

Annex C Revised Environmental Assessment

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ENVIRONMENTAL ASSESSMENT

FOR

**APPLICATION FOR AMENDMENT
OF PLAN UNDER SECTION 12A
FOR THE TOWN PLANNING
ORDINANCE (CAP. 131) FOR
MIXED USE DEVELOPMENT AT
LOT 796 AND 1008RP IN D.D. 77
AND ADJOINING GOVERNMENT
LAND IN PING CHE, TA KWU
LING, NEW TERRITORIES**

Prepared by

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COMMERCIAL-IN-CONFIDENCE

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APPLICATION FOR AMENDMENT OF PLAN UNDER SECTION 12A FOR THE TOWN PLANNING ORDINANCE (CAP. 131) FOR MIXED USE DEVELOPMENT AT LOT 796 AND 1008RP IN D.D. 77 AND ADJOINING GOVERNMENT LAND IN PING CHE, TA KWU LING, NEW TERRITORIES

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1. Introduction

1.1.1. Allied Environmental Consultants Limited (AEC) has been appointed to conduct an Environmental Assessment (EA) for the proposed application for amendment of Plan under S.12A of the Town Planning Ordinance at Lot 796 and 1008 RP at D.D. 77 and adjoining Government land in Ping Che (hereinafter called "Proposed Amendment"). Architectural drawings and other technical information on the Proposed Amendment are provided by the Project Architect and the traffic forecast is provided by the Project Traffic Consultant (LLA Consultancy Ltd.).

2. Objectives

2.1.1. An Environmental Assessment for the Proposed Amendment is required to assess the potential air quality, noise and land contamination impacts on its sensitive uses and recommend relevant mitigation measures where necessary.

3. Site Context

3.1. Site Location and Its Environs

3.1.1. The Proposed Amendment is located at Ping Che Road from the north to northeast, the unnamed village road to the east, village, agricultural land and open storage area to the south and west.

3.1.2. **Figure 3.1** shows the Site location and its environs.

3.1.3. According to the approved Ping Che and Ta Kwu Ling Outline Zoning Plan (OZP No.: S/NE-TKL/14) gazette on 12/03/2010, the Application Site is currently zoned as "Open Storage" ("OS") Zone, southern part of the Application Site is zoned as "Agriculture" ("AGR") and a minor portion of the Application Site is shown as "Road". Re-zoning is required of the Proposed Amendment.

3.1.4. The surrounding areas of the Application Site are characterized by a mixture of various land uses. These include villages, workshops, open storage uses and major roads.

3.1.5. According to the Study Brief ESB-341/2021, the Application Site is within the New Territories North (NTN) New Town and Man Kam To Development plan under the New Territories. No relevant development plan and programme can be obtained during the course of study.

3.2. Proposed Amendment Scheme

- 3.2.1. The proposed site area of the subject site is 17,822m², with a plot ratio of 5.9 for domestic use and 1.1 for non-domestic use. The total GFA for domestic use is 105,145 m², and the 19,603 m² for non-domestic use. The Proposed Amendment will consist of 5 blocks of residential tower ranging from 47 to 48-storey in height (excluding basement), provided 2,205 residential unit, and 1 block of commercial tower with 35-storey in height (excluding basement) . The Master Layout Plan (MLP) is shown in **Appendix 3.1**.
- 3.2.2. The commercial tower accommodating retail facilities, office, hotel or service apartment, child care centre and day care centre for the elderly are planned strategically along Ping Che Road.
- 3.2.3. Expected completion year and operation year of the Proposed Project is in 2032. The tentative indicative program is given in **Appendix 3.2**.

4. Implication on Environmental Impact Assessment

- 4.1.1. This is not a designated project under the Environmental Impact Assessment (EIA) Ordinance (Cap. 499). This EA has been undertaken with reference to the guidance for environmental considerations provided in Chapter 9 “Environment” of the Hong Kong Planning Standards and Guidelines (HKPSG). This EA presents a study of the potential environmental impacts, with respect to both air quality water quality, waste management and land contamination and noise aspects.
- 4.1.2. Noted that the Application Site is located within the proposed tentative boundary of New Territories North New Town which the EIA study for such is under preparation during the course of the study for this application. The latest available information on the development of New Territories North New Town Development and Man Kam To (NTN development) has been obtained on the public domain and relevant government departments have been consulted for development details and programme. Yet, the exact programme and development details for its implementation is yet to be confirmed.
- 4.1.3. Based on the EIA Project Profile and Study brief for Development of New Territories North New Town and Man Kam To (NTN Development) (ESB-341/2021), the NTN remaining phase development is proposed for housing, economic and employment-generating developments. It contains area about 1,100 ha, including Ping Che and Ta Kwu Ling which the Application Site is located at. The works for the development include site formation works and the associated infrastructure works. The said infrastructure works would include the necessary slope works, roadworks, sewerage works, sewage pumping station, sewage treatment works, drainage works, waterworks, utility works, fresh water and flushing water service reservoirs, rock caverns, cycle tracks, etc. within or outside the proposed boundaries of the Project for serving the proposed development. As refer to the Project Profile, the broad land use concepts identified for the NTN development would be further review, such as commercial, residential, industrial estate, science park, logistic industries, etc.
- 4.1.4. As refer to the Project Profile, the Planning and Engineering (P&E) study including the EIA study for NTN Development is targeted to commence in latter half of 2021 for completion within a study period of about 36 months. Subject to the recommendations of the P&E study, detailed design and associated statutory procedures of the NTN Project will follow. Outline implementation programme for the development will be formulated under the NTN Project.
- 4.1.5. Since the implementation details of NTN Development is yet to be confirmed, this study covers the scenario without NTN development in place for completeness and aims to demonstrate that there is feasible solution to meet relevant environmental standards.

5. Air Quality Impact Assessment

5.1. Introduction

5.1.1. This section assesses the potential air quality impacts in association with the proposed residential development by taking into account the following considerations:

- Road traffic emissions from nearby roads in the proximity;
- Industrial emissions; and
- Potential cumulative air quality impacts, if any, from nearby major housing developments.

5.2. Environmental Legislation, Standards and Criteria

Hong Kong Air Quality Objectives

5.2.1. Air quality in Hong Kong is governed under the Air Pollution Control Ordinance (“APCO”) (Cap. 311). Under this legislation, the Government has designated various Air Control Zones for the whole territory, and the new Air Quality Objectives (“AQOs”) was taken into effect in January 2022. The AQOs stipulate the statutory limits for seven pollutants and dictate the maximum number of allowable exceedances over specified periods as shown in **Table 5-1**.

Table 5-1 Hong Kong Air Quality Objectives

Pollutant	Averaging Time	Concentration Limit (ug/m ³) ^[i]	Number of Exceedances to be allowed
Sulphur Dioxide (SO ₂)	10-minute	500	3
	24-hour	50	3
RSP or PM ₁₀ ^[ii]	24-hour	100	9
	Annual	50	N/A
FSP or PM _{2.5} ^[iii]	24-hour	50	35
	Annual	25	N/A
Nitrogen Dioxide (NO ₂)	1-hour	200	18
	Annual	40	N/A
Ozone (O ₃)	8-hour	160	9
Carbon monoxide (CO)	1-hour	30,000	0
	8-hour	10,000	0
Lead (Pb)	Annual	0.5	N/A

Note:

[i] All measurements of the concentration of gaseous air pollutants, i.e., sulphur dioxide, nitrogen dioxide, ozone and carbon monoxide, are to be adjusted to a reference temperature of 293Kelvin and a reference pressure of 101.325 kilopascal.

[ii] Respirable suspended particulates means suspended particles in air with a nominal aerodynamic diameter of 10 µm or less.

[iii] Fine suspended particulates means suspended particles in air with a nominal aerodynamic diameter of 2.5 µm or less.

Hong Kong Planning Standards and Guidelines

5.2.2. The Hong Kong Planning Standards and Guidelines (HKPSG) also provide guidance for all private and public development projects. A summary of relevant environmental design guidelines extracted from Table 3.1 of the HKPSG Chapter 9 is provided below.

Table 5-2 Recommended Buffer Distance for Land Uses (Table 3.1 of HKPSG Chapter 9)

Polluting Uses	Parameters	Permitted Uses	Buffer Distance
Road and Highways	Trunk roads and Primary Distributor	(a) Active and passive recreational uses	>20m
		(b) Passive recreational uses	3 – 20m
		(c) Amenity areas	< 3m
District Distributor	District Distributor	(a) Active and passive recreational uses	>10m
		(b) Passive recreational uses	<10m
Local Distributor	Local Distributor	(a) Active and passive recreational uses	>5m
		(b) Passive recreational uses	<5m
Industrial Areas	Difference in Height between Industrial Chimney Exit and the Site		
	< 20m	(a) Active and passive recreational uses (b) Passive recreational uses	>200m 5 – 200m

Polluting Uses	Parameters	Permitted Uses	Buffer Distance
	20- 30m	(a) Active and passive recreational uses (b) Passive recreational uses	>100m 5- 100m
	30- 40m	(a) Active and passive recreational uses (b) Passive recreational uses	>50m 5 - 50m
	> 40m	Active and passive recreational uses	>10m
Construction and earth moving Activities	-	(a) Passive recreational uses (b) Active and passive recreational uses	>50m

Air Pollution Control (Construction Dust) Regulation

- 5.2.3. The Air Pollution Control (Construction Dust) Regulation specifies processes that require special dust control. The Contractors are required to inform the EPD and adopt proper dust suppression measures while carrying out “Notifiable Works” (which requires prior notification by the regulation) and “Regulatory Works” to meet the requirements as defined under the regulation.

Air Pollution Control (Non-road Mobile Machinery) (Emission) Regulation

- 5.2.4. The Air Pollution Control (Non-road Mobile Machinery) (Emission) Regulation comes into operation on 1 June 2015. Under the Regulation, Non-road mobile machinery (NRMMS), except those exempted, are required to comply with the prescribed emission standards. From 1 September 2015, all regulated machines sold or leased for use in Hong Kong must be approved or exempted with a proper label in a prescribed format issued by EPD. Starting from 1 December 2015, only approved or exempted NRMMS with a proper label are allowed to be used in specified activities and locations including construction sites. The Contractor is required to ensure the adopted machines or non-road vehicle under the Project could meet the prescribed emission standards and requirement.

Air Pollution Control (Fuel Restriction) Regulation

- 5.2.5. The Air Pollution Control (Fuel Restriction) Regulation was enacted in 1990 to impose legal control on the type of fuels allowed for use and their sulphur contents in commercial and industrial processes to reduce sulphur dioxide (SO₂) emissions. In June 2008, the Regulation was amended to tighten the control requirements of liquid fuels. The Regulation does not apply to any fuel-using equipment that is used or operated in premises used solely as a dwelling, or is used or operated in or on a vessel, motor vehicle, railway locomotive or aircraft.

Recommended Pollution Control Clauses for Construction Contracts

5.2.6. The Recommended Pollution Control Clauses (RPCC) are generally good engineering practice to minimize inconvenience and environmental nuisance to nearby residents and other sensitive receivers. Guidelines as stipulated under RPCC should be incorporated in the contract documents to abate dust impact.

5.3. Background Air Quality

Existing Air Quality in North and Tai Po District

5.3.1. The air quality data of the nearest general air quality monitoring station (AQMS) at North (Year 2020-2022) and Tai Po (Year 2018-2019) are adopted to represent the ambient air quality of the area. Latest available 5 years of air quality data, i.e. 2018 to 2022, are summarised in

5.3.2. **Table 5-3** to depict the trend of the localised air quality.

Table 5-3 Background Air Quality at North and Tai Po Monitoring Station

Pollutant	Averaging Time	Concentration 2018-2022 ($\mu\text{g}/\text{m}^3$) ^{[1][2]}					Annual AQO ($\mu\text{g}/\text{m}^3$)
		2018	2019	2020	2021	2022	
CO	1 st highest 1-hour	N.A. ^[3]	N.A. ^[3]	1,830	2,150	1,710	30,000
	1 st highest 8-hour	N.A. ^[3]	N.A. ^[3]	1,238	1,550	1,304	10,000
FSP/ PM _{2.5}	19 th highest 24-hour	42	44	38	39	37	50
	Annual	19	20	N.A. ^[4]	15	14	25
NO ₂	19 th highest 1-hour	125	142	112	135	115	200
	Annual	36	36	N.A. ^[4]	36	31	40
O ₃	10 th highest 8-hour	167	197	166	187	197	160
RSP / PM ₁₀	10 th highest 24-hour	69	65	55	62	50	100
	Annual	31	31	N.A. ^[4]	25	23	50
SO ₂	4 th highest 10-min	24	20	19	18	27	500
	4 th highest 24-hour	8	10	8	7	7	50

Notes:

[1] Monitoring result(s) exceeding the AQO is/are underlined.

[2] All air quality data were extracted from EPD's Environmental Protection Interactive Centre.

[3] CO concentration from 2018-2019 is not available at Tai Po Monitoring Station.

[4] North General Air Quality Monitoring Stations commissioned on 10 July 2020. Annual PM_{2.5},

NO₂ and PM₁₀ concentration is not available in 2020 .

- 5.3.3. Exceedance of concentration of O₃ in the AQO has been recorded at North and Tai Po Monitoring Station. The exceedance of O₃ is mainly caused by regional air pollution problem and it is not directly emitted from man-made sources.

Future Ambient Air Quality Condition

- 5.3.4. Background air quality concentrations were extracted from PATH v2.1 (Pollutants in the Atmosphere and their Transport over Hong Kong), which is a regional air quality model has been developed by the Environmental Protection Department (EPD) for simulating air quality over Hong Kong against Pearl River Delta region. Application Site falls within Grid (39, 55).

- 5.3.5. In view of the operation year of 2032, the PATH v3 data at (39, 55) in Year 2040 is considered representative to represent background air quality concentrations at the Application Site area. A summary of background air quality concentration in Year 2040 is shown in **Table 5-4**. These data have demonstrated that the concentrations of pollutants are below the AQO, except for ozone (O₃). Ozone is not directly emitted from an emission source. It is formed by the chemical reactions of NO_x and VOCs under the presence of sunlight and a regional pollution problem. Ozone is therefore not considered as a key parameter in this assessment.

Table 5-4 Background Air Quality Concentration of Pollutants

Pollutant	Averaging time	AQOs Concentration limit (µg/m ³) (exceedance)	Background (39,55)
SO ₂	4th peak 10-min	500 (0)	32.93
	4th peak 24-hr	50 (0)	7.35
PM ₁₀	10th peak 24-hr	100 (0)	54.16
	Annual Average	50	20.33
PM _{2.5}	36th peak 24-hr	50 (0)	26.59
	Annual Average	25	12.56
NO ₂	19th peak 1-hr	200 (0)	43.78
	Annual Average	40	8.65
O ₃	10th peak 8-hr	160 (22)	<u>174.64</u>
CO	1st peak 1-hr	30,000 (0)	528.77
	1st peak 8-hr	10,000 (0)	488.56

Notes:

[1] Prediction result(s) exceeding the AQO is/are underlined.

5.4. Assessment Area and Representative Air Sensitive Receivers (ASRs)

- 5.4.1. In general, the assessment area for an air quality impact assessment (AQIA) is defined by a distance of 500m from the site boundary which is presented in **Figure 3.1**.

5.4.2. Representative planned and existing air quality sensitive receivers (ASRs) were identified and the separation distance between ASRs and Application Site are shown in **Figure 5.1** and summarized in **Table 5-5** below.

Table 5-5 Representative Air Sensitive Receivers

ASR ID	Description	Approx. Horizontal Distance to Project Site (m)	Maximum Building Height (mPD)	Land Use
ASR01	8 Ng Chau Road	32	21	Residential
ASR02	Hong Kong Baptist Assembly	111	19	Educational
ASR03	29 Ping Che New Village	76	24	Residential
ASR04	Lots 750 DD77, Ping Che Road	66	11	Residential
ASR05	50C Ping Che	219	23	Residential
ASR06	Ta Kwu Ling Rural Centre Government Offices	150	21.5	Government, Institution, Community
ASR07	Ping Che Nursing Home Limited	159	26.1	Residential care home for the elderly

5.4.3. The existing ASRs were identified with reference to the latest best available information at the time of preparation of this report, including those earmarked on relevant OZP (approved Ping Che and Ta Kwu Ling OZP No. S/NE-TKL/14), Development Permission Area Plans, Outline Development Plans, Layout Plans and other relevant published land used plans, including plans and drawings published by the Lands Department and any land use and development applications approved by the Town Planning Board. Various site surveys were conducted to verify the sensitive receivers and confirm with the desktop studies.

5.4.4. For concurrent project and planned ASRs, as mentioned in Section 4, the proposed project is located within the proposed tentative boundary of NTN development, which is a designated project and EIA is required. The Project Profile for the NTN development (PP-622/2021) has been made referenced to, yet no detailed programme and development are available. The Project Proponent of the NTN (i.e. CEDD) has been approached for programme and development plan for the NTN development during the course of study. However, the requested information is not available for our study. As such, concurrent projects are not assessed in this study.

5.5. Potential Air Quality Impact - Construction Phase

5.5.1. Major source of potential air quality impact during construction phase would be fugitive dust generated from wind erosion of the stockpiles and open sites, as well as from the following construction activities:

- Excavation and Lateral Support (ELS) Works; Foundation works;
- Superstructure and Fitting-out works; and
- Gaseous emissions from diesel-powered construction equipment.

5.5.2. Since excavation and foundation will involve earthworks, material handling and transportation of excavated material, it is anticipated that there may be dust impact as a result of these activities if mitigation measures are not implemented. Suspended particles will be the main air quality parameter concerned for construction works which involve handling of excavated/ fill materials, TSP, RSP and FSP have been identified as the parameters for air quality impact assessment for dust emission impact.

5.5.3. As evaluated in Section 9.3.7, it is anticipated that a total of 126,563m³ of excavated materials will be generated. The foundation and ELS works will last for 18 months, assuming a capacity of 7m³ per truck, bulk factor of 1.4, 25 working days a month and the works will not be conducted simultaneously, it is estimated that a maximum of 56 truck trips per day would be required for the delivery of excavated material, which is equivalent to 7 trucks per hour. In view of the estimated number of dump trucks arising from the transportation of inert C&D materials is low, the impacts from transportation off-site are expected to be limited.

5.5.4. During the construction, the Contractor(s) will be required to transport the excavated materials out from the site to avoid cumulation of materials on site. Excavated materials will be reused as fill materials within the Project Site so as to minimize dust emission due to transportation of materials. In case temporary stockpiling of small amount of materials is required, the stockpiling location will be covered by tarpaulin sheets and backfilled as soon as possible.

5.5.5. As the size of the work site is limited, such that the amount of excavated materials generated would be not be significant. The potential air quality impact is however anticipated to be short-term at the representative ASRs with the implementation of sufficient dust suppression measures as stipulated under the *Air Pollution Control (Construction Dust) Regulation* and guidelines stipulated in EPD's *Recommended Pollution Control Clauses for Construction Contracts*.

5.5.6. Toxic air pollutants (TAPs) in the form of volatile organic compounds (VOC) are anticipated from the use of chemicals, such as solvents, cleaning agents and fuels, for the maintenance and servicing of construction plants and vehicles during construction phase. Considering that the quantities of chemicals to be used would be limited, the amount of VOC generated would be small. The works areas would be aboveground and in outdoor setting, such that the VOC would be able to disperse and would not accumulate at the works areas. With proper

handling of the chemicals, environmental and health impacts associated with TAPs are anticipated to be insignificant.

5.5.7. Fuel combustion from the use of powered mechanical equipment (PMEs) during construction works could be a potential source of air pollutants such as NO₂, SO₂ and CO. To reduce SO₂ emission, Air Pollution Control (Fuel Restriction) Regulation was enacted in 1990 to impose legal control on the types of fuel allowed for use and their sulphur contents in commercial and industrial processes. To improve air quality and protect public health, EPD has introduced the Air Pollution control (Non-road Mobile Machinery) (Emission) Regulation since 1 December 2015, under which only approved or exempted NRMMS are allowed to be used in construction sites. In addition, all construction plants are required to use ULSD (defined as diesel fuel containing not more than 0.005% sulphur by weight) as stipulated in Environment, Transport and Works Bureau Technical Circular (ETWB-TC(W)) No. 19/2005 on Environmental Management on Construction Sites. Furthermore, given the localized and small scale of the Project, as well as the small number of PMEs involved, adverse air quality impacts due to emissions from the use of PMEs would be unlikely.

5.5.8. With the implementation of sufficient dust suppression measures as stipulated under the Air Pollution Control (Construction Dust) Regulation and good site practices, significant adverse dust generated from the construction of the planned residential developments is not anticipated. Mitigation measures to control construction dust/ gaseous emission listed below are recommended to be incorporated into the future contractor specifications for contractor's implementation:

- Wetting by water spraying or dust suppression chemical on dusty material before loading and unloading, stockpile of dusty materials, area where breaking, excavation or earth moving activities works is carried out, and unpaved main haul road.
- Providing hoarding of not less than 2.4m high from ground level along the site boundary which is next to a road or other public area.
- Providing effective dust screens, sheeting or netting to enclose any scaffolding built around the perimeter of a building.
- Covering or sheltering any stockpile of dusty materials.
- Disposing of any dusty materials collected by fabric filters or other pollution control system in totally enclosed containers.
- Properly treating any exposed earth, such as by compacting or hydroseeding, within 6 months after the last construction activity.
- Providing vehicle washing facilities at all site exits to wash away any dusty materials from vehicles body and wheels before they leave the site.
- Covering of dust load on vehicles before they leave the site.

- Use of ultra-low sulphur content for on-site generators to minimize black smoke emission.
 - Providing water spraying system where available and applicable.
 - Restricting heights from which materials are to be dropped, as far as practicable, to minimise the fugitive dust arising from unloading / loading.
 - Where the public can be affected by exhaust fumes or smoke emission from any construction plants or activities, shielding the related activities by an incombustible screen such as corrugated sheet of at least 2m in width and 1.8m in height.
 - Using enclosed chutes for dropping construction materials to ground level and the chutes are dampened regularly, if applicable.
 - The foundation work can be carried out either by percussive piling method or non-percussive piling method. For this project, adoption of non-percussive piling method is anticipated which helps generating lower dust emissions.
 - The area where vehicle washing takes place and the section of the road between the washing facilities and the exit point should be paved with concrete, bituminous materials or hardcore.
 - Vehicles within the site are restricted to a maximum speed of 10 kph.
 - Vehicles are inspected regularly and well maintained to ensure that they are operating efficiently and that exhaust emissions are not causing nuisance.
 - Vehicle engines are turned off when they are not in use.
 - Haul road of the subject site is located as far as possible from nearby ASRs.
- 5.5.9. Due to small in development scale, the construction works to be involved the Application Site would be very limited. Also, requirements set out in the Air Pollution Control (Non-road Mobile Machinery) (Emission) Regulation to control potential emissions from non-road mobile machinery will need to be fully complied with. Therefore, gaseous emission from diesel-fuelled construction equipment would be minor and would not cause any significant adverse air quality impact.

5.6. Potential Air Quality Impact – Operation Phase

- 5.6.1. An environmental survey was conducted and records of specified license were reviewed in August 2023. There is a register of zinc galvanizing works under “Wader Engineering Company Limited” in the 1990s, it is situated in D.D. 77, Lot 1501 approximately 240m to the southeast of Application Site.

Vehicular Emissions from Open Road Traffic

- 5.6.2. The major air pollution source in the vicinity of the Subject Site during operational phase would be tailpipe emission generated from road traffic along open road.

- 5.6.3. The Subject Site is bounded by a District Distributor, Ping Che Road. The confirmation from Transport Department with relevant records will be supplemented once available. A local road is situated to the east of the Site. In accordance with to HKPSG, the buffer distance between the proposed residential blocks, clubhouse and the nearby roads should be adopted, which are summarised in **Table 5-6** and presented in **Figure 5.2**.
- 5.6.4. Centralised Air conditioning will be provided at the podiums clubhouse and Tower 1, the location of fresh air intake will be carefully design and will not encroach on the buffer zone as recommended in the HKPSG. The location of fresh air intake and openable windows for the proposed development which are identified as ASRs are shown in **Figure 5.2** to demonstrate the compliance of the buffer distance stipulated in the HKPSG.

Table 5-6 Buffer distance between the Proposed Amendment and Nearby Road

Road	Road Type	HKPSG Guideline Buffer Distance Requirement	Distance between Proposed Residential Development and nearby road
Ping Che Road	District Distributor	>10m	50m
Proposed Local Road	Local Distributor	>5m	10m

- 5.6.5. As shown in Figure 5.2, the HKPSG recommended buffer distance can be fulfilled for all air sensitive users of the Proposed Amendment including window/door opening and fresh air intake of residential blocks. Moreover, for rooms provided with air conditioning system, the fresh air intake location will be positioned with adequate buffer separation from road kerbs (i.e. shall not within the buffer zone as illustrated in Figure 5.2). It is confirmed that no air sensitive uses, including openable windows, fresh air intake of mechanical ventilation and recreational uses in the open area would be located in the buffer zone. Thus, vehicular emission impact towards Proposed Amendment is not anticipated.

Vehicular Emission from underground carpark

- 5.6.6. 1 and 3-storey basement carpark is proposed. *ProPECC PN 2/96 – Control of Air Pollution in Car Park* provides the air quality guidelines of carparks as shown in **Table 5-7**. When designing this car park layout, the E&M designer (the Developer) should refer to Table 4.8 and ProPECC PN 2/96 for guidelines on ventilation system and air monitoring system so as to ensure good air quality within the carpark. The outlet of the ventilation system should be properly located away from ASRs as far as practicable so as to avoid imposing nuisance, if any, to the nearby ASRs, taking into account the prevailing condition of the area. The potential location of the exhaust outlet is indicated in **Figure 5.2**. With these measures, it is expected that the

potential air quality impact associated with the underground carpark to the nearby environment is minimal.

Table 5-7 Air Quality Guidelines of Carpark

Air pollutants	Maximum Concentration Not to be exceeded
	5 Minutes Average ($\mu\text{g}/\text{m}^3$)
Carbon monoxide	115,000
Nitrogen dioxide	1,800

* Expressed at the reference condition of 25°C and 101.325 kPa (one atmosphere)

Industrial Chimney Emissions

5.6.7. For chimney emission, an environmental surveys ,including daytime and nighttime, were conducted and records of specified license were reviewed in June , August and September 2023. There is a register of zinc galvanizing works under “Wader Engineering Company Limited” in the 1990s, it is situated in D.D. 77, Lot 1501 approximately 240m to the southeast of Application Site. The results of the environmental survey have confirmed that no chimney is located within 200m radius of the Subject Site. Due to the project nature of the proposed development (i.e. residential, commercial, hotel, elderly day care centre), no chimney emission from the proposed development. The buffer distance requirement of 200m from pollution source of industrial area stipulated in table 3.1 of the Ch 9 of HKPSG is well satisfied. Thus, no significant adverse air quality impact on the Proposed Amendment is anticipated.

5.7. Odour Emission

5.7.1. For odour emissions, the results of environmental survey and site visits show there is no slaughterhouses, sewage treatment works facilities, village incinerators, odour sources and duty uses are not found within 500m radius of the Subject Site. Therefore, no odour emission impact on the Proposed Amendment is anticipated.

5.7.2. As no existing public sewerage system is located in the vicinity of the Project Site, an on-site sewage treatment plant (STP) is proposed within the Project as shown in **Appendix 3.1**. The potential odour nuisance to the nearby ASRs (including proposed residential units) would result. Nonetheless, the “Guidelines for the Design of Small Sewage Treatment Plants” published by EPD will be followed to minimize the odour impacts form the on-site OTP. In addition, the odour mitigation measures (e.g. enclosing the STP facilities with negative

pressure, forced ventilation system fitted with deodorization (DO) unit and directing away the exhaust air from ASRs etc.) will be adopted in order to protect the ASRs. Hence, the potential odour nuisance to the ASRs is anticipated to be minimal.

5.8. Conclusions

- 5.8.1. With the implementation of dust suppression measures of the Proposed Amendment and provision of good site practice as stipulated under the Air Pollution Control (Construction Dust) Regulation and Air Pollution Control (Non-road Mobile Machinery) (Emission) Regulation, fugitive dust impacts and gaseous emission from diesel-fueled construction equipment to the nearby air sensitive receivers due to construction works are expected to be insignificant.
- 5.8.2. For the vehicular emission, a sufficient horizontal buffer distance between Ping Che Road and Local Road to the Subject Site is being proposed in accordance with the requirements set out in the HKPSG. No significant adverse air quality impact due to vehicular emission on the Proposed Amendment is anticipated.
- 5.8.3. In view of no chimney/ specified license was identified within 200m from Site Boundary, no air quality impact with respect to industrial chimney emission on the future residents in the Proposed Amendment is anticipated.

6. Noise Impact Assessment

6.1. Introduction

- 6.1.1. A road traffic noise impact assessment and fixed noise impact assessment are prepared to evaluate the noise impacts on the noise sensitive uses in the Proposed Amendment and recommend mitigation measures where practicable to attenuate the noise impact.
- 6.1.2. The potential traffic noise impact is mainly dominated by Ping Che Road and the proposed local access road within the assessment area, road traffic noise impact assessment was conducted to evaluate potential noise impact arising from the carriageways in the vicinity of the Application Site (detailed in **Section 6.3**).
- 6.1.3. Since the Application Site is surrounded by numerous industrial uses in its vicinity, the potential fixed noise impact on the Proposed Amendment is envisaged. Therefore, a fixed noise impact assessment has been conducted (detailed in **Section 6.4**).
- 6.1.4. The latest available information on the development of NTN has been obtained on the public domain and relevant government department has been consulted for development details and programme. Yet, the exact programme and development details for its implementation is yet to be confirmed.
- 6.1.5. Since the implementation details of NTN development is yet to be confirmed, this assessment covers the scenario without NTN development in place for the completeness and aims to demonstrate that there is feasible solution to meet relevant noise standards.

6.2. Design Strategy for Noise Consideration

- 6.2.1. General guidance is provided in the Hong Kong Planning Standard and Guidelines (HKPSG) and EPD's website on Innovative Noise Mitigation Designs and Measures to reduce noise exposure. These guidelines have been duly considered in the design layout of the Proposed Amendment. The design strategies adopted in the Proposed Amendment are summarized in **Table 6-1** and presented in **Appendix 3.1**.

Table 6-1 Summary of Noise Conscious Design Strategy

Item	Design Strategy/Mitigation Measure	Considerations in the Proposed Amendment
1	Noise Tolerant Building	- A 35-storey commercial tower (Tower 1) which will be served by centralized air conditioning is being proposed to be placed between Ping Che Road and the residential towers serving as a buffer to screen the traffic noise to the residential tower.

2	Building Setback	- The residential towers maintain a 50m setback from Ping Che Road to increase the horizontal separation distance from noise sources.
3	Podium Design	- The noise tolerant building (i.e. commercial tower) sits on top of four-storey podium (27.7m tall) which provides a noise shielding effect for the residential towers. - The residential towers (Tower 2 and Tower 3) closest to Ping Che Road also sits on top of a two-storey podium of 11.8m tall including the retail area, a clubhouse and a transfer plate, such that the vertical distance from the residential floor to the road surface is increased.

6.3. Traffic Noise Impact Assessment

Introduction

- 6.3.1. This road traffic NIA is prepared to assess the potential traffic noise impact on the noise sensitive uses of the Proposed Amendment and recommend mitigation measures where practicable to attenuate the noise impact, if any.

Assessment Criteria

- 6.3.2. Noise standards are recommended in Chapter 9, "Environmental" of the HKPSG for guiding new developments against potential noise impact from sources such as road traffic, railway and aircraft. The applicable road traffic standard on the residential unit relies on openable windows for ventilation is $L_{10(1\text{-hour})}$ 70dB(A).

Assessment Methodology

- 6.3.3. The potential noise impact arising from nearby existing and the local access road within 300m from the site boundary on the Noise Sensitive Receivers (NSRs) of Proposed Amendment was assessed.
- 6.3.4. This approach considers the worst-case scenario of 15 years from the tentative completion date (Year 2032) of the Proposed Amendment. For worst case scenario evaluation, the assessment year has been chosen to be Year 2047, which has the maximum forecasted traffic flow within the 15-year period. AM Peak is with highest traffic flow and is adopted for assessment.
- 6.3.5. **Appendix 6.1** presents the predicted peak hour traffic flows and percentage of heavy vehicles of road carriageways within 300m assessment area from the Application Site for Year 2047, with Transport Department's endorsement on such traffic forecast data supplemented once available.

6.3.6. The procedure of “Calculation of Road Traffic Noise” adopted by U.K.’s Department of Transport was used to predict the hourly $L_{10(1\text{-hour})}$ noise levels generated from road traffic at selected representative NSRs. The predicted noise levels were compared to the noise standard set out in the HKPSG (i.e. $L_{10(1\text{-hour})}$ 70dB(A) for domestic uses). Practicable noise mitigation measures have been recommended where necessary.

6.3.7. All carriageways within the assessment area are assumed with a speed limit of 50 kph.

Noise Sensitive Receivers

6.3.8. Noise Sensitive Receivers (NSR) within the Proposed Amendment have been assessed with the road traffic noise impact. The commercial tower will be served by a centralized air conditioning system and will not rely on openable windows for ventilation, therefore it is not regarded as a representative noise sensitive receiver (NSR) for this assessment. Residential dwellings with openable windows/doors for prescribed ventilation purposes are regarded as NSRs, which are likely to be affected by traffic noise impact. All noise assessment points (NAPs) were taken at 1.2m above the floor level and 1m away from the façade of openable windows in rooms of sensitive uses.

6.3.9. **Figure 6.1** shows the location of the selected NAPs for traffic noise impact assessment.

Assessment Result under Base Case Scenario

6.3.10. The road traffic noise prediction results under base case scenario indicate that the residential units are likely to be exposed to traffic noise levels exceeding the HKPSG traffic noise criterion of 70 dB(A). Summary of traffic noise prediction results is shown in **Table 6-2**. The results of the assessment have indicated that 96% of the residential flats of the proposed Amendment will be subjected to noise levels within the criterion. The remaining flats will be subjected to noise levels higher than 70 dB(A), a maximum of 76 dB(A). The residential units facing the planned local access road are anticipated to be the worst-affected locations. The predicted noise levels at the NAPs are presented in **Appendix 6.2**.

Table 6-2 Traffic Noise Prediction Results, Base Case Scenario

	Tower 2	Tower 3	Tower 4	Tower 5	Tower 6	Overall
Maximum Predicted Traffic Noise Level, $L_{10(1\text{-hour})}$ in dB(A)	70	67	75	67	76	76
Total No. of Flats	405	765	405	495	450	2520
Total No. of Flats exposed to noise level >70 dB(A) L10 hr	0	0	46	0	61	107
Percentage of Compliance	100%	100%	89%	100%	86%	96%

Mitigation Measures

6.3.11. According to the assessment result of the base case scenario, the following noise mitigation measures have been considered and incorporated in the Proposed Amendment and shown in **Figure 6.2**.

Acoustic Window / Acoustic Door (Baffle type) (BAW)

6.3.12. Acoustic Window/ Acoustic Door (Baffle type) is considered a mitigation measure for the Proposed Amendment for the openings with traffic noise exceedance. BAW refers to the type of window which has an inner sliding glass panel behind an outer window, both readily openable, for creating an air gap for the natural ventilation with a noise mitigation effect. It comprises two glazing – (i) the outer window system with a side-hung openable window or a sliding door and (ii) the inner sliding panel. This design prevents excessive traffic noise from entering the indoor environment while enabling natural ventilation through the gap between the outer façade and the inner sliding panel.

6.3.13. The BAW design parameters in this project may not fulfil the parameters described in EPD's "Practice Note on Application of Innovative Noise Mitigation Designs in Planning Private Residential Developments against Road Traffic Noise Impact", the design concept of BAW in the Proposed Amendment makes reference to the "Redevelopment Project of ex-North Point Estate (NPE)". The indicative design is shown in **Appendix 6.4**.

6.3.14. The relative noise reduction of BAW is dependent on the configuration of the acoustic window, and the sound absorption available in the subjected room.

6.3.15. The relative noise reduction of the reference case in NPE reaches 6.9 dB(A) (for a bedroom of 6.8m² with an outer opening of 0.7m², air gap of 100mm, overlapping length of 253mm and MPA applied) and 8.8 dB(A) (for a living room of 38.3 m² with an outer opening of about 3.2m², air gap of 100mm, overlapping length of 275mm and without MPA applied).

6.3.16. For the Proposed Amendment, the following design criteria of the BAW in **Table 6-3** have been incorporated.

- The air gap of 100mm and overlapping lengths of not less than 253mm and 275mm will be provided in the bedrooms and living rooms respectively.
- The areas of outer openings would not be larger than 0.7m² and 3.2m² will be provided in the bedrooms and living rooms respectively.

Table 6-3 Baffle type acoustic window / acoustic door design criteria

Design Parameter	Configuration 1	Configuration 2
Type of Room	Bedroom	Living Room
Air gap	100mm	100mm
Overlapping length	253mm	275mm
Area of outer openings	0.7m ²	3.2m ²

6.3.17. Given the room areas of bedrooms and living rooms in the Proposed Amendment with traffic noise exceedance are comparable to the reference cases in NPE, the noise attenuation benefited from BAW in both NPE cases and the Proposed Amendment is evaluated. It is considered that the amount of sound energy entering the indoor environment should be proportional to the area of the window opening and the room area. Thus, the adjustments have accounted for the room size difference between the NPE case and the Proposed Amendment as shown in **Appendix 6.5**. By adjusting the room size correction, the noise reductions of the BAWs could be up to 6.4 dB(A) and 8.7 dB(A) in living rooms and bedrooms respectively. As a conservative approach, it is anticipated that a noise reduction of 6.0 dB as stated in EPD's "Practice Note on Application of Innovative Noise Mitigation Designs in Planning Private Residential Developments against Road Traffic Noise Impact", is achievable and adopted in the assessment.

6.3.18. Future occupants shall be informed through Deed of Mutual Covenant (DMC) and sales brochures the provision of acoustic window/acoustic door (Baffle type), such that they can choose closing the windows / doors for abatement of noise disturbances.

Table 6-4 BAW (Configuration 1) and the Proposed Amendment

Parameters	NPE (Bedroom Room)	Proposed Amendment
Size of Room (m ²)	6.8	4.8 to 10.2
Maximum relative noise reduction required (dB)	-	5.4
Noise reduction adopted (dB)	6.9	5.4 to Maximum 6.0

Table 6-5 BAW (Configuration 2) and the Proposed Amendment

Parameters	NPE (Living Room)	Proposed Amendment
Size of Room (m ²)	38.3	14.0 to 22.3
Maximum relative noise reduction required (dB)	-	4.5
Noise reduction adopted (dB)	8.8	4.4 to maximum 6.0

Fixed Window / Fixed Glazing / Maintenance Window (FW)

6.3.19. Some of the NAPs were predicted to be exposed to traffic noise impact. Since the prescriptive ventilation requirement of the Buildings Department can be fulfilled by other openings in the same room as confirmed by the project architect, these locations are specified to be fixed window / fixed glazing / maintenance window such that they are not being relied on for opened ventilation. The removable handle and key of the maintenance window will be kept in the management office and cannot be opened by residents under any circumstances.

Locations and intended use (i.e. opened for maintenance only but not for ventilation) of the maintenance window will be written in the Deed of Mutual Covenant (DMC) and sales brochure to avoid misuse of maintenance window by future occupants.

6.3.20. To ensure the noise reduction performance of the acoustic window, only one window opening with an acoustic window design will be allowed in each habitable room. This design arrangement is strictly followed.

Assessment Result under Mitigated Scenario

6.3.21. With the abovementioned noise mitigation measures adopted in the Proposed Amendment, it is anticipated that the road traffic noise criterion can be fully complied with HKPSG criterion of 70 dB(A) for residential use. The predicted noise levels under mitigated scenario and the schedule of mitigation measures **Appendix 6.3**.

Summary of Road Traffic Noise Impact Assessment

6.3.22. Potential road traffic noise impact on the Proposed Amendment has been assessed. According to the road traffic noise impact assessment result, the Proposed Amendment would not be subject to significant adverse road traffic noise impact under the mitigated scenario. Full compliance will be achieved with respect to the traffic noise criterion recommended in the HKPSG.

6.4. Fixed Plant Noise Impact Assessment

Introduction

- 6.4.1. This assessment aims to assess the potential noise impact arising from the nearby fixed noise sources of the commercial or industrial buildings and activities in an assessment area of 300m radius around the Proposed Amendment. Practicable noise mitigation measures would be proposed to minimize the fixed noise impact to the Proposed Amendment where necessary.

Assessment Criteria

- 6.4.2. The Noise Control Ordinance (NCO) and the Technical Memorandum for the Assessment of Noise from Places Other than Domestic Premises, Public Places or Construction Sites (TM-IND) control noise from fixed plant noise sources.
- 6.4.3. According to the latest Ping Che and Tak Kwu Ling Outline Zoning Plan No. S/NE-TKL/14, the lands to the south and west of the Application Site are zoned as "Agriculture" ("AGR") and "Green Belt" ("GB"). The land use of the adjacent area located to the east and north of the Application Site is zoned as "Open Storage" ("OS"), "Government, Institution or Community" ("G/IC") and "Industrial (Group D)" ("I(D)"). There are existing residential and village zonings to the north of the Application Site.
- 6.4.4. In determination of the Acceptable Noise Level (ANL) of concerned NSRs, the Area Sensitive Rating (ASR) should be identified under the IND-TM. Ping Che Road has an annual average daily traffic flow below 30,000 and is not considered as an influencing factor (IF) by definition. Since there is an industrial zone inside a 100m radius around the Application Site, the area sensitive rating of "C" is adopted in this project.

Table 6-6 Area Sensitive Ratings of NSRs



Noise Sensitive Receivers (NSR)	Area Sensitive Rating (ASR)	Acceptable Noise Level (ANL)	
		Day/Evening (0700-2300)	Night (2300-0700)
NSRs	C	70	60




- 6.4.5. In any event, the ASR and ANL adopted in this report are indicative only and used for assessment only. It should be noted that the noise from fixed noise sources is controlled under section 13 of the Noise Control Ordinance and the Noise Control Authority shall determine the noise impact from the concerned fixed noise sources on the basis of prevailing legislation and practices being in force, and taking account of contemporary conditions/situations of adjoining land uses. Nothing in this report shall bind the Noise Control Authority in the context of law enforcement against any of the fixed noise sources being assessed.





Identified Fixed Noise Sources and Evaluations




6.4.6. According to the desktop study and further site survey conducted in June and August 2023, various potential industrial noise sources were identified in the vicinity and summarized in **Table 6-7**. Locations of all the potential fixed noise sources are shown in **Figure 6.3**. The estimated quantity of identified noise sources to be operated during daytime and night-time and the noise impacts on the representative NSRs are shown in **Appendix 6.7**.




Table 6-7 Identified Fixed Plant Noise Sources




Potential Fixed Plant Noise Source	Activities identified	Photo
S01 Tin Wing Vehicle Services	<p>A logistic centre is found at the northwest of the Application Site. Since the facility is closed at night, there is no night-time operation.</p> <p>Based on the on-site observation, there were approximately 2-3 trucks entering and leaving the facility every half an hour. There are no other activities observed in the facility, it is believed that the facility is for parking purposes only. As a conservative approach, the noise level of 3 nos. of heavy vehicle has been included in the quantitative assessment as the worst-case scenario.</p> <p>There is no direct line of site from the NSR to the logistic centre. No tonality nor impulsive activities were observed from the facility.</p>	
S02 Ho Cheung Scrap metal recycling	<p>A recycling facility is found at the northwest of the Application Site. During site visits, movements of the lorry truck and unloading of scrap metal were observed. Since the facility is closed at night, there is no night-time operation.</p> <p>Based on on-site noise measurement, the corrected sound power level of the activity is 100.3 dB(A). This noise level is adopted in the quantitative assessment as the worst-case scenario.</p> <p>There is no direct line of site from the NSR to the metal recycling facility. No tonality nor impulsive activities were observed from the facility.</p>	

Potential Fixed Plant Noise Source	Activities identified	Photo
S03 Chewy Logistics	<p>A logistic centre is found at the north of the Application Site. During site visits, movements of the vehicle were observed. Since the facility is closed at night, there is no night-time operation.</p> <p>Based on the on-site observation, there were approximately 4 vehicles entering and leaving the facility every half an hour. As a conservative approach, it is assumed that 3nos. of lorry truck movements in the quantitative assessment as the worst-case scenario.</p> <p>There is no direct line of site from the NSR to the logistic centre. No tonality nor impulsive activities were observed from the facility.</p>	
S04 Storage	<p>An open storage for construction equipment is located to the north of the Application Site. During several site visits, movement of the lorry was observed. One mobile crane was identified yet no operation of the crane was observed in the site visits. Since the facility is closed at night, there is no night-time operation.</p> <p>Based on the on-site observation, no noise of material handling inside this storage was heard at the boundary of the Application Site. As a conservative approach, it is assumed that 1nos. of truck movement and one PME operation in the quantitative assessment as the worst-case scenario.</p> <p>There is no direct line of sight from the NSR to the open storage. No tonality nor impulsive activities were observed from the facility.</p>	
S05 Laundry Workshop	<p>A laundry workshop is identified to the northeast of the Application Site. The major noise from the workshop was the one exhaust fan on the building envelope according to the site visit. Since the facility is closed at night, there is no operation during night-time.</p> <p>Based on on-site noise measurement, the corrected sound power level of the activity is 98.7 dB(A). This noise level is adopted in the quantitative assessment as the worst-case scenario.</p> <p>There is no direct line of site from the NSR to the laundry workshop. No tonality nor impulsive activities were observed from the facility.</p>	

Potential Fixed Plant Noise Source	Activities identified	Photo
S06 Shui On Construction site / Storage	<p>A construction site is located to the northeast of the Application Site. During site visits, no activities were observed inside the area. Since the facility is closed at night, there is no night-time operation. It is believed that the area is used for offices or storage.</p> <p>Due to the lack of mechanical equipment identified within the storage area, noisy activities are not expected. There is no direct line of site from the NSR to this construction site. The noise impact is considered infrequent and insignificant.</p>	
S07 Storage	<p>A storage area is located to the west of the Application Site. During site visits, the facility was closed during day-time and night-time, and no activities were observed inside the area.</p> <p>Due to the infrequent use of the storage area, noisy activities are not expected. The noise impact is considered infrequent and insignificant.</p>	
S08 Hong Kong Bamboo Trading Company Limited	<p>A trading company is found at the east of the Application Site. During site visits, no movements of the vehicle were observed. Since the facility is closed at night, there is no night-time operation.</p> <p>Based on the on-site observation, the activity was sheltered and cannot be observed. There is no direct line of site from the NSR to the activities inside the shelter. Given there was no noticeable noise heard at the boundary of this facility, the noise impact to the Application Site is considered insignificant.</p>	
S09 Fat Lee Company Limited	<p>A paper trading company is found at the east of the Application Site. Since the facility is closed at night, there is no night-time operation.</p> <p>Based on the on-site observation, loading and unloading of forklift were observed. As a conservative approach, the noise due to the loading and unloading of forklifts has been included in the quantitative assessment.</p> <p>No tonality nor impulsive activities were observed from the facility.</p>	

Potential Fixed Plant Noise Source	Activities identified	Photo
S10 Storage (unnamed)	<p>A storage area is located to the southeast of the Application Site. During site visits, the facility was closed during day-time and night-time, and no activities were observed inside the area.</p> <p>Due to the infrequent use of the storage area, noisy activities are not expected. The noise impact is considered infrequent and insignificant.</p>	
S11 Wo Lee Steel logistic & distribution centre	<p>A distribution centre is found at the southeast of the Application Site. Since the facility is closed at night, there is no night-time operation.</p> <p>During site visits, material handling with forklift was observed. As a conservative approach, the noise due to the loading and unloading of forklifts has been included in the quantitative assessment.</p> <p>No tonality nor impulsive activities were observed from the facility.</p>	
S12 Hong Kong United Recycling Company Limited	<p>A company is located to the south of the Application Site. During site visits, the facility was closed during day-time and night-time, and no noisy activities were observed inside the area.</p> <p>According to the S12A Planning Application for Proposed Amendments to the Ping Che and Ta Kwu Ling Outline Zoning Plan from "ARG" and "GB" Zones to "R(A)", "R(A)1" and "G/IC" Zones at Various Lots in D.D. 77 and 84 and Adjoining Government Land in Ping Che, Fanling (Case No: Y/NE-TKL/4) in 2022, the measured noise level from the recycling company was 83.8 dB(A) and adopted in the quantitative assessment as a conservative approach.</p>	

Potential Fixed Plant Noise Source	Activities identified	Photo
<p>S13 Bosa Technology (Manufacturing & warehouse)</p>	<p>A manufacturing company is identified to the south of the Application Site. The facility was closed during night-time, and it is believed that there would not be any night-time operation. During the site visits, processing and welding activities were observed.</p> <p>Based on on-site noise measurement, the corrected sound power level of the activity is 88 dB(A). The noise of welding lasts for approximately 5-10 seconds every minute. There is no time correction adopted in the quantitative assessment as the conservative approach. No tonality nor impulsive activities were observed from the facility.</p> <p>Although the facility is enclosed in a shelter, the opening is facing towards the Application Site. No barrier correction was adopted.</p>	
<p>S14 Shun Cheong Warehouse</p>	<p>A warehouse is found at the south of the Application Site. Since the facility is closed at night, there is no night-time operation.</p> <p>During site visits, loading and unloading of goods using forklift was observed. The loading and unloading were carried out inside the warehouse, there is no direct line of sight from the NSRs to those activities. The noise due to the loading and unloading of forklifts has been included in the quantitative assessment.</p> <p>No tonality nor impulsive activities were observed from the facility.</p>	
<p>S15 Chewy warehouse</p>	<p>A warehouse is located to the south of the Application Site. During site visits, the facility was closed during day-time and night-time. However, noise due to the refrigeration system has been observed. The refrigeration system is placed under covering and surrounded by hoarding, there is no direct line of site from the NSR to the noise source.</p> <p>Based on on-site noise measurement, the corrected sound power level of the activity is 73 dB(A). This noise level is adopted in the quantitative assessment as the worst-case scenario.</p> <p>No tonality nor impulsive activities were observed from the facility.</p>	

Potential Fixed Plant Noise Source	Activities identified	Photo
S16 Warehouse (unnamed)	<p>A warehouse is found at the south of the Application Site. Since the facility is closed at night, there is no night-time operation.</p> <p>Based on the on-site observation, there was a vehicle parked inside the facility. The loading and unloading of goods were operated manually and the noise from these activities was not heard at the Application Site.</p> <p>The noise impact is considered infrequent and insignificant.</p>	
S17 Vehicle Repair shop	<p>A car repair shop is found at the south of the Application Site.</p> <p>During the site visits, noise of a hand-held pneumatic tool operating by one worker was observed inside the shelter. The noise due to the hand-held pneumatic tool was non-continuous and short in duration (i.e. less than 5 minutes), a time correction has been included in the quantitative assessment.</p> <p>Since this workshop is enclosed in a shelter and the south-facing opening of this facility is not facing the Application Site, a barrier correction has been adopted in the assessment.</p> <p>No tonality nor impulsive activities were observed from the facility.</p>	
S18 Castco Warehouse	<p>A warehouse is located to the west of the Application Site. During site visits, there was no vehicle entering and leaving the warehouse, and no noisy activities were observed inside the area.</p> <p>According to the S12A Planning Application for Proposed Amendments to the Ping Che and Ta Kwu Ling Outline Zoning Plan from "ARG" and "GB" Zones to "R(A)", "R(A)1" and "G/IC" Zones at Various Lots in D.D. 77 and 84 and Adjoining Government Land in Ping Che, Fanling (Case No: Y/NE-TKL/4) in 2022, the measured noise level from the warehouse was 94.1 dB(A) and adopted in the quantitative assessment as a conservative approach.</p>	

Potential Fixed Plant Noise Source	Activities identified	Photo
S19 Wei Cheng Bus Engineering Company	<p>A bus engineering company is found at the south of the Application Site.</p> <p>During the site visits, noise of hand-held pneumatic tools was observed inside the shelter. As observed and confirmed by the operators, there will be mostly two buses repairing at a time. The noise due to the hand-held pneumatic tool was non-continuous and short in duration (less than 5 minutes), a time correction has been included in the quantitative assessment.</p> <p>No tonality nor impulsive activities were observed from the facility.</p>	
S20 Swire Motors repair and maintenance workshop	<p>A car repair and maintenance workshop is located to the west of the Application Site.</p> <p>Since this workshop is enclosed in a shelter, all repairing and maintenance works are carried out inside the workshop as confirmed by one of the workers. Although there are several car parking bays under the shelter, no noise of repairing activities was observed during the site survey.</p> <p>During the site visits, there were approximately 1-2 heavy vehicles entered and left the facility every half an hour. The noise due to vehicle movement has been included in the quantitative assessment.</p> <p>The west-facing opening of this facility is not facing the Application Site, a barrier correction has been adopted in the assessment.</p> <p>No tonality nor impulsive activities were observed from the facility.</p>	
S21 Bang Jie Company (Warehouse / Logistics)	<p>A warehouse is found at the west of the Application Site. According to the site visits, the warehouse operates both day and night-time.</p> <p>The loading and unloading of one forklift was observed during the site visits. The duration of forklift operation was short (i.e. 5 minutes) and a time correction has been included in the quantitative assessment.</p> <p>No tonality nor impulsive activities were observed from the facility.</p>	

6.4.7. The quantitative assessment results in **Appendix 6.7** revealed that the predicted industrial noise levels during daytime and nighttime can meet the ANL requirements set out in the TM-IND.

Fixed Noise Impact due to the Proposed Amendment

- 6.4.8. Potential fixed plant noise associated with the Proposed Amendment will include noise from the operation of mechanical ventilation and air-conditioning (MVAC), building services equipment and mechanical ventilation provisions for the plant rooms, etc.
- 6.4.9. In general, building services equipment, such as pump units, transformers, emergency generator, lift machines, will be placed at enclosed plant rooms with concrete building envelope. Typical acoustic treatments such as acoustic louvres and silencers will be provided at the air intake and exhaust louvres of the plant rooms as required. Noise emission will also be controlled by the appropriate selection of equipment and noise control treatments such as acoustic silencers and noise enclosures, whenever necessary.
- 6.4.10. Fixed plant noise control measures, such as the abovementioned enclosed plant room, equipment selection and acoustic treatments, will be adopted for potential noise sources of Proposed Amendment as necessary for compliance with the fixed noise standards recommended in Table 4.1, Chapter 9 of the HKPSG, i.e. 5dB below ANL or the prevailing background noise level, whichever is the lower. For the development of proposed nature and scale, it is considered that effective measures, such as equipment selection, enclosures, acoustic silencers etc., are available for mitigate noise from outdoor air-conditioning and ventilation systems, to the criteria stipulated under the HKPSG.
- 6.4.11. The noise criteria stipulated in the HKPSG have specified the following requirements: 5dB below the appropriate ANL set out in IND-TM; or the prevailing background noise levels, whichever is the lower. In order to determine the appropriate criteria for the industrial noise assessment, a background noise survey has been conducted to obtain the prevailing background noise level. The proposed noise criteria are summarized in **Table 6-8**. **Detailed information on prevailing background noise measurement and determination of noise criteria can be referred to Appendix 6-7.**
- 6.4.12. The identified nearest NSR to this project is 74.5m from the Application Site. The maximum allowable sound power level from the Application Site would be **98.3dB(A)**.

Table 6-8 Proposed Noise Criteria for Fixed Plant

Noise Sensitive Receivers	Area Sensitive Rating (ASR)	Measured Background Noise Level, dB(A) [1]		ANL-5, dB(A)		Assessment Criteria, dB(A)	
		Day/Evening	Night	Day/Evening	Night	Day/Evening	Night
NSRs	C	52.6	52.9	65	55	52.6	52.9

Note:

[1] Free-field measurement was conducted on 14 September 2023. A correction of +3dB has been applied.

Summary of Fixed Noise Impact Assessment

6.4.13. The potential fixed plant noise impact has been evaluated. Based on site surveys and site observations, the noise environment is dominated by traffic noise from Ping Che Road and the local access road inside the Application Site. Noise from potential fixed noise sources nearby **is** either not noticeable at source and within the prescribed criteria. As such, it is expected that the Proposed Amendment will not subject to adverse noise impact from fixed noise sources.

6.4.14. To ensure that the noise level at potentially affected NSRs will comply with the statutory requirement under Noise Control Ordinance stipulated in IND-TM, the planned fixed plant within the Proposed Amendment shall be controlled and designed to meet the HKPSG requirement, i.e. 5 dB below ANL or the prevailing background noise level, whichever is the lower.

6.5. Conclusion

6.5.1. The potential environmental noise impacts from nearby road traffic and fixed noise sources on the Proposed Amendment have been evaluated.

6.5.2. For traffic noise impact assessment, all NSRs in the Proposed Amendment will comply with the relevant traffic noise standard stipulated in HKPSG. The Proposed Amendment would not be subject to significant adverse traffic noise impact

6.5.3. Fixed noise impact assessment has been carried out for the Proposed Amendment. The results of the assessment have indicated that the predicted fixed noise levels of all NSRs would comply with the fixed noise standard under the Noise Control Ordinance.

7. Water Quality

7.1. Introduction

7.1.1. This section presents an assessment of the potential water quality impacts associated with the construction and operation of the Project. Recommendations for mitigation measures have been provided, where necessary, to minimize the identified water quality impacts to an acceptable level.

7.2. Environmental Legislation, Standards and Guidelines

7.2.1. The water quality impact assessment is carried out with reference to the following:

- Water Pollution Control Ordinance (Cap. 358);
- Hong Kong Planning Standards and Guideline;
- Water Supplies Department (WSD) Water Quality Criteria; and
- Professional Persons Environmental Consultative Committee Practice Note 2/23 “Construction Site Drainage” (ProPECC PN2/23)
- Professional Persons Environmental Consultative Committee Practice Note 1/23 “Drainage Plans subject to Comment by the Environmental Protection Department” (ProPECC PN1/23)

Water Pollution Control Ordinance (cap.358) (“WPCO”)

7.2.2. Water quality in Hong Kong is legislated by the provisions of Water Pollution Control Ordinance (Cap 358), 1980 (“WCPO”). Territorial Water has been subdivided into ten Water Control Zones (“WCZ”) and four supplementary water control zones. The study area lies within the Deep Bay WCZ and the respective WQOs are summarized in Table.

Table 7-1 Summary of Water Quality Objectives for the Deep Bay WCZ

Parameters	Objectives	Sub-Zone
Aesthetic appearance	(a) Waste discharges shall cause no objectionable odours or discolouration of the water. (b) Tarry residues, floating wood, articles made of glass, plastic, rubber or of any other substances should be absent. (c) Mineral oil should not be visible on the surface. Surfactants should not give rise to a lasting foam. (d) There should be no recognisable sewage-derived debris. (e) Floating, submerged and semi-submerged objects of a size likely to interfere with the free movement of vessels, or cause damage to vessels,	Whole Zone

	should be absent. (f) Waste discharges shall not cause the water to contain substances which settle to form objectionable deposits.	
Bacteria	(a) The level of Escherichia coli should not exceed 610 per 100 mL, calculated as the geometric mean of all samples collected in one calendar year.	Secondary Contact Recreation Subzone and Mariculture Subzone (L.N. 455 of 1991)
	(b) The level of Escherichia coli should be zero per 100 ml, calculated as the running median of the most recent 5 consecutive samples taken at intervals of between 7 and 21 days.	Yuen Long & Kam Tin (Upper) Subzone, Beas Subzone, Indus Subzone, Ganges Subzone and Water Gathering Ground Subzones
	(c) The level of Escherichia coli should not exceed 1000 per 100 ml, calculated as the running median of the most recent 5 consecutive samples taken at intervals of between 7 and 21 days.	Yuen Long & Kam Tin (Lower) Subzone and other inland waters
	(d) The level of Escherichia coli should not exceed 180 per 100 mL, calculated as the geometric mean of all samples collected from March to October inclusive in one calendar year. Samples should be taken at least 3 times in a calendar month at intervals of between 3 and 14 days.	Yung Long Bathing Beach Subzone (L.N. 455 of 1991)
Colour	(a) Waste discharges shall not cause the colour of water to exceed 30 Hazen units.	Yuen Long & Kam Tin (Upper) Subzone, Beas Subzone, Indus Subzone, Ganges Subzone and Water Gathering Ground Subzones
	(b) Waste discharges shall not cause the colour of water to exceed 50 Hazen units.	Yuen Long & Kam Tin (Lower) Subzone and other inland waters
Dissolved Oxygen	(a) Waste discharges shall not cause the level of dissolved oxygen to fall below 4 milligrams per litre for 90% of the sampling occasions during the year; values should be taken at 1 metre below surface.	Inner Marine Subzone excepting Mariculture Subzone
	(b) Waste discharges shall not cause the level of dissolved oxygen to fall below 4 milligrams per litre for 90% of the sampling occasions during the year; values should be calculated as water column average (arithmetic mean of at least 2 measurements at 1 metre below surface and 1 metre above seabed). In addition, the concentration of dissolved oxygen should not be less than 2 milligrams per litre within 2 metres of the seabed for 90% of the sampling occasions during the year.	Outer Marine Subzone excepting Mariculture Subzone
	(c) The dissolved oxygen level should not be less than 5 milligrams per litre for 90% of the sampling occasions during the year; values should be taken at 1 metre below surface.	Mariculture Subzone

	(d) Waste discharges shall not cause the level of dissolved oxygen to be less than 4 milligrams per litre.	Yuen Long & Kam Tin (Upper and Lower) Subzones, Beas Subzone, Indus Subzone, Ganges Subzone, Water Gathering Ground Subzones and other inland waters of the Zone
pH	(a) The pH of the water should be within the range of 6.5-8.5 units. In addition, waste discharges shall not cause the natural pH range to be extended by more than 0.2 units.	Marine waters excepting Yung Long Bathing Beach Subzone
	(b) Waste discharges shall not cause the pH of the water to exceed the range of 6.5-8.5 units.	Yuen Long & Kam Tin (Upper and Lower) Subzones, Beas Subzone, Indus Subzone, Ganges Subzone and Water Gathering Ground Subzones
	(c) The pH of the water should be within the range of 6.0-9.0 units.	Other inland waters
	(d) The pH of the water should be within the range of 6.0-9.0 units for 95% of samples. In addition, waste discharges shall not cause the natural pH range to be extended by more than 0.5 units.	Yung Long Bathing Beach Subzone
Temperature	Waste discharges shall not cause the natural daily temperature range to change by more than 2.0 degrees Celsius.	Whole Zone
Salinity	Waste discharges shall not cause the natural ambient salinity level to change by more than 10% Whole Zone	Whole Zone
Suspended solids	(a) Waste discharges shall neither cause the natural ambient level to be raised by 30% nor give rise to accumulation of suspended solids which may adversely affect aquatic communities.	Marine waters
	(b) Waste discharges shall not cause the annual median of suspended solids to exceed 20 milligrams per litre.	Yuen Long & Kam Tin (Upper and Lower) Subzones, Beas Subzone, Ganges Subzone, Indus Subzone, Water Gathering Ground Subzones and other inland waters
Ammonia	The un-ionized ammoniacal nitrogen level should not be more than 0.021 milligram per litre, calculated as the annual average (arithmetic mean).	Whole Zone
Nutrients	(a) Nutrients shall not be present in quantities sufficient to cause excessive or nuisance growth of algae or other aquatic plants.	Inner and Outer Marine Subzones
	(b) Without limiting the generality of objective (a) above, the level of inorganic nitrogen should not exceed 0.7 milligram per litre, expressed as annual mean.	Inner Marine Subzone
	(c) Without limiting the generality of objective (a) above, the level of inorganic nitrogen should not	Outer Marine Subzone

	exceed 0.5 milligram per litre, expressed as annual water column average (arithmetic mean of at least 2 measurements at 1 metre below surface and 1 metre above seabed).	
5-Day Biochemical Oxygen Demand	(a) Waste discharges shall not cause the 5-day biochemical oxygen demand to exceed 3 milligrams per litre.	Yuen Long & Kam Tin (Upper) Subzone, Beas Subzone, Indus Subzone, Ganges Subzone and Water Gathering Ground Subzones
	(b) Waste discharges shall not cause the 5-day biochemical oxygen demand to exceed 5 milligrams per litre.	Yuen Long & Kam Tin (Lower) Subzone and other inland waters
Chemical Oxygen Demand	(a) Waste discharges shall not cause the chemical oxygen demand to exceed 15 milligrams per litre.	Yuen Long & Kam Tin (Upper) Subzone, Beas Subzone, Indus Subzone, Ganges Subzone and Water Gathering Ground Subzones
	(b) Waste discharges shall not cause the chemical oxygen demand to exceed 30 milligrams per litre.	Yuen Long & Kam Tin (Lower) Subzone and other inland waters
Toxins	(a) Waste discharges shall not cause the toxins in water to attain such levels as to produce significant toxic carcinogenic, mutagenic or teratogenic effects in humans, fish or any other aquatic organisms, with due regard to biologically cumulative effects in food chains and to toxicant interactions with each other.	Whole Zone
	(b) Waste discharges shall not cause a risk to any beneficial uses of the aquatic environment.	Whole Zone
Phenol	Phenols shall not be present in such quantities as to produce a specific odour, or in concentration greater than 0.05 milligrams per litre as C ₆ H ₅ OH.	Yung Long Bathing Beach Subzone
Turbidity	Waste discharges shall not reduce light transmission substantially from the normal level.	Yung Long Bathing Beach Subzone

Technical Memorandum on Standards for Effluents Discharged into Drainage and Sewerage Systems, Inland and Coastal Waters

7.2.3. Discharge of effluents are subject to control under the WPCO. The Technical Memorandum on Standards for Effluents Discharged into Drainage and Sewerage Systems, Inland and Coastal Waters (TM-DSS) gives guidance on the permissible effluent discharges based on the type of receiving waters (foul sewers, stormwater drains, inland and coastal waters). The limits control the physical, chemical and microbial quality of effluents. Any sewage from the proposed construction and operation activities must comply with the standards for effluents discharged into the foul sewers, inland waters and coastal waters of Deep Bay WCZ, as given in the TM-DSS.

Practice Note for Professional Persons on Construction Site Drainage (ProPECC Note PN 2/23)

- 7.2.4. A practice note for professional persons was issued by the EPD to provide guidelines for handling and disposal of construction site discharges. The Practice Note for Professional Persons on Construction Site Drainage (ProPECC Note PN 2/23) provides good practice guidelines for dealing with various types of discharge from a construction site. Practices outlined in ProPECC Note PN 2/23 should be followed as far as possible during construction to minimise the water quality impact due to construction site drainage.

Protection of Natural Streams/Rivers from Adverse Impacts Arising from Construction Works (ETWB TC (Works) No. 5/2005)

- 7.2.5. ETWB TC (Works) No. 5/2005 provides an administrative framework to better protect all natural streams/rivers from the impacts of construction works. The procedures promulgated under this Circular aim to clarify and strengthen existing measures for protection of natural streams/rivers from government projects and private developments. The guidelines and precautionary mitigation measures given in the ETWB TC (Works) No. 5/2005 should be followed as far as possible to protect the inland watercourses at or near the Project area during the construction phase.

7.3. Assessment Area

- 7.3.1. The assessment area for the water quality assessment shall generally include areas within 500m from the boundary of the Project. This has been identified accordingly and is shown in **Figure 7.1**.

7.4. Water Sensitive Receivers

- 7.4.1. The Proposed Development is located in a rural area. No WSRs including water intakes, ecological valuable locations, country parks, water gathering grounds, beaches or water uses for agriculture within 500m study area of the proposed development, except 4 nos. watercourses are identified. Key WSRs within 500m from the boundary of the Project were identified at **Table 7.2** below and their respective locations are illustrated in **Figure 7.1**.

Table 7-2 Summary of Representative Water Sensitive Receivers

ID	Location	Nature	Distance(m)	Description
<i>Key Inland WSR within 500m from the boundary of the Project</i>				
WSR1	Near Ta Kwu Ling Farm	Natural watercourse	320	The natural stream is located upstream, at the north of the assessment area
WSR2	Near Ta Kwu Ling Farm	Channelised watercourse	330	The natural stream is located upstream, at the north of the assessment area
WSR3	Near Cat Hill	Pond	410	The pond is located to the south of the Project Site
WSR4	Near DD77 956RP	Stream	390	Located to the south of the Project Site

7.5. Construction Phase Assessment

Construction Site Runoff

7.5.1. The surface runoff from construction works areas may contain increased loads of suspended solids(SS) and contaminants. Potential sources of pollution from construction site drainage include:

- General Construction Activities;
- Wash water from vehicles, equipment and dust suppression sprays;
- Potential minor oil leaks or spills from vehicles and plants;
- Site surface runoff and erosion of exposed bare soil and earth, drainage channels, earth working areas and stockpiles; and
- Sewage generated from on-site workforce.
- Accidental spillage of chemicals

Mitigation Measures and Good Site Practice

7.5.2. Runoff and drainage shall be avoided or minimised with the implementation of mitigation measures and good site practices outlined in ProPECC PN 2/23 which shall include but not limited to the following.

- Providing perimeter channels to intercept storm runoff from outside the site. These shall be constructed in advance of site formation works and earthworks.
- Providing sand/silt removal facilities such as sand traps, silt traps and sediment basins to remove sand/silt particles from runoff to meet the requirements of the standard in Technical Memorandum on Standards for Effluents Discharged into Drainage and Sewerage Systems, Inland and Coastal Waters under the WPCO. These facilities shall be properly and regularly maintained. Channels or earth bunds or sand bag barriers shall be provided on site to properly direct storm water to such silt removal facilities
- Minimising soil excavation works by careful programming of works during rainy seasons
- Protecting exposed soil surface by paving as practical to reduce the potential of soil erosion
- Protecting temporary access roads by crushed gravel and exposed slope surfaces shall be protected when rainstorms are likely to occur
- Avoiding trench excavation in the wet season as far as practicable, and, if necessary, these trenches shall be excavated and backfilled in short sections. Rainwater pumped out from trenches or foundation excavations should be discharged into storm drains via silt removal facilities.
- Covering the open stockpiles of construction materials on site with tarpaulin or similar fabric during rainstorms. Measures should be taken to prevent the washing away of construction materials, soil, silt or debris into any drainage system.
- Vehicle wheel washing facilities should be provided at the site exit such that mud, debris, etc. attached to the vehicle wheels or body can be washed off before the vehicle leaves the work site". Settling out the sand and silt in the wash water from the vehicles leaving the wheel washing facility, which ensures no earth, mud and debris is deposited on the road, before discharging into the storm drain. The section of the road between the wheel washing bay and the public road shall be paved with a back-fall to prevent wash water or other site runoff from entering the public area.
- Planning ahead the temporary site drainage management and wastewater treatment system for collection, treatment, reuse and discharge of surface runoff and wastewater before the construction works start.
- Groundwater pumped out of wells, etc. for the lowering of ground water level in basement or foundation construction should be discharged into storm drains after the removal of silt in silt removal facilities.

General Construction Activities

- 7.5.3. Debris and rubbish generated on site shall be collected, handled, and disposed of properly. All fuel tanks shall be provided with locks and be sited on sealed areas, within bunds of a capacity equal to 110% of the storage capacity of the largest tank. Open storm water drains and culverts near the works area shall be covered to block the entrance of large debris and refuse.

Accidental Spillage of Chemicals

- 7.5.4. The Contractor must register as a chemical waste producer if chemical wastes would be produced from the construction activities. The Waste Disposal Ordinance (Cap. 354) and its subsidiary regulations in particular the Waste Disposal (Chemical Waste) (General) Regulation should be observed and complied with for control of chemical wastes.
- 7.5.5. Any service shop and maintenance facilities should be located on hard standings within a bunded area, and sumps and oil interceptors should be provided. Maintenance of vehicles and equipment involving activities with potential for leakage and spillage should only be undertaken within the areas appropriately equipped to control these discharges.

Sewage Generated from On-site Workforce

- 7.5.6. The sewage from construction work force is expected to be handled by portable chemical toilets. Sufficient portable toilets shall be provided by licensed contractors who shall be responsible for appropriate disposal of collected sewage and maintenance of these facilities.

Evaluation of Impact

- 7.5.7. The construction phase of the Project will be land-based which does not involve any marine works or works at the streams identified. Therefore, it is unlikely that the Project will have any adverse water quality impact from construction work, given good site practices properly implemented on site by Contractor.
- 7.5.8. The mitigation measures and good site practices will be included in the contract for contractor's implementation. With the provision and implementation of abovementioned mitigation measures, adverse water quality impact during construction phase is not anticipated.

7.6. Potential Impacts During Operation Phase

- 7.6.1. During the operation phase of the Proposed Development, surface run-off and sewage generated by the residents and staff are the main sources of water quality impacts. Surface run-off on site will be properly collected via stormwater drains and discharged to existing drainage system. The design of site drainage and disposal of various site effluents generated with the Proposed Development should follow the relevant guidelines and practices as given in the ProPECC PN1/23. Effluent arising from proposed development is subject to the control of WPCO, and the effluent discharge should be in compliance with the WPCO-TM and WPCO discharge license conditions.

Surface Runoff

7.6.2. The Project Site is a gently flat land mostly paved. It is currently a site with machine storage, building material storage and maintenance if necessary. The North and South part of the Site is vegetated. The Proposed Development involves paving of the land with concrete surface, which would increase surface runoff. According to the latest design, some areas of greening/landscaping are recommended to create buffer area around the periphery around the Project Site. The landscape will be managed and maintained in accordance with standard landscape practice and ArchSD General Specification.

Sewage Generated from Population of Proposed Development

7.6.3. The proposed project comprises of 5 blocks of residential tower ranging from 46-47 storey in height, providing 2205 residential unit, 1 block of commercial tower with 35-storey in height, clubhouse, day care centre for elderly and child care centre. During operation phase, sewage generated from the Development is the major pollutant source.

Mitigation Measures during Operation Phase

7.6.4. Since there is no public foul sewer identified along Ping Che Road and around Application Site. Therefore, on-site Sewerage Treatment Plant (STP) are proposed for the proposed development. "Guidelines for the Design of Small Sewage Treatment Plants" (The STP Guidelines) and WPCO should be followed in designing the on-site STP in the later detail design stage. The exact treatment process would be subject to later detailed design. It will be necessary for the STP to achieve adequate treatment capacity and the necessary discharge standards, as set out in EPD's Technical Memorandum – Standards for Effluents Discharged into Drainage and Sewerage Systems, Inland and Coastal Waters.

7.6.5. With reference to clause 2.1.2 of Annex 6 of the Technical Memorandum on Environmental Impact Assessment Process, the acceptable sewage treatment level for Deep Bay WCZ is given in **Table 7-3**. The proposed STP will be designed to meet the acceptable treatment levels. Detailed design of the proposed STP is not yet available subject to feasibility investigation and water quality assessment. Tentatively, the proposed STP will be provided with Membrane Bioreactor (MBR) technology with ultra-filtration to achieve the acceptable sewage treatment level, with following conditions:

- For nitrogen removal, the target is 75% total inorganic nitrogen reduction with respect to the annual average influent nitrogen loads or concentrations;
- For phosphorus removal, the target is 80% phosphorus reduction with respect to the annual average influent phosphorus loads or concentrations; and

- Disinfection may not be required if membrane filtration is provided which can meet the relevant discharge standards for bacteria.

Table 7-3 Acceptable Sewage Treatment Level of Water Control Zone

Water Control Zone/ Waters Receiving the discharge	Acceptable Sewage Treatment Level
Tolo Harbour and Channel, Deep Bay	Secondary treatment, nitrogen removal, phosphorus removal, and disinfection
Other Water Control Zones	Secondary treatment, nitrogen removal, and disinfection

7.6.6. The capacity of the STP shall be designed to cater for the design flow rate from the Proposed Development. The detailed calculation of the design capacity of the on-site STP and the hydraulic calculation of the sewerage flow are shown in Sewerage Impact Assessment (SIA) report and Drainage Impact Assessment (DIA) report. The pathway of the connection pipe to public drainage and the emergency bypass also will be shown in SIA and DIA report.

7.6.7. As for good practice for STP, measures will be incorporated into the design to minimize the risk of emergency overflow from STP. As the STP is designed to cater for a peak flow of 3 times the daily average flow rate, 2 duty and 1 standby pump should be provided in equalization tanks as far as practicable to limit the flow through the treatment units within 1.5 times the daily average flow rate during off-peak periods. This is to even out the flow as much as possible. Other measures include secure power supplies and appropriate alarms, as well as comprehensive Operation and Maintenance procedures, to keep the facilities in good working order. Holding tank for emergency storage/retention will be included with adequate capacity (e.g. to store 6-hour of ADWF discharge) to minimize need of emergency discharge. In the event of any emergency overflow, on-call crews will follow the overflow emergency response plan and proceed with the best response to correct the problem at once. For example, the alarm system will be activated once overflow occurs. The on-call crews will provide instant response by acknowledging the alarm, to investigate the cause of overflow and correct the problem. The alarm system will be repeated until it is acknowledged. In addition, the on-call crews will ensure the standby pump is switched on and contains the overflow sewage using temporary weirs or vacuum trucks, where applicable.

7.6.8. The STP will also be subject to regular maintenance to ensure it functions in designed condition and optimal performance and can minimize any emergency situation. Property Management will be responsible for the construction and maintenance of the STP. In addition, regular self-monitoring will be conducted to ensure the quality of the treated effluent shall meet the applicable standard before discharge. Monitoring program will be devised for Terms & Conditions of the system. A discharge license will be applied prior to the

development commencement and monitoring requirements under the license would be strictly followed as per WPCO. Necessary discharge standards, as set out in EPD's Technical Memorandum – Standards for Effluents Discharged into Drainage and Sewerage Systems, Inland and Coastal Waters will be adopted.

7.6.9. In order to minimize the pollution loading, silt/sand traps should be provided for the drainage systems of open areas. The design of stormwater drains shall follow the relevant guidelines and practices as given in the ProPECC PN 1/23. Manholes, gullies and oil interceptors should be cleaned and inspected regularly. Moreover, the pollution loading of runoff could be controlled by best management practices. The operator should manage the cleaning of roads and open areas within the Site before heavy rain. To further minimise pollution loading, cleaning should be carried out during low traffic periods. Cleaning methods for road/open areas, such as manual cleaning or mechanical methods and including street sweepers are recommended to be adopted. The substances during cleaning should be collected as far as practicable for off-site disposal at landfill sites. After the removal of the substances, the pollution loading of runoff would be reduced.

7.7. Conclusion

7.7.1. WSR 1 and WSR 2 are at upstream of the Proposed Development with a minimum separation distance of 320m. WSR 3 and WSR 4 are ponds and stream respectively located away from the Project Site. The Project would not involve any construction works at/within the above identified watercourses. Therefore, it is not expected to be affected during the construction and operation phases of the Project.

7.7.2. For construction phase, water quality impact is expected to be minimal when appropriate mitigation measures and good site practice are implemented to properly discharge site run-offs.

7.7.3. The contractor shall apply for a Discharge License from EPD under the WPCO. All site discharges should be treated as necessary in accordance with the terms and conditions of the Discharge License.

7.7.4. For operation phase, with implementation of proper pre-treatment facilities and good management measures, the potential water quality impact is anticipated to be insignificant.

8. Land Contamination

8.1. Guidelines

8.1.1. This assessment is prepared in accordance with the following guidance:

- Guidance Manual for Use of Risk-Based Remediation Goals (RBRGs) for Contaminated Land Management (Guidance Manual), dated December 2007, Revised in April 2023;
- Guidance Note for Contaminated Land Assessment and Remediation (Guidance Note), dated 15 August 2007, Revised in April 2023; and
- Practice Guide for Investigation and Remediation of Contaminated Land (Practice Guide) dated August 2011, Revised in April 2023.

8.2. Objectives

8.2.1. The objectives of this Environmental Assessment are

- to assess the potential land contamination impact at the Subject Site due to current and historical land uses, activities that could result in contamination of the site through desktop review and site survey (e.g. site's land use history, aerial photos, site visit photos, spillage records, potential contamination sources, paving condition, etc);
- and to propose forthcoming actions in case the potential land contamination identified.

8.2.2. This Site Appraisal Report is prepared following the guidance and steps outlined in the Practice Guide for Investigation and Remediation of Contaminated Land (Aug 2011), Guidance Manual for Use of Risk-Based Remediation Goals (RBRGs) for Contaminated Land Management (Dec 2007), and the Guidance Note for Contaminated Land Assessment and Remediation. All guidance notes and guidance manual are published by the Environmental Protection Department (EPD) of the Government of HKSAR.

8.2.3. This Site Appraisal Report prepared for the submission to EPD presents the review of current and historical use, aerial photos, observation of site visits, spillage records, the potential of contamination and the need for site investigation and methodologies for site investigation works (if any).

8.2.4. A Contamination Assessment Plan (CAP) will be prepared and submitted to EPD for approval before the Site Investigation. Remediation works, if required, will be carried out according to

the Practice Guide before the commencement of development of project.

8.3. Site Appraisal & Its Environs

- 8.3.1. The Site Appraisal has been conducted to assess the potential land contamination impact at the Application Site due to current and historical land uses, on and off-site activities that could result in contamination of the site.
- 8.3.2. According to the approved Ping Che and Ta Kwu Ling Outline Zoning Plan (OZP No.: S/NE-TKL/14) gazette on 12/03/2010, the Application Site is currently zoned as “Open Storage” (“OS”) Zone, the southern part of the Application Site is zoned as “Agriculture” (“AGR”) and minor portion of the Application Site is zoned as “Road”.
- 8.3.3. The proposed site area of the subject site is 17,822m², bounded by the Ping Che Road from the north to northeast, the unnamed local road to the east, village, agricultural land and open storage area to the south and west.
- 8.3.4. The Application Site is currently used as open storage area for construction materials and machinery.

8.4. Review of Historical Aerial Photos and Past Land Use

- 8.4.1. According to the aerial photograph taken in 1949 by Lands Department, the Application Site was mostly covered by vegetation and used as farmland in southern portion. Based on the photographs, the Application Site was fully or partially used as farmland from 1949 to 1973. Some built structure (i.e. village houses) located northeast and southwest of the Application Site were identified from 1964 to 1980, then it was covered by vegetation again in 1980 onwards.
- 8.4.2. Starting from 1986, the central part of the Application Site was turned into the vacant land and then used as open storage area since 1990 and remained as open storage area until now. The Northern side remained vegetated while the southern part remained to have village house settlements and vegetation/ farmland.
- 8.4.3. The aerial photos are shown in **Appendix 8.1**. A summary of the land use of the Application Site is given in **Table 8-1**.

Table 8-1 Land Use Summary on the Application Site

Period/Year	Land Use (Project Site)/Description	Offsite Land Use in vicinity /Description	Sources of Information
Before 1949	Mostly covered by Vegetation, southern part as farmland	Northeast: covered by vegetation; Southeast: Farmland; West: Farmland	Aerial Photo from Lands Department
1956	Farmland	Northeast: covered by vegetation; Southeast: Farmland; West: Farmland	Aerial Photo from Lands Department
1961	Northern: Farmland	Northeast: covered by vegetation; Southeast: Farmland; West: Farmland	Aerial Photo from Lands Department
	Central Part and Southern part: Vegetation		
1964	same as 1961	Northeast: covered by vegetation; Southeast: Farmland; West: Farmland	Aerial Photo from Lands Department
1973	Similar to 1964, vegetation removed in the central part	Northeast: covered by vegetation; Southeast: Farmland; West: Farmland	Aerial Photo from Lands Department
1980	Covered by Vegetation, structures found at northern side of the Site	Northeast: covered by vegetation; Southeast: Farmland; West: Farmland	Aerial Photo from Lands Department
1986	Vacant Land with vegetation at northern side of the Site. Farmland at the south	Northeast: Vacant Land; Southeast: Vacant land; West: Farmland	Aerial Photo from Lands Department
1990, 1992, 1994, 1996, 1998, 2000, 2005, 2009, 2013, 2017, 2020, 2021, 2022	Open Storage with structure in the middle of the Site; northern side covered with vegetation; southern side with vegetation and village houses	Northeast: Warehouses occupied by Hong Kong Bamboo Trading Company since 1990 (OLC-2) . Southeast: covered by vegetation since 1990, converted to open storage since 2000 (OLC-3) . West: Open storage in 1990 and converted to warehouse afterwards. The warehouse further extended in 2005 (OLC-1) .	Aerial Photo from Lands Department

8.4.4. For the off-site land uses immediately next to the Application Site, 3 potential off-site contamination sources identified and shown in **Appendix 8.1** and **Figure 8.1** and summarized in **Table 8-2**.

Table 8-2 Potential Off-site contamination sources

	Uses	Location	Shortest Distance from Project Site (m)	Condition
OLC-1	Open storage (from 1990); Warehouse (i.e. Metal) (from 1992 onwards)	West of proposed Site	13	Warehouse: for storage of metal, enclosed, paved land
OLC-2	Warehouse (i.e. Bamboo) (from 1990 onwards)	Northeast of proposed Site	47	Warehouse: for storage of bamboo, enclosed, paved land
OLC-3	Open storage (from 2000)	Southeast of proposed Site	38	Open storage of building material, no maintenance, no machinery, paved

8.4.5. As summarized in **Table 8-1** and **Table 8-2**, OLC-1 was a warehouse at the west, operated by Fat Lee Company Limited, a paper merchant. Based on the aerial photos, it was farmland from 1949 until 1986. The Site was first used as Open Storage in 1990, served as warehouses since 2000 with a further extension of the warehouse in 2005. The warehouse is an enclosed warehouse, with pavement. Only storage of stack pallets and paper rolls was observed on site, without operation of machinery and maintenance as observed in several site inspections. Land contamination issues due to its operation is unlikely.

8.4.6. For OLC-2, Hong Kong Bamboo Trading Company Limited is situated towards the northeast of the Site. The site of the existing Bamboo Trading Company remained vegetated since 1949 and it was a vacant land since 1986. Based on site observation in 2023, the warehouses are enclosed. Due to the storage of bamboo, without other operation of powered machinery and maintenance works, land contamination issues due to its operation is unlikely. During the site inspection conducted in 2024, concrete, soil and sand was observed to be stored within the site. Only trucks were observed, no operation of PME was identified. The area is enclosed with barriers and there is a road in between OLC-2 and the Project Site. Given the physical separation found between OLC-2 and the Project Site, impact of offsite land contamination should be insignificant.

8.4.7. For the land towards southeast (OLC-3), it was farmland until 1986. It became vacant at 1986 and was again vegetated in 1990. It served as storage afterwards in 2000. Based on aerial photos and site observation, only storage of building equipment is observed, without other operation of powered machinery and maintenance works. Thus no polluting and hazardous industrial uses are anticipated. Similar to OLC-2, it is a road apart from the Project Site. Hence, potential contamination issue is not anticipated from these historical surrounding uses.

8.4.8. In view of the above, potential off-site land contamination due to activities in the vicinity is unlikely.

8.5. Information from Government Department

8.5.1. The following HKSAR Government Departments have been enquired on the latest update on the availability of land use status and records of land contamination and/or spillage for the site. The summary of correspondence is presented in **Table 8-3** below. Copy of the letters replied from various Government Departments are included in **Appendix 8.3** for reference.

Table 8-3 Enquiries and Responses on Land Contamination Related Record in the Application Site

Consultant's Letter Ref.	Department	Response Letter Ref.	Response Date	Summary
819.4463/23-0001	Environmental Protection Department	Nil., through Email	6 June 2023	No record of any reported chemical spillage/leakage incident at the Application Site in the past 5 years. For record of Chemical Waste Producers Registration, a registry is available at EPD Territory Control Office in Wan Chai
			6 July 2023 (include additional Site Area)	No record of any reported chemical spillage/leakage incident at the additional Application Site in the past 5 years, and no registered chemical waste producers is found in the additional Application Site.
819.4463/23-0002	Fire Services Department	(153) in FSD GR 6-5/4 R Pt. 47	13 July 2023	Case is being handled, following record will be provided: <ul style="list-style-type: none"> • Dangerous Goods License Record from the year of 1990 to present moment; Incident Record of past three years of fire and special services incidents.
			10 Aug 2023 (include additional Site Area)	<ul style="list-style-type: none"> • No Dangerous Goods License was issued at Application Site; • A total of 2 incident records were found at the subject location. <ul style="list-style-type: none"> - Rubbish fire on 21 Jan 2021, near lamppost VD9044 of Ping Che New Village. (Outside site boundary) - No.1 Fire Alarm, near lamppost EA3379 of Ha Shan Kai Wat. (Within site boundary)

Consultant's Letter Ref.	Department	Response Letter Ref.	Response Date	Summary
819.4463/23-0003	Lands Department	Nil., through Email	8 June 2023	Nil record of relevant illegal land contamination case in the area concerned
		Nil., through Email	14 July 2023 (include additional Site Area)	No record of relevant illegal land contamination case in the area concerned. Advised to approach Planning Department for enquiry in respect of illegal land use information.
819.4463/23-0004	Planning Department	Nil., through Email	20 February 2024	The site falls within an area zoned "Open Storage" on the Ping Che and Ta Kwu Ling Outline Zoning Plan No. S/NE-TKL/14. No information on the past activities / incidents/ accidents of the Site
819.4463/23-0004 (with updated site boundary)	Planning Department	Nil., through Email	12 April 2024	Part of the Site is the subject of a previous application No. DPA/NE-TKL/31 for proposed warehouse for the storage of tunnel boring machine and scaffolding materials approved by the Rural and New Town Planning Committee on 14.8.1992. No information on the past activities/ incidents/ accidents of the Site

8.5.2. Based on the information available, no record of any reported chemical spillage or leakage incident in the past 5 years, there are chemical waste producer registrations at site location, the consultant visited the territory-wide register of chemical waste producers maintained at the Territory Control Office in Wan Chai on 8 February 2024. There are two registered chemical waste producers at the Project Site (one in DD77 Lot 796 North; another one covers DD77 Lot 796 and 1008RP). Details of the chemical waste producer is provided in **Appendix 8.2**. As advised by EPD, two valid chemical waste producers were found. Given the nature of business of construction/warehouse are on the registry, waste oil for machinery is anticipated to be generated on-site.

8.5.3. For the dangerous goods record provided by FSD, no dangerous goods are stored on-site. For the fire accident records provided by FSD, there were two incidents that happened around the Application Site, which the indicative location of the incidents is shown in **Appendix 8.3**.

The rubbish fire on 21 Jan 2021 was happened outside site boundary, no land contamination potential upon the rubbish fire outside the site. There was No.1 fire alarm happened near lamppost EA3379 of Ha Shan Kai Wat, and since it was on the access road outside the east boundary of the application site, storage of chemical along access road is unlikely. It is thus expected that there was no dangerous goods or chemicals in the fire incident area, therefore it is anticipated that no potential land contamination upon the fire incident.

8.6. Site Visit and Observation

8.6.1. Site Visit was conducted on 20 June 2023 to identify potential source of contamination. A Site Walkover Checklist has been completed with the Tenant's representative as required in the EPD's Practice Guide and attached in **Appendix 8.4**. Photo records of the Application Site taken during the site visit are presented in **Appendix 8.5**. Indicative air drone diagrams are shown in **Figure 8.1**.

Entrance, Temporary Office and Village House

8.6.2. The entrance and the container storage area are paved with concrete in good condition (photo 12 – Photo 16, Photo 67, 69), there is no sign of chemical spillage, pollutant nor potential source of contamination observed. There are also some village houses located within the site, no anticipated land contamination around the residential area (Photo 17).

8.6.3. For the temporary storage structures near the site entrance (Photo 55-60), as confirmed by current user, they are used for temporary office, store room for small maintenance equipment and parts. Potential land contamination is unlikely.

Construction Material, Machinery Storage Area

8.6.4. The Application Site is used as open storage area for construction materials and machinery. Equipment such as excavators, welding machines, maintenance tools at the machinery storage area. The machinery storage area is not paved. Yet no chemical and oil drums were identified at the material and machinery storage site. The construction materials stored on site are mostly concrete blocks. They are kept at southwest area of the Application Site (Photo 34), which is paved in good condition. As verified on site and confirmed by the current users, no maintenance and refilling of chemical would be carried out at the machinery Storage Area at strip of area along the site boundary. No stains or distressed vegetation observed on the ground in the storage area. Stains were observed along vehicle access between the construction material and machinery storage area (Photo 43,46), where the respective ground is paved in good condition. Stains were also spotted at the edge of building material storage area (Photo 39) where the ground is unpaved.

Machinery Maintenance/Chemical, Oil Drums Storage Area

- 8.6.5. Given the nature of the site usage, it may involve use and refilling of the chemical (e.g. Lubricant oil) for maintenance of machinery occasionally as confirmed by current user. **Two separated machinery maintenance areas** are designated at middle portion of the Application Site as shown in **Figure 8. Onsite maintenance works of machinery resulting in potential land contamination at this area.**
- 8.6.6. **The Chemical, oil drums storage area is identified towards the north of the machinery maintenance area. The chemical found within the site includes a temporary oil drum to transport the oil on-site, and acetylene cylinders.**
- 8.6.7. Additionally, waste oil was generated in the daily operation. The oil tanks/oil drum were observed to be placed on the ground (Photo 18, Photo 21 – Photo 23, Photo 26 – Photo 28), where the ground is paved and cracks identified, while some of the acetylene cylinders were placed on the tray with a lock (Photo 29). It was found that the improper storage of chemicals resulted in potential for oil spillage within the site at the machinery area. The stained surfaces were found on the paved ground and were not found on the unpaved ground towards the boundary of the site (Photo 21), the stained surfaces was only limited in the machinery maintenance area of the site. They are considered as potential hotspot of land contamination.

Vegetated Area

- 8.6.8. Vegetated area is identified at the south portion of the proposed sitem which is outside the main working area of the site. Only unnamed village houses identified, without any industrial activities. Land contamination is unlikely.

8.7. Potential Land Contamination Appraisal

- 8.7.1. According to the desktop study and site appraisal presented in **Section 8.3 to 8.5**, the current usage of the Application Site is used as open storage area.
- 8.7.2. According to the government's response, no chemical spillage accidents were recorded at the Application Site within the past 5 years. There are two chemical waste producer registration identified and no record of **illegal land contamination** was found at the Application Site. The record of chemical waste producers' registration is given in **Appendix 8.2**. There were two fire incidents near the Application Site, the rubbish fire happened outside the site boundary, while it is expected that there is no dangerous goods and chemicals involved in the No.1 fire alarm incidents as it was happened on the access road outside the site boundary. Therefore, it is anticipated that no potential land contamination upon fire incidents. **As refer to PlanD's response, part of the site was approved to be used as**

warehouse for building equipment and materials in 1992.

- 8.7.3. Upon the site visits, no signs of as abnormal odour and/or distressed vegetation within the Application Site were observed. The dangerous good found (i.e. Acetylene), is gaseous compound where contamination on land is not expected. Given that the acetylene cylinder was kept in a locked tray, and no incident record associated with chemicals is recorded, land contamination due to storage/incidents of dangerous goods are not anticipated.
- 8.7.4. However, stained surfaces were found on the ground within Application Site within the machinery maintenance area. Based on the nature of current site usage, with machinery maintenance, there is a potential of chemical spillage and considered as potential polluting evidence under the Practice Guide for Investigation and Remediation of Contaminated Land.

Review on “Hotspots”

- 8.7.5. As per the Practice Guide, it recommends to investigate the potential contaminated land in regular grid pattern to have a comprehensive study on the potential land contamination site. Apart from the regular grid pattern, Practice Guide also required attention should be paid to those locations where potential land contamination could occur. These are regarded as “hotspots” for investigation.
- 8.7.6. The site investigation for land contamination can therefore be focused on hotspots that have the potential for land contamination due to various previous site activities, locations of any leakage events, stains observed and former storage locations for chemicals and chemical wastes.
- 8.7.7. Improper storage of chemicals on paved ground, maintenance workshop, and stained surface were identified on site, in particular at the machinery maintenance area, **the vehicle access between the storage areas and the edge of building material storage area** are considered as hotspots as shown in **Appendix 8.5**. A detailed site investigation is proposed and shall be carried out to investigate the potential land contamination issues of the Site following the “Practice Guide for Investigation and Remediation of Contamination Land” published by EPD in later stage. Should contamination levels exceed allowable limits for post-restoration land use scenario (i.e. Urban Residential) in the Guidance Manual for Use of Risk-Based Remediation Goals (RBRGs) for Contaminated Land Management, a Remediation Action Plan (RAP) will be carried out, if needed.
- 8.7.8. Other than the hotspots mentioned above, upon the site visit of the Subject Site, no signs of obvious/ suspected contamination such as abnormal odour and/or distressed vegetation within the Subject Site were observed and there is no potential source of contamination listed below identified in the Subject Site, including:

- Entrance, Temporary Office and Village House Area

Further Site Investigation

- 8.7.9. In view of some of the activities carried out within the Application Site are considered as potential polluting activities under the Practice Guide for Investigation and Remediation of Contaminated Land. A site investigation and remediation works, if required, shall be carried out before the commencement of construction of the project within the machinery maintenance area as shown in **Figure 8.1**. A Contamination Assessment Plan (CAP) will be prepared and submitted to EPD for approval at later stage before the Site Investigation.
- 8.7.10. Upon availability of the site investigation results, including field observation and laboratory analytical results, the Consultant will complete the land contamination assessment to ascertain the nature and extent of contamination, if any. All the site investigation results will be presented in the Contamination Assessment Report (CAR), for the submission to EPD for agreement. If land contamination is confirmed, a combined CAR and Remedial Action Plan (CAR-RAP) shall also be submitted to EPD for agreement to formulate necessary remedial measures. Moreover, the land contamination assessment and remediation works (if necessary) should be completed prior to the development of the Project according to the Practice Guide.

8.8. Conclusion

- 8.8.1. The Site Appraisal has been conducted to identify the potential land contamination impact at the Application Site. Based on the aerial photographs and responses from HKSAR Government Departments, the Application Site is currently used as open storage area for construction material and machinery. No record of chemical spillage accident and submission relating to land contamination assessment at the Application Site in the past 5 years.
- 8.8.2. According to site inspection, the activities carried out within site area generated waste oil, and chemical storage(i.e. acetylene cylinders) practices were observed. The stained surfaces were identified specifically in the machinery storage area (towards the site boundary), **at the edge of building machinery storage area and along the vehicle access in between two storage areas**. In view of the above, further site investigation is required to identify the pollutant concentration. A Contamination Assessment Plan (CAP) will be prepared and submitted to EPD for approval at later stage before the Site Investigation. Upon availability of the site investigation results, including field observation and laboratory analytical results, the Consultant will complete the land contamination assessment to ascertain the nature and extent of contamination, if any. All the site investigation results will be presented in the Contamination Assessment Report (CAR), for the submission to EPD for agreement. If land

contamination is confirmed, a combined CAR and Remedial Action Plan (CAR-RAP) shall also be submitted to EPD for agreement to formulate necessary remedial measures before the commencement of the Proposed Amendment.

9. Waste Management Implications

9.1. Legislation and Standards on Waste Management

Waste Disposal Ordinance (WDO) (Cap. 354)

9.1.1. Waste Disposal Ordinance, Cap. 354 provides legislative control on pollution caused by all forms of wastes such as livestock wastes, chemical waste etc. It provides the statutory framework for the planning, management and control of wastes in Hong Kong.

Public Health and Municipal Services Ordinance (Cap.132)

9.1.2. The Public Cleansing and Prevention of Nuisances Regulation provides control on illegal tipping of waste on unauthorized (unlicensed) sites.

Waste Disposal (Chemical Waste) (General) Regulation (Cap.354C)

9.1.3. Under the WDO, Waste Disposal (Chemical Waste) (General) Regulation (Cap.354C) provides regulations for chemical waste control, and administers the possession, storage, collection, transport and disposal of chemical waste. EPD has also issued the Code of Practice on the Packaging, Labelling and Storage of Chemical Wastes (1992), which details how the chemical waste producers should comply with the regulations on chemical waste.

Waste Disposal (Charges for Disposal of Construction Waste) Regulation (Cap.354N)

9.1.4. Under the Waste Disposal (Charges for Disposal of Construction Waste) Regulation, construction waste delivered to a landfill for disposal must not contain more than 50% by weight of inert material; construction waste delivered to a sorting facility for disposal must contain more than 50% by weight of inert material; and construction waste delivered to a public fill reception facilities for disposal must consist entirely of inert material.

9.1.5. Other Environmental Regulations / Guidelines

- Land (Miscellaneous Provisions) Ordinance (Cap. 28)
- ETWB TC(W) No. 22/2003 and 22/2003A, Additional Measures to Improve Site Cleanliness and Control Mosquito Breeding on Construction Sites

- Works Bureau TC No. 12/2002, Specifications Facilitating the Use of Recycled Aggregates
- Trip Ticket System for Disposal of Construction & Demolition Materials (DEVB TC(W) No. 6/2010)
- Environmental Management on Construction Sites (ETWB TC(W) No. 19/2005)
- Public Dumps (WBTC No. 2/93)
- Waste Disposal Ordinance (Cap. 354) & Public Health and Municipal Services Ordinance (Cap. 132)
- Public Filling Facilities (WBTC No. 2/93B)
- Fill Management (WBTC No. 12/2000)
- Code of Practice on the Packaging, Labeling and Storage of Chemical Waste
- DevB TCW No. 8/2010 "Enhanced Specification for Site Cleanliness and Tidiness
- Management of Construction and Demolition Materials (Technical Circular No. 11/2019) published by CEDD
- CEDD's Project Administration Handbook for Civil Engineering Works
- Hong Kong Planning Standards and Guidelines, 2022 (Planning Department (PlanD))
- Monitoring of Solid Waste in Hong Kong – Waste Statistics for 2022

9.2. Assessment Approach and Criteria

9.2.1. The assessment of waste management implications from the construction and operation of the Project includes the following tasks:

- Identification of types and quantities of waste arising from various construction activities based on the latest understandings;
- Evaluation of opportunities for waste reduction, re-use and recycling on-site or off-site;
- Identification of disposal options for each type of waste;
- Evaluation of potential impacts from the handling (including stockpiling, labelling, packing and storage), collection, transportation and reuse/disposal of waste with respect to potential hazards, air and odour emissions, noise, wastewater discharges and public transport; and
- Proposing mitigation measures and evaluation of residual impact.

9.3. Potential Impacts during Construction Phase

- 9.3.1. The construction works of the Project mainly include clearance and mobilization, excavation and lateral support works, foundation works, superstructure and fitting out works. Excavation of about 10.5m is expected for construction of 3 levels of basement. Construction & Demolition (C&D) materials generated from the construction works comprises of inert and non-inert materials. For inert C&D materials (or public fills), such as soil, rock, concrete, etc., could be reused on-site as filling materials or off-site as public fill at public fills reception facilities (e.g. Tseung Kwan O Area 137 Fill bank). The delivery site of inert C&D materials is subject to the designation by the PFC according to the DEVB TC(W) No.6/2010.
- 9.3.2. For non-inert C&D materials, such as topsoil, dead vegetative materials, glass, steel, plastics, paper, timber/woody materials etc., would be sorted for reuse/recycle as far as possible before disposal. Timber/ woody materials from site clearance will be sent to the Yard Waste Recycling Centre in Y-Park for recycling as far as possible before landfill disposal. Surplus non-inert C&D materials are proposed to be disposed at North East New Territories (NENT) Landfill at Ta Kwu Ling. The designated disposal site of non-inert C&D materials shall be confirmed with the EPD. Since the works will not be conducted simultaneously, it is estimated that a maximum of 1 trucks trip per day would be required for the disposal at NENT Landfill.
- 9.3.3. Waste management planning is needed prior to the commencement of construction works. Construction waste management strategy is to avoid, minimize, reuse, re-cycle and finally dispose of waste with the desirability descending in this order. Contractor(s) will be required to implement effective waste management measures to ensure their practices are in line with the strategies. In order to minimize the generation of wood waste, steel is recommended to be used for formworks.
- 9.3.4. Chemical waste from maintenance and servicing of construction equipment/plant may be generated. If chemical waste is produced, it will be disposed of according to Code of Practice on the Packaging, Labelling and Storage of Chemical Waste. Special handling and temporary storage of chemical waste is required before removal from site. A licensed chemical waste collector will be employed to deliver of these wastes at EPD licensed chemical waste treatment facility.
- 9.3.5. General refuse such as food scraps, waste paper, empty containers, etc. would be generated from the workforce during the construction phase. General refuse should be stored in enclosed bins separately from construction and chemical wastes. Recycling bins should also be placed to encourage recycling. Enclosed and covered areas should be provided for general refuse collection to prevent waste materials being blown around by wind, flushed or leached into nearby waters, or creating an odour nuisance or pest and vermin problem. Also, routine

cleaning for these areas should be implemented to keep areas clean, so that intentional or accidental release to the surrounding environment does not occur with proper management.

C&D materials

- 9.3.6. The majority of C&D materials will be generated from the key construction activities mentioned in **Section 9.3.1**. Demolition waste is not anticipated since the site is currently vacant with minor temporary structures. Where possible, inert C&D materials will be re-used on site and sent to public fill reception facilities as a last resort.
- 9.3.7. Apart from optimizing the construction programme, alternative designs and construction methods have been duly considered. Use of BIM and MiC will be considered, subject to detailed design.
- 9.3.8. As advised by project team, the quantities of C&D materials generated will be subject to further design development and contractor's operation procedure/practices. The estimated quantities for inert C&D materials generated is approximately 126,563m³ given an excavation area of 13,500m² and a basement level of 6m / 10.5 m, programmes have been considered to minimize the generation of inert material where minimization and reuse of C&D materials is considered as far as practicable. The foundation and ELS works will last for 18 months, assuming a capacity of 7m³ per truck, bulk factor of 1.4, 25 working days a month and the works will not be conducted simultaneously, it is estimated that a maximum of 56 truck trips per day would be required for the delivery of excavated material, which is equivalent to 7 trucks per hour. The Contractor shall develop and implement their Environmental Plan (EMP) and Waste Management Plan (which is part of the EMP) to control any potential adverse impact associated with the construction waste as far as possible. It is targeted that about 20% of the inert materials (25,313 m³) can be reused onsite. According to the Project Administrative Handbook for Civil Engineering Works and CEDD TC No. 11/2019, the project office is required to draw up a Construction and Demolition Material Management Plan (C&DMMP) at the feasibility study or preliminary design stage of each project, which generates more than 50,000 m³ of C&D materials. C&DMMP will be prepared and submitted to the CEDD vetting committee on C&D Material Management for endorsement. The Contractor shall develop and implement their Environmental Plan (EMP) and Waste Management Plan (which is part of the EMP) to control any potential adverse impact associated with the construction waste as far as possible. Half-Yearly Status Report and Quarterly Situation Report shall be prepared accordingly.

Chemical Waste

- 9.3.9. Chemical waste is defined in the Cap 354C Waste Disposal (Chemical Waste) (General)

Regulation. Where the construction processes produce chemical waste, the contractor must register with EPD as a chemical waste producer. Chemical waste that is likely to arise from the construction activities for the Project includes:

- Used paints, engine oils, hydraulic fluids and waste fuel;
- Spent mineral oils / cleansing fluids from machineries; and
- Spent solvent / solutions, some of which may be halogenated, from equipment cleansing activities.

9.3.10. Accidental spillages of chemicals in the works area may contaminate the top soils on exposed ground/ earth. The contaminated soil particles may be washed away by construction runoff causes water pollution.

9.3.11. Chemical wastes pose environmental and health and safety hazards if not stored and disposed of in an appropriate manner as outlined in the Waste Disposal (Chemical Waste) (General) Regulation. These hazards include:

- Toxic effects to workers;
- Adverse effects on water quality from spills; and
- Fire hazards.

9.3.12. The amount of chemical waste to be generated throughout construction phase cannot be accurately predicted at this stage since it largely depends on the contractor's housekeeping measures. It is estimated the quantities of chemical wastes will be small (about 0.1 m³ on a monthly basis). The amount of chemical waste to be generated would be quantified in the Waste Management Plan (WMP) as part of the Environmental Management Plan (EMP) to be prepared by the Contractors. Given that the chemical waste generated are to be handled, stored, collected, transported and disposed by licensed chemical waste collectors in accordance with the Waste Disposal (Chemical Waste) (General) Regulation, impacts such as potential hazard and spillage will not be anticipated.

General Refuse

9.3.13. General refuse such as waste papers, plastic packaging, food wastes, etc. will be generated by the construction workforce during construction phase of the Project.

9.3.14. Since no information regarding the number of on-site workers is available at this stage of the Project, it has been assumed that a maximum of 350 workers will work simultaneously at the Project site during the construction phase of the Project. Quantity of general refuse to be generated per day is therefore estimated to be 227 kg (assuming a waste generation rate of 0.65 kg per person per day).

9.3.15. Recycling bins for waste papers, plastic packaging should be provided to maximize reuse and

recycle volume. Other non-recyclable general refuse, the Contractor shall employ a reliable waste collector to separate general refuse from C&D materials and remove general refuse from the site to NENT Landfill. The quantity of the general refuse is included in the non-inert C&D materials with a maximum of 1 trips per day is anticipated, given an average truck capacity of 7m³. The impacts arising from increased traffic loading would be limited. With proper on-site handling and storage as well as regular disposal of the wastes, no adverse impact is envisaged. All dump trucks should be equipped with GPS or equivalent system for the monitoring of their travel routings and parking locations to prohibit illegal dumping and landfilling of C&D materials. No adverse impact (e.g., potential hazards, air and odour emissions, noise, wastewater discharges and public transport etc.) is envisaged with the implementation of appropriate mitigation measures such as using trucks with covering and enclosed containers.

- 9.3.16. Types and quantities of waste arise from various construction activities and the corresponding handling arrangement and outlets are identified and summarized in **Table 9-1**.

Table 9-1 Summary of Quantities of Waste Generated

Type of Waste	Quantity	Handling Arrangement and Outlets	Remark
Inert C&D Materials Delivered to Public Fill Reception Facilities [1]	101,250 m ³	- Delivered to the public fill reception facilities	Area of Basement for carpark(6m): 3,375 m ² Area of Basement for Carpark (10.5m): 10,125 m ²
Reused Inert C&D Materials (or Public Fills) For Onsite Reused	25,313 m ³	- Recycled as much as practicable for onsite re-usage	Assumed 20% reused onsite
Non-inert C&D Materials (or C&D waste) Generated [2]	28,690 m ³	- Recycled and reused as much as practicable (e.g. Timber and Woody material to Y-Park etc.) - Disposed of at the landfill	GFA: 124,748 m ² Private Housing Projects 0.250m ³ /m ² GFA Hong Kong-wide proportion of inert C&D materials in construction waste:0.92 (Hong Kong –Waste Statistics 2022) Waste Index*: 0.92x0.25 per m ² GFA
Chemical Waste[3]	~ 0.1 m ³ (on a monthly basis)	- Collected by licensed chemical waste collector for the disposal of at licensed treatment facilities (e.g. Chemical Waste Treatment Centre (CWTC) at Tsing Yi)	/
General Refuse from Workforce[4]	227 kg/day	- Recycled as much as Practicable - Disposed of at the Landfill (i.e. NENT)	Assumed maximum of 350 workers working simultaneously at the Project Site - Assumed waste generation rate is 0.65 kg/person/day (per Monitoring Solid Waste in Hong Kong –Waste Statistics 2022)

Note:

[1] Includes, but not limited to excavated soil, broken concrete, granular materials etc.

[2] Includes, but not limited to, bamboo, timber, paper and plastic, etc.

[3] Includes, but not limited to, scrap batteries or acid/alkali from construction plant maintenance activities; used paints, engine oils, hydraulic fluids and waste fuel, etc.

[4] Includes, but not limited to, food waste, aluminum cans, waste paper, etc.

*Waste Index referenced to Section 3.2 of A Guide for Managing and Minimizing Building and Demolition Waste published by the Hong Kong Polytechnic University in May 2001

9.4. Mitigation Measures to Control Construction Waste Impact

General

9.4.1. Inert C&D materials shall be delivered to the public fill reception facilities as far as practicable. Any remaining inert C&D materials shall be delivered sorting facilities and landfills. In order to facilitate process of transferring the construction waste to Government waste disposal facilities (e.g. public fill reception facilities, sorting facilities and landfills), waste sorting and segregation shall be carried out on site in accordance with the following categories:

- Hard rock and large broken concrete suitable for reuse on the Site or recycling;
- Metals (i.e. aluminium can, steel metal, ferrous metal, and non-ferrous metal);
- Plastic (i.e. plastic bag, plastic bottle, plastic packaging, etc.)
- Paper;
- Chemical waste;
- Materials suitable for disposal at public fill reception facilities, sorting facilities and landfills

9.4.2. In addition, the Contractor is required to implement good EMP and practices on handling and disposal of waste, including but not limited to:

- Handle, store and dispose of all wastes in accordance with the Waste Disposal Ordinance;
- Handle, store and dispose of chemical waste in accordance with the EPD recommended Codes of Practice on the Packaging, Labelling & Storage of Chemical Wastes and Waste Disposal (Chemical Waste) (General) Regulation under the Waste Disposal Ordinance;
- Store general refuse in enclosed bins or compaction units separate from C&D materials and chemical wastes. A reputable waste collector should be employed to collect and dispose of general refuse from the site on a daily or every second day basis;
- Plan and stock construction materials carefully to minimize amount of waste generated and avoid unnecessary generation of waste;
- Waste storage areas within the project site should be well maintained and cleaned regularly to prevent cross-contamination;
- Cover trucks with tarpaulin and transporting waste in enclosed containers to minimize windblown litter and dust during transportation;
- Maintain temporary stockpiles and ensure with well cover to prevent inclement weather (e.g. heavy rain).

9.4.3. To clearly spell out the types and amount of waste generated and its associated mitigation measures, a Waste Management Plan (WMP), as part of EMP should be prepared in

accordance with ETWB TC(W) No.19/2005 and submitted to the Project / Site Engineer for approval. The recommended mitigation measures should form the basis of the WMP.

C&D Materials/Waste

9.4.4. It is presently anticipated that most of the C&D materials/waste will need to be transported off-site for re-use, recycling and disposal by trucks. With the implementation of the recommended dust and noise control / mitigation measures presented in the air quality and noise sections, such as covering and stockpiling materials to avoid dust and other nuisance impacts from truck movements, these secondary environmental factors are not expected to be a concern.

9.4.5. C&D materials should be segregated from other wastes to avoid contamination and ensure acceptability at public fill reception facilities or reclamation site. The following mitigation measures should be implemented in handling the excavated and C&D materials:

- Maintain temporary stockpiles and ensure with well cover to prevent inclement weather;
- Reuse excavated fill material for backfilling;
- Carry out on-site sorting; and
- According to the DEVB TC(W) No. 6/2010, implement a trip-ticket system for each works contract to ensure that the disposal of C&D materials/waste is properly documented and verified. Where waste generation is unavoidable, the potential for recycling or reuse shall be considered. If waste cannot be recycled, disposal routes described in the EMP shall be followed. The amount of waste generated, recycled, and disposed shall be recorded. Trip-ticket system shall also be implemented in accordance with Development Bureau TC(W) No. 6/2010 to monitor the disposal of C&D material and control fly-tipping. Delivery site is subject to the designation by the PFC according to the DEVB TC(W) No.6/2010.

Chemical Waste

9.4.6. If chemical wastes are produced at the construction site, the Contractor would be required to register with the EPD as a Chemical Waste Producer and to follow the guidelines stated in the Code of Practice on the Packaging, Labelling and Storage of Chemical Wastes. Good quality containers compatible with the chemical wastes should be used. Appropriate labels should be securely attached on each chemical waste container indicating the corresponding chemical characteristics of the chemical waste, such as explosives, flammable, oxidizing, irritant, toxic, harmful, corrosive, etc. Chemical waste should be collected by a licensed chemical waste collector and to be disposed of at a licensed chemical waste treatment and disposal facility in accordance with the Waste Disposal (Chemical Waste) (General) Regulation.

9.4.7. Mitigation measures will also include the provision of protective gloves and clothing to site workers, use of bulk earth movers to remove contaminated materials to prevent any possible human contact, provision of adequate washing facilities and the use of licensed chemical waste collectors to ensure legal disposal of waste, etc.

General Refuse

9.4.8. Recycling bins should also be placed to encourage recycling. Enclosed and covered areas should be provided for general refuse collection to prevent waste materials from being blown around by the wind, flushed or leached into nearby waters, or creating an odour nuisance or pest and vermin problem. Also, routine cleaning for these areas should be implemented to keep areas clean, so that intentional or accidental release into the surrounding environment does not occur without proper management.

9.4.9. Particularly, food waste is the main source of generating unpleasant odour and causing environmental hygiene concerns. Team will explore the feasibility for providing separate recycling bins will be provided for food waste to facilitate the recycling of food waste on-site or off-site in a hygienic manner in detailed design stage.

9.4.10. With the implementation of good waste management practices at the Site, and the abovementioned mitigation measures at the Project Site, adverse environmental impacts are not expected to arise from the storage, handling and transportation of C&D materials, chemical waste and general refuse generated during construction phase.

9.5. Potential Impacts and Mitigation Measures during Operation Phase

9.5.1. The major type of waste generated from the operation phase is general refuse. **Insignificant amount of Chemical wastes are anticipated to be produced during operations and maintenance of the proposed project.** With reference to Monitoring of Solid Waste in Hong Kong - Waste Statistics for 2022 by EPD, the disposal rate of domestic waste and non-domestic waste were 0.93 kg/person/day and 0.59 kg/person/day. The estimated quantities of general refuse anticipated for domestic uses will be 4,630 kg/day, assuming a residential population of 4,978. The estimated general refuse generated by commercial uses will be 388 kg/day with an estimated population of 658 person.

9.5.2. General refuse will be removed on regular basis to minimize odour, pest and litter impacts. To promote the recycling of waste paper, aluminium cans and plastic bottles, the 3-coloured waste separation bins for the collection of recyclable municipal waste will be clearly labelled and placed at convenient locations. The recyclable materials will then be collected by reliable waste recycling agents on a regular basis. **Refuse bins for Food waste will be provided to be collected by contracted collectors from site will be sent to the O-Park2 in Sha Ling (scheduled**

for commissioning in 2024). Waste generated will be disposed of at government waste disposal facilities such as NENT Landfill or refuse transfer station. Hence, adverse waste management implication is not anticipated during the operation phase.

9.6. Conclusion

9.6.1. During the construction phase, the major waste types generated by the construction activities for this project will include C&D materials from the excavation and foundation works, substructure and superstructures work; chemical waste from maintenance and servicing of construction site and equipment; general refuse from the workforce. Provided that all these identified wastes are reused and recycled if appropriate, handled, transported and disposed of in strict accordance with the relevant legislative and recommended requirements and that the recommended good site practices and mitigation measures are properly implemented, no adverse environmental impact is expected during the construction phase.

9.6.2. During the operation phase, the key waste types generated will be general refuse. Provided that all these wastes are reused and recycled if appropriate, handled, transported and disposed of in strict accordance with the relevant legislative requirements and the recommended mitigation measures are properly implemented, no adverse environmental impact is expected during the operation phase.

10. Overall Conclusion

10.1.1. Air quality impact (including vehicular and chimney emission), traffic noise, fixed plant noise water quality, and land contamination are evaluated in this Environmental Assessment Report for the Application Site.

10.1.2. There is no active chimneys and SP License record identified within 200m from the Proposed Amendment. The setback from the proposed commercial tower and residential towers to the nearby roads, future fresh air intake location of the air conditioning system and openable windows for ventilation would comply with the recommended buffer distance in Table 3.1, Chapter 9 of the HKPSG regarding vehicular emission for air sensitive use. Therefore, it is anticipated that the Proposed Amendment would not subject to unacceptable air quality impact.

10.1.3. The potential environmental noise impacts from nearby road traffic and fixed noise sources on the Proposed Amendment have been evaluated.

10.1.4. For traffic noise impact assessment, all NSRs in the Proposed Amendment will comply with

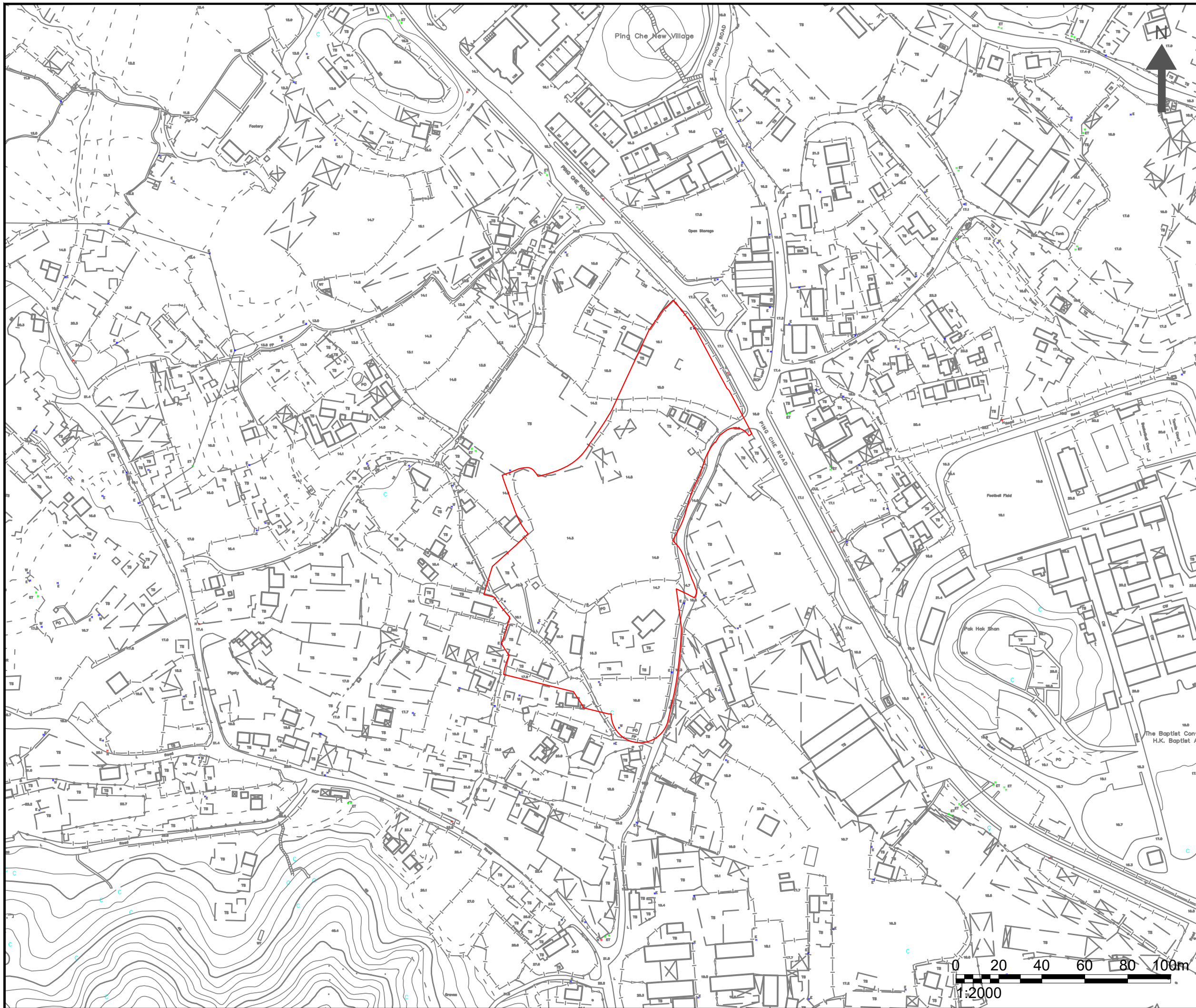
the relevant traffic noise standard stipulated in HKPSG with the implementation of noise mitigation measures, including acoustic window/ acoustic door (baffle type), and fixed window/ fixed glazing/ maintenance window. The Proposed Amendment would not subject to significant adverse traffic noise impact

- 10.1.5. Fixed noise impact assessment has been carried out for the Proposed Amendment. The results of the assessment have indicated that the predicted fixed noise levels of all NSRs would comply with the fixed noise standard under the Noise Control Ordinance.
- 10.1.6. For water quality assessment, the Project would not involve any construction works at/within the above identified watercourses. Therefore, it is not expected to be affected during the construction and operation phases of the Project.
- 10.1.7. The Application Site is currently used as open storage area for construction material and machinery. No record of chemical spillage accident and submission relating to land contamination assessment at the Application Site in the past 5 years.
- 10.1.8. According to site inspection, the activities carried out within site area generated waste oil, and chemical storage practices were observed. It is recommended to conduct further land contamination assessment following the "Practice Guide for Investigation and Remediation of Contamination Land" published by EPD in later stage. If found to be necessary, remediation works for the site should be completed prior to the commencement of development works at the site.
- 10.1.9. For waste management, top priority should be given to waste avoidance, followed by minimization, reuse/recycling, treatment and safe disposal of waste as a last resort during construction and operation phases.

Project No. 2127

Environmental Assessment for Application for Amendment of Plan under Section 12A for the Town Planning Ordinance (Cap. 131) for Mixed Use Development at Lots 796 and 1008RP in D.D. 77 and Adjoining Government Land in Ping Che, Ta Kwu Ling, New Territories

Figures



NOTES :

APPLICATION SITE

Consultant



Allied Environmental Consultants Limited

Project No. : 2127

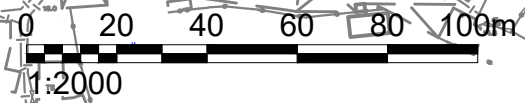
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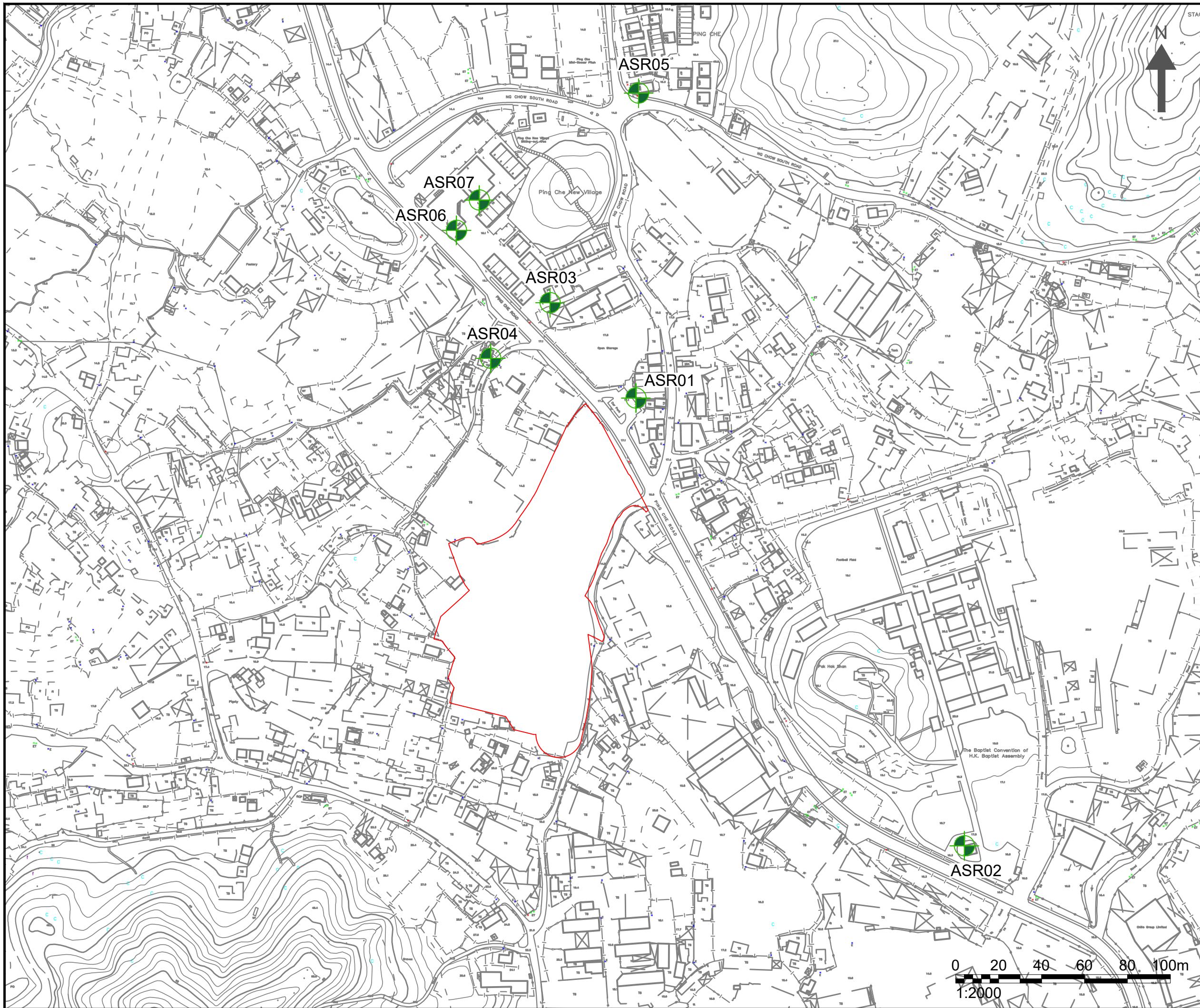
Project :
 APPLICATION FOR AMENDMENT OF PLAN UNDER SECTION 12A FOR THE TOWN PLANNING ORDINANCE (CAP. 131) FOR MIXED USE DEVELOPMENT AT LOT 796 AND 1008RP IN D.D. 77 AND ADJOINING GOVERNMENT LAND IN PING CHE, TA KWU LING, NEW TERRITORIES

Drawing Title :
 APPLICATION SITE LOCATION & ITS ENVIRONS


Drawing No : FIGURE 3.1	Revision : 1
Scale : AS SHOWN	Date : OCT 2023


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NOTES :

 APPLICATION SITE

 REPRESENTATIVE AIR QUALITY SENSITIVE RECEIVERS

Consultant



Allied Environmental Consultants Limited

Project No. : 2127

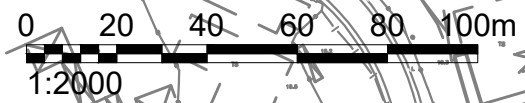
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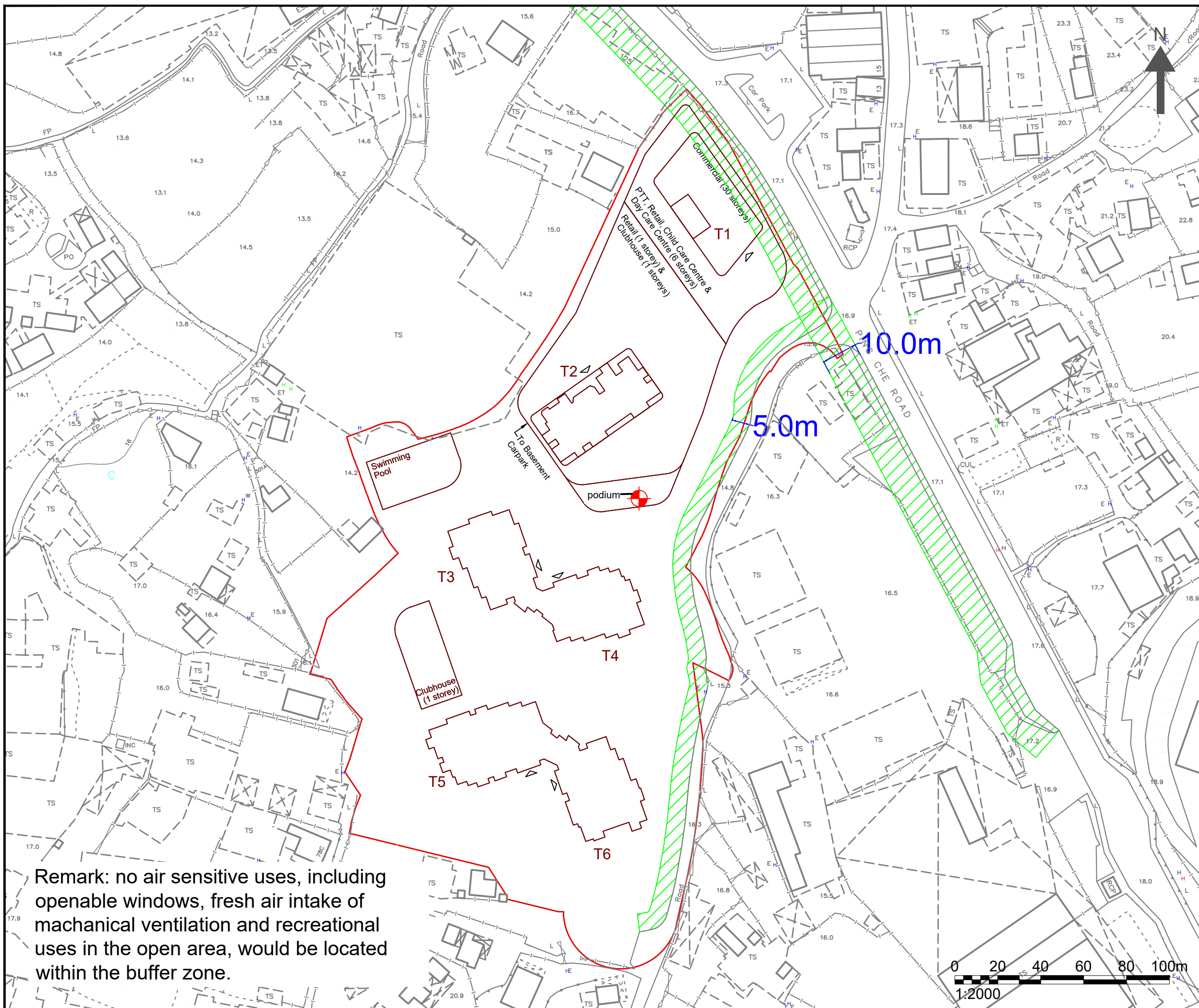
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Drawing Title :
 LOCATION OF REPRESENTATIVE AIR QUALITY SENSITIVE RECEIVERS


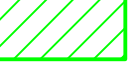
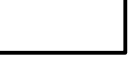

Drawing No : FIGURE 5.1	Revision : 1
Scale : AS SHOWN	Date : OCT 2023

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NOTES :

-  APPLICATION SITE
-  BUFFER DISTANCE FROM ROAD
-  PROPOSED BUILDING STRUCTURE
-  LOCATION OF EXHAUST AIR OUTLET

Consultant



Allied Environmental Consultants Limited

Project No. : 2127
 Drawing By : CS

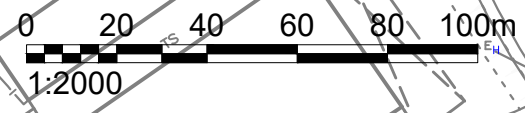
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 APPLICATION FOR AMENDMENT OF PLAN UNDER SECTION 12A FOR THE TOWN PLANNING ORDINANCE (CAP. 131) FOR MIXED USE DEVELOPMENT AT LOT 796 AND 1008RP IN D.D. 77 AND ADJOINING GOVERNMENT LAND IN PING CHE, TA KWU LING, NEW TERRITORIES

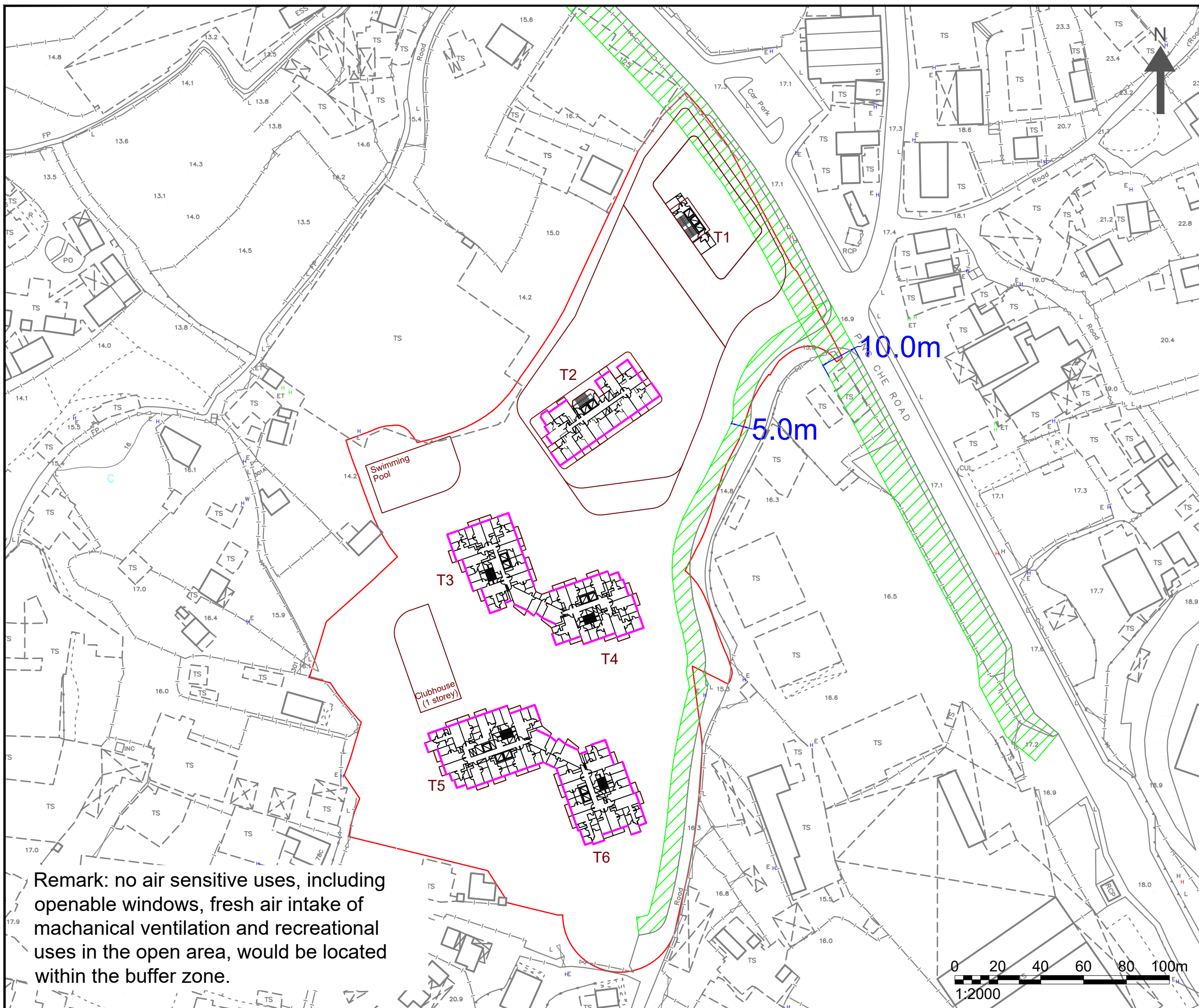
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 BUFFER DISTANCE FROM SURROUNDING ROADS AND LOCATION OF EXHAUST AIR OUTLET(GROUND FLOOR)

Drawing No : FIGURE 5.2a	Revision : 1
Scale : AS SHOWN	Date : OCT 2023


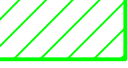
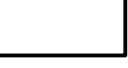

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Remark: no air sensitive uses, including openable windows, fresh air intake of mechanical ventilation and recreational uses in the open area, would be located within the buffer zone.





NOTES :

-  APPLICATION SITE
-  BUFFER DISTANCE FROM ROAD
-  PROPOSED BUILDING STRUCTURE
-  OPENABLE WINDOW

Consultant



Allied Environmental Consultants Limited

Project No. : 2127
 Drawing By : CS

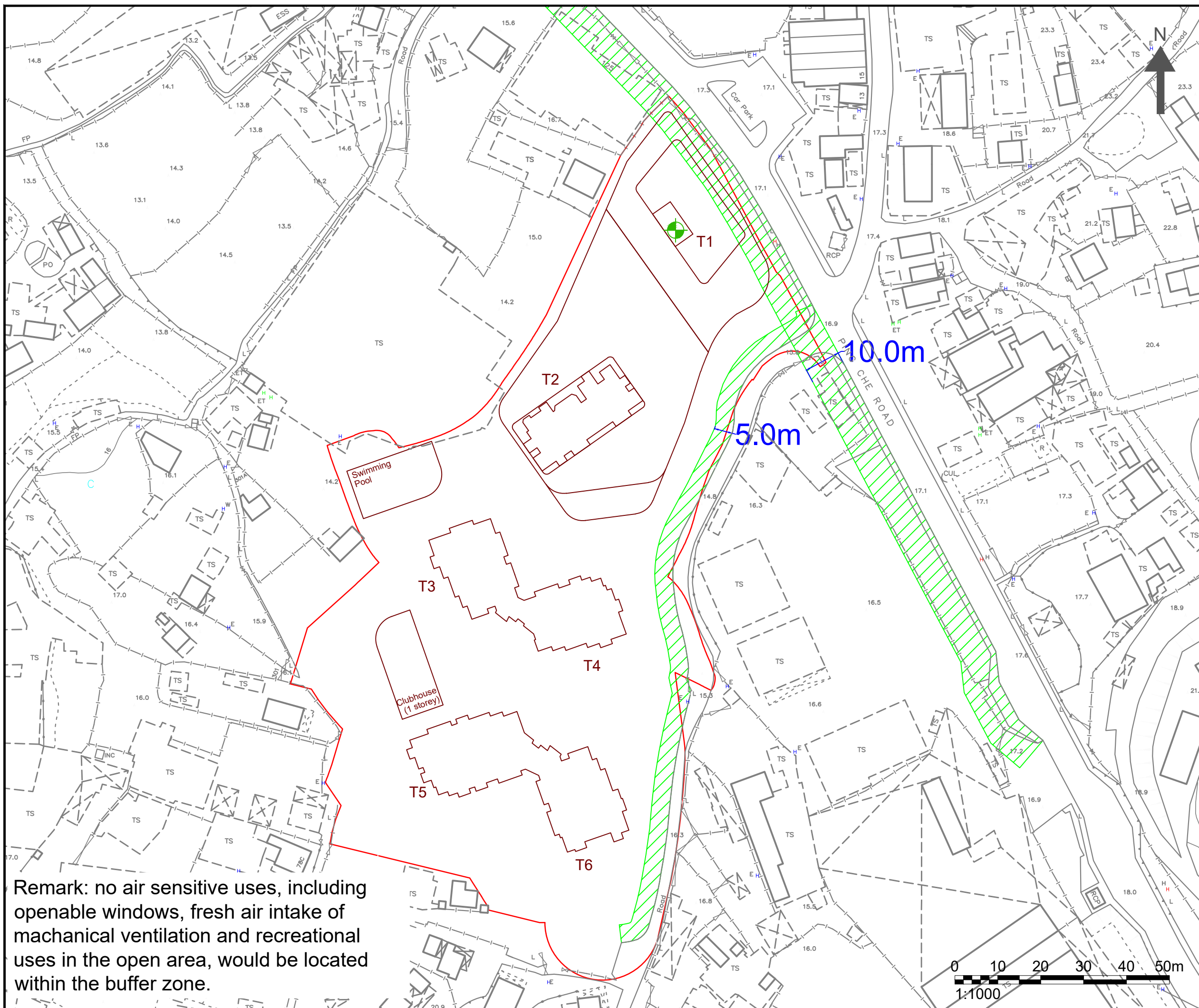
Project :
 APPLICATION FOR AMENDMENT OF PLAN UNDER SECTION 12A FOR THE TOWN PLANNING ORDINANCE (CAP. 131) FOR MIXED USE DEVELOPMENT AT LOT 796 AND 1008RP IN D.D. 77 AND ADJOINING GOVERNMENT LAND IN PING CHE, TA KWU LING, NEW TERRITORIES

Drawing Title :
 BUFFER DISTANCE FROM SURROUNDING ROADS AND LOCATION OF OPENABLE WINDOWS (TYPICAL FLOOR)


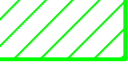
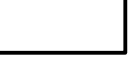

Drawing No : FIGURE 5.2b	Revision : 1
Scale : AS SHOWN	Date : OCT 2023

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Remark: no air sensitive uses, including openable windows, fresh air intake of mechanical ventilation and recreational uses in the open area, would be located within the buffer zone.



NOTES :

-  APPLICATION SITE
-  BUFFER DISTANCE FROM ROAD
-  PROPOSED BUILDING STRUCTURE
-  LOCATION OF FRESH AIR INTAKE

Consultant



Allied Environmental Consultants Limited

Project No. : 2127

Drawing By : CS

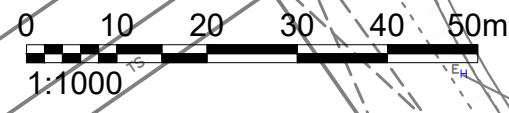
Project :
APPLICATION FOR AMENDMENT OF PLAN UNDER SECTION 12A FOR THE TOWN PLANNING ORDINANCE (CAP. 131) FOR MIXED USE DEVELOPMENT AT LOT 796 AND 1008RP IN D.D. 77 AND ADJOINING GOVERNMENT LAND IN PING CHE, TA KWU LING, NEW TERRITORIES

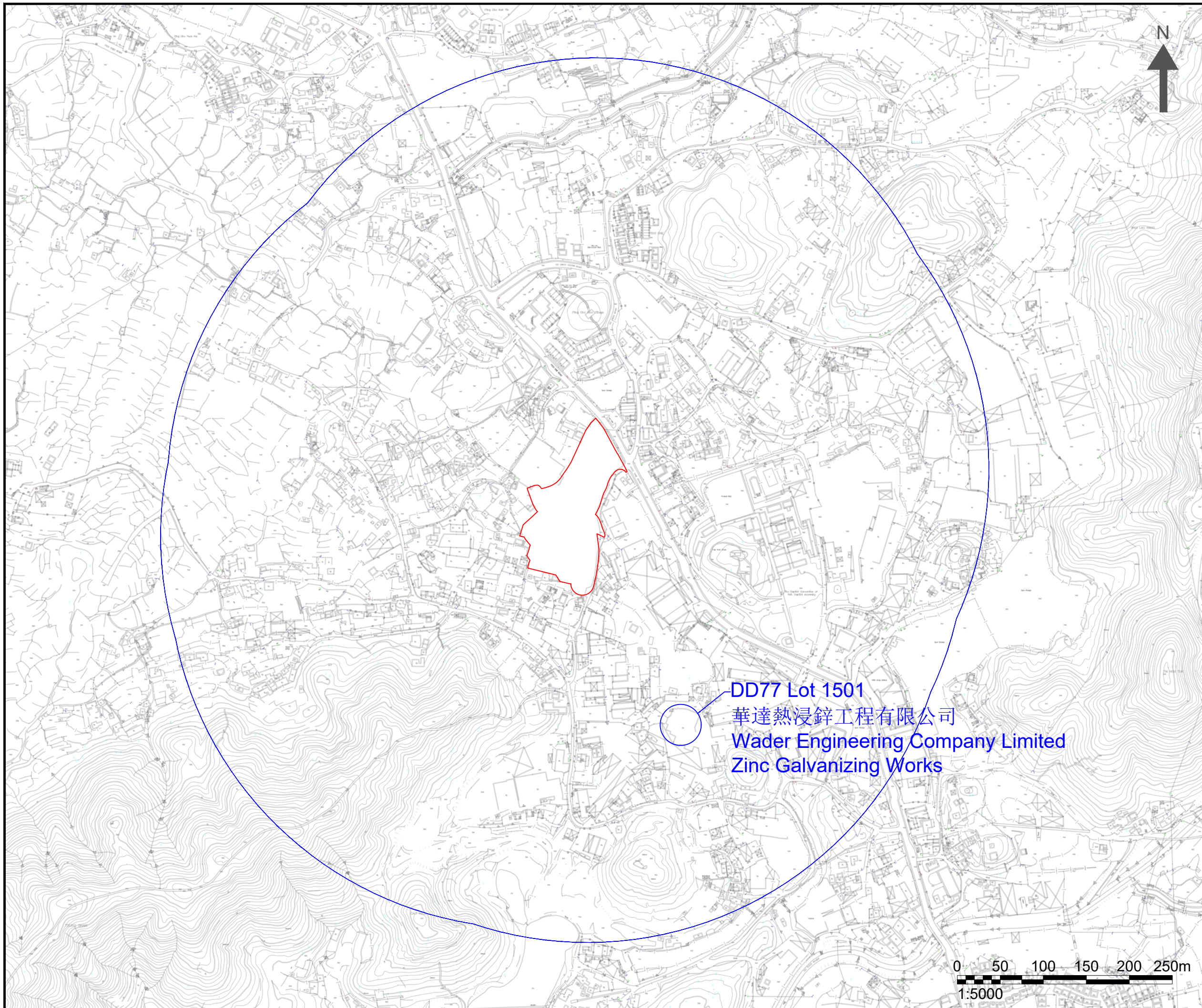
Drawing Title :
BUFFER DISTANCE FROM SURROUNDING ROADS AND LOCATION OF FRESH AIR INTAKES(Rooftop)

Drawing No : FIGURE 5.2c	Revision : 1
Scale : AS SHOWN	Date : OCT 2023

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Remark: no air sensitive uses, including openable windows, fresh air intake of machanical ventilation and recreational uses in the open area, would be located within the buffer zone.






DD77 Lot 1501
 華達熱浸鋅工程有限公司
 Wader Engineering Company Limited
 Zinc Galvanizing Works

NOTES :

 APPLICATION SITE

 500m ASSESSMENT AREA

Consultant



Allied Environmental Consultants Limited

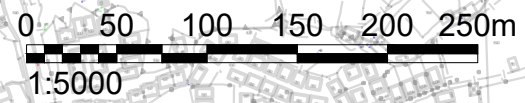
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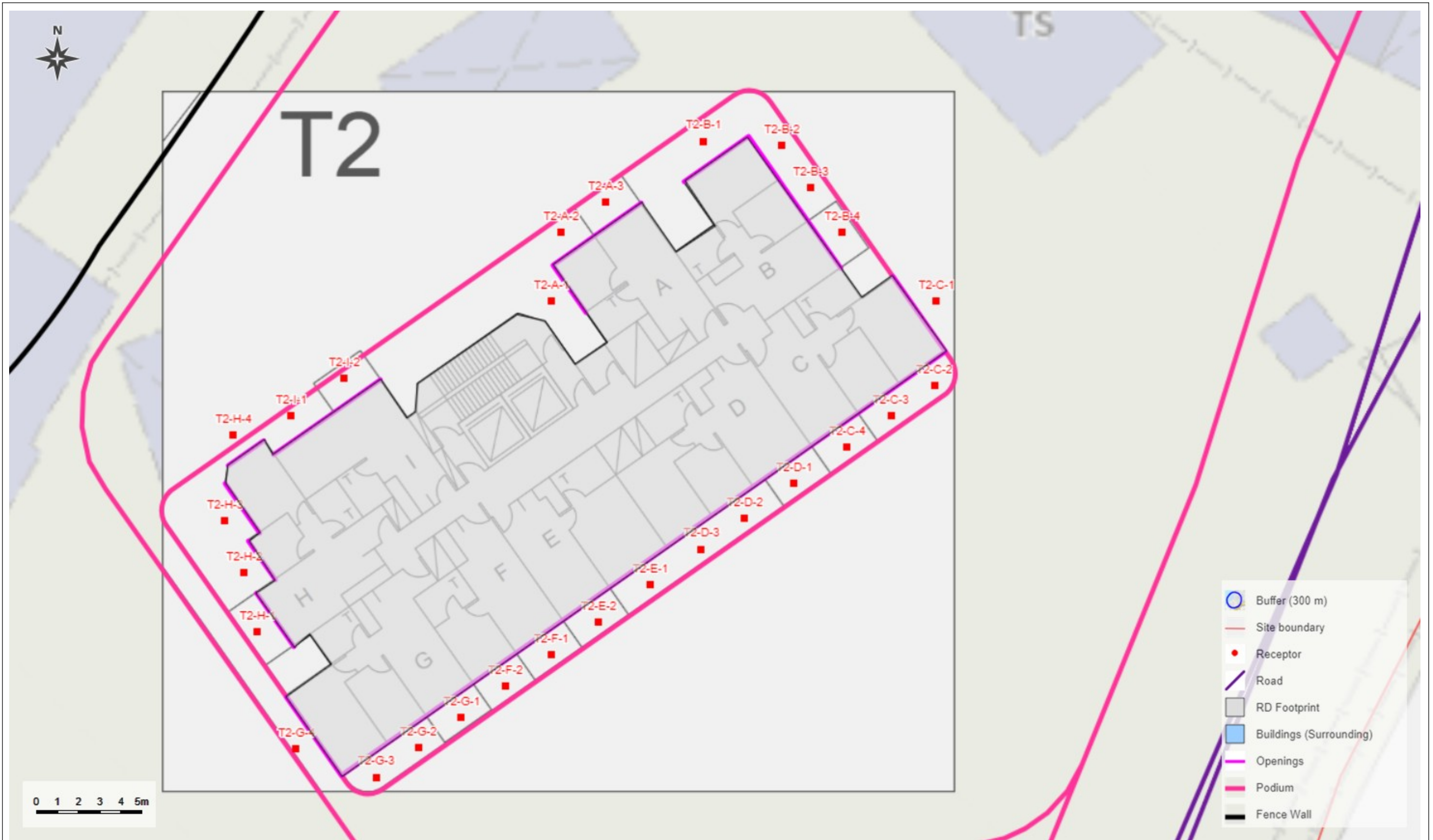
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 APPLICATION FOR AMENDMENT OF PLAN UNDER SECTION 12A FOR THE TOWN PLANNING ORDINANCE (CAP. 131) FOR MIXED USE DEVELOPMENT AT LOT 796 AND 1008RP IN D.D. 77 AND ADJOINING GOVERNMENT LAND IN PING CHE, TA KWU LING, NEW TERRITORIES

Drawing Title :
 500M Assessment Area with SP inspection information

Drawing No : FIGURE 5.3	Revision : 1
Scale : AS SHOWN	Date : OCT 2023



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LOCATIONS OF NOISE ASSESSMENT POINTS (T2)

Project Code: 2127 [v1]

Project Name: Ping Che

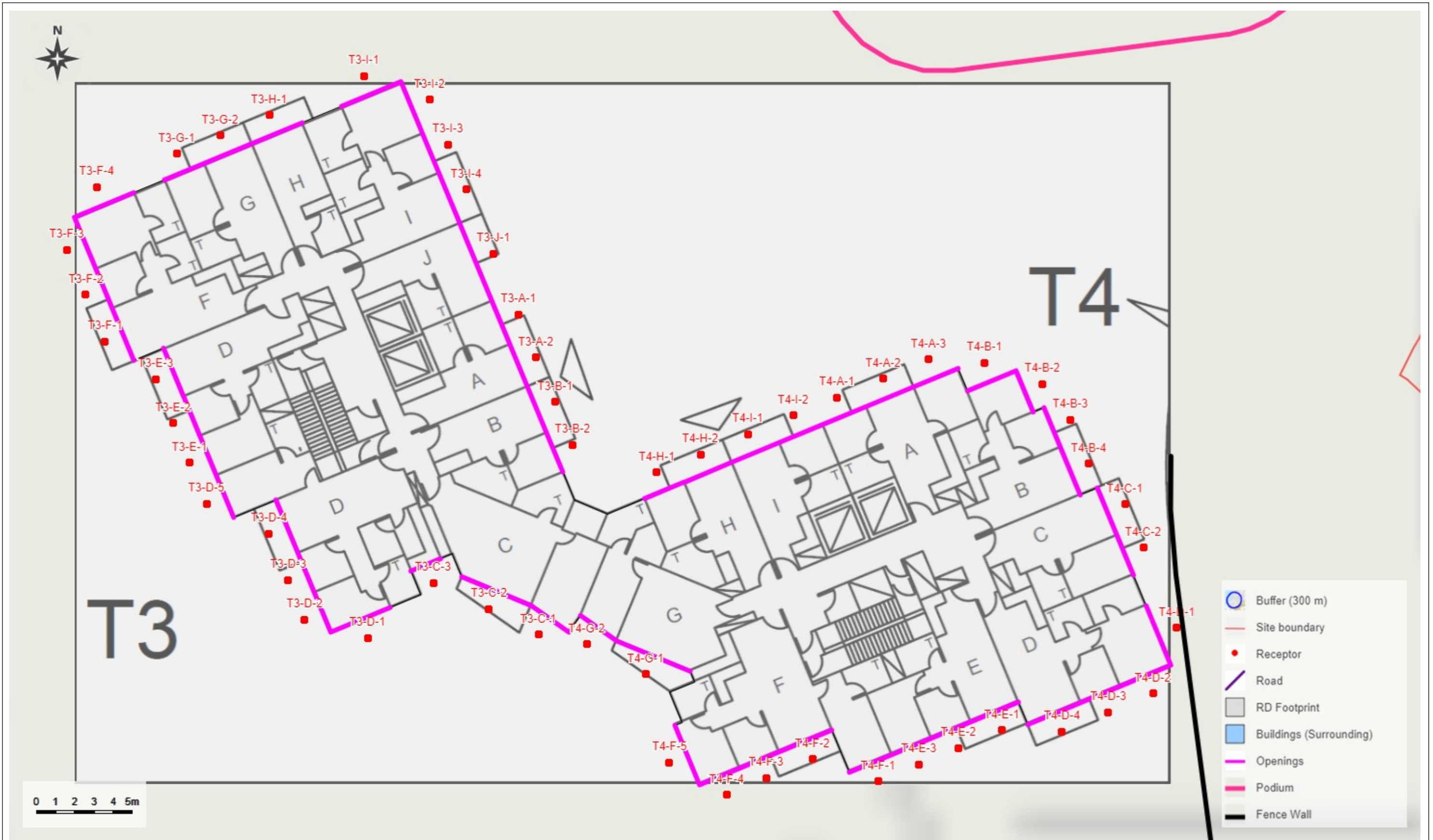
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User: AEC

Date/Time: 2023-09-19 10:20

Remark:



LOCATIONS OF NOISE ASSESSMENT POINTS (T3&T4)

Web-NAT-Plan (A3)

Project Code: 2127 [v1]

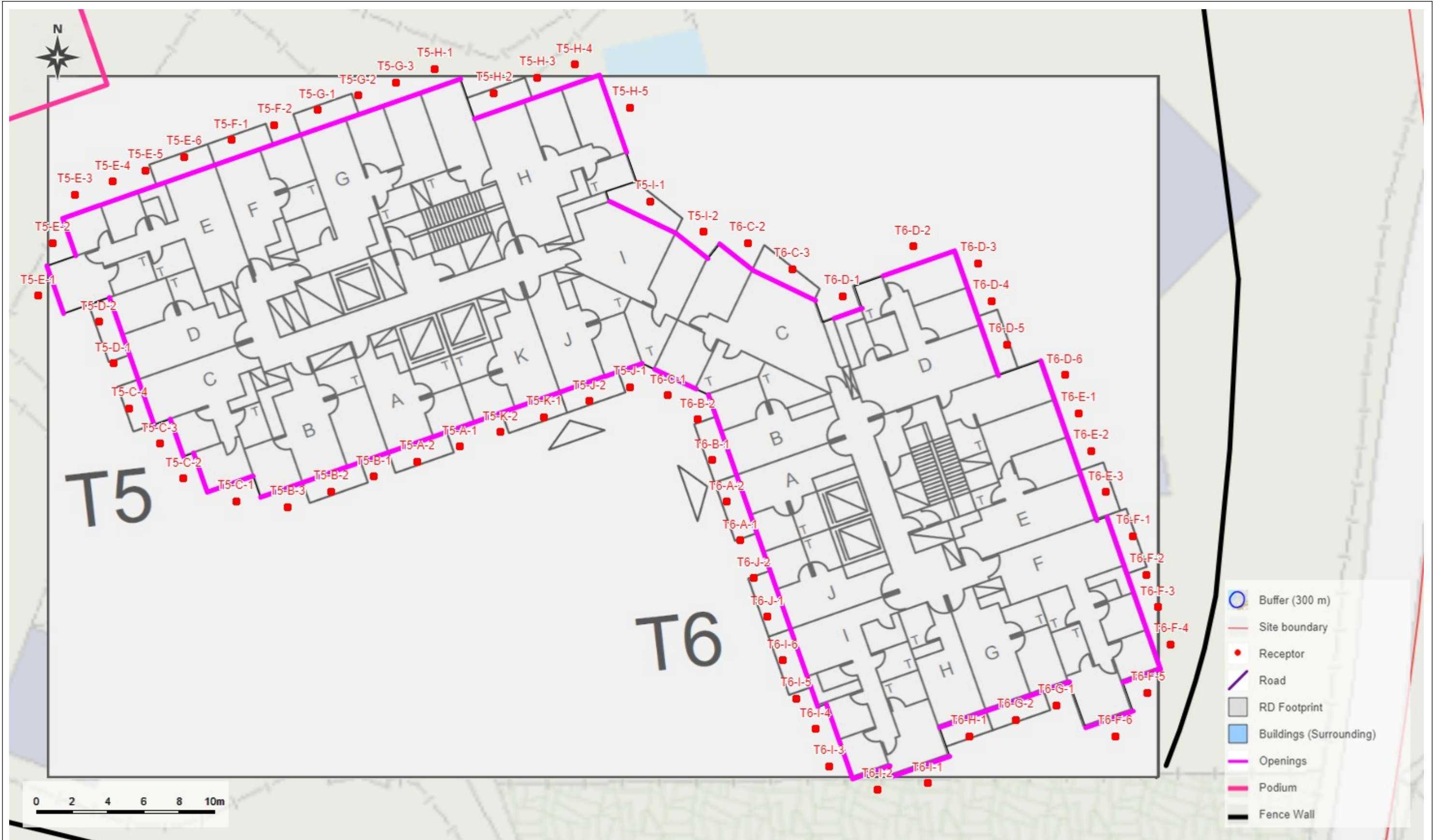
Project Name: Ping Che

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LOCATIONS OF NOISE ASSESSMENT POINTS (T5&T6)

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Project Code: 2127 [v1]

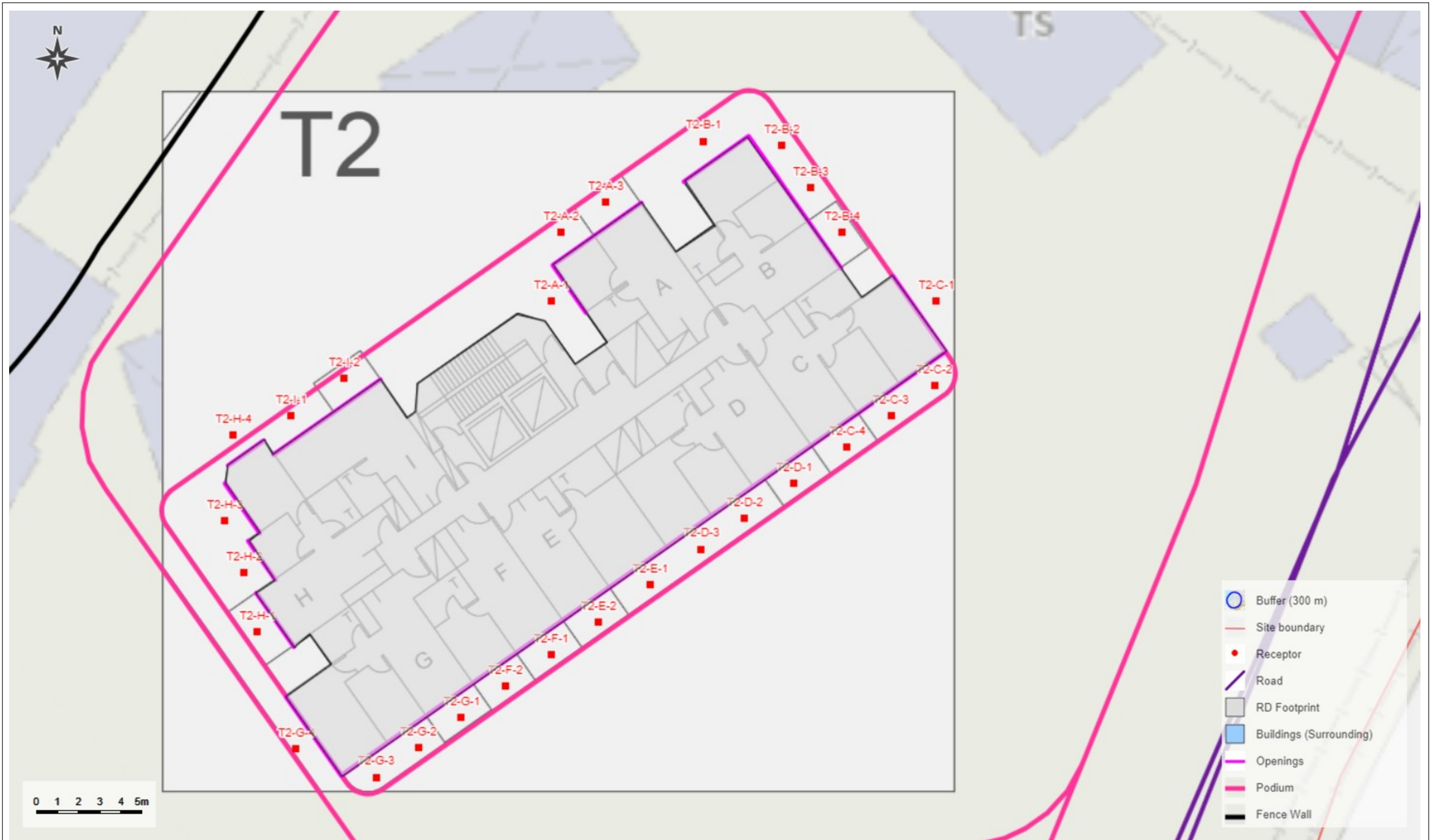
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NAP AND MITIGATION MEASURES (T2)

Project Code: 2127 [v1]

Project Name: Ping Che

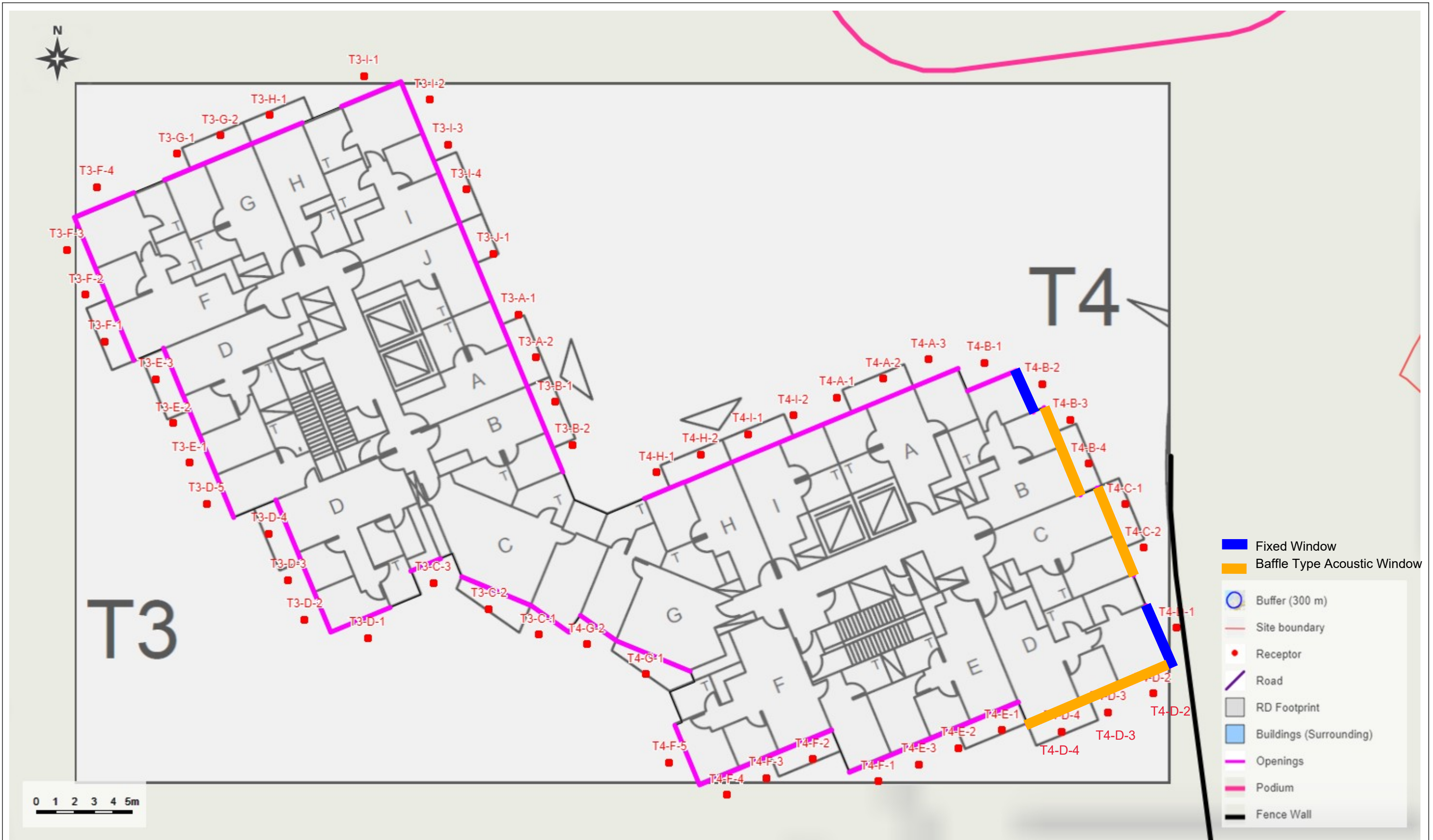
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NAP AND MITIGATION MEASURES (T3&T4)

Project Code: 2127 [v1]

Project Name: Ping Che

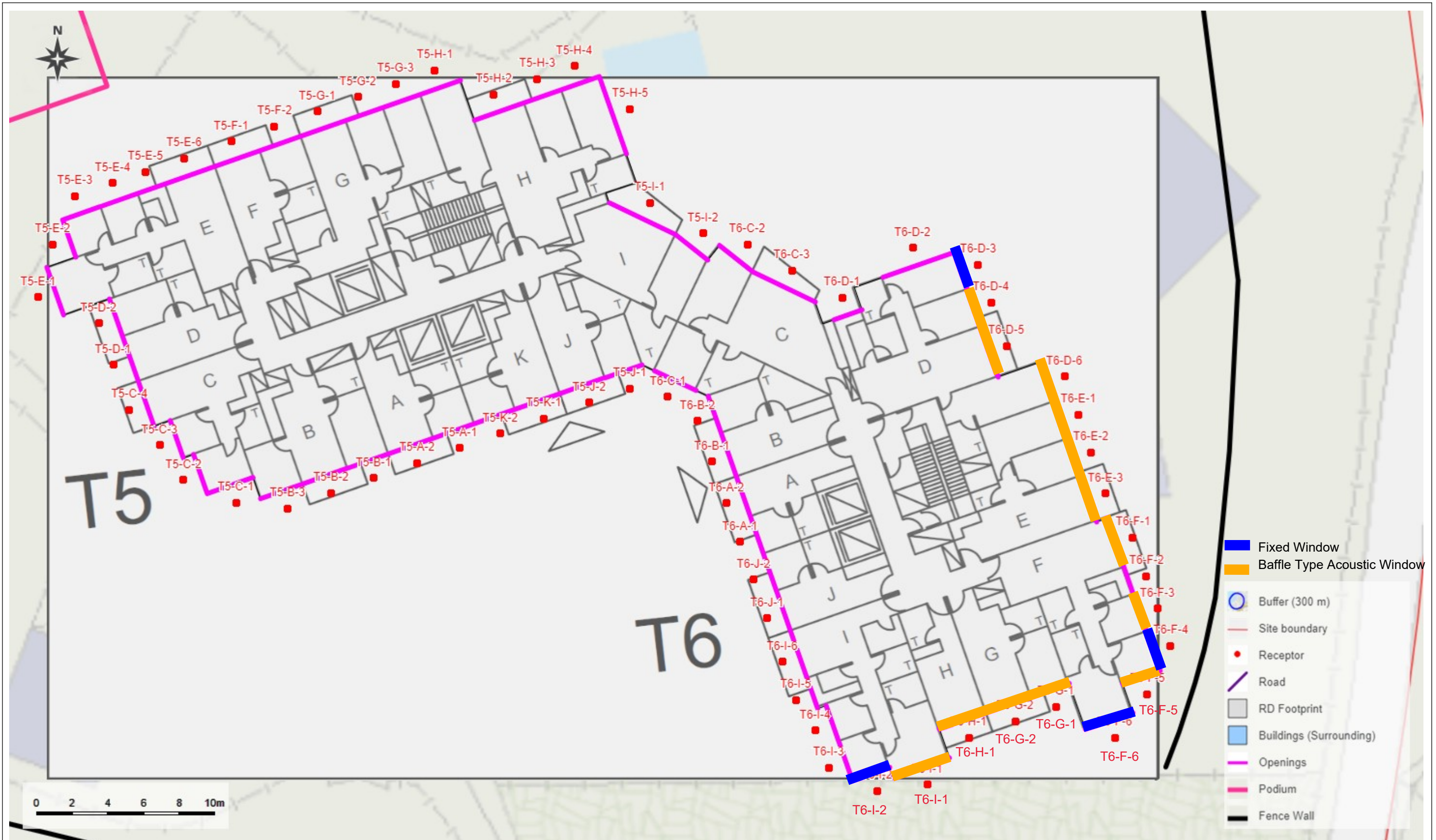
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NAP AND MITIGATION MEASURES (T5&T6)

Project Code: 2127 [v1]

Project Name: Ping Che

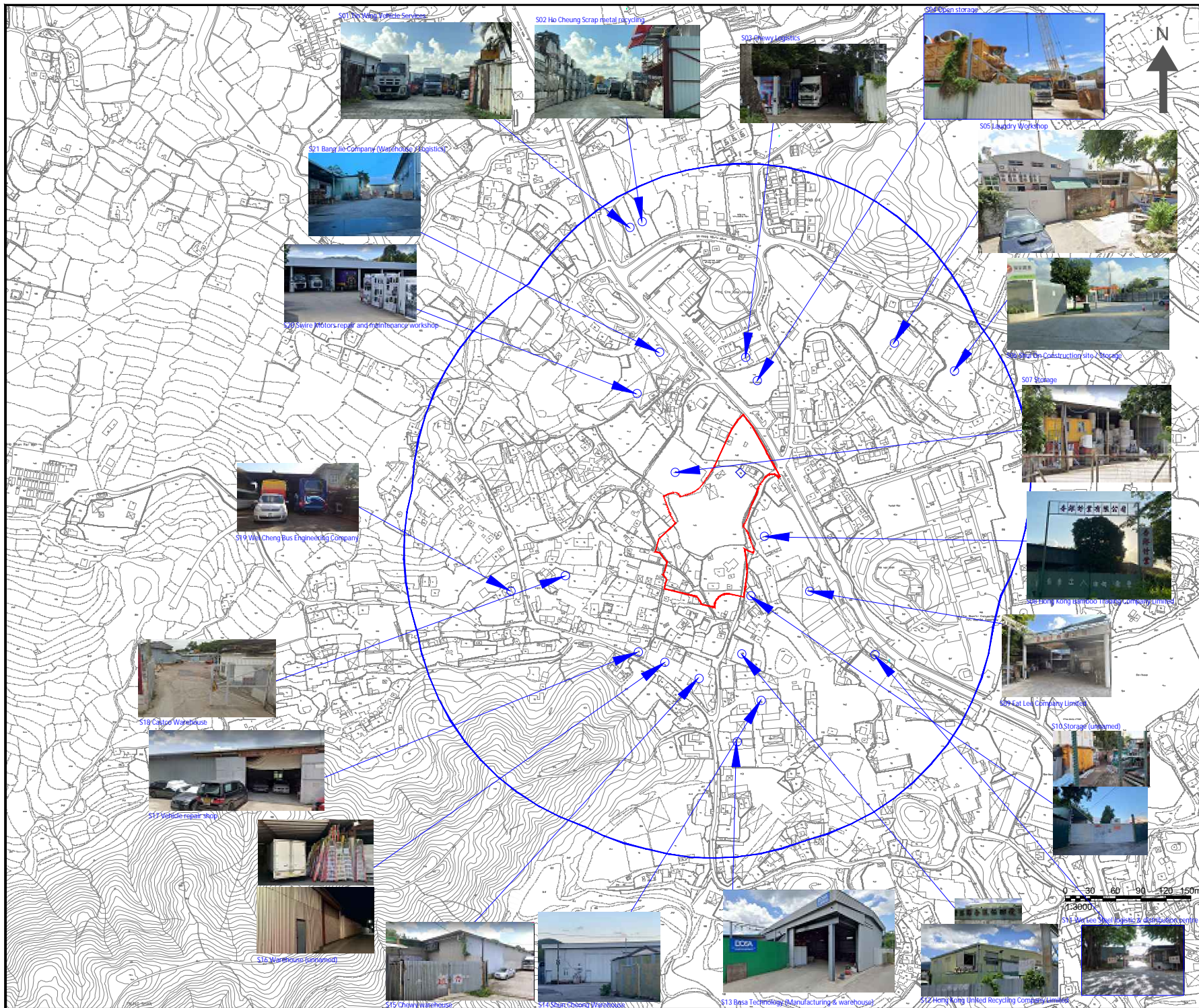
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User: AEC

Date/Time: 2023-09-19 10:20


Remark:



NOTES:

- PROJECT SITE
- 300M ASSESSMENT AREA

Consultant



Allied Environmental Consultants Limited

Project No. : 2127

Drawing By : CL

Project :

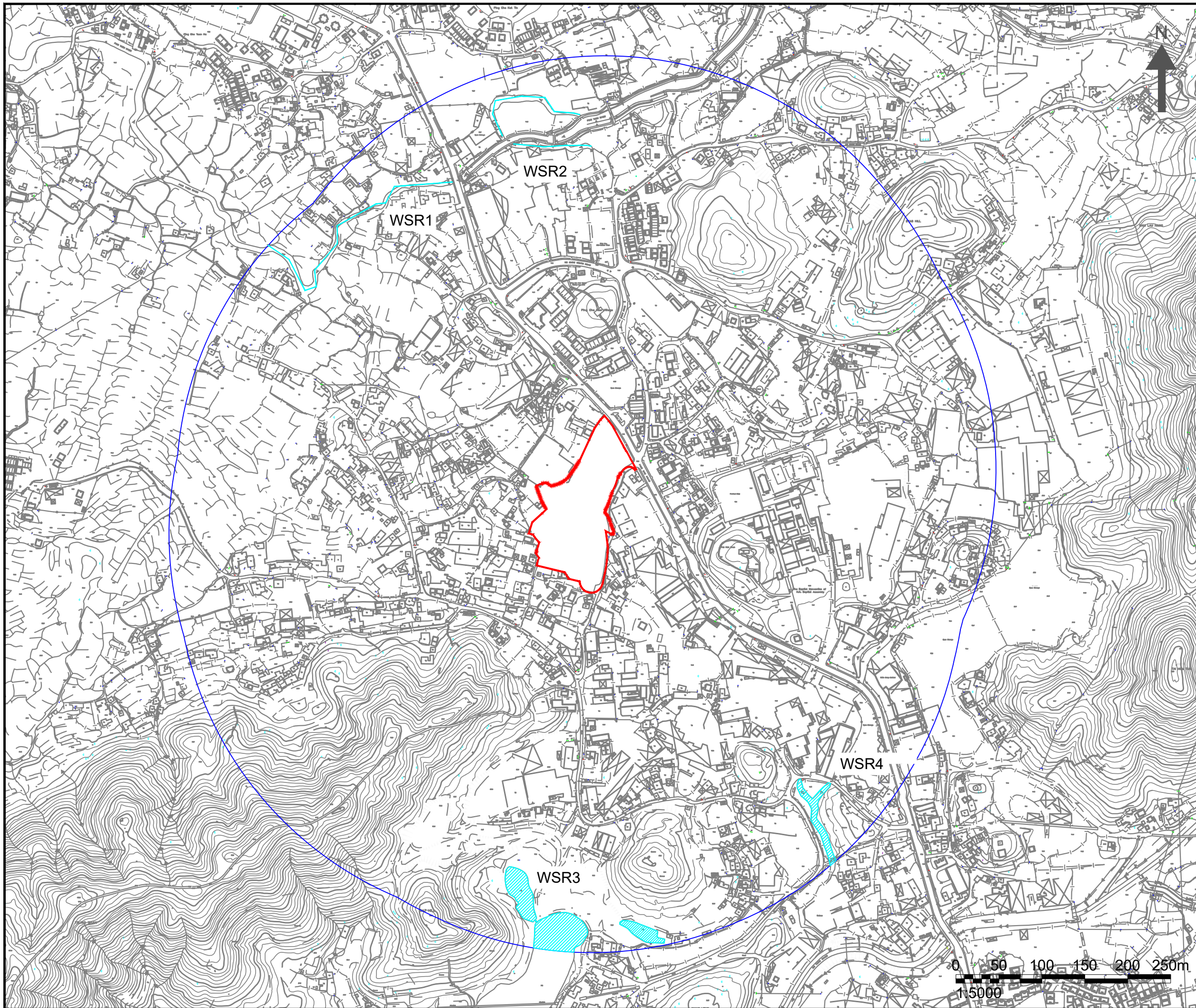
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Drawing Title :

Locations of the potential fixed noise sources

Drawing No. : FIGURE 6.3	Revision : 0
Scale : AS SHOWN	Date : SEPT 2023

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- NOTES :
- APPLICATION SITE
 - 500M ASSESSMENT AREA
 - NATURAL WATERCOURSE

Consultant



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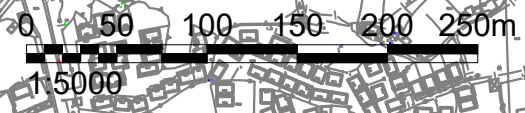
Project No. : 2127

Drawing By : CS

Project :
 APPLICATION FOR AMENDMENT OF PLAN UNDER SECTION 12A FOR THE TOWN PLANNING ORDINANCE (CAP. 131) FOR MIXED USE DEVELOPMENT AT LOT 796 AND 1008RP IN D.D. 77 AND ADJOINING GOVERNMENT LAND IN PING CHE, TA KWU LING, NEW TERRITORIES

Drawing Title :
 500M ASSESSMENT AREA AND WATER SENSITIVE RECEIVERS

Drawing No : FIGURE 7.1	Revision : 1
Scale : AS SHOWN	Date : APR 2024



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NOTES :

- APPLICATION SITE
- MACHINERY STORAGE AREA
- MACHINERY MAINTENANCE AREA
- BUILDING MATERIAL STORAGE AREA
- POTENTIAL OFFSITE LAND CONTAMINATION SOURCE

Consultant



Allied Environmental Consultants Limited

Project No. : 2127
 Drawing By : LL

Project :
 APPLICATION FOR AMENDMENT OF PLAN UNDER SECTION 12A FOR THE TOWN PLANNING ORDINANCE (CAP. 131) FOR MIXED USE DEVELOPMENT AT LOT 796 AND 1008RP IN D.D. 77 AND ADJOINING GOVERNMENT LAND IN PING CHE, TA KWU LING, NEW TERRITORIES

Drawing Title :
 INDICATIVE AIR DRONE DIAGRAM (ON SITE AND IMMEDIATE SURROUNDING)

Drawing No : FIGURE 8.1a	Revision : 1
Scale : AS SHOWN	Date : Apr 2024

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Waste oil container found

acetylene cylinders found

NOTES :

- APPLICATION SITE
- UNPAVED
- STAINED SURFACE

Consultant



Allied Environmental Consultants Limited

Project No. : 2127
 Drawing By : LL

Project :
 APPLICATION FOR AMENDMENT OF PLAN UNDER SECTION 12A FOR THE TOWN PLANNING ORDINANCE (CAP. 131) FOR MIXED USE DEVELOPMENT AT LOT 796 AND 1008RP IN D.D. 77 AND ADJOINING GOVERNMENT LAND IN PING CHE, TA KWU LING, NEW TERRITORIES

Drawing Title :
 INDICATIVE AIR DRONE DIAGRAM (PAVING CONDITION OF OPEN STORAGE AREA)

Drawing No : FIGURE 8.1b	Revision : 1
Scale : AS SHOWN	Date : FEB 2024

DO NOT SCALE OFF DRAWING. THIS DRAWING IS NOT FOR CONSTRUCTION PURPOSES UNLESS EXPRESSLY STATED. ALL RIGHTS RESERVED AND REPRODUCTION IN ANY FORM MUST BE APPROVED BY ALLIED ENVIRONMENTAL CONSULTANTS LIMITED.

Project No. 2127

Environmental Assessment for Application for Amendment of Plan under Section 12A for the Town Planning Ordinance (Cap. 131) for Mixed Use Development at Lots 796 and 1008RP in D.D. 77 and Adjoining Government Land in Ping Che, Ta Kwu Ling, New Territories

Appendix 2.1

Tentative Programme of the Project

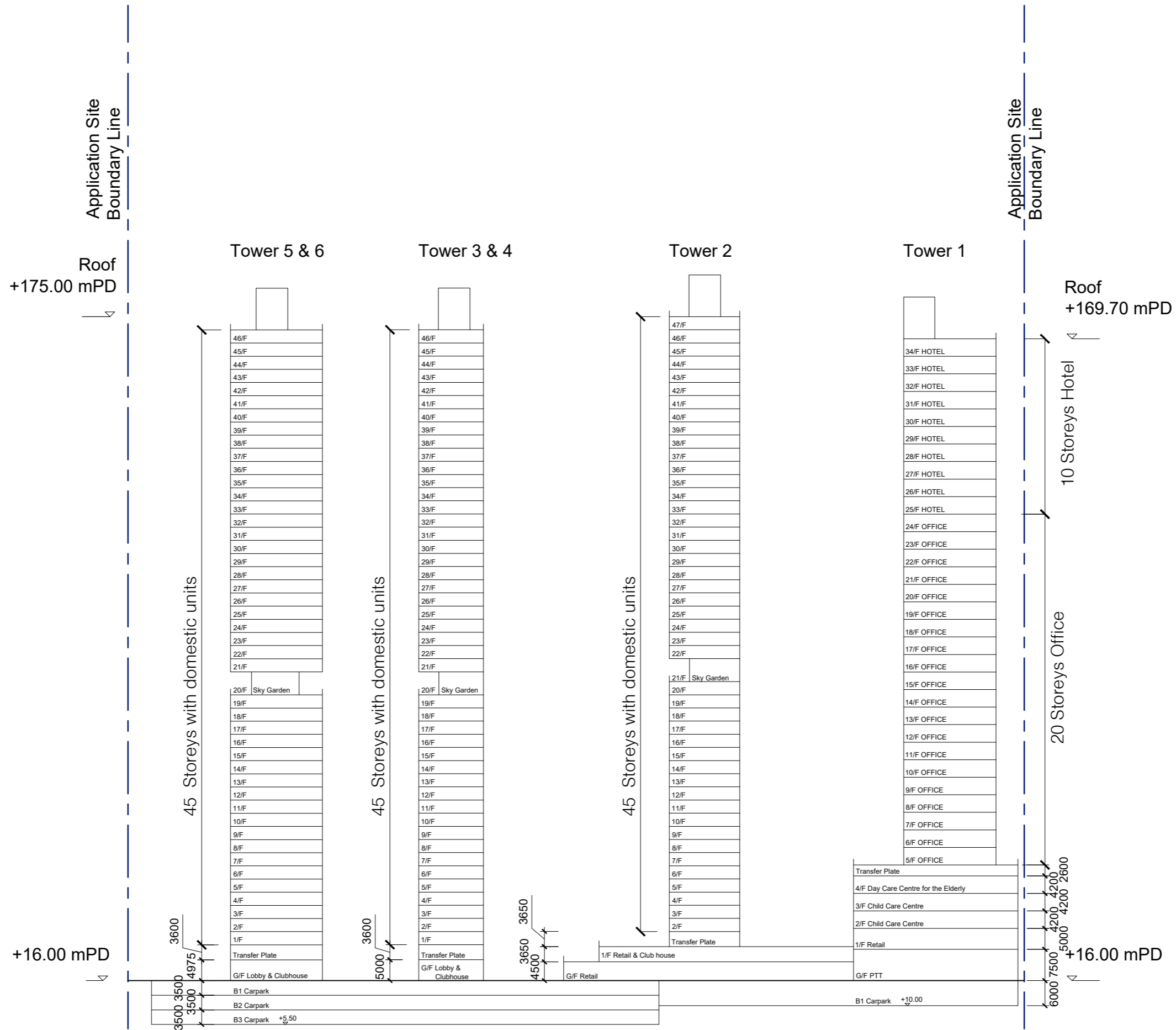
Project No. 2127

Environmental Assessment for Application for Amendment of Plan under Section 12A for the Town Planning Ordinance (Cap. 131) for Mixed Use Development at Lots 796 and 1008RP in D.D. 77 and Adjoining Government Land in Ping Che, Ta Kwu Ling, New Territories

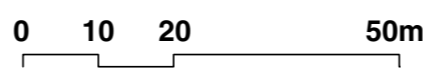
Appendix 3.1

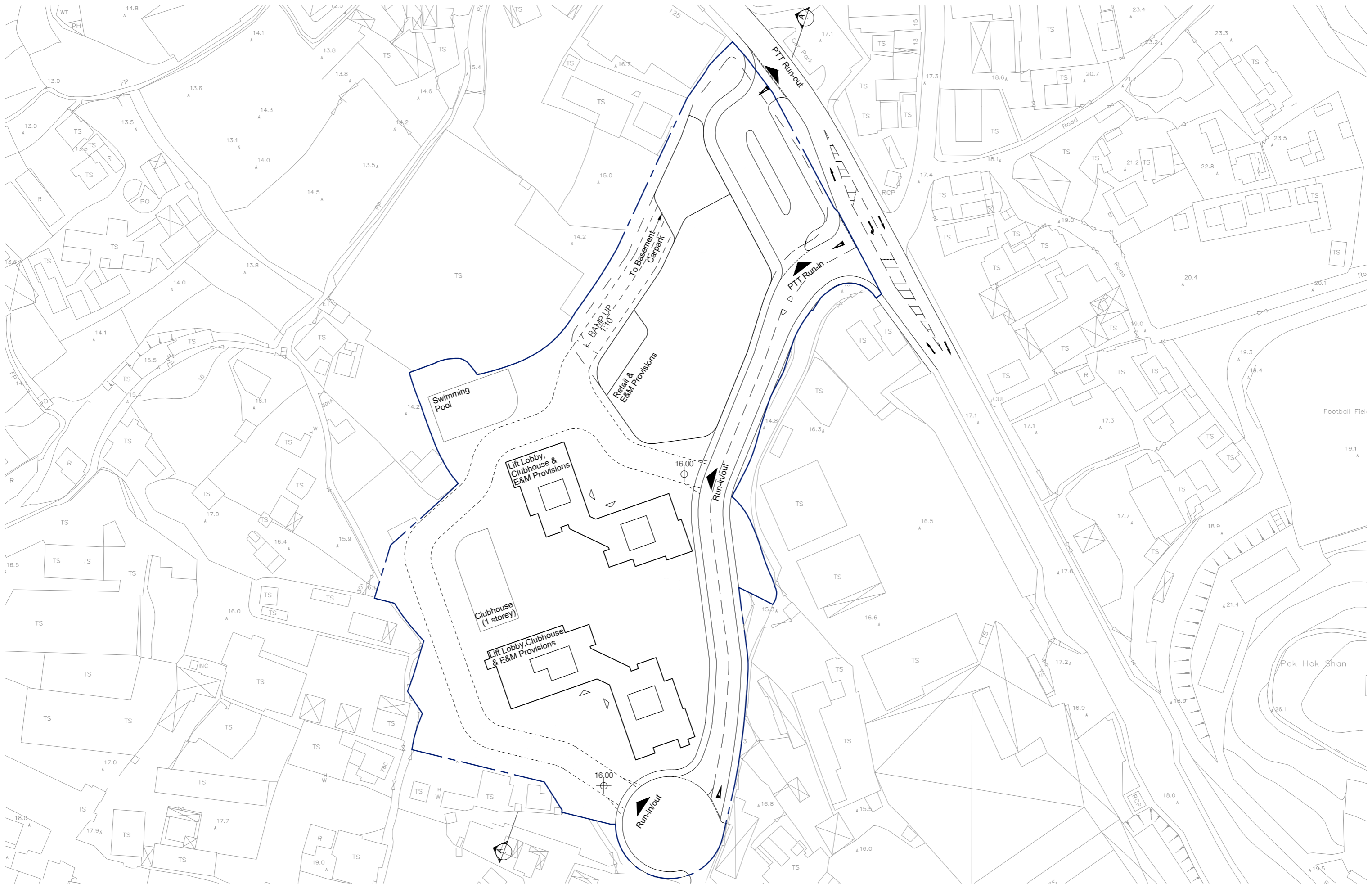
Master Layout Plan of the Proposed Amendment

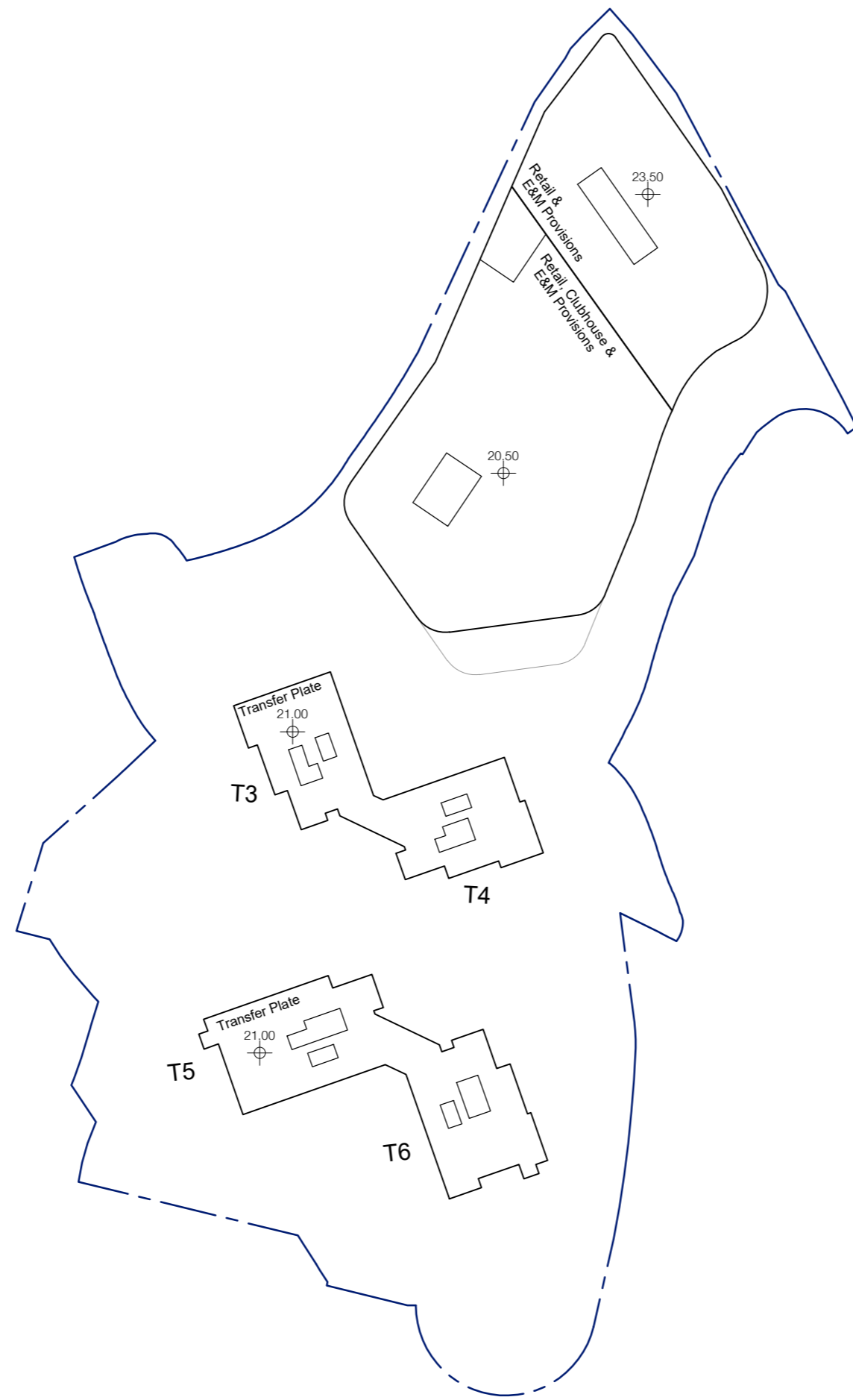


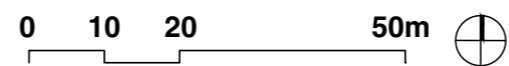
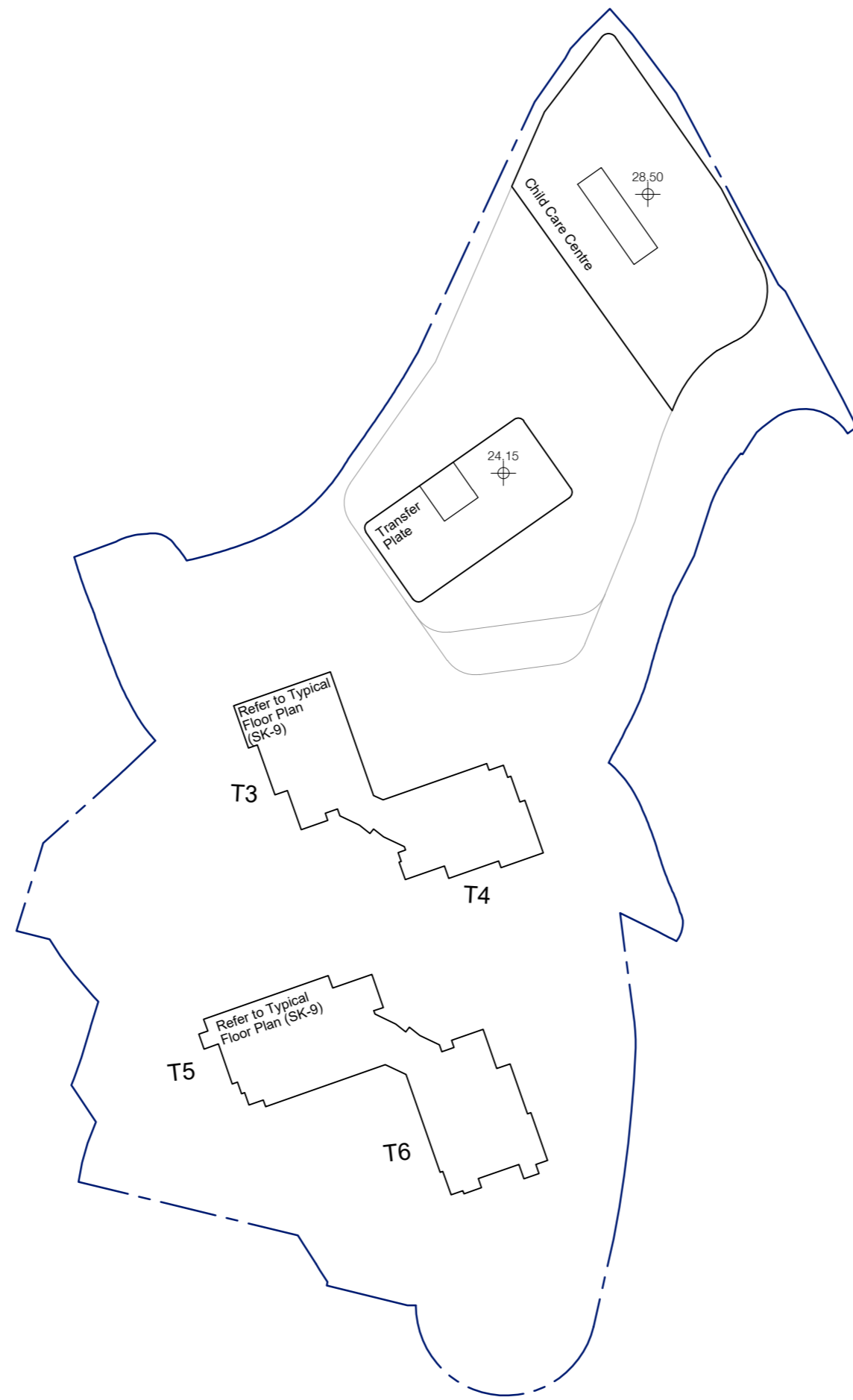


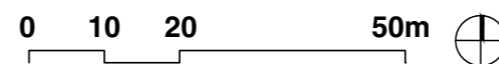
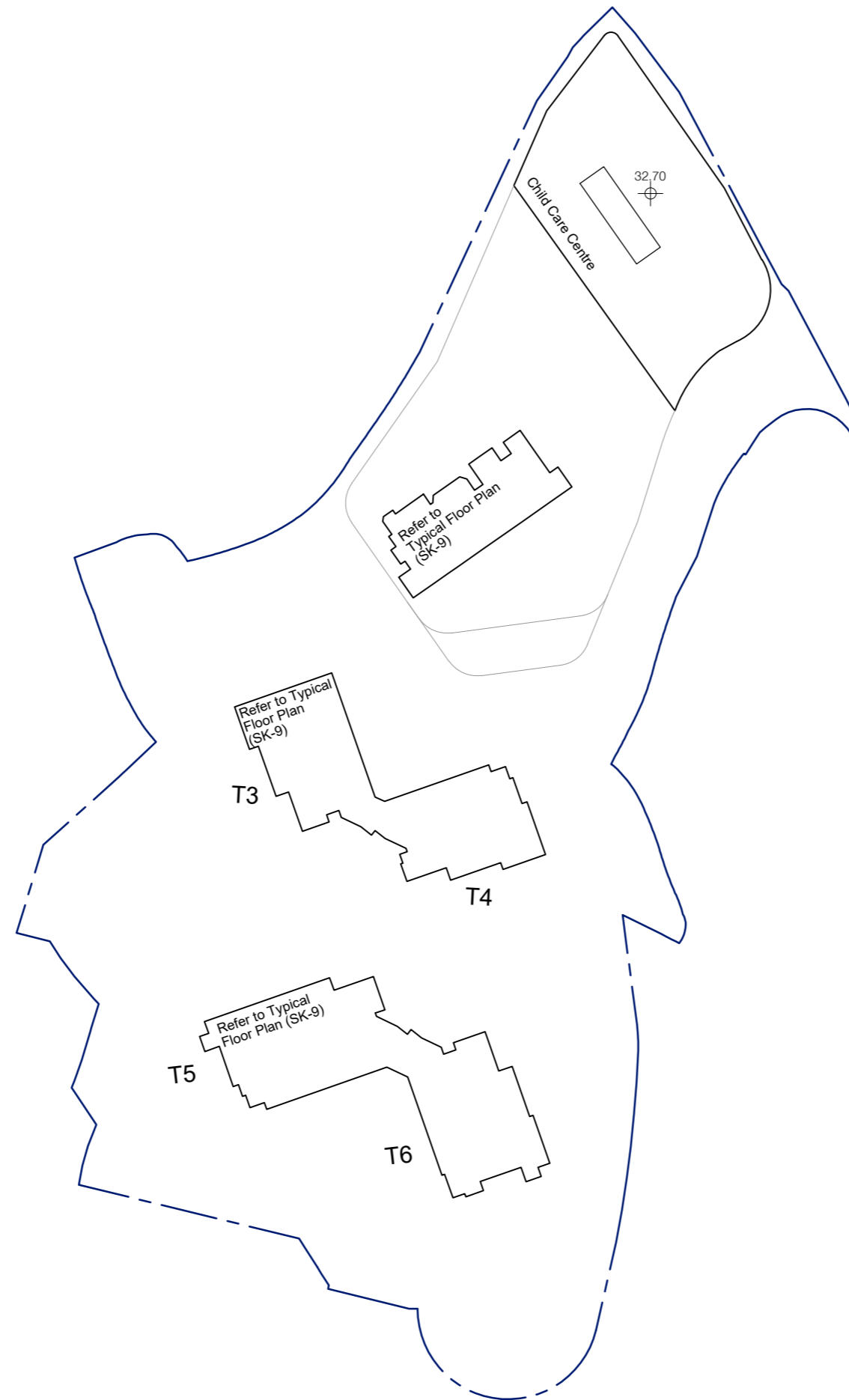
SCHEMATIC SECTION AA' SK-2
 PROPOSED DEVELOPMENT AT PING CHE DD77, N.T.

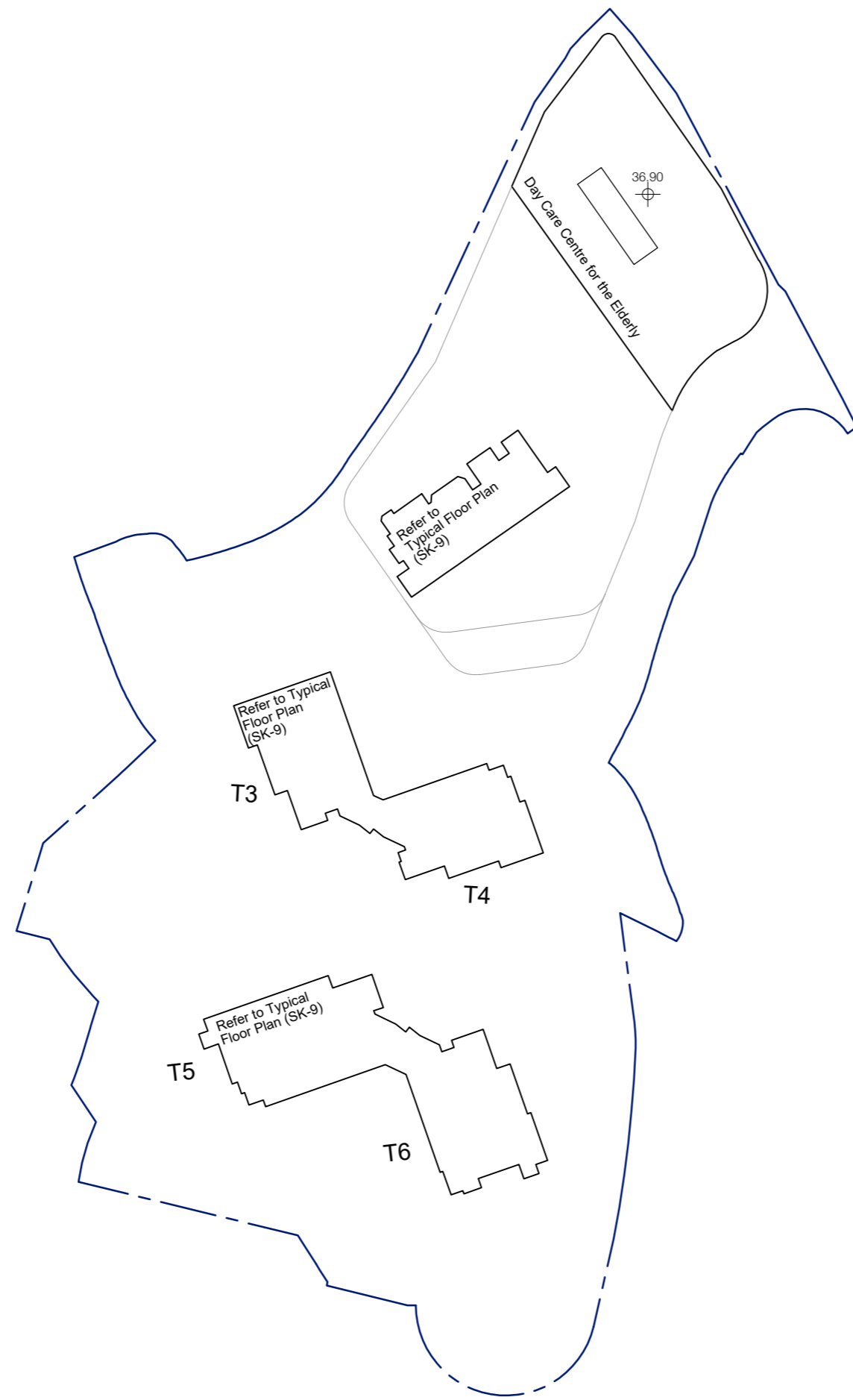


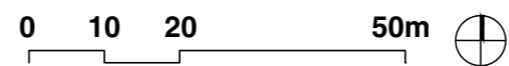
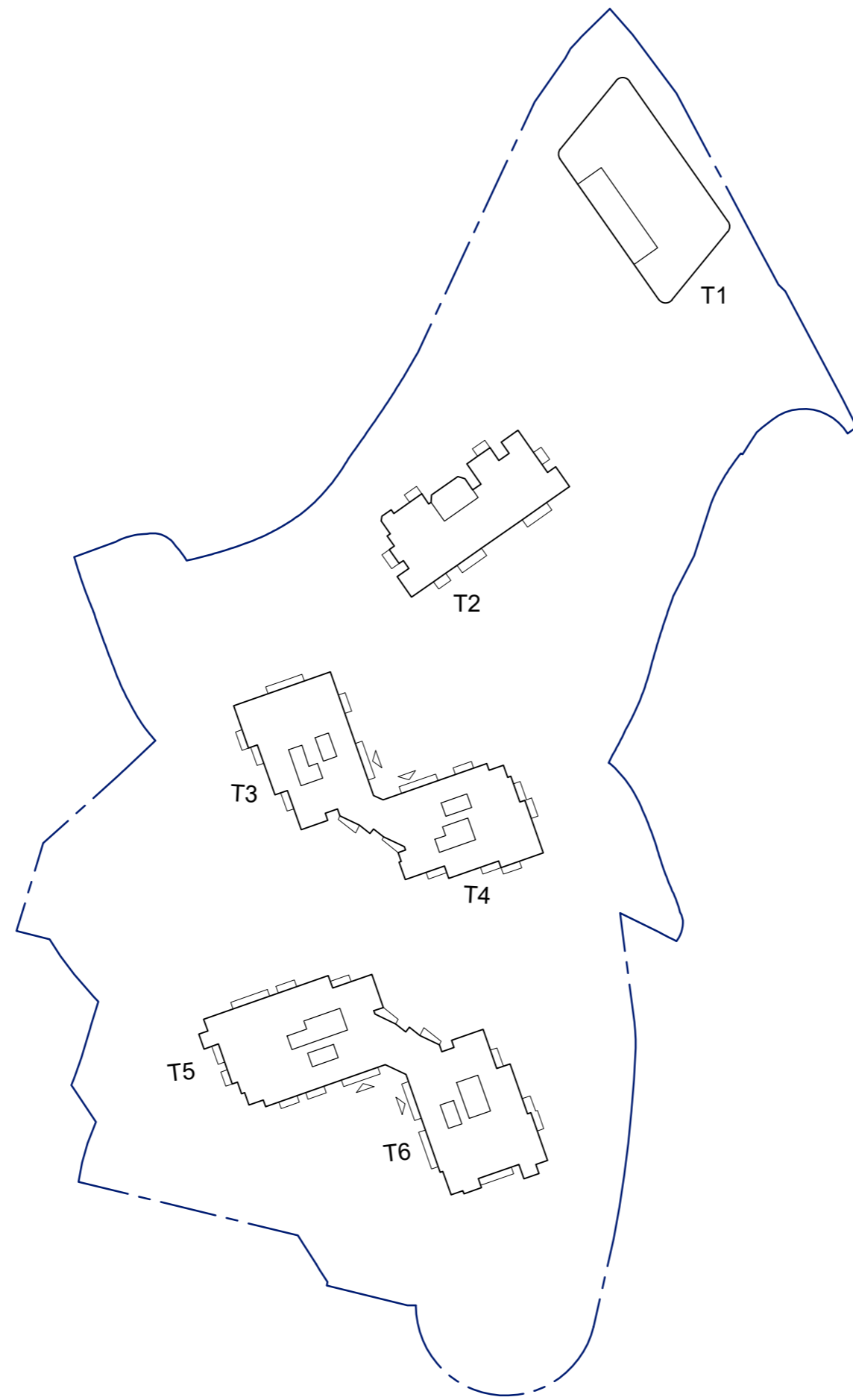


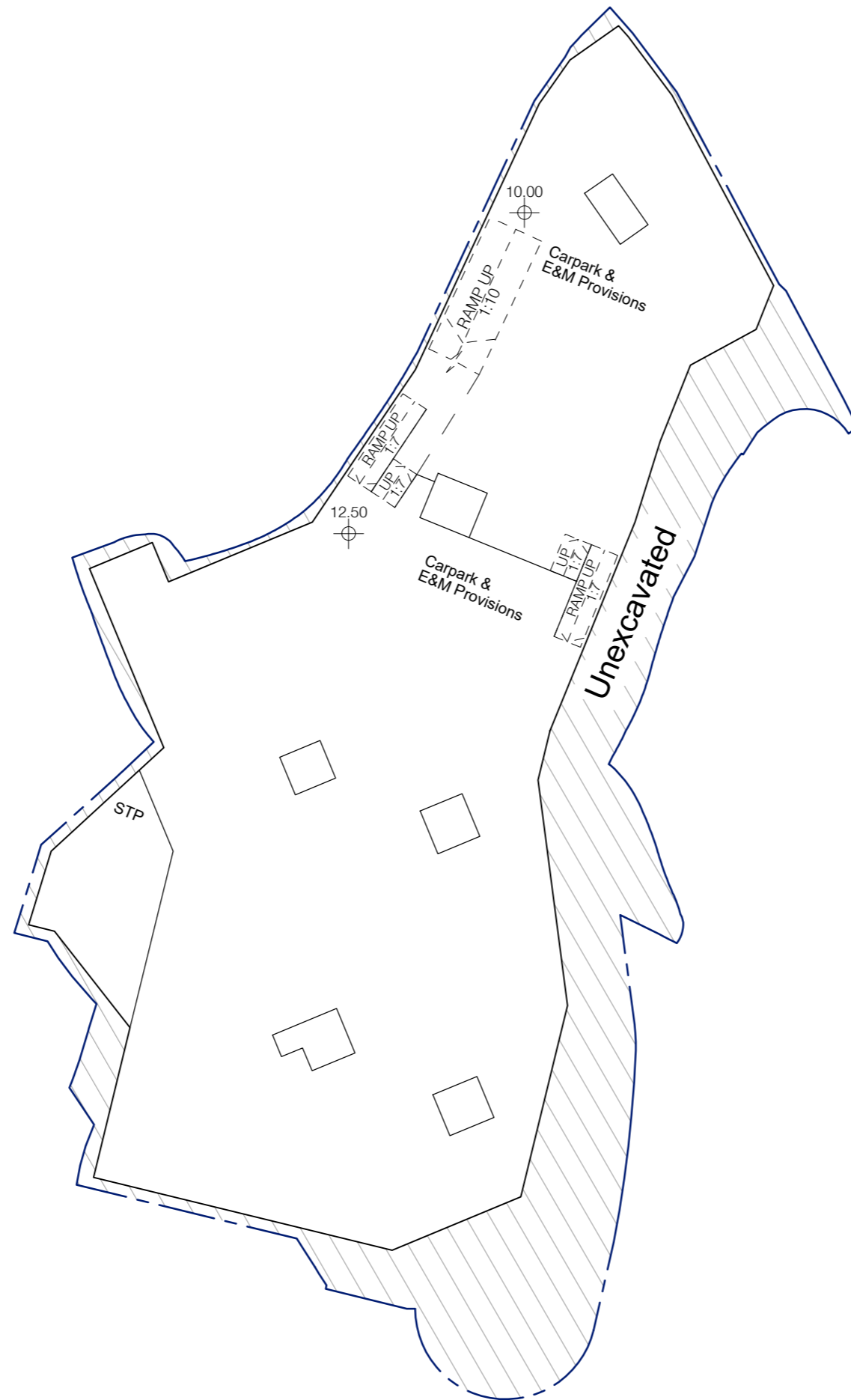


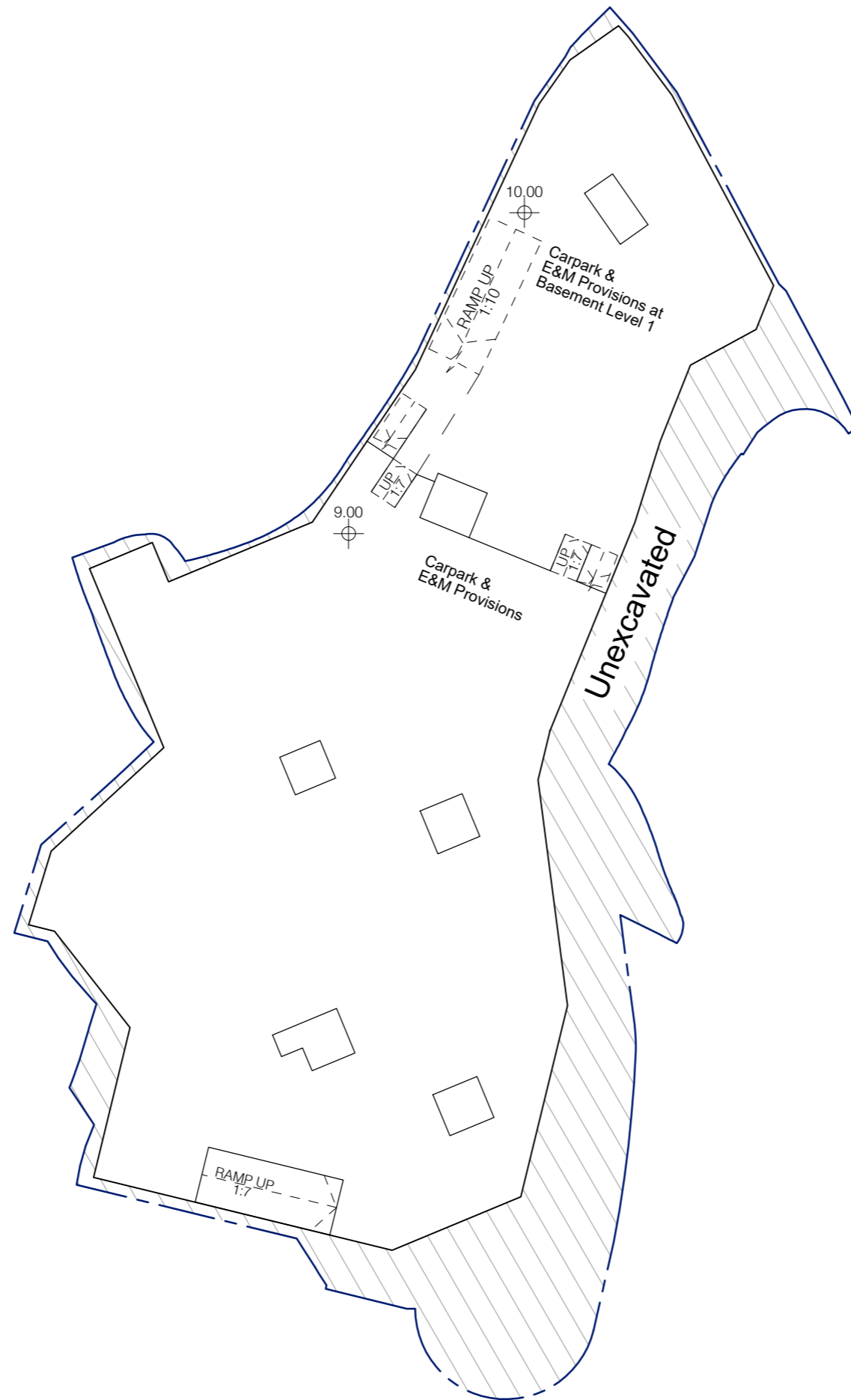


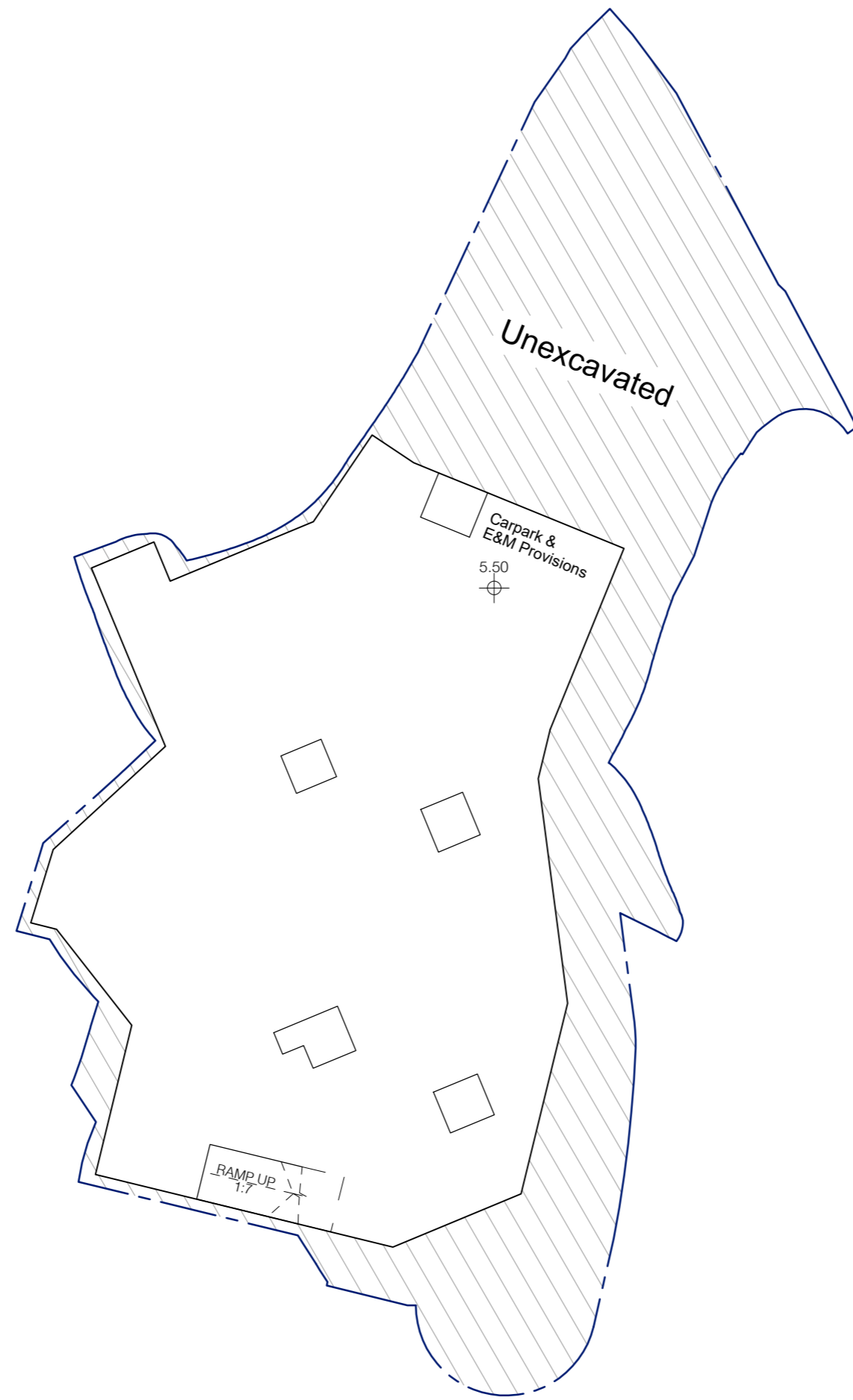


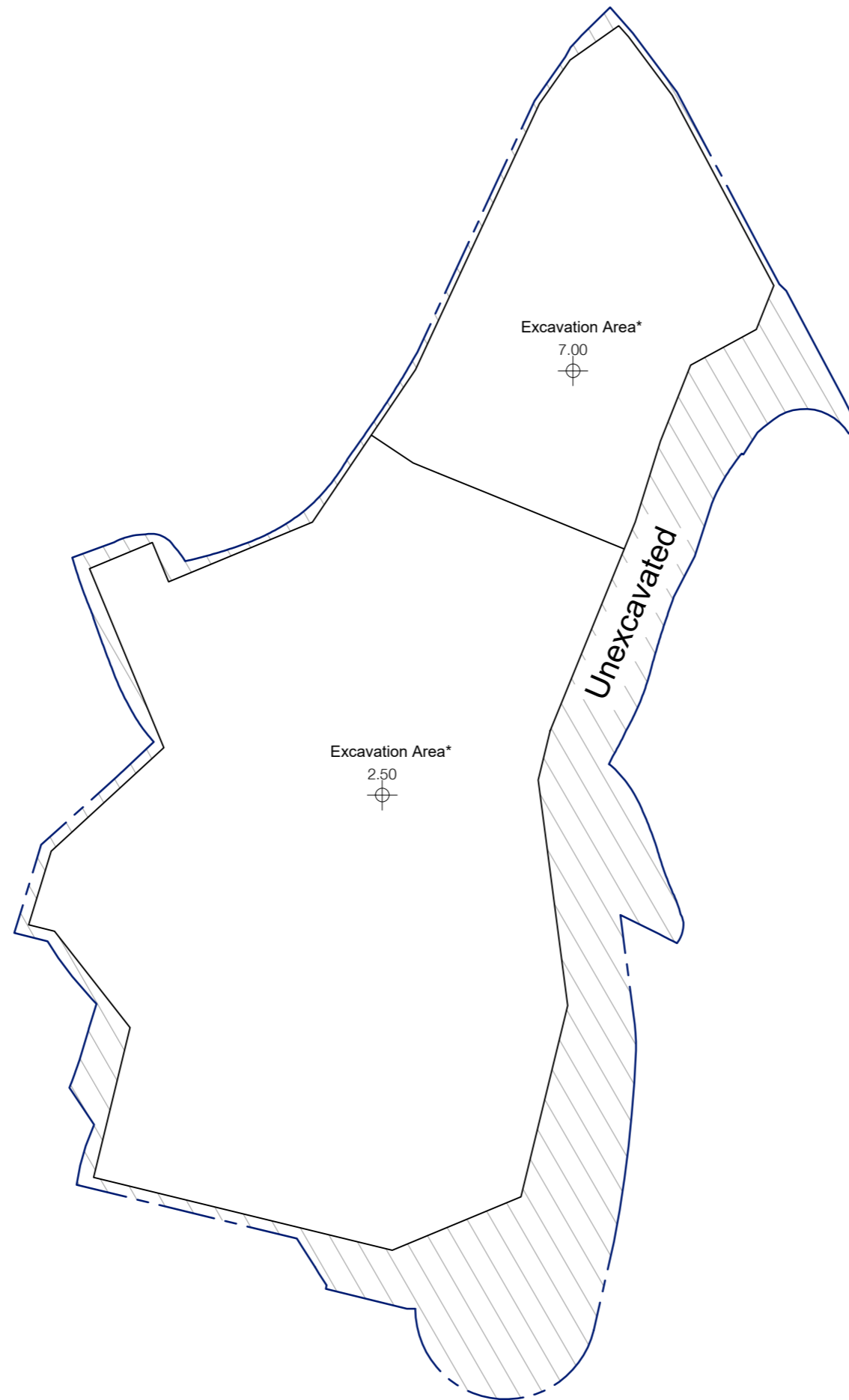




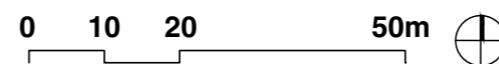


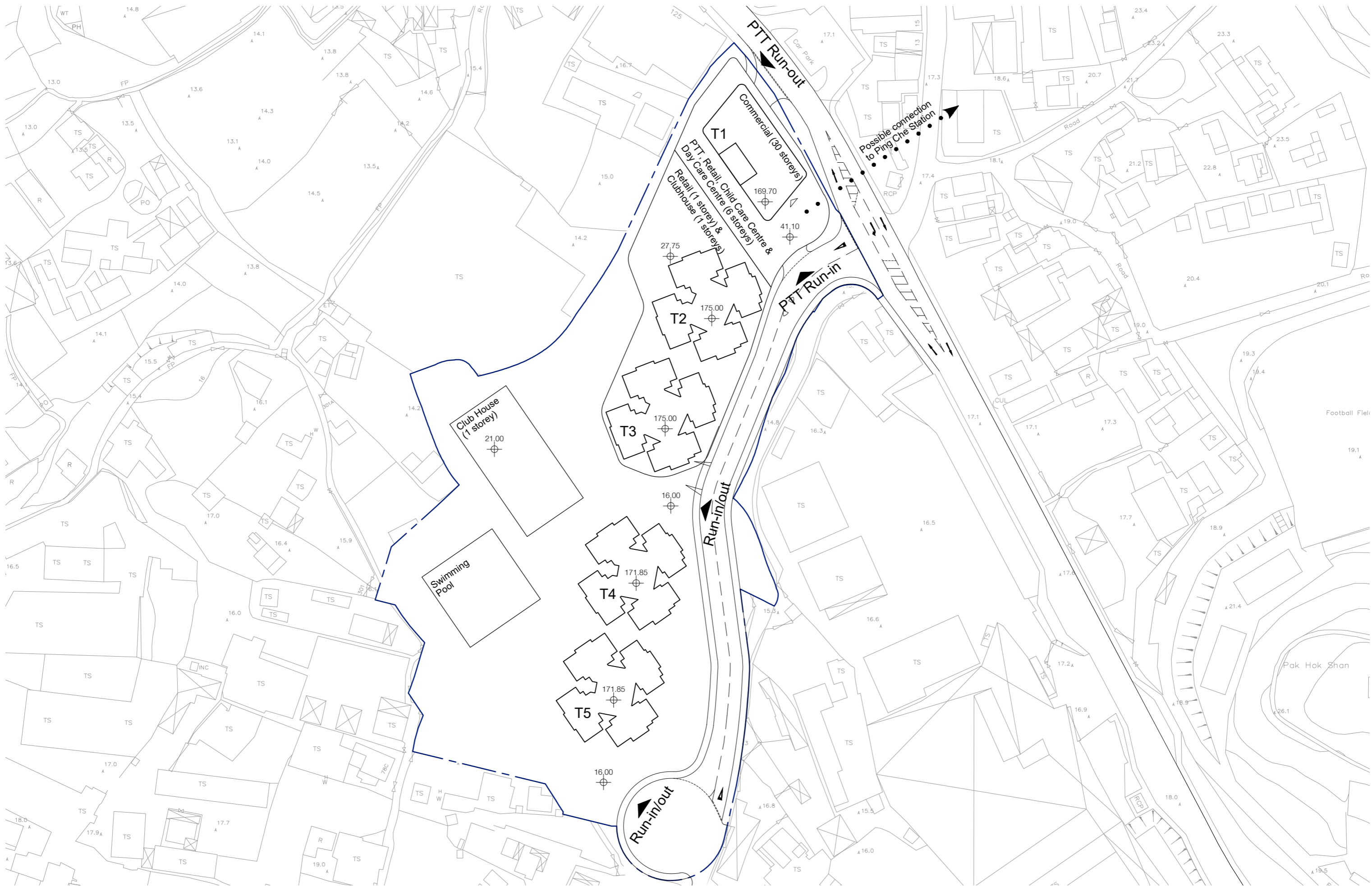






*The excavation area is about 13,500m² and the excavation depth is about 13.5m. The excavation area and depth are subject to future detailed design on foundation based on further geotechnical information.







Project No. 2127

Environmental Assessment for Application for Amendment of Plan under Section 12A for the Town Planning Ordinance (Cap. 131) for Mixed Use Development at Lots 796 and 1008RP in D.D. 77 and Adjoining Government Land in Ping Che, Ta Kwu Ling, New Territories

Appendix 6.1

Traffic Forecast of Year 2047 from Project Traffic

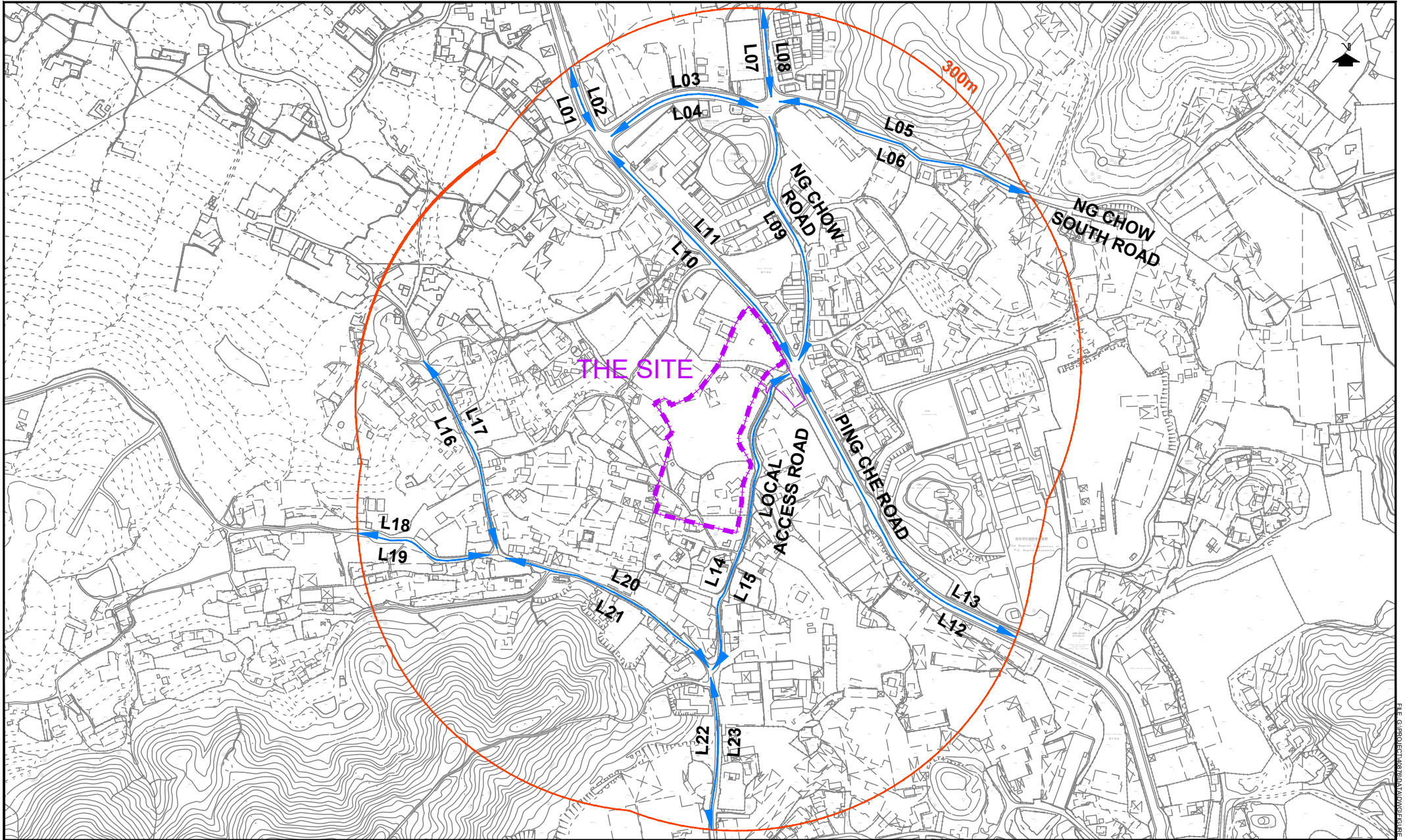
Consultant

Table 2 2047 Traffic Forecast – AM Peak Hour

No.	Road	2047 Project Traffic Flows (veh/hr)	% of Heavies
L01	Ping Che Road	400	44%
L02	Ping Che Road	350	46%
L03	Ng Chow South Road	200	34%
L04	Ng Chow South Road	50	48%
L05	Ng Chow South Road	100	42%
L06	Ng Chow South Road	50	58%
L07	Ng Chow Road	100	38%
L08	Ng Chow Road	50	40%
L09	Ng Chow Road	100	30%
L10	Ping Che Road	500	41%
L11	Ping Che Road	350	47%
L12	Ping Che Road	650	41%
L13	Ping Che Road	500	49%
L14	Local Access Road	200	56%
L15	Local Access Road	150	33%
L16	Local Access Road	50	56%
L17	Local Access Road	50	33%
L18	Local Access Road	50	56%
L19	Local Access Road	50	33%
L20	Local Access Road	50	56%
L21	Local Access Road	50	33%
L22	Local Access Road	50	56%
L23	Local Access Road	50	33%

Table 2 2047 Traffic Forecast – PM Peak Hour

No.	Road	2047 Project Traffic Flows (veh/hr)	% of Heavies
L01	Ping Che Road	300	46%
L02	Ping Che Road	350	45%
L03	Ng Chow South Road	100	52%
L04	Ng Chow South Road	100	57%
L05	Ng Chow South Road	50	65%
L06	Ng Chow South Road	100	34%
L07	Ng Chow Road	50	61%
L08	Ng Chow Road	100	51%
L09	Ng Chow Road	100	23%
L10	Ping Che Road	350	45%
L11	Ping Che Road	350	45%
L12	Ping Che Road	450	46%
L13	Ping Che Road	600	40%
L14	Local Access Road	200	20%
L15	Local Access Road	150	37%
L16	Local Access Road	50	20%
L17	Local Access Road	50	37%
L18	Local Access Road	50	20%
L19	Local Access Road	50	37%
L20	Local Access Road	50	20%
L21	Local Access Road	50	37%
L22	Local Access Road	50	20%
L23	Local Access Road	50	37%



PROJECT NO.	40876
DESIGNED	SLN
DRAWN	CLL
CHECKED	SLN
DATE	AUG 2023
SCALE	1:5000 @ A4

PROJECT TITLE: RESIDENTIAL DEVELOPMENT AT PING CHE D.D.77 LOT 796 & 1008 RP - TIA STUDY FOR S12A REZONING APPLICATION

DRAWING TITLE	ROAD SECTION WITHIN 300m OF THE SITE
---------------	--------------------------------------

DRAWING NO.	FIGURE N1	REV.	.

Project No. 2127

Environmental Assessment for Application for Amendment of Plan under Section 12A for the Town Planning Ordinance (Cap. 131) for Mixed Use Development at Lots 796 and 1008RP in D.D. 77 and Adjoining Government Land in Ping Che, Ta Kwu Ling, New Territories

Appendix 6.2

Traffic Noise Impact Assessment Result (Base Case)

Road Traffic Noise Impact Assessment

Project No.: 2127

Project: Application for Amendment of Plan under Section 12A for the Town Planning Ordinance (Cap. 131) for Mixed Use Development at Lots 796 and 1008RP in D.D. 77 and Adjoining Government Land in Ping Che, Ta Kwu Ling, New Territories

Base Case Scenario

AM Peak (Year 2047)

Note:

71	Predicted Noise Level Exceed Noise Criteria recommended in HKPSG, 70dB(A) for residential development
-	Non-NAP at this floor

T2

Max Noise Level	70
Total No. of Unit with exceedance	0
Total No. of Units	405
Compliance rate	100%

T3

Max Noise Level	67
Total No. of Unit with exceedance	0
Total No. of Units	450
Compliance rate	100%

T4

Max Noise Level	75
Total No. of Unit with exceedance	46
Total No. of Units	405
Compliance rate	89%

T5

Max Noise Level	67
Total No. of Unit with exceedance	0
Total No. of Units	495
Compliance rate	100%

T6

Max Noise Level	76
Total No. of Unit with exceedance	61
Total No. of Units	450
Compliance rate	86%

OVERALL

Max Noise Level	76
Total No. of Unit with exceedance	107
Total No. of Units	2205
Compliance rate	95%

Road Traffic Noise Impact Assessment

Project No.: 2127

Project: Application for Amendment of Plan under Section 12A for the Town Planning Ordinance (Cap. 131) for Mixed Use Development at Lots 796 and 1008RP in D.D. 77 and Adjoining Government Land in Ping Che, Ta Kwu Ling, New Territories

Base Case Scenario

PM Peak (Year 2047)

Note:
71 Predicted Noise Level Exceed Noise Criteria recommended in HKPSG, 70dB(A) for residential development
- Non-NAP at this floor

Table with columns: Unit, Floor, mPD, A (T4-A-1 to T4-A-3), B (T4-B-1 to T4-B-4), C (T4-C-1 to T4-C-2), D (T4-D-1 to T4-D-4), E (T4-E-1 to T4-E-3), F (T4-F-1 to T4-F-5), G (T4-G-1 to T4-G-2), H (T4-H-1 to T4-H-2), I (T4-I-1 to T4-I-2). Rows include noise levels for floors 1F to 47F and summary rows for exceedance and total units.

Road Traffic Noise Impact Assessment

Project No.: 2127

Project: Application for Amendment of Plan under Section 12A for the Town Planning Ordinance (Cap. 131) for Mixed Use Development at Lots 796 and 1008RP in D.D. 77 and Adjoining Government Land in Ping Che, Ta Kwu Ling, New Territories

Base Case Scenario

PM Peak (Year 2047)

Note:

71	Predicted Noise Level Exceed Noise Criteria recommended in HKPSG, 70dB(A) for residential development
-	Non-NAP at this floor

T2

Max Noise Level	70
Total No. of Unit with exceedance	0
Total No. of Units	405
Compliance rate	100%

T3

Max Noise Level	67
Total No. of Unit with exceedance	0
Total No. of Units	450
Compliance rate	100%

T4

Max Noise Level	73
Total No. of Unit with exceedance	26
Total No. of Units	405
Compliance rate	94%

T5

Max Noise Level	66
Total No. of Unit with exceedance	0
Total No. of Units	495
Compliance rate	100%

T6

Max Noise Level	75
Total No. of Unit with exceedance	29
Total No. of Units	450
Compliance rate	94%

OVERALL

Max Noise Level	75
Total No. of Unit with exceedance	55
Total No. of Units	2205
Compliance rate	98%

Project No. 2127

Environmental Assessment for Application for Amendment of Plan under Section 12A for the Town Planning Ordinance (Cap. 131) for Mixed Use Development at Lots 796 and 1008RP in D.D. 77 and Adjoining Government Land in Ping Che, Ta Kwu Ling, New Territories

Appendix 6.3

Traffic Noise Impact Assessment Result (Mitigated Case) and Schedule of Road Traffic Noise Mitigation Measures

Road Traffic Noise Impact Assessment




Project No.: 2127

Project: Application for Amendment of Plan under Section 12A for the Town Planning Ordinance (Cap. 131) for Mixed Use Development at Lots 796 and 1008RP in D.D. 77 and Adjoining Government Land in Ping Che, Ta Kwu Ling, New Territories

Mitigated Scenario

AM Peak (Year 2047)

Note:

71	Predicted Noise Level Exceed Noise Criteria recommended in HKPSG, 70dB(A) for residential development
-	Non-NAP at this floor
	Fixed Window
	Baffle Tupe Acoustic Window (Configuration 1)
	Baffle Tupe Acoustic Window (Configuration 2)

T2

Max Noise Level	70
Total No. of Unit with exceedance	0
Total No. of Units	405
Compliance rate	100%

T3

Max Noise Level	67
Total No. of Unit with exceedance	0
Total No. of Units	450
Compliance rate	100%

T4

Max Noise Level	70
Total No. of Unit with exceedance	0
Total No. of Units	405
Compliance rate	100%

T5

Max Noise Level	67
Total No. of Unit with exceedance	0
Total No. of Units	495
Compliance rate	100%

T6

Max Noise Level	70
Total No. of Unit with exceedance	0
Total No. of Units	450
Compliance rate	100%

OVERALL

Max Noise Level	70
Total No. of Unit with exceedance	0
Total No. of Units	2205
Compliance rate	100%

Road Traffic Noise Impact Assessment

Project No.: 2127

Project: Application for Amendment of Plan under Section 12A for the Town Planning Ordinance (Cap. 131) for Mixed Use Development at Lots 796 and 1008RP in D.D. 77 and Adjoining Government Land in Ping Che, Ta Kwu Ling, New Territories

Mitigated Scenario

PM Peak (Year 2047)

Note:

71	Predicted Noise Level Exceed Noise Criteria recommended in HKPSG, 70dB(A) for residential development
-	Non-NAP at this floor
	Fixed Window
	Baffle Tupe Acoustic Window (Configuration 1)
	Baffle Tupe Acoustic Window (Configuration 2)

T2

Max Noise Level	70
Total No. of Unit with exceedance	0
Total No. of Units	405
Compliance rate	100%

T3

Max Noise Level	67
Total No. of Unit with exceedance	0
Total No. of Units	450
Compliance rate	100%

T4

Max Noise Level	70
Total No. of Unit with exceedance	0
Total No. of Units	405
Compliance rate	100%

T5

Max Noise Level	67
Total No. of Unit with exceedance	0
Total No. of Units	495
Compliance rate	100%

T6

Max Noise Level	70
Total No. of Unit with exceedance	0
Total No. of Units	450
Compliance rate	100%

OVERALL

Max Noise Level	70
Total No. of Unit with exceedance	0
Total No. of Units	2205
Compliance rate	100%

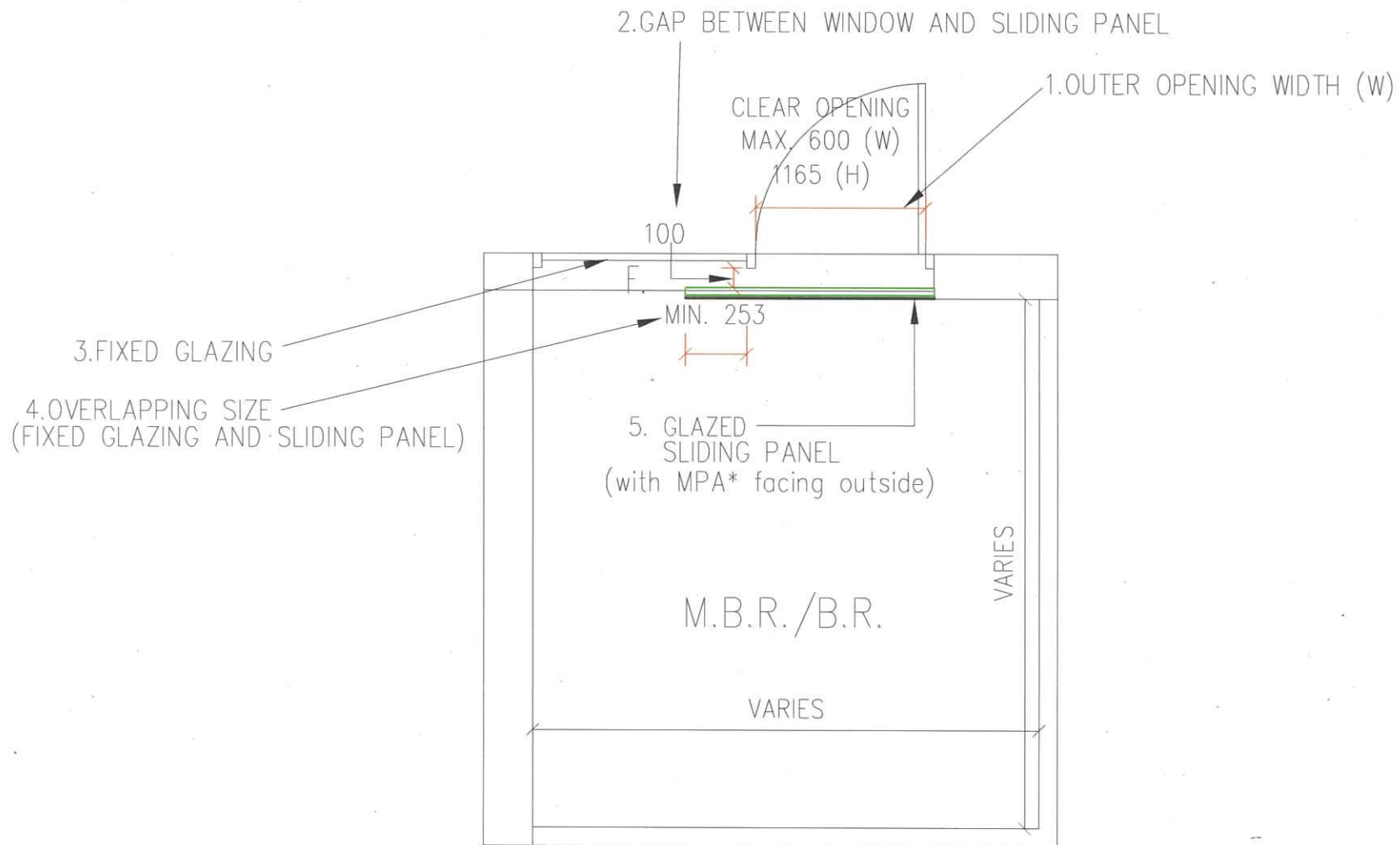
Project No. 2127

Environmental Assessment for Application for Amendment of Plan under Section 12A for the Town Planning Ordinance (Cap. 131) for Mixed Use Development at Lots 796 and 1008RP in D.D. 77 and Adjoining Government Land in Ping Che, Ta Kwu Ling, New Territories

Appendix 6.4

Indicative Design for Acoustic Window (Baffle Type)

INDICATIVE DESIGN OF BAFFLE TYPE ACOUSTIC WINDOW FOR BEDROOM (REFERENCED FROM EX-NORTH POINT ESTATE REDEVELOPMENT)



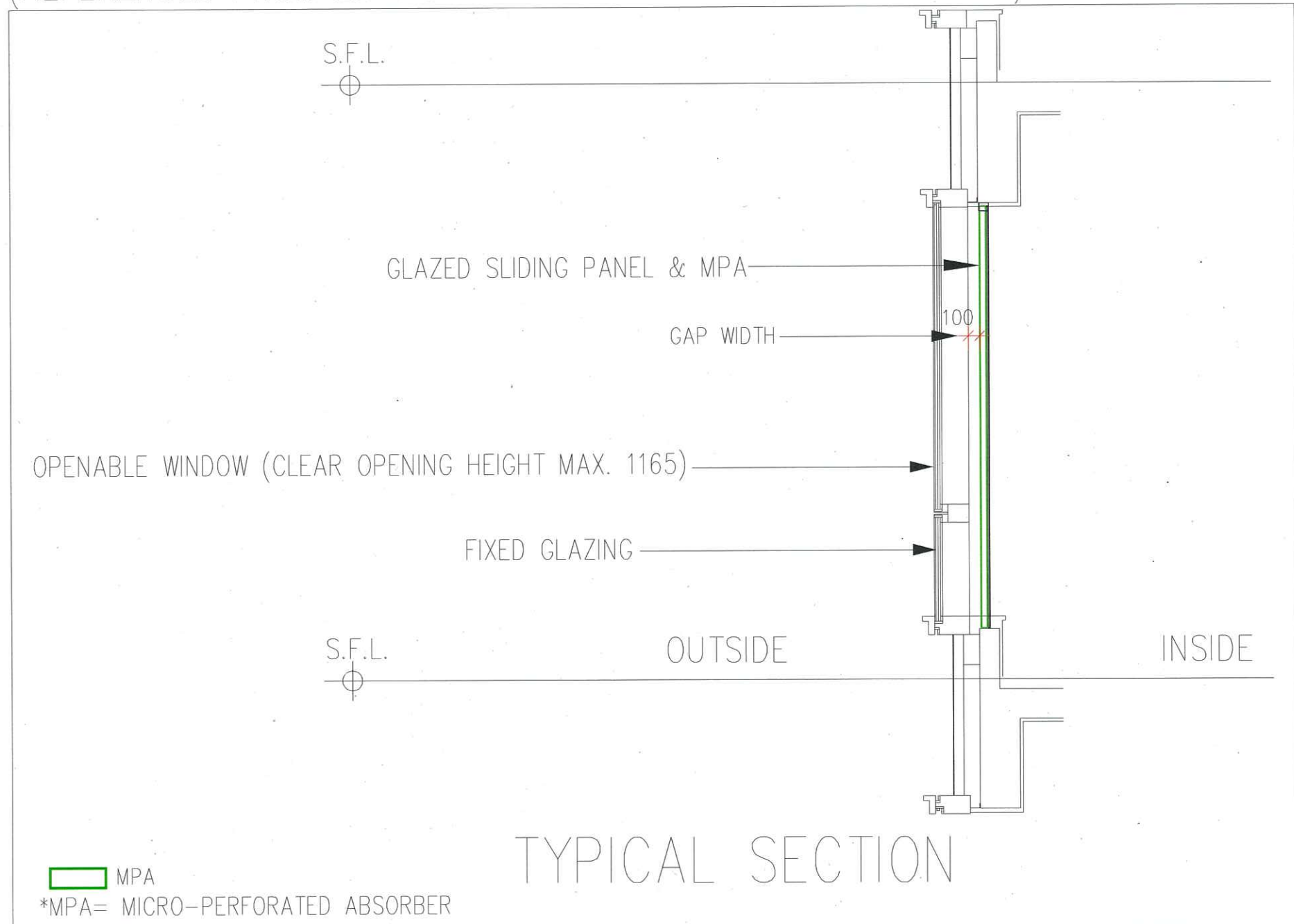
TYPICAL PLAN

 MPA

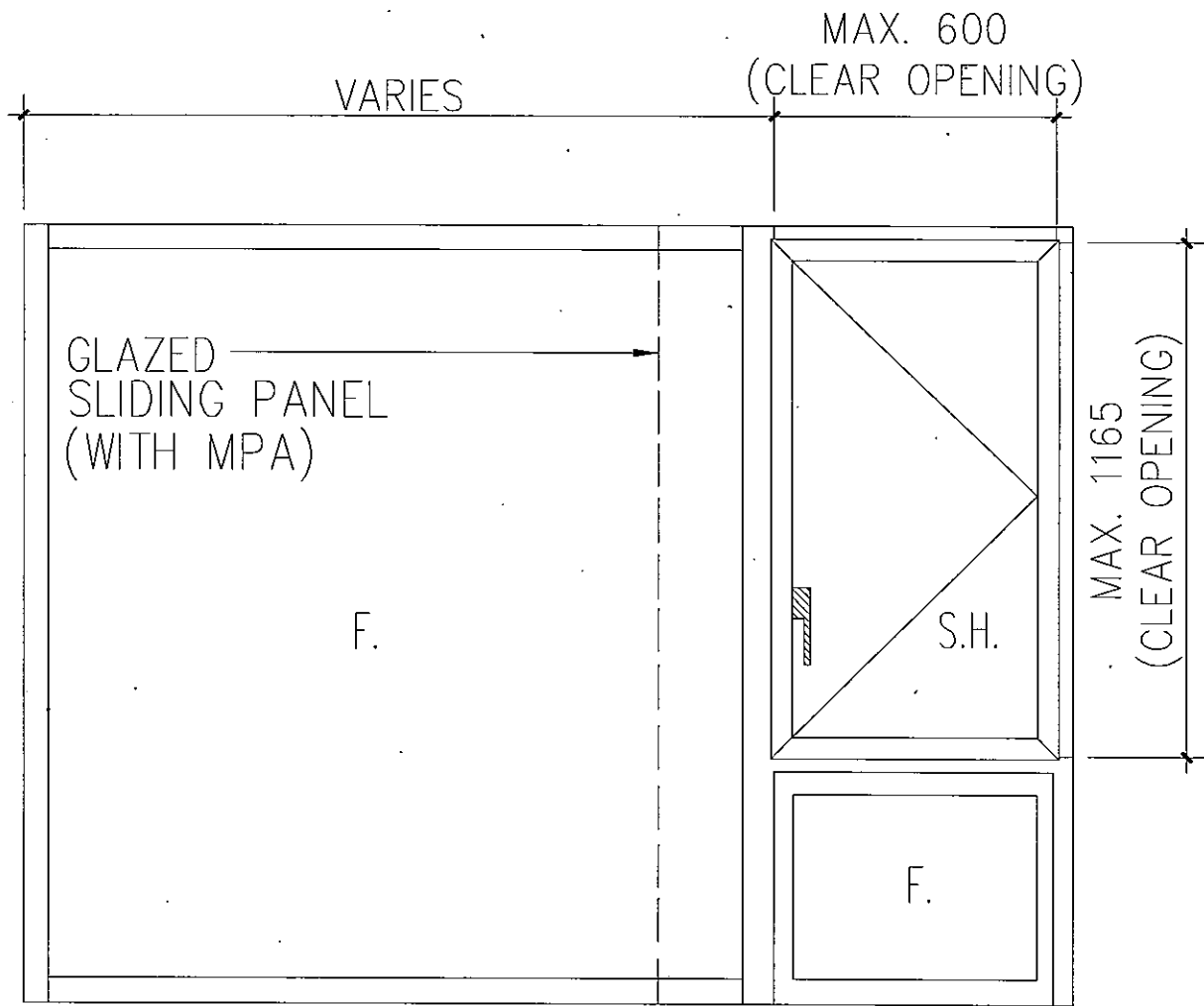
*MPA= MICRO-PERFORATED ABSORBER

F.= FIXED GLAZING

INDICATIVE DESIGN OF BAFFLE TYPE ACOUSTIC WINDOW FOR BEDROOM (REFERENCED FROM EX-NORTH POINT ESTATE REDEVELOPMENT)



INDICATIVE DESIGN OF BAFFLE TYPE ACOUSTIC WINDOW FOR BEDROOM
(REFERENCED FROM EX-NORTH POINT ESTATE REDEVELOPMENT)

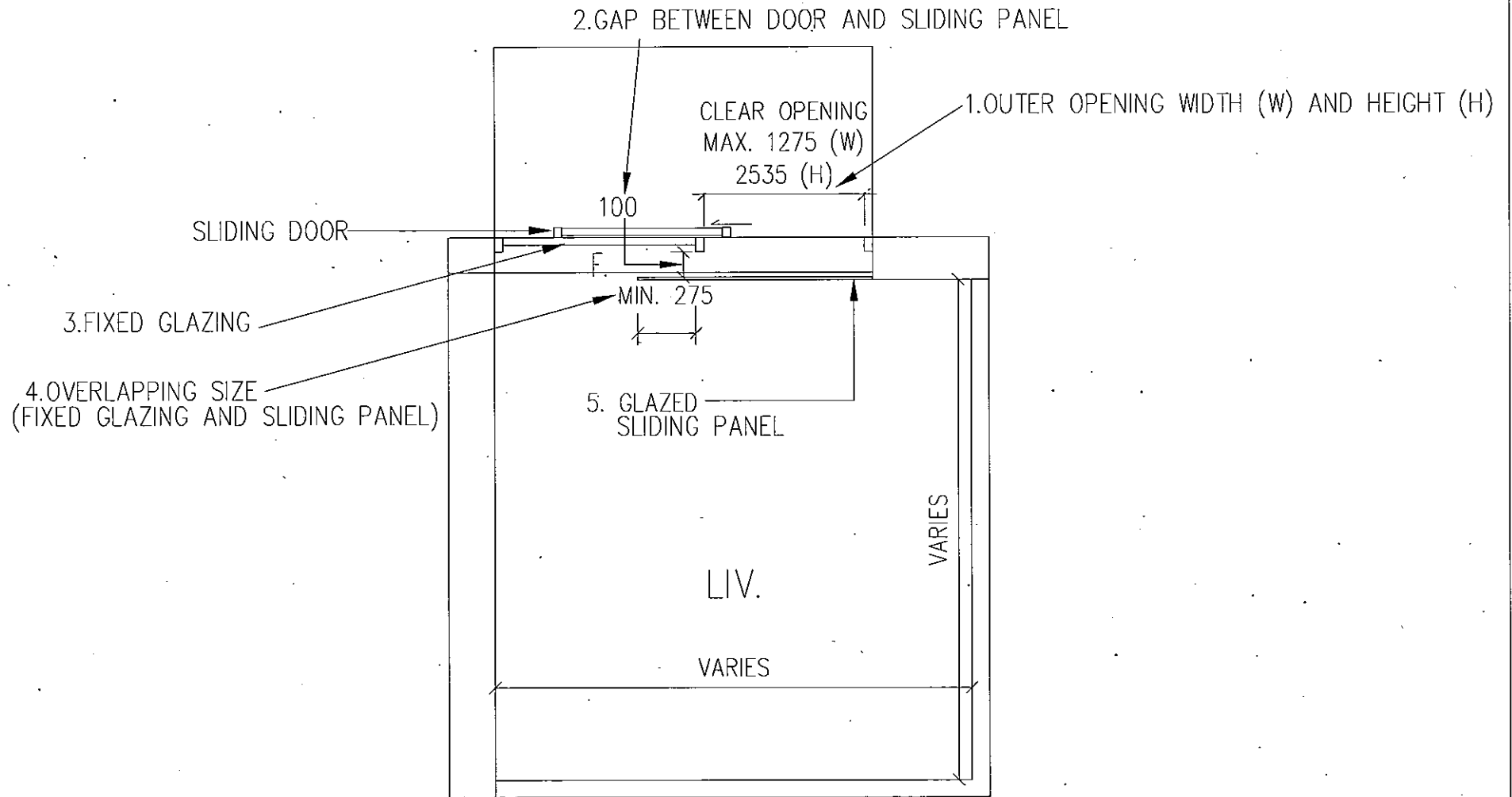


TYPICAL ELEVATION

*MPA= MICRO-PERFORATED ABSORBER

F.= FIXED GLAZING

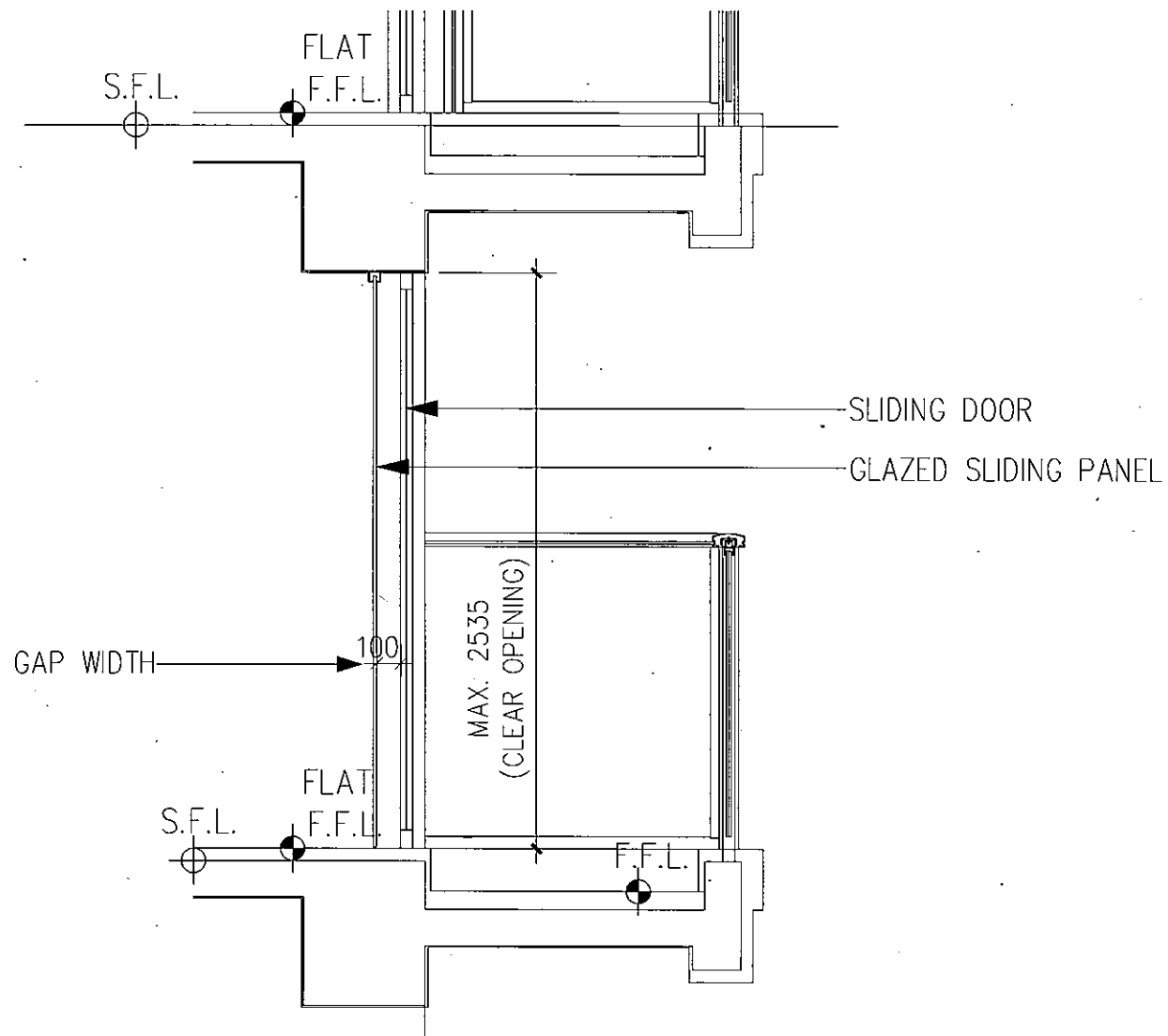
INDICATIVE DESIGN OF BAFFLE TYPE ACOUSTIC DOOR FOR LIVING ROOM (REFERENCED FROM EX-NORTH POINT ESTATE REDEVELOPMENT)



TYPICAL PLAN

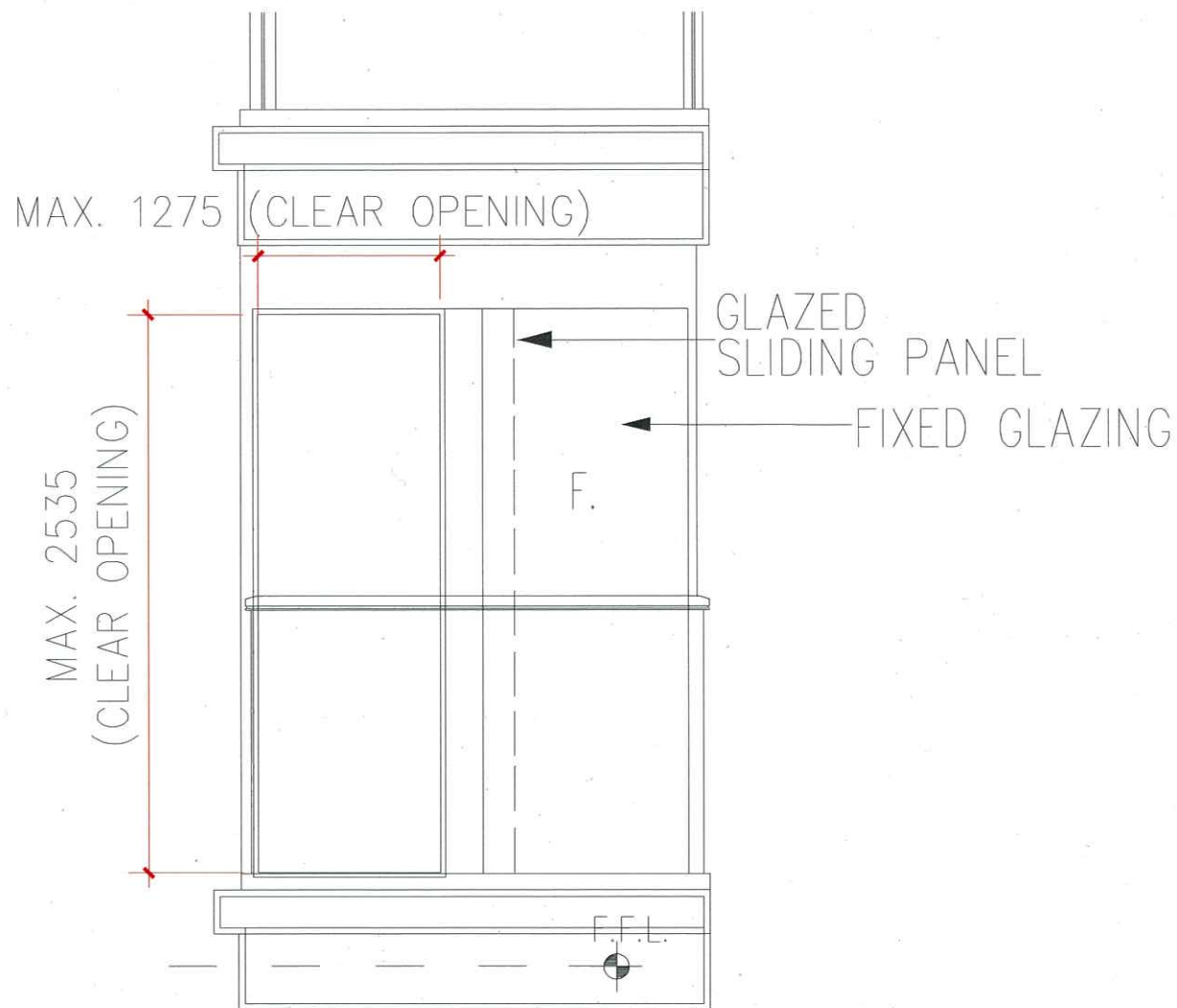
F.= FIXED GLAZING

INDICATIVE DESIGN OF BAFFLE TYPE ACOUSTIC DOOR FOR LIVING ROOM
(REFERENCED FROM EX-NORTH POINT ESTATE REDEVELOPMENT)



TYPICAL SECTION

INDICATIVE DESIGN OF BAFFLE TYPE ACOUSTIC DOOR FOR LIVING ROOM
(REFERENCED FROM EX-NORTH POINT ESTATE REDEVELOPMENT)



TYPICAL ELEVATION

Project No. 2127

Environmental Assessment for Application for Amendment of Plan under Section 12A for the Town Planning Ordinance (Cap. 131) for Mixed Use Development at Lots 796 and 1008RP in D.D. 77 and Adjoining Government Land in Ping Che, Ta Kwu Ling, New Territories

Appendix 6.5

Room Size Correction

Project No.: 2127

Project: Application for Amendment of Plan under Section 12A for the Town Planning Ordinance (Cap. 131) for Mixed Use Development at Lots 796 and 1008RP in D.D. 77 and Adjoining Government Land in Ping Che, Ta Kwu Ling, New Territories Ling, New Territories

Room Size Correction and Schedule of Road Traffic Noise Mitigation Measures

BAW

NAP	Design Parameter					Noise Reduction Performance			
	Outer Opening Area, m2	Air Gap, mm	Overlapping Length (excluding mullion), mm	Room Size, m2	Sound Absorption Material	Room Size Correction, dB(A) (10*log(NAP room size/Reference case room size))	Corrected Noise Reduction, dB(A)	Required Noise Reduction, dB(A)	Sufficient?
	smaller / same as	smaller / same as	greater / same as		same as				
Configuration 1 Reference Case: Redevelopment Project of ex-North Point Estate (NPE) for Bedroom with Baffle Type Acoustic Window									
	0.7	100	253	6.8	Y		6.9		
T4-B-3	0.7	100	253	4.831	Y	-1.5	5.4	3.3	YES
T4-C-2	0.7	100	253	7.26	Y	0.3	7.2	3.9	YES*
T4-D-2	0.7	100	253	9.84	Y	1.6	8.5	3.8	YES*
T4-D-3	0.7	100	253	4.842	Y	-1.5	5.4	2.5	YES
T6-D-4	0.7	100	253	6.815	Y	0.0	6.9	1.0	YES*
T6-D-6	0.7	100	253	10.21	Y	1.8	8.7	2.7	YES*
T6-E-1	0.7	100	253	9.564	Y	1.5	8.4	2.9	YES*
T6-E-2	0.7	100	253	7.145	Y	0.2	7.1	3.2	YES*
T6-F-3	0.7	100	253	4.84	Y	-1.5	5.4	5.4	YES
T6-F-5	0.7	100	253	4.842	Y	-1.5	5.4	5.2	YES
T6-I-1	0.7	100	253	9.299	Y	1.4	8.3	0.7	YES*
Configuration 2 Reference Case: Redevelopment Project of ex-North Point Estate (NPE) for Living room with Baffle Type Sliding Door									
	3.2	100	275	38.3	N		8.8		
T4-B-4	3.2	100	275	14.156	N	-4.3	4.5	3.5	YES
T4-C-1	3.2	100	275	16.536	N	-3.6	5.2	3.8	YES
T4-D-4	3.2	100	275	17.553	N	-3.4	5.4	1.3	YES
T6-D-5	3.2	100	275	22.272	N	-2.4	6.4	0.4	YES*
T6-E-3	3.2	100	275	19.152	N	-3.0	5.8	3.6	YES
T6-F-1	3.2	100	275	20.268	N	-2.8	6.0	4.5	YES
T6-G-2	3.2	100	275	16.34	N	-3.7	5.1	0.5	YES
T6-H-1	3.2	100	275	14.033	N	-4.4	4.4	0.5	YES

*Noise Reduction capped at 6dB as a conservative approach.

Project No. 2127

Environmental Assessment for Application for Amendment of Plan under Section 12A for the Town Planning Ordinance (Cap. 131) for Mixed Use Development at Lots 796 and 1008RP in D.D. 77 and Adjoining Government Land in Ping Che, Ta Kwu Ling, New Territories

Appendix 6.6

Measurement Details of the Corrected Sound Power Level of Fixed Noise Sources

Measurement Detail of the Corrected Sound Power Level of Fixed Noise Sources

Project No.:	2127
Project Name:	Application for Amendment of Plan under Section 12A for the Town Planning Ordinance (Cap. 131) for Mixed Use Development at Lots 796 and 1008RP in D.D. 77 and Adjoining Government Land in Ping Che, Ta Kwu Ling, New Territories
Measurement Date:	Thursday, August 17, 2023
Measurement Time:	16:13
Measurement Equipment:	Class 1 Sound Level Meter NTi XL2
Sound Source:	Ho Cheung Scrap metal recycling

Noise Source ID	Noise Source Location	Measured Sound Pressure Level, dB(A)	Distance from Noise Source, m	Distance Correction, dB(A)	Corrected Sound Power Level, dB(A)
S02	Ho Cheung Scrap metal recycling	62.8	30	37.5	100.3



Measurement Detail of the Corrected Sound Power Level of Fixed Noise Sources

Project No.:	2127
Project Name:	Application for Amendment of Plan under Section 12A for the Town Planning Ordinance (Cap. 131) for Mixed Use Development at Lots 796 and 1008RP in D.D. 77 and Adjoining Government Land in Ping Che, Ta Kwu Ling, New Territories
Measurement Date:	Thursday, August 17, 2023
Measurement Time:	15:58
Measurement Equipment:	Class 1 Sound Level Meter NTi XL2
Sound Source:	Laundry Workshop

Noise Source ID	Noise Source Location	Measured Sound Pressure Level, dB(A)	Distance from Noise Source, m	Distance Correction, dB(A)	Corrected Sound Power Level, dB(A)
S05	Laundry Workshop	64.3	21	34.4	98.7



Measurement Detail of the Corrected Sound Power Level of Fixed Noise Sources

Project No.:	2127
Project Name:	Application for Amendment of Plan under Section 12A for the Town Planning Ordinance (Cap. 131) for Mixed Use Development at Lots 796 and 1008RP in D.D. 77 and Adjoining Government Land in Ping Che, Ta Kwu Ling, New Territories
Measurement Date:	Thursday, August 17, 2023
Measurement Time:	16:30
Measurement Equipment:	Class 1 Sound Level Meter NTi XL2
Sound Source:	Bosa Technology (Manufacturing & warehouse)

Noise Source ID	Noise Source Location	Measured Sound Pressure Level, dB(A)	Distance from Noise Source, m	Distance Correction, dB(A)	Corrected Sound Power Level, dB(A)
S13	Bosa Technology (Manufacturing & warehouse)	70.5	3	17.5	88



Measurement Detail of the Corrected Sound Power Level of Fixed Noise Sources

Project No.:	2127
Project Name:	Application for Amendment of Plan under Section 12A for the Town Planning Ordinance (Cap. 131) for Mixed Use Development at Lots 796 and 1008RP in D.D. 77 and Adjoining Government Land in Ping Che, Ta Kwu Ling, New Territories
Measurement Date:	Tuesday, June 20, 2023
Measurement Time:	19:49
Measurement Equipment:	Class 1 Sound Level Meter NTi XL2
Sound Source:	Chewy warehouse

Noise Source ID	Noise Source Location	Measured Sound Pressure Level, dB(A)	Distance from Noise Source, m	Distance Correction, dB(A)	Corrected Sound Power Level, dB(A)
S15	Chewy warehouse	65	1	8	73



Project No. 2127

Environmental Assessment for Application for Amendment of Plan under Section 12A for the Town Planning Ordinance (Cap. 131) for Mixed Use Development at Lots 796 and 1008RP in D.D. 77 and Adjoining Government Land in Ping Che, Ta Kwu Ling, New Territories

Appendix 6.7

Background Noise Measurement and Fixed Plant Noise Impact Assessment Calculation

**APPLICATION FOR AMENDMENT OF PLAN UNDER SECTION 12A FOR THE TOWN
PLANNING ORDINANCE (CAP. 131) FOR MIXED USE DEVELOPMENT AT LOT 796 AND
1008RP IN D.D. 77 AND ADJOINING GOVERNMENT LAND IN PING CHE**
Project:
Subject: Results of Prevailing Background Noise Surveys

Date: 14-Sep-23
Time: Daytime/Evening 0700-0730
Nighttime 0630-0700

Survey Personnel: Ms. Conny Lam
Weather Condition: Fine
Field Operation: Nil
Instrumentation: Sound Level Meters (NTi XL2)/ Calibrator (RION NC-73)



Figure - Location of NSRs and Background Noise Measurement Point

Represented NMP	Session	Date	Time	Measured Background Noise Level	Type of Measurement	Applicable Façade Correction	Corrected Background Noise Level
				L90 (1hr), dB(A)		dB(A)	dB(A), L90 (1hr)
1	Calibration	14-Sep-23	0018-0018	94.0	Free-field	/	/
	Daytime/Evening	14-Sep-23	0700-0730	49.6	Free-field	3	52.6
	Nighttime	14-Sep-23	0630-0700	49.9	Free-field	3	52.9
	Calibration	14-Sep-23	1547-1547	94.3	Free-field	/	/

Note:

[1] L90 (1 hour) is used as a measure of the background noise level.

[2] As the measurements were conducted in free-field condition, +3.0 dB(A) have been added to the measured noise levels to represent the measurement at 1m from a building façade.

Project: APPLICATION FOR AMENDMENT OF PLAN UNDER SECTION 12A FOR THE TOWN PLANNING ORDINANCE (CAP. 131)
FOR MIXED USE DEVELOPMENT AT LOT 796 AND 1008RP IN D.D. 77 AND ADJOINING GOVERNMENT LAND IN PING
CHE

Subject: Photos of Background Noise Measurement

Date: 14-Sep-23
Time: Daytime/Evening 0700-0730
Nighttime 0630-0700

Survey Personnel: Ms Conny Lam
Weather Condition: Fine
Instrumentation: Sound Level Meters (NTi XL2)/ Calibrator (RION NC-73)





綜合試驗有限公司

SOILS & MATERIALS ENGINEERING CO., LTD.

香港新界葵涌永基路22-24號好爸爸創科大廈

Good Ba Ba Hitech Building, Nos. 22-24 Wing Kei Road, Kwai Chung, New Territories, Hong Kong

Tel: (852) 2873 6860 Fax: (852) 2555 7633 E-mail: smec@cigismec.com Website: www.cigismec.com



CERTIFICATE OF CALIBRATION

Certificate No.: 23CA0328 03-02 Page 1 of 2

Item tested

Description:	Sound Level Meter (Type 1)	Microphone	Preamp
Manufacturer:	Nii	Nii Andio	Nii Andio
Type/Model No.:	XL2	MC230A	MA220
Serial/Equipment No.:	A2A-10571-EO	A17508	11216
Adaptors used:	-		

Item submitted by

Customer Name: Allied Environmental Consultants Limited.
 Address of Customer: -
 Request No.: -
 Date of receipt: 28-Mar-2023

Date of test: 29-Mar-2023

Reference equipment used in the calibration

Description:	Model:	Serial No.	Expiry Date:	Traceable to:
Multi function sound calibrator	B&K 4226	2288444	23-Aug-2023	CIGISMEC
Signal generator	DS 360	61227	08-Jun-2023	CEPREI

Ambient conditions

Temperature: 22 ± 1 °C
 Relative humidity: 55 ± 10 %
 Air pressure: 1005 ± 5 hPa

Test specifications

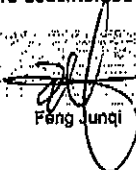
- The Sound Level Meter has been calibrated in accordance with the requirements as specified in BS 7580: Part 1: 1997 and the lab calibration procedure SMTP004-CA-152.
- The electrical tests were performed using an electrical signal substituted for the microphone which was removed and replaced by an equivalent capacitance within a tolerance of ±20%.
- The acoustic calibration was performed using an B&K 4226 sound calibrator and corrections was applied for the difference between the free-field and pressure response of the Sound Level Meter.

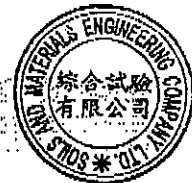
Test results

This is to certify that the Sound Level Meter conforms to BS 7580: Part 1: 1997 for the conditions under which the test was performed.

Details of the performed measurements are presented on page 2 of this certificate.

Actual Measurement data are documented on worksheets.

Approved Signatory:  Date: 30-Mar-2023 Company Chop:



Comments: The results reported in this certificate refer to the condition of the instrument on the date of calibration and carry no implication regarding the long-term stability of the instrument. The results apply to the item as received.



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CERTIFICATE OF CALIBRATION

(Continuation Page)

Certificate No.: 23CA0328 03-02

Page 2 of 2

1, Electrical Tests

The electrical tests were performed using an equivalent capacitance substituted for the microphone. The results are given in below with test status and the estimated uncertainties. The "Pass" means the result of the test is inside the tolerances stated in the test specifications. The "-" means the result of test is outside these tolerances.

Test:	Subtest:	Status:	Expanded Uncertainty (dB)	Coverage Factor
Self-generated noise	A	Pass	0.3	
	C	Pass	0.8	2.1
	Lin	Pass	1.6	2.2
Linearity range for Leq	At reference range, Step 5 dB at 4 kHz	Pass	0.3	
	Reference SPL on all other ranges	Pass	0.3	
	2 dB below upper limit of each range	Pass	0.3	
	2 dB above lower limit of each range	Pass	0.3	
	At reference range, Step 5 dB at 4 kHz	Pass	0.3	
Linearity range for SPL	A	Pass	0.3	
	C	Pass	0.3	
	Lin	Pass	0.3	
Time weightings	Single Burst Fast	Pass	0.3	
	Single Burst Slow	Pass	0.3	
Peak response	Single 100µs rectangular pulse	Pass	0.3	
	R.M.S. accuracy	Crest factor of 3	Pass	0.3
Time weighting I	Single burst 5 ms at 2000 Hz	Pass	0.3	
	Repeated at frequency of 100 Hz	Pass	0.3	
Time averaging	1 ms burst duty factor 1/10 ³ at 4kHz	Pass	0.3	
	1 ms burst duty factor 1/10 ⁴ at 4kHz	Pass	0.3	
Pulse range	Single burst 10 ms at 4 kHz	Pass	0.4	
Sound exposure level	Single burst 10 ms at 4 kHz	Pass	0.4	
	SPL	Pass	0.3	
Overload indication	SPL	Pass	0.3	
	Leq	Pass	0.4	

2, Acoustic tests

The complete sound level meter was calibrated on the reference range using a B&K 4226 acoustic calibrator with 1000Hz and SPL 94 dB. The sensitivity of the sound level meter was adjusted. The test result at 125 Hz and 8000 Hz are given in below with test status and the estimated uncertainties.

Test:	Subtest	Status	Expanded Uncertainty (dB)	Coverage Factor
Acoustic response	Weighting A at 125 Hz	Pass	0.3	
	Weighting A at 8000 Hz	Pass	0.5	

3, Response to associated sound calibrator

N/A

The expanded uncertainties have been calculated in accordance with the ISO Publication "Guide to the expression of uncertainty in measurement", and gives an interval estimated to have a level of confidence of 95%. A coverage factor of 2 is assumed unless explicitly stated.

- End -

Calibrated by:

Fung Chi Yip

Date: 29-Mar-2023

Checked by:

Ehan Yuk Yiu

Date: 30-Mar-2023

The standard(s) and equipment used in the calibration are traceable to national or international recognised standards and are calibrated on a schedule to maintain the required accuracy level.



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CERTIFICATE OF CALIBRATION

Certificate No.: 23CA0328 03-03

Page: 1 of 2

Item tested

Description: Acoustical Calibrator (Class 1)
 Manufacturer: Rion Co., Ltd.
 Type/Model No.: NC-73
 Serial/Equipment No.: 10188489
 Adaptors used: -

Item submitted by

Customer: Allied Environmental Consultants Limited
 Address of Customer: -
 Request No.: -
 Date of receipt: 28-Mar-2023

Date of test: 29-Mar-2023

Reference equipment used in the calibration

Description:	Model:	Serial No.	Expiry Date:	Traceable to:
Lab standard microphone	B&K 4180	2412857	23-May-2023	SCL
Preamplifier	B&K 2873	2743150	28-Jun-2023	CEPREI
Measuring amplifier	B&K 2810	2346941	30-Jun-2023	CEPREI
Signal generator	DS 360	61227	08-Jun-2023	CEPREI
Digital multi-meter	34401A	US36087050	30-May-2023	CEPREI
Audio analyzer	8903B	GB41300350	08-Jul-2023	CEPREI
Universal counter	53132A	MY40003662	13-Jun-2023	CEPREI

Ambient conditions

Temperature: 22 ± 1 °C
 Relative humidity: 55 ± 10 %
 Air pressure: 1005 ± 5 hPa

Test specifications

- The Sound Calibrator has been calibrated in accordance with the requirements as specified in IEC 60942 1997 Annex B and the lab calibration procedure SMTPO04-CA-156.
- The calibrator was tested with its axis vertical facing downwards at the specific frequency using insert voltage technique.
- The results are rounded to the nearest 0.01 dB and 0.1 Hz and have not been corrected for variations from a reference pressure of 1013.25 hectoPascals as the maker's information indicates that the instrument is insensitive to pressure changes.

Test results

This is to certify that the sound calibrator conforms to the requirements of annex B of IEC 60942: 1997 for the conditions under which the test was performed. This does not imply that the sound calibrator meets IEC 60942 under any other conditions.

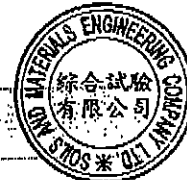
Details of the performed measurements are presented on page 2 of this certificate.

Approved Signatory:

Feng Junqi

Date: 30-Mar-2023

Company Chop:



Comments: The results reported in this certificate refer to the condition of the instrument on the date of calibration and carry no implication regarding the long-term stability of the instrument. The results apply to the item as received.

Fixed Plant Noise Impact Assessment Calculation

Project No.: 2127

Project: Application for Amendment of Plan Under Section 12A of the Town Planning Ordinance (Cap. 131) for Mix Use Development (Residential & Commercial) at Lot 796 & 1008 RP and Adjoining Government land in Ping Che, Ta Kwu Ling, New Territories

NSR ID T2-H-4

Daytime Criterion: 70 dB(A)

Fixed Plant Noise Source													% on time over 30mins	Correction							Resultant Noise Level			
ID	Name	X-coordinate	Y-coordinate	Height of FPN (mPD)	SWL dB(A)	Remark	Quantity (nos.)	X-coordinate	Y-coordinate	Height of NSR (mPD)	Horizontal Distance (m)	Vertical Distance (m)		Slant Distance (m)	%	Distance (dB)	Quantity (dB)	Façade (dB)	Tonality (dB)	Impulsive (dB)		Intermittency (dB)	Barrier (dB)	% on time (dB)
S01	Tin Wing Vehicle Services	834558.207	842842.2468	16	99	[4]	3	834653.8	842530.4	27.8	326.1693553	11.8	326.3827329	100%	42	5	3	0	0	0	10	0	38.9	
S02	Ho Cheung Scrap metal recycling	834573.2434	842849.3084	16	100.3	[1]	1	834653.8	842530.4	27.8	328.9254222	11.8	329.1370131	100%	42	0	3	0	0	0	0	10	0	45.0
S03	Chewy Logistics	834696.614	842687.133	16	99	[4]	4	834653.8	842530.4	27.8	162.4754501	11.8	162.9033821	100%	36	6	3	0	0	0	0	10	0	43.8
S04	Open storage	834710.5102	842659.2478	16	99	[4]	1	834653.8	842530.4	27.8	140.7757165	11.8	141.2693964	100%	35	0	3	0	0	0	0	10	0	51.0
S04	Open storage	834710.5102	842659.2478	16	112	[6]	1	834653.8	842530.4	27.8	140.7757165	11.8	141.2693964	100%	35	0	3	0	0	0	0	10	0	64.0
S05	Laundry Workshop	834873.8386	842704.2574	16	98.7	[1]	1	834653.8	842530.4	27.8	280.4342722	11.8	280.6824202	100%	41	0	3	0	0	0	0	10	0	44.7
S09	Fat Lee Company Limited	834773.0303	842407.9832	16	91	[3]	1	834653.8	842530.4	27.8	170.8851584	11.8	171.292082	100%	37	0	3	0	0	0	0	10	0	41.3
S11	Wo Lee Steel logistic & distribution centre	834850.7133	842332.2819	16	91	[3]	1	834653.8	842530.4	27.8	279.3306809	11.8	279.5798084	100%	41	0	3	0	0	0	0	10	0	37.1
S12	Hong Kong United Recycling Company Limited	834692.2714	842332.7136	16	83.8	[2]	1	834653.8	842530.4	27.8	201.3950381	11.8	201.7404307	100%	38	0	3	0	0	0	0	10	0	32.7
S13	Bosa Technology (Manufacturing & warehouse)	834686.2596	842227.8035	16	88	[1]	1	834653.8	842530.4	27.8	304.3324949	11.8	304.5611719	100%	42	0	3	0	0	0	0	0	0	43.3
S14	Shun Cheong Warehouse	834715.3179	842277.4956	16	91	[3]	1	834653.8	842530.4	27.8	260.278865	11.8	260.54621	10%	40	0	3	0	0	0	0	10	10	27.7
S15	Chewy warehouse	834640.7939	842303.5789	16	73	[1]	1	834653.8	842530.4	27.8	227.193684	11.8	227.4999122	100%	39	0	3	0	0	0	0	10	0	20.9
S17	Vehicle repair shop	834567.9762	842335.0342	16	100	[5]	1	834653.8	842530.4	27.8	213.3858488	11.8	213.7118632	16%	39	0	3	0	0	0	0	10	8	40.4
S18	Castco Warehouse	834480.9689	842425.8793	16	94.1	[2]	1	834653.8	842530.4	27.8	201.9781321	11.8	202.3225293	100%	38	0	3	0	0	0	0	0	0	53.0
S19	Wei Cheng Bus Engineering Company	834415.9141	842407.886	16	100	[5]	2	834653.8	842530.4	27.8	267.5806077	11.8	267.8406646	16%	41	3	3	0	0	0	0	0	8	45.4
S20	Swire Motors repair and maintenance workshop	834566.5368	842643.8691	16	99	[4]	2	834653.8	842530.4	27.8	143.1436437	11.8	143.6291848	20%	35	3	3	0	0	0	0	10	7	40.9
S21	Bang Jie Company (Warehouse / Logistics)	834593.6443	842693.2713	16	91	[3]	1	834653.8	842530.4	27.8	173.6253686	11.8	174.0258849	100%	37	0	3	0	0	0	0	0	0	51.2
Overall																						65		

Night-time Criterion: 60 dB(A)

Fixed Plant Noise Source													% on time over 30mins	Correction							Resultant Noise Level				
ID	Name	X-coordinate	Y-coordinate	Height of Noise Source (mPD)	SWL dB(A)	Remark	Quantity (nos.)	X-coordinate	Y-coordinate	Height of NSR (mPD)	Horizontal Distance (m)	Vertical Distance (m)		Slant Distance (m)	%	Distance (dB)	Quantity (dB)	Façade (dB)	Tonality (dB)	Impulsive (dB)		Intermittency (dB)	Barrier (dB)	% on time (dB)	dB(A)
S15	Chewy warehouse	834640.7939	842303.5789	16	73	[1]	1	834653.8	842530.4	27.8	227.193684	11.8	227.4999122	100%	39	0	3	0	0	0	0	10	0	20.9	
S21	Bang Jie Company (Warehouse / Logistics)	834593.6443	842693.2713	16	91	[3]	1	834653.8	842530.4	27.8	173.6253686	11.8	174.0258849	100%	37	0	3	0	0	0	0	0	0	0	51.2
Overall																						51.2			

Remarks for SWLs:

- [1] SWLs of S02, S05, S13 and S15 are based on site measurement, as refer to Appendix 6.6.
- [2] SWLs of S12 and S19 are referred to the S12A Planning Application for Proposed Amendments to the Ping Che and Ta Kwu Ling Outline Zoning Plan from "ARG" and "GB" Zones to "R(A)", "R(A)1" and "G/IC" Zones at Various Lots in D.D. 77 and 84 and Adjoining Government Land in Ping Che, Fanling
- [3] SWL of loading and unloading using forklift (91 dB(A)) is referred to the approved EIA report "AEIAR-182/2014 - Proposed Residential Cum Passive Recreation Development within "Recreation" Zone and "Residential (Group C)" Zone at Various Lots in DD 104, Yuen Long, N.T." (website: https://www.epd.gov.hk/eia/register/report/eiareport/eia_2202014/EIA%20Report/Html/Appendices/App%204-7.pdf)
- [4] SWL of movement of lorry (99 dB(A)) is referred to the approved EIA report "AEIAR-182/2014 - Proposed Residential Cum Passive Recreation Development within "Recreation" Zone and "Residential (Group C)" Zone at Various Lots in DD 104, Yuen Long, N.T." (website: https://www.epd.gov.hk/eia/register/report/eiareport/eia_2202014/EIA%20Report/Html/Appendices/App%204-7.pdf)
- [5] SWL of hand-held pneumatic tool (100dB(A)) is referred to the approved EIA report "AEIAR-191/2015 - Chai Wan Government Complex and Vehicle Depot" (website: https://www.epd.gov.hk/eia/register/report/eiareport/eia_2302015/Web/PDF/EIA%20Report%20-%20Appendices.pdf)
- [6] SWL of CNP 048 Crane, mobile/barge mounted (diesel) (112dB(A)) is referred to Technical Memorandum on Noise from Construction Work Other Than Percussive Piling
- [7] Correction factor for quantity = 10 log (quantity)
- [8] Distance correction for SWL = 20 log (distance) + 8
- [9] Correction for percentage on-time over 30 mins = 10 log (on-time %)
- [10] Barrier correction: While NSR with no direct line of sight to the source/opening, a 10dB(A) attenuation would be applied. While NSR is partially screened, a 5dB(A) attenuation would be applied.
- [11] The following formula was used for calculating the SPLs at NSRs =
 $SPL = SWL + QC + DC + FC + BC + OC + TC + IMC + INTC$
 SPL Sound Pressure Level (dB(A))
 SWL Sound Power Level (dB(A))
 QC Correction factor for quantity (dB(A))
 DC Distance Attenuation (dB(A))
 FC Façade Correction (dB(A))
 BC Barrier Correction (dB(A))
 OC Percentage on-Time Correction (dB(A))
 TC Correction for Tonality (dB(A))
 IMC Correction for Impulsiveness (dB(A))
 INTC Correction for Intermittency (dB(A))

Fixed Plant Noise Impact Assessment Calculation

Project No.: 2127

Project: Application for Amendment of Plan Under Section 12A of the Town Planning Ordinance (Cap. 131) for Mix Use Development (Residential & Commercial) at Lot 796 & 1008 RP and Adjoining Government land in Ping Che, Ta Kwu Ling, New Territories

NSR ID T3-F-3

Daytime Criterion: 70 dB(A)

Fixed Plant Noise Source												% on time over 30mins	Correction							Resultant Noise Level			
ID	Name	X-coordinate	Y-coordinate	Height of FPN (mPD)	SWL dB(A)	Remark	Quantity (nos.)	X-coordinate	Y-coordinate	Height of NSR (mPD)	Horizontal Distance (m)		Vertical Distance (m)	Slant Distance (m)	Distance (dB)	Quantity (dB)	Façade (dB)	Tonality (dB)	Impulsive (dB)		Intermittency (dB)	Barrier (dB)	% on time (dB)
S01	Tin Wing Vehicle Services	834558.207	842842.2468	16	99	[4]	3	834625.3	842491.7	24.58	356.909694	8.58	357.0128093	100%	43	5	3	0	0	0	10	0	38.1
S02	Ho Cheung Scrap metal recycling	834573.2434	842849.3084	16	100.3	[1]	1	834625.3	842491.7	24.58	361.3774444	8.58	361.4792854	100%	43	0	3	0	0	0	10	0	44.1
S03	Chewy Logistics	834696.614	842687.133	16	99	[4]	4	834625.3	842491.7	24.58	208.0378429	8.58	208.2146981	100%	38	6	3	0	0	0	10	0	41.6
S04	Open storage	834710.5102	842659.2478	16	99	[4]	1	834625.3	842491.7	24.58	187.970858	8.58	188.1665748	100%	38	0	3	0	0	0	10	0	48.5
S04	Open storage	834710.5102	842659.2478	16	112	[6]	1	834625.3	842491.7	24.58	187.970858	8.58	188.1665748	100%	38	0	3	0	0	0	10	0	61.5
S05	Laundry Workshop	834873.8386	842704.2574	16	98.7	[1]	1	834625.3	842491.7	24.58	327.0352947	8.58	327.1478265	100%	42	0	3	0	0	0	10	0	43.4
S09	Fat Lee Company Limited	834773.0303	842407.9832	16	91	[3]	1	834625.3	842491.7	24.58	169.8020734	8.58	170.0187064	100%	37	0	3	0	0	0	10	0	41.4
S11	Wo Lee Steel logistic & distribution centre	834850.7133	842332.2819	16	91	[3]	1	834625.3	842491.7	24.58	276.0892726	8.58	276.2225603	100%	41	0	3	0	0	0	10	0	37.2
S12	Hong Kong United Recycling Company Limited	834692.2714	842332.7136	16	83.8	[2]	1	834625.3	842491.7	24.58	172.5162132	8.58	172.7294422	100%	37	0	3	0	0	0	10	0	34.1
S13	Bosa Technology (Manufacturing & warehouse)	834686.2596	842227.8035	16	88	[1]	1	834625.3	842491.7	24.58	270.8457782	8.58	270.9816445	100%	41	0	3	0	0	0	10	0	44.3
S14	Shun Cheong Warehouse	834715.3179	842277.4956	16	91	[3]	1	834625.3	842491.7	24.58	232.3504838	8.58	232.5088465	10%	39	0	3	0	0	0	10	10	28.7
S15	Chewy warehouse	834640.7939	842303.5789	16	73	[1]	1	834625.3	842491.7	24.58	188.7580706	8.58	188.9529719	100%	38	0	3	0	0	0	10	0	22.5
S17	Vehicle repair shop	834567.9762	842335.0342	16	100	[5]	1	834625.3	842491.7	24.58	166.823832	8.58	167.0443275	16%	37	0	3	0	0	0	10	8	42.5
S18	Castco Warehouse	834480.9689	842425.8793	16	94.1	[2]	1	834625.3	842491.7	24.58	158.6311116	8.58	158.862983	100%	36	0	3	0	0	0	10	0	55.1
S19	Wei Cheng Bus Engineering Company	834415.9141	842407.886	16	100	[5]	2	834625.3	842491.7	24.58	225.5376725	8.58	225.7008155	16%	39	3	3	0	0	0	10	8	46.9
S20	Swire Motors repair and maintenance workshop	834566.5368	842643.8691	16	99	[4]	2	834625.3	842491.7	24.58	163.1212698	8.58	163.3467633	20%	36	3	3	0	0	0	10	7	39.7
S21	Bang Jie Company (Warehouse / Logistics)	834593.6443	842693.2713	16	91	[3]	1	834625.3	842491.7	24.58	204.0418396	8.58	204.2221553	100%	38	0	3	0	0	0	10	0	49.8
Overall																						63.2	

Night-time Criterion: 60 dB(A)

Fixed Plant Noise Source												% on time over 30mins	Correction							Resultant Noise Level			
ID	Name	X-coordinate	Y-coordinate	Height of Noise Source (mPD)	SWL dB(A)	Remark	Quantity (nos.)	X-coordinate	Y-coordinate	Height of NSR (mPD)	Horizontal Distance (m)		Vertical Distance (m)	Slant Distance (m)	Distance (dB)	Quantity (dB)	Façade (dB)	Tonality (dB)	Impulsive (dB)		Intermittency (dB)	Barrier (dB)	% on time (dB)
S15	Chewy warehouse	834640.7939	842303.5789	16	73	[1]	1	834625.3	842491.7	24.58	188.7580706	8.58	188.9529719	100%	38	0	3	0	0	0	10	0	22.5
S21	Bang Jie Company (Warehouse / Logistics)	834593.6443	842693.2713	16	91	[3]	1	834625.3	842491.7	24.58	204.0418396	8.58	204.2221553	100%	38	0	3	0	0	0	10	0	49.8
Overall																						49.8	

Remarks for SWLs:

- [1] SWLs of S02, S05, S13 and S15 are based on site measurement, as refer to Appendix 6.6.
- [2] SWLs of S12 and S19 are referred to the S12A Planning Application for Proposed Amendments to the Ping Che and Ta Kwu Ling Outline Zoning Plan from "ARG" and "GB" Zones to "R(A)", "R(A)1" and "G/IC" Zones at Various Lots in D.D. 77 and 84 and Adjoining Government Land in Ping Che, Fanling
- [3] SWL of loading and unloading using forklift (91 dB(A)) is referred to the approved EIA report "AEIAR-182/2014 - Proposed Residential Cum Passive Recreation Development within "Recreation" Zone and "Residential (Group C)" Zone at Various Lots in DD 104, Yuen Long, N.T." (website: https://www.epd.gov.hk/eia/register/report/eiareport/eia_2202014/EIA%20Report/Html/Appendices/App%204-7.pdf)
- [4] SWL of movement of lorry (99 dB(A)) is referred to the approved EIA report "AEIAR-182/2014 - Proposed Residential Cum Passive Recreation Development within "Recreation" Zone and "Residential (Group C)" Zone at Various Lots in DD 104, Yuen Long, N.T." (website: https://www.epd.gov.hk/eia/register/report/eiareport/eia_2202014/EIA%20Report/Html/Appendices/App%204-7.pdf)
- [5] SWL of hand-held pneumatic tool (100dB(A)) is referred to the approved EIA report "AEIAR-191/2015 - Chai Wan Government Complex and Vehicle Depot" (website: https://www.epd.gov.hk/eia/register/report/eiareport/eia_2302015/Web/PDF/EIA%20Report%20-%20Appendices.pdf)
- [6] SWL of CNP 048 Crane, mobile/barge mounted (diesel) (112dB(A)) is referred to Technical Memorandum on Noise from Construction Work Other Than Percussive Piling
- [7] Correction factor for quantity = 10 log (quantity)
- [8] Distance correction for SWL = 20 log (distance) + 8
- [9] Correction for percentage on-time over 30 mins = 10 log (on-time %)
- [10] Barrier correction: While NSR with no direct line of sight to the source/opening, a 10dB(A) attenuation would be applied. While NSR is partially screened, a 5dB(A) attenuation would be applied.
- [11] The following formula was used for calculating the SPLs at NSRs =
 $SPL = SWL + QC + DC + FC + BC + OC + TC + IMC + INTC$
 SPL Sound Pressure Level (dB(A))
 SWL Sound Power Level (dB(A))
 QC Correction factor for quantity (dB(A))
 DC Distance Attenuation (dB(A))
 FC Façade Correction (dB(A))
 BC Barrier Correction (dB(A))
 OC Percentage on-Time Correction (dB(A))
 TC Correction for Tonality (dB(A))
 IMC Correction for Impulsiveness (dB(A))
 INTC Correction for Intermittency (dB(A))

Fixed Plant Noise Impact Assessment Calculation

Project No.: 2127

Project: Application for Amendment of Plan Under Section 12A of the Town Planning Ordinance (Cap. 131) for Mix Use Development (Residential & Commercial) at Lot 796 & 1008 RP and Adjoining Government land in Ping Che, Ta Kwu Ling, New Territories

NSR ID T4-D-2

Daytime Criterion: 70 dB(A)

Fixed Plant Noise Source													% on time over 30mins	Correction							Resultant Noise Level																					
ID	Name	X-coordinate	Y-coordinate	Height of FPN (mPD)	SWL dB(A)	Remark	Quantity (nos.)	X-coordinate	Y-coordinate	Height of NSR (mPD)	Horizontal Distance (m)	Vertical Distance (m)		Slant Distance (m)	Distance (dB)	Quantity (dB)	Façade (dB)	Tonality (dB)	Impulsive (dB)	Intermittency (dB)		Barrier (dB)	% on time (dB)	dB(A)																		
S01	Tin Wing Vehicle Services	834558.207	842842.2468	16	99	[4]	3	834681	842468.9	24.58	393.0215693	8.58	393.1152125	100%	44	5	3	0	0	0	10	0	37.3																			
S02	Ho Cheung Scrap metal recycling	834573.2434	842849.3084	16	100.3	[1]	1	834681	842468.9	24.58	395.3758157	8.58	395.4689015	100%	44	0	3	0	0	0	0	10	0	43.4																		
S03	Chewy Logistics	834696.614	842687.133	16	99	[4]	4	834681	842468.9	24.58	218.7908574	8.58	218.9590274	100%	39	6	3	0	0	0	0	10	0	41.2																		
S04	Open storage	834710.5102	842659.2478	16	99	[4]	1	834681	842468.9	24.58	192.6217456	8.58	192.8127415	100%	38	0	3	0	0	0	0	10	0	48.3																		
S04	Open storage	834710.5102	842659.2478	16	112	[6]	1	834681	842468.9	24.58	192.6217456	8.58	192.8127415	100%	38	0	3	0	0	0	0	10	0	61.3																		
S05	Laundry Workshop	834873.8386	842704.2574	16	98.7	[1]	1	834681	842468.9	24.58	304.2693402	8.58	304.3902886	100%	42	0	3	0	0	0	0	10	0	44.0																		
S09	Fat Lee Company Limited	834773.0303	842407.9832	16	91	[3]	1	834681	842468.9	24.58	110.3649974	8.58	110.6980083	100%	33	0	3	0	0	0	0	0	0	55.1																		
S11	Wo Lee Steel logistic & distribution centre	834850.7133	842332.2819	16	91	[3]	1	834681	842468.9	24.58	217.869478	8.58	218.0383587	100%	39	0	3	0	0	0	0	0	0	49.2																		
S12	Hong Kong United Recycling Company Limited	834692.2714	842332.7136	16	83.8	[2]	1	834681	842468.9	24.58	136.6520399	8.58	136.9211321	100%	35	0	3	0	0	0	0	0	0	46.1																		
S13	Bosa Technology (Manufacturing & warehouse)	834686.2596	842227.8035	16	88	[1]	1	834681	842468.9	24.58	241.1538631	8.58	241.3064485	100%	40	0	3	0	0	0	0	0	0	45.3																		
S14	Shun Cheong Warehouse	834715.3179	842277.4956	16	91	[3]	1	834681	842468.9	24.58	194.4565828	8.58	194.6457783	10%	38	0	3	0	0	0	0	10	10	30.2																		
S15	Chewy warehouse	834640.7939	842303.5789	16	73	[1]	1	834681	842468.9	24.58	170.1399324	8.58	170.3561357	100%	37	0	3	0	0	0	0	10	0	23.4																		
S17	Vehicle repair shop	834567.9762	842335.0342	16	100	[5]	1	834681	842468.9	24.58	175.1982642	8.58	175.4082329	16%	37	0	3	0	0	0	0	10	8	42.1																		
S18	Castco Warehouse	834480.9689	842425.8793	16	94.1	[2]	1	834681	842468.9	24.58	204.6050381	8.58	204.7848578	100%	38	0	3	0	0	0	0	10	0	42.9																		
S19	Wei Cheng Bus Engineering Company	834415.9141	842407.886	16	100	[5]	2	834681	842468.9	24.58	272.0169895	8.58	272.1522717	16%	41	3	3	0	0	0	0	10	8	35.3																		
S20	Swire Motors repair and maintenance workshop	834566.5368	842643.8691	16	99	[4]	2	834681	842468.9	24.58	209.0837395	8.58	209.2597107	20%	38	3	3	0	0	0	0	10	7	37.6																		
S21	Bang Jie Company (Warehouse / Logistics)	834593.6443	842693.2713	16	91	[3]	1	834681	842468.9	24.58	240.7768647	8.58	240.9296889	100%	40	0	3	0	0	0	0	10	0	38.4																		
Overall																																										63

Night-time Criterion: 60 dB(A)

Fixed Plant Noise Source													% on time over 30mins	Correction							Resultant Noise Level																					
ID	Name	X-coordinate	Y-coordinate	Height of Noise Source (mPD)	SWL dB(A)	Remark	Quantity (nos.)	X-coordinate	Y-coordinate	Height of NSR (mPD)	Horizontal Distance (m)	Vertical Distance (m)		Slant Distance (m)	Distance (dB)	Quantity (dB)	Façade (dB)	Tonality (dB)	Impulsive (dB)	Intermittency (dB)		Barrier (dB)	% on time (dB)	dB(A)																		
S15	Chewy warehouse	834640.7939	842303.5789	16	73	[1]	1	834681	842468.9	24.58	170.1399324	8.58	170.3561357	100%	37	0	3	0	0	0	0	10	0	23.4																		
S21	Bang Jie Company (Warehouse / Logistics)	834593.6443	842693.2713	16	91	[3]	1	834681	842468.9	24.58	240.7768647	8.58	240.9296889	100%	40	0	3	0	0	0	0	10	0	38.4																		
Overall																																										38.5

Remarks for SWLs:

- [1] SWLs of S02, S05, S13 and S15 are based on site measurement, as refer to Appendix 6.6.
- [2] SWLs of S12 and S19 are referred to the S12A Planning Application for Proposed Amendments to the Ping Che and Ta Kwu Ling Outline Zoning Plan from "ARG" and "GB" Zones to "R(A)", "R(A)1" and "G/C" Zones at Various Lots in D.D. 77 and 84 and Adjoining Government Land in Ping Che, Fanling
- [3] SWL of loading and unloading using forklift (91 dB(A)) is referred to the approved EIA report "AEIAR-182/2014 - Proposed Residential Cum Passive Recreation Development within "Recreation" Zone and "Residential (Group C)" Zone at Various Lots in DD 104, Yuen Long, N.T." (website: https://www.epd.gov.hk/eia/register/report/eiareport/eia_2202014/EIA%20Report/Html/Appendices/App%204-7.pdf)
- [4] SWL of movement of lorry (99 dB(A)) is referred to the approved EIA report "AEIAR-182/2014 - Proposed Residential Cum Passive Recreation Development within "Recreation" Zone and "Residential (Group C)" Zone at Various Lots in DD 104, Yuen Long, N.T." (website: https://www.epd.gov.hk/eia/register/report/eiareport/eia_2202014/EIA%20Report/Html/Appendices/App%204-7.pdf)
- [5] SWL of hand-held pneumatic tool (100dB(A)) is referred to the approved EIA report "AEIAR-191/2015 - Chai Wan Government Complex and Vehicle Depot" (website: https://www.epd.gov.hk/eia/register/report/eiareport/eia_2302015/Web/PDF/EIA%20Report%20-%20Appendices.pdf)
- [6] SWL of CNP 048 Crane, mobile/barge mounted (diesel) (112dB(A)) is referred to Technical Memorandum on Noise from Construction Work Other Than Percussive Piling
- [7] Correction factor for quantity = 10 log (quantity)
- [8] Distance correction for SWL = 20 log (distance) + 8
- [9] Correction for percentage on-time over 30 mins = 10 log (on-time %)
- [10] Barrier correction: While NSR with no direct line of sight to the source/opening, a 10dB(A) attenuation would be applied. While NSR is partially screened, a 5dB(A) attenuation would be applied.
- [11] The following formula was used for calculating the SPLs at NSRs =
 $SPL = SWL + QC + DC + FC + BC + OC + TC + IMC + INTC$
 SPL = Sound Pressure Level (dB(A))
 SWL = Sound Power Level (dB(A))
 QC = Correction factor for quantity (dB(A))
 DC = Distance Attenuation (dB(A))
 FC = Façade Correction (dB(A))
 BC = Barrier Correction (dB(A))
 OC = Percentage on-Time Correction (dB(A))
 TC = Correction for Tonality (dB(A))
 IMC = Correction for Impulsiveness (dB(A))
 INTC = Correction for Intermittency (dB(A))

Fixed Plant Noise Impact Assessment Calculation

Project No.: 2127

Project: Application for Amendment of Plan Under Section 12A of the Town Planning Ordinance (Cap. 131) for Mix Use Development (Residential & Commercial) at Lot 796 & 1008 RP and Adjoining Government land in Ping Che, Ta Kwu Ling, New Territories

NSR ID T5-E-1

Daytime Criterion: 70 dB(A)

Fixed Plant Noise Source													% on time over 30mins	Correction							Resultant Noise Level		
ID	Name	X-coordinate	Y-coordinate	Height of FPN (mPD)	SWL dB(A)	Remark	Quantity (nos.)	X-coordinate	Y-coordinate	Height of NSR (mPD)	Horizontal Distance (m)	Vertical Distance (m)		Slant Distance (m)	Distance (dB)	Quantity (dB)	Façade (dB)	Tonality (dB)	Impulsive (dB)	Intermittency (dB)		Barrier (dB)	% on time (dB)
S01	Tin Wing Vehicle Services	834558.207	842842.2468	16	99	[4]	3	834620.5	842435.5	24.58	411.4892188	8.58	411.5786602	100%	44	5	3	0	0	0	10	0	36.9
S02	Ho Cheung Scrap metal recycling	834573.2434	842849.3084	16	100.3	[1]	1	834620.5	842435.5	24.58	416.497993	8.58	416.5863591	100%	44	0	3	0	0	0	10	0	42.9
S03	Chewy Logistics	834696.614	842687.133	16	99	[4]	4	834620.5	842435.5	24.58	262.8925782	8.58	263.0325533	100%	40	6	3	0	0	0	10	0	39.6
S04	Open storage	834710.5102	842659.2478	16	99	[4]	1	834620.5	842435.5	24.58	241.1740328	8.58	241.3266055	100%	40	0	3	0	0	0	10	0	46.3
S04	Open storage	834710.5102	842659.2478	16	112	[6]	1	834620.5	842435.5	24.58	241.1740328	8.58	241.3266055	100%	40	0	3	0	0	0	10	0	59.3
S05	Laundry Workshop	834873.8386	842704.2574	16	98.7	[1]	1	834620.5	842435.5	24.58	369.3385795	8.58	369.4382258	100%	43	0	3	0	0	0	10	0	42.3
S09	Fat Lee Company Limited	834773.0303	842407.9832	16	91	[3]	1	834620.5	842435.5	24.58	154.992473	8.58	155.2297752	100%	36	0	3	0	0	0	10	0	42.2
S11	Wo Lee Steel logistic & distribution centre	834850.7133	842332.2819	16	91	[3]	1	834620.5	842435.5	24.58	252.2937567	8.58	252.4396087	100%	40	0	3	0	0	0	10	0	38.0
S12	Hong Kong United Recycling Company Limited	834692.2714	842332.7136	16	83.8	[2]	1	834620.5	842435.5	24.58	125.364181	8.58	125.6574482	100%	34	0	3	0	0	0	10	0	36.8
S13	Bosa Technology (Manufacturing & warehouse)	834686.2596	842227.8035	16	88	[1]	1	834620.5	842435.5	24.58	217.8581215	8.58	218.027011	100%	39	0	3	0	0	0	0	0	46.2
S14	Shun Cheong Warehouse	834715.3179	842277.4956	16	91	[3]	1	834620.5	842435.5	24.58	184.2710628	8.58	184.4707049	10%	37	0	3	0	0	0	10	10	30.7
S15	Chewy warehouse	834640.7939	842303.5789	16	73	[1]	1	834620.5	842435.5	24.58	133.4729149	8.58	133.7484034	100%	35	0	3	0	0	0	0	0	25.5
S17	Vehicle repair shop	834567.9762	842335.0342	16	100	[5]	1	834620.5	842435.5	24.58	113.3672198	8.58	113.6914374	16%	33	0	3	0	0	0	10	8	45.9
S18	Castco Warehouse	834480.9689	842425.8793	16	94.1	[2]	1	834620.5	842435.5	24.58	139.8623814	8.58	140.1253087	100%	35	0	3	0	0	0	0	0	56.2
S19	Wei Cheng Bus Engineering Company	834415.9141	842407.886	16	100	[5]	2	834620.5	842435.5	24.58	206.4410896	8.58	206.6193115	16%	38	3	3	0	0	0	0	8	47.7
S20	Swire Motors repair and maintenance workshop	834566.5368	842643.8691	16	99	[4]	2	834620.5	842435.5	24.58	215.2433711	8.58	215.4143105	20%	39	3	3	0	0	0	10	7	37.3
S21	Bang Jie Company (Warehouse / Logistics)	834593.6443	842693.2713	16	91	[3]	1	834620.5	842435.5	24.58	259.1664942	8.58	259.3084806	100%	40	0	3	0	0	0	0	10	47.7
Overall																					62		

Night-time Criterion: 60 dB(A)

Fixed Plant Noise Source													% on time over 30mins	Correction							Resultant Noise Level			
ID	Name	X-coordinate	Y-coordinate	Height of Noise Source (mPD)	SWL dB(A)	Remark	Quantity (nos.)	X-coordinate	Y-coordinate	Height of NSR (mPD)	Horizontal Distance (m)	Vertical Distance (m)		Slant Distance (m)	Distance (dB)	Quantity (dB)	Façade (dB)	Tonality (dB)	Impulsive (dB)	Intermittency (dB)		Barrier (dB)	% on time (dB)	dB(A)
S15	Chewy warehouse	834640.7939	842303.5789	16	73	[1]	1	834620.5	842435.5	24.58	133.4729149	8.58	133.7484034	100%	35	0	3	0	0	0	10	0	25.5	
S21	Bang Jie Company (Warehouse / Logistics)	834593.6443	842693.2713	16	91	[3]	1	834620.5	842435.5	24.58	259.1664942	8.58	259.3084806	100%	40	0	3	0	0	0	0	0	0	47.7
Overall																					47.7			

Remarks for SWLs:

- SWLs of S02, S05, S13 and S15 are based on site measurement, as refer to Appendix 6.6.
- SWLs of S12 and S19 are referred to the S12A Planning Application for Proposed Amendments to the Ping Che and Ta Kwu Ling Outline Zoning Plan from "ARG" and "GB" Zones to "R(A)", "R(A)1" and "G/I/C" Zones at Various Lots in D.D. 77 and 84 and Adjoining Government Land in Ping Che, Fanling
- SWL of loading and unloading using forklift (91 dB(A)) is referred to the approved EIA report "AEIAR-182/2014 - Proposed Residential Cum Passive Recreation Development within "Recreation" Zone and "Residential (Group C)" Zone at Various Lots in DD 104, Yuen Long, N.T." (website: https://www.epd.gov.hk/eia/register/report/eiareport/eia_2202014/EIA%20Report/Html/Appendices/App%204-7.pdf)
- SWL of movement of lorry (99 dB(A)) is referred to the approved EIA report "AEIAR-182/2014 - Proposed Residential Cum Passive Recreation Development within "Recreation" Zone and "Residential (Group C)" Zone at Various Lots in DD 104, Yuen Long, N.T." (website: https://www.epd.gov.hk/eia/register/report/eiareport/eia_2202014/EIA%20Report/Html/Appendices/App%204-7.pdf)
- SWL of hand-held pneumatic tool (100dB(A)) is referred to the approved EIA report "AEIAR-191/2015 - Chai Wan Government Complex and Vehicle Depot" (website: https://www.epd.gov.hk/eia/register/report/eiareport/eia_2302015/Web/PDF/EIA%20Report%20-%20Appendices.pdf)
- SWL of CNP 048 Crane, mobile/barge mounted (diesel) (112dB(A)) is referred to Technical Memorandum on Noise from Construction Work Other Than Percussive Piling
- Correction factor for quantity = 10 log (quantity)
- Distance correction for SWL = 20 log (distance) + 8
- Correction for percentage on-time over 30 mins = 10 log (on-time %)
- Barrier correction: While NSR with no direct line of sight to the source/opening, a 10dB(A) attenuation would be applied. While NSR is partially screened, a 5dB(A) attenuation would be applied.
- The following formula was used for calculating the SPLs at NSRs =
SPL = SWL+QC+DC+FC+BC+OC+TC+IMC+INTC
- SPL Sound Pressure Level (dB(A))
- SWL Sound Power Level (dB(A))
- QC Correction factor for quantity (dB(A))
- DC Distance Attenuation (dB(A))
- FC Façade Correction (dB(A))
- BC Barrier Correction (dB(A))
- OC Percentage on-Time Correction (dB(A))
- TC Correction for Tonality (dB(A))
- IMC Correction for Impulsiveness (dB(A))
- INTC Correction for Intermittency (dB(A))

Fixed Plant Noise Impact Assessment Calculation

Project No.: 2127

Project: Application for Amendment of Plan Under Section 12A of the Town Planning Ordinance (Cap. 131) for Mix Use Development (Residential & Commercial) at Lot 796 & 1008 RP and Adjoining Government land in Ping Che, Ta Kwu Ling, New Territories

NSR ID T6-F-5

Daytime Criterion: 70 dB(A)

Fixed Plant Noise Source											Correction							Resultant Noise Level						
ID	Name	X-coordinate	Y-coordinate	Height of FPN (mPD)	SWL dB(A)	Remark	Quantity (nos.)	X-coordinate	Y-coordinate	Height of NSR (mPD)	Horizontal Distance (m)	Vertical Distance (m)	Slant Distance (m)	% on time over 30mins	Distance (dB)	Quantity (dB)	Façade (dB)		Tonality (dB)	Impulsive (dB)	Intermittency (dB)	Barrier (dB)	% on time (dB)	dB(A)
S01	Tin Wing Vehicle Services	834558.207	842842.2468	16	99	[4]	3	834682.2	842413.5	24.58	446.316124	8.58	446.3985875	100%	45	5	3	0	0	0	10	0	36.2	
S02	Ho Cheung Scrap metal recycling	834573.2434	842849.3084	16	100.3	[1]	1	834682.2	842413.5	24.58	449.2221079	8.58	449.304038	100%	45	0	3	0	0	0	0	10	0	42.2
S03	Chewy Logistics	834696.614	842687.133	16	99	[4]	4	834682.2	842413.5	24.58	274.0123758	8.58	274.1466733	100%	41	6	3	0	0	0	0	10	0	39.2
S04	Open storage	834710.5102	842659.2478	16	99	[4]	1	834682.2	842413.5	24.58	247.373096	8.58	247.5218476	100%	40	0	3	0	0	0	0	10	0	46.1
S04	Open storage	834710.5102	842659.2478	16	112	[6]	1	834682.2	842413.5	24.58	247.373096	8.58	247.5218476	100%	40	0	3	0	0	0	0	10	0	59.1
S05	Laundry Workshop	834873.8386	842704.2574	16	98.7	[1]	1	834682.2	842413.5	24.58	348.231559	8.58	348.3372433	100%	43	0	3	0	0	0	0	10	0	42.9
S09	Fat Lee Company Limited	834773.0303	842407.9832	16	91	[3]	1	834682.2	842413.5	24.58	90.99768393	8.58	91.40128489	100%	31	0	3	0	0	0	0	0	0	56.8
S11	Wo Lee Steel logistic & distribution centre	834850.7133	842332.2819	16	91	[3]	1	834682.2	842413.5	24.58	187.0644596	8.58	187.2611237	100%	37	0	3	0	0	0	0	0	0	50.6
S12	Hong Kong United Recycling Company Limited	834692.2714	842332.7136	16	83.8	[2]	1	834682.2	842413.5	24.58	81.41176526	8.58	81.86264058	100%	30	0	3	0	0	0	0	0	0	50.5
S13	Bosa Technology (Manufacturing & warehouse)	834686.2596	842227.8035	16	88	[1]	1	834682.2	842413.5	24.58	185.7408691	8.58	185.9389332	100%	37	0	3	0	0	0	0	0	0	47.6
S14	Shun Cheong Warehouse	834715.3179	842277.4956	16	91	[3]	1	834682.2	842413.5	24.58	139.9785416	8.58	140.2412511	10%	35	0	3	0	0	0	0	10	10	33.1
S15	Chewy warehouse	834640.7939	842303.5789	16	73	[1]	1	834682.2	842413.5	24.58	117.4611142	8.58	117.7740623	100%	33	0	3	0	0	0	0	10	0	26.6
S17	Vehicle repair shop	834567.9762	842335.0342	16	100	[5]	1	834682.2	842413.5	24.58	138.578347	8.58	138.8437059	16%	35	0	3	0	0	0	0	10	8	44.1
S18	Castco Warehouse	834480.9689	842425.8793	16	94.1	[2]	1	834682.2	842413.5	24.58	201.6115142	8.58	201.7940016	100%	38	0	3	0	0	0	0	10	0	43.0
S19	Wei Cheng Bus Engineering Company	834415.9141	842407.886	16	100	[5]	2	834682.2	842413.5	24.58	266.3450723	8.58	266.4832339	16%	41	3	3	0	0	0	0	10	8	35.8
S20	Swire Motors repair and maintenance workshop	834566.5368	842643.8691	16	99	[4]	2	834682.2	842413.5	24.58	257.7748981	8.58	257.9176506	20%	40	3	3	0	0	0	0	10	7	35.8
S21	Bang Jie Company (Warehouse / Logistics)	834593.6443	842693.2713	16	91	[3]	1	834682.2	842413.5	24.58	293.4520273	8.58	293.5774322	100%	41	0	3	0	0	0	0	10	0	36.6
Overall																						62.4		

Night-time Criterion: 60 dB(A)

Fixed Plant Noise Source											Correction							Resultant Noise Level						
ID	Name	X-coordinate	Y-coordinate	Height of Noise Source (mPD)	SWL dB(A)	Remark	Quantity (nos.)	X-coordinate	Y-coordinate	Height of NSR (mPD)	Horizontal Distance (m)	Vertical Distance (m)	Slant Distance (m)	% on time over 30mins	Distance (dB)	Quantity (dB)	Façade (dB)		Tonality (dB)	Impulsive (dB)	Intermittency (dB)	Barrier (dB)	% on time (dB)	dB(A)
S15	Chewy warehouse	834640.7939	842303.5789	16	73	[1]	1	834682.2	842413.5	24.58	117.4611142	8.58	117.7740623	100%	33	0	3	0	0	0	0	10	0	26.6
S21	Bang Jie Company (Warehouse / Logistics)	834593.6443	842693.2713	16	91	[3]	1	834682.2	842413.5	24.58	293.4520273	8.58	293.5774322	100%	41	0	3	0	0	0	0	10	0	36.6
Overall																						37		

Remarks for SWLs:

- [1] SWLs of S02, S05, S13 and S15 are based on site measurement, as refer to Appendix 6.6.
- [2] SWLs of S12 and S19 are referred to the S12A Planning Application for Proposed Amendments to the Ping Che and Ta Kwu Ling Outline Zoning Plan from "ARG" and "GB" Zones to "R(A)", "R(A)1" and "G/C" Zones at Various Lots in D.D. 77 and 84 and Adjoining Government Land in Ping Che, Fanling
- [3] SWL of loading and unloading using forklift (91 dB(A)) is referred to the approved EIA report "AEIAR-182/2014 - Proposed Residential Cum Passive Recreation Development within "Recreation" Zone and "Residential (Group C)" Zone at Various Lots in DD 104, Yuen Long, N.T." (website: https://www.epd.gov.hk/eia/register/report/eiareport/eia_2202014/EIA%20Report/Html/Appendices/App%204-7.pdf)
- [4] SWL of movement of lorry (99 dB(A)) is referred to the approved EIA report "AEIAR-182/2014 - Proposed Residential Cum Passive Recreation Development within "Recreation" Zone and "Residential (Group C)" Zone at Various Lots in DD 104, Yuen Long, N.T." (website: https://www.epd.gov.hk/eia/register/report/eiareport/eia_2202014/EIA%20Report/Html/Appendices/App%204-7.pdf)
- [5] SWL of hand-held pneumatic tool (100dB(A)) is referred to the approved EIA report "AEIAR-191/2015 - Chai Wan Government Complex and Vehicle Depot" (website: https://www.epd.gov.hk/eia/register/report/eiareport/eia_2302015/Web/PDF/EIA%20Report%20-%20Appendices.pdf)
- [6] SWL of CNP 048 Crane, mobile/barge mounted (diesel) (112dB(A)) is referred to Technical Memorandum on Noise from Construction Work Other Than Percussive Piling
- [7] Correction factor for quantity = 10 log (quantity)
- [8] Distance correction for SWL = 20 log (distance) + 8
- [9] Correction for percentage on-time over 30 mins = 10 log (on-time %)
- [10] Barrier correction: While NSR with no direct line of sight to the source/opening, a 10dB(A) attenuation would be applied. While NSR is partially screened, a 5dB(A) attenuation would be applied.
- [11] The following formula was used for calculating the SPLs at NSRs =
 $SPL = SWL + QC + DC + FC + BC + OC + TC + IMC + INTC$
 SPL Sound Pressure Level (dB(A))
 SWL Sound Power Level (dB(A))
 QC Correction factor for quantity (dB(A))
 DC Distance Attenuation (dB(A))
 FC Façade Correction (dB(A))
 BC Barrier Correction (dB(A))
 OC Percentage on-Time Correction (dB(A))
 TC Correction for Tonality (dB(A))
 IMC Correction for Impulsiveness (dB(A))
 INTC Correction for Intermittency (dB(A))

Project No. 2127

Environmental Assessment for Application for Amendment of Plan under Section 12A for the Town Planning Ordinance (Cap. 131) for Mixed Use Development at Lots 796 and 1008RP in D.D. 77 and Adjoining Government Land in Ping Che, Ta Kwu Ling, New Territories

Appendix 8.1

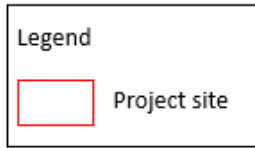
Aerial Photo

Project No. 2127

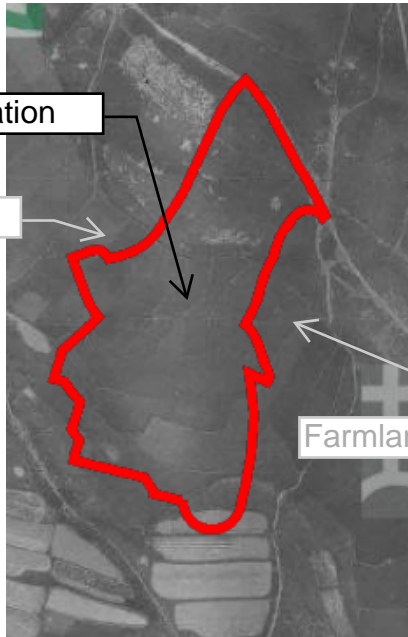
Application for Amendment of Plan Under Section 12A of the Town Planning Ordinance (Cap. 131) for Mix Use Development (Residential & Commercial) at Lot 796 & 1008 RP and Adjoining Government land in Ping Che, Ta Kwu Ling, New Territories

Appendix 8.1

Legend



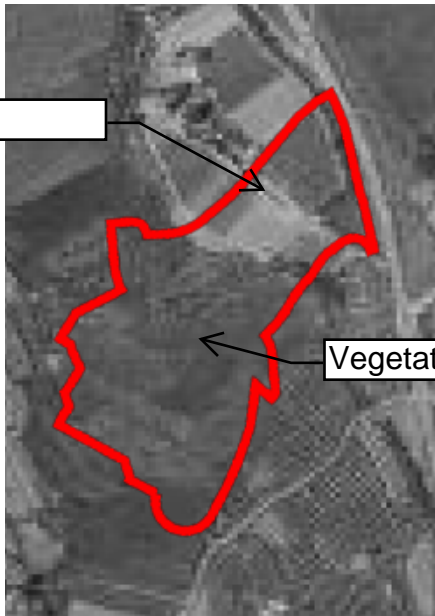
Project site



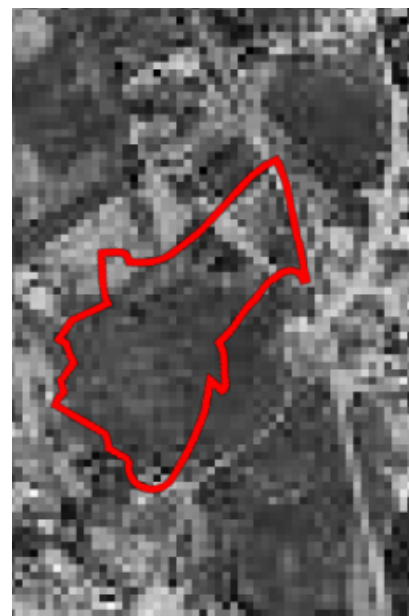
1949



1956



1961

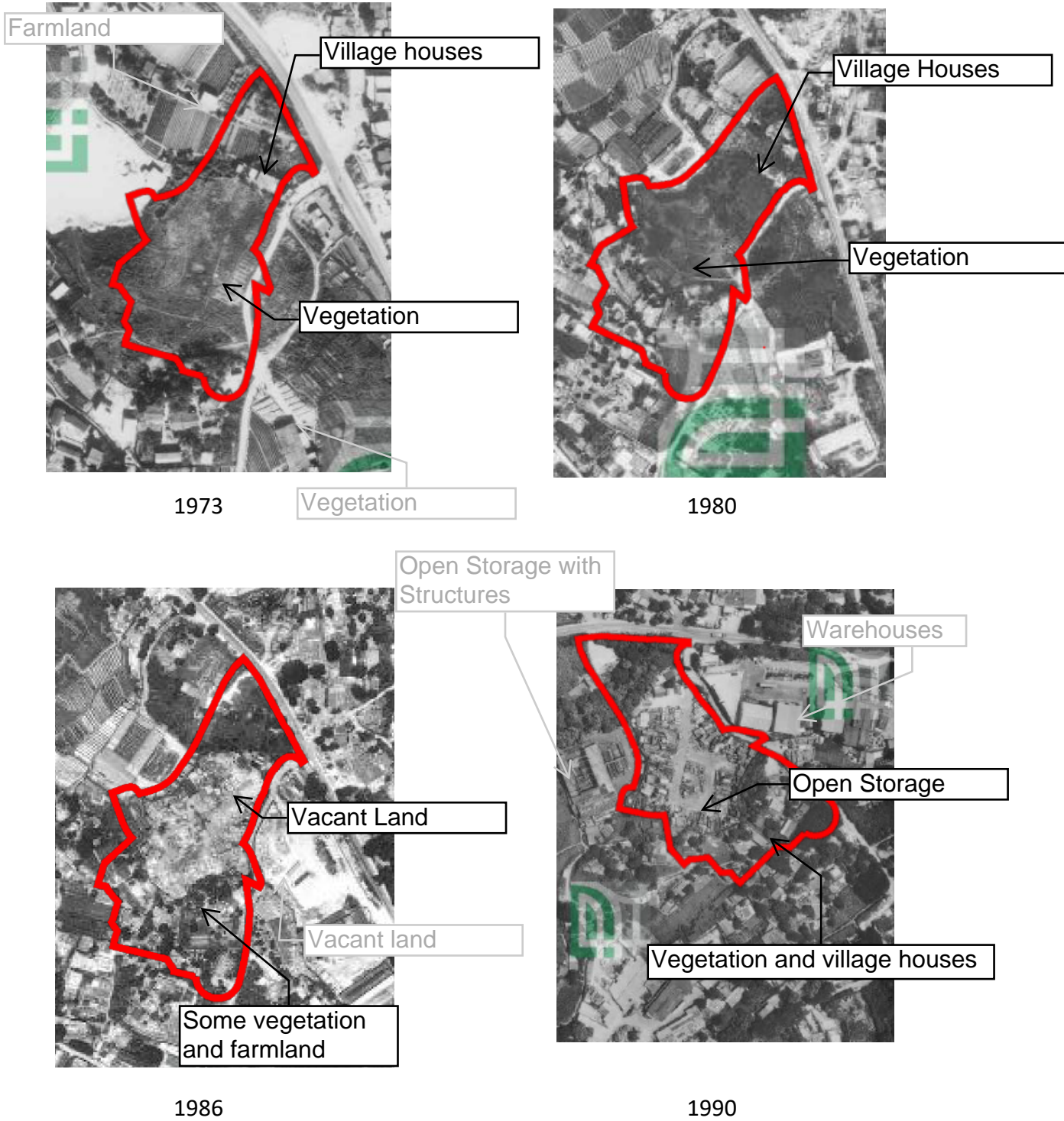


1964

Project No. 2127

Application for Amendment of Plan Under Section 12A of the Town Planning Ordinance (Cap. 131) for Mix Use Development (Residential & Commercial) at Lot 796 & 1008 RP and Adjoining Government land in Ping Che, Ta Kwu Ling, New Territories

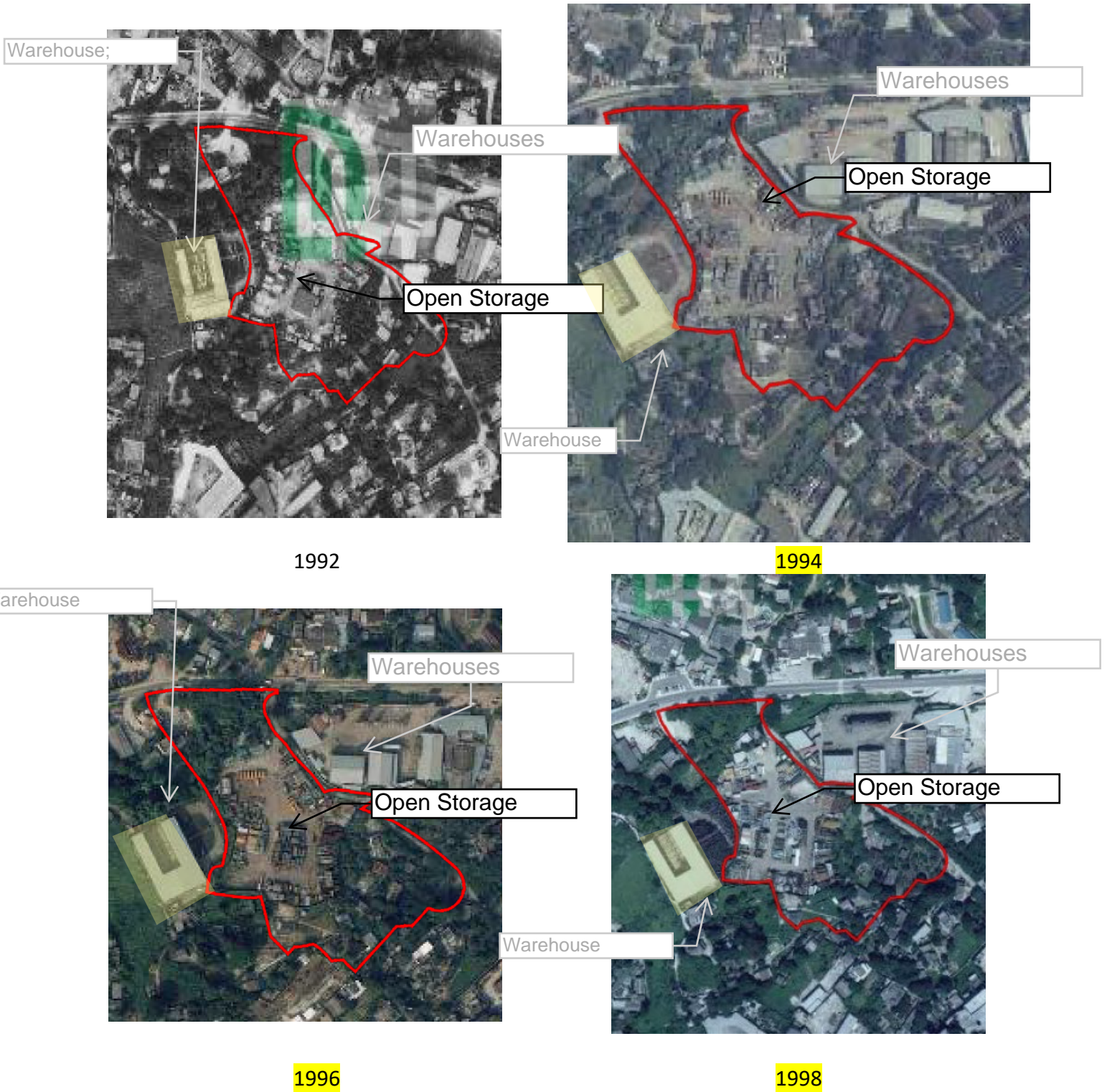
Appendix 8.1



Project No. 2127

Application for Amendment of Plan Under Section 12A of the Town Planning Ordinance (Cap. 131) for Mix Use Development (Residential & Commercial) at Lot 796 & 1008 RP and Adjoining Government land in Ping Che, Ta Kwu Ling, New Territories

Appendix 8.1



Project No. 2127

Application for Amendment of Plan Under Section 12A of the Town Planning Ordinance (Cap. 131) for Mix Use Development (Residential & Commercial) at Lot 796 & 1008 RP and Adjoining Government land in Ping Che, Ta Kwu Ling, New Territories

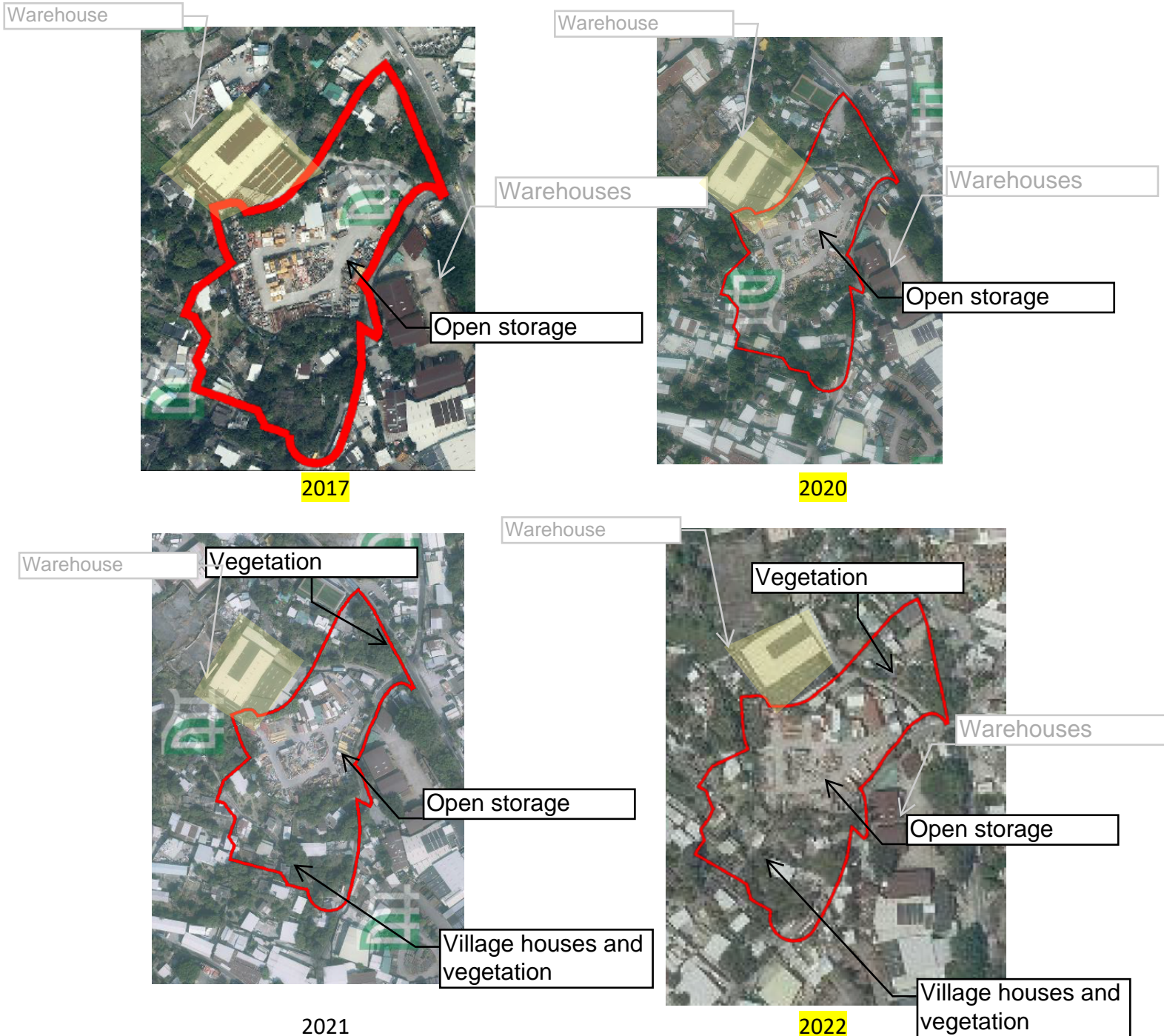
Appendix 8.1



Project No. 2127

Application for Amendment of Plan Under Section 12A of the Town Planning Ordinance (Cap. 131) for Mix Use Development (Residential & Commercial) at Lot 796 & 1008 RP and Adjoining Government land in Ping Che, Ta Kwu Ling, New Territories

Appendix 8.1



Project No. 2127

Environmental Assessment for Application for Amendment of Plan under Section 12A for the Town Planning Ordinance (Cap. 131) for Mixed Use Development at Lots 796 and 1008RP in D.D. 77 and Adjoining Government Land in Ping Che, Ta Kwu Ling, New Territories

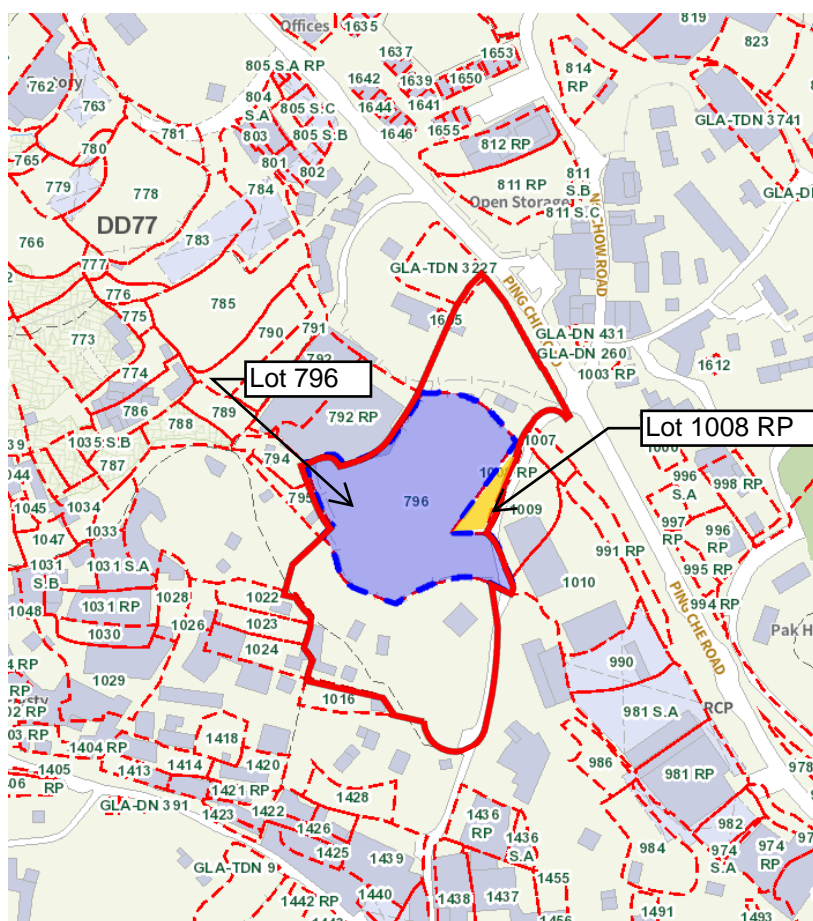
Appendix 8.2

Chemical Waste Register Record

No Invalid Chemical Waste Producer as of 08.02.2024

Valid Chemical Waste Producer as of 08.02.2024

Waste Producer Name	Premises Address	Nature of Business
Hang Kee Development Company Limited	Lot no.796 in D.D.77, Ping Che, North	Construction
Bergeron (Hong Kong) Company Limited	Lot no.796 & 1008 RP, Ping Che, Fanling, N.T.	Warehouse



Project No. 2127

Environmental Assessment for Application for Amendment of Plan under Section 12A for the Town Planning Ordinance (Cap. 131) for Mixed Use Development at Lots 796 and 1008RP in D.D. 77 and Adjoining Government Land in Ping Che, Ta Kwu Ling, New Territories

Appendix 8.3

Copy of Letter Replies from various Government
Department

Our Ref. [819.4463/23-0001]



Environmental Protection Department
Environmental Compliance Division
Regional Office (North)
North
(Attn: Ms. TANG Wing Yin, Alice)

27/F, Overseas Trust Bank Building
160 Gloucester Road
Wan Chai
Hong Kong
T: +852 2815 7028
F: +852 2815 5399
info@aechk.com
www.asecg.com

25 May 2023

By Email

Dear Madam,

**S16 Application for A/DPA/NE-TKL/31 Ping Che DD77 Lot 796 & 1008RP,
Ta Kwu Ling, North District, Hong Kong
Request for Information for Land Contamination Assessment**

We are conducting an S16 Application for A/DPA/NE-TKL/31 Ping Che DD77 Lot 796 & 1008RP, Ta Kwu Ling, North District, Hong Kong which is shown in the enclosed Site Location Plan. As required by the "Practice Guide for Investigation and Remediation of Contaminated Land" published by the Environmental Protection Department of the HKSAR (EPD), information pertaining to the change of land uses/past activities/incidents/accidents at the Project Site is required as part of the vetting process.

Of particular interest is whether there are any registered chemical waste producers under your record in the Project Site and its immediate surroundings, any waste disposal record, any accidental spillage record, any submission relating to land contamination assessment and any information you could provide which might be useful for our study. We enclosed herewith a site map showing the location of the Project Site for your reference.

Due to the tight schedule, it is highly appreciated if the above information could be available and returned to us via either fax (Fax No. 2815 5399) or email **by 8 June 2023**. Thank you very much for your kind attention and assistance. Should you have any queries, please feel free to contact the undersigned at 3915 7148 (cm@aechk.com) or Ms Bella Cheung (bellacheung@aechk.com) at 3915 7178.

Yours sincerely,

A handwritten signature in black ink, appearing to be 'Cathy Man', written over a circular stamp or seal.

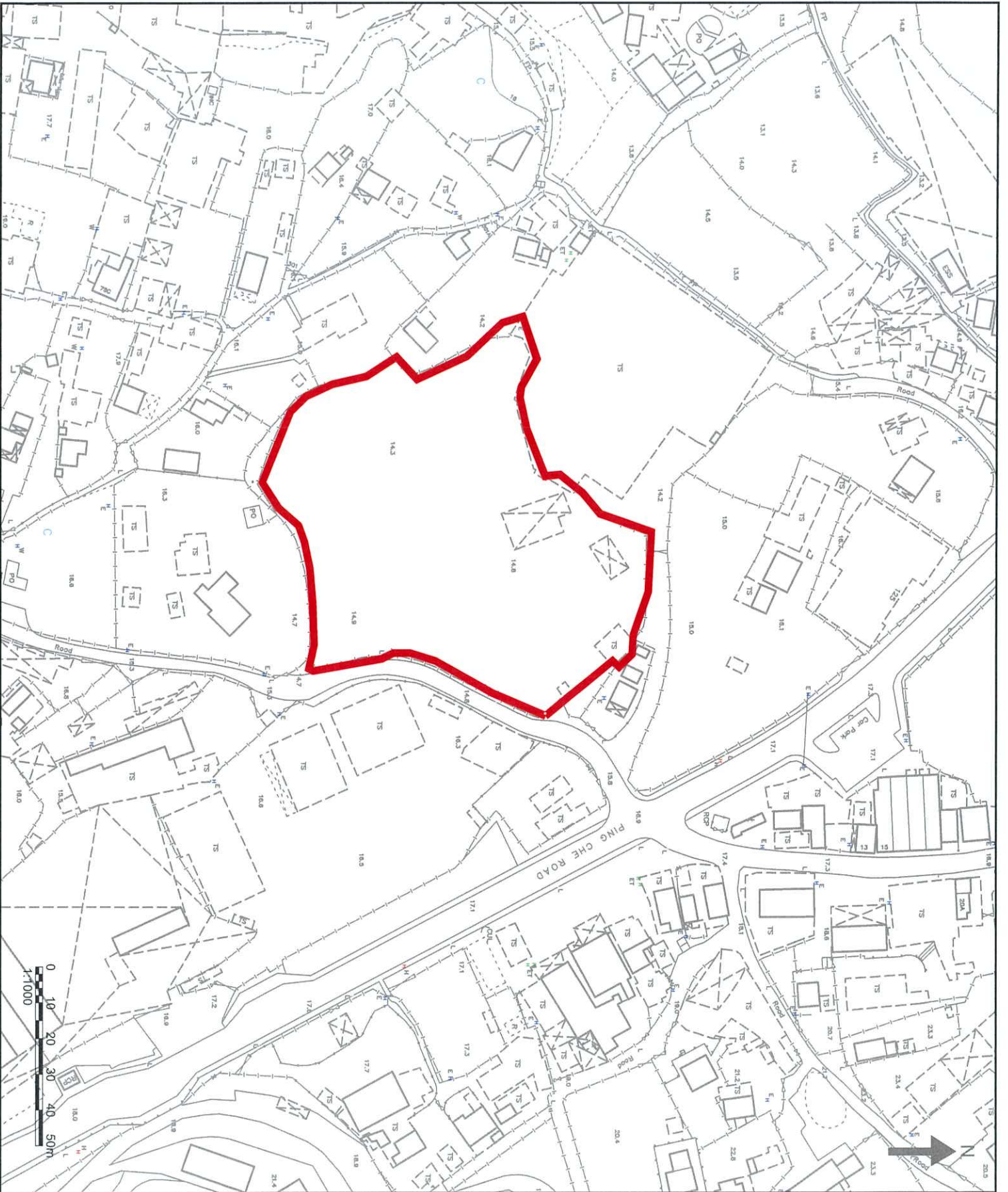
Cathy Man
Associate Director
CM/bc

Encl. Site Location Plan

Allied Environmental Consultants Limited
Member of AEC Group (HKEX Stock Code: 8320.HK)

27/F, Overseas Trust Bank Building, 160 Gloucester Road, Wan Chai, Hong Kong

沛然環境評估工程顧問有限公司
沛然環保集團成員 (港交所股份代號: 8320.HK)
香港灣仔告士打道 160 號海外信託銀行大廈 27 樓



NOTES:

PROJECT SITE

Consultant



Allied Environmental Consultants Limited

Project No. : 819,4463

Drawing By : BC

Project :
 S16 APPLICATION FOR ADP/ANNE-TK/L31
 PING CHE D/D77 LOT 796 & 1008/RP
 TA KWU LING, NORTH DISTRICT, HONG
 KONG

Drawing Title:
 PROJECT SITE LOCATION

Drawing No. :
 FIGURE 1

Scale:	Revision:	Date:
AS SHOWN	0	MAY 2023

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NGAN Chun Sang

From: alicewytang@epd.gov.hk
Sent: Tuesday, 6 June, 2023 11:29 AM
To: Bella Cheung
Cc: Cathy Man; Helen Siu; NGAN Chun Sang
Subject: Re: [819.4463 Ping Che Land Contamination] Request for Information for Land Contamination Assessment
Attachments: 23-0001_EPD Enquiry.pdf

Follow Up Flag: Flag for follow up
Flag Status: Flagged

Dear Bella,

I refer to your preceding letter dated 25 May 2023 in regard to the captioned. This Office has no record of any reported chemical spillage / leakage incident at the captioned locations in the past 5 years. You may like to check with other relevant parties / departments for such information as appropriate.

For record of Chemical Waste Producers Registration, a registry is available at our Territory Control Office in Wan Chai. Please contact our Mr. C.K. Tsang at 2835 1017 for details during the office hours.

Regards,

Alice TANG
E(RN)34 / EPD
2158 5842

From: Bella Cheung <bellacheung@aechk.com>
To: "alicewytang@epd.gov.hk" <alicewytang@epd.gov.hk>
Cc: Cathy Man <cm@aechk.com>, Helen Siu <helensiu@aechk.com>, NGAN Chun Sang <nganchunsang@aecasia.io>
Date: 25/05/2023 13:57
Subject: [819.4463 Ping Che Land Contamination] Request for Information for Land Contamination Assessment

Dear Alice,

Please kindly see the attached enquiry letter for the land contamination assessment and the site location plan.

Due to the tight schedule, it is highly appreciated if the above information could be available and returned to us via either fax (Fax No. 2815 5399) or email by 8 June 2023.

Thank you very much for your kind attention and assistance. Should you have any queries, please feel free to contact me.

Regards,



Bella Cheung – Assistant Consultant

Environmental Consultancy | Green & Healthy Building

T: (852) 2815 7028 | D: (852) 3915 7178 | F: (852) 2815 5399 | E: bellacheung@aechk.com

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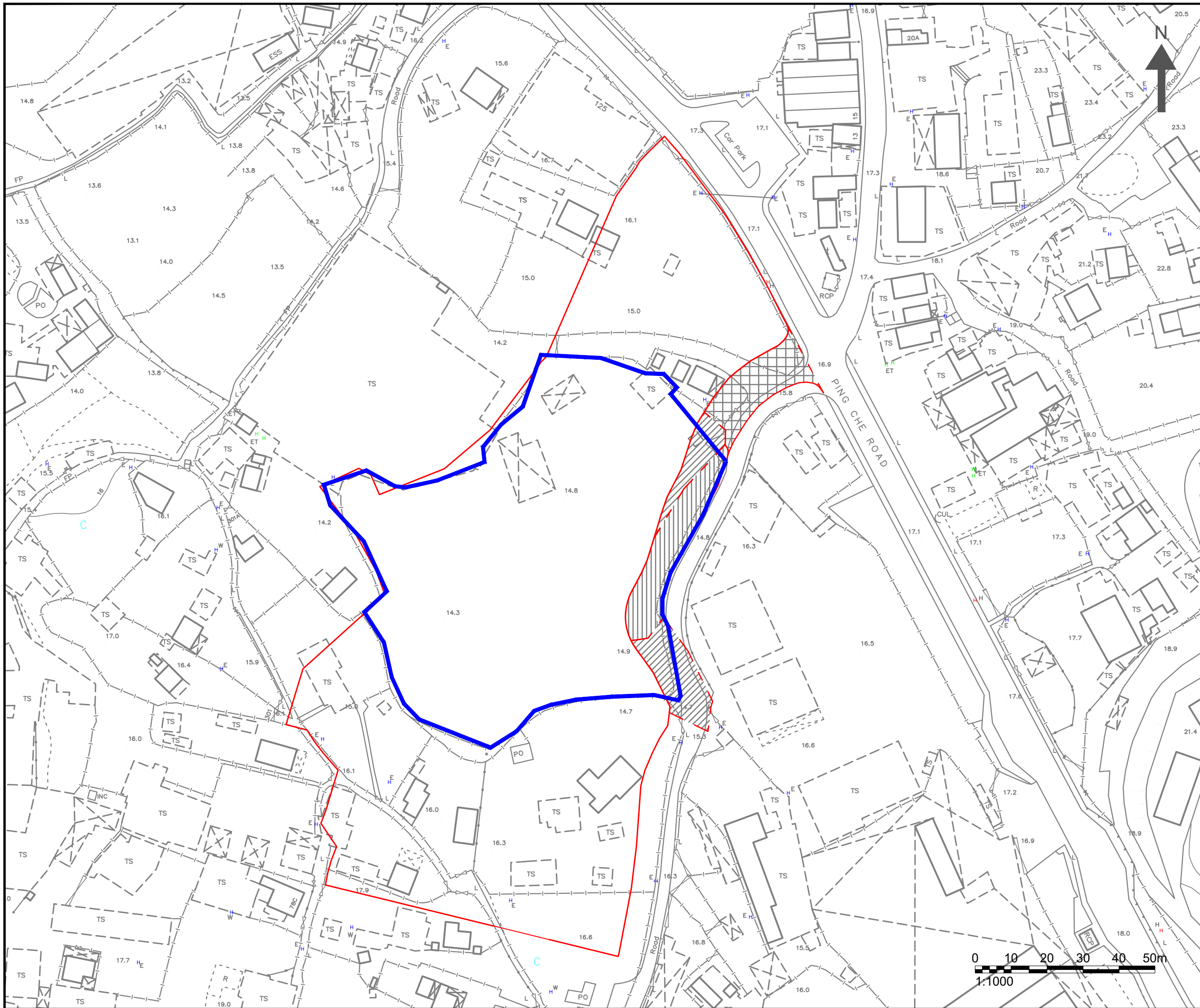
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(File-Checksum-0332740f)



- NOTES :
- ADDITIONAL PROJECT SITE
 - ORIGINAL PROJECT SITE

Consultant



Allied Environmental Consultants Limited

Project No. : 819.4463

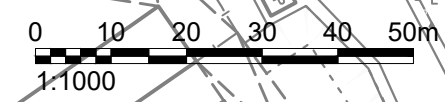
Drawing By : BC

Project :
 S16 APPLICATION FOR A/DPA/NE-TKL/31
 PING CHE DD77 LOT 796 & 1008RP,
 TA KWU LING, NORTH DISTRICT, HONG KONG

Drawing Title :
 PROJECT SITE LOCATION

Drawing No : FIGURE 1	Revision : 0
Scale : AS SHOWN	Date : JUNE 2023

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NGAN Chun Sang

From: alicewytang@epd.gov.hk
Sent: Thursday, 6 July, 2023 2:19 PM
To: Helen Siu
Cc: Bella Cheung; Cathy Man
Subject: RE: [2127/819.4463 Ping Che Land Contamination] Request for Information for Land Contamination Assessment - Updated Site Boundary
Attachments: Fig 1.2_revised site boundary.pdf

Dear Helen,
I refer to your email dated 30 June 2023 in regard to the captioned.

We have no record of any reported chemical spillage / leakage incident at the additional project site in the past 5 years, and no registered chemical waste producers is found in the additional project site.
Thanks!

Regards,

Alice TANG
E(RN)34 / EPD
2158 5842

From: Helen Siu <helensiu@aechk.com>
To: "alicewytang@epd.gov.hk" <alicewytang@epd.gov.hk>
Cc: Cathy Man <cm@aechk.com>, Bella Cheung <bellacheung@aechk.com>
Date: 30/06/2023 14:43
Subject: RE: [2127/819.4463 Ping Che Land Contamination] Request for Information for Land Contamination Assessment - Updated Site Boundary

Dear Alice,

Thank you for your reply. We further updated the site boundary with the additional project site in red colour as shown in the enclosed location plan.

We would like to request the following records regarding land uses/past activities/incidents/accidents.

Of particular interest is whether there are any registered chemical waste producers under your record in the additional project site, any waste disposal record, any accidental spillage record, any submission relating to land contamination assessment and any information you could provide which might be useful for our study.

Due to the tight schedule, it is highly appreciated if the above information could be available and returned to us via either fax (Fax No. 2815 5399) or email **by 14 July 2023**.

Should you have any queries, please feel free to contact the undersigned or Ms. Cathy Man (cm@aechk.com) at 3915 7148.

Best Regards,



Helen Siu – Assistant Consultant

Environmental Consultancy | Green & Healthy Building

T: (852) 2815 7028 | D: (852) 3915 7117 | F: (852) 2815 5399 | E: helensiu@aechk.com

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27/F, Overseas Trust Bank Building, 160 Gloucester Road, Wan Chai, Hong Kong

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[P:\2101-2150\2127\02 Correspondence\01 Letters](#)

From: alicewytang@epd.gov.hk <alicewytang@epd.gov.hk>

Sent: Tuesday, June 6, 2023 11:29 AM

To: Bella Cheung <bellacheung@aechk.com>

Cc: Cathy Man <cm@aechk.com>; Helen Siu <helensiu@aechk.com>; NGAN Chun Sang <nganchunsang@aecasia.io>

Subject: Re: [819.4463 Ping Che Land Contamination] Request for Information for Land Contamination Assessment

Dear Bella,

I refer to your preceding letter dated 25 May 2023 in regard to the captioned. This Office has no record of any reported chemical spillage / leakage incident at the captioned locations in the past 5 years. You may like to check with other relevant parties / departments for such information as appropriate.

For record of Chemical Waste Producers Registration, a registry is available at our Territory Control Office in Wan Chai. Please contact our Mr. C.K. Tsang at 2835 1017 for details during the office hours.

Regards,

Alice TANG
E(RN)34 / EPD
2158 5842

From: Bella Cheung <bellacheung@aechk.com>
To: "alicewytang@epd.gov.hk" <alicewytang@epd.gov.hk>
Cc: Cathy Man <cm@aechk.com>, Helen Siu <helensiu@aechk.com>, NGAN Chun Sang <nganchunsang@aecasiasia.io>
Date: 25/05/2023 13:57
Subject: [819.4463 Ping Che Land Contamination] Request for Information for Land Contamination Assessment

Dear Alice,

Please kindly see the attached enquiry letter for the land contamination assessment and the site location plan.

Due to the tight schedule, it is highly appreciated if the above information could be available and returned to us via either fax (Fax No. 2815 5399) or email by 8 June 2023.

Thank you very much for your kind attention and assistance. Should you have any queries, please feel free to contact me.

Regards,



Bella Cheung – Assistant Consultant
Environmental Consultancy | Green & Healthy Building
T: (852) 2815 7028 | D: (852) 3915 7178 | F: (852) 2815 5399 | E: bellacheung@aechk.com

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Our Ref. [819.4463/23-0002]



Fire Services Department / Management Group
9/F, Fire Services Headquarters Building
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Kowloon

27/F, Overseas Trust Bank Building
160 Gloucester Road
Wan Chai
Hong Kong
T: +852 2815 7028
F: +852 2815 5399
info@aechk.com
www.asecg.com

25 May 2023

By Email

Dear Sir/Madam,

**S16 Application for A/DPA/NE-TKL/31 Ping Che DD77 Lot 796 & 1008RP,
Ta Kwu Ling, North District, Hong Kong
Request for Information for Land Contamination Assessment**

We are conducting an S16 Application for A/DPA/NE-TKL/31 Ping Che DD77 Lot 796 & 1008RP, Ta Kwu Ling, North District, Hong Kong as shown in the enclosed Site Location Plan. As required by the "Practice Guide for Investigation and Remediation of Contaminated Land" published by the Environmental Protection Department of the HKSAR (EPD), information pertaining to the change of land uses/past activities/incidents/accidents at the Project Site is required as part of the vetting process.

Of particular interest are spill and incident reports (including records of fire at the Project Site and its immediate surroundings) that we believe your Department might have records of. Furthermore, we would also like to know whether anywhere on the Project Site and its immediate surroundings had applied for or possessed a license for dangerous goods storage. We enclosed herewith a site map showing the location of the Project Site for your reference.

Due to the tight schedule, it is highly appreciated if the above information could be available and returned to us via either fax (Fax No. 2815 5399) or email **by 8 June 2023**. Thank you very much for your kind attention and assistance. Should you have any queries, please feel free to contact the undersigned or Ms Bella Cheung (bellacheung@aechk.com) at 3915 7178.

Yours sincerely,

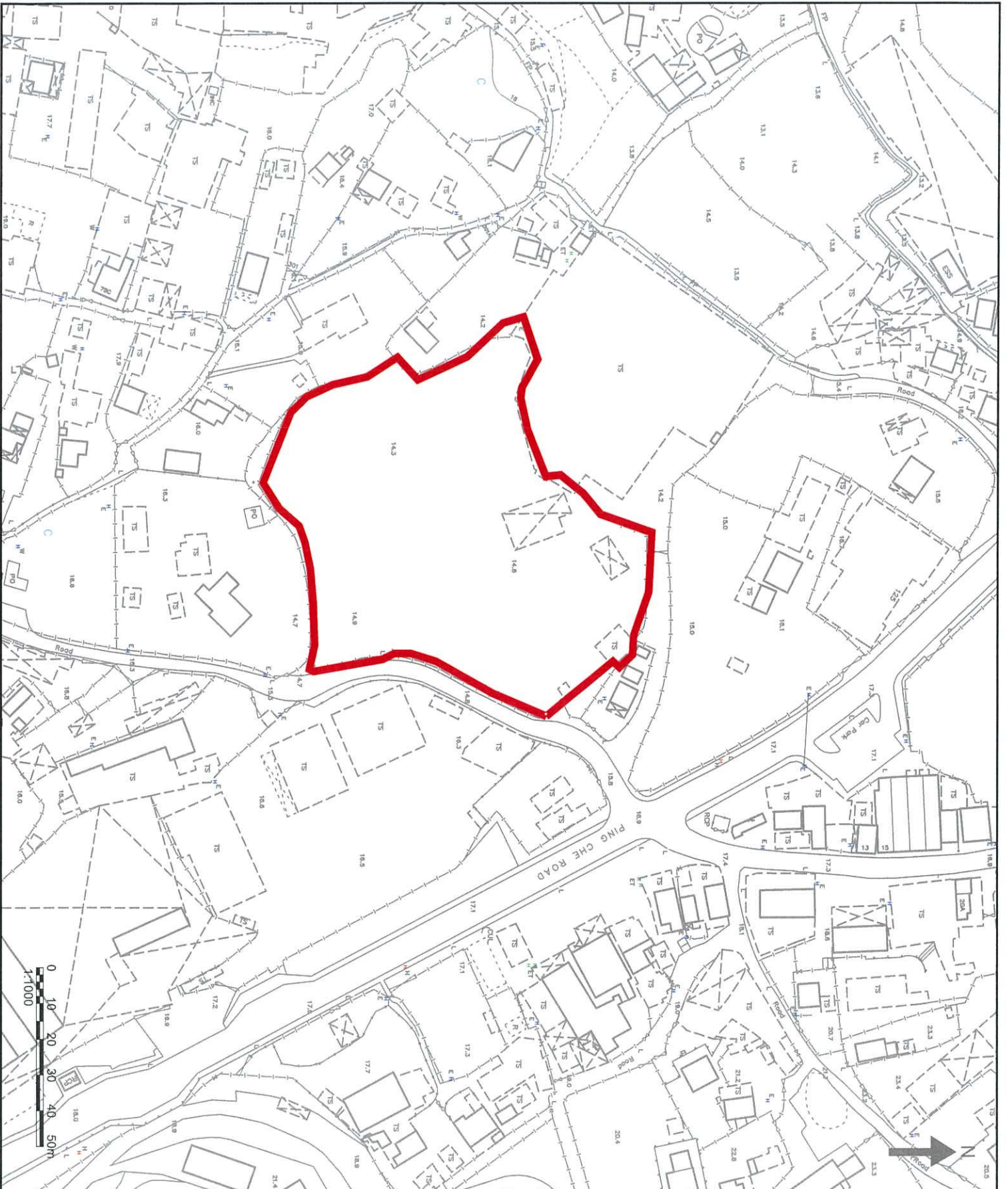
A handwritten signature in black ink, appearing to be 'Cathy Man', is written over a large, light-colored oval shape.

Cathy Man
Associate Director
CM/bc

Encl. Site Location Plan
Allied Environmental Consultants Limited
Member of AEC Group (HKEX Stock Code: 8320.HK)

27/F, Overseas Trust Bank Building, 160 Gloucester Road, Wan Chai, Hong Kong

沛然環境評估工程顧問有限公司
沛然環保集團成員 (港交所股份代號: 8320.HK)
香港灣仔告士打道 160 號海外信託銀行大廈 27 樓



NOTES

PROJECT SITE



Consultant



Allied Environmental Consultants Limited

Project No.: 819,4463

Drawing By: BC

Project:
 S16 APPLICATION FOR ADP/ANNE-TKL/31
 PING CHE DDT77 LOT 796 & 1008RP,
 TA KWU LING, NORTH DISTRICT, HONG
 KONG

Drawing Title:
 PROJECT SITE LOCATION

Drawing No	Revision
FIGURE 1	0
Scale:	Date:
AS SHOWN	MAY 2023

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消防處
香港九龍尖沙咀東部康莊道1號
消防處總部大廈



FIRE SERVICES DEPARTMENT
FIRE SERVICES HEADQUARTERS BUILDING,
No.1 Hong Chong Road,
Tsim Sha Tsui East, Kowloon,
Hong Kong.

本處檔號 OUR REF. : (190) in FSD GR 6-5/4 R Pt. 46
來函檔號 YOUR REF. : [819.4463/23-0002]
電子郵件 E-mail : hkfsdenq@hkfsd.gov.hk
圖文傳真 FAX NO. : 2739 5879
電話 TEL NO. : 2733 7741

30 May 2023

Allied Environmental Consultants Limited
27/F, Overseas Trust Bank Building,
160 Gloucester Road,
Wan Chai, Hong Kong.
(Attn: Ms. Belle CHEUNG, Assistant Consultant)

By fax (2815 5399) only

Dear Ms. CHEUNG,

**S16 Application for A/DPA/NE-TKL/31 Ping Che DD77 Lot 796 & 1008RP,
Ta Kwu Ling, North District, Hong Kong
Request for Information of Dangerous Goods & Incident Records**

I refer to your letter of 25.5.2023 regarding the captioned subject.

Your case is being handled, and a reply will be furnished to you as soon as possible. Please be advised that due to time lapse, this Department can only provide the following information for your requested information:

- (i) Dangerous Goods Licence Record: from the year of 1990 to present-moment.
- (ii) Incident Record: Past three years of fire and special services incidents.

Please also submit the appointment letter from your client for record.

Should you have further questions, please feel free to contact the undersigned.

Yours sincerely,

(NG Wing-chit)
for Director of Fire Services

NGAN Chun Sang

From: Helen Siu
Sent: Monday, 19 June, 2023 10:18 AM
To: aio_fsd@hkfsd.gov.hk
Cc: Cathy Man; NGAN Chun Sang; Bella Cheung
Subject: [819.4463/23-0005 Ping Che Land Contamination] Request for Information for Land Contamination Assessment - Submission of Appointment Letter
Attachments: Appointment Letter.pdf; 23-0002_FS Enquiry_Reply.pdf

Dear Sir/ Madam,

With reference to your letter(Ref: (190) in FSD GR 6-5/4 R Pt.46) dated 30 May 2023 regarding information request of dangerous goods and incident records, we are please to submit an appointment letter from our client for your record.

Due to the tight schedule, it is highly appreciated if the above information could be available and returned to us via either fax (Fax No. 2815 5399) or email by 3 July 2023.

Thank you very much for your kind attention and assistance. Should you have any queries, please feel free to contact me.

Regards,



Helen Siu – Assistant Consultant
Environmental Consultancy | Green & Healthy Building
T: (852) 2815 7028 | D: (852) 3915 7117 | F: (852) 2815 5399 | E: helensiu@aechk.com

Allied Environmental Consultants Limited Member of AEC Group (HKEX Stock Code: 8320.HK)
27/F, Overseas Trust Bank Building, 160 Gloucester Road, Wan Chai, Hong Kong

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<\\192.168.0.176\Old Project Server\2101-2150\2127\02 Correspondence\01 Letters>

From: Bella Cheung
Sent: Thursday, May 25, 2023 1:57 PM
To: aio_fsd@hkfsd.gov.hk
Cc: Helen Siu <helensiu@aechk.com>; NGAN Chun Sang <nganchunsang@aecasia.io>; Cathy Man <cm@aechk.com>
Subject: [819.4463 Ping Che Land Contamination] Request for Information for Land Contamination Assessment

Dear Sir/ Madam,

Please kindly see the attached enquiry letter for the land contamination assessment and the site location plan.

Due to the tight schedule, it is highly appreciated if the above information could be available and returned to us via either fax (Fax No. 2815 5399) or email by 8 June 2023.

Thank you very much for your kind attention and assistance. Should you have any queries, please feel free to contact me.

Regards,



Bella Cheung – Assistant Consultant
Environmental Consultancy | Green & Healthy Building

T: (852) 2815 7028 | D: (852) 3915 7178 | F: (852) 2815 5399 | E: bellacheung@aechk.com

Allied Environmental Consultants Limited *Member of AEC Group (HKEX Stock Code: 8320.HK)*

27/F, Overseas Trust Bank Building, 160 Gloucester Road, Wan Chai, Hong Kong

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消防處
香港九龍尖沙咀東部康莊道1號
消防處總部大廈



FIRE SERVICES DEPARTMENT
FIRE SERVICES HEADQUARTERS
BUILDING,
No.1 Hong Chong Road,
Tsim Sha Tsui East, Kowloon,
Hong Kong.

本處檔號 OUR REF. : (153) in FSD GR 6-5/4 R Pt. 47
來函檔號 YOUR REF. :
電子郵件 E-mail : hkfsdenq@hkfsd.gov.hk
圖文傳真 FAX NO. : 2739 5879
電 話 TEL NO. : 2733 7743

13 July 2023

Allied Environmental Consultants Limited
27/F, Overseas Trust Bank Building,
160 Gloucester Road,
Wan Chai, Hong Kong.
(Attn: Ms. Helen SIU, Assistant Consultant)

By fax (2815 5399) only

Dear Ms. SIU,

**2127/819.4463 Ping Land Contamination
Request for Information of Dangerous Goods & Incident Records**

I refer to your email of 30.6.2023 regarding the captioned subject.

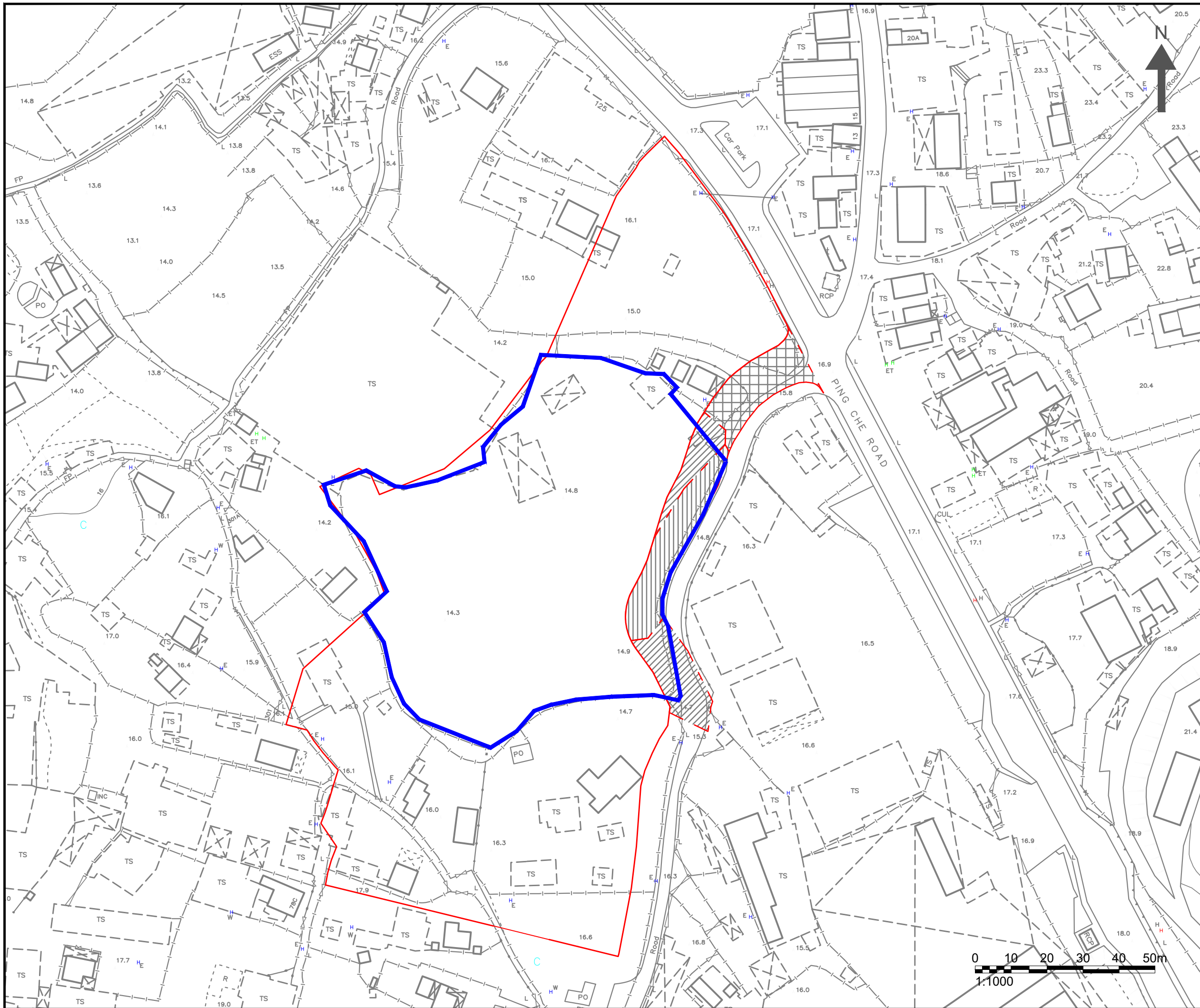
Your case is being handled, and a reply will be furnished to you as soon as possible. Please be advised that due to time lapse, this Department can only provide the following information for your requested information:

- (i) Dangerous Goods Licence Record: from the year of 1990 to present moment.
- (ii) Incident Record: Past three years of fire and special services incidents.

Should you have further questions, please feel free to contact the undersigned.

Yours sincerely,


(CHEUNG Wai-lam)
for Director of Fire Services



NOTES :

- ADDITIONAL PROJECT SITE
- ORIGINAL PROJECT SITE

Consultant



Allied Environmental Consultants Limited

Project No. : 819.4463

Drawing By : BC

Project :
 S16 APPLICATION FOR A/DPA/NE-TKL/31
 PING CHE DD77 LOT 796 & 1008RP,
 TA KWU LING, NORTH DISTRICT, HONG KONG

Drawing Title :
 PROJECT SITE LOCATION

Drawing No : FIGURE 1	Revision : 0
Scale : AS SHOWN	Date : JUNE 2023

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消防處

香港九龍尖沙咀東部康莊道1號
消防處總部大廈



FIRE SERVICES DEPARTMENT
FIRE SERVICES HEADQUARTERS BUILDING,
No.1 Hong Chong Road,
Tsim Sha Tsui East, Kowloon,
Hong Kong.

本處檔號 OUR REF. : (5) in FSD GR 6-5/4 R Pt. 48
來函檔號 YOUR REF. :
電子郵件 E-mail : hkfsdenq@hkfsd.gov.hk
圖文傳真 FAX NO. : 2739 5879
電話 TEL NO. : 2733 7741

10 August 2023

Allied Environmental Consultants Limited
27/F, Overseas Trust Bank Building,
160 Gloucester Road,
Wan Chai, Hong Kong.
(Attn: Ms. Helen SIU, Assistant Consultant)

Dear Ms. SIU,


**2127/819.4463 Ping Land Contamination
Request for Information of Dangerous Goods & Incident Records**

I refer to your email of 30.6.2023 regarding the captioned request and reply below in response to your questions:-

1. No Dangerous Goods Licence was issued in respect of the captioned address.
2. A total of 2 incident records were found at the subject location. Please refer to **Appendix A** for details.

If you have further questions, please feel free to contact the undersigned.

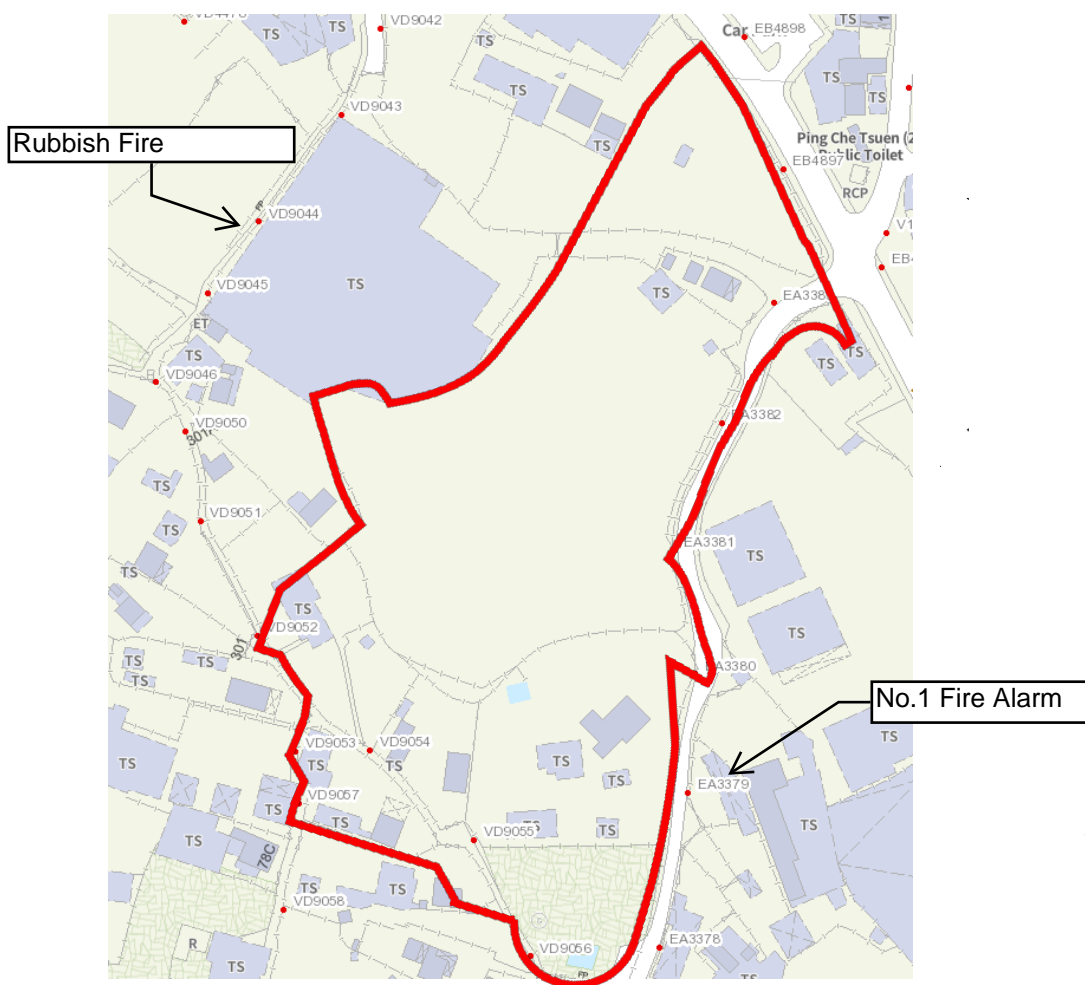
Yours sincerely,


(NG Wing-chit)
for Director of Fire Services

A2127/819.4463 Ping Land Contamination

Request for Information of Dangerous Goods & Incident Records

No.	Date	Address / Lamp Post No.	Type of Incident
1.	21.1.2021	Near Lamppost VD9044 of Ping Che New Village	Rubbish Fire
2.	16.6.2021	Near Lamppost EA3379 of Ha Shan Kai Wat	No.1 Fire Alarm



Our Ref. [819.4463/23-0003]



Lands Department
District Lands Office,
North
6th floor, North District Government Offices,
3 Pik Fung Road, Fanling,
New Territories.
(Attn: Ms. WONG Hoi Yan, Angie)

27/F, Overseas Trust Bank Building
160 Gloucester Road
Wan Chai
Hong Kong
T: +852 2815 7028
F: +852 2815 5399
info@aechk.com
www.asecg.com

25 May 2023

By Email

Dear Madam,

**S16 Application for A/DPA/NE-TKL/31 Ping Che DD77 Lot 796 & 1008RP,
Ta Kwu Ling, North District, Hong Kong
Request for Information for Land Contamination Assessment**

We are conducting an S16 Application for A/DPA/NE-TKL/31 Ping Che DD77 Lot 796 & 1008RP, Ta Kwu Ling, North District, as shown in the enclosed Site Location Plan. As required by the "Practice Guide for Investigation and Remediation of Contaminated Land" published by the Environmental Protection Department of the HKSAR (EPD), information pertaining to the change of land uses/past activities/incidents/accidents at the Project Site is required as part of the vetting process.

Of particular interest is information on spillage accidents, illegal/contaminating land uses or uncontrolled dumping uses, current and historical land use information of the Project Site and its immediate surroundings, and any information you could provide which might be useful for our study.

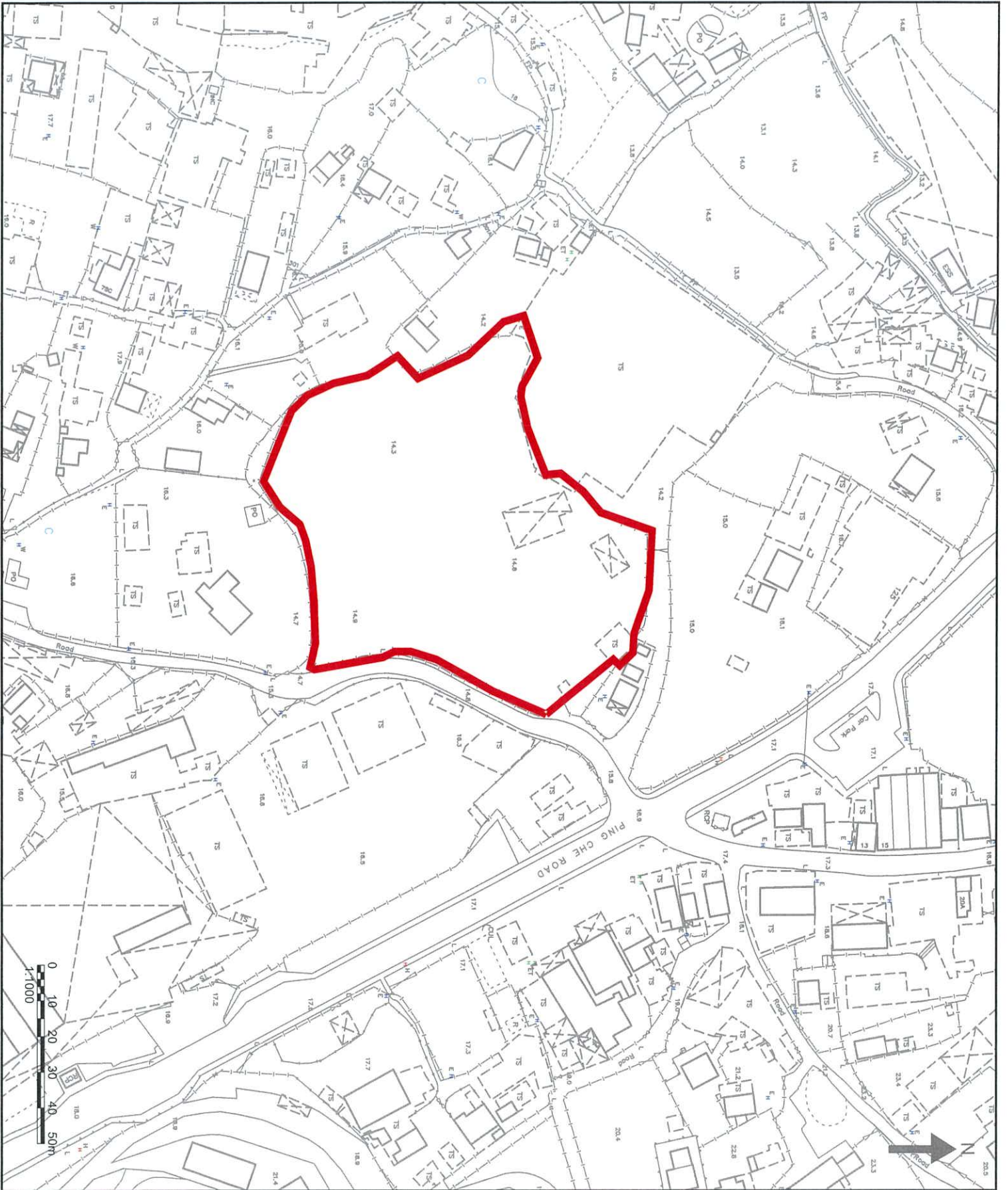
Due to the tight schedule, it is highly appreciated if the above information could be available and returned to us via either fax (Fax No. 2815 5399) or email **by 8 June 2023**. Thank you very much for your kind attention and assistance. Should you have any queries, please feel free to contact the undersigned at 3915 7148 (cm@aechk.com) or Ms Bella Cheung (bellacheung@aechk.com) at 3915 7178.

Yours sincerely,

A handwritten signature in black ink, appearing to be 'Cathy Man', is written over a circular stamp or watermark.

Cathy Man
Associate Director
CM/bc

Encl. Site Location Plan



NOTES:

PROJECT SITE

Consultant:



Allied Environmental Consultants Limited

Project No.: 819,4463

Drawing By: BC

Project:
 S16 APPLICATION FOR ADPANE-TKL/31
 PING CHE DD77 LOT 796 & 1008RP,
 TA KWU LING, NORTH DISTRICT, HONG
 KONG

Drawing Title:
 PROJECT SITE LOCATION

Drawing No	Revision:
FIGURE 1	0
Scale:	Date:
AS SHOWN	MAY 2023

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 APPROVED BY ALLIED ENVIRONMENTAL CONSULTANTS LIMITED

Bella Cheung

From: lenlm6@landsd.gov.hk
Sent: Thursday, 8 June 2023 11:22 am
To: Bella Cheung
Subject: Fw: [819.4463 Ping Che Land Contamination] Request for Information for Land Contamination Assessment

Dear Ms. CHEUNG,

I refer to your email dated 25.5.2023.

Please be informed that this office has nil record of relevant illegal land contamination case in the area concerned. However, you are also advised to approach Planning Department for enquiry in respect of illegal land use information.

Thank you.

Regards,

(K.Y. LAW)
for District Lands Officer/North
Tel: 2675 1537

本信息及任何附件只供收件人使用，而其中可能載有機密及／或屬法律特權的資料。敬請注意，未經許可，不得擅自披露或使用本信息。倘本信息誤傳給你，請立即通知本署，並刪除或銷毀本信息。本署絕不承擔因使用本信息而引致的任何法律責任。

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----- Forwarded by Jason Ka Yung LAW/LAO/LANDSD/HKSARG on 08/06/2023 11:16 -----

From: Bella Cheung <bellacheung@aechk.com>
To: "esn@landsd.gov.hk" <esn@landsd.gov.hk>
Cc: Helen Siu <helensiu@aechk.com>, NGAN Chun Sang <nganchunsang@aecasia.io>, Cathy Man <cm@aechk.com>
Date: 25/05/2023 13:57
Subject: [819.4463 Ping Che Land Contamination] Request for Information for Land Contamination Assessment

Dear Angie,

Please kindly see the attached enquiry letter for the land contamination assessment and the site location plan.

Due to the tight schedule, it is highly appreciated if the above information could be available and returned to us via either fax (Fax No. 2815 5399) or email by 8 June 2023.

Thank you very much for your kind attention and assistance. Should you have any queries, please feel free to contact me.

Regards,



Bella Cheung – Assistant Consultant
Environmental Consultancy | Green & Healthy Building
T: (852) 2815 7028 | D: (852) 3915 7178 | F: (852) 2815 5399 | E: bellacheung@aechk.com

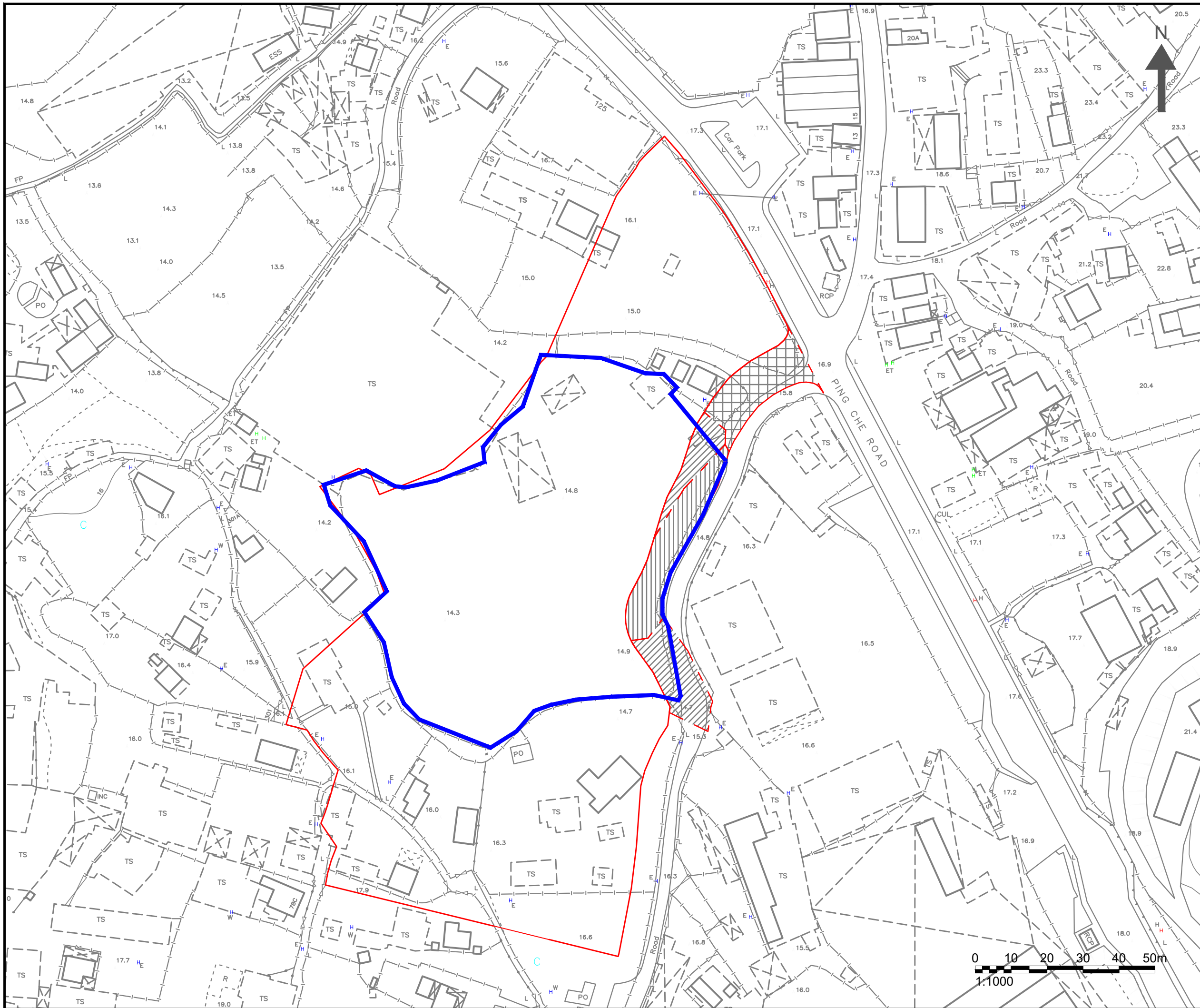
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[attachment "23-0003_LandsD Enquiry.pdf" deleted by Jason Ka Yung LAW/LAO/LANDSD/HKSARG]



NOTES :

- ADDITIONAL PROJECT SITE
- ORIGINAL PROJECT SITE

Consultant



Allied Environmental Consultants Limited

Project No. : 819.4463

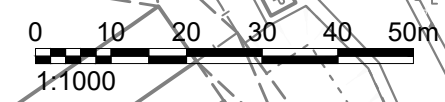
Drawing By : BC

Project :
 S16 APPLICATION FOR A/DPA/NE-TKL/31
 PING CHE DD77 LOT 796 & 1008RP,
 TA KWU LING, NORTH DISTRICT, HONG KONG

Drawing Title :
 PROJECT SITE LOCATION

Drawing No : FIGURE 1	Revision : 0
Scale : AS SHOWN	Date : JUNE 2023

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Helen Siu

From: lenlm6@landsd.gov.hk
Sent: Friday, 14 July 2023 5:13 pm
To: Helen Siu
Subject: RE: [2127/819.4463 Ping Che Land Contamination] Request for Information for Land Contamination Assessment - updated site boundary
Attachments: Fig 1.2_revised site boundary.pdf
Follow Up Flag: Follow up
Flag Status: Flagged

Dear Ms. SIU,

I refer to your email dated 30.6.2023.

Please be informed that this office has nil record of relevant illegal land contamination case in the area concerned in red as shown in your plan attached. However, you are also advised to approach Planning Department for enquiry in respect of illegal land use information.

Thank you.

Regards,

(K.Y. LAW)
for District Lands Officer/North
Tel: 2675 1537

本信息及任何附件只供收件人使用，而其中可能載有機密及／或屬法律特權的資料。敬請注意，未經許可，不得擅自披露或使用本信息。倘本信息誤傳給你，請立即通知本署，並刪除或銷毀本信息。本署絕不承擔因使用本信息而引致的任何法律責任。

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From: Helen Siu <helensiu@aechk.com>
To: "lenlm6@landsd.gov.hk" <lenlm6@landsd.gov.hk>
Cc: Cathy Man <cm@aechk.com>
Date: 30/06/2023 15:55
Subject: RE: [2127/819.4463 Ping Che Land Contamination] Request for Information for Land Contamination Assessment - updated site boundary

Dear Jason,

Thank you for your reply. We further updated the site boundary with the additional project site in red colour as shown in the enclosed location plan.

We would like to request the following records regarding land uses/past activities/incidents/accidents.

Of particular interest is information on spillage accidents, illegal/contaminating land uses or uncontrolled dumping uses, current and historical land use information of the Project Site and its immediate surroundings, and any information you could provide which might be useful for our study.

Due to the tight schedule, it is highly appreciated if the above information could be available and returned to us via either fax (Fax No. 2815 5399) or email **by 14 July 2023**.

Should you have any queries, please feel free to contact the undersigned or Ms. Cathy Man (cm@aechk.com) at 3915 7148.

Regards,



Helen Siu – Assistant Consultant
Environmental Consultancy | Green & Healthy Building
T: (852) 2815 7028 | D: (852) 3915 7117 | F: (852) 2815 5399 | E: helensiu@aechk.com

Allied Environmental Consultants Limited Member of AEC Group (HKEX Stock Code: 8320.HK)
27/F, Overseas Trust Bank Building, 160 Gloucester Road, Wan Chai, Hong Kong

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From: lenlm6@landsd.gov.hk <lenlm6@landsd.gov.hk>

Sent: Thursday, June 8, 2023 11:22 AM

To: Bella Cheung <bellacheung@aechk.com>

Subject: Fw: [819.4463 Ping Che Land Contamination] Request for Information for Land Contamination Assessment

Dear Ms. CHEUNG,

I refer to your email dated 25.5.2023.

Please be informed that this office has nil record of relevant illegal land contamination case in the area concerned. However, you are also advised to approach Planning Department for enquiry in respect of illegal land use information.

Thank you.

Regards,

(K.Y. LAW)

for District Lands Officer/North

Tel: 2675 1537

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----- Forwarded by Jason Ka Yung LAW/LAO/LANDSD/HKSARG on 08/06/2023 11:16 -----

From: Bella Cheung <bellacheung@aechk.com>

To: "esn@landsd.gov.hk" <esn@landsd.gov.hk>

Cc: Helen Siu <helensiu@aechk.com>, NGAN Chun Sang <nganchunsang@aecasia.io>, Cathy Man <cm@aechk.com>

Date: 25/05/2023 13:57

Subject: [819.4463 Ping Che Land Contamination] Request for Information for Land Contamination Assessment

Dear Angie,

Please kindly see the attached enquiry letter for the land contamination assessment and the site location plan.

Due to the tight schedule, it is highly appreciated if the above information could be available and returned to us via either fax (Fax No. 2815 5399) or email by 8 June 2023.

Thank you very much for your kind attention and assistance. Should you have any queries, please feel free to contact me.

Regards,



Bella Cheung – Assistant Consultant

Environmental Consultancy | Green & Healthy Building

T: (852) 2815 7028 | D: (852) 3915 7178 | F: (852) 2815 5399 | E: bellacheung@aechk.com

Allied Environmental Consultants Limited Member of AEC Group (HKEX Stock Code: 8320.HK)

27/F, Overseas Trust Bank Building, 160 Gloucester Road, Wan Chai, Hong Kong

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[attachment "23-0003_LandsD Enquiry.pdf" deleted by Jason Ka Yung LAW/LAO/LANDSD/HKSARG]

----- Message from "lenlm6@landsd.gov.hk" <lenlm6@landsd.gov.hk> on Thu, 8 Jun 2023 03:21:50 +0000 -----

To: Bella Cheung <bellacheung@aechk.com>

Subject: Fw: [819.4463 Ping Che Land Contamination] Request for Information for Land Contamination Assessment

Dear Ms. CHEUNG,

I refer to your email dated 25.5.2023.

Please be informed that this office has nil record of relevant illegal land contamination case in the area concerned. However, you are also advised to approach Planning Department for enquiry in respect of illegal land use information.

Thank you.

Regards,

(K.Y. LAW)

for District Lands Officer/North

Tel: 2675 1537

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----- Forwarded by Jason Ka Yung LAW/LAO/LANDSD/HKSARG on 08/06/2023 11:16 -----

From: Bella Cheung <bellacheung@aechk.com>

To: "esnn@landsd.gov.hk" <esnn@landsd.gov.hk>

Cc: Helen Siu <helensiu@aechk.com>, NGAN Chun Sang <nganchunsang@aecasia.io>, Cathy Man <cm@aechk.com>

Date: 25/05/2023 13:57

Subject: [819.4463 Ping Che Land Contamination] Request for Information for Land Contamination Assessment

Dear Angie,

Please kindly see the attached enquiry letter for the land contamination assessment and the site location plan.

Due to the tight schedule, it is highly appreciated if the above information could be available and returned to us via either fax (Fax No. 2815 5399) or email by 8 June 2023.

Thank you very much for your kind attention and assistance. Should you have any queries, please feel free to contact me.

Regards,



Bella Cheung – Assistant Consultant

Environmental Consultancy | Green & Healthy Building

T: (852) 2815 7028 | D: (852) 3915 7178 | F: (852) 2815 5399 | E: bellacheung@aechk.com

Allied Environmental Consultants Limited *Member of AEC Group (HKEX Stock Code: 8320.HK)*



Planning Department
District Planning Branch
New Territories District Planning Division
Sha Tin, Tai Po and North District Planning Office
13/F, Sha Tin Government Offices,
1 Sheung Wo Che Road, Sha Tin, N.T.
(Attn: Ms. LEE Si Wai, Sheren)

27/F, Overseas Trust Bank Building
160 Gloucester Road
Wan Chai
Hong Kong
T: +852 2815 7028
F: +852 2815 5399
info@aechk.com
www.asecg.com

25 May 2023

By Email

Dear Madam,

**S16 Application for A/DPA/NE-TKL/31 Ping Che DD77 Lot 796 & 1008RP,
Ta Kwu Ling, North District, Hong Kong
Request for Information for Land Contamination Assessment**

We are conducting an S16 Application for A/DPA/NE-TKL/31 Ping Che DD77 Lot 796 & 1008RP, Ta Kwu Ling, North District, Hong Kong, as shown in the enclosed Site Location Plan. As required by the "Practice Guide for Investigation and Remediation of Contaminated Land" published by the Environmental Protection Department of the HKSAR (EPD), information pertaining to the change of land uses/past activities/incidents/accidents at the Project Site is required as part of the vetting process.

Of particular interest are current and historical site information, any change on the land use and any information you could provide that might be useful for our study.

Due to the tight schedule, it is highly appreciated if the above information could be available and returned to us via either fax (Fax No. 2815 5399) or email **by 8 June 2023**. Thank you very much for your kind attention and assistance. Should you have any queries, please feel free to contact the undersigned at 3915 7148 (cm@aechk.com) or Ms Bella Cheung (bellacheung@aechk.com) at 3915 7178.

Yours sincerely,

A handwritten signature in black ink, appearing to be 'Cathy Man', written over a faint circular stamp.

Cathy Man

Associate Director

CM/bc

Encl. Site Location Plan

From: [Sheren Si Wai LEE/PLAND](#)
To: [NGAN Chun Sang](#)
Cc: [Gordon Foo](#); [Leanna Lei](#); [Cathy Man](#); [WL LEUNG/PLAND](#); [Johnny Chung Yin LAM/PLAND](#)
Subject: Re: [2127/819.4463 Ping Che Land Contamination] Request for Information for Land Contamination Assessment - updated site boundary
Date: Friday, April 12, 2024 12:22:48 PM
Attachments: [image001.png](#)
[image009.png](#)
[image010.png](#)
[image011.png](#)
[image012.png](#)
[image013.png](#)
[image014.png](#)
[image015.png](#)
[image016.png](#)
[image017.png](#)
[image018.png](#)

Dear Mr. Ngan,

I refer to the captioned matter on requesting information for land contamination for conducting land contamination assessment under the rezoning application No. Y/NE-TKL/5.

The Site falls within an area zoned "Open Storage" and "Agriculture" and area shown as 'Road' on the approved Ping Che and Ta Kwu Ling Outline Zoning Plan No. S/NE-TKL/14. According to our record, part of the Site is the subject of a previous application No. DPA/NE-TKL/31 for proposed warehouse for the storage of tunnel boring machine and scaffolding materials approved by the Rural and New Town Planning Committee on 14.8.1992. We do not have other information on the past activities/incidents/accidents of the Site please.

Regards,
Sheren Lee
TP/N3, PlanD
2158 6391

From: Cathy Man <cm@aechk.com>
Sent: Wednesday, April 10, 2024 12:18 PM
To: Sheren Si Wai LEE/PLAND <sswlee@pland.gov.hk>
Cc: Gordon Foo <Gordon.Foo@arup.com>; NGAN Chun Sang <nganchunsang@aecasia.io>; Leanna Lei <leannalei@aechk.com>
Subject: FW: [2127/819.4463 Ping Che Land Contamination] Request for Information for Land Contamination Assessment - updated site boundary

Dear Ms. Sheren LEE,

We are conducting a S12A Planning Application (Application no. Y/NE-TKL/5) for Ping Che DD77 Lot 796 & 1008RP, Ta Kwu Ling, North District, Hong Kong, as shown in the enclosed Site Location Plan. As required by the "Practice Guide for Investigation and Remediation of Contaminated Land" published by the Environmental Protection Department of the HKSAR (EPD), information pertaining to the change of land uses/past activities/incidents/accidents at the Project Site AND its immediate surrounding is required as part of the vetting process.

Of particular interest are current and historical site information, any change on the land use and any information you could provide that might be useful for our study.

Due to the tight schedule, it is highly appreciated if the above information could be available and returned to us via either fax (Fax No. 2815 5399) or email **by 15 April 2024**. Thank you very much for your kind attention and assistance. Should you have any queries, please feel free to contact the undersigned at 3915 7148 (cm@aechk.com) or Mr NGAN Chun Sang (nganchunsang@aecasia.io) at 5290 3688.

Thanks and Regards,



Cathy Man – Associate Director

Environmental Consultancy | Green & Healthy Building

T: (852) 2815 7028 | **D:** (852) 3915 7148 | **F:** (852) 2815 5399 | **E:** cm@aechk.com

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From: Gordon Foo <Gordon.Foo@arup.com>

Sent: Tuesday, April 9, 2024 12:10 PM

To: NGAN Chun Sang <nganchunsang@aecasia.io>

Cc: Cathy Man <cm@aechk.com>; Sabrina Law <sabrina.law@arup.com>

Subject: FW: [2127/819.4463 Ping Che Land Contamination] Request for Information for Land Contamination Assessment - updated site boundary

Dear Mr. Ngan,

We refer to s.12A Planning Application No. Y/NE-TKL/5.

We have received a call from Planning Department (PlanD) officer on our case regarding information request made by AEC in Feb 2024 regarding land uses/past activities/incidents/accidents in our Application Site.

As requested by PlanD officer, grateful if you could further follow-up by making a new request to PlanD with the correct application No. Y/NE-TKL/5 and the latest application site boundary for their further handling. The contact information of PlanD officer is as below for your information:

Contact Information of PlanD Officer

Name: Ms. Sheren LEE

Post Title: Town Planner/North 3

Office Tel: 2158 6391

Email: sswlee@pland.gov.hk

Please feel free to discuss should you have any questions. Thank you.

Best Regards,

Gordon Foo

Assistant Town Planner | Planning

Arup

Level 5, Festival Walk, 80 Tat Chee Avenue

Kowloon Tong, Kowloon, Hong Kong

d +852 2268 3709 **f** +852 2779 8428

t +852 2528 3031

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From: Sheren Si Wai LEE/PLAND <sswlee@pland.gov.hk>

Sent: Tuesday, April 9, 2024 11:50 AM

To: Gordon Foo <Gordon.Foo@arup.com>

Subject: Fw: [2127/819.4463 Ping Che Land Contamination] Request for Information for Land Contamination Assessment - updated site boundary

Dear Gordon,

FYI please.

Regards,
Sheren Lee
TP/N3, PlanD
2158 6391

From: Sheren Si Wai LEE/PLAND

Sent: Tuesday, February 20, 2024 12:16 PM

To: 'NGAN Chun Sang' <nganchunsang@aecasia.io>

Cc: Leanna Lei <leannalei@aechk.com>; Shirley Chow <shirleychow@aechk.com>; Johnny Chung Yin LAM/PLAND <jcylam@pland.gov.hk>

Subject: Re: [2127/819.4463 Ping Che Land Contamination] Request for Information for Land Contamination Assessment - updated site boundary

Dear Mr. Ngan,

I refer to the plan provided by you indicating the project site of planning application No. A/DPA/NE-TKL/31 and additional project site.

It appears that the 'original project site' deviates from the site boundary of planning application No. A/DPA/NE-TKL/31 for Warehouse for the storage of the machine parts of the tunnel boring machine and scaffolding materials. I should be grateful if you would check and confirm the site area/location. Please also advise the meaning of 'additional project site' as it does not seem to have any planning approval covering the additional area. Besides, please clarify the meaning of checked area and stripped area. You may wish to note that if the amendments to the approved development proposal fall within Class B amendment specified under the Town Planning Board Guidelines No. TPB PG-No. 36C, approval of the Town Planning Board under section 16A(2) of the

Town Planning Ordinance is required. A material change to the original approved development proposal requires a fresh planning application.

FYI, the site falls within an area zoned "Open Storage" on the Ping Che and Ta Kwu Ling Outline Zoning Plan No. S/NE-TKL/14. The site falls within the site area of a rezoning application No. Y/NE-TKL/5 which is under processing by the Planning Department. We do not have any information on the past activities/incidents/accidents of the Site.

Regards,
Sheren Lee
TP/N3, PlanD
2158 6391

From:

Sent: Friday, February 16, 2024 11:10 AM

To: Sheren Si Wai LEE/PLAND <sswlee@pland.gov.hk>

Cc: Cathy Man <cm@aechk.com>; Leanna Lei <leannalei@aechk.com>; Shirley Chow <shirleychow@aechk.com>

Subject: FW: [2127/819.4463 Ping Che Land Contamination] Request for Information for Land Contamination Assessment - updated site boundary

Dear Sheren,

Grateful if you can follow up on the email below.

We further updated the site boundary with the additional project site in red colour as shown in the enclosed location plan.

We would like to request the following records regarding land uses/past activities/incidents/accidents. Of particular interest are current and historical site information, any changes on the land use and any information you could provide that might be useful for our study.

Due to the tight schedule, it is highly appreciated if the above information could be available and returned to us via either fax (Fax No. 2815 5399) or email by **23 Feb 2024**.

Should you have any queries, please feel free to contact the undersigned or Ms. Cathy Man (cm@aechk.com) at 3915 7148.

Thank you.

Regards,



NGAN Chun Sang – Assistant Consultant
Environmental Consultancy | Green & Healthy Building
T: (852) 5290 3688 | E: nganchunsang@aecasia.io

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From: Helen Siu <helensiu@aechk.com>
Sent: Friday, June 30, 2023 3:54 PM
To: mltchan@pland.gov.hk
Cc: Cathy Man <cm@aechk.com>
Subject: RE: [2127/819.4463 Ping Che Land Contamination] Request for Information for Land Contamination Assessment - updated site boundary

Dear Sheren,

Grateful if you can follow up on the email below.

We further updated the site boundary with the additional project site in red colour as shown in the enclosed location plan.

We would like to request the following records regarding land uses/past activities/incidents/accidents.

Of particular interest are current and historical site information, any change on the land use and any information you could provide that might be useful for our study.

Due to the tight schedule, it is highly appreciated if the above information could be available and returned to us via either fax (Fax No. 2815 5399) or email **by 14 July 2023**.

Should you have any queries, please feel free to contact the undersigned or Ms. Cathy Man (cm@aechk.com) at 3915 7148.

Regards,



Helen Siu – Assistant Consultant

Environmental Consultancy | Green & Healthy Building

T: (852) 2815 7028 | D: (852) 3915 7117 | F: (852) 2815 5399 | E: helensiu@aechk.com

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From: Bella Cheung
Sent: Thursday, May 25, 2023 1:57 PM
To: mltchan@pland.gov.hk
Cc: Helen Siu <helensiu@aechk.com>; NGAN Chun Sang <nganchunsang@aecasiasia.io>; Cathy Man <cm@aechk.com>
Subject: [819.4463 Ping Che Land Contamination] Request for Information for Land Contamination Assessment

Dear Sheren,

Please kindly see the attached enquiry letter for the land contamination assessment and the site location plan.

Due to the tight schedule, it is highly appreciated if the above information could be available and returned to us via either fax (Fax No. 2815 5399) or email by 8 June 2023.

Thank you very much for your kind attention and assistance. Should you have any queries, please feel free to contact me.

Regards,



Bella Cheung – Assistant Consultant

Environmental Consultancy | Green & Healthy Building

T: (852) 2815 7028 | **D:** (852) 3915 7178 | **F:** (852) 2815 5399 | **E:** bellacheung@aechk.com

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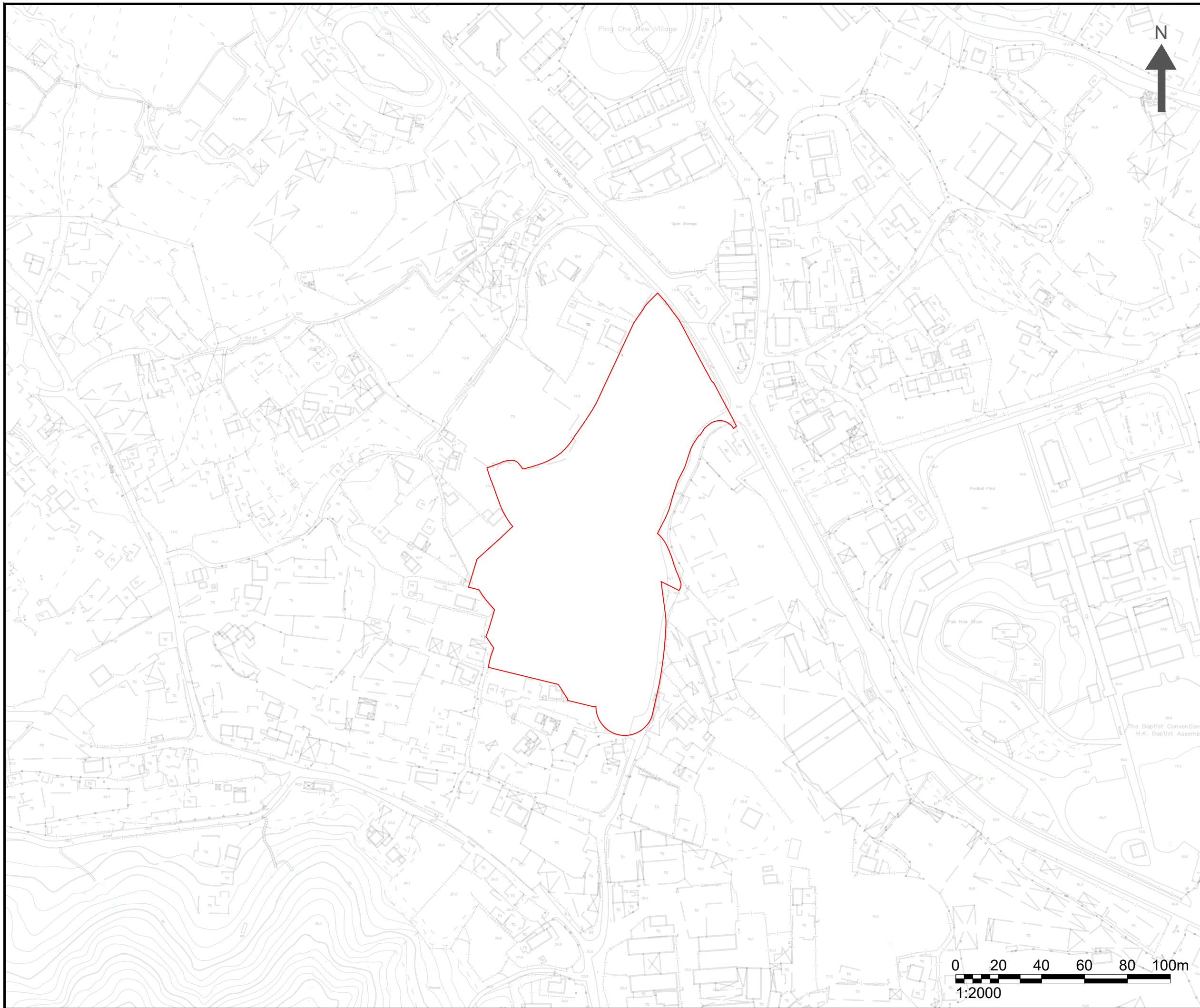
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NOTES :

 APPLICATION SITE

Consultant



Allied Environmental Consultants Limited

Project No. : 2127

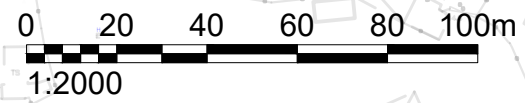
Drawing By : CS

Project :
 APPLICATION FOR AMENDMENT OF PLAN UNDER SECTION 12A FOR THE TOWN PLANNING ORDINANCE (CAP. 131) FOR MIXED USE DEVELOPMENT AT LOT 796 AND 1008RP IN D.D. 77 AND ADJOINING GOVERNMENT LAND IN PING CHE, TA KWU LING, NEW TERRITORIES

Drawing Title :
 SITE LOCATION PLAN

Drawing No : FIGURE 1	Revision : 0
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Scale : AS SHOWN	Date : APR 2024
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Project No. 2127

Environmental Assessment for Application for Amendment of Plan under Section 12A for the Town Planning Ordinance (Cap. 131) for Mixed Use Development at Lots 796 and 1008RP in D.D. 77 and Adjoining Government Land in Ping Che, Ta Kwu Ling, New Territories

Appendix 8.4

Site Walkover Checklist

Annex C1

Site Walkover Checklist (20th June 2023)

GENERAL SITE DETAILS

SITE OWNER/CLIENT 保嘉/ 杰記

PROPERTY ADDRESS Ping Che DD77 Lot 796 & 1008RP, Ta Kwu Ling, North District, Hong Kong

PERSON CONDUCTING THE QUESTIONNAIRE

NAME Bella Cheung

POSITION Assistant Consultant (Allied Environmental Consultants Limited)

AUTHORIZED OWNER/CLIENT REPRESENTATIVE (IF APPLICABLE)

NAME Jeff Chan

POSITION Site representative

TELEPHONE 98666519

SITE ACTIVITIES

Briefly describe activities carried out on site, including types of products/chemicals/materials handled.

Obtain a flow schematic if possible.

Number of employees:	Full-time: 8
	Part-time: 0
	Temporary/Seasonal: 0
Maximum no. of people on site at any time:	10
Typical hours of operation:	08:00-18:00
Number of shifts:	1
Days per week:	6
Weeks per year:	52
Scheduled plant shut-down:	N/A

Detail the main sources of energy at the site:

Gas	Yes/ No (Acetylene cylinders)
Electricity	Yes/ No
Coal	Yes/ No (Acetylene cylinders)
Oil	Yes/ No
Other	Yes /No

SITE DESCRIPTION

This section is intended to gather information on site setting and environmental receptors on, adjacent or close to the site.

What is the total site area: 17,822m²

What area of the site is covered by buildings (%): 7%

Please list all current and previous owners/occupiers if possible. 保嘉/ 杰記(current)

Is a site plan available? If yes, please attach. Yes/~~No~~

Are there any other parties on site as tenants or sub-tenants? Yes/No

If yes, identify those parties: _____

Describe surrounding land use (residential, industrial, rural, etc.) and identify neighbouring facilities and types of industry.

North: Residential- One village house

South: Residential- Village houses (Around 3);
Storage

East: Residential- One village house;
Storage (warehouse)

West: Storage(warehouse)

Annex C1 – Site Walkover Checklist (Page 43)

Describe the topography of the area (flat terrain, rolling hills, mountains, by a large body of water, vegetation, etc.).

Flat land

State the size and location of the nearest residential communities.

One village house in the north with approximately 30m, one tin house in the east with approximately 18m and around three tin houses in the south with approximately 17m.

Are there any sensitive habitats nearby, such as nature reserves, parks, wetlands or sites of special scientific interest?

No

Questionnaire with Existing/Previous Site Owner or Occupier

Ref.		Yes/No	Notes
1.	What are the main activities/operations at the above address?	Yes	Open storage area for construction material (e.g. noise barriers, water barriers, construction brick) and machinery, temporary storage for containers.
2.	How long have you been occupying the site?	Since April 2023 - present	Before the entrance, the land was vacant and mostly paved with concrete. (Air drone photo provided by the existing site occupier)
3.	Were you the first occupant on site? (If yes, what was the usage of the site prior to occupancy?)	No	The land has been occupied since 1982. It used as open storage from 1990 onwards.
4.	Prior to your occupancy, who occupied the site?	Yes	Unknown
5.	What were the main activities/operations during their occupancy?	Yes	The open storage area for construction materials and some machinery.
6.	Have there been any major changes in operations carried out at the site in the last 10 years?	No	-
7.	Have any polluting activities been carried out in the vicinity of the site in the past?	No	-
8.	To the best of your knowledge, has the site ever been used as a petrol filling station/car service garage?	No	-
9.	Are there any boreholes/wells or natural springs either on the site or in the surrounding area?	No	-

10	Do you have any registered hazardous installations as defined under relevant ordinances? (If yes, please provide details.)	No	No record
11.	Are any chemicals used in your daily operations? (If yes, please provide details.)	Yes	<ul style="list-style-type: none"> - One temporary oil drum to transport the oil on-site - A small amount of battery acid cylinders - Acetylene cylinders
	• Where do you store these chemicals?	Yes	Open area in the northern part (maintenance area)
12.	Material inventory lists, including quantities and locations available? (If yes, how often are these inventories updated?)	No	-
13.	Has the facility produced a separate hazardous substance inventory?	No	-
14.	Have there ever been any incidents or accidents (e.g. spills, fires, injuries, etc.) involving any of these materials? (If yes, please provide details.)	No	-
15.	How are materials received (e.g. rail, truck, etc.) and stored on site (e.g. drums, tanks, carboys, bags, silos, cisterns, vaults and cylinders)?	Yes	The sand and soil are received by truck and stored on-site with a small stockpiling area, and the waste oil are stored in tanks/oil drum.
16.	Do you have any underground storage tanks? (If yes, please provide details.)	No	-
	<ul style="list-style-type: none"> ▪ How many underground storage tanks do you have on site? ▪ What are the tanks constructed of? ▪ What are the contents of these tanks? ▪ Are the pipelines above or below ground? ▪ If the pipelines are below ground, has any leak and integrity testing been performed? ▪ Have there been any spills associated with these tanks? 	-	-
17.	Are there any disused underground storage tanks?	No	-
18.	Do you have regular check for any spillage and monitoring of chemicals handled? (If yes, please provide details.)	No	-
19.	How are the wastes disposed of?	Yes	- General refuse stored in designated area prior for collection and disposal.

			- Waste oil drum/tanks stored at designated area and collected and handle by the licensed collector.
20.	Have you ever received any notices of violation of environmental regulations or received public complaints? (If yes, please provide details.)	No	-
21.	Have any spills occurred on site? (If yes, please provide details.)	No	-
	• When did the spill occur?	-	-
	• What were the substances spilled?	-	-
	• What was the quantity of material spilled?	-	-
	• Did you notify the relevant departments of the spill?	-	-
	• What were the actions taken to clean up the spill?	-	-
	• What were the areas affected?	-	-
22.	Do you have any records of major renovation of your site or rearrangement of underground utilities, pipe work/underground tanks (If yes, please provide details.)	No	-
23.	Have disused underground tanks been removed or otherwise secured (e.g. concrete, sand, etc.)?	No	-
24.	Are there any known contaminations on site? (If yes, please provide details.)	No	-
25.	Has the site ever been remediated? (If yes, please provide details.)	No	Unknown

Observations

1.	Are chemical storage areas provided with secondary containment (i.e. bund walls and floors)?	No	The chemical is placed on the ground of the machinery maintenance area. Some of the acetylene cylinders are placed on the tray with a lock.
2.	What are the conditions of the bund walls and floors?	-	-
3.	Are any surface water drains located near to drum storage and unloading areas?	No	-
4.	Are any solid or liquid waste (other than wastewater) generated at the site? (If yes, please provide details.)	Yes	Waste oil for machinery generated in machinery maintenance area.
5.	Is there a storage site for the wastes?	No	-
6.	Is there an on-site landfill?	No	Only stockpiling area is

			found for the inert materials.
7.	Were any stressed vegetation noted on-site during the site reconnaissance? (If yes, please indicate location and approximate size.)	No	No sign of stressed vegetation on site.
8.	Were any stained surfaces noted on-site during the site reconnaissance? (If yes, please provide details.)	Yes	Stained surfaces are mainly found towards the site boundary in the machinery maintenance area. Several stains were found within the open storage area as shown in Appendix 8.5a
9.	Are there any potential off-site sources of contamination?	No	-
10.	Does the site have any equipment which might contain polychlorinated biphenyls (PCBs)?	No	-
11.	Are there any sumps, effluent pits, interceptors or lagoons on site?	No	-
12.	Any noticeable odours during site walkover?	No	-
13.	Are any of the following chemicals used on site: fuels, lubricating oils, hydraulic fluids, cleaning solvents, used chemical solutions, acids, anti-corrosive paints, thinners, coal, ash, oily tanks and bilge sludge, metal wastes, wood preservatives and polyurethane foam?	Yes	Machinery Maintenance Area: <ul style="list-style-type: none"> - One temporary oil drum to transport the oil on-site - A small amount of battery acid cylinders - Acetylene cylinders - Waste lubricating oil stored in containers

Project No. 2127

Environmental Assessment for Application for Amendment of Plan under Section 12A for the Town Planning Ordinance (Cap. 131) for Mixed Use Development at Lots 796 and 1008RP in D.D. 77 and Adjoining Government Land in Ping Che, Ta Kwu Ling, New Territories

Appendix 8.5

Site Visit Photo Records



NOTES :

- APPLICATION SITE
- MACHINERY STORAGE AREA
- MACHINERY MAINTENANCE AREA
- BUILDING MATERIAL STORAGE AREA
- PHOTOLOG TAKEN DIRECTION
- PHOTOLOG TAKEN DIRECTION (WITH CONTAMINATION POTENTIAL)
- STAINED SURFACE



Waste oil container found (improper storage)



acetylene cylinders found (improper storage)

Consultant



Allied Environmental Consultants Limited

Project No. : 2127

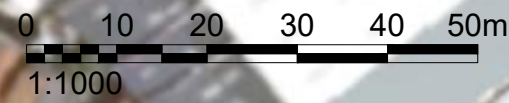
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Project :
 APPLICATION FOR AMENDMENT OF PLAN UNDER SECTION 12A FOR THE TOWN PLANNING ORDINANCE (CAP. 131) FOR MIXED USE DEVELOPMENT AT LOT 796 AND 1008RP IN D.D. 77 AND ADJOINING GOVERNMENT LAND IN PING CHE, TA KWU LING, NEW TERRITORIES

Drawing Title :
 PHOTOLOG MAP INDICATION

Drawing No : FIGURE 8.5a	Revision : 1
Scale : AS SHOWN	Date : FEB 2024

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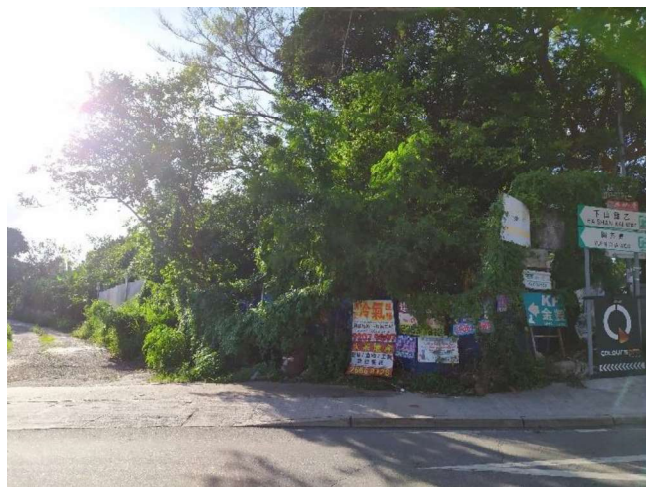


Photo1

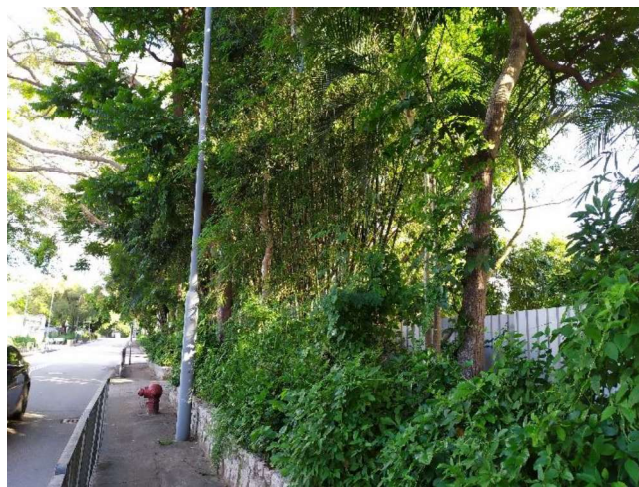


Photo2



Photo3

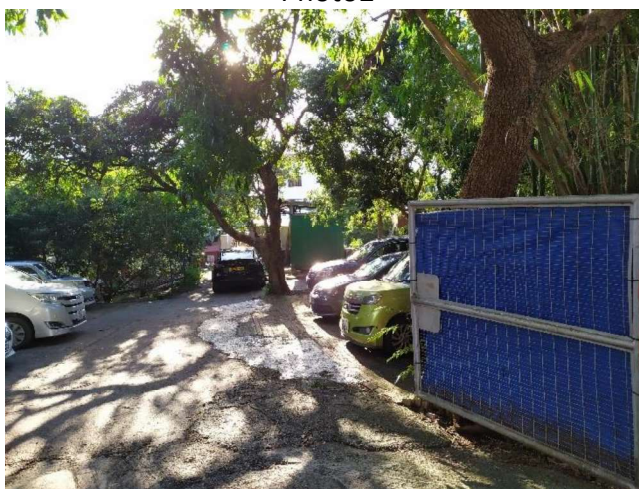


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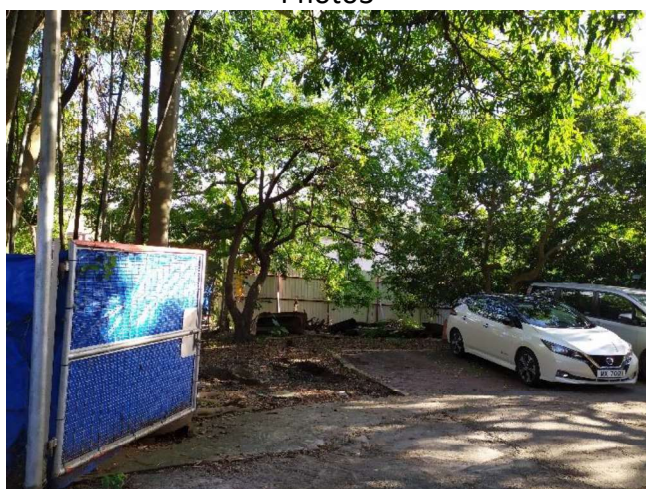


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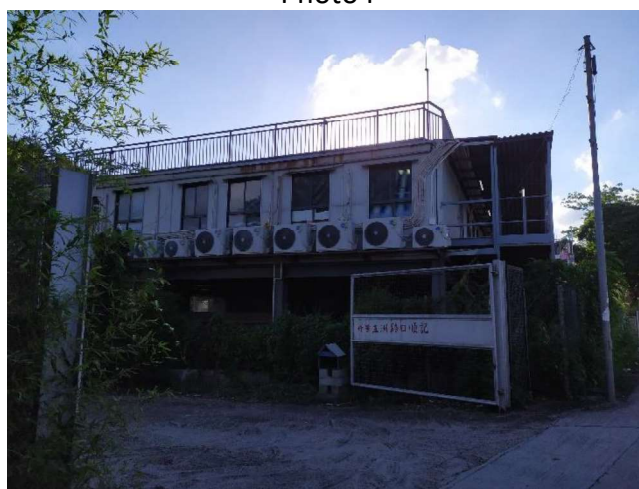


Photo6



Photo7



Photo8



Photo9



Photo10



Photo11



Photo12



Photo13

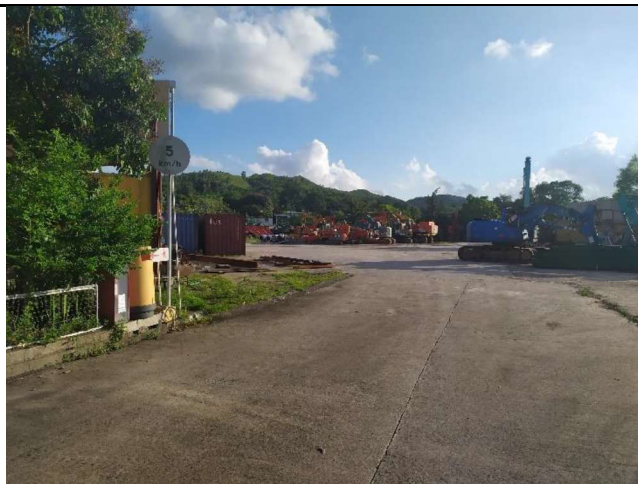


Photo14



Photo15



Photo16



Photo17



Photo18



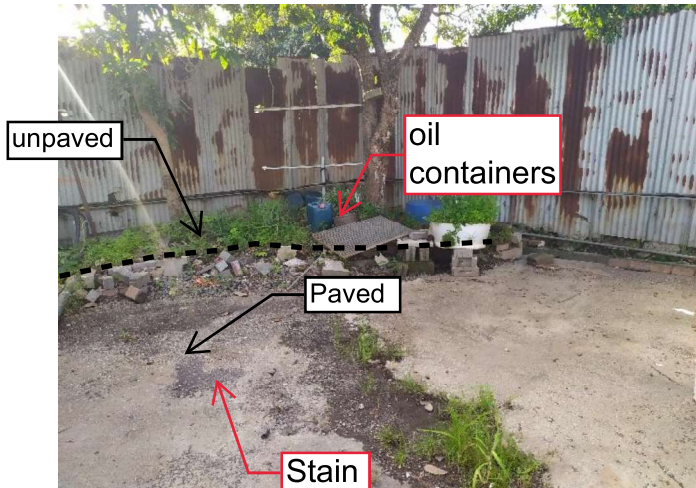
Stain

Photo19



Stain

Photo20



unpaved

oil containers

Paved

Stain

Photo21



oil drum

Stain

Photo22



oil containers

Stain

Photo23



oil drums

Paved

Stain

Photo24



Photo25



Photo26



Photo27



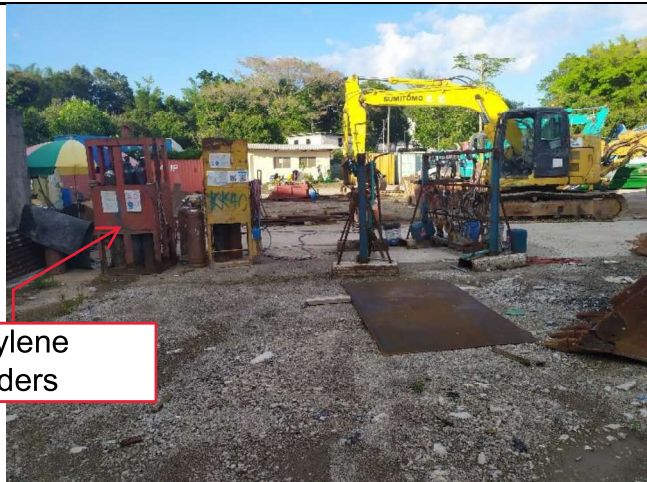
Photo28



Photo29



Photo30



acetylene
cylinders

Photo31



Photo32



Photo33



Photo34

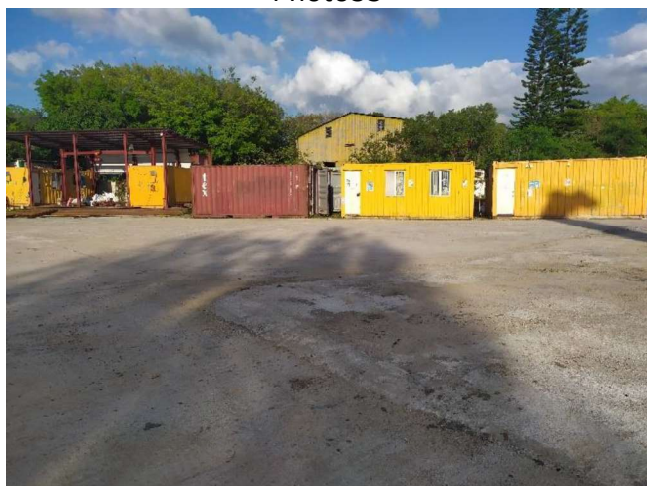


Photo35



Photo36

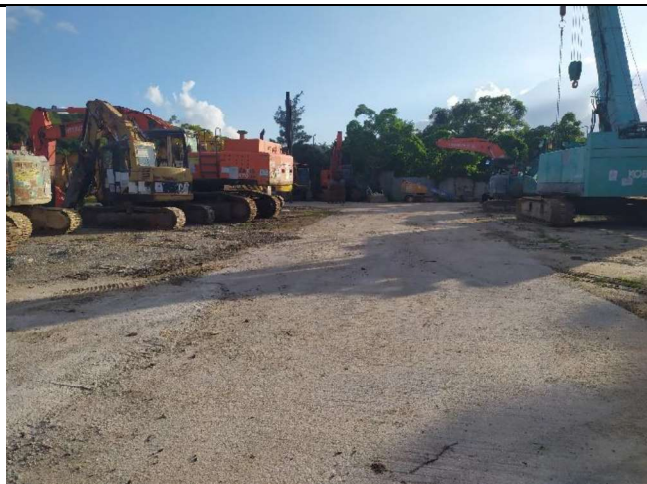


Photo37



Photo38



Photo39



Photo40



Photo41

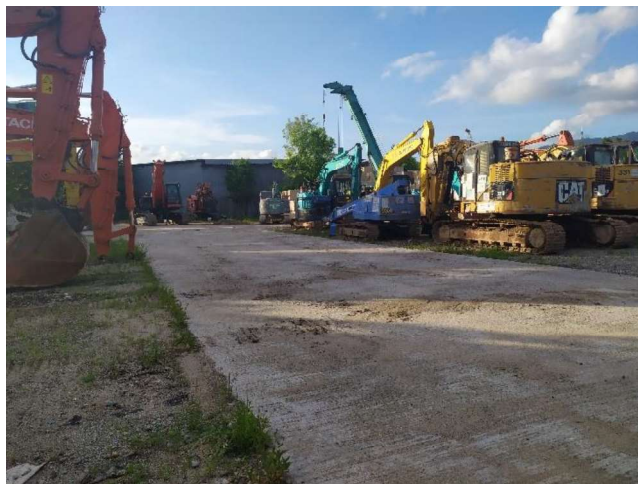


Photo42



Photo43



Photo44



Photo45



Photo46



Photo47



Photo48

Stain



Photo49



Photo50



Photo51

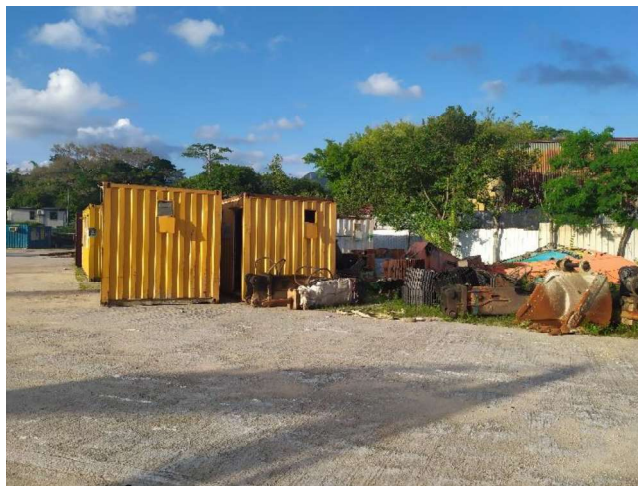


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Photo53

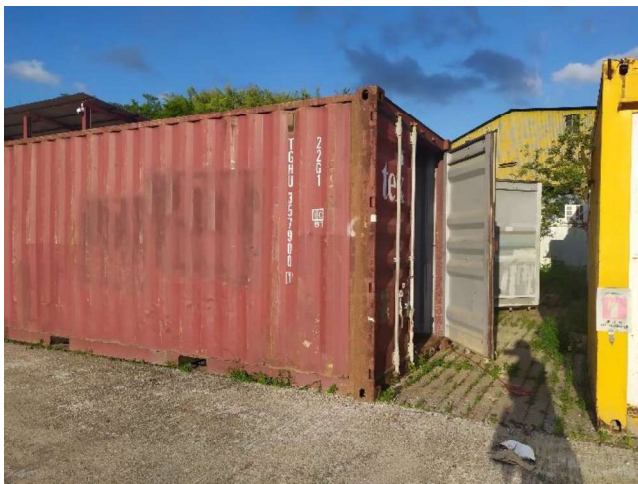


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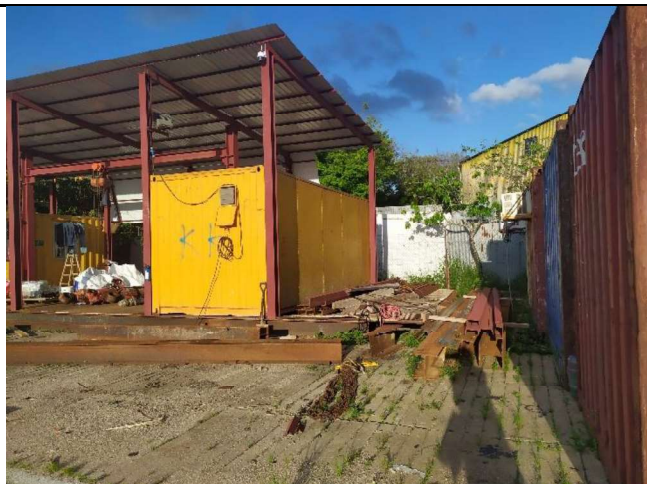


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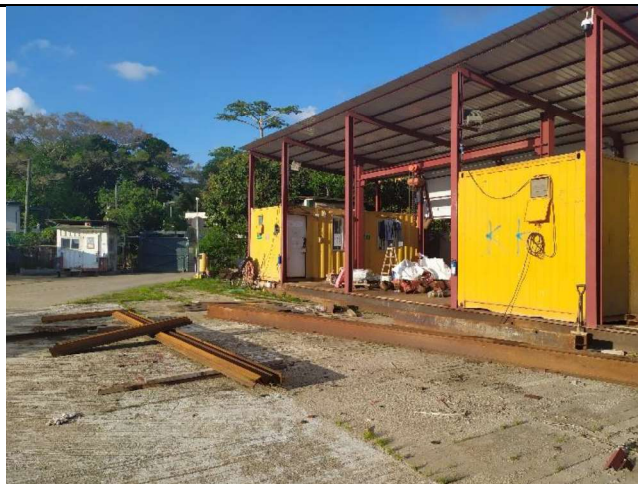


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Photo57

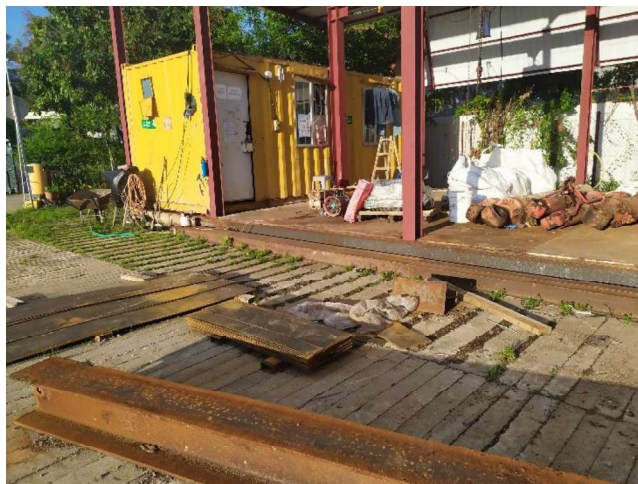


Photo58



Photo59



Photo60



Photo61



Photo62



Photo63



Photo64

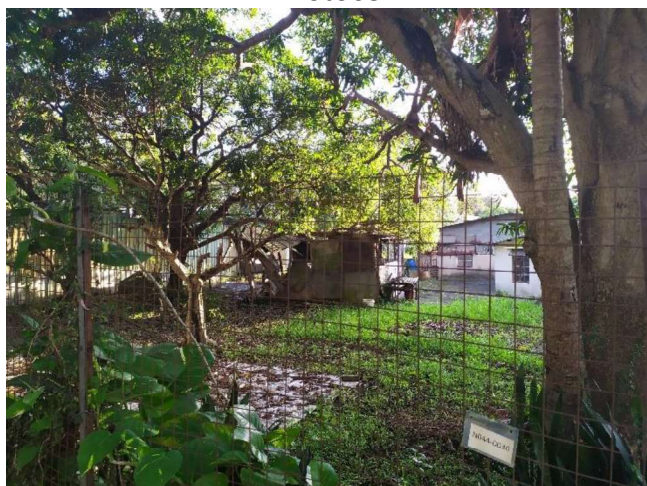


Photo65



Photo66



Photo 67



Photo68



Photo69



Photo70