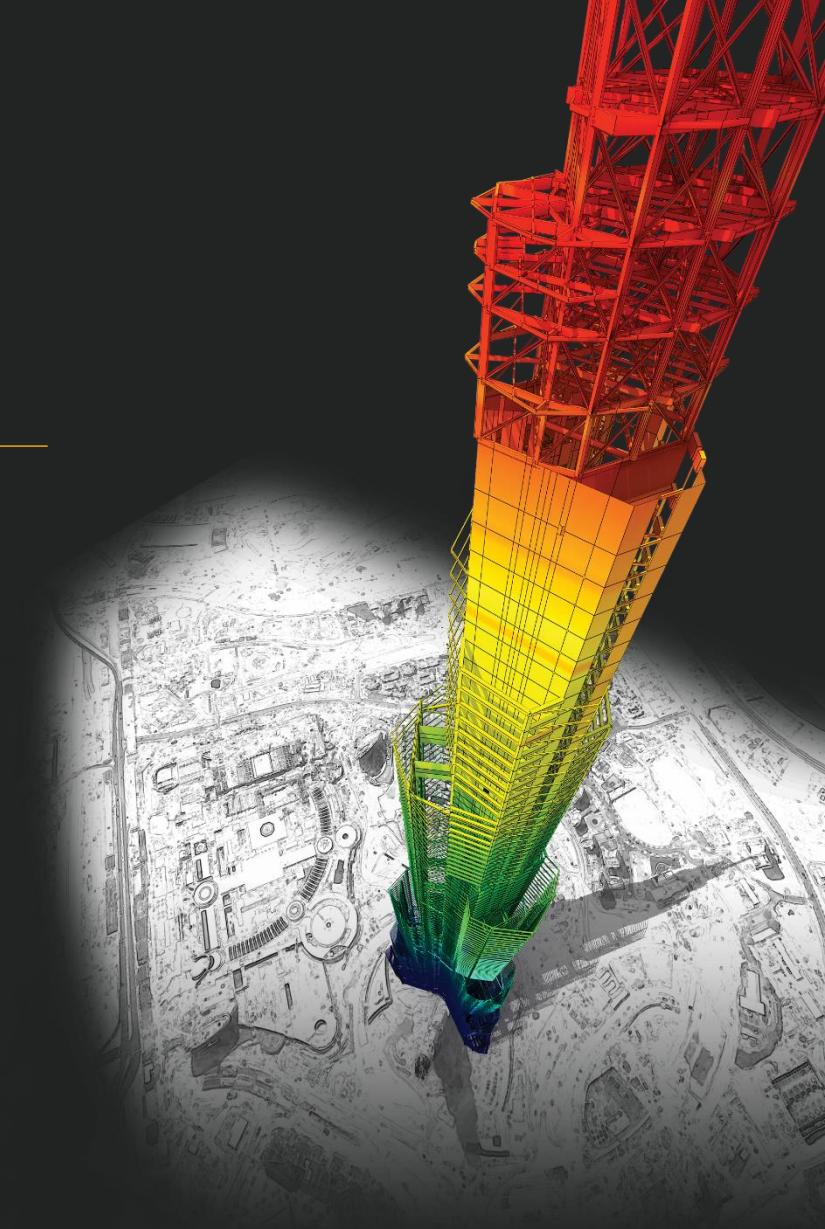


Reaction Table 無法顯示全部數值

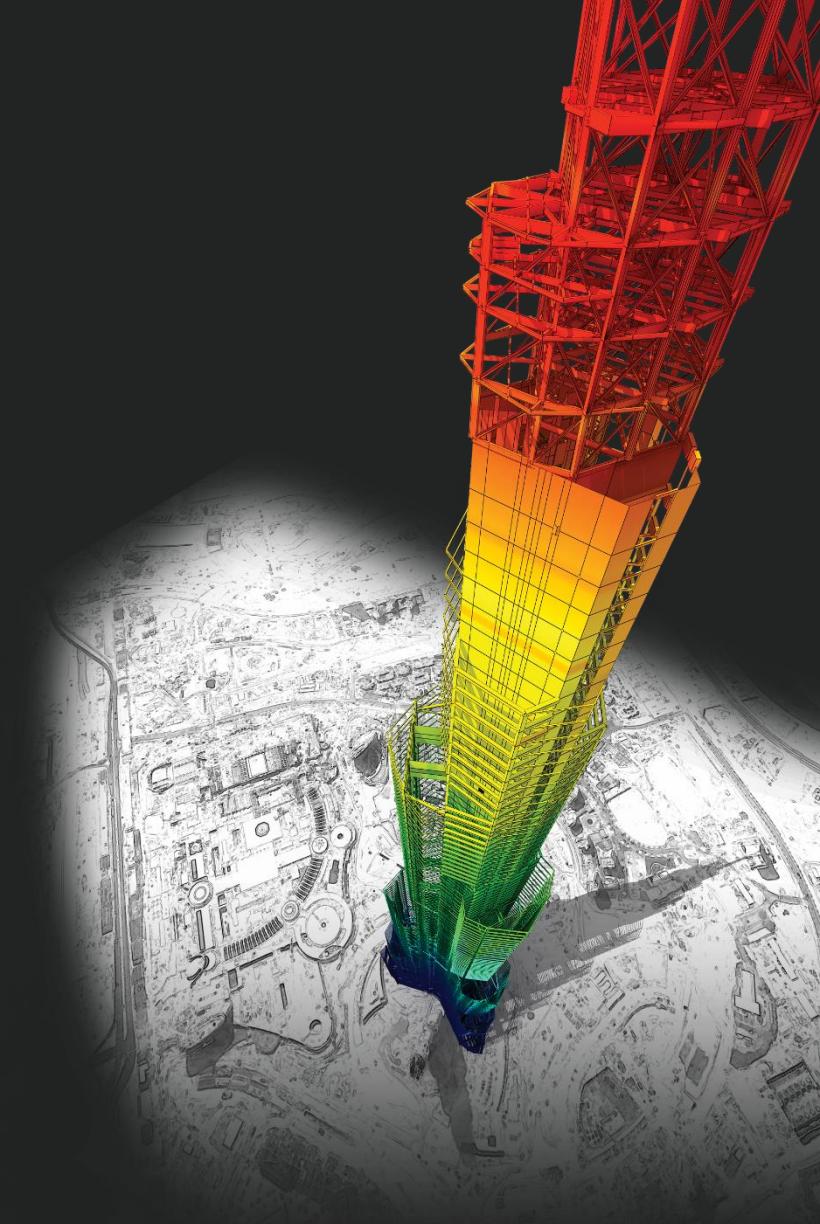


DESIGN OF General Structures
Integrated Design System for Building and General Structures

問題



DESIGN OF General Structures
Integrated Design System for Building and General Structures



問題

我想查看 Point support spring 的反力，但是調反力(Y向) table 時，反力明細與總計的數值不太正常。(就是 FY 沒什麼數值，但是總和 80 幾 ton)
(Load-case WY1)

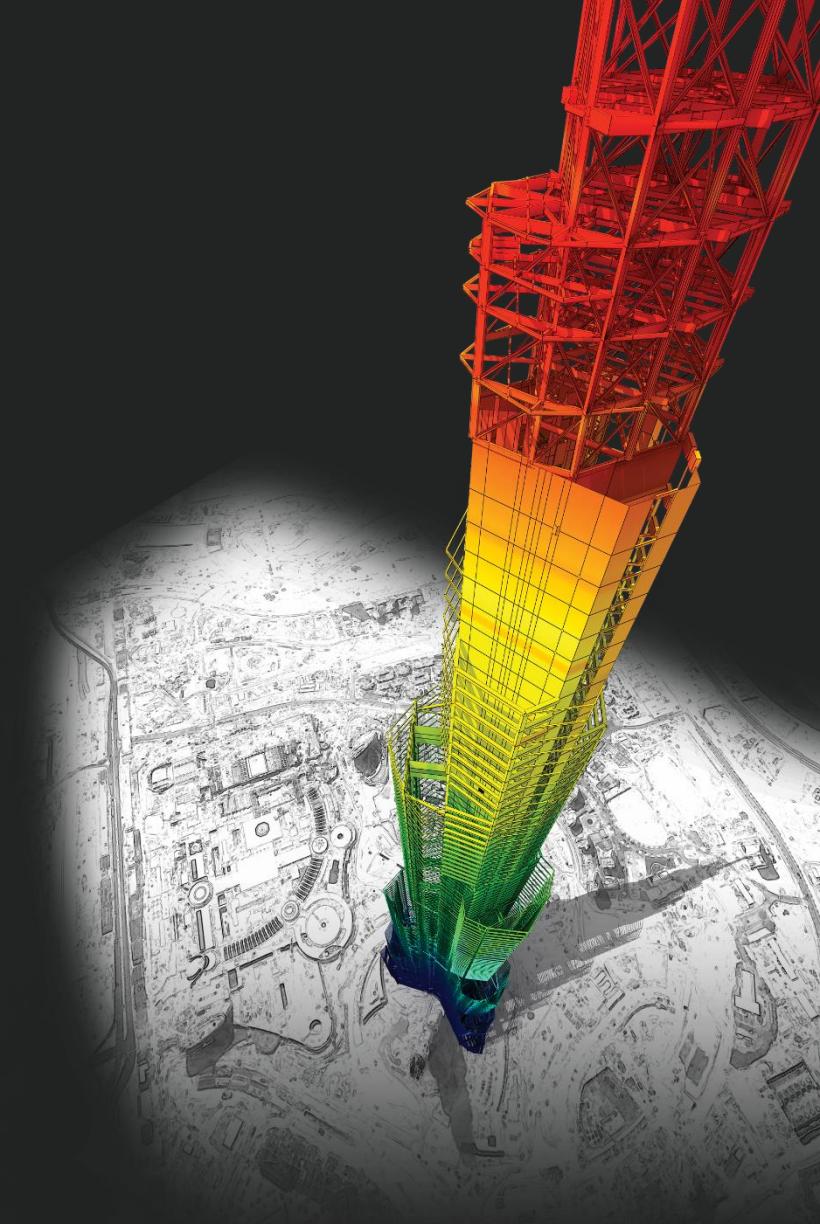
我認為總和是對的，但是各點反力不對。只有 support 的位置有反力，點彈簧位置的反力都是0。

Node	Load	FX (kgf)	FY (kgf)	FZ (kgf)	MX (kgf*cm)	MY (kgf*cm)	MZ (kgf*cm)
1	WY1	-118.303238	-364.109869	0.000000	0.000000	0.000000	0.000000
2	WY1	0.000000	-405.888629	0.000000	0.000000	0.000000	0.000000
3	WY1	0.000000	-409.413230	0.000000	0.000000	0.000000	0.000000
4	WY1	0.000000	-409.413230	0.000000	0.000000	0.000000	0.000000
5	WY1	0.000000	-405.888629	0.000000	0.000000	0.000000	0.000000
6	WY1	118.303238	-364.109869	0.000000	0.000000	0.000000	0.000000
37	WY1	0.000000	0.000000	0.000000	4390.458788	-1055.380035	0.000000
38	WY1	0.000000	0.000000	0.000000	4733.369998	-0.000000	0.000000
39	WY1	0.000000	0.000000	0.000000	4733.372143	-0.000000	0.000000
40	WY1	0.000000	0.000000	0.000000	4733.372143	-0.000000	0.000000
41	WY1	0.000000	0.000000	0.000000	4733.369998	-0.000000	0.000000
42	WY1	0.000000	0.000000	0.000000	4390.458788	1055.380035	0.000000
299	WY1	-112.225822	-154.465593	0.000000	0.000000	0.000000	0.000000
300	WY1	0.000000	0.000000	0.000000	-8646.928712	6282.360538	0.000000
301	WY1	-238.273481	-327.955313	0.000000	0.000000	0.000000	0.000000
307	WY1	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
315	WY1	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
323	WY1	0.000000	0.000000	0.000000	0.000000	-0.000000	0.000000
327	WY1	0.000000	0.000000	0.000000	-1415.232025	1028.227294	0.000000
328	WY1	0.000000	0.000000	0.000000	3390.334553	-2463.220117	0.000000
329	WY1	0.000000	0.000000	0.000000	-1415.231070	1028.226889	0.000000
330	WY1	0.000000	0.000000	0.000000	3390.334373	-2463.220042	0.000000
331	WY1	0.000000	0.000000	0.000000	-1700.494319	1235.480906	0.000000
343	WY1	0.000000	0.000000	0.000000	3469.976580	-1691.259751	0.000000
345	WY1	0.000000	0.000000	0.000000	3506.643081	-1717.899523	0.000000
347	WY1	0.000000	0.000000	0.000000	3506.643904	-1717.900121	0.000000
349	WY1	0.000000	0.000000	0.000000	3506.643918	-1717.900132	0.000000
351	WY1	0.000000	0.000000	0.000000	3506.645341	-1717.901166	0.000000
356	WY1	0.000000	0.000000	0.000000	-2276.645634	1654.079189	0.000000
362	WY1	0.000000	0.000000	0.000000	-2276.645042	1654.078933	0.000000
383	WY1	238.273481	-327.955313	0.000000	0.000000	0.000000	0.000000
385	WY1	112.225822	-154.465593	0.000000	0.000000	0.000000	0.000000
386	WY1	0.000000	0.000000	0.000000	-8646.928712	-6282.360538	0.000000
401	WY1	0.000000	0.000000	0.000000	-1415.232025	-1028.227294	0.000000
402	WY1	0.000000	0.000000	0.000000	3390.334553	2463.220117	0.000000
403	WY1	0.000000	0.000000	0.000000	-1415.231070	-1028.226889	0.000000
404	WY1	0.000000	0.000000	0.000000	3390.334373	2463.220042	0.000000

回答



DESIGN OF General Structures
Integrated Design System for Building and General Structures



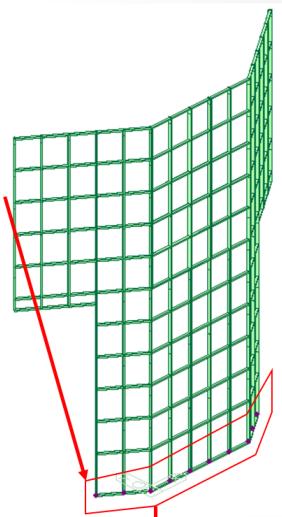
回答

我已經看您的模型。
然後看 Support Reaction 的 Value
都是在結構的下面。

因為在 1F，Floor Diaphragm 是
Do Not Consider。

Node	Load	FX (kgf)	FY (kgf)	FZ (kgf)	MX (kgf*cm)	MY (kgf*cm)	MZ (kgf*cm)
1 (WY1)		-118.303238	-364.109869	0.000000	0.000000	0.000000	0.000000
2 (WY1)		0.000000	-405.886629	0.000000	0.000000	0.000000	0.000000
3 (WY1)		0.000000	-409.413230	0.000000	0.000000	0.000000	0.000000
4 (WY1)		0.000000	-409.413230	0.000000	0.000000	0.000000	0.000000
5 (WY1)		0.000000	-405.886629	0.000000	0.000000	0.000000	0.000000
6 (WY1)		118.303238	-364.109869	0.000000	0.000000	0.000000	0.000000
31 (WY1)		0.000000	0.000000	0.000000	4390.458788	-1055.380035	0.000000
38 (WY1)		0.000000	0.000000	4733.369998	-0.000000	0.000000	0.000000
39 (WY1)		0.000000	0.000000	4733.372143	-0.000000	0.000000	0.000000
40 (WY1)		0.000000	0.000000	4733.372143	-0.060000	0.000000	0.000000
41 (WY1)		0.000000	0.000000	4733.369998	-0.000000	0.000000	0.000000
301 (WY1)		0.000000	0.000000	4390.458788	1055.380035	0.000000	0.000000
299 (WY1)		-112.225822	-154.465593	0.000000	0.000000	0.000000	0.000000
300 (WY1)		0.000000	0.000000	8646.528712	6282.360538	0.000000	0.000000
301 (WY1)		-238.273481	-327.955313	0.000000	0.000000	0.000000	0.000000
302 (WY1)		0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
315 (WY1)		0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
323 (WY1)		0.000000	0.000000	0.000000	-0.000000	0.000000	0.000000
327 (WY1)		0.000000	0.000000	0.000000	-1415.332025	1028.227294	0.000000
328 (WY1)		0.000000	0.000000	3390.334553	-2463.220117	0.000000	0.000000
329 (WY1)		0.000000	0.000000	0.000000	-1415.231070	1028.226889	0.000000
330 (WY1)		0.000000	0.000000	3390.334573	-2463.220042	0.000000	0.000000
331 (WY1)		0.000000	0.000000	0.000000	-1700.494319	238.480996	0.000000
343 (WY1)		0.000000	0.000000	3469.376560	-1691.259751	0.000000	0.000000
345 (WY1)		0.000000	0.000000	0.000000	3506.630801	-1717.899523	0.000000
347 (WY1)		0.000000	0.000000	0.000000	3506.630904	-1717.900121	0.000000
349 (WY1)		0.000000	0.000000	0.000000	3506.630918	-1717.900322	0.000000
351 (WY1)		0.000000	0.000000	0.000000	3506.630947	-1717.901169	0.000000
356 (WY1)		0.000000	0.000000	0.000000	2278.649534	1654.079169	0.000000
362 (WY1)		0.000000	0.000000	0.000000	-2278.649542	1654.078933	0.000000
383 (WY1)		238.273481	-327.955313	0.000000	0.000000	0.000000	0.000000
385 (WY1)		112.225822	-154.465593	0.000000	0.000000	0.000000	0.000000
386 (WY1)		0.000000	0.000000	8646.528712	6282.360538	0.000000	0.000000
401 (WY1)		0.000000	0.000000	0.000000	1415.332025	-1028.227294	0.000000
402 (WY1)		0.000000	0.000000	3390.334553	-2463.220117	0.000000	0.000000
403 (WY1)		0.000000	0.000000	0.000000	-1415.231070	-1028.226889	0.000000
404 (WY1)		0.000000	0.000000	3390.334573	-2463.220042	0.000000	0.000000

Node 1-6 , 299, 301, 383, 385 有 FY。
其他的沒有。

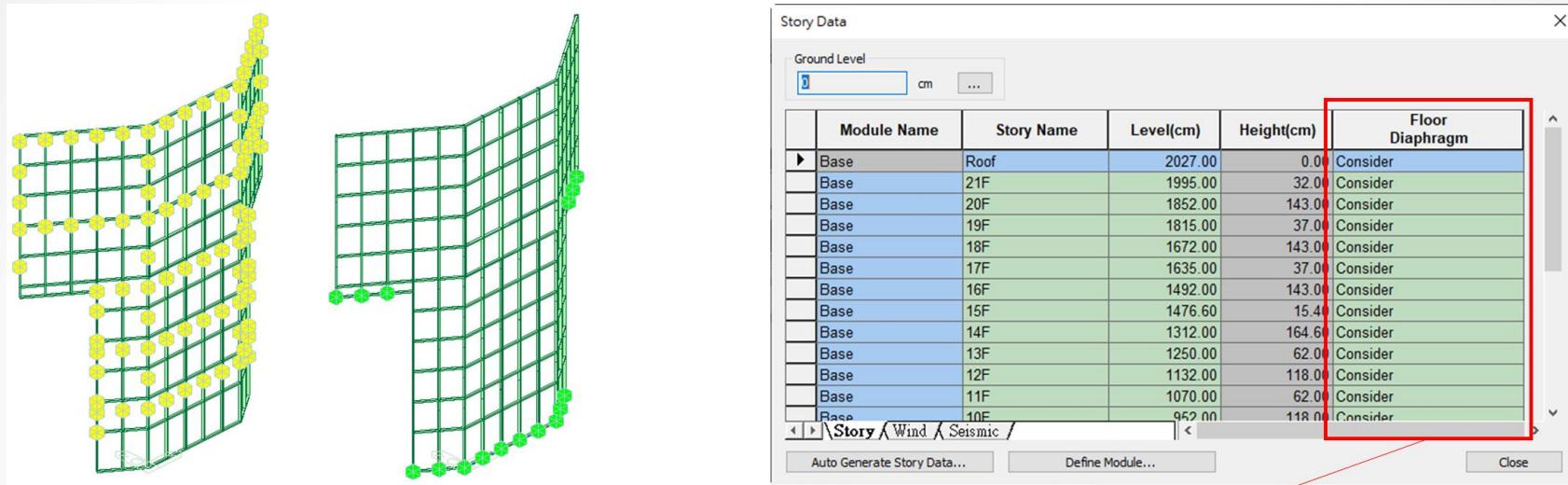


Story Data					
Ground Level					
	Module Name	Story Name	Level(cm)	Height(cm)	Floor Diaphragm
Base		11F	1070.00	62.00	Consider
Base		10F	952.00	118.00	Consider
Base		9F	890.00	62.00	Consider
Base		8F	772.00	118.00	Consider
Base		7F	710.00	62.00	Consider
Base		6F	592.00	118.00	Consider
Base		5F	530.00	62.00	Consider
Base		4F	412.00	118.00	Consider
Base		3F	350.00	62.00	Consider
Base		2F	232.00	118.00	Consider
*		1F	0.00	232.00	Do not consider

因為在 1F 的 Floor Diaphragm 是 Do Not Consider。
所以 Support Reaction 有 Value。

回答

然後我看其他的 Support (Spring Support 和 Fixed Support) 在 2F 到 Roof。
在 2F 到 Roof，Floor Diaphragm 都是 Consider。所以應該 Support Reaction 沒有 Value。

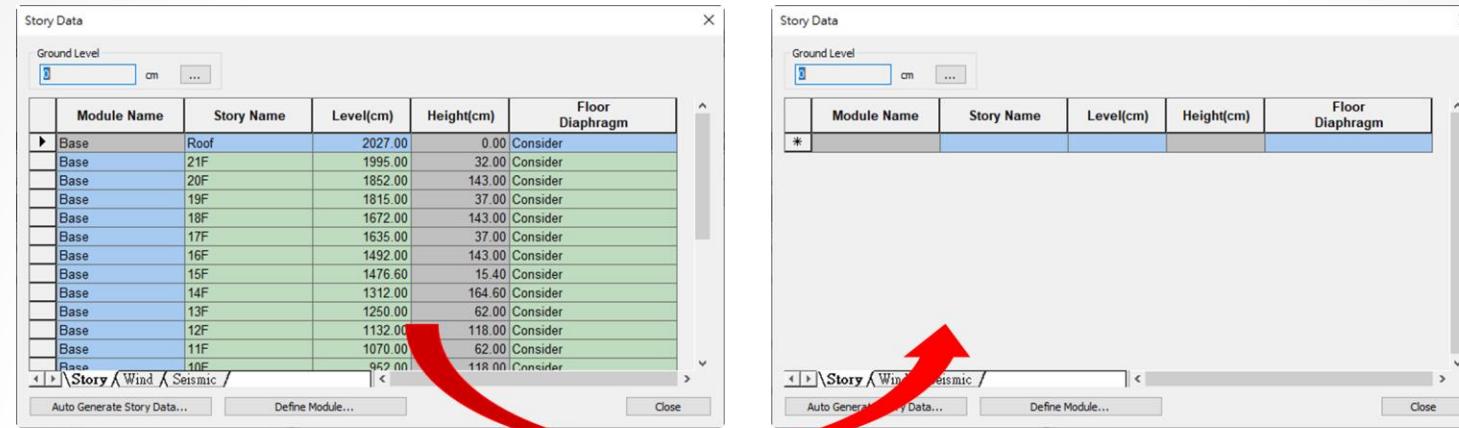


Calculating the Total Weights of the structure.
The process of Data Preparation for Analysis/Post-processing Completed.
Saving the Input Data.
Checking the Input Data to perform Analysis.
Creating Data for Analysis.
[Warning]Constrained degrees-of-freedom at Slave nodes are automatically released. Node=307, DOF component=X - Displacement
[Warning]Constrained degrees-of-freedom at Slave nodes are automatically released. Node=307, DOF component=Y - Displacement
[Warning]Constrained degrees-of-freedom at Slave nodes are automatically released. Node=307, DOF component=Rotation about Z -Axis
[Warning]Constrained degrees-of-freedom at Slave nodes are automatically released. Node=315, DOF component=Y - Displacement
[Warning]Constrained degrees-of-freedom at Slave nodes are automatically released. Node=315, DOF component=Rotation about Z -Axis
[Warning]Constrained degrees-of-freedom at Slave nodes are automatically released. Node=323, DOF component=X - Displacement
[Warning]Constrained degrees-of-freedom at Slave nodes are automatically released. Node=323, DOF component=Y - Displacement
[Warning]Constrained degrees-of-freedom at Slave nodes are automatically released. Node=323, DOF component=Rotation about Z -Axis
[Warning]Constrained degrees-of-freedom at Slave nodes are automatically released. Node=415, DOF component=X - Displacement
[Warning]Constrained degrees-of-freedom at Slave nodes are automatically released. Node=415, DOF component=Y - Displacement
[Warning]Constrained degrees-of-freedom at Slave nodes are automatically released. Node=415, DOF component=Rotation about Z -Axis
[Warning]Constrained degrees-of-freedom at Slave nodes are automatically released. Node=421, DOF component=X - Displacement
[Warning]Constrained degrees-of-freedom at Slave nodes are automatically released. Node=421, DOF component=Y - Displacement
[Warning]Constrained degrees-of-freedom at Slave nodes are automatically released. Node=421, DOF component=Rotation about Z -Axis
[Warning]Constrained degrees-of-freedom at Slave nodes are automatically released. Node=429, DOF component=X - Displacement
[Warning]Constrained degrees-of-freedom at Slave nodes are automatically released. Node=429, DOF component=Y - Displacement
[Warning]Constrained degrees-of-freedom at Slave nodes are automatically released. Node=429, DOF component=Rotation about Z -Axis
*** Reading Analysis Result
Reading Reaction Force Result - Static Analysis

如果在 2F~Roof 您已經輸入 Spring Support，您應該不能做 Floor Diaphragm。

回答

所以您應該 Delete 那個 Floor Diaphragm。跑分析以後，Support Reaction 都有 Value。



Delete Floor Diaphragm。

Support Reaction 沒有問題。

Node	Load	FX (kgf)	FY (kgf)	FZ (kgf)	MX (kgf*cm)	MY (kgf*cm)	MZ (kgf*cm)
1 (WY1)	-137.581989	-421.588419	0.000000	0.000000	0.000000	0.000000	0.000000
2 (WY1)	-3.495104	-729.722711	0.000000	0.000000	0.000000	0.000000	0.000000
3 (WY1)	-1.162854	-740.377920	0.000000	0.000000	0.000000	0.000000	0.000000
4 (WY1)	1.162854	-740.377920	0.000000	0.000000	0.000000	0.000000	0.000000
5 (WY1)	-3.495104	-729.722711	0.000000	0.000000	0.000000	0.000000	0.000000
6 (WY1)	137.581989	-421.588419	0.000000	0.000000	0.000000	0.000000	0.000000
7 (WY1)	-35.136380	-100.000000	0.000000	0.000000	0.000000	0.000000	0.000000
8 (WY1)	-35.136380	-100.000000	0.000000	0.000000	0.000000	0.000000	0.000000
9 (WY1)	-2.471534	-1586.771538	0.000000	0.000000	0.000000	0.000000	0.000000
10 (WY1)	-35.136380	-100.000000	0.000000	0.000000	0.000000	0.000000	0.000000
20 (WY1)	-4.642900	1475.363422	0.000000	0.000000	0.000000	0.000000	0.000000
21 (WY1)	-4.642900	1475.363422	0.000000	0.000000	0.000000	0.000000	0.000000
22 (WY1)	-2.3803469	-1554.836721	0.000000	0.000000	0.000000	0.000000	0.000000
23 (WY1)	-0.821813	-1598.611194	0.000000	0.000000	0.000000	0.000000	0.000000
24 (WY1)	-10.309993	-1938.498546	0.000000	0.000000	0.000000	0.000000	0.000000
25 (WY1)	4.642900	-1475.363422	0.000000	0.000000	0.000000	0.000000	0.000000
26 (WY1)	2.3803469	-1554.836719	0.000000	0.000000	0.000000	0.000000	0.000000
27 (WY1)	0.821813	-1598.611192	0.000000	0.000000	0.000000	0.000000	0.000000
28 (WY1)	10.353323	-1938.498551	0.000000	0.000000	0.000000	0.000000	0.000000
29 (WY1)	14.685404	-1955.215031	0.000000	0.000000	0.000000	0.000000	0.000000
30 (WY1)	7.182470	-100.000000	0.000000	0.000000	0.000000	0.000000	0.000000
31 (WY1)	2.471534	-1586.771539	0.000000	0.000000	0.000000	0.000000	0.000000
32 (WY1)	35.196784	-1928.634260	0.000000	0.000000	0.000000	0.000000	0.000000
33 (WY1)	101.969893	-299.200543	0.000000	0.000000	0.000000	0.000000	0.000000
34 (WY1)	132.544014	-393.603772	0.000000	0.000000	0.000000	0.000000	0.000000
35 (WY1)	149.032745	-507.579143	0.000000	0.000000	0.000000	0.000000	0.000000
36 (WY1)	154.600979	-547.358439	0.000000	0.000000	0.000000	0.000000	0.000000
37 (WY1)	-119.939693	-382.484551	0.000000	4019.855549	-1287.539820	0.000000	0.000000
38 (WY1)	-4.834026	-1195.215027	0.000000	4771.854986	-145.835023	0.000000	0.000000
39 (WY1)	-1.430365	-1514.836719	0.000000	4771.854986	-145.835023	0.000000	0.000000
40 (WY1)	1.430365	-1514.836945	0.000000	4847.302700	43.648689	0.000000	0.000000
41 (WY1)	4.829986	-1195.214629	0.000000	4771.854986	145.835023	0.000000	0.000000
42 (WY1)	119.939319	-382.482819	0.000000	4019.855548	1287.539820	0.000000	0.000000

Thank You



DESIGN OF General Structures
Integrated Design System for Building and General Structures

