

# Technical Report 2 - Amendment

October 8, 2013

## **La Jolla Commons Phase II Office Tower** San Diego, California

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Adjusted Roof Dead Load:

Superimposed / Misc

$$\left. \begin{array}{l} \text{Ceilings} = 5 \text{ PSF} \\ \text{MEP} = 3 \text{ PSF} \\ \text{Sprinklers} = 3 \text{ PSF} \end{array} \right\} 11 \text{ PSF}$$

$$\boxed{\text{Total New Roof Dead Load} = 156 \text{ PSF}}$$

Adjusted Floor Dead Load:

Superimposed / Misc

$$\left. \begin{array}{l} \text{Ceilings} = 5 \text{ PSF} \\ \text{MEP} = 15 \text{ PSF} \\ \text{(includes raised floor system)} \\ \text{Sprinklers} = 3 \text{ PSF} \end{array} \right\} 23 \text{ PSF}$$

$$\boxed{\text{Typical Floor Bay New Dead Load} = 200 \text{ PSF}}$$

**SIEMIC LOAD CALCULATIONS**

Story Weights												
Floor Number	Dead Load	Partition Load	Total Floor Weight (PSF)	Floor Area (ft <sup>2</sup> )	Floor Weight (kip)	Wall Height (ft)	Shear Wall Length (ft)	Level Wall Thickness (ft)	Shear Wall Weight (kip)	Curtain Wall Length (ft)	Curtain Wall Weight (k)	Total Level Weight (kip)
Penthouse Roof	133	0	133	6704	892	24.33	30	1.50	164	490	58	1114
Penthouse Floor	171	0	171	29703	5079	14.50	297	1.50	969	786	93	6141
13	215	20	235	29703	6980	13.17	297	2.17	1271	786	93	8344
12	215	20	235	29703	6980	13.17	297	2.17	1271	786	93	8344
11	215	20	235	29703	6980	13.17	297	2.17	1271	786	93	8344
10	215	20	235	29703	6980	13.17	297	2.17	1271	786	93	8344
9	215	20	235	29703	6980	13.17	297	2.17	1271	786	93	8344
8	215	20	235	29703	6980	13.17	297	2.17	1271	786	93	8344
7	215	20	235	29703	6980	13.17	297	2.17	1271	786	93	8344
6	215	20	235	29703	6980	13.17	297	2.17	1271	786	93	8344
5	215	20	235	29703	6980	13.17	297	2.17	1271	786	93	8344
4	215	20	235	29703	6980	13.17	297	2.17	1273	786	93	8346
3	215	20	235	29703	6980	13.17	297	2.17	1271	786	93	8344
2	215	20	235	26494	6226	15.00	297	2.33	1559	806	95	7880
<b>Total Weight =</b>					<b>106923</b>							

## Seismic Story Forces

**T= 1.056 s**  
**k= 1.278**  
**Vb= 7698.5 k**

### Story Forces | North-South

Floor Number	hi (ft)	h (ft)	W (kip)	$W \cdot h^k$	Cvx	Story Forces Fi (kip)
Penthouse Roof	24.33	198.70	1114	963512	0.0258	198.66
Penthouse Floor	14.50	174.37	6141	4496086	0.1204	927.03
13	13.17	159.87	8344	5467619	0.1464	1127.34
12	13.17	146.70	8344	4898710	0.1312	1010.04
11	13.17	133.53	8344	4343840	0.1163	895.63
10	13.17	120.36	8344	3803998	0.1019	784.33
9	13.17	107.19	8344	3280358	0.0879	676.36
8	13.17	94.02	8344	2774339	0.0743	572.03
7	13.17	80.85	8344	2287700	0.0613	471.69
6	13.17	67.68	8344	1822688	0.0488	375.81
5	13.17	54.51	8344	1382295	0.0370	285.01
4	13.17	41.34	8346	970973	0.0260	200.20
3	13.17	28.17	8344	594582	0.0159	122.59
2	15.00	15.00	7880	250955	0.0067	51.74
<b>SUM:</b>			<b>106923</b>	<b>37337654</b>		<b>7698.46</b>
<b>Base Shear [k] = 7698.5</b>						



Adjusted Seismic Load vs. Height Diagram

