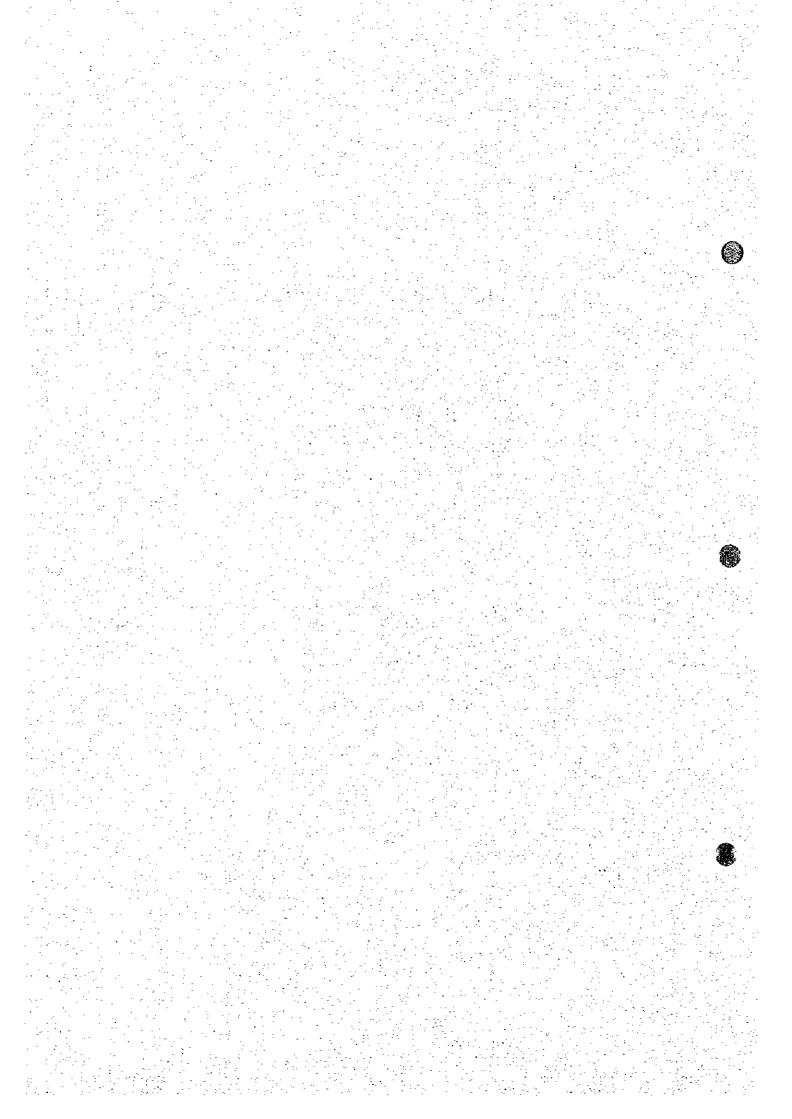
B-1 Design Calculation for Power Supply



Design Calculation for Power Supply Facilities

- I. Main AFL Substation at Runway 17.
- 1. Capacity calculation of 10 kV transformers at Runway 17 side is made as follows:

	<u>Item</u>		<u>Actual</u>	Reckoned as
a)	Load capacity of CCR	:	546.8 kVA	550 kVA
b)	AFL substation	:	158.57 kVA	160 kVA
c)	Monitoring/control facility	• : .	50 kVA	50 kVA
d)	Radio navigational acids	:	*75 kVA	75 kVA
				835 kVA

*: This is given by Chinese experts.

Transformer capacity becomes 1,000 kVA considering redundancy (Current is 1,269 A).

- 2. Capacity calculation of generator is added 10% to the capacity of transformer.
 - $1,000 \times 1.1 = 1,100 \text{ kVA}$
- 3. Rating of vacuum circuit breaker (VCB) is calculated as follows.
 - a) Short-circuit current is calculated on the assumption that CVT underground cable (150 sq.mm²) will be laid with 1 km distance from main substation.

% r 3.63 (constant) × 1 km = 3.63
% x 2.37 (constant) × 1 km = 2.37
% z
$$\sqrt{(3.63)^2 + (2.37)^2}$$
 = 4.3 (%)

Is =
$$\frac{1,000 \text{ kVA}}{\sqrt{3} \times 10,000 \times \% \text{ z}} \times 100 = 13.4 \text{ kVA}$$

The short-circuit is determined by 26.8 kVA (= 13.4×2) considering redundancy, and final rating of VCB becomes as follows.

Rated voltage : 12 kV

Short-circuit current: 25 kA

Rated current : 800 A

4. Rating of current transformer (CT) is calculated as below.

10,000 kVA (transformer capacity) + 10,000 V + $\sqrt{3}$ = 57.7 A

57.7 + 0.8 (Power Factor) $\times 1.5 = 108$ A.

The rating of CT becomes 150/5 A.

Burden of CT is decided by referring to Japanese standard.

5. Rating of Voltage Transformer (VT) and Lighting Arrester (LA) are determined as follows referring available equipment in China.

Rated voltage of LA: 24 kV

Rated voltage of VT: 15 kV

Burden of VT is decided by referring to Japanese Standard.

6. Molded Circuit Breaker (MCB) for CCR (380 V 2 W).

Current capacity of MCB is calculated as follows.

Type of CCR	$\underline{\text{Current} \times \text{Constant } (1.2)}$	Current Capacity of MCB
4 kVA	$10.6 \text{ A} \times 1.2$	15 AT
7.5 kVA	$19.8 \text{ A} \times 1.2$	30 AT
10 kVA	$26.4 \text{ A} \times 1.2$	40 AT
15 kVA	$39.5 \text{ A} \times 1.2$	· 50 AT
20 kVA	$52.7 \text{ A} \times 1.2$	75 AT
25 kVA	$65.8 \text{ A} \times 1.2$	100 AT
30 kVA	$79.0 \text{ A} \times 1.2$	100 AT

7. Main MCB for CCR.

Capacity of MCB is decided by as follows.

Panel Number	Summing up of load	of MCB
No.1 ~ 5 by way of UPS	288.0 kVA (= 438 A)	600 AT
No.11 ~ No.15 by way of UPS	288.0 kVA (= 438 A)	600 AT
No.6 ~ No.10	451.8 kVA (= 686 A)	800 AT
No.16 ~ No.20	451.8 kVA (= 686 A)	800 AT

8. MCB for UPS.

Capacity of MCB (No.3 to No.5) is determined by as below.

Load total of UPS is 150 kVA.

This load is divided by 0.84 (= 272 A), and then capacity of MCB becomes 300 AT.

Capacity of MCB (No.2) is 438 A, and then capacity of MCB becomes 600 AT.





- Main ACB for UPS (No.3 of panel number 13 and 18).
 Capacity 1,400 A is decided considering redundancy by followings.
 UPS 150 kVA × 2 (+ 0.84) + 451.8 kVA = 809.0 kVA (= 1,230 A)
- 10. MCB for facilities of AFL substation

Total load 160 kVA is assumed that 80 kVA is for power facilities and remaining 80 kVA is for lighting facilities.

Capacity of MCB (50 AT) is decided as below.

$$80 \text{ kVA} (= 122 \text{ A}) \div 3 = 40.5 \text{ A}$$

Capacity of MCB is determined by 150 AT referring to the above 122 A.

11. Main circuit of transformer secondary side.

Current capacity (1,800 A) of the transformer secondary side is decided by following conditions.

- a) Total load : 835 kVA (=1,269 A)
- b) Summing value of breaker trip : 1,700 A
- c) Current at secondary transformer: 1,519 A

Design Calculation for Power Supply Facilities

II. Secondary AFL Substation at Runway 35.

1. Capacity calculation of 10 kV transformers at Runway 35 side is made as follows:

	<u>Item</u>		Actual	Reckoned as
a)	Load capacity of CCR	:	454.4 kVA	455 kVA
b)	AFL substation	:	66.76 kVA	70 kVA
ċ)	Monitoring/control facility	:	20 kVA	20 kVA
d)	Radio navigational acids	:	*75 kVA	75 kVA
				620 kVA

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*: This is given by Chinese experts.

Transformer capacity becomes 800 kVA considering redundancy (Current is 1,216 A).

2. Capacity calculation of generator is added 10% to the capacity of transformer.

$$800 \times 1.1 = 880 \text{ kVA}$$

- 3. Rating of vacuum circuit breaker (VCB) is calculated as follows.
 - a) Short-circuit current is calculated on the assumption that CVT underground cable (150 sq.mm²) will be laid with 1 km distance from main substation.

% r 3.63 (constant) × 1 km = 3.63
% x 2.37 (constant) × 1 km = 2.37
% z
$$\sqrt{(3.63)^2 + (2.37)^2}$$
 = 4.3 (%)

Is =
$$\frac{800 \text{ kVA}}{\sqrt{3} \times 10,000 \times \% \text{ z}} \times 100 = 10.7 \text{ kVA}$$

The short-circuit is determined by 21.4 kVA (= 10.7×2) considering redundancy, and final rating of VCB becomes as follows.

Rated voltage : 12 kV Short-circuit current : 25 kA

Rated current : 800 A

4. Rating of current transformer (CT) is calculated as below.

800 kVA (transformer capacity) + 10,000 V + $\sqrt{3}$ = 46.2 A

46.2 + 0.8 (Power Factor) $\times 1.5 = 86.6$ A.

The rating of CT becomes 100 / 5 A.

Burden of CT is decided by referring to Japanese standard.

5. Rating of Voltage Transformer (VT) and Lighting Arrester (LA) are determined as follows referring available equipment in China.

Rated voltage of LA: 24 kV

Rated voltage of VT: 15 kV

Burden of VT is decided by referring to Japanese Standard.

6. Molded Circuit Breaker (MCB) for CCR (380 V 2 W).

Current capacity of MCB is calculated as follows.

Type of CCR	Current \times Constant (1.2)	Current Capacity of MCB
4 kVA	$10.6 \text{ A} \times 1.2$	15 AT
7.5 kVA	$19.8 \text{ A} \times 1.2$	30 AT
10 kVA	$26.4 \text{ A} \times 1.2$	40 AT
15 kVA	$39.5 \text{ A} \times 1.2$	50 AT
20 kVA	$52.7 \text{ A} \times 1.2$	75 AT
25 kVA	$65.8 \text{ A} \times 1.2$	100 AT
30 kVA	$79.0 \text{ A} \times 1.2$	100 AT

7. Main MCB for CCR.

Capacity of MCB is decided by as follows.

	Current Capacity
Summing up of load	of MCB
167.5 kVA (= 438 A)	400 AT
167.5 kVA (= 255 A)	400 AT
451.8 kVA (= 686 A)	800 AT
451.8 kVA (= 686 A)	800 AT
	167.5 kVA (= 438 A) 167.5 kVA (= 255 A) 451.8 kVA (= 686 A)

8. MCB for UPS.

Capacity of MCB (No.3 to No.5) is determined by as below.

Load total of UPS is 100 kVA.

This load is divided by 0.84 (= 184 A), and then capacity of MCB becomes 200 AT. Capacity of MCB (No.2) is 255 A, and then capacity of MCB becomes 400 AT.

9. Main ACB for UPS (No.3 of panel number 13 and 18).

Capacity 1,200 A is decided considering redundancy by followings.

UPS $1,000 \text{ kVA} \times 2 \text{ (+ } 0.84) + 451.8 \text{ kVA} = 692.8 \text{ kVA (= } 1,053 \text{ A)}$

10. MCB for facilities of AFL substation

Total load 70 kVA is assumed that 35 kVA is for power facilities and remaining 35 kVA is for lighting facilities.

Capacity of MCB (40 AT) is decided as below.

$$70 \text{ kVA} (= 106 \text{ A}) + 3 = 35 \text{ A}$$

Capacity of MCB is determined by 125 AT referring to the above 106 A.

11. Main circuit of transformer secondary side.

Current capacity (1,400 A) of the transformer secondary side is decided by following conditions.

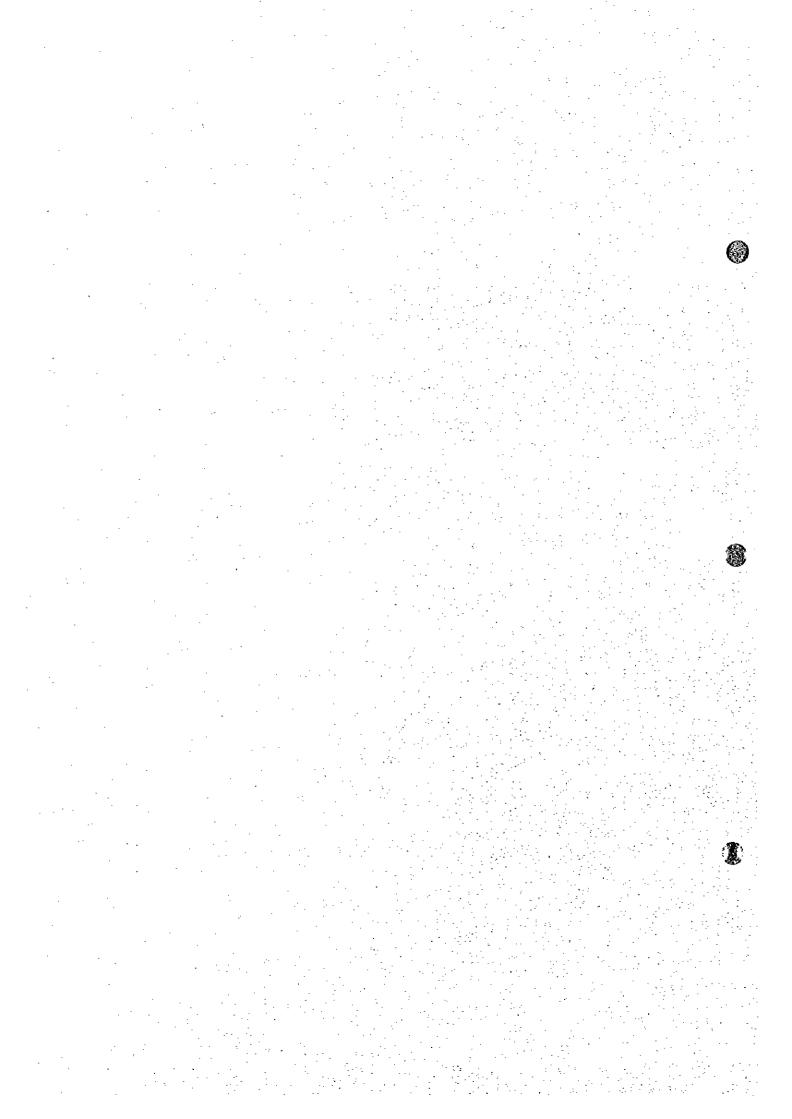
a) Total load : 620 kVA (=942 A)

b) Summing value of breaker trip : 1,400 A

c) Current at secondary transformer: 1,216 A

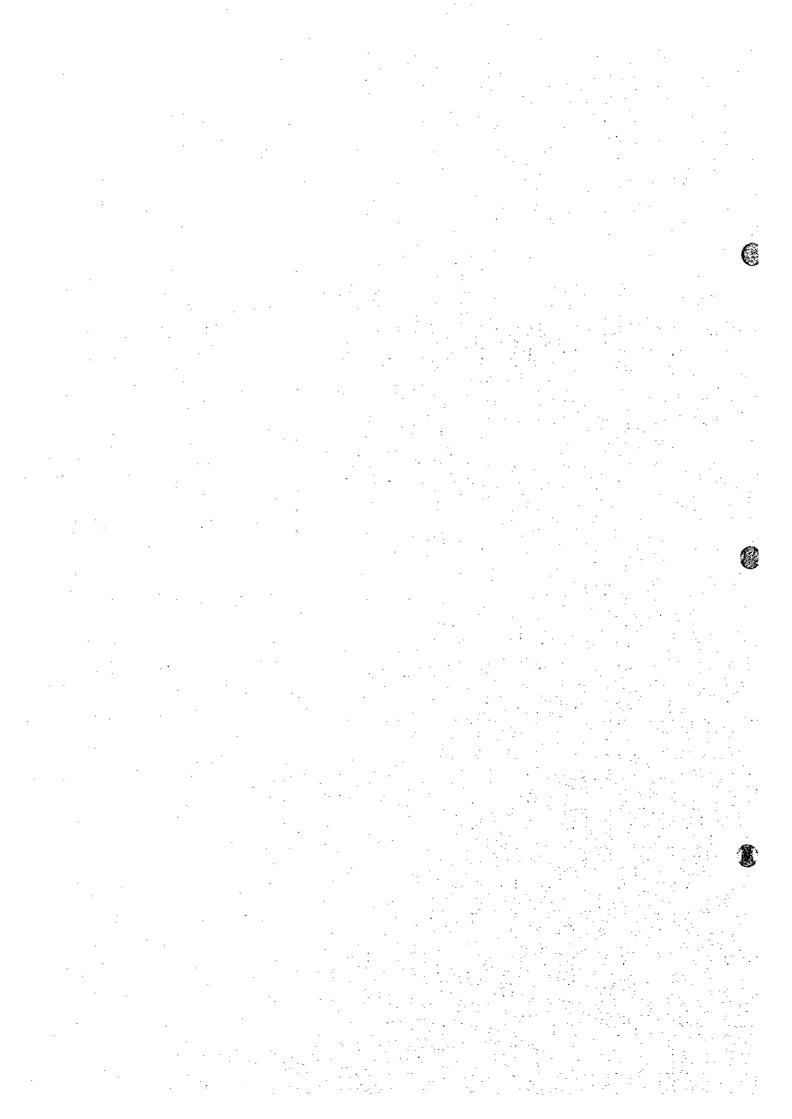
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B-2 Structure Calculation Sheets for Buildings



DESIGN CALCULATION

of Aviation Lighting Works --Main Lighting Substation



Calculation Book

- Name of Project: Shanghai Pudong Airport Aviation Lighting Works
 Main Lighting substation
- II. Seismic intensity: 7
- III. Frame seismic grade: 3
- IV. Structure importance parameter: Ro=1.0
- V. Site soil type: IV
- VI. Soil endurance: R=110KPa
- VII. Foundation load-bearing layer elevation:
- VIII. Materials: column -- C25 beam board -- C25 wall: clay brick 240mm (5.40KN/m2)
 - I. Load:
 - 1. Living load:

roof

0.7KN/m2

floor

2.0KN/m2

2. Static load:

roof

ceiling

0.50KN/m2

structure layer (100mm) 2.50KN/m2

roof (roof I)

2.64KN/m2

total

5.64KN/m2

- 3. Wind load: 0.55 KN/m2
- X. Selection of main members
 - 1. Main beam

bxh=250x600mm

bxh=300x850mm

2. Board thickness

h=100mm

- XI. Design basis
 - 1. Current national architecture & structure standards and codes;
 - Shanghai City's << Base Foundation Design Codes >> DBJ08--11--89;
 - 3. Shanghai City's << Base Treatment Technical Codes >> DB108-40-94;
 - 4. Shanghai City's << Building Anti-seismic Design Standards >> DB108--09--92;
- XII. Computer programs

China Building Science Research Institue CAD Engineering Department

PMCAD

August, 1996

PK

August, 1996

ICCAD

August, 1996

XIII. Conclusion:

It is concluded from calculation above, the integral strength and deformation of structure meet the design requirements, the geometric dimensions also meet the requirements of strength and deformation regulated by Codes. The primary data of structural model, major calculation results, combining results of main internal forces of each member, structural layout, internal force drawing, reinforcing results of major members refer the next page, based on which construction drawings are made.

Main Lightion Substation

"PM" PROGRAM DESIGN DATA

C---NST MST NAXIS NYS KCL KBE KDK MLOD ALIVE MXD MYD BLKD DWS BLP

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C - (HLA(i), i=1, NST)

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C - (MSH(i), i=1, MST)

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C - - ((XY(I,J),J=1,2),I=1,NJ)

-3.974 -5.218, ١, 2.026 2, -5.218, 8.026 -5.218, 3, -5.218, 10.426 4, 15.526 -5.218, 5, 21.526 -5.218, 6, -3.974 -1.318,

7, -1.318, -3.974 8, -1.318, 2.026 9, -1.318, 8.026

10, -1.318, 10.426 11, -1.318, 15.526

12, -1.318, 21.526

13, 2.582, -3.974 14, 2.582, 2.026

15, 2.582, 8.026

16, 2.582, 10.426

17, 2.582, 15.526 18, 2.582, 21.526

18, 2.582, 21.526 19, 5.582, -3.974

20, 5.582, 2.026

21, 5.582, 8.026

22, 5.582, 10.426 23 5.582, 15.526

23, 5.582, 15.526 24, 5.582, 21.526

24, 5.582, 21.526 25, 8.582, -3.974

26, 8.582, -0.374

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28,	8.582,	8.026	
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35,	12.182,	8.026	
36,	12.182,	10.426	
37,	12.182,	15.526	
38,	12.182,	21.526	
39,	15.782,	-3.974	
40,	15.782,	-0.374	
41,	15.782,	2.026	
42,	15.782,	8.026	- -
43,	15.782,	10.426	
44,	15.782,	15.526	
45,	15.782,	21.526	
46,	19.382,	-3.974	
47,	19.382,	-0.374	
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49,	19.382,	8.026	•.
50,	19.382,	10.426	
51,	19.382,	15.526	·
52,	19.382,	21.526	* * * * * * * * * * * * * * * * * * * *
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54,	22.982,	-0.374	
55,	22.982,	2.026	·
56,	22.982,	5.026	
57,	22.982,	8.026	
58,	22.982,	10.426	-
59,	22.982,	15.526	
60,	22.982,	21.526	
61,	25.982,	-3.974	•
62,	25.982,	-0.374	
63,	25.982,	2.026	٠,
64,	25.982,	5.026	
65,	25.982,	8.026	
66,	25.982,	10.426	





67,	25.982,	15.526
68,	25.982,	21.526
69,	28.982,	-3.974
70,	28.982,	-0.374
71,	28.982,	2.026
72,	28.982,	5.026
73,	28.982,	8.026
74,	28.982,	10.426
75,	28.982,	15.526
76,	28.982,	21.526
77,	32.582,	-3.974
78,	32.582,	-0.374
79,	32.582,	2.026
80,	32.582,	5.026
81,	32.582,	8.026
82,	32.582,	10.426
83,	32.582,	15.526
84,	32.582,	21.526
85,	36.782,	-3.974
86,	36.782,	-0.374
87,	36.782,	2.026
88,	36.782,	5.026
89,	36.782,	8.026
90,	36.782,	10.426
91,	36.782,	15.526
92,	36.782,	21.526
93,	39.182,	-3.974
94,	39.182,	-0.374
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96,	39.182,	5.026
97,	39.182,	8.026
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200607,	3,	0.000	
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2316,	3,	0.000	
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1206,		0.240,	0.000
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130304,		0.240,	0.000
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(ll-a)

Calculation Book of Main Lighting Substation

$L-1 \sim L-8$

PK11.EXE ****** DATA: 7/22/1997

OUTPUT DATA

Zhong xin xi -----25 2 28 1 0 25 52 0 28 16 0 0 0.90 1.00 0

OUTPUT DATA

----- Jiao Dian Zuo Biao ------

(4) 6.00 0.00 (2) 0.00 0.00 (3) 6.00 - 2.00 (1) 0.00 - 2.00 (8) 0.00 5.00 (7) 0.00 3.00 (5) 12.00 - 2.00 (6) 12.00 0.00 (11) 5.89 5.00 (12) 11.90 3.00 (9) 0.00 7.00 (10) 5.89 3.00 (15) 0.00 10.00 (16) 5.10 8.00 (13) 11.90 5.00 (14) 0.00 8.00 (20) 0.00 13.00 (19) 11.10 10.00 (18) 11.10 8.00 (17) 5.10 10.00 (24) 7.50 13.00 (23) 2.51 15.00 (22) 2.51 13.00 (21) 0.00 15.00 (28) 0.00 18.00 (27) 13.40 15.00 (26) 13.40 13.00 (25) 7.50 15.00 (32) 13.69 18.00 (29) 0.00 20.00 (30) 7.70 18.00 (31) 7.70 20.00 (36) 2.40 23.00 (35) 0.00 25.00 (33) 13.69 20.00 (34) 0.00 23.00 (39) 8.40 23.00 (40) 8.40 25.00 (37) 2.40 25.00 (38) 2.40 27.00 (43) 5.10 28.00 (44) 5.10 30.00 (42) 0.00 30.00 (41) 0.00 28.00 (48) 0.00 35.00 (47) 0.00 33.00 (45) 11.10 28.00 (46) 11.10 30.00 (52) 3.60 37.00 (51) 3.60 35.00 (50) 3.60 33.00 (49) 0.00 37.00

OUTPUT DATA

---- Zhu Guan Lian Hao ------

5 (4) 7 (5) (2) 3 (3) 6 (1) 4 (8) 14 15 (9) 16 17 (10) 18 19 (6) 10 (7) 12 13 11 (14) 26 27 (15) 28 29 23 (13) 24 25 (11) 20 (12) 22 (18) 34 35 (19) 36 37 (20) 37 38 (17) 32 33 (16) 30 31

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(24) 45 46 (25) 47 48
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            (22) 41 42
(21) 39 40
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            (27) 50 51
(26) 48 49
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            (7) 21 23 (8) 23 25 (9) 25 27 (10) 29 31
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(16) 48 51
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OUTPUT DATA
              ----- Shang Xia Zhu Jian Dian Pian Xin ------
(1)0.00 (2)0.00 (3)0.00 (4)0.00 (5)0.00 (6)0.00 (7)0.00
(8) 0.00 (9) 0.00 (10) 0.00 (11) 0.00 (12) 0.00 (13) 0.00 (14) 0.00
(15) 0.00 (16) 0.00 (17) 0.00 (18) 0.00 (19) 0.00 (20) 0.00 (21) 0.00
(22) 0.00 (23) 0.00 (24) 0.00 (25) 0.00 (26) 0.00 (27) 0.00 (28) 0.00
(29) 0.00 (30) 0.00 (31) 0.00 (32) 0.00 (33) 0.00 (34) 0.00 (35) 0.00
(36) 0.00 (37) 0.00 (38) 0.00 (39) 0.00 (40) 0.00 (41) 0.00 (42) 0.00
(43) 0.00 (44) 0.00 (45) 0.00 (46) 0.00 (47) 0.00 (48) 0.00 (49) 0.00
(50) 0.00 (51) 0.00 (52) 0.00
OUTPUT DATA
              Biao Zhun Jie Mian Xin Xi
                 600,
                      6
           250,
        l,
(1)
                 500,
                                    300,
(2)
            300,
                 850,
(3)
        i,
                 240,
                      6
            500,
(4)
        1,
                      6
            500,
                 300,
(5)
        ١,
                 450,
                      6
            350,
        ı,
```

Ţ

(6)

```
450.
                   450,
(7)
(8)
             600,
                   600,
                         6
             450.
                   350,
(9)
 OUTPUT DATA
               ---- Zhu Ji Suan Chang Du(After consider steel) -----
 (1) 1.00 (2) 1.00 (3) 1.00 (4) 1.00 (5) 1.00 (6) 1.00 (7) 1.00
(8) 1.00 (9) 1.00 (10) 1.00 (11) 1.00 (12) 1.00 (13) 1.00 (14) 1.00
(15) 1.00 (16) 1.00 (17) 1.00 (18) 1.00 (19) 1.00 (20) 1.00 (21) 1.00
(22) 1.00 (23) 1.00 (24) 1.00 (25) 1.00 (26) 1.00 (27) 1.00 (28) 1.00
 OUTPUT DATA
           ---- Zhu Bu Zhi(Hao)Jie Mian Hao,Jiao Jie,Jiao Du -----
                                       0 (3) 4
                  0 (2)
                             5
                                  3
 (1)
                  0 (5)
                                  3
                                       0 (6)
 (4)
             3
                             6
                                       0 (9)
 (7)
                  0 (8)
                                  3
             3
                  0 (11)
                                 3
                                      0 (12)
                                                      3
 (10)
                                 3
                                      0 (15)
                                                      3
             3
                  0 (14)
 (13)
             3
                  0 (17)
                            7
                                 3
                                      0 (18)
 (16)
                                                      3
                  0 (20)
                                 3
                                      0 (21)
             3
                            6
 (19)
                                 3
             3
                  0 (23)
                                      0 (24)
 (22)
                                 3
                                      0 (27)
                  0 (26)
             3
 (25)
             3
                  0
 (28)
           ---- Liang Bu Zhi(Hao)Jie Mian Hao, Jiao Jie, Jiao Du -----
 ( 1)
                  0 (2)
                            1
                                  0
                                       0 (3)
                                       0 (6) 1
 (4)
                  0 (5)
                                . 0
                             1
                                       0 (9)
                                                  3
 (7)
                             3
                                  0
                                                          , 0
                  0 (8)
                                      0 (12)
                             3
                                 0
 (10)
                  0 (11)
```

0

0 (15)

1

STIF COMPUTE DEAD COMPUTE

0

IIQQ=

(13)

(16)

JOINT LOAD: JR XM XN 0

0 (14)

216

COLU	MN LOAD:	JC	Ki	l.	P	X	, KX	
-		0						
BEAM	LOAD:	NE	LI		KL	P	X	P1
XI	KL	P	>	ζ.	Pi	X1		
• • •		1	2		1		3.80	0.00
6	23.40	1.95					2.00	0.00
		1	2		1		3.80	0.00
6	23.40	1.95	_		1		3.80	0.00
		1	2		1		3.00	0.00
6	13.50	1.50	•		1		3.80	0.00
		1	2		•		3.00	
6	18.00	1.50	2		1		3.80	0.00
_	.:	1	2		•			
6	23.40	1.95 1	2		1		3.80	0.00
	23.40	1.95	-					
6	23.40	1.23	2		1		25.40	0.00
6	14.40	1.20			4	-		
Ü		1	3	-	1		40.50	0.00
6	11.70	1.95						
				6	9.00	1.50		0.00
		1	3		1		6.40	0.00
6	11.70	1.95	• •					
•				6	9.00	1.50		3.90
		ì	5		2		6.40	3.90
10	23.40	0.00	0.00		1.95	103.30		3.90
				4		103.30		• • • • • • • • • • • • • • • • • • • •
3	6.40	3.90		10	23.40	3.90	0.00	1.95
• • .	. •	•	5	10	23.40	3.70	55.00	3.00
	16.00	1	0.00				•.	
10	15.80	0.00	0.00	4	1.50	83.10		3.00
3	61.00	3.00						
		;	• 5	10	- 15.80	3.00	0.00	1.50
		1	2		1		9.40	0.00
· 6	5.40	1.20			÷			_
•	•	1	2				3.80	0.00
6	16.20	1.80			:			
: J*	٠.	: 1	2		1		3.80	0.00

alucia .

.

1 2 1 3.80 0.00 6 21.60 1.80
1 2 1 3.80 0.00 6 8.10 1.80 **DEAD LOAD** STIF COMPUTE LIVE COMPUTE JOINT LOAD: JR XM XN 0 COLUMN LOAD: JC KL P X KX 0
DEAD LOAD STIF COMPUTE LIVE COMPUTE JOINT LOAD: JR XM XN 0 COLUMN LOAD: JC KL P X KX
DEAD LOAD STIF COMPUTE LIVE COMPUTE JOINT LOAD: JR XM XN 0 COLUMN LOAD: JC KL P X KX
STIF COMPUTE LIVE COMPUTE JOINT LOAD: JR XM XN 0 COLUMN LOAD: JC KL P X KX 0
LIVE COMPUTE JOINT LOAD: JR XM XN 0 COLUMN LOAD: JC KL P X KX 0
JOINT LOAD: JR XM XN 0 COLUMN LOAD: JC KL P X KX 0
O COLUMN LOAD: JC KL P X KX O
COLUMN LOAD: JC KL P X KX 0
0
0
BEAM LOAD: NE LI KL P X PI
BEAM LOAD: NE LI KL P X PI
XI KL P X PI XI
1 1 6 5.80 1.95
1 1 6 5.80 1.95
1 1 6 9.00 1.50
1 1 6 9.00 1.50
1 1 6 5.80 1.95
1 1 6 5.80 1.95
1 2 6 4.20 1.20
1 0.00 0.00
1 3 6 2.90 1.95
6 3.00 1.50
1 0.80 0.00
1 2 6 2.90 1.95
6 2.30 1.50 1 3 10 5.80 0.00 0.00 1.95
4 21.10 3.90 10 5.80 3.90 0.00 1.95
1 5 10 9.00 0.00 0.00 1.50
2 3.00 3.00
4 38.30 3.00
10 9.00 3.00 0.00 1.50
3 3.30 3.00
1 2 6 3.60 1.20

3.80 0.00 1 10.80 1.80 1 1 6 7.20 1.80 6 5.40 1.80 : 6 . 1 1.80 5.40 1

EART COMPUTE
COMBI COMPUTE

COMBINATION AND REINFORCEMENT

Concrete COLUMN 1(SECTION TYPE= 1, ANG= 0, Lx= 2.00, Ly= 2.00)

Section property: B= 500, H= 240

NO 12 As= 0. M= -0.02 N= 39.00 NO
6 As= 0. M= -0.03 N= -39.00
GG= 300.

Concrete COLUMN 2(SECTION TYPE= 1, ANG= 0, Lx= 2.00, Ly= 2.00)

Section property: B= 500, H= 300

NO 2 As= 0. M= 0.00 N= 152.14 NO
2 As= 0. M= 0.00 N= -152.14
GG= 375.

Concrete COLUMN 3(SECTION TYPE= 1, ANG= 0, Lx= 2.00, Ly= 2.00)

Section property: B= 500, H= 240

NO 12 As= 0. M= 0.02 N= 39.00 NO 8 As= 0. M= 0.03 N= -39.00 GG= 300.

Concrete COLUMN 4(SECTION TYPE= 1, ANG= 0, Lx= 2.00, Ly= 2.00)

Section property: B= 350, H= 450

NO 6 As= 0. M=-0.01 N= 11.59 NO

```
-0.02 N≔ -11.59
        0.
               M=
6 As=
          GG≕
               394.
    Concrete COLUMN 5( SECTION TYPE= 1, ANG= 0, Lx= 2.00, Ly=
2.00)
    Section property: B= 350, H= 450
                                       -28.31
                46. M = -0.04 N =
                                                   NO
   NO 7
          As≔
                M = -0.01 N =
                               28.31
7
         46.
   As=
          GG=
               394.
   Concrete COLUMN 6( SECTION TYPE= 1, ANG= 0, Lx= 2.00, Ly=
2.00)
   Section property: B= 500, H= 300
                                       119.31 NO
                0. M= -0.01 N=
          As=
   NO 2
                M = -0.01 N = -119.31
          GG=375.
    Concrete COLUMN 7( SECTION TYPE= 1, ANG= 0, Lx= 2.00, Ly=
2.00)
                                        1
    Section property: B= 500, H= 240
                0. M= 0.01 N=
                                        34.76
   NO 8
           As≕
                M = 0.02 \quad N = -34.76
   As=
          GG=
               300.
    Concrete COLUMN 8( SECTION TYPE= 1, ANG= 0, Lx= 2.00, Ly=
2.00 }
    Section property: B= 500, H= 240
                                        26.04 NO
                0. M= -0.01 N=
    NO 12
           As=
                 M = -0.02 N = -26.04
    As≍
           GG=300.
     Concrete COLUMN 9( SECTION TYPE= 1, ANG= 0, Lx= 2.00, Ly=
2.00)
    Section property: B= 500, H= 300
```

NO 2

As=0. M=-0.01 N=137.40 NO

```
0. M = -0.01 N = -137.40
2
    As=
            GG= 375.
     Concrete COLUMN 10( SECTION TYPE= 1, ANG= 0, Lx= 2.00, Ly=
2.00 )
    Section property: B= 500, H= 240
                                                          NO
                        M = 0.02 N =
                                            42.52
                  0.
    NO 8
            As=
                        0.03 N= -42.52
           0.
                   M=
8
    As=
            GG=300.
 Concrete COLUMN 11( SECTION TYPE= 1, ANG= 0, Lx= 2.00, Ly=
2.00)
    Section property: B= 500, H= 240
                                                          NO
                                 0.00 N = 18.13
                  0. M=
    NO 6
            As=
                  M = 0.00 N = -18.13
            0.
    As=
                 300.
            GG=
    Concrete COLUMN 12( SECTION TYPE= 1, ANG= 0, Lx= 2.00, Ly=
2.00)
     Section property: B= 450, H= 450
                         M= 0.00 N=
                                                           NO
                                            178.03
                  0.
            As=
    NO 12
                    M = -0.01 N = -178.03
 12
     As=
             0.
            GG= 506.
 Concrete COLUMN 13( SECTION TYPE= 1, ANG= 0, Lx= 2.00, Ly=
 2.00)
     Section property: B=600, H=600
                                                           NO
                                            231.79
                                 0.00 N=
                         M=
             As=
                    0.
NO 12
                          0.00 N= -231.79
                    M=
      As=
             0.
 12
```

-231-

Concrete COLUMN 14(SECTION TYPE= 1, ANG= 0, Lx= 2.00, Ly=

38.73

Section property: B= 350, H= 450

As= 0. M= 0.00 N=

GG= 900.

2.00)

NO 8

```
GG= 394.
    Concrete COLUMN 15( SECTION TYPE= 1, ANG= 0, Lx= 2.00, Ly=
2.00)
   Section property: B= 450, H= 450
               0. M= -0.01 N= 71.23
                                               NO
          As=
   NO 6
               M = -0.03 N = -71.23
6
   As=
         0.
         GG= 506.
    Concrete COLUMN 16( SECTION TYPE= 1, ANG= 0, Lx= 2.00, Ly=
2.00)
   Section property: B= 600, H= 600
               0. M= -0.01 N= 457.44 NO
   NO 2
          As=
               M = -0.01 N = -457.44
2
   As=
         0.
          GG = 900.
    Concrete COLUMN 17( SECTION TYPE= 1, ANG= 0, Lx= 2.00, Ly=
2.00)
    Section property: B= 450, H= 450
          A_{S}= 0. M= 0.02 N= 181.08 NO
   NO 12
                    0.04 N= -181.08
               M=
8
   As=
         0.
          GG= 506.
                                 Concrete COLUMN 18( SECTION TYPE= 1, ANG= 0, Lx= 2.00, Ly=
2.00)
   Section property: B= 500, H= 240
          As=47. M=-0.01 N=-29.01 NO 11
   NO 11
                          29.01
As= 47.
          M= 0.00 N=
          GG=300.
  Concrete COLUMN 19( SECTION TYPE= 1, ANG= 0, Lx= 2.00, Ly=
2.00)
    Section property: B= 350, H= 450
   NO 2 As= 0. M= -0.01 N= 47.15 NO
```

0.01 N= -38.73

0. M=

As=

```
-0.02 N= -47.15
               M=
            0.
    As≔
2
            GG = 394.
                         20( SECTION TYPE= 1, ANG= 0, Lx= 2.00, Ly=
      Concrete COLUMN
2.00)
     Section property: B= 350, H= 450
                                                            NO 11
                                 -0.01 N= -89.56
                            M=
            As = 145.
    NO 11
                                  89.56
                            N=
                M = 0.00
    144.
As=
            GG= 394.
     Concrete COLUMN 21( SECTION TYPE= 1, ANG= 0, Lx= 2.00, Ly=
2.00)
     Section property: B= 500, H= 240
                                               35.30
                                   0.01 N=
                        M=
                    0.
    NO 12
             As=
                          0.02 N= -35.30
                    M=
            0.
    As=
             GG=300.
       Concrete COLUMN 22( SECTION TYPE= 1, ANG= 0, Lx= 2.00, Ly=
2.00)
     Section property: B= 500, H= 240
                                                25.63
                              M = -0.01
                                          N=
                    0.
             As=
     NO 12
                          -0.02 N= -25.63
                    M=
6
     As=
             0.
                   300.
             GG=
 Concrete COLUMN 23( SECTION TYPE= 1, ANG= 0, Lx= 2.00, Ly=
 2.00)
      Section property: B= 500, H= 240
                                               132.93
                                          N=
                                   -0.01
                      0.
                          M=
              As=
     NO 2
                          -0.01 N= -132.93
                     M=
             0.
 2
     As=
```

300.

GG=

Concrete COLUMN 24(SECTION TYPE= 1, ANG= 0, Lx= 2.00, Ly= 2.00) Section property: B= 500, H= 240 NO 8 As= 0. M= 0.01 N= 40.61 NO

NO

NO

NO

N= -40.61 GG= 300. Concrete COLUMN 25(SECTION TYPE= 1, ANG= 0, Lx= 2.00, Ly= 2.00) : Section property: B= 450, H= 350 NO 0.00 N= 7.06 M≕ NO 2 As= 0. -0.01 N= -7.06 M= 2 As= GG= 394. Concrete COLUMN 26(SECTION TYPE= 1, ANG= 0, Lx= 2.00, Ly= 2.00) Section property: B= 450, H= 350 M = -0.01 N = -11.88NO 19. NO 7 As≔ 0.00 N= 11.88 M= As= 19. 7 GG= 394. Concrete COLUMN 27(SECTION TYPE= 1, ANG= 0, Lx= 2.00, Ly= 2.00) Section property: B= 450, H= 350 M = 0.00 N =7.06 NO NO 2 As= 0. 0.01 N= -7.06 M= 2 As= 0. GG≃ 394. Concrete COLUMN 28(SECTION TYPE= 1, ANG= 0, Lx= 2.00, Ly= 2.00) Section property: B= 450, H= 350 0.01 N= -11.88 NO 19. M= NO 5 As= 19. M= 0.00 N= 11.88 5 As= GG= 394. Concrete BEAM 1(SECTION TYPE= 1 ANG= 0, L= 6.00) Section property: B= 250, H= 600

M=

0.

BOTTOM

ł

10

SECTION

8

As=

0.03

12 13

3

5

6

2

11

M= 0.00 -32.03 -60.65 -83.49 -98.23 -103.05 -97.69 -56.40 -20.75 0.00 0.00 0.00 586. 488. 620. 357. 497. 589. 375. 186. As(1)= 331. 120. 0. 0. 375. 0. 0. 0. 0. 0. 0. 0. 375. As(2)= 375. 0. 0. 0. 0. TOP 3 4 13 5 2 SECTION 1 12 8 9 11 10 0.00 0.00 0.00 0.00 0.00 M= 0.05 0.00 0.00 2.98 38.74 80.66 138.99 0. 0. 0. 0. 0. 0. As(1)= 375. 853. 479. 225. 0. 17. 0. 0. 0. 0. 0. 0. As(2) = 375.0. 0. 0. 0. 853. VI= 63.75 NO 1 Vr= 112.72 NO 3 Asv/s= 0.00 As(3)= 375. Umaxb= 0.004 Umaxt= 0.006 Concrete BEAM 2(SECTION TYPE= 1 ANG= 0, L= 6.00) Section property: B= 250, H= 600 BOTTOM 1 2 3 4 6 5 SECTION 11 12 13 8 9 10 -82.14 -97.69 -103.05 M= 0.00 0.00 0.00 -20.75 -56.40 -98.23 -83.49 -60.65 -32.03 0.00 586. 620. 0. 120. 331. 488. As(1)= 375. 0. 589. 497. 357. 186. 375. 0. 0. 0. 0. 0. 0. 375. 0. As(2)= 375. 0. 0. 0. 0. TOP 2 7 5 3 4 SECTION 1 12 13 8 = 9 = 10 11 0.00 M= 138.99 80.66 38.74 2.98 0.00 0.000.00 0.00 0.00 0.00 0.00 0.05 0. 225. 17. 0. 0. Û. 479. As(1)= 853. 375. 0. 0. 0. 0. 0. 0. 0. As(2) = 853.0. 0. €. · **0.** 0. 0. 0. 375.

```
V = 112.72 NO 1 V_{r} = 63.75 NO 3 Asv/s= 0.00 As(3)=
                        Umaxt= 0.006
375. Umaxb= 0.004
                    3( SECTION TYPE= 1 ANG= 0, L= 5.89 )
      Concrete BEAM
    Section property: B= 250, H= 600
     BOTTOM
                           3
                                             5
                                                     6
                    2
                                    4
 SECTION
           1
                               13
                          12
     9
            10
                    11
            0.00 -27.79 -52.29 -71.13 -82.37
                                            -85.55
                                                   -80.69
     M=
                     0.00
                            0.00
                                       .
              0.00
-46.80 -18.19
                                                    479.
                                                           400.
                        306.
                               420.
                                      490.
                                             510.
           375.
                  161.
  As(1)=
              0.
                     0.
                           375.
273. 105.
                                        0.
                                              0.
                                                      0.
                                                             0.
                          0.
                                 0.
           375.
                   0.
  As(2)=
                         375.
      0.
            0.
                    0.
     TOP
                                  · 4
                                             5
                           3
 SECTION
             ì
                   2
  9
                                13
                          12
                                            : . .
          10
                   - 11
                          0.00
                                 0.00
                                            0.00
                                                   0.00
                                                           0.00
                    0.00
            0.08
     M≔
            19.51
                   45.79
                          75.75
                                129.58
0.00 0.85
                               . 0.
                                      0.
                                               0.
                                                      0.
                 0.
                          0.
  As(1)=
           375.
            267.
                   449.
                          791.
5. 112.
                                       0.
                                               0.
                                                      0.
                                 0.
                   0.
                          0.
           375.
  As(2)=
                    0.
                          791.
0. 0.
             0.
                      Vr= 101.14 NO 3
                                                  0.00 As(3)=
                                          Asv/s=
  VI= 56.62 NO 1
      375.
                   4( SECTION TYPE= 1 ANG= 0, L= 6.00 )
      Concrete BEAM
     Section property: B= 250, H= 600
     BOTTOM
                            3
                                    4
                     2
 SECTION
             1
       9
              10
                     11
                            12
                                    13
                          0.00 -36.90 -70.13
                                             -93.67 -107.52 -111.68
     M=
            0.00
                   0.00
                             0.00
-106.15 -90.93 -66.49
                    -35.22
                                              560.
                                                     648.
                   Û.
                          0.
                                214.
                                       414.
  As(1)=
           375.
                    204.
                           375.
                                                      392.
       543.
                                               0.
                                                      0.
                          0.
                                 0.
                                        0.
  As(2)=
           375.
                    0.
                          375.
              0.
                     0.
    0.
      TOP
                        3
                                             5
                   2
                                     4
  SECTION
            1
```

```
12 13
31.38 2.60 0.00 0.00
               11 12
           10
    9
                                                 0.00
                67.60
         129.60
    M=
                          0.05
                     0.00
           0.00
              0.00
0.00 0.00
                                             0.
                                                  0.
                                       0.
                                 0.
                           15.
                    182.
         791.
              399.
 As(1)=
         0.
                 0.
                     375.
0.
                                                   0.
                                       0.
                                             Û.
                                 0.
                            0.
                     0.
                0.
         791.
 As(2)=
                     375.
               0.
         0.
0. 0.
  VI= 114.62 NO 1 Vr= 70.62 NO 3 Asv/s= 0.00 As(3)=
375. Umaxb= 0.004 Umaxt= 0.005
     Concrete BEAM 5( SECTION TYPE= 1 ANG= 0, L= 5.10 )
    Section property: B= 250, H= 600
         M
1 2 3 4
10 11 12 13
     BOTTOM
                                                  7
                                             6
                                      5
SECTION
    9
M= 0.00 -19.85 -37.48 -51.43 -60.29
                                                -45.34
                                           -57.67
                                     -62.63
-25.70 -1.06 0.00 0.00 0.00
                                                  265.
                                            339.
                                      369.
                     218. 301.
                               354.
               114.
  As(1)=
         375.
149. 6.
          0. 0. 375.
                                                   0.
                            0. 0.
                                             0.
                                       0.
                      0.
         375.
                0.
  As(2)=
                      375.
           0.
                 0.
    0.
0.
     TOP
                                                   7
                                             6
                            4
                                      5
                 2 . 3
           1
 SECTION
                      12
                             13
                 11
8 9
           10
                                           0.00
                                                  0.00
                             0.00
                                     0.00
                 0.00
           0.02
     M=
                47.35 77.74 118.33
0.00 0.00
           20.01
                                                   0.
                                             0.
                                        0.
                            0.
                                  0.
                0.
                      0.
  As(1)= 375.
                      717.
     115. 277.
                461.
                                                   0.
                                             0.
                           0.
                                 0.
                                        0.
                      0.
                0.
 As(2)=375.
                      717.
        0.
                 0.
      0.
 VI= 46.03 NO 1 Vr= 94.42 NO 3 Asv/s= 0.00 As(3)=
375. Umaxb= 0.002 Umaxt= 0.005
                   .
      Concrete BEAM 6( SECTION TYPE= 1 ANG= 0, L= 6.00 )
    Section property: B= 250, H= 600
     воттом
                                           6
                                                  . 7
                2 3 4 5
 SECTION
           1
      9 10 11 12 13
```

-66.70 -91.16 -105.42 -109.49 0.00 -32.34 0.00 0.00 M= -103.38 -87.35 -63.23 -33.32 0.00 393. 545. 635. 661. 187. 0. 0. As(1)= 375. 375. 622. 521. 372. 193. 0. 0. 0. 0. 0. 375. 0. 0. As(2)= 0. 375. 0. 0. 0. TOP 3 6 4 5 2 **SECTION** 3 10 × 11 - 12 13 0.00 0.00 0.000.00 60.76 20.65 M= 118.35 0.05 0.00 0.00 0.00 0.00 0.00 0. 0. 0. 0. As(1)= 718. 357. 119. 0. 0. 375. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. As(2)= 718. 0. 375. 0. 0. 0. VI= 108.89 NO 1 Vr= 66.61 NO 3 Asv/s= 0.00 As(3)= 375. Umaxb= 0.004 Umaxt= 0.005 Concrete BEAM 7(SECTION TYPE= 1 ANG= 0, L= 2.51) Section property: B= 300, H= 500 BOTTOM 7 4 5 6 2 3 SECTION ì 12 13 8 9 10 11 -5,69 -9.88 -12.38 -13.04 -11.66 -8.08 0.00 M= 0.00 0.00 0.00 0.00 0.00 - 81. 56. 16. 87. 91. 40. 69. As(1)= 375. 0. 0. 0. 375. 0. 0. 0. 0. 0. 0. As(2)=375. 0. 0. 375. 0. 0. 0. 0. TOP 4 13 7 2 3 5 SECTION 8 9 11 12 10 0.00 0.00 0.00 0.00 0.00 0.00 0.00 M= 63.44 33.43 46.73 3.59 11.72 21.71 25. 0. 0. 0. 0. As(1)= 375. 0. 0. 333. 457. 82. 153. 236. 0. 0. 0. 0. 0. 375. 0. As(2)= 457. 0. 0. 0. 0.

```
V_{i}= 28.06 NO 1 V_{i}= 81.43 NO 3 Asv/s= 0.00 As(3)=
375. Umaxb= 0.002 Umaxt= 0.003
     Concrete BEAM 8(SECTION TYPE= 1 ANG= 0, L= 4.99)
   Section property: B= 300, H= 850
    BOTTOM
                                             6
                    3 4
                                     5
                 2
         1
 SECTION
                11 12 13
8 9
          10
               -1.17 -53.70 -94.90 -123.32 -137.89 -138.13 -124.03
M = 0.00
                0.00 0.00
-95.62 -53.34 0.00
                          382.
                                            562.
                                                  503.
                                      561.
                5. 215.
                               500.
         638.
 As(1)=
385. 213. 0.
                 0.
                      638.
                            0. 0. 0.
                                                   0.
                      0.
                0.
         638.
 As(2)=
                      638.
                 0.
0. 0.
         0.
     TOP
                                                    7
                 2 3
                            4
                                     5
          1
 SECTION
                     12
                           : 13
x 9
                 11
          10
                                                  0.00
                                           0.00
                                   0.00
                 1.65
                             0.00
                      0.00
    M=
          63.45
                            158.02
                 17.13 78.22
0.00 0.00
           0.00
                                                   0.
                                        0.
                                  0.
                            0.
                7.
                      0.
         638.
 As(1)=
                      645.
           68.
                314.
0. 0.
                                              0.
                                                    0.
                            0. 0. 0.
                      0.
                0.
         638.
 As(2)=
                      645.
         0.
                 0.
0.
  VI = 159.98 NO 1 Vr = 199.82 NO 3 Asv/s= 0.00 As(3)=
638. Umaxb= 0.002 Umaxt= 0.003
Concrete BEAM 9( SECTION TYPE= 1 ANG= 0, L= 5.90 )
    Section property: B= 300, H= 850
     BOTTOM *
                      3 ... 4
                                                    7
                                      5
                 2
SECTION
        1
                      12
        10
                             13
                11
8 9
                                                 -89.36
                                            -81.77
                           -2.98 -37.77
                                      -64.57
 M= 0.00 0.00
                      0.00
-87.35 -75.90 -56.13 -30.09 0.00
                                                   360.
                                             329.
                            12.
                                 151.
                                       259.
                       0.
  As(1)=638.
                 0.
352. 305. 225. 120. 638.
                                                    0.
                                              0.
                                        0.
                           0. 0.
          638.
                       0.
                 0.
  As(2)=
                      638.
                  0.
          0.
0. 0.
     TOP
         2 3 3
                                                    7
                              4
  SECTION
```

```
12
                                - 13
                   11
             10
                                                           0.00
                                                  0.00
                                           0.00
                                   15.34
           158.01
                   97.40
                           53.74
     M=
                           0.00
                                  0.01
             0.00
                    0.00
      0.00
                                                      0.
                         215.
                                61.
                                        0.
                                               0.
                 393.
          645.
  As(1)=
                         638.
             0.
                    0.
      0.
                                               0.
                                                             0.
                          0.
                                 0.
                                        0.
                   0.
           645.
  As(2)==
                          638.
                    0.
O.
      0.
             0.
  VI= 118.93 NO 1 Vr= 61.11 NO 3 Asv/s=
                                                  0.00
                                                          As(3)=
      638.
      Concrete BEAM 10( SECTION TYPE= 1 ANG= 0, L= 7.70 )
     Section property: B= 300, H= 850
     BOTTOM
                            3
                                             5
                                                     6
                    2
 SECTION
            1
                         12
             10
                     11
                                   13
            0.00 -76.75 -145.49 -201.28 -240.66 -266.70 -284.27 -206.15
     M=
                      0.00
                            0.00
-112.31 -9.20
               0.00
                  308.
                         592.
                                829.
                                       999.
                                             1114.
                                                    1192.
                                                            850.
           638.
  As(1)=
                      0.
                           638.
               0.
       36.
454.
                                 0.
                                       0.
                                               0.
                                                      0.
                   0.
                          0.
           638.
  As(2)=
                          638.
0. ' 0.
             Ú.
                    0.
     TOP
                                             5
                                                      6
                     2
                            3
                                    4
 SECTION
             1
                                 13
       9
           10
                    11
                           12
                         0.00 0.00
                                            0.00
                                                  0.00
                                                            0.00
     M=
             0.04
                    0.00
             52.18 159.42
                          278.04
                                 441.91
0.00 0.00
                                              0. 0.
                          0.
                                 0.
                                        0.
           638.
                   0.
  As(1)=
                  1164.
                         1923.
     209.
            651.
                                        0.
                                               0. 0.
  As(2)=
           638.
                    Û.
                           0.
                                  O.
                         1923.
                    0.
              0.
  V_1 = 117.73 NO 1 V_2 = 243.11 NO 3 Asv/s= 0.11 As(3)=
638. Umaxb= 0.005
                         Umaxt= 0.008
                                . .
                       11(SECTION TYPE= 1 ANG= 0, L= 6.00)
       Concrete BEAM
     Section property: B= 300, H= 850
      воттом
                                             5
  SECTION
                     2
                             3
                     11 -
                            12 13
   9 10
```

```
0.00 -116.47 -243.55 -347.82 -431.91 -419.95
                 0.00
         0.00
· M=
-385.90 -327.14 -241.92 -131.97 0.00
                                  1012. 1479.
                                                1875.
                                                      1817.
                        0. 471.
                  0.
          638.
                  536.
                        638.
1656. 1385. 1005.
                              0. 0.
                                                         0.
                                                 0.
                        0.
                  0.
          638.
  As(2)=
                        638.
                   0.
            O.
0.
     0.
     TOP
                                                         7
                                                 6
                       3
                                          5 .
                                4
                   2
 SECTION
         ī
                               13
                         12
         10
                  11
                                                       0.00
                                       0.00
                                                0.00
                              0.00
                         85.59
                 233.07
         441.93
    M≔
                   0.00
                         0.00
                               0.06
            0.00
0.00 0.00
                                                         0.
                                                  0.
                                            0.
                               0.
                                     0.
                 966.
                       344.
         1923.
 As(1)=
                        638.
                   0.
             0.
      0.
                                                  0.
                                            0.
                               0.
                                     0.
                        0.
         1923.
                  0.
 As(2)=
                        638.
                  0.
             0.
0.
 VI= 422.15 NO 1 Vr= 276.90 NO 3 Asv/s= 0.81 As(3)=
638. Umaxb= 0.007 Umaxt= 0.008
     Concrete BEAM 12( SECTION TYPE= 1 ANG= 0, L= 2.40 )
     Section property: B= 250, H= 600
     BOTTOM
                                                         7
                                                  6
                                         5
                        3
                                 4
                    2
 SECTION
           1
                         12
                                13
                    11
8 9
            10
                       0.00 0.00 0.00
                                                        0.00
                                                0.00
                 0.00
M= 0.00
                               0.00
                   0.00
                        0.00
0.00 0.00
          0.00
                                                         0.
                                      0.
                                            0.
                                                   0.
                               0.
                         0.
           375.
                   0.
 As(1)=
                        375.
0. 0.
                   0.
             0.
                                                         0.
                               0. 0.
                                                   Û.
                                            0.
                         0.
           375.
                   0.
  As(2)=
                        375.
                   0.
0. 0.
           0.
      TOP
                                                          7
                                                  6
                                          5
                         3 4
           1
                    2
  SECTION
                               13
                        · 12
                    11
8 9
             10
                                                       38.92
                                                30.91
                                16.85
                                         23.56
                         10.71
                    5.11
            0.00
      M≖
                        88.68 101.89
 47.62 56.99 66.99
                    77.57
                                                        278.
                        61. 97. 136.
                                           179.
                                                 226.
                  29.
           375.
   As(1)=
                    529.
                         612.
             460.
 335. 395.
                                                         0.
                                            0.
                                                   0.
                                      0.
                                0.
                         0.
                   0.
           375.
   As(2)=
            0.
                         612.
                    0.
 0. 0.
```

```
V! = -20.34 NO 1 Vr = 74.00 NO 3 Asv/s= 0.00 As(3)=
375. Umaxb= 0.002 Umaxt= 0.004
     Concrete BEAM 13( SECTION TYPE= 1 ANG= 0, L= 6.00)
    Section property: B= 250, H= 600
     BOTTOM
                                            5
                           3
                                   4
 SECTION
                    2
                               13
                           12
      9
            10
                   11
                         0.00 -38.19 -70.91 -93.94 -107.19 -110.65
                  0.00
     M=
           0.00
-104.34 -38.34 -64.02
                   -33.76
                            0.00
                                                   646.
                                                          668.
                               222.
                                     419.
                                            562.
                   0.
                         0.
  As(1)=
          375.
                    196.
                         375.
628.
      527.
             377.
                                0. 0.
                                              0.
                                                     0.
                         0.
  As(2)=
          375.
                   Û.
                   0.
                         375.
0.
   0.
             0.
     TOP
                                - 4
                         3
                                            5
                  2
 SECTION
           1
                                 13
                          12
             10
                   11
                                                  0.00
                                                          0.00
                          3.96 0.00
                                          0.00
          101.94
                  49.82
     M=
                    0.00
                         0.00
                                0.04
0.00 0.00
             0.00
                                0. 0.
                                              0.
                 291.
                         23.
  As(1)=
          612.
                    0.
                         375.
      0.
             0.
                                                           0.
                                0.
                                       0.
                                              0.
                                                     0.
  As(2)=
          612.
                   0.
                         0.
0. 0.
             0.
                   0.
                         375.
  V_1 = 105.13 NO 1 V_2 = 67.68 NO 3 Asv/s= 0.00 As(3)=
375. Umaxb= 0.004 Umaxt= 0.004
    Concrete BEAM 14( SECTION TYPE= 1 ANG= 0, L= 5.10 )
    Section property: B= 250, H= 600
     BOTTOM
                                            5
                                                    6
                           3
                                   4
 SECTION
            ì
                    2
                   11 12
            10
                                  13
     M=
           0.00 -20.95
                       -39.57 -54.29
                                     -63.59
                                            -66.03
                                                  -61.15 -48.95
                            0.00
              0.00
                     0.00
-29.42 -4.41
                 121.
                        230.
                               318.
                                      374.
                                             389.
                                                   360.
                                                          286.
  As(1)=
          375.
            0
                     0.
                         375.
170. 25.
                              0.
                   0.
                         0.
                                       0.
                                            . 0.
          375.
  As(2)=
      0.
             0.
                    0.
                         375.
     TOP
                                            5
                                                            7
               2 3
                                   4
 SECTION 1
```

```
12
                                             13
                          11
                 10
         9
8
                                                                 0.00
                                                                           0.00
                                                       0.00
                                   0.00
                                          0.00
                          0.00
       M=
                0.03
                                 74.42
                                          116.43
                18.64
                         45.01
        0.00
0.00
                                                                    0.
                                                                             0.
                                                            O.
                                                   0.
                                          0.
                                 0.
                         0.
              375.
   As(1)=
                        441.
                                 705.
               263.
      107.
                                                            0.
                                                                     0.
                                                   0.
                                          0.
                                 0.
                         0.
              375.
   As(2)=
                                 705.
                          0.
        Û.
                 0.
0.
                                                      Asv/s = 0.00
                             V<sub>r</sub>= 96.39 NO 3
         48.70 NO 1
                                Umaxt= 0.005
           Umaxb= 0.003
375.
                             15( SECTION TYPE= 1 ANG= 0, L= 6.00 )
        Concrete BEAM
      Section property: B= 250, H= 600
       BOTTOM
                                                                              7
                                                          5
                                                                    6
                           2
                                     3
  SECTION
                 1
                                              13
                           11
                                    12
                  10
          9
                                                         -86.63 -100.19 -104.25
                                                 -63.55
                                  0.00
                                        -31.05
                         0.00
       M = 0.00
                                    0.00
                          -32.18
                 -60.94
        -83.91
                                                                            627.
                                                                   601.
                                                           516.
                                                  374.
                                         180.
                                  0.
                         0.
    As(1)=
               375.
                                   375.
                           187.
         499.
                  358.
 593.
                                                                              0.
                                                                     0.
                                                             0.
                                                    0.
                                           0.
                                  0.
                          0.
    As(2)=
               375.
                                  375.
                  0.
                           0.
         0.
 0.
        TOP
                                                                              7
                                                                    6
                                                          5
                                               4
                                      3
                           2
                 1
   SECTION
                                              13
                            11
                                     12
                  10
          9
 8
                                                                            0.00
                                                                  0.00
                                                        0.00
                                              0.00
                          60.81
                                   22.02
               116.45
        M=
                                    0.00
                                             0.04
                           0.00
                  0.00
 0.00
          0.00
                                                                              0.
                                                                      0.
                                                             0.
                                           0.
                                                    0.
                                 127.
                        358.
               705.
    As(1)=
                                  375.
                           0.
                  0.
          Û.
                                                                              0.
                                                                      0.
                                                             0.
                                           0.
                                                    0.
                                   0.
                          0.
               705.
    As(2)=
                                  375.
                           0.
                  0.
          0.
 0.
                                                                          As(3)=
                                                       Asv/s=
                                                                0.00
                                             NO 3
                                     64.41
                              V:=
                 NO 1
    VI = 105.54
                                 Umaxt= 0.005
            Umaxb= 0.004
 375.
                            16( SECTION TYPE= 1 ANG= 0, L= 3.60 )
         Concrete BEAM
       Section property: B= 250, H= 600
         BOTTOM
                                                                               7
                                                                     6
                                                           5
                                                 4
                                      3
                            2
   SECTION
                  1
                                     12
                                               13
                            11
                   10
           9
```

	M≔	0.00	-6.86	-13.07	-18.35	-22.45	-25.09	-26.03	-25.09
-22.45	-18.35	-13.07	-6.86	0.00)				
As	(1)=	375.	39.	<i>7</i> 5.	106.	130.	145.	150.	145.
130.	106.	7 5.	39.	375.					-
As	(2)=	375.	0.	0.	0.	0.	0.	· 0.	0.
0.	0.	0.	0.	375.				-	-
	TOP								
SEC	TION		2	3		4	5	6	7
8	9	10	11	12	1	3			-
	M≕	0.02	0.00	0.0	0	0.00	0.00	0.00	0.00
0.00	0.00			0.00					
As	(1)≔	375.	0.	0.	0.	0.	. 0.	0.	0.
0.	0.	0.	0.	375.			٠.		-
As	(2)=	375.	0.	0.	0.	0.	0.	0.	0.
0.	0.	0.	0.	375.					
	-				-				
							Asv/s=	0.00	As(3)=
375.	Uı	maxb= 0.0	002	Umaxt=	0.002		* * . *		
	PKI C	OMPUTE	END	Ē		-			

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Calculation Book of Main Lighting Substation

L-9~L-16

***** PK11.EXE ****** DATA: 7/22/1997

o	UTPU	r D	ATA					÷					-
Zhong xin xi													
	57	32	1	7	0	32	10	1	0	4	25	25	2
0	0												
_	0.90	1.0	0										
	0												
		:											
O	UTPU	T D	ATA										
	-					Jiao Di	ian Zuo	Biao -		-			
,	(1)	0.00	-2.00	(2	0.0	0.0	0 (3) 0	.00 2.00) (4) 5.8	9 -2.00	
	(5)	5.89						7) 11	.79 -2.00	({	8) 11.79	0.00	
	• •	1.79	2.00			-2.00) 14.40	0.00	(12)1	9.29 -2	.00	
	()) (13) 1		0.00			3.00	-		00 5.00	(16)	0.00	7.00	
	(13) i (17)		3.00			9 5.0	-		89 7.00	(20) 11.90	3.00	
	(17) (21) 1		5.00	(22)		8.00	•		00.01		0.00	12.00	
	(21) I (25)					9 10.00			9 8.00	(28)	11.79 1	0.00	
	(29) 1						•	-	8.00	(32)1	9.29 10	.00	
	(33)			· (34)					1 13.00	(36)	2.51	5.00	
	•		13.00	(38)		15.00			0 18.00	(40)	0.00 2	20.00	
	(37)			(42)		20.00	-		0 23.00	(44)	0.00 2	25.00	
	(41)			(46)		25.00	•	•	0 28.00	(48)	0.00	30.00	
•	(45)		23.00	(50)		30.00	•		0 32.00	(52)		33.00	
	` '		28.00	• •		7 33.00	_		7 35.00	(56)	•	33.00	
	(53)		35.00	•		7 33.00	(3.	, 2,,,		(/	-		
	(57)	5.40	35.00	٠.	1		. '			•		-	
•	OUTP	JŢ !	DATA										
	-					7hu C	iuan Li	an Hao			•	•	
			^		·····		3)) 5	6 (5)	7 8
	(1)	ì	2	(2)	2	, (זי	7 ,	· · ·	, -	•	•	

```
(8) 12 13 (9) 14 15 (10) 15 16
              (7) 10 11
(6)
                                          (14) 22 23
                                                        (15) 23 24
                            (13) 20 21
              (12) 18
                        19
(11) 17
         18
                                                   32
                                                        (20) 33 34
                            (18) 29 30
                                          (19) 31
                        28
              (17) 27
(16) 25
         26
                                          (24) 41
                                                   42
                                                        (25) 43
                            (23) 39 40
                        38
(21) 35
              (22) 37
         36
                                          (29) 50 51
                                                        (30) 52 53
                            (28) 49 50
                        48
              (27) 47
(26) 45
         46
              (32) 56
                        57
(31) 54
         55
                   ..... Liang Guan Lian Hao ------
                                           (4) 11 13 (5) 15 18
                             (3) 8 11
               (2)
                     5
                          8
(1)
                            (8) 26 28 (9) 28 30 (10) 30 32
               (7) 23 26
          21
(6) 18
                            (13) 40 42 (14) 44 46 (15) 48 50
                        38
              (12) 36
(11) 34
              (17) 55
                        57
(16) 53
         55
OUTPUT DATA
                   ----- Zhi Zuo Yue Shu Xin Xi ------
                                                                  7111
                                                    6111
                                                           (5)
               (2)
                             (3)
                                     4111
                                            (4)
                       3111
(1)
         1111
                                                           (10) - 16111
                                                   14111
                                     12111
                                            (9)
                      10111
                             (8)
        9111
               (7)
(6)
                                   20111
                                          (14)
                                                 22111
                                                         (15)
                                                               24111
                     19111
                             (13)
 (11)
       17111
               (12)
                                                 31111
                                                         (20)
                                                               33111
                                   29111
                                           (19)
                     27111
                             (18)
       25111
               (17)
 (16)
                                                               43111
                             (23) 39111
                                           (24)
                                                 41111
                                                         (25)
                     37111
               (22)
 (21)
       35111
                                                         (30)
                                                               52111
                                                 51111
                                   49111
                                           (29)
                     47111
                             (28)
 (26)
       45111
               (27)
                     56111
 (31)
       54111
               (32)
                                           100
OUTPUT DATA
                     Shang Xia Zhu Jian Dian Pian Xin -----
(1)0.00 (2)0.00 (3)0.00 (4)0.00 (5)0.00 (6)0.00 (7)0.00
(8) 0.00 (9) 0.00 (10) 0.00 (11) 0.00 (12) 0.00 (13) 0.00 (14) 0.00
(15) 0.00 (16) 0.00 (17) 0.00 (18) 0.00 (19) 0.00 (20) 0.00 (21) 0.00
(22) 0.00 (23) 0.00 (24) 0.00 (25) 0.00 (26) 0.00 (27) 0.00 (28) 0.00
(29) 0.00 (30) 0.00 (31) 0.00 (32) 0.00 (33) 0.00 (34) 0.00 (35) 0.00
(36) 0.00 (37) 0.00 (38) 0.00 (39) 0.00 (40) 0.00 (41) 0.00 (42) 0.00
(43)\ 0.00 \quad (44)\ 0.00 \quad (45)\ 0.00 \quad (46)\ 0.00 \quad (47)\ 0.00 \quad (48)\ 0.00 \quad (49)\ 0.00 = \pm 100
(50) 0.00 (51) 0.00 (52) 0.00 (53) 0.00 (54) 0.00 (55) 0.00 (56) 0.00
(57)0.00
OUTPUT DATA
```

----- Biao Zhun Jie Mian Xin Xi -----

```
. . . . . .
                        600.
                               6
                300,
(1)
           1,
                        500,
                                6
                300,
   2)
           i,
(
                        600,
                                6
                250,
(3)
           1,
                        400,
                                6
                250,
   4)
           1,
                        450,
                350,
   5)
           1,
                        450,
                450,
(
  6)
           1,
                        240,
                                6
                500,
(7)
           1,
                        240,
                                6
                240,
(8)
           1,
                        300,
(9)
           1,
                500.
                        250,
                               6
                500,
(10)
           1,
```

OUTPUT DATA

Zhu Ji Suan Chang Du(After consider steet) ----
(1) 1.00 (2) 1.00 (3) 1.00 (4) 1.00 (5) 1.00 (6) 1.00 (7) 1.00

(8) 1.00 (9) 1.00 (10) 1.00 (11) 1.00 (12) 1.00 (13) 1.00 (14) 1.00

(15) 1.00 (16) 1.00 (17) 1.00 (18) 1.00 (19) 1.00 (20) 1.00 (21) 1.00

(22) 1.00 (23) 1.00 (24) 1.00 (25) 1.00 (26) 1.00 (27) 1.00 (28) 1.00

(29) 1.00 (30) 1.00 (31) 1.00 (32) 1.00

OUTPUT DATA

---- Zhu Bu Zhi(Hao)Jie Mian Hao,Jiao Jie,Jiao Du -----0 (3) 5 3 0 (2) (1)5 0 0 (6) 6 3 3 0 (5) 6 6 3 (4) 3 0 9) 5 3 { 6 0 (8) (7) 6 3 0 (12) 5 0 3 5 1 (10) 5 3 0 (11) 0 (15) 5 3 0 5 3 0 (14) 7 3 (13)0 (18) 0 6 3 3 0 (17) 6 6 (16)0 0 (21) 6 7 3 · (19) 0 (20) 3 6 0 0 (24) 7 3 7 0 (23) 3 (22)6 3 0 0 (27) 7 3 7 3 0 (26) (25)3 0 (30) 7 3 0 8 3 0 (29) 6 (28)3 0 10 3 0 (32) (31) 9

---- Liang Bu Zhi(Hao)Jie Mian Hao, Jiao Jie, Jiao Du ---0 0 (2) : 1 0 0 (3) 2 0

· (1) 0 (6) 0 0 (5) 3 0 (4)2 0 9) (8) : 1 0 0 { 0 0 1 (7) 0 (12) ı 2 0 0 (11) 0 (10)l

(13)	2 (0 (14)	1	0	0	(15)	1 - 0	0		
(16)	4 (0 (17)	4	0	0			2		
	HQQ	= 228					-			e .
							-			
	STIF	COMPUTE						_		•
	DEA	D COMPUTE					: 1		i	
JOINT	LOAD:	JR	XM		7	KN	- 1	-	:	
		0							:	
COLU	MN LOAE): JC	KL	,		P	· X		KX	
		0								
								٠.	. · .	:
BEAM	LOAI): NE	LI		KL		P		X	Pl
XI	KL	P	X		PI		· X1			
		1	2			1		4.50		0.00
6	16.20	1.80				-			٠.	
		1	2			1		4.50	-	0.00
6	16.20	1.80						-	. ·	
		1	2		-	1		3.80	* *	0.00
6	14.40	1.20								
		1	2			1		41.80		0.00
6	21.60	1.80								
		1	2			1	•	3.80		0.00
6	16.20	1.80	-					i		•
		1	2			1		3.80		0.00
6	16.20	1.80						•	3	
		1	3		ē	i		4.50		0.00
6	8.10	1.80					- '			1 * *
				6	6.	.80	1.50		·	(+++ +
		1	2		-	2	* £-	57.20		3.00
3	52.60	3.00			•	•				. :
		1	2		-	1		3.80		0.00
6	14.40	1.20								., .
		1	3		•	· 1	\$*************************************	41.00		0.00
6	10.80	1.80								
				6	9.		1.50			
		1	2	Ŧ		1 1		3.80		0.00
6	14.40	1.20		. •	•					
		1	3	:	•	. 1		42.10		0.00
6	10.80	1.80		:	: *		: 1	-:	į	• -

				6	12.60	2.10		
		1	2		1	3	6.50	0.00
6	21.60	1.80						0.00
		1	2		1		3.80	0.00
6	25.20	2.10		1	2		4.50	2.40
		1	7				4.50	2.10
10	14.40	0.00	0.00	1.2 4	20	65.50		2.40
_	20.00	2.00	-	4		03.20		
3	38.80	3.00		10	18.00	2.40	0.00	1.50
10	-0.10	3.90	0.00	0.0				
10	-0.10	3.70		10	-1.70	3.60	0.00	0.28
-	• =	1	3		1	4	10.50	0.00
6	7.20	1.20						
				6	8.90	1.49		- 2.20
		, 1	2		1		2.50	0.00
6	14.50	1.20		•				
			**	DEAD	LOAD**			
	ern	F СО МРИТ	F					
		E COMPUT						
iOi	NT LOAD		XI	M	XN			
,		0						
		D. IC	,	KL	P	х	· KX	
CO	LUMN LOA	∵ 0 ∵ 0		KL	. •			
		v	-					
· BE	AM LOA	D: NE	. LI		KL	P	X	Pl
ΧI	KL			X	P1	X1		
		1	1	6	10.80	1.80		
-		1	1	6	10.80	1.80		
** *	.	1	1	6	4.80	1.20	7.20	1.80
		1	2	-	6		1.40	1.00

1.80

1.80

5.40

. .

9.50

1.80

3.00

10.80

10.80

2

1.60

4.50

6

0.00

}

1.50

1

1 1 6

2

2

3	9.20	3.00						
		1	1	6	4.80	1.20		
		1	3		6		3.60	1.80
6	3.00	1.50						
				1	1.60	0.00	:	
		- 1	1	6	4.80	1.20		
		1	3		6	-	3.60	1.80
6	4.20	2.10						
				1	1.60	0.00	*	-
		1	2		6		7.20	1.80
1	1.10	0.00		-	-	٠.	. •	÷
		1	ŀ	6	6.30	2.10	-	
		1	6	10	4.80	0.00	0.00	1.20
4	9.30	2.40					-	
				10	6.80	2.40	0.00	1.50
3	1.30	3.00			•			
				10	0.00	3.90	0.00	0.01
10	-0.60	3.60	0.00	0.28				
		1	3	٠.	6		2.40	1.20
6	3.70	1.49						
				1	1.70	0.00		
		1	1	6	4.80	1.20		

EART COMPUTE
COMBI COMPUTE

COMBINATION AND REINFORCEMENT

Concrete COLUMN 1(SECTION TYPE= 1, ANG= 0, Lx= 2.00, Ly= 2.00)

Section property: B= 350, H= 450

NO 12 As= 0. M= -0.01 N= 14.84 NO 12

As= 0. M= -0.02 N= -14.84

GG= 394.

Concrete COLUMN 2(SECTION TYPE= 1, ANG= 0, Lx= 2.00, Ly= 2.00)

Section property: B= 350, H= 450

```
NO 7 As= 54. M=-0.04 N= -33.02
                                               NO
              M = -0.02 N = 33.02
        53.
   As=
         GG= 394.
Concrete COLUMN 3( SECTION TYPE= 1, ANG= 0, Lx= 2.00, Ly=
2.00)
  Section property: B= 450, H= 450
NO 12 As= 0. M= 0.00 N= 58.68
                                                NO
                     0.00 N= -58.68
               M=
12 As=
          0.
          GG= 506.
Concrete COLUMN 4( SECTION TYPE= 1, ANG= 0, Lx= 2.00, Ly=
2.00)
   Section property: B= 450, H= 450
         As= 176. M= 0.01 N= -109.15 NO 11
NO 11
          M= 0.00 N= 109.15
As= 176.
          GG= 506.
Concrete COLUMN 5( SECTION TYPE= 1, ANG= 0, Lx= 2.00, Ly=
2.00)
  Section property: B= 450, H= 450
```

0.01 N= -1.42 NO 12 NO 12 As= 2. M= M = 0.01 N = 1.42As= 2.

Concrete COLUMN 6(SECTION TYPE= 1, ANG= 0, Lx= 2.00, Ly= 2.00) Section property: B= 450, H= 450

NO 11 As= 56. M=0.03 N= -34.38 NO 11 As= 56. M= 0.02 N= 34.38

GG= 506.

GG= 506.

Concrete COLUMN 7(SECTION TYPE= 1, ANG= 0, Lx= 2.00, Ly= 2.00) Section property: B= 450, H= 450

NO 12 As= 0. M= -0.02 N= 189.98 NO 12

As= 0. M= -0.04 N= -189.98

GG= 506.

Concrete COLUMN 8/ SECTION TYPE= 1. ANG= 0. Lx= 2.00. Ly=

Concrete COLUMN 8(SECTION TYPE= 1, ANG= 0, Lx= 2.00, Ly= 2.00)

Section property: B= 450, H= 450

NO 8 As= 0. M= 0.02 N= 115.46 NO 8 As= 0. M= 0.05 N= -115.46 GG= 506.

Concrete COLUMN 9(SECTION TYPE= 1, ANG= 0, Lx= 2.00, Ly= 2.00)

Section property: B= 350, H= 450

NO 6 As= 0. M= -0.01 N= 13.17 NO 6 As= 0. M= -0.02 N= -13.17 GG= 394.

Concrete COLUMN 10(SECTION TYPE= 1, ANG= 0, Lx= 2.00, Ly= 2.00)

Section property: B= 350, H= 450

NO 7 As= 52. M= -0.05 N= -31.92 NO
7 As= 52. M= -0.02 N= 31.92
GG= 394.

Concrete COLUMN 11(SECTION TYPE= 1, ANG= 0, Lx= 2.00, Ly= 2.00)

Section property: B= 350, H= 450

NO 2 As= 0. M= 0.00 N= 57.89 NO 2 As= 0. M= 0.00 N= -57.89 GG= 394.

Concrete COLUMN 12(SECTION TYPE= 1, ANG= 0, Lx= 2.00, Ly= 2.00)

Section property: B= 350, H= 450

NO 11 As= 178. M= 0.01 N= -110.29 NO 11 M= 0.01 N= 110.29 As= 178. GG = 394.

Concrete COLUMN 13(SECTION TYPE= 1, ANG= 0, Lx= 2.00, Ly= 2.00)

Section property: B= 500, H= 240

As= 0. M= 0.01 N= 27.99NO NO 8 M=0.01 N=-27.99As= GG=300.

Concrete COLUMN 14(SECTION TYPE= 1, ANG= 0, Lx= 2.00, Ly= 2.00)

Section property: B= 350, H= 450

M= 0.00 N= 8.67 NO As= 0. NO 12 0.00 N= -8.67 M= 0. 12 As= GG = 394.

Concrete COLUMN 15(SECTION TYPE= 1, ANG= 0, Lx= 2.00, Ly= 2.00)

Section property: B=350, H=450

NO 7 As= 41. M= -0.02 N= -25.09 NO M = -0.01 N = 25.0941. 7 As= GG= 394.

Concrete COLUMN 16(SECTION TYPE= 1, ANG= 0, Lx= 2.00, Ly= 2.00)

Section property: B= 450, H= 450

As=0. M=-0.02 N=244.69NO 12 M= -0.04 N= -244.69 As= 0. GG = 506.

Concrete COLUMN 17(SECTION TYPE= 1, ANG= 0, Lx= 2.00, Ly= 2.00) Section property: B= 450, H= 450

0. ² M≕ 0.04 N= -155.65 12 As≃ GG = 506. Concrete COLUMN 18(SECTION TYPE= 1, ANG= 0, Lx= 2.00, Ly= 2.00) Section property: B= 450, H= 450 M= -0.02 N= 142.36 NO 12 As= 0. NO 12 As= 0. M = -0.05 N = -142.36**GG**≈ 506. Concrete COLUMN 19(SECTION TYPE= 1, ANG= 0, Lx= 2.00, Ly= 2.00) Section property: B= 450, H= 450 M= 0.02 N= 116.58 NO As= 0. NO 8 0.05 N= -116.58 0. M= 8 As= GG = 506.Concrete COLUMN 20(SECTION TYPE= 1, ANG= 0, Lx= 2.00, Ly= 2.00) Section property: B= 500, H= 240 NO 0.00 N= -36.90 NO 11 60. M= 0.01 N= 36.90 M= 5 As= 60. GG=300. Concrete COLUMN 21(SECTION TYPE= 1, ANG= 0, Lx= 2.00, Ly= 2.00) Section property: B= 450, H= 450 NO 2 0. M= -0.03 N= 211.18 NO As= M = -0.04 - N = -211.18As= 0. GG≕ 506. Concrete COLUMN 22(SECTION TYPE= 1, ANG= 0, Lx= 2.00, Ly=

As= 0. M=

NO 12

2.00)

0.02 N= 155.65 NO

Section property: B= 450, H= 450

NO 8 As= 0. M= 0.02 N= 116.61 NO 8 As= 0. M= 0.05 N= -116.61 GG= 506.

Concrete COLUMN 23(SECTION TYPE= 1, ANG= 0, Lx= 2.00, Ly= 2.00)

Section property: B= 500, H= 240

NO 2 As= 0. M= -0.02 N= 85.14 NO 2 As= 0. M= -0.04 N= -85.14 GG= 300.

Concrete COLUMN 24(SECTION TYPE= 1, ANG= 0, Lx= 2.00, Ly= 2.00)

Section property: B= 500, H= 240

NO 2 As= 0. M= 0.02 N= 85.14 NO 2 As= 0. M= 0.04 N= -85.14 GG= 300.

Concrete COLUMN 25(SECTION TYPE= 1, ANG= 0, Lx= 2.00, Ly= 2.00)

Section property: B= 500, H= 240

NO 2 As= 0. M= -0.03 N= 60.54 NO 2 As= 0. M= -0.06 N= -60.54 GG= 300.

Concrete COLUMN 26(SECTION TYPE= 1, ANG= 0, Lx= 2.00, Ly= 2.00)

Section property: B= 500, H= 240

NO 2 As= 0. M= 0.03 N= 60.54 NO
2 As= 0. M= 0.06 N= -60.54

GG= 300.

Concrete COLUMN 27(SECTION TYPE= 1, ANG= 0, Lx= 2.00, Ly= 2.00)

Section property: B= 450, H= 450

M = -0.02 N = 97.91 NO As= 0. NO 2 M= -0.06 N= -97.91 2 0. GG= 506. Concrete COLUMN 28(SECTION TYPE= 1, ANG= 0, Lx= 2.00, Ly= 2.00) Section property: B= 450, H= 450 0. M= 0.07 N= 107.90 NO NO 2 As= 0.11 N= -107.90 M= 2 As≂ 0. GG = 506.Concrete COLUMN 29(SECTION TYPE= 1, ANG= 0, Lx= 2.00, Ly= 2.00) Section property: B= 240, H= 240 M= 0.09 N= -41.63 NO 69. NO 5 As≃ 0.03 N= 41.63 M= 5 As= 68. GG= 144.

Concrete COLUMN 30(SECTION TYPE= 1, ANG= 0, Lx= 2.00, Ly= 2.00)

Section property: B= 500, H= 240

0. M= -0.01 N= 60.85 NO NO 6 As≕ M = -0.03 N = -60.85As= 0. GG= 300.

Concrete COLUMN 31(SECTION TYPE= 1, ANG= 0, Lx= 2.00, Ly= 2.00)

Section property: B= 500, H= 300

0. M= 0.02 N= 111.24 NO NO 2 As= 0.03 N= -111.24 2 As= M≔ 0. GG= 375.

簋

Concrete COLUMN 32(SECTION TYPE= 1, ANG= 0, Lx= 2.00, Ly= 2.00) Section property: B= 500, H= 250

```
-4.93
                                              NO
                   M= 0.00 N=
              8.
   NO 11
         As=
             M = 0.00 N = 4.93
         8.
   As=
7
         GG= 312.
    Concrete BEAM 1(SECTION TYPE= 1 ANG= 0, L= 5.89)
    Section property: B= 300, H= 600
    BOTTOM
               2 3 4
                                               7
                                  5
                                        6
       ŧ
 SECTION
         10 11 12 13
8 9
    M= 0.00 -32.34 -61.19 -84.17 -99.05 -104.39 -100.08
-62.54 -29.42 0.00 0.00 0.00
                                              509.
                   358. 497. 589.
                                   622.
                                        595.
        450. 187.
  As(1)=
          0. . 0.
                   450.
366. 170.
                                               0.
                                         0.
         450. 0.
                    0.
                         0. 0.
                                  0.
  As(2)=
              0.
                    450.
           0.
0.
    0.
    TOP
                    3
                          4
                                               7
         1
                                  5
               2
 SECTION
                     12
                          13
8 9
          10 11
                           0.00 0.00
                                        0.00
                                              0.00
          0.08 0.00
                     0.00
    Μ=
                     67.74
                         129.60
0.00 0.00 7.98
               35.25
                                               0.
                                    0.
                          0.
                               0.
         450.
              0.
                    0.
  As(1)=
               397.
                    781.
         204.
0. 46.
                                               0.
                                          0.
                    0. 0. 0.
                                    0.
               0.
         450.
 As(2)=
               0.
                    781.
           0.
0. 0.
 VI = 66.04 NO 1 VI = 111.09 NO 3 Asv/s= 0.00 As(3)=
450. Umaxb= 0.003 Umaxt= 0.004
Concrete BEAM 2( SECTION TYPE= 1 ANG= 0, L= 5.89 )
   Section property: B= 300, H= 600
   BOTTOM 4
               2 3 4
                                              7
                                  5 6
SECTION
         1
               11 12 13
       10
8 9
M= 0.00 0.00 0.00 -27.39 -57.58
                                  -78.24 -89.26 -90.63
               -16.17 -5.73
-82.36 -64.56 -38.64
                         158. 336.
                                        529.
                                              537.
               0. 0.
                                   461.
 As(1)= 450.
               93. 450.
486. 378. 224.
                    0. 0. 0. 0.
                                               0.
 As(2)=450.
               0.
              0.
                    450.
0. 0.
        0.
. TOP
```

```
SECTION
            1
                      2
                             3
                                                5
                      - 11
                              12
                                    13
8
               10
                                                0.00
                                                        0.00
                                                                 0.00
      M=
            129.59
                     74.04
                             41.10
                                     13.04
                      0.00
                              0.00
                                    33.00
               0.00
       0.00
                                    75.
                                                    0.
                                                           0.
                                                                   0.
  As(1)=
            781.
                   436.
                           238.
                                            0.
                            450.
               0.
                      0.
                     0.
                             0.
                                    0.
                                            0.
                                                    Û.
                                                           0.
  As(2)=
            781.
                      0.
                            450.
               0.
                       Vr≕ 73.73
                                     NO 3 Asv/s= 0.00 As(3)=
  VI= 107.22 NO 1
450. Umaxb= 0.003 Umaxt= 0.004
                      3(SECTION TYPE= 1 ANG= 0, L= 2.61)
       Concrete BEAM
     Section property: B= 300, H= 500
      BOTTOM
                                                 5
                                                           6
                                                                   7
 SECTION
                       2
                               3
                                        4
       9
                      11
                              12
                                       13
              10
                                                0.00
                                                                 0.00
                              0.00
                                       0.00
                                                         0.00
      M=
            -5.76
                      0.00
               0.00
                      0.00
                              0.00
                                     0.00
       0.00
0.00
                                                           0.
                                                                   0.
                                            0.
                                                   0.
            375.
                     0.
                             0.
                                    0.
  As(1)=
                            375.
       0.
               0.
                      0.
                                                   0.
                                                           0.
                                                                   0.
                             0.
                                    0.
                                            0.
  As(2)=
            375.
                     0.
0.
       0.
               0.
                      0.
                            375.
      TOP
                       2
                              3
                                                           6
                                                                   7
 SECTION
              1
                                       4
                                                 5
                              12
               10
                       11
                                       13
             32.95
                     31.56
                              35.05
                                      39.05 43.71
                                                        49.18
                                                                 55.60
      M=
                      90.54
                             100.92 120.25
63.05 71.45
               80.66
                                          311.
                                                  351. 399.
                                                                 454.
                           248.
                                  277.
            375.
                   223.
  As(1)=
                              901.
       588.
               664.
                      746.
518.
                             0.
                                    0.
  As(2)=
            375.
                     Û.
                                            0.
                                                    0.
0.
      0.
               0.
                      0.
                            901.
  VI= -33.87 NO 3
                       Vr= 72.41 NO 7
                                              Asv/s=
                                                      0.00
                       Umaxt= 0.006
         Umaxb = 0.002
375.
                         4(SECTION TYPE= 1 ANG= 0, L= 4.89)
       Concrete BEAM
     Section property: B= 300, H= 600
      BOTTOM
                                                                1.1
                       2
                                3
                                         4
                                                  5
                                                           6
                                                                   7
 SECTION 1
```

11 12 13 10 9 -37.43 -95.57 -140.95 -172.26 -188.90 -190.86 0.00 0.00M= -60.93 0.00 -178.17 -151.40 -111.87 1171. 1185. 1060. 854. 217. 567. 450. 0. As(1)=356. 450. 1099. 922. 669. 0. 0. 0. 0. 0. 0. 0. 450. As(2)=**450**. 0. 0. O. 0. TOP 7 5 3 4 2 SECTION 1 12 13 11 10 9 0.00 0.000.00 0.00 0.00 34.90 M= 120.30 0.07 0.00 0.00 0.00 0.00 0. 0. 0. 0. 0. 0. 722. 202. As(1)=450. 0. 0. 0. 0. 0. 0. 0. 0. 0. Û. 722. As(2)=0. 450. 0. 0. 0. NO 1 Vr = 158.37 NO 3 Asv/s = 0.35 As(3)= VI= 211.06 450. 5(SECTION TYPE= 1 ANG= 0, L= 5.89) Concrete BEAM Section property: B= 250, H= 600 BOTTOM 7 3 4 5 6 2 SECTION 12 13 11 10 -31.34 -59.40 -81.81 -96.30 -101.46 -97.18 -83.46 M= 0.00 0.00 0.00 0.00-60.30 -27.81 497. 582. 609. 577. 349. 486. 182. 375. As(1)=161. 0. 0. 375. 0. 0. 0. 0. 0. 0. 0. 375. As(2)=. 375. 0. 0. 0. TOP 7 5 6 3 4 2 1 SECTION 12 13 8 : 9 -10 11 0.000.00 0.00 0.00 0.00 0.00 0.09 M= 75.08 134.21 42.94 15.31 0.00 . 0. 0. . 0. 0. 0. 0. 0. As(1)=375. 445. 821. 250. 88. 0. 0. 0. 0. 0. 0. 0. 375. O. As(2)=821. 0. 0. 0. 0.

```
VI= 63.85 NO 1 Vr= 109.48 NO 3 Asv/s= 0.00 As(3)=
375. Umaxb= 0.004 Umaxt= 0.005
      Concrete BEAM 6( SECTION TYPE= 1 ANG= 0, L= 6.00 )
    Section property: B= 250, H= 600
     BOTTOM
                                              5
                     2
                           3
                                    4
 SECTION
            1
                            12 . 13
8
             10
                     11
                          0.00 -31.21 -64.71
                                             -88.51 -102.53 -106.78
                   0.00
     M=
            0.00
-101.24 -86.01 -62.47
                    -32.98
                             0.00
                          0.
                                181.
                                       381.
                                              528.
                                                     616.
                                                             643.
  As(1)=
           375.
                   0.
                    191.
                           375.
608.
      512.
             368.
                                  0.
                                         0.
                                                0.
                                                       Û.
                                                              0.
                   0.
                           0.
           375.
  As(2)=
                          375.
0.
      0.
             0.
                    0.
     TOP
                                                               7
                   2
                           3
                                    4
 SECTION
            1
                           12
                                 . 13
     9
           10
                    11
                           39.62 11.82
     M=
           134.21
                   72.59
                                          0.00
                                                    0.00
                                                             0.00
0.00 0.00
                    0.00
                           0.00
                                 0.04
             0.00
                                                              0.
  As(1)=
           821.
                  429.
                         231.
                                 68.
                                         0.
                                                0.
                    0.
                          375.
             0.
                                 0.
                                         0.
                                                0. 0.
  As(2)=
           821.
                   0.
                           0.
                    0.
                          375.
      0.
             0.
VI= 111.10 NO 1 Vr= 65.96 NO 3 Asv/s= 0.00
                                                           As(3)=
                      Umaxt= 0.005
375. Umaxb= 0.004
      Concrete BEAM 7(SECTION TYPE= 1 ANG= 0, L= 5.89)
    Section property: B= 300, H= 600
     BOTTOM
                           3 4
                                                               7
                                              5
                                                      6
 SECTION
            1
                     2
                     11 12 13
       9
            10
           -0.01 -25.19 -46.84 -62.63
                                      -70.44
                                             -69.34
                             0.00
-15.32 0.00
               0.00
                      0.00
           450.
                  145.
                         272.
                                367.
                                       414.
                                              407.
                                                     347. 234.
  As(1)=
                   0.
              0.
                           450.
88. 0.
           450.
                   0.
                           0.
                                  0.
                                         0.
                                                0.
                                                       Û.
                                                              0.
  As(2)=
0.
                  0.
                          450.
    0.
             0.
     TOP
```

```
6 7
                                                    2 3 4
                                                                                                             5
                            1
   SECTION
                                                                   12 13
                                  10
                                                 11
8 9
                                                              0.00 0.00 0.00
                                                                                                                                                    0.00
                                                                                                                                 0.00
                                                   0.00
              M=
                                0.04
                                                                                  195.64
                                                 93.69
                                                                130.86
                                60.39
9.95 32.16
                                                                                                                                                       57.
                                                                                                                      0.
                                                                                                     0.
                                                                                   0.
                                                 0.
                                                                 0.
                           450.
   As(1)=
                                                    789.
                                                                  1217.
                                  556.
                353.
                                                                                                                                                         0.
                                                                                                                                       0.
                                                                                                                      Û.
                                                                                                     0.
                                                                  0.
                                                                                   0.
                                                 0.
                           450.
   As(2)=
                                                               1217.
                                                   0.
                                  0.
0. 0.
  VI= 50.18 NO 1 Vr= 119.94 NO 3 Asv/s= 0.00 As(3)=
450. Umaxb= 0.003 Umaxt= 0.007
                                                   8( SECTION TYPE= 1 ANG= 0, L= 5.89 )
                Concrete BEAM
            Section property: B= 300, H= 600
              BOTTOM
                                                                                                                                                       7
                                                                                                                                     6
                                                                                                                  5
                                                                                        4
                                                   2 3
                             1
    SECTION
                                                   11 12
                                                                               13
 8 9
                                10
                                                0.00 -35.84 -109.43 -163.24 -197.28 -211.44 -202.69
                               0.00
              M≔
                                                  0.00 0.00
 -175.49 -129.94 -66.05
                                                  0. 208. 654. 1000.
                                                                                                                                  1326.
                                                                                                                                                    1266.
                                                                                                                 1229.
                            450.
       As(1)=
                                                   0. 450.
 1081. 783. 387.
                                                                                                                                                          0.
                                                                                   0. 0.
                                                                                                                       0.
                                                                                                                                        0.
                                                                   0.
                           450.
                                                  0.
       As(2)=
                                                                 450.
                                                  0.
 0. 0.
               TOP
                                                                                    4 ...
                                                                                                                  5
                                                   2
                                                                  3
  SECTION
                              l
                                                                                       13
 8 9 10 11 12
                                                                                                                                                      0.00
                                                                                                                                  0.00
                                                                                                              0.00
                                                                    0.00
                                                                                        0.00
                                                 76.64
                             195.68
               M≖
                                                                    16.18
                                                                                   121.06
                                   0.00 0.00
  0.00 0.00
                                                                   0. 0. 0.
                                                                                                                                        0.
                                                                                                                                                     0.
                                                                                                                       0.
                           1218.
                                              451.
       As(1)=
                                                                  727.
                                                   93.
                                    0.
  0. 0.
                                                                                                                                                          0.
                                                                                                      0.
                                                                                                                       0.
                                                                                                                                         0.
                                                                                     0.
                                                                   0.
                                                  0.
                           1218.
       As(2)=
                                                                  727.
                                   0.
                                                 0.
  0. 0.
 VI= 257.53 NO 1 Vr= 223.38 NO 3 Asv/s= 0.61 As(3)=
  450. Umaxb= 0.007 Umaxt= 0.007
                                                   Series (All Control of the Control o
                 Concrete BEAM 9( SECTION TYPE= 1 ANG= 0, L= 2.61 )
              Section property: B= 300, H= 500
                BOTTOM :
      SECTION 1 2 3 4 5
```

I

10 11 12 13 8 0.00 0.00 0.00 0.00 0.00 0.00 M= 0.00 0.00 0.00 0.00 0.00 0.00 0. 0. 375. 0. 0. 0. Û. 0. As(1)=375. 0. 0. 0. 0. 0. 0. 0. 0. As(2)= 375. 0. 0. 0. 0. 0. 0. 375. TOP 2 3 4 5 6 7 SECTION 1 11 10 12 13 110.43 104.54 99.16 94.44 90.53 87.57 M= 121.00 85.64 84.66 84.49 84.98 85.98 95.85 *775. 732.* 695. 664. 641. 626. As(1)= 907. 822. 617. 621. 629. 706. 0. 0. 0. 0. 0. 0. As(2)= 907. 0. 0. 0. 0. 0. 706. VI = 42.60 NO 1 $V_f = 27.11$ NO 3 Asv/s= 0.00 375. Umaxb= 0.002 Umaxt= 0.006 Concrete BEAM 10(SECTION TYPE= 1 ANG= 0, L= 4.89) Section property: B= 300, H= 600 BOTTOM 3 2 5 SECTION 1 4 12 8 9 10 11 13 M = 0.000.00 -54.16 -108.74 -150.72 -179.02 -193.31 -193.58 -179.83 -152.41 -112.38 -61.10 0.00 316. 649. 918. 1105. 450. 0. 1201. 1203. As(1)=1110. 929. 672. **358. 450.** As(2)=450. 0. 0. 0. 0. 0. 0. 0. 0. 0. 450. TOP 3 SECTION 1 2 6 12 13 8 9 10 - 11 M=95.90 14.67 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.07 0. 0. 0. As(1)=570. 84. 450. 0. 0. 0. 0. As(2)= 570. 0. 0. Q. 0. 0. 0. 0. 0. 0. 0. 0. 450.

```
VI= 200.78 NO 1 Vr= 159.16 NO 3 Asv/s= 0.29 As(3)=
       450.
     Concrete BEAM 11(SECTION TYPE= 1 ANG= 0, L= 2.51)
    Section property: B= 300, H= 500
     BOTTOM
                                                     7
                                              6
                                       5
                       3
 SECTION 1
                  2
                               13
                        12
                  11
           10
 9
8
                                      0.00 0.00
                                                    0.00
                              0.00
     M = -0.01
                        0.00
                  0.00
                        0.00
                              0.00
                  0.00
0.00 0.00
            0.00
                                                     0.
                                         0.
                             0.
                                   0.
                       0.
                 0.
  As(1)=
          375.
                       375.
                  0.
0. 0.
            0.
                                               0.
                                         0.
                                   0.
                             0.
                       0.
  As(2)=
          375.
                 0.
                       375.
                  0.
            0.
0. 0.
     TOP
                             4
                                        5
                        3
SECTION
                  2
            1
                        12 13
8 9
                  11
            10
                  6.69 13.72 21.21
                                                   47.75
                                      29.29
                                             38.09
 M=
           0.00
                       107.92 122.91
                  94.71
58.34 69.78 81.95
                                              341.
                                                    419.
                                        270.
                       96. 149.
                                  207.
                 47.
          375.
 As(1)=
                       923.
                  802.
505. 598.
            697.
                                              0.
                                         0.
                       0.
                             0.
                                  0.
                 0.
 As(2)=
          375.
                       923.
                 0.
            0.
0. 0.
VI= -36.90 NO 3 Vr= 74.18 NO 7 Asv/s= 0.00
375. Umaxb= 0.002 Umaxt= 0.006
     Concrete BEAM 12( SECTION TYPE= 1 ANG= 0, L= 4.89)
     Section property: B= 300, H= 600
     BOTTOM
                  2 3 4
11 12 13
                                        5
 SECTION 1
           10
                 0.00 -31.07 -90.84 -137.79 -170.59 -188.33 -190.83
      M= 0.00
 -178.28 -151.57 -112.05 -61.05 0.00
                                                    1185.
                                        1048.
                                              1168.
                  0. 180. 538.
                                   834.
   As(1)=450.
                 357. 450.
 1100. 923. 670.
                                                      0.
                                          0.
                                                0.
                                    0.
                        0.
                              0.
 As(2)= 450.
                  0.
                       450.
           0.
                 0.
 0.
      TOP
```

```
VI= 200.78 NO 1 Vr= 159.16 NO 3
                                        Asv/s=
                                               0.29 As(3)=
450. Umaxb= 0.007 Umaxt= 0.003
      Concrete BEAM 11( SECTION TYPE= 1 ANG= 0, L= 2.51 )
    Section property: B= 300, H= 500
     BOTTOM
                                 4
           1
                    2
                          3
                                           5
SECTION
      9
             10
                   11
                           12
                                 13
8
                              0.00
                       0.00
                                          0.00
                                                 0.00
                                                         0.00
                   0.00
     M= .
           -0.01
             0.00
                   0.00
                         0.00
                                0.00
0.00 0.00
                                0.
          375.
                  0.
                         0.
 As(1)=
                        375.
      0.
             0.
                   0.
                                                    0.
                                                          0.
                  0.
                         0.
                               0.
                                     0.
                                             0.
  As(2)=
          375.
0.
     0.
             0.
                   0.
                        375.
     TOP
                                                           7
 SECTION
                          3 4
                                           5
            1
                    2
     9
                          12 13
             10
                   11
            0.00
                   6.69
                         13.72
                                21.21
                                         29.29
                                                 38.09
     M=
                   94.71
                         107.92 122.91
58.34 69.78 81.95
                                           270.
                        96.
                              149. 207.
          375.
                  47.
  As(1)=
                          923.
      598.
             697.
                   802.
                              0. 0.
                         0.
                                             0.
  As(2)=
          375.
                  0.
                        923.
0. 0.
             0.
                  0.
  VI= -36.90 NO 3 Vr= 74.18 NO 7 Asv/s=
                                               0.00
                                                       As(3)=
375. Umaxb= 0.002 Umaxt= 0.006
      Concrete BEAM 12(SECTION TYPE= 1 ANG= 0, L= 4.89)
    Section property: B= 300, H= 600
     BOTTOM
                    2
                         3
 SECTION
                                  4
                    11 12
    9
           10
                                  13
                  0.00 -31.07 -90.84 -137.79 -170.59 -188.33 -190.83
     M = 0.00
                   -61.05 0.00
-178.28 -151.57 -112.05
                                           1048. 1168.
                       180. 538.
                  0.
                                     834.
 As(1)=450.
1100. 923. 670.
                          450.
                    357.
                  0.
                         0.
                                0.
                                      0.
  As(2)=
          450.
                        450.
0.
      0.
            0.
                  0.
     TOP
```

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7
                                           6
                                     5
                2
                     . 3
 SECTION
         1
                     12
                             13
         10
                11
8 9
                                           0.00
                                                  0.00
                      0.00
                             0.00
                                    0.00
                40.17
         122.96
    M=
                       0.00
                            0.06
                 0.00
0.00 0.00
         0.00
                                                   Û.
                                       0.
                                             0.
                                 0.
                      0.
                            0.
         739.
               233.
  As(1)=
                      450.
          0.
                 0.
                                                   0.
                                             0.
                                  0.
                                       0.
                      0.
                            0.
         739.
                0.
  As(2)=
           0.
                 0.
                      450.
0. 0.
  VI= 214.03 NO 1 Vr= 158.50 NO 3 Asv/s= 0.37 As(3)=
450. Umaxb= 0.007 Umaxt= 0.004
Concrete BEAM 13(SECTION TYPE= 1 ANG= 0, L= 3.60)
    Section property: B= 300, H= 500
     BOTTOM
                                                  7
                     3 4
                                      5
                                             6
 SECTION 1
                2
                11 12 13
8 9
         10
   M = 0.00 -32.02 -59.47 -81.76 -98.36 -108.71 -112.28 -108.71
-98.36 -81.76 -59.47 -32.02 0.00
                                                  808.
                                            836.
                     428.
                          597. 726.
                                      808.
               226.
  As(1)=
         375.
                       375.
726. 597. 428. 226.
                            0. 0.
                                      0.
                                             0.
                                                   0.
                      0.
                0.
 As(2)=
         375.
                      375.
0. 0.
                0.
           0.
    TOP
                                     5
                      3
                              4
                2
 SECTION
           1
                     12
                           - 13
8 9
           10
                 11
                                           0.00
                                                  0.00
                             0.00
                                    0.00
                      0.00
           0.05
                 0.00
   M=
                 0.00
                     0.00
                            0.05
0.00 0.00
          0.00
                                        0.
                                                   Û.
                      0.
                            0. 0.
         375.
                0.
 As(1)=
           0.
                      375.
0. 0.
                 0.
                                0.
                                       0.
                                                   0.
                      0.
                            0.
                0.
         375.
  As(2)=
0. 0.
           0.
                0.
                      375.
  VI= 114.01 NO 1 Vr= 114.01 NO 3 Asv/s= 0.00 As(3)=
375. Umaxb= 0.006 Umaxt= 0.002
                   1.0
Concrete BEAM 14( SECTION TYPE= 1 ANG= 0, L= 6.00 )
    Section property: B= 300, H= 600
     BOTTOM
 SECTION 1 2 3 6 4 5
                                                    7
```

11 12 13 10 -84,39 -119.10 -145.70 -162.05 -167.51 -162.05 M= 0.00 -43.89 -145.70 -119.10 -84.39 -43.89 0.00 885. 1028. 992. 499. 715. 992. 255. As(1)= 450. 255. 450. 885. 715. 499. 0. 0. 0. 0. 0. 450. 0. 0. As(2)=450. 0. 0. 0. 0. TOP 3 4 7 2 5 6 SECTION 13 . 12 10 11 0.00 0.00 0.00 0.00M= 0.07 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.07 450. 0. 0. 0. 0. . 0. 0. 0. As(1)=0. 450. 0. 0. 0. 0. 0. 0. 0. 0. 0. 450. As(2)=0. 0. 0. 450. 0. VI= 89.85 NO I Vr= 89.85 NO 3 Asv/s= 0.00 450. Umaxb= 0.006 Umaxt= 0.003 Concrete BEAM 15(SECTION TYPE= 1 ANG= 0, L= 5.40) Section property: B= 300, H= 600 BOTTOM 2 3 4 5 SECTION ı 11 12 10 13 0.00 -60.46 -118.07 -170.97 -218.71 -262.92 -275.83 -264.40 M= -240.02 -200.96 -146.85 -79.16 0.00 354. 708. 1051. 1377. 1696. 1792. 450. 467. 450. 1529. 1254. 892. 0. 0. 0. 0. 1800. 1905. 1812. As(2)=450. 450. 0. 0. 0. TOP 3 4 2 5 SECTION 1 11 12 8 9 13 10 0.00 0.00 0.00 M≔ 80.0 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.22 0. 450. 0. 0. 0. 0. As(1)= 0. 450. 0. 0. 0. 0. . 0. 0. 0. Û. 450. 0. 0. As(2)= 450. 0. 0. 0. 0.

VI= 136.41 NO 1 Vr= 187.99 NO 3 Asv/s = 0.22 As(3) =450. Umaxb= 0.010 Umaxt= 0.003 Concrete BEAM 16(SECTION TYPE= 1 ANG= 0, L= 2.97) Section property: B= 250, H= 400 BOTTOM 7 2 3 4 5 6 SECTION 1 11 12 13 10 9 -57.07 -51.17 -19.10 -34.81 -46.77 -54.67 -58.19 M≕ 0.00 0.00 -40.62 -25.70 -6.72 541. 481. 437. 517. 553. 321. 250. 173. As(1)=0. 250. 60. 234. 0. Û. 0. €. 0. 0. 0. 250. As(2)=250. 0. €. 0. 0. TOP 7 5 3 4 2 **SECTION** 1 13 11 12 9 10 0.00 0.00 0.00 0.00 0.00 0.00 0.04 M≖ 16.01 43.43 0.00 0.00 0.00 0.00 0. 0. 0. 0. 0. 0. 250. 0. As(1)=0. 144. 404. 0. 0. 0. 0. 0. 0. 250. 0. О. As(2)=404. 0. 0. 0. 0. VI= 82.30 NO 1 Vr= 114.29 NO 3 Asv/s= 0.30 As(3)=Umaxt= 0.004 250. Umaxb= 0.006 17(SECTION TYPE= 1 ANG= 0, L= 2.43) Concrete BEAM Section property: B= 250, H= 400 BOTTOM 7 5 6 3 4 SECTION 2 l 11 12 13 9 10 0.00 0.00 0.00 0.00 0.00 0.00 0.00 M= 0.00 -0.66 -0.45 -0.46 0.00 0. 0. 0. 0. 0. 0. 0. As(1)= 250. 250. 4. 6. 4. 0. 0. 0. 0. 0. 0. 250. 0. 0. As(2)= 0. 250. 0. 0. 0. TOP

 SECTION
 1
 2
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VI= 38.32 NO 1 Vr= -4.63 NO 5 Asv/s= 0.00 As(3)= 250. Umaxb= 0.002 Umaxt= 0.004
PK1 COMPUTE END

Calculation Book of Main Lighting Substation

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PK11.EXE ******

2

DATA: 7/22/1997 OUTPUT DATA ---- Zhong xin xi -----0 2 2 1 25 0 0 0 0.90 1.00 0 OUTPUT DATA Jiao Dian Zuo Biao -----(1) 0.00 - 2.00 (2) 0.00 0.00 (3) 5.40 - 2.00 (4) 5.40 0.00 (5) 7.20 0.00 OUTPUT DATA ----- Zhu Guan Lian Hao ------(1) 1 2 (2) 3 Liang Guan Lian Hao -----5 (2) 4 OUTPUT DATA Zhi Zuo Yue Shu Xin Xi -----(2) 3111 1111 (1)OUTPUT DATA

Shang Xia Zhu Jian Dian Pian Xin ------

```
(1) 0.00 (2) 0.00 (3) 0.00 (4) 0.00 (5) 0.00
 OUTPUT DATA
                ----- Biao Zhun Jie Mian Xin Xi
             250.
                   700.
(1)
(2)
             500,
                   240,
                         6
         1,
 OUTPUT DATA
              ---- Zhu Ji Suan Chang Du(After consider steel) -----
 (1) 1.00 (2) 1.00
 OUTPUT DATA
           ---- Zhu Bu Zhi(Hao)Jie Mian Hao, Jiao Jie, Jiao Du -----
 (1)
                          2
         2 3 0 (2)
                                 3
            ---- Liang Bu Zhi(Hao)Jie Mian Hao, Jiao Jie, Jiao Du -----
                           1
 (1)
         1 0
                  0 (2)
          IIQQ=
                      27
          STIF COMPUTE
          DEAD COMPUTE
JOINT LOAD:
                 JR
                           XM
                                       XN
                                                  Х
                                                            KX
COLUMN LOAD:
                   JC
                            KL
                                      P
BEAM
         LOAD:
                           LI
                                    KL
                                               P .
                                                          X :
                                                                    Pi
                   NE
          KL
                             X
                                      Pl
                                               X1
Χl
                                         2
                                                      6.50
                                                                   2.40
                           8
10
        7.20
                0.00
                        0.00
                                 1.20
                                                                   1.50
                                               33.40
4
      20.80
                2.40
                                                 6.70
                                                                   3.00
      33.40
                3.90
                                                2.40
                                                          0.00
                              10
                                       9.00
                                                                   1.50
```

0.28

-1.70

10

3.60

0.00

		1	3	4	67.	50	1.80
1	3.80	0.00	6	10.80	0.90		
			DEAD	LOAD			
JOINT		OMPUTE COMPUTI JR	E	XN			
		0					
COLUN	MN LOAD:	JC 0	KL	P	х	KX	
BEAM	LOAD:	NE	LI	KL	P	x	PI
X1		· P	х	Pi	XI		
ΛI	Kω	1	8 10	2.40	0.00	0.00	1.20
4	7.90	1.50	2		0.90		2.40
4	2.60	2.40	4		7.90		3.90
3	1.00	3.00	-			2.02	1.60
			- 10	3.00	2.40	0.00	1.50
10	-0.60	3.60	0.00 0.3		•	. 20	1.80
*2		1	. 2	4	>	2.20	1.60
6	4,50	0.90					
:	EART	COMPU BI COMPU	JTE				
î.	· .		**COMB		AND REIN	FORCEMEN	T**
		0011118	ı (SEC	PION TVDE:	- I ANG=	0 i.x= 2.	00. Ly≖
0.003	Concrete	COLUMN	1 1(SEC)	HON TILL	1, 7110	V, 12/1	,,
2.00)	Section prop	erty: B=	500, H= 240	-			
			0. M= M= 0.00				NO
	, v.	G= 30	0.		1		

2.00) Section property: B= 500, H= 240 0. M= 0.01 N≃ 181.27 NO NO 2 As= 0.00 N= -181.27 M= 2 As= 0. GG= 300. Concrete BEAM 1(SECTION TYPE= 1 ANG= 0, L= 5.40) Section property: B= 250, H= 700 BOTTOM 34 SECTION 1 2 . 5 11 12 10 13 -68.67 -98.00 -108.11 -107.51 -96.08 -77.83 M= 0.00 -35.70 0.00 0.00 -56.15 -23.31 0.00341. 545. 542. 482. 388. 438. 175. 492. As(1)=0. 0. 438. 114. 278. 0. 0. 0. 0. 0. 0. As(2)=438. 0. 438. 0. 0. 0. TOP 3 7 **SECTION** 1 2 4 5 6 10 11 12 13 8 0.02 0.00 0.00 0.00 0.00 0.00 0.00 M= 120.44 0.00 0.00 23.29 70.39 172.78 0. 0. 0. 0. 0. 0. 0. As(1)=438. 114. 350. 610. 893. 0. 438. 0. 0. 0. 0. 0. 0. As(2)=893. 0. 0. 0. 0. V]= 78.72 NO 1 Vr= 143.56 NO 3 Asv/s= 0.00 As(3)=Umaxb= 0.003 Umaxt= 0.005 438. 2(SECTION TYPE= 1 ANG= 0, L= 1.80) Concrete BEAM Section property: B= 250, H= 700 BOTTOM 7 3 4 5 **SECTION** 1 2 6 9 10 11 12 13 0.00 M= 0.00 0.000.000.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0. 0. 0. 0. 438. 0. 0. As(1)= 0.

Concrete COLUMN 2(SECTION TYPE= 1, ANG= 0, Lx= 2.00, Ly=

0. 0. 0. 0. 438. 0. 0. 0. 0. $A_{S}(2)=438.$ 0. 0. 0. 0. 0. 438. ТОР 2 3 4 5 6 SECTION 1 12 13 11 8 9 10 M= 191.97 174.12 156.45 139.02 121.91 105.19 88.94 73.20 57.92 43.03 28.47 14.15 0.00 As(1)= 1000. 901. 803. 709. 618. 530. 445. 364. 287. 212. 139. 69. 438. As(2)= 1000. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 438. VI = 119.42 NO 1 $V_f = 0.00$ NO 3 Asv/s = 0.00 As(3)=

VI= 119.42 NO 1 Vr= 0.00 NO 3 Asv/s= 0.00 As(3)=
438. Umaxb= 0.002 Umaxt= 0.006 .

PK1 COMPUTE END

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Calculation Book of Main Lighting Substation L-18 ~ L-19 ***** PK11.EXE ***** DATA: 7/22/1997 OUTPUT DATA ---- Zhong xin xi -----4 0 6 4 1 12 0 4 25 0 0 0.90 1.00 0 OUTPUT DATA ----- Jiao Dian Zuo Biao -----(1) 0.00 -2.00 (2) 0.00 0.00 (3) 3.00 -2.00 (4) 3.00 0.00 (5) 8.40 -2.00 (6) 8.40 0.00 (7) 13.50 -2.00 (8) 13.50 0.00 (9) 0.00 3.00 (10) 0.00 5.00 (11) 2.40 3.00 (12) 2.40 5.00 OUTPUT DATA ----- Zhu Guan Lian Hao ------(1) 1 2 (2) 3 4 (3) 5 6 (4) 7 8 (5) 9 10 (6) 11 12 ----- Liang Guan Lian Hao ------(1) 2 4 (2) 4 6 (3) 6 8 (4) 10 12 OUTPUT DATA ----- Zhi Zuo Yue Shu Xin Xi ------(1) 1111 (2) 3111 (3) 5111 (4) 7111 (5) 9111 11111 (6)OUTPUT DATA

ll-d____

```
----- Shang Xia Zhu Jian Dian Pian Xin ------
(1)0.00 (2)0.00 (3)0.00 (4)0.00 (5)0.00 (6)0.00 (7)0.00
(8) 0.00 (9) 0.00 (10) 0.00 (11) 0.00 (12) 0.00
OUTPUT DATA
               ----- Biao Zhun Jie Mian Xin Xi ------
                  600,
(1)
            250,
        ١,
(2)
            250,
                  400,
        1,
            500,
                  240,
( 3)
        1,
                  250,
            500,
(4)
        1,
 OUTPUT DATA
             ..... Zhu Ji Suan Chang Du(After consider steel) -----
 (1) 1.00 (2) 1.00 (3) 1.00 (4) 1.00 (5) 1.00 (6) 1.00
 OUTPUT DATA
           ---- Zhu Bu Zhi(Hao)Jie Mian Hao, Jiao Jie, Jiao Du -----
                 0 (2)
                                    0 (3)
             3
 (1)
                                    0 (6)
                 0 (5)
                           3
                                3
        3 3
 (4)
           ---- Liang Bu Zhi(Hao)Jie Mian Hao, Jiao Jie, Jiao Du -----
                         1 0 0 (3) 1
                 0 (2)
 (1)
        1
                 0
 (4)
             0
         IIQQ=
                     54
   the figure of the charge of the first
         STIF COMPUTE
         DEAD COMPUTE
                                XM
                                      XN
JOINT LOAD:
                 JR
                0
COLUMN LOAD: JC
                                                          KX
                                                X
                           KL
                                   · P
                                                                  PI
                                                        X
                                              P
                  NE
                          LI
                                   KL
BEAM
         LOAD:
                                              X1 - 111
                          X Pl
XI
                12 P :
          KL
                                                    9.30
                                                                 0.00
                          2
                1
```

O	3.40	0,70		^	1		0.20	0.00
_		1		2	1		9.30	0.00
6	5.40	0.90			_			
		ì		2	1		9.30	0.00
6	5.40	0.90						
		l		2	1		2.50	0.00
6	14.40	1.20						
				-	• •			
				DEAD	LOAD			
							•	
	STIF (COMPL	JTE					-
	LIVE	COMP	UTE					
TMIOL	LOAD:	JR		XM	XN			
		0						#
COLUI	MN LOAD:	J	C	KL	P	X	KX	
		. 0					٠.	
BEAM	LOAD:	: 1	1E	LI	KL	P	X	Pl
Xl	KL		P	Х	Pl	XI		
		1	1	6	2.30	0.90		
		1	1	6	2.30	0.90	-	
		1	1	6	2.30	0.90		
		1	1	6	4.80	1.20		
					· · · .			
	EART	COMP	UTE					:
	COME	BI COM	1PUTE					
			-				1	
				COMB	INATION A	ND REIN	FORCEMENT	r
							1,11	
	Concrete	COLUI	MN	1(SECT	TON TYPE=	I, ANG=	0, Lx= 2.0	0, Ly=
2.00)							; F	.*:: 2
	ection prop	erty: 1	B= 500,	H= 240				
	• •	•	•					
NO	O 6 A	.s=	0.	M=	6.00	V= 9.2	3	: NO
					N= -9.23			
		G=						
			:	٠.	:		13.41	fr:
	Concrete (COLU	ΜN		ION TYPE=			
2.00)	20,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,					.,		-, -,
2.00)								

5.40

6

0.90

```
Section property: B= 500, H= 250
                                           60.32
                                                         NO
                               0.00 N=
                          M=
           As=
                   0.
   NO 12
                        0.00 N= -60.32
                   M≔
           0.
12
    As=
           GG=
                 312.
                       3( SECTION TYPE= 1, ANG= 0, Lx= 2.00, Ly=
     Concrete COLUMN
2.00)
    Section property: B= 500, H= 250
                                                         NO
                                           83.75
                                0.00 N=
                         M=
                   €.
    NO 12
           As=
                        0.00 N= -83.75
                   M=
            0.
    As=
12
           GG=312.
     Concrete COLUMN 4( SECTION TYPE= 1, ANG= 0, Lx= 2.00, Ly=
2.00)
    Section property: B= 500, H= 240
                                                         NO
                                           25.75
                         M=
                                0.00 N=
                  0.
            As=
    NO 8
                        0.01 N= -25.75
           0.
                  M=
8
    As=
            GG=300.
      Concrete COLUMN 5( SECTION TYPE= 1, ANG= 0, Lx= 2.00, Ly=
                          A second second
2.00)
     Section property: B= 500, H= 240
                                                          NO
                       M= 0.00 N=
                                            11.64
                  Ò.
            As=
    NO 2
                       -0.01 N= -11.64
           0. M=
            GG= 300.
 1.5
```

GG= 300.

Concrete BEAM 1(SECTION TYPE= 1 ANG= 0, L= 3.00)

Section property: B= 250, H= 600

0.01 N= -11.64

Concrete COLUMN 6(SECTION TYPE= 1, ANG= 0, Lx= 2.00, Ly=

M=0.00 N=

NO

11.64

2.00)

NO 2

2

1.13

Section property: B= 500, H= 240

0.

M=

As=

0.

	BOTTO)M			٠				
SEC	TION	1	2	3		4	5	6	7
8	9	10	11	12	13	3			
	M=	0.00	-4.09	-7.32	-9.51	-10.50	-10.20	-8.59	-5.67
-1.72	0.00	0.00	0.00	0.00					
As((1)≃	375.	23.	42.	55.	60.	58.	49.	32.
10.	· 0.	0.	0.	375.				-	
As((2)=	375.	0.	0.	0.	0.	0.	0.	. 0.
0.	0.	0.	0.	375.		-	-	*: *	
	TOP								
SEC	TION	1	2	3		4	5	6	7
8	9	10	11	12	13	3			
	M=	0.00	0.00	0.00	0	00.	0.00	0.00	0.00
1.02	5.00	10.47	16.98	24.41	33.69	9			
As((1)=	375.	0.	0.	0.	0.	0.	0.	6.
29.	60.	98.	141.	375.					
As((2)=	375.	0.	0.	0.	0.	0.	. 0.	0.
0.	0.	0.	0.	375.					
VI=	= 16.8	8 NO	1 Vr	= 39.40	NO	3 .	Asv/s= (0.00	As(3)=
375.	Un	naxb= 0.0	02	Umaxt=	0.002				
375.									
375.	Concr	ete BEAM	2	e (SECTIO		E= 1 A	NG= 0, 1	L= 5,40)	
375.	Concr		2	e (SECTIO		:≓ 1 A	NG= 0, 1	.= 5.40)	·
375.	Concr	ete BEAM property:	2	e (SECTIO		E≓ 1 A		.= 5.40) .⊹	
	Concr Section p	ete BEAM property:	2 B= 250, H 2	e(SECTIO) = 600	N TYPE	4	.NG= 0, I		7
	Concr Section I	ete BEAM property: DM	2 B= 250, H 2	e(SECTIO) = 600	N TYPE	4		23-2	
SEC	Concr Section I BOTTO	ete BEAM property: DM 1	2 B= 250, H 2 11	2(SECTION = 600 3 12	N TYPE	4		6 6	
SEC 8	Concr Section p BOTTO TION 9 M= -9.69	ete BEAM property: DM 1 10 0.00	2 B= 250, H 2 11 0.00	2 (SECTIO) = 600 3 12 -5.31 0.00	N TYPE 1: -18.61	4 3 -27.68	5 -32.53	6 -33.16	7 -29.56
SEC 8 -21.74 Asi	Concr Section p BOTTO TION 9 M= -9.69	ete BEAM property: DM 1 10 0.00 0 0.00	2 B= 250, H 2 11 0.00 0.00	3 12 -5.31 0.00	N TYPE 1: -18.61 107.	4 3 -27.68 160.	5 -32.53 189.	6 -33.16 192.	7 -29.56 171.
SEC 8 -21.74 As(125.	Concr Section p BOTTO TION 9 M= -9.69 (1)=	ete BEAM property: DM 1 10 0.00 0.00 375.	2 B= 250, H 2 11 0.00 0.00 0.	2 (SECTIO) = 600 3 12 -5.31 0.00 30. 375.	N TYPE 1: -18.61 107.	4 3 -27.68 160.	5 -32.53 189.	6 -33.16 192.	7 -29.56 171.
SEC 8 -21.74 As(125. As(Concr Section p BOTTO TION 9 M= -9.69 (1)= 56.	ete BEAM property: DM	2 B= 250, H 2 11 0.00 0.00 0.	2 (SECTION = 600 3 12 -5.31 0.000 30. 375. 0.	N TYPE 1: -18.61 107. 0.	4 3 -27.68 160.	5 -32.53 189.	6 -33.16 192.	7 -29.56 171.
SEC 8 -21.74 As(125. As(Concr Section p BOTTO TION 9 M= -9.69 (1)= 56.	ete BEAM property: DM 1 10 0.00 0.00 375.	2 B= 250, H 2 11 0.00 0.00 0.	2 (SECTION = 600 3 12 -5.31 0.000 30. 375. 0.	N TYPE 1: -18.61 107. 0.	4 3 -27.68 160.	5 -32.53 189.	6 -33.16 192.	7 -29.56 171.
SEC 8 -21.74 As 125. As 0.	Concr Section BOTTO TION 9 M= -9.69 (1)= 56. (2)= 0. TOP	ete BEAM property: DM 1 10 0.00 0 0.00 375. 0.	2 B= 250, H 2 11 0.00 0.00 0. 0.	3 12 -5.31 0.00 30. 375. 0. 375.	1: -18.61 107. 0.	4 3 -27.68 160. 0.	5 -32.53 189.	6 -33.16 192. 0.	7 -29.56 171.
SEC 8 -21.74 As 125. As 0.	Concr Section BOTTO TION 9 M= -9.69 (1)= 56. (2)= 0. TOP	ete BEAM property: DM	2 B= 250, H 2 11 0.00 0.00 0. 0.	3 12 -5.31 0.00 30. 375. 0. 375.	1: -18.61 107. 0.	4 3 -27.68 160. 0.	5 -32.53 189.	6 -33.16 192. 0.	7 -29.56 171. 0.
SEC 8 -21.74 As(125. As(0.	Concr Section p BOTTO TION 9 M= -9.69 (1)= 56. (2)= 0. TOP	ete BEAM property: DM	2 B= 250, H 2 11 0.00 0. 0. 0.	2 (SECTION = 600 3 12 -5.31 0.00 30. 375. 0. 375. 3 12	1: -18.61 107. 0.	4 3 -27.68 160. 0.	5 -32.53 189. 6.	6 -33.16 192. 0.	7 -29.56 171. 0.
SEC 8 -21.74 As(125. As(0.	Concr Section p BOTTO TION 9 M= -9.69 (1)= 56. (2)= 0. TOP	ete BEAM property: DM	2 B= 250, H 2 11 0.00 0. 0. 0.	2 (SECTION = 600 3 12 -5.31 0.00 30. 375. 0. 375. 3 12	1: -18.61 107. 0.	4 3 -27.68 160. 0.	5 -32.53 189. 6.	6 -33.16 192. 0.	7 -29.56 171. 0.
SEC 8 -21.74 As 125. As 0.	Concr Section I BOTTO TION 9 M= -9.69 (1)= 56. (2)= 0. TOP TION 9	ete BEAM property: DM	2 B= 250, H 2 11 0.00 0. 0. 0. 0. 2 11 12.05	2 (SECTIO) = 600 3 12 -5.31 0 0.00 30. 375. 0. 375.	1: -18.61 107. 0.	4 3 -27.68 160. 0.	5 -32.53 189. 6.	6 -33.16 192. 0.	7 -29.56 171. 0.
SEC 8 -21.74 As 125. As 0. SEC 8	Concr Section BOTTO TION 9 M= -9.69 (1)= 56. (2)= 0. TOP TION 9 M= 0.00	ete BEAM property: DM	2 B= 250, H 2 11 0.00 0. 0. 0. 0. 2 11 12.05 12.22	3 12 -5.31 0.00 30. 375. 0. 375. 3 12 0.00 30.18	1: -18.61 107. 0.	4 3 -27.68 160. 0. 4 3 9.00 2	5 -32.53 189. 0.	6 -33.16 192. 0. 6	7 -29.56 171. 0.

```
0. 0. 0. 0. 0.
         375. 0. 0. 0.
  As(2)=
                         375.
0. 0.
       48.55 NO 1 Vr= 56.87 NO 3 Asv/s= 0.00 As(3)=
  Vi≂
                      Umaxt= 0.002
       Umaxb= 0.002
375.
                       3(SECTION TYPE= 1 ANG= \theta, L= 5.10)
Concrete BEAM
    Section property: B= 250, H= 600
     воттом
                                                     6
                                                             7
                                  4
                                             5
                     2
                           3
 SECTION
            1
                           12
                                   13
                    11
            10
     9
                          0.00 -11.26 -24.93
                                                   -40.98
                                                          -43,34
                                           -34.84
M = 0.00
                   0.00
                           0.00
                    -15.34
            -27.85
-41.95 -36.78
                                                           253.
                                 65. 144.
                                                    239.
                                              202.
                          0.
                    0.
           375.
  As(1)=
                           375.
                    88.
       214.
              161.
244.
                                                             0.
                                 0. 0.
                                               0.
                                                      0.
                          0.
                    0.
           375.
  As(2)=
                          375.
                    0.
       Û.
     TOP
                                                             7
                                             5
                                                     6
                                    4
                            3
                    2
 SECTION
            1
                                  13
                           12
    9
            10
                    11
                                            0.00
                                                    0.00
                                                            0.00
                                   0.00
                          11.08
     M=
                    29.50
            55.12
                                  0.02
            0.00
                     0.00
                           0.00
0.00 0.00
                                                             0.
                                               0.
                                                      0.
                                        0.
                          64.
                                 0.
           375.
                  171.
  As(1)=
                     0.
                          375.
              0.
      0.
                                                             0.
                                               0.
                                                      0.
                           0.
                                 0.
                                        0.
                    0.
           375.
  As(2)=
                   0.
                          375.
              0.
0.
    0.
   VI = 60.83 NO 1 Vr = 37.71 NO 3 Asv/s= 0.00 As(3)=
      Umaxb= 0.002
                        Umaxt= 0.002
375.
      Concrete BEAM 4( SECTION TYPE= 1 ANG= 0, L= 2.40 )
     Section property: B= 250, H= 400
      BOTTOM
                                                           7.
                                                      6
                         3
                                    4
                                              5
            1
                     2
  SECTION
                                    13
                           12
                     11
8 9
             10
                                -9.53 -11.72
                                             -13.16
                                                   -13.67
                   -3.50
                         -6.74
     M=
            0.00
                     -3.50
                            0.00
              -6.74
-11.72 -9.53
                                                            118.
                                              118.
                                                     123.
                                       105.
                                 85.
                   31.
                          60.
           250.
   As(1)=
                            250.
                      31.
 105. 85. 60.
                                                              0.
                                                0.
                                                       0.
                                  0.
                                        0.
                           0.
                    0.
 As(2) = 250.
```

0. 0. 0. 0. 250. TOP 2 3 4 5 6 7 11 12 13 0.00 0.00 0.00 0.00 0.00 0.00 SECTION 1 8 9 10 0.01 M= 0.00 0.00 0.01 0.00 0.00 00.0 0. 0. 0. 0. 0. As(1)= 0. 250. 250. and the second of the second 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. As(2)= 250. 0. 0. 0. 0. 250.

VJ= 18.00 NO 1 Vr= 18.00 NO 3 Asv/s= 0.00 As(3)= 250. Umaxb= 0.002 Umaxt= 0.002
PK1 COMPUTE END

in the section of t

Calculation Book of Main Lighting Substation

L-20 ~ L-27

****** PK11.EXE ****** DATA: 7/22/1997

	ALIZEDI II	r 13.1.1	r.										
	OUTPUT				c=1	. ,					-		
	- ·	7.1	:	****	_	, xin xi		_				25	2
	42	20	14	0	2	0	6	I	0	4	25	23	2
0	0												
	0.90	1.00											
	0											_	
	OUTPU	r da'	ΓA		·								
		i.	-		-						•		
					Jia	ao Diar	ı Zuo B	iao					
	(1)	0.00 -2	.00	(2)	0.00	0.00	(3	5.89	9 -2.00	(4)	5.89		
	(5)1	1.90 -2.	00	(6)1	1.90	0.00	(7)	0.00	3.00			5.00	
	(9)	5.10	3.00	(10)	5.10	5.00	(11)	0.00	8.00		0.00		
	(13)	5.89 8	3.00	(14)	5.89	0.00	(15)	0.00	13.00		0.00 1		
	(17)	2.40 13	.00	(18)	2.40 1		(19)				0.00 20		
		5.89 18		(22)	5.89 2	0.00	(23)	11.90 1	8.00	(24)1			
	• •	0.00 23	.00	(26)	0.00 2		(27)			(28)			
	(29) 11	1.79 23.	00	(30) 11	.79 25	.00	(31) 14	1.30 23	.00	(32) 14.			
	(33)			(34)	0.003	0.00	(35)	3.00	28.00	(36)	3.00 30	00.0	
	(37)			(38)	0.003	3.00	(39)	0.00	35.00	(40)	5.40 33	3.00	
	(41)			(42)	7.20 3	5.00			-				
	OUTPU	T DA	TA										
					7	hu Gua	ın Lian	Hao	a c o r o o				
	(1)		, ,	2)			3) 5			7	8 (5)	9 10
	(1)	1 2		2) 7) l		_					•	0) 19	
	(6)	11 13	•				25		. (-/. (14)	•	•	29	
	,	21 22		12) 23		•	35		-	38 39	(20)		41
	(16)	31 32	(17) 33	34	(18)	, ,,	טט	(17)	JG J)	(20)		••

----- Liang Guan Lian Hao -----

```
2 4 (2) 4 6 (3) 8 10 (4) 12 14
                                                             (5) 16 18
 (1)
                (7) 22 24 (8) 26 28 (9) 28 30
  (6) 20 22
                                                               (10) 30 32
                (12) 36 37 (13) 39 41 (14) 41 42
 (11) 34 36
 OUTPUT DATA
                     ----- Zhi Zuo Yue Shu Xin Xi ------
                                        5111
                                              (4) 7111 (5)
                 (2)
                         3111
                                (3)
 (1)
          1111
                              (8) 15111 (9) 17111 (10)
                 (7) 13111
                                                                      19111
 (6)
         11111
                (12)
                       23111
                               (13) 25111
                                              (14) 27111 (15)
 (11)
        21111
                                      35111
                                              (19)
                                                     38111
                                                             (20)
                                                                    40111
                       33111
                               (18)
 (16)
        31111
                (17)
 OUTPUT DATA
                 ----- Shang Xia Zhu Jian Dian Pian Xin ------
 (1) 0.00 (2) 0.00 (3) 0.00 (4) 0.00 (5) 0.00 (6) 0.00 (7) 0.00
 (8)0.00 (9)0.00 (10)0.00 (11)0.00 (12)0.00 (13)0.00 (14)0.00 : .:
 (15) 0.00 (16) 0.00 (17) 0.00 (18) 0.00 (19) 0.00 (20) 0.00 (21) 0.00
  (22) \ 0.00 \quad (23) \ 0.00 \quad (24) \ 0.00 \quad (25) \ 0.00 \quad (26) \ 0.00 \quad (27) \ 0.00 \quad (28) \ 0.00 
 (29)\ 0.00 \quad (30)\ 0.00 \quad (31)\ 0.00 \quad (32)\ 0.00 \quad (33)\ 0.00 \quad (34)\ 0.00 \quad (35)\ 0.00
  (36) \, 0.00 \quad (37) \, 0.00 \quad (38) \, 0.00 \quad (39) \, 0.00 \quad (40) \, 0.00 \quad (41) \, 0.00 \quad (42) \, 0.00 
 OUTPUT DATA
                 ----- Biao Zhun Jie Mian Xin Xi
(1)
         1,
              250,
                    600,
(2)
              250,
                    400,
                          6
         1,
             350,
                    450,
(3)
                          6
         1,
(4)
              500,
                    240,
                          6
         1,
( 5)
              450,
                    450,
                          6
         1,
                    650,
                          6
( 6)
              250,
         1,
                                                        OUTPUT DATA
                ---- Zhu Ji Suan Chang Du(After consider steel) -----
 (1) 1.00 (2) 1.00 (3) 1.00 (4) 1.00 (5) 1.00 (6) 1.00 (7) 1.00
 (8) 1.00 (9) 1.00 (10) 1.00 (11) 1.00 (12) 1.00 (13) 1.00 (14) 1.00 :
 (15) 1.00 (16) 1.00 (17) 1.00 (18) 1.00 (19) 1.00 (20) 1.00
```

OUTPUT DATA

	••	ZI	nu Bu	Zhi	Hao')Jie M	lian H	ao,Jia	o Ji	e,Jia	o Du -				
(1)	3	3	0		2)	4	3	0	(3)	4	3	0		
(4)	4	3		-	5)	4	3	0	(3	3	0		
(7)	4	3	0	-	8)	4	3		ì	•	4	3	0		
(10)	3	3		(11	-	3	3	0	(12		4	3	0		
(13)	3	3		(14		5	3	0	(13		5	3	0		
(16)	4	3		(17	-	4	3		(18		4	3	0		
-	4	3		(20		4	3	0		-,	-				
(19)	7		v	(20	,		•	·							
	•	L	iang I	3u Zl	h i(H a	ao)Jie	Mian	Hao,	Jiao	Jie,J	iao Du)			**
(1)	1	0	0		2)	1	0	0		3)	1	0	0		
(4)	1	0	0	-	5)	2	0	0	(6)	1	0	0		
(7)	1	0	0	Ì		1	0	0	(9)	1	. 0	0		
(10)	2	0		(11		ì	0	0	(1)		1	0	0		
(13)	6	0	0			6	0	0						-	
(/	IIQ	Q=		19:											
	ST	IF C	OMP	UTE											
	DE	ΑĐ	COM	PUT	E										
JOINT	LOAD) ;	JR			XM			XN						
			0												
•						-									
COLUI	MN LOA								_			v		νν	
		AD:		JC		KL			P			X	٠.	кх	
		AD:	0	JC		KL			P			x	٠.	KX	
BEAM	LO		0	JC NE		KI. Li	,	KL			P	х	· .		P1
BEAM X1		AD:	0					KL P			P X1	x	· .		Pl
BEAM X1	LO/ Ki	AD:	0	NE		LI				I			X 3.80		P1 0.00
X1	KI	AD:	1	NE		LI X			1	I					0.00
		AD:	0	NE		LI X			1	ŀ					
X1 6	KI 18.00	AD:	1 1.50	NE		LI X 2			1	1			3.80		0.00
X1 6	KI	AD:	1 1.50	NE		LI X 2			'1	i i			3.80		0.00
X1 6 6	18.00 18.00	AD:	1 1.50 1 1.50	NE		LI X 2			'1	ŀ			3.80 3.80		0.00
X1 6 6	KI 18.00	AD:	1 1.50 1 1.50	NE P		LI X 2 2			• •1	ŀ	ХI		3.80 3.80		0.00
X1 6 6	18.00 18.00	AD:	1 1.50 1 1.50 1	NE P		LI X 2 2 2			• •1	1	ХI		3.80 3.80 3.80		0.00 0.00 0.00
X1 6 6	18.00 18.00 21.60	AD:	1 1.50 1 1.50 1 1.80	NE P		LI X 2 2 2		P	• •1	i 1	ХI		3.80 3.80 3.80		0.00 0.00 0.00
X1 6 6 6	18.00 18.00 21.60	AD:	1 1.50 1 1.50 1 1.80	NE P		LI X 2 2 2 3		P	?1 	i 1	X1)	3.80 3.80 3.80		0.00 0.00 0.00
X1 6 6 6	18.00 18.00 21.60	AD:	1 1.50 1 1.50 1 1.80 1	NE P		LI X 2 2 2 3	6	P	?1 	1	X1)	3.80 3.80 3.80 3.80		0.00 0.00 0.00

6	21.60	1.80								
		1	-	2	•	- : 1	-	3.80		0.00
6	21.60	1.80								,
		1		2		1		3.80		0.00
6	21.60	1.80							÷	:
		1		2	-	1		3.80	÷	0.00
6	21.60	1.80						-		
		1		2		1		2.50		0.00
6	14.40	1.20								7.
		1		2		1		3.80		0.00
6	18.00	1.50					1111	ż		
		1		3		4		43.30	: .	1.80
1	3.80	0.00			•					-
					6	10.80	0.90			i
		1		3		1		7.80		0.00
6	7.20	1.20								
					4	39.90	2.70			•
		1		3		4		81.30		1.80
1	3.80	0.00						Ē		
					6	10.80	0.90			
				}	DEAD	LOAD				
	STIF	OMPUT	E.						,	
		COMPU1							· •	
JOINT		JR		XM	1	XN				
301111	DOME.	0		****	•	7				
		Ū								
COLH	MN LOAD:	JC		K	L	P	х		кx	-
COBC	initi Eorio.	0		•		•	,		11.71	
		·						•		
BEAM	LOAD:	NE		LI		KL	P		x	PI
XI	KL	P			x	Pl	XI			• •
		1	i		6	2.10	1.50			
		1	1		6	2.10	1.50			
		1	1		6	2.50	1.80		:	
		1	•	2	-	6		1.30	,	1.80
6	1.10	1.50		-		•				
~	••••	1	1		6	1.70	1.20			:
		· · 1	1		6	2.50	1.80		• .	•
		-	-		-					

		1	1	6	2.50	1.80		
		1	1	6	2.50	1.80		
		1	1	: 6	2.50	1.80		
		1	1	6	1.70	1.20		
		1	1	6	2.10	1.50		
		1		2	4		1.60	1.80
6	1.30	0.90		:				
		1		3	6		0.80	1.20
4	3.50	2.70						
				1	0.50	0.00		
		1	-	2	. 4		3.10	1.80
6	1.30	0.90						

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. **COMBINATION AND REINFORCEMENT**

Concrete COLUMN 1(SECTION TYPE= 1, ANG= 0, Lx= 2.00, Ly= 2.00)

Section property: B= 350, H= 450

NO 12 As= 0. M= -0.01 N= 34.91 NO
6 As= 0. M= -0.03 N= -34.91

GG= 394.

Concrete COLUMN 2(SECTION TYPE= 1, ANG= 0, Lx= 2.00, Ly= 2.00)

Section property: B= 500, H= 240

NO 2 A_{S} = 0. M= 0.00 N= 132.09 NO 2 A_{S} = 0. M= 0.00 N= -132.09 GG= 300.

Concrete COLUMN 3(SECTION TYPE= 1, ANG= 0, Lx= 2.00, Ly= 2.00)

Section property: B= 500, H= 240

NO 12 As= 0. M= 0.01 N= 36.38 NO 8 As= 0. M= 0.03 N= -36.38 GG=300.

Concrete COLUMN 4(SECTION TYPE= 1, ANG= 0, Lx= 2.00, Ly= 2.00)

Section property: B= 500, H= 240

NO 2 As= 0. M= -0.02 N= 45.33 NO 2 As= 0. M= -0.04 N= -45.33 GG= 300.

Concrete COLUMN 5(SECTION TYPE= 1, ANG= 0, Lx= 2.00, Ly= 2.00)

Section property: B = 500, H = 240

NO 2 A_{S} = 0. M= 0.02 N= 45.33 NO 2 A_{S} = 0. M= 0.04 N= -45.33 G_{G} = 300.

Concrete COLUMN 6(SECTION TYPE= 1, ANG= 0, Lx= 2.00, Ly= 2.00)

Section property: B= 350, H= 450

NO 2 As= 0. M= -0.03 N= 53.09 NO 2 As= 0. M= -0.06 N= -53.09 GG= 394.

Concrete COLUMN 7(SECTION TYPE= 1, ANG= 0, Lx= 2.00, Ly= 2.00)

Section property: B= 500, H= 240

NO 2 As= 0. M= 0.03 N= 53.09 NO 2 As= 0. M= 0.06 N= -53.09 GG= 300.

Concrete COLUMN 8(SECTION TYPE= 1, ANG= 0, Lx= 2.00, Ly= 2.00)

Section property: B= 500, H= 240

NO 2 As= 0. M= 0.00 N= 11.64 NO 2 As= 0. M= -0.01 N= -11.64 GG= 300.

Concrete COLUMN 9(SECTION TYPE= 1, ANG= 0, Lx= 2.00, Ly= 2.00)

Section property: B= 500, H= 240

NO M= 0.00 N= 11.64 NO 2 As= 0. 0.01 N= -11.64 0. M= 2 As= GG= 300.

Concrete COLUMN 10(SECTION TYPE= 1, ANG= 0, Lx= 2.00, Ly= 2.00 }

Section property: B= 350, H= 450

NO 37,76 0. M= -0.01 N= NO 12 As= M = -0.03 N = -37.760. As= GG= 394.

Concrete COLUMN 11(SECTION TYPE= 1, ANG= 0, Lx= 2.00, Ly= 2.00)

Section property: B= 350, H= 450

NO M= 0.00 N= As= 0. NO 2 0.00 N= -144.96 2 0. M= As= GG= 394.

Concrete COLUMN 12(SECTION TYPE= 1, ANG= 0, Lx= 2.00, Ly= 2.00)

Section property: B= 500, H= 240

M= 0.02 N= 39.47 NO 0. NO 12 0.03 N= -39.47 M= As= 0. GG= 300.

Concrete COLUMN 13(SECTION TYPE= 1, ANG= 0, Lx= 2.00, Ly= 2.00) Section property: B= 350, H= 450

· NO $A_{S}=$ 0. M= -0.01 N=39.44 NO 6 $M = : -0.03 \times N = : -39.44 : \times$ 0. As=

GG≕ 394.

Concrete COLUMN 14(SECTION TYPE= 1, ANG= 0, Lx= 2.00, Ly= 2.00)

Section property: B= 450, H= 450

M= 0.00 N= 136.32 NO NO 12 As= 0. M = 0.01 N = -136.3212 As= 0. GG = 506.

Concrete COLUMN 15(SECTION TYPE= 1, ANG= 0, Lx= 2.00, Ly= 2.00)

Section property: B= 450, H= 450

NO M = 0.01 N = 66.03NO 12 As= 0. 0.02 N= -66.03 0. M= 12 As= GG= 506.

Concrete COLUMN 16(SECTION TYPE= 1, ANG= 0, Lx= 2.00, Ly= 2.00)

Section property: B= 500, H= 240

M= 0.00 N= 0.32 NO NO 8 As= 0. 0.00 N= -0.32 M= As= 0. GG= 300.

Concrete COLUMN 17(SECTION TYPE= 1, ANG= 0, Lx= 2.00, Ly= 2.00)

Section property: B= 500, H= 240

26. M = 0.01 N = -15.93NO NO 5 As= 0.02 N= 15.93 z. M= 5 As= 26. GG=300.

Concrete COLUMN 18(SECTION TYPE= 1, ANG= 0, Lx= 2.00, Ly= 2.00)

Section property: B= 500, H= 240

M = -0.01N= 110.01 NO As= 0. M = -0.02 N = -110.012 0. As=

```
GG= 300.
```

Concrete COLUMN 19(SECTION TYPE= 1, ANG= 0, Lx= 2.00, Ly= 2.00)

Section property: B= 500, H= 240

NO M = 0.01 N =24.55 As= 0. NO 6 0.01 N= -24.55 M= 6 As= GG= 300.

Concrete COLUMN 20(SECTION TYPE= 1, ANG= 0, Lx= 2.00, Ly= 2.00)

Section property: B= 500, H= 240

NO 183.85 0. M= 0.00 N= NO 2 As= M = -0.02 N = -183.852 As= GG= 300.

Concrete BEAM 1(SECTION TYPE= 1 ANG= 0, L= 5.89)

Section property: B= 250, H= 600

BOTTOM

2 3 4 11 12 13 6 7 5 **SECTION** 1 8 - 9 10 M= 0.00 -23.89 -44.78 -60.69 -69.95 -72.19 -67.40 -55.60 0.00 0.00 0.00 -36.77 -10.92 398. 326. 261. 357. 413. 427. As(1)= 375. 138. 214. 63. 0. 0. 375. 0. 0. 0. 0. 0. 0. 375. As(2)=0. 375. 0. 0. 0. TOP 7 6 5 2 3 SECTION 1 4 8 9 - 11 12 13 10 0.00 0.00 0.00 0.03 0.00 0.00 0.00 M= 104.88 27.86 62.46 0.00 0.00 0.000. 0. 0. 0. 0. 0. 375. 0. As(1)=631. 161. 368. 0. 0. 0. 0. 0. 0. 0. As(2)= 375. 0. 0. 0. Q. 631.

VI= 48.61 NO 1 Vr= 87.13 NO 3 Asv/s= 0.00 As(3)= 375. Umaxb= 0.003 Umaxt= 0.004

Concrete BEAM 2(SECTION TYPE= 1 ANG= 0, L= 6.00) Section property: B= 250, H= 600 BOTTOM 5 7 2 3 4 6 SECTION 1 12 13 9 10 11 -76.48 -14.10 -40.61 -59.84 -71.80 M= 0.00 0.00 0.00 0.00 -73.88 -64.02 -47.21 -25.18 352. 425. As(1)=375. 0. 0. 81. 236. 453. 375. 276. 145. 437. 377. 0. 0. 0. 0. 0. 0. As(2)=375. 375. 0. 0. 0. O. TOP 7 2 5 6 3 4 **SECTION** 1 12 13 10 11 9 0.00 0.00 0.00 M=104.88 61.00 25.38 0.00 0.00 0.03 0.00 0.00 0.00 147. 0. 0. 0. 0. As(1)=631. 359. 0. 0. 375. 0. 0. 0. 0. 0. 0. 0. 0. As(2)=631. 0. 0. 0. 375. 0. 88.31 NO 1 Vr = 50.41NO 3 Asv/s= 0.00 As(3)== VI= Umaxt= 0.004 375. Umaxb= 0.003 3(SECTION TYPE= 1 ANG= 0, L= 5.10) Concrete BEAM Section property: B= 250, H= 600 BOTTOM **SECTION** 1 2 3 4 5 6 12 10 11 13 -47.78 -67.32 -82.27 -94.55 M= 0.00 -24.91 -91.48 -47.78 -24.91 0.00 -82.27 -67.32 As(1)= 375. 144. 279. 397. 489. 547. 566. 547. 144. 375. 489. 397. 279. As(2)=375. 0. 0. 0. 0. 0. 0. 0. 375. 0. 0. 0. 0. TOP 3 5 SECTION 2 4 6 1 - 12 13 10 11

```
0.00 0.00 0.00 0.00
                                                  0.00
    M= 0.04
               0.00
                      0.00
                            0.04
                 0.00
0.00 0.00 0.00
                                       0.
                                                   0.
                                 0.
                            0.
                      0.
                0.
         375.
 As(1)=
                     375.
                 0.
           0.
     0.
                                                   0.
                                       0.
                                             0.
                                 0.
                      0.
                            0.
                0.
         375.
 As(2)=
                     375.
           0.
                0.
     0.
      60.17 NO 1 Vr= 60.17 NO 3 Asv/s= 0.00 As(3)=
 VI=
       375.
    Concrete BEAM 4( SECTION TYPE= 1 ANG= 0, L= 5.89)
 Section property: B= 250, H= 600
    BOTTOM
                2 3 ...4 .. 5 .. 6
                                                7
 SECTION
         1
          10 11 12
                              13
 M= 0.00 -33.85 -64.71 -90.58 -109.65 -121.12 -124.94 -121.12
-109.65 -90.58 -64.71 -33.85 0.00
                                                  735.
                           541. 662.
                                      735.
                                            760.
                     381.
  As(1)= 375.
               196.
                       375.
662. 541. 381.
                 196.
                                                   0.
                                             0.
                          0. 0. 0.
                0.
                      0.
         375.
 As(2)=
                      375.
          0.
                 0.
0.
    0.
    TOP
                                                    7
                     - 3
                                      5
                            4
                2
SECTION
        1
                      12
                             13
                                  . .
    9 :
           10
                 11
                             0.00 0.00
                                           0.00
                                                  0.00
                 0.00
                       0.00
           0.07
     M=
0.00 0.00
                     0.00
                            0.07
                 0.00
                                                    0.
                                        0.
                                              0.
                            0.
                                  0.
                      0.
                0.
 As(1)=
         375.
                      375.
                 0.
     0.
           0.
                                        0.
                                              0.
                            0.
                                  0.
                      0.
         375.
                0.
 As(2)=
           0.
                0.
                      375.
0. 0.
VI= 70.82 NO 1 Vr= 70.82 NO 3 Asv/s= 0.00 As(3)=
375. Umaxb= 0.005 Umaxt= 0.002
                               . . .
                    The state of the state of the state of
Concrete BEAM 5( SECTION TYPE= 1 ANG= 0, L= 2.40 )
    Section property: B= 250, H= 400
                                  ٠.
     BOTTOM -
               2 3 4 5
11 12 13
                                             6
SECTION
          1
8 9
         10
M= 0.00 -2.99 -5.74 -8.10 -9.95 -11.16 -11.59 -11.16
```

-9.95 -8.10 -5.74 -2.99 0.00100. 27. 51. 72. 89. 100. 104. As(1)= 250. 250. 89. 72. 51. 27. 0. 0. 0. 0. 250. 0. 0. 0. As(2)=250. 0. 0. 0. 0. TOP 7 3 . 4 5 6 2 SECTION 1 13 8 9 10 12 11 0.00 0.00 0.00 0.00 0.00 0.01 0.00 M= 0.00 0.00 0.00 0.00 0.00 0.01 0. 0. 0. 0. 0. Û. 250. 0. As(1)= 0. 250. 0. 0. 0. 0. 0. 0. 0. 0. 250. 0. 0. As(2)=250. 0. 0. 0. 0. $V_1 = 15.40$ NO 1 $V_1 = 15.40$ NO 3 Asv/s= 0.00 As(3)= 250. Umaxb= 0.002 Umaxt= 0.002 Concrete BEAM 6(SECTION TYPE= 1 ANG= 0, L= 5.89) Section property: B= 250, H= 600 BOTTOM 2 3 4 11 12 13 6 . SECTION 1 5 8 9 10 M= 0.00 -26.04 -49.08 -67.15 -78.31 -76.23 -62.88 -81.37 0.00 0.00 -41.34 -11.69 0.00 484. 452. 370. 375. 151. 287. 396. 465. As(1)=241. 67. 0. 0. 375. As(2)= 375. 0. 0. 0. 0. Ð. 0. 0. 0. 0. 0. 0. 375. TOP 4 3 7 SECTION 1 2 5 . - 11 13 8 9 10 12 0.00 M= 0.04 0.00 0.00 0.00 0.00 0.0031.88 70.18 116.97 0.00 0. 375. 0. 0. 0. 0. 0. 0. As(1)= 185. 709. 0. 415. 0. 0. 0. 0. 0. 0. As(2)= 375. 0. 0. 0. 709. $V_1 = 52.77$ NO 1 $V_1 = 95.72$ NO 3 Asv/s= 0.00 As(3)=

375. Umaxb= 0.003 Umaxt= 0.005

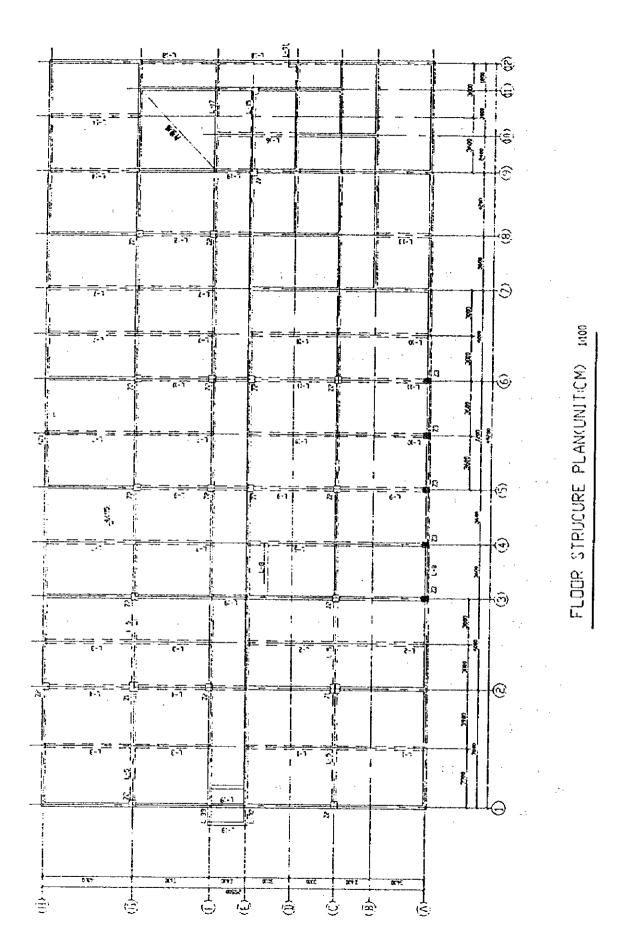
Concrete BEAM 7(SECTION TYPE= 1 ANG= 0, L= 6.00) Section property: B= 250, H= 600 BOTTOM 7 6 5 3 4 . 2 SECTION i 13 12 11 9 10 -86.38 -81.35 0.00 -15.38 -45.82 -67.83 0.00 M = 0.000.00 -82.91 -71.02 -51.88 -27.51 515. 267. 400. 483. 0. 88. 0. As(1)=375. 375. 304. 159. 420. 0. 0. 0. 0. . 0. 0. 0. As(2)=375. 0. 0. 375. 0. 0. TOP 7 5 6 2 3 4 SECTION 1 11 12 13 10 0.00 0.00 0.0029.03 0.00 68.52 116.98 M= 0.00 0.04 0.00 0.00 0.00 0. 0. 0. 0. 0. 404. 168. 709. As(1)=375. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. As(2)=709. 375. 0. 0. 0. 0. NO 1 V_{r} = 54.86 NO 3 Asv/s= 0.00 As(3)= VI= 97.12 375. Concrete BEAM 8(SECTION TYPE= 1 ANG= 0, L= 5.89) Section property: B= 250, H= 600 BOTTOM 7 , 4 5 6 3 2 SECTION 11 12 13 9 10 0.00 -26.80 -50.60 -69.42 -81.34 -80.76 -68.18 -85.15 M= -47.39 -18.50 0.00 0.00 0.00 402. 480. 507. 483. 296. 410. 155. 375. As(1)=277. 107. 3.7 O. 3.7 O. 375. 375. 0. 0. 0. . 0. 0. 0. 0. 375. As(2)= 0. 375. 0. 0. 0. TOP 1 6 7 4 . 2 3 SECTION . . 13 8 9 10 11 12

	M≍	0.04	0.00	0.00	0.0	00	0.00	- 0.00	0.00
0.00	0.00	0.00	23.15	60.58	106.86				
As	(1)=	375.	0.	0.	0.	0.	0.	. 0.	0.
0.	0.	134.	356.	644.					
As	(2)=	375.	0.	0.	0.	0.	0.	0.	0.
0.	0.	0.	0.	644.					-
VI:						3	\sv/s=	0.00	As(3)=
375.	Un	naxb= 0.0	003	Umaxt=	0.004				: -
	_		_						•
				=	N TYPE=	= 1 A	NG= 0,	L= 5.89)	
		property:	B= 250, H	= 600		•		:	
000	BOTTO		•	•	•		,	•	7
		1	2	3	12	ł	5	6	7
8	9	10	11	12	13	2724	55.25	66.16	66 77
CO 10	M=	0.00	0.00			-37.34	-33,33	-65.16	-66.77
		3 -23.88				217	325.	384.	394.
	(1)=	375. 138.	0. 0.	0. 375.	04.	217.	323.	304.	<i>3</i> 74.
	265.			0.	0.	0.	0.	0.	0.
	(2)≂ 0.	_	0. 0.		U.	v.	v.	v.	υ.
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0.00 -1.03 0.99 -1.87 -2.12 -1.79 0. 0. 0. 9. 0. 0. 250. 0. As(1)= 250. · 16. 9. 17. 19. 0. 0. O. 0. 0. 0. 250. 0. As(2)=0. 250. 0. 0. 0. TOP 4 6 7 5 3 2 SECTION 1 11 12 13 10 4.38 21.06 15.97 11.41 7.50 26.54 32.96 M= 0.00 0.00 0.00 0.01 2.12 0.75 144. 102. 67. 39. 19. 191. 242. 303. As(1)=0. 250. 0. 0. 0. 0. 0. 0. 0. 0. 0. 303. As(2)=0. 250. 0. 0. 0. VI= 31.20 NO 1 $V_{I}=$ 4.15 NO 3 Asv/s= 0.00 As(3)=250. Umaxb= 0.002 Umaxt= 0.003 Concrete BEAM II(SECTION TYPE= 1 ANG= 0, L= 3.00) Section property: B= 250, H= 600 BOTTOM 7 5 6 4 2 3 SECTION 1 12 13 8 9 10 11 0.00 0.00 0.00 0.00 0.00 M= -0.02 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0. 0. 0. 0. 0. 375. As(1)=0. . 0. 375. 0. 0. 0. 0. 0. 0. 0. Û. 0. 375. As(2)=0. 375. 0. 0. 0. TOP 6 7 5 3 2 4 **SECTION** 1 12 13 8 9 · 11 10 23.28 31.26 11.30 16.70 0.00 3.17 6.87 M= 77.02 90.86 105.21 63.91 40.81 51.77 238. 96. 134. 181. 39. 65. 18. 375. As(1)=543. 633. 457. 303. 376. 0. 0. 0. 0. 0. 0. 0. As(2)= 375. 0. 0. 0. 633. Û. VI= -15.93 NO 3 Vr= 63.61 NO 11 Asv/s= 0.00 As(3)=

375. 12(SECTION TYPE= 1 ANG= 0, L= 1.80) Concrete BEAM Section property: B= 250, H= 600 **BOTTOM** 7 6 -3 4 5 **SECTION** 2 12 13 9 11 10 0.00 0.00 0.00 0.00 0.00 0.00 M= 0.00 0.00 0.00 0.00 0.00 0.00 0. 0. 0. 0. 0. 375. 0. 0. As(1)=0. 375. 0. 0. 0. 0. 0. 0. 375. 0. 0. 0. As(2)=375. 0. 0. 0. 0. TOP 7 5 6 4 2 3 **SECTION** 1 - 10 11 12 13 9 52.62 94.49 72.90 62.57 83.56 105.62 M= 116.92 8.19 0.00 25.10 16.54 43.09 33.93 431. 368. 308. 251. 565. 497. 708. 636. As(1)=375. 197. 145. 95. 47. 0. 0. 0. 708. 0. 0. 0. As(2)=0. 0. 375. 0. 0. 0.00 As(3)=75.71 NO 1 Vr= 0.00NO 3 Asv/s= VI= Umaxb= 0.002 Umaxt= 0.005 375. 13(SECTION TYPE= 1 ANG= 0, L= 5.40) Concrete BEAM Section property: B= 250, H= 650 **BOTTOM** 5 **SECTION** 1 2 3 6 \mathbf{n}^{-1} 12 13 . . . 9 10 -17.67 -51.34 -54.09 -25.70 -0.01 -32.56 -43.94 -54.72 M= 0.00 0.00 0.00 0.000.00 290. . 136. 93. 173. 235. 275. 293. As(1)=406. 406. 0. 0. Û. 0. 0. 406. Û. 0. 0. 0. As(2)=0. 0. 0. 0. 406. 0. 0. TOP 7 2 3 4 SECTION 1 11 12 13 9 10

0.00 0.00 0.00 0.00 0.00 0.00 0.00 M= 182.48 96.11 138.02 22.31 57.40 0.00 0. 0. 0. 0. 0. O. As(1)= 406. 0. 1038. 525. 768. 308. 0. 0. 0. 0. 0. 0. 406. 0. As(2)=1038. 0. 0. 0. $A_{SV/S} = 0.00$ $A_{S}(3) =$ 38.22 NO 1 Vr= 111.60 NO 3 VI≔ Umaxb= 0.002 Umaxt= 0.006 406. Concrete BEAM 14(SECTION TYPE= 1 ANG= 0, L= 1.80) Section property: B= 250, H= 650 BOTTOM 7 5 6 4 2 3 SECTION 1 13 10 11 12 9 0.00 0.00 0.00 0.00 0.00 0.00 0.00 M= 0.00 0.00 0.00 0.00 0.00 0.00 0. 0. 0. 0. 0. 0. 0. As(1)=406. 0. 0. 406. 0. 0. 0. 0. 0. 0. 0. 0. 406. As(2)= 0. 0. 406. 0. 0. TOP 7 1 - 3 5 4 2 **SECTION** 13 - 11 12 10 95.55 147.96 130.14 112.66 202.78 184.33 166.04 M= 0.00 30.85 15.35 46.57 62.55 78.86 522. 427. 620. 722. 1165. 936. 827. 1049. As(1)=406. 81. 164. 337. 249. 0. 0. 0. 0. 0. 0. As(2)= 1165. 0. 406. 0. 0. 0. As(3)= 0.00 VI= 123.41 NO I Vr= 0.00 NO 9 Asv/s= Umaxb= 0.002 Umaxt= 0.007 406. PK1 COMPUTE END



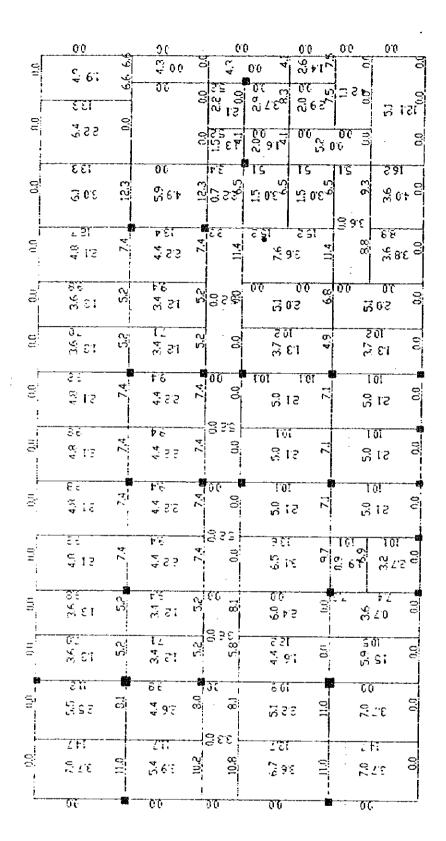
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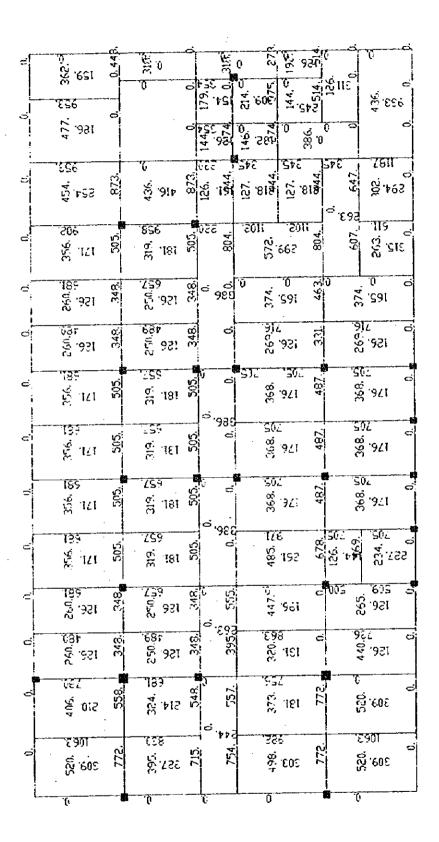
Nacional Services



1st FLBDR CAST-IN-SITU RDARD BENDING MOMENT DRAWING CUNTERN-MA

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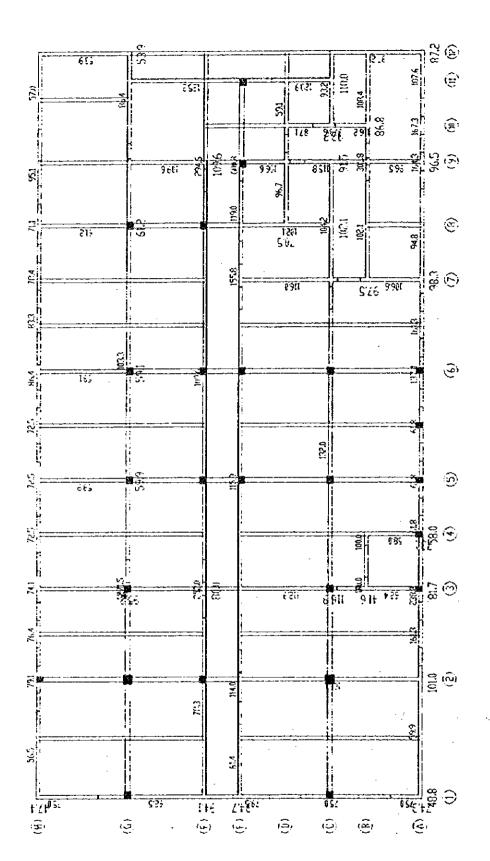
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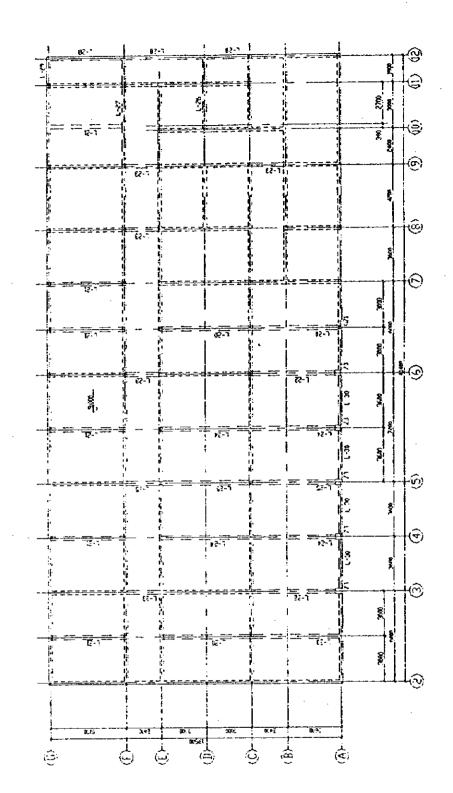
15t FLOOR CAST-IN-SITU BOARD CALCULATION REINFORCEMENT (UNIT:mm /A)STEEL GRADE: 1,11; CONCRETE:C25)



WALL AXIAL FURGE DESIGN VALUE DRAWING CKN/M)

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EARTHUAKE SHEAR FÜRCE DESIGN VALUT DRAVING (KN)



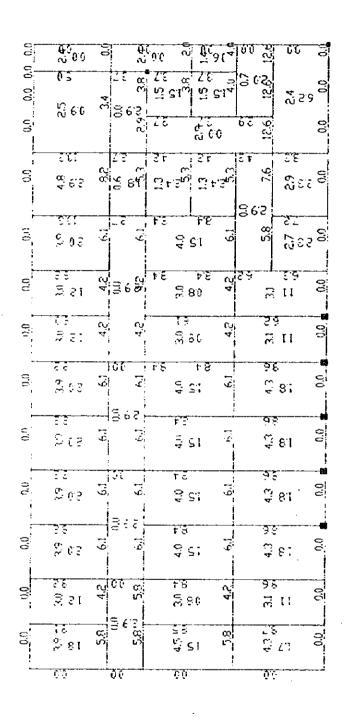
SECOND STRUCURE PLANCONITIONS and

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2st floor load (live load



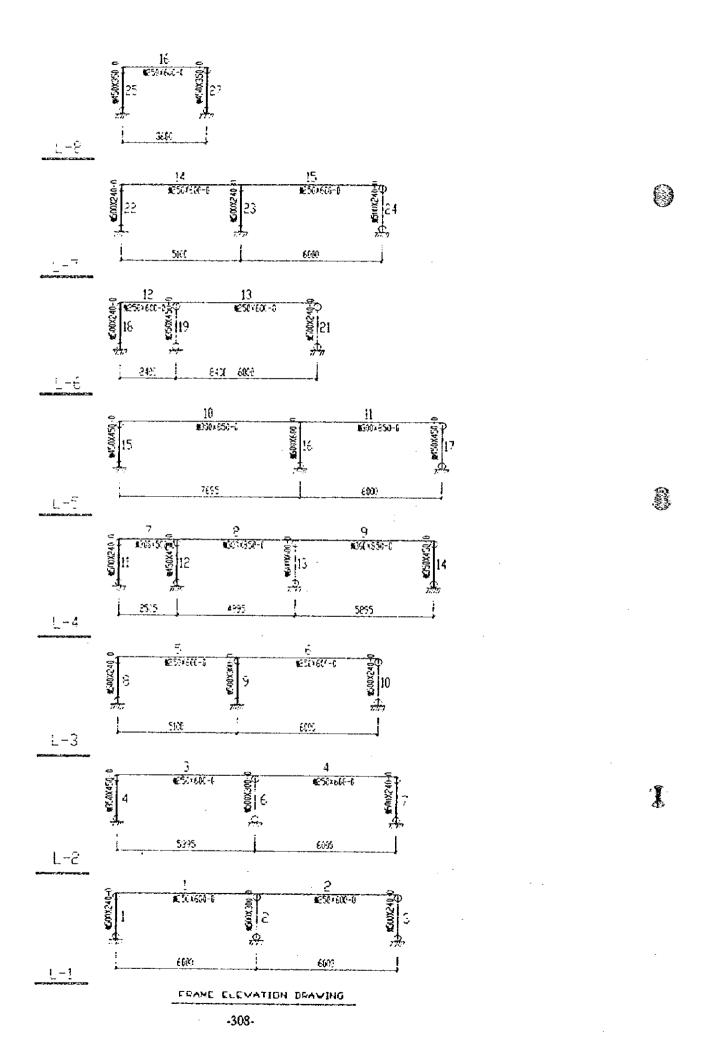
25t FLDUR CAST-IN-3ITU BOARD BENDING MOMENT DRAWING (UNITKN-M)

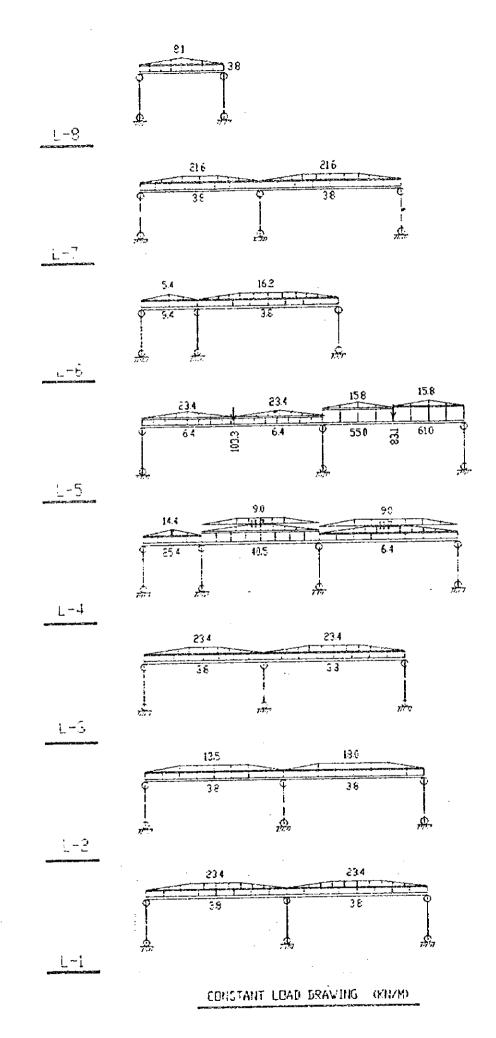
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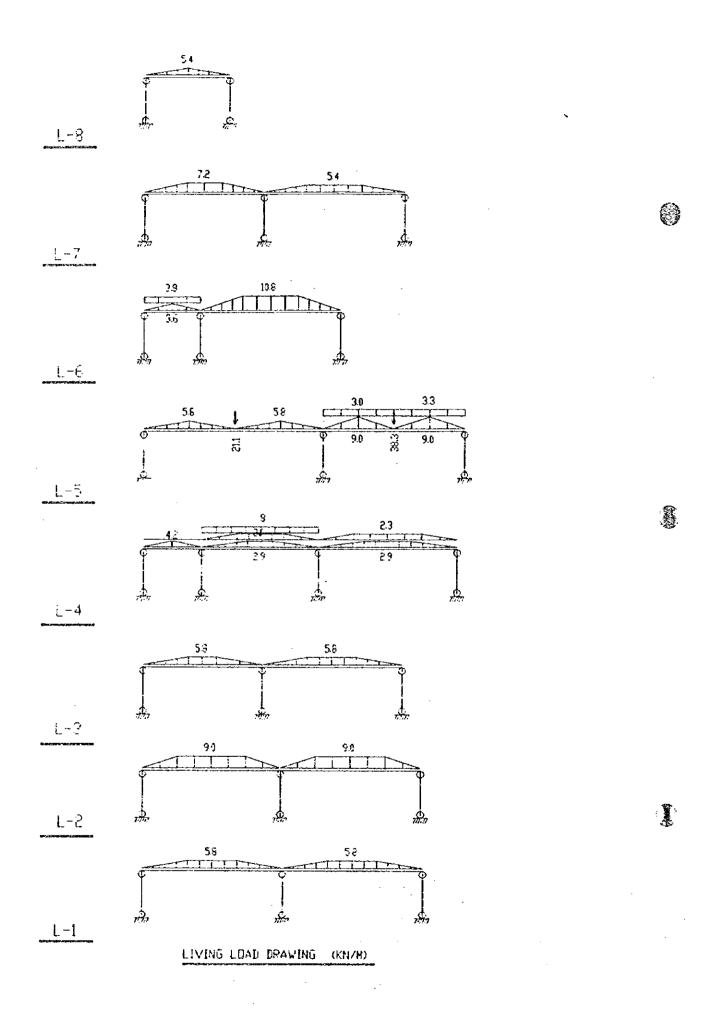
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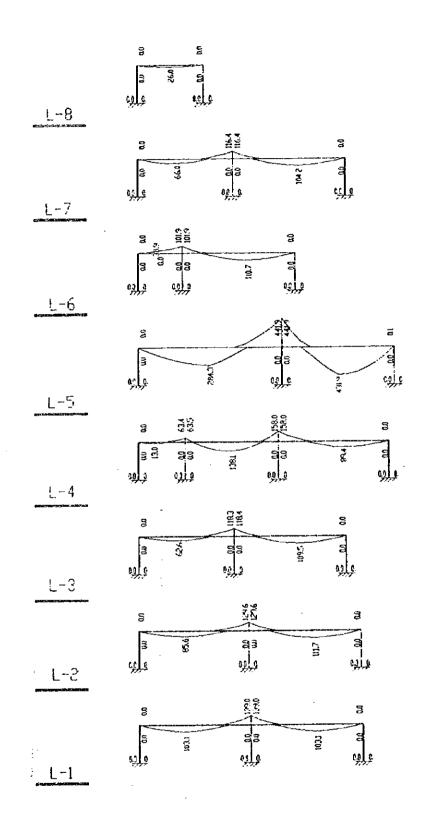
CALCULATION REINFORCEMENT
CALCULATION REINFORCEMENT
CONTINE ANSTEEL GRADE: 1,11: CONCPETE:COS





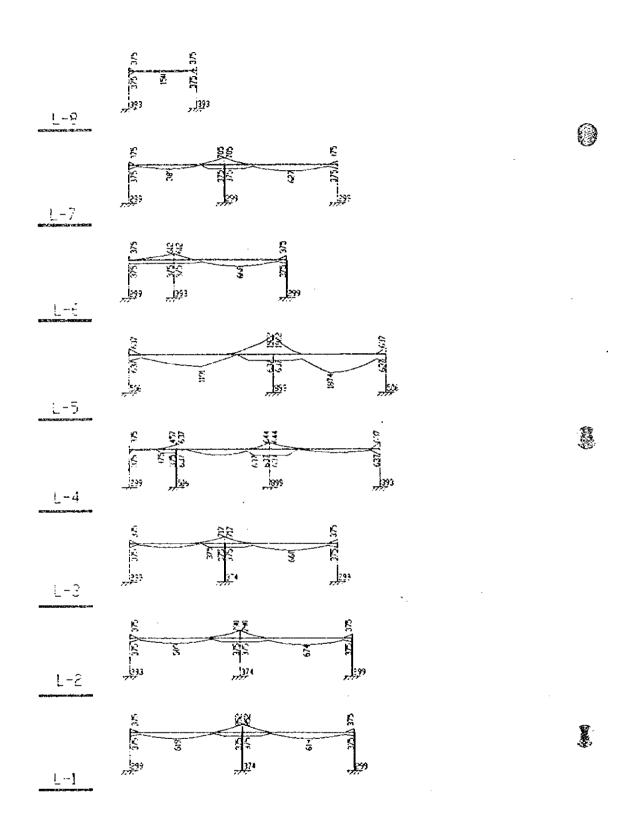
Design in



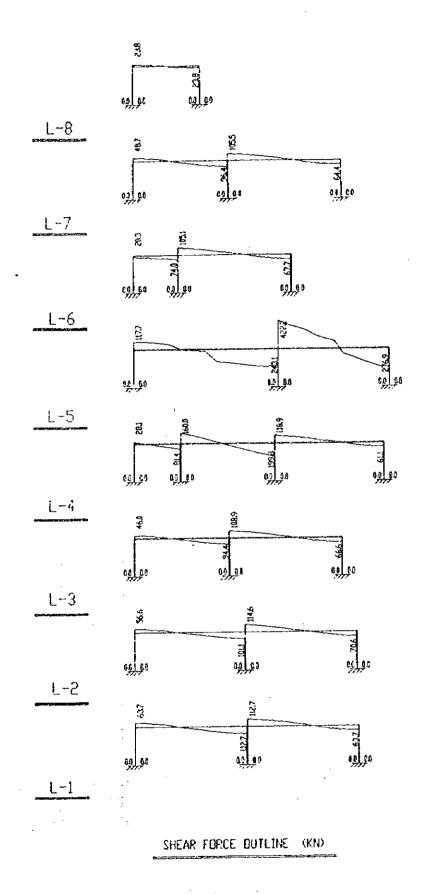


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PENNING MOMENT BUTLINE OKN-MO

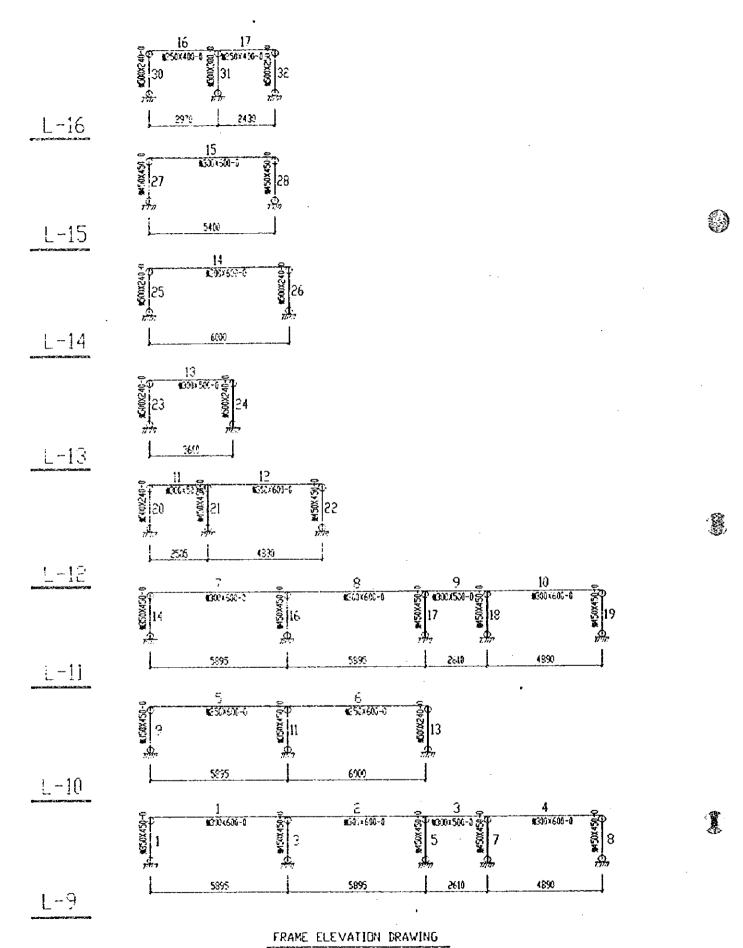


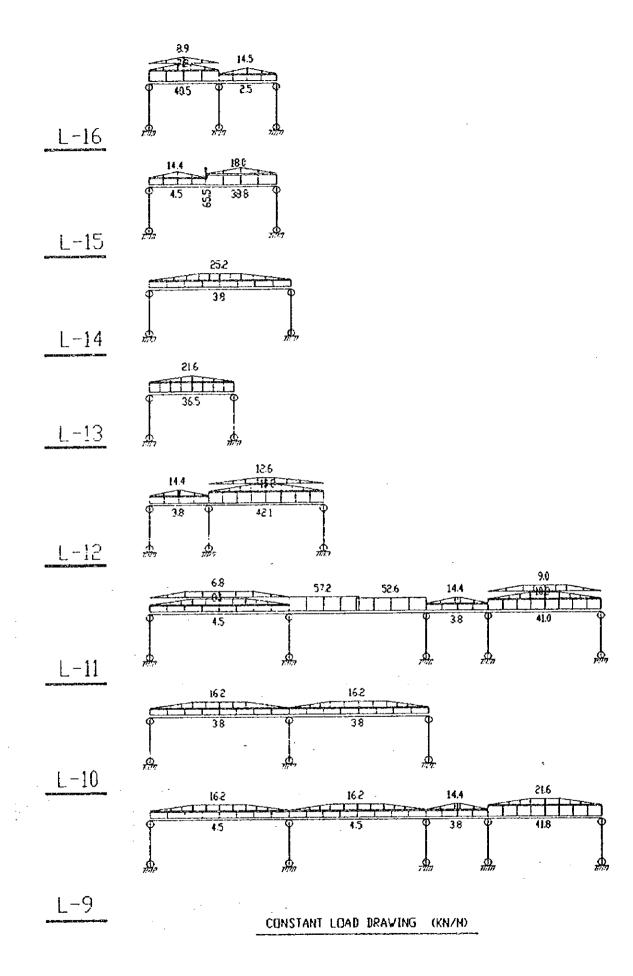
PEINFORCEMENT OUTLINE ONE



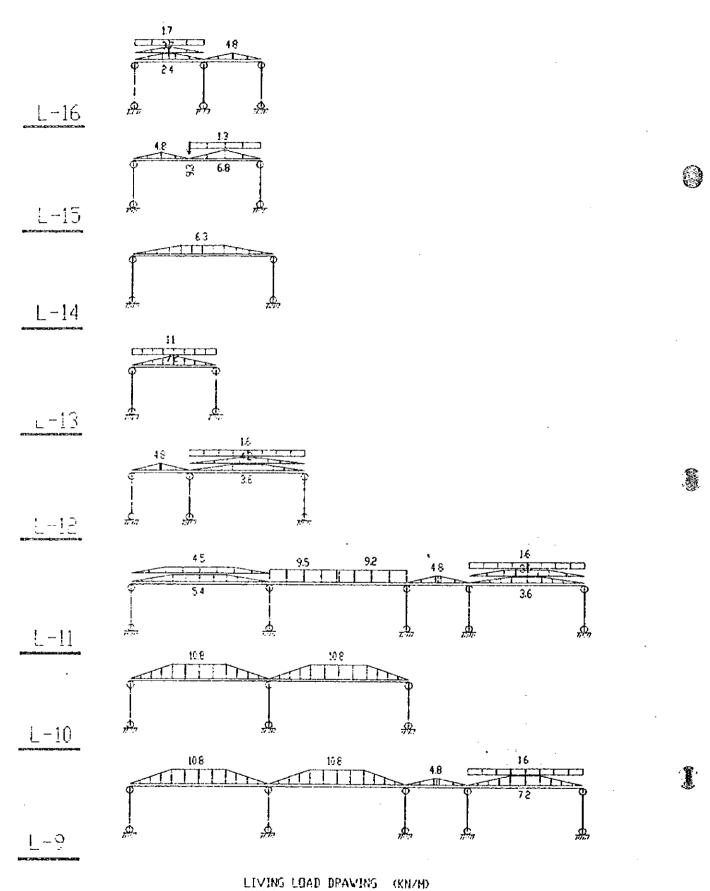
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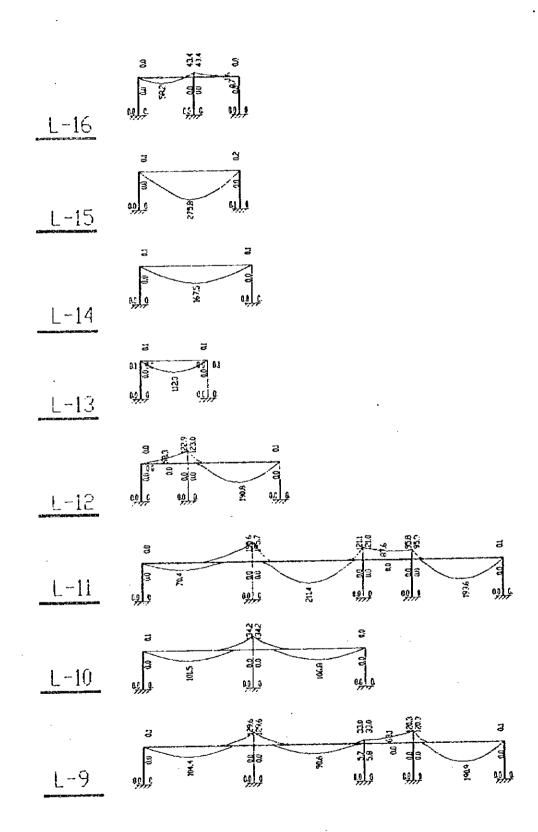
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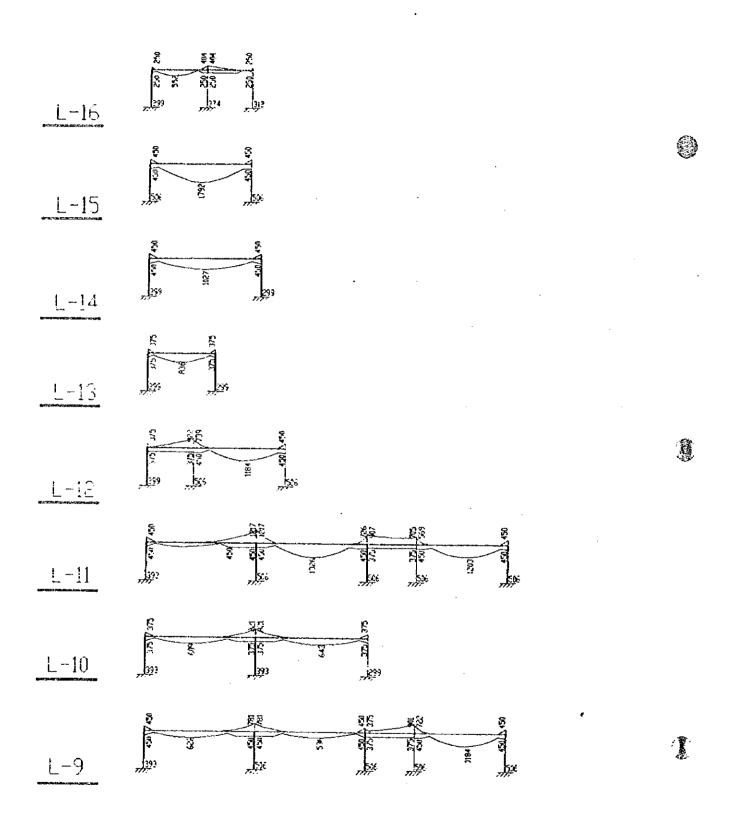
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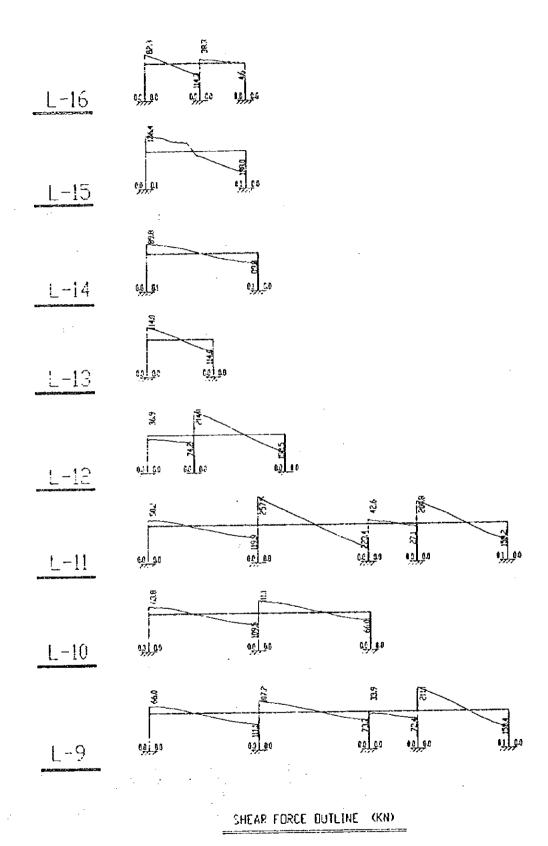


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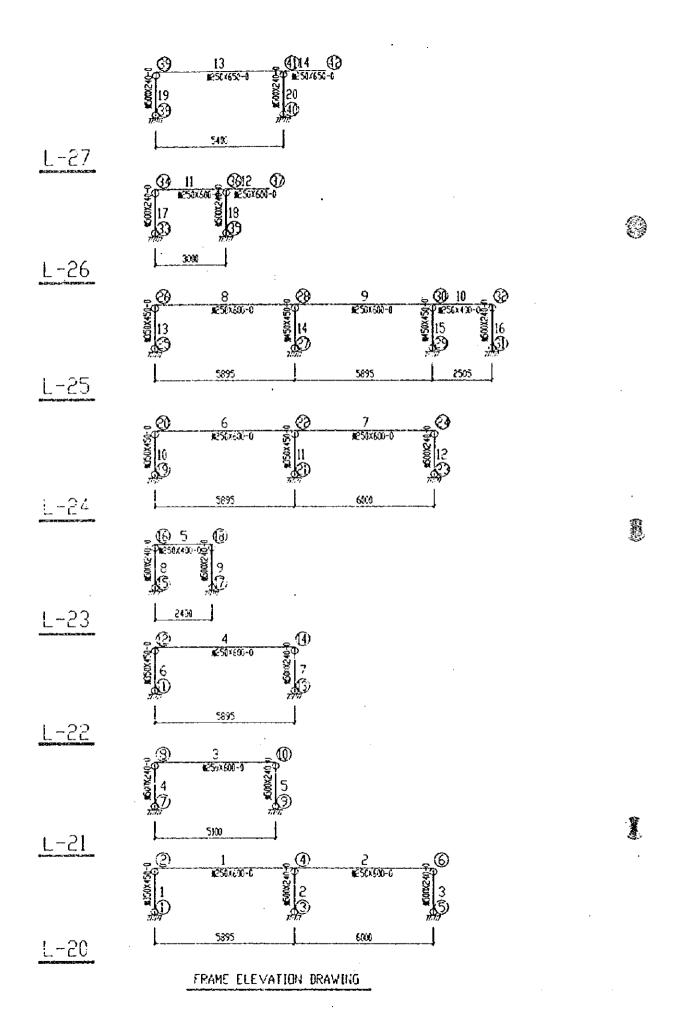
FENDING MOMENT DUTLINE CKN-MD

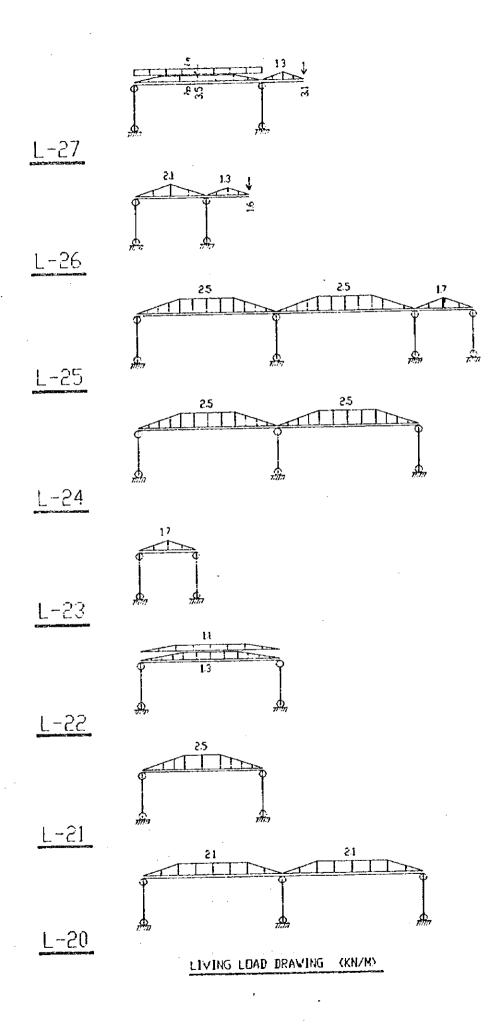


REINFORCEMENT DUTLINE ONE

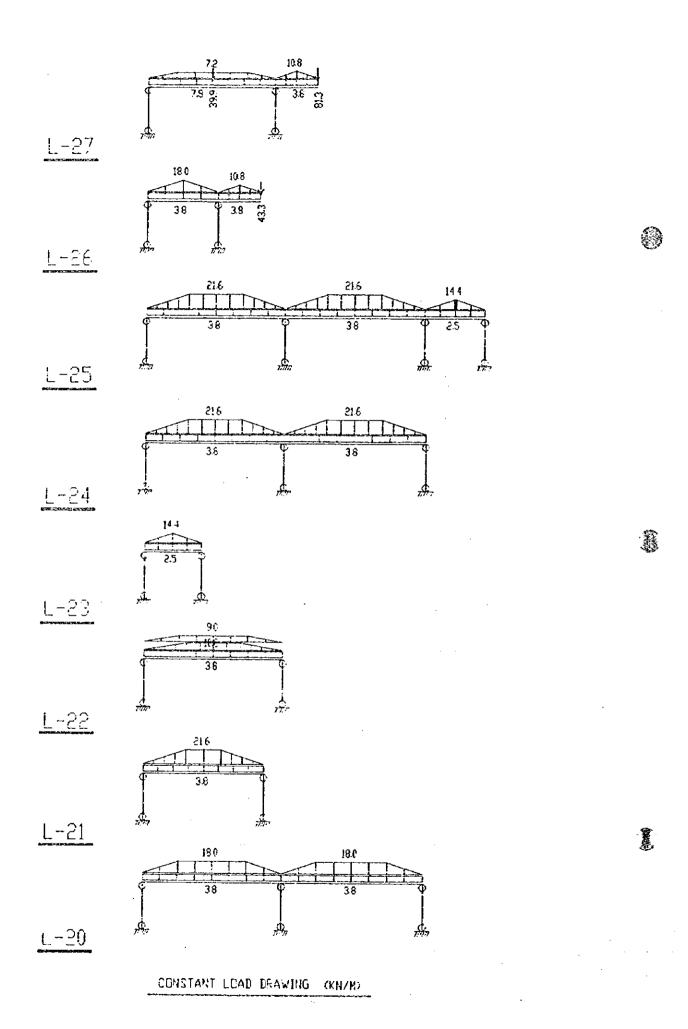


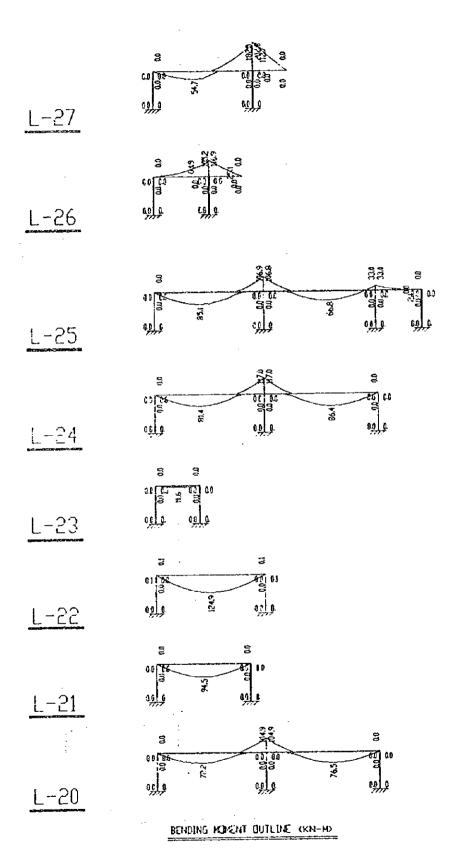
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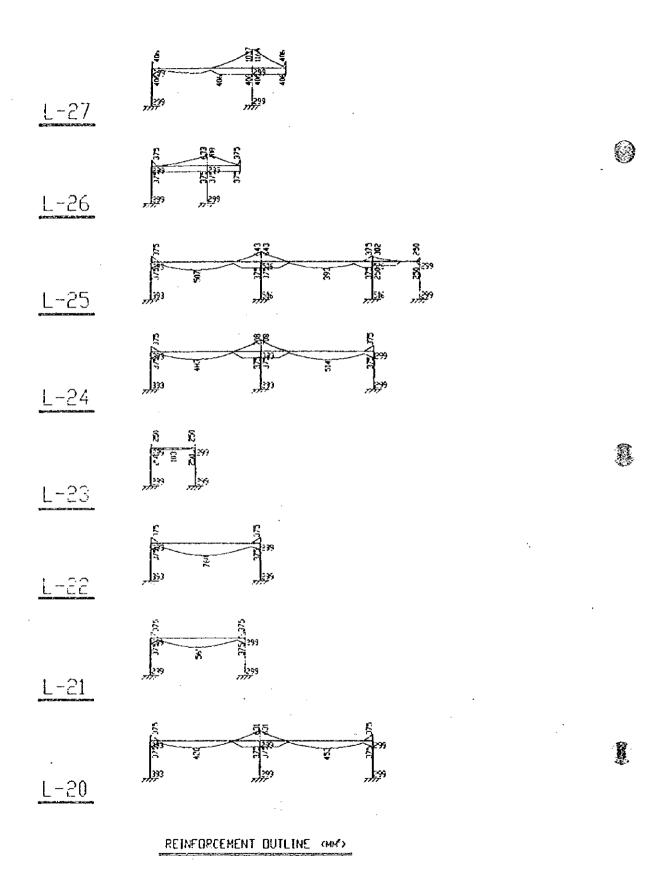


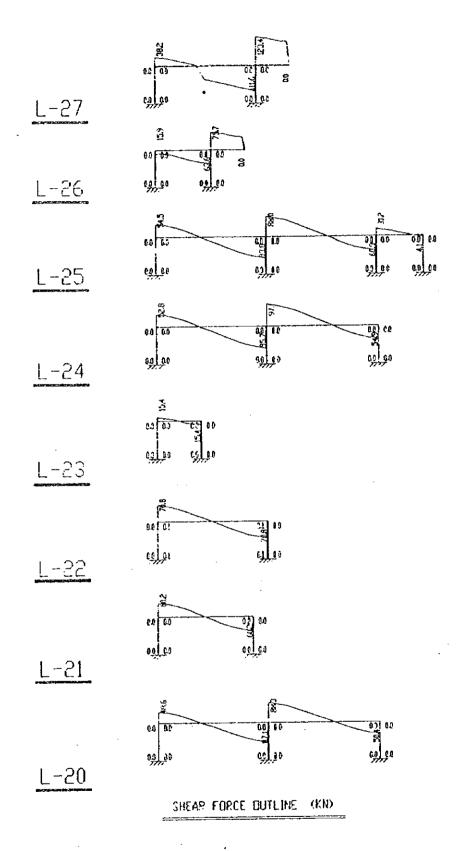


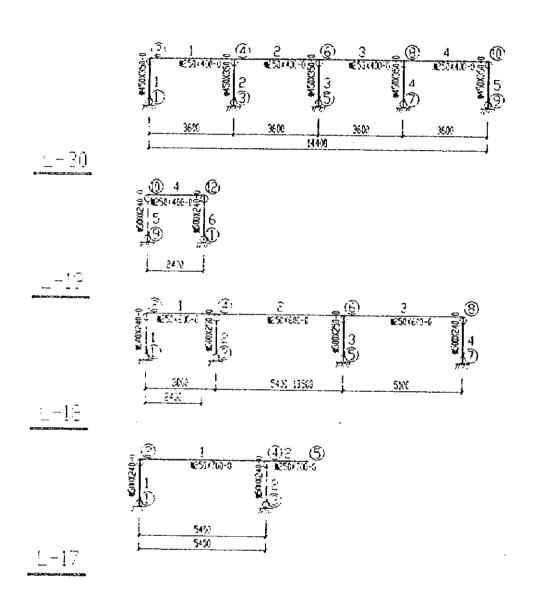
The Work

Support

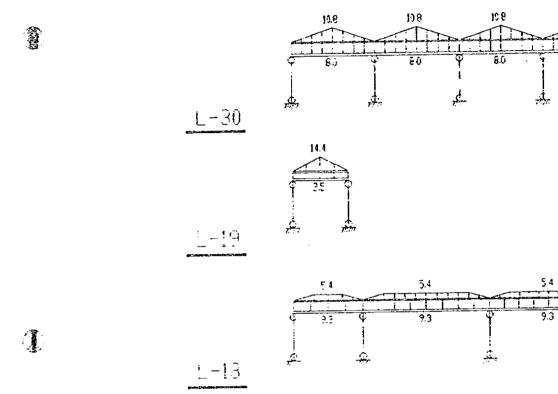
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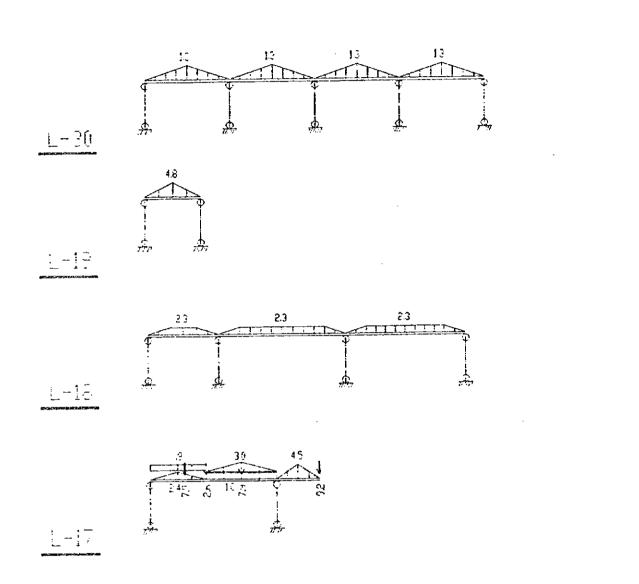
FRAME ELEVATION DRAWING



CONSTANT LOAD BRAVING GENIMA

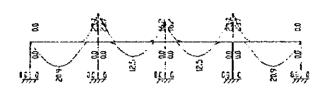
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ETVING LOAD DRAVING CKN/M

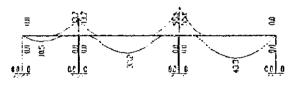
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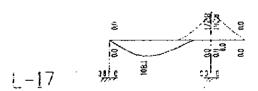
<u>L-30</u>



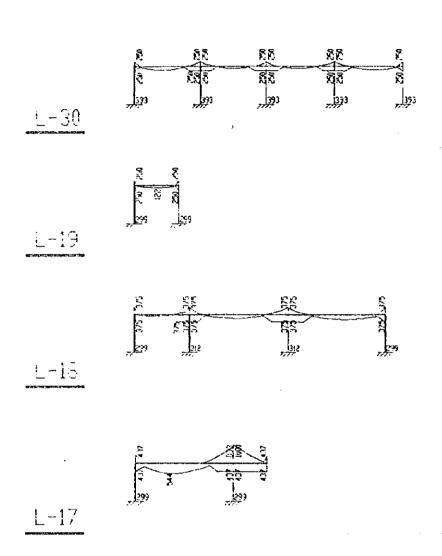
L-19



L-19

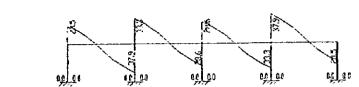


SENDING MOMENT OUTLINE (KNI-M)



REINFORCEMENT BUTLINE (HAP)

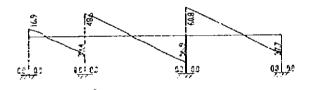
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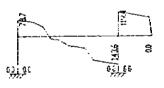
F-30



L-19



L-18



L-17

THEAR FORCE BUTLINE (EN)



DESIGN CALCULATION

of Aviation Lighting Works
--Main Lighting Substation Garage



Calculation Book

- Name of Project: Shanghai Pudong Airport Aviation Lighting Works
 --Main Lighting substation Garage
- II. Seismic intensity: 7
- III. Frame seismie grade: 3
- IV. Structure importance parameter. Ro=1.0
- V. Site soil type: IV
- VI. Soil endurance: R=110KPa
- VII. Foundation load-bearing layer elevation:
- VIII. Materials: column C25 beam board C25 wall: clay brick 240mm (5.40KN/m2)
 - I. Load:
 - 1. Living load:

roof

0.7KN/m2

2. Static load:

roof

ceiling 0.50KN/m2

structure layer (100mm) 2.50KN/m2

roof (roof 1)

2.64KN/m2

total

5.64KN/m2

- 3. Wind load: 0.55 KN/m2
- X. Selection of main members
 - 1. Main beam

bxh

bxh

2. Board thickness

h=100mm

- XI. Design basis
 - 1. Current national architecture & structure standards and codes;
 - Shanghai City's << Base Foundation Design Codes >> DBJ08--11--89;
 - Shanghai City's << Base Treatment Technical Codes >> DBI08--40--94;
 - 4. Shanghai City's << Building Anti-seismic Design Standards >> DB108--09--92;
- XII. Computer programs

China Building Science Research Institue CAD Engineering Department

PMCAD

August, 1996

PK

August, 1996

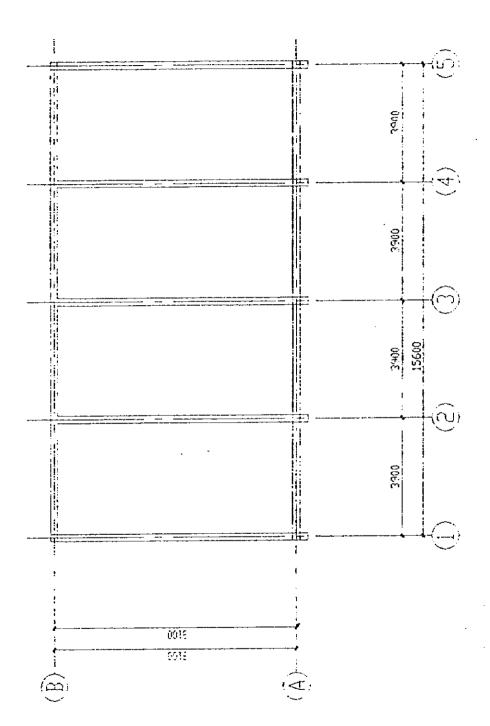
JCCAD

August, 1996

XIII. Conclusion:

It is concluded from calculation above, the integral strength and deformation of structure meet the design requirements, the geometric dimensions also meet the requirements of strength and deformation regulated by Codes. The primary data of structural model, major calculation results, combining results of main internal forces of each member, structural layout, internal force drawing, reinforcing results of major members refer the next page, based on which construction drawings are made.





(Second/As)

FLOOR STRUCURE PLANCONIE MY

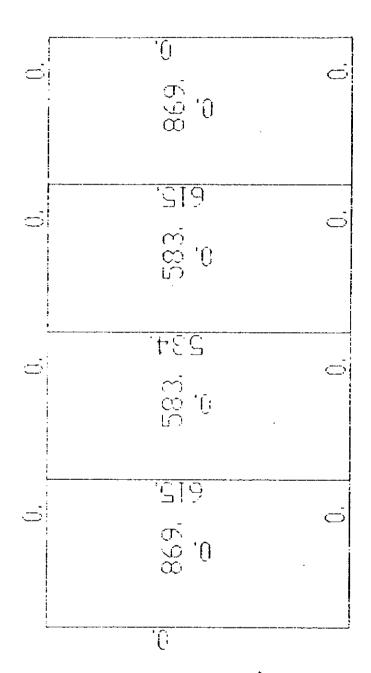
6.0	
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1st floor load (static load)

-338-

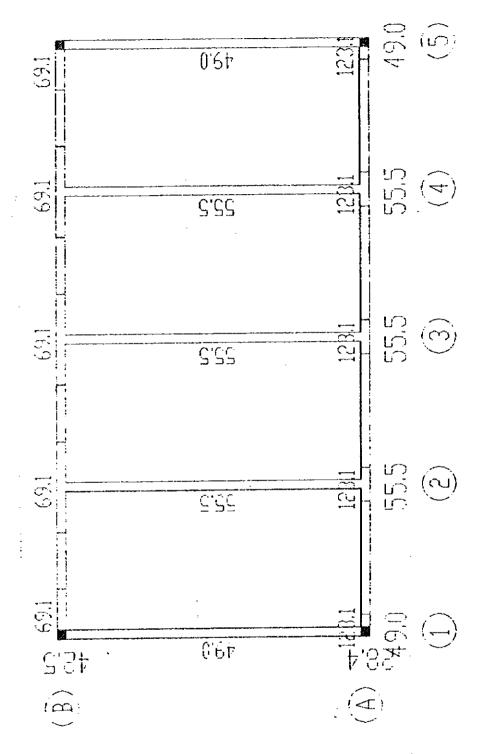
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0'0	≒ ∞ 0'0	0.0
	6.8	0.0
0'0		
0.0	3'7 & 0.0	0'Ù
0.0	6'8	0'0
	≘ 0'0	
	0.0	

(Market)



1st FLOOR CAST-IN-SITU BOARD CALCULATION REINFORCEMENT (UNIT:mm AuSTEEL GRADE: 1,11, CONCRETE:C25)

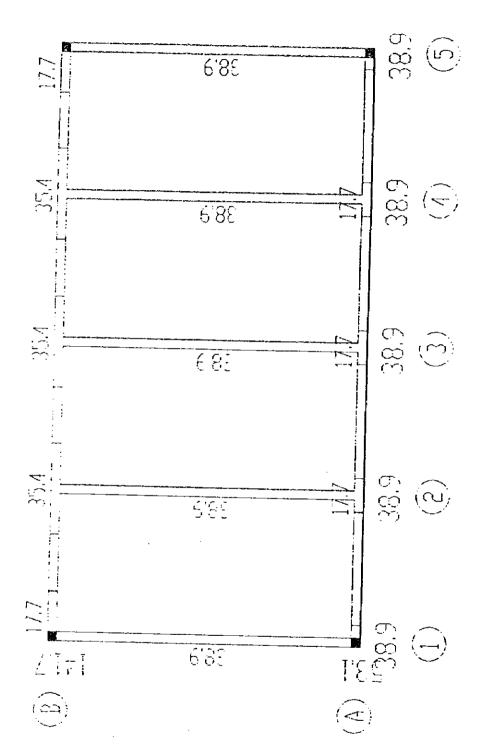
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(Market)

Y.

WALL AXIAL FURCE DESIGN VALUE DEAVING (KNZM)
(IKNZM)



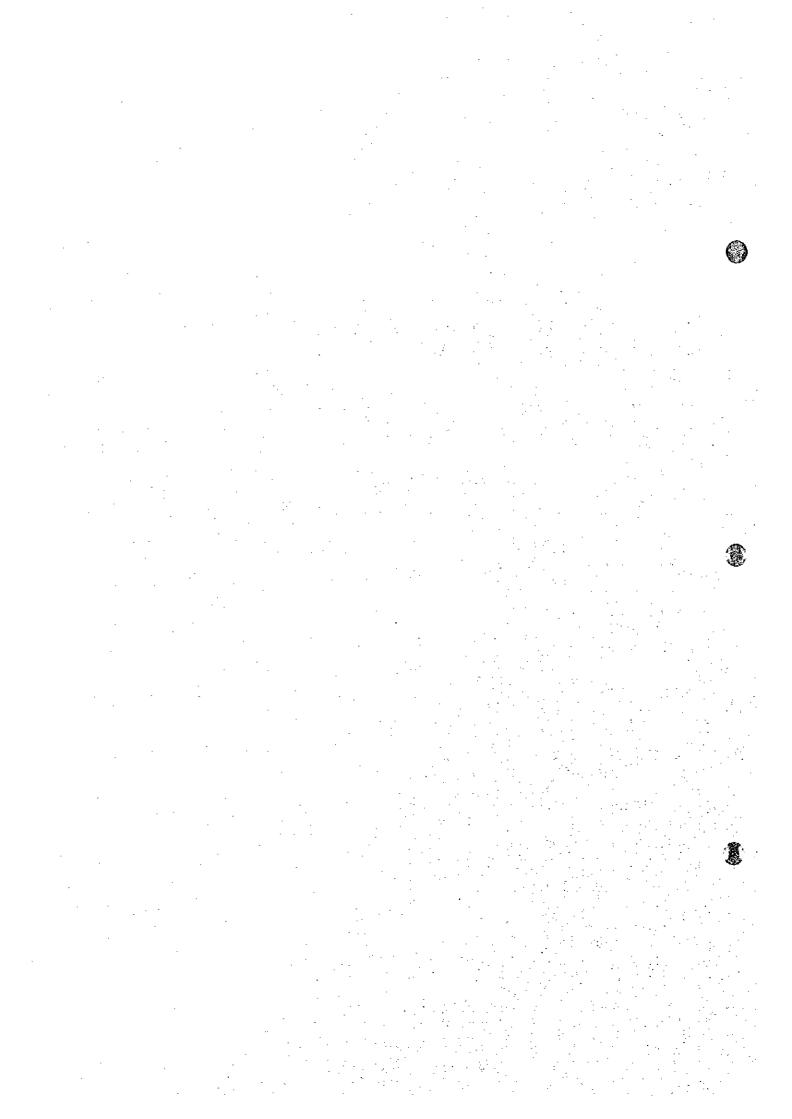
EARTHUAKE SHEAR FORCE DESIGN VALUE DRAWING (PN)

8

DESIGN CALCULATION

of Aviation Lighting Works

-- Sub-lighting Substation



Calculation Book

- Name of Project Shanghai Pudong Airport Aviation Lighting Works
 -Sub- Lighting substation
- II. Seismic intensity: 7
- III. Frame seismic grade: 3
- IV. Structure importance parameter. Ro=1.0
- V. Site soil type: IV
- VI. Soil endurance: R=110KPa
- VII Foundation load-bearing layer elevation:
- VIII. Materials: column -- C25 beam board -- C25 wall: clay brick 240mm (5.40KN/m2)
 - I. Load:
 - 1. Living load:

roof

0.7KN/m2

2. Static load:

roof

ceiling 0.50KN/m2

structure layer (100mm) 2.50KN/m2

roof (roof 1)

2.64KN/m2

total

5.64KN/m2

- 3. Wind load: 0.55 KN/m2
- X. Selection of main members
 - 1. Main beam

bxh=250x500mm bxh=300x800mm

2. Board thickness

h=100mm

- XI. Design basis
 - 1. Current national architecture & structure standards and codes,
 - 2. Shanghai City's << Base Foundation Design Codes >> DB108-11-89;
 - 3. Shanghai City's << Base Treatment Technical Codes >> DBI08--40--94;
 - Shanghai City's << Building Anti-seismic Design Standards >> DB108-09-92;
- XII. Computer programs

China Building Science Research Institue CAD Engineering Department

PMCAD

August, 1996

PK

August, 1996

JCCAD

August, 1996

XIII. Conclusion:

It is concluded from calculation above, the integral strength and deformation of structure meet the design requirements, the geometric dimensions also meet the requirements of strength and deformation regulated by Codes. The primary data of structural model, major calculation results, combining results of main internal forces of each member, structural layout, internal force drawing, reinforcing results of major members refer the next page, based on which construction drawings are made.







" PM " PROGRAM DESIGE DATA

C---NST MST NAMES NYS KCL KBE KDK MLOD ALIVE MXD MYD BLKD DWS BLP

1, 0.00, 1.00,100.0 1. 1, 1.00, 4, 3. 2, 1, 19, -1, -1.

 $C \rightarrow (HLA(i), i=1, NST)$

5.800.

AL PROPERTY.

 $C \leftarrow (MSH(i), i=1, MST)$

1.

C - -((XY(I,J),J=1,2),I=1,NJ)

-3.037-2.407. 1. 2.963 2, -2.407, 5.363 3, -2.407, 10.463 -2.407, 4, 16.463 -2.407, 5. -3.0370.593, 6. 2.963 0.593. 7, 5.363 0.593, 8, 10.463 0.593, 9. 16.463 0.593. 10. 3.593, 11.

-3.0372.963 3.593. 12.

5.363 3.593, 13.

10,463 3.593, 14, 3.593. 16.463 15.

-3.0376.593, 16, 2.963 6.593.

17, 5.363 6.593,

18. 10.463 6.593, 19,

16.463 6.593.

20. -3.037 9.593,

21, 2 963 9.593, 22,

5.363 9.593, 23,

10.463 9.593. 24,

9.593. 16.463 25, -3.037

13.193, 26, 2.963 13.193, 27,

5.363 13.193, 28.

10.46313.193, 29,

16.463 13, 193, 30.

-3.037 16.793, 31,

-0.037 16.793, 32,

· 2.963 16.793, 33.

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<del>3</del>3,
                18:793;
                               16:363
     36,
                16.793,
                                16.463
     37,
                19.193,
                               -3.037
     38,
                19.193,
                               -0.03?
     39,
                19.193,
                                2 963
     40,
                19.193,
                                5.363
     41,
                19.193,
                               10.463
     42.
                19.193,
                               16.463
     43,
               21.593,
                               -3.037
     44.
               21.593,
                               -0.037
    45,
               21.593,
                                2.963
    46,
               21.593,
                                5.363
    47,
               21.593,
                               10.463
    48,
               21.593,
                               16.463
    49,
               23.993.
                               -4.537
    50.
               23.993,
                               -3.037
    51.
               23.993.
                               -0.037
    52,
               23.993.
                                2.963
    53.
               23.993,
                                5.363
    54,
               23.993,
                               10.463
    55.
               23.993,
                               16.463
    56.
               27.893,
                              -4.537
    57,
               27.893,
                              -3.037
    58.
               27.893,
                               -0.037
    59.
               27.893,
                               5.363
    60,
               27.893,
                              10.463
    61,
              27.893,
                              16.463
   62,
              31.793,
                              -4.537
   63,
              31.793,
                              -3.037
   64.
              31.793,
                              -0.037
   65,
              31.793,
                               5.363
   66.
              31.793,
                              10.463
   67,
              31.793,
                              16.463
C---((AXIS(I),I=1,NAXIS))
     l,
            7,
                 49,
                         50,
                                51,
                                       52,
                                              53,
                                                     54,
                                                            55,
    2,
           6,
                 56,
                         57,
                                58,
                                       59,
                                                    61,
                                             60,
    3,
           6,
                 62,
                         63,
                               64,
                                      65,
                                             66,
                                                     67,
    4,
          12,
                   5,
                         10.
                               15,
                                       20,
                                             25,
                                                    30,
                                                           36,
                                                                   42,
                                                                          48.
                                                                                 55,
                  61,
                         67,
    5,
                         2,
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13

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3,

14,

4,

19,

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24,

29,

47,

54,

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12,

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60,
                     66.
                          S.
                                9.
                                     10.
         5.
    7,
                    12,
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                                14,
                                     15,
    8.
         5,
              11,
                    17,
                          18,
                                19.
                                     20.
    9.
          5,
              16,
                               24.
                                     25,
                    22,
                          23,
              21,
   10,
          5,
                                     30.
                          28,
                                29,
          5,
              26.
                    27,
   11,
                                     35,
                                           36,
                               34,
                    32,
                          33,
   12,
         6,
              31.
                                           42,
                                     41.
                    38,
                          19
                                40.
         6.
              37,
   13.
                                     47,
                                           48,
                          45.
                                46,
   14.
         6,
              43,
                    44,
                                                       40,
                                                            46,
                                                                  53,
                                           28,
                                                 34,
                                     23,
                                18.
   15.
         12,
               3,
                     8,
                          13,
               59,
                     65.
                                                            45,
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                                                       39,
                                     22.
                                           27,
                                                 33.
               2,
                     7,
                          12,
                                17.
         10.
   16.
                                51,
                                     58,
                                           64,
                          44,
   17.
         6,
              32,
                    38,
                                                            43
                                                                  50.
                                                       37,
                                16.
                                      21,
                                           26.
                                                 31,
               1,
                     6,
                          11,
         12,
   18.
               57,
                     63,
   19,
              49,
                    56.
                          62,
          3.
0
C---(CL(i),i=1,KCL)
   1.000.
           6.000.
                    0.240.
                            0.240,
   1.000.
           6.000.
                    0.350.
                            0.400,
C \leftarrow (BE(i), i=1, KBE)
                    0.250.
                            0.300.
           6.000.
   1.000.
                            0.500,
   1.000.
           6.000,
                    0.250.
                            0.700,
           6.000,
                    0.300.
   1.000,
C - - ((QDK(i,j),j=1,2),i=1,KDK)
                                                              2.100,
                                     1.500,
                                             2.700,
                                                     1,000,
                            2.700,
                    2.100,
   1.200.
           1.800,
C - - ((HSLD(i,j),j=1,3),i=1,MLOD)
   1.000, 6.000,
                    0.700,
C---QUE JEI DIAN
LAYER
C---BHOU RWB BHC
                           IC
                                ICC
                                         IG
   0.100, 25.0, 0.015, 25.0, 25.0,
C---((AXIS(I),I=I,NAXIS)
                                                 55,
                                           54,
                                52,
                                      53,
    1,
          ?, 49,
                    50.
                          51,
                                           61,
    2,
          6. 56.
                    57.
                          58,
                                59,
                                      60,
                    63.
                          64,
                                65,
                                      66.
                                           67,
          6,
              62,
    3,
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                                                             48,
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                                           30,
                                                 36,
                                                       42,
         12. . 5,
                    10.
                          15,
    4,
             61, 67,
                                          . .
                                4,
                     2,
                                       5,
          5, 1,
    5.
                           3,
                                           29,
                                                 35,
                                                       41,
                                                             47,
                                                                   54,
                                      24.
                     9,
                          14.
                                19.
    6.
         12,
                4.
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J

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66,
                   60,
                                  8.
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     7,
            5.
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     9,
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                                        19,
                                               20,
            5,
                   16,
                                               25,
            5
                         22,
                                23,
                                        24,
    10,
                  21,
                                        29,
            5,
                         27,
                                28,
                                               30,
    11,
                  26.
                                        34,
                                               35,
                                                      36,
    12,
            6,
                  31,
                         32,
                                33,
                                                      42,
    13,
                  37,
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                                        40,
                                               41,
            6,
    14,
            6.
                  43.
                         11,
                                45.
                                        46,
                                               47,
                                                      48,
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    15,
           12,
                   3,
                           8,
                                13,
                                        18,
                                               23.
                                                      28,
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                    59,
                          65,
                    2,
                           7.
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    16.
           10.
                                                             33,
                                                      64,
    17,
            6,
                  32,
                         38,
                                44,
                                        51,
                                               58,
                                                      26,
                                                             31,
                                                                     37,
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    18,
                           6,
                                        16,
                                               21,
           12,
                    1,
                                11,
                   57,
                          63,
    19,
                                62.
                  49,
                          56.
            3,
0
C--- ZHU ---
                     2,
                               0.000.
                                            -0.080
            105,
                     2,
                               0.000.
                                             0.080
            304.
                               0.000,
                                             0.000
            401,
                     1,
            408.
                               0.000,
                                             0.000
                     1,
                                             0.000
            412,
                               0.000.
                     l.
            601.
                               0.000,
                                             0.000
                     I.
                                             0.000
            608,
                     ì.
                               0.000,
            610,
                     1,
                               0.000,
                                             0.000
            612,
                               0.000,
                                             0.000
                     1.
          1501,
                               0.000,
                                             0.000
                     1,
                     2,
        150207,
                               0.000.
                                             0.080
          1509.
                     2,
                               0.000.
                                             0.080
          1601,
                               0.000,
                                             0.000
                     1,
        160206.
                     2,
                               0.000,
                                            -0.080
          1607,
                               0.000,
                                             0.000
                     l.
          1609,
                     1,
                               0.000,
                                             0.000
          1704,
                               0.000.
                                             0.000
                     1,
          1706.
                               0.000,
                                             0.000
                     1,
          1801,
                     l,
                               0.000,
                                             0.000
        180206,
                     2,
                               0.000,
                                             0.080
                               0.000,
          1807,
                                             0.000
                     1,
        180910,
                               0.000,
                                             0.000
                     1,
          1901.
                               0.000,
                                             0.000
                     1,
          1903,
                               0.000,
                                             0.000
                     1,
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J

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C--- LIANGOG,
                             0.000
                    2,
                    2,
                             0.000
         20105,
                    2,
                             0.000
           701,
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           702,
                    ì,
                             0.000
         70304,
                    2,
                             0.000
                    2,
           801,
                             0.000
           802,
                   . l,
                             0.000
           803,
                    2,
                             0.000
           901,
                   - 2,
                             0.000
            902,
                     ì,
                             0.000
                     2,
         90304,
           1001,
                     2,
                              0000
                              0.000
           1002,
                     1,
                              0.000
           1003,
                     2,
                              0.000
           1101,
                     2,
                              0.000
                     l,
           1102,
                              0.000
         110304,
                     2,
                              0.000
           1203,
                     1.
                              0.000
         120405.
                     2,
                              0.000
           1403,
                     1,
                              0.000
                     2,
           1404,
                              0.000
                     3,
         151011,
 0
 C--- QIANG ---
                                     0.000
                        0.240,
          10105,
                                     0.000
                        0.240,
          30105,
                                     0.000
                        0.240,
          40111,
                                     0.000
                        0.240,
          50104,
                                     0.000
                        0.240,
          60111,
                                     0.000
                        0.240,
             804,
                        0.240,
                                     0.000
            1004,
                        0.240,
                                     0.000
         120102,
                                      0.000
                        0.240,
            1302,
                        0.240,
                                      0.000
            1305,
                                      0.000
                        0.240,
          140102,
                        0.240,
                                      0.000
          150109,
                                      0.000
          160108,
                         0.240,
                         0.240,
                                      0.000
          170102,
                                      0.000
                         0.240,
          170405,
                         0.240,
                                      0.000
          180109,
                                      0.000
                         0.240,
          190102,
```

J

1

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C--- DONG FOU --- 1,
                            1.630,
                                        0.000
          103.
                   4.
                           0.370,
                                        0.000
                           0.370,
                                        0.000
          105,
                   4,
          302,
                   1,
                           0.300,
                                        1.900
                                        0.000
                   2,
                            1.800,
          303,
                                        0.000
          304,
                   2,
                            1.200,
                           0.900,
                                         1.900
        40104,
                   ì,
          405.
                   1,
                            1.200,
                                         1.900
                   2,
                           0.750,
                                        0.000
          406,
                           0.000,
                                        1.900
          409,
                   ł,
                   2,
                            1.050,
                                        0.000
          410.
                            1.500,
                                        1.900
          411,
                   l,
                                        0.000
          501,
                   2,
                            1.950,
                                        0.000
          503,
                   2,
                           1.500,
          601,
                   3.
                           0.370,
                                        0.000
                           1.030,
                                        0.000
          609,
                   4,
                                        0.000
          804,
                   3,
                           0.370,
                                        0.000
         1201,
                           1.630.
                   4.
         1305.
                           0.370.
                                        0.000
                   4,
                           1.630,
                                        0.000
         1401,
                   4,
         1506,
                           1.050.
                                        0.000
                   3,
       160708,
                           0.370,
                                        0.000
                   4,
       180104.
                   1,
                           0.900,
                                        1.900
       180507,
                                        1.900
                           1.200,
                   1,
         1809,
                           0.450,
                                        0.000
                   3,
0
C---KZDJ
              NV
                      iΒ
                               IY
                                        INF
                                                   CC
                      7,
                            2.00,
                                     0,
                                            1.00
              1,
EOF
                                                         ,00000,3
                                                                         ,00000,4
     ,00000.8
                     Ģ,
                            ,1
                                .F
                                         ,00000,0
            E,
                  .D
                         .C
                                .B
END
```

J

Calculation Book of Sub-Lightion Substation

L-1~L-7

***** PK11.EXE ****** DATA: 7/22/1997

OUTPUT DATA

---- Zhong xin xi -----50 25 18 0 25 7 1 0 4 25 25 2
0 0
0.90 1.00

OUTPUT DATA

Jiao Dian Zuo Biao -----

(4) 5.84 0.00 (2) 0.00 0.00 (3) 5.84 - 2.00 (1) 0.00 - 2.00(8) 13.42 0.00 (7) 13.42 - 2.00 (6) 8.40 0.00 (5) 8.40 - 2.00 (12) 0.00 5.00 (11) 0.00 3.00 (10) 19.42 0.00 (9) 19.42 - 2.00 (16) 8.40 5.00 (15) 8.40 3.00 (14) 5.84 5.00 (13) 5.84 3.00 (20) 0.00 10.00 (18) 13.42 5.00 (19) 0.00 8.00 (17) 13.42 3.00 (23) 7.50 8.00 (24) 7.50 10.00 (21) 2.48 8.00 (22) 2.48 10.00 (28) 0.00 15.00 (25) 13.50 8.00 - (26) 13.50 10.00 (27) 0.00 13.00 (32) 7.50 15.00 (31) 7.50 13.00 (29) 2.48 13.00 (30) 2.48 15.00 (36) 6.00 20.00 (35) 6.00 18.00 (34) 0.00 20.00 (33) 0.00 18.00 (40) 4.50 25.00 (39) 4.50 23.00 (37) 0.00 23.00 (38) 0.00 25.00 (44) 15.00 25.00 (43) 15.00 23.00 (41) 9.90 23.00 (42) - 9.90 25.00 (47) 0.00 28.00 (48) 0.00 30.00 (46) 21.00 25.00 (45) 21.00 23.00 (50) 7.64 30.00 (49) 7.64 28.00

OUTPUT DATA

Zhu Guan Lian Hao -----

 (1)
 1
 2
 (2)
 3
 4
 (3)
 5
 6
 (4)
 7
 8
 (5)
 9
 10

 (6)
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 12
 (7)
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 (8)
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 (9)
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 (10)
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 (11)
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 (14)
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 28
 (15)
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 30

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(18) 35 36 (19) 37 38
                                                        (20) 39 40
              (17) 33 34
 (16) 31
          32
                            (23) 45 46 (24) 47 48
                                                        (25) 49 50
 (21) 41
          42
               (22) 43 44
                   ----- Liang Guan Lian Hao -----
                             (3) 6 8 (4) 8 10 (5) 12 14
 (1)
               (2) 4
                         6
                            (8) 20 22 (9) 22 24 (10) 24 26
 (6) 14 .16
               (7) 16 18
                            (13) 34 36 (14) 38 40 (15) 40 42
 (11) 28 30
               (12) 30 32
                            (18) 48 50
 (16) 42 44
               (17) 44 46
OUTPUT DATA
                   ----- Zhi Zuo Yue Shu Xin Xi ------
                                                   7111 (5)
                                                                 9113
         1111
               (2)
                       3111 (3)
                                     5111
                                           (4)
 (1)
                             ( 8)
                                                         (10) 19111
                      13111
                                    15111
                                           (9)
                                                  17111
 (6)
        11111
               (7)
                                  25111
                                          (14)
                                               27111
                                                        (15)
                                                              29111
       21111
               (12)
                     23111
                            (13)
 (11)
                                                37111
                                                        (20)
                                                              39111
                            (18)
                                   35111
                                          (19)
 (16)
       31111
               (17)
                     33111
                                                              49111
                                   45111
                                          (24)
                                                47111
                                                        (25)
                     43113
                            (23)
 (21)
       41111
               (22)
OUTPUT DATA
               ----- Shang Xia Zhu Jian Dian Pian Xin -----
(1)0.00 (2)0.00 (3)0.00 (4)0.00 (5)0.00 (6)0.00 (7)0.00
(8) 0.00 (9) 0.00 (10) 0.00 (11) 0.00 (12) 0.00 (13) 0.00 (14) 0.00
(15) 0.00 (16) 0.00 (17) 0.00 (18) 0.00 (19) 0.00 (20) 0.00 (21) 0.00
(22) 0.00 (23) 0.00 (24) 0.00 (25) 0.00 (26) 0.00 (27) 0.00 (28) 0.00
 (29) 0.00 (30) 0.00 (31) 0.00 (32) 0.00 (33) 0.00 (34) 0.00 (35) 0.00
 (36) \, 0.00 \quad (37) \, 0.00 \quad (38) \, 0.00 \quad (39) \, 0.00 \quad (40) \, 0.00 \quad (41) \, 0.00 \quad (42) \, 0.00
 (43) 0.00 (44) 0.00 (45) 0.00 (46) 0.00 (47) 0.00 (48) 0.00 (49) 0.00
 (50) 0.00
                                               OUTPUT DATA
                          Biao Zhun Jie Mian Xin Xi -----
                  500,
(1)
            250,
(2)
            250,
                  300,
        ١,
            300,
                  800,
(3)
                            (4)
            350,
                  400,
        1,
            500,
                  240,
(5)
        l,
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蠶

240,

500,

l,

(6)

(7)

240,

300,

OUTPUT DATA

```
---- Zhu Ji Suan Chang Du(After consider steel) -----
  (1) 1.00 (2) 1.00 (3) 1.00 (4) 1.00 (5) 1.00 (6) 1.00 (7) 1.00
  ( 8) 1.00 ( 9) 1.00 (10) 1.00 (11) 1.00 (12) 1.00 (13) 1.00 (14) 1.00
  (15) 1.00 (16) 1.00 (17) 1.00 (18) 1.00 (19) 1.00 (20) 1.00 (21) 1.00
  (22) 1.00 (23) 1.00 (24) 1.00 (25) 1.00
  OUTPUT DATA
             ---- Zhu Bu Zhi(Hao)Jie Mian Hao, Jiao Jie, Jiao Du -----
                                         0 (3)
                    0 (2)
                                    3
  (1)
                                         0 (6)
                                                     4
                                                         3
                                                              0
                                    3
                    0 (5)
  (4)
          5
                                                              0
                                         0 (9)
                                                    5
                                    3
  (7)
          4
               3
                    0 (8)
                                                        3
                                        0 (12)
                                   3
                               4
               3
                    0 (11)
  (10)
                                                             0
                                        0 (15)
                                   3
               3
                    0 (14)
                               6.
          5
  (13)
                                        0 (18)
                                                        3
                                                             0
                                   3
               3
                    0 (17)
                               6
  (16)
                                                        3
                                                             0
                                        0 (21)
                    0 (20)
                               5
                                   3
               3
          5
  (19)
                                                             0
                                                        3
                                        0 (24)
                    0 (23)
               3
  (22)
  (25)
             ---- Liang Bu Zhi(Hao)Jie Mian Hao, Jiao Jie, Jiao Du -----
                                                              0
                                2
                                         0 (3)
                    0 (2)
  (1)
                                                     2
                                                               0
                                         0 (6)
                    0 (5)
                                    0
                                1
   (4)
               0
           1
                                                     1
                                         0 (9)
                    0 (8)
                                2
  ( 7)
               0
                                        0 (12)
                    0 (11)
                               2
                                    0
               0
   (10)
                                                        0
                                         0 (15)
                    0 (14)
                               1
               0
   (13)
                                                             0
                                                   3
                                         0 (18)
                                    0
                    0 (17)
   (16)
                       237
            IIQQ=
. 1
            STIF COMPUTE
            DEAD COMPUTE
                                           XN
                    JR
                              ΧM
JOINT LOAD:
                   0
                                                                  ΚX
                                                       Х
                                            P
                                KL
  COLUMN LOAD:
                      JC
                   0
                                                                           ΡI
                                                                X
                                        KL
                              LI
           LOAD:
                     NE
  BEAM
```

X1	KL	P	x	P1	Xi		
		1	2	1		3.10	0.00
6	21.60	1.80					
		1	2	1		1.90	0.00
6	14.40	1.20		•		2.10	0.00
_		1	2	. 1		3.10	0.00
6	21.60	1.80	2	1		3.10	0.00
,	21.60	1 80	Z	. 1	•	5.10	0.00
6	21.00	1.80 1	3	1		3.10	0.00
6	9.00	1.50	•	_			
V	7.00	1100	6	10.80	1.80		
		1	2	• 1		1.90	0.00
6	14.40	1.20					
		1	3	1		3.10	0.00
6	9.00	1.50					
			6	10.80	1.80		
		1	2	1		1.90	. 0.00
6	14.40	1.20		,		2.10	0.00
,	10.00	• 1	3	. 1		3.10	. 0.00
6	10.80	1.80	6	14.40	2.40		
		1	3	1	2	3.10	0.00
6	10.80	1.80	_		4		
Ū			6	7.20	1.20		:
		1	2	1		8.00	0.00
6	7.20	1.20					· · · · · · · · · · · · · · · · · · ·
		1	3	1		3.10	0.00
6	14.40	2.40					£
			6	7.20	1.20		۸.00
		1	3	ı		3.10	0.00
6	14.40	2.40		11.70	1.05		
		1	6 2	11.70 1	1.95	3.10	- 0.00
c	23.40	1 1.95	2	1		3.10	0.00
6	23.40	1.93	2	1		3.10	0.00
6	23.40	1.95	-	-			
•	-	1	2	1	:	3.10	0.00
6	23.40	1.95					
		1	2	. 1	٠.,	3.10	0.00

•	23.40	1		5	2		5.30	3.90
10	23.40	0.00	0.0	0 1.9	95			
				4		76.00		3.90
3	5.30	3.90				2.00	0.00	1.95
•				10	23.40	3.90	0.00	1.93
				DEAD	LOAD			
	STIF C	OMPUTE	,					
		COMPUTE		• •	-			
JOINT	LOAD:			XM	XN			
	-				-			
COLL	ANI AND	JC		KL	P	х	KX	
COLO	MN LOAD:	0		KU	•			
						•		
DEAM	LOAD:	NE		LI	KL	P	X	Pl
X1	KL	P		X	P1	X1		
XI	112		1	6	2.50	1.80		
		1	1	6	1.70	1.20	•	
		ł	1	6	2.50	1.80		
		1	1	6	2.50	1.80		
		1		2	6		1.00	1.50
6	1.30	1.80						
		ì	1 -	- 6	1.70	1.20		
		ì		2	6		1.00	1.50
6	1.30	1.80						
		1	1	· 6	1.70	1.20		
		1		2	6		1.30	1.80
6	1.70	2.40			. • • •			
		1		2	6		1.30	1.80
6	0.80	1.20		•				
		1		2	.· 6 .		0.80	1.20
1	0.70	0.00				•		
		1		2	6		1.70	2.40
6 E	0.80	1.20						2 10
		1		2	6		1.70	2.40
6	1.40	1.95					*	
		1	1	6	2.70	1.95		

1.95

6

ANNON

23.40

				10	2.70	3.90	0.00	1.95
4	7.40	3.90						
		1	3	10	2.70	0.00	0.00	1.95
		1	1	6	2.70	1.95		
		· 1	1	6	2.70	1.95		
		1	1	6	2.70	1.95		

EART COMPUTE
COMBI COMPUTE

COMBINATION AND REINFORCEMENT

Concrete COLUMN 1(SECTION TYPE= 1, ANG= 0, Lx= 2.00, Ly= 2.00)

Section property: B= 350, H= 400

NO 12 As= 0. M= -0.04 N= 46.37 NO 12 As= 0. M= -0.08 N= -46.37
$$GG = 350.$$

Concrete COLUMN 2(SECTION TYPE= 1, ANG= 0, Lx= 2.00, Ly= 2.00)

Section property: B= 350, H= 400

Concrete COLUMN 3(SECTION TYPE= 1, ANG= 0, Lx= 2.00, Ly= 2.00)

Section property: B= 350, H= 400

NO 12 As= 0. M= -0.01 N= 19.86 NO 12 As= 0. M= -0.02 N= -19.86
$$GG = 350$$
.

Concrete COLUMN 4(SECTION TYPE= 1, ANG= 0, Lx= 2.00, Ly= 2.00)

Section property: B= 500, H= 240

```
NO 12 As= 0. M= -0.01 N= 126.52 NO 12

As= 0. M= -0.02 N= -126.52

GG= 300.

Concrete COLUMN 5( SECTION TYPE= 1, ANG= 0, Lx= 2.00, Ly=
```

Concrete COLUMN 5(SECTION TYPE= 1, ANG= 0, Lx= 2.00, Ly= 2.00)

Section property: B= 500, H= 240

NO 12 A_{S} = 0. M= 0.03 N= 40.52 NO 12 A_{S} = 0. M= 0.06 N= -40.52 GG= 300.

Concrete COLUMN 6(SECTION TYPE= 1, ANG= 0, Lx= 2.00, Ly= 2.00)

Section property: B= 350, H= 400

NO 6 As= 0. M= -0.04 N= 45.18 NO 6 As= 0. M= -0.07 N= -45.18 GG= 350.

Concrete COLUMN 7(SECTION TYPE= 1, ANG= 0, Lx= 2.00, Ly= 2.00)

Section property: B= 350, H= 400

NO 12 As= 0. M= 0.03 N= 72.29 NO 12 As= 0. M= 0.06 N= -72.29 GG= 350.

Concrete COLUMN 8(SECTION TYPE= 1, ANG= 0, Lx= 2.00, Ly= 2.00)

Section property: B= 350, H= 400

NO 12 As= 0. M= -0.02 N= 47.33 NO 12 As= 0. M= -0.04 N= -47.33 GG=350.

Concrete COLUMN 9(SECTION TYPE= 1, ANG= 0, Lx= 2.00, Ly= 2.00)

Section property: B= 500, H= 240

NO 8 $M = 0.03 \quad N = 38.06 \quad NO$ 0. As= 0.05 N= -38.06 0. M= 8 As= GG= 300. Concrete COLUMN 10(SECTION TYPE= 1, ANG= 0, Lx= 2.00, Ly= 2.00) Section property: B= 240, H= 240 M = 0.00 N = 4.61 NONO 6 As=0.0.00 N= -4.61 0. M= As≔ GG= 144. Concrete COLUMN 11(SECTION TYPE= 1, ANG= 0, Lx= 2.00, Ly= Section property: B= 350, H= 400 -0.01 N= 48.20 NO 12 M= NO 12 As= 0. M = -0.02 N =-48.20 As=0.GG= 350. Concrete COLUMN 12(SECTION TYPE= 1, ANG= 0, Lx= 2.00, Ly= 2.00) Section property: B= 500, H= 240 As= 0. M= -0.01 N= 116.80 NO 12 NO 12 M = -0.02 N = -116.80GG= 300. Concrete COLUMN 13(SECTION TYPE= 1, ANG= 0, Lx= 2.00, Ly= 2.00) Section property: B= 500, H= 240 M= 0.02 N= 36.46 NO 0. NO 8 As= 0.05 N= -36.46 8 As= 0. M= GG= 300. Concrete COLUMN 14(SECTION TYPE= 1, ANG= 0, Lx= 2.00, Ly=

Section property: B= 240, H= 240

2.00)

NO M= 0.00 N= 3.50 As=0.NO 6 0.00 N = -3.50M≕ 0. 6 As= GG= 144.

Concrete COLUMN 15(SECTION TYPE= 1, ANG= 0, Lx= 2.00, Ly= 2.00)

Section property: B= 350, H= 400

M = -0.02 N = 69.94NO As=0.NO 2 M = -0.04 N = -69.94As= O. GG=350.

Concrete COLUMN 16(SECTION TYPE= 1, ANG= 0, Lx= 2.00, Ly= 2.00)

Section property: B= 500, H= 240

NO $A_{S}=$ 0. M= 0.02 N= 35.25 NO 12 M=0.04 N=-35.250. As= 8 GG = 300.

Concrete COLUMN 17(SECTION TYPE= 1, ANG= 0, Lx= 2.00, Ly= 2.00)

Section property: B= 240, H= 240

 $A_{S}=$ 0. M= -0.06 N= 58.91 NO NO 2 M = -0.11 N = -58.91As= Û. GG= 144.

Concrete COLUMN 18(SECTION TYPE= 1, ANG= 0, Lx= 2.00, Ly= 2.00)

Section property: B= 500, H= 240

58.91 NO * M= 0.06 N= 0. NO 2 As≔ 0.11 N= -58.91 M≕ As= 0. GG= 300. : 1

Concrete COLUMN 19(SECTION TYPE= 1, ANG= 0, Lx= 2.00, Ly= 2.00) Section property: B= 500, H= 240

NO 12 As= 0. M= -0.01 N= 23.64 NO 12 As= 0. M= -0.02 N= -23.64 GG=300.

Concrete COLUMN 20(SECTION TYPE= 1, ANG= 0, Lx= 2.00, Ly= 2.00)

Section property: B= 500, H= 240

NO 12 As= 0. M= -0.01 N= 98.83 NO 12 As= 0. M= -0.01 N= -98.83 GG= 300.

Concrete COLUMN 21(SECTION TYPE= 1, ANG= 0, Lx= 2.00, Ly= 2.00)

Section property: B= 500, H= 300

NO 12 As= 0. M= 0.00 N= 80.71 NO 12 As= 0. M= 0.01 N= -80.71 GG= 375.

Concrete COLUMN 22(SECTION TYPE= 1, ANG= 0, Lx= 2.00, Ly= 2.00)

Section property: B= 500, H= 240

NO 12 As= 0. M= -0.02 N= 119.79 NO 12 As= 0. M= -0.03 N= -119.79 GG = 300.

Concrete COLUMN 23(SECTION TYPE= 1, ANG= 0, Lx= 2.00, Ly= 2.00)

Section property: B= 500, H= 240

NO 12 As= 0. M= 0.03 N= 43.38 NO 12 As= 0. M= 0.06 N= -43.38 GG= 300.

Ī

Concrete COLUMN 24(SECTION TYPE= 1, ANG= 0, Lx= 2.00, Ly= 2.00)

Section property: B= 350, H= 400

```
NO
                       M = -0.03 N = 102.55
                 0.
            As=
    NO 2
                       -0.07 N= -102.55
              M=
           0.
    As≃
            GG=
                 350.
     Concrete COLUMN 25( SECTION TYPE= 1, ANG= 0, Lx= 2.00, Ly=
2.00)
     Section property: B= 350, H= 400
                                                         NO
                                           106.05
                                      N=
                                0.03
                          M=
                   0.
    NO 2
            As=
                        0.07 N= -106.05
                  M=
2
    As=
                 350.
          . GG=
     Concrete BEAM 1(SECTION TYPE= 1 ANG= 0, L= 5.84)
     Section property: B= 250, H= 500
     BOTTOM
                                                           7
                                  4
                                           5
                                                   6
                           3
                    2
  SECTION
                    11 12 13
8 9
             10
                 -29.84 -57.02 -79.54 -95.54 -103.79 -104.20
     M=
            0.00
                     0.00 0.00
-81.47 -58.44 -28.88
                                                         723.
                                                   783.
                                            780.
                               586.
                                     713.
                        412.
                  211.
           312.
  As(1)=
                          312.
             204.
                     0.
601. 423.
                                                           0.
                                             0.
                                                    0.
                         0.
                                0.
                                       0.
                   0.
   As(2)=
           312.
                         312.
0. 0.
                    0.
             0.
      TOP
                                                           7
                                                    6
                                            5
                           3
                                   4
                     2
             1
  SECTION
                          12
                                 13
8 9
                    11
            : 10
                                                         0.00
                                          0.00
                                                  0.00
                                  0.00
                           0.00
            0.09
                    0.00
      M=
                                 43.90
             0.00
                    0.00
                          6.36
0.00 0.00
                                                    0.
                                                           0.
                                             0.
                                       0.
                          0.
                                0.
                   0.
           312.
   As(1)=
                         314.
                    44.
              0.
       0.
                                                           0.
                                              Û.
                                                    0.
                                       Û.
                                0.
                   0.
                          0.
           312.
   As(2)=
                         314.
                    0.
       0.
              0.
       62.19 NO 1 Vr= 78.63 NO 3 Asv/s= 0.00 As(3)=
   V]=
       Umaxb= 0.006 Umaxt= 0.003
 312.
       Concrete BEAM 2(SECTION TYPE= 1 ANG= 0, L= 2.56)
     Section property: B= 250, H= 300
      BOTTOM
  SECTION 1 2 3 4
                                                           7
                                                    6
                                            5
```

8	9	10	11	12	13		. 2		
	M=	0.00	0.00	0.00	0.9	00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	-2.16		-		
	As(1)=	188.	0.	0.	0.	0.	0.	0.	0.
	0.	0.	0.	188.			٠.		
	As(2)=	188.	0.	0.	0.	0.	0.	0.	0.
0.	0.	0.	0.	188.	ē				
	TOP								
S	ECTION	1	2	i- 3	•	4	5	6 =	. 7
8	9	10	11	12	13			•	
	M=	43.84	35.78	29.57	23.	75	18.45	13.81	9.98
7.02	4.86	3.37	2.40	1.82	3.60				
	As(1)=	595.	475.	386.	305.	234.	173.	. 124.	87.
60.	41.	29.	22.	188.		: *			
	As(2)=	595.	0.	0.	0.	0.	0.	0.	0.
0.	0.	0.	0.	188.				-	
,	VI= 35.7	9 NO	ı v	r= -4.57	NO	2	Asv/s=	0.00	As(3)=
188.	Ur	naxb= 0.0	002	Umaxt=	800.0			-	
			-						
								-	-
	Conci	ete BEAM	1 3	S(SECTIO	N TYPE=	= 1 /	\NG= 0,	L= 5.02))
			B= 250, H		N TYPE=	= 1 /	\NG= 0,	L= 5.02)	•
		property:		I= 500	N TYPE=	= 1 <i>A</i>)
S	Section	property: OM				= 1 <i>A</i> 4	ANG= 0,	L= 5.02)	7
S:	Section BOTTO ECTION 9	property: OM I 10	B= 250, H 2 11	3 12	13	4	5	6	7
	Section BOTTO ECTION 9	property: OM I 10	B= 250, H 2 11	3 12 -28.12	13 38.97	4	5		7
8 -15.	Section BOTTO ECTION 9 M= 74 0.0	property: OM 1 10 -2.14 0 0.0	B= 250, H 2 11 -14.23 0 0.00	3 12 -28.12 0 0.00	13 38.97	-45.58	5 -46.81	6 -42.25	-31.89
8 -15.	Section BOTTO ECTION 9 M= 74 0.0 As(1)=	property: OM 1 10 -2.14 0 0.0 312.	B= 250, H 2 11 -14.23 0 0.06 100.	3 12 -28.12 0 0.00	13 38.97) 278.	-45.58 327.	5 -46.81 336.	6 -42.25	7
-15. 110.	Section BOTTO ECTION 9 M= 74 0.0 As(1)= 0.	property: OM 1 10 -2.14 0 0.0 312. 0.	B= 250, H 2 11 -14.23 0 0.06 100. 0.	3 12 -28.12 0 0.00 199. 312.	13 38.97) 278.	4 -45.58 327.	5 -46.81 336.	6 -42.25 302.	-31.89 226.
8 -15. 110.	Section BOTTO BOTTO FOR SECTION 9 M= 74 0.0 As(1)= 0. As(2)=	property: OM 1 10 -2.14 0 0.0 312. 0.	B= 250, H 2 11 -14.23 0 0.00 100. 0.	3 12 -28.12 0 0.00 199. 312.	13 38.97) 278.	4 -45.58 327.	5 -46.81 336.	6 -42.25 302.	7 -31.89 226.
8 -15. 110.	Section BOTTO ECTION 9 M= 74 0.0 As(1)= 0.	property: OM 1 10 -2.14 0 0.0 312. 0.	B= 250, H 2 11 -14.23 0 0.00 100. 0.	3 12 -28.12 0 0.00 199. 312.	13 38.97) 278.	4 -45.58 327.	5 -46.81 336.	6 -42.25 302.	7 -31.89 226. 0.
-15. 110. 0.	Section BOTTO BOTTO 9 M= 74 0.0 As(1)= 0. As(2)= 0. TOP	property: OM 1 10 -2.14 0 0.0 312. 0. 312. 0.	B= 250, H 2 11 -14.23 0 0.06 100. 0. 0.	1= 500 3 12 -28.12 0 0.00 199. 312. 0. 312.	13 38.97) 278. 0.	4 -45.58 327. 0.	5 -46.81 336. 0.	6 -42.25 302. 0.	7 -31.89 226. 0.
110. 0.	Section BOTTO BOTTO 9 M= 74 0.0 As(1)= 0. As(2)= 0. TOP	property: OM 1 10 -2.14 0 0.0 312. 0. 312.	B= 250, H 2 11 -14.23 0 0.06 100. 0. 0.	1= 500 3 12 -28.12 - 0 0.00 199. 312. 0. 312.	13 38.97) 278. 0.	4 -45.58 327. 0.	5 -46.81 336. 0.	6 -42.25 302. 0.	7 -31.89 226. 0.
110. 0.	Section BOTTO BOTTO 9 M= 74 0.0 As(1)= 0. As(2)= 0. TOP ECTION 9	property: OM 1 10 -2.14 0 0.0 312. 0. 312. 1	B= 250, H 2 11 -14.23 0 0.00 100. 0. 2 11	3 12 -28.12 0 0.00 199. 312. 0. 312.	13 38.97) 278. 0.	4 -45.58 327. 0.	5 -46.81 336. 0.	6 -42.25 302. 0.	7 -31.89 226. 0.
8 -15. 110. 0. S	Section: BOTTO BOTTO 9 M= 74 0.0 As(1)= 0. As(2)= 0. TOP ECTION 9 M=	property: OM 1 10 -2.14 0 0.0 312. 0. 312. 0. 1 10 3.62	B= 250, H 2 11 -14.23 0 0.06 100. 0. 0. 2 11 0.00	3 12 -28.12 -0 0.00 199. 312. 0. 312.	13 38.97) 278. 0.	4 -45.58 327. 0. 4	5 -46.81 336. 0.	6 -42.25 302. 0.	7 -31.89 226. 0.
8 -15. 110. 0. S	Section BOTTO BOTTO 9 M= 74 0.0 As(1)= 0. As(2)= 0. TOP ECTION 9 M=	property: OM 1 10 -2.14 0 0.0 312. 0. 312. 0. 1 10 3.62	B= 250, H 2 11 -14.23 0 0.06 100. 0. 0. 2 11 0.00 38.56	1= 500 3 12 -28.12 0 0.00 199. 312. 0. 312.	13 38.97) 278. 0.	4 -45.58 327. 0. 4	5 -46.81 336. 0. 5	6 -42.25 302. 0. 6	7 -31.89 226. 0.
8 -15. 110. 0. S: 8	Section: BOTTO BOTTO 9 M= 74 0.0 As(1)= 0. As(2)= 0. TOP ECTION 9 M= 0.000 As(1)=	property: OM 1 10 -2.14 0 0.0 312. 0. 312. 0. 1 10 3.62 14.34 312.	B= 250, H 2 11 -14.23 0 0.06 100. 0. 0. 2 11 0.00 38.56 0.	3 12 -28.12 0 0.00 199. 312. 0. 312. 3 12 0.00 65.53 0.	13 38.97) 278. 0. 13 0. 97.76	4 -45.58 327. 0. 4	5 -46.81 336. 0. 5 0.00	6 -42.25 302. 0. 6 0.00	7 -31.89 226. 0.
8 -15.1 110.0 0. Si 8 0.000	Section BOTTO BOTTO FCTION 9 M= 74 0.0 As(1)= 0. TOP FCTION 9 M= 0.000 As(1)= 100.	property: OM 1 10 -2.14 0 0.0 312. 0. 312. 0. 1 10 3.62 14.34 312. 275.	B= 250, H 2 11 -14.23 0 0.06 100. 0. 0. 2 11 0.00 38.56 0. 477.	3 12 -28.12 -0 0.00 199. 312. 0. 312. 3 12 0.00 65.53 0. 731.	13 38.97 278. 0. 13 0. 97.76	4 -45.58 327. 0. 4 .00	5 -46.81 336. 0. 5 0.00	6 -42.25 302. 0. 6 0.00 0.	7 -31.89 226. 0. 7 0.00
8 -15. 110. 0. S: 8 0.00	Section: BOTTO BOTTO 9 M= 74 0.0 As(1)= 0. As(2)= 0. TOP ECTION 9 M= 0.000 As(1)=	property: OM 1 10 -2.14 0 0.0 312. 0. 312. 0. 1 10 3.62 14.34 312. 275. 312.	B= 250, H 2 11 -14.23 0 0.06 100. 0. 0. 2 11 0.00 38.56 0. 477. 0.	3 12 -28.12 -0 0.00 199. 312. 0. 312. 3 12 0.00 65.53 0. 731. 0.	13 38.97 278. 0. 13 0. 97.76 0.	4 -45.58 327. 0. 4 .00	5 -46.81 336. 0. 5 0.00	6 -42.25 302. 0. 6 0.00 0.	7 -31.89 226. 0.

```
A_{SY/S} = 0.00 A_{S}(3) =
 VI= 37.47 NO 1 Vr= 78.25 NO 3
      Umaxb= 0.003 Umaxt= 0.006
312.
      Concrete BEAM 4( SECTION TYPE= 1 ANG= 0, L= 6.00 )
    Section property: B= 250, H= 500
     BOTTOM
                                           5
                                                   6
                                                           7
                    2
                          3
                                  4
           1
 SECTION
                    11
                          12
                                 13
           10
                                           -74.10
                                                 -86.09
                                                        -89.80
                         0.00 -25.34 -53.83
          0.00
                  0.00
     M=
-85.21 -72.42 -52.59
                   -27.75
                           0.00
                                     388.
                                            543.
                                                   637.
                                                          667.
                               179.
                   0.
                         0.
  As(1)=
          312.
                   196.
                          312.
             379.
    530.
                                       0.
                                                    0.
                                                           0.
                               0.
                                             0.
                         0.
          312.
                   0.
  As(2)=
                         312.
                    0.
0.
      0.
             0.
     TOP
                                                           7
                                            5
                                  4
                    2
                          3
            1
 SECTION
                                 13
                   11
                          12
8 9 10
                                                  0.00
                                                          0.00
                                         0.00
                                  0.00
                          14.53
           97.78
                   51.41
     M=
                          0.00
                                 0.07
0.00 0.00
             0.00
                    0.00
                                                           0.
                                                    0.
                                              0.
                                       0.
           731.
                 370.
                        102.
                                0.
  As(1)=
                    0.
                         312.
             0.
      0.
                                                           0.
                                                    0.
                                       0.
                                              0.
                   0.
                         · 0.
                                0.
           731.
 As(2)=
                   0.
                         312.
0.
      0.
             0.
  VI= 91.04 NO 1 Vr= 55.44 NO 3 Asv/s= 0.00
                                                        As(3)=
312. Umaxb= 0.005 Umaxt= 0.006
      Concrete BEAM 5( SECTION TYPE= 1 ANG= 0, L= 5.84 )
    Section property: B= 250, H= 500
     BOTTOM 12
                   2 3 4
                                                           7
                                            5
                                                    6
 SECTION
            1
                  11 12 13
            10
     9
         0.00 -28.91 -55.15 -76.74 -91.92
                                           -99.88 -100.57
M=
-80.14 -59.07 -31.59 0.00 0.00
                                                   754.
                                                          700.
                                            748.
                                      684.
                        398.
                               564.
 As(1)=
           312. 205.
             224. 0. 312.
590. 428.
                               0.
                                                           0.
                                                     0.
                   0.
                         0.
                                     €.
           312.
  As(2)=
                  0.
                         312.
             0.
0.
       0.
      TOP
```

```
7
                                             5
                                   4
                            3
                     2
           1
 SECTION
                           12
                                   13
                   11
             10
       9
8
                                                    0.00
                                                            0.00
                                            0.00
                           0.00
                                   0.00
                    0.00
             0.09
     M≖
                          1.42
                                  36.80
                    0.00
             0.00
0.00 0.00
                                                              O.
                                                       0.
                                                Û.
                           0.
                                  0.
                                         0.
                    0.
           312.
  As(1)=
                          312.
                    10.
              0.
       0.
                                                              0.
                                                0.
                                  0.
                                         0.
                           0.
                    0.
           312.
  As(2)=
                          312.
                     0.
              0.
       0.
                                  NO 3 Asv/s=
                                                   0.00
                      Vr= 74.18
       60.47 NO 1
  VI=
                       Umaxt= 0.002
312. Umaxb= 0.006
                    6( SECTION TYPE= 1 ANG= 0, L= 2.56 )
       Concrete BEAM
     Section property: B= 250, H= 300
      BOTTOM
                                                              7
                                                      6
                                              5
                                    4
                            3
                     2
             1
  SECTION
                                   13
                             12
              10
                     11
       9
                            0.00 0.00
                                                             0.00
                                                     0.00
                                             0.00
                     0.00
             0.00
      M=
                                   0.00
                     0.00
                            0.00
              0.00
0.00 0.00
                                                0.
                                                        0.
                                                             0.
                                         0.
                                0.
                           0.
                    0.
            188.
   As(1)=
                     0.
                           188.
              0.
      0.
                                                        0.
                                                               0.
                                                0.
                                         0.
                           0.
                                  0.
            188.
                    0.
   As(2)=
                     0.
                           188.
              Û.
0.
    0.
      TOP
                                                               7
                                               5
                             3
                      2
  SECTION
              1
                     11 12
                                    13
              10
      9
                                            18.83 16.01
                                                            13.99
                                    22.32
                             26.32
             36.73
                     30.71
      M=
                      13.69 14.92 18.35
               12.84
        12.51
 12.85
                                                      176.
                                                             161.
                                 286.
                                        239.
                                             202.
                          341.
                   402.
            488.
   As(1)=
                             233.
                      188.
               172.
        161.
 157.
                                                 0. . . . 0.
                                          0.
                            0.
                                   0.
                     0.
            488.
   As(2)=
                           233.
                      0.
               0.
        0.
        25.92 NO 1 Vr= 10.36 NO 3 Asv/s=
                                                   0.00
   VI=
         Umaxb= 0.002 Umaxt= 0.007
 188.
                    7(SECTION TYPE= 1 ANG= 0, L= 5.02)
        Concrete BEAM
      Section property: B= 250, H= 500
       BOTTOM
                                                      ٠ 6
                                               5
                  2 3
                                       4
   SECTION 1
```

11 12 13 9 10 8 -7.24 -29.08 -47.87 -62.43 -71.85 -75.90 -74.58 M≈ 0.00 0.00 -20.89 -67.89 -56.06 -40.00 557. 547. 526. 206. 344. 453. 50. 312. As(1)=147. 312. 286. 495. 405. 0. 0. 0. 0. 0. 0. 0. 312. As(2)=0. 312. 0. 0. 0. TOP 7 5 6 2 3 4 SECTION 1 11 12 13 8 . 9 10 0.00 0.00 0.00 0.00 0.00 0.00 18.40 M= 0.00 0.06 0.00 0.00 0.00 0.00 0. 0. 0. 0. 0. 0. As(1)= 312. 0. 312. 0. 0. 0. O. 0. 0. 0. 0. 0. As(2)=312. 0. 312. 0. 0. 0. NO 1 $V_{f=}$ 50.98 NO 3 Asv/s= 0.00 As(3)= Vi= 58.66 312. Umaxb= 0.004 Umaxt= 0.002 Concrete BEAM 8(SECTION TYPE= 1 ANG= 0, L= 2.48) Section property: B= 250, H= 300 . BOTTOM 7 3 5 6 4 2 SECTION 1 12 13 9 10 11 -4.98 -4.10 -2.30 -1.76 -3.29 -4.43 -5.05 M = 0.000.00 0.00 0.00 0.00 0.00 28. 50. 61. 62. 22. 40. 54. 188. As(1)= 188. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 188. As(2)=188. 0. 0. 0. 0. TOP 7 4 5 6 . 3 2 SECTION · 13 11 12 8 9 ... 10 0.00 0.00 0.00 0.00 0.00 0.000.01 M= 9.82 13.92 19.00 6.08 0.33 2.82 4. 0. 0. 0. 0. 0. 188. 0. As(1)= 241. 175. 122. 34. 75. 0. 0. 0. 0. 0. 0. As(2)= 188. 0. 0. 241. 0. 0. 0.

```
8.21 NO 1 Vr= 23.92 NO 3 Asv/s= 0.00
  V]=
                                                            As(3)=
188.
         Concrete BEAM
                    9( SECTION TYPE= 1 ANG= 0, L= 5.02 )
     Section property: B= 250, H= 500
     BOTTOM
                      2
 SECTION
                             3
                                               5
                                      4
                                                        6
       9
              10
                      11
                            12 13
      M=
             0.00
                   -0.51
                         -17.43 -31.30
                                       -40.91
                                               -45.10
                                                      -43.06
                              0.00
-19.56
       -0.04
               0.00
                      0.00
                                        1 - .
  As(1)=
           312.
                    4.
                          122.
                                 222.
                                        292.
                                                323.
                                                       308.
                                                              245.
      0.
                0.
                       0.
                             312.
  As(2)=
           312.
                    0.
                            0.
                                   Û.
                                          0.
                                                 Û.
                                                        0.
0.
       0.
              0.
                     0.
                           312.
      TOP
 SECTION
                     2
            1
                             3
                                     4
                                               5
                                                               7
             10
       9
                     11
                             12
                                     13
     M=
            19.02
                     0.24
                             0.00
                                     0.00
                                              0.00
                                                      0.00
                                                              0.00
0.00 0.00
              8.85
                    31.70
                            57.31
                                   88.17
                          0.
  As(1)=
           312.
                    2.
                                          0.
                                               0.
      62.
            225.
                    415.
                           654.
           312.
                    0.
                           0.
                                   0.
                                       0.
  As(2)=
                                                 0.
              0.
                     0.
                           654.
  VI= 44.92 NO 1 Vr= 74.55 NO 3 Asv/s= 0.00
312. Umaxb= 0.003 Umaxt= 0.005
      Concrete BEAM 10( SECTION TYPE= 1 ANG= 0, L= 6.00 )
     Section property: B= 250, H= 500
     BOTTOM
 SECTION
             1
                      2
                             3
                                      4
                                               5
                                                        6
       9
              10
                      11
                             12
                                     13
     M=
            0.00
                    0.00
                           0.00 -21.59
                                       -46.27
                                               -63.91
                                                     -74.49
-74.46 -63.89 -46.88
                             0.00
                    -24.90
                                                ·: .
  As(1)=
           312.
                    0.
                           0.
                                        332.
                                 152.
                                               465.
                                                       546.
                                                              574.
       464.
              336.
                    176.
                            312.
                                                   - 3
  As(2)=
           312.
                    0.
                           0.
                                 0.
                                          Û.
                                                 0.
                                                        0.
0.
       0.
              0.
                     0.
                           312.
     TOP
```

```
4
                                 5
               2
                     3
       1
SECTION
                          13
               11
                     12
         10
                                0.00
                                              0.00
                                       0.00
                     13.76
                          0.00
               46.68
   M=
         88.19
                     0.00
                          0.06
               0.00
0.00 0.00
        0.00
                                               O.
                                          0.
                         0. 0.
                                    0.
             335.
        654.
                   96.
As(1)=
                    312.
               0.
0. 0.
          0.
                                               0.
                               0.
                                    0.
                                          0.
                         0.
                    0.
               0.
 As(2)=
        654.
                    312.
               0.
          0.
0. 0.
VI= 81.94 NO 1 Vr= 49.96 NO 3 Asv/s= 0.00
                                            As(3)=
312. Umaxb= 0.005 Umaxt= 0.005
Concrete BEAM 11(SECTION TYPE= 1 ANG= 0, L= 2.48)
  Section property: B= 250, H= 300
BOTTOM
                     3 4
                                   5
                                         6
                                               7
               2
SECTION
         1
               11 12 13
8 9
         10
                                        0.00
                                              0.00
                                  -1.31
                        -2.72 -2.38
                   -2.38
   M = 0.00
              -1.45
                0.00 0.00
0.00 0.00 0.00
                                               0.
                                    16.
                                          0.
                         33.
                              29.
               18.
                    29.
         188.
As(1)=
                    188.
0. 0.
                0.
         0.
                                               0.
                    0. 0. 0.
                                    0.
               0.
         188.
 As(2)=
                    188.
0. 0.
         0.
                0.
  TOP
                          4
                                              7
                    3
                                   5
               2
SECTION
         1
                     12
                          13
               11
8 9 10
                                              2.60
                                  0.00
                                        0.62
                           0.00
                     0.00
    M = 0.00
                0.00
                          29.92
          13.15
               17.95
                     23.29
5.41 8.94
                                         32.
                                              67.
                    0. 0. 8.
As(1)=
        188.
               0.
                299.
                    391.
           227.
111. 165.
                                               0.
                                          0.
                                 0.
                              0.
                    0.
                          0.
        188.
               0.
As(2)=
               0.
                    391.
         0.
0. 0.
VI= 6.94 NO 1 Vr= 32.77 NO 3 Asv/s= 0.00 As(3)=
188. Umaxb= 0.002 Umaxt= 0.005
                Concrete BEAM 12( SECTION TYPE= 1 ANG= 0, L= 5.02 )
    Section property: B= 250, H= 500
     BOTTOM
  SECTION 1 2 3 4 5 6 7
```

0.00 -17.77 -37.26 -52.66 -63.30 -68.58 -68.15 0.00 M= -19.48 0.00 -62.36 -51.81 -37.17 501. 497. 125. 380. 460. 265. As(1)= 312. 0. 312. 265. 137. 373. 453. 0. 0. 0. 0. 0. 0. 312. 0. As(2)=312. 0. 0. 0. TOP 3 4 5 6 7 2 3 SECTION 13 12 1 **1** 9 10 0.00 0.00 0.00 0.00 5.68 0.00 M= 29.96 0.00 0.00 0.05 0.00 0.00 0.00 ´ 0. 0. 0. 0. Û. 0. 40. 312. As(1)= 312. 0. 0. 0. 0. Û. 0. 0. 0. 0. 0. As(2)=312. 312. 0. 0. 0. 0. Vj= 60.35 NO 1 Vr= 47.29 NO 3 Asv/s= 0.00 312. Umaxb= 0.004 Umaxt= 0.002 Concrete BEAM 13(SECTION TYPE= 1 ANG= 0, L= 6.00) Section property: B= 250, H= 500 BOTTOM 2 3 4 5 SECTION 1 11 12 13 10 -38.53 -74.22 -104.88 -128.46 -143.14 -148.06 -143.14 M= : 0.00 -128.46 -104.88 -74.22 -38.53 0.00 544. 789. 987. 1116. 1160. 1116. 275. As(1)=312. 275. 312. 987. 789. 544. 0. 0. 0. 0. 0. 0. As(2)= 312. 0. 0. 0. 0. 312. TOP 4 2 3 5 SECTION 1 8 9 12 13 11 10 0.00 0.00 0.00 0.000.00 0.00 0.14 M≃ 0.00 0.00 0.14 0.00 0.00 0.00 0. 0. 0. 0. As(1)= 312. €. 312. 0. 0. 0. 0. 0. 312. Û. 0. 0. As(2)=0. 0. 312. 0. 0.

11 12 13

```
A_{SV/S} = 0.00 A_{S}(3) =
                      V<sub>f</sub>= 78.95 NO 3
       78.95 NO 1
  VI=
        Umaxb= 0.009 Umaxt= 0.002
312.
      Concrete BEAM 14( SECTION TYPE= 1 ANG= 0, L= 4.50 )
    Section property: B= 250, H= 500
     BOTTOM
                                                       6
                                                               7
                                              5
                     2
                            3
                                      4
 SECTION
             1
                     11
                             12
                                    13
             10
                                                            -32.09
                                                     -39.63
                                              -42.16
                         -24.45 -33.75 -39.94
                  -12.90
     M = 0.00
                      0.00
                             0.00
       -3.54
               0.00
-19.80
                                                             228.
                                                      283.
                                        285.
                                               301.
                                240.
                         173.
  As(1)=
           312.
                   90.
139. 25. 0. 0. 312.
                                                        0.
                                                               0.
                                  0. 0.
                                                0.
                           0.
           312.
                    0.
  As(2)=
                     0.
                          312.
              0.
0.
       0.
      TOP
                                                               7
                                   4
                                              5
                                                       6
                            3
                     2
 SECTION
            1
                            12
                                   13
                    . 11
             10
       9
                                                             0.00
                                                     0.00
                                             0.00
                                    0.00
                     0.00
                            0.00
             0.03
      M≕
                                   66.07
                           41.68
                    21.53
             3.43
0.00 0.00
                                                               0.
                                                        0.
                                         0.
                                                 0.
                                   0.
                           0.
                    0.
            312.
  As(1)=
                           481.
                    298.
      24.
             152.
0.
                                                               0.
                                                 0.
                                                        Û.
                                         0.
                                   0.
                           0.
            312.
                    0.
  As(2)=
                           481.
              0.
                     0.
       0.
  VI= 33.95 NO 1 Vr= 65.30 NO 3 Asv/s= 0.00
                                                            As(3)=
312. Umaxb= 0.002 Umaxt= 0.004
       Concrete BEAM 15( SECTION TYPE= 1 ANG= 0, L= 5.40 )
     Section property: B= 250, H= 500
      BOTTOM
                                                              7
                            3 4
                                               5
                                                       6
                     2
  SECTION
            1
                             12
                                     13
                      11
        9
              10
                                                            -52.43
                           0.00 -18.68 -37.49 -49.67
                                                     -54.65
      M = 0.00
                    0.00
                      0.00
               -5.68
-43.01 -26.96
                                                              378.
                                                      394.
                                               357.
                                131.
                                        267.
                    0.
                            0.
            312.
   As(1)=
308. 191. 40. 0. 312.
                                     0. 0. 0.
                                                               0.
                                   0.
                    0.
                            0.
   As(2)=
            312.
              0. 0.
                           312.
0.
       0.
      TOP
```

```
7
                                                 5
                                                           6
                                        4
                       2
                               3
 SECTION
             1
                               12
                                       13
                      11
            10
8
                                                0.00
                                                                  0.00
                                        0.00
                     33.62
                               8.85
             66.08
      M=
                                     52.01
                      0.38
                             22.46
               0.00
0.00
       0.00
                                                            0.
                                                                    0.
                                                    0.
                            62.
                                     O.
                                             0.
                    239.
            481.
  As(1)=
               3.
                     158.
                             375.
       0.
0.
                                                            0. .
                                                    0.
                             0.
                                     0.
                                             0.
                     0.
            481.
  As(2)=
                             375.
               0.
                      0.
       0.
0.
        69.18 NO 1 Vr= 63.02 NO 3
                                               Asv/s = 0.00
                                                                As(3)=
   VI=
                          Umaxt= 0.004
         Umaxb= 0.003
312.
       Concrete BEAM 16( SECTION TYPE= 1 ANG= 0, L= 5.10 )
     Section property: B= 250, H= 500
      BOTTOM
                                                                    7
                                                            6
  SECTION
                       2
                                3
                                         4
                                                   5
             1
                       11
                               12
                                        13
               10
                             0.00 -10.72 -22.78
                                                  -29.16
                                                         -29.17
                                                                 -22.74
             0.00
                     0.00
      M=
                               0.00
                       0.00
                0.00
-9.94
       0.00
                                                   207.
                                                           207.
                                                                   160.
                                    75.
                                           161.
                      0.
                             0.
            312.
   As(1)=
                        0.
                              312.
69.
                0.
      0.
                                                    0.
                                                            O.
                                                                    Û.
                                     0.
                                             Û.
                             0.
   As(2)=
            312.
                      0.
                             312.
       0.
               0.
                       0.
      TOP
                                                   5
                                                            6
                                                                     7
  SECTION
              1
                       2
                                3
                                         4
                           12
              10
                      11
                                   13
        9
      M=
                      27.76
                              10.73
                                    0.00
                                                 0.00
                                                          0.00
                                                                   0.00
             52.00
              17.62
                      38.77
                              62.81
                                     92.78
      1.20
0.00
                                                     0.
                             75.
                                             0.
                                                             0.
            375.
                    196.
                                     0.
   As(1)=
                             691.
             277.
                     456.
      124.
                                                                    0.
                                             0.
                                                     0.
                      0.
                              0.
                                     0.
   As(2)=
             375.
                             691.
        0.
               0.
                       0.
0.
   VI= 52.59 NO 1 Vr= 70.03 NO 3 Asv/s=
                                                        0.00
                                                                 As(3)=
          Umaxb= 0.002
                            Umaxt= 0.006
312.
                          17( SECTION TYPE= 1 ANG= 0, L= 6.00 )
       Concrete BEAM
      Section property: B= 250, H= 500
      BOTTOM
                                                                     7
                                                   5
                        2
                                 3
                                          4
  SECTION 1
```

12 13 10 11 9 0.00 -33.62 -63.00 -83.72 -95.55 · M= 0.00 0.00 -92.52 -77.92 -56.25 -29.57 0.00 619. 713. 737. 239. 458. 0. 0. 312. As(1)=209. 312. 407. 689. 573. 0. 0. 0. 0. 0. 0. 0. As(2)=312. 312. 0. 0. 0. 0. TOP 7 5 6 3 4 2 SECTION 1 11 12 13 9 10 0.00 0.00 0.00 7.59 0.00 45.24 M= 92.81 0.00 0.00 0.08 0.00 0.00 As(1)= 53. 691. 324.

> 0. 312.

Vt= 92.85 NO 1 Vr= 59.24 NO 3 Asy/s= 0.00 As(3)=312. Umaxb= 0.006 Umaxt= 0.006

7

Concrete BEAM 18(SECTION TYPE= 1 ANG= 0, L= 7.64) Section property: B= 300, H= 800 BOTTOM 3 5 6 2 4 SECTION 1 12 13 11 10 9 -84.10 -161.48 -227.86 -280.16 -320.92 -354.34 -326.57 0.00 M= 0.00 -86.44

-284.39 -231.72 -165.11 1488. 706. 1012. 1627. 1460. 1261. As(1)=600. 361. 600. 722. 371. 1281. 1030. 0. 0. 0. 0. 600. 0. 0. 0. As(2)=0. 600. 0. 0. 0.

TOP 7 5 3 4 2 **SECTION** 1 12 13 11 9 10 0.00 0.00 0.00 0.00 0.00 0.00 M≈ 0.08 0.00 0.08 0.00 0.000.00 0.00 0. 0. 0. Û. 0. 0. 0. 600. As(1)=0. 0. 600. 0. 0. 0. 0. 0. 0. €. 0. 0. 600. As(2)=

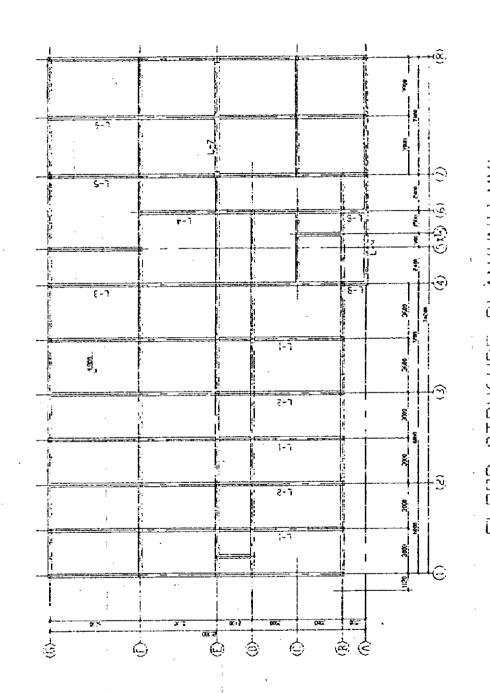
600.

0. 0.

0.

0.

VI= 135.35 NO 1 Vr= 140.08 NO 3 Asv/s= 0.00 As(3)= 600. Umaxb= 0.007 Umaxt= 0.002
PK1 COMPUTE END



(C.)

-375-

0.7	6.0 6.0 6.0 6.7		0.0 7	6.0	
6.0	6.0		0.7	6.0	5
6.0	6.0		6.0 7.0	·	
	6.0 0.7	6.0 0.7	6.0 0.7	6.0 0.7	
6.0			6.0 0.7		
6.0 7.0	6.0	0.9 7.9	6.0	0.7	
6.0	6.0 7.0	6.0 0.7	09	0.7	
6.0	6.0	6.0 0.7	6.0	0.7	
6.0 0.7	6.0	6.0	Q.	\ =	
6.0	6.0	6.0 0.7	1.0 2.0 2.0	>:	
6.0	6.0	6.9 0.7	96	3	

. 1st floor load (static load)

0.0	<u> 2</u> 8.8.8 0.0	9.7		رب¦ ا	Σε.ε ου	,	្រំ ប្រ
0.0	4.55 651	7.1	č.€.5 €.01	7.1	4:5 0.11	30° €95	0.0
0.0	9:81	10.7	9, 0.0 9,8	U 6 8	6 <u>8</u> 6 00	SE S	ξ :
0.0	26.7.8	10.7	5'01		2 6.00 W IE U	, 5	b .
0.0	ទូខា ភូមិ	10.01	4. 9.E	0.01 7.10 7.10	2 60 2 1.5 c	81.9	
0.0	4. 8.1 3.8	6.1	유 8.1 5.0[9 2 L	4. 3.8	6.i 6.8	
1.0	4. 8.1 6.8	6.1	3.6	0.7 7	δ,	81 °°	
0.0	98 2 H	4.2	° 01	4100 P	7 9°	il e	
0.0	हरू स्राप्	(,)	හි 0.1 කි.0.1	4 0 t	N 5.	rı e	
0.0	29 8 H	4.2	8.8 8.0.1	4 0 to	7 6	6.0	
0.0	की हा। इ.इ.	8. K.	ee 21 € 21	N. 2: 9:	6 24 8 73	β' 00 Δ'!	
:	Û (·		6.0	ùū	<u>i)'i</u>	j	•

2000

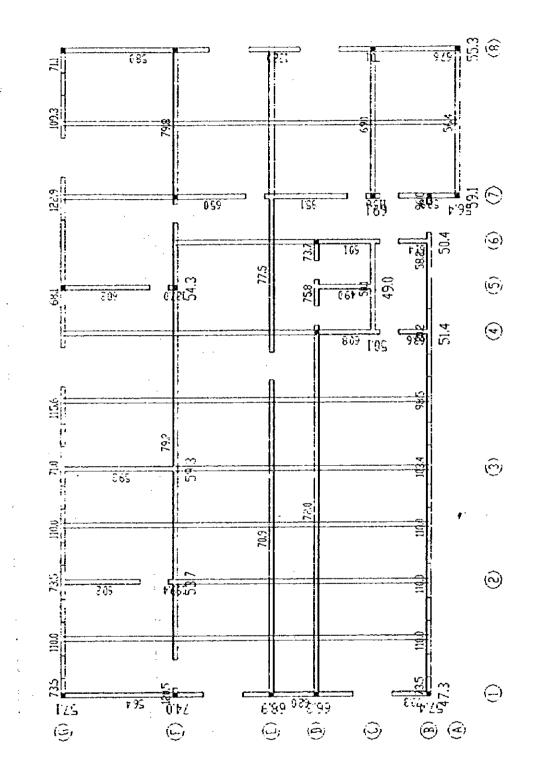
15t FLOOR CAST-IN-SITU BOARD BENDING MOMENT DRAWING (UNIT-KN-M)

Ċ	4 7.7	175	673.	346.	982	. 638		378. 5	.185	638.	·0	ž 76	್
ပ်	2 d pr pr	; ; ; ; ; ; ; ; ; ; ; ; ; ; ; ; ; ; ;	488.	98 4 29	.881	483.		300.	.87 1	483.		हें 'E1	.S .e.
ಪ	·82		753	ré N	Û	c	619	7	2. 613.	ـــــــــــــــــــــــــــــــــــــ	069	- 4	
Ö.);; V	1718	75.3.	ZEZ		697.	7013	264			.582	6	
Ċ		.6 (f)	697.	320	354	697.	126	完 设	7. .01S	950 4	ĬŢ.	. <u>5</u> 99	
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1st FLOOR CAST-IN-SITU BOARD CALCULATION REINFORCEMENT

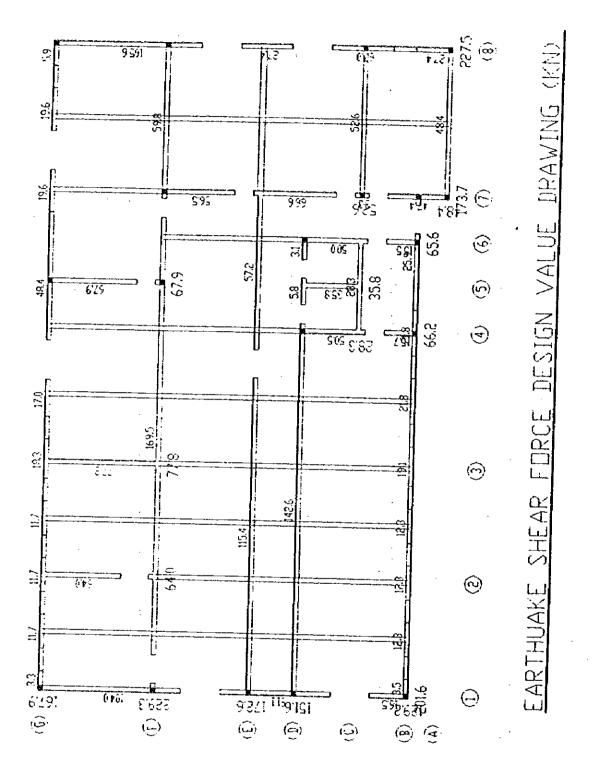
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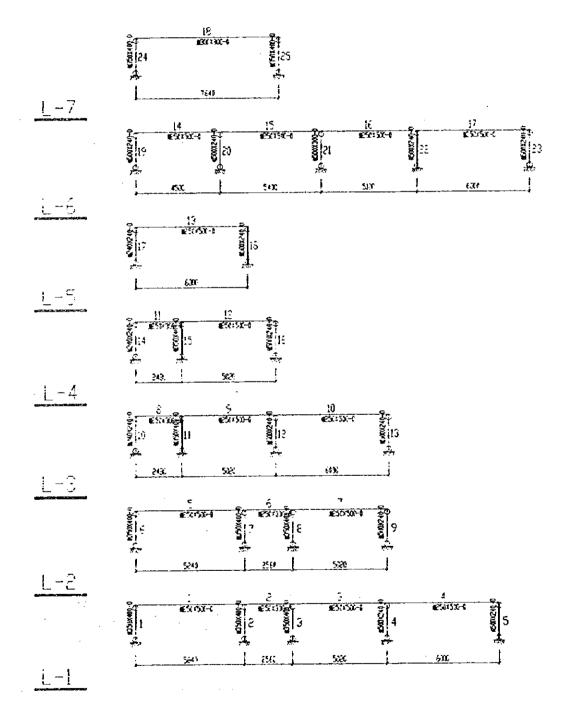


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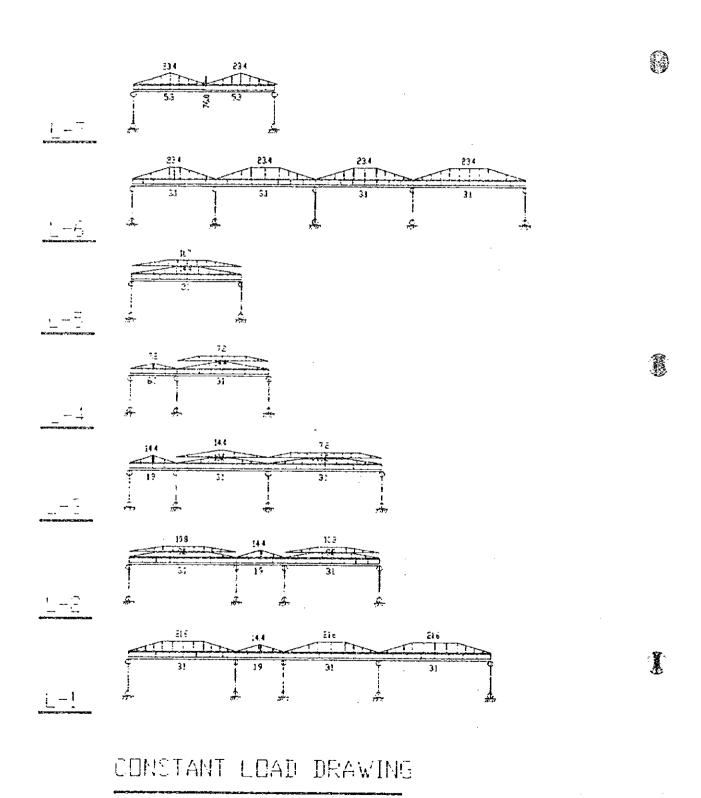
DEAWING (KN/M) AXIAL FORCE DESIGN VALUE 层墙轴力设计值图

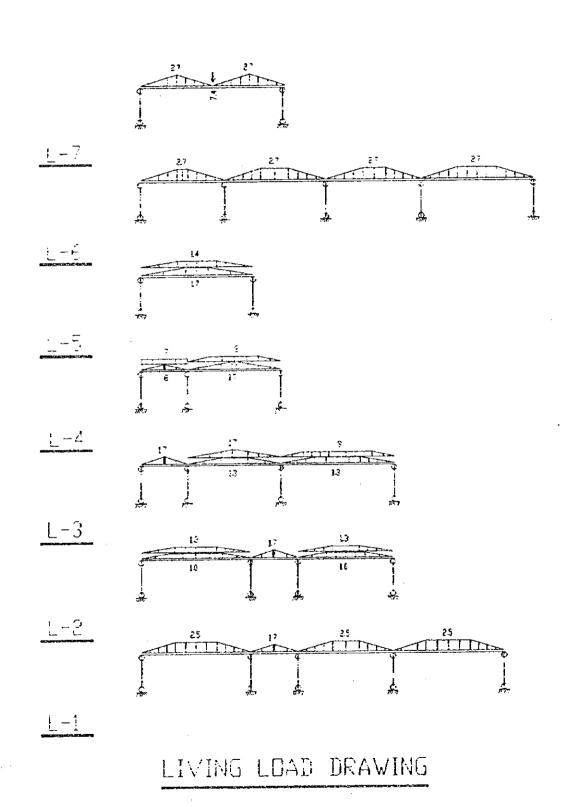


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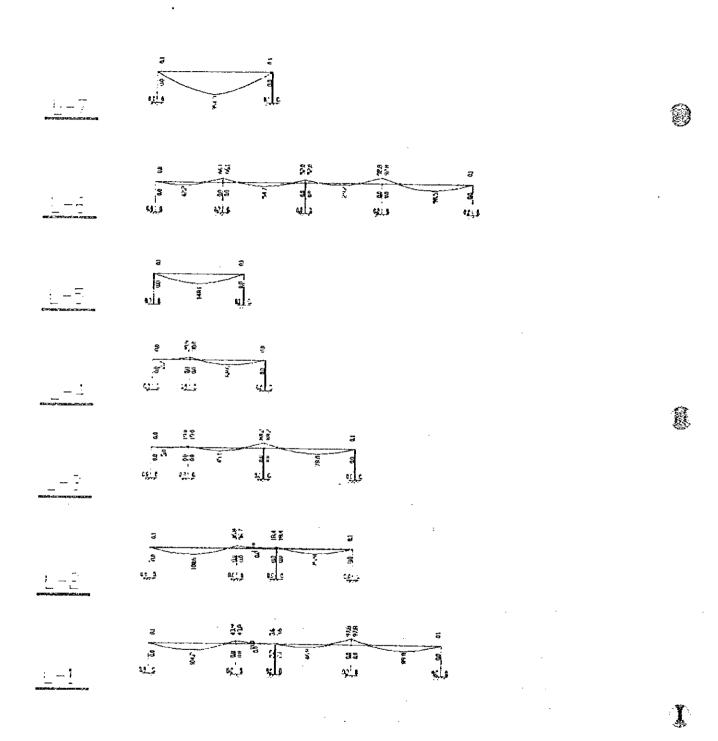


FRAME ELEVATION DRAWING





Z.



PENDING MOMENT DUTLINE (KN-M)

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