Q1

在操作範例中只有提到程式有強柱弱梁及極限層剪力檢核功能，若遇到檢核不過時有哪些調整的做法?

Start Page | MIDAS/Gen | RC Strong Column-Weak Beam Ratio

Node	LCB	Column Strength (tonf·cm)	Clockwise Beam Strength (tonf·cm)	Clockwise Ratio	Counter-Clockwise Beam Strength (tonf·cm)	Counter-Clockwise Ratio	Minimum Ratio	Remark
Acceptance Limit for SCWB C/B Flexural Capacity Ratio: 1.2								
Input Acceptance Limit Value and Press 'Apply' button to change value.							1.20	Apply
Angle for Seismic Load Combination Result: 0 [Deg]								
Input Angle and Press 'Apply' button to change angle.							0.00	Apply
2	cLCB19	7127.5947	6148.8066	1.16	5171.4577	1.38	1.16	N/A
4	cLCB23	7127.5947	5171.4577	1.38	6148.8066	1.16	1.16	N/A
6	cLCB19	7523.9849	5644.3425	1.33	4132.5255	1.82	1.33	OK
8	cLCB23	7523.9849	4132.5255	1.82	5644.3425	1.33	1.33	OK
10	cLCB20	6124.1639	4640.9412	1.32	3662.8194	1.67	1.32	OK
12	cLCB24	6124.1639	3662.8194	1.67	4640.9412	1.32	1.32	OK
14	cLCB20	6370.1970	4640.9412	1.37	3662.8194	1.74	1.37	OK
16	cLCB24	6370.1970	3662.8194	1.74	4640.9412	1.37	1.37	OK
18	cLCB20	4613.3026	4640.9412	0.99	3662.8194	1.26	0.99	N/A
20	cLCB24	4613.3026	3662.8194	1.26	4640.9412	0.99	0.99	N/A
27	cLCB20	1962.5324	1030.1446	1.91	1030.1446	1.91	1.91	OK
28	cLCB24	1962.5324	1030.1446	1.91	1030.1446	1.91	1.91	OK

Start Page | MIDAS/Gen | Result-[Ultimate Story Shear Force Check]

Story	Load Case	Angle ([deg])	Applied Shear Force (Ve) (kgf)	Clockwise Ultimate Shear Force1 (Vp) (kgf) Column	Clockwise Ultimate Shear Force1 (Vp) (kgf) Wall	Clockwise Ultimate Shear Force1 (Vp) (kgf) SUM	Clockwise Ratio1 (Vp/Ve)	Clockwise Beta1	Counter-Clockwise Ultimate Shear Force2 (Vp) (kgf) Column	Counter-Clockwise Ultimate Shear Force2 (Vp) (kgf) Wall	Counter-Clockwise Ultimate Shear Force2 (Vp) (kgf) SUM	Counter-Clockwise Ratio2 (Vp/Ve)	Counter-Clockwise Beta2	MIN (Beta1, Beta2)	Remark
Angle for static load case result: 0 [Deg]															
Input angle and press the 'Apply' button to change the angle.					0.00	Apply									
4F	EX	0	82688.81	482225.25	0.00	482225.25	5.83	-	482540.36	0.00	482540.36	5.84	-	-	OK
3F	EX	0	184142.15	936103.04	0.00	936103.04	5.08	0.872	939146.35	0.00	939146.35	5.10	0.874	0.872	OK
2F	EX	0	255530.90	1029308.1	0.00	1029308.1	4.03	0.792	1032405.8	0.00	1032405.8	4.04	0.792	0.792	NG
1F	EX	0	294368.05	951028.56	0.00	951028.56	3.23	0.802	951478.44	0.00	951478.44	3.23	0.800	0.800	OK
4F	EY	0	0.00	482225.25	0.00	482225.25	0.00	-	482540.36	0.00	482540.36	0.00	-	-	OK
3F	EY	0	0.00	936103.04	0.00	936103.04	0.00	-	939146.35	0.00	939146.35	0.00	-	-	-
2F	EY	0	0.00	1029308.1	0.00	1029308.1	0.00	-	1032405.8	0.00	1032405.8	0.00	-	-	-
1F	EY	0	0.00	951028.56	0.00	951028.56	0.00	-	951478.44	0.00	951478.44	0.00	-	-	-

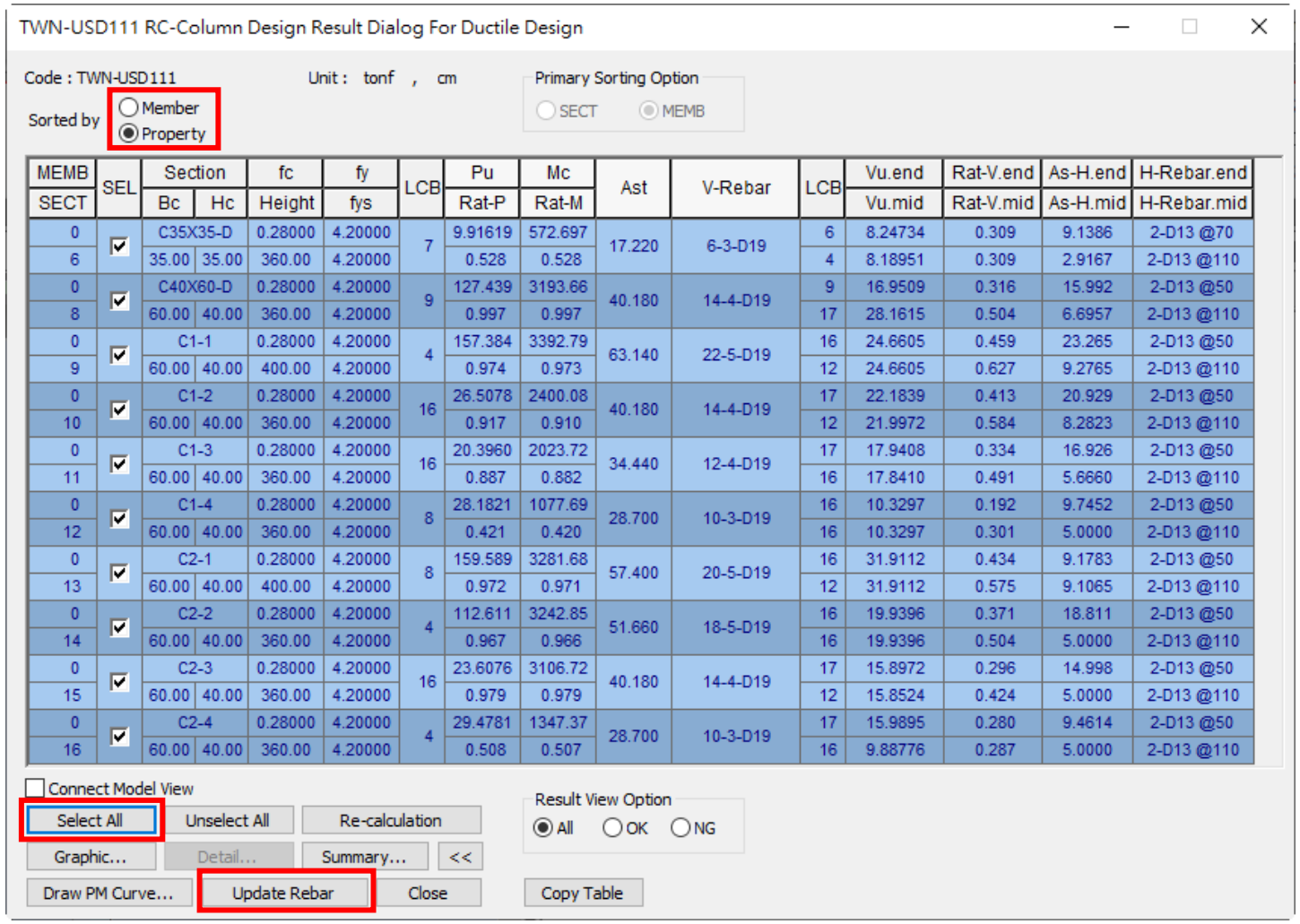
A1

您可以在設計後執行Update Column Rebar（在Tree Menu 可以看到增加一個Rebar Data: Column），利用Modify Column Rebar Data功能增加調整Column Main Rebar，之後進行Column Code Checking，提高柱強度，在進一步確認SCWB Ratio與Vp/Ve結果。

1. 您可以調整您的配筋 by member 或 property. (e.g. Property)

   請選擇需要跟改的斷面，然後按 Update Rebar 。

1.

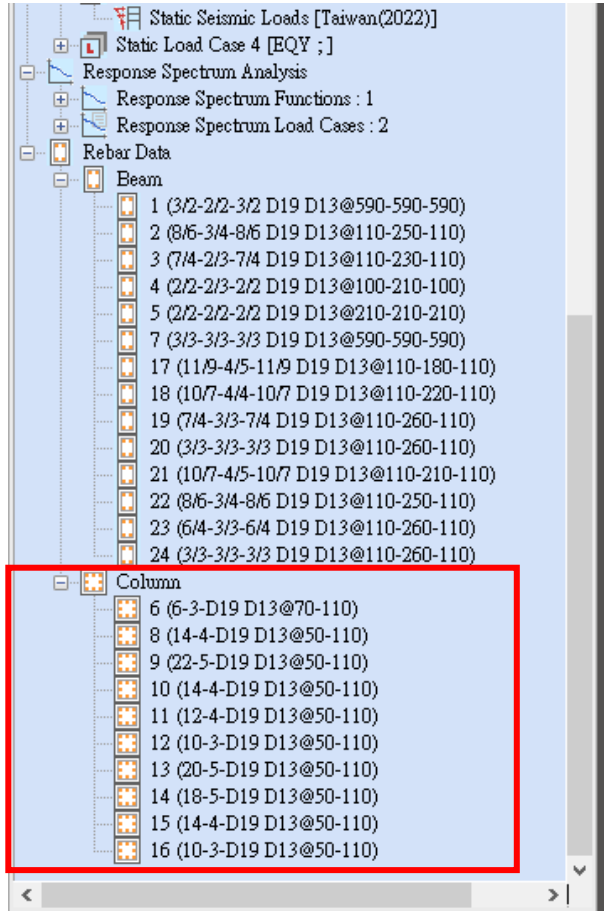


MEMB / SECT	SEL	Section Bc	Section Hc	fc / Height	fy / fys	LCB	Pu / Rat-P	Mc / Rat-M	Ast	V-Rebar	LCB	Vu.end / Vu.mid	Rat-V.end / Rat-V.mid	As-H.end / As-H.mid	H-Rebar.end / H-Rebar.mid
0	☑	C35X35-D		0.28000	4.20000	7	9.91619	572.697	17.220	6-3-D19	6	8.24734	0.309	9.1386	2-D13 @70
6		35.00	35.00	360.00	4.20000		0.528	0.528			4	8.18951	0.309	2.9167	2-D13 @110
0	☑	C40X60-D		0.28000	4.20000	9	127.439	3193.66	40.180	14-4-D19	9	16.9509	0.316	15.992	2-D13 @50
8		60.00	40.00	360.00	4.20000		0.997	0.997			17	28.1615	0.504	6.6957	2-D13 @110
0	☑	C1-1		0.28000	4.20000	4	157.384	3392.79	63.140	22-5-D19	16	24.6605	0.459	23.265	2-D13 @50
9		60.00	40.00	400.00	4.20000		0.974	0.973			12	24.6605	0.627	9.2765	2-D13 @110
0	☑	C1-2		0.28000	4.20000	16	26.5078	2400.08	40.180	14-4-D19	17	22.1839	0.413	20.929	2-D13 @50
10		60.00	40.00	360.00	4.20000		0.917	0.910			12	21.9972	0.584	8.2823	2-D13 @110
0	☑	C1-3		0.28000	4.20000	16	20.3960	2023.72	34.440	12-4-D19	17	17.9408	0.334	16.926	2-D13 @50
11		60.00	40.00	360.00	4.20000		0.887	0.882			16	17.8410	0.491	5.6660	2-D13 @110
0	☑	C1-4		0.28000	4.20000	8	28.1821	1077.69	28.700	10-3-D19	16	10.3297	0.192	9.7452	2-D13 @50
12		60.00	40.00	360.00	4.20000		0.421	0.420			16	10.3297	0.301	5.0000	2-D13 @110
0	☑	C2-1		0.28000	4.20000	8	159.589	3281.68	57.400	20-5-D19	16	31.9112	0.434	9.1783	2-D13 @50
13		60.00	40.00	400.00	4.20000		0.972	0.971			12	31.9112	0.575	9.1065	2-D13 @110
0	☑	C2-2		0.28000	4.20000	4	112.611	3242.85	51.660	18-5-D19	16	19.9396	0.371	18.811	2-D13 @50
14		60.00	40.00	360.00	4.20000		0.967	0.966			16	19.9396	0.504	5.0000	2-D13 @110
0	☑	C2-3		0.28000	4.20000	16	23.6076	3106.72	40.180	14-4-D19	17	15.8972	0.296	14.998	2-D13 @50
15		60.00	40.00	360.00	4.20000		0.979	0.979			12	15.8524	0.424	5.0000	2-D13 @110
0	☑	C2-4		0.28000	4.20000	4	29.4781	1347.37	28.700	10-3-D19	17	15.9895	0.280	9.4614	2-D13 @50
16		60.00	40.00	360.00	4.20000		0.508	0.507			16	9.88776	0.287	5.0000	2-D13 @110

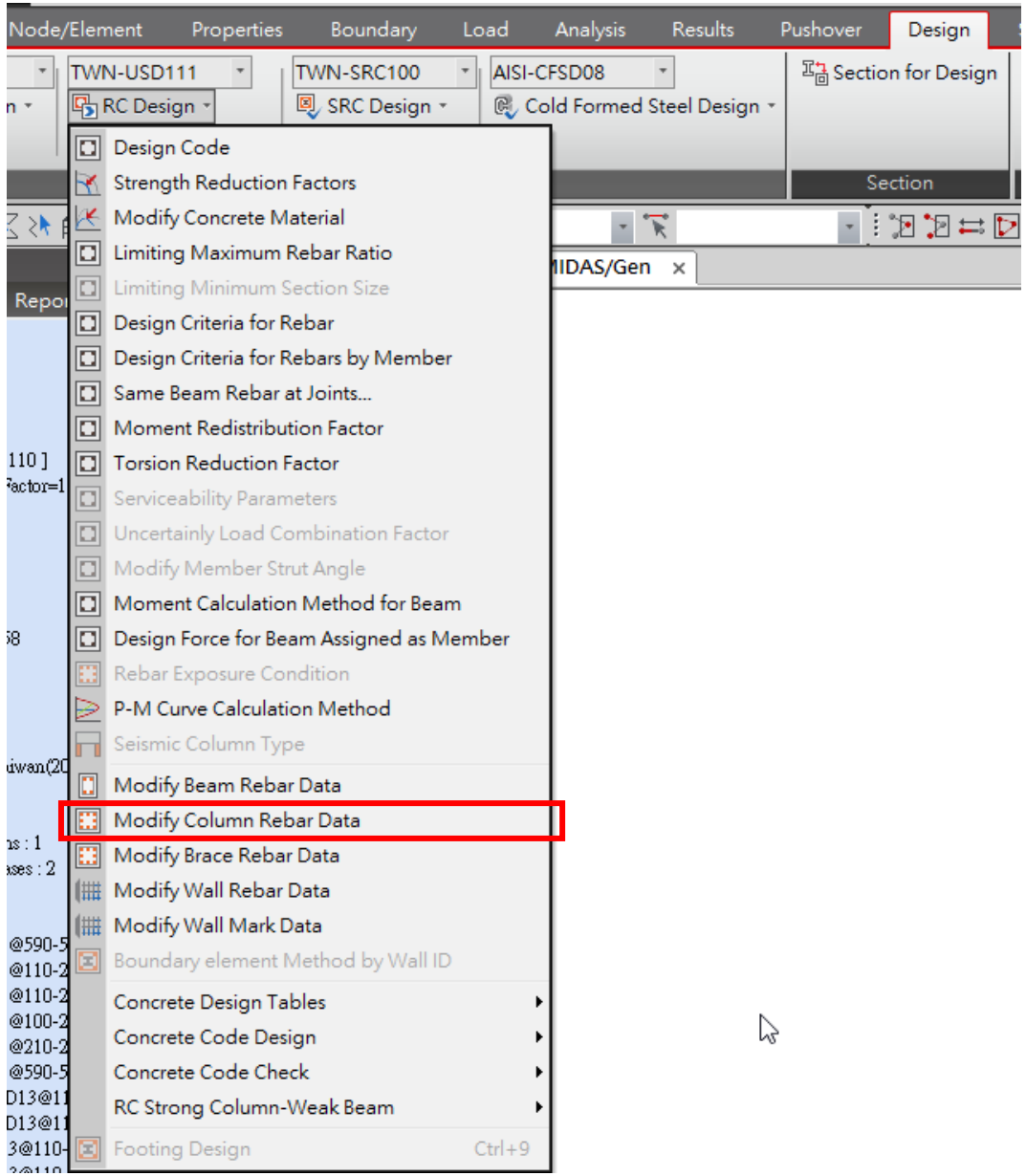
2. 按Update Rebar 之後，在Tree Menu 可以看到 Rebar Data

3. 在RC Design > Modify Column Rebar 可以調整您的配筋。

2.



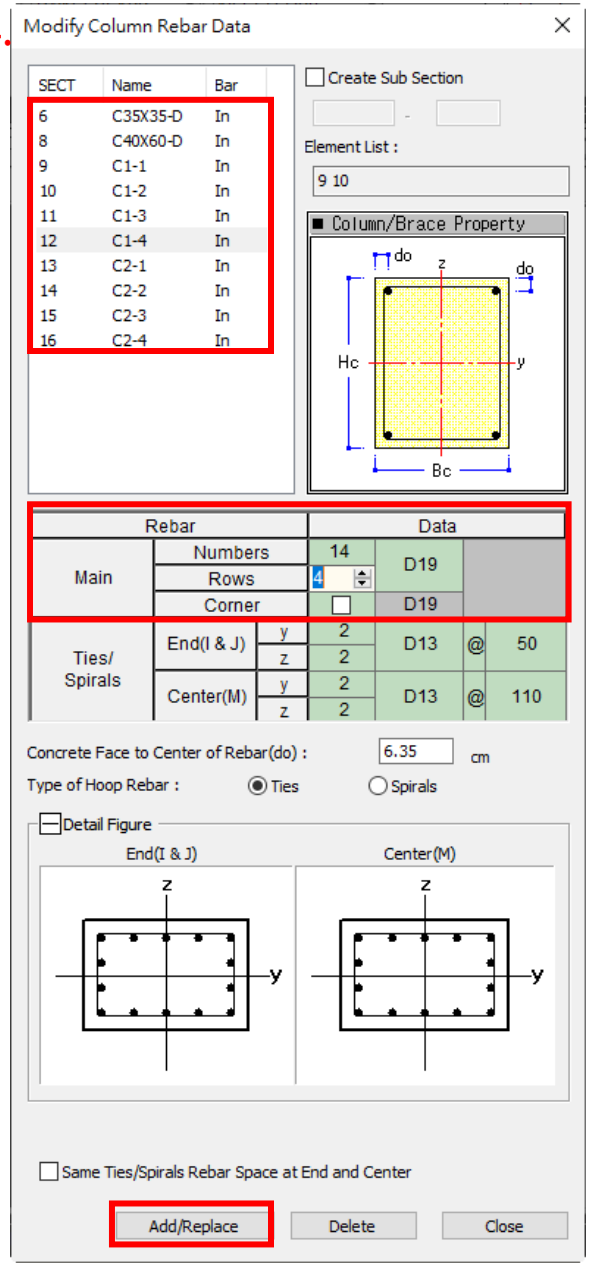
3.



4. 要修改配筋，請先選擇您的斷面。
然後在Rebar Main Data您可以調整配筋
已調整配筋，請安Add/Replace。

5. 配筋調整之後，您可以確認您的配筋，請在Design > RC Design > Concrete Code Check > Column Checking
然後您可以再確認SCWB與Vp/Ve 結果。

4.



5.