



UDS

Mi Universidad

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Nombre del tema: Números generadores

Nombre de la Materia: Costos y Presupuestos I

Nombre del profesor: ARQ. Juan Antonio Álvarez

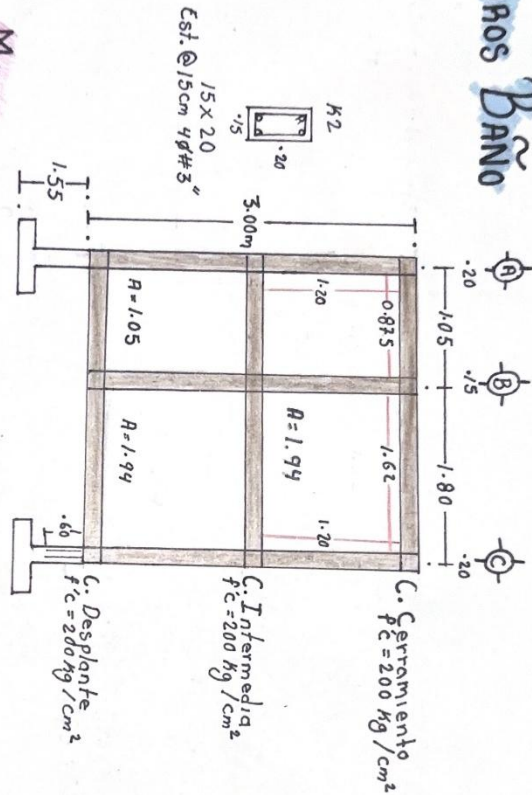
Nombre de la Licenciatura: Arquitectura

Cuatrimestre: Quinto cuatrimestre

Comitán de Domínguez Chiapas

Fecha: 14 de marzo de 2025

Muros Baño



Muro

$$\Sigma A = 5.98 \text{ m}^2 \times 38.89 = 234 \text{ PAS de ladrillo}$$

Concreto

$$A-B = 1.225 \times 0.20 \times 0.15 = 0.3675$$

$$C-B = 1.825 \times 0.20 \times 0.15 = 0.534$$

$$C-C \text{ Infer} = 1.20 \times 0.15 \times 0.15 = 0.027$$

Acero

$$3.00 + 1.55 = 4.55 \text{ f} 0.60 \text{ f} 0.60$$

$$= 5.75 \times 4 \times 0.56 = 12.88 = 2 \text{ Varillas}$$

$$0.15 \text{ f} 2.0 \text{ f} 1.5 \text{ f} 2.0 = 0.70 \text{ m}$$

$$0.70 \times 0.25 = 0.175 \times 31 = 5.425 \text{ Kg Alambroñ}$$

$$\frac{4.55}{0.15} + 1 = 31$$

Nota: Alambroñ el 5% a 8% de la suma de Varillas y alambroñ

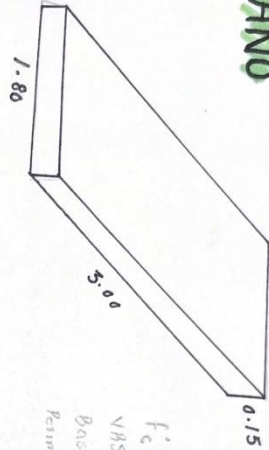
$$1.55 + 3.00 = 4.55 \text{ f} 0.60 \text{ f} 0.60 = 5.75$$

$$1.05 - 0.10 - 0.075 = 0.875$$

$$1.80 - 0.75 - 0.10 = 1.62$$

27/02/2024

LOSA BAÑO



$f'_c = 250 \text{ kg/cm}^2$
 VAS. $\frac{3}{8}$ " @ 20cm
 Bast. 1.00 @ 50cm
 Perimetral $\frac{3}{8}$ "

Concreto

$1.80 \times 3.00 \times 0.15 = 0.81 \text{ m}^3$

Cemento : $0.388 \times 0.81 = 0.314 \text{ ton} / 1000 = 314 / 50 \text{ kg} = 6.2 \times 240 = \underline{\$1,580}$

Gravilla : $0.555 \times 0.81 = 0.443 \text{ M}^3 \times \$33.33 = \underline{\$149.33}$

Arena : $0.630 \times 0.81 = 0.510 \text{ M}^3 \times \$252.33 = \underline{\$130}$

Acero

$1.8 \text{ to } 1.4 \cdot (3.00 / 0.20 + 1) = 16 \text{ pzas} \times 1.99 = 31.84 \text{ m}$

$3.00 \text{ to } 0.14 \cdot (1.80 / 0.20 + 1) = 10 \text{ pzas} \times 3.14 = 31.4 \text{ m}$

Bastones

$1 \text{ m to } 0.10 \cdot (3.00 / 0.50 + 1) = 7 \text{ pzas} \times 1.10 = 7.70 \text{ m}$

$1 \text{ m to } 0.10 \cdot (1.80 / 0.50 + 1) = 5 \text{ pzas} \times 1.10 = 5.50 \text{ m}$

Total = $\frac{35.64 \text{ m}}{1.2} = 6.3 = 7 \text{ VAS} \times \$117 = \underline{\$819}$

Alambrito

$7.5.64 \times 0.566 = 42.81 \text{ kg} \times 7\% = 2.9967 \times \$27 = \underline{\$80.91}$

Total de Material = \\$2,899.24

04/03/2025

Total 17 PZAS

Paintura
1 L = 4 m²

2.90

LOSETA 60x15

\$184.28 1 cajón 0.98 m²

\$921.40 5 cajones 4 m²

Zoclo

\$1105 / 6 / 5.88 /

Repello
x 0.03

1:5

24.36 + 28.8 + 9.05 = 57.21 m² × 0.03 = 1.71 m³

Cemento = 0.288 × 1.71 m³ = 0.49168 × 1000 = 491.68 / 50kg = 10 Bultos

Arena = 1.248 × 1.71 m³ = 2.134 × \$333.33 = \$711.32

3/3 + 1.8 + 1.8 = 9.6

9.6 × 2.9 = 28.8

1.5 + 1.5 + 2.7 + 2.7 = 8.4 × 2.90

= 24.36 L = $\frac{24.4 \text{ m}^2}{5}$ 5L

↓ Rendimiento

1.45 m² zoclo

1.81 m²

1.26 m²

1.405 m²

5.31 m² 7 = 1 m

Cimentación 250 kg/cm²
 Dado 250 kg/cm²
 Cadena 150 kg/cm²
 Castillo 150 kg/cm² - 200 kg/cm²
 losa 250 kg/cm² - 200 kg/cm²
 Traves de concreto 200 kg/cm²
 Columnas 250 kg/cm² - 200 kg/cm²
 Pisos 150 kg/cm²
 Planchillas 100 kg/cm²

05/03/2025

Concretos de:

	Arena	grava
300 kg/cm ²	3 latas	3 latas
250 kg/cm ²	4 latas	4 latas
200 kg/cm ²	5 latas	5 latas
150 kg/cm ²	6 latas	6 latas
100 kg/cm ²	8 latas	8 latas

Dado

$0.80 \times 0.40 \times 0.80 = 0.256 \text{ m}^3$

$\frac{0.80}{0.15} = 5.33 \approx 6 \text{ Varillas}$

6

$0.80 \times 0.40 = 0.32 \text{ m}^2$

$1 \times 4 = 4 \text{ m}$

$0.40 + 0.40 + 0.40 + 0.40 = 1.6 \text{ m}$

Zapata

$0.8 \times 0.8 \times 0.20 = 0.128 \text{ m}^3$

Dado

$0.40 \times 0.40 \times 0.8 = 0.128 \text{ m}^3$

Cemento $0.388 \times 0.128 \text{ m}^3 = 0.04 \text{ ton}$

Arena $0.535 \times 0.128 \text{ m}^3 = 0.06 \text{ m}^3$

Grava $0.630 \times 0.128 \text{ m}^3 = 0.08 \text{ m}^3$

Agua $0.202 \times 0.128 \text{ m}^3 = 0.025 \text{ m}^3$

Dado

$0.40 \times 0.40 \times 0.8 = 0.128 \text{ m}^3$

Cemento $0.388 \times 0.128 \text{ m}^3 = 0.04 \text{ ton}$

Arena $0.535 \times 0.128 \text{ m}^3 = 0.06 \text{ m}^3$

Grava $0.630 \times 0.128 \text{ m}^3 = 0.08 \text{ m}^3$

Agua $0.202 \times 0.128 \text{ m}^3 = 0.025 \text{ m}^3$

Varillas

Zapata

$\lambda = 96 \text{ cm}$

$PZAS = 12 \text{ PZAS}$

Dado

$8 \text{ PZAS (Estribas)}$

ZAPATA

$$0.15 \times 0.80 \times 0.80 = 0.096 (4) = 0.384 \text{ m}^3$$

$$\text{Cemento } 0.388 (4) = \underline{0.150 \text{ m}^3}$$

$$\text{Arena } 0.535 (4) = 0.205 \text{ m}^3$$

$$\text{Grava } 0.630 (4) = 0.242 \text{ m}^3$$

$$\text{Agua } 0.202 (4) = 0.077 \text{ m}^3$$

DADO

$$0.30 \times 0.30 \times 0.45 = 0.0405 (4) = 0.162 \text{ m}^3$$

$$\text{Cemento} = \underline{0.063 \text{ m}^3}$$

$$\text{Arena} = 0.102 \text{ m}^3$$

$$\text{Grava} = 0.102 \text{ m}^3$$

$$\text{Agua} = 0.0327 \text{ m}^3$$

VARILLAS

ZAPATA

$$L = 96 \text{ cm}$$

$$PZAS = 12 \text{ PZAS}$$

$$11.52 \times 4 = 46.08 \text{ m} \times 0.566 = \underline{26.08} \times 0.566 = 15$$

Estribos