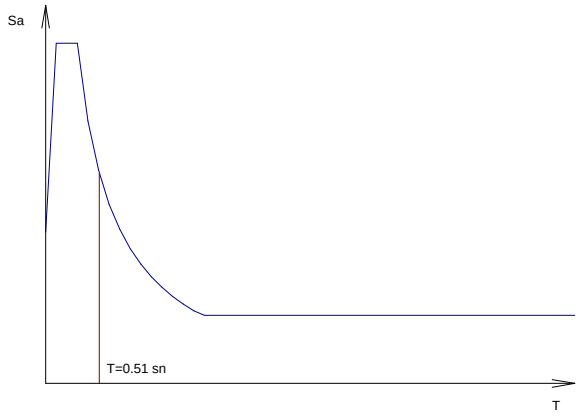
SEISMIC REPORT

SEISMIC CODE : TDY2006 CODE
Seismic loading eccentricity : 0.050
DIAPHRAGM NUMBER : 9
Diaphragm definition : STORY(diaphragm no)
Seismic Analysis min. forces load ratio β : 0.9
STRUCTURAL BEHAVIOUR FACTOR : 8.00

MODAL ANALYSIS DATA

SPECTRUM DATA (TDY97 SPECTRUM)

T (s)	Sa (m/s²) Ao.I.S(t)
0.00	4.000
0.10	10.000
0.30	10.000
0.40	7.944
0.50	6.644
0.60	5.744
0.70	5.076
0.80	4.564
0.90	4.152
1.00	3.816
1.10	3.536
1.20	3.300
1.30	3.096
1.40	2.916
1.50	2.800
5.00	2.800



MODAL ANALYSIS - STRUCTURAL PERIODS and VECTORS

Mod w T dir.	1.mod 12.31 0.5103 y	2.mod 12.41 0.5064 b	3.mod 12.67 0.4960 x	4.mod 12.68 0.4954 x	5.mod 15.61 0.4026 b	6.mod 15.62 0.4024 y	7.mod 38.36 0.1638 y	8.mod 38.66 0.1625 b	9.mod 39.32 0.1598 x
1/1x	0.00000	0.00000	0.00103	0.00000	0.00000	0.00000	0.00000	0.00000	0.00327
2/2x	0.00000	0.00000	0.08894	0.08841	0.00000	0.00000	0.00000	0.00000	0.24312
2/3x	0.00000	0.00000	0.08894	-0.08841	0.00000	0.00000	0.00000	0.00000	0.24312
3/4x	0.00000	0.00000	0.19046	0.19024	0.00000	0.00000	0.00000	0.00000	0.28777
3/5x	0.00000	0.00000	0.19046	-0.19024	0.00000	0.00000	0.00000	0.00000	0.28777
4/6x	0.00000	0.00000	0.26915	0.26921	0.00000	0.00000	0.00000	0.00000	0.02925
4/7x	0.00000	0.00000	0.26915	-0.26921	0.00000	0.00000	0.00000	0.00000	0.02925
5/8x	0.00000	0.00000	0.31369	0.31393	0.00000	0.00000	0.00000	0.00000	-0.26877
5/9x	0.00000	0.00000	0.31369	-0.31393	0.00000	0.00000	0.00000	0.00000	-0.26878
1/1y	0.00310	0.00000	0.00000	0.00000	0.00000	0.00007	0.00998	0.00000	0.00000
2/2y	0.09230	-0.08982	0.00000	0.00000	-0.00007	-0.00007	0.24863	-0.24421	0.00000
2/3y	0.09230	0.08982	0.00000	0.00000	0.00007	-0.00007	0.24864	0.24421	0.00000
3/4y	0.19171	-0.19072	0.00000	0.00000	-0.00300	-0.00322	0.28317	-0.28666	0.00000
3/5y	0.19171	0.19072	0.00000	0.00000	0.00300	-0.00322	0.28317	0.28666	0.00000
4/6y	0.26854	-0.26886	0.00000	0.00000	-0.00567	-0.00608	0.02468	-0.02857	0.00000
4/7y	0.26854	0.26886	0.00000	0.00000	0.00567	-0.00608	0.02468	0.02857	0.00000
5/8y	0.31229	-0.31339	0.00000	0.00000	-0.00728	-0.00780	-0.26866	0.26893	0.00000
5/9y	0.31229	0.31339	0.00000	0.00000	0.00728	-0.00780	-0.26866	-0.26893	0.00000
1/1b	0.00000	0.00001	0.00000	0.00000	0.00005	0.00000	0.00000	0.00002	0.00000
2/2b	0.00043	-0.00039	0.00000	0.00000	0.01213	0.01210	0.00085	-0.00078	0.00000
2/3b	-0.00043	-0.00039	0.00000	0.00000	0.01213	-0.01210	-0.00085	-0.00078	0.00000
3/4b	0.00065	-0.00061	0.00000	0.00000	0.02632	0.02631	0.00056	-0.00052	0.00000
3/5b	-0.00065	-0.00061	0.00000	0.00000	0.02633	-0.02631	-0.00056	-0.00052	0.00000
4/6b	0.00080	-0.00075	0.00000	0.00000	0.03733	0.03733	-0.00021	0.00018	0.00000
4/7b	-0.00080	-0.00075	0.00000	0.00000	0.03733	-0.03733	0.00021	0.00018	0.00000
5/8b	0.00087	-0.00082	0.00000	0.00000	0.04351	0.04352	-0.00084	0.00078	0.00000
5/9b	-0.00087	-0.00082	0.00000	0.00000	0.04351	-0.04352	0.00084	0.00078	0.00000
Mxr%	0.000	0.000	63.392	0.000	0.000	0.000	0.000	0.000	7.454
Myr%	64.225	0.000	0.000	0.000	0.000	0.025	7.777	0.000	0.000
Mbr%	0.000	0.017	0.000	0.000	37.196	0.000	0.000	0.000	0.000

Mod	10.mod	11.mod	12.mod	13.mod	14.mod	15.mod	16.mod	17.mod	18.mod
w	39.39	48.58	48.54	66.87	67.38	68.04	68.15	84.43	84.37
T	0.1595	0.1294	0.1294	0.0940	0.0932	0.0924	0.0922	0.0744	0.0745
dir.	x	y	b	y	b	x	x	y	b
1/1x	0.00000	0.00000	0.00000	0.00000	0.00000	0.00557	0.00000	0.00000	0.00000
2/2x	0.24202	0.00000	0.00000	0.00000	0.00000	0.31086	0.31090	0.00000	0.00000
2/3x	-0.24201	0.00000	0.00000	0.00000	0.00000	0.31086	-0.31090	0.00000	0.00000
3/4x	0.28856	0.00000	0.00000	0.00000	0.00000	-0.05782	-0.05571	0.00000	0.00000
3/5x	-0.28855	0.00000	0.00000	0.00000	0.00000	-0.05782	0.05571	0.00000	0.00000
4/6x	0.03014	0.00000	0.00000	0.00000	0.00000	-0.28178	-0.28244	0.00000	0.00000
4/7x	-0.03014	0.00000	0.00000	0.00000	0.00000	-0.28178	0.28244	0.00000	0.00000
5/8x	-0.26887	0.00000	0.00000	0.00000	0.00000	0.18871	0.18841	0.00000	0.00000
5/9x	0.26886	0.00000	0.00000	0.00000	0.00000	0.18871	-0.18841	0.00000	0.00000
1/1y	0.00000	0.00031	0.00000	0.01762	0.00000	0.00000	0.00000	0.00048	0.00000
2/2y	0.00000	-0.00082	-0.00082	0.30980	-0.31054	0.00000	0.00000	-0.00119	-0.00113
2/3y	0.00000	-0.00082	0.00082	0.30980	0.31053	0.00000	0.00000	-0.00119	0.00113
3/4y	0.00000	-0.00787	-0.00721	-0.06829	0.05924	0.00000	0.00000	-0.00665	-0.00593
3/5y	0.00000	-0.00787	0.00721	-0.06829	-0.05924	0.00000	0.00000	-0.00665	0.00593
4/6y	0.00000	-0.00366	-0.00333	-0.27889	0.28175	0.00000	0.00000	0.00845	0.00754
4/7y	0.00000	-0.00366	0.00333	-0.27889	-0.28175	0.00000	0.00000	0.00845	-0.00754
5/8y	0.00000	0.00635	0.00582	0.18995	-0.18880	0.00000	0.00000	-0.00370	-0.00330
5/9y	0.00000	0.00635	-0.00582	0.18995	0.18880	0.00000	0.00000	-0.00370	0.00330
1/1b	0.00000	0.00000	0.00015	0.00000	0.00004	0.00000	0.00000	0.00000	0.00026
2/2b	0.00000	0.03322	0.03327	0.00029	-0.00029	0.00000	0.00000	0.04310	0.04310
2/3b	0.00000	-0.03322	0.03328	-0.00029	-0.00029	0.00000	0.00000	-0.04310	0.04310
3/4b	0.00000	0.04015	0.04011	-0.00077	0.00068	0.00000	0.00000	-0.00716	-0.00727
3/5b	0.00000	-0.04015	0.04011	0.00077	0.00068	0.00000	0.00000	0.00716	-0.00727
4/6b	0.00000	0.00442	0.00438	-0.00055	0.00051	0.00000	0.00000	-0.03925	-0.03922
4/7b	0.00000	-0.00442	0.00438	0.00055	0.00051	0.00000	0.00000	0.03925	-0.03922
5/8b	0.00000	-0.03730	-0.03730	0.00067	-0.00060	0.00000	0.00000	0.02602	0.02603
5/9b	0.00000	0.03730	-0.03730	-0.00067	-0.00060	0.00000	0.00000	-0.02602	0.02603
Mxr%	0.000	0.000	0.000	0.000	0.000	2.403	0.000	0.000	0.000
Myr%	0.000	0.003	0.000	2.708	0.000	0.000	0.000	0.000	0.000
Mbr%	0.000	0.000	4.430	0.000	0.001	0.000	0.000	0.000	1.504

Mod	19.mod	20.mod	21.mod	22.mod	23.mod	24.mod	25.mod	26.mod	27.mod	
w	93.04	93.39	93.67	93.75	116.81	116.77	192.43	322.09	351.38	
T	0.0675	0.0673	0.0671	0.0670	0.0538	0.0538	0.0327	0.0195	0.0179	
dir.	y	b	x	x	y	b	y	x	b	
1/1x	0.00000	0.00000	0.00533	0.00000	0.00000	0.00000	0.00000	0.38194	0.00000	
2/2x	0.00000	0.00000	0.22645	0.22800	0.00000	0.00000	0.00000	-0.01002	0.00000	
2/3x	0.00000	0.00000	0.22645	-0.22800	0.00000	0.00000	0.00000	-0.01002	0.00000	
3/4x	0.00000	0.00000	-0.30429	-0.30409	0.00000	0.00000	0.00000	0.00211	0.00000	
3/5x	0.00000	0.00000	-0.30430	0.30409	0.00000	0.00000	0.00000	0.00211	0.00000	
4/6x	0.00000	0.00000	0.24967	0.24876	0.00000	0.00000	0.00000	-0.00034	0.00000	
4/7x	0.00000	0.00000	0.24967	-0.24875	0.00000	0.00000	0.00000	-0.00034	0.00000	
5/8x	0.00000	0.00000	-0.09369	-0.09325	0.00000	0.00000	0.00000	0.00001	0.00000	
5/9x	0.00000	0.00000	-0.09370	0.09325	0.00000	0.00000	0.00000	0.00001	0.00000	
1/1y	0.01810	0.00000	0.00000	0.00000	0.00038	0.00000	0.38106	0.00000	0.00000	
2/2y	0.21837	-0.22558	0.00000	0.00000	-0.00280	-0.00250	-0.03195	0.00000	0.00097	
2/3y	0.21837	0.22558	0.00000	0.00000	-0.00280	0.00250	-0.03195	0.00000	-0.00097	
3/4y	-0.30535	0.30476	0.00000	0.00000	0.00128	0.00114	0.00870	0.00000	-0.00015	
3/5y	-0.30535	-0.30476	0.00000	0.00000	0.00128	-0.00114	0.00870	0.00000	0.00015	
4/6y	0.25377	-0.24989	0.00000	0.00000	-0.00060	-0.00053	-0.00200	0.00000	0.00002	
4/7y	0.25378	0.24989	0.00000	0.00000	-0.00060	0.00053	-0.00200	0.00000	-0.00002	
5/8y	-0.09555	0.09355	0.00000	0.00000	0.00017	0.00016	0.00025	0.00000	0.00004	
5/9y	-0.09555	-0.09355	0.00000	0.00000	0.00017	-0.00016	0.00025	0.00000	-0.00004	
1/1b	0.00000	0.00004	0.00000	0.00000	0.00000	0.00026	0.00000	0.00000	0.02790	
2/2b	-0.00080	0.00070	0.00000	0.00000	0.03193	0.03185	-0.00012	0.00000	-0.00090	
2/3b	0.00080	0.00070	0.00000	0.00000	-0.03193	0.03185	0.00012	0.00000	-0.00090	
3/4b	-0.00024	0.00022	0.00000	0.00000	-0.04209	-0.04210	0.00004	0.00000	0.00021	
3/5b	0.00024	0.00022	0.00000	0.00000	0.04209	-0.04210	-0.00004	0.00000	0.00021	
4/6b	0.00092	-0.00081	0.00000	0.00000	0.03425	0.03430	-0.00001	0.00000	-0.00004	
4/7b	-0.00092	-0.00081	0.00000	0.00000	-0.03425	0.03430	0.00001	0.00000	-0.00004	
5/8b	-0.00050	0.00044	0.00000	0.00000	-0.01281	-0.01283	0.00001	0.00000	0.00000	
5/9b	0.00050	0.00044	0.00000	0.00000	0.01281	-0.01283	-0.00001	0.00000	0.00000	
Mxr%	0.000	0.000	0.628	0.000	0.000	0.000	0.000	26.123	0.000	∑=100.0
Myr%	0.815	0.000	0.000	0.000	0.000	0.000	24.448	0.000	0.000	∑=100.0
Mbr%	0.000	0.001	0.000	0.000	0.000	0.414	0.000	0.000	56.436	

Mxr=∑[(∑m.Φ)²/Mr]= %100.00 > %90.00 mode number OK. ✓
Myr=∑[(∑m.Φ)²/Mr]= %100.00 > %90.00 mode number OK. ✓

SEISMIC ANALYSIS 1.PERIOD CHECK
N= 4.00 < 13

TORSIONAL MASS MOMENT OF INERTIA Jmass=(Ix+Iy)/A

Story	A (m²)	Ix (m4)	Iy (m4)	Xg (m)	Yg (m)	Jmass (m²)
9	300.00	5625.00	10000.00	35.00	7.50	52.08
8	300.00	5625.00	10000.00	10.00	7.50	52.08
7	300.00	5625.00	10000.00	35.00	7.50	52.08
6	300.00	5625.00	10000.00	10.00	7.50	52.08
5	300.00	5625.00	10000.00	35.00	7.50	52.08
4	300.00	5625.00	10000.00	10.00	7.50	52.08
3	300.00	5625.00	10000.00	35.00	7.50	52.08
2	300.00	5625.00	10000.00	10.00	7.50	52.08
1	675.00	12656.25	113906.25	22.50	7.50	187.50

STORY MASS and RIGIDITY CENTER (t)

Story (dia)	H (m)	Wg	Wq	Xg (m)	Xr (m)	Yg (m)	Yr (m)	∑Wk
5(9)	15.00	214.52	60.00	35.00	35.00	7.50	7.50	232.524
5(8)	15.00	214.52	60.00	10.00	10.00	7.50	7.50	232.524
4(7)	12.00	214.52	60.00	35.00	35.00	7.50	7.50	232.524
4(6)	12.00	214.52	60.00	10.00	10.00	7.50	7.50	232.524
3(5)	9.00	214.52	60.00	35.00	35.00	7.50	7.50	232.524
3(4)	9.00	214.52	60.00	10.00	10.00	7.50	7.50	232.524
2(3)	6.00	214.52	60.00	35.00	35.00	7.50	7.50	232.524
2(2)	6.00	214.52	60.00	10.00	10.00	7.50	7.50	232.524
1(1)	3.00	644.66	135.00	22.50	22.50	7.50	7.50	685.160

∑Wt = 2545.353

EQUIVALENT SEISMIC FORMULA $Fdi = (Vt-Ft)\dfrac{Wi.Hi}{\sum Wi.Hi}$

SEISMIC FORCES (t)

Seismic top force Ftx= 8.71 Fty= 8.51 (t)

	X DIR.				Y DIR.			
Story (dia)	Modal Analysis	Seismic code forces	Seismic forces	Story type	Modal Analysis	Seismic code forces	Seismic forces	Story type
5(9)	27.018	33.714	27.583	TOP STO	26.713	32.960	26.977	TOP STO
5(8)	27.018	33.714	27.583	TOP STO	26.713	32.960	26.977	TOP STO
4(7)	19.526	22.020	19.934	NORMAL	19.071	21.527	19.259	NORMAL
4(6)	19.526	22.020	19.934	NORMAL	19.071	21.527	19.259	NORMAL
3(5)	14.007	14.680	14.299	NORMAL	13.774	14.351	13.911	NORMAL
3(4)	14.007	14.680	14.299	NORMAL	13.774	14.351	13.911	NORMAL
2(3)	7.995	7.340	8.162	NORMAL	8.185	7.176	8.266	NORMAL
2(2)	7.995	7.340	8.162	NORMAL	8.185	7.176	8.266	NORMAL
1(1)	74.316	182.709	74.316	BASEMT	57.649	182.709	57.649	BASEMT
∑	211.406	338.217	214.273	TOTAL	193.134	334.738	194.475	TOTAL
	74.316	182.709	74.316	BASEMENT	57.649	182.709	57.649	BASEMENT
	137.090	155.507	139.957	NORMAL	135.484	152.028	136.826	NORMAL

Vtx=W.A(t)/Ra(t)> 0,10. Ao.I.W 155.51 > 74.41
Vty=W.A(t)/Ra(t)> 0,10. Ao.I.W 152.03 > 74.41
X Seismic check : 0.90 x 155.507 = 139.957 > 137.090 >>> 139.957
Y Seismic check : 0.90 x 152.028 = 136.826 > 135.484 >>> 136.826

BUILDING COLLAPSE LOADS TO ACCORDING BEAM and COLUMN CAPACITY MOMENTS

TOTAL COLUMN BASE CAPACITY MOMENT : Mrx=375.2 (tm) Mry=374.89 (tm)
TOTAL BEAM CAPACITY MOMENT : Mrx=2193.28 (tm) Mry=2117.34 (tm)
∑Mc<∑Mb > Mb=Mc ARRANGEMENT BEAM CAPACITY MOMENT : Mrx=2193.28 (tm) Mry=2117.34 (tm)
X DIR. COLLAPSE CAPACITY : Px=139.96 x (375.2 + 2193.28) / 1241.36 = 250.15 (t)
Y DIR. COLLAPSE CAPACITY : Py=136.83 x (374.89 + 2117.34) / 1210.64 = 249.93 (t)
SOFT STORY COLLAPSE CAP. : Px=250.15 (t), Py=249.93 (t)
Capacity check for Design Results
Vtx=λ.Ao.I.S(t).W=951.7 (t) (λ=0.85)
Vty=λ.Ao.I.S(t).W=930.41 (t) (λ=0.85)

	X dir.			Y dir.		
Story no	Column ∑Mc	Beam (Mci ≥ Mbi) ∑Mbi	Capacity Vr	Column ∑Mc	Beam (Mci ≥ Mbi) ∑Mbi	Capacity Vr
5(9)	281.26	447.46	187.51	281.26	419.09	187.51
5(8)	320.37	703.93	213.58	320.24	670.14	213.49
4(7)	320.37	962.69	213.60	320.24	921.19	213.49
4(6)	351.81	1265.36	234.61	351.28	1214.29	234.19
3(5)	351.81	1571.42	234.54	351.28	1507.39	234.19
3(4)	375.22	1881.33	250.13	374.89	1812.37	249.93
2(3)	375.20	2193.29	250.15	374.89	2117.34	249.93
2(2)	375.20	2193.29	250.15	374.89	2117.34	249.93

(Mci ≥ Mbi) >> ∑Mbi Beam Plastic Hinge Check

Wind forces (t)

Story (dia)	X-dir. F	X-dir. ey m	Y-dir. F	Y-dir. ex m
5(9)	4.320	35.000	5.760	7.500
5(8)	4.320	10.000	5.760	7.500
4(7)	4.320	35.000	5.760	7.500
4(6)	4.320	10.000	5.760	7.500
3(5)	2.700	35.000	3.600	7.500
3(4)	2.700	10.000	3.600	7.500
2(3)	2.700	35.000	3.600	7.500
2(2)	2.700	10.000	3.600	7.500
1(1)	0.000	22.500	0.000	7.500

Story Seismic displacement

Story	9. combination		10. combination		11. combination		12. combination	
(dia)	δx (m)	θz (rad)	δx (m)	θz (rad)	δy (m)	θz (rad)	δy (m)	θz (rad)
5(9)	0.0067477	0.0000640	0.0067477	-0.000064	-0.006945	-0.000076	-0.006956	0.0000897
5(8)	0.0067477	0.0000640	0.0067477	-0.000064	-0.006956	-0.000089	-0.006945	0.0000768
4(7)	0.0057417	0.0000545	0.0057417	-0.000054	-0.005921	-0.000064	-0.005932	0.0000773
4(6)	0.0057417	0.0000545	0.0057417	-0.000054	-0.005932	-0.000077	-0.005921	0.0000643
3(5)	0.0040506	0.0000383	0.0040506	-0.000038	-0.004215	-0.000043	-0.004226	0.0000563
3(4)	0.0040506	0.0000383	0.0040506	-0.000038	-0.004226	-0.000056	-0.004215	0.0000434
2(3)	0.0019052	0.0000177	0.0019052	-0.000017	-0.002048	-0.000017	-0.002058	0.0000289
2(2)	0.0019052	0.0000177	0.0019052	-0.000017	-0.002058	-0.000028	-0.002048	0.0000174
1(1)	0.0000323	0.0000001	0.0000323	-0.000000	-0.000091	-0.000000	-0.000091	0.0000002

Seismic amplitude : x= 0.00045 y= 0.00046
ShearWall not found in building.

IRREGULARITY CHECK UNDER SEISMIC ACTION

A1,B2 type irregularities
max(di/hi)=0.02
1. sto X dtop = -.0000323 + -.0000001 x (.0 - 7.5=-.0000316 (C101)
1. sto X dbot = -.0000323 + -.0000001 x (15.0 - 7.5)=-.0000331 (C131)
2. sto X dtop = -.0019052 + -.0000177 x (.0 - 7.5) - -.0000316 = -.0017406 (C201)
2. sto X dbot = -.0019052 + -.0000177 x (15.0 - 7.5) - -.0000331 = -.0020051 (C231)

X DIR. (+%5)

Story	ΔX top(m)	ΔX bot(m)	ΔX ort	nbi	nki	ΔX/h	θi	story type
5(9)	0.0009344	0.0010776	0.0010060	1.07	0.00	0.00287	0.00283	Normal sto
5(8)	0.0009344	0.0010776	0.0010060	1.07	0.00	0.00287	0.00141	Normal sto
4(7)	0.0015698	0.0018124	0.0016911	1.07	1.68	0.00483	0.00349	Normal sto
4(6)	0.0015698	0.0018124	0.0016911	1.07	1.68	0.00483	0.00276	Normal sto
3(5)	0.0019914	0.0022995	0.0021455	1.07	1.27	0.00613	0.00456	Normal sto
3(4)	0.0019914	0.0022995	0.0021455	1.07	1.27	0.00613	0.00404	Normal sto
2(3)	0.0017406	0.0020051	0.0018729	1.07	0.87	0.00535	0.00441	Normal sto
2(2)	0.0017406	0.0020051	0.0018729	1.07	0.87	0.00535	0.00415	Normal sto
1(1)	0.0000316	0.0000331	0.0000323	1.02	0.00	0.00009	0.00000	Basement

X DIR. (-%5)

Story	ΔX top(m)	ΔX bot(m)	ΔX ort	nbi	nki	ΔX/h	θi	story type
5(9)	0.0010776	0.0009344	0.0010060	1.07	0.00	0.00287	0.00283	Normal sto
5(8)	0.0010776	0.0009344	0.0010060	1.07	0.00	0.00287	0.00141	Normal sto
4(7)	0.0018124	0.0015698	0.0016911	1.07	1.68	0.00483	0.00349	Normal sto
4(6)	0.0018124	0.0015698	0.0016911	1.07	1.68	0.00483	0.00276	Normal sto
3(5)	0.0022995	0.0019914	0.0021455	1.07	1.27	0.00613	0.00456	Normal sto
3(4)	0.0022995	0.0019914	0.0021455	1.07	1.27	0.00613	0.00404	Normal sto
2(3)	0.0020051	0.0017406	0.0018729	1.07	0.87	0.00535	0.00441	Normal sto
2(2)	0.0020051	0.0017406	0.0018729	1.07	0.87	0.00535	0.00415	Normal sto
1(1)	0.0000331	0.0000316	0.0000323	1.02	0.00	0.00009	0.00000	Basement

Y DIR. (+%5)

Story	ΔY lft(m)	ΔY rgt(m)	ΔY ort	nbi	nki	ΔY/h	θi	story type
5(9)	0.0008997	0.0011487	0.0010242	1.12	0.00	0.00306	0.00294	Normal sto
5(8)	0.0009001	0.0011483	0.0010242	1.12	0.00	0.00306	0.00147	Normal sto
4(7)	0.0014970	0.0019160	0.0017065	1.12	1.67	0.00511	0.00361	Normal sto
4(6)	0.0014961	0.0019171	0.0017066	1.12	1.67	0.00511	0.00286	Normal sto
3(5)	0.0019070	0.0024258	0.0021664	1.12	1.27	0.00647	0.00474	Normal sto
3(4)	0.0018936	0.0024417	0.0021676	1.13	1.27	0.00651	0.00419	Normal sto
2(3)	0.0017827	0.0021276	0.0019552	1.09	0.90	0.00567	0.00472	Normal sto
2(2)	0.0016820	0.0022560	0.0019690	1.15	0.91	0.00602	0.00446	Normal sto
1(1)	0.0000878	0.0000953	0.0000915	1.04	0.00	0.00025	0.00000	Basement

Y DIR. (-%5)

Story	ΔY lft(m)	ΔY rgt(m)	ΔY ort	nbi	nki	ΔY/h	θi	story type
5(9)	0.0011483	0.0009001	0.0010242	1.12	0.00	0.00306	0.00294	Normal sto
5(8)	0.0011487	0.0008997	0.0010242	1.12	0.00	0.00306	0.00147	Normal sto
4(7)	0.0019171	0.0014961	0.0017066	1.12	1.67	0.00511	0.00361	Normal sto
4(6)	0.0019160	0.0014970	0.0017065	1.12	1.67	0.00511	0.00286	Normal sto
3(5)	0.0024417	0.0018936	0.0021676	1.13	1.27	0.00651	0.00474	Normal sto
3(4)	0.0024258	0.0019070	0.0021664	1.12	1.27	0.00647	0.00419	Normal sto
2(3)	0.0022560	0.0016820	0.0019690	1.15	0.91	0.00602	0.00475	Normal sto
2(2)	0.0021276	0.0017827	0.0019552	1.09	0.90	0.00567	0.00443	Normal sto
1(1)	0.0000953	0.0000878	0.0000915	1.04	0.00	0.00025	0.00000	Basement

TDY 2.3.2.1 A1 torsional irregularity:
nbi=1.146 <1.2 , solved by modal analysis ✓
TDY 2.3.2.1 B2 condition is not satisfied. ✓
TDY 2.19 requirement OK .0065 < .02 ✓
TDY 2.20 requirement OK max θi=.005 < 0.12 ✓

B1-Vertical irregularity check

Story	Aw	Agx	Agy	∑Aex	∑Aey	ncix	nciy	EXPLANATION
5	6.40	0.00	0.00	6.40	6.40	1.00	1.00	top sto ✓
4	6.40	0.00	0.00	6.40	6.40	1.00	1.00	Regular ✓
3	6.40	0.00	0.00	6.40	6.40	1.00	1.00	Regular ✓
2	6.40	0.00	0.00	6.40	6.40	1.00	1.00	Regular ✓
1	2.56	25.06	8.78	27.62	11.34	4.32	1.77	basement

TDY A4 irregularity :
A4 irregularity not found. ✓