



CUANTIFICACIÓN

Taller de construcción

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Cuantificación

Concreto f'c200

Losa:

$$\text{Cuadrante 1 y 4} = 2.2750 (2.4750) (10) = 0.5630625 (2) = 1.126125 \text{ m}^3$$

$$\text{Cuadrante 2, 3} = 1.8750 (2.4750) (10) = 0.4640625 (2) = 0.928125$$

$$\text{Cuadrante 5 y 6} = 2.8750 (3.25) (12) = 1.2125 (2) = 2.425$$

$$\text{Pedazo sobresaliente de castillo} \times 2 = 0.0750 (15) (10) = 0.01125$$

$$\Sigma \text{ de losa} = \underline{4.297875 \text{ m}^3}$$

Cerramiento 1 y 2:

$$\text{Eje B y A} = 9.20 \times 15 \times 20 = 0.276 \text{ m}^3 (2) = 0.552 \text{ m}^3$$

$$\text{Eje 1, 3, 5 y 7} = 2.4750 \times 15 \times 20 = 0.07425 \text{ m}^3 (4) = 0.297 \text{ m}^3$$

$$\text{Eje 2 y 6} = 2.875 \times 20 \times 15 = 0.08625 \text{ m}^3 (2) = 0.1725 \text{ m}^3$$

$$\text{Eje C} = 7.10 \times 20 \times 15 = 0.213 \text{ m}^3$$

$$\Sigma \text{ de cerramiento 1 y 2} = \underline{1.2345 \text{ m}^3}$$

Cerramiento 3:

$$\text{Pedazo 1} = 2.4750 \times 30 \times 20 = 0.1485 \text{ m}^3$$

$$\text{Pedazo 2} = 2.875 \times 30 \times 20 = 0.1725 \text{ m}^3$$

$$\Sigma \text{ de Cerramiento 3} = \underline{0.321 \text{ m}^3}$$

$$\text{Total de concreto f'c200} = 5.853375 \text{ m}^3 \times 1.05 = \underline{6.14604375 \text{ m}^3}$$

> Acero N°3:

- Losa Plancha de acero N°3

Longitudinal (Eje 1-7)

$$L = 9.05 + 0.12 + 1.2 + 2.4 = 10.61 \text{ m}$$

$$P_2 = 2.025 / 2.25 + 7 = 11.5 = 12 \text{ #}$$

$$10.61 \text{ m} (12 \text{ #}) = \underline{127.32 \text{ #}}$$

Cuadrante 2, Eje A-B Transversal =

$$\text{(Losa de 10cm)} \quad L = 2.025 + 0.12 + 1.2 + 2.4 =$$

$$4.285 \text{ m}$$

$$P_2 = 2.425 / 2.25 + 10.7 = 11 \text{ #}$$

$$4.285 \text{ m} (11) = 47.135 (2) = \underline{94.27 \text{ #}}$$

Barrones (Eje B, 3-5)

$$L = 0.85 + 0.24 = 1.09 \text{ m}$$

$$1.64 \text{ m} (18 \text{ #}) = \underline{29.52 \text{ #}}$$

$$P_2 = 4.20 / 2.25 + 1 = 17 \text{ #} = 18 \text{ #}$$

Bastones (Eje 3, 5)

$L = 1.10 + 0.24 = 1.34m$
 $P_2 = 2.625 / 2.25 + 7 = 11.5 = 12pz$
 $1.34m (12pz) = 16.08(z) = \underline{32.16m}$

Bastones (Eje 4)

$L = 1 + 0.24 = 1.24m$
 $P_2 = 2.625 / 2.25 + 7 = 11.5 = 12pz$
 $1.24m (12pz) = \underline{14.88m}$

Longitudinal (Eje 2, 6)

$L = 6.95 + 1.6 + 1.86 + 0.24 = 9.15m$
 $P_2 = 3.025 / 2.25 + 7 = 13.1 = 14pz$
 $9.15m (14pz) = \underline{128.1m}$

Cuadrante 1 (Eje 2, 6)

Transversales =

$L = 5.025 + 1.6 + 1.5 + 0.24 = 4.925$
 $P_2 = 1.375 / 2.25 + 7 = 6.5 = 7pz$
 $4.925 (7pz) = 34.475(z) = \underline{68.95m}$

Bastones Eje 4

$L = 1.80 + 0.24 = 2.04m$
 $P_2 = 3.025 / 2.25 + 7 = 13.7 = 14pz$
 $2.04 (14pz) = \underline{28.56m}$

Transversal cuadrante

$L = 5.65 + 0.08 + 0.06 + 0.24 = 5.99$
 $P_2 = 4.20 / 2.25 + 7 = 17.8 = 18pz$
 $5.99 (18) = \underline{107.82m}$

Total de acero en familia (Eje 4) = 653.5m

- Acero N°3 en cerramiento 2 (CR-2)

Eje B:
 $L = 1.375 + 0.24 = 1.615m (2) = 3.23m (2) = 6.46m$
 Eje C:
 $L = 1.15 + 0.24 = 1.39m (2) = 2.78m (2) = 5.56m$

Total de acero N°3 en CR-2 = 12.02m

- Acero N°3 en Cerramiento 3 (CR-3)

Eje H:
 $L = 5.80 + 0.24 = 6.04 (2) = 12.08m$
 @ Acero N°2 (estribos)

$L = 0.70 + 0.14 = 0.84m (2) = 1.68m$
 $P_2 = 5.80 / 1.0 + 7 = 59pz$

$1.68 (59) = 99.12 (1.03 = 102.0936)$
 $P_2 = 102.0936 / 12 = 8.5$
 $P_2 = 9pz$
 $kg = 102.0936 (0.76) = 77.591056$
 $kg = 25.5234$

Nota

