COLUMN LOAD COMBOS

Vertical loads only -- columns

By hand: 423.23 wind EW, 389.34 NS

(+) south to north winds (experiencing compression). (-) west to east winds (experiencing tension) [superposition]

Column	Roof L	Floor L	Live Load LLRF	Reduced Floor L (kN)	Total Wind Load (kN)	Snow Load (kN)	EW Wind (kN)	NS Wind (kN)	Uplift (kN)
1A	36,75	0	0		334,215	51,45	0	389,34	-55,125
1E (prev 1B)	73,5	0	0		279,09	102,9	0	389,34	-110,25
4A	49	58,8	0,832455553	54,82838528	-73,5	68,6	-424,23	0	-73,5
4B (4C,4D,4E)	98	117,6	0,74721960	87,87231883	-147	137,2	0	0	-147
5A	24,5	117,6	0,74721960	87,87231883	-36,75	34,3	0	0	-36,75
5B	49	235,2	0,616222777	144,9367706	-73,5	68,6	0	0	-73,5
6A	12,25	58,8	0,832455553	54,82838528	405,8655	17,15	424,23	389,34	-18,375
6E	24,5	117,6	0,74721960	87,87231883	352,59	34,3	389,34	389,34	-36,75
1F hangar	36,75	0	0		-444,465	51,45	-389,34	-389,34	-55,125

*Assuming no girder in the roof s...

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CASES	Principal Only		With Companion		Maximum Load (Compression Governs)	Min Load (Tension Governs)	Compression/Tension Governing
	1,25D+1,4W	0,9D+1,4W	1,25D+1,4W+0,5 L	1,25D+1,4W+0,5S	Governing — If (+), C is occuring.	If (-), T is occuring,	
1A	661,5867188	607,3547175	661,5867188	687,31171875	687,3117188		C
1E	752,5429608	651,2342175	752,54296875	803,29296875	803,9929688		C
4A (4F)	311,1238438	173,1471675	338,53800639	345,42384375	571,752229		C
4B (4C,4D,4E)	592,8213438	325,1073675	636,75750317	661,42134375	1092,293663		C
5A	413,4307188	239,1641175	457,86687817	430,58071875	633,439197		C
5B	779,27375	444,0651	851,74213528	813,573750000	1173,078906		C
6A	795,750125	709,98625	823,16431764	804,32512500	823,1643176		C
6E	938,995375	770,19195	982,9315442	956,14537500	982,9315344		C
1F	-445,55475	-495,0297	-445,55475000	-419,82975000	253,87125	-495,0297	T

KN

$k_x = k_y$ = 1 F_y = 350 Φ = 0,9 2001 1,34 E n

	$L_x=L_y$	rx (mm)	ry (mm)	dist x	dist y	A (mm^2)	rx Fy	Fx Fy	Cr	UF
1A	4000	108		92,4	375,64	78,37	7420 2337 315		1315,8	0,5
1B	4000	108		92,4	375,64	78,37	7420 2337 315		1315,8	0,6
4A (4F)	4000	108		92,4	375,64	78,37	7420 2337 315		1315,8	0,4
4B (4C,4D,4E)	4000	108		92,4	375,64	78,37	7420 2337 315		1315,8	0,8
5A	4000	106		49,2	375,74	81,30	6590 1971 296		1081-,13	0,6
5B	4000	108		92,4	375,64	78,37	7420 2337 315		1315,8	0,9
6A	4000	106		49,2	375,74	81,30	6590 1971 296		1081-,13	0,8
6E	4000	108		92,4	375,64	78,37	7420 2337 315		1315,8	0,7
1F	4000	108		92,4	375,64	78,37	7420 2337 315		1315,8	0,4 Governed by T