MOTT MACDONALD

Airport Tung Chung Link Project

Monthly EM&A Report
(Reporting Period: February 2026)

March 2026

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Airport Authority Hong Kong

Airport Tung Chung Link Project

Monthly EM&A Report
(Reporting Period: February 2026)

March 2026

Mott MacDonald Hong Kong Limited
registered in Hong Kong no. 236497.
Registered Office: 3806 Central Plaza, 18
Harbour Road, Wanchai, Hong Kong.

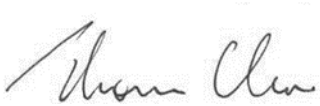
This Monthly EM&A Report (Reporting Period: February 2026)

of the Airport Tung Chung Link Project

has been reviewed and certified by

the Environmental Team Leader (ETL) in accordance with

Condition 3.4 of Environmental Permit No. EP-630/2023/A.

Certified by: 

Ir Chan, Thomas
Environmental Team Leader (ETL)
Mott MacDonald Hong Kong Limited

Date 11 March 2026

AECOM Imagine it. Delivered.

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By Email

Capital Works Management Department
Level 6, HKIA Tower 2,
15 Cheong Tat Road,
Hong Kong International Airport,
Lantau, Hong Kong

Mr. Lawrence Tsui (Authority's Representative's Delegate)

11 March 2026

Dear Sir,

Contract C24C03 – Independent Environmental Checker Consultancy Services for Airport Tung Chung Link
Monthly Environmental and Audit (EM&A) Report (Reporting Period: February 2026)

Reference is made to the Environmental Team's submission of the Monthly Environmental and Audit (EM&A) Report (Reporting Period: February 2026) in accordance with Condition 3.4 of EP-630/2023/A and Section 12.3 of the EM&A Manual of the Project, certified by the ET Leader on 11 March 2026.

We would like to inform you that we have verified on the captioned submission in accordance with the requirement stipulated in Condition 1.9 of EP-630/2023/A.

Should you have any queries, please feel free to contact the undersigned at 3856 5680.

Yours faithfully,
AECOM Asia Co. Ltd.

Lemon Lam
Independent Environmental Checker

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Executive summary

The construction works of the Airport Tung Chung Link ("ATCL") Project commenced on 17 December 2025; therefore, the construction phase EM&A programme of the ATCL Project started on 17 December 2025. This is the 3rd Monthly EM&A report summarising the key findings of the construction phase EM&A programme from 1 to 28 February 2026 (the reporting period) and is submitted to fulfil requirements in Condition 3.4 of EP and Section 12.3 of EM&A Manual of the Project.

During the reporting period, no marine works in relation to the marine viaduct was undertaken thus no water quality monitoring was conducted. The ET of the ATCL Project has undertaken environmental site inspections and environmental monitoring under the construction phase EM&A programme during the reporting period.

Table I: Summary of Monitoring Activities in the Reporting Period

Monitoring Activities	Date of Monitoring Events	Number of Monitoring Events
Air Quality Monitoring	2, 6, 12, 20 and 25 Feb 2026	5
Noise Monitoring	4, 10, 21 and 24 Feb 2026	4

Breaches of Action and Limit Levels

Air quality and noise monitoring was conducted during the reporting period, and no exceedance was recorded.

Site Inspection

During the reporting period, four (4) site inspections were carried out on 2, 12, 20 and 27 February 2026, joint IEC site inspection with Environmental Management Meeting was carried out on 27 February 2026.

Complaint Log

There was no complaint received in relation to the environmental impact during the reporting period.

Notifications of Summons and Successful Prosecutions

There was no notification of summons or successful prosecutions received during the reporting period.

Reporting Changes

There was no reporting change during the reporting period.

Key Activities in the Reporting Period

As informed by the Contractor, the major construction activities for the reporting period are summarised below:

Land-based portion

- Pre-drilling (site preparation works);
- Site clearance (site preparation works); and
- Piling works.

Marine-based portion

- Pre-drilling (site preparation works).

Future Key Issues

As informed by the Contractor, the major construction activities for the next reporting period are summarised below:

Land-based portion

- Pre-drilling (site preparation works);
- Site clearance (site preparation works);
- Piling works;
- Trial pit excavation;
- Seawall excavation; and
- Underground utilities (UU) protection works.

Marine-based portion

- Pre-drilling (site preparation works); and
- Silt curtain and temporary working platform installation.

1 Introduction

1.1 Background

The project proponent, Airport Authority Hong Kong ("AAHK") is planning to construct a dedicated road, named as the Airport Tung Chung Link ("ATCL"), to extend the passenger transport services using autonomous vehicles ("AV") from the Airportcity Link ("ACL"), which is currently under construction, to Tung Chung, aiming to enhance connectivity between the Hong Kong Port ("HKP"), SKYCITY and Tung Chung.

ATCL Project (hereafter referred to as "the Project"), comprising ATCL and the marine facilities in the waters between Airport Island and HKP Island, is a designated project under Environmental Impact Assessment Ordinance ("EIAO"). The ATCL Project Environmental Impact Assessment Report ("EIAR") (Register No. AEIAR-254/2023) was approved by the Director of Environmental Protection ("DEP") and an Environmental Permit No. EP-630/2023 for the construction and operation of the ATCL Project was first granted by DEP to AAHK on 26 October 2023. Subsequently an application for variation of the Environmental Permit was submitted on 3 November 2025 and the current valid Environmental Permit (No. EP-630/2023/A) (hereafter referred to as "the EP") was issued by Environmental Protection Department ("EPD") on 1 December 2025.

The marine facilities in the waters between Airport Island and HKP Island are included in the ATCL Project EIAR (Register No. AEIAR-254/2023) and the ATCL Project EP (EP No. EP-630/2023/A), however, the construction of marine facilities and spur line of ATCL (including Academy Station) are not included in the current stage of ATCL construction. The alignment of ATCL is shown in **Figure 1.1**.

In February 2025, Mott MacDonald Hong Kong Limited (MMHK) was commissioned by AAHK under Contract C24C02 to provide Environmental Team (ET) consultancy services for implementation of an EM&A programme in accordance with the ATCL Project EP requirements throughout the Pre-construction, Construction and Post-construction phases of the ATCL Project. The construction phase EM&A programme of the ATCL Project started on 17 December 2025.

This is the 3rd Monthly EM&A report summarising the key findings of the construction phase EM&A programme from 1 to 28 February 2026 (the reporting period) and is submitted to fulfil requirements in Condition 3.4 of EP and Section 12.3 of EM&A Manual of the Project.

1.2 Project Organisation

The organisation chart and lines of communication with respect to the on-site environmental management structure of the key personnel are shown in **Appendix A**. The key personnel contact names and numbers are summarized in **Table 1.1**.

Table 1.1: Contact Information of Key Personnel

Party	Position	Name	Telephone
Project Manager's Representative (Airport Authority Hong Kong)	Principal Manager, Environmental Compliance, Sustainability	Lawrence Tsui	2183 2734
Environmental Team (ET) (Mott MacDonald Hong Kong Limited)	Environmental Team Leader	Thomas Chan	2828 5967
	Deputy Environmental Team Leader	Ken Wong	2828 5817
Independent Environmental Checker (IEC) (AECOM Asia Company Limited)	Independent Environmental Checker	Lemon Lam	3856 5680

Party	Position	Name	Telephone
Main Contractor of Contract No. C24W08 (Penta-Ocean Construction Co. Ltd.)	Project Manager	Hiroshi Fujimoto	9165 4070
	Environmental Manager	Gideon Cheng	9731 5852
	Senior Environmental Officer	So Chi Ho	9139 3831

1.3 Construction Programme

The construction phase EM&A programme of the Project started on 17 December 2025. During the reporting period, no marine works in relation to the marine viaduct was undertaken.

The construction works programme and the construction works area of the Project are shown in **Appendix B** and **Figure 1.1** respectively.

1.4 Construction Works Undertaken During the Reporting Month

A summary of construction activities undertaken during this reporting period is presented in **Figure 1.2** and summarised below:

Land-based portion

- Pre-drilling (site preparation works);
- Site clearance (site preparation works); and
- Piling works.

Marine-based portion

- Pre-drilling (site preparation works).

1.5 Schedule and Progress of EP Submission

The status of the submissions as required in the EP is presented in **Table 1.2**.

Table 1.2: Status of the Submissions as Required under the EP

EP Condition	Submission	Submission Timeframe	Status
2.8	EP Submission Schedule	No later than 1 month before the commencement of construction of the Project	Submitted and accepted by the EPD
2.9	Management Organization	No later than 2 weeks before the commencement of construction of the Project	Submitted and accepted by the EPD
2.10	Construction Works Schedule and Location Plans	No later than 2 months before the commencement of construction of the Project	Submitted and accepted by the EPD
2.11	Construction Noise Management Plan	No later than 2 months before the commencement of construction works of the Project	Submitted and accepted by the EPD, updated version submitted
2.13	Silt Curtain Deployment Plan	No later than 2 months before the commencement of marine works involving deployment of silt curtains of the Project	Submitted
2.14	Landscape and Visual Mitigation Plan	No later than 2 months before the commencement of construction of the Project or otherwise approved by the Director	Submitted

EP Condition	Submission	Submission Timeframe	Status
2.17	Noise Performance Test Report for Zero Emission Vehicles	At least 2 months before commencement of operation of the Project	--
3.3	Baseline Monitoring Report	At least 2 weeks before the commencement of construction of the Project	Submitted and accepted by the EPD

2 Air Quality

2.1 Monitoring Requirements

According to the Sections 3.2.23 to 3.2.28 in the ATCL Project EM&A Manual, impact air quality monitoring for 1-hour Total Suspended Particulates (TSP) should be carried out at designated monitoring locations for at least three times in every six days when the highest dust impacts occur. Further details of the impact air quality monitoring are presented in the following sections.

2.1.1 Monitoring Parameters

1-hour TSP levels have been measured during impact air quality monitoring in accordance with the ATCL Project EM&A Manual. The monitoring information (e.g. monitoring date, monitoring time, weather conditions, dust source(s), other specific phenomena) was recorded in the data record sheet during the monitoring.

2.1.2 Monitoring Locations

The monitoring locations for impact air quality monitoring are summarised in **Table 2.1** and shown in **Figure 2.1**.

Table 2.1: Impact Air Quality Monitoring Stations

ID	ASR ID adopted in EIA Report	Description	Monitoring Parameter	Monitoring Level
AM1a [1]	---	Tat Tung Road Garden	1-hour TSP	Ground Floor
AM2	A11	Hong Kong Airlines Training Academy	1-hour TSP	Ground Floor
AM3	A10	CNAC House	1-hour TSP	Podium

Remark:

[1] As advised by the Leisure and Cultural Services Department, Tung Chung Community Garden (original monitoring station ID: AM1; ASR ID: A20) as stipulated in Table 3.1 of the ATCL Project EM&A Manual has been decommissioned and hence not accessible. Therefore, Tat Tung Road Garden which located next to the Tung Chung Community Garden is proposed to be the alternative air quality monitoring station. The proposed alternative location was agreed by the Independent Environmental Checker ("IEC") and AAHK on 3 April 2025 and approved by EPD on 2 June 2025.

Impact air quality monitoring station, AM4, which is designated in the ATCL Project EM&A Manual for the proposed marine facilities during construction phase is not included in this report, as the construction of marine facilities is not part of the current stage of ATCL construction (refer to **Section 1.1**).

2.1.3 Monitoring Equipment and Methodology

Direct reading method by the use of portable direct reading dust meters was proposed to be used for impact air quality monitoring for this ATCL Project, based on the provisions set out in Section 3.2.7 of the ATCL Project EM&A Manual. With the use of portable direct reading dust meters, it can allow prompt and direct results for the EM&A reporting and the implementation of the Event and Action Plan. The proposal for adopting direct reading method by the use of portable direct reading dust meters was approved by the IEC.

General meteorological conditions throughout the impact monitoring period were recorded. It is considered that the wind data obtained at the existing Hong Kong Observatory's (HKO) Chek Lap Kok wind station is representative of the Project area and could be used for undertaking the impact air quality monitoring programme for the ATCL Project. The proposed use of the existing

wind data collected from Chek Lap Kok wind station for wind data collection instead of setting up wind monitoring equipment near the monitoring stations was proposed by the ET Leader and agreed by the IEC, in accordance with the requirements stated in Section 3.2.9 of the ATCL Project EM&A Manual.

The measuring procedures of the portable direct reading dust meter are followed in accordance with the Manufacturer's Instruction Manual as presented below:

SIBATA model no. LD-3B

a) set POWER to "ON" and make sure that the battery level was not flash or in low level;
b) pull the air sampling inlet cover up;
c) push the knob at [MEASURE] position;
d) set time/mode setting to [BG] by pushing the time setting switch;
e) start the background measurement by pushing the Start/Stop switch once;
f) turn knob to [SENSI. ADJ] position and push Start/Stop switch once to start the span check;
g) gently return knob to the [MEASURE] position;
h) push the time setting switch to change the time setting display to [LOG];
i) remove the cap and start measurement.

SIBATA model no. LD-5R

a) turn ON the power switch;
b) close the air sampling port cap;
c) turn the scattering plate knob to [MEASURE];
d) perform the BG measurement (8 seconds + 6 seconds);
e) turn the scattering plate knob to [SENSI. ADJ.];
f) perform the SPAN measurement (60 seconds);
g) turn the scattering plate knob to [MEASURE];
h) open the air sampling port cap;
i) select the measurement mode;
j) start the measurement;
k) finish the measurement (automatically or manually);
l) close the air sampling port cap;
m) perform the BG measurement (8 seconds + 6 seconds);
n) turn OFF the power switch

Table 2.2 summarises the equipment used in the reporting period. Copies of the calibration certificates for the equipment used during the reporting period are attached in **Appendix D**. The portable direct reading dust meter would be calibrated every year against High Volume Sampler (HVS) to check the validity and accuracy of the results measured by direct reading method.

Table 2.2: Equipment Used During the Impact Air Quality Monitoring in the Reporting Period

Equipment	Model
Portable Direct Reading Dust Meter	SIBATA LD-3B (serial no. 456668)
	SIBATA LD-3B (serial no. 6z7784)

2.1.4 Action and Limit Levels

In accordance with the ATCL Project EM&A Manual, baseline air quality monitoring of 1-hour TSP levels at the air quality monitoring stations were established as presented in the Baseline Monitoring Report. The Action and Limit Levels of the impact air quality monitoring are presented in **Table 2.3**.

Table 2.3: Action and Limit Levels for Air Quality

Parameter	Monitoring Station	Action Level (µg/m^3)	Limit Level (µg/m^3)
1-hour TSP Level in µg/m^3	AM1a	270	500
	AM2	274	500
	AM3	275	500

2.1.5 Event and Action Plan

Should non-compliance of the air quality criteria occur, actions in accordance with the Event and Action Plan in **Appendix E** shall be carried out.

2.2 Monitoring Schedule and Summary of Impact Air Quality Monitoring Results

Impact air quality monitoring was conducted on 2, 6, 12, 20 and 25 February 2026 during the reporting period. The schedule of impact air quality monitoring conducted in the reporting period is provided in **Appendix F**. The impact air quality monitoring results obtained in the reporting period are summarised in **Table 2.4**, with detailed impact air quality monitoring results, graphical presentation and wind data presented in **Appendix C**.

Table 2.4: Summary of Impact Air Quality Monitoring Results

Monitoring Station	1-hr TSP Concentration Range (µg/m^3)	Average 1-hr TSP Concentration (µg/m^3)	Action Level (µg/m^3)	Limit Level (µg/m^3)
AM1a	34 - 68	47	270	500
AM2	41 - 75	52	274	500
AM3	39 - 82	53	275	500

During the monitoring, no specific observation was noted in the vicinity.

The monitoring results were within the corresponding Action and Limit Levels at all monitoring stations in the reporting period and no exceedance for impact air quality monitoring was recorded.

3 Noise

3.1 Monitoring Requirements

According to the Section 4.3.11 in the ATCL Project EM&A Manual, impact construction noise monitoring for $L_{eq\ (30min)}$ should be carried out at designated monitoring locations once every week when there are project-related construction activities being undertaken within a radius of 300m from the monitoring stations. Further details of the impact construction noise monitoring are presented in the following sections.

3.1.1 Monitoring Parameters

Construction noise level should be measured in terms of the A-weighted equivalent continuous sound pressure level (L_{eq}). $L_{eq\ (30min)}$ shall be used as the monitoring parameter for the time period between 0700 and 1900 hours on normal weekdays. For all other time periods, $L_{eq\ (5min)}$ shall be employed for comparison with the Noise Control Ordinance (NCO) criteria. As supplementary information for data auditing, statistical results such as L_{10} and L_{90} were also obtained for reference.

3.1.2 Monitoring Locations

The monitoring locations for impact construction noise monitoring are summarised in **Table 3.1** and shown in **Figure 3.1**.

Table 3.1: Noise Monitoring Stations

Monitoring Station ID	Representative NSR ID in EIA Report	Description	Monitoring Level	Type of Measurement
NM1	N01	Seaview Crescent	Roof-top of Block 1 (Direction: SW)	Façade measurement
NM2	N03	Ling Liang Church E Wun Secondary School	Roof-top (Direction: W)	Façade measurement
NM3	N08	Fu Tung Estate Tung Ma House	Roof-top (Direction: N)	Façade measurement
NM4	N09	Tung Chung Crescent	Roof-top of Block 5 (Direction: NE)	Façade measurement
NM5 [1]	N10	Priests' Quarters of the Planned Visitation Church Development	--	--

Remark:

[1] The Priests' Quarters of the Planned Visitation Church Development is under construction during the impact noise monitoring period. Subject to the construction programme of the planned NSR, its impact monitoring status will be reviewed when necessary.

3.1.3 Monitoring Equipment and Methodology

Hand-held sound level meter was used for impact noise monitoring. Sound level meter in compliance with the International Electrotechnical Commission Publications 651:1979 (Type 1) and 804:1985 (Type 1) specifications was used for carrying out the impact construction noise monitoring. Immediately prior to and following each noise measurement, the accuracy of the sound level meter was checked using an acoustic calibrator generating a known sound pressure

level at a known frequency. The noise measurements were made in accordance with standard acoustical principles and practices in relation to weather conditions. Measurements would be accepted as valid only if the calibration level from before and after the noise measurement agrees to within 1.0 dB.

Table 3.2 summarises the equipment used in the reporting period. Copies of the calibration certificates for the equipment used during the reporting period are attached in **Appendix D**.

Table 3.2: Equipment Used During the Impact Construction Noise Monitoring in the Reporting Period

Equipment	Model
Sound Level Meter	Rion NL-53 (serial no. 01141565)
Acoustic Calibrator	CAL 200 (serial no.: 10227)

3.1.4 Action and Limit Levels

The Action and Limit Levels of the impact noise monitoring are presented in **Table 3.3**.

Table 3.3: Action and Limit Levels for Construction Noise

Monitoring Station	Time Period	Action Level	Limit Level ($L_{eq\ (30min)}$, dB(A))
NM1	0700-1900 hrs on normal weekdays	When one documented complaint is received	75
NM2			70 dB(A) and 65 dB(A) during examination period
NM3			75
NM4			75
NM5			75

3.1.5 Event and Action Plan

Should non-compliance of the construction noise criteria occur, actions in accordance with the Event and Action Plan in **Appendix E** shall be carried out.

3.2 Monitoring Schedule and Summary of Impact Construction Noise Monitoring Results

Impact construction noise monitoring was conducted on 4, 10, 21 and 24 February 2026 during the reporting period. The schedule of impact construction noise monitoring conducted in the reporting period is provided in **Appendix F**. The impact noise monitoring results obtained in the reporting period are summarised in **Table 3.4**, with detailed impact noise monitoring results and graphical presentation presented in **Appendix C**.

Table 3.4: Summary of Impact Noise Monitoring Results

Monitoring Station	Noise Level Range ($L_{eq\ (30min)}$, dB(A))	Limit Level ($L_{eq\ (30min)}$, dB(A))
NM1 [2]	64 - 65	75
NM2 [2]	60 - 64	70 [1]
NM3	63 - 65	75
NM4	62 - 63	75

Notes:

[1] Will be reduced to 65dB(A) during school examination periods. No school examination took place during this reporting period.

[2] When the noise measurement results being higher than the baseline monitoring levels, to reduce the influence of non-Project related noise on the monitoring results, those measurement results would be corrected with reference to the baseline monitoring results.

During the monitoring, traffic noise was noted in the vicinity.

No complaint was received from any sensitive receiver that triggered the Action Level. All monitoring results were also within the corresponding Limit Levels at all monitoring stations in the reporting period. Therefore, no exceedance for impact construction noise monitoring was recorded during the reporting period.

4 Water Quality

4.1 Monitoring Requirements

According to the Sections 5.7.7 to 5.7.11 in the ATCL Project EM&A Manual, impact water quality monitoring should be carried out at designated monitoring locations for three days per week, at mid-flood and mid-ebb tides. Further details of the impact water quality monitoring are presented in the following sections.

4.1.1 Monitoring Parameters

Monitoring for Dissolved Oxygen (DO), Dissolved Oxygen Saturation (DO%), temperature, pH, turbidity, salinity, suspended solid (SS) and water depth should be undertaken at all designated monitoring locations. All parameters should be measured *in-situ* whereas SS should be determined by an accredited laboratory. DO should be presented in mg/L and in % saturation.

Two replicate *in-situ* measurements and samples collected from each independent sampling event shall be collected to ensure a robust statistically interpretable database.

Other relevant data should also be recorded, including monitoring location / position, time, water depth, tidal stages, weather conditions and any special phenomena or work underway at the construction site.

4.1.2 Monitoring Locations

The marine facilities in the waters between Airport Island and HKP Island are included in the approved ATCL Project EIAR and the ATCL Project EP, however, the construction of marine facilities is not included in the current stage of ATCL construction. Therefore, water quality monitoring will only be undertaken for the marine water quality monitoring stations for the marine viaduct (namely IM2, IM3, SR3, C3 and C4).

The monitoring locations for impact water quality monitoring are summarised in **Table 4.1** and shown in **Figure 4.1**.

Table 4.1: Water Quality Monitoring Stations

Stations	Descriptions	Easting	Northing
IM2	Impact Station	812258	817871
IM3	Impact Station	810725	816626
SR3	Seawater Intake at Tung Chung	811780	817172
C3	Control Station	812785	818754
C4	Control Station	809533	817234

4.1.3 Monitoring Equipment and Methodology

Measurement should be taken at 3 water depths, namely, 1m below water surface, mid-depth and 1m above sea bed, except where the water depth less that 6m, the mid-depth station may be omitted. Should the water depth be less than 3m, only the mid-depth station will be monitored.

Duplicate in-situ measurements and water samples collected from each independent monitoring event are required for all parameters to ensure a robust statistically interpretable dataset. At each measurement depth, two consecutive measurements would be taken. The probes would be retrieved out of the water after the first measurement and then redeployed for the second measurement. When the difference in value between the first and second measurement of on-

site parameters is more than 25% of the value of the first reading, the reading shall be discarded and further readings shall be taken.

In addition, no sampling should be carried out when typhoon signal No. 3 or above or black rainstorm signal is hoisted.

Monitoring Equipment

In-situ measurements at monitoring locations including dissolved oxygen (DO), dissolved oxygen saturation (DO%), pH, temperature, turbidity, salinity and water depth shall be collected.

Calibration of in-situ instruments

In-situ monitoring instruments for water quality parameters shall be checked, calibrated and certified by a laboratory accredited under HOKLAS before use. Responses of sensors and electrodes shall be checked with certified standard solutions before each use.

Calibration certificates of the monitoring equipment used in the reporting period will be supplemented once impact water quality monitoring commences.

Sample Containers and Storage

Water samples for SS determination shall be stored in high density polythene containers with no preservative added, packed in ice (cooled to 4^{o}C without being frozen) and delivered to the testing laboratory within 24 hours of collection and analysed as soon as possible after collection.

4.1.4 Action and Limit Levels

In accordance with the ATCL Project EM&A Manual, baseline water quality monitoring at the water quality monitoring stations were established as presented in the Baseline Monitoring Report. The Action and Limit Levels of the impact water quality monitoring are presented in **Table 4.2**.

Table 4.2: Action and Limit Levels for Water Quality

Parameters	Action Level	Limit Level
DO in mg/L	Surface and Middle **5.1** Bottom **3.5**	Surface and Middle **4.0** Bottom **2.0**
SS in mg/L	Depth Average **10.8** and 120% of upstream control station at the same tide of the same day	Depth Average **13.4** and 130% of upstream control station at the same tide of the same day
Turbidity in NTU	Depth Average **7.9** and 120% of upstream control station at the same tide of the same day	Depth Average **9.9** and 130% of upstream control station at the same tide of the same day

Notes:

1. "Depth Average" is calculated by taking the arithmetic means of reading of all sampling depths.
2. For DO, non-compliance of the water quality limits occurs when monitoring result is lower than the limits.
3. For turbidity and SS, non-compliance of the water quality limits occurs when monitoring result is higher than the limits.
4. All the figures given in the table are used for reference only and the EPD may amend the figures whenever it is considered as necessary.

As learnt from the dominant flow direction, control station C4 will be at the upstream during ebb tide while control station C3 will be at the upstream during flood tide. As such, control station C4 will act as the control station during the ebb tide while control station C3 will act as the control station during the flood tide. The arrangement during the impact monitoring is detailed in **Table 4.3.**

Table 4.3: Corresponding Control and Impact Monitoring Stations during Impact Monitoring

Tidal Direction	Control Station	Impact Stations
Ebb Tide	C4	IM2, IM3, SR3
Flood Tide	C3	IM2, IM3, SR3

4.1.5 Event and Action Plan

Should non-compliance of the water quality criteria occur, actions in accordance with the Event and Action Plan in **Appendix E** shall be carried out.

4.2 Summary of Monitoring Results

During the reporting period, no marine works in relation to the marine viaduct was undertaken; therefore, no impact water quality monitoring was conducted in the reporting period.

5 Environmental Site Inspection and Audit

5.1 Environmental Site Inspection

Site inspections were carried out by ET on a weekly basis to monitor the implementation of proper environmental pollution control mitigation measures for the Project. Key observations were recorded in the site inspection checklist and passed to the Contractor together with the appropriate recommended mitigation measures where necessary.

During the reporting period, weekly site inspections were carried out on 2, 12, 20 and 27 February 2026. Joint IEC site inspection was carried out on 27 February 2026. Bi-weekly landscape and visual site audit was carried out on 12 and 27 February 2026. The site inspection schedule is provided in **Appendix F**.

Key observations and reminders during the site inspections and landscape and visual site audit are described in **Table 5.1**.

Table 5.1: Summary of Site Inspections and Recommendations

Inspection Date	Key Observations / Reminders	Recommendations / Actions	Close-Out Date
27 Jan 2026	At TCCS, the contractor was reminded to display the EP at the site entrance.	At TCCS, the contractor displayed the EP at the site entrance.	29 Jan 2026
27 Jan 2026	At Viaduct 1, NRMM label was not found on the excavator.	At Viaduct 1, NRMM label was displayed on the excavator.	29 Jan 2026
27 Jan 2026	At KLWR, some of the concrete slurry overflowed.	At KLWR, the overflowed slurry was cleaned up.	29 Jan 2026
27 Jan 2026	At KLWR, mud track was observed at the site exit.	At KLWR, mud track was cleaned up.	29 Jan 2026
2 Feb 2026	At Viaduct 3, stockpile was exposed.	At Viaduct 3, stockpile was covered with tarpaulin.	4 Feb 2026
12 Feb 2026	At Viaduct 3, stockpile was exposed.	At Viaduct 3, stockpile was covered with tarpaulin.	14 Feb 2026
12 Feb 2026	At Pier 12, machines not specified in the CNMP were found idle on site.	On-going	--
12 Feb 2026	At Pier 12, 1 crawler crane is on-site and operating, and no QPME label being presented.	On-going	--
12 Feb 2026	At Pier 12, the contractor should enhance the setup of noise barrier for the excavator.	On-going	--
12 Feb 2026	At Pier 12, not the whole seafront is set with bunding and sand bag bunding without sealing gaps is observed.	At Pier 12, bunding has been set along the seafront.	27 Feb 2026
12 Feb 2026	At Pier 12, oil stain was found near the operating crawler crane.	At Pier 12, concerned area was cleaned up.	14 Feb 2026
12 Feb 2026	At Pier 12 Gate M3, no Environmental Permit (EP) was presented at site entrance.	At Pier 12 Gate M3, Environmental Permit (EP) was presented at site entrance.	14 Feb 2026
20 Feb 2026	At Pier 12, some chemical waste containers were found unattended without any spillage prevention measures.	At Pier 12, the chemical waste containers were removed. The Contractor has adopted spillage prevention measures.	27 Feb 2026

Inspection Date	Key Observations / Reminders	Recommendations / Actions	Close-Out Date
20 Feb 2026	At Pier 12 Gate M3, full version of Construction Noise Permit (CNP) was not presented at site entrance.	At Pier 12 Gate M3, full version of Construction Noise Permit (CNP) has been presented at site entrance.	27 Feb 2026
20 Feb 2026	At Pier 12, oil stain was found near the drill bit of Reverse Circulation Drilling (RCD).	On-going	--
27 Feb 2026	At Pier 12, no NEL, NRMM label and QPME label were presented on the air compressors.	On-going	--
27 Feb 2026	At TCCS, mud track was observed at the site exit.	On-going	--
27 Feb 2026	At Pier 12, the Contractor was reminded to enhance the bunding along the seafront.	On-going	--

5.2 Waste Management

In accordance with Condition 2.16 of the EP, all dump trucks for construction and demolition (C&D) materials transportation and disposal shall be equipped with Global Positioning System (GPS) or equivalent automatic identification system (AIS) for real time tracking and monitoring of their travel routings and parking locations in order to avoid illegal dumping or landfilling of C&D materials. The data collected by GPS or equivalent AIS relating to travel routings and parking locations of all dump trucks shall be recorded properly for checking and auditing by ET and IEC respectively. Checking and auditing on the travel routings and parking locations collected by GPS was done in the reporting period. No illegal dumping or landfilling of C&D material was found in the reporting period.

The monthly summary of the waste flow table is provided in **Appendix G**.

5.3 Permit and Licences

The valid environmental permits and licences for the ATCL during the reporting period are summarised in **Table 5.2**.

Table 5.2: Valid Environmental Permits / Licences

Type of Permit / Licence	Reference No.	Valid From	Valid Till	Remark
Environmental Permit	EP-630/2023/A	1 Dec 2025	--	N/A
Billing Account for Disposal of Construction Waste	7055562	12 Aug 2025	--	N/A
Construction Dust Notification under APCO	10020078	4 Aug 2025	--	N/A
Construction Noise Permit	GW-RS0069-26	25 Jan 2026	28 Feb 2026	Issued by EPD on 23 Jan 2026
	GW-RS0092-26	6 Feb 2026	6 May 2026	Issued by EPD on 30 Jan 2026
Chemical Waste Producer	5213-951-P3620-01	25 Aug 2025	--	N/A
Water Discharge Licence	--	--	--	Under Application

6 Report on the Non-compliances, Complaints, Notifications of Summons and Status of Prosecutions

6.1 Summary of Exceedance of the Environmental Quality Performance Limit

Air Quality

There was no exceedance of the Action or Limit Levels for impact air quality monitoring during the reporting period.

Noise

There was no exceedance of the Action or Limit Levels for impact construction noise monitoring during the reporting period.

Water Quality

No impact water quality monitoring was conducted during the reporting period.

Statistics on exceedance of the Action or Limit Levels for environmental monitoring are summarized in **Table 6.1**.

Table 6.1: Statistics on Exceedance of the Action or Limit Levels for Environmental Monitoring

Environmental Monitoring		No. of Exceedances Recorded during the Reporting Period		Cumulative No. of Exceedances Recorded since the Project Commenced	
		Project related	Non-project related	Project related	Non-project related
Air Quality	Action Level	0	0	0	0
	Limit Level	0	0	0	0
Construction Noise	Action Level	0	0	0	0
	Limit Level	0	0	0	0
Water Quality	Action Level	--	--	--	--
	Limit Level	--	--	--	--

6.2 Summary of Complaints, Notifications of Summons and Successful Prosecutions

Complaint Log

There was no complaint received in relation to the environmental impact during the reporting period.

Notifications of Summons or Status of Prosecution

There was no notification of summons or prosecutions received during the reporting period.

Cumulative Statistics

Statistics on complaints, notifications of summons and successful prosecutions are summarized in **Table 6.2.**

Table 6.2: Statistics on Environmental Complaints, Notifications of Summons and Successful Prosecutions

Reporting Period	Environmental Complaints	Notifications of Summons	Successful Prosecutions
This reporting period (1 – 28 Feb 2026)	0	0	0
From commencement date of construction to end of reporting period	0	0	0

6.3 Implementation Status of Environmental Protection and Pollution Control / Mitigation Measures

The implementation status of environmental protection and pollution control/mitigation measures during the reporting period is presented in **Appendix H**.

7 Future Key Issues

7.1 Construction Programme for the Upcoming Month

As informed by the Contractor, the major construction activities for the next reporting period are summarized below:

Land-based portion

- Pre-drilling (site preparation works);
- Site clearance (site preparation works);
- Piling works;
- Trial pit excavation;
- Seawall excavation; and
- UU protection works.

Marine-based portion

- Pre-drilling (site preparation works); and
- Silt curtain and temporary working platform installation.

7.2 Environmental Site Inspection and Monitoring Schedule for the Next Reporting Period

The tentative schedule for weekly site inspection and environmental monitoring for the next reporting period is provided in **Appendix F**.

8 Conclusions and Recommendations

General

The construction works for the Project commenced on 17 December 2025; therefore, the construction phase EM&A programme of the ATCL Project started on 17 December 2025. During the reporting period, no marine works in relation to the marine viaduct was undertaken thus no water quality monitoring was conducted. The ET of the Project has undertaken environmental site inspections and environmental monitoring under the construction phase EM&A programme during the reporting period.

Environmental Monitoring

Air quality and noise monitoring was conducted during the reporting period, and no exceedance of Action and Limit Levels was recorded.

Environmental Site Inspections

Weekly environmental site inspections were conducted during the reporting period. No major deficiency was identified during the site inspections. Nevertheless, recommendations on good practices and mitigation measures were given to the Contractor during the site inspections.

Complaint Log

There was no complaint received in relation to the environmental impact during the reporting period.

Notifications of Summons and Successful Prosecutions

There was no notification of summons or successful prosecutions received during the reporting period.

Reporting Changes

There was no reporting change during the reporting period.

Recommendations on Compliance / Mitigation Measures Implementation

According to the environmental site inspections conducted during the reporting period, the following recommendations were provided:

Air Quality

- Open stockpiles shall be avoided or covered.
- Requirements stipulated in the Air Pollution Control (Non-road Mobile Machinery) (Emission) Regulation should be followed to control potential emissions from non-road mobile machinery.

Noise

- Implementation of plant inventory recommended in the submitted CNMP.
- Use of quieter Powered Mechanical Equipment is recommended to reduce the noise impact.
- The use of noise barrier for certain PME (Powered Mechanical Equipment) could generally provide a 5 dB(A) reduction for movable PME and 10 dB(A) for stationary PME. The barrier material shall be long enough and have no opening or gaps.

Water Quality

- Channels, earth bunds or sand bag barriers should be provided on site to direct stormwater to silt removal facilities.
- All vehicles and plant should be cleaned before leaving a construction site. An adequately designed and sited wheel washing facilities should be provided.

Waste Management

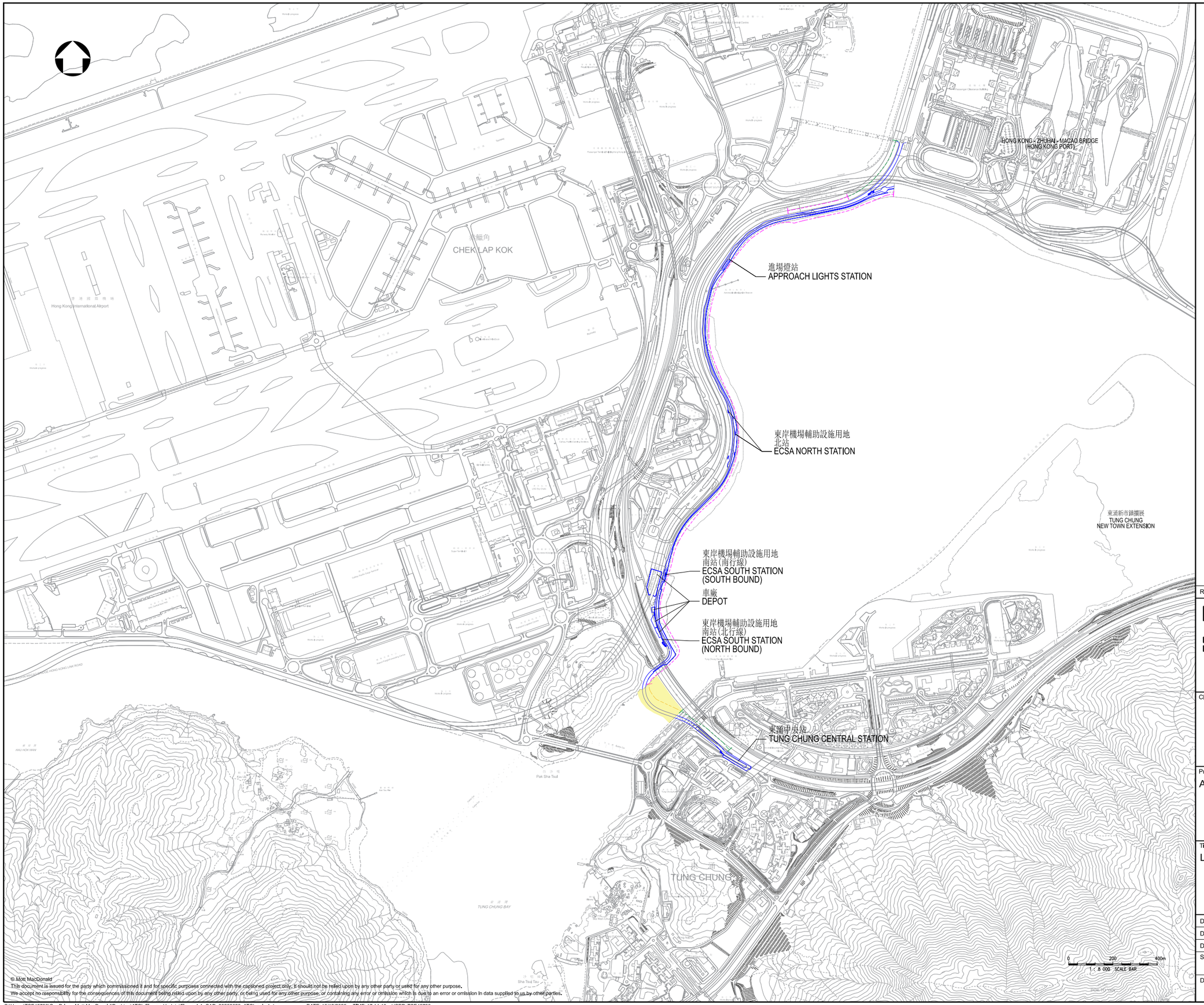
- Stockpiling area/ temporary stockpiling area should be provided with covers.
- Drip tray should be provided to chemical waste containers. The drip tray should be clean up regularly.

Others

- A copy of the valid Environmental Permit shall be displayed conspicuously on the Project site(s) at all vehicular site entrances/exits or at a convenient location for public's information at all times.
- Display the copy of CNP (if any) at all site entrance/exits for public's information.

Figures

Figure 1.1:
Location of the Project



圖例
LEGEND

- 機場東涌專道走線
  ALIGNMENT OF AIRPORT TUNG CHUNG LINK
- 陸上高架路段
  LAND VIADUCT SECTION
- 海上高架路段
  MARINE VIADUCT SECTION
- 地面路段
  AT-GRADE SECTION
- 海上高架施工區
  WORKS AREA FOR MARINE VIADUCT

Rev	Date	Drawn	Description	Ch'k'd	App'd

MOTT MACDONALD
3/F Manulife Tower
348 Kwun Tong Road
Kwun Tong, Kowloon
Hong Kong
T +852 2828 5757
F +852 2827 1823
W mottmac.com

Client

Project
AIRPORT TUNG CHUNG LINK PROJECT

Title
Location of the Project

Designed			Eng check		
Drawn			Coordination		
Dwg check			Approved		
Scale at A1		Status		Rev	

Drawing Number
Figure 1.1

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Figure 1.2:
Construction Activities Undertaken during the Reporting Period

Site activities undertaken in the reporting period (Feb 2026)

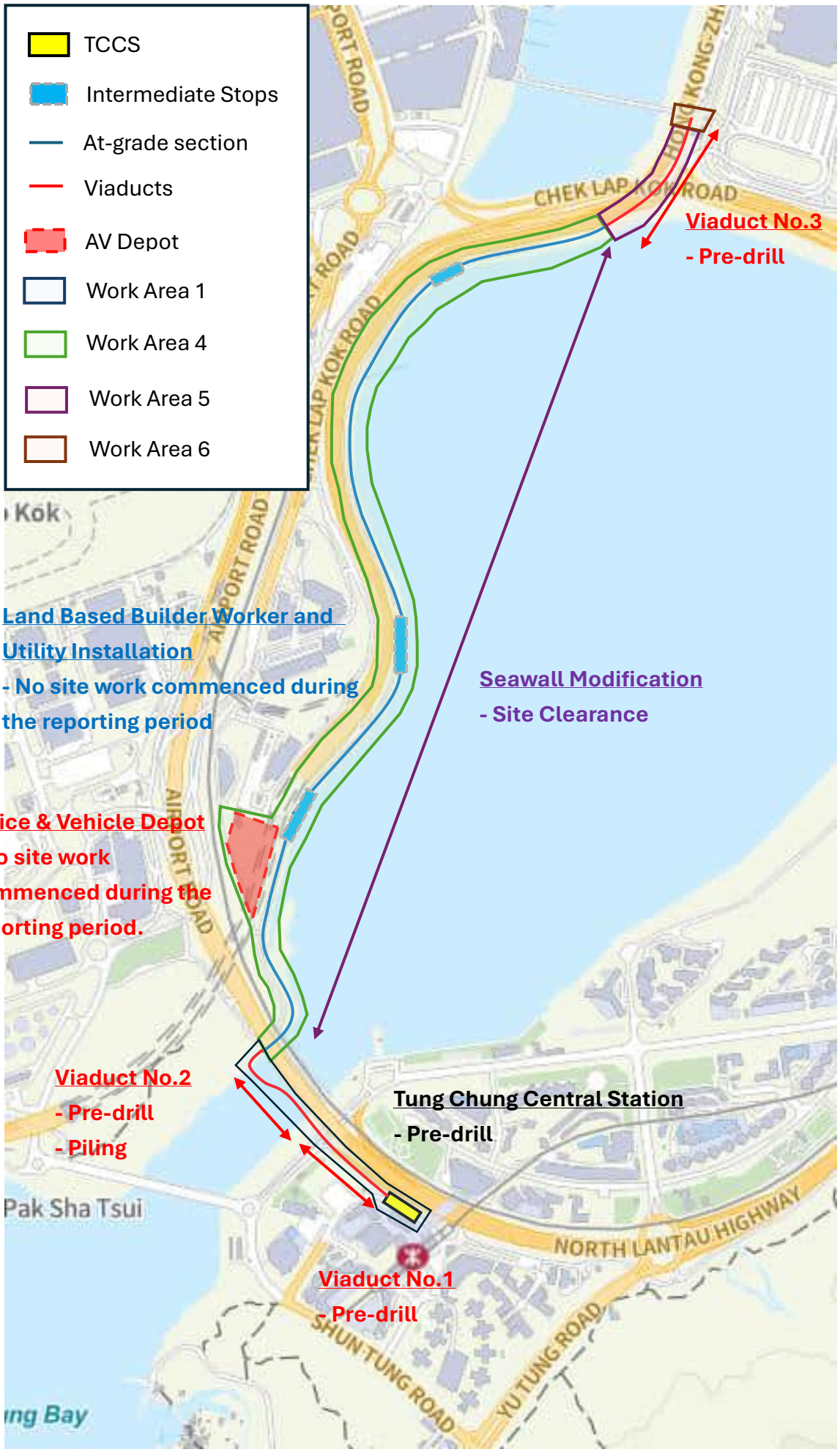
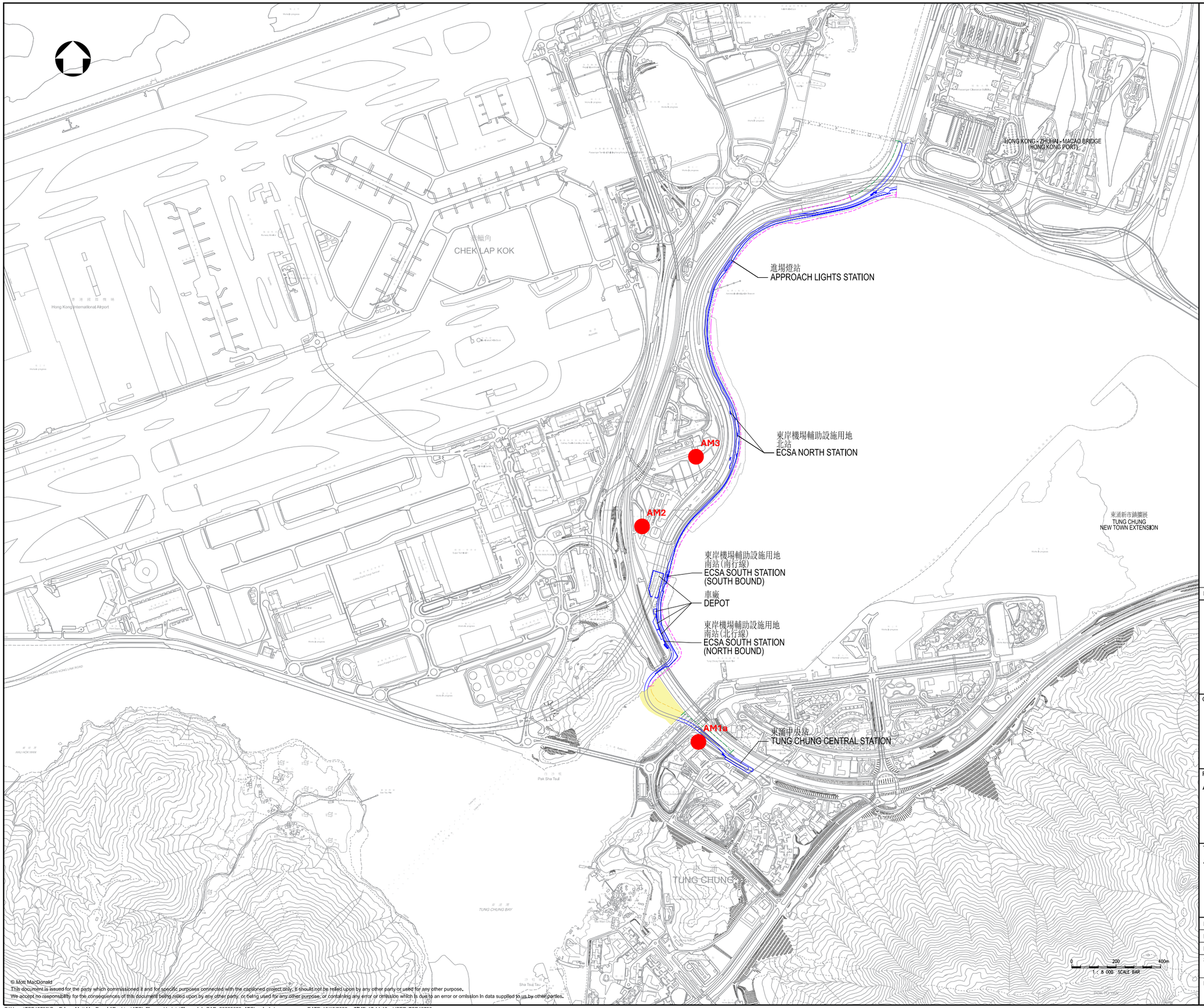


Figure 2.1:
Air Quality Monitoring Stations



圖例
LEGEND

- 機場東涌專道走線
  ALIGNMENT OF AIRPORT TUNG CHUNG LINK
- 陸上高架路段
  LAND VIADUCT SECTION
- 海上高架路段
  MARINE VIADUCT SECTION
- 地面路段
  AT-GRADE SECTION
- 海上高架施工區
  WORKS AREA FOR MARINE VIADUCT
- AIR QUALITY MONITORING STATIONS

Rev	Date	Drawn	Description	Ch'k'd	App'd

MOTT MACDONALD
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Client

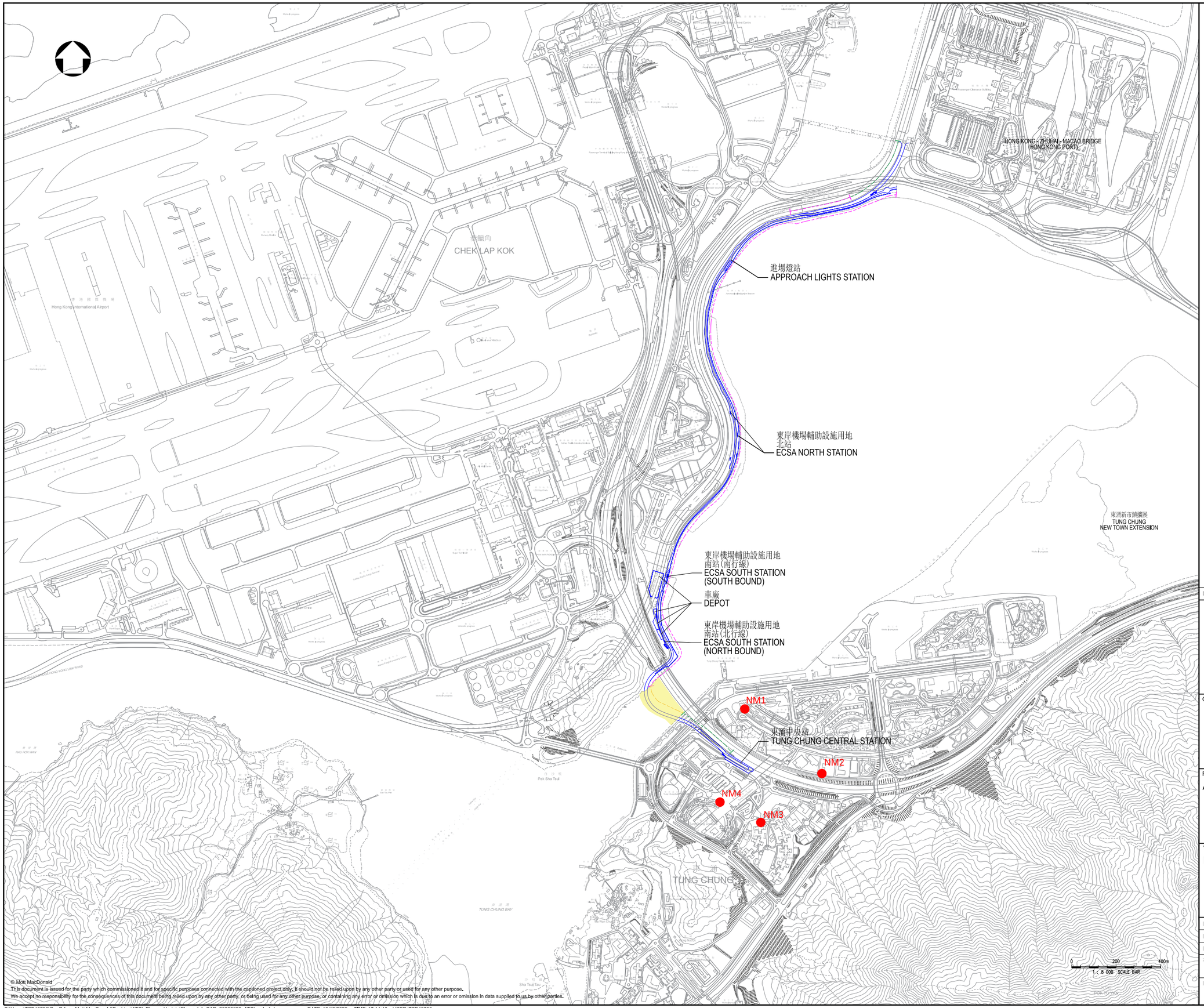
Project
AIRPORT TUNG CHUNG LINK PROJECT

Title
Air Quality Monitoring Stations

Designed			Eng check		
Drawn			Coordination		
Dwg check			Approved		
Scale at A1		Status		Rev	

Drawing Number
Figure 2.1

Figure 3.1:
Noise Monitoring Stations



圖例
LEGEND

- 機場東涌專道走線
  ALIGNMENT OF AIRPORT TUNG CHUNG LINK
- 陸上高架路段
  LAND VIADUCT SECTION
- 海上高架路段
  MARINE VIADUCT SECTION
- 地面路段
  AT-GRADE SECTION
- 海上高架施工區
  WORKS AREA FOR MARINE VIADUCT
- NOISE MONITORING STATIONS

Remark:
(1) The Priests' Quarters of the Planned Visitation Church Development (NM5) is under construction during the impact noise monitoring period. Subject to the construction programme of the planned NSR, its impact monitoring status will be reviewed when necessary.

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Project
AIRPORT TUNG CHUNG LINK PROJECT

Title
Noise Monitoring Stations

Designed			Eng check		
Drawn			Coordination		
Dwg check			Approved		
Scale at A1		Status		Rev	

Drawing Number
Figure 3.1

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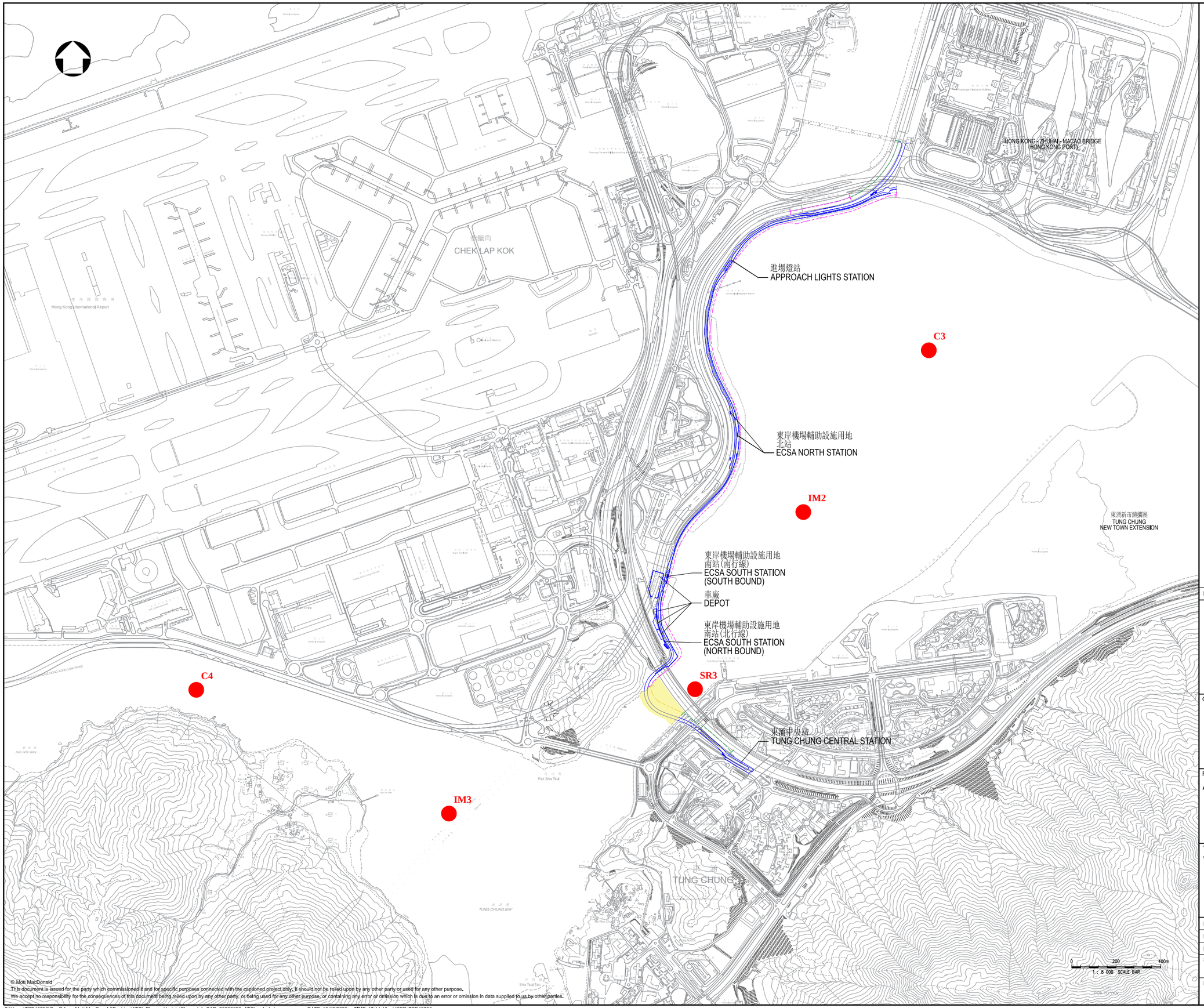
Figure 4.1:
Water Quality Monitoring Stations



圖例
LEGEND

- 機場東涌專道走線 ALIGNMENT OF AIRPORT TUNG CHUNG LINK
- 陸上高架路段 LAND VIADUCT SECTION
- 海上高架路段 MARINE VIADUCT SECTION
- 地面路段 AT-GRADE SECTION
- 海上高架施工區 WORKS AREA FOR MARINE VIADUCT
- WATER QUALITY MONITORING STATIONS

Remark:
(1) The marine facilities in the waters between Airport Island and HKP Island are included in the approved ATCL Project EIAR and the ATCL Project EP, however, the construction of marine facilities is not included in the current stage of ATCL construction. Therefore, water quality monitoring will only be undertaken for the marine water quality monitoring stations for the marine viaduct (namely IM2, IM3, SR3, C3 and C4).

Rev	Date	Drawn	Description	Ch'k'd	App'd

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Client

Project
AIRPORT TUNG CHUNG LINK PROJECT

Title
Water Quality Monitoring Stations

Designed			Eng check		
Drawn			Coordination		
Dwg check			Approved		
Scale at A1		Status		Rev	

Drawing Number
Figure 4.1

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Appendices

Appendix A

Project Organisation

Project Organisation

Environmental Protection Department (EPD)
(EIAO Authority)

Project Proponent

Project Manager of Airport Authority Hong Kong

Independent Environmental Checker (IEC)

AECOM
Lemon LAM
3856 5680

IEC Member

AECOM
Eric CHU
3856 5717

Environmental Team Leader (ETL)

Mott MacDonald
Hong Kong Limited
Thomas CHAN
2828 5967

Deputy Environmental Team Leader

Mott MacDonald
Hong Kong Limited
Ken WONG
2828 5817

Registered Landscape Architect

Mott MacDonald
Hong Kong Limited
Aloysius WONG
6737 1537

Main Contractor of Contract No. C24W08

Penta-Ocean Construction Co. Ltd.

Site Operation

Senior Project Director

Mr. William Leung
9464 1392

Project Manager

Mr. Hiroshi FUJIMOTO
9165 4070

BUILDING
Deputy Project Manager (Building)

Mr. Patrick Wong
6806 0315

VIADUCT
Construction Manager (Viaducts)

Mr. Mike Chow
9588 9686

CIVIL
Construction Manager (Seawall)

Mr. Miyanomae Shunichi
9221 6382

Construction Environmental Team

Environmental Manager

Mr. Gideon Cheng
9731 5852

Senior Environmental Officer

Mr. So Chi Ho
9139 3831

Environmental Officer

Ms. Hung Wing Yan
6113 5760

LEGEND

Line of Management Responsibility

Communication Channel

Appendix B

Construction Works Programme

Construction Activity	Start	Finish	2026		
			Feb	Mar	Apr
Viaduct No.1- Land based					
Predrill (Site Preparation)	29-Nov-25	18-Apr-26			
Piling	25-Mar-26	24-Aug-26			
Tung Chung Central Station (TCCS)					
Predrill (Site Preparation)	8-Dec-25	16-Apr-26			
Viaduct No.2- Marine based					
Predrill (Site Preparation)	21-Nov-25	2-Jun-26			
Piling (Bridge Pier 12 - Land Pile)	25-Feb-26	28-May-26			
Silt Curtain and Temporary Working Platform Installation	23-Mar-26	10-Apr-26			
Viaduct No.3- Land based					
Predrill (Site Preparation)	8-Nov-25	25-Sep-26			
Seawall Modification					
Site Clearance (Site Preparation)	23-Feb-26	28-May-26			
Trial Pit Excavation	9-Mar-26	21-Mar-26			
Seawall Excavation (CH 430-530 & CH 1630-1770)	23-Mar-26	30-Apr-26			
UU Protection Works (CH 2050-2120)	18-Mar-26	30-Apr-26			

Appendix C

Environmental Monitoring Results

Air Quality Monitoring

Air Quality Monitoring: 1-hour TSP Monitoring Results

AM1a - Tat Tung Road Garden

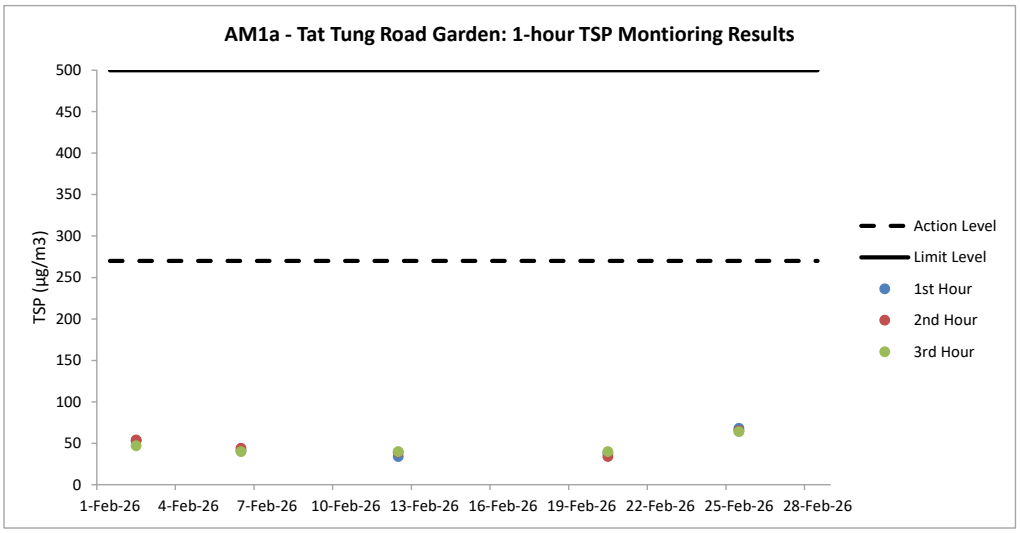
Date	Start Time	Finish Time	Weather Condition	TSP (μg/m^3)	Action Level (μg/m^3)	Limit Level (μg/m^3)
2-Feb-26	12:30	13:30	Sunny	53	270	500
2-Feb-26	13:30	14:30	Sunny	54	270	500
2-Feb-26	14:30	15:30	Sunny	47	270	500
6-Feb-26	12:30	13:30	Sunny	41	270	500
6-Feb-26	13:30	14:30	Sunny	44	270	500
6-Feb-26	14:30	15:30	Sunny	40	270	500
12-Feb-26	12:20	13:20	Cloudy	34	270	500
12-Feb-26	13:20	14:20	Cloudy	39	270	500
12-Feb-26	14:20	15:20	Cloudy	40	270	500
20-Feb-26	11:50	12:50	Sunny	38	270	500
20-Feb-26	12:50	13:50	Sunny	34	270	500
20-Feb-26	13:50	14:50	Sunny	40	270	500
25-Feb-26	13:35	14:35	Cloudy	68	270	500
25-Feb-26	14:35	15:35	Cloudy	65	270	500
25-Feb-26	15:35	16:35	Cloudy	64	270	500

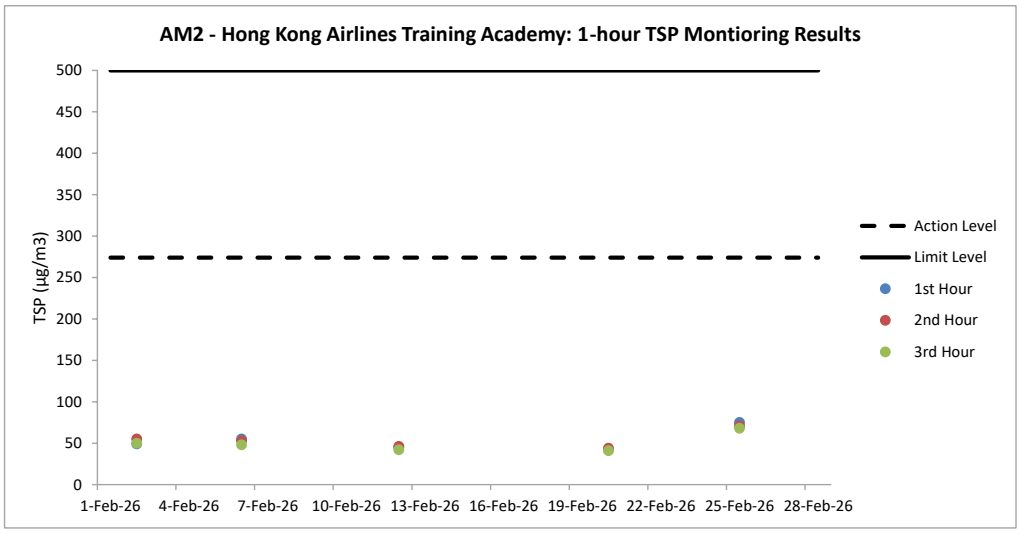
AM2 - Hong Kong Airlines Training Academy

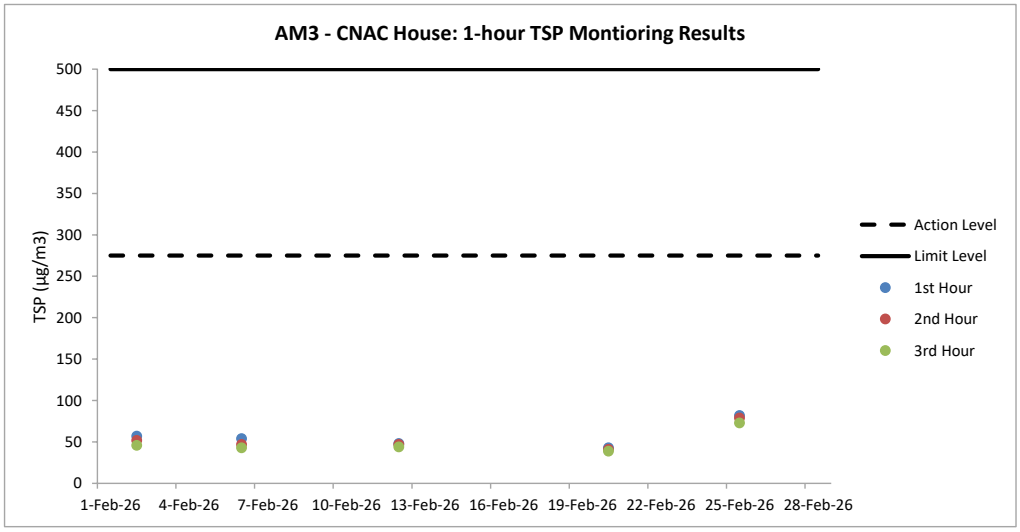
Date	Start Time	Finish Time	Weather Condition	TSP (μg/m^3)	Action Level (μg/m^3)	Limit Level (μg/m^3)
2-Feb-26	8:55	09:55	Sunny	49	274	500
2-Feb-26	9:55	10:55	Sunny	55	274	500
2-Feb-26	10:55	11:55	Sunny	50	274	500
6-Feb-26	8:55	09:55	Sunny	55	274	500
6-Feb-26	9:55	10:55	Sunny	53	274	500
6-Feb-26	10:55	11:55	Sunny	48	274	500
12-Feb-26	8:55	09:55	Cloudy	45	274	500
12-Feb-26	9:55	10:55	Cloudy	46	274	500
12-Feb-26	10:55	11:55	Cloudy	42	274	500
20-Feb-26	8:20	09:20	Sunny	42	274	500
20-Feb-26	9:20	10:20	Sunny	44	274	500
20-Feb-26	10:20	11:20	Sunny	41	274	500
25-Feb-26	9:53	10:53	Cloudy	75	274	500
25-Feb-26	10:53	11:53	Cloudy	71	274	500
25-Feb-26	11:53	12:53	Cloudy	68	274	500

AM3 - CNAC House

Date	Start Time	Finish Time	Weather Condition	TSP (μg/m^3)	Action Level (μg/m^3)	Limit Level (μg/m^3)
2-Feb-26	8:45	09:45	Sunny	57	275	500
2-Feb-26	9:45	10:45	Sunny	52	275	500
2-Feb-26	10:45	11:45	Sunny	46	275	500
6-Feb-26	8:45	09:45	Sunny	54	275	500
6-Feb-26	9:45	10:45	Sunny	47	275	500
6-Feb-26	10:45	11:45	Sunny	43	275	500
12-Feb-26	8:45	09:45	Cloudy	48	275	500
12-Feb-26	9:45	10:45	Cloudy	47	275	500
12-Feb-26	10:45	11:45	Cloudy	44	275	500
20-Feb-26	8:10	09:10	Sunny	43	275	500
20-Feb-26	9:10	10:10	Sunny	41	275	500
20-Feb-26	10:10	11:10	Sunny	39	275	500
25-Feb-26	10:12	11:12	Cloudy	82	275	500
25-Feb-26	11:12	12:12	Cloudy	79	275	500
25-Feb-26	12:12	13:12	Cloudy	73	275	500


AM1a - Tat Tung Road Garden: 1-hour TSP Montioring Results
TSP (µg/m3)
500
450
400
350
300
250
200
150
100
50
0
1-Feb-26
4-Feb-26
7-Feb-26
10-Feb-26
13-Feb-26
16-Feb-26
19-Feb-26
22-Feb-26
25-Feb-26
28-Feb-26
Action Level
Limit Level
1st Hour
2nd Hour
3rd Hour

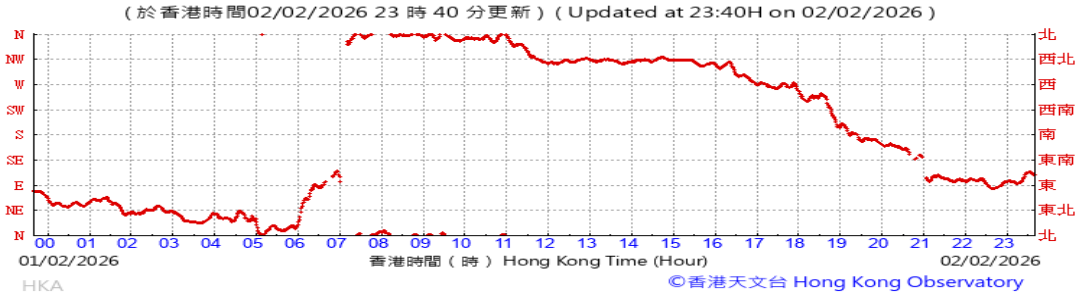

AM2 - Hong Kong Airlines Training Academy: 1-hour TSP Montioring Results
TSP (µg/m3)
500
450
400
350
300
250
200
150
100
50
0
1-Feb-26
4-Feb-26
7-Feb-26
10-Feb-26
13-Feb-26
16-Feb-26
19-Feb-26
22-Feb-26
25-Feb-26
28-Feb-26
Action Level
Limit Level
1st Hour
2nd Hour
3rd Hour


AM3 - CNAC House: 1-hour TSP Montioring Results
TSP (µg/m3)
500
450
400
350
300
250
200
150
100
50
0
1-Feb-26
4-Feb-26
7-Feb-26
10-Feb-26
13-Feb-26
16-Feb-26
19-Feb-26
22-Feb-26
25-Feb-26
28-Feb-26
Action Level
Limit Level
1st Hour
2nd Hour
3rd Hour

Appendix C – Extract of Wind Data for Chek Lap Kok Wind Station

2 February 2026

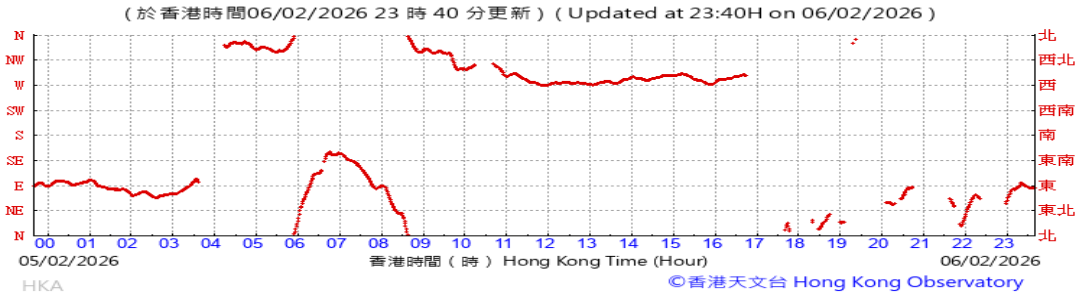
Wind Direction:



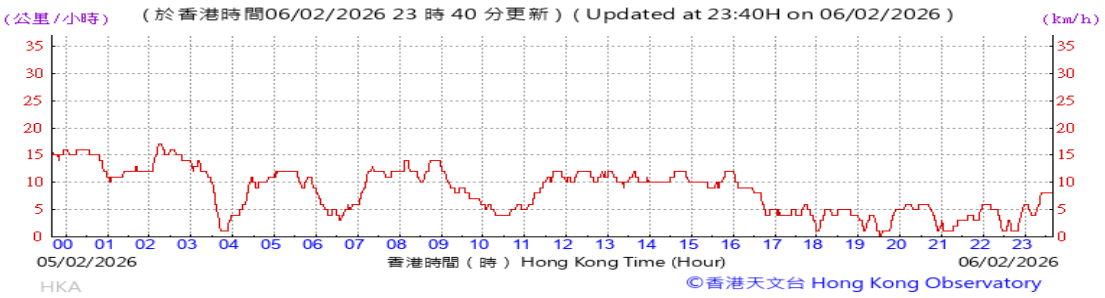
Wind Speed:

6 February 2026

Wind Direction:



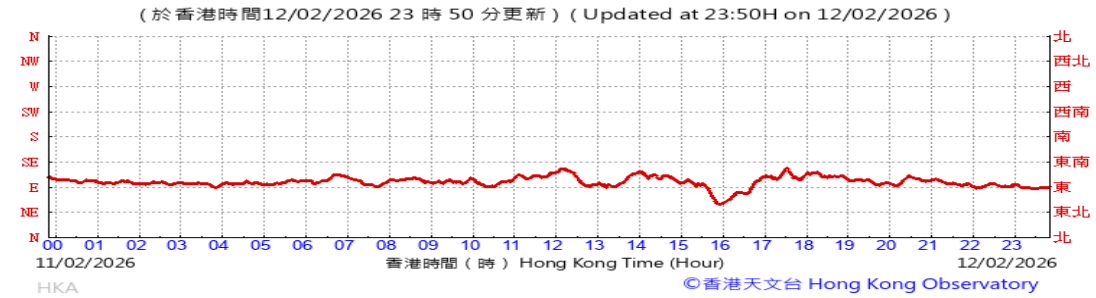
Wind Speed:



Appendix C – Extract of Wind Data for Chek Lap Kok Wind Station

12 February 2026

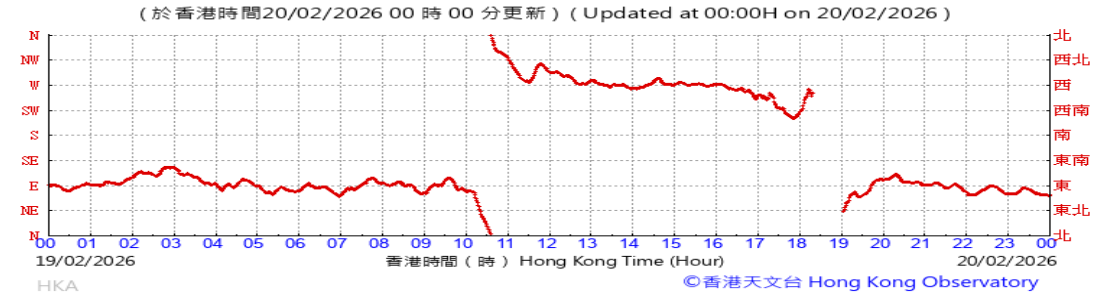
Wind Direction:



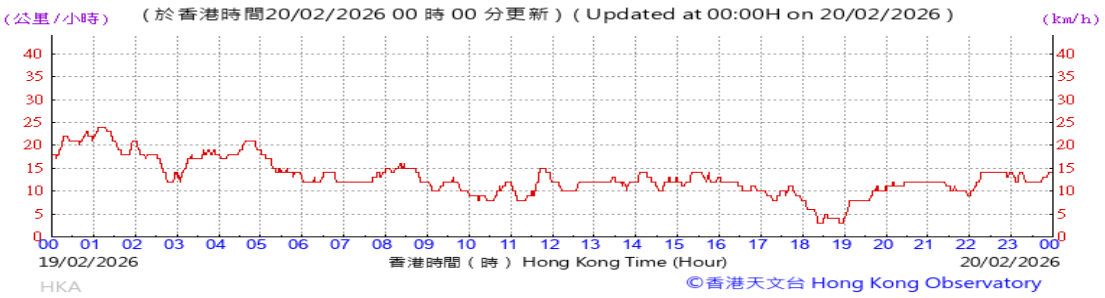
Wind Speed:

20 February 2026

Wind Direction:



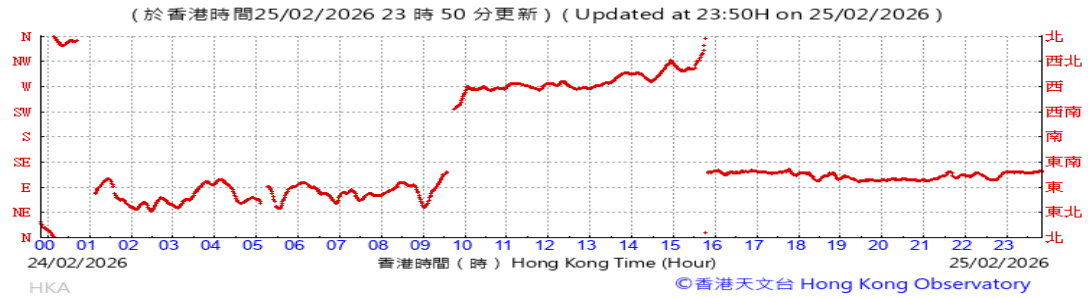
Wind Speed:



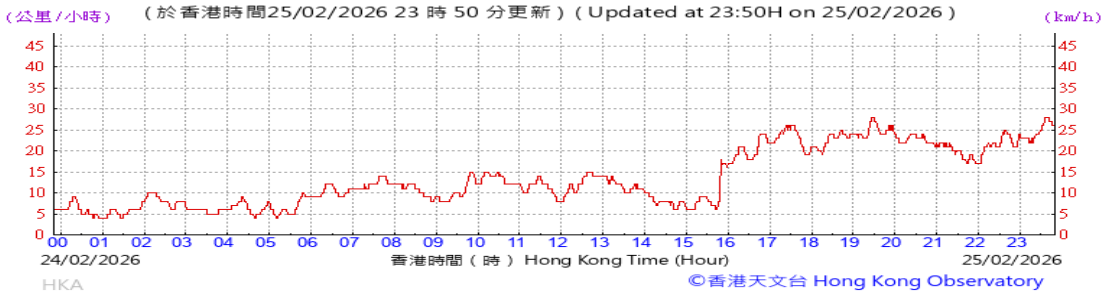
Appendix C – Extract of Wind Data for Chek Lap Kok Wind Station

25 February 2026

Wind Direction:



Wind Speed:



Noise Monitoring

Noise Monitoring Results

NM1 - Seaview Crescent

Date	Weather	Time	Measured $L_{eq(5min)}$, dB(A)	Measured L_{10}, dB(A)	Measured L_{90}, dB(A)	Baseline $L_{eq(30min)}$, dB(A)	$L_{eq(30min)}$, dB(A)	Limit Level $L_{eq(30min)}$, dB(A)
4-Feb-26	Sunny	13:11	64.6	66.2	60.6	65.3	65	75
4-Feb-26	Sunny	13:16	64.0	66.9	62.1			
4-Feb-26	Sunny	13:21	65.0	66.6	63.2			
4-Feb-26	Sunny	13:26	64.8	66.8	62.6			
4-Feb-26	Sunny	13:31	64.4	65.4	63.0			
4-Feb-26	Sunny	13:36	64.8	66.2	63.2			
10-Feb-26	Sunny	11:05	65.2	66.7	60.8	65.3	65	75
10-Feb-26	Sunny	11:10	64.4	65.9	63.1			
10-Feb-26	Sunny	11:15	65.3	66.9	62.1			
10-Feb-26	Sunny	11:20	64.6	65.9	62.1			
10-Feb-26	Sunny	11:25	65.3	66.9	62.3			
10-Feb-26	Sunny	11:30	64.6	65.7	63.2			
21-Feb-26	Cloudy	10:49	63.3	64.8	61.5	65.3	64	75
21-Feb-26	Cloudy	10:54	63.6	65.2	61.4			
21-Feb-26	Cloudy	10:59	64.0	65.2	61.7			
21-Feb-26	Cloudy	11:04	63.5	66.4	62.2			
21-Feb-26	Cloudy	11:09	63.7	66.2	61.4			
21-Feb-26	Cloudy	11:14	63.2	64.4	60.8			
24-Feb-26	Cloudy	13:09	63.6	65.1	61.6	65.3	64	75
24-Feb-26	Cloudy	13:14	64.5	66.2	62.1			
24-Feb-26	Cloudy	13:19	63.2	64.4	61.9			
24-Feb-26	Cloudy	13:24	64.9	66.5	62.4			
24-Feb-26	Cloudy	13:29	64.4	65.9	62.2			
24-Feb-26	Cloudy	13:34	64.7	65.9	61.7			

NM2 - Ling Liang Church E Wun Secondary School

Date	Weather	Time	Measured $L_{eq(5min)}$, dB(A)	Measured L_{10}, dB(A)	Measured L_{90}, dB(A)	Baseline $L_{eq(30min)}$, dB(A)	$L_{eq(30min)}$, dB(A)	Limit Level $L_{eq(30min)}$, dB(A)
4-Feb-26	Sunny	13:11	64.6	66.2	60.6	65.0	60*	70
4-Feb-26	Sunny	13:16	64.0	66.9	62.1			
4-Feb-26	Sunny	13:21	65.0	66.6	63.2			
4-Feb-26	Sunny	13:26	64.8	66.8	62.6			
4-Feb-26	Sunny	13:31	64.4	65.4	63.0			
4-Feb-26	Sunny	13:36	64.8	66.2	63.2			
10-Feb-26	Sunny	11:05	65.2	66.7	60.8	65.0	64	70
10-Feb-26	Sunny	11:10	64.4	65.9	63.1			
10-Feb-26	Sunny	11:15	65.3	66.9	62.1			
10-Feb-26	Sunny	11:20	64.6	65.9	62.1			
10-Feb-26	Sunny	11:25	65.3	66.9	62.3			
10-Feb-26	Sunny	11:30	64.6	65.7	63.2			
21-Feb-26	Cloudy	10:49	63.3	64.8	61.5	65.0	62	70
21-Feb-26	Cloudy	10:54	63.6	65.2	61.4			
21-Feb-26	Cloudy	10:59	64.0	65.2	61.7			
21-Feb-26	Cloudy	11:04	63.5	66.4	62.2			
21-Feb-26	Cloudy	11:09	63.7	66.2	61.4			
21-Feb-26	Cloudy	11:14	63.2	64.4	60.8			
24-Feb-26	Cloudy	13:09	63.6	65.1	61.6	65.0	63	70
24-Feb-26	Cloudy	13:14	64.5	66.2	62.1			
24-Feb-26	Cloudy	13:19	63.2	64.4	61.9			
24-Feb-26	Cloudy	13:24	64.9	66.5	62.4			
24-Feb-26	Cloudy	13:29	64.4	65.9	62.2			
24-Feb-26	Cloudy	13:34	64.7	65.9	61.7			

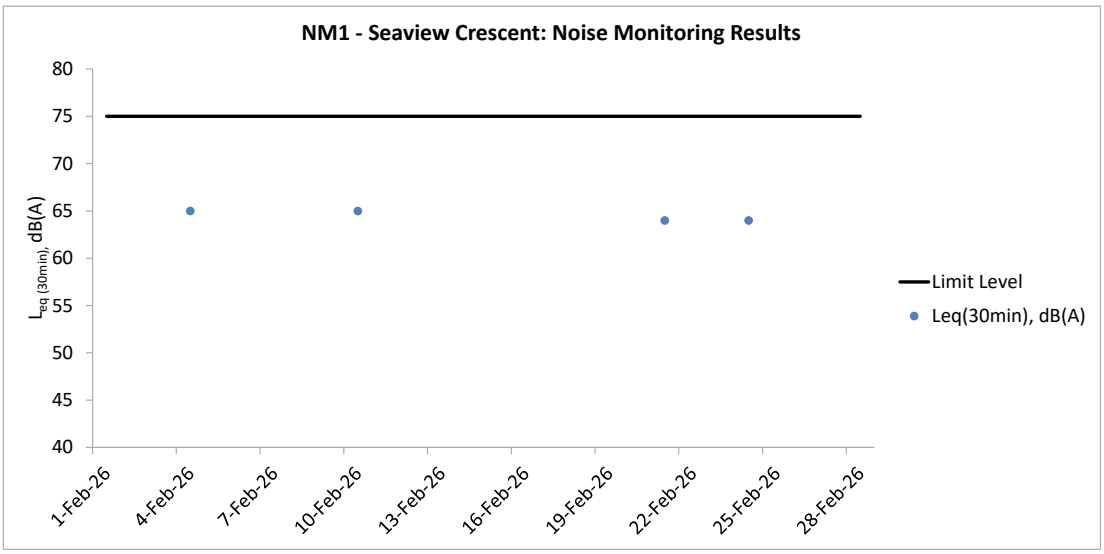
* indicates measured noise level is higher than the baseline level and correction against baseline noise level was performed.

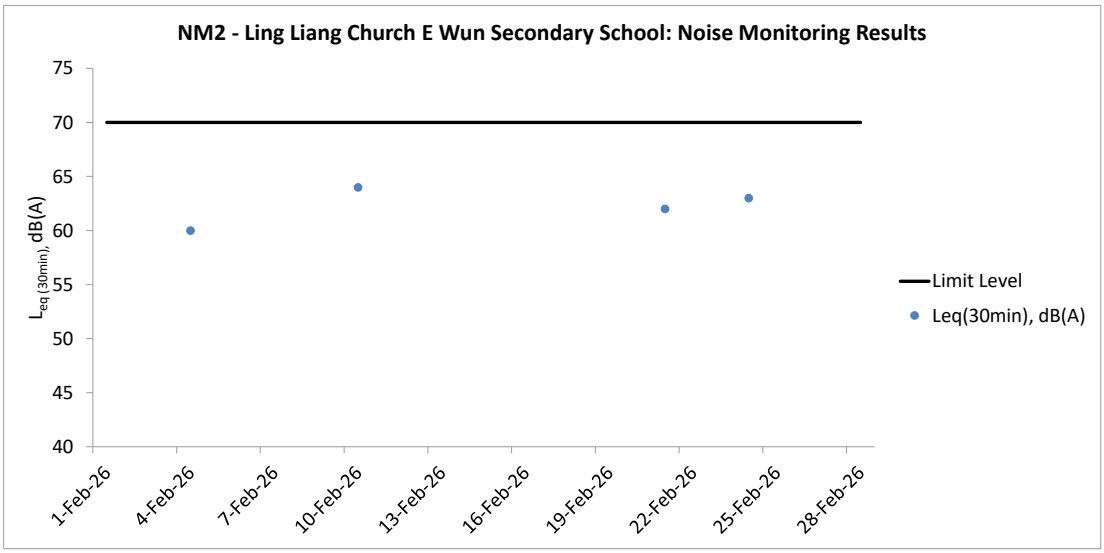
NM3 - Fu Tung Estate Tung Ma House

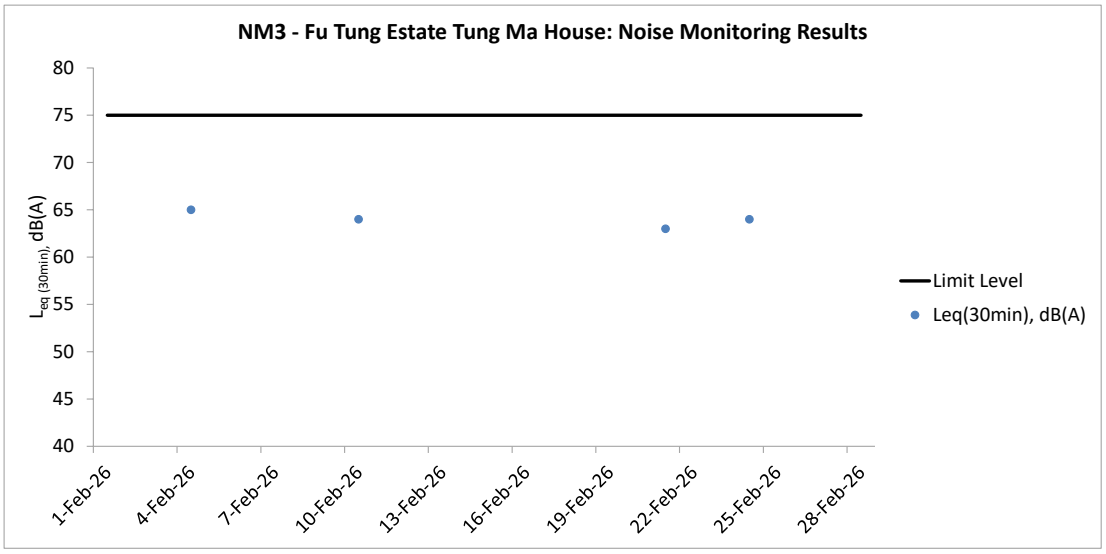
Date	Weather	Time	Measured $L_{eq(5min)}$, dB(A)	Measured L_{10}, dB(A)	Measured L_{90}, dB(A)	Baseline $L_{eq(30min)}$, dB(A)	$L_{eq(30min)}$, dB(A)	Limit Level $L_{eq(30min)}$, dB(A)
4-Feb-26	Sunny	10:07	65.7	68.5	56.2	66.1	65	75
4-Feb-26	Sunny	10:12	66.6	67.8	58.9			
4-Feb-26	Sunny	10:17	63.6	65.1	62.0			
4-Feb-26	Sunny	10:22	63.4	65.8	61.8			
4-Feb-26	Sunny	10:27	64.6	65.6	63.1			
4-Feb-26	Sunny	10:32	64.2	66.3	62.3			
10-Feb-26	Sunny	14:28	64.0	65.8	58.0	66.1	64	75
10-Feb-26	Sunny	14:33	64.1	65.2	60.3			
10-Feb-26	Sunny	14:38	64.4	65.4	61.3			
10-Feb-26	Sunny	14:43	64.5	65.6	61.1			
10-Feb-26	Sunny	14:48	64.2	65.6	60.9			
10-Feb-26	Sunny	14:53	65.3	66.3	60.8			
21-Feb-26	Cloudy	13:55	63.3	64.4	60.7	66.1	63	75
21-Feb-26	Cloudy	14:00	63.5	64.7	60.9			
21-Feb-26	Cloudy	14:05	63.6	65.5	61.1			
21-Feb-26	Cloudy	14:10	63.0	65.9	61.2			
21-Feb-26	Cloudy	14:15	62.9	64.8	60.5			
21-Feb-26	Cloudy	14:20	62.7	64.9	60.4			
24-Feb-26	Cloudy	14:59	63.4	64.7	61.8	66.1	64	75
24-Feb-26	Cloudy	15:04	63.3	64.7	61.7			
24-Feb-26	Cloudy	15:09	63.2	64.9	61.3			
24-Feb-26	Cloudy	15:14	63.3	64.7	61.7			
24-Feb-26	Cloudy	15:19	63.2	64.9	61.3			
24-Feb-26	Cloudy	15:24	64.6	66.3	62.4			

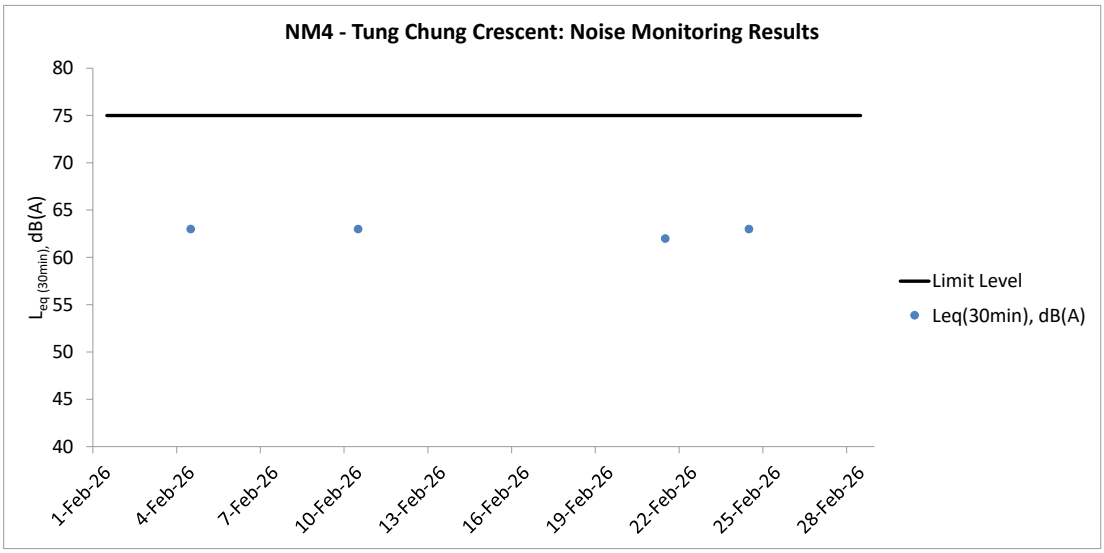
NM4 - Tung Chung Crescent

Date	Weather	Time	Measured $L_{eq(5min)}$, dB(A)	Measured L_{10}, dB(A)	Measured L_{90}, dB(A)	Baseline $L_{eq(30min)}$, dB(A)	$L_{eq(30min)}$, dB(A)	Limit Level $L_{eq(30min)}$, dB(A)
4-Feb-26	Sunny	10:56	63.3	64.9	61.1	64.6	63	75
4-Feb-26	Sunny	11:01	63.1	64.7	61.2			
4-Feb-26	Sunny	11:06	62.7	65.1	61.1			
4-Feb-26	Sunny	11:11	62.8	64.1	61.3			
4-Feb-26	Sunny	11:16	63.9	66.4	62.3			
4-Feb-26	Sunny	11:21	62.2	65.5	60.7			
10-Feb-26	Sunny	13:17	63.2	64.6	61.2	64.6	63	75
10-Feb-26	Sunny	13:22	62.6	64.1	60.9			
10-Feb-26	Sunny	13:27	63.4	65.5	61.1			
10-Feb-26	Sunny	13:32	62.8	64.5	60.5			
10-Feb-26	Sunny	13:37	62.6	63.9	61.1			
10-Feb-26	Sunny	13:42	63.1	64.7	61.5			
21-Feb-26	Cloudy	13:11	61.4	63.5	59.9	64.6	62	75
21-Feb-26	Cloudy	13:16	61.7	64.3	60.4			
21-Feb-26	Cloudy	13:21	62.4	65.2	60.7			
21-Feb-26	Cloudy	13:26	62.2	64.8	60.9			
21-Feb-26	Cloudy	13:31	63.0	64.9	60.5			
21-Feb-26	Cloudy	13:36	63.4	65.5	61.2			
24-Feb-26	Cloudy	14:08	62.1	63.2	61.0	64.6	63	75
24-Feb-26	Cloudy	14:13	63.4	65.0	61.5			
24-Feb-26	Cloudy	14:18	62.2	63.3	60.9			
24-Feb-26	Cloudy	14:23	63.6	65.6	61.5			
24-Feb-26	Cloudy	14:28	62.6	63.7	61.2			
24-Feb-26	Cloudy	14:33	63.3	64.2	61.5			


NM1 - Seaview Crescent: Noise Monitoring Results
80
75
70
65
60
55
50
45
40
$L_{eq\ (30min)}$, dB(A)
1-Feb-26
4-Feb-26
7-Feb-26
10-Feb-26
13-Feb-26
16-Feb-26
19-Feb-26
22-Feb-26
25-Feb-26
28-Feb-26
Limit Level
Leq(30min), dB(A)


NM2 - Ling Liang Church E Wun Secondary School: Noise Monitoring Results
75
70
65
60
55
50
45
40
$L_{eq\ (30min)}$, dB(A)
1-Feb-26
4-Feb-26
7-Feb-26
10-Feb-26
13-Feb-26
16-Feb-26
19-Feb-26
22-Feb-26
25-Feb-26
28-Feb-26
Limit Level
Leq(30min), dB(A)


NM3 - Fu Tung Estate Tung Ma House: Noise Monitoring Results
80
75
70
65
60
55
50
45
40
$L_{eq\ (30min)}$, dB(A)
1-Feb-26
4-Feb-26
7-Feb-26
10-Feb-26
13-Feb-26
16-Feb-26
19-Feb-26
22-Feb-26
25-Feb-26
28-Feb-26
Limit Level
Leq(30min), dB(A)


NM4 - Tung Chung Crescent: Noise Monitoring Results
80
75
70
65
60
55
50
45
40
$L_{eq\ (30min)}$, dB(A)
1-Feb-26
4-Feb-26
7-Feb-26
10-Feb-26
13-Feb-26
16-Feb-26
19-Feb-26
22-Feb-26
25-Feb-26
28-Feb-26
Limit Level
Leq(30min), dB(A)

Appendix D

Calibration Certificates

ALS Technichem (HK) Pty Ltd

ALS Laboratory Group
ANALYTICAL CHEMISTRY & TESTING SERVICES

SUB-CONTRACTING REPORT

CONTACT	: MR MAGNUM FAN	WORK ORDER	: HK2523079
CLIENT	: ENVIROTECH SERVICES CO.		
ADDRESS	: RM 712, 7/F, MY LOFT 9 HOI WING ROAD, TUEN MUN, N.T. HK	SUB-BATCH	: 1
		DATE RECEIVED	: 3-JUN-2025
		DATE OF ISSUE	: 9-JUN-2025
PROJECT	: ----	NO. OF SAMPLES	: 1
		CLIENT ORDER	: ---

General Comments

- **Sample information (Project name, Sample ID, Sampling date/time, etc.) is provided by client.**
- **Result(s) of sample(s) is/are reported on as received basis, unless otherwise specified. The result(s) is/are related only to the item(s) tested.**
- **Sample(s) was/ were submitted by client. Sample(s) arrived laboratory in ambient condition.**
- **Calibration was subcontracted to Envirotech Services Company.**

Signatories

This document has been signed by those names that appear on this report and are the authorised signatories

Signatories	*Position*
Richard Fung	Managing Director

This report supersedes any previous report(s) with the same work order number.

All pages of this report have been checked and approved for release.

ALS Technichem (HK) Pty Ltd
Part of the ALS Laboratory Group

11/F. Chung Shun Knitting Centre 1 - 3 Wing Yip Street Kwai Chung N.T. Hong Kong
Tel. +852 2610 1044 Fax. +852 2610 2021 **www.alsglobal.com**

WORK ORDER : HK2523079
SUB-BATCH : 1
CLIENT : ENVIROTECH SERVICES CO.
PROJECT : ----

ALS Lab ID	Client's Sample ID	Sample Type	Sample Date	External Lab Report No.
HK2523079-001	Sibata LD-3B (456668)	Equipments	03-Jun-2025	S/N: 456668

-------- END OF REPORT --------

Envirotech Services Co.
Rm. 712, 7/F
My Loft,
9 Hoi Wing Road,
Tuen Mun, H.K.
Tel : 2560 8450
Fax : 2560 6553
E-mail: envirotech@netvigator.com

Equipment Verification Report (TSP)

Equipment Calibrated:

Type:	Laser Dust Monitor
Manufacturer:	Sibata LD-3B
Serial No.:	456668
Equipment Ref.:	N/A
ALS Job Order:	HK2521123

Standard Equipment

Standard Equipment:	High Volume Sampler (TSP)
Location :	Envirotech Room (Calibration Room)
Equipment Ref.:	HVS 8162
Last Calibration Date:	24-May-2025

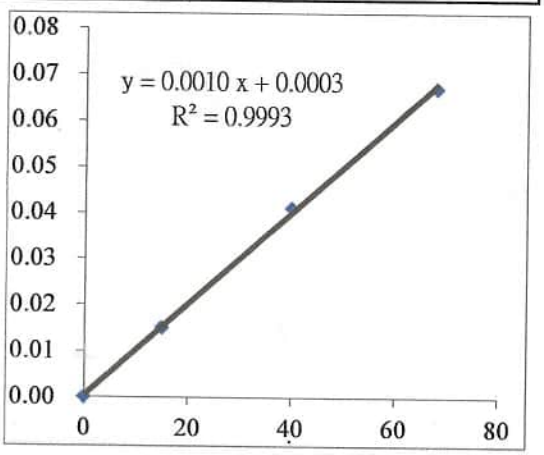
Equipment Verification Results:

Verification Date: 24-May-2025

Hour	Time	Mean Temp °C	Mean Pressure (hpa)	TSP Level in mg (Standard Equipment) (Y-Axis)	Total Count (Calibrated Equipment) (X-Axis)
1hr 00mins	0910-1010	23.8	1013.2	0.015	15
2hr 00mins	1015-1215	24.0	1013.4	0.041	40
3hr 00mins	1315-1615	24.4	1013.5	0.067	68

Linear Regression of Y or X

Slope (K-factor):	0.0010(mg)/Count
Correlation Coefficient (R):	0.9997
Date of Issue:	2-Jun-2025



Remarks:

1 . Strong Correlation (>0.8)

2. Factor 0.0010(mg)/Count should be applied for TSP monitoring

*If R<0.5, repair or verification is required for the equipment

Operator: P.F.Yeung Signature Fai Date: 02 June 2025

QC Reviewer: K.F.Ho Signature [signature] Date: 02 June 2025

TSP SAMPLER CALIBRATION CACULATION SPREADSHEET

Location :	Rm. 712, My Loft, Tuen Mun	Date of Calibration:	24-May-25
HVS ID:	8162	Next Calibration Date:	24-Jul-25
Name and Model :	TISCH HVS Model TE-5170	Operator:	K.F.Ho

CONDITIONS

Sea Level Pressure (hpa)	1013.2	Corrected Pressure (mm Hg)	759.9
Temperature (°C)	23.8	Temperature (K)	296.8

CALIBRATION ORIFICE

Make:	TISCH	Qstd Slope	2.08315
Model:	TE-5025A	Qstd Intercept	-0.04938
Serial#:	2454		

CALIBRATION

Plate No.	H2O(L) (in)	H20(R) (in)	H2O (in)	Qstd (m3/min)	I (chart)	IC (corrected)	LINEAR REGRESSION
18	6.4	6.4	12.8	1.745	58	58.13	Slope= 33.91
13	5.1	5.1	10.2	1.560	52	52.12	Intercept= -0.9035
10	4.0	4.0	8.0	1.385	46	46.10	Corr. Coeff.= 0.9999
7	2.4	2.5	4.9	1.089	36	36.08	
5	1.5	1.5	3.0	0.857	28	28.06	

Calulations:

Qstd = 1/m[Sqrt(H2O(Pa/Pstd)(Tstd/Ta))-b]

IC = I[Sqrt(Pa/Pstd)(Tstd/Ta)]

Qstd = standard flow rate

IC = corrected chart response

I = actual chart response

m = calibrator Qstd slope

b = calibrator Qstd intercept

Ta = actual temperature during calibration (deg K)

Pa = actual pressure during calibration (mm Hg)

For **subsequent calculation of sampler flow:**

1/m((I)[Sqrt(298/Tav)(Pav/760)]-b)

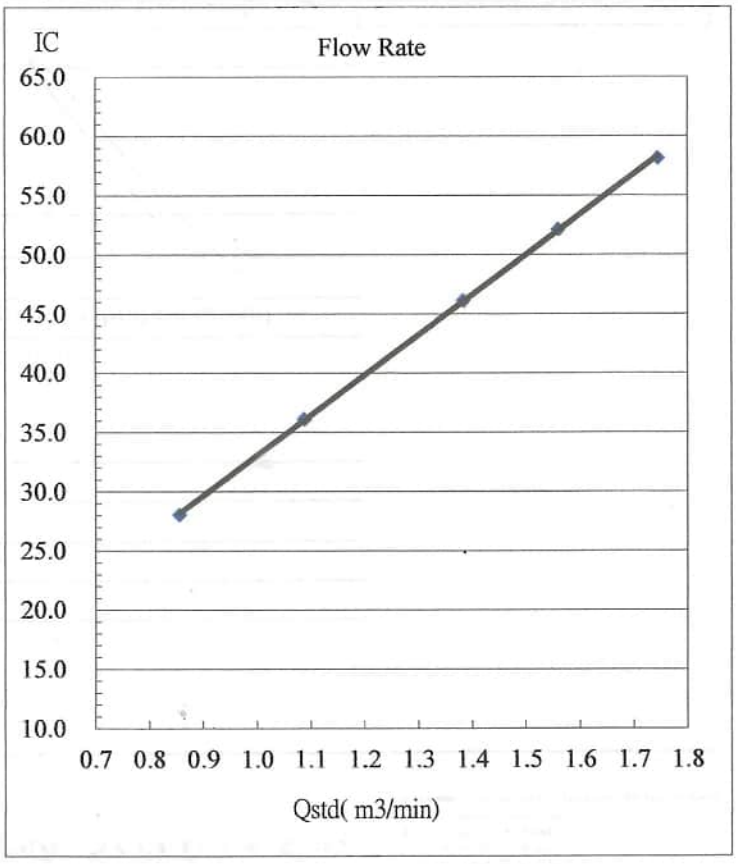
m = sampler slope

b = sampler intercept

I = chart response

Tav = daily average temperature

Pav = daily average pressure



TISCH Environmental

RECALIBRATION DUE DATE:
December 2, 2025

Certificate of Calibration

Calibration Certification Information				
Cal. Date:	December 2, 2024	**Rootsmeter S/N:** 438320	**Ta:** 293	°K
Operator:	Jim Tisch		**Pa:** 757.4	mm Hg
Calibration Model #:	TE-5025A	**Calibrator S/N:** **2454**		

Run	Vol. Init (m3)	Vol. Final (m3)	ΔVol. (m3)	ΔTime (min)	ΔP (mm Hg)	ΔH (in H2O)
1	1	2	1	1.4200	3.2	2.00
2	3	4	1	1.0170	6.4	4.00
3	5	6	1	0.9090	7.9	5.00
4	7	8	1	0.8700	8.8	5.50
5	9	10	1	0.7140	12.8	8.00

Data Tabulation

Vstd (m3)	Qstd (x-axis)	$\sqrt{\Delta H\left(\frac{Pa}{Pstd}\right)\left(\frac{Tstd}{Ta}\right)}$ (y-axis)	Va	Qa (x-axis)	$\sqrt{\Delta H\left(Ta/Pa\right)}$ (y-axis)
1.0093	0.7108	1.4238	0.9958	0.7013	0.8796
1.0051	0.9883	2.0136	0.9916	0.9750	1.2439
1.0031	1.1035	2.2512	0.9896	1.0886	1.3907
1.0018	1.1515	2.3611	0.9884	1.1361	1.4586
0.9965	1.3956	2.8476	0.9831	1.3769	1.7592
QSTD	**m=**	**2.08315**	**QA**	**m=**	**1.30443**
	b=	**-0.04938**		**b=**	**-0.03050**
	r=	**0.99985**		**r=**	**0.99985**

Calculations

Vstd=	ΔVol((Pa-ΔP)/Pstd)(Tstd/Ta)	**Va=**	ΔVol((Pa-ΔP)/Pa)
Qstd=	Vstd/ΔTime	**Qa=**	Va/ΔTime

For subsequent flow rate calculations:

Qstd= $1/m\left(\left(\sqrt{\Delta H\left(\frac{Pa}{Pstd}\right)\left(\frac{Tstd}{Ta}\right)}\right)-b\right)$

Qa= $1/m\left(\left(\sqrt{\Delta H\left(Ta/Pa\right)}\right)-b\right)$

Standard Conditions	
Tstd:	298.15 °K
Pstd:	760 mm Hg

Key
ΔH: calibrator manometer reading (in H2O)
ΔP: rootsmeter manometer reading (mm Hg)
Ta: actual absolute temperature (°K)
Pa: actual barometric pressure (mm Hg)
b: intercept
m: slope

RECALIBRATION

US EPA recommends annual recalibration per 1998 40 Code of Federal Regulations Part 50 to 51, Appendix B to Part 50, Reference Method for the Determination of Suspended Particulate Matter in the Atmosphere, 9.2.17, page 30

Tisch Environmental, Inc.
145 South Miami Avenue
Village of Cleves, OH 45002

www.tisch-env.com
TOLL FREE: (877)263-7610
FAX: (513)467-9009

ALS Technichem (HK) Pty Ltd

ALS Laboratory Group

ANALYTICAL CHEMISTRY & TESTING SERVICES

SUB-CONTRACTING REPORT

CONTACT	: MR MAGNUM FAN	WORK ORDER	: **HK2511675**
CLIENT	: **ENVIROTECH SERVICES CO.**		
ADDRESS	: RM 712, 7/F, MY LOFT 9 HOI WING ROAD, TUEN MUN, N.T. HK	SUB-BATCH	: 1
		DATE RECEIVED	: 25-MAR-2025
		DATE OF ISSUE	: 31-MAR-2025
PROJECT	: ----	NO. OF SAMPLES	: 1
		CLIENT ORDER	: ---

General Comments

- **Sample information (Project name, Sample ID, Sampling date/time, etc.) is provided by client.**
- **Result(s) of sample(s) is/are reported on as received basis, unless otherwise specified. The result(s) is/are related only to the item(s) tested.**
- **Sample(s) was/ were submitted by client. Sample(s) arrived laboratory in ambient condition.**
- **Calibration was subcontracted to Envirotech Services Company.**

Signatories

This document has been signed by those names that appear on this report and are the authorised signatories

Signatories	*Position*
Richard Fung	Managing Director

This report supersedes any previous report(s) with the same work order number.

All pages of this report have been checked and approved for release.

ALS Technichem (HK) Pty Ltd
Part of the ALS Laboratory Group

11/F. Chung Shun Knitting Centre 1 - 3 Wing Yip Street Kwai Chung N.T. Hong Kong
Tel. +852 2610 1044 Fax. +852 2610 2021 **www.alsglobal.com**

WORK ORDER : HK2511675
SUB-BATCH : 1
CLIENT : ENVIROTECH SERVICES CO.
PROJECT : ----

ALS Lab ID	Client's Sample ID	Sample Type	Sample Date	External Lab Report No.
HK2511675-001	Sibata LD-3B (6Z7784)	Equipments	25-Mar-2025	S/N: 6Z7784

-------- END OF REPORT --------

Envirotech Services Co.

Rm. 712, 7/F
My Loft,
9 Hoi Wing Road,
Tuen Mun, H.K.
Tel : 2560 8450
Fax : 2560 6553
E-mail: envirotech@netvigator.com

Equipment Verification Report (TSP)

Equipment Calibrated:

Type:	Laser Dust Monitor
Manufacturer:	Sibata LD-3B
Serial No.:	6Z7784
Equipment Ref.:	N/A
ALS Job Order:	HK2510963

Standard Equipment

Standard Equipment:	High Volume Sampler (TSP)
Location :	Envirotech Room (Calibration Room)
Equipment Ref.:	HVS 8162
Last Calibration Date:	17-Mar-2025

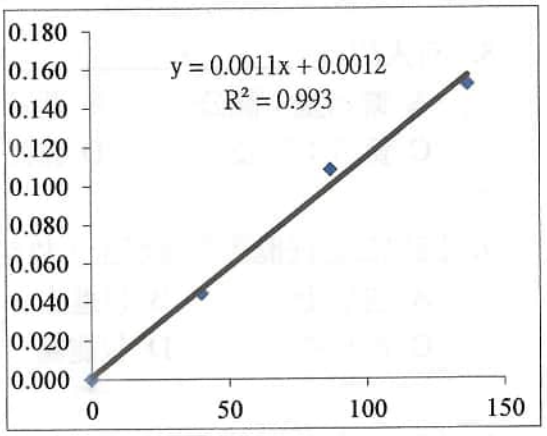
Equipment Verification Results:

Verification Date: 18-Mar-2025

Hour	Time	Mean Temp °C	Mean Pressure (hpa)	TSP Level in mg (Standard Equipment) (Y-Axis)	Total Count (Calibrated Equipment) (X-Axis)
1hr 00mins	0900-1000	15.8	1022.2	0.044	40
2hr 00mins	1005-1205	16.3	1022.0	0.108	87
3hr 00mins	1315-1615	16.5	1022.0	0.152	137

Linear Regression of Y or X

Slope (K-factor):	0.0011(mg)/Count
Correlation Coefficient (R):	0.9965
Date of Issue:	24-Mar-2025



Remarks:

1 . Strong Correlation (>0.8)

2. Factor 0.0011(mg)/Count should be applied for TSP monitoring

*If R<0.5, repair or verification is required for the equipment

Operator: P.F.Yeung Signature Tai Date: 25 March 2025

QC Reviewer: K.F.Ho Signature Date: 25 March 2025

TSP SAMPLER CALIBRATION CACULATION SPREADSHEET

Location :	Rm. 712, My Loft, Tuen Mun	Date of Calibration:	17-Mar-25
HVS ID:	8162	Next Calibration Date:	16-May-25
Name and Model :	TISCH HVS Model TE-5170	Operator:	K.F.Ho

CONDITIONS

Sea Level Pressure (hpa)	1022	Corrected Pressure (mm Hg)	766.6
Temperature (°C)	18.0	Temperature (K)	291

CALIBRATION ORIFICE

Make:	TISCH	Qstd Slope	2.08315
Model:	TE-5025A	Qstd Intercept	-0.04938
Serial#:	2454		

CALIBRATION

Plate No.	H2O(L) (in)	H20(R) (in)	H2O (in)	Qstd (m3/min)	I (chart)	IC (corrected)	LINEAR REGRESSION
18	6.8	6.9	13.7	1.830	62	63.03	Slope= 39.645
13	5.2	5.3	10.5	1.605	56	56.93	Intercept= -8.4950
10	4.8	4.8	9.6	1.536	50	50.83	Corr. Coeff.= 0.9912
7	2.8	2.8	5.6	1.179	40	40.66	
5	1.6	1.6	3.2	0.897	25	25.41	

Calulations:

Qstd = 1/m[Sqrt(H2O(Pa/Pstd)(Tstd/Ta))-b]

IC = I[Sqrt(Pa/Pstd)(Tstd/Ta)]

Qstd = standard flow rate

IC = corrected chart response

I = actual chart response

m = calibrator Qstd slope

b = calibrator Qstd intercept

Ta = actual temperature during calibration (deg K)

Pa = actual pressure during calibration (mm Hg)

For subsequent calculation of sampler flow:

1/m((I)[Sqrt(298/Tav)(Pav/760)]-b)

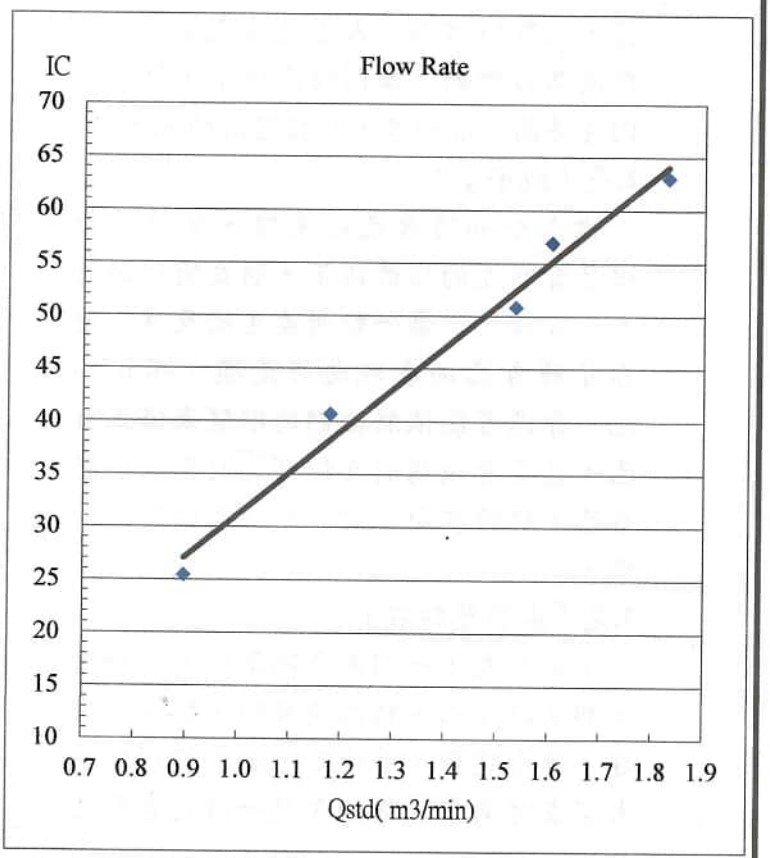
m = sampler slope

b = sampler intercept

I = chart response

Tav = daily average temperature

Pav = daily average pressure



TISCH Environmental

RECALIBRATION DUE DATE:
December 2, 2025

Certificate of Calibration

Calibration Certification Information				
Cal. Date:	December 2, 2024	**Rootsmeter S/N:** 438320	**Ta:** 293	°K
Operator:	Jim Tisch		**Pa:** 757.4	mm Hg
Calibration Model #:	TE-5025A	**Calibrator S/N:** **2454**		

Run	Vol. Init (m3)	Vol. Final (m3)	ΔVol. (m3)	ΔTime (min)	ΔP (mm Hg)	ΔH (in H2O)
1	1	2	1	1.4200	3.2	2.00
2	3	4	1	1.0170	6.4	4.00
3	5	6	1	0.9090	7.9	5.00
4	7	8	1	0.8700	8.8	5.50
5	9	10	1	0.7140	12.8	8.00

Data Tabulation

Vstd (m3)	Qstd (x-axis)	$\sqrt{\Delta H\left(\frac{Pa}{Pstd}\right)\left(\frac{Tstd}{Ta}\right)}$ (y-axis)	Va	Qa (x-axis)	$\sqrt{\Delta H\left(Ta/Pa\right)}$ (y-axis)
1.0093	0.7108	1.4238	0.9958	0.7013	0.8796
1.0051	0.9883	2.0136	0.9916	0.9750	1.2439
1.0031	1.1035	2.2512	0.9896	1.0886	1.3907
1.0018	1.1515	2.3611	0.9884	1.1361	1.4586
0.9965	1.3956	2.8476	0.9831	1.3769	1.7592
QSTD	**m=**	**2.08315**	**QA**	**m=**	**1.30443**
	b=	**-0.04938**		**b=**	**-0.03050**
	r=	**0.99985**		**r=**	**0.99985**

Calculations

Vstd=	$\Delta Vol((Pa-\Delta P)/Pstd)(Tstd/Ta)$	**Va=**	$\Delta Vol((Pa-\Delta P)/Pa)$
Qstd=	$Vstd/\Delta Time$	**Qa=**	$Va/\Delta Time$

For subsequent flow rate calculations:

Qstd= $1/m\left(\left(\sqrt{\Delta H\left(\frac{Pa}{Pstd}\right)\left(\frac{Tstd}{Ta}\right)}\right)-b\right)$

Qa= $1/m\left(\left(\sqrt{\Delta H\left(Ta/Pa\right)}\right)-b\right)$

Standard Conditions	
Tstd:	298.15 °K
Pstd:	760 mm Hg

Key
ΔH: calibrator manometer reading (in H2O)
ΔP: rootsmeter manometer reading (mm Hg)
Ta: actual absolute temperature (°K)
Pa: actual barometric pressure (mm Hg)
b: intercept
m: slope

RECALIBRATION

US EPA recommends annual recalibration per 1998 40 Code of Federal Regulations Part 50 to 51, Appendix B to Part 50, Reference Method for the Determination of Suspended Particulate Matter in the Atmosphere, 9.2.17, page 30

Tisch Environmental, Inc.
145 South Miami Avenue
Village of Cleves, OH 45002

www.tisch-env.com
TOLL FREE: (877)263-7610
FAX: (513)467-9009

Certificate of Calibration

Certificate No.: B250042

Description:	**Sound calibrator**
Make:	Larson and Davis
Model:	CAL200
Serial No.:	10227
Class:	1
Customer:	Envirotech Services Co.
Department:	-
Address:	RM113, 1/F, MY LOFT, 9 HOI WING ROAD, TUEN MUN, N.T.
Date of receipt the calibration item:	2025-11-25
Environmental conditions:	
Pressure:	(100.6 ±0.50) kPa
Temperature:	(23.4 ± 1.0) °C
Humidity:	(31.5 ± 2.0)%RH
Date of calibration:	2025-11-27
Date of issue:	2025-11-27

Prepared by:

Wong Hau Chun

Checked by:

Choi Pui Sum

Approved Signatory:

Choi Pui Sum

Hong Kong Accreditation Service (HKAS) has accredited this laboratory (Reg. No. HOKLAS 302) under the Hong Kong Laboratory Accreditation Scheme (HOKLAS) for specific calibration activities as listed in the HOKLAS directory of accredited laboratories. The results shown in this certificate are traceable to the International System of Unit (SI) or recognised measurement standards. This certificate shall not be reproduced except in full.

ESG Matters Limited – Acoustic Calibration Centre
Unit 1813, 1815-16, 18/F, Tower A, Regent Centre, 63 Wo Yi Hop Road, Kwai Chung, Hong Kong
Tel : 2525 8033 Website : www.esgmatters.asia Email : email@esgmatters.asia

Certificate No.: B250042

Preconditioning:
The equipment was preconditioned for more than 12 hours at the measurement conditions of pressure, temperature and humidity.

Measurement method:
A description of the in-house test procedure (ESG-NOISE-003) is available separately from the calibration laboratory.

Test Specification:
The Sound Calibrator has been calibrated in accordance with the requirements as specified the in-house test procedure ESG-NOISE-003.

Reference equipment used in the calibration:

Description:	Model:	Serial No.	Calibration Date:	Traceable to:
Multimeter	Agilent 34401A	MY41030277	2025-08-22	Metcal Technologies (M) Sdn Bhd
Meteo Station HM30	HM30	J120806	2025-09-02	China Ceprei Laboratory Calibration & Testing Centre
Reference microphone	Nor 1225	505480	2025-10-09	The Government of HKSAR Standards and Calibration Laboratory
Reference Calibrator	B&K 4231	3014997	2025-08-26	Soils & Materials Engineering Co., LTD.
Audio Analyzer	8903B	3011A11797	2025-09-04	China Ceprei Laboratory Calibration & Testing Centre

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Uncertainty:
The reported expanded uncertainty of measurement is stated as the standard uncertainty of measurement multiplied by the coverage factor k, which with the reported effective degree of freedom corresponds to coverage probability of approximately 95%. The standard uncertainty of measurement has been determined in accordance with EA publication EA-4/02.

The measurement uncertainty evaluation has been carried out in accordance with principles in the Evaluation of Measurement Data – Guide to the Expression of Uncertainty in Measurement, JCGM 100:2008. The expanded measurement uncertainty U, with its coverage factor k, corresponds to an approximate 95% probability that the value of measurand Y lies within the interval y-U to y+U. The combined standard measurement uncertainty u_c can be calculated as $u_c = U/k$ and its degree of freedom V_{eff} is given by the t-distribution with the respective k value.

Comment:
The values given in this Certificate of Calibration only relate to values measured at the time of the test and any measurement uncertainties quoted will not include allowances for the equipment long term drift, variations with environmental changes, vibration and shock during transportation, or the capability of any other laboratory to repeat the measurement. The results apply to the item as received.

All tests are performed according to in-house test procedure ESG-Noise-003.

The results in this Certificate of Calibration only apply to the sample / calibration item as received.

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ESG Matters

Certificate No.: B250042

Table 1

Sound Pressure Level Test Results

Description:

Performance tests were carried out in accordance with Annex B.3.4.3.2 of IEC 60942:2003. The sound pressure level generated by the equipment was compared to the reference sound pressure level by the reference equipment B&K 4231 (Equipment No.:3014997).

Larson and Davis CAL200			Measured Deviation (b) – (a)			Acceptance Limits	Maximum Permitted Uncertainty
Frequency Setting	Sound Pressure Level		Value	Measurement Uncertainty			
	Expected Reading (a)	Measured Reading (b)	y	Expanded Measurement Uncertainty U	Coverage Factor k		
(Hz)	(dB)	(dB)	(dB)	(dB)		(dB)	(dB)
1000.00	94.00	94.08	0.08	0.13	1.96	±0.40	0.15
	114.00	114.06	0.06	0.13	1.96	±0.40	0.15

The calibrator was placed on top of the reference microphone, only held in place by gravity. At least three repetitions have been performed. No adapter ring was needed to obtain half inch configuration.

The calibrator level was not adjusted.

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Table 2

Frequency Test Results

Description:

Relevant tests were carried out in accordance with Annex B.3.5 of IEC 60942:2003. The frequency of sound pressure level generated by the equipment was measured by the multimeter (Equipment No.: MY41030277).

Larson and Davis CAL200			Measured Deviation [=([b] – [a])/[a] x 100%]			Acceptance Limits	Maximum Permitted Uncertainty
Sound Pressure Level Setting	Frequency		Value	Measurement Uncertainty			
	Expected Reading (a)	Measured Reading (b)	y	Expanded Measurement Uncertainty U	Coverage Factor k		
(dB)	(Hz)	(Hz)	(%)	(Hz)		(%)	(%)
94.00	1000.00	1008.16	0.82	0.20	1.96	±1.00	0.30
114.00	1000.00	1008.17	0.82	0.20	1.96	±1.00	0.30

The calibrator was placed on top of the reference microphone, only held in place by gravity. At least three repetitions have been performed. No adapter ring was needed to obtain half inch configuration.

The calibrator level was not adjusted.

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Table 3

Total Distortion Test Results

Description:

Relevant tests were carried out in accordance with Annex B.3.6 of IEC 60942:2003. The total distortion of the acoustic signal generated by the equipment was measured by the Laboratory's audio analyzer (Equipment No.: 3011A11797).

Larson and Davis CAL200		Measured Total Distortion			Acceptance Limits	Maximum Permitted Uncertainty
Frequency Setting	Sound Pressure Level Setting	Value y	Measurement Uncertainty			
			Expanded Measurement Uncertainty U	Coverage Factor k		
(Hz)	(dB)	(%)	(%)		(%)	(%)
1000.00	94.00	2.25	0.40	1.96	±3.00	0.50
	114.00	0.81	0.30	1.96	±3.00	0.50

The calibrator was placed on top of the reference microphone, only held in place by gravity. At least three repetitions have been performed. No adapter ring was needed to obtain half inch configuration.

The calibrator level was not adjusted.

The stated levels are relative to 20μPa. The distortion value (in %) is the signal to total noise ratio.

- END -

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Certificate of Calibration

Certificate No.: A250074

	Sound level meter	**Microphone**	**Preamplifier**
Description:			
Make:	Rion	Rion	Rion
Model:	NL-53	UC-59	NH-25
Serial No.:	01141565	26697	44507
Type:	1	-	-

Customer: Envirotech Services Co.
Department: -
Address: RM113, 1/F, MY LOFT, 9 HOI WING ROAD, TUEN MUN, N.T.

Date of receipt the calibration item: 2025-11-25

Environmental conditions:

Pressure:	(100.42	±0.50) kPa
Temperature:	(24.2	± 1.0) °C
Humidity:	(35.7	± 2.0)%RH

Date of calibration: 2025-11-26
Date of issue: 2025-11-26

Prepared by:

Wong Hau Chun

Checked by:

Choi Pui Sum

Approved Signatory:

Choi Pui Sum

Hong Kong Accreditation Service (HKAS) has accredited this laboratory (Reg. No. HOKLAS 302) under the Hong Kong Laboratory Accreditation Scheme (HOKLAS) for specific calibration activities as listed in the HOKLAS dirctory of accredited laboratories. The results shown in this certificate are traceable to the International System of Unit (SI) or recognised measurement standards. This certificate shall not be reproduced except in full.

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Preconditioning:
The equipment was preconditioned for more than 12 hours at the measurement conditions of pressure, temperature and humidity.

Measurement method:
A description of the in-house test procedure (ESG-NOISE-001) is available separately from the calibration laboratory.

Test Specification:
The Sound Level Meter has been calibrated in accordance with the requirements as specified the electrical tests in IEC 61672-3:2013 **(Clause 11.2, 13, 14, 15, 16, 17(If necessary) *, 18, 19, 20 and 21).**

*The application of Clause 17 is based on the more than one level range of Sound Level Meter.

Reference equipment used in the calibration:

Description:	Model:	Serial No.	Calibration Date:	Traceable to:
Signal generator	DS 360	123901	2025-08-25	Metcal Technologies (M) Sdn Bhd
Meteo Station HM30	HM30	J120806	2025-09-02	China Ceprei Laboratory Calibration & Testing Centre

Uncertainty:
The measurement uncertainty evaluation has been carried out in accordance with principles in the Evaluation of Measurement Data – Guide to the Expression of Uncertainty in Measurement, JCGM 100:2008. The expanded measurement uncertainty U, with its coverage factor k, corresponds to an approximate 95% probability that the value of measurand Y lies within the interval y-U to y+U. The combined standard measurement uncertainty u_c can be calculated as $u_c = U/k$ and its degree of freedom V_{eff} is given by the t-distribution with the respective k value.

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Certificate No.: A250074

Summary of Measurement Results
Self-generated noise - IEC 61672-3 Ed.2.0 Clause 11
Frequency weightings: A Network - IEC 61672-3 Ed.2.0 Clause 13.3
Frequency weightings: C Network - IEC 61672-3 Ed.2.0 Clause 13.3
Frequency weightings: Z Network - IEC 61672-3 Ed.2.0 Clause 13.3
Frequency and time weightings at 1 kHz IEC 61672-3 Ed.2.0 Clause 14
Long term stability test - IEC 61672-3 Ed.2.0 Clause 15
Level linearity on the reference level range - IEC 61672-3 Ed.2.0 Clause 16
Toneburst response - IEC 61672-3 Ed.2.0 Clause 18
Peak C sound level - IEC 61672-3 Ed.2.0 Clause 19
Overload indication - IEC 61672-3 Ed.2.0 Clause 20
High level stability test - IEC 61672-3 Ed.2.0 Clause 21

Verification:
The verification measurements have been performed using the calibration system Nor1504A with software SlmCal62Y8.exe.

Detailed measurement results are printed on the following pages.

Comment:
The values given in this Certificate of Calibration only relate to values measured at the time of the test and any measurement uncertainties quoted will not include allowances for the equipment long term drift, variations with environmental changes, vibration and shock during transportation, or the capability of any other laboratory to repeat the measurement. The results apply to the item as received.

The results in this Certificate of Calibration only apply to the sample / calibration item as received.

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Certificate No.: A250074

Measurement results

Self-generated noise test - IEC 61672-3:2013 Clause 11		
Description: Relevant tests were carried out in accordance with Section 11 of IEC 61672-3:2013. The noise test is performed in the most sensitive condition of the SLM with the microphone replaced by an equivalent impedance.		
Noise level in A weighting network	12.3	dB
Noise level in C weighting network	15.5	dB
Noise level in Z (Lin) weighting network	21.4	dB

Frequency weighting test - IEC 61672-3:2013 Clause 13.3

Description:
Relevant tests were carried out in accordance with Section 13.3 of IEC 61672-3:2013. The frequency response of the weighting networks are tested at octave intervals over the frequency ranges 63.1Hz to 15848.9 Hz.

On the reference level range and for each frequency weighting to be tested, the level of a 1 kHz input signal shall be adjusted to yield an indication that is 45 dB less than the upper boundary stated in the Instruction Manual for the linear operating range at 1 kHz on the reference level range.

Frequency weighting A:

Frequency	Reference Level	Measured Level	Expanded Measurement Uncertainty U	Coverage Factor k	Deviation	Acceptance Limit (dB)		Maximum permitted Uncertainty#
Hz	dB	dB	dB		dB	+	-	dB
63.1	93.0	93.0	0.2		0.0	1.0	1.0	
125.9	93.0	92.9	0.2		-0.1	1.0	1.0	
251.2	93.0	92.9	0.2		-0.1	1.0	1.0	
501.2	93.0	93.0	0.2		0.0	1.0	1.0	0.6
1000.0	93.0	93.0	0.2	1.96	0.0	0.7	0.7	
1995.3	93.0	93.0	0.2		0.0	1.0	1.0	
3981.1	93.0	92.9	0.2		-0.1	1.0	1.0	
7943.3	93.0	93.0	0.2		0.0	1.5	2.5	0.7
15848.9	93.0	92.3	0.2		-0.7	2.5	16.0	1.0

Frequency weighting C:

Frequency	Reference Level	Measured Level	Expanded Measurement Uncertainty U	Coverage Factor k	Deviation	Acceptance Limit (dB)		Maximum permitted Uncertainty#
Hz	dB	dB	dB		dB	+	-	dB
63.1	93.0	93.0	0.2		0.0	1.0	1.0	
125.9	93.0	93.0	0.2		0.0	1.0	1.0	
251.2	93.0	92.9	0.2		-0.1	1.0	1.0	
501.2	93.0	93.0	0.2		0.0	1.0	1.0	0.6
1000.0	93.0	93.0	0.2	1.96	0.0	0.7	0.7	
1995.3	93.0	93.0	0.2		0.0	1.0	1.0	
3981.1	93.0	93.0	0.2		0.0	1.0	1.0	
7943.3	93.0	93.0	0.2		0.0	1.5	2.5	0.7
15848.9	93.0	92.2	0.2		-0.8	2.5	16.0	1.0

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ESG Matters

Certificate No.: A250074

Frequency weighting Z:								
Frequency	Reference Level	Measured Level	Expanded Measurement Uncertainty U	Coverage Factor k	Deviation	Acceptance Limit (dB)		Maximum permitted Uncertainty#
Hz	dB	dB	dB		dB	+	-	dB
63.1	93.0	93.0	0.2	1.96	0.0	1.0	1.0	0.6
125.9	93.0	93.0	0.2		0.0	1.0	1.0	
251.2	93.0	93.0	0.2		0.0	1.0	1.0	
501.2	93.0	93.0	0.2		0.0	1.0	1.0	
1000.0	93.0	93.0	0.2		0.0	0.7	0.7	
1995.3	93.0	93.0	0.2		0.0	1.0	1.0	
3981.1	93.0	92.9	0.2		-0.1	1.0	1.0	
7943.3	93.0	92.9	0.2		-0.1	1.5	2.5	0.7
15848.9	93.0	93.0	0.2		0.0	2.5	16.0	1.0

Frequency and time weighting test at 1kHz- IEC 61672-3:2013 Clause 14

Description:

Relevant tests were carried out in accordance with Section 14 of IEC 61672-3:2013. For a steady sinusoidal electrical input signal at 1 kHz on the reference level range and with an input signal that yields an indication of the reference sound pressure level with frequency weighting A ,C and Z, with the sound level meter set to display F-time-weighted sound level, or time averaged sound level, as available. In addition, the indications with frequency weighting A shall be recorded with the sound level meter set to display F-time-weighted sound level, S-time-weighted sound level, and time-averaged sound level.

Parameter Setting	Reference Level	Measured Level	Expanded Measurement Uncertainty U	Coverage Factor k	Deviation	Acceptance Limits (dB)		Maximum permitted Uncertainty#
	dB	dB	dB		dB	+	-	dB
L_{AF}SPL	94.0	94.0	0.2	1.96	0.0	0.2	0.2	0.2
L_{CF}SPL	94.0	94.0	0.2		0.0			
L_{ZF}SPL	94.0	94.0	0.2		0.0			
L_{AS}SPL	94.0	94.0	0.2		0.0	0.1	0.1	
LAeq	94.0	94.0	0.2		0.0			
LAE	114.0	114.0	0.2		0.0			

Long term stability test - IEC 61672-3:2013 Clause 15

Description:

Relevant tests were carried out in accordance with Section 15 of IEC 61672-3:2013. The long-term stability of a sound level meter is evaluated from the difference between the A-weighted sound levels indicated in response to steady 1 kHz signals applied at the beginning and end of a period of operation. The period of continuous operation shall be between 25 min and 35 min.

Test signal: Sine wave at 1 kHz

Time Interval	Reading at Beginning	Reading at Ending	Expanded Measurement Uncertainty U	Coverage Factor k	Deviation	Acceptance Limits (dB)		Maximum permitted Uncertainty#
mm:ss	dB	dB	dB		dB	+	-	dB
27:08	94.0	94.0	0.2	1.96	0.0	0.1	0.1	0.1

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Tel : 2525 8033 Website : www.esgmatters.asia Email : email@esgmatters.asia

ESG Matters

Certificate No.: A250074

Level linearity on the reference level range test - IEC 61672-3:2013 Clause 16

Description:

Relevant tests were carried out in accordance with Section 16 of IEC 61672-3:2013. Level linearity shall be tested with steady sinusoidal electrical signals at a frequency of 8 kHz with the sound level meter set for frequency-weighting A. Level linearity shall be measured in 5 dB steps of increasing input signal level from the starting point up to within 5 dB of the upper boundary stated in the Instruction Manual for the linear operating range at 8 kHz, then at 1 dB steps of increasing input signal level up to, but not including, the first indication of overload.* The test of level linearity shall then be continued at 5 dB steps of decreasing input signal level from the starting point down to within 5 dB of the specified lower boundary, then at 1 dB steps of decreasing input signal level down to, but not including, the first indication of an under-range condition.

Reference Level	Measured Level	Expanded Measurement Uncertainty U	Coverage Factor k	Deviation	Acceptance Limit (dB)		Maximum permitted Uncertainty#
dB	dB	dB		dB	+	-	dB
94.0	93.9	0.2	1.96	-0.1	0.8	0.8	0.3
99.0	98.9	0.2		-0.1			
104.0	103.9	0.2		-0.1			
109.0	108.9	0.2		-0.1			
114.0	113.9	0.2		-0.1			
119.0	118.9	0.2		-0.1			
124.0	123.9	0.2		-0.1			
129.0	128.9	0.2		-0.1			
134.0	133.9	0.2		-0.1			
135.0	134.9	0.2		-0.1			
136.0	135.9	0.2		-0.1			
137.0	136.9	0.2		-0.1			
138.0	137.9	0.2		-0.1			
94.0	93.9	0.2		-0.1			
89.0	88.9	0.2		-0.1			
84.0	83.9	0.2		-0.1			
79.0	78.8	0.2		-0.2			
74.0	73.8	0.2		-0.2			
69.0	68.8	0.2		-0.2			
64.0	63.8	0.2		-0.2			
59.0	58.8	0.2		-0.2			
54.0	53.8	0.2		-0.2			
49.0	48.8	0.2		-0.2			
44.0	43.8	0.2		-0.2			
39.0	38.8	0.2		-0.2			
34.0	33.8	0.2		-0.2			
30.0	29.8	0.2		-0.2			
29.0	28.8	0.2		-0.2			
28.0	27.8	0.2		-0.2			
27.0	26.8	0.2		-0.2			
26.0	25.7	0.2		-0.3			
25.0	24.7	0.2		-0.3			

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Certificate No.: A250074

Toneburst response test - IEC 61672-3:2013 Clause 18

Description:

Relevant tests were carried out in accordance with Section 18 of IEC 61672-3:2013. For the toneburst signals, indications of the sound level meter to be recorded are maximum F-time-weighted sound level, maximum S-time-weighted sound level, and sound exposure level. The level of the steady input signal shall be adjusted to display an F-time-weighted, S-time-weighted, or time-averaged sound level, as appropriate, that is 3 dB less than the upper boundary stated in the Instruction Manual for the linear operating range at 4 kHz on the reference level range.

For tests with the F time weighting, the indication shall be recorded of the maximum F-time-weighted sound level in response to tonebursts having durations of 200 ms, 2 ms, and 0.25 ms.

For tests with the S time weighting, the indication shall be recorded of the maximum S-time-weighted sound level in response to tonebursts having durations of 200 ms and 2 ms.

For measurements of sound exposure level (or time-averaged sound level for an averaging time that includes the toneburst), the indications in response to tonebursts having durations of 200 ms, 2 ms, and 0.25 ms.

Parameter Setting	Burst Duration	Reference Level	Measured Level	Expanded Measurement Uncertainty U	Coverage Factor k	Deviation	Acceptance limit (dB)		Maximum permitted Uncertainty#
	ms	dB	dB	dB		dB	+	-	dB
$L_{AF}MAX$	200	134.0	134.0	0.2	1.96	0.0	0.5	0.5	0.3
	2	117.0	117.0	0.2		0.0	1.0	1.5	
	0.25	108.0	107.9	0.2		-0.1	1.0	3.0	
$L_{AS}MAX$	200	127.6	127.6	0.2		0.0	0.5	0.5	
	2	108.0	108.0	0.2		0.0	1.0	3.0	
LAE	200	128.0	128.0	0.2		0.0	0.5	0.5	
	2	108.0	108.0	0.2		0.0	1.0	1.5	
	0.25	99.0	98.9	0.2		-0.1	1.0	3.0	

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Peak C sound level test - IEC 61672-3:2013 Clause 19

Description:
Relevant tests were carried out in accordance with Section 19 of IEC 61672-3:2013. Indications of C-weighted peak sound level shall be tested on the least-sensitive level range. The test signals consist of (a) a single complete cycle of an 8 kHz sinusoid starting and stopping at zero crossings and (b) positive and negative half cycles of a 500 Hz sinusoid that also start and stop at zero crossings.

The level of the steady sinusoidal 8 kHz electrical input signal, from which a single complete cycle is extracted, shall be adjusted to yield an indication of C-weighted, F-time-weighted sound level, or C-weighted, time-averaged sound level, that is 8 dB less than the upper boundary stated in the Instruction Manual for the peak level range at 8 kHz on the least sensitive level range.

The level of the steady sinusoidal 500 Hz electrical input signal, from which positive and negative half cycles are extracted, shall be adjusted to yield an indication of C-weighted, F-time-weighted sound level, or C-weighted, time-averaged sound level, that is 8 dB less than the upper boundary stated in the Instruction Manual for the peak level range on the least-sensitive level range.

Pulse Type	Pulse Frequency	Reference Peak Level	Measured Level	Expanded Measurement Uncertainty U	Coverage Factor k	Deviation	Acceptance Limit (dB)		Maximum permitted Uncertainty#
	Hz	dB	dB	dB		dB	+	-	dB
1 cycle	8000	136.4	135.5	0.2	1.96	-0.9	2.0	2.0	0.35
Positive cycle	500	138.4	138.1	0.2		-0.3	1.0	1.0	
Negative cycle	500	138.4	138.2	0.2		-0.2			

Overload indication test - IEC 61672-3:2013 Clause 20

Description:
Relevant tests were carried out in accordance with Section 20 of IEC 61672-3:2013. The sound level meter set to display A-weighted, time-averaged sound level. Positive and negative one-half cycle sinusoidal electrical signals at a frequency of 4 kHz.

The test shall begin at an indicated time-averaged level for the steady input signal that corresponds to 1 dB less than the upper boundary specified for the linear operating range at 4 kHz. The level of the single positive one-half-cycle input signal shall be increased to the first indication of overload, to a resolution of 0.1 dB. The process shall be repeated for the single negative one-half-cycle signal.

Overload Indication at 4 kHz		Expanded Measurement Uncertainty U	Coverage Factor k	Deviation	Acceptance Limit (dB)		Maximum permitted Uncertainty#
Positive One-Half-Cycle	Negative One-Half-Cycle						
dB	dB	dB		dB	+	-	dB
139.5	139.5	0.2	1.96	0.0	1.5	1.5	0.25

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High level stability test - IEC 61672-3:2013 Clause 21

Description:
Relevant tests were carried out in accordance with Section 21 of IEC 61672-3:2013. The ability of a sound level meter to operate continuously in response to high signal levels without significant change in sensitivity is evaluated from the difference between the A-weighted sound levels indicated in response to a steady 1 kHz electrical signal at the beginning and end of a 5 min period of continuous exposure to the signal.

The level of the steady electrical input signal shall be that which is required to display the sound level that is 1 dB less than the upper boundary of the 1 kHz linear operating range on the least-sensitive level range.

Reading at Beginning	Reading at Ending	Expanded Measurement Uncertainty U	Coverage Factor k	Deviation	Acceptance Limits (dB)		Maximum permitted Uncertainty#
dB	dB	dB		dB	+	-	dB
137.0	137.0	0.2	1.96	0.0	0.1	0.1	0.1

Remark:

1) Acoustical levels are stated relative to 20μPa. Other dB levels are relative values.

2) "*" refer to the test point beyond upper boundary stated in the instruction manual for the linear operating range at 8 kHz are not necessary to test.

3) "#" refer to table B.1 of Annex B in IEC61672-1:2013, the maximum-permitted uncertainties of measurement are not equivalent to the uncertainties associated with the measurement of a sound level.

- END -

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Appendix E

Event and Action Plans

Appendix E1: Event and Action Plan for Air Quality

Event	Action			
	ET	IEC	AAHK/PM	Contractor
Action level exceedance for one sample	• Repeat measurement to confirm finding; • If exceedance is confirmed, inform Contractor, IEC and AAHK /PM. • Identify sources, investigate the causes of exceedance and propose remedial measures. • Discuss with the Contractor, IEC and AAHK/PM on the remedial measures required. • Increase monitoring frequency to daily.	• Check monitoring data submitted by ET. • Check Contractor's working methods. • Discuss with ET, AAHK/PM and Contractor on possible remedial measures. • Review and advise ET and AAHK/PM on the effectiveness of the proposed remedial measures.	• Confirm receipt of notification of exceedance in writing.	• Identify source(s), investigate the causes of exceedance and propose remedial measures. • Implement remedial measures. • Amend working methods agreed with the AAHK/PM as appropriate.
Action level exceedance for two or more consecutive samples	• Repeat measurements to confirm findings. • If exceedance is confirmed, inform Contractor, IEC and AAHK /PM. • Identify sources, investigate the causes of exceedance and propose remedial measures. • Advise the Contractor and AAHK/PM on the effectiveness of the proposed remedial measures; • Increase monitoring frequency to daily. • If exceedance continues, arrange meeting with the IEC, Contractor and AAHK/PM to discuss measures to be taken. • If exceedance stops, cease additional monitoring.	• Check monitoring data submitted by ET. • Check the Contractor's working methods. • Discuss with the ET, AAHK/PM and Contractor on possible remedial measures. • Review and advise ET, AAHK/PM on the effectiveness of proposed remedial measures.	• Confirm receipt of notification of exceedance in writing. • In consultation with ET and IEC agree with Contractor on the remedial measures to be implemented. • Supervise implementation of remedial measures.	• Identify source(s), investigate the causes of exceedance and propose remedial measures. • Submit proposals for remedial measures to AAHK/PM, ET and IEC within 3 working days of notification for agreement. • Implement the agreed proposals. • Amend proposal as appropriate.

Event	Action			
	ET	IEC	AAHK/PM	Contractor
Limit level exceedance for one sample	• Repeat measurement to confirm finding. • If exceedance is confirmed, inform IEC, AAHK/PM, Contractor and EPD. • Increase monitoring frequency to daily. • Discuss with the AAHK/PM, IEC and Contractor on the remedial measures and assess effectiveness. • Keep IEC, AAHK/PM and EPD informed of the results of the effectiveness of remedial measures.	• Check monitoring data submitted by ET. • Check Contractor's working methods. • Discuss with the ET, AAHK/PM and Contractor on possible remedial measures. • Review and advise ET and AAHK/PM on the effectiveness of the proposed remedial measures.	• Confirm receipt of the notification of exceedance in writing. • Review and agree on the remedial measures proposed by Contractor. • Ensure remedial measures are properly implemented. • Supervise implementation of remedial measures.	• Identify source(s), investigate the causes of exceedance and propose remedial measures. • Take immediate action to avoid further exceedance. • Submit proposals for remedial measures to AAHK/PM, ET and IEC within 3 working days of notification for agreement. • Implement the agreed proposals. • Amend proposals as appropriate.
Limit level exceedance for two or more consecutive samples	• Repeat measurements to confirm findings. • If exceedance is confirmed, inform IEC, AAHK/PM, Contractor and EPD. • Increase monitoring frequency to daily. • Carry out analysis of the Contractor's working procedures to determine the possible mitigation to be implemented. • Arrange meeting with IEC and AAHK/PM to discuss the remedial measures to be taken. • Assess the effectiveness of the Contractor's remedial measures and keep the IEC, EPD and AAHK/PM informed of the results. • If exceedance stops, cease additional monitoring.	• Check monitoring data submitted by ET • Discuss amongst AAHK/PM, ET and Contractor on the potential remedial measures. • Review the Contractor's remedial action whenever necessary to assure their effectiveness and advise AAHK/PM and ET accordingly.	• Confirm receipt of the notification of exceedance in writing. • In consultation with IEC and ET, agree with Contractor on the remedial measures to be implemented. • Supervise the implementation of remedial measures to be implemented. • If exceedance continues, consider what portion of works is responsible and instruct the Contractor to stop that portion of works until the exceedance is abated.	• Identify source(s), investigate the causes of exceedance and propose remedial measures. • Take immediate action to avoid further exceedance. • Submit proposals for remedial measures to the AAHK/PM and copy to the IEC and ET within 3 working days of notification. • Implement the agreed proposals. • Review and resubmit proposals if problems still not under control. • Stop the relevant portion of works as determined by AAHK/PM until the exceedance is abated.

Note: ET – Environmental Team; PM – Project Manager; IEC – Independent Environmental Checker; AAHK – Airport Authority Hong Kong

Appendix E2: Event and Action Plan for Construction Noise

Event	Action			
	ET	IEC	AAHK/PM	Contractor
Action Level	• Notify IEC, AAHK/PM and Contractor. • Identify source and carry out investigation. • Report the results of investigation to the IEC and Contractor. • Discuss jointly with the AAHK/PM and Contractor and formulate remedial measures. • Increase the monitoring frequency to check the effectiveness of mitigation measures.	• Review the analysed results submitted by ET. • Review the construction methods and proposed remedial measures by the Contractor, and advise the ET and AAHK/PM accordingly.	• Confirm receipt of the notification of failure in writing. • Notify Contractor. • Require Contractor to propose remedial measures for the analysed noise problem. • Ensure remedial measures are properly implemented.	• Identify source, and carry out investigation and report the investigation to ET, IEC and AAHK/PM. • Submit noise mitigation proposals to ET, IEC and AAHK/PM. • Implement noise mitigation proposals.
Limit Level	• Notify IEC, AAHK/PM, Contractor and EPD. • Identify sources and carry out investigation. • Repeat measurements to confirm findings. • Increase the monitoring frequency. • Carry out analysis of the Contractor's working procedures to determine possible mitigations to be implemented. • Record and inform IEC, AAHK/PM and EPD the causes and action taken for the exceedances. • Assess the effectiveness of the Contractor's remedial action and keep the IEC, AAHK/PM and EPD informed of the results. • If exceedance stops, cease additional monitoring.	• Check monitoring results and discuss amongst the AAHK/PM, ET and Contractor on the potential remedial actions. • Ensure remedial measures implemented properly. • Review Contractor remedial actions whenever necessary to assure their effectiveness and advise the AAHK/PM accordingly.	• Confirm receipt of notification of exceedance in writing. • Notify Contractor. • Require Contractor to propose remedial measures for the analysed noise problems. • Ensure remedial measures are properly implemented. • If exceedance continues, consider what portion of work is responsible and instruct the Contractor to stop that portion of works until the exceedance is abated.	• Identify source, and carry out investigation and report the investigation to ET, IEC and AAHK/PM. • Take immediate action to avoid further exceedance. • Submit proposals for remedial actions to ET, IEC and AAHK/PM within 3 working days of notification. • Implement the agreed proposals. • Resubmit proposals if problems still not under control. • Stop the relevant portion of works as determined by the AAHK/PM until the exceedance is abated.

Note: ET – Environmental Team; PM – Project Manager; IEC – Independent Environmental Checker; AAHK – Airport Authority Hong Kong

Appendix E3: Event and Action Plan for Water Quality

Event	Action			
	ET	IEC	AAHK/PM	Contractor
Action level exceedance for one sample	• Inform IEC, Contractor and AAHK/PM. • Check monitoring data, all plant, equipment and Contractor's working methods. • Discuss mitigation measures with IEC, Contractor and AAHK/PM.	• Discuss with ET, Contractor and AAHK/PM on the mitigation measures. • Review proposals on mitigation measures submitted by Contractor and advise AAHK/PM accordingly. • Review and advise ET and AAHK/PM on the effectiveness of the implemented mitigation measures.	• Discuss with IEC, ET and Contractor on the implemented mitigation measures. • Make agreement on the mitigation measures to be implemented. • Supervise the implementation of agreed remedial measures.	• Identify source(s) of impact. • Inform AAHK/PM and confirm notification of the non-compliance in writing. • Rectify unacceptable practice; • Check all plant and equipment; • Consider changes of working methods. • Discuss with ET, IEC and AAHK/PM and propose mitigation measures to IEC and AAHK/PM. • Implement the agreed mitigation measures.
Action level being exceeded by two or more consecutive sampling days	• Repeat in-situ measurement on next day of exceedance to confirm findings. • Inform IEC, Contractor and AAHK/PM. • Check monitoring data, all plant, equipment and Contractor's working methods. • Discuss mitigation measures with IEC, Contractor and AAHK/PM. • Ensure mitigation measures are implemented.	• Discuss with ET, Contractor and AAHK/PM on the mitigation measures. • Review the proposed mitigation measures submitted by Contractor and advise the AAHK/PM accordingly. • Review and advise ET and AAHK/PM on the effectiveness of the implemented mitigation measures.	• Discuss with ET, IEC and Contractor on the proposed mitigation measures. • Make agreement on the mitigation measures to be implemented. • Discuss with ET, IEC and Contractor on the effectiveness of the implemented mitigation measures.	• Identify source(s) of impact. • Inform AAHK/PM and confirm notification of the non-compliance in writing. • Rectify unacceptable practice. • Check all plant and equipment. • Consider changes of working methods. • Discuss with ET, IEC and AAHK/PM and submit proposal of mitigation measures to IEC and AAHK/PM within 3 working days of notification. • Implement the agreed mitigation measures.

Event	Action			
	ET	IEC	AAHK/PM	Contractor
Limit level exceedance for one sample	• Repeat measurement on next day of exceedance to confirm findings. • Inform IEC, Contractor and AAHK/PM. • Rectify unacceptable practice. • Check monitoring data, all plant, equipment and Contractor's working methods. • Discuss mitigation measures with IEC, AAHK/PM and Contractor. • Ensure the agreed mitigation measures are implemented.	• Discuss with ET, Contractor and AAHK/PM on the implemented mitigation measures. • Review the proposed mitigation measures submitted by Contractor and advise the AAHK/PM accordingly. • Review and advise ET and AAHK/PM on the effectiveness of the implemented mitigation measures.	• Discuss with IEC, ET and Contractor on the implemented mitigation measures. • Request Contractor to critically review the working methods. • Make agreement on the mitigation measures to be implemented. • Review and advise ET and AAHK/PM on the effectiveness of the implemented mitigation measures.	• Identify source(s) of impact. • Inform AAHK/PM and confirm notification of the non-compliance in writing. • Rectify unacceptable practice. • Check all plant and equipment. • Consider changes of working methods. • Discuss with ET, IEC and AAHK/PM and submit proposal of additional mitigation measures to IEC and AAHK/PM within 3 working days of notification. • Implement the agreed mitigation measures.
Limit level exceedance for two or more consecutive samples	• Inform IEC, Contractor, AAHK / PM; • Identify reasons for non-compliance and source(s) of impact; • Check monitoring data, all plant, equipment and Contractor's working methods; • Discuss mitigation measures with IEC, AAHK / PM and Contractor; • Ensure mitigation measures are implemented; • Increase the monitoring frequency to daily until no exceedance of Limit level for two consecutive days.	• Discuss with ET, Contractor and AAHK/PM on the implemented mitigation measures. • Review the proposed mitigation measures submitted by Contractor and advise AAHK/PM accordingly. • Review and advise ET and AAHK/PM on the effectiveness of implemented mitigation measures.	• Discuss with IEC, ET and Contractor on the implemented mitigation measures. • Request Contractor to critically review the working methods. • Make agreement on the mitigation measures to be implemented. • Discuss with ET and IEC on the effectiveness of the implemented mitigation measures. • Consider and instruct, if necessary, the Contractor to slow down or to stop all or part of the construction activities until no exceedance of Limit level.	• Identify source(s) of impact. • Inform AAHK/PM and confirm notification of non- compliance in writing. • Rectify unacceptable practices. • Check all plant and equipment. • Consider changes of working method. • Discuss with ET, IEC and AAHK/PM and submit proposal of additional mitigation measures to IEC and AAHK/PM within 3 working days of notification • Implement the agreed mitigation measures; • As directed by the AAHK/PM, to slow down or to stop all or part of the construction activities.

Note: ET – Environmental Team; PM – Project Manager; IEC – Independent Environmental Checker; AAHK – Airport Authority Hong Kong

Appendix F

Environmental Monitoring and Site Inspection Schedule

Contract C24C02
Environmental Team Consultancy Services for Airport Tung Chung Link Project

Impact Air Quality and Construction Noise Monitoring and Site Inspection Schedule
Feb-26

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
1	2 **Weekly Environmental Site Inspection** Air Quality Monitoring AM1a, AM2 and AM3	3	4 Construction Noise Monitoring NM1, NM2, NM3, NM4	5	6 Air Quality Monitoring AM1a, AM2 and AM3	7
8	9	10 Construction Noise Monitoring NM1, NM2, NM3, NM4	11	12 **Weekly Environmental Site Inspection** Air Quality Monitoring AM1a, AM2 and AM3	13	14
15	16 **No Works Activities**	17 **No Works Activities**	18 **No Works Activities**	19 **No Works Activities**	20 **Weekly Environmental Site Inspection** Air Quality Monitoring AM1a, AM2 and AM3	21 Construction Noise Monitoring NM1, NM2, NM3, NM4
22	23	24 Construction Noise Monitoring NM1, NM2, NM3, NM4	25 Air Quality Monitoring AM1a, AM2 and AM3	26	27 **Weekly Environmental Site Inspection**	28

Air Quality Monitoring Stations:

AM1a: Tat Tung Road Garden
AM2: Hong Kong Airlines Training Academy
AM3 : CNAC House

Construction Noise Monitoring Stations*:

NM1: Seaview Crescent
NM2: Ling Liang Church E Wun Secondary School
NM3: Fu Tung Estate Tung Ma House
NM4: Tung Chung Crescent

* Construction noise monitoring station NM5 (Priests' Quarters of the Planned Visitation Church Development) is not included in the impact monitoring schedule since it is still under construction and not being occupied by users, therefore, no impact monitoring is conducted at this stage.

Impact Air Quality and Construction Noise Monitoring and Site Inspection Schedule

Mar-26

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
1	**2** **Weekly Environmental Site Inspection** Air Quality Monitoring AM1a, AM2 and AM3	**3**	**4**	**5** Construction Noise Monitoring NM1, NM2, NM3, NM4	**6** Air Quality Monitoring AM1a, AM2 and AM3	**7**
8	**9** **Weekly Environmental Site Inspection**	**10**	**11** Construction Noise Monitoring NM1, NM2, NM3, NM4	**12** Air Quality Monitoring AM1a, AM2 and AM3	**13**	**14**
15	**16** **Weekly Environmental Site Inspection**	**17** Construction Noise Monitoring NM1, NM2, NM3, NM4	**18** Air Quality Monitoring AM1a, AM2 and AM3	**19**	**20**	**21**
22	**23** Construction Noise Monitoring NM1, NM2, NM3, NM4	**24** Air Quality Monitoring AM1a, AM2 and AM3	**25**	**26**	**27** **Weekly Environmental Site Inspection**	**28**
29	**30** **Weekly Environmental Site Inspection** Air Quality Monitoring AM1a, AM2 and AM3	**31**				

Air Quality Monitoring Stations:

AM1a: Tat Tung Road Garden
AM2: Hong Kong Airlines Training Academy
AM3 : CNAC House

Construction Noise Monitoring Stations*:

NM1: Seaview Crescent
NM2: Ling Liang Church E Wun Secondary School
NM3: Fu Tung Estate Tung Ma House
NM4: Tung Chung Crescent

* Construction noise monitoring station NM5 (Priests' Quarters of the Planned Visitation Church Development) is not included in the impact monitoring schedule since it is still under construction and not being occupied by users, therefore, no impact monitoring is conducted at this stage.

Note:

1) The schedule may be changed due to unforeseen circumstances (adverse weather, etc)

Appendix G

Waste Flow Table

Contract No. & Title: C24W08 Airport Tung Chung Link

Monthly Summary Waste Flow Table for 2026

(All quantities shall be rounded off to 3 decimal places.)

Monthly	Actual Quantities of Inert C&D Materials Generated Monthly			Actual Quantities of Non-inert C&D Materials Generated Monthly					
	(a)=(b)+(c) Total Quantity Generated	(b) Reused in other Projects	(c) Disposed of at Public Fill/Sorting Facility	Recycled Timber	Recycled Metals	Recycled Paper/ Cardboard	Other Recyclable Materials (pls. specify)	Chemical Waste	General Refuse Disposed of at Landfill
	(in '000 kg)	(in '000 kg)	(in '000 kg)	(in '000 kg)	(in '000 kg)	(in '000 kg)	(in '000 kg)	(in '000 kg)	(in '000 kg)
Jan	14.000	0.000	14.000	0.000	0.000	0.000	0.000	0.000	4.090
Feb	57.610	0.000	57.610	0.000	0.000	0.000	0.000	0.000	16.690
Mar									
Apr									
May									
Jun									
Sub-total	71.610	0.000	71.610	0.000	0.000	0.000	0.000	0.000	20.780
Jul									
Aug									
Sep									
Oct									
Nov									
Dec									
Total	71.610	0.000	71.610	0.000	0.000	0.000	0.000	0.000	20.780

Appendix H

Implementation Schedule of Environmental Mitigation Measures

Environmental Mitigation Measures Implementation Status

Recommended Mitigation Measures for Air Quality Impact

EIA Ref.	EM&A Manual Ref.	Recommended Mitigation Measures	Mitigation Measures Implemented? ^
S3.5.4.2	S3.3	• Use of regular watering once per two hours to reduce dust emissions from all exposed site surfaces with dust emission and unpaved roads, particularly during dry weather.	Yes
		• Side enclosure and covering of any aggregate or dusty material storage piles to reduce emissions. Where this is not practicable owing to frequent usage, watering shall be applied to aggregate fines.	Yes
		• Open stockpiles shall be avoided or covered. Prevent placing dusty material storage piles near Air Sensitive Receivers (ASRs).	Obs.
		• Tarpaulin covering of all dusty vehicle loads transported to, from and between site locations.	Yes
		• Establishment and use of vehicle wheel and body washing facilities at the exit points of the site.	Yes
		• Imposition of speed controls for vehicles on unpaved site roads, 8km per hour is the recommended limit.	Yes
		• Routing of vehicles and position of construction plant should be at the maximum possible distance from ASRs.	Yes
		• Every stock of more than 20 bags of cement or dry pulverised fuel ash (PFA) should be covered entirely by impervious sheeting or placed in an area sheltered on the top and the 3 sides.	Yes
		• Cement or dry PFA delivered in bulk should be stored in a closed silo fitted with an audible high-level alarm which is interlocked with the material filling line and no overfilling is allowed.	Not Obs.
		• Loading, unloading, transfer, handling or storage of bulk cement or dry PFA should be carried out in a totally enclosed system or facility, and any vent or exhaust should be fitted with an effective fabric filter or equivalent air pollution control system.	Yes
S3.5.2.25	S3.3	• Watering on heavy construction work areas to reduce dust emission. Any potential dust impact and watering mitigation would be subject to the actual site condition.	Yes
S3.5.4.3	S3.3	• Connect construction plant and equipment to main electricity supply and avoid use of diesel generators and diesel-powered equipment.	Yes
		• Switch off the engine of Powered Mechanical Equipment (PME) when idling.	Yes
		• Implement regular and proper maintenance for plant and equipment.	Yes
		• Employ plant and equipment of adequate size and power output and avoid overloading of the plant.	Yes
		• Locate the PME away from sensitive receivers as far as possible.	Yes
		• Erect screen to shield the emission source from sensitive receivers where necessary and practicable.	Yes

EIA Ref.	EM&A Manual Ref.	Recommended Mitigation Measures	Mitigation Measures Implemented? ^
		Non-Road Mobile Machinery (NRMMs)	
		• Avoid usage of exempted NRMMs as far as practicable.	Yes
		• Deploy electrified NRMMs and PME as far as practicable.	Not Obs.
		• Requirements stipulated in the Air Pollution Control (Non-road Mobile Machinery) (Emission) Regulation are followed to control potential emissions from non-road mobile machinery during construction phase where appropriate.	Obs.
S3.7	S3.3	• Implement regular dust monitoring under EM&A programme during the construction phase.	Yes

Recommended Mitigation Measures for Noise Impact

EIA Ref.	EM&A Manual Ref.	Recommended Mitigation Measures	Mitigation Measures Implemented? ^
--	S4.2.2	• All mitigation measures recommended and requirements specified in the Construction Noise Management Plan (CNMP) and the updated CNMP shall be fully implemented. Implementation of plant inventory recommended in the submitted CNMP.	Obs.
S4.5.4.2	S4.2.1	• Hydraulic concrete crusher should be used for rock breaking activities during site establishment, instead of traditional hydraulic breaker	Not applicable according to the submitted CNMP
		• Non-explosive chemical expansion agent should be used for concrete breaking activities during site establishment, instead of traditional hydraulic breaker.	Not applicable according to the submitted CNMP
		• Self-compacting concrete will be used for concreting works, instead of traditional vibratory poker.	Not applicable according to the submitted CNMP
		• Silent piling by Press-in Method (Press-in piling) will be used for sheet piling works, instead of traditional massive augering and piling machines.	Not Obs.
S4.5.4.3	S4.2.1	• Use of quieter Powered Mechanical Equipment is recommended to reduce the noise impact.	Obs.
S4.5.4.4	S4.2.1	• The use of noise barrier for certain PME (Powered Mechanical Equipment) could generally provide a 5 dB(A) reduction for movable PME and 10 dB(A) for stationary PME. The barrier material shall be long enough and have no opening or gaps.	Obs.
--	S4.2.1	• Use of Hammer Bracket: Tuned mass dampers, tailored breaker cloth and noise mitigating plastic skirt on the breaker head of Hydraulic Breaker.	Not Obs.

EIA Ref.	EM&A Manual Ref.	Recommended Mitigation Measures	Mitigation Measures Implemented? ^
S4.5.4.9	S4.2.1	**The following good site practices should be implemented to limit noise emissions:**	
		• Only well-maintained plant should be operated on-site and plant should be serviced regularly during the construction period. Mobile plant, if any, should be sited as far from Noise Sensitive Receivers (NSRs) as possible. Machines and plant that may be used intermittently should be shut down between works periods or should be throttled down to a minimum.	Yes
		• Plant known to emit noise strongly in one direction should, wherever possible, be properly orientated so that the noise is directed away from the nearby NSRs.	Not Obs.
		• Use of site hoarding as a noise barrier to screen noise at low level NSRs. Machines and plant that may be used intermittently should be shut down between works periods or should be throttled down to a minimum.	Not Obs.
		• Any material stockpiles and other structures should be effectively utilised, wherever practicable, to screen the noise from on-site construction activities.	Yes

Recommended Mitigation Measures for Water Quality Impact

EIA Ref.	EM&A Manual Ref.	Recommended Mitigation Measures	Mitigation Measures Implemented? ^
S5.9.1.1	S5.2	• At most 2 marine piles will be constructed concurrently at the marine viaduct works area across Tung Chung Navigation Channel.	Marine works not commenced yet
		Silt Curtain Deployment Plan	
		• Silt curtain would be set up to enclose the entire active work area before commencement of piling works for marine viaduct to control sediment dispersion.	Marine works not commenced yet
		• The Plan shall be fully and properly implemented.	Marine works not commenced yet
		• All vessels shall be sized such that adequate clearance is maintained between vessels and the seabed at all states of the tide to ensure that undue turbidity is not generated by turbulence from vessel movement or propeller wash.	Marine works not commenced yet
		• All vessels should be well maintained and inspected before use to limit any potential discharges to the marine environment.	Marine works not commenced yet
		• All vessels must have a clean ballast system.	Marine works not commenced yet

EIA Ref.	EM&A Manual Ref.	Recommended Mitigation Measures	Mitigation Measures Implemented? ^
		• Marine works shall not cause foam, oil, grease, litter or other objectionable matter to be present in the water within and adjacent to the works site.	Marine works not commenced yet
		• Wastewater from potentially contaminated area on working vessels should be minimized and collected. These kinds of wastewater should be brought back to port and discharged at appropriate collection and treatment system.	Marine works not commenced yet
		• No solid waste is allowed to be disposed overboard.	Marine works not commenced yet
		• Best Management Practices (BMPs) of mitigation measures in controlling water pollution and good site management, as specified in the ProPECC PN 1/94 “Construction Site Drainage” are followed, where applicable, to prevent runoff with high level of SS from entering the surrounding waters.	N/A
		• At the start of site establishment, perimeter cut-off drains to direct off-site water around the site should be constructed with internal drainage works. Channels, earth bunds or sand bag barriers should be provided on site to direct stormwater to silt removal facilities.	Obs.
		• Diversion of natural stormwater should be provided as far as possible. The temporary on-site drainage system should prevent runoff going through site surface, construction machinery and equipment in order to avoid or minimize polluted runoff.	N/A
		• Sedimentation tanks with sufficient capacity, constructed from preformed individual cells of approximately 6 to 8 m^3 capacities, are recommended as a general mitigation measure which can be used for settling surface runoff prior to disposal.	N/A
		• The system capacity shall be flexible and able to handle multiple inputs from a variety of sources and suited to applications where the influent is pumped.	N/A
		• The dikes or embankments for flood protection should be implemented around the boundaries of earthwork areas. Temporary ditches should be provided to facilitate the runoff discharge into an appropriate watercourse, through a silt/sediment trap. The silt/sediment traps should be incorporated in the permanent drainage channels to enhance deposition rates.	N/A
		• All drainage facilities and erosion and sediment control structures should be regularly inspected and maintained to ensure proper and efficient operation at all times and particularly following rainstorms. Deposited silt and grit should be removed regularly and disposed of by spreading evenly over stable, vegetated areas.	Yes
		• All open stockpiles of construction materials (for example, aggregates, sand and fill material) should be covered 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.	N/A
		• Manholes (including newly constructed ones) should always be adequately covered and temporarily sealed so as to prevent silt, construction materials or debris being washed into the drainage system and storm runoff being directed into foul sewers.	Yes

EIA Ref.	EM&A Manual Ref.	Recommended Mitigation Measures	Mitigation Measures Implemented? ^
		• Precautions to be taken at any time of year when rainstorms are likely, actions to be taken when a rainstorm is imminent or forecasted, and actions to be taken during or after rainstorms are summarized in Appendix A2 of ProPECC PN 1/94.	N/A
		• All vehicles and plant should be cleaned before leaving a construction site to ensure no earth, mud, debris and the like is deposited by them on roads. An adequately designed and sited wheel washing facilities should be provided at every construction site exit where practicable. Washwater should have sand and silt settled out and removed at least on a weekly basis to ensure the continued efficiency of the process. The section of access road leading to, and exiting from, the wheel-wash bay to the public road should be paved with sufficient backfall toward the wheel-wash bay to prevent vehicle tracking of soil and silty water to public roads and drains.	Obs.
		• Construction solid waste, debris and rubbish on site should be collected, handled and disposed of properly to avoid water quality impacts.	Yes
		• Appropriate numbers of chemical toilets are provided by a licensed contractor to serve the construction workers over the construction sites to prevent direct disposal of sewage into the water environment. No onsite discharge from these chemical toilets is allowed.	Yes
		• All fuel tanks and storage areas should be provided with locks and sited on sealed areas, within bunds of a capacity equal to 110% of the storage capacity of the largest tank to prevent spilled fuel oils from reaching water sensitive receivers nearby. The contractors shall ensure that leakages or spillages are contained and cleaned up immediately.	N/A
S5.12.1.1	S5.7.7	• During the marine construction period, impact monitoring should be undertaken 3 days per week, at mid-flood and mid-ebb tides, with sampling/measurement at all designated monitoring stations including control station	Marine works not commenced yet

Recommended Mitigation Measures for Waste Management

EIA Ref.	EM&A Manual Ref.	Recommended Mitigation Measures	Mitigation Measures Implemented? ^
S6.5.1.2	S6.2	**Good Site Practices:** • Nomination of approved personnel, such as a site manager, to be responsible for implementation of good site practices, arrangements for waste collection and effective disposal to an appropriate facility. Training of site personnel in site cleanliness, concepts of waste reduction, reuse and recycling, proper waste management and chemical waste handling procedures.	Yes
		• Provision of sufficient waste reception/ disposal points, and regular collection of waste.	Yes
		• Appropriate measures to minimise windblown litter and dust during transportation of waste by either covering trucks or by transporting wastes in enclosed containers.	Yes
		• Regular cleaning and maintenance programme for drainage systems and sumps.	Yes

EIA Ref.	EM&A Manual Ref.	Recommended Mitigation Measures	Mitigation Measures Implemented? ^
		• Provision of wheel washing facilities at site exit before the trucks leave the works areas to minimize dust disturbance due to the trucks transportation to the public road network	Yes
		• Preparation of Waste Management Plan (WMP), as part of the Environmental Management Plan (EMP).	Yes
S6.5.1.3	S6.2	**Waste Reduction Measures:** • Segregate and store different types of construction related waste in different containers, skips or stockpiles to enhance reuse or recycling of materials and their proper disposal.	Yes
		• Proper storage and good site practices to minimize the potential contamination of construction materials.	Yes
		• Plan and stock construction materials carefully to minimize amount of waste generated and avoid unnecessary generation of waste.	Yes
		• Provide training to workers on the importance of appropriate waste management procedures, including waste reduction, reuse and recycling.	Yes.
		Storage, Collection and Transportation of Waste: • Non-inert C&D materials such as top soil should be handled and stored well to ensure secure containment of the materials.	Yes
		• Stockpiling area/ temporary stockpiling area should be provided with covers and water spraying system to prevent materials from wind-blown or being washed away.	Obs.
		• Different locations should be designated to stockpile each material to enhance reuse.	Yes
		• Remove waste in timely manner.	Yes
		• Employ the trucks with cover or enclosed containers for waste transportation.	Yes
		• Obtain relevant waste disposal permits from the appropriate authorities.	Yes
		• Disposal of waste should be done at licensed waste disposal facilities.	Yes
		• Trip-ticket system should be established in accordance with the Development Bureau Technical Circular (Works) (DEVB TC(W)) No. 6/2010 "Trip Ticket System for Disposal of Construction & Demolition Materials". A recording system for the amount of waste generated, recycled and disposed, including the disposal sites, should be set up. Warning signs should be put up to remind the designated disposal sites. CCTV should be installed at the vehicular entrance and exit of the site as additional measures to prevent fly-tipping. in order to monitor the management of C&D materials and disposal solid wastes at public filling facilities and landfills, and control fly-tipping.	Yes
		C&D Material: • Carry out on-site sorting.	Yes
		• Storage areas should be located within the site during construction phase for temporary storage of inert C&D materials.	Yes

EIA Ref.	EM&A Manual Ref.	Recommended Mitigation Measures	Mitigation Measures Implemented? ^
		• All C&D materials arising from the construction would be sorted on-site to recover the inert C&D materials and reusable and recyclable materials prior to disposal off-site as far as practicable. Non-inert portion of C&D materials should also be reused whenever possible and be disposal of at landfills as a last resort.	Yes
		• The Contractor would be responsible for on-site sorting of C&D materials and promptly remove all sorted and processed material arising from the construction activities to minimize temporary stockpiling on-site.	Yes
		• Reuse suitable inert C&D materials on-site as far as practicable.	Yes
		• Reuse suitable excavated rock by reworking at approved quarries (e.g. Crushed as aggregates).	N/A
		• Sorting of demolition debris and excavated materials from demolition works to recover reusable/ recyclable portions (e.g. Soil, broken concrete, metal).	N/A
		• Protect recyclable material to keep it in usable condition.	N/A
S6.5.1.7	EP 2.16	• All dump trucks for C&D material transportation and disposal shall be equipped with Global Positioning System (GPS) or equivalent automatic identification system (AIS) for real time tracking and monitoring of their travel routings and parking locations in order to avoid illegal dumping or landfilling of C&D materials. The data collected by GPS or equivalent AIS relating to travel routings and parking locations of all dump trucks shall be recorded properly for checking and auditing by ET and IEC respectively.	Yes
S6.5.1	S6.2	<u>Land-based and Marine-based Excavated Sediment:</u> **Mitigation measures for treating excavated sediment** • Excavated marine sediment should be reused as far as possible within the Project Site before considering disposal. Subject to availability of suitable location and review on the backfilling method, part or all of the marine sediment would be reused on site. Possible methods for the reuse of marine sediment on site including the reuse as backfilling materials after mixing with cement should be explored.	N/A
		• Cement mixing process should be enclosed to minimize odour/ dust emissions.	N/A
		• Loading, unloading, handling, transferring and storing for treated and untreated sediment should be carried out in a good site practices that prevents or minimizes dust emissions.	N/A
		• An impermeable surfacing shall be placed under the mixing areas and a cover should be employed to prevent dust emission and possible cross contamination.	N/A
		• Good housekeeping should be maintained at the mixing and treatment area.	N/A
		• Treated and untreated sediment should be clearly separated and stored separately.	N/A
		• Surface runoff from the mixing and treatment area should be properly collected and stored separately, and then properly treated to levels in compliance with the relevant effluent standards as required by the Water Pollution Control Ordinance before final discharge.	N/A

EIA Ref.	EM&A Manual Ref.	Recommended Mitigation Measures	Mitigation Measures Implemented? ^
		• Prior to the cement mixing operation, safety training and environmental training should be provided to all related site staff and workers.	N/A
		• All workers in site area should wear appropriate personal protective equipment, such as safety helmet, safety shoes, gloves, goggles and protective coveralls (if necessary). No person should approach to the backhoe / excavator during their operation.	N/A
		• Workers, vehicles, instruments, and equipment in touch with the marine sediment will be properly decontaminated by cleaned with non-phosphate detergent and rinsed with distilled water between each excavation and sampling event and before leaving the site.	N/A
		• The excavated area should be vacated and fenced off and adequate warning signs should be displayed.	N/A
		• Excavation works should be done within short period of time. No excavation should be held during the rainy days to avoid the migration of contaminants on site.	N/A
		• Smoking, eating or drinking during activities with exposure to the contaminated materials should be prohibited.	N/A
		Marine Sediment Handling • Marine disposal option for the marine sediment should only be considered as the last resort upon exhaustion of reuse options.	N/A
		• All construction plant and equipment shall be designed and maintained to minimise the risk of sediments being released into the water column or deposited in the locations other than designated location.	No marine disposal planned at this stage
		• All vessels should be sized so that adequate clearance is maintained between vessels and the seabed in all tide conditions, to minimise that undue turbidity is not generated by turbulence from vessel movement or propeller wash.	N/A
		• Adequate freeboard shall be maintained on barges to ensure that decks are not washed by wave action.	N/A
		• All marine sediments shall be transported to the designated location by water-tight containers and dump trucks with tarpaulin cover.	N/A
		• The requirements and procedures for dredged/excavated sediment specified under the PNAP ADV-21 should be followed. The Contractor must ensure that all the necessary waste disposal and marine dumping permits or licences are obtained prior to the commencement of the construction works.	No marine disposal planned at this stage
		• All dumping vessels have to be approved in a marine dumping permit issued under the DASO. Each of the vessels has to be installed with an automatic recording equipment, namely the Front End Mobile Unit (FEMU), which is a key component of the Real Time Tracking & Monitoring of Vessel (RTTMV) System of EPD. The FEMU transmits self-monitoring data direct from the barge at sea to the Control Centre at EPD through GPRS mobile communication network. The transportation route avoiding the ecological sensitive areas shall be proposed when applying the dumping permit.	No marine disposal planned at this stage

EIA Ref.	EM&A Manual Ref.	Recommended Mitigation Measures	Mitigation Measures Implemented? ^
S6.5.1.14 and 6.5.1.15	S6.2	**Chemical Waste:** • The Contractor shall register as Chemical Waste Producers with the EPD. Chemical waste should be handled in accordance with the Code of Practice on the Packaging, Labelling and Storage of Chemical Wastes.	Yes
		• The containers used for storing chemical waste should be suitable for the substance to be held, resistant to corrosion, maintained in good conditions and securely closed.	Yes
		• The containers should have a capacity of <450L unless the specifications have been approved by the EPD.	Yes
		• The label on the containers should be clearly labelled in English and Chinese and comply with the requirements prescribed in Schedule 2 of Waste Disposal (Chemical Waste) (General) Regulation.	Yes
		• The storage area for the chemical waste should be used solely for the storage of chemical wastes.	Yes
		• The storage area should be enclosed on at least three sides by a wall, partition or fence with a height of not less than two metres or the total height of containers in stack, whichever is less.	Yes
		• Where containers of liquid chemical wastes are stored, the area should be designed with impermeable floor and provided with a bund with capacity to accommodate 110% of the volume of the largest container or 20% by volume of the chemical waste stored in the area, whichever is greatest.	Not Obs.
		• Adequate ventilation should be allowed in the storage area by leaving some space between the top of the enclosure walls and the ceiling, or provision of louvers on the sides of the enclosure walls.	Yes
		• The storage area should be sufficiently covered to prevent rainfall entering (water collected within the bund must be tested and disposed of as chemical waste, if necessary).	Yes
		• Separate containers should be used for packing different types of waste or waste arising from different sources and process to minimise mixing of incompatible materials.	Yes
		• Drip tray should be provided to chemical waste containers. The drip tray should be clean up regularly. Clean up should be done before foreseeable inclement weather such as typhoon or heavy rain.	Obs.
		• Waste oils, chemicals or solvents shall not be disposed of to drain.	Yes
S6.5.1.16 and 6.5.1.17	S6.2	**General Refuse:** • General refuse should be stored in enclosed bins or compaction units separately from C&D materials/ wastes and chemical wastes. Sufficient bins shall be provided for storage of general refuse as required under the Public Cleansing and Prevention of Nuisances Regulation. .	Yes
		• Recycling bins should also be placed to encourage recycling. Preferably enclosed and covered areas should be provided for general refuse collection and routine cleaning for these areas should also be implemented to keep areas clean.	Yes

EIA Ref.	EM&A Manual Ref.	Recommended Mitigation Measures	Mitigation Measures Implemented? ^
		• A reputable waste collector should be employed to remove general refuse on a regular basis.and shall be disposed of to the nearest landfill or refuse transfer station. Burning of refuse on construction sites is prohibited. Disposal of general refuse is recommended before foreseeable inclement weather such as typhoon or heavy rain.	Yes
		• Segregation and storage of different types of waste should be promoted to facilitate the reuse and recycling of the materials. Separately labelled bins for the deposition of aluminum cans, paper and plastic bottles etc. should be provided as far as practicable. Arrangements should be made with the recycling companies to collect the recycle waste as required.	Yes
S6.5.1.18	S6.2	**Floating Refuse:** • Tool-box training shall be provided to site workers to ensure proper site waste management and good site practice are implemented.	Yes
		• Weekly inspection shall also be carried out to ensure no floating refuse is found within the Project Area.	Yes
		• If any floating refuse is accidentally trapped in the marine waters within the Project Area, it will be collected by the Contractor and recycled as far as possible, the remaining waste will be disposed of as general refuse.	N/A.

Recommended Mitigation Measures for Ecological Impact

EIA Ref.	EM&A Manual Ref.	Recommended Mitigation Measures	Mitigation Measures Implemented? ^
S7.9.1.2	S7.2	**Measures for Indirect Disturbances to Surrounding Habitats and Associated Wildlife**	
		• The boundary of the Project site shall be clearly marked by temporary fence. The works area boundaries shall be regularly checked to ensure that they are not breached and that no damage occurs to surrounding habitat.	Yes
		• Construction activities shall be carried out in daytime hours, as much as appropriate.	Yes
		• Adopt appropriate measures including controlled wastewater discharge to the nearby water bodies, in accordance with the guidelines stipulated in Environmental Protection Department (EPD)'s Practice Note for Professional Persons on Construction Site Drainage (ProPECC PN1/94) during the construction works to properly control site run-off and drainage and to minimise potential water quality impacts.	Yes
		• In the event of rain or at any time when rainstorms are likely to happen, exposed surfaces within the works area should be covered by tarpaulin or by other means.	N/A
		• Avoid any damage and disturbance, particularly those caused by filling and illegal dumping to the surrounding natural habitats.	Yes
		• Prohibit and prevent open fires within the works area boundary during construction and provide temporary firefighting equipment in the work areas.	N/A

EIA Ref.	EM&A Manual Ref.	Recommended Mitigation Measures	Mitigation Measures Implemented? ^
		• In view of Scenic hill supporting the remnant population of Romer's Tree Frog in Chek Lap Kok, introducing invasive species (i.e. Greenhouse Frog) which may pose potential negative impacts to the native species, should be avoided. Screening for Greenhouse Frog, including adults and eggs, in soil and landscape materials should be carried out before being used for backfilling/ landscaping purpose.	N/A
		Measures for Marine Ecological Resources	
S7.3.2	S7.2	• Speed restriction of 10 knots for all vessels used during the construction and operation of the Project.	N/A
S7.9.1.1	EP 2.15	• No underwater percussive piling shall be conducted under this Project.	N/A

Recommended Mitigation Measures for Fisheries Impact

EIA Ref.	EM&A Manual Ref.	Recommended Mitigation Measures	Mitigation Measures Implemented? ^
S8.10.1	S5.2	• Appropriate notification, communications, site protection and marking would be adopted to reduce navigation risks with fishing vessels.	Not Obs.

Recommended Mitigation Measures for Cultural Heritage Impact

EIA Ref.	EM&A Manual Ref.	Recommended Mitigation Measures	Mitigation Measures Implemented? ^
S9.6.1.3	S9.2.3	• As a precautionary measure, the project proponent and his/her contractor are required to inform AMO immediately when any antiquities or supposed antiquities under the Antiquities and Monuments Ordinance (Cap. 53) are discovered during the seabed disturbance works in the ATCL Site	N/A

Recommended Mitigation Measures for Landscape and Visual Impact

EIA Ref.	EM&A Manual Ref.	Recommended Mitigation Measures	Mitigation Measures Implemented? ^
S10.9.2	S10.2	**CM1 - Preservation of Existing Trees and Other Vegetation** • All the existing Trees to be retained and not to be affected by the Project should be carefully protected during the construction phase in accordance with DEVB TCW No. 4/2020 – titled "Tree Preservation" and the latest "Guidelines on Tree Preservation during Development" issued by GLTM Section of DEVB, including provision of Tree Protection Zones (TPZs). Any existing vegetation in landscaped areas and natural terrain not to be affected by the Project should also be carefully preserved. Therefore, these existing landscape elements can maintain their qualities throughout the construction phase.	Yes
		CM2 - Transplanting of Affected Trees • Trees unavoidably affected by the works should be transplanted where practical. The requirement shall follow the "Guidelines on Tree Transplanting" released by GLTM Section of DEVB.	No transplantation planned for this Project
		CM3 - Compensatory Tree Planting • Compensatory tree planting should be provided to compensate for felled trees during construction according to DEVB TCW No. 4/2020 – titled "Tree Preservation" and satisfaction of relevant Government departments. Sufficient planting area shall be provided for the growth of trees. Required numbers and locations of compensatory trees shall be determined and agreed separately with Government during the Tree Felling Application.	N/A
		CM4 - Control of Night-time Lighting Glare • Lighting for the construction works at night, if any, should be carefully controlled to prevent light overspill to the nearby VSRs and into the sky.	Yes
		CM5 - Erection of Decorative Screen Hoardings • Decorative Hoardings, with designs and forms compatible with the surrounding settings, should be erected during the construction phase to minimise the potential landscape and visual impacts from the construction works and activities, e.g. avoiding unintended destruction of existing trees and other landscape elements, and reducing visual bulkiness of the screen hoardings, etc.	Yes
		CM6 - Management of Construction Activities and Facilities • The layout and arrangement of construction site facilities which include site office and temporary storage area should be properly managed and construction activities at the site should be carefully supervised and controlled to minimise potential adverse landscape and visual impacts.	Yes
		CM7 - Reinstatement of Temporarily Disturbed Landscape Areas • All hard and soft landscape areas disturbed temporarily during construction shall be reinstated on like-to-like basis, to the satisfaction of the relevant Government Departments.	Not Obs.

Others

EIA Ref.	EM&A Manual Ref.	Recommended Mitigation Measures	Mitigation Measures Implemented? ^
-	-	• A copy of the valid Environmental Permit shall be displayed conspicuously on the Project site(s) at all vehicular site entrances/exits or at a convenient location for public's information at all times. The most updated information about the Permit, including any amended Permit, shall be displayed at such locations. • If the Permit Holder surrenders a part or whole of the Permit, the notice he send to the Director shall also be displayed at the same locations as the original Permit. The suspended, varied or cancelled Permit shall be removed from display at the Project site(s).	Obs.
-	-	• The required licences should be obtained by the Contractor (including CNP (if any), WPCO licence, etc.	Yes
-	-	• Display the copy of CNP (if any) at all site entrance/exits for public's information.	Obs.

Notes:

Yes = Implemented where applicable

Obs./Rem = Observations or reminders were issued, and items were rectified

Not Obs. = Not observed in the site inspection during the reporting period

N/A = Not applicable to the construction works implemented during the reporting period

^ = Checked by ET through site inspection and record provided by the Contractor