

Una sacena grande armada 270 K
 " " pequeña " 85 "
 " " mediana " 105 "

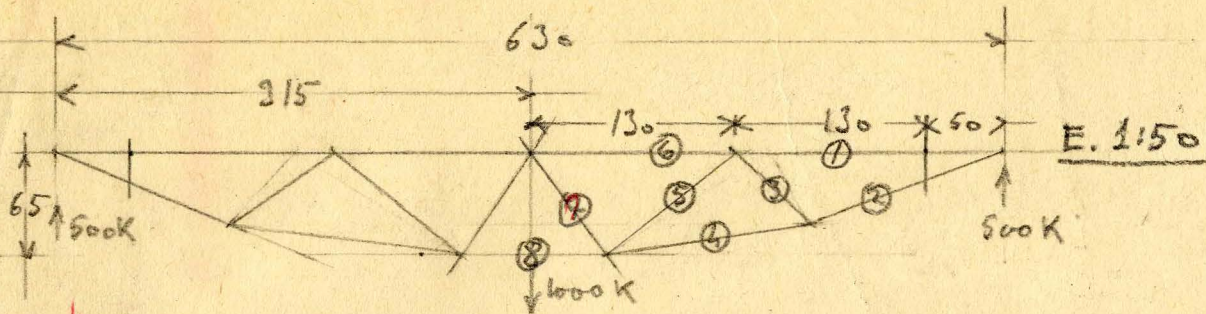
Cinco cuchillos armados (a 250) 1250 "
 " columnas armadas (a 115) 675 "

2385 K a 0'65 1550'25

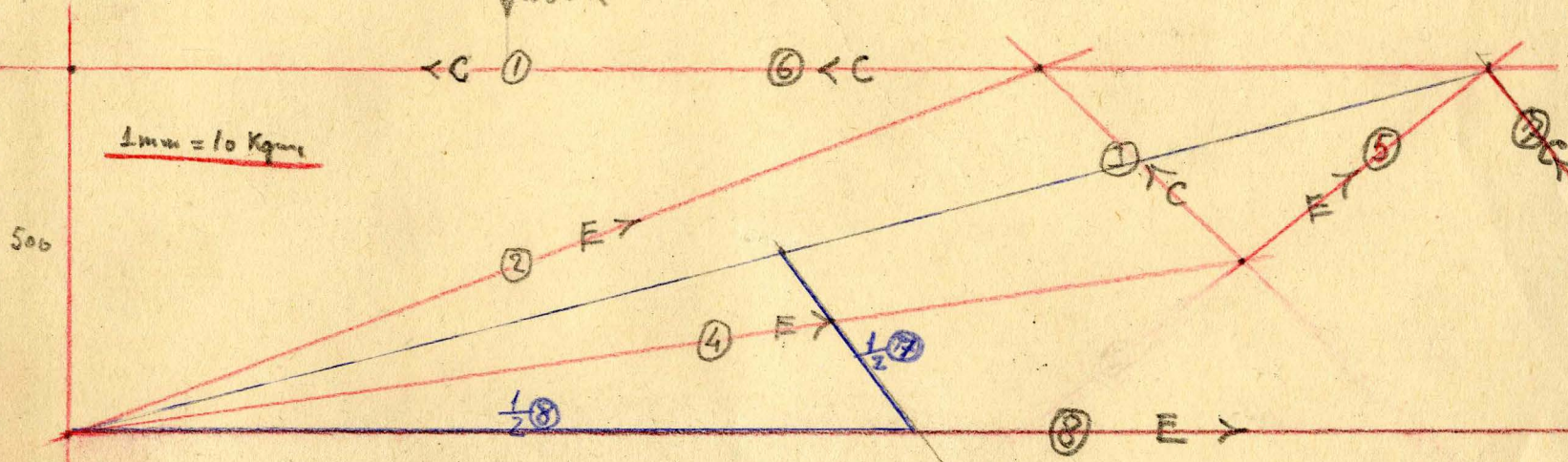
mano de obra, electrodos, cemento y jornal de todo el hito 340

1890'25

Verulla el No de hito terminado a 0'79



Peso del miembro
ajustado \rightarrow 1105 Kg.
2310



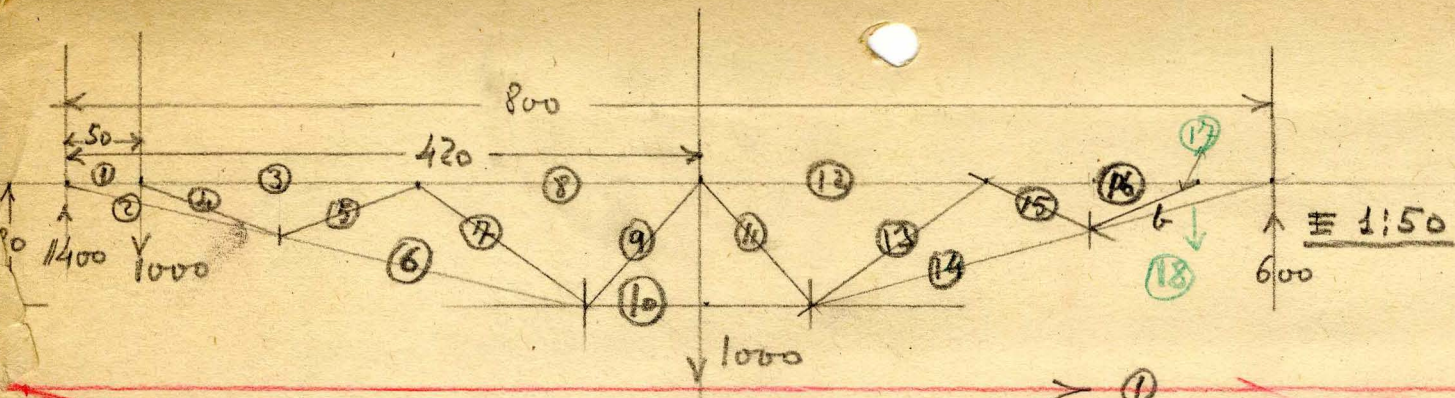
C

$$\left\{ \begin{array}{l} ① = 1340 \text{ Kg} \\ ⑥ = 1960 \text{ " } - I_{min} \geq 2.5 \times 2 \times \sqrt{1130^2} = 8.65 \text{ cm}^4 \text{ --- } 2 \text{ L de } 42 \times 42 \times 6 \text{ , } I = 14.62 \text{ cm}^4 \\ ③ = 390 \text{ Kg} \text{ --- } I \geq 2.5 \times 0.4 \times \sqrt{0.7^2} = 0.49 \text{ cm}^4 \\ ⑦ = 620 \text{ " } \text{ --- } I_{min} \geq 2.5 \times 0.7 \times \sqrt{0.85^2} = 0.72 \text{ cm}^4 \end{array} \right\} \text{ --- } 2 \text{ L de } 25 \times 25 \times 3 \text{ , } I = 1.58 \text{ cm}^4$$

E

$$\left\{ \begin{array}{l} ② = 1440 \text{ Kg} \text{ --- } 115 \text{ cm}^2 \\ ④ = 1650 \text{ " } \text{ --- } 112 \text{ cm}^2 \\ ⑧ = 2340 \text{ " } \text{ --- } 213 \text{ cm}^2 \text{ --- } 2.5 \text{ cm}^2 \text{ --- } 2.5 \times 40 = 2 \times 2 = 4 \text{ cm}^2 \\ ⑤ = 430 \text{ Kg} \text{ --- } 0.4 \text{ cm}^4 \text{ --- } 2 \text{ cm}^2 \text{ --- } 2.5 \times 30 = 2 \times 3 = 3 \text{ cm}^2 \end{array} \right\} \text{ --- } 2 \text{ cm}^2 \text{ --- } 2.5 \times 30 = 2 \times 3 = 3 \text{ cm}^2$$





Peso del arbolito
ejecutivo 220 Kg.

$I_{mm} = 20 \text{ Kg/mm}$

Compresiones

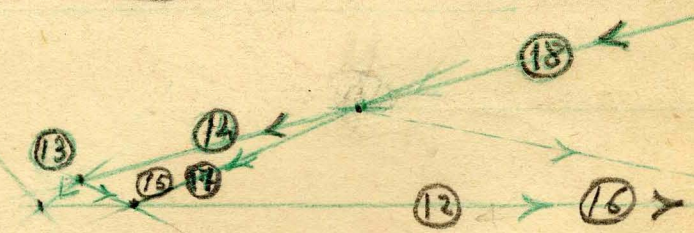
- x ① = 6000 Kg.
- x ③ = 3300 "
- x ⑧ = 2340 "
- ④ = 2880 "
- o ⑦ = 400 "
- Σ ⑨ = 540 "
- Σ ⑪ = 800 "
- x ⑫ = 2160 "
- 1 ⑮ = 160 "
- x ⑯ = 1920 "

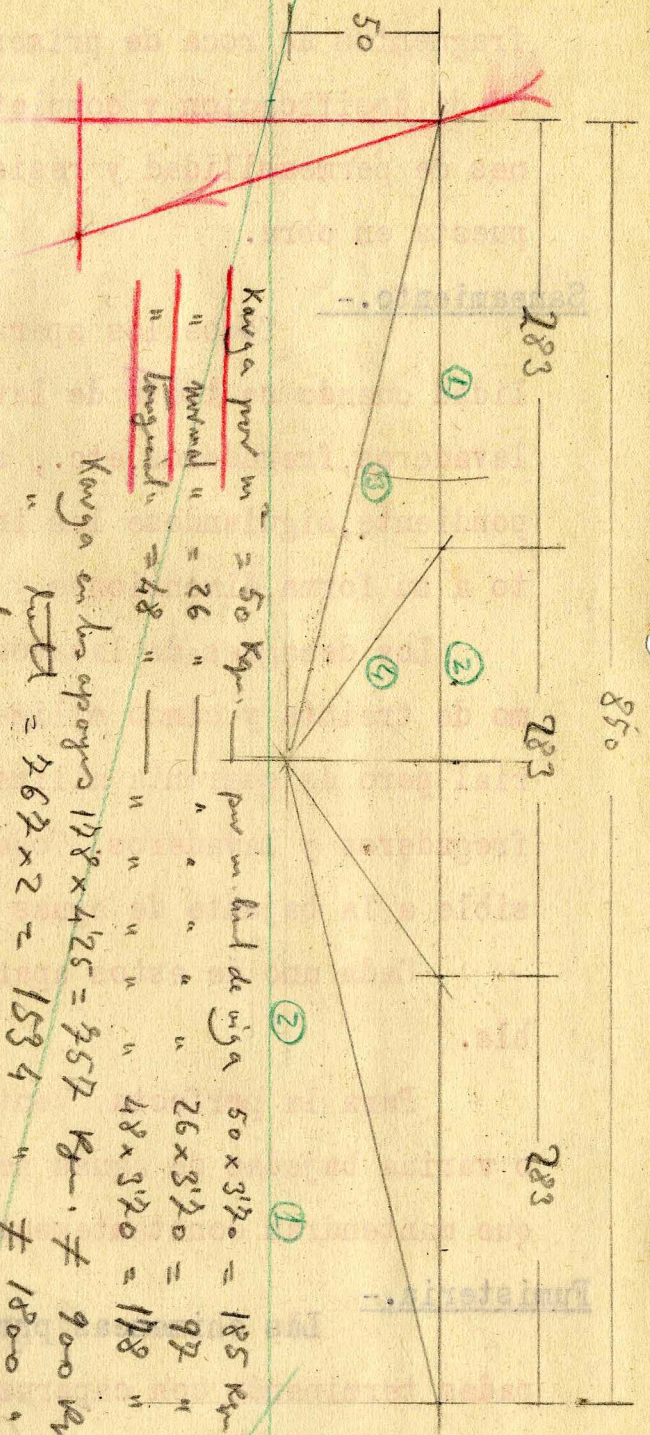
Estirados

- * ② = 7400 Kg.
- 1 ⑤ = 480 "
- * ⑥ = 2740 "
- * ⑩ = 2700 "
- o ⑬ = 120 "
- * ⑭ = 2120 "
- ⑰ = 660 "
- * ⑱ = 1380 "

- 2 T de 65x65x7 " $I = 66'8 \rightarrow 49'50 = x ③ - I_{mm} \geq 2'5 \times 3'3 \times 2'45^2 =$
- 2 T de 35x35x6 " $I = 8'28 \rightarrow 7'25 = \square ④ - I_{mm} \geq 2'5 \times 2'9 \times 1'00^2 =$
- 2 T de 38x38x3 " $I = 6'24 \rightarrow 1'96 = o ⑦ - I_{mm} \geq 2'5 \times 0'4 \times 1'4^2 =$
- 2 T de 38x38x3 " $I = 6'24 \rightarrow 2'64 = \Sigma ⑪ - I_{mm} \geq 2'5 \times 0'8 \times 1'15^2 =$
- 2 T de 24x24x3 " $I = 1'44 \rightarrow 0'50 = 1 ⑮ - I_{mm} \geq 2'5 \times 0'2 \times 1'00^2 =$

COMPRESIDAS





850

283

283

283

$\Sigma 1:50$

$\eta = \frac{P_1^2}{10} = \frac{198 \times 2183 \times 283}{10} = \frac{1425588}{10}$

$l_{mm} = 10 \text{ Kgm.}$

Karga per m = 50 Kgm.

per m kerd de juga 50 x 3'20 = 185 Kgm.

" normal " = 26 " " " " " " 26 x 3'20 = 97 "

" longitudinal " = 48 " " " " " " 48 x 3'20 = 198 "

Karga en los apoyos 198 x 4'25 = 357 Kgm. ≠ 900 Kgm

" " " = 362 x 2 = 1534 " ≠ 1800 "

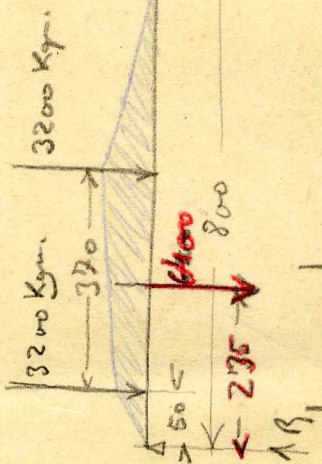
" " " = 283 x 198 = 505 Kgm. ≠ 600 "

" " " = 3 x 503 = 1509 ≠ 1800 "

- ① = 2570 Kgm. } Punter " base $\cong \frac{N}{2} \pm \frac{M}{l} = \frac{2570}{2} \pm \frac{14225}{2 \times 64} = 200'2 \pm 658'5 = 859 \text{ Kgm.}$
- ② = 11740 Kgm. }
- ③ = 2640 " " — dos p. apoy de 2x50x6 = 800 m m² = 6 cm² [2] de 60 x 30 x 6]
- ④ = 13000 " " longitudinal = 2183 " I mm $\cong 2'5 \times 1'3 \times 2183^2 = 26 \text{ cm}^4$ — dos JL de 50 x 50 x 2 " I = 29'2 cm⁴



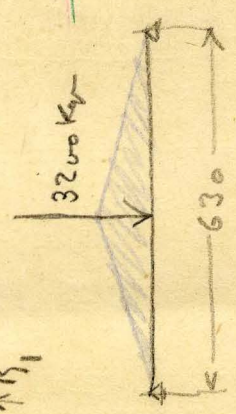
Para del edificio que se — 250 Kgm.



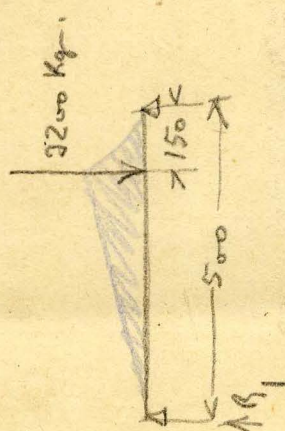
$$R_1 = \frac{6400 \times (8 - 235)}{800} = \frac{6400 \times 565}{800} = 4520 \text{ Kg}$$

$$R_2 = 6400 - 4520 = 1880$$

$$M = 4520 \times 420 - 3200 \times 370 = 189840 - 118400 = 71440 \text{ Kg.m}$$



$$M = \frac{3200 \times 630}{2} = 1600 \times 315 = 5040 \text{ Kg.m}$$



$$R_1 = \frac{3200 \times 150}{5} = 4800 = 960 \text{ Kg}$$

$$R_2 = 3200 - 960 = 2240 \text{ Kg}$$

$$M = 960 \times 315 = 3360 \text{ Kg.m}$$

- $M = R \times 1000 \times a$
- $M = R \times 1000 \times 1$
- $M = R \times 1000 \times 0.50$

$$R = \frac{7144}{1000} = 7.14 \text{ m} \quad \cdot \quad R = \frac{2145}{500} = 4.29 \text{ m}$$

$$R = \frac{5040}{1000} = 5.04 \text{ m} \quad \cdot \quad R = \frac{5040}{500} = 10.08 \text{ m}$$

$$R = \frac{3360}{1000} = 3.36 \text{ m} \quad \cdot \quad R = \frac{3360}{500} = 6.72 \text{ m}$$

