

BAB V

KESIMPULAN DAN SARAN

5.1. Kesimpulan

Berdasarkan perencanaan yang telah dilakukan maka dapat disimpulkan sebagai berikut:

1. Gedung Pusat Seni Pertunjukan Karawitan di Bantul memiliki kelas situs tanah keras (SC), gedung seni pertunjukan ini masuk dalam kategori IV dan termasuk dalam KDS D.
2. Dalam perencanaan struktur atap, gedung seni pertunjukan ini memiliki 2 jenis atap yaitu atap galvalume dan dak beton, dengan perencanaan gording menggunakan profil kanal C 150 x 65 x 20 *thickness* 2,3 dan menggunakan sambungan baut.
3. Gedung seni pertunjukan ini memiliki kolom struktur dengan ukuran 700x700 mm. selain itu bangunan, ini memiliki 4 tipe balok induk dengan bentang 7000 mm (BI 1), bentang 5000 mm (BI 2), bentang 2800 mm (BI 3), dan bentang 4200 mm (BI 4). Adapun balok anak pada gedung seni pertunjukan ini memiliki 4 tipe dengan ukuran bentang 7000 mm (BA 1), bentang 5000 mm (BA 2), bentang 2800 mm (BA 3) dan bentang 4200 mm (BA 4).
4. Pada perencanaan pelat arah, gedung seni pertunjukan di Bantul memiliki 4 tipe plat lantai menggunakan penulangan dua arah.
5. Perencanaan tangga pada gedung seni pertunjukan terdapat 2 tangga, yaitu tangga utama dengan tulangan pokok tumpuan D13-200 dan tulangan susut D19-150 dan tangga servis dengan tulangan pokok tumpuan D13-100 dan tulangan susut D19-100.
6. Dari hasil perhitungan pekerjaan struktur bawah, untuk kedalaman aman pondasi kami terdapat pada kedalaman 7 meter.

Dengan amannya pada kedalaman 7 meter, maka pondasi yang kami gunakan yaitu pondasi footplat. Pondasi footplat yang kami gunakan terdapat 2 tipe dengan ukuran 5x5 dan 3x3. Analisis manajemen konstruksi pada Proyek Pembangunan Gedung Seni Pertunjukan Karawitan di Bantul ini meliputi Penyusunan WBS, Perhitungan Volume Kegiatan, Analisis Harga Satuan Pekerja, Perhitungan Durasi Kegiatan, Penjadwalan Sumber Daya, dan Rancangan Anggaran Biaya. Dari hasil perhitungan bobot pekerjaan berdasarkan analisis Kurva S, Pembangunan Gedung Seni Pertunjukan Karawitan di Bantul ini membutuhkan total waktu 721 hari (103 minggu) dengan perkiraan biaya kurang lebih sebesar Rp 50.542.893.462,45.

5.2. Saran

Dalam penelitian ini terdapat beberapa saran yang dapat penulis berikan antara lain:

1. Sebelum merencanakan struktur bangunan gedung, penting untuk melakukan studi kelayakan secara menyeluruh. Langkah ini membantu memastikan bahwa perencanaan struktur yang dibuat menghasilkan hasil yang memuaskan, baik dalam hal kualitas, biaya, maupun waktu.
2. Dalam merencanakan struktur bangunan dengan menggunakan program ETABS, memahami dengan baik koefisien atau faktor pengali yang dipakai dalam program sangatlah penting. Penguasaan ilmu teknik sipil diperlukan untuk memastikan hasil perencanaan yang optimal.
3. Pedoman standar dan peraturan yang berlaku dalam perencanaan struktur harus senantiasa dijalankan. Hal ini penting agar bangunan yang dibangun selalu sesuai dengan persyaratan terbaru, termasuk dalam hal peraturan perencanaan struktur tahan gempa, standar perencanaan struktur beton, dan lain sebagainya.

4. Penentuan metode pelaksanaan, bahan, dan peralatan didasarkan pada pertimbangan faktor-faktor seperti kemudahan pelaksanaan di lapangan, pengalaman tenaga kerja, dan aspek ekonomis. Ini merupakan hasil kesimpulan dan rekomendasi yang diambil selama proses penyelesaian Tugas Akhir ini. Penulis menyadari bahwa laporan ini tidak sempurna, sehingga masukan dan koreksi dari pembaca sangat diharapkan.



DAFTAR PUSTAKA

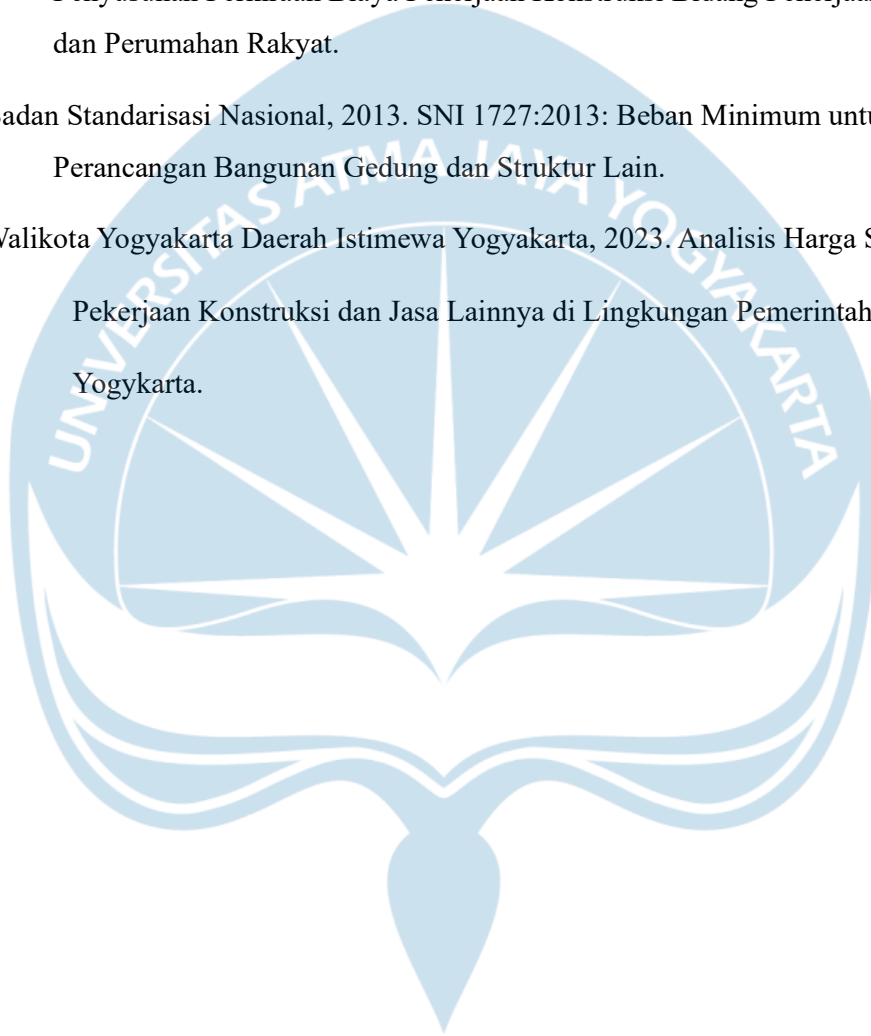
- Nugroho, F., 2014. Baja Ringan Sebagai Salah Satu Alternatif Pengganti Kayu Pada Struktur Rangka Kuda-Kuda Ditinjau Dari Segi Konstruksi. *Jurnal Momentum ISSN: 1693-752X*, 16(2).
- Aprilia, V., 2021. Analisis Perbandingan Sistem Struktur Pelat Konvensional Dan Half Slab Ditinjau Dari Segi Biaya Dan Waktu (Doctoral dissertation, Universitas Komputer Indonesia).
- Devi, T. R., & Reddy, V. S., 2012. *Work breakdown structure of the project. International Journal Eng Res Appl*, 2(2), pp.683-686.
- Sutomo, Y., Anwar, S., & Firmanto, A., 2020. Analisis manajemen proyek pembangunan kantor pt. prima multi usaha Indonesia. *Jurnal Konstruksi dan Infrastruktur*, 5(4).
- Siswanto, A. B., & Salim, M. A., 2019. *Manajemen Proyek. CV. Pilar Nusantara*.
- Amani, W., & Helmi, B. I., 2012. Perbandingan Aplikasi CPM, PDM, dan Teknik Bar Chart-Kurva S Pada Optimalisasi Penjadwalan Proyek. *Bimaster: Buletin Ilmiah Matematika, Statistika dan Terapannya*, 1(01).
- Iwasaki, T., Arakawa, T., & Tokida, K. I., 1984. *Simplified procedures for assessing soil liquefaction during earthquakes. International Journal of Soil Dynamics and Earthquake Engineering*, 3(1), pp.49-58.
- Idriss, I. M., & Boulanger, R. W., 2008. *Soil liquefaction during earthquakes. Earthquake Engineering Research Institute*.
- Badan Standarisasi Nasional Indonesia, 2017. SNI 8460-2017: Persyaratan Perancangan Geoteknik.
- Badan Standarisasi Nasional, 2019. SNI 1726:2019: Tata Cara Perencanaan Ketahanan Gempa Untuk Struktur Bangunan Gedung dan Non Gedung.

Badan Standarisasi Nasional, 2015. SNI 1729:2015: Spesifikasi untuk Bangunan Gedung Baja Struktural.

Kementerian Pekerjaan Umum dan Perumahan Rakyat ,2022. Pedoman Penyusunan Perkiraan Biaya Pekerjaan Konstruksi Bidang Pekerjaan Umum dan Perumahan Rakyat.

Badan Standarisasi Nasional, 2013. SNI 1727:2013: Beban Minimum untuk Perancangan Bangunan Gedung dan Struktur Lain.

Walikota Yogyakarta Daerah Istimewa Yogyakarta, 2023. Analisis Harga Satuan Pekerjaan Konstruksi dan Jasa Lainnya di Lingkungan Pemerintah Kota Yogyakarta.





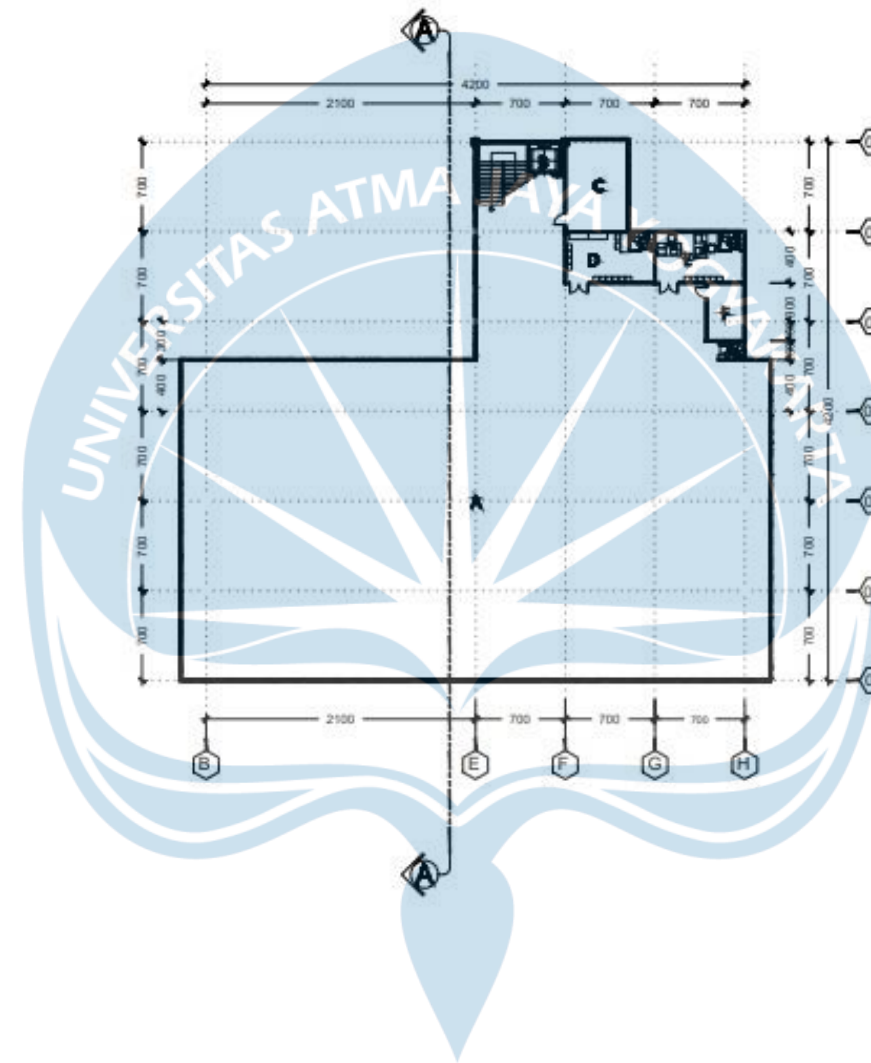
UNIVERSITAS ATMA JAYA YOGYAKARTA

LAMPIRAN




LAMPIRAN A. GAMBAR DESAIN

LAMPIRAN A.2.1. DENAH LANTAI BANGUNAN BASEMENT

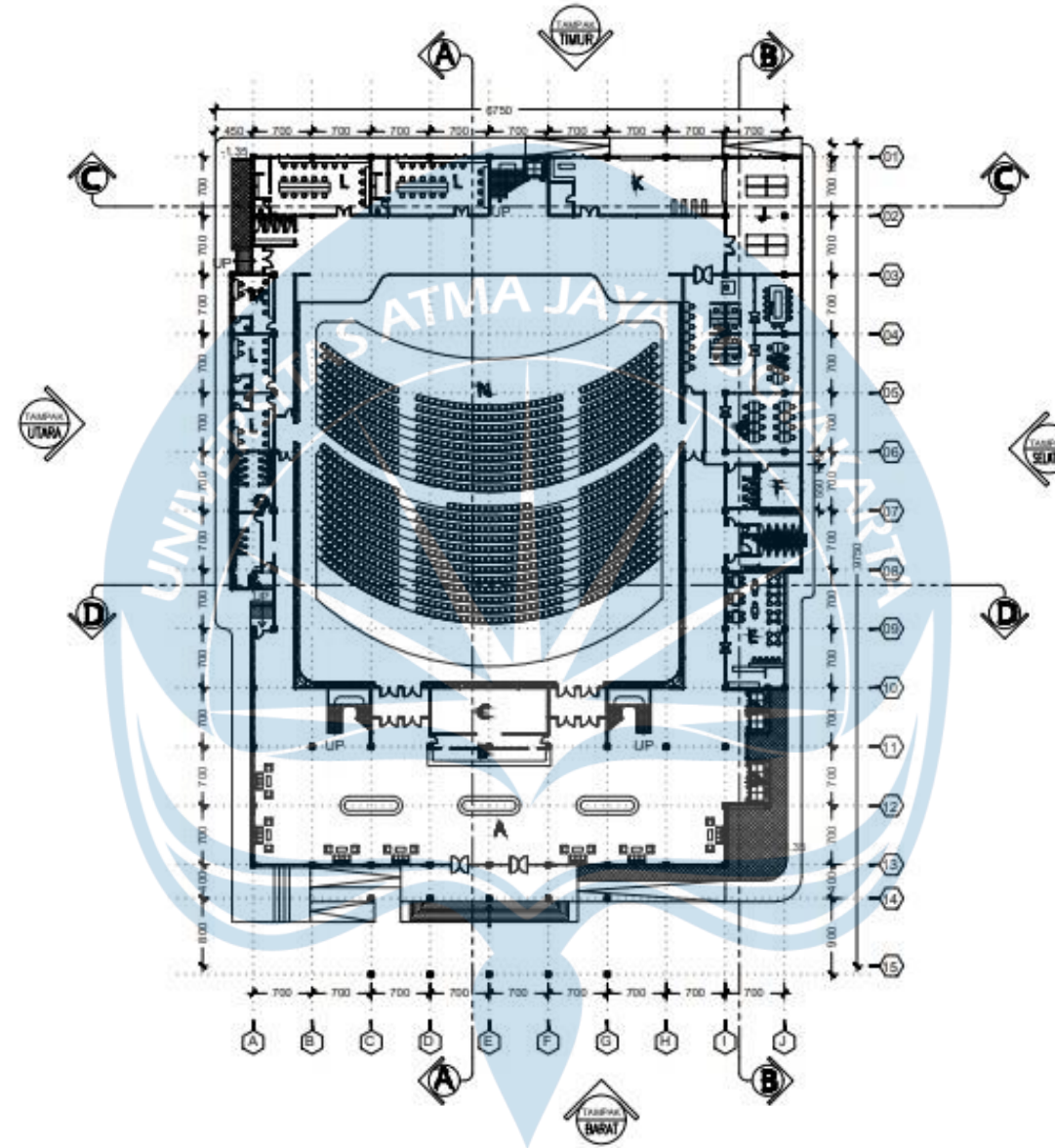


| KETERANGAN | |
|------------|-----------------------------------|
| A | Ruang Mesin dan Penyimpanan Kursi |
| B | Lift |
| C | Ruang Genset |
| D | Ruang Petugas Kebersihan |
| E | Ruang Keamanan |
| F | Ruang Mekanikal Elektrikal |
| G | Toilet |

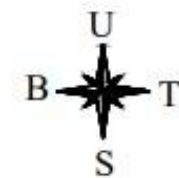


| | | | | | | | | | | |
|---|---|--|---|---|--|--------------------|---|-----------------------------|------------|---|
|  Universitas Atma Jaya Yogyakarta | PERIODE : GENAP I PERIODE : 002 1 TAHUN AKADEMIK 2022/2023 ACADEMIC YEAR 2022/2023 | Judul Proyek Project Title | Lokasi Proyek Project Location | Identitas Mahasiswa Student Identity | Judul Gambar Drawing Title | Keterangan Note | Tanggal Gambar Drawing Date | | | |
| | Program Studi Teknik Sipil CIVIL ENGINEERING DEPARTMENT Fakultas Teknik FACULTY OF ENGINEERING | Pusat Seni Pertunjukan dan Pelatihan Karawitan, Di Kabupaten Bantul Provinsi Daerah Istimewa Yogyakarta | Panggungharjo, Kec. Sewon, Kab. Bantul, Provinsi Daerah Istimewa Yogyakarta | Agnes Michelly Iaka 200218194 Heribertus Nggala 200218214 Yosef Mario Rato Boli Kobun 200218312 | Denah Gedung Seni Pertunjukan Basement | | 21 Juni 2023 | | | |
| | | | | | | | <table border="1"> <tr> <td>Nomer Lembar Page number</td> <td>Dari Of</td> </tr> <tr> <td>3</td> <td>61</td> </tr> </table> | Nomer Lembar Page number | Dari Of | 3 |
| Nomer Lembar Page number | Dari Of | | | | | | | | | |
| 3 | 61 | | | | | | | | | |

LAMPIRAN A.2.2. DENAH LANTAI BANGUNAN LT.1

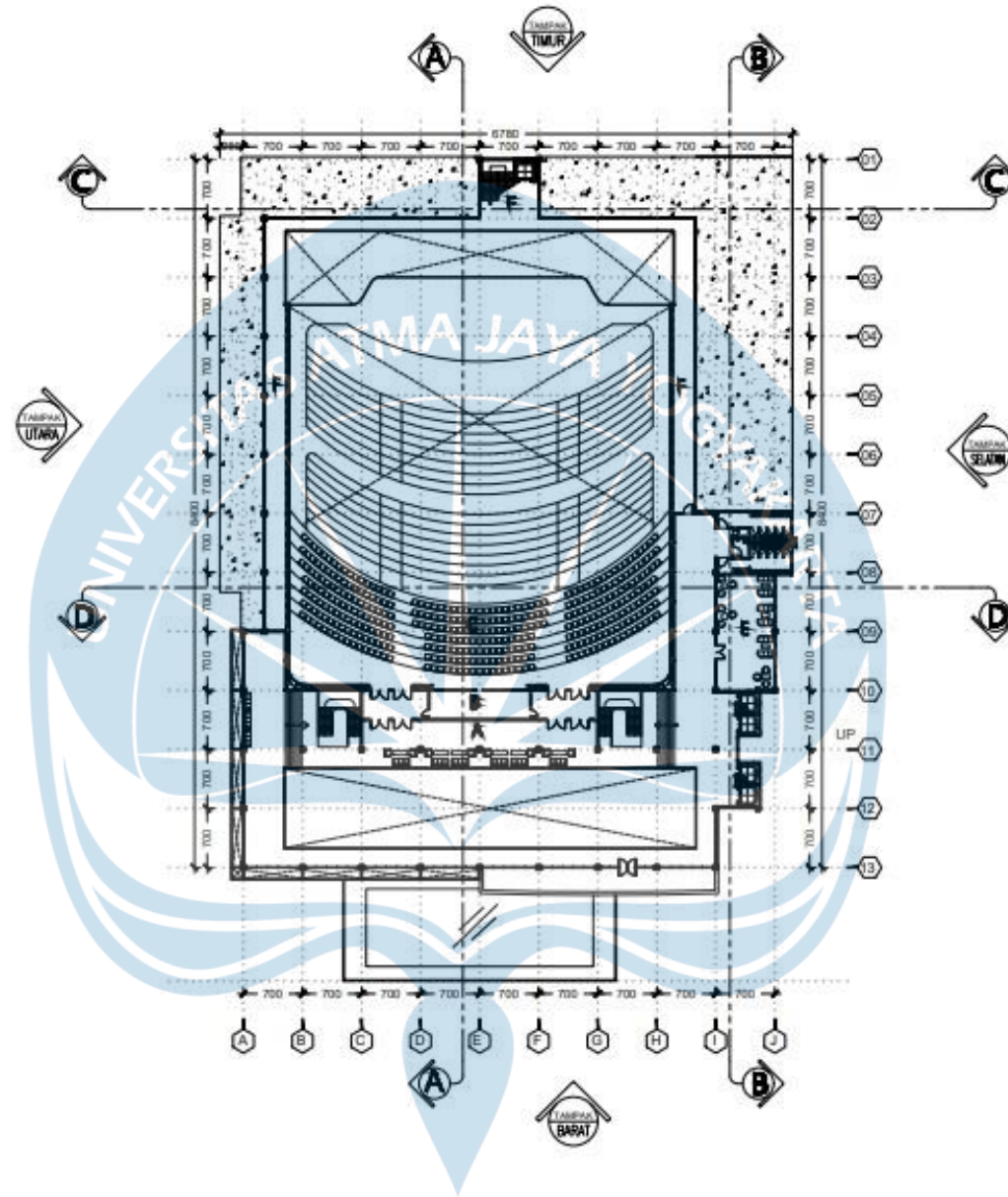


| KETERANGAN | |
|------------|-------------------|
| A | Lobby |
| B | Ticketing |
| C | Front Office |
| D | Lift |
| E | Cafeteria |
| F | Party |
| G | Ruang Admin |
| H | Ruang Produksi |
| I | Ruang Rapat |
| J | Workshop |
| K | Loading Deck |
| L | Dressing Room |
| M | Dressing Room VIP |
| N | Ruang Pertunjukan |
| O | Lavatori |



| | | | | | | | | |
|---|---|---|--|---|--|---------------------------|---|-------------------------|
|  Universitas Atma Jaya Yogyakarta | PERIODE : GENAP 1 PERIOD : 000 1 TAHUN AKADEMIK : 2022/2023 ACADEMIC YEAR : 2022/2023 | Judul Proyek <i>Project Title</i> Pusat Seni Pertunjukan dan Pelatihan Karawitan, Di Kabupaten Bantul Provinsi Daerah Istimewa Yogyakarta | Lokasi Proyek <i>Project Location</i> Panggunharjo, Kec. Sewon, Kab. Bantul, Provinsi Daerah Istimewa Yogyakarta | Identitas Mahasiswa <i>Student Identity</i> Agnes Michelly Iaka 200218194 Heribertus Nggala 200218214 Yosef Mario Rato Boli Kobun 200218312 | Judul Gambar <i>Drawing Title</i> Denah Gedung Seni Pertunjukan Lantai 1 | Keterangan <i>Note</i> | Tanggal Gambar <i>Drawing Date</i> 21 Juni 2023 | |
| | Program Studi Teknik Sipil CIVIL ENGINEERING DEPARTMENT Fakultas Teknik FACULTY OF ENGINEERING | | | | | | Nomer Lembar <i>Page number</i> 4 | Dari <i>Of</i> 61 |
| | | | | | | | | |


LAMPIRAN A.2.3. DENAH LANTAI BANGUNAN LT.2



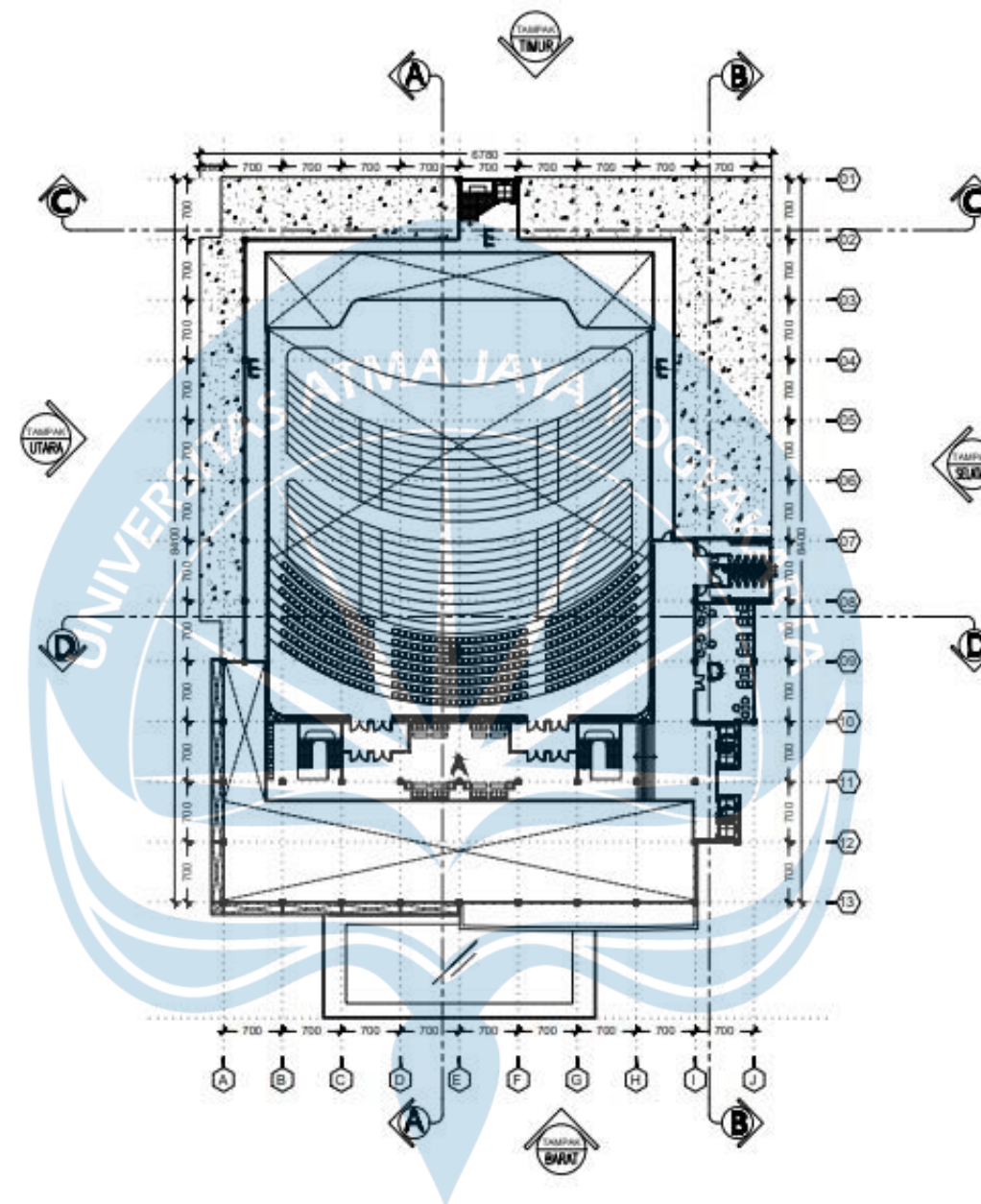
KETERANGAN

| | |
|---|----------------------------------|
| A | Lounge |
| B | Ruang Kontrol Sound dan Lighting |
| C | Ruang Pertunjukan |
| D | Lift |
| E | VIP Lounge |
| F | Sirkulasi Servis |




| | | | | | | | | |
|---|---|---|--|---|--|---------------------------|---|---------------|
|  Universitas Atma Jaya Yogyakarta | PERIODE : GEMAF 1 PERIOD : COG 1 TAHUN AKADEMIK 2022/2023 ACADEMIC YEAR 2022/2023 | Judul Proyek <i>Project Title</i> Pusat Seni Pertunjukan dan Pelatihan Karawitan, Di Kabupaten Bantul Provinsi Daerah Istimewa Yogyakarta | Lokasi Proyek <i>Project Location</i> Panggunharjo, Kec. Sewon, Kab. Bantul, Provinsi Daerah Istimewa Yogyakarta | Identitas Mahasiswa <i>Student Identity</i> Agnes Michelly Iaka 200218194 Heribertus Nggala 200218214 Yosef Mario Rato Boli Kobun 200218312 | Judul Gambar <i>Drawing Title</i> Denah Gedung Seni Pertunjukan Lantai 2 | Keterangan <i>Note</i> | Tanggal Gambar <i>Drawing Date</i> 21 Juni 2023 | |
| | Program Studi Teknik Sipil CIVIL ENGINEERING DEPARTMENT FAKULTAS TEKNIK FACULTY OF ENGINEERING | | | | | | Nomer Lembar <i>Page number</i> 5 | Dari Of 61 |
| | | | | | | | | |

LAMPIRAN A.2.4. DENAH LANTAI BANGUNAN LT.3

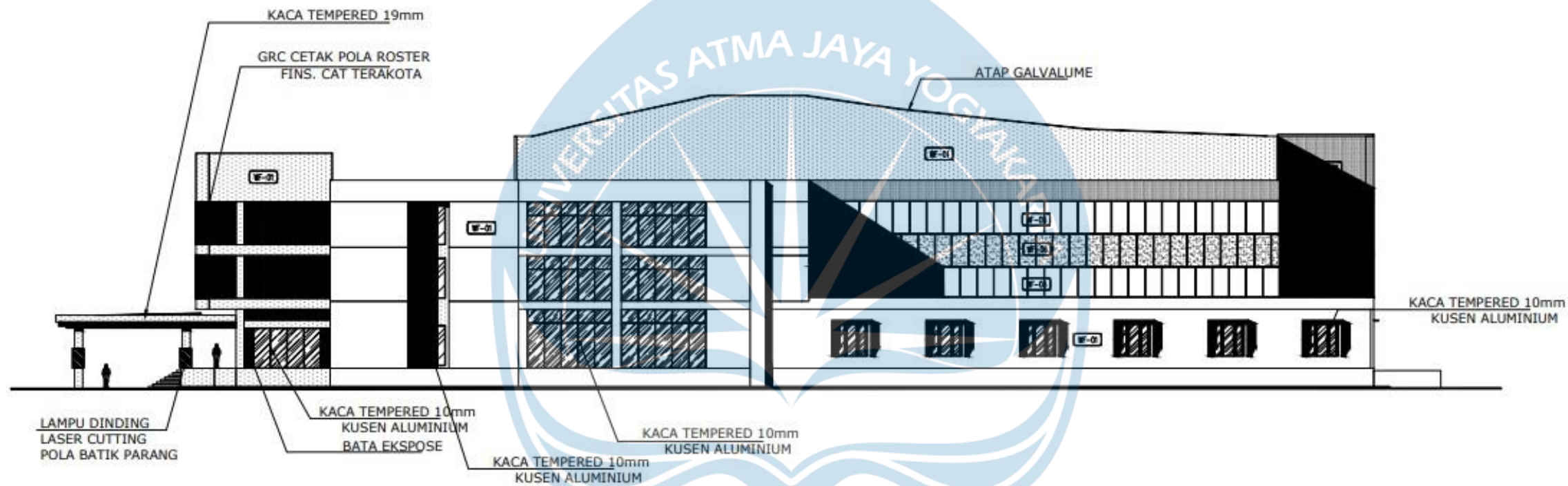


| KETERANGAN | |
|------------|-------------------|
| A | Lounge |
| B | Ruang Pertunjukan |
| C | Lift |
| D | VIP Lounge |
| E | Sirkulasi Servis |



| | | | | | | | | |
|---|---|---|--|---|--|---------------------------|---|---------------|
|  Universitas Atma Jaya Yogyakarta | PERIODE: GEMAP 1 PERIODE: GGD 1 TAHUN AKADEMIK: 2022/2023 ACADEMIC YEAR: 2022/2023 | Judul Proyek <i>Project Title</i> Pusat Seni Pertunjukan dan Pelatihan Karawitan, Di Kabupaten Bantul Provinsi Daerah Istimewa Yogyakarta | Lokasi Proyek <i>Project Location</i> Panggunharjo, Kec. Sewon, Kab. Bantul, Provinsi Daerah Istimewa Yogyakarta | Identitas Mahasiswa <i>Student Identity</i> Agnes Michelly Iaka 200218194 Heribertus Nggala 200218214 Yosef Mario Rato Boli Kobun 200218312 | Judul Gambar <i>Drawing Title</i> Denah Gedung Seni Pertunjukan Lantai 3 | Keterangan <i>Note</i> | Tanggal Gambar <i>Drawing Date</i> 21 Juni 2023 | |
| | Program Studi Teknik Sipil CIVIL ENGINEERING DEPARTMENT Fakultas Teknik FACULTY OF ENGINEERING | | | | | | Nomer Lembar <i>Page number</i> 6 | Dari Of 61 |
| | | | | | | | | |


LAMPIRAN A.3.3. POTONGAN ARSITEK TAMPAK SELATAN



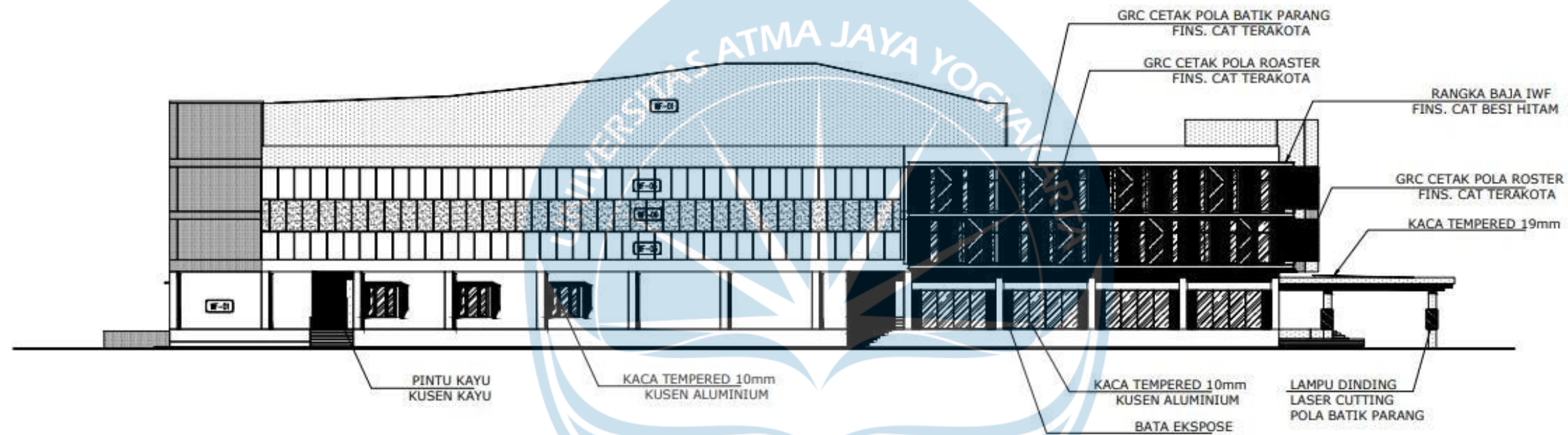
LEGENDA :

| WALL FINISH | |
|-------------|------------------------------|
| WF-01 | CAT EKSTERIOR ABU-ABU TERANG |
| WF-02 | CAT EKSTERIOR ABU-ABU GELAP |
| WF-03 | CAT EKSTERIOR WARNA TERAKOTA |
| WF-04 | BATU ANDESIT BAKAR |
| WF-05 | PLESTER HALUS |
| WF-06 | PLESTER KASAR |



| | | | | | | | | |
|---|---|---|--|---|---|---------------------------|---|-------------------------|
|  Universitas Atma Jaya Yogyakarta | PERIODE : GENAP I PERIODE : 002 1 TAHUN AKADEMIK 2022/2023 ACADEMIC YEAR 2022/2023 | Judul Proyek <i>Project Title</i> Pusat Seni Pertunjukan dan Pelatihan Karawitan, Di Kabupaten Bantul Provinsi Daerah Istimewa Yogyakarta | Lokasi Proyek <i>Project Location</i> Panggunharjo, Kec. Sewon, Kab. Bantul, Provinsi Daerah Istimewa Yogyakarta | Identitas Mahasiswa <i>Student Identity</i> Agnes Michelly Iaka 200218194 Heribertus Nggala 200218214 Yosef Mario Rato Boli Kobun 200218312 | Judul Gambar <i>Drawing Title</i> GAMBAR GEDUNG SENI PERTUNJUKAN TAMPAK SELATAN | Keterangan <i>Note</i> | Tanggal Gambar <i>Drawing Date</i> 21 Juni 2023 | |
| | Program Studi Teknik Sipil CIVIL ENGINEERING DEPARTMENT Fakultas Teknik FACULTY OF ENGINEERING | | | | | | Nomer Lembar <i>Page number</i> 10 | Dari <i>Of</i> 61 |
| | | | | | | | | |


LAMPIRAN A.3.4. POTONGAN ARSITEK TAMPAK SELATAN



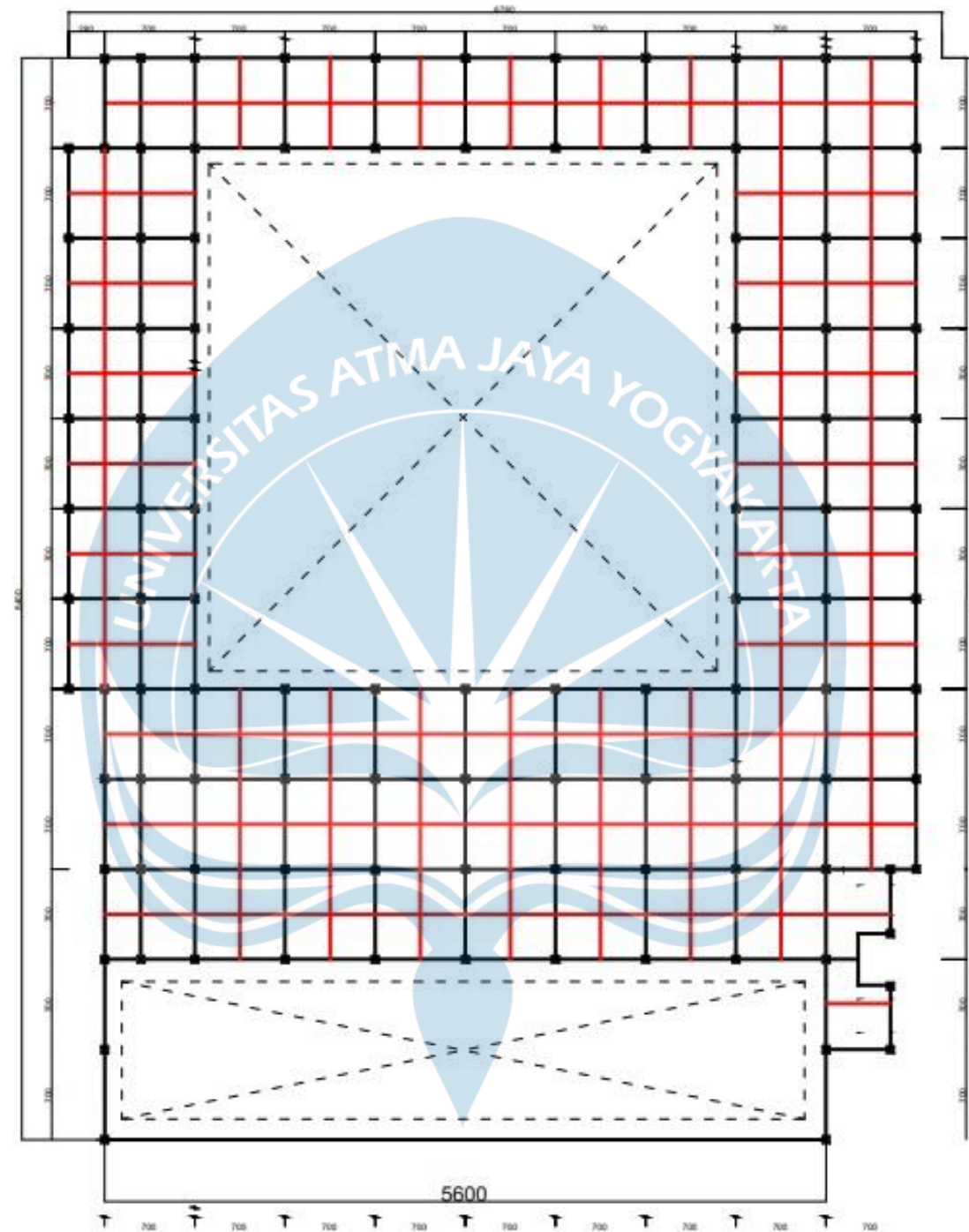
LEGENDA :

| WALL FINISH | |
|-------------|------------------------------|
| WF-01 | CAT EKSTERIOR ABU-ABU TERANG |
| WF-02 | CAT EKSTERIOR ABU-ABU GELAP |
| WF-03 | CAT EKSTERIOR WARNA TERAKOTA |
| WF-04 | BATU ANDESIT BAKAR |
| WF-05 | PLESTER HALUS |
| WF-06 | PLESTER KASAR |



| | | | | | | | | | |
|---|---|---|--|---|---|---------------------------|---|--|-------------------------|
|  Universitas Atma Jaya Yogyakarta | PERKODE : GENAP1 PERIOD : 0001 TAHUN AKADEMIK 2022/2023 AKADEMIK YEAR 2022/2023 | Judul Proyek <i>Project Title</i> Pusat Seni Pertunjukan dan Pelatihan Karawitan, Di Kabupaten Bantul Provinsi Daerah Istimewa Yogyakarta | Lokasi Proyek <i>Project Location</i> Panggunharjo, Kec. Sewon, Kab. Bantul, Provinsi Daerah Istimewa Yogyakarta | Identitas Mahasiswa <i>Student Identity</i> Agnes Michelly Iaka 200218194 Heribertus Nggala 200218214 Yosef Mario Rato Boli Kobun 200218312 | Judul Gambar <i>Drawing Title</i> GAMBAR GEDUNG SENI PERTUNJUKAN TAMPAK SELATAN | Keterangan <i>Note</i> | Tanggal Gambar <i>Drawing Date</i> 21 Juni 2023 | | |
| | Program Studi Teknik Sipil CIVIL ENGINEERING DEPARTMENT Fakultas Teknik FACULTY OF ENGINEERING | | | | | | | Nomer Lembar <i>Page number</i> 11 | Dari <i>Of</i> 61 |

LAMPIRAN A.4.4. DENAH KOLOM DAN BALOK LT.2

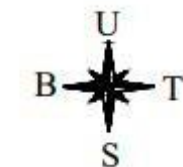
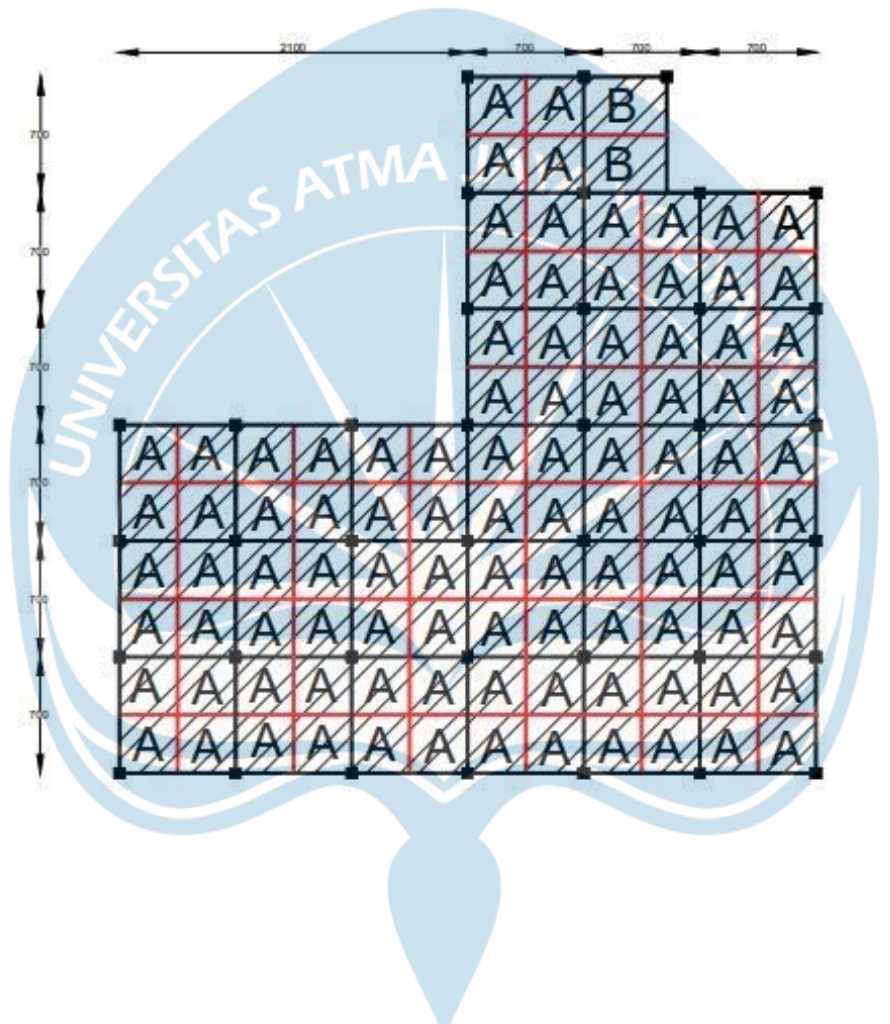



| KETERANGAN | |
|---|-------------|
|  | BALOK INDUK |
|  | BALOK ANAK |



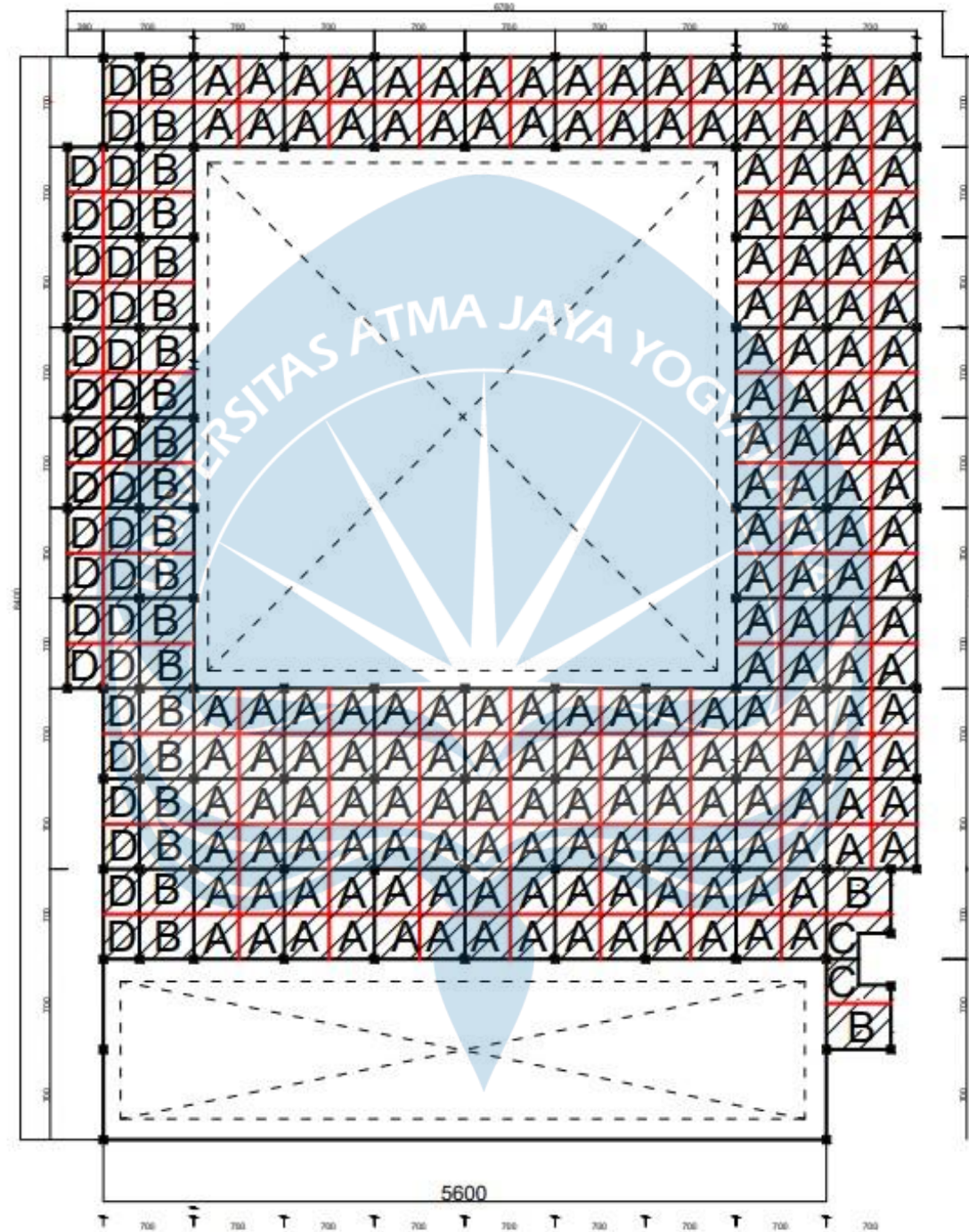
| | | | | | | | | |
|---|---|---|--|---|--|---------------------------|---|-------------------------|
|  Universitas Atma Jaya Yogyakarta | Tugas Akhir Perancangan Infrastruktur <small>PERIOD : SEMESTER I PERIOD : 02021</small> <small>TAHUN AKADEMIK 2022/2023 ACADEMIC YEAR 2022/2023</small> | Judul Proyek <i>Project Title</i> Pusat Seni Pertunjukan dan Pelatihan Karawitan, Di Kabupaten Bantul Provinsi Daerah Istimewa Yogyakarta | Lokasi Proyek <i>Project Location</i> Panggunharjo, Kec. Sewon, Kab. Bantul, Provinsi Daerah Istimewa Yogyakarta | Identitas Mahasiswa <i>Student Identity</i> Agnes Michelly Iaka 200218194 Heribertus Nggala 200218214 Yosef Mario Rato Boli Kobun 200218312 | Judul Gambar <i>Drawing Title</i> Denah Kolom Balok Lantai 2 Gedung Seni Pertunjukan | Keterangan <i>Note</i> | Tanggal Gambar <i>Drawing Date</i> 21 Juni 2023 | |
| | | | | | | | Nomor Lembar <i>Page number</i> 15 | Dari <i>Of</i> 61 |


LAMPIRAN A.5.1. DENAH PELAT LT.1



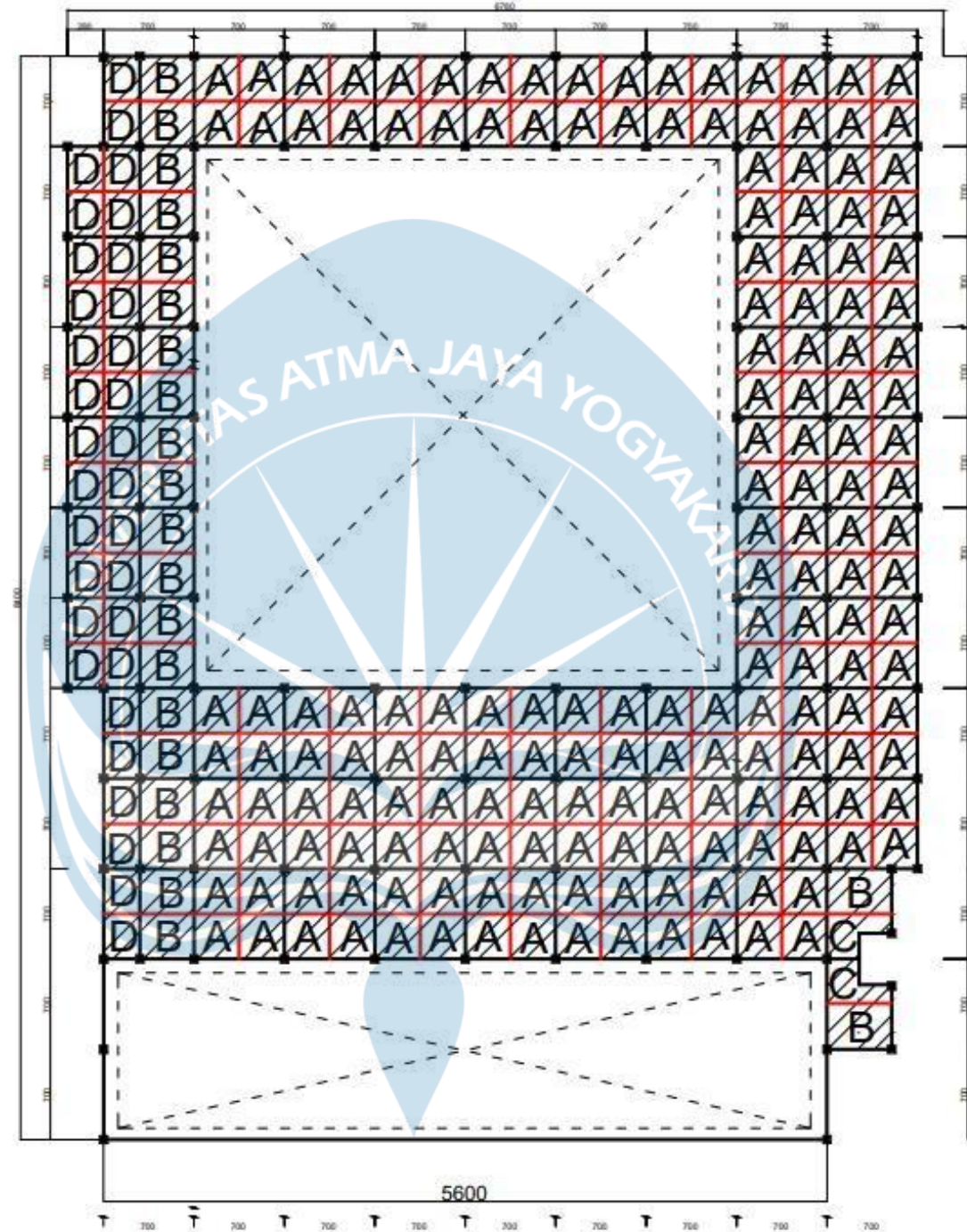
| | | | | | | | |
|---|---|---|--|---|--|---------------------------|---------------------------------------|
|  Universitas Atma Jaya Yogyakarta | Tugas Akhir Perancangan Infrastruktur | Judul Proyek <i>Project Title</i> | Lokasi Proyek <i>Project Location</i> | Identitas Mahasiswa <i>Student Identity</i> | Judul Gambar <i>Drawing Title</i> | Keterangan <i>Note</i> | Tanggal Gambar <i>Drawing Date</i> |
| | PERIODE (SEMESTER) PERIODE : 000 1 TAHUN AKADEMIK 2022/2023 ACADEMIC YEAR 2022/2023 | Pusat Seni Pertunjukan dan Pelatihan Karawitan, Di Kabupaten Bantul Provinsi Daerah Istimewa Yogyakarta | Panggunharjo, Kec. Sewon, Kab. Bantul, Provinsi Daerah Istimewa Yogyakarta | Agnes Michelly Iaka 200218194 Heribertus Nggala 200218214 Yosef Mario Rato Boli Kobun 200218312 | GAMBAR DENAH PLAT LANTAI DI LANTAI 1 | | 21 Juni 2023 |
| | Program Studi Teknik Sipil CIVIL ENGINEERING DEPARTMENT Fakultas Teknik FACULTY OF ENGINEERING | | | | | | Nomer Lembar <i>Page number</i> |
| | | | | | | 18 | 61 |


LAMPIRAN A.5.2. DENAH PELAT LT.2



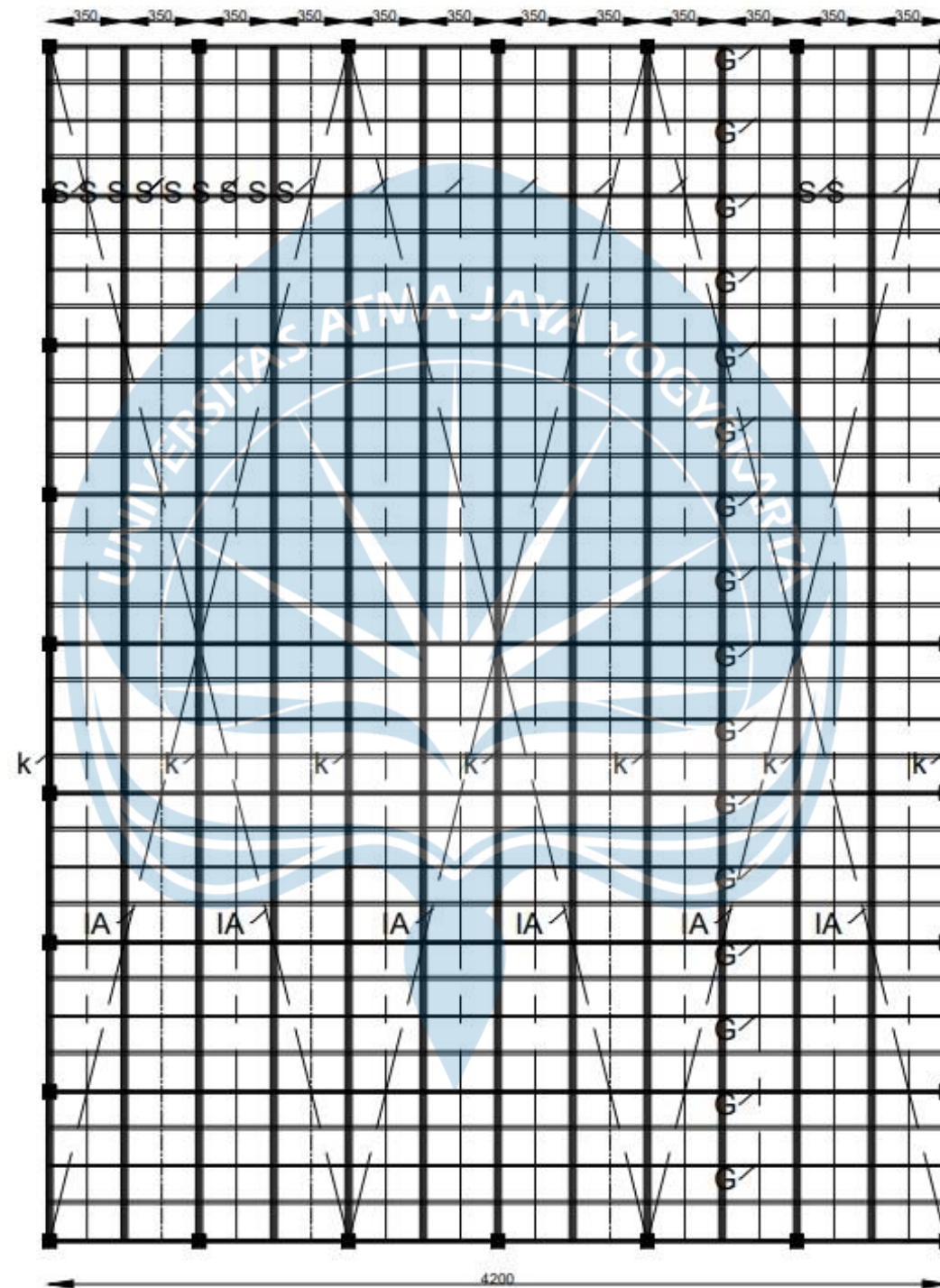
| | | | | | | | | |
|---|---|---|--|---|--|---------------------------|---|-------------------------|
|  Universitas Atma Jaya Yogyakarta | Tugas Akhir Perancangan Infrastruktur PERIODE : GENAP 1 PERIOD : CDD 1 TAHUN AKADEMIK 2022/2023 ACADEMIC YEAR 2022/2023 | Judul Proyek <i>Project Title</i> Pusat Seni Pertunjukan dan Pelatihan Karawitan, Di Kabupaten Bantul Provinsi Daerah Istimewa Yogyakarta | Lokasi Proyek <i>Project Location</i> Panggunharjo, Kec. Sewon, Kab. Bantul, Provinsi Daerah Istimewa Yogyakarta | Identitas Mahasiswa <i>Student Identity</i> Agnes Michelly Iaka 200218194 Heribertus Nggala 200218214 Yosef Mario Rato Boli Kobun 200218312 | Judul Gambar <i>Drawing Title</i> GAMBAR DENAH PLAT LANTAI DI LANTAI 2 | Keterangan <i>Note</i> | Tanggal Gambar <i>Drawing Date</i> 21 Juni 2023 | |
| | Program Studi Teknik Sipil CIVIL ENGINEERING DEPARTMENT FAKULTAS TEKNIK FACULTY OF ENGINEERING | | | | | | Nomer Lembar <i>Page number</i> 19 | Dari <i>Of</i> 61 |
| | | | | | | | | |

LAMPIRAN A.5.4. DENAH PELAT LT.4




|  Universitas Atma Jaya Yogyakarta | Tugas Akhir Perancangan Infrastruktur | Judul Proyek Project Title | Lokasi Proyek Project Location | Identitas Mahasiswa Student Identity | Judul Gambar Drawing Title | Keterangan Note | Tanggal Gambar Drawing Date | | | |
|---|---|---|--|---|--|--------------------|--|-----------------------------|------------|----|
| | PERIODE: DESAP1 PERIODE: GGD 1 TAHUN AKADEMIK: 2022/2023 ACADEMIC YEAR: 2022/2023 | Pusat Seni Pertunjukan dan Pelatihan Karawitan, Di Kabupaten Bantul Provinsi Daerah Istimewa Yogyakarta | Panggunharjo, Kec. Sewon, Kab. Bantul, Provinsi Daerah Istimewa Yogyakarta | Agnes Michelly Iaka 200218194 Heribertus Nggala 200218214 Yosef Mario Rato Boli Kobun 200218312 | Denah Gedung Seni Pertunjukan Lantai 4 | | 21 Juni 2023 | | | |
| | Program Studi Teknik Sipil CIVIL ENGINEERING DEPARTMENT Fakultas Teknik FACULTY OF ENGINEERING | | | | | | <table border="1"> <tr> <th>Nomer Lembar Page number</th> <th>Dari Of</th> </tr> <tr> <td>21</td> <td>61</td> </tr> </table> | Nomer Lembar Page number | Dari Of | 21 |
| Nomer Lembar Page number | Dari Of | | | | | | | | | |
| 21 | 61 | | | | | | | | | |

LAMPIRAN A.6.1.RENCANA PELETAKAN GORDING DAN KUDA-KUDA

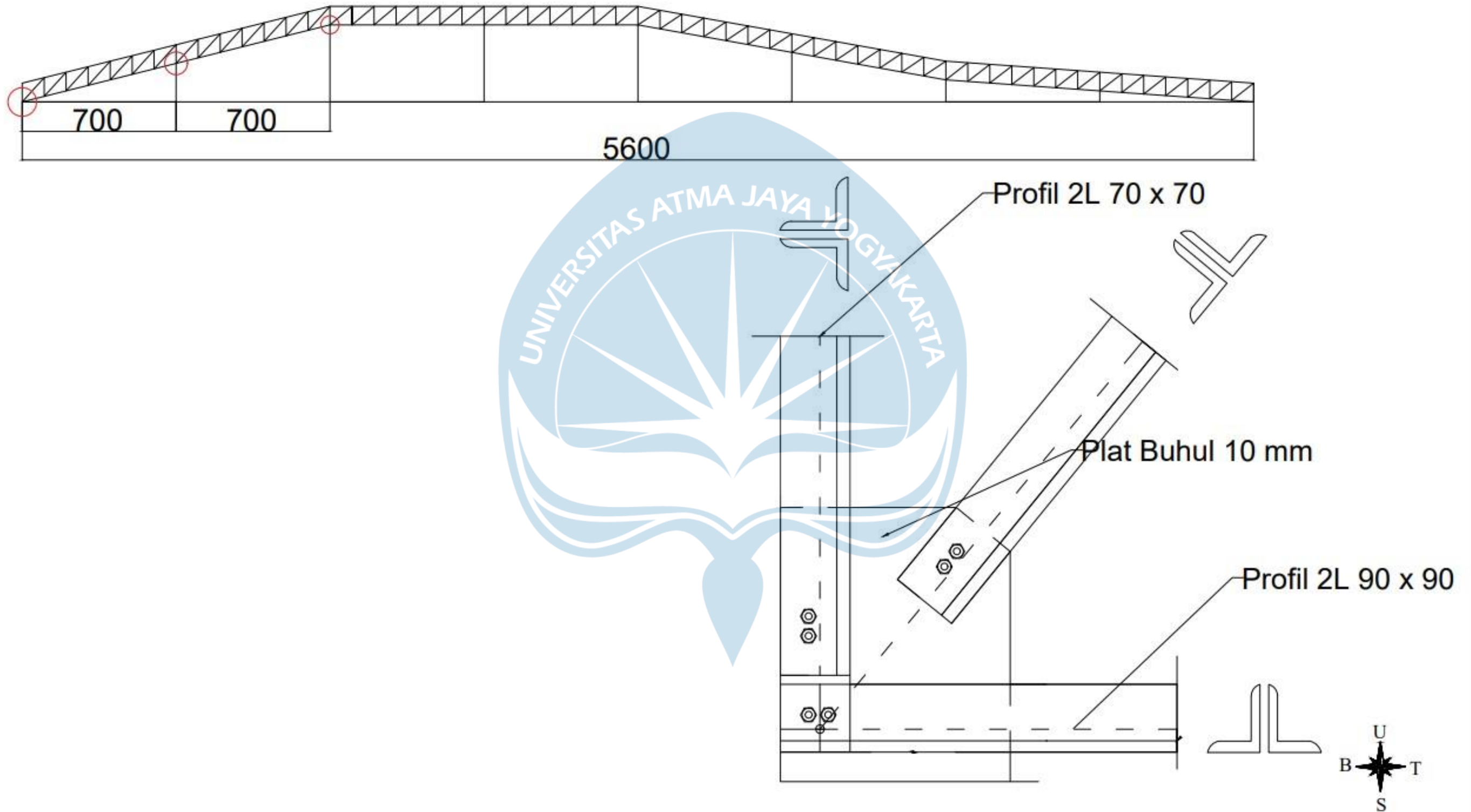



| KETERANGAN | |
|------------|--------------|
| IA | IKATAN ANGIN |
| K | KUDA-KUDA |
| G | GORDING |



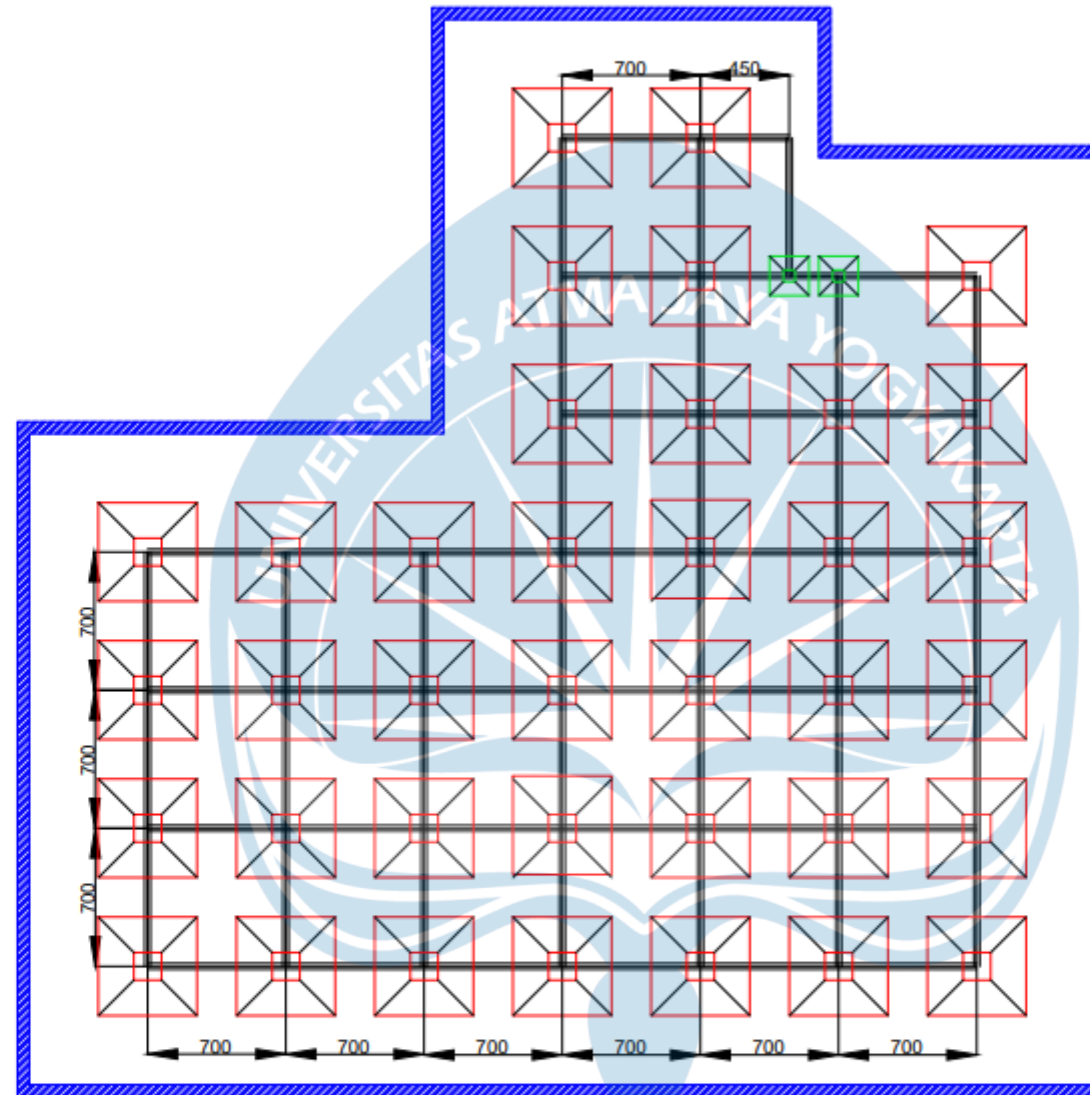
| | | | | | | | | |
|---|--|---|--|---|--|---------------------------|---|-------------------------|
|  Universitas Atma Jaya Yogyakarta | Tugas Akhir Perancangan Infrastruktur PERIODE: GENAP I PERIODE: 002/1 TAHUN AKADEMIK 2022/2023 ACADEMIC YEAR 2022/2023 | Judul Proyek <i>Project Title</i> Pusat Seni Pertunjukan dan Pelatihan Karawitan, Di Kabupaten Bantul Provinsi Daerah Istimewa Yogyakarta | Lokasi Proyek <i>Project Location</i> Panggunharjo, Kec. Sewon, Kab. Bantul, Provinsi Daerah Istimewa Yogyakarta | Identitas Mahasiswa <i>Student Identity</i> Agnes Michelly Iaka 200218194 Heribertus Nggala 200218214 Yosef Mario Rato Boli Kobun 200218312 | Judul Gambar <i>Drawing Title</i> Denah Gedung Seni Pertunjukan Atap | Keterangan <i>Note</i> | Tanggal Gambar <i>Drawing Date</i> 21 Juni 2023 | |
| | Program Studi Teknik Sipil CIVIL ENGINEERING DEPARTMENT FAKULTAS TEKNIK FACULTY OF ENGINEERING | | | | | | Nomer Lembar <i>Page number</i> 22 | Dari <i>of</i> 61 |
| | | | | | | | | |

LAMPIRAN A.6.2.RENCANA ATAP DAN DETAIL SAMBUNGAN ATAP

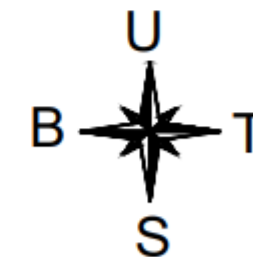



| | | | | | | | |
|---|--|---|---|---|--|---------------------------|---|
|  Universitas Atma Jaya Yogyakarta | Tugas Akhir Perancangan Infrastruktur PERIOD: SEMESTER I PERIOD: 0320 7 TAHUN AKADEMIK 2022/2023 ACADEMIC YEAR 2022/2023 | Judul Proyek <i>Project Title</i> Pusat Seni Pertunjukan dan Pelatihan Karawitan, Di Kabupaten Bantul Provinsi Daerah Istimewa Yogyakarta | Lokasi Proyek <i>Project Location</i> Panggungharjo, Kec. Sewon, Kab. Bantul, Provinsi Daerah Istimewa Yogyakarta | Identitas Mahasiswa <i>Student Identity</i> Agnes Michelly Iaka 200218194 Heribertus Nggala 200218214 Yosef Mario Rato Boli Kobun 200218312 | Judul Gambar <i>Drawing Title</i> RENCANA ATAP DAN SAMBUNGAN PADA ATAP | Keterangan <i>Note</i> | Tanggal Gambar <i>Drawing Date</i> 21 Juni 2023 |
| | | | | | | | Nomer Lembar <i>Page number</i> |
| | | | | | | | Dari <i>of</i> |
| | | | | | | | 23 |

LAMPIRAN A.7.1. DENAH FONDASI DI BASEMENT

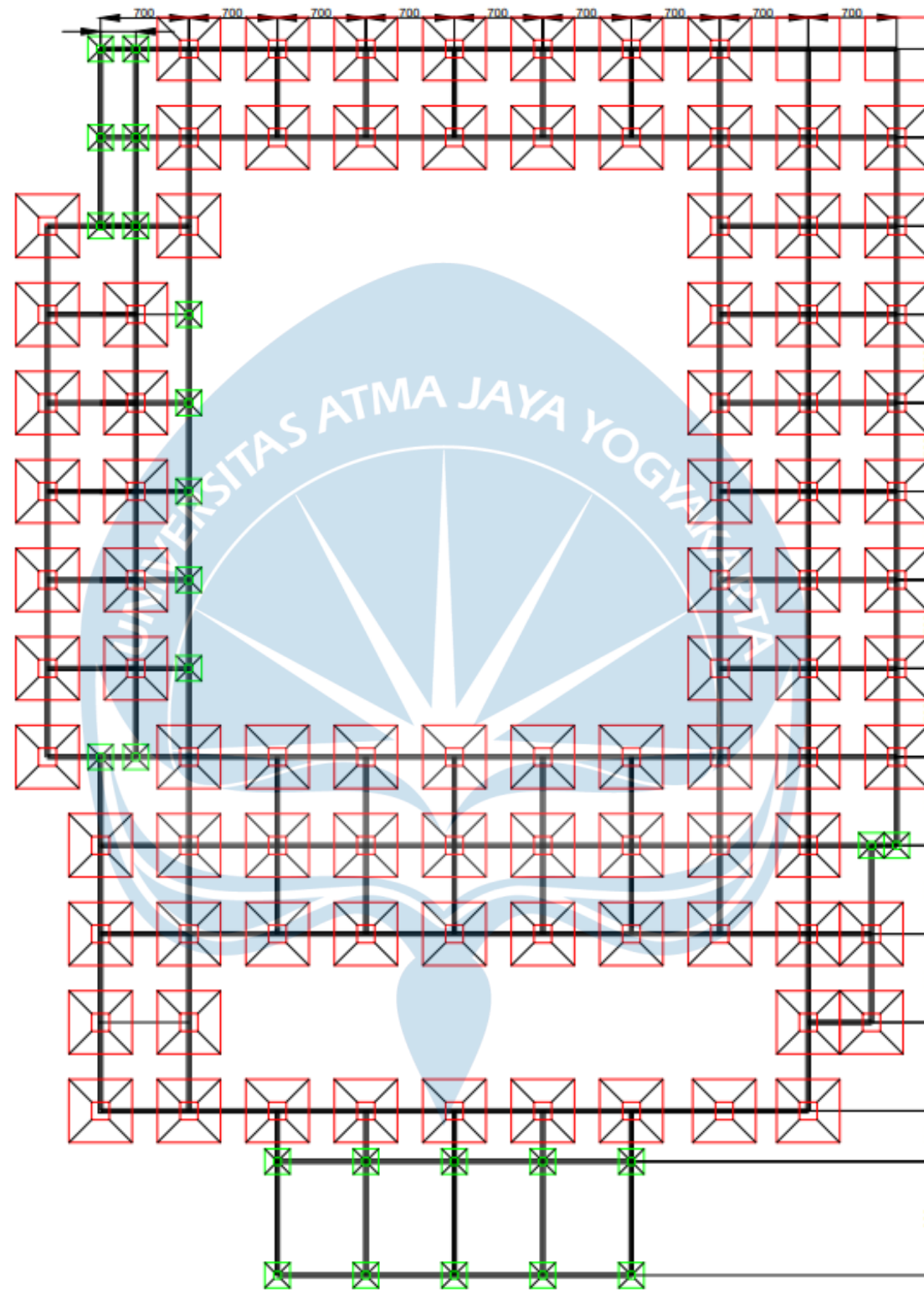


| Keterangan | |
|--|----------------|
| | Footplat 5 X 5 |
| | Footplat 3 X 3 |
| | DPT |




| | | | | | | | | |
|---|---|---|--|---|--|---------------------------|--|--|
|  Universitas Atma Jaya Yogyakarta | Tugas Akhir Perancangan Infrastruktur <small>PERIODE : SEMESTER 1 PERIODE : GGD 1 TAHUN AKADEMIK 2022/2023 ACADEMIC YEAR 2022/2023</small> | Judul Proyek <i>Project Title</i> Pusat Seni Pertunjukan dan Pelatihan, Di Kabupaten Bantul Provinsi Daerah Istimewa Yogyakarta | Lokasi Proyek <i>Project Location</i> Panggunharjo, Kec. Sewon, Kab. Bantul, Provinsi Daerah Istimewa Yogyakarta | Identitas Mahasiswa <i>Student Identity</i> Agnes Michelly Iaka 200218194 Heribertus Nggala 200218214 Yosef Mario Rato Boli Kobun 200218312 | Judul Gambar <i>Drawing Title</i> DETAIL PONDASI FOOT PLAT PADA BASEMENT | Keterangan <i>Note</i> | Tanggal Gambar <i>Drawing Date</i> 14 September 2023 | |
| | | | | | | | Nomer Lembar Page number | |
| | | | | | | | Dari Of 24 61 | |

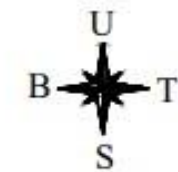
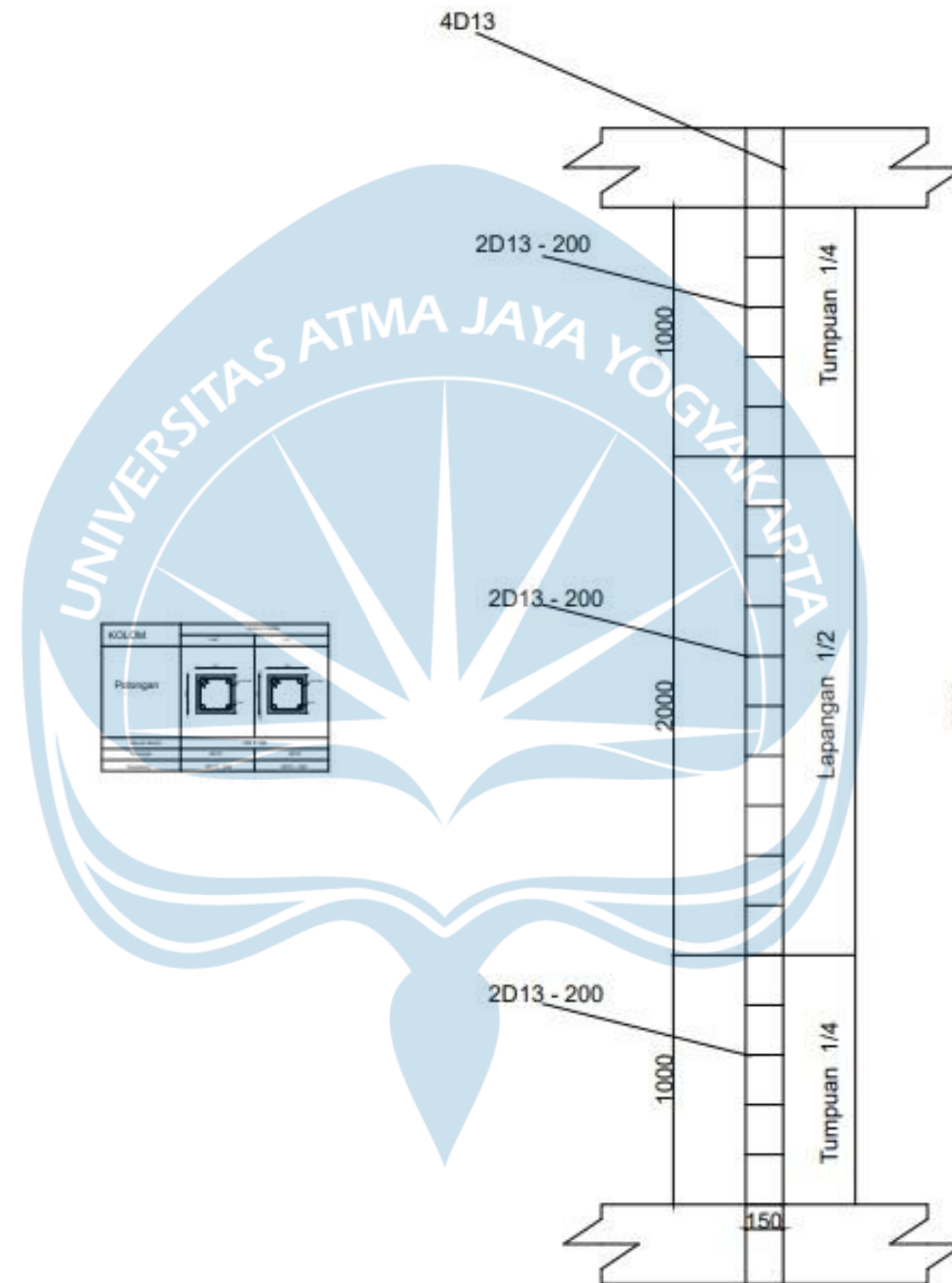
LAMPIRAN A.7.2. DENAH FONDASI DI LANTAI 1



| Keterangan | |
|--------------------------------------|----------------|
| ■ | Footplat 5 X 5 |
| ■ | Footplat 3 X 3 |

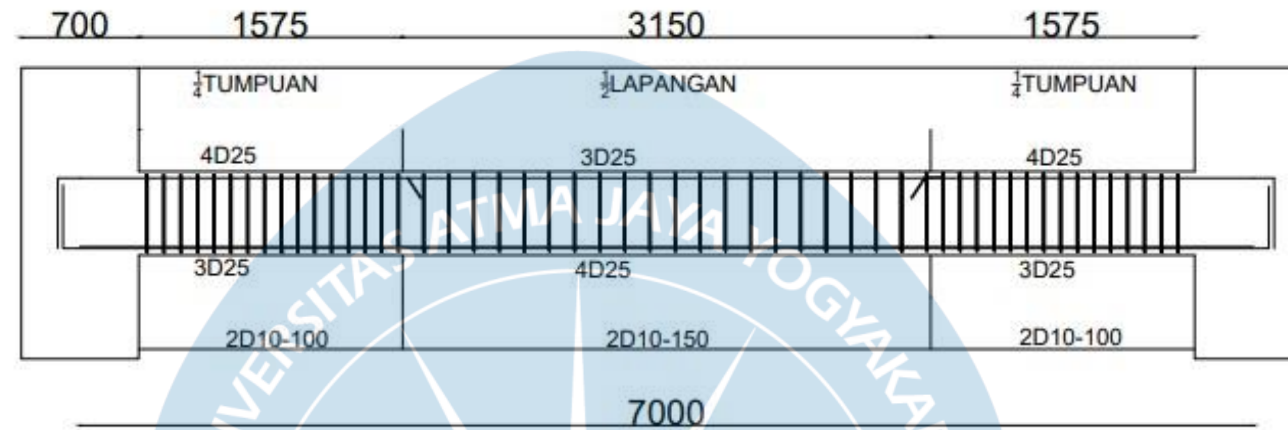
| | | | | | | | | |
|---|--|---|--|---|---|---------------------------|--|-------------------------|
|  Universitas Atma Jaya Yogyakarta | Tugas Akhir Perancangan Infrastruktur PERIODE : GANJIL 1 PERIOD : GGD 1 TAHUN AKADEMIK 2022/2023 ACADEMIC YEAR 2022/2023 | Judul Proyek <i>Project Title</i> Pusat Seni Pertunjukan dan Pelatihan, Di Kabupaten Bantul Provinsi Daerah Istimewa Yogyakarta | Lokasi Proyek <i>Project Location</i> Panggunharjo, Kec. Sewon, Kab. Bantul, Provinsi Daerah Istimewa Yogyakarta | Identitas Mahasiswa <i>Student Identity</i> Agnes Michelly Iaka 200218194 Heribertus Nggala 200218214 Yosef Mario Rato Boli Kobun 200218312 | Judul Gambar <i>Drawing Title</i> DETAIL PONDASI FOOT PLAT PADA LANTAI 1 | Keterangan <i>Note</i> | Tanggal Gambar <i>Drawing Date</i> 14 September 2023 | |
| | Program Studi Teknik Sipil 700 CIVIL ENGINEERING DEPARTMENT SAKURA TERAK FACULTY OF ENGINEERING | | | | | | Nomer Lembar <i>Page number</i> 25 | Dari <i>Of</i> 61 |

LAMPIRAN A.8.3. DENAH TULANGAN DAN RENCANA TULANGAN KOLOM PRAKTIS



| | | | | | | | | | |
|---|---|---|---|---|---|---------------------------|---|--|-------------------------|
|  Universitas Atma Jaya Yogyakarta | PERIODE: 08/2021 PERIODE: 02/2022 TAHUN AKADEMIK: 2021/2022 ACADEMIC YEAR: 2021/2022 | Judul Proyek <i>Project Title</i> Pusat Seni Pertunjukan dan Pelatihan Karawitan, Di Kabupaten Bantul Provinsi Daerah Istimewa Yogyakarta | Lokasi Proyek <i>Project Location</i> Panggungharjo, Kec. Sewon, Kab. Bantul, Provinsi Daerah Istimewa Yogyakarta | Identitas Mahasiswa <i>Student Identity</i> Agnes Michelly Iaka 200218194 Heribertus Nggala 200218214 Yosef Mario Rato Boli Kobun 200218312 | Judul Gambar <i>Drawing Title</i> DENAH GAMBAR TULANGAN KOLOM PRAKTIS | Keterangan <i>Note</i> | Tanggal Gambar <i>Drawing Date</i> 21 Juni 2023 | | |
| | Program Studi Teknik Sipil CIVIL ENGINEERING DEPARTMENT FAKULTAS TEKNIK FACULTY OF ENGINEERING | | | | | | | Nomor Lembar <i>Page number</i> 28 | Dari <i>Of</i> 61 |

LAMPIRAN A.9.1. DENAH TULANGAN BALOK INDUK B1 DAN SLOOF S1

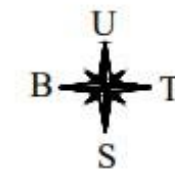
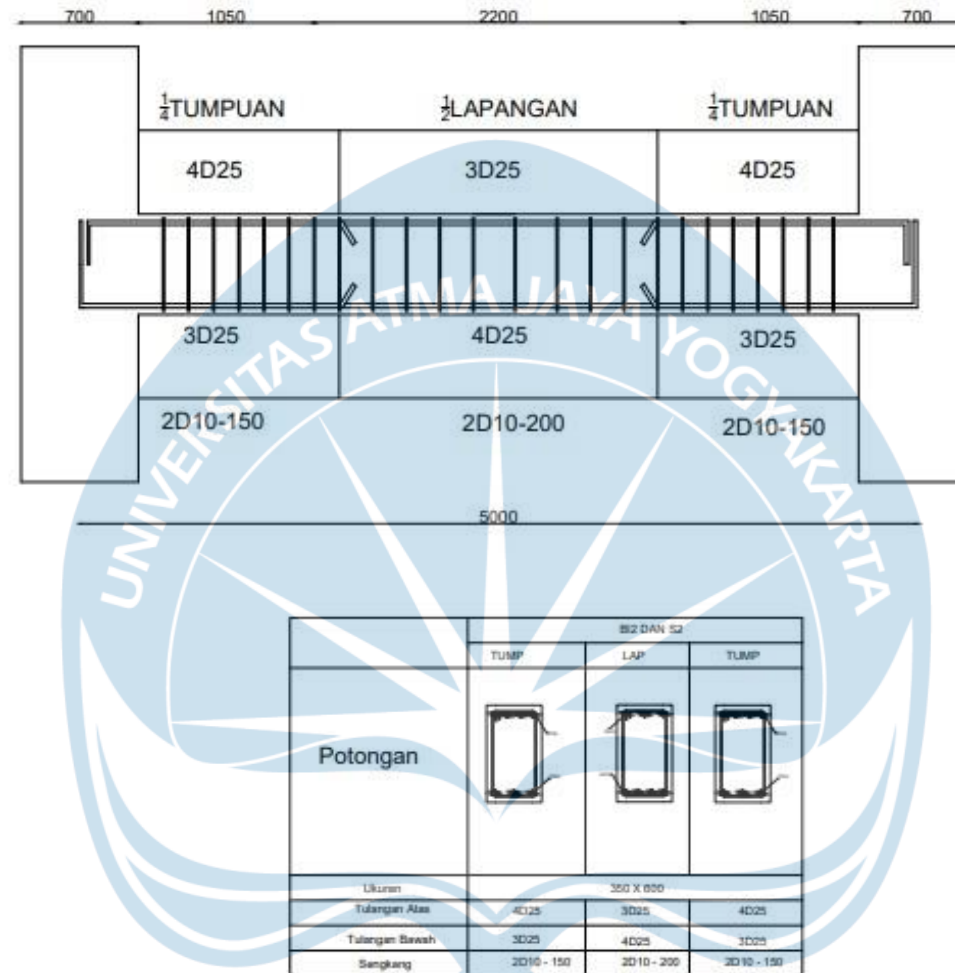



| B11 DAN S1 | B1 DAN S1 | | |
|----------------|------------|------------|------------|
| | TUMP | LAP | TUMP |
| Potongan | | | |
| Ukuran | 350 X 600 | | |
| Tulangan Atas | 4D25 | 3D25 | 4D25 |
| Tulangan Bawah | 3D25 | 4D25 | 3D25 |
| Sengkang | 2D10 - 100 | 2D10 - 150 | 2D10 - 100 |



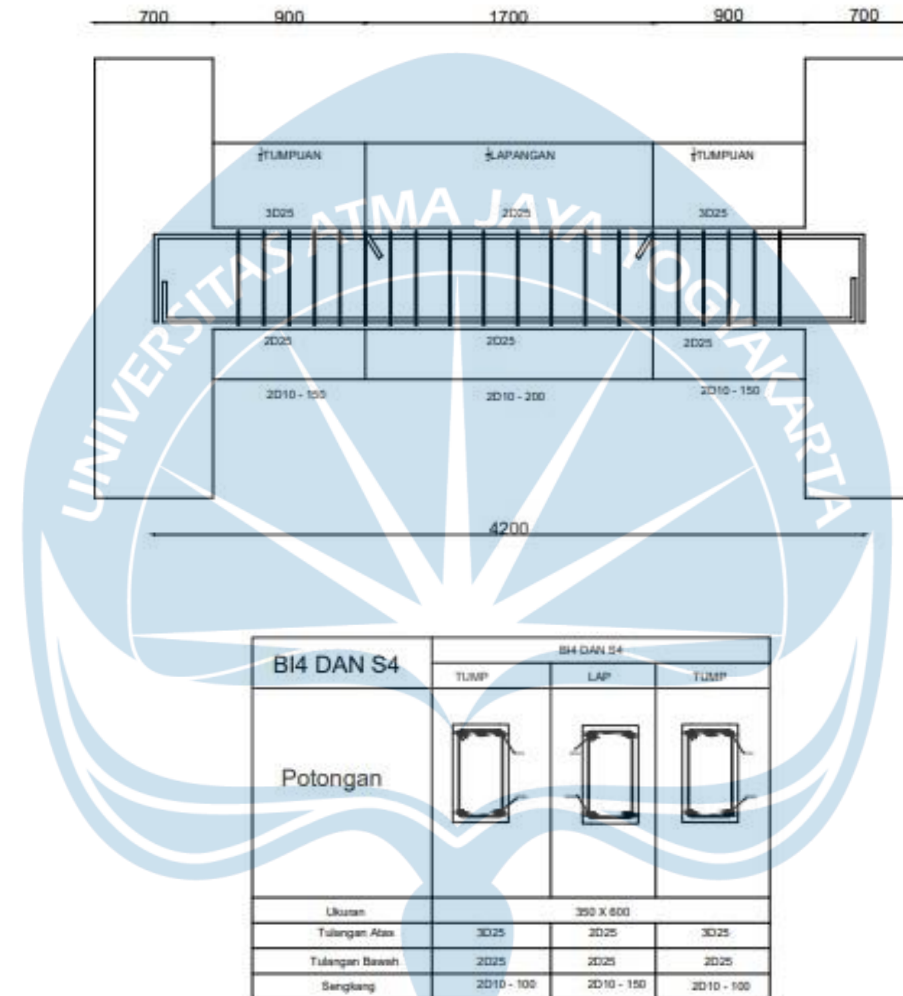
| | | | | | | | | | |
|---|---|--|--|---|--|---------------------------|---|--|-------------------------|
|  Universitas Atma Jaya Yogyakarta | PERIODE : GENAP I PERIOD : 002 1 TAHUN AKADEMIK 2022/2023 ACADEMIC YEAR 2022/2023 | Judul Proyek <i>Project Title</i> Pusat Seni Pertunjukan dan Pelatihan Karawitan, Di Kabupaten Bantul Provinsi Daerah Istimewa Yogyakarta | Lokasi Proyek <i>Project Location</i> Panggunharjo, Kec. Sewon, Kab. Bantul, Provinsi Daerah Istimewa Yogyakarta | Identitas Mahasiswa <i>Student Identity</i> Agnes Michelly Iaka 200218194 Heribertus Nggala 200218214 Yosef Mario Rato Boli Kobun 200218312 | Judul Gambar <i>Drawing Title</i> DENAH GAMBAR DETAIL PENULANGAN BALOK INDUK B1 DAN SLOOF S1 | Keterangan <i>Note</i> | Tanggal Gambar <i>Drawing Date</i> 21 Juni 2023 | | |
| | Program Studi Teknik Sipil CIVIL ENGINEERING DEPARTMENT Fakultas Teknik FACULTY OF ENGINEERING | | | | | | | Nomer Lembar <i>Page number</i> 29 | Dari <i>Of</i> 61 |


LAMPIRAN A.9.2. DENAH TULANGAN BALOK INDUK B2 DAN SLOOF S2



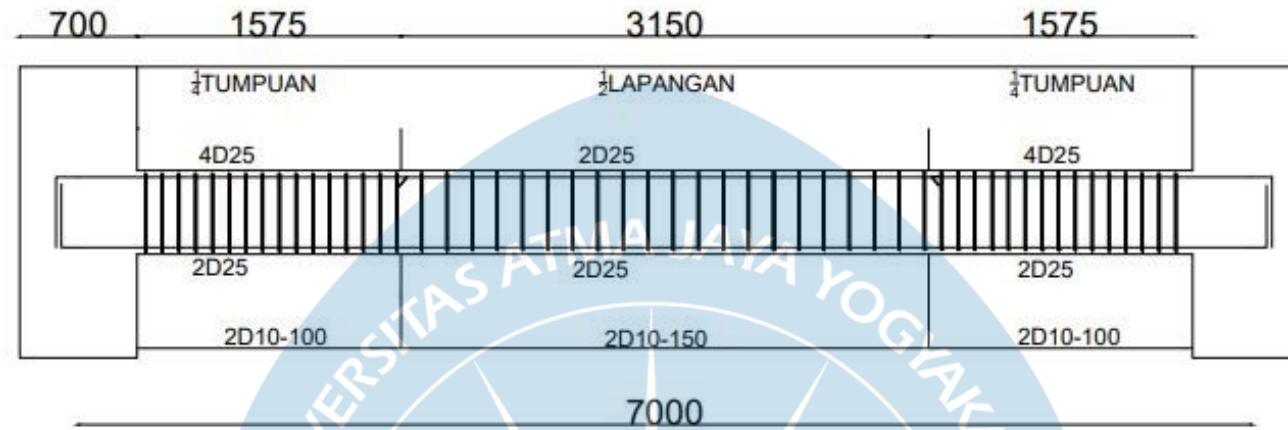
| | | | | | | | | | | |
|---|--|--|---|--|---|----------------------------------|--|-----------------------------|------------|----|
|  Universitas Atma Jaya Yogyakarta | PERIODE : GEMAF1 PERIOD : CDD 1 TAHUN AKADEMIK 2022/2023 ACADEMIC YEAR 2022/2023 | Judul Proyek <i>Project Title</i> Pusat Seni Pertunjukan dan Pelatihan Karawitan, Di Kabupaten Bantul Provinsi Daerah Istimewa Yogyakarta | Lokasi Proyek <i>Project Location</i> Panggunharjo, Kec. Sewon, Kab. Bantul, Provinsi Daerah Istimewa Yogyakarta | Identitas Mahasiswa <i>Student Identity</i> Agnes Michelly Iaka 200218194 Heribertus Nggala 200218214 Yosef Mario Rato Boli Kobun 200218312 | Judul Gambar <i>Drawing Title</i> DENAH GAMBAR DETAIL PENULANGAN BALOK INDUK B2 DAN SLOOF S2 | Keterangan <i>Note</i> | Tanggal Gambar <i>Drawing Date</i> 21 Juni 2023 | | | |
| | Program Studi Teknik Sipil CIVIL ENGINEERING DEPARTEMENT FAKULTAS TEKNIK FACULTY OF ENGINEERING | | | | | | | Nomer Lembar Page number | Dari Of | |
| | | | | | | | | | 30 | 61 |
| | | | | | | | | | | |

LAMPIRAN A.9.4. DENAH TULANGAN BALOK INDUK B4 DAN SLOOF S4

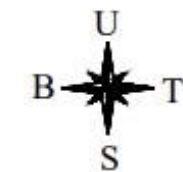



| | | | | | | | | | |
|---|---|--|---|---|--|---------------------------|---|------------------------------------|-------------------|
|  Universitas Atma Jaya Yogyakarta | PERIODE : GENAP I PERIODE : 002 1 TAHUN AKADSIK : 2022/2023 ACADEMIC YEAR : 2022/2023 | Judul Proyek <i>Project Title</i> Pusat Seni Pertunjukan dan Pelatihan Karawitan, Di Kabupaten Bantul Provinsi Daerah Istimewa Yogyakarta | Lokasi Proyek <i>Project Location</i> Panggungharjo, Kec. Sewon, Kab. Bantul, Provinsi Daerah Istimewa Yogyakarta | Identitas Mahasiswa <i>Student Identity</i> Agnes Michelly Iaka 200218194 Heribertus Nggala 200218214 Yosef Mario Rato Boli Kobun 200218312 | Judul Gambar <i>Drawing Title</i> DENAH GAMBAR DETAIL PENULANGAN BALOK INDUK B4 DAN SLOOF S4 | Keterangan <i>Note</i> | Tanggal Gambar <i>Drawing Date</i> 21 Juni 2023 | | |
| | Program Studi Teknik Sipil CIVIL ENGINEERING DEPARTMENT Fakultas Teknik FACULTY OF ENGINEERING | | | | | | | Nomer Lembar <i>Page number</i> | Dari <i>Of</i> |
| | 32 | | | | | | | 61 | |

LAMPIRAN A.9.5. DETAIL TULANGAN BALOK ANAK BA1

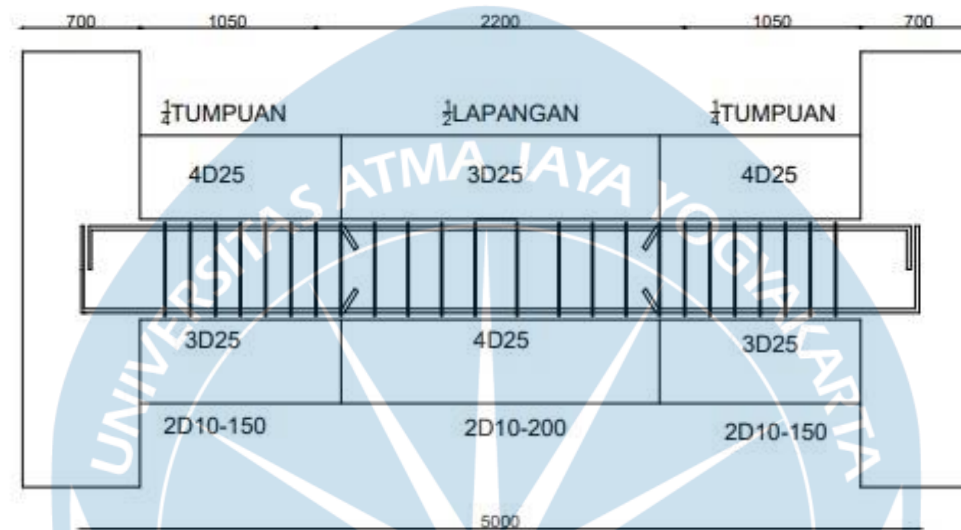


| BALOK ANAK | BA 1 | | |
|----------------|-----------|-----------|-----------|
| | TUMP | LAP | TUMP |
| Potongan | | | |
| Ukuran Balok | 230 X 500 | | |
| Tulangan Atas | 4D25 | 2D25 | 4D25 |
| Tulangan Bawah | 2D25 | 2D25 | 2D25 |
| Serjang | 2D8 - 100 | 2D8 - 150 | 2D8 - 100 |

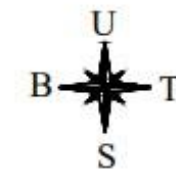



| | | | | | | | | | |
|---|--|--|---|---|--|---------------------------|---|--|-------------------------|
|  Universitas Atma Jaya Yogyakarta | PERIODE : GEMAF1 PERIODE : GGD 1 TAHUN AKADEMIK 2022/2023 ACADEMIC YEAR 2022/2023 | Judul Proyek <i>Project Title</i> Pusat Seni Pertunjukan dan Pelatihan Karawitan, Di Kabupaten Bantul Provinsi Daerah Istimewa Yogyakarta | Lokasi Proyek <i>Project Location</i> Panggungharjo, Kec. Sewon, Kab. Bantul, Provinsi Daerah Istimewa Yogyakarta | Identitas Mahasiswa <i>Student Identity</i> Agnes Michelly Iaka 200218194 Heribertus Nggala 200218214 Yosef Mario Rato Boli Kobun 200218312 | Judul Gambar <i>Drawing Title</i> DENAH GAMBAR DETAIL PENULANGAN BALOK ANAK BA 1 | Keterangan <i>Note</i> | Tanggal Gambar <i>Drawing Date</i> 21 Juni 2023 | | |
| | Program Studi Teknik Sipil CIVIL ENGINEERING DEPARTEMENT Fakultas Teknik FACULTY OF ENGINEERING | | | | | | | Nomer Lembar <i>Page number</i> 33 | Dari <i>Of</i> 61 |

LAMPIRAN A.9.6. DETAIL TULANGAN BALOK ANAK BA2

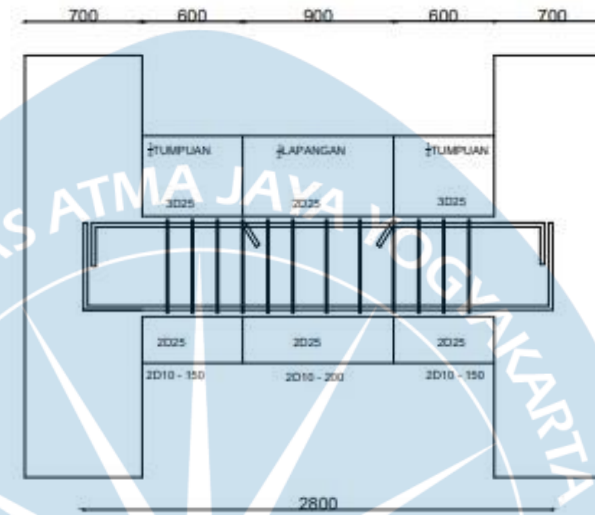


| BALOK ANAK | BA 2 | | |
|----------------|------------|------------|------------|
| | TUMP | LAP | TUMP |
| Potongan | | | |
| Ukuran Balok | 350 X 500 | | |
| Tulangan Atas | 4D25 | 3D25 | 4D25 |
| Tulangan Bawah | 3D25 | 4D25 | 3D25 |
| Sengkang | 2D10 - 150 | 2D10 - 200 | 2D10 - 150 |

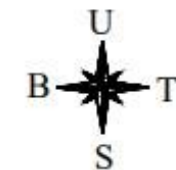


| | | | | | | | | | |
|---|---|--|---|---|--|---------------------------|---|--|-------------------------|
|  Universitas Atma Jaya Yogyakarta | PERIODE : GENAP I PERIOD : 002 1 TAHUN AKADEMIK 2022/2023 ACADEMIC YEAR 2022/2023 | Judul Proyek <i>Project Title</i> Pusat Seni Pertunjukan dan Pelatihan Karawitan, Di Kabupaten Bantul Provinsi Daerah Istimewa Yogyakarta | Lokasi Proyek <i>Project Location</i> Panggungharjo, Kec. Sewon, Kab. Bantul, Provinsi Daerah Istimewa Yogyakarta | Identitas Mahasiswa <i>Student Identity</i> Agnes Michelly Iaka 200218194 Heribertus Nggala 200218214 Yosef Mario Rato Boli Kobun 200218312 | Judul Gambar <i>Drawing Title</i> DENAH GAMBAR DETAIL PENULANGAN BALOK ANAK BA 2 | Keterangan <i>Note</i> | Tanggal Gambar <i>Drawing Date</i> 21 Juni 2023 | | |
| | Program Studi Teknik Sipil CIVIL ENGINEERING DEPARTMENT FAKULTAS TEKNIK FACULTY OF ENGINEERING | | | | | | | Nomer Lembar <i>Page number</i> 34 | Dari <i>Of</i> 61 |

LAMPIRAN A.9.7. DETAIL TULANGAN BALOK ANAK BA3

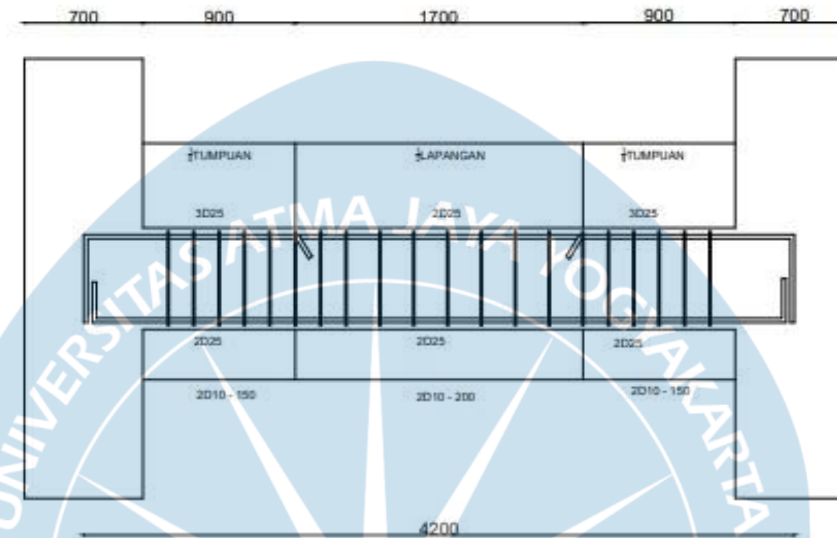


| BALOK ANAK | BA 3 | | |
|----------------|------------|------------|------------|
| | TUMP | LAP | TUMP |
| Potongan | | | |
| Ukuran Balok | 350 X 600 | | |
| Tulangan Atas | 3025 | 2025 | 3025 |
| Tulangan Bawah | 2025 | 2025 | 2025 |
| Sengkang | 2D10 - 150 | 2D10 - 200 | 2D10 - 150 |

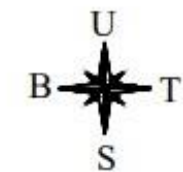



| | | | | | | | | | | |
|---|---|---|---|--|---|----------------------------------|--|------------------------------------|-------------------|----|
|  Universitas Atma Jaya Yogyakarta | PERIODE : GENAP I PERIOD : 002 1 TAHUN AKADEMIK 2022/2023 ACADEMIC YEAR 2022/2023 | Judul Proyek <i>Project Title</i> Pusat Seni Pertunjukan dan Pelatihan Karawitan, Di Kabupaten Bantul Provinsi Daerah Istimewa Yogyakarta | Lokasi Proyek <i>Project Location</i> Panggunharjo, Kec. Sewon, Kab. Bantul, Provinsi Daerah Istimewa Yogyakarta | Identitas Mahasiswa <i>Student Identity</i> Agnes Michelly Iaka 200218194 Heribertus Nggala 200218214 Yosef Mario Rato Boli Kobun 200218312 | Judul Gambar <i>Drawing Title</i> DENAH GAMBAR DETAIL PENULANGAN BALOK ANAK BA 3 | Keterangan <i>Note</i> | Tanggal Gambar <i>Drawing Date</i> 21 Juni 2023 | | | |
| | Program Studi Teknik Sipil CIVIL ENGINEERING DEPARTMENT Fakultas Teknik FACULTY OF ENGINEERING | | | | | | | Nomer Lembar <i>Page number</i> | Dari <i>Of</i> | |
| | | | | | | | | | 35 | 61 |
| | | | | | | | | | | |

LAMPIRAN A.9.8. DETAIL TULANGAN BALOK ANAK BA4

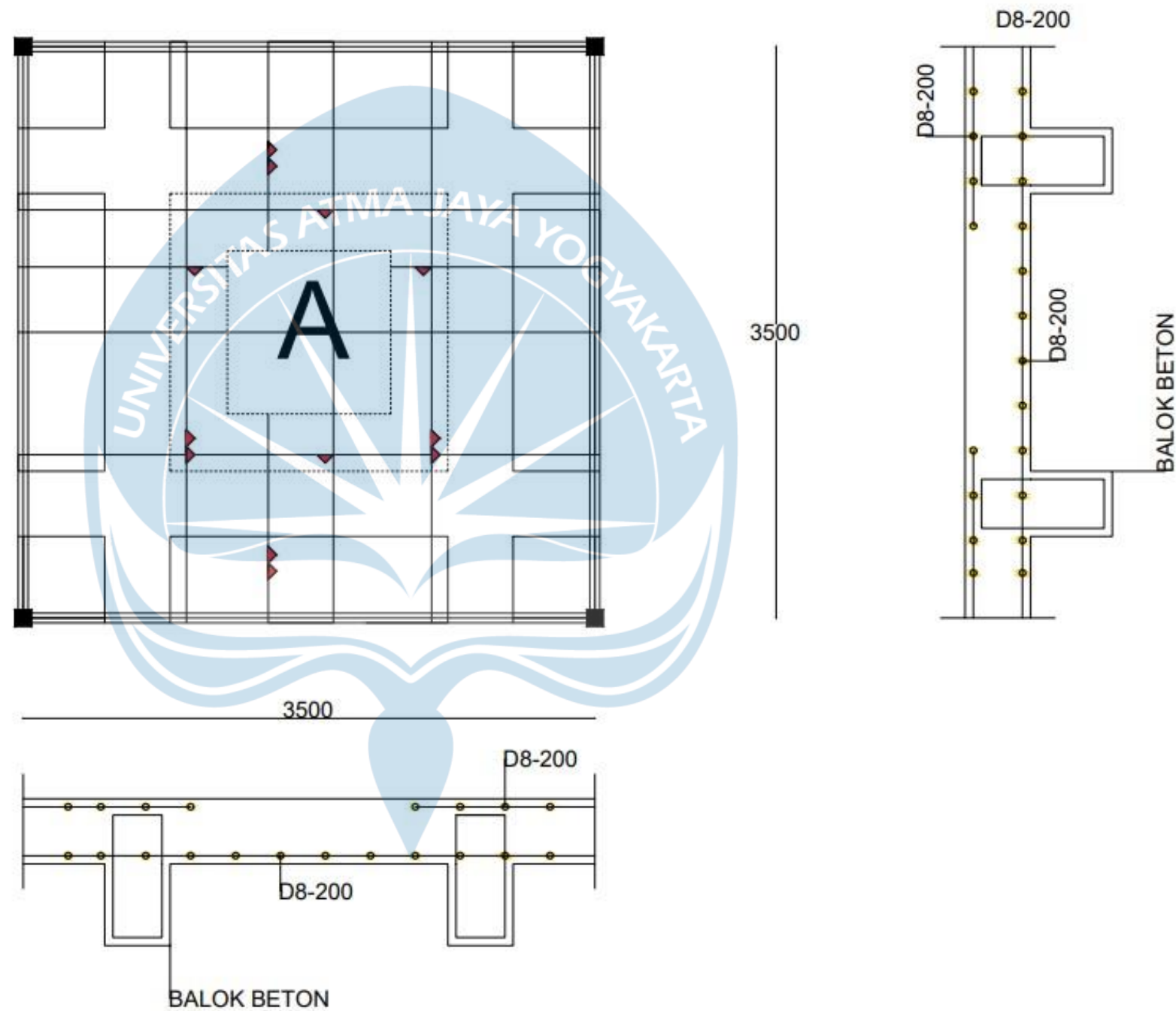



| BALOK ANAK | BA 4 | | |
|----------------|------------|------------|------------|
| | TUMP | LAP | TUMP |
| Potongan | | | |
| Ukuran Balok | 350 X 600 | | |
| Tulangan Atas | 3D25 | 2D25 | 3D25 |
| Tulangan Bawah | 2D25 | 2D25 | 2D25 |
| Sengkang | 2D10 - 150 | 2D10 - 100 | 2D10 - 150 |



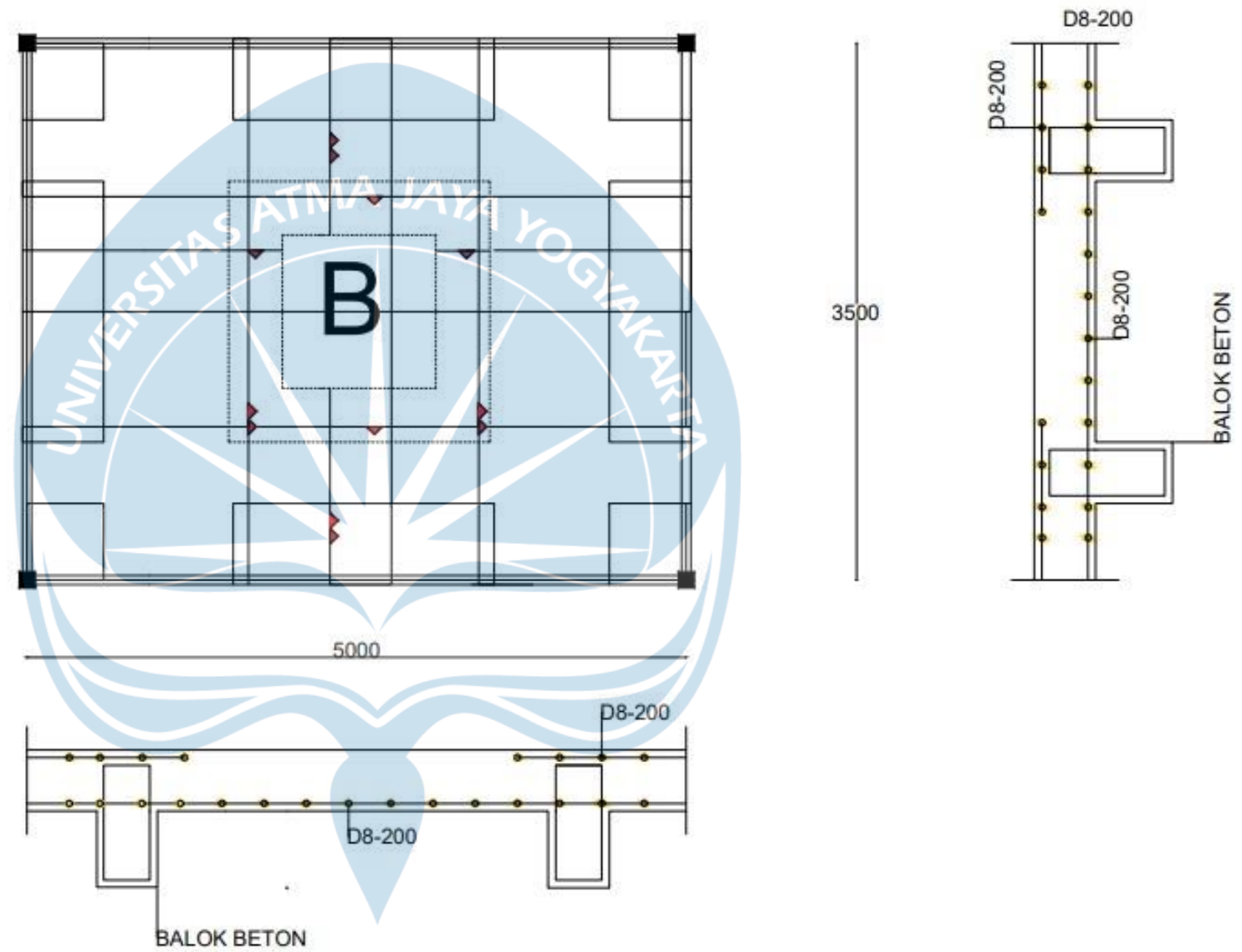
| | | | | | | | | | |
|---|--|---|---|--|---|----------------------------------|--|-----------------------------|------------|
|  Universitas Atma Jaya Yogyakarta | PERIODE : GEMAF1 PERIOD : GGD 1 TAHUN AKADEMIK 2022/2023 ACADEMIC YEAR 2022/2023 | Judul Proyek <i>Project Title</i> Pusat Seni Pertunjukan dan Pelatihan Karawitan, Di Kabupaten Bantul Provinsi Daerah Istimewa Yogyakarta | Lokasi Proyek <i>Project Location</i> Panggunharjo, Kec. Sewon, Kab. Bantul, Provinsi Daerah Istimewa Yogyakarta | Identitas Mahasiswa <i>Student Identity</i> Agnes Michelly Iaka 200218194 Heribertus Nggala 200218214 Yosef Mario Rato Boli Kobun 200218312 | Judul Gambar <i>Drawing Title</i> DENAH GAMBAR DETAIL PENULANGAN BALOK ANAK BA 4 | Keterangan <i>Note</i> | Tanggal Gambar <i>Drawing Date</i> 21 Juni 2023 | | |
| | Program Studi Teknik Sipil CIVIL ENGINEERING DEPARTEMEN SAUDA TEKNIK FACULTY OF ENGINEERING | | | | | | | Nomer Lembar Page number | Dari Of |
| | 36 | | | | | | | 61 | |


LAMPIRAN A.10.1. DETAIL PERENCANAAN PELAT TULANGAN DUA ARAH



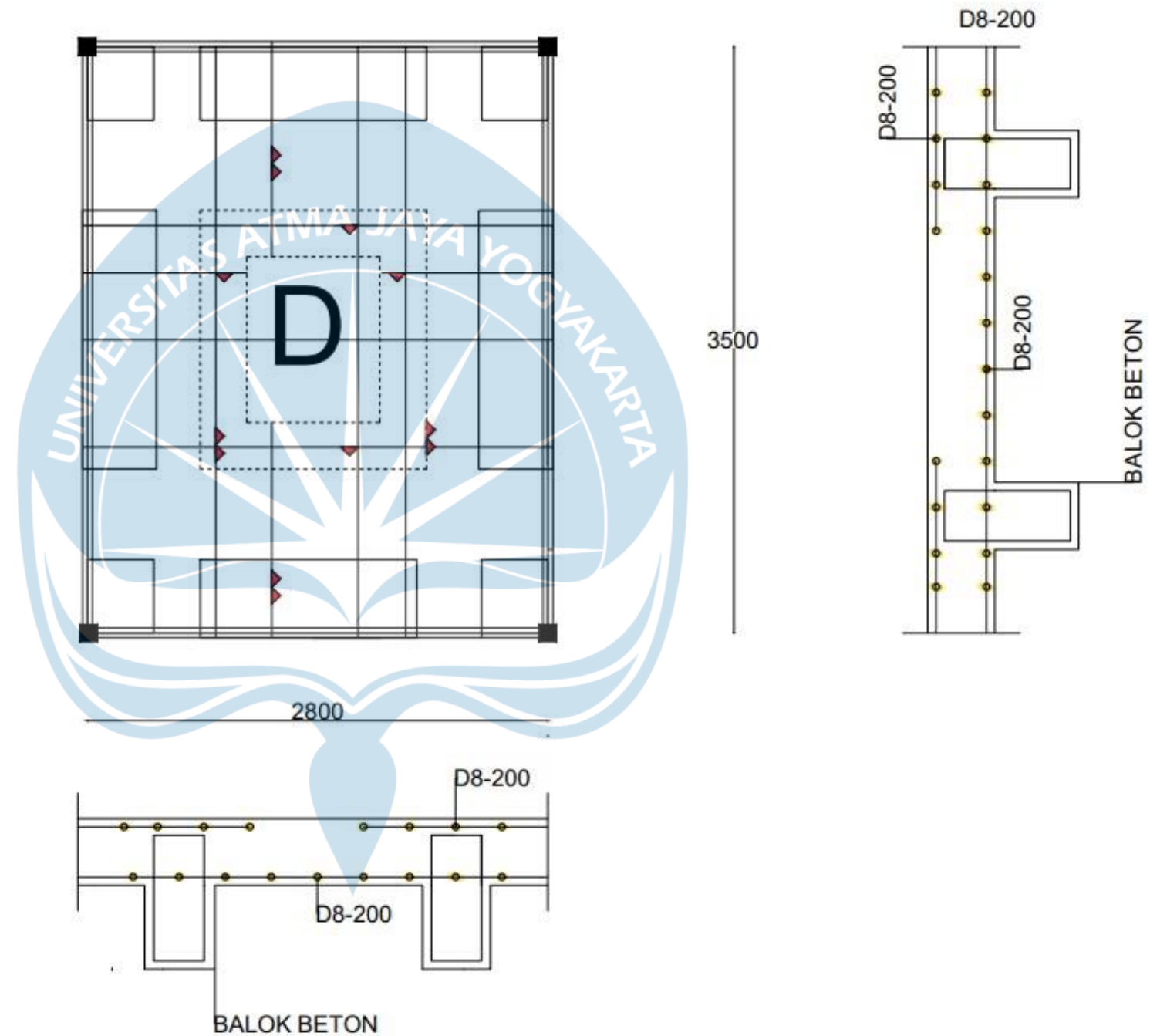
| | | | | | | | | | | | |
|---|---|---|--|---|---|---------------------------|---|---|----------------------------|----|----|
|  Universitas Atma Jaya Yogyakarta | Tugas Akhir Perancangan Infrastruktur <small>PERIODE : SEMESTER 1 PERANGKAP : 0350 1 TAHUN AKADEMIK 2022/2023 ACADEMIC YEAR 2022/2023</small> | Judul Proyek <i>Project Title</i> Pusat Seni Pertunjukan dan Pelatihan Karawitan, Di Kabupaten Bantul Provinsi Daerah Istimewa Yogyakarta | Lokasi Proyek <i>Project Location</i> Panggunharjo, Kec. Sewon, Kab. Bantul, Provinsi Daerah Istimewa Yogyakarta | Identitas Mahasiswa <i>Student Identity</i> Agnes Michelly Iaka 200218194 Heribertus Nggala 200218214 Yosef Mario Rato Boli Kobun 200218312 | Judul Gambar <i>Drawing Title</i> PENULANGAN ATAS DAN BAWAH PLAT LANTAI | Keterangan <i>Note</i> | Tanggal Gambar <i>Drawing Date</i> | | | | |
| | | | | | | | <table border="1" style="width: 100%;"> <tr> <td style="text-align: center;"> <small>Nomer Lembar Page number</small> </td> <td style="text-align: center;"> <small>Dari Of</small> </td> </tr> <tr> <td style="text-align: center;">37</td> <td style="text-align: center;">61</td> </tr> </table> | <small>Nomer Lembar Page number</small> | <small>Dari Of</small> | 37 | 61 |
| | <small>Nomer Lembar Page number</small> | <small>Dari Of</small> | | | | | | | | | |
| 37 | 61 | | | | | | | | | | |
| | | | | | | | | | | | |


LAMPIRAN A.10.2. DETAIL PERENCANAAN PELAT TULANGAN DUA ARAH



| | | | | | | | | | |
|---|--|---|---|---|---|---------------------------|---------------------------------------|-----------------------------|------------|
|  Universitas Atma Jaya Yogyakarta | Tugas Akhir Perancangan Infrastruktur <small>PERIODE : DASUL 1 PERIODE : GDO 1 TAHUN AKADEMIK 2022/2023 ACADEMIC YEAR 2022/2023</small> | Judul Proyek <i>Project Title</i> Pusat Seni Pertunjukan dan Pelatihan Karawitan, Di Kabupaten Bantul Provinsi Daerah Istimewa Yogyakarta | Lokasi Proyek <i>Project Location</i> Panggungharjo, Kec. Sewon, Kab. Bantul, Provinsi Daerah Istimewa Yogyakarta | Identitas Mahasiswa <i>Student Identity</i> Agnes Michelly Iaka 200218194 Heribertus Nggala 200218214 Yosef Mario Rato Boli Kabun 200218312 | Judul Gambar <i>Drawing Title</i> PENULANGAN ATAS DAN BAWAH PLAT LANTAI | Keterangan <i>Note</i> | Tanggal Gambar <i>Drawing Date</i> | | |
| | | | | | | | | Nomer Lembar Page number | Dari of |
| | | | | | | | | 38 | 61 |

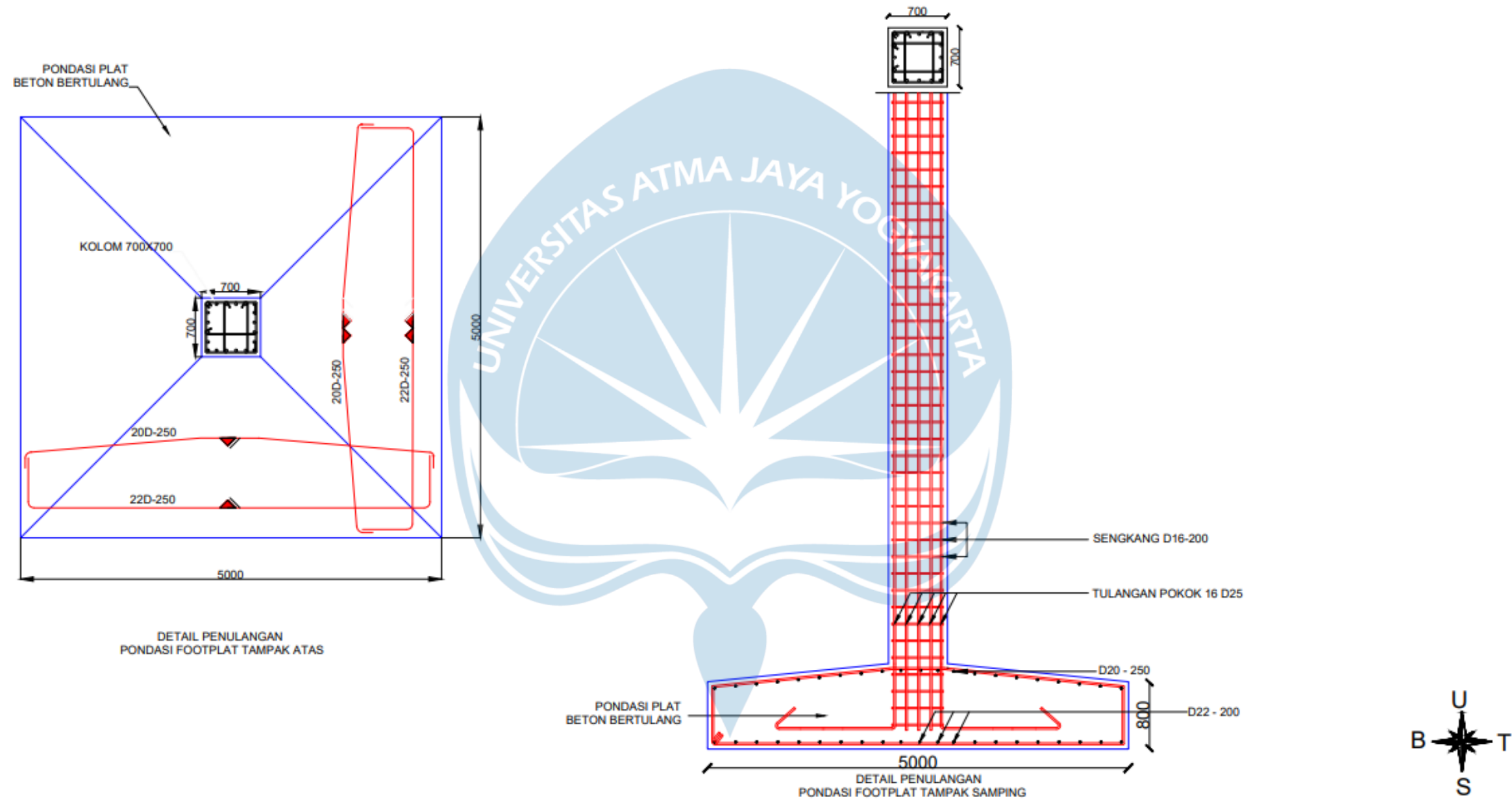
LAMPIRAN A.10.3. DETAIL PERENCANAAN PELAT TULANGAN DUA ARAH




| | | | | | | | | | |
|---|---|--|---|---|--|--------------------|--------------------------------|-----------------------------|------------|
|  Universitas Atma Jaya Yogyakarta | Tugas Akhir Perancangan Infrastruktur | Judul Proyek Project Title | Lokasi Proyek Project Location | Identitas Mahasiswa Student Identity | Judul Gambar Drawing Title | Keterangan Note | Tanggal Gambar Drawing Date | | |
| | PERIODE : SEMESTER I PERIODE : 0001 TAHUN AKADEMIK 2022/2023 ACADEMIC YEAR 2022/2023 | Pusat Seni Pertunjukan dan Pelatihan Karawitan, Di Kabupaten Bantul Provinsi Daerah Istimewa Yogyakarta | Panggungharjo, Kec. Sewon, Kab. Bantul, Provinsi Daerah Istimewa Yogyakarta | Agnes Michelly Iaka 200218194 Heribertus Nggala 200218214 Yosef Mario Rato Boli Kobun 200218312 | PENULANGAN ATAS DAN BAWAH PLAT LANTAI | | | Nomor Lembar Page number | Dari Of |
| | Program Studi Teknik Sipil CIVIL ENGINEERING DEPARTMENT Fakultas Teknik FACULTY OF ENGINEERING | | | | | | 39 | 61 | |

LAMPIRAN A.11.1.

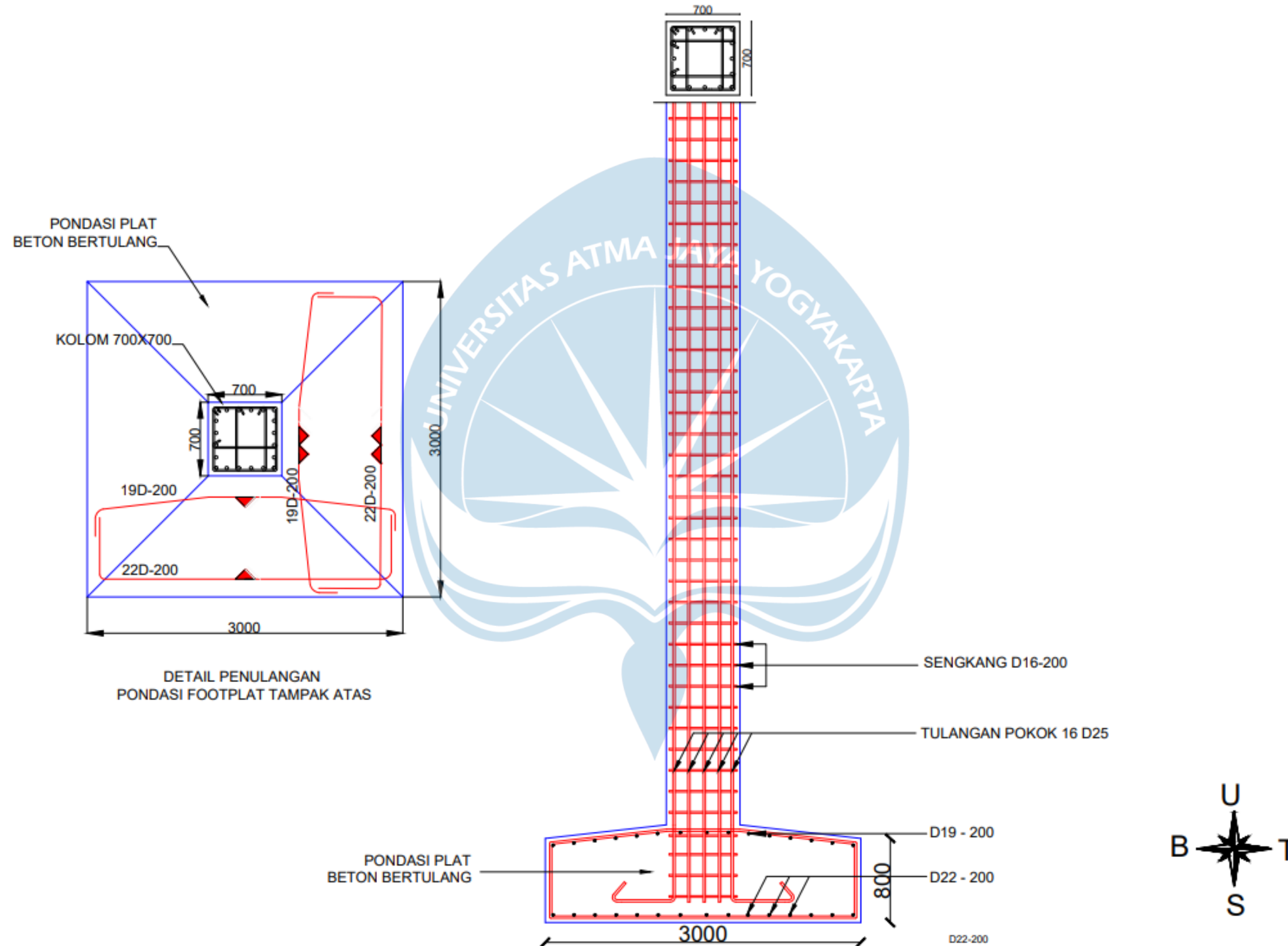
DETAIL TULANGAN FONDASI FOOTPLAT 5X5




| | | | | | | | | | |
|---|---|---|--|---|---|---------------------------|---------------------------------------|------------------------------------|-------------------|
|  Universitas Atma Jaya Yogyakarta | Tugas Akhir Perancangan Infrastruktur | Judul Proyek <i>Project Title</i> | Lokasi Proyek <i>Project Location</i> | Identitas Mahasiswa <i>Student Identity</i> | Judul Gambar <i>Drawing Title</i> | Keterangan <i>Note</i> | Tanggal Gambar <i>Drawing Date</i> | | |
| | PERIODE : GENAP I PERIODE : GED 1 TAHUN AKADEMIK 2022/2023 ACADEMIC YEAR 2022/2023 | Pusat Seni Pertunjukan dan Pelatihan Karawitan, Di Kabupaten Bantul Provinsi Daerah Istimewa Yogyakarta | Panggunharjo, Kec. Sewon, Kab. Bantul, Provinsi Daerah Istimewa Yogyakarta | Agnes Michelly Iaka 200218194 Heribertus Nggala 200218214 Yosef Mario Rato Boli Kobun 200218312 | GAMBAR DETAIL TULANGAN PONDASI FOOTPLAT 5X5 | | | 10 Oktober 2023 | |
| | Program Studi Teknik Sipil CIVIL ENGINEERING DEPARTMENT Fakultas Teknik FACULTY OF ENGINEERING | | | | | | | Nomer Lembar <i>Page number</i> | Dari <i>of</i> |
| | | | | | | | | 40 | 61 |

LAMPIRAN A.11.2.

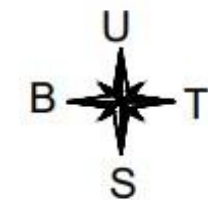
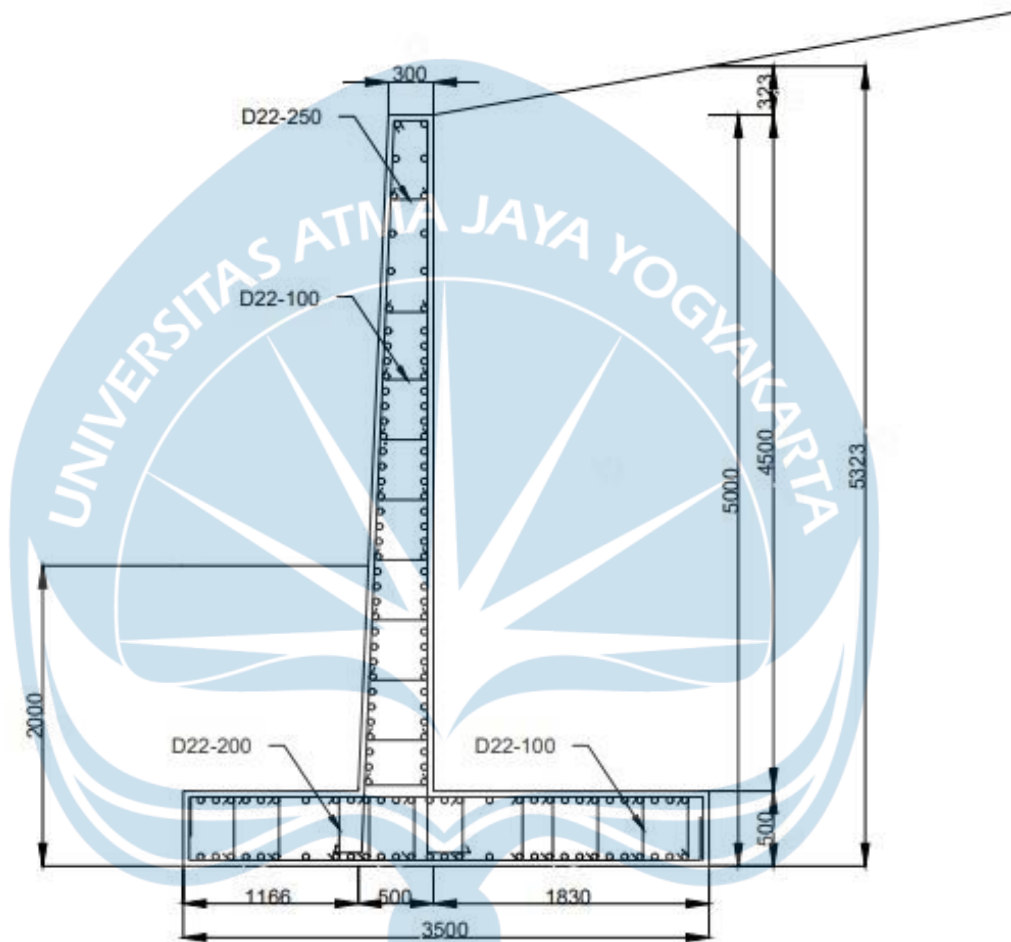
DETAIL TULANGAN FONDASI FOOTPLAT 3X3




| | | | | | | | | | | |
|---|---|---|---|---|---|---------------------------|--|------------------------------------|-------------------|----|
|  Universitas Atma Jaya Yogyakarta | Tugas Akhir Perancangan Infrastruktur | Judul Proyek <i>Project Title</i> | Lokasi Proyek <i>Project Location</i> | Identitas Mahasiswa <i>Student Identity</i> | Judul Gambar <i>Drawing Title</i> | Keterangan <i>Note</i> | Tanggal Gambar <i>Drawing Date</i> | | | |
| | PERIODE : SEMESTER I PERIODE : 2023/2024 TAHUN AKADEMIK 2023/2024 AKADEMIK YEAR 2023/2024 | Pusat Seni Pertunjukan dan Pelatihan, Di Kabupaten Bantul Provinsi Daerah Istimewa Yogyakarta | Panggungharjo, Kec. Sewon, Kab. Bantul, Provinsi Daerah Istimewa Yogyakarta | Agnes Michelly Iaka 200218194 Heribertus Nggala 200218214 Yosef Mario Rato Boli Kobun 200218312 | GAMBAR DETAIL PENULANGAN PONDASI FOOTPLAT 3x3 | | 10 Oktober 2023 | | | |
| | Program Studi Teknik Sipil CIVIL ENGINEERING DEPARTMENT FALSAFAH TEKNIK FACULTY OF ENGINEERING | | | | | | <table border="1"> <tr> <td>Nomer Lembar <i>Page number</i></td> <td>Dari <i>Of</i></td> </tr> <tr> <td>41</td> <td>61</td> </tr> </table> | Nomer Lembar <i>Page number</i> | Dari <i>Of</i> | 41 |
| Nomer Lembar <i>Page number</i> | Dari <i>Of</i> | | | | | | | | | |
| 41 | 61 | | | | | | | | | |

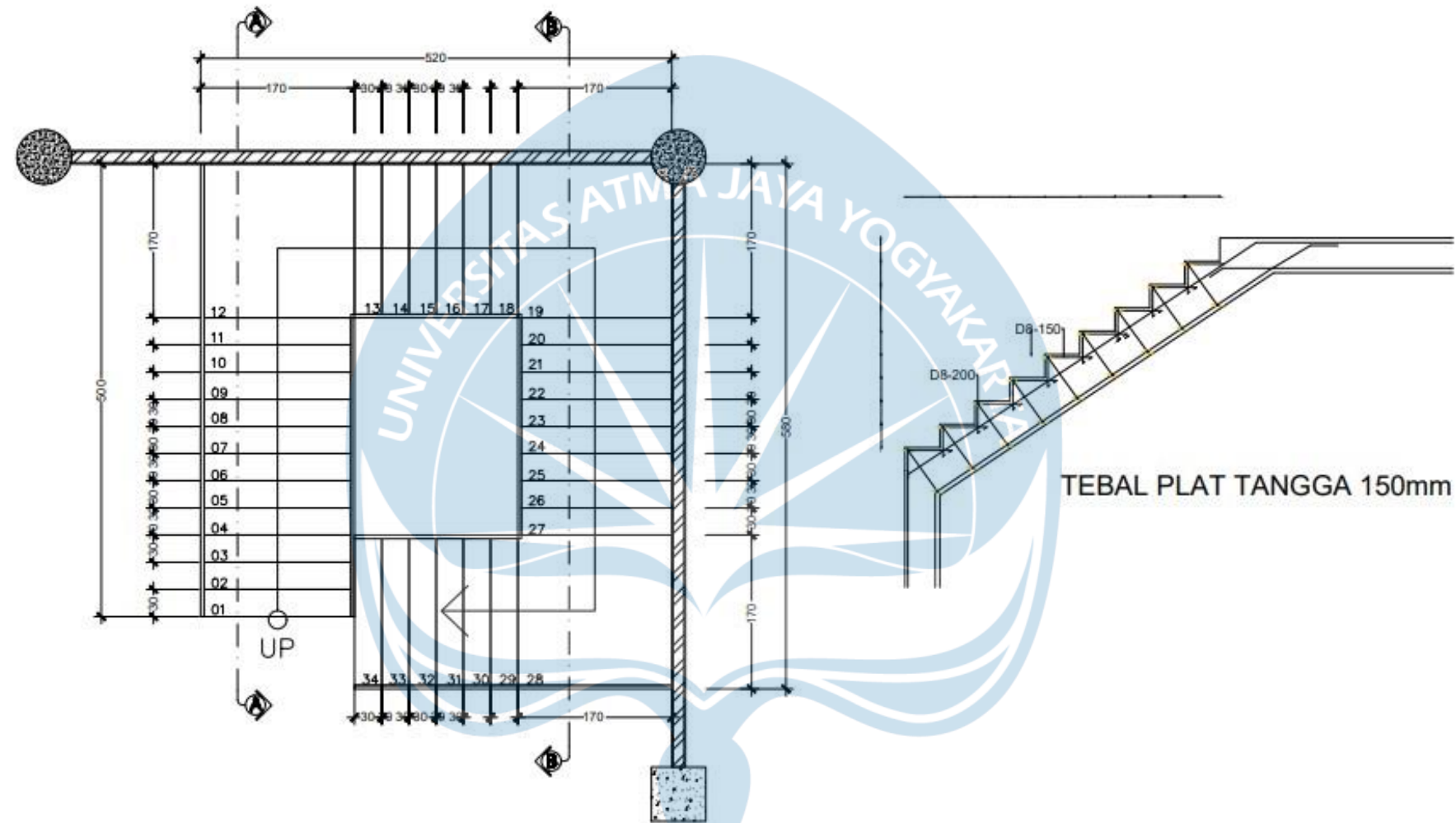
LAMPIRAN A.12.1.


GAMBAR DETAIL DINDING PENAHAN TANAH



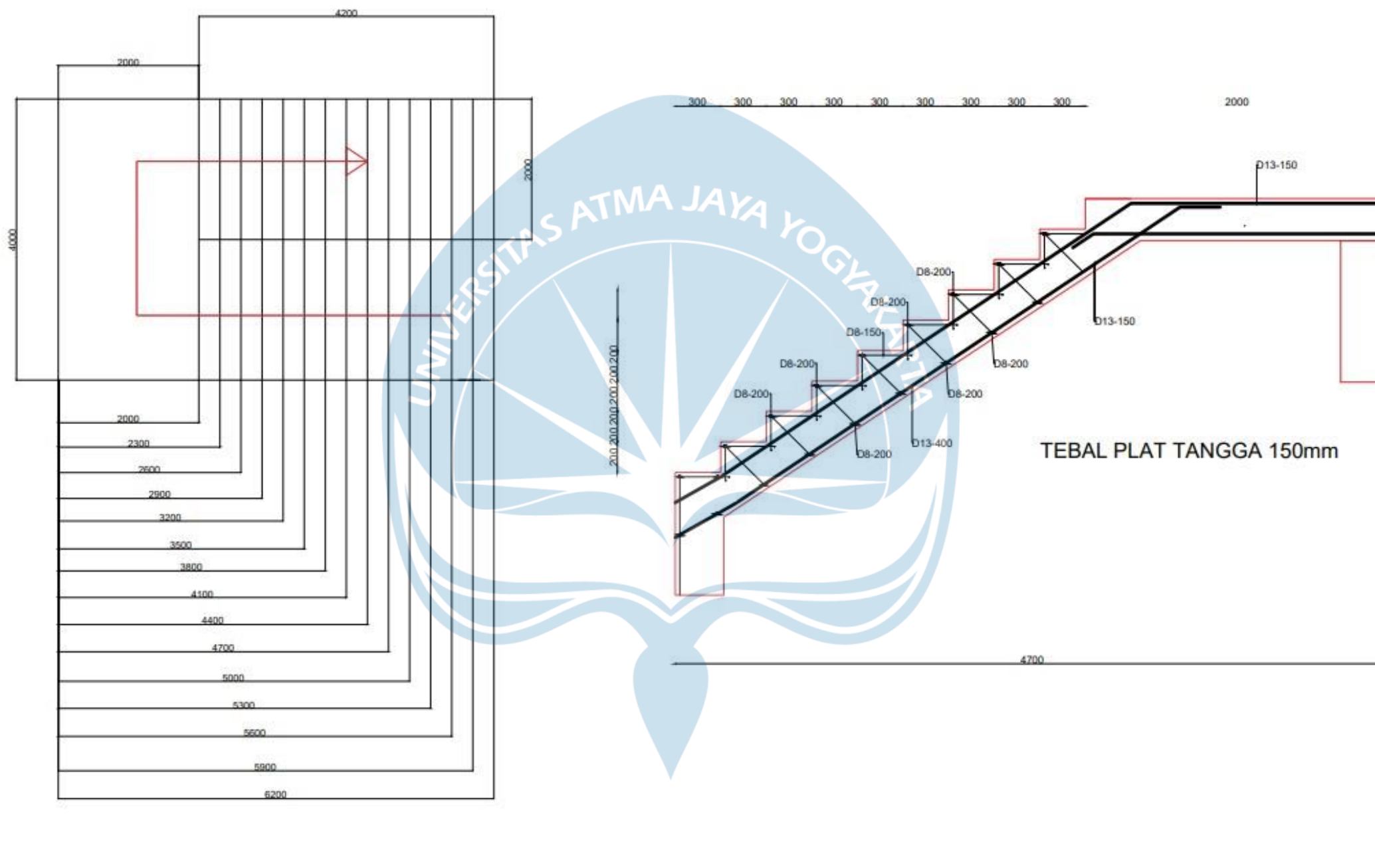
| | | | | | | | | |
|---|--|---|---|---|--|---------------------------|--|-------------------------|
|  Universitas Atma Jaya Yogyakarta | Tugas Akhir Perancangan Infrastruktur <small>PERIODE : SEMESTER I PERIODE : GED 1 TAHUN AKADEMIK 2022/2023 ACADEMIC YEAR 2022/2023</small> | Judul Proyek <i>Project Title</i> Pusat Seni Pertunjukan dan Pelatihan, Di Kabupaten Bantul Provinsi Daerah Istimewa Yogyakarta | Lokasi Proyek <i>Project Location</i> Panggungharjo, Kec. Sewon, Kab. Bantul, Provinsi Daerah Istimewa Yogyakarta | Identitas Mahasiswa <i>Student Identity</i> Agnes Michelly Iaka 200218194 Heribertus Nggala 200218214 Yosef Mario Rato Boli Kobun 200218312 | Judul Gambar <i>Drawing Title</i> GAMBAR DETAIL PENULANGAN DINDING PENAHAN TANAH | Keterangan <i>Note</i> | Tanggal Gambar <i>Drawing Date</i> 10 Oktober 2023 | |
| | Program Studi Teknik Sipil CIVIL ENGINEERING DEPARTEMENT FAKULTAS TEKNIK FACULTY OF ENGINEERING | | | | | | Nomer Lembar <i>Page number</i> 42 | Dari <i>Of</i> 61 |
| | | | | | | | | |

LAMPIRAN A.13.1. DENAH TANGGA DAN POTONGAN TANGGA UTAMA



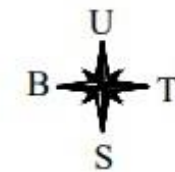
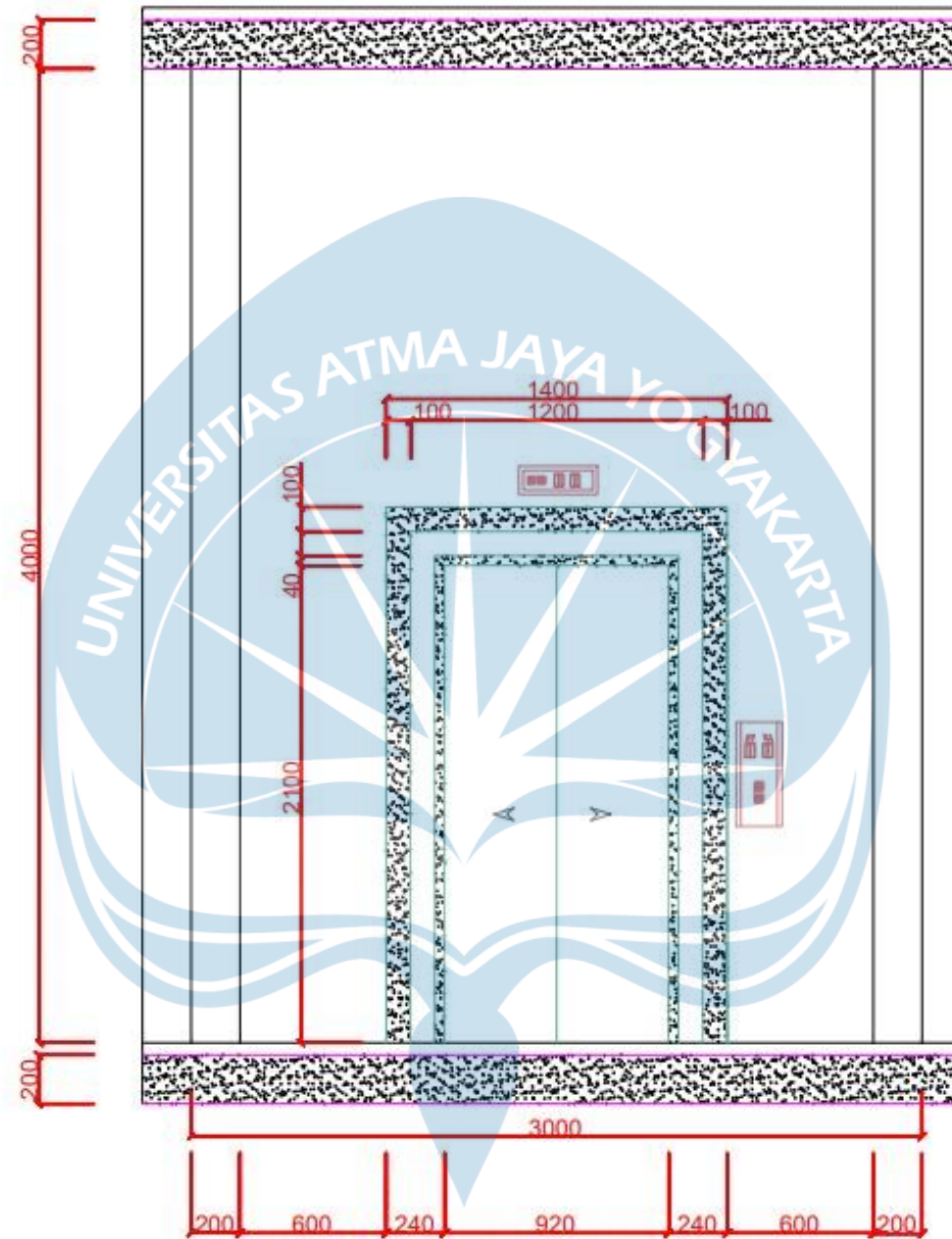
|  Universitas Atma Jaya Yogyakarta | Tugas Akhir Perancangan Infrastruktur | Judul Proyek Project Title | Lokasi Proyek Project Location | Identitas Mahasiswa Student Identity | Judul Gambar Drawing Title | Keterangan Note | Tanggal Gambar Drawing Date | | |
|---|---|---|---|---|---|--------------------|--------------------------------|-----------------------------|------------|
| | PERIODE : SEMESTER I PERIODE : 000 1 TAHUN AKADEMIK 2022/2023 ACADEMIC YEAR 2022/2023 | Pusat Seni Pertunjukan dan Pelatihan Karawitan, Di Kabupaten Bantul Provinsi Daerah Istimewa Yogyakarta | Panggungharjo, Kec. Sewon, Kab. Bantul, Provinsi Daerah Istimewa Yogyakarta | Agnes Michelly Iaka 200218194 Heribertus Nggala 200218214 Yosef Mario Rato Boli Kobun 200218312 | Detail Denah Tangga Utama dan Potongan Tangga Utama | | | 21 Juni 2023 | |
| | Program Studi Teknik Sipil CIVIL ENGINEERING DEPARTMENT Fakultas Teknik FACULTY OF ENGINEERING | | | | | | | Nomer Lembar Page number | Dari Of |
| | | | | | | | 43 | 61 | |


LAMPIRAN A.13.2. DENAH TANGGA DAN POTONGAN TANGGA SERVIS



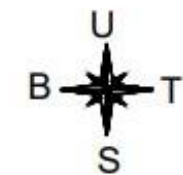
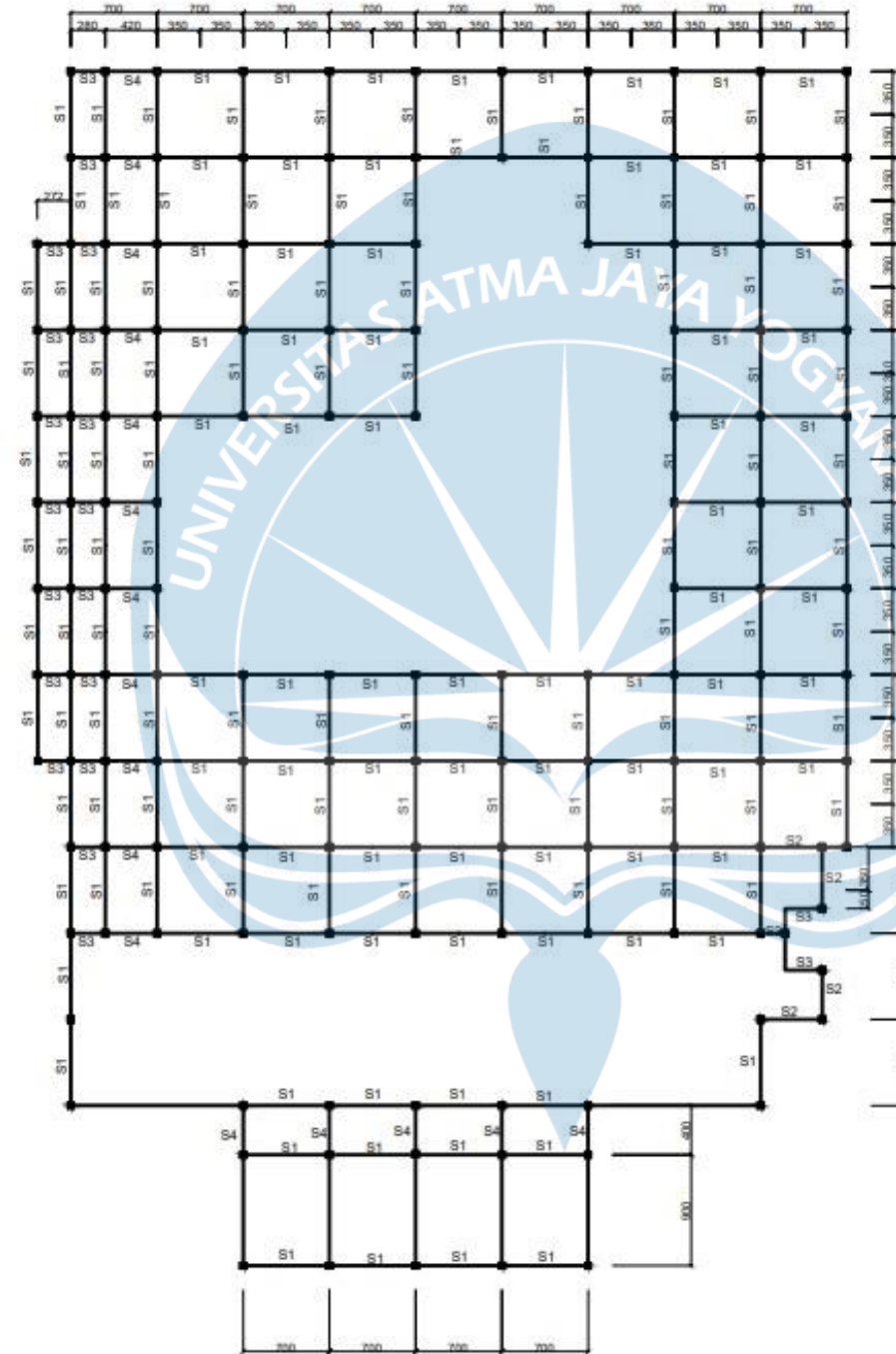
| | | | | | | | | | |
|---|---|---|--|--|--|----------------------------------|--|--|-------------------------|
|  Universitas Atma Jaya Yogyakarta | PERIODE : GEMAF1 PERIODE : GGD 1 TAHUN AKADEMIK 2022/2023 ACADEMIC YEAR 2022/2023 | Judul Proyek <i>Project Title</i> Pusat Seni Pertunjukan dan Pelatihan Karawitan, Di Kabupaten Bantul Provinsi Daerah Istimewa Yogyakarta | Lokasi Proyek <i>Project Location</i> Panggungharjo, Kec. Sewon, Kab. Bantul, Provinsi Daerah Istimewa Yogyakarta | Identitas Mahasiswa <i>Student Identity</i> Agnes Michelly Iaka 200218194 Heribertus Nggala 200218214 Yosef Mario Rato Boli Kobun 200218312 | Judul Gambar <i>Drawing Title</i> Detail Denah Tangga Servis dan Potongan Tangga Servis | Keterangan <i>Note</i> | Tanggal Gambar <i>Drawing Date</i> 21 Juni 2023 | | |
| | Program Studi Teknik Sipil CIVIL ENGINEERING DEPARTMENT Fakultas Teknik FACULTY OF ENGINEERING | | | | | | | Nomer Lembar <i>Page number</i> 44 | Dari <i>Of</i> 61 |


LAMPIRAN A.14.1.DENAH LIFT TAMPAK DEPAN



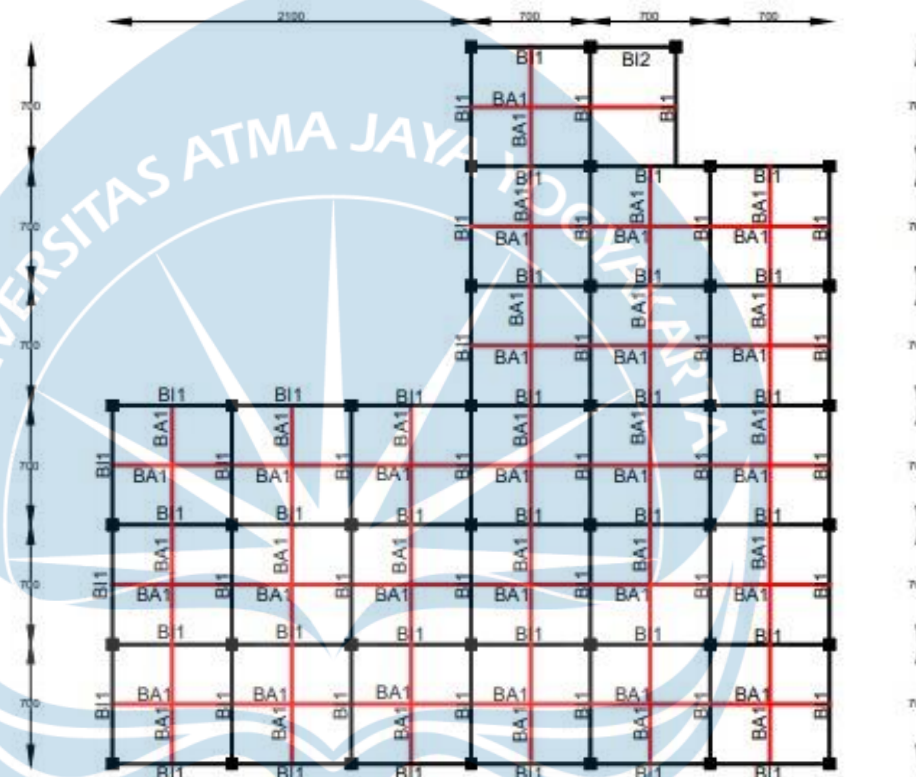
| | | | | | | | | |
|---|---|---|---|---|--------------------------------------|---------------------------|---------------------------------------|------------|
|  Universitas Atma Jaya Yogyakarta | Tugas Akhir Perencanaan Infrastruktur | Judul Proyek <i>Project Title</i> | Lokasi Proyek <i>Project Location</i> | Identitas Mahasiswa <i>Student Identity</i> | Judul Gambar <i>Drawing Title</i> | Keterangan <i>Note</i> | Tanggal Gambar <i>Drawing Date</i> | |
| | PERIODE : GAJUL 1 PERIODE : 000 1 TAHUN AKADEMIK : 2022/2023 ACADEMIC YEAR : 2022/2023 | Pusat Seni Pertunjukan dan Pelatihan Karawitan, Di Kabupaten Bantul Provinsi Daerah Istimewa Yogyakarta | Panggungharjo, Kec. Sewon, Kab. Bantul, Provinsi Daerah Istimewa Yogyakarta | Agnes Michelly Iaka 200218194 Heribertus Nggala 200218214 Yosef Mario Rato Boli Kobun 200218312 | GAMBAR LIFT TAMPAK DEPAN | | 21 Juni 2023 | |
| | Program Studi Teknik Sipil CIVIL ENGINEERING DEPARTMENT Fakultas Teknik FACULTY OF ENGINEERING | | | | | | Nomer Lembar Page number | Dari Of |
| | | | | | | | 45 | 61 |

LAMPIRAN A.16.1.RENCANA SLOOF



| | | | | | | | | |
|---|--|--|--|---|--|---------------------------|---|-------------------------|
|  Universitas Atma Jaya Yogyakarta | PERIODE : GENAP 1 PERIOD : 050 1 TAHUN AKADEMIK 2022/2023 ACADEMIC YEAR 2022/2023 | Judul Proyek <i>Project Title</i> Pusat Seni Pertunjukan dan Pelatihan Karawitan, Di Kabupaten Bantul Provinsi Daerah Istimewa Yogyakarta | Lokasi Proyek <i>Project Location</i> Panggunharjo, Kec. Sewon, Kab. Bantul, Provinsi Daerah Istimewa Yogyakarta | Identitas Mahasiswa <i>Student Identity</i> Agnes Michelly Iaka 200218194 Heribertus Nggala 200218214 Yosef Mario Rato Boli Kobun 200218312 | Judul Gambar <i>Drawing Title</i> RENCANA SLOOF PADA LANTAI 1 | Keterangan <i>Note</i> | Tanggal Gambar <i>Drawing Date</i> 21 Juni 2023 | |
| | | | | | | | Nomer Lembar <i>Page number</i> 52 | Dari <i>Of</i> 61 |
| | | | | | | | | |


LAMPIRAN A.16.2.RENCANA BALOK LT 1



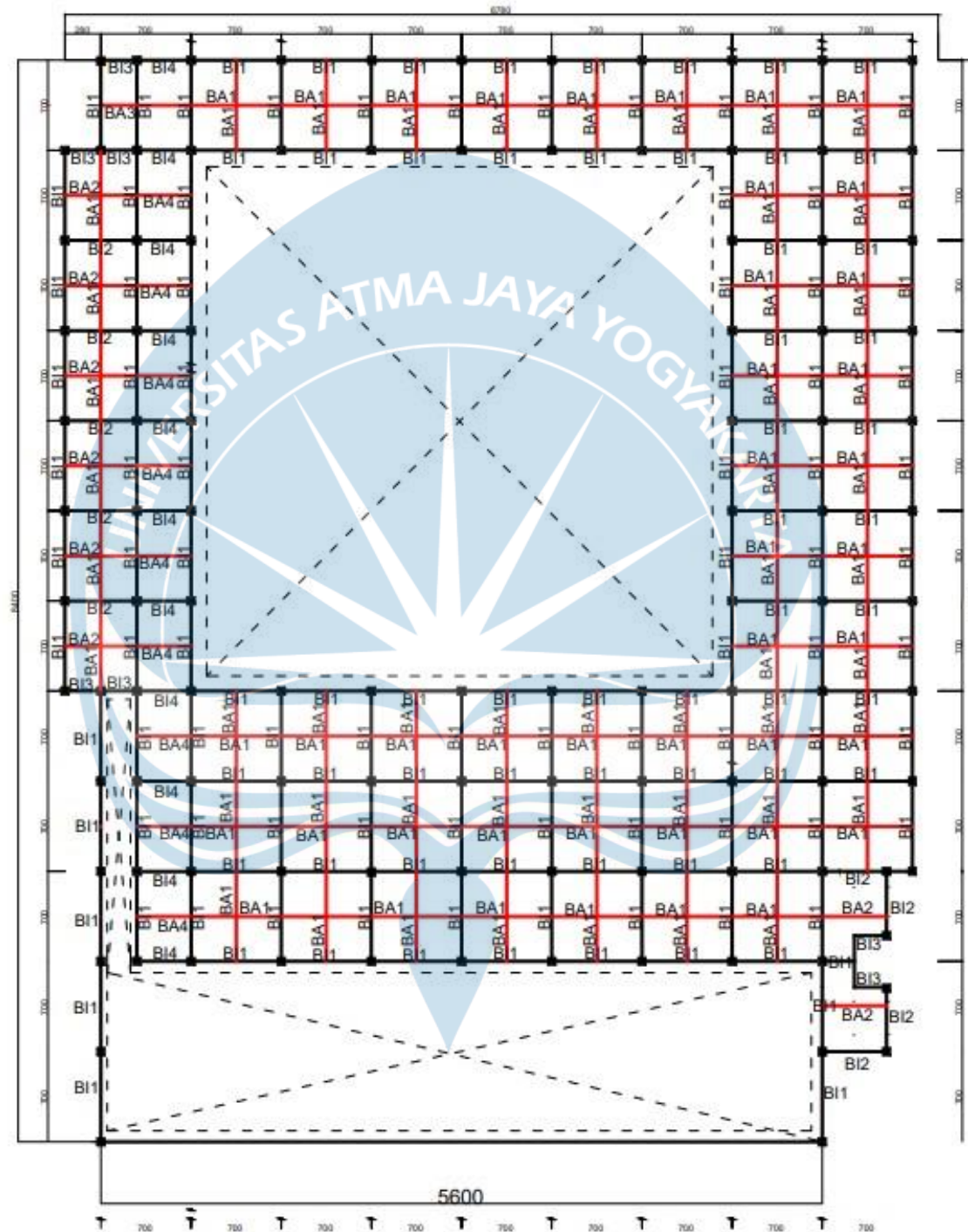
KETERANGAN

| | |
|---|-------------|
|  | BALOK INDUK |
|  | BALOK ANAK |



| | | | | | | | | |
|---|---|--|--|---|--|---------------------------|---|-------------------------|
|  Universitas Atma Jaya Yogyakarta | PERIOD: GGMP1 PERIOD: 0021 TAHUN AKADEMIK: 2022/2023 ACADEMIC YEAR: 2022/2023 | Judul Proyek <i>Project Title</i> Pusat Seni Pertunjukan dan Pelatihan Karawitan, Di Kabupaten Bantul Provinsi Daerah Istimewa Yogyakarta | Lokasi Proyek <i>Project Location</i> Panggunharjo, Kec. Sewon, Kab. Bantul, Provinsi Daerah Istimewa Yogyakarta | Identitas Mahasiswa <i>Student Identity</i> Agnes Michelly Iaka 200218194 Heribertus Nggala 200218214 Yosef Mario Rato Boli Kobun 200218312 | Judul Gambar <i>Drawing Title</i> RENCANA BALOK PADA LANTAI 1 | Keterangan <i>Note</i> | Tanggal Gambar <i>Drawing Date</i> 21 Juni 2023 | |
| | Program Studi Teknik Sipil CIVIL ENGINEERING DEPARTMENT Fakultas Teknik FACULTY OF ENGINEERING | | | | | | Nomer Lembar <i>Page number</i> 53 | Dari <i>Of</i> 61 |
| | | | | | | | | |

LAMPIRAN A.16.4.RENCANA BALOK LT 3

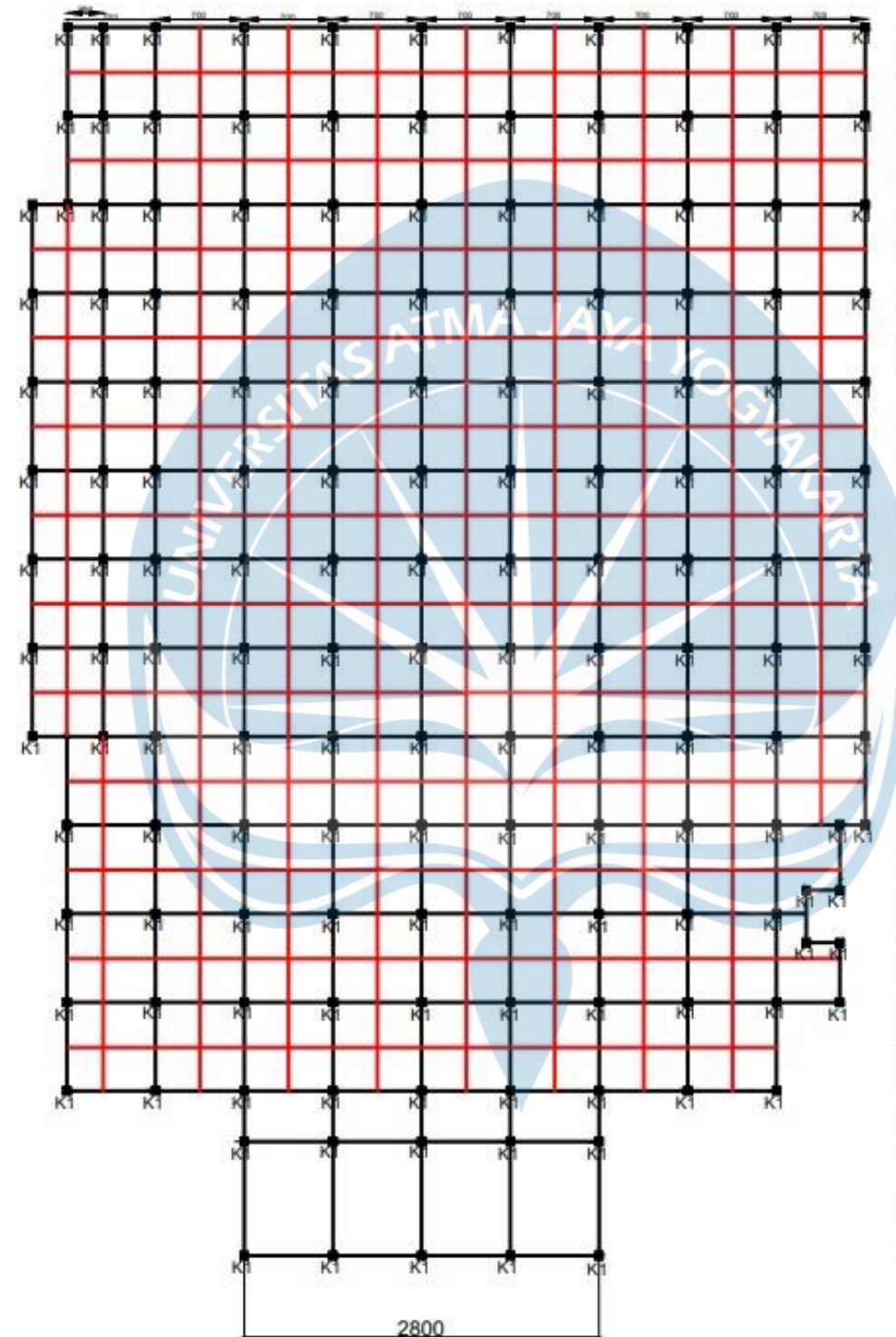



| KETERANGAN | |
|---|-------------|
|  | BALOK INDUK |
|  | BALOK ANAK |



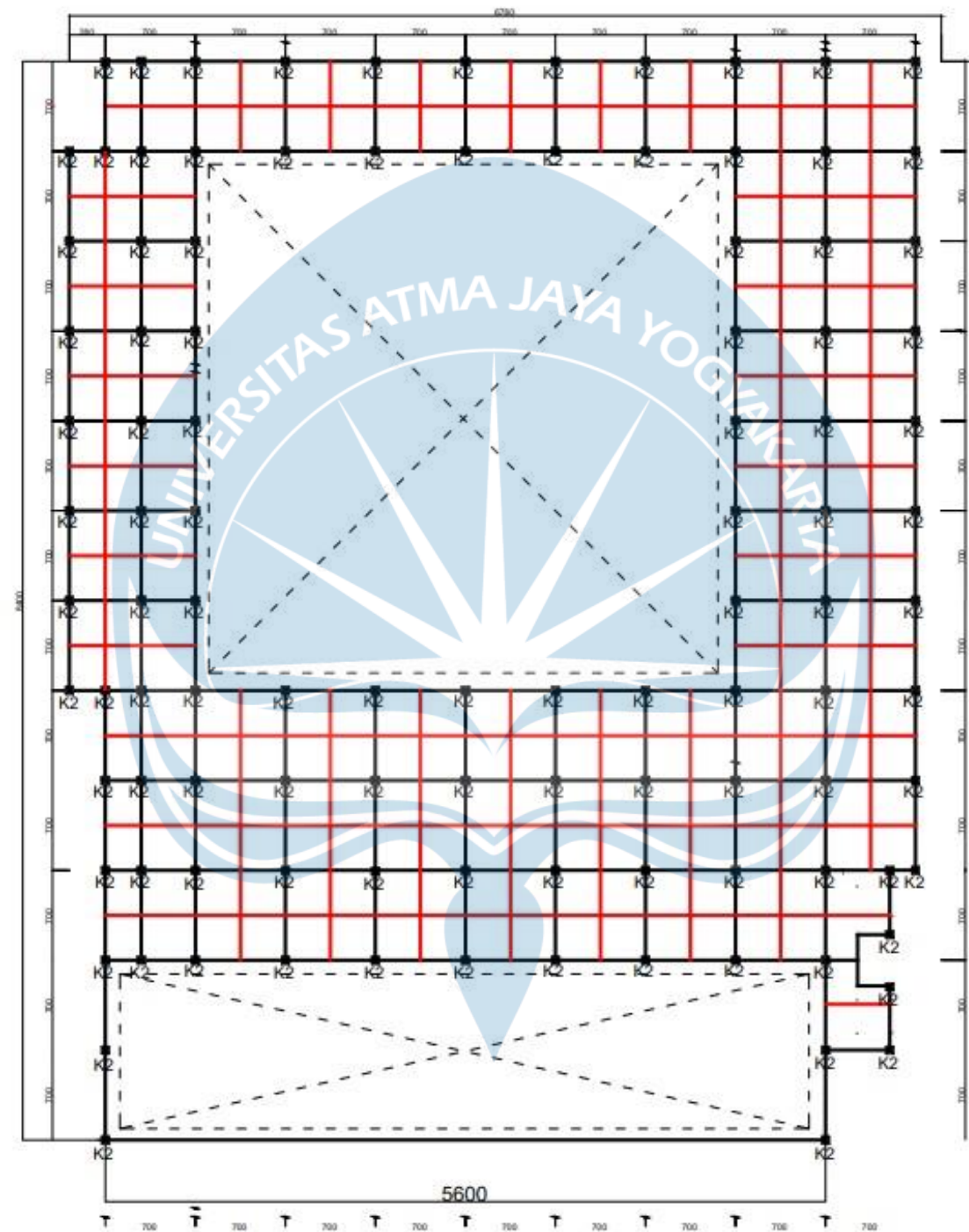
| | | | | | | | |
|---|---|---|---|---|---|---------------------------|--|
|  Universitas Atma Jaya Yogyakarta | Tugas Akhir Perancangan Infrastruktur <small>PERIOD: GGMP 1 PERIOD: GGD 1 TAHUN AKADEMIK 2022/2023 ACADEMIC YEAR 2022/2023</small> | Judul Proyek <i>Project Title</i> Pusat Seni Pertunjukan dan Pelatihan Karawitan, Di Kabupaten Bantul Provinsi Daerah Istimewa Yogyakarta | Lokasi Proyek <i>Project Location</i> Panggungharjo, Kec. Sewon, Kab. Bantul, Provinsi Daerah Istimewa Yogyakarta | Identitas Mahasiswa <i>Student Identity</i> Agnes Michelly Iaka 200218194 Heribertus Nggala 200218214 Yosef Mario Rato Boli Kobun 200218312 | Judul Gambar <i>Drawing Title</i> RENCANA BALOK PADA LANTAI 3 | Keterangan <i>Note</i> | Tanggal Gambar <i>Drawing Date</i> 12 April 2023 |
| | Program Studi Teknik Sipil CIVIL ENGINEERING DEPARTMENT Fakultas Teknik FACULTY OF ENGINEERING | Nomer Lembar <i>Page number</i> 55 | Dari Of 61 | | | | |


LAMPIRAN A.16.7.RENCANA KOLOM LANTAI 1



| | | | | | | | | |
|---|--|--|---|---|--------------------------------------|---------------------------|---------------------------------------|-------------------|
|  Universitas Atma Jaya Yogyakarta | PERIODE : SEMESTER I PERIODE : 0001 TAHUN AKADEMIK : 2022/2023 ACADEMIC YEAR : 2022/2023 | Judul Proyek <i>Project Title</i> | Lokasi Proyek <i>Project Location</i> | Identitas Mahasiswa <i>Student Identity</i> | Judul Gambar <i>Drawing Title</i> | Keterangan <i>Note</i> | Tanggal Gambar <i>Drawing Date</i> | |
| | Program : S1 Teknik Sipil CIVIL ENGINEERING DEPARTMENT Fakultas Teknik FACULTY OF ENGINEERING | Pusat Seni Pertunjukan dan Pelatihan Karawitan, Di Kabupaten Bantul Provinsi Daerah Istimewa Yogyakarta | Panggungharjo, Kec. Sewon, Kab. Bantul, Provinsi Daerah Istimewa Yogyakarta | Agnes Michelly Iaka 200218194 Heribertus Nggala 200218214 Yosef Mario Rato Boli Kobun 200218312 | RENCANA KOLOM PADA LANTAI 1 | | 21 Juni 2023 | |
| | | | | | | | Nomer Lembar <i>Page number</i> | Dari <i>Of</i> |
| | | | | | | 58 | 61 | |

LAMPIRAN A.16.10.RENCANA KOLOM LANTAI 4



| | | | | | | | | |
|---|---|---|--|---|--|---------------------------|---|-------------------------|
|  Universitas Atma Jaya Yogyakarta | Tugas Akhir Perancangan Infrastruktur PERIODE : GEMAF1 PERIODE : GGD 1 TAHUN AKADEMIK 2022/2023 ACADEMIC YEAR 2022/2023 | Judul Proyek <i>Project Title</i> Pusat Seni Pertunjukan dan Pelatihan Karawitan, Di Kabupaten Bantul Provinsi Daerah Istimewa Yogyakarta | Lokasi Proyek <i>Project Location</i> Panggunharjo, Kec. Sewon, Kab. Bantul, Provinsi Daerah Istimewa Yogyakarta | Identitas Mahasiswa <i>Student Identity</i> Agnes Michelly Iaka 200218194 Heribertus Nggala 200218214 Yosef Mario Rato Boli Kobun 200218312 | Judul Gambar <i>Drawing Title</i> RENCANA KOLOM PADA LANTAI 4 | Keterangan <i>Note</i> | Tanggal Gambar <i>Drawing Date</i> 21 Juni 2023 | |
| | Program Studi Teknik Sipil CIVIL ENGINEERING DEPARTMENT Fakultas Teknik FACULTY OF ENGINEERING | | | | | | Nomer Lembar <i>Page number</i> 61 | Dari <i>Of</i> 61 |
| | | | | | | | | |



Lampiran B. Luaran Program Komputer

Lampiran B. 1 Data Tanah Dari Hasil Pengujian Lapangan SPT dan
Laboratorium



SOIL MECHANICS LABORATORY
DEPARTMENT OF CIVIL ENGINEERING
FACULTY OF ENGINEERING - ATMA JAYA YOGYAKARTA UNIVERSITY

2,5 TON CONE PENETRATION TEST

| | | | | | |
|-----------------------|---|-----------------------------|-----------------|---|-----------------------|
| LOCATION | : | | DATE | : | |
| NUMBER OF CPT. | : | 1 | WEATHER | : | Cerah |
| ELEVATION | : | ±0,00 m dari muka jalan | SURVEYOR | : | Lab. Mektan. FT. UAJY |
| G.WATER DEPTH | : | -6,00 meter dari muka tanah | PROJECT | : | |

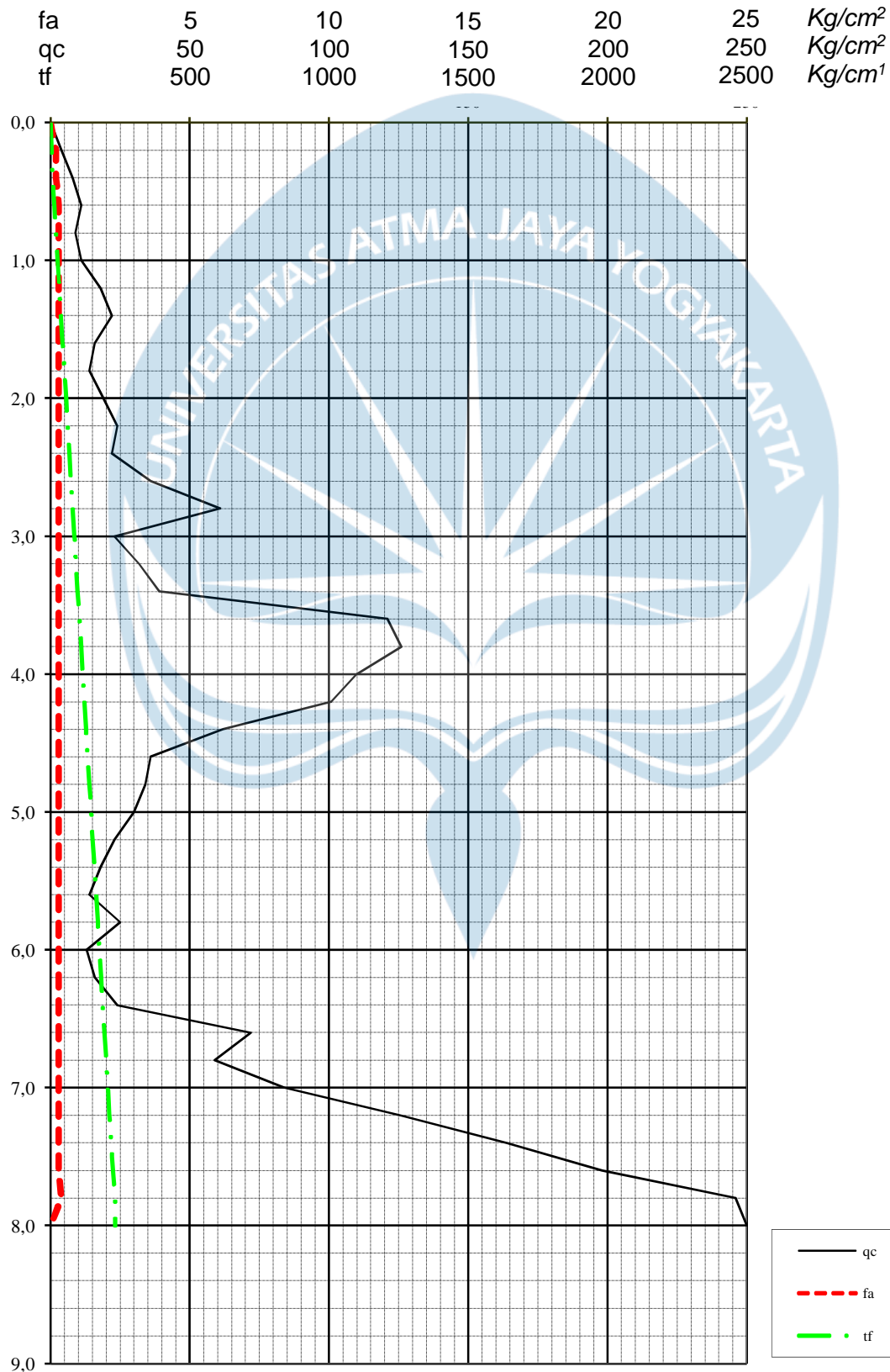
| Depth meters | C | C + F | LF | TF | Σ TF | Depth meters | C | C + F | LF | TF | Σ TF |
|--------------|--------------------|--------------------|--------------------|--------|--------|--------------|--------------------|--------------------|--------------------|--------|--------|
| | kg/cm ² | kg/cm ² | kg/cm ² | kg/cm' | kg/cm' | | kg/cm ² | kg/cm ² | kg/cm ² | kg/cm' | kg/cm' |
| 0,00 | 0 | 0 | 0,00 | | | | | | | | |
| 0,20 | 4 | 6 | 0,20 | 4 | 4 | 10,20 | | | | | |
| 0,40 | 8 | 10 | 0,20 | 4 | 8 | 10,40 | | | | | |
| 0,60 | 11 | 14 | 0,30 | 6 | 14 | 10,60 | | | | | |
| 0,80 | 9 | 12 | 0,30 | 6 | 20 | 10,80 | | | | | |
| 1,00 | 11 | 14 | 0,30 | 6 | 26 | 11,00 | | | | | |
| 1,20 | 18 | 21 | 0,30 | 6 | 32 | 11,20 | | | | | |
| 1,40 | 22 | 25 | 0,30 | 6 | 38 | 11,40 | | | | | |
| 1,60 | 16 | 19 | 0,30 | 6 | 44 | 11,60 | | | | | |
| 1,80 | 14 | 17 | 0,30 | 6 | 50 | 11,80 | | | | | |
| 2,00 | 19 | 22 | 0,30 | 6 | 56 | 12,00 | | | | | |
| 2,20 | 24 | 27 | 0,30 | 6 | 62 | 12,20 | | | | | |
| 2,40 | 22 | 25 | 0,30 | 6 | 68 | 12,40 | | | | | |
| 2,60 | 36 | 39 | 0,30 | 6 | 74 | 12,60 | | | | | |
| 2,80 | 61 | 64 | 0,30 | 6 | 80 | 12,80 | | | | | |
| 3,00 | 23 | 26 | 0,30 | 6 | 86 | 13,00 | | | | | |
| 3,20 | 32 | 35 | 0,30 | 6 | 92 | 13,20 | | | | | |
| 3,40 | 39 | 42 | 0,30 | 6 | 98 | 13,40 | | | | | |
| 3,60 | 121 | 124 | 0,30 | 6 | 104 | 13,60 | | | | | |
| 3,80 | 126 | 129 | 0,30 | 6 | 110 | 13,80 | | | | | |
| 4,00 | 110 | 113 | 0,30 | 6 | 116 | 14,00 | | | | | |
| 4,20 | 101 | 104 | 0,30 | 6 | 122 | 14,20 | | | | | |
| 4,40 | 62 | 65 | 0,30 | 6 | 128 | 14,40 | | | | | |
| 4,60 | 36 | 39 | 0,30 | 6 | 134 | 14,60 | | | | | |
| 4,80 | 34 | 37 | 0,30 | 6 | 140 | 14,80 | | | | | |
| 5,00 | 30 | 33 | 0,30 | 6 | 146 | 15,00 | | | | | |
| 5,20 | 23 | 26 | 0,30 | 6 | 152 | 15,20 | | | | | |
| 5,40 | 18 | 21 | 0,30 | 6 | 158 | 15,40 | | | | | |
| 5,60 | 14 | 17 | 0,30 | 6 | 164 | 15,60 | | | | | |
| 5,80 | 25 | 28 | 0,30 | 6 | 170 | 15,80 | | | | | |
| 6,00 | 13 | 16 | 0,30 | 6 | 176 | 16,00 | | | | | |
| 6,20 | 16 | 19 | 0,30 | 6 | 182 | 16,20 | | | | | |
| 6,40 | 24 | 27 | 0,30 | 6 | 188 | 16,40 | | | | | |
| 6,60 | 72 | 75 | 0,30 | 6 | 194 | 16,60 | | | | | |
| 6,80 | 59 | 62 | 0,30 | 6 | 200 | 16,80 | | | | | |
| 7,00 | 84 | 87 | 0,30 | 6 | 206 | 17,00 | | | | | |
| 7,20 | 126 | 129 | 0,30 | 6 | 212 | 17,20 | | | | | |
| 7,40 | 164 | 167 | 0,30 | 6 | 218 | 17,40 | | | | | |
| 7,60 | 198 | 201 | 0,30 | 6 | 224 | 17,60 | | | | | |
| 7,80 | 246 | 250 | 0,40 | 8 | 232 | 17,80 | | | | | |
| 8,00 | 250 | 250 | 0,00 | 0 | 232 | 18,00 | | | | | |
| 8,20 | | | | | | 18,20 | | | | | |
| 8,40 | | | | | | 18,40 | | | | | |
| 8,60 | | | | | | 18,60 | | | | | |
| 8,80 | | | | | | 18,80 | | | | | |
| 9,00 | | | | | | 19,00 | | | | | |
| 9,20 | | | | | | 19,20 | | | | | |
| 9,40 | | | | | | 19,40 | | | | | |
| 9,60 | | | | | | 19,60 | | | | | |
| 9,80 | | | | | | 19,80 | | | | | |
| 10,00 | | | | | | 20,00 | | | | | |



2,5 TON CONE PENETRATION TEST

Project :
Number of cpt. : 1
Date :

Elevation : $\pm 0,00$ m dari muka jalan
G.Water Depth : -6,00 meter dari muka tanah





SOIL MECHANICS LABORATORY
DEPARTMENT OF CIVIL ENGINEERING
FACULTY OF ENGINEERING - ATMA JAYA YOGYAKARTA UNIVERSITY

2,5 TON CONE PENETRATION TEST

| | | | | | |
|-----------------------|---|-----------------------------|-----------------|---|-----------------------|
| LOCATION | : | | DATE | : | |
| NUMBER OF CPT. | : | 2 | WEATHER | : | Cerah |
| ELEVATION | : | +0,40 m dari muka jalan | SURVEYOR | : | Lab. Mektan. FT. UAJY |
| G.WATER DEPTH | : | -6,00 meter dari muka tanah | PROJECT | : | |

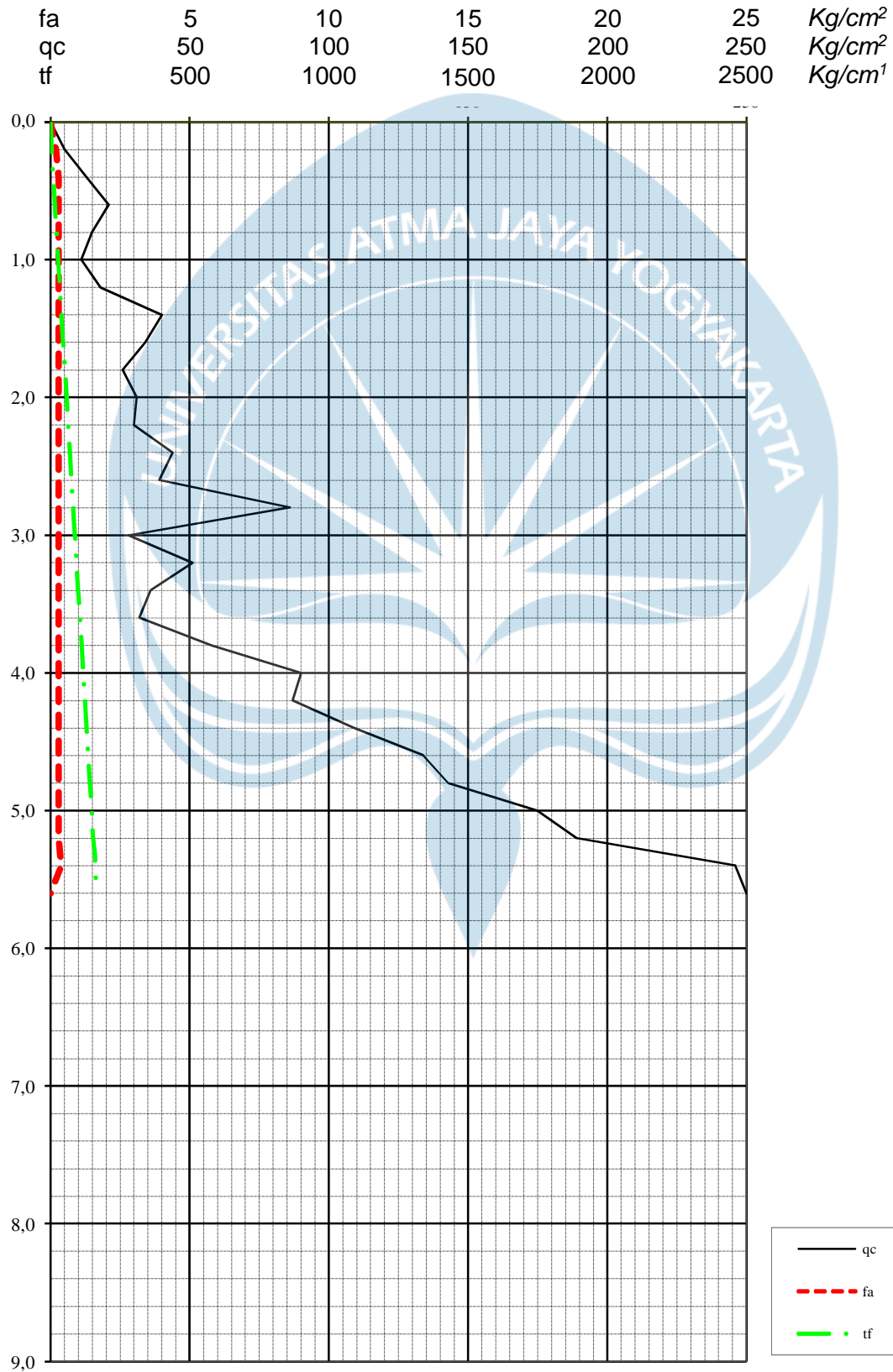
| Depth meters | C | C + F | LF | TF | Σ TF | Depth meters | C | C + F | LF | TF | Σ TF |
|--------------|--------------------|--------------------|--------------------|--------|--------|--------------|--------------------|--------------------|--------------------|--------|--------|
| | kg/cm ² | kg/cm ² | kg/cm ² | kg/cm' | kg/cm' | | kg/cm ² | kg/cm ² | kg/cm ² | kg/cm' | kg/cm' |
| 0,00 | 0 | 0 | 0,00 | | | | | | | | |
| 0,20 | 5 | 7 | 0,20 | 4 | 4 | 10,20 | | | | | |
| 0,40 | 13 | 16 | 0,30 | 6 | 10 | 10,40 | | | | | |
| 0,60 | 21 | 24 | 0,30 | 6 | 16 | 10,60 | | | | | |
| 0,80 | 15 | 18 | 0,30 | 6 | 22 | 10,80 | | | | | |
| 1,00 | 11 | 14 | 0,30 | 6 | 28 | 11,00 | | | | | |
| 1,20 | 18 | 21 | 0,30 | 6 | 34 | 11,20 | | | | | |
| 1,40 | 40 | 43 | 0,30 | 6 | 40 | 11,40 | | | | | |
| 1,60 | 34 | 37 | 0,30 | 6 | 46 | 11,60 | | | | | |
| 1,80 | 26 | 29 | 0,30 | 6 | 52 | 11,80 | | | | | |
| 2,00 | 31 | 34 | 0,30 | 6 | 58 | 12,00 | | | | | |
| 2,20 | 30 | 33 | 0,30 | 6 | 64 | 12,20 | | | | | |
| 2,40 | 44 | 47 | 0,30 | 6 | 70 | 12,40 | | | | | |
| 2,60 | 39 | 42 | 0,30 | 6 | 76 | 12,60 | | | | | |
| 2,80 | 86 | 89 | 0,30 | 6 | 82 | 12,80 | | | | | |
| 3,00 | 28 | 31 | 0,30 | 6 | 88 | 13,00 | | | | | |
| 3,20 | 51 | 54 | 0,30 | 6 | 94 | 13,20 | | | | | |
| 3,40 | 36 | 39 | 0,30 | 6 | 100 | 13,40 | | | | | |
| 3,60 | 32 | 35 | 0,30 | 6 | 106 | 13,60 | | | | | |
| 3,80 | 58 | 61 | 0,30 | 6 | 112 | 13,80 | | | | | |
| 4,00 | 90 | 93 | 0,30 | 6 | 118 | 14,00 | | | | | |
| 4,20 | 87 | 90 | 0,30 | 6 | 124 | 14,20 | | | | | |
| 4,40 | 109 | 112 | 0,30 | 6 | 130 | 14,40 | | | | | |
| 4,60 | 134 | 137 | 0,30 | 6 | 136 | 14,60 | | | | | |
| 4,80 | 143 | 146 | 0,30 | 6 | 142 | 14,80 | | | | | |
| 5,00 | 175 | 178 | 0,30 | 6 | 148 | 15,00 | | | | | |
| 5,20 | 189 | 192 | 0,30 | 6 | 154 | 15,20 | | | | | |
| 5,40 | 246 | 250 | 0,40 | 8 | 162 | 15,40 | | | | | |
| 5,60 | 250 | 250 | 0,00 | 0 | 162 | 15,60 | | | | | |
| 5,80 | | | | | | 15,80 | | | | | |
| 6,00 | | | | | | 16,00 | | | | | |
| 6,20 | | | | | | 16,20 | | | | | |
| 6,40 | | | | | | 16,40 | | | | | |
| 6,60 | | | | | | 16,60 | | | | | |
| 6,80 | | | | | | 16,80 | | | | | |
| 7,00 | | | | | | 17,00 | | | | | |
| 7,20 | | | | | | 17,20 | | | | | |
| 7,40 | | | | | | 17,40 | | | | | |
| 7,60 | | | | | | 17,60 | | | | | |
| 7,80 | | | | | | 17,80 | | | | | |
| 8,00 | | | | | | 18,00 | | | | | |
| 8,20 | | | | | | 18,20 | | | | | |
| 8,40 | | | | | | 18,40 | | | | | |
| 8,60 | | | | | | 18,60 | | | | | |
| 8,80 | | | | | | 18,80 | | | | | |
| 9,00 | | | | | | 19,00 | | | | | |
| 9,20 | | | | | | 19,20 | | | | | |
| 9,40 | | | | | | 19,40 | | | | | |
| 9,60 | | | | | | 19,60 | | | | | |
| 9,80 | | | | | | 19,80 | | | | | |
| 10,00 | | | | | | 20,00 | | | | | |



2,5 TON CONE PENETRATION TEST

Project :
Number of cpt. : 2
Date :

Elevation : +0,40 m dari muka jalan
G.Water Depth : -6,00 meter dari muka tanah





SOIL MECHANICS LABORATORY
DEPARTMENT OF CIVIL ENGINEERING
FACULTY OF ENGINEERING - ATMA JAYA YOGYAKARTA UNIVERSITY

2,5 TON CONE PENETRATION TEST

| | |
|--|---|
| LOCATION : | DATE : |
| NUMBER OF CPT. : 3 | WEATHER : Cerah |
| ELEVATION : +0,40 m dari muka jalan | SURVEYOR : Lab. Mektan. FT. UAJY |
| G.WATER DEPTH : -6,00 meter dari muka tanah | PROJECT : |

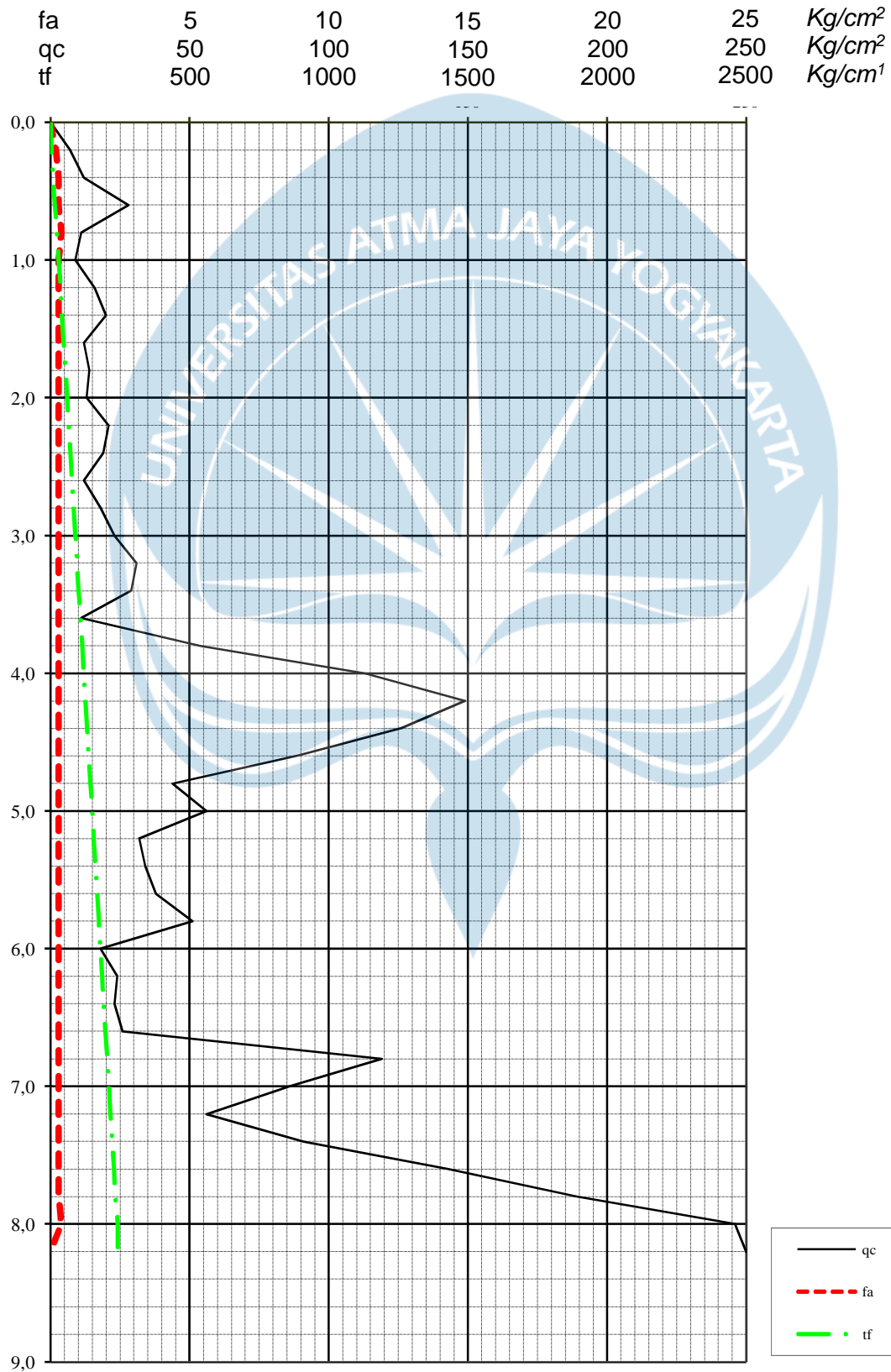
| Depth meters | C | C + F | LF | TF | Σ TF | Depth meters | C | C + F | LF | TF | Σ TF |
|--------------|--------------------|--------------------|--------------------|--------|--------|--------------|--------------------|--------------------|--------------------|--------|--------|
| | kg/cm ² | kg/cm ² | kg/cm ² | kg/cm' | kg/cm' | | kg/cm ² | kg/cm ² | kg/cm ² | kg/cm' | kg/cm' |
| 0,00 | 0 | 0 | 0,00 | | | | | | | | |
| 0,20 | 7 | 9 | 0,20 | 4 | 4 | 10,20 | | | | | |
| 0,40 | 12 | 15 | 0,30 | 6 | 10 | 10,40 | | | | | |
| 0,60 | 28 | 31 | 0,30 | 6 | 16 | 10,60 | | | | | |
| 0,80 | 11 | 15 | 0,40 | 8 | 24 | 10,80 | | | | | |
| 1,00 | 9 | 12 | 0,30 | 6 | 30 | 11,00 | | | | | |
| 1,20 | 16 | 19 | 0,30 | 6 | 36 | 11,20 | | | | | |
| 1,40 | 20 | 23 | 0,30 | 6 | 42 | 11,40 | | | | | |
| 1,60 | 12 | 15 | 0,30 | 6 | 48 | 11,60 | | | | | |
| 1,80 | 14 | 17 | 0,30 | 6 | 54 | 11,80 | | | | | |
| 2,00 | 13 | 16 | 0,30 | 6 | 60 | 12,00 | | | | | |
| 2,20 | 21 | 24 | 0,30 | 6 | 66 | 12,20 | | | | | |
| 2,40 | 19 | 22 | 0,30 | 6 | 72 | 12,40 | | | | | |
| 2,60 | 12 | 15 | 0,30 | 6 | 78 | 12,60 | | | | | |
| 2,80 | 18 | 21 | 0,30 | 6 | 84 | 12,80 | | | | | |
| 3,00 | 23 | 26 | 0,30 | 6 | 90 | 13,00 | | | | | |
| 3,20 | 31 | 34 | 0,30 | 6 | 96 | 13,20 | | | | | |
| 3,40 | 29 | 32 | 0,30 | 6 | 102 | 13,40 | | | | | |
| 3,60 | 11 | 14 | 0,30 | 6 | 108 | 13,60 | | | | | |
| 3,80 | 54 | 57 | 0,30 | 6 | 114 | 13,80 | | | | | |
| 4,00 | 113 | 116 | 0,30 | 6 | 120 | 14,00 | | | | | |
| 4,20 | 149 | 152 | 0,30 | 6 | 126 | 14,20 | | | | | |
| 4,40 | 126 | 129 | 0,30 | 6 | 132 | 14,40 | | | | | |
| 4,60 | 89 | 92 | 0,30 | 6 | 138 | 14,60 | | | | | |
| 4,80 | 44 | 47 | 0,30 | 6 | 144 | 14,80 | | | | | |
| 5,00 | 56 | 59 | 0,30 | 6 | 150 | 15,00 | | | | | |
| 5,20 | 32 | 35 | 0,30 | 6 | 156 | 15,20 | | | | | |
| 5,40 | 34 | 37 | 0,30 | 6 | 162 | 15,40 | | | | | |
| 5,60 | 38 | 41 | 0,30 | 6 | 168 | 15,60 | | | | | |
| 5,80 | 51 | 54 | 0,30 | 6 | 174 | 15,80 | | | | | |
| 6,00 | 18 | 21 | 0,30 | 6 | 180 | 16,00 | | | | | |
| 6,20 | 24 | 27 | 0,30 | 6 | 186 | 16,20 | | | | | |
| 6,40 | 23 | 26 | 0,30 | 6 | 192 | 16,40 | | | | | |
| 6,60 | 26 | 29 | 0,30 | 6 | 198 | 16,60 | | | | | |
| 6,80 | 119 | 122 | 0,30 | 6 | 204 | 16,80 | | | | | |
| 7,00 | 86 | 89 | 0,30 | 6 | 210 | 17,00 | | | | | |
| 7,20 | 56 | 59 | 0,30 | 6 | 216 | 17,20 | | | | | |
| 7,40 | 91 | 94 | 0,30 | 6 | 222 | 17,40 | | | | | |
| 7,60 | 143 | 146 | 0,30 | 6 | 228 | 17,60 | | | | | |
| 7,80 | 189 | 192 | 0,30 | 6 | 234 | 17,80 | | | | | |
| 8,00 | 246 | 250 | 0,40 | 8 | 242 | 18,00 | | | | | |
| 8,20 | 250 | 250 | 0,00 | 0 | 242 | 18,20 | | | | | |
| 8,40 | | | | | | 18,40 | | | | | |
| 8,60 | | | | | | 18,60 | | | | | |
| 8,80 | | | | | | 18,80 | | | | | |
| 9,00 | | | | | | 19,00 | | | | | |
| 9,20 | | | | | | 19,20 | | | | | |
| 9,40 | | | | | | 19,40 | | | | | |
| 9,60 | | | | | | 19,60 | | | | | |
| 9,80 | | | | | | 19,80 | | | | | |
| 10,00 | | | | | | 20,00 | | | | | |



2,5 TON CONE PENETRATION TEST

Project :
Number of cpt. : 3
Date :

Elevation : +0,40 m dari muka jalan
G.Water Depth : -6,00 meter dari muka tanah





SOIL MECHANICS LABORATORY
DEPARTMENT OF CIVIL ENGINEERING
FACULTY OF ENGINEERING - ATMA JAYA YOGYAKARTA UNIVERSITY

2,5 TON CONE PENETRATION TEST

| | |
|--|---|
| LOCATION : | DATE : |
| NUMBER OF CPT. : 4 | WEATHER : Cerah |
| ELEVATION : +0,40 m dari muka jalan | SURVEYOR : Lab. Mektan. FT. UAJY |
| G.WATER DEPTH : -6,00 meter dari muka tanah | PROJECT : |

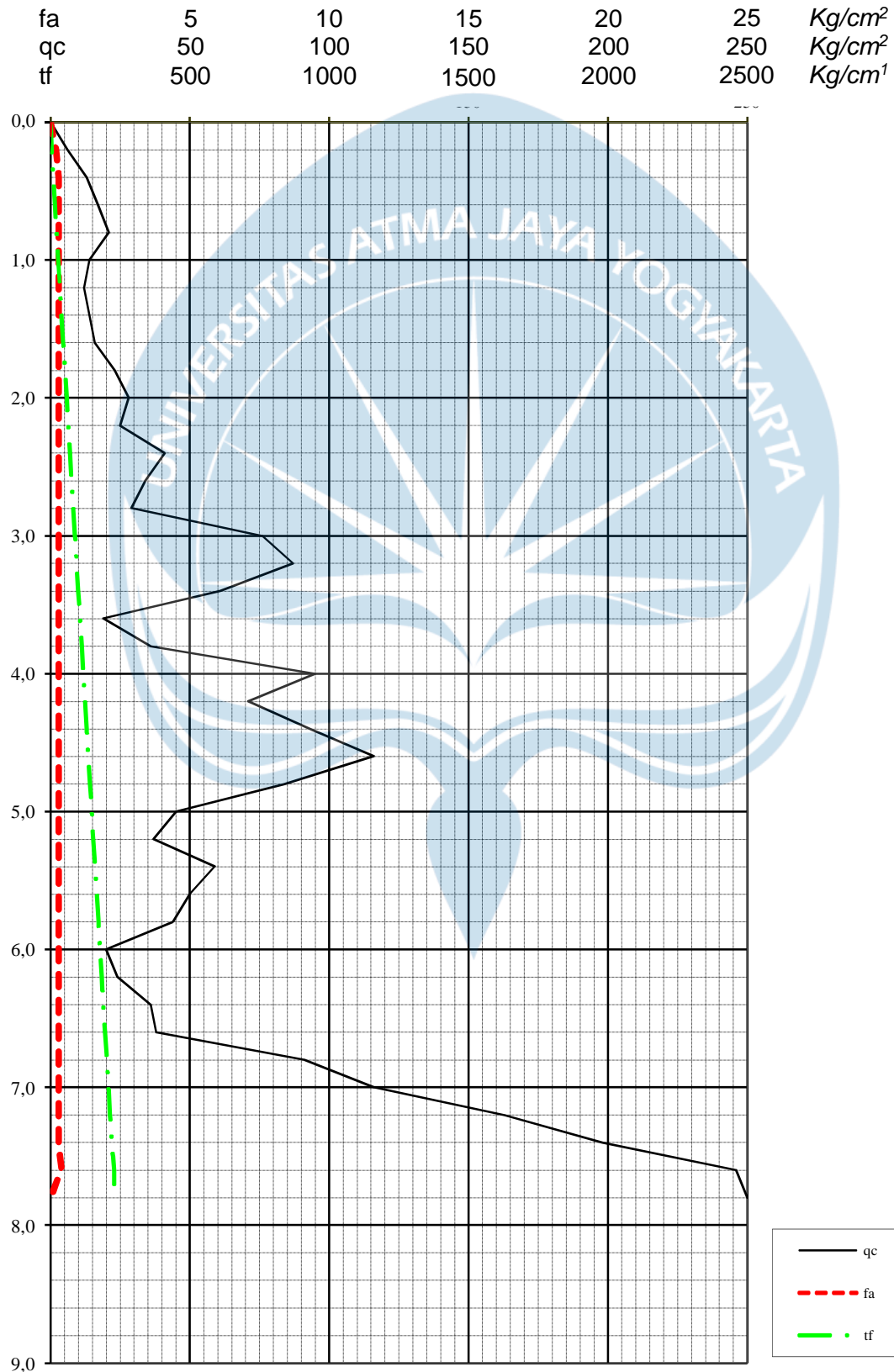
| Depth meters | C | C + F | LF | TF | Σ TF | Depth meters | C | C + F | LF | TF | Σ TF |
|--------------|--------------------|--------------------|--------------------|--------|--------|--------------|--------------------|--------------------|--------------------|--------|--------|
| | kg/cm ² | kg/cm ² | kg/cm ² | kg/cm' | kg/cm' | | kg/cm ² | kg/cm ² | kg/cm ² | kg/cm' | kg/cm' |
| 0,00 | 0 | 0 | 0,00 | | | | | | | | |
| 0,20 | 6 | 8 | 0,20 | 4 | 4 | 10,20 | | | | | |
| 0,40 | 13 | 16 | 0,30 | 6 | 10 | 10,40 | | | | | |
| 0,60 | 17 | 20 | 0,30 | 6 | 16 | 10,60 | | | | | |
| 0,80 | 21 | 24 | 0,30 | 6 | 22 | 10,80 | | | | | |
| 1,00 | 14 | 17 | 0,30 | 6 | 28 | 11,00 | | | | | |
| 1,20 | 12 | 15 | 0,30 | 6 | 34 | 11,20 | | | | | |
| 1,40 | 14 | 17 | 0,30 | 6 | 40 | 11,40 | | | | | |
| 1,60 | 16 | 19 | 0,30 | 6 | 46 | 11,60 | | | | | |
| 1,80 | 23 | 26 | 0,30 | 6 | 52 | 11,80 | | | | | |
| 2,00 | 28 | 31 | 0,30 | 6 | 58 | 12,00 | | | | | |
| 2,20 | 25 | 28 | 0,30 | 6 | 64 | 12,20 | | | | | |
| 2,40 | 41 | 44 | 0,30 | 6 | 70 | 12,40 | | | | | |
| 2,60 | 34 | 37 | 0,30 | 6 | 76 | 12,60 | | | | | |
| 2,80 | 29 | 32 | 0,30 | 6 | 82 | 12,80 | | | | | |
| 3,00 | 76 | 79 | 0,30 | 6 | 88 | 13,00 | | | | | |
| 3,20 | 87 | 90 | 0,30 | 6 | 94 | 13,20 | | | | | |
| 3,40 | 61 | 64 | 0,30 | 6 | 100 | 13,40 | | | | | |
| 3,60 | 19 | 22 | 0,30 | 6 | 106 | 13,60 | | | | | |
| 3,80 | 36 | 39 | 0,30 | 6 | 112 | 13,80 | | | | | |
| 4,00 | 95 | 98 | 0,30 | 6 | 118 | 14,00 | | | | | |
| 4,20 | 71 | 74 | 0,30 | 6 | 124 | 14,20 | | | | | |
| 4,40 | 93 | 96 | 0,30 | 6 | 130 | 14,40 | | | | | |
| 4,60 | 116 | 119 | 0,30 | 6 | 136 | 14,60 | | | | | |
| 4,80 | 84 | 87 | 0,30 | 6 | 142 | 14,80 | | | | | |
| 5,00 | 45 | 48 | 0,30 | 6 | 148 | 15,00 | | | | | |
| 5,20 | 37 | 40 | 0,30 | 6 | 154 | 15,20 | | | | | |
| 5,40 | 59 | 62 | 0,30 | 6 | 160 | 15,40 | | | | | |
| 5,60 | 50 | 53 | 0,30 | 6 | 166 | 15,60 | | | | | |
| 5,80 | 44 | 47 | 0,30 | 6 | 172 | 15,80 | | | | | |
| 6,00 | 20 | 23 | 0,30 | 6 | 178 | 16,00 | | | | | |
| 6,20 | 24 | 27 | 0,30 | 6 | 184 | 16,20 | | | | | |
| 6,40 | 36 | 39 | 0,30 | 6 | 190 | 16,40 | | | | | |
| 6,60 | 38 | 41 | 0,30 | 6 | 196 | 16,60 | | | | | |
| 6,80 | 91 | 94 | 0,30 | 6 | 202 | 16,80 | | | | | |
| 7,00 | 116 | 119 | 0,30 | 6 | 208 | 17,00 | | | | | |
| 7,20 | 163 | 166 | 0,30 | 6 | 214 | 17,20 | | | | | |
| 7,40 | 198 | 201 | 0,30 | 6 | 220 | 17,40 | | | | | |
| 7,60 | 246 | 250 | 0,40 | 8 | 228 | 17,60 | | | | | |
| 7,80 | 250 | 250 | 0,00 | 0 | 228 | 17,80 | | | | | |
| 8,00 | | | | | | 18,00 | | | | | |
| 8,20 | | | | | | 18,20 | | | | | |
| 8,40 | | | | | | 18,40 | | | | | |
| 8,60 | | | | | | 18,60 | | | | | |
| 8,80 | | | | | | 18,80 | | | | | |
| 9,00 | | | | | | 19,00 | | | | | |
| 9,20 | | | | | | 19,20 | | | | | |
| 9,40 | | | | | | 19,40 | | | | | |
| 9,60 | | | | | | 19,60 | | | | | |
| 9,80 | | | | | | 19,80 | | | | | |
| 10,00 | | | | | | 20,00 | | | | | |



2,5 TON CONE PENETRATION TEST

Project :
Number of cpt. : 4
Date :

Elevation : +0,40 m dari muka jalan
G.Water Depth : -6,00 meter dari muka tanah





BOR LOG

| | |
|--|---|
| CLIENT: | PROJECT TITLE : |
| PROJECT CONTRACT NUMBER: | PROJECT LOCATION : |
| DATE STARTED: | GROUND ELEVATION : -0,50 m from road level |
| DATE COMPLETED : | HOLE SIZE : 7.295cm |
| DRILLING CONTRACTOR: SOIL MECH. LAB. UAJY | GROUND WATER LEVEL : - 6,00 m from ground level |
| DRILLING METHOD: ROTARY SPINDLE, SKID MOUNTED TYPE | WEATHER CONDITION : FINE |
| LOGGED BY: Mukarob, CS. | ESTIMATED SEASONAL HIGH : - |
| CHECKED BY: SOIL MECH. LAB, UAJY | |

| Depth (m) | Graph Log | Material Description (field observations) | Contact Depth (m) | Sample Number | Blow Counts (N Value) | | | | Water Level Elevation (m) | SPT Value |
|-----------|---|---|-------------------|---------------|-----------------------|----------------|----------------|----------------|---------------------------|-----------|
| | | | | | N ₁ | N ₂ | N ₃ | N _v | | |
| 1 | | Lanau berpasir (coklat) | 2 | I | 1 | 2 | 2 | 4 | 6.00 | 0 |
| 2 | | | | | 1 | 2 | 2 | 4 | | 1 |
| 3 | | Lanau sedikit lempung (coklat, abu-abu) | 3 | | 1 | 2 | 2 | 4 | | 2 |
| 4 | | | | | 2 | 3 | 3 | 6 | | 3 |
| 5 | | Lanau sedikit lempung (coklat) | 3 | II | 2 | 3 | 3 | 6 | | 4 |
| 6 | | | | | 2 | 3 | 3 | 6 | | 5 |
| 7 | | | | | 3 | 5 | 5 | 10 | | 6 |
| 8 | | | | | 3 | 5 | 6 | 11 | | 7 |
| 9 | | | | | 3 | 5 | 6 | 11 | | 8 |
| 10 | | Lempung lanau berpasir (coklat, abu-abu) | 5 | | 4 | 6 | 6 | 12 | | 9 |
| 11 | | | | | 4 | 6 | 6 | 12 | | 10 |
| 12 | | | | | 4 | 6 | 6 | 12 | | 11 |
| 13 | | | | | 4 | 6 | 6 | 12 | | 12 |
| 14 | | | | | 7 | 17 | 21 | 38 | | 13 |
| 15 | | Lempung lanau berpasir (coklat, hitam) | 5 | III | 9 | 19 | 28 | 47 | | 14 |
| 16 | | | | | 9 | 19 | 29 | 48 | | 15 |
| 17 | | | | | 12 | 19 | 33 | 52 | | 16 |
| 18 | | | | | 12 | 19 | 33 | 52 | | 17 |
| 19 | | | | | 12 | 19 | 33 | 52 | | 18 |
| 20 | | | | | 16 | 22 | 33 | 55 | | 19 |
| 21 | | Pasir (coklat, hitam) | 7 | IV | 17 | 24 | 34 | 58 | | 20 |
| 22 | | | | | 17 | 24 | 34 | 58 | | 21 |
| 23 | | | | | 17 | 26 | 32 | 58 | | 22 |
| 24 | | | | | 17 | 25 | 34 | 59 | | 23 |
| 25 | | | | 17 | 25 | 34 | 59 | 24 | | |
| 26 | | | | 19 | 25 | 35 | 60 | 25 | | |
| 27 | | | | 19 | 24 | 36 | 60 | 26 | | |
| 28 | | | | 19 | 26 | 34 | 60 | 27 | | |
| 29 | Lanau sedikit lempung (coklat, abu-abu) | 7 | VI | 19 | 22 | 36 | 58 | 28 | | |
| 30 | | | | 19 | 22 | 36 | 58 | 29 | | |
| 31 | | | | 19 | 22 | 36 | 58 | 30 | | |
| 32 | | | | 19 | 22 | 36 | 58 | 31 | | |
| 33 | | | | 18 | 24 | 36 | 60 | 32 | | |
| 34 | | | | 18 | 24 | 36 | 60 | 33 | | |
| 35 | | | | 18 | 25 | 35 | 60 | 34 | | |
| 36 | Lanau sedikit lempung (coklat) | 8 | | 17 | 22 | 36 | 58 | 35 | | |
| 37 | | | | 17 | 22 | 36 | 58 | 36 | | |
| 38 | | | | 17 | 22 | 37 | 59 | 37 | | |
| 39 | | | | 18 | 24 | 35 | 59 | 38 | | |
| 40 | | | | 18 | 24 | 35 | 59 | 39 | | |
| 40 | | | | | | | | 40 | | |

Catatan: Pada pengamatan di lapangan, lanau bisa tampak seperti pasir halus atau pasir sangat halus



REKAP HASIL PENGUJIAN TANAH

Proyek :
Lokasi :
Tanggal :

| Titik | Kedalaman (m) | Kadar Air (%) | Berat Jenis (G) | γ_b (gr/cm ³) | γ_k (gr/cm ³) | Pengujian Geser Langsung | |
|-------|---------------|---------------|-----------------|----------------------------------|----------------------------------|--------------------------|----------------|
| | | | | | | c (kg/cm ²) | θ° |
| BH 1 | 1,50 | 57,21 | 2,46 | 1,41 | 0,90 | 0,02 | 15,55 |
| | 7,00 | 60,49 | 2,45 | 1,59 | 0,99 | 0,11 | 7,72 |
| | 10,00 | 51,03 | 2,46 | 1,63 | 1,08 | 0,18 | 13,05 |
| | 20,00 | 41,11 | 2,63 | 1,96 | 1,39 | 0,02 | 26,02 |
| | 25,00 | 22,67 | 2,63 | 1,76 | 1,44 | 0,01 | 25,85 |
| | 30,00 | 42,76 | 2,42 | 1,64 | 1,15 | 0,10 | 23,10 |

Lab. Mekanika Tanah FT-UAJY,
Staf,

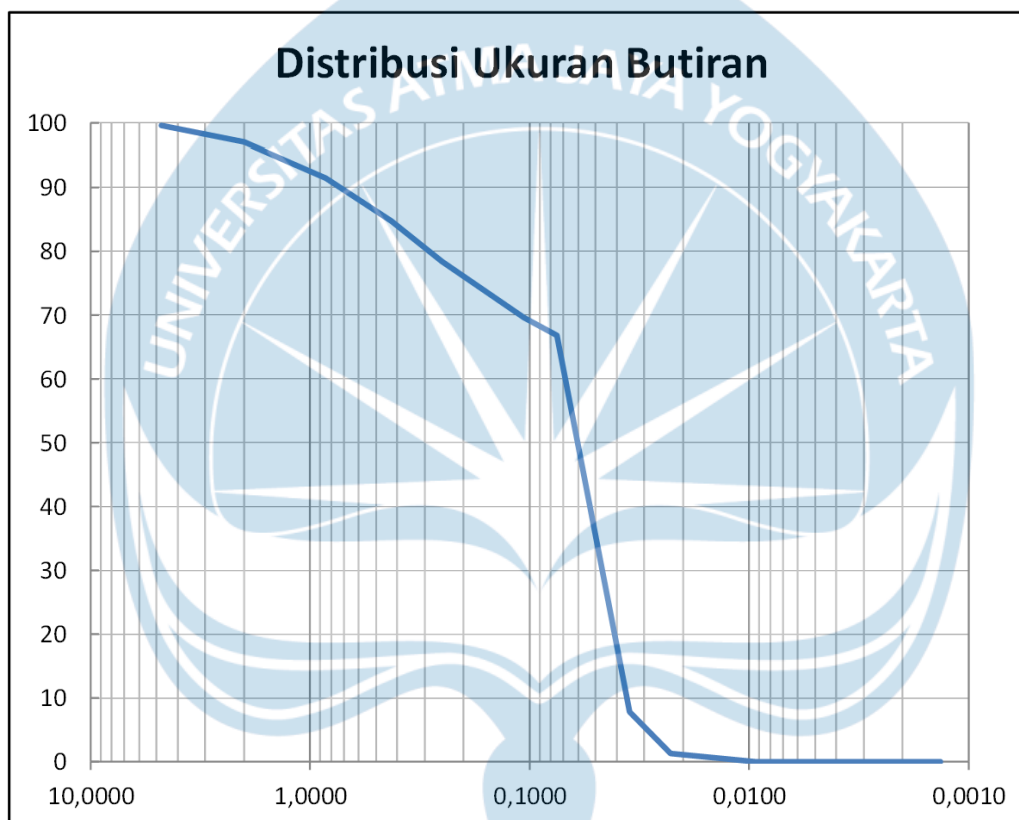
Oktoditya Ekaputra



ANALISA BUTIRAN

Tanggal : 04 Nopember 2016

Titik : BH 1
Kedalaman: 1,5 m



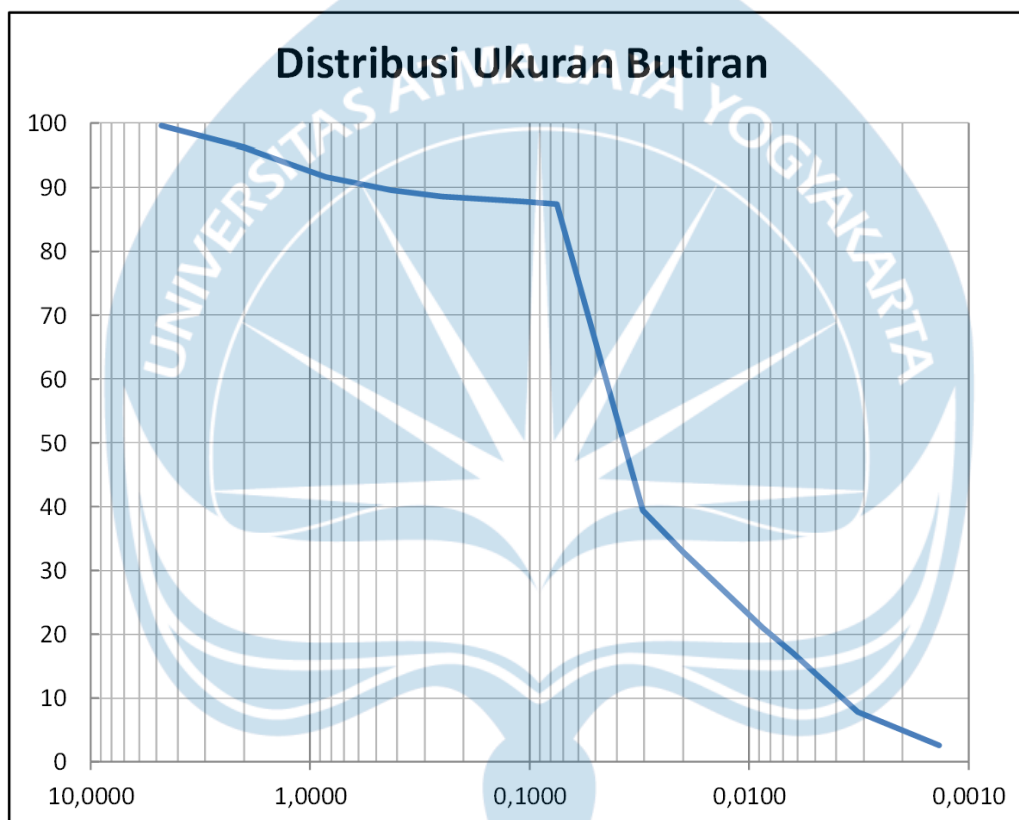
| No. Sieve | Ukuran Butiran (mm) | Berat Tertahan | Berat Lolos | Prosen Lolos |
|-----------|---------------------|----------------|-------------|--------------|
| 4 | 4,750 | 0,4 | 99,6 | 99,60 |
| 10 | 2,000 | 2,6 | 97,0 | 97,01 |
| 20 | 0,850 | 5,5 | 91,51 | 91,51 |
| 40 | 0,425 | 6,8 | 84,72 | 84,72 |
| 60 | 0,250 | 6,3 | 78,38 | 78,38 |
| 140 | 0,106 | 8,8 | 69,62 | 69,62 |
| 200 | 0,075 | 2,8 | 66,86 | 66,86 |
| Pan | | 66,86 | | |



ANALISA BUTIRAN

Tanggal : 04-Nop-16

Titik : BH 1
Kedalaman: 7 m



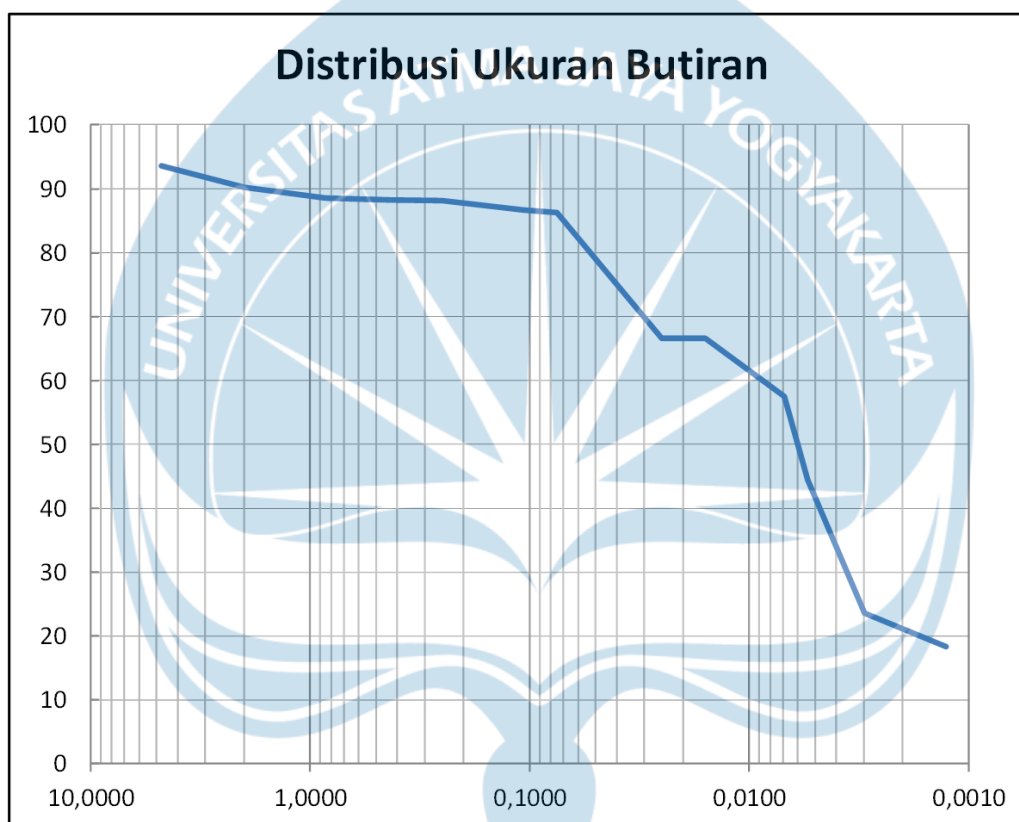
| No. Sieve | Ukuran Butiran (mm) | Berat Tertahan | Berat Lolos | Prosen Lolos |
|-----------|---------------------|----------------|-------------|--------------|
| 4 | 4,750 | 0,4 | 99,6 | 99,59 |
| 10 | 2,000 | 3,4 | 96,2 | 96,20 |
| 20 | 0,850 | 4,6 | 91,62 | 91,62 |
| 40 | 0,425 | 2,0 | 89,61 | 89,61 |
| 60 | 0,250 | 1,0 | 88,6 | 88,60 |
| 140 | 0,106 | 0,8 | 87,76 | 87,76 |
| 200 | 0,075 | 0,4 | 87,4 | 87,40 |
| Pan | | 87,40 | | |



ANALISA BUTIRAN

Tanggal : 04-Nop-16

Titik : BH 1
Kedalaman: 10 m



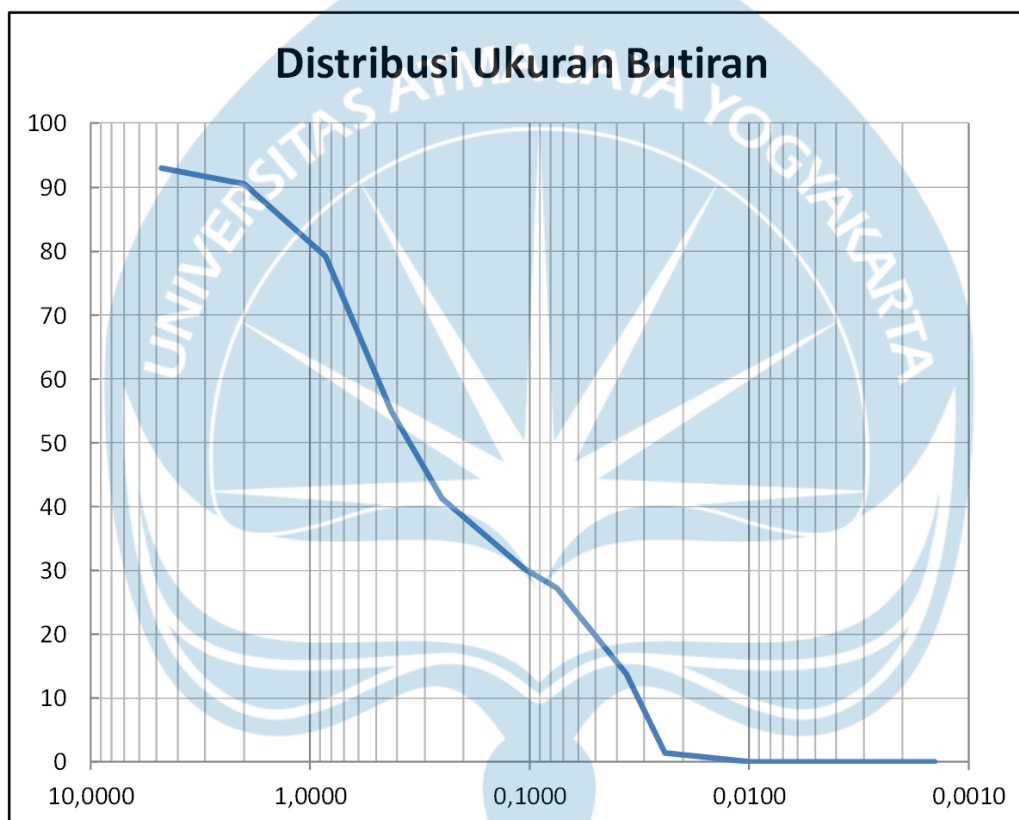
| No. Sieve | Ukuran Butiran (mm) | Berat Tertahan | Berat Lolos | Prosen Lolos |
|-----------|---------------------|----------------|-------------|--------------|
| 4 | 4,750 | 6,3 | 93,7 | 93,68 |
| 10 | 2,000 | 3,4 | 90,2 | 90,24 |
| 20 | 0,850 | 1,6 | 88,64 | 88,64 |
| 40 | 0,425 | 0,3 | 88,31 | 88,31 |
| 60 | 0,250 | 0,1 | 88,22 | 88,22 |
| 140 | 0,106 | 1,5 | 86,76 | 86,76 |
| 200 | 0,075 | 0,4 | 86,32 | 86,32 |
| Pan | | 86,32 | | |



ANALISA BUTIRAN

Tanggal : 04 Nopember 2016

Titik : BH 1
Kedalaman: 20 m



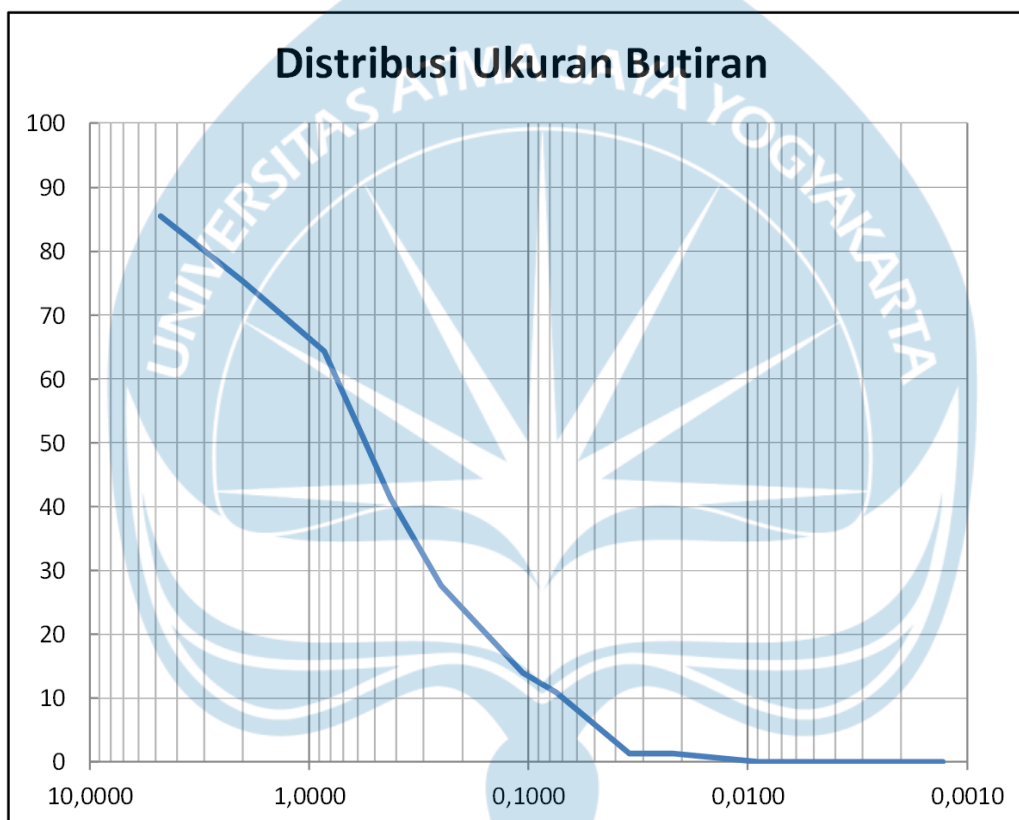
| No. Sieve | Ukuran Butiran (mm) | Berat Tertahan | Berat Lolos | Prosen Lolos |
|-----------|---------------------|----------------|-------------|--------------|
| 4 | 4,750 | 7,0 | 93,0 | 93,04 |
| 10 | 2,000 | 2,5 | 90,5 | 90,53 |
| 20 | 0,850 | 11,4 | 79,16 | 79,16 |
| 40 | 0,425 | 24,2 | 54,92 | 54,92 |
| 60 | 0,250 | 13,6 | 41,29 | 41,29 |
| 140 | 0,106 | 11,0 | 30,28 | 30,28 |
| 200 | 0,075 | 3,0 | 27,27 | 27,27 |
| Pan | | 27,27 | | |



ANALISA BUTIRAN

Tanggal : 04 Nopember 2016

Titik : BH 1
Kedalaman: 25 m



| No. Sieve | Ukuran Butiran (mm) | Berat Tertahan | Berat Lolos | Prosen Lolos |
|-----------|---------------------|----------------|-------------|--------------|
| 4 | 4,750 | 14,5 | 85,5 | 85,51 |
| 10 | 2,000 | 10,2 | 75,4 | 75,35 |
| 20 | 0,850 | 11,1 | 64,3 | 64,30 |
| 40 | 0,425 | 23,0 | 41,3 | 41,31 |
| 60 | 0,250 | 13,7 | 27,6 | 27,62 |
| 140 | 0,106 | 13,7 | 13,92 | 13,92 |
| 200 | 0,075 | 3,0 | 10,9 | 10,91 |
| Pan | | 10,9 | | |



BOR LOG

| | |
|--|---|
| CLIENT: | PROJECT TITLE : |
| PROJECT CONTRACT NUMBER: | PROJECT LOCATION : |
| DATE STARTED: | GROUND ELEVATION : - 0,50 m from road level |
| DATE COMPLETED : | HOLE SIZE : 7.295cm |
| DRILLING CONTRACTOR: SOIL MECH. LAB. UAJY | GROUND WATER LEVEL : - 6,00 m from ground level |
| DRILLING METHOD: ROTARY SPINDLE, SKID MOUNTED TYPE | WEATHER CONDITION : FINE |
| LOGGED BY: Mukarob, CS. | ESTIMATED SEASONAL HIGH : - |
| CHECKED BY: SOIL MECH. LAB, UAJY | |

| Depth (m) | Graph Log | Material Description (field observations) | Contact Depth (m) | Sample Number | Blow Counts (N Value) | | | | Water Level Elevation (m) | SPT Value | |
|-----------|-----------|---|-------------------|---------------|-----------------------|----------------|----------------|----------------|---------------------------|-----------|----|
| | | | | | N ₁ | N ₂ | N ₃ | N _v | | | |
| 1 | | Lanau lempung (coklat) | 2 | I | 1 | 2 | 2 | 4 | 6.00 | 0 | |
| 2 | | | | | 2 | 3 | 3 | 6 | | 1 | |
| 3 | | Lanau lempung (coklat, abu-abu) | 2 | | 3 | 4 | 6 | 10 | | 2 | |
| 4 | | | | | 3 | 5 | 7 | 12 | | 3 | |
| 5 | | Pasir lanau sedikit lempung (coklat) | 3,5 | II | 3 | 6 | 8 | 14 | | 4 | |
| 6 | | | | | 1 | 2 | 4 | 6 | | 5 | |
| 7 | | Pasir sedang (coklat, hitam) | 1 | | 2 | 3 | 5 | 8 | | 6 | |
| 8 | | | | | 2 | 4 | 4 | 8 | | 7 | |
| 9 | | Lanau lempung (coklat, hitam) | 7,5 | III | 3 | 4 | 6 | 10 | | 8 | |
| 10 | | | | | | | 5 | 7 | | 9 | 16 |
| 11 | | | | | | 6 | 8 | 12 | | 20 | 10 |
| 12 | | | | | | 7 | 11 | 20 | | 31 | 11 |
| 13 | | | | | | 7 | 11 | 22 | | 33 | 12 |
| 14 | | | | | | 7 | 12 | 24 | | 36 | 13 |
| 15 | | | | | | 8 | 12 | 23 | | 35 | 14 |
| 16 | | | | | | 9 | 14 | 27 | | 41 | 15 |
| 17 | | | | | | 9 | 13 | 28 | | 41 | 16 |
| 18 | | | | | | 10 | 17 | 31 | | 48 | 17 |
| 19 | | | | | | 12 | 18 | 30 | | 48 | 18 |
| 20 | | | | | | 12 | 18 | 32 | | 50 | 19 |
| 21 | | | | | | 12 | 17 | 33 | | 50 | 20 |
| 22 | | | | | | 11 | 19 | 33 | | 52 | 21 |
| 23 | | | | | | 12 | 20 | 32 | | 52 | 22 |
| 24 | | | | | | 12 | 21 | 34 | | 55 | 23 |
| 25 | | | | | 11 | 21 | 34 | 55 | 24 | | |
| 26 | | | | | 12 | 22 | 35 | 57 | 25 | | |
| 27 | | | | | | | | | 26 | | |
| 28 | | | | | | | | | 27 | | |
| 29 | | | | | | | | | 28 | | |
| 30 | | | | | | | | | 29 | | |
| 31 | | | | | | | | | 30 | | |
| 32 | | | | | | | | | 31 | | |
| 33 | | | | | | | 32 | | | | |
| 34 | | | | | | | 33 | | | | |
| 35 | | | | | | | 34 | | | | |
| 36 | | | | | | | 35 | | | | |
| 37 | | | | | | | 36 | | | | |
| 38 | | | | | | | 37 | | | | |
| 39 | | | | | | | 38 | | | | |
| 40 | | | | | | | 39 | | | | |

Catatan: Pada pengamatan di lapangan, lanau bisa tampak seperti pasir halus atau pasir sangat halus



REKAP HASIL PENGUJIAN TANAH

Proyek : Hotel Budget
Lokasi : Jl. Adisucipto No. 28 Manahan, Surakarta
Tanggal : 04 Nopember 2016

| Titik | Kedalaman (m) | Kadar Air (%) | Berat Jenis (G) | γ_b (gr/cm ³) | γ_k (gr/cm ³) | Pengujian Geser Langsung | |
|-------|---------------|---------------|-----------------|----------------------------------|----------------------------------|--------------------------|----------------|
| | | | | | | c (kg/cm ²) | θ° |
| BH 2 | 1,50 | 48,16 | 2,37 | 1,40 | 0,94 | 0,17 | 11,36 |
| | 7,00 | 60,74 | 2,55 | 1,65 | 1,03 | 0,06 | 13,50 |
| | 15,00 | 52,52 | 2,27 | 1,49 | 0,98 | 0,26 | 12,22 |
| | 18,00 | 36,93 | 2,38 | 1,43 | 1,04 | 0,29 | 14,30 |
| | 23,00 | 43,78 | 2,51 | 1,51 | 1,05 | 0,02 | 24,73 |
| | 30,00 | 42,32 | 2,40 | 1,59 | 1,12 | 0,02 | 23,76 |

Lab. Mekanika Tanah FT-UAJY,
Staf,

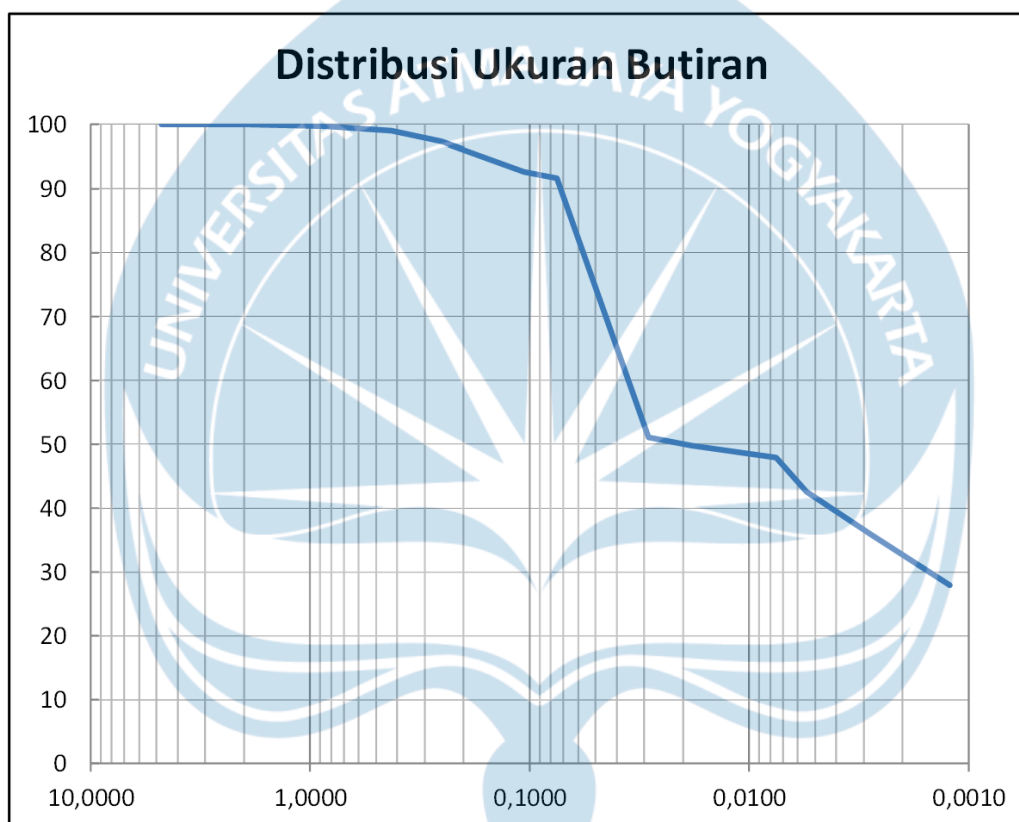
Oktoditya Ekaputra



ANALISA BUTIRAN

Tanggal : 04 Nopember 2016

Titik : BH 2
Kedalaman: 1,5 m



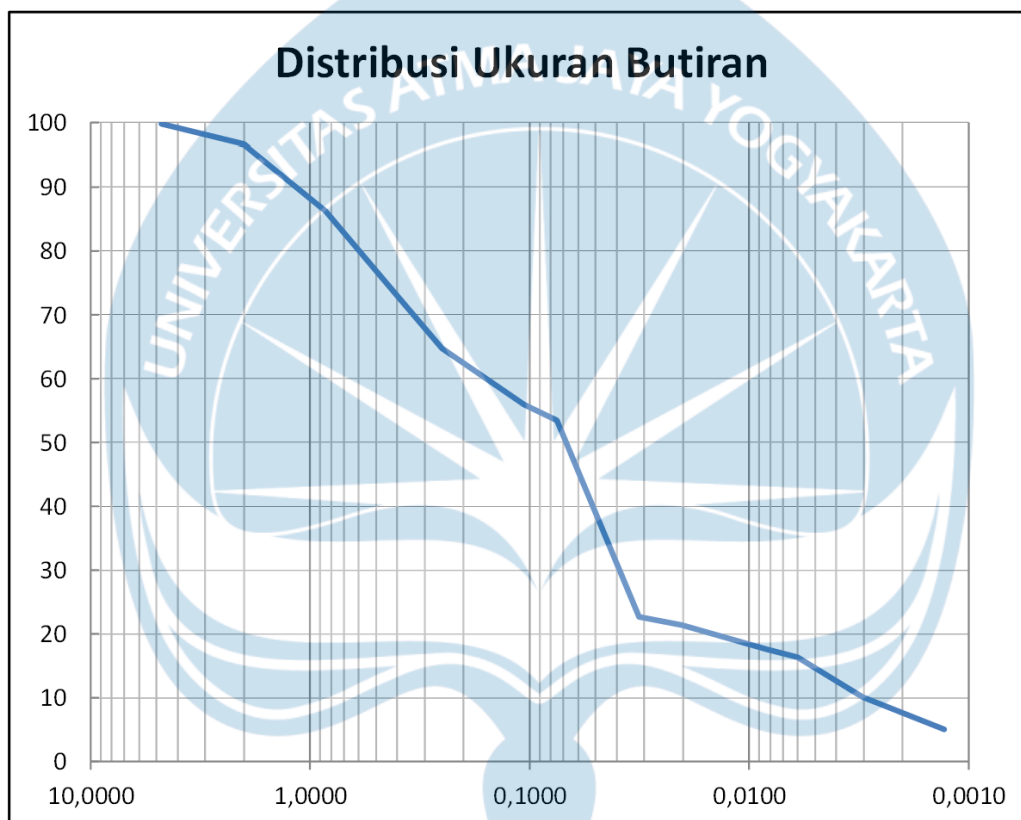
| No. Sieve | Ukuran Butiran (mm) | Berat Tertahan | Berat Lolos | Prosen Lolos |
|-----------|---------------------|----------------|-------------|--------------|
| 4 | 4,750 | 0,0 | 100,0 | 100,00 |
| 10 | 2,000 | 0,1 | 99,9 | 99,94 |
| 20 | 0,850 | 0,2 | 99,73 | 99,73 |
| 40 | 0,425 | 0,8 | 98,98 | 98,98 |
| 60 | 0,250 | 1,7 | 97,28 | 97,28 |
| 140 | 0,106 | 4,6 | 92,64 | 92,64 |
| 200 | 0,075 | 1,0 | 91,65 | 91,65 |
| Pan | | 91,65 | | |



ANALISA BUTIRAN

Tanggal : 04 Nopember 2016

Titik : BH 2
Kedalaman: 7 m



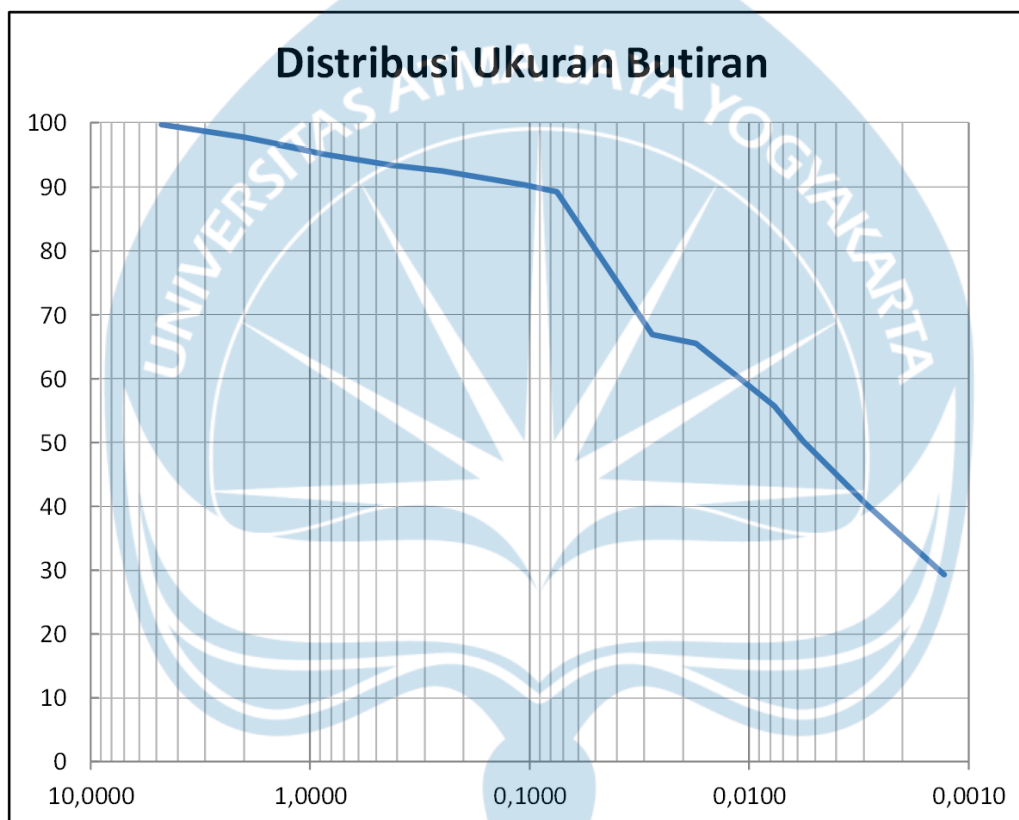
| No. Sieve | Ukuran Butiran (mm) | Berat Tertahan | Berat Lolos | Prosen Lolos |
|-----------|---------------------|----------------|-------------|--------------|
| 4 | 4,750 | 0,2 | 99,8 | 99,82 |
| 10 | 2,000 | 3,2 | 96,6 | 96,63 |
| 20 | 0,850 | 10,4 | 86,23 | 86,23 |
| 40 | 0,425 | 12,2 | 74,05 | 74,05 |
| 60 | 0,250 | 9,3 | 64,7 | 64,70 |
| 140 | 0,106 | 8,7 | 55,96 | 55,96 |
| 200 | 0,075 | 2,5 | 53,45 | 53,45 |
| Pan | | 53,45 | | |



ANALISA BUTIRAN

Tanggal : 04 Nopember 2016

Titik : BH 2
Kedalaman: 15 m



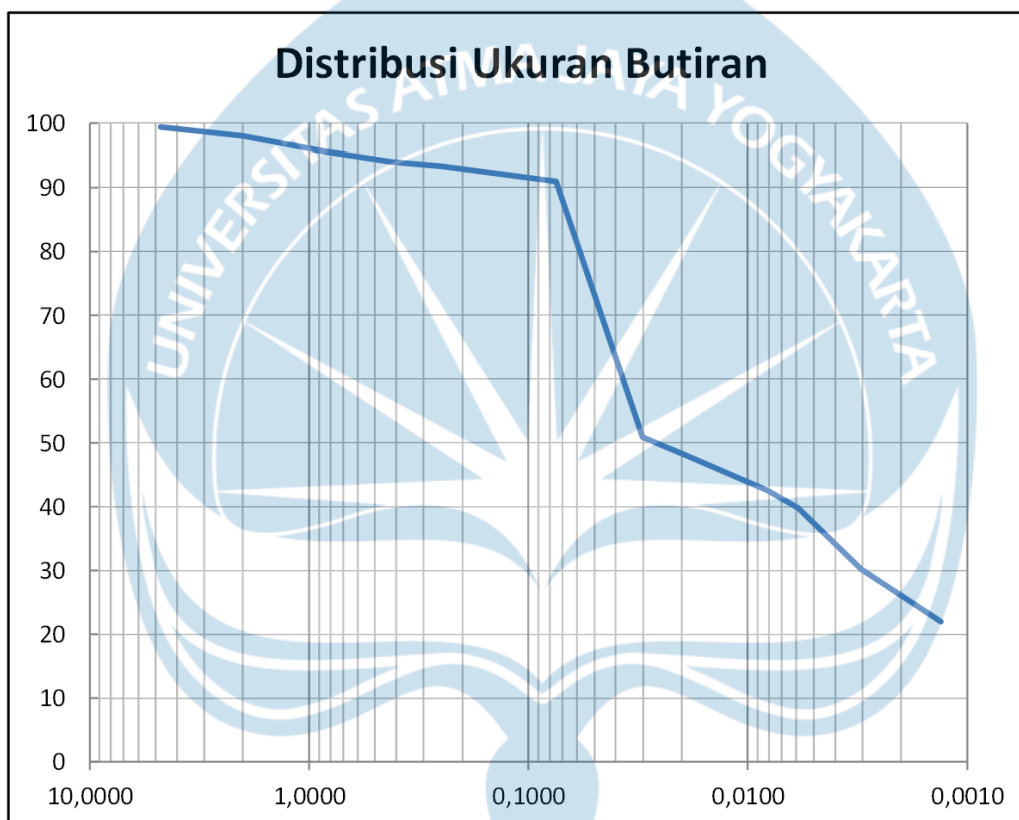
| No. Sieve | Ukuran Butiran (mm) | Berat Tertahan | Berat Lolos | Prosen Lolos |
|-----------|---------------------|----------------|-------------|--------------|
| 4 | 4,750 | 0,3 | 99,7 | 99,72 |
| 10 | 2,000 | 2,0 | 97,8 | 97,75 |
| 20 | 0,850 | 2,6 | 95,11 | 95,11 |
| 40 | 0,425 | 1,6 | 93,49 | 93,49 |
| 60 | 0,250 | 1,0 | 92,51 | 92,51 |
| 140 | 0,106 | 2,1 | 90,36 | 90,36 |
| 200 | 0,075 | 1,0 | 89,34 | 89,34 |
| Pan | | 89,34 | | |



ANALISA BUTIRAN

Tanggal : 04 Nopember 2016

Titik : BH 2
Kedalaman: 18 m



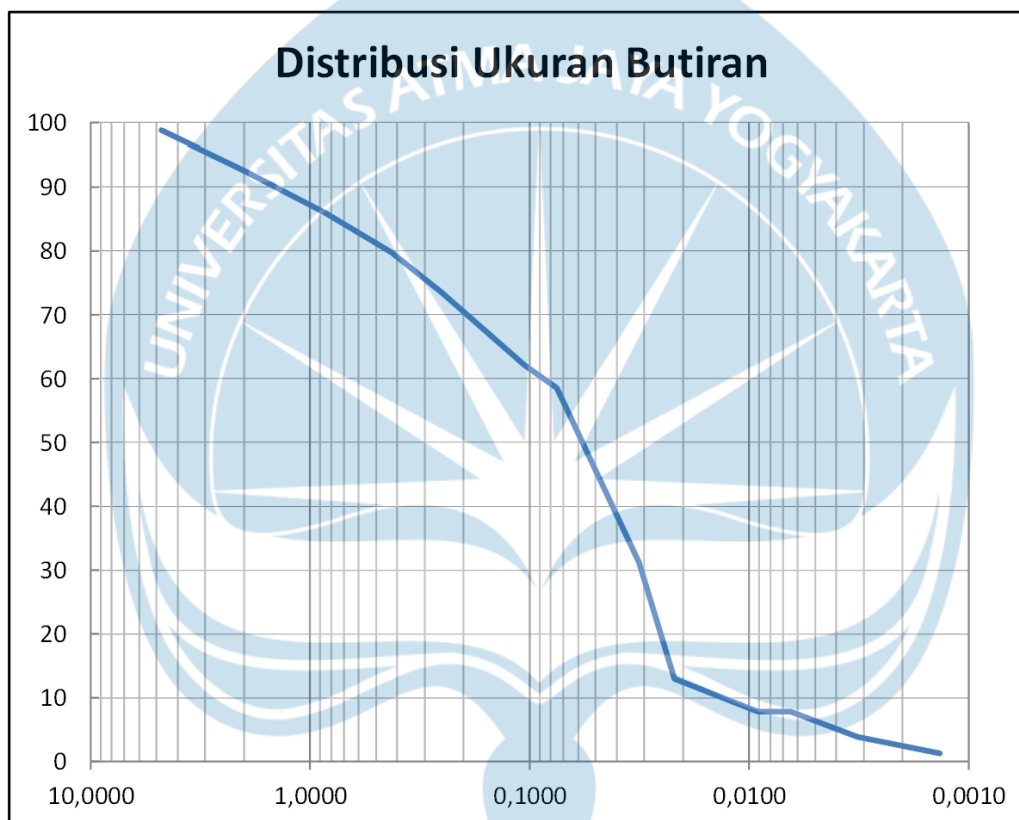
| No. Sieve | Ukuran Butiran (mm) | Berat Tertahan | Berat Lolos | Prosen Lolos |
|-----------|---------------------|----------------|-------------|--------------|
| 4 | 4,750 | 0,6 | 99,4 | 99,36 |
| 10 | 2,000 | 1,3 | 98,0 | 98,03 |
| 20 | 0,850 | 2,4 | 95,6 | 95,61 |
| 40 | 0,425 | 1,5 | 94,1 | 94,08 |
| 60 | 0,250 | 0,7 | 93,4 | 93,39 |
| 140 | 0,106 | 1,7 | 91,67 | 91,67 |
| 200 | 0,075 | 0,7 | 91,0 | 90,98 |
| Pan | | 91,0 | | |



ANALISA BUTIRAN

Tanggal : 04 Nopember 2016

Titik : BH 2
Kedalaman: 23 m



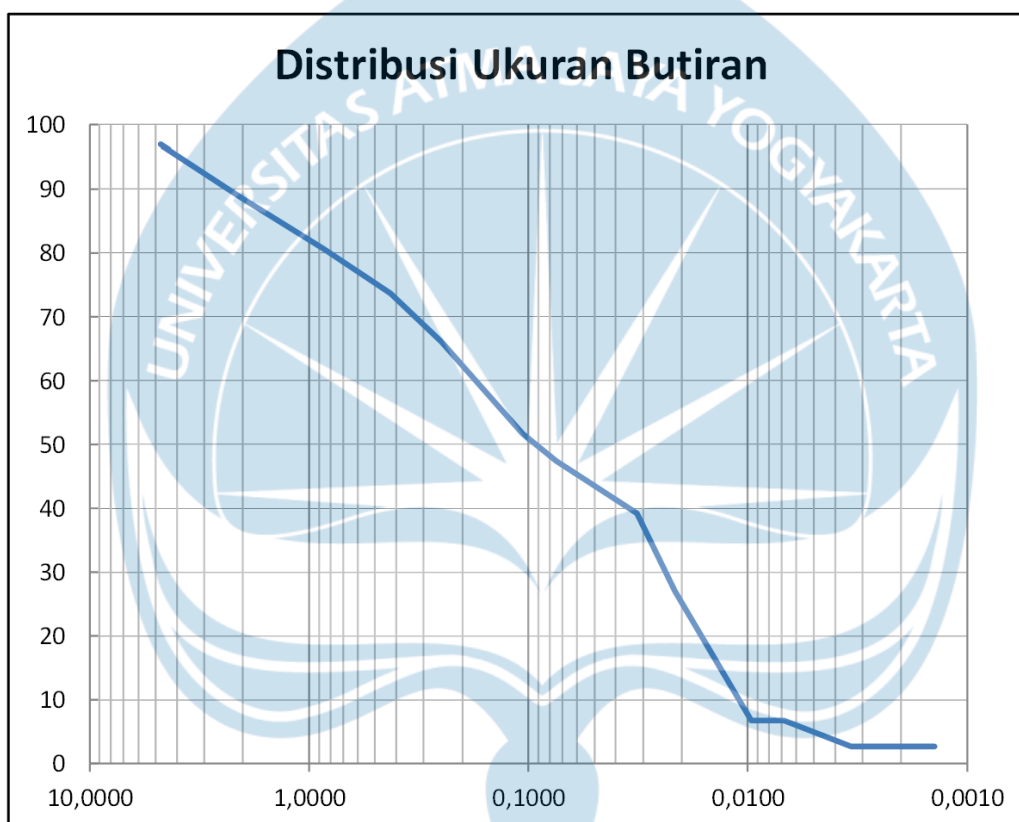
| No. Sieve | Ukuran Butiran (mm) | Berat Tertahan | Berat Lolos | Prosen Lolos |
|-----------|---------------------|----------------|-------------|--------------|
| 4 | 4,750 | 1,2 | 98,8 | 98,83 |
| 10 | 2,000 | 6,3 | 92,6 | 92,56 |
| 20 | 0,850 | 6,6 | 85,94 | 85,94 |
| 40 | 0,425 | 6,2 | 79,77 | 79,77 |
| 60 | 0,250 | 6,3 | 73,43 | 73,43 |
| 140 | 0,106 | 11,2 | 62,2 | 62,20 |
| 200 | 0,075 | 3,7 | 58,46 | 58,46 |
| Pan | | 58,46 | | |



ANALISA BUTIRAN

Tanggal : 04 Nopember 2016

Titik : BH 2
Kedalaman: 30 m



| No. Sieve | Ukuran Butiran (mm) | Berat Tertahan | Berat Lolos | Prosen Lolos |
|-----------|---------------------|----------------|-------------|--------------|
| 4 | 4,750 | 3,0 | 97,0 | 96,96 |
| 10 | 2,000 | 8,5 | 88,5 | 88,46 |
| 20 | 0,850 | 7,9 | 80,6 | 80,59 |
| 40 | 0,425 | 6,9 | 73,7 | 73,67 |
| 60 | 0,250 | 7,6 | 66,1 | 66,09 |
| 140 | 0,106 | 14,4 | 51,71 | 51,71 |
| 200 | 0,075 | 4,3 | 47,4 | 47,39 |
| Pan | | 47,4 | | |

Lampiran B. Luaran Program Komputer

Lampiran B. 2 Rekapitulasi Perhitungan Volume Dan RAB



| NO | URAIAN PEKERJAAN | VOLUME | SAT | HARGA SATUAN (Rp) | JUMLAH HARGA | JUMLAH |
|------------------------------|--|-------------|-----|-------------------|--------------------|---------------------------|
| 1 PEKERJAAN PERSIAPAN | | | | | | |
| 1 | pekerjaan pembersihan lahan | | | Rp185.811,78 | Rp1.565.278.426,30 | |
| 2 | Pembuatan pagar sementara dari seng glombang setinggi 2m | 8424 | m2 | Rp251.663,45 | Rp93.618.802,28 | |
| 3 | papan nama proyek | 372 | m | Rp550.278,45 | Rp467.736,68 | |
| 4 | Pengukuran dan pemasangan bouplank | 0,85 | m2 | Rp26.593,82 | Rp17.631.702,00 | |
| 5 | Pembuatan gudang sementara | 663 | m2 | Rp974.689,29 | Rp35.088.814,26 | Rp1.889.738.417,21 |
| 6 | Pembuatan pos jaga sementara | 36 | m2 | Rp974.689,29 | Rp8.772.203,57 | |
| 7 | pembuatan kantor sementara | 9 | m2 | Rp974.689,29 | Rp24.367.232,13 | |
| 9 | Penyediaan air dan listrik kerja | 25 | m2 | Rp50.000.000,00 | Rp50.000.000,00 | |
| 10 | mob demob | | ls | Rp20.000.000,00 | Rp20.000.000,00 | |
| 11 | K3 | | ls | Rp74.513.500,00 | Rp74.513.500,00 | |
| | | 1 | ls | | | |
| 2 PEKERJAAN TANAH | | | | | | |
| 1 | Pekerjaan galian basement | | | Rp136.134,81 | Rp720.425.389,37 | |
| 2 | Pekerjaan galian tanah pondasi footplat 5x5 (Basement dan Lantai 1) | 5292 | m3 | Rp134.508,32 | Rp1.506.493.228,80 | |
| 3 | Pekerjaan galian tanah pondasi footplat 3x3 (Basement dan Lantai 1) | 11200 | m3 | Rp134.508,32 | Rp116.215.191,94 | Rp4.268.765.448,66 |
| 4 | Pekerjaan urugan tanah kembali | 864 | m3 | Rp51.718,38 | Rp82.764.269,03 | |
| 6 | Pekerjaan membuang tanah menggunakan DT sejauh 15 m | 1600 | m3 | Rp106.180,42 | Rp1.842.867.369,52 | |
| | | 17356 | m3 | | | |
| 3 PEKERJAAN PONDASI | | | | | | |
| 1 | Pekerjaan pembesian pondasi footplat 5x5 | | | Rp32.941,75 | Rp1.996.847.638,80 | |
| 2 | Pekerjaan pemasangan bekisting pondasi footplat 5x5 | 60618 | kg | Rp117.574,56 | Rp210.693.616,00 | |
| 3 | Pengecoran beton K-300 menggunakan ready mix pondasi footplat 5x5 | 1792 | m3 | Rp1.436.467,42 | Rp3.086.572.728,06 | |
| 4 | Pekerjaan pembesian pondasi footplat 3x3 | 2148,7245 | m3 | Rp32.941,75 | Rp328.641.013,24 | |
| 5 | Pekerjaan pemasangan bekisting pondasi footplat 3x3 | 9976,428491 | kg | Rp117.574,56 | Rp25.960.463,40 | Rp8.321.656.769,45 |
| 6 | Pengecoran beton K-300 menggunakan ready mix pondasi footplat 3x3 | 220,8 | m3 | Rp1.436.467,42 | Rp237.879.003,92 | |
| 8 | Pekerjaan pembesian DPT | 165,6 | m3 | Rp32.941,75 | Rp346.030.573,55 | |
| 9 | Pekerjaan pemasangan bekisting DPT | 10504,31667 | kg | Rp117.574,56 | Rp70.121.469,08 | |
| 10 | Pengecoran beton K-300 DPT menggunakan ready mix | 596,4 | M2 | Rp1.436.467,42 | Rp856.709.166,31 | |
| 11 | Pekerjaan pembesian sloof | 596,4 | M3 | Rp32.941,75 | Rp192.116.286,00 | |
| 12 | Pekerjaan pemasangan bekisting sloof | 5832 | KG | Rp117.574,56 | Rp183.863.100,84 | |
| 13 | Pengecoran beton K-300 sloof menggunakan ready mix | 1563,8 | m3 | Rp1.436.467,42 | Rp786.221.710,25 | |
| | | 547,33 | m3 | | | |
| 4 BASEMENT | | | | | | |
| <i>Pekerjaan struktur</i> | | | | | | |
| <i>pekerjaan k1</i> | | | | | | |
| 1 | Pembesian K1 | | | Rp32.941,75 | Rp674.370.329,30 | |
| 2 | Pemasangan bekisting K1 | 20471,6 | kg | Rp117.574,56 | Rp51.356.568,90 | |
| 3 | Pengecoran beton K-300 K1 | 436,8 | m2 | Rp1.436.467,42 | Rp109.803.569,20 | |
| | | 76,44 | m3 | | | |
| <i>Pekerjaan BI</i> | | | | | | |
| 4 | pembesian ulir D25 balok induk | | | Rp32.941,75 | Rp144.581.340,75 | |
| 5 | pembesian ulir D10 balok induk | 4389 | kg | Rp35.756,35 | Rp51.596.415,94 | |
| 6 | pemasangan bekisting balok induk | 1443 | kg | Rp117.574,56 | Rp50.039.733,80 | |
| 7 | Pengecoran beton K-300 balok induk | 425,6 | m2 | Rp1.436.467,42 | Rp139.366.068,60 | |
| | | 97,02 | M3 | | | |
| <i>Pekerjaan BA</i> | | | | | | |
| 8 | pembesian ulir D22 balok anak | | | Rp134.167,60 | Rp1.115.737.778,23 | Rp4.263.481.072,07 |
| 9 | pembesian ulir D10 balok anak | 8316 | kg | Rp35.756,35 | Rp56.438.541,12 | |
| 10 | pemasangan bekisting balok anak | 1578,42 | kg | Rp117.574,56 | Rp79.750.825,74 | |
| 11 | Pengecoran beton K-300 balok anak | 678,3 | m2 | Rp1.436.467,42 | Rp64.102.358,39 | |

| | | | | | |
|----------|---|-----------|--------|----------------|--------------------|
| | Pekerjaan K.praktis | | | | |
| 12 | Pembesian kolom praktis | | | Rp32.941,75 | Rp5.402.447,00 |
| 13 | Pemasangan bekisting kolom praktis | 164 | kg | Rp117.574,56 | Rp2.633.670,20 |
| 14 | Pengecoran beton K-300 kolom praktis | 22,4 | m2 | Rp1.436.467,42 | Rp1.126.190,45 |
| | | 0,784 | m3 | | |
| | Pekerjaan Plat lantai | | | | |
| 15 | Pembesian plat lantai | | | Rp32.941,75 | Rp407.900.964,48 |
| 16 | Pemasangan bekisring plat lantai | 12382,49 | kg | Rp117.574,56 | Rp46.665.343,86 |
| 17 | Pengecoran beton K-300 plat lantai | 396,9 | m2 | Rp1.436.467,42 | Rp285.066.958,51 |
| | | 198,45 | m3 | | |
| | Pekerjaan dinding | | | | |
| 1 | Pemasangan dinding batako | | | Rp161.175,95 | Rp38.204.438,01 |
| 3 | Plesteran dinding | 237,0356 | m3 | Rp86.474,94 | Rp245.971.671,45 |
| 4 | Acian | 2844,4272 | m2 | Rp29.727,50 | Rp84.557.709,59 |
| 5 | Pengecatan dinding | 2844,4272 | m2 | Rp38.885,41 | Rp110.606.717,89 |
| | | 2844,4272 | m2 | | |
| | Pekerjaan Plafon | | | | |
| 1 | pemasangan rangka plafon | | | Rp139.828,50 | Rp37.753.695,00 |
| 2 | pemasangan plafon | 270 | batang | Rp73.051,74 | Rp96.647.448,71 |
| | | 1323 | m2 | | |
| | Pekerjaan lantai | | | | |
| 1 | Urukan pasir bawah lantai | 1323 | m2 | Rp19.216,50 | Rp25.423.429,50 |
| | Pekerjaan keramik | | | | |
| | Pekerjaan pasang keramik lantai 40 x 40 | 1323 | m2 | Rp216.362,70 | Rp286.247.847,14 |
| | Pasang keramik lantai (Kamar mandi 20x20) | 119 | m2 | Rp216.362,70 | Rp25.747.160,85 |
| | Pemasangan Plint keramik | 204 | m2 | Rp103.868,36 | Rp21.189.144,73 |
| | Pemasangan setengah dinding keramik kamar mandi | 24 | m2 | Rp216.362,70 | Rp5.192.704,71 |
| | | | | | |
| 5 | LANTAI 1 | | | | |
| | Pekerjaan struktur | | | | |
| | Pekerjaan K1 | | | | |
| 1 | Pembesian K1 | 20471,6 | kg | Rp32.941,75 | Rp674.370.329,30 |
| 2 | Pemasangan bekisting K1 | 1713,6 | m2 | Rp117.574,56 | Rp201.475.770,30 |
| 3 | Pengecoran beton K-300 K1 | 299,88 | m3 | Rp1.436.467,42 | Rp430.767.848,41 |
| | Pekerjaan BI | | | | |
| 4 | pembesian ulir D25 balok induk | 23192,4 | kg | Rp32.941,75 | Rp763.998.242,70 |
| 5 | pembesian ulir D10 balok induk | 4939,08 | kg | Rp35.756,35 | Rp176.603.483,04 |
| 6 | pemasangan bekisting balok induk | 2285,7 | m2 | Rp117.574,56 | Rp268.740.177,51 |
| 7 | Pengecoran beton K-300 balok induk | 252,546 | m3 | Rp1.436.467,42 | Rp362.774.099,79 |
| | Pekerjaan BA | | | | |
| | pembesian ulir D22 balok anak | 8316 | kg | Rp134.167,60 | Rp1.115.737.778,23 |
| | pembesian ulir D10 balok anak | 1578,42 | kg | Rp35.756,35 | Rp56.438.541,12 |
| | pemasangan bekisting balok anak | 916,3 | m2 | Rp117.574,56 | Rp107.733.571,62 |
| | Pengecoran beton K-300 balok anak | 87,125 | m3 | Rp1.436.467,42 | Rp125.152.223,53 |
| | Pekerjaan K praktis | | | | |
| 8 | Pembesian kolom praktis | 492 | kg | Rp32.941,75 | Rp16.207.341,00 |
| 9 | Pemasangan bekisting kolom praktis | 67,2 | m2 | Rp117.574,56 | Rp7.901.010,60 |
| 10 | Pengecoran beton kolom praktis | 2,352 | m3 | Rp1.436.467,42 | Rp3.378.571,36 |
| | Pekerjaan Plat lantai | | | | |
| 14 | Pembesian plat lantai | 21953,95 | kg | Rp32.941,75 | Rp723.201.522,40 |
| 15 | Pemasangan bekisring plat lantai | 1284,9 | m2 | Rp117.574,56 | Rp151.071.555,36 |
| 16 | Pengecoran beton K-300 plat lantai | 642,45 | m3 | Rp1.436.467,42 | Rp922.858.490,77 |

Rp8.036.484.404,50

| | | | | | | |
|----------|---|----------|--------|----------------|--------------------|---------------------------|
| | Pekerjaan dinding | | | | | |
| 1 | Pemasangan dinding batako | 237,0356 | m3 | Rp161.175,95 | Rp38.204.438,01 | |
| 3 | Plesteran dinding | 3132 | m2 | Rp86.474,94 | Rp270.839.512,08 | |
| 4 | Acian | 3132 | m2 | Rp29.727,50 | Rp93.106.530,00 | |
| 5 | Pengecatan dinding | 3132 | m2 | Rp38.885,41 | Rp121.789.104,12 | |
| | | | | | | |
| | Pekerjaan Plafon | | | | | |
| 1 | pasangan rangka plafon | 336 | batang | Rp139.828,50 | Rp46.982.376,00 | |
| 2 | pasangan plafon | 4.283 | m2 | Rp73.051,74 | Rp312.880.591,71 | |
| | | | | | | |
| | Pekerjaan lantai | | | | | |
| 1 | Urukan pasir bawah lantai | 2.960 | m3 | Rp19.216,50 | Rp56.880.840,00 | |
| | | | | | | |
| | Pekerjaan keramik | | | | | |
| | Pekerjaan pasang keramik lantai 40 x 40 | 4.283 | m2 | Rp216.362,70 | Rp926.681.428,04 | |
| | Pasang keramik lantai (Kamar mandi 20x20) | 75 | m2 | Rp216.362,70 | Rp16.227.202,22 | |
| | Pemasangan Plint keramik | 78 | m2 | Rp103.868,36 | Rp8.132.892,31 | |
| | Pemasangan setengah dinding keramik kamar mandi | 168 | m2 | Rp216.362,70 | Rp36.348.932,97 | |
| | | | | | | |
| 6 | LANTAI 2 | | | | | |
| | Pekerjaan struktur | | | | | |
| | Pekerjaan K2 | | | | | |
| 1 | Pembesian K2 | 20471 | kg | Rp32.941,75 | Rp674.350.564,25 | |
| 2 | Pemasangan bekisting K2 | 1176 | m2 | Rp117.574,56 | Rp138.267.685,50 | |
| 3 | Pengecoran beton K-300 K2 | 205,8 | m3 | Rp1.436.467,42 | Rp295.624.994,01 | |
| | | | | | | |
| | Pekerjaan BI | | | | | |
| 4 | pembesian ulir D25 balok induk | 23053,8 | kg | Rp32.941,75 | Rp759.432.516,15 | |
| 5 | pembesian ulir D10 balok induk | 4901,16 | kg | Rp35.756,35 | Rp175.247.602,17 | |
| 6 | pasangan bekisting balok induk | 2268,6 | m2 | Rp117.574,56 | Rp266.729.652,49 | |
| 7 | Pengecoran beton K-300 balok induk | 250,656 | m3 | Rp1.436.467,42 | Rp360.059.176,37 | |
| | | | | | | |
| | Pekerjaan BA | | | | | |
| | pembesian ulir D22 balok anak | 16170 | kg | Rp32.941,75 | Rp532.668.097,50 | |
| | pembesian ulir D10 balok anak | 3076,26 | kg | Rp35.756,35 | Rp109.995.835,40 | Rp8.818.700.525,95 |
| | pasangan bekisting balok anak | 916,3 | m2 | Rp117.574,56 | Rp107.733.571,62 | |
| | Pengecoran beton K-300 balok anak | 43,5 | m3 | Rp1.436.467,42 | Rp62.486.332,55 | |
| | | | | | | |
| | Pekerjaan K. Praktis | | | | | |
| 8 | Pembesian kolom praktis | 410 | kg | Rp32.941,75 | Rp13.506.117,50 | |
| 9 | Pemasangan bekisting kolom praktis | 56 | m2 | Rp117.574,56 | Rp6.584.175,50 | |
| 10 | Pengecoran beton kolom praktis | 1,96 | m3 | Rp1.436.467,42 | Rp2.815.476,13 | |
| | | | | | | |
| | Pekerjaan Plat lantai | | | | | |
| 14 | Pembesian plat lantai | 21953,95 | kg | Rp117.574,56 | Rp2.581.226.030,65 | |
| 15 | Pemasangan bekisting plat lantai | 1284,9 | m2 | Rp117.574,56 | Rp151.071.555,36 | |
| 16 | Pengecoran beton K-300 plat lantai | 642,45 | m3 | Rp1.436.467,42 | Rp922.858.490,77 | |
| | | | | | | |
| | Pekerjaan dinding | | | | | |
| 1 | Pemasangan dinding batako | 237,0356 | m3 | Rp161.175,95 | Rp38.204.438,01 | |
| 3 | Plesteran dinding | 3132 | m2 | Rp86.474,94 | Rp270.839.512,08 | |
| 4 | Acian | 3132 | m2 | Rp29.727,50 | Rp93.106.530,00 | |
| 5 | Pengecatan dinding | 3132 | m2 | Rp38.885,41 | Rp121.789.104,12 | |
| | | | | | | |
| | Pekerjaan Plafon | | | | | |
| 1 | pasangan rangka plafon | 336 | batang | Rp139.828,50 | Rp46.982.376,00 | |
| 2 | pasangan plafon | 4.283 | m2 | Rp73.051,74 | Rp312.880.591,71 | |
| | | | | | | |
| | Pekerjaan Keramik | | | | | |
| 1 | Pekerjaan pasang keramik lantai 40 x 40 | 3.500 | | Rp216.362,70 | Rp757.269.436,88 | |
| | Pasang keramik lantai (Kamar mandi 20x20) | 16 | | Rp216.362,70 | Rp3.461.803,14 | |
| | Pemasangan Plint keramik | 63 | | Rp103.868,36 | Rp6.585.253,80 | |
| | Pemasangan setengah dinding keramik kamar mandi | 32 | | Rp216.362,70 | Rp6.923.606,28 | |
| | | | | | | |
| 7 | LANTAI 3 | | | | | |
| | Pekerjaan struktur | | | | | |
| | Pekerjaan K1 | | | | | |
| 1 | Pembesian K2 | 20471 | kg | Rp32.941,75 | Rp674.350.564,25 | |
| 2 | Pemasangan bekisting K2 | 916,3 | m2 | Rp117.574,56 | Rp107.733.571,62 | |
| 3 | Pengecoran beton K-300 K2 | 205,8 | m3 | Rp1.436.467,42 | Rp295.624.994,01 | |

| | | | | | |
|---|---|------------|--------|----------------|--------------------|
| Pekerjaan Bi | | | | | |
| 4 | pembesian ulir D25 balok induk | 13675,2 | kg | Rp32.941,75 | Rp450.485.019,60 |
| 5 | pembesian ulir D10 balok induk | 2905,62 | kg | Rp35.756,35 | Rp103.894.371,50 |
| 6 | pasangan bekisting balok induk | 1343,3 | m2 | Rp117.574,56 | Rp157.937.909,81 |
| 7 | Pengecoran beton K-300 balok induk | 148,47 | m3 | Rp1.436.467,42 | Rp213.272.317,11 |
| Pekerjaan Ba | | | | | |
| | pembesian ulir D22 balok anak | 11226,6 | kg | Rp32.941,75 | Rp369.823.850,55 |
| | pembesian ulir D10 balok anak | 2137,74 | kg | Rp35.756,35 | Rp76.437.783,92 |
| | pasangan bekisting balok anak | 919,6 | m2 | Rp117.574,56 | Rp108.121.567,68 |
| | Pengecoran beton K-300 balok anak | 919,6 | m3 | Rp1.436.467,42 | Rp1.320.975.434,83 |
| Pekerjaan K. Praktis | | | | | |
| 8 | Pembesian kolom praktis | 328 | kg | Rp32.941,75 | Rp10.804.894,00 |
| 9 | Pemasangan bekisting kolom praktis | 44,8 | m2 | Rp117.574,56 | Rp5.267.340,40 |
| 10 | Pengecoran beton kolom praktis | 1,568 | m3 | Rp1.436.467,42 | Rp2.252.380,91 |
| Pekerjaan Plat lantai | | | | | |
| 14 | Pembesian plat lantai | 18294,96 | m2 | Rp32.941,75 | Rp602.667.935,33 |
| 15 | Pemasangan bekisring plat lantai | 1274,208 | m3 | Rp1.436.467,42 | Rp1.830.358.271,93 |
| 16 | Pengecoran beton K-300 plat lantai | 331 | | Rp1.436.467,42 | Rp475.470.714,37 |
| Pekerjaan dinding | | | | | |
| 1 | Pemasangan dinding batako | 237,0356 | m2 | Rp161.175,95 | Rp38.204.438,01 |
| 3 | Plesteran dinding | 3132 | m2 | Rp86.474,94 | Rp270.839.512,08 |
| 4 | Acian | 3132 | m2 | Rp29.727,50 | Rp93.106.530,00 |
| 5 | Pengecatan dinding | 3132 | m2 | Rp38.885,41 | Rp121.789.104,12 |
| Pekerjaan Plafon | | | | | |
| 1 | pasangan rangka plafon | 336 | batang | Rp139.828,50 | Rp46.982.376,00 |
| 2 | pasangan plafon | 4.247 | m2 | Rp73.051,74 | Rp310.277.027,79 |
| Pekerjaan keramik | | | | | |
| 1 | Pekerjaan pasang keramik lantai 40 x 40 | 3.345 | m2 | Rp216.362,70 | Rp723.733.218,96 |
| | Pasang keramik lantai (Kamar mandi 20x20) | 16 | m2 | Rp216.362,70 | Rp3.461.803,14 |
| | Pemasangan Plint keramik | 49 | m2 | Rp103.868,36 | Rp5.058.388,96 |
| | Pemasangan setengah dinding keramik kamar mandi | 32 | m2 | Rp216.362,70 | Rp6.923.606,28 |
| 8 LANTAI 4 | | | | | |
| Pekerjaan struktur | | | | | |
| Pekerjaan K2 | | | | | |
| 1 | Pembesian K2 | 14917,2 | kg | Rp32.941,75 | Rp491.398.673,10 |
| 2 | Pemasangan bekisting K2 | 313,6 | m2 | Rp117.574,56 | Rp36.871.382,80 |
| 3 | Pengecoran beton K-300 K2 | 205,8 | m3 | Rp1.436.467,42 | Rp295.624.994,01 |
| Pekerjaan Dak beton | | | | | |
| 7 | Pembesian dak beton | 1054 | kg | Rp32.941,75 | Rp34.720.604,50 |
| 8 | Pemasangan bekisting dak beton | 18,984 | m2 | Rp117.574,56 | Rp2.232.035,49 |
| 9 | Pengecoran beton K-300 dak beton | 4,788 | m3 | Rp1.436.467,42 | Rp6.877.805,98 |
| Pekerjaan dinding | | | | | |
| 1 | Pemasangan dinding batako | 78,4 | m2 | Rp161.175,95 | Rp12.636.194,48 |
| | Plesteran dinding | 1568 | m2 | Rp86.474,94 | Rp135.592.705,92 |
| 4 | Acian | 1568 | m2 | Rp29.727,50 | Rp46.612.720,00 |
| 5 | Pengecatan dinding | 1568 | m2 | Rp38.885,41 | Rp60.972.322,88 |
| | Pemasangan Plint keramik | 48,7 | m2 | Rp103.868,36 | Rp5.058.388,96 |
| Pekerjaan Plafon | | | | | |
| 1 | pasangan rangka plafon | 150 | batang | Rp139.828,50 | Rp20.974.275,00 |
| 2 | pasangan plafon | 883 | m2 | Rp73.051,74 | Rp64.504.684,21 |
| Pekerjaan lantai | | | | | |
| 1 | Pemasangan kramik | 196 | m2 | Rp216.362,70 | Rp42.407.088,47 |
| Pekerjaan Atap | | | | | |
| 1 | Pemasangan kuda-kuda baja 2L 90 x 90 | 2390,85 | kg | Rp43.004,60 | Rp102.817.535,96 |
| 2 | Pemasangan gording C 150 x 65 x 20 | 2217,6 | kg | Rp46.678,50 | Rp103.514.241,60 |
| 3 | Pemasangan atap galvalum | 98 | kg | Rp155.112,00 | Rp15.200.976,00 |
| pekerjaan tangga | | | | | |
| | Pembesian tangga | 6637,33764 | kg | Rp32.941,75 | Rp218.645.517,20 |
| | Pemasangan bekisting tangga | 682 | m2 | Rp117.574,56 | Rp80.185.851,63 |
| | Pengecoran beton K-300 tangga | 43,7385 | m3 | Rp1.436.467,42 | Rp62.828.930,03 |
| Pekerjaan pemasangan pintu dan jendela | | | | | |
| | Pemasangan Pintu kamar mandi | 6 | Buah | Rp175.000,00 | Rp1.050.000,00 |
| | Pemasangan Pintu dan jendela kaca | 12 | Buah | Rp769.561,83 | Rp9.234.741,96 |
| | Pemasangan Jendela kaca | 73 | Buah | Rp520.000,00 | Rp37.960.000,00 |
| | Pemasangan pintu kayu | 12 | Buah | Rp579.452,23 | Rp6.953.426,70 |
| | Pemasangan Pintu kaca | 12 | Buah | Rp350.000,00 | Rp4.200.000,00 |



Lampiran B. Luaran Program Komputer

Lampiran B. 3 Rekapitulasi Perhitungan Durasi

| No | JENIS PEKERJAAN | KODE & URAIAN | SAT | KOEf | DURASI | VOL. PEK m3 | Jumlah Pekerja | | JUM. TUKANG |
|----|---|-------------------------|------|-------|--------|-------------|----------------|------------|---------------|
| | | | | | | | Kotor | Pembulatan | Sesuai durasi |
| a | b | c | d | e | f | g | | | |
| 1 | Pembersihan lahan | | | | 20 | 8424 | | | |
| | | oprator alat berat | OH | 0,005 | | | 2,106 | | 2 |
| | | Mandor | OH | 0,001 | | | 0,4212 | | 1 |
| | | buldozer | hari | 0,005 | | | 2,106 | | 2 |
| 2 | Pembuatan pagar sementara | | | | 10 | 372 | | | |
| | | Pekeja | OH | 0,4 | | | 14,88 | | 14 |
| | | Tukang Kayu | OH | 0,2 | | | 7,44 | | 7 |
| | | Kepala tukang kayu | OH | 0,02 | | | 0,744 | | 1 |
| | | Mandor | OH | 0,02 | | | 0,744 | | 1 |
| 3 | Pengukuran dan Pemasangan bouplank | | | | 10 | 663 | | | |
| | | Pekeja | OH | 0,1 | | | 6,63 | | 7 |
| | | Tukang kayu | OH | 0,1 | | | 6,63 | | 7 |
| | | Mandor | OH | 0,005 | | | 0,3315 | | 1 |
| 4 | Pembuatan Gudang Sementara | | | | 10 | 42 | | | |
| | | Pekeja | OH | 2 | | | 8,4 | | 20 |
| | | Kepala tukang | OH | 0,3 | | | 1,26 | | |
| | | Tukang batu | OH | 1 | | | 4,2 | | |
| | | Tukang kayu | OH | 2 | | | 8,4 | | |
| | | Mandor | OH | 0,1 | | | 0,42 | | |
| 5 | pembuatan pos jaga sementara | | | | 5 | 9 | | | |
| | | Pekeja | OH | 2 | | | 3,6 | | |
| | | Kepala tukang | OH | 0,3 | | | 0,54 | | |
| | | Tukang batu | OH | 1 | | | 1,8 | | |
| | | Tukang kayu | OH | 2 | | | 3,6 | | |
| | | Mandor | OH | 0,1 | | | 0,18 | | |
| | pembuatan kantor sementara | | | | 7 | 25 | | | |
| | | Pekeja | OH | 2 | | | 7,142857 | | |
| | | Kepala tukang | OH | 0,3 | | | 1,071429 | | |
| | | Tukang batu | OH | 1 | | | 3,571429 | | |
| | | Tukang kayu | OH | 2 | | | 7,142857 | | |
| | | Mandor | OH | 0,1 | | | 0,357143 | | |
| | Pekerjaan Galian Basement | | | | 50 | 5292 | | | |
| | | Pekeja | OH | 0,75 | | | 79,38 | | |
| | | Oprator alat berat | OH | 0,03 | | | 3,1752 | | |
| | | Mandor | OH | 0,025 | | | 2,646 | | |
| | Pekerjaan galian pondasi footplat 5x5 | | | | 50 | 12600 | | | |
| | | Oprator alat berat | OH | 0,03 | | | 7,56 | | |
| | | Mandor | OH | 0,025 | | | 6,3 | | |
| | | Excavator Backhoe (E10) | hari | 0,03 | | | 7,56 | | |
| | Pekerjaan galian pondasi footplat 3x3 | | | | 10 | 931,5 | | | |
| | | Oprator alat berat | OH | 0,03 | | | 2,7945 | | |
| | | Mandor | OH | 0,025 | | | 2,32875 | | |
| | | Excavator Backhoe (E10) | hari | 0,03 | | | 2,7945 | | |
| | Pekerjaan urugan tanah kembali | | | | 20 | 1050 | | | |
| | | Pekeja | OH | 1,05 | | | 55,125 | | |
| | | Mandor | OH | 0,067 | | | 3,5175 | | |
| | Pekerjaan memadatkan tanah m2 | | | | 10 | 6630 | | | |
| | | Pekeja | OH | 0,25 | | | | | |
| | | Mandor | OH | 0,01 | | | 6,63 | | |
| | Pekerjaan membuang tanah menggunakan DT sejauh 15 m | | | | 20 | 6630 | | | |
| | | Sopir | OH | 0,005 | | | 1,6575 | | |
| | | Mobil DT | | 0,005 | | | 1,6575 | | |

| PEKERJAAN PONDASI | | | | | | | | | |
|---|--------------------|----|-------|--|----|----------|----------|--|--|
| Pekerjaan pembesian pondasi footplat 5x5 | | | | | 5 | 829,7055 | | | |
| | Pekeja | OH | 0,08 | | | | 13,27529 | | |
| | tukang besi | OH | 0,04 | | | | 6,637644 | | |
| | kepala tukang besi | OH | 0,004 | | | | 0,663764 | | |
| | Mandor | OH | 0,008 | | | | 1,327529 | | |
| Pekerjaan pemasangan bekisting pondasi footplat 5x5 | | | | | 20 | 1792 | | | |
| | Pekerja | OH | 0,52 | | | | 46,592 | | |
| | Tukang kayu kasar | OH | 0,26 | | | | 23,296 | | |
| | Kepala tukang | OH | 0,026 | | | | 2,3296 | | |
| | Mandor | OH | 0,026 | | | | 2,3296 | | |
| Pengecoran beton K-300 menggunakan ready mix pondasi footplat 5x5 | | | | | 10 | 1792 | | | |
| | Pekeja | | 0,248 | | | | 44,4416 | | |
| | Mandor | | 0,013 | | | | 2,3296 | | |
| Pekerjaan pembesian pondasi footplat 3x3 | | | | | 5 | 177 | | | |
| | Pekeja | OH | 0,08 | | | | 2,832 | | |
| | tukang besi | OH | 0,04 | | | | 1,416 | | |
| | kepala tukang besi | OH | 0,004 | | | | 0,1416 | | |
| | Mandor | OH | 0,008 | | | | 0,2832 | | |
| Pekerjaan pemasangan bekisting pondasi footplat 3X3 | | | | | 10 | 220,8 | | | |
| | Pekerja | OH | 0,52 | | | | 11,4816 | | |
| | Tukang kayu kasar | OH | 0,26 | | | | 5,7408 | | |
| | Kepala tukang | OH | 0,026 | | | | 0,57408 | | |
| | Mandor | OH | 0,026 | | | | 0,57408 | | |
| Pengecoran beton K-300 menggunakan ready mix pondasi footplat 3X3 | | | | | 5 | 165,6 | | | |
| | Pekeja | OH | 0,248 | | | | 8,21376 | | |
| | Mandor | OH | 0,013 | | | | 0,43056 | | |
| Pekerjaan pembesian DPT | | | | | 10 | 1192 | | | |
| | Pekeja | OH | 0,08 | | | | 9,536 | | |
| | tukang besi | OH | 0,04 | | | | 4,768 | | |
| | kepala tukang besi | OH | 0,004 | | | | 0,4768 | | |
| | Mandor | OH | 0,008 | | | | 0,9536 | | |
| Pekerjaan pemasangan bekisting DPT | | | | | 20 | 1193,2 | | | |
| | Pekerja | OH | 0,52 | | | | 31,0232 | | |
| | Tukang kayu kasar | OH | 0,26 | | | | 15,5116 | | |
| | Kepala tukang | OH | 0,026 | | | | 1,55116 | | |
| | Mandor | OH | 0,026 | | | | 1,55116 | | |
| Pengecoran beton K-300 DPT menggunakan ready mix | | | | | 10 | 596,6 | | | |
| | Pekeja | OH | 0,248 | | | | 14,79568 | | |
| | Mandor | OH | 0,013 | | | | 0,77558 | | |
| Pekerjaan pembesian sloof | | | | | 5 | 548 | | | |
| | Pekeja | OH | 0,08 | | | | 8,768 | | |
| | tukang besi | OH | 0,04 | | | | 4,384 | | |
| | kepala tukang besi | OH | 0,004 | | | | 0,4384 | | |
| | Mandor | OH | 0,008 | | | | 0,8768 | | |
| Pekerjaan pemasangan bekisting sloof | | | | | 20 | 1563,8 | | | |
| | Pekerja | OH | 0,52 | | | | 40,6588 | | |
| | Tukang kayu kasar | OH | 0,26 | | | | 20,3294 | | |
| | Kepala tukang | OH | 0,026 | | | | 2,03294 | | |
| | Mandor | OH | 0,026 | | | | 2,03294 | | |
| Pengecoran beton K-300 sloof menggunakan ready mix | | | | | 10 | 547 | | | |
| | Pekeja | OH | 0,248 | | | | 13,5656 | | |
| | Mandor | OH | 0,013 | | | | 0,7111 | | |

| BASEMENT | | | | | | | |
|--------------------------------------|--------------------|----|-------|----|--------|----------|--|
| Pembesian K1 | | | | 5 | 76,44 | | |
| | Pekeja | OH | 0,08 | | | 1,22304 | |
| | tukang besi | OH | 0,04 | | | 0,61152 | |
| | kepala tukang besi | OH | 0,004 | | | 0,061152 | |
| | Mandor | OH | 0,008 | | | 0,122304 | |
| Pemasangan bekisting K1 | | | | 10 | 436,8 | | |
| | Pekerja | OH | 0,52 | | | 22,7136 | |
| | Tukang kayu kasar | OH | 0,26 | | | 11,3568 | |
| | Kepala tukang | OH | 0,026 | | | 1,13568 | |
| | Mandor | OH | 0,026 | | | 1,13568 | |
| Pengecoran beton K-300 K1 | | | | 3 | 74,66 | | |
| | Pekeja | OH | 0,248 | | | 6,171893 | |
| | Mandor | OH | 0,013 | | | 0,323527 | |
| pembesian ulir balok induk | | | | 3 | 98 | | |
| | Pekeja | OH | 0,08 | | | 2,613333 | |
| | tukang besi | OH | 0,04 | | | 1,306667 | |
| | kepala tukang besi | OH | 0,004 | | | 0,130667 | |
| | Mandor | OH | 0,008 | | | 0,261333 | |
| pemasangan bekisting balok induk | | | | 10 | 425 | | |
| | Pekerja | OH | 0,52 | | | 22,1 | |
| | Tukang kayu kasar | OH | 0,26 | | | 11,05 | |
| | Kepala tukang | OH | 0,026 | | | 1,105 | |
| | Mandor | OH | 0,026 | | | 1,105 | |
| Pengecoran beton K-300 balok induk | | | | 5 | 47,04 | | |
| | Pekeja | OH | 0,248 | | | 2,333184 | |
| | Mandor | OH | 0,013 | | | 0,122304 | |
| pembesian balok anak | | | | 3 | 87 | | |
| | Pekeja | OH | 0,08 | | | 2,32 | |
| | tukang besi | OH | 0,04 | | | 1,16 | |
| | kepala tukang besi | OH | 0,004 | | | 0,116 | |
| | Mandor | OH | 0,008 | | | 0,232 | |
| pemasangan bekisting balok anak | | | | 5 | 678 | | |
| | Pekerja | OH | 0,52 | | | 70,512 | |
| | Tukang kayu kasar | OH | 0,26 | | | 35,256 | |
| | Kepala tukang | OH | 0,026 | | | 3,5256 | |
| | Mandor | OH | 0,026 | | | 3,5256 | |
| Pengecoran beton K-300 balok anak | | | | 5 | 45 | | |
| | Pekeja | OH | 0,248 | | | 2,232 | |
| | Mandor | OH | 0,013 | | | 0,117 | |
| Pembesian kolom praktis | | | | 1 | 3 | | |
| | Pekeja | OH | 0,08 | | | 0,24 | |
| | tukang besi | OH | 0,04 | | | 0,12 | |
| | kepala tukang besi | OH | 0,004 | | | 0,012 | |
| | Mandor | OH | 0,008 | | | 0,024 | |
| Pemasangan bekisting kolom praktis | | | | 3 | 22,4 | | |
| | Pekerja | OH | 0,52 | | | 3,882667 | |
| | Tukang kayu kasar | OH | 0,26 | | | 1,941333 | |
| | Kepala tukang | OH | 0,026 | | | 0,194133 | |
| | Mandor | OH | 0,026 | | | 0,194133 | |
| Pengecoran beton K-300 kolom praktis | | | | 1 | 3 | | |
| | Pekeja | OH | 0,248 | | | 0,744 | |
| | Mandor | OH | 0,013 | | | | |
| Pembesian plat lantai | | | | 5 | 199 | | |
| | Pekeja | OH | 0,08 | | | 3,184 | |
| | tukang besi | OH | 0,04 | | | 1,592 | |
| | kepala tukang besi | OH | 0,004 | | | 0,1592 | |
| | Mandor | OH | 0,008 | | | 0,3184 | |
| Pemasangan bekisting plat lantai | | | | 10 | 396 | | |
| | Pekerja | OH | 0,52 | | | 20,592 | |
| | Tukang kayu kasar | OH | 0,26 | | | 10,296 | |
| | Kepala tukang | OH | 0,026 | | | 1,0296 | |
| | Mandor | OH | 0,026 | | | 1,0296 | |
| Pengecoran beton K-300 plat lantai | | | | 5 | 198,45 | | |
| | Pekeja | OH | 0,248 | | | 9,84312 | |
| | Mandor | OH | 0,013 | | | 0,51597 | |

| | | | | | | | | |
|------------------------------------|--------------------|----|-------|----|--------|----------|--|--|
| LANTAI 1 | | | | | | | | |
| Pembesian K1 | | | | 5 | 376,32 | | | |
| | Pekeja | OH | 0,08 | | | 6,02112 | | |
| | tukang besi | OH | 0,04 | | | 3,01056 | | |
| | kepala tukang besi | OH | 0,004 | | | 0,301056 | | |
| | Mandor | OH | 0,008 | | | 0,602112 | | |
| Pemasangan bekisting K1 | | | | 10 | 1714 | | | |
| | Pekerja | OH | 0,52 | | | 89,128 | | |
| | Tukang kayu kasar | OH | 0,26 | | | 44,564 | | |
| | Kepala tukang | OH | 0,026 | | | 4,4564 | | |
| | Mandor | OH | 0,026 | | | 4,4564 | | |
| Pengecoran beton K-300 K1 | | | | 5 | 300 | | | |
| | Pekeja | OH | 0,248 | | | 14,88 | | |
| | Mandor | OH | 0,013 | | | 0,78 | | |
| pembesian ulir balok induk | | | | 5 | 253 | | | |
| | Pekeja | OH | 0,08 | | | 4,048 | | |
| | tukang besi | OH | 0,04 | | | 2,024 | | |
| | kepala tukang besi | OH | 0,004 | | | 0,2024 | | |
| | Mandor | OH | 0,008 | | | 0,4048 | | |
| pemasangan bekisting balok induk | | | | 10 | 2285 | | | |
| | Pekerja | OH | 0,52 | | | 118,82 | | |
| | Tukang kayu kasar | OH | 0,26 | | | 59,41 | | |
| | Kepala tukang | OH | 0,026 | | | 5,941 | | |
| | Mandor | OH | 0,026 | | | 5,941 | | |
| Pengecoran beton K-300 balok induk | | | | 10 | 253 | | | |
| | Pekeja | OH | 0,248 | | | 6,2744 | | |
| | Mandor | OH | 0,013 | | | 0,3289 | | |
| pembesian ulir balok anak | | | | 3 | 88 | | | |
| | Pekeja | OH | 0,08 | | | 2,346667 | | |
| | tukang besi | OH | 0,04 | | | 1,173333 | | |
| | kepala tukang besi | OH | 0,004 | | | 0,117333 | | |
| | Mandor | OH | 0,008 | | | 0,234667 | | |
| pemasangan bekisting balok anak | | | | 10 | 678 | | | |
| | Pekerja | OH | 0,52 | | | 35,256 | | |
| | Tukang kayu kasar | OH | 0,26 | | | | | |
| | Kepala tukang | OH | 0,026 | | | | | |
| | Mandor | OH | 0,026 | | | | | |
| Pengecoran beton K-300 balok anak | | | | 5 | 88 | | | |
| | Pekeja | OH | 0,248 | | | 4,3648 | | |
| | Mandor | OH | 0,013 | | | 0,2288 | | |
| Pembesian kolom praktis | | | | 1 | 3 | | | |
| | Pekeja | OH | 0,08 | | | 0,24 | | |
| | tukang besi | OH | 0,04 | | | 0,12 | | |
| | kepala tukang besi | OH | 0,004 | | | 0,012 | | |
| | Mandor | OH | 0,008 | | | 0,024 | | |
| Pemasangan bekisting kolom praktis | | | | 5 | 67 | | | |
| | Pekerja | OH | 0,52 | | | 6,968 | | |
| | Tukang kayu kasar | OH | 0,26 | | | 3,484 | | |
| | Kepala tukang | OH | 0,026 | | | 0,3484 | | |
| | Mandor | OH | 0,026 | | | 0,3484 | | |
| Pengecoran beton kolom praktis | | | | 2 | 3 | | | |
| | Pekeja | OH | 0,248 | | | 0,372 | | |
| | Mandor | OH | 0,013 | | | 0,0195 | | |
| Pembesian plat lantai | | | | 5 | 643 | | | |
| | Pekeja | OH | 0,08 | | | 10,288 | | |
| | tukang besi | OH | 0,04 | | | 5,144 | | |
| | kepala tukang besi | OH | 0,004 | | | 0,5144 | | |
| | Mandor | OH | 0,008 | | | 1,0288 | | |
| Pemasangan bekisring plat lantai | | | | 10 | 1285 | | | |
| | Pekerja | OH | 0,52 | | | 66,82 | | |
| | Tukang kayu kasar | OH | 0,26 | | | 33,41 | | |
| | Kepala tukang | OH | 0,026 | | | 3,341 | | |
| | Mandor | OH | 0,026 | | | 3,341 | | |
| Pengecoran beton K-300 plat lantai | | | | 10 | 643 | | | |
| | Pekeja | OH | 0,248 | | | 15,9464 | | |
| | Mandor | OH | 0,013 | | | 0,8359 | | |

| | | | | | | | | | |
|------------------------------------|--------------------|----|-------|--|----|------|----------|--|--|
| LANTAI 2 | | | | | | | | | |
| Pembesian K2 | | | | | 3 | 206 | | | |
| | Pekeja | OH | 0,08 | | | | 5,493333 | | |
| | tukang besi | OH | 0,04 | | | | 2,746667 | | |
| | kepala tukang besi | OH | 0,004 | | | | 0,274667 | | |
| | Mandor | OH | 0,008 | | | | 0,549333 | | |
| Pemasangan bekisting K2 | | | | | 10 | 1176 | | | |
| | Pekerja | OH | 0,52 | | | | 61,152 | | |
| | Tukang kayu kasar | OH | 0,26 | | | | 30,576 | | |
| | Kepala tukang | OH | 0,026 | | | | 3,0576 | | |
| | Mandor | OH | 0,026 | | | | 3,0576 | | |
| Pengecoran beton K-300 K2 | | | | | 5 | 206 | | | |
| | Pekeja | OH | 0,248 | | | | 10,2176 | | |
| | Mandor | OH | 0,013 | | | | 0,5356 | | |
| pembesian ulir balok induk | | | | | 5 | 251 | | | |
| | Pekeja | OH | 0,08 | | | | 4,016 | | |
| | tukang besi | OH | 0,04 | | | | 2,008 | | |
| | kepala tukang besi | OH | 0,004 | | | | 0,2008 | | |
| | Mandor | OH | 0,008 | | | | 0,4016 | | |
| pemasangan bekisting balok induk | | | | | 15 | 2269 | | | |
| | Pekerja | OH | 0,52 | | | | 78,65867 | | |
| | Tukang kayu kasar | OH | 0,26 | | | | 39,32933 | | |
| | Kepala tukang | OH | 0,026 | | | | 3,932933 | | |
| | Mandor | OH | 0,026 | | | | 3,932933 | | |
| Pengecoran beton K-300 balok induk | | | | | 5 | 251 | | | |
| | Pekeja | OH | 0,248 | | | | 12,4496 | | |
| | Mandor | OH | 0,013 | | | | 0,6526 | | |
| pembesian ulir balok anak | | | | | 2 | 44 | | | |
| | Pekeja | OH | 0,08 | | | | 1,76 | | |
| | tukang besi | OH | 0,04 | | | | 0,88 | | |
| | kepala tukang besi | OH | 0,004 | | | | 0,088 | | |
| | Mandor | OH | 0,008 | | | | 0,176 | | |
| pemasangan bekisting balok anak | | | | | 10 | 916 | | | |
| | Pekerja | OH | 0,52 | | | | 47,632 | | |
| | Tukang kayu kasar | OH | 0,26 | | | | 23,816 | | |
| | Kepala tukang | OH | 0,026 | | | | 2,3816 | | |
| | Mandor | OH | 0,026 | | | | 2,3816 | | |
| Pengecoran beton K-300 balok anak | | | | | 5 | 44 | | | |
| | Pekeja | OH | 0,248 | | | | 2,1824 | | |
| | Mandor | OH | 0,013 | | | | 0,1144 | | |
| Pembesian kolom praktis | | | | | 1 | 2 | | | |
| | Pekeja | OH | 0,08 | | | | 0,16 | | |
| | tukang besi | OH | 0,04 | | | | 0,08 | | |
| | kepala tukang besi | OH | 0,004 | | | | 0,008 | | |
| | Mandor | OH | 0,008 | | | | 0,016 | | |
| Pemasangan bekisting kolom praktis | | | | | 4 | 56 | | | |
| | Pekerja | OH | 0,52 | | | | 7,28 | | |
| | Tukang kayu kasar | OH | 0,26 | | | | 3,64 | | |
| | Kepala tukang | OH | 0,026 | | | | 0,364 | | |
| | Mandor | OH | 0,026 | | | | 0,364 | | |
| Pengecoran beton kolom praktis | | | | | 1 | 2 | | | |
| | Pekeja | OH | 0,248 | | | | 0,496 | | |
| | Mandor | OH | 0,013 | | | | 0,026 | | |
| Pembesian plat lantai | | | | | 5 | 643 | | | |
| | Pekeja | OH | 0,08 | | | | 10,288 | | |
| | tukang besi | OH | 0,04 | | | | 5,144 | | |
| | kepala tukang besi | OH | 0,004 | | | | 0,5144 | | |
| | Mandor | OH | 0,008 | | | | 1,0288 | | |
| Pemasangan bekisting plat lantai | | | | | 10 | 1284 | | | |
| | Pekerja | OH | 0,52 | | | | 66,768 | | |
| | Tukang kayu kasar | OH | 0,26 | | | | 33,384 | | |
| | Kepala tukang | OH | 0,026 | | | | 3,3384 | | |
| | Mandor | OH | 0,026 | | | | 3,3384 | | |
| Pengecoran beton K-300 plat lantai | | | | | 10 | 642 | | | |
| | Pekeja | OH | 0,248 | | | | 15,9216 | | |
| | Mandor | OH | 0,013 | | | | 0,8346 | | |

| | | | | | | | | |
|------------------------------------|--------------------|----|-------|----|------|--|----------|--|
| LANTAI 3 | | | | | | | | |
| Pembesian K2 | | | | 5 | 206 | | | |
| | Pekeja | OH | 0,08 | | | | 3,296 | |
| | tukang besi | OH | 0,04 | | | | 1,648 | |
| | kepala tukang besi | OH | 0,004 | | | | 0,1648 | |
| | Mandor | OH | 0,008 | | | | 0,3296 | |
| Pemasangan bekisting K2 | | | | 10 | 916 | | | |
| | Pekerja | OH | 0,52 | | | | 47,632 | |
| | Tukang kayu kasar | OH | 0,26 | | | | 23,816 | |
| | Kepala tukang | OH | 0,026 | | | | 2,3816 | |
| | Mandor | OH | 0,026 | | | | 2,3816 | |
| Pengecoran beton K-300 K2 | | | | 5 | 206 | | | |
| | Pekeja | OH | 0,248 | | | | 10,2176 | |
| | Mandor | OH | 0,013 | | | | 0,5356 | |
| pembesian ulir balok induk | | | | 3 | 149 | | | |
| | Pekeja | OH | 0,08 | | | | 3,973333 | |
| | tukang besi | OH | 0,04 | | | | 1,986667 | |
| | kepala tukang besi | OH | 0,004 | | | | 0,198667 | |
| | Mandor | OH | 0,008 | | | | 0,397333 | |
| pemasangan bekisting balok induk | | | | 10 | 1343 | | | |
| | Pekerja | OH | 0,52 | | | | 69,836 | |
| | Tukang kayu kasar | OH | 0,26 | | | | 34,918 | |
| | Kepala tukang | OH | 0,026 | | | | 3,4918 | |
| | Mandor | OH | 0,026 | | | | 3,4918 | |
| Pengecoran beton K-300 balok induk | | | | 5 | 149 | | | |
| | Pekeja | OH | 0,248 | | | | 7,3904 | |
| | Mandor | OH | 0,013 | | | | 0,3874 | |
| pembesian ulir balok anak | | | | 2 | 75 | | | |
| | Pekeja | OH | 0,08 | | | | 3 | |
| | tukang besi | OH | 0,04 | | | | 1,5 | |
| | kepala tukang besi | OH | 0,004 | | | | 0,15 | |
| | Mandor | OH | 0,008 | | | | 0,3 | |
| pemasangan bekisting balok anak | | | | 10 | 920 | | | |
| | Pekerja | OH | 0,52 | | | | 47,84 | |
| | Tukang kayu kasar | OH | 0,26 | | | | 23,92 | |
| | Kepala tukang | OH | 0,026 | | | | 2,392 | |
| | Mandor | OH | 0,026 | | | | 2,392 | |
| Pengecoran beton K-300 balok anak | | | | 5 | 75 | | | |
| | Pekeja | OH | 0,248 | | | | 3,72 | |
| | Mandor | OH | 0,013 | | | | 0,195 | |
| Pembesian kolom praktis | | | | 1 | 2 | | | |
| | Pekeja | OH | 0,08 | | | | 0,16 | |
| | tukang besi | OH | 0,04 | | | | 0,08 | |
| | kepala tukang besi | OH | 0,004 | | | | 0,008 | |
| | Mandor | OH | 0,008 | | | | 0,016 | |
| Pemasangan bekisting kolom praktis | | | | 5 | 45 | | | |
| | Pekerja | OH | 0,52 | | | | 4,68 | |
| | Tukang kayu kasar | OH | 0,26 | | | | 2,34 | |
| | Kepala tukang | OH | 0,026 | | | | 0,234 | |
| | Mandor | OH | 0,026 | | | | 0,234 | |
| Pengecoran beton kolom praktis | | | | 1 | 2 | | | |
| | Pekeja | OH | 0,248 | | | | 0,496 | |
| | Mandor | OH | 0,013 | | | | 0,026 | |
| Pembesian plat lantai | | | | 6 | 331 | | | |
| | Pekeja | OH | 0,08 | | | | 4,413333 | |
| | tukang besi | OH | 0,04 | | | | 2,206667 | |
| | kepala tukang besi | OH | 0,004 | | | | 0,220667 | |
| | Mandor | OH | 0,008 | | | | 0,441333 | |
| Pemasangan bekisting plat lantai | | | | 10 | 662 | | | |
| | Pekerja | OH | 0,52 | | | | 34,424 | |
| | Tukang kayu kasar | OH | 0,26 | | | | 17,212 | |
| | Kepala tukang | OH | 0,026 | | | | 1,7212 | |
| | Mandor | OH | 0,026 | | | | 1,7212 | |
| Pengecoran beton K-300 plat lantai | | | | 10 | 331 | | | |
| | Pekeja | OH | 0,248 | | | | 8,2088 | |
| | Mandor | OH | 0,013 | | | | 0,4303 | |

| | | | | | | | |
|--|-----------------------|----|-------|----|-------|----------|--|
| LANTAI 3 | | | | | | | |
| Pemasangan dinding batako | | | | 3 | 237 | | |
| | Pekeja | OH | 0,06 | | | 4,74 | |
| | Mandor | OH | 0,003 | | | 0,237 | |
| Plesteran dinding | | | | 10 | 470 | | |
| | Pekeja | OH | 0,3 | | | 14,1 | |
| | Mandor | OH | 0,015 | | | 0,705 | |
| Acian | | | | 10 | 470 | | |
| | Pekeja | OH | 0,2 | | | 9,4 | |
| | Mandor | OH | 0,01 | | | 0,47 | |
| Pemasangan Plint keramik | | | | 3 | 49 | | |
| | Pekeja | OH | 0,09 | | | 1,47 | |
| | Mandor | OH | 0,005 | | | 0,081667 | |
| pemasangan dinding keramik kamar mandi | | | | 4 | 32 | | |
| | Pekeja | OH | 0,7 | | | 5,6 | |
| | Mandor | OH | 0,035 | | | 0,28 | |
| LANTAI 4 | | | | | | | |
| Pemasangan dinding batako | | | | 4 | 78,4 | | |
| | Pekeja | OH | 0,06 | | | 1,176 | |
| | Mandor | OH | 0,003 | | | 0,0588 | |
| Plesteran dinding | | | | 5 | 148 | | |
| | Pekeja | OH | 0,3 | | | 8,88 | |
| | Mandor | OH | 0,015 | | | 0,444 | |
| Acian | | | | 5 | 148 | | |
| | Pekeja | OH | 0,2 | | | 5,92 | |
| | Mandor | OH | 0,01 | | | 0,296 | |
| Pemasangan Plint keramik | | | | 2 | 31 | | |
| | Pekeja | OH | 0,09 | | | 1,395 | |
| | Mandor | OH | 0,005 | | | 0,0775 | |
| PEKERJAAN ATAP | | | | | | | |
| Pemasangan kuda 2L 90 x 90 | | | | 3 | 686 | | |
| | Pekeja | OH | 0,06 | | | 13,72 | |
| | tukang besi | OH | 0,06 | | | 13,72 | |
| | tukang las konstruksi | OH | 0,06 | | | 13,72 | |
| | Mandor | OH | 0,003 | | | 0,686 | |
| Pemasangan gording C 150 x 65 x 20 | | | | 3 | 686 | | |
| | Pekeja | OH | 0,06 | | | 13,72 | |
| | tukang besi | OH | 0,06 | | | 13,72 | |
| | tukang las konstruksi | OH | 0,06 | | | 13,72 | |
| | Mandor | OH | 0,003 | | | 0,686 | |
| Pemasangan atap galvalum | | | | 2 | 98 | | |
| | Pekeja | OH | 0,2 | | | 9,8 | |
| | tukang besi | OH | 0,1 | | | 4,9 | |
| | kepala tukang besi | OH | 0,01 | | | 0,49 | |
| | Mandor | OH | 0,001 | | | 0,049 | |
| PEKERJAAN TANGGA | | | | | | | |
| Pembesian tangga | | | | 20 | 6637 | | |
| | Pekeja | OH | 0,08 | | | 26,548 | |
| | tukang besi | OH | 0,04 | | | 13,274 | |
| | kepala tukang besi | OH | 0,004 | | | 1,3274 | |
| | Mandor | OH | 0,008 | | | 2,6548 | |
| Pemasangan bekisting tangga | | | | 20 | 6637 | | |
| | Pekerja | OH | 0,52 | | | 172,562 | |
| | Tukang kayu kasar | OH | 0,26 | | | 86,281 | |
| | Kepala tukang | OH | 0,026 | | | 8,6281 | |
| | Mandor | OH | 0,026 | | | 8,6281 | |
| Pengecoran beton K-300 tangga | | | | 40 | 6637 | | |
| | Pekeja | OH | 0,248 | | | 41,1494 | |
| | Mandor | OH | 0,013 | | | 2,157025 | |
| Pekerjaan pasang keramik lantai 40 x 40 | | | | 30 | 12647 | | |
| | Pekeja | OH | 0,09 | | | 37,941 | |
| | Mandor | OH | 0,005 | | | 2,107833 | |
| Pasang keramik lantai (Kamar mandi 20x20) | | | | 10 | 226 | | |
| | Pekeja | OH | 0,09 | | | 2,034 | |
| | Mandor | OH | 0,005 | | | 0,113 | |



Lampiran B. Luaran Program Komputer

Lampiran B. 4 Network Diagram dari Ms Project

