REPUBLIC OF KENYA

MINISTRY OF PUBLIC WORKS

DETAILED DESIGN STUDY ON THE NAIROBI BYPASS PROJECT

STRUCTURAL CALCULATIONS
COMPUTOR OUTPUT

VOL－1

SEPTEMBER 1992

Japan International
Cooperation Agency

The Permanent Secretary
Ministry of Public Works
P.O.Box 30260
NAIROBI

The Chief Engineer (Roads)
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DESIGN CALCULATION

CONTENTS

CALCULATION OF

BRIDGES FOR MAIN ROAD

1. General

This document has been prepared for the design of structures, which includes road bridges, a railway bridge, foot bridges, and box culverts, for the Nairobi Bypass project in the Republic of Kenya. All structures will be constructed of structural type RC Reinforced concrete having been planned on the basis of material availability analyses of procurement within Kenya.

2. Number and Positions of Structures Designed

2.1 Numbers of Structures Designed

Bridges: 2 road bridges, 2 road overbridges, 1 railway bridge, and 2 foot bridges.

Boxes: 7 road boxes, 4 pedestrian boxes, and 5 waterway boxes.

2.2 Locations

See the separate sheets (APPENDIX-1).

3. Scale and Configuration of Structures

3.1 Bridge Frames

a. Spans

Basic structure which is of reinforced concrete will have no fixed bridge span sizes. There sizes' will vary based on the design conditions of individual bridges. Longest spans of all bridges will however be less than 20.0 meters except the center span of the Mombassa Bridge which is 21.5 meters.

b. Configurations

Foot bridges:

Stair case loads will be supported by a cantilever arm or (Gerber beam) system. The super structure of the bridge will be comprised of a continuous floor slab, thus having no over hangs.

Other bridges:

In order to provide the best economic solution a continuous T beam construction method will be used effectively reducing loads on the substructure.

c. Substructure

Abutments:

Because abutment heights are less than 12.0m, abutment designs will be of the invert T type supported by individual spread footings.

Piers:

As the Mombassa and Uhuru Bridges are board, multistaged rigid-framed structures piers will be used in the substructure. For other bridge frame and wall types a rectangular single-pillar type support system will be for direct foundation. (However, the No. 2 road overbridge will be the only bridge to use a pile foundation of steel pipes in view of existing geologic conditions.)

3.2 Box Culverts

Box culverts will generally be placed on existing ground surfaces due to favorable hard ground therefore needing no pile foundation or other support. However, as the bottom ground for the No. 5 waterway box culvert is like a pond having silty clay and unproductive plant material the bottom ground will be replaced by quality materials such as crushed or broken stones having a depth of 0.3 to 0.5m.

4. Outline of Geologic Substructure and foundation

This section briefly describes specific geologic substructure and foundation support material types. For details, see the "Report of Geologic Grounds".

The geologic substructure for placing the Mombassa Bridge will accommodate a foundation directly supported on a geologic substruction. The initial reasoning behind this is a cotton soil layer of a 1.0m depth is distributed over a lower layer of weathered rock. Foundation footings can be placed directly on weathered rock layer off eliminating the need for support piers. In addition, the Uhuru Bridge, will also use a direct foundation on weathered rock which is convered by a 1.0m layer of red soil.

Further, foundations positions where railway bridges are placed will use the direct foundation supported on weather rock once as there is red soil distributed as a whole and the bottom for the foundation has N > 40. The placement of foundations for the No. 1 Main Road Overbridge uses the same direct foundation method as it's red soil layer as deep as 5.0m, but it can easily be set on the weathered rock as its bypass is cut to the weathered rock layer. The position for the No. 2 Main Road Overbridge uses a pile foundation for its support structures only as it has red soil distributed as deep as around 5.0m, and the lower layer has severely weathered rock distribution from 5.0m to 9.5m deep with N < 24. The position for the No. 1 Foot Bridge, such as the Mombassa Bridge also uses the direct supported foundation method. For the position for the No. 2 Foot Bridge, it is sufficient to use the direct foundation as it is similar to the positions for the railway bridges having hard red soil with N > 30.

All the box culverts use the direct foundation for the reason described in section 3.2.

5. Design Conditions

5.1 Unit Volume Weights of Materials Used (see the Design Agreement or APPENDIX-2)

5.2 Strength Characteristics of Concrete and Reinforcing Bar (see the Design Agreement or APPENDIX-3)

5.3 Design Stresses of Concrete and Reinforcing Bars

Design are made in view of two critical states, which include the final and working states, of which structures should be made in the critical states according to the BS5400 code.

<u>Design Stresses</u>

		S.L.S.	U.L.S.
Compression stress of Concrete		0.50 fcu	0.40 fcu
Stress of Steel	Tension side	0.80 fy	0.87 fy
Bar	Compression side	0.80 fy	0.72 fy

Where

SLS: serviceability limit state

ULS: ultimate limit state

fcu: Strength of Concrete

fy : Strength of Steel Bar

And

The shearing stresses of the concrete in the ultimate limit state are shown in Table below.

Shearing Stress of Concrete

$\frac{100 A_s}{bd}$	Grade of Concrete			
	20	25	30	≥ 40
≤ 0.25	0.35	0.35	0.35	0.35
0.50	0.45	0.50	0.55	0.55
1.00	0.60	0.65	0.70	0.75
2.00	0.80	0.85	0.90	0.95
≥ 3.00	0.85	0.90	0.95	1.00

(N/mm^2)

5.4 Earth Pressure Formulas and Earth Pressure Coefficients (see the Design Agreement)

a. Earth pressure formulas:

Two formulas, including the Ranking's formula and Coulomb's formula, are used, to calculate earth pressure. The Coulomb's earth pressure formula however is used in the design of movable walls with the walls with the wall surface friction angle of the wall surface in contact with soil being clearly seen. The static earth pressure formula is used for the design of fixed wall construction.

b. Earth pressure coefficients and internal friction angle of back filling soil.

Inclination of Back Soil	Internal Friction Angle	Earth Pressure Coefficient	Application
For Level Back Soil	$\phi = 35°$	K=0.250 (Coulomb)	Abutment
For Incline Back Soil	ϕ=30°	K=0.333 (Coulomb)	Retaining Wall
—	—	K=0.500 (Static)	Box culvert
—	ϕ=30°	K=0.400 (Coulomb)	Wing wall

NOTE 1: Abutments have seismic coefficient added to their design on the basis of the conditions given above.

NOTE 2: Wing walls at entrance points are made with use of the following equation.

$K = \tan^2 (45° - \phi/2) = \tan^2 30° = 0.333 \fallingdotseq 0.400$

This equation is given for a "Design of Wing" section as seen in the Design Instruction published by the Japan Public Road Corporation. It also is used here in order to increase the sameness of the wing.

5.5 Earthquake Coefficient (design seismic coefficient): see the Design Agreement.

Railway bridges: $K_H = 0.12$

Other bridges: $K_H = 0.10$

5.6 Influence of Temperature Change: see the Design Agreement.

$T = \pm 12.5°C$

6. Design Loads

a. Bridge frames: In general, these are designed according to Part 2, the Load Deviation, BS5400. As for railway bridges, these are further checked according to the (BS153) for sameness.

b. Box culverts: In general, these are designed according to Part 2, the Load Deviation, BS5400.

7. Others

References are to the Design of Concrete Bridges section of the "New British Standard BS5400" L. A. Clark, National Science Co.

Type, Size and Location of Structure

(1) Bridges

Types of bridges, their location and their scale on Nairobi Bypass are as shown on the Table 9.1.

Table

Type	No.	Location	Length (m)	Width (m)
For Road	1	Mombasa Road JC Bridge (Starting point of Bypass Road)	57.0	17.0
	2	Uhuru Monument JC Bridge (Crossing of C58 Road)	58.0	20.5
	3	Railway Bridge Over Bypass in CH.27 + 20.0 m	56.85	11.4
Over Bri-dge	2	Over Bypass CH.15 + 980.0 m	30.1	6.0
	4	" CH.27 + 920.0 m	28.1	10.0
Foot Path	1	Over Bypass CH.1 + 180.0 m	38.20	3.0
	2	" CH.27 + 220.0 m	48.40	3.0

(2) Box Culverts

Types, location and scale of Box Culverts are as follows:-

Table

Type	No.	Location	Length (m)	Width bxh (m)
For Road	1	Crossing of C60 Ngong Road CH.15 + 540.0	32.3	10.0x5.5
	2	Crossing of CH.19 + 500.0	37.5	8.0x5.5
	3	Crossing of Rump for Dagoretti JC CH.20 + 930.0	32.0	10.0x5.5
	4	Crossing of D411 Thogoto Road CH.23 + 193.0	26.7	8.5x5.5
	5	Crossing of Public Road (E) CH.23 + 169.4	26.7	8.5x5.5
	6	Crossing of Public Road CH.24 + 980.0	25.5	8.5x5.5
	7	Crossing of D422 Ondiri Road CH.26 + 464.0	50.2	8.5x5.5
For Drainage	1	Ruora River in Ngong Forest CH.13 + 978.0	59.0	3.0x3.0
	2	Motoine River in Ngong Forest CH.14 + 934.0	34.2	3.0x2.0
	3	Motoine River in Ngong Forest CH.15 + 560.0	67.0	3.5x3.0
	4	Motoine River in Ngong Forest CH.0 + 157.0 (Ngong JC-Rump)	40.0	3.5x3.0
	5	Ondiri River CH.26 + 355.0	132.0	3.5x3.5 (Double)
Foot path	1	CH.18 + 400.0	28.0	3.0x3.0
	2	CH.20 + 200.0	21.5	3.0x3.0
	3	CH.22 + 880.0	21.5	3.0x3.0
	4	CH.26 + 220.0	22.1	3.0x3.0

APPENDIX - 2

UNIT VOLUME OF MATERIALS

Dead Load (Material weight of unit)

Material		Weight of unit	Remarks
Concrete	Reinforced	23.6KN/M3 = 2.40T/M³	
	Non-Rein-forced	22.6KN/M3 = 2.30T/M³	
Pavement of asphalt		22.6KN/M3 = 2.30T/M³	
Steel and Bar		76.9KN/M3 = 7.85T/M	
Earth	Normal	18.6KN/M³ = 1.90T/M³	
	Back Filling	19.6KN/M3 = 2.00T/M³	Abutment

APPENDIX - 3

STRENGTH CHARACTERISTICS OF CONCRETE AND STEEL BAR

1). Concrete

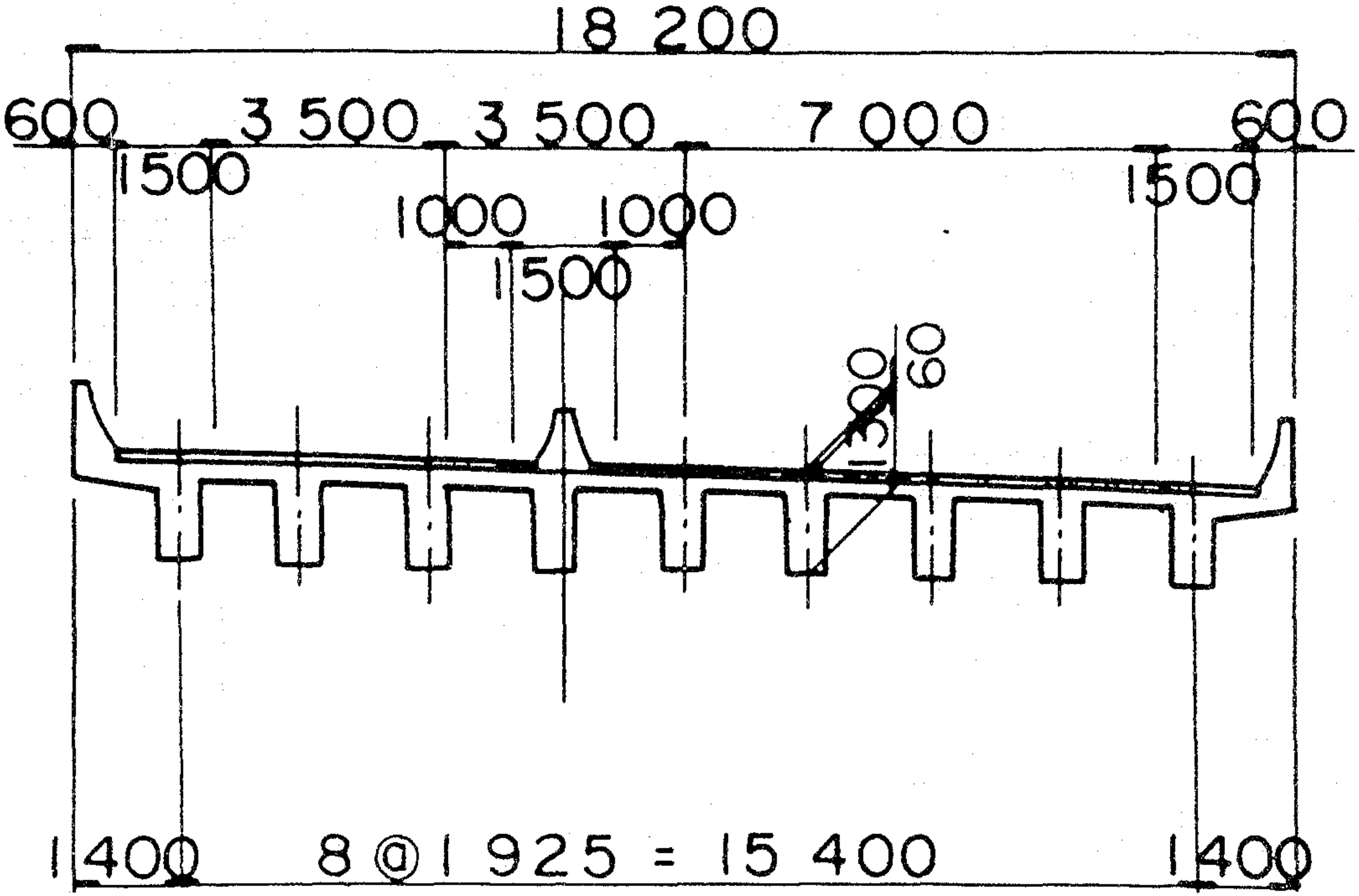
Grade	Characteristic Strength N/mm² Kg/cm²	Employment Divide	
15	15 - 150	Non-Reinforced Concrete	Base Concrete
20	20 - 200		Sub Structure(Abutment)
25	25 - 255	Reinforced Concrete	
30	30 - 300		Super Structure(Casting of Concrete)
40	40 - 400	Prestressed concrete	Super Structure(Post-Tension)
50	50 - 510		Super Structure(Pre-Tension)
60	60 - 610		Super Structure (Pre-Tension

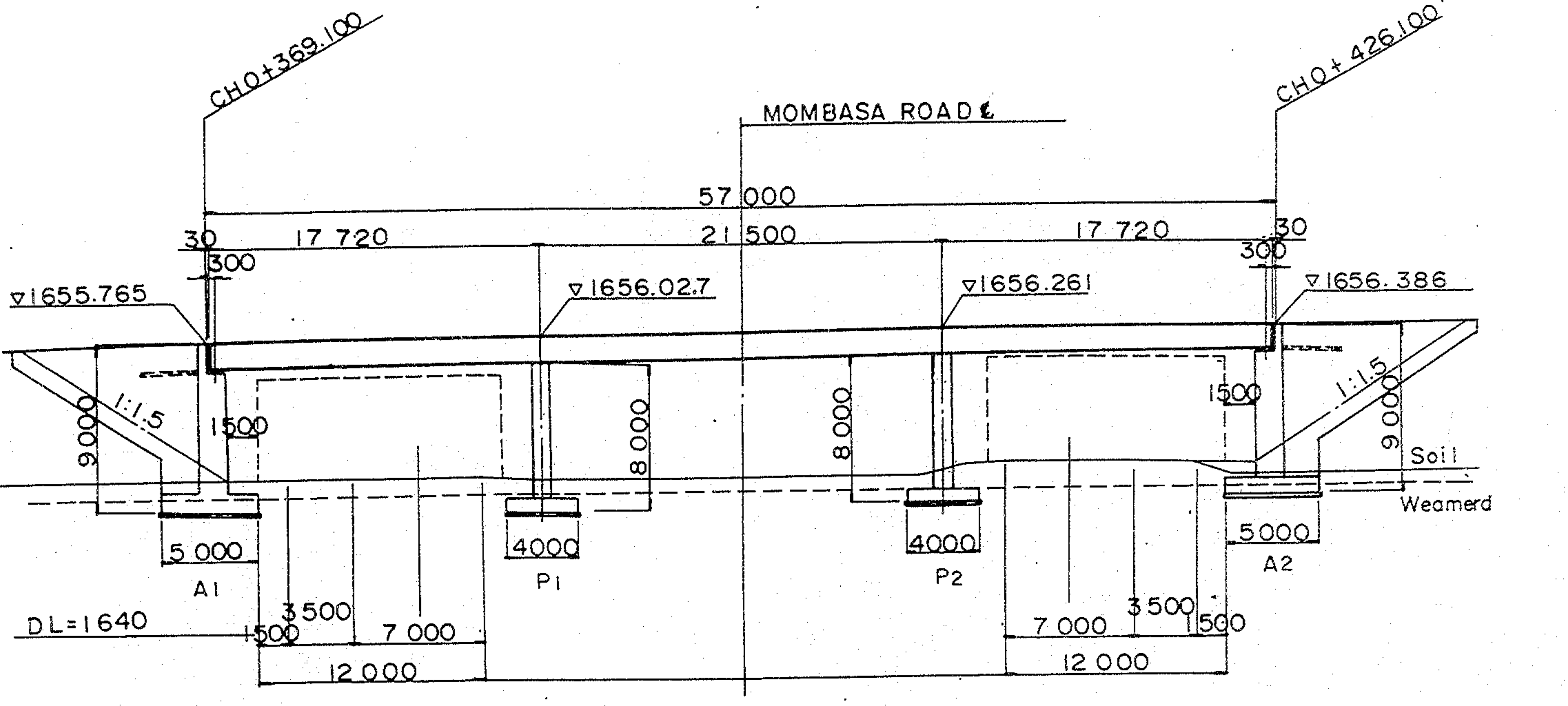
.2) Steel Bar

Nominal Size	Cross Sectional Area	Mass per metre run	Characteristic Strength	
mm	mm²	kg		
6.(min)	28.3	0.222		Hot Rolled Mild Steel N/mm² Kg/cm² 250 - 2550
8	50.3	0.395	Hot Rolled High Yeild N/mm² Kg/cm² 410 - 4180	
10	78.5	0.616		
12	113.1	0.888		
16	201.1	1.579		
20	314.2	2.466		
25	490.9	3.854		
32	804.2	6.313		
40	1256.6	9.864		
50 (max)	1963.5	15.413		

MOMBASA ROAD

Ju. BRIDGE





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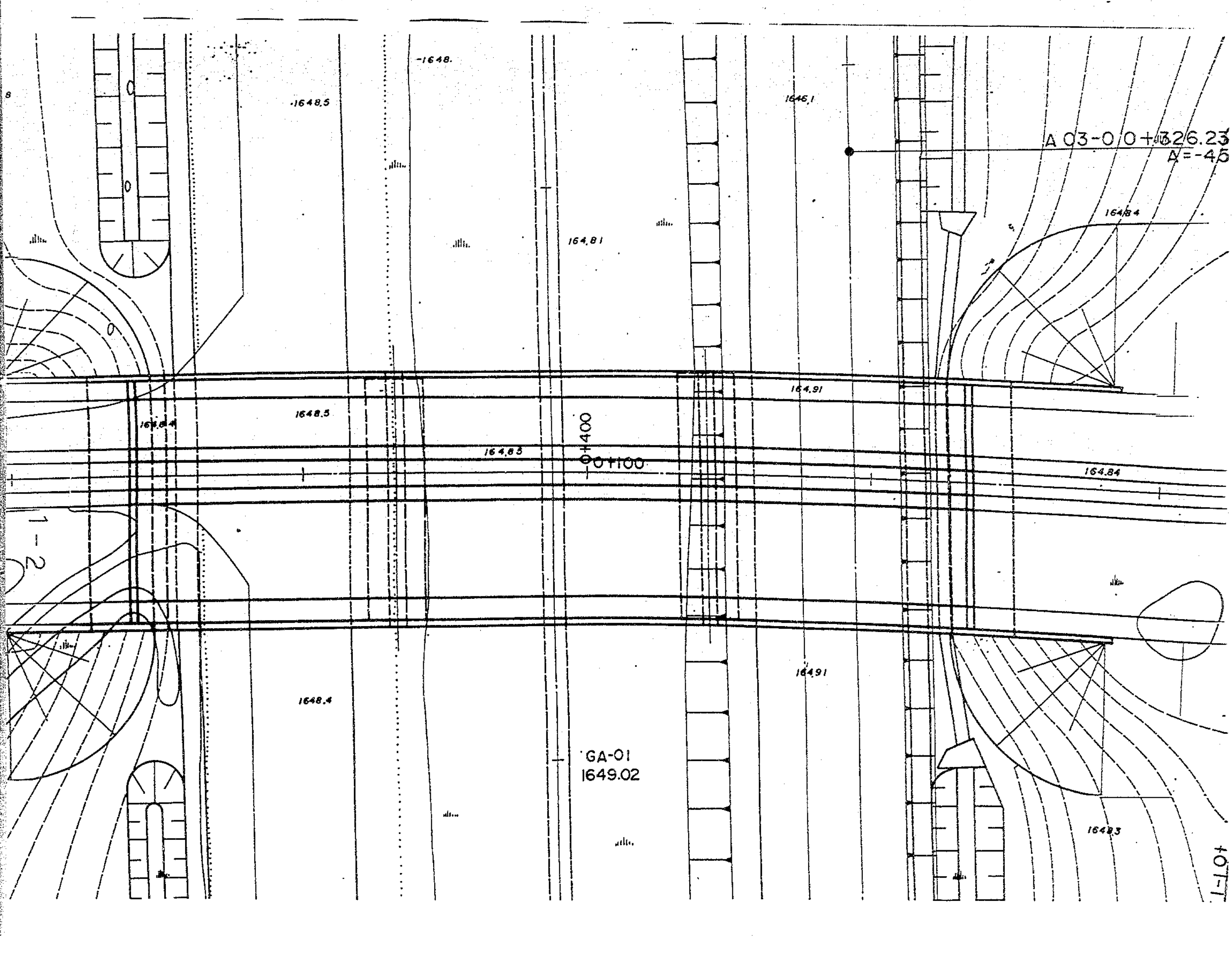
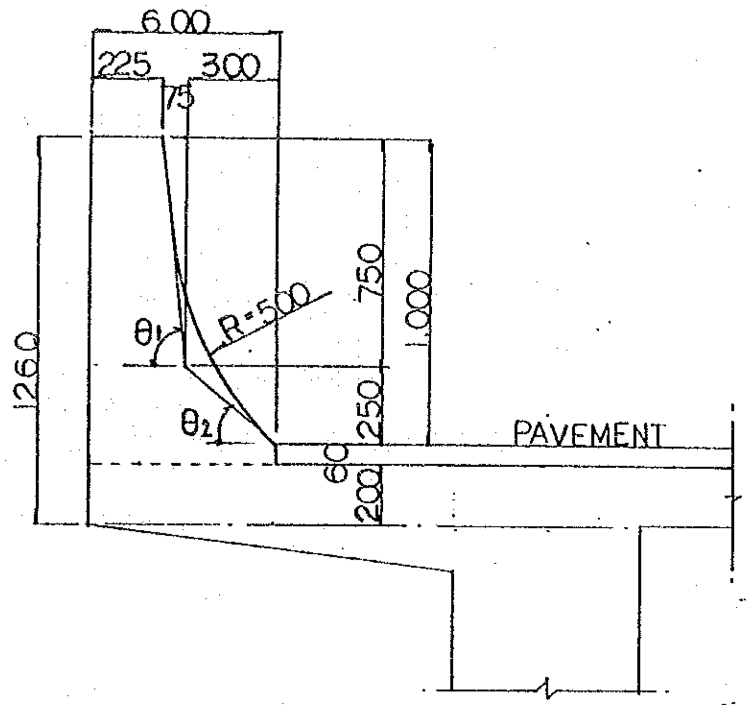


SHAPE OF PARAPET OF MAIN ROAD

1) FOR VERGE



Section arer

$$A \fallingdotseq 0.60 \times 1.06 - \frac{1}{2} \times 0.075 \times 0.75 - \frac{0.75+1.00}{2} \times 0.30 + ^{※}0.006 = 0.352\ m^2$$

$$\theta_1 = \tan^{-1}\frac{0.750}{0.075} \fallingdotseq 84^\circ 17' 22''$$

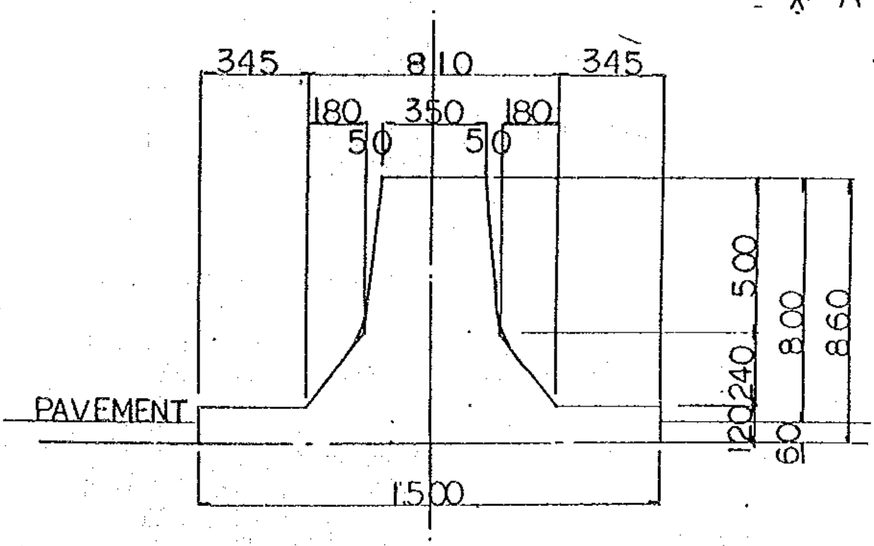
$$-\left|\theta_2 = \tan^{-1}\frac{0.250}{0.300} = 39^\circ 48' 20''\right.$$

$$\theta = \quad \fallingdotseq 44^\circ 29'$$

$$TL = R \cdot \tan\frac{\theta}{2} = 0.205^{m}$$

$$※\ A = 0.205 \times 0.50 - \pi \times 0.50^2 \times \frac{44^\circ 29'}{360^\circ} = 0.006\ m2$$

2) FOR CENTRAL RESERVE.



Section arer

$$A \fallingdotseq \frac{0.35+0.45}{2} \times 0.50 + \frac{0.45+0.81}{2} \times 0.24 + 1.50 \times 0.12$$

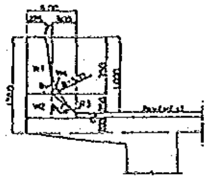
$$= 0.532\ m^2$$

2. LOAD

2. 1 DEAD LOAD

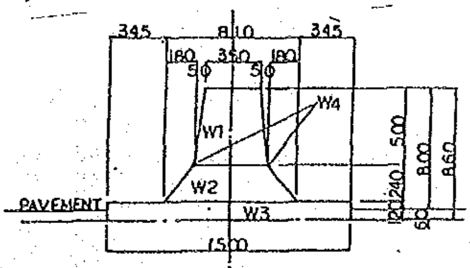
Note Input data : unit=P', W' t, t/m
unit=P, W KN=P', W' *9.8m/s2

1) Parapet for verge



W1'=1/2*(0.225+0.30)*0.75*2.4=0.473t/m
W2'=0.3*0.31*2.4 =0.223
W3'=1/2*(0.06+0.31)*0.30*2.4 =0.133
W4'=0.006*2.4 =0.014
ΣW'=0.843t/m
W=0.843*9.8=8.26KN/m

2) Parapet for centralreserve



W1'=1/2*(0.350+0.45)*0.50*2.4=0.480t/m
W2'=1/2*(0.45+0.81)*0.24*2.4 =0.363
W3'=1.5*0.12*2.4 =0.432
W4'=0.0007*2*2.4 =0.003
ΣW'=1.278t/m
W=1.278*9.8=12.52KN/m

3) Pavment
W=0.06*2.3*9.8=1.35KN/m2 W'=0.06*2.3=0.138t/m2

4) Main girder

end girder
W1'=2.3625*0.20*2.4 =1.134t/m
W2'=1/2*1.10*0.15*2.4 =0.363
W3'=0.6*1.10*2.4 =1.534
ΣW'=2.916t/m
W=2.916*9.8=28.58KN/m

Middle gider W=(1.8*0.2+1.1*0.6)*2.4*9.8=24.58KN/m
※ W'=24.58/9.8=2.508t/m

6) Cross girder
End cross girder and sopportinggirder
P1=0.6*0.95*1.325*2.4*9.8=17.76KN
※ W'=17.76/9.8=1.813t
P2=0.35*0.95*1.325*2.4*9.8=10.36KN
※ W'=10.36/9.8=1.057t

2. 2 LIVE LOAD

1) HA1 (center of span)
KEL main P1=40KN/m sub P2=12.630KN/m
※ P1'=40/9.8=4.082t/m P2'=12.63/9.8=1.289t/m
UDL main W1=10KN/m2 sub W2=3.16KN/m2
※ W1'=10/9.8=1.02t/m2 W2'=3.16/9.8=0.322t/m2

2) HA2 (middle supprting point)
KEL main P1=40KN/m sub P2=12.630KN/m
※ P1'=40/9.8=4.082t/m P2'=12.63/9.8=1.289t/m
UDL main W1=8.84KN/m2 sub W2=2.79KN/m2
※ W1'=8.84/9.8=0.902t/m2 W2'=2.79/9.8=0.285t/m2
L=17.425+21.5=38.925m
W=151*(1/L)^0.475=151*(1/38.925)^0.475=26.5KN/m
W=26.5/3.0m=8.84KN/m2

3) H B 1 (center of span)

HB P0=75KN ※ P0'=75/9.8=7.653t/m

KEL main P1=40KN/m sub P2=12.630KN/m

※ P1'=40/9.8=4.082t/m P2'=12.63/9.8=1.289t/m

UDL main W1=10KN/m2 sub W2=3.16KN/m2

※ W1'=10/9.8=1.02t/m2 W2'=3.16/9.8=0.322t/m2

3) H B 2 (middle supprting point)

HB P0=75KN ※ P0'=75/9.8=7.653t/m

KEL main P1=40KN/m sub P2=12.630KN/m

※ P1'=40/9.8=4.082t/m P2'=12.63/9.8=1.289t/m

UDL main W1=8.84KN/m2 sub W2=2.79KN/m2

※ W1'=8.84/9.8=0.902t/m2 W2'=2.79/9.8=0.285t/m2

2. 3 COMBINATION OF LOADS

1) Base Loads

① Dead loads1 (deck loads)
② Dead loads2 (own weight)
③ HA1E (HA1 for side spans)
④ HA1S (HA1 for middle span)
⑤ HA2
⑥ HB (cosentration loads span L=6m)
⑦ HB (cosentration loads span L=11m)
⑧ HB (cosentration loads span L=16m)
⑨ HB (cosentration loads span L=21m)
⑩ HB (cosentration loads span L=26m)
⑪ HB1E (HB1 distributed loads for side spans)
⑫ HB1E (HB1 distributed loads for middle spans)
⑬ HB2 (HB1 distributed loads)

2) Combination Loads

⑭ HB1 ⑥+⑪
⑮ HB1 ⑦+⑪
⑯ HB1 ⑧+⑪
⑰ HB1 ⑨+⑪
⑱ HB1 ⑩+⑪
⑲ HB1 ⑥+⑫
20 HB1 ⑦+⑫
21 HB1 ⑧+⑫
22 HB1 ⑨+⑫
23 HB1 ⑩+⑫
24 HB2 ⑥+⑬
25 HB2 ⑦+⑬
26 HB2 ⑧+⑬
27 HB2 ⑨+⑬
28 HB2 ⑩+⑬

3) Pick up Cases

(1) ⑭, ⑮, ⑯, ⑰, ⑱,
(2) ⑲, ⑳, 21, 22, 23
(3) 24, 25, 26, 27, 28
(4) ③, (1)
(5) ④, (2)
(6) ⑤, (3)

3. EFFECTIVE WIDTH AND MODULAS

3.1 EFFECTIVE WIDTH

2) Main girder

be=bw+l/5

be : effective width for flanges

l : length of moment zero

0.7*Ls or 0.85*Ls'

Ls : spans for connection girders of middle spans

Ls' : spans for connection girders of end spans

end spans

be=0.60+0.85*17.425/5=3.563m＞b=1.925m(2.363m)

middle spans

be=0.60+0.70*17.425/5=3.040m＞b=1.925m(2.363m)

2) Cross girder

end cross girder

λ1=l/8+bs=17.425*0.8/8+0=1.743m

spporting cross girder

λ2=l/8+bs=(21.5+17.425)*0.2/8+0=0.973m

middle cross girder

λ3=(n-1)*(lb+lw)+bs=(9-1)/6*(1.925+0.60)+0=3.367m

3. 2 MODULAS

MONBASA

Main girder

	B	H	A	Y	A*Y	A*y^2	Ic
End girder①	236.3	20	4726	10	47260	472600	157533
middle gir①'	192.5	20	3850	10	38500	385000	128333
②	60	110	6600	75	495000	37125000	6655000
End girderΣ			11326		542260	37597600	6812533
middle girΣ			10450		533500	37510000	6783333

IY=Σ Ic+Σ A*Y^2-Σ A* (Σ A*Y／Σ A) ^2
= 18448107 = 0.184

IY=Σ Ic+Σ A*Y^2-Σ A* (Σ A*Y／Σ A) ^2
= 17056754 = 0.171

Cross girder

	B	H	A	Y	A*Y	A*Y^2	Ic
End cross ①	234.3	20	4686	10	46860	468600	156200
Sopprting ①'	254.6	20	5092	10	50920	509200	169733
②	60	95	5700	67.5	384750	25970625	4286875
End cross Σ			10386		431610	26439225	4443075
Sopprting Σ			10792		435670	26479825	4456608

IY=Σ Ic+Σ A*Y^2-Σ A* (Σ A*Y／Σ A) ^2
= 12945925 = 0.129

IY=Σ Ic+Σ A*Y^2-Σ A* (Σ A*Y／Σ A) ^2
= 13348558 = 0.133

Cross girder

	B	H	A	Y	A*Y	A*Y^2	Ic
Middle cro①	708.4	20	14168	10	141680	1416800	472267
②	35	95	3325	67.5	224438	15149531	2500677
Middle croΣ			17493		366118	16566331	2972944

IY=Σ Ic+Σ A*Y^2-Σ A* (Σ A*Y／Σ A) ^2
= 11876666 = 0.119

GRID

[GIRDER - SYSTEM]

JIP

G R I D

GRID FRAMED STRUCTURE ANALYSIS

INFLUENCE LINE BY DISPLACEMENT METHOD

CALCULATED BY JIP

BURROUGHS B7800

CONTROL DATA

LOADPIC POINTCUT LINER EDIT MEMBER DEFLECTION MOMENT SHEAR REACTION

STRUCTURE SIZE AND CONSTANTS

NUMBER OF JOINTS	117
NUMBER OF MEMBERS	164
NUMBER OF MAIN GIRDERS	9
NUMBER OF CROSS BEAMS	13
NUMBER OF LOAD POINTS	117
YOUNG,S MODULUS	2.800E+06
SHEAR MODULUS	1.217E+06

ALL UNITS ARE METER AND TON

** MONBASA JU BRIDGE **

JOINT DATA

NO.	COORDINATE X (M)	COORDINATE Y (M)	SUPPORT FZ	ELASTIC SUPPORT KZ (T/M)
1	0.2224	5.9563	1	
2	0.2798	4.0321	1	
3	0.3372	2.1079	1	
4	0.3947	0.1837	1	
5	0.4521	-1.7405	1	
6	0.5096	-3.6647	1	
7	0.5670	-5.5889	1	
8	0.6244	-7.5131	1	
9	0.6819	-9.4373	1	
10	4.5589	6.0456		
11	4.6164	4.1213		
12	4.6738	2.1971		
13	4.7313	0.2728		
14	4.7887	-1.6514		
15	4.8461	-3.5757		
16	4.9036	-5.4999		
17	4.9610	-7.4242		
18	5.0185	-9.3484		
19	8.8957	6.1233		
20	8.9532	4.1990		
21	9.0106	2.2747		
22	9.0681	0.3504		
23	9.1255	-1.5739		
24	9.1830	-3.4982		
25	9.2404	-5.4225		
26	9.2978	-7.3469		
27	9.3553	-9.2712		
28	13.2327	6.1887		
29	13.2902	4.2643		
30	13.3476	2.3399		
31	13.4051	0.4155		
32	13.4625	-1.5089		
33	13.5200	-3.4333		
34	13.5774	-5.3577		
35	13.6349	-7.2821		
36	13.6923	-9.2065		
37	17.5699	6.2407	1	
38	17.6274	4.3162	1	
39	17.6848	2.3917	1	
40	17.7423	0.4672	1	
41	17.7997	-1.4573	1	
42	17.8572	-3.3818	1	
43	17.9146	-5.3063	1	
44	17.9721	-7.2308	1	
45	18.0295	-9.1553	1	
46	22.9447	6.2855		
47	23.0022	4.3608		
48	23.0596	2.4361		
49	23.1171	0.5114		
50	23.1745	-1.4133		

** MONBASA JU BRIDGE **

JOINT DATA

NO.	COORDINATE X (M)	COORDINATE Y (M)	SUPPORT FZ
51	23.2320	-3.3380	
52	23.2894	-5.2627	
53	23.3469	-7.1874	
54	23.4044	-9.1121	
55	28.3197	6.3066	
56	28.3771	4.3817	
57	28.4346	2.4568	
58	28.4920	0.5319	
59	28.5495	-1.3930	
60	28.6070	-3.3179	
61	28.6644	-5.2428	
62	28.7219	-7.1678	
63	28.7793	-9.0927	
64	33.6946	6.3026	
65	33.7521	4.3774	
66	33.8096	2.4522	
67	33.8670	0.5270	
68	33.9245	-1.3982	
69	33.9820	-3.3234	
70	34.0394	-5.2486	
71	34.0969	-7.1738	
72	34.1544	-9.0990	
73	39.0695	6.2717	1
74	39.1270	4.3462	1
75	39.1844	2.4206	1
76	39.2419	0.4951	1
77	39.2994	-1.4305	1
78	39.3569	-3.3561	1
79	39.4144	-5.2817	1
80	39.4719	-7.2072	1
81	39.5293	-9.1328	1
82	43.4067	6.2260	
83	43.4642	4.3001	
84	43.5217	2.3742	
85	43.5792	0.4483	
86	43.6367	-1.4776	
87	43.6941	-3.4035	
88	43.7516	-5.3295	
89	43.8091	-7.2554	
90	43.8666	-9.1813	
91	47.7437	6.1608	
92	47.8012	4.2345	
93	47.8587	2.3082	
94	47.9161	0.3819	
95	47.9737	-1.5445	
96	48.0312	-3.4708	
97	48.0887	-5.3971	
98	48.1462	-7.3235	
99	48.2037	-9.2498	
100	52.0802	6.0751	

JOINT DATA

NO.	COORDINATE X (M)	COORDINATE Y (M)	SUPPORT FZ	ELASTIC SUPPORT KZ (T/M)
101	52.1377	4.1484		
102	52.1953	2.2216		
103	52.2528	0.2948		
104	52.3103	-1.6319		
105	52.3678	-3.5587		
106	52.4253	-5.4856		
107	52.4828	-7.4124		
108	52.5404	-9.3392		
109	56.4163	5.9682	1	
110	56.4739	4.0409	1	
111	56.5314	2.1136	1	
112	56.5889	0.1863	1	
113	56.6464	-1.7410	1	
114	56.7040	-3.6683	1	
115	56.7615	-5.5957	1	
116	56.8190	-7.5231	1	
117	56.8766	-9.4504	1	

** MONBASA JU BRIDGE **

	SECTION NO.	L (M)	IY (M*4)	J (M*4)
GIRDER NO. 1	1	56.200*	0.18400000	0.00000000
	INPUT LENGTH	56.200	GIRDER LENGTH	56.200
			SPAN LENGTH (1)	17.350
			SPAN LENGTH (2)	21.500
			SPAN LENGTH (3)	17.350
GIRDER NO. 2	1	56.200*	0.17900000	0.00000000
	INPUT LENGTH	56.200	GIRDER LENGTH	56.200
			SPAN LENGTH (1)	17.350
			SPAN LENGTH (2)	21.500
			SPAN LENGTH (3)	17.350
GIRDER NO. 3	1	56.200*	0.17900000	0.00000000
	INPUT LENGTH	56.200	GIRDER LENGTH	56.200
			SPAN LENGTH (1)	17.350
			SPAN LENGTH (2)	21.500
			SPAN LENGTH (3)	17.350
GIRDER NO. 4	1	56.200*	0.17900000	0.00000000
	INPUT LENGTH	56.200	GIRDER LENGTH	56.200
			SPAN LENGTH (1)	17.350
			SPAN LENGTH (2)	21.500
			SPAN LENGTH (3)	17.350

SECTION NO.	L (M)	IY (M*4)	J (M*4)
GIRDER NO. 5			
1	56.200*	0.17900000	0.00000000
INPUT LENGTH	56.200	GIRDER LENGTH	56.200
		SPAN LENGTH (1)	17.350
		SPAN LENGTH (2)	21.500
		SPAN LENGTH (3)	17.350
GIRDER NO. 6			
1	56.200*	0.17900000	0.00000000
INPUT LENGTH	56.200	GIRDER LENGTH	56.200
		SPAN LENGTH (1)	17.350
		SPAN LENGTH (2)	21.500
		SPAN LENGTH (3)	17.350
GIRDER NO. 7			
1	56.200*	0.17900000	0.00000000
INPUT LENGTH	56.200	GIRDER LENGTH	56.200
		SPAN LENGTH (1)	17.350
		SPAN LENGTH (2)	21.500
		SPAN LENGTH (3)	17.350
GIRDER NO. 8			
1	56.200*	0.17900000	0.00000000
INPUT LENGTH	56.200	GIRDER LENGTH	56.200
		SPAN LENGTH (1)	17.350
		SPAN LENGTH (2)	21.500
		SPAN LENGTH (3)	17.350
GIRDER NO. 9			
1	56.201*	0.18400000	0.00000000

SECTION NO.	L (M)	IY (M*4)	J (M*4)
INPUT LENGTH	56.201	GIRDER LENGTH	56.201
		SPAN LENGTH (1)	17.350
		SPAN LENGTH (2)	21.500
		SPAN LENGTH (3)	17.350

CROSS BEAM DATA

		IY (M*4)	J (M*4)	IY (M*4)	J (M*4)	IY (M*4)	J (M*4)
SB		0.12900000	0.00000000	0.12900000	0.00000000		
PB	2	0.13300000	0.00000000	0.13300000	0.00000000	0.00000000	0.00000000
CB		0.11900000	0.00000000				

** MONBASA JU BRIDGE **

MEMBER DATA

NO.	A	B	L (M)	IY (M*4)	J (M*4)
1	1	10	4.3374	0.13400000	
2	10	19	4.3375	0.18400000	
3	19	28	4.3375	0.18400000	
4	28	37	4.3375	0.18400000	
5	37	46	5.3750	0.18400000	
6	46	55	5.3750	0.18400000	
7	55	64	5.3749	0.18400000	
8	64	73	5.3750	0.18400000	
9	73	82	4.3374	0.18400000	
10	82	91	4.3375	0.18400000	
11	91	100	4.3373	0.18400000	
12	100	109	4.3374	0.18400000	
13	2	11	4.3375	0.17900000	
14	11	20	4.3375	0.17900000	
15	20	29	4.3375	0.17900000	
16	29	38	4.3375	0.17900000	
17	38	47	5.3750	0.17900000	
18	47	56	5.3749	0.17900000	
19	56	65	5.3750	0.17900000	
20	65	74	5.3750	0.17900000	
21	74	83	4.3374	0.17900000	
22	83	92	4.3375	0.17900000	
23	92	101	4.3374	0.17900000	
24	101	110	4.3375	0.17900000	
25	3	12	4.3375	0.17900000	
26	12	21	4.3375	0.17900000	
27	21	30	4.3375	0.17900000	
28	30	39	4.3375	0.17900000	
29	39	48	5.3750	0.17900000	
30	48	57	5.3750	0.17900000	
31	57	66	5.3750	0.17900000	
32	66	75	5.3749	0.17900000	
33	75	84	4.3375	0.17900000	
34	84	93	4.3375	0.17900000	
35	93	102	4.3375	0.17900000	
36	102	111	4.3374	0.17900000	
37	4	13	4.3375	0.17900000	
38	13	22	4.3375	0.17900000	
39	22	31	4.3375	0.17900000	
40	31	40	4.3375	0.17900000	
41	40	49	5.3750	0.17900000	
42	49	58	5.3749	0.17900000	
43	58	67	5.3750	0.17900000	
44	67	76	5.3750	0.17900000	
45	76	85	4.3376	0.17900000	
46	85	94	4.3374	0.17900000	
47	94	103	4.3376	0.17900000	
48	103	112	4.3375	0.17900000	
49	5	14	4.3375	0.17900000	
50	14	23	4.3375	0.17900000	

** MONBASA JU BRIDGE **

MEMBER DATA

NO.	A	B	L (M)	IY (M*4)	J (M*4)	AS
51	23	32	4.3375	0.17900000		
52	32	41	4.3375	0.17900000		
53	41	50	5.3750	0.17900000		
54	50	59	5.3750	0.17900000		
55	59	68	5.3750	0.17900000		
56	68	77	5.3750	0.17900000		
57	77	86	4.3376	0.17900000		
58	86	95	4.3375	0.17900000		
59	95	104	4.3375	0.17900000		
60	104	113	4.3375	0.17900000		
61	6	15	4.3374	0.17900000		
62	15	24	4.3376	0.17900000		
63	24	33	4.3375	0.17900000		
64	33	42	4.3375	0.17900000		
65	42	51	5.3750	0.17900000		
66	51	60	5.3750	0.17900000		
67	60	69	5.3750	0.17900000		
68	69	78	5.3750	0.17900000		
69	78	87	4.3375	0.17900000		
70	87	96	4.3376	0.17900000		
71	96	105	4.3375	0.17900000		
72	105	114	4.3376	0.17900000		
73	7	16	4.3375	0.17900000		
74	16	25	4.3375	0.17900000		
75	25	34	4.3375	0.17900000		
76	34	43	4.3375	0.17900000		
77	43	52	5.3750	0.17900000		
78	52	61	5.3750	0.17900000		
79	61	70	5.3750	0.17900000		
80	70	79	5.3751	0.17900000		
81	79	88	4.3375	0.17900000		
82	88	97	4.3376	0.17900000		
83	97	106	4.3375	0.17900000		
84	106	115	4.3376	0.17900000		
85	8	17	4.3375	0.17900000		
86	17	26	4.3375	0.17900000		
87	26	35	4.3376	0.17900000		
88	35	44	4.3375	0.17900000		
89	44	53	5.3750	0.17900000		
90	53	62	5.3750	0.17900000		
91	62	71	5.3750	0.17900000		
92	71	80	5.3751	0.17900000		
93	80	89	4.3375	0.17900000		
94	89	98	4.3376	0.17900000		
95	98	107	4.3375	0.17900000		
96	107	116	4.3376	0.17900000		
97	9	18	4.3375	0.18400000		
98	18	27	4.3375	0.18400000		
99	27	36	4.3375	0.18400000		
100	36	45	4.3375	0.18400000		

** MONBASA JU BRIDGE **

MEMBER DATA

NO.	A	B	L (M)	IY (M*4)	J (M*4)	AS
101	45	54	5.3751	0.18400000		
102	54	63	5.3749	0.18400000		
103	63	72	5.3751	0.18400000		
104	72	81	5.3750	0.18400000		
105	81	90	4.3376	0.18400000		
106	90	99	4.3376	0.18400000		
107	99	108	4.3376	0.18400000		
108	108	117	4.3376	0.18400000		
109	1	2	1.9251	0.12900000		
110	2	3	1.9251	0.12900000		
111	3	4	1.9251	0.12900000		
112	4	5	1.9251	0.12900000		
113	5	6	1.9251	0.12900000		
114	6	7	1.9251	0.12900000		
115	7	8	1.9251	0.12900000		
116	8	9	1.9251	0.12900000		
117	19	20	1.9252	0.11900000		
118	20	21	1.9252	0.11900000		
119	21	22	1.9252	0.11900000		
120	22	23	1.9252	0.11900000		
121	23	24	1.9252	0.11900000		
122	24	25	1.9252	0.11900000		
123	25	26	1.9253	0.11900000		
124	26	27	1.9252	0.11900000		
125	37	38	1.9254	0.13300000		
126	38	39	1.9254	0.13300000		
127	39	40	1.9254	0.13300000		
128	40	41	1.9254	0.13300000		
129	41	42	1.9254	0.13300000		
130	42	43	1.9254	0.13300000		
131	43	44	1.9254	0.13300000		
132	44	45	1.9254	0.13300000		
133	55	56	1.9258	0.11900000		
134	56	57	1.9258	0.11900000		
135	57	58	1.9258	0.11900000		
136	58	59	1.9258	0.11900000		
137	59	60	1.9258	0.11900000		
138	60	61	1.9258	0.11900000		
139	61	62	1.9259	0.11900000		
140	62	63	1.9258	0.11900000		
141	73	74	1.9264	0.13300000		
142	74	75	1.9265	0.13300000		
143	75	76	1.9264	0.13300000		
144	76	77	1.9265	0.13300000		
145	77	78	1.9265	0.13300000		
146	78	79	1.9265	0.13300000		
147	79	80	1.9264	0.13300000		
148	80	81	1.9265	0.13300000		
149	91	92	1.9272	0.11900000		
150	92	93	1.9272	0.11900000		

** MONBASA JU BRIDGE **

MEMBER DATA

NO.	A	B	L (M)	IY (M*4)	J (M*4)
151	93	94	1.9272	0.11900000	
152	94	95	1.9273	0.11900000	
153	95	96	1.9272	0.11900000	
154	96	97	1.9272	0.11900000	
155	97	98	1.9273	0.11900000	
156	98	99	1.9272	0.11900000	
157	109	110	1.9282	0.12900000	
158	110	111	1.9282	0.12900000	
159	111	112	1.9282	0.12900000	
160	112	113	1.9282	0.12900000	
161	113	114	1.9282	0.12900000	
162	114	115	1.9283	0.12900000	
163	115	116	1.9283	0.12900000	
164	116	117	1.9282	0.12900000	

LOAD POINT DATA

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48
49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64
65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96
97	98	99	100	101	102	103	104	105	106	107	108	109	110	111	112
113	114	115	116	117											

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*      *  *   * *   *  *
*      *  *  *****  *  *
*      *  *  *   *  *  *
****   ****  *   *  ***

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*                                                         *
*                       G R I D                           *
*                                                         *
*           GRID FRAMED STRUCTURE ANALYSIS                *
*                                                         *
*         MEMBER FORCE  BY  DISPLACEMENT METHOD           *
*                                                         *
*                  CALCULATED BY JIP                      *
*                  BURROUGHS  B7800                       *
*                                                         *
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** REMARKS **

        D-Z(MM)   : DEFLECTION
                                                  * POINT
                                                  I
                                                  I
                                                  I
                                                  I
                                                  V

                                                      MEMBER
                                              I *====================* J

        M-X(T,M)  : TORSIONAL MOMENT

                                        I-J   ------>>           <<------   J-I

        M-Y(T,M)  : BENDING MOMENT
                                                ...                ...
                                               .   .              .   .
                                        I-J   .     .            .     .   J-I
                                              .     V            V     .

        Q-Z( T )  : SHEARING FORCE
                                                A                  A
                                                I                  I
                                        I-J     I                  I        J-I
                                                I                  I
                                                I                  I

        RE-PZ(T)  : REACTION
                                                     A
                                                     I
                                                     I
                                                     I
                                                     I
                                                     * POINT
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* INPUT DATA * ALL UNITS ARE METER AND TON,

NO. OF POINTS	117
NO. OF LOAD POINTS	117
NO. OF MAIN GIRDER	9
NO. OF PANNEL POINT	13
SKEW ANGLE	
MATERIAL	PC

LOAD POINT DIAGRAM

	G1	G2	G3	G4	G5	G6	G7	G8	G9
(1)	1	2	3	4	5	6	7	8	9
(2)	10	11	12	13	14	15	16	17	18
(3)	19	20	21	22	23	24	25	26	27
(4)	28	29	30	31	32	33	34	35	36
(5)	37	38	39	40	41	42	43	44	45
(6)	46	47	48	49	50	51	52	53	54
(7)	55	56	57	58	59	60	61	62	63
(8)	64	65	66	67	68	69	70	71	72
(9)	73	74	75	76	77	78	79	80	81
(10)	82	83	84	85	86	87	88	89	90
(11)	91	92	93	94	95	96	97	98	99
(12)	100	101	102	103	104	105	106	107	108
(13)	109	110	111	112	113	114	115	116	117

* LOAD

		*** 1-SPAN ***		2-SPAN ***		3-SPAN ***
SPAN_LENGTH	(M)	1*********	5*********		9*********	13
IMPACT		0.000	0.000	0.000	0.000	0.000

* COORDINATE OF ROADWAY EDGE & DISTANCE FROM OUTSIDE GIRDER

	* LEFT SIDE *			* RIGHT SIDE *			* SEPARATOR *			* SKEW ANGLE *
	X (M)	Y (M)	L (M)	X (M)	Y (M)	L (M)	X (M)	Y (M)	W (T/M)	
1	0.1985	6.7560	0.8001	0.7057	-10.2370	0.8001	0.3999	0.0088	0.000	89-28-00
2	4.5351	6.8453	0.8001	5.0423	-10.1481	0.8001	4.7365	0.0979	0.000	89-18-51
3	8.8719	6.9231	0.8002	9.3791	-10.0709	0.8001	9.0733	0.1755	0.000	89-08-56
4	13.2089	6.9884	0.8001	13.7162	-10.0063	0.8002	13.4103	0.2406	0.000	88-58-19
5	17.5461	7.0405	0.8002	18.0534	-9.9551	0.8002	17.7475	0.2923	0.000	88-45-34
6	22.9208	7.0853	0.8002	23.4282	-9.9119	0.8002	23.1223	0.3364	0.000	88-30-23
7	28.2958	7.1066	0.8004	28.8032	-9.8927	0.8004	28.4973	0.3569	0.000	88-14-06
8	33.6707	7.1027	0.8005	34.1783	-9.8991	0.8005	33.8722	0.3520	0.000	87-56-44
9	39.0456	7.0720	0.8007	39.5532	-9.9331	0.8007	39.2471	0.3200	0.000	87-40-05
10	43.3828	7.0264	0.8008	43.8905	-9.9817	0.8008	43.5844	0.2732	0.000	87-24-26
11	47.7197	6.9613	0.8009	48.2276	-10.0504	0.8010	47.9214	0.2067	0.000	87-08-04
12	52.0563	6.8759	0.8012	52.5643	-10.1400	0.8012	52.2580	0.1197	0.000	86-50-56
13	56.3924	6.7692	0.8014	56.9005	-10.2514	0.8014	56.5941	0.0111	0.000	86-50-58

* LINE DATA

	* NO. 1 * --- FROM	DISTANCE (M)	* NO. 2 * --- FROM	DISTANCE (M)	* NO. 3 * --- FROM	DISTANCE (M)	* NO. 4 * --- FROM	DISTANCE (M)
1	G1	-1.250	G4	0.175	G9	1.250	G1	-0.800
2	G1	-1.250	G4	0.175	G9	1.250	G1	-0.800
3	G1	-1.250	G4	0.175	G9	1.250	G1	-0.800
4	G1	-1.250	G4	0.175	G9	1.250	G1	-0.800
5	G1	-1.250	G4	0.175	G9	1.250	G1	-0.800
6	G1	-1.250	G4	0.175	G9	1.250	G1	-0.800
7	G1	-1.251	G4	0.175	G9	1.251	G1	-0.800
8	G1	-1.251	G4	0.175	G9	1.251	G1	-0.801
9	G1	-1.251	G4	0.175	G9	1.251	G1	-0.801
10	G1	-1.251	G4	0.175	G9	1.251	G1	-0.801
11	G1	-1.252	G4	0.175	G9	1.252	G1	-0.801
12	G1	-1.252	G4	0.175	G9	1.252	G1	-0.801
13	G1	-1.252	G4	0.175	G9	1.252	G1	-0.801

	* NO. 5 * --- FROM	DISTANCE (M)	* NO. 6 * --- FROM	DISTANCE (M)	* NO. 7 * --- FROM	DISTANCE (M)	* NO. 8 * --- FROM	DISTANCE (M)
1	G4	-0.575	G4	0.925	G9	0.800	G1	0.450
2	G4	-0.575	G4	0.925	G9	0.800	G1	0.450
3	G4	-0.575	G4	0.925	G9	0.800	G1	0.450
4	G4	-0.575	G4	0.925	G9	0.800	G1	0.450
5	G4	-0.575	G4	0.925	G9	0.800	G1	0.450
6	G4	-0.575	G4	0.925	G9	0.800	G1	0.450
7	G4	-0.575	G4	0.925	G9	0.800	G1	0.450
8	G4	-0.575	G4	0.926	G9	0.801	G1	0.450
9	G4	-0.575	G4	0.926	G9	0.801	G1	0.450
10	G4	-0.576	G4	0.926	G9	0.801	G1	0.450
11	G4	-0.576	G4	0.926	G9	0.801	G1	0.451
12	G4	-0.576	G4	0.926	G9	0.801	G1	0.451
13	G4	-0.576	G4	0.926	G9	0.801	G1	0.451

	* NO. 9 * --- FROM	DISTANCE (M)	* NO. 10 * --- FROM	DISTANCE (M)	* NO. 11 * --- FROM	DISTANCE (M)
1	G2	-0.475	G2	0.525	G1	-0.550
2	G2	-0.475	G2	0.525	G1	-0.550
3	G2	-0.475	G2	0.525	G1	-0.550
4	G2	-0.475	G2	0.525	G1	-0.550
5	G2	-0.475	G2	0.525	G1	-0.550
6	G2	-0.475	G2	0.525	G1	-0.550
7	G2	-0.475	G2	0.525	G1	-0.550
8	G2	-0.475	G2	0.525	G1	-0.550
9	G2	-0.475	G2	0.525	G1	-0.550

* LINE DATA

10	G2	-0.475	G2	0.526	G1	-0.551
11	G2	-0.476	G2	0.526	G1	-0.551
12	G2	-0.476	G2	0.526	G1	-0.551
13	G2	-0.476	G2	0.526	G1	-0.551

* LOAD DATA

* POINT LOAD (T)

* LOAD NAME ---	OUT NO.	-- PLACE ---		WEIGHT	KVAL OF SHEAR
DEAD	2	G1	C1	0.907	1.000

* LOAD NAME ---	OUT NO.	-- PLACE ---		WEIGHT	KVAL OF SHEAR
DEAD	2	G1	C5	0.907	1.000

* LOAD NAME ---	OUT NO.	-- PLACE ---		WEIGHT	KVAL OF SHEAR
DEAD	2	G1	C9	0.907	1.000

* LOAD NAME ---	OUT NO.	-- PLACE ---		WEIGHT	KVAL OF SHEAR
DEAD	2	G1	C13	0.907	1.000

* LOAD NAME ---	OUT NO.	-- PLACE ---		WEIGHT	KVAL OF SHEAR
DEAD	2	G2	C1	1.813	1.000

* LOAD NAME ---	OUT NO.	-- PLACE ---		WEIGHT	KVAL OF SHEAR
DEAD	2	G2	C5	1.813	1.000

* LOAD NAME ---	OUT NO.	-- PLACE ---		WEIGHT	KVAL OF SHEAR
DEAD	2	G2	C9	1.813	1.000

* LOAD NAME ---	OUT NO.	-- PLACE ---		WEIGHT	KVAL OF SHEAR
DEAD	2	G2	C13	1.813	1.000

* LOAD NAME ---	OUT NO.	-- PLACE ---		WEIGHT	KVAL OF SHEAR
DEAD	2	G3	C1	1.813	1.000

* LOAD NAME ---	OUT NO.	-- PLACE ---		WEIGHT	KVAL OF SHEAR
DEAD	2	G3	C5	1.813	1.000

* LOAD NAME ---	OUT NO.	-- PLACE ---		WEIGHT	KVAL OF SHEAR
DEAD	2	G3	C9	1.813	1.000

* LOAD NAME ---	OUT NO.	-- PLACE ---		WEIGHT	KVAL OF SHEAR
DEAD	2	G3	C13	1.813	1.000

* LOAD NAME ---	OUT NO.	-- PLACE ---		WEIGHT	KVAL OF SHEAR
DEAD	2	G4	C1	1.813	1.000

* LOAD NAME ---	OUT NO.	-- PLACE ---		WEIGHT	KVAL OF SHEAR
DEAD	2	G4	C5	1.813	1.000

* LOAD NAME ---	OUT NO.	-- PLACE ---		WEIGHT	KVAL OF SHEAR
DEAD	2	G4	C9	1.813	1.000

* LOAD NAME ---	OUT NO.	-- PLACE ---		WEIGHT	KVAL OF SHEAR
DEAD	2	G4	C13	1.813	1.000

* LOAD DATA

* POINT LOAD (T)

* LOAD NAME ---	OUT NO.	-- PLACE ---		WEIGHT	KVAL OF SHEAR
DEAD	2	G5	C1	1.813	1.000

* LOAD NAME ---	OUT NO.	-- PLACE ---		WEIGHT	KVAL OF SHEAR
DEAD	2	G5	C5	1.813	1.000

* LOAD NAME ---	OUT NO.	-- PLACE ---		WEIGHT	KVAL OF SHEAR
DEAD	2	G5	C9	1.813	1.000

* LOAD NAME ---	OUT NO.	-- PLACE ---		WEIGHT	KVAL OF SHEAR
DEAD	2	G5	C13	1.813	1.000

* LOAD NAME ---	OUT NO.	-- PLACE ---		WEIGHT	KVAL OF SHEAR
DEAD	2	G6	C1	1.813	1.000

* LOAD NAME ---	OUT NO.	-- PLACE ---		WEIGHT	KVAL OF SHEAR
DEAD	2	G6	C5	1.813	1.000

* LOAD NAME ---	OUT NO.	-- PLACE ---		WEIGHT	KVAL OF SHEAR
DEAD	2	G6	C9	1.813	1.000

* LOAD NAME ---	OUT NO.	-- PLACE ---		WEIGHT	KVAL OF SHEAR
DEAD	2	G6	C13	1.813	1.000

* LOAD NAME ---	OUT NO.	-- PLACE ---		WEIGHT	KVAL OF SHEAR
DEAD	2	G7	C1	1.813	1.000

* LOAD NAME ---	OUT NO.	-- PLACE ---		WEIGHT	KVAL OF SHEAR
DEAD	2	G7	C5	1.813	1.000

* LOAD NAME ---	OUT NO.	-- PLACE ---		WEIGHT	KVAL OF SHEAR
DEAD	2	G7	C9	1.813	1.000

* LOAD NAME ---	OUT NO.	-- PLACE ---		WEIGHT	KVAL OF SHEAR
DEAD	2	G7	C13	1.813	1.000

* LOAD NAME ---	OUT NO.	-- PLACE ---		WEIGHT	KVAL OF SHEAR
DEAD	2	G8	C1	1.813	1.000

* LOAD NAME ---	OUT NO.	-- PLACE ---		WEIGHT	KVAL OF SHEAR
DEAD	2	G8	C5	1.813	1.000

* LOAD NAME ---	OUT NO.	-- PLACE ---		WEIGHT	KVAL OF SHEAR
DEAD	2	G8	C9	1.813	1.000

* LOAD NAME ---	OUT NO.	-- PLACE ---		WEIGHT	KVAL OF SHEAR
DEAD	2	G8	C13	1.813	1.000

* LOAD NAME ---	OUT NO.	-- PLACE ---		WEIGHT	KVAL OF SHEAR
DEAD	2	G9	C1	0.907	1.000

* LOAD DATA

* POINT LOAD (T)

* LOAD NAME ---	OUT NO.	-- PLACE ---		WEIGHT	KVAL OF SHEAR
DEAD	2	G9	C5	0.907	1.000

* LOAD NAME ---	OUT NO.	-- PLACE ---		WEIGHT	KVAL OF SHEAR
DEAD	2	G9	C9	0.907	1.000

* LOAD NAME ---	OUT NO.	-- PLACE ---		WEIGHT	KVAL OF SHEAR
DEAD	2	G9	C13	0.909	1.000

* LOAD NAME ---	OUT NO.	-- PLACE ---		WEIGHT	KVAL OF SHEAR
DEAD	2	G1	C3	0.529	1.000

* LOAD NAME ---	OUT NO.	-- PLACE ---		WEIGHT	KVAL OF SHEAR
DEAD	2	G1	C7	0.529	1.000

* LOAD NAME ---	OUT NO.	-- PLACE ---		WEIGHT	KVAL OF SHEAR
DEAD	2	G1	C11	0.529	1.000

* LOAD NAME ---	OUT NO.	-- PLACE ---		WEIGHT	KVAL OF SHEAR
DEAD	2	G2	C3	1.057	1.000

* LOAD NAME ---	OUT NO.	-- PLACE ---		WEIGHT	KVAL OF SHEAR
DEAD	2	G2	C7	1.057	1.000

* LOAD NAME ---	OUT NO.	-- PLACE ---		WEIGHT	KVAL OF SHEAR
DEAD	2	G2	C11	1.057	1.000

* LOAD NAME ---	OUT NO.	-- PLACE ---		WEIGHT	KVAL OF SHEAR
DEAD	2	G3	C3	1.057	1.000
DEAD	2	G3	C7	1.057	1.000
DEAD	2	G3	C11	1.057	1.000
DEAD	2	G4	C3	1.057	1.000
DEAD	2	G4	C7	1.057	1.000
DEAD	2	G4	C11	1.057	1.000
DEAD	2	G5	C3	1.057	1.000
DEAD	2	G5	C7	1.057	1.000

* LOAD DATA

* POINT LOAD (T)

* LOAD NAME ---	OUT NO.	-- PLACE ---		WEIGHT	KVAL OF SHEAR
DEAD	2	G5	C11	1.057	1.000

* LOAD NAME ---	OUT NO.	-- PLACE ---		WEIGHT	KVAL OF SHEAR
DEAD	2	G6	C3	1.057	1.000

* LOAD NAME ---	OUT NO.	-- PLACE ---		WEIGHT	KVAL OF SHEAR
DEAD	2	G6	C7	1.057	1.000

* LOAD NAME ---	OUT NO.	-- PLACE ---		WEIGHT	KVAL OF SHEAR
DEAD	2	G6	C11	1.057	1.000

* LOAD NAME ---	OUT NO.	-- PLACE ---		WEIGHT	KVAL OF SHEAR
DEAD	2	G7	C3	1.057	1.000

* LOAD NAME ---	OUT NO.	-- PLACE ---		WEIGHT	KVAL OF SHEAR
DEAD	2	G7	C7	1.057	1.000

* LOAD NAME ---	OUT NO.	-- PLACE ---		WEIGHT	KVAL OF SHEAR
DEAD	2	G7	C11	1.057	1.000

* LOAD NAME ---	OUT NO.	-- PLACE ---		WEIGHT	KVAL OF SHEAR
DEAD	2	G8	C3	1.057	1.000

* LOAD NAME ---	OUT NO.	-- PLACE ---		WEIGHT	KVAL OF SHEAR
DEAD	2	G8	C7	1.057	1.000

* LOAD NAME ---	OUT NO.	-- PLACE ---		WEIGHT	KVAL OF SHEAR
DEAD	2	G8	C11	1.057	1.000

* LOAD NAME ---	OUT NO.	-- PLACE ---		WEIGHT	KVAL OF SHEAR
DEAD	2	G9	C3	0.529	1.000

* LOAD NAME ---	OUT NO.	-- PLACE ---		WEIGHT	KVAL OF SHEAR
DEAD	2	G9	C7	0.529	1.000

* LOAD NAME ---	OUT NO.	-- PLACE ---		WEIGHT	KVAL OF SHEAR
DEAD	2	G9	C11	0.529	1.000

* LOAD DATA

* LINE LOAD ON DIRECTION OF GIRDER (T/M)

* LOAD NAME ---	OUT NO.	KVAL OF SHEAR	* LOAD NAME ---	OUT NO.	KVAL OF SHEAR
DEAD	1	1.000	DEAD	1	1.000
	L1			L2	
1(-)	-		1(-)	-	
(R)	0.843		(R)	1.278	
2(L)	0.843		2(L)	1.278	
(R)	0.843		(R)	1.278	
3(L)	0.843		3(L)	1.278	
(R)	0.843		(R)	1.278	
4(L)	0.843		4(L)	1.278	
(R)	0.843		(R)	1.278	
5(L)	0.843		5(L)	1.278	
(R)	0.843		(R)	1.278	
6(L)	0.843		6(L)	1.278	
(R)	0.843		(R)	1.278	
7(L)	0.843		7(L)	1.278	
(R)	0.843		(R)	1.278	
8(L)	0.843		8(L)	1.278	
(R)	0.843		(R)	1.278	
9(L)	0.843		9(L)	1.278	
(R)	0.843		(R)	1.278	
10(L)	0.843		10(L)	1.278	
(R)	0.843		(R)	1.278	
11(L)	0.843		11(L)	1.278	
(R)	0.843		(R)	1.278	
12(L)	0.843		12(L)	1.278	
(R)	0.843		(R)	1.278	
13(L)	0.843		13(L)	1.278	
(-)	-		(-)	-	

* LOAD NAME ---	OUT NO.	KVAL OF SHEAR	* LOAD NAME ---	OUT NO.	KVAL OF SHEAR
DEAD	1	1.000	DEAD	2	1.000
	L3			G1	
1(-)	-		1(-)	-	
(R)	0.843		(R)	2.916	
2(L)	0.843		2(L)	2.916	
(R)	0.843		(R)	2.916	
3(L)	0.843		3(L)	2.916	
(R)	0.843		(R)	2.916	
4(L)	0.843		4(L)	2.916	
(R)	0.843		(R)	2.916	
5(L)	0.843		5(L)	2.916	
(R)	0.843		(R)	2.916	
6(L)	0.843		6(L)	2.916	
(R)	0.843		(R)	2.916	
7(L)	0.843		7(L)	2.916	

* LOAD DATA

* LINE LOAD ON DIRECTION OF GIRDER (T/M)

(R)	0.843	(R)	2.916
8(L)	0.843	8(L)	2.916
(R)	0.843	(R)	2.916
9(L)	0.843	9(L)	2.916
(R)	0.843	(R)	2.916
10(L)	0.843	10(L)	2.916
(R)	0.843	(R)	2.916
11(L)	0.843	11(L)	2.916
(R)	0.843	(R)	2.916
12(L)	0.843	12(L)	2.916
(R)	0.843	(R)	2.916
13(L)	0.843	13(L)	2.916
(-)	-	(-)	-

* LOAD DATA

* LINE LOAD ON DIRECTION OF GIRDER (T/M)

* LOAD NAME ---	OUT NO.	KVAL OF SHEAR
DEAD	2	1.000
	G2	
1(-)	-	
(R)	2.508	
2(L)	2.508	
(R)	2.508	
3(L)	2.508	
(R)	2.508	
4(L)	2.508	
(R)	2.508	
5(L)	2.508	
(R)	2.508	
6(L)	2.508	
(R)	2.508	
7(L)	2.508	
(R)	2.508	
8(L)	2.508	
(R)	2.508	
9(L)	2.508	
(R)	2.508	
10(L)	2.508	
(R)	2.508	
11(L)	2.508	
(R)	2.508	
12(L)	2.508	
(R)	2.508	
13(L)	2.508	
(-)	-	

* LOAD NAME ---	OUT NO.	KVAL OF SHEAR
DEAD	2	1.000
	G3	
1(-)	-	
(R)	2.508	
2(L)	2.508	
(R)	2.508	
3(L)	2.508	
(R)	2.508	
4(L)	2.508	
(R)	2.508	
5(L)	2.508	
(R)	2.508	
6(L)	2.508	
(R)	2.508	
7(L)	2.508	
(R)	2.508	
8(L)	2.508	
(R)	2.508	
9(L)	2.508	
(R)	2.508	
10(L)	2.508	
(R)	2.508	
11(L)	2.508	
(R)	2.508	
12(L)	2.508	
(R)	2.508	
13(L)	2.508	
(-)	-	

* LOAD NAME ---	OUT NO.	KVAL OF SHEAR
DEAD	2	1.000
	G4	
1(-)	-	
(R)	2.508	
2(L)	2.508	
(R)	2.508	
3(L)	2.508	
(R)	2.508	
4(L)	2.508	
(R)	2.508	
5(L)	2.508	
(R)	2.508	
6(L)	2.508	
(R)	2.508	
7(L)	2.508	

* LOAD NAME ---	OUT NO.	KVAL OF SHEAR
DEAD	2	1.000
	G5	
1(-)	-	
(R)	2.508	
2(L)	2.508	
(R)	2.508	
3(L)	2.508	
(R)	2.508	
4(L)	2.508	
(R)	2.508	
5(L)	2.508	
(R)	2.508	
6(L)	2.508	
(R)	2.508	
7(L)	2.508	

* LOAD DATA

* LINE LOAD ON DIRECTION OF GIRDER (T/M)

(R)	2.508	(R)	2.508
8(L)	2.508	8(L)	2.508
(R)	2.508	(R)	2.508
9(L)	2.508	9(L)	2.508
(R)	2.508	(R)	2.508
10(L)	2.508	10(L)	2.508
(R)	2.508	(R)	2.508
11(L)	2.508	11(L)	2.508
(R)	2.508	(R)	2.508
12(L)	2.508	12(L)	2.508
(R)	2.508	(R)	2.508
13(L)	2.508	13(L)	2.508
(-)	-	(-)	-

* LOAD DATA

* LINE LOAD ON DIRECTION OF GIRDER (T/M)

* LOAD NAME ---	OUT NO.	KVAL OF SHEAR
DEAD	2	1.000

G6

1(-)	-
(R)	2.508
2(L)	2.508
(R)	2.508
3(L)	2.508
(R)	2.508
4(L)	2.508
(R)	2.508
5(L)	2.508
(R)	2.508
6(L)	2.508
(R)	2.508
7(L)	2.508
(R)	2.508
8(L)	2.508
(R)	2.508
9(L)	2.508
(R)	2.508
10(L)	2.508
(R)	2.508
11(L)	2.508
(R)	2.508
12(L)	2.508
(R)	2.508
13(L)	2.508
(-)	-

* LOAD NAME ---	OUT NO.	KVAL OF SHEAR
DEAD	2	1.000

G7

1(-)	-
(R)	2.508
2(L)	2.508
(R)	2.508
3(L)	2.508
(R)	2.508
4(L)	2.508
(R)	2.508
5(L)	2.508
(R)	2.508
6(L)	2.508
(R)	2.508
7(L)	2.508
(R)	2.508
8(L)	2.508
(R)	2.508
9(L)	2.508
(R)	2.508
10(L)	2.508
(R)	2.508
11(L)	2.508
(R)	2.508
12(L)	2.508
(R)	2.508
13(L)	2.508
(-)	-

* LOAD NAME ---	OUT NO.	KVAL OF SHEAR
DEAD	2	1.000

G8

1(-)	-
(R)	2.508
2(L)	2.508
(R)	2.508
3(L)	2.508
(R)	2.508
4(L)	2.508
(R)	2.508
5(L)	2.508
(R)	2.508
6(L)	2.508
(R)	2.508
7(L)	2.508

* LOAD NAME ---	OUT NO.	KVAL OF SHEAR
DEAD	2	1.000

G9

1(-)	-
(R)	2.916
2(L)	2.916
(R)	2.916
3(L)	2.916
(R)	2.916
4(L)	2.916
(R)	2.916
5(L)	2.916
(R)	2.916
6(L)	2.916
(R)	2.916
7(L)	2.916

* LOAD DATA

* LINE LOAD ON DIRECTION OF GIRDER (T/M)

(R)	2.508	(R)	2.916
8(L)	2.508	8(L)	2.916
(R)	2.508	(R)	2.916
9(L)	2.508	9(L)	2.916
(R)	2.508	(R)	2.916
10(L)	2.508	10(L)	2.916
(R)	2.508	(R)	2.916
11(L)	2.508	11(L)	2.916
(R)	2.508	(R)	2.916
12(L)	2.508	12(L)	2.916
(R)	2.508	(R)	2.916
13(L)	2.508	13(L)	2.916
(-)	-	(-)	-

* LOAD DATA

* LINE LOAD ON CROSS BEAM (T/M)

* LOAD NAME ---		OUT NO.	-- PLACE ---------				--- WEIGHT ----		WIDTH OF MAIN LOAD
HA1E	LIVE	3	L4	L7	C1 -	C5	4.082	1.289	6.000

* LOAD NAME ---		OUT NO.	-- PLACE ---------				--- WEIGHT ----		WIDTH OF MAIN LOAD
HA1S	LIVE	4	L4	L7	C5 -	C9	4.082	1.289	6.000

* LOAD NAME ---		OUT NO.	-- PLACE ---------				--- WEIGHT ----		WIDTH OF MAIN LOAD
HA2	LIVE	5	L4	L7	C1 -	C9	4.082	1.289	6.000

* LOAD NAME ---		OUT NO.	-- PLACE ---------			--- WEIGHT ----		KVAL OF SHEAR
HB1E	DEAD	11	L10	L5	C3	4.082	4.082	1.000

* LOAD NAME ---		OUT NO.	-- PLACE ---------			--- WEIGHT ----		KVAL OF SHEAR
HB1E	DEAD	11	L6	L7	C3	1.289	1.289	1.000

* LOAD NAME ---		OUT NO.	-- PLACE ---------			--- WEIGHT ----		KVAL OF SHEAR
HB1S	DEAD	12	L10	L5	C7	4.082	4.082	1.000

* LOAD NAME ---		OUT NO.	-- PLACE ---------			--- WEIGHT ----		KVAL OF SHEAR
HB1S	DEAD	12	L6	L7	C7	1.289	1.289	1.000

* LOAD NAME ---		OUT NO.	-- PLACE ---------			--- WEIGHT ----		KVAL OF SHEAR
HB2	DEAD	13	L10	L5	C5	4.082	4.082	1.000

* LOAD NAME ---		OUT NO.	-- PLACE ---------			--- WEIGHT ----		KVAL OF SHEAR
HB2	DEAD	13	L6	L7	C5	1.289	1.289	1.000

** MONBASA JU BRIDGE **

* LOAD DATA

* UNIF LOAD (T/M*2)

* LOAD NAME ---		OUT NO.	KVAL OF SHEAR
DEAD		1	1.000

	L4	L5
1(-)	-	-
(R)	0.138	0.138
2(L)	0.138	0.138
(R)	0.138	0.138
3(L)	0.138	0.138
(R)	0.138	0.138
4(L)	0.138	0.138
(R)	0.138	0.138
5(L)	0.138	0.138
(R)	0.138	0.138
6(L)	0.138	0.138
(R)	0.138	0.138
7(L)	0.138	0.138
(R)	0.138	0.138
8(L)	0.138	0.138
(R)	0.138	0.138
9(L)	0.138	0.138
(R)	0.138	0.138
10(L)	0.138	0.138
(R)	0.138	0.138
11(L)	0.138	0.138
(R)	0.138	0.138
12(L)	0.138	0.138
(R)	0.138	0.138
13(L)	0.138	0.138
(-)	-	-

* LOAD NAME ---		OUT NO.	KVAL OF SHEAR
DEAD		1	1.000

	L6	L7
1(-)	-	-
(R)	0.138	0.138
2(L)	0.138	0.138
(R)	0.138	0.138
3(L)	0.138	0.138
(R)	0.138	0.138
4(L)	0.138	0.138
(R)	0.138	0.138
5(L)	0.138	0.138
(R)	0.138	0.138
6(L)	0.138	0.138
(R)	0.138	0.138
7(L)	0.138	0.138
(R)	0.138	0.138
8(L)	0.138	0.138
(R)	0.138	0.138
9(L)	0.138	0.138
(R)	0.138	0.138
10(L)	0.138	0.138
(R)	0.138	0.138
11(L)	0.138	0.138
(R)	0.138	0.138
12(L)	0.138	0.138
(R)	0.138	0.138
13(L)	0.138	0.138
(-)	-	-

* LOAD NAME ---		OUT NO.	WIDTH OF MAIN LOAD
HA1E	LIVE	3	6.000

	L4	L7
1(-)	-	-
(R)	1.020	0.322
2(L)	1.020	0.322
(R)	1.020	0.322
3(L)	1.020	0.322
(R)	1.020	0.322
4(L)	1.020	0.322
(R)	1.020	0.322
5(L)	1.020	0.322
(R)	-	-
6(L)	-	-
(R)	-	-
7(L)	-	-

* LOAD NAME ---		OUT NO.	WIDTH OF MAIN LOAD
HA1S	LIVE	4	6.000

	L4	L7
1(-)	-	-
(R)	-	-
2(L)	-	-
(R)	-	-
3(L)	-	-
(R)	-	-
4(L)	-	-
(R)	-	-
5(L)	-	-
(R)	1.020	0.322
6(L)	1.020	0.322
(R)	1.020	0.322
7(L)	1.020	0.322

* LOAD DATA

* UNIF LOAD (T/M*2)

(R)	-	-	(R)	1.020	0.322
8(L)	-	-	8(L)	1.020	0.322
(R)	-	-	(R)	1.020	0.322
9(L)	-	-	9(L)	1.020	0.322
(R)	-	-	(R)	-	-
10(L)	-	-	10(L)	-	-
(R)	-	-	(R)	-	-
11(L)	-	-	11(L)	-	-
(R)	-	-	(R)	-	-
12(L)	-	-	12(L)	-	-
(R)	-	-	(R)	-	-
13(L)	-	-	13(L)	-	-
(-)	-	-	(-)	-	-

* LOAD DATA

* UNIF LOAD (T/M*2)

* LOAD NAME ---		OUT NO.	WIDTH OF MAIN LOAD
HA2	LIVE	5	6.000

	L4	L7
1(-)	-	-
(R)	0.902	0.285
2(L)	0.902	0.285
(R)	0.902	0.285
3(L)	0.902	0.285
(R)	0.902	0.285
4(L)	0.902	0.285
(R)	0.902	0.285
5(L)	0.902	0.285
(R)	0.902	0.285
6(L)	0.902	0.285
(R)	0.902	0.285
7(L)	0.902	0.285
(R)	0.902	0.285
8(L)	0.902	0.285
(R)	0.902	0.285
9(L)	0.902	0.285
(R)	-	-
10(L)	-	-
(R)	-	-
11(L)	-	-
(R)	-	-
12(L)	-	-
(R)	-	-
13(L)	-	-
(-)	-	-

* LOAD NAME ---		OUT NO.	KVAL OF SHEAR
HB1E	DEAD	11	1.000

	L10	L5
1(-)	-	-
(R)	1.020	1.020
2(L)	1.020	1.020
(R)	1.020	1.020
3(L)	1.020	1.020
(R)	1.020	1.020
4(L)	1.020	1.020
(R)	1.020	1.020
5(L)	1.020	1.020
(R)	-	-
6(L)	-	-
(R)	-	-
7(L)	-	-
(R)	-	-
8(L)	-	-
(R)	-	-
9(L)	-	-
(R)	-	-
10(L)	-	-
(R)	-	-
11(L)	-	-
(R)	-	-
12(L)	-	-
(R)	-	-
13(L)	-	-
(-)	-	-

* LOAD NAME ---		OUT NO.	KVAL OF SHEAR
HB1E	DEAD	11	1.000

	L6	L7
1(-)	-	-
(R)	0.322	0.322
2(L)	0.322	0.322
(R)	0.322	0.322
3(L)	0.322	0.322
(R)	0.322	0.322
4(L)	0.322	0.322
(R)	0.322	0.322
5(L)	0.322	0.322
(R)	-	-
6(L)	-	-
(R)	-	-
7(L)	-	-

* LOAD NAME ---		OUT NO.	KVAL OF SHEAR
HB1S	DEAD	12	1.000

	L10	L5
1(-)	-	-
(R)	-	-
2(L)	-	-
(R)	-	-
3(L)	-	-
(R)	-	-
4(L)	-	-
(R)	-	-
5(L)	-	-
(R)	1.020	1.020
6(L)	1.020	1.020
(R)	1.020	1.020
7(L)	1.020	1.020

* LOAD DATA

* UNIF LOAD (T/M*2)

(R)	-	-	(R)	1.020	1.020
8(L)	-	-	8(L)	1.020	1.020
(R)	-	-	(R)	1.020	1.020
9(L)	-	-	9(L)	1.020	1.020
(R)	-	-	(R)	-	-
10(L)	-	-	10(L)	-	-
(R)	-	-	(R)	-	-
11(L)	-	-	11(L)	-	-
(R)	-	-	(R)	-	-
12(L)	-	-	12(L)	-	-
(R)	-	-	(R)	-	-
13(L)	-	-	13(L)	-	-
(-)	-	-	(-)	-	-

* LOAD DATA

* UNIF LOAD (T/M*2)

* LOAD NAME ---		OUT NO.	KVAL OF SHEAR
HB1S	DEAD	12	1.000

	L6	L7
1(-)	-	-
(R)	-	-
2(L)	-	-
(R)	-	-
3(L)	-	-
(R)	-	-
4(L)	-	-
(R)	-	-
5(L)	-	-
(R)	0.322	0.322
6(L)	0.322	0.322
(R)	0.322	0.322
7(L)	0.322	0.322
(R)	0.322	0.322
8(L)	0.322	0.322
(R)	0.322	0.322
9(L)	0.322	0.322
(R)	-	-
10(L)	-	-
(R)	-	-
11(L)	-	-
(R)	-	-
12(L)	-	-
(R)	-	-
13(L)	-	-
(-)	-	-

* LOAD NAME ---		OUT NO.	KVAL OF SHEAR
HB2	DEAD	13	1.000

	L10	L5
1(-)	-	-
(R)	0.902	0.902
2(L)	0.902	0.902
(R)	0.902	0.902
3(L)	0.902	0.902
(R)	0.902	0.902
4(L)	0.902	0.902
(R)	0.902	0.902
5(L)	0.902	0.902
(R)	0.902	0.902
6(L)	0.902	0.902
(R)	0.902	0.902
7(L)	0.902	0.902
(R)	0.902	0.902
8(L)	0.902	0.902
(R)	0.902	0.902
9(L)	0.902	0.902
(R)	-	-
10(L)	-	-
(R)	-	-
11(L)	-	-
(R)	-	-
12(L)	-	-
(R)	-	-
13(L)	-	-
(-)	-	-

* LOAD NAME ---		OUT NO.	KVAL OF SHEAR
HB2	DEAD	13	1.000

	L6	L7
1(-)	-	-
(R)	0.285	0.285
2(L)	0.285	0.285
(R)	0.285	0.285
3(L)	0.285	0.285
(R)	0.285	0.285
4(L)	0.285	0.285
(R)	0.285	0.285
5(L)	0.285	0.285
(R)	0.285	0.285
6(L)	0.285	0.285
(R)	0.285	0.285
7(L)	0.285	0.285

* LOAD DATA

* UNIF LOAD (T/M*2)

(R)	0.285	0.285
8(L)	0.285	0.285
(R)	0.285	0.285
9(L)	0.285	0.285
(R)	-	-
10(L)	-	-
(R)	-	-
11(L)	-	-
(R)	-	-
12(L)	-	-
(R)	-	-
13(L)	-	-
(-)	-	-

```
 * LOAD DATA
    * TRACK LOAD

     * LOAD NAME ---        OUT
                            NO.   -- PLACE ---------         DIRECTION
        (L=6 )     LIVE       6  L11    C1  -  C13          LEFT TO RIGHT      DIRECT LOAD   MAXOPT=1
        JIKU             NO. 1     NO. 2     NO. 3     NO. 4
        UNIT              1- 1      1- 2      1- 3      1- 4
        WEIGHT (T)       7.653     7.653     7.653     7.653
        WIDTH  (M)            1.800     6.000     1.800

     * LOAD NAME ---        OUT
                            NO.   -- PLACE ---------         DIRECTION
        (L=6 )     LIVE       6  L8     C1  -  C13          LEFT TO RIGHT      DIRECT LOAD   MAXOPT=1
        JIKU             NO. 1     NO. 2     NO. 3     NO. 4
        UNIT              1- 1      1- 2      1- 3      1- 4
        WEIGHT (T)       7.653     7.653     7.653     7.653
        WIDTH  (M)            1.800     6.000     1.800

     * LOAD NAME ---        OUT
                            NO.   -- PLACE ---------         DIRECTION
        (L=6 )     LIVE       6  L9     C1  -  C13          LEFT TO RIGHT      DIRECT LOAD   MAXOPT=1
        JIKU             NO. 1     NO. 2     NO. 3     NO. 4
        UNIT              1- 1      1- 2      1- 3      1- 4
        WEIGHT (T)       7.653     7.653     7.653     7.653
        WIDTH  (M)            1.800     6.000     1.800

     * LOAD NAME ---        OUT
                            NO.   -- PLACE ---------         DIRECTION
        (L=6 )     LIVE       6  L10    C1  -  C13          LEFT TO RIGHT      DIRECT LOAD   MAXOPT=1
```

```
* LOAD DATA
  * TRACK LOAD
        JIKU          NO. 1    NO. 2    NO. 3    NO. 4
        UNIT           1- 1     1- 2     1- 3     1- 4
        WEIGHT (T)    7.653    7.653    7.653    7.653
        WIDTH  (M)        1.800    6.000    1.800

                        OUT
  * LOAD NAME ---       NO.  -- PLACE ---------        DIRECTION
      (L=11)     LIVE     7  L11   C1  -  C13        LEFT TO RIGHT      DIRECT LOAD    MAXOPT=1
        JIKU          NO. 1    NO. 2    NO. 3    NO. 4
        UNIT           1- 1     1- 2     1- 3     1- 4
        WEIGHT (T)    7.653    7.653    7.653    7.653
        WIDTH  (M)        1.800   11.000    1.800

                        OUT
  * LOAD NAME ---       NO.  -- PLACE ---------        DIRECTION
      (L=11)     LIVE     7  L8    C1  -  C13        LEFT TO RIGHT      DIRECT LOAD    MAXOPT=1
        JIKU          NO. 1    NO. 2    NO. 3    NO. 4
        UNIT           1- 1     1- 2     1- 3     1- 4
        WEIGHT (T)    7.653    7.653    7.653    7.653
        WIDTH  (M)        1.800   11.000    1.800

                        OUT
  * LOAD NAME ---       NO.  -- PLACE ---------        DIRECTION
      (L=11)     LIVE     7  L9    C1  -  C13        LEFT TO RIGHT      DIRECT LOAD    MAXOPT=1
        JIKU          NO. 1    NO. 2    NO. 3    NO. 4
        UNIT           1- 1     1- 2     1- 3     1- 4
        WEIGHT (T)    7.653    7.653    7.653    7.653
        WIDTH  (M)        1.800   11.000    1.800

                        OUT
  * LOAD NAME ---       NO.  -- PLACE ---------        DIRECTION
      (L=11)     LIVE     7  L10   C1  -  C13        LEFT TO RIGHT      DIRECT LOAD    MAXOPT=1
```

```
 * LOAD DATA
   * TRACK LOAD
         JIKU          NO. 1    NO. 2    NO. 3    NO. 4
         UNIT           1- 1     1- 2     1- 3     1- 4
         WEIGHT (T)    7.653    7.653    7.653    7.653
         WIDTH  (M)       1.800   11.000    1.800

                     OUT
    * LOAD NAME ---  NO.  -- PLACE ---------          DIRECTION
       (L=16)   LIVE   8  L11   C1  -  C13           LEFT TO RIGHT      DIRECT LOAD   MAXOPT=1
         JIKU          NO. 1    NO. 2    NO. 3    NO. 4
         UNIT           1- 1     1- 2     1- 3     1- 4
         WEIGHT (T)    7.653    7.653    7.653    7.653
         WIDTH  (M)       1.800   16.000    1.800

                     OUT
    * LOAD NAME ---  NO.  -- PLACE ---------          DIRECTION
       (L=16)   LIVE   8  L8    C1  -  C13           LEFT TO RIGHT      DIRECT LOAD   MAXOPT=1
         JIKU          NO. 1    NO. 2    NO. 3    NO. 4
         UNIT           1- 1     1- 2     1- 3     1- 4
         WEIGHT (T)    7.653    7.653    7.653    7.653
         WIDTH  (M)       1.800   16.000    1.800

                     OUT
    * LOAD NAME ---  NO.  -- PLACE ---------          DIRECTION
       (L=16)   LIVE   8  L9    C1  -  C13           LEFT TO RIGHT      DIRECT LOAD   MAXOPT=1
         JIKU          NO. 1    NO. 2    NO. 3    NO. 4
         UNIT           1- 1     1- 2     1- 3     1- 4
         WEIGHT (T)    7.653    7.653    7.653    7.653
         WIDTH  (M)       1.800   16.000    1.800

                     OUT
    * LOAD NAME ---  NO.  -- PLACE ---------          DIRECTION
       (L=16)   LIVE   8  L10   C1  -  C13           LEFT TO RIGHT      DIRECT LOAD   MAXOPT=1
```

```
 * LOAD DATA
   * TRACK LOAD
        JIKU          NO. 1    NO. 2    NO. 3    NO. 4
        UNIT           1- 1     1- 2     1- 3     1- 4
        WEIGHT (T)    7.653    7.653    7.653    7.653
        WIDTH  (M)        1.800   16.000    1.800

                    OUT
   * LOAD NAME ---   NO.  -- PLACE ---------          DIRECTION
      (L=21)    LIVE   9  L11   C1  -  C13        LEFT TO RIGHT      DIRECT LOAD    MAXOPT=1
        JIKU          NO. 1    NO. 2    NO. 3    NO. 4
        UNIT           1- 1     1- 2     1- 3     1- 4
        WEIGHT (T)    7.653    7.653    7.653    7.653
        WIDTH  (M)        1.800   21.000    1.800

                    OUT
   * LOAD NAME ---   NO.  -- PLACE ---------          DIRECTION
      (L=21)    LIVE   9  L8    C1  -  C13        LEFT TO RIGHT      DIRECT LOAD    MAXOPT=1
        JIKU          NO. 1    NO. 2    NO. 3    NO. 4
        UNIT           1- 1     1- 2     1- 3     1- 4
        WEIGHT (T)    7.653    7.653    7.653    7.653
        WIDTH  (M)        1.800   21.000    1.800

                    OUT
   * LOAD NAME ---   NO.  -- PLACE ---------          DIRECTION
      (L=21)    LIVE   9  L9    C1  -  C13        LEFT TO RIGHT      DIRECT LOAD    MAXOPT=1
        JIKU          NO. 1    NO. 2    NO. 3    NO. 4
        UNIT           1- 1     1- 2     1- 3     1- 4
        WEIGHT (T)    7.653    7.653    7.653    7.653
        WIDTH  (M)        1.800   21.000    1.800

                    OUT
   * LOAD NAME ---   NO.  -- PLACE ---------          DIRECTION
      (L=21)    LIVE   9  L10   C1  -  C13        LEFT TO RIGHT      DIRECT LOAD    MAXOPT=1
```

```
 * LOAD DATA
   * TRACK LOAD
        JIKU          NO. 1    NO. 2    NO. 3    NO. 4
        UNIT           1- 1     1- 2     1- 3     1- 4
        WEIGHT (T)    7.653    7.653    7.653    7.653
        WIDTH  (M)        1.800   21.000    1.800

                     OUT
    * LOAD NAME ---  NO.  -- PLACE ---------        DIRECTION
       (L=26)   LIVE  10  L11    C1  -  C13       LEFT TO RIGHT     DIRECT LOAD   MAXOPT=1
        JIKU          NO. 1    NO. 2    NO. 3    NO. 4
        UNIT           1- 1     1- 2     1- 3     1- 4
        WEIGHT (T)    7.653    7.653    7.653    7.653
        WIDTH  (M)        1.800   26.000    1.800

                     OUT
    * LOAD NAME ---  NO.  -- PLACE ---------        DIRECTION
       (L=26)   LIVE  10  L8     C1  -  C13       LEFT TO RIGHT     DIRECT LOAD   MAXOPT=1
        JIKU          NO. 1    NO. 2    NO. 3    NO. 4
        UNIT           1- 1     1- 2     1- 3     1- 4
        WEIGHT (T)    7.653    7.653    7.653    7.653
        WIDTH  (M)        1.800   26.000    1.800

                     OUT
    * LOAD NAME ---  NO.  -- PLACE ---------        DIRECTION
       (L=26)   LIVE  10  L9     C1  -  C13       LEFT TO RIGHT     DIRECT LOAD   MAXOPT=1
        JIKU          NO. 1    NO. 2    NO. 3    NO. 4
        UNIT           1- 1     1- 2     1- 3     1- 4
        WEIGHT (T)    7.653    7.653    7.653    7.653
        WIDTH  (M)        1.800   26.000    1.800
```

* LOAD DATA

* TRACK LOAD

```
* LOAD NAME ---       OUT
                      NO.  -- PLACE ---------        DIRECTION
    (L=26)    LIVE    10  L10    C1  -  C13        LEFT TO RIGHT      DIRECT LOAD   MAXOPT=1

    JIKU            NO. 1     NO. 2     NO. 3     NO. 4
    UNIT             1- 1      1- 2      1- 3      1- 4
    WEIGHT (T)      7.653     7.653     7.653     7.653
    WIDTH  (M)           1.800    26.000     1.800
```

COMPOUND LOAD CASE = 15

	LOAD NAME	NS	FC	(Z	C1	FC1)	CONTROL BIT			(G: GRIDD, F: FRAMEZ, P: PICKUP TABLE FOR FRAMEZ)
14	T(L= 6) + HB1E	2	1.0000	G	6	1.0000	G	11	1.0000	
15	T(L=11) + HB1E	2	1.0000	G	7	1.0000	G	11	1.0000	
16	T(L=16) + HB1E	2	1.0000	G	8	1.0000	G	11	1.0000	
17	T(L=21) + HB1E	2	1.0000	G	9	1.0000	G	11	1.0000	
18	T(L=26) + HB1E	2	1.0000	G	10	1.0000	G	11	1.0000	
19	T(L= 6) + HB1S	2	1.0000	G	6	1.0000	G	12	1.0000	
20	T(L=11) + HB1S	2	1.0000	G	7	1.0000	G	12	1.0000	
21	T(L=16) + HB1S	2	1.0000	G	8	1.0000	G	12	1.0000	
22	T(L=21) + HB1S	2	1.0000	G	9	1.0000	G	12	1.0000	
23	T(L=26) + HB1S	2	1.0000	G	10	1.0000	G	12	1.0000	
24	T(L= 6) + HB2	2	1.0000	G	6	1.0000	G	13	1.0000	
25	T(L=11) + HB2	2	1.0000	G	7	1.0000	G	13	1.0000	
26	T(L=16) + HB2	2	1.0000	G	8	1.0000	G	13	1.0000	
27	T(L=21) + HB2	2	1.0000	G	9	1.0000	G	13	1.0000	
28	T(L=26) + HB2	2	1.0000	G	10	1.0000	G	13	1.0000	

PICKUP TABLE CASE = 6

PICKUP TABLE NO. 1

14 15 16 17 18

PICKUP TABLE NO. 2

19 20 21 22 23

PICKUP TABLE NO. 3

24 25 26 27 28

PICKUP TABLE NO. 4

3 14 15 16 17 18

PICKUP TABLE NO. 5

4 19 20 21 22 23

PICKUP TABLE NO. 6

5 24 25 26 27 28

** MONBASA JU BRIDGE **

** PICKUP TABLE ** NO. 1

BENDING MOMENT (T.M)

I	J	MAX CASE.	FORCE	MIN CASE.	FORCE
34	43	14	17.923	14	11.158
43	34	14	-8.156	14	-15.039
43	52	14	-8.156	14	-15.040
52	43	14	-7.040	14	-10.793
52	61	14	-7.040	14	-10.793
61	52	18	-2.637	14	-12.557
61	70	18	-2.638	14	-12.558
70	61	14	2.261	14	-2.562
70	79	14	2.261	14	-2.562
79	70	17	9.681	14	3.117
79	88	17	9.683	14	3.118
88	79	14	6.254	14	0.878
88	97	14	6.254	14	0.878
97	88	14	5.301	14	-6.167
97	106	14	5.303	14	-6.169
106	97	14	2.652	14	-3.084
106	115	14	2.652	14	-3.084
115	106	14	0.000	14	-0.000
8	17	14	0.000	14	0.000
17	8	14	23.692	14	13.643
17	26	14	23.692	14	13.648
26	17	14	36.728	14	16.641
26	35	14	36.730	14	16.642
35	26	14	20.881	14	8.468
35	44	14	20.881	14	8.468
44	35	14	-4.822	14	-16.864
44	53	14	-4.823	14	-16.865
53	44	14	-5.476	14	-11.730
53	62	14	-5.476	14	-11.730
62	53	14	0.448	14	-18.037
62	71	14	0.448	14	-18.041
71	62	14	4.457	14	-4.855
71	80	14	4.457	14	-4.855
80	71	18	10.492	14	1.466
80	89	18	10.494	14	1.466
89	80	14	9.149	14	-1.642
89	98	14	9.149	14	-1.642
98	89	14	10.099	14	-11.767
98	107	14	10.103	14	-11.771
107	98	14	5.051	14	-5.885
107	116	14	5.051	14	-5.885
116	107	14	0.001	14	-0.001
9	18	14	0.000	14	0.000
18	9	14	26.097	14	11.293
18	27	14	26.097	14	11.293
27	18	14	40.510	14	10.902
27	36	14	40.513	14	10.903
36	27	14	24.891	14	5.636
36	45	14	24.891	14	5.636
45	36	14	-1.657	14	-19.955

** MONBASA JU BRIDGE **

** PICKUP TABLE ** NO. 1

BENDING MOMENT (T.M)

I	J	MAX CASE.	FORCE	MIN CASE.	FORCE
45	54	14	-1.657	14	-19.956
54	45	14	-3.932	14	-13.092
54	63	14	-3.932	14	-13.092
63	54	14	5.717	14	-23.921
63	72	14	5.717	14	-23.925
72	63	14	7.083	14	-7.614
72	81	14	7.083	14	-7.614
81	72	18	11.077	14	-0.627
81	90	18	11.079	14	-0.627
90	81	14	12.504	14	-4.755
90	99	14	12.504	14	-4.755
99	90	14	16.323	14	-17.961
99	108	14	16.329	14	-17.967
108	99	14	8.164	14	-8.983
108	117	14	8.164	14	-8.983
117	108	14	0.001	14	-0.001
1	2	14	0.013	14	-0.158
2	1	14	0.080	14	-0.005
2	3	16	0.007	16	-0.052
3	2	14	0.077	14	0.008
3	4	16	-0.001	16	-0.013
4	3	17	0.004	14	-0.002
4	5	14	-0.013	14	-0.053
5	4	14	0.046	14	0.018
5	6	14	0.005	14	-0.003
6	5	14	0.002	14	0.001
6	7	14	-0.022	14	-0.032
7	6	14	0.018	14	0.013
7	8	14	-0.007	14	-0.014
8	7	14	0.020	14	0.012
8	9	14	-0.006	14	-0.011
9	8	14	0.035	14	0.015
19	20	14	0.176	14	-0.601
20	19	14	45.072	14	-32.275
20	21	14	44.972	14	-32.562
21	20	14	56.605	14	-30.857
21	22	14	56.560	14	-31.146
22	21	14	39.954	14	-46.744
22	23	14	39.913	14	-47.052
23	22	14	29.528	14	-46.363
23	24	14	29.437	14	-46.578
24	23	14	20.263	14	-34.037
24	25	14	20.138	14	-34.188
25	24	14	11.377	14	-19.538
25	26	14	11.228	14	-19.646
26	25	14	3.871	14	-7.687
26	27	14	3.701	14	-7.766
27	26	14	0.191	14	0.055
37	38	14	0.516	14	-0.107
38	37	14	0.075	14	-0.305

** MONBASA JU BRIDGE **

** PICKUP TABLE ** NO. 1

BENDING MOMENT (T.M)

I	J	MAX CASE.	FORCE	MIN CASE.	FORCE
38	39	14	0.153	16	-0.055
39	38	17	-0.009	17	-0.125
39	40	14	0.143	14	-0.036
40	39	14	0.028	14	-0.100
40	41	17	0.069	14	0.025
41	40	14	-0.027	18	-0.063
41	42	14	0.038	14	-0.008
42	41	14	0.003	14	-0.026
42	43	17	0.044	17	0.029
43	42	17	-0.028	14	-0.042
43	44	14	0.014	14	-0.004
44	43	14	0.004	14	-0.012
44	45	14	0.055	14	0.015
45	44	14	0.004	14	-0.081
55	56	14	0.214	14	-0.543
56	55	14	26.563	14	-49.786
56	57	14	26.641	14	-50.066
57	56	18	21.984	14	-72.311
57	58	18	22.099	14	-72.558
58	57	18	21.004	14	-77.130
58	59	18	21.138	14	-77.324
59	58	18	19.706	14	-67.100
59	60	18	19.800	14	-67.167
60	59	14	15.127	14	-47.796
60	61	14	15.200	14	-47.774
61	60	14	9.918	14	-27.121
61	62	14	9.957	14	-27.040
62	61	14	4.153	14	-10.123
62	63	14	4.158	14	-10.000
63	62	14	0.030	14	-0.162
73	74	15	0.565	14	-0.120
74	73	14	0.059	15	-0.288
74	75	14	0.181	14	-0.116
75	74	14	0.054	14	-0.127
75	76	14	0.106	17	-0.037
76	75	14	0.036	18	-0.063
76	77	17	0.023	14	-0.036
77	76	14	0.030	18	-0.014
77	78	18	0.003	14	-0.025
78	77	17	0.025	18	0.003
78	79	18	-0.010	17	-0.028
79	78	17	0.030	14	0.012
79	80	14	-0.009	18	-0.026
80	79	14	0.021	17	0.006
80	81	14	-0.004	14	-0.042
81	80	18	0.064	14	-0.001
91	92	14	0.339	14	-0.734
92	91	14	33.230	14	-51.719
92	93	14	33.303	14	-52.061
93	92	14	29.057	14	-72.970

** MONBASA JU BRIDGE **

** PICKUP TABLE ** NO. 1

BENDING MOMENT (T.M)

I	J	MAX CASE.	FORCE	MIN CASE.	FORCE
93	94	14	29.148	14	-73.298
94	93	14	28.128	14	-77.279
94	95	14	28.278	14	-77.578
95	94	14	27.631	14	-67.196
95	96	14	27.708	14	-67.343
96	95	14	22.074	14	-47.785
96	97	14	22.091	14	-47.831
97	96	14	13.861	14	-27.052
97	98	14	13.826	14	-27.027
98	97	14	5.650	14	-10.054
98	99	14	5.568	14	-9.979
99	98	14	0.128	14	-0.120
109	110	14	0.041	14	-0.236
110	109	14	0.180	14	-0.042
110	111	16	0.038	16	-0.031
111	110	14	0.036	14	-0.011
111	112	14	0.023	14	-0.063
112	111	14	0.042	14	-0.017
112	113	14	0.007	14	-0.012
113	112	14	0.004	14	-0.002
113	114	14	0.012	14	-0.022
114	113	14	0.015	14	-0.007
114	115	14	0.006	14	-0.003
115	114	14	0.004	14	-0.005
115	116	14	0.003	14	-0.003
116	115	14	0.003	14	-0.004
116	117	14	0.017	14	-0.017
117	116	14	0.020	14	-0.023

** MONBASA JU BRIDGE **

** PICKUP TABLE ** NO. 2

BENDING MOMENT (T.M)

I	J	MAX CASE.	FORCE	MIN CASE.	FORCE
1	10	19	0,001	19	-0,000
10	1	19	97,643	19	-30,145
10	19	19	97,643	19	-30,145
19	10	19	91,912	19	-60,290
19	28	19	91,917	19	-60,294
28	19	19	54,563	19	-101,057
28	37	19	54,563	19	-101,057
37	28	19	7,542	19	-151,417
37	46	19	7,544	19	-151,428
46	37	19	60,049	19	-33,166
46	55	19	60,049	19	-33,166
55	46	19	121,573	20	-0,628
55	64	19	121,594	20	-0,626
64	55	19	70,013	19	-40,109
64	73	19	70,013	19	-40,109
73	64	19	1,245	20	-145,688
73	82	19	1,246	20	-145,714
82	73	19	40,112	19	-83,324
82	91	19	40,112	19	-83,324
91	82	19	84,415	19	-48,723
91	100	19	84,443	19	-48,739
100	91	19	88,827	19	-23,921
100	109	19	88,827	19	-23,921
109	100	19	0,003	19	-0,013
2	11	19	0,001	19	-0,000
11	2	19	65,314	19	-27,277
11	20	19	65,314	19	-27,277
20	11	19	71,881	19	-54,554
20	29	19	71,883	19	-54,558
29	20	19	30,983	19	-80,823
29	38	19	30,983	19	-80,823
38	29	21	-2,731	19	-128,736
38	47	21	-2,731	19	-128,745
47	38	19	47,443	19	-19,189
47	56	19	47,443	19	-19,189
56	47	19	106,120	20	-10,628
56	65	19	106,140	20	-10,629
65	56	19	55,148	19	-24,470
65	74	19	55,148	19	-24,470
74	65	21	-5,604	20	-118,778
74	83	21	-5,606	20	-118,799
83	74	23	23,531	19	-66,522
83	92	23	23,531	19	-66,522
92	83	19	73,534	23	-49,740
92	101	19	73,556	23	-49,754
101	92	19	61,284	19	-22,179
101	110	19	61,284	19	-22,179
110	101	19	0,003	19	-0,008
3	12	19	0,001	19	-0,000
12	3	19	31,800	19	-21,854

** MONBASA JU BRIDGE **

** PICKUP TABLE ** NO. 2

BENDING MOMENT (T,M)

I	J	MAX CASE,	FORCE	MIN CASE,	FORCE
12	21	19	31.800	19	-21.854
21	12	19	50.762	19	-43.708
21	30	19	50.768	19	-43.712
30	21	19	3.589	19	-60.359
30	39	19	3.589	19	-60.359
39	30	19	-17.996	19	-81.676
39	48	19	-17.997	19	-81.682
48	39	19	31.132	19	-3.860
48	57	19	31.132	19	-3.860
57	48	19	71.134	23	-8.272
57	66	19	71.146	23	-8.269
66	57	19	38.793	19	-7.656
66	75	19	38.793	19	-7.656
75	66	19	-19.961	22	-70.557
75	84	19	-19.964	22	-70.571
84	75	19	3.319	19	-49.332
84	93	19	3.319	19	-49.332
93	84	19	56.036	19	-36.733
93	102	19	56.049	19	-36.748
102	93	19	34.162	19	-18.373
102	111	19	34.162	19	-18.373
111	102	19	0.002	19	-0.004
4	13	19	0.000	19	-0.000
13	4	19	11.328	19	-18.627
13	22	19	11.328	19	-18.627
22	13	19	22.656	19	-37.254
22	31	19	22.654	19	-37.256
31	22	19	-7.444	19	-43.696
31	40	19	-7.444	19	-43.696
40	31	19	-17.268	19	-53.104
40	49	19	-17.269	19	-53.108
49	40	19	19.143	19	0.641
49	58	19	19.143	19	0.641
58	49	19	72.973	23	19.509
58	67	19	72.988	23	19.510
67	58	19	25.438	19	-1.391
67	76	19	25.438	19	-1.391
76	67	19	-17.135	23	-45.644
76	85	19	-17.138	23	-45.654
85	76	19	-4.312	19	-35.175
85	94	19	-4.312	19	-35.175
94	85	19	30.615	19	-32.528
94	103	19	30.632	19	-32.543
103	94	19	15.315	19	-16.270
103	112	19	15.315	19	-16.270
112	103	19	0.002	19	-0.002
5	14	19	0.000	19	-0.000
14	5	19	0.864	19	-13.873
14	23	19	0.864	19	-13.873
23	14	19	1.728	19	-27.746

** MONBASA JU BRIDGE **

** PICKUP TABLE ** NO. 2

BENDING MOMENT (T.M)

I	J	MAX CASE,	FORCE	MIN CASE,	FORCE
23	32	19	1.730	19	-27.749
32	23	19	-13.952	19	-32.701
32	41	19	-13.952	19	-32.701
41	32	19	-21.385	19	-38.723
41	50	19	-21.386	19	-38.726
50	41	19	14.441	19	5.438
50	59	19	14.441	19	5.438
59	50	19	50.921	19	23.444
59	68	19	50.931	19	23.448
68	59	19	19.242	19	5.597
68	77	19	19.242	19	5.597
77	68	19	-19.114	23	-31.855
77	86	19	-19.118	23	-31.862
86	77	19	-10.277	19	-26.102
86	95	19	-10.277	19	-26.102
95	86	19	7.615	19	-24.113
95	104	19	7.613	19	-24.122
104	95	19	3.806	19	-12.060
104	113	19	3.806	19	-12.060
113	104	19	0.002	19	-0.000
6	15	19	-0.000	19	-0.000
15	6	19	-4.188	19	-11.269
15	24	19	-4.188	19	-11.269
24	15	19	-8.376	19	-22.537
24	33	19	-8.377	19	-22.539
33	24	19	-17.786	19	-25.628
33	42	19	-17.786	19	-25.628
42	33	19	-23.067	19	-31.354
42	51	19	-23.069	19	-31.357
51	42	19	12.054	19	7.878
51	60	19	12.054	19	7.878
60	51	19	35.751	19	24.090
60	69	19	35.757	19	24.094
69	60	19	15.321	19	9.824
69	78	19	15.321	19	9.824
78	69	22	-18.185	23	-25.595
78	87	22	-18.189	23	-25.601
87	78	19	-14.017	19	-20.122
87	96	19	-14.017	19	-20.122
96	87	19	-4.543	19	-18.395
96	105	19	-4.546	19	-18.403
105	96	19	-2.273	19	-9.201
105	114	19	-2.273	19	-9.201
114	105	19	0.001	19	0.000
7	16	19	-0.000	19	-0.000
16	7	19	-5.168	19	-11.221
16	25	19	-5.168	19	-11.221
25	16	19	-10.337	19	-22.442
25	34	19	-10.337	19	-22.444
34	25	19	-16.771	19	-23.535

** MONBASA JU BRIDGE **

** PICKUP TABLE ** NO. 2

BENDING MOMENT (T.M)

I	J	MAX CASE.	FORCE	MIN CASE.	FORCE
34	43	19	-16.771	19	-23.535
43	34	19	-21.958	19	-28.841
43	52	19	-21.959	19	-28.843
52	43	19	11.612	19	7.860
52	61	19	11.612	19	7.860
61	52	23	30.564	19	20.645
61	70	23	30.570	19	20.650
70	61	19	14.774	19	9.950
70	79	19	14.774	19	9.950
79	70	22	-16.409	19	-22.973
79	88	22	-16.412	19	-22.978
88	79	19	-13.514	19	-18.889
88	97	19	-13.514	19	-18.889
97	88	19	-8.138	19	-19.606
97	106	19	-8.141	19	-19.614
106	97	19	-4.071	19	-9.806
106	115	19	-4.071	19	-9.806
115	106	19	0.001	19	0.001
8	17	19	-0.000	19	-0.000
17	8	19	-2.630	19	-12.674
17	26	19	-2.630	19	-12.674
26	17	19	-5.261	19	-25.349
26	35	19	-5.262	19	-25.350
35	26	19	-12.067	19	-24.480
35	44	19	-12.067	19	-24.480
44	35	19	-18.072	19	-30.114
44	53	19	-18.074	19	-30.118
53	44	19	12.145	19	5.891
53	62	19	12.145	19	5.891
62	53	19	32.580	19	14.095
62	71	19	32.586	19	14.097
71	62	19	16.493	19	7.181
71	80	19	16.493	19	7.181
80	71	23	-13.935	19	-22.961
80	89	23	-13.938	19	-22.966
89	80	19	-9.760	19	-20.550
89	98	19	-9.760	19	-20.550
98	89	19	-3.285	19	-25.152
98	107	19	-3.287	19	-25.161
107	98	19	-1.644	19	-12.580
107	116	19	-1.644	19	-12.580
116	107	19	0.002	19	0.000
9	18	19	-0.000	19	-0.000
18	9	19	0.556	19	-14.248
18	27	19	0.556	19	-14.248
27	18	19	1.111	19	-28.497
27	36	19	1.111	19	-28.498
36	27	19	-7.334	19	-26.588
36	45	19	-7.334	19	-26.588
45	36	19	-15.020	19	-33.318

** MONBASA JU BRIDGE **

** PICKUP TABLE ** NO. 2

BENDING MOMENT (T.M)

I	J	MAX CASE.	FORCE	MIN CASE.	FORCE
45	54	19	-15.021	19	-33.320
54	45	19	13.196	19	4.036
54	63	19	13.196	19	4.036
63	54	19	35.395	19	5.758
63	72	19	35.402	19	5.760
72	63	19	19.016	19	4.318
72	81	19	19.016	19	4.318
81	72	23	-12.685	19	-24.389
81	90	23	-12.688	19	-24.394
90	81	19	-5.960	19	-23.219
90	99	19	-5.960	19	-23.219
99	90	19	3.162	19	-31.121
99	108	19	3.162	19	-31.133
108	99	19	1.581	19	-15.565
108	117	19	1.581	19	-15.565
117	108	19	0.002	19	-0.009
1	2	19	0.040	19	-0.131
2	1	19	0.067	19	-0.018
2	3	21	0.028	21	-0.031
3	2	19	0.036	19	-0.034
3	4	21	0.001	21	-0.011
4	3	22	0.008	19	0.003
4	5	19	0.031	19	-0.009
5	4	19	0.001	19	-0.026
5	6	19	0.000	19	-0.008
6	5	19	0.003	19	0.001
6	7	19	0.018	19	0.007
7	6	19	-0.004	19	-0.009
7	8	19	0.008	19	0.001
8	7	19	-0.004	19	-0.013
8	9	19	0.004	19	-0.001
9	8	19	0.001	19	-0.019
19	20	19	0.360	19	-0.417
20	19	19	29.292	19	-48.055
20	21	19	29.396	19	-48.137
21	20	19	21.961	19	-65.502
21	22	19	22.112	19	-65.595
22	21	19	20.512	19	-66.186
22	23	19	20.709	19	-66.255
23	22	19	20.403	19	-55.488
23	24	19	20.550	19	-55.465
24	23	19	16.271	19	-38.030
24	25	19	16.375	19	-37.951
25	24	19	10.153	19	-20.763
25	26	19	10.222	19	-20.652
26	25	19	4.102	19	-7.455
26	27	19	4.140	19	-7.327
27	26	19	-0.007	19	-0.143
37	38	19	0.564	19	-0.058
38	37	19	0.019	19	-0.360

** MONBASA JU BRIDGE **

** PICKUP TABLE ** NO. 2

BENDING MOMENT (T.M)

I	J	MAX CASE.	FORCE	MIN CASE.	FORCE
38	39	19	0.156	21	-0.052
39	38	22	-0.013	22	-0.129
39	40	19	0.215	19	0.036
40	39	19	-0.039	19	-0.168
40	41	22	0.066	19	0.022
41	40	19	-0.025	23	-0.062
41	42	19	0.105	19	0.058
42	41	19	-0.061	19	-0.091
42	43	22	0.044	22	0.029
43	42	22	-0.033	19	-0.047
43	44	19	0.074	19	0.056
44	43	19	-0.041	19	-0.057
44	45	19	0.072	19	0.032
45	44	19	-0.059	19	-0.143
55	56	19	-0.009	19	-0.766
56	55	19	44.305	19	-32.045
56	57	19	44.163	19	-32.544
57	56	23	60.927	19	-33.368
57	58	23	60.892	19	-33.765
58	57	23	43.657	19	-54.477
58	59	23	43.536	19	-54.926
59	58	23	31.087	19	-55.720
59	60	23	30.926	19	-56.041
60	59	19	20.725	19	-42.198
60	61	19	20.556	19	-42.418
61	60	19	12.033	19	-25.006
61	62	19	11.840	19	-25.157
62	61	19	4.225	19	-10.052
62	63	19	4.007	19	-10.151
63	62	19	0.240	19	0.048
73	74	20	0.659	19	-0.026
74	73	19	0.010	20	-0.337
74	75	19	0.261	19	-0.036
75	74	19	-0.048	19	-0.229
75	76	19	0.175	22	0.033
76	75	19	-0.039	23	-0.138
76	77	22	0.103	19	0.044
77	76	19	-0.048	23	-0.092
77	78	23	0.076	19	0.048
78	77	22	-0.046	23	-0.069
78	79	23	0.065	22	0.047
79	78	22	-0.050	19	-0.069
79	80	19	0.051	23	0.034
80	79	19	-0.015	22	-0.030
80	81	19	0.094	19	0.055
81	80	23	-0.065	19	-0.129
91	92	19	0.460	19	-0.612
92	91	19	30.747	19	-54.202
92	93	19	30.938	19	-54.425
93	92	19	23.722	19	-78.304

** MONBASA JU BRIDGE **

** PICKUP TABLE ** NO, 2

BENDING MOMENT (T,M)

I	J	MAX CASE,	FORCE	MIN CASE,	FORCE
93	94	19	23.925	19	-78.521
94	93	19	22.805	19	-82.602
94	95	19	23.080	19	-82.776
95	94	19	23.025	19	-71.802
95	96	19	23.227	19	-71.824
96	95	19	18.650	19	-51.209
96	97	19	18.793	19	-51.129
97	96	19	11.828	19	-29.085
97	98	19	11.920	19	-28.933
98	97	19	4.834	19	-10.870
98	99	19	4.877	19	-10.671
99	98	19	0.005	19	-0.243
109	110	19	0.059	19	-0.218
110	109	19	0.161	19	-0.062
110	111	21	0.035	21	-0.035
111	110	19	0.033	19	-0.013
111	112	19	0.033	19	-0.052
112	111	19	0.030	19	-0.029
112	113	19	0.012	19	-0.008
113	112	19	0.008	19	0.002
113	114	19	0.032	19	-0.002
114	113	19	-0.004	19	-0.027
114	115	19	0.003	19	-0.006
115	114	19	-0.004	19	-0.013
115	116	19	0.012	19	0.005
116	115	19	0.005	19	-0.002
116	117	19	0.036	19	0.002
117	116	19	0.004	19	-0.039

** MONBASA JU BRIDGE **

** PICKUP TABLE ** NO. 3

BENDING MOMENT (T.M)

I	J	MAX CASE.	FORCE	MIN CASE.	FORCE
1	10	24	0.001	24	-0.000
10	1	24	108.416	24	-19.371
10	19	24	108.416	24	-19.371
19	10	24	113.459	24	-38.742
19	28	24	113.466	24	-38.746
28	19	24	65.930	24	-89.690
28	37	24	65.930	24	-89.690
37	28	24	8.728	24	-150.232
37	46	24	8.729	24	-150.243
46	37	24	53.746	24	-39.469
46	55	24	53.746	24	-39.469
55	46	24	107.781	25	-14.420
55	64	24	107.800	25	-14.420
64	55	24	66.741	24	-43.382
64	73	24	66.741	24	-43.382
73	64	24	8.494	25	-138.439
73	82	24	8.496	25	-138.464
82	73	24	46.173	24	-77.264
82	91	24	46.173	24	-77.264
91	82	24	89.285	24	-43.853
91	100	24	89.315	24	-43.867
100	91	24	91.263	24	-21.485
100	109	24	91.263	24	-21.485
109	100	24	0.003	24	-0.013
2	11	24	0.001	24	-0.000
11	2	24	80.270	24	-12.322
11	20	24	80.270	24	-12.322
20	11	24	93.153	24	-33.282
20	29	24	93.157	24	-33.284
29	20	24	45.675	24	-66.131
29	38	24	45.675	24	-66.131
38	29	26	-3.259	24	-129.265
38	47	26	-3.260	24	-129.274
47	38	24	39.412	24	-27.220
47	56	24	39.412	24	-27.220
56	47	24	92.321	25	-24.427
56	65	24	92.339	25	-24.430
65	56	24	51.747	24	-27.871
65	74	24	51.747	24	-27.871
74	65	26	3.131	25	-110.044
74	83	26	3.130	25	-110.063
83	74	28	30.179	24	-59.874
83	92	28	30.179	24	-59.874
92	83	24	78.094	28	-45.180
92	101	24	78.118	28	-45.192
101	92	24	63.565	24	-19.898
101	110	24	63.565	24	-19.898
110	101	24	0.003	24	-0.009
3	12	24	0.001	24	-0.000
12	3	24	52.898	24	-0.757

** MONBASA JU BRIDGE **

** PICKUP TABLE ** NO. 3

BENDING MOMENT (T.M)

I	J	MAX CASE,	FORCE	MIN CASE,	FORCE
12	21	24	52.898	24	-0.757
21	12	24	62.962	24	-31.508
21	30	24	62.968	24	-31.512
30	21	24	23.310	24	-40.639
30	39	24	23.310	24	-40.639
39	30	24	-20.749	24	-84.429
39	48	24	-20.751	24	-84.435
48	39	24	21.094	24	-13.898
48	57	24	21.094	24	-13.898
57	48	24	59.837	28	-19.570
57	66	24	59.846	28	-19.570
66	57	24	35.134	24	-11.315
66	75	24	35.134	24	-11.315
75	66	24	-9.954	27	-60.550
75	84	24	-9.955	27	-60.562
84	75	24	10.496	24	-42.156
84	93	24	10.496	24	-42.156
93	84	24	60.379	24	-32.390
93	102	24	60.394	24	-32.402
102	93	24	36.335	24	-16.200
102	111	24	36.335	24	-16.200
111	102	24	0.002	24	-0.005
4	13	24	0.000	24	-0.000
13	4	24	28.874	24	-1.081
13	22	24	28.874	24	-1.081
22	13	24	48.322	24	-11.588
22	31	24	48.321	24	-11.588
31	22	24	9.433	24	-26.819
31	40	24	9.433	24	-26.819
40	31	24	-18.607	24	-54.443
40	49	24	-18.609	24	-54.447
49	40	24	9.739	24	-8.763
49	58	24	9.739	24	-8.763
58	49	24	57.396	28	3.933
58	67	24	57.409	28	3.931
67	58	24	21.850	24	-4.979
67	76	24	21.850	24	-4.979
76	67	24	-6.842	28	-35.351
76	85	24	-6.843	28	-35.358
85	76	24	3.064	24	-27.799
85	94	24	3.064	24	-27.799
94	85	24	35.072	24	-28.072
94	103	24	35.091	24	-28.085
103	94	24	17.544	24	-14.041
103	112	24	17.544	24	-14.041
112	103	24	0.002	24	-0.002
5	14	24	0.000	24	0.000
14	5	24	18.063	24	3.326
14	23	24	18.063	24	3.326
23	14	24	26.996	24	-2.478

** MONBASA JU BRIDGE **

** PICKUP TABLE ** NO. 3

BENDING MOMENT (T.M)

I	J	MAX CASE.	FORCE	MIN CASE.	FORCE
23	32	24	26.999	24	-2.480
32	23	24	2.723	24	-16.026
32	41	24	2.723	24	-16.026
41	32	24	-22.432	24	-39.770
41	50	24	-22.434	24	-39.774
50	41	24	5.181	24	-3.822
50	59	24	5.181	24	-3.822
59	50	24	35.269	24	7.791
59	68	24	35.275	24	7.793
68	59	24	15.594	24	1.950
68	77	24	15.594	24	1.950
77	68	24	-8.934	28	-21.675
77	86	24	-8.935	28	-21.680
86	77	24	-2.944	24	-18.770
86	95	24	-2.944	24	-18.770
95	86	24	12.098	24	-19.631
95	104	24	12.098	24	-19.637
104	95	24	6.049	24	-9.818
104	113	24	6.049	24	-9.818
113	104	24	0.001	24	-0.001
6	15	24	0.000	24	0.000
15	6	24	12.729	24	5.648
15	24	24	12.729	24	5.648
24	15	24	15.137	24	0.975
24	33	24	15.137	24	0.975
33	24	24	-1.313	24	-9.155
33	42	24	-1.313	24	-9.155
42	33	24	-23.957	24	-32.244
42	51	24	-23.959	24	-32.247
51	42	24	3.047	24	-1.129
51	60	24	3.047	24	-1.129
60	51	24	20.684	24	9.022
60	69	24	20.687	24	9.024
69	60	24	11.661	24	6.164
69	78	24	11.661	24	6.164
78	69	27	-8.377	28	-15.787
78	87	27	-8.378	28	-15.790
87	78	24	-6.818	24	-12.923
87	96	24	-6.818	24	-12.923
96	87	24	0.044	24	-13.808
96	105	24	0.044	24	-13.813
105	96	24	0.022	24	-6.906
105	114	24	0.022	24	-6.906
114	105	24	0.001	24	0.000
7	16	24	0.000	24	0.000
16	7	24	10.995	24	4.942
16	25	24	10.995	24	4.942
25	16	24	11.668	24	-0.437
25	34	24	11.669	24	-0.437
34	25	24	-0.909	24	-7.673

** MONBASA JU BRIDGE **

** PICKUP TABLE ** NO. 3

BENDING MOMENT (T.M)

I	J	MAX CASE.	FORCE	MIN CASE.	FORCE
34	43	24	-0.909	24	-7.673
43	34	24	-22.562	24	-29.445
43	52	24	-22.563	24	-29.447
52	43	24	3.001	24	-0.751
52	61	24	3.001	24	-0.751
61	52	28	16.004	24	6.085
61	70	28	16.007	24	6.087
70	61	24	11.160	24	6.337
70	79	24	11.160	24	6.337
79	70	27	-7.016	24	-13.580
79	88	27	-7.017	24	-13.582
88	79	24	-6.456	24	-11.832
88	97	24	-6.456	24	-11.832
97	88	24	-3.418	24	-14.886
97	106	24	-3.420	24	-14.892
106	97	24	-1.710	24	-7.446
106	115	24	-1.710	24	-7.446
115	106	24	0.001	24	0.000
8	17	24	0.000	24	0.000
17	8	24	12.595	24	2.551
17	26	24	12.595	24	2.551
26	17	24	15.760	24	-4.328
26	35	24	15.760	24	-4.328
35	26	24	2.962	24	-9.452
35	44	24	2.962	24	-9.452
44	35	24	-18.467	24	-30.509
44	53	24	-18.469	24	-30.511
53	44	24	4.006	24	-2.248
53	62	24	4.006	24	-2.248
62	53	24	18.577	24	0.092
62	71	24	18.581	24	0.092
71	62	24	12.968	24	3.656
71	80	24	12.968	24	3.656
80	71	28	-5.100	24	-14.126
80	89	28	-5.101	24	-14.129
89	80	24	-2.980	24	-13.770
89	98	24	-2.980	24	-13.770
98	89	24	1.438	24	-20.429
98	107	24	1.438	24	-20.436
107	98	24	0.719	24	-10.217
107	116	24	0.719	24	-10.217
116	107	24	0.001	24	-0.000
9	18	24	0.000	24	0.000
18	9	24	15.417	24	0.613
18	27	24	15.417	24	0.613
27	18	24	20.492	24	-9.116
27	36	24	20.493	24	-9.117
36	27	24	7.383	24	-11.871
36	45	24	7.383	24	-11.871
45	36	24	-15.310	24	-33.607

** MONBASA JU BRIDGE **

** PICKUP TABLE ** NO. 3

BENDING MOMENT (T.M)

I	J	MAX CASE.	FORCE	MIN CASE.	FORCE
34	43	24	-0.909	24	-7.673
43	34	24	-22.562	24	-29.445
43	52	24	-22.563	24	-29.447
52	43	24	3.001	24	-0.751
52	61	24	3.001	24	-0.751
61	52	28	16.004	24	6.085
61	70	28	16.007	24	6.087
70	61	24	11.160	24	6.337
70	79	24	11.160	24	6.337
79	70	27	-7.016	24	-13.580
79	88	27	-7.017	24	-13.582
88	79	24	-6.456	24	-11.832
88	97	24	-6.456	24	-11.832
97	88	24	-3.418	24	-14.886
97	106	24	-3.420	24	-14.892
106	97	24	-1.710	24	-7.446
106	115	24	-1.710	24	-7.446
115	106	24	0.001	24	0.000
8	17	24	0.000	24	0.000
17	8	24	12.595	24	2.551
17	26	24	12.595	24	2.551
26	17	24	15.760	24	-4.328
26	35	24	15.760	24	-4.328
35	26	24	2.962	24	-9.452
35	44	24	2.962	24	-9.452
44	35	24	-18.467	24	-30.509
44	53	24	-18.469	24	-30.511
53	44	24	4.006	24	-2.248
53	62	24	4.006	24	-2.248
62	53	24	18.577	24	0.092
62	71	24	18.581	24	0.092
71	62	24	12.968	24	3.656
71	80	24	12.968	24	3.656
80	71	28	-5.100	24	-14.126
80	89	28	-5.101	24	-14.129
89	80	24	-2.980	24	-13.770
89	98	24	-2.980	24	-13.770
98	89	24	1.438	24	-20.429
98	107	24	1.438	24	-20.436
107	98	24	0.719	24	-10.217
107	116	24	0.719	24	-10.217
116	107	24	0.001	24	-0.000
9	18	24	0.000	24	0.000
18	9	24	15.417	24	0.613
18	27	24	15.417	24	0.613
27	18	24	20.492	24	-9.116
27	36	24	20.493	24	-9.117
36	27	24	7.383	24	-11.871
36	45	24	7.383	24	-11.871
45	36	24	-15.310	24	-33.607

** MONBASA JU BRIDGE **

** PICKUP TABLE ** NO. 3

BENDING MOMENT (T.M)

I	J	MAX CASE.	FORCE	MIN CASE.	FORCE
45	54	24	-15.311	24	-33.610
54	45	24	5.342	24	-3.818
54	63	24	5.342	24	-3.818
63	54	24	22.038	24	-7.599
63	72	24	22.043	24	-7.600
72	63	24	15.533	24	0.835
72	81	24	15.533	24	0.835
81	72	28	-4.230	24	-15.933
81	90	28	-4.231	24	-15.937
90	81	24	0.635	24	-16.624
90	99	24	0.635	24	-16.624
99	90	24	7.895	24	-26.389
99	108	24	7.897	24	-26.398
108	99	24	3.948	24	-13.198
108	117	24	3.948	24	-13.198
117	108	24	0.002	24	-0.001
1	2	24	0.026	24	-0.145
2	1	24	0.074	24	-0.011
2	3	26	0.015	26	-0.044
3	2	24	0.061	24	-0.009
3	4	26	-0.002	26	-0.014
4	3	27	0.007	24	0.002
4	5	24	0.007	24	-0.033
5	4	24	0.026	24	-0.002
5	6	24	0.002	24	-0.006
6	5	24	0.004	24	0.002
6	7	24	-0.004	24	-0.014
7	6	24	0.009	24	0.004
7	8	24	-0.001	24	-0.008
8	7	24	0.009	24	0.001
8	9	24	-0.002	24	-0.008
9	8	24	0.021	24	0.001
19	20	24	0.267	24	-0.510
20	19	24	38.499	24	-38.847
20	21	24	38.500	24	-39.033
21	20	24	42.256	24	-45.207
21	22	24	42.314	24	-45.393
22	21	24	31.306	24	-55.392
22	23	24	31.380	24	-55.584
23	22	24	24.988	24	-50.903
23	24	24	25.013	24	-51.002
24	23	24	17.991	24	-36.310
24	25	24	17.979	24	-36.347
25	24	24	10.485	24	-20.430
25	26	24	10.444	24	-20.430
26	25	24	3.791	24	-7.766
26	27	24	3.725	24	-7.742
27	26	24	0.091	24	-0.044
37	38	24	0.556	24	-0.066
38	37	24	0.034	24	-0.346

** MONBASA JU BRIDGE **

** PICKUP TABLE ** NO. 3

BENDING MOMENT (T.M)

I	J	MAX CASE.	FORCE	MIN CASE.	FORCE
38	39	24	0.167	26	-0.041
39	38	27	-0.029	27	-0.144
39	40	24	0.202	24	0.023
40	39	24	-0.024	24	-0.153
40	41	27	0.081	24	0.037
41	40	24	-0.040	28	-0.076
41	42	24	0.089	24	0.042
42	41	24	-0.046	24	-0.075
42	43	27	0.058	27	0.043
43	42	27	-0.045	24	-0.059
43	44	24	0.059	24	0.040
44	43	24	-0.030	24	-0.046
44	45	24	0.079	24	0.039
45	44	24	-0.054	24	-0.139
55	56	24	0.077	24	-0.680
56	55	24	37.939	24	-38.411
56	57	24	37.888	24	-38.819
57	56	28	47.032	24	-47.263
57	58	28	47.081	24	-47.576
58	57	28	35.095	24	-63.039
58	59	28	35.078	24	-63.384
59	58	28	26.415	24	-60.391
59	60	28	26.358	24	-60.608
60	59	24	18.232	24	-44.691
60	61	24	18.164	24	-44.810
61	60	24	10.973	24	-26.066
61	62	24	10.879	24	-26.118
62	61	24	4.060	24	-10.217
62	63	24	3.935	24	-10.222
63	62	24	0.150	24	-0.042
73	74	25	0.619	24	-0.066
74	73	24	0.032	25	-0.316
74	75	24	0.234	24	-0.064
75	74	24	-0.016	24	-0.196
75	76	24	0.153	27	0.010
76	75	24	-0.012	28	-0.111
76	77	27	0.072	24	0.013
77	76	24	-0.018	28	-0.062
77	78	28	0.049	24	0.021
78	77	27	-0.019	28	-0.042
78	79	28	0.037	27	0.019
79	78	27	-0.020	24	-0.039
79	80	24	0.029	28	0.011
80	79	24	-0.001	27	-0.016
80	81	24	0.057	24	0.019
81	80	28	-0.017	24	-0.082
91	92	24	0.418	24	-0.654
92	91	24	31.258	24	-53.691
92	93	24	31.407	24	-53.957
93	92	24	24.830	24	-77.196

** MONBASA JU BRIDGE **

** PICKUP TABLE ** NO. 3

BENDING MOMENT (T.M)

		MAX		MIN	
I	J	CASE.	FORCE	CASE.	FORCE
93	94	24	24.991	24	-77.455
94	93	24	24.217	24	-81.190
94	95	24	24.448	24	-81.408
95	94	24	24.432	24	-70.394
95	96	24	24.591	24	-70.460
96	95	24	19.784	24	-50.075
96	97	24	19.883	24	-50.039
97	96	24	12.547	24	-28.366
97	98	24	12.593	24	-28.260
98	97	24	5.147	24	-10.558
98	99	24	5.145	24	-10.402
99	98	24	0.049	24	-0.199
109	110	24	0.053	24	-0.224
110	109	24	0.168	24	-0.055
110	111	26	0.036	26	-0.034
111	110	24	0.034	24	-0.012
111	112	24	0.029	24	-0.056
112	111	24	0.034	24	-0.025
112	113	24	0.010	24	-0.009
113	112	24	0.006	24	0.000
113	114	24	0.025	24	-0.009
114	113	24	0.002	24	-0.020
114	115	24	0.004	24	-0.005
115	114	24	-0.001	24	-0.010
115	116	24	0.009	24	0.002
116	115	24	0.004	24	-0.003
116	117	24	0.029	24	-0.005
117	116	24	0.010	24	-0.033

** MONBASA JU BRIDGE **

** PICKUP TABLE ** NO. 4

BENDING MOMENT (T.M)

I	J	MAX CASE.	FORCE	MIN CASE.	FORCE
1	10	14	0.001	3	-0.001
10	1	14	118.199	14	-9.588
10	19	14	118.199	14	-9.588
19	10	14	133.024	14	-19.177
19	28	14	133.032	14	-19.179
28	19	14	80.267	14	-75.352
28	37	14	80.267	14	-75.352
37	28	14	17.836	14	-141.124
37	46	14	17.838	14	-141.134
46	37	14	47.006	14	-46.209
46	55	14	47.006	14	-46.209
55	46	14	85.192	15	-37.009
55	64	14	85.207	15	-37.013
64	55	14	60.428	14	-49.694
64	73	14	60.428	14	-49.694
73	64	14	18.462	15	-128.470
73	82	14	18.467	15	-128.492
82	73	14	55.958	14	-67.478
82	91	14	55.958	14	-67.478
91	82	14	98.885	14	-34.253
91	100	14	98.919	14	-34.263
100	91	14	96.064	14	-16.683
100	109	14	96.064	14	-16.683
109	100	14	0.002	14	-0.014
2	11	14	0.001	3	-0.001
11	2	14	91.156	3	-4.477
11	20	14	91.156	3	-4.477
20	11	14	113.795	14	-12.640
20	29	14	113.800	14	-12.640
29	20	14	63.192	14	-48.614
29	38	14	63.192	14	-48.614
38	29	16	10.001	14	-116.004
38	47	16	10.002	14	-116.012
47	38	14	30.117	14	-36.514
47	56	14	30.117	14	-36.514
56	47	14	73.736	15	-43.012
56	65	14	73.751	15	-43.018
65	56	14	43.523	14	-36.095
65	74	14	43.523	14	-36.095
74	65	16	18.535	15	-94.639
74	83	16	18.538	15	-94.656
83	74	18	42.047	14	-48.006
83	92	18	42.047	14	-48.006
92	83	14	86.423	18	-36.851
92	101	14	86.451	18	-36.859
101	92	14	67.731	14	-15.732
101	110	14	67.731	14	-15.732
110	101	14	0.002	14	-0.009
3	12	14	0.001	3	-0.001
12	3	14	64.322	3	-4.329

** MOMBASA JU BRIDGE **

** PICKUP TABLE ** NO. 4

BENDING MOMENT (T.M)

I	J	MAX CASE.	FORCE	MIN CASE.	FORCE
12	21	14	64.322	3	-4.329
21	12	14	81.886	3	-12.791
21	30	14	81.893	3	-12.792
30	21	14	44.876	14	-19.072
30	39	14	44.876	14	-19.072
39	30	3	2.527	14	-64.145
39	48	3	2.527	14	-64.150
48	39	14	7.565	14	-27.427
48	57	14	7.565	14	-27.427
57	48	14	58.551	18	-20.855
57	66	14	58.557	18	-20.858
66	57	14	23.229	14	-23.221
66	75	14	23.229	14	-23.221
75	66	14	13.578	17	-37.019
75	84	14	13.581	17	-37.026
84	75	14	25.247	14	-27.404
84	93	14	25.247	14	-27.404
93	84	14	66.346	14	-26.423
93	102	14	66.364	14	-26.433
102	93	14	39.319	14	-13.215
102	111	14	39.319	14	-13.215
111	102	14	0.002	14	-0.005
4	13	14	0.001	3	-0.001
13	4	3	59.754	3	-3.620
13	22	3	59.754	3	-3.620
22	13	14	71.922	3	-11.479
22	31	14	71.924	3	-11.478
31	22	3	41.442	14	-6.716
31	40	3	41.442	14	-6.716
40	31	3	2.617	14	-39.072
40	49	3	2.617	14	-39.075
49	40	3	0.357	3	-20.399
49	58	3	0.357	3	-20.399
58	49	14	35.169	18	-18.294
58	67	14	35.179	18	-18.299
67	58	14	12.743	14	-14.086
67	76	14	12.743	14	-14.086
76	67	14	11.648	18	-16.861
76	85	14	11.651	18	-16.865
85	76	14	16.499	14	-14.363
85	94	14	16.499	14	-14.363
94	85	14	43.449	14	-19.694
94	103	14	43.472	14	-19.704
103	94	14	21.734	14	-9.851
103	112	14	21.734	14	-9.851
112	103	14	0.001	14	-0.003
5	14	14	0.000	3	-0.001
14	5	3	59.263	3	-2.882
14	23	3	59.263	3	-2.882
23	14	3	68.446	3	-10.048

** MONBASA JU BRIDGE **

** PICKUP TABLE ** NO. 4

BENDING MOMENT (T.M)

I	J	MAX CASE.	FORCE	MIN CASE.	FORCE
23	32	3	68.448	3	-10.048
32	23	3	41.008	3	-3.287
32	41	3	41.008	3	-3.287
41	32	3	2.991	3	-37.361
41	50	3	2.991	3	-37.363
50	41	3	0.002	3	-20.187
50	59	3	0.002	3	-20.187
59	50	14	13.196	14	-14.282
59	68	14	13.197	14	-14.285
68	59	14	6.517	14	-7.127
68	77	14	6.517	14	-7.127
77	68	3	9.429	18	-3.732
77	86	3	9.431	18	-3.733
86	77	14	10.294	14	-5.531
86	95	14	10.294	14	-5.531
95	86	14	20.629	14	-11.100
95	104	14	20.633	14	-11.102
104	95	14	10.316	14	-5.551
104	113	14	10.316	14	-5.551
113	104	14	0.001	14	-0.001
6	15	3	0.001	3	-0.001
15	6	3	59.774	3	-3.650
15	24	3	59.774	3	-3.650
24	15	3	69.430	3	-11.539
24	33	3	69.435	3	-11.538
33	24	3	41.463	3	-3.468
33	42	3	41.463	3	-3.468
42	33	3	2.614	3	-36.951
42	51	3	2.614	3	-36.953
51	42	3	0.379	3	-20.409
51	60	3	0.379	3	-20.409
60	51	3	4.043	3	-13.341
60	69	3	4.043	3	-13.343
69	60	14	2.538	14	-2.959
69	78	14	2.538	14	-2.959
78	69	3	9.905	3	-1.377
78	87	3	9.907	3	-1.377
87	78	3	6.431	3	-0.084
87	96	3	6.431	3	-0.084
96	87	14	8.619	14	-5.233
96	105	14	8.623	14	-5.234
105	96	14	4.311	14	-2.617
105	114	14	4.311	14	-2.617
114	105	14	0.000	3	-0.001
7	16	3	0.001	3	-0.000
16	7	3	61.762	3	-4.362
16	25	3	61.762	3	-4.362
25	16	3	73.952	3	-12.845
25	34	3	73.956	3	-12.845
34	25	3	43.972	3	-4.097

** MONBASA JU BRIDGE **

** PICKUP TABLE ** NO. 4

BENDING MOMENT (T.M)

I	J	MAX CASE.	FORCE	MIN CASE.	FORCE
34	43	3	43.972	3	-4.097
43	34	3	2.521	3	-36.509
43	52	3	2.521	3	-36.512
52	43	3	0.996	3	-21.842
52	61	3	0.996	3	-21.842
61	52	3	3.842	3	-14.582
61	70	3	3.842	3	-14.585
70	61	14	2.261	14	-2.562
70	79	14	2.261	14	-2.562
79	70	3	11.216	3	-1.660
79	88	3	11.218	3	-1.660
88	79	3	7.422	3	-0.327
88	97	3	7.422	3	-0.327
97	88	14	5.301	14	-6.167
97	106	14	5.303	14	-6.169
106	97	14	2.652	14	-3.084
106	115	14	2.652	14	-3.084
115	106	14	0.000	3	-0.001
8	17	3	0.001	3	-0.001
17	8	3	66.449	3	-4.529
17	26	3	66.449	3	-4.529
26	17	3	84.976	3	-11.204
26	35	3	84.981	3	-11.204
35	26	3	46.991	3	-4.388
35	44	3	46.991	3	-4.388
44	35	3	2.042	3	-38.667
44	53	3	2.042	3	-38.670
53	44	3	1.882	3	-24.770
53	62	3	1.882	3	-24.770
62	53	3	4.388	14	-18.037
62	71	3	4.388	14	-18.041
71	62	14	4.457	14	-4.855
71	80	14	4.457	14	-4.855
80	71	3	12.325	3	-1.965
80	89	3	12.328	3	-1.965
89	80	14	9.149	14	-1.642
89	98	14	9.149	14	-1.642
98	89	14	10.099	14	-11.767
98	107	14	10.103	14	-11.771
107	98	14	5.051	14	-5.885
107	116	14	5.051	14	-5.885
116	107	14	0.001	3	-0.001
9	18	3	0.001	3	-0.001
18	9	3	75.411	3	-7.068
18	27	3	75.411	3	-7.068
27	18	3	95.641	3	-14.138
27	36	3	95.647	3	-14.139
36	27	3	52.855	3	-6.089
36	45	3	52.855	3	-6.089
45	36	3	4.634	3	-44.140

** MONBASA JU BRIDGE **

** PICKUP TABLE ** NO. 4

BENDING MOMENT (T.M)

I	J	MAX CASE.	FORCE	MIN CASE.	FORCE
45	54	3	4.635	3	-44.143
54	45	3	3.691	3	-29.132
54	63	3	3.691	3	-29.132
63	54	3	6.385	14	-23.921
63	72	3	6.386	14	-23.925
72	63	14	7.083	14	-7.614
72	81	14	7.083	14	-7.614
81	72	3	13.650	3	-3.300
81	90	3	13.654	3	-3.301
90	81	14	12.504	14	-4.755
90	99	14	12.504	14	-4.755
99	90	14	16.323	14	-17.961
99	108	14	16.329	14	-17.967
108	99	14	8.164	14	-8.983
108	117	14	8.164	14	-8.983
117	108	14	0.001	3	-0.001
1	2	14	0.013	14	-0.158
2	1	14	0.080	3	-0.005
2	3	3	0.008	16	-0.052
3	2	14	0.077	3	-0.003
3	4	3	0.006	3	-0.019
4	3	3	0.014	3	-0.010
4	5	3	0.001	3	-0.073
5	4	3	0.073	3	-0.001
5	6	3	0.010	3	-0.014
6	5	3	0.016	3	-0.007
6	7	3	0.002	3	-0.068
7	6	3	0.047	3	-0.003
7	8	3	0.005	3	-0.042
8	7	3	0.057	3	-0.007
8	9	3	0.003	3	-0.039
9	8	3	0.102	3	-0.010
19	20	14	0.176	14	-0.601
20	19	14	45.072	14	-32.275
20	21	14	44.972	14	-32.562
21	20	14	56.605	3	-45.238
21	22	14	56.560	3	-45.349
22	21	3	61.683	3	-54.641
22	23	3	61.459	3	-54.730
23	22	3	65.101	3	-57.310
23	24	3	64.877	3	-57.388
24	23	3	61.777	3	-54.505
24	25	3	61.552	3	-54.594
25	24	3	50.332	3	-45.020
25	26	3	50.110	3	-45.133
26	25	3	28.348	3	-27.202
26	27	3	28.103	3	-27.322
27	26	3	0.432	3	-0.059
37	38	14	0.516	14	-0.107
38	37	14	0.075	14	-0.305

** PICKUP TABLE ** NO. 4

BENDING MOMENT (T.M)

I	J	MAX CASE.	FORCE	MIN CASE.	FORCE
38	39	14	0.153	16	-0.055
39	38	3	0.004	17	-0.125
39	40	14	0.143	14	-0.036
40	39	14	0.028	14	-0.100
40	41	3	0.089	3	-0.003
41	40	3	0.003	3	-0.090
41	42	3	0.038	3	-0.013
42	41	3	0.014	3	-0.038
42	43	3	0.090	3	-0.003
43	42	3	0.004	3	-0.093
43	44	3	0.033	3	-0.012
44	43	3	0.016	3	-0.031
44	45	3	0.117	3	-0.005
45	44	3	0.019	3	-0.160
55	56	14	0.214	14	-0.543
56	55	14	26.563	14	-49.786
56	57	14	26.641	14	-50.066
57	56	18	21.984	14	-72.311
57	58	18	22.099	14	-72.558
58	57	18	21.004	14	-77.130
58	59	18	21.138	14	-77.324
59	58	3	20.097	14	-67.100
59	60	3	20.150	14	-67.167
60	59	3	18.276	14	-47.796
60	61	3	18.328	14	-47.774
61	60	3	13.410	14	-27.121
61	62	3	13.465	14	-27.040
62	61	3	6.888	14	-10.123
62	63	3	6.930	14	-10.000
63	62	3	0.036	14	-0.162
73	74	15	0.565	14	-0.120
74	73	14	0.059	15	-0.288
74	75	14	0.181	14	-0.116
75	74	14	0.054	14	-0.127
75	76	14	0.106	17	-0.037
76	75	14	0.036	18	-0.063
76	77	17	0.023	14	-0.036
77	76	14	0.030	18	-0.014
77	78	18	0.003	3	-0.028
78	77	3	0.028	3	-0.002
78	79	3	0.003	3	-0.033
79	78	3	0.037	3	-0.003
79	80	3	0.004	3	-0.031
80	79	3	0.023	3	-0.005
80	81	3	0.010	3	-0.058
81	80	3	0.086	3	-0.019
91	92	14	0.339	14	-0.734
92	91	14	33.230	14	-51.719
92	93	14	33.303	14	-52.061
93	92	14	29.057	14	-72.970

** MONBASA JU BRIDGE **

** PICKUP TABLE ** NO. 4

BENDING MOMENT (T.M)

I	J	MAX CASE.	FORCE	MIN CASE.	FORCE
93	94	14	29.148	14	-73.298
94	93	14	28.128	14	-77.279
94	95	14	28.278	14	-77.578
95	94	14	27.631	14	-67.196
95	96	14	27.708	14	-67.343
96	95	14	22.074	14	-47.785
96	97	14	22.091	14	-47.831
97	96	14	13.861	14	-27.052
97	98	14	13.826	14	-27.027
98	97	14	5.650	14	-10.054
98	99	14	5.568	14	-9.979
99	98	14	0.128	14	-0.120
109	110	14	0.041	14	-0.236
110	109	14	0.180	14	-0.042
110	111	16	0.038	16	-0.031
111	110	14	0.036	14	-0.011
111	112	14	0.023	14	-0.063
112	111	14	0.042	14	-0.017
112	113	14	0.007	14	-0.012
113	112	14	0.004	14	-0.002
113	114	14	0.012	14	-0.022
114	113	14	0.015	14	-0.007
114	115	14	0.006	14	-0.003
115	114	14	0.004	14	-0.005
115	116	14	0.003	3	-0.004
116	115	14	0.003	14	-0.004
116	117	14	0.017	14	-0.017
117	116	14	0.020	14	-0.023

** MONBASA JU BRIDGE **

** PICKUP TABLE ** NO. 5

BENDING MOMENT (T,M)

I	J	MAX CASE.	FORCE	MIN CASE.	FORCE
1	10	19	0.001	4	-0.001
10	1	19	97.643	19	-30.145
10	19	19	97.643	19	-30.145
19	10	19	91.912	19	-60.290
19	28	19	91.917	19	-60.294
28	19	19	54.563	19	-101.057
28	37	19	54.563	19	-101.057
37	28	4	9.725	19	-151.417
37	46	4	9.726	19	-151.428
46	37	19	60.049	19	-33.166
46	55	19	60.049	19	-33.166
55	46	19	121.573	4	-25.395
55	64	19	121.594	4	-25.397
64	55	19	70.013	19	-40.109
64	73	19	70.013	19	-40.109
73	64	4	6.755	20	-145.688
73	82	4	6.756	20	-145.714
82	73	19	40.112	19	-83.324
82	91	19	40.112	19	-83.324
91	82	19	84.415	19	-48.723
91	100	19	84.443	19	-48.739
100	91	19	88.827	19	-23.921
100	109	19	88.827	19	-23.921
109	100	19	0.003	19	-0.013
2	11	19	0.001	4	-0.001
11	2	19	65.314	19	-27.277
11	20	19	65.314	19	-27.277
20	11	19	71.881	19	-54.554
20	29	19	71.883	19	-54.558
29	20	19	30.983	19	-80.823
29	38	19	30.983	19	-80.823
38	29	4	9.059	19	-128.736
38	47	4	9.060	19	-128.745
47	38	19	47.443	19	-19.189
47	56	19	47.443	19	-19.189
56	47	19	106.120	4	-25.037
56	65	19	106.140	4	-25.039
65	56	19	55.148	19	-24.470
65	74	19	55.148	19	-24.470
74	65	4	7.162	20	-118.778
74	83	4	7.163	20	-118.799
83	74	23	23.531	19	-66.522
83	92	23	23.531	19	-66.522
92	83	19	73.534	23	-49.740
92	101	19	73.556	23	-49.754
101	92	19	61.284	19	-22.179
101	110	19	61.284	19	-22.179
110	101	19	0.003	19	-0.008
3	12	19	0.001	4	-0.001
12	3	19	31.800	19	-21.854

** MONBASA JU BRIDGE **

** PICKUP TABLE ** NO. 5

BENDING MOMENT (T.M)

I	J	MAX CASE.	FORCE	MIN CASE.	FORCE
12	21	19	31.800	19	-21.854
21	12	19	50.762	19	-43.708
21	30	19	50.768	19	-43.712
30	21	19	3.589	19	-60.359
30	39	19	3.589	19	-60.359
39	30	4	8.769	19	-81.676
39	48	4	8.770	19	-81.682
48	39	4	34.999	4	-6.394
48	57	4	34.999	4	-6.394
57	48	4	78.576	4	-27.883
57	66	4	78.588	4	-27.885
66	57	4	39.289	19	-7.656
66	75	4	39.289	19	-7.656
75	66	4	7.425	22	-70.557
75	84	4	7.426	22	-70.571
84	75	19	3.319	19	-49.332
84	93	19	3.319	19	-49.332
93	84	19	56.036	19	-36.733
93	102	19	56.049	19	-36.748
102	93	19	34.162	19	-18.373
102	111	19	34.162	19	-18.373
111	102	19	0.002	19	-0.004
4	13	19	0.000	4	-0.001
13	4	19	11.328	19	-18.627
13	22	19	11.328	19	-18.627
22	13	19	22.656	19	-37.254
22	31	19	22.654	19	-37.256
31	22	4	1.248	4	-48.077
31	40	4	1.248	4	-48.077
40	31	4	7.884	4	-75.992
40	49	4	7.885	4	-75.997
49	40	4	33.339	4	-6.195
49	58	4	33.339	4	-6.195
58	49	19	72.973	4	-27.044
58	67	19	72.988	4	-27.047
67	58	4	36.722	4	-4.119
67	76	4	36.722	4	-4.119
76	67	4	6.938	4	-64.862
76	85	4	6.938	4	-64.874
85	76	4	1.112	4	-39.988
85	94	4	1.112	4	-39.988
94	85	19	30.615	19	-32.528
94	103	19	30.632	19	-32.543
103	94	19	15.315	19	-16.270
103	112	19	15.315	19	-16.270
112	103	19	0.002	19	-0.002
5	14	19	0.000	4	-0.001
14	5	4	2.039	4	-16.132
14	23	4	2.039	4	-16.132
23	14	4	4.078	4	-32.263

** MONBASA JU BRIDGE **

** PICKUP TABLE ** NO. 5

BENDING MOMENT (T.M)

I	J	MAX CASE.	FORCE	MIN CASE.	FORCE
23	32	4	4.079	4	-32.265
32	23	4	1.127	4	-47.310
32	41	4	1.127	4	-47.310
41	32	4	7.031	4	-75.523
41	50	4	7.031	4	-75.529
50	41	4	32.962	4	-6.215
50	59	4	32.962	4	-6.215
59	50	4	71.128	4	-26.353
59	68	4	71.140	4	-26.355
68	59	4	36.175	4	-4.141
68	77	4	36.175	4	-4.141
77	68	4	6.268	4	-64.607
77	86	4	6.269	4	-64.619
86	77	4	1.002	4	-39.096
86	95	4	1.002	4	-39.096
95	86	19	7.615	4	-26.845
95	104	19	7.613	4	-26.854
104	95	19	3.806	4	-13.426
104	113	19	3.806	4	-13.426
113	104	19	0.002	4	-0.001
6	15	4	0.000	4	-0.001
15	6	4	2.082	4	-17.044
15	24	4	2.082	4	-17.044
24	15	4	4.164	4	-34.089
24	33	4	4.164	4	-34.091
33	24	4	1.296	4	-48.117
33	42	4	1.296	4	-48.117
42	33	4	8.006	4	-75.991
42	51	4	8.007	4	-75.996
51	42	4	33.334	4	-6.279
51	60	4	33.334	4	-6.279
60	51	4	72.237	4	-27.327
60	69	4	72.251	4	-27.328
69	60	4	36.708	4	-4.103
69	78	4	36.708	4	-4.103
78	69	4	6.938	4	-64.599
78	87	4	6.939	4	-64.612
87	78	4	1.149	4	-39.664
87	96	4	1.149	4	-39.664
96	87	4	4.540	4	-28.668
96	105	4	4.540	4	-28.679
105	96	4	2.270	4	-14.338
105	114	4	2.270	4	-14.338
114	105	4	0.002	4	-0.001
7	16	4	0.000	4	-0.001
16	7	4	2.342	4	-19.045
16	25	4	2.342	4	-19.045
25	16	4	4.684	4	-38.089
25	34	4	4.684	4	-38.092
34	25	4	2.461	4	-52.457