

ENVIRONMENTAL IMPACT ASSESSMENT (EIA) FOR THE PROPOSED MIXED COMMERCIAL DEVELOPMENT ON LOT 4101, LOT 2734, LOT 2735, LOT 2738, LOT 2739 AND LOT 2742, JALAN DAMANSARA, SUNGAI PENCHALA, MUKIM KUALA LUMPUR, WILAYAH PERSEKUTUAN KUALA LUMPUR [RESUBMISSION]

PROJECT BRIEF

The Project Site is **surrounded by mixed commercial areas** (i.e., Empire Damansara, Mutiara Damansara, Damansara Perdana) and **residential areas** (i.e., Kampung Bukit Lanjan, Kampung Sungai Penchala, Taman Tun Dr. Ismail (TTDI)).

LEGAL ASPECT

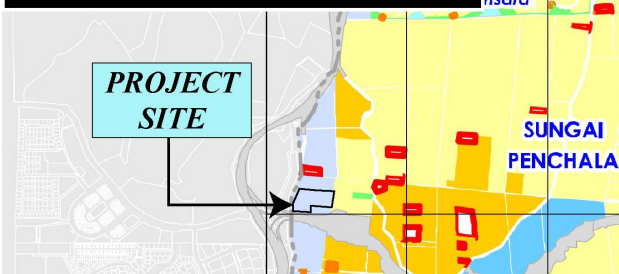
ACTIVITY NO. 13: DEVELOPMENT IN SLOPE AREA

Development or land clearing less than 50 per cent of an area with slope greater than or equal to 25° but less than 35°.

- Approximately 5.87% area of the Project Site are steep slopes (25° - 35°) and very steep slopes (35° - 60°) is about 1.42%.

ZONING COMPATIBILITY

BLOW - UP OF THE PROJECT SITE AREA



Based on the *Pelan Bandaraya Kuala Lumpur 2020* the proposed development falls in line with the proposed development zoning i.e., **Commercial**.

LAND OWNER & PROJECT DEVELOPER

SAGA TUNAS SDN. BHD.
 Plaza Seri Setia
 601m, Jalan SS9a/13,
 47300 Petaling Jaya
 Selangor Darul Ehsan, Malaysia
 Tel : 03-78777333

PROJECT AREA (SCOPE OF EIA)

Total Project Area : **6.97 acres (2.82 hectares)**



JURISDICTION

Dewan Bandaraya Kuala Lumpur (DBKL)

ENVIRONMENTAL CONSULTANT

EUROPASIA ENGINEERING SERVICES SDN. BHD.
 No. 63A-2, Petaling Utama Avenue, Jalan PJS 1/50,
 Taman Petaling Utama, 46150 Petaling Jaya, Selangor
 Tel.: 03-7783 3639, Fax: 03-7784 3200
 Attn. : Pn. Nur Arina Muhamad Affandi (CEP - C0101)
 (EIA Study Team Leader)

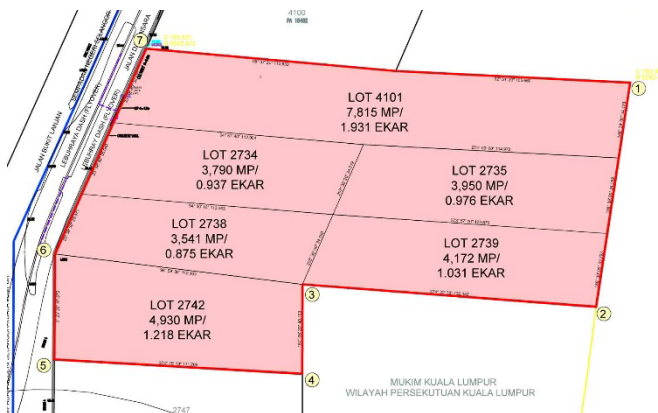
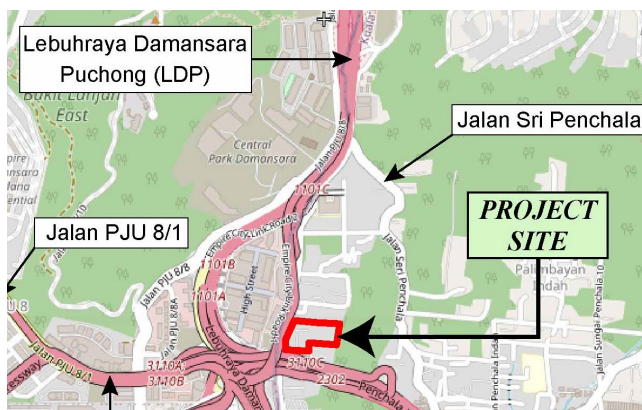
INTRODUCTION TO THE PROPOSED DEVELOPMENT

ACCESSIBILITY

Main route access is from **Lebuhraya Damansara Puchong (LDP)** into **Jalan Damansara**

CURRENT SITE CONDITION

Project site is occupied with Mofaz **Showroom** a franchise dealer of well-known imported vehicle, car park, Most Fun Gym (**Motorcross Training Park**), **existing buildings, factories**, workshops and cabins at the western portion of Project Site. While, there is earthen track for training and secondary vegetation at the middle and eastern portion of the Project Site.



STRATEGIC LOCATION & HIGH ACCESSIBILITY

- Current access to the Project Site is at **Jalan Damansara**
- Comprehensive road network which connect the proposed project site to Damansara & Kg. Bukit Lanjan).
- Can be accessed using Lebuhraya Damansara Puchong (LDP)



LANDUSE OPTIMIZATION

- Compatible with the zoning and the landuse class order which is zoned for **Mixed Commercial Development**.
- The proposed development will serve to fulfill the **demand for residential** development in the area towards Year 2030.
- The development will indirectly **increase the value of property** in the surrounding areas



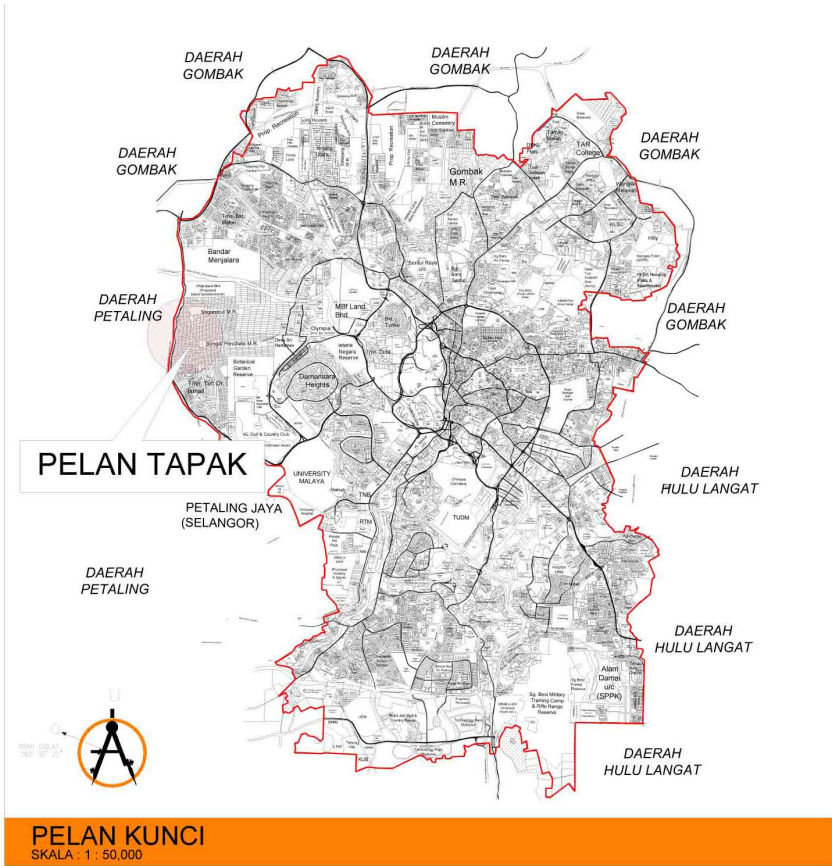
OTHER SUPPORTING MATTER

- **Expand** the employment **market**.
- The proposed development strategy is to introduce the concept of "**connectivity**" that includes physical, social and economic development.

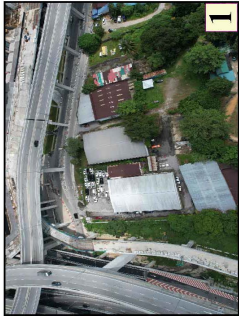


ENVIRONMENTAL MATTERS

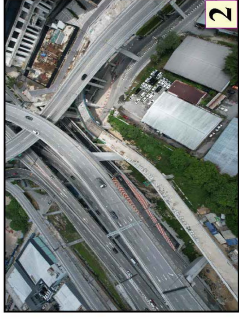
- Project Site is not located within the Environmental Sensitive Area (ESAs) however it is susceptible to Multi-Disaster area in draft KLCP 2040.
- The proposed development includes **lush green areas/ buffer zone or landscaped areas**.
- From an ecological point of view, the current biodiversity of the flora and fauna composition of the site will be slightly affected as the current secondary forest vegetation will have to be sacrificed during the construction state.



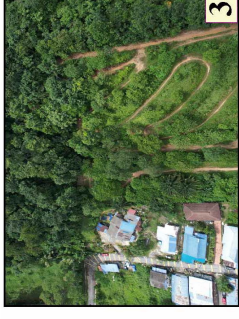
CURRENT ON-SITE CONDITION AND ITS SURROUNDINGS



1
Overview of occupied building within Project Site (Mofaz Dealership, Most Fun Gym, Factory)



2
Overview of Project Site adjacent to DASH Highway at the south portion



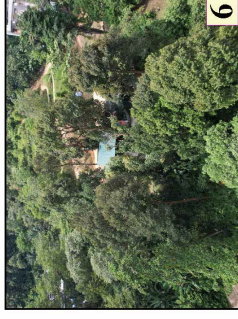
3
Overview of earthen track within Project Site at middle to east portion



4
Overview of hilly side within the site



5
Overview of occupied building Mofaz Dealership Centre (Tibara Corp)



6
Overview of biological flora within the site

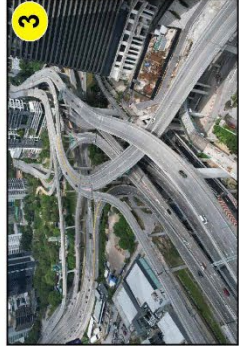
IMMEDIATE SURROUNDING TO THE PROJECT SITE



1
Overview of Astana Selera Restaurant beside the Project Site



2
Overview of existing site office (workers camp) for DASH Highway



3
Overview of DASH Highway and Pencil Link (SPRINT) beside the Project Site



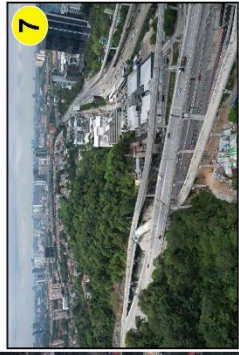
4
Overview of completed Empire City Damansara in front of Project Site



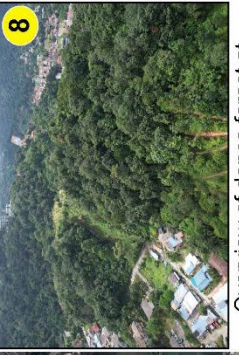
5
Overview of Mulia Motor and car dealership centre



6
Overview of Kg. Bukit Lanjan



7
Overview of SPRINT & DASH highway



8
Overview of dense forest at the back of Project Site

The purpose Project consist of **three (3) blocks of 39-storey, 50-storey and 51-storey Serviced Apartment** complete with 10-storey carpark podium, 1-storey public facilities and shop lots and merchant space

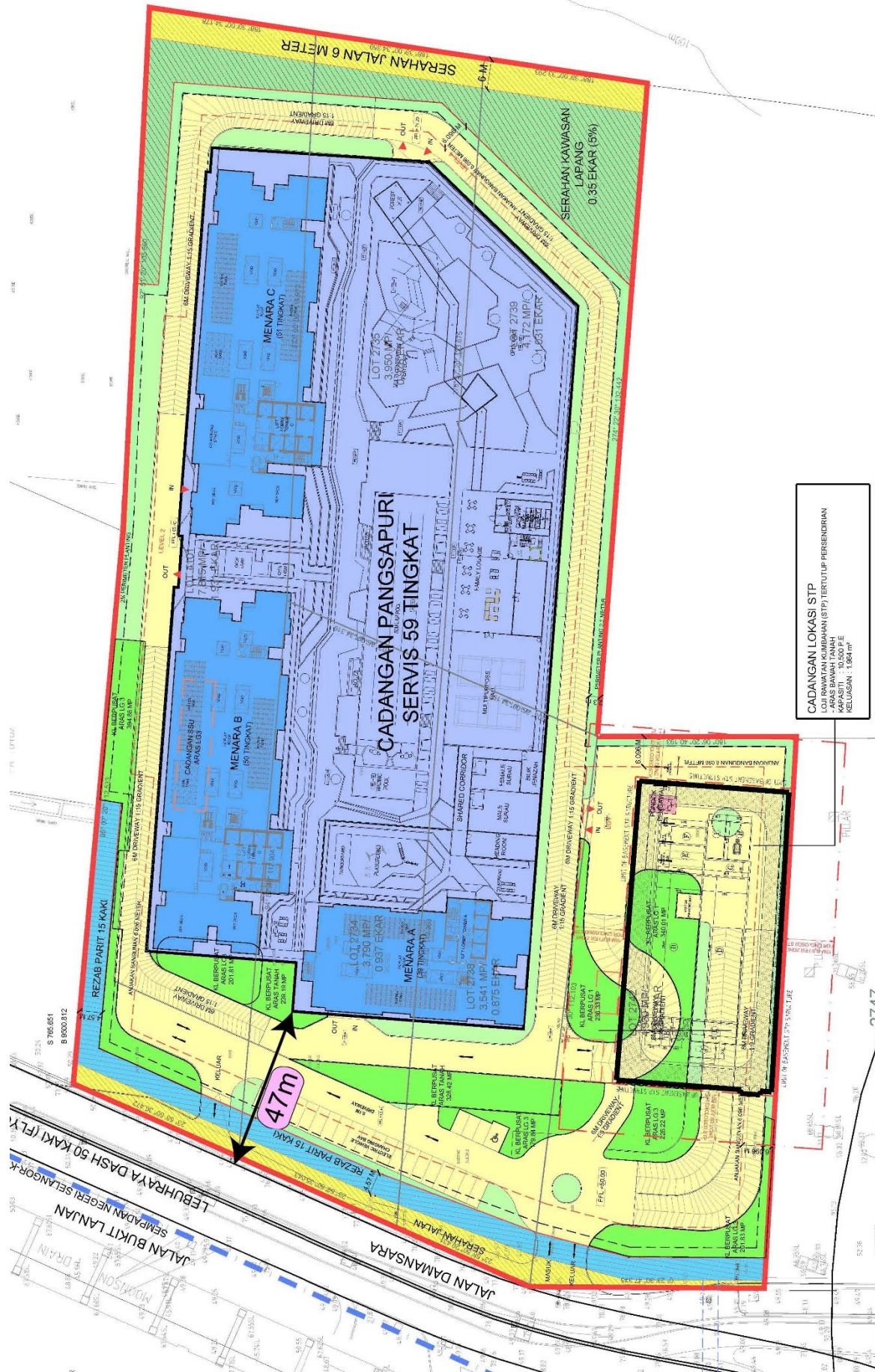
In total there will be **1,751 units of Serviced Apartment** which comprise of **Type A (Madani), Type B, Type C and Type D.**

1) PETUNJUK					
GUNA TANAH	KELUASAN			% BERSIH	% KE SELURUHAN
	MP	KP	EKAR		
A) PEMBANGUNAN UTAMA					
BANGUNAN UTAMA	12,380.26	133,260.00	3.06	50.12	43.90
PONDOK PENGAWAL	19.80	213.13	0.00	0.08	0.07
JALAN DALAMAN DAN TLK	6,279.72	67,594.34	1.55	25.42	22.27
KAWASAN LAPANG 8% (LG 3, LG 1 & TANAH)	2,408.53	25,925.20	0.60	9.75	8.54
PERIMETER PLANTING 2 METER	893.68	9,619.49	0.22	3.62	3.17
KAWASAN HIJAU LAIN	2,721.61	29,295.17	0.67	11.02	9.65
KELUASAN TAPAK BERSIH	24,703.60	265,907.33	6.10	100	87.61
B) SERAHAN TANAH					
JALAN DAMANSARA	573.49	6,172.99	0.14	-	2.03
JALAN SG. PENCAHALA 6 METER	610.50	6,571.37	0.15	-	2.17
KAWASAN LAPANG	1,410.58	15,183.36	0.35	-	5.00
REZAB PARIT 15 KAKI	899.83	9,685.69	0.22	-	3.19
KELUASAN KAWASAN SERAHAN	3,494.40	37,613.41	0.86	-	12.39
KELUASAN KESELURUHAN	28,198.00	303,520.73	6.97	-	100.00

KAWASAN LAPANG BERPUSAT DISEDIAKAN DI ARAS LG3, LG1 & TANAH = 25,925.20 MP (9.75%)
 KAWASAN LAPANG BERPUSAT PODIUM DISEDIAKAN DI ARAS 8 = 8,004.70 (28%)

5) KEMUDAHAN PENDUDUK		
KEMUDAHAN	KELUASAN (MP)	KELUASAN (KP)
ARAS BUMBUNG		
1. CO-WORKING SPACE- MENARA B	93.21	1,003.30
2. CO-WORKING SPACE- MENARA C	93.21	1,003.30
JUMLAH KECIL	186.42	2,006.61
ARAS 7		
1. DEWAN SERBAGUNA	417.98	4,499.10
2. SURAU (LELAKI)	121.49	1,307.71
3. SURAU (PEREMPUAN)	62.12	668.65
4. GIMNASIUM	151.53	1,631.06
5. TANDAS (LELAKI & PEREMPUAN)	76.55	823.98
6. BILIK BACAAN	73.39	789.96
7. BILIK PENGURUSAN JENAZAH	37.08	399.13
8. BILIK PERMAINAN	92.72	998.03
9. KOLAM RENANG	625.00	6,727.44
10. KOLAM RENANG KANAK-KANAK	75.00	807.29
11. TAMAN PERMAINAN 1 (MADANI)	126.15	1,357.87
12. TAMAN PERMAINAN 2	455.00	4,897.58
JUMLAH KECIL	2,314.01	24,907.80
ARAS LG3		
1. TADIKA	111.39	1,198.99
2. TASKA	119.57	1,287.04
3. PEJABAT PENGURUSAN	66.17	712.25
4. DOBI	24.90	268.02
5. BILIK KAWALAN KEBAKARAN	39.87	429.16
JUMLAH KECIL	361.90	3,895.46
JUMLAH KESELURUHAN	2,862.33	30,809.86



PROPOSED LAYOUT PLAN OF THE PROJECT SITE







CADANGAN LOKASI STP
 LOJI RAWATAN KUMBUHAN (STP) TERTUTUP PERSEDIRIAN
 KAPASITI 10,500 P.E
 KELUASAN : 1,984 m²

S 761.1
 B 9283

ITEM	DESCRIPTION	2024			2025				2026				2027				2028			
		Q4	Q1		Q2			Q3				Q4				Q1				
		10	11	12	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
1	Development Order (Design, Submission & Approval)																			
2	Earthwork (Submission & Approval)																			
3	Pre Comp Approval																			
4	Building Plan (Design, Submission & Approval)																			
5	STAGE 1 Site Clearing & Earthwork																			
6	STAGE 2 Site Clearing & Earthwork																			
7	Building Works																			
8	Infrastructure Works with STP																			

 This months will be meticulously planned to account for the monsoon season and any other significant meteorological events, will ensure all the BMPs during the monsoon season to be in well maintained order.
 Setback and buffer date for site clearing, earthwork and building works during the monsoon season

- It is estimated that the Project Site development will be carried out for a total duration of approximately four (4) years.
- Mobilization work is estimated to be carried out in 2025 to 2028 and followed by establishment of site office, LDP2M2, site clearing, earthworks and main infrastructure works.
- The earthworks will be conducted in two (2) stage.

CONSTRUCTION STAGE	OPERATIONAL STAGE
	 <p>Maximum electricity demand 7,622 kWMD</p>
	 <p>Total water demand figure is approximated to be 3,103,657 gal/day.</p>
<p>Sewage generation is 11,250 L/day (50 PE)</p>	 <p>Sewage generation is 2,013,300 L/day (8,948 PE)</p>
<p>Generation solid waste is 50 kg/day (50 PE)</p>	 <p>Generation of solid waste is 8,948 kg/day (8,948 PE)</p>

LAND DISTURBING POLLUTION PREVENTION MITIGATION MEASURES

Revised EIA

NO WORK SHALL BE DONE IN AREAS WHERE THE PROPOSED MITIGATION MEASURES ARE NOT APPLICABLE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL EXISTING UTILITIES AND STRUCTURES AND FOR THE PROTECTION OF ALL EXISTING VEGETATION TO REMAIN ON THE SITE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL EXISTING UTILITIES AND STRUCTURES AND FOR THE PROTECTION OF ALL EXISTING VEGETATION TO REMAIN ON THE SITE.

GENERAL

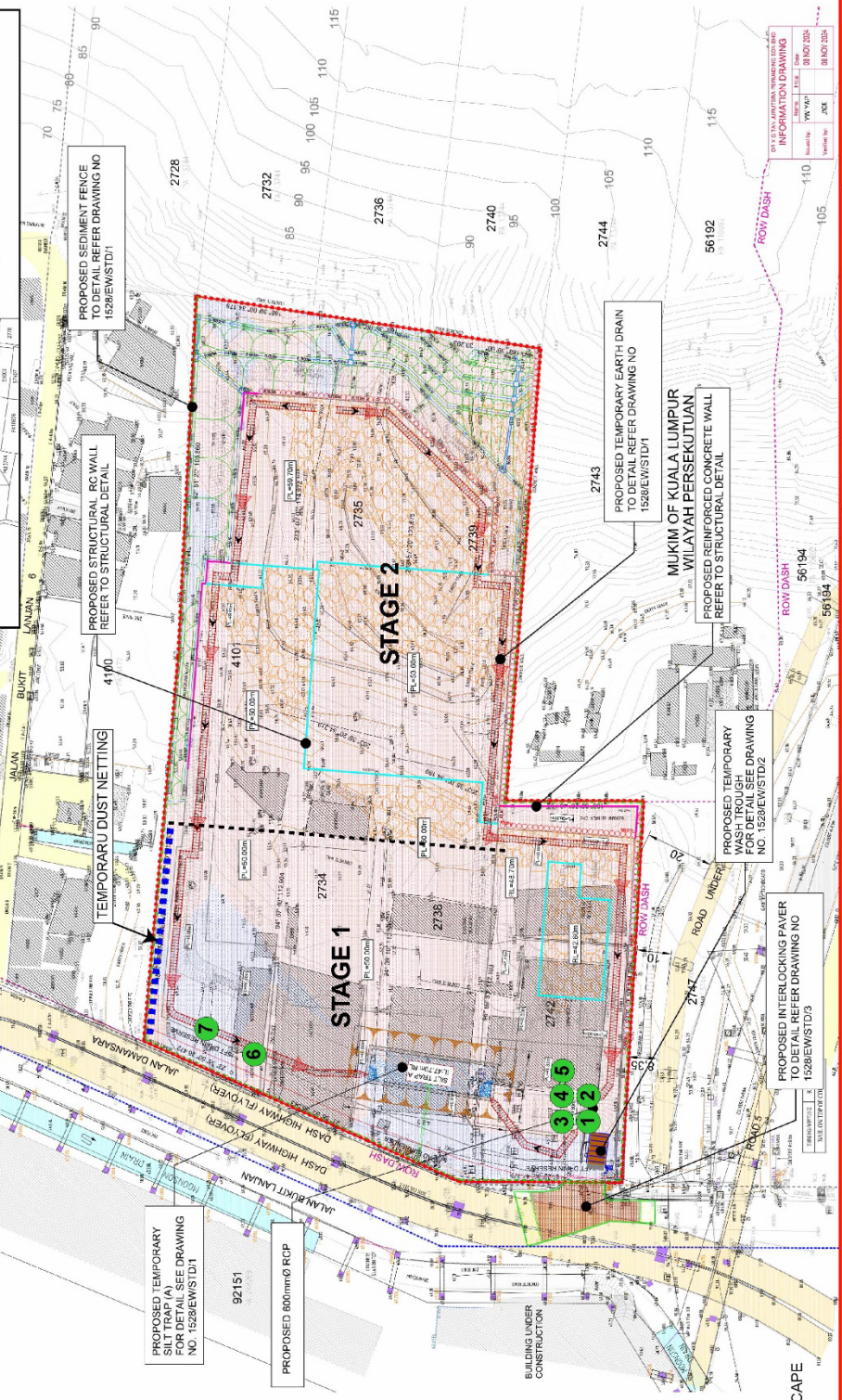
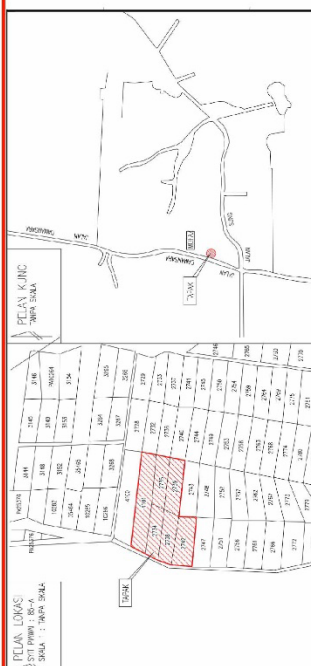
1. ALL WORKS ARE TO BE COMPLETED WITHIN THE SPECIFIED TIME FRAME.
2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL EXISTING UTILITIES AND STRUCTURES AND FOR THE PROTECTION OF ALL EXISTING VEGETATION TO REMAIN ON THE SITE.
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CONSTRUCTION

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OPERATION

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- 1 - SITE OFFICE
- 2 - MATERIAL'S STORAGE [MS]
- 3 - VEHICLE AND EQUIPMENT AREA [VEA]
- 4 - DIESEL STORAGE AREA [DS]
- 5 - SCHEDULED WASTE STORAGE AREA [SWS]
- 6 - BIOMASS STOCKPILE AREA
- 7 - TEMPORARY STOCKPILE AREA FOR LANDSCAPE

PHYSICAL ENVIRONMENT



TOPOGRAPHY

Project Site is characterised as disturbed **undulating terrain and low-lying flat terrain with an average elevation ranging from 48.82m to 96.64m** above mean sea level (msl).

The highest ground (approximately 96.64m) is located in the southeast portion of the Project Site while the lowest ground (approximately 48.82m) lies in the western portion of the Project Site.



GENERAL GEOLOGY

Project Site are situated on the acid intrusive rocks (**granite**).

Granite in Sungai Penchala Area is granite from **Western Belt Granite**.



SLOPE GRADIENT

Slope at project consist of **0° to 5° (43.30%), 5° to 15° (17.55%), 15° to 25° (31.87%), 25° to 35° (5.87%), 35° to 60° (1.42%)** of the Project Site.



HYDROLOGY

This site lies within **Sg. Damansara sub-basin and Sg. Kayu Ara sub-basin catchment area**.

The surface runoff from the Project Site flows into the existing roadside monsoon drains in the western boundaries of the Project Site. The surface water would flow southwards into Sg. Kayu Ara and then into Sg. Damansara prior entering Sg. Klang then discharging into Straits of Melaka.



SOIL INVESTIGATION

Based on the soil investigation (SI) report carried out by Master Testing Services Sdn. Bhd. (2023), the **granite bedrock could be encountered at all the boreholes** drilled within the Project Site. The granite bedrock is considered as shallow (<10m) at some boreholes and deep (<30m) on the others.

Investigation shows that the **top soil layer of Project Site made up of silty SAND, silty GRAVEL or gravelly SILT** up to depth of 12.0m.



HYDROGEOLOGY & GROUNDWATER

The Project Site is located on **low potential aquifer** regime of this region, the nearby active tube wells are located at Damansara Utama which is approximately 3.5 km southeast of the proposed Project Site.



CLIMATE

Based on the monthly temperature recorded at Subang Airport, from the year 2003-2022 remains relatively stable throughout the year with average monthly variations not exceeding 1.5°C.

The average of the total annual rainfall from the year 2004-2023 was recorded at approximately 2,997.5 mm.

The wind rose data was taken from the station at the Subang Airport.

Highest velocity-west winds (mean speed of 2.6 m/s).

Highest frequency - from the northwest



LANDUSE

Project Site which covers approximately **0.03%** of the total impact area mainly comprises of developed commercial and residential area and secondary vegetation.

BIOLOGICAL ENVIRONMENT



FLORA AND FAUNA

- ✓ Survey conducted at Project Site and surrounding forest area; Flora composed of secondary vegetation trees and undergrowth.
- ✓ **No endangered or rare species** observed.
- ✓ No inventory available at the Project Site and surrounding hence **most of the faunal species were common species** or expected to be found especially in urbanized area.



ENVIRONMENTAL SENSITIVE AREA (ESA)

- ✓ Based on Rancangan Tempatan Petaling Jaya 2 (RTPJ2), Pelan Bandar Kuala Lumpur 2020, the proposed Project Site is not listed as **Environmental Sensitive Area (ESA)**.
- ✓ The nearest ESAs are :-
 - ✓ **Bukit Nanas Forest Reserve** (ESA Rank 1) – 9.5km western of project site
 - ✓ **Bukit Kiara Forest Reserve** (ESA Rank 2) – 1.6km west of project site
 - ✓ **Kota Damansara Forest Reserve** (ESA Rank 2) – 2.5km south of project site

Under Draft Kuala Lumpur Local Plan 2040, the project site falls under the Multi-Disaster Risk Focus Areas which involved disaster risk areas 1, 2, 3 and 4 and under Kuala Lumpur Structure Plan 2040, the project site is subjected to special area management due to its slope area characteristics.



IMPORTANT BIRDS AND BIODIVERSITY AREA (IBA)

- ✓ Nearest IBA is North-central Selangor Coast (MY011) which is ~6.8km north from Project Site

SOCIO-ECONOMIC AND HUMAN ENVIRONMENT



SOCIAL PERCEPTION SURVEY

Based on the Department of Statistics Malaysia 2022, total population of Mukim Kuala Lumpur grew substantially from 334,576 in 2010 to 384,856 in 2020.

An online and face-by-face / offline social survey was conducted to gauge the perception of the proposed development were carried out on the nearby entities especially the residential area at Kampung Bukit Lanjan and commercial operators.

In general, the level of agreement reveals that 77.9% of respondents are in favour of the proposed development. Whilst 18% of respondent express disagreement in regards to their concerns predominantly centered on the perceived risks of overdevelopment.



Action Plans to Mitigate and Alleviate Concerns from the Public

No.	Issues raised	Mitigating Measures
1.	Negative perception from public	Project proponent shall engage a liaison officer and/or set up an office to disburse information about the proposed project to concerned public. The Project Proponent can also organise some Corporate Social Responsibility (CSR) activities to enhance its image as a responsible developer and government agency amongst the public surrounding the proposed development.
2.	Worsening level of traffic	Proposed mitigating measures are to create signalised junction, acceleration and deceleration lane and to enhance enforcement on heavy vehicles utilising the existing road. Besides, adequate warning and traffic signages, lamp light and barricades should be clearly be displayed along with clear directional boards to inform users of heavy vehicles are needed to ensure the safety of all parties prior to entering public roads. The flagmen must be stationed at the access road junction to control and direct traffic, especially at the entrance/exit of public roads.
3.	Pollution to the environment especially dust, noise and vibration.	<ul style="list-style-type: none"> • Monitoring on environmental entities such as water, air, noise, and vibration shall be carried out periodically to ensure no exceedance on the stipulated guidelines. • Any noise disturbance shall be mitigated as mentioned in sub-chapter 8.2.2.9. • Provision of cut-off trenches (in ground vibration barriers) adjacent to the vibration-sensitive areas.
4.	Landslide and slope failure	<ul style="list-style-type: none"> • The design criteria for slope design shall comply with Geotechnical Design Criteria for JKR Works with appropriate FOS for the slope stability analyses and design. • Slope protection should be implemented to protect the slope against erosion during construction and operational phase.
5.	Solid Waste Disposal During Construction	Develop a comprehensive waste management plan that includes recycling and safe disposal of construction waste, with regular inspections to ensure compliance.
6.	Social matters	Establish a clear policy for employing foreign workers, including training and integration programmes to promote positive community relations. The project proponent shall also hold regular public dialogues and meetings with local residents. Priority should be given to locals for job opportunities and relevant training programmes.
7.	Comprehensive Information on the proposed development	The Project Proponent shall endeavour to relay as much information about the surrounding residents. A social event amongst the residents can be organised to disburse information to them. Social events can be in the form of Gotong-Royong, festivals, fairs etc.

ENVIRONMENTAL BASELINE SAMPLING



WATER QUALITY

- Sampling was conducted on 26th August 2024.
- All sampling points generally fall under Class II of the National Water Quality Standards for Malaysia.
- Generally, the water quality based on WQI classification is clean for few of the points both morning and evening session.

Sampling Point	WQI Classification	
	Morning	Evening
W1	93, Class II	91, Class II
W2	-	-
W3	81, Class II	84, Class II
W4	87, Class II	89, Class II
W5	90, Class II	85, Class II
W6	88, Class II	84, Class II

Based from Water Quality Index Classification



Clean



AIR QUALITY

- A total of three (3) sampling point was conducted for Air, Noise & Vibration.
- The location of sampling point is at:
 - House perimeter beside project site boundary (Jalan Bukit Lanjan 6)Taman Perindustrian Able Link
 - Adjacent to Project Site Boundary (Jalan Damansara) near restaurant
 - Tibara Corporation/Mofaz Auto Dealership adjacent the Project Site Boundary
- Based on the result, all three sampling point **comply** to Malaysian Ambient Air Quality Standards 2013, Standard 2020



NOISE

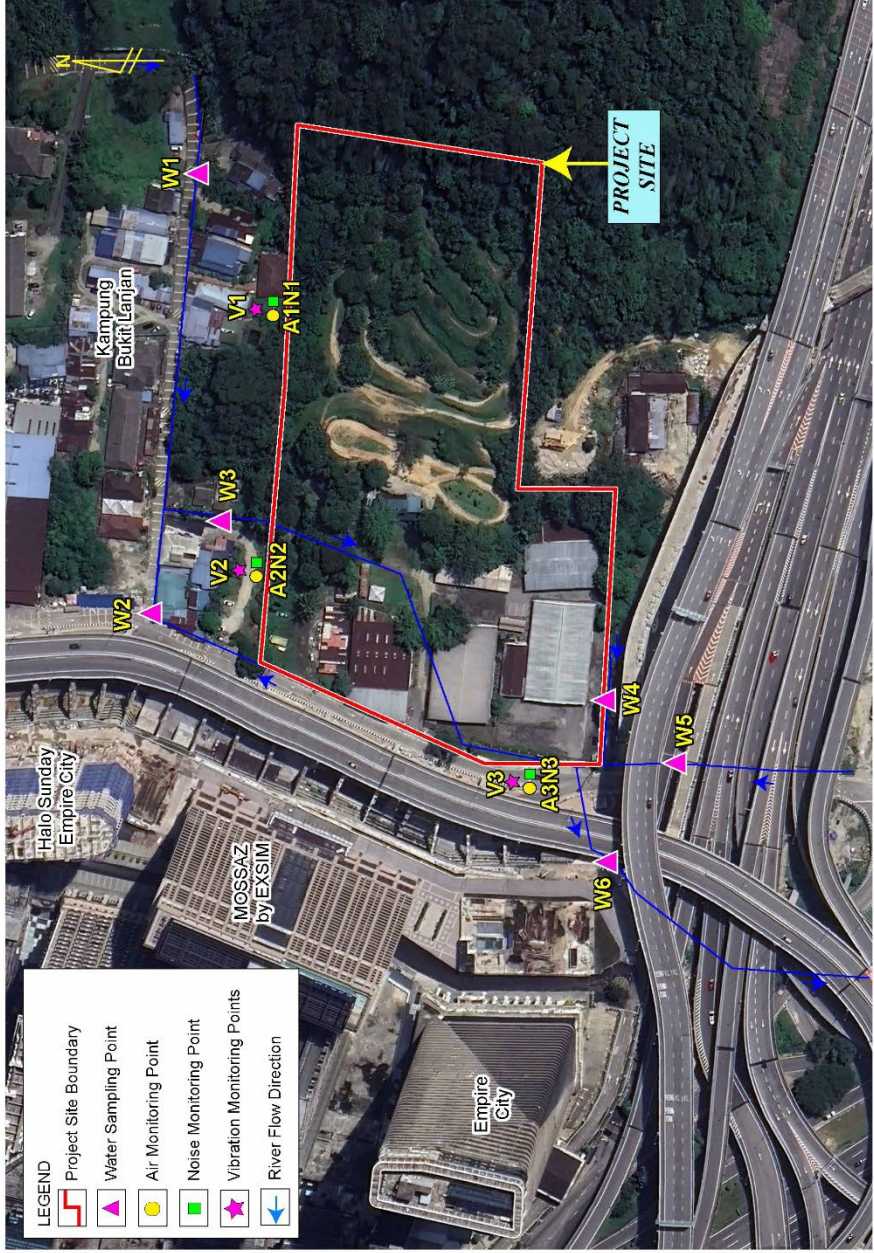
- Point N1, N2 and N3 are **within** the permissible limits of The Planning Guidelines for Environmental Noise Limits & Control, Department of Environment, Third Edition, 2021.



VIBRATION

- Within the Recommended Limits for Damage Risk in Building from Steady State Vibration, Schedule 1; Annex A: Schedule of Recommended Vibration Limits, 2021.

BASELINE WATER ,AIR, NOISE & VIBRATION SAMPLING POINTS



LOGISTIC ROUTE



LOGISTIC ACCESS: 1. Lebuhraya Damansara Puchong (LDP) → Jalan Damansara → Project site

IMPACTS

- **Noise and dust disturbances** - impacted settlement would be at residents at Jalan Bukit Lanjan 6 and Kg. Bukit Lanjan.
- **Increment of traffic risks** especially by heavy vehicles on Jalan Damansara.
- Possible **oil spillage and spillage of raw construction materials** onto public roads.
- The increase of **traffic hazard**.

MITIGATION MEASURES

- **Regular sweeping** / cleaning of access roads
- **Flagmen** must be stationed at the access road junctions to control and direct traffic.
- Vehicles will have to observe **speed limits**
- Proper **warning signs**, signals or warning light and barricade are recommended to ensure safety and smooth flow of traffic.
- **Wash troughs** are proposed at the Project site's entrance/exit gateway.

SITE CLEARING



Biomass generation (Total AGB) approximately:
~68.04 tonnes

IMPACT

- **Loss of current vegetation** and related habitats.
- May **lead to soil erosion** and increase in surface runoff.
- If not disposed off properly, can lead to **water quality deterioration** and attract unwanted pests.
- **Open burning** of biomass or solid waste shall generate soot and dust.

MITIGATION MEASURES

- Site clearing will be conducted in two (2) stages.
- Mulching of undergrowth / small woody plants on the slope / bare area to reduce soil erosion.
- The residual materials will then be used for landscaping works or to be disposed off to the legal dumpsite (i.e., Jeram Sanitary Landfill).

WORKER'S ON SITE (REST AREA)



Estimated **50 workers** shall be needed during construction stage.
Direct Discharge of **untreated sewage** can cause water and air pollution

IMPACTS

- **Generation of sewage and solid waste.**
- **Without proper sewage management**, untreated raw sewage could cause water pollution and lead to spread of disease and thus creating hazard to the communities nearby.

MITIGATION MEASURES

- Regular **desludging** of temporary toilets.
- Maintain **high quality of housekeeping** within the workers work and resting area.
- Sufficient **basic amenities** such as water and electricity must be available.
- **No open-burning** of rubbish shall be carried out.

EARTHWORK



Total **cut and fill** for the project site is 159,500 m³ and 1,700 m³ respectively. An anticipated of 20,500 m³ of rock cut volume is foreseen in the project.

IMPACT

- The surplus earth of 157,800 m³ will be exported to contractor's dumping ground.
- Under the **worst-case scenario** and no erosion control mitigation measures are implemented. The **soil erosion rates under worst case** for the overall earthworks areas are estimated to be **598.06 tons/ha/year**.
- The estimated **sediment yield under worst case** is **73.23 tons per storm event**.

MITIGATION MEASURES

- Implementation of **LD- P2M2** and **properly installed BMP**.
- Provision of a **one (1) silt trap**.
- Maintenance of the **drainage network** and sediment basin.
- **Biotechnical protection** and mechanical practices to attend to the exposed soil.
- **Compliance** to Condition of Approvals (COAs)

AIR POLLUTION



Upon commencement of earthwork, the air quality within and the surrounding of the development may deteriorate.

IMPACTS

- **Increased level of PM10 and PM2.5** due to spillage or wind-blown dust from uncovered material.
- **Traffic movement** on dirt road will churn up the surface and may incite hazy condition especially during dry and windy periods.
- Might directly **affect the residents or settlement** of Jalan Bukit Lanjan 6 and nearby Kg. Bukit Lanjan.

MITIGATION MEASURES

- Provision of **wash trough**.
- Constant **wetting and cleaning of roads** connecting the Site to external public roads.
- Proper **covering of raw materials** and topsoil stockpiles.
- **Traffic management** through speed limits and regular maintenance of vehicles / machinery.
- To **erect hoarding/** new jersey barrier along the boundary of the Project Site

WATER POLLUTION



Site clearing and earthwork activities will have a significant impact on the hydrological regime.

IMPACTS

- **Incidence of improper management** of residential and commercial waste will result in organic pollution.
- **Any discharge that fails** to comply with NWQS Standard, will pollute the receiving river.
- If the **water** in the area **becomes stagnant** and in turn it increases the nutrients that can cause the growth of "algae" and "eutrophication" could happen.

MITIGATION MEASURES

- Proposed **one (1) silt trap**.
- Site offices and site toilets should be equipped with septic tanks and maintained regularly.
- Implementation of LDP2M2

WASTE GENERATION



The amount of **waste generated** continues to increase due to the increasing population and development

IMPACTS

- **Indiscriminately dumping** of domestic waste.
- **Sewage to be generated** during the construction stage is at 11,250 l/day (~estimated 50 workers; which is equivalent to 50 PE).
- Diesel or hydraulic oil spill onto soil causing the **soil and river water contamination**.

MITIGATION MEASURES

- All domestic and building waste will be **disposed off site to an approved dumpsite**.
- **No burning of wastes** (i.e., rubbish and unused materials).
- Temporary toilet should be **desludged regularly**.
- All scheduled waste must be **handled as per requirements of the Environmental Quality (Scheduled Wastes) Regulations 2005**.

NOISE POLLUTION & VIBRATION NUISANCE



When a new area or green area is being opened up, the new development can cause considerable noise emission and vibration nuisance.

IMPACTS

- **High noise and vibration level** will create nuisance and pose psychological effect to the receptors, and to some extent may cause physiological effect.
- **Ground vibration** from heavy vehicle movements and piling activities.
- **Nearest Impacted Receptors:** - Resident along Jalan Bukit Lanjan 6 and Kg. Bukit Lanjan

MITIGATION MEASURES

- Construction activities should be done only during **day-time**.
- **Maintain all equipment and machinery**.
- Compliance with DOE and DOSH noise limits for occupational noise levels to reduce noise emissions to nearby receptors.

STORMWATER MANAGEMENT



Flood mitigation by managing the surface runoff during heavy downpour.

IMPACTS

- **A higher and faster peak discharge** is anticipated due to the increased imperviousness created by the presence of built-up units and paved road systems.
- Without proper management of drainage, heavy surface runoff is expected.

MITIGATION MEASURES

- **Drainage system** shall be provided within the project site to channel the storm water into the proposed detention pond which will eventually flow and discharge into existing canal prior discharge to Sg. Kapar Kechil.
- **One (1) underground enclosed detention pond** to cater the surface runoff at site in accordance with MSMA 2 requirement.

AIR & NOISE



Upon full operation, with rapid growth of development, air and noise pollution will be one the adverse effect on human activities.

IMPACTS

- **Increase of traffic** contributing factors to air and noise pollution.

MITIGATION MEASURES

- **Provision** of sufficiently sized junctions, traffic signages and proper maintenance of **road network system**.
- **Regulatory procedures** or control of traffic emissions to comply with the legislative limits.
- **Heavy landscaping** can be used to naturally screen the surroundings especially at north boundary of Project Site.

FLOOD RISK



With rapid urbanization, any development may put the land area under flood risk.

IMPACTS

- There is unlikely to be a risk of flooding with the proper implementation of drainage system.
- There will be realignment and newly constructed 15 ft drain at the western boundary of Project Site.

MITIGATION MEASURES

- With a provision of detention ponds at site, the risk of flooding is minimal.
- Maintaining and desilting of detention ponds when the silt hit the silt marker.
- Drainage system maintenance to prevent blockage.
- As the project is at the higher ground, possibility of the development to encounter flood risk is unlikely.

SOLID WASTE MANAGEMENT



Involves with regular collection, transportation as well as processing and disposal or recycling and monitoring of different types of waste materials.

IMPACTS

- **Indiscriminately dumping** of domestic waste to nearby drain.
- All drainage systems and piping will be clogged if the sullage and kitchen wastes are discharged without a proper trap.
- Improper disposal of solid waste may affect aesthetic quality, a source of water contamination and proliferation of disease vectors.
- **Localize flooding** may happen due to river/drain blockage.

MITIGATION MEASURES

- To provide enough waste bin in the common area,
- Provision of a recycling center to encourage recovery of reusable portions of municipal waste.
- Solid waste shall only be disposed at an approved dumpsite landfill (i.e., Jeram Sanitary Landfill).
- Grease traps to be installed for all kitchens in the restaurants/factory canteen.

SOCIO-ECONOMIC ENVIRONMENT



Perception of locals on the proposed development and changes to the demography

IMPACTS

- **Increase current status of living** of the local population residing nearby in terms of public utilities, amenities and infrastructures.
- Population and traffic volume are expected to **increase**.
- Increase of housing unit that shall be available for both low- and high-end buyers.

MITIGATION MEASURES

- Giving priority to jobs, business training and entrepreneurs to the surrounding community.

TRAFFIC



New development can cause considerable noise emission and vibration nuisance due to congestion of traffic.

IMPACTS

- Lorries and trucks movements will cause some increase in the traffic flow of the area leading to traffic jam.
- Subsequently, this will result into a traffic hazard to public road users (i.e., Kg. Bukit Lanjan).
- The Level of Service for Junction 1, 2, 3, 4, 5 and 6 varies from LOS A until E.
- Junction 2 during Morning time can be considered hectic at LOS E.
- During 2027, the development would **generates/attracts** around 746 to 1422 pcu/h at the ingress of Project Site.

MITIGATION MEASURES

- **Junction improvements dan road upgrade** have been recommended to ensure smooth and safe flow of traffic and acceptable level of service performance for the surrounding junctions.

BIOLOGICAL ENVIRONMENT



The natural biological factors (such as wild animals and plants or bacteria) that affect human life (as in a particular place or period)

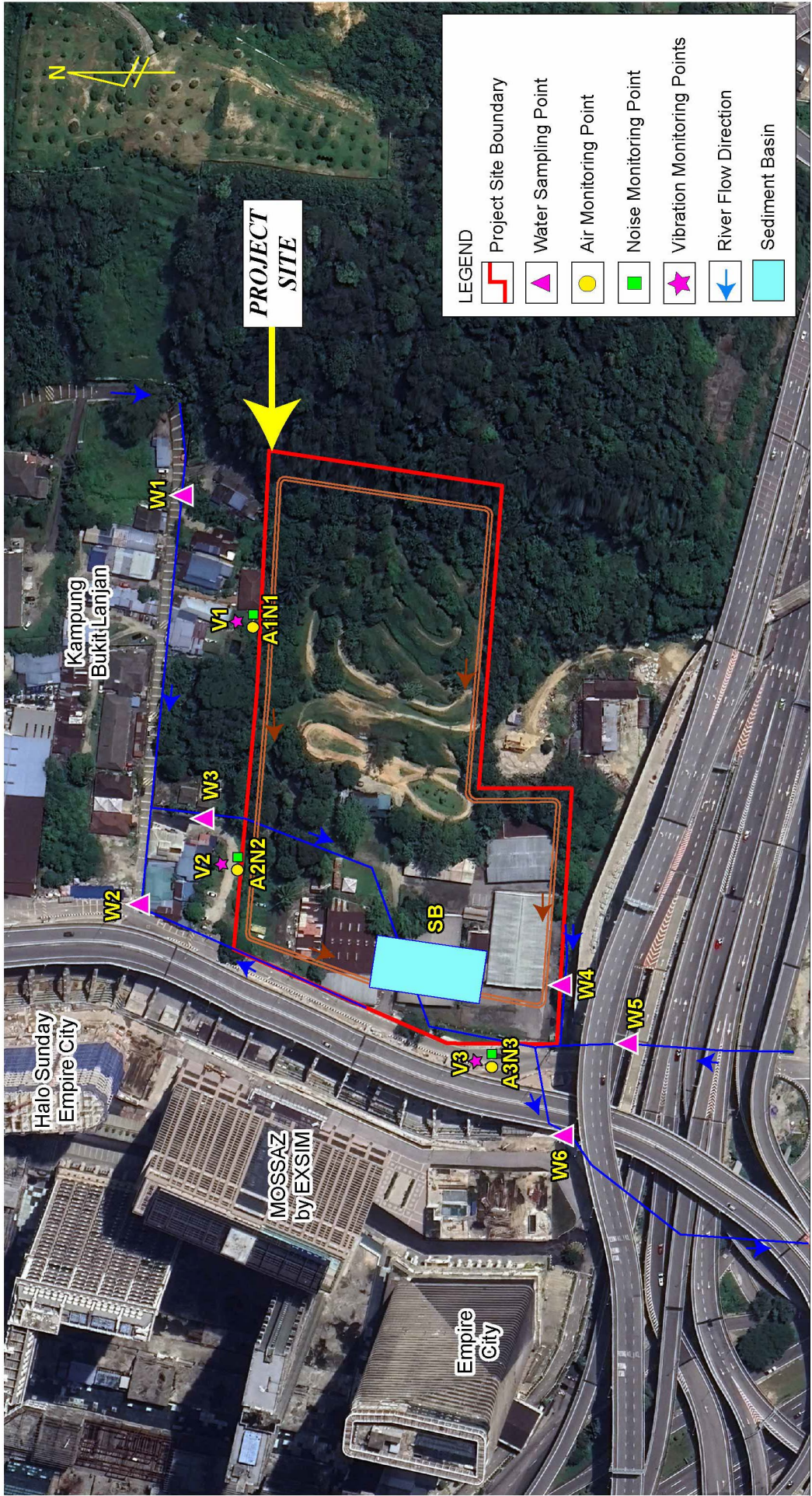
IMPACTS

- Biological impacts are basically upon re-planting of greeneries by **landscaping**.
- This activity could further **attract some fauna species** to the Project Site.
- **Loss of the existing terrestrial biological environment** during the establishment of a built development.

MITIGATION MEASURES

- Re-establish and **diversify the flora and fauna** species, albeit nominal in the Site.
- The **selected plant** species should be from the species found around Malaysia that are suitable for the climate and local environmental conditions through the selection of native species.
- **Implementation** of aesthetically pleasing, visually enhancing and extensive **landscaping** will attract a community of small animals and provide a wholesome environment.

PROPOSED LOCATION FOR WATER, GROUNDWATER SILT TRAP, AIR, NOISE & VIBRATION DURING CONSTRUCTION PHASE



“This report has assessed the three (3) main facets of environmental entities i.e., **physical, biological and socio-economics of the human settlements** with the integration of the proposed residential development. Studies were carried out within the project site itself and its surrounding areas.”

PHYSICAL ENVIRONMENT

- The main concerns is the effect of **soil erosion and contamination** (i.e., water, air, noise pollution and vibration) on the physical environment and upon human himself during the earthworks and construction phase.
- The **earthworks activities** will commence in **two (2) stages** for the entire development. Thus, with the provision and maintenance of proposed LD-P2M2, worst-case scenario impacts can be mitigated thoroughly.
- Total **cut and fill volume** for the project site is 157,800 m³ and 1,700 m³ respectively. It is anticipated that 20,500 m³ of rock cut volume is foreseen in the project.
- Proposed **one (1) number of silt trap** for the overall development.
- **One (1) underground detention ponds** are proposed for the overall development.
- Total PE for this development is **8,948PE**. Wastewater generated will be channeled via gravity flow to the Proposed Underground Enclosed Sewage Treatment Plant located at the southern portion of the Project Site. STP has been designed for the ultimate PE 10,500 PE.
- The **water quality modelling** results showed that the **earthworks** for the whole development that is carried out in **ONE STAGE** without any mitigation measures in place will not be able to meet the compliance of NWQS Class IIB limit (i.e., 50mg/L) for the TSS discharge from the Project Site at the peak runoff flow and will further cause the deterioration of river water quality along the main drain and eventually into Sg. Kayu Ara during the low river flow.

BIOLOGICAL ENVIRONMENT

- The Proposed Project Site is occupied with ten (10) buildings (Mofaz car dealership, most fun gym adventure park, factory, workshop dan kabin) at western parts of the Project Site. Meanwhile at the middle and eastern portion there is earthen track and secondary vegetation.
- Landuse and site survey revealed that the Project Site is not listed as Environmental Sensitive Area (ESA) however **the Project Site is considered sensitive area due to DBKL classification as the area is under special management area due to its slope.**
- There are **no endangered or endemic plants** observed at the Project Site The flora component at the Project Site is the common type.

HUMAN & SOCIO-ECONOMIC ENVIRONMENT

- Based on site survey, there is **no human settlement.**
- Project Development activities must take into the **consideration of the nearest receptors** which are residence of Kg. Bukit Lanjan to ensure minimal disruption to their well being.

