

3.1.7 Earthquake Loads

$$I_{FE} = 1.00 \quad (50 \text{ Years})$$

$$I_{FW} = 1.00 \quad (50 \text{ Years})$$

Using stiff soil $\Rightarrow D$

$$0.4g = S_s \text{ or } S_1$$

$$a) 0.4g = S_s \rightarrow F_a \approx 1.45 \quad (\text{Table 3-12})$$

$$b) 0.4g = S_1 \rightarrow F_r \approx 1.6 \quad (\text{Table 3-13})$$

$$S_{DS} = \frac{2}{3} \cdot 1.45 \cdot 0.4g = 3.8N$$

$$S_{D1} = \frac{2}{3} \cdot 1.6 \cdot 0.4g = 4.2N$$

$$S_a = S_{DS}$$

3.1.7.1. Structure Earthquake loads

$$F_E = \frac{S_a}{R} \cdot W (I_{FE})(I_{MV})$$

$$F_E = \frac{3.8}{3} \cdot W \cdot 1.0 \cdot 1.0 = 1.27 \cdot W$$

$W = \text{Dead Load}$

Could I apply this 1.27 factor to all exceptional loads?

I have 8 types of load and 5 types are exceptionals.

If I multiply $1.27 \times LTV$ of each type of load, could be correct?

Thanks