(A0007159)

```
LISTH JR614A

08/31/83    10.80


1110 1 34.0 5.7 1 5.7 0 -1
1120 PZ-22
1130 29000000 6.47 84.38


*FRN WESLIB/CORPS/X0015,E

                    BEAMS (SHEAR, MOMENT, DEFLECTION)

DO YOU WANT OUTPUT SAVED IN A FILE (YES/NO)?
=YES
ENTER EITHER A NEW OR EXISTING OUTPUT FILE NAME UP
TO 47 CHARACTERS. TYPE A ? FOR INFO.
=JR614B
IS THE LOADING ON THE MEMBER TO BE READ FROM A FILE CREATED BY THE
'CANTILEVER RETAINING WALL STABILITY' PROGRAM (YES/NO)?
=YES
ENTER THE NAME OF THE FILE IN WHICH THE MEMBER LOADING IS STORED.
=JR614
DO YOU WANT TO RUN AN EXISTING DATA FILE (YES/NO)?
=YES
ENTER THE DATA FILE NAME.
=JR614A


*RUN COMPLETED*
```

```
LISTH JR614

08/31/83    10.71


10001 *17TH ST OUTFALL CANAL                                                    *
10002 *STA 614 TO 625                                                           *
10003                    3  0.34000000E 02  0.
10004                    3  0.33000000E 02  0.62500000E 02
10005                    3  0.32000000E 02  0.12500000E 03
10006                    3  0.31000000E 02  0.18750000E 03
10007                    3  0.30000000E 02  0.25000000E 03
10008                    3  0.29000000E 02  0.31250000E 03
10009                    3  0.28000000E 02  0.37500000E 03
10010                    3  0.27000000E 02  0.43750000E 03
10011                    3  0.27000000E 02  0.43750000E 03
10012                    3  0.26000000E 02  0.30328879E 03
10013                    3  0.25000000E 02  0.16528793E 03
10014                    3  0.24000000E 02  0.24979369E 02
10015                    3  0.24000000E 02  0.24979369E 02
10016                    3  0.23788318E 02  0.
10017                    3  0.23000000E 02 -0.93024799E 02
10018                    3  0.22000000E 02 -0.21102896E 03
10019                    3  0.21000000E 02 -0.32903312E 03
10020                    3  0.20000000E 02 -0.41322088E 03
10021                    3  0.19000000E 02 -0.45943626E 03
10022                    3  0.18500000E 02 -0.48254395E 03
10023                    3  0.18500000E 02 -0.48254395E 03
10024                    3  0.17500000E 02 -0.47318399E 03
10025                    3  0.16500000E 02 -0.46382395E 03
10026                    3  0.15500000E 02 -0.45446389E 03
10027                    3  0.14500000E 02 -0.44510401E 03
10028                    3  0.13500000E 02 -0.43574407E 03
10029                    3  0.12500000E 02 -0.42638401E 03
10030                    3  0.11500000E 02 -0.41702399E 03
10031                    3  0.10804410E 02 -0.41364084E 03
10032                    3  0.96768364E 01  0.
10033                    3  0.56740784E 01  0.14683779E 04
10034                    4  0.56740784E 01  0.
10035                    0  0.56740784E 01  0.
10036   0.56740784E 01  0.22161865E 00  0.43652344E 00

*
```

*LISTH JR614B

08/31/83 10.87

BEAMS (SHEAR, MOMENT, DEFLECTION)

17TH ST OUTFALL CANAL
STA 614 TO 625

THE REFERENCE SYSTEM SELECTED DEFINES POSITIVE FORCES AS TO THE LEFT
INCREASING MEMBER COORDINATES AS UPWARD, AND POSITIVE MOMENTS
AS COUNTERCLOCKWISE.

THE MAXIMUM DEFLECTION IS 3.08 INCHES AND OCCURS AT MEMBER COORDINATE
34.00 FT.

PZ-22 HAS BEEN GIVEN TO SUPPORT THE LOAD SYSTEM.

THE WEIGHT OF THIS VERTICAL MEMBER HAS BEEN NEGLECTED.

CALCULATED EXTERNAL LOADS

DISTANCE FROM REFERENCE(FT)	TYPE OF LOAD	MAGNITUDE OF LOAD
5.67	POINT LD	37.72 LBF
5.67	COUPLE	0.05 LBF-FT

INPUTTED LOADS

DISTANCE FROM REFERENCE(FT)	TYPE OF LOAD	MAGNITUDE OF LOAD
34.00	CONTN LD	0. LBF/SQ FT
33.00	CONTN LD	62.50 LBF/SQ FT
32.00	CONTN LD	125.00 LBF/SQ FT
31.00	CONTN LD	187.50 LBF/SQ FT
30.00	CONTN LD	250.00 LBF/SQ FT
29.00	CONTN LD	312.50 LBF/SQ FT
28.00	CONTN LD	375.00 LBF/SQ FT
27.00	CONTN LD	437.50 LBF/SQ FT
27.00	CONTN LD	437.50 LBF/SQ FT
26.00	CONTN LD	303.29 LBF/SQ FT
25.00	CONTN LD	165.29 LBF/SQ FT
24.00	CONTN LD	24.98 LBF/SQ FT
24.00	CONTN LD	24.98 LBF/SQ FT
23.79	CONTN LD	0. LBF/SQ FT
23.00	CONTN LD	-93.02 LBF/SQ FT
22.00	CONTN LD	-211.03 LBF/SQ FT
21.00	CONTN LD	-329.03 LBF/SQ FT
20.00	CONTN LD	-413.22 LBF/SQ FT
19.00	CONTN LD	-459.44 LBF/SQ FT

18.50	CONTN LD	-482.54	LBF/SQ FT
18.50	CONTN LD	-482.54	LBF/SQ FT
17.50	CONTN LD	-473.18	LBF/SQ FT
16.50	CONTN LD	-463.82	LBF/SQ FT
15.50	CONTN LD	-454.46	LBF/SQ FT
14.50	CONTN LD	-445.10	LBF/SQ FT
13.50	CONTN LD	-435.74	LBF/SQ FT
12.50	CONTN LD	-426.38	LBF/SQ FT
11.50	CONTN LD	-417.02	LBF/SQ FT
10.80	CONTN LD	-413.64	LBF/SQ FT
9.68	CONTN LD	0.	LBF/SQ FT
5.67	CONTN LD	1468.38	LBF/SQ FT
5.67	CONTN LD	0.	LBF/SQ FT

P2-22 PROPERTIES ARE AS FOLLOWS.

MOMENT OF INERTIA= 84.38 IN. TO THE 4TH PER FOOT OF WALL
CROSS SECTIONAL AREA= 6.47 SQ IN.
ELASTIC MODULUS= 29000000. LBF/SQ IN.
DEFLECTION REFERENCE IS AT 5.700

THE MAXIMUM BENDING MOMENT IS 19572.80 LBF-FT AND OCCURS AT 16.96
WHICH HAS THE SHEAR FORCE OF -0.18 LBF.

DISTANCE (FEET)	SHEAR FOR (LBF)	SHEAR STR (LBF/SQIN)	BENDING MOM (LBF-FT)	DEFLECTION FROM TANG. THRU DEFLE REFERENCE (INCHES)
34.000	0.	0.	0.	3.0760
33.999	0.0	0.0	0.0	3.0760
33.000	31.3	4.8	10.4	2.8905
32.000	125.0	19.3	83.3	2.7049
31.000	281.3	43.5	281.3	2.5193
30.000	500.0	77.3	666.7	2.3340
29.000	781.3	120.7	1302.1	2.1492
28.000	1125.0	173.9	2250.0	1.9653
27.000	1531.3	236.7	3572.9	1.7831
26.000	1901.6	293.9	5300.5	1.6034
25.000	2135.9	330.1	7330.8	1.4275
24.000	2231.1	344.8	9526.0	1.2568
23.788	2233.7	345.2	9998.7	1.2215
23.000	2197.0	339.6	11749.9	1.0929
22.000	2045.0	316.1	13880.8	0.9372
21.000	1775.0	274.3	15800.6	0.7913
20.000	1403.9	217.0	17397.1	0.6565
19.000	967.5	149.5	18586.6	0.5340
18.000	491.9	76.0	19317.9	0.4245
17.000	18.7	2.9	19572.4	0.3287
16.960	-0.2	-0.0	19572.8	0.3251
16.000	-445.1	-68.8	19358.5	0.2465
15.000	-899.5	-139.0	18685.4	0.1781
14.000	-1344.6	-207.8	17562.5	0.1227
13.000	-1780.4	-275.2	15999.2	0.0797
12.000	-2206.8	-341.1	14004.9	0.0479
11.000	-2624.4	-405.6	11588.7	0.0260
10.000	-2919.4	-451.2	8789.3	0.0122

9.678	-2938.6	-454.2	7844.6	0.0092
9.676	-2938.6	-454.2	7838.8	0.0092
9.000	-2854.5	-441.2	5871.7	0.0047
8.000	-2422.8	-374.5	3202.5	0.0012
7.000	-1624.3	-251.0	1148.4	0.0002
6.000	-458.9	-70.9	76.2	0.0000
5.701	-39.2	-6.1	1.0	0.
5.700	-37.7	-5.8	0.9	0.

RUN COMPLETED

```
LISTH JR625A

08/31/83    10.89


1110 1 35.0 7.8 1 7.8 0 -1
1120 PZ-22
1130 29000000 6.47 84.38


*FRN WESLIB/CORPS/X0015,E

                    BEAMS (SHEAR, MOMENT, DEFLECTION)

DO YOU WANT OUTPUT SAVED IN A FILE (YES/NO)?
=YES
ENTER EITHER A NEW OR EXISTING OUTPUT FILE NAME UP
TO 47 CHARACTERS. TYPE A ? FOR INFO.
=JR625B
IS THE LOADING ON THE MEMBER TO BE READ FROM A FILE CREATED BY THE
'CANTILEVER RETAINING WALL STABILITY' PROGRAM (YES/NO)?
=YES
ENTER THE NAME OF THE FILE IN WHICH THE MEMBER LOADING IS STORED.
=JR624@5
DO YOU WANT TO RUN AN EXISTING DATA FILE (YES/NO)?
=YES
RETRANSMIT LAST LINE
YES
ENTER THE DATA FILE NAME.
=JR625A


*RUN COMPLETED*
```

```
LISTH JR625

08/31/83    10.72


10001 '17TH ST OUTFALL CANAL                                                    :
10002 'STA 625 TO 635                                                           :
10003                    3  0.35000000E 02  0.
10004                    3  0.34000000E 02  0.62500000E 02
10005                    3  0.33000000E 02  0.12500000E 03
10006                    3  0.32000000E 02  0.18750000E 03
10007                    3  0.31000000E 02  0.25000000E 03
10008                    3  0.30000000E 02  0.31250000E 03
10009                    3  0.29000000E 02  0.37500000E 03
10010                    3  0.28000000E 02  0.43750000E 03
10011                    3  0.28000000E 02  0.43750000E 03
10012                    3  0.27000000E 02  0.30328879E 03
10013                    3  0.26000000E 02  0.16528793E 03
10014                    3  0.25000000E 02  0.24979369E 02
10015                    3  0.24821968E 02  0.
10016                    3  0.24000000E 02 -0.11532920E 03
10017                    3  0.24000000E 02 -0.11532920E 03
10018                    3  0.23000000E 02 -0.23333336E 03
10019                    3  0.22000000E 02 -0.35133753E 03
10020                    3  0.21000000E 02 -0.43552535E 03
10021                    3  0.20000000E 02 -0.48174065E 03
10022                    3  0.19000000E 02 -0.52795610E 03
10023                    3  0.18500000E 02 -0.55106379E 03
10024                    3  0.18500000E 02 -0.55106379E 03
10025                    3  0.17500000E 02 -0.54170377E 03
10026                    3  0.16500000E 02 -0.53234383E 03
10027                    3  0.15500000E 02 -0.52298383E 03
10028                    3  0.14500000E 02 -0.51362383E 03
10029                    3  0.13500000E 02 -0.50426396E 03
10030                    3  0.13337127E 02 -0.50273946E 03
10031                    3  0.11888748E 02  0.
10032                    3  0.77367757E 01  0.14411695E 04
10033                    4  0.77367757E 01  0.
10034                    0  0.77367757E 01  0.
10035   0.77367757E 01 -0.61035156E-04  0.18554688E 01


*
```

```
*LISTH JR625B
RETRANSMIT LAST LINE
LISTH JR625B

08/31/83    10.93
```

BEAMS (SHEAR, MOMENT, DEFLECTION)

17TH ST OUTFALL CANAL
STA 625 TO 635

THE REFERENCE SYSTEM SELECTED DEFINES POSITIVE FORCES AS TO THE LEFT INCREASING MEMBER COORDINATES AS UPWARD, AND POSITIVE MOMENTS AS COUNTERCLOCKWISE.

THE MAXIMUM DEFLECTION IS 2.74 INCHES AND OCCURS AT MEMBER COORDINATE 35.00 FT.

PZ-22 HAS BEEN GIVEN TO SUPPORT THE LOAD SYSTEM.

THE WEIGHT OF THIS VERTICAL MEMBER HAS BEEN NEGLECTED.

CALCULATED EXTERNAL LOADS

DISTANCE FROM REFERENCE(FT)	TYPE OF LOAD	MAGNITUDE OF LOAD
7.74	POINT LD	90.42 LBF
7.74	COUPLE	0.99 LBF-FT

INPUTTED LOADS

DISTANCE FROM REFERENCE(FT)	TYPE OF LOAD	MAGNITUDE OF LOAD
35.00	CONTN LD	0. LBF/SQ FT
34.00	CONTN LD	62.50 LBF/SQ FT
33.00	CONTN LD	125.00 LBF/SQ FT
32.00	CONTN LD	187.50 LBF/SQ FT
31.00	CONTN LD	250.00 LBF/SQ FT
30.00	CONTN LD	312.50 LBF/SQ FT
29.00	CONTN LD	375.00 LBF/SQ FT
28.00	CONTN LD	437.50 LBF/SQ FT
28.00	CONTN LD	437.50 LBF/SQ FT
27.00	CONTN LD	303.29 LBF/SQ FT
26.00	CONTN LD	165.29 LBF/SQ FT
25.00	CONTN LD	24.98 LBF/SQ FT
24.82	CONTN LD	0. LBF/SQ FT
24.00	CONTN LD	-115.33 LBF/SQ FT
24.00	CONTN LD	-115.33 LBF/SQ FT
23.00	CONTN LD	-233.33 LBF/SQ FT
22.00	CONTN LD	-351.34 LBF/SQ FT

21.00	CONTN LD	-435.53	LBF/SQ FT
20.00	CONTN LD	-481.74	LBF/SQ FT
19.00	CONTN LD	-527.96	LBF/SQ FT
18.50	CONTN LD	-551.06	LBF/SQ FT
18.50	CONTN LD	-551.06	LBF/SQ FT
17.50	CONTN LD	-541.70	LBF/SQ FT
16.50	CONTN LD	-532.34	LBF/SQ FT
15.50	CONTN LD	-522.98	LBF/SQ FT
14.50	CONTN LD	-513.62	LBF/SQ FT
13.50	CONTN LD	-504.26	LBF/SQ FT
13.34	CONTN LD	-502.74	LBF/SQ FT
11.89	CONTN LD	0.	LBF/SQ FT
7.74	CONTN LD	1441.17	LBF/SQ FT
7.74	CONTN LD	0.	LBF/SQ FT

PZ-22 PROPERTIES ARE AS FOLLOWS.

MOMENT OF INERTIA= 84.38 IN. TO THE 4TH PER FOOT OF WALL
CROSS SECTIONAL AREA= 6.47 SQ IN.
ELASTIC MODULUS= 29000000. LBF/SQ IN.
DEFLECTION REFERENCE IS AT 7.800

THE MAXIMUM BENDING MOMENT IS 19100.40 LBF-FT AND OCCURS AT 18.33
WHICH HAS THE SHEAR FORCE OF 1.28 LBF.

DISTANCE (FEET)	SHEAR FOR (LBF)	SHEAR STR (LBF/SQIN)	BENDING MOM (LBF-FT)	DEFLECTION FROM TANG. THRU DEFLE REFERENCE (INCHES)
35.000	0.	0.	0.	2.7369
34.999	0.0	0.0	0.0	2.7369
34.000	31.3	4.8	10.4	2.5664
33.000	125.0	19.3	83.3	2.3958
32.000	281.3	43.5	281.3	2.2252
31.000	500.0	77.3	666.7	2.0549
30.000	781.3	120.7	1302.1	1.8850
29.000	1125.0	173.9	2250.0	1.7162
28.000	1531.3	236.7	3572.9	1.5489
27.000	1901.6	293.9	5300.5	1.3842
26.000	2135.9	330.1	7330.8	1.2233
25.000	2231.1	344.8	9526.0	1.0676
24.822	2233.3	345.2	9923.5	1.0406
24.000	2185.9	337.9	11746.2	0.9187
23.000	2011.6	310.9	13854.8	0.7780
22.000	1719.2	265.7	15730.0	0.6470
21.000	1325.8	204.9	17259.5	0.5272
20.000	867.2	134.0	18359.8	0.4194
19.000	362.3	56.0	18978.4	0.3246
18.334	1.3	0.2	19100.4	0.2689
18.000	-181.8	-28.1	19070.2	0.2431
17.000	-723.5	-111.8	18616.8	0.1751
16.000	-1255.9	-194.1	17626.3	0.1201
15.000	-1778.8	-274.9	16108.2	0.0775
14.000	-2292.5	-354.3	14071.8	0.0462
13.000	-2777.5	-429.3	11528.5	0.0248
12.000	-2989.7	-462.1	8616.0	0.0115

11.890	-2991.8	-462.4	8286.2	0.0105
11.888	-2991.8	-462.4	8280.2	0.0105
11.000	-2854.8	-441.2	5664.9	0.0043
10.000	-2372.7	-366.7	3022.2	0.0011
9.000	-1543.6	-238.6	1035.1	0.0001
8.000	-367.3	-56.8	50.7	0.0000
7.801	-91.8	-14.2	4.8	0.
7.800	-90.4	-14.0	4.7	0.

RUN COMPLETED

```
LISTH JR635A

08/31/83    10.96


1110 1 35.0 7.3 1 7.3 0 -1
1120 PZ-22
1130 29000000 6.47 84.38


*FRN WESLIB/CORPS/X0015,E

                    BEAMS (SHEAR, MOMENT, DEFLECTION)

DO YOU WANT OUTPUT SAVED IN A FILE (YES/NO)?
*YES
RETRANSMIT LAST LINE
YES
ENTER EITHER A NEW OR EXISTING OUTPUT FILE NAME UP
TO 47 CHARACTERS. TYPE A ? FOR INFO.
*JR635B
RETRANSMIT LAST LINE
JR635B
IS THE LOADING ON THE MEMBER TO BE READ FROM A FILE CREATED BY THE
'CANTILEVER RETAINING WALL STABILITY' PROGRAM (YES/NO)?
*YES
ENTER THE NAME OF THE FILE IN WHICH THE MEMBER LOADING IS STORED.
*JR635
DO YOU WANT TO RUN AN EXISTING DATA FILE (YES/NO)?
*YES
ENTER THE DATA FILE NAME.
*JR635A


*RUN COMPLETED*
```

```
LISTH JR635

08/31/83    10.73


10001 "17TH ST OUTFALL CANAL                                                    :
10002 "STA 635 TO 670                                                           :
10003                    3  0.35000000E 02  0.
10004                    3  0.34000000E 02  0.62500000E 02
10005                    3  0.33000000E 02  0.12500000E 03
10006                    3  0.32000000E 02  0.18750000E 03
10007                    3  0.31000000E 02  0.25000000E 03
10008                    3  0.30000000E 02  0.31250000E 03
10009                    3  0.29000000E 02  0.37500000E 03
10010                    3  0.28000000E 02  0.43750000E 03
10011                    3  0.28000000E 02  0.43750000E 03
10012                    3  0.27000000E 02  0.30635808E 03
10013                    3  0.26000000E 02  0.17174496E 03
10014                    3  0.26000000E 02  0.17174496E 03
10015                    3  0.25000000E 02  0.48757444E 02
10016                    3  0.24603558E 02  0.
10017                    3  0.24000000E 02 -0.74230068E 02
10018                    3  0.23000000E 02 -0.19721762E 03
10019                    3  0.22000000E 02 -0.32020514E 03
10020                    3  0.21000000E 02 -0.41022173E 03
10021                    3  0.20000000E 02 -0.46321519E 03
10022                    3  0.19000000E 02 -0.51620871E 03
10023                    3  0.18500000E 02 -0.54270534E 03
10024                    3  0.18500000E 02 -0.54270534E 03
10025                    3  0.17500000E 02 -0.54012344E 03
10026                    3  0.16500000E 02 -0.53754160E 03
10027                    3  0.15500000E 02 -0.53408800E 03
10028                    3  0.14500000E 02 -0.53418098E 03
10029                    3  0.13500000E 02 -0.53655664E 03
10030                    3  0.12804344E 02 -0.53820937E 03
10031                    3  0.11389441E 02  0.
10032                    3  0.73189951E 01  0.15483403E 04
10033                    4  0.73189951E 01  0.
10034                    0  0.73189951E 01  0.
10035   0.73189951E 01 -0.18310547E-03  0.24462891E 01


*
```

LISTH JR635B

08/31/83 11.02

BEAMS (SHEAR, MOMENT, DEFLECTION)

17TH ST OUTFALL CANAL
STA 635 TO 670

THE REFERENCE SYSTEM SELECTED DEFINES POSITIVE FORCES AS TO THE LEFT
INCREASING MEMBER COORDINATES AS UPWARD, AND POSITIVE MOMENTS
AS COUNTERCLOCKWISE.

THE MAXIMUM DEFLECTION IS 2.98 INCHES AND OCCURS AT MEMBER COORDINATE
35.00 FT.

PZ-22 HAS BEEN GIVEN TO SUPPORT THE LOAD SYSTEM.

THE WEIGHT OF THIS VERTICAL MEMBER HAS BEEN NEGLECTED.

CALCULATED EXTERNAL LOADS

DISTANCE FROM REFERENCE(FT)	TYPE OF LOAD	MAGNITUDE OF LOAD
7.32	POINT LD	0.00 LBF
7.32	COUPLE	-2.45 LBF-FT

INPUTTED LOADS

DISTANCE FROM REFERENCE(FT)	TYPE OF LOAD	MAGNITUDE OF LOAD
35.00	CONTN LD	0. LBF/SQ FT
34.00	CONTN LD	62.50 LBF/SQ FT
33.00	CONTN LD	125.00 LBF/SQ FT
32.00	CONTN LD	187.50 LBF/SQ FT
31.00	CONTN LD	250.00 LBF/SQ FT
30.00	CONTN LD	312.50 LBF/SQ FT
29.00	CONTN LD	375.00 LBF/SQ FT
28.00	CONTN LD	437.50 LBF/SQ FT
28.00	CONTN LD	437.50 LBF/SQ FT
27.00	CONTN LD	306.36 LBF/SQ FT
26.00	CONTN LD	171.74 LBF/SQ FT
26.00	CONTN LD	171.74 LBF/SQ FT
25.00	CONTN LD	48.76 LBF/SQ FT
24.60	CONTN LD	0. LBF/SQ FT
24.00	CONTN LD	-74.23 LBF/SQ FT
23.00	CONTN LD	-197.22 LBF/SQ FT
22.00	CONTN LD	-320.21 LBF/SQ FT
21.00	CONTN LD	-410.22 LBF/SQ FT
20.00	CONTN LD	-463.22 LBF/SQ FT
19.00	CONTN LD	-516.21 LBF/SQ FT
18.50	CONTN LD	-542.71 LBF/SQ FT

18.50	CONTN LD	-542.71	LBF/SQ FT
17.50	CONTN LD	-540.12	LBF/SQ FT
16.50	CONTN LD	-537.54	LBF/SQ FT
15.50	CONTN LD	-534.09	LBF/SQ FT
14.50	CONTN LD	-534.18	LBF/SQ FT
13.50	CONTN LD	-536.56	LBF/SQ FT
12.80	CONTN LD	-538.21	LBF/SQ FT
11.39	CONTN LD	0.	LBF/SQ FT
7.32	CONTN LD	1548.34	LBF/SQ FT
7.32	CONTN LD	0.	LBF/SQ FT

PZ-22 PROPERTIES ARE AS FOLLOWS.

MOMENT OF INERTIA= 84.38 IN. TO THE 4TH PER FOOT OF WALL
CROSS SECTIONAL AREA= 6.47 SQ IN.
ELASTIC MODULUS= 29000000. LBF/SQ IN.
DEFLECTION REFERENCE IS AT 7.300

THE MAXIMUM BENDING MOMENT IS 19993.48 LBF-FT AND OCCURS AT 17.97
WHICH HAS THE SHEAR FORCE OF -0.04 LBF.

DISTANCE (FEET)	SHEAR FOR (LBF)	SHEAR STR (LBF/SQIN)	BENDING MOM (LBF-FT)	DEFLECTION FROM TANG. THRU DEFLE REFERENCE (INCHES)
35.000	0.	0.	0.	2.9783
34.999	0.0	0.0	0.0	2.9783
34.000	31.3	4.8	10.4	2.7963
33.000	125.0	19.3	83.3	2.6141
32.000	281.3	43.5	281.3	2.4319
31.000	500.0	77.3	666.7	2.2500
30.000	781.3	120.7	1302.1	2.0685
29.000	1125.0	173.9	2250.0	1.8881
28.000	1531.3	236.7	3572.9	1.7092
27.000	1903.2	294.2	5301.1	1.5329
26.000	2142.2	331.1	7335.0	1.3605
25.000	2252.5	348.1	9542.6	1.1932
24.604	2262.1	349.6	10438.1	1.1286
24.000	2239.7	346.2	11798.9	1.0326
23.000	2104.0	325.2	13981.1	0.8804
22.000	1845.3	285.2	15966.0	0.7380
21.000	1480.1	228.8	17636.2	0.6069
20.000	1043.4	161.3	18902.4	0.4882
19.000	553.7	85.6	19705.3	0.3827
18.000	17.9	2.8	19993.2	0.2911
17.967	-0.0	-0.0	19993.5	0.2883
17.000	-522.2	-80.7	19740.8	0.2136
16.000	-1059.6	-163.8	18949.6	0.1500
15.000	-1594.2	-246.4	17622.6	0.0996
14.000	-2128.6	-329.0	15761.3	0.0617
13.000	-2665.2	-411.9	13364.5	0.0348
12.000	-3080.3	-476.1	10463.3	0.0173
11.390	-3151.2	-487.1	8556.8	0.0104
11.388	-3151.2	-487.1	8550.5	0.0104
11.000	-3122.4	-482.6	7330.2	0.0072
10.000	-2784.0	-430.3	4345.3	0.0022

9.000	-2065.3	-319.2	1888.9	0.0004
8.000	-966.2	-149.3	341.5	0.0000
7.320	-1.5	-0.2	2.5	0.0000
7.318	0.0	0.0	-0.0	-0.0000
7.301	0.0	0.0	-0.0	0.
7.300	0.0	0.0	-0.0	0.

RUN COMPLETED

LISTH JR635B

08/29/83 07.66

BEAMS (SHEAR, MOMENT, DEFLECTION)

17TH ST OUTFALL CANAL
STA 635 TO 670

THE REFERENCE SYSTEM SELECTED DEFINES POSITIVE FORCES AS TO THE LEFT INCREASING MEMBER COORDINATES AS UPWARD, AND POSITIVE MOMENTS AS COUNTERCLOCKWISE.

THE MAXIMUM DEFLECTION IS 4.85 INCHES AND OCCURS AT MEMBER COORDINATE 35.00 FT.

PZ-22 HAS BEEN GIVEN TO SUPPORT THE LOAD SYSTEM.

THE WEIGHT OF THIS VERTICAL MEMBER HAS BEEN NEGLECTED.

CALCULATED EXTERNAL LOADS

DISTANCE FROM REFERENCE(FT)	TYPE OF LOAD	MAGNITUDE OF LOAD
3.17	POINT LD	-0.00 LBF
3.17	COUPLE	-23.78 LBF-FT

INPUTTED LOADS

DISTANCE FROM REFERENCE(FT)	TYPE OF LOAD	MAGNITUDE OF LOAD
35.00	CONTN LD	0. LBF/SQ FT
34.00	CONTN LD	62.50 LBF/SQ FT
33.00	CONTN LD	125.00 LBF/SQ FT
32.00	CONTN LD	187.50 LBF/SQ FT
31.00	CONTN LD	250.00 LBF/SQ FT
30.00	CONTN LD	312.50 LBF/SQ FT
29.00	CONTN LD	375.00 LBF/SQ FT
28.00	CONTN LD	437.50 LBF/SQ FT
28.00	CONTN LD	437.50 LBF/SQ FT
27.00	CONTN LD	326.62 LBF/SQ FT
26.00	CONTN LD	211.48 LBF/SQ FT
26.00	CONTN LD	211.48 LBF/SQ FT
25.00	CONTN LD	106.08 LBF/SQ FT
24.00	CONTN LD	0.68 LBF/SQ FT
23.99	CONTN LD	0. LBF/SQ FT
23.00	CONTN LD	-104.71 LBF/SQ FT
22.00	CONTN LD	-210.11 LBF/SQ FT
21.00	CONTN LD	-303.40 LBF/SQ FT
20.00	CONTN LD	-346.22 LBF/SQ FT
19.00	CONTN LD	-389.04 LBF/SQ FT
18.50	CONTN LD	-410.45 LBF/SQ FT

18.50	CONTN LD	-410.45	LBF/SQ FT
17.50	CONTN LD	-407.09	LBF/SQ FT
16.50	CONTN LD	-403.44	LBF/SQ FT
15.50	CONTN LD	-398.93	LBF/SQ FT
14.50	CONTN LD	-395.24	LBF/SQ FT
13.50	CONTN LD	-396.08	LBF/SQ FT
12.50	CONTN LD	-396.91	LBF/SQ FT
11.50	CONTN LD	-397.74	LBF/SQ FT
10.50	CONTN LD	-398.58	LBF/SQ FT
9.50	CONTN LD	-399.41	LBF/SQ FT
8.50	CONTN LD	-400.24	LBF/SQ FT
8.30	CONTN LD	-400.41	LBF/SQ FT
7.27	CONTN LD	0.	LBF/SQ FT
3.17	CONTN LD	1586.76	LBF/SQ FT
3.17	CONTN LD	0.	LBF/SQ FT

PZ-22 PROPERTIES ARE AS FOLLOWS.

MOMENT OF INERTIA= 84.38 IN. TO THE 4TH PER FOOT OF WALL
CROSS SECTIONAL AREA= 6.47 SQ IN.
ELASTIC MODULUS= 29000000. LBF/SQ IN.
DEFLECTION REFERENCE IS AT 3.170

THE MAXIMUM BENDING MOMENT IS 23801.33 LBF-FT AND OCCURS AT 15.95
WHICH HAS THE SHEAR FORCE OF -0.11 LBF.

DISTANCE (FEET)	SHEAR FOR (LBF)	SHEAR STR (LBF/SQIN)	BENDING MOM (LBF-FT)	DEFLECTION FROM TANG. THRU DEFLE REFERENCE (INCHES)
35.000	0.	0.	0.	4.8546
34.999	0.0	0.0	0.0	4.8546
34.000	31.3	4.8	10.4	4.5927
33.000	125.0	19.3	83.3	4.3306
32.000	281.3	43.5	281.3	4.0685
31.000	500.0	77.3	666.7	3.8067
30.000	781.3	120.7	1302.1	3.5454
29.000	1125.0	173.9	2250.0	3.2850
28.000	1531.3	236.7	3572.9	3.0262
27.000	1913.3	295.7	5304.4	2.7700
26.000	2182.4	337.3	7361.9	2.5176
25.000	2341.1	361.8	9632.4	2.2705
24.000	2394.5	370.1	12009.0	2.0301
23.994	2394.5	370.1	12024.5	2.0301
23.000	2342.5	362.1	14386.3	1.7997
22.000	2185.1	337.7	16658.9	1.5779
21.000	1928.3	298.0	18723.3	1.3679
20.000	1603.5	247.8	20492.8	1.1710
19.000	1235.9	191.0	21916.1	0.9886
18.000	831.2	128.5	22951.3	0.8216
17.000	424.1	65.6	23578.7	0.6708
16.000	20.8	3.2	23800.8	0.5365
15.948	-0.1	-0.0	23801.3	0.5300
15.000	-378.2	-58.5	23621.7	0.4190
14.000	-774.0	-119.6	23045.5	0.3182
13.000	-1170.1	-180.9	22073.5	0.2336

12.000	-1567.0	-248.2	20705.0	0.1645
11.000	-1964.8	-303.7	18939.2	0.1100
10.000	-2363.3	-365.3	16775.2	0.0689
9.000	-2762.7	-427.0	14212.2	0.0395
8.000	-3145.4	-486.2	11251.2	0.0201
7.268	-3249.4	-502.2	8899.2	0.0111
7.266	-3249.4	-502.2	8892.7	0.0111
7.000	-3235.5	-500.1	8028.4	0.0087
6.000	-2938.2	-454.1	4909.3	0.0029
5.000	-2253.5	-348.3	2281.1	0.0006
4.000	-1181.4	-182.6	531.4	0.0000
3.173	-1.6	-0.2	23.8	0.
3.171	0.0	0.0	0.0	0.
3.170	0.0	0.0	0.0	0.

RUN COMPLETED

```
LISTH JR635A

08/29/83     07.68


1110 1 35.0 3.17 1 3.17 0 -1
1120 PZ-22
1130 29000000 6.47 84.38

*
```

```
LIST JR635

10001 '17TH ST OUTFALL CANAL                                                    :
10002 'STA 635 TO 670                                                           :
10003                    3  0.35000000E 02  0.
10004                    3  0.34000000E 02  0.62500000E 02
10005                    3  0.33000000E 02  0.12500000E 03
10006                    3  0.32000000E 02  0.18750000E 03
10007                    3  0.31000000E 02  0.25000000E 03
10008                    3  0.30000000E 02  0.31250000E 03
10009                    3  0.29000000E 02  0.37500000E 03
10010                    3  0.28000000E 02  0.43750000E 03
10011                    3  0.28000000E 02  0.43750000E 03
10012                    3  0.27000000E 02  0.32661528E 03
10013                    3  0.26000000E 02  0.21147690E 03
10014                    3  0.26000000E 02  0.21147690E 03
10015                    3  0.25000000E 02  0.10607983E 03
10016                    3  0.24000000E 02  0.68274021E 00
10017                    3  0.23993522E 02  0.
10018                    3  0.23000000E 02 -0.10471434E 03
10019                    3  0.22000000E 02 -0.21011142E 03
10020                    3  0.21000000E 02 -0.30340410E 03
10021                    3  0.20000000E 02 -0.34622364E 03
10022                    3  0.19000000E 02 -0.38904311E 03
10023                    3  0.18500000E 02 -0.41045294E 03
10024                    3  0.18500000E 02 -0.41045294E 03
10025                    3  0.17500000E 02 -0.40708881E 03
10026                    3  0.16500000E 02 -0.40344343E 03
10027                    3  0.15500000E 02 -0.39892768E 03
10028                    3  0.14500000E 02 -0.39524473E 03
10029                    3  0.13500000E 02 -0.39607751E 03
10030                    3  0.12500000E 02 -0.39691034E 03
10031                    3  0.11500000E 02 -0.39774310E 03
10032                    3  0.10500000E 02 -0.39857593E 03
10033                    3  0.95000000E 01 -0.39940866E 03
10034                    3  0.85000000E 01 -0.40024146E 03
10035                    3  0.83008659E 01 -0.40040728E 03
10036                    3  0.72673647E 01  0.
10037                    3  0.31717369E 01  0.15867608E 04
10038                    4  0.31717369E 01  0.
10039                    0  0.31717369E 01  0.
10040   0.31717369E 01 -0.61035156E-04  0.23778320E 02
```

```
LISTH JR625A

08/29/83    07.59


1110 1 35.0 3.46 1 3.46 0 -1
1120 PZ-22
1130 29000000 6.47 84.38


*FRN WESLIB/CORPS/X0015,E

                    BEAMS (SHEAR, MOMENT, DEFLECTION)

DO YOU WANT OUTPUT SAVED IN A FILE (YES/NO)?
*YES
ENTER EITHER A NEW OR EXISTING OUTPUT FILE NAME UP
TO 47 CHARACTERS. TYPE A ? FOR INFO.
*JR625B
IS THE LOADING ON THE MEMBER TO BE READ FROM A FILE CREATED BY THE
"CANTILEVER RETAINING WALL STABILITY" PROGRAM (YES/NO)?
*YES
ENTER THE NAME OF THE FILE IN WHICH THE MEMBER LOADING IS STORED.
*JR625
DO YOU WANT TO RUN AN EXISTING DATA FILE (YES/NO)?
*YES
ENTER THE DATA FILE NAME.
*JR625A


*RUN COMPLETED*
```

```
*LISTH JR625B
08/29/83    07.61

                    BEAMS (SHEAR, MOMENT, DEFLECTION)

17TH ST OUTFALL CANAL
STA 625 TO 635

THE REFERENCE SYSTEM SELECTED DEFINES POSITIVE FORCES AS TO THE LEFT
INCREASING MEMBER COORDINATES AS UPWARD, AND POSITIVE MOMENTS
 AS COUNTERCLOCKWISE.


 THE MAXIMUM DEFLECTION IS   4.51 INCHES AND OCCURS AT MEMBER COORDINATE
  35.00 FT.


PZ-22        HAS BEEN GIVEN TO SUPPORT THE LOAD SYSTEM.

 THE WEIGHT OF THIS VERTICAL MEMBER HAS BEEN NEGLECTED.


      CALCULATED EXTERNAL LOADS

DISTANCE FROM   TYPE OF    MAGNITUDE OF
REFERENCE(FT)    LOAD            LOAD
         3.46  POINT LD       0.81 LBF
         3.46   COUPLE        4.39 LBF-FT


             INPUTTED LOADS

DISTANCE FROM   TYPE OF    MAGNITUDE OF
REFERENCE(FT)    LOAD            LOAD
        35.00  CONTN LD       0.    LBF/SQ FT
        34.00  CONTN LD      62.50  LBF/SQ FT
        33.00  CONTN LD     125.00  LBF/SQ FT
        32.00  CONTN LD     187.50  LBF/SQ FT
        31.00  CONTN LD     250.00  LBF/SQ FT
        30.00  CONTN LD     312.50  LBF/SQ FT
        29.00  CONTN LD     375.00  LBF/SQ FT
        28.00  CONTN LD     437.50  LBF/SQ FT
        28.00  CONTN LD     437.50  LBF/SQ FT
        27.00  CONTN LD     324.23  LBF/SQ FT
        26.00  CONTN LD     206.32  LBF/SQ FT
        25.00  CONTN LD      86.19  LBF/SQ FT
        24.28  CONTN LD       0.    LBF/SQ FT
        24.00  CONTN LD     -33.93  LBF/SQ FT
        24.00  CONTN LD     -33.93  LBF/SQ FT
        23.00  CONTN LD    -135.19  LBF/SQ FT
        22.00  CONTN LD    -236.46  LBF/SQ FT
        21.00  CONTN LD    -325.31  LBF/SQ FT
        20.00  CONTN LD    -362.40  LBF/SQ FT
```

19.00	CONTN LD	-399.49	LBF/SQ FT
18.50	CONTN LD	-418.03	LBF/SQ FT
18.50	CONTN LD	-418.03	LBF/SQ FT
17.50	CONTN LD	-408.93	LBF/SQ FT
16.50	CONTN LD	-399.83	LBF/SQ FT
15.50	CONTN LD	-390.73	LBF/SQ FT
14.50	CONTN LD	-381.63	LBF/SQ FT
13.50	CONTN LD	-372.54	LBF/SQ FT
12.50	CONTN LD	-363.44	LBF/SQ FT
11.50	CONTN LD	-354.34	LBF/SQ FT
10.50	CONTN LD	-345.24	LBF/SQ FT
9.50	CONTN LD	-336.14	LBF/SQ FT
8.50	CONTN LD	-327.04	LBF/SQ FT
8.42	CONTN LD	-326.76	LBF/SQ FT
7.53	CONTN LD	0.	LBF/SQ FT
3.46	CONTN LD	1490.35	LBF/SQ FT
3.46	CONTN LD	0.	LBF/SQ FT

PZ-22 PROPERTIES ARE AS FOLLOWS.

MOMENT OF INERTIA= 84.38 IN. TO THE 4TH PER FOOT OF WALL
CROSS SECTIONAL AREA= 6.47 SQ IN.
ELASTIC MODULUS= 29000000. LBF/SQ IN.
DEFLECTION REFERENCE IS AT 3.460

THE MAXIMUM BENDING MOMENT IS 22709.97 LBF-FT AND OCCURS AT 16.37
WHICH HAS THE SHEAR FORCE OF -1.06 LBF.

DISTANCE (FEET)	SHEAR FOR (LBF)	SHEAR STR (LBF/SQIN)	BENDING MOM (LBF-FT)	DEFLECTION FROM TANG. THRU DEFLE REFERENCE (INCHES)
35.000	0.	0.	0.	4.5148
34.999	0.0	0.0	0.0	4.5148
34.000	31.3	4.8	10.4	4.2676
33.000	125.0	19.3	83.3	4.0203
32.000	281.3	43.5	281.3	3.7730
31.000	500.0	77.3	666.7	3.5259
30.000	781.3	120.7	1302.1	3.2793
29.000	1125.0	173.9	2250.0	3.0337
28.000	1531.3	236.7	3572.9	2.7897
27.000	1912.1	295.5	5304.0	2.5483
26.000	2177.4	336.5	7358.6	2.3106
25.000	2323.6	359.1	9619.1	2.0782
24.282	2354.6	363.9	11301.3	1.9155
24.000	2349.8	363.2	11965.9	1.8526
23.000	2265.2	350.1	14281.8	1.6354
22.000	2079.4	321.4	16462.5	1.4283
21.000	1798.5	278.0	18408.9	1.2328
20.000	1454.6	224.8	20038.5	1.0503
19.000	1073.7	166.0	21305.8	0.8818
18.000	661.4	102.2	22174.5	0.7284
17.000	252.5	39.0	22630.8	0.5906
16.368	-1.1	-0.2	22710.0	0.5117
16.000	-147.3	-22.8	22682.6	0.4687
15.000	-538.1	-83.2	22339.2	0.3628

14.000	-919.7	-142.1	21609.5	0.2726
13.000	-1292.2	-199.7	20502.8	0.1977
12.000	-1655.7	-255.9	19028.1	0.1371
11.000	-2010.0	-310.7	17194.5	0.0900
10.000	-2355.2	-364.0	15011.2	0.0550
9.000	-2691.4	-416.0	12487.1	0.0305
8.000	-2987.5	-461.7	9635.7	0.0148
7.527	-3028.7	-468.1	8208.9	0.0099
7.525	-3028.7	-468.1	8202.9	0.0099
7.000	-2978.0	-460.3	6622.4	0.0060
6.000	-2602.3	-402.2	3801.8	0.0017
5.000	-1860.1	-287.5	1540.0	0.0003
4.000	-751.7	-116.2	203.6	0.0000
3.461	-2.3	-0.4	-4.4	0.
3.460	-0.8	-0.1	-4.4	0.

RUN COMPLETED

```
LIST JR625

10001 *17TH ST OUTFALL CANAL
10002 *STA 625 TO 635
10003                    3  0.35000000E 02  0.
10004                    3  0.34000000E 02  0.62500000E 02
10005                    3  0.33000000E 02  0.12500000E 03
10006                    3  0.32000000E 02  0.18750000E 03
10007                    3  0.31000000E 02  0.25000000E 03
10008                    3  0.30000000E 02  0.31250000E 03
10009                    3  0.29000000E 02  0.37500000E 03
10010                    3  0.28000000E 02  0.43750000E 03
10011                    3  0.28000000E 02  0.43750000E 03
10012                    3  0.27000000E 02  0.32423007E 03
10013                    3  0.26000000E 02  0.20631623E 03
10014                    3  0.25000000E 02  0.86194330E 02
10015                    3  0.24282443E 02  0.
10016                    3  0.24000000E 02 -0.33927590E 02
10017                    3  0.24000000E 02 -0.33927590E 02
10018                    3  0.23000000E 02 -0.13519493E 03
10019                    3  0.22000000E 02 -0.23646228E 03
10020                    3  0.21000000E 02 -0.32531482E 03
10021                    3  0.20000000E 02 -0.36240016E 03
10022                    3  0.19000000E 02 -0.39948536E 03
10023                    3  0.18500000E 02 -0.41802799E 03
10024                    3  0.18500000E 02 -0.41802799E 03
10025                    3  0.17500000E 02 -0.40892959E 03
10026                    3  0.16500000E 02 -0.39983113E 03
10027                    3  0.15500000E 02 -0.39073278E 03
10028                    3  0.14500000E 02 -0.38163430E 03
10029                    3  0.13500000E 02 -0.37253584E 03
10030                    3  0.12500000E 02 -0.36343744E 03
10031                    3  0.11500000E 02 -0.35433895E 03
10032                    3  0.10500000E 02 -0.34524056E 03
10033                    3  0.95000000E 01 -0.33614212E 03
10034                    3  0.85000000E 01 -0.32704377E 03
10035                    3  0.84177117E 01 -0.32675747E 03
10036                    3  0.75257564E 01  0.
10037                    3  0.34575294E 01  0.14903477E 04
10038                    4  0.34575294E 01  0.
10039                    0  0.34575294E 01  0.
10040   0.34575294E 01  0.28710327E 01 -0.43925781E 01
```

```
LISTH JR614A

08/29/83    07.55


1110 1 35.0 3.17 1 3.17 0 -1
1120 PZ-22
1130 29000000 6.47 84.38


*FRN WESLIB/CORPS/X0015,E

                    BEAMS (SHEAR, MOMENT, DEFLECTION)

DO YOU WANT OUTPUT SAVED IN A FILE (YES/NO)?
=YES
ENTER EITHER A NEW OR EXISTING OUTPUT FILE NAME UP
TO 47 CHARACTERS. TYPE A ? FOR INFO.
=JR614B
IS THE LOADING ON THE MEMBER TO BE READ FROM A FILE CREATED BY THE
"CANTILEVER RETAINING WALL STABILITY" PROGRAM (YES/NO)?
=YES
ENTER THE NAME OF THE FILE IN WHICH THE MEMBER LOADING IS STORED.
=JR614
DO YOU WANT TO RUN AN EXISTING DATA FILE (YES/NO)?
=YES
ENTER THE DATA FILE NAME.
=JR614A


*RUN COMPLETED*
```

*LISTH JR614B

08/29/83 07.57

BEAMS (SHEAR, MOMENT, DEFLECTION)

17TH ST OUTFALL CANAL
STA 614 TO 625

THE REFERENCE SYSTEM SELECTED DEFINES POSITIVE FORCES AS TO THE LEFT
INCREASING MEMBER COORDINATES AS UPWARD, AND POSITIVE MOMENTS
AS COUNTERCLOCKWISE.

THE MAXIMUM DEFLECTION IS 5.63 INCHES AND OCCURS AT MEMBER COORDINATE
35.00 FT.

PZ-22 HAS BEEN GIVEN TO SUPPORT THE LOAD SYSTEM.

THE WEIGHT OF THIS VERTICAL MEMBER HAS BEEN NEGLECTED.

CALCULATED EXTERNAL LOADS

DISTANCE FROM REFERENCE(FT)	TYPE OF LOAD	MAGNITUDE OF LOAD
0.35	POINT LD	2751.04 LBF
0.35	COUPLE	3094.96 LBF-FT

INPUTTED LOADS

DISTANCE FROM REFERENCE(FT)	TYPE OF LOAD	MAGNITUDE OF LOAD
34.00	CONTN LD	0. LBF/SQ FT
33.00	CONTN LD	62.50 LBF/SQ FT
32.00	CONTN LD	125.00 LBF/SQ FT
31.00	CONTN LD	187.50 LBF/SQ FT
30.00	CONTN LD	250.00 LBF/SQ FT
29.00	CONTN LD	312.50 LBF/SQ FT
28.00	CONTN LD	375.00 LBF/SQ FT
27.00	CONTN LD	437.50 LBF/SQ FT
27.00	CONTN LD	437.50 LBF/SQ FT
26.00	CONTN LD	324.23 LBF/SQ FT
25.00	CONTN LD	206.32 LBF/SQ FT
24.00	CONTN LD	86.19 LBF/SQ FT
24.00	CONTN LD	86.19 LBF/SQ FT
23.15	CONTN LD	0. LBF/SQ FT
23.00	CONTN LD	-15.07 LBF/SQ FT
22.00	CONTN LD	-116.34 LBF/SQ FT
21.00	CONTN LD	-217.61 LBF/SQ FT
20.00	CONTN LD	-306.46 LBF/SQ FT
19.00	CONTN LD	-343.55 LBF/SQ FT

18.50	CONTN	LD	-362.09	LBF/SQ FT
18.50	CONTN	LD	-362.09	LBF/SQ FT
17.50	CONTN	LD	-352.99	LBF/SQ FT
16.50	CONTN	LD	-343.89	LBF/SQ FT
15.50	CONTN	LD	-334.79	LBF/SQ FT
14.50	CONTN	LD	-325.69	LBF/SQ FT
13.50	CONTN	LD	-316.60	LBF/SQ FT
12.50	CONTN	LD	-307.50	LBF/SQ FT
11.50	CONTN	LD	-298.40	LBF/SQ FT
10.50	CONTN	LD	-288.69	LBF/SQ FT
9.50	CONTN	LD	-285.47	LBF/SQ FT
8.50	CONTN	LD	-283.28	LBF/SQ FT
7.50	CONTN	LD	-281.08	LBF/SQ FT
6.50	CONTN	LD	-278.89	LBF/SQ FT
5.50	CONTN	LD	-276.69	LBF/SQ FT
4.79	CONTN	LD	-275.14	LBF/SQ FT
4.13	CONTN	LD	0.	LBF/SQ FT
0.35	CONTN	LD	1558.74	LBF/SQ FT
0.35	CONTN	LD	0.	LBF/SQ FT

PZ-22 PROPERTIES ARE AS FOLLOWS.

MOMENT OF INERTIA= 84.38 IN. TO THE 4TH PER FOOT OF WALL
CROSS SECTIONAL AREA= 6.47 SQ IN.
ELASTIC MODULUS= 29000000. LBF/SQ IN.
DEFLECTION REFERENCE IS AT 3.170

THE MAXIMUM BENDING MOMENT IS 23609.15 LBF-FT AND OCCURS AT 14.53
WHICH HAS THE SHEAR FORCE OF -1.13 LBF.

DISTANCE (FEET)	SHEAR FOR (LBF)	SHEAR STR (LBF/SQIN)	BENDING MOM (LBF-FT)	DEFLECTION FROM TANG. THRU DEFLE REFERENCE (INCHES)
35.000	0.	0.	0.	5.6349
34.999	0.	0.	0.	5.6349
34.000	0.	0.	0.	5.3554
33.000	31.3	4.8	10.4	5.0757
32.000	125.0	19.3	83.3	4.7959
31.000	281.3	43.5	281.3	4.5163
30.000	500.0	77.3	666.7	4.2368
29.000	781.3	120.7	1302.1	3.9579
28.000	1125.0	173.9	2250.0	3.6799
27.000	1531.3	236.7	3572.9	3.4035
26.000	1912.1	295.5	5304.0	3.1297
25.000	2177.4	336.5	7358.6	2.8597
24.000	2323.6	359.1	9619.1	2.5950
23.149	2360.3	364.8	11617.7	2.3749
23.000	2359.2	364.6	11969.0	2.3370
22.000	2293.5	354.5	14303.8	2.0874
21.000	2126.5	328.7	16522.2	1.8480
20.000	1864.5	288.2	18525.2	1.6202
19.000	1539.5	237.9	20230.2	1.4054
18.000	1183.2	182.9	21592.7	1.2049
17.000	830.2	128.3	22598.6	1.0196
16.000	486.3	75.2	23256.1	0.8503

15.000	151.5	23.4	23574.3	0.6972
14.535	-1.1	-0.2	23609.2	0.6317
14.000	-174.2	-26.9	23562.2	0.5609
13.000	-490.8	-75.9	23228.9	0.4411
12.000	-798.3	-123.4	22583.6	0.3377
11.000	-1096.6	-169.5	21635.4	0.2502
10.000	-1386.1	-214.2	20393.6	0.1779
9.000	-1671.7	-258.4	18864.3	0.1200
8.000	-1955.0	-302.2	17050.8	0.0754
7.000	-2236.1	-345.6	14955.1	0.0428
6.000	-2515.0	-388.7	12579.4	0.0208
5.000	-2791.7	-431.5	9925.9	0.0075
4.128	-2940.3	-454.4	7407.4	0.0018
4.126	-2940.3	-454.4	7401.5	0.0018
4.000	-2936.9	-453.9	7030.9	0.0013
3.171	-2751.4	-425.3	4653.5	0.
3.170	-2751.0	-425.2	4650.7	0.

RUN COMPLETED

```
LIST JR614

10001 "17TH ST OUTFALL CANAL                                              :
10002 "STA 614 TO 625                                                     :
10003                    3  0.34000000E 02  0.
10004                    3  0.33000000E 02  0.62500000E 02
10005                    3  0.32000000E 02  0.12500000E 03
10006                    3  0.31000000E 02  0.18750000E 03
10007                    3  0.30000000E 02  0.25000000E 03
10008                    3  0.29000000E 02  0.31250000E 03
10009                    3  0.28000000E 02  0.37500000E 03
10010                    3  0.27000000E 02  0.43750000E 03
10011                    3  0.27000000E 02  0.43750000E 03
10012                    3  0.26000000E 02  0.32423007E 03
10013                    3  0.25000000E 02  0.20631622E 03
10014                    3  0.24000000E 02  0.86194313E 02
10015                    3  0.24000000E 02  0.86194313E 02
10016                    3  0.23148844E 02  0.
10017                    3  0.23000000E 02 -0.15073031E 02
10018                    3  0.22000000E 02 -0.11634038E 03
10019                    3  0.21000000E 02 -0.21760772E 03
10020                    3  0.20000000E 02 -0.30646033E 03
10021                    3  0.19000000E 02 -0.34354555E 03
10022                    3  0.18500000E 02 -0.36208815E 03
10023                    3  0.18500000E 02 -0.36208815E 03
10024                    3  0.17500000E 02 -0.35298969E 03
10025                    3  0.16500000E 02 -0.34389128E 03
10026                    3  0.15500000E 02 -0.33479288E 03
10027                    3  0.14500000E 02 -0.32569441E 03
10028                    3  0.13500000E 02 -0.31659589E 03
10029                    3  0.12500000E 02 -0.30749759E 03
10030                    3  0.11500000E 02 -0.29839909E 03
10031                    3  0.10500000E 02 -0.28869357E 03
10032                    3  0.95000000E 01 -0.28547102E 03
10033                    3  0.85000000E 01 -0.28327692E 03
10034                    3  0.75000000E 01 -0.28108286E 03
10035                    3  0.65000000E 01 -0.27888898E 03
10036                    3  0.55000000E 01 -0.27669495E 03
10037                    3  0.47930204E 01 -0.27514389E 03
10038                    3  0.41270847E 01  0.
10039                    3  0.35444837E 00  0.15587356E 04
10040                    4  0.35444837E 00  0.
10041                    0  0.35444837E 00  0.
10042   0.35444837E 00  0.                 0.93886719E 01
```

```
LISTH JR3B13

08/19/83    11.09


1110 1 34.0 -17.9 1 -17.9 0 -1
1120 PZ-27
1130 29000000 7.94 184.2


*FRN WESLIB/CORPS/X0015,E

                    BEAMS (SHEAR, MOMENT, DEFLECTION)

DO YOU WANT OUTPUT SAVED IN A FILE (YES/NO)?
=YES
ENTER EITHER A NEW OR EXISTING OUTPUT FILE NAME UP
TO 47 CHARACTERS. TYPE A ? FOR INFO.
=JRB03B13A
IS THE LOADING ON THE MEMBER TO BE READ FROM A FILE CREATED BY THE
'CANTILEVER RETAINING WALL STABILITY' PROGRAM (YES/NO)?
=YES
ENTER THE NAME OF THE FILE IN WHICH THE MEMBER LOADING IS STORED.
=JR313
DO YOU WANT TO RUN AN EXISTING DATA FILE (YES/NO)?
=YES
ENTER THE DATA FILE NAME.
=JR3B13


*RUN COMPLETED*
```

FS = 1.3

*LISTH JR3B13A

08/19/83 11.13

BEAMS (SHEAR, MOMENT, DEFLECTION)

17TH ST OUTFALL CANAL
STA 554 TO 589

THE REFERENCE SYSTEM SELECTED DEFINES POSITIVE FORCES AS TO THE LEFT INCREASING MEMBER COORDINATES AS UPWARD, AND POSITIVE MOMENTS AS COUNTERCLOCKWISE.

THE MAXIMUM DEFLECTION IS 4.89 INCHES AND OCCURS AT MEMBER COORDINATE 34.00 FT.

PZ-27 HAS BEEN GIVEN TO SUPPORT THE LOAD SYSTEM.

THE WEIGHT OF THIS VERTICAL MEMBER HAS BEEN NEGLECTED.

CALCULATED EXTERNAL LOADS

DISTANCE FROM REFERENCE(FT)	TYPE OF LOAD	MAGNITUDE OF LOAD
-5.17	POINT LD	-0.00 LBF
-5.17	COUPLE	-16.86 LBF-FT

INPUTTED LOADS

DISTANCE FROM REFERENCE(FT)	TYPE OF LOAD	MAGNITUDE OF LOAD
34.00	CONTN LD	0. LBF/SQ FT
33.00	CONTN LD	62.50 LBF/SQ FT
32.00	CONTN LD	125.00 LBF/SQ FT
31.00	CONTN LD	187.50 LBF/SQ FT
30.00	CONTN LD	250.00 LBF/SQ FT
29.00	CONTN LD	312.50 LBF/SQ FT
28.00	CONTN LD	375.00 LBF/SQ FT
27.00	CONTN LD	437.50 LBF/SQ FT
26.00	CONTN LD	500.00 LBF/SQ FT
26.00	CONTN LD	500.00 LBF/SQ FT
25.00	CONTN LD	366.05 LBF/SQ FT
24.00	CONTN LD	228.28 LBF/SQ FT
24.00	CONTN LD	228.28 LBF/SQ FT
23.00	CONTN LD	110.49 LBF/SQ FT
22.06	CONTN LD	0. LBF/SQ FT
22.00	CONTN LD	-7.30 LBF/SQ FT
21.00	CONTN LD	-125.09 LBF/SQ FT
20.00	CONTN LD	-242.89 LBF/SQ FT
19.00	CONTN LD	-326.86 LBF/SQ FT
18.50	CONTN LD	-349.86 LBF/SQ FT
18.50	CONTN LD	-349.86 LBF/SQ FT
17.50	CONTN LD	-340.56 LBF/SQ FT
16.50	CONTN LD	-331.25 LBF/SQ FT
15.50	CONTN LD	-321.94 LBF/SQ FT
14.50	CONTN LD	-312.63 LBF/SQ FT

13.50	CONTN LD	-301.66	LBF/SQ FT
12.50	CONTN LD	-296.70	LBF/SQ FT
11.50	CONTN LD	-295.61	LBF/SQ FT
10.50	CONTN LD	-294.53	LBF/SQ FT
9.50	CONTN LD	-293.44	LBF/SQ FT
8.50	CONTN LD	-292.36	LBF/SQ FT
7.50	CONTN LD	-291.27	LBF/SQ FT
6.50	CONTN LD	-290.18	LBF/SQ FT
5.50	CONTN LD	-289.10	LBF/SQ FT
4.50	CONTN LD	-288.01	LBF/SQ FT
3.50	CONTN LD	-286.93	LBF/SQ FT
2.50	CONTN LD	-285.84	LBF/SQ FT
1.50	CONTN LD	-284.75	LBF/SQ FT
0.50	CONTN LD	-283.67	LBF/SQ FT
0.	CONTN LD	-283.13	LBF/SQ FT
0.	CONTN LD	-283.13	LBF/SQ FT
-0.85	CONTN LD	-281.04	LBF/SQ FT
-1.40	CONTN LD	0.	LBF/SQ FT
-5.17	CONTN LD	1924.01	LBF/SQ FT
-5.17	CONTN LD	0.	LBF/SQ FT

PZ-27 PROPERTIES ARE AS FOLLOWS.

MOMENT OF INERTIA= 184.20 IN. TO THE 4TH PER FOOT OF WALL
CROSS SECTIONAL AREA= 7.94 SQ IN.
ELASTIC MODULUS= 29000000. LBF/SQ IN.
DEFLECTION REFERENCE IS AT -17.900

THE MAXIMUM BENDING MOMENT IS 33064.88 LBF-FT AND OCCURS AT 11.43
WHICH HAS THE SHEAR FORCE OF -0.13 LBF.

DISTANCE (FEET)	SHEAR FOR (LBF)	SHEAR STR (LBF/SQIN)	BENDING MOM (LBF-FT)	DEFLECTION FROM TANG. THRU DEFLE REFERENCE (INCHES)
34.000	0.	0.	0.	4.8858
33.999	0.0	0.0	0.0	4.8858
33.000	31.3	3.9	10.4	4.6676
32.000	125.0	15.7	83.3	4.4493
31.000	281.3	35.4	281.3	4.2309
30.000	500.0	63.0	666.7	4.0127
29.000	781.3	98.4	1302.1	3.7947
28.000	1125.0	141.7	2250.0	3.5771
27.000	1531.3	192.9	3572.9	3.3603
26.000	2000.0	251.9	5333.3	3.1447
25.000	2433.0	306.4	7561.0	2.9308
24.000	2730.2	343.9	10154.1	2.7194
23.000	2899.6	365.2	12978.8	2.5113
22.062	2951.4	371.7	15731.0	2.3199
22.000	2951.2	371.7	15914.0	2.3074
21.000	2885.0	363.3	18841.9	2.1086
20.000	2701.0	340.2	21644.7	1.9159
19.000	2416.1	304.3	24210.2	1.7302
18.000	2073.2	261.1	26456.4	1.5523
17.000	1732.6	218.2	28358.5	1.3830
16.000	1401.4	176.5	29924.7	1.2228
15.000	1079.4	135.9	31164.3	1.0723
14.000	767.0	96.6	32086.7	0.9318
13.000	464.6	58.5	32701.8	0.8017
12.000	167.4	21.1	33017.5	0.6822
11.434	-0.1	-0.0	33064.9	0.6193
11.000	-128.2	-16.1	33037.0	0.5734

10.000	-422.7	-53.2	32761.5	0.4752
9.000	-716.2	-90.2	32191.9	0.3876
8.000	-1008.5	-127.0	31389.5	0.3104
7.000	-1299.8	-163.7	30175.2	0.2433
6.000	-1590.0	-200.3	28730.2	0.1859
5.000	-1879.1	-236.7	26995.6	0.1379
4.000	-2167.1	-272.9	24972.4	0.0985
3.000	-2454.0	-309.1	22661.8	0.0672
2.000	-2739.9	-345.1	20064.7	0.0433
1.000	-3024.6	-380.9	17182.4	0.0258
0.	-3308.3	-416.7	14015.9	0.0138
-1.000	-3584.4	-451.4	10566.7	0.0064
-1.398	-3625.1	-456.6	9127.6	0.0044
-1.400	-3625.1	-456.6	9120.3	0.0044
-2.000	-3533.1	-445.0	6965.4	0.0024
-3.000	-2971.2	-374.2	3670.8	0.0006
-4.000	-1898.7	-239.1	1193.3	0.0001
-5.000	-315.7	-39.8	43.5	0.0000
-5.167	-1.9	-0.2	16.9	0.0000
-5.169	-0.0	-0.0	0.0	0.0000
-6.000	-0.0	-0.0	0.0	0.0000
-7.000	-0.0	-0.0	0.0	0.0000
-8.000	-0.0	-0.0	0.0	0.0000
-9.000	-0.0	-0.0	0.0	0.0000
-10.000	-0.0	-0.0	0.0	0.0000
-11.000	-0.0	-0.0	0.0	0.0000
-12.000	-0.0	-0.0	0.0	0.0000
-13.000	-0.0	-0.0	0.0	0.0000
-14.000	-0.0	-0.0	0.0	0.0000
-15.000	-0.0	-0.0	0.0	0.0000
-16.000	-0.0	-0.0	0.0	0.0000
-17.000	-0.0	-0.0	0.0	0.0000
-17.899	-0.0	-0.0	0.0	0.
-17.900	-0.0	-0.0	0.0	0.

RUN COMPLETED

```
LISTH JR3C13

08/19/83    11.16


1110 1 34.0 -17.9 1 -17.9 0 -1
1120 PZ-38
1130 29000000 11.2 280.0


*FRN WESLIB/CORPS/X0015,E

                    BEAMS (SHEAR, MOMENT, DEFLECTION)

DO YOU WANT OUTPUT SAVED IN A FILE (YES/NO)?
=YES
ENTER EITHER A NEW OR EXISTING OUTPUT FILE NAME UP
TO 47 CHARACTERS. TYPE A ? FOR INFO.
=JR3C13A
IS THE LOADING ON THE MEMBER TO BE READ FROM A FILE CREATED BY THE
'CANTILEVER RETAINING WALL STABILITY' PROGRAM (YES/NO)?
=YES
ENTER THE NAME OF THE FILE IN WHICH THE MEMBER LOADING IS STORED.
=JR313
DO YOU WANT TO RUN AN EXISTING DATA FILE (YES/NO)?
=YES
ENTER THE DATA FILE NAME.
=JR3C13


*RUN COMPLETED*
```

FS = 1.3

*LISTH JR3C13A

08/19/83 11.19

BEAMS (SHEAR, MOMENT, DEFLECTION)

17TH ST OUTFALL CANAL
STA 554 TO 589

THE REFERENCE SYSTEM SELECTED DEFINES POSITIVE FORCES AS TO THE LEFT INCREASING MEMBER COORDINATES AS UPWARD, AND POSITIVE MOMENTS AS COUNTERCLOCKWISE.

THE MAXIMUM DEFLECTION IS 3.21 INCHES AND OCCURS AT MEMBER COORDINATE 34.00 FT.

PZ-38 HAS BEEN GIVEN TO SUPPORT THE LOAD SYSTEM.

THE WEIGHT OF THIS VERTICAL MEMBER HAS BEEN NEGLECTED.

CALCULATED EXTERNAL LOADS

DISTANCE FROM REFERENCE(FT)	TYPE OF LOAD	MAGNITUDE OF LOAD
-5.17	POINT LD	-0.00 LBF
-5.17	COUPLE	-16.86 LBF-FT

INPUTTED LOADS

DISTANCE FROM REFERENCE(FT)	TYPE OF LOAD	MAGNITUDE OF LOAD
34.00	CONTN LD	0. LBF/SQ FT
33.00	CONTN LD	62.50 LBF/SQ FT
32.00	CONTN LD	125.00 LBF/SQ FT
31.00	CONTN LD	187.50 LBF/SQ FT
30.00	CONTN LD	250.00 LBF/SQ FT
29.00	CONTN LD	312.50 LBF/SQ FT
28.00	CONTN LD	375.00 LBF/SQ FT
27.00	CONTN LD	437.50 LBF/SQ FT
26.00	CONTN LD	500.00 LBF/SQ FT
26.00	CONTN LD	500.00 LBF/SQ FT
25.00	CONTN LD	366.05 LBF/SQ FT
24.00	CONTN LD	228.28 LBF/SQ FT
24.00	CONTN LD	228.28 LBF/SQ FT
23.00	CONTN LD	110.49 LBF/SQ FT
22.06	CONTN LD	0. LBF/SQ FT
22.00	CONTN LD	-7.30 LBF/SQ FT
21.00	CONTN LD	-125.09 LBF/SQ FT
20.00	CONTN LD	-242.89 LBF/SQ FT
19.00	CONTN LD	-326.86 LBF/SQ FT
18.50	CONTN LD	-349.86 LBF/SQ FT
18.50	CONTN LD	-349.86 LBF/SQ FT
17.50	CONTN LD	-340.56 LBF/SQ FT
16.50	CONTN LD	-331.25 LBF/SQ FT
15.50	CONTN LD	-321.94 LBF/SQ FT
14.50	CONTN LD	-312.63 LBF/SQ FT

13.50	CONTN LD	-301.86	LBF/SQ FT
12.50	CONTN LD	-296.70	LBF/SQ FT
11.50	CONTN LD	-295.61	LBF/SQ FT
10.50	CONTN LD	-294.53	LBF/SQ FT
9.50	CONTN LD	-293.44	LBF/SQ FT
8.50	CONTN LD	-292.36	LBF/SQ FT
7.50	CONTN LD	-291.27	LBF/SQ FT
6.50	CONTN LD	-290.18	LBF/SQ FT
5.50	CONTN LD	-289.10	LBF/SQ FT
4.50	CONTN LD	-288.01	LBF/SQ FT
3.50	CONTN LD	-286.93	LBF/SQ FT
2.50	CONTN LD	-285.84	LBF/SQ FT
1.50	CONTN LD	-284.75	LBF/SQ FT
0.50	CONTN LD	-283.67	LBF/SQ FT
0.	CONTN LD	-283.13	LBF/SQ FT
0.	CONTN LD	-283.13	LBF/SQ FT
-0.85	CONTN LD	-281.04	LBF/SQ FT
-1.40	CONTN LD	0.	LBF/SQ FT
-5.17	CONTN LD	1924.01	LBF/SQ FT
-5.17	CONTN LD	0.	LBF/SQ FT

PZ-38 PROPERTIES ARE AS FOLLOWS.

MOMENT OF INERTIA= 280.00 IN. TO THE 4TH PER FOOT OF WALL
CROSS SECTIONAL AREA= 11.20 SQ IN.
ELASTIC MODULUS= 29000000. LBF/SQ IN.
DEFLECTION REFERENCE IS AT -17.900

THE MAXIMUM BENDING MOMENT IS 33064.88 LBF-FT AND OCCURS AT 11.43
WHICH HAS THE SHEAR FORCE OF -0.13 LBF.

DISTANCE (FEET)	SHEAR FOR (LBF)	SHEAR STR (LBF/SQIN)	BENDING MOM (LBF-FT)	DEFLECTION FROM TANG. THRU DEFLE REFERENCE (INCHES)
34.000	0.	0.	0.	3.2141
33.999	0.0	0.0	0.0	3.2141
33.000	31.3	2.8	10.4	3.0706
32.000	125.0	11.2	83.3	2.9270
31.000	281.3	25.1	281.3	2.7833
30.000	500.0	44.6	666.7	2.6398
29.000	781.3	69.8	1302.1	2.4964
28.000	1125.0	100.4	2250.0	2.3532
27.000	1531.3	136.7	3572.9	2.2106
26.000	2000.0	178.6	5333.3	2.0688
25.000	2433.0	217.2	7561.0	1.9281
24.000	2730.2	243.8	10154.1	1.7890
23.000	2899.6	258.9	12978.8	1.6521
22.062	2951.4	263.5	15731.0	1.5261
22.000	2951.2	263.5	15914.0	1.5179
21.000	2885.0	257.6	18841.9	1.3871
20.000	2701.0	241.2	21644.7	1.2604
19.000	2416.1	215.7	24210.2	1.1382
18.000	2073.2	185.1	26456.4	1.0212
17.000	1738.6	154.7	28358.5	0.9098
16.000	1401.4	125.1	29924.7	0.8044
15.000	1079.4	96.4	31164.3	0.7054
14.000	767.0	68.5	32086.7	0.6130
13.000	464.6	41.5	32701.8	0.5274
12.000	167.4	14.9	33017.5	0.4488
11.434	-0.1	-0.0	33064.9	0.4074
11.000	-128.8	-11.4	33037.0	0.3772

10.000	-482.7	-37.7	32761.5	0.3126
9.000	-716.8	-63.9	32191.9	0.2550
8.000	-1008.5	-90.0	31329.5	0.2042
7.000	-1299.8	-116.1	30175.2	0.1600
6.000	-1590.0	-142.0	28730.2	0.1223
5.000	-1879.1	-167.8	26995.6	0.0907
4.000	-2167.1	-193.5	24972.4	0.0648
3.000	-2454.0	-219.1	22661.8	0.0442
2.000	-2739.9	-244.6	20064.7	0.0285
1.000	-3024.6	-270.1	17182.4	0.0169
0.	-3308.3	-295.4	14015.9	0.0091
-1.000	-3584.4	-320.0	10566.7	0.0042
-1.398	-3625.1	-323.7	9127.6	0.0029
-1.400	-3625.1	-323.7	9120.3	0.0029
-2.000	-3533.1	-315.5	6965.4	0.0016
-3.000	-2971.2	-265.3	3670.8	0.0004
-4.000	-1898.7	-169.5	1193.3	0.0000
-5.000	-315.7	-28.2	43.5	0.0000
-5.167	-1.9	-0.2	16.9	0.0000
-5.169	-0.0	-0.0	0.0	0.0000
-6.000	-0.0	-0.0	0.0	0.0000
-7.000	-0.0	-0.0	0.0	0.0000
-8.000	-0.0	-0.0	0.0	0.0000
-9.000	-0.0	-0.0	0.0	0.0000
-10.000	-0.0	-0.0	0.0	0.0000
-11.000	-0.0	-0.0	0.0	0.0000
-12.000	-0.0	-0.0	0.0	0.0000
-13.000	-0.0	-0.0	0.0	0.0000
-14.000	-0.0	-0.0	0.0	0.0000
-15.000	-0.0	-0.0	0.0	0.0000
-16.000	-0.0	-0.0	0.0	0.0000
-17.000	-0.0	-0.0	0.0	0.0000
-17.899	-0.0	-0.0	0.0	0.
-17.900	-0.0	-0.0	0.0	0.

RUN COMPLETED