



CFS Engineering Group, Inc.
Structural Engineers

**Casa Ohad
6200 SW 123rd Terrace
Pinecrest, FL**

CFS Project Number 23011.00

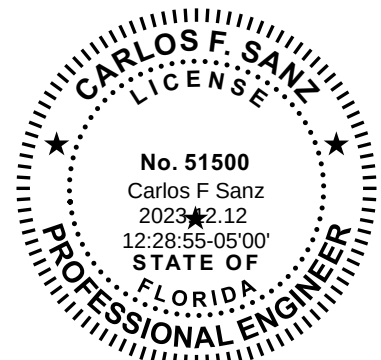
Structural Calculations

Prepared by

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December 12, 2023

This item has been digitally signed and sealed
by Carlos F. Sanz, PE, on December 12, 2023.
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PE – 51500



CFS Engineering Group, Inc.
Structural Engineers

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**Structural Calculations
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Design Criteria

Codes
Design Loads



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Design Criteria

Codes

- Florida Building Code 7th Edition (2020), including HVHZ provisions
- ASCE 7-16 Standard, Minimum Design Loads and Associated Criteria for Buildings and Other Structures
- ACI 318-14 Building Code Requirements for Structural Concrete
- TMS 402 Building Code Requirements for Masonry Structures
- AISC 360-16, Specifications for Structural Steel Buildings, 15th Edition



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Design Loads

Live Loads

- First and Second Floors: 40 psf
- Stairs: 40 psf
- Balconies and Terraces: 60 psf
- Roofs: 30 psf

Dead Loads

- Partitions: 15 psf
- Flooring: 15 psf
- Ceiling & Mechanical: 15 psf
- Roofing: 10 psf
- Self-weight of Slabs and Framing Members

Wind Loads

- Based on ASCE 7-16
- Exposure: C
- Basic Wind Speed: 175 mph
- Risk Category: II
- Mean Roof Height: 27'-0" above grade level
- Enclosed Building

MecaWind v2448

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Calculations Prepared by:

CFS Engineering Group, Inc.
185 NW 108th Street
Miami Shores, FL, 33168
Date: Dec 05, 2023
Designer: Carlos F. Sanz, PE

Calculations Prepared For:

Client: FAO Architecture
Project #: 23011.00
Location: Pinecrest, FL
Description: Casa Ohad MWFRS Analysis

File Location: C:\Users\CarlosSanz\OneDrive - Carlos Sanz\Documents\
CFS Engineering Group\Projects\23011.00 - Casa Ohad\Calcs\Wind\Casa Ohad MWFRS Analysis.wnd

General:

Wind Load Standard	= ASCE 7-16	Basic Wind Speed	= 175.0 mph
Exposure Classification	= C	Risk Category	= II
Structure Type	= Building	Design Basis for Wind Pressures	= LRFD
MWFRS Analysis Method	= Ch 27 Pt 1	C&C Analysis Method	= Ch 30 Pt 1
Dynamic Type of Structure	= Rigid	Show Advanced Options	= True
Reset Advanced Options to Default Values	= Defaults	Simple Diaphragm Building	= False
Show Base Reactions in Output	= None	Altitude above Sea Level	= 0.000 ft
Base Elevation Of Structure	= 0.000 ft	MWFRS Pressure Elevations	= Manual
Topographic Effects	= None	Override Directionality Factor K_d	= False
Override the Gust Factor G	= False		

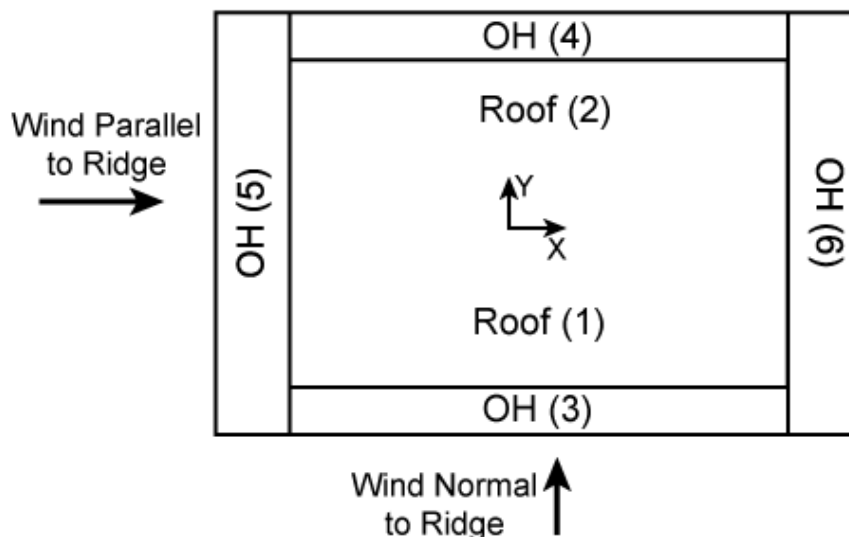
Building:

Roof = Roof Type	= Flat	Encl = Enclosure Classification	= Enclosed
Help = Help on Building Roof Type	= Help	RfHt = Roof Height	= 27.000 ft
W = Building Width	= 42.167 ft	L = Building Length	= 151.500 ft
OH = Type of Overhang	= None	Par = Parapet	= Solid
P _{ht} = Parapet Height	= 1.5 ft	HT _{over} = Override Mean Roof Height	= False
Ht _{man} = Mean Roof Height	= 27.000 ft	RA _{over} = Override Roof Area	= False

Exposure Constants [Tbl 26.11-1]:

α = 3-s Gust-speed exponent	= 9.500	Z_g = Nominal Ht of Boundary Layer	= 900.000 ft
$\hat{\alpha}$ = Reciprocal of α	= 0.105	b = 3 sec gust speed factor	= 1.000
α_m = Mean hourly Wind-Speed Exponent	= 0.154	b_m = Mean hourly Windspeed Exponent	= 0.650
c = Turbulence Intensity Factor	= 0.200	ϵ = Integral Length Scale Exponent	= 0.2000

Main Wind Force Resisting System (MWFRS) Wind Calculations per Ch 27 Pt1



h	= Mean structure height	= 27.000 ft
K_h	= $2.01 \cdot (h/Z_g)^{2/\alpha}$ [Tbl 26.10-1]	= 0.961
K_{zt}	= Topographic: $(1+K_1 \cdot K_2 \cdot K_3)^{1/2}$ [Eq 26.8-1]	= 1.000
K_d	= Wind Directionality Factor per Tbl 26.6-1	= 0.85
+GC _{pi}	= Enclosed Positive Internal Pressure Tbl 26.13-1	= +0.18
-GC _{pi}	= Enclosed Negative Internal Pressure Tbl 26.13-1	= -0.18
LF	= Load Factor based upon STRENGTH Design	= 1.00
K_e	= Ground Elev Factor [Tbl 26.9-1]	= 1.000

Q_h	=	$0.00256 \cdot K_h \cdot K_{zt} \cdot K_d \cdot K_e \cdot V^2 \cdot LF$ [Eq 26.10-1]	=	64.02 psf
RA	=	Roof Area	=	6388.30 ft ²
Q_h	=	$0.00256 \cdot K_h \cdot K_{zt} \cdot K_d \cdot K_e \cdot V^2 \cdot LF$ [Eq 26.10-1]	=	64.02 psf
Q_p	=	$0.00256 \cdot K_z \cdot K_{zt} \cdot K_d \cdot K_e \cdot V^2 \cdot LF$ [Eq 26.10-1]	=	64.75 psf
Q_{in}	=	Negative Internal Pressure: $q_h \cdot LF$	=	64.02 psf
Q_{ip}	=	Positive Internal Pressure: $q_h \cdot LF$	=	64.02 psf

MWFRS Wind Loads [Normal to Ridge]

h	=	Mean Roof Height Of Building	=	27.000 ft
hp	=	Height To the top Of the Parapet	=	28.500 ft
RHt	=	Ridge Height Of Roof	=	27.000 ft
B	=	Horizontal Dimension Of Building Normal To Wind Direction	=	151.500 ft
L	=	Horizontal Dimension Of building Parallel To Wind Direction	=	42.167 ft
L/B	=	Ratio Of L/B used For Cp determination	=	0.278
h/L	=	Ratio Of h/L used For Cp determination	=	0.640
Slope	=	Slope Of Roof	=	0.0 Deg

Gust Factor Calculation for Wind: [Normal to Ridge]

Gust Factor Category I Rigid Structures - Simplified Method

G_1	=	Simplified: For Rigid Structures can use 0.85	=	0.85
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Gust Factor Category II Rigid Structures - Complete Analysis

Z_m	=	Equiv Struc Height: $\text{Max}(0.6 \cdot h, Z_{min})$	=	16.200 ft
I_{zm}	=	Turbulence Intensity: $c \cdot (33/Z_m)^{1/6}$ [Eq 26.11-1]	=	0.225
L_{zm}	=	Turbulence Integral Length Scale: $l \cdot (Z_m/33)^6$ [Eq 26.11-9]	=	433.681 ft
B	=	Building Width Width Normal to Wind Direction	=	151.500 ft
Q	=	$1/(1+0.63 \cdot [(B+h)/L_{zm}]^{0.63})$ [Eq 26.11-8]	=	0.857
G_2	=	Detailed: $0.925 \cdot [(1+1.7 \cdot g_q \cdot I_{zm} \cdot Q) / (1+1.7 \cdot g_v \cdot I_{zm})]$ [Eq 26.11-6]	=	0.850

Gust Factor Used in Analysis

G	=	Gust Factor: $\text{Min}(G_1, G_2)$	=	0.850
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$C_{p_{ww}}$	=	Windward Wall Coefficient (All L/B Values)	=	0.800
$C_{p_{lw}}$	=	Leeward Wall Coefficient using L/B	=	-0.500
$C_{p_{sw}}$	=	Side Wall Coefficient (All L/B values)	=	-0.700
$GC_{p_{n_{ww}}}$	=	Parapet Combined Net Pressure Coefficient (Windward Parapet)	=	1.500
$GC_{p_{n_{lw}}}$	=	Parapet Combined Net Pressure Coefficient (Leeward Parapet)	=	-1.000

Wind Pressures [Normal to Ridge] All wind pressures include a Load Factor (LF) of 1.0

Elev ft	GC_{pi}	q_i psf	K_z	K_{zt}	q_z psf	Windward Press psf	Leeward Press psf	Side Press psf	Total Press psf	Minimum Pressure* psf	N-S and S-N Net Wind Pressures (psf) Windward Leeward	
28.500	Parapet	64.02	0.972	1.000	64.75	97.13	-64.75	0.00	161.89	16.00	97.13	-64.75
27.000	+0.18	64.02	0.961	1.000	64.02	32.01	-38.73	-49.62	70.74	16.00	43.53	-27.21
14.167	+0.18	64.02	0.849	1.000	56.57	26.94	-38.73	-49.62	65.68	16.00	38.47	-27.21
28.500	Parapet	64.02	0.972	1.000	64.75	97.13	-64.75	0.00	161.89	16.00	97.13	-64.75
27.000	-0.18	64.02	0.961	1.000	64.02	55.06	-15.69	-26.57	70.74	16.00	43.53	-27.21
14.167	-0.18	64.02	0.849	1.000	56.57	49.99	-15.69	-26.57	65.68	16.00	38.47	-27.21

K_z	=	$2.01 \cdot (z/Z_g)^{2/\alpha}$ [Tbl 26.10-1]	K_{zt}	=	Topographic: $(1+K_1 \cdot K_2 \cdot K_3)^{-2}$ [Eq 26.8-1]
GC_{pi}	=	Enclosed Internal Pressure Tbl 26.13-1	q_z	=	$0.00256 \cdot K_z \cdot K_{zt} \cdot K_d \cdot K_e \cdot V^2 \cdot LF$ [Eq 26.10-1]
Q_{ip}	=	Positive Internal Pressure: $q_h \cdot LF$	Q_{in}	=	Negative Internal Pressure: $q_h \cdot LF$
Side	=	$q_h \cdot G \cdot C_{p_{sw}} \cdot Q_{ip} \cdot (+GC_{pi})$ [Eq 27.3-1]	Leeward	=	$q_h \cdot G \cdot C_{p_{lw}} \cdot Q_{ip} \cdot (+GC_{pi})$ [Eq 27.3-1]
Windward	=	$q_z \cdot G \cdot C_{p_{ww}} \cdot Q_{ip} \cdot (+GC_{pi})$ [Eq 27.3-1]	Total	=	Windward - Leeward
p_p	=	Windward : $q_p \cdot (GC_{p_{n_{ww}}})$ Eq 27.3-3	p_p	=	Leeward : $q_p \cdot (GC_{p_{n_{lw}}})$ Eq 27.3-3

• Minimum Pressure: $\geq 27.1.5$ no less than 16.00 psf (Incl LF) applied to Walls
• Positive Pressures Act TOWARD Surface and Negative Pressures Act AWAY from Surface

MWFRS Wind Loads [Parallel to Ridge]

h	=	Mean Roof Height Of Building	=	27.000 ft
hp	=	Height To the top Of the Parapet	=	28.500 ft
RHt	=	Ridge Height Of Roof	=	27.000 ft
B	=	Horizontal Dimension Of Building Normal To Wind Direction	=	42.167 ft
L	=	Horizontal Dimension Of building Parallel To Wind Direction	=	151.500 ft
L/B	=	Ratio Of L/B used For Cp determination	=	3.593
h/L	=	Ratio Of h/L used For Cp determination	=	0.178
Slope	=	Slope Of Roof	=	0.0 Deg

Gust Factor Calculation for Wind: [Parallel to Ridge]

Gust Factor Category I Rigid Structures - Simplified Method

G_1	=	Simplified: For Rigid Structures can use 0.85	=	0.85
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Gust Factor Category II Rigid Structures - Complete Analysis

Z_m	=	Equiv Struc Height: $\text{Max}(0.6 \cdot h, Z_{min})$	=	16.200 ft
I_{zm}	=	Turbulence Intensity: $c \cdot (33/Z_m)^{1/6}$ [Eq 26.11-1]	=	0.225
L_{zm}	=	Turbulence Integral Length Scale: $l \cdot (Z_m/33)^6$ [Eq 26.11-9]	=	433.681 ft
B	=	Building Width Width Normal to Wind Direction	=	42.167 ft
Q	=	$1/(1+0.63 \cdot [(B+h)/L_{zm}]^{0.63})$ [Eq 26.11-8]	=	0.914
G_2	=	Detailed: $0.925 \cdot [(1+1.7 \cdot g_q \cdot I_{zm} \cdot Q) / (1+1.7 \cdot g_v \cdot I_{zm})]$ [Eq 26.11-6]	=	0.880

Gust Factor Used in Analysis

G = Gust Factor: $\text{Min}(G_1, G_2)$ = 0.850

$C_{p_{WW}}$ = Windward Wall Coefficient (All L/B Values) = 0.800
 $C_{p_{LW}}$ = Leeward Wall Coefficient using L/B = -0.220
 $C_{p_{SW}}$ = Side Wall Coefficient (All L/B values) = -0.700
 $GC_{pn_{ww}}$ = Parapet Combined Net Pressure Coefficient (Windward Parapet) = 1.500
 $GC_{pn_{lw}}$ = Parapet Combined Net Pressure Coefficient (Leeward Parapet) = -1.000

Wind Pressures [Parallel to Ridge]
All wind pressures include a Load Factor (LF) of 1.0

Elev ft	GC_{pi}	q_i psf	K_z	K_{zt}	q_z psf	Windward Press psf	Leeward Press psf	Side Press psf	Total Press psf	Minimum Pressure* psf	E-W and W-E Net Wind Pressures (psf) Windward Leeward	
28.500	Parapet	64.02	0.972	1.000	64.75	97.13	-64.75	0.00	161.89	16.00	97.13	-64.75
27.000	+0.18	64.02	0.961	1.000	64.02	32.01	-23.52	-49.62	55.53	16.00	43.53	-11.97
14.167	+0.18	64.02	0.849	1.000	56.57	26.94	-23.52	-49.62	50.46	16.00	38.47	-11.97
28.500	Parapet	64.02	0.972	1.000	64.75	97.13	-64.75	0.00	161.89	16.00	97.13	-64.75
27.000	-0.18	64.02	0.961	1.000	64.02	55.06	-0.47	-26.57	55.53	16.00	43.53	-11.97
14.167	-0.18	64.02	0.849	1.000	56.57	49.99	-0.47	-26.57	50.46	16.00	38.47	-11.97

$K_z = 2.01 \cdot (z/Z_g)^{2/\alpha}$ [Tbl 26.10-1] GC_{pi} = Enclosed Internal Pressure Tbl 26.13-1 q_{ip} = Positive Internal Pressure: $q_h \cdot LF$ Side = $q_h \cdot G \cdot C_{p_{SW}} - q_{ip} \cdot (+GC_{pi})$ [Eq 27.3-1] Windward = $q_z \cdot G \cdot C_{p_{WW}} - q_{ip} \cdot (+GC_{pi})$ [Eq 27.3-1] p_p = Windward : $q_p \cdot (GC_{pn_{ww}})$ Eq 27.3-3	K_{zt} = Topographic: $(1+K_1 \cdot K_2 \cdot K_3)^{1/2}$ [Eq 26.8-1] $q_z = 0.00256 \cdot K_z \cdot K_{zt} \cdot K_d \cdot K_e \cdot V^2 \cdot LF$ [Eq 26.10-1] q_{in} = Negative Internal Pressure: $q_h \cdot LF$ Leeward = $q_h \cdot G \cdot C_{p_{LW}} - q_{ip} \cdot (+GC_{pi})$ [Eq 27.3-1] Total = Windward - Leeward p_p = Leeward : $q_p \cdot (GC_{pn_{lw}})$ Eq 27.3-3
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- Minimum Pressure: § 27.1.5 no less than 16.00 psf (Incl LF) applied to Walls
- Positive Pressures Act TOWARD Surface and Negative Pressures Act AWAY from Surface

Casa Ohad - Design Wind Pressures

Velocity Pressures

ASCE 7-16

Exposure C

Floor	Elev. (ft)	K_z	K_h	K_{zt}	K_d	K_e	V (mph)	q_z (psf)	q_h (psf)
Main Roof	27.00	0.96	0.96	1.00	0.85	1.00	175	63.97	63.97
Low Roof	14.17	0.85	0.96	1.00	0.85	1.00	175	5.00	63.97
Second Floor	14.17	0.85	0.96	1.00	0.85	1.00	175	56.64	63.97
First Floor	1.33	0.85	0.96	1.00	0.85	1.00	175	56.64	63.97
Grade	0.00	0.85	0.96	1.00	0.85	1.00	175	56.64	63.97

Components and Cladding

Wind Pressures on Walls

ASCE 7-16

$$p = q_h [(GC_p) - (GC_{pi})]$$

Bldg. Height $h \leq 60'$

Figure 30.3-1

GC_p reduction:

10%

Tributary Area (sf)	q_h (psf)	$GC_p +$	$GC_p -$		GC_{pi}	Positive Pressure (psf)	Negative Pressures	
			Zone 4	Zone 5			Zone 4 (psf)	Zone 5 (psf)
10	63.97	0.90	-0.99	-1.26	0.18	69.1	-74.9	-92.1
20	63.97	0.85	-0.94	-1.16	0.18	66.0	-71.8	-86.0
40	63.97	0.80	-0.89	-1.07	0.18	63.0	-68.7	-79.9
60	63.97	0.78	-0.87	-1.01	0.18	61.2	-66.9	-76.3
80	63.97	0.76	-0.85	-0.97	0.18	59.9	-65.7	-73.8
100	63.97	0.74	-0.83	-0.94	0.18	58.9	-64.7	-71.8

Notes: Values given above are ultimate design pressures
Multiply by 0.6 to convert to service design pressures

Casa Ohad - Design Wind Pressures

Components and Cladding

Wind Pressures on Ext. Doors + Storefronts

ASCE 7-16

$$p = qh [(GCp)-(GCpi)]$$

Bldg. Height h <= 60'

Figure 30.3-1

GCp reduction: 10%

Storefront Label	Width (ft)	Height (ft)	Tributary Area (sf)	qh (psf)	GCp +	GCp -		GCpi	Positive Pressure (psf)	Negative Pressures	
						Zone 4	Zone 5			Zone 4 (psf)	Zone 5 (psf)
01-S1	2.50	10.00	25.00	63.97	0.84	-0.93	-1.13	0.18	65.0	-70.8	-84.0
02-S1	10.83	2.00	21.67	63.97	0.85	-0.94	-1.15	0.18	65.7	-71.4	-85.3
03-S1	2.50	10.00	25.00	63.97	0.84	-0.93	-1.13	0.18	65.0	-70.8	-84.0
04-S1	26.00	10.00	260.00	63.97	0.68	-0.77	-0.81	0.18	54.7	-60.5	-63.4
05-S1	2.67	10.00	26.67	63.97	0.83	-0.92	-1.12	0.18	64.8	-70.5	-83.5
06-S1	2.67	10.00	26.67	63.97	0.83	-0.92	-1.12	0.18	64.8	-70.5	-83.5
07-S1	4.92	7.50	36.88	63.97	0.81	-0.90	-1.08	0.18	63.3	-69.1	-80.6
08-S1	8.58	7.50	64.37	63.97	0.77	-0.86	-1.00	0.18	60.9	-66.6	-75.7
09-S1	16.17	1.67	26.95	63.97	0.83	-0.92	-1.12	0.18	64.7	-70.5	-83.4
10-S1	3.00	10.00	30.00	63.97	0.82	-0.91	-1.11	0.18	64.2	-70.0	-82.4
11-S1	3.00	10.00	30.00	63.97	0.82	-0.91	-1.11	0.18	64.2	-70.0	-82.4
12-S1	3.42	10.00	34.17	63.97	0.82	-0.91	-1.09	0.18	63.7	-69.4	-81.3
13-S1	3.42	10.00	34.17	63.97	0.82	-0.91	-1.09	0.18	63.7	-69.4	-81.3
14-S1	5.42	1.67	9.03	63.97	0.90	-0.99	-1.26	0.18	69.1	-74.9	-92.1
15-S1	5.50	1.67	9.17	63.97	0.90	-0.99	-1.26	0.18	69.1	-74.9	-92.1
16-S1	6.33	1.25	7.92	63.97	0.90	-0.99	-1.26	0.18	69.1	-74.9	-92.1
17-S1	6.25	1.25	7.81	63.97	0.90	-0.99	-1.26	0.18	69.1	-74.9	-92.1
18-S1	6.33	1.25	7.92	63.97	0.90	-0.99	-1.26	0.18	69.1	-74.9	-92.1
19-S1	2.00	10.00	20.00	63.97	0.85	-0.94	-1.16	0.18	66.0	-71.8	-86.0
20-S1	2.00	10.00	20.00	63.97	0.85	-0.94	-1.16	0.18	66.0	-71.8	-86.0
21-S1	2.00	10.00	20.00	63.97	0.85	-0.94	-1.16	0.18	66.0	-71.8	-86.0
22-S1	8.00	10.00	80.00	63.97	0.76	-0.85	-0.97	0.18	59.9	-65.7	-73.8
01-S2	10.83	10.00	108.33	63.97	0.74	-0.83	-0.93	0.18	58.6	-64.3	-71.1
02-S2	26.00	10.00	260.00	63.97	0.68	-0.77	-0.81	0.18	54.7	-60.5	-63.4
03-S2	2.67	10.00	26.67	63.97	0.83	-0.92	-1.12	0.18	64.8	-70.5	-83.5
04-S2	2.67	10.00	26.67	63.97	0.83	-0.92	-1.12	0.18	64.8	-70.5	-83.5
05-S2	4.92	7.50	36.88	63.97	0.81	-0.90	-1.08	0.18	63.3	-69.1	-80.6
06-S2	4.92	7.50	36.88	63.97	0.81	-0.90	-1.08	0.18	63.3	-69.1	-80.6
07-S2	8.58	7.50	64.37	63.97	0.77	-0.86	-1.00	0.18	60.9	-66.6	-75.7

08-S2	8.58	7.50	64.37	63.97	0.77	-0.86	-1.00	0.18	60.9	-66.6	-75.7
09-S2	2.00	6.58	13.17	63.97	0.88	-0.97	-1.22	0.18	67.9	-73.6	-89.7
10-S2	11.42	1.67	19.03	63.97	0.86	-0.95	-1.17	0.18	66.3	-72.0	-86.4
11-S2	12.75	1.67	21.25	63.97	0.85	-0.94	-1.16	0.18	65.8	-71.5	-85.5
12-S2	5.00	10.00	50.00	63.97	0.79	-0.88	-1.04	0.18	62.0	-67.7	-77.9
13-S2	5.83	10.00	58.33	63.97	0.78	-0.87	-1.02	0.18	61.3	-67.1	-76.5
14-S2	3.42	10.00	34.17	63.97	0.82	-0.91	-1.09	0.18	63.7	-69.4	-81.3
15-S2	3.42	10.00	34.17	63.97	0.82	-0.91	-1.09	0.18	63.7	-69.4	-81.3
16-S2	2.00	6.58	13.17	63.97	0.88	-0.97	-1.22	0.18	67.9	-73.6	-89.7
17-S2	2.00	10.00	20.00	63.97	0.85	-0.94	-1.16	0.18	66.0	-71.8	-86.0
18-S2	2.00	10.00	20.00	63.97	0.85	-0.94	-1.16	0.18	66.0	-71.8	-86.0
19-S2	2.00	10.00	20.00	63.97	0.85	-0.94	-1.16	0.18	66.0	-71.8	-86.0
20-S2	8.00	10.00	80.00	63.97	0.76	-0.85	-0.97	0.18	59.9	-65.7	-73.8
21-S2	6.25	7.92	49.48	63.97	0.79	-0.88	-1.04	0.18	62.0	-67.8	-78.0

Door Label	Width (ft)	Height (ft)	Tributary Area (sf)	qh (psf)	GCp +	GCp -		GCpi	Positive Pressure (psf)	Negative Pressures	
						Zone 4	Zone 5			Zone 4 (psf)	Zone 5 (psf)
100	5.50	10.00	55.00	63.97	0.78	-0.87	-1.02	0.18	61.6	-67.3	-77.1
101	4.96	10.00	49.58	63.97	0.79	-0.88	-1.04	0.18	62.0	-67.8	-78.0
102	4.96	10.00	49.58	63.97	0.79	-0.88	-1.04	0.18	62.0	-67.8	-78.0
105	3.00	10.00	30.00	63.97	0.82	-0.91	-1.11	0.18	64.2	-70.0	-82.4
110A	4.97	10.00	49.72	63.97	0.79	-0.88	-1.04	0.18	62.0	-67.8	-78.0
110B	4.97	10.00	49.72	63.97	0.79	-0.88	-1.04	0.18	62.0	-67.8	-78.0
112B	3.94	10.00	39.44	63.97	0.81	-0.90	-1.07	0.18	63.0	-68.8	-80.0
117B	3.94	10.00	39.44	63.97	0.81	-0.90	-1.07	0.18	63.0	-68.8	-80.0
121B	3.89	10.00	38.89	63.97	0.81	-0.90	-1.07	0.18	63.1	-68.9	-80.1
123	2.83	10.00	28.33	63.97	0.83	-0.92	-1.12	0.18	64.5	-70.3	-82.9
126B	3.00	10.00	30.00	63.97	0.82	-0.91	-1.11	0.18	64.2	-70.0	-82.4
127A	9.00	9.00	81.00	63.97	0.76	-0.85	-0.97	0.18	59.9	-65.6	-73.7
127B	9.00	9.00	81.00	63.97	0.76	-0.85	-0.97	0.18	59.9	-65.6	-73.7
200B	4.96	10.00	49.58	63.97	0.79	-0.88	-1.04	0.18	62.0	-67.8	-78.0
203B	4.00	10.00	40.00	63.97	0.80	-0.89	-1.07	0.18	63.0	-68.7	-79.9
207B	4.25	10.00	42.50	63.97	0.80	-0.89	-1.06	0.18	62.7	-68.5	-79.3
208	3.94	10.00	39.44	63.97	0.81	-0.90	-1.07	0.18	63.0	-68.8	-80.0
209B	3.94	10.00	39.44	63.97	0.81	-0.90	-1.07	0.18	63.0	-68.8	-80.0
217B	3.94	10.00	39.44	63.97	0.81	-0.90	-1.07	0.18	63.0	-68.8	-80.0

Casa Ohad - Design Wind Pressures

Components and Cladding

Uplift on Roofing - Main Roof

ASCE 7-16

$$p = q_h [(GC_p) - (GC_{pi})]$$

Bldg. Height $h \leq 60'$

Figure 30.3-2A

$\theta \leq 7^\circ$

Tributary Area (sf)	q_h (psf)	$GC_p +$	$GC_p -$		GC_{pi}	Uplift Pressures		Downward Pressure (psf)
			Zone 2	Zone 3		Zone 2 (psf)	Zone 3 (psf)	
10	63.97	0.30	-2.30	-3.20	0.00	-147.1	-204.7	19.2

Uplift on Roofing - Low Roof

ASCE 7-16

$$p = q_h [(GC_p) - (GC_{pi})]$$

Bldg. Height $h \leq 60'$

Figure 30.3-2A

$\theta \leq 7^\circ$

Tributary Area (sf)	q_h (psf)	$GC_p +$	$GC_p -$		GC_{pi}	Uplift Pressures		Downward Pressure (psf)
			Zone 2	Zone 3		Zone 2 (psf)	Zone 3 (psf)	
10	56.64	0.30	-2.30	-3.20	0.00	-130.3	-181.3	17.0

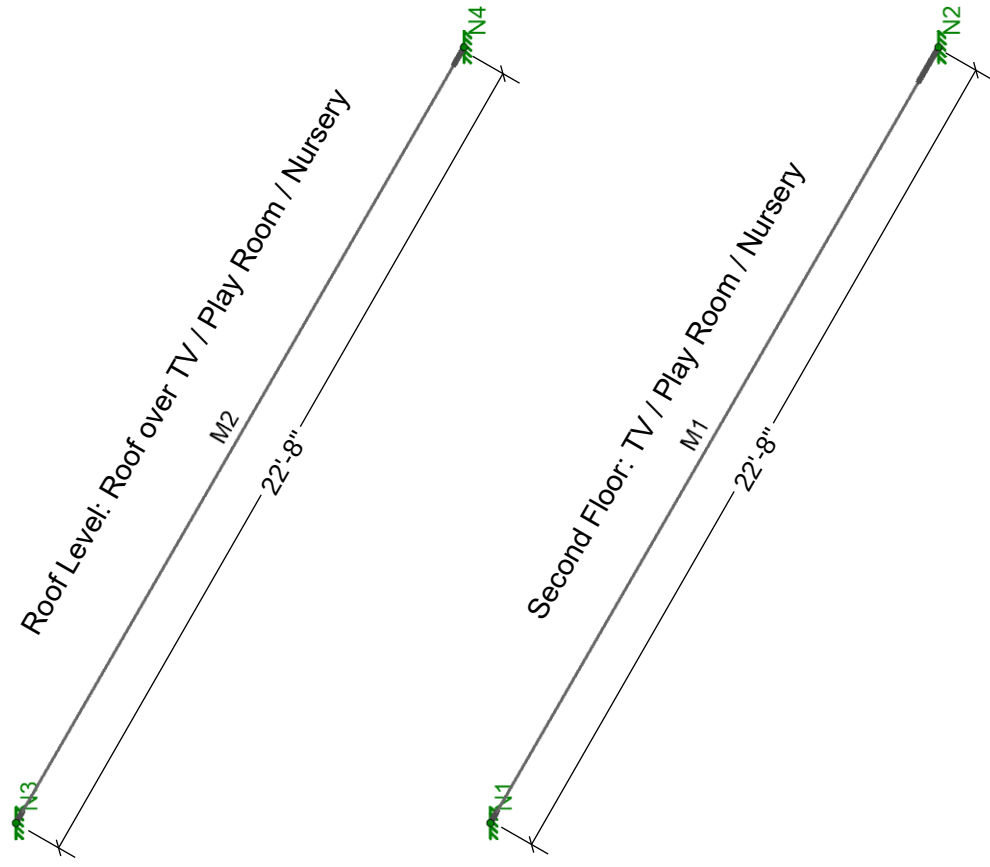
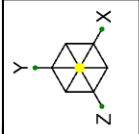
Notes: Values given in tables above are ultimate design pressures
Multiply by 0.6 to convert to service design pressures



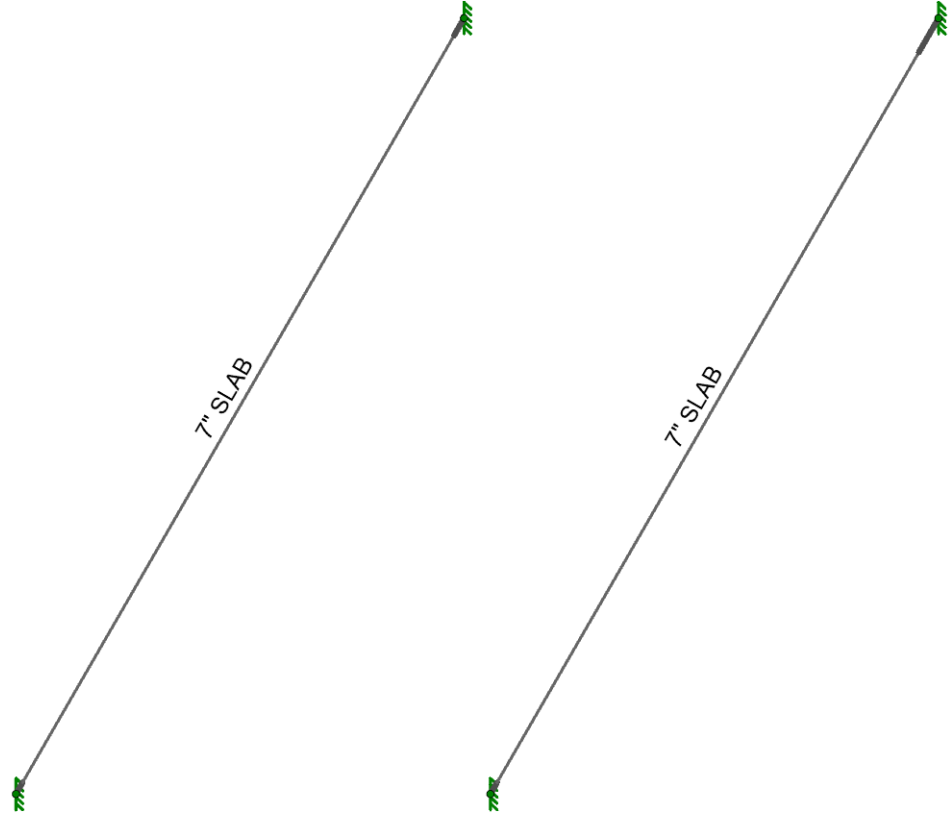
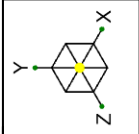
CFS Engineering Group, Inc.
Structural Engineers

Concrete Slabs

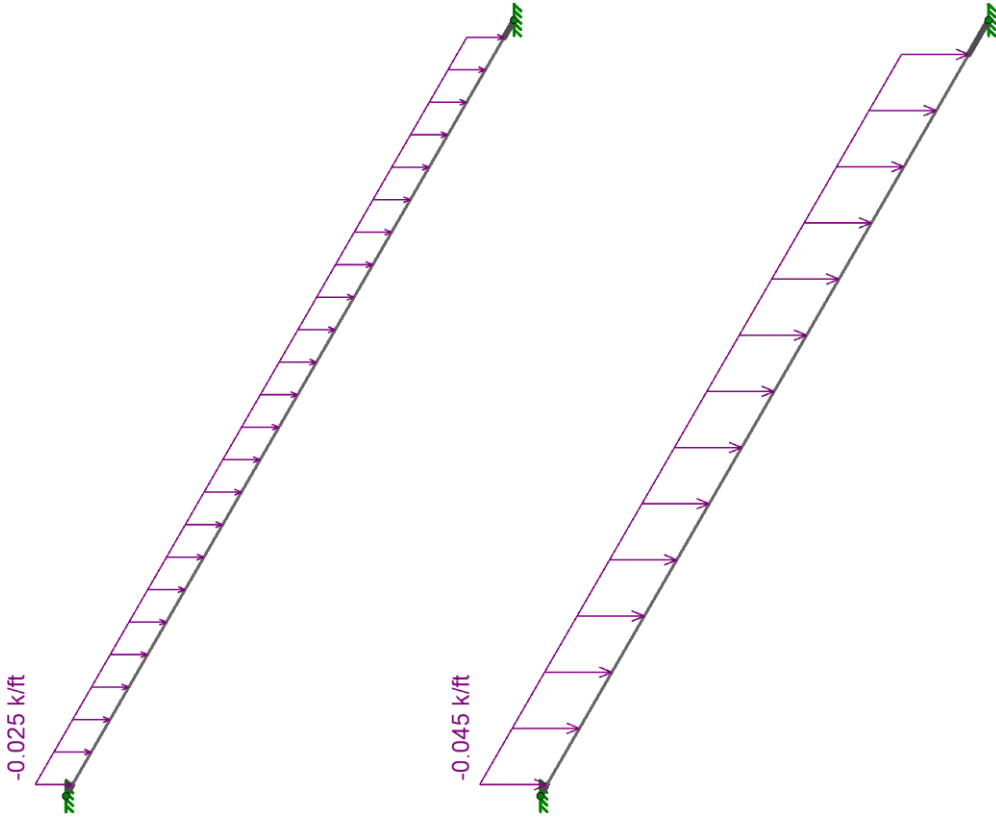
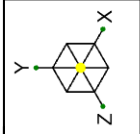
Second Floor, Roof Level



CFS Engineering Group, Inc. C.F. Sanz 23011.00	Casa Ohad - 2nd Floor / Roof Level Conc. Slabs (Worst Possi... le Conditions) Joint and Member Labels	SK-1
		Second Floor + Roof Level Concrete Sl...



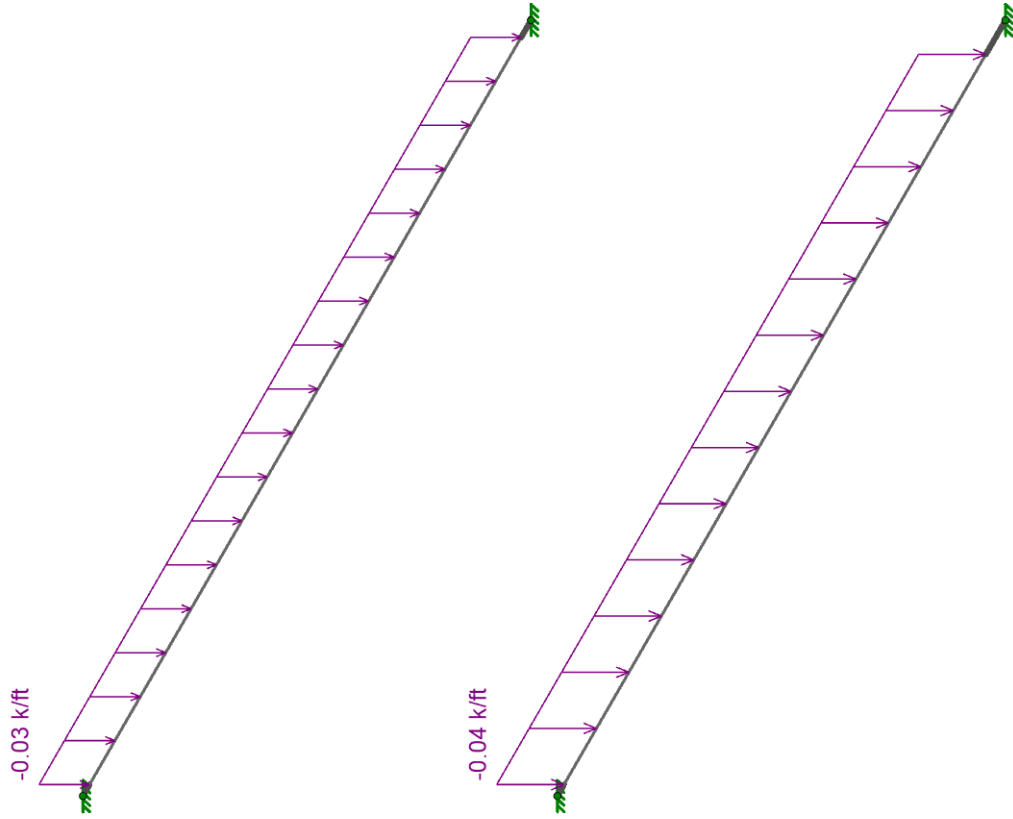
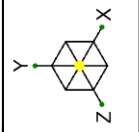
CFS Engineering Group, Inc. C.F. Sanz 23011.00	Casa Ohad - 2nd Floor / Roof Level Conc. Slabs (Worst Possi... le Conditions) Member Sizes	SK-2
		Second Floor + Roof Level Concrete Sl...



Self-weight of slabs not shown
but considered in the analysis

Loads: BLC 1, DEAD

CFS Engineering Group, Inc.	Casa Ohad - 2nd Floor / Roof Level Conc. Slabs (Worst Possible Conditions) Superimposed Dead Loads	SK-3
C.F. Sanz		
23011.00		
Second Floor + Roof Level Concrete Sl...		



Loads: BLC 2, LIVE

CFS Engineering Group, Inc. C.F. Sanz 23011.00	Casa Ohad - 2nd Floor / Roof Level Conc. Slabs (Worst Possi... le Conditions) Superimposed Live Loads		SK-4
	Second Floor + Roof Level Concrete Sl...		

Company :CFS Engineering Group, Inc.
 Designer :C.F. Sanz
 Job Number :23011.00
 Model Name:Casa Ohad - 2nd Floor / Roof Lev...

Checked By : _____

Model Settings

Number of Reported Sections	5
Number of Internal Sections	100
Member Area Load Mesh Size (in ²)	144
Consider Shear Deformation	Yes
Consider Torsional Warping	Yes
Approximate Mesh Size (in)	24
Transfer Forces Between Intersecting Wood Walls	Yes
Increase Wood Wall Nailing Capacity for Wind Loads	Yes
Include P-Delta for Walls	Yes
Optimize Masonry and Wood Walls	Yes
Maximum Number of Iterations	3
Single	No
Multiple (Optimum)	Yes
Maximum	No

Global Axis corresponding to vertical direction	Y
Convert Existing Data	Yes
Default Global Plane for z-axis	XZ
Plate Local Axis Orientation	Nodal

Hot Rolled Steel	AISC 15th (360-16): ASD
Stiffness Adjustment	Yes (Iterative)
Notional Annex	None
Connections	AISC 15th (360-16): ASD
Cold Formed Steel	AISI S100-16: ASD
Stiffness Adjustment	Yes (Iterative)
Wood	AWC NDS-18 / SDPWS-15 ASD
Temperature	< 100F
Concrete	ACI 318-14
Masonry	TMS 402-16: ASD
Aluminum	AA ADM1-15: ASD
Structure Type	Building
Stiffness Adjustment	Yes (Iterative)
Stainless	AISC 14th (360-10): ASD
Stiffness Adjustment	Yes (Iterative)

Analysis Methodology	Exact Integration Method
Parame Beta Factor	0.65

Compression Stress Block	Rectangular Stress Block
Analyze using Cracked Sections	Yes
Leave room for horizontal rebar splices (2*d bar spacing)	Yes
List forces which were ignored for design in the Detail Report	Yes

Column Min Steel	1
Column Max Steel	4
Rebar Material Spec	ASTM A615
Warn if beam-column framing arrangement is not understood	No
Number of Shear Regions	4
Region 2 & 3 Spacing Increase Increment (in)	4

Code	ASCE 7-16
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Company :CFS Engineering Group, Inc.
 Designer :C.F. Sanz
 Job Number :23011.00
 Model Name:Casa Ohad - 2nd Floor / Roof Lev...

Checked By : _____

Model Settings (Continued)

Risk Category	I or II
Drift Cat	Other
Base Elevation (ft)	
Include the weight of the structure in base shear calcs	Yes
S_1 (g)	1
SD_1 (g)	1
SD_3 (g)	1
T_L (sec)	5
T_Z (sec)	
T_X (sec)	
C_Z	0.02
C_X	0.02
$C_{Exp. Z}$	0.75
$C_{Exp. X}$	0.75
R_Z	3
R_X	3
Q_0Z	1
Q_0X	1
C_0Z	1
C_0X	1
ρ_Z	1
ρ_X	1

Company :CFS Engineering Group, Inc.
 Designer :C.F. Sanz
 Job Number :23011.00
 Model Name:Casa Ohad - 2nd Floor / Roof Lev...

Checked By : _____

Concrete Properties

	Label	E [ksi]	G [ksi]	Nu	Therm. Coeff. [$10^{-6}/^{\circ}\text{F}$]	Density [k/ft ³]	f _c [ksi]	Lambda	Flex Steel [ksi]	Shear Steel [ksi]
1	Conc4000NW	3644	1584	0.15	0.6	0.145	4	1	60	60

Concrete Section Sets

	Label	Shape	Type	Design List	Material	Design Rule	Area [in ²]	I _{yy} [in ⁴]	I _{zz} [in ⁴]	J [in ⁴]
1	7" SLAB	CRECT7X12	Beam	Rectangular	Conc4000NW	Typical	84	1008	343	867.79

Basic Load Cases

	BLC Description	Category	Y Gravity	Distributed
1	DEAD	DL	-1	2
2	LIVE	LL		2

Load Combinations

	Description	Solve	P-Delta	BLC	Factor	BLC	Factor
1	DL		Y	1	1		
2	DL+LL		Y	1	1	2	1
3	1.4DL		Y	1	1.4		
4	1.2DL+1.6LL		Y	1	1.2	2	1.6

Company :CFS Engineering Group, Inc.
 Designer :C.F. Sanz
 Job Number :23011.00
 Model Name:Casa Ohad - 2nd Floor / Roof Lev...

Checked By : _____

Service Load Analysis Results

Envelope Member Section Deflections - Service

	Member	Sec		x [in]	LC	y [in]	LC	z [in]	LC	x Rotate [rad]	LC	(n) L/y' Ratio	LC	(n) L/z' Ratio	LC
0	M1	1	max	0	2	0	2	0	2	0	2	NC	2	NC	2
1			min	0	1	0	1	0	1	0	1	NC	1	NC	1
2		2	max	0	2	-0.109	1	0	2	0	2	2357.095	1	NC	2
3			min	0	1	-0.142	2	0	1	0	1	1801.122	2	NC	1
4		3	max	0	2	-0.193	1	0	2	0	2	1325.866	1	NC	2
5			min	0	1	-0.253	2	0	1	0	1	1013.131	2	NC	1
6		4	max	0	2	-0.109	1	0	2	0	2	2357.095	1	NC	2
7			min	0	1	-0.142	2	0	1	0	1	1801.122	2	NC	1
8		5	max	0	2	0	2	0	2	0	2	NC	2	NC	2
9			min	0	1	0	1	0	1	0	1	NC	1	NC	1
10	M2	1	max	0	2	0	2	0	2	0	2	NC	2	NC	2
11			min	0	1	0	1	0	1	0	1	NC	1	NC	1
12		2	max	0	2	-0.101	1	0	2	0	2	2600.149	1	NC	2
13			min	0	1	-0.128	2	0	1	0	1	2041.311	2	NC	1
14		3	max	0	2	-0.179	1	0	2	0	2	1462.584	1	NC	2
15			min	0	1	-0.228	2	0	1	0	1	1148.237	2	NC	1
16		4	max	0	2	-0.101	1	0	2	0	2	2600.149	1	NC	2
17			min	0	1	-0.128	2	0	1	0	1	2041.311	2	NC	1
18		5	max	0	2	0	2	0	2	0	2	NC	2	NC	2
19			min	0	1	0	1	0	1	0	1	NC	1	NC	1

Second Floor Slab deflection < L / 360 **OK**

Roof Level Slab deflection < L / 240 **OK**

Company :CFS Engineering Group, Inc.
 Designer :C.F. Sanz
 Job Number :23011.00
 Model Name:Casa Ohad - 2nd Floor / Roof Lev...

Checked By : _____

Factored Load Analysis Results

Envelope Concrete Beam Design Results

Member	Shape	UC Max Top Loc[ft]	UC LC UC Max Bot Loc[ft]	UC LC Shear UC Loc[ft]	UC LC Phi*Mnz Top[k-ft]	Phi*Mnz Bot[k-ft]	Phi*Vny[k]							
0	M1	CRECT7X12	0.926	0	4	0.463	10.667	4	0.367	0.444	4	8.988	8.988	6.119
1	M2	CRECT7X12	0.793	0	4	0.397	10.917	4	0.307	0.455	4	8.988	8.988	6.119

All Slabs code check < 1.0 **OK**

Concrete Beam Bending Reinforcement

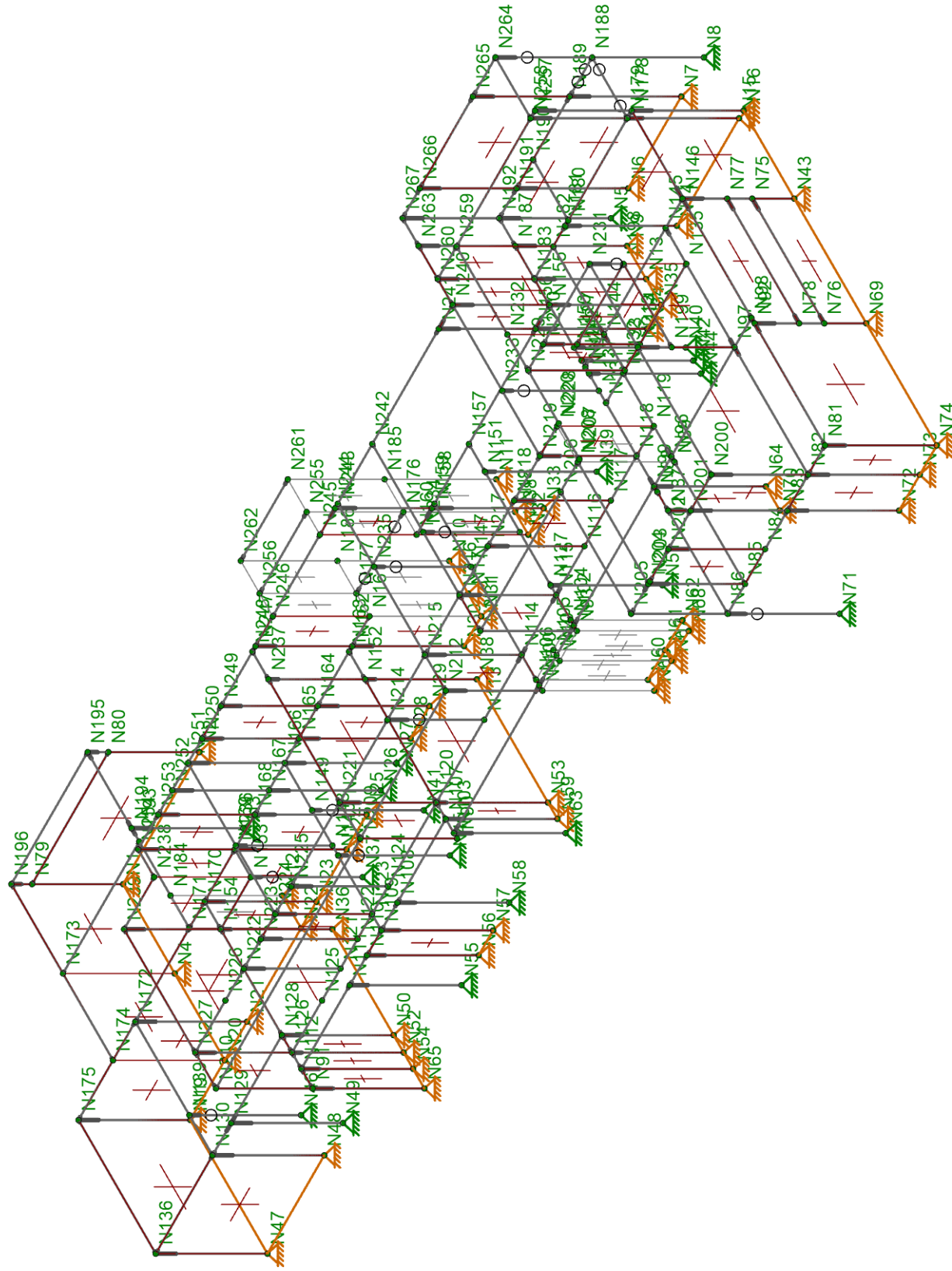
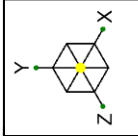
Member	Shape	Span	Left Top	Mid Bot	Right Top
0	M1	CRECT7X12	1	2 #4	2 #4
1	M2	CRECT7X12	1	2 #4	2 #4

Slabs reinforcing required <= reinforcing provided **OK**

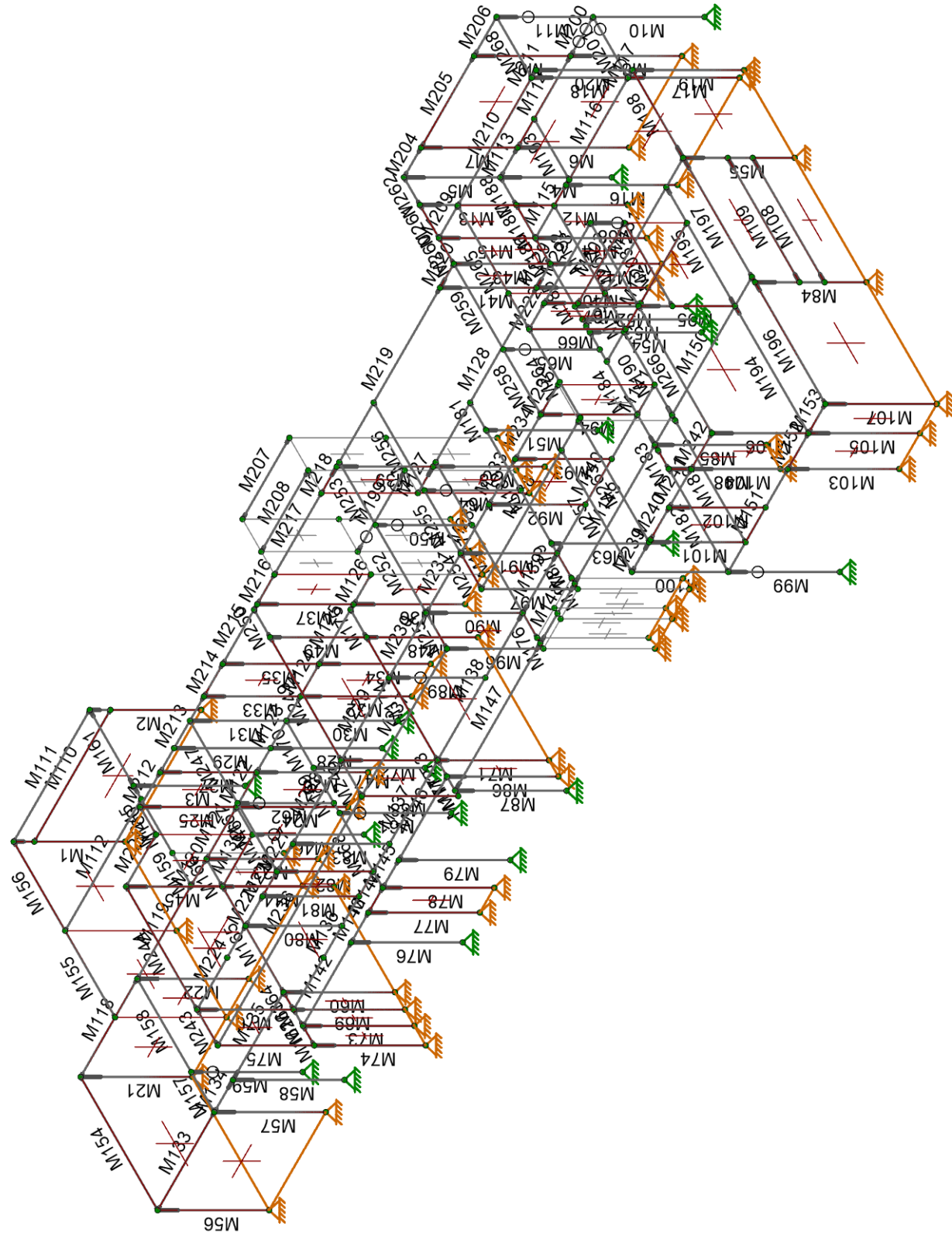
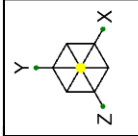


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Structural Engineers

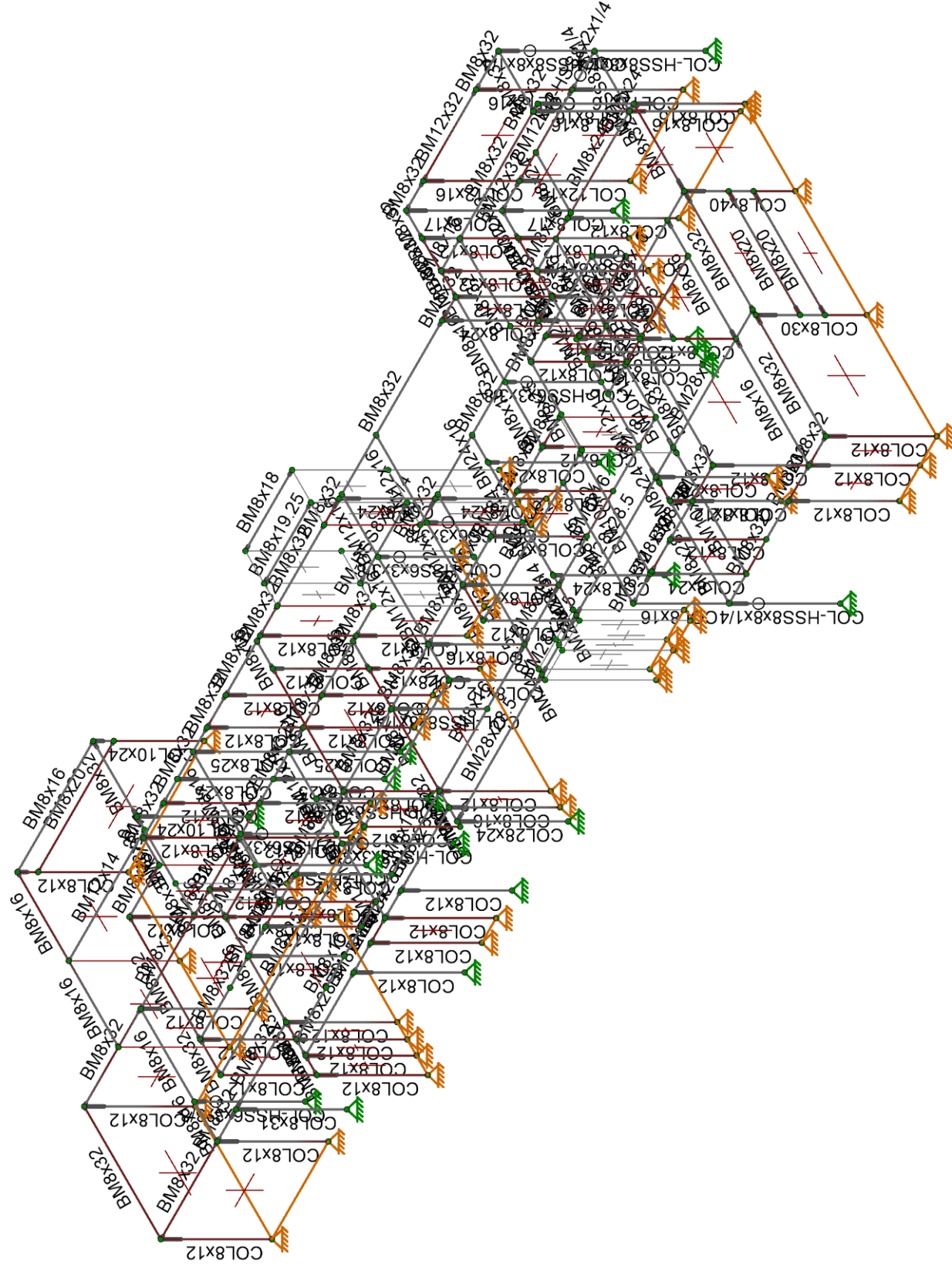
Structural Frames



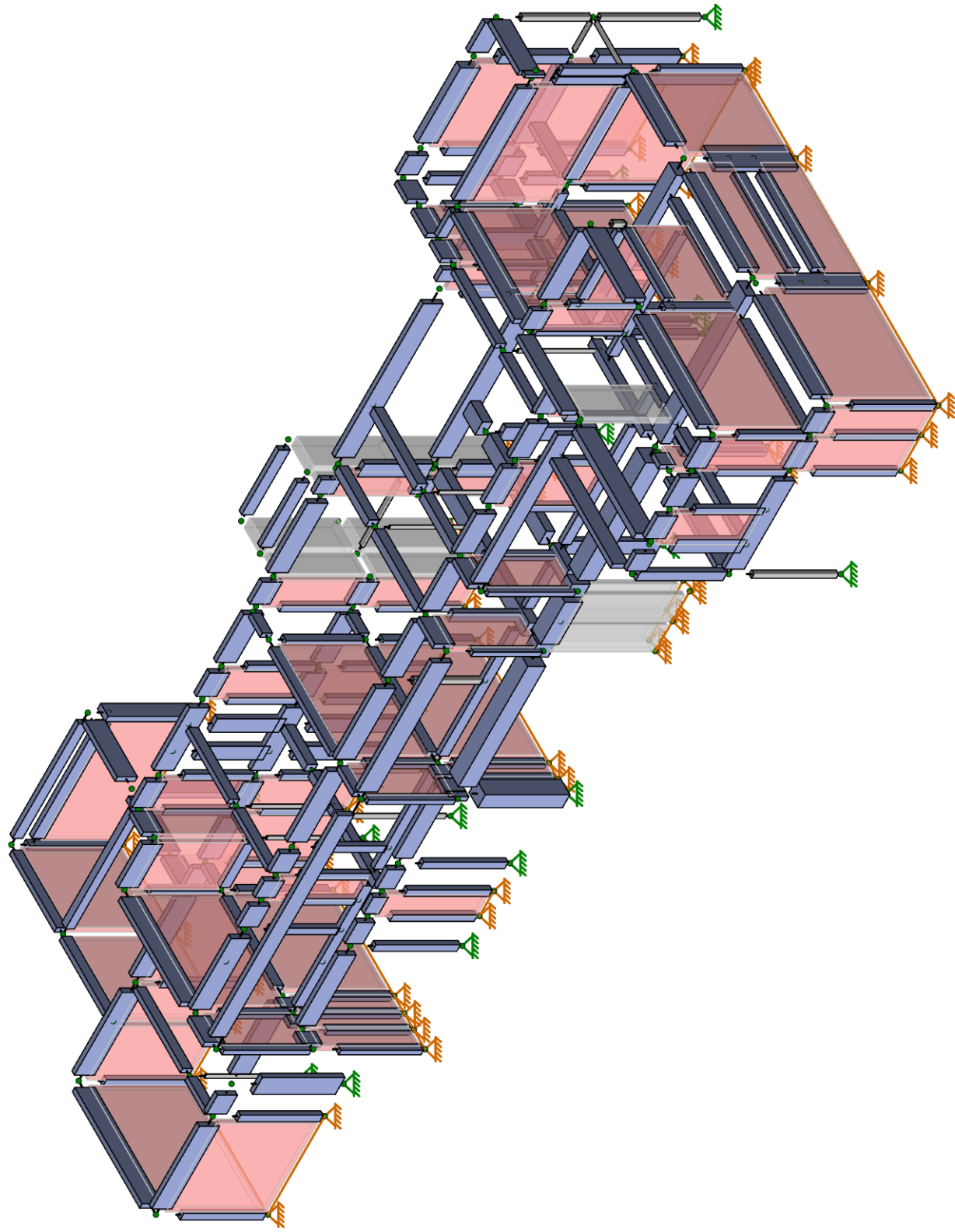
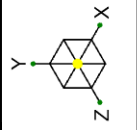
CFS Engineering Group, Inc. Carlos F. Sanz, PE 23011.00	Casa Ohad - Structural Frames		SK-1
	Joint Labels		Structural Frames.r3d



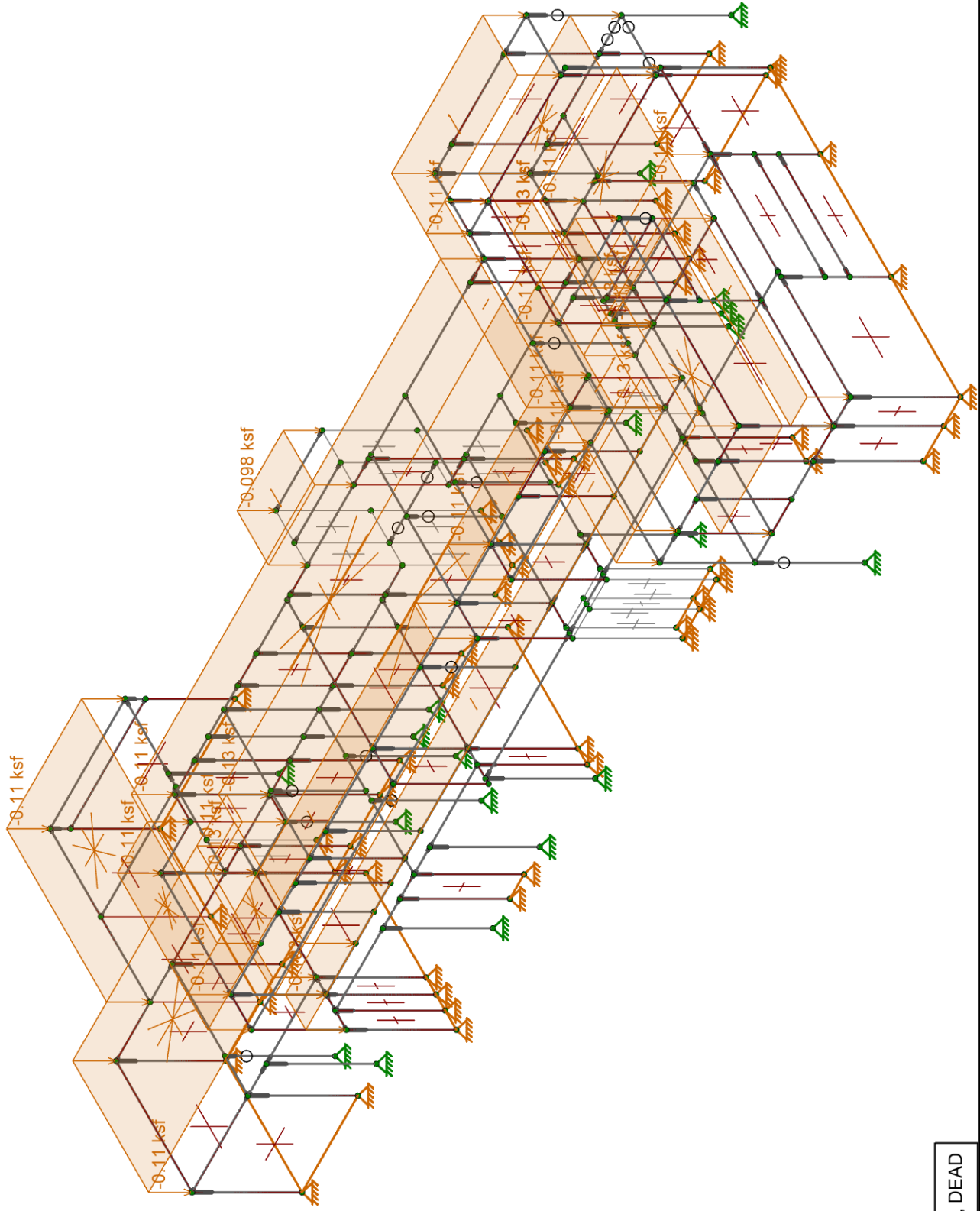
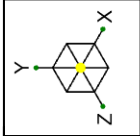
CFS Engineering Group, Inc.	Casa Ohad - Structural Frames		SK-2
	Member Labels		Structural Frames.r3d
	Carlos F. Sanz, PE		
23011.00			



CFS Engineering Group, Inc.	Casa Ohad - Structural Frames	SK-3
Carlos F. Sanz, PE		
23011.00		
	Member Sizes	Structural Frames.r3d



CFS Engineering Group, Inc.		Casa Ohad - Structural Frames		SK-4
Carlos F. Sanz, PE		3D Rendering		Structural Frames.r3d
23011.00				



Loads: BLC 1, DEAD

CFS Engineering Group, Inc.

Carlos F. Sanz, PE

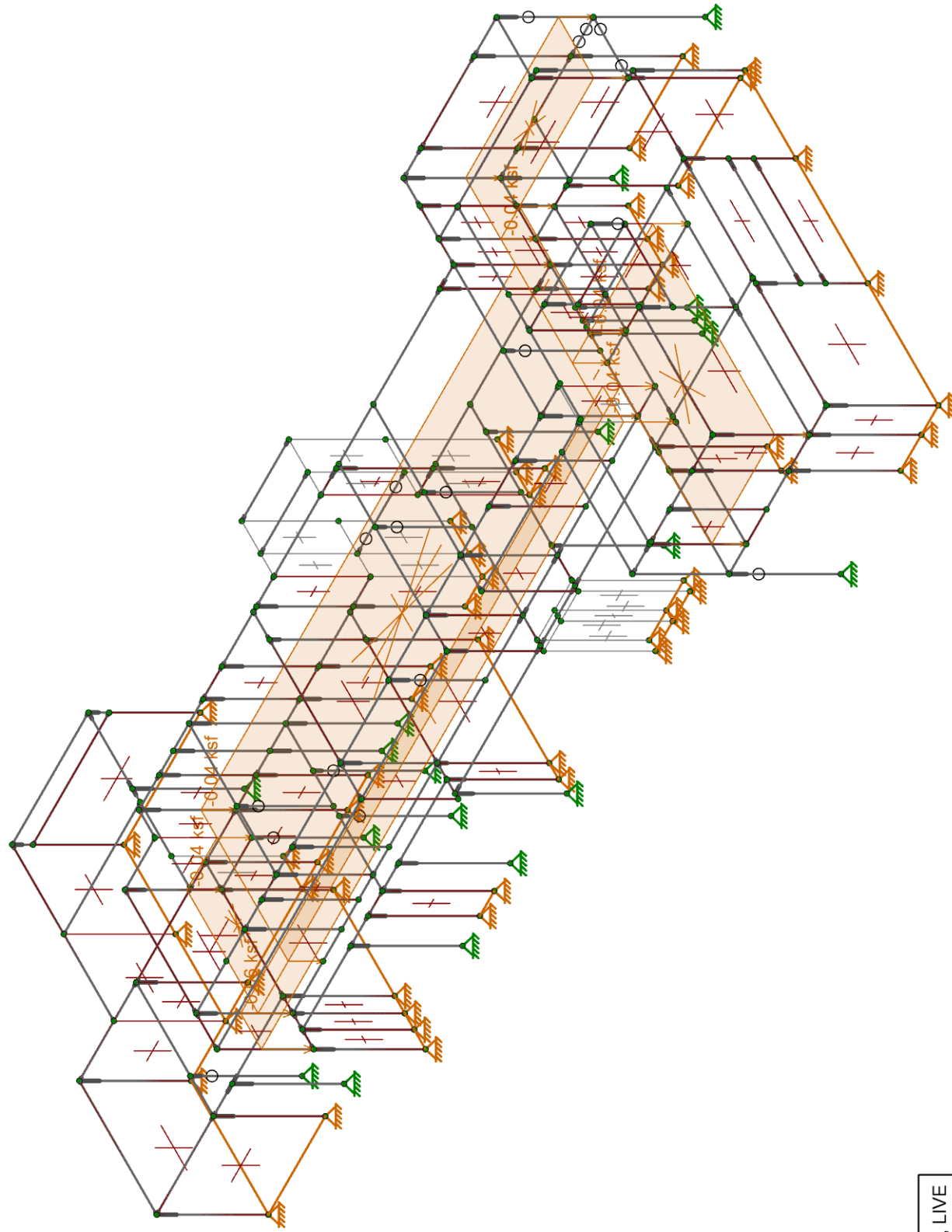
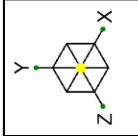
23011.00

Casa Ohad - Structural Frames

SK-5

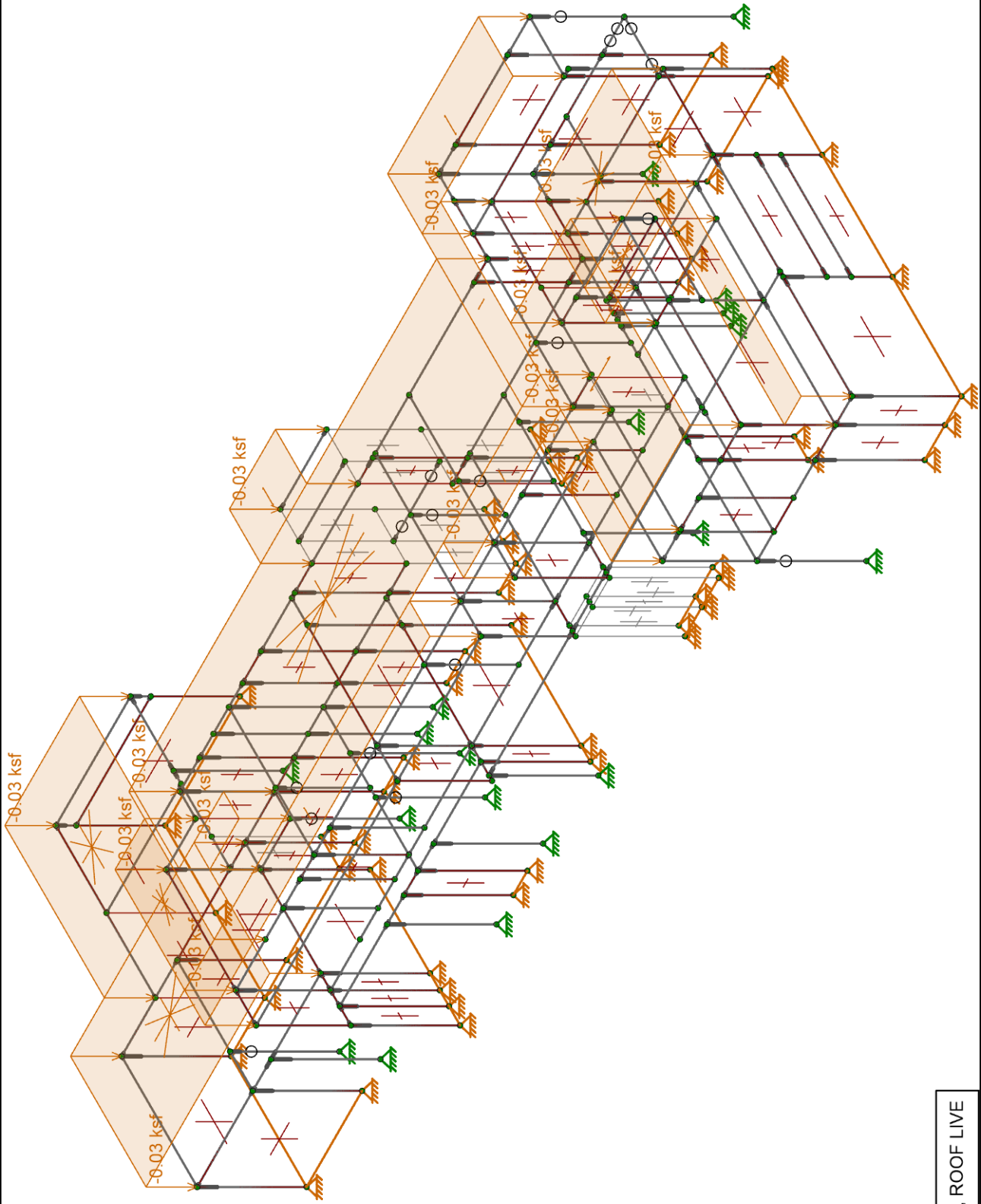
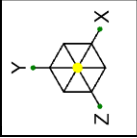
Structural Frames.r3d

Dead Loads



Loads: BLC 2, LIVE

CFS Engineering Group, Inc.		Casa Ohad - Structural Frames		SK-6
Carlos F. Sanz, PE		Live Loads		Structural Frames.r3d
23011.00				

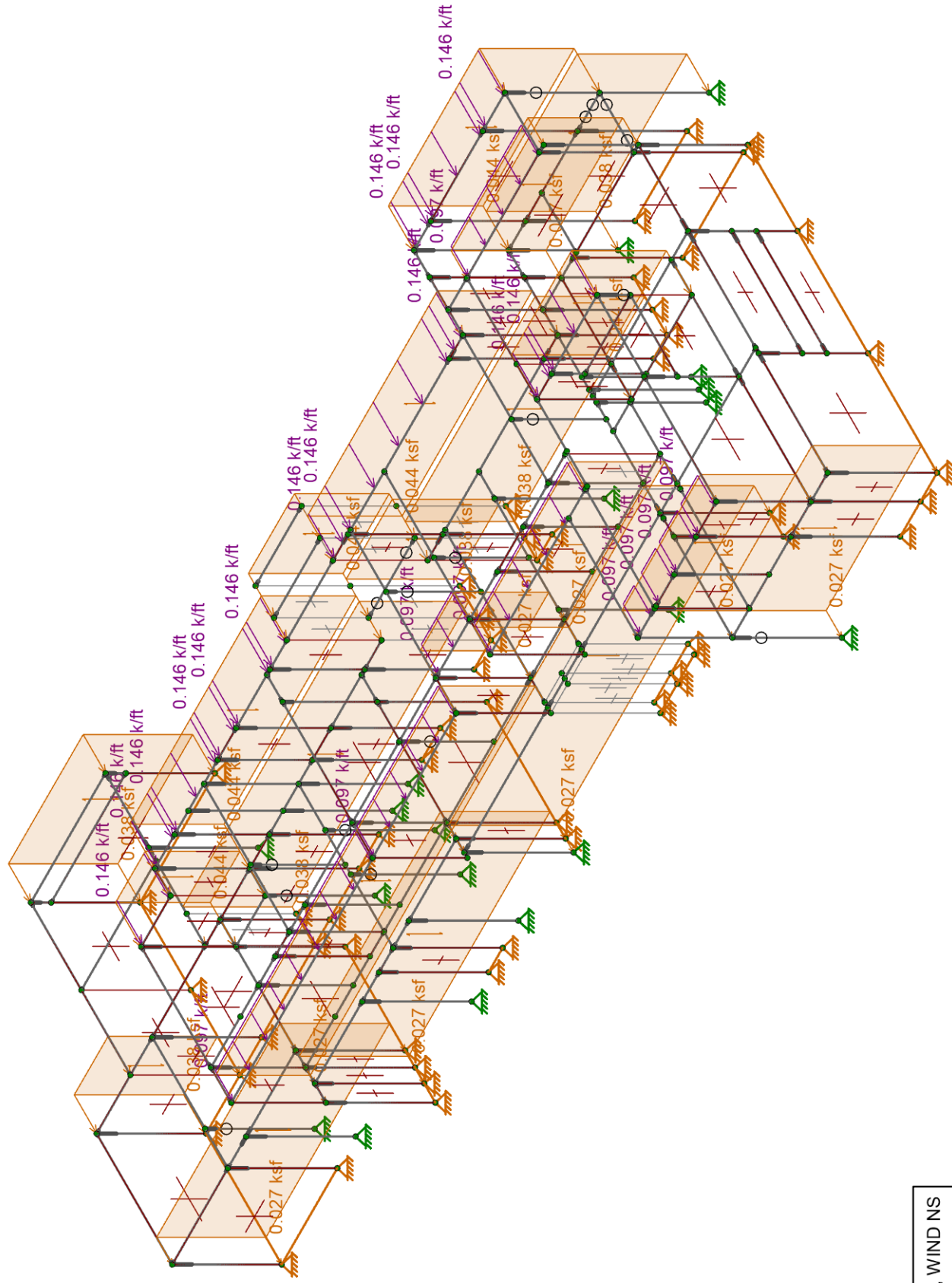


Loads: BLC 3, ROOF LIVE

CFS Engineering Group, Inc.
Carlos F. Sanz, PE
23011.00

Casa Ohad - Structural Frames
Roof Live Loads

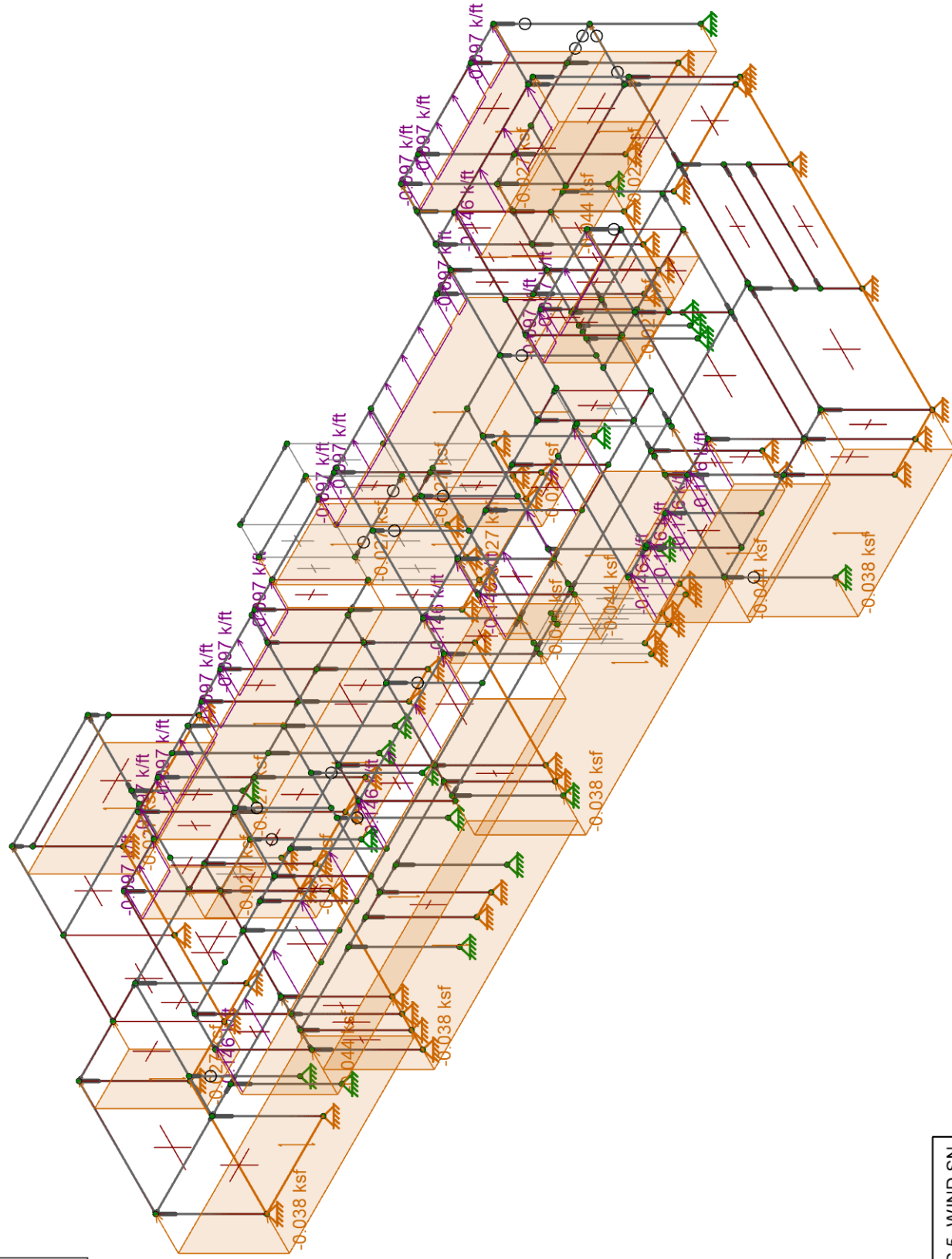
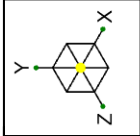
SK-7
Structural Frames.r3d



23011.00

Wind Loads (N-S)

Structural Frames.r3d



Loads: BLC 5, WIND SN

CFS Engineering Group, Inc.

Carlos F. Sanz, PE

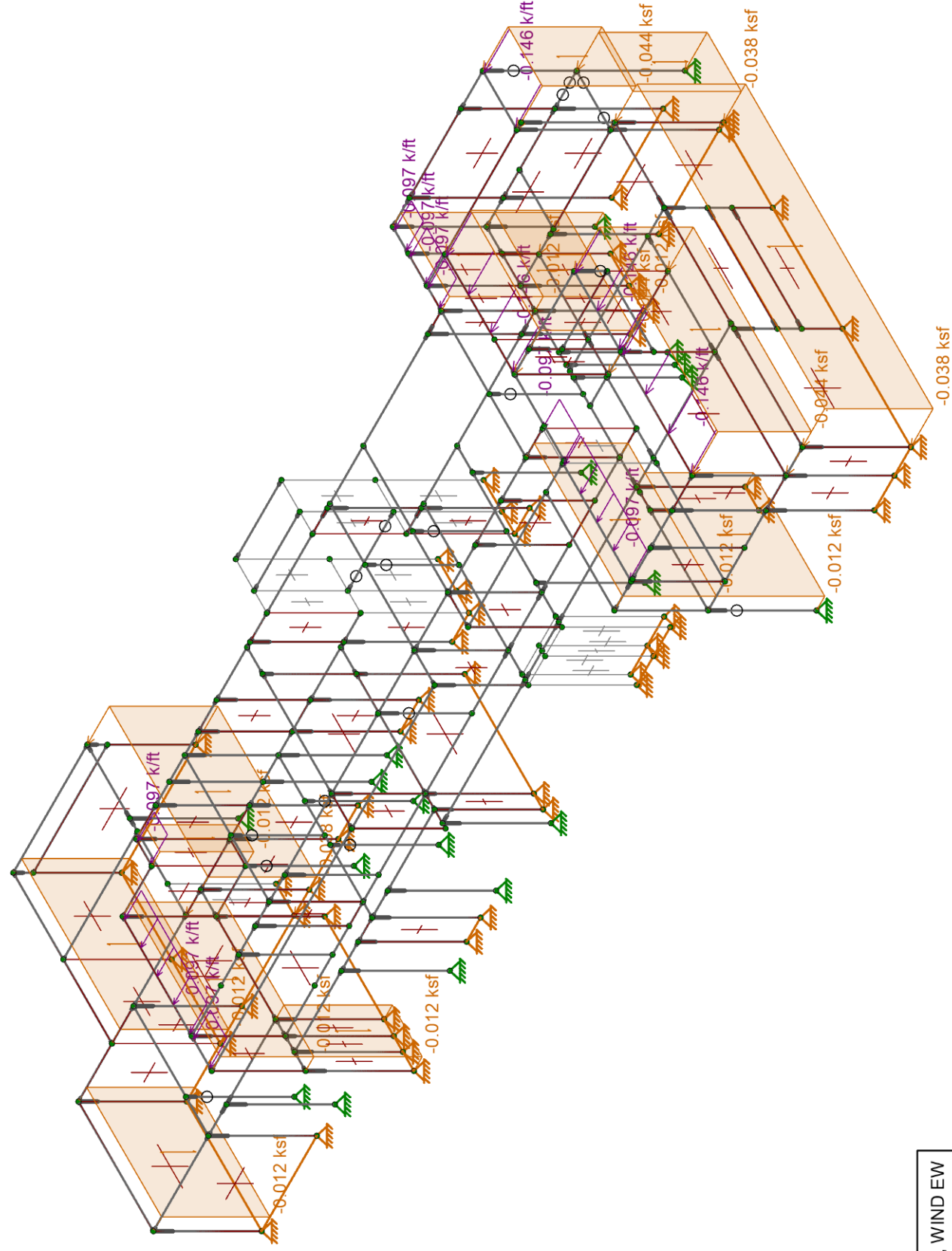
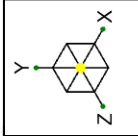
23011.00

Casa Ohad - Structural Frames

SK-9

Structural Frames.r3d

Wind Loads (S-N)



Loads: BLC 6, WIND EW

CFS Engineering Group, Inc.

Carlos F. Sanz, PE

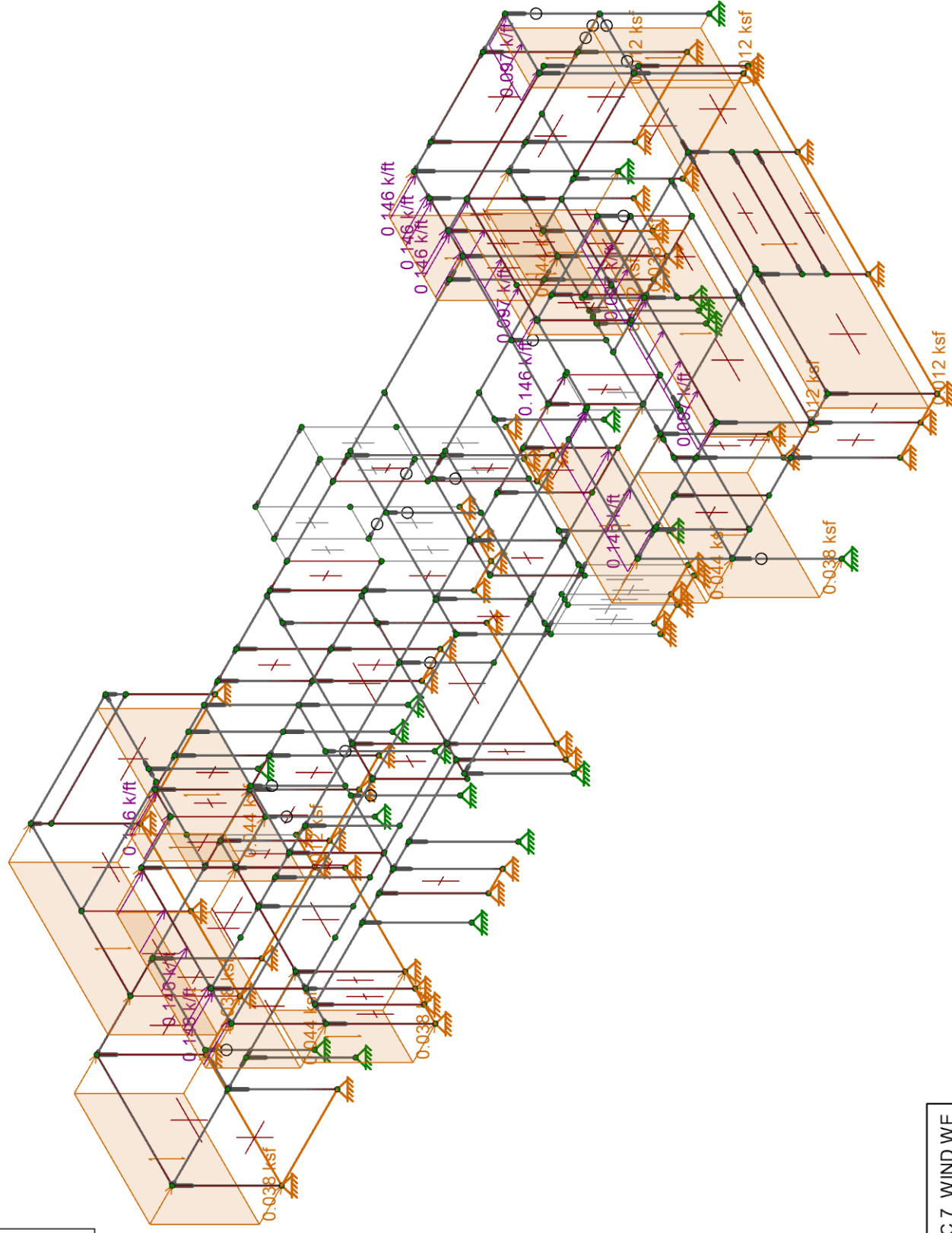
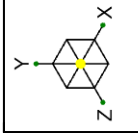
23011.00

Casa Ohad - Structural Frames

SK-10

Structural Frames.r3d

Wind Loads (E-W)



Loads: BLC 7, WIND WE

CFS Engineering Group, Inc.

Carlos F. Sanz, PE

23011.00

Casa Ohad - Structural Frames

SK-11

Structural Frames.r3d

Wind Loads (W-E)

Company :CFS Engineering Group, Inc.
 Designer :Carlos F. Sanz, PE
 Job Number :23011.00
 Model Name:Casa Ohad - Structural Frames

Checked By : _____

Model Settings

Number of Reported Sections	5
Number of Internal Sections	100
Member Area Load Mesh Size (in ²)	144
Consider Shear Deformation	Yes
Consider Torsional Warping	Yes
Approximate Mesh Size (in)	24
Transfer Forces Between Intersecting Wood Walls	Yes
Increase Wood Wall Nailing Capacity for Wind Loads	Yes
Include P-Delta for Walls	Yes
Optimize Masonry and Wood Walls	Yes
Maximum Number of Iterations	3
Single	No
Multiple (Optimum)	Yes
Maximum	No

Global Axis corresponding to vertical direction	Y
Convert Existing Data	Yes
Default Global Plane for z-axis	XZ
Plate Local Axis Orientation	Global

Hot Rolled Steel	AISC 15th (360-16): ASD
Stiffness Adjustment	Yes (Iterative)
Notional Annex	None
Connections	AISC 15th (360-16): ASD
Cold Formed Steel	AISI S100-16: ASD
Stiffness Adjustment	Yes (Iterative)
Wood	AWC NDS-18 / SDPWS-15 ASD
Temperature	< 100F
Concrete	ACI 318-14
Masonry	TMS 402-16: ASD
Aluminum	AA ADM1-15: ASD
Structure Type	Building
Stiffness Adjustment	Yes (Iterative)
Stainless	AISC 14th (360-10): ASD
Stiffness Adjustment	Yes (Iterative)

Analysis Methodology	Exact Integration Method
Parame Beta Factor	0.65

Compression Stress Block	Rectangular Stress Block
Analyze using Cracked Sections	Yes
Leave room for horizontal rebar splices (2*d bar spacing)	Yes
List forces which were ignored for design in the Detail Report	Yes

Column Min Steel	1
Column Max Steel	4
Rebar Material Spec	ASTM A615
Warn if beam-column framing arrangement is not understood	No
Number of Shear Regions	4
Region 2 & 3 Spacing Increase Increment (in)	4

Code	ASCE 7-16
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Company :CFS Engineering Group, Inc.
 Designer :Carlos F. Sanz, PE
 Job Number :23011.00
 Model Name:Casa Ohad - Structural Frames

Checked By : _____

Model Settings (Continued)

Risk Category	I or II
Drift Cat	Other
Base Elevation (ft)	
Include the weight of the structure in base shear calcs	Yes
S_1 (g)	1
SD_1 (g)	1
SD_s (g)	1
T_L (sec)	5
T Z (sec)	
T X (sec)	
C_dZ	0.02
C_dX	0.02
$C_{Exp. Z}$	0.75
$C_{Exp. X}$	0.75
R Z	3
R X	3
Ω_0Z	1
Ω_0X	1
C_aZ	1
C_aX	1
ρZ	1
ρX	1

Company :CFS Engineering Group, Inc.
 Designer :Carlos F. Sanz, PE
 Job Number :23011.00
 Model Name:Casa Ohad - Structural Frames

Checked By : _____

Hot Rolled Steel Properties

	Label	E [ksi]	G [ksi]	Nu	Therm. Coeff. [$10^{-6} F^{-1}$]	Density [k/ft ³]	Yield [ksi]	Ry	Fu [ksi]	Rt
1	A500 Gr.B Rect	29000	11154	0.3	0.65	0.527	46	1.4	58	1.3

Concrete Properties

	Label	E [ksi]	G [ksi]	Nu	Therm. Coeff. [$10^{-6} F^{-1}$]	Density [k/ft ³]	f'c [ksi]	Lambda	Flex Steel [ksi]	Shear Steel [ksi]
1	Conc4000NW	3644	1584	0.15	0.6	0.145	4	1	60	60

Hot Rolled Steel Section Sets

	Label	Shape	Type	Design List	Material	Design Rule	Area [in ²]	Iyy [in ⁴]	Izz [in ⁴]	J [in ⁴]
1	COL-HSS6x3x3/8	HSS6X3X6	Column	Tube	A500 Gr.B Rect	Typical	5.48	7.48	22.7	19.3
2	COL-HSS8x3x3/8	HSS8X3X6	Column	Tube	A500 Gr.B Rect	Typical	6.88	10	48.5	28.5
3	COL-HSS8x8x1/4	HSS8X8X4	Column	SquareTube	A500 Gr.B Rect	Typical	7.1	70.7	70.7	111
4	BM-HSS8x2x1/4	HSS8X2X4	Beam	Tube	A500 Gr.B Rect	Typical	4.3	2.94	28.5	9.36
5	BM-HSS8x4x1/4	HSS8X4X4	Beam	Tube	A500 Gr.B Rect	Typical	5.24	14.4	42.5	35.3

Concrete Section Sets

	Label	Shape	Type	Design List	Material	Design Rule	Area [in ²]	Iyy [in ⁴]	Izz [in ⁴]	J [in ⁴]
1	COL8x12	CRECT12X8	Column	Rectangular	Conc4000NW	Typical	96	512	1152	1187.84
2	COL8x16	CRECT16X8	Column	Rectangular	Conc4000NW	Typical	128	682.667	2730.667	1870.507
3	COL8x17	CRECT17X8	Column	Rectangular	Conc4000NW	Typical	136	725.333	3275.333	2041.173
4	COL8x24	CRECT24X8	Column	Rectangular	Conc4000NW	Typical	192	1024	9216	3235.84
5	COL8x25	CRECT25X8	Column	Rectangular	Conc4000NW	Typical	200	1066.667	10416.667	3406.507
6	COL8x28	CRECT28X8	Column	Rectangular	Conc4000NW	Typical	224	1194.667	14634.667	3918.507
7	COL8x30	CRECT30X8	Column	Rectangular	Conc4000NW	Typical	240	1280	18000	4259.84
8	COL8x31	CRECT31X8	Column	Rectangular	Conc4000NW	Typical	248	1322.667	19860.667	4430.507
9	COL8x32	CRECT32X8	Column	Rectangular	Conc4000NW	Typical	256	1365.333	21845.333	4601.173
10	COL8x40	CRECT40X8	Column	Rectangular	Conc4000NW	Typical	320	1706.667	42666.667	5966.507
11	COL10x24	CRECT24X10	Column	Rectangular	Conc4000NW	Typical	240	2000	11520	5900
12	COL12x16	CRECT16X12	Column	Rectangular	Conc4000NW	Typical	192	2304	4096	4861.44
13	COL28x24	CRECT28X24	Column	Rectangular	Conc4000NW	Typical	672	32256	43904	59351.04
14	BM8x16	CRECT16X8	Beam	Rectangular	Conc4000NW	Typical	128	682.667	2730.667	1870.507
15	BM8x18	CRECT18X8	Beam	Rectangular	Conc4000NW	Typical	144	768	3888	2211.84
16	BM8x19.25	CRECT19.25X8	Beam	Rectangular	Conc4000NW	Typical	154	821.333	4755.552	2425.173
17	BM8x20	CRECT20X8	Beam	Rectangular	Conc4000NW	Typical	160	853.333	5333.333	2553.173
18	BM8x24	CRECT24X8	Beam	Rectangular	Conc4000NW	Typical	192	1024	9216	3235.84
19	BM8x25	CRECT25X8	Beam	Rectangular	Conc4000NW	Typical	200	1066.667	10416.667	3406.507
20	BM8x28.5	CRECT28.5X8	Beam	Rectangular	Conc4000NW	Typical	228	1216	15432.75	4003.84
21	BM8x32	CRECT32X8	Beam	Rectangular	Conc4000NW	Typical	256	1365.333	21845.333	4601.173
22	BM10x16	CRECT16X10	Beam	Rectangular	Conc4000NW	Typical	160	1333.333	3413.333	3233.333
23	BM10x32	CRECT32X10	Beam	Rectangular	Conc4000NW	Typical	320	2666.667	27306.667	8566.667
24	BM12x14	CRECT14X12	Beam	Rectangular	Conc4000NW	Typical	168	2016	2744	3709.44
25	BM12x14.5	CRECT14.5X12	Beam	Rectangular	Conc4000NW	Typical	174	2088	3048.625	3997.44
26	BM12x16	CRECT16X12	Beam	Rectangular	Conc4000NW	Typical	192	2304	4096	4861.44
27	BM12x32	CRECT32X12	Beam	Rectangular	Conc4000NW	Typical	384	4608	32768	14077.44
28	BM24x14	CRECT14X24	Beam	Rectangular	Conc4000NW	Typical	336	16128	5488	13884.64
29	BM24x16	CRECT16X24	Beam	Rectangular	Conc4000NW	Typical	384	18432	8192	19005.44
30	BM24x28.5	CRECT28.5X24	Beam	Rectangular	Conc4000NW	Typical	684	32832	46298.25	61655.04
31	BM28x16	CRECT16X28	Beam	Rectangular	Conc4000NW	Typical	448	29269.333	9557.333	24466.773
32	BM28x28.5	CRECT28.5X28	Beam	Rectangular	Conc4000NW	Typical	798	52136	54014.625	79466.24

Company :CFS Engineering Group, Inc.
 Designer :Carlos F. Sanz, PE
 Job Number :23011.00
 Model Name:Casa Ohad - Structural Frames

Checked By : _____

Basic Load Cases

	BLC Description	Category	Y Gravity	Distributed	Area(Member)
1	DEAD	DL	-1		22
2	LIVE	LL			7
3	ROOF LIVE	RLL			15
4	WIND NS	WL		23	21
5	WIND SN	WL		23	21
6	WIND EW	WL		12	15
7	WIND WE	WL		12	15

Load Combinations

	Description	Solve	P-Delta	BLC	Factor	BLC	Factor	BLC	Factor	BLC	Factor
1	DL		Y	1	1						
2	DL+LL		Y	1	1	2	1				
3	DL+RLL		Y	1	1	3	1				
4	DL+0.75LL+0.75RLL		Y	1	1	2	0.75	3	0.75		
5	DL+0.6WL(NS)		Y	1	1	4	0.6				
6	DL+0.6WL(SN)		Y	1	1	5	0.6				
7	DL+0.6WL(EW)		Y	1	1	6	0.6				
8	DL+0.6WL(WE)		Y	1	1	7	0.6				
9	DL+0.75LL+0.75RLL+0.45WL(NS)		Y	1	1	2	0.75	3	0.75	4	0.45
10	DL+0.75LL+0.75RLL+0.45WL(SN)		Y	1	1	2	0.75	3	0.75	5	0.45
11	DL+0.75LL+0.75RLL+0.45WL(EW)		Y	1	1	2	0.75	3	0.75	6	0.45
12	DL+0.75LL+0.75RLL+0.45WL(WE)		Y	1	1	2	0.75	3	0.75	7	0.45
13	0.6DL+0.6WL(NS)		Y	1	0.6	4	0.6				
14	0.6DL+0.6WL(SN)		Y	1	0.6	5	0.6				
15	0.6DL+0.6WL(EW)		Y	1	0.6	6	0.6				
16	0.6DL+0.6WL(WE)		Y	1	0.6	7	0.6				
17	1.4DL		Y	1	1.4						
18	1.2DL+1.6LL+0.5RLL		Y	1	1.2	2	1.6	3	0.5		
19	1.2DL+LL+1.6RLL		Y	1	1.2	2	1	3	1.6		
20	1.2DL+1.6RLL+0.5WL(NS)		Y	1	1.2	3	1.6	4	0.5		
21	1.2DL+1.6RLL+0.5WL(SN)		Y	1	1.2	3	1.6	5	0.5		
22	1.2DL+1.6RLL+0.5WL(EW)		Y	1	1.2	3	1.6	6	0.5		
23	1.2DL+1.6RLL+0.5WL(WE)		Y	1	1.2	3	1.6	7	0.5		
24	1.2DL+LL+0.5RLL+WL(NS)		Y	1	1.2	2	1	3	0.5	4	1
25	1.2DL+LL+0.5RLL+WL(SN)		Y	1	1.2	2	1	3	0.5	5	1
26	1.2DL+LL+0.5RLL+WL(EW)		Y	1	1.2	2	1	3	0.5	6	1
27	1.2DL+LL+0.5RLL+WL(WE)		Y	1	1.2	2	1	3	0.5	7	1
28	0.9DL+WL(NS)		Y	1	0.9	4	1				
29	0.9DL+WL(SN)		Y	1	0.9	5	1				
30	0.9DL+WL(EW)		Y	1	0.9	6	1				
31	0.9DL+WL(WE)		Y	1	0.9	7	1				

Service Load Combinations

Factored Load Combinations

Company :CFS Engineering Group, Inc.
 Designer :Carlos F. Sanz, PE
 Job Number :23011.00
 Model Name:Casa Ohad - Structural Frames

Checked By : _____

Service Load Analysis Results

Envelope Beam Deflections

	Member Label	Span		Location [ft]	y' [in]	(n) L'/y' Ratio	LC
0	M108	1	max	10.469	0.001	NC	1
1		1	min	0	0	NC	1
2	M109	1	max	1.351	-0.001	NC	3
3		1	min	0	0	NC	1
4	M110	1	max	13	0.001	NC	14
5		1	min	0	0.001	NC	1
6	M111	1	max	0	-0.001	NC	6
7		1	min	9.75	-0.154	1516	3
8	M112	1	max	19.583	-0.006	NC	16
9		1	min	9.18	-0.558	421	3
10	M113	1	max	3.25	0	NC	16
11		1	min	0	0	NC	1
12	M114	1	max	3.719	0	NC	16
13		1	min	0	0	NC	1
14		2	max	9.032	-0.001	NC	11
15		2	min	3.852	0	NC	1
16	M115	1	max	1.681	0.001	NC	2
17		1	min	0	0	NC	1
18		2	max	5.882	-0.001	NC	4
19		2	min	4.736	0.001	NC	13
20	M116	1	max	0.326	0	NC	16
21		1	min	0	0.001	NC	1
22		2	max	14.361	-0.001	NC	8
23		2	min	0.49	0	NC	1
24	M117	1	max	0.499	0	NC	16
25		1	min	0	0	NC	1
26	M118	1	max	8.655	0	NC	16
27		1	min	0	0	NC	1
28		2	max	14.083	0	NC	16
29		2	min	8.802	0	NC	1
30	M119	1	max	11.6	-0.001	NC	6
31		1	min	0	0	NC	1
32	M120	1	max	3.166	0	NC	16
33		1	min	0	0	NC	1
34	M121	1	max	7	0	NC	16
35		1	min	0	0	NC	1
36	M122	1	max	4.333	0	NC	16
37		1	min	0	0	NC	1
38	M123	1	max	3.111	0	NC	16
39		1	min	0	0	NC	1
40		2	max	7.334	0	NC	16
41		2	min	3.222	0	NC	1
42		3	max	10.667	0	NC	16
43		3	min	7.445	0	NC	1
44	M124	1	max	4	0	NC	16
45		1	min	0	0	NC	1
46	M125	1	max	5.7	-0.001	NC	14
47		1	min	0	0	NC	1
48	M126	1	max	3.75	0	NC	16
49		1	min	0	0	NC	1
50	M127	1	max	2.416	0	NC	16
51		1	min	0	0	NC	1
52	M128	1	max	1.363	0.001	NC	2
53		1	min	0	0	NC	1

All beam deflections well within allowable deflections range

Floor beam deflections < L/360 Roof beam deflections < L/240 **OK**

Company :CFS Engineering Group, Inc.
 Designer :Carlos F. Sanz, PE
 Job Number :23011.00
 Model Name:Casa Ohad - Structural Frames

Checked By : _____

Envelope Beam Deflections (Continued)

	Member Label	Span		Location [ft]	y' [in]	(n) L'/y' Ratio	LC
54	M129	1	max	0.375	0.001	NC	11
55		1	min	0	0.001	NC	1
56	M130	1	max	1.545	-0.001	NC	16
57		1	min	0	0	NC	1
58	M131	1	max	2.097	-0.001	NC	14
59		1	min	4.457	-0.007	7685	9
60		2	max	25.166	-0.004	NC	15
61		2	min	14.68	-0.236	1044	10
62	M132	1	max	5.167	0.001	NC	14
63		1	min	2.153	-0.001	NC	14
64	M133	1	max	12.029	-0.001	NC	6
65		1	min	0	0	NC	1
66	M134	1	max	3.209	0	NC	16
67		1	min	0	0	NC	1
68	M135	1	max	0.495	-0.001	NC	3
69		1	min	0	-0.001	NC	1
70	M136	1	max	19.511	0.001	NC	2
71		1	min	8.791	-0.098	5020	11
72	M137	1	max	15.732	-0.001	NC	12
73		1	min	0	-0.129	3051	12
74	M138	1	max	20.667	-0.001	NC	16
75		1	min	9.556	-0.141	3637	11
76	M139	1	max	0.821	0.001	NC	16
77		1	min	5.301	0.01	8731	10
78	M140	1	max	20	0.001	NC	6
79		1	min	6.875	-0.079	3049	11
80	M141	1	max	1.717	0.001	NC	9
81		1	min	0.799	-0.001	NC	14
82	M142	1	max	10.633	-0.001	NC	15
83		1	min	0	-0.001	NC	1
84	M143	1	max	0.933	0.001	NC	3
85		1	min	0	0	NC	1
86	M144	1	max	2.825	0	NC	16
87		1	min	0	0	NC	1
88	M145	1	max	3.25	0	NC	16
89		1	min	0	0	NC	1
90	M146	1	max	7.375	-0.001	NC	15
91		1	min	0	0	NC	1
92	M147	1	max	0	-0.001	NC	15
93		1	min	10.677	-0.025	9657	2
94	M148	1	max	6.42	0.001	NC	16
95		1	min	0	0.001	NC	16
96	M149	1	max	1.042	0.001	NC	7
97		1	min	14.583	0.026	9206	11
98	M150	1	max	3.408	-0.001	NC	13
99		1	min	1.573	0.008	6340	12
100		2	max	4.457	-0.003	NC	15
101		2	min	13.894	-0.248	1010	10
102	M151	1	max	0	-0.001	NC	6
103		1	min	7.187	-0.018	9770	12
104	M152	1	max	3.656	-0.001	NC	9
105		1	min	0	0	NC	1
106	M153	1	max	2.443	-0.001	NC	9
107		1	min	0	0.001	NC	1

All beam deflections well within allowable deflections range

Floor beam deflections < L/360 Roof beam deflections < L/240 **OK**

Company :CFS Engineering Group, Inc.
 Designer :Carlos F. Sanz, PE
 Job Number :23011.00
 Model Name:Casa Ohad - Structural Frames

Checked By : _____

Envelope Beam Deflections (Continued)

	Member Label	Span		Location [ft]	y' [in]	(n) L'/y' Ratio	LC
108	M154	1	max	16.734	-0.001	NC	15
109		1	min	0	0	NC	1
110	M155	1	max	10.394	0.001	NC	15
111		1	min	0	0.001	NC	1
112	M156	1	max	8.117	0.001	NC	12
113		1	min	0	0	NC	1
114	M157	1	max	0.178	0.001	NC	7
115		1	min	3.563	0.015	4481	3
116	M158	1	max	0	-0.001	NC	14
117		1	min	6.652	-0.137	1215	3
118	M159	1	max	4.667	0	NC	16
119		1	min	0	0	NC	1
120	M160	1	max	0.972	-0.001	NC	10
121		1	min	0	0	NC	1
122	M161	1	max	1.108	0.001	NC	3
123		1	min	0	0.001	NC	1
124	M162	1	max	2	0	NC	16
125		1	min	0	0	NC	1
126	M163	1	max	1.5	0	NC	16
127		1	min	0	0	NC	1
128	M164	1	max	1.667	0	NC	16
129		1	min	0	0	NC	1
130	M165	1	max	14.773	-0.001	NC	12
131		1	min	0	0	NC	1
132	M166	1	max	3.417	0	NC	16
133		1	min	0	0	NC	1
134	M167	1	max	3.792	0	NC	16
135		1	min	0	0	NC	1
136	M168	1	max	10.919	-0.001	NC	15
137		1	min	4.253	-0.117	1128	10
138	M169	1	max	6.258	-0.001	NC	14
139		1	min	3.059	-0.012	6528	3
140	M170	1	max	0.141	0.001	NC	5
141		1	min	0	0.001	NC	1
142	M171	1	max	0.122	-0.001	NC	3
143		1	min	0	-0.001	NC	6
144	M172	1	max	2.166	0	NC	16
145		1	min	0	0	NC	1
146	M173	1	max	1.615	0.001	NC	12
147		1	min	0	-0.001	NC	1
148	M174	1	max	17.17	-0.001	NC	16
149		1	min	0	-0.001	NC	1
150	M175	1	max	3.417	0	NC	16
151		1	min	0	0.001	NC	1
152	M176	1	max	0.834	0	NC	16
153		1	min	0	0	NC	1
154		2	max	1.667	0	NC	16
155		2	min	0.851	0	NC	1
156	M177	1	max	0	-0.001	NC	10
157		1	min	14.813	-0.352	898	10
158	M178	1	max	0.834	0	NC	16
159		1	min	0	0	NC	1
160		2	max	1.667	0	NC	16
161		2	min	0.851	0	NC	1

All beam deflections well within allowable deflections range

Floor beam deflections < L/360 Roof beam deflections < L/240 **OK**

Company :CFS Engineering Group, Inc.
 Designer :Carlos F. Sanz, PE
 Job Number :23011.00
 Model Name:Casa Ohad - Structural Frames

Checked By : _____

Envelope Beam Deflections (Continued)

	Member Label	Span		Location [ft]	y' [in]	(n) L'/y' Ratio	LC
162	M179	1	max	1.798	0.001	NC	12
163		1	min	0	0	NC	1
164	M180	1	max	0	-0.001	NC	14
165		1	min	8.375	-0.202	995	11
166	M181	1	max	3.173	0.001	NC	16
167		1	min	1.157	0.009	4972	9
168	M182	1	max	4.534	0.001	NC	8
169		1	min	0	0	NC	1
170	M183	1	max	0.551	0.001	NC	11
171		1	min	2.033	0.007	3257	10
172	M184	1	max	0	-0.003	NC	13
173		1	min	7.162	-0.176	1068	10
174	M185	1	max	1.416	0.003	6869	14
175		1	min	0.404	0.009	2037	9
176		2	max	1.719	0.001	NC	4
177		2	min	1.517	0	NC	1
178		3	max	6.168	-0.001	NC	10
179		3	min	3.539	0	NC	1
180	M186	1	max	3.126	0	NC	16
181		1	min	0	0	NC	1
182	M187	1	max	4.258	0	NC	16
183		1	min	0	0	NC	1
184	M188	1	max	3.242	0	NC	16
185		1	min	0	0	NC	1
186	M189	1	max	17.102	0.001	NC	14
187		1	min	0	0.092	4706	9
188	M190	1	max	1.059	-0.001	NC	15
189		1	min	0	0	NC	13
190		2	max	4.235	-0.001	NC	16
191		2	min	7.293	-0.013	7166	10
192	M191	1	max	1.432	-0.001	NC	13
193		1	min	0.174	0.001	NC	13
194	M192	1	max	1.774	0.001	NC	10
195		1	min	1.394	0.001	NC	14
196	M193	1	max	2.347	-0.001	NC	14
197		1	min	0	0	NC	1
198	M194	1	max	0	-0.001	NC	15
199		1	min	0	-0.001	NC	13
200	M195	1	max	10.582	0.001	NC	15
201		1	min	0	0.077	3633	10
202		2	max	15.453	-0.001	NC	2
203		2	min	11.758	0.009	6181	2
204	M196	1	max	16.958	0.001	NC	14
205		1	min	0	0	NC	1
206	M197	1	max	-0.169	0	0	
207		1	min	-0.169	0	NC	
208		2	max	13.845	-0.001	NC	1
209		2	min	0	0	NC	1
210	M198	1	max	1.078	-0.001	NC	10
211		1	min	0	0	NC	1
212	M199	1	max	10.885	-0.003	NC	10
213		1	min	5.5	0.194	678	13
214	M200	1	max	1.458	-0.001	NC	11
215		1	min	2.604	0.015	4045	5

All beam deflections well within allowable deflections range

Floor beam deflections < L/360 Roof beam deflections < L/240

OK

Company :CFS Engineering Group, Inc.
 Designer :Carlos F. Sanz, PE
 Job Number :23011.00
 Model Name:Casa Ohad - Structural Frames

Checked By : _____

Envelope Beam Deflections (Continued)

	Member Label	Span		Location [ft]	y' [in]	(n) L'/y' Ratio	LC
216	M201	1	max	5.055	-0.001	NC	6
217		1	min	4.333	-0.108	963	15
218	M202	1	max	1.677	-0.001	NC	13
219		1	min	11.5	-0.029	9596	10
220	M203	1	max	0.623	-0.001	NC	9
221		1	min	0	-0.001	NC	1
222	M204	1	max	3.25	0	NC	16
223		1	min	0	0	NC	1
224	M205	1	max	9.961	-0.001	NC	4
225		1	min	0	0	NC	1
226	M206	1	max	5	0	NC	16
227		1	min	0	0	NC	1
228	M207	1	max	10.771	-0.001	NC	15
229		1	min	0	-0.001	NC	13
230	M208	1	max	10.885	-0.001	NC	5
231		1	min	0	-0.001	NC	13
232	M209	1	max	0.181	0.001	NC	7
233		1	min	0	0	NC	1
234	M210	1	max	0.198	-0.001	NC	3
235		1	min	0	0	NC	1
236	M211	1	max	0.499	0	NC	16
237		1	min	0	0	NC	1
238	M212	1	max	4.333	0	NC	16
239		1	min	0	0	NC	1
240	M213	1	max	3.111	0	NC	16
241		1	min	0	0	NC	1
242		2	max	7.334	0	NC	16
243		2	min	3.222	0	NC	1
244		3	max	10.667	0	NC	16
245		3	min	7.445	0	NC	1
246	M214	1	max	4	0	NC	16
247		1	min	0	0	NC	1
248	M215	1	max	2.978	-0.001	NC	4
249		1	min	0	0	NC	1
250	M216	1	max	3.75	0	NC	16
251		1	min	0	0	NC	1
252	M217	1	max	10.724	-0.001	NC	9
253		1	min	0	0	NC	1
254	M218	1	max	0.579	0.001	NC	2
255		1	min	0	0	NC	1
256	M219	1	max	0.273	-0.001	NC	14
257		1	min	12.811	-0.097	3225	3
258	M220	1	max	1.084	0.001	NC	5
259		1	min	0	0.003	8501	11
260	M221	1	max	7.333	0	NC	16
261		1	min	0	0	NC	1
262	M222	1	max	3.167	0	NC	16
263		1	min	0	-0.001	NC	1
264	M223	1	max	7.666	0.001	NC	11
265		1	min	0	0	NC	1
266	M224	1	max	11.933	-0.001	NC	14
267		1	min	6.657	-0.034	4303	11
268	M225	1	max	3.386	-0.001	NC	11
269		1	min	0	0	NC	1

All beam deflections well within allowable deflections range

Floor beam deflections < L/360 Roof beam deflections < L/240

OK

Company :CFS Engineering Group, Inc.
 Designer :Carlos F. Sanz, PE
 Job Number :23011.00
 Model Name:Casa Ohad - Structural Frames

Checked By : _____

Envelope Beam Deflections (Continued)

	Member Label	Span		Location [ft]	y' [in]	(n) L'/y' Ratio	LC
270	M226	1	max	0.029	0.001	NC	10
271		1	min	0	0.001	NC	1
272	M227	1	max	1.557	-0.001	NC	14
273		1	min	0	0.001	NC	1
274	M228	1	max	3.25	0.001	NC	14
275		1	min	8.75	0.016	9187	11
276	M229	1	max	3.387	0.001	NC	9
277		1	min	8.655	-0.017	8602	9
278	M230	1	max	0.29	-0.001	NC	16
279		1	min	3.291	-0.014	7739	11
280	M231	1	max	8.167	0.002	NC	14
281		1	min	4.424	0.024	4124	11
282	M232	1	max	5.486	-0.001	NC	16
283		1	min	0.347	-0.001	NC	13
284	M233	1	max	5	-0.001	NC	13
285		1	min	5	-0.001	NC	14
286	M234	1	max	0.486	-0.001	NC	3
287		1	min	0	-0.001	NC	1
288	M235	1	max	2.521	0.001	NC	4
289		1	min	0	0	NC	1
290	M236	1	max	37.666	-0.001	NC	2
291		1	min	17.656	-0.412	1097	3
292	M237	1	max	0.688	-0.001	NC	11
293		1	min	12.604	-0.037	7123	3
294	M238	1	max	0	-0.002	NC	15
295		1	min	14.156	-0.107	2867	3
296		2	max	-0.262	0	0	
297		2	min	-0.262	0	NC	
298	M239	1	max	1.671	-0.001	NC	11
299		1	min	0	-0.001	NC	13
300	M240	1	max	2.955	-0.001	NC	7
301		1	min	0	-0.001	NC	1
302	M241	1	max	2.765	0.001	NC	3
303		1	min	0	0	NC	1
304	M242	1	max	2.531	0.001	NC	5
305		1	min	0	0	NC	1
306	M243	1	max	4.5	0	NC	16
307		1	min	0	0	NC	1
308	M244	1	max	17.544	-0.001	NC	3
309		1	min	0	0	NC	1
310	M245	1	max	0.075	0.001	NC	9
311		1	min	0	0.001	NC	1
312	M246	1	max	9.519	0.001	NC	8
313		1	min	0	0.001	NC	3
314	M247	1	max	12.209	-0.001	NC	14
315		1	min	5.723	-0.052	2822	3
316	M248	1	max	1.453	-0.001	NC	10
317		1	min	0	0	NC	1
318	M249	1	max	0.747	-0.001	NC	14
319		1	min	0	0	NC	1
320	M250	1	max	2.491	-0.001	NC	4
321		1	min	0	0.001	NC	1
322	M251	1	max	3.111	0.001	NC	16
323		1	min	0	-0.001	NC	5

All beam deflections well within allowable deflections range
 Floor beam deflections < L/360 Roof beam deflections < L/240 **OK**

Company :CFS Engineering Group, Inc.
 Designer :Carlos F. Sanz, PE
 Job Number :23011.00
 Model Name:Casa Ohad - Structural Frames

Checked By : _____

Envelope Beam Deflections (Continued)

	Member Label	Span		Location [ft]	y' [in]	(n) L'/y' Ratio	LC
324	M252	1	max	1.63	0.001	NC	14
325		1	min	8.694	-0.092	1709	10
326	M253	1	max	9.113	-0.001	NC	14
327		1	min	7.194	0.016	7061	10
328	M254	1	max	4.453	0.001	NC	15
329		1	min	0	-0.001	NC	5
330	M255	1	max	0.192	0.001	NC	15
331		1	min	2.878	0.022	5112	9
332	M256	1	max	0	-0.001	NC	14
333		1	min	6.113	-0.126	1238	9
334	M257	1	max	14.471	-0.001	NC	11
335		1	min	10.712	-0.001	NC	14
336	M258	1	max	8.548	-0.001	NC	6
337		1	min	0	0.001	NC	1
338	M259	1	max	11.517	0.001	NC	13
339		1	min	5.163	-0.03	5059	3
340	M260	1	max	3.126	0	NC	16
341		1	min	0	0	NC	1
342	M261	1	max	4.258	0	NC	16
343		1	min	0	0	NC	1
344	M262	1	max	3.242	0	NC	16
345		1	min	0	0	NC	1
346	M263	1	max	17.853	-0.001	NC	5
347		1	min	9.021	-0.05	4304	3
348	M264	1	max	12.959	-0.001	NC	14
349		1	min	0	0.032	9604	9
350	M265	1	max	1.514	-0.001	NC	14
351		1	min	0	0.001	NC	13
352	M266	1	max	1.169	-0.001	NC	1
353		1	min	0	-0.001	NC	13
354	M267	1	max	11.087	-0.001	NC	16
355		1	min	0	-0.001	NC	5
356	M268	1	max	5.868	-0.001	NC	1
357		1	min	0	0	NC	1

All beam deflections well within allowable deflections range
 Floor beam deflections < L/360 Roof beam deflections < L/240 **OK**

Envelope X-Direction Story Drift - Service

	Story (Elevation)	Story Drift[in]	Loc (Z,X)	LC Drift Ratio (%)	Loc (Z,X)	LC 2nd/1st Ratio	Loc (Z,X)	LC
0	Diaph.: 1 (25.667 ft)	max	0.02	74.375, 125	12	0.013	74.375, 125	12
1		min	-0.005	13.708, 125	15	0.003	13.708, 125	15
2	Diaph.: 2 (12.833 ft)	max	0.006	74.375, 150.833	16	0.007	13.708, 149.667	7
3		min	-0.011	13.708, 149.667	7	0.002	74.375, 150.833	12

Negligible story drift in the E-W direction **OK**

Envelope Z-Direction Story Drift - Service

	Story (Elevation)	Story Drift[in]	Loc (Z,X)	LC Drift Ratio (%)	Loc (Z,X)	LC 2nd/1st Ratio	Loc (Z,X)	LC
0	Diaph.: 1 (25.667 ft)	max	0.022	31.25, 33.5	5	0.021	23.041, 150.833	6
1		min	-0.033	23.041, 150.833	6	0.008	23.041, 150.833	15
2	Diaph.: 2 (12.833 ft)	max	0.017	13.708, 149.667	13	0.012	13.708, 143.667	6
3		min	-0.019	13.708, 143.667	6	0	13.708, 143.667	15

Negligible story drift in the N-S direction **OK**

Company :CFS Engineering Group, Inc.
 Designer :Carlos F. Sanz, PE
 Job Number :23011.00
 Model Name:Casa Ohad - Structural Frames

Checked By : _____

Envelope AISC 15TH (360-16): ASD Member Steel Code Checks

	Member	Shape	Code Check	Loc[ft]	LC	Shear Check	Loc[ft]	Dir	LC	Pnc/om [k]	Pnt/om [k]	Mnyy/om [k-ft]	Mnzz/om [k-ft]	Cb	Eqn
0	M10	HSS8X8X4	0.034	0	12	0	14.833	y	12	157.888	195.569	44.104	44.104	1.667	H1-1b*
1	M11	HSS8X8X4	0.024	0	12	0.021	10.167	z	7	176.859	195.569	44.104	44.104	1.667	H1-1b
2	M46	HSS6X3X6	0.224	0	9	0	13.5	y	16	42.842	150.946	13.841	22.485	1	H1-1a*
3	M47	HSS6X3X6	0.441	0	9	0	13.666	y	16	41.804	150.946	13.841	22.478	1	H1-1a*
4	M50	HSS6X3X6	0.076	0	3	0.002	11.501	z	10	59.044	150.946	13.841	22.725	1.667	H1-1b
5	M59	HSS6X3X6	0.549	0	3	0	13.5	y	16	42.842	150.946	13.841	22.485	1	H1-1a*
6	M61	HSS8X3X6	0.929	0	10	0	13.666	y	16	55.887	189.509	18.088	36.393	1	H1-1a*
7	M62	HSS6X3X6	0.437	0	3	0	11.501	z	9	59.044	150.946	13.841	22.725	1.667	H1-1a
8	M64	HSS6X3X6	0.294	0	3	0.001	11.501	z	9	59.044	150.946	13.841	22.725	1.667	H1-1a
9	M65	HSS6X3X6	0.383	0	3	0.003	11.501	z	10	59.044	150.946	13.841	22.725	1.667	H1-1a
10	M68	HSS8X8X4	0.241	0	10	0.108	1.833	y	10	194.93	195.569	44.104	44.104	1.667	H1-1b
11	M89	HSS8X8X4	0.129	0	2	0.005	10.167	y	12	176.859	195.569	44.104	44.104	1.667	H1-1b
12	M99	HSS8X8X4	0.136	0	11	0	12.458	y	16	168.164	195.569	44.104	44.104	1	H1-1b*
13	M199	HSS8X4X4	0.437	5.5	5	0.057	11	y	13	94.22	144.335	17.777	30.529	1.136	H1-1b
14	M200	HSS8X2X4	0.29	2.083	9	0.23	0	z	2	83.117	118.443	7.361	22.22	1.136	H1-1b
15	M201	HSS8X2X4	0.777	4.333	11	0.163	8.666	z	2	40.86	118.443	7.361	22.22	1.136	H1-1b

All steel member code checks < 1.0 **OK**

Company :CFS Engineering Group, Inc.
 Designer :Carlos F. Sanz, PE
 Job Number :23011.00
 Model Name:Casa Ohad - Structural Frames

Checked By : _____

Factored Load Analysis Results

Envelope Concrete Beam Design Results

Member	Shape	UC Max Top	Loc[ft]	UC LC	UC Max Bot	Loc[ft]	UC LC	Shear UC	Loc[ft]	UC LC	Phi*Mnz Top[k-ft]	Phi*Mnz Bot[k-ft]	Phi*Vny[k]
0	M108 CRECT20X8	0.218	16.209	29	0.233	0	25	0.101	3.377	25	48.695	48.695	13.898
1	M109 CRECT20X8	0.255	16.209	25	0.108	16.209	28	0.104	2.702	24	48.695	48.695	13.898
2	M110 CRECT20X8	0.119	19.5	27	0.052	19.5	30	0.135	1.828	22	48.695	48.695	13.898
3	M111 CRECT16X8	0.743	19.5	23	0.603	9.547	23	0.472	13.203	23	52.784	37.651	10.862
4	M112 CRECT14X12	0.968	19.583	23	0.954	8.976	20	0.6	18.155	23	77.542	61.172	33.891
5	M113 CRECT32X12	Warning: No design for spans which qualify as 'Deep Beams'.											
6	M114 CRECT32X12	Warning: No design for spans which qualify as 'Deep Beams'.											
7	M115 CRECT16X8	Warning: No design for spans which qualify as 'Deep Beams'.											
8	M116 CRECT24X8	0.174	0.653	26	0.047	4.406	19	0.18	2.448	26	59.74	59.74	16.934
9	M117 CRECT24X8	Warning: No design for spans less than 1 ft.											
10	M118 CRECT32X8	Warning: No design for spans which qualify as 'Deep Beams'.											
11	M119 CRECT32X8	0.151	0	26	0.061	7.547	21	0.125	3.215	22	81.829	81.829	23.006
12	M120 CRECT32X8	Warning: No design for spans which qualify as 'Deep Beams'.											
13	M121 CRECT32X8	Warning: No design for spans which qualify as 'Deep Beams'.											
14	M122 CRECT32X8	Warning: No design for spans which qualify as 'Deep Beams'.											
15	M123 CRECT32X8	Warning: No design for spans which qualify as 'Deep Beams'.											
16	M124 CRECT32X8	Warning: No design for spans which qualify as 'Deep Beams'.											
17	M125 CRECT32X8	Warning: No design for spans which qualify as 'Deep Beams'.											
18	M126 CRECT32X8	Warning: No design for spans which qualify as 'Deep Beams'.											
19	M127 CRECT32X8	Warning: No design for spans which qualify as 'Deep Beams'.											
20	M128 CRECT32X8	0.585	26.167	19	0.413	0	23	0.489	11.175	18	81.829	81.829	23.006
21	M129 CRECT32X8	Warning: No design for spans which qualify as 'Deep Beams'.											
22	M130 CRECT16X8	0.065	0	24	0.076	7.03	18	0.212	5.717	18	37.651	37.651	10.862
23	M131 CRECT16X24	0.684	25.166	22	0.735	14.156	19	0.459	6.292	21	82.083	82.083	32.587
24	M132 CRECT16X8	0.304	4.521	25	0.503	20.666	19	0.445	4.521	25	37.651	37.651	31.187
25	M133 CRECT32X8	0.094	0	26	0.048	6.308	21	0.082	10.709	23	81.829	81.829	23.006
26	M134 CRECT32X8	Warning: No design for spans which qualify as 'Deep Beams'.											
27	M135 CRECT32X8	Warning: No design for spans which qualify as 'Deep Beams'.											
28	M136 CRECT16X8	0.913	0	18	0.466	7.504	18	0.48	19.082	19	37.651	37.651	10.862
29	M137 CRECT16X8	0.927	16.416	18	0.36	8.55	18	0.474	11.457	18	37.651	37.651	10.862
30	M138 CRECT16X8	0.871	0	18	0.574	8	18	0.458	17.556	19	52.784	37.651	10.862
31	M139 CRECT16X8	Warning: No design for spans which qualify as 'Deep Beams'.											
32	M140 CRECT16X8	0.868	0	19	0.786	6.458	19	0.495	1.042	18	52.784	37.651	31.05
33	M141 CRECT16X8	Warning: No design for spans which qualify as 'Deep Beams'.											
34	M142 CRECT28.5X8	0.253	12.009	18	0.22	4.628	18	0.28	9.257	18	72.165	72.165	20.349
35	M143 CRECT28.5X8	Warning: No design for spans which qualify as 'Deep Beams'.											
36	M144 CRECT24X8	Warning: No design for spans which qualify as 'Deep Beams'.											
37	M145 CRECT28.5X8	Warning: No design for spans which qualify as 'Deep Beams'.											
38	M146 CRECT28.5X8	0.237	0	18	0.092	6.25	18	0.207	2.75	18	72.165	72.165	20.349
39	M147 CRECT28.5X28	0.405	0	26	0.316	11.104	18	0.181	3.203	18	145.932	145.932	71.222
40	M148 CRECT28.5X28	Warning: No design for spans which qualify as 'Deep Beams'.											
41	M149 CRECT28.5X28	0.633	20	19	0.18	3.958	27	0.298	17.291	18	280.655	145.932	70.89
42	M150 CRECT16X28	0.585	25.166	26	0.706	12.583	18	0.49	20.448	18	76.903	108.89	38.018
43	M151 CRECT32X8	0.583	15	27	0.341	9.687	27	0.49	10.625	27	81.829	81.829	23.006
44	M152 CRECT32X8	Warning: No design for spans which qualify as 'Deep Beams'.											
45	M153 CRECT32X8	Warning: No design for spans which qualify as 'Deep Beams'.											
46	M154 CRECT32X8	0.098	0	24	0.048	19.833	28	0.075	9.917	21	81.829	81.829	23.006
47	M155 CRECT16X8	0.309	0	20	0.108	12.419	21	0.453	1.485	20	37.651	37.651	10.862
48	M156 CRECT16X8	0.034	3.577	21	0.094	0.55	20	0.367	1.651	20	37.651	37.651	10.862
49	M157 CRECT16X8	Warning: No design for spans which qualify as 'Deep Beams'.											
50	M158 CRECT16X8	0.875	0	23	0.805	6.218	20	0.517	1.301	20	37.651	37.651	31.187
51	M159 CRECT32X8	Warning: No design for spans which qualify as 'Deep Beams'.											
52	M160 CRECT32X8	Warning: No design for spans which qualify as 'Deep Beams'.											
53	M161 CRECT32X8	Warning: No design for spans which qualify as 'Deep Beams'.											

All concrete beams code check < 1.0 **OK**

Company :CFS Engineering Group, Inc.
 Designer :Carlos F. Sanz, PE
 Job Number :23011.00
 Model Name:Casa Ohad - Structural Frames

Checked By : _____

Envelope Concrete Beam Design Results (Continued)

Member	Shape	UC Max Top	Loc[ft]	UC LCUC Max Bot	Loc[ft]	UC LCShear	UCLoc[ft]	UC LCPhi*Mnz Top	Phi*Mnz Bot	Phi*Vny[K]			
54	M162CRECT32X8	Warning: No design for spans which qualify as 'Deep Beams'.											
55	M163CRECT32X8	Warning: No design for spans which qualify as 'Deep Beams'.											
56	M164CRECT32X8	Warning: No design for spans which qualify as 'Deep Beams'.											
57	M165CRECT16X8	0.198	0	24	0.03	4.13	24	0.283	7.307	19	37.651	37.651	10.862
58	M166CRECT16X8	Warning: No design for spans which qualify as 'Deep Beams'.											
59	M167CRECT16X8	Warning: No design for spans which qualify as 'Deep Beams'.											
60	M168CRECT14.5X12	0.947	0	19	0.943	2.069	19	0.819	1.379	19	48.112	81.077	71.863
61	M169CRECT14X12	0.76	0	19	0.39	2.712	19	0.884	1.112	19	61.172	32.751	44.161
62	M170CRECT16X12	0.396	0	19	0.003	3.82	28	0.297	1.344	18	38.273	38.273	16.294
63	M171CRECT32X8	Warning: No design for spans less than 1 ft.											
64	M172CRECT32X8	Warning: No design for spans less than 1 ft.											
65	M173CRECT32X8	Warning: No design for spans which qualify as 'Deep Beams'.											
66	M174CRECT16X8	0.094	17.917	25	0.107	0	25	0.358	12.505	18	37.651	37.651	10.862
67	M175CRECT16X8	Warning: No design for spans which qualify as 'Deep Beams'.											
68	M176CRECT28.5X24	Warning: No design for spans less than 1 ft.											
69	M177CRECT16X24	0.973	26.333	19	0.864	15.635	19	0.565	3.566	18	109.788	109.788	52.68
70	M178CRECT28.5X24	Warning: No design for spans less than 1 ft.											
71	M179CRECT14X24	Warning: No design for spans which qualify as 'Deep Beams'.											
72	M180CRECT14X24	0.99	16.75	19	0.901	7.852	19	0.625	1.396	19	93.552	93.552	47.694
73	M181CRECT16X24	Warning: No design for spans which qualify as 'Deep Beams'.											
74	M182CRECT28.5X8	0.423	15.009	25	0.19	0	25	0.21	12.351	25	72.165	72.165	20.349
75	M183CRECT24X8	Warning: No design for spans which qualify as 'Deep Beams'.											
76	M184CRECT16X12	0.978	15.625	19	0.807	3.418	19	0.861	13.998	19	71.995	91.68	39.656
77	M185CRECT16X12	0.204	9.708	25	0.1	6.775	24	0.195	7.989	25	38.273	38.273	16.294
78	M186CRECT32X8	Warning: No design for spans which qualify as 'Deep Beams'.											
79	M187CRECT32X12	Warning: No design for spans which qualify as 'Deep Beams'.											
80	M188CRECT32X12	Warning: No design for spans which qualify as 'Deep Beams'.											
81	M189CRECT16X10	0.795	18.042	18	0.683	9.209	18	0.479	5.45	18	53.559	38.024	13.578
82	M190CRECT16X10	0.289	11.292	25	0.319	5.646	25	0.434	9.763	25	38.024	38.024	13.578
83	M191CRECT16X8	Warning: No design for spans which qualify as 'Deep Beams'.											
84	M192CRECT16X8	0.228	12.167	19	0.086	9.252	19	0.2	7.858	19	37.651	37.651	10.862
85	M193CRECT24X8	Warning: No design for spans which qualify as 'Deep Beams'.											
86	M194CRECT16X8	0.468	0	19	0.222	18.042	24	0.243	15.411	18	37.651	37.651	10.862
87	M195CRECT16X8	0.129	0	24	0.095	10.582	25	0.225	7.391	18	37.651	37.651	10.862
88	M196CRECT32X8	0.253	16.958	25	0.179	0	25	0.133	3.356	25	81.829	81.829	23.006
89	M197CRECT32X8	0.254	16.209	25	0.086	0.675	29	0.1	3.208	24	81.829	81.829	23.006
90	M198CRECT32X8	Warning: No design for spans which qualify as 'Deep Beams'.											
91	M202CRECT16X8	0.331	0	25	0.241	11.5	25	0.463	9.823	25	37.651	37.651	10.862
92	M203CRECT16X8	0.127	11.959	25	0.081	11.959	28	0.189	11.585	25	37.651	37.651	10.862
93	M204CRECT32X8	Warning: No design for spans which qualify as 'Deep Beams'.											
94	M205CRECT32X12	0.099	0	21	0.047	5.578	20	0.048	9.563	19	82.452	82.452	34.508
95	M206CRECT32X8	Warning: No design for spans which qualify as 'Deep Beams'.											
96	M207CRECT18X8	0.123	0	22	0.118	5.615	21	0.224	1.375	22	43.173	43.173	12.38
97	M208CRECT19.25X8	0.178	11	23	0.158	5.385	23	0.307	9.51	23	46.624	46.624	13.329
98	M209CRECT16X8	Warning: No design for spans which qualify as 'Deep Beams'.											
99	M210CRECT32X8	0.193	19	27	0.455	0	25	0.398	3.563	19	81.829	81.829	23.006
100	M211CRECT32X8	Warning: No design for spans less than 1 ft.											
101	M212CRECT32X8	Warning: No design for spans which qualify as 'Deep Beams'.											
102	M213CRECT32X8	Warning: No design for spans which qualify as 'Deep Beams'.											
103	M214CRECT32X8	Warning: No design for spans which qualify as 'Deep Beams'.											
104	M215CRECT32X8	Warning: No design for spans which qualify as 'Deep Beams'.											
105	M216CRECT32X8	Warning: No design for spans which qualify as 'Deep Beams'.											
106	M217CRECT32X8	0.349	11.833	23	0.228	5.547	20	0.392	9.368	23	81.829	81.829	23.006
107	M218CRECT32X8	Warning: No design for spans which qualify as 'Deep Beams'.											

All concrete beams code check < 1.0 **OK**

Company :CFS Engineering Group, Inc.
 Designer :Carlos F. Sanz, PE
 Job Number :23011.00
 Model Name:Casa Ohad - Structural Frames

Checked By : _____

Envelope Concrete Beam Design Results (Continued)

Member	Shape	UC Max Top	Loc[ft]	UC	LC	UC Max Bot	Loc[ft]	UC	LC	Shear	UC	Loc[ft]	UC	LC	Phi* Mnz Top	Phi* Mnz Bot	Phi* Vny
108	M219	CRECT32X8	0.858	0	22	0.717	11.448	19	0.454	18.807	19	116.402	81.829	23.006			
109	M220	CRECT32X8	Warning: No design for spans which qualify as 'Deep Beams'.														
110	M221	CRECT32X8	Warning: No design for spans which qualify as 'Deep Beams'.														
111	M222	CRECT32X8	Warning: No design for spans which qualify as 'Deep Beams'.														
112	M223	CRECT32X8	Warning: No design for spans which qualify as 'Deep Beams'.														
113	M224	CRECT32X8	0.229	0	18	0.534	9.044	19	0.485	3.517	19	81.829	116.402	22.958			
114	M225	CRECT32X8	Warning: No design for spans which qualify as 'Deep Beams'.														
115	M226	CRECT32X8	Warning: No design for spans which qualify as 'Deep Beams'.														
116	M227	CRECT32X8	Warning: No design for spans which qualify as 'Deep Beams'.														
117	M228	CRECT32X8	0.83	12	19	0.638	0	18	0.486	3.5	18	156.193	81.829	23.006			
118	M229	CRECT32X8	0.859	0	19	0.931	12.042	18	0.617	2.885	19	156.193	116.402	42.915			
119	M230	CRECT32X8	Warning: No design for spans which qualify as 'Deep Beams'.														
120	M231	CRECT32X8	Warning: No design for spans which qualify as 'Deep Beams'.														
121	M232	CRECT32X8	Warning: No design for spans which qualify as 'Deep Beams'.														
122	M233	CRECT32X8	Warning: No design for spans which qualify as 'Deep Beams'.														
123	M234	CRECT32X8	Warning: No design for spans which qualify as 'Deep Beams'.														
124	M235	CRECT32X8	Warning: No design for spans which qualify as 'Deep Beams'.														
125	M236	CRECT25X8	0.818	37.666	19	0.585	17.656	19	0.473	29.034	19	118.31	88.569	17.646			
126	M237	CRECT32X8	0.514	0	22	0.363	13.292	19	0.373	2.75	19	81.829	81.829	23.006			
127	M238	CRECT25X8	0.689	0	21	0.42	21.234	21	0.466	2.359	21	62.501	62.501	17.693			
128	M239	CRECT32X8	Warning: No design for spans which qualify as 'Deep Beams'.														
129	M240	CRECT32X8	Warning: No design for spans which qualify as 'Deep Beams'.														
130	M241	CRECT32X8	Warning: No design for spans which qualify as 'Deep Beams'.														
131	M242	CRECT32X8	Warning: No design for spans which qualify as 'Deep Beams'.														
132	M243	CRECT32X8	Warning: No design for spans which qualify as 'Deep Beams'.														
133	M244	CRECT32X8	0.237	0	24	0.098	17.917	24	0.144	2.986	24	81.829	81.829	23.006			
134	M245	CRECT32X8	Warning: No design for spans which qualify as 'Deep Beams'.														
135	M246	CRECT16X8	0.771	10.042	19	0.219	4.812	21	0.466	1.569	20	37.651	37.651	10.862			
136	M247	CRECT16X8	0.765	0	19	0.472	5.596	20	0.468	7.758	21	37.651	37.651	10.862			
137	M248	CRECT16X8	Warning: No design for spans which qualify as 'Deep Beams'.														
138	M249	CRECT16X8	0.116	17.917	20	0.057	0	29	0.286	8.959	20	37.651	37.651	10.862			
139	M250	CRECT16X8	Warning: No design for spans which qualify as 'Deep Beams'.														
140	M251	CRECT32X8	Warning: No design for spans which qualify as 'Deep Beams'.														
141	M252	CRECT16X12	0.813	0	19	0.997	11.004	19	0.573	1.494	19	113.246	54.076	35.974			
142	M253	CRECT16X12	0.976	9.209	19	0.923	0	18	0.501	7.674	19	71.995	54.076	36.298			
143	M254	CRECT32X8	Warning: No design for spans which qualify as 'Deep Beams'.														
144	M255	CRECT16X12	0.982	0	19	0.174	7.866	18	0.48	4.125	19	54.076	38.273	16.222			
145	M256	CRECT16X12	0.475	13.042	19	0.754	5.162	19	0.483	8.966	19	38.273	54.076	16.222			
146	M257	CRECT25X8	0.305	0	20	0.209	9.397	20	0.294	2.255	20	62.501	62.501	17.693			
147	M258	CRECT16X8	0.505	9.542	21	0.167	4.174	21	0.465	7.156	21	37.651	37.651	10.862			
148	M259	CRECT16X8	0.805	12.709	19	0.339	5.031	20	0.472	8.34	19	37.651	37.651	10.862			
149	M260	CRECT32X8	Warning: No design for spans which qualify as 'Deep Beams'.														
150	M261	CRECT32X8	Warning: No design for spans which qualify as 'Deep Beams'.														
151	M262	CRECT32X8	Warning: No design for spans which qualify as 'Deep Beams'.														
152	M263	CRECT32X10	0.518	0	19	0.721	9.397	19	0.492	15.222	21	82.203	82.203	28.757			
153	M264	CRECT25X8	0.475	0	22	0.367	5.13	20	0.476	3.51	22	62.501	62.501	17.693			
154	M265	CRECT32X8	0.063	18.167	19	0.154	0	24	0.079	4.92	24	81.829	81.829	23.006			
155	M266	CRECT32X8	0.587	0	24	0.336	18.709	24	0.343	2.923	24	81.829	81.829	23.006			
156	M267	CRECT32X8	0.458	0	20	0.227	8.097	20	0.378	2.99	20	81.829	81.829	23.006			
157	M268	CRECT32X8	Warning: No design for spans which qualify as 'Deep Beams'.														

All concrete beams code check < 1.0 **OK**

Company :CFS Engineering Group, Inc.
 Designer :Carlos F. Sanz, PE
 Job Number :23011.00
 Model Name:Casa Ohad - Structural Frames

Checked By : _____

Envelope Concrete Column Design Results

	Column	Shape	UC Max	Loc[ft]	UC LC	Shear	UC LC	Loc[ft]	Dir	Phi used	Pn[k]	Mny[k-ft]	Mnz[k-ft]	Vny[k]	Vnz[k]
0	M1	CRECT12X8	0.111	0	25	0.031	24	11.25	y	0.65	316.687			41.742	27.888
1	M2	CRECT24X10	0.041	11.25	25	0.026	26	11.25	z	0.65	434.853			57.472	35.707
2	M3	CRECT24X10	0.652	12.166	20	0.113	22	10.772	z	0.9	50.247			57.472	35.707
3	M4	CRECT17X8	0.085	0	25	0.006	26	10.772	y	0.65	449.936			40.697	23.794
4	M5	CRECT17X8	0.103	10.167	25	0.039	25	8.791	z	0.671	155.03			40.697	23.794
5	M6	CRECT16X12	0.099	0	26	0.057	26	10.772	y	0.65	631.151			37.205	31.87
6	M7	CRECT16X12	0.064	1.377	25	0.102	26	8.791	y	0.65	396.58			37.205	31.87
7	M8	CRECT16X12	0.083	0	27	0.026	27	10.772	y	0.65	631.151			37.205	31.87
8	M9	CRECT16X12	0.037	10.167	26	0.049	26	8.791	y	0.65	419.539			37.205	31.87
9	M12	CRECT12X8	0.153	0	25	0.026	25	10.772	y	0.65	316.687			41.742	27.888
10	M13	CRECT12X8	0.148	10.167	25	0.145	25	8.791	y	0.9	-3.145	17.932	28.432	41.742	27.888
11	M14	CRECT32X8	0.072	12.166	25	0.014	24	10.772	z	0.65	737.595	55.195	166.495	80.392	34.94
12	M15	CRECT32X8	0.07	10.167	28	0.093	25	8.791	z	0.9				80.392	34.94
13	M16	CRECT12X8	0.398	12.833	19	0.157	27	11.897	y	0.65	316.687		23.905	37.771	26.314
14	M17	CRECT16X8	0.127	0	27	0.069	27	11.897	y	0.65	428.176			38.028	23.003
15	M18	CRECT16X8	0.1	0.953	19	0.082	27	8.791	y	0.65	284.182	20.437	85.784	57.68	27.612
16	M19	CRECT16X8	0.12	0	25	0.01	25	10.772	z	0.65	428.176			57.68	27.612
17	M20	CRECT16X8	0.098	10.167	21	0.041	27	8.791	y	0.651	158.065			38.028	23.003
18	M21	CRECT12X8	0.095	0	25	0.014	26	10.772	y	0.65	316.687			27.52	20.04
19	M22	CRECT12X8	0.334	12.166	22	0.037	21	10.772	z	0.698	96.879	34.687	8.002	27.52	20.04
20	M23	CRECT12X8	0.062	12.166	25	0.015	26	10.772	y	0.9		18.596	29.595	27.52	20.04
21	M24	CRECT12X8	0.091	11.152	25	0.012	26	10.772	y	0.65	316.687	7.047		27.52	20.04
22	M25	CRECT12X8	0.08	1.377	25	0.116	25	8.791	z	0.65	316.687			27.52	20.04
23	M26	CRECT12X8	0.078	0	27	0.016	26	10.772	y	0.65	316.687			27.52	20.04
24	M27	CRECT12X8	0.043	10.167	26	0.074	27	8.791	y	0.65	180.523			27.52	20.04
25	M28	CRECT25X8	0.048	0	27	0.008	26	10.772	y	0.65	652.911			61.879	29.817
26	M29	CRECT25X8	0.038	1.377	27	0.029	27	8.791	y	0.65	382.366			61.879	29.817
27	M30	CRECT25X8	0.052	0	17	0.009	26	10.772	y	0.65	652.911			61.879	29.817
28	M31	CRECT25X8	0.238	10.167	22	0.071	21	8.791	z	0.9	49.466			61.879	29.817
29	M32	CRECT12X8	0.09	0	26	0.019	26	10.772	y	0.65	316.687			27.52	20.04
30	M33	CRECT12X8	0.139	10.167	21	0.055	21	8.791	z	0.9	32.912			27.52	20.04
31	M34	CRECT12X8	0.093	0	27	0.018	26	10.772	y	0.65	316.687			27.52	20.04
32	M35	CRECT12X8	0.095	10.167	21	0.041	25	8.791	z	0.65	122.838	37.431	3.299	27.52	20.04
33	M36	CRECT12X8	0.106	0	24	0.009	26	10.772	y	0.65	316.687			41.742	27.888
34	M37	CRECT12X8	0.197	10.167	25	0.084	25	8.791	z	0.9		18.596	29.595	41.742	27.888
35	M38	CRECT24X8	0.694	12.166	25	0.149	19	10.772	z	0.9	34.988			89.809	27.336
36	M39	CRECT24X8	0.995	10.167	19	0.38	19	8.791	z	0.861	47.415	55.895	44.942	112.577	46.585
37	M40	CRECT24X8	0.11	0	24	0.041	27	10.772	y	0.65	631.151			59.21	29.035
38	M41	CRECT24X8	0.234	10.167	19	0.252	21	8.791	y	0.666	242.367	30.32	216.538	59.21	29.035
39	M42	CRECT12X8	0.119	0	24	0.011	25	10.772	y	0.65	316.687			41.742	27.888
40	M43	CRECT12X8	0.11	10.167	21	0.124	21	8.791	y	0.9		18.596	29.595	41.742	27.888
41	M44	CRECT12X8	0.179	0	25	0.056	25	12.797	y	0.65	316.687			27.52	20.04
42	M45	CRECT12X8	0.072	0.635	25	0.099	24	8.791	z	0.65	310.597			27.52	20.04
43	M48	CRECT12X8	0.276	0	25	0.073	25	12.797	y	0.65	316.687			27.52	20.04
44	M49	CRECT12X8	0.295	11.501	25	0.218	25	10.782	y	0.9			29.595	37.771	26.314
45	M51	CRECT24X8	0.221	13.5	19	0.032	19	12.797	z	0.65	439.648	65.726	16.816	59.21	29.035
46	M52	CRECT12X8	0.063	13.5	24	0.01	19	12.797	z	0.9		18.596	29.595	41.742	27.888
47	M53	CRECT12X8	0.116	13.5	19	0.014	19	12.797	z	0.9		18.596	29.595	41.742	27.888
48	M54	CRECT12X8	0.4	13.5	19	0.036	19	12.797	y	0.65	245.309	16.439	38.748	27.52	20.04
49	M55	CRECT40X8	0.577	12.166	22	0.242	25	8.111	y	0.9	55.996			102.075	41.977
50	M56	CRECT12X8	0.093	0	24	0.011	26	10.772	y	0.65	316.687			41.742	27.888
51	M57	CRECT12X8	0.051	0	30	0.012	31	10.772	y	0.9	-73.631			41.742	27.888
52	M58	CRECT31X8	0.035	0	23	0.024	26	10.772	y	0.65	816.811			77.724	34.165
53	M60	CRECT12X8	0.114	0	19	0.02	25	10.772	y	0.65	316.687			27.52	20.04

All concrete columns code check < 1.0 **OK**

Company :CFS Engineering Group, Inc.
 Designer :Carlos F. Sanz, PE
 Job Number :23011.00
 Model Name:Casa Ohad - Structural Frames

Checked By : _____

Envelope Concrete Column Design Results (Continued)

Column	Shape	UC MaxLoc[ft]	UC LC Shear UC LC Loc[ft]	DirPhi used	Pn[k]	Mny[k-ft]	Mnz[k-ft]	Vny[k]	Vnz[k]
54	M63	CRECT24X8	0.27 0	19 0.02	2613.097 y	0.65	631.151		
55	M66	CRECT12X8	0.301 0.668	25 0.184	252.139 y	0.9	-13.801	15.674	24.47
56	M67	CRECT12X8	0.718 10.167	25 0.069	252.012 y	0.9	-17.193	14.954	23.204
57	M69	CRECT12X8	0.146 13.5	24 0.044	2512.234 y	0.65	235.957	28.497	17.884
58	M70	CRECT12X8	0.598 10.167	19 0.133	198.791 z	0.9	31.628		
59	M71	CRECT12X8	0.179 6.75	19 0.108	2412.234 y	0.65	316.687		
60	M72	CRECT12X8	0.216 10.167	19 0.169	241.589 y	0.65	300.259	21.469	10.146
61	M73	CRECT12X8	0.128 12.458	24 0.012	2911.16 y	0.65	278.464	16.272	30.965
62	M74	CRECT12X8	0.178 0	24 0.014	2510.772 y	0.65	316.687		
63	M75	CRECT12X8	0.221 11.497	19 0.084	241.872 y	0.788	74.695	32.7	3.267
64	M76	CRECT12X8	0.234 12.458	18 0.032	1911.29 z	0.698	97.901	35.551	5.422
65	M77	CRECT12X8	0.245 12.458	19 0.126	2611.29 y	0.9	12.187	21.146	34.059
66	M78	CRECT12X8	0.634 12.458	19 0.131	1911.29 z	0.774	78.568	33.286	3.148
67	M79	CRECT12X8	0.345 12.458	19 0.049	1911.29 z	0.844	66.941		
68	M80	CRECT12X8	0.332 10.167	23 0.039	278.791 y	0.9	-30.412		
69	M81	CRECT12X8	0.251 0.635	19 0.233	198.791 y	0.9	-3.335	17.892	28.362
70	M82	CRECT12X8	0.491 0.635	19 0.122	198.791 z	0.65	157.294	35.075	10.458
71	M83	CRECT12X8	0.222 0.635	19 0.034	198.791 z	0.9	-10.805	16.31	25.587
72	M84	CRECT30X8	0.589 12.166	26 0.226	248.111 y	0.9	21.65	42.649	185.829
73	M85	CRECT28X8	0.289 0	25 0.282	2411.29 y	0.65	718.191		
74	M86	CRECT16X8	0.153 0	24 0.123	2411.16 y	0.65	428.176		
75	M87	CRECT28X24	0.111 12.458	24 0.063	2611.16 z	0.65	1272.664		
76	M88	CRECT12X8	0.205 1.337	24 0.121	2511.497 y	0.65	316.687	5.59	
77	M90	CRECT16X8	0.994 0.635	18 0.744	181.906 z	0.9	-58.621	30.158	70.138
78	M91	CRECT12X8	0.506 10.167	19 0.224	248.791 y	0.65	200.287	24.415	33.809
79	M92	CRECT12X8	0.711 10.167	19 0.579	198.791 y	0.9	-37.911	24.542	40.716
80	M93	CRECT12X8	0.212 0.635	23 0.117	278.791 y	0.9			
81	M94	CRECT12X8	0.442 0.635	27 0.172	268.791 y	0.65	166.133		
82	M95	CRECT12X8	0.603 0.635	18 0.066	242.012 y	0.9	-7.167	17.082	26.94
83	M96	CRECT12X8	0.292 1.165	18 0.081	188.791 y	0.65	316.687		
84	M97	CRECT12X8	0.075 11.497	26 0.083	191.604 y	0.65	126.875	33.921	15.046
85	M98	CRECT12X8	0.191 0	24 0.045	2511.29 y	0.65	316.687		
86	M100	CRECT16X8	0.115 1.337	26 0.043	2611.497 y	0.65	290.817	18.641	87.354
87	M101	CRECT24X8	0.492 10.167	19 0.181	198.791 z	0.9		36.286	126.215
88	M102	CRECT12X8	0.519 10.167	27 0.237	278.791 y	0.9	-13.585	15.72	24.551
89	M103	CRECT12X8	0.282 0	26 0.023	2710.772 y	0.65	316.687		
90	M104	CRECT12X8	0.138 10.167	27 0.196	278.791 y	0.9	26.504	24.076	39.156
91	M105	CRECT12X8	0.349 11.152	24 0.016	2410.772 z	0.65	316.687	7.286	
92	M106	CRECT12X8	0.276 10.167	24 0.224	248.791 z	0.9	23.648	23.499	38.155
93	M107	CRECT12X8	0.209 12.166	25 0.053	2710.772 y	0.9	36.936		

All concrete columns code check < 1.0 **OK**

Concrete Beam Bending Reinforcement

Member	Shape	Span	Left Top	Left Bot	Mid Top	Mid Bot	Right Top	Right Bot
0	M108	CRECT20X8	1	2 #5	2 #5	2 #5	2 #5	2 #5
1	M109	CRECT20X8	1	2 #5	2 #5	2 #5	2 #5	2 #5
2	M110	CRECT20X8	1	2 #5	2 #5	2 #5	2 #5	2 #5
3	M111	CRECT16X8	1	2 #6		2 #5	2 #6	
4	M112	CRECT14X12	1	2 #5		2 #7	2 #8	
5	M113	CRECT32X12	1					
6	M114	CRECT32X12	1					
7			2					
8	M115	CRECT16X8	1					
9			2					

Beams reinforcing required <= reinforcing provided **OK**

Company :CFS Engineering Group, Inc.
 Designer :Carlos F. Sanz, PE
 Job Number :23011.00
 Model Name:Casa Ohad - Structural Frames

Checked By : _____

Concrete Beam Bending Reinforcement (Continued)

	Member	Shape	Span	Left Top	Left Bot	Mid Top	Mid Bot	Right Top	Right Bot
10	M116	CRECT24X8	1						
11			2	2 #5			2 #5	2 #5	
12	M117	CRECT24X8	1						
13	M118	CRECT32X8	1						
14			2						
15	M119	CRECT32X8	1	2 #5			2 #5	2 #5	2 #5
16	M120	CRECT32X8	1						
17	M121	CRECT32X8	1						
18	M122	CRECT32X8	1						
19	M123	CRECT32X8	1						
20			2						
21			3						
22	M124	CRECT32X8	1						
23	M125	CRECT32X8	1						
24	M126	CRECT32X8	1						
25	M127	CRECT32X8	1						
26	M128	CRECT32X8	1		2 #5	2 #5		2 #5	
27	M129	CRECT32X8	1						
28	M130	CRECT16X8	1	2 #5			2 #5		2 #5
29	M131	CRECT16X24	1						
30			2	3 #5			3 #6	3 #6	
31	M132	CRECT16X8	1		2 #5	2 #5	2 #5		2 #5
32	M133	CRECT32X8	1	2 #5	2 #5		2 #5	2 #5	
33	M134	CRECT32X8	1						
34	M135	CRECT32X8	1						
35	M136	CRECT16X8	1	2 #5		2 #5	2 #5	2 #5	
36	M137	CRECT16X8	1	2 #5		2 #5	2 #5	2 #5	
37	M138	CRECT16X8	1	2 #6		2 #5	2 #5	2 #5	
38	M139	CRECT16X8	1						
39	M140	CRECT16X8	1	2 #6			2 #5	2 #5	
40	M141	CRECT16X8	1						
41	M142	CRECT28.5X8	1		2 #5		2 #5	2 #5	
42	M143	CRECT28.5X8	1						
43	M144	CRECT24X8	1						
44	M145	CRECT28.5X8	1						
45	M146	CRECT28.5X8	1	2 #5			2 #5	2 #5	
46	M147	CRECT28.5X28	1	4 #5			4 #5	4 #5	
47	M148	CRECT28.5X28	1						
48	M149	CRECT28.5X28	1	4 #5	4 #5		4 #5	4 #7	
49	M150	CRECT16X28	1						
50			2	4 #5	4 #6	4 #5	4 #6	4 #5	
51	M151	CRECT32X8	1	2 #5			2 #5	2 #5	
52	M152	CRECT32X8	1						
53	M153	CRECT32X8	1						
54	M154	CRECT32X8	1	2 #5	2 #5		2 #5	2 #5	2 #5
55	M155	CRECT16X8	1	2 #5					2 #5
56	M156	CRECT16X8	1		2 #5	2 #5	2 #5	2 #5	2 #5
57	M157	CRECT16X8	1						
58	M158	CRECT16X8	1	2 #5			2 #5	2 #5	
59	M159	CRECT32X8	1						
60	M160	CRECT32X8	1						
61	M161	CRECT32X8	1						
62	M162	CRECT32X8	1						
63	M163	CRECT32X8	1						

Beams reinforcing required <= reinforcing provided **OK**

Company :CFS Engineering Group, Inc.
 Designer :Carlos F. Sanz, PE
 Job Number :23011.00
 Model Name:Casa Ohad - Structural Frames

Checked By : _____

Concrete Beam Bending Reinforcement (Continued)

	Member	Shape	Span	Left Top	Left Bot	Mid Top	Mid Bot	Right Top	Right Bot
64	M164	CRECT32X8	1						
65	M165	CRECT16X8	1	2 #5		2 #5	2 #5	2 #5	
66	M166	CRECT16X8	1						
67	M167	CRECT16X8	1						
68	M168	CRECT14.5X12	1	2 #6			2 #8	2 #7	
69	M169	CRECT14X12	1	2 #7			2 #5	2 #5	
70	M170	CRECT16X12	1	2 #5			2 #5	2 #5	
71	M171	CRECT32X8	1						
72	M172	CRECT32X8	1						
73	M173	CRECT32X8	1						
74	M174	CRECT16X8	1	2 #5	2 #5	2 #5		2 #5	
75	M175	CRECT16X8	1						
76	M176	CRECT28.5X24	1						
77			2						
78	M177	CRECT16X24	1	3 #6		3 #8	3 #7	3 #7	
79	M178	CRECT28.5X24	1						
80			2						
81	M179	CRECT14X24	1						
82	M180	CRECT14X24	1	3 #8			3 #7	3 #7	
83	M181	CRECT16X24	1						
84	M182	CRECT28.5X8	1		2 #5			2 #5	
85	M183	CRECT24X8	1						
86	M184	CRECT16X12	1	3 #9			2 #8	2 #7	
87	M185	CRECT16X12	1						
88			2						
89			3	2 #5			2 #5	2 #5	
90	M186	CRECT32X8	1						
91	M187	CRECT32X12	1						
92	M188	CRECT32X12	1						
93	M189	CRECT16X10	1	2 #6			2 #5	2 #6	
94	M190	CRECT16X10	1						
95			2		2 #5		2 #5	2 #5	
96	M191	CRECT16X8	1						
97	M192	CRECT16X8	1	2 #5		2 #5	2 #5	2 #5	
98	M193	CRECT24X8	1						
99	M194	CRECT16X8	1	2 #5					2 #5
100	M195	CRECT16X8	1	2 #5					2 #5
101			2						
102	M196	CRECT32X8	1	2 #5	2 #5	2 #5	2 #5	2 #5	2 #5
103	M197	CRECT32X8	1						
104			2	2 #5	2 #5		2 #5	2 #5	2 #5
105	M198	CRECT32X8	1						
106	M202	CRECT16X8	1	2 #5					2 #5
107	M203	CRECT16X8	1	2 #5		2 #5		2 #5	2 #5
108	M204	CRECT32X8	1						
109	M205	CRECT32X12	1	2 #5			2 #5	2 #5	
110	M206	CRECT32X8	1						
111	M207	CRECT18X8	1	2 #5			2 #5	2 #5	
112	M208	CRECT19.25X8	1	2 #5			2 #5	2 #5	
113	M209	CRECT16X8	1						
114	M210	CRECT32X8	1		2 #5			2 #5	
115	M211	CRECT32X8	1						
116	M212	CRECT32X8	1						
117	M213	CRECT32X8	1						

Beams reinforcing required <= reinforcing provided **OK**

Company :CFS Engineering Group, Inc.
 Designer :Carlos F. Sanz, PE
 Job Number :23011.00
 Model Name:Casa Ohad - Structural Frames

Checked By : _____

Concrete Beam Bending Reinforcement (Continued)

	Member	Shape	Span	Left Top	Left Bot	Mid Top	Mid Bot	Right Top	Right Bot
118			2						
119			3						
120	M214	CRECT32X8	1						
121	M215	CRECT32X8	1						
122	M216	CRECT32X8	1						
123	M217	CRECT32X8	1	2 #5			2 #5	2 #5	
124	M218	CRECT32X8	1						
125	M219	CRECT32X8	1	2 #6		2 #6	2 #5		2 #5
126	M220	CRECT32X8	1						
127	M221	CRECT32X8	1						
128	M222	CRECT32X8	1						
129	M223	CRECT32X8	1						
130	M224	CRECT32X8	1	2 #5			2 #6		2 #6
131	M225	CRECT32X8	1						
132	M226	CRECT32X8	1						
133	M227	CRECT32X8	1						
134	M228	CRECT32X8	1		2 #5			2 #7	
135	M229	CRECT32X8	1	2 #7					2 #6
136	M230	CRECT32X8	1						
137	M231	CRECT32X8	1						
138	M232	CRECT32X8	1						
139	M233	CRECT32X8	1						
140	M234	CRECT32X8	1						
141	M235	CRECT32X8	1						
142	M236	CRECT25X8	1	2 #6			2 #6	2 #7	
143	M237	CRECT32X8	1	2 #5			2 #5	2 #5	
144	M238	CRECT25X8	1	2 #5		2 #5	2 #5	2 #5	
145			2						
146	M239	CRECT32X8	1						
147	M240	CRECT32X8	1						
148	M241	CRECT32X8	1						
149	M242	CRECT32X8	1						
150	M243	CRECT32X8	1						
151	M244	CRECT32X8	1	2 #5				2 #5	2 #5
152	M245	CRECT32X8	1						
153	M246	CRECT16X8	1	2 #5			2 #5	2 #5	
154	M247	CRECT16X8	1	2 #5			2 #5	2 #5	
155	M248	CRECT16X8	1						
156	M249	CRECT16X8	1	2 #5	2 #5	2 #5		2 #5	
157	M250	CRECT16X8	1						
158	M251	CRECT32X8	1						
159	M252	CRECT16X12	1	2 #9			2 #6		2 #6
160	M253	CRECT16X12	1		2 #6			2 #7	
161	M254	CRECT32X8	1						
162	M255	CRECT16X12	1	2 #6			2 #5	2 #5	2 #5
163	M256	CRECT16X12	1	2 #5	2 #6		2 #6	2 #5	
164	M257	CRECT25X8	1	2 #5			2 #5	2 #5	
165	M258	CRECT16X8	1	2 #5			2 #5	2 #5	
166	M259	CRECT16X8	1	2 #5			2 #5	2 #5	
167	M260	CRECT32X8	1						
168	M261	CRECT32X8	1						
169	M262	CRECT32X8	1						
170	M263	CRECT32X10	1	2 #5			2 #5	2 #5	
171	M264	CRECT25X8	1	2 #5			2 #5	2 #5	

Beams reinforcing required <= reinforcing provided **OK**

Company :CFS Engineering Group, Inc.
 Designer :Carlos F. Sanz, PE
 Job Number :23011.00
 Model Name:Casa Ohad - Structural Frames

Checked By : _____

Concrete Beam Bending Reinforcement (Continued)

	Member	Shape	Span	Left Top	Left Bot	Mid Top	Mid Bot	Right Top	Right Bot
172	M265	CRECT32X8	1		2 #5			2 #5	
173	M266	CRECT32X8	1	2 #5					2 #5
174	M267	CRECT32X8	1	2 #5			2 #5	2 #5	2 #5
175	M268	CRECT32X8	1						

Beams reinforcing required <= reinforcing provided **OK**

Concrete Column Bending Reinforcement

	Column	Shape	Span	Perim Bars
0	M1	CRECT12X8	1	4 #5
1			2	
2	M2	CRECT24X10	1	4 #7
3			2	
4	M3	CRECT24X10	1	4 #7
5	M4	CRECT17X8	1	4 #6
6	M5	CRECT17X8	1	4 #6
7	M6	CRECT16X12	1	4 #7
8	M7	CRECT16X12	1	4 #7
9	M8	CRECT16X12	1	4 #7
10	M9	CRECT16X12	1	4 #7
11	M12	CRECT12X8	1	4 #5
12	M13	CRECT12X8	1	4 #5
13	M14	CRECT32X8	1	4 #8
14	M15	CRECT32X8	1	4 #8
15	M16	CRECT12X8	1	4 #5
16	M17	CRECT16X8	1	4 #6
17	M18	CRECT16X8	1	4 #6
18	M19	CRECT16X8	1	4 #6
19	M20	CRECT16X8	1	4 #6
20	M21	CRECT12X8	1	4 #5
21	M22	CRECT12X8	1	4 #5
22	M23	CRECT12X8	1	4 #5
23	M24	CRECT12X8	1	4 #5
24	M25	CRECT12X8	1	4 #5
25	M26	CRECT12X8	1	4 #5
26	M27	CRECT12X8	1	4 #5
27	M28	CRECT25X8	1	4 #7
28	M29	CRECT25X8	1	4 #7
29	M30	CRECT25X8	1	4 #7
30	M31	CRECT25X8	1	4 #7
31	M32	CRECT12X8	1	4 #5
32	M33	CRECT12X8	1	4 #5
33	M34	CRECT12X8	1	4 #5
34	M35	CRECT12X8	1	4 #5
35	M36	CRECT12X8	1	4 #5
36	M37	CRECT12X8	1	4 #5
37	M38	CRECT24X8	1	4 #7
38	M39	CRECT24X8	1	8 #6
39	M40	CRECT24X8	1	4 #7
40	M41	CRECT24X8	1	4 #7
41	M42	CRECT12X8	1	4 #5
42	M43	CRECT12X8	1	4 #5
43	M44	CRECT12X8	1	4 #5
44	M45	CRECT12X8	1	4 #5
45	M48	CRECT12X8	1	4 #5

Columns reinforcing required <= reinforcing provided **OK**

Company :CFS Engineering Group, Inc.
 Designer :Carlos F. Sanz, PE
 Job Number :23011.00
 Model Name:Casa Ohad - Structural Frames

Checked By : _____

Concrete Column Bending Reinforcement (Continued)

	Column	Shape	Span	Perim Bars
46	M49	CRECT12X8	1	4 #5
47	M51	CRECT24X8	1	4 #7
48	M52	CRECT12X8	1	4 #5
49	M53	CRECT12X8	1	4 #5
50	M54	CRECT12X8	1	4 #5
51	M55	CRECT40X8	1	8 #6
52			2	8 #6
53			3	8 #6
54	M56	CRECT12X8	1	4 #5
55	M57	CRECT12X8	1	4 #5
56	M58	CRECT31X8	1	4 #8
57	M60	CRECT12X8	1	4 #5
58	M63	CRECT24X8	1	4 #7
59	M66	CRECT12X8	1	4 #5
60	M67	CRECT12X8	1	4 #5
61			2	4 #5
62	M69	CRECT12X8	1	4 #5
63	M70	CRECT12X8	1	4 #5
64	M71	CRECT12X8	1	4 #5
65	M72	CRECT12X8	1	4 #5
66	M73	CRECT12X8	1	4 #5
67	M74	CRECT12X8	1	4 #5
68	M75	CRECT12X8	1	4 #5
69	M76	CRECT12X8	1	4 #5
70	M77	CRECT12X8	1	4 #5
71	M78	CRECT12X8	1	4 #5
72	M79	CRECT12X8	1	4 #5
73	M80	CRECT12X8	1	4 #5
74	M81	CRECT12X8	1	4 #5
75	M82	CRECT12X8	1	4 #5
76	M83	CRECT12X8	1	4 #5
77	M84	CRECT30X8	1	4 #7
78			2	4 #7
79			3	4 #7
80	M85	CRECT28X8	1	4 #7
81	M86	CRECT16X8	1	4 #6
82	M87	CRECT28X24	1	16 #6
83	M88	CRECT12X8	1	4 #5
84	M90	CRECT16X8	1	4 #8
85	M91	CRECT12X8	1	4 #5
86	M92	CRECT12X8	1	4 #7
87	M93	CRECT12X8	1	4 #5
88	M94	CRECT12X8	1	4 #5
89	M95	CRECT12X8	1	4 #5
90			2	4 #5
91	M96	CRECT12X8	1	4 #5
92	M97	CRECT12X8	1	4 #5
93	M98	CRECT12X8	1	4 #5
94	M100	CRECT16X8	1	4 #6
95	M101	CRECT24X8	1	4 #7
96	M102	CRECT12X8	1	4 #5
97	M103	CRECT12X8	1	4 #5
98	M104	CRECT12X8	1	4 #5
99	M105	CRECT12X8	1	4 #5
100	M106	CRECT12X8	1	4 #5
101	M107	CRECT12X8	1	4 #5

Columns reinforcing required <= reinforcing provided **OK**



CFS Engineering Group, Inc.
Structural Engineers

Foundations

Company :CFS Engineering Group, Inc.
 Designer :Carlos F. Sanz, PE
 Job Number :23011.00
 Model Name:Casa Ohad - Structural Frames

Checked By : _____

Envelope Service Load Reactions

Envelope Node Reactions

	Node Label		X [k]	LC	Y [k]	LC	Z [k]	LC	MX [k-ft]	LC	MY [k-ft]	LC	MZ [k-ft]	LC
0	N1	max	0.381	6	18.607	6	1.114	6	0	16	0	16	0	16
1		min	-0.197	13	1.129	13	0.052	13	0	1	0	1	0	1
2	N2	max	0.144	15	14.909	12	0.392	6	0	16	0	16	0	16
3		min	-0.177	8	4.81	15	-0.102	13	0	1	0	1	0	1
4	N3	max	-1.276	16	26.929	3	0.809	6	0	16	0	16	0	16
5		min	-2.648	3	12.167	13	-0.168	13	0	1	0	1	0	1
6	N4	max	0.074	14	3.278	3	1.265	6	0	16	0	16	0	16
7		min	-0.143	5	1.652	16	-1.153	13	0	1	0	1	0	1
8	N5	max	0.13	7	17.54	10	0.059	6	0	16	0	16	0	16
9		min	-0.041	16	3.211	13	-0.034	13	0	1	0	1	0	1
10	N6	max	1.021	7	30.844	11	0.155	6	0	16	0	16	0	16
11		min	-0.013	16	9.03	16	-0.042	13	0	1	0	1	0	1
12	N7	max	0.261	15	25.715	8	0.13	6	0	16	0	16	0	16
13		min	-0.727	8	3.13	15	-0.131	13	0	1	0	1	0	1
14	N8	max	-0.003	15	5.446	12	-0.002	15	0	16	0	16	0	16
15		min	-0.009	12	2.182	15	-0.005	3	0	1	0	1	0	1
16	N9	max	0.008	15	22.651	6	1.405	6	0	16	0	16	0	16
17		min	-0.007	16	-1.321	13	-0.837	13	0	1	0	1	0	1
18	N10	max	0.136	6	58.251	6	10.209	6	0	16	0	16	0	16
19		min	-0.115	13	-30.3	13	-6.161	13	0	1	0	1	0	1
20	N11	max	-0.067	13	67.091	6	11.847	6	0	16	0	16	0	16
21		min	-0.236	10	-30.003	13	-6.322	13	0	1	0	1	0	1
22	N12	max	-0.207	14	23.217	6	3.831	6	0	16	0	16	0	16
23		min	-0.469	3	-9.83	13	-1.861	13	0	1	0	1	0	1
24	N13	max	0.62	11	33.708	12	1.659	14	0	16	0	16	0	16
25		min	0.157	16	17.486	15	-1.635	5	0	1	0	1	0	1
26	N14	max	1.393	11	60.65	11	0.046	6	0	16	0	16	0	16
27		min	0.192	16	25.695	16	-0.003	13	0	1	0	1	0	1
28	N15	max	-0.407	15	28.502	12	0.009	14	0	16	0	16	0	16
29		min	-1.705	12	9.705	15	-0.017	5	0	1	0	1	0	1
30	N16	max	0.102	15	25.045	6	1.529	6	0	16	0	16	0	16
31		min	-0.226	12	0.278	13	-0.858	13	0	1	0	1	0	1
32	N17	max	0.097	13	30.18	5	5.984	14	0	16	0	16	0	16
33		min	-0.199	6	-6.49	14	-6.386	5	0	1	0	1	0	1
34	N18	max	0.062	14	35.953	5	6.729	14	0	16	0	16	0	16
35		min	-0.092	5	-2.518	14	-6.944	5	0	1	0	1	0	1
36	N19	max	1.08	7	16.067	6	0.988	6	0	16	0	16	0	16
37		min	-0.066	16	1.703	13	-0.284	13	0	1	0	1	0	1
38	N20	max	1.733	7	5.631	5	0.386	14	0	16	0	16	0	16
39		min	-0.54	16	0.427	14	-0.972	5	0	1	0	1	0	1
40	N21	max	1.404	7	20.246	9	0.415	3	0	16	0	16	0	16
41		min	-0.613	16	8.41	14	0.201	14	0	1	0	1	0	1
42	N22	max	1.201	7	18.796	5	1.988	14	0	16	0	16	0	16
43		min	-0.536	16	-7.345	14	-2.659	5	0	1	0	1	0	1
44	N23	max	1.175	7	7.442	5	0.023	6	0	16	0	16	0	16
45		min	-0.653	16	1.666	14	-0.005	13	0	1	0	1	0	1
46	N24	max	1.26	7	13.4	10	0.003	5	0	16	0	16	0	16
47		min	-0.723	16	5.019	13	-0.006	6	0	1	0	1	0	1
48	N25	max	0.477	15	12.386	12	0.009	2	0	16	0	16	0	16
49		min	-0.632	8	2.011	15	-0.001	13	0	1	0	1	0	1
50	N26	max	0.264	7	16.547	12	0.005	2	0	16	0	16	0	16
51		min	-0.158	16	7.634	15	-0.018	3	0	1	0	1	0	1
52	N27	max	0.329	7	17.895	10	0.04	2	0	16	0	16	0	16
53		min	-0.101	16	9.316	13	-0.008	13	0	1	0	1	0	1

Company :CFS Engineering Group, Inc.
 Designer :Carlos F. Sanz, PE
 Job Number :23011.00
 Model Name:Casa Ohad - Structural Frames

Checked By : _____

Envelope Node Reactions (Continued)

	Node Label		X [k]	LC	Y [k]	LC	Z [k]	LC	MX [k-ft]	LC	MY [k-ft]	LC	MZ [k-ft]	LC
54	N28	max	1.013	7	15.397	11	0.002	14	0	16	0	16	0	16
55		min	-0.09	16	4.887	16	-0.014	3	0	1	0	1	0	1
56	N29	max	0.549	7	14.945	12	0.009	14	0	16	0	16	0	16
57		min	-0.41	16	2.981	15	-0.012	5	0	1	0	1	0	1
58	N30	max	0.724	5	15.489	5	0.12	6	0	16	0	16	0	16
59		min	-0.582	14	-1.244	14	-0.029	13	0	1	0	1	0	1
60	N31	max	0.275	15	21.758	5	3.373	14	0	16	0	16	0	16
61		min	-0.495	8	-16.129	14	-4.053	5	0	1	0	1	0	1
62	N32	max	0.223	15	24.84	5	3.97	6	0	16	0	16	0	16
63		min	-0.729	8	-15.221	14	-3.78	13	0	1	0	1	0	1
64	N33	max	1.379	6	35.126	5	1.629	10	0	16	0	16	0	16
65		min	-1.031	13	-4.485	14	-0.771	13	0	1	0	1	0	1
66	N34	max	0.307	5	35.699	9	0.001	14	0	16	0	16	0	16
67		min	-0.302	14	11.112	14	-0.019	5	0	1	0	1	0	1
68	N35	max	0.087	15	19.835	5	0.647	14	0	16	0	16	0	16
69		min	-0.684	8	-1.451	14	-1.018	5	0	1	0	1	0	1
70	N36	max	0.037	11	27.226	10	1.439	6	0	16	0	16	0	16
71		min	0.014	16	2.591	13	-0.245	13	0	1	0	1	0	1
72	N37	max	0	8	9.579	9	0.001	5	0	16	0	16	0	16
73		min	-0.001	11	4.429	14	-0.001	6	0	1	0	1	0	1
74	N38	max	0.002	15	42.406	10	1.859	6	0	16	0	16	0	16
75		min	-0.002	16	7.186	13	-0.119	13	0	1	0	1	0	1
76	N39	max	0.262	11	52.01	12	0.574	10	0	16	0	16	0	16
77		min	0.016	16	26.496	14	0.243	13	0	1	0	1	0	1
78	N40	max	0.222	11	1.171	2	0.042	14	0	16	0	16	0	16
79		min	0.106	16	-0.078	3	-0.074	5	0	1	0	1	0	1
80	N41	max	0.001	8	18.439	9	0.002	5	0	16	0	16	0	16
81		min	-0.001	11	8.91	14	-0.002	6	0	1	0	1	0	1
82	N42	max	0.322	11	5.224	2	0.23	10	0	16	0	16	0	16
83		min	0.156	16	2.421	16	0.062	13	0	1	0	1	0	1
84	N43	max	-0.462	15	31.516	3	1.211	14	0	16	0	16	0	16
85		min	-2.746	12	17.108	14	-1.619	5	0	1	0	1	0	1
86	N44	max	0.351	11	50.78	9	0.731	10	0	16	0	16	0	16
87		min	0.172	16	25.6	14	0.327	13	0	1	0	1	0	1
88	N45	max	0.002	8	51.908	10	0.004	5	0	16	0	16	0	16
89		min	-0.004	11	25.942	13	-0.005	6	0	1	0	1	0	1
90	N46	max	0.001	8	23.523	3	0.002	5	0	16	0	16	0	16
91		min	-0.002	11	11.284	13	-0.002	6	0	1	0	1	0	1
92	N47	max	0.714	7	15.584	5	0.325	14	0	16	0	16	0	16
93		min	-0.167	16	0.556	14	-0.919	5	0	1	0	1	0	1
94	N48	max	0.301	15	6.102	8	0.03	10	0	16	0	16	0	16
95		min	-0.463	8	-1.358	15	-0.002	13	0	1	0	1	0	1
96	N49	max	1.105	11	14.099	12	0.033	6	0	16	0	16	0	16
97		min	0.011	16	5.188	15	-0.005	13	0	1	0	1	0	1
98	N50	max	0.09	2	20.576	11	0.687	14	0	16	0	16	0	16
99		min	0.031	16	10.693	16	-0.944	5	0	1	0	1	0	1
100	N51	max	0.771	11	86.625	10	-0.113	14	0	16	0	16	0	16
101		min	0.331	16	38.571	13	-0.363	9	0	1	0	1	0	1
102	N52	max	-0.025	15	19.849	9	0.525	14	0	16	0	16	0	16
103		min	-0.073	12	7.89	14	-0.798	5	0	1	0	1	0	1
104	N53	max	0.003	15	30.331	9	0.281	14	0	16	0	16	0	16
105		min	-0.024	12	15.526	14	-1.769	5	0	1	0	1	0	1
106	N54	max	-0.018	15	21.299	9	0.49	14	0	16	0	16	0	16
107		min	-0.058	12	5.154	14	-0.851	5	0	1	0	1	0	1

Company :CFS Engineering Group, Inc.
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 Job Number :23011.00
 Model Name:Casa Ohad - Structural Frames

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Envelope Node Reactions (Continued)

	Node Label		X [k]	LC	Y [k]	LC	Z [k]	LC	MX [k-ft]	LC	MY [k-ft]	LC	MZ [k-ft]	LC
108	N55	max	0.008	15	13.206	2	-0.18	14	0	16	0	16	0	16
109		min	-0.07	12	5.406	16	-0.37	9	0	1	0	1	0	1
110	N56	max	1.33	11	21.632	11	-0.347	14	0	16	0	16	0	16
111		min	0.253	16	7.149	16	-0.692	9	0	1	0	1	0	1
112	N57	max	0.566	7	24.781	12	-0.47	14	0	16	0	16	0	16
113		min	-0.155	16	8.863	15	-0.93	9	0	1	0	1	0	1
114	N58	max	0.017	15	18.098	12	-0.301	14	0	16	0	16	0	16
115		min	-0.048	8	8.035	15	-0.614	9	0	1	0	1	0	1
116	N59	max	0.019	7	34.051	9	-0.231	14	0	16	0	16	0	16
117		min	-0.007	16	10.042	14	-1.469	9	0	1	0	1	0	1
118	N60	max	3.105	7	16.694	7	0	13	0	16	0	16	0	16
119		min	-1.177	16	-3.808	16	-0.01	6	0	1	0	1	0	1
120	N61	max	0.539	15	14.115	6	1.31	6	0	16	0	16	0	16
121		min	-1.524	8	-0.6	13	-1.01	13	0	1	0	1	0	1
122	N62	max	0.814	15	14.257	8	-0.004	16	0	16	0	16	0	16
123		min	-3.097	8	-4.807	15	-0.01	10	0	1	0	1	0	1
124	N63	max	3.932	11	79.392	9	0.161	14	0	16	0	16	0	16
125		min	1.445	16	23.594	14	-0.726	9	0	1	0	1	0	1
126	N64	max	0.531	11	110.717	10	-2.001	14	0	16	0	16	0	16
127		min	0.263	16	47.32	13	-4.783	9	0	1	0	1	0	1
128	N65	max	0.04	2	26.379	5	0.235	14	0	16	0	16	0	16
129		min	0.005	16	-0.853	14	-0.937	5	0	1	0	1	0	1
130	N66	max	3.037	7	16.067	7	0.002	13	0	16	0	16	0	16
131		min	-1.182	16	-4.161	16	-0.007	6	0	1	0	1	0	1
132	N67	max	0.588	15	15.253	5	0.729	14	0	16	0	16	0	16
133		min	-1.407	8	-0.799	14	-1.863	5	0	1	0	1	0	1
134	N68	max	0.885	15	13.382	8	-0.003	13	0	16	0	16	0	16
135		min	-2.953	8	-5.31	15	-0.009	10	0	1	0	1	0	1
136	N69	max	-0.285	15	25.79	10	1.738	6	0	16	0	16	0	16
137		min	-2.142	12	12.179	13	-0.876	13	0	1	0	1	0	1
138	N70	max	0.212	11	34.737	9	-1.241	14	0	16	0	16	0	16
139		min	0.098	16	7.045	14	-4.23	9	0	1	0	1	0	1
140	N71	max	0.001	8	22.872	11	0.002	5	0	16	0	16	0	16
141		min	-0.002	7	9.316	16	-0.003	6	0	1	0	1	0	1
142	N72	max	0.922	7	49.675	11	-0.021	15	0	16	0	16	0	16
143		min	-0.257	16	20.748	16	-0.052	2	0	1	0	1	0	1
144	N73	max	-0.138	15	48.119	9	0.023	7	0	16	0	16	0	16
145		min	-2.504	8	19.213	14	-0.007	16	0	1	0	1	0	1
146	N74	max	-0.429	15	28.819	9	0.771	14	0	16	0	16	0	16
147		min	-2.098	12	2.98	14	-1.121	5	0	1	0	1	0	1
148	WP1	max	0.005	13	52.235	6	8.254	6	0.757	13	0.007	6	0	16
149		min	-0.085	6	-9.079	13	-6.189	13	-4.358	6	0	13	0	1
150	WP3	max	0.582	10	64.739	6	9.8	6	0.517	13	-0.02	13	0	16
151		min	0.243	13	-6.195	13	-6.642	13	-5.401	6	-0.049	10	0	1
152	WP5	max	0.054	6	17.965	10	2.558	6	0	16	0	16	0	16
153		min	-0.019	13	4.373	13	-1.578	13	0	1	0	1	0	1
154	WP6	max	0.043	13	26.162	5	3.481	14	0	16	0	16	0	16
155		min	-0.146	6	-15.92	14	-3.717	5	0	1	0	1	0	1
156	WP8	max	1.68	10	29.677	5	4.131	6	0	16	0	16	0	16
157		min	0.759	13	-13.888	14	-3.939	13	0	1	0	1	0	1
158	WP10	max	2.293	15	43.981	11	0.2	5	0	16	0.135	14	10.05	6
159		min	-4.663	8	3.42	16	-0.155	14	0	1	-0.202	5	-0.644	13
160	WP11	max	1.634	15	35.5	8	0.183	5	0	16	0.191	5	-0.533	13
161		min	-6.529	8	-0.273	15	-0.157	14	0	1	-0.144	14	-10.227	6

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Envelope Node Reactions (Continued)

	Node Label		X [k]	LC	Y [k]	LC	Z [k]	LC	MX [k-ft]	LC	MY [k-ft]	LC	MZ [k-ft]	LC
162	WP12	max	2.693	15	41.797	11	0.151	13	0	16	0.195	6	10.106	5
163		min	-4.007	8	2.256	16	-0.197	6	0	1	-0.136	13	-0.446	14
164	WP13	max	1.493	15	33.432	8	0.148	13	0	16	0.142	13	0.293	14
165		min	-6.628	8	-1.483	15	-0.192	6	0	1	-0.19	6	-11.241	5
166	WP14	max	0.028	16	6.694	9	1.651	14	0	9	0	5	0	9
167		min	-0.05	7	3.336	14	-2.462	5	0	14	0	14	0	14
168	WP16	max	7.827	7	13.611	12	0.102	13	0	16	0.45	6	3.266	16
169		min	-4.258	16	6.684	15	-0.084	6	0	1	-0.494	13	-6.933	7
170	WP18	max	1.669	15	39.476	10	0.002	5	0	16	0	14	-14.431	16
171		min	-10.127	8	17.717	13	-0.009	6	0	1	-0.024	5	-41.235	11
172	WP20	max	5.009	7	6.151	11	-0.047	13	0	16	0.107	10	2.457	5
173		min	-0.965	16	2.47	16	-0.136	10	0	1	0.037	13	-1.107	14
174	WP21	max	1.883	7	3.798	9	-0.047	14	0	16	0	16	0	16
175		min	-0.682	16	1.13	14	-0.124	9	0	1	0	1	0	1
176	WP22	max	5.748	7	13.966	9	0.125	3	0	16	0.578	10	-0.115	13
177		min	-4.643	16	3.665	14	0.055	13	0	1	0.205	13	-11.407	10
178	WP23	max	1.094	7	1.519	5	0.014	13	0	16	0	16	0	16
179		min	-0.716	16	-0.167	14	-0.13	6	0	1	0	1	0	1
180	WP24	max	3.656	7	3.866	9	0.087	10	0	16	0.028	6	0.954	6
181		min	-1.806	16	2.062	14	-0.004	13	0	1	-0.013	13	-0.074	13
182	WP25	max	1.278	7	2.086	12	0.021	10	0	16	0	13	0	12
183		min	-0.889	16	0.836	15	0.008	13	0	1	0	10	0	15
184	WP27	max	1.539	7	2.176	12	0.001	5	0	16	0	16	0	16
185		min	-0.494	16	1.035	15	-0.001	14	0	1	0	1	0	1
186	WP29	max	0.777	13	2.779	5	0.056	13	0	16	0.013	6	0.213	5
187		min	-0.914	6	-1.206	14	-0.174	6	0	1	-0.004	13	-0.092	14
188	WP31	max	1.878	6	4.036	5	-1.029	13	0	16	-0.07	13	0.105	14
189		min	-0.542	13	-1.535	14	-2.299	10	0	1	-0.157	10	-0.275	5
190	WP33	max	0.442	15	2.152	9	-0.015	13	0	16	0	16	0	16
191		min	-0.895	8	0.326	14	-0.043	10	0	1	0	1	0	1
192	WP35	max	6.116	7	7.713	9	0	13	0	16	0.024	6	0.97	16
193		min	-4.12	16	2.42	14	-0.004	10	0	1	-0.014	13	-7.625	7
194	WP36	max	1.813	11	2.655	9	0.074	9	0	16	0	16	0	16
195		min	0.052	16	1.357	14	0.036	14	0	1	0	1	0	1
196	WP37	max	0.442	15	8.269	9	-0.063	14	0	16	0	16	0	16
197		min	-1.796	8	3.456	14	-0.158	9	0	1	0	1	0	1
198	WP39	max	-0.345	15	5.034	9	-0.001	16	0	16	0	16	0	16
199		min	-2.795	12	1.531	14	-0.059	7	0	1	0	1	0	1
200	WP40	max	0.025	9	16.98	11	9.379	6	10.477	6	0.145	9	0	16
201		min	0.011	14	6.459	16	-8.938	13	-9.771	13	0.024	14	0	1
202	WP41	max	0.19	9	14.562	9	4.789	14	6.183	6	0.255	5	0	16
203		min	0.011	14	6.065	14	-6.99	5	-0.685	13	-0.068	14	0	1
204	WP42	max	0.425	5	14.248	10	8.422	6	-0.582	14	0.872	13	0	16
205		min	-0.163	14	6.136	13	-4.647	13	-7.64	9	-0.673	6	0	1
206	WP43	max	0.049	10	2.343	9	0.608	14	0.16	9	0.003	10	0	16
207		min	0.019	13	0.266	14	-1.029	5	0.018	14	0.001	13	0	1
208	WP44	max	0.192	10	1.771	9	0.56	14	0	16	0	16	0	16
209		min	0.09	13	0.562	14	-0.797	5	0	1	0	1	0	1
210	WP45	max	0.029	11	1.856	9	0.634	14	-0.018	14	0	16	0	16
211		min	0.012	16	0.853	14	-0.847	5	-0.04	9	-0.001	11	0	1
212	WP46	max	-0.026	15	24.032	10	10.021	6	3.578	14	0.3	12	0	16
213		min	-0.061	12	9.221	13	-7.099	13	-9.468	5	0.126	15	0	1
214	WP47	max	0.013	10	2.328	9	0.285	14	0	16	0	16	0	16
215		min	0.003	13	0.991	14	-1.697	5	0	1	0	1	0	1

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 Job Number :23011.00
 Model Name:Casa Ohad - Structural Frames

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Envelope Node Reactions (Continued)

	Node Label		X [k]	LC	Y [k]	LC	Z [k]	LC	MX [k-ft]	LC	MY [k-ft]	LC	MZ [k-ft]	LC
216	WP48	max	0.042	2	45.1	10	11.51	14	9.515	14	-0.092	13	0	16
217		min	0.015	15	17.981	13	-11.913	5	-11.415	5	-0.285	2	0	1
218	WP49	max	0.055	11	4.642	9	-1.709	14	0	9	0	11	0	16
219		min	0.025	16	2.051	14	-6.808	9	0	14	0	16	0	1
220	WP50	max	0.042	9	1.954	9	1.464	14	-0.017	14	0	14	0	16
221		min	0.011	14	0.449	14	-1.573	5	-0.074	9	-0.002	9	0	1
222	WP51	max	0.03	10	2.769	10	2.132	6	-0.004	13	0	13	0	16
223		min	0.009	13	0.636	13	-1.835	13	-0.018	10	0	10	0	1
224	WP52	max	0.148	16	17.084	9	16.286	6	2.988	14	0.439	16	0	16
225		min	-0.535	7	5.938	14	-14.222	13	-14.725	5	-4.094	7	0	1
226	WP53	max	0.112	16	10.302	10	11.752	6	3.491	6	1.587	7	0	16
227		min	-0.697	7	3.318	13	-9.497	13	-1.916	13	-0.353	16	0	1
228	WP72	max	4.309	7	7.467	6	0.359	14	0	16	0.014	14	2.513	13
229		min	-2.176	16	2.413	13	-0.65	5	0	1	-0.861	5	-13.276	6
230	WP73	max	1.062	15	7.797	9	17.65	6	27.44	13	0.037	16	0	16
231		min	-0.461	8	3.425	14	-15.172	13	-31.334	6	-0.306	7	0	1
232	Totals:	max	74.698	15	2089.906	9	179.345	6						
233		min	-76.328	8	1112.031	14	-177.777	13						

Casa Ohad - Spread Footings

Footing Sizes

Allowable soil bearing pressure (PSF) = 3000

Joint #	Node Reactions (kips)	Square Footing Size Needed (ft)	Footing Label	Footing Used
N1	18.61	2.61	F3.0	F3.0
N2	14.91	2.34	F3.0	F3.5
N3	26.93	3.14	F3.5	F3.5
N5	17.54	2.54	F3.0	F3.0
N6	30.84	3.36	F3.5	F3.5
N7	25.72	3.07	F3.5	F3.5
N8	5.45	1.41	F3.0	F3.0
N9	22.65	2.88	F3.0	F3.0
N13	33.71	3.43	F3.5	F3.0x4.0
N14	60.65	4.50	F4.5	F4.5
N15	28.50	4.43	F4.5	F4.5
N16	25.05			
N19	16.07	2.43	F3.0	F3.0
N21	20.25	2.72	F3.0	F3.0
N22	18.80	2.63	F3.0	WF3.0
N23	7.44	1.65	F3.0	WF2.0
N24	13.40	2.11	F3.0	WF2.0
N25	12.39	2.03	F3.0	WF2.0
N26	16.55	2.35	F3.0	WF2.0
N27	17.90	2.56	F3.0	F3.0
N28	15.40	2.27	F3.0	WF2.0
N29	14.95	2.23	F3.0	WF2.0
N30	15.49	2.38	F3.0	F3.0
N31	21.76	2.82	F3.0	WF3.0
N32	24.84	2.95	F3.0	WF3.0
N33	35.13	3.49	F3.5	F3.5
N34	35.70	3.48	F3.5	F3.5
N35	19.84	2.70	F3.0	F3.0
N36	27.23	3.00	F3.0	F3.0
N37	9.58	1.87	F3.0	F3.0
N38	42.41	3.94	F4.0	F4.0
N39	52.01	4.37	F4.5	F4.5
N40	1.17	4.58	F5.0	F4.0x7.0
N42	5.22			
N44	50.78			

Casa Ohad - Spread Footings

Footing Sizes

Allowable soil bearing pressure (PSF) = 3000

Joint #	Node Reactions (kips)	Square Footing Size Needed (ft)	Footing Label	Footing Used
N41	18.44	2.60	F3.0	F3.5
N43	31.52	3.40	F3.5	F4.0
N45	51.91	4.36	F4.5	F4.5
N46	23.52	2.94	F3.0	F3.5
N47	15.58	2.39	F3.0	F3.0
N48	6.10	1.50	F3.0	F3.0
N49	14.10	2.27	F3.0	F3.0
N50	20.58	3.85	F4.0	F4.0X5.0
N52	19.85			
N51	86.63	5.64	F6.0	F6.0
N53	30.33	3.33	F3.5	F3.0x4.0
N54	21.30	3.99	F4.0	F4.0X5.0
N65	26.38			
N55	13.21	2.20	F3.0	F3.0
N56	21.63	2.82	F3.0	F3.0
N57	24.78	2.97	F3.0	F3.0
N58	18.10	2.58	F3.0	F3.0
N59	34.05	6.15	F6.5	F6.5
N63	79.39			
N60	16.69	5.74	F6.0	WF5.5
N61	14.12			
N62	14.26			
N66	16.07			
N67	15.25			
N68	13.38			
N64	110.72	7.30	F7.5	F7.5
N70	34.74			
N69	25.79	3.08	F3.5	F3.5
N71	22.87	2.90	F3.0	F3.5
N72	49.68	4.27	F4.5	F4.5
N73	48.12	4.20	F4.5	F4.5
N74	28.82	3.25	F3.5	F3.5

Casa Ohad - Wall Footings

Wall Footing Sizes

Allowable soil bearing pressure (PSF) = 3000

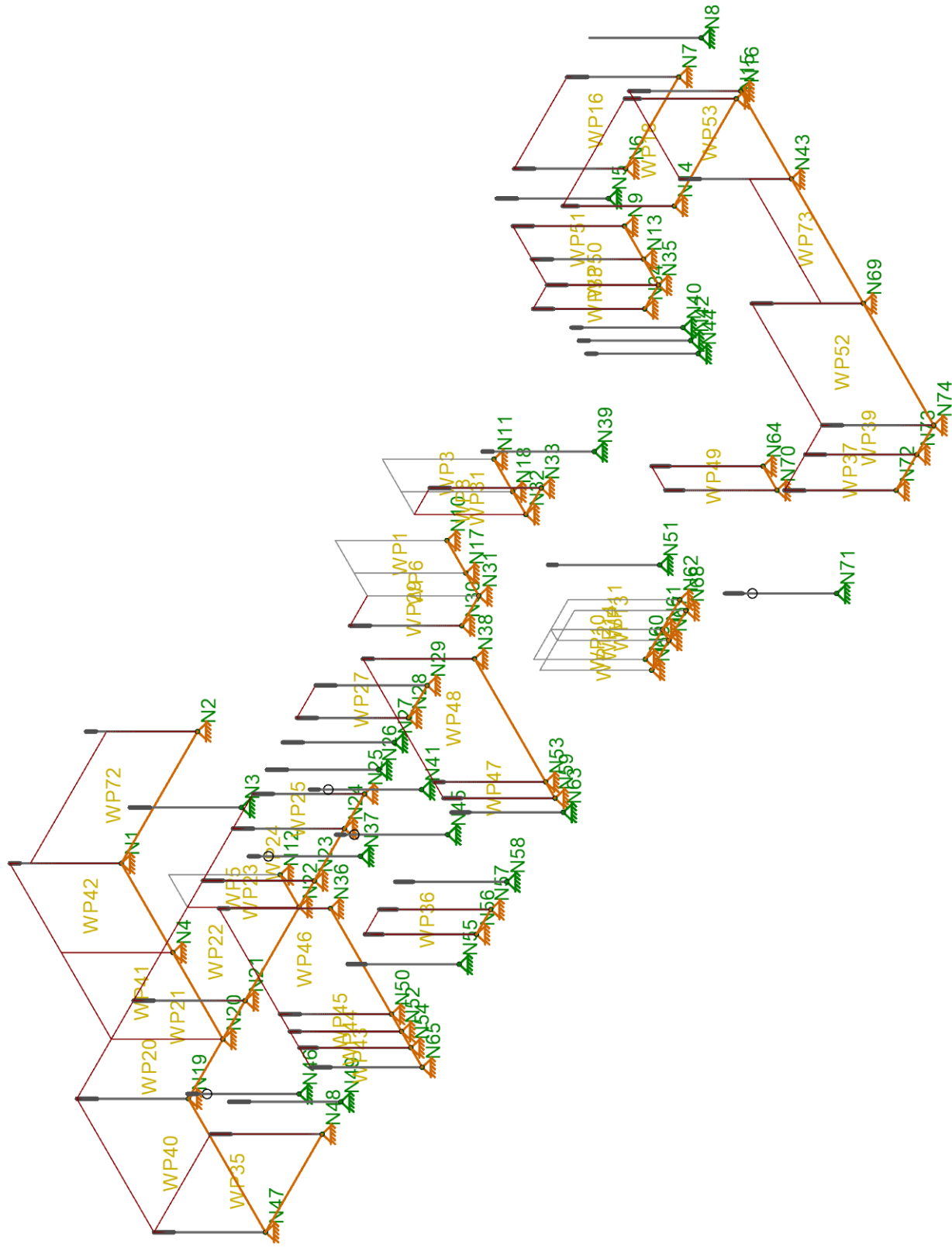
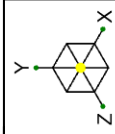
Joint #	Wall Reactions (kips)	Wall Length (ft)	Cont.Footing Width Needed (ft)	Footing Label	Footing Used
WP1	52.24	5.00	3.83	WF4.0	WF4.5
WP3	64.74	5.00	4.49	WF4.5	WF4.5
WP5	17.97	5.00	1.32	WF2.0	WF3.0
WP6	26.16	3.50	2.74	WF3.0	WF3.0
WP8	29.68	3.50	2.97	WF3.0	WF3.0
WP10	43.98	11.17	5.30	WF5.5	WF5.5
WP11	35.50				
WP12	41.80				
WP13	33.43				
WP14	6.69				
WP16	13.61	14.08	0.35	WF2.0	WF2.0
WP18	39.48	16.50	0.88	WF2.0	WF2.0
WP20	6.15	9.17	0.25	WF2.0	WF2.0
WP21	3.80	5.92	0.24	WF2.0	WF2.0
WP22	13.97	14.33	0.36	WF2.0	WF2.0
WP23	1.52	4.08	0.14	WF2.0	WF2.0
WP24	3.87	8.00	0.18	WF2.0	WF2.0
WP25	2.09	5.33	0.14	WF2.0	WF2.0
WP27	2.18	5.00	0.16	WF2.0	WF2.0
WP29	2.78	4.58	0.22	WF2.0	WF2.0
WP31	4.04	4.08	0.36	WF2.0	WF2.0
WP33	2.15	3.67	0.22	WF2.0	WF2.0
WP35	7.71	15.08	0.19	WF2.0	WF2.0
WP36	2.66	3.83	0.25	WF2.0	WF2.0
WP37	8.27	5.50	0.55	WF2.0	WF2.0
WP39	5.03	4.50	0.41	WF2.0	WF2.0
WP40	16.98	20.50	0.30	WF2.0	WF2.0
WP41	14.56	13.29	0.40	WF2.0	WF2.0
WP42	14.25	13.71	0.38	WF2.0	WF2.0
WP43	2.34	3.00	0.29	WF2.0	WF2.0
WP44	1.77	2.50	0.26	WF2.0	WF2.0
WP45	1.86	2.67	0.26	WF2.0	WF2.0
WP46	24.03	16.25	0.54	WF2.0	WF2.0
WP47	2.33	2.50	0.34	WF2.0	WF2.0
WP48	45.10	18.92	0.87	WF2.0	WF2.0
WP49	4.64	3.70	0.46	WF2.0	WF2.0

Casa Ohad - Wall Footings

Wall Footing Sizes

Allowable soil bearing pressure (PSF) = 3000

Joint #	Wall Reactions (kips)	Wall Length (ft)	Cont.Footing Width Needed (ft)	Footing Label	Footing Used
WP50	1.95	3.96	0.18	WF2.0	WF2.0
WP51	2.77	5.09	0.20	WF2.0	WF2.0
WP52	17.08	18.71	0.33	WF2.0	WF2.0
WP53	10.30	13.50	0.28	WF2.0	WF2.0
WP72	7.47	20.25	0.14	WF2.0	WF2.0
WP73	7.80	19.13	0.15	WF2.0	WF2.0



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	Node and Wall Panel Labels		Structural Frames.r3d