Company: PDelta Ingenieria Estructural S.A.S **Engineer: Ing. Osvaldo Guzman A**
Project: P046-2024 - PLAZA DOÑA CEIBA (CAMERINOS) **5:27:41 p. m. 26/06/2024**
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GENERAL INPUT DATA

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Structure type: Three-Dimensional Frame Structure
Number of Floor Grids  . . . . = 1
Building total length  . . . . = 6.96 m
Building total width . . . . . = 6.75 m
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STORY INFORMATION

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Number of Stories  . . . . = 1
Total Frame Height . . . . = 3.05 m
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Floor	Story Height	Grid No
1	3.05	1
2	-	1

* Story Height in (m)

STRUCTURAL GRID INFORMATION

GRID No 1

Grid Point	X	Y
3-A	0.00	0.00
2-A	0.00	2.15
1'-A	0.00	4.45
1-A	0.00	6.75
3-B	3.48	0.00
2-B	3.48	2.15
1'-B	3.48	4.45
1-B	3.48	6.75
3-C	6.96	0.00
2-C	6.96	2.15
1'-C	6.96	4.45
1-C	6.96	6.75

* Coordinates X & Y are in (m)

M A T E R I A L S

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Number of materials =  1
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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

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"

MEMBER DATA

Total number of members..... = 26
Number of columns..... = 9
Number of beams ..... = 32
Number of braces ..... = 0

COLUMN SECTIONS

Number of prismatic sections = 2

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-25X25	Rectang	25.00	25.00	-	-	-	-	625.0	32552	32552	48177
2	C-25X30	Rectang	25.00	30.00	-	-	-	-	750.0	56250	39062	74219

COLUMNS

Column	Story	L (m)	Lu (m)	a (m)	c (m)	Theta (o)	Sec -	Mat -	System -
1-C	1	3.05	2.83	0.00	0.23	90.0	1	1	G&L
2-C	1	3.05	2.83	0.00	0.23	90.0	1	1	G&L
3-C	1	3.05	2.83	0.00	0.23	90.0	1	1	G&L
1-B	1	3.05	2.83	0.00	0.23	90.0	2	1	G&L
2-B	1	3.05	2.83	0.00	0.23	90.0	2	1	G&L
3-B	1	3.05	2.83	0.00	0.23	90.0	2	1	G&L
1-A	1	3.05	2.83	0.00	0.23	90.0	1	1	G&L
2-A	1	3.05	2.83	0.00	0.23	90.0	1	1	G&L
3-A	1	3.05	2.83	0.00	0.23	90.0	1	1	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-25X30	Rectang	25.00	30.00	-	-	-	-	750.0	56250	39062	74219
2	VG-20X30	Rectang	20.00	30.00	-	-	-	-	600.0	45000	20000	46400
3	VC-25X25	Rectang	25.00	25.00	-	-	-	-	625.0	32552	32552	48177

BEAMS

Beam	Floor	L (m)	Lu (m)	a (m)	c (m)	Sec -	Mat -	System -
3(A-B)	1	3.48	3.21	0.13	0.15	3	1	G&L
3(B-C)	1	3.48	3.21	0.15	0.13	3	1	G&L
2(A-B)	1	3.48	3.21	0.13	0.15	3	1	G&L
2(B-C)	1	3.48	3.21	0.15	0.13	3	1	G&L
1(A-B)	1	3.48	3.21	0.13	0.15	3	1	G&L
1(B-C)	1	3.48	3.21	0.15	0.13	3	1	G&L
3(A-B)	2	3.48	3.21	0.13	0.15	1	1	G&L
3(B-C)	2	3.48	3.21	0.15	0.13	1	1	G&L
2(A-B)	2	3.48	3.21	0.13	0.15	1	1	G&L
2(B-C)	2	3.48	3.21	0.15	0.13	1	1	G&L

Beam	Floor	L	Lu	a	c	Sec	Mat	System
1'(A-B)	2	3.48	3.23	0.13	0.13	2	1	G&L
1'(B-C)	2	3.48	3.23	0.13	0.13	2	1	G&L
1(A-B)	2	3.48	3.21	0.13	0.15	1	1	G&L
1(B-C)	2	3.48	3.21	0.15	0.13	1	1	G&L
A(3-2)	1	2.15	1.90	0.13	0.13	3	1	G&L
A(2-1')	1	2.30	2.18	0.13	0.00	3	1	G&L
A(1'-1)	1	2.30	2.18	0.00	0.13	3	1	G&L
B(3-2)	1	2.15	1.90	0.13	0.13	3	1	G&L
B(2-1')	1	2.30	2.18	0.13	0.00	3	1	G&L
B(1'-1)	1	2.30	2.18	0.00	0.13	3	1	G&L
C(3-2)	1	2.15	1.90	0.13	0.13	3	1	G&L
C(2-1')	1	2.30	2.18	0.13	0.00	3	1	G&L
C(1'-1)	1	2.30	2.18	0.00	0.13	3	1	G&L
A(3-2)	2	2.15	1.90	0.13	0.13	1	1	G&L
A(2-1')	2	2.30	2.18	0.13	0.00	1	1	G&L
A(1'-1)	2	2.30	2.18	0.00	0.13	1	1	G&L
B(3-2)	2	2.15	1.90	0.13	0.13	1	1	G&L
B(2-1')	2	2.30	2.18	0.13	0.00	1	1	G&L
B(1'-1)	2	2.30	2.18	0.00	0.13	1	1	G&L
C(3-2)	2	2.15	1.90	0.13	0.13	1	1	G&L
C(2-1')	2	2.30	2.18	0.13	0.00	1	1	G&L
C(1'-1)	2	2.30	2.18	0.00	0.13	1	1	G&L

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	15.2	33	300.0	300.0

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

FOUNDATION BEAM DATA

Number of foundation beams = 15

FOUNDATION BEAMS

Beam	Floor	L (m)	Lu (m)	a (m)	c (m)	TWidth (m)	Sec -	Mat -	Soil -	System -
3(A-B)	1	3.48	3.21	0.13	0.15	1.00	3	1	1	G&L
3(B-C)	1	3.48	3.21	0.15	0.13	1.00	3	1	1	G&L
2(A-B)	1	3.48	3.21	0.13	0.15	1.00	3	1	1	G&L
2(B-C)	1	3.48	3.21	0.15	0.13	1.00	3	1	1	G&L
1(A-B)	1	3.48	3.21	0.13	0.15	1.00	3	1	1	G&L
1(B-C)	1	3.48	3.21	0.15	0.13	1.00	3	1	1	G&L
A(3-2)	1	2.15	1.90	0.13	0.13	1.00	3	1	1	G&L
A(2-1')	1	2.30	2.18	0.13	0.00	1.00	3	1	1	G&L
A(1'-1)	1	2.30	2.18	0.00	0.13	1.00	3	1	1	G&L
B(3-2)	1	2.15	1.90	0.13	0.13	1.00	3	1	1	G&L
B(2-1')	1	2.30	2.18	0.13	0.00	1.00	3	1	1	G&L
B(1'-1)	1	2.30	2.18	0.00	0.13	1.00	3	1	1	G&L
C(3-2)	1	2.15	1.90	0.13	0.13	1.00	3	1	1	G&L
C(2-1')	1	2.30	2.18	0.13	0.00	1.00	3	1	1	G&L
C(1'-1)	1	2.30	2.18	0.00	0.13	1.00	3	1	1	G&L

FOOTING DATA

Total number of footings ..... = 9

Footing	Floor	Type	V-Disp	Rotatn	B m	L m	Area m 2	X-Cent m	Y-Cent m	Theta deg	Mat --	Soil --
1-C	1	Spread	Fixed	Fixed	1.00	1.00	1.00	6.96	6.75	90.0	1	1
2-C	1	Spread	Fixed	Fixed	1.00	1.00	1.00	6.96	2.15	90.0	1	1
3-C	1	Spread	Fixed	Fixed	1.00	1.00	1.00	6.96	0.00	90.0	1	1
1-B	1	Spread	Fixed	Fixed	1.20	1.20	1.44	3.48	6.75	90.0	1	1
2-B	1	Spread	Fixed	Fixed	1.20	1.20	1.44	3.48	2.15	90.0	1	1
3-B	1	Spread	Fixed	Fixed	1.00	1.00	1.00	3.48	0.00	90.0	1	1
1-A	1	Spread	Fixed	Fixed	1.00	1.00	1.00	0.00	6.75	90.0	1	1
2-A	1	Spread	Fixed	Fixed	1.00	1.00	1.00	0.00	2.15	90.0	1	1
3-A	1	Spread	Fixed	Fixed	1.00	1.00	1.00	0.00	0.00	90.0	1	1

SUMMARY OF TOTAL FLOOR LOADS

LOAD CASE 1 : SELFW (D0)

	Force (ton)			Moment (ton-m)		
Floor	Px	Py	Pz	Mx	My	Mz
2	0.00	0.00	12.52	0.0	0.0	0.0
1	0.00	0.00	6.17	0.0	0.0	0.0
Total	0.00	0.00	18.69	0.0	0.0	0.0

LOAD CASE 2 : DEAD (DL)

	Force (ton)			Moment (ton-m)		
Floor	Px	Py	Pz	Mx	My	Mz
2	0.00	0.00	20.67	0.0	0.0	0.0
1	0.00	0.00	0.00	0.0	0.0	0.0
Total	0.00	0.00	20.67	0.0	0.0	0.0

LOAD CASE 3 : LIVE (LL)

	Force (ton)			Moment (ton-m)		
Floor	Px	Py	Pz	Mx	My	Mz
2	0.00	0.00	8.46	0.0	0.0	0.0
1	0.00	0.00	0.00	0.0	0.0	0.0
Total	0.00	0.00	8.46	0.0	0.0	0.0

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

	Force (ton)			Acc. Tors. Mom. (ton-m)		
Floor	Px	Py	Pz	Mx	My	Mz
2	20.66	0.00	0.00	0.0	0.0	7.1
1	0.00	0.00	0.00	0.0	0.0	0.0
Total	20.66	0.00	0.00	0.0	0.0	7.1

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

	Force (ton)			Acc. Tors. Mom. (ton-m)		
Floor	Px	Py	Pz	Mx	My	Mz
2	0.00	20.74	0.00	0.0	0.0	7.3
1	0.00	0.00	0.00	0.0	0.0	0.0
Total	0.00	20.74	0.00	0.0	0.0	7.3

LOAD CASE 6 : WIND X (WLX)

	Force (ton)			Moment (ton-m)		
Floor	Px	Py	Pz	Mx	My	Mz
2	1.13	0.00	0.00	0.0	0.0	0.4
1	1.13	0.00	0.00	0.0	0.0	0.0
Total	2.27	0.00	0.00	0.0	0.0	0.4

LOAD CASE 7 : WIND Y (WLY)

	Force (ton)			Moment (ton-m)		
Floor	Px	Py	Pz	Mx	My	Mz
2	0.00	1.18	0.00	0.0	0.0	0.4
1	0.00	1.18	0.00	0.0	0.0	0.0
Total	0.00	2.35	0.00	0.0	0.0	0.4

SUMMARY QUANTITY OF MATERIALS

C O L U M N S

Item -	Section -	Material -	Length m	Weight/Len ton/m	Total Weight ton
1	C-25X25	RConcrete1	16.95	0.150	2.54
2	C-25X30	RConcrete1	8.48	0.180	1.53
				TOTAL =	4.07

B E A M S

Item -	Section -	Material -	Length m	Weight/Len ton/m	Total Weight ton
1	VG-25X30	RConcrete1	39.56	0.180	7.12
2	VG-20X30	RConcrete1	6.71	0.144	0.97
				TOTAL =	8.09

F O U N D A T I O N B E A M S

Item -	Section -	Material -	Length m	Weight/Len ton/m	Total Weight ton
1	VC-25X25	RConcrete1	39.56	0.150	5.93
				TOTAL =	5.93

S L A B S

Item -	Section -	Material -	Area m²	Weight/Area ton/m²	Total Weight ton
1	Slab type 1	w =2.4	46.98	0.240	11.28

TOTAL = 11.28