

VERIFICACIONES - CONDICION NORMAL

$$E_A = 3G(1 + K_S^2)$$

$$= 3 \times 120(1 + 0.6 \times 10^2)$$

$$= 21960.7/M^2$$

$$\epsilon_{cp} = 1.35 \sigma_{cmin} / E_A$$

$$= 1.35 \times 338 / 21960$$

$$= 21.0\%$$

$$\sigma_{cmin} = 821.6 \times 4 = 338.7/M^2$$

$$\sigma_{cmax} = 115.6 / 6 \times 4 = 481.7/M^2 \quad \epsilon_{csc} = 6.4\%$$

$$\Delta_{sc} = 0.37 \text{ MM ESTRIBOS}$$

$$0.22 \text{ MM CEPAS}$$

$$\epsilon_{ctot} = 27.4\%$$

$$\sigma_c = 1.60 \text{ MM ESTRIBOS}$$

$$0.93 \text{ MM CEPAS}$$

$$\epsilon_{\theta} \leq \frac{\Delta C}{L} = \begin{cases} 8.0\% \text{ ESTRIBOS} \\ 4.7\% \text{ CEPAS} \end{cases}$$

$$\text{GIROS O.K. } \bar{\epsilon}_{\theta} = 3.43\% \left( \frac{5/\text{PRO } 6.}{\text{VIBAS}} \right)$$

DESPLAZ. POR  
TEMPERATURA O.K.

$$\Delta_T = 0.007 \text{ M EN ESTRIBOS}$$

$$\Delta_T \leq \bar{\epsilon}_{\theta} / 2$$

$$\Delta_T \leq \begin{cases} 0.029 \text{ M ESTR.} \\ 0.017 \text{ M CEA} \end{cases}$$

- CONDICION SISMICA

$$\epsilon_u = 350\%$$

ELONGACION DE ROTURA SHORE 60°  
2/TABLA 18.2.3.1. A CONSTR.  
Y 9/CAP 14.6 DE ASADO  
SEISMIC ISOLATION DE

OSCILACIONES

$$\epsilon_{sc} = 65 \epsilon_c = 6 \times 10 \times 27.4\% = 164\% \times \text{COMPRESION}$$

$$1/R=1 \quad \epsilon_{cg} = \frac{1.4 \times 1.4 \times 120}{GA} = 16.1 / 120 \times 6 \times 4 = 56 - \times \text{CORTE}$$

$$\epsilon_{\theta} = \frac{L \bar{\epsilon}_{\theta}}{2 \times e} = \frac{40^2 \times 2.488\%}{2 \times 0.12 \times 0.34} = 49 - \times \text{GIRO}$$

OSCILACION

TOTAL EN

LAS PACAS

DE LA CEA

PARA SISMO

LONGITUDINAL

$$\epsilon_{sc} + \epsilon_{cg} + \epsilon_{\theta} = 269\%$$

$$\approx 263\% = 0.75 \epsilon_u$$

O.K.