

BAB V

KESIMPULAN DAN SARAN

5.1 Kesimpulan

Berdasarkan hasil analisa yang telah dilakukan pada gedung dengan menggunakan program *SAP 2000 V.14* untuk menganalisa gaya dalamnya, maka kesimpulan yang dapat diambil dari redesain gedung Hotel Lombok Astoria Mataram dengan menggunakan sistem dinding geser penahan gaya *lateral* ini antara lain sebagai berikut :

1. Hasil analisa perhitungan didapat ketebalan dari dinding geser 45 cm dengan panjang yang bervariasi mulai dari 2.55 m, 3 m dan 5 m didapatkan hasil simpangan antar lantai sebesar 82.879 mm, dan untuk penempatan dinding geser ditempatkan pada setiap sudut dan sisi tengah pada struktur gedung yang digunakan. Untuk bentuk dinding geser yang digunakan pada redesain gedung hotel Lombok Astoria Mataram berupa, 3 model bentuk dinding yaitu (I),(L),(T).
2. Dalam perancangan, material yang digunakan adalah mutu beton $f'_c = 30 \text{ Mpa}$ untuk struktur pelat, balok, kolom, dan $f'_c = 20 \text{ Mpa}$ untuk bore pile, dengan mutu baja $f_y = 400 \text{ Mpa}$ untuk tulangan deform dan $f_y = 240 \text{ Mpa}$ untuk tulangan polos, sehingga diperoleh dimensi komponen - komponen struktur gedung sebagai berikut :
 - a. Dimensi pelat lantai dan pelat atap dengan ketebalan 200 mm dengan tulangan yang digunakan berdiameter $\varnothing 10 \text{ mm}$
 - b. Dimensi balok arah melintang dengan lebar sebesar 350 cm dengan tinggi 650 cm, sedangkan untuk balok arah memanjang lebarnya 400 cm dengan tinggi 800 cm, dimana keduanya menggunakan tulangan pokok berdiameter D22 dengan diameter $\varnothing 10 \text{ mm}$
 - b. Dimensi kolom yang digunakan:

Untuk kolom lantai 1-3 menggunakan dimensi 550 x 900 mm

Untuk kolom lantai 5-8 menggunakan dimensi 500x850 mm

Dan untuk kolom lantai 9-atap menggunakan dimensi 450x750 mm

Dengan tulangan utama D22 dan tulangan sengkang $\varnothing 10 \text{ mm}$

- c. Untuk pondasi pada pile cap berdimensi 3,5 x 3,5 x 1 m dengan bore pile berdiameter 0,5 m berjumlah maksimum 4 tiang per kolom, sedangkan untuk tanah keras maksimum di temukan pada kedalaman 20,6 m.

5.2 Saran

Berdasarkan hasil analisa struktur gedung yang telah diredesain maka saran yang bisa dilakukan untuk perencanaan berikutnya adalah.

1. Perencanaan redesign selanjutnya .dapat menggunakan metode brassing sebagai penguat gaya lateral pada struktur.



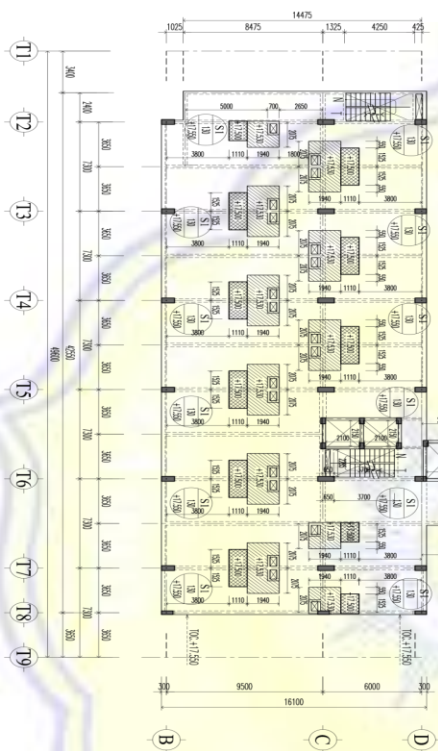
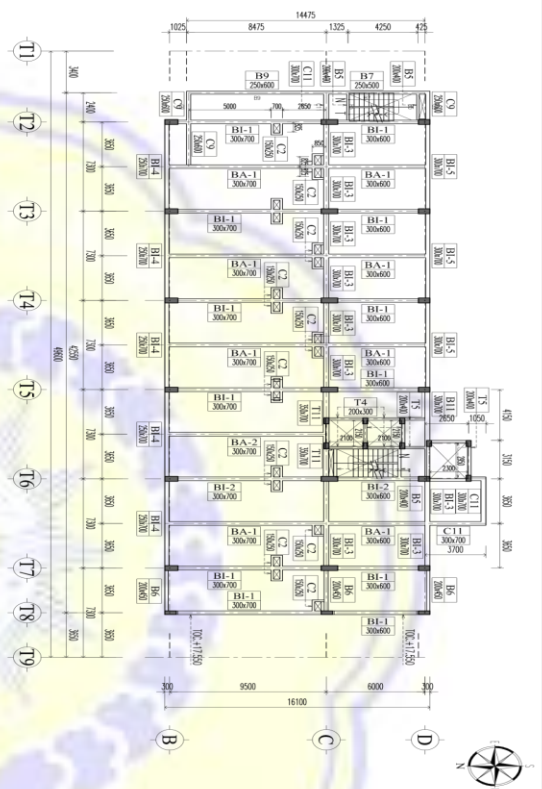
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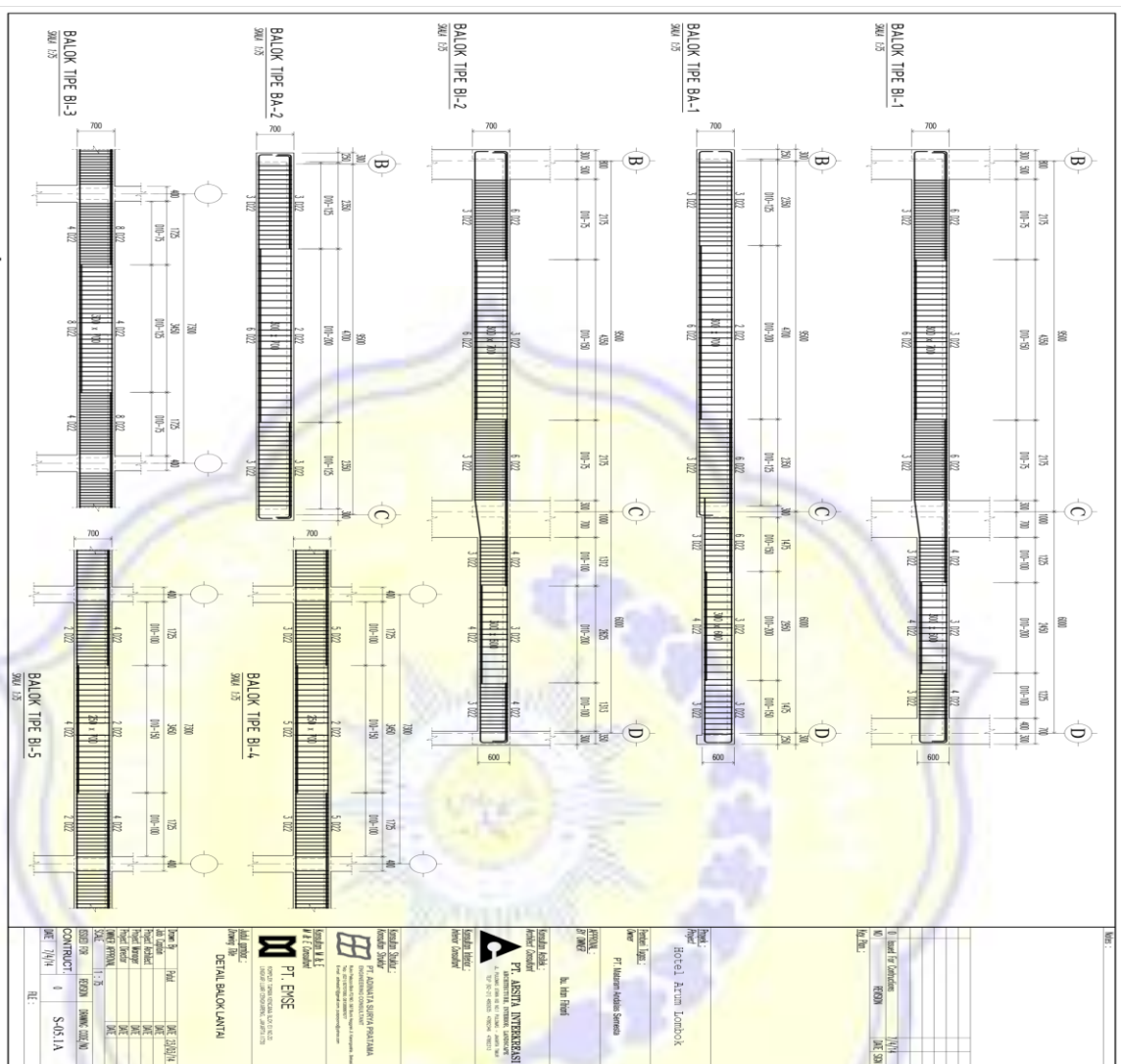
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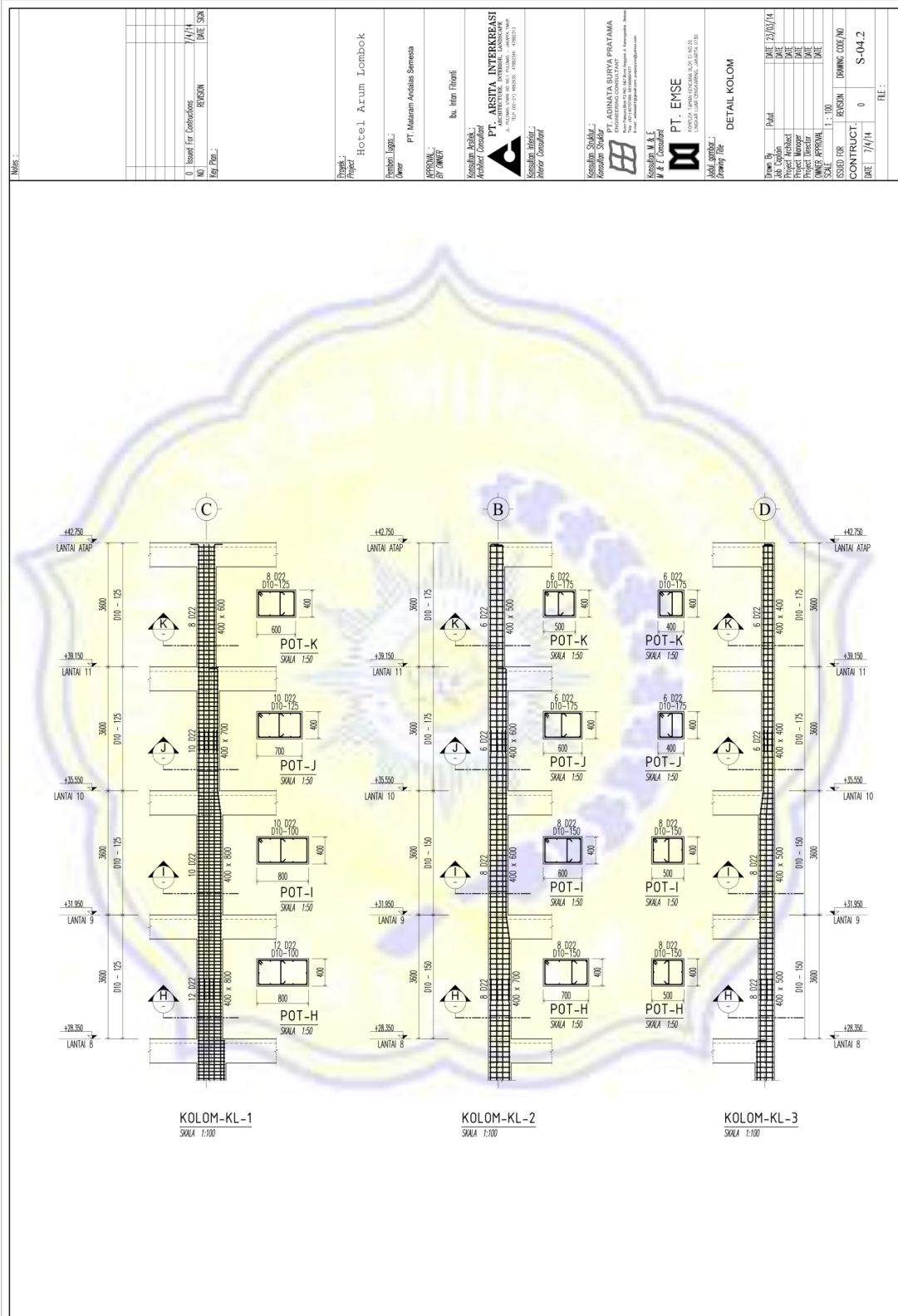


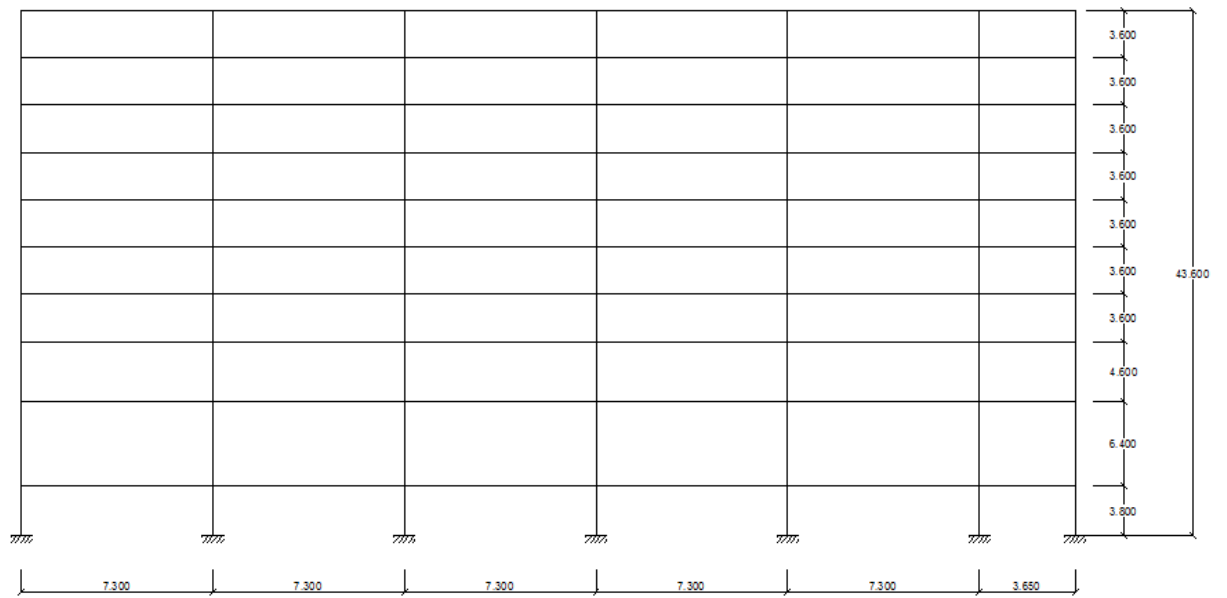
LAMPIRAN 1

**(DESAIN EKSISTING GEDUNG HOTEL GOLDEN TULIP DAN
DATA PERANCANGAN)**

[illegible]

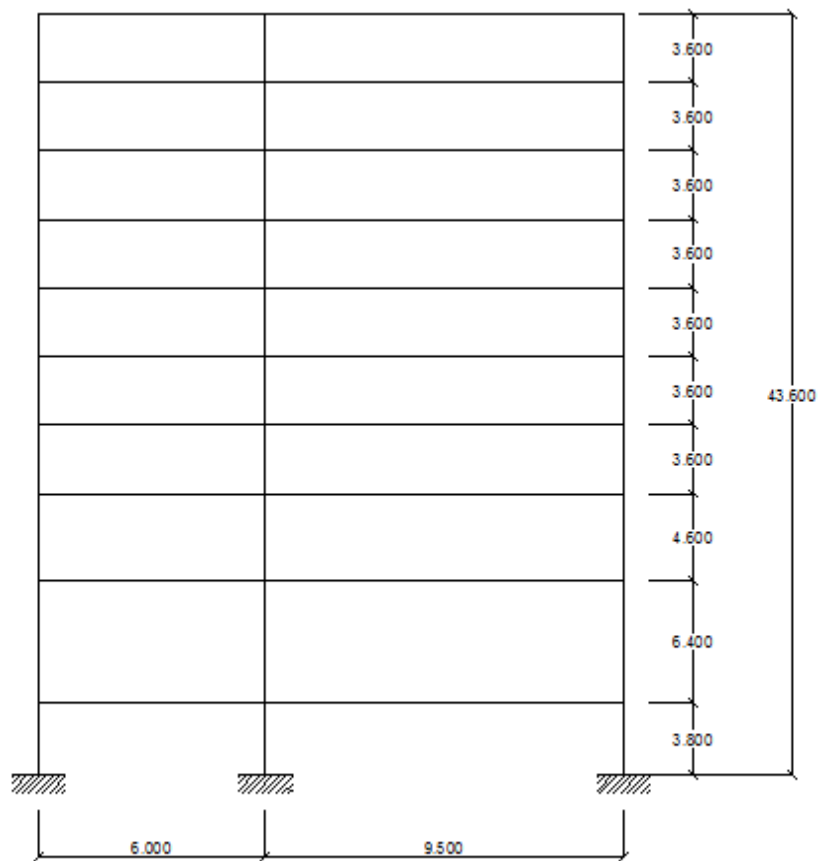






POTONGAN PORTAL ARAH X

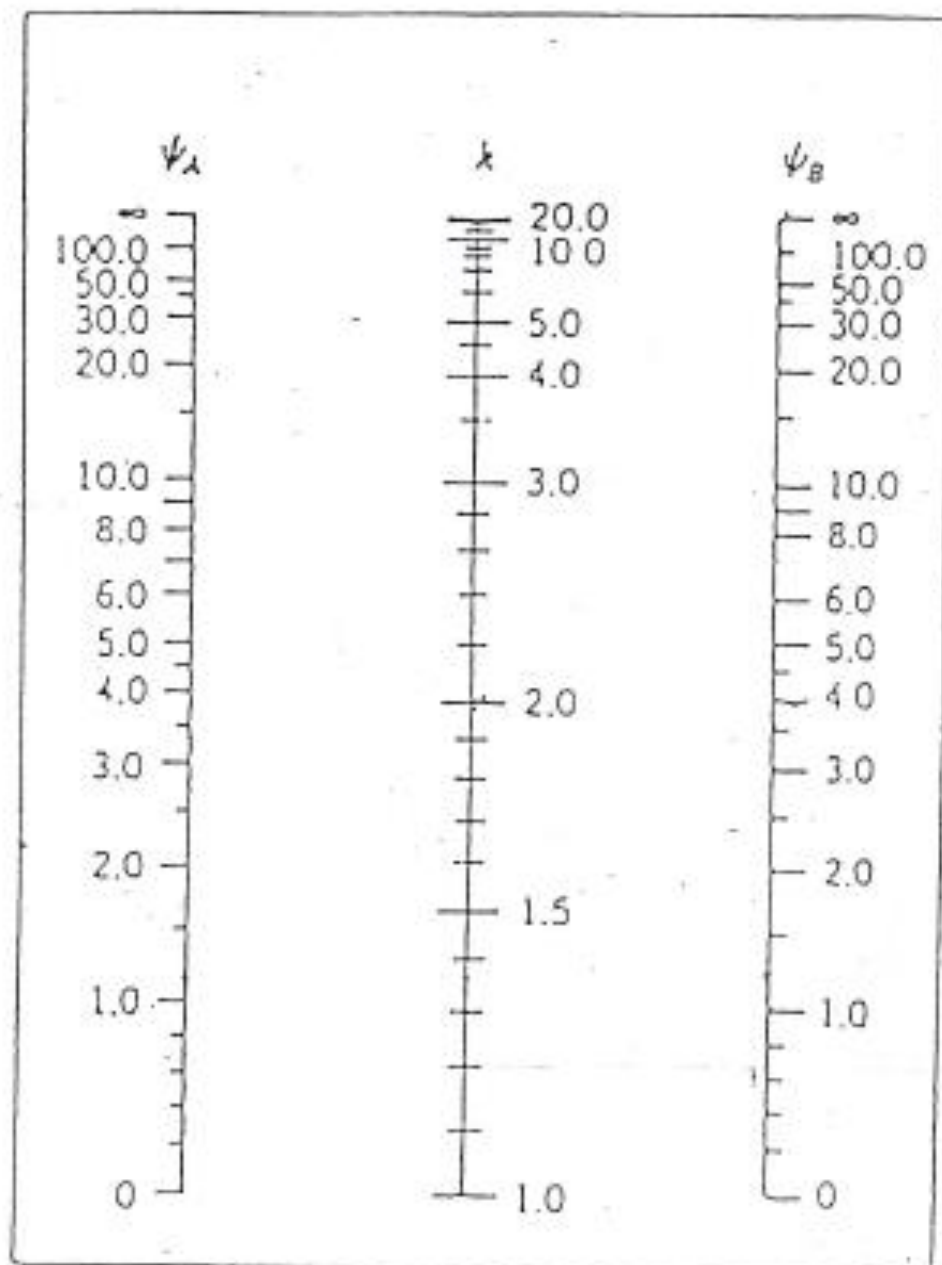


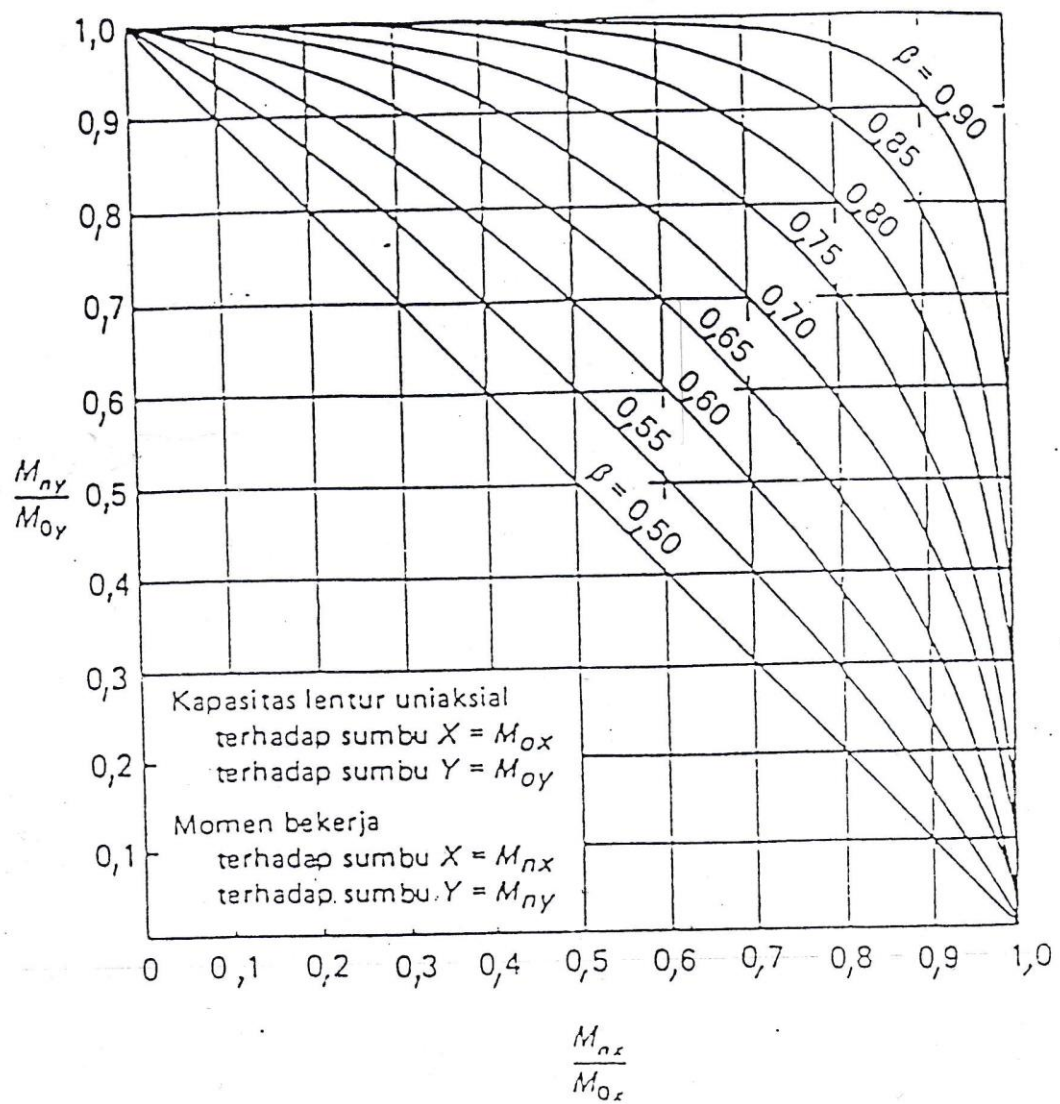


POTONGAN PORTAL ARAH Y

menjadi di dalam pelat pereggi yang menempu pada keempat tepinya
akibat beban terbagi rata

_____ " Terletak bebas
 ~~~~~ " Terdiri penuh





BIRO PENERBIT KMTS FT UGM

| BORING LOG                                                      |       |                 |                        |                 |                     |        |              |         |            |                |            |                        |                          |                                                                                                | BORING NO : BH-1                    |                     |                       |            |                              |    |    |    |    |    |    |  |  |  |         |
|-----------------------------------------------------------------|-------|-----------------|------------------------|-----------------|---------------------|--------|--------------|---------|------------|----------------|------------|------------------------|--------------------------|------------------------------------------------------------------------------------------------|-------------------------------------|---------------------|-----------------------|------------|------------------------------|----|----|----|----|----|----|--|--|--|---------|
|                                                                 |       |                 |                        |                 |                     |        |              |         |            |                |            |                        |                          |                                                                                                | SHEET : 1 of 3                      |                     |                       |            |                              |    |    |    |    |    |    |  |  |  |         |
|                                                                 |       |                 |                        |                 |                     |        |              |         |            |                |            |                        |                          |                                                                                                | TOTAL DEPTH : 30 m                  |                     |                       |            |                              |    |    |    |    |    |    |  |  |  |         |
| PROJECT : SOIL INVESTIGASI PERENCANAAN PEMBANGUNAN HOTEL LOMBOK |       |                 |                        |                 |                     |        |              |         |            |                |            |                        |                          |                                                                                                | COMMENCEMENT DATE : 2 Nopember 2013 |                     |                       |            |                              |    |    |    |    |    |    |  |  |  |         |
| LOCATION : Jl. Jenderal Sudirman, Kota Mataram, NTB             |       |                 |                        |                 |                     |        |              |         |            |                |            |                        |                          |                                                                                                | COMPLETION DATE : 12 Nopember 2013  |                     |                       |            |                              |    |    |    |    |    |    |  |  |  |         |
| COORDINATES : X : 08° 33' 53.5" Y : 116° 07' 15.2"              |       |                 |                        |                 |                     |        |              |         |            |                |            |                        |                          |                                                                                                | DRILLER : Mr. INUL                  |                     |                       |            |                              |    |    |    |    |    |    |  |  |  |         |
| DEPTH OF G.W.L. :- 6.00 m                                       |       |                 |                        |                 |                     |        |              |         |            |                |            |                        |                          |                                                                                                | LOGGED : Mr. Dino                   |                     |                       |            |                              |    |    |    |    |    |    |  |  |  |         |
| GROUND ELEVATION : - m dpl                                      |       |                 |                        |                 |                     |        |              |         |            |                |            |                        |                          |                                                                                                |                                     |                     |                       |            |                              |    |    |    |    |    |    |  |  |  |         |
| 1                                                               | 2     | 3               | 4                      | 5               | 6                   | 7      | 8            |         |            |                | 9          | 11                     | 12                       | 13                                                                                             | 15                                  | 16                  | 17                    | 18         | 19                           | 20 | 21 | 22 | 23 | 24 | 25 |  |  |  |         |
| DATE                                                            | SCALE | DEPTH IN METERS | CORE NUMBER & BIT TYPE | CLASSIFIED TYPE | DEPTH OF WATER LOSS | WASING | PERCENTAGE % | WQ 21 % | ROCK LOG 1 | GRAPH OF R.Q.D | ROCK LOG 2 | MEASUREMENT OF SAMPLES | DESCRIPTION OF LITHOLOGY | ROCK CLASSIFICATION                                                                            | SOIL CLASSIFICATION                 | JOINT INTERVAL (mm) | Field Soil Test - SPT | WATER TEST | HASIL PENGUJIAN LABORATORIUM |    |    |    |    |    |    |  |  |  | REMARKS |
|                                                                 |       |                 |                        |                 |                     |        |              |         |            |                |            |                        |                          |                                                                                                |                                     |                     |                       |            |                              |    |    |    |    |    |    |  |  |  |         |
| 24 Nov-13                                                       |       | 0               |                        |                 |                     |        |              |         |            |                |            |                        |                          | 0.00 - 0.8 m<br>Lanau kepasiran, coklat tua, plastisitas , rendah, lembab, kepadatan lembek    |                                     | ML                  |                       |            |                              |    |    |    |    |    |    |  |  |  |         |
|                                                                 |       | 1               |                        |                 |                     |        |              |         |            |                |            |                        |                          | 0.80 - 4.00 m<br>Pasir kelanauan, Pasir halus, coklat tua , kepadatan agak padat, lembab       |                                     | ML                  |                       |            |                              |    |    |    |    |    |    |  |  |  |         |
|                                                                 |       | 2               |                        |                 |                     |        |              |         |            |                |            |                        |                          |                                                                                                |                                     |                     |                       |            |                              |    |    |    |    |    |    |  |  |  |         |
|                                                                 |       | 3               |                        |                 |                     |        |              |         |            |                |            |                        |                          |                                                                                                |                                     |                     |                       |            |                              |    |    |    |    |    |    |  |  |  |         |
|                                                                 |       | 4               |                        |                 |                     |        |              |         |            |                |            |                        |                          |                                                                                                |                                     |                     |                       |            |                              |    |    |    |    |    |    |  |  |  |         |
|                                                                 |       | 5               |                        |                 |                     |        |              |         |            |                |            |                        |                          |                                                                                                |                                     |                     |                       |            |                              |    |    |    |    |    |    |  |  |  |         |
|                                                                 |       | 6               |                        |                 |                     |        |              |         |            |                |            |                        |                          |                                                                                                |                                     |                     |                       |            |                              |    |    |    |    |    |    |  |  |  |         |
|                                                                 |       | 7               |                        |                 |                     |        |              |         |            |                |            |                        |                          |                                                                                                |                                     |                     |                       |            |                              |    |    |    |    |    |    |  |  |  |         |
|                                                                 |       | 8               |                        |                 |                     |        |              |         |            |                |            |                        |                          |                                                                                                |                                     |                     |                       |            |                              |    |    |    |    |    |    |  |  |  |         |
| 24 Nov-13                                                       |       | 9               |                        |                 |                     |        |              |         |            |                |            |                        |                          | 4.00 - 5.00 m<br>Lanau kepasiran, plastisitas rendah, coklat tua, lembab, kepadatan agak padat |                                     | ML                  |                       |            |                              |    |    |    |    |    |    |  |  |  |         |
|                                                                 |       | 1               |                        |                 |                     |        |              |         |            |                |            |                        |                          |                                                                                                |                                     |                     |                       |            |                              |    |    |    |    |    |    |  |  |  |         |
|                                                                 |       | 2               |                        |                 |                     |        |              |         |            |                |            |                        |                          |                                                                                                |                                     |                     |                       |            |                              |    |    |    |    |    |    |  |  |  |         |
|                                                                 |       | 3               |                        |                 |                     |        |              |         |            |                |            |                        |                          |                                                                                                |                                     |                     |                       |            |                              |    |    |    |    |    |    |  |  |  |         |
|                                                                 |       | 4               |                        |                 |                     |        |              |         |            |                |            |                        |                          |                                                                                                |                                     |                     |                       |            |                              |    |    |    |    |    |    |  |  |  |         |
|                                                                 |       | 5               |                        |                 |                     |        |              |         |            |                |            |                        |                          |                                                                                                |                                     |                     |                       |            |                              |    |    |    |    |    |    |  |  |  |         |
|                                                                 |       | 6               |                        |                 |                     |        |              |         |            |                |            |                        |                          |                                                                                                |                                     |                     |                       |            |                              |    |    |    |    |    |    |  |  |  |         |
|                                                                 |       | 7               |                        |                 |                     |        |              |         |            |                |            |                        |                          |                                                                                                |                                     |                     |                       |            |                              |    |    |    |    |    |    |  |  |  |         |
|                                                                 |       | 8               |                        |                 |                     |        |              |         |            |                |            |                        |                          |                                                                                                |                                     |                     |                       |            |                              |    |    |    |    |    |    |  |  |  |         |
|                                                                 |       | 9               |                        |                 |                     |        |              |         |            |                |            |                        |                          |                                                                                                |                                     |                     |                       |            |                              |    |    |    |    |    |    |  |  |  |         |
|                                                                 |       | 1               |                        |                 |                     |        |              |         |            |                |            |                        |                          |                                                                                                |                                     |                     |                       |            |                              |    |    |    |    |    |    |  |  |  |         |
|                                                                 |       | 2               |                        |                 |                     |        |              |         |            |                |            |                        |                          |                                                                                                |                                     |                     |                       |            |                              |    |    |    |    |    |    |  |  |  |         |
|                                                                 |       | 3               |                        |                 |                     |        |              |         |            |                |            |                        |                          |                                                                                                |                                     |                     |                       |            |                              |    |    |    |    |    |    |  |  |  |         |
|                                                                 |       | 4               |                        |                 |                     |        |              |         |            |                |            |                        |                          |                                                                                                |                                     |                     |                       |            |                              |    |    |    |    |    |    |  |  |  |         |
|                                                                 |       | 5               |                        |                 |                     |        |              |         |            |                |            |                        |                          |                                                                                                |                                     |                     |                       |            |                              |    |    |    |    |    |    |  |  |  |         |
|                                                                 |       | 6               |                        |                 |                     |        |              |         |            |                |            |                        |                          |                                                                                                |                                     |                     |                       |            |                              |    |    |    |    |    |    |  |  |  |         |
|                                                                 |       | 7               |                        |                 |                     |        |              |         |            |                |            |                        |                          |                                                                                                |                                     |                     |                       |            |                              |    |    |    |    |    |    |  |  |  |         |
|                                                                 |       | 8               |                        |                 |                     |        |              |         |            |                |            |                        |                          |                                                                                                |                                     |                     |                       |            |                              |    |    |    |    |    |    |  |  |  |         |
|                                                                 |       | 9               |                        |                 |                     |        |              |         |            |                |            |                        |                          |                                                                                                |                                     |                     |                       |            |                              |    |    |    |    |    |    |  |  |  |         |
|                                                                 |       | 1               |                        |                 |                     |        |              |         |            |                |            |                        |                          |                                                                                                |                                     |                     |                       |            |                              |    |    |    |    |    |    |  |  |  |         |
|                                                                 |       | 2               |                        |                 |                     |        |              |         |            |                |            |                        |                          |                                                                                                |                                     |                     |                       |            |                              |    |    |    |    |    |    |  |  |  |         |
|                                                                 |       | 3               |                        |                 |                     |        |              |         |            |                |            |                        |                          |                                                                                                |                                     |                     |                       |            |                              |    |    |    |    |    |    |  |  |  |         |
|                                                                 |       | 4               |                        |                 |                     |        |              |         |            |                |            |                        |                          |                                                                                                |                                     |                     |                       |            |                              |    |    |    |    |    |    |  |  |  |         |
|                                                                 |       | 5               |                        |                 |                     |        |              |         |            |                |            |                        |                          |                                                                                                |                                     |                     |                       |            |                              |    |    |    |    |    |    |  |  |  |         |
|                                                                 |       | 6               |                        |                 |                     |        |              |         |            |                |            |                        |                          |                                                                                                |                                     |                     |                       |            |                              |    |    |    |    |    |    |  |  |  |         |
|                                                                 |       | 7               |                        |                 |                     |        |              |         |            |                |            |                        |                          |                                                                                                |                                     |                     |                       |            |                              |    |    |    |    |    |    |  |  |  |         |
|                                                                 |       | 8               |                        |                 |                     |        |              |         |            |                |            |                        |                          |                                                                                                |                                     |                     |                       |            |                              |    |    |    |    |    |    |  |  |  |         |
|                                                                 |       | 9               |                        |                 |                     |        |              |         |            |                |            |                        |                          |                                                                                                |                                     |                     |                       |            |                              |    |    |    |    |    |    |  |  |  |         |
|                                                                 |       | 1               |                        |                 |                     |        |              |         |            |                |            |                        |                          |                                                                                                |                                     |                     |                       |            |                              |    |    |    |    |    |    |  |  |  |         |
|                                                                 |       | 2               |                        |                 |                     |        |              |         |            |                |            |                        |                          |                                                                                                |                                     |                     |                       |            |                              |    |    |    |    |    |    |  |  |  |         |
|                                                                 |       | 3               |                        |                 |                     |        |              |         |            |                |            |                        |                          |                                                                                                |                                     |                     |                       |            |                              |    |    |    |    |    |    |  |  |  |         |
|                                                                 |       | 4               |                        |                 |                     |        |              |         |            |                |            |                        |                          |                                                                                                |                                     |                     |                       |            |                              |    |    |    |    |    |    |  |  |  |         |
|                                                                 |       | 5               |                        |                 |                     |        |              |         |            |                |            |                        |                          |                                                                                                |                                     |                     |                       |            |                              |    |    |    |    |    |    |  |  |  |         |
|                                                                 |       | 6               |                        |                 |                     |        |              |         |            |                |            |                        |                          |                                                                                                |                                     |                     |                       |            |                              |    |    |    |    |    |    |  |  |  |         |
|                                                                 |       | 7               |                        |                 |                     |        |              |         |            |                |            |                        |                          |                                                                                                |                                     |                     |                       |            |                              |    |    |    |    |    |    |  |  |  |         |
|                                                                 |       | 8               |                        |                 |                     |        |              |         |            |                |            |                        |                          |                                                                                                |                                     |                     |                       |            |                              |    |    |    |    |    |    |  |  |  |         |



LABORATORIUM GEOTEKNIK DAN  
GEODESI JURUSAN TEKNIK SIPIL  
FAKULTAS TEKNIK  
UNIVERSITAS MATARAM

BOR LOG SOIL INVESTIGASI

PROYEK : SOIL INVESTIGASI  
PERENCANAAN PEMBANGUNAN  
HOTEL LOMBOK

LOKASI :



|  |  |  |  |                                          |  |  |
|--|--|--|--|------------------------------------------|--|--|
|  |  |  |  | Jl. Jenderal Sudirman, Kota Mataram, NTB |  |  |
|  |  |  |  | LEGENDA                                  |  |  |
|  |  |  |  | 6                                        |  |  |
|  |  |  |  | : Top Soil                               |  |  |
|  |  |  |  | ts                                       |  |  |
|  |  |  |  | tr : AlluviaITerrace Deposit             |  |  |
|  |  |  |  | LD : Lake Deposit                        |  |  |
|  |  |  |  | VB : VolcanicBrecia                      |  |  |
|  |  |  |  | YVB : Young Volcanic Deposit             |  |  |
|  |  |  |  | MH : Lanau Plastisitas Tinggi            |  |  |
|  |  |  |  | ML : Lanau Plastisitas Rendah            |  |  |
|  |  |  |  | CL : Lempūng Plastisitas Rendah          |  |  |
|  |  |  |  | CM : Lempung Lanauan                     |  |  |
|  |  |  |  | SM : Pasir Lanauan                       |  |  |
|  |  |  |  | SW : Pasir Kerikilan Gradasi Bagus       |  |  |
|  |  |  |  | SP : Pasir Kerikilan Gradasi Jelek       |  |  |
|  |  |  |  | GW : Kerikil Pasiran                     |  |  |
|  |  |  |  | GM : Kerikil Lanauan                     |  |  |
|  |  |  |  | 8                                        |  |  |
|  |  |  |  | : Pasir Kelanauan                        |  |  |
|  |  |  |  |                                          |  |  |
|  |  |  |  | : Lanau Kepasiran                        |  |  |
|  |  |  |  |                                          |  |  |
|  |  |  |  | 9                                        |  |  |
|  |  |  |  | : Lanau KepasiranBergavel                |  |  |
|  |  |  |  |                                          |  |  |
|  |  |  |  | Tidak                                    |  |  |
|  |  |  |  | diakukan                                 |  |  |
|  |  |  |  | pengujan,                                |  |  |
|  |  |  |  | material                                 |  |  |
|  |  |  |  | Pasir                                    |  |  |
|  |  |  |  | berlanau                                 |  |  |
|  |  |  |  | SM                                       |  |  |
|  |  |  |  | Pasir kelanauan                          |  |  |
|  |  |  |  |                                          |  |  |
|  |  |  |  | 1                                        |  |  |
|  |  |  |  | 0                                        |  |  |



|                                                                                                                                                                                          |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                                                                                      |
| <div>5      4      7      11</div>                                                                                                                                                       |
| <div>   </div> |

The figure is a geological map of Mataram City, Indonesia, overlaid on the official logo of Universitas Islam Negeri (UIN) Mataram. The map displays various soil types as defined in the legend, along with elevation contours.

**LEGENDA**

- ts : Top Soil
- tr : Alluvial Terrace Deposit
- LD : Lake Deposit
- VB : Volcanic Breccia
- YVB : Young Volcanic Deposit
- MH : Lanau Plastisitas Tinggi
- ML : Lanau Plastisitas Rendah
- CL : Lempung Plastisitas Rendah
- CM : Lempung Lanauan
- SM : Pasir Lanauan
- SW : Pasir Kerikilan Gradasi Bagus
- SP : Pasir Kerikilan Gradasi Jelek
- GW : Kerikil Pasiran
- GM : Kerikil Lanauan

**Elevation Contours:**

- 0.00346
- 0.2607
- 1.2093
- 5.031 E-08

**Map Labels:**

- CH
- Lempung kelanauan
- Pasir Kelanauan
- Lempung Kelanauan

The background features the UIN Mataram logo, which includes a central star emblem with Arabic calligraphy and the university's name in Indonesian ("UNIVERSITAS ISLAM NEGERI MATARAM") and English ("ISLAMADITYAH").





## Tabel Penulangan Balok & Kolom

**Tabel Penulangan Kolom Portal**

| Lantai Kolom | Dimensi Kolom       | b mm | h mm | M2bux kNm | M2buy kNm | Pu kN   | d' mm | Tulangan Pokok memanjang |         |         |       |       |       |        |         |              |      |         |                                            |                                             |       | Tulangan Geser |           |           |        |     |
|--------------|---------------------|------|------|-----------|-----------|---------|-------|--------------------------|---------|---------|-------|-------|-------|--------|---------|--------------|------|---------|--------------------------------------------|---------------------------------------------|-------|----------------|-----------|-----------|--------|-----|
|              |                     |      |      |           |           |         |       | Pn kN                    | Mny kNm | Mnx kNm | p     | Cb mm | ab mm | fs Mpa | Pnb kN  | Jenis Krnthn | e mm | Pr kN   | ul. arah x (D25) Jmlh As (mm) <sup>2</sup> | Tul. arah y (D25) jmlh As (mm) <sup>2</sup> | Vu kN | Vc Kn          | Φ x Vc Kn | S. pak mm |        |     |
| GF - Lt.3    | Kolom ( 550 x 900 ) | 550  | 900  | 0.50      | 17.33     | 1903.18 | 61    | 2537.58                  | 32.6587 | 10.05   | 0.002 | 293.4 | 246   | 475.26 | 5656.17 | Tarik        | 17   | 4713.47 | 4                                          | 1519.76                                     | 4     | 1519.76        | 0.21      | 209.08    | 125.45 | 200 |
| Lt.5 - Lt.8  | Kolom ( 500 x 800 ) | 500  | 800  | 0.27      | 19.33     | 1386.10 | 61    | 2537.58                  | 40.2818 | 14.70   | 0.003 | 263.4 | 221   | 461.05 | 4513.62 | Tarik        | 30   | 4231.52 | 4                                          | 1519.76                                     | 4     | 1519.76        | 0.15      | 134.26    | 80.55  | 200 |
| Lt.9 - Atap  | Kolom ( 450x 750 )  | 450  | 750  | 0.38      | 14.62     | 701.76  | 61    | 935.67                   | 30.0288 | 10.94   | 0.003 | 233.4 | 196   | 443.19 | 3749.57 | Tarik        | 44   | 3749.57 | 4                                          | 1519.76                                     | 4     | 1519.76        | 0.21      | 63.62     | 38.17  | 200 |

**Tabel Penulangan Balok Persegi**

| Kode Balok            | M+      |        |        |        |         |                      |         | M-     |         |        |         |                      |        | Gaya Geser dan Puntir |        |        |        |          |         | Tulangan Terpasang |       |          |       |
|-----------------------|---------|--------|--------|--------|---------|----------------------|---------|--------|---------|--------|---------|----------------------|--------|-----------------------|--------|--------|--------|----------|---------|--------------------|-------|----------|-------|
|                       | MU kNm  | p min  | p max  | p      | p pakai | As,u mm <sup>2</sup> | Mr kNm  | MU kNm | p min   | p max  | p       | As,u mm <sup>2</sup> | Mr kNm | Tu kNm                | Vu kN  | Vc kN  | Vs kN  | Stump mm | Slap mm | Tumpuan            |       | Lapangan |       |
|                       |         |        |        |        |         |                      |         |        |         |        |         |                      |        |                       |        |        |        |          |         | Atas               | Bawah | Atas     | Bawah |
| Balok Melintang       | 52.6922 | 0.0035 | 0.0240 | 0.0015 | 0.0087  | 687.225              | 282.979 | 26.507 | 0.00350 | 0.0185 | 0.00014 | 687.225              | 176.7  | 0.5509                | 41.752 | 19.391 | 36.279 | 300      | 300     | 6                  | 4     | 4        | 4     |
| Balok Induk Memanjang | 88.867  | 0.0035 | 0.0240 | 0.0035 | 0.0060  | 995.400              | 365.077 | 57.705 | 0.0035  | 0.0139 | 0.00018 | 995.400              | 383.23 | 0.482                 | 56.792 | 22.161 | 53.562 | 250      | 250     | 6                  | 4     | 4        | 6     |

Tipe 3

| Lantai    | Sxe<br>mm |
|-----------|-----------|
| Atap      | 5.067     |
| Lantai 11 | 3.577     |
| Lantai 10 | 3.390     |
| Lantai 9  | 2.715     |
| Lantai 8  | 2.386     |
| Lantai 7  | 1.749     |
| Lantai 6  | 1.390     |
| Lantai 5  | 0.981     |
| Lantai 3  | 0.578     |
| Lantai 2  | 0.176     |
| Lantai 1  | 0.151     |

Control Simpangan

| lantai    | h<br>mm | Sxe<br>mm | Sx<br>mm | $\Delta$<br>mm | $\Delta a/p$<br>mm | Status<br>$\Delta < \Delta a/p$ |
|-----------|---------|-----------|----------|----------------|--------------------|---------------------------------|
| Atap      | 3600    | 5.067     | 20.267   | 5.960          | 69.231             | OK                              |
| Lantai 11 | 3600    | 3.577     | 14.306   | 0.747          | 69.231             | OK                              |
| Lantai 10 | 3600    | 3.390     | 13.559   | 2.701          | 69.231             | OK                              |
| Lantai 9  | 3600    | 2.715     | 10.858   | 1.314          | 69.231             | OK                              |
| Lantai 8  | 3600    | 2.386     | 9.544    | 2.547          | 69.231             | OK                              |
| Lantai 7  | 3600    | 1.749     | 6.998    | 1.439          | 69.231             | OK                              |
| Lantai 6  | 3600    | 1.390     | 5.559    | 1.635          | 69.231             | OK                              |
| Lantai 5  | 3600    | 0.981     | 3.924    | 1.611          | 69.231             | OK                              |
| Lantai 3  | 4600    | 0.578     | 2.313    | 1.610          | 88.462             | OK                              |
| Lantai 2  | 6400    | 0.176     | 0.702    | 0.099          | 123.077            | OK                              |
| Lantai 1  | 3800    | 0.151     | 0.604    | 0.604          | 73.077             | OK                              |

Tipe 2

| Lantai    | Sxe    |
|-----------|--------|
|           | mm     |
| Atap      | 46.407 |
| Lantai 11 | 39.865 |
| Lantai 10 | 33.483 |
| Lantai 9  | 27.368 |
| Lantai 8  | 21.654 |
| Lantai 7  | 16.438 |
| Lantai 6  | 11.857 |
| Lantai 5  | 7.995  |
| Lantai 3  | 4.930  |
| Lantai 2  | 2.196  |
| Lantai 1  | 0.167  |

Control Simpangan

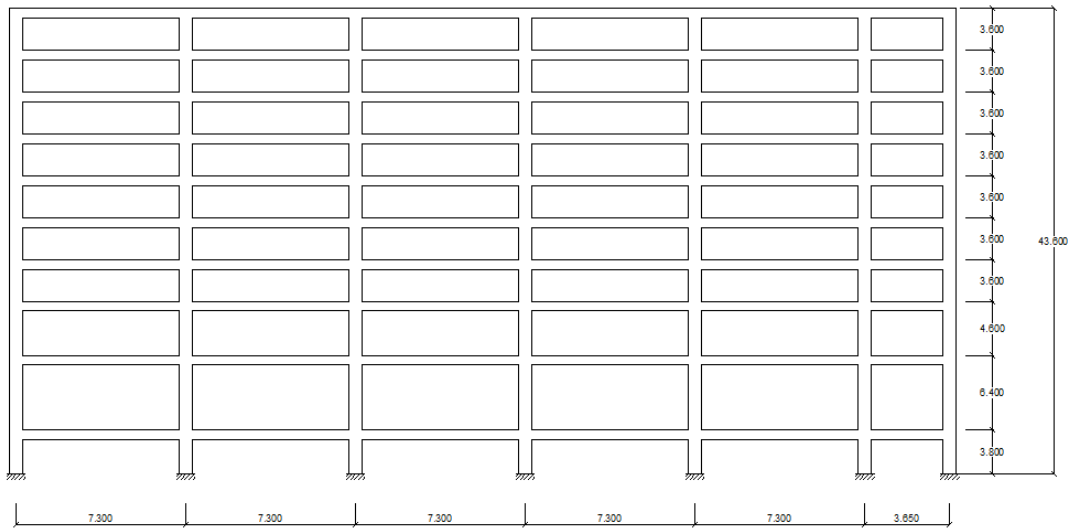
| lantai    | h    | Sxe    | Sx     | $\Delta$ | $\Delta a/p$ | Status                |
|-----------|------|--------|--------|----------|--------------|-----------------------|
|           | mm   | mm     | mm     | mm       | mm           | $\Delta < \Delta a/p$ |
| Atap      | 3600 | 46.407 | 185.63 | 26.165   | 69.231       | OK                    |
| Lantai 11 | 3600 | 39.865 | 159.46 | 25.530   | 69.231       | OK                    |
| Lantai 10 | 3600 | 33.483 | 133.93 | 24.459   | 69.231       | OK                    |
| Lantai 9  | 3600 | 27.368 | 109.47 | 22.855   | 69.231       | OK                    |
| Lantai 8  | 3600 | 21.654 | 86.617 | 20.866   | 69.231       | OK                    |
| Lantai 7  | 3600 | 16.438 | 65.751 | 18.322   | 69.231       | OK                    |
| Lantai 6  | 3600 | 11.857 | 47.429 | 15.448   | 69.231       | OK                    |
| Lantai 5  | 3600 | 7.995  | 31.981 | 12.261   | 69.231       | OK                    |
| Lantai 3  | 4600 | 4.930  | 19.72  | 10.938   | 88.462       | OK                    |
| Lantai 2  | 6400 | 2.196  | 8.782  | 8.116    | 123.077      | OK                    |
| Lantai 1  | 3800 | 0.167  | 0.6661 | 0.666    | 73.077       | OK                    |

Tipe 1

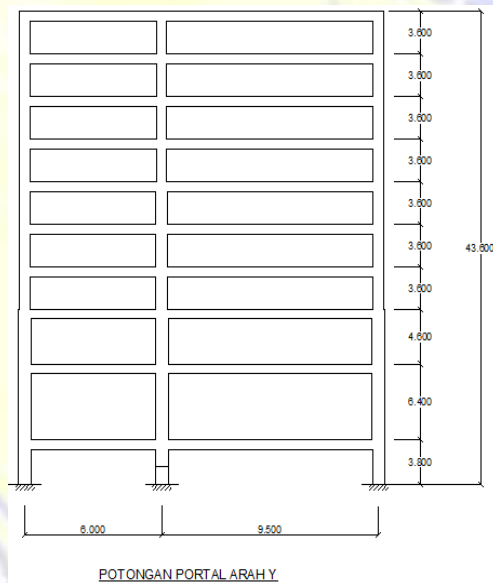
| Lantai    | Sxe    |
|-----------|--------|
|           | mm     |
| Atap      | 82.879 |
| Lantai 11 | 72.755 |
| Lantai 10 | 62.749 |
| Lantai 9  | 52.975 |
| Lantai 8  | 43.570 |
| Lantai 7  | 34.668 |
| Lantai 6  | 26.443 |
| Lantai 5  | 19.052 |
| Lantai 3  | 12.667 |
| Lantai 2  | 6.231  |
| Lantai 1  | 0.842  |

Control Simpangan

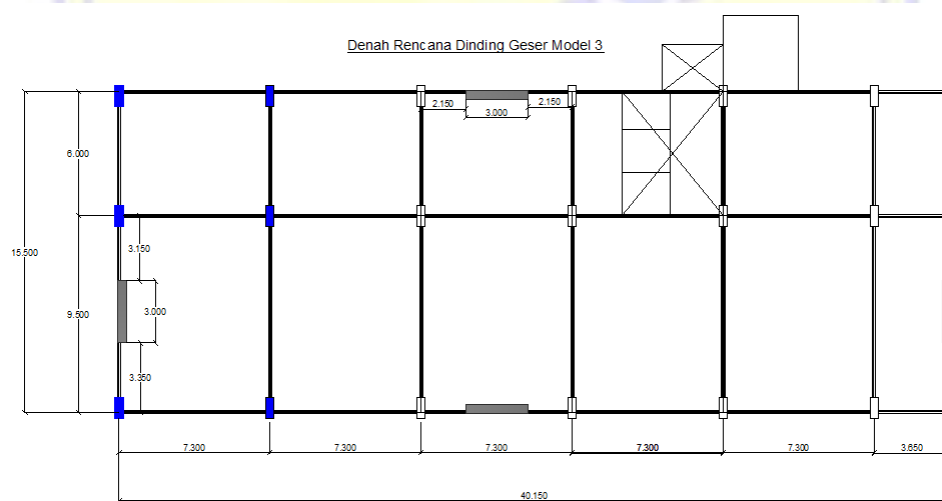
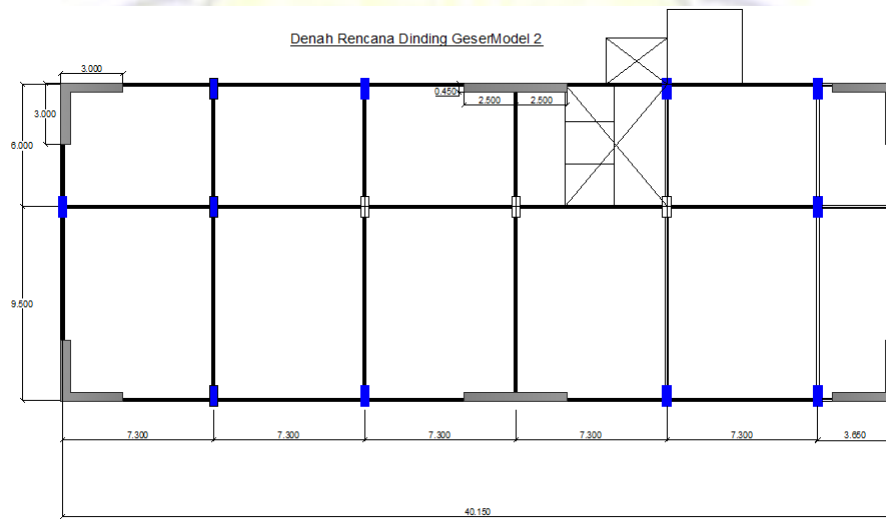
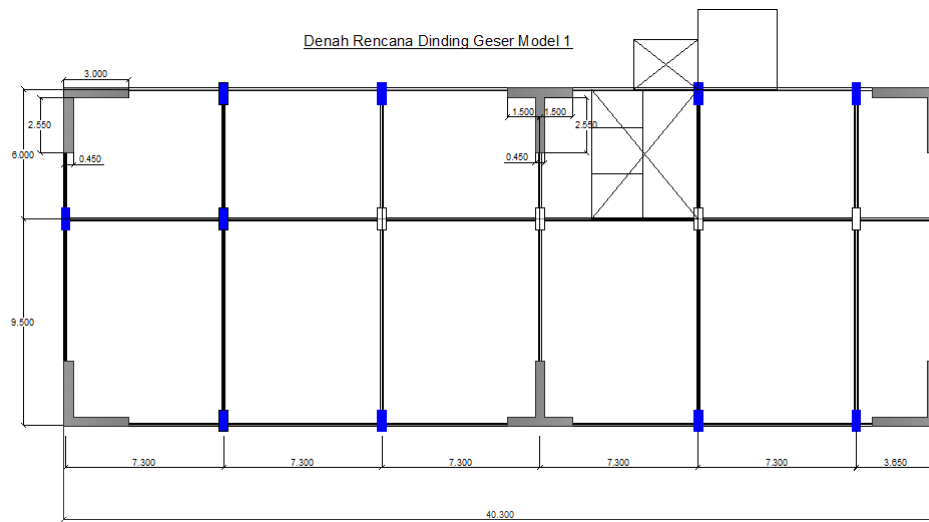
| lantai    | h    | Sxe    | Sx     | $\Delta$ | $\Delta a/p$ | Status                |
|-----------|------|--------|--------|----------|--------------|-----------------------|
|           | mm   | mm     | mm     | mm       | mm           | $\Delta < \Delta a/p$ |
| Atap      | 3600 | 82.879 | 331.52 | 40.499   | 69.231       | OK                    |
| Lantai 11 | 3600 | 72.755 | 291.02 | 40.021   | 69.231       | OK                    |
| Lantai 10 | 3600 | 62.749 | 251    | 39.099   | 69.231       | OK                    |
| Lantai 9  | 3600 | 52.975 | 211.9  | 37.619   | 69.231       | OK                    |
| Lantai 8  | 3600 | 43.570 | 174.28 | 35.609   | 69.231       | OK                    |
| Lantai 7  | 3600 | 34.668 | 138.67 | 32.899   | 69.231       | OK                    |
| Lantai 6  | 3600 | 26.443 | 105.77 | 29.563   | 69.231       | OK                    |
| Lantai 5  | 3600 | 19.052 | 76.209 | 25.540   | 69.231       | OK                    |
| Lantai 3  | 4600 | 12.667 | 50.669 | 25.744   | 88.462       | OK                    |
| Lantai 2  | 6400 | 6.231  | 24.924 | 21.556   | 123.077      | OK                    |
| Lantai 1  | 3800 | 0.842  | 3.3686 | 3.369    | 73.077       | OK                    |

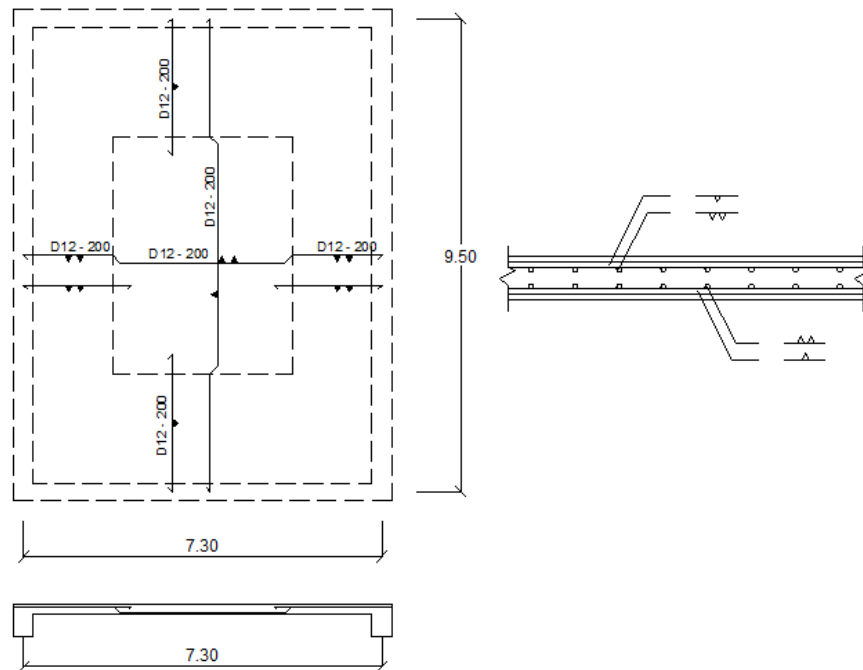


POTONGAN PORTAL ARAH X



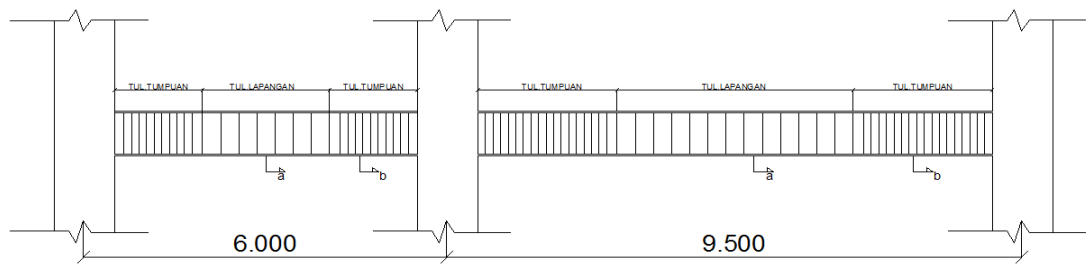
POTONGAN PORTAL ARAH Y



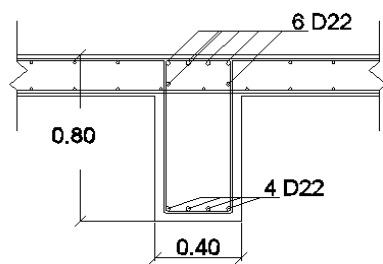


Gambar Pelat Lantai

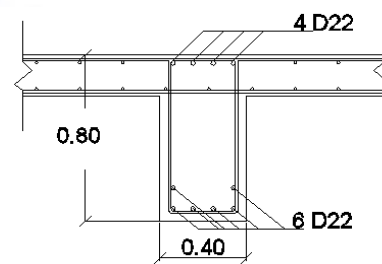




DETAIL PORTAL BALOK ARAH MEMANJANG

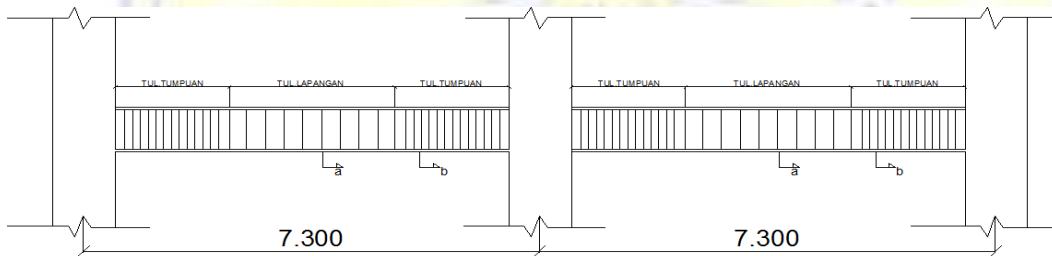


Balok Tumpuan ( Pot b )

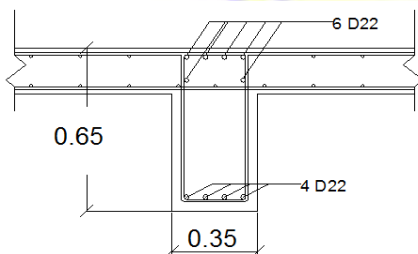


Balok Lapangan ( Pot a )

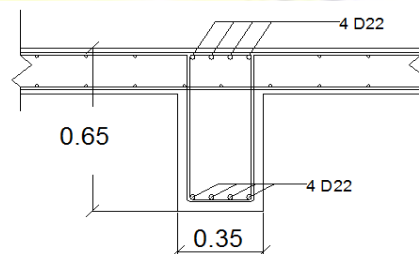
Gambar Balok Memanjang



DETAIL PORTAL BALOK ARAH MELINTANG



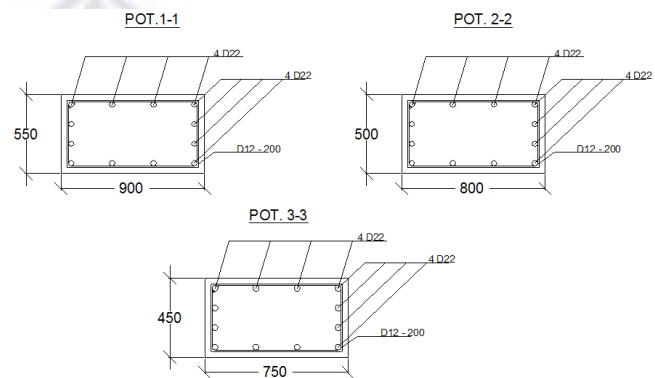
Balok Tumpuan ( Pot b )



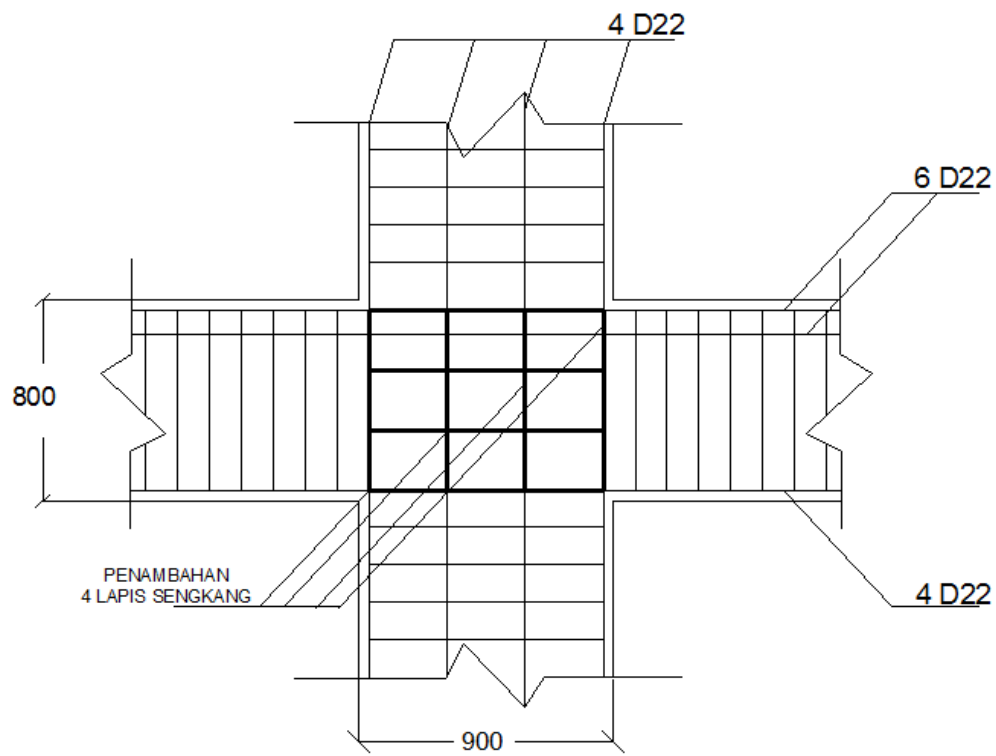
Balok Tumpuan ( Pot a )

Gambar Balok Melintang

|   |                     |         |
|---|---------------------|---------|
|   | <u>LANTAI ATAP</u>  | +40.00m |
|   | <u>LANTAI 11</u>    | +38.40m |
| ⊙ | <u>LANTAI 10</u>    | +32.80m |
|   | <u>LANTAI 9</u>     | +29.20m |
|   | <u>LANTAI 8</u>     | +25.60m |
|   | <u>LANTAI 7</u>     | +22.00m |
| ⊙ | <u>LANTAI 6</u>     | +18.40m |
|   | <u>LANTAI 5</u>     | +14.80m |
|   | <u>LANTAI 3</u>     | +11.00m |
|   | <u>LANTAI 2</u>     | +6.40m  |
| ⊙ | <u>GROUND FLOOR</u> | ±0.00m  |
|   | <u>BASEMANT</u>     | -3.80m  |

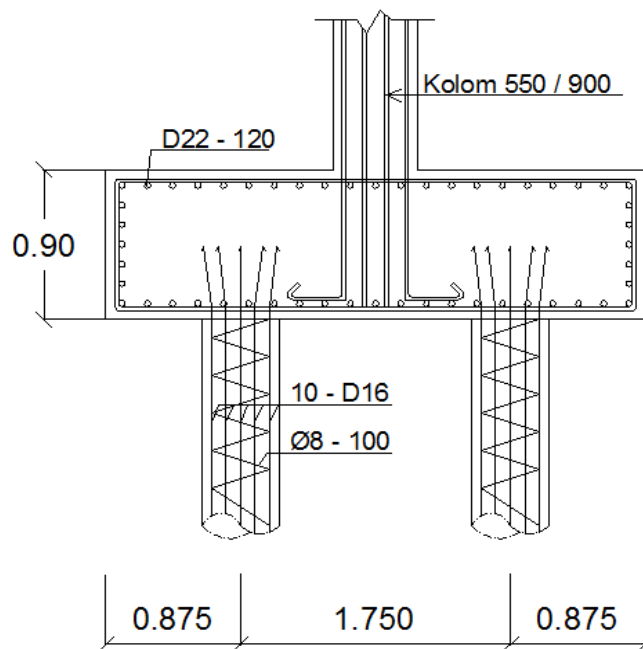
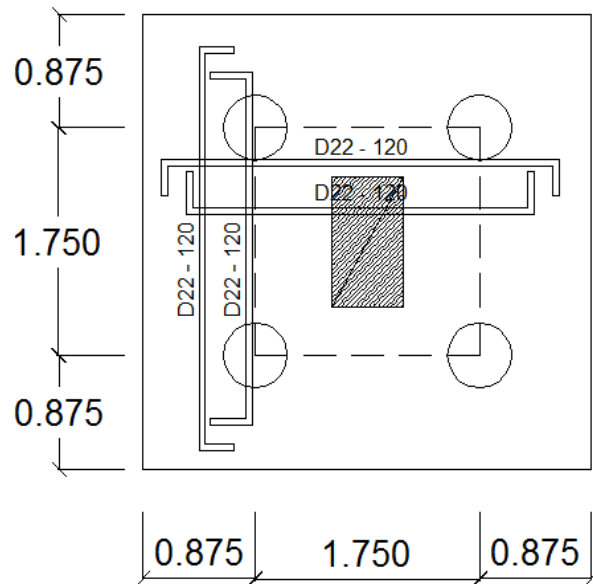


Gambar Kolom



Gambar Sambungan

TAMPAK ATAS PONDASI :

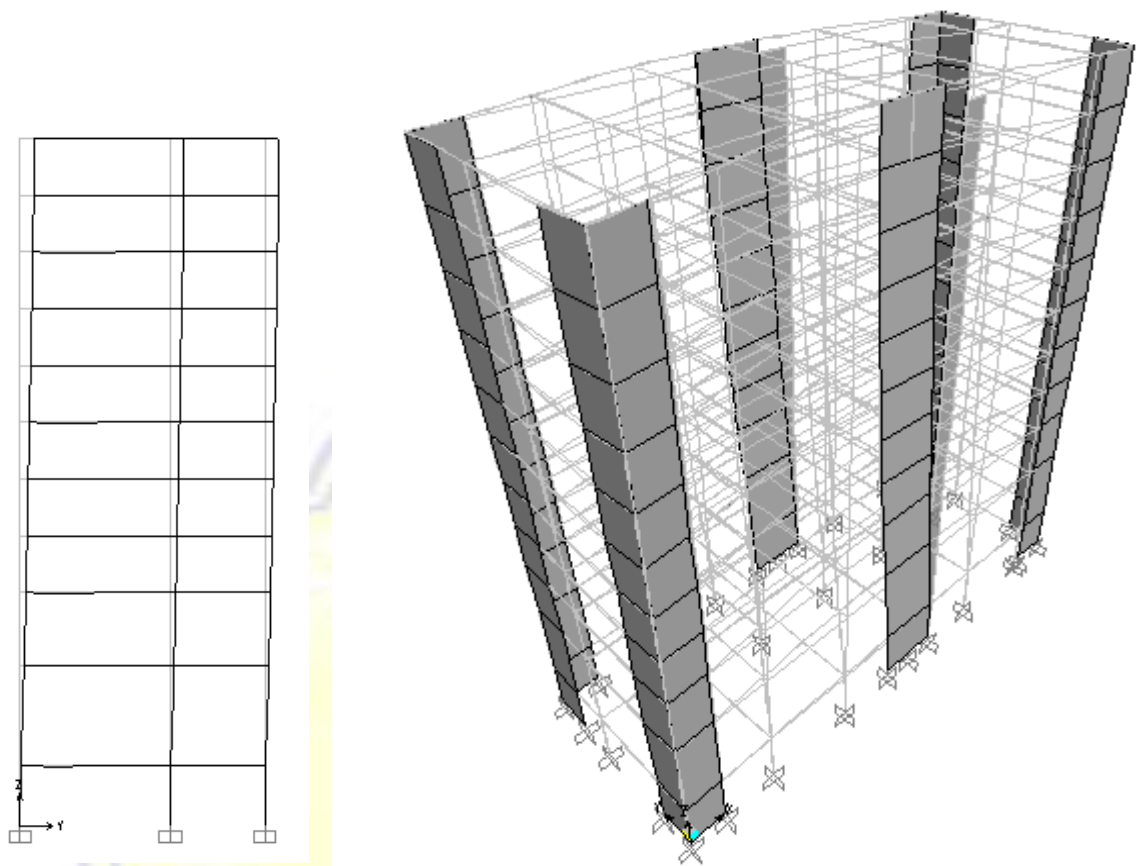


Gambar Pondasi

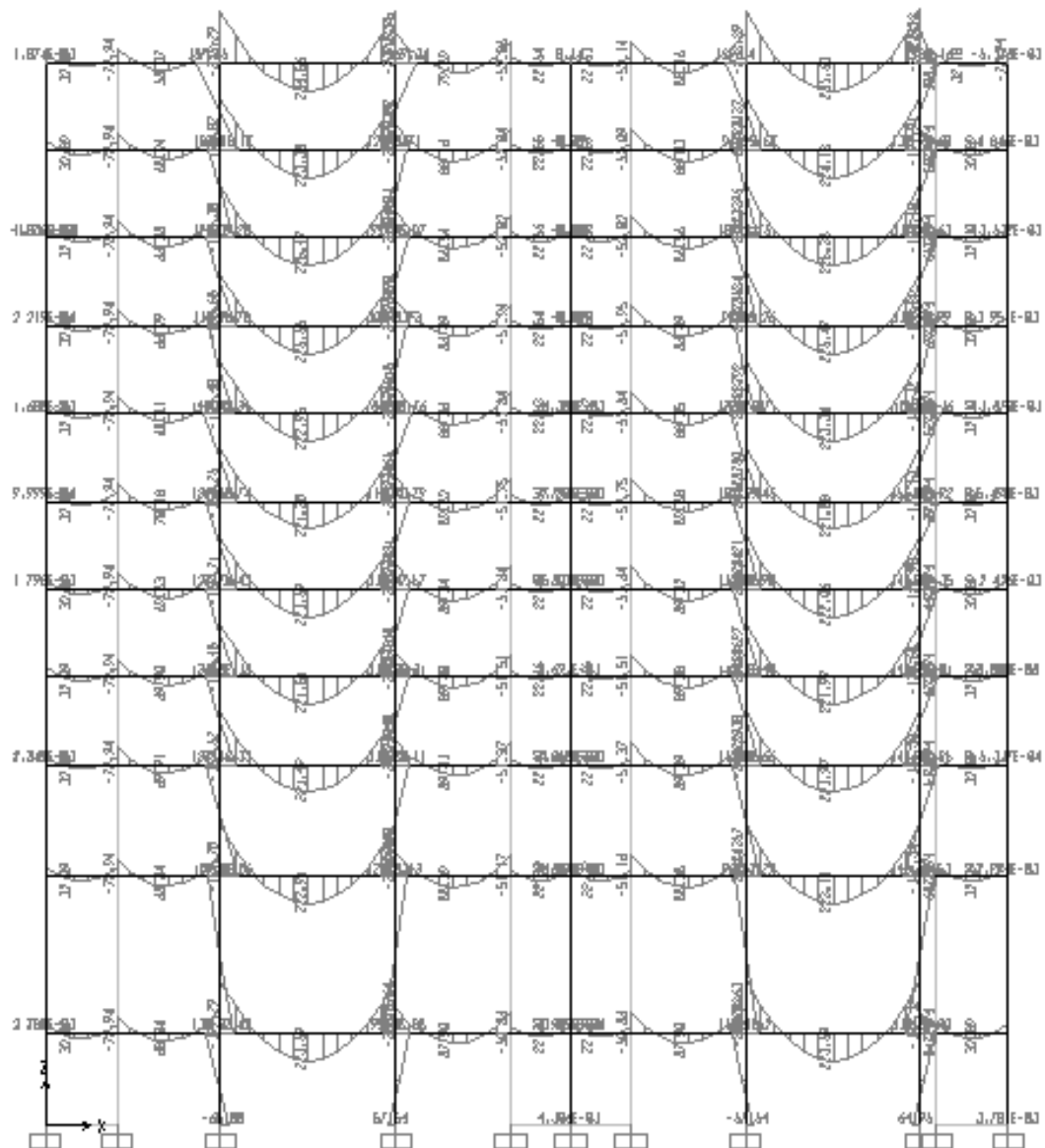
# **LAMPIRAN 3**

**(DATA OUTPUT PROGRAM)**

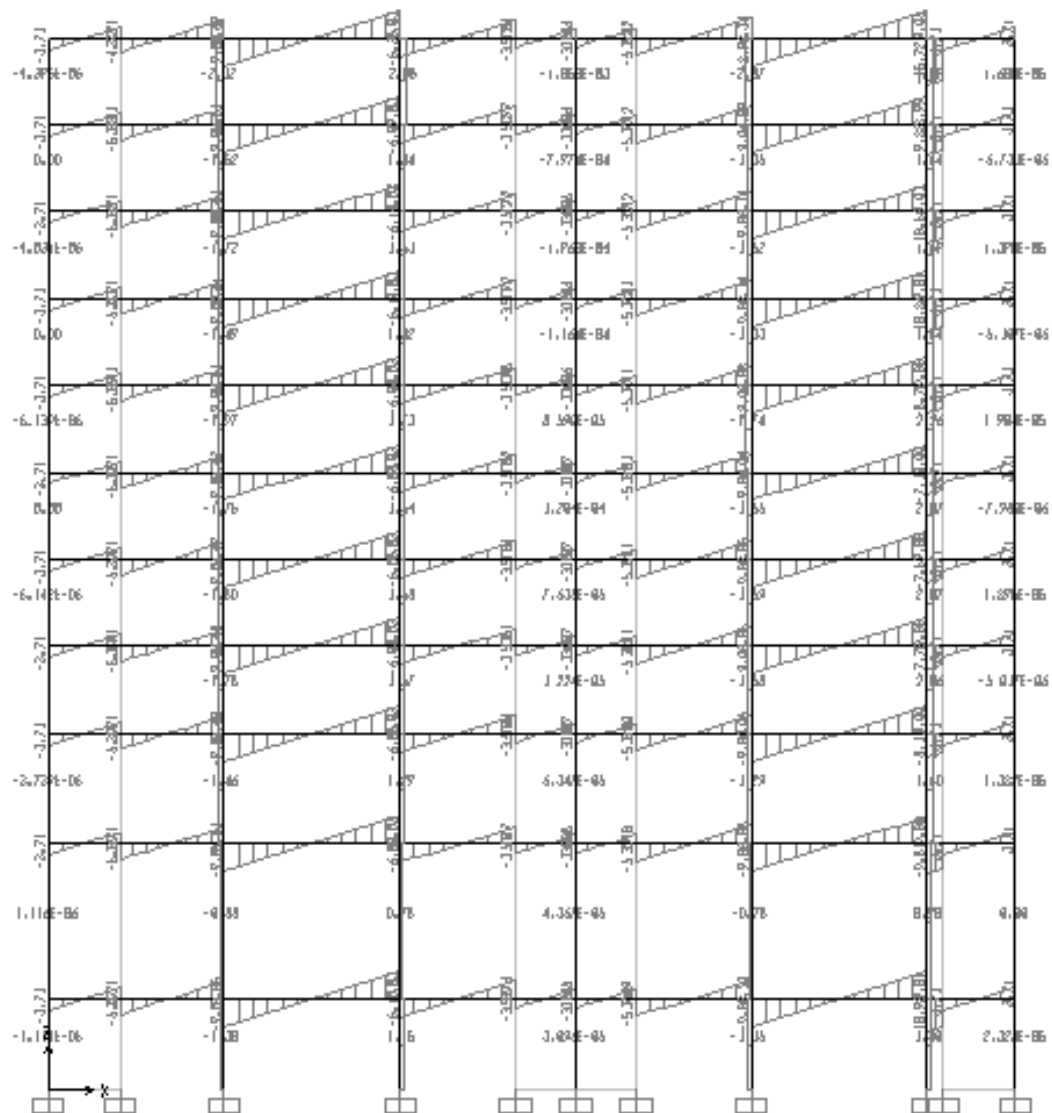




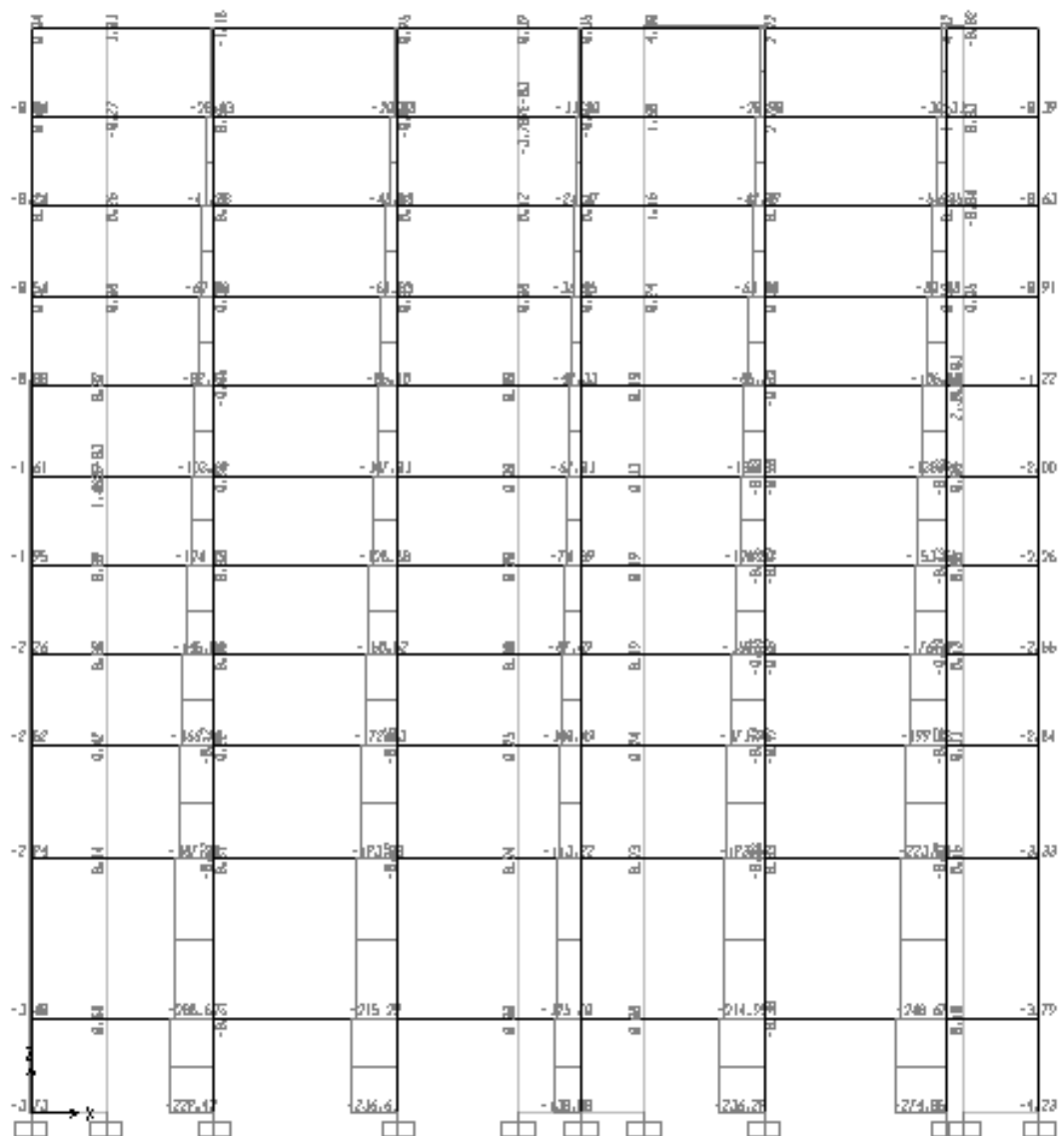
Simpangan Antar Lantai ( Model 2 )



Momen 3 - 3



Gaya Geser



Gaya Axial