

Company: Company

Project: IE HECTOR MANUEL VIDES BALLESTEROS (MÓDULO 7)

File: C:\IE REGIDOR\MOD7.rcb

Engineer: Name

9:54:00 a. m. 27/06/2025

GENERAL INPUT DATA

Structure type: Three-Dimensional Frame Structure
Number of Floor Grids = 1
Building total length = 6.78 m
Building total width = 6.63 m

STORY INFORMATION

Number of Stories = 1
Total Frame Height = 3.25 m

Floor	Story Height	Grid No
1	3.25	1
2	-	1

* Story Height in (m)

STRUCTURAL GRID INFORMATION

GRID No 1

Grid Point	X	Y
A'-7	0.00	0.00
M-7	0.00	1.10
B'-7	0.00	3.31
K-7	0.00	5.53
C'-7	0.00	6.63
A'-1'	2.39	0.00
M-1'	2.39	1.10
B'-1'	2.39	3.31
K-1'	2.39	5.53
C'-1'	2.39	6.63
A'-9	4.78	0.00
M-9	4.78	1.10
B'-9	4.78	3.31
K-9	4.78	5.53
C'-9	4.78	6.63
A'-2'	6.78	0.00
M-2'	6.78	1.10
B'-2'	6.78	3.31
K-2'	6.78	5.53
C'-2'	6.78	6.63

* Coordinates X & Y are in (m)

MATERIALS

Number of materials = 2

REINFORCED CONCRETE

Mat	Name	f'c Kg/cm2	fy Kg/cm2	fys1 Kg/cm2	fys2 Kg/cm2	E Kg/cm2	G Kg/cm2	w Kg/m3
1	RConcrete1	210	4200	4200	4200	218540	87430	2400.0
2	RConcrete2	280	4200	4200	4200	252350	100940	2400.0

f'c: Compressive strength of concrete
fy: Yield strength of longitudinal reinforcement
fys1: Yiel strength of shear reinforcement, bar sizes <= 3/8"
fys2: Yiel strength of shear reinforcement, bar sizes > 3/8"

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MEMBER DATA

Total number of members..... = 35
 Number of columns..... = 4
 Number of beams = 35
 Number of braces = 0

COLUMN SECTIONS

Number of prismatic sections = 1

Sec	Name	Shape	b (cm)	h (cm)	tw (cm)	tf (cm)	P1 (cm)	P2 (cm)	A (cm2)	I2 (cm4)	I3 (cm4)	J (cm4)
1	C-30X30	Rectang	30.00	30.00	-	-	-	-	900.0	67500	67500	99900

COLUMNS

Column	Story	L (m)	Lu (m)	a (m)	c (m)	Theta (o)	Sec -	Mat -	System -
K-9	1	3.25	3.03	0.00	0.23	90.0	1	2	G&L
M-9	1	3.25	3.03	0.00	0.23	90.0	1	2	G&L
K-7	1	3.25	3.03	0.00	0.23	90.0	1	2	G&L
M-7	1	3.25	3.03	0.00	0.23	90.0	1	2	G&L

BEAM SECTIONS

Number of prismatic sections = 3

Sec	Name	Shape	b (cm)	h (cm)	tw (cm)	tf (cm)	P1 (cm)	P2 (cm)	A (cm2)	I2 (cm4)	I3 (cm4)	J (cm4)
1	VG-30X30	Rectang	30.00	30.00	-	-	-	-	900.0	67500	67500	99900
2	VG-20X30	Rectang	20.00	30.00	-	-	-	-	600.0	45000	20000	46400
3	VC-30X45	Rectang	30.00	45.00	-	-	-	-	1350.0	227812	101250	234900

BEAMS

Beam	Floor	L (m)	Lu (m)	a (m)	c (m)	Sec -	Mat -	System -
M(7-9)	1	4.78	4.48	0.15	0.15	3	2	G&L
K(7-9)	1	4.78	4.48	0.15	0.15	3	2	G&L
A'(7-1')	2	2.39	2.24	0.15	0.00	2	2	G
A'(1'-9)	2	2.39	2.24	0.00	0.15	2	2	G
A'(9-2')	2	2.00	1.85	0.15	0.00	2	2	G
M(7-1')	2	2.39	2.24	0.15	0.00	1	2	G&L
M(1'-9)	2	2.39	2.24	0.00	0.15	1	2	G&L
M(9-2')	2	2.00	1.85	0.15	0.00	1	2	G&L
B'(7-1')	2	2.39	2.24	0.15	0.00	2	2	G
B'(1'-9)	2	2.39	2.24	0.00	0.15	2	2	G
B'(9-2')	2	2.00	1.85	0.15	0.00	2	2	G
K(7-1')	2	2.39	2.24	0.15	0.00	1	2	G&L
K(1'-9)	2	2.39	2.24	0.00	0.15	1	2	G&L
K(9-2')	2	2.00	1.85	0.15	0.00	1	2	G&L
C'(7-1')	2	2.39	2.24	0.15	0.00	2	2	G
C'(1'-9)	2	2.39	2.24	0.00	0.15	2	2	G
C'(9-2')	2	2.00	1.85	0.15	0.00	2	2	G
7(M-K)	1	4.43	4.13	0.15	0.15	3	2	G&L
9(M-K)	1	4.43	4.13	0.15	0.15	3	2	G&L
7(A'-M)	2	1.10	0.95	0.00	0.15	1	2	G&L
7(M-B')	2	2.21	2.06	0.15	0.00	1	2	G&L
7(B'-K)	2	2.22	2.07	0.00	0.15	1	2	G&L
7(K-C')	2	1.10	0.95	0.15	0.00	1	2	G&L
1'(A'-M)	2	1.10	0.95	0.00	0.15	2	2	G
1'(M-B')	2	2.21	2.06	0.15	0.00	2	2	G

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Beam	Floor	L	Lu	a	c	Sec	Mat	System
1' (B'-K)	2	2.22	2.07	0.00	0.15	2	2	G
1' (K-C')	2	1.10	0.95	0.15	0.00	2	2	G
9 (A'-M)	2	1.10	0.95	0.00	0.15	1	2	G&L
9 (M-B')	2	2.21	2.06	0.15	0.00	1	2	G&L
9 (B'-K)	2	2.22	2.07	0.00	0.15	1	2	G&L
9 (K-C')	2	1.10	0.95	0.15	0.00	1	2	G&L
2' (A'-M)	2	1.10	0.95	0.00	0.15	2	2	G
2' (M-B')	2	2.21	2.06	0.15	0.00	2	2	G
2' (B'-K)	2	2.22	2.07	0.00	0.15	2	2	G
2' (K-C')	2	1.10	0.95	0.15	0.00	2	2	G

FOUNDATION SOIL PROPERTIES

Number of soil properties = 1

Soil	Name	Pressure Distribution	Allowable gross pres. Pa T/m2	Increase Pa Combinations incl.EQ & WL (%)	MODULUS OF SUBGRADE REACTION Gravity load Analysis, Kg T/m3	Lateral load Analysis, Ks T/m3
1	Soil1	Linear	7.4	33	400.0	400.0

* Values of subgrade reaction are used only on footings with rotations and/or vert-displac. permitted.

FOUNDATION BEAM DATA

Number of foundation beams = 4

FOUNDATION BEAMS

Beam	Floor	L (m)	Lu (m)	a (m)	c (m)	TWidth (m)	Sec -	Mat -	Soil -	System -
M(7-9)	1	4.78	4.48	0.15	0.15	1.00	3	2	1	G&L
K(7-9)	1	4.78	4.48	0.15	0.15	1.00	3	2	1	G&L
7 (M-K)	1	4.43	4.13	0.15	0.15	1.00	3	2	1	G&L
9 (M-K)	1	4.43	4.13	0.15	0.15	1.00	3	2	1	G&L

GROUND SUPPORT DATA

Total number of ground supports = 4

K = Spring constant(ton/cm)									
Characteristics for All Degrees of Freedom									
Value = K Dash = free C = constrained									
Support	Floor	Type	Ux	Uy	Uz	TetX	TetY	TetZ	
M-7	1	Fixed	C	C	C	C	C	C	
K-7	1	Fixed	C	C	C	C	C	C	
M-9	1	Fixed	C	C	C	C	C	C	
K-9	1	Fixed	C	C	C	C	C	C	

SUMMARY OF TOTAL FLOOR LOADS

LOAD CASE 1 : SELFW (D0)

Floor	Force (ton)			Moment (ton-m)		
	Px	Py	Pz	Mx	My	Mz
2	0.00	0.00	13.44	0.0	0.0	0.0
1	0.00	0.00	3.98	0.0	0.0	0.0
Total	0.00	0.00	17.42	0.0	0.0	0.0

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LOAD CASE 2 : DEAD (DL)

Floor	Force (ton)			Moment (ton-m)		
	Px	Py	Pz	Mx	My	Mz
2	0.00	0.00	22.48	0.0	0.0	0.0
1	0.00	0.00	0.00	0.0	0.0	0.0
Total	0.00	0.00	22.48	0.0	0.0	0.0

LOAD CASE 3 : ROOF L (RFL)

Floor	Force (ton)			Moment (ton-m)		
	Px	Py	Pz	Mx	My	Mz
2	0.00	0.00	8.99	0.0	0.0	0.0
1	0.00	0.00	0.00	0.0	0.0	0.0
Total	0.00	0.00	8.99	0.0	0.0	0.0

LOAD CASE 4 : EQUAKE X (EQX) - TYPE : SPECTRAL

Floor	Force (ton)			Acc. Tors. Mom. (ton-m)		
	Px	Py	Pz	Mx	My	Mz
2	25.82	0.00	0.00	0.0	0.0	8.5
1	0.00	0.00	0.00	0.0	0.0	0.0
Total	25.82	0.00	0.00	0.0	0.0	8.5

LOAD CASE 5 : EQUAKE Y (EQY) - TYPE : SPECTRAL

Floor	Force (ton)			Acc. Tors. Mom. (ton-m)		
	Px	Py	Pz	Mx	My	Mz
2	0.00	24.42	0.00	0.0	0.0	8.4
1	0.00	0.00	0.00	0.0	0.0	0.0
Total	0.00	24.42	0.00	0.0	0.0	8.4

LOAD CASE 6 : WIND X (WLX)

Floor	Force (ton)			Moment (ton-m)		
	Px	Py	Pz	Mx	My	Mz
2	0.78	0.00	0.00	0.0	0.0	0.3
1	0.00	0.00	0.00	0.0	0.0	0.0
Total	0.78	0.00	0.00	0.0	0.0	0.3

LOAD CASE 7 : WIND Y (WLY)

Floor	Force (ton)			Moment (ton-m)		
	Px	Py	Pz	Mx	My	Mz
2	0.00	0.81	0.00	0.0	0.0	0.3
1	0.00	0.00	0.00	0.0	0.0	0.0
Total	0.00	0.81	0.00	0.0	0.0	0.3

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SUMMARY QUANTITY OF MATERIALS

COLUMNS

Item	Section	Material	Length m	Weight/Len ton/m	Total Weight ton
1	C-30X30	RConcrete2	12.10	0.216	2.61
TOTAL =					2.61

BEAMS

Item	Section	Material	Length m	Weight/Len ton/m	Total Weight ton
1	VG-30X30	RConcrete2	25.77	0.216	5.57
2	VG-20X30	RConcrete2	32.33	0.144	4.65
TOTAL =					10.22

FOUNDATION BEAMS

Item	Section	Material	Length m	Weight/Len ton/m	Total Weight ton
1	VC-30X45	RConcrete2	17.82	0.324	5.77
TOTAL =					5.77

SLABS

Item	Section	Material	Area m²	Weight/Area ton/m²	Total Weight ton
1	Slab type 1	w =2.4	44.95	0.300	13.49
TOTAL =					13.49