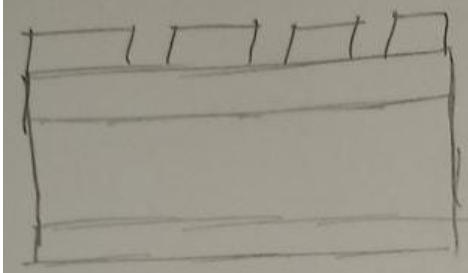
Losa Maciza 12cm

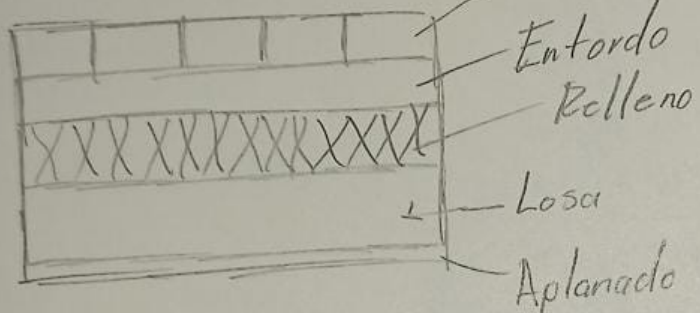


Acabado de piso — 70 kg/cm²
Entortado — 30 kg/cm²
Losa Maciza — 288 kg/cm²
Aplanado — 30 kg/cm²
40 kg/cm²

458 kg/cm²
CV = 250 kg/cm²
Total = 708 kg/cm²

250 kg/cm²
CVA = 150 kg/cm²
430 kg/cm²

Losa Azotea 10cm

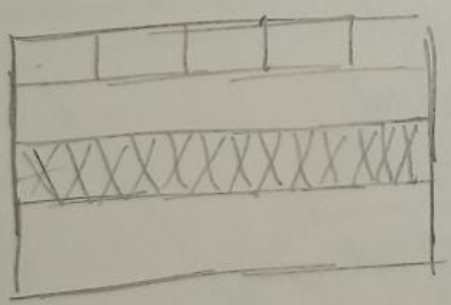


70 kg/cm²
30 kg/cm²
100 kg/cm²
240 kg/cm²
30 kg/cm²
40 kg/cm²

510 kg/cm²
CVM = 100 kg/cm²
Total = 610 kg/cm²

100 kg/cm²
CVA = 70 kg/cm²
170 kg/cm²

Losa Azotea 10cm



70 kg/cm²
30 kg/cm²
100 kg/cm²
288 kg/cm²
30 kg/cm²
40 kg/cm²

556 kg/cm²
CVM = 100 kg/cm²
Total = 656 kg/cm²

100 kg/cm²
CVA = 70 kg/cm²
170 kg/cm²

Losa 10cm Entrempiso

Acabado de Piso
Entortado
Losa maciza 10cm
Aplanado

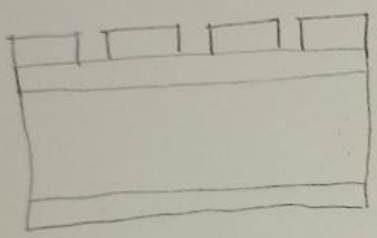
70 Kg/m²
30 Kg/m²
240 Kg/m²
30 Kg/m²
40 Kg/m²
410 Kg/cm²

CV = 190 Kg/cm²

Total 600 Kg/cm²

190 Kg/cm²
CVa = 100 Kg/cm²
290 Kg/cm²

Losa 10cm Entrepiso



Acabado de Piso
Entortado
Losa Maciza 10cm
Aplanado

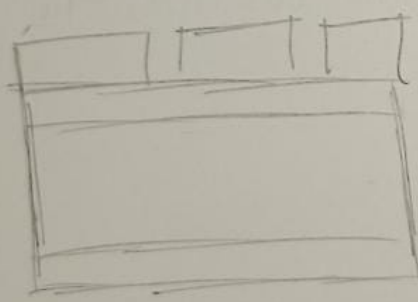
70 Kg/cm²
30 Kg/cm²
240 Kg/cm²
30 Kg/cm²
40 Kg/cm²
410 Kg/cm²

CV = 250 Kg/cm²

Total 660 Kg/cm²

250 Kg/cm²
CVa = 180 Kg/cm²
430 Kg/cm²

Losa 12cm Entrepiso



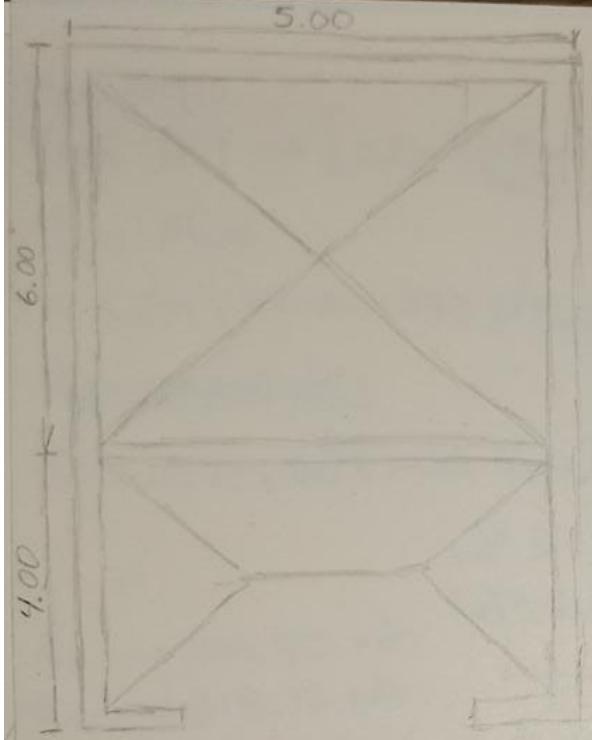
Acabado de Piso
Entortado
Losa Maciza 12cm
Aplanado

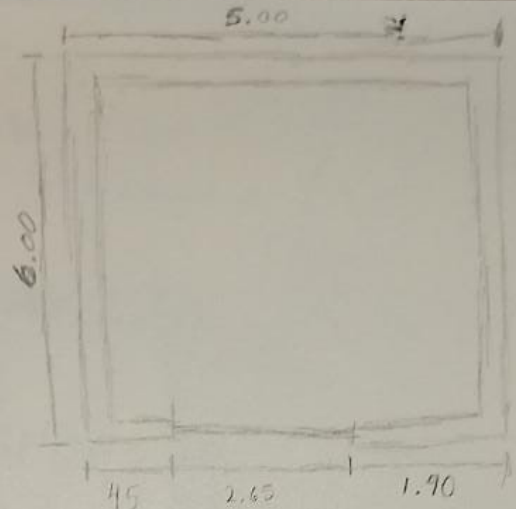
70 Kg/cm²
30 Kg/cm²
288 Kg/cm²
30 Kg/cm²
40 Kg/cm²
458 Kg/cm²

CV = 190 Kg/cm²

648 Kg/cm²

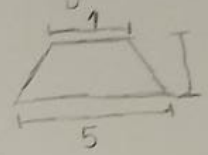
190
CVa = 100
290 Kg/cm²



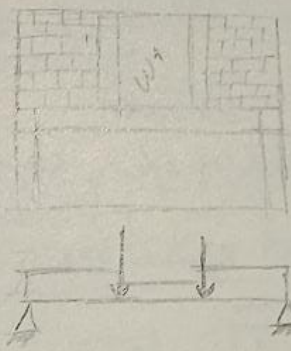


① Áreas

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



$A = \frac{5+1 \times 2}{2} = 6m^2$



$A_1 = 6.25m^2 \times 655\ m^2 = 4,093.75\ K/m^2$

$A_2 = 6.00m \times 655\ m^2 = 3,930\ K/m^2$

③

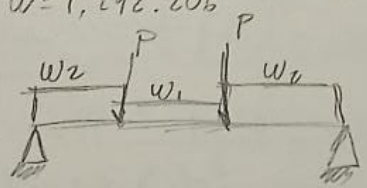
$A_1 = \frac{4,093.75}{5} = 818.750\ K/m$

$A_2 = \frac{3,930}{5} = 786\ K/m$

$w = 90\ Kg/m + 831.25\ Kg/m^2 + 154\ Kg =$

$w = \frac{975.25\ Kg/m\ (2.65)}{2} = 1292$

$w = 1,292.206$



④ $h\,trabe\ L/12 = 5/12 = 41 = .40cm$

$0.5 \times .40 = 20cm$

Peso Propio $0.20 \times 0.40 \times 2400 = 192\ Kg/m$

⑤ Peso de Muro

$3 \times 270\ Kg/m = 810\ Kg/m$

⑥ Peso cerramiento

$0.15 \times .25 \times 2400 = 90\ K/m$

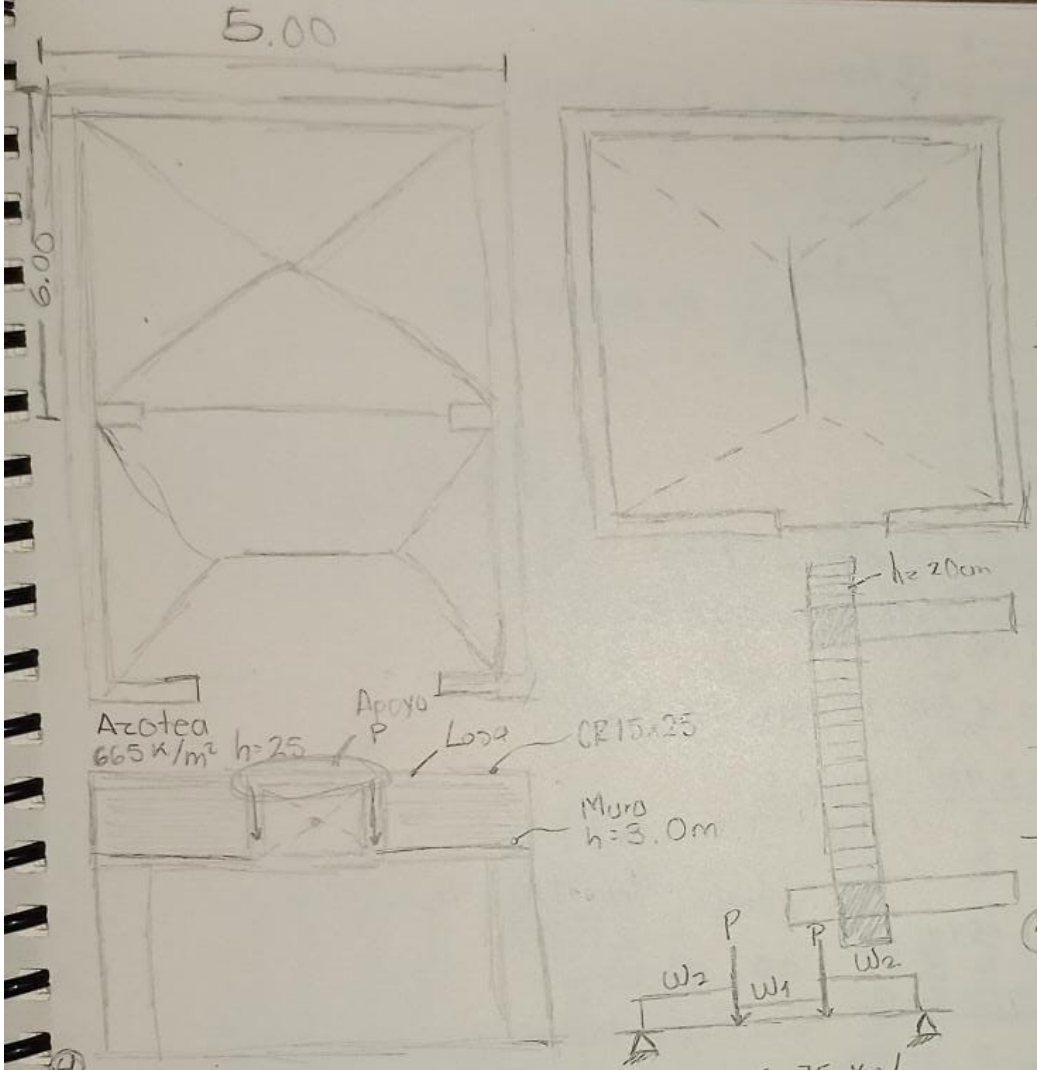
⑦ Losa de azotea

$A3 = 6.25 \times 665 = 4156.25\ K/m$

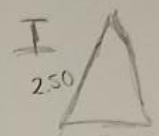
⑧ $= \frac{4156.20}{5} = 831.25$

⑨ Pret.l

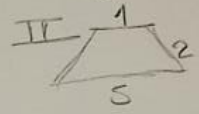
$0.20 \times 270 = 54\ Kg/m$



① Áreas



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



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

Losa = 655 kg/m²
E.P.

② Peso (Área x Peso de Losa)

$6.25\,m^2(655\,k/m^2) = 4093.75\,k/m^2$

$6.0\,m^2(655\,k/m^2) = 3930.0\,k/m^2$

③ $w\left(\frac{Peso}{Dist.\,Apoyo}\right)$

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

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

④ $h\,trabe\ (\frac{L}{12})$

$\frac{4.15m}{12} = 0.30m$

⑤ $B = 0.5(h) \rightarrow 0.50(0.30) = 0.15m$

④ P.P

$0.15 \times 0.30 \times 2,400\,k/m^2 = 108\,kg/m$

⑤ Peso Muro

$3.0m(270\,kg/m) = 810\,kg/m$

⑥ Peso CR

$0.15 \times 0.25 \times 2,400\,kg/m^3 = 90\,k/m$

⑦ Losa Azotea

Área 3 = $6.25m^2$

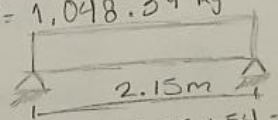
$6.25m^2(665\,k/m^2) = 4,156.25\,k/m$

⑧ $w = \frac{4,156.25\,k/m}{5} = 831.25\,k/m$

$W_1 = 1,712.75\,kg/m$

$W_2 = 3,498\,kg/m$

$P = 1,048.39\,kg$



$90 + 831.25 + 54 =$

$w = 975.25\,k/m$

$975.25\,k/m(2.15m) = 1,048.39\,kg$

$R_A = R_B = \frac{w(L)}{2}$

⑨ Peso Pretil

$0.20(270\,k/m) = 54\,kg/m$

Peso propio.

Trabe TR-1 → [0.15m (0.40m) x 1m] x 2400 k/m³ = 144 kg/m

Peso Muro:

h = 2.0m x 270 k/m = 540 k/m

Peso cerramiento:

(0.15 x 0.20 x 1m) x 2400 k/m³ = 72 k/m

A1 → 744.995 k/m

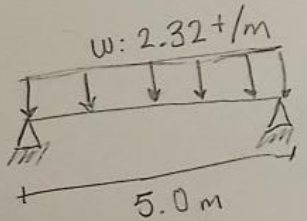
A2 → 818.75 k/m

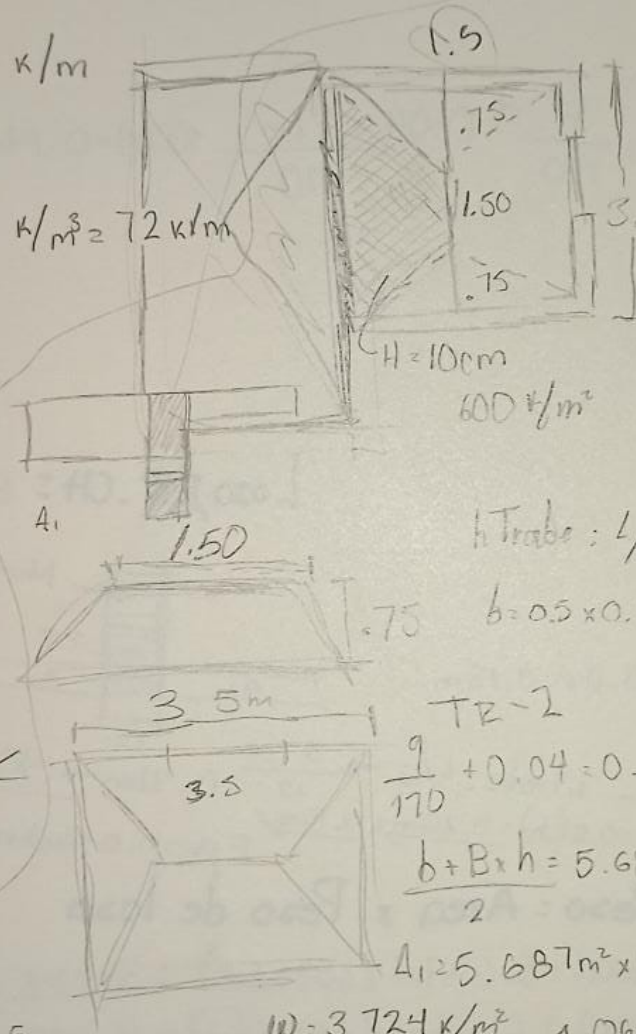
TR-1 → 144 kg/m

P.M. → 540 k/m

P.CR. → 72 k/m

W = 2,319.745 k/m





A1 Trabe 2:

TR-1: $\frac{B+b}{2} \times h = 1.6875 m^2$

A2 (5 x 7.5): $\frac{b \times h}{2} = 6.25 m^2$

P = área x Peso

A1 = 1.68m² x 600 kg/m² = 1,012.20

A2 = 6.25m² x 655 kg/m² = 4,093.75

Carga:

A1 = $\frac{1012.20}{5}$ = 337.40

A2 = $\frac{4093.75}{5}$ = 818.75

hTrabe: L/12 = 3/12 = 0.25cm

b = 0.5 x 0.25 = 0.15

TR-2

$\frac{9}{170} + 0.04 = 0.09$cm

$\frac{b+B \times h}{2} = 5.687 m^2$

A1 = 5.687m² x 655 kg/m² = 3,724 kg/m²

W = 3 724 k/m² = 1.064

3.5

hTRABE: L/12 = 3.5/12 = .39cm = .40

b = 0.5 x .40cm = .20cm

Peso Propio:

.15 x .20 x 1m (2400) = 108

Peso Propio:

= 0.25 x 0.15 x 1m (2400) = 90kg

Peso de Pret./ .90cm

= 90 x 270 = 243

Cadena

.15 x .20 x 1m (2400) = 72kg

Cadena

.15 x .20 x 1m (2400) = 72kg

W = 1,784 k/m