Anexo 2
Análisis Estructural

Memorias propuesta II

1.0 ESPECIFICACIONES DE LOS MATERIALES

1.1	Concreto	F'c =	21	Mpa
1.2	Acero de Refuerzo	Fy =	420	Mpa

2.0 DESCRIPCION DE LA ESTRUCTURA

2.1	Grupo de uso	II	
2.2	Sisterma estructural	Porticos de concreto	
2.3	Tipo de placa	Aligerada en viguetas	e=50 cm
2.4	Numero de placas	3	
2.5	Numero de unidades tipicas	1	
2.6	Tipo cimentacion	zapatas y vigas de cimentacion	
2.7	Capacidad portante	7.5 Ton / M2	

3.0 CARGAS

3.1	Carga muerta	300	kg/m2	Fachada y particiones
		110	kg/m2	Acabado de piso
		230	kg/m2	placa
3.2	Carga muerta cubierta	35	kg/m2	acabados
3.3	Carga muerta escalera	300	kg/m2	
3.4	Carga viva piso	180	kg/m2	
3.5	Carga viva escalera	500	kg/m2	
3.6	Carga viva voladizo	500	kg/m2	
3.7	Carga viva cubierta	50	kg/m2	

4.0 PREDIMENSIONAMIENTO

4.1	Piso 1	columnas	50x50 cm - 65x70 cm -80x90 cm
		vigas	50x 50 cm- 30 x50 cm- 40x50 cm
4.2	Piso 2	Columnas	50x50 cm - 65x70 cm -80x90 cm
		vigas	50x 60 cm- 30 x50 cm- 40x50 cm
4.3	Piso 3	Columnas	50x50 cm - 65x70 cm -80x90 cm
		vigas	50x 60 cm- 30 x50 cm- 40x50 cm
4.4	Piso4	Columnas	40x40 cm - 60x70 cm -60x80 cm
		vigas	50x 60 cm- 30 x50 cm- 40x50 cm

5.0 FACTORES DE DISEÑO SISMICO

5.1	Localizacion	Pereira	
5.2	Zona de amenaza sismica	Alta	
5.3	Aceleracion pico efectiva	Aa=	0.25
5.4	Velocidad pico efectiva	Av=	0.25
5.5	Espectro	Fa=	1.60
		Fv=	1.67
		I=	II
5.6	Excentricidades	Ex=	0.05
		Ey=	0.05
5.7	Capacidad de disipacion de energia	**DES**	
5.8	Cortante sismico en la base	126 Ton	
5.9	Coeficiente de capacidad de energia	Ro=	7.0

6.0 GRADO DE IRREGULARIDAD DE LA ESTRUCTURA

R=Φa *Φp * Φr * R0

Φa=	0.80	irregularidad en altura
Φp=	0.90	irregularidad en planta
Φr=	0.75	Redundancia
R0=	7.00	Portico de concreto

Utilizar R = 3.78

7.0 PERIODO FUNDAMENTAL DE LA EDIFICACION

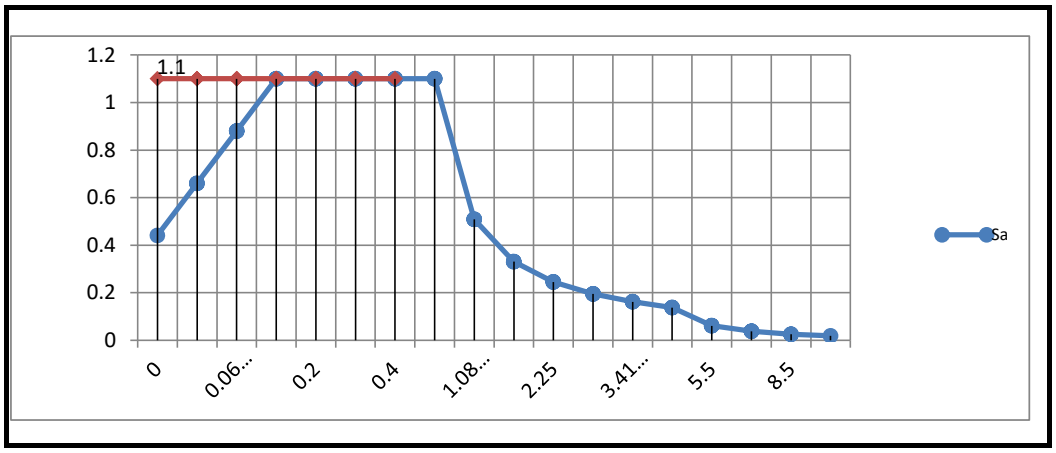
Según A.4.2.2 (NSR10) el valor del periodo puede ser igual al periodo fundamental Ta que se obtiene por medio de la siguiente ecuacion

$$T_a = C_t h^{\alpha}$$

Ct =	0.047	tabla A.4.2-1
α =	0.900	tabla A.4.2-1
h=	**13.80**	m

T_a = **0.50**

8 ESPECTRO DE DISEÑO



Entonces para el calculo de la maxima aceleracion horizontal de diseño se utiliza

Sa **= 2.5.Aa.Fa.I**

Sa = **1.100**

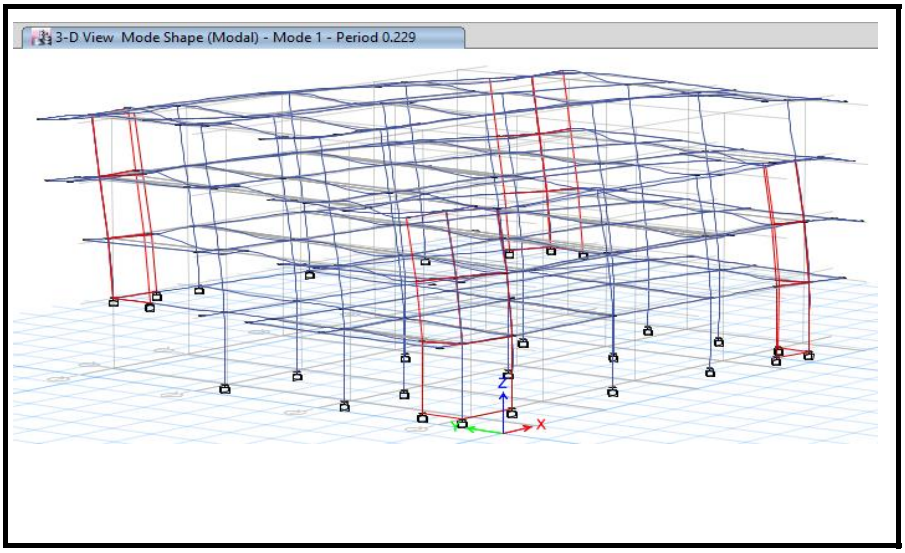
9 AJUSTE DE RE4SULTADOS

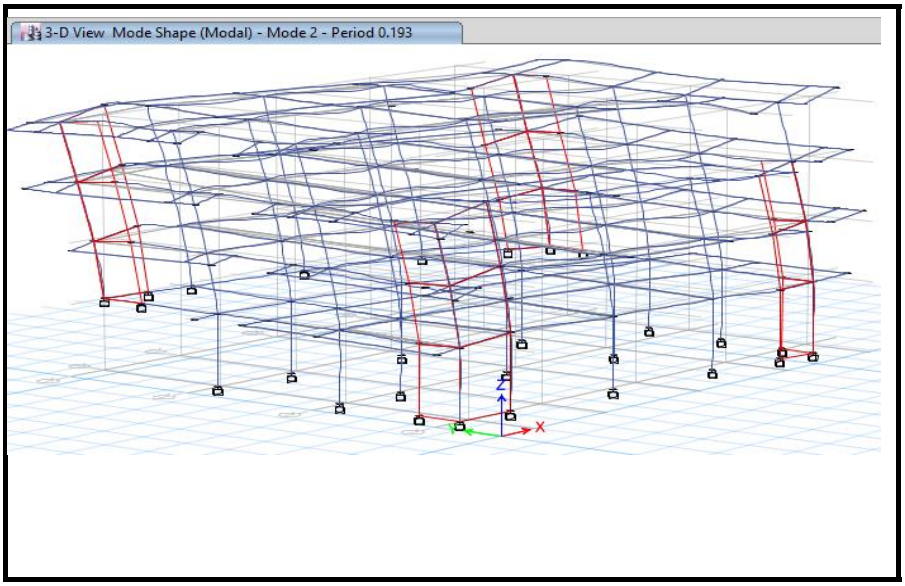
a) Según numeral A.5.4.5 (a) NSR-10: "(a) Para efectos de calcular este valor de Vs el período fundamental de la estructura obtenido en el análisis dinámico, T en segundos no debe exceder CuTa, de acuerdo con los requisitos del Capítulo A.4, y cuando se utilicen los esta razón". interacción suelo-estructura se permite utilizar el valor de Vs reducido por procedimientos de interacción suelo-estructura se permite utilizar el valor de Vs reducido por esta razón".

De analisis sismico de la edificacion extraemos la siguiente tabla

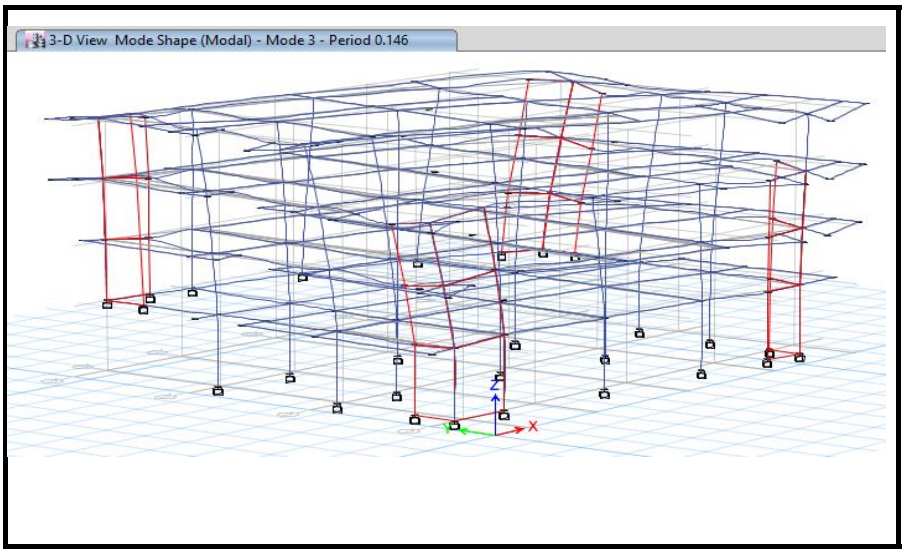
Table 3.10 - Modal Periods and Frequencies

Case	Mode	Period sec	Frequency cyc/sec	Circular Frequency rad/sec	Eigenvalue rad²/sec²
Modal	1	0.229	4.371	27.4628	754.2054
Modal	2	0.193	5.177	32.53	1058.2001
Modal	3	0.146	6.87	43.1664	1863.3339
Modal	4	0.071	14.067	88.3857	7812.0406
Modal	5	0.061	16.26	102.1666	10438.0081
Modal	6	0.044	22.949	144.1949	20792.157
Modal	7	0.037	27.366	171.9479	29566.0874
Modal	8	0.033	30.029	188.6803	35600.2543
Modal	9	0.025	39.624	248.9657	61983.9253
Modal	10	0.006	161.262	1013.2393	1026653.7856
Modal	11	0.006	170.55	1071.5988	1148323.9887
Modal	12	0.005	204.707	1286.2151	1654349.3226





Elaboracion propia



Calculo de Cu:

Cu x Ta > T

Cu = 1.75-1.2.Av.Fv

Cu = 1.25

Cu = no debe ser menor de 1.20, entonces

Cu = 1.25

Cu x Ta = 0.62

Verificacion

Cu x Ta > T

0.623 > 0.229 " cumple"

b) Según numeral A.5.4.5 (b) NSR-10: “Cuando el valor del cortante dinámico total en la base, Vtj, obtenido después de realizar la combinación modal, para cualquiera de las direcciones de análisis, j , sea menor que el 80 por ciento para estructuras regulares, o que el 90 por ciento para estructura irregulares, del cortante sísmico en la base, Vs , calculado como se indicó en (a), todos los parámetros de la respuesta dinámica, tales como deflexiones, derivas, fuerzas en los pisos, cortantes de piso, cortante en la base y fuerzas en los elementos de la correspondiente dirección j deben multiplicarse por el siguiente factor de modificación”.

Fuerzas (Ton-m) según modelo Etabs

Base Reactions

1 de 55 Reload Apply

Load Case/Combo	FX kgf	FY kgf	FZ kgf	MX kgf-m	MY kgf-m	MZ kgf-m
PESOPROPIO	4265.74	-1843.35	1182072.87	15750658.8	-17692808.37	3500.86
SOBRECARGAI...	7692.74	4583.54	1012405.83	12934682.3	-15045743.14	114184.33
VIVA	8230.41	4858.64	1086025.51	13896859.94	-16141964.83	121396.76
SISMOXESTAT	-125731.64	113395.45	0.0008597	-442194.3	-13682769.96	26016158.57
SISMOYESTAT	125639.03	-434664.1	0.001164	14887716.39	489952.5	-10262351.04
SISMOXMODAL ...	197270.92	176741.05	0.000544	4838858.56	9726854.5	20088143.78
SISMOYMODAL ...	147826.56	267016.72	0.001037	10103126.94	4537745.36	9125773.39

$0{,}90 * \frac{Vs}{Vtj}$ Para estructuras irregulares

Entonces

Factor de correccionen X=	Vs=	125731
	Vtj=	197270
Factor de correccionen X=	**0.574**	
	Vs=	125731
	Vtj=	267016
Factor de correccionen Y=	**0.424**	

Se realiza ajuste a las combinaciones SISMOXCOR y SISMOYCOR de acuerdo a lo factores de corrección calculados, obteniendo los siguientes resultados

Base Reactions

1 de 55 Reload Apply

Load Case/Combo	FX kgf	FY kgf	FZ kgf	MX kgf-m	MY kgf-m	MZ kgf-m
PESOPROPIO	4265.74	-1843.35	1182072.87	15750658.8	-17692808.37	3500.86
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SISMOYMODAL	147826.56	267016.72	0.001037	10103126.94	4537745.36	9125773.39
SISMOXCOR Max	197270.92	176741.05	0.000544	4838858.56	9726854.5	20088143.78
SISMOXCOR Min	-197270.92	-176741.05	-0.000544	-4838858.56	-9726854.5	-20088143.78
SISMOYCOR Max	147826.56	267016.72	0.001037	10103126.94	4537745.36	9125773.39
SISMOYCOR Min	-147826.56	-267016.72	-0.001037	-10103126.94	-4537745.36	-9125773.39

10 VERIFICACION DERIVAS

Según los desplazamientos obtenidos con base en el modelo se verifica que las el Capítulo A.6.4.1 (NSR-10) **límites de deriva**, los cuales son:

Para el caso de la estructura en estudio la deriva máxima permitida es del 1% $(\Delta^i \max \leq 0.010\ hpi)$

a) Deriva en X. OK CUMPLE

TABLE: Story Drifts

Story	Load Case/Combo	Direction	Drift	Label	X m	Y m	Z m
Story4	DERIVA X EST	X	0.002699	9	29.65	0	13.8
Story4	DERIVA X EST	Y	0.001288	9	29.65	0	13.8
Story3	DERIVA X EST	X	0.002674	3	2.4	26	10.5
Story3	DERIVA X EST	Y	0.001459	1	0	2.05	10.5
Story2	DERIVA X EST	X	0.001852	23	27.6	2	7.2
Story2	DERIVA X EST	Y	0.000921	7	29.65	19.78	7.2

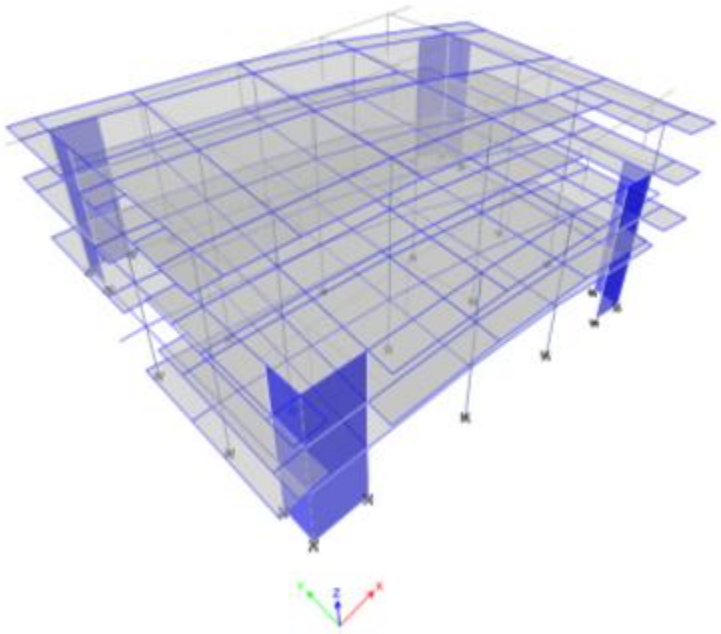
a) Deriva en Y OK CUMPLE

TABLE: Story Drifts

Story	Load Case/Combo	Direction	Drift	Label	X m	Y m	Z m
Story4	DERIVA Y EST	X	0.001069	94	0.8669	28.0018	13.8
Story4	DERIVA Y EST	Y	0.003246	61	0.2154	8.5	13.8
Story3	DERIVA Y EST	X	0.001142	3	2.4	26	10.5
Story3	DERIVA Y EST	Y	0.003465	1	0	2.05	10.5
Story2	DERIVA Y EST	X	0.000794	3	2.4	26	7.2
Story2	DERIVA Y EST	Y	0.002291	19	1.7497	3.75	7.2

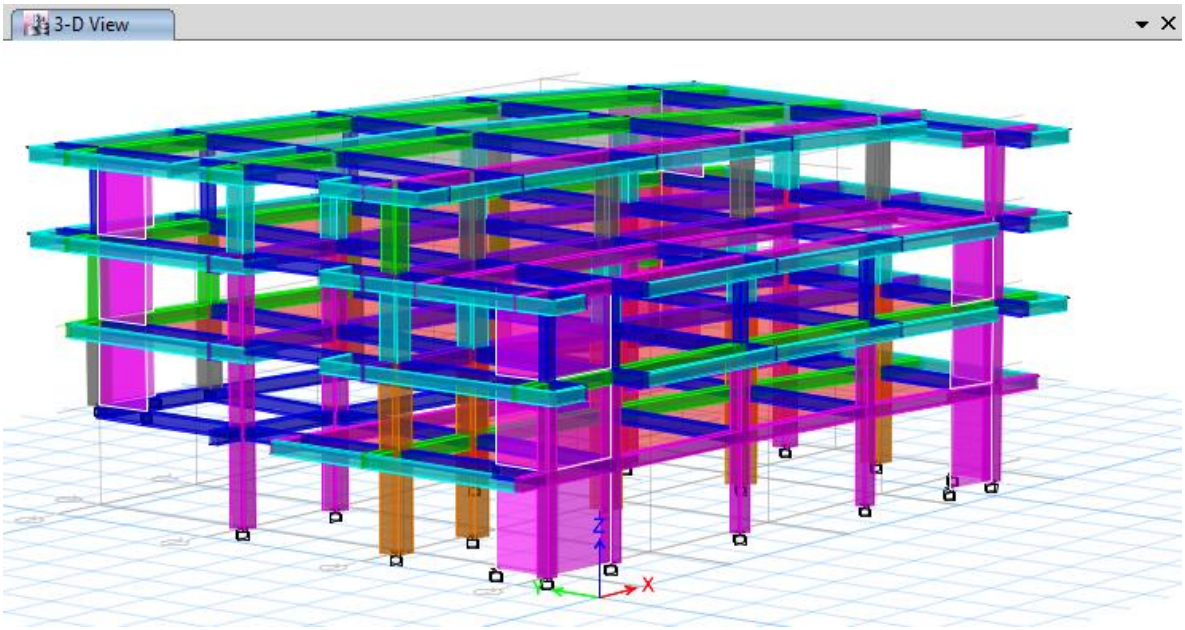
PACIENTE CENTRO COMERCIAL CUBA- SEGUNDA PROPUESTA

ETABS® 2016
Integrated Building Design Software

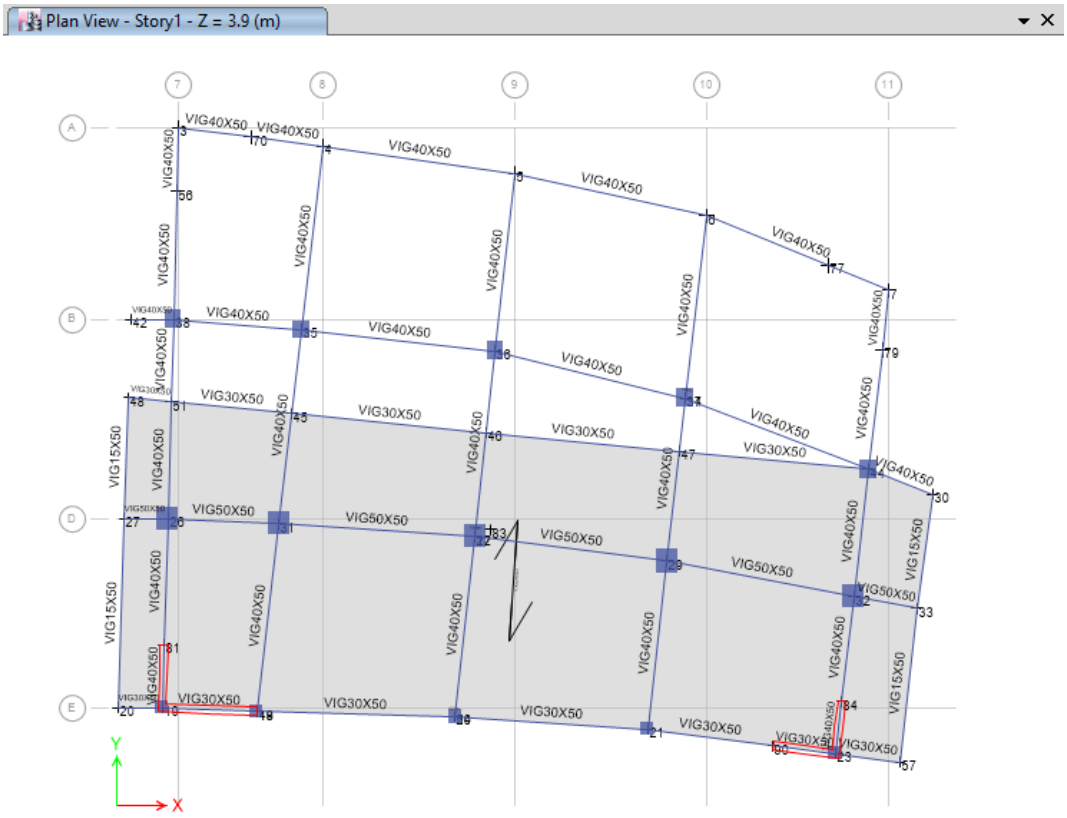


Summary Report

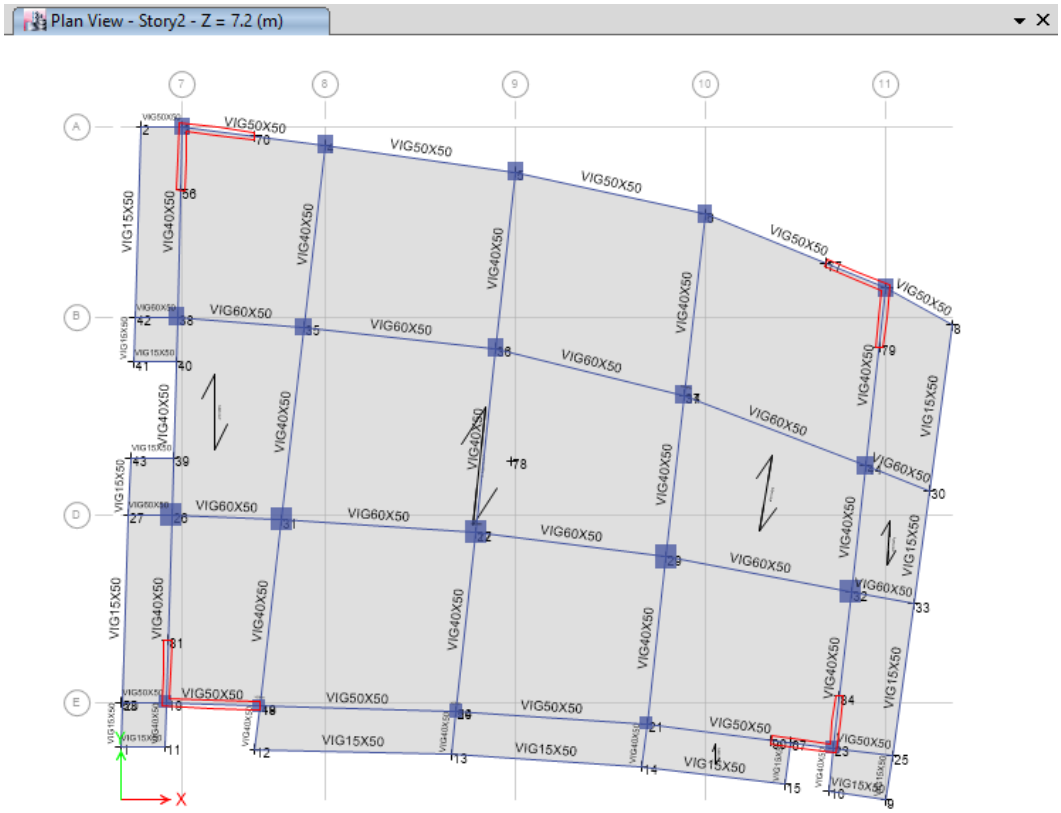
ISOMETRIA CENTRO COMERCIAL CUBA- SEGUNDA PROPUEST



PISO 1


Plan View - Story1 - Z = 3.9 (m)
VIG40X50
VIG30X50
VIG50X50
VIG15X50

Piso 2

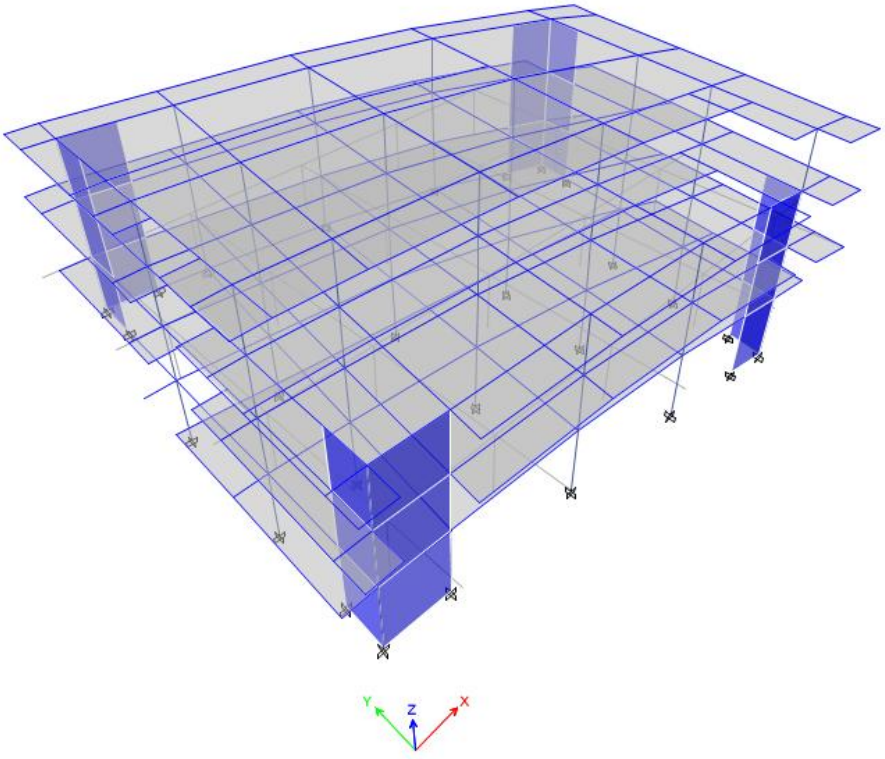

Plan View - Story2 - Z = 7.2 (m)
VIG50X50
VIG60X50
VIG40X50
VIG15X50

PISO 3


Plan View - Story3 - Z = 10.5 (m)
VIG15X50
VIG50X50
VIG40X50
VIG60X50
VIG30X50
A
B
D
E
X

PISO 4


Plan View - Story4 - Z = 13.8 (m)
VIG15X50
VIG50X50
VIG40X50
VIG30X50
A
B
D
E
Y
X



Project Report

Model File: PPP, Revision 0
30/08/2019

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1 Structure Data

This chapter provides model geometry information, including items such as story levels, point coordinates, and element connectivity.

1.1 Story Data

Table 1.1 - Story Data

Name	Height m	Elevation m	Master Story	Similar To	Splice Story
Story4	3.3	13.8	No	None	No
Story3	3.3	10.5	No	None	No
Story2	3.3	7.2	No	None	No
Story1	3.9	3.9	No	None	No
Base	0	0	No	None	No

1.2 Grid Data

Table 1.2 - Grid Systems

Name	Type	Story Range	X Origin m	Y Origin m	Rotation deg	Bubble Size m	Color
G1	Cartesian	Default	0	0	0	1	ffa0a0a0

Table 1.3 - Grid Lines

Grid System	Grid Direction	Grid ID	Visible	Bubble Location	Ordinate m
G1	X		No	End	0
G1	X		No	End	0.8
G1	X		No	End	1.7
G1	X	7	Yes	End	2.4
G1	X		No	End	5.2
G1	X	8	Yes	End	7.95
G1	X		No	End	12.8
G1	X	9	Yes	End	15.3
G1	X		No	End	20.2
G1	X	10	Yes	End	22.65
G1	X		No	End	25.75
G1	X		No	End	25.95
G1	X		No	End	27.41
G1	X		No	End	27.6
G1	X	11	Yes	End	29.65
G1	X		No	End	32.2
G1	Y		No	Start	0
G1	Y		No	Start	0.35
G1	Y		No	Start	0.59
G1	Y		No	Start	1.27
G1	Y		No	Start	1.7
G1	Y		No	Start	1.74
G1	Y		No	Start	1.95
G1	Y		No	Start	2
G1	Y		No	Start	2.05
G1	Y		No	Start	2.24
G1	Y		No	Start	2.92
G1	Y		No	Start	3.41
G1	Y		No	Start	3.62
G1	Y	E	Yes	Start	3.75
G1	Y		No	Start	7.4

Grid System	Grid Direction	Grid ID	Visible	Bubble Location	Ordinate m
G1	Y	D	Yes	Start	11
G1	Y		No	Start	11.7
G1	Y		No	Start	13.21
G1	Y		No	Start	16.91
G1	Y		No	Start	18.35
G1	Y	B	Yes	Start	18.66
G1	Y		No	Start	19.78
G1	Y		No	Start	22.62
G1	Y		No	Start	24.25
G1	Y		No	Start	25.3
G1	Y	A	Yes	Start	26

1.3 Point Coordinates

Table 1.4 - Joint Coordinates Data

Label	X m	Y m	ΔZ Below m
1	0	2.05	0
2	0.8	26	0
3	2.4	26	0
4	7.95	25.3	0
5	15.3	24.25	0
6	22.65	22.62	0
7	29.65	19.78	0
8	32.2	18.35	0
9	29.65	0	0
10	27.41	0.35	0
11	1.7	2.05	0
12	5.2	1.95	0
13	12.8	1.74	0
14	20.2	1.27	0
15	25.75	0.59	0
16	25.95	2.24	0
19	1.74969	3.75	0
20	0.05678	3.75	0
18	5.39	3.62	0
24	12.99	3.41	0
21	20.39	2.92	0
23	27.6	2	0
25	29.88502	1.69121	0
26	1.96159	11	0
27	0.29896	11	0
31	6.24447	10.81854	0
22	13.77	10.33	0
17	13.75413	10.33103	0
29	21.13	9.38	0
32	28.29438	8.02124	0
33	30.70342	7.5805	0
38	2.18547	18.66	0
39	2.02618	13.21	0
40	2.13432	16.91	0
41	0.49637	16.91	0
42	0.55482	18.66	0
35	7.1202	18.25423	0
36	14.54289	17.433	0
34	21.85	15.62	0

Label	X m	Y m	ΔZ Below m
37	21.84648	15.62087	0
44	28.85654	12.89746	0
30	31.30982	11.94418	0
43	0.37278	13.21	0
45	6.74135	15.03748	0
46	14.19672	14.31604	0
47	21.61427	13.59827	0
48	0.45414	15.64587	0
49	5.39665	3.61976	0
50	12.98549	3.41012	0
57	30.07022	1.66619	0
51	2.09271	15.48636	0
80	2.45859	28.00447	0
82	8.18555	27.3	0
87	15.52004	26.23126	0
88	22.87936	24.61783	0
89	29.87944	21.77018	0
94	0.86686	28.00175	0
28	26.68769	8.32596	0
60	0.29896	8.5	0
61	0.21545	8.5	0
62	1.88852	8.5	0
63	5.9515	8.33095	0
64	13.47847	7.84893	0
65	20.8475	6.91646	0
66	26.39147	5.88213	0
52	2.24828	20.80908	0
54	7.37167	20.38947	0
58	14.78022	19.56986	0
59	0.6266	20.8088	0
69	22.09074	17.74853	0
73	32.47404	20.32199	0
67	25.94648	2.21099	0
68	28.0129	5.57963	0
53	0	3.75	0
56	2.32849	23.55333	0
70	5.175	25.65	0
77	27.31667	20.72667	0
79	29.38551	17.48582	0
81	1.82032	6.16667	0
84	27.83146	4.00708	0
90	25.19667	2.30667	0

1.4 Line Connectivity

Table 1.5 - Column Connectivity Data

Column	I-End Point	J-End Point	I-End Story
C1	19	19	Below
C2	18	18	Below
C3	24	24	Below
C4	21	21	Below
C5	23	23	Below
C7	26	26	Below
C8	31	31	Below
C9	22	22	Below

Column	I-End Point	J-End Point	I-End Story
C10	29	29	Below
C11	32	32	Below
C12	38	38	Below
C13	35	35	Below
C14	36	36	Below
C15	34	34	Below
C16	44	44	Below
C17	3	3	Below
C18	4	4	Below
C19	5	5	Below
C20	6	6	Below
C21	7	7	Below

Table 1.6 - Beam Connectivity Data

Beam	I-End Point	J-End Point	Curve Type
B2	2	3	None
B3	3	4	None
B4	4	5	None
B5	5	6	None
B6	6	7	None
B7	7	8	None
B9	10	9	None
B11	1	11	None
B14	12	13	None
B16	13	14	None
B18	14	15	None
B21	11	19	None
B25	1	20	None
B28	20	19	None
B12	19	18	None
B20	24	21	None
B24	21	23	None
B29	23	25	None
B23	19	26	None
B31	20	27	None
B34	27	26	None
B39	26	31	None
B33	31	17	None
B35	17	22	None
B40	22	29	None
B17	29	32	None
B44	32	33	None
B45	26	38	None
B46	38	3	None
B51	41	40	None
B52	42	38	None
B13	38	35	None
B8	31	35	None
B10	35	4	None
B47	17	36	None
B48	36	5	None
B50	35	36	None
B37	29	37	None
B53	37	6	None
B54	36	37	None

Beam	I-End Point	J-End Point	Curve Type
B55	37	34	None
B42	34	44	None
B56	32	44	None
B57	44	7	None
B30	44	30	None
B38	33	30	None
B58	30	8	None
B26	27	43	None
B61	43	39	None
B66	45	46	None
B67	46	47	None
B68	47	44	None
B49	27	48	None
B60	19	49	None
B63	49	31	None
B64	18	50	None
B65	50	24	None
B70	50	17	None
B72	21	29	None
B74	23	32	None
B86	23	57	None
B32	26	51	None
B62	51	38	None
B69	48	51	None
B71	51	45	None
B88	3	80	None
B90	4	82	None
B96	5	87	None
B98	6	88	None
B100	7	89	None
B106	2	94	None
B43	94	80	None
B73	80	82	None
B75	82	87	None
B76	87	88	None
B77	88	89	None
B91	19	62	None
B92	62	26	None
B93	61	62	None
B97	63	31	None
B102	62	63	None
B104	64	17	None
B109	65	29	None
B112	64	65	None
B114	66	28	None
B117	65	66	None
B81	41	42	None
B82	42	2	None
B99	59	52	None
B107	52	54	None
B110	54	58	None
B115	58	69	None
B118	61	27	None
B119	16	23	None
B120	16	66	None
B123	8	73	None

Beam	I-End Point	J-End Point	Curve Type
B125	89	73	None
B79	10	23	None
B94	57	33	None
B85	9	25	None
B116	25	33	None
B122	20	61	None
B127	15	67	None
B128	67	66	None
B59	65	68	None
B15	18	49	None
B84	12	49	None
B87	13	50	None
B113	49	50	None
B124	14	21	None
B36	49	63	None
B41	50	64	None
B83	21	65	None
B1	63	64	None
B19	34	6	None
B78	56	3	None
B80	3	70	None
B89	70	4	None
B111	79	7	None
B121	19	81	None
B130	23	84	None
B135	90	23	None
B136	81	26	None
B137	38	56	None
B138	44	79	None
B139	84	32	None
B140	21	90	None

1.5 Area Connectivity

Table 1.7 - Floor Connectivity Data

Floor	Number of Edges	Edge Number	Point 1	Point 2	Curve Type
F5	12	1	12	18	None
		2	18	31	None
		3	31	35	None
		4	35	4	None
		5	4	5	None
		6	5	6	None
		7	6	34	None
		8	34	29	None
		9	29	21	None
		10	21	14	None
		11	14	13	None
		12	13	12	None
F7	8	1	21	29	None
		2	29	34	None
		3	34	6	None
		4	6	7	None
		5	7	44	None
		6	44	32	None

Floor	Number of Edges	Edge Number	Point 1	Point 2	Curve Type
		7	32	23	None
		8	23	21	None
F8	10	1	10	23	None
		2	23	32	None
		3	32	44	None
		4	44	7	None
		5	7	8	None
		6	8	30	None
		7	30	33	None
		8	33	25	None
		9	25	9	None
		10	9	10	None
F1	12	1	2	94	None
		2	94	80	None
		3	80	82	None
		4	82	87	None
		5	87	88	None
		6	88	89	None
		7	89	7	None
		8	7	6	None
		9	6	5	None
		10	5	4	None
		11	4	3	None
		12	3	2	None
F10	6	1	40	41	None
		2	41	42	None
		3	42	2	None
		4	2	3	None
		5	3	38	None
		6	38	40	None
F11	6	1	29	34	None
		2	34	6	None
		3	6	7	None
		4	7	44	None
		5	44	32	None
		6	32	29	None
F12	7	1	65	29	None
		2	29	28	None
		3	28	32	None
		4	32	23	None
		5	23	16	None
		6	16	66	None
		7	66	65	None
F13	4	1	62	39	None
		2	39	43	None
		3	43	60	None
		4	60	62	None
F3	6	1	40	41	None
		2	41	42	None
		3	42	59	None
		4	59	52	None
		5	52	38	None
		6	38	40	None
F14	8	1	38	52	None
		2	52	54	None

Floor	Number of Edges	Edge Number	Point 1	Point 2	Curve Type
		3	54	58	None
		4	58	69	None
		5	69	34	None
		6	34	36	None
		7	36	35	None
		8	35	38	None
F15	12	1	62	26	None
		2	26	39	None
		3	39	40	None
		4	40	38	None
		5	38	35	None
		6	35	36	None
		7	36	34	None
		8	34	29	None
		9	29	65	None
		10	65	64	None
		11	64	63	None
		12	63	62	None
F16	6	1	6	88	None
		2	88	89	None
		3	89	73	None
		4	73	8	None
		5	8	7	None
		6	7	6	None
F17	16	1	20	27	None
		2	27	48	None
		3	48	51	None
		4	51	45	None
		5	45	46	None
		6	46	47	None
		7	47	44	None
		8	44	30	None
		9	30	33	None
		10	33	57	None
		11	57	23	None
		12	23	21	None
		13	21	24	None
		14	24	18	None
		15	18	19	None
		16	19	20	None
F19	12	1	62	26	None
		2	26	38	None
		3	38	3	None
		4	3	4	None
		5	4	5	None
		6	5	6	None
		7	6	34	None
		8	34	29	None
		9	29	65	None
		10	65	64	None
		11	64	63	None
		12	63	62	None
F4	7	1	29	34	None
		2	34	6	None
		3	6	7	None

Floor	Number of Edges	Edge Number	Point 1	Point 2	Curve Type
		4	7	44	None
		5	44	32	None
		6	32	28	None
		7	28	29	None
F20	16	1	1	53	None
		2	53	27	None
		3	27	43	None
		4	43	39	None
		5	39	40	None
		6	40	41	None
		7	41	42	None
		8	42	2	None
		9	2	3	None
		10	3	4	None
		11	4	35	None
		12	35	31	None
		13	31	18	None
		14	18	19	None
		15	19	11	None
		16	11	1	None
F21	4	1	15	67	None
		2	67	21	None
		3	21	14	None
		4	14	15	None
F9	12	1	59	2	None
		2	2	94	None
		3	94	80	None
		4	80	82	None
		5	82	87	None
		6	87	88	None
		7	88	6	None
		8	6	69	None
		9	69	58	None
		10	58	54	None
		11	54	52	None
		12	52	59	None

Table 1.8 - Wall Connectivity Data

Label	Number of Edges	Edge Number	Point 1	Point 2	Curve Type	Point 1 Story	Point 2 Story
W1	4	1	19	81	None	Below	Below
		2	81	81	None	Below	Same
		3	81	19	None	Same	Same
		4	19	19	None	Same	Below
W2	4	1	19	18	None	Below	Below
		2	18	18	None	Below	Same
		3	18	19	None	Same	Same
		4	19	19	None	Same	Below
W3	4	1	23	90	None	Below	Below
		2	90	90	None	Below	Same
		3	90	23	None	Same	Same
		4	23	23	None	Same	Below
W4	4	1	23	84	None	Below	Below
		2	84	84	None	Below	Same
		3	84	23	None	Same	Same

Label	Number of Edges	Edge Number	Point 1	Point 2	Curve Type	Point 1 Story	Point 2 Story
		4	23	23	None	Same	Below
W5	4	1	79	7	None	Below	Below
		2	7	7	None	Below	Same
		3	7	79	None	Same	Same
		4	79	79	None	Same	Below
W6	4	1	7	77	None	Below	Below
		2	77	77	None	Below	Same
		3	77	7	None	Same	Same
		4	7	7	None	Same	Below
W7	4	1	56	3	None	Below	Below
		2	3	3	None	Below	Same
		3	3	56	None	Same	Same
		4	56	56	None	Same	Below
W8	4	1	3	70	None	Below	Below
		2	70	70	None	Below	Same
		3	70	3	None	Same	Same
		4	3	3	None	Same	Below

1.6 Mass

Table 1.9 - Mass Source

Name	Include Elements	Include Added Mass	Include Loads	Include Lateral	Include Vertical	Lump at Stories	IsDefault	Load Pattern	Multiplier
MsSrc1	No	No	Yes	Yes	No	Yes	Yes	PP	1
MsSrc1	No	No	Yes	Yes	No	Yes	Yes	SCP	1

Table 1.10 - Centers of Mass and Rigidity

Story	Diaphragm	Mass X kgf-s²/m	Mass Y kgf-s²/m	XCM m	YCM m	Cumulative X kgf-s²/m	Cumulative Y kgf-s²/m	XCCM m	YCCM m	XCR m	YCR m
Story1	D1	42156.1	42156.1	14.3511	10.5884	42156.1	42156.1	14.3511	10.5884		
Story2	D2	71058.11	71058.11	15.1436	13.0826	71058.11	71058.11	15.1436	13.0826	15.6532	15.3491
Story3	D3	67375.83	67375.83	14.9823	15.4229	67375.83	67375.83	14.9823	15.4229	15.5022	14.9898
Story4	D4	17647.05	17647.05	15.9425	16.6549	17647.05	17647.05	15.9425	16.6549	15.9153	17.5145

Table 1.11 - Mass Summary by Diaphragm

Story	Diaphragm	Mass X kgf-s²/m	Mass Y kgf-s²/m	Mass Moment of Inertia kgf-m-s²	X Mass Center m	Y Mass Center m
Story4	D4	17647.05	17647.05	2604427.28	15.9425	16.6549
Story3	D3	67375.83	67375.83	9660029.06	14.9823	15.4229
Story2	D2	71058.11	71058.11	10713416.03	15.1436	13.0826
Story1	D1	42156.1	42156.1	5832516.13	14.3511	10.5884

Table 1.12 - Mass Summary by Story

Story	UX kgf-s²/m	UY kgf-s²/m	UZ kgf-s²/m
Story4	17894.78	17894.78	0
Story3	79253.26	79253.26	0
Story2	84462.53	84462.53	0
Story1	49761.45	49761.45	0
Base	4909.67	4909.67	0

1.7 Groups

Table 1.13 - Group Definitions

Name	Color
All	Yellow

2 Properties

This chapter provides property information for materials, frame sections, shell sections, and links.

2.1 Materials

Table 2.1 - Material Properties - Summary

Name	Type	E kgf/m²	ν	Unit Weight kgf/m³	Design Strengths
2500Psi	Concrete	1800000000	0.2	2402.77	Fc=1800000 kgf/m²
3000Psi	Concrete	2187999935	0.2	2402.77	Fc=2100000 kgf/m²
4000Psi	Concrete	2526000000	0.2	2402.77	Fc=2800000 kgf/m²
A416Gr270	Tendon	20037484345	0	7849.05	Fy=172322365.37 kgf/m², Fu=189828799.06 kgf/m²
A615Gr60	Rebar	20389021320	0	7849.05	Fy=42184180.28 kgf/m², Fu=63276265.33 kgf/m²

2.2 Frame Sections

Table 2.2 - Frame Sections - Summary

Name	Material	Shape
COL40X40	2500Psi	Concrete Rectangular
COL50X50	2500Psi	Concrete Rectangular
COL50X60	2500Psi	Concrete Rectangular
COL60X70	2500Psi	Concrete Rectangular
COL60X80	3000Psi	Concrete Rectangular
COL65X70	2500Psi	Concrete Rectangular
COL70X70	3000Psi	Concrete Rectangular
COL80X80	3000Psi	Concrete Rectangular
COL80X90	3000Psi	Concrete Rectangular
VIG15X50	3000Psi	Concrete Rectangular
VIG30X50	3000Psi	Concrete Rectangular
VIG40X50	3000Psi	Concrete Rectangular
VIG50X50	3000Psi	Concrete Rectangular
VIG60X50	3000Psi	Concrete Rectangular

2.3 Shell Sections

Table 2.3 - Shell Sections - Summary

Name	Design Type	Element Type	Material	Total Thickness m
CUBIERTA	Slab	Membrane	3000Psi	0.005
Muro30	Wall	Shell-Thin	3000Psi	0.3
PLAQUETASUP	Slab	Membrane	3000Psi	0.05

2.4 Reinforcement Sizes

Table 2.4 - Reinforcing Bar Sizes

Name	Diameter m	Area m²
10	0.01	7.9E-05
18	0.018	0.000255
20	0.02	0.000314
#10SM	0.00953	7.1E-05
#13SM	0.0127	0.000129
#16SM	0.01588	0.0002
#19SM	0.01905	0.000284
#22SM	0.02223	0.000387
#3	0.00953	7.1E-05
#4	0.0127	0.000129
#5	0.01588	0.0002
#6	0.01905	0.000284
#7	0.02223	0.000387

2.5 Tendon Sections

Table 2.5 - Tendon Section Properties

Name	Material	StrandArea m²	Color
Tendon1	A416Gr270	9.9E-05	Gray

3 Assignments

This chapter provides a listing of the assignments applied to the model.

3.1 Joint Assignments

Table 3.1 - Joint Assignments - Summary

Story	Label	Unique Name	Diaphragm	Restraints
Story4	2	149	D4	
Story4	3	150	D4	
Story4	4	151	D4	
Story4	5	159	D4	
Story4	6	160	D4	
Story4	7	161	D4	
Story4	8	162	D4	
Story4	9	163	D4	
Story4	10	164	D4	
Story4	16	170	D4	
Story4	23	178	D4	
Story4	25	182	D4	
Story4	26	183	D4	
Story4	27	184	D4	
Story4	31	185	D4	
Story4	22	187	D4	
Story4	17	188	D4	
Story4	29	189	D4	
Story4	32	190	D4	
Story4	33	191	D4	
Story4	38	192	D4	
Story4	39	193	D4	
Story4	40	194	D4	
Story4	41	195	D4	
Story4	42	196	D4	
Story4	35	197	D4	
Story4	36	198	D4	
Story4	34	199	D4	
Story4	37	200	D4	
Story4	44	201	D4	
Story4	30	202	D4	
Story4	43	203	D4	
Story4	80	204	D4	
Story4	82	205	D4	
Story4	87	206	D4	
Story4	88	207	D4	
Story4	89	208	D4	
Story4	94	209	D4	
Story4	28	210	D4	
Story4	60	212	D4	
Story4	61	213	D4	
Story4	62	214	D4	
Story4	63	215	D4	
Story4	64	216	D4	
Story4	65	217	D4	
Story4	66	218	D4	
Story4	52	219	D4	
Story4	54	220	D4	
Story4	58	221	D4	

Story	Label	Unique Name	Diaphragm	Restraints
Story4	59	222	D4	
Story4	69	225	D4	
Story4	73	229	D4	
Story4	68	8	D4	
Story4	56	257	D4	
Story4	70	258	D4	
Story4	77	256	D4	
Story4	79	255	D4	
Story3	1	1	D3	
Story3	2	12	D3	
Story3	3	13	D3	
Story3	4	14	D3	
Story3	5	15	D3	
Story3	6	16	D3	
Story3	7	24	D3	
Story3	8	41	D3	
Story3	9	107	D3	
Story3	10	112	D3	
Story3	11	113	D3	
Story3	12	114	D3	
Story3	13	115	D3	
Story3	14	116	D3	
Story3	15	117	D3	
Story3	16	118	D3	
Story3	19	119	D3	
Story3	20	120	D3	
Story3	18	121	D3	
Story3	24	122	D3	
Story3	21	123	D3	
Story3	23	124	D3	
Story3	25	125	D3	
Story3	26	126	D3	
Story3	27	127	D3	
Story3	31	128	D3	
Story3	22	129	D3	
Story3	17	130	D3	
Story3	29	131	D3	
Story3	32	132	D3	
Story3	33	133	D3	
Story3	38	134	D3	
Story3	39	135	D3	
Story3	40	136	D3	
Story3	41	137	D3	
Story3	42	138	D3	
Story3	35	139	D3	
Story3	36	140	D3	
Story3	34	141	D3	
Story3	37	142	D3	
Story3	44	143	D3	
Story3	30	144	D3	
Story3	43	145	D3	
Story3	49	62	D3	
Story3	50	63	D3	
Story3	80	172	D3	
Story3	82	174	D3	
Story3	87	179	D3	

Story	Label	Unique Name	Diaphragm	Restraints
Story3	88	180	D3	
Story3	89	181	D3	
Story3	94	186	D3	
Story3	28	146	D3	
Story3	60	152	D3	
Story3	61	153	D3	
Story3	62	154	D3	
Story3	63	155	D3	
Story3	64	156	D3	
Story3	65	157	D3	
Story3	66	158	D3	
Story3	67	2	D3	
Story3	56	247	D3	
Story3	70	249	D3	
Story3	77	245	D3	
Story3	79	243	D3	
Story3	81	237	D3	
Story3	84	241	D3	
Story3	90	239	D3	
Story2	1	49	D2	
Story2	2	50	D2	
Story2	3	66	D2	
Story2	4	67	D2	
Story2	5	68	D2	
Story2	6	69	D2	
Story2	7	70	D2	
Story2	8	71	D2	
Story2	9	72	D2	
Story2	10	73	D2	
Story2	11	74	D2	
Story2	12	75	D2	
Story2	13	76	D2	
Story2	14	77	D2	
Story2	15	78	D2	
Story2	19	80	D2	
Story2	20	81	D2	
Story2	18	82	D2	
Story2	24	83	D2	
Story2	21	84	D2	
Story2	23	85	D2	
Story2	25	86	D2	
Story2	26	87	D2	
Story2	27	88	D2	
Story2	31	89	D2	
Story2	22	90	D2	
Story2	17	91	D2	
Story2	29	92	D2	
Story2	32	93	D2	
Story2	33	94	D2	
Story2	38	95	D2	
Story2	39	96	D2	
Story2	40	97	D2	
Story2	41	98	D2	
Story2	42	99	D2	
Story2	35	100	D2	
Story2	36	101	D2	

Story	Label	Unique Name	Diaphragm	Restraints
Story2	34	102	D2	
Story2	37	103	D2	
Story2	44	104	D2	
Story2	30	105	D2	
Story2	43	106	D2	
Story2	49	9	D2	
Story2	50	10	D2	
Story2	67	167	D2	
Story2	53	166	D2	
Story2	56	246	D2	
Story2	70	248	D2	
Story2	77	244	D2	
Story2	79	242	D2	
Story2	81	236	D2	
Story2	84	240	D2	
Story2	90	238	D2	
Story1	3	3	D1	UX; UY; UZ; RX; RY; RZ
Story1	4	4	D1	UX; UY; UZ; RX; RY; RZ
Story1	5	5	D1	UX; UY; UZ; RX; RY; RZ
Story1	6	6	D1	UX; UY; UZ; RX; RY; RZ
Story1	7	7	D1	UX; UY; UZ; RX; RY; RZ
Story1	19	19	D1	
Story1	20	20	D1	
Story1	18	17	D1	
Story1	24	18	D1	
Story1	21	21	D1	
Story1	23	22	D1	
Story1	26	26	D1	
Story1	27	27	D1	
Story1	31	29	D1	
Story1	22	23	D1	
Story1	17	25	D1	
Story1	29	28	D1	
Story1	32	31	D1	
Story1	33	32	D1	
Story1	38	38	D1	
Story1	42	42	D1	
Story1	35	34	D1	
Story1	36	35	D1	
Story1	34	33	D1	
Story1	37	36	D1	
Story1	44	43	D1	
Story1	30	37	D1	
Story1	45	108	D1	
Story1	46	109	D1	
Story1	47	110	D1	
Story1	48	111	D1	
Story1	49	39	D1	
Story1	50	40	D1	
Story1	57	44	D1	
Story1	51	11	D1	
Story1	56	148	D1	UX; UY; UZ; RX; RY; RZ

Story	Label	Unique Name	Diaphragm	Restraints
Story1	70	165	D1	UX; UY; UZ; RX; RY; RZ
Story1	77	169	D1	UX; UY; UZ; RX; RY; RZ
Story1	79	173	D1	UX; UY; UZ; RX; RY; RZ
Story1	81	175	D1	
Story1	84	177	D1	
Story1	90	224	D1	
Base	19	30	From Area	UX; UY; UZ; RX; RY; RZ
Base	18	45	From Area	UX; UY; UZ; RX; RY; RZ
Base	24	46	From Area	UX; UY; UZ; RX; RY; RZ
Base	21	47	From Area	UX; UY; UZ; RX; RY; RZ
Base	23	48	From Area	UX; UY; UZ; RX; RY; RZ
Base	26	51	From Area	UX; UY; UZ; RX; RY; RZ
Base	31	52	From Area	UX; UY; UZ; RX; RY; RZ
Base	22	53	From Area	UX; UY; UZ; RX; RY; RZ
Base	29	54	From Area	UX; UY; UZ; RX; RY; RZ
Base	32	55	From Area	UX; UY; UZ; RX; RY; RZ
Base	38	56	From Area	UX; UY; UZ; RX; RY; RZ
Base	35	57	From Area	UX; UY; UZ; RX; RY; RZ
Base	36	58	From Area	UX; UY; UZ; RX; RY; RZ
Base	34	59	From Area	UX; UY; UZ; RX; RY; RZ
Base	44	60	From Area	UX; UY; UZ; RX; RY; RZ
Base	81	226	From Area	UX; UY; UZ; RX; RY; RZ
Base	84	228	From Area	UX; UY; UZ; RX; RY; RZ
Base	90	227	From Area	UX; UY; UZ; RX; RY; RZ

3.2 Frame Assignments

Table 3.2 - Frame Assignments - Summary

Story	Label	Unique Name	Design Type	Length m	Analysis Section	Design Section	Max Station Spacing m	Min Number Stations	Modifiers
Story4	C5	350	Column	3.3	COL50X50	COL50X50		3	No
Story4	C7	352	Column	3.3	COL70X70	COL70X70		3	No
Story4	C8	353	Column	3.3	COL60X70	COL60X70		3	No
Story4	C9	354	Column	3.3	COL60X70	COL60X70		3	No
Story4	C10	355	Column	3.3	COL60X70	COL60X70		3	No
Story4	C11	356	Column	3.3	COL60X70	COL60X70		3	No
Story4	C12	361	Column	3.3	COL60X80	COL60X80		3	No
Story4	C13	362	Column	3.3	COL60X80	COL60X80		3	No
Story4	C14	363	Column	3.3	COL60X80	COL60X80		3	No

Story	Label	Unique Name	Design Type	Length m	Analysis Section	Design Section	Max Station Spacing m	Min Number Stations	Modifiers
Story4	C15	364	Column	3.3	COL60X80	COL60X80		3	No
Story4	C16	365	Column	3.3	COL60X80	COL60X80		3	No
Story4	C17	378	Column	3.3	COL40X40	COL40X40		3	No
Story4	C18	390	Column	3.3	COL40X40	COL40X40		3	No
Story4	C19	392	Column	3.3	COL40X40	COL40X40		3	No
Story4	C20	394	Column	3.3	COL60X70	COL60X70		3	No
Story4	C21	396	Column	3.3	COL50X60	COL50X60		3	No
Story3	C1	209	Column	3.3	COL40X40	COL40X40		3	No
Story3	C2	210	Column	3.3	COL40X40	COL40X40		3	No
Story3	C3	211	Column	3.3	COL40X40	COL40X40		3	No
Story3	C4	212	Column	3.3	COL40X40	COL40X40		3	No
Story3	C5	213	Column	3.3	COL50X50	COL50X50		3	No
Story3	C7	214	Column	3.3	COL80X80	COL80X80		3	No
Story3	C8	215	Column	3.3	COL80X80	COL80X80		3	No
Story3	C9	216	Column	3.3	COL80X80	COL80X80		3	No
Story3	C10	217	Column	3.3	COL80X80	COL80X80		3	No
Story3	C11	218	Column	3.3	COL80X80	COL80X80		3	No
Story3	C12	219	Column	3.3	COL65X70	COL65X70		3	No
Story3	C13	220	Column	3.3	COL65X70	COL65X70		3	No
Story3	C14	221	Column	3.3	COL65X70	COL65X70		3	No
Story3	C15	222	Column	3.3	COL65X70	COL65X70		3	No
Story3	C16	223	Column	3.3	COL65X70	COL65X70		3	No
Story3	C17	224	Column	3.3	COL50X60	COL50X60		3	No
Story3	C18	225	Column	3.3	COL50X60	COL50X60		3	No
Story3	C19	226	Column	3.3	COL50X60	COL50X60		3	No
Story3	C20	227	Column	3.3	COL50X60	COL50X60		3	No
Story3	C21	228	Column	3.3	COL50X60	COL50X60		3	No
Story2	C1	135	Column	3.3	COL50X50	COL50X50		3	No
Story2	C2	136	Column	3.3	COL50X50	COL50X50		3	No
Story2	C3	137	Column	3.3	COL50X50	COL50X50		3	No
Story2	C4	138	Column	3.3	COL50X50	COL50X50		3	No
Story2	C5	139	Column	3.3	COL50X50	COL50X50		3	No
Story2	C7	140	Column	3.3	COL80X90	COL80X90		3	No
Story2	C8	141	Column	3.3	COL80X90	COL80X90		3	No
Story2	C9	142	Column	3.3	COL80X90	COL80X90		3	No
Story2	C10	143	Column	3.3	COL80X90	COL80X90		3	No
Story2	C11	144	Column	3.3	COL80X90	COL80X90		3	No
Story2	C12	145	Column	3.3	COL65X70	COL65X70		3	No
Story2	C13	146	Column	3.3	COL65X70	COL65X70		3	No
Story2	C14	147	Column	3.3	COL65X70	COL65X70		3	No
Story2	C15	148	Column	3.3	COL65X70	COL65X70		3	No
Story2	C16	149	Column	3.3	COL65X70	COL65X70		3	No
Story2	C17	150	Column	3.3	COL60X70	COL60X70		3	No
Story2	C18	151	Column	3.3	COL60X70	COL60X70		3	No
Story2	C19	152	Column	3.3	COL60X70	COL60X70		3	No
Story2	C20	153	Column	3.3	COL60X70	COL60X70		3	No
Story2	C21	154	Column	3.3	COL60X70	COL60X70		3	No
Story1	C1	8	Column	3.9	COL50X50	COL50X50		3	No
Story1	C2	32	Column	3.9	COL50X50	COL50X50		3	No
Story1	C3	42	Column	3.9	COL50X50	COL50X50		3	No
Story1	C4	60	Column	3.9	COL50X50	COL50X50		3	No
Story1	C5	62	Column	3.9	COL50X50	COL50X50		3	No
Story1	C7	64	Column	3.9	COL80X90	COL80X90		3	No
Story1	C8	65	Column	3.9	COL80X90	COL80X90		3	No

Story	Label	Unique Name	Design Type	Length m	Analysis Section	Design Section	Max Station Spacing m	Min Number Stations	Modifiers
Story1	C9	66	Column	3.9	COL80X90	COL80X90		3	No
Story1	C10	67	Column	3.9	COL80X90	COL80X90		3	No
Story1	C11	68	Column	3.9	COL80X90	COL80X90		3	No
Story1	C12	69	Column	3.9	COL65X70	COL65X70		3	No
Story1	C13	70	Column	3.9	COL65X70	COL65X70		3	No
Story1	C14	71	Column	3.9	COL65X70	COL65X70		3	No
Story1	C15	72	Column	3.9	COL65X70	COL65X70		3	No
Story1	C16	73	Column	3.9	COL65X70	COL65X70		3	No
Story4	B2	58	Beam	1.6	VIG50X50	VIG50X50	0.5		Yes
Story4	B3	169	Beam	5.59397	VIG50X50	VIG50X50	0.5		No
Story4	B4	174	Beam	7.42462	VIG50X50	VIG50X50	0.5		No
Story4	B5	177	Beam	7.52857	VIG50X50	VIG50X50	0.5		No
Story4	B6	181	Beam	7.55418	VIG50X50	VIG50X50	0.5		No
Story4	B7	205	Beam	2.92359	VIG50X50	VIG50X50	0.5		Yes
Story4	B9	207	Beam	2.26718	VIG15X50	VIG15X50	0.5		Yes
Story4	B29	269	Beam	2.30579	VIG30X50	VIG30X50	0.5		Yes
Story4	B34	271	Beam	1.66263	VIG30X50	VIG30X50	0.5		Yes
Story4	B39	272	Beam	4.28673	VIG30X50	VIG30X50	0.5		Yes
Story4	B33	273	Beam	7.52547	VIG30X50	VIG30X50	0.5		Yes
Story4	B35	274	Beam	0.0159	COL60X70	COL60X70	0.5		No
Story4	B40	275	Beam	7.42106	VIG30X50	VIG30X50	0.5		No
Story4	B17	276	Beam	7.29209	VIG30X50	VIG30X50	0.5		Yes
Story4	B44	279	Beam	2.44902	VIG30X50	VIG30X50	0.5		Yes
Story4	B45	281	Beam	7.66327	VIG40X50	VIG40X50	0.5		No
Story4	B46	296	Beam	7.34313	VIG40X50	VIG40X50	0.5		No
Story4	B51	280	Beam	1.63795	VIG15X50	VIG15X50	0.5		Yes
Story4	B52	282	Beam	1.63065	VIG50X50	VIG50X50	0.5		Yes
Story4	B13	283	Beam	4.95138	VIG50X50	VIG50X50	0.5		No
Story4	B8	284	Beam	7.48708	VIG40X50	VIG40X50	0.5		No
Story4	B10	299	Beam	7.09447	VIG40X50	VIG40X50	0.5		Yes
Story4	B47	285	Beam	7.14564	VIG40X50	VIG40X50	0.5		No
Story4	B48	301	Beam	6.85891	VIG40X50	VIG40X50	0.5		Yes
Story4	B50	286	Beam	7.46799	VIG50X50	VIG50X50	0.5		No
Story4	B37	287	Beam	6.28187	VIG40X50	VIG40X50	0.5		No
Story4	B53	303	Beam	7.0451	VIG40X50	VIG40X50	0.5		Yes
Story4	B54	288	Beam	7.52503	VIG50X50	VIG50X50	0.5		No
Story4	B42	291	Beam	7.51691	VIG50X50	VIG50X50	0.5		No
Story4	B56	290	Beam	4.90852	VIG40X50	VIG40X50	0.5		No
Story4	B57	305	Beam	6.92813	VIG40X50	VIG40X50	0.5		No
Story4	B30	292	Beam	2.63198	VIG50X50	VIG50X50	0.5		Yes
Story4	B38	293	Beam	4.40562	VIG15X50	VIG15X50	0.5		No
Story4	B58	349	Beam	6.46737	VIG15X50	VIG15X50	0.5		No
Story4	B26	4	Beam	2.21123	VIG15X50	VIG15X50	0.5		Yes
Story4	B61	295	Beam	1.6534	VIG15X50	VIG15X50	0.5		Yes
Story4	B74	183	Beam	6.06114	VIG40X50	VIG40X50	0.5		Yes
Story4	B88	297	Beam	2.00533	VIG40X50	VIG40X50	0.5		Yes
Story4	B90	298	Beam	2.01382	VIG40X50	VIG40X50	0.5		Yes
Story4	B96	300	Beam	1.99344	VIG40X50	VIG40X50	0.5		Yes
Story4	B98	302	Beam	2.01096	VIG40X50	VIG40X50	0.5		Yes
Story4	B100	304	Beam	2.00337	VIG40X50	VIG40X50	0.5		Yes
Story4	B106	307	Beam	2.00287	VIG15X50	VIG15X50	0.5		Yes
Story4	B43	309	Beam	1.59172	VIG15X50	VIG15X50	0.5		No
Story4	B73	310	Beam	5.77013	VIG15X50	VIG15X50	0.5		No
Story4	B75	311	Beam	7.41195	VIG15X50	VIG15X50	0.5		No

Story	Label	Unique Name	Design Type	Length m	Analysis Section	Design Section	Max Station Spacing m	Min Number Stations	Modifiers
Story4	B76	312	Beam	7.5341	VIG15X50	VIG15X50	0.5		No
Story4	B77	313	Beam	7.55713	VIG15X50	VIG15X50	0.5		No
Story4	B92	315	Beam	2.50107	VIG40X50	VIG40X50	0.5		Yes
Story4	B93	316	Beam	1.67307	VIG15X50	VIG15X50	0.5		Yes
Story4	B97	318	Beam	2.50478	VIG40X50	VIG40X50	0.5		Yes
Story4	B102	320	Beam	4.0665	VIG15X50	VIG15X50	0.5		Yes
Story4	B104	322	Beam	2.49737	VIG40X50	VIG40X50	0.5		Yes
Story4	B109	325	Beam	2.47968	VIG40X50	VIG40X50	0.5		Yes
Story4	B112	326	Beam	7.42779	VIG15X50	VIG15X50	0.5		No
Story4	B114	328	Beam	2.46171	VIG15X50	VIG15X50	0.5		Yes
Story4	B81	333	Beam	1.75098	VIG15X50	VIG15X50	0.5		No
Story4	B82	334	Beam	7.34409	VIG15X50	VIG15X50	0.5		Yes
Story4	B99	338	Beam	1.62168	VIG15X50	VIG15X50	0.5		Yes
Story4	B107	339	Beam	5.14054	VIG15X50	VIG15X50	0.5		No
Story4	B110	340	Beam	7.45374	VIG15X50	VIG15X50	0.5		No
Story4	B115	341	Beam	7.53399	VIG15X50	VIG15X50	0.5		No
Story4	B118	343	Beam	2.50139	VIG15X50	VIG15X50	0.5		Yes
Story4	B119	344	Beam	1.66736	VIG30X50	VIG30X50	0.5		Yes
Story4	B120	346	Beam	3.66879	VIG15X50	VIG15X50	0.5		Yes
Story4	B123	348	Beam	1.99094	VIG15X50	VIG15X50	0.5		Yes
Story4	B125	351	Beam	2.9714	VIG15X50	VIG15X50	0.5		Yes
Story4	B79	102	Beam	1.6609	VIG40X50	VIG40X50	0.5		Yes
Story4	B85	133	Beam	1.70747	VIG15X50	VIG15X50	0.5		Yes
Story4	B116	167	Beam	5.94588	VIG15X50	VIG15X50	0.5		No
Story4	B59	329	Beam	7.28904	VIG15X50	VIG15X50	0.5		Yes
Story4	B1	246	Beam	7.54238	VIG15X50	VIG15X50	0.5		No
Story3	B2	15	Beam	1.6	VIG50X50	VIG50X50	0.5		Yes
Story3	B3	16	Beam	5.59397	VIG50X50	VIG50X50	0.5		No
Story3	B4	18	Beam	7.42462	VIG50X50	VIG50X50	0.5		No
Story3	B5	19	Beam	7.52857	VIG50X50	VIG50X50	0.5		No
Story3	B6	21	Beam	7.55418	VIG50X50	VIG50X50	0.5		No
Story3	B7	25	Beam	2.92359	VIG50X50	VIG50X50	0.5		Yes
Story3	B9	26	Beam	2.26718	VIG15X50	VIG15X50	0.5		Yes
Story3	B11	27	Beam	1.7	VIG15X50	VIG15X50	0.5		Yes
Story3	B14	37	Beam	7.6029	VIG15X50	VIG15X50	0.5		No
Story3	B16	40	Beam	7.41491	VIG15X50	VIG15X50	0.5		No
Story3	B18	45	Beam	5.5915	VIG15X50	VIG15X50	0.5		No
Story3	B21	61	Beam	1.70073	VIG40X50	VIG40X50	0.5		Yes
Story3	B25	157	Beam	1.70095	VIG15X50	VIG15X50	0.5		Yes
Story3	B28	159	Beam	1.6929	VIG30X50	VIG30X50	0.5		Yes
Story3	B12	161	Beam	3.64263	VIG30X50	VIG30X50	0.5		Yes
Story3	B20	166	Beam	7.41621	VIG30X50	VIG30X50	0.5		No
Story3	B24	75	Beam	7.26846	VIG30X50	VIG30X50	0.5		Yes
Story3	B29	168	Beam	2.30579	VIG30X50	VIG30X50	0.5		Yes
Story3	B34	172	Beam	1.66263	VIG60X50	VIG60X50	0.5		Yes
Story3	B39	173	Beam	4.28673	VIG60X50	VIG60X50	0.5		Yes
Story3	B33	175	Beam	7.52547	VIG60X50	VIG60X50	0.5		No
Story3	B35	176	Beam	0.0159	COL80X80	COL80X80	0.5		No
Story3	B40	180	Beam	7.42106	VIG60X50	VIG60X50	0.5		No
Story3	B17	182	Beam	7.29209	VIG60X50	VIG60X50	0.5		Yes
Story3	B44	185	Beam	2.44902	VIG60X50	VIG60X50	0.5		Yes
Story3	B45	187	Beam	7.66327	VIG40X50	VIG40X50	0.5		No
Story3	B46	245	Beam	7.34313	VIG40X50	VIG40X50	0.5		No
Story3	B51	186	Beam	1.63795	VIG15X50	VIG15X50	0.5		Yes

Story	Label	Unique Name	Design Type	Length m	Analysis Section	Design Section	Max Station Spacing m	Min Number Stations	Modifiers
Story3	B52	189	Beam	1.63065	VIG60X50	VIG60X50	0.5		Yes
Story3	B13	190	Beam	4.95138	VIG60X50	VIG60X50	0.5		No
Story3	B8	191	Beam	7.48708	VIG40X50	VIG40X50	0.5		No
Story3	B10	249	Beam	7.09447	VIG40X50	VIG40X50	0.5		No
Story3	B47	193	Beam	7.14564	VIG40X50	VIG40X50	0.5		No
Story3	B48	252	Beam	6.85891	VIG40X50	VIG40X50	0.5		No
Story3	B50	195	Beam	7.46799	VIG60X50	VIG60X50	0.5		No
Story3	B37	196	Beam	6.28187	VIG40X50	VIG40X50	0.5		No
Story3	B53	255	Beam	7.0451	VIG40X50	VIG40X50	0.5		No
Story3	B54	198	Beam	7.52503	VIG60X50	VIG60X50	0.5		No
Story3	B55	199	Beam	0.00363	COL65X70	COL65X70	0.5		No
Story3	B42	202	Beam	7.51691	VIG60X50	VIG60X50	0.5		No
Story3	B56	200	Beam	4.90852	VIG40X50	VIG40X50	0.5		No
Story3	B57	258	Beam	6.92813	VIG40X50	VIG40X50	0.5		No
Story3	B30	203	Beam	2.63198	VIG60X50	VIG60X50	0.5		Yes
Story3	B38	204	Beam	4.40562	VIG15X50	VIG15X50	0.5		No
Story3	B58	261	Beam	6.46737	VIG15X50	VIG15X50	0.5		No
Story3	B26	206	Beam	2.21123	VIG15X50	VIG15X50	0.5		Yes
Story3	B61	208	Beam	1.6534	VIG15X50	VIG15X50	0.5		Yes
Story3	B65	230	Beam	0.00451	VIG30X50	VIG30X50	0.5		No
Story3	B74	400	Beam	6.06114	VIG40X50	VIG40X50	0.5		No
Story3	B88	247	Beam	2.00533	VIG40X50	VIG40X50	0.5		Yes
Story3	B90	248	Beam	2.01382	VIG40X50	VIG40X50	0.5		Yes
Story3	B96	251	Beam	1.99344	VIG40X50	VIG40X50	0.5		Yes
Story3	B98	254	Beam	2.01096	VIG40X50	VIG40X50	0.5		Yes
Story3	B100	257	Beam	2.00337	VIG40X50	VIG40X50	0.5		Yes
Story3	B106	264	Beam	2.00287	VIG15X50	VIG15X50	0.5		Yes
Story3	B43	188	Beam	1.59172	VIG15X50	VIG15X50	0.5		Yes
Story3	B73	192	Beam	5.77013	VIG15X50	VIG15X50	0.5		No
Story3	B75	194	Beam	7.41195	VIG15X50	VIG15X50	0.5		No
Story3	B76	197	Beam	7.5341	VIG15X50	VIG15X50	0.5		No
Story3	B77	201	Beam	7.55713	VIG15X50	VIG15X50	0.5		Yes
Story3	B91	232	Beam	4.75203	VIG40X50	VIG40X50	0.5		No
Story3	B92	233	Beam	2.50107	VIG40X50	VIG40X50	0.5		Yes
Story3	B93	234	Beam	1.67307	VIG30X50	VIG30X50	0.5		Yes
Story3	B97	237	Beam	2.50478	VIG40X50	VIG40X50	0.5		Yes
Story3	B102	240	Beam	4.0665	VIG30X50	VIG30X50	0.5		Yes
Story3	B104	242	Beam	2.49737	VIG40X50	VIG40X50	0.5		Yes
Story3	B109	250	Beam	2.47968	VIG40X50	VIG40X50	0.5		Yes
Story3	B112	259	Beam	7.42779	VIG30X50	VIG30X50	0.5		No
Story3	B114	262	Beam	2.46171	VIG30X50	VIG30X50	0.5		Yes
Story3	B117	267	Beam	5.63963	VIG30X50	VIG30X50	0.5		No
Story3	B81	76	Beam	1.75098	VIG15X50	VIG15X50	0.5		Yes
Story3	B82	110	Beam	7.34409	VIG15X50	VIG15X50	0.5		No
Story3	B118	52	Beam	2.50139	VIG15X50	VIG15X50	0.5		Yes
Story3	B79	399	Beam	1.6609	VIG40X50	VIG40X50	0.5		Yes
Story3	B85	55	Beam	1.70747	VIG15X50	VIG15X50	0.5		Yes
Story3	B116	74	Beam	5.94588	VIG15X50	VIG15X50	0.5		No
Story3	B122	50	Beam	4.75265	VIG15X50	VIG15X50	0.5		No
Story3	B127	77	Beam	1.63285	VIG30X50	VIG30X50	0.5		Yes
Story3	B128	78	Beam	3.69802	VIG30X50	VIG30X50	0.5		Yes
Story3	B15	9	Beam	0.00666	VIG30X50	VIG30X50	0.5		No
Story3	B84	105	Beam	1.6813	VIG40X50	VIG40X50	0.5		Yes
Story3	B87	109	Beam	1.68039	VIG40X50	VIG40X50	0.5		Yes

Story	Label	Unique Name	Design Type	Length m	Analysis Section	Design Section	Max Station Spacing m	Min Number Stations	Modifiers
Story3	B113	229	Beam	7.59173	VIG30X50	VIG30X50	0.5		No
Story3	B124	278	Beam	1.6609	VIG40X50	VIG40X50	0.5		Yes
Story3	B36	107	Beam	4.74375	VIG40X50	VIG40X50	0.5		Yes
Story3	B41	162	Beam	4.46609	VIG40X50	VIG40X50	0.5		Yes
Story3	B83	306	Beam	4.02257	VIG40X50	VIG40X50	0.5		Yes
Story3	B1	277	Beam	7.54238	VIG30X50	VIG30X50	0.5		Yes
Story2	B2	63	Beam	1.6	VIG50X50	VIG50X50	0.5		Yes
Story2	B3	79	Beam	5.59397	VIG50X50	VIG50X50	0.5		No
Story2	B4	80	Beam	7.42462	VIG50X50	VIG50X50	0.5		Yes
Story2	B5	81	Beam	7.52857	VIG50X50	VIG50X50	0.5		Yes
Story2	B6	82	Beam	7.55418	VIG50X50	VIG50X50	0.5		No
Story2	B7	83	Beam	2.92359	VIG50X50	VIG50X50	0.5		Yes
Story2	B9	84	Beam	2.26718	VIG15X50	VIG15X50	0.5		Yes
Story2	B11	85	Beam	1.7	VIG15X50	VIG15X50	0.5		Yes
Story2	B14	86	Beam	7.6029	VIG15X50	VIG15X50	0.5		No
Story2	B16	87	Beam	7.41491	VIG15X50	VIG15X50	0.5		No
Story2	B18	88	Beam	5.5915	VIG15X50	VIG15X50	0.5		Yes
Story2	B21	90	Beam	1.70073	VIG40X50	VIG40X50	0.5		Yes
Story2	B25	91	Beam	1.70095	VIG15X50	VIG15X50	0.5		Yes
Story2	B28	92	Beam	1.6929	VIG50X50	VIG50X50	0.5		Yes
Story2	B12	93	Beam	3.64263	VIG50X50	VIG50X50	0.5		No
Story2	B20	95	Beam	7.41621	VIG50X50	VIG50X50	0.5		No
Story2	B24	96	Beam	7.26846	VIG50X50	VIG50X50	0.5		Yes
Story2	B29	97	Beam	2.30579	VIG50X50	VIG50X50	0.5		Yes
Story2	B23	98	Beam	7.2531	VIG40X50	VIG40X50	0.5		No
Story2	B31	99	Beam	7.25404	VIG15X50	VIG15X50	0.5		No
Story2	B34	100	Beam	1.66263	VIG60X50	VIG60X50	0.5		Yes
Story2	B39	101	Beam	4.28673	VIG60X50	VIG60X50	0.5		Yes
Story2	B33	103	Beam	7.52547	VIG60X50	VIG60X50	0.5		No
Story2	B35	104	Beam	0.0159	COL80X90	COL80X90	0.5		No
Story2	B40	106	Beam	7.42106	VIG60X50	VIG60X50	0.5		No
Story2	B17	108	Beam	7.29209	VIG60X50	VIG60X50	0.5		No
Story2	B44	111	Beam	2.44902	VIG60X50	VIG60X50	0.5		Yes
Story2	B45	113	Beam	7.66327	VIG40X50	VIG40X50	0.5		Yes
Story2	B46	114	Beam	7.34313	VIG40X50	VIG40X50	0.5		No
Story2	B51	112	Beam	1.63795	VIG15X50	VIG15X50	0.5		Yes
Story2	B52	115	Beam	1.63065	VIG60X50	VIG60X50	0.5		Yes
Story2	B13	116	Beam	4.95138	VIG60X50	VIG60X50	0.5		No
Story2	B8	117	Beam	7.48708	VIG40X50	VIG40X50	0.5		No
Story2	B10	118	Beam	7.09447	VIG40X50	VIG40X50	0.5		No
Story2	B47	119	Beam	7.14564	VIG40X50	VIG40X50	0.5		No
Story2	B48	120	Beam	6.85891	VIG40X50	VIG40X50	0.5		No
Story2	B50	121	Beam	7.46799	VIG60X50	VIG60X50	0.5		No
Story2	B37	122	Beam	6.28187	VIG40X50	VIG40X50	0.5		No
Story2	B53	123	Beam	7.0451	VIG40X50	VIG40X50	0.5		No
Story2	B54	124	Beam	7.52503	VIG60X50	VIG60X50	0.5		No
Story2	B55	125	Beam	0.00363	COL65X70	COL65X70	0.5		No
Story2	B42	128	Beam	7.51691	VIG60X50	VIG60X50	0.5		No
Story2	B56	126	Beam	4.90852	VIG40X50	VIG40X50	0.5		No
Story2	B57	127	Beam	6.92813	VIG40X50	VIG40X50	0.5		No
Story2	B30	129	Beam	2.63198	VIG60X50	VIG60X50	0.5		Yes
Story2	B38	130	Beam	4.40562	VIG15X50	VIG15X50	0.5		Yes
Story2	B58	131	Beam	6.46737	VIG15X50	VIG15X50	0.5		Yes
Story2	B26	132	Beam	2.21123	VIG15X50	VIG15X50	0.5		Yes

Story	Label	Unique Name	Design Type	Length m	Analysis Section	Design Section	Max Station Spacing m	Min Number Stations	Modifiers
Story2	B61	134	Beam	1.6534	VIG15X50	VIG15X50	0.5		Yes
Story2	B63	178	Beam	7.24853	VIG40X50	VIG40X50	0.5		No
Story2	B65	265	Beam	0.00451	VIG50X50	VIG50X50	0.5		No
Story2	B70	235	Beam	6.96346	VIG40X50	VIG40X50	0.5		No
Story2	B72	398	Beam	6.50225	VIG40X50	VIG40X50	0.5		No
Story2	B74	413	Beam	6.06114	VIG40X50	VIG40X50	0.5		No
Story2	B81	7	Beam	1.75098	VIG15X50	VIG15X50	0.5		Yes
Story2	B82	22	Beam	7.34409	VIG15X50	VIG15X50	0.5		No
Story2	B79	401	Beam	1.6609	VIG40X50	VIG40X50	0.5		Yes
Story2	B85	46	Beam	1.70747	VIG15X50	VIG15X50	0.5		Yes
Story2	B116	48	Beam	5.94588	VIG15X50	VIG15X50	0.5		No
Story2	B127	89	Beam	1.63285	VIG15X50	VIG15X50	0.5		Yes
Story2	B15	5	Beam	0.00666	VIG50X50	VIG50X50	0.5		No
Story2	B84	94	Beam	1.6813	VIG40X50	VIG40X50	0.5		Yes
Story2	B87	231	Beam	1.68039	VIG40X50	VIG40X50	0.5		Yes
Story2	B113	260	Beam	7.59173	VIG50X50	VIG50X50	0.5		No
Story2	B124	308	Beam	1.6609	VIG40X50	VIG40X50	0.5		Yes
Story1	B4	156	Beam	7.42462	VIG40X50	VIG40X50	0.5		No
Story1	B5	158	Beam	7.52857	VIG40X50	VIG40X50	0.5		No
Story1	B6	263	Beam	7.55418	VIG40X50	VIG40X50	0.5		No
Story1	B28	28	Beam	1.6929	VIG30X50	VIG30X50	0.5		Yes
Story1	B20	20	Beam	7.41621	VIG30X50	VIG30X50	0.5		No
Story1	B31	31	Beam	7.25404	VIG15X50	VIG15X50	0.5		No
Story1	B34	34	Beam	1.66263	VIG50X50	VIG50X50	0.5		Yes
Story1	B39	36	Beam	4.28673	VIG50X50	VIG50X50	0.5		No
Story1	B33	33	Beam	7.52547	VIG50X50	VIG50X50	0.5		No
Story1	B35	35	Beam	0.0159	COL80X90	COL80X90	0.5		No
Story1	B40	39	Beam	7.42106	VIG50X50	VIG50X50	0.5		No
Story1	B17	13	Beam	7.29209	VIG50X50	VIG50X50	0.5		No
Story1	B44	43	Beam	2.44902	VIG50X50	VIG50X50	0.5		Yes
Story1	B52	47	Beam	1.63065	VIG40X50	VIG40X50	0.5		Yes
Story1	B13	30	Beam	4.95138	VIG40X50	VIG40X50	0.5		No
Story1	B8	239	Beam	7.48708	VIG40X50	VIG40X50	0.5		Yes
Story1	B10	238	Beam	7.09447	VIG40X50	VIG40X50	0.5		No
Story1	B47	323	Beam	7.14564	VIG40X50	VIG40X50	0.5		No
Story1	B48	236	Beam	6.85891	VIG40X50	VIG40X50	0.5		No
Story1	B50	51	Beam	7.46799	VIG40X50	VIG40X50	0.5		No
Story1	B37	414	Beam	6.28187	VIG40X50	VIG40X50	0.5		Yes
Story1	B54	53	Beam	7.52503	VIG40X50	VIG40X50	0.5		No
Story1	B55	54	Beam	0.00363	COL65X70	COL65X70	0.5		No
Story1	B42	17	Beam	7.51691	VIG40X50	VIG40X50	0.5		No
Story1	B56	41	Beam	4.90852	VIG40X50	VIG40X50	0.5		No
Story1	B30	56	Beam	2.63198	VIG40X50	VIG40X50	0.5		Yes
Story1	B38	57	Beam	4.40562	VIG15X50	VIG15X50	0.5		No
Story1	B66	163	Beam	7.49019	VIG30X50	VIG30X50	0.5		No
Story1	B67	164	Beam	7.4522	VIG30X50	VIG30X50	0.5		No
Story1	B68	165	Beam	7.2761	VIG30X50	VIG30X50	0.5		No
Story1	B49	44	Beam	4.64846	VIG15X50	VIG15X50	0.5		Yes
Story1	B60	1	Beam	3.64929	VIG30X50	VIG30X50	0.5		Yes
Story1	B63	38	Beam	7.24853	VIG40X50	VIG40X50	0.5		No
Story1	B64	49	Beam	7.59839	VIG30X50	VIG30X50	0.5		No
Story1	B65	59	Beam	0.00451	COL50X50	COL50X50	0.5		No
Story1	B70	155	Beam	6.96346	VIG40X50	VIG40X50	0.5		No
Story1	B72	170	Beam	6.50225	VIG40X50	VIG40X50	0.5		No

Story	Label	Unique Name	Design Type	Length m	Analysis Section	Design Section	Max Station Spacing m	Min Number Stations	Modifiers
Story1	B86	24	Beam	2.49267	VIG30X50	VIG30X50	0.5		Yes
Story1	B32	10	Beam	4.48827	VIG40X50	VIG40X50	0.5		No
Story1	B62	11	Beam	3.175	VIG40X50	VIG40X50	0.5		No
Story1	B69	12	Beam	1.64632	VIG30X50	VIG30X50	0.5		Yes
Story1	B71	14	Beam	4.67026	VIG30X50	VIG30X50	0.5		No
Story1	B94	6	Beam	5.94811	VIG15X50	VIG15X50	0.5		No
Story1	B19	184	Beam	7.04557	VIG40X50	VIG40X50	0.5		No
Story1	B78	244	Beam	2.44771	VIG40X50	VIG40X50	0.5		No
Story1	B80	253	Beam	2.79698	VIG40X50	VIG40X50	0.5		No
Story1	B89	256	Beam	2.79698	VIG40X50	VIG40X50	0.5		No
Story1	B111	294	Beam	2.30938	VIG40X50	VIG40X50	0.5		No
Story1	B121	314	Beam	2.4177	VIG40X50	VIG40X50	0.5		No
Story1	B130	321	Beam	2.02038	VIG40X50	VIG40X50	0.5		No
Story1	B135	332	Beam	2.42282	VIG30X50	VIG30X50	0.5		No
Story1	B136	317	Beam	4.8354	VIG40X50	VIG40X50	0.5		No
Story1	B137	241	Beam	4.89542	VIG40X50	VIG40X50	0.5		No
Story1	B138	270	Beam	4.61875	VIG40X50	VIG40X50	0.5		No
Story1	B139	324	Beam	4.04076	VIG40X50	VIG40X50	0.5		No
Story1	B140	330	Beam	4.84564	VIG30X50	VIG30X50	0.5		No

3.3 Shell Assignments

Table 3.3 - Shell Assignments - Summary

Story	Label	Unique Name	Section	Axis Angle deg	Pier
Story4	W5	51	Muro30		PW5
Story4	W6	52	Muro30		PW6
Story4	W7	53	Muro30		PW7
Story4	W8	54	Muro30		PW8
Story3	W1	29	Muro30		PW1
Story3	W2	30	Muro30		PW2
Story3	W3	32	Muro30		PW3
Story3	W4	34	Muro30		PW4
Story3	W5	35	Muro30		PW5
Story3	W6	36	Muro30		PW6
Story3	W7	37	Muro30		PW7
Story3	W8	38	Muro30		PW8
Story2	W1	39	Muro30		PW1
Story2	W2	40	Muro30		PW2
Story2	W3	41	Muro30		PW3
Story2	W4	42	Muro30		PW4
Story2	W5	43	Muro30		PW5
Story2	W6	44	Muro30		PW6
Story2	W7	45	Muro30		PW7
Story2	W8	46	Muro30		PW8
Story1	W1	3	Muro30		PW1
Story1	W2	10	Muro30		PW2
Story1	W3	14	Muro30		PW3
Story1	W4	18	Muro30		PW4
Story4	F8	2	CUBIERTA	175	
Story4	F12	20	CUBIERTA		
Story4	F13	9	CUBIERTA	85	
Story4	F3	21	CUBIERTA	175	

Story	Label	Unique Name	Section	Axis Angle deg	Pier
Story4	F14	22	CUBIERTA	167	
Story4	F15	23	CUBIERTA	167	
Story4	F16	24	PLAQUETASUP	167	
Story4	F4	19	CUBIERTA	172	
Story4	F9	5	CUBIERTA		
Story3	F8	11	PLAQUETASUP	85	
Story3	F1	12	PLAQUETASUP	85	
Story3	F10	15	PLAQUETASUP	90	
Story3	F11	16	PLAQUETASUP	82	
Story3	F12	17	PLAQUETASUP	90	
Story3	F13	13	PLAQUETASUP	90	
Story3	F19	31	PLAQUETASUP	82	
Story2	F5	1	PLAQUETASUP	82	
Story2	F7	7	PLAQUETASUP	77	
Story2	F8	8	PLAQUETASUP	85	
Story2	F20	33	PLAQUETASUP	90	
Story2	F21	6	PLAQUETASUP	90	
Story1	F17	4	PLAQUETASUP	85	

4 Loads

This chapter provides loading information as applied to the model.

4.1 Load Patterns

Table 4.1 - Load Patterns

Name	Type	Self Weight Multiplier	Auto Load
PP	Dead	1	
SCP	Superimposed Dead	0	
CV	Live	0	
SXESTAT	Seismic	0	User Coefficient
SYESTAT	Seismic	0	User Coefficient
CT	Other	0	
W	Wind	0	None
CVCUB	Live	0	

4.2 Auto Seismic Loading

User Coefficient Auto Seismic Load Calculation

This calculation presents the automatically generated lateral seismic loads for load pattern SXESTAT using the user input coefficients, as calculated by ETABS.

Direction and Eccentricity

Direction = X

Factors and Coefficients

Equivalent Lateral Forces

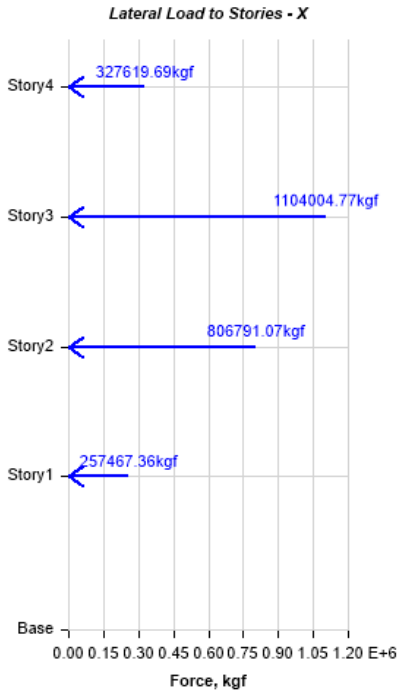
Base Shear Coefficient, C C = 1.1

Base Shear, V V = CW

Calculated Base Shear

Direction	Period Used (sec)	C	W (kgf)	V (kgf)
X	0	0	2268984.44	2495882.89

Applied Story Forces



Story	Elevation	X-Dir	Y-Dir
	m	kgf	kgf
Story4	13.8	327619.69	0
Story3	10.5	1104004.77	0
Story2	7.2	806791.07	0
Story1	3.9	257467.36	0
Base	0	0	0

User Coefficient Auto Seismic Load Calculation

This calculation presents the automatically generated lateral seismic loads for load pattern SYESTAT using the user input coefficients, as calculated by ETABS.

Direction and Eccentricity

Direction = Y

Factors and Coefficients

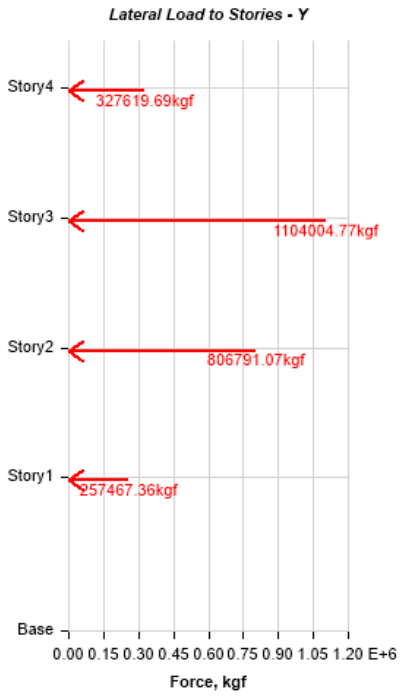
Equivalent Lateral Forces

Base Shear Coefficient, C	C = 1.1
Base Shear, V	V = CW

Calculated Base Shear

Direction	Period Used (sec)	C	W (kgf)	V (kgf)
Y	0	0	2268984.44	2495882.89

Applied Story Forces



Story	Elevation	X-Dir	Y-Dir
	m	kgf	kgf
Story4	13.8	0	327619.69
Story3	10.5	0	1104004.77
Story2	7.2	0	806791.07
Story1	3.9	0	257467.36
Base	0	0	0

4.3 Applied Loads

4.3.1 Area Loads

Table 4.4 - Shell Loads - Uniform

Story	Label	Unique Name	Load Pattern	Direction	Load kgf/m²
Story4	F8	2	SCP	Gravity	35
Story4	F12	20	SCP	Gravity	35
Story4	F13	9	SCP	Gravity	35
Story4	F3	21	SCP	Gravity	35
Story4	F14	22	SCP	Gravity	35
Story4	F15	23	SCP	Gravity	35
Story4	F16	24	SCP	Gravity	35
Story4	F4	19	SCP	Gravity	35
Story4	F9	5	SCP	Gravity	35
Story3	F8	11	SCP	Gravity	469
Story3	F1	12	SCP	Gravity	469
Story3	F10	15	SCP	Gravity	469
Story3	F11	16	SCP	Gravity	469
Story3	F12	17	SCP	Gravity	469
Story3	F13	13	SCP	Gravity	469
Story3	F19	31	SCP	Gravity	469
Story2	F5	1	SCP	Gravity	469
Story2	F7	7	SCP	Gravity	469
Story2	F8	8	SCP	Gravity	469
Story2	F20	33	SCP	Gravity	469
Story2	F21	6	SCP	Gravity	469
Story1	F17	4	SCP	Gravity	469
Story4	F8	2	CV	Gravity	50
Story4	F12	20	CV	Gravity	50
Story4	F13	9	CV	Gravity	50
Story4	F3	21	CV	Gravity	50
Story4	F14	22	CV	Gravity	50
Story4	F15	23	CV	Gravity	50
Story4	F16	24	CV	Gravity	50
Story4	F4	19	CV	Gravity	50
Story4	F9	5	CV	Gravity	50
Story3	F8	11	CV	Gravity	500
Story3	F1	12	CV	Gravity	500
Story3	F10	15	CV	Gravity	500
Story3	F11	16	CV	Gravity	500
Story3	F12	17	CV	Gravity	500
Story3	F13	13	CV	Gravity	500
Story3	F19	31	CV	Gravity	500
Story2	F5	1	CV	Gravity	500
Story2	F7	7	CV	Gravity	500
Story2	F8	8	CV	Gravity	500
Story2	F20	33	CV	Gravity	500

Story	Label	Unique Name	Load Pattern	Direction	Load kgf/m²
Story2	F21	6	CV	Gravity	500
Story1	F17	4	CV	Gravity	500

4.4 Load Cases

Table 4.5 - Load Cases - Summary

Name	Type
PESOPROPIO	Linear Static
SOBRECARGAIMP	Linear Static
VIVA	Linear Static
SISMOXESTAT	Linear Static
SISMOYESTAT	Linear Static
SISMOXMODAL	Response Spectrum
SISMOYMODAL	Response Spectrum
CT	Linear Static
W	Linear Static
CVCUB	Linear Static
~TorsionSISMOXMODAL	Linear Static
~TorsionSISMOYMODAL	Linear Static

4.5 Load Combinations

Table 4.6 - Load Combinations

Name	Load Case/Combo	Scale Factor	Type	Auto
SISMOXCOR	SISMOXMODAL	1	Linear Add	No
SISMOYCOR	SISMOYMODAL	1	Linear Add	No
SISMOXDIS	SISMOXCOR	0.264	Linear Add	No
SISMOYDIS	SISMOYCOR	0.264	Linear Add	No
SISMO X DINA	SISMOXCOR	1	Linear Add	No
SISMO X DINA	SISMOYCOR	0.3		No
SISMO Y DINA	SISMOXCOR	0.3	Linear Add	No
SISMO Y DINA	SISMOYCOR	1		No
DERIVA X EST	SISMOXESTAT	1	Linear Add	No
DERIVA X EST	SISMOYESTAT	0.3		No
DERIVA Y EST	SISMOXESTAT	0.3	Linear Add	No
DERIVA Y EST	SISMOYESTAT	1		No
SERV1	SOBRECARGAIMP	1	Linear Add	No
SERV1	PESOPROPIO	1		No
SERV2	SOBRECARGAIMP	1	Linear Add	No
SERV2	VIVA	1		No
SERV2	PESOPROPIO	1		No
SERV3	SOBRECARGAIMP	1	Linear Add	No
SERV3	SISMOXDIS	0.7		No
SERV3	PESOPROPIO	1		No
SERV4	SOBRECARGAIMP	1	Linear Add	No
SERV4	SISMOYDIS	0.7		No
SERV4	PESOPROPIO	1		No
SERV5	SOBRECARGAIMP	1	Linear Add	No

Name	Load Case/Combo	Scale Factor	Type	Auto
SERV5	VIVA	0.75		No
SERV5	SISMOXDIS	0.525		No
SERV5	PESOPROPIO	1		No
SERV6	SOBRECARGAIMP	1	Linear Add	No
SERV6	VIVA	0.75		No
SERV6	SISMOYDIS	0.525		No
SERV6	PESOPROPIO	1		No
SERV7	SOBRECARGAIMP	0.6	Linear Add	No
SERV7	PESOPROPIO	0.6		No
SERV8	SOBRECARGAIMP	0.6	Linear Add	No
SERV8	SISMOXDIS	0.7		No
SERV8	PESOPROPIO	0.6		No
SERV9	SOBRECARGAIMP	0.6	Linear Add	No
SERV9	SISMOYDIS	0.7		No
SERV9	PESOPROPIO	0.6		No
COMB1	SOBRECARGAIMP	1.4	Linear Add	No
COMB1	PESOPROPIO	1.4		No
COMB2	SOBRECARGAIMP	1.2	Linear Add	No
COMB2	VIVA	1.6		No
COMB2	PESOPROPIO	1.2		No
COMB2	CT	1.6		No
COMB2	CVCUB	0.5		No
COMB3	SOBRECARGAIMP	1.2	Linear Add	No
COMB3	VIVA	1		No
COMB3	PESOPROPIO	1.2		No
COMB3	CVCUB	1.6		No
COMB4	SOBRECARGAIMP	1.2	Linear Add	No
COMB4	VIVA	1		No
COMB4	SISMOXDIS	1		No
COMB4	SISMOYDIS	0.3		No
COMB4	PESOPROPIO	1.2		No
COMB4	CVCUB	1.6		No
COMB4	W	0.8		No
COMB5	SOBRECARGAIMP	1.2	Linear Add	No
COMB5	VIVA	1		No
COMB5	SISMOXDIS	0.3		No
COMB5	SISMOYDIS	1		No
COMB5	PESOPROPIO	1.2		No
COMB5	CVCUB	0.5		No
COMB5	W	1.6		No
COMB6	SOBRECARGAIMP	0.9	Linear Add	No
COMB6	SISMOXDIS	1		No
COMB6	SISMOYDIS	0.3		No
COMB6	PESOPROPIO	0.9		No
COMB6	CT	1.6		No
COMB7	SOBRECARGAIMP	0.9	Linear Add	No
COMB7	SISMOXDIS	0.3		No
COMB7	SISMOYDIS	1		No

Name	Load Case/Combo	Scale Factor	Type	Auto
COMB7	PESOPROPIO	0.9		No
COMB7	CT	1.6		No
COMB8	SOBRECARGAIMP	0.9	Linear Add	No
COMB8	PESOPROPIO	0.9		No
COMB8	W	1.6		No
COMB9	SOBRECARGAIMP	0.9	Linear Add	No
COMB9	SISMOXDIS	1		No
COMB9	SISMOYDIS	0.3		No
COMB9	PESOPROPIO	0.9		No
COMB10	SOBRECARGAIMP	0.9	Linear Add	No
COMB10	SISMOXDIS	0.3		No
COMB10	SISMOYDIS	1		No
COMB10	PESOPROPIO	0.9		No

5 Analysis Results

This chapter provides analysis results.

5.1 Structure Results

Table 5.1 - Base Reactions

Load Case/Combo	FX kgf	FY kgf	FZ kgf	MX kgf-m	MY kgf-m	MZ kgf-m	X m	Y m	Z m
PESOPROPIO	4265.74	-1843.35	1182072.87	15750658.8	-17692808.37	3500.86	0	0	0
SOBRECARGAIMP	7692.74	4583.54	1012405.83	12934682.3	-15045743.14	114184.33	0	0	0
VIVA	8230.41	4858.64	1086025.51	13896859.94	-16141964.83	121396.76	0	0	0
SISMOXESTAT	-125731.64	113395.45	0.0008597	-442194.3	-13682769.96	26016158.57	0	0	0
SISMOYESTAT	125639.03	-434664.1	0.001164	14887716.39	489952.5	-10262351.04	0	0	0
SISMOXMODAL Max	197270.92	176741.05	0.000544	4838858.56	9726854.5	20088143.78	0	0	0
SISMOYMODAL Max	147826.56	267016.72	0.001037	10103126.94	4537745.36	9125773.39	0	0	0
CT	0	0	0	0	0	0	0	0	0
W	0	0	0	0	0	0	0	0	0
CVCUB	0	0	0	0	0	0	0	0	0
SISMOXCOR Max	197270.92	176741.05	0.000544	4838858.56	9726854.5	20088143.78	0	0	0
SISMOXCOR Min	-197270.92	-176741.05	-0.000544	-4838858.56	-9726854.5	-20088143.78	0	0	0
SISMOYCOR Max	147826.56	267016.72	0.001037	10103126.94	4537745.36	9125773.39	0	0	0
SISMOYCOR Min	-147826.56	-267016.72	-0.001037	-10103126.94	-4537745.36	-9125773.39	0	0	0
SISMOXDIS Max	52079.52	46659.64	0.0001436	1277458.66	2567889.59	5303269.96	0	0	0
SISMOXDIS Min	-52079.52	-46659.64	-0.0001436	-1277458.66	-2567889.59	-5303269.96	0	0	0
SISMOYDIS Max	39026.21	70492.41	0.0002738	2667225.51	1197964.78	2409204.18	0	0	0
SISMOYDIS Min	-39026.21	-70492.41	-0.0002738	-2667225.51	-1197964.78	-2409204.18	0	0	0
SISMO X DINA Max	241618.89	256846.07	0.0008551	7869796.64	11088178.11	22825875.8	0	0	0
SISMO X DINA Min	-241618.89	-256846.07	-0.0008551	-7869796.64	-11088178.11	-22825875.8	0	0	0
SISMO Y DINA Max	207007.84	320039.04	0.0012	11554784.5	7455801.71	15152216.53	0	0	0
SISMO Y DINA Min	-207007.84	-320039.04	-0.0012	-11554784.5	-7455801.71	-15152216.53	0	0	0
DERIVA X EST	-88039.93	-17003.78	0.001209	4024120.62	-13535784.21	22937453.26	0	0	0
DERIVA Y EST	87919.54	-400645.46	0.001422	14755058.1	-3614878.49	-2457503.47	0	0	0
SERV1	11958.48	2740.19	2194478.7	28685341.1	-32738551.51	117685.19	0	0	0
SERV2	20188.88	7598.83	3280504.21	42582201.04	-48880516.34	239081.95	0	0	0
SERV3 Max	48414.14	35401.94	2194478.7	29579562.16	-30941028.8	3829974.16	0	0	0
SERV3 Min	-24497.19	-29921.56	2194478.7	27791120.04	-34536074.22	-3594603.78	0	0	0
SERV4 Max	39276.82	52084.88	2194478.7	30552398.96	-31899976.17	1804128.11	0	0	0
SERV4 Min	-15359.87	-46604.5	2194478.7	26818283.24	-33577126.85	-1568757.73	0	0	0
SERV5 Max	45473.03	30880.48	3008997.83	39778651.85	-43496883.1	2992949.49	0	0	0
SERV5 Min	-9210.47	-18112.14	3008997.83	38437320.26	-46193167.16	-2575483.97	0	0	0
SERV6 Max	38620.04	43392.69	3008997.83	40508279.45	-44216093.62	1473564.95	0	0	0
SERV6 Min	-2357.48	-30624.35	3008997.83	37707692.66	-45473956.64	-1056099.43	0	0	0
SERV7	7175.09	1644.11	1316687.22	17211204.66	-19643130.91	70611.11	0	0	0
SERV8 Max	43630.75	34305.86	1316687.22	18105425.72	-17845608.19	3782900.08	0	0	0
SERV8 Min	-29280.58	-31017.63	1316687.22	16316983.6	-21440653.62	-3641677.86	0	0	0
SERV9 Max	34493.43	50988.8	1316687.22	19078262.52	-18804555.56	1757054.04	0	0	0
SERV9 Min	-20143.26	-47700.58	1316687.22	15344146.8	-20481706.25	-1615831.81	0	0	0
COMB1	16741.87	3836.26	3072270.18	40159477.54	-45833972.11	164759.26	0	0	0
COMB2	27518.82	11062.05	4371015.25	56657385.22	-65113405.53	335457.05	0	0	0
COMB3	22580.58	8146.87	3719399.95	48319269.26	-55428226.64	262618.99	0	0	0
COMB4 Max	86367.97	75954.23	3719399.95	50396895.57	-52500947.62	6288650.2	0	0	0
COMB4 Min	-41206.81	-59660.49	3719399.95	46241642.95	-58355505.66	-5763412.22	0	0	0
COMB5 Max	77230.65	92637.18	3719399.95	51369732.37	-53459894.98	4262804.15	0	0	0
COMB5 Min	-32069.49	-76343.44	3719399.95	45268806.15	-57396558.29	-3737566.17	0	0	0
COMB6 Max	74550.01	70273.53	1975030.83	27894433.3	-26537417.34	6131947.88	0	0	0
COMB6 Min	-53024.76	-65341.19	1975030.83	23739180.68	-32391975.38	-5920114.54	0	0	0

Load Case/Combo	FX kgf	FY kgf	FZ kgf	MX kgf-m	MY kgf-m	MZ kgf-m	X m	Y m	Z m
COMB7 Max	65412.7	86956.48	1975030.83	28867270.1	-27496364.71	4106101.83	0	0	0
COMB7 Min	-43887.44	-82024.14	1975030.83	22766343.88	-31433028.01	-3894268.49	0	0	0
COMB8	10762.63	2466.17	1975030.83	25816806.99	-29464696.36	105916.67	0	0	0
COMB9 Max	74550.01	70273.53	1975030.83	27894433.3	-26537417.34	6131947.88	0	0	0
COMB9 Min	-53024.76	-65341.19	1975030.83	23739180.68	-32391975.38	-5920114.54	0	0	0
COMB10 Max	65412.7	86956.48	1975030.83	28867270.1	-27496364.71	4106101.83	0	0	0
COMB10 Min	-43887.44	-82024.14	1975030.83	22766343.88	-31433028.01	-3894268.49	0	0	0

Table 5.2 - Centers of Mass and Rigidity

Story	Diaphragm	Mass X kgf-s²/m	Mass Y kgf-s²/m	XCM m	YCM m	Cumulative X kgf-s²/m	Cumulative Y kgf-s²/m	XCCM m	YCCM m	XCR m	YCR m
Story1	D1	42156.1	42156.1	14.3511	10.5884	42156.1	42156.1	14.3511	10.5884		
Story2	D2	71058.11	71058.11	15.1436	13.0826	71058.11	71058.11	15.1436	13.0826	15.6532	15.3491
Story3	D3	67375.83	67375.83	14.9823	15.4229	67375.83	67375.83	14.9823	15.4229	15.5022	14.9898
Story4	D4	17647.05	17647.05	15.9425	16.6549	17647.05	17647.05	15.9425	16.6549	15.9153	17.5145

Table 5.3 - Diaphragm Center of Mass Displacements

Story	Diaphragm	Load Case/Combo	UX m	UY m	RZ rad	Point	X m	Y m	Z m
Story4	D4	PESOPROPIO	9.8E-05	-0.000169	5E-06	61	15.9425	16.6549	13.8
Story4	D4	SOBRECARGAIMP	0.000101	-0.000358	9E-06	61	15.9425	16.6549	13.8
Story4	D4	VIVA	0.00011	-0.000383	9E-06	61	15.9425	16.6549	13.8
Story4	D4	SISMOXESTAT	0.022282	0.002792	1.2E-05	61	15.9425	16.6549	13.8
Story4	D4	SISMOYESTAT	0.002775	0.028167	-4.9E-05	61	15.9425	16.6549	13.8
Story4	D4	SISMOXMODAL Max	0.015903	0.008604	0.000154	61	15.9425	16.6549	13.8
Story4	D4	SISMOYMODAL Max	0.008678	0.020833	0.000154	61	15.9425	16.6549	13.8
Story4	D4	CT	0	0	0	61	15.9425	16.6549	13.8
Story4	D4	W	0	0	0	61	15.9425	16.6549	13.8
Story4	D4	CVCUB	0	0	0	61	15.9425	16.6549	13.8
Story4	D4	SISMOXCOR Max	0.015903	0.008604	0.000154	61	15.9425	16.6549	13.8
Story4	D4	SISMOXCOR Min	-0.015903	-0.008604	-0.000154	61	15.9425	16.6549	13.8
Story4	D4	SISMOYCOR Max	0.008678	0.020833	0.000154	61	15.9425	16.6549	13.8
Story4	D4	SISMOYCOR Min	-0.008678	-0.020833	-0.000154	61	15.9425	16.6549	13.8
Story4	D4	SISMOXDIS Max	0.004198	0.002271	4.1E-05	61	15.9425	16.6549	13.8
Story4	D4	SISMOXDIS Min	-0.004198	-0.002271	-4.1E-05	61	15.9425	16.6549	13.8
Story4	D4	SISMOYDIS Max	0.002291	0.0055	4.1E-05	61	15.9425	16.6549	13.8
Story4	D4	SISMOYDIS Min	-0.002291	-0.0055	-4.1E-05	61	15.9425	16.6549	13.8
Story4	D4	SISMO X DINA Max	0.018506	0.014854	0.0002	61	15.9425	16.6549	13.8
Story4	D4	SISMO X DINA Min	-0.018506	-0.014854	-0.0002	61	15.9425	16.6549	13.8
Story4	D4	SISMO Y DINA Max	0.013448	0.023414	0.0002	61	15.9425	16.6549	13.8
Story4	D4	SISMO Y DINA Min	-0.013448	-0.023414	-0.0002	61	15.9425	16.6549	13.8
Story4	D4	DERIVA X EST	0.023114	0.011242	-2E-06	61	15.9425	16.6549	13.8
Story4	D4	DERIVA Y EST	0.009459	0.029004	-4.5E-05	61	15.9425	16.6549	13.8
Story4	D4	SERV1	0.000199	-0.000527	1.4E-05	61	15.9425	16.6549	13.8
Story4	D4	SERV2	0.00031	-0.00091	2.3E-05	61	15.9425	16.6549	13.8
Story4	D4	SERV3 Max	0.003138	0.001063	4.2E-05	61	15.9425	16.6549	13.8
Story4	D4	SERV3 Min	-0.00274	-0.002117	-1.4E-05	61	15.9425	16.6549	13.8
Story4	D4	SERV4 Max	0.001803	0.003323	4.2E-05	61	15.9425	16.6549	13.8
Story4	D4	SERV4 Min	-0.001404	-0.004377	-1.4E-05	61	15.9425	16.6549	13.8
Story4	D4	SERV5 Max	0.002486	0.000378	4.2E-05	61	15.9425	16.6549	13.8
Story4	D4	SERV5 Min	-0.001922	-0.002007	-1.791E-07	61	15.9425	16.6549	13.8
D4	SERV6 Max	0.001485	0.002073	4.2E-05	61	15.9425	16.6549	13.8	

INDICE DE SOBRE ESFUERZO CENTRO COMERCIAL CUBA - SEGUNDA PROPUESTA

TABLE: Concrete Joint Summary - ACI 318-11

Story	Label	Unique Name	Design Section	Status	B/C Major Combo	B/C Major Ratio	B/C Minor Combo	B/C Minor Ratio	JS Major Combo	JS Major Ratio	JS Minor Combo	JS Minor Ratio	Warnings	Errors
Story4	C5	350	COL50X50	No Message	COMB7	0.627	COMB4	0.987	COMB4	0.548	COMB4	0.987	No Message	No Message
Story4	C7	352	COL70X70	No Message	COMB6	0.377	COMB4	0.965	COMB4	0.207	COMB4	0.827	No Message	No Message
Story4	C8	353	COL60X70	No Message	COMB6	0.585	COMB4	0.947	COMB4	0.46	COMB4	0.865	No Message	No Message
Story4	C10	355	COL60X70	No Message	COMB7	0.487	COMB4	0.869	COMB4	0.389	COMB4	0.716	No Message	No Message
Story4	C11	356	COL60X70	No Message	COMB7	0.52	COMB4	0.941	COMB4	0.412	COMB4	0.792	No Message	No Message
Story4	C12	361	COL60X80	No Message	COMB4	0.985	COMB4	0.953	COMB4	0.944	COMB4	0.815	No Message	No Message
Story4	C13	362	COL60X80	No Message	COMB4	0.968	COMB4	0.867	COMB4	0.892	COMB4	0.849	No Message	No Message
Story4	C14	363	COL60X80	No Message	COMB4	0.923	COMB4	0.798	COMB4	0.768	COMB4	0.763	No Message	No Message
Story4	C15	364	COL60X80	No Message	COMB4	0.883	COMB4	0.698	COMB4	0.705	COMB4	0.801	No Message	No Message
Story4	C16	365	COL60X80	No Message	COMB4	0.942	COMB4	0.683	COMB4	0.813	COMB4	0.598	No Message	No Message
Story4	C17	378	COL40X40	No Message	COMB4	0.916	COMB4	0.896	COMB4	0.976	COMB4	0.672	No Message	No Message
Story4	C18	390	COL40X40	No Message	COMB4	0.977	COMB4	0.91	COMB4	0.867	COMB4	0.709	No Message	No Message
Story4	C19	392	COL40X40	No Message	COMB4	0.932	COMB4	0.862	COMB4	0.854	COMB4	0.814	No Message	No Message
Story4	C20	394	COL60X70	No Message	COMB4	0.992	COMB4	0.955	COMB4	0.795	COMB4	0.837	No Message	No Message
Story4	C21	396	COL50X60	No Message	COMB4	0.965	COMB4	0.792	COMB4	0.823	COMB4	0.924	No Message	No Message
Story3	C1	209	COL40X40	No Message	COMB7	0.727	COMB4	0.832	COMB4	0.166	COMB4	0.883	No Message	No Message
Story3	C4	212	COL40X40	No Message	COMB4	0.923	COMB4	0.773	COMB4	0.644	COMB4	0.978	No Message	No Message
Story3	C5	213	COL50X50	No Message	COMB7	0.588	COMB4	0.815	COMB4	0.929	COMB4	0.925	No Message	No Message
Story3	C7	214	COL80X80	No Message	COMB6	0.755	COMB6	0.592	COMB6	0.805	COMB4	0.801	No Message	No Message
Story3	C10	217	COL80X80	No Message	COMB7	0.736	COMB7	0.688	COMB7	0.88	COMB4	0.775	No Message	No Message
Story3	C11	218	COL80X80	No Message	COMB6	0.748	COMB6	0.63	COMB7	0.849	COMB4	0.914	No Message	No Message
Story3	C12	219	COL65X70	No Message	COMB6	0.982	COMB7	0.701	COMB4	0.942	COMB4	0.819	No Message	No Message
Story3	C13	220	COL65X70	No Message	COMB6	0.972	COMB6	0.705	COMB4	0.974	COMB4	0.837	No Message	No Message
Story3	C14	221	COL65X70	No Message	COMB6	0.968	COMB7	0.757	COMB4	0.931	COMB4	0.578	No Message	No Message
Story3	C16	223	COL65X70	No Message	COMB6	0.948	COMB6	0.937	COMB4	0.856	COMB4	0.867	No Message	No Message
Story3	C17	224	COL50X60	No Message	COMB4	0.953	COMB4	0.862	COMB4	0.874	COMB4	0.837	No Message	No Message
Story3	C18	225	COL50X60	No Message	COMB4	0.974	COMB4	0.948	COMB4	0.792	COMB4	0.913	No Message	No Message
Story3	C19	226	COL50X60	No Message	COMB4	0.968	COMB4	0.958	COMB4	0.862	COMB4	0.845	No Message	No Message
Story3	C20	227	COL50X60	No Message	COMB4	0.867	COMB4	0.962	COMB4	0.921	COMB4	0.712	No Message	No Message
Story3	C21	228	COL50X60	No Message	COMB4	0.884	COMB4	0.819	COMB4	0.753	COMB4	0.735	No Message	No Message
Story2	C1	135	COL50X50	No Message	COMB4	0.921	COMB4	0.884	COMB4	0.803	COMB4	0.816	No Message	No Message
Story2	C2	136	COL50X50	No Message	COMB4	0.952	COMB4	0.924	COMB4	0.829	COMB4	0.782	No Message	No Message
Story2	C3	137	COL50X50	No Message	COMB4	0.976	COMB4	0.835	COMB4	0.942	COMB4	0.819	No Message	No Message
Story2	C5	139	COL50X50	No Message	COMB4	0.969	COMB4	0.698	COMB4	0.695	COMB4	0.976	No Message	No Message
Story2	C7	140	COL80X90	No Message	COMB6	0.535	COMB6	0.391	COMB4	0.693	COMB4	0.712	No Message	No Message
Story2	C8	141	COL80X90	No Message	COMB6	0.515	COMB6	0.366	COMB4	0.748	COMB4	0.727	No Message	No Message
Story2	C10	143	COL80X90	No Message	COMB7	0.501	COMB7	0.407	COMB4	0.739	COMB4	0.8	No Message	No Message
Story2	C11	144	COL80X90	No Message	COMB6	0.529	COMB6	0.441	COMB4	0.736	COMB4	0.812	No Message	No Message
Story2	C12	145	COL65X70	No Message	COMB7	0.919	COMB7	0.685	COMB4	0.887	COMB4	0.746	No Message	No Message
Story2	C13	146	COL65X70	No Message	COMB6	0.897	COMB6	0.663	COMB4	0.957	COMB4	0.817	No Message	No Message
Story2	C14	147	COL65X70	No Message	COMB6	0.847	COMB6	0.702	COMB4	0.961	COMB4	0.905	No Message	No Message
Story2	C16	149	COL65X70	No Message	COMB6	0.869	COMB6	0.889	COMB4	0.831	COMB4	0.812	No Message	No Message
Story2	C17	150	COL60X70	No Message	COMB4	0.819	COMB6	0.881	COMB4	0.839	COMB4	0.935	No Message	No Message
Story2	C18	151	COL60X70	No Message	COMB4	0.847	COMB6	0.62	COMB4	0.933	COMB4	0.901	No Message	No Message
Story2	C19	152	COL60X70	No Message	COMB4	0.921	COMB7	0.613	COMB4	0.907	COMB4	0.826	No Message	No Message
Story2	C20	153	COL60X70	No Message	COMB6	0.863	COMB6	0.699	COMB4	0.825	COMB4	0.849	No Message	No Message
Story2	C21	154	COL60X70	No Message	COMB4	0.798	COMB4	0.972	COMB4	0.691	COMB4	0.726	No Message	No Message
Story1	C1	8	COL50X50	No Message	COMB7	0.346	COMB7	0.978	COMB4	0.425	COMB4	0.713	No Message	No Message
Story1	C2	32	COL50X50	No Message	COMB6	0.127	COMB7	0.843	COMB4	0.137	COMB4	0.698	No Message	No Message
Story1	C4	60	COL50X50	No Message	COMB7	0.566	COMB7	0.709	COMB4	0.924	COMB4	0.957	No Message	No Message
Story1	C5	62	COL50X50	No Message	COMB6	0.439	COMB6	0.898	COMB4	0.64	COMB4	0.861	No Message	No Message
Story1	C7	64	COL80X90	No Message	COMB6	0.409	COMB6	0.346	COMB4	0.725	COMB4	0.72	No Message	No Message
Story1	C8	65	COL80X90	No Message	COMB6	0.469	COMB6	0.317	COMB4	0.847	COMB4	0.751	No Message	No Message
Story1	C10	67	COL80X90	No Message	COMB7	0.375	COMB7	0.339	COMB4	0.771	COMB4	0.813	No Message	No Message
Story1	C11	68	COL80X90	No Message	COMB6	0.403	COMB6	0.371	COMB4	0.767	COMB4	0.826	No Message	No Message
Story1	C12	69	COL65X70	No Message	COMB7	0.682	COMB7	0.639	COMB4	0.812	COMB4	0.873	No Message	No Message
Story1	C13	70	COL65X70	No Message	COMB6	0.674	COMB6	0.608	COMB4	0.766	COMB4	0.912	No Message	No Message

Story1	C14	71	COL65X70	No Message	COMB6	0.634	COMB6	0.631	COMB4	0.813	COMB4	0.815	No Message	No Message
Story1	C16	73	COL65X70	No Message	COMB6	0.816	COMB6	0.789	COMB4	0.698	COMB4	0.825	No Message	No Message