BAB V

KESIMPULAN

Dari hasil perhitungan kasus yang ada, dapat diambil beberapa kesimpulan :

1. *Displacement* rangka maksimum arah horisontal yang terjadi pada portal as 3-3 adalah 0,089656 meter, sedangkan pada portal as C-C adalah 0,088184 meter,
2. *Displacement* rangka maksimum arah vertikal yang terjadi pada portal as 3-3 adalah 0,026973 meter, sedangkan pada portal as C-C adalah 0,025682 meter,
3. Besar dari momen terfaktor maksimum yang terjadi adalah 1738,123 KNm, sedangkan besar tahanan lentur balok maksimum adalah 1923,237 KNm,
4. Gaya desak aksial maksimum yang terjadi adalah 4925,279 KN, sedangkan kekuatan nominal maksimum kolom adalah 5016,270 KN,
5. Pada sambungan balok ke kolom digunakan sambungan dengan las *groove* penetrasi penuh dan baut berkekuatan tinggi atau las *fillet*,
6. Tebal las *fillet* yang digunakan adalah 0,794 cm,

DAFTAR PUSTAKA

1. American Institute of Steel Construction, 1987, ***Manual of Steel Construction Load and Resistance Factor Design***
2. American Institute of Steel Construction, 1992, ***Seismic Provisions for Structural Steel Buildings***
3. Salmon, Charles G,1992, ***Struktur Baja Desain dan Perilaku jilid 1 dan 2***, PT. Gramedia Pustaka Utama, Jakarta
4. Departemen Pekerjaan Umum, 1987, ***Pedoman Perencanaan Ketahanan Gempa untuk Rumah dan Gedung, SKBI-1.3.53.1987***, Yayasan Penerbit PU, Jakarta
5. Gaylord, Edwin H, ***Design of Steel Structure***, 1992, Mc Graw Hill, Inc
6. Wahana Komputer Semarang, 1995, ***Analisis Struktur Dengan SAP 90***, Penerbit Andi, Yogyakarta

STRUCTURAL ANALYSIS PROGRAMS

VERSION P5.40

PERHITUNGAN PEMBEBANAN PADA PORTAL AS 3 (KN/m)

```
SYSTEM
L=4    V=2

JOINTS
1       X=0    Y=0     Z=0       : BIDANG KOORDINAT Y-Z
2              Y=10    Z=0
3              Y=22    Z=0
4              Y=32    Z=0
5              Y=0     Z=6
33             Y=0     Z=30    G=5,33,7
6              Y=5     Z=6
34             Y=5     Z=30    G=6,34,7
7              Y=10    Z=6
35             Y=10    Z=30    G=7,35,7
8              Y=16    Z=6
36             Y=16    Z=30    G=8,36,7
9              Y=22    Z=6
37             Y=22    Z=30    G=9,37,7
10             Y=27    Z=6
38             Y=27    Z=30    G=10,38,7
11             Y=32    Z=6
39             Y=32    Z=30    G=11,39,7

RESTRAINTS
1,39,1         R=1,0,0,0,1,1
1,4,1          R=1,1,1,1,1,1    : DUKUNGAN JEPIT Y-Z

FRAME
NM=4          NL=8          Z=-1,0
C PROPERTIES ELEMEN
1 SH=I      T=0.762,0.267,0.022,0.014,0.267,0.022   E=2E8
2 SH=I      T=0.684,0.254,0.019,0.013,0.254,0.019
3 SH=I      T=0.766,0.267,0.024,0.015,0.267,0.024
4 SH=I      T=0.932,0.309,0.035,0.021,0.309,0.035
C BEBAN MATI PADA LANTAI ATAP
1 TRAP=0,0,0,2.5,-10.35,0,5,0,0
2 TRAP=0,0,0,3.0,-12.42,0,6,0,0
C BEBAN MATI PADA LANTAI 1,2,3 DAN 4
3 TRAP=0,0,0,2.5,-13.02,0,5,0,0
4 TRAP=0,0,0,3.0,-15.63,0,6,0,0
C BEBAN HIDUP PADA LANTAI ATAP
5 TRAP=0,0,0,2.5,-2.5,0,5,0,0
6 TRAP=0,0,0,3.0,-3,0,0,6,0,0
C BEBAN HIDUP PADA LANTAI 1,2,3 DAN 4
7 TRAP=0,0,0,2.5,-6.25,0,5,0,0
8 TRAP=0,0,0,3.0,-7.50,0,6,0,0
C KOLOM PADA PORTAL AS 3
1,1,5        M=3                  LP=3,0
2,5,12       M=3     G=3,1,7,7    LP=3,0
6,2,7        M=4                  LP=3,0
7,7,14       M=4     G=3,1,7,7    LP=3,0
11,3,9       M=4                  LP=3,0
12,9,16      M=4     G=3,1,7,7    LP=3,0
16,4,11      M=3                  LP=3,0
17,11,18     M=3     G=3,1,7,7    LP=3,0
```

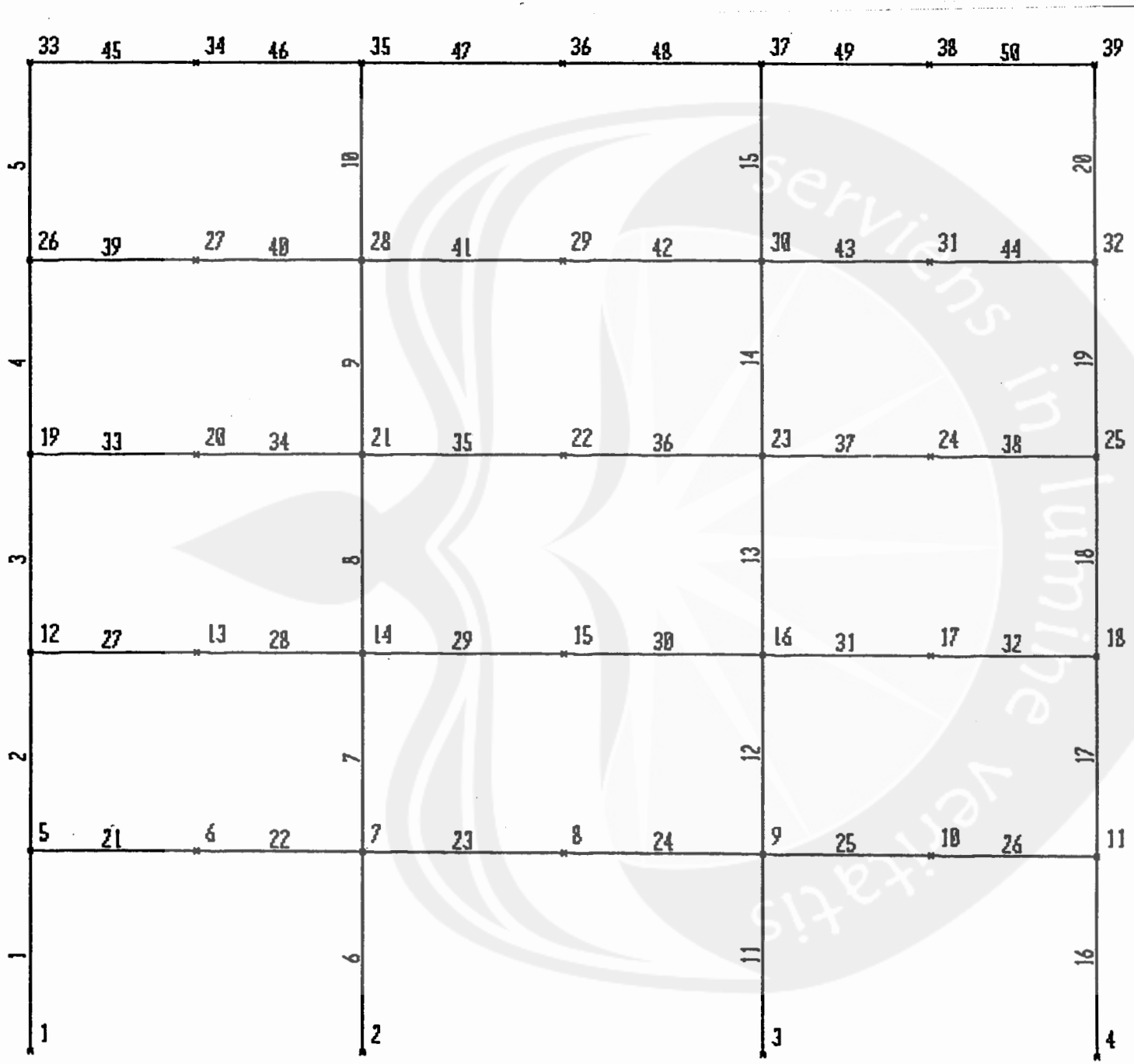
```
C BALOK PADA PORTAL AS 3
21,5,6      M=1     G=3,6,7,7    LP=3,0   NSL=3,3,7,7
22,6,7      M=1     G=3,6,7,7    LP=3,0   NSL=3,3,7,7
23,7,8      M=1     G=3,6,7,7    LP=3,0   NSL=4,4,8,8
24,8,9      M=1     G=3,6,7,7    LP=3,0   NSL=4,4,8,8
25,9,10     M=1     G=3,6,7,7    LP=3,0   NSL=3,3,7,7
26,10,11    M=1     G=3,6,7,7    LP=3,0   NSL=3,3,7,7
45,33,34    M=2     G=1,1,1,1    LP=3,0   NSL=1,1,5,5
47,35,36    M=2     G=1,1,1,1    LP=3,0   NSL=2,2,6,6
49,37,38    M=2     G=1,1,1,1    LP=3,0   NSL=1,1,5,5

LOADS
C BEBAN TERPUSAT AKIBAT PEMBEBANAN BALOK ANAK
6,27,7      L=1     F=0,0,-360.10
8,29,7      L=1     F=0,0,-375.12
10,31,7     L=1     F=0,0,-360.10
34          L=1     F=0,0,-286.16
36          L=1     F=0,0,-298.08
38          L=1     F=0,0,-286.16
6,27,7      L=3     F=0,0,-172.80
8,29,7      L=3     F=0,0,-180.00
10,31,7     L=3     F=0,0,-172.80
34          L=3     F=0,0,-69.12
36          L=3     F=0,0,-72.00
38          L=3     F=0,0,-69.12

CONSTRAINTS
6,11,1      C=0,5,0
13,18,1     C=0,12,0
20,25,1     C=0,19,0
27,32,1     C=0,26,0
34,39,1     C=0,33,0

MASSES
C LUMPING MASSA UNTUK MELAKUKAN ANALISIS DINAMIS
C ANALISIS INI MERUPAKAN TRIAL DAN ERROR
C MASSA DIAMBIL SEBAGAI W/G
5       M=0,837.832,0
12      M=0,837.832,0
19      M=0,837.832,0
26      M=0,664.985,0
33      M=0,547.102,0

SPEC
C DATA DIAMBIL DARI PEDOMAN PERENCANAAN TAHAN GEMPA
C UNTUK RUMAH DAN GEDUNG HALAMAN 13
C BANGUNAN GUDANG PADA WILAYAH 4 DENGAN DAKTILITAS PENUH
C PERCEPATAN GRAVITASI DIAMBIL 10 meter/detik^2
  A=0      S=1$10.00      D=0.05
C PERIODE    ARAH-1     ARAH-2     ARAH-Z
  0.000      0.000      0.030      0.000
  0.500      0.000      0.030      0.000
  2.000      0.000      0.015      0.000
  3.000      0.000      0.015      0.000

COMBO
C KOMBINASI PEMBEBANAN MENURUT SEISMIC PROVISIONS DARI AISC 1992
1 C=1.2,1.2,1.6,1.6
```

2 C=1.2,1.2,0.5,0.5

3 C=1.2,1.2,0.5,0.5 D=+2.00

4 C=1.2,1.2,0.5,0.5 D=-2.00

5 C=0.9,0.9 D=-2.00



Z

Y

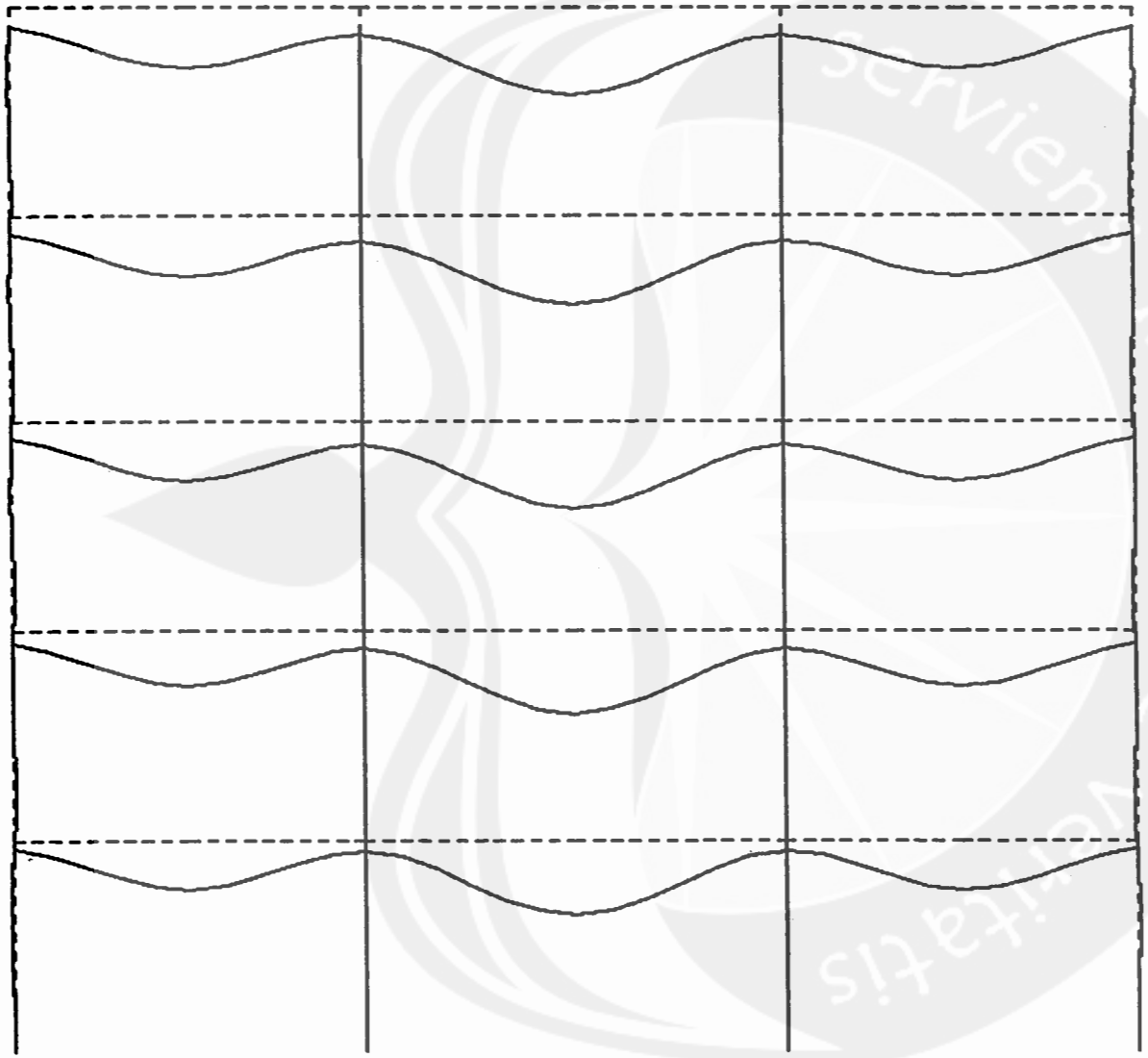
seismic1

UNDEFORMED SHAPE

OPTIONS

JOINT IDS
ALL JOINTS
ELEMENT IDS
WIRE FRAME

SAP90



Z
Y

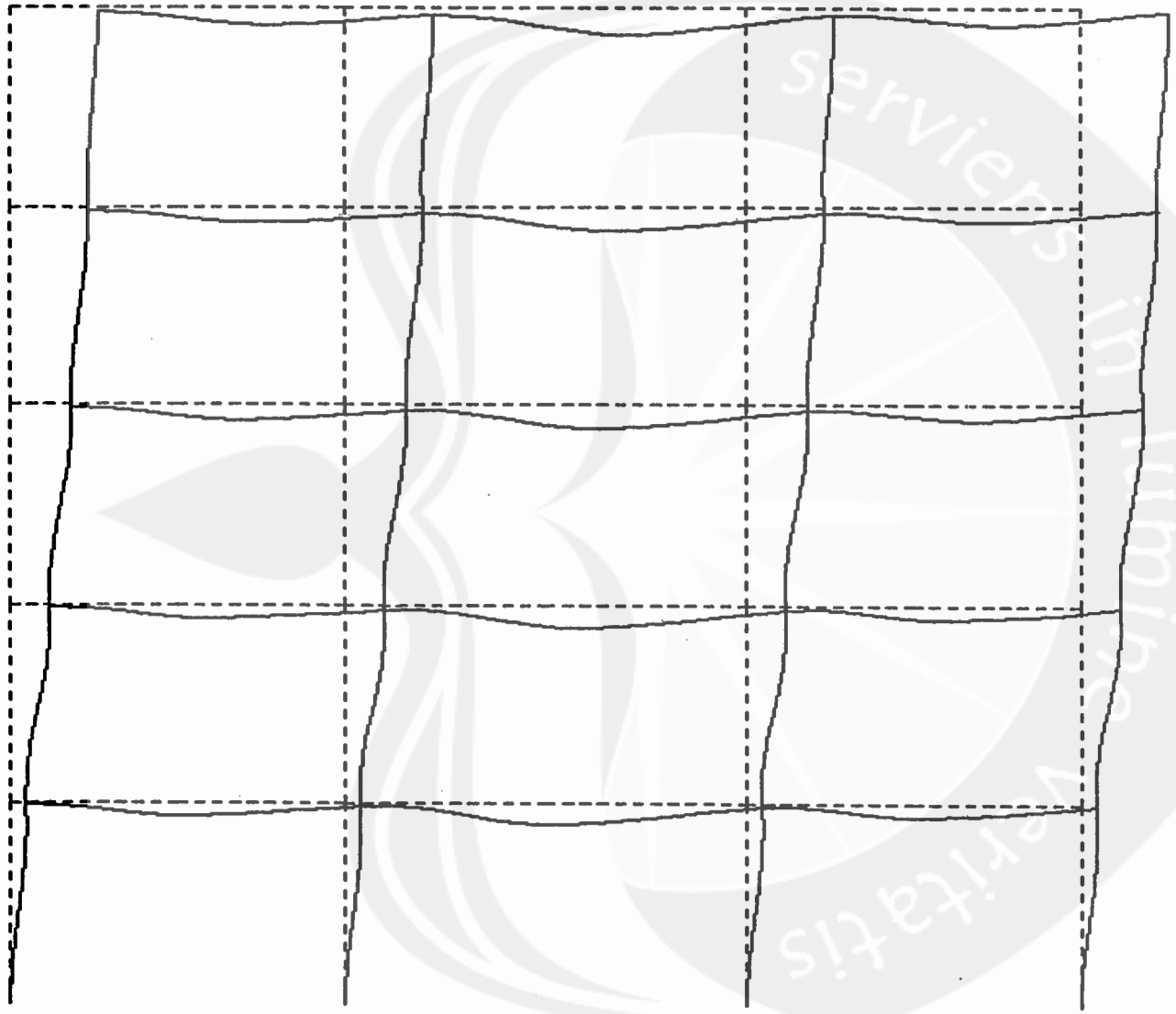
seismic1

DEFORMED
SHAPE

LOAD 1

MINIMA
X 0.0000E+00
Y-0.3853E-17
Z-0.3431E-01
MAXIMA
X 0.0000E+00
Y 0.2958E-19
Z 0.0000E+00

SAP90



Z
Y

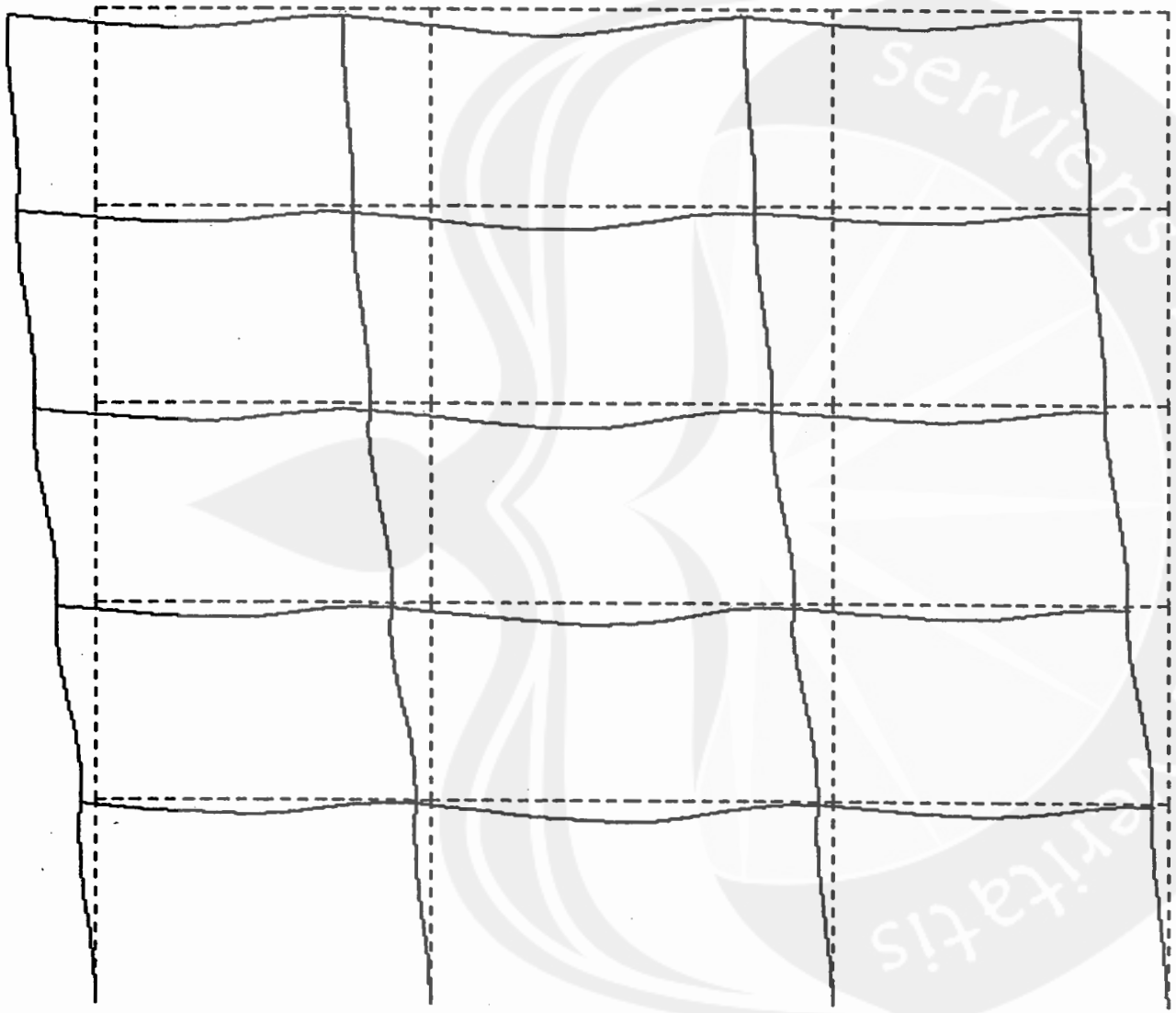
seismic1

DEFORMED
SHAPE

LOAD 3

MINIMA
X 0.0000E+00
Y 0.0000E+00
Z-0.2697E-01
MAXIMA
X 0.0000E+00
Y 0.8966E-01
Z 0.0000E+00

SAP90



Z
Y

seismic1

DEFORMED
SHAPE

LOAD 4

MINIMA
X 0.0000E+00
Y-0.8966E-01
Z-0.2697E-01
MAXIMA
X 0.0000E+00
Y 0.0000E+00
Z 0.0000E+00

SAP90

PERHITUNGAN PEMBEBANAN PADA PORTAL AS 3 (KN/m)

S P E C T R U M I N P U T D A T A

AMPLITUDE MULTIPLIER ----"S"- 10.000
DAMPING RATIO -----------"D"- 0.050
ANGLE OF S1 WITH X-AXIS -"A"- 0.000

PERHITUNGAN PEMBEBANAN PADA PORTAL AS 3 (KN/m)

MODE NUMBER	F R E Q U E N C Y RAD./SEC	CYCLES/SEC	PERIOD-SEC	(D)	S P E C T R A L ACCELERATION	VELOCITY	DISPLACEMENT
1	2.12	0.34	2.961763	(1)	0.000	0.000	0.000
				(2)	0.150	0.071	0.033
				(Z)	0.000	0.000	0.000
2	6.55	1.04	0.959120	(1)	0.000	0.000	0.000
				(2)	0.254	0.039	0.006
				(Z)	0.000	0.000	0.000

PERHITUNGAN PEMBEBANAN PADA PORTAL AS 3 (KN/m)

M O D A L A M P L I T U D E F A C T O R S

AT 0.00 AND -90.00 DEGREES

MODE	PERIOD	1-DIRECTION	2-DIRECTION	Z-DIRECTION
1	2.962	0.000000	1.827152	0.000000
2	0.959	0.000000	-0.121845	0.000000

PERHITUNGAN PEMBEBANAN PADA PORTAL AS 3 (KN/m)

M O D A L C O R R E L A T I O N F A C T O R S

	1	2
1	1.00	0.01
2	0.01	1.00

PERHITUNGAN PEMBEBANAN PADA PORTAL AS 3 (KN/m)

M O D E S H A P E S

MODE SHAPE NUMBER 1 PERIOD = 2.961763 SECONDS

DISPLACEMENTS "U" AND ROTATIONS "R"

JOINT	U(Y)	U(Z)	R(X)
1	0.000000	0.000000	0.000000
2	0.000000	0.000000	0.000000
3	0.000000	0.000000	0.000000
4	0.000000	0.000000	0.000000
5	0.004201	0.000172	-0.000785
6	0.004201	0.000126	0.000307
7	0.004201	-0.000023	-0.000827
8	0.004201	0.000000	0.000369
9	0.004201	0.000023	-0.000827
10	0.004201	-0.000126	0.000307
11	0.004201	-0.000172	-0.000785
12	0.010952	0.000298	-0.000859
13	0.010952	0.000181	0.000318
14	0.010952	-0.000039	-0.000900
15	0.010952	0.000000	0.000406
16	0.010952	0.000039	-0.000900
17	0.010952	-0.000181	0.000318
18	0.010952	-0.000298	-0.000859
19	0.017125	0.000373	-0.000698
20	0.017125	0.000202	0.000237
21	0.017125	-0.000048	-0.000729
22	0.017125	0.000000	0.000333
23	0.017125	0.000048	-0.000729
24	0.017125	-0.000202	0.000237
25	0.017125	-0.000373	-0.000698
26	0.021625	0.000410	-0.000472
27	0.021625	0.000200	0.000134
28	0.021625	-0.000052	-0.000489
29	0.021625	0.000000	0.000228
30	0.021625	0.000052	-0.000489
31	0.021625	-0.000200	0.000134
32	0.021625	-0.000410	-0.000472
33	0.024486	0.000421	-0.000318
34	0.024486	0.000200	0.000072
35	0.024486	-0.000053	-0.000330
36	0.024486	0.000000	0.000162
37	0.024486	0.000053	-0.000330
38	0.024486	-0.000200	0.000072
39	0.024486	-0.000421	-0.000318

PERHITUNGAN PEMBEBANAN PADA PORTAL AS 3 (KN/m)

M O D E S H A P E S

MODE SHAPE NUMBER 2 PERIOD = 0.959120 SECONDS

DISPLACEMENTS "U" AND ROTATIONS "R"

JOINT	U(Y)	U(Z)	R(X)
1	0.000000	0.000000	0.000000
2	0.000000	0.000000	0.000000
3	0.000000	0.000000	0.000000
4	0.000000	0.000000	0.000000
5	-0.011580	0.000226	0.001689
6	-0.011580	-0.000030	-0.000759
7	-0.011580	-0.000025	0.001793
8	-0.011580	0.000000	-0.000783
9	-0.011580	0.000025	0.001793
10	-0.011580	0.000030	-0.000759
11	-0.011580	-0.000226	0.001689
12	-0.020735	0.000556	0.000167
13	-0.020735	0.000218	-0.000162
14	-0.020735	-0.000068	0.000188
15	-0.020735	0.000000	-0.000066
16	-0.020735	0.000068	0.000188
17	-0.020735	-0.000218	-0.000162
18	-0.020735	-0.000556	0.000167
19	-0.013497	0.000899	-0.001870
20	-0.013497	0.000503	0.000652
21	-0.013497	-0.000115	-0.001958
22	-0.013497	0.000000	0.000890
23	-0.013497	0.000115	-0.001958
24	-0.013497	-0.000503	0.000652
25	-0.013497	-0.000899	-0.001870
26	0.005919	0.001137	-0.002644
27	0.005919	0.000641	0.000941
28	0.005919	-0.000147	-0.002761
29	0.005919	0.000000	0.001251
30	0.005919	0.000147	-0.002761
31	0.005919	-0.000641	0.000941
32	0.005919	-0.001137	-0.002644
33	0.025347	0.001223	-0.002238
34	0.025347	0.000708	0.000799
35	0.025347	-0.000158	-0.002379
36	0.025347	0.000000	0.001113
37	0.025347	0.000158	-0.002379
38	0.025347	-0.000708	0.000799
39	0.025347	-0.001223	-0.002238

PERHITUNGAN PEMBEBANAN PADA PORTAL AS 3 (KN/m)

J O I N T D I S P L A C E M E N T S

LOAD COMBINATION 1 - DISPLACEMENTS "U" AND ROTATIONS "R"

JOINT	U(Y)	U(Z)	R(X)
1	0.000000	0.000000	0.000000
2	0.000000	0.000000	0.000000
3	0.000000	0.000000	0.000000
4	0.000000	0.000000	0.000000
5	0.000000	-0.002698	-0.001432
6	0.000000	-0.018005	0.000190
7	0.000000	-0.003719	-0.000177
8	0.000000	-0.027969	0.000000
9	0.000000	-0.003719	0.000177
10	0.000000	-0.018005	-0.000190
11	0.000000	-0.002698	0.001432
12	0.000000	-0.004824	-0.001205
13	0.000000	-0.020250	0.000030
14	0.000000	-0.006631	-0.000168
15	0.000000	-0.030857	0.000000
16	0.000000	-0.006631	0.000168
17	0.000000	-0.020250	-0.000030
18	0.000000	-0.004824	0.001205
19	0.000000	-0.006366	-0.001274
20	0.000000	-0.022156	-0.000035
21	0.000000	-0.008743	-0.000175
22	0.000000	-0.032988	0.000000
23	0.000000	-0.008743	0.000175
24	0.000000	-0.022156	0.000035
25	0.000000	-0.006366	0.001274
26	0.000000	-0.007323	-0.001199
27	0.000000	-0.023194	-0.000101
28	0.000000	-0.010056	-0.000177
29	0.000000	-0.034308	0.000000
30	0.000000	-0.010056	0.000177
31	0.000000	-0.023194	0.000101
32	0.000000	-0.007323	0.001199
33	0.000000	-0.007691	-0.001642
34	0.000000	-0.023148	-0.000012
35	0.000000	-0.010572	-0.000212
36	0.000000	-0.033367	0.000000
37	0.000000	-0.010572	0.000212
38	0.000000	-0.023148	0.000012
39	0.000000	-0.007691	0.001642

PERHITUNGAN PEMBEBANAN PADA PORTAL AS 3 (KN/m)

J O I N T D I S P L A C E M E N T S

LOAD COMBINATION 2 - DISPLACEMENTS "U" AND ROTATIONS "R"

JOINT	U(Y)	U(Z)	R(X)
1	0.000000	0.000000	0.000000
2	0.000000	0.000000	0.000000
3	0.000000	0.000000	0.000000
4	0.000000	0.000000	0.000000
5	0.000000	-0.002012	-0.001048
6	0.000000	-0.013220	0.000137
7	0.000000	-0.002773	-0.000129
8	0.000000	-0.020519	0.000000
9	0.000000	-0.002773	0.000129
10	0.000000	-0.013220	-0.000137
11	0.000000	-0.002012	0.001048
12	0.000000	-0.003604	-0.000881
13	0.000000	-0.014906	0.000017
14	0.000000	-0.004956	-0.000124
15	0.000000	-0.022685	0.000000
16	0.000000	-0.004956	0.000124
17	0.000000	-0.014906	-0.000017
18	0.000000	-0.003604	0.000881
19	0.000000	-0.004769	-0.000940
20	0.000000	-0.016355	-0.000031
21	0.000000	-0.006554	-0.000128
22	0.000000	-0.024297	0.000000
23	0.000000	-0.006554	0.000128
24	0.000000	-0.016355	0.000031
25	0.000000	-0.004769	0.000940
26	0.000000	-0.005507	-0.000844
27	0.000000	-0.017109	-0.000090
28	0.000000	-0.007567	-0.000129
29	0.000000	-0.025310	0.000000
30	0.000000	-0.007567	0.000129
31	0.000000	-0.017109	0.000090
32	0.000000	-0.005507	0.000844
33	0.000000	-0.005811	-0.001407
34	0.000000	-0.018624	0.000028
35	0.000000	-0.007998	-0.000176
36	0.000000	-0.026973	0.000000
37	0.000000	-0.007998	0.000176
38	0.000000	-0.018624	-0.000028
39	0.000000	-0.005811	0.001407

PERHITUNGAN PEMBEBANAN PADA PORTAL AS 3 (KN/m)

J O I N T D I S P L A C E M E N T S

LOAD COMBINATION 3 - DISPLACEMENTS "U" AND ROTATIONS "R"

JOINT	U(Y)	U(Z)	R(X)
1	0.000000	0.000000	0.000000
2	0.000000	0.000000	0.000000
3	0.000000	0.000000	0.000000
4	0.000000	0.000000	0.000000
5	0.015625	-0.001381	0.001853
6	0.015625	-0.012760	0.001276
7	0.015625	-0.002689	0.002925
8	0.015625	-0.020519	0.001365
9	0.015625	-0.002689	0.003184
10	0.015625	-0.012760	0.001002
11	0.015625	-0.001381	0.003950
12	0.040370	-0.002509	0.002258
13	0.040370	-0.014243	0.001179
14	0.040370	-0.004812	0.003167
15	0.040370	-0.022685	0.001483
16	0.040370	-0.004812	0.003414
17	0.040370	-0.014243	0.001145
18	0.040370	-0.002509	0.004020
19	0.062686	-0.003389	0.001647
20	0.062686	-0.015609	0.000848
21	0.062686	-0.006375	0.002575
22	0.062686	-0.024297	0.001233
23	0.062686	-0.006375	0.002832
24	0.062686	-0.015609	0.000909
25	0.062686	-0.003389	0.003527
26	0.079031	-0.003985	0.000994
27	0.079031	-0.016362	0.000450
28	0.079031	-0.007373	0.001777
29	0.079031	-0.025310	0.000885
30	0.079031	-0.007373	0.002034
31	0.079031	-0.016362	0.000630
32	0.079031	-0.003985	0.002681
33	0.089656	-0.004246	-0.000127
34	0.089656	-0.017874	0.000355
35	0.089656	-0.007800	0.001161
36	0.089656	-0.026973	0.000650
37	0.089656	-0.007800	0.001512
38	0.089656	-0.017874	0.000298
39	0.089656	-0.004246	0.002686

PERHITUNGAN PEMBEBANAN PADA PORTAL AS 3 (KN/m)

J O I N T D I S P L A C E M E N T S

LOAD COMBINATION 4 - DISPLACEMENTS "U" AND ROTATIONS "R"

JOINT	U(Y)	U(Z)	R(X)
1	0.000000	0.000000	0.000000
2	0.000000	0.000000	0.000000
3	0.000000	0.000000	0.000000
4	0.000000	0.000000	0.000000
5	-0.015625	-0.002642	-0.003950
6	-0.015625	-0.013680	-0.001002
7	-0.015625	-0.002858	-0.003184
8	-0.015625	-0.020519	-0.001365
9	-0.015625	-0.002858	-0.002925
10	-0.015625	-0.013680	-0.001276
11	-0.015625	-0.002642	-0.001853
12	-0.040370	-0.004699	-0.004020
13	-0.040370	-0.015569	-0.001145
14	-0.040370	-0.005101	-0.003414
15	-0.040370	-0.022685	-0.001483
16	-0.040370	-0.005101	-0.003167
17	-0.040370	-0.015569	-0.001179
18	-0.040370	-0.004699	-0.002258
19	-0.062686	-0.006150	-0.003527
20	-0.062686	-0.017101	-0.000909
21	-0.062686	-0.006733	-0.002832
22	-0.062686	-0.024297	-0.001233
23	-0.062686	-0.006733	-0.002575
24	-0.062686	-0.017101	-0.000848
25	-0.062686	-0.006150	-0.001647
26	-0.079031	-0.007028	-0.002681
27	-0.079031	-0.017856	-0.000630
28	-0.079031	-0.007760	-0.002034
29	-0.079031	-0.025310	-0.000885
30	-0.079031	-0.007760	-0.001777
31	-0.079031	-0.017856	-0.000450
32	-0.079031	-0.007028	-0.000994
33	-0.089656	-0.007376	-0.002686
34	-0.089656	-0.019374	-0.000298
35	-0.089656	-0.008195	-0.001512
36	-0.089656	-0.026973	-0.000650
37	-0.089656	-0.008195	-0.001161
38	-0.089656	-0.019374	-0.000355
39	-0.089656	-0.007376	0.000127

PERHITUNGAN PEMBEBANAN PADA PORTAL AS 3 (KN/m)

J O I N T D I S P L A C E M E N T S

LOAD COMBINATION 5 - DISPLACEMENTS "U" AND ROTATIONS "R"

JOINT	U(Y)	U(Z)	R(X)
1	0.000000	0.000000	0.000000
2	0.000000	0.000000	0.000000
3	0.000000	0.000000	0.000000
4	0.000000	0.000000	0.000000
5	-0.015625	-0.001905	-0.003557
6	-0.015625	-0.008744	-0.001054
7	-0.015625	-0.001842	-0.003135
8	-0.015625	-0.012850	-0.001365
9	-0.015625	-0.001842	-0.002974
10	-0.015625	-0.008744	-0.001224
11	-0.015625	-0.001905	-0.002246
12	-0.040370	-0.003382	-0.003689
13	-0.040370	-0.010020	-0.001153
14	-0.040370	-0.003291	-0.003368
15	-0.040370	-0.014228	-0.001483
16	-0.040370	-0.003291	-0.003213
17	-0.040370	-0.010020	-0.001171
18	-0.040370	-0.003382	-0.002588
19	-0.062686	-0.004414	-0.003178
20	-0.062686	-0.011034	-0.000900
21	-0.062686	-0.004348	-0.002784
22	-0.062686	-0.015260	-0.001233
23	-0.062686	-0.004348	-0.002623
24	-0.062686	-0.011034	-0.000857
25	-0.062686	-0.004414	-0.001996
26	-0.079031	-0.005032	-0.002349
27	-0.079031	-0.011504	-0.000604
28	-0.079031	-0.005020	-0.001985
29	-0.079031	-0.015915	-0.000885
30	-0.079031	-0.005020	-0.001825
31	-0.079031	-0.011504	-0.000477
32	-0.079031	-0.005032	-0.001326
33	-0.089656	-0.005283	-0.002254
34	-0.089656	-0.013175	-0.000291
35	-0.089656	-0.005318	-0.001456
36	-0.089656	-0.018050	-0.000650
37	-0.089656	-0.005318	-0.001217
38	-0.089656	-0.013175	-0.000362
39	-0.089656	-0.005283	-0.000305

PERHITUNGAN PEMBEBANAN PADA PORTAL AS 3 (KN/m)

F R A M E E L E M E N T F O R C E S

ELT ID	LOAD COMB	DIST ENDI	1-2 PLANE SHEAR	1-2 PLANE MOMENT	AXIAL FORCE	1-3 PLANE SHEAR	1-3 PLANE MOMENT	AXIAL TORQ
1								
	1	0.000			-2121.369			
		0.000	-91.030	166.767				
		6.000	-91.030	-379.413				
		6.000			-2121.369			
	2	0.000			-1581.468			
		0.000	-66.645	122.094				
		6.000	-66.645	-277.777				
		6.000			-1581.468			
	3	0.000			-1086.018			
		0.000	80.315	777.828				
		6.000	80.315	-50.670				
		6.000			-1086.018			
	4	0.000			-2076.919			
		0.000	-213.606	-533.641				
		6.000	-213.606	-504.884				
		6.000			-2076.919			
	5	0.000			-1497.495			
		0.000	-188.631	-579.393				
		6.000	-188.631	-400.791				
		6.000			-1497.495			
2								
	1	0.000			-1671.408			
		0.000	-167.599	519.687				
		6.000	-167.599	-485.905				
		6.000			-1671.408			
	2	0.000			-1252.162			
		0.000	-122.650	380.379				
		6.000	-122.650	-355.524				
		6.000			-1252.162			
	3	0.000			-886.053			
		0.000	19.504	823.863				
		6.000	19.504	56.014				
		6.000			-886.053			
	4	0.000			-1618.271			
		0.000	-264.805	-63.106				
		6.000	-264.805	-767.062				
		6.000			-1618.271			
	5	0.000			-1162.306			
		0.000	-218.819	-205.692				
		6.000	-218.819	-633.732				

PERHITUNGAN PEMBEBANAN PADA PORTAL AS 3 (KN/m)

F R A M E E L E M E N T F O R C E S

ELT ID	LOAD COMB	DIST ENDI	1-2 PLANE SHEAR	1-2 PLANE MOMENT	AXIAL FORCE	1-3 PLANE SHEAR	1-3 PLANE MOMENT	AXIAL TORQ
		6.000			-1162.306			
3								
	1	0.000			-1212.366			
		0.000	-157.578	467.547				
		6.000	-157.578	-477.920				
		6.000			-1212.366			
	2	0.000			-916.126			
		0.000	-115.746	342.876				
		6.000	-115.746	-351.603				
		6.000			-916.126			
	3	0.000			-688.628			
		0.000	1.110	655.852				
		6.000	1.110	41.357				
		6.000			-688.628			
	4	0.000			-1143.625			
		0.000	-232.603	29.899				
		6.000	-232.603	-744.563				
		6.000			-1143.625			
	5	0.000			-813.602			
		0.000	-189.405	-98.321				
		6.000	-189.405	-613.599				
		6.000			-813.602			
4								
	1	0.000			-752.453			
		0.000	-157.240	477.301				
		6.000	-157.240	-466.139				
		6.000			-752.453			
	2	0.000			-579.561			
		0.000	-113.366	347.242				
		6.000	-113.366	-332.954				
		6.000			-579.561			
	3	0.000			-465.570			
		0.000	-30.959	545.806				
		6.000	-30.959	-31.743				
		6.000			-465.570			
	4	0.000			-693.551			
		0.000	-195.773	148.678				
		6.000	-195.773	-634.166				
		6.000			-693.551			
	5	0.000			-489.721			
		0.000	-152.475	17.529				

PERHITUNGAN PEMBEBANAN PADA PORTAL AS 3 (KN/m)

F R A M E E L E M E N T F O R C E S

ELT ID	LOAD COMB	DIST ENDI	1-2 PLANE SHEAR	1-2 PLANE MOMENT	AXIAL FORCE	1-3 PLANE SHEAR	1-3 PLANE MOMENT	AXIAL TORQ
		6.000	-152.475	-505.523				
		6.000			-489.721			
5								
	1	0.000			-289.209			
		0.000	-180.577	508.893				
		6.000	-180.577	-574.571				
		6.000			-289.209			
	2	0.000			-239.500			
		0.000	-143.030	387.298				
		6.000	-143.030	-470.880				
		6.000			-239.500			
	3	0.000			-204.058			
		0.000	-97.755	485.501				
		6.000	-97.755	-295.221				
		6.000			-204.058			
	4	0.000			-274.943			
		0.000	-188.305	289.095				
		6.000	-188.305	-646.539				
		6.000			-274.943			
	5	0.000			-198.121			
		0.000	-139.747	150.817				
		6.000	-139.747	-493.469				
		6.000			-198.121			
6								
	1	0.000			-4925.279			
		0.000	-25.949	45.607				
		6.000	-25.949	-110.084				
		6.000			-4925.279			
	2	0.000			-3672.927			
		0.000	-19.010	33.413				
		6.000	-19.010	-80.650				
		6.000			-3672.927			
	3	0.000			-3560.679			
		0.000	298.121	1540.671				
		6.000	298.121	319.035				
		6.000			-3560.679			
	4	0.000			-3785.176			
		0.000	-336.142	-1473,846				
		6.000	-336.142	-480.335				
		6.000			-3785.176			
	5	0.000			-2440.006			

PERHITUNGAN PEMBEBANAN PADA PORTAL AS 3 (KN/m)

F R A M E E L E M E N T F O R C E S

ELT ID	LOAD COMB	DIST ENDI	1-2 PLANE SHEAR	1-2 PLANE MOMENT	AXIAL FORCE	1-3 PLANE SHEAR	1-3 PLANE MOMENT	AXIAL TORQ
		0.000	-329.024	-1486.356				
		6.000	-329.024	-450.138				
		6.000			-2440.006			
7		----------						
	1	0.000			-3856.792			
		0.000	-50.688	153.566				
		6.000	-50.688	-150.561				
		6.000			-3856.792			
	2	0.000			-2891.116			
		0.000	-37.172	112.570				
		6.000	-37.172	-110.460				
		6.000			-2891.116			
	3	0.000			-2811.707			
		0.000	246.682	1006.072				
		6.000	246.682	706.180				
		6.000			-2811.707			
	4	0.000			-2970.524			
		0.000	-321.026	-780.931				
		6.000	-321.026	-927.099				
		6.000			-2970.524			
	5	0.000			-1918.538			
		0.000	-307.125	-823.050				
		6.000	-307.125	-885.813				
		6.000			-1918.538			
8		----------						
	1	0.000			-2797.386			
		0.000	-50.428	150.104				
		6.000	-50.428	-152.463				
		6.000			-2797.386			
	2	0.000			-2116.034			
		0.000	-37.028	110.207				
		6.000	-37.028	-111.959				
		6.000			-2116.034			
	3	0.000			-2069.934			
		0.000	193.969	707.970				
		6.000	193.969	692.855				
		6.000			-2069.934			
	4	0.000			-2162.134			
		0.000	-268.024	-487.556				
		6.000	-268.024	-916.772				
		6.000			-2162.134			

PERHITUNGAN PEMBEBANAN PADA PORTAL AS 3 (KN/m)

F R A M E E L E M E N T F O R C E S

ELT ID	LOAD COMB	DIST ENDI	1-2 PLANE SHEAR	1-2 PLANE MOMENT	AXIAL FORCE	1-3 PLANE SHEAR	1-3 PLANE MOMENT	AXIAL TORQ
	5	0.000			-1400.846			
		0.000	-254.199	-528.710				
		6.000	-254.199	-874.974				
		6.000			-1400.846			
9	----------							
	1	0.000			-1738.851			
		0.000	-51.704	154.706				
		6.000	-51.704	-155.518				
		6.000			-1738.851			
	2	0.000			-1341.481			
		0.000	-37.752	113.232				
		6.000	-37.752	-113.279				
		6.000			-1341.481			
	3	0.000			-1320.517			
		0.000	125.982	482.347				
		6.000	125.982	519.348				
		6.000			-1320.517			
	4	0.000			-1362.446			
		0.000	-201.486	-255.884				
		6.000	-201.486	-745.905				
		6.000			-1362.446			
	5	0.000			-891.608			
		0.000	-187.291	-298.331				
		6.000	-187.291	-703.186				
		6.000			-891.608			
10	----------							
	1	0.000			-683.647			
		0.000	-57.095	164.994				
		6.000	-57.095	-177.578				
		6.000			-683.647			
	2	0.000			-570.424			
		0.000	-44.674	125.445				
		6.000	-44.674	-142.599				
		6.000			-570.424			
	3	0.000			-564.828			
		0.000	41.569	292.935				
		6.000	41.569	216.119				
		6.000			-564.828			
	4	0.000			-576.020			
		0.000	-130.917	-42.044				
		6.000	-130.917	-501.318				

PERHITUNGAN PEMBEBANAN PADA PORTAL AS 3 (KN/m)

F R A M E E L E M E N T F O R C E S

ELT ID	LOAD COMB	DIST ENDI	1-2 PLANE SHEAR	1-2 PLANE MOMENT	AXIAL FORCE	1-3 PLANE SHEAR	1-3 PLANE MOMENT	AXIAL TORQ
		6.000			-576.020			
	5	0.000			-394.815			
		0.000	-115.514	-86.888				
		6.000	-115.514	-453.744				
		6.000			-394.815			
11	----------							
	1	0.000			-4925.279			
		0.000	25.949	-45.607				
		6.000	25.949	110.084				
		6.000			-4925.279			
	2	0.000			-3672.927			
		0.000	19.010	-33.413				
		6.000	19.010	80.650				
		6.000			-3672.927			
	3	0.000			-3560.679			
		0.000	336.142	1473.846				
		6.000	336.142	480.335				
		6.000			-3560.679			
	4	0.000			-3785.176			
		0.000	-298.121	-1540.671				
		6.000	-298.121	-319.035				
		6.000			-3785.176			
	5	0.000			-2440.006			
		0.000	-305.239	-1528.161				
		6.000	-305.239	-349.232				
		6.000			-2440.006			
12	----------							
	1	0.000			-3856.792			
		0.000	50.688	-153.566				
		6.000	50.688	150.561				
		6.000			-3856.792			
	2	0.000			-2891.116			
		0.000	37.172	-112.570				
		6.000	37.172	110.460				
		6.000			-2891.116			
	3	0.000			-2811.707			
		0.000	321.026	780.931				
		6.000	321.026	927.099				
		6.000			-2811.707			
	4	0.000			-2970.524			
		0.000	-246.682	-1006.072				

PERHITUNGAN PEMBEBANAN PADA PORTAL AS 3 (KN/m)

F R A M E E L E M E N T F O R C E S

ELT ID	LOAD COMB	DIST ENDI	1-2 PLANE SHEAR	1-2 PLANE MOMENT	AXIAL FORCE	1-3 PLANE SHEAR	1-3 PLANE MOMENT	AXIAL TORQ
		6.000	-246.682	-706.180				
		6.000			-2970.524			
	5	0.000			-1918.538			
		0.000	-260.583	-963.953				
		6.000	-260.583	-747.466				
		6.000			-1918.538			
13	----------							
	1	0.000			-2797.386			
		0.000	50.428	-150.104				
		6.000	50.428	152.463				
		6.000			-2797.386			
	2	0.000			-2116.034			
		0.000	37.028	-110.207				
		6.000	37.028	111.959				
		6.000			-2116.034			
	3	0.000			-2069.934			
		0.000	268.024	487.556				
		6.000	268.024	916.772				
		6.000			-2069.934			
	4	0.000			-2162.134			
		0.000	-193.969	-707.970				
		6.000	-193.969	-692.855				
		6.000			-2162.134			
	5	0.000			-1400.846			
		0.000	-207.794	-666.816				
		6.000	-207.794	-734.653				
		6.000			-1400.846			
14	----------							
	1	0.000			-1738.851			
		0.000	51.704	-154.706				
		6.000	51.704	155.518				
		6.000			-1738.851			
	2	0.000			-1341.481			
		0.000	37.752	-113.232				
		6.000	37.752	113.279				
		6.000			-1341.481			
	3	0.000			-1320.517			
		0.000	201.486	255.884				
		6.000	201.486	745.905				
		6.000			-1320.517			
	4	0.000			-1362.446			

PERHITUNGAN PEMBEBANAN PADA PORTAL AS 3 (KN/m)

F R A M E E L E M E N T F O R C E S

ELT ID	LOAD COMB	DIST ENDI	1-2 PLANE SHEAR	1-2 PLANE MOMENT	AXIAL FORCE	1-3 PLANE SHEAR	1-3 PLANE MOMENT	AXIAL TORQ
		0.000	-125.982	-482.347				
		6.000	-125.982	-519.348				
		6.000			-1362.446			
	5	0.000			-891.608			
		0.000	-140.177	-439.901				
		6.000	-140.177	-562.067				
		6.000			-891.608			
15	---	---	---	---	---	---	---	---
	1	0.000			-683.647			
		0.000	57.095	-164.994				
		6.000	57.095	177.578				
		6.000			-683.647			
	2	0.000			-570.424			
		0.000	44.674	-125.445				
		6.000	44.674	142.599				
		6.000			-570.424			
	3	0.000			-564.828			
		0.000	130.917	42.044				
		6.000	130.917	501.318				
		6.000			-564.828			
	4	0.000			-576.020			
		0.000	-41.569	-292.935				
		6.000	-41.569	-216.119				
		6.000			-576.020			
	5	0.000			-394.815			
		0.000	-56.972	-248.092				
		6.000	-56.972	-263.694				
		6.000			-394.815			
16	---	---	---	---	---	---	---	---
	1	0.000			-2121.369			
		0.000	91.030	-166.767				
		6.000	91.030	379.413				
		6.000			-2121.369			
	2	0.000			-1581.468			
		0.000	66.645	-122.094				
		6.000	66.645	277.777				
		6.000			-1581.468			
	3	0.000			-1086.018			
		0.000	213.606	533.641				
		6.000	213.606	504.884				
		6.000			-1086.018			

PERHITUNGAN PEMBEBANAN PADA PORTAL AS 3 (KN/m)

F R A M E E L E M E N T F O R C E S

ELT ID	LOAD COMB	DIST ENDI	1-2 PLANE SHEAR	1-2 PLANE MOMENT	AXIAL FORCE	1-3 PLANE SHEAR	1-3 PLANE MOMENT	AXIAL TORQ
	4	0.000			-2076.919			
		0.000	-80.315	-777.828				
		6.000	-80.315	50.670				
		6.000			-2076.919			
	5	0.000			-1497.495			
		0.000	-105.290	-732.075				
		6.000	-105.290	-53.423				
		6.000			-1497.495			
17	----------							
	1	0.000			-1671.408			
		0.000	167.599	-519.687				
		6.000	167.599	485.905				
		6.000			-1671.408			
	2	0.000			-1252.162			
		0.000	122.650	-380.379				
		6.000	122.650	355.524				
		6.000			-1252.162			
	3	0.000			-886.053			
		0.000	264.805	63.106				
		6.000	264.805	767.062				
		6.000			-886.053			
	4	0.000			-1618.271			
		0.000	-19.504	-823.863				
		6.000	-19.504	-56.014				
		6.000			-1618.271			
	5	0.000			-1162.306			
		0.000	-65.490	-681.277				
		6.000	-65.490	-189.343				
		6.000			-1162.306			
18	----------							
	1	0.000			-1212.366			
		0.000	157.578	-467.547				
		6.000	157.578	477.920				
		6.000			-1212.366			
	2	0.000			-916.126			
		0.000	115.746	-342.876				
		6.000	115.746	351.603				
		6.000			-916.126			
	3	0.000			-688.628			
		0.000	232.603	-29.899				
		6.000	232.603	744.563				

PERHITUNGAN PEMBEBANAN PADA PORTAL AS 3 (KN/m)

F R A M E E L E M E N T F O R C E S

ELT ID	LOAD COMB	DIST ENDI	1-2 PLANE SHEAR	1-2 PLANE MOMENT	AXIAL FORCE	1-3 PLANE SHEAR	1-3 PLANE MOMENT	AXIAL TORQ
		6.000			-688.628			
	4	0.000			-1143.625			
		0.000	-1.110	-655.852				
		6.000	-1.110	-41.357				
		6.000			-1143.625			
	5	0.000			-813.602			
		0.000	-44.307	-527.632				
		6.000	-44.307	-172.320				
		6.000			-813.602			
19	----------							
	1	0.000			-752.453			
		0.000	157.240	-477.301				
		6.000	157.240	466.139				
		6.000			-752.453			
	2	0.000			-579.561			
		0.000	113.366	-347.242				
		6.000	113.366	332.954				
		6.000			-579.561			
	3	0.000			-465.570			
		0.000	195.773	-148.678				
		6.000	195.773	634.166				
		6.000			-465.570			
	4	0.000			-693.551			
		0.000	30.959	-545.806				
		6.000	30.959	31.743				
		6.000			-693.551			
	5	0.000			-489.721			
		0.000	-12.340	-414.657				
		6.000	-12.340	-96.900				
		6.000			-489.721			
20	----------							
	1	0.000			-289.209			
		0.000	180.577	-508.893				
		6.000	180.577	574.571				
		6.000			-289.209			
	2	0.000			-239.500			
		0.000	143.030	-387.298				
		6.000	143.030	470.880				
		6.000			-239.500			
	3	0.000			-204.058			
		0.000	188.305	-289.095				

PERHITUNGAN PEMBEBANAN PADA PORTAL AS 3 (KN/m)

F R A M E E L E M E N T F O R C E S

ELT ID	LOAD COMB	DIST ENDI	1-2 PLANE SHEAR	1-2 PLANE MOMENT	AXIAL FORCE	1-3 PLANE SHEAR	1-3 PLANE MOMENT	AXIAL TORQ
		6.000	188.305	646.539				
		6.000			-204.058			
	4	0.000			-274.943			
		0.000	97.755	-485.501				
		6.000	97.755	295.221				
		6.000			-274.943			
	5	0.000			-198.121			
		0.000	49.197	-347.224				
		6.000	49.197	142.152				
		6.000			-198.121			
21	----------							
	1	0.000			0.000			
		0.000	449.961	-899.099				
		2.500	385.901	172.422				
		5.000	321.841	1030.407				
		5.000			0.000			
	2	0.000			0.000			
		0.000	329.306	-658.156				
		2.500	282.434	126.051				
		5.000	235.561	754.013				
		5.000			0.000			
	3	0.000			0.000			
		0.000	463.724	7.690				
		2.500	416.851	455.851				
		5.000	369.979	760.258				
		5.000			0.000			
	4	0.000			0.000			
		0.000	194.888	-1324.001				
		2.500	148.016	-203.749				
		5.000	101.143	747.768				
		5.000			0.000			
	5	0.000			0.000			
		0.000	71.429	-1077.322				
		2.500	42.134	-251.070				
		5.000	12.839	465.040				
		5.000			0.000			
22	----------							
	1	0.000			0.000			
		0.000	-386.759	1030.407				
		2.500	-450.819	10.124				
		5.000	-514.879	-1223.687				
		5.000			0.000			

PERHITUNGAN PEMBEBANAN PADA PORTAL AS 3 (KN/m)

F R A M E E L E M E N T F O R C E S

ELT ID	LOAD COMB	DIST ENDI	1-2 PLANE SHEAR	1-2 PLANE MOMENT	AXIAL FORCE	1-3 PLANE SHEAR	1-3 PLANE MOMENT	AXIAL TORQ
	2	0.000			0.000			
		0.000	-282.959	754.013				
		2.500	-329.831	7.554				
		5.000	-376.704	-895.143				
		5.000			0.000			
	3	0.000			0.000			
		0.000	-148.541	760.258				
		2.500	-195.414	349.844				
		5.000	-242.286	-216.809				
		5.000			0.000			
	4	0.000			0.000			
		0.000	-417.377	747.768				
		2.500	-464.249	-334.735				
		5.000	-511.122	-1573.477				
		5.000			0.000			
	5	0.000			0.000			
		0.000	-311.251	465.040				
		2.500	-340.546	-337.500				
		5.000	-369.841	-1237.687				
		5.000			0.000			
23	----------							
	1	0.000			0.000			
		0.000	553.608	-1487.337				
		3.000	461.340	81.222				
		6.000	369.072	1280.703				
		6.000			0.000			
	2	0.000			0.000			
		0.000	405.108	-1088.363				
		3.000	337.590	59.445				
		6.000	270.072	937.177				
		6.000			0.000			
	3	0.000			0.000			
		0.000	505.309	-487.155				
		3.000	437.791	360.048				
		6.000	370.273	937.177				
		6.000			0.000			
	4	0.000			0.000			
		0.000	304.907	-1689.570				
		3.000	237.389	-241.158				
		6.000	169.871	937.177				
		6.000			0.000			
	5	0.000			0.000			

PERHITUNGAN PEMBEBANAN PADA PORTAL AS 3 (KN/m)

F R A M E E L E M E N T F O R C E S

ELT ID	LOAD COMB	DIST ENDI	1-2 PLANE SHEAR	1-2 PLANE MOMENT	AXIAL FORCE	1-3 PLANE SHEAR	1-3 PLANE MOMENT	AXIAL TORQ
		0.000	153.005	-1281.466				
		3.000	110.804	-263.443				
		6.000	68.603	585.772				
		6.000			0.000			
24	----------							
	1	0.000			0.000			
		0.000	-369.072	1280.703				
		3.000	-461.340	81.216				
		6.000	-553.608	-1487.337				
		6.000			0.000			
	2	0.000			0.000			
		0.000	-270.072	937.177				
		3.000	-337.590	59.441				
		6.000	-405.108	-1088.363				
		6.000			0.000			
	3	0.000			0.000			
		0.000	-169.871	937.177				
		3.000	-237.389	360.045				
		6.000	-304.907	-487.155				
		6.000			0.000			
	4	0.000			0.000			
		0.000	-370.273	937.177				
		3.000	-437.791	-241.163				
		6.000	-505.309	-1689.570				
		6.000			0.000			
	5	0.000			0.000			
		0.000	-269.005	585.772				
		3.000	-311.206	-263.447				
		6.000	-353.407	-1281.466				
		6.000			0.000			
25	----------							
	1	0.000			0.000			
		0.000	514.879	-1223.687				
		2.500	450.819	10.129				
		5.000	386.759	1030.407				
		5.000			0.000			
	2	0.000			0.000			
		0.000	376.704	-895.143				
		2.500	329.831	7.557				
		5.000	282.959	754.013				
		5.000			0.000			
	3	0.000			0.000			
		0.000	511.122	-216.809				

PERHITUNGAN PEMBEBANAN PADA PORTAL AS 3 (KN/m)

F R A M E E L E M E N T F O R C E S

ELT ID	LOAD COMB	DIST ENDI	1-2 PLANE SHEAR	1-2 PLANE MOMENT	AXIAL FORCE	1-3 PLANE SHEAR	1-3 PLANE MOMENT	AXIAL TORQ
		2.500	464.249	349.846				
		5.000	417.377	760.258				
		5.000			0.000			
	4	0.000			0.000			
		0.000	242.286	-1573.477				
		2.500	195.413	-334.731				
		5.000	148.541	747.768				
		5.000			0.000			
	5	0.000			0.000			
		0.000	101.005	-1237.687				
		2.500	71.710	-337.497				
		5.000	42.415	465.040				
		5.000			0.000			
26	----------							
	1	0.000			0.000			
		0.000	-321.841	1030.407				
		2.500	-385.901	172.418				
		5.000	-449.961	-899.099				
		5.000			0.000			
	2	0.000			0.000			
		0.000	-235.561	754.013				
		2.500	-282.434	126.048				
		5.000	-329.306	-658.156				
		5.000			0.000			
	3	0.000			0.000			
		0.000	-101.143	760.258				
		2.500	-148.016	455.850				
		5.000	-194.888	7.690				
		5.000			0.000			
	4	0.000			0.000			
		0.000	-369.979	747.768				
		2.500	-416.852	-203.753				
		5.000	-463.724	-1324.001				
		5.000			0.000			
	5	0.000			0.000			
		0.000	-281.675	465.040				
		2.500	-310.970	-251.073				
		5.000	-340.265	-1077.322				
		5.000			0.000			
27	----------							
	1	0.000			0.000			
		0.000	459.042	-953.453				
		2.500	394.982	140.771				

PERHITUNGAN PEMBEBANAN PADA PORTAL AS 3 (KN/m)

F R A M E E L E M E N T F O R C E S

ELT ID	LOAD COMB	DIST ENDI	1-2 PLANE SHEAR	1-2 PLANE MOMENT	AXIAL FORCE	1-3 PLANE SHEAR	1-3 PLANE MOMENT	AXIAL TORQ
		5.000	330.922	1021.458				
		5.000			0.000			
	2	0.000			0.000			
		0.000	336.036	-698.400				
		2.500	289.163	102.631				
		5.000	242.291	747.418				
		5.000			0.000			
	3	0.000			0.000			
		0.000	478.925	9.866				
		2.500	432.053	453.673				
		5.000	385.180	753.600				
		5.000			0.000			
	4	0.000			0.000			
		0.000	193.146	-1406.666				
		2.500	146.274	-248.410				
		5.000	99.401	741.235				
		5.000			0.000			
	5	0.000			0.000			
		0.000	67.204	-1145.116				
		2.500	37.908	-287.070				
		5.000	8.614	460.958				
		5.000			0.000			
28	----------							
	1	0.000			0.000			
		0.000	-377.678	1021.458				
		2.500	-441.738	23.878				
		5.000	-505.798	-1187.232				
		5.000			0.000			
	2	0.000			0.000			
		0.000	-276.229	747.418				
		2.500	-323.102	17.783				
		5.000	-369.974	-868.090				
		5.000			0.000			
	3	0.000			0.000			
		0.000	-133.340	753.600				
		2.500	-180.212	381.189				
		5.000	-227.085	-147.461				
		5.000			0.000			
	4	0.000			0.000			
		0.000	-419.119	741.235				
		2.500	-465.991	-345.623				
		5.000	-512.864	-1588.719				
		5.000			0.000			

PERHITUNGAN PEMBEBANAN PADA PORTAL AS 3 (KN/m)

F R A M E E L E M E N T F O R C E S

ELT ID	LOAD COMB	DIST ENDI	1-2 PLANE SHEAR	1-2 PLANE MOMENT	AXIAL FORCE	1-3 PLANE SHEAR	1-3 PLANE MOMENT	AXIAL TORQ
	5	0.000			0.000			
		0.000	-315.476	460.958				
		2.500	-344.772	-352.146				
		5.000	-374.066	-1262.898				
		5.000			0.000			
29	----------							
	1	0.000			0.000			
		0.000	553.608	-1487.897				
		3.000	461.340	80.662				
		6.000	369.072	1280.143				
		6.000			0.000			
	2	0.000			0.000			
		0.000	405.108	-1088.756				
		3.000	337.590	59.052				
		6.000	270.072	936.784				
		6.000			0.000			
	3	0.000			0.000			
		0.000	513.336	-439.390				
		3.000	445.818	383.734				
		6.000	378.300	936.784				
		6.000			0.000			
	4	0.000			0.000			
		0.000	296.880	-1738.123				
		3.000	229.362	-265.631				
		6.000	161.844	936.784				
		6.000			0.000			
	5	0.000			0.000			
		0.000	144.978	-1329.863				
		3.000	102.777	-287.761				
		6.000	60.576	585.534				
		6.000			0.000			
30	----------							
	1	0.000			0.000			
		0.000	-369.072	1280.143				
		3.000	-461.340	80.656				
		6.000	-553.608	-1487.897				
		6.000			0.000			
	2	0.000			0.000			
		0.000	-270.072	936.784				
		3.000	-337.590	59.048				
		6.000	-405.108	-1088.756				
		6.000			0.000			

PERHITUNGAN PEMBEBANAN PADA PORTAL AS 3 (KN/m)

F R A M E E L E M E N T F O R C E S

ELT ID	LOAD COMB	DIST ENDI	1-2 PLANE SHEAR	1-2 PLANE MOMENT	AXIAL FORCE	1-3 PLANE SHEAR	1-3 PLANE MOMENT	AXIAL TORQ
	3	0.000			0.000			
		0.000	-161.844	936.784				
		3.000	-229.362	383.732				
		6.000	-296.880	-439.390				
		6.000			0.000			
	4	0.000			0.000			
		0.000	-378.300	936.784				
		3.000	-445.818	-265.636				
		6.000	-513.336	-1738.123				
		6.000			0.000			
	5	0.000			0.000			
		0.000	-277.032	585.534				
		3.000	-319.233	-287.765				
		6.000	-361.434	-1329.863				
		6.000			0.000			
31	----------							
	1	0.000			0.000			
		0.000	505.798	-1187.232				
		2.500	441.738	23.882				
		5.000	377.678	1021.458				
		5.000			0.000			
	2	0.000			0.000			
		0.000	369.974	-868.090				
		2.500	323.101	17.786				
		5.000	276.229	747.418				
		5.000			0.000			
	3	0.000			0.000			
		0.000	512.864	-147.461				
		2.500	465.991	381.191				
		5.000	419.119	753.600				
		5.000			0.000			
	4	0.000			0.000			
		0.000	227.085	-1588.719				
		2.500	180.212	-345.618				
		5.000	133.340	741.235				
		5.000			0.000			
	5	0.000			0.000			
		0.000	88.287	-1262.898				
		2.500	58.992	-352.143				
		5.000	29.697	460.958				
		5.000			0.000			

PERHITUNGAN PEMBEBANAN PADA PORTAL AS 3 (KN/m)

F R A M E E L E M E N T F O R C E S

ELT ID	LOAD COMB	DIST ENDI	1-2 PLANE SHEAR	1-2 PLANE MOMENT	AXIAL FORCE	1-3 PLANE SHEAR	1-3 PLANE MOMENT	AXIAL TORQ
32								
	1	0.000			0.000			
		0.000	-330.922	1021.458				
		2.500	-394.982	140.767				
		5.000	-459.042	-953.453				
		5.000			0.000			
	2	0.000			0.000			
		0.000	-242.291	747.418				
		2.500	-289.164	102.628				
		5.000	-336.036	-698.400				
		5.000			0.000			
	3	0.000			0.000			
		0.000	-99.401	753.600				
		2.500	-146.274	453.671				
		5.000	-193.146	9.866				
		5.000			0.000			
	4	0.000			0.000			
		0.000	-385.180	741.235				
		2.500	-432.053	-248.414				
		5.000	-478.925	-1406.666				
		5.000			0.000			
	5	0.000			0.000			
		0.000	-294.393	460.958				
		2.500	-323.688	-287.073				
		5.000	-352.983	-1145.116				
		5.000			0.000			
33								
	1	0.000			0.000			
		0.000	459.913	-955.222				
		2.500	395.853	141.180				
		5.000	331.793	1024.045				
		5.000			0.000			
	2	0.000			0.000			
		0.000	336.566	-698.845				
		2.500	289.693	103.510				
		5.000	242.821	749.620				
		5.000			0.000			
	3	0.000			0.000			
		0.000	451.610	-128.353				
		2.500	404.737	386.392				
		5.000	357.865	754.348				
		5.000			0.000			

PERHITUNGAN PEMBEBANAN PADA PORTAL AS 3 (KN/m)

F R A M E E L E M E N T F O R C E S

ELT ID	LOAD COMB	DIST ENDI	1-2 PLANE SHEAR	1-2 PLANE MOMENT	AXIAL FORCE	1-3 PLANE SHEAR	1-3 PLANE MOMENT	AXIAL TORQ
	4	0.000			0.000			
		0.000	221.522	-1269.337				
		2.500	174.649	-179.372				
		5.000	127.777	744.893				
		5.000			0.000			
	5	0.000			0.000			
		0.000	95.330	-1007.225				
		2.500	66.035	-218.091				
		5.000	36.740	463.934				
		5.000			0.000			
34	----------							
	1	0.000			0.000			
		0.000	-376.807	1024.045				
		2.500	-440.867	28.643				
		5.000	-504.927	-1180.288				
		5.000			0.000			
	2	0.000			0.000			
		0.000	-275.699	749.620				
		2.500	-322.572	21.310				
		5.000	-369.444	-863.239				
		5.000			0.000			
	3	0.000			0.000			
		0.000	-160.655	754.348				
		2.500	-207.528	313.648				
		5.000	-254.400	-283.292				
		5.000			0.000			
	4	0.000			0.000			
		0.000	-390.743	744.893				
		2.500	-437.616	-271.028				
		5.000	-484.488	-1443.187				
		5.000			0.000			
	5	0.000			0.000			
		0.000	-287.350	463.934				
		2.500	-316.645	-278.856				
		5.000	-345.940	-1119.292				
		5.000			0.000			
35	----------							
	1	0.000			0.000			
		0.000	553.608	-1487.457				
		3.000	461.340	81.101				
		6.000	369.072	1280.583				
		6.000			0.000			

PERHITUNGAN PEMBEBANAN PADA PORTAL AS 3 (KN/m)

F R A M E E L E M E N T F O R C E S

ELT ID	LOAD COMB	DIST ENDI	1-2 PLANE SHEAR	1-2 PLANE MOMENT	AXIAL FORCE	1-3 PLANE SHEAR	1-3 PLANE MOMENT	AXIAL TORQ
	2	0.000			0.000			
		0.000	405.108	-1088.430				
		3.000	337.590	59.378				
		6.000	270.072	937.110				
		6.000			0.000			
	3	0.000			0.000			
		0.000	494.355	-552.951				
		3.000	426.837	327.117				
		6.000	359.319	937.110				
		6.000			0.000			
	4	0.000			0.000			
		0.000	315.861	-1623.909				
		3.000	248.343	-208.361				
		6.000	180.825	937.110				
		6.000			0.000			
	5	0.000			0.000			
		0.000	163.959	-1215.769				
		3.000	121.758	-230.611				
		6.000	79.557	585.740				
		6.000			0.000			
36	----------							
	1	0.000			0.000			
		0.000	-369.072	1280.583				
		3.000	-461.340	81.096				
		6.000	-553.608	-1487.457				
		6.000			0.000			
	2	0.000			0.000			
		0.000	-270.072	937.110				
		3.000	-337.590	59.374				
		6.000	-405.108	-1088.430				
		6.000			0.000			
	3	0.000			0.000			
		0.000	-180.825	937.110				
		3.000	-248.343	327.114				
		6.000	-315.861	-552.951				
		6.000			0.000			
	4	0.000			0.000			
		0.000	-359.319	937.110				
		3.000	-426.837	-208.366				
		6.000	-494.355	-1623.909				
		6.000			0.000			
	5	0.000			0.000			

PERHITUNGAN PEMBEBANAN PADA PORTAL AS 3 (KN/m)

F R A M E E L E M E N T F O R C E S

ELT ID	LOAD COMB	DIST ENDI	1-2 PLANE SHEAR	1-2 PLANE MOMENT	AXIAL FORCE	1-3 PLANE SHEAR	1-3 PLANE MOMENT	AXIAL TORQ
		0.000	-258.051	585.740				
		3.000	-300.252	-230.614				
		6.000	-342.453	-1215.769				
		6.000			0.000			
37								
	1	0.000			0.000			
		0.000	504.927	-1180.288				
		2.500	440.866	28.647				
		5.000	376.807	1024.045				
		5.000			0.000			
	2	0.000			0.000			
		0.000	369.444	-863.239				
		2.500	322.572	21.313				
		5.000	275.699	749.620				
		5.000			0.000			
	3	0.000			0.000			
		0.000	484.488	-283.292				
		2.500	437.616	313.650				
		5.000	390.743	754.348				
		5.000			0.000			
	4	0.000			0.000			
		0.000	254.400	-1443.187				
		2.500	207.528	-271.024				
		5.000	160.655	744.893				
		5.000			0.000			
	5	0.000			0.000			
		0.000	115.852	-1119.292				
		2.500	86.557	-278.852				
		5.000	57.262	463.934				
		5.000			0.000			
38								
	1	0.000			0.000			
		0.000	-331.793	1024.045				
		2.500	-395.854	141.176				
		5.000	-459.913	-955.222				
		5.000			0.000			
	2	0.000			0.000			
		0.000	-242.821	749.620				
		2.500	-289.693	103.507				
		5.000	-336.566	-698.845				
		5.000			0.000			
	3	0.000			0.000			
		0.000	-127.777	754.348				

PERHITUNGAN PEMBEBANAN PADA PORTAL AS 3 (KN/m)

F R A M E E L E M E N T F O R C E S

ELT ID	LOAD COMB	DIST ENDI	1-2 PLANE SHEAR	1-2 PLANE MOMENT	AXIAL FORCE	1-3 PLANE SHEAR	1-3 PLANE MOMENT	AXIAL TORQ
		2.500	-174.649	386.390				
		5.000	-221.522	-128.353				
		5.000			0.000			
	4	0.000			0.000			
		0.000	-357.865	744.893				
		2.500	-404.737	-179.376				
		5.000	-451.610	-1269.337				
		5.000			0.000			
	5	0.000			0.000			
		0.000	-266.828	463.934				
		2.500	-296.123	-218.094				
		5.000	-325.418	-1007.225				
		5.000			0.000			
39	----------							
	1	0.000			0.000			
		0.000	463.244	-975.032				
		2.500	399.183	129.696				
		5.000	335.124	1020.886				
		5.000			0.000			
	2	0.000			0.000			
		0.000	340.060	-720.252				
		2.500	293.188	90.840				
		5.000	246.315	745.688				
		5.000			0.000			
	3	0.000			0.000			
		0.000	418.746	-329.598				
		2.500	371.873	284.780				
		5.000	325.001	748.466				
		5.000			0.000			
	4	0.000			0.000			
		0.000	261.375	-1110.906				
		2.500	214.502	-103.099				
		5.000	167.630	742.910				
		5.000			0.000			
	5	0.000			0.000			
		0.000	134.366	-843.986				
		2.500	105.070	-139.056				
		5.000	75.776	462.671				
		5.000			0.000			
40	----------							
	1	0.000			0.000			
		0.000	-373.476	1020.886				
		2.500	-437.537	33.810				

PERHITUNGAN PEMBEBANAN PADA PORTAL AS 3 (KN/m)

F R A M E E L E M E N T F O R C E S

ELT ID	LOAD COMB	DIST ENDI	1-2 PLANE SHEAR	1-2 PLANE MOMENT	AXIAL FORCE	1-3 PLANE SHEAR	1-3 PLANE MOMENT	AXIAL TORQ
		5.000	-501.596	-1166.795				
		5.000			0.000			
	2	0.000			0.000			
		0.000	-272.205	745.688				
		2.500	-319.077	26.115				
		5.000	-365.950	-849.697				
		5.000			0.000			
	3	0.000			0.000			
		0.000	-193.519	748.466				
		2.500	-240.392	225.603				
		5.000	-287.264	-453.496				
		5.000			0.000			
	4	0.000			0.000			
		0.000	-350.890	742.910				
		2.500	-397.763	-173.373				
		5.000	-444.635	-1245.898				
		5.000			0.000			
	5	0.000			0.000			
		0.000	-248.314	462.671				
		2.500	-277.610	-182.525				
		5.000	-306.904	-925.372				
		5.000			0.000			
41	----------							
	1	0.000			0.000			
		0.000	553.608	-1487.306				
		3.000	461.340	81.253				
		6.000	369.072	1280.734				
		6.000			0.000			
	2	0.000			0.000			
		0.000	405.108	-1088.421				
		3.000	337.590	59.387				
		6.000	270.072	937.119				
		6.000			0.000			
	3	0.000			0.000			
		0.000	468.360	-708.908				
		3.000	400.842	249.143				
		6.000	333.324	937.119				
		6.000			0.000			
	4	0.000			0.000			
		0.000	341.856	-1467.933				
		3.000	274.338	-130.369				
		6.000	206.820	937.119				
		6.000			0.000			

PERHITUNGAN PEMBEBANAN PADA PORTAL AS 3 (KN/m)

F R A M E E L E M E N T F O R C E S

ELT ID	LOAD COMB	DIST ENDI	1-2 PLANE SHEAR	1-2 PLANE MOMENT	AXIAL FORCE	1-3 PLANE SHEAR	1-3 PLANE MOMENT	AXIAL TORQ
	5	0.000			0.000			
		0.000	189.954	-1059.845				
		3.000	147.753	-152.670				
		6.000	105.552	585.698				
		6.000			0.000			
42	----------							
	1	0.000			0.000			
		0.000	-369.072	1280.734				
		3.000	-461.340	81.247				
		6.000	-553.608	-1487.306				
		6.000			0.000			
	2	0.000			0.000			
		0.000	-270.072	937.119				
		3.000	-337.590	59.383				
		6.000	-405.108	-1088.421				
		6.000			0.000			
	3	0.000			0.000			
		0.000	-206.820	937.119				
		3.000	-274.338	249.140				
		6.000	-341.856	-708.908				
		6.000			0.000			
	4	0.000			0.000			
		0.000	-333.324	937.119				
		3.000	-400.842	-130.374				
		6.000	-468.360	-1467.933				
		6.000			0.000			
	5	0.000			0.000			
		0.000	-232.056	585.698				
		3.000	-274.257	-152.673				
		6.000	-316.458	-1059.845				
		6.000			0.000			
43	----------							
	1	0.000			0.000			
		0.000	501.596	-1166.795				
		2.500	437.536	33.815				
		5.000	373.476	1020.886				
		5.000			0.000			
	2	0.000			0.000			
		0.000	365.950	-849.697				
		2.500	319.077	26.118				
		5.000	272.205	745.688				
		5.000			0.000			

PERHITUNGAN PEMBEBANAN PADA PORTAL AS 3 (KN/m)

F R A M E E L E M E N T F O R C E S

ELT ID	LOAD COMB	DIST ENDI	1-2 PLANE SHEAR	1-2 PLANE MOMENT	AXIAL FORCE	1-3 PLANE SHEAR	1-3 PLANE MOMENT	AXIAL TORQ
	3	0.000			0.000			
		0.000	444.635	-453.496				
		2.500	397.762	225.605				
		5.000	350.890	748.466				
		5.000			0.000			
	4	0.000			0.000			
		0.000	287.264	-1245.898				
		2.500	240.391	-173.369				
		5.000	193.519	742.910				
		5.000			0.000			
	5	0.000			0.000			
		0.000	149.533	-925.372				
		2.500	120.238	-182.522				
		5.000	90.943	462.671				
		5.000			0.000			
44	----------							
	1	0.000			0.000			
		0.000	-335.124	1020.886				
		2.500	-399.184	129.692				
		5.000	-463.244	-975.032				
		5.000			0.000			
	2	0.000			0.000			
		0.000	-246.315	745.688				
		2.500	-293.188	90.837				
		5.000	-340.060	-720.252				
		5.000			0.000			
	3	0.000			0.000			
		0.000	-167.630	748.466				
		2.500	-214.503	284.778				
		5.000	-261.375	-329.598				
		5.000			0.000			
	4	0.000			0.000			
		0.000	-325.001	742.910				
		2.500	-371.874	-103.103				
		5.000	-418.746	-1110.906				
		5.000			0.000			
	5	0.000			0.000			
		0.000	-233.147	462.671				
		2.500	-262.442	-139.058				
		5.000	-291.737	-843.986				
		5.000			0.000			

PERHITUNGAN PEMBEBANAN PADA PORTAL AS 3 (KN/m)

F R A M E E L E M E N T F O R C E S

ELT ID	LOAD COMB	DIST ENDI	1-2 PLANE SHEAR	1-2 PLANE MOMENT	AXIAL FORCE	1-3 PLANE SHEAR	1-3 PLANE MOMENT	AXIAL TORQ
45								
	1	0.000			0.000			
		0.000	289.209	-574.571				
		2.500	248.159	114.244				
		5.000	207.109	666.223				
		5.000			0.000			
	2	0.000			0.000			
		0.000	239.500	-470.880				
		2.500	205.325	99.392				
		5.000	171.150	555.746				
		5.000			0.000			
	3	0.000			0.000			
		0.000	274.943	-295.221				
		2.500	240.768	186.445				
		5.000	206.593	557.318				
		5.000			0.000			
	4	0.000			0.000			
		0.000	204.058	-646.539				
		2.500	169.882	12.340				
		5.000	135.708	554.173				
		5.000			0.000			
	5	0.000			0.000			
		0.000	127.236	-493.469				
		2.500	103.949	-17.571				
		5.000	80.661	377.574				
		5.000			0.000			
46								
	1	0.000			0.000			
		0.000	-246.875	666.223				
		2.500	-287.925	14.826				
		5.000	-328.975	-773.402				
		5.000			0.000			
	2	0.000			0.000			
		0.000	-206.802	555.746				
		2.500	-240.977	10.261				
		5.000	-275.152	-649.139				
		5.000			0.000			
	3	0.000			0.000			
		0.000	-171.359	557.318				
		2.500	-205.534	100.422				
		5.000	-239.709	-470.372				
		5.000			0.000			

PERHITUNGAN PEMBEBANAN PADA PORTAL AS 3 (KN/m)

F R A M E E L E M E N T F O R C E S

ELT ID	LOAD COMB	DIST ENDI	1-2 PLANE SHEAR	1-2 PLANE MOMENT	AXIAL FORCE	1-3 PLANE SHEAR	1-3 PLANE MOMENT	AXIAL TORQ
	4	0.000			0.000			
		0.000	-242.244	554.173				
		2.500	-276.420	-79.900				
		5.000	-310.594	-827.906				
		5.000			0.000			
	5	0.000			0.000			
		0.000	-176.883	377.574				
		2.500	-200.170	-84.022				
		5.000	-223.458	-623.258				
		5.000			0.000			
47	----------							
	1	0.000			0.000			
		0.000	354.672	-950.981				
		3.000	295.560	53.925				
		6.000	236.448	822.379				
		6.000			0.000			
	2	0.000			0.000			
		0.000	295.272	-791.738				
		3.000	246.060	44.867				
		6.000	196.848	684.622				
		6.000			0.000			
	3	0.000			0.000			
		0.000	325.277	-611.708				
		3.000	276.065	134.882				
		6.000	226.853	684.622				
		6.000			0.000			
	4	0.000			0.000			
		0.000	265.267	-971.769				
		3.000	216.055	-45.148				
		6.000	166.843	684.622				
		6.000			0.000			
	5	0.000			0.000			
		0.000	171.199	-719.547				
		3.000	137.665	-59.452				
		6.000	104.131	466.504				
		6.000			0.000			
48	----------							
	1	0.000			0.000			
		0.000	-236.448	822.379				
		3.000	-295.560	53.922				
		6.000	-354.672	-950.981				
		6.000			0.000			

PERHITUNGAN PEMBEBANAN PADA PORTAL AS 3 (KN/m)

F R A M E E L E M E N T F O R C E S

ELT ID	LOAD COMB	DIST ENDI	1-2 PLANE SHEAR	1-2 PLANE MOMENT	AXIAL FORCE	1-3 PLANE SHEAR	1-3 PLANE MOMENT	AXIAL TORQ
	2	0.000			0.000			
		0.000	-196.848	684.622				
		3.000	-246.060	44.864				
		6.000	-295.272	-791.738				
		6.000			0.000			
	3	0.000			0.000			
		0.000	-166.843	684.622				
		3.000	-216.055	134.880				
		6.000	-265.267	-611.708				
		6.000			0.000			
	4	0.000			0.000			
		0.000	-226.853	684.622				
		3.000	-276.065	-45.151				
		6.000	-325.277	-971.769				
		6.000			0.000			
	5	0.000			0.000			
		0.000	-164.141	466.504				
		3.000	-197.675	-59.455				
		6.000	-231.209	-719.547				
		6.000			0.000			
49	----------							
	1	0.000			0.000			
		0.000	328.975	-773.402				
		2.500	287.925	14.829				
		5.000	246.875	666.223				
		5.000			0.000			
	2	0.000			0.000			
		0.000	275.152	-649.139				
		2.500	240.977	10.263				
		5.000	206.802	555.746				
		5.000			0.000			
	3	0.000			0.000			
		0.000	310.594	-470.372				
		2.500	276.419	100.424				
		5.000	242.244	557.318				
		5.000			0.000			
	4	0.000			0.000			
		0.000	239.709	-827.906				
		2.500	205.534	-79.898				
		5.000	171.359	554.173				
		5.000			0.000			
	5	0.000			0.000			

PERHITUNGAN PEMBEBANAN PADA PORTAL AS 3 (KN/m)

F R A M E E L E M E N T F O R C E S

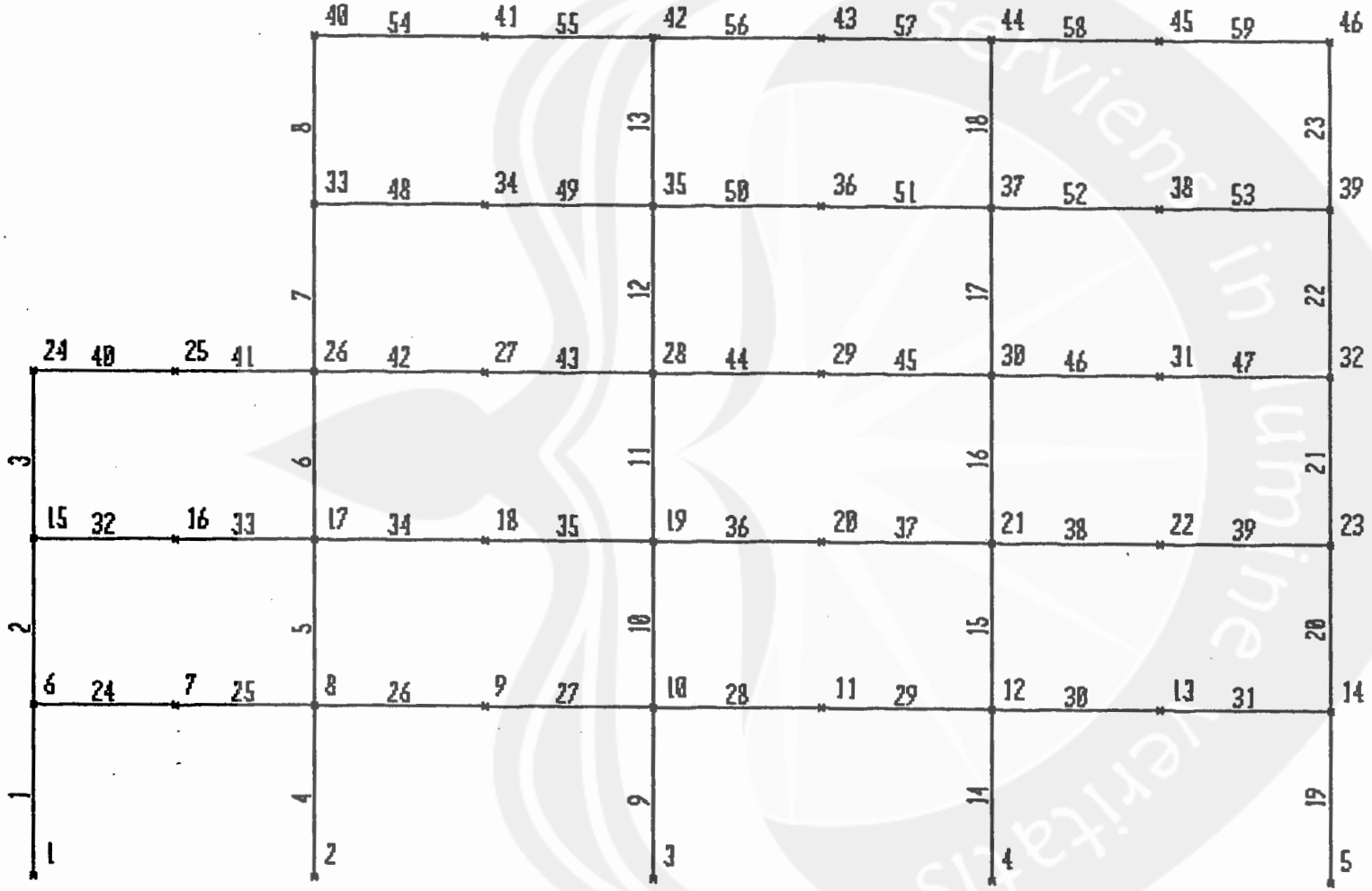
ELT ID	LOAD COMB	DIST ENDI	1-2 PLANE SHEAR	1-2 PLANE MOMENT	AXIAL FORCE	1-3 PLANE SHEAR	1-3 PLANE MOMENT	AXIAL TORQ
		0.000	152.573	-623.258				
		2.500	129.285	-84.020				
		5.000	105.998	377.574				
		5.000			0.000			
50	----------							
	1	0.000			0.000			
		0.000	-207.109	666.223				
		2.500	-248.159	114.242				
		5.000	-289.209	-574.571				
		5.000			0.000			
	2	0.000			0.000			
		0.000	-171.150	555.746				
		2.500	-205.325	99.390				
		5.000	-239.500	-470.880				
		5.000			0.000			
	3	0.000			0.000			
		0.000	-135.708	557.318				
		2.500	-169.883	186.443				
		5.000	-204.058	-295.221				
		5.000			0.000			
	4	0.000			0.000			
		0.000	-206.593	554.173				
		2.500	-240.768	12.338				
		5.000	-274.943	-646.539				
		5.000			0.000			
	5	0.000			0.000			
		0.000	-151.546	377.574				
		2.500	-174.834	-17.573				
		5.000	-198.121	-493.469				
		5.000			0.000			

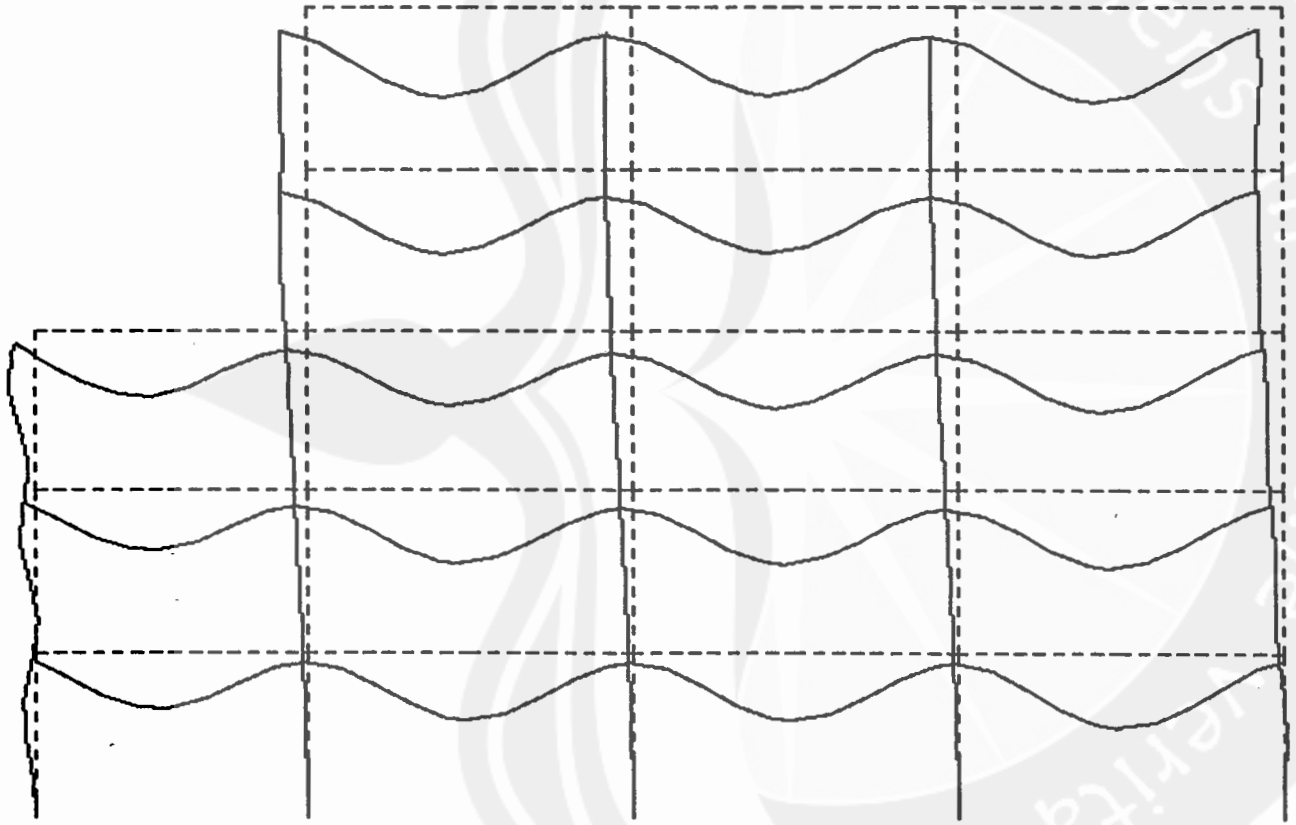
PERHITUNGAN PEMBEBANAN PADA PORTAL AS C (KN/m)

```
SYSTEM
L=4     V=2

JOINTS
1       X=0     Y=0     Z=0      : BIDANG KOORDINAT Y-Z
2               Y=10    Z=0
5               Y=46    Z=0     G=2,5,1
6               Y=0     Z=6
7               Y=5     Z=6
8               Y=10    Z=6
14              Y=46    Z=6     G=8,14,1
15              Y=0     Z=12
16              Y=5     Z=12
17              Y=10    Z=12
23              Y=46    Z=12    G=17,23,1
24              Y=0     Z=18
25              Y=5     Z=18
26              Y=10    Z=18
32              Y=46    Z=18    G=26,32,1
33              Y=10    Z=24
39              Y=46    Z=24    G=33,39,1
40              Y=10    Z=30
46              Y=46    Z=30    G=40,46,1

RESTRAINTS
1,46,1          R=1,0,0,0,1,1
1,5,1           R=1,1,1,1,1,1    : DUKUNGAN JEPIT Y-Z

FRAME
NM=6          NL=11          Z=-1,0
C PROPERTIES ELEMEN
1 SH=I       T=0.762,0.267,0.022,0.014,0.267,0.022   E=2E8
2 SH=I       T=0.684,0.254,0.019,0.013,0.254,0.019
3 SH=I       T=0.308,0.305,0.015,0.010,0.305,0.015
4 SH=I       T=0.766,0.267,0.024,0.015,0.267,0.024
5 SH=I       T=0.927,0.308,0.032,0.019,0.308,0.032
6 SH=I       T=0.932,0.309,0.035,0.021,0.309,0.035
C BEBAN MATI PADA LANTAI ATAP
1  TRAP=0,0,0,2.5,-10.35,0,5,0,0
2  TRAP=0,0,0,3.0,-12.42,0,6,0,0
3  TRAP=0,0,0,2.5,-12.42,0,3.5,-12.42,0,6,0,0
C BEBAN MATI PADA LANTAI 1,2,3 DAN 4
4  TRAP=0,0,0,2.5,-13.02,0,5,0,0
5  TRAP=0,0,0,3.0,-15.63,0,6,0,0
6  TRAP=0,0,0,2.5,-15.63,0,3.5,-15.63,0,6,0,0
C BEBAN HIDUP PADA LANTAI ATAP
7  TRAP=0,0,0,3.0,-3,0,6,0,0
8  TRAP=0,0,0,2.5,-3,0,3.5,-3,0,6,0,0
C BEBAN HIDUP PADA LANTAI 1,2,3 DAN 4
9  TRAP=0,0,0,2.5,-6.25,0,5,0,0
10 TRAP=0,0,0,3.0,-7.50,0,6,0,0
11 TRAP=0,0,0,2.5,-7.50,0,3.5,-7.50,0,6,0,0
C KOLOM PADA PORTAL AS C
1,1,6       M=3                  LP=3,0
4,2,8       M=5                  LP=3,0
```

```
9,3,10      M=6     G=1,5,1,2     LP=3,0
19,5,14     M=4                   LP=3,0
2,6,15      M=3                   LP=3,0
5,8,17      M=5                   LP=3,0
10,10,19    M=6     G=1,5,2,2     LP=3,0
20,14,23    M=4                   LP=3,0
3,15,24     M=3                   LP=3,0
6,17,26     M=5                   LP=3,0
11,19,28    M=6     G=1,5,2,2     LP=3,0
21,23,32    M=4                   LP=3,0
7,26,33     M=5                   LP=3,0
12,28,35    M=6     G=1,5,2,2     LP=3,0
22,32,39    M=4                   LP=3,0
8,33,40     M=5                   LP=3,0
13,35,42    M=6     G=1,5,2,2     LP=3,0
23,39,46    M=4                   LP=3,0
C BALOK PADA PORTAL AS C
24,6,7      M=1     G=1,1,1,1     LP=3,0    NSL=4,4,9,9
26,8,9      M=1     G=5,1,1,1     LP=3,0    NSL=5,6,10,11
32,15,16    M=1     G=1,1,1,1     LP=3,0    NSL=4,4,9,9
34,17,18    M=1     G=5,1,1,1     LP=3,0    NSL=5,6,10,11
40,24,25    M=1     G=1,1,1,1     LP=3,0    NSL=4,4,9,9
42,26,27    M=1     G=5,1,1,1     LP=3,0    NSL=5,6,10,11
48,33,34    M=1     G=5,1,1,1     LP=3,0    NSL=5,6,10,11
54,40,41    M=2     G=5,1,1,1     LP=3,0    NSL=2,3,7,8

LOADS
C BEBAN TERPUSAT AKIBAT PEMBEBANAN BALOK ANAK
7,25,9      L=1     F=0,0,-288.82
9,27,9      L=1     F=0,0,-296.32
34,38,2     L=1     F=0,0,-296.32
11,29,9     L=1     F=0,0,-296.32
41,45,2     L=1     F=0,0,-235.46
13,31,9     L=1     F=0,0,-296.32
7,25,9      L=3     F=0,0,-138.58
9,27,9      L=3     F=0,0,-142.18
34,38,2     L=3     F=0,0,-142.18
41,45,2     L=3     F=0,0,-56.87
11,29,9     L=3     F=0,0,-142.18
13,31,9     L=3     F=0,0,-142.18

CONSTRAINTS
7,14,1      C=0,6,0
16,23,1     C=0,15,0
25,32,1     C=0,24,0
34,39,1     C=0,33,0
41,46,1     C=0,40,0

MASSES
C LUMPING MASSA UNTUK MELAKUKAN ANALISIS DINAMIS
C MASSA DIAMBIL SEBAGAI W/G
6           M=0,837.832,0
15          M=0,837.832,0
24          M=0,837.832,0
33          M=0,664.985,0
40          M=0,547.102,0
```

```
SPEC
C DATA DIAMBIL DARI PEDOMAN PERENCANAAN TAHAN GEMPA
C UNTUK RUMAH DAN GEDUNG HALAMAN 13
C BANGUNAN GUDANG PADA WILAYAH 4 DENGAN DAKTILITAS PENUH
C PERCEPATAN GRAVITASI DIAMBIL 10 meter/detik^2
A=0      S=1$10.00      D=0.05
C PERIODE    ARAH-1     ARAH-2     ARAH-Z
   0.000     0.000      0.030      0.000
   0.500     0.000      0.030      0.000
   2.000     0.000      0.015      0.000
   3.000     0.000      0.015      0.000

COMBO
C KOMBINASI PEMBEBANAN MENURUT SEISMIC PROVISIONS AISC 1992
1 C=1.2,1.2,1.6,1.6
2 C=1.2,1.2,0.5,0.5
3 C=1.2,1.2,0.5,0.5      D=+2.00
4 C=1.2,1.2,0.5,0.5      D=-2.00
5 C=0.9,0.9              D=-2.00
```


Z
Y
seismic2
UNDEFORMED
SHAPE
OPTIONS
JOINT IDS
ALL JOINTS
ELEMENT IDS
WIRE FRAME
SAP90



Z
Y

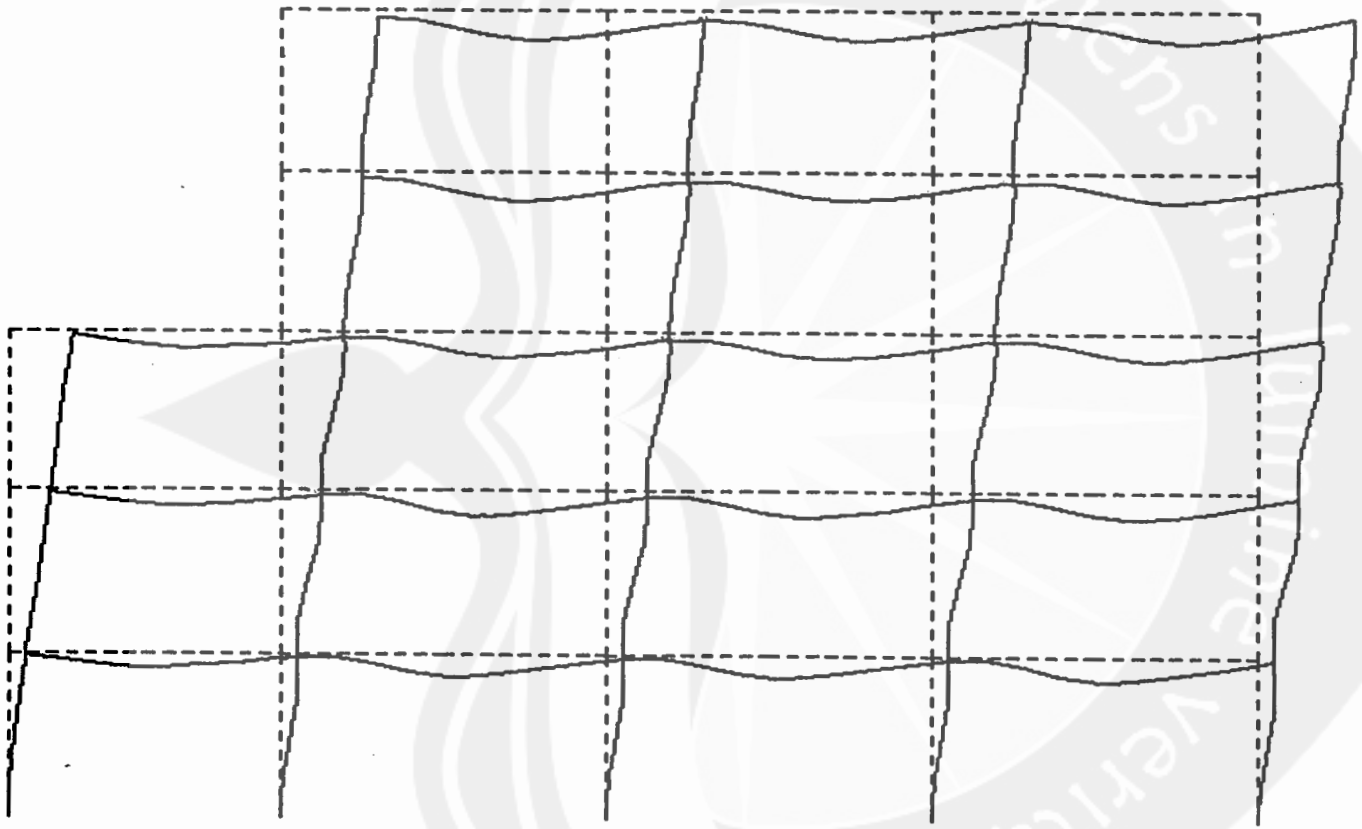
seismic2

DEFORMED
SHAPE

LOAD 2

MINIMA
X 0.0000E+00
Y-0.6538E-02
Z-0.2504E-01
MAXIMA
X 0.0000E+00
Y 0.0000E+00
Z 0.0000E+00

SAP90



Z
Y

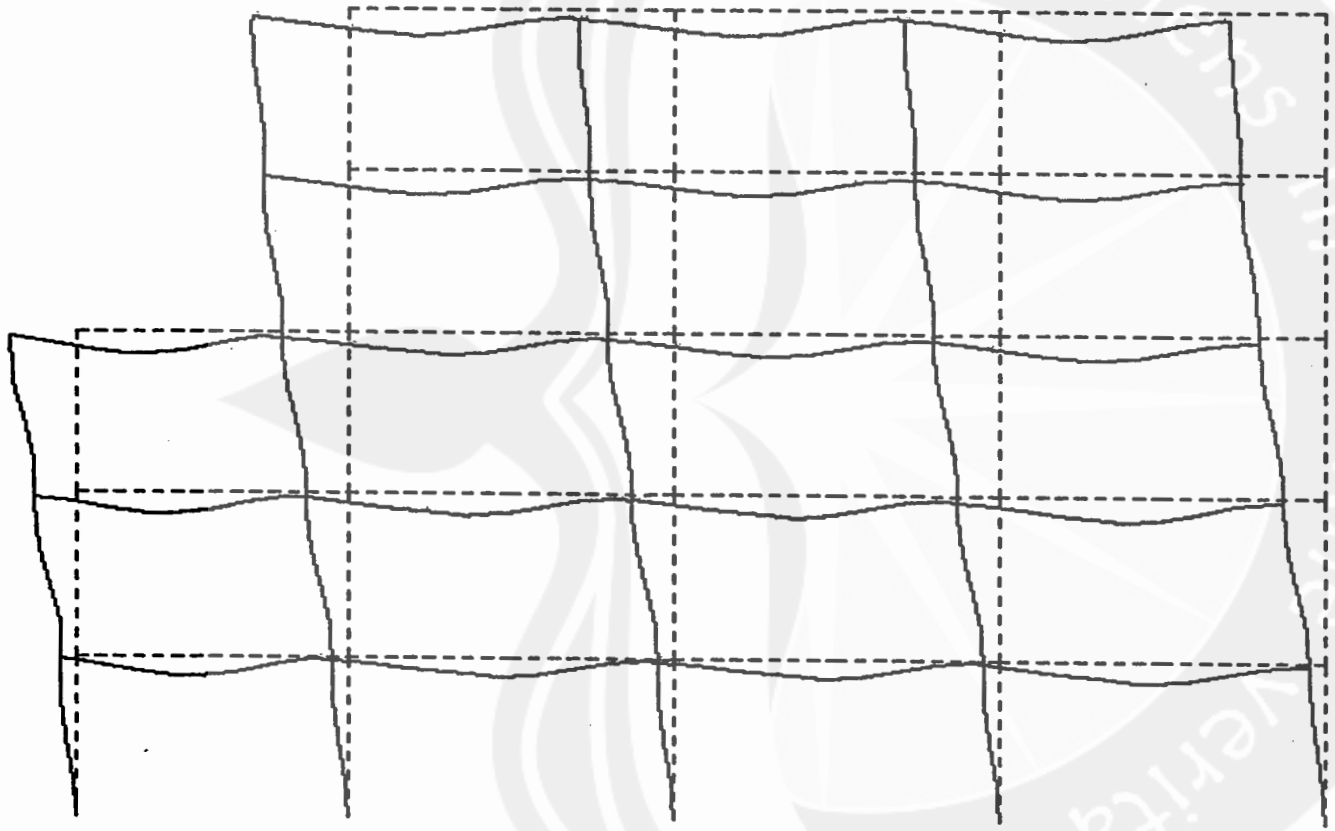
seismic2

DEFORMED
SHAPE

LOAD 3

MINIMA
X 0.0000E+00
Y 0.0000E+00
Z-0.2440E-01
MAXIMA
X 0.0000E+00
Y 0.7529E-01
Z 0.0000E+00

SAP90



Z
Y

seismic2

DEFORMED
SHAPE

LOAD 4

MINIMA
X 0.0000E+00
Y-0.8818E-01
Z-0.2568E-01
MAXIMA
X 0.0000E+00
Y 0.0000E+00
Z 0.0000E+00

SAP90

PERHITUNGAN PEMBEBANAN PADA PORTAL AS C (KN/m)

S P E C T R U M I N P U T D A T A

AMPLITUDE MULTIPLIER ----"S"- 10.000
DAMPING RATIO -----------"D"- 0.050
ANGLE OF S1 WITH X-AXIS -"A"- 0.000

PERHITUNGAN PEMBEBANAN PADA PORTAL AS C (KN/m)

MODE	F R E Q U E N C Y			S P E C T R A L		
NUMBER	RAD./SEC	CYCLES/SEC	PERIOD-SEC (D)	ACCELERATION	VELOCITY	DISPLACEMENT
1	2.24	0.36	2.806784(1)	0.000	0.000	0.000
			(2)	0.150	0.067	0.030
			(Z)	0.000	0.000	0.000
2	6.72	1.07	0.934835(1)	0.000	0.000	0.000
			(2)	0.257	0.038	0.006
			(Z)	0.000	0.000	0.000

PERHITUNGAN PEMBEBANAN PADA PORTAL AS C (KN/m)

MODAL AMPLITUDE FACTORS

AT 0.00 AND -90.00 DEGREES

MODE	PERIOD	1-DIRECTION	2-DIRECTION	Z-DIRECTION
1	2.807	0.000000	1.631628	0.000000
2	0.935	0.000000	-0.119015	0.000000

PERHITUNGAN PEMBEBANAN PADA PORTAL AS C (KN/m)

MODAL CORRELATION FACTORS

	1	2
1	1.00	0.01
2	0.01	1.00

PERHITUNGAN PEMBEBANAN PADA PORTAL AS C (KN/m)

M O D E S H A P E S

MODE SHAPE NUMBER 1 PERIOD = 2.806784 SECONDS

DISPLACEMENTS "U" AND ROTATIONS "R"

JOINT	U(Y)	U(Z)	R(X)
1	0.000000	0.000000	0.000000
2	0.000000	0.000000	0.000000
3	0.000000	0.000000	0.000000
4	0.000000	0.000000	0.000000
5	0.000000	0.000000	0.000000
6	0.004057	0.000144	-0.000056
7	0.004057	0.001042	0.000167
8	0.004057	0.000042	-0.000815
9	0.004057	0.000020	0.000354
10	0.004057	0.000000	-0.000815
11	0.004057	0.000001	0.000359
12	0.004057	-0.000003	-0.000817
13	0.004057	-0.000100	0.000339
14	0.004057	-0.000131	-0.000794
15	0.010665	0.000239	-0.000109
16	0.010665	0.001144	0.000186
17	0.010665	0.000078	-0.000897
18	0.010665	0.000040	0.000386
19	0.010665	0.000000	-0.000898
20	0.010665	0.000000	0.000395
21	0.010665	-0.000006	-0.000900
22	0.010665	-0.000155	0.000364
23	0.010665	-0.000229	-0.000875
24	0.016830	0.000277	0.000068
25	0.016830	0.001223	0.000119
26	0.016830	0.000108	-0.000756
27	0.016830	0.000058	0.000321
28	0.016830	-0.000001	-0.000759
29	0.016830	-0.000002	0.000334
30	0.016830	-0.000008	-0.000761
31	0.016830	-0.000180	0.000296
32	0.016830	-0.000291	-0.000740
33	0.021660	0.000131	-0.000614
34	0.021660	-0.000032	0.000240
35	0.021660	-0.000001	-0.000549
36	0.021660	0.000001	0.000242
37	0.021660	-0.000009	-0.000553
38	0.021660	-0.000185	0.000203
39	0.021660	-0.000323	-0.000540
40	0.024989	0.000138	-0.000435
41	0.024989	0.000003	0.000170
42	0.024989	-0.000001	-0.000391
43	0.024989	0.000001	0.000177
44	0.024989	-0.000010	-0.000396
45	0.024989	-0.000191	0.000137
46	0.024989	-0.000333	-0.000383

PERHITUNGAN PEMBEBANAN PADA PORTAL AS C (KN/m)

M O D E S H A P E S

MODE SHAPE NUMBER 2 PERIOD = 0.934835 SECONDS

DISPLACEMENTS "U" AND ROTATIONS "R"

JOINT	U(Y)	U(Z)	R(X)
1	0.000000	0.000000	0.000000
2	0.000000	0.000000	0.000000
3	0.000000	0.000000	0.000000
4	0.000000	0.000000	0.000000
5	0.000000	0.000000	0.000000
6	-0.010942	-0.000041	0.000041
7	-0.010942	-0.002118	-0.000352
8	-0.010942	0.000136	0.001774
9	-0.010942	0.000072	-0.000797
10	-0.010942	-0.000002	0.001771
11	-0.010942	-0.000008	-0.000781
12	-0.010942	-0.000007	0.001773
13	-0.010942	-0.000015	-0.000790
14	-0.010942	-0.000173	0.001723
15	-0.020331	0.000021	-0.000012
16	-0.020331	-0.000264	-0.000027
17	-0.020331	0.000287	0.000322
18	-0.020331	0.000141	-0.000177
19	-0.020331	-0.000005	0.000322
20	-0.020331	-0.000008	-0.000143
21	-0.020331	-0.000013	0.000321
22	-0.020331	-0.000196	-0.000187
23	-0.020331	-0.000419	0.000308
24	-0.014416	0.000098	0.000572
25	-0.014416	0.003273	0.000310
26	-0.014416	0.000441	-0.001831
27	-0.014416	0.000256	0.000758
28	-0.014416	-0.000008	-0.001857
29	-0.014416	-0.000013	0.000816
30	-0.014416	-0.000020	-0.001857
31	-0.014416	-0.000422	0.000728
32	-0.014416	-0.000679	-0.001809
33	0.004832	0.000573	-0.003215
34	0.004832	-0.000205	0.001274
35	0.004832	-0.000012	-0.002892
36	0.004832	0.000005	0.001275
37	0.004832	-0.000024	-0.002907
38	0.004832	-0.000552	0.001163
39	0.004832	-0.000866	-0.002836
40	0.025784	0.000623	-0.002956
41	0.025784	-0.000199	0.001183
42	0.025784	-0.000014	-0.002621
43	0.025784	0.000014	0.001188
44	0.025784	-0.000026	-0.002643
45	0.025784	-0.000635	0.001061
46	0.025784	-0.000936	-0.002540

PERHITUNGAN PEMBEBANAN PADA PORTAL AS C (KN/m)

J O I N T D I S P L A C E M E N T S

LOAD COMBINATION 1 - DISPLACEMENTS "U" AND ROTATIONS "R"

JOINT	U(Y)	U(Z)	R(X)
1	0.000000	0.000000	0.000000
2	0.000000	0.000000	0.000000
3	0.000000	0.000000	0.000000
4	0.000000	0.000000	0.000000
5	0.000000	0.000000	0.000000
6	-0.001321	-0.002446	-0.004239
7	-0.001321	-0.019459	0.000722
8	-0.001321	-0.003164	0.000276
9	-0.001321	-0.023483	-0.000163
10	-0.001321	-0.003451	0.000307
11	-0.001321	-0.023523	-0.000130
12	-0.001321	-0.003518	0.000247
13	-0.001321	-0.025935	-0.000408
14	-0.001321	-0.002730	0.002035
15	-0.004159	-0.004078	-0.003941
16	-0.004159	-0.021126	0.000551
17	-0.004159	-0.005495	0.000323
18	-0.004159	-0.026099	-0.000243
19	-0.004159	-0.006162	0.000418
20	-0.004159	-0.026302	-0.000191
21	-0.004159	-0.006274	0.000388
22	-0.004159	-0.027875	-0.000322
23	-0.004159	-0.004879	0.001834
24	-0.007131	-0.004867	-0.005176
25	-0.007131	-0.024013	0.000674
26	-0.007131	-0.007000	0.000481
27	-0.007131	-0.027465	-0.000314
28	-0.007131	-0.008130	0.000328
29	-0.007131	-0.028308	-0.000159
30	-0.007131	-0.008274	0.000313
31	-0.007131	-0.029797	-0.000257
32	-0.007131	-0.006445	0.001852
33	-0.008987	-0.007658	-0.000764
34	-0.008987	-0.029980	-0.000065
35	-0.008987	-0.009360	0.000131
36	-0.008987	-0.029511	-0.000068
37	-0.008987	-0.009517	0.000093
38	-0.008987	-0.030730	-0.000103
39	-0.008987	-0.007424	0.001514
40	-0.008941	-0.007913	-0.001042
41	-0.008941	-0.029219	0.000006
42	-0.008941	-0.009841	-0.000017
43	-0.008941	-0.028583	0.000010
44	-0.008941	-0.010005	-0.000114
45	-0.008941	-0.030775	-0.000144
46	-0.008941	-0.007804	0.001930

PERHITUNGAN PEMBEBANAN PADA PORTAL AS C (KN/m)

J O I N T D I S P L A C E M E N T S

LOAD COMBINATION 2 - DISPLACEMENTS "U" AND ROTATIONS "R"

JOINT	U(Y)	U(Z)	R(X)
1	0.000000	0.000000	0.000000
2	0.000000	0.000000	0.000000
3	0.000000	0.000000	0.000000
4	0.000000	0.000000	0.000000
5	0.000000	0.000000	0.000000
6	-0.000965	-0.001791	-0.003104
7	-0.000965	-0.014254	0.000525
8	-0.000965	-0.002341	0.000201
9	-0.000965	-0.017221	-0.000122
10	-0.000965	-0.002574	0.000224
11	-0.000965	-0.017262	-0.000095
12	-0.000965	-0.002624	0.000180
13	-0.000965	-0.019023	-0.000297
14	-0.000965	-0.002036	0.001489
15	-0.003034	-0.002985	-0.002889
16	-0.003034	-0.015490	0.000397
17	-0.003034	-0.004072	0.000235
18	-0.003034	-0.019171	-0.000183
19	-0.003034	-0.004605	0.000304
20	-0.003034	-0.019346	-0.000139
21	-0.003034	-0.004690	0.000283
22	-0.003034	-0.020483	-0.000232
23	-0.003034	-0.003648	0.001339
24	-0.005197	-0.003562	-0.003794
25	-0.005197	-0.017609	0.000485
26	-0.005197	-0.005199	0.000344
27	-0.005197	-0.020218	-0.000236
28	-0.005197	-0.006094	0.000239
29	-0.005197	-0.020859	-0.000115
30	-0.005197	-0.006202	0.000226
31	-0.005197	-0.021952	-0.000185
32	-0.005197	-0.004832	0.001363
33	-0.006538	-0.005706	-0.000538
34	-0.006538	-0.022042	-0.000061
35	-0.006538	-0.007042	0.000087
36	-0.006538	-0.021804	-0.000048
37	-0.006538	-0.007161	0.000068
38	-0.006538	-0.022586	-0.000059
39	-0.006538	-0.005587	0.001056
40	-0.006447	-0.005918	-0.000912
41	-0.006447	-0.023684	0.000024
42	-0.006447	-0.007443	-0.000012
43	-0.006447	-0.023020	0.000012
44	-0.006447	-0.007568	-0.000107
45	-0.006447	-0.025042	-0.000150
46	-0.006447	-0.005903	0.001661

PERHITUNGAN PEMBEBANAN PADA PORTAL AS C (KN/m)

J O I N T D I S P L A C E M E N T S

LOAD COMBINATION 3 - DISPLACEMENTS "U" AND ROTATIONS "R"

JOINT	U(Y)	U(Z)	R(X)
1	0.000000	0.000000	0.000000
2	0.000000	0.000000	0.000000
3	0.000000	0.000000	0.000000
4	0.000000	0.000000	0.000000
5	0.000000	0.000000	0.000000
6	0.012544	-0.001320	-0.002920
7	0.012544	-0.010814	0.001076
8	0.012544	-0.002201	0.002898
9	0.012544	-0.017153	0.001050
10	0.012544	-0.002573	0.002920
11	0.012544	-0.017260	0.001092
12	0.012544	-0.002613	0.002881
13	0.012544	-0.018696	0.000827
14	0.012544	-0.001607	0.004117
15	0.032133	-0.002206	-0.002534
16	0.032133	-0.011757	0.001005
17	0.032133	-0.003810	0.003164
18	0.032133	-0.019036	0.001077
19	0.032133	-0.004604	0.003236
20	0.032133	-0.019344	0.001151
21	0.032133	-0.004670	0.003221
22	0.032133	-0.019976	0.000957
23	0.032133	-0.002895	0.004197
24	0.049852	-0.002659	-0.003535
25	0.049852	-0.013549	0.000880
26	0.049852	-0.004831	0.002847
27	0.049852	-0.020020	0.000824
28	0.049852	-0.006091	0.002752
29	0.049852	-0.020852	0.000989
30	0.049852	-0.006176	0.002745
31	0.049852	-0.021358	0.000796
32	0.049852	-0.003870	0.003815
33	0.064145	-0.005258	0.001601
34	0.064145	-0.021926	0.000777
35	0.064145	-0.007037	0.002002
36	0.064145	-0.021800	0.000795
37	0.064145	-0.007130	0.001998
38	0.064145	-0.021968	0.000658
39	0.064145	-0.004516	0.002940
40	0.075291	-0.005443	0.000669
41	0.075291	-0.023636	0.000644
42	0.075291	-0.007437	0.001405
43	0.075291	-0.023016	0.000653
44	0.075291	-0.007536	0.001326
45	0.075291	-0.024402	0.000362
46	0.075291	-0.004796	0.003045

PERHITUNGAN PEMBEBANAN PADA PORTAL AS C (KN/m)

J O I N T D I S P L A C E M E N T S

LOAD COMBINATION 4 - DISPLACEMENTS "U" AND ROTATIONS "R"

JOINT	U(Y)	U(Z)	R(X)
1	0.000000	0.000000	0.000000
2	0.000000	0.000000	0.000000
3	0.000000	0.000000	0.000000
4	0.000000	0.000000	0.000000
5	0.000000	0.000000	0.000000
6	-0.014473	-0.002261	-0.003289
7	-0.014473	-0.017694	-0.000025
8	-0.014473	-0.002480	-0.002496
9	-0.014473	-0.017289	-0.001293
10	-0.014473	-0.002574	-0.002472
11	-0.014473	-0.017265	-0.001282
12	-0.014473	-0.002634	-0.002521
13	-0.014473	-0.019351	-0.001421
14	-0.014473	-0.002466	-0.001138
15	-0.038201	-0.003764	-0.003243
16	-0.038201	-0.019222	-0.000210
17	-0.038201	-0.004334	-0.002693
18	-0.038201	-0.019306	-0.001443
19	-0.038201	-0.004607	-0.002628
20	-0.038201	-0.019348	-0.001429
21	-0.038201	-0.004710	-0.002656
22	-0.038201	-0.020990	-0.001421
23	-0.038201	-0.004401	-0.001518
24	-0.060246	-0.004465	-0.004053
25	-0.060246	-0.021669	0.000090
26	-0.060246	-0.005567	-0.002159
27	-0.060246	-0.020416	-0.001296
28	-0.060246	-0.006097	-0.002274
29	-0.060246	-0.020867	-0.001220
30	-0.060246	-0.006229	-0.002292
31	-0.060246	-0.022547	-0.001167
32	-0.060246	-0.005794	-0.001088
33	-0.077220	-0.006154	-0.002678
34	-0.077220	-0.022159	-0.000899
35	-0.077220	-0.007048	-0.001828
36	-0.077220	-0.021807	-0.000892
37	-0.077220	-0.007192	-0.001861
38	-0.077220	-0.023205	-0.000776
39	-0.077220	-0.006659	-0.000827
40	-0.088184	-0.006392	-0.002492
41	-0.088184	-0.023733	-0.000596
42	-0.088184	-0.007449	-0.001430
43	-0.088184	-0.023024	-0.000629
44	-0.088184	-0.007601	-0.001539
45	-0.088184	-0.025682	-0.000661
46	-0.088184	-0.007010	0.000277

PERHITUNGAN PEMBEBANAN PADA PORTAL AS C (KN/m)

J O I N T D I S P L A C E M E N T S

LOAD COMBINATION 5 - DISPLACEMENTS "U" AND ROTATIONS "R"

JOINT	U(Y)	U(Z)	R(X)
1	0.000000	0.000000	0.000000
2	0.000000	0.000000	0.000000
3	0.000000	0.000000	0.000000
4	0.000000	0.000000	0.000000
5	0.000000	0.000000	0.000000
6	-0.014110	-0.001590	-0.002126
7	-0.014110	-0.012355	-0.000224
8	-0.014110	-0.001615	-0.002572
9	-0.014110	-0.010850	-0.001249
10	-0.014110	-0.001632	-0.002556
11	-0.014110	-0.010815	-0.001246
12	-0.014110	-0.001674	-0.002588
13	-0.014110	-0.012239	-0.001309
14	-0.014110	-0.001720	-0.001697
15	-0.037059	-0.002645	-0.002163
16	-0.037059	-0.013429	-0.000362
17	-0.037059	-0.002831	-0.002782
18	-0.037059	-0.012152	-0.001376
19	-0.037059	-0.002925	-0.002743
20	-0.037059	-0.012140	-0.001377
21	-0.037059	-0.002997	-0.002762
22	-0.037059	-0.013350	-0.001333
23	-0.037059	-0.003070	-0.002021
24	-0.058287	-0.003130	-0.002634
25	-0.058287	-0.015084	-0.000096
26	-0.058287	-0.003653	-0.002292
27	-0.058287	-0.012891	-0.001210
28	-0.058287	-0.003879	-0.002364
29	-0.058287	-0.013112	-0.001177
30	-0.058287	-0.003972	-0.002378
31	-0.058287	-0.014384	-0.001096
32	-0.058287	-0.004037	-0.001596
33	-0.074751	-0.004062	-0.002467
34	-0.074751	-0.013942	-0.000883
35	-0.074751	-0.004497	-0.001865
36	-0.074751	-0.013729	-0.000873
37	-0.074751	-0.004599	-0.001887
38	-0.074751	-0.014782	-0.000746
39	-0.074751	-0.004636	-0.001247
40	-0.085722	-0.004232	-0.002220
41	-0.085722	-0.015925	-0.000596
42	-0.085722	-0.004771	-0.001425
43	-0.085722	-0.015373	-0.000631
44	-0.085722	-0.004878	-0.001510
45	-0.085722	-0.017467	-0.000626
46	-0.085722	-0.004886	-0.000230

PERHITUNGAN PEMBEBANAN PADA PORTAL AS C (KN/m)

F R A M E E L E M E N T F O R C E S

ELT ID	LOAD COMB	DIST ENDI	1-2 PLANE SHEAR	1-2 PLANE MOMENT	AXIAL FORCE	1-3 PLANE SHEAR	1-3 PLANE MOMENT	AXIAL TORQ
1								
	1	0.000			-972.888			
		0.000	-31.550	64.344				
		6.000	-31.550	-124.954				
		6.000			-972.888			
	2	0.000			-712.053			
		0.000	-23.097	47.098				
		6.000	-23.097	-91.483				
		6.000			-712.053			
	3	0.000			-525.013			
		0.000	6.029	135.779				
		6.000	6.029	-5.410				
		6.000			-525.013			
	4	0.000			-899.093			
		0.000	-52.223	-41.582				
		6.000	-52.223	-177.557				
		6.000			-899.093			
	5	0.000			-632.159			
		0.000	-43.567	-59.236				
		6.000	-43.567	-143.275				
		6.000			-632.159			
2								
	1	0.000			-648.873			
		0.000	-61.525	186.711				
		6.000	-61.525	-182.441				
		6.000			-648.873			
	2	0.000			-474.920			
		0.000	-45.056	136.710				
		6.000	-45.056	-133.626				
		6.000			-474.920			
	3	0.000			-352.042			
		0.000	0.077	273.311				
		6.000	0.077	0.571				
		6.000			-352.042			
	4	0.000			-597.799			
		0.000	-90.189	0.109				
		6.000	-90.189	-267.822				
		6.000			-597.799			
	5	0.000			-419.767			
		0.000	-73.310	-51.114				
		6.000	-73.310	-217.774				

PERHITUNGAN PEMBEBANAN PADA PORTAL AS C (KN/m)

F R A M E E L E M E N T F O R C E S

ELT ID	LOAD COMB	DIST ENDI	1-2 PLANE SHEAR	1-2 PLANE MOMENT	AXIAL FORCE	1-3 PLANE SHEAR	1-3 PLANE MOMENT	AXIAL TORQ
		6.000			-419.767			
3								
	1	0.000			-313.640			
		0.000	-68.137	195.584				
		6.000	-68.137	-213.241				
		6.000			-313.640			
	2	0.000			-229.530			
		0.000	-49.912	143.266				
		6.000	-49.912	-156.207				
		6.000			-229.530			
	3	0.000			-179.676			
		0.000	-5.440	272.496				
		6.000	-5.440	-18.602				
		6.000			-179.676			
	4	0.000			-279.384			
		0.000	-94.384	14.036				
		6.000	-94.384	-293.811				
		6.000			-279.384			
	5	0.000			-193.328			
		0.000	-75.693	-39.617				
		6.000	-75.693	-235.316				
		6.000			-193.328			
4								
	1	0.000			-3808.142			
		0.000	-21.812	111.205				
		6.000	-21.812	-19.665				
		6.000			-3808.142			
	2	0.000			-2817.369			
		0.000	-16.016	81.345				
		6.000	-16.016	-14.748				
		6.000			-2817.369			
	3	0.000			-2649.244			
		0.000	224.835	1249.242				
		6.000	224.835	266.158				
		6.000			-2649.244			
	4	0.000			-2985.494			
		0.000	-256.866	-1086.553				
		6.000	-256.866	-295.655				
		6.000			-2985.494			
	5	0.000			-1943.388			
		0.000	-250.886	-1117.069				

PERHITUNGAN PEMBEBANAN PADA PORTAL AS C (KN/m)

F R A M E E L E M E N T F O R C E S

ELT ID	LOAD COMB	DIST ENDI	1-2 PLANE SHEAR	1-2 PLANE MOMENT	AXIAL FORCE	1-3 PLANE SHEAR	1-3 PLANE MOMENT	AXIAL TORQ
		6.000	-250.886	-290.292				
		6.000			-1943.388			
5								
	1	0.000			-2805.844			
		0.000	-46.059	145.940				
		6.000	-46.059	-130.414				
		6.000			-2805.844			
	2	0.000			-2083.937			
		0.000	-33.728	106.843				
		6.000	-33.728	-95.525				
		6.000			-2083.937			
	3	0.000			-1936.307			
		0.000	181.812	790.905				
		6.000	181.812	519.830				
		6.000			-1936.307			
	4	0.000			-2231.566			
		0.000	-249.268	-577.220				
		6.000	-249.268	-710.879				
		6.000			-2231.566			
	5	0.000			-1464.476			
		0.000	-236.632	-617.259				
		6.000	-236.632	-675.104				
		6.000			-1464.476			
6								
	1	0.000			-1811.159			
		0.000	-24.804	100.462				
		6.000	-24.804	-48.365				
		6.000			-1811.159			
	2	0.000			-1356.082			
		0.000	-18.814	74.467				
		6.000	-18.814	-38.420				
		6.000			-1356.082			
	3	0.000			-1228.467			
		0.000	156.139	539.099				
		6.000	156.139	562.589				
		6.000			-1228.467			
	4	0.000			-1483.697			
		0.000	-193.768	-390.164				
		6.000	-193.768	-639.429				
		6.000			-1483.697			
	5	0.000			-989.536			

PERHITUNGAN PEMBEBANAN PADA PORTAL AS C (KN/m)

F R A M E E L E M E N T F O R C E S

ELT ID	LOAD COMB	DIST ENDI	1-2 PLANE SHEAR	1-2 PLANE MOMENT	AXIAL FORCE	1-3 PLANE SHEAR	1-3 PLANE MOMENT	AXIAL TORQ
		0.000	-187.022	-417.643				
		6.000	-187.022	-626.434				
		6.000			-989.536			
7		----------						
	1	0.000			-792.512			
		0.000	-120.001	153.980				
		6.000	-120.001	-566.025				
		6.000			-792.512			
	2	0.000			-610.666			
		0.000	-85.300	109.771				
		6.000	-85.300	-402.030				
		6.000			-610.666			
	3	0.000			-513.770			
		0.000	27.263	408.166				
		6.000	27.263	-5.908				
		6.000			-513.770			
	4	0.000			-707.562			
		0.000	-197.864	-188.623				
		6.000	-197.864	-798.152				
		6.000			-707.562			
	5	0.000			-492.903			
		0.000	-164.709	-231.137				
		6.000	-164.709	-641.737				
		6.000			-492.903			
8		----------						
	1	0.000			-306.758			
		0.000	-238.150	668.411				
		6.000	-238.150	-760.487				
		6.000			-306.758			
	2	0.000			-254.775			
		0.000	-188.886	504.891				
		6.000	-188.886	-628.422				
		6.000			-254.775			
	3	0.000			-222.763			
		0.000	-152.129	574.295				
		6.000	-152.129	-432.654				
		6.000			-222.763			
	4	0.000			-286.787			
		0.000	-225.642	435.487				
		6.000	-225.642	-824.191				
		6.000			-286.787			

PERHITUNGAN PEMBEBANAN PADA PORTAL AS C (KN/m)

F R A M E E L E M E N T F O R C E S

ELT ID	LOAD COMB	DIST ENDI	1-2 PLANE SHEAR	1-2 PLANE MOMENT	AXIAL FORCE	1-3 PLANE SHEAR	1-3 PLANE MOMENT	AXIAL TORQ
	5	0.000			-205.371			
		0.000	-161.626	253.518				
		6.000	-161.626	-622.063				
		6.000			-205.371			
9	----------							
	1	0.000			-4571.078			
		0.000	-19.579	114.770				
		6.000	-19.579	-2.702				
		6.000			-4571.078			
	2	0.000			-3408.761			
		0.000	-14.326	83.843				
		6.000	-14.326	-2.112				
		6.000			-3408.761			
	3	0.000			-3407.945			
		0.000	251.748	1372.635				
		6.000	251.748	309.636				
		6.000			-3407.945			
	4	0.000			-3409.578			
		0.000	-280.399	-1204.950				
		6.000	-280.399	-313.860				
		6.000			-3409.578			
	5	0.000			-2161.143			
		0.000	-275.027	-1236.454				
		6.000	-275.027	-313.131				
		6.000			-2161.143			
10	----------							
	1	0.000			-3589.264			
		0.000	-32.467	117.610				
		6.000	-32.467	-77.193				
		6.000			-3589.264			
	2	0.000			-2690.353			
		0.000	-23.805	86.000				
		6.000	-23.805	-56.829				
		6.000			-2690.353			
	3	0.000			-2689.210			
		0.000	213.864	841.020				
		6.000	213.864	620.968				
		6.000			-2689.210			
	4	0.000			-2691.496			
		0.000	-261.473	-669.021				
		6.000	-261.473	-734.626				

PERHITUNGAN PEMBEBANAN PADA PORTAL AS C (KN/m)

F R A M E E L E M E N T F O R C E S

ELT ID	LOAD COMB	DIST ENDI	1-2 PLANE SHEAR	1-2 PLANE MOMENT	AXIAL FORCE	1-3 PLANE SHEAR	1-3 PLANE MOMENT	AXIAL TORQ
		6.000			-2691.496			
	5	0.000			-1712.461			
		0.000	-252.569	-701.296				
		6.000	-252.569	-713.476				
		6.000			-1712.461			
11	----------							
	1	0.000			-2606.819			
		0.000	-35.881	91.307				
		6.000	-35.881	-123.976				
		6.000			-2606.819			
	2	0.000			-1971.544			
		0.000	-26.161	66.618				
		6.000	-26.161	-90.350				
		6.000			-1971.544			
	3	0.000			-1969.648			
		0.000	165.109	575.025				
		6.000	165.109	566.804				
		6.000			-1969.648			
	4	0.000			-1973.441			
		0.000	-217.432	-441.789				
		6.000	-217.432	-747.504				
		6.000			-1973.441			
	5	0.000			-1263.984			
		0.000	-207.578	-466.860				
		6.000	-207.578	-713.453				
		6.000			-1263.984			
12	----------							
	1	0.000			-1629.337			
		0.000	-23.414	34.272				
		6.000	-23.414	-106.213				
		6.000			-1629.337			
	2	0.000			-1256.355			
		0.000	-17.765	25.587				
		6.000	-17.765	-81.000				
		6.000			-1256.355			
	3	0.000			-1253.282			
		0.000	137.912	403.761				
		6.000	137.912	492.296				
		6.000			-1253.282			
	4	0.000			-1259.428			
		0.000	-173.441	-352.587				

PERHITUNGAN PEMBEBANAN PADA PORTAL AS C (KN/m)

F R A M E E L E M E N T F O R C E S

ELT ID	LOAD COMB	DIST ENDI	1-2 PLANE SHEAR	1-2 PLANE MOMENT	AXIAL FORCE	1-3 PLANE SHEAR	1-3 PLANE MOMENT	AXIAL TORQ
		6.000	-173.441	-654.296				
		6.000			-1259.428			
	5	0.000			-818.186			
		0.000	-167.074	-361.945				
		6.000	-167.074	-625.450				
		6.000			-818.186			
13	----------							
	1	0.000			-636.649			
		0.000	19.013	-84.119				
		6.000	19.013	29.956				
		6.000			-636.649			
	2	0.000			-530.508			
		0.000	15.394	-64.340				
		6.000	15.394	28.023				
		6.000			-530.508			
	3	0.000			-529.674			
		0.000	111.273	141.841				
		6.000	111.273	403.295				
		6.000			-529.674			
	4	0.000			-531.342			
		0.000	-80.485	-270.520				
		6.000	-80.485	-347.248				
		6.000			-531.342			
	5	0.000			-362.531			
		0.000	-85.567	-247.692				
		6.000	-85.567	-354.913				
		6.000			-362.531			
14	----------							
	1	0.000			-4659.200			
		0.000	-28.431	130.329				
		6.000	-28.431	-40.256				
		6.000			-4659.200			
	2	0.000			-3474.645			
		0.000	-20.782	95.190				
		6.000	-20.782	-29.502				
		6.000			-3474.645			
	3	0.000			-3460.354			
		0.000	244.562	1382.695				
		6.000	244.562	279.254				
		6.000			-3460.354			
	4	0.000			-3488.935			

PERHITUNGAN PEMBEBANAN PADA PORTAL AS C (KN/m)

F R A M E E L E M E N T F O R C E S

ELT	LOAD	DIST	1-2 PLANE		AXIAL	1-3 PLANE		AXIAL
ID	COMB	ENDI	SHEAR	MOMENT	FORCE	SHEAR	MOMENT	TORQ
		0.000	-286.126	-1192.315				
		6.000	-286.126	-338.257				
		6.000			-3488.935			
	5	0.000			-2216.448			
		0.000	-278.323	-1228.091				
		6.000	-278.323	-327.215				
		6.000			-2216.448			
15	----------							
	1	0.000			-3650.409			
		0.000	-45.735	162.924				
		6.000	-45.735	-111.484				
		6.000			-3650.409			
	2	0.000			-2736.468			
		0.000	-33.343	118.806				
		6.000	-33.343	-81.250				
		6.000			-2736.468			
	3	0.000			-2724.340			
		0.000	202.621	868.976				
		6.000	202.621	591.261				
		6.000			-2724.340			
	4	0.000			-2748.596			
		0.000	-269.307	-631.364				
		6.000	-269.307	-753.761				
		6.000			-2748.596			
	5	0.000			-1752.908			
		0.000	-256.746	-676.105				
		6.000	-256.746	-723.141				
		6.000			-1752.908			
16	----------							
	1	0.000			-2648.494			
		0.000	-42.516	113.942				
		6.000	-42.516	-141.156				
		6.000			-2648.494			
	2	0.000			-2003.375			
		0.000	-31.065	82.895				
		6.000	-31.065	-103.497				
		6.000			-2003.375			
	3	0.000			-1994.367			
		0.000	158.486	586.001				
		6.000	158.486	548.828				
		6.000			-1994.367			

PERHITUNGAN PEMBEBANAN PADA PORTAL AS C (KN/m)

F R A M E E L E M E N T F O R C E S

ELT ID	LOAD COMB	DIST ENDI	1-2 PLANE SHEAR	1-2 PLANE MOMENT	AXIAL FORCE	1-3 PLANE SHEAR	1-3 PLANE MOMENT	AXIAL TORQ
	4	0.000			-2012.382			
		0.000	-220.617	-420.210				
		6.000	-220.617	-755.823				
		6.000			-2012.382			
	5	0.000			-1291.611			
		0.000	-208.947	-451.518				
		6.000	-208.947	-717.110				
		6.000			-1291.611			
17	----------							
	1	0.000			-1646.079			
		0.000	-31.206	53.483				
		6.000	-31.206	-133.753				
		6.000			-1646.079			
	2	0.000			-1269.790			
		0.000	-22.331	38.142				
		6.000	-22.331	-95.846				
		6.000			-1269.790			
	3	0.000			-1264.265			
		0.000	130.558	410.273				
		6.000	130.558	467.208				
		6.000			-1264.265			
	4	0.000			-1275.315			
		0.000	-175.220	-333.989				
		6.000	-175.220	-658.900				
		6.000			-1275.315			
	5	0.000			-829.587			
		0.000	-166.612	-348.754				
		6.000	-166.612	-622.016				
		6.000			-829.587			
18	----------							
	1	0.000			-646.726			
		0.000	-0.750	-35.540				
		6.000	-0.750	-40.039				
		6.000			-646.726			
	2	0.000			-539.315			
		0.000	-1.157	-28.430				
		6.000	-1.157	-35.374				
		6.000			-539.315			
	3	0.000			-537.047			
		0.000	90.598	166.473				
		6.000	90.598	327.159				

PERHITUNGAN PEMBEBANAN PADA PORTAL AS C (KN/m)

F R A M E E L E M E N T F O R C E S

ELT ID	LOAD COMB	DIST ENDI	1-2 PLANE SHEAR	1-2 PLANE MOMENT	AXIAL FORCE	1-3 PLANE SHEAR	1-3 PLANE MOMENT	AXIAL TORQ
		6.000			-537.047			
	4	0.000			-541.582			
		0.000	-92.912	-223.333				
		6.000	-92.912	-397.906				
		6.000			-541.582			
	5	0.000			-370.136			
		0.000	-92.762	-213.801				
		6.000	-92.762	-387.473				
		6.000			-370.136			
19	----------							
	1	0.000			-2146.236			
		0.000	101.371	-153.014				
		6.000	101.371	455.209				
		6.000			-2146.236			
	2	0.000			-1601.005			
		0.000	74.220	-112.102				
		6.000	74.220	333.219				
		6.000			-1601.005			
	3	0.000			-1263.471			
		0.000	193.698	440.897				
		6.000	193.698	498.282				
		6.000			-1263.471			
	4	0.000			-1938.538			
		0.000	-45.257	-665.100				
		6.000	-45.257	168.157				
		6.000			-1938.538			
	5	0.000			-1352.413			
		0.000	-73.068	-623.128				
		6.000	-73.068	43.265				
		6.000			-1352.413			
20	----------							
	1	0.000			-1689.902			
		0.000	185.786	-572.322				
		6.000	185.786	542.396				
		6.000			-1689.902			
	2	0.000			-1267.035			
		0.000	135.931	-418.920				
		6.000	135.931	396.668				
		6.000			-1267.035			
	3	0.000			-1011.670			
		0.000	247.837	-66.659				

PERHITUNGAN PEMBEBANAN PADA PORTAL AS C (KN/m)

F R A M E E L E M E N T F O R C E S

ELT ID	LOAD COMB	DIST ENDI	1-2 PLANE SHEAR	1-2 PLANE MOMENT	AXIAL FORCE	1-3 PLANE SHEAR	1-3 PLANE MOMENT	AXIAL TORQ
		6.000	247.837	718.112				
		6.000			-1011.670			
	4	0.000			-1522.400			
		0.000	24.026	-771.181				
		6.000	24.026	75.224				
		6.000			-1522.400			
	5	0.000			-1061.482			
		0.000	-26.953	-614.155				
		6.000	-26.953	-73.623				
		6.000			-1061.482			
21	----------							
	1	0.000			-1230.928			
		0.000	171.339	-512.627				
		6.000	171.339	515.406				
		6.000			-1230.928			
	2	0.000			-931.062			
		0.000	125.953	-376.091				
		6.000	125.953	379.630				
		6.000			-931.062			
	3	0.000			-765.187			
		0.000	217.335	-128.602				
		6.000	217.335	686.261				
		6.000			-765.187			
	4	0.000			-1096.937			
		0.000	34.572	-623.579				
		6.000	34.572	73.000				
		6.000			-1096.937			
	5	0.000			-761.944			
		0.000	-12.389	-483.010				
		6.000	-12.389	-68.195				
		6.000			-761.944			
22	----------							
	1	0.000			-769.861			
		0.000	174.621	-549.004				
		6.000	174.621	498.723				
		6.000			-769.861			
	2	0.000			-593.662			
		0.000	125.396	-398.955				
		6.000	125.396	353.421				
		6.000			-593.662			
	3	0.000			-505.293			

PERHITUNGAN PEMBEBANAN PADA PORTAL AS C (KN/m)

F R A M E E L E M E N T F O R C E S

ELT ID	LOAD COMB	DIST ENDI	1-2 PLANE SHEAR	1-2 PLANE MOMENT	AXIAL FORCE	1-3 PLANE SHEAR	1-3 PLANE MOMENT	AXIAL TORQ
		0.000	198.608	-214.597				
		6.000	198.608	613.943				
		6.000			-505.293			
	4	0.000			-682.031			
		0.000	52.184	-583.313				
		6.000	52.184	92.898				
		6.000			-682.031			
	5	0.000			-473.548			
		0.000	4.054	-432.421				
		6.000	4.054	-44.992				
		6.000			-473.548			
23	----------							
	1	0.000			-298.955			
		0.000	219.887	-628.752				
		6.000	219.887	690.570				
		6.000			-298.955			
	2	0.000			-248.119			
		0.000	174.649	-479.076				
		6.000	174.649	568.818				
		6.000			-248.119			
	3	0.000			-219.139			
		0.000	220.300	-375.970				
		6.000	220.300	741.595				
		6.000			-219.139			
	4	0.000			-277.099			
		0.000	128.998	-582.182				
		6.000	128.998	396.041				
		6.000			-277.099			
	5	0.000			-197.739			
		0.000	69.913	-411.387				
		6.000	69.913	212.330				
		6.000			-197.739			
24	----------							
	1	0.000			0.000			
		0.000	324.015	-311.665				
		2.500	259.955	444.992				
		5.000	195.895	988.112				
		5.000			0.000			
	2	0.000			0.000			
		0.000	237.133	-228.194				
		2.500	190.260	325.579				
		5.000	143.388	723.108				

PERHITUNGAN PEMBEBANAN PADA PORTAL AS C (KN/m)

F R A M E E L E M E N T F O R C E S

ELT ID	LOAD COMB	DIST ENDI	1-2 PLANE SHEAR	1-2 PLANE MOMENT	AXIAL FORCE	1-3 PLANE SHEAR	1-3 PLANE MOMENT	AXIAL TORQ
		5.000			0.000			
	3	0.000			0.000			
		0.000	302.136	-5.750				
		2.500	255.264	385.526				
		5.000	208.391	825.695				
		5.000			0.000			
	4	0.000			0.000			
		0.000	172.129	-450.637				
		2.500	125.257	265.632				
		5.000	78.384	620.521				
		5.000			0.000			
	5	0.000			0.000			
		0.000	83.227	-365.133				
		2.500	53.932	143.528				
		5.000	24.637	349.402				
		5.000			0.000			
25	----------							
	1	0.000			0.000			
		0.000	-372.417	988.112				
		2.500	-436.477	3.685				
		5.000	-500.537	-1194.271				
		5.000			0.000			
	2	0.000			0.000			
		0.000	-272.486	723.108				
		2.500	-319.359	2.830				
		5.000	-366.231	-873.686				
		5.000			0.000			
	3	0.000			0.000			
		0.000	-207.483	825.695				
		2.500	-254.355	267.921				
		5.000	-301.228	-446.089				
		5.000			0.000			
	4	0.000			0.000			
		0.000	-337.490	620.521				
		2.500	-384.362	-262.260				
		5.000	-431.235	-1301.282				
		5.000			0.000			
	5	0.000			0.000			
		0.000	-235.301	349.402				
		2.500	-264.596	-263.259				
		5.000	-293.891	-973.571				
		5.000			0.000			

PERHITUNGAN PEMBEBANAN PADA PORTAL AS C (KN/m)

F R A M E E L E M E N T F O R C E S

ELT ID	LOAD COMB	DIST ENDI	1-2 PLANE SHEAR	1-2 PLANE MOMENT	AXIAL FORCE	1-3 PLANE SHEAR	1-3 PLANE MOMENT	AXIAL TORQ
26								
	1	0.000			0.000			
		0.000	501.761	-1359.876				
		2.500	431.278	-164.206				
		3.000	401.804	44.171				
		3.500	372.329	237.598				
		6.000	301.847	1050.948				
		6.000			0.000			
	2	0.000			0.000			
		0.000	367.201	-995.277				
		2.500	315.625	-120.252				
		3.000	294.057	32.247				
		3.500	272.488	173.805				
		6.000	220.912	769.064				
		6.000			0.000			
	3	0.000			0.000			
		0.000	454.901	-469.032				
		2.500	403.325	186.743				
		3.000	381.757	295.391				
		3.500	360.189	393.099				
		6.000	308.612	769.114				
		6.000			0.000			
	4	0.000			0.000			
		0.000	279.501	-1521.522				
		2.500	227.925	-427.246				
		3.000	206.357	-230.898				
		3.500	184.788	-45.489				
		6.000	133.212	769.014				
		6.000			0.000			
	5	0.000			0.000			
		0.000	141.828	-1148.408				
		2.500	109.591	-382.199				
		3.000	96.110	-243.024				
		3.500	82.630	-110.688				
		6.000	50.393	480.652				
		6.000			0.000			
27								
	1	0.000			0.000			
		0.000	-281.225	1050.948				
		2.500	-351.708	289.148				
		3.000	-381.182	106.033				
		3.500	-410.657	-92.034				
		6.000	-481.139	-1236.144				
		6.000			0.000			

PERHITUNGAN PEMBEBANAN PADA PORTAL AS C (KN/m)

F R A M E E L E M E N T F O R C E S

ELT ID	LOAD COMB	DIST ENDI	1-2 PLANE SHEAR	1-2 PLANE MOMENT	AXIAL FORCE	1-3 PLANE SHEAR	1-3 PLANE MOMENT	AXIAL TORQ
	2	0.000			0.000			
		0.000	-205.762	769.064				
		2.500	-257.338	211.678				
		3.000	-278.906	77.695				
		3.500	-300.475	-67.228				
		6.000	-352.051	-904.373				
		6.000			0.000			
	3	0.000			0.000			
		0.000	-118.062	769.114				
		2.500	-169.638	430.884				
		3.000	-191.206	340.751				
		3.500	-212.774	239.678				
		6.000	-264.351	-378.217				
		6.000			0.000			
	4	0.000			0.000			
		0.000	-293.462	769.014				
		2.500	-345.038	-7.528				
		3.000	-366.606	-185.362				
		3.500	-388.175	-374.135				
		6.000	-439.751	-1430.530				
		6.000			0.000			
	5	0.000			0.000			
		0.000	-216.295	480.652				
		2.500	-248.532	-86.858				
		3.000	-262.013	-214.446				
		3.500	-275.494	-348.872				
		6.000	-307.731	-1091.333				
		6.000			0.000			
28	----------							
	1	0.000			0.000			
		0.000	500.676	-1356.455				
		2.500	430.193	-163.499				
		3.000	400.718	44.336				
		3.500	371.244	237.220				
		6.000	300.762	1047.857				
		6.000			0.000			
	2	0.000			0.000			
		0.000	366.357	-992.485				
		2.500	314.781	-119.570				
		3.000	293.213	32.507				
		3.500	271.645	173.643				
		6.000	220.068	766.792				
		6.000			0.000			
	3	0.000			0.000			

PERHITUNGAN PEMBEBANAN PADA PORTAL AS C (KN/m)

F R A M E E L E M E N T F O R C E S

ELT ID	LOAD COMB	DIST ENDI	1-2 PLANE SHEAR	1-2 PLANE MOMENT	AXIAL FORCE	1-3 PLANE SHEAR	1-3 PLANE MOMENT	AXIAL TORQ
		0.000	454.443	-464.144				
		2.500	402.866	188.557				
		3.000	381.298	296.591				
		3.500	359.730	393.685				
		6.000	308.154	766.963				
		6.000			0.000			
	4	0.000			0.000			
		0.000	278.272	-1520.826				
		2.500	226.696	-427.697				
		3.000	205.128	-231.578				
		3.500	183.559	-46.399				
		6.000	131.983	766.622				
		6.000			0.000			
	5	0.000			0.000			
		0.000	140.893	-1148.624				
		2.500	108.656	-382.829				
		3.000	95.175	-243.737				
		3.500	81.694	-111.484				
		6.000	49.457	479.106				
		6.000			0.000			
29	----------							
	1	0.000			0.000			
		0.000	-282.310	1047.857				
		2.500	-352.793	283.343				
		3.000	-382.268	99.685				
		3.500	-411.742	-98.925				
		6.000	-482.224	-1245.748				
		6.000			0.000			
	2	0.000			0.000			
		0.000	-206.606	766.792				
		2.500	-258.182	207.297				
		3.000	-279.750	72.892				
		3.500	-301.318	-72.454				
		6.000	-352.895	-911.708				
		6.000			0.000			
	3	0.000			0.000			
		0.000	-118.520	766.963				
		2.500	-170.097	427.681				
		3.000	-191.665	337.318				
		3.500	-213.233	236.015				
		6.000	-264.809	-383.027				
		6.000			0.000			
	4	0.000			0.000			
		0.000	-294.691	766.622				
		2.500	-346.267	-13.087				

PERHITUNGAN PEMBEBANAN PADA PORTAL AS C (KN/m)

F R A M E E L E M E N T F O R C E S

ELT ID	LOAD COMB	DIST ENDI	1-2 PLANE SHEAR	1-2 PLANE MOMENT	AXIAL FORCE	1-3 PLANE SHEAR	1-3 PLANE MOMENT	AXIAL TORQ
		3.000	-367.835	-191.535				
		3.500	-389.404	-380.923				
		6.000	-440.980	-1440.390				
		6.000			0.000			
	5	0.000			0.000			
		0.000	-217.231	479.106				
		2.500	-249.468	-90.837				
		3.000	-262.949	-218.892				
		3.500	-276.430	-353.785				
		6.000	-308.666	-1098.586				
		6.000			0.000			
30	----------							
	1	0.000			0.000			
		0.000	526.566	-1448.928				
		2.500	456.084	-191.245				
		3.000	426.609	29.535				
		3.500	397.135	235.364				
		6.000	326.652	1110.729				
		6.000			0.000			
	2	0.000			0.000			
		0.000	385.282	-1060.016				
		2.500	333.706	-139.788				
		3.000	312.138	21.751				
		3.500	290.570	172.349				
		6.000	238.993	812.811				
		6.000			0.000			
	3	0.000			0.000			
		0.000	471.179	-542.147				
		2.500	419.602	163.339				
		3.000	398.034	281.929				
		3.500	376.466	389.580				
		6.000	324.890	815.301				
		6.000			0.000			
	4	0.000			0.000			
		0.000	299.386	-1577.884				
		2.500	247.810	-442.915				
		3.000	226.241	-238.428				
		3.500	204.673	-44.881				
		6.000	153.097	810.322				
		6.000			0.000			
	5	0.000			0.000			
		0.000	154.900	-1180.297				
		2.500	122.663	-390.426				
		3.000	109.182	-246.519				
		3.500	95.702	-109.451				

PERHITUNGAN PEMBEBANAN PADA PORTAL AS C (KN/m)

F R A M E E L E M E N T F O R C E S

ELT ID	LOAD COMB	DIST ENDI	1-2 PLANE SHEAR	1-2 PLANE MOMENT	AXIAL FORCE	1-3 PLANE SHEAR	1-3 PLANE MOMENT	AXIAL TORQ
		6.000	63.465	505.556				
		6.000			0.000			
31								
	1	0.000			0.000			
		0.000	-256.420	1110.729				
		2.500	-326.902	410.942				
		3.000	-356.377	240.229				
		3.500	-385.851	54.565				
		6.000	-456.334	-1027.531				
		6.000			0.000			
	2	0.000			0.000			
		0.000	-187.681	812.811				
		2.500	-239.257	300.628				
		3.000	-260.825	175.686				
		3.500	-282.393	39.803				
		6.000	-333.970	-752.139				
		6.000			0.000			
	3	0.000			0.000			
		0.000	-101.784	815.301				
		2.500	-153.361	512.880				
		3.000	-174.929	430.886				
		3.500	-196.497	337.951				
		6.000	-248.073	-239.250				
		6.000			0.000			
	4	0.000			0.000			
		0.000	-273.577	810.322				
		2.500	-325.153	88.376				
		3.000	-346.722	-79.515				
		3.500	-368.290	-258.346				
		6.000	-419.866	-1265.029				
		6.000			0.000			
	5	0.000			0.000			
		0.000	-203.223	505.556				
		2.500	-235.460	-24.388				
		3.000	-248.941	-145.440				
		3.500	-262.422	-273.329				
		6.000	-294.659	-983.110				
		6.000			0.000			
32								
	1	0.000			0.000			
		0.000	335.233	-378.026				
		2.500	271.172	406.674				
		5.000	207.113	977.838				
		5.000			0.000			

PERHITUNGAN PEMBEBANAN PADA PORTAL AS C (KN/m)

F R A M E E L E M E N T F O R C E S

ELT ID	LOAD COMB	DIST ENDI	1-2 PLANE SHEAR	1-2 PLANE MOMENT	AXIAL FORCE	1-3 PLANE SHEAR	1-3 PLANE MOMENT	AXIAL TORQ
	2	0.000			0.000			
		0.000	245.390	-276.892				
		2.500	198.518	297.525				
		5.000	151.645	715.698				
		5.000			0.000			
	3	0.000			0.000			
		0.000	318.825	-14.765				
		2.500	271.953	376.071				
		5.000	225.080	820.756				
		5.000			0.000			
	4	0.000			0.000			
		0.000	171.956	-539.018				
		2.500	125.083	218.979				
		5.000	78.211	610.640				
		5.000			0.000			
	5	0.000			0.000			
		0.000	79.980	-435.318				
		2.500	50.685	107.388				
		5.000	21.390	342.350				
		5.000			0.000			
33	----------							
	1	0.000			0.000			
		0.000	-361.199	977.838				
		2.500	-425.260	21.454				
		5.000	-489.319	-1148.459				
		5.000			0.000			
	2	0.000			0.000			
		0.000	-264.229	715.698				
		2.500	-311.101	16.065				
		5.000	-357.974	-839.807				
		5.000			0.000			
	3	0.000			0.000			
		0.000	-190.794	820.756				
		2.500	-237.666	304.706				
		5.000	-284.539	-367.580				
		5.000			0.000			
	4	0.000			0.000			
		0.000	-337.663	610.640				
		2.500	-384.536	-272.576				
		5.000	-431.408	-1312.034				
		5.000			0.000			
	5	0.000			0.000			

PERHITUNGAN PEMBEBANAN PADA PORTAL AS C (KN/m)

F R A M E E L E M E N T F O R C E S

ELT ID	LOAD COMB	DIST ENDI	1-2 PLANE SHEAR	1-2 PLANE MOMENT	AXIAL FORCE	1-3 PLANE SHEAR	1-3 PLANE MOMENT	AXIAL TORQ
		0.000	-238.548	342.350				
		2.500	-267.843	-278.430				
		5.000	-297.138	-996.860				
		5.000			0.000			
34	----------							
	1	0.000			0.000			
		0.000	505.366	-1379.335				
		2.500	434.884	-174.652				
		3.000	405.409	35.527				
		3.500	375.935	230.756				
		6.000	305.452	1053.120				
		6.000			0.000			
	2	0.000			0.000			
		0.000	369.881	-1009.799				
		2.500	318.305	-128.075				
		3.000	296.736	25.764				
		3.500	275.168	168.661				
		6.000	223.592	770.620				
		6.000			0.000			
	3	0.000			0.000			
		0.000	464.888	-439.865				
		2.500	413.312	204.341				
		3.000	391.743	310.676				
		3.500	370.175	406.071				
		6.000	318.599	770.728				
		6.000			0.000			
	4	0.000			0.000			
		0.000	274.874	-1579.733				
		2.500	223.298	-460.491				
		3.000	201.730	-259.149				
		3.500	180.161	-68.748				
		6.000	128.585	770.513				
		6.000			0.000			
	5	0.000			0.000			
		0.000	136.216	-1201.305				
		2.500	103.979	-412.593				
		3.000	90.498	-268.919				
		3.500	77.017	-132.082				
		6.000	44.780	481.551				
		6.000			0.000			
35	----------							
	1	0.000			0.000			
		0.000	-277.620	1053.120				
		2.500	-348.102	300.333				
		3.000	-377.577	119.020				

PERHITUNGAN PEMBEBANAN PADA PORTAL AS C (KN/m)

F R A M E E L E M E N T F O R C E S

ELT ID	LOAD COMB	DIST ENDI	1-2 PLANE SHEAR	1-2 PLANE MOMENT	AXIAL FORCE	1-3 PLANE SHEAR	1-3 PLANE MOMENT	AXIAL TORQ
		3.500	-407.051	-77.244				
		6.000	-477.534	-1212.340				
		6.000			0.000			
	2	0.000			0.000			
		0.000	-203.082	770.620				
		2.500	-254.658	219.934				
		3.000	-276.227	87.290				
		3.500	-297.795	-56.293				
		6.000	-349.371	-886.739				
		6.000			0.000			
	3	0.000			0.000			
		0.000	-108.075	770.728				
		2.500	-159.651	457.559				
		3.000	-181.220	372.419				
		3.500	-202.788	276.339				
		6.000	-254.364	-316.590				
		6.000			0.000			
	4	0.000			0.000			
		0.000	-298.089	770.513				
		2.500	-349.665	-17.691				
		3.000	-371.233	-197.838				
		3.500	-392.802	-388.925				
		6.000	-444.378	-1456.887				
		6.000			0.000			
	5	0.000			0.000			
		0.000	-221.908	481.551				
		2.500	-254.145	-100.084				
		3.000	-267.626	-230.478				
		3.500	-281.106	-367.710				
		6.000	-313.343	-1124.202				
		6.000			0.000			
36	----------							
	1	0.000			0.000			
		0.000	504.911	-1380.841				
		2.500	434.428	-177.296				
		3.000	404.954	32.656				
		3.500	375.479	227.658				
		6.000	304.997	1048.884				
		6.000			0.000			
	2	0.000			0.000			
		0.000	369.438	-1010.186				
		2.500	317.861	-129.570				
		3.000	296.293	24.047				
		3.500	274.725	166.723				
		6.000	223.149	767.574				

PERHITUNGAN PEMBEBANAN PADA PORTAL AS C (KN/m)

F R A M E E L E M E N T F O R C E S

ELT ID	LOAD COMB	DIST ENDI	1-2 PLANE SHEAR	1-2 PLANE MOMENT	AXIAL FORCE	1-3 PLANE SHEAR	1-3 PLANE MOMENT	AXIAL TORQ
		6.000			0.000			
	3	0.000			0.000			
		0.000	465.241	-435.596				
		2.500	413.664	205.512				
		3.000	392.096	311.228				
		3.500	370.528	406.002				
		6.000	318.952	767.802				
		6.000			0.000			
	4	0.000			0.000			
		0.000	273.635	-1584.776				
		2.500	222.058	-464.652				
		3.000	200.490	-263.134				
		3.500	178.922	-72.556				
		6.000	127.346	767.346				
		6.000			0.000			
	5	0.000			0.000			
		0.000	135.091	-1205.870				
		2.500	102.854	-415.989				
		3.000	89.373	-272.080				
		3.500	75.892	-135.010				
		6.000	43.656	479.551				
		6.000			0.000			
37	----------							
	1	0.000			0.000			
		0.000	-278.075	1048.884				
		2.500	-348.558	294.959				
		3.000	-378.032	113.419				
		3.500	-407.507	-83.073				
		6.000	-477.989	-1219.307				
		6.000			0.000			
	2	0.000			0.000			
		0.000	-203.525	767.574				
		2.500	-255.102	215.779				
		3.000	-276.670	82.914				
		3.500	-298.238	-60.891				
		6.000	-349.814	-892.445				
		6.000			0.000			
	3	0.000			0.000			
		0.000	-107.722	767.802				
		2.500	-159.299	455.515				
		3.000	-180.867	370.551				
		3.500	-202.435	274.648				
		6.000	-254.011	-317.399				
		6.000			0.000			

PERHITUNGAN PEMBEBANAN PADA PORTAL AS C (KN/m)

F R A M E E L E M E N T F O R C E S

ELT ID	LOAD COMB	DIST ENDI	1-2 PLANE SHEAR	1-2 PLANE MOMENT	AXIAL FORCE	1-3 PLANE SHEAR	1-3 PLANE MOMENT	AXIAL TORQ
	4	0.000			0.000			
		0.000	-299.328	767.346				
		2.500	-350.905	-23.957				
		3.000	-372.473	-204.723				
		3.500	-394.041	-396.430				
		6.000	-445.617	-1467.491				
		6.000			0.000			
	5	0.000			0.000			
		0.000	-223.032	479.551				
		2.500	-255.269	-104.895				
		3.000	-268.750	-235.851				
		3.500	-282.231	-373.645				
		6.000	-314.468	-1132.949				
		6.000			0.000			
38	----------							
	1	0.000			0.000			
		0.000	523.926	-1444.733				
		2.500	453.443	-193.651				
		3.000	423.969	25.809				
		3.500	394.494	230.318				
		6.000	324.012	1099.080				
		6.000			0.000			
	2	0.000			0.000			
		0.000	383.279	-1056.590				
		2.500	331.702	-141.372				
		3.000	310.134	19.165				
		3.500	288.566	168.762				
		6.000	236.990	804.215				
		6.000			0.000			
	3	0.000			0.000			
		0.000	475.946	-497.827				
		2.500	424.369	185.723				
		3.000	402.801	299.927				
		3.500	381.233	403.190				
		6.000	329.657	806.975				
		6.000			0.000			
	4	0.000			0.000			
		0.000	290.611	-1615.354				
		2.500	239.035	-468.467				
		3.000	217.467	-261.596				
		3.500	195.899	-65.666				
		6.000	144.322	801.454				
		6.000			0.000			
	5	0.000			0.000			

PERHITUNGAN PEMBEBANAN PADA PORTAL AS C (KN/m)

F R A M E E L E M E N T F O R C E S

ELT ID	LOAD COMB	DIST ENDI	1-2 PLANE SHEAR	1-2 PLANE MOMENT	AXIAL FORCE	1-3 PLANE SHEAR	1-3 PLANE MOMENT	AXIAL TORQ
		0.000	146.844	-1218.885				
		2.500	114.607	-415.301				
		3.000	101.126	-268.652				
		3.500	87.645	-128.841				
		6.000	55.408	499.878				
		6.000			0.000			
39								
	1	0.000			0.000			
		0.000	-259.060	1099.080				
		2.500	-329.543	392.692				
		3.000	-359.017	220.659				
		3.500	-388.492	33.675				
		6.000	-458.974	-1055.023				
		6.000			0.000			
	2	0.000			0.000			
		0.000	-189.684	804.215				
		2.500	-241.261	287.022				
		3.000	-262.829	161.078				
		3.500	-284.397	24.193				
		6.000	-335.973	-772.759				
		6.000			0.000			
	3	0.000			0.000			
		0.000	-97.017	806.975				
		2.500	-148.594	515.930				
		3.000	-170.162	436.320				
		3.500	-191.730	345.768				
		6.000	-243.306	-219.516				
		6.000			0.000			
	4	0.000			0.000			
		0.000	-282.352	801.454				
		2.500	-333.928	58.114				
		3.000	-355.496	-114.164				
		3.500	-377.064	-297.382				
		6.000	-428.641	-1326.001				
		6.000			0.000			
	5	0.000			0.000			
		0.000	-211.280	499.878				
		2.500	-243.517	-49.666				
		3.000	-256.997	-174.745				
		3.500	-270.478	-306.663				
		6.000	-302.715	-1036.585				
		6.000			0.000			
40								
	1	0.000			0.000			
		0.000	313.640	-213.241				

PERHITUNGAN PEMBEBANAN PADA PORTAL AS C (KN/m)

F R A M E E L E M E N T F O R C E S

ELT ID	LOAD COMB	DIST ENDI	1-2 PLANE SHEAR	1-2 PLANE MOMENT	AXIAL FORCE	1-3 PLANE SHEAR	1-3 PLANE MOMENT	AXIAL TORQ
		2.500	249.580	517.478				
		5.000	185.520	1034.660				
		5.000			0.000			
	2	0.000			0.000			
		0.000	229.530	-156.207				
		2.500	182.657	378.559				
		5.000	135.785	757.081				
		5.000			0.000			
	3	0.000			0.000			
		0.000	279.384	-18.602				
		2.500	232.511	393.153				
		5.000	185.639	869.147				
		5.000			0.000			
	4	0.000			0.000			
		0.000	179.676	-293.811				
		2.500	132.803	363.965				
		5.000	85.931	645.014				
		5.000			0.000			
	5	0.000			0.000			
		0.000	93.619	-235.316				
		2.500	64.324	221.967				
		5.000	35.029	361.115				
		5.000			0.000			
41	----------							
	1	0.000			0.000			
		0.000	-382.792	1034.660				
		2.500	-446.852	24.295				
		5.000	-510.912	-1199.599				
		5.000			0.000			
	2	0.000			0.000			
		0.000	-280.089	757.081				
		2.500	-326.962	17.796				
		5.000	-373.834	-877.727				
		5.000			0.000			
	3	0.000			0.000			
		0.000	-230.235	869.147				
		2.500	-277.108	254.382				
		5.000	-323.980	-516.542				
		5.000			0.000			
	4	0.000			0.000			
		0.000	-329.943	645.014				
		2.500	-376.816	-218.790				
		5.000	-423.688	-1238.912				

PERHITUNGAN PEMBEBANAN PADA PORTAL AS C (KN/m)

F R A M E E L E M E N T F O R C E S

ELT	LOAD	DIST	1-2 PLANE		AXIAL	1-3 PLANE		AXIAL
ID	COMB	ENDI	SHEAR	MOMENT	FORCE	SHEAR	MOMENT	TORQ
		5.000			0.000			
	5	0.000			0.000			
		0.000	-224.909	361.115				
		2.500	-254.204	-225.454				
		5.000	-283.499	-909.751				
		5.000			0.000			
42	----------							
	1	0.000			0.000			
		0.000	507.735	-1401.944				
		2.500	437.252	-191.339				
		3.000	407.778	20.025				
		3.500	378.303	216.439				
		6.000	307.821	1044.725				
		6.000			0.000			
	2	0.000			0.000			
		0.000	371.582	-1025.918				
		2.500	320.006	-139.942				
		3.000	298.437	14.747				
		3.500	276.869	158.495				
		6.000	225.293	764.706				
		6.000			0.000			
	3	0.000			0.000			
		0.000	452.489	-540.815				
		2.500	400.913	142.893				
		3.000	379.344	257.129				
		3.500	357.776	360.423				
		6.000	306.200	765.078				
		6.000			0.000			
	4	0.000			0.000			
		0.000	290.675	-1511.022				
		2.500	239.098	-422.777				
		3.000	217.530	-227.635				
		3.500	195.962	-43.433				
		6.000	144.386	764.334				
		6.000			0.000			
	5	0.000			0.000			
		0.000	151.363	-1126.352				
		2.500	119.126	-370.270				
		3.000	105.646	-233.121				
		3.500	92.165	-102.810				
		6.000	59.928	477.696				
		6.000			0.000			
43	----------							
	1	0.000			0.000			

PERHITUNGAN PEMBEBANAN PADA PORTAL AS C (KN/m)

F R A M E E L E M E N T F O R C E S

ELT	LOAD	DIST	1-2 PLANE		AXIAL	1-3 PLANE		AXIAL
ID	COMB	ENDI	SHEAR	MOMENT	FORCE	SHEAR	MOMENT	TORQ
		0.000	-275.251	1044.725				
		2.500	-345.734	297.860				
		3.000	-375.208	117.731				
		3.500	-404.683	-77.348				
		6.000	-475.165	-1206.522				
		6.000			0.000			
	2	0.000			0.000			
		0.000	-201.381	764.706				
		2.500	-252.957	218.271				
		3.000	-274.526	86.479				
		3.500	-296.094	-56.254				
		6.000	-347.670	-882.448				
		6.000			0.000			
	3	0.000			0.000			
		0.000	-120.474	765.078				
		2.500	-172.050	420.879				
		3.000	-193.619	329.540				
		3.500	-215.187	227.260				
		6.000	-266.763	-396.666				
		6.000			0.000			
	4	0.000			0.000			
		0.000	-282.288	764.334				
		2.500	-333.865	15.664				
		3.000	-355.433	-156.582				
		3.500	-377.001	-339.769				
		6.000	-428.577	-1368.230				
		6.000			0.000			
	5	0.000			0.000			
		0.000	-206.760	477.696				
		2.500	-238.997	-66.036				
		3.000	-252.478	-188.856				
		3.500	-265.959	-318.514				
		6.000	-298.196	-1037.138				
		6.000			0.000			
44	----------							
	1	0.000			0.000			
		0.000	502.317	-1364.770				
		2.500	431.835	-167.709				
		3.000	402.360	40.946				
		3.500	372.886	234.651				
		6.000	302.403	1049.392				
		6.000			0.000			
	2	0.000			0.000			
		0.000	367.520	-998.385				
		2.500	315.943	-122.564				

PERHITUNGAN PEMBEBANAN PADA PORTAL AS C (KN/m)

F R A M E E L E M E N T F O R C E S

ELT ID	LOAD COMB	DIST ENDI	1-2 PLANE SHEAR	1-2 PLANE MOMENT	AXIAL FORCE	1-3 PLANE SHEAR	1-3 PLANE MOMENT	AXIAL TORQ
		3.000	294.375	30.093				
		3.500	272.807	171.810				
		6.000	221.231	767.865				
		6.000			0.000			
	3	0.000			0.000			
		0.000	449.606	-506.036				
		2.500	398.029	164.568				
		3.000	376.461	276.183				
		3.500	354.893	376.857				
		6.000	303.317	768.036				
		6.000			0.000			
	4	0.000			0.000			
		0.000	285.433	-1490.733				
		2.500	233.857	-409.697				
		3.000	212.289	-215.996				
		3.500	190.721	-33.236				
		6.000	139.144	767.695				
		6.000			0.000			
	5	0.000			0.000			
		0.000	147.600	-1116.233				
		2.500	115.363	-363.665				
		3.000	101.882	-227.219				
		3.500	88.401	-97.611				
		6.000	56.164	479.754				
		6.000			0.000			
45	----------							
	1	0.000			0.000			
		0.000	-280.669	1049.392				
		2.500	-351.151	288.983				
		3.000	-380.626	106.146				
		3.500	-410.100	-91.642				
		6.000	-480.583	-1234.361				
		6.000			0.000			
	2	0.000			0.000			
		0.000	-205.443	767.865				
		2.500	-257.020	211.275				
		3.000	-278.588	77.451				
		3.500	-300.156	-67.313				
		6.000	-351.732	-903.662				
		6.000			0.000			
	3	0.000			0.000			
		0.000	-123.357	768.036				
		2.500	-174.934	416.659				
		3.000	-196.502	323.878				
		3.500	-218.070	220.157				

PERHITUNGAN PEMBEBANAN PADA PORTAL AS C (KN/m)

F R A M E E L E M E N T F O R C E S

ELT ID	LOAD COMB	DIST ENDI	1-2 PLANE SHEAR	1-2 PLANE MOMENT	AXIAL FORCE	1-3 PLANE SHEAR	1-3 PLANE MOMENT	AXIAL TORQ
		6.000	-269.646	-410.978				
		6.000			0.000			
	4	0.000			0.000			
		0.000	-287.530	767.695				
		2.500	-339.106	5.891				
		3.000	-360.674	-168.976				
		3.500	-382.242	-354.783				
		6.000	-433.819	-1396.347				
		6.000			0.000			
	5	0.000			0.000			
		0.000	-210.524	479.754				
		2.500	-242.761	-73.419				
		3.000	-256.242	-198.121				
		3.500	-269.722	-329.661				
		6.000	-301.959	-1057.694				
		6.000			0.000			
46	---	---	---	---	---	---	---	---
	1	0.000			0.000			
		0.000	521.833	-1429.000				
		2.500	451.350	-183.151				
		3.000	421.875	35.262				
		3.500	392.401	238.724				
		6.000	321.919	1102.253				
		6.000			0.000			
	2	0.000			0.000			
		0.000	381.852	-1045.302				
		2.500	330.276	-133.649				
		3.000	308.708	26.175				
		3.500	287.139	175.059				
		6.000	235.563	806.945				
		6.000			0.000			
	3	0.000			0.000			
		0.000	460.451	-571.444				
		2.500	408.874	143.713				
		3.000	387.306	264.238				
		3.500	365.738	373.822				
		6.000	314.162	809.214				
		6.000			0.000			
	4	0.000			0.000			
		0.000	303.254	-1519.160				
		2.500	251.678	-411.011				
		3.000	230.109	-211.888				
		3.500	208.541	-23.705				
		6.000	156.965	804.677				
		6.000			0.000			

PERHITUNGAN PEMBEBANAN PADA PORTAL AS C (KN/m)

F R A M E E L E M E N T F O R C E S

ELT ID	LOAD COMB	DIST ENDI	1-2 PLANE SHEAR	1-2 PLANE MOMENT	AXIAL FORCE	1-3 PLANE SHEAR	1-3 PLANE MOMENT	AXIAL TORQ
	5	0.000			0.000			
		0.000	160.070	-1127.028				
		2.500	127.833	-360.723				
		3.000	114.353	-221.529				
		3.500	100.872	-89.174				
		6.000	68.635	502.268				
		6.000			0.000			
47	----------							
	1	0.000			0.000			
		0.000	-261.153	1102.253				
		2.500	-331.636	390.632				
		3.000	-361.111	217.552				
		3.500	-390.585	29.521				
		6.000	-461.067	-1064.410				
		6.000			0.000			
	2	0.000			0.000			
		0.000	-191.111	806.945				
		2.500	-242.687	286.187				
		3.000	-264.255	159.530				
		3.500	-285.824	21.932				
		6.000	-337.400	-778.585				
		6.000			0.000			
	3	0.000			0.000			
		0.000	-112.512	809.214				
		2.500	-164.089	480.415				
		3.000	-185.657	393.057				
		3.500	-207.225	294.758				
		6.000	-258.801	-309.264				
		6.000			0.000			
	4	0.000			0.000			
		0.000	-269.709	804.677				
		2.500	-321.285	91.959				
		3.000	-342.854	-73.998				
		3.500	-364.422	-250.895				
		6.000	-415.998	-1247.907				
		6.000			0.000			
	5	0.000			0.000			
		0.000	-198.053	502.268				
		2.500	-230.290	-15.194				
		3.000	-243.771	-133.660				
		3.500	-257.252	-258.965				
		6.000	-289.489	-955.821				
		6.000			0.000			

PERHITUNGAN PEMBEBANAN PADA PORTAL AS C (KN/m)

F R A M E E L E M E N T F O R C E S

ELT ID	LOAD COMB	DIST ENDI	1-2 PLANE SHEAR	1-2 PLANE MOMENT	AXIAL FORCE	1-3 PLANE SHEAR	1-3 PLANE MOMENT	AXIAL TORQ
48								
	1	0.000			0.000			
		0.000	485.753	-1234.436				
		2.500	415.271	-78.785				
		3.000	385.796	121.588				
		3.500	356.322	307.011				
		6.000	285.839	1080.342				
		6.000			0.000			
	2	0.000			0.000			
		0.000	355.891	-906.921				
		2.500	304.315	-60.171				
		3.000	282.747	86.673				
		3.500	261.179	222.576				
		6.000	209.602	789.560				
		6.000			0.000			
	3	0.000			0.000			
		0.000	420.871	-509.396				
		2.500	369.295	174.904				
		3.000	347.727	289.257				
		3.500	326.159	392.670				
		6.000	274.582	797.206				
		6.000			0.000			
	4	0.000			0.000			
		0.000	290.911	-1304.446				
		2.500	239.335	-295.245				
		3.000	217.767	-115.912				
		3.500	196.198	52.481				
		6.000	144.622	781.915				
		6.000			0.000			
	5	0.000			0.000			
		0.000	157.667	-966.063				
		2.500	125.430	-273.857				
		3.000	111.949	-149.483				
		3.500	98.469	-31.947				
		6.000	66.232	485.394				
		6.000			0.000			
49								
	1	0.000			0.000			
		0.000	-297.233	1080.342				
		2.500	-367.715	278.523				
		3.000	-397.190	87.403				
		3.500	-426.664	-118.667				
		6.000	-497.147	-1302.796				
		6.000			0.000			

PERHITUNGAN PEMBEBANAN PADA PORTAL AS C (KN/m)

F R A M E E L E M E N T F O R C E S

ELT ID	LOAD COMB	DIST ENDI	1-2 PLANE SHEAR	1-2 PLANE MOMENT	AXIAL FORCE	1-3 PLANE SHEAR	1-3 PLANE MOMENT	AXIAL TORQ
	2	0.000			0.000			
		0.000	-217.072	789.560				
		2.500	-268.648	203.900				
		3.000	-290.216	64.262				
		3.500	-311.784	-86.317				
		6.000	-363.361	-951.736				
		6.000			0.000			
	3	0.000			0.000			
		0.000	-152.092	797.206				
		2.500	-203.668	358.706				
		3.000	-225.236	251.558				
		3.500	-246.804	133.469				
		6.000	-298.381	-569.500				
		6.000			0.000			
	4	0.000			0.000			
		0.000	-282.052	781.915				
		2.500	-333.628	49.093				
		3.000	-355.196	-123.035				
		3.500	-376.765	-306.103				
		6.000	-428.341	-1333.972				
		6.000			0.000			
	5	0.000			0.000			
		0.000	-200.456	485.394				
		2.500	-232.693	-27.321				
		3.000	-246.174	-146.989				
		3.500	-259.655	-273.495				
		6.000	-291.892	-976.359				
		6.000			0.000			
50	---	---	---	---	---	---	---	---
	1	0.000			0.000			
		0.000	495.541	-1324.890				
		2.500	425.059	-144.769				
		3.000	395.584	60.498				
		3.500	366.110	250.815				
		6.000	295.627	1048.616				
		6.000			0.000			
	2	0.000			0.000			
		0.000	362.486	-968.397				
		2.500	310.910	-105.160				
		3.000	289.341	44.981				
		3.500	267.773	184.181				
		6.000	216.197	767.652				
		6.000			0.000			
	3	0.000			0.000			

PERHITUNGAN PEMBEBANAN PADA PORTAL AS C (KN/m)

F R A M E E L E M E N T F O R C E S

ELT ID	LOAD COMB	DIST ENDI	1-2 PLANE SHEAR	1-2 PLANE MOMENT	AXIAL FORCE	1-3 PLANE SHEAR	1-3 PLANE MOMENT	AXIAL TORQ
		0.000	425.192	-592.650				
		2.500	373.615	113.822				
		3.000	352.047	232.610				
		3.500	330.479	340.457				
		6.000	278.903	768.142				
		6.000			0.000			
	4	0.000			0.000			
		0.000	299.780	-1344.143				
		2.500	248.204	-324.142				
		3.000	226.636	-142.648				
		3.500	205.067	27.905				
		6.000	153.491	767.162				
		6.000			0.000			
	5	0.000			0.000			
		0.000	163.799	-980.512				
		2.500	131.562	-284.349				
		3.000	118.081	-159.184				
		3.500	104.600	-40.857				
		6.000	72.363	479.465				
		6.000			0.000			
51	---	---	---	---	---	---	---	---
	1	0.000			0.000			
		0.000	-287.445	1048.616				
		2.500	-357.927	271.267				
		3.000	-387.402	85.042				
		3.500	-416.876	-116.135				
		6.000	-487.359	-1275.793				
		6.000			0.000			
	2	0.000			0.000			
		0.000	-210.477	767.652				
		2.500	-262.053	198.477				
		3.000	-283.622	62.137				
		3.500	-305.190	-85.145				
		6.000	-356.766	-934.078				
		6.000			0.000			
	3	0.000			0.000			
		0.000	-147.771	768.142				
		2.500	-199.348	355.729				
		3.000	-220.916	250.741				
		3.500	-242.484	134.813				
		6.000	-294.060	-557.356				
		6.000			0.000			
	4	0.000			0.000			
		0.000	-273.183	767.162				
		2.500	-324.759	41.225				

PERHITUNGAN PEMBEBANAN PADA PORTAL AS C (KN/m)

F R A M E E L E M E N T F O R C E S

ELT ID	LOAD COMB	DIST ENDI	1-2 PLANE SHEAR	1-2 PLANE MOMENT	AXIAL FORCE	1-3 PLANE SHEAR	1-3 PLANE MOMENT	AXIAL TORQ
		3.000	-346.327	-126.468				
		3.500	-367.896	-305.102				
		6.000	-419.472	-1310.799				
		6.000			0.000			
	5	0.000			0.000			
		0.000	-194.325	479.465				
		2.500	-226.561	-33.209				
		3.000	-240.042	-149.811				
		3.500	-253.523	-273.251				
		6.000	-285.760	-960.786				
		6.000			0.000			
52	----------							
	1	0.000			0.000			
		0.000	511.994	-1374.006				
		2.500	441.512	-152.753				
		3.000	412.037	60.740				
		3.500	382.563	259.283				
		6.000	312.080	1098.217				
		6.000			0.000			
	2	0.000			0.000			
		0.000	373.709	-1001.494				
		2.500	322.133	-110.199				
		3.000	300.564	45.553				
		3.500	278.996	190.365				
		6.000	227.420	801.894				
		6.000			0.000			
	3	0.000			0.000			
		0.000	433.187	-643.080				
		2.500	381.610	99.519				
		3.000	360.042	225.533				
		3.500	338.474	340.606				
		6.000	286.898	803.441				
		6.000			0.000			
	4	0.000			0.000			
		0.000	314.231	-1359.907				
		2.500	262.655	-319.918				
		3.000	241.087	-134.427				
		3.500	219.519	40.124				
		6.000	167.942	800.346				
		6.000			0.000			
	5	0.000			0.000			
		0.000	173.661	-982.540				
		2.500	141.425	-277.861				
		3.000	127.944	-150.992				
		3.500	114.463	-30.962				

PERHITUNGAN PEMBEBANAN PADA PORTAL AS C (KN/m)

F R A M E E L E M E N T F O R C E S

ELT ID	LOAD COMB	DIST ENDI	1-2 PLANE SHEAR	1-2 PLANE MOMENT	AXIAL FORCE	1-3 PLANE SHEAR	1-3 PLANE MOMENT	AXIAL TORQ
		6.000	82.226	498.853				
		6.000			0.000			
53								
	1	0.000			0.000			
		0.000	-270.992	1098.217				
		2.500	-341.474	362.001				
		3.000	-370.949	184.001				
		3.500	-400.423	-8.949				
		6.000	-470.906	-1127.475				
		6.000			0.000			
	2	0.000			0.000			
		0.000	-199.254	801.894				
		2.500	-250.830	260.777				
		3.000	-272.399	130.048				
		3.500	-293.967	-11.622				
		6.000	-345.543	-832.497				
		6.000			0.000			
	3	0.000			0.000			
		0.000	-139.776	803.441				
		2.500	-191.353	407.924				
		3.000	-212.921	306.934				
		3.500	-234.489	195.003				
		6.000	-286.065	-477.179				
		6.000			0.000			
	4	0.000			0.000			
		0.000	-258.732	800.346				
		2.500	-310.308	113.630				
		3.000	-331.876	-46.838				
		3.500	-353.444	-218.246				
		6.000	-405.021	-1187.815				
		6.000			0.000			
	5	0.000			0.000			
		0.000	-184.462	498.853				
		2.500	-216.699	13.928				
		3.000	-230.180	-97.743				
		3.500	-243.661	-216.252				
		6.000	-275.898	-879.130				
		6.000			0.000			
54								
	1	0.000			0.000			
		0.000	306.758	-760.487				
		2.500	261.603	-31.219				
		3.000	242.720	94.931				
		3.500	223.837	211.502				
		6.000	178.682	695.836				

PERHITUNGAN PEMBEBANAN PADA PORTAL AS C (KN/m)

F R A M E E L E M E N T F O R C E S

ELT ID	LOAD COMB	DIST ENDI	1-2 PLANE SHEAR	1-2 PLANE MOMENT	AXIAL FORCE	1-3 PLANE SHEAR	1-3 PLANE MOMENT	AXIAL TORQ
		6.000			0.000			
	2	0.000			0.000			
		0.000	254.775	-628.422				
		2.500	217.182	-22.812				
		3.000	201.462	81.906				
		3.500	185.741	178.650				
		6.000	148.149	580.347				
		6.000			0.000			
	3	0.000			0.000			
		0.000	286.787	-432.654				
		2.500	249.194	92.927				
		3.000	233.474	181.639				
		3.500	217.753	262.377				
		6.000	180.161	584.049				
		6.000			0.000			
	4	0.000			0.000			
		0.000	222.763	-824.191				
		2.500	185.170	-138.550				
		3.000	169.450	-17.826				
		3.500	153.729	94.923				
		6.000	116.137	576.646				
		6.000			0.000			
	5	0.000			0.000			
		0.000	141.347	-622.063				
		2.500	115.731	-129.981				
		3.000	105.019	-42.743				
		3.500	94.306	39.061				
		6.000	68.690	392.189				
		6.000			0.000			
55	----------							
	1	0.000			0.000			
		0.000	-194.862	695.836				
		2.500	-240.017	171.051				
		3.000	-258.900	46.390				
		3.500	-277.783	-87.849				
		6.000	-322.938	-857.562				
		6.000			0.000			
	2	0.000			0.000			
		0.000	-162.838	580.347				
		2.500	-200.431	141.923				
		3.000	-216.151	37.835				
		3.500	-231.872	-74.228				
		6.000	-269.464	-716.561				
		6.000			0.000			

PERHITUNGAN PEMBEBANAN PADA PORTAL AS C (KN/m)

F R A M E E L E M E N T F O R C E S

ELT ID	LOAD COMB	DIST ENDI	1-2 PLANE SHEAR	1-2 PLANE MOMENT	AXIAL FORCE	1-3 PLANE SHEAR	1-3 PLANE MOMENT	AXIAL TORQ
	3	0.000			0.000			
		0.000	-130.826	584.049				
		2.500	-168.419	218.257				
		3.000	-184.139	130.174				
		3.500	-199.860	34.117				
		6.000	-237.452	-528.186				
		6.000			0.000			
	4	0.000			0.000			
		0.000	-194.850	576.646				
		2.500	-232.443	65.590				
		3.000	-248.163	-54.505				
		3.500	-263.884	-182.574				
		6.000	-301.476	-904.936				
		6.000			0.000			
	5	0.000			0.000			
		0.000	-143.224	392.189				
		2.500	-168.840	20.179				
		3.000	-179.552	-66.880				
		3.500	-190.265	-159.373				
		6.000	-215.881	-677.727				
		6.000			0.000			
56	---	---	---	---	---	---	---	---
	1	0.000			0.000			
		0.000	313.711	-827.606				
		2.500	268.556	-80.955				
		3.000	249.673	48.670				
		3.500	230.790	168.717				
		6.000	185.635	670.433				
		6.000			0.000			
	2	0.000			0.000			
		0.000	261.044	-688.537				
		2.500	223.451	-67.254				
		3.000	207.731	40.599				
		3.500	192.010	140.477				
		6.000	154.418	557.848				
		6.000			0.000			
	3	0.000			0.000			
		0.000	292.249	-501.640				
		2.500	254.656	41.632				
		3.000	238.936	133.882				
		3.500	223.215	218.158				
		6.000	185.623	558.180				
		6.000			0.000			
	4	0.000			0.000			

PERHITUNGAN PEMBEBANAN PADA PORTAL AS C (KN/m)

F R A M E E L E M E N T F O R C E S

ELT ID	LOAD COMB	DIST ENDI	1-2 PLANE SHEAR	1-2 PLANE MOMENT	AXIAL FORCE	1-3 PLANE SHEAR	1-3 PLANE MOMENT	AXIAL TORQ
		0.000	229.839	-875.435				
		2.500	192.246	-176.139				
		3.000	176.526	-52.685				
		3.500	160.805	62.796				
		6.000	123.213	557.516				
		6.000			0.000			
	5	0.000			0.000			
		0.000	146.623	-655.891				
		2.500	121.007	-154.655				
		3.000	110.295	-65.586				
		3.500	99.583	18.049				
		6.000	73.966	379.672				
		6.000			0.000			
57	----------							
	1	0.000			0.000			
		0.000	-187.909	670.433				
		2.500	-233.064	163.030				
		3.000	-251.947	41.845				
		3.500	-270.830	-88.917				
		6.000	-315.985	-841.249				
		6.000			0.000			
	2	0.000			0.000			
		0.000	-156.569	557.848				
		2.500	-194.162	135.097				
		3.000	-209.882	34.142				
		3.500	-225.603	-74.786				
		6.000	-263.195	-701.445				
		6.000			0.000			
	3	0.000			0.000			
		0.000	-125.364	558.180				
		2.500	-162.957	213.439				
		3.000	-178.677	128.088				
		3.500	-194.398	34.762				
		6.000	-231.990	-513.886				
		6.000			0.000			
	4	0.000			0.000			
		0.000	-187.774	557.516				
		2.500	-225.367	56.754				
		3.000	-241.087	-59.803				
		3.500	-256.808	-184.334				
		6.000	-294.400	-889.005				
		6.000			0.000			
	5	0.000			0.000			
		0.000	-137.948	379.672				
		2.500	-163.564	13.457				

PERHITUNGAN PEMBEBANAN PADA PORTAL AS C (KN/m)

F R A M E E L E M E N T F O R C E S

ELT ID	LOAD COMB	DIST ENDI	1-2 PLANE SHEAR	1-2 PLANE MOMENT	AXIAL FORCE	1-3 PLANE SHEAR	1-3 PLANE MOMENT	AXIAL TORQ
		3.000	-174.276	-70.964				
		3.500	-184.988	-160.819				
		6.000	-210.605	-665.983				
		6.000			0.000			
58								
	1	0.000			0.000			
		0.000	330.741	-881.288				
		2.500	285.586	-92.063				
		3.000	266.703	46.078				
		3.500	247.820	174.640				
		6.000	202.665	718.931				
		6.000			0.000			
	2	0.000			0.000			
		0.000	276.120	-736.819				
		2.500	238.527	-77.846				
		3.000	222.807	37.545				
		3.500	207.086	144.961				
		6.000	169.494	600.020				
		6.000			0.000			
	3	0.000			0.000			
		0.000	305.100	-561.836				
		2.500	267.507	24.687				
		3.000	251.787	125.588				
		3.500	236.066	218.514				
		6.000	198.474	601.125				
		6.000			0.000			
	4	0.000			0.000			
		0.000	247.140	-911.803				
		2.500	209.547	-180.379				
		3.000	193.826	-50.499				
		3.500	178.106	71.407				
		6.000	140.514	598.916				
		6.000			0.000			
	5	0.000			0.000			
		0.000	159.489	-678.347				
		2.500	133.872	-156.071				
		3.000	123.160	-62.794				
		3.500	112.448	25.049				
		6.000	86.832	408.373				
		6.000			0.000			
59								
	1	0.000			0.000			
		0.000	-170.879	718.931				
		2.500	-216.034	254.103				
		3.000	-234.917	141.434				

PERHITUNGAN PEMBEBANAN PADA PORTAL AS C (KN/m)

F R A M E E L E M E N T F O R C E S

ELT ID	LOAD COMB	DIST ENDI	1-2 PLANE SHEAR	1-2 PLANE MOMENT	AXIAL FORCE	1-3 PLANE SHEAR	1-3 PLANE MOMENT	AXIAL TORQ
		3.500	-253.800	19.186				
		6.000	-298.955	-690.570				
		6.000			0.000			
2		0.000			0.000			
		0.000	-141.493	600.020				
		2.500	-179.086	214.959				
		3.000	-194.806	121.543				
		3.500	-210.527	20.152				
		6.000	-248.119	-568.818				
		6.000			0.000			
3		0.000			0.000			
		0.000	-112.513	601.125				
		2.500	-150.106	286.306				
		3.000	-165.826	207.380				
		3.500	-181.547	120.479				
		6.000	-219.139	-396.041				
		6.000			0.000			
4		0.000			0.000			
		0.000	-170.473	598.916				
		2.500	-208.066	143.612				
		3.000	-223.787	35.706				
		3.500	-239.507	-80.175				
		6.000	-277.099	-741.595				
		6.000			0.000			
5		0.000			0.000			
		0.000	-125.082	408.373				
		2.500	-150.699	76.527				
		3.000	-161.411	-1.461				
		3.500	-172.123	-84.884				
		6.000	-197.739	-557.884				
		6.000			0.000			