



UNIVERSIDAD DEL SURESTE

LICENCIATURA EN
ARQUITECTURA

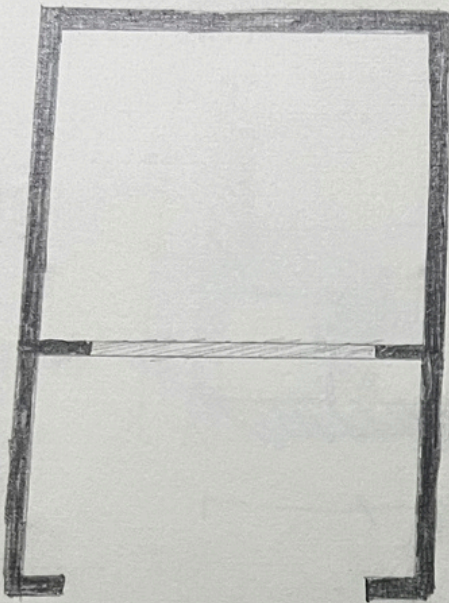
ANALISIS DE ESTRUCTURAS

Integrante

-Carlos Alberto Figueroa

5to Cuatrimestre

Group A-14



Areas

$$A = 5 \text{ m} \left(\frac{2.50 \text{ m}}{2} \right) = 6.25 \text{ m}^2$$

$$A = \frac{(5 \text{ m} + 1 \text{ m}) \times 2 \text{ m}}{2} = 6.0 \text{ m}^2$$

② Peso (Area p. losa)

$$6.25 \text{ m}^2 (655 \text{ kg/m}^2) = 4093.75 \text{ kg/m}^2$$

$$6.0 \text{ m}^2 (6.55 \text{ kg/m}^2) = 3,930.0 \text{ kg/m}^2$$

③ w (Peso / Dist. Apoyo)

$$\frac{3,930 \text{ kg/m}}{5.0 \text{ m}} = 786.0 \text{ kg/m}$$

$$\frac{4,093.75 \text{ kg/m}^2}{5.0 \text{ m}} = 818.750 \text{ kg/m}$$

④ h trabe ($\frac{L}{12}$)

$$\frac{4 \cdot 15}{12} = 0.30 \text{ m}$$

⑤ $B = 0.5(h) \rightarrow 0.5(0.30) = 0.15 \text{ m}$

$$P-P \quad 0.15 \times 0.30 \times 2,400 \text{ kg/m}^3 = 108 \text{ kg/m}$$

⑤ Peso muro

$$3.0 \text{ m} (270 \text{ kg/m}) = 810 \text{ kg/m}$$

Peso c/

$$0.15 \times 0.25 \times 2,400 \text{ kg/m}^3 = 90 \text{ kg/m}$$

⑦ Losa Azotea

$$\text{Area 3} = 6.25 \text{ m}^2$$

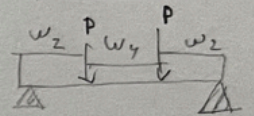
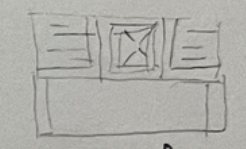
$$6.25 \text{ m}^2 (665 \text{ kg/m}^2) = 4,156.25 \text{ kg/m}$$

$$\frac{4,156.25 \text{ kg/m}}{5.0 \text{ m}} = 831.25 \text{ kg/m}$$

⑧

$$\text{Peso Pretel } 0.20 \text{ m} (270 \text{ kg/m}) = 54 \text{ kg/m}$$

Touch $\begin{matrix} > < \\ > < \\ > < \\ > < \\ > < \end{matrix}$

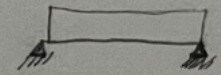
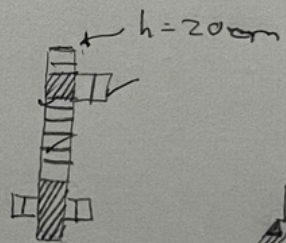


$$w_1 = 1,712.75 \text{ kg/m}$$

$$w_2 = 3,498 \text{ kg/m}$$

$$w = 975.25 \text{ kg/m}$$

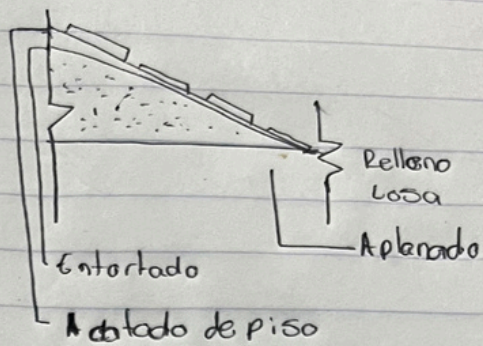
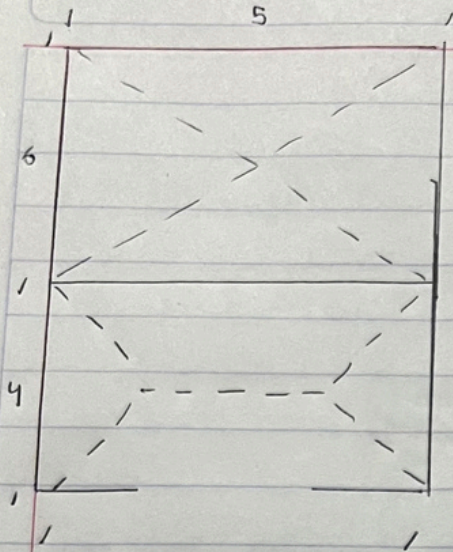
$$P = 1,048.39 \text{ kg}$$



$$w = 975.25 \text{ kg/m} (2.15 \text{ m}) = 1,098.39$$

$$k_A = k_B = \frac{w(l)^2}{2}$$

Carlos Alberto Figueroa Jimenez



Entrepiso

12cm casa habitacional

10cm casa habitacion

Acabado de piso	= 70 kg/m ²	70 kg/m ²	70
Entortado	= 30 kg/m ²	30 kg/m ²	30
Losa maciza (10cm)	= 240 kg/m ²	288	295
Aplanado	= 30 kg/m ²	30	30
Reglamento	= 40 kg/m	40 kg/m ²	40
	410 kg/m ²	458 kg/m ²	465
	<u>CV_m = 190 kg/m²</u>	190 kg/m ²	190
	<u>600 kg/m²</u>	<u>648 kg/m²</u>	<u>655</u>

10 cm	10cm	12cm	25cm
Acabado piso	70 kg/m ²	70 kg/m ²	70
Entortado	30 kg/m ²	30 kg/m ²	30
Relleno	100 kg/m ²	100 kg/m ²	100
Losa	240 kg/m ²	288 kg/m ²	295
Aplanado	30 kg/m ²	30 kg/m ²	30
	510 kg/m ²	558 kg/m ²	565
	<u>CV_m = 100 kg/m²</u>	100 kg/m ²	100
	<u>610 kg/m²</u>	<u>658 kg/m²</u>	<u>665</u>