

EXECUTIVE SUMMARY

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Project Title:
 Environmental Impact Assessment for the Proposed Off-Site
 Scheduled Waste Storage Facility on Lot 3624, Permy
 Technology Park, 98100 Miri, Sarawak

PROJECT PROPONENT



TIMURAN KEMBANGAN SDN BHD

ENVIRONMENTAL CONSULTANT



GLOBAL GREEN CONSULTANT SDN BHD

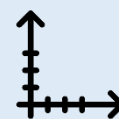
PROPOSED PROJECT SITE



PROJECT LOCATION:
 MIRI, SARAWAK

PROJECT SITE COORDINATES

Points	Coordinates	
	Latitude	Longitude
NE	4° 29' 8.85" N	114° 2' 9.27" E
NW	4° 29' 8.85" N	114° 2' 8.78" E
SE	4° 29' 7.66" N	114° 2' 9.27" E
SW	4° 29' 7.66" N	114° 2' 8.78" E



SCHEDULED WASTES TO BE STORED

SW102



Empty lead acid batteries

SW110



E-wastes

SW311



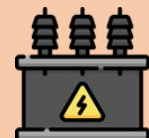
Waste oil or oily sludge

SW412



Sludges containing cyanide

SW422



A mixture of scheduled and non-scheduled wastes - Transformers

LEGAL ASPECTS



Environmental Quality (Prescribed Activities) (Environmental Impact Assessment) Order 2015;
 First Schedule; Activity 14; Waste Treatment and Disposal of (a) Scheduled Waste (iii) Construction of Storage Facility (Off-Site)

STATEMENT OF NEED



Encouraging proper hazardous waste management



Adopting green technologies for safe and efficient operations



Support the demand for the increasing need scheduled waste storage

PROJECT DESCRIPTION



PRE-CONSTRUCTION

Submission of necessary documents to the relevant authorities by Project Proponent following the approval of the EIA report; baseline sampling and a social survey carried out by the appointed environmental consultant



CONSTRUCTION

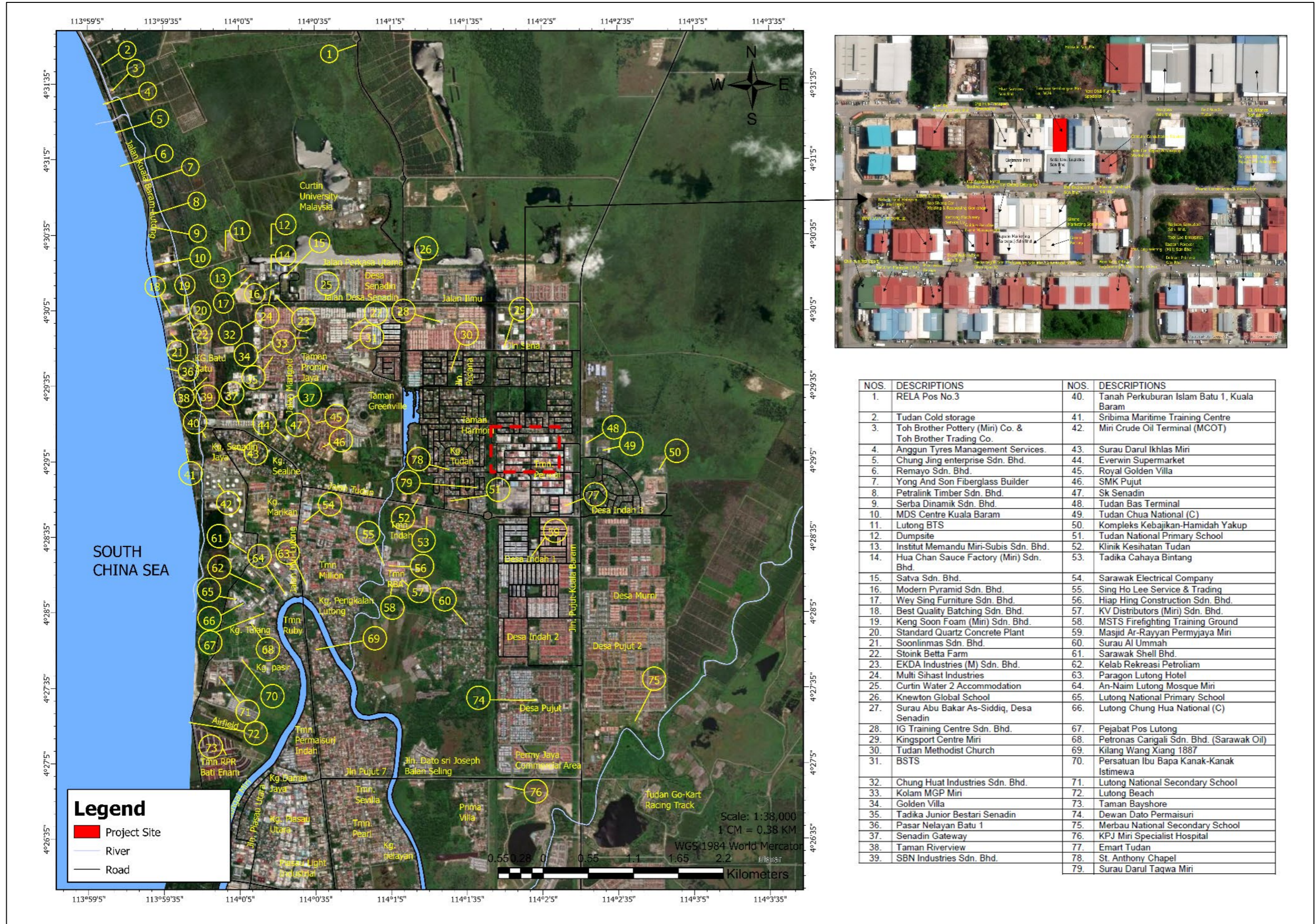
Utilize the existing semi-detached industrial workshop on the ground floor for storing scheduled wastes, minor renovation and modification works may be undertaken.



OPERATION

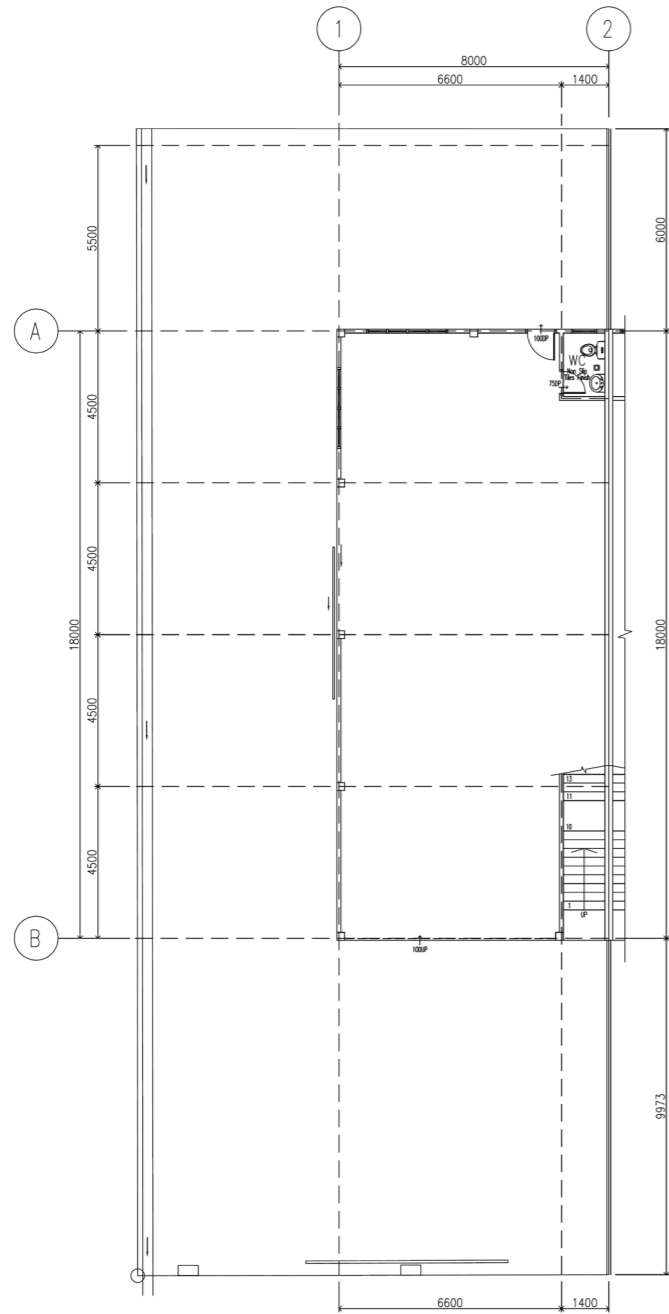
Collecting, manually sorting, packing, labelling, and storing scheduled wastes; Transporting scheduled wastes to the storage facility; and transferring scheduled wastes from the storage facility to designated recovery plants via Miri Port for shipment to Peninsular Malaysia and via Pan Borneo Highway to Trienekens (Sarawak) Sdn Bhd.

LOCALITY PLAN: LOT 3624, PERMY TECHNOLOGY PARK

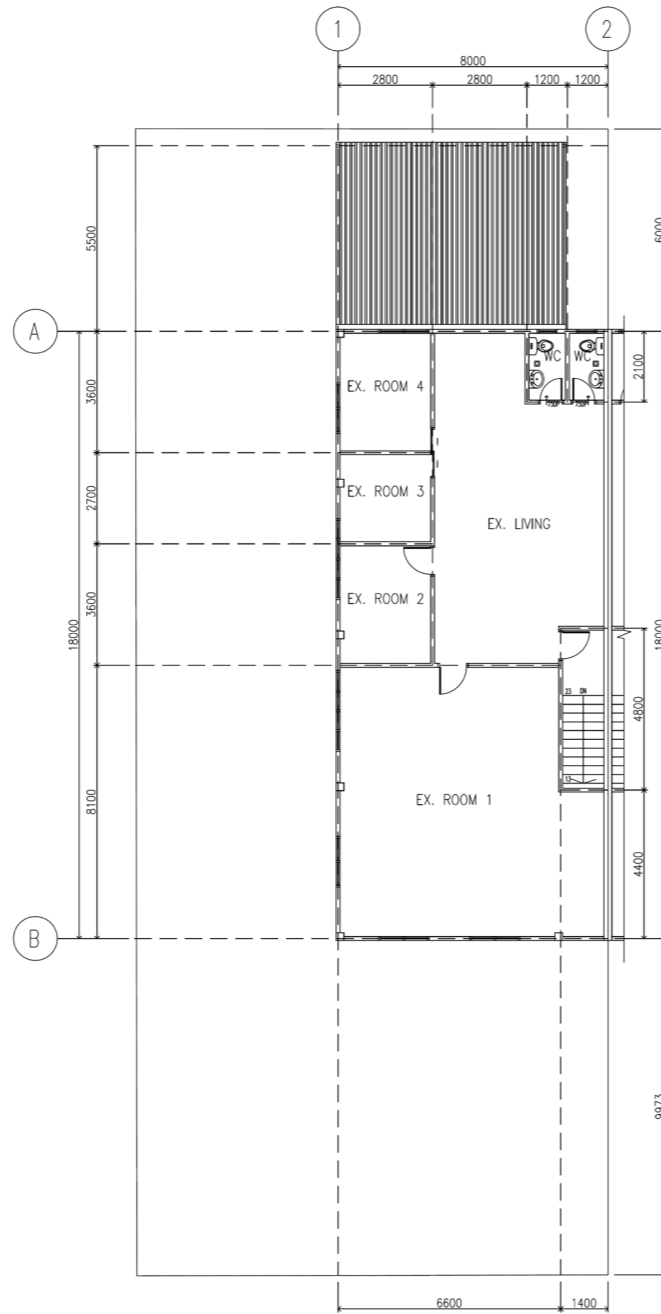


NOS.	DESCRIPTIONS	NOS.	DESCRIPTIONS
1.	RELA Pos No.3	40.	Tanah Perkuburan Islam Batu 1, Kuala Baram
2.	Tudan Cold storage	41.	Sribima Maritime Training Centre
3.	Toh Brother Pottery (Miri) Co. & Toh Brother Trading Co.	42.	Miri Crude Oil Terminal (MCOT)
4.	Anggun Tyres Management Services.	43.	Surau Darul Ikhlas Miri
5.	Chung Jing enterprise Sdn. Bhd.	44.	Everwin Supermarket
6.	Remayo Sdn. Bhd.	45.	Royal Golden Villa
7.	Yong And Son Fiberglass Builder	46.	SMK Pujut
8.	Petralink Timber Sdn. Bhd.	47.	Sk Senadin
9.	Serba Dinamik Sdn. Bhd.	48.	Tudan Bas Terminal
10.	MDS Centre Kuala Baram	49.	Tudan Chua National (C)
11.	Lutong BTS	50.	Kompleks Kebajikan-Hamidah Yakup
12.	Dumpsite	51.	Tudan National Primary School
13.	Institut Memandu Miri-Subis Sdn. Bhd.	52.	Klinik Kesihatan Tudan
14.	Hua Chan Sauce Factory (Miri) Sdn. Bhd.	53.	Tadika Cahaya Bintang
15.	Satva Sdn. Bhd.	54.	Sarawak Electrical Company
16.	Modern Pyramid Sdn. Bhd.	55.	Sing Ho Lee Service & Trading
17.	Wey Sing Furniture Sdn. Bhd.	56.	Hiap Hing Construction Sdn. Bhd.
18.	Best Quality Batching Sdn. Bhd.	57.	KV Distributors (Miri) Sdn. Bhd.
19.	Keng Soon Foam (Miri) Sdn. Bhd.	58.	MSTS Firefighting Training Ground
20.	Standard Quartz Concrete Plant	59.	Masjid Ar-Rayyan Permyjaya Miri
21.	Soonlinmas Sdn. Bhd.	60.	Surau Al Ummah
22.	Stoink Beta Farm	61.	Sarawak Shell Bhd.
23.	EKDA Industries (M) Sdn. Bhd.	62.	Kelab Rekreasi Petroliaam
24.	Multi Sihast Industries	63.	Paragon Lutong Hotel
25.	Curtin Water 2 Accommodation	64.	An-Naim Lutong Mosque Miri
26.	Knewton Global School	65.	Lutong National Primary School
27.	Surau Abu Bakar As-Siddiq, Desa Senadin	66.	Lutong Chung Hua National (C)
28.	IG Training Centre Sdn. Bhd.	67.	Pejabat Pos Lutong
29.	Kingsport Centre Miri	68.	Petronas Carigali Sdn. Bhd. (Sarawak Oil)
30.	Tudan Methodist Church	69.	Kilang Wang Xiang 1887
31.	BSTS	70.	Persatuan Ibu Bapa Kanak-Kanak Istimewa
32.	Chung Huat Industries Sdn. Bhd.	71.	Lutong National Secondary School
33.	Kolam MGP Miri	72.	Lutong Beach
34.	Golden Villa	73.	Taman Bayshore
35.	Tadika Junior Bestari Senadin	74.	Dewan Dato Permaisuri
36.	Pasar Nelayan Batu 1	75.	Merbau National Secondary School
37.	Senadin Gateway	76.	KPJ Miri Specialist Hospital
38.	Taman Riverview	77.	Emart Tudan
39.	SBN Industries Sdn. Bhd.	78.	St. Anthony Chapel
		79.	Surau Darul Taqwa Miri

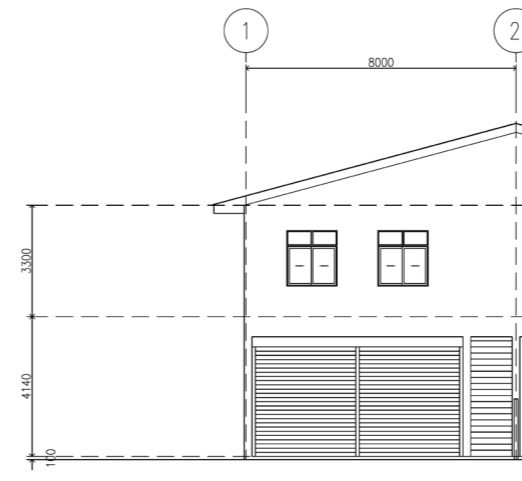
OVERALL SITE PLAN



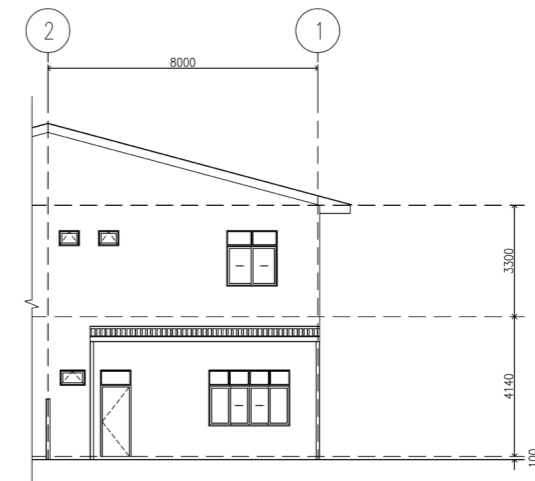
GROUND FLOOR PLAN
SCALE : 1 : 100



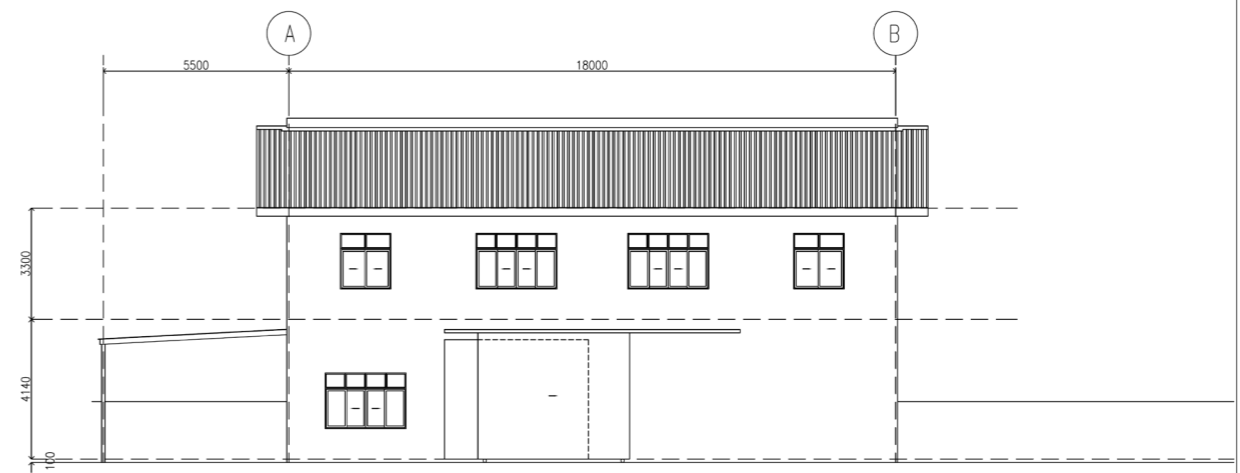
FIRST FLOOR PLAN
SCALE : 1 : 100



FRONT ELEVATION
SCALE : 1 : 100



REAR ELEVATION
SCALE : 1 : 100



LEFT SIDE ELEVATION
SCALE : 1 : 100

PROJECT TITLE :
CADANGAN MEMBINA FASILITI STOR BUANGAN TERJADUAL
DAN LESEN MENGANGKUT BUANGAN TERJADUAL DI
LOT 3624, PERMY TECHNOLOGY PARK,
98100 MIRI, SARAWAK
OLEH PIHAK TIMURAN KEMBANGAN SDN. BHD.

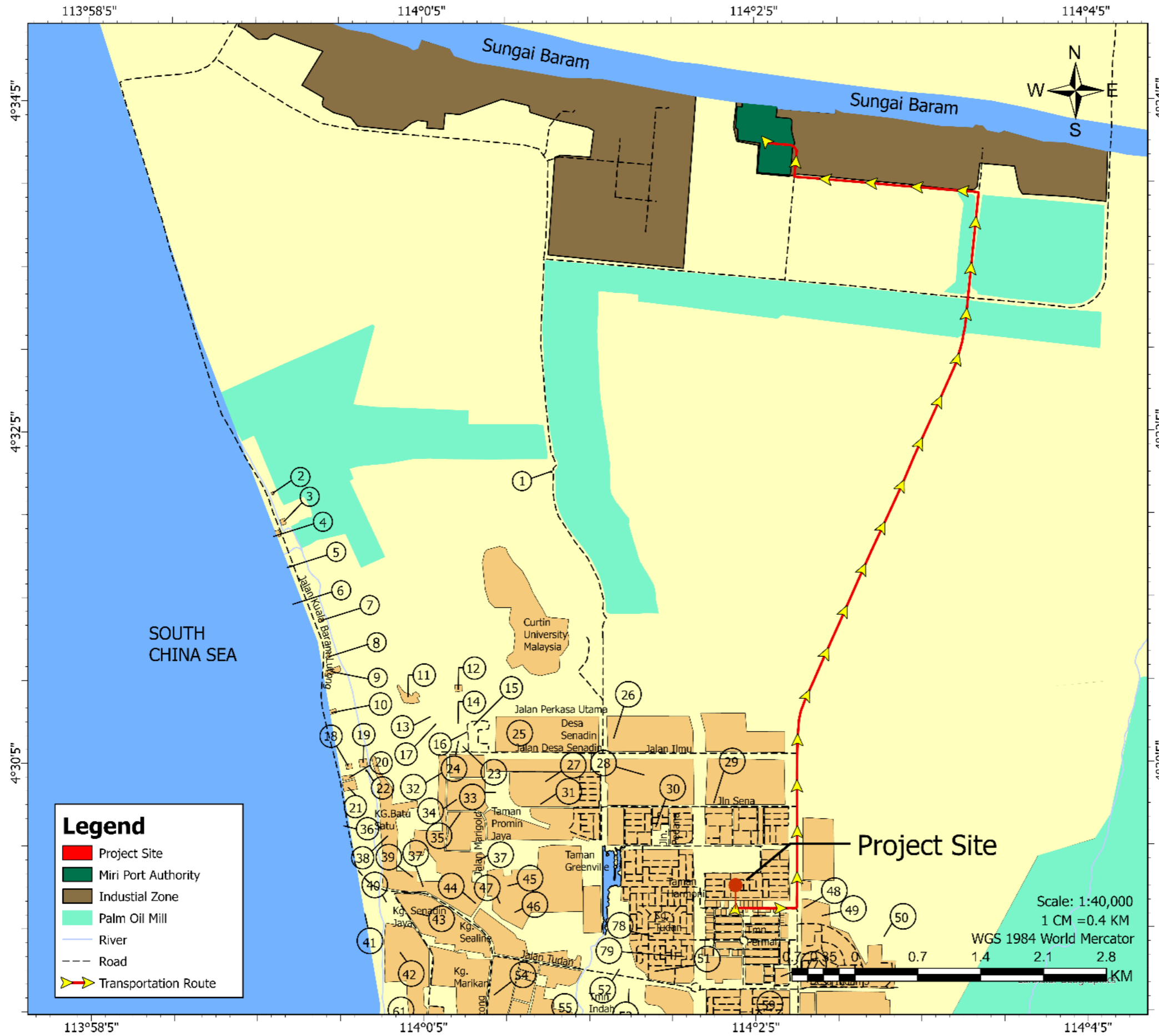
CLIENT :

TIMURAN KEMBANGAN SDN. BHD.
Lot 3624, Lorong 9,
Jalan Tudu, Bandar Baru Panyam,
Permy Technology Park Miri,
98000 Miri, Sarawak.

ARCHITECT :

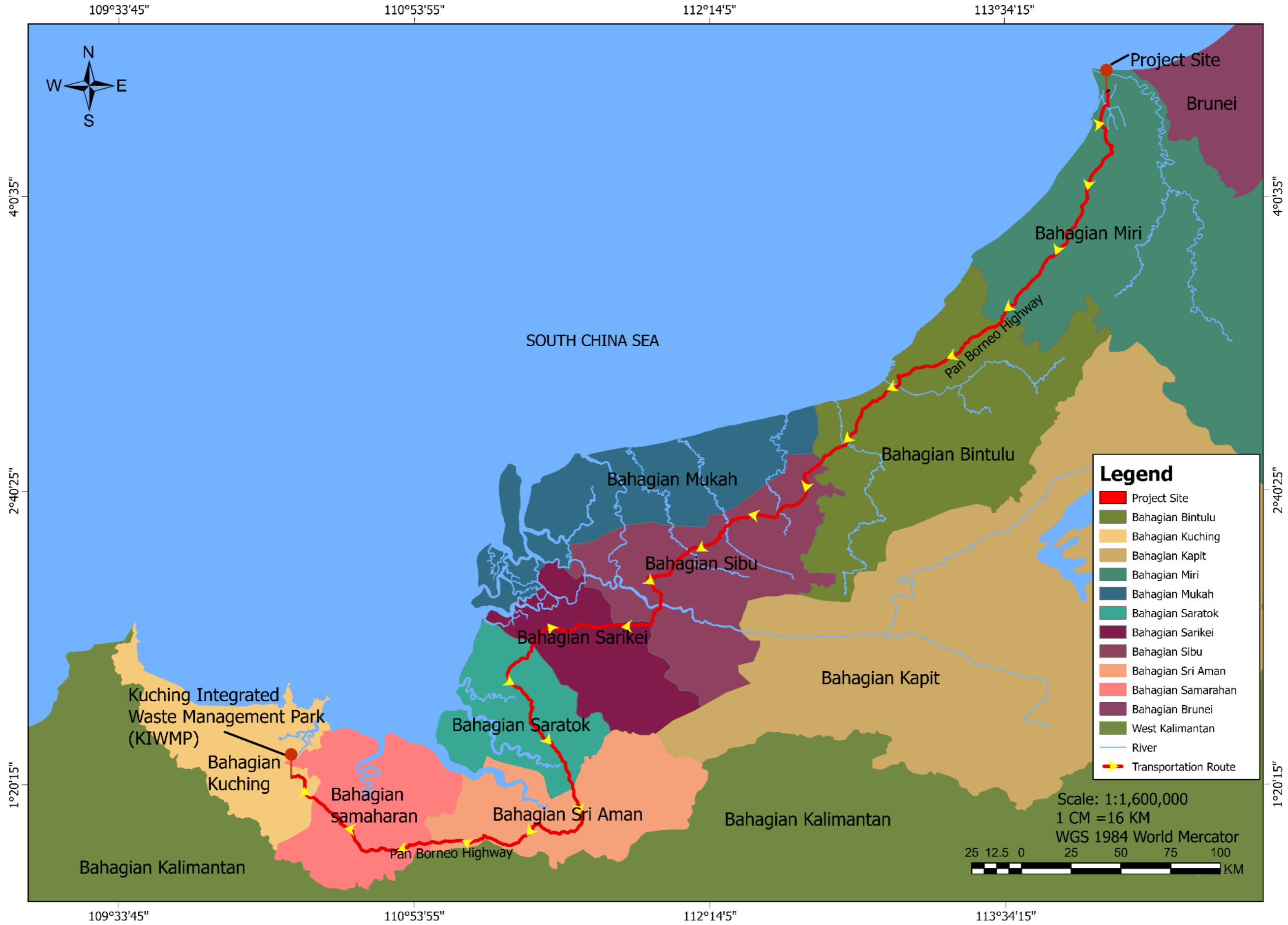
AR. GRACE LAU PING PING
Lot 7645, No. 31, Lorong Seledah 1G,
93300 Kuching, Sarawak, Malaysia.
H/P: 016-8777909
E-Mail: ping9997@gmail.com

TRANSPORTATION ROUTE FROM PROPOSED PROJECT TO MIRI PORT

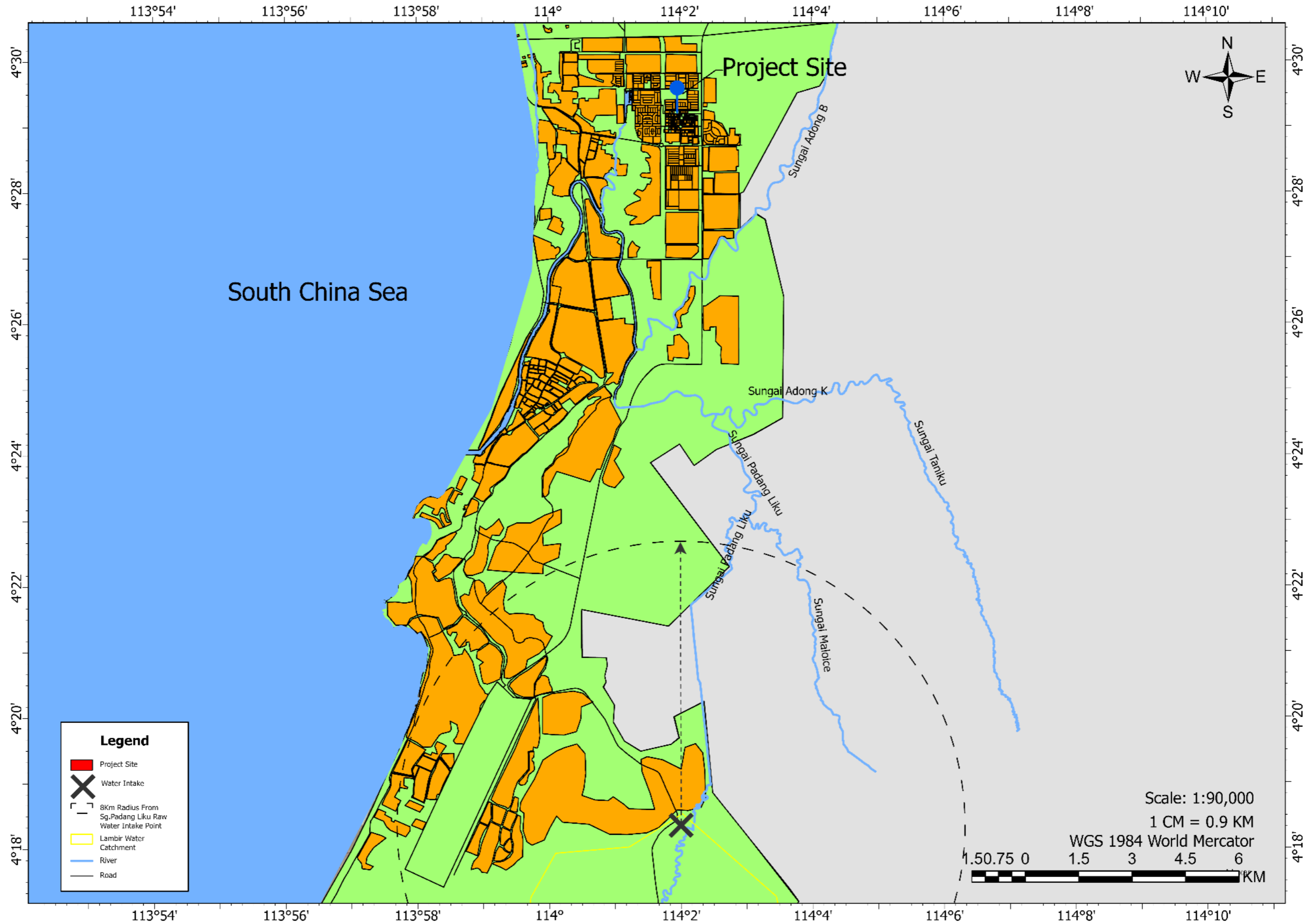


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21.	Soonlinmas Sdn. Bhd.
22.	Stoink Betta Farm
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47.	Sk Senadin
48.	Tudan Bas Terminal
49.	Tudan Chua National (C)
50.	Kompleks Kebajikan-Hamidah Yakup
51.	Tudan National Primary School
52.	Klinika Kesihatan Tudan
53.	Tadika Cahaya Bintang
54.	Sarawak Electrical Company
55.	Sing Ho Lee Service & Trading
61.	Sarawak Shell Bhd.
77.	Emart Tudan
78.	St. Anthony Chapel
79.	Surau Darul Taqwa Miri

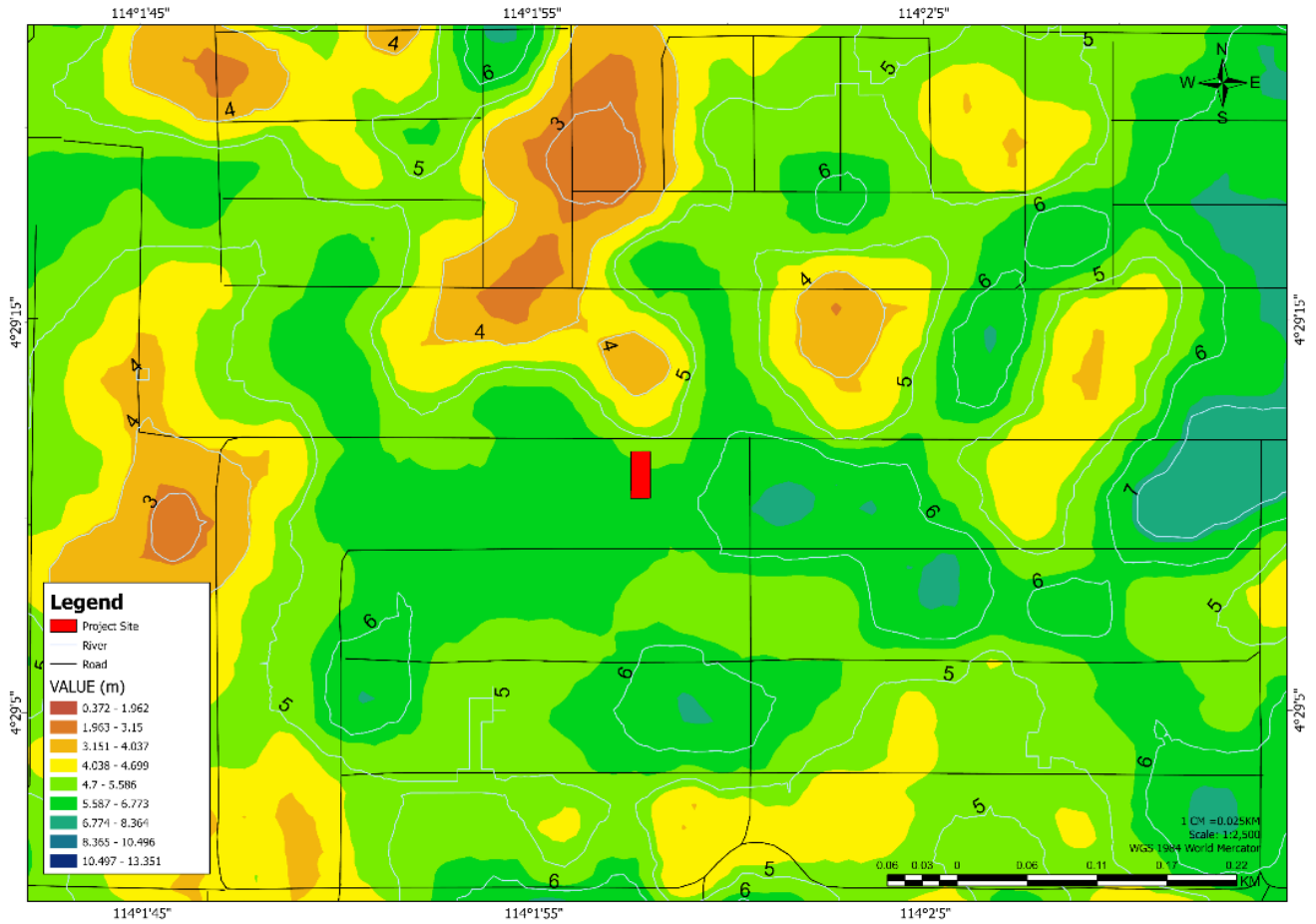
TRANSPORTATION ROUTE FROM PROPOSED PROJECT TO TRIENEKENS (SARAWAK) SDN BHD



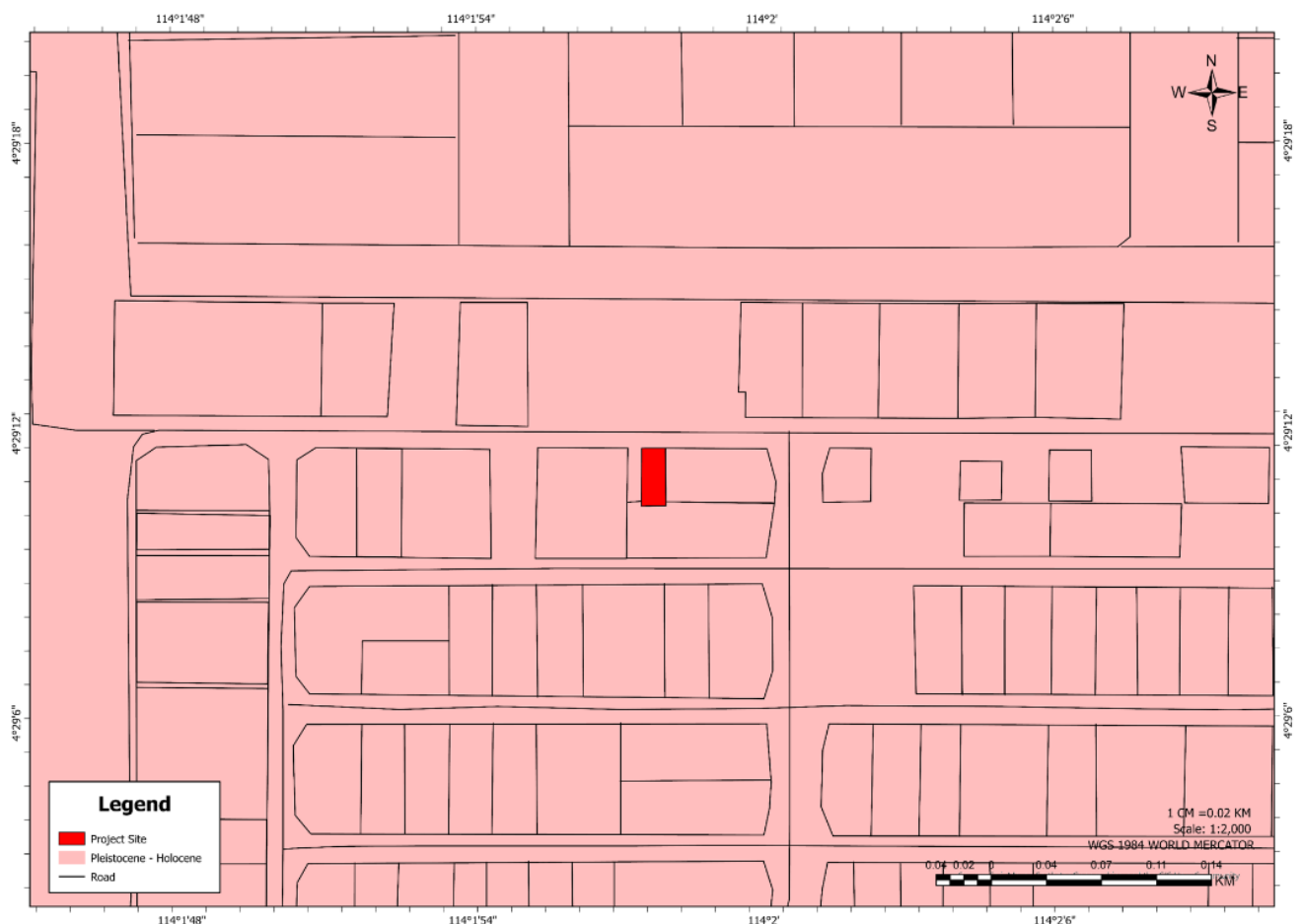
RAW WATER INTAKE POINT

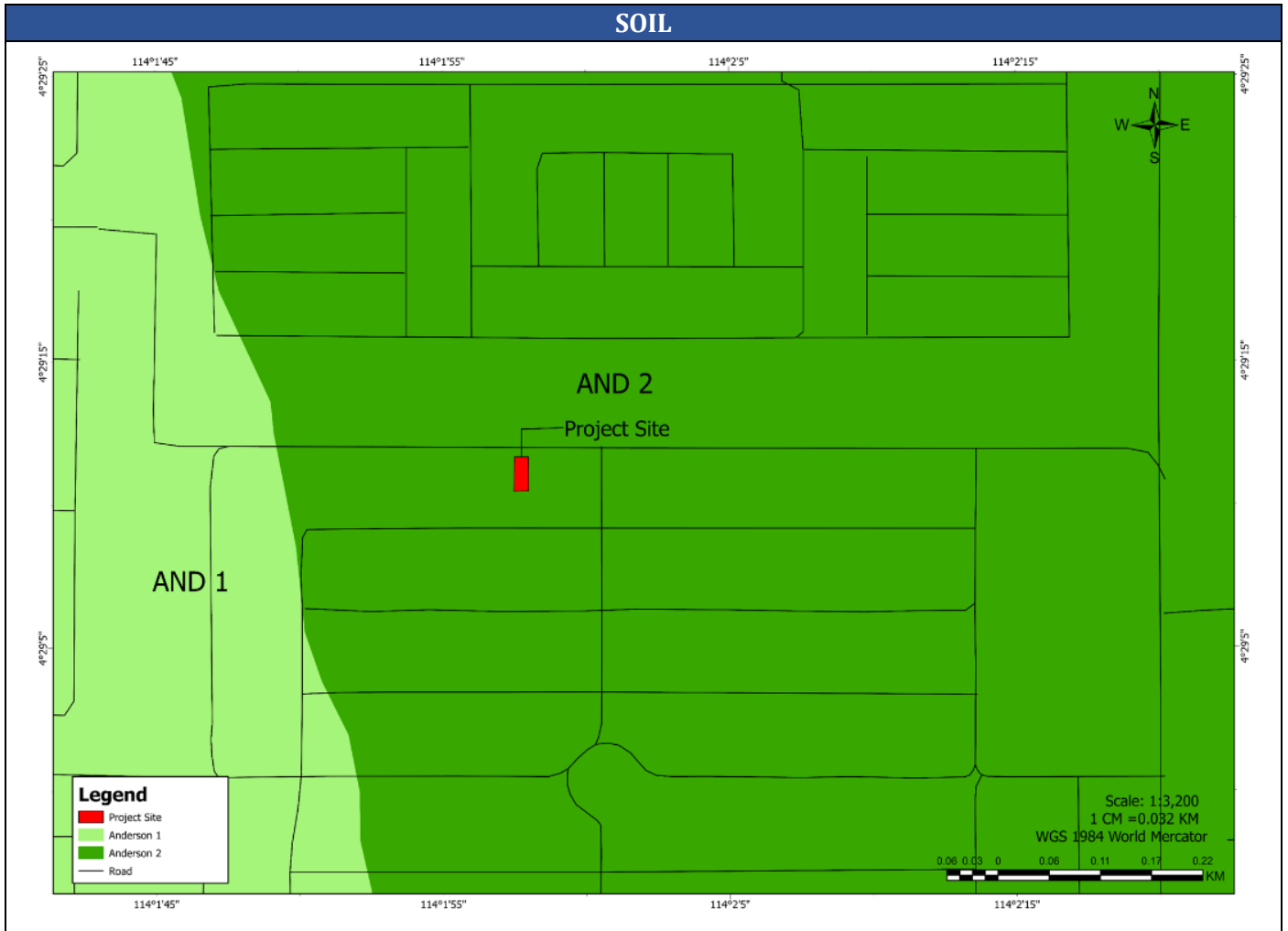


TOPOGRAPHY



GEOLOGICAL





BASELINE MONITORING**SURFACE WATER QUALITY**

Three (3) sampling stations were selected, whereby most parameters tested complied with the Class IIB NWQS Limit, except for DO, BOD₅, COD, TCC, Manganese and Iron

**AMBIENT AIR QUALITY**

All sampling stations complied with the New Malaysian Ambient Air Quality Standards (MAAQS), 2020

**NOISE LEVEL**

All sampling stations were complied with 2nd Schedule for of the Recommended Permissible Sound Level (L_{Aeq}) by Receiving Land Use for Existing Built Up Areas, for Industrial Zones and Suburban and Urban Residential, Mixed Development

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BASELINE MONITORING MAP



Legend

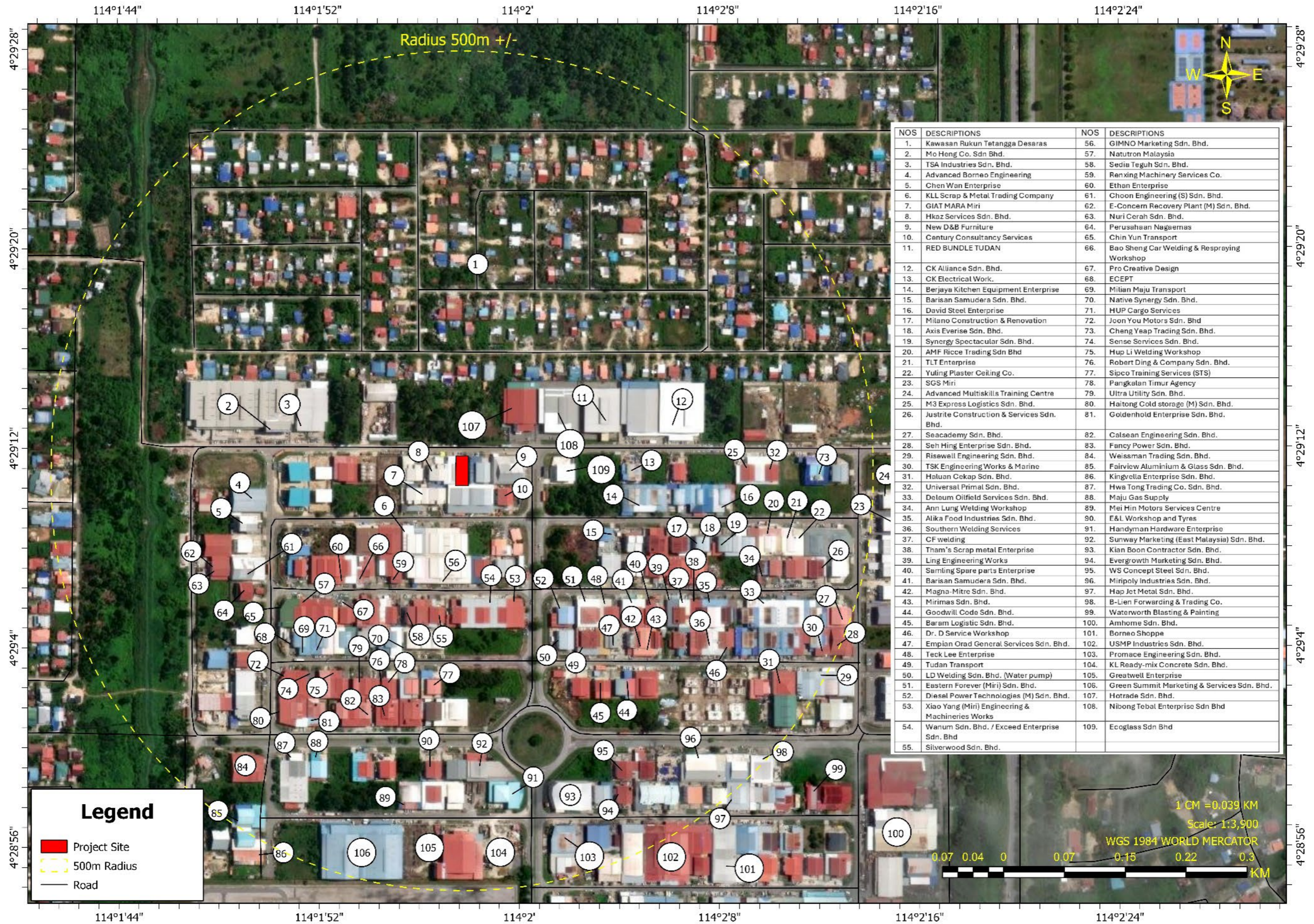
- Project Site
- BASELINE WATER SAMPLING LOCATION - (W1-W3)
- BASELINE AIR AND NOISE SAMPLING LOCATION - (A1/N1-A3/N3)
- Road

1 CM = 0.044 KM
 Scale: 1:4,400
 WGS 1984 WORLD MERCATOR



NOS	DESCRIPTIONS	NOS	DESCRIPTIONS
1.	Kawasan Rukun Tetangga Desaras	56.	GIMNO Marketing Sdn. Bhd.
2.	Mo Heng Co. Sdn Bhd.	57.	Natutron Malaysia
3.	TSA Industries Sdn. Bhd.	58.	Sedia Teguh Sdn. Bhd.
4.	Advanced Borneo Engineering	59.	Ronxing Machinery Services Co.
5.	Chen Wan Enterprise	60.	Ethan Enterprise
6.	KLL Scrap & Metal Trading Company	61.	Choon Engineering (S) Sdn. Bhd.
7.	GIAT MARA Miri	62.	E-Concern Recovery Plant (M) Sdn. Bhd.
8.	Hkaz Services Sdn. Bhd.	63.	Nuri Cerah Sdn. Bhd.
9.	New D&B Furniture	64.	Perusahaan Nagaemas
10.	Century Consultancy Services	65.	Chin Yun Transport
11.	RED BUNDLE TUDAN	66.	Bao Sheng Car Welding & Respraying Workshop
12.	CK Alliance Sdn. Bhd.	67.	Pro Creative Design
13.	CK Electrical Work.	68.	ECEPT
14.	Berjaya Kitchen Equipment Enterprise	69.	Milian Maju Transport
15.	Barisan Samudera Sdn. Bhd.	70.	Native Synergy Sdn. Bhd.
16.	David Steel Enterprise	71.	HUP Cargo Services
17.	Milano Construction & Renovation	72.	Joon You Motors Sdn. Bhd
18.	Axis Everise Sdn. Bhd.	73.	Cheng Yeap Trading Sdn. Bhd.
19.	Synergy Spectacular Sdn. Bhd.	74.	Sense Services Sdn. Bhd.
20.	AMF Ricce Trading Sdn Bhd	75.	Hup Li Welding Workshop
21.	TLT Enterprise	76.	Robert Ding & Company Sdn. Bhd.
22.	Yuling Plaster Ceiling Co.	77.	Sipco Training Services (STS)
23.	SGS Miri	78.	Pangkalan Timur Agency
24.	Advanced Multiskills Training Centre	79.	Ultra Utility Sdn. Bhd.
25.	M3 Express Logistics Sdn. Bhd.	80.	Haitong Cold storage (M) Sdn. Bhd.
26.	Justrite Construction & Services Sdn. Bhd.	81.	Goldenhold Enterprise Sdn. Bhd.
27.	Seacademy Sdn. Bhd.	82.	Calsean Engineering Sdn. Bhd.
28.	Seh Hing Enterprise Sdn. Bhd.	83.	Fancy Power Sdn. Bhd.
29.	Risewell Engineering Sdn. Bhd.	84.	Weissman Trading Sdn. Bhd.
30.	TSK Engineering Works & Marine	85.	Fairview Aluminium & Glass Sdn. Bhd.
31.	Haluau Cekap Sdn. Bhd.	86.	Kingville Enterprise Sdn. Bhd.
32.	Universal Primal Sdn. Bhd.	87.	Hwa Tong Trading Co. Sdn. Bhd.
33.	Deleum Oilfield Services Sdn. Bhd.	88.	Maju Gas Supply
34.	Ann Lung Welding Workshop	89.	Mai Hin Motors Services Centre
35.	Aika Food Industries Sdn. Bhd.	90.	E&L Workshop and Tyres
36.	Southern Welding Services	91.	Handyman Hardware Enterprise
37.	CF welding	92.	Sunway Marketing (East Malaysia) Sdn. Bhd.
38.	Tham's Scrap metal Enterprise	93.	Kian Boon Contractor Sdn. Bhd.
39.	Ling Engineering Works	94.	Evergrowth Marketing Sdn. Bhd.
40.	Samling Spare parts Enterprise	95.	WS Concept Steel Sdn. Bhd.
41.	Barisan Samudera Sdn. Bhd.	96.	Miripoly Industries Sdn. Bhd.
42.	Magna-Mitre Sdn. Bhd.	97.	Hap Jet Metal Sdn. Bhd.
43.	Mirimas Sdn. Bhd.	98.	B-Lien Forwarding & Trading Co.
44.	Goodwill Code Sdn. Bhd.	99.	Waterworth Blasting & Painting
45.	Baram Logistic Sdn. Bhd.	100.	Arhhome Sdn. Bhd.
46.	Dr. D Service Workshop	101.	Borneo Shoppe
47.	Empian Orad General Services Sdn. Bhd.	102.	USMP Industries Sdn. Bhd.
48.	Teck Lee Enterprise	103.	Promace Engineering Sdn. Bhd.
49.	Tudan Transport	104.	KL Ready-mix Concrete Sdn. Bhd.
50.	LD Welding Sdn. Bhd. (Water pump)	105.	Greatwell Enterprise
51.	Eastern Forever (Miri) Sdn. Bhd.	106.	Green Summit Marketing & Services Sdn. Bhd.
52.	Diesel Power Technologies (M) Sdn. Bhd.	107.	Hotraco Sdn. Bhd.
53.	Xiao Yang (Miri) Engineering & Machineries Works	108.	Nibong Tebat Enterprise Sdn Bhd
54.	Wanum Sdn. Bhd. / Exceed Enterprise Sdn. Bhd	109.	Ecoglass Sdn Bhd
55.	Silverwood Sdn. Bhd.		

LAND USE WITHIN 0.5 KM RADIUS FROM THE PROJECT SITE



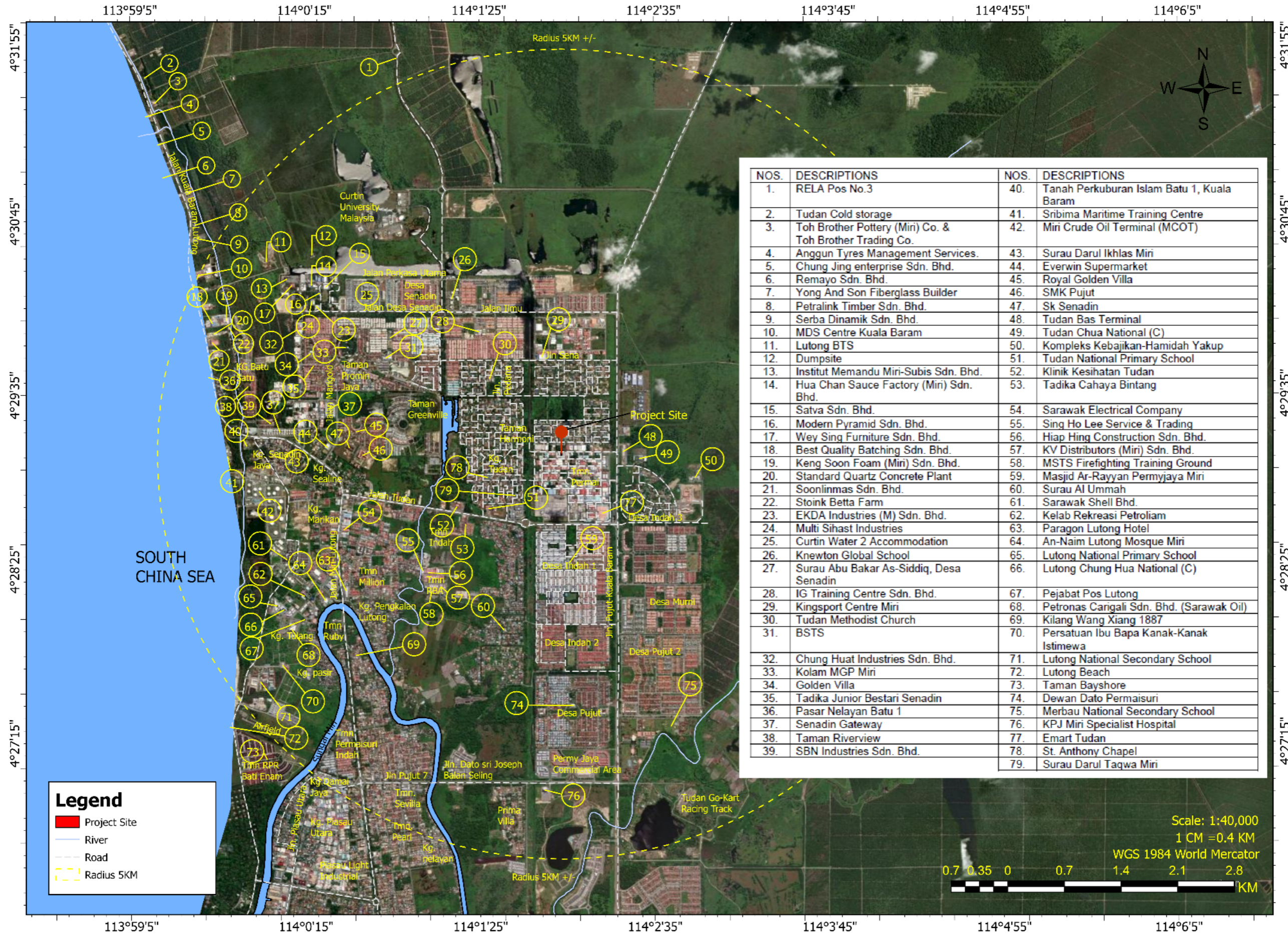
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54.	Wanum Sdn. Bhd. / Exceed Enterprise Sdn. Bhd	109.	Ecoglass Sdn Bhd
55.	Silverwood Sdn. Bhd.		

Legend

- Project Site
- 500m Radius
- Road

1 CM = 0.039 KM
 Scale: 1:3,900
 WGS 1984 WORLD MERCATOR

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28.	IG Training Centre Sdn. Bhd.	67.	Pejabat Pos Lutong
29.	Kingsport Centre Miri	68.	Petronas Carigali Sdn. Bhd. (Sarawak Oil)
30.	Tudan Methodist Church	69.	Kilang Wang Xiang 1887
31.	BSTS	70.	Persatuan Ibu Bapa Kanak-Kanak Istimewa
32.	Chung Huat Industries Sdn. Bhd.	71.	Lutong National Secondary School
33.	Kolam MGP Miri	72.	Lutong Beach
34.	Golden Villa	73.	Taman Bayshore
35.	Tadika Junior Bestari Senadin	74.	Dewan Dato Permaisuri
36.	Pasar Nelayan Batu 1	75.	Merbau National Secondary School
37.	Senadin Gateway	76.	KPJ Miri Specialist Hospital
38.	Taman Riverview	77.	Emart Tudan
39.	SBN Industries Sdn. Bhd.	78.	St. Anthony Chapel
		79.	Surau Darul Taqwa Miri

Legend

- Project Site
- River
- Road
- Radius 5KM

Scale: 1:40,000
 1 CM = 0.4 KM
 WGS 1984 World Mercator

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SOCIO-ECONOMIC SURVEY



Twenty (20) respondents from the nearby community of Kawasan Rukun Tetangga Desaras



Diverse ethnic composition, Iban, Kayan, Kenyah, and Malay communities, ages ranged from the late 20s to late 50s



Expressed no concern that the project would cause significant environmental harm





No objection to the proposed project, as they had not experienced any adverse effects from previous projects undertaken by the same project proponent


HEALTH IMPACT ASSESSMENT




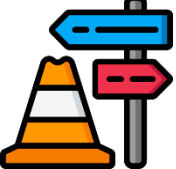
- ✓ Sensitive area located downwind from the Project site
- ✓ No significant concerns from the community regarding potential health impacts
- ✓ Does not fall under the category of first-of-its-kind developments in Malaysia
- ✓ Public display of the project is not required
- ✓ Will not result in an influx of foreign workers
- ✓ Any potential health impacts can be effectively managed through existing healthcare services


EVALUATION OF IMPACT	MAGNITUDE OF SIGNIFICANT IMPACT	POLLUTION PREVENTIONS AND MITIGATION MEASURES (P2M2)
<p>LD-P2M2</p>	Minor Adverse Impacts	<p>As the project is located in an existing warehouse within an industrial area, and no major construction will be involved. Therefore, LD-P2M2 does not apply to this project. However, Best Management Practices (BMPs) should be adopted during the operational phase to ensure proper environmental protection and waste management. The BMPs include the following:</p> <ul style="list-style-type: none"> • Ensure proper management of rainwater runoff from the site by maintaining or enhancing existing drainage systems to direct water away from the storage areas. Use oil-water interceptors to manage potential contamination from wastewater discharge and avoid contamination of surface water. • Ensure that any bunding, barriers, or other containment systems around the scheduled waste storage area are regularly inspected and maintained to prevent soil or water contamination.
<p>Air Quality</p>	Minor Adverse Impacts	<p>During the operation of the facility, it will primarily serve as a temporary collection centre before the waste is transported to other treatment, recovery, or disposal facilities within Sarawak and to Peninsular Malaysia. The vehicle movements involved in the loading and unloading of waste are expected to affect air quality. To minimize these impacts, the following mitigation measures are proposed:</p> <ul style="list-style-type: none"> • The Proponent/Contractor must adhere to all applicable requirements under the Environmental Quality (Control of Emission from Diesel Engines) Regulations, 1996. • Transportation vehicles should undergo regular maintenance to ensure efficient fuel combustion and controlled soot emissions.



EVALUATION OF IMPACT	MAGNITUDE OF SIGNIFICANT IMPACT	POLLUTION PREVENTIONS AND MITIGATION MEASURES (P2M2)
		<ul style="list-style-type: none"> • Ensure that all drum lids are securely closed, and the storage facility is well-ventilated at all times. • Workers must wear appropriate PPE to safeguard against air quality impacts. • Impose a speed limit on vehicles using access roads to prevent dust dispersion. • Waste should be stored in sturdy containers to prevent spillage or leakage into the environment. • Develop and implement effective contingency plans and emergency response strategies. • The storage area must meet the following criteria: <ul style="list-style-type: none"> ✓ Be located away from ignition sources. ✓ Be constructed using non-combustible materials, such as concrete. ✓ Avoid the use of electrical fittings; if electrical fittings are necessary, they must be designed to prevent sparks or fires.
<p>Noise</p> 	<p>Minor Adverse Impacts</p>	<p>The noise generated during the operational phase is expected to be minimal, as it will primarily result from the ingress and egress of vehicles, such as lorries and forklifts, used for transporting scheduled waste into and out of the storage area. The operation of the project is anticipated to have minimal contribution to noise pollution. The following mitigation measures shall be implemented to reduce noise impact and ensure proper management during operation:</p> <ul style="list-style-type: none"> • Proper Hearing Protection Devices (HPD), such as earmuffs and earplugs, shall be provided to workers exposed to noisy equipment, including forklifts. • Vehicles and forklifts must adhere to appropriate speed limits while entering and exiting the proposed project site. • Vehicles shall undergo regular maintenance to minimize noise emissions. • Regular noise monitoring shall be conducted to ensure compliance with permissible noise levels.
<p>Water Quality</p> 	<p>Moderate Adverse Impacts</p>	<p>Water quality impacts from the proposed off-site scheduled waste storage facility are expected to be minimal during both the construction and operational phases, particularly under normal operational conditions. However, the following mitigation measures are recommended to further minimize potential impacts:</p> <ul style="list-style-type: none"> • Implement an emergency response plan (ERP) that includes procedures for handling chemical or oil spills on-site. The ERP is provided in Appendix 8.2.1. • Ensure spill kits are readily available on-site as part of emergency response tools. • Keep storage drums and containers upright with their lids securely closed when not in use to prevent spills. • Use durable, leak-proof storage containers and conduct routine inspections of storage areas to identify potential issues. • Install a sump pit or oil-water interceptor within the storage area and at the final discharge point to contain spillages and facilitate clean-up operations. • Use toilets equipped with pre-installed septic tanks for operational workers, and desludge them as recommended by the local council (at least once every two years). • Periodic water monitoring should be conducted quarterly at the final discharge point and to be compared with NWQS Class IIB <p>These measures will effectively minimize potential water quality impacts during the project's construction and operational phases.</p>
<p>Quantitative Risk Assessment</p>	<p>Minor Adverse Impacts</p>	<p>Events that likely leads to accidents were found usually associated with human error, either due to ignorance or mishandling. It is important that the on-site workers adhere strictly to all safety rules and regulations to ensure</p>

EVALUATION OF IMPACT	MAGNITUDE OF SIGNIFICANT IMPACT	POLLUTION PREVENTIONS AND MITIGATION MEASURES (P2M2)
		<p>the storage facility is hazard-free or accident-free. More importantly, the management of off-site scheduled waste storage facility has to ensure that design considers strict adaptation of safety features and standard operation procedures shall comply with design and recommendations.</p> <p>The following recommendations of proposed mitigation measure that are to specifically address the threat of the major hazards identified in this study and further minimise their inherent risk.</p> <ul style="list-style-type: none"> • Segregation of wastes based on compatibility to be established in order to avoid fires due to contact between incompatible waste • Storage tank design must be in full compliance with appropriate design standards applicable especially for vessel containing flammable and toxic substances; • All the fuel tanks and related piping (including connections, flanges, etc.) in the facility should be regularly inspected and maintained; • Bunds to be provided at all storage tanks i.e. skid tanks to contain potential spills. Bund size must meet the minimum 110% of the biggest tank in its containment; • Sump and containment pits to be provided to minimise containment of spill and diverted to separate drainage system for treatment prior release; • No drums shall be allowed to be stored outside of its designated storage area or be placed along roadsides or access, even for temporary storage; • Appropriate firefighting protection system must be designed and installed at tank locations and processing area; • All personnel involved in the loading and unloading of raw materials and products should be properly trained and required to abide by strict operational procedures; • Heat generating machines and equipment (heat sources) should be placed away from the storage areas; • “No smoking” should be strictly enforced at all times within the Project Site to avoid any untoward fire or explosion incidence to occur; • All personnel involved should be properly trained and required to abide strict operational procedures; and • Routine emergency drill to be carried out time to time to maintain and improve safety awareness among workers. <p>In addition, the following recommendations are proposed in line with good engineering practice to ensure that there are sufficient safety measures in place for any eventuality:</p> <ul style="list-style-type: none"> • A strict speed limit of 10 km/hr for heavy vehicles should be enforced on-site; • Sufficient safety equipment (e.g. fire extinguishers, first aid kits, etc.) should be incorporated and always maintained in good working condition; • All personnel, especially the truck drivers, are to be well-trained and suitably qualified for the tasks required of them; • The Emergency Response Plan (ERP) should be in collaboration with local authorities such as Bomba, Police, etc upon implementation of the Project. The ERP shall also include the neighbouring facilities, for communication and collaboration. Refer to Appendix 8.2.1 for Project’s ERP; • Emergency response kits shall be readily available near the storage and transfer areas to address potential spills or accidents promptly


EVALUATION OF IMPACT	MAGNITUDE OF SIGNIFICANT IMPACT	POLLUTION PREVENTIONS AND MITIGATION MEASURES (P2M2)
		<ul style="list-style-type: none"> • Firefighting and first aid training should be provided to key members of the work force; • Sufficient, well-placed signboards should be placed at strategic locations around the Project Site to warn personnel of hazards at the site; and • Effective fire alarm and firefighting system should be inspected and maintained regularly.
<p>Waste Management</p> 	<p>Minor Positive Impacts</p>	<p>Scheduled Waste</p> <ul style="list-style-type: none"> • Assign a Certified Environmental Professional in Scheduled Waste Management (CePSWaM) personnel to handle the scheduled waste on-site to fulfil the requirement that scheduled waste must be managed by a Competent Person as per Section 49A of the Environmental Quality Act 1974. • Ensure all scheduled wastes listed under the First Schedule (Regulation 2) of the Environmental Quality (Scheduled Wastes) Regulations 2005 are managed in compliance with the stipulated regulations. • Properly package, store, and label scheduled wastes, including used empty lead-acid batteries in crushed form, e-waste, waste oil or oily sludge, sludges containing cyanide, a mixture of scheduled wastes, and a mixture of scheduled and non-scheduled wastes, following the Guidelines for Packaging, Labelling, and Storage of Scheduled Wastes in Malaysia. • Written approval for the off-site storage facility and the operating license shall be obtained from the Department of Environment (DOE) following the approval of this Environmental Impact Assessment (EIA) Report. • Store scheduled waste away from any watercourse. • Maintain a scheduled waste inventory, consignment notes, and update records via online reporting through eSWIS. • Ensure proper record-keeping by maintaining an inventory record for each type of scheduled waste, indicating the date, type, and quantity of waste brought into or removed from the storage site. Keep a copy of the inventory in the storage area. • Construct and maintain an oil sump to manage any accidental spillage of liquid scheduled wastes. • Store incompatible wastes in separate containers and ensure secondary containment areas are in place. Use durable containers that are compatible with the waste type to prevent spillage or leakage. • Store all scheduled waste, including waste oil, oily sludge, and other hazardous materials, in designated covered areas and away from watercourses to prevent contamination of drains and river water. • Label storage containers in compliance with the Third Schedule (Regulation 10) of the Environmental Quality (Scheduled Waste) Regulations 2005. • Keep storage containers closed except when adding or removing waste. • Design, construct, and maintain the storage area with adequate facilities to prevent spillage or leakage. Grade the storage area to a sump for efficient spill management. • Surround the storage area with a concrete dyke or equivalent structure to contain any spills. • Place skid tanks in shaded, bunded storage areas located away from watercourses. The bund capacity must equal or exceed to 110% of the largest container stored. • Establish an Emergency Response Plan (ERP) framework outlining detailed actions to be taken in the event of spillage emergencies. The

EVALUATION OF IMPACT	MAGNITUDE OF SIGNIFICANT IMPACT	POLLUTION PREVENTIONS AND MITIGATION MEASURES (P2M2)
		<p>ERP shall be strictly adhered to at all times to ensure effective management and mitigation of such incidents.</p> <ul style="list-style-type: none"> Spill response equipment must be available at all times at the waste reception area to ensure prompt and effective action in the event of a spill. <p>Solid Waste</p> <ul style="list-style-type: none"> Segregate waste by source into recyclable and non-recyclable categories, and recover recyclable materials such as scrap iron and plastic containers. Provide designated collection bins or areas for segregated recyclable and reusable wastes. Ensure regular garbage collection by an appointed waste disposal contractor to an approved dumping site. Maintain good housekeeping practices by implementing the 5S principles at all times. Send recyclable waste to an approved recycling facility or the proposed recycling facility. Open Burning of solid waste within the Project site is strictly prohibited under the Environmental Quality (Declared Activities) (Open Burning) Order 2003. <p>Sewage</p> <ul style="list-style-type: none"> Install a septic tank on-site to prevent raw sewage from being discharged into receiving water bodies. Properly cover the septic tank to prevent seepage of surface runoff during heavy downpours. Desludge the septic tank regularly in compliance with the Local Authority (Compulsory Desludging of Septic Tanks) By-Laws 1998, with a minimum frequency of once every two years for commercial complexes. Prepare a contingency plan to address emergency situations involving the septic tank, such as accidental spillages, system failures, or odorous emissions, to mitigate risks to public health and the environment.
<p>Traffic and Transport</p> 	<p>Minor Adverse Impacts</p>	<ul style="list-style-type: none"> Only Department of Environment (DOE) registered transporters shall have permission to transport scheduled wastes, ensuring that vehicles are operated in accordance with environmental and safety regulations. An inventory of scheduled wastes shall be maintained, detailing updated information such as the category and quantity of scheduled waste received. The consignment note shall have been filled out properly and distributed among waste generators, DOE Sarawak, and waste receivers (Project Proponent). Movement and transfer of scheduled wastes shall be communicated to DOE by the waste generator, contractor, and receiver for each transportation activity, using the consignment note in accordance with the Sixth Schedule of the Environmental Quality (Scheduled Wastes) Regulations 2005 or through the Electronic Scheduled Waste Information System (eSWIS). Dry scheduled wastes shall have been securely packed and shall not have been moved during transport unless they are properly stretch-wrapped and stacked to prevent any issues during transit. Drums containing scheduled waste shall be secured with plastic or steel tape, banding, and/or stretch-wrapped pallets to minimize the risk of tipping over during transportation. Transport vehicles shall be clearly labelled to indicate the corrosive and hazardous nature of the products being transported, ensuring the safety of the environment and personnel during transit. A minimum set of equipment to address potential spillages or leakage shall have been provided in transport vehicles, with the transport team trained on how to use this equipment to handle minor emergencies effectively.

EVALUATION OF IMPACT	MAGNITUDE OF SIGNIFICANT IMPACT	POLLUTION PREVENTIONS AND MITIGATION MEASURES (P2M2)
		<ul style="list-style-type: none"> • Transporters shall have a spill response plan in place to manage any spillage or leakage during transportation, ensuring swift and controlled containment of hazardous materials. • Transportation activities shall have been scheduled during periods of minimal traffic to reduce congestion and enhance safety for all road users. • Personal protective equipment (PPE) shall have been provided for the transport team, and they shall have been trained in its proper use to ensure safety in the event of an accident or spill. • An Emergency Response Plan (ERP) framework shall have been established, detailing required actions in case of spillage emergencies ensuring preparedness for all potential incidents. • Hazardous waste transport shall follow predefined routes that minimize the risk of accidents or environmental hazards, ensuring that transportation activities take place along safer, well-known pathways, within scheduled timeframes.
<p>Occupational Safety and Health</p> 	<p>Minor Adverse Impacts</p>	<ul style="list-style-type: none"> • To mitigate risks related to occupational safety and health, the following comprehensive measures shall be implemented: • The Emergency Response Plan (ERP) shall be strictly followed, covering both operational and external hazards, ensuring an effective response in case of an incident or accident. • All safety rules and regulations stipulated by the Occupational Safety and Health Department shall be adhered to, ensuring compliance with local safety standards. • Comprehensive training programs shall be enforced for all personnel, focusing on safety procedures, hazard identification, and risk management. • Safety Data Sheets (SDS) or waste cards shall be used for all chemicals and hazardous materials handled on-site, ensuring workers are informed of associated risks. • Specialized training will be provided for transport drivers and emergency response personnel, equipping them to handle transportation safety and emergency situations effectively. • Ongoing health and safety training shall be incorporated into daily operations, emphasizing safe work practices, environmental housekeeping, and proper operational procedures. • Workers shall be provided with suitable Personal Protective Equipment (PPE), including gloves, hard hats, safety boots, earmuffs, face masks, or respirators based on job tasks. • A sufficient supply of medicines and medical equipment for first aid purposes shall be maintained on-site to provide prompt medical attention in case of injuries or hazardous exposure. • "Strictly No Smoking" or "No Naked Fire" signage shall be clearly displayed at the facility's main entrance and near the storage area to prevent fire hazards. • The storage area shall be clearly signposted to indicate the nature of the stored substances, ensuring safe handling by all personnel. • Fire extinguishers shall be positioned throughout the storage area to quickly address fire emergencies. • General safety equipment, including first aid supplies (such as eyewash stations), drum trolleys, spill kits, plastic trays/bins for containing corrosives, adhesive labels, and waterproof marker pens, shall be readily available. • Personal hygiene practices shall be strictly enforced when handling scheduled wastes: <ul style="list-style-type: none"> ✓ Workers shall NEVER touch their faces after handling scheduled waste. ✓ Hands shall always be washed with soap and water before eating, smoking, touching the face, or using the toilet. ✓ Smoking in or near the storage area shall be strictly prohibited. ✓ Spills on the skin shall be washed off immediately.

EVALUATION OF IMPACT	MAGNITUDE OF SIGNIFICANT IMPACT	POLLUTION PREVENTIONS AND MITIGATION MEASURES (P2M2)
		<ul style="list-style-type: none"> ✓ If feeling unwell, workers must stop work and seek fresh air, informing their supervisor. • Liquid scheduled wastes shall be securely closed during storage and transportation, and containers shall be kept away from heat, flames, sparks, or other sources of ignition. • An oil-water interceptor shall be installed for controlled discharge, allowing for the containment and clean-up of minor spillage.
<p>Socioeconomic Impact</p> 	Minor Positive Impacts	<ul style="list-style-type: none"> • No mitigation is required for positive impacts. However, the project proponent is encouraged to prioritize local residents for any job vacancies created during the operational phase, ensuring that the surrounding community benefits from employment opportunities. • The Contractor shall establish a "grievance mechanism" to address any complaints. All lodged complaints should be promptly reviewed and acted upon, ensuring timely resolution and maintaining positive relations with the community
<p>Abandonment Phase</p> 	Minor Adverse Impacts	<p>By addressing potential abandonment scenarios, the project ensures readiness and minimizes any potential negative effects on the environment and surrounding community. These measures may include:</p> <ul style="list-style-type: none"> • An abandonment plan shall be submitted to the Department of Environment (DOE) at least 3 months prior to project abandonment, outlining the steps for safely closing the project and minimizing environmental impacts. • All scheduled wastes shall be collected and disposed of in accordance with the Environmental Quality (Scheduled Wastes) Regulations 2005 to ensure proper management and prevent contamination during the abandonment process. • All waste material shall be properly disposed of by the existing Project Proponent after abandonment, ensuring that all waste is managed in accordance with relevant regulations and does not pose environmental or public health risks. • Any structures that are unsafe or cannot be reasonably assured to remain safe over time shall be dismantled or demolished, with all materials removed from the site to prevent potential hazards or contamination.

PERFORMANCE MONITORING




- ✓ Proper documentation should be kept, and a system for inspecting the storage area to check for spills, leaks, and container conditions should be implemented.
- ✓ Make sure the spill response kits and portable fire extinguishers are up to date.
- ✓ Competent individuals should be hired to manage scheduled waste during the operational phase.

COMPLIANCE MONITORING


AMBIENT AIR QUALITY MONITORING

- ✓ Sampling stations: A1
- ✓ Monthly monitoring, quarterly reporting
- ✓ Parameters: PM₁₀, PM_{2.5}, SO₂, NO₂, O₃, CO
- ✓ Compliance Standard: MAAQS, 2020




SURFACE WATER QUALITY MONITORING

- ✓ Sampling stations: W1 & W2
- ✓ Monthly monitoring, quarterly reporting
- ✓ Parameters: Temperature, pH value, DO, BOD₅, COD, TSS, O&G, TCC, FCC, Pb, Cu, Mn, Zn, B, Fe, Ba, F, Phenol, AN
- ✓ Compliance Standard: NWQS Class IIB



NOISE LEVEL MEASUREMENT

- ✓ Sampling stations: N1
- ✓ Monthly monitoring, quarterly reporting
- ✓ Parameters: L_{eq}, L_{max}, L_{min}, L₉₀, L₁₀
- ✓ Compliance Standard: Guidelines for Environment Noise Limits and Control, Third Edition, 2019 (N1 – Industrial Zones))



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PROPOSED MONITORING LOCATIONS



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