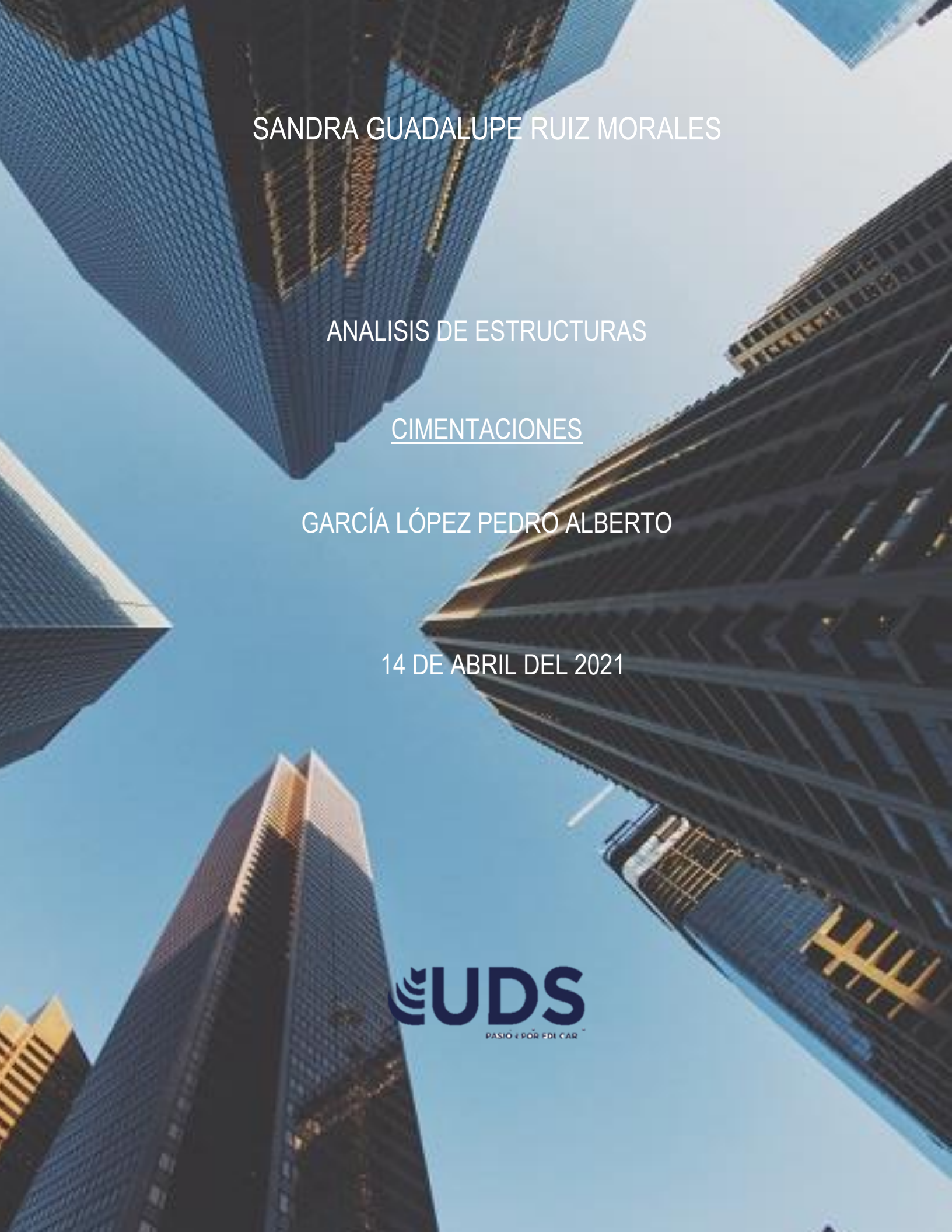


SANDRA GUADALUPE RUIZ MORALES

ANALISIS DE ESTRUCTURAS

CIMENTACIONES

GARCÍA LÓPEZ PEDRO ALBERTO

14 DE ABRIL DEL 2021

UDS

PASIÓN POR EDUCAR

Comprobaciones

Eje 1, cuadrante 1

losa azotea → 2.85 m² (0.665 t/m²) = 1.89525 t/m²
losa entrepiso → 2.85 m² (0.635 t/m²) = 1.80975 t/m² > 3.705 t/m² / 3.85 m
= 0.962 t/m

muro p. alta → 2.45 m (0.27 t/m) = 0.6615 t/m
muro p. baja → 2.45 m (0.27 t/m) = 0.6615 t/m > 1.323 t/m

C. punta alta → 0.15 x 0.25 = 0.0375 m (2.4 t/m) = 0.09 t/m
C. punta baja → 0.15 x 0.25 = 0.0375 m (2.4 t/m) = 0.09 t/m > 0.18 t/m

Σ = 2.465 t/m (1.3) = 3.2045 t/m

Eje 2, Cuadrante 3

losa azotea → 3.525 m² (0.665 t/m²) = 2.394125 t/m²
losa entrepiso → 3.525 m² (0.635 t/m²) = 2.238375 t/m² > 4.58625 t/m² / 3.85 m
= 1.190 t/m

1.323 t/m ← muro
0.18 t/m ← cerramiento
2.693 t/m (1.3) = 3.5009 t/m

Eje 3, cuadrante 5

losa azotea → 11.4 m² (0.665 t/m²) = 7.581 t/m²
losa entrepiso → 11.4 m² (0.635 t/m²) = 7.581 t/m² > 14.82 t/m² / 7.70 m
= 1.929 t/m

1.323 t/m ← muro
0.18 t/m ← cerramiento
3.927 (1.3) = 4.4551 t/m

Eje 4, cuadrante 5

losa azotea → 3.525 m² (0.665 t/m²) = 7.581 t/m²
losa entrepiso → 3.525 m² (0.665 t/m²) = 7.581 t/m² > 14.82 t/m² / 7.70 m
= 1.929 t/m

1.323 t/m ← muro
0.18 t/m ← cerramiento
3.927 (1.3) = 4.4551 t/m

Eje 5, Cuadrante 6

losa azotea → $2.25 m^2 (0.665 t/m^2) = 1.49625$
losa entrepiso → $2.25 m^2 (0.635 t/m^2) = 1.42875$
$= 0.975 t/m$

$\frac{2.975 t/m^2}{3 m}$

1.323 ← muros
0.18 ← recubrimiento
$2.478 \times 1.3 = 3.2214 t/m$

Eje 6, Cuadrante 7

losa azotea → $5.5275 m^2 (0.665 t/m^2) = 3.6729625$
losa entrepiso → $5.5275 m^2 (0.635 t/m^2) = 3.5067875$
$= 1.5275 t/m$

$\frac{7.17925 t/m^2}{4.7 m}$

1.323 t/m
0.18 t/m
$3.0305 \times 1.3 = 3.93965 t/m$

Eje A, Cuadrante 5

losa azotea → $4 m^2 (0.665 t/m) = 2.66$
losa entrepiso → $4 m^2 (0.635 t/m) = 2.54$
$= 1.3$

$\frac{5.2 t/m^2}{4m}$

1.323
0.18
$2.703 \times 1.3 = 3.5139 t/m$

Eje B, Cuadrante 7

losa azotea → $6.2275 m^2 (0.665) = 4.1412875 t/m^2$
losa entrepiso → $6.2275 m^2 (0.635) = 3.9549625 t/m^2$
$= 1.61915$

$\frac{8.09575}{5m}$

1.323 ← muros
0.18 ← recubrimiento
$3.1225 \times 1.3 = 4.0592 t/m$

Eje C, Cuadrante 4

losa azotea → $2.75\,m^2\,(0.665) = 1.49625\ t/m^2$

losa entrepiso → $2.75\,m^2\,(0.635) = 1.47875\ t/m^2$

$= 0.712$

1.323 ← muros

0.18 ← acarreamiento

$2.215 \times 1.3 = 2.8795\ t/m$

$2.1377\ t/m^2 \div 3\,m$

Eje D, Cuadrante 7

losa azotea → $6.2275\,m^2\,(0.665) = 4.141287\ t/m^2$

losa entrepiso → $6.2275\,m^2\,(0.635) = 3.954496\ t/m^2$

$= 1.61915\ t/m$

$8.095786 \div 5\,m$

muro p. alta → $2.45\,m\,(0.27\ t/m) = 0.6615$

muro p. baja → $2.35\,m\,(0.27\ t/m) = 0.6345$

$1.296\ t/m$

C. Planta alta → $0.15 \times 0.25 = 0.0375\,m\,(2.4\ t/m) = 0.09\ t/m$

C. planta baja → $0.15 \times 0.35 = 0.0525\,m\,(2.4\ t/m) = 0.126\ t/m$

0.216

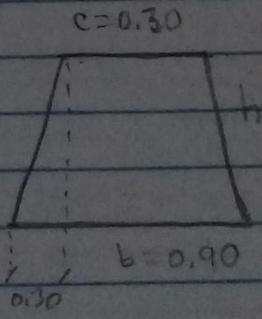
$\Sigma = 3.13115 \times 1.3 = 4.07\ t/m$

▶ Carga crítica eje 4, cuadrante 5 y eje 3, cuadrante 5

Base

$\frac{4.0551\ t/m}{7\ t/m} = 0.636 \rightarrow 0.70\,m$

propuesta



Talud

$\frac{0.70 - 0.30}{2} = 0.20\,m$

altura

$\tan 60^\circ\,(0.20) = 0.346 \rightarrow 0.60$ por reglamento

Just believe in your dream