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Nombre del tema: Costo Base de Mano de Obra

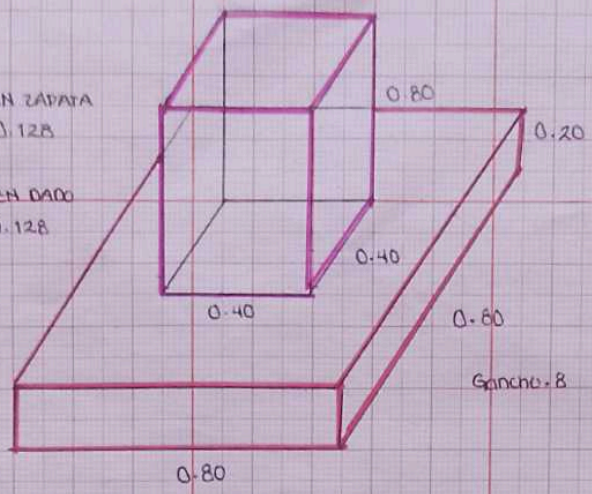
Parcial: 3ro

Nombre de la Materia: Costos y Presupuestos I

Nombre del profesor: Arq. Juan Antonio Álvarez

Nombre de la Licenciatura: Arquitectura

Cuatrimestre: 5to



VOLUMEN ZAPATA
0.128

VOLUMEN DADO
0.128

ZAPATA

CEMENTO

0.80 X 0.80 X 0.20 = 0.128 (0.388) = 0.49

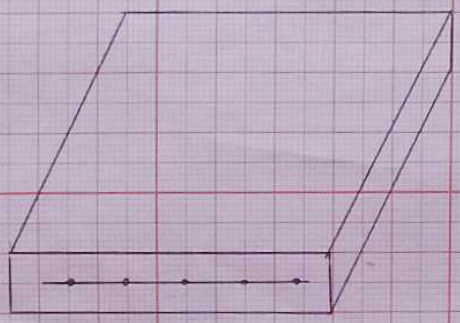
ARENA

0.835 X 0.128 = 0.06 m³

GRAVA

0.630 X 0.128 = 0.080 m³

VRS 3/8" @ 15cm

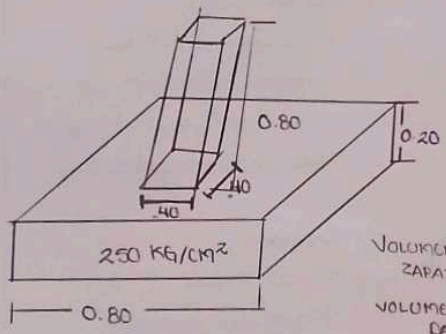


L = 0.80 + 0.16 = 0.96 Longitud

0.80 + 0.20 = 1m ÷ .15 = 6.6 = 7 + 1 = 8

0.96 X 12 = 11.52 → 1 varilla

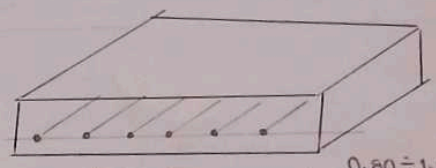
1m alambron = 25 KG



Z.01

VOLUMEN = 0.128
ZAPATA

VOLUMEN
DADO = 0.128



#3/8 @15cm

0.80 ÷ 1.

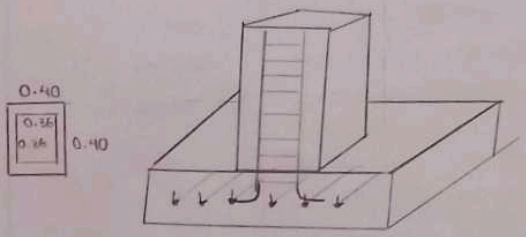
L.91cm
PZAS = 12 PZAS

.80 - 0.5 = 0.75 + 16 = 0.91cm
Descontando recubrimiento

L = 96 cm
PZAS = 12 PZAS

0.1152 diametro = 1 varilla
12m

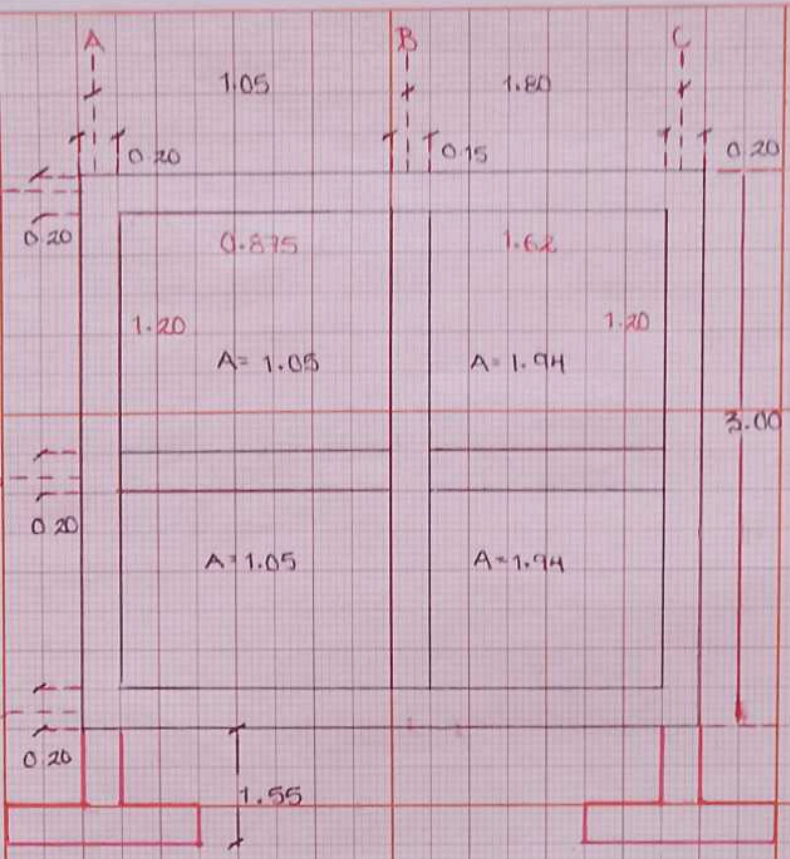
	ZAPATA	DADO
CEMENTO	0.04 TON	0.04 TON
ARENA	0.128 x 0.835 = 0.06 m³	
GRAVA	0.630 x 0.128 = 0.08 m³	
Agua	0.128 x 0.202 = 0.02 m³	



1.70m X 4 = 6.8m

DADO .80
ZAPATA .20 = 1m + .70cm de pasillo = 1.70m

ESTRIBOS = 1m ÷ .15 = 7 + 1 = 8



CADENA CERRAMIENTO

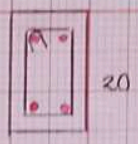
F'C= 200 KG/CM²

CADENA INTERMEDIA

F'C= 200 KG/CM²

CADENA DE DESPLANTE

F'C= 200 KG/CM²



K2 = 15X20

ESTRIBO a 15 CM

4 VIS 3/8"

3M
+ 1.55 M
1.20 M
5.75

5.75 m x 4 = 23

23 X 0.566 = 13.018 KG/M.

Estribos = .70 x 0.250 = 0.175 KG/cm² x 31 = 5.425 KG

Estribos = 4.55 ÷ .15 = 31

0.875
= 1.05 - 0.10 - 0.075 = 0.875

1.20
= 3m - 0.60 = 2.40m ÷ 2 = 1.20

1.20 X 0.875 = 1.05

1.62
= 1.80 - 0.075 - 0.10 = 1.625

1.20
= 3m - 0.60 = 2.40m ÷ 2 = 1.20

1.20 X 1.625 = 1.94

MURO

= 1.05 + 1.94 + 1.05 + 1.94 = 5.98m²

LADRILLO AL HILO = 38.89

* 38.89 (5.98m²) = 232.56 = 233 11

234 piezas de ladrillo

CONCRETO

A - B = 1.225 X 0.20 X 0.15 = 0.03675

B - C = 1.855 X 0.20 X 0.15 = 0.054

CC - C = 1.20 X 0.15 X 0.15 = 0.027

ACERO

3m + 1.55 = 4.55 + amarres

5.75 x 4 x 0.56 = 12.88 = 2 Ø 3/8

0.15 + 0.20 + 0.15 + 0.20 = 0.70cm

0.70 X 0.25 = 0.175 x 31 = 5.425 kg alambrón

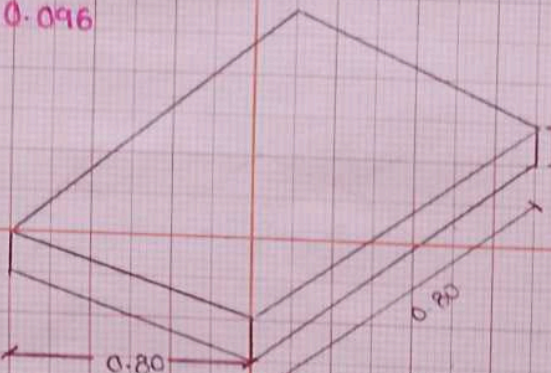
↓

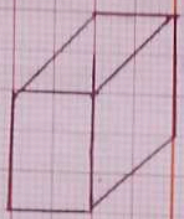
PESO ALAMBRE

4.55 ÷ .15

= 30 + 1 = 31

VOLUMEN
0.096





VOLUMEN
0.0405

ZAPATA

CEMENTO

0.80 x 0.80 x 0.15 = 0.096 m³ x 4 (ZAPATAS) = 0.384 (0.388) = 0.148992 m³

ARENA

0.384 (0.535) = 0.205344 m³

GRAVA

0.384 (0.630) = 0.24192 m³

DADO

CEMENTO

0.45 x 0.30 x 0.30 = 0.0405 m³ x 4 = 0.0162 x 0.388 = 0.628656 m³

ARENA

0.162 (0.535) = 0.086667 m³

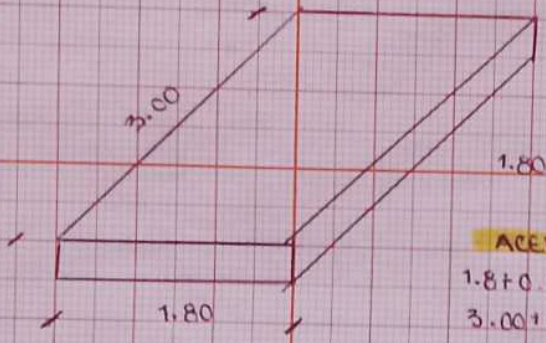
GRAVA

0.162 (0.630) = 0.10206 m³

F'C = 250 kg/cm²

vrs 3/8" a 20cm

Bast 1.00 a 50cm paimetral 3/8"



1.80 x 3.00 x 0.15 = 0.81 m³

CONCRETO

CEMENTO = 0.388 x 0.81 = 0.314 = 1000 = 314 ÷ 50 = 6.2 = 7 x $240 = $1,680

GRAVA = 0.535 x 0.81 = 0.433 m³ x $ 333.33 = 144.33

ARENA = 0.630 x 0.81 = 0.510 m³ x $333.33 = $ 170

ACERO

1.8 + 0.14 (3/0.20+1) = 16 pzas x 1.94 = 31.04 ml

3.00 + 0.14 (1.80/0.20+1) = 10 pzas x 3.14 = 31.4 ml

BASTONES

1m + 0.10 (3.00/0.50+1) = 7 pzas x 1.10 = 7.70 ml

1m + 0.10 (1.80/0.50+1) = 5 pzas x 1.10 = 5.50 ml

TOTAL = 75.64 ml ÷ 12 = 6.3 = 7 VARS x $117 = $819

ALAMBRITO

75.64 x 0.56 = 42.3584 x 0.5 = 21.1792

ESTRUCTURAS DE CIMENTACIÓN

05/03/2025

CONCRETO PREMEZCLADO

100 KG/CM², 150 KG/CM², 180 KG/CM², 200 KG/CM², 250 KG/CM

300 KG/CM² → CONCRETO ESPECIAL

↓

ADITIVOS → ACELERANTES

↓ ACELERA EL PROCESO DE SECADO

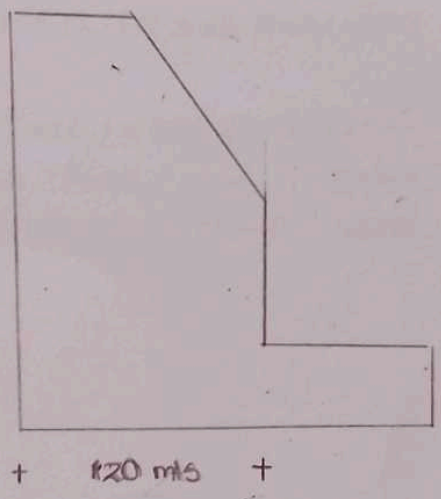
RETARDANTES Km/tiempo

RETARDA EL PROCESO

Kg/tiempo

- Son aditivos que no interfieren la resistencia del concreto

Las presas son muro de contención que retienen liquidos



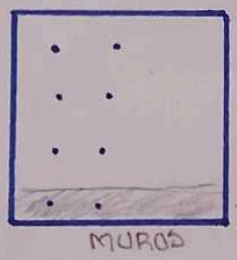
+ H20 mts +

TOLVA = 7m³

CONCRETO $1H.500

BOMBA $ 2,500

ADICIONAL $ KM



→ Ayuda para la cimbra varilla

→ Donde trabaja la cimbra

MUROS

$1m^3 = 1000$ LITROS

CIMENTACIÓN = 250 KG/CM²

DADO = 250 KG/CM²

CADENA = 150 KG/CM²

CASTILLOS = 150 a 200 KG/CM²

LOSAS = 250 a 200 KG/CM²

TRABES = 200 KG/CM²

COLUMNAS = 250 o 200 KG/CM²

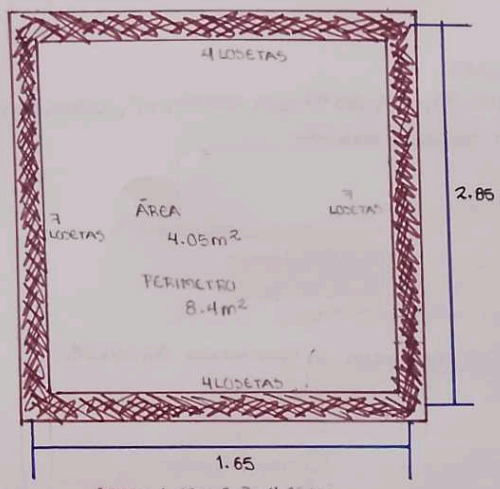
PISOS = 150 KG/CM²

PLANTILLAS = 100 KG/CM²

4 DE MARZO 2024

¿CALCULAR FIRME DE CONCRETO?
¿ " PISO CERAMICO?
NOTA (PISO Y LAMBIN)
¿CALCULAR PINTURA)
¿CALCULAR REPELLO EN MURO)

1 LITRO PINTURA – 5m²
4m²



ÁREA= 1.50 X 2.7= 4.05m²

PISO

LOSETA 40x40

1.50 ÷ .40 = 4 x 2 = 8
2.7 ÷ .40 = 7 x 2 = 14
> 22 LOSETAS

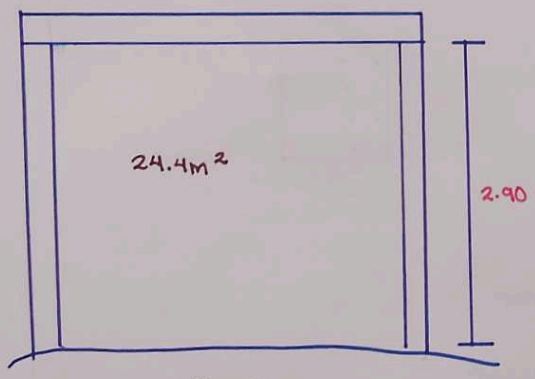
REPELLO

A INTERIOR = 8.4 X 2.90 = 24.36
A EXTERIOR = 9.6 X 3 = 28.8
PLAFON = AREA = 4.05
57.21 m2

REPELLO = 0.03 X 57.21 = 1.71 m³

1000 = 1 TON
1 BULTO CEM = 50
1 LATA = .19m³
1 LATA = 19 LTS
1 LT = 1 KG

CEMENTO = 0.355 X 1.71m³ = 0.60705 x 1000 ÷ 50 = 12.141 BULTOS
ARENA = 1.243 X 1.71m³ = 2.12553 m³ = 9.602 ÷ .19 = 50.54 LATAS
AGUA = 0.243 X 1.71m³ = 0.41553



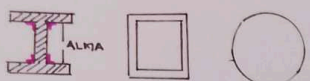
PINTURA

1.50 x 2 = 3
2.7 x 2 = 5.4
> 8.4

8.4 x 2.90 = 24.36 = 5 LITROS PINTURA

VIGAS IPR - IPS

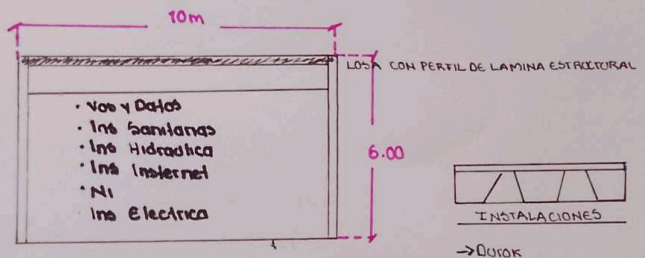
10 DE MARZO 2025



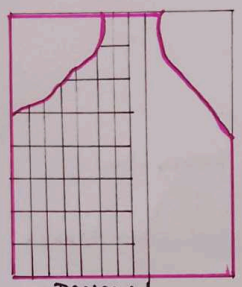
P. I

P. CUADRADO

P. ESTRUCTURAL REDONDO



→ Durok
→ Tabla Yeso
→ Panel W



PANEL W
COVITEC

- Poco peso
- Resistencia Ext
-