# KEMENTERIAN PERUMAHAN DAN KERAJAAN TEMPATAN

# PEMBINAAN PROJEK BALAI BOMBA DAN KUARTERS PUTATAN, SABAH




LAPORAN KAWALAN KUALITI PERUNDING
(Apr 2022)

24.05.2022

PERUNDING IDEAL

# STATUS PENGEMUKAAN KEJURUTERAAN KEPADA PIHAK BERKUASA TEMPATAN (PBT)

| LUKISAN | NAMA AGENSI/PBT | TARIKH PERMOHONAN | STATUS |
|---|---|---|---|
| KERJA TANAH | MDP | | 12/05/22 Lukisan telah ditandatangani oleh UKAS. Dalam proses kiriman balik |
| BEKALAN AIR | JANS | 08/02/2021 | Lulus. 20 Mei 2021. JANS menerima pakai rekabentuk Submission No.1 |
| JALAN RAYA | MDP & JKR | | 12/05/22 Lukisan telah ditandatangani oleh UKAS. Dalam proses kiriman balik |
| PAIP PEMBENTUNGAN & STP | MDP & JKR | | Lulus 18 Nov 2021. |
| PARIT | MDP & JPS | 22/03/2021 | Lulus, 07 Feb 2022. |



JABATAN AIR NEGERI SABAH
JURUTERA AIR BAHAGIAN
JABATAN AIR KOTA KINABALU,
PETI SURAT NO. 14677,
88853 KOTA KINABALU.

Telefon: 088-717070; Faks: 088-713522
Laman Web: www.sabah.gov.my/air

No.Rujukan kami:JAN.KK:600-1/(XI)/403 -4 Tarikh:18 Februari,21

Perunding Ideal,
P.O.box 21749,
88775 Luyang,Kota Kinabalu,
Sabah, Malaysia

Tuan,

**CADANGAN PROJEK PEMBINAAN PROJEK BALAI BOMBA DAN KUARTERS PUTATAN DI ATAS SEBAHAGIAN LOT NT.213059771,JALAN SAILAN IMBAAN PUTATAN,DAERAH PUTATAN,SABAH**
**PEMILIK:JABATAN BOMBA DAN PENYELAMAT MALAYSIA.**
**RUJ: PI-393/GW/O8 BERTARIKH: 8 FEBRUARI,2021.**
**NO.LUKISAN: PI-393/WS/001-WATER SUPPLY LAYOUT PLAN**
**PI-393/WS/001-WATER SUPPLY DETAIL**

Dengan hormatnya perkara yang tersebut diatas adalah dirujuk.

2. Pelan cadangan sistem retikulasi bekalan air yang dikemukakan telahpun diperiksa berikut adalah ulasan Jabatan Air Kota Kinabalu:
a. Dicadangakan pengunaan sesalur paip air dari jenis DI (ductile Iron) atau jenis paip plastik yang diluluskan serta berdaftar dengan Jabatan Air Negeri Sabah.
b. Kemukakan anggaran pengunaan bekalan air harian.
c. Sesalur paip air selepas meter air juga dicadangkan dari jenis DI (ductile Iron) atau jenis paip plastik .

Sekian dan terima kasih.

**"BERKHIDMAT UNTUK NEGARA"**

Saya yang menjalankan amanah.

**( CHEE CHUN CHIEH)**
**JURUTERA AIR BAHAGIAN**
**JABATAN AIR, KOTA KINABALU.**

Thm

**"SABAH MAJU JAYA"**

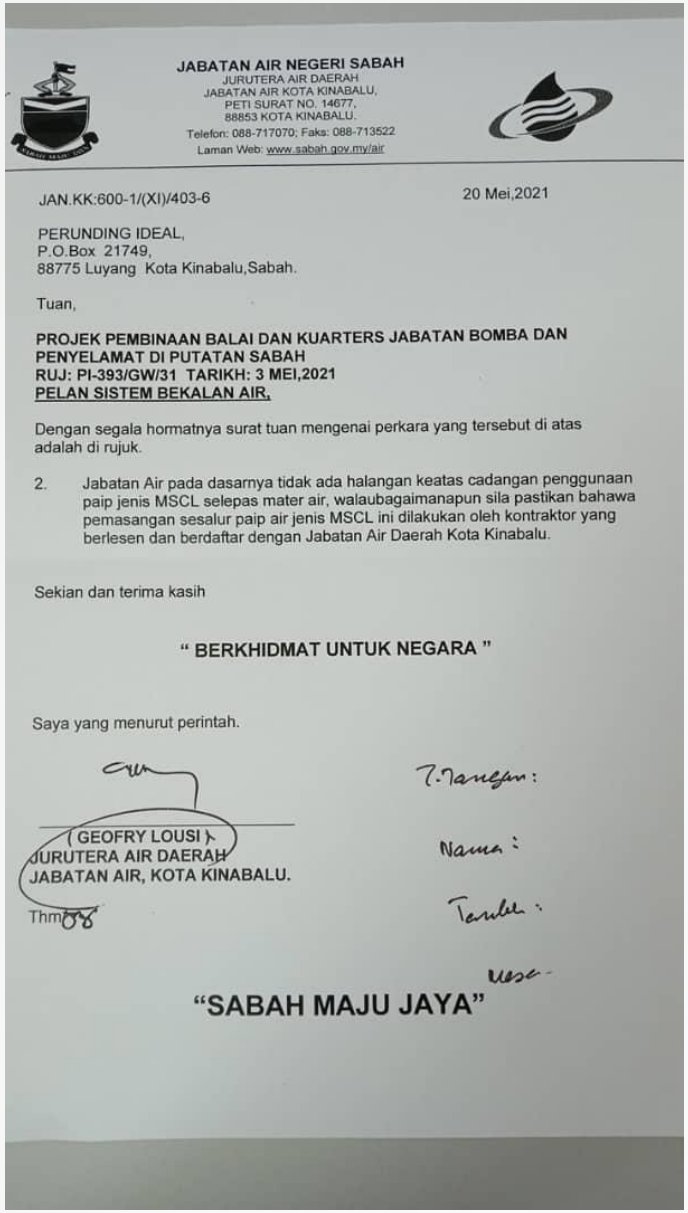
# Surat Ulasan JANS

**a. Dicadangkan pengunaan sesalur paip air dari Jenis DI (Ductile Iron) atau jenis paip plastik yang diluluskan serta berdaftar dengan JANS.**

**b. Kemukakan anggaran pengu naan bekalan air harian.**

**c. Sesalur paip air selepas meter air juga dicadangkan dari jenis DI (ductile iron) atau jenis paip plastik.**

# Surat JANS



JABATAN AIR NEGERI SABAH
JURUTERA AIR DAERAH
JABATAN AIR KOTA KINABALU,
PETI SURAT NO. 14677,
88853 KOTA KINABALU.
Telefon: 088-717070; Faks: 088-713522
Laman Web: www.sabah.gov.my/air

JAN.KK:600-1/(XI)/403-6 20 Mei,2021

PERUNDING IDEAL,
P.O.Box 21749,
88775 Luyang Kota Kinabalu,Sabah.

Tuan,

**PROJEK PEMBINAAN BALAI DAN KUARTERS JABATAN BOMBA DAN PENYELAMAT DI PUTATAN SABAH**
**RUJ: PI-393/GW/31 TARIKH: 3 MEI,2021**
**PELAN SISTEM BEKALAN AIR,**

Dengan segala hormatnya surat tuan mengenai perkara yang tersebut di atas adalah di rujuk.

2. Jabatan Air pada dasarnya tidak ada halangan keatas cadangan penggunaan paip jenis MSCL selepas mater air, walaubagaimanapun sila pastikan bahawa pemasangan sesalur paip air jenis MSCL ini dilakukan oleh kontraktor yang berlesen dan berdaftar dengan Jabatan Air Daerah Kota Kinabalu.

Sekian dan terima kasih

**" BERKHIDMAT UNTUK NEGARA "**

Saya yang menurut perintah.

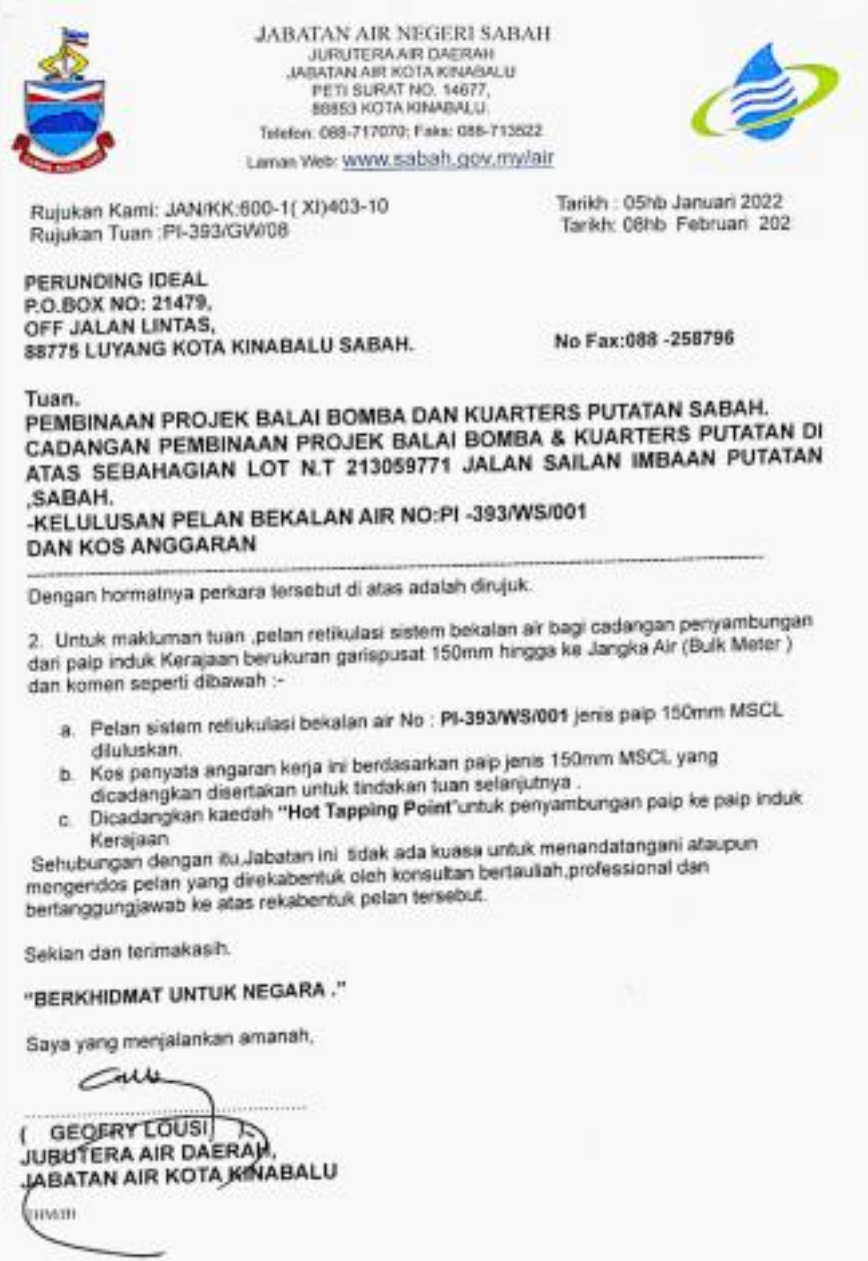
(GEOFRY LOUSI)
JURUTERA AIR DAERAH
JABATAN AIR, KOTA KINABALU.

**"SABAH MAJU JAYA"**

# Surat Ulasan JANS

**Tiada halangan selepas 2nd submission.**

# Surat Kelulusan JANS



JABATAN AIR NEGERI SABAH
JURUTERA AIR DAERAH
JABATAN AIR KOTA KINABALU
PETI SURAT NO. 14677,
88853 KOTA KINABALU.
Telefon: 088-717070; Faks: 088-713522
Laman Web: www.sabah.gov.my/air

Rujukan Kami: JAN/KK:600-1( XI)403-10
Rujukan Tuan :PI-393/GW/08

Tarikh : 05hb Januari 2022
Tarikh: 06hb Februari 202

**PERUNDING IDEAL**
**P.O.BOX NO: 21479,**
**OFF JALAN LINTAS,**
**88775 LUYANG KOTA KINABALU SABAH.**

**No Fax:088 -258796**

**Tuan.**
**PEMBINAAN PROJEK BALAI BOMBA DAN KUARTERS PUTATAN SABAH.**
**CADANGAN PEMBINAAN PROJEK BALAI BOMBA & KUARTERS PUTATAN DI ATAS SEBAHAGIAN LOT N.T 213059771 JALAN SAILAN IMBAAN PUTATAN ,SABAH.**
**-KELULUSAN PELAN BEKALAN AIR NO:PI -393/WS/001**
**DAN KOS ANGGARAN**

Dengan hormatnya perkara tersebut di atas adalah dirujuk.

2. Untuk makluman tuan ,pelan retikulasi sistem bekalan air bagi cadangan penyambungan dari paip induk Kerajaan berukuran garispusat 150mm hingga ke Jangka Air (Bulk Meter ) dan komen seperti dibawah :-

a. Pelan sistem retiukulasi bekalan air No : **PI-393/WS/001** jenis paip 150mm MSCL diluluskan.
b. Kos penyata angaran kerja ini berdasarkan paip jenis 150mm MSCL yang dicadangkan disertakan untuk tindakan tuan selanjutnya .
c. Dicadangkan kaedah **"Hot Tapping Point"**untuk penyambungan paip ke paip induk Kerajaan

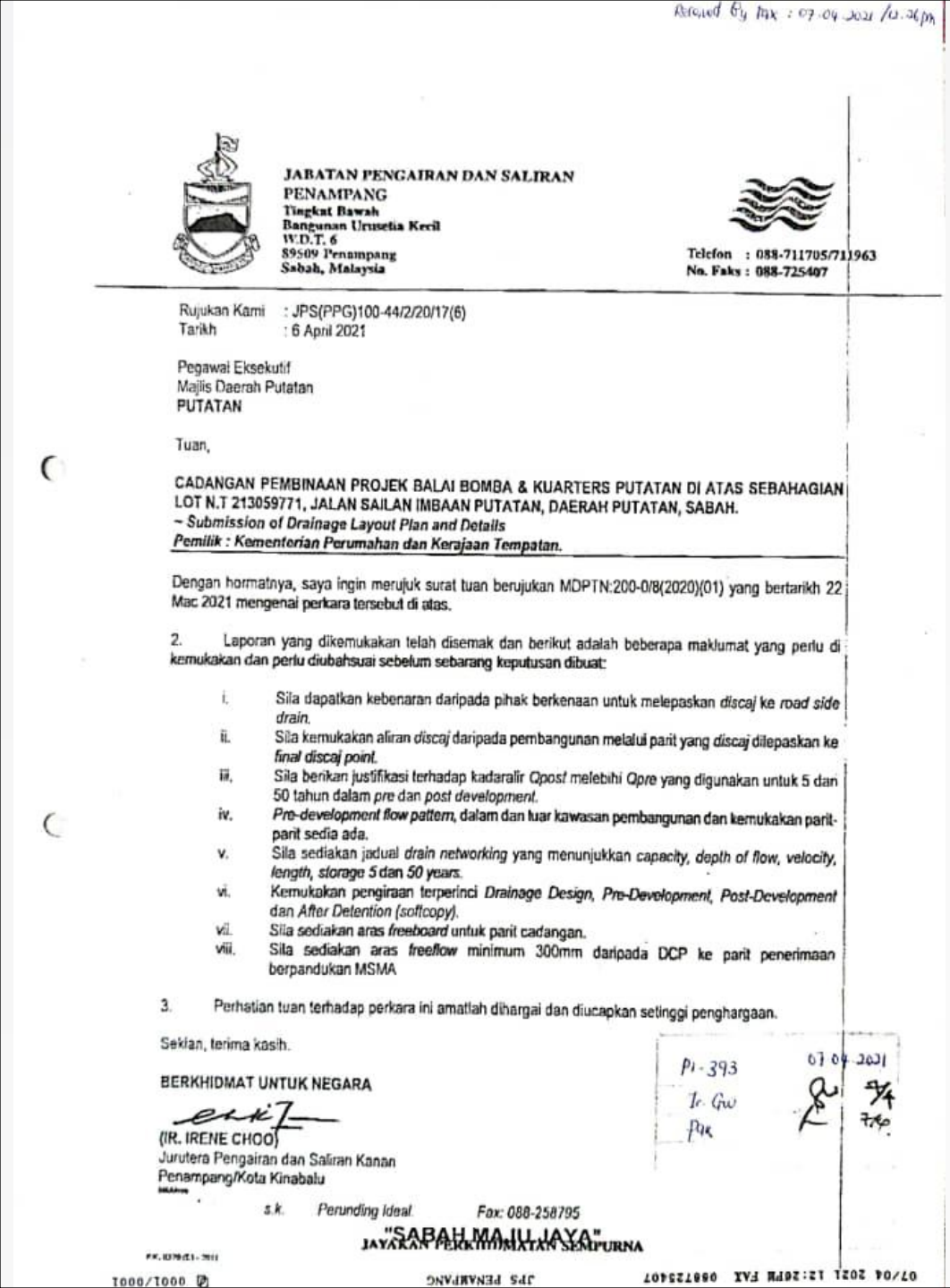
Sehubungan dengan itu,Jabatan ini tidak ada kuasa untuk menandatangani ataupun mengendos pelan yang direkabentuk oleh konsultan bertauliah,professional dan bertanggungjawab ke atas rekabentuk pelan tersebut.

Sekian dan terimakasih.

**"BERKHIDMAT UNTUK NEGARA ."**

Saya yang menjalankan amanah,

( GEOFFY LOUSI )
**JURUTERA AIR DAERAH,**
**JABATAN AIR KOTA KINABALU**



JABATAN PENGAIRAN DAN SALIRAN
PENAMPANG
Tingkat Bawah
Bangunan Urusetia Kecil
W.D.T. 6
89509 Penampang
Sabah, Malaysia

Telefon : 088-711705/711963
No. Faks : 088-725407

Rujukan Kami : JPS(PPG)100-44/2/20/17(6)
Tarikh : 6 April 2021

Pegawai Eksekutif
Majlis Daerah Putatan
PUTATAN

Tuan,

**CADANGAN PEMBINAAN PROJEK BALAI BOMBA & KUARTERS PUTATAN DI ATAS SEBAHAGIAN LOT N.T 213059771, JALAN SAILAN IMBAAN PUTATAN, DAERAH PUTATAN, SABAH.**
***~ Submission of Drainage Layout Plan and Details***
***Pemilik : Kementerian Perumahan dan Kerajaan Tempatan.***

Dengan hormatnya, saya ingin merujuk surat tuan berujukan MDPTN:200-0/8(2020)(01) yang bertarikh 22 Mac 2021 mengenai perkara tersebut di atas.

2. Laporan yang dikemukakan telah disemak dan berikut adalah beberapa maklumat yang perlu di kemukakan dan perlu diubahsuai sebelum sebarang keputusan dibuat:

i. Sila dapatkan kebenaran daripada pihak berkenaan untuk melepaskan *discaj* ke *road side drain.*
ii. Sila kemukakan aliran *discaj* daripada pembangunan melalui parit yang *discaj* dilepaskan ke *final discaj point.*
iii. Sila berikan justifikasi terhadap kadaralir *Qpost* melebihi *Qpre* yang digunakan untuk 5 dan 50 tahun dalam *pre* dan *post development.*
iv. *Pre-development flow pattern,* dalam dan luar kawasan pembangunan dan kemukakan parit-parit sedia ada.
v. Sila sediakan jadual *drain networking* yang menunjukkan *capacity, depth of flow, velocity, length, storage 5* dan *50 years.*
vi. Kemukakan pengiraan terperinci *Drainage Design, Pre-Development, Post-Development* dan *After Detention (softcopy).*
vii. Sila sediakan aras *freeboard* untuk parit cadangan.
viii. Sila sediakan aras *freeflow* minimum 300mm daripada DCP ke parit penerimaan berpandukan MSMA

3. Perhatian tuan terhadap perkara ini amatlah dihargai dan diucapkan setinggi penghargaan.

Sekian, terima kasih.

**BERKHIDMAT UNTUK NEGARA**

(IR. IRENE CHOO)
Jurutera Pengairan dan Saliran Kanan
Penampang/Kota Kinabalu

s.k. *Perunding Ideal* *Fax: 088-258795*

"SABAH MAJU JAYA"
JAYAKAN PERKHIDMATAN SEMPURNA

Pi-393
Ir. Gw
Pak
07.04.2021

07/04 2021 12:26PM FAX 088725407 JPS PENAMPANG 0001/0001

# Surat Ulasan JPS (1st Submission)

1. Sila dapatkan kebenaran daripada pihak berkenaan untuk melepaskan discaj ke road side drain.
2. Sila kemukakan aliran discaj daripada pembangunan melalui parit yang discaj dilepaskan ke final discaj point.
3. Sila berikan justifikasi terhadap kadaralir Qpost melebihi Qpre yang digunakan untuk 5 dan 50 tahun dalam pre dan post development.
4. Pre-development flow pattern, dalam dan luar kawasan pembangunan dan kemukakan parit-parit sedia ada.
5. Sila sediakan jadual drain networking yang menunjukkan capacity, depth of flow, velocity, length, storage 5 dan 50 years.

Received By Fax : 07.04.2021 12.26pm

JABATAN PENGAIRAN DAN SALIRAN
PENAMPANG
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W.D.T. 6
89509 Penampang
Sabah, Malaysia

Telefon : 088-711705/711963
No. Faks : 088-725407

Rujukan Kami : JPS(PPG)100-44/2/20/17(6)
Tarikh : 6 April 2021

Pegawai Eksekutif
Majlis Daerah Putatan
PUTATAN

Tuan,

**CADANGAN PEMBINAAN PROJEK BALAI BOMBA & KUARTERS PUTATAN DI ATAS SEBAHAGIAN LOT N.T 213059771, JALAN SAILAN IMBAAN PUTATAN, DAERAH PUTATAN, SABAH.**
***~ Submission of Drainage Layout Plan and Details***
***Pemilik : Kementerian Perumahan dan Kerajaan Tempatan.***

Dengan hormatnya, saya ingin merujuk surat tuan berujukan MDPTN:200-0/8(2020)(01) yang bertarikh 22 Mac 2021 mengenai perkara tersebut di atas.

2. Laporan yang dikemukakan telah disemak dan berikut adalah beberapa maklumat yang perlu di kemukakan dan perlu diubahsuai sebelum sebarang keputusan dibuat:

i. Sila dapatkan kebenaran daripada pihak berkenaan untuk melepaskan *discaj* ke *road side drain.*
ii. Sila kemukakan aliran *discaj* daripada pembangunan melalui parit yang *discaj* dilepaskan ke *final discaj point.*
iii. Sila berikan justifikasi terhadap kadaralir *Qpost* melebihi *Qpre* yang digunakan untuk 5 dan 50 tahun dalam *pre* dan *post development.*
iv. *Pre-development flow pattern,* dalam dan luar kawasan pembangunan dan kemukakan parit-parit sedia ada.
v. Sila sediakan jadual *drain networking* yang menunjukkan *capacity, depth of flow, velocity, length, storage 5* dan *50 years.*
vi. Kemukakan pengiraan terperinci *Drainage Design, Pre-Development, Post-Development* dan *After Detention (softcopy).*
vii. Sila sediakan aras *freeboard* untuk parit cadangan.
viii. Sila sediakan aras *freeflow* minimum 300mm daripada DCP ke parit penerimaan berpandukan MSMA

3. Perhatian tuan terhadap perkara ini amatlah dihargai dan diucapkan setinggi penghargaan.

Sekian, terima kasih.

**BERKHIDMAT UNTUK NEGARA**

**(IR. IRENE CHOO)**
Jurutera Pengairan dan Saliran Kanan
Penampang/Kota Kinabalu

Pi-393
Ir. Gw
Pak
07.04.2021

s.k. *Perunding Ideal* *Fax: 088-258795*

**"SABAH MAJU JAYA"**
**JAYAKAN PERKHIDMATAN SEMPURNA**

07/04 2021 12:26PM FAX 088725407 JPS PENAMPANG 0001/0001

6. Kemukakan pengiraan terperinci Drainage Design, Pre-Development, Post-Development dan After Detention (softcopy)
7. Sila sediaklan aras freeboard untuk parit cadangan.
8. Sila sediakan aras freeflow minimum 300mm daripada DCP ke parit penerimaan berpandukan MSMA.



JABATAN PENGAIRAN DAN SALIRAN
PENAMPANG
Tingkat Bawah
Bangunan Urusetia Kecil
W.D.T. 6
89509 Penampang
Sabah, Malaysia



Telefon : 088-711705/711963
No. Faks : 088-725407

Rujukan Kami : JPS(PPG)100-44/2/20/17(14)
Tarikh : 29 Oktober 2021

Pegawai Eksekutif
Majlis Daerah Putatan
**PUTATAN**

Tuan,

**CADANGAN PROJEK PEMBINAAN BALAI BOMBA & KUARTERS PUTATAN DI ATAS SEBAHAGIAN LOT N.T 213059771, JALAN SAILAN IMBAAN PUTATAN, DAERAH PUTATAN, SABAH.**
***~ Submission of revised drainage and layout plan details.***

Dengan hormatnya, saya ingin merujuk surat tuan berujukan MDPTN(D):200-0(2020)/8/9 yang bertarikh 25 Oktober 2021 mengenai perkara tersebut di atas.

2. Untuk makluman tuan, laporan yang dikemukakan telah disemak dan berikut adalah beberapa maklumat yang perlu di kemukakan dan perlu diubahsuai sebelum sebarang keputusan dibuat:

i. Sila sediakan *Wier* dalam rekabentuk *Detention Pond* dan kedudukan *Trash Screen* hendaklah berada di bawah *Wier*.
ii. Sila berikan justifikasi berkenaan level dalam rekabentuk *Detention Pond* untuk *5 and 50 years ARI* adalah tidak sama seperti dalam report MSMA yang telah dikemukakan.

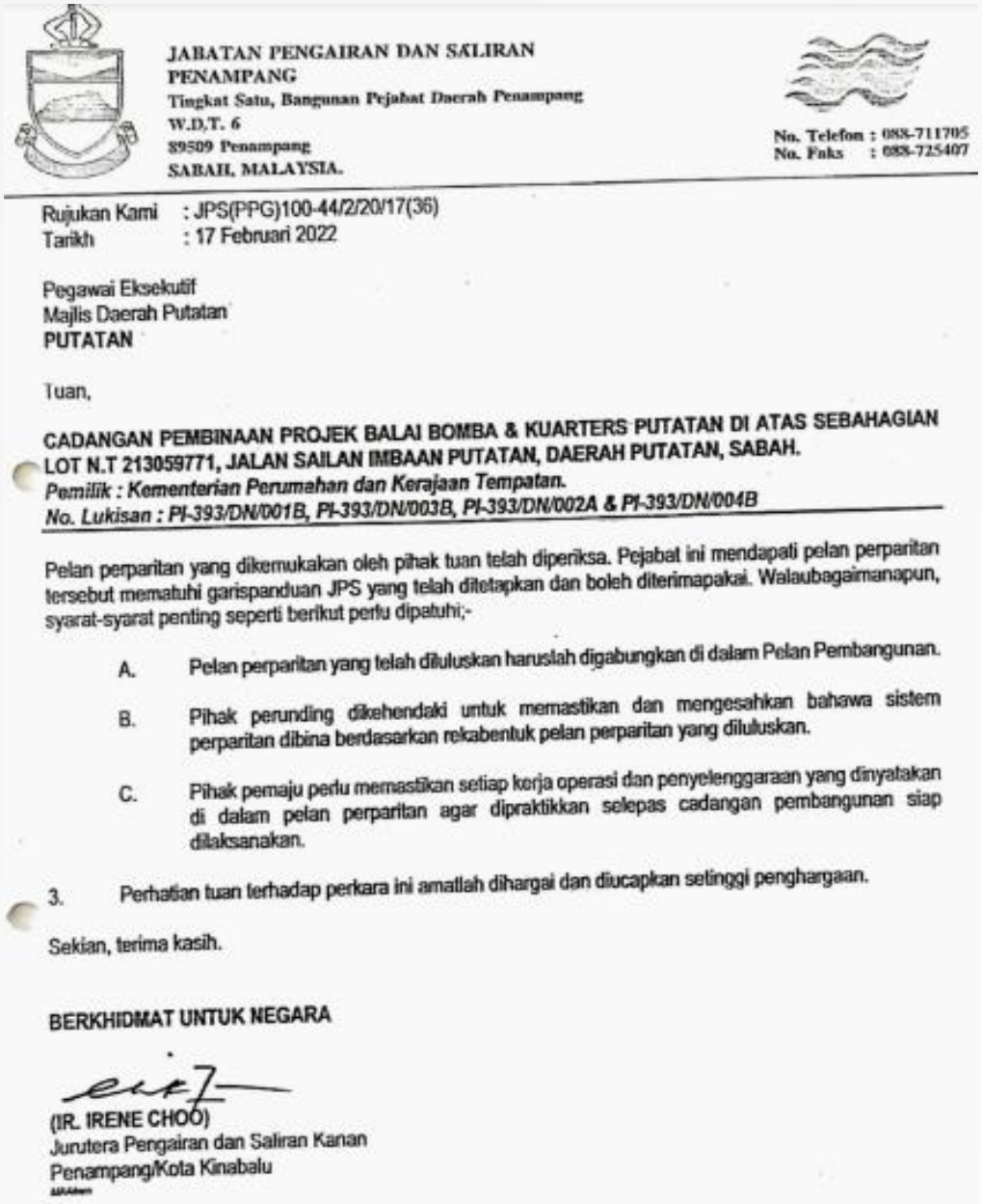
3. Perhatian tuan terhadap perkara ini amatlah dihargai dan diucapkan setinggi penghargaan.

Sekian, terima kasih.

# Surat Ulasan JPS (2nd Submission)

1. Sila sediakan Wier dalam rekabentuk Detention Pond dan kedudukan Trash Screen hendaklah berada dibawah Wier.
2. Sila berikan justifikasi berkenaan level dalam rekabentuk Detention Pond untuk 5 and 50 years ARI adalah tidak sama seperti dalam report MSMA yang telah dikemukakan.

# Surat Kelulusan JPS



JABATAN PENGAIRAN DAN SALIRAN
PENAMPANG
Tingkat Satu, Bangunan Pejabat Daerah Penampang
W.D.T. 6
89509 Penampang
SABAH, MALAYSIA.

No. Telefon : 088-711705
No. Faks : 088-725407

Rujukan Kami : JPS(PPG)100-44/2/20/17(36)
Tarikh : 17 Februari 2022

Pegawai Eksekutif
Majlis Daerah Putatan
**PUTATAN**

Tuan,

**CADANGAN PEMBINAAN PROJEK BALAI BOMBA & KUARTERS PUTATAN DI ATAS SEBAHAGIAN LOT N.T 213059771, JALAN SAILAN IMBAAN PUTATAN, DAERAH PUTATAN, SABAH.**
***Pemilik : Kementerian Perumahan dan Kerajaan Tempatan.***
***No. Lukisan : PI-393/DN/001B, PI-393/DN/003B, PI-393/DN/002A & PI-393/DN/004B***

Pelan perparitan yang dikemukakan oleh pihak tuan telah diperiksa. Pejabat ini mendapati pelan perparitan tersebut mematuhi garispanduan JPS yang telah ditetapkan dan boleh diterimapakai. Walaubagaimanapun, syarat-syarat penting seperti berikut perlu dipatuhi;-

A. Pelan perparitan yang telah diluluskan haruslah digabungkan di dalam Pelan Pembangunan.

B. Pihak perunding dikehendaki untuk memastikan dan mengesahkan bahawa sistem perparitan dibina berdasarkan rekabentuk pelan perparitan yang diluluskan.

C. Pihak pemaju perlu memastikan setiap kerja operasi dan penyelenggaraan yang dinyatakan di dalam pelan perparitan agar dipraktikkan selepas cadangan pembangunan siap dilaksanakan.

3. Perhatian tuan terhadap perkara ini amatlah dihargai dan diucapkan setinggi penghargaan.

Sekian, terima kasih.

**BERKHIDMAT UNTUK NEGARA**

**(IR. IRENE CHOO)**
Juruterа Pengairan dan Saliran Kanan
Penampang/Kota Kinabalu

Telefon : 088-215214
Faks : 088-718207
Laman Web : http://jpp.sabah.gov.my
Emel : jpps@sabah.gov.my

JABATAN PERKHIDMATAN
PEMBETUNGAN SABAH
Tingkat 3,4,9,10 & 11 Menara C,
Wisma Tun Fuad Stephens Karamunsing,
88300 Kota Kinabalu, Sabah,
Malaysia.

Rujukan Tuan : PI-393/GW/65
Rujukan Kami : JPP.800-2/1/9/(10571)/(5)

Tarikh : 18 NOV 2021

**PERUNDING IDEAL**
No. 9-3, Lot 13, 3rd Floor, Block B,
Damai Plaza, Phase 4, Luyang,
88300 Kota Kinabalu,
Sabah.

Tuan/Puan,

**CADANGAN PEMBINAAN PROJEK BALAI BOMBA DAN KUARTERS PUTATAN DI ATAS SEBAHAGIAN LOT N.T. 213059771, JALAN SAILAN IMBAAN PUTATAN, DAERAH PUTATAN, SABAH**
**Owner : Jabatan Bomba dan Penyelamat Malaysia**
**Developer : Kementerian Perumahan dan Kerajaan Tempatan**
**Consultant : Perunding Ideal**
**- Resubmission of Sewerage Layout Plan**

The above matter and your letter reference number PI-393/GW/65 dated 28 October 2021 is referred.

This Office has checked and reviewed the proposed Engineering Plan for the sewerage network system and our comments are as follows: -

02. This Office have no objection on the proposed Engineering Plan for the sewerage layout system and the Professional Engineer with Practising Certificate (PEPC) shall be fully responsible for the design performance and supervision works of the above project.

03. However, the Developer / Consultant still requires to comply with the small sewage treatment system (SSTS) requirements from JPP Sabah that will be issued at a later date.

Sekian dan terima kasih.

**"BERKHIDMAT UNTUK NEGARA"**

**"WE COMPLETE THE WATER CYCLE"**

Saya yang menjalankan Amanah,

.....
**(JENNIEVE PETER)**
Pengarah Perkhidmatan Pembetungan

**"SABAH MAJU JAYA"**

# Surat Ulasan JPP (2nd Submission)

Tiada halangan.
Perubahan yang telah buat untuk mematuhi Ulasan JPP:
1. Omitted manhole near Rumah Sampah.
2. Omitted CI steps in manhole.
3. Vitrified Clay Pipe changed to 225mm inner diameter.
4. SSTS requirements to comply.

# METHOD OF STATEMENT

| METHOD OF STATEMENT | SURAT KONTRAKTOR | SURAT PERUNDING | SURAT KPKT | STATUS |
|---|---|---|---|---|
| **PLATE BEARING TEST (Dynamic Engineering)** | MTR/KPKT/JBPM/2021/023 Date: 01/04/21 | PI-393/GW/17 Date: 01/04/21 | KPKT/(CPPP)WSS/600-3/88/2/(3)(10) Date: 08/04/21 | Lulus. |
| **PLATE BEARING TEST (GTS Lab)** | MTR/KPKT/JBPM/2021/030 Date: 14/04/21 | PI-393/GW/23 Date: 16/04/21 | KPKT/(CPPP)WSS/600-3/88/2/(3)(11) Date: 20/04/21 | Lulus |
| **In-situ California Bearing Ratio dan Field Density Test (GTS Lab)** | MTR/KPKT/JBPM/2021/048 Date: 17/06/21 | PI-393/GW/41 Date: 21/06/21 | KPKT/(CPPP)/WSS/600-3/88/2/(3)Klt.2(16) Date: 21/07/21 | Lulus |
| **Building Construction and Water Reticulation Work** | MTR/KPKT/JBPM/2021/082 Date: 06/09/21 | PI-393/GW/53 Date: 13/09/21 | KPKT/(CPPP)/WSS/600-3/88/2/(3)Klt.2(28) Date: 24/09/21 | Lulus |
| **Small Sewerage Treatment System (SSTS)** | MTR/KPKT/JBPM/2021/156 Date: 17/11/21 | PI-393/GW/73 Date: 22/11/21 | KPKT/(CPPP)/WSS/600-3/88/2(3)klt.3(8) Date: 19/11/21 | Lulus. |

# METHOD OF STATEMENT

| METHOD OF STATEMENT | SURAT KONTRAKTOR | SURAT PERUNDING | SURAT KPKT | STATUS |
|---|---|---|---|---|
| **Sewerage Work** | MTR/KPKT/JBPM/2021/166<br>Date: 01/12/21 | PI-393/GW/81<br>Date: 08/12/21 | | Lulus |
| | | | | |
| | | | | |
| | | | | |
| | | | | |

# STATUS PERMOHONAN PINDAAN LUKISAN PEMBINAAN

| BIL | LUKISAN | TARIKH PERMOHONAN | STATUS |
|---|---|---|---|
| 1. | Water Supply Layout Plan<br>PI-393/WS/001A | 18/10/2021 | Tidak lagi diperlukan. |
| 2. | Water Supply Details<br>PI-393/WS/002A | 18/10/2021 | |
| 3. | Road Layout Plan<br>PI-393/RD/001 Rev.1 | 17/11/2021 | Lulus. 23/11/21<br>Pengemukaan Pengemukaan Lukisan Pembinaan ke UKAS |
| 4. | Drainage Layout Plan<br>PI-393/DN/001 Rev.1 | 17/11/2021 | |
| 5. | Sewerage Layout Plan<br>PI-393/SW/001 Rev.1 | 17/11/2021 | |
| 6. | Water Supply Layout Plan<br>PI-393/WS/001 Rev.1 | 17/11/2021 | |
| 7. | Tempat Letak Kereta (Bumbung)<br>PI-393/TLK/001 Rev.1 | 17/11/2021 | |

# [SAMB.] STATUS PERMOHONAN PINDAAN LUKISAN PEMBINAAN

| BIL | LUKISAN | TARIKH PERMOHONAN | STATUS |
|---|---|---|---|
| 8. | Sewerage Layout Plan<br>PI-393/SW/001 Rev.A | 05/01/2022 | Lulus. 15/02/2022<br>Pengemukaan Pengemukaan Lukisan Pembinaan ke UKAS |
| 9. | Sewerage Details<br>PI-393/SW/002 Rev.A | 05/01/2022 | |

# STATUS KELULUSAN BAHAN BINAAN C&S

| BAHAN BINAAN | SURAT KONTRAKTOR | SURAT PERUNDING | SURAT KPKT | STATUS |
|---|---|---|---|---|
| **Structure** | | | | |
| Concrete Ready Mix Supplier | MTR/KPKT/JBPM /2021/022<br>Date: 31/03/21 | PI-393/GW/18<br>Date: 01/04/21 | KPKT/(CPPP)WSS/ 600-3/88/2/(3)(20)<br>Date: 27/04/21 | Lulus. |
| Concrete Mix Design and Trial Mix (Leppo Concrete) | 1.MTR/KPKT/JBP M/2021/019<br>Date: 27/03/21<br><br>2.MTR/KPKT/JBP M/2021/031<br>Date: 14/04/21 | 1.PI-393/GW/15<br>Date: 30/03/21 | KPKT/(CPPP)WSS/ 600-3/88/2/(3)(20)<br>Date: 27/04/21 | Lulus. Trial mix diperlukan |
| Rebars Supplier & Mill Certificate (Sabah wiremesh, Cut and Bend Sdn Bhd) | MTR/KPKT/JBPM /2021/029<br>Date: 13/04/21 | PI-393/GW/21<br>Date: 14/04/21<br><br>PI-393/GW/36<br>Date: 25/05/21 | KPKT/(CPPP)WSS/ 600-3/88/2/(3)klt.2(15)<br>Date: 11/06/21 | Lulus. |
| Rebars Supplier & Mill Certificate (Steel Industries) | MTR/KPKT/JBPM /2021/031<br>Date: 23/04/21 | PI-393/GW/26<br>Date: 27/04/21 | KPKT/(CPPP)WSS/ 600-3/88/2/(3)klt.2 (19)<br>Date: 04/05/21 | Lulus. |

# [SAMB.]STATUS KELULUSAN BAHAN BINAAN C&S

| BAHAN BINAAN | SURAT KONTRAKTOR | SURAT PERUNDING | SURAT KPKT | STATUS |
|---|---|---|---|---|
| **Structure** | | | | |
| Concrete Mix Design and Trial Mix (Kota Mix) | MTR/KPKT/JBPM /2021/038 Date: 18/05/21 | PI-393/GW/35 Date: 19/05/21 | KPKT/(CPPP) WSS/600-3/88/2/(3)klt.2(14) Date: 10/06/21 | Lulus |
| Hollow Section Speficiation | | | | |
| Roof Truss & Purlin Supplier (Rumah pam & Rumah Sampah) | MTR/KPKT/JBPM /2021/165 Date: 30/11/21 | PI-393/GW/83 Date: 20/12/21 | KPKT.600-3/88/2 (47) Date: 11/01/22 | dokumen sokongan belum lengkap 1. checklist 2. Sijil PE 3.Installation Team Chart 4. Softcopy |
| Roof Truss & Purlin Supplier (Balai Bomba & kuarters) | MTR/KPKT/JBPM /2022/227 Date: 17/05/22 | | | |

# [SAMB.] STATUS KELULUSAN BAHAN BINAAN C&S

| BAHAN BINAAN | SURAT KONTRAKTOR | SURAT PERUNDING | SURAT KPKT | STATUS |
|---|---|---|---|---|
| **Civil** | | | | |
| **Sewerage** | | | | |
| Small Sewerage Treatment System (SSTS) | MTR/KPKT/JBPM /2021/134 Date: 01/11/21 | PI-393/GW/66 Date: 05/11/21 | KPKT/(CPPP)WSS/600-3/88/2/(3)Klt.3(8) Date: 19/11/21 | Lulus |
| Vitrified Clay Pipe | MTR/KPKT/JBPM /2021/118 Date: 08/10/21 | PI-393/GW/63 Date: 14/10/21 | KPKT/(CPPP)WSS/600-3/88/2/(3)Klt.3(6) Date: 9/11/21 | Lulus. |
| Concrete Circular Manholes | MTR/KPKT/JBPM /2021/168 Date: 01/12/21 | PI-393/GW/80 Date: 08/12/21 | | Lulus. |
| **Drainage** | | | | |
| R.C Pipe Culverts | MTR/KPKT/JBPM /2021/025 Date: 07/04/21 | PI-393/GW/19 Date: 08/04/21 | KPKT/(CPPP)WSS/600-3/88/2/(3)(18) Date: 27/04/21 | Lulus. Magisan Sdn Bhd |

# [SAMB.] STATUS KELULUSAN BAHAN BINAAN C&S

| BAHAN BINAAN | SURAT KONTRAKTOR | SURAT PERUNDING | SURAT KPKT | STATUS |
|---|---|---|---|---|
| **Civil** | | | | |
| **Water Supply** | | | | |
| Bulk Water Meter, Y-Strainer, Sluice Valve | MTR/KPKT/JBPM/2021/118 Date: 08/10/21 | PI-393/GW/63 Date: 14/10/21 | KPKT/(CPPP)WSS/600-3/88/2/(3)Klt.3(6) Date: 9/11/21 | Lulus. |
| MSCL Pipe,Fittings & Fire Hydrant | MTR/KPKT/JBPM/2021/118 Date: 08/10/21 | PI-393/GW/63 Date: 14/10/21 | KPKT/(CPPP)WSS/600-3/88/2/(3)Klt.3(6) Date: 9/11/21 | Lulus. |
| PVC-O Pipe | MTR/KPKT/JBPM/2021/150 Date: 16/11/21 | PI-393/GW/69 Date: 16/11/21 | KPKT/(CPPP)WSS/600-3/88/2/(3)Klt.3(16) Date: 10/12/21 | Lulus |
| Rainwater Harvesting Tank | MTR/KPKT/JBPM/2021/199 Date: | PI-393/GW/98 Date: 22/03/21 | KPKT/(CPPP)WSS/600-3/88/2/(3)Klt.4(3) Date: 04/04/22 | Lulus |

# [SAMB.] STATUS KELULUSAN BAHAN BINAAN C&S

| BAHAN BINAAN | SURAT KONTRAKTOR | SURAT PERUNDING | SURAT KPKT | STATUS |
|---|---|---|---|---|
| **Road** | | | | |
| Subgrade and Base Course Supplier & Aggregate Test | MTR/KPKT/JBPM /2021/021 Date: 31/03/21 | PI-393/GW/16 Date: 31/03/21 | KPKT/(CPPP)WSS/600-3/88/2/(3)(17) Date: 27/04/21 | Lulus |
| Subgrade & Base Course CBR Test | | | | |
| Asphalt supplier & Design Mix | MTR/KPKT/JBPM /2021/221 Date: 31/03/22 | PI-393/GW/103 Date: 14/04/22 | | 20/04/22 Telah hantar ke W6. |
| Road Kerb Supplier | MTR/KPKT/JBPM /2021/094 Date: 13/09/21 | PI-393/GW/61 Date: 29/09/21 | KPKT/(CPPP)WSS/600-3/88/2/(3)Klt.2(31) Date: 20/10/21 | Lulus |
| Termoplastic Road Marking | | | | |

# UJIAN-UJIAN SKOP C&S TERKINI

| UJIAN | DATE | STATUS |
|---|---|---|
| PLATE BEARING TEST | 20/04/2021 | LULUS |
| CONCRETE TRIAL MIX (Leppo Concrete) | 04/05/2021 | LULUS |
| CONCRETE TRIAL MIX (Kota Mix) | 16/08/2021 | LULUS |

# SUMMARY OF CONCRETE CUBE RESULTS

| No | Date Casting | Cube Set No | Date Tested | Age (Days) | Weight (kg) | Density (Mg/m3) | Load (kN) | Strength (N/mm2) | Average Strength (N/mm2) | Concrete Grade | Slump (mm) | Concreting Location/Structure/Chainage | Concrete Supplier |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 27/5/2021 | 13-15 | 3/06/2021 | 7 | 8000 | 2.373 | 690 | 30.67 | 30.89 | G35N | 150 | PUMP HOUSE/PAD FOOTING | LEPPO CONCRETE SDN BHD |
| | | | | | 8080 | 2.397 | 700 | 31.11 | | | | | |
| | | | | | 8080 | 2.397 | 695 | 30.89 | | | | | |
| | | 16-18 | 25/8/2021 | 28 | 8100 | 2.403 | 1060 | 47.11 | 49.56 | | 150 | | |
| | | | | | 8120 | 2.409 | 1140 | 50.67 | | | | | |
| | | | | | 8120 | 2.409 | 1145 | 50.89 | | | | | |
| 2 | 27/5/2021 | 19-21 | 3/06/2021 | 7 | 8090 | 2.4 | 805 | 35.78 | 35.63 | G35N | 150 | BALAI BOMBA/FOOTINGS | LEPPO CONCRETE SDN BHD |
| | | | | | 8000 | 2.373 | 800 | 35.56 | | | | | |
| | | | | | 8050 | 2.388 | 800 | 35.56 | | | | | |
| | | 22-24 | 25/8/2021 | 28 | 8140 | 2.415 | 1155 | 51.33 | 51.41 | | 150 | | |
| | | | | | 8120 | 2.409 | 1150 | 51.11 | | | | | |
| | | | | | 8140 | 2.415 | 1165 | 51.78 | | | | | |
| 3 | 9/08/2021 | 43-45 | 26/8/2021 | 7 | 8100 | 2.403 | 850 | 37.78 | 37.78 | G35N | 150 | KUARTERS/FOOTINGS | LEPPO CONCRETE SDN BHD |
| | | | | | 8160 | 2.421 | 855 | 38.00 | | | | | |
| | | | | | 8160 | 2.421 | 845 | 37.56 | | | | | |
| | | 46-48 | 6/09/2021 | 28 | 7920 | 2.347 | 860 | 38.22 | 38.37 | | 140 | | |
| | | | | | 7750 | 2.296 | 880 | 39.11 | | | | | |
| | | | | | 8050 | 2.385 | 850 | 37.78 | | | | | |
| 4 | 19/08/2021 | 61-63 | 26/8/2021 | 7 | 8040 | 2.385 | 800 | 35.56 | 35.56 | G35N | 150 | KUARTERS/FOOTINGS | LEPPO CONCRETE SDN BHD |
| | | | | | 8020 | 2.379 | 805 | 35.78 | | | | | |
| | | | | | 8100 | 2.403 | 795 | 35.33 | | | | | |
| | | 64-66 | 18/9/2021 | 28 | 8040 | 2.385 | 1075 | 47.78 | 47.48 | | 130 | | |
| | | | | | 8120 | 2.409 | 1060 | 47.11 | | | | | |
| | | | | | 8060 | 2.391 | 1070 | 47.56 | | | | | |
| 5 | 7/08/2021 | 37-39 | 26/8/2021 | 7 | 8140 | 2.415 | 880 | 39.11 | 38.81 | G35N | 170 | BALAI BOMBA/FOOTINGS | LEPPO CONCRETE SDN BHD |
| | | | | | 8080 | 2.397 | 865 | 38.44 | | | | | |
| | | | | | 8140 | 2.415 | 875 | 38.89 | | | | | |
| | | 40-42 | 3/09/2021 | 28 | 7980 | 2.367 | 1025 | 45.56 | 46.37 | | 170 | | |
| | | | | | 8020 | 2.379 | 1065 | 47.33 | | | | | |
| | | | | | 8260 | 2.451 | 1040 | 46.22 | | | | | |

| No | Date Casting | Cube Set No | Date Tested | Age (Days) | Weight (kg) | Density (Mg/m3) | Load (kN) | Strength (N/mm2) | Average Strength (N/mm2) | Concrete Grade | Slump (mm) | Concreting Location/Structure/Chainage | Concrete Supplier | Remarks |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 6 | 9/08/2021 | 43-45 | 26/8/2021 | 7 | 8100 | 2.403 | 850 | 37.78 | 37.78 | G35N | 170 | BALAI BOMBA/FOOTINGS | LEPPO CONCRETE SDN BHD | |
| | | | | | 8160 | 2.421 | 855 | 38.00 | | | | | | |
| | | | | | 8160 | 2.421 | 845 | 37.56 | | | | | | |
| | | 46-48 | 6/09/2021 | 28 | 8100 | 2.403 | 1070 | 47.56 | 47.40 | | 120 | | | |
| | | | | | 8000 | 2.373 | 1065 | 47.33 | | | | | | |
| | | | | | 8120 | 2.12 | 1065 | 47.33 | | | | | | |
| 7 | 6/08/2021 | 31-33 | 26/8/2021 | 7 | 8160 | 2.421 | 870 | 38.67 | 38.59 | G35N | 160 | KUARTERS/FOOTINGS | LEPPO CONCRETE SDN BHD | |
| | | | | | 8380 | 2.486 | 865 | 38.44 | | | | | | |
| | | | | | 8120 | 2.409 | 870 | 38.67 | | | | | | |
| | | 34-36 | 4/09/2021 | 28 | 8020 | 2.379 | 1080 | 48.00 | 47.70 | | 160 | | | |
| | | | | | 8080 | 2.397 | 1070 | 47.56 | | | | | | |
| | | | | | 8040 | 2.385 | 1070 | 47.56 | | | | | | |
| 8 | 14/8/2021 | 49-51 | 26/8/2021 | 7 | 8100 | 2.403 | 835 | 37.11 | 37.11 | G35N | 170 | KUARTERS/FOOTINGS | LEPPO CONCRETE SDN BHD | |
| | | | | | 8020 | 2.379 | 835 | 37.11 | | | | | | |
| | | | | | 8020 | 2.379 | 835 | 37.11 | | | | | | |
| | | 52-54 | 11/09/2021 | 28 | 8120 | 2.409 | 1080 | 48.00 | 48.00 | | 170 | | | |
| | | | | | 8040 | 2.385 | 1075 | 47.78 | | | | | | |
| | | | | | 8100 | 2.403 | 1085 | 48.22 | | | | | | |
| | 29/5/2021 | 25-27 | 26/08/2021 | 7 | 8120 | 2.409 | 1150 | 51.11 | 51.41 | G35N | 150 | BALAI BOMBA/FOOTINGS | LEPPO CONCRETE SDN BHD | |
| | | | | | 8140 | 2.415 | 1160 | 51.56 | | | | | | |
| | | | | | 8160 | 2.421 | 1160 | 51.56 | | | | | | |
| | | 28-30 | 26/8/2021 | 28 | 8060 | 2.391 | 1170 | 52.00 | 52.07 | | 150 | | | |
| | | | | | 8080 | 2.397 | 1170 | 52.00 | | | | | | |
| | | | | | 8060 | 2.391 | 1175 | 52.22 | | | | | | |
| 9 | 18/8/2021 | 55-57 | 26/8/2021 | 7 | 8080 | 2.397 | 820 | 36.44 | 36.15 | G35N | 160 | BALAI BOMBA/FOOTINGS | LEPPO CONCRETE SDN BHD | |
| | | | | | 8020 | 2.379 | 815 | 36.22 | | | | | | |
| | | | | | 8000 | 2.373 | 805 | 35.78 | | | | | | |
| | | 58-60 | 18/9/2021 | 28 | 8100 | 2.403 | 1070 | 47.56 | 47.63 | | 160 | | | |
| | | | | | 8000 | 2.373 | 1070 | 47.56 | | | | | | |
| | | | | | 8020 | 2.379 | 1075 | 47.78 | | | | | | |
| 10 | 25/8/2021 | 73-75 | 1/06/2021 | 7 | 8010 | 2.376 | 800 | 35.56 | 35.33 | G35N | 150 | KUARTERS/FOOTINGS & TOWER/RAFT FOUNDATION | LEPPO CONCRETE SDN BHD | |
| | | | | | 8000 | 2.373 | 790 | 35.11 | | | | | | |
| | | | | | 7940 | 2.356 | 795 | 35.33 | | | | | | |
| | | 82-84 | 22/9/2021 | 28 | 8060 | 2.391 | 1060 | 47.11 | 47.41 | | 170 | | | |
| | | | | | 8100 | 2.403 | 1075 | 47.78 | | | | | | |
| | | | | | 8010 | 2.376 | 1065 | 47.33 | | | | | | |

| No | Date Casting | Cube Set No | Date Tested | Age (Days) | Weight (kg) | Density (Mg/m3) | Load (kN) | Strength (N/mm2) | Average Strength (N/mm2) | Concrete Grade | Slump (mm) | Concreting Location/Structure/Chainage | Concrete Supplier |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 11 | 26/8/2021 | 85-87 | 2/09/2021 | 7 | 7960 | 2.362 | 795 | 35.33 | 35.19 | G35N | 150 | KUARTERS/FOOTINGS | LEPPO CONCRETE SDN BHD |
| | | | | | 8100 | 2.403 | 790 | 35.11 | | | | | |
| | | | | | 8080 | 2.397 | 790 | 35.11 | | | | | |
| | | 88-90 | 23/9/2021 | 28 | 8000 | 2.373 | 1065 | 47.33 | 47.26 | | 150 | | |
| | | | | | 8120 | 2.409 | 1055 | 46.89 | | | | | |
| | | | | | 8000 | 2.373 | 1070 | 47.56 | | | | | |
| 12 | 28/8/2021 | 91-93 | 4/09/2021 | 7 | 8080 | 2.397 | 705 | 31.33 | 31.19 | G30N | 170 | PUMP HOUSE/ROOF BEAM | LEPPO CONCRETE SDN BHD |
| | | | | | 8000 | 2.373 | 700 | 31.11 | | | | | |
| | | | | | 8000 | 2.373 | 700 | 31.11 | | | | | |
| | | 94-96 | 25/9/2021 | 28 | 8010 | 2.376 | 960 | 42.67 | 42.67 | | 170 | | |
| | | | | | 8000 | 2.373 | 970 | 43.11 | | | | | |
| | | | | | 8020 | 2.379 | 950 | 42.22 | | | | | |
| 13 | 11/09/2021 | 97-99 | 18/9/2021 | 7 | 8020 | 2.379 | 690 | 30.67 | 30.74 | G30N | 170 | BALAI BOMBA/G. BEAM | LEPPO CONCRETE SDN BHD |
| | | | | | 8100 | 2.403 | 700 | 31.11 | | | | | |
| | | | | | 8100 | 2.403 | 685 | 30.44 | | | | | |
| | | 100-102 | 12/10/2021 | 28 | 8040 | 2.385 | 950 | 42.22 | 42.15 | | 170 | | |
| | | | | | 8000 | 2.373 | 950 | 42.22 | | | | | |
| | | | | | 8080 | 2.397 | 945 | 42.00 | | | | | |
| 14 | 13/9/2021 | 103-105 | 23/9/2021 | 7 | 8120 | 2.409 | 690 | 30.67 | 30.67 | G30N | 150 | TOWER/COLUMNS & RC WALL | LEPPO CONCRETE SDN BHD |
| | | | | | 7980 | 2.367 | 680 | 30.22 | | | | | |
| | | | | | 8100 | 2.403 | 700 | 31.11 | | | | | |
| | | 106-108 | 12/10/2021 | 28 | 8120 | 2.41 | 960 | 42.67 | 42.44 | | 150 | | |
| | | | | | 8000 | 2.373 | 950 | 42.22 | | | | | |
| | | | | | 8010 | 2.376 | 955 | 42.44 | | | | | |
| 15 | 20/9/2021 | 1,2,3 | 27/9/2021 | 7 | 8320 | 2.465 | 775 | 34.44 | 33.33 | G30N | 110 | KUARTERS/G. BEAM | KOTAMIX CONCRETE SDN BHD |
| | | | | | 8280 | 2.453 | 745 | 33.11 | | | | | |
| | | | | | 8250 | 2.444 | 730 | 32.44 | | | | | |
| | | 1,2,3 | 18/10/2021 | 28 | 8220 | 2.436 | 930 | 41.33 | 41.56 | | 110 | | |
| | | | | | 8240 | 2.441 | 955 | 42.44 | | | | | |
| | | | | | 8210 | 2.433 | 920 | 40.89 | | | | | |
| 16 | 25/9/2021 | 1,2,3 | 2/10/2021 | 7 | 8320 | 2.465 | 775 | 34.44 | 33.33 | G30N | 110 | BALAI BOMBA/G. SLAB & TOWER/1ST FLOOR SLAB | KOTAMIX CONCRETE SDN BHD |
| | | | | | 8280 | 2.453 | 745 | 33.11 | | | | | |
| | | | | | 8250 | 2.444 | 730 | 32.44 | | | | | |
| | | 1,2,3 | 23/10/2021 | 28 | 8280 | 2.453 | 910 | 40.44 | 40.59 | | 100 | | |
| | | | | | 8270 | 2.45 | 895 | 39.78 | | | | | |
| | | | | | 8300 | 2.459 | 935 | 41.56 | | | | | |

| No | Date Casting | Cube Set No | Date Tested | Age (Days) | Weight (kg) | Density (Mg/m3) | Load (kN) | Strength (N/mm2) | Average Strength (N/mm2) | Concrete Grade | Slump (mm) | Concreting Location/Structure/Chainage | Concrete Supplier |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 17 | 28/9/2021 | 1,2,3 | 5/10/2021 | 7 | 8240 | 2.441 | 735 | 32.67 | 34.00 | G30N | 110 | KUARTERS/G. SLAB | KOTAMIX CONCRETE SDN BHD |
| | | | | | 8280 | 2.453 | 775 | 34.44 | | | | | |
| | | | | | 8290 | 2.456 | 785 | 34.89 | | | | | |
| | | 1,2,3 | 26/10/2021 | 28 | 8250 | 2.444 | 885 | 39.33 | 39.93 | | 110 | | |
| | | | | | 8280 | 2.453 | 915 | 40.67 | | | | | |
| | | | | | 8250 | 2.444 | 895 | 39.78 | | | | | |
| 18 | 1/10/2021 | 1,2,3 | 8/10/2021 | 7 | 8170 | 2.421 | 695 | 30.89 | 32.07 | G30N | 115 | BALAI BOMBA/COLUMNS G-1ST FLR | KOTAMIX CONCRETE SDN BHD |
| | | | | | 8230 | 2.439 | 725 | 32.22 | | | | | |
| | | | | | 8240 | 2.441 | 745 | 33.11 | | | | | |
| | | 1.2.3 | 29/10/2021 | 28 | 8200 | 2.43 | 855 | 38.00 | 38.67 | | | | |
| | | | | | 8220 | 2.436 | 875 | 38.89 | | | | | |
| | | | | | 8220 | 2.436 | 880 | 39.11 | | | | | |
| 19 | 11/10/2021 | 1,2,3 | 18/10/2021 | 7 | 8220 | 2.436 | 705 | 31.33 | 31.70 | G30N | 110 | KUARTERS/COLUMN G-1ST FLR & TOWER/COLUMN & RC WALL 1ST-2ND FLR | KOTAMIX CONCRETE SDN BHD |
| | | | | | 8190 | 2.427 | 700 | 31.11 | | | | | |
| | | | | | 8250 | 2.444 | 735 | 32.67 | | | | | |
| | | 1,2,3 | 8/11/2021 | 28 | 8230 | 2.439 | 895 | 39.78 | 40.07 | | 110 | | |
| | | | | | 8240 | 2.441 | 910 | 40.44 | | | | | |
| | | | | | 8230 | 2.439 | 900 | 40.00 | | | | | |
| 20 | 11/10/2021 | 1,2,3 | 18/10/2021 | 7 | 8210 | 2.433 | 780 | 34.67 | 34.59 | G35N | 110 | RUMAH SAMPAH/FOOTINGS | KOTAMIX CONCRETE SDN BHD |
| | | | | | 8230 | 2.439 | 790 | 35.11 | | | | | |
| | | | | | 8190 | 2.427 | 765 | 34.00 | | | | | |
| | | 1,2,3 | 8/11/2021 | 28 | 8240 | 2.441 | 990 | 44.00 | 43.78 | | 190 | | |
| | | | | | 8210 | 2.433 | 950 | 42.22 | | | | | |
| | | | | | 8260 | 2.447 | 1015 | 45.11 | | | | | |
| 21 | 14/10/2021 | 1,2,3 | 21/10/2021 | 7 | 8200 | 2.430 | 710 | 31.56 | 31.56 | G30N | 105 | BALAI BOMBA/RAMP & RUMAH SAMPAH/G. BEAM | KOTAMIX CONCRETE SDN BHD |
| | | | | | 8190 | 2.427 | 695 | 30.89 | | | | | |
| | | | | | 8220 | 2.436 | 725 | 32.22 | | | | | |
| | | 1,2,3 | ########## | 28 | 8200 | 2.430 | 880 | 39.11 | 40.15 | | 185 | | |
| | | | | | 8220 | 2.436 | 910 | 40.44 | | | | | |
| | | | | | 8230 | 2.439 | 920 | 40.89 | | | | | |
| 22 | 16/10/2021 | 1,2,3 | 23/10/2021 | 7 | 8250 | 2.444 | 720 | 32.00 | 32.22 | G30N | 110 | KOLAH AIR/G. SLAB & RUMAH SAMPAH/G. SLAB | KOTAMIX CONCRETE SDN BHD |
| | | | | | 8240 | 2.441 | 735 | 32.67 | | | | | |
| | | | | | 8250 | 2.444 | 720 | 32.00 | | | | | |
| | | 1,2,3 | 13/11/2021 | 28 | 8260 | 2.447 | 900 | 40.00 | 39.26 | | 110 | | |
| | | | | | 8240 | 2.441 | 885 | 39.33 | | | | | |
| | | | | | 8220 | 2.436 | 865 | 38.44 | | | | | |

| No | Date Casting | Cube Set No | Date Tested | Age (Days) | Weight (kg) | Density (kg/m3) | Load (kN) | Stength (N/mm2) | Average Strength (N/mm2) | Concete Grade | Slump (mm) | Concreting Location/Structure/Chainage | Concrete Supplier | Remarks |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 19 | 1/10/2021 | 1,2,3 | 8/10/2021 | 7 | 8170 | 2.421 | 695 | 30.89 | 32.07 | G30N | 115 | BALAI BOMBA/COLUMNS G-1ST FLR | KOTAMIX CONCRETE SDN BHD | |
| | | | | | 8230 | 2.439 | 725 | 32.22 | | | | | | |
| | | | | | 8240 | 2.441 | 745 | 33.11 | | | | | | |
| | | 1,2,3 | 29/10/2021 | 28 | 8200 | 2.43 | 855 | 38.00 | 38.67 | | | | | |
| | | | | | 8220 | 2.436 | 875 | 38.89 | | | | | | |
| | | | | | 8220 | 2.436 | 880 | 39.11 | | | | | | |
| 20 | 11/10/2021 | 1,2,3 | 18/10/2021 | 7 | 8220 | 2.436 | 705 | 31.33 | 31.70 | G30N | 110 | KUARTERS/COLUMN G-1ST FLR & TOWER/COLUMN & RC WALL 1ST-2ND FLR | KOTAMIX CONCRETE SDN BHD | |
| | | | | | 8190 | 2.427 | 700 | 31.11 | | | | | | |
| | | | | | 8250 | 2.444 | 735 | 32.67 | | | | | | |
| | | 1,2,3 | 8/11/2021 | 28 | 8230 | 2.439 | 895 | 39.78 | 40.07 | | 110 | | | |
| | | | | | 8240 | 2.441 | 910 | 40.44 | | | | | | |
| | | | | | 8230 | 2.439 | 900 | 40.00 | | | | | | |
| 21 | 11/10/2021 | 1,2,3 | 18/10/2021 | 7 | 8210 | 2.433 | 780 | 34.67 | 34.59 | G35N | 110 | RUMAH SAMPAH/FOOTINGS | KOTAMIX CONCRETE SDN BHD | |
| | | | | | 8230 | 2.439 | 790 | 35.11 | | | | | | |
| | | | | | 8190 | 2.427 | 765 | 34.00 | | | | | | |
| | | 1,2,3 | 8/11/2021 | 28 | 8240 | 2.441 | 990 | 44.00 | 43.78 | | 190 | | | |
| | | | | | 8210 | 2.433 | 950 | 42.22 | | | | | | |
| | | | | | 8260 | 2.447 | 1015 | 45.11 | | | | | | |
| 22 | 14/10/2021 | 1,2,3 | 21/10/2021 | 7 | 8200 | 2.430 | 710 | 31.56 | 31.56 | G30N | 105 | BALAI BOMBA/RAMP & RUMAH SAMPAH/G. BEAM | KOTAMIX CONCRETE SDN BHD | |
| | | | | | 8190 | 2.427 | 695 | 30.89 | | | | | | |
| | | | | | 8220 | 2.436 | 725 | 32.22 | | | | | | |
| | | 1,2,3 | 11/11/2021 | 28 | 8200 | 2.430 | 880 | 39.11 | 40.15 | | 185 | | | |
| | | | | | 8220 | 2.436 | 910 | 40.44 | | | | | | |
| | | | | | 8230 | 2.439 | 920 | 40.89 | | | | | | |
| 23 | 16/10/2021 | 1,2,3 | 23/10/2021 | 7 | 8250 | 2.444 | 720 | 32.00 | 32.22 | G30N | 110 | KOLAH AIR/G. SLAB & RUMAH SAMPAH/G. SLAB | KOTAMIX CONCRETE SDN BHD | |
| | | | | | 8240 | 2.441 | 735 | 32.67 | | | | | | |
| | | | | | 8250 | 2.444 | 720 | 32.00 | | | | | | |
| | | 1,2,3 | 13/11/2021 | 28 | 8260 | 2.447 | 900 | 40.00 | 39.26 | | 110 | | | |
| | | | | | 8240 | 2.441 | 885 | 39.33 | | | | | | |
| | | | | | 8220 | 2.436 | 865 | 38.44 | | | | | | |
| 24 | 3/11/2021 | 109-111 | 13/11/2021 | 7 | 8120 | 2.410 | 680 | 30.22 | 30.51 | G30N | 150 | RUMAH SAMPAH/ROOF BEAM & KOLAH AIR/RC WALL | LEPPO CONCRETE SDN BHD | |
| | | | | | 8080 | 2.397 | 695 | 30.89 | | | | | | |
| | | | | | 8100 | 2.403 | 685 | 30.44 | | | | | | |
| | | 112-114 | 1/12/2021 | 28 | 8000 | 2.370 | 960 | 42.67 | 42.96 | | 150 | | | |
| | | | | | 8040 | 2.382 | 970 | 43.11 | | | | | | |
| | | | | | 8040 | 2.382 | 970 | 43.11 | | | | | | |
| 25 | 12/11/2021 | 1,2,3 | 19/11/2021 | 7 | 8180 | 2.424 | 710 | 31.56 | 31.93 | G30N | 110 | BALAI BOMBA/1ST FLOOR SLAB | KOTAMIX CONCRETE SDN BHD | |
| | | | | | 8200 | 2.430 | 720 | 32.00 | | | | | | |
| | | | | | 8210 | 2.433 | 725 | 32.22 | | | | | | |
| | | 1,2,3 | 10/12/2021 | 28 | 8220 | 2.436 | 885 | 39.33 | 38.81 | | | | | |
| | | | | | 8190 | 2.427 | 855 | 38.00 | | | | | | |
| | | | | | 8210 | 2.433 | 880 | 39.11 | | | | | | |

| No | Date Casting | Cube Set No | Date Tested | Age (Days) | Weight (kg) | Density (Mg/m3) | Load (kN) | Strength (N/mm2) | Average Strength (N/mm2) | Concrete Grade | Slump (mm) | Concreting Location/Structural/Chainage | Concrete Supplier | Remarks |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 26 | 16/11/2021 | 1,2,3 | 23/11/2021 | 7 | 8250 | 2.444 | 745 | 33.11 | 32.52 | G30N | 110 | KUARTERS/1ST FLR SLAB & RUMAH SAMPAH/RC WALL | KOTA MIX CONCRETE SDN BHD | |
| | | | | | 8210 | 2.433 | 715 | 31.78 | | | | | | |
| | | | | | 8230 | 2.439 | 735 | 32.67 | | | | | | |
| | | 1,2,3 | 14/12/2021 | 28 | 8240 | 2.441 | 930 | 41.33 | 41.48 | | | | | |
| | | | | | 8260 | 2.447 | 945 | 42.00 | | | | | | |
| | | | | | 8230 | 2.439 | 925 | 41.11 | | | | | | |
| 27 | 20/11/2021 | 115-117 | 27/11/2021 | 7 | 8010 | 2.376 | 695 | 30.89 | 31.04 | G30N | 150 | BALAI BOMBA/COLUMNS 1ST-ROOF | LEPPO CONCRETE SDN BHD | |
| | | | | | 8100 | 2.403 | 700 | 31.11 | | | | | | |
| | | | | | 8000 | 2.373 | 700 | 31.11 | | | | | | |
| | | 118-120 | 18/12/2021 | 28 | 8080 | 2.394 | 970 | 43.11 | 42.89 | | | | | |
| | | | | | 8100 | 2.400 | 960 | 42.67 | | | | | | |
| | | | | | 8000 | 2.370 | 965 | 42.89 | | | | | | |
| 28 | 22/11/2021 | 127-129 | 29/11/2021 | 7 | 8120 | 2.406 | 590 | 26.22 | 25.62 | G30N | 150 | KUARTERS/COLUMNS 1ST-ROOF | LEPPO CONCRETE SDN BHD | |
| | | | | | 8040 | 2.382 | 570 | 25.33 | | | | | | |
| | | | | | 8140 | 2.412 | 570 | 25.33 | | | | | | |
| | | 130-132 | 28/12/2021 | 28 | 8100 | 2.400 | 970 | 43.11 | 42.89 | | 150 | | | |
| | | | | | 8120 | 2.406 | 960 | 42.67 | | | | | | |
| | | | | | 8100 | 2.400 | 965 | 42.89 | | | | | | |
| 29 | 26/11/2021 | 133-135 | 3/12/2021 | 7 | 8230 | 2.439 | 590 | 26.22 | 25.70 | G25N | 110 | DRAINAGE/450MM & 300MM COVER | KOTA MIX CONCRETE SDN BHD | |
| | | | | | 8180 | 2.424 | 560 | 24.89 | | | | | | |
| | | | | | 8210 | 2.433 | 585 | 26.00 | | | | | | |
| | | 1,2,3 | 24/12/2021 | 28 | 8220 | 2.436 | 715 | 31.78 | 31.50 | | | | | |
| | | | | | 8230 | 2.439 | 725 | 32.22 | | | | | | |
| | | | | | 8200 | 2.430 | 685 | 30.44 | | | | | | |
| 30 | 29/11/2021 | 121-123 | 6/12/2021 | 7 | 8080 | 2.394 | 570 | 25.33 | 25.86 | G25N | 160 | DRAINAGE/600MM CONCEAL | LEPPO CONCRETE SDN BHD | |
| | | | | | 8020 | 2.376 | 590 | 26.22 | | | | | | |
| | | | | | 8120 | 2.406 | 585 | 26.00 | | | | | | |
| | | 124-126 | 28/12/2021 | 28 | 8040 | 2.385 | 945 | 42.00 | 30.65 | | | | | |
| | | | | | 8000 | 2.373 | 950 | 42.22 | | | | | | |
| | | | | | 8010 | 2.376 | 945 | 42.00 | | | | | | |
| 31 | 1/12/2021 | 133-135 | 8/12/2021 | 7 | 8000 | 2.373 | 590 | 26.22 | 25.85 | G25N | 165 | DRAINAGE/450MM & 300MM COVER | LEPPO CONCRETE SDN BHD | |
| | | | | | 8010 | 2.376 | 560 | 25.56 | | | | | | |
| | | | | | 8000 | 2.372 | 585 | 25.75 | | | | | | |
| | | 136-138 | 29/12/2021 | 28 | 8100 | 2.403 | 960 | 42.67 | 31.20 | | 165 | | | |
| | | | | | 8100 | 2.403 | 935 | 41.56 | | | | | | |
| | | | | | 8030 | 2.382 | 950 | 42.22 | | | | | | |
| 32 | 4/12/2021 | 139-141 | 11/12/2021 | 7 | 8010 | 2.373 | 695 | 30.89 | 31.11 | G30N | 150 | TOWER/COLUMNS & RC WALL(2ND-3TH) | LEPPO CONCRETE SDN BHD | |
| | | | | | 8000 | 2.370 | 700 | 31.11 | | | | | | |
| | | | | | 8020 | 2.376 | 705 | 31.33 | | | | | | |
| | | 142-144 | 3/01/2022 | 28 | 8040 | 2.382 | 970 | 43.11 | 42.60 | | 150 | | | |
| | | | | | 8010 | 2.373 | 955 | 42.44 | | | | | | |
| | | | | | 8010 | 2.373 | 950 | 42.22 | | | | | | |

| No | Date Casting | Cube Set No | Date Tested | Age (Days) | Weight(kg) | Density (kg/m3) | Load (kN) | Strength (N/mm2) | Average Strength (N/mm2) | Concrete Grade | Slump (mm) | Concreting Location/Structure/Chainage | Concrete Supplier |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 33 | 26/11/2021 | 1,2,3 | 12/08/2021 | 7 | 8230 | 2439 | 590 | 26.22 | 25.70 | G25N | 110 | DRAINAGE (450&300MM | KDT AMIX CONCRETE SDN BHD |
| | | | | | 8280 | 2454 | 560 | 24.89 | | | | | |
| | | | | | 8210 | 2433 | 585 | 26.00 | | | | | |
| | | 1,2,3 | 24/12/2021 | 28 | 8220 | 2436 | 715 | 31.78 | 31.50 | | | | |
| | | | | | 8230 | 2439 | 725 | 32.22 | | | | | |
| | | | | | 8200 | 2430 | 695 | 30.44 | | | | | |
| 34 | 18/12/2021 | 168-170 | 28/12/2021 | 7 | 8000 | 2370 | 705 | 31.33 | 31.11 | G30N | 165 | TOWER / 3RD FLOOR SLAB) | LEPPO CONCRETE SDN BHD |
| | | | | | 8260 | 2448 | 700 | 31.11 | | | | | |
| | | | | | 8140 | 2412 | 695 | 30.89 | | | | | |
| | | 171-173 | 15/1/2022 | 28 | 8260 | 2448 | 950 | 42.22 | 42.52 | | | | |
| | | | | | 8220 | 2436 | 960 | 42.67 | | | | | |
| | | | | | 8200 | 2430 | 680 | 30.22 | | | | | |
| 35 | 5/1/20222 | 204-206 | 1/12/2022 | 7 | 8000 | 2370 | 685 | 30.44 | 30.44 | G30N | 165 | BALAI BOMBA/ROOF BEAM(1-2,AH) | LEPPO CONCRETE SDN BHD |
| | | | | | 7950 | 2356 | 690 | 30.67 | | | | | |
| | | | | | 8080 | 2394 | 900 | 40.00 | | | | | |
| | | 207-209 | 4/02/2022 | 28 | 8000 | 2370 | 905 | 40.22 | 40.14 | | | | |
| | | | | | 8220 | 2436 | 905 | 40.22 | | | | | |
| | | | | | 8100 | 2400 | 580 | 25.78 | | | | | |
| 36 | 6/01/2022 | 210-212 | 13/1/2022 | 7 | 8040 | 2382 | 585 | 26.00 | 25.70 | G25N | 160 | DRAINAGE (600MM,450MM & 300MM | LEPPO CONCRETE SDN BHD |
| | | | | | 8040 | 2382 | 570 | 25.33 | | | | | |
| | | | | | 7950 | 2356 | 760 | 33.78 | | | | | |
| | | 213-215 | 4/02/2022 | 28 | 8000 | 2370 | 765 | 34.00 | 33.85 | | | | |
| | | | | | 8000 | 2370 | 760 | 33.78 | | | | | |
| | | | | | 8040 | 2382 | 980 | 43.56 | | | | | |
| 37 | 7/01/2022 | 216-218 | 14/1/2022 | 7 | 8000 | 2370 | 565 | 25.11 | 25.56 | G25N | 160 | DRAINAGE (450MM & 600MM | LEPPO CONCRETE SDN BHD |
| | | | | | 8000 | 2370 | 570 | 25.33 | | | | | |
| | | | | | 8100 | 2400 | 740 | 32.89 | | | | | |
| | | 219-221 | 4/02/2022 | 28 | 8000 | 2370 | 745 | 33.11 | 32.89 | | | | |
| | | | | | 8120 | 2406 | 735 | 32.67 | | | | | |
| | | | | | 8100 | 2400 | 590 | 26.22 | | | | | |
| 38 | 14/1/2022 | 222-224 | 21/1/2022 | 7 | 8100 | 2400 | 580 | 25.78 | 25.85 | G25N | 160 | DRAINAGE (300MM OPEN & 600MM RC CULVERT | LEPPO CONCRETE SDN BHD |
| | | | | | 8000 | 2370 | 575 | 25.56 | | | | | |
| | | | | | 8080 | 2394 | 730 | 32.44 | | | | | |
| | | 225-227 | 2/11/2022 | 28 | 8000 | 2370 | 745 | 33.11 | 32.81 | | | | |
| | | | | | 8000 | 2370 | 740 | 32.89 | | | | | |
| | | | | | 8060 | 2388 | 580 | 25.78 | | | | | |
| 39 | 27/12/2021 | 180-182 | 1/03/2022 | 7 | 8120 | 2406 | 580 | 25.78 | 25.85 | G25N | 150 | DRAINAGE (600MM OPEN | LEPPO CONCRETE SDN BHD |
| | | | | | 8000 | 2370 | 585 | 26.00 | | | | | |
| | | | | | 8000 | 2370 | 880 | 39.11 | | | | | |
| | | 183-185 | 24/1/2022 | 28 | 7950 | 2356 | 875 | 38.89 | 38.97 | | | | |
| | | | | | 8010 | 2373 | 875 | 38.89 | | | | | |
| | | | | | 8000 | 2370 | 710 | 31.56 | | | | | |
| 40 | 31/12/2021 | 198-200 | 1/07/2022 | 7 | 7910 | 2367 | 685 | 30.44 | 31.11 | G30N | 140 | BALAI BOMBA/ UPPER ROOF BEAM(6-8,8D) & TANGGA 1 | LEPPO CONCRETE SDN BHD |
| | | | | | 8000 | 2370 | 705 | 31.33 | | | | | |
| | | | | | 8000 | 2370 | 890 | 39.56 | | | | | |
| | | 201-203 | 28/1/2022 | 28 | 8120 | 2406 | 880 | 39.11 | 39.33 | | | | |
| | | | | | 8120 | 2406 | 885 | 39.33 | | | | | |
| | | | | | 8100 | 2400 | 700 | 31.11 | | | | | |
| 41 | 15/01/2022 | 228-230 | 22/01/2022 | 7 | 8000 | 2370 | 695 | 30.89 | 30.81 | G30N | 160 | KUARTERS/ROOF BEAM | LEPPO CONCRETE SDN BHD |
| | | | | | 8120 | 2406 | 685 | 30.44 | | | | | |
| | | | | | 8100 | 2400 | 905 | 40.22 | | | | | |
| | | 231-233 | 12/02/2022 | 28 | 8000 | 2370 | 900 | 40.00 | 40.30 | | | | |
| | | | | | 8120 | 2406 | 915 | 40.67 | | | | | |
| | | | | | 8000 | 2370 | 690 | 30.67 | | | | | |
| 42 | 1/02/2022 | 234-236 | 16/02/2022 | 7 | 8010 | 2373 | 700 | 31.11 | 30.89 | G30N | 150 | KUARTERS/APRON | LEPPO CONCRETE SDN BHD |
| | | | | | 8000 | 2370 | 695 | 30.89 | | | | | |
| | | | | | 8000 | 2370 | 880 | 39.11 | | | | | |
| | | 237-239 | 1/03/2022 | 28 | 8000 | 2370 | 880 | 39.11 | 39.11 | | | | |
| | | | | | 8000 | 2370 | 880 | 39.11 | | | | | |
| | | | | | 8130 | 2424 | 695 | 30.89 | | | | | |
| 43 | 15/1/2022 | 1,2,3 | 22/1/2022 | 7 | 8210 | 2433 | 700 | 31.11 | 31.30 | G30N | 120 | tower /4th flr slab | KDT AMIX CONCRETE SDN BHD |
| | | | | | 8220 | 2436 | 715 | 31.78 | | | | | |
| | | | | | 8370 | 2421 | 855 | 38.00 | | | | | |
| | | 1,2,3 | 12/02/2022 | 28 | 8150 | 2415 | 810 | 36.00 | 37.60 | | | | |
| | | | | | 8220 | 2436 | 875 | 38.89 | | | | | |

| No | Date Casting | Cube Set No | Date Tested | Age (Days) | Weight (kg) | Density (Mg/m3) | Load (kN) | Strength (N/mm2) | Average Strength (N/mm2) | Concrete Grade | Slump (mm) | Concreting Location/Structure/Chainage | Concrete Supplier |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 44 | 19/1/2022 | 1,2,3 | 25/1/2022 | 7 | 8200 | 2.430 | 700 | 31.11 | 31.40 | G30N | 125 | KUARTERS/STAIRCASE | KOTAMIX CONCRETE SDN BHD |
| | | | | | 8230 | 2.439 | 715 | 31.78 | | | | | |
| | | | | | 8210 | 2.433 | 705 | 31.33 | | | | | |
| | | 1,2,3 | 16/2/2022 | 28 | 8220 | 2.436 | 875 | 38.89 | 39.00 | | | | |
| | | | | | 8220 | 2.436 | 870 | 38.67 | | | | | |
| | | | | | 8240 | 2.441 | 885 | 39.33 | | | | | |
| 45 | 22/1/2022 | 1,2,3 | 29/1/2022 | 7 | 8240 | 2.441 | 725 | 32.22 | 32.10 | G30N | 110 | TOWER/ COLUMNS & RC WALL(4TH-5TH) | KOTAMIX CONCRETE SDN BHD |
| | | | | | 8250 | 2.444 | 730 | 32.44 | | | | | |
| | | | | | 8220 | 2.436 | 715 | 31.78 | | | | | |
| | | 1,2,3 | 19/2/2022 | 28 | 8230 | 2.439 | 835 | 37.11 | 37.30 | | | | |
| | | | | | 8220 | 2.436 | 825 | 36.67 | | | | | |
| | | | | | 8250 | 2.444 | 860 | 38.22 | | | | | |
| 46 | 10/02/2022 | 1,2,3 | 17/2/2022 | 7 | 8230 | 2.439 | 715 | 31.78 | 31.30 | G30N | 115 | TOWER/COLIMNS & RC WALL ( 5TH - ROOF) | KOTAMIX CONCRETE SDN BHD |
| | | | | | 8190 | 2.427 | 695 | 30.89 | | | | | |
| | | | | | 8200 | 2.430 | 700 | 31.11 | | | | | |
| | | 1,2,3 | 10/03/2022 | 28 | 8220 | 2.436 | 840 | 37.33 | 36.50 | | | | |
| | | | | | 8180 | 2.424 | 805 | 35.78 | | | | | |
| | | | | | 8210 | 2.433 | 820 | 36.44 | | | | | |
| 47 | 16/02/2022 | 1,2,3 | 23/2/2022 | 7 | 8220 | 2.436 | 715 | 31.78 | 31.60 | G30N | 110 | KUARTERS/ COLUMNS ROOF-UPPER ROOF & UPPER ROOF BEAM | KOTAMIX CONCRETE SDN BHD |
| | | | | | 8210 | 2.433 | 705 | 31.33 | | | | | |
| | | | | | 8220 | 2.436 | 715 | 31.78 | | | | | |
| | | 1,2,3 | 16/3/2022 | 28 | 8240 | 2.441 | 850 | 37.78 | 37.10 | | | | |
| | | | | | 8210 | 2.433 | 825 | 36.67 | | | | | |
| | | | | | 8210 | 2.433 | 830 | 36.89 | | | | | |
| 50 | 25/02/2022 | 1,2,3 | 3/04/2022 | 7 | 8240 | 2.441 | 730 | 32.44 | 32.10 | G30N | 110 | TOWER/ ROOF SLAB | KOTAMIX CONCRETE SDN BHD |
| | | | | | 8200 | 2.430 | 690 | 30.67 | | | | | |
| | | | | | 8260 | 2.447 | 745 | 33.11 | | | | | |
| | | 1,2,3 | 25/3/2022 | 28 | 8230 | 2.439 | 870 | 38.67 | 38.00 | | | | |
| | | | | | 8210 | 2.433 | 840 | 37.33 | | | | | |
| | | | | | 8230 | 2.439 | 855 | 38.00 | | | | | |
| 51 | 3/03/2022 | 1,2,3 | 10/03/2022 | 7 | 8200 | 2.430 | 710 | 31.56 | 31.60 | G30N | 115 | TOWER/STAIRCASE 1ST - 2ND | KOTAMIX CONCRETE SDN BHD |
| | | | | | 8210 | 2.433 | 700 | 31.11 | | | | | |
| | | | | | 8240 | 2.441 | 725 | 32.22 | | | | | |
| | | 1,2,3 | 31/3/2022 | 28 | 8230 | 2.439 | 845 | 37.56 | 37.30 | | | | |
| | | | | | 8200 | 2.430 | 820 | 36.44 | | | | | |
| | | | | | 8240 | 2.441 | 855 | 38.00 | | | | | |
| 52 | 8/03/2022 | 1,2,3 | 15/3/2022 | 7 | 8180 | 2.424 | 685 | 30.44 | 30.10 | G30N | 125 | ON SITE DETENTION POND/BASE | KOTAMIX CONCRETE SDN BHD |
| | | | | | 8150 | 2.415 | 650 | 28.89 | | | | | |
| | | | | | 8190 | 2.427 | 700 | 31.11 | | | | | |
| | | 1,2,3 | 5/04/2022 | 28 | 8210 | 2.433 | 810 | 36.00 | 35.50 | | | | |
| | | | | | 8210 | 2.433 | 805 | 35.78 | | | | | |
| | | | | | 8190 | 2.427 | 780 | 34.67 | | | | | |
| 53 | 14/3/2022 | 1,2,3 | 21/3/2022 | 7 | 8180 | 2.424 | 685 | 30.44 | 30.10 | G30N | 110 | ON SITE DETENTION POND / WALL | KOTAMIX CONCRETE SDN BHD |
| | | | | | 8150 | 2.415 | 650 | 28.89 | | | | | |
| | | | | | 8190 | 2.427 | 700 | 31.11 | | | | | |
| | | 1,2,3 | 11/04/2022 | 28 | 8170 | 2.421 | 815 | 36.22 | 36.10 | | | | |
| | | | | | 8180 | 2.424 | 825 | 36.67 | | | | | |
| | | | | | 8140 | 2.412 | 800 | 35.56 | | | | | |

| No | Date Casting | Cube Set No | Date Tested | Age (Days) | Weight (kg) | Density (Mg/m3) | Load (kN) | Strength (N/mm2) | Average Strength (N/mm2) | Concrete Grade | Slump (mm) | Concreting Location/Structure/Chainage | Concrete Supplier |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 54 | 16/3/2022 | 1,2,3 | 23/3/2022 | 7 | 8210 | 2.433 | 715 | 31.78 | 31.90 | G30N | 120 | TOWER/ STAIRCASE 2ND - 3RD | KOTAMIX CONCRETE SDN BHD |
| | | | | | 8210 | 2.433 | 710 | 31.56 | | | | | |
| | | | | | 8220 | 2.436 | 725 | 32.22 | | | | | |
| | | 1,2,3 | 13/04/2022 | 28 | 8230 | 2.439 | 900 | 40.00 | 39.30 | | | | |
| | | | | | 8220 | 2.436 | 880 | 39.11 | | | | | |
| | | | | | 8190 | 2.427 | 875 | 38.89 | | | | | |
| 55 | 17/3/2022 | 1,2,3 | 24/3/2022 | 7 | 8240 | 2.441 | 745 | 33.11 | 32.90 | G30N | 110 | ON SITE DETENTION POND/ WALL | KOTAMIX CONCRETE SDN BHD |
| | | | | | 8260 | 2.447 | 760 | 33.78 | | | | | |
| | | | | | 8220 | 2.436 | 715 | 31.78 | | | | | |
| | | 1,2,3 | 14/04/2022 | 28 | 8190 | 2.427 | 895 | 39.78 | 41.00 | | | | |
| | | | | | 8240 | 2.441 | 945 | 42.00 | | | | | |
| | | | | | 8230 | 2.439 | 930 | 41.33 | | | | | |
| 56 | 21/3/2022 | 1,2,3 | 28/3/2022 | 7 | 8220 | 2.436 | 720 | 32.00 | 32.40 | G30N | 115 | ON SITE DETENTION POND / WALL | KOTAMIX CONCRETE SDN BHD |
| | | | | | 8230 | 2.439 | 725 | 32.22 | | | | | |
| | | | | | 8250 | 2.444 | 745 | 33.11 | | | | | |
| | | 1,2,3 | 18/04/2022 | 28 | 8210 | 2.433 | 865 | 38.44 | 39.10 | | | | |
| | | | | | 8230 | 2.439 | 890 | 39.56 | | | | | |
| | | | | | 8230 | 2.439 | 885 | 39.33 | | | | | |
| 57 | 26/3/2022 | 1,2,3 | 2/04/2022 | 7 | 8250 | 2.444 | 740 | 32.89 | 32.00 | G30N | 105 | DRAINAGE/450MM OPEN | KOTAMIX CONCRETE SDN BHD |
| | | | | | 8180 | 2.424 | 700 | 31.11 | | | | | |
| | | | | | 8230 | 2.439 | 720 | 32.00 | | | | | |
| | | 1,2,3 | 23/04/2022 | 28 | 8210 | 2.433 | 865 | 38.44 | 38.20 | | | | |
| | | | | | 8180 | 2.424 | 845 | 37.56 | | | | | |
| | | | | | 8210 | 2.433 | 870 | 38.67 | | | | | |

# Standard Deviation for G35N Concrete

| | | | STATISTICAL ANALYSIS | | | |
|---|---|---|---|---|---|---|
| GRADE OF CONCRETE: | | G35N | Target mean Strength = | | 35.00 N/MM² | |
| BATCH NO | DATE CAST | DATE TESTED | AVG.COMP. STRENGTH (N/MM²) | | | BATCH NO |
| | | | 28 DAYS | (x-x̄) | (x-x̄)² | |
| 3 | 9/08/2021 | 6/09/2021 | 38.37 | -8.03 | 64.507 | |
| 4 | 19/08/2021 | 18/9/2021 | 47.48 | 1.08 | 1.165 | |
| 5 | 7/08/2021 | 3/09/2021 | 46.37 | -0.03 | 0.001 | |
| 6 | 9/08/2021 | 6/09/2021 | 47.40 | 1.00 | 0.996 | |
| 7 | 6/08/2021 | 4/09/2021 | 47.70 | 1.30 | 1.685 | |
| 8 | 14/8/2021 | 11/09/2021 | 48.00 | 1.60 | 2.554 | |
| 9 | 18/8/2021 | 18/9/2021 | 47.63 | 1.23 | 1.507 | |
| 10 | 25/8/2021 | 22/9/2021 | 47.41 | 1.01 | 1.011 | |
| 11 | 26/8/2021 | 23/9/2021 | 47.26 | 0.86 | 0.735 | |
| 12 | | | | | | |
| 13 | | | | | | |
| 14 | | | | | | |
| | | n = | 9 | | | |
| | | Σx= | 417.62 | | | |
| | | (Σx-x̄ )²= | 74.16 | | | |
| | | x̄= | 46.40 | | | |
| | | S.D= | 3.04 N/MM² | | | |

# Standard Deviation for G30N Concrete

CADANGAN PEMMBINAAN BALAI BOMBA DAN KUARTERS PUTATAN SABAH

SUPPLIER: LEPPO CONCRETE

**STATISTICAL ANALYSIS**

GRADE OF CONCRETE: G30N — Target mean Strength = 30.00 N/MM²

| BATCH NO | DATE CAST | DATE TESTED | AVG.COMP. STRENGTH (N/MM²) | | | BATCH NO | DATE CAST | DATE TESTED | AVG.COMP. STRENGTH (N/MM²) | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | 28 DAYS | (x-ẍ) | (x-ẍ)² | | | | 28 DAYS | (x-ẍ) | (x-ẍ)² |
| 13 | 28/8/2021 | 25/9/2021 | 42.67 | 1.94 | 3.76 | 26 | 16/11/2021 | 14/12/2021 | 41.48 | -1.91 | 3.66 |
| 14 | 11/09/2021 | 12/10/2021 | 42.15 | 1.42 | 2.02 | 27 | 20/11/2021 | 18/12/2021 | 42.89 | 0.75 | 0.57 |
| 15 | 13/9/2021 | 12/10/2021 | 42.44 | 1.72 | 2.95 | 28 | 22/11/2021 | 28/12/2021 | 42.89 | 2.16 | 4.67 |
| 16 | 20/9/2021 | 18/10/2021 | 41.56 | 0.83 | 0.685 | 32 | 4/12/2021 | 3/01/2022 | 42.60 | 2.16 | 4.67 |
| 17 | 25/9/2021 | 23/10/2021 | 40.59 | -0.14 | 0.018 | 34 | 18/12/2021 | 15/1/2022 | 42.52 | 1.87 | 3.50 |
| 18 | 28/9/2021 | 26/10/2021 | 39.93 | -0.80 | 0.643 | 35 | 5/1/20222 | 4/02/2022 | 40.14 | 1.79 | 3.21 |
| 19 | 1/10/2021 | 29/10/2021 | 38.67 | -2.06 | 4.249 | 40 | 31/12/2021 | 28/1/2022 | 39.33 | -0.59 | 0.35 |
| 20 | 11/10/2021 | 8/11/2021 | 40.07 | -0.65 | 0.428 | 41 | 15/01/2022 | 12/02/2022 | 40.30 | -1.40 | 1.95 |
| 21 | 11/10/2021 | 8/11/2021 | 43.78 | 3.05 | 9.302 | 42 | 9/02/2022 | 9/03/2022 | 39.11 | -0.43 | 0.18 |
| 22 | 14/10/2021 | 11/11/2021 | 40.15 | -0.58 | 0.336 | 43 | 15/1/2022 | 12/02/2022 | 37.60 | -1.62 | 2.62 |
| 23 | 16/10/2021 | 13/11/2021 | 39.26 | -1.47 | 2.157 | 44 | 19/1/2022 | 16/2/2022 | 39.00 | -3.13 | 9.78 |
| 24 | 3/11/2021 | 1/12/2021 | 42.96 | 2.24 | 4.995 | 45 | 22/1/2022 | 19/2/2022 | 37.30 | -1.73 | 2.99 |
| 25 | 12/11/2021 | 10/12/2021 | 38.81 | -1.91 | 3.660 | | | | | | |

| | |
|---|---|
| n = | 25 |
| Σx= | 1018.20 |
| (Σx-ẍ )²= | 73.36 |
| ẍ= | 40.73 |
| S.D= | 1.75 N/MM² |

# Standard Deviation for G25N Concrete

CADANGAN PEMMBINAAN BALAI BOMBA DAN KUARTERS PUTATAN SABAH

**STATISTICAL ANALYSIS**

GRADE OF CONCRETE: G25N

| BATCH NO | DATE CAST | DATE TESTED | AVG.COMP. STRENGTH (N/MM²) | | | BATCH NO | DATE CAST | DATE TESTED | AVG.COMP. STRENGTH (N/MM²) | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | 28 DAYS | (x-x̄) | (x-x̄)² | | | | 28 DAYS | (x-x̄) | (x-x̄)² |
| 29 | 26/11/2021 | 24/12/2021 | 31.50 | -1.26 | 1.60 | | | | | 0.00 | 0.00 |
| 30 | 29/11/2021 | 28/12/2021 | 30.65 | -2.11 | 4.47 | | | | | 0.00 | 0.00 |
| 31 | 1/12/2021 | 29/12/2021 | 31.20 | -1.56 | 2.45 | | | | | 0.00 | 0.00 |
| 33 | 26/11/2021 | 24/12/2021 | 31.50 | -1.26 | 1.60 | | | | | 0.00 | 0.00 |
| 39 | 27/12/2021 | 24/1/2022 | 38.97 | 6.21 | 38.51 | | | | | 0.00 | 0.00 |
| | | | | 0.00 | 0.00 | | | | | 0.00 | 0.00 |
| | | | | 0.00 | 0.00 | | | | | 0.00 | 0.00 |
| | | | | 0.00 | 0.00 | | | | | 0.00 | 0.00 |
| | | | | 0.00 | 0.00 | | | | | 0.00 | 0.00 |
| | | | | 0.00 | 0.00 | | | | | 0.00 | 0.00 |
| | | | | 0.00 | 0.00 | | | | | 0.00 | 0.00 |
| | | | | 0.00 | 0.00 | | | | | 0.00 | 0.00 |

| | |
|---|---|
| n = | 5 |
| Σx= | 163.82 |
| (Σx-x̄ )²= | 48.62 |
| x̄= | 32.76 |
| S.D= | 3.49 N/MM² |

# AS-BUILT DRAWING

| AS-BUILT DRAWING | DATE | STATUS |
|---|---|---|
| Earthwork Layout Plan & Levels | 23/11/21 | Softcopy telah disemakkan. |
| Pad Footing As-Built | | |
| Sewerage Layout Plan & Invert Levels | | |
| Drainage Layout Plan & Invert Levels | | |
| Water Supply Layout Plan & Depth | | |
| Road Layout Plan & Levels | | |
| Structure & As-built Drawing | | |
| Roof Truss Structure As-Built Drawing | | |
| Building Setting Out Plan As-built Drawing | | |

# ISU-ISU KERJA DI TAPAK KERJA-KERJA C&S

## Request for Site Inspection (RFI)

| RFI No. | DATE | SUBJECT | LOCATION |
|---|---|---|---|
| 01 | 12/04/21 | Plate Bearing Test | CANCEL |
| 02 | 12/04/21 | CBR Test for Sub-grade | CANCEL |
| 003 | 19/04/21 | Plate Bearing Test | Balai Bomba |
| 004 | 19/04/21 | Plate Bearing Test | Kuarters |
| 005 | 19/04/21 | Plate Bearing Test | Tower |
| 006 | 28/04/21 | Setting out | Balai Bomba |
| 007 | 3/5/21 | Setting out | Pump House |
| 008 | 17/05/21 | Casting footing | Pump House |
| 009 | 22/05/21 | Casting footin EF,3-8 | Balai Bomba |
| 010 | 27/05/21 | Casting Footing EF,1-8 | Balai Bomba |
| 011 | 27/05/21 | Casting ground beam | Pump House |
| 012 | 29/05/21 | Casting ground slab | Pump House |
| 013 | 30/07/21 | Setting out | Kuarters |
| 014 | 04/08/21 | Casting footing AB,0-5A | Kuarters |
| 015 | 07/08/21 | Casting footing AD,6-8 | Balai Bomba |

| RFI No. | DATE | SUBJECT | LOCATION |
|---|---|---|---|
| 016 | 11/8/21 | Casting columns (ground – 1stfloor) | Pump house |
| 017 | 12/08/21 | Casting footing (h,3-4), (de,8), (cd,1-2) | Balai bomba |
| 018 | 13/08/21 | Inspection of joint survey for as-built earthwork | |
| 019 | 14/8/21 | Cating footing c-e3,0-2 | kuarters |
| 020 | 16/8/21 | Setting out | Menara latihan |
| 021 | 18/8/21 | Casting footing fh,0-2 | Kuarters |
| 022 | 23/8/21 | Casting raft foundation | Menara latihan |
| 023 | 24/8/21 | Casting footing cf,3-4 | Kuarters |
| 024 | 26/8/21 | Casting roof beam | Pump house |
| 025 | 26/8/21 | Casting footing gh,3-4 | kuareters |
| 026 | 27/8/21 | Casting footing c2-h,3-4 | kuarters |
| 027 | 30/8/21 | Casting ground beam | Menara latihan |
| 028 | 03/09/21 | Casting ground slab | Menara latihan |
| 029 | 11/9/21 | Casting column and rc wall( ground -1stfloor) | Menara latihan |
| 030 | 11/9/21 | Casting ground beam | Balai bomba |
| 031 | 18/09/21 | Casting ground beam | Kuarters |
| 032 | 24/9/21 | Casting ground slab | Balai bomba |

| RFI No. | DATE | SUBJECT | LOCATION |
|---|---|---|---|
| 033 | 24/9/21 | Casting 1stfloor slab | Menara latihan |
| 034 | 28/9/21 | Casting ground slab | Kuarters |
| 035 | 01/10/21 | Casting column ( ground – 1st floor) | Balai bomba |
| 036 | 08/10/21 | Casting column ( ground – 1stfloor) | Kuarters |
| 037 | 11/10/21 | MENARA LATIHAN | CONCRETING COLUMNS ( 1ST– 2NDFLOOR) |
| 038 | 11/10/21 | RUMAH SAMPAH | SETTING OUT PAD FOOTING |
| 039 | 11/10/21 | RUMAH SAMPAH | CONCRETING FOOTING |
| 040 | 14/10/21 | BALAI BOMBA | CONCRETING RAMP |
| 041 | 14/10/21 | RUMAH SAMPAH | CONCRETING GROUND BEAM |
| 042 | 15/10/21 | KOLAH AIR | SETTING OUT |
| 043 | 16/10/21 | KOLAH AIR | CONCRETING GROUND SLAB |

| RFI No. | DATE | SUBJECT | LOCATION |
|---|---|---|---|
| 044 | 16/10/21 | RUMAH SAMPAH | CONCRETING GROUND SLAB |
| 045 | 21/10/21 | RUMAH SAMPAH | CONCRETING COLUMNS ( GROUND – ROOF BEAM ) |
| 046 | 03/11/21 | RUMAH SAMPAH | CONCRETING ROOF BEAM & RC GUTTER |
| 047 | 03/11/21 | KOLAH AIR | CONCRETING RC WALLS |
| 048 | 12/11/21 | BALAI BOMBA | CONCRETING 1ST FLOOR SLAB |
| 049 | 16/11/21 | KUARTERS | CONCRETING 1ST FLOOR SLAB |
| 050 | 16/11/21 | RUMAH SAMPAH | CONCRETING RC GUTTER WALL |
| 051 | 16/11/21 | MENARA LATIHAN | CONCRETING 2nd FLOOR SLAB |
| 052 | 20/11/21 | BALAI BOMBA | CONCRETING – COLUMN 1ST & 2ND FLOOR |

| RFI No. | DATE | SUBJECT | LOCATION |
|---|---|---|---|
| 053 | 22/11/21 | KUARTERS | CONCRETING - COLUMN |
| 054 | 22/11/21 | DRAINAGE | CONCRETING 450MM OPEN & 450MM CONCEAL DRAIN |
| 055 | 24/11/21 | DRAINAGE | CONCRETING 300MM & 450MM COVER DRAIN |
| 056 | 26/11/21 | DRAINAGE | CONCRETING 300MM & 450MM COVER DRAIN |
| 057 | 29/11/21 | DRAINAGE | CONCRETING 450MM & 600MM CONCEAL DRAIN |
| 058 | 01/12/21 | DRAINAGE | CONCRETING 300MM & 450MM COVER DRAIN |
| 059 | 04/12/21 | DRAINAGE | CONCRETING 600MM, 450MM & 300MM |
| 060 | 07/12/21 | DRAINAGE | CONCRETING 300MM & 450MM COVER DRAIN |
| 061 | 08/12/21 | BALAI BOMBA | CONCRETING COLUMN 1$^{ST}$ROOF |
| 062 | 11/12/2021 | BALAI BOMBA | CONCRETING COLUMNS ROOF – UPPER ROOF |

| RFI No. | DATE | SUBJECT | LOCATION |
|---|---|---|---|
| 063 | 13/12/2021 | KUARTERS | CONCRETING 1ST FLR SLAB(1-7,EH) |
| 064 | 15/12/2021 | DRAINAGE | CONCRETING 450MM & 600MM CONCEAL |
| 065 | 18/122021 | MENARA LATIHAN | CONCRETING 3RD FLR SLAB |
| 066 | 22/12/2021 | KUARTERS | CONCRETING COLUMNS 1ST – ROOF(1-7,EH) |
| 067 | 27/12/2021 | DRAINAGE | CONCRETING 600MM CONCEAL |
| 068 | 30/12/2021 | BALAI BOMBA | CONCRETING UPPER ROOF BEAM(4-6,EF) & TANGGA 1 |
| 069 | 31/12/2021 | BALAI BOMBA | CONCRETING UPPER ROOF BEAM(6-8,BD) & TANGGA 2 |
| 070 | 5/1/2022 | BALAI BOMBA | CONCRETING ROOF BEAM (4-7, AG) |
| 071 | 6/1/2022 | DRAINAGE | CONCRETING 600MM,450MM & 300MM OPEN |

| RFI No. | DATE | SUBJECT | LOCATION |
|---|---|---|---|
| 072 | 14/1/2022 | DRAINAGE | CONCRETING 600MM & 300MM OPEN |
| 073 | 15/1/2022 | MENARA LATIHAN | CONCRETING 4TH FLR SLAB |
| 074 | 15/1/2022 | KUARTERS | CONCRETING ROOF BEAM (1-6,AD) |
| 075 | 22/1/2022 | MENARA LATIHAN | CONCRETING COLUMNS & RC WALL(4TH-5TH) |
| 076 | 24/1/2022 | DRAINAGE | CONCRETING 600MM CONCEAL DRAIN |
| 077 | 29/1/2022 | MENARA LATIHAN | CONCRETING 5TH FLR SLAB |
| 078 | 03/02/2022 | KUARTERS | CONCRETING ROOF BEAM (1-7,EH) |
| 079 | 05/02/2022 | BALAI BOMBA | CONCRETING APRON |
| 080 | 07/02/2022 | KUARTERS | CONCRETING APRON |
| 081 | 10/02/2022 | MENARA LATIHAN | CONCRETING COLUMNS & RC WALLS (5TH– ROOF) |
| 082 | 16/02/2022 | KUARTERS | CONCRETING UPPER ROOF BEAM & COLUMNS(ROOF-UPPER ROOF ) |

| RFI No. | DATE | SUBJECT | LOCATION |
|---|---|---|---|
| 083 | 24/02/2022 | MENARA LATIHAN | CONCRETING ROOF SLAB |
| 084 | 03/03/2022 | MENARA LATIHAN | CONCRETING STAIRCASE ( 1ST– 2ND) |
| 085 | 08/03/2022 | ON-SITE DETENTION POND | CONCRETING DETENTION POND BASE |
| 086 | 14/03/2022 | ON-SITE DETENTION POND | CONCRETING DETENTION POND WALL |
| 087 | 16/03/2022 | TOWER | CONCRETING STAIRCASE (2ND– 3RD) |
| 088 | 17/03/2022 | ON-SITE DETENTION POND | CONCRETING DETENTION POND WALL |
| 089 | 18/03/2022 | ON-SITE DETENTION POND | CONCRETING DETENTION POND WALL |
| 090 | 21/03/2022 | ON-SITE DETENTION POND | CONCRETING DETENTION POND WALL |
| 091 | 22/03/2022 | DRAINAGE | CONCRETING 450MM OPEN DRAIN SLAB |
| 092 | 26/03/2022 2 | DRAINAGE | CONCRETING 450MM OPEN DRAIN WALL |

| RFI No. | DATE | SUBJECT | LOCATION |
|---|---|---|---|
| 093 | 13.04.2022 | DRAINAGE | CONCRETING |
| 094 | 20.04.2022 | GROUND SLAB | CONCRETING |
| 095 | 06.05.2022 | DRAINAGE | CONCRETING |
| 096 | 07.05.2022 | DRAINAGE | CONCRETING |
| 097 | 12.05.2022 | DRAINAGE | CONCRETING |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |

# ISU-ISU KERJA DI TAPAK KERJA-KERJA C&S

## Request for Site Inspection (RFI) -QA/QC

| RFI No. | DATE | SUBJECT | LOCATION |
|---|---|---|---|
| 1 | 4/5/21 | Trial Mix G35N | All structure |
| 2 | 6/5/21 | Trial Mix G30P, G30N, G25N | All structure |
| 3 | 11/5/21 | 7days cube test G35N( Trial Mix) | All structure |
| 4 | 13/5/21 | 7 days cube test G30P,G30N,G25N ( Trial Mix) | All structure |
| 5 | 18/5/21 | 14days cube test G35N (Trial Mix) | All structure |
| 6 | 03/06/21 | 7days cube test (G35N) | Pump house ( footing) |
| 7 | 03/06/21 | 7 days cube test | Balai bomba ( footing) |
| 8 | 16/8/21 | Trial Mix G25N,G30N,G30P,G35N ( KOTAMIX) | All structure |
| 9 | 19/8/21 | 28 days cube test G25N,G30N,G35N | All structure |
| 10 | 25/8/21 | 28 days cube test | Pump house (footing) |
| 11 | 25/8/21 | 28 days cube test (Trial Mix) Leppo | All structure |
| 12 | 26/8/21 | 7 days cube test | Kuarters ( footing) |

| RFI No. | DATE | SUBJECT | LOCATION |
|---|---|---|---|
| 13 | 26/8/21 | 7 days cube test | Kuarters ( footing) |
| 14 | 26/8/21 | 7 days cube test | Balai bomba ( footing) |
| 15 | 26/8/21 | 7 dauys cube test | Kuarters ( footing) |
| 16 | 26/8/21 | 7 days cube test | Kuarters ( footing) |
| 17 | 26/8/21 | 7 days cube test | Balai bomba ( footing) |
| 18 | 26/8/21 | 28 days cube test | Balai bomba ( footing) |
| 19 | 26/8/21 | 7 dasy cube test | Balai bomba ( footing) |
| 20 | 26/8/21 | 7 days cube test | Balai bomba ( footing) |
| 21 | 26/8/21 | 7 days cube test | Balai bomba ( footing) |
| 22 | 1/9/21 | 7 days cube test | Kuarters (footing) & Tower ( raft foundation) |
| 23 | 2/9/21 | 7 days cube test | Kuarters ( footing) |
| 24 | 3/9/21 | 28 days cube test | Balai bomba ( footing) |
| 25 | 4/9/21 | 28 days cube test | Kuarers ( footing) |
| 26 | 4/9/21 | 7 days cube test | Pump house ( roof beam ) |
| 27 | 6/9/21 | 28 days cube test | Kuarters (footing) |
| 28 | 11/9/21 | 28 days cube test | Kuarters ( footing) |
| 29 | 13/9/21 | 28 days cube test G30P ( KOTAMIX) | All structure |

| RFI No. | DATE | SUBJECT | LOCATION |
|---|---|---|---|
| 30 | 13/9/21 | 28 days cube test G30N(KOTAMIX) | All structure |
| 31 | 13/9/21 | 28 days cube test G35N ( KOTAMIX) | All structure |
| 32 | 13/9/21 | 28 days cube test G25N ( KOTAMIX) | All structure |
| 33 | 18/9/21 | 28 days cube test | Balai bomba ( footing) |
| 34 | 18/9/21 | 7 dasy cube test | Balai bomba ( ground beam ) |
| 35 | 18/9/21 | 28 days cube test | Kuarters ( footing) |
| 36 | 22/9/21 | 28 days cube test | Kuarters ( footing) & tower ( raft foundation) |
| 37 | 23/9/21 | 7 days cube test | Tower (column & rc wall 1st– ground floor) |
| 38 | 23/9/21 | 28 days cube test | Kuarters ( footing) |
| 39 | 25/9/21 | 28 days cube test | Pump house ( roof beam ) |
| 40 | 27/9/21 | 7 days cube test | Kuarters ( ground beam ) |
| 41 | 2/10/21 | 7 days cube test | Balai bomba ( ground slab) & tower ( 1stfloor slab) |
| 42 | 5/10/21 | 7 days cube test | Kuarters ( ground slab) |

| RFI No. | DATE | SUBJECT | LOCATION |
|---|---|---|---|
| 43 | 18/10/21 | 7 days cube test | Kuarters (columns G-1stfloor) & Menara Latihan ( 1st– 2ndfloor) |
| 44 | 18/10/21 | 7 days cube test | Rumah sampah (footings) |
| 45 | 21/10/21 | 7 days cube test | Balai bomba (ramp) |
| 46 | 23/10/21 | 7 days cube test | Kolah air (ground slab) & Rumah sampah (ground slab) |
| 47 | 23/10/21 | 28 days cube test | Balai bomba (1stfloor slab) & Menara Latihan (1stfloor slab) |
| 48 | 26/10/21 | 28 days cube test | Kuarters (ground beam) |
| 49 | 29/10/21 | 28 days cube test | Balai bomba (columns Ground – 1stfloor) |
| 50 | 8/11/2021 | 28 days cube test | Kuarters(columns G-1stflr) & Tower(columns &rc wall 1st-2nd) |
| 51 | 8/11/2021 | 28 days cube test | Rumah sampah (footings) |
| 52 | 11/11/2021 | 28 days cube test | Balai bomba(ramp) & rumah sampah( G.beam) |
| 53 | 13/11/2021 | 28 days cube test | Rumah sampah(roof beam) & kolah air (rc wall) |
| 54 | 13/11/2021 | 28 days cube test | Kolah air(ground slab) & rumah sampah(ground slab) |

| RFI No. | DATE | SUBJECT | LOCATION |
|---|---|---|---|
| 55 | 19/11/2021 | 7 days cube test | Balai bomba(1stflr slab) |
| 56 | 23/11/2021 | 7 days cube test | Kuarters(1stflr slab)(AD,0-6) & rumah sampah(rc wall) |
| 57 | 27/11/2021 | 7 days cube test | Balai bomba(columns 1st– roof) |
| 58 | 3/12/2021 | 7 days cube test | Drainage (450mm & 300mm cover drain slab) |
| 59 | 6/12/2021 | 7 days cube test | Drainage(600mm conceal slab) |
| 60 | 8/12/2021 | 7 days cube test | Drainage (300mm & 450mm rc cover drain) |
| 61 | 10/12/2021 | 28 days cube test | Balai bomba (1stflr slab) |
| 62 | 11/12/2021 | 7 days cube test | Tower (columns & rc wall)(2nd– 3rd) |
| 63 | 14/12/2021 | 28 days cube test | Kuarters(1stflr slab) & Rumah sampah(rc wall) |
| 64 | 18/12/2021 | 28 days cube test | Balai bomba (columns 1st– roof)(3-8,AH) |
| 65 | 20/12/2021 | 7 days cube test | Kuarters (1stflr slab)(1-7,EH) |
| 66 | 24/12/2021 | 28 days cube test | Balai bomba columns (1st– roof beam) |
| 67 | 28/12/2021 | 28 days cube test | Drainage (600mm conceal) |

| RFI No. | DATE | SUBJECT | LOCATION |
|---|---|---|---|
| 68 | 28/12/2021 | 7 days cube test | Tower (3rdflr slab) |
| 69 | 28/12/2021 | 28 days cube test | Kuarters (columns 1st– roof) |
| 70 | 29/12/2021 | 28 days cube test | Drainage (300mm & 450mm rc cover) |
| 71 | 3/1/2022 | 28 days cube test | Tower(columns & rc wall)(2nd– 3rd) |
| 72 | 10/1/2022 | 28 days cube tets | Kuarters(1stflr slab)(1-7,EH) |
| 73 | 12/1/2022 | 7 days cube test | Balai Bomba (roof beam)(1-2,AH) |
| 74 | 13/1/2022 | 7 days cube test | Drainage(600mm,450mm & 300mm) |
| 75 | 14/1/2022 | 7 days cube test | Drainage(450mm & 600mm) |
| 76 | 15/1/2022 | 28 days cube test | Tower(3rdflr slab) |
| 77 | 21/1/2022 | 7 days cube test | Drainage(300mm open & 600mm RC Culvert) |
| 78 | 22/1/2022 | 7 days cube test | Kuarters (roof beam)(1-7, AD) |
| 79 | 24/01/2022 | 28 days cube test | Drainage (600mm open) |
| 80 | 26/01/2022 | 7 days cube test | Kuarters (staircase) |
| 81 | 29/01/2022 | 7 days cube test | Tower(columns & rc wall) (4th– 5th) |
| 82 | 04/02/2022 | 28 days cube test | Drainage (600mm open, 450mm open & 300mm open) |
| 83 | 04/02/2022 | 28 days cube test | Balai bomba (roof beam) (1-2, AH) |

| RFI No. | DATE | SUBJECT | LOCATION |
|---|---|---|---|
| 84 | 04/02/2022 | 28 days cube test | Drainage 450mm open & 600mm open |
| 85 | 11/02/2022 | 28 days cube test | Drainage 300mm open & 600mm RC culvert |
| 86 | 12/02/2022 | 28 days cube test | Tower (4thflr slab) |
| 87 | 12/02/2022 | 28 days cube test | Kuarters (roof beam)(1-7,AD) |
| 88 | 16/02/2022 | 28 days cube test | Kuarters (staircase) |
| 89 | 16/02/2022 | 7 days cube test | Kuarters (apron) |
| 90 | 17/02/2022 | 7 days cube test | Tower (column & rc wall)(5th_ roof) |
| 91 | 19/02/2022 | 28 days cube test | Tower(column & rc wall) (4th– 5th) |
| 92 | 23/02/2022 | 7 days cube test | Kuarters (column roof – upper rof & upper roof beam) |
| 93 | 16/3/2022 | 28 days cube test | Kuarters (column roof – upper rof & upper roof beam) |
| 94 | 4/3/2022 | 7 days cube test | TOWER/ ROOF SLAB |
| 95 | 25/3/2022 | 28 days cube test | TOWER/ ROOF SLAB |
| 96 | 10/3/2022 | 7 days cube test | TOWER/STAIRCASE 1ST - 2ND |
| 97 | 31/3/2022 | 28 days cube test | TOWER/STAIRCASE 1ST - 2ND |

| RFI No. | DATE | SUBJECT | LOCATION |
|---|---|---|---|
| 98 | 15/3/2022 | 7 days cube test | ON SITE DETENTION POND/BASE |
| 99 | 5/4/2022 | 28 days cube test | ON SITE DETENTION POND/BASE |
| 100 | 21/3/2022 | 7 days cube test | ON SITE DETENTION POND / WALL |
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# ISU-ISU KERJA DI TAPAK KERJA-KERJA C&S

## Request for Site Information Technical (RFIT)

| RFIT No. | DATE | SUBJECT | STATUS |
|---|---|---|---|
| 1 | 19/01/22 | Location of Manhole 1 | closed |
| 2 | 19/01/22 | Alignment of sewerage pipe | closed |
| 3 | 21/01/22 | rainwater harvesting tank details | closed |
| 4 | 21/01/22 | Circular steel tank details | closed |
| 5 | 26/01/22 | Kuarters structure roof key plan | closed |

# ISU-ISU KERJA DI TAPAK KERJA-KERJA C&S

# NON-CONFORMANCE REPORT (NCR)

| NCR No. | DATE | SUBJECT | STATUS |
|---|---|---|---|
| 1. | 17/08/2021 | NCR on Earthwork As-Built Drawing | OPEN |
| 2. | 28/10/2021 | NCR on honeycomb at Menara Latihan 1st floor RC wall | CLOSED |
| 3. | 25/03/2022 | Kuarters 1st floor<br>RC Beam bulging | CLOSED |
| | | | |
| | | | |

# ISU-ISU KERJA DI TAPAK KERJA-KERJA C&S

# SITE MEMORANDUM (SM)

| SM No. | DATE | SUBJECT | STATUS |
|---|---|---|---|
| 1. | 12/09/21 | Rebar storage | Tutup |
| 2. | 21/09/21 | Safety on site | Tutup |
| 3. | 07/10/21 | Balai Bomba RC Column honeycombs | Tutup |
| 4. | 08/02/22 | Sewer pipe installation | Tutup |
| | | | |

# GAMBAR-GAMBAR DARI RESIDENT ENGINEER

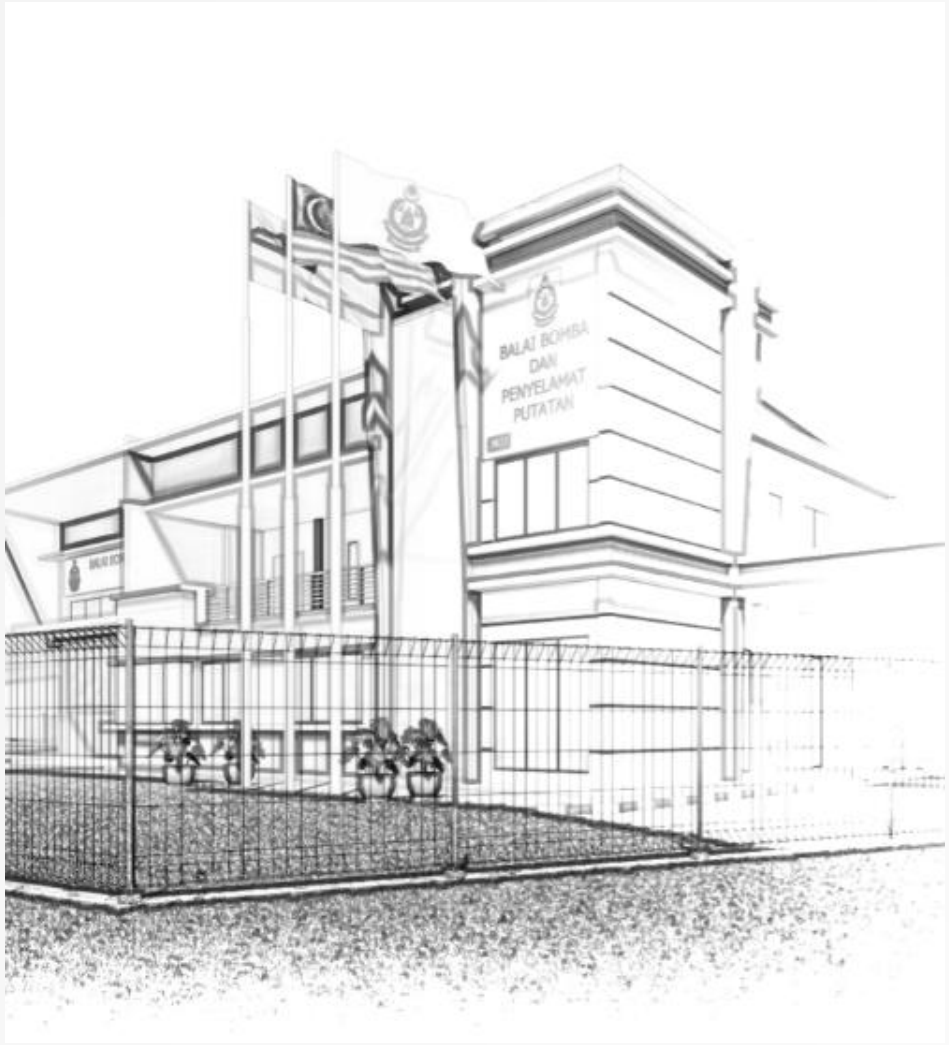













# THANK YOU

***FOR YOUR ATTENTION.***