

EXECUTIVE SUMMARY

1 INTRODUCTION

PROJECT TITLE:

The project described in this report is **ENVIRONMENTAL IMPACT ASSESSMENT (EIA) FOR “PERMOHONAN KEBENARAN MERANCANG MENGIKUT SEKSYEN 21, AKTA PERANCANGAN BANDAR DAN DESA 1976 (AKTA 172) BAGI CADANGAN PEMBANGUNAN BERCAMPUR DI ATAS PTD 171007, PTD 171026, PTD 171029, PTD 175232 DAN PTD 175233, MUKIM PLENTONG, DAERAH JOHOR BAHRU, JOHOR DARUL TA’ZIM UNTUK TETUAN MEDINI HERITAGE SDN. BHD”**.

FIRST SCHEDULE

EIA

HOUSING DEVELOPMENT



PROJECT BACKGROUND

- The proposed development located on Lot 122759, Ptd 171026, Ptd 175232 and Ptd 175233 Mukim Plentong, Daerah Johor Bahru, Johor Darul Ta’zim. This proposed development cover total area of **153.148 acres (61.9769 hectare)**.
- **Medini Heritage Sdn Bhd** is the project proponent for this proposed project and plan to developed a mix development project which include the components of luxury housing, *Rumah Mampu Milik Johor*, commercial, infrastucture and public facilities.

2 INTRODUCTION

PROJECT PROPONENT

Project Initiator	:	Medini Heritage Sdn Bhd
Company Address	:	Lot 30462, Jalan Kempas Baru 81200 Johor Bahru, Johor
Telephone	:	07 – 232 1299
Contact Person	:	Mr. Ong Yoong Nyock
Designation	:	Director

EIA CONSULTANT

EIA Consultant Firm	:	Perunding UEP Sdn Bhd (Urban & Environmental Planning Consultant)
Company Address	:	No 50-02, Jalan Pertama 1, Pusat Perdagangan Danga Utama, 81300, Johor Bahru, Johor.
Telephone	:	07 – 550 0501 / 07-550 0502
Fax	:	07 – 550 0503
Contact Person	:	TPr. Abdul Halim Bin Ali Hassan Register No. EIA (DOE) – (CEP-CS 0130)



3 ENVIRONMENTAL LEGISLATION



First Schedule, Activity 16: Housing

- Housing Development covering 50 hectares or more

Source: *Environmental Quality (Prescribed Activities) (Environmental Impact Assessment Order 2015), Environmental Quality Act, 1974*

The Environmental Impact Assessment (EIA) is prepared based on Environmental Impact Assessment (EIA) Guideline in Malaysia. Others relevant legislations are to be taken into consideration in the preparation of EIA report.

4 STATEMENT OF NEED



BENEFITS



JUSTIFICATION

1. **Addressing Housing and Commercial Needs**
 - Fulfill demand for housing and commercial spaces.
 - Offer diverse, affordable options to strengthen the economy, create jobs, and support the workforce.
2. **Strategic Location and Accessibility**
 - Centrally located between major towns (Bandar Pasir Gudang, Kota Masai, Bandar Penawar, Bandar Tebrau).
 - Close to amenities like schools, parks, and healthcare facilities, improving quality of life and reducing commute times.
3. **Community and Social Impact**
 - Serve as a social hub to foster community bonds and encourage social interaction.
4. **Economic Stimulus**
 - Attract business investments and drive growth in sectors like real estate, retail, and employment.
5. **Efficient Land Use**
 - Promote sustainable development through mixed-use spaces that reduce urban sprawl and create walkable neighborhoods.
6. **Futuristic Housing Concepts**
 - Introduce standard and affordable housing designs tailored for middle-class affordability with attractive features.
7. **Property Value Growth**
 - Proximity to commercial hubs boosts property values in surrounding residential areas.

- Develop the site into a vibrant residential and commercial area.
- Leverage high accessibility via Jalan Besar and Pasir Gudang Highway, ensuring visibility and traffic flow.
- Meet housing and commercial demands in Masai through mixed-use development.
- Establish a serene and appealing environment for residential purposes.
- Cater to increasing demand for housing as more people choose to live and work in the growing Pasir Gudang area.
- Utilize the site's proximity to infrastructures and public amenities, including schools and healthcare facilities.
- Ensure development aligns with local urban planning and preserves the quality of the surrounding environment.



Source: Medini Heritage Sdn. Bhd., 2024

5 PROJECT LOCATION



- ✚ **Location:** Mukim Plentong, Daerah Johor Bahru, Johor Darul Ta'zim
- ✚ **Lot Involved:** PTD 171007, PTD 171026, PTD 171029, PTD 175232 and PTD 175233
- ✚ **Total Acreage:** 153.148 acres (61.9769 hektar)
- ✚ **Proposed Development:** Mixed Development

Located within the high development area surrounded by commercial, industrial and residential area which the have the potential to further complement the proposed project.

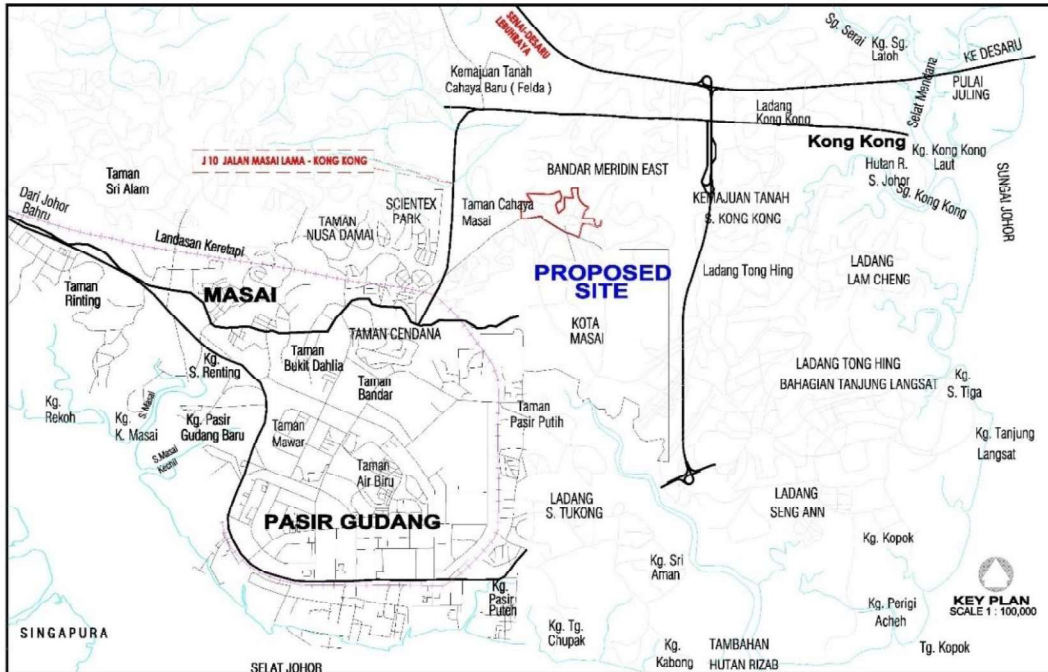
ACCESSIBILITY

- In term of accessibility, the existing road of Jalan Kong Kong (J10) serve as a main access to the proposed site. Jalan Kota Masai serve as junction 1 and signalised junction between Jalan Kong Kong.
- It also connects with residential areas like Taman Cahaya Masai, Taman Alam Damai, Taman Bestari Perdana and it mounts with several institution and administration development which include SMK Kota Masai, Politeknik Ibrahim Sultan, Sekolah Kebangsaan Kopok and others. Besides, the facilities which include Petronas Taman Cahaya Masai, Dewan Muafakat Taman Cahaya Masai, and Surau Bistari Perdana is located near to the proposed site.

Table 1.0: Site Particulars

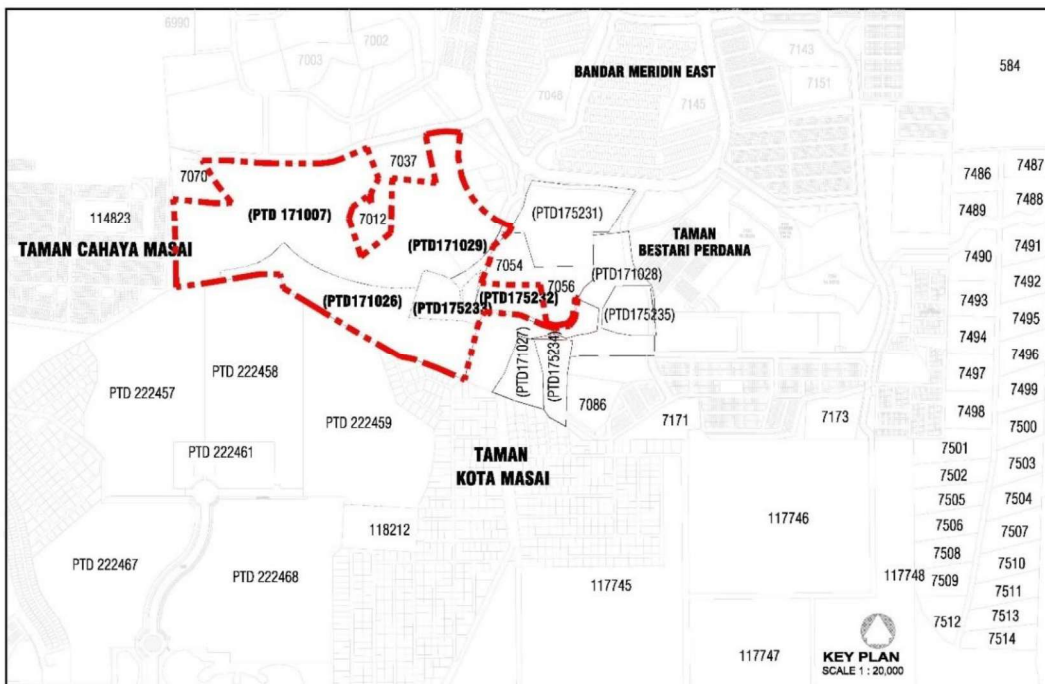
No.	Items	Description
1.	Project Proponent & Land Owner	Medini Heritage Sdn Bhd - Medini Heritage Sdn Bhd (MHSB) is a wholly owned subsidiary company of Tiong Nam Logistics Holdings Bhd
2.	Address of Project Proponent	Lot 30462, Jalan Kempas Baru 81200 Johor Bahru, Johor
3.	Contact Person	Ms Foo Yong Hui Client Officer In Charge
4.	Director	Mr. Ong Yoong Nyock
5.	Designation	Director
6.	Total Land Acreage	153.148 acres (61.6769 hectare)
7.	Lot No	✚ PTD 171007, PTD 171026, PTD 171029, PTD 175232 and PTD 175233
8.	Mukim	Mukim Plentong
9.	District	Daerah Johor Bahru
10.	State	Johor Darul Ta'zim
11.	Existing Land Use	Vacant land, agriculture, bushes and shrubs
12.	Zoning in RTD	Rancangan Tempatan Pasir Gudang 2030 ✚ ZP 8: Kota Masai ✚ Presint 8.1: Bandar Bistari Perdana
13.	Local Authority	Majlis Bandaraya Pasir Gudang (MBPG)
14.	Proposed Development	Mixed Development (Housing, Commercial, Public Facilities, Infrastructure and Utilities)

Figure 1.0, Figure 2.0 and Figure 3.0 show the Key Plan, Location Plan and Coordinate of site boundary respectively.



Source: Extract from Drawing No. JSS.JB/2024/1131/KM-1(0)/, Jururancang Sinar Selatan Sdn Bhd, 2024

Figure 1.0: Key Plan



Source: Extract from Drawing No. JSS.JB/2024/1131/KM-1(0)/, Jururancang Sinar Selatan Sdn Bhd, 2024.

Figure 2.0: Location Plan

E103° 55' 42.24"

E103° 56' 34.08"

E103° 56' 8.16"

E103° 57"

N1° 30' 30.24"

N1° 30' 4.32"

N2° 30' 4.32"

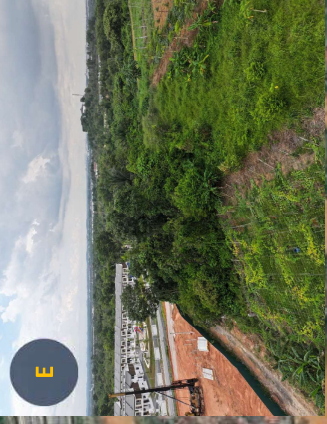
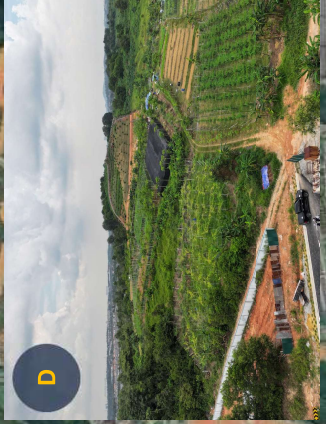
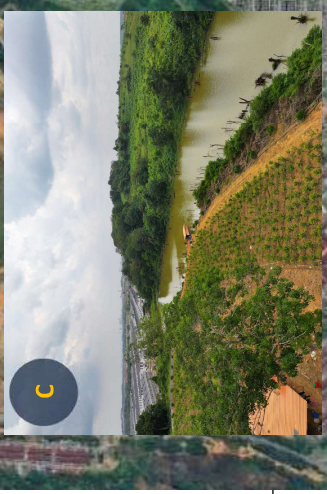
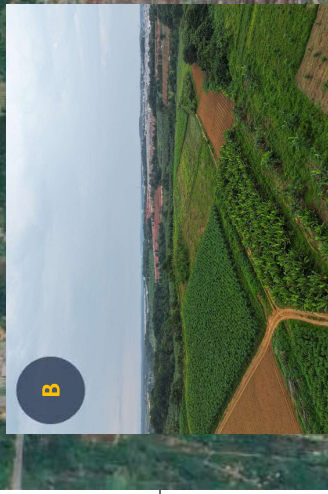
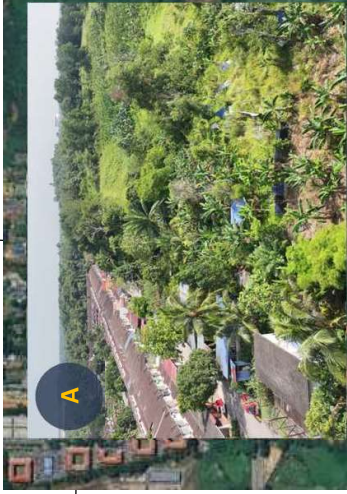


Figure 3.0

Coordinate of Site Boundary



Legend



Proposed Site

Source : Google Earth, 2024.

Environmental Consultant



No 602, Jalan Pertama 1,
Pusat Perdagangan Danga Utama,
83000 Danga Utama,
Kuala Lumpur
Tel: 07-550 0501 / 0502
Fax: 07-550 0503
Email: perueas@yahoo.com
official@perundinguep.com

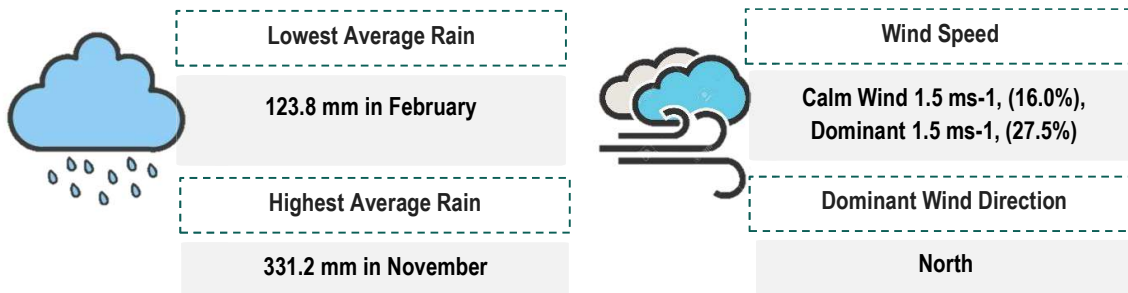


E-5

6 EXISTING ENVIRONMENT

CLIMATE AND METEOROLOGY

Climate and meteorological data are obtained from the **Sultan Ismail Meteorological Station, Senai** for monthly rainfall, rainfall summary, temperature and annual wind rose. On the other hand, there is another station near to proposed site which is **Pusat Pertanian Kong Kong, Masai** for rainfall data. However, the data is mostly defective value (Def).



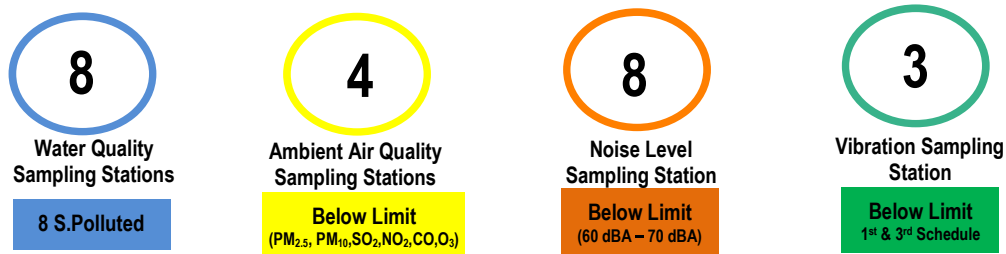
GEOLOGY AND SOIL

Geological Character	Lithology	Soil series
<ul style="list-style-type: none"> Cenozoic period era 	<ul style="list-style-type: none"> Mainly on unconsolidated deposits categorized as clay, silt, sand and gravel. 	<ul style="list-style-type: none"> Harimau-Tampoi series.

SLOPE ANALYSIS / SLOPE GRADIENT

Based on the slope acreage involved only for Earthwork Area, approximately **98.96%** of the site categorized under **Class I (<15°)** which cover approximately **153.148 acre**. Hence, there is no major restriction on developments as it deemed suitable for any proposed development.

ENVIRONMENTAL QUALITY



Source: Spectrum Laboratories (Johor) Sdn Bhd, 2024.

Refer Appendix N: Certificate of Analysis (COA) by Spectrum Laboratories (Johore) Sdn Bhd.

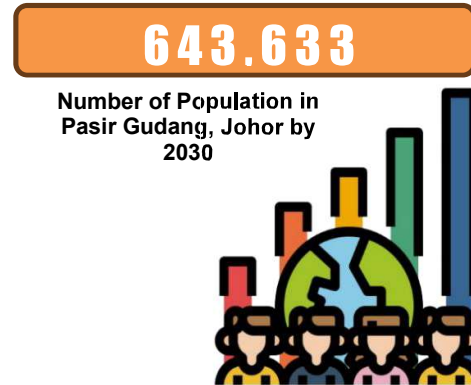
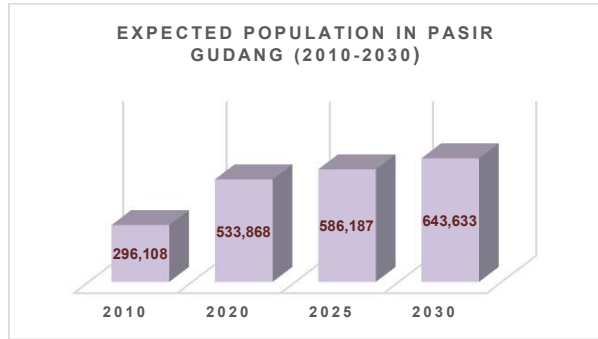
BIOLOGICAL – ECOLOGICAL ENVIRONMENT

Currently, the proposed project area is being used for agriculture activities such as banana and oil palm plantation, bushes and shrubs. There are several flora and fauna that has been found within the proposed area. The diversity of species has been confined to suitable agriculture plantation such as banana trees, palma and grass species dominate the exposed area.

SOCIO ECONOMIC/HUMAN ENVIRONMENT

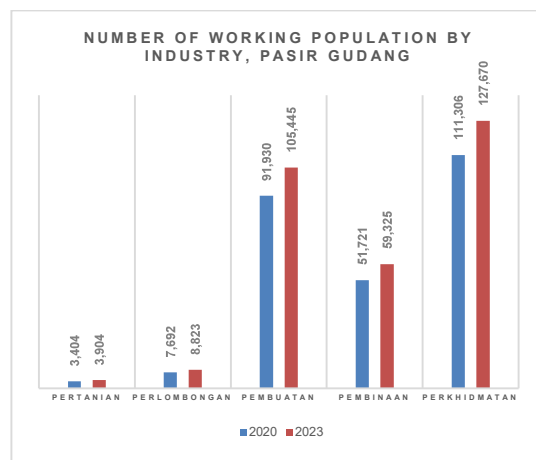
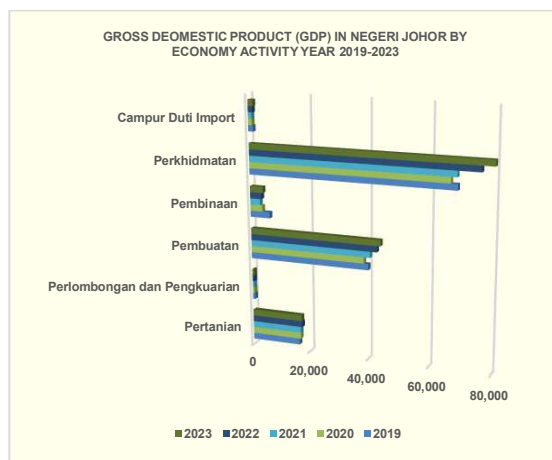
Demographic Profile

According to *Rancangan Tempatan Pasir Gudang 2030*, population growth has been recorded from 2010 to 2020 and expected to continue until 2030. With a population of **533,868 in 2020**, Pasir Gudang has the potential to grow in the future because of the abundance of land. The population is expected to rise from 533,868 in 2020 to 643,633 by 2030. Thus, with the proposed development, it will increase attractive value to the district of Pasir Gudang and also providing variety and alternative accommodation.



Economic and Employment Profile

Referring to *Laporan Sosioekonomi Johor* in 2019-2023, there are five main economic sectors leading the economy of this state which is agriculture, mining and quarrying, manufacturing, construction, services and mixed import duties sector. With total GDP value of **RM 148.2 billion in 2023** (2022: RM 142.4 billion), Johor as a third contributor to the Malaysia economy with increased 4.1% compared to 8.5% in the previous year. Services is one of the sectors become the leading and contributing the highest value to Johor economy. Dining and entertainment fall under subsector of services thus this sector believes can spur economic growth with its ability to attract more investment and create more employment opportunities and skill sharing with locals.



In addition, this proposed development will certainly provide and offer more employment rate focusing in the services sector. Referred to the *Laporan Sosioekonomi Johor 2030*, the total number of working populations are increasing from **266,053 to 305,167**. Thus, increased the working population of 6.84% showing that employment rate is highly demanded. The few main sector that providing the highest employment are **services, manufacturing and agriculture**. Both of the services and manufacturing sector are expected to lead to the development of industrial and technologies that can drive economic growth. Subsector of services sector of this proposed development includes utilities, transportation, storage information and communication.

7 PROJECT DESCRIPTION

PROJECT CONCEPT AND PROJECT COMPONENT

THE CONCEPT

MIXED HOUSING DEVELOPMENT

Develop a mix of housing and commercial area that will be supported with development of infrastructure and facilities.






Source: Goh Kok Kheng Architect and Medini Heritage Sdn Bhd, 2024



THE COMPONENTS

Total Area Development

153.148 acres
(61.9769 hectares)

COMPONENT DEVELOPMENT

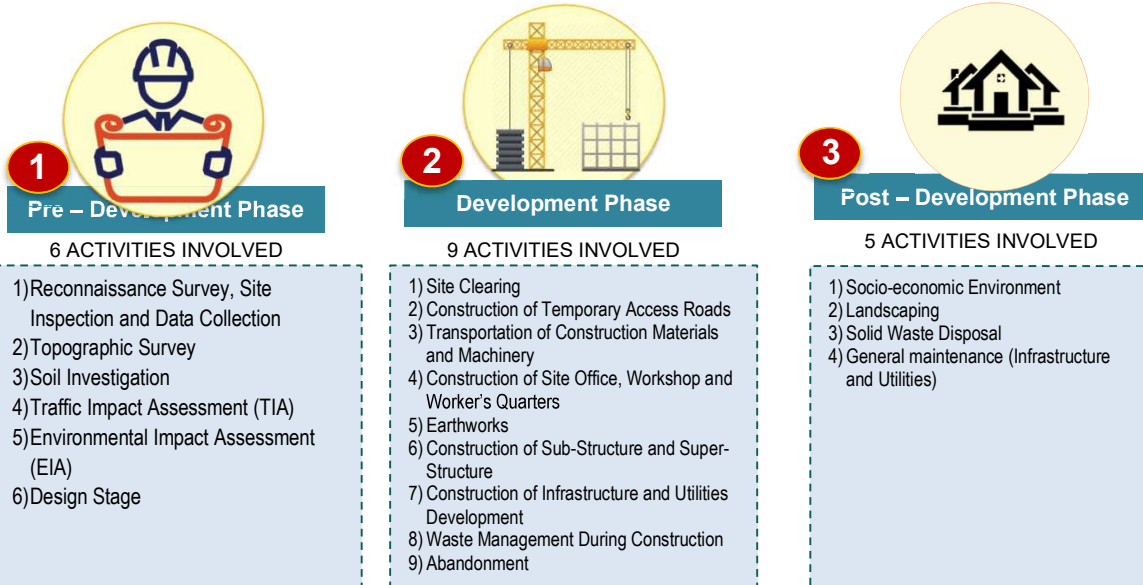
Perumahan Mewah		Commercial		Rumah Mampu Milik Johor		Public Facilities, Infrastructure & Utilities	
28.556 ac (11.5562 ha)	18.65%	36.604 ac (14.8131 ha)	23.90 %	16.805 ac (6.8008 ha)	10.97%	71.183 ac (28.8068 ha)	46.48%

Table 2.0: Component Development

JENIS PENGGUNAAN TANAH	Plot	Unit	(%)	Ekar	(%)
A1. PERUMAHAN MEWAH					
Apartment (60 Unit / Ekar)	2	934	39.13	15.570	10.18
Rumah Teres 2 Tingkat (20' x 65')	405	405	16.97	12.986	8.48
Jumlah Kecil (A1)	407	1339	56.10	28.556	18.65
A2. PERDAGANGAN					
Plot Perdagangan	2	2	0.08	6.221	4.06
Plot Perdagangan (Wellness Centre / Retirement Home)	1	1	0.04	18.822	12.29
Kedai Pejabat 2 / 3 Tingkat (22' x 70')	85	85	3.56	3.061	2.00
Plot Perdagangan (Hypermarket)	1	1	0.04	4.500	2.94
Plot Perdagangan (Kompleks Sukan)	1	1	0.04	4.000	2.61
Jumlah Kecil (A2)	90	90	3.76	36.604	23.90
A3. KOMPONEN RUMAH MAMPU MILIK JOHOR (RMMJ)					
Rumah Pangsa RMMJ (Jenis A) (RM50,000 / 720KP) / 70 Unit / Ekar	1	120	5.03	1.714	1.12
Rumah Pangsa RMMJ (Jenis B) (RM100,000 / 850KP) / 70 Unit / Ekar	1	120	5.03	1.714	1.12
Rumah Pangsa RMMJ (Jenis C) (RM150,000 / 100KP) / 60 Unit / Ekar	1	358	15.00	5.970	3.90
Rumah Pangsa RMMJ (Jenis D) (RM300,000) / 1400KP) / 60 Unit / Ekar	1	240	10.05	4.000	2.61
Kedai Kos Sederhana 1 Tingkat (20' x 60') RM200,000 / Unit	120	120	5.03	3.407	2.22
Jumlah Kecil (A3)	124	958	40.13	16.805	10.97
Jumlah Besar (A1 + A2 + A3)	621	2387	100.00	81.965	53.52
B. KEMUDAHAN AWAM / ASAS					
Dewan Orang Ramai	1			1.000	0.65
Sekolah Rendah	1			6.000	3.92
Sekolah Agama	1			1.500	0.98
Tadika	2			0.500	0.33
Masjid	1			2.000	1.31
Tangki Air	1			0.747	0.49
Kolam Takungan	1			7.391	4.83
Rumah Pam	1			0.154	0.10
Pencawang Elektrik TNB	6			0.420	0.27
Pencawang Pembahagi Utama	1			0.523	0.34
Kawasan Hijau / Rizab Cerun				3.482	2.27
Rizab Utiliti 10'				2.852	1.86
Jumlah Kecil (B)	16			26.569	17.35
Kawasan Lapang				10.720	7.00
Rizab Jalan / Lorong				33.894	22.13
Jumlah Kecil (C)				44.614	29.13
Jumlah Besar (A + B + C + D)	637			153.148	100.00

Source: Jururancang Sinar Selatan Sdn Bhd, 2024.

8 PROJECT ACTIVITIES



9 POTENTIAL IMPACTS AND PROPOSED POLLUTION PREVENTION AND MITIGATION MEASURES (P2M2)

EVALUATION OF IMPACTS / ENVIRONMENTAL ISSUE

The summary of potential impacts, their magnitude of the impact and the proposed pollution prevention and mitigation measures (P2M2) shows in Chapter 8 dan Table P2M2.

1. Soil Erosion and Sedimentation

01

Soil Erosion & Sedimentation

Erosion risk of the site under three conditions

- i. Existing (undisturbed)
- ii. Earthwork Disturbed (uncontrolled) - no ESC
- iii. Earthwork Disturbed (controlled) - with ESC

The total estimated earthwork volumes are balance as follow:

	<u>Total</u>
Volume of Cut	1,536,531.54
Volume of Fill	1,530,822.10
Export	5,709.44
Platform Level	26.00m – 44.00m

The estimated total sediment generated based on USLE:

Condition	Total Soil Loss Assessment for Development Site, A (ton/ha/yr)
Existing (undisturbed)	340,719
Earthwork Disturbed (Uncontrolled)- No ESC	170,104
Earthwork Disturbed (Controlled)- With ESC	85,052

Summary of Sediment Yield and Suspended Solid:

Sediment Basin	Sediment Yield, Tonnes
SB1	669.80
SB2	13576.30
SB3	2203.50
SB4	730.60

Notes: Earthwork Disturbed (controlled) - With ESC sediment basin + turf

2. Water Quality

- ✚ Water pollution is most likely to occur by several main issue during construction period caused by surface run-off, sedimentation and siltation during site clearing and earthwork activities.
- ✚ The estimated total sediment loading are further explained in **Chapter 7: Evaluation of Impact**.
- ✚ The nearest waterways that might be affected is **Sungai Serai and towards Sungai Johor**

Water Quality

02

3. Ambient Air Quality, Noise Level and Vibration

- ✚ Deterioration of air quality are expected to be cause mainly from generation of dust during earthwork activities, influx of construction vehicle that emits pollutants (dark smoke) into surrounding air and their movement on unpaved roads at construction sites.
- ✚ It was estimated that noise level at various distances are generated mostly by heavy machinery activities and also from the influx of vehicles during construction period.

Air, Noise & Vibration

03

4. Safety and Health

- ✚ Improper management of construction materials and disused formworks may create breeding sites for rodents and disease vector such as mosquitoes.
- ✚ Risk or road-related accidents due to improper maintenance of transportation vehicles.

Safety & Health

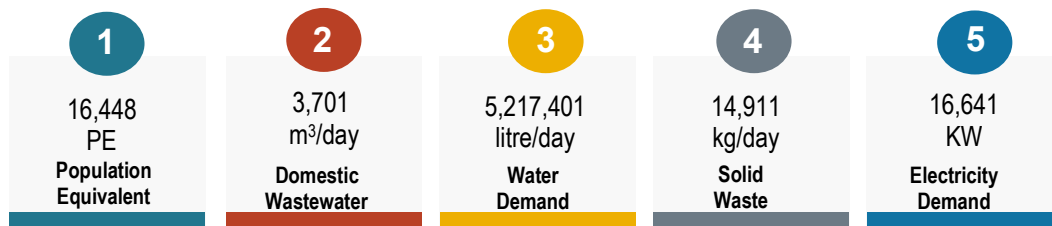
04

Infrastructure & Utilities

05

5. Sewage Treatment Plant / Water Reticulation System/Utilities Demand/Solid Waste

- ✚ Estimation of utilities demand and waste generated during the operational phase are as per below.



Source:

- i. Extraction from Drawing No: L&O/24054/EIA/SEW/01, Sewerage Layout Plan, Lee & Ooi Perunding Sdn. Bhd., 2024. **Appendix I**.
- ii. M&E Load Demand, JP Ace Sdn Bhd., 2024. **Appendix J**
- iii. PE & Utilities Estimation, Perunding UEP Sdn. Bhd., 2024. **Appendix K**

LAND DISTURBANCE- POLLUTION PREVENTION & MITIGATION MEASURE PLAN (LD-P2M2) DOCUMENT

✦ **LD – P2M2 document** is prepared to address soil erosion and sedimentation at an earlier stage, hence adequate planning and resources are factored in later stages such as design & construction. To assist Project Proponent to **review more detail** their construction sequencing and site operation in regards to land disturbing activities which may result in soil erosion and sedimentation.

The focus of LD-P2M2 document will be on the prevention, mitigation and control of discharge from the development area containing the major pollutant (suspended solids) resulting from the project's land disturbing activities.



- LD-P2M2 document together with LD-P2M2 layout plan detail drawing has been prepared by **Lee & Ooi Perunding Sdn. Bhd.**, and verified together with **Certified Professional in Erosion and Sediment Control (CPESC), Mr Joel Lawrence Jayasunthar**
- An **Environmental Officer** need to be appointed to supervise the LD-P2M2 and BMPs implementation on site throughout the entire project period.
- All **subcontractors** shall be informed of their responsibilities in minimizing the potential for soil erosion and pollution to the rivers.
- The **P2M2** for this proposed project should include: -

P2M2

- 1) Proposed Temporary Earthdrain
- 2) Proposed Fencing Gate
- 3) Proposed Wash Through
- 4) Proposed Project Signboard
- 5) Proposed Hoarding
- 6) Proposed Sediment Fence
- 7) Proposed Earthbund with Earthdrain
- 8) Proposed Check Dam
- 9) Proposed Sediment Basin

10 ENVIRONMENTAL MANAGEMENT PLAN FRAMEWORK

GUIDED SELF REGULATION

Self-regulation is an innovative long-term goal set by DOE, to achieve in building up environmental culture among project proponent. Self regulation aims to embrace project proponent with full responsibility and accountability for taking environmentally friendly options, instituting effective pollution prevention measures (P2M2) and demonstration of regulatory compliance of the EIA procedure at all stages of project implementation. In order to embrace Self-Regulation, **environmental mainstreaming tool (EMT)** were introduced. It contains **7 elements/tool** that leads project proponent in implementing a good practice of self regulation for the proposed project.



The **7 elements (EMT)** or tool were comprising of:

- i. Environmental Policy (EP)
- ii. Environmental Budgeting (EB)
- iii. Environmental Monitoring Committee (EMC)
- iv. Environmental Facility (EF)
- v. Environmental Competency (EC)
- vi. Environmental Reporting and Communication (ERC)
- vii. Environmental Transparency (ET)
- viii.

Please refer to Chapter 9, for the elaboration of these environmental mainstreaming tool.



Compliance with EIA Approval Conditions:

- ✦ **Environmental Management Plan (EMP)**
- ✦ **Environmental Audit**
- ✦ **Environmental Monitoring Programme (EMPr)**
- ✦ **Environmental Officer (EO) on Site**

**PROPOSED MONITORING PROGRAMME
(PERFORMANCE MONITORING-PM, IMPACT MONITORING-IM AND COMPLIANCE MONITORING-CM)**

Environmental monitoring programme comprises three types of monitoring, namely: Performance monitoring (PM), compliance (CM), and impact monitoring (IM). Performance Evaluation of LD-P2M2 aims to develop a program to monitor how well the BMPs work and to evaluate whether additional BMPs are required. Summary of Performance Monitoring is as follows: -

Table 6.0: Performance Monitoring (PM) - Environmental Control Measures

No	Location	Control Measures	Status (Installation)	Frequency Monitoring	Parameters	Compliance Levels
1.	Silt Fences	Erosion Control	<u>Installation</u> During Construction Stage	<ul style="list-style-type: none"> ▪ Daily ▪ Within 24 hours, after heavy rainfall of $\geq 12.5\text{mm}$ 	<ul style="list-style-type: none"> • Structurally • Functionality • Effectiveness • Maintenance 	Design are to follow MASMA 2 nd Edition by DID, Malaysia
2.	Sediment Basin	Erosion and Sediment Control	<u>Installation</u> During Construction Stage	<ul style="list-style-type: none"> ▪ Daily ▪ Within 24 hours, after heavy rainfall of $\geq 12.5\text{mm}$ 	<ul style="list-style-type: none"> • Structurally • Functionality • Effectiveness • Maintenance 	Design are to follow MASMA 2 nd Edition by DID, Malaysia
3.	Earth Drain	Drainage Control	<u>Monitoring</u> During Construction Stage	<ul style="list-style-type: none"> ▪ Daily ▪ Within 24 hours, after heavy rainfall of $\geq 12.5\text{mm}$ ▪ After every storm event 	<ul style="list-style-type: none"> • Total Suspended Solid (TSS) 	-Baseline -(NWQS) for Malaysia
4.	Check Dams	Drainage Control	<u>Installation</u> During Construction Stage	<ul style="list-style-type: none"> ▪ Daily ▪ Within 24 hours, after heavy rainfall of $\geq 12.5\text{mm}$ ▪ After every storm event 	<ul style="list-style-type: none"> • Structurally • Functionality • Effectiveness • Maintenance • Durability 	Design are to follow MASMA 2 nd Edition by DID, Malaysia
5.	Close Turfing and spot turfing	Erosion and Sediment Control	<u>Installation</u> During Construction Stage	<ul style="list-style-type: none"> ▪ Daily ▪ Within 24 hours, after heavy rainfall of $\geq 12.5\text{mm}$ 	<ul style="list-style-type: none"> • Structurally • Functionality • Effectiveness • Maintenance 	Design are to follow MASMA 2 nd Edition by DID, Malaysia
6.	Earth Bank (Earthbund with Earthdrain)	Erosion and Sediment Control	<u>Installation</u> During Construction Stage	<ul style="list-style-type: none"> ▪ Daily ▪ Within 24 hours, after heavy rainfall of $\geq 12.5\text{mm}$ 	<ul style="list-style-type: none"> • Structurally • Functionality • Effectiveness • Maintenance 	Design are to follow MASMA 2 nd Edition by DID, Malaysia
7.	Diversion Channel	Drainage Control	<u>Installation</u> During Construction Stage	<ul style="list-style-type: none"> ▪ Daily ▪ Within 24 hours, after heavy rainfall of $\geq 12.5\text{mm}$ ▪ After every storm event 	<ul style="list-style-type: none"> • Structurally • Functionality • Effectiveness • Maintenance 	Design are to follow MASMA 2 nd Edition by DID, Malaysia
8.	Drainage Outlet Protection	Drainage Control	<u>Installation</u> During Construction Stage	<ul style="list-style-type: none"> ▪ Daily ▪ Within 24 hours, after heavy rainfall of $\geq 12.5\text{mm}$ 	<ul style="list-style-type: none"> • Structurally • Functionality • Effectiveness • Maintenance 	Design are to follow MASMA 2 nd Edition by DID, Malaysia
9.	Temporary Waterway Crossing	Drainage Control	<u>Installation</u> During Construction Stage	<ul style="list-style-type: none"> ▪ Daily ▪ Within 24 hours, after heavy rainfall of $\geq 12.5\text{mm}$ 	<ul style="list-style-type: none"> • Structurally • Functionality • Effectiveness • Maintenance 	Design are to follow MASMA 2 nd Edition by DID, Malaysia
10.	Hoarding	Erosion, Safety, Air & Noise Barrier	<u>Installation</u> During Construction Stage	<ul style="list-style-type: none"> ▪ Daily ▪ Within 24 hours, after heavy rainfall of $\geq 12.5\text{mm}$ 	<ul style="list-style-type: none"> • Structurally • Functionality • Effectiveness • Maintenance 	Design are to follow MASMA 2 nd Edition by DID, Malaysia
11.	Wash through	Dust Control	<u>Installation</u> During Construction Stage	<ul style="list-style-type: none"> ▪ Daily ▪ Regular inspection/maintenance to be carried out 	<ul style="list-style-type: none"> • Structurally • Functionality • Effectiveness • Maintenance 	Design are to follow MASMA 2 nd Edition by DID, Malaysia
12.	Access Road	Dust control	<u>Installation</u> During Construction Stage	<ul style="list-style-type: none"> ▪ Daily ▪ Within 24 hours, after heavy rainfall of $\geq 12.5\text{mm}$ 	<ul style="list-style-type: none"> • Structurally • Functionality • Maintenance 	
13.	Stockpile area, Vehicle / equipment area, Material storage area, Site office and workers quarters (if any).	Solid Waste, Safety and Health	<u>Installation</u> During Construction Stage	<ul style="list-style-type: none"> ▪ Daily ▪ Regular inspection/maintenance to be carried out 	<ul style="list-style-type: none"> • Maintenance 	

Notes:

- Drainage control :- Control of runoff from the construction sites.
- Erosion Control :- Surface protection of exposed soil.
- Sediment Control :- Trapping the sediment within the sites.

Table 7.0: Proposed Compliance Monitoring (CM) and Impact Monitoring (IM) Programme

Component	Parameter/Unit	Frequency Monitoring	Compliance Level	Reporting Requirement	Monitoring Location
Impact Monitoring					
River Water Quality	<ul style="list-style-type: none"> ▪ Temperature, ▪ Dissolved Oxygen (DO), ▪ Biochemical Oxygen Demand (BOD), ▪ Chemical Oxygen Demand (COD), ▪ Total Suspended Solids (TSS), ▪ pH ▪ Ammoniacal Nitrogen (NH₃-N) ▪ Oil & Grease, ▪ Escherichia Coli Count ▪ Turbidity ▪ Faecal Coliform ▪ Heavy Metals 	Monthly	Results will be compared to: <ul style="list-style-type: none"> • Baseline • National Water Quality Standards for Malaysia (NWQS), Class IIA 	Every 3 Month	Six (8) points as listed in Table 9.9
Ambient Air Quality	<ul style="list-style-type: none"> ▪ PM₁₀ ▪ PM_{2.5} ▪ Sulphur Dioxide, SO₂ ▪ Nitrogen Dioxide, NO₂ ▪ Carbon Monoxide (CO) 	Monthly	Result will be compared to: <ul style="list-style-type: none"> • Baseline • Malaysian Ambient Air Quality Standard, 2013 PM ₁₀ : 100µg/m ³ PM _{2.5} : 35 µg/m ³ SO ₂ : 80 µg/m ³ NO ₂ : 70 µg/m ³ CO : 30 µg/m ³	Every 3 Month	Four (4) points as listed in Table 9.9
Noise Level	<ul style="list-style-type: none"> ▪ L_{Aeq} 	Monthly	Results will be compared to: <ul style="list-style-type: none"> • Baseline • DOE's Interim Guidelines for Recommended Permissible Sound Levels by receiving land use new development (Schedule 2) 	Every 3 Month	Six (8) points as listed in Table 9.9
Vibration Level	<ul style="list-style-type: none"> ▪ Team peak 	Monthly	Results will be compared to: <ul style="list-style-type: none"> • Baseline • The Planning Guideline for vibration limit & control, DOE (Schedule 1 and Schedule 3) 	Every 3 Month	Three (3) points as listed in Table 9.9
Compliance Monitoring					
Sediment basin outlet discharge	<ul style="list-style-type: none"> ▪ Total Suspended Solid (TSS) 	Monthly	Results will be compared to: <ul style="list-style-type: none"> • DOE requirement is < 50 mg/l 	Every 3 Month	Four (4) Sediment Basin as listed in Table 9.9

Notes:

- Parameter analysis for Environmental Monitoring shall be conducted by lab that is acknowledge by 'Laboratory Accreditation Scheme of Malaysia' from Department of Standards Malaysia.
- Frequency of monitoring subject to EIA Approval Condition

Table 8.0: Proposed Future Sampling Location for Compliance Monitoring-CM And Impact Monitoring-IM.

Environmental Quality	No Stations
Water (River / Drain)	8
IM	W1-W8
Air	4
IM	A1-A4
Noise	8
IM	N1-N8
Vibration	3
IM	V1-V3
Sedimen Basin	8
CM	SB1-SB4

Source: Perunding UEP Sdn. Bhd, 2024.

11 CONCLUSIONS

The proposed development is located on **PTD 171007, PTD 171026, PTD 171029, PTD 175232 and PTD 175233, Mukim Plentong, Daerah Johor Bahru, Johor Darul Ta'zim**. This development will cover an area of **153.148 acres (61.9769 hectares)**. **Medini Heritage Sdn Bhd** is the project proponent for this proposed project and plan to developed a mixed development project which include the components of housing, commercial, infrastructure and public facilities.

The proposed development standard housing involved a total area of **28.556 acres (11.5562 hectare)** which cover approximately **18.65%** from the overall acreage of the proposed development. Apart from that, the development also proposed to develop an affordable housing in the development component. This component covering approximately **16.805 acres (6.8008 hectare)** with **10.97%** from total unit to be developed. Meanwhile, the proposed commercial development involved an area of **36.604 acres (14.8131 hectare)** which cover approximately **23.90%** from the overall acreage of the proposed development. The provision of public facilities, infrastructure & utilities which cover a total area **71.183 acre (28.8068 hectare)** that is approximately **46.48%** from total acreage of developments.

The proposed development is categorized as one of the Prescribed Activity under First Schedule **First Schedule, Activity 16: Housing - Housing Development covering 50 hectares or more**. The EIA study has been carried out which include the assessment of the present environmental scenario, study of the specific activities related to the project and evaluation of the probable environmental impacts. It will lead to the recommendations of necessary environmental mitigation measure.

The major environmental impacts of concern that will majorly generated are during the development and post-development phase. The impacts include increase in soil erosion and sedimentation, drainage pattern and flooding risk, slope and embankment stability, water quality, air quality, noise quality, waste management and social and economic impacts. At this stage, some impacts are expected to generate based on the intensity of the earthwork and infrastructure activities.

All those impacts identified shall be mitigated either via engineering approach (temporary access road, sediment basin, etc. or on-site management approach (traffic control, waste minimization, watering method on the surface of gravel roads, etc). As recommend, the project proponent shall be developed the project by phases to reduce the adverse impact to the environment. The implementation of recommended mitigating measures in the LDP2M2s has to be carried out timely and proactively. LDP2M2s is provided in order to minimize environmental damage due to the proposed development during earthwork stage and construction works.

The assessment carried out in the EIA report has shown with the proper mitigation measures taken from the planning stage until the operational stage of the proposed development shows some minimal significant long-term adverse impacts on the environment. A detailed evaluation for the proposed development in terms of soil erosion, annual load pollutants has indicated that a proper mitigation measure required during construction and post-construction phase can be minimized.

The Environmental Management Plan (EMP) shall be concluded once the EIA report has been approved by the DOE Negeri Johor requirement.

