Nombre del Alumno: José Trinidad López Domínguez

Nombre del tema: Números Generadores

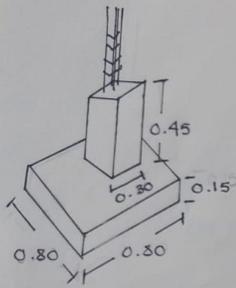Parcial: 3°

Nombre de la Materia: Costos Y Presupuestos

Nombre del profesor: Arq. Juan Antonio Álvarez

Nombre de la Licenciatura: Arquitectura

Cuatrimestre: 5to

Fecha: Comitán de Domínguez a 14 de marzo de 2025

ZAPATA AISLADA — BAÑO

• CEMENTO (ZAPATA)   4 ZAPATAS

$0.80 \times 0.80 \times 0.15 = 0.096 \, M^3 \times 4 = \underline{0.384} \, (0.388) = 0.148992 \, M3$

• ARENA

$0.384 \, (0.535) = 0.20544 \, M3$

• GRAVA

$0.384 \, (0.630) = 0.24192 \, M3$

DADO

• CEMENTO : $0.45 \times 0.30 \times 0.30 = 0.0405 \, M3 \times 4 = \underline{0.162 \times 0.388 = 0.062856 \, m3}$
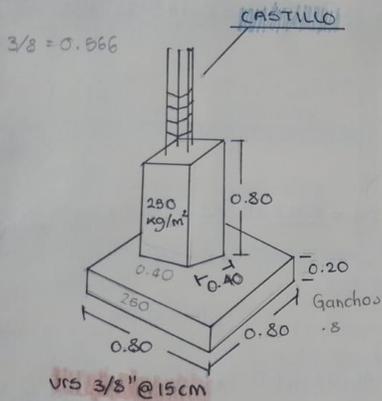
• ARENA

$0.162 \, (0.535) = 0.08667 \, M3$

• GRAVA

$0.162 \, (0.630) = 0.10206 \, M3$

• VARILLA 3/8" @ 15 cm.

$0.80 + 0.8 + 0.8 = 0.96 \times 12 = 11.52 \times 4 = 46.08 \, m \, (0.566) = 26.08 \, kg/m^2$

$\times 0.566 = 14.76 = 15 + 1 = \underline{16}$

Peso ∅ 3/8

VARILLA

$0.80 + 0.15 = 0.95$

$0.95 / .15 = 6 + 1 = 7 \, V$

ZAPATA AISLADA

$3/8 = 0.566$

CASTILLO

250 kg/m²

VRS 3/8" @ 15 CM

$0.80 + 0.20 = 1$

$1 / .15 \, cm = 6.66 = 7$

$7 + 1 = 8 \, PZAS.$

Una Varilla en M.S.

$0.80 + 0.8 + 0.8 = 0.96 \times 12$

$= 11.52$

1 Varilla.

• CEMENTO (ZAPATA)   CEMENTO 250

$0.80 \times 0.80 \times 0.20 = 0.128 \, (0.388) = 0.049 \, M^3$

• ARENA

$0.128 \, (0.535) = 0.06 \quad M3$

• GRAVA

$0.128 \, (0.630) = 0.080 \quad M3$

• AGUA

• CEMENTO   DADO

$0.80 \times 0.40 \times 0.40 = 0.128 \, (0.388) = 0.04 \, M3$

• ARENA

$0.128 \, (0.535) = 0.06 \, M3$

• GRAVA

$0.128 \, (0.630) = 0.080 \quad M3$

Page 1 (top):

Ⓐ   Ⓑ   Ⓒ

0.20   0.15   0.20

1.08   1.80

Ⓐ

0.875   1.62

1.20   1.95   1.20

A = 1.05   A = 1.94

Ⓑ

3m

A = 1.05   A = 1.94

Ⓒ

0.20

I 1.55

CADENA CERRAMIENTO
$f'c = 200 \ kg/cm^2$

CADENA INTERMEDIA
$f'c = 200 \ kg/cm^2$

CADENA DE DESPLANTE
$f'c = 200 \ kg/cm^2$

0.875

= 1.05 − 0.10 − 0.075 = 0.875

1.20

= 3 m − 0.60 = 2.40 m ÷ 2 = 1.20

1.20 × 0.875 = 1.05

1.62

1.80 − 0.075 − 0.10 = 1.625

1.20

3m − 0.60 = 2.40 m ÷ 2 = 1.20

1.20 × 1.625 = 1.94

ACERO

3.00 m + 1.55 = 4.55 + Amarres

5.75 × 4 × 0.56 = 12.88 = 2 ø 3/8

0.15 + 0.20 + 0.15 + 0.20 = 0.70 cm

0.70 × 0.25 = 0.175 × 31 = 5.425 Kg Alambrón

MC   0.65
TB   0.30
D   0.45
Z   0.15
     1.55

K2 = 15 × 20
Est @ 15 cm
4 v.s 3/8"

15   20

3m
1.55 m
1.20 → GANCHO
5.75

3m + 1.55
= 4.55

Peso Alambre $\frac{4.55}{.15}$ = 30.31 + 1 = 31

• 1.05 + 0.10 + 0.075 = 1.225

MURO
= 1.05 + 1.94 + 1.05 + 1.94 = 5.98 m²

LADRILLO Al HILO : 38.89

※ 5.98 m² (38.89) = 232.56 = 233 + 1
= 234 Pzas de ladrillo

CONCRETO
A − B = 1.225 × 0.20 × 0.15 = 0.3675
B − C = 1.825 × 0.20 × 0.15 = 0.054
C + C − C. INT = 1.20 × 0.15 × 0.15 = 0.027

Page 2 (bottom):

10.80 m²   2.40 m

4.50 M

− LADRILLO (Al HILO)
: 420 Pzas

− CAPUCHINO
: 657 Pzas

− ATIZON :
: 788 Pzas

− TABICÓN (Al HILO)
: 316 Pzas

− A TIZÓN
: 591 Pzas

− Block (12)   (20)
: 123 Pzas   103 Pzas

− Block (15)   (20)
: 123 Pzas   159 Pzas
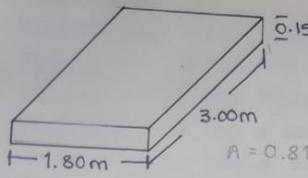
$f'c = 250 \, Kg/cm^2$
$\emptyset \, 3/8" @ 20 cm$
Bastón: $1.00 @ 50 cm$
Perimetral $3/8"$

27/02/2025

$78   19   110

1 lata = 19 lbs   BASTONES MAS GANCHO.
1 lt = 1 kg

$A = 0.81$

$f'c = 250 \, Kg/cm^2$ $\dfrac{\$2,000}{6} = 333.33$

CEMENTO

$3.00 m \times 1.80 m \times 0.15 cm = 0.81 \times 0.388 = 0.31428 \, m^3$
$0.31428 \, m^3 \times 1000 = \underline{314.28 \, Kg}$
$\dfrac{314.28}{50} = 6.28 = 6+1 = 7 B \times 250 = 1,750 \$$

ALAMBRITO

$: 63.8 \, ml \, (0.566) =$
$36.1108 \, Kg \times 7 \times = 2.527756 \, (\$ 27)$
$\$ = 68.24$

ARENA

$0.81 \times 0.535 = 0.43335 \, M3 \, (333.83) = \$ 144.45$

GRAVA

$0.81 \times 0.630 = 0.5103 \, M3 \, (333.33) = \$ 170.09$

TOTAL : $\$ 2,951.78$

VARILLA

$• \, 1.80/0.20 = 9+1 = 10 \times 3.15 = 31.5$
$• \, 3.00/0.20 = 15+1 = 16 \times 1.95 = 31.2$
$\ast \, 31.5 + 31.2 = 62.7 + 1.10 = 63.8$
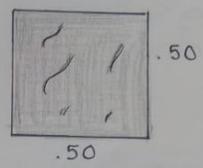
$\dfrac{63.8}{12} = 7 \quad (117) = \$ 819.00$
$\quad\quad 62.7$
$\quad\quad\quad\quad 6.78 = 7$

BASTONES

$1 m + 0.10 \, (3.00/0.20 + 1) = 7 \, P = ns$
$1 m + 0.10 \, (1.80 + 0.50 + 1) = 5 \, Pzns$

PISOS — BAÑO $\$ 199 \, MXN \, por \, m^2$

$\$ 348.26 \, MXN \, m^2$

$\$ 1,044.78$

.50

.50

$1 \, Litro - 4 m^2$
$1 \, L \quad - \quad 5 m^2$

$M3 = ARENA$
$\$ 333.333$

$1 \, ton = 1000$
$\times 50 \, kg =$

2/3   04/03/25
1/6   3

1.5

2.7   2.7

1.5

$= 8.4 \times 2.90 = 24.36/4 m^2$
$= 6.1$

$24.4 / 5 = 4.88 = 5$
$\downarrow$
Rendimiento

0.03 $\uparrow$ interior

$Int \times Alt =$ $A1 = 8.4 \times 2.90 = 24.36$
$Ext \times Alt =$ $A2 = 28.8 \times 3 = 86.4$
                      $+ 4.05 = 57.21$

$9.6 \, Ext.$
$10 \, B \times \$ 240 = 2,400$ $57.21 \times 0.03 = 1.71 \, m^3$
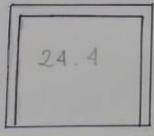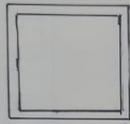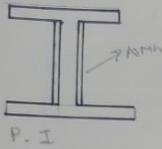
$V / 2.90$ 24.4
0.
0.

CEMENTO

$• \, 1.71 m^2 \, (0.28L) = 0.48906 \times 1000 = 489.06/ = 10 \, B \times \$ 240 = 2,400$
$• \, ARENA \, (1.248) \, 2.13408 \times 333.333 = \$ 11.359$

$CEMENTO: \$ 240$
$ARENA: \$ 11.359$

VIGAS IPR-IPS

Tarea: cual es la diferencia de Ipr y Ips y que significa cada uno.

P. I

ALMA

P. C. E
PERFIL CUADRADO
ESTRUCTURAL

P. C. R
PERFIL ESTRUCTURAL
REDONDO.

6.00

- Uso y Dotes
- Instalación Sanitaria
- Instalación Hidraulica
- Ins. C. IN
- Ins. Electrica
- Internet
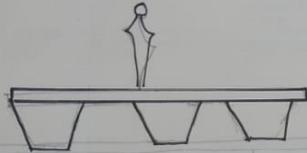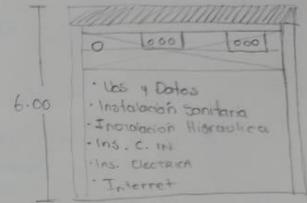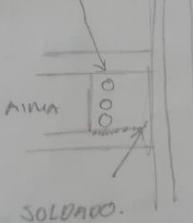
• MUROS LIGEROS   2.44

→ DUROCK

→ TABLA YESO

→ Panel W   1.22

MUROS Y LOSA

CARACTERISTICAS

* Peso Propio
- S. Const.
- Portabilidad
- Acabados

UNIONES

UNIÓN POR PERNO

ALMA

SOLDADO.

• La SRA. DANIELA PRETENDE TERMINAR 3.00 mts DE BARDA PERIMETRAL, ¿ DISEÑA la ESTRUCTURA A REALIZAR Y CUANTIFICA CUANTO ACERO NECESITO UTILIZAR?

※ ALTURA DE BARDA EXISTENTE 3.00

1 ARMEX = 6 mts.

3

0.20   2.60   0.20

0.30

CADENA DE
CERRAMIENTO

17 mts

$3 = 9 = 1^{14}$

A

0.30

CADENA
INTERMEDIA

3.

0.30

CADENA DE
DESPLANTE

• La Sra. Daniela pretende terminar 3.00 mts de barda perimetral, ¿ diseña la estructura a realizar y cuantifica cuanto acero necesito utilizar?
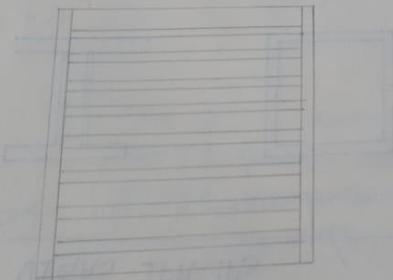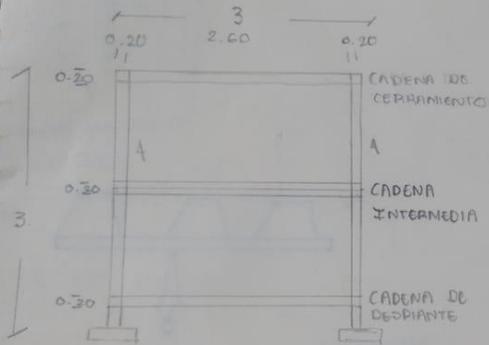
Altura de barda existente 3.00

1 Armex = 6 mts.

3
0.20   2.60   0.20

0.20 — CADENA DE CERRAMIENTO

A   A

0.30 — CADENA INTERMEDIA

3

0.30 — CADENA DE DESPLANTE

17 mts

3 = 9 = 1 ½

11/03/25