(POSITIVE HORIZONTAL DISPLACEMENT IS TOWARD STRUCTURE CENTERLINE.)
(POSITIVE VERTICAL DISPLACEMENT IS DOWN.)
(POSITIVE ROTATION IS COUNTERCLOCKWISE.)

JT NO	DISTANCE FROM CTR-LINE (FT)	ELEVATION (FT)	<----DISPLACEMENT (FT OR RADIANS)----> HORIZONTAL	VERTICAL	ROTATION
		***** BASE JOINTS *****			
1	.00	-18.00	0.000E+00	-1.080E-03	0.000E+00
2	8.50	-18.00	1.583E-04	-8.277E-04	-5.443E-05
3	17.00	-18.00	3.166E-04	-1.775E-04	-8.042E-05
4	25.50	-18.00	4.750E-04	4.828E-04	-3.537E-05
5	34.00	-18.00	6.334E-04	3.165E-04	1.439E-04
6	40.50	-18.00	7.126E-04	-1.195E-03	3.062E-04
7	44.00	-18.00	7.202E-04	-2.266E-03	3.059E-04
		***** STEM JOINTS *****			
8	38.50	13.70	2.433E-02	4.682E-04	5.202E-04
9	40.50	25.80	2.975E-02	-2.561E-04	3.838E-04

II.B.-- LEFTSIDE DISPLACEMENTS - TYPE 1 MONOLITH
SYMMETRIC WITH RIGHTSIDE

III.--UNFACTORED FORCES AT ENDS OF MEMBERS
(MEMBER FORCES ARE GIVEN AT ENDS OF FLEXIBLE LENGTH.)

III.A.--RIGHTSIDE MEMBERS - TYPE 1 MONOLITH
(POSITIVE AXIAL FORCE IS COMPRESSION.)
(POSITIVE SHEAR FORCE TENDS TO MOVE MEMBER UPWARD OR TOWARD STRUCTURE CENTERLINE.)
(POSITIVE MOMENT PRODUCES COMPRESSION ON TOP OF MEMBER OR ON SIDE OF MEMBER TOWARD STRUCTURE CENTERLINE.)

MEM NO	DISTANCE FROM CTR-LINE (FT)	ELEVATION (FT)	<--------FORCES (LBS OR LB-FT)-------> AXIAL	SHEAR	MOMENT
		***** BASE MEMBERS *****			
1	.00	-18.00	3.514E+05	-1.327E+04	-3.709E+05
	8.50	-18.00	3.514E+05	-3.247E+04	-2.893E+05
2	8.50	-18.00	3.515E+05	1.214E+04	-2.895E+05
	17.00	-18.00	3.515E+05	-5.788E+04	8.083E+03
3	17.00	-18.00	3.516E+05	5.352E+04	7.847E+03
	25.50	-18.00	3.516E+05	-9.926E+04	6.571E+05
4	25.50	-18.00	3.516E+05	1.111E+05	6.569E+05
	34.00	-18.00	3.516E+05	-1.569E+05	1.796E+06
5	34.00	-18.00	3.517E+05	1.646E+05	1.796E+06
	38.25	-18.00	3.517E+05	-1.835E+05	2.542E+06
6	42.75	-18.00	1.149E+05	1.837E+03	-1.347E+04
	44.00	-18.00	1.149E+05	0.000E+00	-1.163E+04
		***** STEM MEMBERS *****			
7	40.55	-15.75	1.526E+05	-2.479E+05	2.538E+06
	38.50	13.70	3.578E+04	3.150E+03	-2.492E+04
8	38.50	13.70	3.591E+04	-6.552E+02	-2.492E+04
	38.50	25.05	1.260E+04	0.000E+00	-2.520E+04

III.B.-- LEFTSIDE MEMBERS - TYPE 1 MONOLITH
SYMMETRIC WITH RIGHTSIDE

PROGRAM CWFRAM - ANALYSIS OF TWO-DIMENSIONAL U-FRAME OR W-FRAME STRUCTURES
DATE 30-MAY-2002 TIME 16.00.39

I.--HEADING

'BAYOU SORREL LOCK
'DEWATERED CASE WITH 14" CONCRETE PILES

II.--RESULTS FOR RIGHTSIDE PILES

II.A.--PILE HEAD FORCES AND DISPLACEMENTS
(UNITS ARE POUNDS, FEET, AND RADIANS.)
(POSITIVE AXIAL FORCE IS COMPRESSION.)
(POSITIVE SHEAR TENDS TO MOVE PILE HEAD AWAY FROM CENTERLINE.)
(POSITIVE MOMENT PRODUCES COMPRESSION ON SIDE OF PILE TOWARD CENTERLINE.)
(POSITIVE AXIAL DISPLACEMENT IS DOWN.)
(POSITIVE LATERAL DISPLACEMENT IS AWAY FROM CENTERLINE.)
(POSITIVE ROTATION TENDS TO ROTATE PILE HEAD TOWARD CENTERLINE.)

PILE NO.	DIST. TO CTR-LINE	<-------PILE HEAD FORCES-------> AXIAL	SHEAR	MOMENT	<---PILE HEAD DISPLACEMENTS---> AXIAL	LATERAL	ROTATION
1	.00	-2.654E+04	0.000E+00	0.000E+00	-1.080E-03	0.000E+00	0.000E+00
2	8.50	-2.034E+04	-4.532E+01	0.000E+00	-8.277E-04	-3.216E-04	-5.443E-05
3	17.00	-4.360E+03	-7.861E+01	0.000E+00	-1.775E-04	-5.579E-04	-8.042E-05
4	25.50	1.186E+04	-8.188E+01	0.000E+00	4.828E-04	-5.811E-04	-3.537E-05
5	34.00	7.775E+03	-2.842E+01	0.000E+00	3.165E-04	-2.017E-04	1.439E-04
6	42.50	-4.440E+04	2.903E+01	0.000E+00	-1.807E-03	2.060E-04	3.062E-04

II.B.--PILE ALLOWABLES COMPARISONS
ALLOWABLES DATA NOT PROVIDED FOR THIS SIDE.

III.--RESULTS FOR LEFTSIDE PILES
SYMMETRIC WITH RIGHTSIDE.

IV.--RESULTANTS OF PILE FORCES ON STRUCTURE
(POSITIVE HORIZONTAL IS TO THE RIGHT)
(POSITIVE VERTICAL IS UP)
(POSITIVE MOMENT IS COUNTERCLOCKWISE ABOUT CENTERLINE
(UNITS ARE POUNDS AND FEET)

	HORIZONTAL	VERTICAL	MOMENT
RIGHTSIDE PILES	2.0521E+02	-6.2733E+04	-1.5661E+06
LEFTSIDE PILES	-2.0521E+02	-6.2733E+04	1.5661E+06
TOTAL	0.0000E+00	-1.2547E+05	0.0000E+00

NOTE RIGHTSIDE AND LEFTSIDE RESULTANTS INCLUDE ONE HALF OF FORCES FOR VERTICAL PILES ON CENTERLINE.

PROJECT Bayou Sorrel Lock Feasibility	PAGE OF	COMPUTED BY JAW	DATE 5-02
SUBJECT		CHECKED BY	DATE

Results from CWFRAME

M_{max} Construction Case – 2321 ft-k/7' = 331.6 ft-k(.857) = 284.2 ft-k

Operating Case – 1889 ft-k/7' = 269.9 ft-k

Dewatered Case – 2542 ft-k/7' = 363.1 ft-k(.75) = 272.4 ft-k

V_{max} Construction Case – 182.3k/7' = 26k (.857) = 22.3 k

Operating Case – 148.1k/7 = 21.2k

Dewatered Case – 183.5 k/7' = 26.2 k (.75) = 19.7 k

Check Slab thickness of 6' (72")

Check Moment

M_{max} = 284.2 ft-k

Apply Corps' factors $M_u = 1.3(1.7)284.2 = 628$ ft-k

$d = 72" - 6" = 66"$ $M_n = \frac{M_u}{.9} = 698$ ft-k

M_n for 72" slab (3000psi concrete)

$$M_n = \frac{d^2 b}{3.3274} = \frac{66"^2\ 12"}{3.3274} = \frac{15709.6 \text{ in-k}}{12 \text{ in/ft}} = 1309.1 \text{ ft-k} > 698 \text{ ft-k}$$

6' slab OK

Check Shear

V_{max} = 22.3 k

Apply Corps' factors $V_u = 1.3(1.7)22.3 = 49.3$ k

Shear capacity of 72" slab

$$\phi V_c = 2\phi\sqrt{f'_c}\, bd$$

$$= 2(.85)\sqrt{3000}\ 12"(66")$$

$$= 73.7 \text{ k} > 49.3 \text{k}$$

6' slab OK

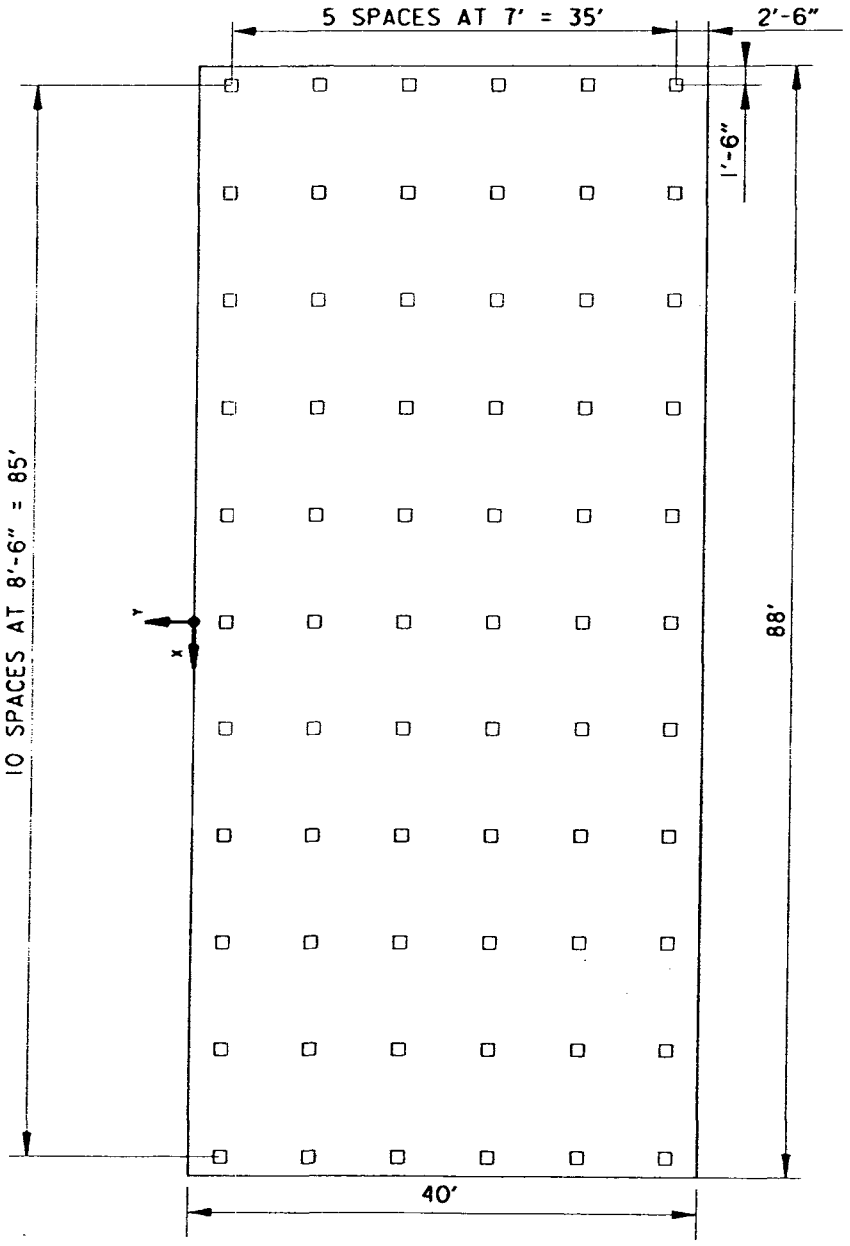
Use 6' slab (3000psi concrete)

COMPUTATION SHEET

PROJECT BAYOU SORREL LOCK FEASIBILITY	PAGE OF	COMPUTED BY	DATE
SUBJECT		CHECKED BY	DATE

U-FRAME MONOLITH PILE LAYOUT PLAN

□ - 14" x 14" CONCRETE PILES



Bayou Sorrel Lock Feasibility
U-Frame CPGA Loads

El at Top of Stem:	26.8	Area of Base Slab:	3520	ft²
El Interior Water:	23.8	Depth of Base Slab:	6	ft
El. Exterior Water:	0	Area of Upper Wall:	149	ft²
El. Ext Water (dewater):	5.7	Wgt of Conc.:	0.15	kcf
El at Top of Slab:	-15	Wgt of Water:	0.0625	kcf
El at Bottom of Slab:	-21	Length of Monolith:	40	ft
		Width of Monolith:	88	ft
		Lock Chamber Distance:	75	ft

Maximum Operating Conditions

Item	Fx	Fy	Fz	x	y	z	Mx	My	Mz
Concrete Slab			3,168		-20.0		-63,360.0		
Concrete Walls			1788		-20.0		-35,760.0		
Water in Lock to El. 23.8			7275		-20.0		-145,500.0		
Uplift			-4620		-20.0		92,400.0		
Total:	**0.0**	**0.0**	**7,611.0**				**-152,220.0**	**0.0**	**0.0**

Construction

Item	Fx	Fy	Fz	x	y	z	Mx	My	Mz
Concrete Slab			3,168.0		-20.0		-63,360.0		
Concrete Walls			1,788.0		-20.0		-35,760.0		
Total:	**0.0**	**0.0**	**4,956.0**				**-99,120.0**	**0.0**	**0.0**
16% OVERSTRESS	0.0	0.0	4,262.2				-85,243.2	0.0	0.0

Dewatered

Item	Fx	Fy	Fz	x	y	z	Mx	My	Mz
Concrete Slab			3,168.0		-20.0		-63,360.0		
Concrete Walls			1,788.0		-20.0		-35,760.0		
Uplift			-5874		-20.0		117,480.0		
Total:	**0.0**	**0.0**	**-918.0**				**18,360.0**	**0.0**	**0.0**
33% OVERSTRESS	0.0	0.0	-688.5				13,770.0	0.0	0.0

```
100 BAYOU SORREL LOCK FEASIBILITY STUDY -
110 U-FRAME MONOLITH W/ 14"x14" CONCRETE PILES
120 PROP 4074 3201 3201 196 2 0 ALL
130 SOIL ES 0.18 L 65 0 ALL
140 DLS S 122 65 737 202 193.9 1558.3 1185.7 H 14 ALL
150 ASC S 196 457 .816 .948 2.0 0.0 ALL
200 PILE 1 42.5 -2.5 0
210 ROW X 11 1 10 AT -8.5
215 REPEAT 6 5 AT -7
230 LOAD 1 0 0 7611.0 -152220.0 0 0
240 LOAD 2 0 0 4262.2 -85243.2
250 LOAD 3 0 0 -688.5 13770.0
270 FOUT 1 2 3 4 5 6 7 UFRM.OUT
280 PFO ALL
290 FPL UFRM.PLO
```

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*********************************
* CORPS PROGRAM  #  X0080       *  CPGA - CASE PILE GROUP ANALYSIS PROGRAM
* VERSION NUMBER # 1993/03/29   *  RUN DATE 05-JUN-2002   RUN TIME 15.58.16
*********************************
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BAYOU SORREL LOCK FEASIBILITY STUDY
U-FRAME MONOLITH W/ 14"X14" CONCRETE PILES

THERE ARE 66 PILES AND
3 LOAD CASES IN THIS RUN.

ALL PILE COORDINATES ARE CONTAINED WITHIN A BOX

	X	Y	Z
WITH DIAGONAL COORDINATES = (	-42.50 ,	-37.50 ,	.00)
(	42.50 ,	-2.50 ,	.00)

****

PILE PROPERTIES AS INPUT

E	I1	I2	A	C33	B66
KSI	IN**4	IN**4	IN**2		
.40740E+04	.32010E+04	.32010E+04	.19600E+03	.20000E+01	.00000E+00

THESE PILE PROPERTIES APPLY TO THE FOLLOWING PILES -

ALL

****

SOIL DESCRIPTIONS AS INPUT

ES	ESOIL	LENGTH	L	LU
	K/IN**2		FT	FT
	.18000E+00	L	.65000E+02	.00000E+00

THIS SOIL DESCRIPTION APPLIES TO THE FOLLOWING PILES -

ALL

****

PILE GEOMETRY AS INPUT AND/OR GENERATED

NUM	X	Y	Z	BATTER	ANGLE	LENGTH	FIXITY
	FT	FT	FT			FT	
1	42.50	-2.50	.00	V	.00	65.00	P
2	34.00	-2.50	.00	V	.00	65.00	P
3	25.50	-2.50	.00	V	.00	65.00	P
4	17.00	-2.50	.00	V	.00	65.00	P
5	8.50	-2.50	.00	V	.00	65.00	P
6	.00	-2.50	.00	V	.00	65.00	P

7	-8.50	-2.50	.00	V	.00	65.00	P
8	-17.00	-2.50	.00	V	.00	65.00	P
9	-25.50	-2.50	.00	V	.00	65.00	P
10	-34.00	-2.50	.00	V	.00	65.00	P
11	-42.50	-2.50	.00	V	.00	65.00	P
12	42.50	-9.50	.00	V	.00	65.00	P
13	34.00	-9.50	.00	V	.00	65.00	P
14	25.50	-9.50	.00	V	.00	65.00	P
15	17.00	-9.50	.00	V	.00	65.00	P
16	8.50	-9.50	.00	V	.00	65.00	P
17	.00	-9.50	.00	V	.00	65.00	P
18	-8.50	-9.50	.00	V	.00	65.00	P
19	-17.00	-9.50	.00	V	.00	65.00	P
20	-25.50	-9.50	.00	V	.00	65.00	P
21	-34.00	-9.50	.00	V	.00	65.00	P
22	-42.50	-9.50	.00	V	.00	65.00	P
23	42.50	-16.50	.00	V	.00	65.00	P
24	34.00	-16.50	.00	V	.00	65.00	P
25	25.50	-16.50	.00	V	.00	65.00	P
26	17.00	-16.50	.00	V	.00	65.00	P
27	8.50	-16.50	.00	V	.00	65.00	P
28	.00	-16.50	.00	V	.00	65.00	P
29	-8.50	-16.50	.00	V	.00	65.00	P
30	-17.00	-16.50	.00	V	.00	65.00	P
31	-25.50	-16.50	.00	V	.00	65.00	P
32	-34.00	-16.50	.00	V	.00	65.00	P
33	-42.50	-16.50	.00	V	.00	65.00	P
34	42.50	-23.50	.00	V	.00	65.00	P
35	34.00	-23.50	.00	V	.00	65.00	P
36	25.50	-23.50	.00	V	.00	65.00	P
37	17.00	-23.50	.00	V	.00	65.00	P
38	8.50	-23.50	.00	V	.00	65.00	P
39	.00	-23.50	.00	V	.00	65.00	P
40	-8.50	-23.50	.00	V	.00	65.00	P
41	-17.00	-23.50	.00	V	.00	65.00	P
42	-25.50	-23.50	.00	V	.00	65.00	P
43	-34.00	-23.50	.00	V	.00	65.00	P
44	-42.50	-23.50	.00	V	.00	65.00	P
45	42.50	-30.50	.00	V	.00	65.00	P
46	34.00	-30.50	.00	V	.00	65.00	P
47	25.50	-30.50	.00	V	.00	65.00	P
48	17.00	-30.50	.00	V	.00	65.00	P
49	8.50	-30.50	.00	V	.00	65.00	P
50	.00	-30.50	.00	V	.00	65.00	P
51	-8.50	-30.50	.00	V	.00	65.00	P
52	-17.00	-30.50	.00	V	.00	65.00	P
53	-25.50	-30.50	.00	V	.00	65.00	P
54	-34.00	-30.50	.00	V	.00	65.00	P
55	-42.50	-30.50	.00	V	.00	65.00	P
56	42.50	-37.50	.00	V	.00	65.00	P
57	34.00	-37.50	.00	V	.00	65.00	P
58	25.50	-37.50	.00	V	.00	65.00	P
59	17.00	-37.50	.00	V	.00	65.00	P
60	8.50	-37.50	.00	V	.00	65.00	P
61	.00	-37.50	.00	V	.00	65.00	P
62	-8.50	-37.50	.00	V	.00	65.00	P
63	-17.00	-37.50	.00	V	.00	65.00	P
64	-25.50	-37.50	.00	V	.00	65.00	P
65	-34.00	-37.50	.00	V	.00	65.00	P
66	-42.50	-37.50	.00	V	.00	65.00	P

****

APPLIED LOADS

LOAD CASE	PX K	PY K	PZ K	MX FT-K	MY FT-K	MZ FT-K
1	.0	.0	7611.0	-152220.0	.0	.0
2	.0	.0	4262.2	-85243.2	.0	.0
3	.0	.0	-688.5	13770.0	.0	.0

****

ORIGINAL PILE GROUP STIFFNESS MATRIX

.77501E+03	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.18600E+06
.00000E+00	.77501E+03	.00000E+00	.00000E+00	.00000E+00	.00000E+00
.00000E+00	.00000E+00	.13513E+06	-.32432E+08	.00000E+00	.00000E+00
.00000E+00	.00000E+00	-.32432E+08	.10565E+11	.11921E-06	.00000E+00
.00000E+00	.00000E+00	.00000E+00	-.17881E-06	.14059E+11	.00000E+00
.18600E+06	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.14122E+09

LOAD CASE 1. NUMBER OF FAILURES = 0. NUMBER OF PILES IN TENSION = 0.

LOAD CASE 2. NUMBER OF FAILURES = 0. NUMBER OF PILES IN TENSION = 0.

LOAD CASE 3. NUMBER OF FAILURES = 0. NUMBER OF PILES IN TENSION = 66.

****

PILE CAP DISPLACEMENTS

LOAD CASE	DX IN	DY IN	DZ IN	RX RAD	RY RAD	RZ RAD
1	.0000E+00	.0000E+00	.5632E-01	.7809E-18	.9209E-35	.0000E+00
2	.0000E+00	.0000E+00	.3154E-01	.3452E-08	.4391E-25	.0000E+00
3	.0000E+00	.0000E+00	-.5095E-02	-.7239E-19	-.8280E-36	.0000E+00

****

PILE FORCES IN LOCAL GEOMETRY

M1 & M2 NOT AT PILE HEAD FOR PINNED PILES
* INDICATES PILE FAILURE
# INDICATES CBF BASED ON MOMENTS DUE TO
(F3*EMIN) FOR CONCRETE PILES
B INDICATES BUCKLING CONTROLS

LOAD CASE - 1

PILE	F1 K	F2 K	F3 K	M1 IN-K	M2 IN-K	M3 IN-K	ALF	CBF	ASC KSI	AST KSI	
1	.0	.0	115.3	.0	.0	.0	.95	.50	1.54	1.40	#
2	.0	.0	115.3	.0	.0	.0	.95	.50	1.54	1.40	#
3	.0	.0	115.3	.0	.0	.0	.95	.50	1.54	1.40	#
4	.0	.0	115.3	.0	.0	.0	.95	.50	1.54	1.40	#
5	.0	.0	115.3	.0	.0	.0	.95	.50	1.54	1.40	#
6	.0	.0	115.3	.0	.0	.0	.95	.50	1.54	1.40	#
7	.0	.0	115.3	.0	.0	.0	.95	.50	1.54	1.40	#
8	.0	.0	115.3	.0	.0	.0	.95	.50	1.54	1.40	#
9	.0	.0	115.3	.0	.0	.0	.95	.50	1.54	1.40	#
10	.0	.0	115.3	.0	.0	.0	.95	.50	1.54	1.40	#
11	.0	.0	115.3	.0	.0	.0	.95	.50	1.54	1.40	#
12	.0	.0	115.3	.0	.0	.0	.95	.50	1.54	1.40	#
13	.0	.0	115.3	.0	.0	.0	.95	.50	1.54	1.40	#
14	.0	.0	115.3	.0	.0	.0	.95	.50	1.54	1.40	#
15	.0	.0	115.3	.0	.0	.0	.95	.50	1.54	1.40	#
16	.0	.0	115.3	.0	.0	.0	.95	.50	1.54	1.40	#
17	.0	.0	115.3	.0	.0	.0	.95	.50	1.54	1.40	#
18	.0	.0	115.3	.0	.0	.0	.95	.50	1.54	1.40	#
19	.0	.0	115.3	.0	.0	.0	.95	.50	1.54	1.40	#
20	.0	.0	115.3	.0	.0	.0	.95	.50	1.54	1.40	#
21	.0	.0	115.3	.0	.0	.0	.95	.50	1.54	1.40	#
22	.0	.0	115.3	.0	.0	.0	.95	.50	1.54	1.40	#
23	.0	.0	115.3	.0	.0	.0	.95	.50	1.54	1.40	#
24	.0	.0	115.3	.0	.0	.0	.95	.50	1.54	1.40	#
25	.0	.0	115.3	.0	.0	.0	.95	.50	1.54	1.40	#
26	.0	.0	115.3	.0	.0	.0	.95	.50	1.54	1.40	#
27	.0	.0	115.3	.0	.0	.0	.95	.50	1.54	1.40	#
28	.0	.0	115.3	.0	.0	.0	.95	.50	1.54	1.40	#
29	.0	.0	115.3	.0	.0	.0	.95	.50	1.54	1.40	#
30	.0	.0	115.3	.0	.0	.0	.95	.50	1.54	1.40	#
31	.0	.0	115.3	.0	.0	.0	.95	.50	1.54	1.40	#
32	.0	.0	115.3	.0	.0	.0	.95	.50	1.54	1.40	#
33	.0	.0	115.3	.0	.0	.0	.95	.50	1.54	1.40	#
34	.0	.0	115.3	.0	.0	.0	.95	.50	1.54	1.40	#
35	.0	.0	115.3	.0	.0	.0	.95	.50	1.54	1.40	#
36	.0	.0	115.3	.0	.0	.0	.95	.50	1.54	1.40	#
37	.0	.0	115.3	.0	.0	.0	.95	.50	1.54	1.40	#
38	.0	.0	115.3	.0	.0	.0	.95	.50	1.54	1.40	#
39	.0	.0	115.3	.0	.0	.0	.95	.50	1.54	1.40	#
40	.0	.0	115.3	.0	.0	.0	.95	.50	1.54	1.40	#
41	.0	.0	115.3	.0	.0	.0	.95	.50	1.54	1.40	#
42	.0	.0	115.3	.0	.0	.0	.95	.50	1.54	1.40	#
43	.0	.0	115.3	.0	.0	.0	.95	.50	1.54	1.40	#
44	.0	.0	115.3	.0	.0	.0	.95	.50	1.54	1.40	#
45	.0	.0	115.3	.0	.0	.0	.95	.50	1.54	1.40	#
46	.0	.0	115.3	.0	.0	.0	.95	.50	1.54	1.40	#
47	.0	.0	115.3	.0	.0	.0	.95	.50	1.54	1.40	#
48	.0	.0	115.3	.0	.0	.0	.95	.50	1.54	1.40	#
49	.0	.0	115.3	.0	.0	.0	.95	.50	1.54	1.40	#
50	.0	.0	115.3	.0	.0	.0	.95	.50	1.54	1.40	#
51	.0	.0	115.3	.0	.0	.0	.95	.50	1.54	1.40	#
52	.0	.0	115.3	.0	.0	.0	.95	.50	1.54	1.40	#
53	.0	.0	115.3	.0	.0	.0	.95	.50	1.54	1.40	#
54	.0	.0	115.3	.0	.0	.0	.95	.50	1.54	1.40	#
55	.0	.0	115.3	.0	.0	.0	.95	.50	1.54	1.40	#
56	.0	.0	115.3	.0	.0	.0	.95	.50	1.54	1.40	#
57	.0	.0	115.3	.0	.0	.0	.95	.50	1.54	1.40	#
58	.0	.0	115.3	.0	.0	.0	.95	.50	1.54	1.40	#

59	.0	.0	115.3	.0	.0	.0	.95	.50	1.54	1.40	#
60	.0	.0	115.3	.0	.0	.0	.95	.50	1.54	1.40	#
61	.0	.0	115.3	.0	.0	.0	.95	.50	1.54	1.40	#
62	.0	.0	115.3	.0	.0	.0	.95	.50	1.54	1.40	#
63	.0	.0	115.3	.0	.0	.0	.95	.50	1.54	1.40	#
64	.0	.0	115.3	.0	.0	.0	.95	.50	1.54	1.40	#
65	.0	.0	115.3	.0	.0	.0	.95	.50	1.54	1.40	#
66	.0	.0	115.3	.0	.0	.0	.95	.50	1.54	1.40	#

LOAD CASE - 2

PILE	F1 K	F2 K	F3 K	M1 IN-K	M2 IN-K	M3 IN-K	ALF	CBF	ASC KSI	AST KSI	
1	.0	.0	64.6	.0	.0	.0	.53	.18	1.28	1.15	#
2	.0	.0	64.6	.0	.0	.0	.53	.18	1.28	1.15	#
3	.0	.0	64.6	.0	.0	.0	.53	.18	1.28	1.15	#
4	.0	.0	64.6	.0	.0	.0	.53	.18	1.28	1.15	#
5	.0	.0	64.6	.0	.0	.0	.53	.18	1.28	1.15	#
6	.0	.0	64.6	.0	.0	.0	.53	.18	1.28	1.15	#
7	.0	.0	64.6	.0	.0	.0	.53	.18	1.28	1.15	#
8	.0	.0	64.6	.0	.0	.0	.53	.18	1.28	1.15	#
9	.0	.0	64.6	.0	.0	.0	.53	.18	1.28	1.15	#
10	.0	.0	64.6	.0	.0	.0	.53	.18	1.28	1.15	#
11	.0	.0	64.6	.0	.0	.0	.53	.18	1.28	1.15	#
12	.0	.0	64.6	.0	.0	.0	.53	.18	1.28	1.15	#
13	.0	.0	64.6	.0	.0	.0	.53	.18	1.28	1.15	#
14	.0	.0	64.6	.0	.0	.0	.53	.18	1.28	1.15	#
15	.0	.0	64.6	.0	.0	.0	.53	.18	1.28	1.15	#
16	.0	.0	64.6	.0	.0	.0	.53	.18	1.28	1.15	#
17	.0	.0	64.6	.0	.0	.0	.53	.18	1.28	1.15	#
18	.0	.0	64.6	.0	.0	.0	.53	.18	1.28	1.15	#
19	.0	.0	64.6	.0	.0	.0	.53	.18	1.28	1.15	#
20	.0	.0	64.6	.0	.0	.0	.53	.18	1.28	1.15	#
21	.0	.0	64.6	.0	.0	.0	.53	.18	1.28	1.15	#
22	.0	.0	64.6	.0	.0	.0	.53	.18	1.28	1.15	#
23	.0	.0	64.6	.0	.0	.0	.53	.18	1.28	1.15	#
24	.0	.0	64.6	.0	.0	.0	.53	.18	1.28	1.15	#
25	.0	.0	64.6	.0	.0	.0	.53	.18	1.28	1.15	#
26	.0	.0	64.6	.0	.0	.0	.53	.18	1.28	1.15	#
27	.0	.0	64.6	.0	.0	.0	.53	.18	1.28	1.15	#
28	.0	.0	64.6	.0	.0	.0	.53	.18	1.28	1.15	#
29	.0	.0	64.6	.0	.0	.0	.53	.18	1.28	1.15	#
30	.0	.0	64.6	.0	.0	.0	.53	.18	1.28	1.15	#
31	.0	.0	64.6	.0	.0	.0	.53	.18	1.28	1.15	#
32	.0	.0	64.6	.0	.0	.0	.53	.18	1.28	1.15	#
33	.0	.0	64.6	.0	.0	.0	.53	.18	1.28	1.15	#
34	.0	.0	64.6	.0	.0	.0	.53	.18	1.28	1.15	#
35	.0	.0	64.6	.0	.0	.0	.53	.18	1.28	1.15	#
36	.0	.0	64.6	.0	.0	.0	.53	.18	1.28	1.15	#
37	.0	.0	64.6	.0	.0	.0	.53	.18	1.28	1.15	#
38	.0	.0	64.6	.0	.0	.0	.53	.18	1.28	1.15	#
39	.0	.0	64.6	.0	.0	.0	.53	.18	1.28	1.15	#
40	.0	.0	64.6	.0	.0	.0	.53	.18	1.28	1.15	#
41	.0	.0	64.6	.0	.0	.0	.53	.18	1.28	1.15	#
42	.0	.0	64.6	.0	.0	.0	.53	.18	1.28	1.15	#
43	.0	.0	64.6	.0	.0	.0	.53	.18	1.28	1.15	#
44	.0	.0	64.6	.0	.0	.0	.53	.18	1.28	1.15	#
45	.0	.0	64.6	.0	.0	.0	.53	.18	1.28	1.15	#
46	.0	.0	64.6	.0	.0	.0	.53	.18	1.28	1.15	#

47	.0	.0	64.6	.0	.0	.0	.53	.18	1.28	1.15	#
48	.0	.0	64.6	.0	.0	.0	.53	.18	1.28	1.15	#
49	.0	.0	64.6	.0	.0	.0	.53	.18	1.28	1.15	#
50	.0	.0	64.6	.0	.0	.0	.53	.18	1.28	1.15	#
51	.0	.0	64.6	.0	.0	.0	.53	.18	1.28	1.15	#
52	.0	.0	64.6	.0	.0	.0	.53	.18	1.28	1.15	#
53	.0	.0	64.6	.0	.0	.0	.53	.18	1.28	1.15	#
54	.0	.0	64.6	.0	.0	.0	.53	.18	1.28	1.15	#
55	.0	.0	64.6	.0	.0	.0	.53	.18	1.28	1.15	#
56	.0	.0	64.6	.0	.0	.0	.53	.18	1.28	1.15	#
57	.0	.0	64.6	.0	.0	.0	.53	.18	1.28	1.15	#
58	.0	.0	64.6	.0	.0	.0	.53	.18	1.28	1.15	#
59	.0	.0	64.6	.0	.0	.0	.53	.18	1.28	1.15	#
60	.0	.0	64.6	.0	.0	.0	.53	.18	1.28	1.15	#
61	.0	.0	64.6	.0	.0	.0	.53	.18	1.28	1.15	#
62	.0	.0	64.6	.0	.0	.0	.53	.18	1.28	1.15	#
63	.0	.0	64.6	.0	.0	.0	.53	.18	1.28	1.15	#
64	.0	.0	64.6	.0	.0	.0	.53	.18	1.28	1.15	#
65	.0	.0	64.6	.0	.0	.0	.53	.18	1.28	1.15	#
66	.0	.0	64.6	.0	.0	.0	.53	.18	1.28	1.15	#

LOAD CASE - 3

PILE	F1 K	F2 K	F3 K	M1 IN-K	M2 IN-K	M3 IN-K	ALF	CBF	ASC KSI	AST KSI
1	.0	.0	-10.4	.0	.0	.0	.16	.14	.89	.76
2	.0	.0	-10.4	.0	.0	.0	.16	.14	.89	.76
3	.0	.0	-10.4	.0	.0	.0	.16	.14	.89	.76
4	.0	.0	-10.4	.0	.0	.0	.16	.14	.89	.76
5	.0	.0	-10.4	.0	.0	.0	.16	.14	.89	.76
6	.0	.0	-10.4	.0	.0	.0	.16	.14	.89	.76
7	.0	.0	-10.4	.0	.0	.0	.16	.14	.89	.76
8	.0	.0	-10.4	.0	.0	.0	.16	.14	.89	.76
9	.0	.0	-10.4	.0	.0	.0	.16	.14	.89	.76
10	.0	.0	-10.4	.0	.0	.0	.16	.14	.89	.76
11	.0	.0	-10.4	.0	.0	.0	.16	.14	.89	.76
12	.0	.0	-10.4	.0	.0	.0	.16	.14	.89	.76
13	.0	.0	-10.4	.0	.0	.0	.16	.14	.89	.76
14	.0	.0	-10.4	.0	.0	.0	.16	.14	.89	.76
15	.0	.0	-10.4	.0	.0	.0	.16	.14	.89	.76
16	.0	.0	-10.4	.0	.0	.0	.16	.14	.89	.76
17	.0	.0	-10.4	.0	.0	.0	.16	.14	.89	.76
18	.0	.0	-10.4	.0	.0	.0	.16	.14	.89	.76
19	.0	.0	-10.4	.0	.0	.0	.16	.14	.89	.76
20	.0	.0	-10.4	.0	.0	.0	.16	.14	.89	.76
21	.0	.0	-10.4	.0	.0	.0	.16	.14	.89	.76
22	.0	.0	-10.4	.0	.0	.0	.16	.14	.89	.76
23	.0	.0	-10.4	.0	.0	.0	.16	.14	.89	.76
24	.0	.0	-10.4	.0	.0	.0	.16	.14	.89	.76
25	.0	.0	-10.4	.0	.0	.0	.16	.14	.89	.76
26	.0	.0	-10.4	.0	.0	.0	.16	.14	.89	.76
27	.0	.0	-10.4	.0	.0	.0	.16	.14	.89	.76
28	.0	.0	-10.4	.0	.0	.0	.16	.14	.89	.76
29	.0	.0	-10.4	.0	.0	.0	.16	.14	.89	.76
30	.0	.0	-10.4	.0	.0	.0	.16	.14	.89	.76
31	.0	.0	-10.4	.0	.0	.0	.16	.14	.89	.76
32	.0	.0	-10.4	.0	.0	.0	.16	.14	.89	.76
33	.0	.0	-10.4	.0	.0	.0	.16	.14	.89	.76
34	.0	.0	-10.4	.0	.0	.0	.16	.14	.89	.76

35	.0	.0	-10.4	.0	.0	.0	.16	.14	.89	.76
36	.0	.0	-10.4	.0	.0	.0	.16	.14	.89	.76
37	.0	.0	-10.4	.0	.0	.0	.16	.14	.89	.76
38	.0	.0	-10.4	.0	.0	.0	.16	.14	.89	.76
39	.0	.0	-10.4	.0	.0	.0	.16	.14	.89	.76
40	.0	.0	-10.4	.0	.0	.0	.16	.14	.89	.76
41	.0	.0	-10.4	.0	.0	.0	.16	.14	.89	.76
42	.0	.0	-10.4	.0	.0	.0	.16	.14	.89	.76
43	.0	.0	-10.4	.0	.0	.0	.16	.14	.89	.76
44	.0	.0	-10.4	.0	.0	.0	.16	.14	.89	.76
45	.0	.0	-10.4	.0	.0	.0	.16	.14	.89	.76
46	.0	.0	-10.4	.0	.0	.0	.16	.14	.89	.76
47	.0	.0	-10.4	.0	.0	.0	.16	.14	.89	.76
48	.0	.0	-10.4	.0	.0	.0	.16	.14	.89	.76
49	.0	.0	-10.4	.0	.0	.0	.16	.14	.89	.76
50	.0	.0	-10.4	.0	.0	.0	.16	.14	.89	.76
51	.0	.0	-10.4	.0	.0	.0	.16	.14	.89	.76
52	.0	.0	-10.4	.0	.0	.0	.16	.14	.89	.76
53	.0	.0	-10.4	.0	.0	.0	.16	.14	.89	.76
54	.0	.0	-10.4	.0	.0	.0	.16	.14	.89	.76
55	.0	.0	-10.4	.0	.0	.0	.16	.14	.89	.76
56	.0	.0	-10.4	.0	.0	.0	.16	.14	.89	.76
57	.0	.0	-10.4	.0	.0	.0	.16	.14	.89	.76
58	.0	.0	-10.4	.0	.0	.0	.16	.14	.89	.76
59	.0	.0	-10.4	.0	.0	.0	.16	.14	.89	.76
60	.0	.0	-10.4	.0	.0	.0	.16	.14	.89	.76
61	.0	.0	-10.4	.0	.0	.0	.16	.14	.89	.76
62	.0	.0	-10.4	.0	.0	.0	.16	.14	.89	.76
63	.0	.0	-10.4	.0	.0	.0	.16	.14	.89	.76
64	.0	.0	-10.4	.0	.0	.0	.16	.14	.89	.76
65	.0	.0	-10.4	.0	.0	.0	.16	.14	.89	.76
66	.0	.0	-10.4	.0	.0	.0	.16	.14	.89	.76

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PILE FORCES IN GLOBAL GEOMETRY

LOAD CASE - 1

PILE	PX K	PY K	PZ K	MX IN-K	MY IN-K	MZ IN-K
1	.0	.0	115.3	.0	.0	.0
2	.0	.0	115.3	.0	.0	.0
3	.0	.0	115.3	.0	.0	.0
4	.0	.0	115.3	.0	.0	.0
5	.0	.0	115.3	.0	.0	.0
6	.0	.0	115.3	.0	.0	.0
7	.0	.0	115.3	.0	.0	.0
8	.0	.0	115.3	.0	.0	.0
9	.0	.0	115.3	.0	.0	.0
10	.0	.0	115.3	.0	.0	.0
11	.0	.0	115.3	.0	.0	.0
12	.0	.0	115.3	.0	.0	.0
13	.0	.0	115.3	.0	.0	.0
14	.0	.0	115.3	.0	.0	.0
15	.0	.0	115.3	.0	.0	.0
16	.0	.0	115.3	.0	.0	.0

17	.0	.0	115.3	.0	.0	.0
18	.0	.0	115.3	.0	.0	.0
19	.0	.0	115.3	.0	.0	.0
20	.0	.0	115.3	.0	.0	.0
21	.0	.0	115.3	.0	.0	.0
22	.0	.0	115.3	.0	.0	.0
23	.0	.0	115.3	.0	.0	.0
24	.0	.0	115.3	.0	.0	.0
25	.0	.0	115.3	.0	.0	.0
26	.0	.0	115.3	.0	.0	.0
27	.0	.0	115.3	.0	.0	.0
28	.0	.0	115.3	.0	.0	.0
29	.0	.0	115.3	.0	.0	.0
30	.0	.0	115.3	.0	.0	.0
31	.0	.0	115.3	.0	.0	.0
32	.0	.0	115.3	.0	.0	.0
33	.0	.0	115.3	.0	.0	.0
34	.0	.0	115.3	.0	.0	.0
35	.0	.0	115.3	.0	.0	.0
36	.0	.0	115.3	.0	.0	.0
37	.0	.0	115.3	.0	.0	.0
38	.0	.0	115.3	.0	.0	.0
39	.0	.0	115.3	.0	.0	.0
40	.0	.0	115.3	.0	.0	.0
41	.0	.0	115.3	.0	.0	.0
42	.0	.0	115.3	.0	.0	.0
43	.0	.0	115.3	.0	.0	.0
44	.0	.0	115.3	.0	.0	.0
45	.0	.0	115.3	.0	.0	.0
46	.0	.0	115.3	.0	.0	.0
47	.0	.0	115.3	.0	.0	.0
48	.0	.0	115.3	.0	.0	.0
49	.0	.0	115.3	.0	.0	.0
50	.0	.0	115.3	.0	.0	.0
51	.0	.0	115.3	.0	.0	.0
52	.0	.0	115.3	.0	.0	.0
53	.0	.0	115.3	.0	.0	.0
54	.0	.0	115.3	.0	.0	.0
55	.0	.0	115.3	.0	.0	.0
56	.0	.0	115.3	.0	.0	.0
57	.0	.0	115.3	.0	.0	.0
58	.0	.0	115.3	.0	.0	.0
59	.0	.0	115.3	.0	.0	.0
60	.0	.0	115.3	.0	.0	.0
61	.0	.0	115.3	.0	.0	.0
62	.0	.0	115.3	.0	.0	.0
63	.0	.0	115.3	.0	.0	.0
64	.0	.0	115.3	.0	.0	.0
65	.0	.0	115.3	.0	.0	.0
66	.0	.0	115.3	.0	.0	.0

LOAD CASE - 2

PILE	PX K	PY K	PZ K	MX IN-K	MY IN-K	MZ IN-K
1	.0	.0	64.6	.0	.0	.0
2	.0	.0	64.6	.0	.0	.0
3	.0	.0	64.6	.0	.0	.0
4	.0	.0	64.6	.0	.0	.0

5	.0	.0	64.6	.0	.0	.0
6	.0	.0	64.6	.0	.0	.0
7	.0	.0	64.6	.0	.0	.0
8	.0	.0	64.6	.0	.0	.0
9	.0	.0	64.6	.0	.0	.0
10	.0	.0	64.6	.0	.0	.0
11	.0	.0	64.6	.0	.0	.0
12	.0	.0	64.6	.0	.0	.0
13	.0	.0	64.6	.0	.0	.0
14	.0	.0	64.6	.0	.0	.0
15	.0	.0	64.6	.0	.0	.0
16	.0	.0	64.6	.0	.0	.0
17	.0	.0	64.6	.0	.0	.0
18	.0	.0	64.6	.0	.0	.0
19	.0	.0	64.6	.0	.0	.0
20	.0	.0	64.6	.0	.0	.0
21	.0	.0	64.6	.0	.0	.0
22	.0	.0	64.6	.0	.0	.0
23	.0	.0	64.6	.0	.0	.0
24	.0	.0	64.6	.0	.0	.0
25	.0	.0	64.6	.0	.0	.0
26	.0	.0	64.6	.0	.0	.0
27	.0	.0	64.6	.0	.0	.0
28	.0	.0	64.6	.0	.0	.0
29	.0	.0	64.6	.0	.0	.0
30	.0	.0	64.6	.0	.0	.0
31	.0	.0	64.6	.0	.0	.0
32	.0	.0	64.6	.0	.0	.0
33	.0	.0	64.6	.0	.0	.0
34	.0	.0	64.6	.0	.0	.0
35	.0	.0	64.6	.0	.0	.0
36	.0	.0	64.6	.0	.0	.0
37	.0	.0	64.6	.0	.0	.0
38	.0	.0	64.6	.0	.0	.0
39	.0	.0	64.6	.0	.0	.0
40	.0	.0	64.6	.0	.0	.0
41	.0	.0	64.6	.0	.0	.0
42	.0	.0	64.6	.0	.0	.0
43	.0	.0	64.6	.0	.0	.0
44	.0	.0	64.6	.0	.0	.0
45	.0	.0	64.6	.0	.0	.0
46	.0	.0	64.6	.0	.0	.0
47	.0	.0	64.6	.0	.0	.0
48	.0	.0	64.6	.0	.0	.0
49	.0	.0	64.6	.0	.0	.0
50	.0	.0	64.6	.0	.0	.0
51	.0	.0	64.6	.0	.0	.0
52	.0	.0	64.6	.0	.0	.0
53	.0	.0	64.6	.0	.0	.0
54	.0	.0	64.6	.0	.0	.0
55	.0	.0	64.6	.0	.0	.0
56	.0	.0	64.6	.0	.0	.0
57	.0	.0	64.6	.0	.0	.0
58	.0	.0	64.6	.0	.0	.0
59	.0	.0	64.6	.0	.0	.0
60	.0	.0	64.6	.0	.0	.0
61	.0	.0	64.6	.0	.0	.0
62	.0	.0	64.6	.0	.0	.0
63	.0	.0	64.6	.0	.0	.0
64	.0	.0	64.6	.0	.0	.0
65	.0	.0	64.6	.0	.0	.0