}$$

(ii) For singly symmetric sections with symmetry about the x-axis (e.g. Channel section)

$$\boxed{y_o = 0} \tag{4.38}$$

Substituting Equation 4.38 into Equation 4.22 or 4.23, we get

$$\left(f_{ey} - f_e\right)\cdot\left\{\left(\bar{r}_o^2 + x_o^2\right)\left(f_{ex} - f_e\right)\left(f_{ez} - f_e\right) - \left(f_e x_o\right)^2\right\} = 0 \tag{4.39}$$

The solution of Equation 4.39 is the lesser of $\left(f_{ey}\right)$ and $\left(f_{exz}\right)$ where

$$\boxed{f_{exz} = \frac{f_{ex} + f_{ez}}{2\Omega}\left[1 - \sqrt{1 - \frac{4 f_{ex} f_{ez} \Omega}{\left(f_{ex} + f_{ez}\right)^2}}\right]} \tag{4.40}$$

in which