

Our ref: 18-12-2023

18-12-2023

By hand

Environmental Protection Department

Environmental Assessment Division

Metro Assessment Group

Kowloon Section (2)

27th floor, Southorn Centre,

130 Hennessy Road,

Wan Chai, Hong Kong

(Attn: Mr. TANG Ho Him, Matthew)

Dear Mr. TANG,

Contract No. EDO 15/2018

Environmental Monitoring Works for Contract No. ED/2018/01 – Kai Tak Development – Stage 4 infrastructure at the Former Runway and South Apron

Submission of Monthly EM&A Report for November 2023 (Version 1.2)

We refer to the Environment Permit (EP) No. EP-337/2009 and EP-445/2013/B for the captioned project.

Pursuant to Condition 3.3 of the EP-337/2009 and Condition of the 3.2 of the EP-445/2013/A, please find enclosed four hard copies and one electronic copy of Monthly EM&A Report for November 2023 (Version 1.2), which has been verified by the IEC for your reference.

Thank you very much for your attention and please feel free to contact Mr. Lee at 9382 4204 should you require further information.

Yours faithfully,

For and on behalf of

Ka Shing Management Consultant Limited

AKCL

Applied knowledge center limited

Company Secretary

Encl. Monthly EM&A report in November 2023

Ref.: CEDKTDS4EM00_0_0324L.23

14 December 2023

AECOM Asia Company Limited
12/F, Grand Central Plaza, Tower 2
138 Shatin Rural Committee Road
Shatin, Hong Kong

By Post and Email

Attention: Ms. Fanny Lau

Dear Madam,

**Re: Contract No. ED/2018/01 – Kai Tak Development
Stage 4 Infrastructure at the Former Runway and South Apron**

Monthly EM&A Report for November 2023

Reference is made to the Environmental Team's submission of the Monthly EM&A Report for November 2023 (Version 1.1) certified by the ET Leader and provided to us via email on 13 December 2023.

Please be advised that we have no further comment on the captioned Monthly EM&A Report in accordance with Condition 3.3 of EP-337/2009 and Condition 3.2 of EP-445/2013/B.

The ET Leader is reminded that it is the ET's responsibility to carry out the complaint investigation and ensure the report be timely submitted to the Director of Environmental Protection in accordance with the EM&A Manuals and Environmental Permits.

Thank you for your attention. Please do not hesitate to contact the undersigned should you have any queries.

Yours faithfully,
For and on behalf of
Ramboll Hong Kong Limited



Y H Hui
Independent Environmental Checker

c.c. CEDD
Ka Shing
Penta-Ocean

Attn.: Mr. Jason Wong
Attn.: Mr. Chan Pang
Attn.: Mr. Daniel Ho

Fax: 2739 0076
By Email
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Environmental Monitoring and Audit Report
for
Contract No. ED/2018/01 –
Kai Tak Development – Stage 4 infrastructure at the
former runway and south apron

Contract No.: EDO 15/2018

November 2023

(Version 1.1)

Certified By: _____



(Environmental Team Leader)

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EXECUTIVE SUMMARY

This is the 47th Monthly Environmental Monitoring & Audit (EM&A) report which summaries the findings of the EM&A Programme during the reporting period from 1 to 30 November 2023.

Breaches of Action and Limit Levels

- 1) 1-hour TSP monitoring was conducted as scheduled in the reporting month. No Action/Limit Level exceedance was recorded.
- 2) 24-hour TSP monitoring was conducted as scheduled in the reporting month. No Action/Limit Level exceedance was recorded.
- 3) Construction noise monitoring was conducted as scheduled in the reporting month. No Action Level and Limit Level exceedance was recorded in the reporting month.
- 4) Summary of the non-compliance in the reporting month for the Project is tabulated in Table I.

Table I Non-compliance Record in the Reporting Month

| Parameter | No. of Exceedance | | Action Taken |
|--------------------|-------------------|-------------|--------------|
| | Action Level | Limit Level | |
| 1-hr TSP | 0 | 0 | N/A |
| 24-hr TSP | 0 | 0 | N/A |
| Construction noise | 0 | 0 | N/A |

Complaint log

- 5) No complaint was received in the reporting month. Summary of complaints in the reporting month is tabulated in Table II.

Table II Summary of complaints in the Reporting Month

| Date of complaint received | Description of complaint | Investigation / Recommendations / Action taken | Close-out date / Status |
|----------------------------|--------------------------|--|-------------------------|
| NA | NA | NA | NA |

Notifications of summons and successful prosecutions

- 6) No notification of summons and successful prosecutions was received in the reporting month. Summary of summons and successful prosecutions in the reporting month is tabulated in Table III.

Table III Summary of summons and successful prosecutions in the Reporting Month

| Date of receiving notification of summons or prosecutions | Date of event | Description of event | Action take | Close-out date / Status |
|--|---------------|----------------------|-------------|-------------------------|
| No notification of summons and successful prosecutions were received in the reporting month. | NA | NA | NA | NA |

Report changes

- 7) There was no reporting change in the reporting month.

Key construction works in the reporting month

- 8) Major construction activities undertake during the reporting month included:
- Laying of stormwater drainage pipes/ sewer pipes/watermains and construction of associated manholes at Road L12d and at-grade road.
 - E&M works for Underpass 03
 - Construction of remaining works for Noise Barrier
 - Construction of RC structure for Lift LT-1 and LT-2
 - Construction of profile barrier for NDR
 - Modification works at Shing Kai Road

- Installation of Lift LT-4
- Laying of stormwater drainage pipes/ sewer pipes/ watermains
- Waterproofing works for ELD
- Construction of Seawater Intake Box Culvert
- Concreting and RC structure of Pumping Stations
- Construction of Observation Deck
- Construction of emergency walkway
- Construction of Harbour Steps
- Concreting and RC structure of Toilet cum Changing Room

Future key issues

9) The future key issues and potential impact in the coming month are given in Table IV.

Table IV Summary of future key issues and potential impact in the coming month

| Future key issues in the coming month | Potential impact |
|---|--|
| Construction of manholes and chambers at Shing Kai Road and the at-grade road near NDR, SDR, South Depressed Road, Lift LT-4 and Noise Barrier; | Noise and Air Quality, Chemical and Waste Management |
| Watermain connection and pressure test for watermains at Shing Kai Road and at-grade road near NDR; | Noise, Air and Water Quality |
| Waterproofing work of ELD | Noise and Air Quality, Chemical and Waste Management |
| Construction of bus stop at at-grade road and noise barrier | Noise and Air Quality, Chemical and Waste Management |
| Installation of precast parapet for Bridge D3; | Noise and Air Quality, Chemical and Waste Management |
| Concreting and RC structure of Toilet cum Changing Room | Noise, Air and Water Quality |
| Install the lift cart for Lift LT-4; | Noise and Air Quality, Chemical and Waste Management |
| Concreting and RC structure of Pumping Stations | Noise and Air Quality, Chemical and Waste Management |
| Construction of Seawater Intake Box Culvert; | Noise and Air Quality, Chemical and Waste Management |
| Construction of RC structure for Lift LT-1 & LT-2; | Noise, Air and Water Quality |
| Construction of remaining works for Noise Barrier; | Noise, Air and Water Quality |
| Construction of Harbour Steps. | Noise, Air and Water Quality |
| Diversion/ connection works (involving confined space) of Box Culvert | Noise and Air Quality, Chemical and Waste Management |
| Construction of Outfall 1&2 | Noise, Air and Water Quality |
| Rising main laying works | Noise, Air and Water Quality |
| Laying of stormwater drainage pipes/ sewer pipes / watermains and construction of associated manholes at Road L12d. | Noise, Air and Water Quality |

| Future key issues in the coming month | Potential impact |
|---------------------------------------|--|
| E&M works for Underpass D3 | Noise and Air Quality, Chemical and Waste Management |
| Construction of Observation Deck | Noise, Air and Water Quality |

1. INTRODUCTION

Project Background

- 1.1 The Kai Tak Development (KTD) is located in the south-eastern part of Kowloon Peninsula of the HKSAR, comprising the apron and runway areas of the former Kai Tak Airport and existing waterfront areas at To Kwa Wan, Ma Tau Kok, Kowloon Bay, Kwun Tong and Cha Kwo Ling.
- 1.2 Contract No. ED/2018/01 - Kai Tak Development – stage 4 infrastructure at the former runway and south apron (The Project), comprises mainly the design and construction of a dual two-lane Road D3 (Metro Park Section), a single 2-lane Road L12d, a salt water pumping station, a sewage pumping station, landscaped deck and promenade above and adjoining Road D3 (Metro Park Section) respectively, some remaining road works at Road L14, noise barrier at Road D3A, and other associated works at the former runway and south apron. The proposed works are shown in Figure 1 and Figure 2. During the course of the Contract No. ED/2018/01, there may be modification of noise barriers in association with the construction of footbridges connecting to the landscaped deck of Road D3A by developers of adjacent lands (Figure 3). The proposed works and site boundary are shown in Figure 4.
- 1.3 The new road connecting Shing Fung Road & Shing Kai Road has been open for public vehicles since 31 December 2022. Detailed location referring to Figure 5.
- 1.4 Civil Engineering and Development Department (CEDD) had completed an Environmental Impact Assessment (EIA) and is the Permit Holder.
- 1.5 The construction work under ED/2018/01 comprises the EM&A Manuals (EIA Register Nos. AEIAR-130/2009 for Kai Tak Development and EIA Register Nos. AEIAR-170/2013 for Roads D3A and D4A) and Environmental Permit (EP) Nos. EP-337/2009 and Variation to the EP (VEP) No. EP-445/2013/B.
- 1.6 Air quality and noise monitoring has been proposed in the EM&A Manual with EIA Register Nos. AEIAR-130/2009 for Kai Tak Development while no air quality and noise monitoring are proposed in EM&A Manual with EIA Register Nos. AEIAR-170/2013 for Roads D3A and D4A.

Project Organization

1.7 The project organization chart and with respect to the EM&A programme is shown in Appendix A. Information of key personnel contact names and telephone numbers are summarized in Table 1.1.

Table 1.1 Contact Information of Key Personnel

| Party | Role | Contact Person | Position | Phone No. | Fax No. |
|---|--|-----------------|-----------------------|-----------|-----------|
| Civil Engineering and Development Department (CEDD) | Project Proponent | Mr. Jason Wong | Senior Engineer | 3579 2453 | 2739 0076 |
| | | Ms. Chan Ka Yan | Engineer | 3579 2458 | 2739 0076 |
| AECOM Asia Co. Ltd. (AECOM) | Supervisor (act as Engineers' Representative (ER) listed in EM&A Manual) | Ms. Fanny Lau | CRE | 3911 4201 | 3911 4288 |
| Ramboll Hong Kong Limited (Ramboll) | Independent Environmental Checker (IEC) | Mr. Y H Hui | IEC | 3465 2850 | 3465 2899 |
| Ka Shing Management Consultant Limited (Ka Shing) | Environmental Team (ET) | Mr. Chan Pang | ET Leader | 6082 2973 | 2120 7752 |
| Penta-Ocean Construction Co., Ltd. (Penta-Ocean) | Contractor | Mr. Tony Tang | Environmental Officer | 9433 2628 | 3465 8898 |

Works Area and Construction Programme

1.8 The construction works commenced on 20 January 2020. The construction programme of the Project is given in Appendix B.

Construction works undertaken during reporting month

1.9 Major construction works of the Project in the reporting month are summarized in Table 1.2:

Table 1.2 Major activities of the Project during reporting month

| | |
|--|--|
| Laying of stormwater drainage pipes/ sewer pipes/watermains and construction of associated manholes at Road L12d and at-grade road | E&M works for Underpass 03 |
| Construction of remaining works for Noise Barrier | Construction of RC structure for Lift LT-1 and LT-2 |
| Construction of Permanent railing for NDR | Modification works at Shing Kai Road |
| Installation of Lift LT-4 | Laying of stormwater drainage pipes/ sewer pipes/ watermains |
| Waterproofing works for ELD | Construction of Seawater Intake Box Culvert; |
| Concreting and RC structure of Pumping Stations | Construction of Observation Deck |
| Construction of emergency walkway | Construction of Harbour Steps; |
| Concreting and RC structure of Toilet cum Changing Room | |

Submission Status under the Environmental Permits

1.10 The status of required submission under Environmental Permit (EP) conditions under EP-337/2009 and Variation to the EP (VEP) No. EP-445/2013/B are summarized in Table 1.3.

Table 1.3 Summary of Status of Required Submission of EPs

| EP Condition EP-337/2009 | EP Condition EP-445/2013/B | Submission | Submission Date |
|--------------------------|----------------------------|--|-----------------|
| Condition 1.11 | Condition 1.12 | Notification of Commencement Date of Construction of the Project | 6 Jan 2020 |
| Condition 2.3 | Condition 2.3 | Management Organization of Main Construction Companies | 9 Sep 2019 |
| Condition 2.3 | Condition 2.3 | Updated Management Organization of Main Construction Companies | 17 Aug 2021 |
| Condition 2.4 | Condition 2.4 | Design Drawings | 6 Jan 2020 |
| Condition 2.11 | Condition 2.5 | Landscape Mitigation Plans | 13 Nov 2020 |
| Condition 2.1 | Condition 2.5 | Landscape Mitigation Plans (Revision 2) | 18 May 2021 |
| NA | Condition 2.9 | Detailed Design Plan of Traffic Noise Mitigation Measures | 9 Dec 2022 |
| Condition 3.2 | NA | Baseline Monitoring Report | 2 Jan 2020 |
| Condition 3.2 | NA | Revised Baseline Monitoring Report | 28 Mar 2020 |

| | | | |
|-----------------------------|-------------------------------|------------------------------------|-----------------|
| EP Condition EP-337/2009 | EP Condition EP-445/2013/B | Submission | Submission Date |
| Condition 3.3 | Condition 3.2 | Monthly EM&A Report (October 2023) | 17 Nov 2023 |

2. AIR QUALITY MONITORING

Monitoring Requirements

2.1 In accordance with EM&A Manuals (EIA Register Nos. AEIAR-130/2009), impact air quality monitoring shall be carried out during the construction phase of the Project. For regular impact monitoring, a sampling frequency of at least once in every six days will be strictly observed at all of the monitoring stations for 24-hour TSP. For 1-hour TSP monitoring, the sampling frequency of at least three times in every six days will be undertaken when the highest dust impact occurs.

Monitoring Locations

2.2 Three designated monitoring stations were selected for air quality monitoring programme. Impact air quality monitoring was conducted at three air quality monitoring stations in the reporting month. Table 2.1 describes the air quality monitoring locations, which are also depicted in Figure 6.

Table 2.1 Locations of Air Quality Monitoring Stations

| Air Quality Monitoring Locations for the Project | Location of Measurement |
|---|-------------------------|
| AM3 - Sky Tower | Podium floor near T7 |
| AM4(A) - The Hong Kong Society for the Blind's Factory cum Sheltered Workshop | Ground |
| AM7 – Hong Kong Children's Hospital | Rooftop |

2.3 Due to the relocation of The Hong Kong Society for the Blind's Factory cum Sheltered Workshop (AM4(A)), the premises owner rejected ET to conduct impact monitoring since 1 Sept 2022. No 24-TSP monitoring was conducted at AM4(A) while 1-hr TSP monitoring at AM4(A) were conducted on the ground floor with orienting to the Project site.

2.4 ET approached the potential sensitive receivers for monitoring station relocation since May 2022. ET conducted site visit in nearby area and found that there was no property management company in most of the nearby premises and could not approach the residents regarding the

environmental monitoring. No permission can be applied for environmental monitoring.

2.5 For those premises have property management company, ET sent the proposal to owner / property management company and explained the purpose of environmental monitoring (refer to Appendix C – Apply permission for Environmental Monitoring). Figure 7 shows the proposed alternative monitoring locations. No permission of setup and entry is received until the reporting month.

2.6 Summary of the status of for proposed alternative monitoring locations for AM4(A) are given in Table 2.2.

Table 2.2 Proposed alternative monitoring locations for AM4(A)

| Proposed alternative monitoring locations for M11 | Status upto reporting month |
|---|--|
| A1 - The Lok Sin Tong Modular Social Housing Scheme | Rejected application on 13 Oct 2022 |
| A2 - Freder Centre | No reply from building management office |
| A3 - New Port Centre | No reply from building management office |
| A4 - 112 - 138 To Kwa Wan Road | No property management company and could not apply the permission. |
| A5 - 2 - 26 Hok Ling Street | No property management company and could not apply the permission. |
| A6 - 1 - 27 Hok Ling Street | No property management company and could not apply the permission. |
| A7 - 2 - 28 Tsun Fat Street | No property management company and could not apply the permission. |
| A8 - 1 - 27 Tsun Fat Street | No property management company and could not apply the permission. |
| A9 – 2 - 28 Yin On Street | No property management company and could not apply the permission. |
| A10 – 1 – 27 Yin On Street | No property management company and could not apply the permission. |
| A11 – 2 – 28 Shim Luen Street | No property management company and could not apply the permission. |
| A12 - 1 - 27 Shim Luen Street | No property management company and could not apply the permission. |
| A13 - 2 - 28 Hung Wan Street | No property management company and could not apply the permission. |
| A14 - 1 - 27 Hung Wan Street | No property management company and could not apply the permission. |
| A15 - 2 - 28 Pang Ching Street | No property management company and could not apply the permission. |
| A16 - 1 - 27 Pang Ching Street | No property management company and could not apply the permission. |
| A17 - 2 - 28 Ying Yeung Street | No property management company and could not apply the permission. |
| A18 - 1 - 27 Ying Yeung Street | No property management company and could not apply the permission. |

| Proposed alternative monitoring locations for M11 | Status upto reporting month |
|---|--|
| | not apply the permission. |
| A19 - 2 - 28 Lun Cheung Street | No property management company and could not apply the permission. |
| A20 - 1 - 27 Lun Cheung Street | No property management company and could not apply the permission. |
| A21 - 2 - 28 Luk Ming Street | No property management company and could not apply the permission. |
| A22 - 1 - 27 Luk Ming Street | No property management company and could not apply the permission. |
| A23 - 2 - 28 Fung Yi Street | No property management company and could not apply the permission. |

2.7 No update for the approval of monitoring relocation in the reporting month and ET will resume the impact monitoring once the alternative monitoring location for AM4(A) are confirmed.

Monitoring Parameters, Frequency and Duration

2.8 The air quality monitoring locations and monitoring frequency are listed in Table 2.3.

Table 2.3 Air Quality Monitoring Parameters, Frequency and Duration

| Air Monitoring Station | Location for Measurement | Parameter | Duration | Frequency |
|---|--------------------------|-----------------------|------------|----------------------------|
| AM3 - Sky Tower | Podium floor near T7 | | | |
| AM4(A) - The Hong Kong Society for the Blind's Factory cum Sheltered Workshop | Ground | - 24-hour average TSP | - 24 hours | - Once every 6 days |
| AM7 - Hong Kong Children's Hospital | Rooftop | - 1-hour average TSP | - 1 hour | - Three times every 6 days |

2.9 The monitoring schedule for reporting month and next month is presented in Appendix D

2.10 Photographic records of the impact monitoring setup are shown in Appendix E.

Monitoring Equipment

2.11 24-hour average TSP and 1-hour average TSP levels were measured for impact monitoring.

24-hour average TSP levels were measured by the High Volume Samplers (HVS) and 1-hour average TSP levels were measured by direct reading method to indicate short-term impacts. Wind data monitoring equipment was set up at conspicuous locations for logging wind speed and wind direction near to the dust monitoring locations. Table 2.4 summarizes the equipment to be used in the air quality monitoring.

Table 2.4 Air Quality Monitoring Equipment

| Equipment | Model | Quantity |
|-----------------------|--|----------|
| HVS Sampler | TE-5170 X c/w of TSP sampling inlet | 2 |
| Calibrator | TISCH TE-5025A | 1 |
| 1-hour TSP Dust Meter | TSI Model AM510 SidePak Personal Aerosol Monitor | 2 |
| Wind Anemometer | Davis Vantage Pro2 Weather Station | 1 |

2.12 High volume samplers (HVS) (TE-5170 X c/w of TSP sampling inlet) comprising with appropriate sampling inlets were employed for 24-hour TSP monitoring. The sampler was composed of a motor, a filter holder, a flow controller and a sampling inlet and its performance specification complied with that required by USEPA Standard Title 40, Code of Federation Regulations Chapter 1 (Part 50).

2.13 Calibration certificates, catalogue of equipment are given in Appendix F.

Monitoring Methodology and QA/QC Procedure

24-hour TSP Monitoring

Operating/Analytical Procedures

2.14 Setup criteria of HVS are shown as follows:

- A horizontal platform with appropriate support to secure the samplers against gusty wind was provided.
- No two samplers were placed less than 2m apart.
- The distance between the sampler and an obstacle, such as buildings, was at least twice the height that the obstacle protrudes above the sampler.
- A minimum of 2m of separation from walls, parapets and penthouses was set for the rooftop samples.
- A minimum of 2m separation from any supporting structure, measured horizontally was set.

- No furnaces or incineration flues was nearby.
- Airflow around the sampler was unrestricted.
- Any wire fence and gate, to protect the samplers, was not caused any obstruction during monitoring.
- Permission were obtained to setup the samplers and to obtain access to the monitoring stations.
- A secured supply of electricity was provided to operate the samplers.

2.15 Prior to the commencement of the dust sampling, the flow rate of the HVS was properly set (between 1.1 m³/min. and 1.7 m³/min.) in accordance with the manufacturer's instruction to within the range recommended in USEPA Standard Title 40, CFR Part 50.

2.16 For TSP sampling, Glass Fiber Filter Media 8" x 10" have a collection efficiency of > 99 % for particles of 0.3 µm diameter were used.

2.17 The power supply was checked to ensure the sampler worked properly and then placed any filter media at the designated air monitoring station.

2.18 The filter holding frame was removed by loosening the four nuts and a weighted and conditioned filter was carefully centered with the stamped number upwards, on a supporting screen.

2.19 The filter was aligned on the screen so that the gasket formed an airtight seal on the outer edges of the filter. Then the filter holding frame was tightened to the filter holder with swing bolts. The applied pressure was sufficient to avoid air leakage at the edges.

2.20 The shelter lid was closed and secured with the aluminium strip.

2.21 The timer was programmed. Information was recorded on the record sheet, which included the starting time, the weather condition and the filter number (the initial weight of the filter paper can be found out by using the filter number).

2.22 After sampling, the filter was removed from the HVS and put into a clean and labeled seal plastic bag to avoid cross contamination. The elapsed time was also be recorded. The sampled filters were sent to the HOKLAS accredited or other internationally accredited laboratory for weighting.

Maintenance/Calibration

2.23 The following maintenance/calibration are required for the HVS:

- The HVS and their accessories were properly maintained. Appropriate maintenance such as routine motor brushes replacement and electrical wiring checking were made to ensure that the equipment and necessary power supply are in good working condition.
- High volume samplers were calibrated with at bi-monthly intervals using TE-5025A Calibration Kit throughout all stages of the air quality monitoring.

1-hour TSP Monitoring

Measurement Procedures

2.24 The measurement procedures of the 1-hour TSP were conducted in accordance with the Manufacturer's Instruction Manual as follows:

- Set up the dust meter on a tripod at 1.2m level.
- Turned on the dust meter and check the battery, if too low, change new ones. Pointed the meter to the source area or the planned measurement area.
- The zero calibration of the instrument was conducted before and after each sampling.
- TSP levels were recorded for 1-hour with 5-minute data logging interval.
- Recorded down the general meteorological conditions, Test ID no., start/end time, spot check reading at each sampling location for data processing.
- Recorded any activities that may generate dust during measurement period.

Maintenance/Calibration

2.25 The following maintenance/calibration are required for the direct dust meters:

- To validity the accuracy of dust meter, compare the results measured by dust meter and HVS by direct reading method every 12 months throughout all stages of the air quality monitoring.

Wind Data Monitoring

2.26 Wind Anemometer was installed at the roof-top of AM7 - Hong Kong Children's Hospital with 10m above ground and clear of constructions or turbulence caused by the buildings.

2.27 The wind data was captured by a data logger and the data was downloaded at least once per month for analysis.

2.28 The wind data monitoring equipment will be re-calibrated at least once every six months.

2.29 Wind direction is divided into 16 sectors of 22.5 degrees each.

2.30 Details of weather information during the monitoring period are shown in Appendix G.

Action and Limit Levels

2.31 The Action and Limit Levels of 24-hour average TSP and 1-hour average TSP are summarized in Table 2.5 and Table 2.6 respectively.

Table 2.5 Action and Limit Levels of 24-hour average TSP for Construction Dust Monitoring

| Parameter | Air Monitoring Station | Action Level, $\mu\text{g}/\text{m}^3$ | Limit Level, $\mu\text{g}/\text{m}^3$ |
|---------------------|------------------------|---|--|
| 24-hour average TSP | AM3 | 182 | 260 |
| | AM4(A) | 187 | 260 |
| | AM7 | 181 | 260 |

Table 2.6 Action and Limit Levels of 1-hour average TSP for Construction Dust Monitoring

| Parameter | Air Monitoring Station | Action Level, $\mu\text{g}/\text{m}^3$ | Limit Level, $\mu\text{g}/\text{m}^3$ |
|--------------------|------------------------|---|--|
| 1-hour average TSP | AM3 | 297 | 500 |
| | AM4(A) | 326 | 500 |
| | AM7 | 315 | 500 |

Impact Air Quality Monitoring results

2.32 Impact monitoring results for 24-hour average TSP and 1-hour average TSP levels at the designed air quality monitoring stations are summarized in Table 2.7 and Table 2.8 respectively.

2.33 Due to the relocation of The Hong Kong Society for the Blind's Factory cum Sheltered Workshop (AM4(A)), the premises owner rejected ET to conduct impact monitoring since 1 Sept 2022. No 24-TSP monitoring was conducted at AM4(A) while 1-hr TSP monitoring at AM4(A) were conducted on the ground floor with orienting to the Project site. ET will resume

the impact monitoring once the alternative monitoring location for AM4(A) is confirmed.

Table 2.7 Summary of 24-hour average TSP Monitoring Data during the reporting month

| Air Monitoring Station | Average TSP Concentration, $\mu\text{g}/\text{m}^3$ | Range, $\mu\text{g}/\text{m}^3$ | Action Level, $\mu\text{g}/\text{m}^3$ | Limit Level, $\mu\text{g}/\text{m}^3$ |
|------------------------|---|---------------------------------|--|---------------------------------------|
| AM3 | 54 | 45 – 71 | 182 | 260 |
| AM4(A) | / | / – / | 187 | 260 |
| AM7 | 65 | 55 – 74 | 181 | 260 |

Table 2.8 Summary of 1-hour average TSP Monitoring Data during the reporting month

| Air Monitoring Station | Average TSP Concentration, $\mu\text{g}/\text{m}^3$ | Range, $\mu\text{g}/\text{m}^3$ | Action Level, $\mu\text{g}/\text{m}^3$ | Limit Level, $\mu\text{g}/\text{m}^3$ |
|------------------------|---|---------------------------------|--|---------------------------------------|
| AM3 | 54 | 39 – 73 | 297 | 500 |
| AM4(A) | 69 | 53 – 81 | 326 | 500 |
| AM7 | 62 | 56 – 72 | 315 | 500 |

2.34 There was no Action and Limit Level exceedance of 24-hour average TSP and 1-hour average TSP levels recorded during the reporting month.

2.35 Graphical presentation and detailed monitoring results of 24-hour average TSP and 1-hour average TSP levels are shown in Appendix H and Appendix I respectively.

2.36 The Event and Action Plan is provided in Appendix J.

2.37 Non-project related construction activities in the adjacent construction sites were observed during the reporting period and may affect the monitoring results.

3. NOISE MONITORING

Monitoring Requirements

- 3.1 In accordance with EM&A Manuals (EIA Register Nos. AEIAR-130/2009), impact noise monitoring shall be carried out during the construction phase of the Project.
- 3.2 Regular monitoring, $L_{Aeq, 30\text{-minute}}$, for each station will be on a weekly basis and conduct one set of measurements between 0700 – 1900 on normal weekdays.
- 3.3 If construction works are extended to include works during 1900 – 0700 as well as public holidays and Sundays, additional weekly impact monitoring will be carried out during the respective restricted hours periods.

Monitoring Locations

- 3.4 Two designated monitoring stations were selected for noise monitoring programme. Impact noise monitoring was conducted at two noise monitoring stations in the reporting month. Table 3.1 describes the noise monitoring locations, which are also depicted in Figure 8.

Table 3.1 Locations of Noise Monitoring Stations

| Noise Monitoring Locations for the Project | Location of Measurement |
|--|-------------------------|
| M11 - The Hong Kong Society for the Blind's Factory cum Sheltered Workshop | Ground (Façade) |
| M12 - Hong Kong Children's Hospital | Rooftop (Façade) |

- 3.5 Due to the relocation of The Hong Kong Society for the Blind's Factory cum Sheltered Workshop (M11), the premises owner rejected ET to conduct impact monitoring since 1 Sept 2022.
- 3.6 ET approached the potential sensitive receivers for monitoring station relocation since May 2022. ET conducted site visit in nearby area and found that there was no property management company in most of the nearby premises and could not approach the residents regarding the environmental monitoring. No permission can be applied for environmental monitoring.

3.7 For those premises have property management company, ET sent the proposal to owner / property management company and explained the purpose of environmental monitoring (refer to Appendix C – Apply permission for Environmental Monitoring). Figure 9 shows the proposed alternative monitoring locations. No permission of setup and entry is received until the reporting month.

3.8 Summary of the status of for proposed alternative monitoring locations for M11 are given in Table 3.2.

Table 3.2 Proposed alternative monitoring locations for M11

| Proposed alternative monitoring locations for M11 | Status upto reporting month |
|---|--|
| A1 - The Lok Sin Tong Modular Social Housing Scheme | Rejected application on 13 Oct 2022 |
| A2 - Freder Centre | No reply from building management office |
| A3 - New Port Centre | No reply from building management office |
| A4 - 112 - 138 To Kwa Wan Road | No property management company and could not apply the permission. |
| A5 - 2 - 26 Hok Ling Street | No property management company and could not apply the permission. |
| A6 - 1 - 27 Hok Ling Street | No property management company and could not apply the permission. |
| A7 - 2 - 28 Tsun Fat Street | No property management company and could not apply the permission. |
| A8 - 1 - 27 Tsun Fat Street | No property management company and could not apply the permission. |
| A9 – 2 - 28 Yin On Street | No property management company and could not apply the permission. |
| A10 – 1 – 27 Yin On Street | No property management company and could not apply the permission. |
| A11 – 2 – 28 Shim Luen Street | No property management company and could not apply the permission. |
| A12 - 1 - 27 Shim Luen Street | No property management company and could not apply the permission. |
| A13 - 2 - 28 Hung Wan Street | No property management company and could not apply the permission. |
| A14 - 1 - 27 Hung Wan Street | No property management company and could not apply the permission. |
| A15 - 2 - 28 Pang Ching Street | No property management company and could not apply the permission. |
| A16 - 1 - 27 Pang Ching Street | No property management company and could not apply the permission. |
| A17 - 2 - 28 Ying Yeung Street | No property management company and could not apply the permission. |
| A18 - 1 - 27 Ying Yeung Street | No property management company and could not apply the permission. |
| A19 - 2 - 28 Lun Cheung Street | No property management company and could |

| Proposed alternative monitoring locations for M11 | Status upto reporting month |
|---|--|
| | not apply the permission. |
| A20 - 1 - 27 Lun Cheung Street | No property management company and could not apply the permission. |
| A21 - 2 - 28 Luk Ming Street | No property management company and could not apply the permission. |
| A22 - 1 - 27 Luk Ming Street | No property management company and could not apply the permission. |
| A23 - 2 - 28 Fung Yi Street | No property management company and could not apply the permission. |

3.9 No update for the approval of monitoring relocation in the reporting month and ET will resume the impact monitoring once the alternative monitoring location for M11 are confirmed.

Monitoring Parameters, Frequency and Duration

3.10 The noise monitoring locations and monitoring frequency are listed in Table 3.3.

Table 3.3 Noise Monitoring Parameters, Frequency and Duration

| Noise Monitoring Station | Location for Measurement | Parameter | Frequency and Duration |
|---|--------------------------|-------------------------------------|--|
| M11 - The Hong Kong Society for the Blind's Factory cum Sheltered Workshop* | Ground (Façade) | L_{Aeq} , L_{A10} and L_{A90} | 30 - minutes measurement at each monitoring station between 0700 – 1900 hrs on normal weekdays (Monday to Saturday) at frequency of once per week. |
| M12 - Hong Kong Children's Hospital | Rooftop (Façade) | | |

* Due to the relocation of The Hong Kong Society for the Blind's Factory cum Sheltered Workshop (M11), the premises owner rejected ET to conduct impact monitoring since 1 Sept 2022.

3.11 The monitoring schedule for reporting month and next month is presented in Appendix D.

3.12 Photographic records of the monitoring setup are shown in Appendix E.

Monitoring Equipment

3.13 As referred to in the Technical Memorandum (TM) issued under the Noise Control Ordinance (NCO), sound level meters in compliance with the IEC 61672-1 (Type 1) standard [this

standard replaced the International Electrotechnical Commission Publications 60651:1979 (Type 1) and 60804:1985 (Type 1)] were used for noise monitoring. Table 3.4 summarizes the equipment to be used in the noise monitoring.

Table 3.4 Noise Monitoring Equipment

| Equipment | Model | Quantity |
|------------------------|------------------------|----------|
| Sound Level Meter | RION NL52 | 2 |
| Sound Level Calibrator | RION NC 74 | 2 |
| Air Flowmeter | TSI TA440 Air Velocity | 2 |

3.14 Calibration certificates, catalogue of equipment are given in Appendix K.

Monitoring Methodology and QA/QC Procedure

3.15 The noise level measurement was conducted at 1m from the exterior of the nearby noise sensitive receivers building façade and at 1.2m above the ground and facing to the source area or the planned measurement area.

3.16 No noise measurement was conducted in the presence of fog, rain, wind with a steady speed exceeding 5 m/s or wind with gusts exceeding 10 m/s. Air flow was measured by air flow meter.

3.17 Turned on the sound level meter and check the battery, if too low, change new ones.

3.18 Calibration was conducted immediately prior to and after each noise measurement, the accuracy of the sound level meters was checked by using sound calibrator generating 1,000 Hz with 94dB. Measurement data was found to be valid only if the calibration levels from before and after the noise measurement agreed to within 1.0 dB.

3.19 Noise level was recorded.

3.20 Recorded any activities that may generate noise during measurement period.

Maintenance and Calibration

3.21 The microphone head of the sound level meter and calibrator was cleaned with a soft cloth at

quarterly intervals.

3.22 The sound level meter and sound calibrator were calibrated annually.

3.23 Calibration for sound level meter was conducted immediately prior to and following each noise measurement by using sound calibrator generating a known sound pressure level at a known frequency (1,000 Hz with 94dB). Measurements may be accepted as valid only if the calibration levels from before and after the noise measurement agree to within 1.0 dB.

Action and Limit Levels

3.24 The Baseline Noise Levels and Action and Limit Levels for construction noise is presented in Table 3.5.

Table 3.5 Baseline Noise Level and Action and Limit Levels for Construction Noise Monitoring

| Time Period | Noise Monitoring Station | Baseline Noise Levels, dB (A) | Action Level | Limit Level [^] |
|--------------------------------|--------------------------|-------------------------------|--|--------------------------|
| 0700 – 1900 on normal weekdays | M11 | 68.3 | When one documented complaint is received. | 75 dB(A) |
| | M12 | 61.9 | | |

Note: ^ If works are to be carried out during restricted hours, the conditions stipulated in the Construction Noise Permit (CNP) issued by the Noise Control Authority have to be followed.

Impact Noise Monitoring results

3.25 Impact noise monitoring results at the designed noise monitoring stations are summarized in Table 3.6 respectively.

3.26 Due to the relocation of The Hong Kong Society for the Blind's Factory cum Sheltered Workshop (M11), the premises owner rejected ET to conduct impact monitoring since 1 Sept 2022. 30-min noise monitoring at M11 were conducted on the ground floor with orienting to the Project site. ET will resume the impact monitoring once the alternative monitoring location for M11 is confirmed.

Table 3.6 Summary of Noise Monitoring Data during the reporting month

| Noise Monitoring Station | Measured $L_{Aeq, 30\text{-min}}$, Average, dB(A) | Measured $L_{Aeq, 30\text{-min}}$, Range, dB(A) | Action Level | Limit Level [^] |
|--------------------------|--|--|---|--------------------------|
| M11 | 73.4 | 72.9 – 74.1 | When one documented complaint is received | 75 dB(A) |
| M12 | 64.1 | 62.1 – 65.6 | | |

Note: [^] If works are to be carried out during restricted hours, the conditions stipulated in the Construction Noise Permit (CNP) issued by the Noise Control Authority have to be followed.

3.27 There were no Action Level exceedance of noise monitoring and Limit Level exceedance of $L_{Aeq, 30\text{min}}$ recorded during the reporting month.

3.28 Graphical presentation and detailed monitoring results are shown in Appendix L.

3.29 The Event and Action Plan is provided in Appendix J.

3.30 Non-project related construction activities in the adjacent construction sites were observed during the reporting period and may affect the monitoring results.

4. COMPARISON OF EM&A RESULTS WITH EIA PREDICTIONS

4.1 The environmental impacts predictions were given in Agreement No. CE 35/2006(CE) Kai Tak Development Engineering Study cum Design and Construction of Advance Works - Investigation, Design and Construction - Kai Tak Development Environmental Impact Assessment Report, EIA Register Nos. AEIAR-130/2009 for Kai Tak Development (The EIA Report). The EM&A data was compared with the EIA predictions as summarized in Table 4.1 to Table 4.3.

Table 4.1 Comparison of 24-hour average TSP Monitoring Data with EIA predictions

| Air Monitoring Station | ASR No. in EIA report | Predicted Cumulative Maximum 24-hour average TSP concentration | | Measured 24-hr average TSP in Reporting Month (November 2023) $\mu\text{g}/\text{m}^3$ |
|--|-----------------------|--|--|--|
| | | Scenario 1 (Mid 2009 to Mid 2013), $\mu\text{g}/\text{m}^3$ | Scenario 2 (Mid 2013 to Late 2016), $\mu\text{g}/\text{m}^3$ | |
| AM3 - Sky Tower | A40 [^] | 106 | 138 | 45 – 71 |
| AM4(A) - The Hong Kong Society for the Blind's Factory cum Sheltered Workshop* | A43 [^] | 123 | 195 | / – / |
| AM7 – Hong Kong Children's Hospital | PA60 | NA | NA | 55 – 74 |

Note:

[^] Prediction results are given in the Table 3.13 of the EIA report EIA Register Nos. AEIAR-130/2009 for Kai Tak Development.

* Due to the relocation of The Hong Kong Society for the Blind's Factory cum Sheltered Workshop (AM4(A)), the premises owner rejected ET to conduct impact monitoring since 1 Sept 2022. No 24-TSP monitoring was conducted at AM4(A) because of the assess limitation in the reporting month.

Table 4.2 Comparison of 1-hour average TSP Monitoring Data with EIA predictions

| Air Monitoring Station | ASR No. in EIA report | Predicted Cumulative Maximum 1-hour average TSP concentration | | Measured 1-hr average TSP in Reporting Month (November 2023) $\mu\text{g}/\text{m}^3$ |
|--|-----------------------|---|--|---|
| | | Scenario 1 (Mid 2009 to Mid 2013), $\mu\text{g}/\text{m}^3$ | Scenario 2 (Mid 2013 to Late 2016), $\mu\text{g}/\text{m}^3$ | |
| AM3 - Sky Tower | A40 | 217 [^] | 247 [^] | 39 – 73 |
| AM4(A) - The Hong Kong Society for the Blind's Factory cum Sheltered Workshop* | A43 | 283 [^] | 409 [^] | 53 – 81 |
| AM7 – Hong Kong Children's Hospital | PA60 | NA | NA | 56 – 72 |

Note:

^ Prediction results are given in the Table 3.13 of the EIA report EIA Register Nos. AEIAR-130/2009 for Kai Tak Development.

* Due to the relocation of The Hong Kong Society for the Blind's Factory cum Sheltered Workshop (AM4(A)), the premises owner rejected ET to conduct impact monitoring since 1 Sept 2022. 1-hour TSP monitoring was conducted on the ground floor outside AM4(A) with facing to the Project Site because of the access limitation in the reporting month.

Table 4.3 Comparison of Noise Monitoring Data with EIA predictions

| Noise Monitoring Station | NSR No. in EIA report | Predicted Mitigated Construction Noise Levels during Normal Daytime Working Hour L _{Aeq, 30min} , dB(A) | Measured Noise Level in Reporting Month (November 2023) L _{Aeq, 30min} , dB(A) |
|---|-------------------------|---|--|
| M11 - The Hong Kong Society for the Blind's Factory cum Sheltered Workshop* | N18 | 50 – 76* | 72.9 – 74.1 |
| M12 - Hong Kong Children's Hospital | PN83, PN84, PN84A | NA | 62.1 – 65.6 |

Note:

* Prediction results are given in the Table 3.20 of the EIA report EIA Register Nos. AEIAR-130/2009 for Kai Tak Development.

*Due to the relocation of The Hong Kong Society for the Blind's Factory cum Sheltered Workshop (M11), the premises owner rejected ET to conduct impact monitoring since 1 Sept 2022. Construction noise monitoring was conducted on the ground floor outside M11 with facing to the Project Site because of the access limitation in the reporting month.

4.2 24-hour TSP monitoring results at AM3 were recorded lower than the prediction in the EIA Report. Due to the relocation of The Hong Kong Society for the Blind's Factory cum Sheltered Workshop (AM4(A)), the premises owner rejected ET to conduct impact monitoring since 1 Sept 2022. No 24-TSP monitoring was conducted at AM4(A) because of the assess limitation in the reporting month. Non-project related construction activities in the adjacent construction sites were observed during the reporting period and may affect the monitoring results.

4.3 No prediction in the EIA Report for 24-hour TSP monitoring results at AM7.

4.4 1-hour TSP monitoring results at AM3 and AM4(A) were recorded lower than the prediction in the EIA Report. Due to the relocation of The Hong Kong Society for the Blind's Factory cum Sheltered Workshop (AM4(A)), the premises owner rejected ET to conduct impact monitoring since 1 Sept 2022. 1-hour TSP monitoring was conducted on the ground floor outside AM4(A) with facing to the Project Site because of the access limitation in the reporting month. Non-project related construction activities in the adjacent construction sites were observed during the reporting period and may affect the monitoring results.

4.5 No prediction in the EIA Report for 1-hour TSP monitoring results at AM7.

4.6 Noise monitoring results at M11 were recorded lower than the prediction in the EIA Report. Due to the relocation of The Hong Kong Society for the Blind's Factory cum Sheltered

Workshop (M11), the premises owner rejected ET to conduct impact monitoring since 1 Sept 2022. Construction noise monitoring was conducted on the ground floor outside M11 with facing to the Project Site because of the access limitation in the reporting month. Non-project related construction activities in the adjacent construction sites were observed during the reporting period and may affect the monitoring results.

4.7 No prediction in the EIA Report for noise monitoring results at M12.

5. LANDSCAPE AND VISUAL MONITORING

5.1 In accordance with EM&A Manuals (EIA Register Nos. AEIAR-130/2009 and AEIAR-170/2013), Landscape and Visual Monitoring shall be carried out during the construction phase of the Project. Regular impact monitoring will be conducted at least once per week.

Results and Observations

5.2 Site inspections were carried out on a weekly basis to monitor the timely implementation of proper environmental management practices and mitigation measures in the Project site.

5.3 Site inspections were conducted on 2, 7, 16, 23 and 30 November 2023 in the reporting month.

5.4 The summaries of site audits are attached in Table 5.1.

Table 5.1 Summary of observations of Landscape and Visual impact during the reporting month

| Inspection Date | Key Observations | Recommendations / Actions | Close-out Date / Status |
|------------------|------------------|---------------------------|-------------------------|
| 02 November 2023 | No | NA | NA |
| 07 November 2023 | No | NA | NA |
| 16 November 2023 | No | NA | NA |
| 23 November 2023 | No | NA | NA |
| 30 November 2023 | No | NA | NA |

5.5 No non-compliance of the landscape and visual impact was recorded in the reporting month.

5.6 Should non-compliance of the landscape and visual impact occur, action in accordance with the action plan presented in Appendix N shall be performed.

6. ENVIRONMENTAL SITE INSPECTION AND AUDIT



Site Inspection





6.1 Site inspections were carried out on a weekly basis to monitor the timely implementation of proper environmental management practices and mitigation measures in the Project site.

6.2 Site inspections were conducted on 2, 7, 16, 23 and 30 November 2023 in the reporting month.

6.3 The summaries of site audits are attached in Table 6.1.

Table 6.1 Summary of site inspections observations during the reporting month

| Inspection Date | Key Observations | Recommendations / Actions | Close-out Date / Status |
|------------------|---|--|--------------------------------|
| 02 November 2023 | No | NA | NA |
| 07 November 2023 | No | NA | NA |
| 16 November 2023 |  <p>Observation: The NRMM label should be displayed on PMEs.</p> |  <p>Action Taken: The NRMM label is properly demonstrated.</p> | Closed-out on 23 November 2023 |
| 23 November 2023 |  <p>Observation: The accumulating waste should</p> |  <p>Action Taken:</p> | Closed-out on 30 November 2023 |

| Inspection Date | Key Observations | Recommendations / Actions | Close-out Date / Status |
|-------------------------|--|---|---------------------------------------|
| | <p>be cleared at pumping stations.</p>  <p>Observation: The chemicals should be stored in the drip tray at pumping station.</p> | <p>The accumulating waste was cleared at pumping stations.</p>  <p>Action Taken: The chemicals have been removed.</p> | <p>Closed-out on 30 November 2023</p> |
| <p>30 November 2023</p> |  <p>Observation: The accumulating waste should be cleared at toilet cum.</p> |  <p>Action Taken: The accumulating waste have been removed at toilet cum.</p> | <p>Closed-out on 07 December 2023</p> |

Status of Waste Management

6.4 The amount of wastes generated by the major site activities of the work contracts within the Project during the reporting month is shown in Appendix O.

6.5 The Contractor was registered as a chemical waste producer for the Project. The Contractor was reminded that chemical waste containers should be properly treated and stored temporarily in designated chemical waste storage area on site in accordance with the Code of Practice on the Packaging, Labelling and Storage of Chemical Wastes.

Status of Environmental Licenses, Notification and Permits

6.6 A summary of the relevant permits, licenses and/or notifications on environmental protection for the Project is shown in Table 6.2.

Table 6.2 Summary of Environmental Licenses, Notifications and Permits

| Environmental Licenses, Notifications and Permits | Ref. No. | Valid Form | Valid Till |
|---|-------------------|--------------|-------------|
| Environmental Permit under EIAO | EP-337/2009 | 23 Apr 2009 | N/A |
| | EP-445/2013/B | 3 May 2022 | N/A |
| Construction Dust Notification under APCO | 445956 | 6 June 2019 | N/A |
| Wastewater Discharge License under WPCO | WT00034610-2019 | 26 Sep 2019 | 30 Sep 2024 |
| Waste Disposal Billing Account | 7034450 | 28 June 2019 | N/A |
| Registration as a Chemical Waste Producer | 5218-286-P3182-03 | 18 Jul 2019 | N/A |
| Construction Noise Permit | GW-RE0560-23 | 02 Jun 2023 | 14 Nov 2023 |
| | GW-RE0724-23 | 14 Jul 2023 | 13 Nov 2023 |
| | GW-RE0877-23 | 14 Aug 2023 | 13 Feb 2024 |
| | GW-RE0983-23 | 01 Sep 2023 | 30 Nov 2023 |
| | GW-RE1013-23 | 01 Sep 2023 | 30 Nov 2023 |
| | GW-RE1072-23 | 07 Sep 2023 | 06 Jan 2024 |
| | GW-RE1252-23 | 19 Oct 2023 | 15 Apr 2024 |
| | GW-RE1296-23 | 02 Nov 2023 | 01 Mar 2024 |
| | GW-RE1364-23 | 14 Nov 2023 | 13 May 2024 |
| | GW-RE1368-23 | 15 Nov 2023 | 14 May 2024 |

Implementation Status of Environmental Mitigation Measures

6.7 The Contractor has implemented environmental mitigation measures and requires as stated in the EIA reports, the EP and the EM&A Manuals. The implementation status of the mitigation measures during the reporting month is summarized in Appendix P.

6.8 In response to the site audit findings, the Contractor carried out corrective actions with summary given in Appendix P.

Environmental Complaint and Non-compliance

6.9 No complaint was received in the reporting month. Summary of complaints in the reporting month is tabulated in Table 6.3.

Table 6.3 Summary of complaints in the Reporting Month

| Date of complaint received | Description of complaint | Investigation / Recommendations / Action taken | Close-out date / Status |
|----------------------------|--------------------------|--|-------------------------|
| NA | NA | NA | NA |

6.10 Complaint log and Complaint Investigation report are shown in Appendix Q.

Notifications of summons and successful prosecutions

6.11 No notification of summons and successful prosecutions was received in the reporting month. Summary of summons and successful prosecutions in the reporting month is tabulated in Table 6.4.

Table 6.4 Summary of summons and successful prosecutions in the Reporting Month

| Date of receiving notification of summons or prosecutions | Date of event | Description of event | Action taken | Close-out date / Status |
|--|---------------|----------------------|--------------|-------------------------|
| No notification of summons and successful prosecutions were received in the reporting month. | NA | NA | NA | NA |

6.12 The summaries of cumulative environmental complaint, warning, summon and notification of successful prosecution for the Project is presented in Appendix Q.

7. FUTURE KEY ISSUES

Construction Programme in the coming month

7.1 The major construction activities and potential impacts in the next reporting month as follow:

Table 7.1 Summary of future key issues and potential impact in the coming month

| Future key issues in the coming month | Potential impact |
|--|--|
| Construction of manholes and chambers at Shing Kai Road and the at-grade road near NDR, SDR, Lift LT-4 and Noise Barrier | Noise and Air Quality, Chemical and Waste Management |
| Watermain connection and pressure test for watermains at Shing Kai Road and at-grade road near NDR | Noise and Air Quality, Landscape and Visual |
| Waterproofing work of ELD | Noise and Air Quality, Chemical and Waste Management |
| Construction of bus stop at at-grade road and noise barrier | Noise and Air Quality, Chemical and Waste Management |
| Installation of precast parapet for Bridge D3 | Noise and Air Quality, Chemical and Waste Management |
| Concreting and RC structure of Toilet cum Changing Room | Noise, Air and Water Quality |
| Install the lift cart for Lift LT-4 | Noise and Air Quality, Chemical and Waste Management |
| Concreting and RC structure of Pumping Stations | Noise and Air Quality, Chemical and Waste Management |
| Construction of Seawater Intake Box Culvert; | Noise and Air Quality, Chemical and Waste Management |
| Construction of RC structure for Lift LT-1 & LT-2 | Noise, Air and Water Quality |
| Construction of remaining works for Noise Barrier | Noise, Air and Water Quality |
| Construction of Harbour Steps | Noise, Air and Water Quality |
| Diversion/ connection works (involving confined space) of Box Culvert | Noise, Air and Water Quality |
| Construction of Outfall 1&2 | Noise, Air and Water Quality |
| Rising main laying works | Noise, Air and Water Quality |
| Laying of stormwater drainage pipes/ sewer pipes / watermains and construction of associated manholes at Road L12d | Noise, Air and Water Quality |
| E&M works for Underpass D3 | Noise and Air Quality, Chemical and Waste Management |
| Construction of Observation Deck | Noise, Air and Water Quality |

7.2 The mitigation measures for environmental impact including Air Quality, Construction Noise, Water Quality, Chemical and Waste Management, Landscape and Visual shall be implemented:

- Sufficient watering of the works site with the active dust emitting activities,

- Limitation of the speed for vehicles on unpaved site roads,
- Properly cover the stockpiles,
- Good maintenance to the plant and equipment,
- Use of quieter plant and Quality Powered Mechanical Equipment (QPME),
- Provide movable noise barriers,
- Appropriate desilting/ sedimentation devices provided on site for treatment before discharge,
- Well maintain the drainage system to prevent the spillage of wastewater during heavy rainfall,
- Onsite waste sorting and implementation of trip ticket system,
- Good management and control on construction waste reduction,
- Erection of decorative screen hoarding,
- Strictly following the Environmental Permits and Licenses, and
- Provide sufficient mitigation measures as recommended in Approved EIA Reports.

Environmental Site Inspection and Monitoring Schedule for next month

7.3 The tentative schedule for weekly site inspection and air quality and noise monitoring in the next month is provided in Appendix D.

8. CONCLUSIONS

- 8.1 Environmental monitoring works were performed in the reporting month and all monitoring results were checked and reviewed.
- 8.2 1-hour TSP monitoring was conducted as scheduled in the reporting month. No Action/Limit Level exceedance was recorded. Due to the relocation of The Hong Kong Society for the Blind's Factory cum Sheltered Workshop (AM4(A)), the premises owner rejected ET to conduct impact monitoring since 1 Sept 2022. 1-hour TSP monitoring was conducted on the ground floor outside AM4(A) with facing to the Project Site because of the access limitation in the reporting month.
- 8.3 24-hour TSP monitoring was conducted as scheduled in the reporting month. No Action/Limit Level exceedance was recorded. Due to the relocation of The Hong Kong Society for the Blind's Factory cum Sheltered Workshop (AM4(A)), the premises owner rejected ET to conduct impact monitoring since 1 Sept 2022. No 24-hour TSP monitoring was conducted at AM4(A) because of the assess limitation in the reporting month.
- 8.4 Construction noise monitoring was conducted as scheduled in the reporting month. No Action/Limit Level exceedance was recorded. Due to the relocation of The Hong Kong Society for the Blind's Factory cum Sheltered Workshop (M11), the premises owner rejected ET to conduct impact monitoring since 1 Sept 2022. Impact monitoring was conducted on the ground floor outside M11 with facing to the Project Site because of the access limitation in the reporting month.
- 8.5 No complaint was received in the reporting month.
- 8.6 No notification of summons and successful prosecutions was received in the reporting month.

Figure

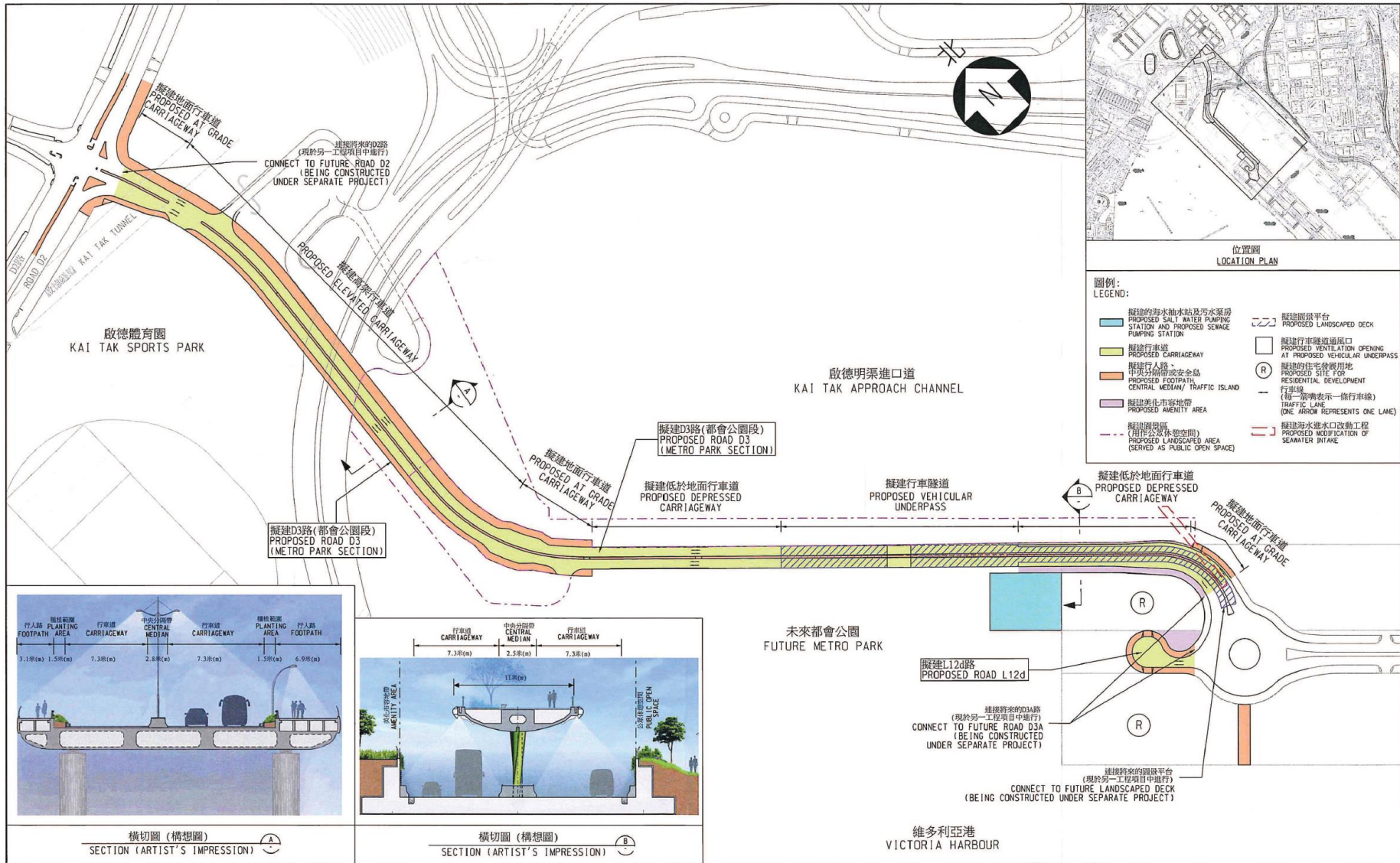


Figure 1 – Proposed works of Contract No. ED/2018/01

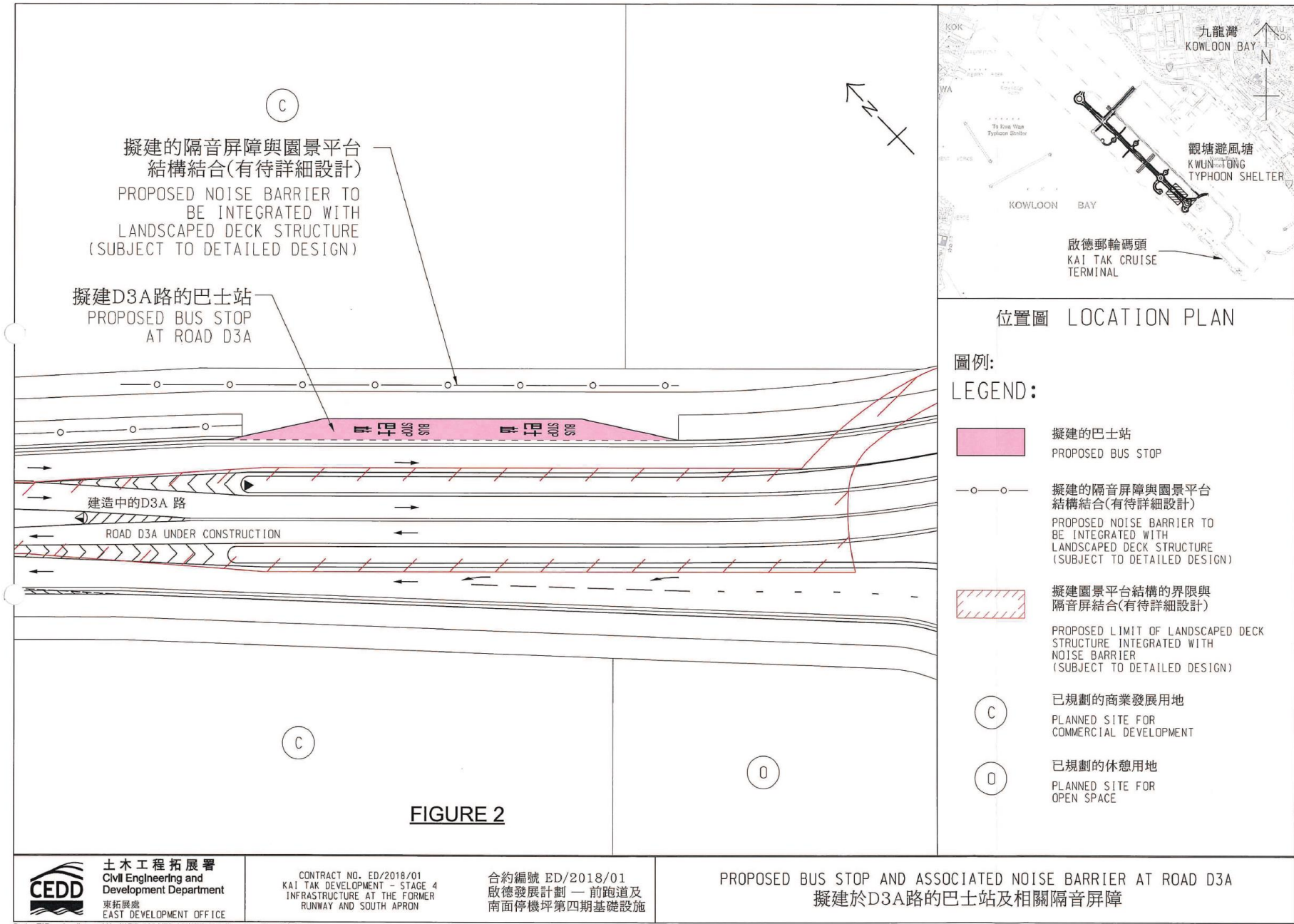


Figure 2 – Proposed Bus Stop And Associated Noise Barrier At Road D3A



Figure 3 – Future Pedestrian Connection Between Landscaped Deck And Private Developments

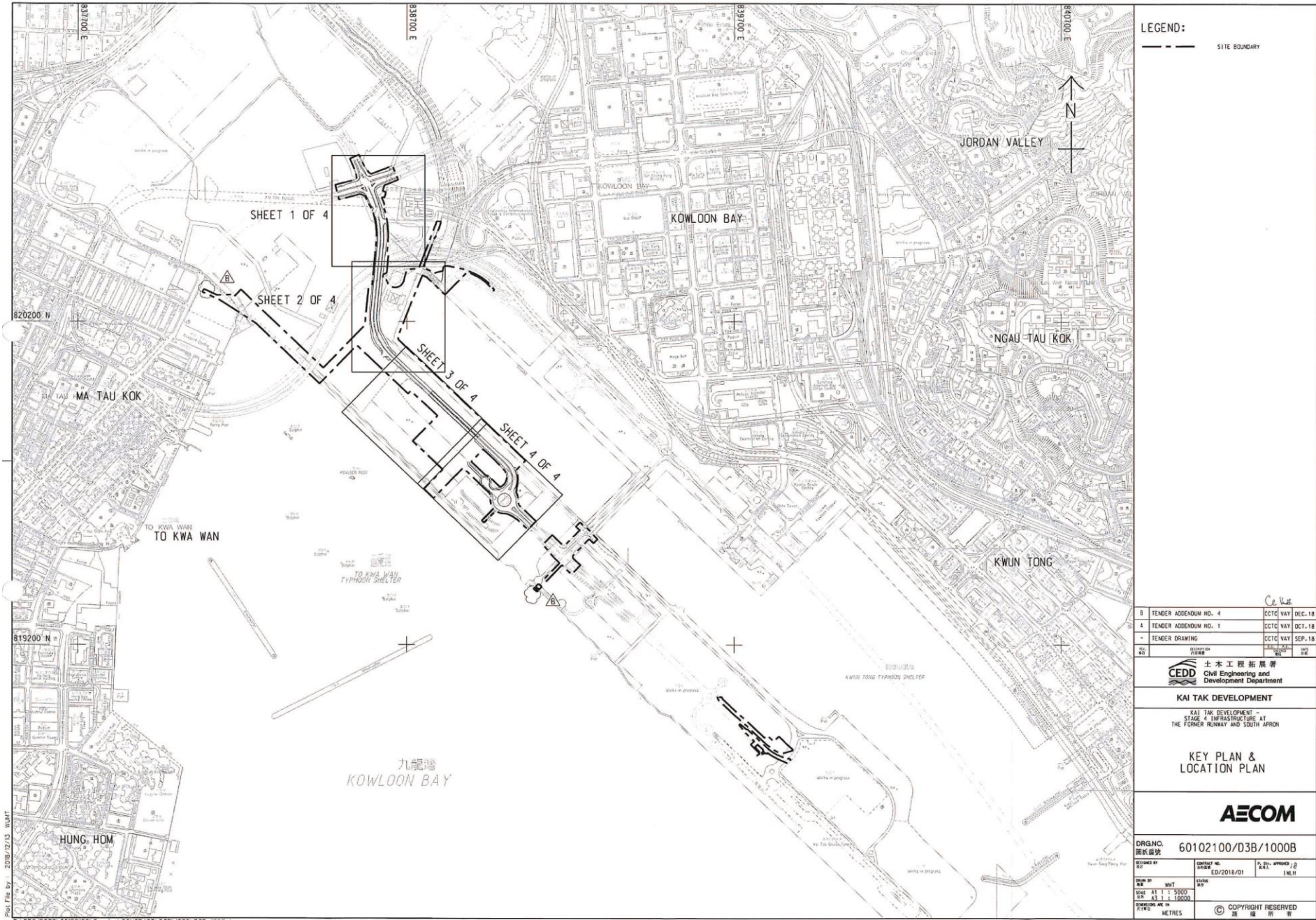


Figure 4 – Site Layout Plan

Special Traffic & Transport Arrangement

Notices on Clearways

Notices on Public Transports

Notices on Prohibited Zone

Notices on Temporary Speed Limits

Notices on Temporary Road Closure

Notices on Expressways

Other Notices

TRAFFIC NOTICES

TRANSPORT DEPARTMENT NOTICE

Temporary Traffic Arrangement on Newly Constructed Unnamed Road (Road D3 - (Metro Park Section)), Kowloon City

Notice is hereby given that the newly constructed unnamed road (Kai Tak Development - Road D3 (Metro Park Section)) connecting Shing Fung Road and Shing Kai Road/Muk Tai Street junction in Kowloon City District will be partially opened with effect from 2:00 p.m. on 31 December 2022.

Appropriate traffic signs will be erected on site to guide motorists.

LEE Sui-chun, Macella Commissioner for Transport (Acting)

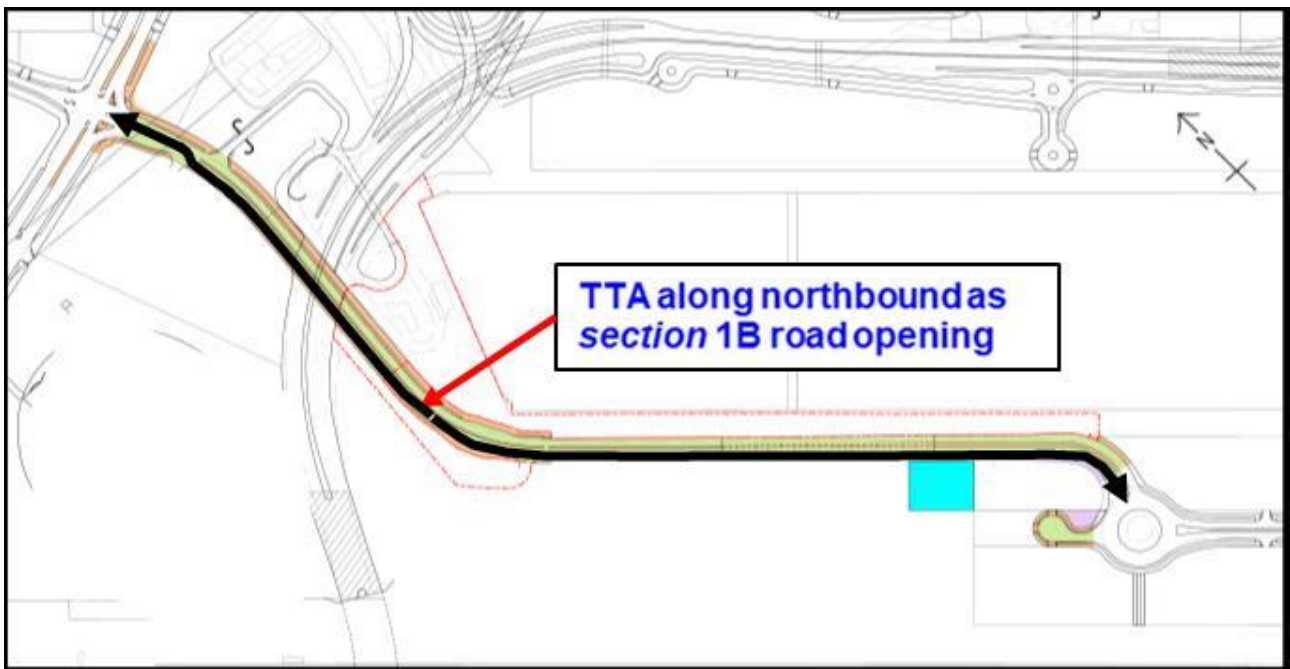


Figure 5 – New Opened Road on 31 December 2022

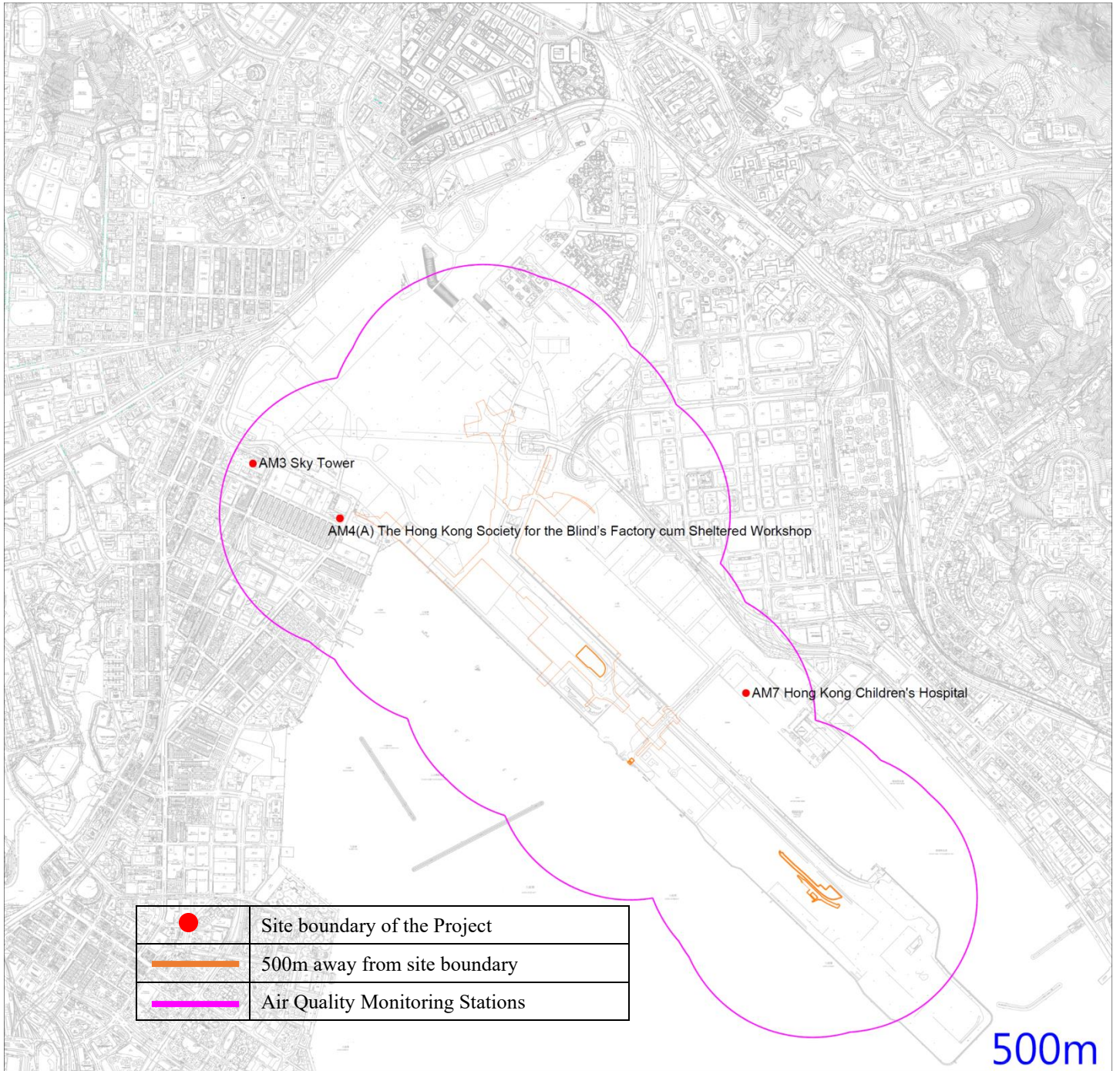


Figure 6 – Air Quality Monitoring Stations

* Due to the relocation of The Hong Kong Society for the Blind's Factory cum Sheltered Workshop (M11), the premises owner rejected ET to conduct impact monitoring since 1 Sept 2022. Construction noise monitoring was conducted on the ground floor outside M11 with facing to the Project Site because of the access limitation in the reporting month.

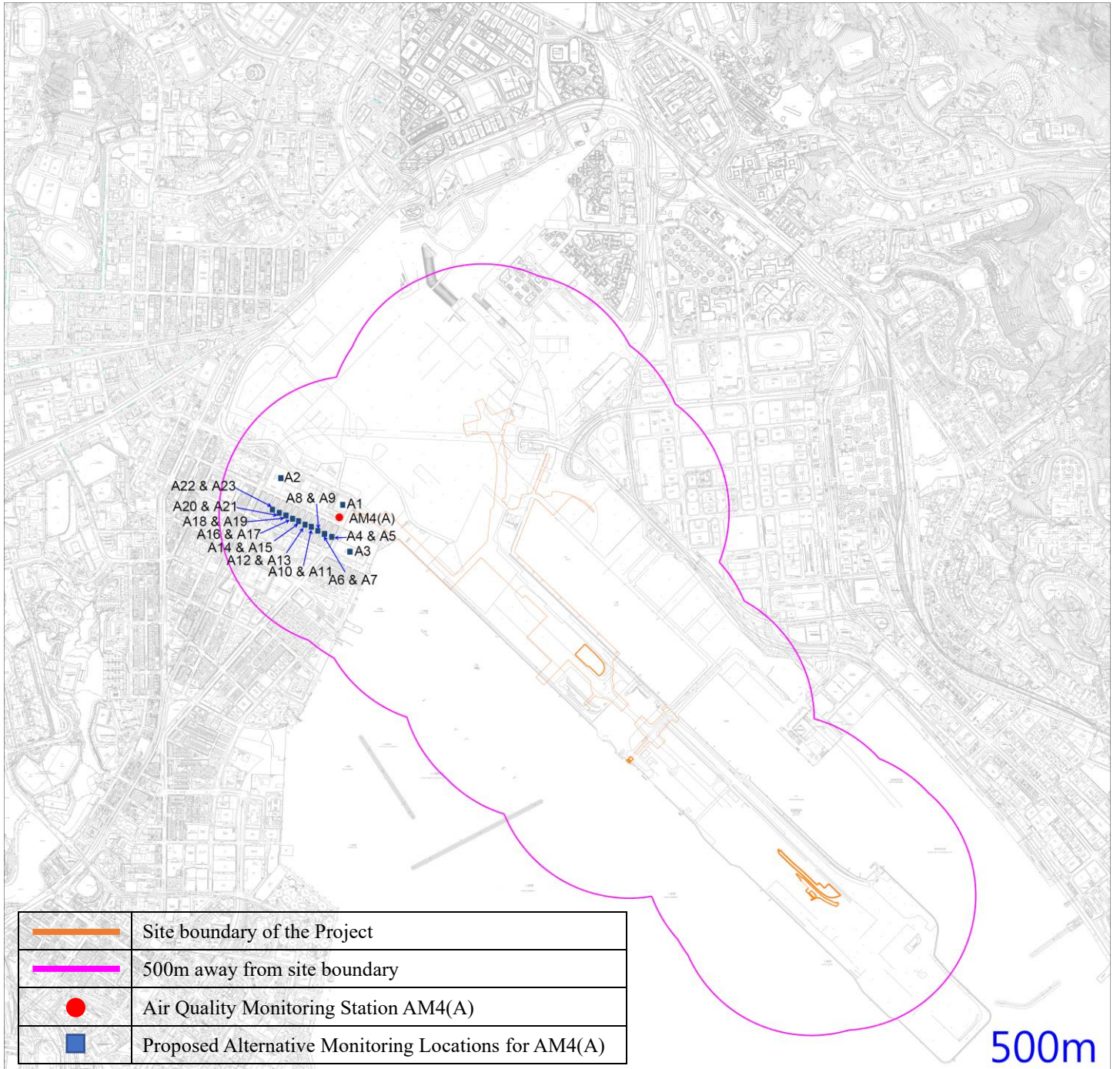


Figure 7 – Proposed Alternative Monitoring Locations for AM4(A)

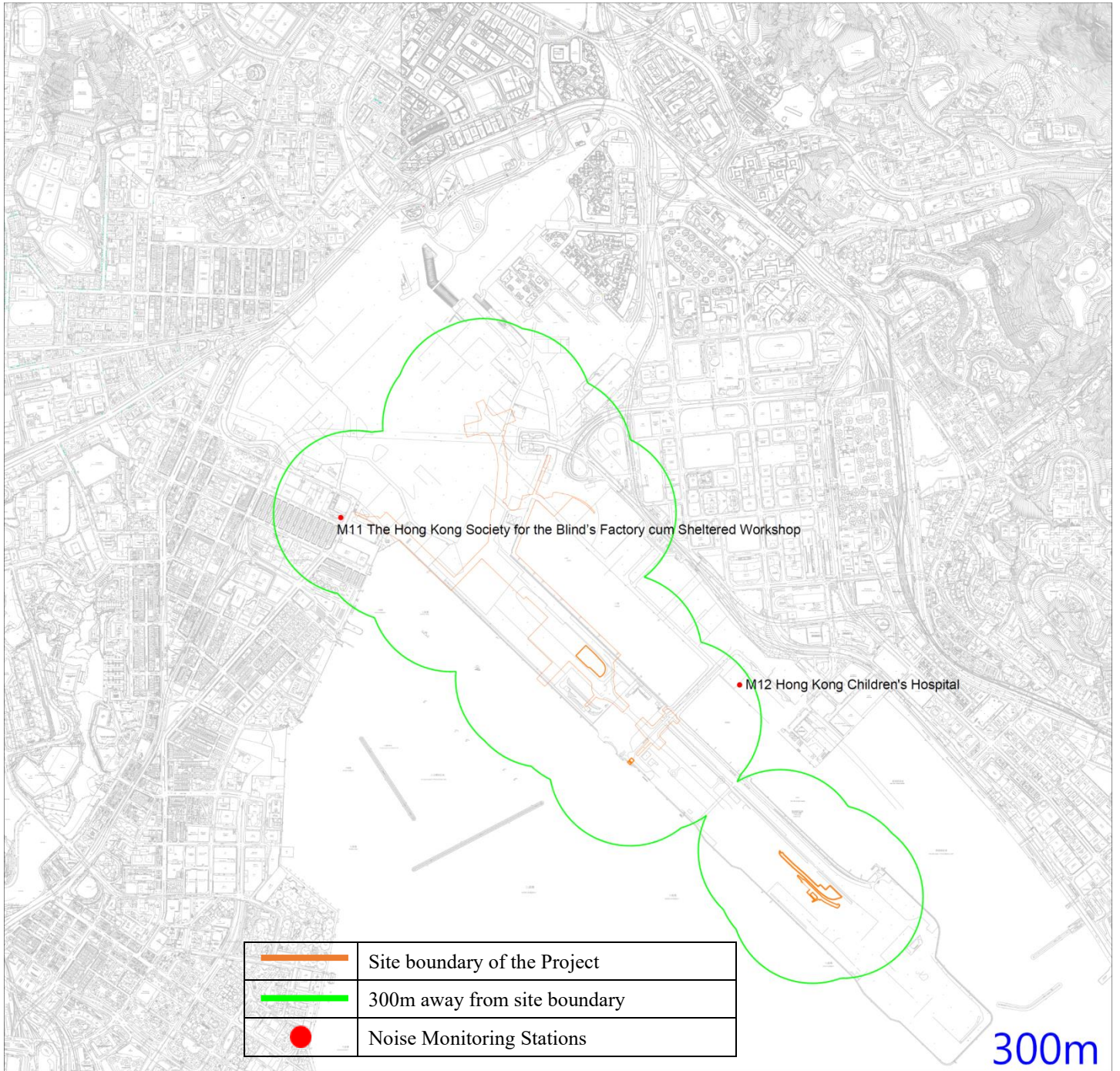


Figure 8 – Noise Monitoring Stations

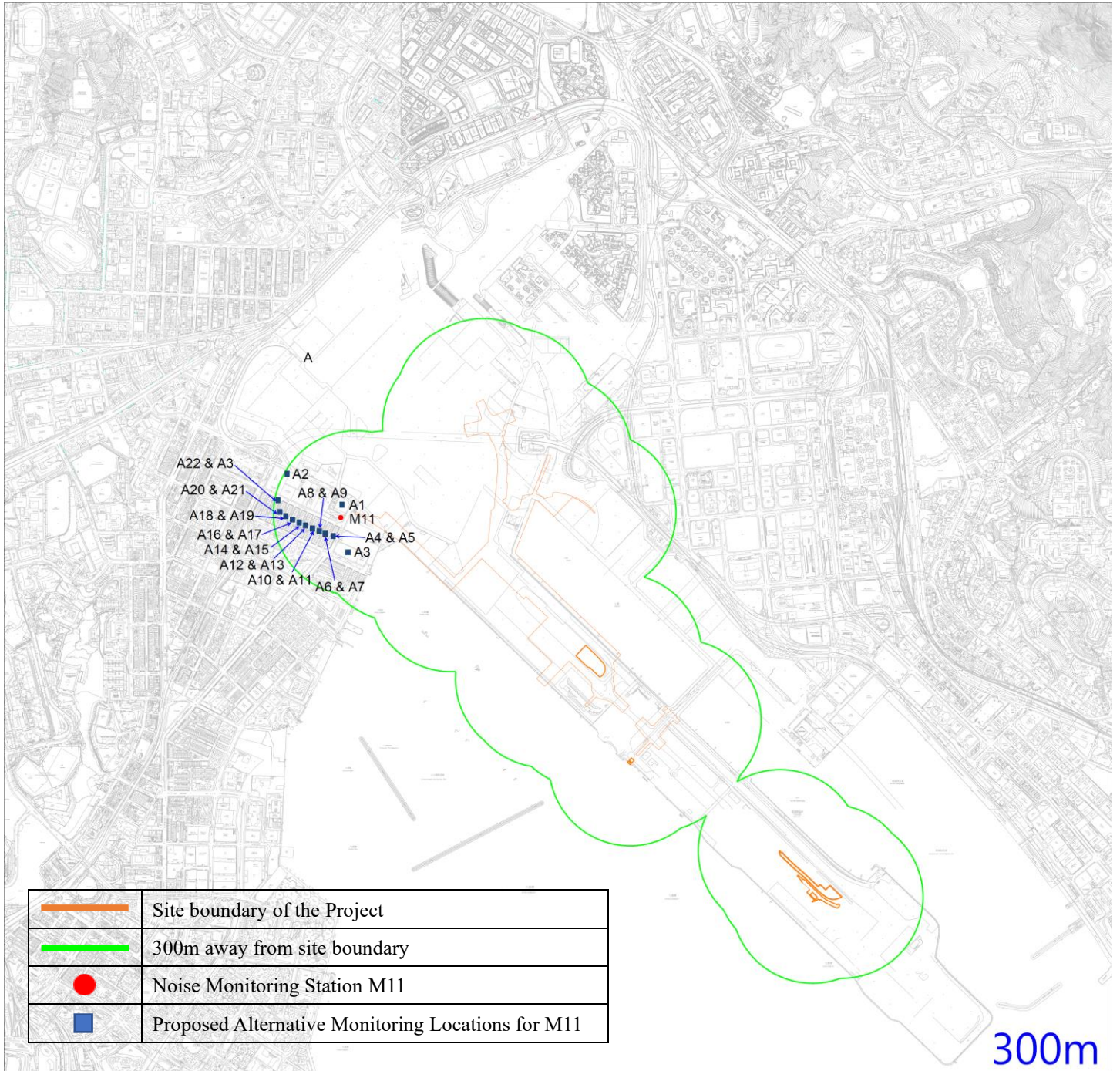


Figure 9 – Proposed Alternative Monitoring Locations for M11

Appendix A – Organization Chart of EM&A Team



Appendix B – Construction Programme

Contract No. ED/2018/01 KTD Project

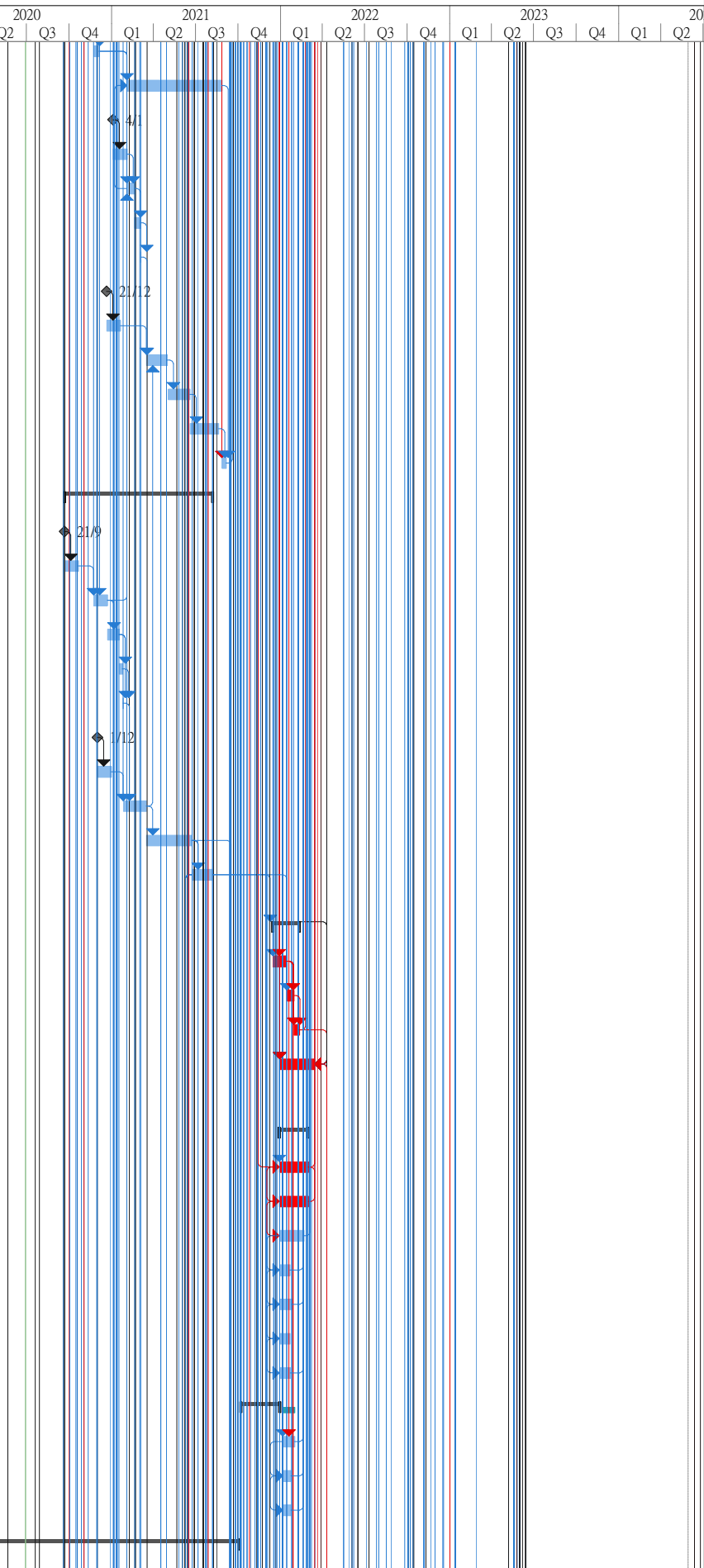
| ID | Task Name | Duration | Actual Duration | Remaining Duration | Physical % Complete | Early Start | Early Finish | Actual Start | Actual Finish | Late Start | Late Finish | Total Slack | TRA | Predecessors | 2020 | | | | 2021 | | | | 2022 | | | | 2023 | | | | 20 | | | | | | | | | |
|-----|--|-----------|-----------------|--------------------|---------------------|--------------|--------------|--------------|---------------|--------------|--------------|-------------|----------|----------------|------|----|----|----|------|----|----|----|------|----|----|----|------|----|----|----|----|--|--|--|--|--|--|--|--|--|
| | | | | | | | | | | | | | | | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | | | | | | | | | |
| 130 | Permanent Works Design Submission | 1457 days | 373.08 days | 1083.92 days | 0% | Thu 16/5/19 | Thu 11/5/23 | Thu 16/5/19 | NA | Thu 16/5/19 | Thu 11/5/23 | 0 days | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 131 | General Design Submission | 1443 days | 955.46 days | 487.54 days | 0% | Thu 30/5/19 | Thu 11/5/23 | Thu 30/5/19 | NA | Thu 30/5/19 | Thu 11/5/23 | 0 days | | 4 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 132 | Project Design Plan (Draft) | 16 days | 16 days | 0 days | 100% | Thu 30/5/19 | Fri 14/6/19 | Thu 30/5/19 | Fri 14/6/19 | Thu 30/5/19 | Fri 14/6/19 | 0 days | 1 day | 4 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 133 | Project Design Plan (Draft) Comment by PM | 14 days | 14 days | 0 days | 100% | Sat 15/6/19 | Fri 28/6/19 | Sat 15/6/19 | Fri 28/6/19 | Sat 15/6/19 | Fri 28/6/19 | 0 days | 1 day | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 134 | Address Comments | 120 days | 66 days | 54 days | 55% | Tue 2/7/19 | Wed 15/7/20 | Tue 2/7/19 | NA | Tue 2/7/19 | Thu 11/5/23 | 1030 d... | 1 days | 132 | ... | █ | | | | | | | | | | | | | | | | | | | | | | | | |
| 135 | Project Design Plan (Final) | 54 days | 54 days | 0 days | 100% | Thu 5/9/19 | Tue 29/10/19 | Thu 5/9/19 | Tue 29/10/19 | Thu 5/9/19 | Tue 29/10/19 | 0 days | 1 days | 134 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 136 | Design Memorandum (include E&M Provision) (Draft) | 26 days | 26 days | 0 days | 100% | Tue 4/6/19 | Sat 29/6/19 | Tue 4/6/19 | Sat 29/6/19 | Tue 4/6/19 | Sat 29/6/19 | 0 days | 1 days | 132 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 137 | Address Comments | 15 days | 15 days | 0 days | 100% | Thu 1/8/19 | Thu 15/8/19 | Thu 1/8/19 | Thu 15/8/19 | Thu 1/8/19 | Thu 15/8/19 | 0 days | 1 days | 136 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 138 | Design Memorandum Include E&M Provision (Final) | 59 days | 59 days | 0 days | 100% | Tue 23/7/19 | Sun 17/11/19 | Tue 23/7/19 | Sun 17/11/19 | Tue 23/7/19 | Sun 17/11/19 | 0 days | 1 days | 137 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 139 | Traffic Impact Assessment(Draft) | 62 days | 62 days | 0 days | 100% | Wed 18/9/19 | Mon 18/11/19 | Wed 18/9/19 | Mon 18/11/... | Wed 18/9/19 | Mon 18/11/19 | 0 days | 1 day | 4 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 140 | Address Comments | 16 days | 16 days | 0 days | 100% | Mon 18/11/19 | Wed 4/12/19 | Mon 18/11/19 | Wed 4/12/19 | Mon 18/11/19 | Wed 4/12/19 | 0 days | 0.5 days | 139 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 141 | Traffic Impact Assessment(Final) | 30 days | 0 days | 30 days | 0% | Mon 3/8/20 | Tue 1/9/20 | NA | NA | Sat 24/4/21 | Sun 23/5/21 | 264 days | 0.5 days | 140 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 142 | ACABAS (Draft) | 69 days | 69 days | 0 days | 100% | Thu 30/5/19 | Tue 6/8/19 | Thu 30/5/19 | Tue 6/8/19 | Thu 30/5/19 | Tue 6/8/19 | 0 days | 2 days | 4 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 143 | Address Committee's comments | 30 days | 30 days | 0 days | 100% | Wed 7/8/19 | Thu 5/9/19 | Wed 7/8/19 | Thu 5/9/19 | Wed 7/8/19 | Thu 5/9/19 | 0 days | 2 days | 142 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 144 | ACABAS Re-submission Preparation & Submission | 61 days | 61 days | 0 days | 100% | Fri 6/9/19 | Tue 5/11/19 | Fri 6/9/19 | Tue 5/11/19 | Fri 6/9/19 | Tue 5/11/19 | 0 days | 2 days | 143 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 145 | ACABAS Submission Approved | 63 days | 63 days | 0 days | 100% | Wed 6/11/19 | Tue 7/1/20 | Wed 6/11/19 | Tue 7/1/20 | Wed 6/11/19 | Tue 7/1/20 | 0 days | 2 days | 144 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 146 | VCAB and DAP Submission | 22 days | 22 days | 0 days | 100% | Mon 10/2/20 | Mon 2/3/20 | Mon 10/2/20 | Mon 2/3/20 | Mon 10/2/20 | Mon 2/3/20 | 0 days | 2 days | 4 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 147 | Comment by PM and Relevant Authorities | 21 days | 21 days | 0 days | 100% | Tue 3/3/20 | Mon 23/3/20 | Tue 3/3/20 | Mon 23/3/20 | Tue 3/3/20 | Mon 23/3/20 | 0 days | 2 days | 146 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 148 | Stage 1: VCAB and DAP Submission | 50 days | 0 days | 50 days | 0% | Fri 12/6/20 | Fri 31/7/20 | NA | NA | Sat 4/7/20 | Sat 22/8/20 | 22 days | 2 days | 147,44FF+21 da | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 149 | Comment by PM and Relevant Authorities | 50 days | 0 days | 50 days | 0% | Sat 1/8/20 | Sat 19/9/20 | NA | NA | Sun 23/8/20 | Sun 11/10/20 | 22 days | 2 days | 148 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 150 | Stage 2: VCAB and DAP Submission | 30 days | 0 days | 30 days | 0% | Sun 20/9/20 | Mon 19/10/20 | NA | NA | Fri 13/11/20 | Sat 12/12/20 | 54 days | | 149 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 151 | Comment by PM and Relevant Authorities | 50 days | 0 days | 50 days | 0% | Tue 20/10/20 | Tue 8/12/20 | NA | NA | Sun 13/12/20 | Sun 31/1/21 | 54 days | | 150 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 152 | Draft Utility Report Submission | 19 days | 19 days | 0 days | 100% | Mon 2/9/19 | Fri 20/9/19 | Mon 2/9/19 | Fri 20/9/19 | Mon 2/9/19 | Fri 20/9/19 | 0 days | 2 days | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 153 | Draft Utility Report Comment & Approval | 17 days | 17 days | 0 days | 100% | Sat 21/9/19 | Mon 7/10/19 | Sat 21/9/19 | Mon 7/10/19 | Sat 21/9/19 | Mon 7/10/19 | 0 days | 2 days | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 154 | Final Utility Report Submission | 52 days | 52 days | 0 days | 100% | Mon 2/12/19 | Wed 22/1/20 | Mon 2/12/19 | Wed 22/1/20 | Mon 2/12/19 | Wed 22/1/20 | 0 days | 2 days | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 155 | Final Utility Report Submission Comment & Approval | 38 days | 0 days | 38 days | 0% | Thu 30/1/20 | Mon 29/6/20 | Thu 30/1/20 | NA | Thu 30/1/20 | Tue 1/3/22 | 610 days | 2 days | 154 | ... | █ | | | | | | | | | | | | | | | | | | | | | | | | |
| 156 | Operational and Maintenance Manual (Draft) Submission | 14 days | 0 days | 14 days | 0% | Mon 19/12/22 | Sun 1/1/23 | NA | NA | Sat 25/2/23 | Fri 10/3/23 | 68 days | 2 days | 1556 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 157 | Operational and Maintenance Manual (Final) Submission | 32 days | 0 days | 32 days | 0% | Wed 1/2/23 | Sat 4/3/23 | NA | NA | Mon 10/4/23 | Thu 11/5/23 | 68 days | 2 days | 156FS+30 days | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 158 | As-built and As-fabrication Drawing Submission | 0 days | 0 days | 0 days | 0% | Thu 11/5/23 | Thu 11/5/23 | NA | NA | Thu 11/5/23 | Thu 11/5/23 | 0 days | 2 days | 1558 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 159 | Site Investigation | 561 days | 167.98 days | 393.02 days | 0% | Sat 1/6/19 | Sat 12/12/20 | Sat 1/6/19 | NA | Sat 1/6/19 | Tue 1/3/22 | 444 days | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 160 | Ground Investigation Proposal (Draft) | 56 days | 56 days | 0 days | 100% | Sat 1/6/19 | Fri 26/7/19 | Sat 1/6/19 | Fri 26/7/19 | Sat 1/6/19 | Fri 26/7/19 | 0 days | 1 days | 4 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 161 | Submit & endorse by Gov. Depts and PM | 6 days | 6 days | 0 days | 100% | Sat 27/7/19 | Thu 1/8/19 | Sat 27/7/19 | Thu 1/8/19 | Sat 27/7/19 | Thu 1/8/19 | 0 days | 1 days | 160 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 162 | Ground Investigation Proposal (Final) | 30 days | 0 days | 30 days | 0% | Tue 1/9/20 | Wed 30/9/20 | NA | NA | Mon 20/12/21 | Tue 18/1/22 | 475 days | 1 days | 161 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 163 | Submit and endorse by Gov. Depts and PM | 14 days | 0 days | 14 days | 0% | Thu 1/10/20 | Wed 14/10/20 | NA | NA | Wed 19/1/22 | Tue 1/2/22 | 475 days | 1 days | 162 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 164 | Supervise the SI Carry Out on Site | 199 days | 44 days | 155 days | 22% | Sat 10/8/19 | Sat 24/10/20 | Sat 10/8/19 | NA | Sat 10/8/19 | Tue 11/1/22 | 444 days | 4 days | 161 | ... | █ | | | | | | | | | | | | | | | | | | | | | | | | |
| 165 | Submit SI Report(Draft) for Comment | 21 days | 0 days | 21 days | 0% | Sun 25/10/20 | Sat 14/11/20 | NA | NA | Wed 12/1/22 | Tue 1/2/22 | 444 days | 1 days | 164 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 166 | Submit and endorse SI Report(Final) by Project Manager | 28 days | 0 days | 28 days | 0% | Sun 15/11/20 | Sat 12/12/20 | NA | NA | Wed 2/2/22 | Tue 1/3/22 | 444 days | 1 days | 165,163 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 167 | Lifts (LT3 & LT4),Staircase and Associated Works (Structure) | 431 days | 165.12 days | 265.88 days | 0% | Thu 12/9/19 | Sun 15/11/20 | Thu 12/9/19 | NA | Thu 12/9/19 | Thu 3/12/20 | 18 days | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 168 | Prepare AIP Submission with E&M provision (Draft) | 75 days | 75 days | 0 days | 100% | Thu 12/9/19 | Mon 25/11/19 | Thu 12/9/19 | Mon 25/11/... | Thu 12/9/19 | Mon 25/11/19 | 0 days | 3 days | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 169 | Submit & endorse by PM and Statutory Authorities/Gov. Dept | 21 days | 21 days | 0 days | 100% | Tue 26/11/19 | Mon 16/12/19 | Tue 26/11/19 | Mon 16/12/19 | Tue 26/11/19 | Mon 16/12/19 | 0 days | 0.5 days | 168 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 170 | Submit & endorse by Statutory Authorities/Gov. Dept | 22 days | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

Contract No. ED/2018/01 KTD Project

| ID | Task Name | Duration | Actual Duration | Remaining Duration | Physical % Complete | Early Start | Early Finish | Actual Start | Actual Finish | Late Start | Late Finish | Total Slack | TRA | Predecessors | 2020 | | 2021 | | | | 2022 | | | | 2023 | | | | | | | | | | | | | | |
|-----|---|-----------|-----------------|--------------------|---------------------|--------------|--------------|--------------|---------------|--------------|--------------|-------------|---------|-----------------|------|----|------|----|----|----|------|----|----|----|------|----|----|----|----|----|----|--|--|--|--|--|--|--|--|
| | | | | | | | | | | | | | | | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | | | | | | | | |
| 874 | Bridge Deck - Temp. Works Design and Method Statement Comment & Approval | 35 days | 0 days | 35 days | 0% | Mon 2/11/20 | Sun 6/12/20 | NA | NA | Tue 19/1/21 | Mon 22/2/21 | 78 days | 1 day | 873 | | | | | | | | | | | | | | | | | | | | | | | | | |
| 875 | CH1229-1311: Deck Falsework erection Part 1 | 32 days | 0 days | 32 days | 0% | Tue 23/2/21 | Wed 31/3/21 | NA | NA | Tue 23/2/21 | Wed 31/3/21 | 0 days | 1 day | 874,922 | | | | | | | | | | | | | | | | | | | | | | | | | |
| 876 | CH1229-1311: Deck Falsework erection Part 2 | 28 days | 0 days | 28 days | 0% | Thu 1/4/21 | Fri 7/5/21 | NA | NA | Thu 1/4/21 | Fri 7/5/21 | 0 days | 3 days | 875,871 | | | | | | | | | | | | | | | | | | | | | | | | | |
| 877 | CH1229-1311: Structure deck | 50 days | 0 days | 50 days | 0% | Wed 7/4/21 | Sat 5/6/21 | NA | NA | Wed 7/4/21 | Sat 5/6/21 | 0 days | 2 day | 475,483,736,875 | | | | | | | | | | | | | | | | | | | | | | | | | |
| 878 | CH1229-1311: Prestressing | 18 days | 0 days | 18 days | 0% | Thu 24/6/21 | Thu 15/7/21 | NA | NA | Thu 24/6/21 | Thu 15/7/21 | 0 days | 0.5 day | 877FS+14 days | | | | | | | | | | | | | | | | | | | | | | | | | |
| 879 | CH1229-1311: Falsework Under Main Deck Removal | 12 days | 0 days | 12 days | 0% | Fri 16/7/21 | Thu 29/7/21 | NA | NA | Fri 16/7/21 | Thu 29/7/21 | 0 days | 0.5 day | 878 | | | | | | | | | | | | | | | | | | | | | | | | | |
| 880 | CH1229-1311: Utility Trough (0.67m per day per team) x 4 team | 70 days | 0 days | 70 days | 0% | Fri 16/7/21 | Thu 7/10/21 | NA | NA | Thu 22/7/21 | Wed 13/10/21 | 5 days | 9 days | 219,878 | | | | | | | | | | | | | | | | | | | | | | | | | |
| 881 | CH1229-1311: Central Median (6m per day per team) x 2 team | 31 days | 0 days | 31 days | 0% | Fri 16/7/21 | Fri 20/8/21 | NA | NA | Sat 2/10/21 | Mon 8/11/21 | 65 days | 3 days | 878 | | | | | | | | | | | | | | | | | | | | | | | | | |
| 882 | CH1229-1311: Parapet (28m per day per team) x 2 team + 6x2 day concreting | 21 days | 0 days | 21 days | 0% | Fri 8/10/21 | Tue 2/11/21 | NA | NA | Fri 15/10/21 | Mon 8/11/21 | 5 days | 3 days | 880 | | | | | | | | | | | | | | | | | | | | | | | | | |
| 883 | CH1229-1311: Removal of Falsework (KD6) | 42 days | 0 days | 42 days | 0% | Wed 3/11/21 | Tue 21/12/21 | NA | NA | Tue 9/11/21 | Wed 29/12/21 | 5 days | 6 days | 880,882,881 | | | | | | | | | | | | | | | | | | | | | | | | | |
| 884 | CH1229-1311: Road Furniture | 15 days | 0 days | 15 days | 0% | Sat 21/8/21 | Tue 7/9/21 | NA | NA | Sat 27/11/21 | Tue 14/12/21 | 81 days | 1 day | 881,358 | | | | | | | | | | | | | | | | | | | | | | | | | |
| 885 | Part 3D - CH1279 to CH1311 | 196 days | 0 days | 196 days | 0% | Mon 7/6/21 | Sat 29/1/22 | NA | NA | Wed 16/6/21 | Fri 11/2/22 | 7 days | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 886 | Stage 1: Bridge deck between CH1269-1311 | 196 days | 0 days | 196 days | 0% | Mon 7/6/21 | Sat 29/1/22 | NA | NA | Wed 16/6/21 | Fri 11/2/22 | 7 days | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 887 | CH1269-1311: Structure deck | 50 days | 0 days | 50 days | 0% | Mon 7/6/21 | Thu 5/8/21 | NA | NA | Wed 16/6/21 | Fri 13/8/21 | 7 days | 2 day | 475,483,736,877 | | | | | | | | | | | | | | | | | | | | | | | | | |
| 888 | Prestressing CH1269 - 1311 Bridge Spans | 21 days | 0 days | 21 days | 0% | Mon 23/8/21 | Wed 15/9/21 | NA | NA | Tue 31/8/21 | Fri 24/9/21 | 7 days | 3 day | 887FS+14 days | | | | | | | | | | | | | | | | | | | | | | | | | |
| 889 | CH1269-1311: Utility Trough (0.67m per day per team) x 2 team | 64 days | 0 days | 64 days | 0% | Thu 16/9/21 | Thu 2/12/21 | NA | NA | Sat 25/9/21 | Fri 10/12/21 | 7 days | 0.5 day | 888,219 | | | | | | | | | | | | | | | | | | | | | | | | | |
| 890 | CH1269-1311 : Parapet (28m per day per team) x 1 team + 6 day concreting | 17 days | 0 days | 17 days | 0% | Fri 3/12/21 | Wed 22/12/21 | NA | NA | Sat 11/12/21 | Mon 3/1/22 | 7 days | 3 days | 889 | | | | | | | | | | | | | | | | | | | | | | | | | |
| 891 | CH1269-1311 : Central Median (6m per day per team) x 1 team | 15 days | 0 days | 15 days | 0% | Thu 23/12/21 | Wed 12/1/22 | NA | NA | Wed 5/1/22 | Fri 21/1/22 | 8 days | 1 day | 889,890 | | | | | | | | | | | | | | | | | | | | | | | | | |
| 892 | CH1269-1311 : Road Furniture | 15 days | 0 days | 15 days | 0% | Thu 13/1/22 | Sat 29/1/22 | NA | NA | Sat 22/1/22 | Fri 11/2/22 | 8 days | 1 day | 891,358 | | | | | | | | | | | | | | | | | | | | | | | | | |
| 893 | Stage2: Bridge deck between CH1189-1229 | 823 days? | 0 days | 823 days? | 0% | Thu 16/5/19 | Sat 19/2/22 | NA | NA | Tue 27/4/21 | Wed 29/5/24 | 579 da... | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 894 | CH1189-1229: Deck Falsework erection | 1 day? | 0 days | 1 day? | 0% | Thu 16/5/19 | Thu 16/5/19 | NA | NA | Wed 29/5/24 | Wed 29/5/24 | 1840 d... | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 895 | CH1189-1229: Deck Falsework erection | 22 days | 0 days | 22 days | 0% | Tue 27/4/21 | Mon 24/5/21 | NA | NA | Tue 27/4/21 | Mon 24/5/21 | 0 days | 1 day | 850,822 | | | | | | | | | | | | | | | | | | | | | | | | | |
| 896 | CH1189-1229: Structure deck | 27 days | 0 days | 27 days | 0% | Tue 25/5/21 | Fri 25/6/21 | NA | NA | Tue 25/5/21 | Fri 25/6/21 | 0 days | 2 day | 895,475,483 | | | | | | | | | | | | | | | | | | | | | | | | | |
| 897 | CH1189-1229: Prestressing | 18 days | 0 days | 18 days | 0% | Wed 14/7/21 | Tue 3/8/21 | NA | NA | Wed 14/7/21 | Tue 3/8/21 | 0 days | 1 day | 896FS+14 days | | | | | | | | | | | | | | | | | | | | | | | | | |
| 898 | CH1189-1229: Falsework Under Main Deck Removal | 15 days | 0 days | 15 days | 0% | Wed 4/8/21 | Fri 20/8/21 | NA | NA | Wed 4/8/21 | Fri 20/8/21 | 0 days | 3 days | 878,897 | | | | | | | | | | | | | | | | | | | | | | | | | |
| 899 | CH1189-1229: Utility Trough (0.67m per day per team) x 2 team | 63 days | 0 days | 63 days | 0% | Wed 4/8/21 | Tue 19/10/21 | NA | NA | Wed 13/10/21 | Tue 28/12/21 | 58 days | 3 days | 219,897 | | | | | | | | | | | | | | | | | | | | | | | | | |
| 900 | CH1189-1229 : Central Median (6m per day per team) x 1 team | 16 days | 0 days | 16 days | 0% | Sat 21/8/21 | Wed 8/9/21 | NA | NA | Fri 21/1/22 | Fri 11/2/22 | 125 days | 3 day | 897,881 | | | | | | | | | | | | | | | | | | | | | | | | | |
| 901 | CH1189-1229 : Parapet (28m per day per team) x 1 team + 6 day concreting | 20 days | 0 days | 20 days | 0% | Wed 3/11/21 | Thu 25/11/21 | NA | NA | Mon 17/1/22 | Fri 11/2/22 | 61 days | 5 day | 899,882 | | | | | | | | | | | | | | | | | | | | | | | | | |
| 902 | CH1189-1229 : Road Furniture | 15 days | 0 days | 15 days | 0% | Mon 31/1/22 | Sat 19/2/22 | NA | NA | Sat 12/2/22 | Tue 1/3/22 | 8 days | 1 day | 900,892,358,901 | | | | | | | | | | | | | | | | | | | | | | | | | |
| 903 | Part 3E - CH1311 to CH1372 | 652 days | 94.1 days | 557.9 days | 0% | Tue 12/11/19 | Fri 21/1/22 | Tue 12/11/19 | NA | Tue 12/11/19 | Wed 29/5/24 | 698 days | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 904 | Pre-drilling Works | 31 days | 31 days | 0 days | 0% | Tue 12/11/19 | Tue 17/12/19 | Tue 12/11/19 | Tue 17/12/19 | Tue 12/11/19 | Tue 17/12/19 | 0 days | 0.5 day | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 905 | Bored pile (P03-BP1) @ CH1311 (Rig 2) (Contractor Bear DDA Design Risk) | 40 days | 40 days | 0 days | 100% | Tue 17/3/20 | Fri 8/5/20 | Tue 17/3/20 | Fri 8/5/20 | Tue 17/3/20 | Fri 8/5/20 | 0 days | 0.5 day | 904 | | | | | | | | | | | | | | | | | | | | | | | | | |
| 906 | Bored pile (P03-BP2) @ CH1311 (Contractor Bear DDA Design Risk) (Rig 2) | 36 days | 25 days | 11 days | 69% | Wed 22/4/20 | Thu 4/6/20 | Wed 22/4/20 | NA | Wed 22/4/20 | Thu 4/6/20 | 0 days | 3 day | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 907 | Pile Testing (18 curing & 14 test) | 35 days | 0 days | 35 days | 0% | Sat 6/6/20 | Sat 18/7/20 | NA | NA | Sat 6/6/20 | Sat 18/7/20 | 0 days | 3 day | 906FS+1 day,90 | | | | | | | | | | | | | | | | | | | | | | | | | |
| 908 | Proof-drilling Works | 11 days | 0 days | 11 days | 0% | Mon 20/7/20 | Fri 31/7/20 | NA | NA | Mon 20/7/20 | Fri 31/7/20 | 0 days | 2 days | 907 | | | | | | | | | | | | | | | | | | | | | | | | | |
| 909 | Pile Cap P03 @ CH1311 | 76 days | 0 days | 76 days | 0% | Tue 7/7/20 | Mon 5/10/20 | NA | NA | Fri 31/7/20 | Wed 29/5/24 | 21 days | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 910 | Pile Cap @ CH1311 by Open Cut | 46 days | 0 days | 46 days | 0% | Sat 1/8/20 | Wed 23/9/20 | NA | NA | Wed 28/10/20 | Sat 19/12/20 | 72 days | | 908 | | | | | | | | | | | | | | | | | | | | | | | | | |
| 911 | Pilecap Formwork Design and Method Statement Submission | 0 days | 0 days | 0 days | 0% | Tue 7/7/20 | Tue 7/7/20 | NA | NA | Tue 30/4/24 | Tue 30/4/24 | 1393 days | 1 day | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 912 | Pilecap Formwork Design and Method Statement Comment & Approval | 30 days | 0 days | 30 days | 0% | Tue 7/7/20 | Wed 5/8/20 | NA | NA | Tue 30/4/24 | Wed 29/5/24 | 1393 days | 1 day | 911 | | | | | | | | | | | | | | | | | | | | | | | | | |
| 913 | Excavation with Shoring Installation ~2600m3 Prod. Rate: 160m3/day/team | 17 days | 0 days | 17 days | 0% | Sat 1/8/20 | Thu 20/8/20 | NA | NA | Sat 1/8/20 | Thu 20/8/20 | 0 days | 1 day | 908 | | | | | | | | | | | | | | | | | | | | | | | | | |
| 914 | Pilecap Formwork - design and Method Statement Submission | 0 days | 0 days | 0 days | 0% | Mon 20/7/20 | Mon 20 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

Contract No. ED/2018/01 KTD Project

Table with 15 columns: ID, Task Name, Duration, Actual Duration, Remaining Duration, Physical % Complete, Early Start, Early Finish, Actual Start, Actual Finish, Late Start, Late Finish, Total Slack, TRA, Predecessors, and quarterly columns for 2020, 2021, 2022, and 2023. Row 993 is highlighted in yellow.

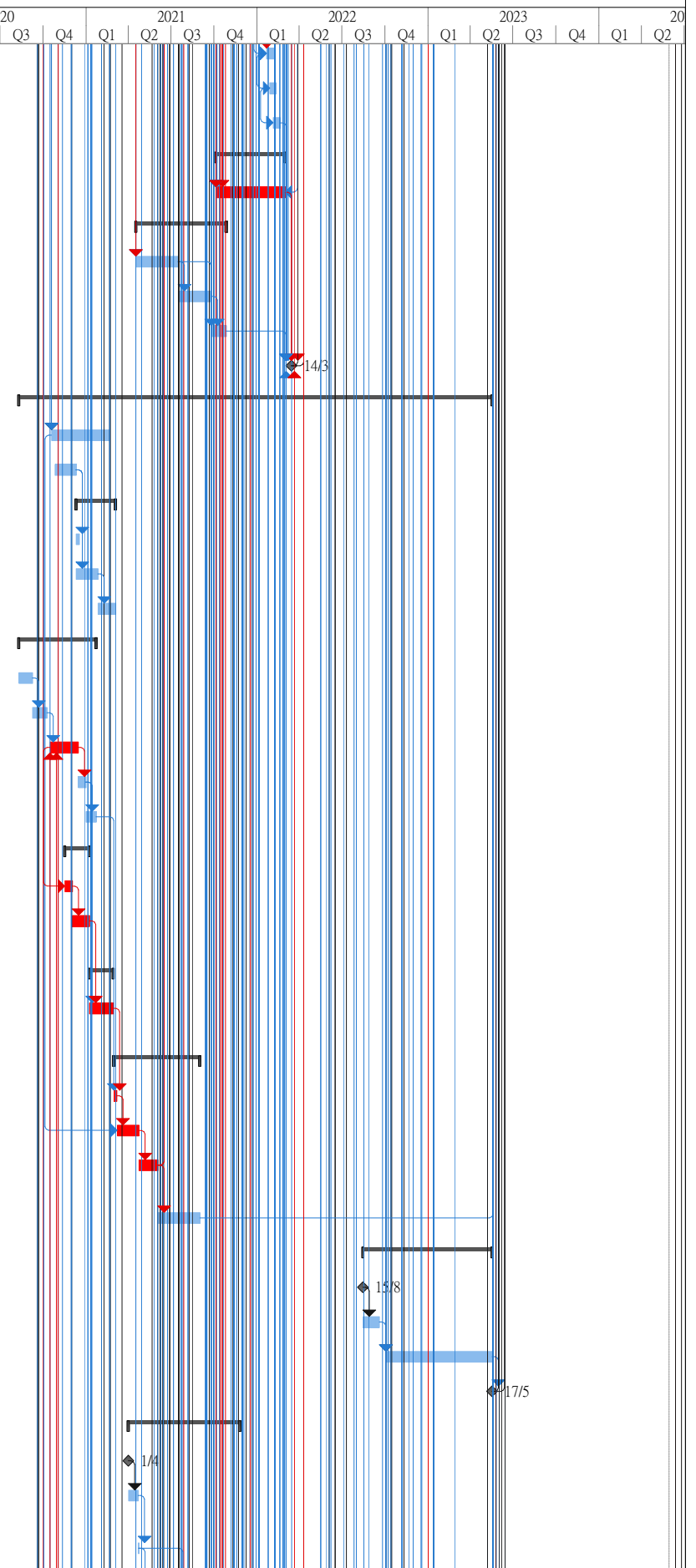


Title: Rev.11 Prog with Progress as of 22-May-20

Legend for Gantt chart symbols: Task (blue bar), Milestone (diamond), Summary (black bar), Project Summary (dotted bar), Inactive Milestone (grey bar), Inactive Summary (grey bar), Manual Task (white bar), Manual Summary (white bar), Manual Summary Rollup (grey bar), Manual Summary (grey bar), Start-only (light blue bar), Finish-only (dark blue bar), External Tasks (black bar), External Milestone (grey diamond), Deadline (grey bar), Critical (red bar), Critical Split (red bar), Progress (red bar), Manual Progress (red bar).

Contract No. ED/2018/01 KTD Project

| ID | Task Name | Duration | Actual Duration | Remaining Duration | Physical % Complete | Early Start | Early Finish | Actual Start | Actual Finish | Late Start | Late Finish | Total Slack | TRA | Predecessors | 2020 | | | | 2021 | | | | 2022 | | | | 2023 | | | |
|------|--|----------|-----------------|--------------------|---------------------|--------------|--------------|--------------|---------------|--------------|--------------|-------------|---------|---------------------|------|----|----|----|------|----|----|----|------|----|----|----|------|----|----|----|
| | | | | | | | | | | | | | | | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 |
| 1096 | HGC | 15 days | 0 days | 15 days | 0% | Fri 21/1/22 | Fri 4/2/22 | NA | NA | Tue 1/2/22 | Tue 15/2/22 | 11 days | 1 day | 1095SS+7 days | | | | | | | | | | | | | | | | |
| 1097 | CATV | 13 days | 0 days | 13 days | 0% | Fri 28/1/22 | Wed 9/2/22 | NA | NA | Tue 8/2/22 | Sun 20/2/22 | 11 days | 1 day | 1096SS+7 days | | | | | | | | | | | | | | | | |
| 1098 | Towngas telecom | 15 days | 0 days | 15 days | 0% | Fri 4/2/22 | Fri 18/2/22 | NA | NA | Tue 15/2/22 | Tue 1/3/22 | 11 days | 1 day | 1097SS+7 days | | | | | | | | | | | | | | | | |
| 1099 | North & South Depress Raod and Underpass: Finishing and E&M Works | 120 days | 0 days | 120 days | 0% | Tue 5/10/21 | Tue 1/3/22 | NA | NA | Tue 5/10/21 | Tue 1/3/22 | 0 days | | | | | | | | | | | | | | | | | | |
| 1100 | Finishing & Fitting Out Work, and E&M Works Installation | 120 days | 0 days | 120 days | 0% | Tue 5/10/21 | Tue 1/3/22 | NA | NA | Tue 5/10/21 | Tue 1/3/22 | 0 days | 8 days | 306,271,323,108 | | | | | | | | | | | | | | | | |
| 1101 | Pump Room Next to Underpass: Finishing and E&M Works | 158 days | 0 days | 158 days | 0% | Sat 17/4/21 | Tue 26/10/21 | NA | NA | Thu 19/8/21 | Tue 1/3/22 | 102 days | | | | | | | | | | | | | | | | | | |
| 1102 | Finishing Works and E&M installation | 73 days | 0 days | 73 days | 0% | Sat 17/4/21 | Thu 15/7/21 | NA | NA | Thu 19/8/21 | Mon 15/11/21 | 102 days | 3 days | 1042FS+36 days | | | | | | | | | | | | | | | | |
| 1103 | Pump Installation | 60 days | 0 days | 60 days | 0% | Fri 16/7/21 | Fri 24/9/21 | NA | NA | Tue 16/11/21 | Thu 27/1/22 | 102 days | 2 days | 1102 | | | | | | | | | | | | | | | | |
| 1104 | Testing and Commissioning | 25 days | 0 days | 25 days | 0% | Sat 25/9/21 | Tue 26/10/21 | NA | NA | Fri 28/1/22 | Tue 1/3/22 | 102 days | 1 days | 1102,1103 | | | | | | | | | | | | | | | | |
| 1105 | Planned Completion for Section 1 | 0 days | 0 days | 0 days | 0% | Mon 14/3/22 | Mon 14/3/22 | NA | NA | Tue 1/3/22 | Tue 1/3/22 | -13 days | | 1408,1414,1068, | | | | | | | | | | | | | | | | |
| 1106 | Sections 2,4 and 8 | 824 days | 0 days | 824 days | 0% | Mon 10/8/20 | Wed 17/5/23 | NA | NA | Mon 17/8/20 | Wed 29/5/24 | 6 days | | | | | | | | | | | | | | | | | | |
| 1107 | Offsite 14 units of precast box culvert with outfall fabrication | 100 days | 0 days | 100 days | 0% | Mon 19/10/20 | Fri 19/2/21 | NA | NA | Thu 3/12/20 | Thu 8/4/21 | 38 days | 30 days | 406,414 | | | | | | | | | | | | | | | | |
| 1108 | MDN application | 45 days | 0 days | 45 days | 0% | Mon 26/10/20 | Wed 9/12/20 | NA | NA | Sun 21/1/24 | Tue 5/3/24 | 1182 d... | 1 days | | | | | | | | | | | | | | | | | |
| 1109 | Demolition of Existing Seawall an Construction of Water Channel (Ch 0 to Ch30) | 67 days | 0 days | 67 days | 0% | Thu 10/12/20 | Thu 4/3/21 | NA | NA | Wed 6/3/24 | Wed 29/5/24 | 962 days | | | | | | | | | | | | | | | | | | |
| 1110 | Installation of Silt Curtain with Concrete Sinkers | 6 days | 0 days | 6 days | 0% | Thu 10/12/20 | Wed 16/12/20 | NA | NA | Thu 23/5/24 | Wed 29/5/24 | 1023 d... | 1 day | 1108 | | | | | | | | | | | | | | | | |
| 1111 | Demolition of Existing Seawall | 37 days | 0 days | 37 days | 0% | Thu 10/12/20 | Mon 25/1/21 | NA | NA | Wed 6/3/24 | Mon 22/4/24 | 962 days | 1 day | 1108 | | | | | | | | | | | | | | | | |
| 1112 | Grade 200 rock filling and placing levelling stone | 30 days | 0 days | 30 days | 0% | Tue 26/1/21 | Thu 4/3/21 | NA | NA | Tue 23/4/24 | Wed 29/5/24 | 962 days | 1 day | 1111 | | | | | | | | | | | | | | | | |
| 1113 | CH86 to CH70 ELS Works | 136 days | 0 days | 136 days | 0% | Mon 10/8/20 | Thu 21/1/21 | NA | NA | Mon 17/8/20 | Sat 27/2/21 | 6 days | | | | | | | | | | | | | | | | | | |
| 1114 | Temporary Works Design Preparation | 25 days | 0 days | 25 days | 0% | Mon 10/8/20 | Mon 7/9/20 | NA | NA | Mon 17/8/20 | Mon 14/9/20 | 6 days | 1 days | | | | | | | | | | | | | | | | | |
| 1115 | Comment by PM | 25 days | 0 days | 25 days | 0% | Tue 8/9/20 | Thu 8/10/20 | NA | NA | Tue 15/9/20 | Thu 15/10/20 | 6 days | 1 days | 1114 | | | | | | | | | | | | | | | | |
| 1116 | Sheetpiling Installation with Grouting & Pumping Test (56m long on plan) | 50 days | 0 days | 50 days | 0% | Fri 16/10/20 | Mon 14/12/20 | NA | NA | Fri 16/10/20 | Mon 14/12/20 | 0 days | 1 day | 1420,1423,1115 | | | | | | | | | | | | | | | | |
| 1117 | Excavation with Shoring Installation (1350 cu.m., 150 cu.m./d) | 12 days | 0 days | 12 days | 0% | Tue 15/12/20 | Wed 30/12/20 | NA | NA | Tue 22/12/20 | Thu 7/1/21 | 6 days | 3 day | 1116 | | | | | | | | | | | | | | | | |
| 1118 | Preparation of formation and laying of blinding layer | 18 days | 0 days | 18 days | 0% | Thu 31/12/20 | Thu 21/1/21 | NA | NA | Thu 4/2/21 | Sat 27/2/21 | 29 days | 0.5 day | 1117 | | | | | | | | | | | | | | | | |
| 1119 | CH70 to CH30 ELS Works | 43 days | 0 days | 43 days | 0% | Mon 16/11/20 | Thu 7/1/21 | NA | NA | Mon 16/11/20 | Thu 7/1/21 | 0 days | | | | | | | | | | | | | | | | | | |
| 1120 | Sheetpiling Installation (80m on plan) | 14 days | 0 days | 14 days | 0% | Mon 16/11/20 | Tue 1/12/20 | NA | NA | Mon 16/11/20 | Tue 1/12/20 | 0 days | 0.5 day | 1116SS+25 days | | | | | | | | | | | | | | | | |
| 1121 | Excavation with Shoring Installation (4500 cu.m., 160 cu.m./d x 1 team) and Preparation of Formation and Laying of Blinding Layer | 29 days | 0 days | 29 days | 0% | Wed 2/12/20 | Thu 7/1/21 | NA | NA | Wed 2/12/20 | Thu 7/1/21 | 0 days | 1 day | 1120 | | | | | | | | | | | | | | | | |
| 1122 | DCS Seawater Intake (Insitu Section Bay 15) | 41 days | 0 days | 41 days | 0% | Fri 8/1/21 | Sat 27/2/21 | NA | NA | Fri 8/1/21 | Sat 27/2/21 | 0 days | 1 days | | | | | | | | | | | | | | | | | |
| 1123 | Construction of Cast in-situ Box Culvert with feeder pipe installation with Connection to Existing Box Culvert(Bay 15, approx. 12m long) | 41 days | 0 days | 41 days | 0% | Fri 8/1/21 | Sat 27/2/21 | NA | NA | Fri 8/1/21 | Sat 27/2/21 | 0 days | 1 day | 1117,1121 | | | | | | | | | | | | | | | | |
| 1124 | Precast Units Installation | 151 days | 0 days | 151 days | 0% | Mon 1/3/21 | Tue 31/8/21 | NA | NA | Mon 1/3/21 | Tue 30/5/23 | 0 days | | | | | | | | | | | | | | | | | | |
| 1125 | Preparation for Connecting Precast Units and Cast In-situ Bay 15 | 6 days | 0 days | 6 days | 0% | Mon 1/3/21 | Sat 6/3/21 | NA | NA | Mon 1/3/21 | Sat 6/3/21 | 0 days | 1 days | 1123,1118 | | | | | | | | | | | | | | | | |
| 1126 | Installation of 14 precast units with feeder pipe installation (2.5 days per unit) | 37 days | 0 days | 37 days | 0% | Mon 8/3/21 | Thu 22/4/21 | NA | NA | Mon 8/3/21 | Thu 22/4/21 | 0 days | 2 days | 1125,1107SS+75 days | | | | | | | | | | | | | | | | |
| 1127 | Inspection Shaft Construction and Backfilling Upto +2.0mPD + Feeder Pipe Laying + Backfilling upto Final Formation Level | 33 days | 0 days | 33 days | 0% | Fri 23/4/21 | Wed 2/6/21 | NA | NA | Fri 23/4/21 | Wed 2/6/21 | 0 days | 0.5 day | 1126 | | | | | | | | | | | | | | | | |
| 1128 | Seawall Reinstatement | 75 days | 0 days | 75 days | 0% | Thu 3/6/21 | Tue 31/8/21 | NA | NA | Sat 25/2/23 | Tue 30/5/23 | 518 days | 2 days | 1127 | | | | | | | | | | | | | | | | |
| 1129 | Section 4: Part 2E | 225 days | 0 days | 225 days | 0% | Mon 15/8/22 | Wed 17/5/23 | NA | NA | Sat 10/9/22 | Tue 30/5/23 | 10 days | | | | | | | | | | | | | | | | | | |
| 1130 | Abandon Existing DCS - Temp. Works Design and Method Statement Submission | 0 days | 0 days | 0 days | 0% | Mon 15/8/22 | Mon 15/8/22 | NA | NA | Sat 10/9/22 | Sat 10/9/22 | 26 days | 1 day | | | | | | | | | | | | | | | | | |
| 1131 | Abandon Existing DCS - Temp. Works Design and Method Statement Comment & Approval | 35 days | 0 days | 35 days | 0% | Mon 15/8/22 | Sun 18/9/22 | NA | NA | Sat 10/9/22 | Fri 14/10/22 | 26 days | 1 day | 1130 | | | | | | | | | | | | | | | | |
| 1132 | Part 2E - Abandon of existing DCS | 185 days | 0 days | 185 days | 0% | Mon 3/10/22 | Wed 17/5/23 | NA | NA | Sat 15/10/22 | Tue 30/5/23 | 10 days | 9 days | 20,1131 | | | | | | | | | | | | | | | | |
| 1133 | Planned Completion for Section 4 | 0 days | 0 days | 0 days | 0% | Wed 17/5/23 | Wed 17/5/23 | NA | NA | Tue 30/5/23 | Tue 30/5/23 | 10 days | | 1132 | | | | | | | | | | | | | | | | |
| 1134 | Section 8: Part 2A - Diversion & abandon of extg DCS box culvert | 194 days | 0 days | 194 days | 0% | Thu 1/4/21 | Wed 24/11/21 | NA | NA | Fri 9/4/21 | Thu 2/12/21 | 4 days | | | | | | | | | | | | | | | | | | |
| 1135 | Diversion & Abandon of Existing DCS Box Culvert - Temp. Works Design and Method Statement Submission | 0 days | 0 days | 0 days | 0% | Thu 1/4/21 | Thu 1/4/21 | NA | NA | Fri 9/4/21 | Fri 9/4/21 | 8 days | 1 day | | | | | | | | | | | | | | | | | |
| 1136 | Diversion & Abandon of Existing DCS Box Box Culvert - Temp. Works Design and Method Statement Comment & Approval | 21 days | 0 days | 21 days | 0% | Thu 1/4/21 | Wed 21/4/21 | NA | NA | Fri 9/4/21 | Thu 29/4/21 | 8 days | 1 day | 1135 | | | | | | | | | | | | | | | | |
| 1137 | TTA Implementation | 1 day | 0 days | 1 day | 0% | Thu 22/4/21 | Thu 22/4/21 | NA | NA | Fri 30/4/21 | Fri 30/4/21 | 7 days | 0.5 day | 1136 | | | | | | | | | | | | | | | | |



Title: Rev.11 Prog with Progress as of 22-May-20

| | | | | | | | | | | | | | |
|-----------|--|-----------------|--|--------------------|--|-----------------------|--|----------------|--|--------------------|--|-----------------|--|
| Task | | Summary | | Inactive Milestone | | Duration-only | | Start-only | | External Milestone | | Critical Split | |
| Split | | Project Summary | | Inactive Summary | | Manual Summary Rollup | | Finish-only | | Deadline | | Progress | |
| Milestone | | Inactive Task | | Manual Task | | Manual Summary | | External Tasks | | Critical | | Manual Progress | |

Contract No. ED/2018/01 KTD Project

| ID | Task Name | Duration | Actual Duration | Remaining Duration | Physical % Complete | Early Start | Early Finish | Actual Start | Actual Finish | Late Start | Late Finish | Total Slack | TRA | Predecessors | 2020 Q2 | 2020 Q3 | 2020 Q4 | 2021 Q1 | 2021 Q2 | 2021 Q3 | 2021 Q4 | 2022 Q1 | 2022 Q2 | 2022 Q3 | 2022 Q4 | 2023 Q1 | 2023 Q2 | 2023 Q3 | 2023 Q4 | 2024 Q1 | 2024 Q2 |
|------|--|----------|-----------------|--------------------|---------------------|--------------|--------------|--------------|---------------|--------------|--------------|-------------|---------|-----------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 1138 | Sheetpile Installation | 25 days | 0 days | 25 days | 0% | Fri 23/4/21 | Mon 24/5/21 | NA | NA | Mon 3/5/21 | Tue 1/6/21 | 7 days | 1 day | 1137 | | | | | | | | | | | | | | | | | |
| 1139 | Excavation with Shoring | 52 days | 0 days | 52 days | 0% | Tue 25/5/21 | Mon 26/7/21 | NA | NA | Wed 2/6/21 | Tue 3/8/21 | 7 days | 1 day | 1138 | | | | | | | | | | | | | | | | | |
| 1140 | Diversion of existing DCS box culvert | 26 days | 0 days | 26 days | 0% | Tue 27/7/21 | Wed 25/8/21 | NA | NA | Wed 4/8/21 | Thu 2/9/21 | 7 days | 2 days | 1137,410,1139 | | | | | | | | | | | | | | | | | |
| 1141 | Break up existing box culvert (4 walls) + top slab | 35 days | 0 days | 35 days | 0% | Thu 26/8/21 | Thu 7/10/21 | NA | NA | Fri 3/9/21 | Sat 16/10/21 | 7 days | 2 days | 1140 | | | | | | | | | | | | | | | | | |
| 1142 | Construct new walls at existing box culvert | 20 days | 0 days | 20 days | 0% | Fri 8/10/21 | Mon 1/11/21 | NA | NA | Mon 18/10/21 | Tue 9/11/21 | 7 days | 1 days | 1141 | | | | | | | | | | | | | | | | | |
| 1143 | Abandon existing DCS box culvert | 20 days | 0 days | 20 days | 0% | Tue 2/11/21 | Wed 24/11/21 | NA | NA | Wed 10/11/21 | Thu 2/12/21 | 7 days | 1 days | 1142 | | | | | | | | | | | | | | | | | |
| 1144 | Planned Completion for Section 8 | 0 days | 0 days | 0 days | 0% | Wed 24/11/21 | Wed 24/11/21 | NA | NA | Thu 2/12/21 | Thu 2/12/21 | 7 days | 0 days | 1143 | | | | | | | | | | | | | | | | | |
| 1145 | Section 3 | 729 days | 0 days | 729 days | 0% | Thu 16/5/19 | Tue 26/10/21 | NA | NA | Tue 2/6/20 | Tue 2/11/21 | 6 days | | | | | | | | | | | | | | | | | | | |
| 1146 | Part 2C - Lift LT3 & LT4 | 729 days | 0 days | 729 days | 0% | Thu 16/5/19 | Tue 26/10/21 | NA | NA | Tue 2/6/20 | Tue 2/11/21 | 6 days | | | | | | | | | | | | | | | | | | | |
| 1147 | Access Date - Part 2A,2C | 0 days | 0 days | 0 days | 0% | Tue 2/6/20 | Tue 2/6/20 | NA | NA | Tue 2/6/20 | Tue 2/6/20 | 0 days | 0 days | 4FS+369 days | | | | | | | | | | | | | | | | | |
| 1148 | Mobilization of plant and materials | 15 days | 0 days | 15 days | 0% | Thu 16/5/19 | Sat 1/6/19 | NA | NA | Sat 4/7/20 | Tue 21/7/20 | 337 days | 1 days | | | | | | | | | | | | | | | | | | |
| 1149 | TTA implementation | 4 days | 0 days | 4 days | 0% | Tue 2/6/20 | Fri 5/6/20 | NA | NA | Fri 17/7/20 | Tue 21/7/20 | 37 days | 1 day | 1147 | | | | | | | | | | | | | | | | | |
| 1150 | Carry out Titpit and Identify Underground Utilities location | 12 days | 0 days | 12 days | 0% | Mon 15/6/20 | Fri 26/6/20 | NA | NA | Mon 22/6/20 | Fri 3/7/20 | 7 days | | | | | | | | | | | | | | | | | | | |
| 1151 | Discuss with Relevant Utilities Undertakers | 18 days | 0 days | 18 days | 0% | Sat 27/6/20 | Tue 14/7/20 | NA | NA | Sat 4/7/20 | Tue 21/7/20 | 7 days | | 1150 | | | | | | | | | | | | | | | | | |
| 1152 | Slew CLP Cable and Abandon Telecom Cable (tentative) | 75 days | 0 days | 75 days | 0% | Wed 15/7/20 | Mon 12/10/20 | NA | NA | Wed 22/7/20 | Mon 19/10/20 | 6 days | 4 days | 1148,1149,1151 | | | | | | | | | | | | | | | | | |
| 1153 | Lift Tower Foundation - Temp. Works Design and Method Statement Submission | 0 days | 0 days | 0 days | 0% | Tue 4/8/20 | Tue 4/8/20 | NA | NA | Tue 15/9/20 | Tue 15/9/20 | 42 days | 1 day | | | | | | | | | | | | | | | | | | |
| 1154 | Lift Tower Foundation - Temp. Works Design and Method Statement Comment & Approval | 35 days | 0 days | 35 days | 0% | Tue 4/8/20 | Mon 7/9/20 | NA | NA | Tue 15/9/20 | Mon 19/10/20 | 42 days | 1 day | 1153 | | | | | | | | | | | | | | | | | |
| 1155 | Intall Sheetpile, ELS, Excavation and Temp. Works Installation (Shoring, Drainage & Slope Protection) | 38 days | 0 days | 38 days | 0% | Tue 13/10/20 | Thu 26/11/20 | NA | NA | Tue 20/10/20 | Thu 3/12/20 | 6 days | 2 days | 1154,1152 | | | | | | | | | | | | | | | | | |
| 1156 | Foundation Construction (Pad Footing include blinding layer, formwork erection, rebar fixing & concreting) | 38 days | 0 days | 38 days | 0% | Fri 27/11/20 | Wed 13/1/21 | NA | NA | Fri 4/12/20 | Wed 20/1/21 | 6 days | 2 days | 1148,1152,175,1 | | | | | | | | | | | | | | | | | |
| 1157 | Sheepile Extraction & Backfilling | 13 days | 0 days | 13 days | 0% | Thu 14/1/21 | Thu 28/1/21 | NA | NA | Thu 21/1/21 | Thu 4/2/21 | 6 days | 1 day | 1156 | | | | | | | | | | | | | | | | | |
| 1158 | Lift Tower - Temp. Works Design and Method Statement Submission | 0 days | 0 days | 0 days | 0% | Mon 2/11/20 | Mon 2/11/20 | NA | NA | Fri 1/1/21 | Fri 1/1/21 | 60 days | 1 day | | | | | | | | | | | | | | | | | | |
| 1159 | Lift Tower - Temp. Works Design and Method Statement Comment & Approval | 35 days | 0 days | 35 days | 0% | Mon 2/11/20 | Sun 6/12/20 | NA | NA | Fri 1/1/21 | Thu 4/2/21 | 60 days | 1 day | 1158 | | | | | | | | | | | | | | | | | |
| 1160 | Lift Shaft Tower: 3 Lifts x 20 day/Lift, Falsework & Formwork Erection, Rebar Fixing & Concreting | 63 days | 0 days | 63 days | 0% | Fri 29/1/21 | Mon 19/4/21 | NA | NA | Fri 5/2/21 | Mon 26/4/21 | 6 days | 3 days | 1156,1159,1157 | | | | | | | | | | | | | | | | | |
| 1161 | Lift installation (LT3 & LT4) | 90 days | 0 days | 90 days | 0% | Tue 20/4/21 | Fri 6/8/21 | NA | NA | Tue 27/4/21 | Fri 13/8/21 | 6 days | 5 days | 1160,713 | | | | | | | | | | | | | | | | | |
| 1162 | E & M installation | 30 days | 0 days | 30 days | 0% | Sat 7/8/21 | Fri 10/9/21 | NA | NA | Sat 14/8/21 | Fri 17/9/21 | 6 days | 3 days | 1161 | | | | | | | | | | | | | | | | | |
| 1163 | Louvers and Glazing Installation | 26 days | 0 days | 26 days | 0% | Fri 21/5/21 | Mon 21/6/21 | NA | NA | Sat 14/8/21 | Mon 13/9/21 | 71 days | 2 days | 1160FS+25 days | | | | | | | | | | | | | | | | | |
| 1164 | Parapet Installation and Finishing Works | 40 days | 0 days | 40 days | 0% | Tue 22/6/21 | Sat 7/8/21 | NA | NA | Tue 14/9/21 | Tue 2/11/21 | 71 days | 4 days | 1163 | | | | | | | | | | | | | | | | | |
| 1165 | CLP Meter Installation | 0 days | 0 days | 0 days | 0% | Mon 1/2/21 | Mon 1/2/21 | NA | NA | Fri 20/8/21 | Fri 20/8/21 | 200 days | 0.5 day | | | | | | | | | | | | | | | | | | |
| 1166 | EMSD Submission Form 5 for Lift Inspection | 0 days | 0 days | 0 days | 0% | Mon 1/3/21 | Mon 1/3/21 | NA | NA | Fri 20/8/21 | Fri 20/8/21 | 172 days | 0.5 day | 1165 | | | | | | | | | | | | | | | | | |
| 1167 | EMSD Lift Inspection | 0 days | 0 days | 0 days | 0% | Sun 14/3/21 | Sun 14/3/21 | NA | NA | Fri 3/9/21 | Fri 3/9/21 | 172 days | 0.5 day | 1166FS+14 days | | | | | | | | | | | | | | | | | |
| 1168 | Issuance of Lift Use Permit | 0 days | 0 days | 0 days | 0% | Mon 29/3/21 | Mon 29/3/21 | NA | NA | Sat 18/9/21 | Sat 18/9/21 | 172 days | 0.5 day | 1167FS+15 days | | | | | | | | | | | | | | | | | |
| 1169 | Testing & commissioning with Statutory Inspection | 36 days | 0 days | 36 days | 0% | Sat 11/9/21 | Tue 26/10/21 | NA | NA | Sat 18/9/21 | Tue 2/11/21 | 6 days | 1 days | 1162,1168 | | | | | | | | | | | | | | | | | |
| 1170 | Footpath | 28 days | 0 days | 28 days | 0% | Tue 20/4/21 | Mon 24/5/21 | NA | NA | Tue 8/6/21 | Mon 12/7/21 | 40 days | 1 days | 1160 | | | | | | | | | | | | | | | | | |
| 1171 | Open Space within Part 2C | 94 days | 0 days | 94 days | 0% | Tue 25/5/21 | Mon 13/9/21 | NA | NA | Tue 13/7/21 | Tue 2/11/21 | 40 days | 4 days | 1170,1230 | | | | | | | | | | | | | | | | | |
| 1172 | Planned Completion for Section 3 | 0 days | 0 days | 0 days | 0% | Tue 26/10/21 | Tue 26/10/21 | NA | NA | Tue 2/11/21 | Tue 2/11/21 | 6 days | 0 days | 1171,1168,1169 | | | | | | | | | | | | | | | | | |
| 1173 | Sections 5 and 9: Noise Barrier Installation | 380 days | 6.83 days | 373.17 days | 0% | Fri 20/3/20 | Sat 3/7/21 | Fri 20/3/20 | NA | Fri 20/3/20 | Mon 5/7/21 | 1 day | 1 day | | | | | | | | | | | | | | | | | | |
| 1174 | 1.0 Noise Barrier Shop Drawing Preparation, Offsite Fabrication | 141 days | 20.86 days | 120.14 days | 0% | Mon 6/4/20 | Thu 24/9/20 | Mon 6/4/20 | NA | Mon 6/4/20 | Mon 7/12/20 | 60 days | | | | | | | | | | | | | | | | | | | |
| 1175 | CNP and TTA available | 0 days | 0 days | 0 days | 0% | Wed 24/6/20 | Wed 24/6/20 | NA | NA | Thu 20/8/20 | Thu 20/8/20 | 47 days | 1 day | | | | | | | | | | | | | | | | | | |
| 1176 | Expose the Extisting Noise Barrier Foundation | 70 days | 25 days | 45 days | 36% | Mon 6/4/20 | Fri 3/7/20 | Mon 6/4/20 | NA | Mon 6/4/20 | Tue 7/7/20 | 3 days | 1 day | | | | | | | | | | | | | | | | | | |
| 1177 | Implement TTA | 2 days | 0 days | 2 days | 0% | Mon 13/7/20 | Tue 14/7/20 | NA | NA | Wed 18/11/20 | Thu 19/11/20 | 107 days | 0.5 day | | | | | | | | | | | | | | | | | | |
| 1178 | Expose the Extisting Noise Barrier Foundation under Existing Footpath | 15 days | 0 days | 15 days | 0% | Wed 15/7/20 | Fri 31/7/20 | NA | NA | Fri 20/11/20 | Mon 7/12/20 | 107 days | 1 day | 1177 | | | | | | | | | | | | | | | | | |
| 1179 | Carry out the Site Survey for Existing Holding Down Bolt at Existing Landscaped Deck | 6 days | 0 days | 6 days | 0% | Wed 24/6/20 | Thu 2/7/20 | NA | NA | Thu 20/8/20 | Wed 26/8/20 | 47 days | 1 day | 1175 | | | | | | | | | | | | | | | | | |
| 1180 | Noise Barrier Shop Drawings Preparation | 30 days | 0 days | 30 days | 0% | Fri 31/7/20 | Thu 3/9/20 | NA | NA | Fri 21/8/20 | Thu 24/9/20 | 18 days | 0.5 day | 1176FF+18 days | | | | | | | | | | | | | | | | | |
| 1181 | Noise Barrier Shop Drawings Comment by PM | 18 days | 0 days | 18 days | 0% | Fri 4/9/20 | Thu 24/9/20 | NA | NA | Fri 25/9/20 | Sat 17/10/20 | 18 days | 0.5 day | 1180 | | | | | | | | | | | | | | | | | |
| 1182 | PMAA Panel Material Sample Submission | 0 days | 0 days | 0 days | 0% | Sat 2/5/20 | Sat 2/5/20 | NA | NA | Sat 6/6/20 | Sat 6/6/20 | 30 days | 1 days | | | | | | | | | | | | | | | | | | |

Title: Rev.11 Prog with Progress as of 22-May-20

| | | | | | | |
|-----------|-----------------|--------------------|-----------------------|----------------|--------------------|-----------------|
| Task | Summary | Inactive Milestone | Duration-only | Start-only | External Milestone | Critical Split |
| Split | Project Summary | Inactive Summary | Manual Summary Rollup | Finish-only | Deadline | Progress |
| Milestone | Inactive Task | Manual Task | Manual Summary | External Tasks | Critical | Manual Progress |

Contract No. ED/2018/01 KTD Project

| ID | Task Name | Duration | Actual Duration | Remaining Duration | Physical % Complete | Early Start | Early Finish | Actual Start | Actual Finish | Late Start | Late Finish | Total Slack | TRA | Predecessors | 2020 | | | | 2021 | | | | 2022 | | | | 2023 | | | |
|------|---|----------|-----------------|--------------------|---------------------|--------------|--------------|--------------|---------------|--------------|--------------|-------------|----------|-----------------|------|----|----|----|------|----|----|----|------|----|----|----|------|----|----|----|
| | | | | | | | | | | | | | | | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 |
| 1228 | Hoarding - Part 2A (~379m) - 4 team | 12 days | 0 days | 12 days | 0% | Mon 2/11/20 | Sat 14/11/20 | NA | NA | Sat 5/2/22 | Fri 18/2/22 | 373 days | 1 days | 9,121,1147,1445 | | | | | | | | | | | | | | | | |
| 1229 | Fencing - Part 2B (~132m) | 9 days | 0 days | 9 days | 0% | Sat 20/2/21 | Tue 2/3/21 | NA | NA | Sat 19/2/22 | Tue 1/3/22 | 296 days | 0 days | 10,121,1227,122 | | | | | | | | | | | | | | | | |
| 1230 | Hoarding - Part 2C (~106m) | 9 days | 0 days | 9 days | 0% | Sat 19/9/20 | Tue 29/9/20 | NA | NA | Fri 2/7/21 | Mon 12/7/21 | 229 days | 1 days | 9,121,1147,1445 | | | | | | | | | | | | | | | | |
| 1231 | Hoarding - Part 2E (~37m) | 4 days | 0 days | 4 days | 0% | Mon 3/10/22 | Fri 7/10/22 | NA | NA | Tue 22/11/22 | Fri 25/11/22 | 42 days | 0 days | 11,121,1225 | | | | | | | | | | | | | | | | |
| 1232 | Fencing - Part 3A (~326m) | 24 days | 0 days | 24 days | 0% | Fri 14/10/22 | Thu 10/11/22 | NA | NA | Fri 2/12/22 | Fri 30/12/22 | 42 days | 2 days | 12,121,1235 | | | | | | | | | | | | | | | | |
| 1233 | Fencing - Part 3D (~29m) | 2 days | 0 days | 2 days | 0% | Sat 19/9/20 | Mon 21/9/20 | NA | NA | Sat 12/6/21 | Tue 15/6/21 | 214 days | 0 days | 14,121 | | | | | | | | | | | | | | | | |
| 1234 | Fencing - Part 3E (~23m) | 2 days | 0 days | 2 days | 0% | Wed 13/1/21 | Thu 14/1/21 | NA | NA | Wed 16/6/21 | Thu 17/6/21 | 123 days | 0 days | 14,121,1236,123 | | | | | | | | | | | | | | | | |
| 1235 | Fencing - Part 3F (~62m) | 5 days | 0 days | 5 days | 0% | Sat 8/10/22 | Thu 13/10/22 | NA | NA | Sat 26/11/22 | Thu 1/12/22 | 42 days | 0 days | 15,121,1231,123 | | | | | | | | | | | | | | | | |
| 1236 | Fencing - Part 3G (~69m) | 5 days | 0 days | 5 days | 0% | Tue 5/1/21 | Sat 9/1/21 | NA | NA | Mon 7/6/21 | Fri 11/6/21 | 123 days | 0 days | 14,121 | | | | | | | | | | | | | | | | |
| 1237 | Fencing - Part 3I (~19m) | 2 days | 0 days | 2 days | 0% | Mon 11/1/21 | Tue 12/1/21 | NA | NA | Sat 12/6/21 | Tue 15/6/21 | 123 days | 0 days | 14,121,1236 | | | | | | | | | | | | | | | | |
| 1238 | Fencing - Part 4 (~180m) | 14 days | 0 days | 14 days | 0% | Fri 5/3/21 | Sat 20/3/21 | NA | NA | Tue 24/5/22 | Thu 9/6/22 | 361 days | 2 days | 121,13,1237 | | | | | | | | | | | | | | | | |
| 1239 | Fencing - Part 6A (~19m) | 2 days | 0 days | 2 days | 0% | Sat 19/9/20 | Mon 21/9/20 | NA | NA | Sat 26/9/20 | Mon 28/9/20 | 6 days | 0 days | 8,121,1241 | | | | | | | | | | | | | | | | |
| 1240 | Fencing - Part 6B (~23m) | 2 days | 0 days | 2 days | 0% | Tue 22/9/20 | Wed 23/9/20 | NA | NA | Tue 29/9/20 | Wed 30/9/20 | 6 days | 0 days | 8,121,1239 | | | | | | | | | | | | | | | | |
| 1241 | Hoarding - WA1 (~300m) | 41 days | 41 days | 0 days | 70% | Tue 15/10/19 | Sat 30/11/19 | Tue 15/10/19 | Sat 30/11/19 | Tue 15/10/19 | Sat 30/11/19 | 0 days | 0.5 days | 18,121 | | | | | | | | | | | | | | | | |
| 1242 | Fencing (15m/d) & Hoarding Erection (10m/d) - Upon Works Completion | 100 days | 0 days | 100 days | 0% | Tue 5/7/22 | Tue 1/11/22 | NA | NA | Fri 5/8/22 | Fri 2/12/22 | 27 days | | | | | | | | | | | | | | | | | | |
| 1243 | Fencing - ~1437m | 100 days | 0 days | 100 days | 0% | Tue 5/7/22 | Tue 1/11/22 | NA | NA | Fri 5/8/22 | Fri 2/12/22 | 27 days | 5 days | 1527 | | | | | | | | | | | | | | | | |
| 1244 | Hoarding - ~260m | 28 days | 0 days | 28 days | 0% | Tue 5/7/22 | Fri 5/8/22 | NA | NA | Mon 19/9/22 | Sat 22/10/22 | 64 days | 2 days | 1527 | | | | | | | | | | | | | | | | |
| 1245 | Demolition Work - Extg Fire Service Station | 89 days | 89 days | 0 days | 0% | Fri 16/8/19 | Sat 30/11/19 | Fri 16/8/19 | Sat 30/11/19 | Fri 16/8/19 | Sat 30/11/19 | 0 days | | | | | | | | | | | | | | | | | | |
| 1246 | Asbestos Survey (PS Cl. 2.04(9)) | 8 days | 8 days | 0 days | 100% | Fri 16/8/19 | Fri 23/8/19 | Fri 16/8/19 | Fri 23/8/19 | Fri 16/8/19 | Fri 23/8/19 | 0 days | 0.5 days | 1226 | | | | | | | | | | | | | | | | |
| 1247 | Demolish of abandoned Fire Service Station | 11 days | 11 days | 0 days | 100% | Tue 19/11/19 | Sat 30/11/19 | Tue 19/11/19 | Sat 30/11/19 | Tue 19/11/19 | Sat 30/11/19 | 0 days | 0.5 days | 1246 | | | | | | | | | | | | | | | | |
| 1248 | Rising Main | 623 days | 0 days | 623 days | 0% | Tue 1/12/20 | Tue 3/1/23 | NA | NA | Mon 1/2/21 | Tue 30/5/23 | 50 days | | | | | | | | | | | | | | | | | | |
| 1249 | Rising Main - Method Statement Submission | 0 days | 0 days | 0 days | 0% | Tue 1/12/20 | Tue 1/12/20 | NA | NA | Mon 1/2/21 | Mon 1/2/21 | 62 days | 0.5 days | | | | | | | | | | | | | | | | | |
| 1250 | Rising Main Method Statement Comment & Appraoval | 35 days | 0 days | 35 days | 0% | Tue 1/12/20 | Mon 4/1/21 | NA | NA | Mon 1/2/21 | Sun 7/3/21 | 62 days | 0.5 days | 1249 | | | | | | | | | | | | | | | | |
| 1251 | Part 1 - CHA660-1097.77 - 2x160mm dia (~438m) | 95 days | 0 days | 95 days | 0% | Mon 8/2/21 | Mon 7/6/21 | NA | NA | Mon 8/3/21 | Sat 3/7/21 | 21 days | 14 day | 8,1226,427,419, | | | | | | | | | | | | | | | | |
| 1252 | Part 9A - CHA32-71 - 2x160mm dia (~39m) (KD5) | 15 days | 0 days | 15 days | 0% | Tue 8/6/21 | Fri 25/6/21 | NA | NA | Mon 5/7/21 | Wed 21/7/21 | 21 days | 7 day | 8,1251 | | | | | | | | | | | | | | | | |
| 1253 | Part 9B Rising Main | 36 days | 0 days | 36 days | 0% | Sat 26/6/21 | Sat 7/8/21 | NA | NA | Thu 22/7/21 | Wed 1/9/21 | 21 days | 10 days | 1252 | | | | | | | | | | | | | | | | |
| 1254 | Part 3B - CHA418-443 - 2x160mm dia (~25m) (KD7) | 10 days | 0 days | 10 days | 0% | Mon 9/8/21 | Thu 19/8/21 | NA | NA | Thu 2/9/21 | Mon 13/9/21 | 21 days | 5 days | 13,1252SS,1253 | | | | | | | | | | | | | | | | |
| 1255 | Part 9 - CHA0-363 & 71-363 - 2x160mm dia. (~655m) (KD4) | 124 days | 0 days | 124 days | 0% | Tue 31/8/21 | Fri 28/1/22 | NA | NA | Thu 2/9/21 | Mon 31/1/22 | 2 days | 3 days | 16,1254SS | | | | | | | | | | | | | | | | |
| 1256 | Part 8 - CHA363-418&443-452 - 2x160mm dia (~64m) | 20 days | 0 days | 20 days | 0% | Sat 29/1/22 | Thu 24/2/22 | NA | NA | Thu 9/3/23 | Fri 31/3/23 | 330 days | 8 days | 1255 | | | | | | | | | | | | | | | | |
| 1257 | Part 3A - CH452-660 - 2x160mm dia (~208m) | 45 days | 0 days | 45 days | 0% | Fri 11/1/22 | Tue 3/1/23 | NA | NA | Sat 1/4/23 | Tue 30/5/23 | 117 days | 6 days | 12,1232,1256 | | | | | | | | | | | | | | | | |
| 1258 | Allow Access for EMSD third District Cooling System Contractor for DCS Pipeline Laying at Parts 3A, 3B, 8, 9 and 9A | 0 days | 0 days | 0 days | 0% | Tue 3/1/23 | Tue 3/1/23 | NA | NA | Tue 30/5/23 | Tue 30/5/23 | 147 days | | 1257 | | | | | | | | | | | | | | | | |
| 1259 | Underground Drainage (Stormwater & Sewerage Drainage) | 496 days | 0 days | 496 days | 0% | Tue 1/12/20 | Wed 3/8/22 | NA | NA | Wed 31/3/21 | Wed 5/10/22 | 51 days | | | | | | | | | | | | | | | | | | |
| 1260 | Procurement of Stormwater Drainage Pipes | 90 days | 0 days | 90 days | 0% | Tue 16/2/21 | Sun 16/5/21 | NA | NA | Wed 31/3/21 | Mon 28/6/21 | 43 days | 1 day | | | | | | | | | | | | | | | | | |
| 1261 | Stormwater Drainage | 299 days | 0 days | 299 days | 0% | Tue 15/6/21 | Wed 15/6/22 | NA | NA | Tue 29/6/21 | Wed 21/9/22 | 12 days | | 428,465,1260 | | | | | | | | | | | | | | | | |
| 1262 | Stormwater Drainage - ELS Temp. Works Design and Method Statement Submission | 0 days | 0 days | 0 days | 0% | Tue 15/6/21 | Tue 15/6/21 | NA | NA | Tue 29/6/21 | Tue 29/6/21 | 14 days | 1 day | | | | | | | | | | | | | | | | | |
| 1263 | Stormwater Drainage - ELS Temp. Works Design and Method Statement Comment & Appraoval | 35 days | 0 days | 35 days | 0% | Tue 15/6/21 | Mon 19/7/21 | NA | NA | Tue 29/6/21 | Mon 2/8/21 | 14 days | 1 day | 1262 | | | | | | | | | | | | | | | | |
| 1264 | CH1000 - CH1087 (~92.5m, 2 M/H) | 16 days | 0 days | 16 days | 0% | Tue 20/7/21 | Fri 6/8/21 | NA | NA | Tue 3/8/21 | Fri 20/8/21 | 12 days | 1 days | 1263 | | | | | | | | | | | | | | | | |
| 1265 | CH1087 - CH1189.4 (~210m, 9 M/H) | 24 days | 0 days | 24 days | 0% | Sat 7/8/21 | Fri 3/9/21 | NA | NA | Sat 21/8/21 | Fri 17/9/21 | 12 days | 1 days | 1264 | | | | | | | | | | | | | | | | |
| 1266 | CH1189.4 - CH1394 (~167m, 3 MH) - Bridge D3 | 24 days | 0 days | 24 days | 0% | Tue 24/8/21 | Mon 20/9/21 | NA | NA | Tue 9/11/21 | Mon 6/12/21 | 63 days | 0.5 days | 944SS | | | | | | | | | | | | | | | | |
| 1267 | CH1394 - CH1444.7 (~40m, 3 M/H) - S. Ramp | 21 days | 0 days | 21 days | 0% | Tue 7/9/21 | Sat 2/10/21 | NA | NA | Tue 9/11/21 | Thu 2/12/21 | 51 days | 1 days | 1266SS,988SS+ | | | | | | | | | | | | | | | | |
| 1268 | CH1444.7 - CH1560 (~222m, 10 M/H) - Rd D3 | 38 days | 0 days | 38 days | 0% | Wed 23/6/21 | Fri 6/8/21 | NA | NA | Mon 21/2/22 | Wed 6/4/22 | 198 days | 3 days | 987 | | | | | | | | | | | | | | | | |
| 1269 | CH1560 - CH1720 (~239m, 8 M/H) - N.D. Rd | 14 days | 0 days | 14 days | 0% | Sat 7/8/21 | Mon 23/8/21 | NA | NA | Thu 7/4/22 | Tue 26/4/22 | 198 days | 1 days | 1263,1268,436 | | | | | | | | | | | | | | | | |
| 1270 | CH1720 - CH1920 (~450.7m, 13 M/H) Underpass | 96 days | 0 days | 96 days | 0% | Tue 24/8/21 | Thu 16/12/21 | NA | NA | Wed 27/4/22 | Thu 18/8/22 | 198 days | 6 days | 1269 | | | | | | | | | | | | | | | | |
| 1271 | CH1920 - CH2000 (~160m, 6 M/H) S.D. Rd | 14 days | 0 days | 14 days | 0% | Fri 17/12/21 | Wed 5/1/22 | NA | NA | Fri 19/8/22 | Sat 3/9/22 | 198 days | 1 days | 1270 | | | | | | | | | | | | | | | | |

Title: Rev.11 Prog with Progress as of 22-May-20

| | | | | | | | | | | | | | |
|-----------|--|-----------------|--|--------------------|--|-----------------------|--|----------------|--|--------------------|--|-----------------|--|
| Task | | Summary | | Inactive Milestone | | Duration-only | | Start-only | | External Milestone | | Critical Split | |
| Split | | Project Summary | | Inactive Summary | | Manual Summary Rollup | | Finish-only | | Deadline | | Progress | |
| Milestone | | Inactive Task | | Manual Task | | Manual Summary | | External Tasks | | Critical | | Manual Progress | |

Contract No. ED/2018/01 KTD Project

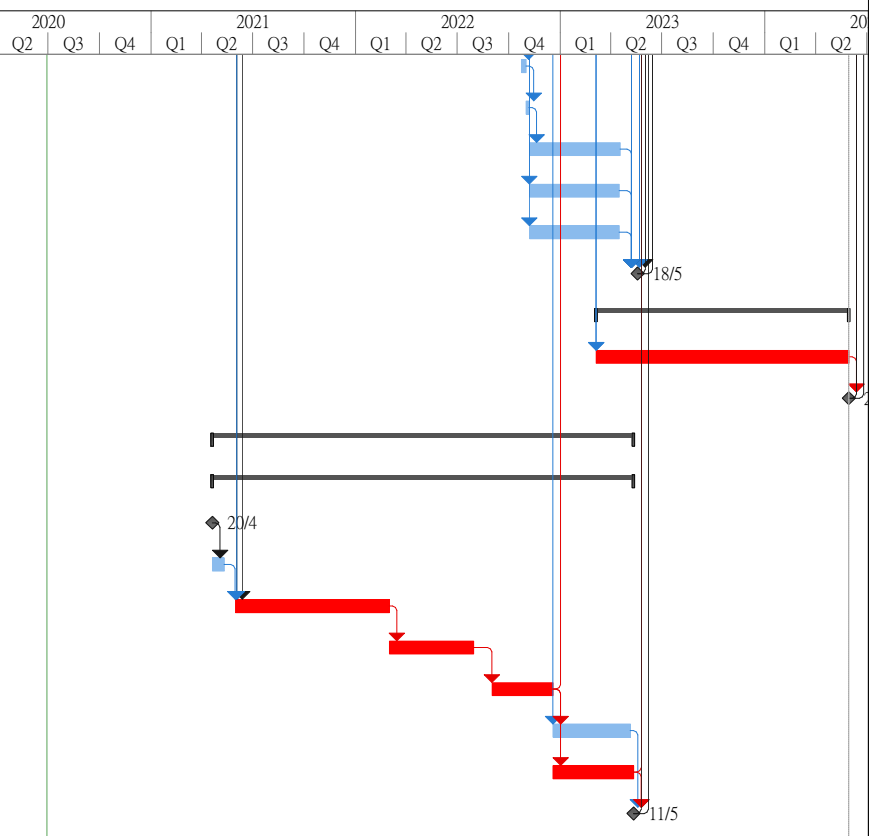
| ID | Task Name | Duration | Actual Duration | Remaining Duration | Physical % Complete | Early Start | Early Finish | Actual Start | Actual Finish | Late Start | Late Finish | Total Slack | TRA | Predecessors | 2020 | | 2021 | | | | 2022 | | | | 2023 | | | | | | | | |
|------|--|-----------|-----------------|--------------------|---------------------|--------------|--------------|--------------|---------------|--------------|--------------|-------------|----------|----------------|------|----|------|----|----|----|------|----|----|----|------|----|----|----|----|----|----|--|--|
| | | | | | | | | | | | | | | | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | | |
| 1362 | FSD Inspection | 0 days | 0 days | 0 days | 0% | Sat 29/4/23 | Sat 29/4/23 | NA | NA | Thu 11/5/23 | Thu 11/5/23 | 8 days | 0.5 days | 1361FS+15 days | | | | | | | | | | | | | | | | | | | |
| 1363 | Issuance of FS Certificate | 0 days | 0 days | 0 days | 0% | Thu 18/5/23 | Thu 18/5/23 | NA | NA | Tue 30/5/23 | Tue 30/5/23 | 8 days | 0.5 days | 1362FS+15 days | | | | | | | | | | | | | | | | | | | |
| 1364 | Salt Water and Sewage Pumping Station: Landscaping hardworks and softworks | 110 days | 0 days | 110 days | 0% | Wed 30/11/22 | Sat 15/4/23 | NA | NA | Wed 11/1/23 | Mon 29/5/23 | 35 days | 2 days | 562,1351,548 | | | | | | | | | | | | | | | | | | | |
| 1365 | Salt Water and Sewage Pumping Station: Planting Works | 110 days | 0 days | 110 days | 0% | Wed 30/11/22 | Sat 15/4/23 | NA | NA | Wed 11/1/23 | Mon 29/5/23 | 35 days | 2 days | 562,1351,548 | | | | | | | | | | | | | | | | | | | |
| 1366 | Section 6 Completion | 0 days | 0 days | 0 days | 0% | Tue 30/5/23 | Tue 30/5/23 | NA | NA | Tue 30/5/23 | Tue 30/5/23 | 0 days | | 1350,1363,1364 | | | | | | | | | | | | | | | | | | | |
| 1367 | Seawater Intake Box Culvert (~169m) | 647 days | 0 days | 647 days | 0% | Fri 5/3/21 | Mon 8/5/23 | NA | NA | Fri 5/3/21 | Tue 30/5/23 | 0 days | | | | | | | | | | | | | | | | | | | | | |
| 1368 | Access Date - Part 4 | 0 days | 0 days | 0 days | 0% | Fri 5/3/21 | Fri 5/3/21 | NA | NA | Fri 5/3/21 | Fri 5/3/21 | 0 days | 0 days | 4FS+645 days | | | | | | | | | | | | | | | | | | | |
| 1369 | Part 4 - CHA.0-79 (79m) | 290 days | 0 days | 290 days | 0% | Thu 19/5/22 | Mon 8/5/23 | NA | NA | Fri 10/6/22 | Tue 30/5/23 | 18 days | | | | | | | | | | | | | | | | | | | | | |
| 1370 | CHA 0-24 Precast Section | 34 days | 0 days | 34 days | 0% | Thu 19/5/22 | Tue 28/6/22 | NA | NA | Fri 10/6/22 | Wed 20/7/22 | 18 days | | | | | | | | | | | | | | | | | | | | | |
| 1371 | Temporary ELS & Excavation and Shoring Installation | 24 days | 0 days | 24 days | 0% | Thu 19/5/22 | Thu 16/6/22 | NA | NA | Fri 10/6/22 | Fri 8/7/22 | 18 days | 1 days | 1384,1386,1238 | | | | | | | | | | | | | | | | | | | |
| 1372 | Install 3 nos. 8 m long precast units (2.5 days per unit) | 10 days | 0 days | 10 days | 0% | Fri 17/6/22 | Tue 28/6/22 | NA | NA | Sat 9/7/22 | Wed 20/7/22 | 18 days | 2.5 days | 1371 | | | | | | | | | | | | | | | | | | | |
| 1373 | CHA 24-79 (75m) (5 units) | 256 days | 0 days | 256 days | 0% | Wed 29/6/22 | Mon 8/5/23 | NA | NA | Thu 21/7/22 | Tue 30/5/23 | 18 days | | | | | | | | | | | | | | | | | | | | | |
| 1374 | Temporary ELS & Excavation | 50 days | 0 days | 50 days | 0% | Wed 29/6/22 | Fri 26/8/22 | NA | NA | Thu 21/7/22 | Sat 17/9/22 | 18 days | 1 day | 1372 | | | | | | | | | | | | | | | | | | | |
| 1375 | Unit 1 & 3 (41 days per unit) | 44 days | 0 days | 44 days | 0% | Sat 27/8/22 | Thu 20/10/22 | NA | NA | Mon 19/9/22 | Thu 10/11/22 | 18 days | 3 days | 1374 | | | | | | | | | | | | | | | | | | | |
| 1376 | Unit 2 & 4 (41 days per unit) | 44 days | 0 days | 44 days | 0% | Fri 21/10/22 | Sat 10/12/22 | NA | NA | Fri 11/11/22 | Mon 2/1/23 | 18 days | 3 days | 1375 | | | | | | | | | | | | | | | | | | | |
| 1377 | Unit 5 & 6 (41 days per unit) | 44 days | 0 days | 44 days | 0% | Mon 12/12/22 | Sat 4/2/23 | NA | NA | Tue 3/1/23 | Sat 25/2/23 | 18 days | 3 days | 1376 | | | | | | | | | | | | | | | | | | | |
| 1378 | Remove struts and backfilling | 24 days | 0 days | 24 days | 0% | Mon 6/2/23 | Sat 4/3/23 | NA | NA | Mon 27/2/23 | Sat 25/3/23 | 18 days | 1 days | 1376,1377 | | | | | | | | | | | | | | | | | | | |
| 1379 | Reinstate seawall | 50 days | 0 days | 50 days | 0% | Mon 6/3/23 | Mon 8/5/23 | NA | NA | Mon 27/3/23 | Tue 30/5/23 | 18 days | 1 days | 1378 | | | | | | | | | | | | | | | | | | | |
| 1380 | Part 10 - CHA79-89 (10m) | 286 days | 0 days | 286 days | 0% | Wed 2/6/21 | Wed 18/5/22 | NA | NA | Wed 2/6/21 | Thu 9/6/22 | 0 days | | | | | | | | | | | | | | | | | | | | | |
| 1381 | Access Date - Part 10 | 0 days | 0 days | 0 days | 0% | Wed 2/6/21 | Wed 2/6/21 | NA | NA | Wed 2/6/21 | Wed 2/6/21 | 0 days | 0 days | 4FS+734 days,1 | | | | | | | | | | | | | | | | | | | |
| 1382 | Tempoary Works Design and Method Statement Submission | 0 days | 0 days | 0 days | 0% | Sun 2/1/22 | Sun 2/1/22 | NA | NA | Tue 22/2/22 | Tue 22/2/22 | 40 days | | | | | | | | | | | | | | | | | | | | | |
| 1383 | Tempoary Works Design and Method Statement Comment by PM | 21 days | 0 days | 21 days | 0% | Mon 3/1/22 | Wed 26/1/22 | NA | NA | Tue 22/2/22 | Thu 17/3/22 | 40 days | | 1382 | | | | | | | | | | | | | | | | | | | |
| 1384 | Temporary ELS & Excavation | 14 days | 0 days | 14 days | 0% | Fri 25/2/22 | Sat 12/3/22 | NA | NA | Fri 18/3/22 | Sat 2/4/22 | 18 days | 0 days | 1388,1381,1391 | | | | | | | | | | | | | | | | | | | |
| 1385 | Box Culvert with Feeder Installation | 47 days | 0 days | 47 days | 0% | Mon 14/3/22 | Wed 11/5/22 | NA | NA | Mon 4/4/22 | Wed 1/6/22 | 18 days | 6 days | 1384,1381,1391 | | | | | | | | | | | | | | | | | | | |
| 1386 | Remove struts and backfilling | 6 days | 0 days | 6 days | 0% | Thu 12/5/22 | Wed 18/5/22 | NA | NA | Thu 2/6/22 | Thu 9/6/22 | 18 days | 1 days | 1392,1385 | | | | | | | | | | | | | | | | | | | |
| 1387 | Part 1 - CH89-165 (76m) 6 Units | 193 days | 0 days | 193 days | 0% | Mon 16/8/21 | Fri 8/4/22 | NA | NA | Mon 6/9/21 | Wed 1/6/22 | 18 days | | | | | | | | | | | | | | | | | | | | | |
| 1388 | Temporary ELS & Excavation | 25 days | 0 days | 25 days | 0% | Mon 16/8/21 | Mon 13/9/21 | NA | NA | Mon 6/9/21 | Wed 6/10/21 | 18 days | 0.5 days | 9,1147,1445 | | | | | | | | | | | | | | | | | | | |
| 1389 | Unit 1 & 3 (41 days per unit) | 44 days | 0 days | 44 days | 0% | Tue 14/9/21 | Sat 6/11/21 | NA | NA | Thu 7/10/21 | Sat 27/11/21 | 18 days | 4 days | 1388,418,570 | | | | | | | | | | | | | | | | | | | |
| 1390 | Unit 2 & 4 (41 days per unit) | 44 days | 0 days | 44 days | 0% | Mon 8/11/21 | Thu 30/12/21 | NA | NA | Mon 29/11/21 | Fri 21/1/22 | 18 days | 4 days | 1389 | | | | | | | | | | | | | | | | | | | |
| 1391 | Unit 5 & 6 (41 days per unit) | 44 days | 0 days | 44 days | 0% | Fri 31/12/21 | Thu 24/2/22 | NA | NA | Sat 22/1/22 | Thu 17/3/22 | 18 days | 4 days | 1390 | | | | | | | | | | | | | | | | | | | |
| 1392 | Remove struts and backfilling | 36 days | 0 days | 36 days | 0% | Fri 25/2/22 | Fri 8/4/22 | NA | NA | Thu 21/4/22 | Wed 1/6/22 | 43 days | 1 days | 1390,1391 | | | | | | | | | | | | | | | | | | | |
| 1393 | Elevated Landscape Deck CH1920 - 2090 | 1178 days | 11.27 days | 1166.74 days? | 0% | Thu 16/5/19 | Sat 29/4/23 | Thu 16/5/19 | NA | Thu 16/5/19 | Wed 29/5/24 | 321 da... | | | | | | | | | | | | | | | | | | | | | |
| 1394 | Agree Interface Coordination Plan with KL/2014/01 Contractor | 14 days | 14 days | 0 days | 100% | Thu 16/5/19 | Fri 31/5/19 | Thu 16/5/19 | Fri 31/5/19 | Thu 16/5/19 | Fri 31/5/19 | 0 days | 0 days | | | | | | | | | | | | | | | | | | | | |
| 1395 | Ch1920-CH2060 | 1 day? | 0 days | 1 day? | 0% | Sat 23/5/20 | Sat 23/5/20 | NA | NA | Wed 29/5/24 | Wed 29/5/24 | 1467 d... | | | | | | | | | | | | | | | | | | | | | |
| 1396 | Part 1 - CH1919-2020 (70m) 4 bays | 181 days | 0 days | 181 days | 0% | Mon 5/7/21 | Thu 10/2/22 | NA | NA | Wed 8/9/21 | Mon 14/2/22 | 3 days | | | | | | | | | | | | | | | | | | | | | |
| 1397 | Pier Temporary Works Design and Method Statement Submission | 0 days | 0 days | 0 days | 0% | Mon 5/7/21 | Mon 5/7/21 | NA | NA | Wed 8/9/21 | Wed 8/9/21 | 65 days | 1 day | | | | | | | | | | | | | | | | | | | | |
| 1398 | Pier Temporary Works Design and Method Statement Comment & Approval | 45 days | 0 days | 45 days | 0% | Mon 5/7/21 | Wed 18/8/21 | NA | NA | Wed 8/9/21 | Fri 22/10/21 | 65 days | 1 day | 1397 | | | | | | | | | | | | | | | | | | | |
| 1399 | CH1930 Pier (1set x 3nos.): | 12 days | 0 days | 12 days | 0% | Tue 5/10/21 | Tue 19/10/21 | NA | NA | Fri 8/10/21 | Fri 22/10/21 | 3 days | | 1075,1076,1066 | | | | | | | | | | | | | | | | | | | |
| 1400 | CH1950-CH2020: Pier (3sets x 3nos) - 1 day/no.. 1 team | 11 days | 0 days | 11 days | 0% | Wed 20/10/21 | Mon 1/11/21 | NA | NA | Sat 23/10/21 | Thu 4/11/21 | 3 days | 2 day | 579,1398,1399 | | | | | | | | | | | | | | | | | | | |
| 1401 | Falsework Temporary Works Design and Method Statement Submission | 0 days | 0 days | 0 days | 0% | Wed 1/9/21 | Wed 1/9/21 | NA | NA | Tue 21/9/21 | Tue 21/9/21 | 20 days | 1 day | | | | | | | | | | | | | | | | | | | | |
| 1402 | Falsework Temporary Works Design and Method Statement Comment & Approval | 45 days | 0 days | 45 days | 0% | Wed 1/9/21 | Fri 15/10/21 | NA | NA | Tue 21/9/21 | Thu 4/11/21 | 20 days | 1 day | 1401 | | | | | | | | | | | | | | | | | | | |
| 1403 | Falsework erection | 10 days | 0 days | 10 days | 0% | Tue 2/11/21 | Fri 12/11/21 | NA | NA | Fri 5/11/21 | Tue 16/11/21 | 3 days | 1 day | 1400,1402 | | | | | | | | | | | | | | | | | | | |
| 1404 | Deck & Secondary Upstand Beam Temporary Works Design and Method Statement Submission | 0 days | 0 days | 0 days | 0% | Wed 1/9/21 | Wed 1/9/21 | NA | NA | Sun 3/10/21 | Sun 3/10/21 | 32 days | 1 day | | | | | | | | | | | | | | | | | | | | |
| 1405 | Deck & Secondary Upstand Beam Temporary Works Design and Method Statement Comment & Approval | 45 days | 0 days | 45 days | 0% | Wed 1/9/21 | Fri 15/10/21 | NA | NA | Sun 3/10/21 | Tue 16/11/21 | 32 days | 1 day | 1404 | | | | | | | | | | | | | | | | | | | |
| 1406 | Deck (4 bays) 12d/bay & link bridge (12d/bay) | 25 days | 0 days | 25 days | 0% | Sat 13/11/21 | Sat 11/12/21 | NA | NA | Wed 17/11/21 | Wed 15/12/21 | 3 days | 1 day | 1403,625,623FS | | | | | | | | | | | | | | | | | | | |

Title: Rev.11 Prog with Progress as of 22-May-20

| | | | | | | | | | | | | | |
|-----------|--|-----------------|--|--------------------|--|-----------------------|--|----------------|--|--------------------|--|-----------------|--|
| Task | | Summary | | Inactive Milestone | | Duration-only | | Start-only | | External Milestone | | Critical Split | |
| Split | | Project Summary | | Inactive Summary | | Manual Summary Rollup | | Finish-only | | Deadline | | Progress | |
| Milestone | | Inactive Task | | Manual Task | | Manual Summary | | External Tasks | | Critical | | Manual Progress | |

Contract No. ED/2018/01 KTD Project

| ID | Task Name | Duration | Actual Duration | Remaining Duration | Physical % Complete | Early Start | Early Finish | Actual Start | Actual Finish | Late Start | Late Finish | Total Slack | TRA | Predecessors | 2020 | | 2021 | | | | 2022 | | | | 2023 | | | | 20 | | | | | | | | |
|------|---|----------|-----------------|--------------------|---------------------|--------------|--------------|--------------|---------------|--------------|--------------|-------------|----------|-----------------|------|----|------|----|----|----|------|----|----|----|------|----|----|----|----|----|----|--|--|--|--|--|--|
| | | | | | | | | | | | | | | | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | | | | | | |
| 1541 | Concrete infill between profile barrier | 7 days | 0 days | 7 days | 0% | Mon 24/10/22 | Mon 31/10/22 | NA | NA | Sat 3/12/22 | Sat 10/12/22 | 35 days | 0 days | 1540 | | | | | | | | | | | | | | | | | | | | | | | |
| 1542 | Road pavement | 5 days | 0 days | 5 days | 0% | Tue 1/11/22 | Sat 5/11/22 | NA | NA | Mon 12/12/22 | Fri 16/12/22 | 35 days | 0 days | 1541 | | | | | | | | | | | | | | | | | | | | | | | |
| 1543 | Install street furniture (Part 1, 2A, 2B - Road L12) | 131 days | 0 days | 131 days | 0% | Mon 7/11/22 | Mon 17/4/23 | NA | NA | Sat 17/12/22 | Tue 30/5/23 | 35 days | 6 days | 1542 | | | | | | | | | | | | | | | | | | | | | | | |
| 1544 | Planting Works for Underpass, South Depress Road and At-Grade Road | 130 days | 0 days | 130 days | 0% | Mon 7/11/22 | Sat 15/4/23 | NA | NA | Mon 19/12/22 | Tue 30/5/23 | 36 days | 10 days | 668 | | | | | | | | | | | | | | | | | | | | | | | |
| 1545 | Landscaping Works for Underpass, South Depress Road and At-Grade | 130 days | 0 days | 130 days | 0% | Mon 7/11/22 | Sat 15/4/23 | NA | NA | Mon 19/12/22 | Tue 30/5/23 | 36 days | 10 days | 668 | | | | | | | | | | | | | | | | | | | | | | | |
| 1546 | Planned Completion for Section 6 | 0 days | 0 days | 0 days | 0% | Thu 18/5/23 | Thu 18/5/23 | NA | NA | Tue 30/5/23 | Tue 30/5/23 | 9 days | 0 days | 1533,1543,1532 | | | | | | | | | | | | | | | | | | | | | | | |
| 1547 | Section 7 | 365 days | 0 days | 365 days | 0% | Mon 6/3/23 | Wed 29/5/24 | NA | NA | Mon 6/3/23 | Wed 29/5/24 | 0 days | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1548 | Establishment work for landscape softwork | 365 days | 0 days | 365 days | 0% | Mon 6/3/23 | Wed 29/5/24 | NA | NA | Mon 6/3/23 | Wed 29/5/24 | 0 days | 10 days | 1533,1534 | | | | | | | | | | | | | | | | | | | | | | | |
| 1549 | Planned Completion for Section 7 | 0 days | 0 days | 0 days | 0% | Wed 29/5/24 | Wed 29/5/24 | NA | NA | Wed 29/5/24 | Wed 29/5/24 | 0 days | | 1548,6 | | | | | | | | | | | | | | | | | | | | | | | |
| 1550 | Section 10 (Subject to Excision) | 614 days | 0 days | 614 days | 0% | Tue 20/4/21 | Thu 11/5/23 | NA | NA | Mon 10/5/21 | Tue 30/5/23 | 15 days | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1551 | Decking for Underpass (Rd L14) | 614 days | 0 days | 614 days | 0% | Tue 20/4/21 | Thu 11/5/23 | NA | NA | Mon 10/5/21 | Tue 30/5/23 | 15 days | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1552 | Deck for Underpass (Road L14) - Temp. Works Design and Method Statement Submission | 0 days | 0 days | 0 days | 0% | Tue 20/4/21 | Tue 20/4/21 | NA | NA | Mon 10/5/21 | Mon 10/5/21 | 20 days | 0.5 day | | | | | | | | | | | | | | | | | | | | | | | | |
| 1553 | Deck for Underpass (Road L14) - Temp. Works Design and Method Statement Comment & Appraoval | 21 days | 0 days | 21 days | 0% | Tue 20/4/21 | Mon 10/5/21 | NA | NA | Mon 10/5/21 | Sun 30/5/21 | 20 days | 0.5 day | 1552 | | | | | | | | | | | | | | | | | | | | | | | |
| 1554 | Support along U-through | 225 days | 0 days | 225 days | 0% | Mon 31/5/21 | Tue 1/3/22 | NA | NA | Mon 31/5/21 | Tue 1/3/22 | 0 days | 10 days | 23,185,1553,192 | | | | | | | | | | | | | | | | | | | | | | | |
| 1555 | Plinth installation along support | 123 days | 0 days | 123 days | 0% | Wed 2/3/22 | Fri 29/7/22 | NA | NA | Wed 2/3/22 | Fri 29/7/22 | 0 days | 6 days | 1554 | | | | | | | | | | | | | | | | | | | | | | | |
| 1556 | Placing of beam along underpass | 90 days | 0 days | 90 days | 0% | Thu 1/9/22 | Sun 18/12/22 | NA | NA | Thu 1/9/22 | Mon 19/12/22 | 0 days | 4 days | 1555FS+28 days | | | | | | | | | | | | | | | | | | | | | | | |
| 1557 | Finishing and E&M Works | 110 days | 0 days | 110 days | 0% | Mon 19/12/22 | Fri 5/5/23 | NA | NA | Thu 12/1/23 | Tue 30/5/23 | 20 days | | 1556,279 | | | | | | | | | | | | | | | | | | | | | | | |
| 1558 | Cover-up (Roof) | 115 days | 0 days | 115 days | 0% | Mon 19/12/22 | Thu 11/5/23 | NA | NA | Mon 19/12/22 | Thu 11/5/23 | 0 days | 5 days | 1556 | | | | | | | | | | | | | | | | | | | | | | | |
| 1559 | Planned Completion for Section 10 | 0 days | 0 days | 0 days | 0% | Thu 11/5/23 | Thu 11/5/23 | NA | NA | Tue 30/5/23 | Tue 30/5/23 | 19 days | 0.5 days | 1558,158,1557 | | | | | | | | | | | | | | | | | | | | | | | |



Title: Rev.11 Prog with Progress
as of 22-May-20

| | | | | | | | | | | | | | |
|-----------|--|-----------------|--|--------------------|--|-----------------------|--|----------------|--|--------------------|--|-----------------|--|
| Task | | Summary | | Inactive Milestone | | Duration-only | | Start-only | | External Milestone | | Critical Split | |
| Split | | Project Summary | | Inactive Summary | | Manual Summary Rollup | | Finish-only | | Deadline | | Progress | |
| Milestone | | Inactive Task | | Manual Task | | Manual Summary | | External Tasks | | Critical | | Manual Progress | |

Appendix C – Apply permission for Environmental Monitoring

Propose alternative monitoring location: The Lok Sin Tong Modular Social Housing Scheme

Status: Rejected application

Email on: 10 May 2022

Subject **The Lok Sin Tong Benevolent Society Kowloon - Apply permission for Environmental Monitoring for Stage 4 of Kai Tak Development**



From [Redacted]
To [Redacted]
Bcc [Redacted]

Date 2022-05-10 15:48

- Figure 1 Impact dust measurement setup.jpg(~1.2 MB)
- Figure 2 Impact noise measurement setup.jpg(~979 KB)

Company: The Lok Sin Tong Benevolent Society Kowloon

By Email ([Redacted])

Dear Madam
5 May 2022

Dear Sir/ Madam, [Redacted]

Re: Environmental Monitoring for Kai Tak Development - Stage 4 Infrastructure at the former runway and south apron

We, Ka Shing Management Consultant Limited (KS), is appointed by Civil Engineering and Development Department (CEDD), working as Environmental Team (ET) to conduct the monitoring and audit works as part of the EM&A programme of the Kai Tak Development - Stage 4 Infrastructure at the former runway and south apron (KTD Stage 4 Project) starting from July 2019 to May 2024.

KTD Stage 4 project is located in the south-eastern part of Kowloon Peninsular of the HKSAR, comprising the apron and runway areas of the former Kai Tak Airport and existing waterfront areas at To Kwa Wan, Ma Tau Kok, Kowloon Bay, Kwun Tong and Cha Kwo Ling. Your premise, Hong Kong Society for Blind Workshop and Hotels, is one of the proposed sensitive receivers.

We would like to obtain your kind permission for entering the premise to carry out baseline and impact monitoring, baseline dust monitoring (1-hour and 24-hour TSP monitoring) and baseline noise monitoring (30-minute) would need to conduct continuously for 14 days, our propose baseline monitoring date is June 2022.

After baseline monitoring, impact dust monitoring (1-hour and 24-hour TSP monitoring) and impact noise monitoring (30-minute) would take place between 08:00 hrs to 18:00 hrs in normal working days once every six days.

The monitoring location will be located on the roof top floor of The Lok Sin Tong Modular Social Housing Scheme at Junction of Sung Wong Toi Road and To Kwa Wan Road facing to Kai Tak Development area. 220V power supply is needed for 24-hour TSP monitor with size 0.5m (L) x 0.5m (W) x 1.4m (H). We will pay for the electricity. Similar setup photo records are shown in Figure 1 and Figure 2 for your kindly reference. Our technician will stay at the measurement point for 1-hour TSP and 30-minute noise measurement.

We hope to conduct site visit at 13:30 pm of 25 May 2022 (Wed).

Should you have any enquires regarding the measurement, please do not hesitate to contact [Redacted] at [Redacted]

Thank you for your kind attention and I look forward to receiving your favourable reply soon.

Yours Sincerely,

Lee Wing Hang
Ka Shing Management Consultant Limited

Email on: 13 October 2022

Subject **The Lok Sin Tong Benevolent Society Kowloon - Reject to Apply permission for Environmental Monitoring for Stage 4 of Kai Tak Development**



From [Redacted]
To [Redacted]
Bcc [Redacted]

Date 2022-10-13 15:52

Company: The Lok Sin Tong Benevolent Society Kowloon

By Email [Redacted]

Dear Sir/ [Redacted]

Referring to the communication between your staff and me regarding the captioned work at 21 September 2022, the Lok Sin Tong Benevolent Society Kowloon was rejected the apply permission for Environmental Monitoring for Stage 4 of Kai Tak Development. Due to electricity supply and security concern in Modular House , Environmental monitoring at Modular House is not allowed open.

Should you have any enquires regarding the measurement, please do not hesitate to contact [Redacted] at [Redacted]

Thank you for your kind attention and I look forward to receiving your favourable reply soon.

Yours Sincerely,

Lee Wing Hang
Ka Shing Management Consultant Limited

Propose alternative monitoring location: Freder Centre
Status: No reply from building management office unit the reporting month

Email on: 19 July 2022

Subject **Freder Centre - Apply permission for Environmental Monitoring for Stage 4 of Kai Tak Development**



From [Redacted]
To [Redacted]
Bcc [Redacted]

Date 2022-07-19 13:33

- Figure 1 Impact dust measurement setup.jpg(~1.2 MB)
- Figure 2 Impact noise measurement setup.jpg(~979 KB)

Company: Freder Centre

By Email [Redacted]
Dear Sir [Redacted]

Re: Environmental Monitoring for Kai Tak Development - Stage 4 Infrastructure at the former runway and south apron

We, Ka Shing Management Consultant Limited (KS), is appointed by Civil Engineering and Development Department (CEDD), working as Environmental Team (ET) to conduct the monitoring and audit works as part of the EM&A programme of the Kai Tak Development - Stage 4 Infrastructure at the former runway and south apron (KTD Stage 4 Project) starting from July 2019 to May 2024.

KTD Stage 4 project is located in the south-eastern part of Kowloon Peninsular of the HKSAR, comprising the apron and runway areas of the former Kai Tak Airport and existing waterfront areas at To Kwa Wan, Ma Tau Kok, Kowloon Bay, Kwun Tong and Cha Kwo Ling. Your premise, Hong Kong Society for Blind Workshop and Hotels, is one of the proposed sensitive receivers.

We would like to obtain your kind permission for entering the premise to carry out baseline and impact monitoring, baseline dust monitoring (1-hour and 24-hour TSP monitoring) and baseline noise monitoring (30-minute) would need to conduct continuously for 14 days, our propose baseline monitoring date is August 2022.

After baseline monitoring, impact dust monitoring (1-hour and 24-hour TSP monitoring) and impact noise monitoring (30-minute) would take place between 08:00 hrs to 18:00 hrs in normal working days once every six days.

The monitoring location will be located on the roof top floor of Freder Centre at Junction of Sung Wong Toi Road and To Kwa Wan Road facing to Kai Tak Development area. 220V power supply is needed for 24-hour TSP monitor with size 0.5m (L) x 0.5m (W) x 1.4m (H). We will pay for the electricity. Similar setup photo records are shown in Figure 1 and Figure 2 for your kindly reference. Our technician will stay at the measurement point for 1-hour TSP and 30-minute noise measurement.

We hope to conduct site visit at 15:30pm of 26 July 2022 (Tue).

Should you have any enquires regarding the measurement, please do not hesitate to contact [Redacted] at [Redacted]

Thank you for your kind attention and I look forward to receiving your favourable reply soon.

Yours Sincerely,

Lee Wing Hang
Ka Shing Management Consultant Limited

Propose alternative monitoring location: New Port Centre
Status: No reply from building management office unit the reporting month

Email on: 19 July 2022

Subject **New Port Centre - Apply permission for Environmental Monitoring for Stage 4 of Kai Tak Development**



From [Redacted]
To [Redacted]
Bcc [Redacted]

Date 2022-07-19 13:33

- Figure 1 Impact dust measurement setup.jpg(~1.2 MB)
- Figure 2 Impact noise measurement setup.jpg(~979 KB)

Company: New Port Centre & Synergis management services limited

By Email [Redacted]

Dear Sir,

Re: Environmental Monitoring for Kai Tak Development - Stage 4 Infrastructure at the former runway and south apron

We, Ka Shing Management Consultant Limited (KS), is appointed by Civil Engineering and Development Department (CEDD), working as Environmental Team (ET) to conduct the monitoring and audit works as part of the EM&A programme of the Kai Tak Development - Stage 4 Infrastructure at the former runway and south apron (KTD Stage 4 Project) starting from July 2019 to May 2024.

KTD Stage 4 project is located in the south-eastern part of Kowloon Peninsular of the HKSAR, comprising the apron and runway areas of the former Kai Tak Airport and existing waterfront areas at To Kwa Wan, Ma Tau Kok, Kowloon Bay, Kwun Tong and Cha Kwo Ling. Your premise, New Port Centre, is one of the proposed sensitive receivers.

We would like to obtain your kind permission for entering the premise to carry out baseline and impact monitoring, baseline dust monitoring (1-hour and 24-hour TSP monitoring) and baseline noise monitoring (30-minute) would need to conduct continuously for 14 days, our propose baseline monitoring date is August 2022.

After baseline monitoring, impact dust monitoring (1-hour and 24-hour TSP monitoring) and impact noise monitoring (30-minute) would take place between 08:00 hrs to 18:00 hrs in normal working days once every six days.

The monitoring location will be located on the roof top floor of New Port Centre at Junction of Sung Wong Toi Road and To Kwa Wan Road facing to Kai Tak Development area. 220V power supply is needed for 24-hour TSP monitor with size 0.5m (L) x 0.5m (W) x 1.4m (H). We will pay for the electricity. Similar setup photo records are shown in Figure 1 and Figure 2 for your kindly reference. Our technician will stay at the measurement point for 1-hour TSP and 30-minute noise measurement.

We hope to conduct site visit at 13:30pm of 26 July 2022 (Tue).

Should you have any enquires regarding the measurement, please do not hesitate to contact [Redacted] at [Redacted]

Thank you for your kind attention and I look forward to receiving your favourable reply soon.

Yours Sincerely,

Lee Wing Hang
Ka Shing Management Consultant Limited

Email on: 17 August 2022

Subject **Kum Shing Group and Hong Kong Energy Infrastructure Limited - Apply permission for Environmental Monitoring for Stage 4 of Kai Tak Development**



From [Redacted]
To [Redacted]
Bcc [Redacted]

Date 2022-08-17 11:54

- Figure 1 Impact dust measurement setup.jpg(~1.2 MB)
- Figure 2 Impact noise measurement setup.jpg(~979 KB)
- plug 01.jpg(~2.6 MB)

Company: Kum Shing Group and Hong Kong Energy Infrastructure Limited

By Email [Redacted]

Dear Sir,

Re: Environmental Monitoring for Kai Tak Development - Stage 4 Infrastructure at the former runway and south apron

We, Ka Shing Management Consultant Limited (KS), is appointed by Civil Engineering and Development Department (CEDD), working as Environmental Team (ET) to conduct the monitoring and audit works as part of the EM&A programme of the Kai Tak Development - Stage 4 Infrastructure at the former runway and south apron (KTD Stage 4 Project) starting from July 2019 to May 2024.

KTD Stage 4 project is located in the south-eastern part of Kowloon Peninsular of the HKSAR, comprising the apron and runway areas of the former Kai Tak Airport and existing waterfront areas at To Kwa Wan, Ma Tau Kok, Kowloon Bay, Kwun Tong and Cha Kwo Ling. Your premise, New Port Centre, is one of the proposed sensitive receivers.

We would like to obtain your kind permission for entering the premise to carry out baseline and impact monitoring, baseline dust monitoring (1-hour and 24-hour TSP monitoring) and baseline noise monitoring (30-minute) would need to conduct continuously for 14 days, our propose baseline monitoring date is August 2022.

After baseline monitoring, impact dust monitoring (1-hour and 24-hour TSP monitoring) and impact noise monitoring (30-minute) would take place between 08:00 hrs to 18:00 hrs in normal working days once every six days.

The monitoring location will be located on the roof top floor of New Port Centre at Junction of Sung Wong Toi Road and To Kwa Wan Road facing to Kai Tak Development area. 220V power supply is needed for 24-hour TSP monitor with size 0.5m (L) x 0.5m (W) x 1.4m (H). We will pay for the electricity. Similar setup photo records are shown in Figure 1 and Figure 2 for your kindly reference. Our technician will stay at the measurement point for 1-hour TSP and 30-minute noise measurement.

We hope to loan the company on the roof top floor of Plug 01 for 24-hour TSP monitor of power supply.

Should you have any enquires regarding the measurement, please do not hesitate to contact [Redacted] at [Redacted]

Thank you for your kind attention and I look forward to receiving your favourable reply soon.

Yours Sincerely,

Lee Wing Hang
Ka Shing Management Consultant Limited

Propose alternative monitoring location: New Port Centre
Status: No reply from building management office unit the reporting month

Email on: 19 August 2022

Subject **RE: Kum Shing Group and Hong Kong Energy Infrastructure Limited - Apply permission for Environmental Monitoring for Stage 4 of Kai Tak Development**



From

To

Cc

Date 2022-08-19 08:36

Dear Mr. LEE,

As we do not have ownership to the roof, we'd suggest you to approach the management company of Newport Center for further discussion.

<https://www.synergis.com.hk/html/en/>

best,
Paul Lee

Email on: 15 September 2022

Subject **New Port Centre - Apply permission for Environmental Monitoring for Stage 4 of Kai Tak Development**



From

To
Bcc

Date 2022-09-15 15:35

- Figure 1 Impact dust measurement setup.jpg(~1.2 MB)
- Figure 2 Impact noise measurement setup.jpg(~979 KB)
- Figure 3 expect Impact dust measurement setup.png(~267 KB)
- Figure 4 power supply plug.jpg(~2.6 MB)

Company: New Port Centre & Synergis management services limited

By Email

Dear Sir,

Re: Environmental Monitoring for Kai Tak Development - Stage 4 Infrastructure at the former runway and south apron

We, Ka Shing Management Consultant Limited (KS), is appointed by Civil Engineering and Development Department (CEDD), working as Environmental Team (ET) to conduct the monitoring and audit works as part of the EM&A programme of the Kai Tak Development - Stage 4 Infrastructure at the former runway and south apron (KTD Stage 4 Project) starting from July 2019 to May 2024.

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The monitoring location will be located on the roof top floor of New Port Centre at Junction of Sung Wong Toi Road and To Kwa Wan Road facing to Kai Tak Development area. 220V power supply is needed for 24-hour TSP monitor with size 0.5m (L) x 0.5m (W) x 1.4m (H). We will pay for the electricity. Similar setup photo records are shown in Figure 1 and Figure 2 for your kindly reference. The expect of impact dust measurement setup photo records are shown in Figure 3 and the power supply will come from the roof of the socket (Figure 4) for reference. Our technician will stay at the measurement point for 1-hour TSP and 30-minute noise measurement.

Should you have any enquires regarding the measurement, please do not hesitate to contact [redacted] at [redacted]

Thank you for your kind attention and I look forward to receiving your favourable reply soon.

Yours Sincerely,

Lee Wing Hang
Ka Shing Management Consultant Limited

Appendix D – Environmental monitoring schedules

Contract No. EDO 15/2018 Environmental Monitoring at Kai Tak Development Stage 4 Infrastructure at the former runway and south apron
Environmental Monitoring and Weekly Site Inspection Schedule for November 2023

November 2023

| Sun | Mon | Tue | Wed | Thu | Fri | Sat |
|-----|--|--|---|---|-----|--|
| | | | 1 | 2 Weekly Site Inspection 24-hr TSP: AM3, AM4(A), AM7 1-hr X3 TSP: AM3, AM4(A), AM7 30-min Noise: M11, M12 | 3 | 4 |
| 5 | 6 | 7 Weekly Site Inspection + SSMC meeting | 8 24-hr TSP: AM3, AM4(A), AM7 1-hr X3 TSP: AM3, AM4(A), AM7 30-min Noise: M11, M12 | 9 | 10 | 11 |
| 12 | 13 | 14 24-hr TSP: AM3, AM4(A), AM7 1-hr X3 TSP: AM3, AM4(A), AM7 30-min Noise: M11, M12 | 15 | 16 Weekly Site Inspection | 17 | 18 |
| 19 | 20 24-hr TSP: AM3, AM4(A), AM7 1-hr X3 TSP: AM3, AM4(A), AM7 30-min Noise: M11, M12 | 21 | 22 | 23 Weekly Site Inspection | 24 | 25 24-hr TSP: AM3, AM4(A), AM7 1-hr X3 TSP: AM3, AM4(A), AM7 |
| 26 | 27 | 28 | 29 | 30 Weekly Site Inspection | | |

NOTE:

- Due to the relocation of The Hong Kong Society for the Blind's Factory cum Sheltered Workshop (AM4(A) and M11), the premises owner rejected ET to conduct impact monitoring starting from 1 Sept 2022. No 24-TSP monitoring will be conducted at AM4(A) while 1-hr TSP at AM4(A) and 30-min noise monitoring at M11 will be conducted on the ground floor with orienting to the Project site. ET will resume the impact monitoring once the alternative monitoring location for AM4(A) and M11 are confirmed.

Air Quality Monitoring Station

AM3 - Sky Tower

AM4(A) - The Hong Kong Society for the Blind's Factory cum Sheltered Workshop

AM7 - Hong Kong Children's Hospital

Noise Quality Monitoring Station

M11 - The Hong Kong Society for the Blind's Factory cum Sheltered Workshop

M12 - Hong Kong Children's Hospital

Contract No. EDO 15/2018 Environmental Monitoring at Kai Tak Development Stage 4 Infrastructure at the former runway and south apron
Tentative Environmental Monitoring and Weekly Site Inspection Schedule for December 2023

December 2023

| Sun | Mon | Tue | Wed | Thu | Fri | Sat |
|-----|-----|--|--|---|--|--|
| | | | | | 1 24-hr TSP: AM3, AM4(A), AM7 1-hr X3 TSP: AM3, AM4(A), AM7 30-min Noise: M11, M12 | 2 |
| 3 | 4 | 5 | 6 | 7 Weekly Site Inspection 24-hr TSP: AM3, AM4(A), AM7 1-hr X3 TSP: AM3, AM4(A), AM7 30-min Noise: M11, M12 | 8 | 9 |
| 10 | 11 | 12 Weekly Site Inspection+ SSMC meeting | 13 24-hr TSP: AM3, AM4(A), AM7 1-hr X3 TSP: AM3, AM4(A), AM7 30-min Noise: M11, M12 | 14 | 15 | 16 |
| 17 | 18 | 19 24-hr TSP: AM3, AM4(A), AM7 1-hr X3 TSP: AM3, AM4(A), AM7 30-min Noise: M11, M12 | 20 | 21 Weekly Site Inspection | 22 | 23 24-hr TSP: AM3, AM4(A), AM7 1-hr X3 TSP: AM3, AM4(A), AM7 |
| 24 | 25 | 26 | 27 | 28 Weekly Site Inspection | 29 24-hr TSP: AM3, AM4(A), AM7 1-hr X3 TSP: AM3, AM4(A), AM7 30-min Noise: M11, M12 | 30 |
| 31 | | | | | | |

NOTE:

- 1) Site inspection schedule and Impact monitoring schedule may be changed due to unforeseen circumstance (e.g. adverse weather).
- 2) Due to the relocation of The Hong Kong Society for the Blind's Factory cum Sheltered Workshop (AM4(A) and M11), the premises owner rejected ET to conduct impact monitoring starting from 1 Sept 2022. No 24-TSP monitoring will be conducted at AM4(A) while 1-hr TSP at AM4(A) and 30-min noise monitoring at M11 will be conducted on the ground floor with orienting to the Project site. ET will resume the impact monitoring once the alternative monitoring location for AM4(A) and M11 are confirmed.

Air Quality Monitoring Station

AM3 - Sky Tower

AM4(A) - The Hong Kong Society for the Blind's Factory cum Sheltered Workshop

AM7 - Hong Kong Children's Hospital

Noise Quality Monitoring Station

M11 - The Hong Kong Society for the Blind's Factory cum Sheltered Workshop

M12 - Hong Kong Children's Hospital

Appendix E – Photographic records

Impact TSP Monitoring



Measurement setup at AM3



Measurement setup at AM4(A)

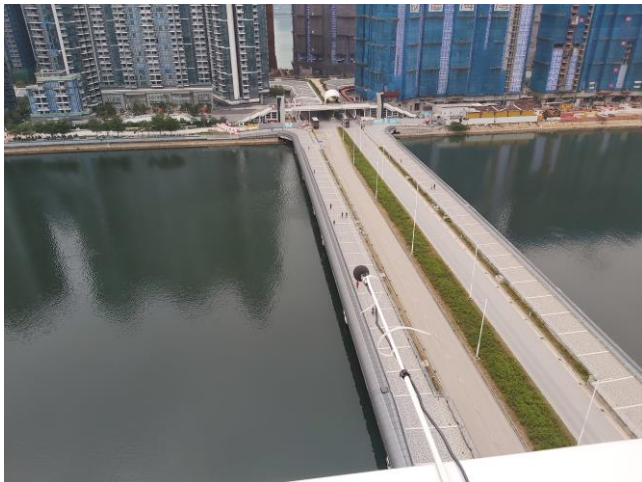


Measurement setup at AM7

Impact Noise Monitoring



Measurement setup at M11



Measurement setup at M12



Weather Station at the rooftop of Hong Kong Children's Hospital

**Appendix F – Calibration certificates, catalogue of air quality
monitoring equipment**

Catalogue of High Volume Sampler (HVS)



TSP MFC

Total Suspended Particulate, Mass Flow Controlled



MFC TSP
Ambient Air Sampler

The TE-5170 is a high volume ambient Total Suspended Particulate (TSP) air sampler featuring a mass flow controller (MFC) for accurate and consistent particulate sampling. The mass flow controller adjust the motor speed as the filter media collects particulate to maintain a constant flow rate throughout the entire sample duration. The system utilizes a stainless steel filter holder for use with standard 8" x 10" filter paper. The anodized aluminum shelter and robust electrical components allow the system to operate a continuous 24 hour sample.

ABOUT US: Tisch Environmental Inc. Tisch Environmental is the benchmark for high volume air sampling, particulate, metals, volatiles, and specialty monitoring equipment. Since the company's inception in 1953 as General Metal Works, our product line has expanded from the first high volume air sampler to include high-tech and custom samplers. Our clients are professionals from every sector of the regulatory and industrial markets.

- ✔ Meets EPA CFR, Appendix B to Part 50
- ✔ Total Suspended Particulate(TSP)
- ✔ Mass Flow Controlled
- ✔ 7-Day Mechanical Timer
- ✔ Elapsed Time Indicator
- ✔ Aluminum Outdoor Shelter
- ✔ Brush Style Motor
- ✔ Dickson Chart Recorder, 24 Hour
- ✔ Stainless Steel Filter Holder
- ✔ 36-60 CFM
- ✔ Made In USA

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www.tisch-env.com

Tisch Environmental
145 S. Miami Ave
Cleveland, OH 45002
513-467-9000
sales@tisch-env.com



TSP MFC

MFC TSP Ambient Air Sampler

General System Specifications

Particulate Size:Total Suspended Particulate (TSP)
EPA Designation: CFR 40 Part 50 Appendix B
Flow Controller: Mass Flow Controller
Motor Style:Brush Style Motor Assembly
Pressure Recorder:Dickson Chart Recorder, 24 hour
Timer:7 Day Mechanical
Elapsed Time Indicator:Mechanical, Hours and Tenths
Flow Range:39-60CFM, 1.09M³M-1.68M³M
Housing:Anodized Aluminum
Filter Holder:Stainless Steel, 8" x 10"
4" Recorder Charts: Box of 100
Filter Holder: 8" x 10" Stainless Steel with hold down frame

Applications

US EPA Reference Method Sampling, CFR Appendix J Part 50 Regulatory Compliance
 Institutional Studies
 Construction Sites
 Bridge and Water Tower Painting Sites
 Fence Line Monitoring
 Industrial Monitoring
 Landfill Monitoring
 Public Health Applications

Optional Equipment

TE-3000 Filter Holder Cartridge
 TE-G653 8" x 10" Glass Fiber Filter Media
 TE-33384 Motor Brush Set (110volt)
 TE-33378 Motor Brush Set (220volt)
 TE-116311 Replacement Motor (110volt)
 TE-116312 Replacement Motor (220volt)
 TE-106 Recorder Charts
 TE-160 Recorder Pen Points
 TE-5018 Gasket 8" x 10"

Available Models

TE-5170 TSP MFC, 110 Volt 60 Hertz, 8 Amps
 TE-5170X TSP MFC, 220 Volt 50 Hertz 4 Amps
 TE-5170XZ TSP MFC, 220 Volts 60 Hertz, 4 Amps

Calibration Equipment

TE-5028 -Variable Flow Calibration Kit
 TE-HVC-V Xcalibrator HiVol Calibrator

Physical Specifications

Weight: 75lbs, Shelter
Shipping Dimensions: 46"W x 23"L x 20" H, Shelter
 19"W x 19"L x 20"H, Lid
Assembled Dimensions: 28"W x 28"L x 61"H

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www.tischinternational.com

www.tisch-env.com



Calibration Certificate of HVS

Air Sampler Calibration Curve Plotting & Calculation (Dickson recorder)

Calibration curve ref. No. : ATSPC-01-2023101401 Date of calibration : 14/10/2023
 Location : Sky Tower Sampler : TE-5170X

Calibration Data

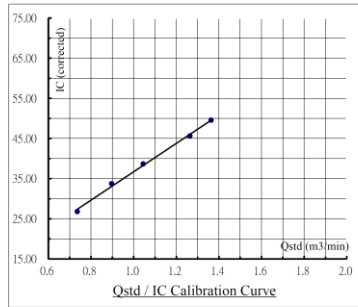
Ambient barometric pressure, Pa = 759.8 (mmHg) Ambient temperature, Ta = 303.15 (deg K)
 Qstd Slope, m = 2.01424 Qstd Intercept, b = 0.020850

Calibration Curve

| Plate No. | H ₂ O (in) | Qstd (m ³ /min) | I (chart) | IC (corrected) |
|-----------|-----------------------|----------------------------|-----------|----------------|
| 18 | 7.80 | 1.364 | 50.0 | 49.57 |
| 13 | 6.70 | 1.264 | 46.0 | 45.60 |
| 10 | 4.60 | 1.045 | 39.0 | 38.66 |
| 7 | 3.40 | 0.897 | 34.0 | 33.71 |
| 5 | 2.30 | 0.736 | 27.0 | 26.77 |

Subsequent calculation of sampler flow

| Method | Calibration equation | Slope, m | Intercept, b | Corr. coeff., r |
|------------------|--|----------|--------------|-----------------|
| Dickson recorder | $Qstd = 1/m [(1) (\text{Sqrt} ((Pa / 760) (298 / Ta))) - b]$ | 35.330 | 1.3703 | 0.9983 |



Calibration curve requirements : (A). $r > 0.990$; (B). At least 3 Qstd numbers are in the TSP range (1.1 - 1.7 m³ / min).

Remark : $Qstd (m^3 / min) = 1/m [\text{Sqrt} (H_2O (Pa / 760) (298 / Ta)) - b]$.
 $IC (corrected) = I [\text{Sqrt} ((Pa / 760) (298 / Ta))]$.
 $FLOW (corrected) = \text{Sqrt} (FLOW (mano) (Pa / 760) (298 / Ta))$.

Calibrated by : Poon Tsz Wing Checked by : Wong Yin Tong
 Name : (Poon Tsz Wing) Name : (Wong Yin Tong)

Form No. INS-HVS-CAL.dtl 16/01/2020

Air Sampler Calibration Curve Plotting & Calculation (Dickson recorder)

Calibration curve ref. No. : ATSPC-01-2023101403 Date of calibration : 14/10/2023
 Location : Hong Kong Children's Hospital Sampler : TE-5170X

Calibration Data

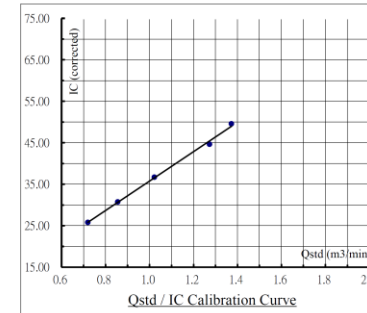
Ambient barometric pressure, Pa = 759.8 (mmHg) Ambient temperature, Ta = 303.15 (deg K)
 Qstd Slope, m = 2.01424 Qstd Intercept, b = 0.020850

Calibration Curve

| Plate No. | H ₂ O (in) | Qstd (m ³ /min) | I (chart) | IC (corrected) |
|-----------|-----------------------|----------------------------|-----------|----------------|
| 18 | 7.90 | 1.373 | 50.0 | 49.57 |
| 13 | 6.80 | 1.273 | 45.0 | 44.61 |
| 10 | 4.40 | 1.022 | 37.0 | 36.68 |
| 7 | 3.10 | 0.856 | 31.0 | 30.73 |
| 5 | 2.20 | 0.720 | 26.0 | 25.78 |

Subsequent calculation of sampler flow

| Method | Calibration equation | Slope, m | Intercept, b | Corr. coeff., r |
|------------------|--|----------|--------------|-----------------|
| Dickson recorder | $Qstd = 1/m [(1) (\text{Sqrt} ((Pa / 760) (298 / Ta))) - b]$ | 35.464 | 0.2790 | 0.9986 |



Calibration curve requirements : (A). $r > 0.990$; (B). At least 3 Qstd numbers are in the TSP range (1.1 - 1.7 m³ / min).

Remark : $Qstd (m^3 / min) = 1/m [\text{Sqrt} (H_2O (Pa / 760) (298 / Ta)) - b]$.
 $IC (corrected) = I [\text{Sqrt} ((Pa / 760) (298 / Ta))]$.
 $FLOW (corrected) = \text{Sqrt} (FLOW (mano) (Pa / 760) (298 / Ta))$.

Calibrated by : Poon Tsz Wing Checked by : Wong Yin Tong
 Name : (Poon Tsz Wing) Name : (Wong Yin Tong)

Form No. INS-HVS-CAL.dtl 16/01/2020

Calibration Certificate of HVS

Air Sampler Calibration Curve Plotting & Calculation (Dickson recorder)

Calibration curve ref. No. : ATSPC-01-2023061901 Date of calibration : 19/06/2023

Model no : GS2310 Serial number : 10346

Calibration Data

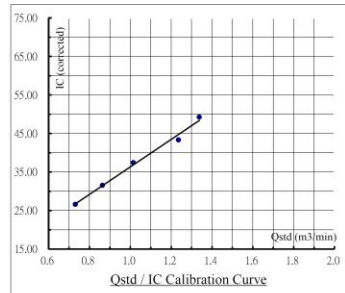
Ambient barometric pressure, Pa = 755.3 (mmHg) Ambient temperature, Ta = 305.25 (deg K)
 Qstd Slope, m = 2.01424 Qstd Intercept, b = 0.020850

Calibration Curve

| Plate No. | H ₂ O (in) | Qstd (m ³ /min) | I (chart) | IC (corrected) |
|-----------|-----------------------|----------------------------|-----------|----------------|
| 18 | 7.60 | 1.338 | 50.0 | 49.25 |
| 13 | 6.50 | 1.236 | 44.0 | 43.34 |
| 10 | 4.40 | 1.015 | 38.0 | 37.43 |
| 7 | 3.20 | 0.864 | 32.0 | 31.52 |
| 5 | 2.30 | 0.731 | 27.0 | 26.60 |

Subsequent calculation of sampler flow

| Method | Calibration equation | Slope, m | Intercept, b | Corr. coeff., r |
|------------------|---|----------|--------------|-----------------|
| Dickson recorder | $Qstd = 1/m [I (1 + \sqrt{ (P_{av} / 760) (298 / T_{av}) }) - b]$ | 35.675 | 0.6397 | 0.9953 |



Calibration curve requirements : (A). $r > 0.990$; (B). At least 3 Qstd numbers are in the TSP range (1.1 - 1.7 m³ / min).

Remark : $Qstd (m^3 / min) = 1/m [\text{Sqrt} (H_2O (Pa / 760) (298 / Ta)) - b]$.

$IC (\text{corrected}) = 1 [\text{Sqrt} ((Pa / 760) (298 / Ta))]$.

$FLOW (\text{corrected}) = \text{Sqrt} (FLOW (\text{mano}) (Pa / 760) (298 / Ta))$.

Calibrated by :

Checked by :

Name : (Poon Tsz Wing)

Name : (Wong Yin Tong)

Form No: DSHVS-CAL-01 16-01-2020

Orifice Transfer Standard Certification Worksheet TE-5025A



| |
|------------------------------------|
| RECALIBRATION DUE DATE: |
| May 17, 2024 |

Certificate of Calibration

| Calibration Certification Information | | | |
|---------------------------------------|----------------------|-----------------|--|
| Cal. Date: May 17, 2023 | Rootsmer S/N: 438320 | Ta: 297 °K | |
| Operator: Jim Tisch | | Pa: 745.0 mm Hg | |
| Calibration Model #: TE-5025A | Calibrator S/N: 0006 | | |

| Run | Vol. Init (m3) | Vol. Final (m3) | ΔVol. (m3) | ΔTime (min) | ΔP (mm Hg) | ΔH (in H2O) |
|-----|----------------|-----------------|------------|-------------|------------|-------------|
| 1 | 1 | 2 | 1 | 1.4270 | 3.2 | 2.00 |
| 2 | 3 | 4 | 1 | 1.0000 | 6.4 | 4.00 |
| 3 | 5 | 6 | 1 | 0.8940 | 7.9 | 5.00 |
| 4 | 7 | 8 | 1 | 0.8490 | 8.8 | 5.50 |
| 5 | 9 | 10 | 1 | 0.6990 | 12.8 | 8.00 |

| Data Tabulation | | | | | | |
|-----------------|-------------------|--|-----------|-------------------|--|--|
| Vstd (m3) | Qstd (x-axis) | $\sqrt{\Delta H (\frac{Pa}{Pstd}) (\frac{Tstd}{Ta})}$ (y-axis) | Va | Qa (x-axis) | $\sqrt{\Delta H (Ta / Pa)}$ (y-axis) | |
| 0.9793 | 0.6863 | 1.4025 | 0.9957 | 0.6978 | 0.8929 | |
| 0.9751 | 0.9751 | 1.9835 | 0.9914 | 0.9914 | 1.2628 | |
| 0.9731 | 1.0885 | 2.2176 | 0.9894 | 1.1067 | 1.4119 | |
| 0.9719 | 1.1448 | 2.3258 | 0.9882 | 1.1639 | 1.4808 | |
| 0.9666 | 1.3829 | 2.8051 | 0.9828 | 1.4060 | 1.7859 | |
| QSTD | m= 2.01424 | | QA | m= 1.26128 | | |
| | b= 0.02085 | | | b= 0.01328 | | |
| | r= 0.99999 | | | r= 0.99999 | | |

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

| Standard Conditions | |
|---------------------|---------------------------------------|
| Tstd: | 298.15 °K |
| Pstd: | 760 mm Hg |
| Key | |
| ΔH: | calibrator manometer reading (in H2O) |
| ΔP: | rootsmer 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

Catalogue of Dust Meter (TSI Sidepak AM510)

The SidePak AM510 monitor's easy-to-read display shows your data as both real-time aerosol mass-concentration and 8-hour time-weighted average (TWA). With its convenient data logging and long battery life, the AMS10 is also ideal for extended sampling. The easy-to-use TrakPro Data Analysis Software lets you create effective graphs and reports.

User Friendly

- + Small, lightweight and quiet to maximize worker acceptance
- + Rugged design with secure belt clip
- + Easy-to-understand user interface with only four keys
- + Lockable keypad prevents tampering while sampling
- + User-adjustable sample flow rate
- + Define, label and store multiple calibration constants
- + Easy-to-read LCD display
- + Convenient, threaded tripod socket accommodates area sampling

Advanced Features

- + Smart Battery Management System provides precise run time information, maximizes battery capacity and speeds charging
- + Integrated pump allows use of size-selective aerosol inlet conditioners
- + Built-in impactors let you choose "none," 1.0, 2.5 or 10-micron cut off
- + 10-mm Dorr-Oliver cyclone for respirable sampling
- + Display shows real-time concentrations (mg/m³) and "on-the-fly" TWA as you data log
- + Display statistics: max, min and average readings, elapsed time and 8-hour TWA

Quick and Easy Reports

- + Convenient preprogramming for occupational exposure sampling
- + Data log for long periods and store multiple tests
- + Analyze data, print graphs and create reports with TrakPro Data Analysis Software
- + USB port lets you conveniently connect to your computer

Power to Spare

- + Long-lasting NiMH rechargeable battery packs eliminate "memory" issues
- + Choice of rechargeable NiMH smart battery packs or AA-cell pack

Model AMS10

SidePak Personal Aerosol Monitor

Sensitivity

Sensor Type 90° light scattering, 670 nm laser diode
 Aerosol Concentration Range 0.001 to 20 mg/m³ (calibrated to respirable fraction of ISO 12103-1, A1 test dust)
 Particle Size Range 0.1 to 10 micrometer (µm)
 Minimum Resolution 0.001 mg/m³
 Zero stability ±0.001 mg/m³ over 24 hours using 10-second time-constant
 Temperature Coefficient Approximately +0.0005 mg/m³ per °C (for variations from temperature at which instrument was last zeroed)

Flow Rate

Range User-adjustable, 0.7 to 1.8 liters/min (L/min)

Temperature Range

Operating Range 32 to 120°F (0 to 50°C)
 Storage Range -4 to 140°F (-20 to 60°C)

Operational Humidity

0 to 95% RH, non-condensing

Time Constant (LCD display)

Range User-adjustable, 1 to 60 seconds

Data Logging

Data Points Approx. 31,000
 Logging Interval User-adjustable, 1 second to 1 hour

User-Select Calibration Factors

Factory Setting 1.0 (non-adjustable)
 User-defined Settings 3, with user-defined labels
 Range 0.1 to 10.0, user-adjustable

Physical

External Dimensions 4.2 x 3.7 x 2.8 in. (106 x 92 x 70 mm) with 801723, 801724, 801729 or 801743 battery
 5.1 x 3.7 x 2.8 in. (130 x 92 x 70 mm) with 801708, 801722, 801728, 801735, or 801736 battery
 Weight 16 oz (0.46 kg) with 801723, 801724, 801729 or 801743 battery
 19 oz (0.54 kg) with 801708, 01722, 801728, 801735, or 801736 battery
 Display 2 line x 12 character LCD
 Tripod Socket 1/4"-20 female thread

Power Supply/Charger (P/N 2613210)

Input Voltage Range 100 to 240 VAC, 50 to 60 Hz
 Output Voltage 9 VDC @ 1.0 A

Maintenance

Factory Clean/Calibrate Recommended annually
 User Zero Calibration Before each use
 User Flow Calibration As needed

Communications Interface

Type USB 1.1
 Connector, Instrument USB Mini-B (socket)

Minimum Computer Requirements for TrakPro™ Data Analysis Software

Communications Port Universal Serial Bus (USB) v 1.1 or higher
 Operating System Microsoft Windows® XP, or 7 (32-bit or 64-bit) operating systems

Battery Performance

| Battery Options | Charge Time (hrs)* | Intrinsic Safety Rating | Run Time (hrs @ 1.7 L/min) |
|--|--------------------|-------------------------|----------------------------|
| 1600 mAh NiMH Pack, 4.8 V (P/N 801723) | 3.0 | No | 7.1 |
| 1650 mAh NiMH Pack, 4.8V (P/N 801724, 801729 or 801743) | 3.5 | CSA** | 7.5 |
| 2700 mAh NiMH Pack, 4.8 V (P/N 801722 or 801728) | 5.5 | No | 12.0 |
| 2700 mAh NiMH Pack, 4.8 V (P/N 801735) | 5.5 | No | 12.0 |
| 6-Cell AA-size Alkaline Pack*** (P/N 801708 or 801736 with six user-supplied AA cells) | N/A | No | 22.5 |

*Of a fully depleted battery
 **All dust plugs and dust gaskets must be installed.
 ***Using Energizer AA-size, E91 alkaline batteries.

Battery Level Indicator

The Smart Battery Management System™ technology utilizes a built-in "gauge" in the SidePak™ battery packs. The gauge monitors battery capacity and calculates run time information by dividing capacity of the battery (mAh) by the instantaneous current consumed by the instrument (mA). This calculation is correct for current operating conditions and can change due to current (mA) consumption or changes in battery capacity.



Calibration Certificate of Dust Meter (TSI Sidepak AM510)

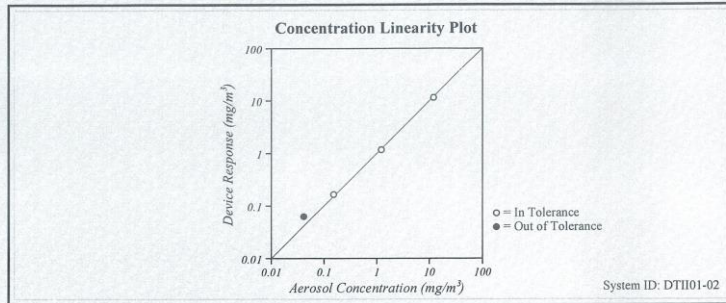


CERTIFICATE OF CALIBRATION AND TESTING

TSI Incorporated, 500 Cardigan Road, Shoreview, MN 55126 USA
Tel: 1-800-874-2811 1-651-490-2811 Fax: 1-651-490-3824 http://www.tsi.com

| | | | | |
|------------------------|---------------|------------|---------------|----------|
| Environment Conditions | | | Model | AM510 |
| Temperature | 74.14 (23.4) | °F (°C) | Serial Number | 11208032 |
| Relative Humidity | 47.6 | %RH | | |
| Barometric Pressure | 28.96 (980.7) | inHg (hPa) | | |

As Left In Tolerance
 As Found Out of Tolerance



| CONCENTRATION | | | | Unit: mg/m ³ | | | |
|---------------|----------|----------|-----------------|-------------------------|----------|----------|-----------------|
| # | STANDARD | MEASURED | ALLOWABLE RANGE | # | STANDARD | MEASURED | ALLOWABLE RANGE |
| 1 | 1.205 | 1.108 | 1.084-1.326 | 3 | 0.041 | * 0.059 | 0.029-0.053 |
| 2 | 0.150 | 0.156 | 0.128-0.172 | 4 | 11.824 | 10.777 | 10.642-13.006 |

TSI Incorporated does hereby certify that all materials, components, and workmanship used in the manufacture of this equipment are in strict accordance with the applicable specifications agreed upon by TSI and the customer and with all published specifications. All performance and acceptance tests required under this contract were successfully conducted according to required specifications. There is no NIST standard for optical mass measurements. Calibration of this instrument performed by TSI has been done using emery oil and has been nominally adjusted to respirable mass per standard ISO 12103-1, A1 test dust (Arizona dust). Our calibration ratio is greater than 4:1

| Measurement Variable | System ID | Last Cal. | Cal. Due | Measurement Variable | System ID | Last Cal. | Cal. Due |
|----------------------|-----------|-----------|----------|----------------------|-----------|-----------|----------|
| DC Voltage | E010539 | 12-05-22 | 06-30-24 | Photometer | E003433 | 03-21-23 | 09-30-23 |
| Microbalance | M001324 | 01-09-23 | 01-31-25 | Pressure | E003511 | 10-25-22 | 10-31-23 |
| Flowmeter | E002471 | 05-22-23 | 05-31-24 | DC Voltage | E003315 | 01-09-23 | 01-31-24 |

Verified

August 8, 2023

Date

Personal Aerosol Monitor Performance check with High Volume Sampler

Performance Check ref. No. AS0220602-1 Report Issue Date 02/06/2023
 Date of performance check 02/06/2023

Objective:

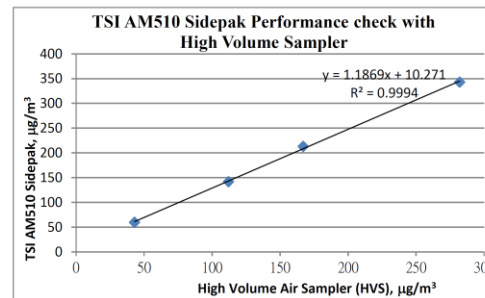
A dust meter and a Total Suspended Particulate High Volume Air Sampler (HVS) were placed together to measure the Total Suspended Particulate (TSP) concentrations simultaneously to check the performance.

Equipment Used:

| Equipment | Manufacturer and Model | Serial Number |
|---|------------------------|---------------|
| Personal Aerosol Monitor | TSI AM510 Sidepak | 11208032 |
| Total Suspended Particulate High Volume Air Sampler | GS2310 | 10346 |

Results:

| Equipment | Measurement Result, µg/m ³ | | |
|-------------------------------|---------------------------------------|-----|-----|
| TSI AM510 Sidepak | 60 | 142 | 213 |
| High Volume Air Sampler (HVS) | 43 | 112 | 167 |



Tested by :
 Name : (Poon Tsz Wing)

Checked by :
 Name : (Wong Yin Tong)

Form No. ENV CAL SAMPLER CCI d012/12/2003

Catalogue of Weather Station

Cabled Vantage Pro2™ & Vantage Pro2 Plus™ Stations



**6152C
6162C**
Vantage Pro2™

The Vantage Pro2™ (# 6152C) and Vantage Pro2™ Plus (# 6162C) cabled weather stations include two components: the Integrated Sensor Suite (ISS) and the console. The ISS contains the sensor interface module (SIM), rain collector, an anemometer, and a passive radiation shield. The Vantage Pro2 console provides the user interface, data display, and calculations. The Vantage Pro2 Plus weather station includes two additional sensors that are optional on the Vantage Pro2 and purchased separately: the UV Sensor and the Solar Radiation Sensor. The console and ISS are powered by an AC-power adapter connected to the console. Batteries can be installed in the console to provide a backup power supply. Use WeatherLink® to let your weather station interface with a computer, log data, and upload weather information to the Internet. The 6152C and 6162C models rely on passive shielding to reduce solar-radiation induced temperature errors in the outside temperature sensor readings.

Integrated Sensor Suite (ISS)

| | |
|---------------------------|---|
| Operating Temperature | -40° to +150°F (-40° to +65°C) |
| Non-operating Temperature | -40° to +158°F (-40° to +70°C) |
| Current Draw | 5 mA (average) at 4 to 6 VDC for ISS only. 10 mA average for both console and ISS |
| Connectors, Sensor | Modular RJ-11 |
| Cable Type | 4-conductor, 26 AWG |
| Cable Length, Anemometer | 40' (12 m) (included); 240' (73 m) (maximum recommended) |

Note: Maximum displayable wind decreases as the length of cable increases. At 140' (42 m) of cable, the maximum wind speed displayed is 135 mph (60 m/s); at 240' (73 m), the maximum wind speed displayed is 100 mph (34 m/s).

| | |
|-------------------------------|--|
| Wind Speed Sensor | Solid state magnetic sensor |
| Wind Direction Sensor | Wind vane with potentiometer |
| Rain Collector Type | Tipping bucket, 0.01" per tip (0.2 mm with metric rain adapter), 33.2 in ² (214 cm ²) collection area |
| Temperature Sensor Type | PN Junction Silicon Diode |
| Relative Humidity Sensor Type | Film capacitor element |
| Housing Material | UV-resistant ABS, polypropylene |
| Sensor Inputs | |
| RF Filtering | RC low-pass filter on each signal line |

ISS Dimensions(not including anemometer or bird spikes):

| | |
|---|---|
| Vantage Pro2 with Standard Rad Shield | 14.0" x 9.4" x 14.5" (356 mm x 239 mm x 368 mm) |
| Vantage Pro2 with Fan-Aspirated Rad Shield | 20.8" x 9.4" x 16.0" (528 mm x 239 mm x 406 mm) |
| Vantage Pro2 Plus with Standard Rad Shield | 14.3" x 9.7" x 14.5" (363 mm x 246 mm x 368 mm) |
| Vantage Pro2 Plus with Fan-Aspirated Rad Shield | 21.1" x 9.7" x 16.0" (536 mm x 246 mm x 406 mm) |

DAVIS **® Davis Instruments** 3465 Diablo Ave., Hayward, CA 94545-2778 USA
(510) 732-9229 • FAX (510) 670-0589 • sales@davisinstruments.com • www.davisinstruments.com

DS6152C, 6162C Rev. W 12/7/18
1

7
Vantage Pro2™

Ultra Violet (UV) Radiation Index (requires UV sensor)

| | |
|-----------------------|---|
| Resolution and Units | 0.1 Index |
| Range | 0 to 16 Index |
| Accuracy | ±5% of full scale (Reference: Yankee UVB-1 at UV index 10 (Extremely High)) |
| Cosine Response | ±4% FS (0° to 90° zenith angle) |
| Update Interval | 50 seconds to 1 minute (5 minutes when dark) |
| Current Graph Data | Instant Reading and Hourly Average; Daily, Monthly High |
| Historical Graph Data | Hourly Average, Daily, Monthly Highs |
| Alarm | High Threshold from Instant Calculation |

Wind

| | |
|--------------------------------|---|
| Wind Chill (Calculated) | |
| Resolution and Units | 1°F or 1°C (user-selectable); °C is converted from °F and rounded to the nearest 1°C |
| Range | -110° to +135°F (-79° to +57°C) |
| Accuracy | ±2°F (±1°C) (typical) |
| Update Interval | 10 to 12 seconds |
| Source | United States National Weather Service (NWS)/NOAA |
| Equation Used | Osczevski (1995) (adopted by US NWS in 2001) |
| Variables Used | Instant Outside Temperature and 10-min. Avg. Wind Speed |
| Current Display Data | Instant Calculation |
| Current Graph Data | Instant Calculation; Hourly, Daily and Monthly Low |
| Historical Graph Data | Hourly, Daily and Monthly Lows |
| Alarm | Low Threshold from Instant Calculation |
| Wind Direction | |
| Range | 1 - 360° |
| Display Resolution | 16 points (22.5°) on compass rose, 1° in numeric display |
| Accuracy | ±3° |
| Update Interval | 2.5 to 3 seconds |
| Current Graph Data | Instant Reading (user adjustable); 10-min. Dominant; Hourly, Daily, Monthly Dominant |
| Historical Graph Data | Past 6 10-min. Dominants on compass rose only; Hourly, Daily, Monthly Dominants |
| Wind Speed | |
| Resolution and Units | 1 mph, 1 km/h, 0.4 m/s, or 1 knot (user-selectable) Measured in mph; other units are converted from mph and rounded to nearest 1 km/hr, 0.1 m/s, or 1 knot. |
| Range | 0 to 200 mph, 0 to 173 knots, 0 to 89 m/s, 0 to 322 km/h |
| Update Interval | Instant Reading: 2.5 to 3 seconds, 10-minute Average: 1 minute |
| Accuracy | ±2 mph (2 kts, 3.2 km/h, 0.9 m/s) or ±5%, whichever is greater |
| Maximum Cable Length | 540' (165 m) (Note that maximum wind speed reading decreases as length of cable from anemometer to ISS increases.) |
| Current Display Data | Instant |
| Current Graph Data | Instant Reading; 10-minute and Hourly Average; Hourly High; Daily, Monthly and Yearly High with Direction of High |
| Historical Graph Data | 10-min. and Hourly Averages; Hourly Highs; Daily, Monthly and Yearly Highs with Direction of Highs |
| Alarms | High Thresholds from Instant Reading and 10-minute Average |

Calibration Certificate of Weather Station



Cal Lab Limited 校正實驗室有限公司
 Room 2103, Technology Plaza, 29-35 Sha Tsui Road,
 Tsuen Wan, NT, Hong Kong
 Tel: +852 25680106 Email: info@callab.com.hk
 Fax: +852 30116194 Website: www.callab.com.hk

Calibration Certificate No.: CC0062308

Information provided by customer

Customer: Castco Testing Centre Limited
 Address: 33, On Kui Street, Fanling, N.T.

Equipment identification provided by customer

| Equipment Description | Manufacturer | Model No. | Serial No. | Assigned equipment No.: |
|-----------------------|---------------------|-----------|-------------|-------------------------|
| Weather Station | Davis Vantage PRO 2 | 6152CEU | AZ170710016 | AAST-WS-03 |

Certificate Information

| | | | |
|--------------------------|---------------------------------------|------------------------|------------------------|
| Date of Receipt: | 4 August 2023 | Calibration Condition: | 24.3°C, 52%RH, 1002hPa |
| Date of Calibration: | 14 August 2023 | Adjustment: | N/A |
| Due Date of Calibration: | N/A | Appearance: | Good |
| Calibration Procedure: | JJF 1183-2007, JJF 1076-2020, SOP-116 | Remark: | N/A |

Reference Equipment Identification

| Equipment Description | Model | Serial No. | Expiration Date |
|---------------------------------|------------|------------------------|-----------------|
| Platinum resistance thermometer | KPPRHT-A-1 | KCI I-1095, KCI P-1095 | 9 November 2024 |
| Humidity sensor | KPPRHT-A-1 | KCI I-1095, KCI P-1095 | 9 November 2024 |
| Hot Wire Anemometer | 9535 | T95351316004 | 11 August 2024 |

- Note1: The estimated expanded uncertainties have been calculated in "Evaluation and expression of uncertainty in measurement" and give an internal estimated to have a level of confidence of 95%. A coverage factor of 2 is assumed unless explicitly stated.
 Note2: The standard (s) and instrument used in the calibration are traceable to national or international recognized standard and are calibrated on a schedule to maintain the accuracy and good condition.
 Note3: The result reported in this certificate refer to the condition of the instrument on the date of calibration and carry no implication regarding the long term stability of the instrument.
 Note4: The result shows in this calibration certificate relate only to the item calibrated, and the result only applies to the calibration item as received.
 Note5: Calibration item/ parameter marked with * is out of scope of Cal Lab Limited (AZLA 3815.01).

Approved By:


 Warren Yeung

Company Chop:



Certificate Issue Date: 17 August 2023

CT-BEG-04

1. The certificate shall not be reproduced except in full, without written approval of Cal Lab Limited
 2. The certificate is issued subject to the latest Terms and Conditions, available at our web site

CC0062308
 Page 1 of 2

Appendix G – Weather information

General Information

| Date | Absolute Daily Min Temperature (°C) | Absolute Daily Max Temperature (°C) | Total Rainfall (mm) |
|------------|-------------------------------------|-------------------------------------|---------------------|
| 01/11/2023 | 23.6 | 29.1 | 0 |
| 02/11/2023 | 24.4 | 28.4 | 0 |
| 03/11/2023 | 24.3 | 29.1 | 0 |
| 04/11/2023 | 24.7 | 29.4 | 0 |
| 05/11/2023 | 25 | 30.1 | 0 |
| 06/11/2023 | 25.3 | 30.7 | 0 |
| 07/11/2023 | 25.3 | 26.8 | 0 |
| 08/11/2023 | 24.7 | 26 | 0 |
| 09/11/2023 | 24.8 | 27.3 | Trace |
| 10/11/2023 | 25.6 | 29.3 | 0 |
| 11/11/2023 | 24.8 | 26.5 | 2.5 |
| 12/11/2023 | 22 | 26.6 | 0.6 |
| 13/11/2023 | 20.3 | 25.2 | 0 |
| 14/11/2023 | 18.9 | 23.9 | 0 |
| 15/11/2023 | 20.7 | 25.2 | 0 |
| 16/11/2023 | 17.3 | 24 | 0 |
| 17/11/2023 | 15.6 | 21.9 | 0 |
| 18/11/2023 | 16.6 | 23 | 0 |
| 19/11/2023 | 18.5 | 23.3 | 0 |
| 20/11/2023 | 19 | 24.6 | 0 |
| 21/11/2023 | 20.3 | 24.6 | 0 |
| 22/11/2023 | 20.5 | 25.7 | 0 |
| 23/11/2023 | 20.5 | 26.3 | 0 |
| 24/11/2023 | 21.5 | 25 | 0 |
| 25/11/2023 | 20 | 24.3 | 0 |
| 26/11/2023 | 19.8 | 25.3 | 0 |
| 27/11/2023 | 20.2 | 26.7 | 0 |
| 28/11/2023 | 20.2 | 25.4 | Trace |
| 29/11/2023 | 21.2 | 24 | 0.2 |
| 30/11/2023 | 21.9 | 26 | 0 |

NOTE1: The above weather information was obtained from manned weather station of Hong Kong Observatory.

NOTE2: Trace means rainfall less than 0.05 mm

<https://www.hko.gov.hk/en/cis/dailyExtract.htm?y=2023&m=11>

Mean Wind Speed and Wind Direction recorded by the weather station setup at the rooftop of Hong Kong Children's Hospital

| Date | Time | Wind Speed (m/s) | Wind Direction | Date | Time | Wind Speed (m/s) | Wind Direction | Date | Time | Wind Speed (m/s) | Wind Direction | Date | Time | Wind Speed (m/s) | Wind Direction |
|------------|-------|------------------|----------------|------------|-------|------------------|----------------|------------|-------|------------------|----------------|------------|-------|------------------|----------------|
| 01/11/2023 | 0:00 | 0.4 | 135 | 02/11/2023 | 0:00 | 0.4 | 135 | 03/11/2023 | 0:00 | 0.4 | 135 | 04/11/2023 | 0:00 | 0.4 | 135 |
| 01/11/2023 | 1:00 | 0.4 | 112.5 | 02/11/2023 | 1:00 | 0.4 | 112.5 | 03/11/2023 | 1:00 | 0.4 | 112.5 | 04/11/2023 | 1:00 | 0.4 | 112.5 |
| 01/11/2023 | 2:00 | 0.4 | 112.5 | 02/11/2023 | 2:00 | 0.4 | 112.5 | 03/11/2023 | 2:00 | 0.4 | 112.5 | 04/11/2023 | 2:00 | 0.4 | 112.5 |
| 01/11/2023 | 3:00 | 0.4 | 112.5 | 02/11/2023 | 3:00 | 0.4 | 112.5 | 03/11/2023 | 3:00 | 0.4 | 112.5 | 04/11/2023 | 3:00 | 0.4 | 112.5 |
| 01/11/2023 | 4:00 | 0.4 | 135 | 02/11/2023 | 4:00 | 0.4 | 135 | 03/11/2023 | 4:00 | 0.4 | 135 | 04/11/2023 | 4:00 | 0.4 | 135 |
| 01/11/2023 | 5:00 | 0.4 | 112.5 | 02/11/2023 | 5:00 | 0.4 | 112.5 | 03/11/2023 | 5:00 | 0.4 | 112.5 | 04/11/2023 | 5:00 | 0.4 | 112.5 |
| 01/11/2023 | 6:00 | 0.4 | 112.5 | 02/11/2023 | 6:00 | 0.4 | 112.5 | 03/11/2023 | 6:00 | 0.4 | 112.5 | 04/11/2023 | 6:00 | 0.4 | 112.5 |
| 01/11/2023 | 7:00 | 0.4 | 112.5 | 02/11/2023 | 7:00 | 0.4 | 112.5 | 03/11/2023 | 7:00 | 0.4 | 112.5 | 04/11/2023 | 7:00 | 0.4 | 112.5 |
| 01/11/2023 | 8:00 | 0.4 | 112.5 | 02/11/2023 | 8:00 | 0.4 | 112.5 | 03/11/2023 | 8:00 | 0.4 | 112.5 | 04/11/2023 | 8:00 | 0.4 | 112.5 |
| 01/11/2023 | 9:00 | 0.4 | 315 | 02/11/2023 | 9:00 | 0.4 | 315 | 03/11/2023 | 9:00 | 0.4 | 315 | 04/11/2023 | 9:00 | 0.4 | 315 |
| 01/11/2023 | 10:00 | 0.4 | 337.5 | 02/11/2023 | 10:00 | 0.4 | 337.5 | 03/11/2023 | 10:00 | 0.4 | 337.5 | 04/11/2023 | 10:00 | 0.4 | 337.5 |
| 01/11/2023 | 11:00 | 0.4 | 112.5 | 02/11/2023 | 11:00 | 0.4 | 112.5 | 03/11/2023 | 11:00 | 0.4 | 112.5 | 04/11/2023 | 11:00 | 0.4 | 112.5 |
| 01/11/2023 | 12:00 | 0.9 | 90 | 02/11/2023 | 12:00 | 0.9 | 90 | 03/11/2023 | 12:00 | 0.9 | 90 | 04/11/2023 | 12:00 | 0.9 | 90 |
| 01/11/2023 | 13:00 | 0.4 | 112.5 | 02/11/2023 | 13:00 | 0.4 | 112.5 | 03/11/2023 | 13:00 | 0.4 | 112.5 | 04/11/2023 | 13:00 | 0.4 | 112.5 |
| 01/11/2023 | 14:00 | 0.9 | 112.5 | 02/11/2023 | 14:00 | 0.9 | 112.5 | 03/11/2023 | 14:00 | 0.9 | 112.5 | 04/11/2023 | 14:00 | 0.9 | 112.5 |
| 01/11/2023 | 15:00 | 0.9 | 90 | 02/11/2023 | 15:00 | 0.9 | 90 | 03/11/2023 | 15:00 | 0.9 | 90 | 04/11/2023 | 15:00 | 0.9 | 90 |
| 01/11/2023 | 16:00 | 0.4 | 90 | 02/11/2023 | 16:00 | 0.4 | 90 | 03/11/2023 | 16:00 | 0.4 | 90 | 04/11/2023 | 16:00 | 0.4 | 90 |
| 01/11/2023 | 17:00 | 0.4 | 112.5 | 02/11/2023 | 17:00 | 0.4 | 112.5 | 03/11/2023 | 17:00 | 0.4 | 112.5 | 04/11/2023 | 17:00 | 0.4 | 112.5 |
| 01/11/2023 | 18:00 | 0.9 | 112.5 | 02/11/2023 | 18:00 | 0.9 | 112.5 | 03/11/2023 | 18:00 | 0.9 | 112.5 | 04/11/2023 | 18:00 | 0.9 | 112.5 |
| 01/11/2023 | 19:00 | 1.3 | 90 | 02/11/2023 | 19:00 | 1.3 | 90 | 03/11/2023 | 19:00 | 1.3 | 90 | 04/11/2023 | 19:00 | 1.3 | 90 |
| 01/11/2023 | 20:00 | 1.3 | 90 | 02/11/2023 | 20:00 | 1.3 | 90 | 03/11/2023 | 20:00 | 1.3 | 90 | 04/11/2023 | 20:00 | 1.3 | 90 |
| 01/11/2023 | 21:00 | 0.9 | 112.5 | 02/11/2023 | 21:00 | 0.9 | 112.5 | 03/11/2023 | 21:00 | 0.9 | 112.5 | 04/11/2023 | 21:00 | 0.9 | 112.5 |
| 01/11/2023 | 22:00 | 0.9 | 112.5 | 02/11/2023 | 22:00 | 0.9 | 112.5 | 03/11/2023 | 22:00 | 0.9 | 112.5 | 04/11/2023 | 22:00 | 0.9 | 112.5 |
| 01/11/2023 | 23:00 | 0.9 | 337.5 | 02/11/2023 | 23:00 | 0.9 | 337.5 | 03/11/2023 | 23:00 | 0.9 | 337.5 | 04/11/2023 | 23:00 | 0.9 | 337.5 |

Mean Wind Speed and Wind Direction recorded by the weather station setup at the rooftop of Hong Kong Children's Hospital

| Date | Time | Wind Speed (m/s) | Wind Direction | Date | Time | Wind Speed (m/s) | Wind Direction | Date | Time | Wind Speed (m/s) | Wind Direction | Date | Time | Wind Speed (m/s) | Wind Direction |
|------------|-------|------------------|----------------|------------|-------|------------------|----------------|------------|-------|------------------|----------------|------------|-------|------------------|----------------|
| 05/11/2023 | 0:00 | 0.4 | 112.5 | 06/11/2023 | 0:00 | 0.9 | 157.5 | 07/11/2023 | 0:00 | 0.4 | 157.5 | 08/11/2023 | 0:00 | 0.9 | 157.5 |
| 05/11/2023 | 1:00 | 1.3 | 112.5 | 06/11/2023 | 1:00 | 0.9 | 22.5 | 07/11/2023 | 1:00 | 0.9 | 157.5 | 08/11/2023 | 1:00 | 0.9 | 22.5 |
| 05/11/2023 | 2:00 | 0.9 | 135 | 06/11/2023 | 2:00 | 0.4 | 22.5 | 07/11/2023 | 2:00 | 0.9 | 22.5 | 08/11/2023 | 2:00 | 0.4 | 22.5 |
| 05/11/2023 | 3:00 | 0.9 | 135 | 06/11/2023 | 3:00 | 0.4 | 45 | 07/11/2023 | 3:00 | 0.4 | 22.5 | 08/11/2023 | 3:00 | 0.4 | 45 |
| 05/11/2023 | 4:00 | 1.3 | 112.5 | 06/11/2023 | 4:00 | 0.9 | 135 | 07/11/2023 | 4:00 | 0.4 | 45 | 08/11/2023 | 4:00 | 0.9 | 135 |
| 05/11/2023 | 5:00 | 1.3 | 112.5 | 06/11/2023 | 5:00 | 0.9 | 112.5 | 07/11/2023 | 5:00 | 0.9 | 135 | 08/11/2023 | 5:00 | 0.9 | 112.5 |
| 05/11/2023 | 6:00 | 0.9 | 90 | 06/11/2023 | 6:00 | 1.3 | 135 | 07/11/2023 | 6:00 | 0.9 | 112.5 | 08/11/2023 | 6:00 | 1.3 | 135 |
| 05/11/2023 | 7:00 | 0.9 | 112.5 | 06/11/2023 | 7:00 | 1.3 | 135 | 07/11/2023 | 7:00 | 1.3 | 135 | 08/11/2023 | 7:00 | 1.3 | 135 |
| 05/11/2023 | 8:00 | 0.4 | 90 | 06/11/2023 | 8:00 | 0.9 | 22.5 | 07/11/2023 | 8:00 | 1.3 | 135 | 08/11/2023 | 8:00 | 0.9 | 22.5 |
| 05/11/2023 | 9:00 | 0.4 | 90 | 06/11/2023 | 9:00 | 0.4 | 112.5 | 07/11/2023 | 9:00 | 0.9 | 22.5 | 08/11/2023 | 9:00 | 0.4 | 112.5 |
| 05/11/2023 | 10:00 | 1.3 | 67.5 | 06/11/2023 | 10:00 | 0.4 | 112.5 | 07/11/2023 | 10:00 | 0.4 | 112.5 | 08/11/2023 | 10:00 | 0.4 | 112.5 |
| 05/11/2023 | 11:00 | 0.9 | 157.5 | 06/11/2023 | 11:00 | 1.3 | 112.5 | 07/11/2023 | 11:00 | 0.4 | 112.5 | 08/11/2023 | 11:00 | 1.3 | 112.5 |
| 05/11/2023 | 12:00 | 0.4 | 337.5 | 06/11/2023 | 12:00 | 0.9 | 112.5 | 07/11/2023 | 12:00 | 1.3 | 112.5 | 08/11/2023 | 12:00 | 0.9 | 112.5 |
| 05/11/2023 | 13:00 | 0.9 | 22.5 | 06/11/2023 | 13:00 | 0.4 | 135 | 07/11/2023 | 13:00 | 0.9 | 112.5 | 08/11/2023 | 13:00 | 0.4 | 315 |
| 05/11/2023 | 14:00 | 0.9 | 22.5 | 06/11/2023 | 14:00 | 0.4 | 67.5 | 07/11/2023 | 14:00 | 0.4 | 315 | 08/11/2023 | 14:00 | 0.4 | 67.5 |
| 05/11/2023 | 15:00 | 0.9 | 22.5 | 06/11/2023 | 15:00 | 1.3 | 112.5 | 07/11/2023 | 15:00 | 0.4 | 67.5 | 08/11/2023 | 15:00 | 0.9 | 112.5 |
| 05/11/2023 | 16:00 | 0.4 | 22.5 | 06/11/2023 | 16:00 | 0.9 | 135 | 07/11/2023 | 16:00 | 1.3 | 112.5 | 08/11/2023 | 16:00 | 0.9 | 135 |
| 05/11/2023 | 17:00 | 0.4 | 90 | 06/11/2023 | 17:00 | 0.4 | 112.5 | 07/11/2023 | 17:00 | 0.9 | 135 | 08/11/2023 | 17:00 | 0.4 | 112.5 |
| 05/11/2023 | 18:00 | 0.4 | 90 | 06/11/2023 | 18:00 | 0.9 | 112.5 | 07/11/2023 | 18:00 | 0.4 | 112.5 | 08/11/2023 | 18:00 | 0.9 | 112.5 |
| 05/11/2023 | 19:00 | 0.4 | 90 | 06/11/2023 | 19:00 | 0.9 | 90 | 07/11/2023 | 19:00 | 0.9 | 112.5 | 08/11/2023 | 19:00 | 0.9 | 90 |
| 05/11/2023 | 20:00 | 0.9 | 247.5 | 06/11/2023 | 20:00 | 0.9 | 292.5 | 07/11/2023 | 20:00 | 0.9 | 90 | 08/11/2023 | 20:00 | 0.9 | 67.5 |
| 05/11/2023 | 21:00 | 0.4 | 180 | 06/11/2023 | 21:00 | 0.9 | 112.5 | 07/11/2023 | 21:00 | 0.9 | 67.5 | 08/11/2023 | 21:00 | 0.9 | 112.5 |
| 05/11/2023 | 22:00 | 0.4 | 337.5 | 06/11/2023 | 22:00 | 0.9 | 337.5 | 07/11/2023 | 22:00 | 0.9 | 112.5 | 08/11/2023 | 22:00 | 0.9 | 337.5 |
| 05/11/2023 | 23:00 | 0.4 | 337.5 | 06/11/2023 | 23:00 | 0.4 | 247.5 | 07/11/2023 | 23:00 | 0.9 | 337.5 | 08/11/2023 | 23:00 | 0.4 | 247.5 |

Mean Wind Speed and Wind Direction recorded by the weather station setup at the rooftop of Hong Kong Children's Hospital

| Date | Time | Wind Speed (m/s) | Wind Direction | Date | Time | Wind Speed (m/s) | Wind Direction | Date | Time | Wind Speed (m/s) | Wind Direction | Date | Time | Wind Speed (m/s) | Wind Direction |
|------------|-------|------------------|----------------|------------|-------|------------------|----------------|------------|-------|------------------|----------------|------------|-------|------------------|----------------|
| 09/11/2023 | 0:00 | 0.9 | 157.5 | 10/11/2023 | 0:00 | 0.9 | 157.5 | 11/11/2023 | 0:00 | 0.9 | 157.5 | 12/11/2023 | 0:00 | 0.9 | 157.5 |
| 09/11/2023 | 1:00 | 0.9 | 22.5 | 10/11/2023 | 1:00 | 0.9 | 22.5 | 11/11/2023 | 1:00 | 0.9 | 22.5 | 12/11/2023 | 1:00 | 0.9 | 22.5 |
| 09/11/2023 | 2:00 | 0.4 | 22.5 | 10/11/2023 | 2:00 | 0.4 | 22.5 | 11/11/2023 | 2:00 | 0.4 | 22.5 | 12/11/2023 | 2:00 | 0.4 | 22.5 |
| 09/11/2023 | 3:00 | 0.4 | 45 | 10/11/2023 | 3:00 | 0.4 | 45 | 11/11/2023 | 3:00 | 0.4 | 45 | 12/11/2023 | 3:00 | 0.4 | 45 |
| 09/11/2023 | 4:00 | 0.9 | 135 | 10/11/2023 | 4:00 | 0.9 | 135 | 11/11/2023 | 4:00 | 0.9 | 135 | 12/11/2023 | 4:00 | 0.9 | 135 |
| 09/11/2023 | 5:00 | 0.9 | 112.5 | 10/11/2023 | 5:00 | 0.9 | 112.5 | 11/11/2023 | 5:00 | 0.9 | 112.5 | 12/11/2023 | 5:00 | 0.9 | 112.5 |
| 09/11/2023 | 6:00 | 1.3 | 135 | 10/11/2023 | 6:00 | 1.3 | 135 | 11/11/2023 | 6:00 | 1.3 | 135 | 12/11/2023 | 6:00 | 1.3 | 135 |
| 09/11/2023 | 7:00 | 1.3 | 135 | 10/11/2023 | 7:00 | 1.3 | 135 | 11/11/2023 | 7:00 | 1.3 | 135 | 12/11/2023 | 7:00 | 0.4 | 135 |
| 09/11/2023 | 8:00 | 0.9 | 22.5 | 10/11/2023 | 8:00 | 0.9 | 22.5 | 11/11/2023 | 8:00 | 0.9 | 22.5 | 12/11/2023 | 8:00 | 0.4 | 22.5 |
| 09/11/2023 | 9:00 | 0.4 | 112.5 | 10/11/2023 | 9:00 | 0.4 | 112.5 | 11/11/2023 | 9:00 | 0.4 | 112.5 | 12/11/2023 | 9:00 | 0.9 | 112.5 |
| 09/11/2023 | 10:00 | 0.4 | 112.5 | 10/11/2023 | 10:00 | 0.4 | 112.5 | 11/11/2023 | 10:00 | 0.9 | 112.5 | 12/11/2023 | 10:00 | 0.4 | 112.5 |
| 09/11/2023 | 11:00 | 1.3 | 112.5 | 10/11/2023 | 11:00 | 1.3 | 112.5 | 11/11/2023 | 11:00 | 1.3 | 112.5 | 12/11/2023 | 11:00 | 1.3 | 112.5 |
| 09/11/2023 | 12:00 | 0.9 | 112.5 | 10/11/2023 | 12:00 | 0.9 | 112.5 | 11/11/2023 | 12:00 | 0.9 | 112.5 | 12/11/2023 | 12:00 | 0.9 | 112.5 |
| 09/11/2023 | 13:00 | 0.4 | 315 | 10/11/2023 | 13:00 | 0.4 | 315 | 11/11/2023 | 13:00 | 0.4 | 315 | 12/11/2023 | 13:00 | 0.4 | 315 |
| 09/11/2023 | 14:00 | 0.4 | 67.5 | 10/11/2023 | 14:00 | 0.4 | 67.5 | 11/11/2023 | 14:00 | 0.4 | 67.5 | 12/11/2023 | 14:00 | 0.4 | 67.5 |
| 09/11/2023 | 15:00 | 1.3 | 112.5 | 10/11/2023 | 15:00 | 1.3 | 112.5 | 11/11/2023 | 15:00 | 1.3 | 112.5 | 12/11/2023 | 15:00 | 0.4 | 112.5 |
| 09/11/2023 | 16:00 | 0.9 | 135 | 10/11/2023 | 16:00 | 0.9 | 135 | 11/11/2023 | 16:00 | 0.9 | 135 | 12/11/2023 | 16:00 | 0.9 | 135 |
| 09/11/2023 | 17:00 | 0.4 | 112.5 | 10/11/2023 | 17:00 | 0.4 | 112.5 | 11/11/2023 | 17:00 | 0.4 | 112.5 | 12/11/2023 | 17:00 | 0.4 | 112.5 |
| 09/11/2023 | 18:00 | 0.9 | 112.5 | 10/11/2023 | 18:00 | 0.9 | 112.5 | 11/11/2023 | 18:00 | 0.9 | 112.5 | 12/11/2023 | 18:00 | 0.9 | 112.5 |
| 09/11/2023 | 19:00 | 0.9 | 90 | 10/11/2023 | 19:00 | 0.9 | 90 | 11/11/2023 | 19:00 | 1.3 | 90 | 12/11/2023 | 19:00 | 0.9 | 90 |
| 09/11/2023 | 20:00 | 0.9 | 292.5 | 10/11/2023 | 20:00 | 0.9 | 292.5 | 11/11/2023 | 20:00 | 0.9 | 292.5 | 12/11/2023 | 20:00 | 0.9 | 292.5 |
| 09/11/2023 | 21:00 | 0.9 | 112.5 | 10/11/2023 | 21:00 | 0.9 | 112.5 | 11/11/2023 | 21:00 | 0.9 | 112.5 | 12/11/2023 | 21:00 | 0.9 | 112.5 |
| 09/11/2023 | 22:00 | 0.9 | 337.5 | 10/11/2023 | 22:00 | 0.9 | 337.5 | 11/11/2023 | 22:00 | 0.9 | 337.5 | 12/11/2023 | 22:00 | 0.9 | 337.5 |
| 09/11/2023 | 23:00 | 0.4 | 247.5 | 10/11/2023 | 23:00 | 0.4 | 247.5 | 11/11/2023 | 23:00 | 0.4 | 247.5 | 12/11/2023 | 23:00 | 0.4 | 247.5 |

Mean Wind Speed and Wind Direction recorded by the weather station setup at the rooftop of Hong Kong Children's Hospital

| Date | Time | Wind Speed (m/s) | Wind Direction | Date | Time | Wind Speed (m/s) | Wind Direction | Date | Time | Wind Speed (m/s) | Wind Direction | Date | Time | Wind Speed (m/s) | Wind Direction |
|------------|-------|------------------|----------------|------------|-------|------------------|----------------|------------|-------|------------------|----------------|------------|-------|------------------|----------------|
| 13/11/2023 | 0:00 | 0.9 | 157.5 | 14/11/2023 | 0:00 | 0.4 | 157.5 | 15/11/2023 | 0:00 | 1.3 | 45 | 16/11/2023 | 0:00 | 0.9 | 315 |
| 13/11/2023 | 1:00 | 0.9 | 22.5 | 14/11/2023 | 1:00 | 0.4 | 22.5 | 15/11/2023 | 1:00 | 1.3 | 112.5 | 16/11/2023 | 1:00 | 0.9 | 112.5 |
| 13/11/2023 | 2:00 | 0.4 | 22.5 | 14/11/2023 | 2:00 | 0.4 | 22.5 | 15/11/2023 | 2:00 | 0.9 | 112.5 | 16/11/2023 | 2:00 | 0.9 | 292.5 |
| 13/11/2023 | 3:00 | 0.4 | 45 | 14/11/2023 | 3:00 | 0.9 | 45 | 15/11/2023 | 3:00 | 1.3 | 112.5 | 16/11/2023 | 3:00 | 0.9 | 67.5 |
| 13/11/2023 | 4:00 | 0.9 | 135 | 14/11/2023 | 4:00 | 0.4 | 135 | 15/11/2023 | 4:00 | 1.3 | 67.5 | 16/11/2023 | 4:00 | 0.9 | 270 |
| 13/11/2023 | 5:00 | 0.9 | 112.5 | 14/11/2023 | 5:00 | 0.4 | 112.5 | 15/11/2023 | 5:00 | 1.8 | 135 | 16/11/2023 | 5:00 | 0.9 | 315 |
| 13/11/2023 | 6:00 | 0.4 | 135 | 14/11/2023 | 6:00 | 0.9 | 135 | 15/11/2023 | 6:00 | 0.9 | 67.5 | 16/11/2023 | 6:00 | 1.3 | 67.5 |
| 13/11/2023 | 7:00 | 0 | 135 | 14/11/2023 | 7:00 | 0.4 | 135 | 15/11/2023 | 7:00 | 1.3 | 112.5 | 16/11/2023 | 7:00 | 0.9 | 270 |
| 13/11/2023 | 8:00 | 0 | 22.5 | 14/11/2023 | 8:00 | 0.9 | 22.5 | 15/11/2023 | 8:00 | 0.9 | 112.5 | 16/11/2023 | 8:00 | 0.9 | 292.5 |
| 13/11/2023 | 9:00 | 0 | 112.5 | 14/11/2023 | 9:00 | 0.4 | 45 | 15/11/2023 | 9:00 | 0.4 | 135 | 16/11/2023 | 9:00 | 0.9 | 135 |
| 13/11/2023 | 10:00 | 0 | 112.5 | 14/11/2023 | 10:00 | 0.4 | 135 | 15/11/2023 | 10:00 | 0.4 | 135 | 16/11/2023 | 10:00 | 0.9 | 112.5 |
| 13/11/2023 | 11:00 | 0 | 112.5 | 14/11/2023 | 11:00 | 0.4 | 202.5 | 15/11/2023 | 11:00 | 0.4 | 135 | 16/11/2023 | 11:00 | 0.9 | 135 |
| 13/11/2023 | 12:00 | 0.4 | 112.5 | 14/11/2023 | 12:00 | 0.4 | 202.5 | 15/11/2023 | 12:00 | 0.9 | 67.5 | 16/11/2023 | 12:00 | 1.3 | 112.5 |
| 13/11/2023 | 13:00 | 0.4 | 315 | 14/11/2023 | 13:00 | 0.4 | 135 | 15/11/2023 | 13:00 | 0.9 | 157.5 | 16/11/2023 | 13:00 | 0.9 | 135 |
| 13/11/2023 | 14:00 | 0.4 | 67.5 | 14/11/2023 | 14:00 | 0.4 | 112.5 | 15/11/2023 | 14:00 | 0.9 | 67.5 | 16/11/2023 | 14:00 | 1.3 | 67.5 |
| 13/11/2023 | 15:00 | 1.3 | 112.5 | 14/11/2023 | 15:00 | 0.4 | 112.5 | 15/11/2023 | 15:00 | 0.4 | 112.5 | 16/11/2023 | 15:00 | 1.3 | 157.5 |
| 13/11/2023 | 16:00 | 0.9 | 135 | 14/11/2023 | 16:00 | 0.9 | 112.5 | 15/11/2023 | 16:00 | 0.9 | 112.5 | 16/11/2023 | 16:00 | 1.3 | 135 |
| 13/11/2023 | 17:00 | 0.4 | 112.5 | 14/11/2023 | 17:00 | 0.9 | 135 | 15/11/2023 | 17:00 | 0 | 22.5 | 16/11/2023 | 17:00 | 1.3 | 112.5 |
| 13/11/2023 | 18:00 | 0.4 | 112.5 | 14/11/2023 | 18:00 | 0.9 | 45 | 15/11/2023 | 18:00 | 0.4 | 45 | 16/11/2023 | 18:00 | 0.9 | 112.5 |
| 13/11/2023 | 19:00 | 0.9 | 90 | 14/11/2023 | 19:00 | 0.9 | 337.5 | 15/11/2023 | 19:00 | 0.4 | 315 | 16/11/2023 | 19:00 | 0.9 | 135 |
| 13/11/2023 | 20:00 | 0.9 | 292.5 | 14/11/2023 | 20:00 | 0.9 | 247.5 | 15/11/2023 | 20:00 | 0.4 | 112.5 | 16/11/2023 | 20:00 | 0.9 | 112.5 |
| 13/11/2023 | 21:00 | 0.4 | 112.5 | 14/11/2023 | 21:00 | 0.4 | 112.5 | 15/11/2023 | 21:00 | 0.4 | 135 | 16/11/2023 | 21:00 | 0.9 | 135 |
| 13/11/2023 | 22:00 | 0.4 | 337.5 | 14/11/2023 | 22:00 | 0.4 | 337.5 | 15/11/2023 | 22:00 | 0.4 | 112.5 | 16/11/2023 | 22:00 | 0.9 | 135 |
| 13/11/2023 | 23:00 | 0.4 | 247.5 | 14/11/2023 | 23:00 | 0.9 | 247.5 | 15/11/2023 | 23:00 | 0.4 | 157.5 | 16/11/2023 | 23:00 | 0.9 | 112.5 |

Mean Wind Speed and Wind Direction recorded by the weather station setup at the rooftop of Hong Kong Children's Hospital

| Date | Time | Wind Speed (m/s) | Wind Direction | Date | Time | Wind Speed (m/s) | Wind Direction | Date | Time | Wind Speed (m/s) | Wind Direction | Date | Time | Wind Speed (m/s) | Wind Direction |
|------------|-------|------------------|----------------|------------|-------|------------------|----------------|------------|-------|------------------|----------------|------------|-------|------------------|----------------|
| 17/11/2023 | 0:00 | 0.9 | 337.5 | 18/11/2023 | 0:00 | 1.3 | 112.5 | 19/11/2023 | 0:00 | 0 | 22.5 | 20/11/2023 | 0:00 | 1.3 | 112.5 |
| 17/11/2023 | 1:00 | 0.9 | 45 | 18/11/2023 | 1:00 | 0.9 | 112.5 | 19/11/2023 | 1:00 | 0 | 315 | 20/11/2023 | 1:00 | 1.3 | 112.5 |
| 17/11/2023 | 2:00 | 1.3 | 337.5 | 18/11/2023 | 2:00 | 1.3 | 112.5 | 19/11/2023 | 2:00 | 0.4 | 45 | 20/11/2023 | 2:00 | 0.4 | 90 |
| 17/11/2023 | 3:00 | 0.4 | 22.5 | 18/11/2023 | 3:00 | 0.9 | 112.5 | 19/11/2023 | 3:00 | 0.9 | 22.5 | 20/11/2023 | 3:00 | 0.4 | 135 |
| 17/11/2023 | 4:00 | 0.9 | 337.5 | 18/11/2023 | 4:00 | 0.9 | 67.5 | 19/11/2023 | 4:00 | 0.9 | 292.5 | 20/11/2023 | 4:00 | 0.4 | 112.5 |
| 17/11/2023 | 5:00 | 0.9 | 45 | 18/11/2023 | 5:00 | 0.9 | 112.5 | 19/11/2023 | 5:00 | 0.9 | 67.5 | 20/11/2023 | 5:00 | 0.4 | 112.5 |
| 17/11/2023 | 6:00 | 1.3 | 90 | 18/11/2023 | 6:00 | 0.4 | 337.5 | 19/11/2023 | 6:00 | 0.9 | 292.5 | 20/11/2023 | 6:00 | 0.9 | 135 |
| 17/11/2023 | 7:00 | 1.3 | 45 | 18/11/2023 | 7:00 | 0.9 | 67.5 | 19/11/2023 | 7:00 | 0.9 | 112.5 | 20/11/2023 | 7:00 | 1.3 | 90 |
| 17/11/2023 | 8:00 | 1.3 | 112.5 | 18/11/2023 | 8:00 | 1.3 | 67.5 | 19/11/2023 | 8:00 | 0.9 | 135 | 20/11/2023 | 8:00 | 1.3 | 135 |
| 17/11/2023 | 9:00 | 1.3 | 45 | 18/11/2023 | 9:00 | 0.9 | 90 | 19/11/2023 | 9:00 | 0.9 | 135 | 20/11/2023 | 9:00 | 0.9 | 135 |
| 17/11/2023 | 10:00 | 1.3 | 90 | 18/11/2023 | 10:00 | 0.9 | 90 | 19/11/2023 | 10:00 | 1.3 | 135 | 20/11/2023 | 10:00 | 1.3 | 112.5 |
| 17/11/2023 | 11:00 | 0.9 | 67.5 | 18/11/2023 | 11:00 | 0.9 | 67.5 | 19/11/2023 | 11:00 | 0.9 | 315 | 20/11/2023 | 11:00 | 0.9 | 202.5 |
| 17/11/2023 | 12:00 | 1.3 | 67.5 | 18/11/2023 | 12:00 | 0.4 | 112.5 | 19/11/2023 | 12:00 | 1.3 | 112.5 | 20/11/2023 | 12:00 | 0.4 | 180 |
| 17/11/2023 | 13:00 | 1.8 | 67.5 | 18/11/2023 | 13:00 | 0.9 | 67.5 | 19/11/2023 | 13:00 | 0.9 | 135 | 20/11/2023 | 13:00 | 0.4 | 337.5 |
| 17/11/2023 | 14:00 | 1.3 | 67.5 | 18/11/2023 | 14:00 | 1.3 | 67.5 | 19/11/2023 | 14:00 | 0.4 | 45 | 20/11/2023 | 14:00 | 0.9 | 112.5 |
| 17/11/2023 | 15:00 | 0.9 | 135 | 18/11/2023 | 15:00 | 0.9 | 90 | 19/11/2023 | 15:00 | 1.3 | 337.5 | 20/11/2023 | 15:00 | 0.4 | 135 |
| 17/11/2023 | 16:00 | 0.4 | 135 | 18/11/2023 | 16:00 | 0.9 | 90 | 19/11/2023 | 16:00 | 1.3 | 135 | 20/11/2023 | 16:00 | 0.4 | 135 |
| 17/11/2023 | 17:00 | 0.4 | 135 | 18/11/2023 | 17:00 | 0.9 | 67.5 | 19/11/2023 | 17:00 | 1.3 | 22.5 | 20/11/2023 | 17:00 | 0.4 | 135 |
| 17/11/2023 | 18:00 | 0.9 | 202.5 | 18/11/2023 | 18:00 | 0.4 | 112.5 | 19/11/2023 | 18:00 | 0.9 | 67.5 | 20/11/2023 | 18:00 | 0.4 | 112.5 |
| 17/11/2023 | 19:00 | 0.4 | 202.5 | 18/11/2023 | 19:00 | 0.4 | 90 | 19/11/2023 | 19:00 | 0.4 | 112.5 | 20/11/2023 | 19:00 | 0.4 | 67.5 |
| 17/11/2023 | 20:00 | 0.4 | 202.5 | 18/11/2023 | 20:00 | 0.9 | 112.5 | 19/11/2023 | 20:00 | 0.4 | 90 | 20/11/2023 | 20:00 | 0.9 | 337.5 |
| 17/11/2023 | 21:00 | 0.4 | 112.5 | 18/11/2023 | 21:00 | 0.9 | 90 | 19/11/2023 | 21:00 | 0.9 | 112.5 | 20/11/2023 | 21:00 | 0.9 | 22.5 |
| 17/11/2023 | 22:00 | 0.4 | 45 | 18/11/2023 | 22:00 | 1.3 | 112.5 | 19/11/2023 | 22:00 | 0.9 | 90 | 20/11/2023 | 22:00 | 0.9 | 270 |
| 17/11/2023 | 23:00 | 0.9 | 202.5 | 18/11/2023 | 23:00 | 1.3 | 67.5 | 19/11/2023 | 23:00 | 1.3 | 112.5 | 20/11/2023 | 23:00 | 0.4 | 270 |

Mean Wind Speed and Wind Direction recorded by the weather station setup at the rooftop of Hong Kong Children's Hospital

| Date | Time | Wind Speed (m/s) | Wind Direction | Date | Time | Wind Speed (m/s) | Wind Direction | Date | Time | Wind Speed (m/s) | Wind Direction | Date | Time | Wind Speed (m/s) | Wind Direction |
|------------|-------|------------------|----------------|------------|-------|------------------|----------------|------------|-------|------------------|----------------|------------|-------|------------------|----------------|
| 21/11/2023 | 0:00 | 0.9 | 112.5 | 22/11/2023 | 0:00 | 0.9 | 315 | 23/11/2023 | 0:00 | 0.9 | 315 | 24/11/2023 | 0:00 | 0.4 | 337.5 |
| 21/11/2023 | 1:00 | 0.4 | 45 | 22/11/2023 | 1:00 | 0.4 | 315 | 23/11/2023 | 1:00 | 0.4 | 315 | 24/11/2023 | 1:00 | 0.9 | 315 |
| 21/11/2023 | 2:00 | 0.9 | 67.5 | 22/11/2023 | 2:00 | 0.9 | 90 | 23/11/2023 | 2:00 | 0.9 | 90 | 24/11/2023 | 2:00 | 0.4 | 315 |
| 21/11/2023 | 3:00 | 0.4 | 45 | 22/11/2023 | 3:00 | 0.9 | 270 | 23/11/2023 | 3:00 | 0.9 | 270 | 24/11/2023 | 3:00 | 0.9 | 90 |
| 21/11/2023 | 4:00 | 0.4 | 337.5 | 22/11/2023 | 4:00 | 0.4 | 112.5 | 23/11/2023 | 4:00 | 0.4 | 112.5 | 24/11/2023 | 4:00 | 0.9 | 270 |
| 21/11/2023 | 5:00 | 0.9 | 337.5 | 22/11/2023 | 5:00 | 1.3 | 45 | 23/11/2023 | 5:00 | 1.3 | 45 | 24/11/2023 | 5:00 | 0.4 | 112.5 |
| 21/11/2023 | 6:00 | 0.4 | 337.5 | 22/11/2023 | 6:00 | 0.9 | 90 | 23/11/2023 | 6:00 | 0.9 | 90 | 24/11/2023 | 6:00 | 0.4 | 45 |
| 21/11/2023 | 7:00 | 0 | 0 | 22/11/2023 | 7:00 | 0.9 | 90 | 23/11/2023 | 7:00 | 0.4 | 90 | 24/11/2023 | 7:00 | 0.9 | 90 |
| 21/11/2023 | 8:00 | 0 | 0 | 22/11/2023 | 8:00 | 0.4 | 67.5 | 23/11/2023 | 8:00 | 0.4 | 67.5 | 24/11/2023 | 8:00 | 0.9 | 90 |
| 21/11/2023 | 9:00 | 0.4 | 337.5 | 22/11/2023 | 9:00 | 0.4 | 90 | 23/11/2023 | 9:00 | 0.4 | 90 | 24/11/2023 | 9:00 | 0.4 | 67.5 |
| 21/11/2023 | 10:00 | 0.4 | 247.5 | 22/11/2023 | 10:00 | 0.9 | 45 | 23/11/2023 | 10:00 | 0.9 | 45 | 24/11/2023 | 10:00 | 0.4 | 90 |
| 21/11/2023 | 11:00 | 0.4 | 337.5 | 22/11/2023 | 11:00 | 0.4 | 270 | 23/11/2023 | 11:00 | 0.4 | 270 | 24/11/2023 | 11:00 | 0.9 | 45 |
| 21/11/2023 | 12:00 | 0.4 | 202.5 | 22/11/2023 | 12:00 | 0.4 | 90 | 23/11/2023 | 12:00 | 0.4 | 90 | 24/11/2023 | 12:00 | 0.4 | 270 |
| 21/11/2023 | 13:00 | 0.4 | 45 | 22/11/2023 | 13:00 | 0.9 | 337.5 | 23/11/2023 | 13:00 | 0.9 | 337.5 | 24/11/2023 | 13:00 | 0.4 | 90 |
| 21/11/2023 | 14:00 | 0.9 | 315 | 22/11/2023 | 14:00 | 0.4 | 90 | 23/11/2023 | 14:00 | 0.4 | 90 | 24/11/2023 | 14:00 | 0.9 | 337.5 |
| 21/11/2023 | 15:00 | 0.4 | 0 | 22/11/2023 | 15:00 | 0.4 | 112.5 | 23/11/2023 | 15:00 | 0.4 | 112.5 | 24/11/2023 | 15:00 | 0.4 | 90 |
| 21/11/2023 | 16:00 | 0.9 | 315 | 22/11/2023 | 16:00 | 1.3 | 67.5 | 23/11/2023 | 16:00 | 0.9 | 67.5 | 24/11/2023 | 16:00 | 0.4 | 112.5 |
| 21/11/2023 | 17:00 | 0.9 | 292.5 | 22/11/2023 | 17:00 | 1.3 | 112.5 | 23/11/2023 | 17:00 | 1.3 | 112.5 | 24/11/2023 | 17:00 | 1.3 | 67.5 |
| 21/11/2023 | 18:00 | 0.9 | 90 | 22/11/2023 | 18:00 | 0.9 | 90 | 23/11/2023 | 18:00 | 0.9 | 90 | 24/11/2023 | 18:00 | 0.4 | 112.5 |
| 21/11/2023 | 19:00 | 1.3 | 135 | 22/11/2023 | 19:00 | 1.3 | 45 | 23/11/2023 | 19:00 | 0.4 | 45 | 24/11/2023 | 19:00 | 0.9 | 90 |
| 21/11/2023 | 20:00 | 0.9 | 112.5 | 22/11/2023 | 20:00 | 1.3 | 112.5 | 23/11/2023 | 20:00 | 1.3 | 112.5 | 24/11/2023 | 20:00 | 0.4 | 45 |
| 21/11/2023 | 21:00 | 0.9 | 112.5 | 22/11/2023 | 21:00 | 0.9 | 135 | 23/11/2023 | 21:00 | 0.9 | 135 | 24/11/2023 | 21:00 | 0.9 | 112.5 |
| 21/11/2023 | 22:00 | 1.3 | 112.5 | 22/11/2023 | 22:00 | 0.9 | 90 | 23/11/2023 | 22:00 | 0.4 | 90 | 24/11/2023 | 22:00 | 0.9 | 135 |
| 21/11/2023 | 23:00 | 1.8 | 135 | 22/11/2023 | 23:00 | 0.4 | 135 | 23/11/2023 | 23:00 | 0.4 | 135 | 24/11/2023 | 23:00 | 0.9 | 90 |

Mean Wind Speed and Wind Direction recorded by the weather station setup at the rooftop of Hong Kong Children's Hospital

| Date | Time | Wind Speed (m/s) | Wind Direction | Date | Time | Wind Speed (m/s) | Wind Direction | Date | Time | Wind Speed (m/s) | Wind Direction | Date | Time | Wind Speed (m/s) | Wind Direction |
|------------|-------|------------------|----------------|------------|-------|------------------|----------------|------------|-------|------------------|----------------|------------|-------|------------------|----------------|
| 25/11/2023 | 0:00 | 0.9 | 67.5 | 26/11/2023 | 0:00 | 0.9 | 67.5 | 27/11/2023 | 0:00 | 0.9 | 67.5 | 28/11/2023 | 0:00 | 0.4 | 67.5 |
| 25/11/2023 | 1:00 | 1.3 | 67.5 | 26/11/2023 | 1:00 | 1.3 | 67.5 | 27/11/2023 | 1:00 | 1.3 | 67.5 | 28/11/2023 | 1:00 | 0.9 | 90 |
| 25/11/2023 | 2:00 | 0.9 | 90 | 26/11/2023 | 2:00 | 0.9 | 90 | 27/11/2023 | 2:00 | 0.9 | 90 | 28/11/2023 | 2:00 | 0.4 | 90 |
| 25/11/2023 | 3:00 | 0.4 | 90 | 26/11/2023 | 3:00 | 0.9 | 90 | 27/11/2023 | 3:00 | 0.9 | 90 | 28/11/2023 | 3:00 | 0.9 | 67.5 |
| 25/11/2023 | 4:00 | 0.4 | 67.5 | 26/11/2023 | 4:00 | 0.9 | 67.5 | 27/11/2023 | 4:00 | 0.9 | 67.5 | 28/11/2023 | 4:00 | 0.9 | 270 |
| 25/11/2023 | 5:00 | 0.4 | 112.5 | 26/11/2023 | 5:00 | 0.9 | 315 | 27/11/2023 | 5:00 | 0.4 | 112.5 | 28/11/2023 | 5:00 | 0.4 | 112.5 |
| 25/11/2023 | 6:00 | 0.9 | 90 | 26/11/2023 | 6:00 | 0.4 | 315 | 27/11/2023 | 6:00 | 0.4 | 90 | 28/11/2023 | 6:00 | 1.3 | 45 |
| 25/11/2023 | 7:00 | 0.4 | 112.5 | 26/11/2023 | 7:00 | 0.9 | 90 | 27/11/2023 | 7:00 | 0.9 | 112.5 | 28/11/2023 | 7:00 | 0.9 | 90 |
| 25/11/2023 | 8:00 | 0.4 | 90 | 26/11/2023 | 8:00 | 0.9 | 270 | 27/11/2023 | 8:00 | 0.9 | 90 | 28/11/2023 | 8:00 | 0.9 | 90 |
| 25/11/2023 | 9:00 | 0.4 | 112.5 | 26/11/2023 | 9:00 | 0.4 | 112.5 | 27/11/2023 | 9:00 | 0.9 | 315 | 28/11/2023 | 9:00 | 0.4 | 67.5 |
| 25/11/2023 | 10:00 | 1.3 | 67.5 | 26/11/2023 | 10:00 | 1.3 | 45 | 27/11/2023 | 10:00 | 0.4 | 315 | 28/11/2023 | 10:00 | 0.4 | 90 |
| 25/11/2023 | 11:00 | 1.3 | 112.5 | 26/11/2023 | 11:00 | 0.9 | 90 | 27/11/2023 | 11:00 | 0.9 | 90 | 28/11/2023 | 11:00 | 0.9 | 45 |
| 25/11/2023 | 12:00 | 0.9 | 67.5 | 26/11/2023 | 12:00 | 0.9 | 90 | 27/11/2023 | 12:00 | 0.9 | 270 | 28/11/2023 | 12:00 | 0.4 | 270 |
| 25/11/2023 | 13:00 | 0.4 | 67.5 | 26/11/2023 | 13:00 | 0.4 | 67.5 | 27/11/2023 | 13:00 | 0.4 | 112.5 | 28/11/2023 | 13:00 | 0.4 | 90 |
| 25/11/2023 | 14:00 | 0.4 | 90 | 26/11/2023 | 14:00 | 0.4 | 90 | 27/11/2023 | 14:00 | 1.3 | 45 | 28/11/2023 | 14:00 | 0.9 | 337.5 |
| 25/11/2023 | 15:00 | 0.4 | 90 | 26/11/2023 | 15:00 | 0.9 | 45 | 27/11/2023 | 15:00 | 0.9 | 90 | 28/11/2023 | 15:00 | 0.4 | 90 |
| 25/11/2023 | 16:00 | 0.9 | 67.5 | 26/11/2023 | 16:00 | 0.4 | 270 | 27/11/2023 | 16:00 | 0.9 | 90 | 28/11/2023 | 16:00 | 0.4 | 112.5 |
| 25/11/2023 | 17:00 | 0.4 | 112.5 | 26/11/2023 | 17:00 | 0.4 | 90 | 27/11/2023 | 17:00 | 0.4 | 67.5 | 28/11/2023 | 17:00 | 1.3 | 67.5 |
| 25/11/2023 | 18:00 | 0.4 | 90 | 26/11/2023 | 18:00 | 0.9 | 337.5 | 27/11/2023 | 18:00 | 0.4 | 90 | 28/11/2023 | 18:00 | 1.3 | 112.5 |
| 25/11/2023 | 19:00 | 0.9 | 112.5 | 26/11/2023 | 19:00 | 0.4 | 90 | 27/11/2023 | 19:00 | 0.9 | 45 | 28/11/2023 | 19:00 | 0.9 | 90 |
| 25/11/2023 | 20:00 | 0.9 | 90 | 26/11/2023 | 20:00 | 0.4 | 112.5 | 27/11/2023 | 20:00 | 0.4 | 270 | 28/11/2023 | 20:00 | 1.3 | 45 |
| 25/11/2023 | 21:00 | 0.9 | 112.5 | 26/11/2023 | 21:00 | 1.3 | 67.5 | 27/11/2023 | 21:00 | 0.4 | 90 | 28/11/2023 | 21:00 | 1.3 | 112.5 |
| 25/11/2023 | 22:00 | 0.9 | 67.5 | 26/11/2023 | 22:00 | 1.3 | 112.5 | 27/11/2023 | 22:00 | 0.9 | 337.5 | 28/11/2023 | 22:00 | 0.9 | 135 |
| 25/11/2023 | 23:00 | 0.4 | 112.5 | 26/11/2023 | 23:00 | 0.9 | 90 | 27/11/2023 | 23:00 | 0.4 | 90 | 28/11/2023 | 23:00 | 0.9 | 90 |

Mean Wind Speed and Wind Direction recorded by the weather station setup at the rooftop of Hong Kong Children's Hospital

| Date | Time | Wind Speed (m/s) | Wind Direction | Date | Time | Wind Speed (m/s) | Wind Direction | Date | Time | Wind Speed (m/s) | Wind Direction | Date | Time | Wind Speed (m/s) | Wind Direction |
|------------|-------|------------------|----------------|------------|-------|------------------|----------------|------|------|------------------|----------------|------|------|------------------|----------------|
| 29/11/2023 | 0:00 | 0.9 | 315 | 30/11/2023 | 0:00 | 0.9 | 315 | | | | | | | | |
| 29/11/2023 | 1:00 | 0.4 | 315 | 30/11/2023 | 1:00 | 0.4 | 315 | | | | | | | | |
| 29/11/2023 | 2:00 | 0.9 | 90 | 30/11/2023 | 2:00 | 0.9 | 90 | | | | | | | | |
| 29/11/2023 | 3:00 | 0.9 | 270 | 30/11/2023 | 3:00 | 0.9 | 270 | | | | | | | | |
| 29/11/2023 | 4:00 | 0.4 | 112.5 | 30/11/2023 | 4:00 | 0.4 | 112.5 | | | | | | | | |
| 29/11/2023 | 5:00 | 0 | 45 | 30/11/2023 | 5:00 | 1.3 | 45 | | | | | | | | |
| 29/11/2023 | 6:00 | 0.4 | 90 | 30/11/2023 | 6:00 | 0.9 | 90 | | | | | | | | |
| 29/11/2023 | 7:00 | 0.4 | 90 | 30/11/2023 | 7:00 | 0.9 | 90 | | | | | | | | |
| 29/11/2023 | 8:00 | 0 | 67.5 | 30/11/2023 | 8:00 | 0.4 | 67.5 | | | | | | | | |
| 29/11/2023 | 9:00 | 0 | 90 | 30/11/2023 | 9:00 | 0.4 | 90 | | | | | | | | |
| 29/11/2023 | 10:00 | 0.4 | 45 | 30/11/2023 | 10:00 | 0.9 | 45 | | | | | | | | |
| 29/11/2023 | 11:00 | 0.4 | 270 | 30/11/2023 | 11:00 | 0.4 | 270 | | | | | | | | |
| 29/11/2023 | 12:00 | 0.4 | 90 | 30/11/2023 | 12:00 | 0.4 | 90 | | | | | | | | |
| 29/11/2023 | 13:00 | 0.9 | 337.5 | 30/11/2023 | 13:00 | 0.9 | 337.5 | | | | | | | | |
| 29/11/2023 | 14:00 | 0.4 | 90 | 30/11/2023 | 14:00 | 0.4 | 90 | | | | | | | | |
| 29/11/2023 | 15:00 | 0.4 | 112.5 | 30/11/2023 | 15:00 | 0.4 | 112.5 | | | | | | | | |
| 29/11/2023 | 16:00 | 0.9 | 67.5 | 30/11/2023 | 16:00 | 0.9 | 315 | | | | | | | | |
| 29/11/2023 | 17:00 | 0.4 | 112.5 | 30/11/2023 | 17:00 | 0.4 | 315 | | | | | | | | |
| 29/11/2023 | 18:00 | 0.9 | 90 | 30/11/2023 | 18:00 | 0.9 | 90 | | | | | | | | |
| 29/11/2023 | 19:00 | 1.3 | 45 | 30/11/2023 | 19:00 | 0.9 | 270 | | | | | | | | |
| 29/11/2023 | 20:00 | 1.3 | 112.5 | 30/11/2023 | 20:00 | 0.4 | 112.5 | | | | | | | | |
| 29/11/2023 | 21:00 | 0.9 | 135 | 30/11/2023 | 21:00 | 0.9 | 112.5 | | | | | | | | |
| 29/11/2023 | 22:00 | 0.9 | 90 | 30/11/2023 | 22:00 | 0.4 | 90 | | | | | | | | |
| 29/11/2023 | 23:00 | 0.4 | 135 | 30/11/2023 | 23:00 | 0.4 | 90 | | | | | | | | |

Appendix H – 24-hr TSP monitoring results and graphical presentation

Location: AM3 – Sky Tower

| Start Date | Weather | Air Temp. (°C) | Atmospheric Pressure (hPa) | Filter weight (g) | | Particulate weight (g) | Elapse Time | | Sampling Time (min) | Flow Rate (cfm) | | Av. Flow (m ³ /min) | Total vol. (m ³) | Conc. (µg/m ³) |
|------------|---------|----------------|----------------------------|-------------------|---------|------------------------|---------------------|---------------------|---------------------|-----------------|-------|--------------------------------|------------------------------|----------------------------|
| | | | | Initial | Final | | Initial | Final | | Initial | Final | | | |
| 02/11/2023 | Sunny | 27.4 | 1015.5 | 14.9807 | 15.0621 | 0.0814 | 2023/11/2 13:26 | 2023/11/3 13:26 | 1440.0 | 46 | 46 | 1.26 | 1814 | 45 |
| 08/11/2023 | Sunny | 25.7 | 1015.8 | 18.4461 | 18.5748 | 0.1287 | 2023/11/8 9:29 | 2023/11/9 9:29 | 1440.0 | 46 | 46 | 1.26 | 1819 | 71 |
| 14/11/2023 | Cloudy | 18.8 | 1022.6 | 15.1155 | 15.2073 | 0.0918 | 2023/11/14 9:25 | 2023/11/15 9:25 | 1440.0 | 48 | 48 | 1.34 | 1930 | 48 |
| 20/11/2023 | Sunny | 25.4 | 1019.4 | 18.1588 | 18.2563 | 0.0975 | 2023/11/20 13:38 | 2023/11/21 13:38 | 1440.0 | 48 | 48 | 1.32 | 1905 | 51 |
| 25/11/2023 | Sunny | 24.8 | 1021 | 18.1061 | 18.2086 | 0.1025 | 2023/11/25 9:35 | 2023/11/26 9:35 | 1440.0 | 46 | 46 | 1.27 | 1827 | 56 |
| | | | | | | | | | | | | Maximum | 71 | |
| | | | | | | | | | | | | Minimum | 45 | |
| | | | | | | | | | | | | Average | 54 | |
| | | | | | | | | | | | | Action Level | 182 | |
| | | | | | | | | | | | | Limit Level | 260 | |

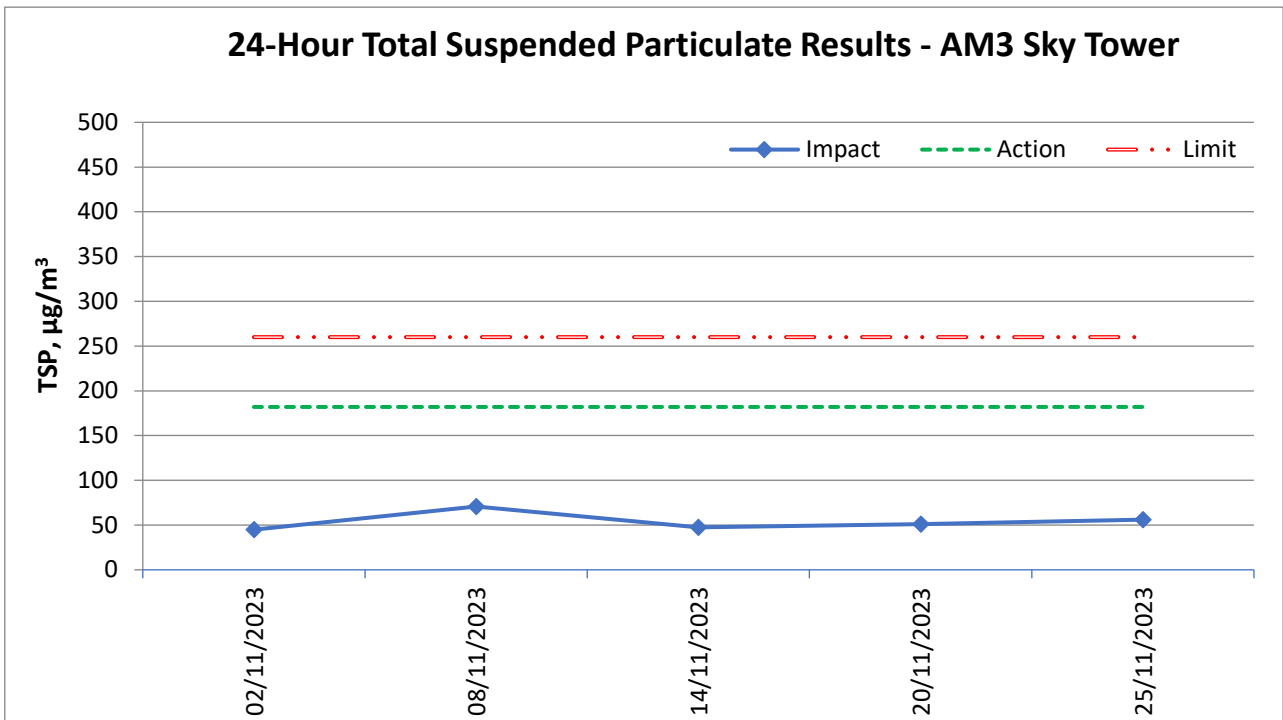
Location: AM4(A) - The Hong Kong Society for the Blind's Factory cum Sheltered Workshop

Due to the relocation of The Hong Kong Society for the Blind's Factory cum Sheltered Workshop (AM4(A)), the premises owner rejected ET to conduct impact monitoring since 1 Sept 2022. No 24-TSP monitoring was conducted at AM4(A) ET will resume the impact monitoring once the alternative monitoring location for AM4(A) is confirmed.

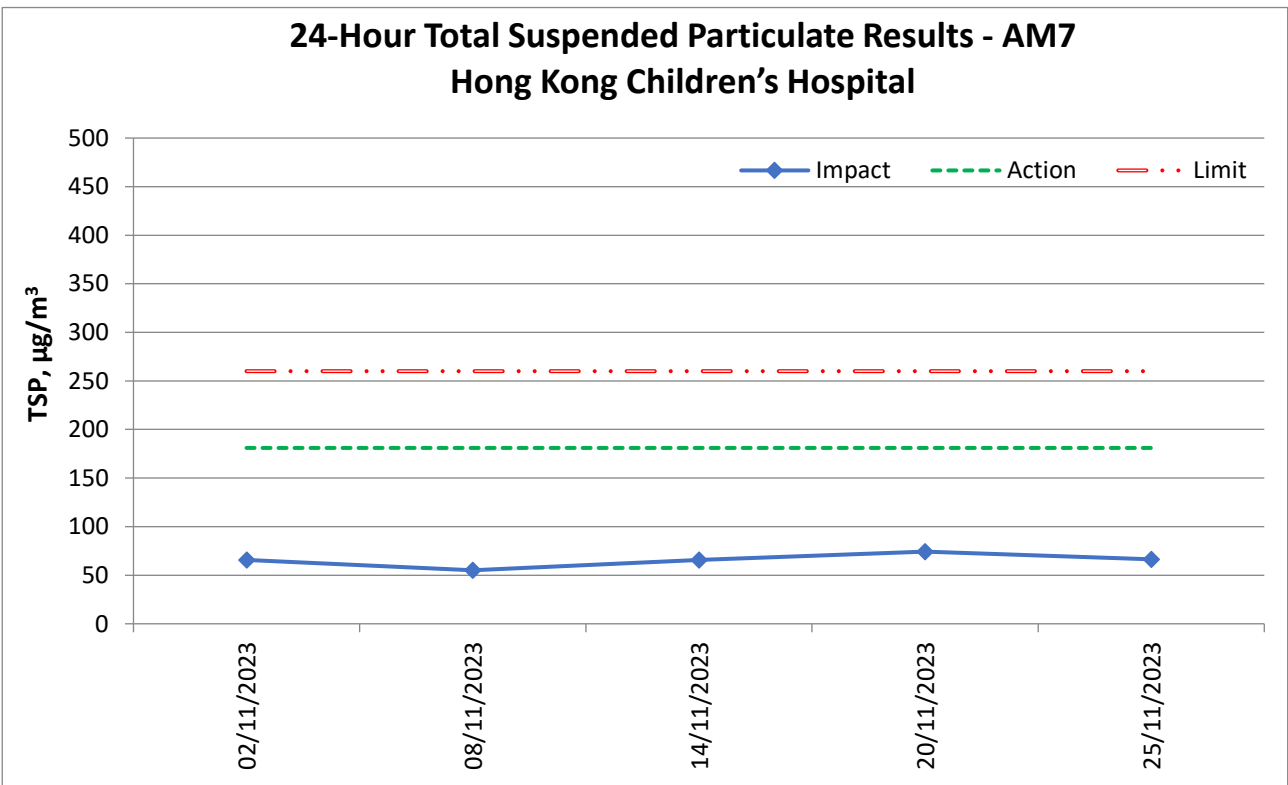
Location: AM7 – Hong Kong Children’s Hospital

| Start Date | Weather | Air Temp. (°C) | Atmospheric Pressure (hPa) | Filter weight (g) | | Particulate weight (g) | Elapse Time | | Sampling Time (min) | Flow Rate (cfm) | | Av. Flow (m ³ /min) | Total vol. (m ³) | Conc. (µg/m ³) |
|------------|---------|----------------|----------------------------|-------------------|---------|------------------------|------------------|------------------|---------------------|-----------------|-------|--------------------------------|------------------------------|----------------------------|
| | | | | Initial | Final | | Initial | Final | | Initial | Final | | | |
| 02/11/2023 | Sunny | 27.4 | 1015.5 | 15.1691 | 15.2961 | 0.127 | 2023/11/2 9:29 | 2023/11/3 9:29 | 1440.0 | 48 | 48 | 1.34 | 1932 | 66 |
| 08/11/2023 | Sunny | 25.7 | 1015.8 | 18.1178 | 18.2245 | 0.1067 | 2023/11/8 13:26 | 2023/11/9 13:26 | 1440.0 | 48 | 48 | 1.35 | 1938 | 55 |
| 14/11/2023 | Cloudy | 18.8 | 1022.6 | 18.0936 | 18.2231 | 0.1295 | 2023/11/14 14:45 | 2023/11/15 14:45 | 1440.0 | 48 | 48 | 1.37 | 1967 | 66 |
| 20/11/2023 | Sunny | 25.4 | 1019.4 | 18.2442 | 18.3945 | 0.1503 | 2023/11/20 9:27 | 2023/11/21 9:27 | 1440.0 | 50 | 50 | 1.41 | 2024 | 74 |
| 25/11/2023 | Sunny | 24.8 | 1021 | 14.9922 | 15.1264 | 0.1342 | 2023/11/25 9:22 | 2023/11/26 9:22 | 1440.0 | 50 | 50 | 1.41 | 2027 | 66 |
| | | | | | | | | | | | | | Maximum | 74 |
| | | | | | | | | | | | | | Minimum | 55 |
| | | | | | | | | | | | | | Average | 65 |
| | | | | | | | | | | | | | Action Level | 181 |
| | | | | | | | | | | | | | Limit Level | 260 |

24-hour average TSP



Note: Due to the relocation of The Hong Kong Society for the Blind's Factory cum Sheltered Workshop (AM4(A)), the premises owner rejected ET to conduct impact monitoring since 1 Sept 2022. No 24-TSP monitoring was conducted at AM4(A). ET will resume the impact monitoring once the alternative monitoring location for AM4(A) is confirmed.



Appendix I – 1-hr TSP monitoring results and graphical presentation

Location:
**AM3 -
 Sky Tower**

| Date | Measurement Period | | | 1-hr TSP concentration, $\mu\text{g}/\text{m}^3$ | Weather |
|--------------|--------------------|---|-------|--|---------|
| 02/11/2023 | 13:00 | - | 14:00 | 39 | Sunny |
| | 14:00 | - | 15:00 | 42 | |
| | 15:00 | - | 16:00 | 44 | |
| 08/11/2023 | 9:00 | - | 10:00 | 67 | Sunny |
| | 10:00 | - | 11:00 | 70 | |
| | 11:00 | - | 12:00 | 73 | |
| 14/11/2023 | 9:00 | - | 10:00 | 44 | Cloudy |
| | 10:00 | - | 11:00 | 49 | |
| | 11:00 | - | 12:00 | 48 | |
| 20/11/2023 | 13:00 | - | 14:00 | 53 | Sunny |
| | 14:00 | - | 15:00 | 53 | |
| | 15:00 | - | 16:00 | 55 | |
| 25/11/2023 | 9:00 | - | 10:00 | 60 | Sunny |
| | 10:00 | - | 11:00 | 59 | |
| | 11:00 | - | 12:00 | 55 | |
| Maximum | | | | 73 | |
| Minimum | | | | 39 | |
| Average | | | | 54 | |
| Action Level | | | | 297 | |
| Limit Level | | | | 500 | |

Location:
**AM4(A) -
The Hong Kong
Society for the
Blind's Factory
cum Sheltered
Workshop**

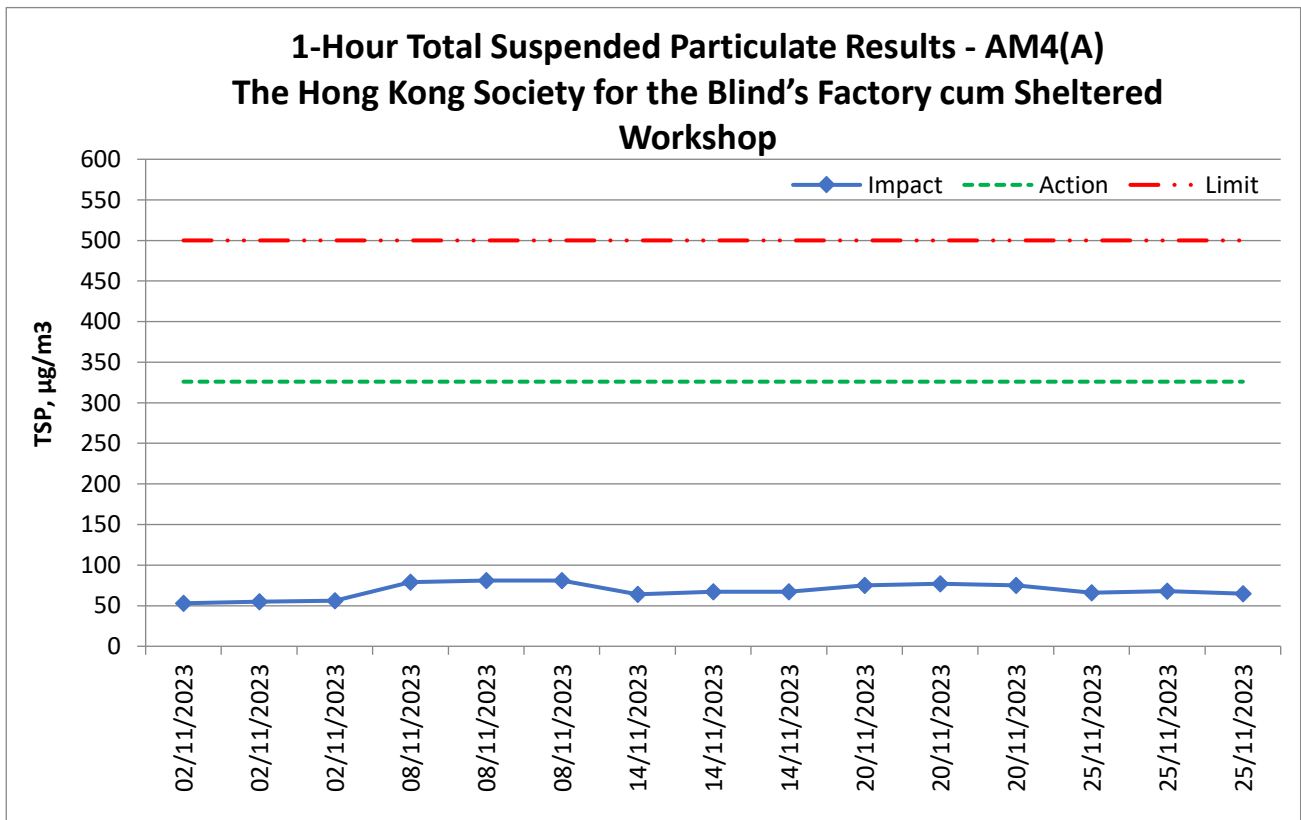
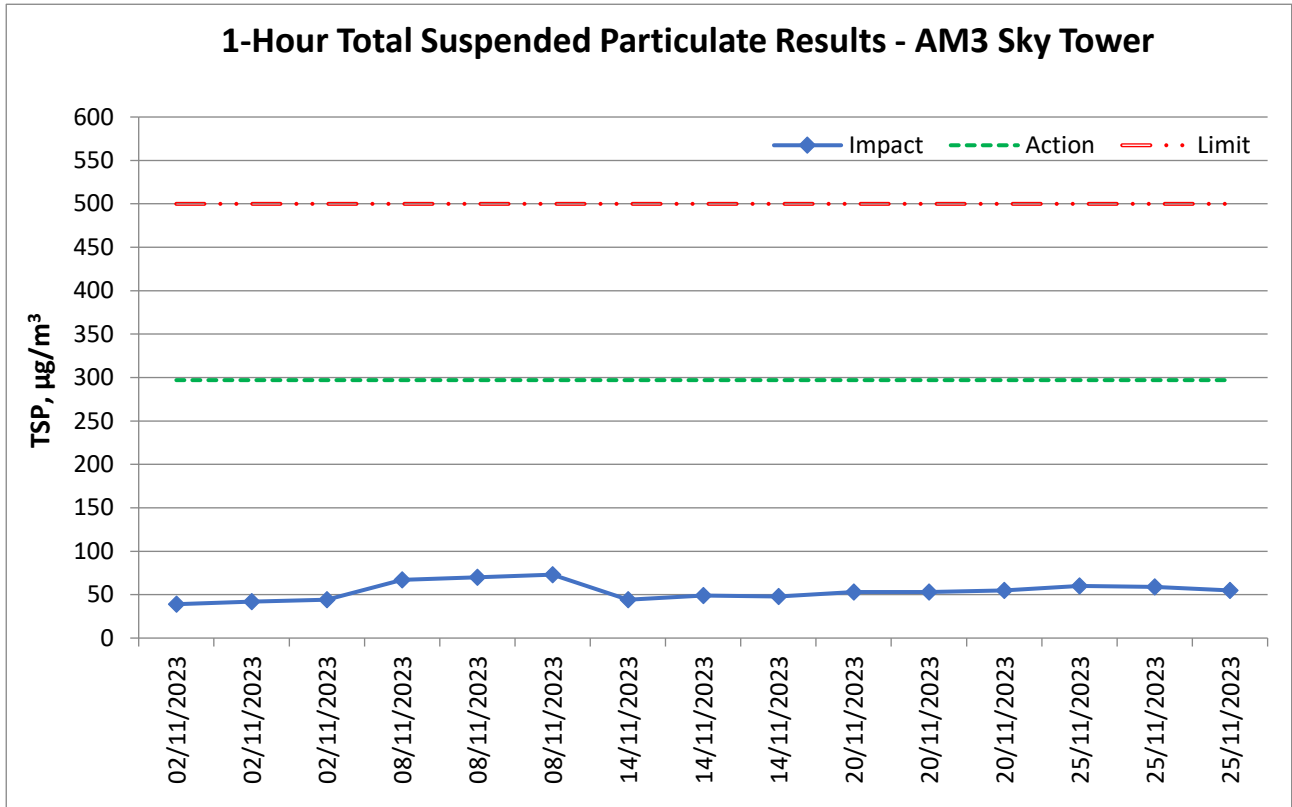
| Date | Measurement Period | | | 1-hr TSP concentration, $\mu\text{g}/\text{m}^3$ | Weather |
|--------------|--------------------|---|-------|--|---------|
| 02/11/2023 | 13:00 | - | 14:00 | 53 | Sunny |
| | 14:00 | - | 15:00 | 55 | |
| | 15:00 | - | 16:00 | 56 | |
| 08/11/2023 | 9:00 | - | 10:00 | 79 | Sunny |
| | 10:00 | - | 11:00 | 81 | |
| | 11:00 | - | 12:00 | 81 | |
| 14/11/2023 | 9:30 | - | 10:30 | 64 | Cloudy |
| | 10:30 | - | 11:30 | 67 | |
| | 13:00 | - | 14:00 | 67 | |
| 20/11/2023 | 13:00 | - | 14:00 | 75 | Sunny |
| | 14:00 | - | 15:00 | 77 | |
| | 15:00 | - | 16:00 | 75 | |
| 25/11/2023 | 13:00 | - | 14:00 | 66 | Sunny |
| | 14:00 | - | 15:00 | 68 | |
| | 15:00 | - | 16:00 | 65 | |
| Maximum | | | | 81 | |
| Minimum | | | | 53 | |
| Average | | | | 69 | |
| Action Level | | | | 326 | |
| Limit Level | | | | 500 | |

NOTE: Due to the relocation of The Hong Kong Society for the Blind's Factory cum Sheltered Workshop (AM4(A)), the premises owner rejected ET to conduct impact monitoring since 1 Sept 2022. 1-hr TSP monitoring at AM4(A) were conducted on the ground floor with orienting to the Project site. ET will resume the impact monitoring once the alternative monitoring location for AM4(A) is confirmed.

Location:
**AM7 -
 Hong Kong
 Children's
 Hospital**

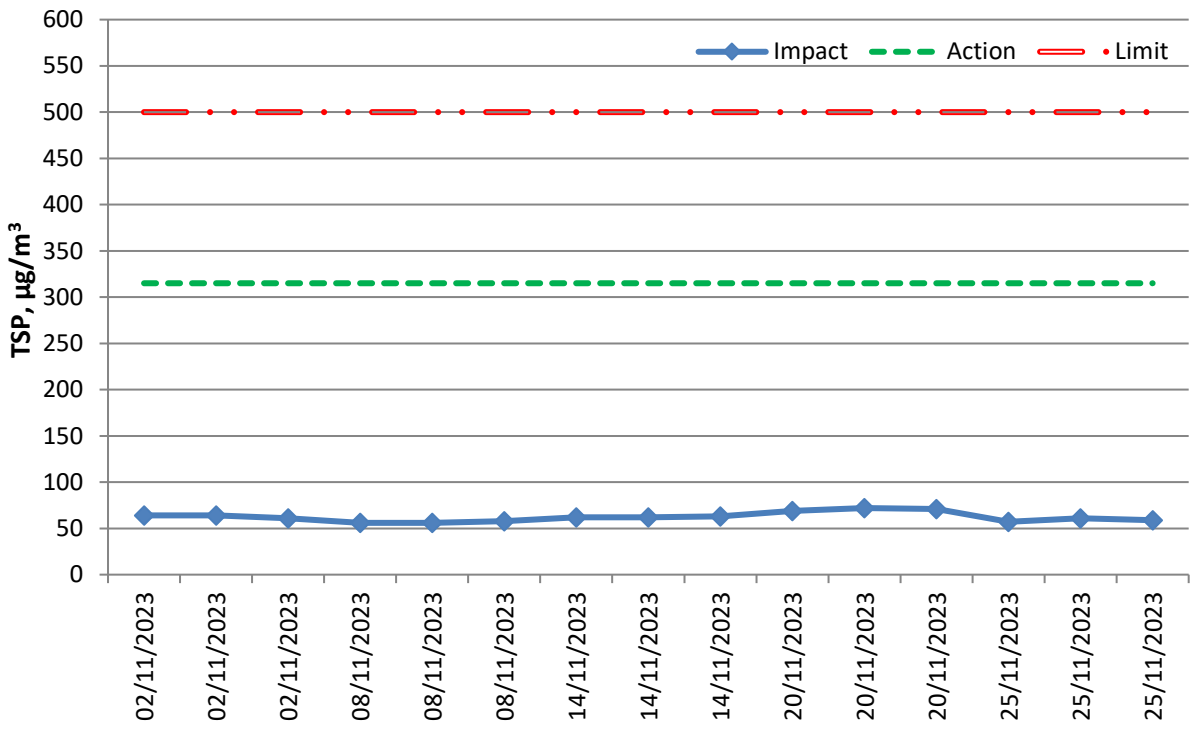
| Date | Measurement Period | | | 1-hr TSP concentration, $\mu\text{g}/\text{m}^3$ | Weather |
|--------------|--------------------|---|-------|--|---------|
| 02/11/2023 | 9:00 | - | 10:00 | 64 | Sunny |
| | 10:00 | - | 11:00 | 64 | |
| | 11:00 | - | 12:00 | 61 | |
| 08/11/2023 | 13:00 | - | 14:00 | 56 | Sunny |
| | 14:00 | - | 15:00 | 56 | |
| | 15:00 | - | 16:00 | 58 | |
| 14/11/2023 | 14:30 | - | 15:30 | 62 | Cloudy |
| | 15:30 | - | 16:30 | 62 | |
| | 16:30 | - | 17:30 | 63 | |
| 20/11/2023 | 9:00 | - | 10:00 | 69 | Sunny |
| | 10:00 | - | 11:00 | 72 | |
| | 11:00 | - | 12:00 | 71 | |
| 25/11/2023 | 9:00 | - | 10:00 | 57 | Sunny |
| | 10:00 | - | 11:00 | 61 | |
| | 11:00 | - | 12:00 | 59 | |
| Maximum | | | | 72 | |
| Minimum | | | | 56 | |
| Average | | | | 62 | |
| Action Level | | | | 315 | |
| Limit Level | | | | 500 | |

1-hour average TSP



NOTE: Due to the relocation of The Hong Kong Society for the Blind's Factory cum Sheltered Workshop (AM4(A)), the premises owner rejected ET to conduct impact monitoring since 1 Sept 2022. 1-hr TSP monitoring at AM4(A) were conducted on the ground floor with orienting to the Project site. ET will resume the impact monitoring once the alternative monitoring location for AM4(A) is confirmed.

1-Hour Total Suspended Particulate Results - AM7 Hong Kong Children's Hospital



Appendix J – Event and Action Plan for air quality

| Event | Action | | | |
|---|--|--|--|---|
| | ET | IEC | Supervisor / ER | Contractor |
| Action Level being exceeded by one sampling | <ol style="list-style-type: none"> 1. Identify source and investigate the causes of exceedance; 2. Inform Contractor, IEC and Supervisor /ER; 3. Repeat measurement to confirm finding. | <ol style="list-style-type: none"> 1. Check monitoring data submitted by ET; 2. Check Contractor's working method. | <ol style="list-style-type: none"> 1. Notify Contractor. | <ol style="list-style-type: none"> 1. Rectify any unacceptable practice; 2. Amend working methods if appropriate. |
| Action Level being exceeded by two or more consecutive sampling | <ol style="list-style-type: none"> 1. Identify source and investigate the causes of exceedance; 2. Inform Contractor, IEC and Supervisor /ER; 3. Increase monitoring frequency to daily; 4. Discuss with IEC and Contractor on remedial actions required; 5. Assess the effectiveness of Contractor's remedial actions; 6. If exceedance continues, arrange meeting with IEC and Supervisor /ER; 7. If exceedance stops, cease additional monitoring. | <ol style="list-style-type: none"> 1. Check monitoring data submitted by ET; 2. Check Contractor's working method; 3. Discuss with ET and Contractor on possible remedial measures; 4. Advise the Supervisor /ER on the effectiveness of the proposed remedial measures. | <ol style="list-style-type: none"> 1. Confirm receipt of notification of exceedance in writing; 2. Notify Contractor; 3. In consolidation with the IEC, agree with the Contractor on the remedial measures to be implemented; 4. Supervise implementation of remedial measures; 5. Conduct meeting with ET and IEC if exceedance continues. | <ol style="list-style-type: none"> 1. Discuss with ET and IEC on proper remedial actions; 2. Submit proposals for remedial actions to Supervisor /ER and IEC within three working day of notification; 3. Implement the agreed proposals; 4. Amend proposal if appropriate. |
| Limit Level being exceeded by one sampling | <ol style="list-style-type: none"> 1. Identify source and investigate the causes of exceedance; 2. Inform Contractor, IEC, Supervisor /ER, and EPD; 3. Repeat measurement to confirm finding; 4. Assess effectiveness of | <ol style="list-style-type: none"> 1. Check monitoring data submitted by ET; 2. Check Contractor's working method; 3. Discuss possible remedial measures with ET and Contractor; 4. Advise the Supervisor /ER | <ol style="list-style-type: none"> 1. Confirm receipt of notification of exceedance in writing; 2. Notify Contractor; 3. In consolidation with the IEC, agree with the Contractor on the remedial measures to be | <ol style="list-style-type: none"> 1. Take immediate action to avoid further exceedance; 2. Discuss with ET and IEC on proper remedial actions; 3. Submit proposal for remedial actions to Supervisor /ER and IEC |

| Event | Action | | | |
|--|--|--|---|--|
| | ET | IEC | Supervisor / ER | Contractor |
| | Contractor's remedial actions and keep EPD, IEC and Supervisor /ER informed of the results. | on the effectiveness of the proposed remedial measures. | 4. Supervise implementation of remedial measures; 5. Conduct meeting with ET and IEC if exceedance continues. | within three working days of notification; 4. Implement the agreed proposals. |
| Limit Level being exceeded by two or more consecutive sampling | <ol style="list-style-type: none"> 1. Notify IEC, Supervisor /ER, Contractor and EPD; 2. Repeat measurement to confirm findings; 3. Carry out analysis of Contractor's working procedures to identify source and investigate the causes of exceedance; 4. Increase monitoring frequency to daily; 5. Arrange meeting with IEC, Supervisor /ER and Contractor to discuss the remedial action to be taken; 6. Assess effectiveness of Contractor's remedial actions and keep EPD, IEC and Supervisor /ER informed of the results; 7. If exceedance stop, cease additional monitoring. | <ol style="list-style-type: none"> 1. Check monitoring data submitted by ET; 2. Check Contractor's working method; 3. Discuss with Supervisor /ER, ET, and Contractor on the potential remedial actions; 4. Review Contractor's remedial actions whenever necessary to assure their effectiveness and advise the Supervisor /ER accordingly. | <ol style="list-style-type: none"> 1. Confirm receipt of notification of exceedance in writing; 2. Notify Contractor; 3. In consolidation with the IEC, agree with the Contractor on the remedial measures to be implemented; 4. Supervise implementation of remedial measures; 5. If exceedance continues, consider stopping the Contractor to continue working on that portion of work which causes the exceedance until the exceedance is abated. | <ol style="list-style-type: none"> 1. Take immediate action to avoid further exceedance; 2. Discuss with ET and IEC on proper remedial actions; 3. Submit proposal for remedial actions to Supervisor /ER and IEC within three working days of notification; 4. Implement the agreed proposals; 5. Submit further remedial actions if problem still not under control; 6. Stop the relevant portion of works as instructed by the Supervisor /ER until the exceedance is abated. |

Appendix K – Calibration certificates, catalogue of noise monitoring equipment

Catalogue of Sound Level Meter

Specifications

| | NL-52 | NL-42 |
|-----------------------|---|--|
| Applicable standards | IEC 61672-1: 2002 Class 1 ANSI S1.4-1983 Type 1 ANSI S1.4A-1985 Type 1 ANSI S1.43-1997 Type 1 JIS C 1509-1: 2005 Class 1 | IEC 61672-1: 2002 Class 2 ANSI S1.4-1983 Type 2 ANSI S1.4A-1985 Type 2 ANSI S1.43-1997 Type 2 JIS C 1509-1: 2005 Class 2 |
| Measurement functions | Simultaneous measurement of the following items, with selected time weighting and frequency weighting WEEE Directives, Chinese RoHS (export model for China only) | |
| Processing (main ch) | Instantaneous sound pressure level: L_p Equivalent continuous sound pressure level: L_{eq} Sound exposure level: L_E Maximum sound pressure level: L_{max} Minimum sound pressure level: L_{min} Percentage sound levels: L_N (0.1 to 99.9 %, 0.1-increment steps, max. 5 values) | |
| Processing (sub ch) | Instantaneous sound pressure level: L_p | |
| Additional processing | In addition to main processing items, one of the following can be selected for simultaneous processing: C-weighted equivalent continuous sound level: L_{Ceq} C-weighted peak sound level: L_{Cpeak} Z-weighted peak sound level: L_{Zpeak} 1-time-weighted equivalent continuous sound level: L_{A1eq}^{*2} Maximum 1-time-weighted equivalent continuous sound level: L_{A1max}^{*2} The power average of the maximum level of each 5 second interval: L_{A1av} The frequency weighting for the additional processing synchronizes with the frequency weighting of the sub-channel, so when the sub-channel has A-weighting, L_{A1av} and L_{A1max}^{*2} can be selected. When C-weighting (Z-weighting) is selected, the additional processing L_{Ceq} and L_{Cpeak} (L_{Zpeak}) are selectable. | |
| Measuring time | 10 s, 1, 5, 10, 15, 30 m, 1, 8, 24 h, and manual (maximum 24 h) | |
| Microphone | Type UC-59 UC-52 Sensitivity level -27 dB -33 dB | |
| Measurement range | A-weighting: 25 dB to 138 dB C-weighting: 33 dB to 138 dB Z-weighting: 38 dB to 138 dB C-weighting peak sound level: 55 dB to 141 dB Z-weighting peak sound level: 60 dB to 141 dB | |
| Inherent noise | A-weighting 17 dB or less C-weighting 25 dB or less Z-weighting 30 dB or less | 19 dB or less 27 dB or less 32 dB or less |
| Frequency range | 20 Hz to 20 kHz 20 Hz to 8 kHz | |
| Frequency weighting | A, C, and Z | |
| Time weighting | F (Fast) and S (Slow) | |
| Level range | Single range (Linearity range: 113 dB) Bar graph display range max. Max. 110 dB (20 to 130 dB) Switching of bar graph display Set the upper/lower limit in 10 dB increments. | |
| RMS detection circuit | Digital processing method | |
| Sampling cycle | 20.8 μ s (L_p , L_{eq} , L_E , L_{max} , L_{min} , L_{peak} : sampling frequency: 48 kHz) 100 ms (L_N) | |
| Calibration | Measurement Law: electrical calibration performed according to IEC and JIS standards, using internally generated signals; acoustic calibration performed with the NC-74. | |
| Correction functions | Windscreen correction: Compliant with IEC 61672-1 and JIS C 1509-1 standards when the windscreen is installed. Diffuse sound field correction: Correction of frequency characteristics in order to comply with standards (ANSI S1.4) in diffuse sound field. | |
| Delay time | The meter can be set to start measuring a specified time (OFF, 1, 3, 5 or 10 s) after the start button has been pressed or when a user-set trigger is exceeded. | |
| Back erase function | When the PAUSE key is pressed to pause measurement, the preceding (user selectable) 0, 1, 3 or 5 s data are excluded from processing. | |
| Display | Backlit semitransparent color TFT LCD display WQVGA (400 x 240 dots) * LCD with touch panel (Capacitive Touch Panel) Numerical display update frequency: 1 s Bar graph update frequency: 100 ms | |
| Store | Manual Number of data Internal memory: max. 1000 sets SD Card: depends on the capacity of the SD Card*1 | |
| | Auto*2 Instantaneous values (L_p mode) and processed values (L_{eq} mode) are stored continuously and automatically at preset intervals. | |
| | L_p sampling cycle 100 ms, 200 ms, 1 s, L_{eq} 1s | |
| | L_{eq} sampling cycle 10 s, 1, 5, 10, 15, 30 ms, 1, 8, 24 h | |
| | Measurement Time Max. 1000 h (depends on the capacity of the SD Card)*1 | |

* Windows is a trademark of Microsoft Corporation.
* Specifications subject to change without notice.

Distributed by:

This product is environment-friendly. It does not include toxic chemicals on our policy.
This product is certified as an International Protection rating of IP54 (dust protected and resistant to splashing water).
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1011-4 212 P.D

| | |
|---|---|
| Data recall | Allows viewing of stored data |
| Setup memory | Up to five setup configurations can be saved in internal memory, for later recall Start up via file settings previously stored on SD card possible |
| Waveform recording*3 | |
| File format | Uncompressed waveform WAVE file |
| Sampling frequency | Select 48 kHz, 24 kHz or 12 kHz |
| Data length | Select 24 bit or 16 bit |
| Outputs | |
| DC output | Output DC signals using a frequency weighting characteristic selected by processing |
| Output voltage | 2.5 V, 25 mV / dB at bar graph display full scale |
| AC output | Output AC signals using a frequency weighting characteristic selected by processing or by A, C, Z-weighting. |
| Output voltage | 1 V (rms values) at bar graph display full scale |
| Comparator output*2 | Turns on when the open-collector output exceeds the set value (max. applied voltage 24 V, max. current 60 mA, allowable dissipation 300 mW). |
| USB*2 | Allows USB to be connected to a computer and recognized as a removable disk Allows USB to be controlled via communication commands |
| RS-232C communication | Allows for RS-232C communication via use of a dedicated cable |
| Data continuous output*2 | |
| Type of data | Instantaneous value L_p Processed value L_{eq} , L_{max} , L_{min} , L_{peak} |
| Output interval | 100 ms |
| Print out | Printing of measurement results on dedicated printer DPU-414 |
| Power requirements | Four IEC R6 (size AA) batteries (alkaline or rechargeable batteries) or external power supply |
| Battery life (23 °C) | Alkaline battery LR6 (AA): 26 h NI-MH secondary battery: 25 h At the maximum: * Depends on the setting |
| AC adapter | NC-98C (NC-34 for previous models cannot be used) |
| External power voltage | 5 to 7 V (rated voltage: 6 V) |
| Current consumption | Approximately 90 mA (normal operation, rated voltage) |
| Ambient conditions | Temperature: -10 to +50 °C Humidity: 10 to 90 % RH (non-condensing) |
| Dustproof / water-resistant performance*4 | IP code: IP54 (except for microphone) See precautions regarding waterproofing |
| Dimensions, weight | Approx. 250 (H) x 76 (W) x 33 mm(D), approx. 400 g (with batteries) |
| Supplied accessories | Storage case x 1, Windscreen WS-10 x 1, Windscreen fall prevention rubber x 1, Hand strap x 1, LR6 (AA) alkaline batteries x 4, SD card 512 MB x 1 (NX-42EX preinstalled model only) |

Options

| | Product name | Product number |
|--|--------------|------------------|
| Extended function program (Inst.on 512 MB SD card) | | NX-42EX |
| Waveform recording program*2 (Inst.on 2 GB SD card) | | NX-42WR |
| Octave, 1/3 octave real-time analysis program*2 (Inst.on 512 MB SD card) | | NX-42RT |
| FFT analysis program*2 (Inst.on 512 MB SD card) | | NX-42FT |
| Data management software for environmental measurement | | AS-60 |
| Data management software for environmental measurement (Includes the octave and 1/3 octave data management software) | | AS-60RT |
| Data management software for environmental measurement (Includes the vibration level data management software) | | AS-60VM |
| Waveform analysis software | | CAT-WAVE |
| SD Card 512 MB | | SD-512M |
| SD Card 2 GB | | SD-2G |
| AC adapter (100 V to 240 V) | | NC-98C |
| Battery pack | | BP-21 |
| Microphone extension cables | | EC-04 (from 2 m) |
| BNC-Pin output code | | CC-24 |
| Comparator output cable | | CC-42C |
| Printer | | DPU-414 |
| Printer cable | | CC-42P |
| RS 232C serial I/O cable | | CC-42R |
| USB cable | | — |
| Sound calibrator | | NC-74 |
| All-weather windscreen | | WS-15 |
| Windscreen mounting adapter | | WS-15006 |
| Rain-protection windscreen | | WS-16 |
| Sound level meter tripod | | ST-80 |
| All-weather windscreen tripod | | ST-81 |

*1 Use Rion fully guaranteed products. *2 NX-42EX required (sold separately). *3 NX-42WR required (sold separately).
*4 Protection against harmful dust and water splashing from any direction.

Precautions regarding waterproofing

Before use, verify that the rubber bottom cover and the battery compartment lid are firmly closed.
To maintain the water and dust proof rating, internal packing replacement is required every two years (at cost).



RION CO., LTD.
http://www.rion.co.jp/english/

3-20-41, Higashimotomachi, Kokubunji, Tokyo 185-8533, Japan
Tel: +81-42-359-7888 Fax: +81-42-359-7442

Calibration Certificate of Sound Level Meter

9. 建议校准周期是本实验室依据本证书报告的技术依据和仪器设备常规使用条件给出的建议, 供委托方参考。委托方可以根据实际使用情况自行决定样品的校准周期。
 The reference calibration period is based on the reference documents and normal operating conditions of the calibrated instrument. It is only for reference. The client may decide the calibration period of the instrument according to the actual use.



注: 1. 本证书未经本机构书面授权, 不得部分复制。(The certificate shall not be partly reproduced without written approval of the laboratory.)
 2. 本次校准结果仅与被校物有关。(The results are only related to the items calibrated.)
 3. “委托方”、“委托方联络信息”由委托方提供, “制造厂”、“型号规格”、“出厂编号”以及“设备编号”为仪器上标注, 委托方对上面内容如有异议, 须在收到证书后二十个工作日内提出。
 The information Client and Contact Information are provided by client, and the Manufacturer, Model/Type, Serial No. and Equipment No. are marked on the items. Client shall submit any objection within 20 working days after receiving the certificate for the information above.



证书编号(Certificate No.): 2HB23001488-0004

1 外观与工作正常性检查 (Appearance and Function Check)

无影响证书中测量结果准确度的因素和缺陷。

There are no factor and defect that affect the measurement result accuracy of the certificate.

2 指示声级调整 (Indication SPL Calibration)

频率(Frequency)=1000Hz

| 传声器型号 (Microphone Type) | 传声器编号 (Microphone SN.) | 放大器型号 (Preamplifier Type) | 放大器编号 (Preamplifier SN.) | 标准声压级 (Reference SPL) (dB) | 校准前示值 (Before Calibration) (dB) | 校准后示值 (After Calibration) (dB) | U (k=2) (dB) |
|----------------------------|---------------------------|------------------------------|-----------------------------|----------------------------------|---------------------------------------|--------------------------------------|--------------------|
| / | / | / | / | 4226 | 94.0 | 94.0 | 0.2 |

3 级线性 (Level Linearity)

3.1 参考级量程 (Reference Range)

频率(Frequency): 8000Hz

| 标准声级 (Standard) (dB) | 指示声级 (Indication) (dB) | 误差 (Error) (dB) | 允许误差 (Limit) (dB) | 结论 (Pass/Fail) (P/F) | U (k=2) (dB) |
|----------------------------|------------------------------|-----------------------|-------------------------|----------------------------|--------------------|
| 130.0 | 129.8 | -0.2 | ±0.8 | P | 0.3 |
| 129.0 | 128.8 | -0.2 | ±0.8 | P | 0.3 |
| 128.0 | 127.8 | -0.2 | ±0.8 | P | 0.3 |
| 127.0 | 126.8 | -0.2 | ±0.8 | P | 0.3 |
| 126.0 | 125.9 | -0.1 | ±0.8 | P | 0.3 |
| 125.0 | 124.9 | -0.1 | ±0.8 | P | 0.3 |
| 120.0 | 119.9 | -0.1 | ±0.8 | P | 0.3 |
| 110.0 | 110.0 | 0.0 | ±0.8 | P | 0.3 |
| 100.0 | 100.0 | 0.0 | ±0.8 | P | 0.3 |
| 90.0 | 90.0 | 0.0 | ±0.8 | P | 0.3 |
| 80.0 | 79.9 | -0.1 | ±0.8 | P | 0.3 |
| 70.0 | 69.9 | -0.1 | ±0.8 | P | 0.3 |
| 60.0 | 60.0 | 0.0 | ±0.8 | P | 0.3 |
| 50.0 | 49.9 | -0.1 | ±0.8 | P | 0.3 |
| 40.0 | 39.9 | -0.1 | ±0.8 | P | 0.3 |
| 35.0 | 34.8 | -0.2 | ±0.8 | P | 0.3 |
| 34.0 | 33.8 | -0.2 | ±0.8 | P | 0.3 |
| 33.0 | 32.9 | -0.1 | ±0.8 | P | 0.3 |
| 32.0 | 31.8 | -0.2 | ±0.8 | P | 0.3 |
| 31.0 | 30.8 | -0.2 | ±0.8 | P | 0.3 |
| 30.0 | 29.8 | -0.2 | ±0.8 | P | 0.3 |

Calibration Certificate of Sound Level Meter



证书编号(Certificate No.): 2HB23001488-0004

3.2 其它级量程 (Other Range)

频率(Frequency): 1000Hz

| 标准声级 (Standard) (dB) | 指示声级 (Indication) (dB) | 误差 (Error) (dB) | 允许误差 (Limit) (dB) | 结论 (Pass/Fail) (P/F) | <i>U</i> (<i>k</i> =2) (dB) |
|----------------------------|------------------------------|-----------------------|-------------------------|----------------------------|------------------------------------|
| 130.0 | 129.9 | -0.1 | ±0.8 | P | 0.3 |
| 129.0 | 128.9 | -0.1 | ±0.8 | P | 0.3 |
| 128.0 | 127.9 | -0.1 | ±0.8 | P | 0.3 |
| 127.0 | 126.9 | -0.1 | ±0.8 | P | 0.3 |
| 126.0 | 125.9 | -0.1 | ±0.8 | P | 0.3 |
| 125.0 | 124.9 | -0.1 | ±0.8 | P | 0.3 |
| 120.0 | 120.0 | 0.0 | ±0.8 | P | 0.3 |
| 110.0 | 110.0 | 0.0 | ±0.8 | P | 0.3 |
| 100.0 | 100.0 | 0.0 | ±0.8 | P | 0.3 |
| 90.0 | 90.0 | 0.0 | ±0.8 | P | 0.3 |
| 80.0 | 80.0 | 0.0 | ±0.8 | P | 0.3 |
| 70.0 | 70.0 | 0.0 | ±0.8 | P | 0.3 |
| 60.0 | 60.0 | 0.0 | ±0.8 | P | 0.3 |
| 50.0 | 50.0 | 0.0 | ±0.8 | P | 0.3 |
| 40.0 | 40.0 | 0.0 | ±0.8 | P | 0.3 |
| 35.0 | 34.9 | -0.1 | ±0.8 | P | 0.3 |
| 34.0 | 33.9 | -0.1 | ±0.8 | P | 0.3 |
| 33.0 | 32.9 | -0.1 | ±0.8 | P | 0.3 |
| 32.0 | 31.9 | -0.1 | ±0.8 | P | 0.3 |
| 31.0 | 30.9 | -0.1 | ±0.8 | P | 0.3 |
| 30.0 | 29.9 | -0.1 | ±0.8 | P | 0.3 |



证书编号(Certificate No.): 2HB23001488-0004

4 A计权特性(A-Weighting Characteristic)

| 频率 (Frequency) (Hz) | 实测值 (Actual) (dB) | 理论值 (Theoretical value) (dB) | 误差 (Error) (dB) | 允许误差 (Limit) (dB) | 结论 (Pass/Fail) (P/F) | <i>U</i> (<i>k</i> =2) (dB) |
|---------------------------|-------------------------|------------------------------------|-----------------------|-------------------------|----------------------------|------------------------------------|
| 20 | -50.8 | -50.5 | -0.3 | ±2.0 | P | 0.5 |
| 25 | -45.0 | -44.7 | -0.3 | +2.0 ~ -1.5 | P | 0.5 |
| 31.5 | -39.6 | -39.4 | -0.2 | ±1.5 | P | 0.5 |
| 40 | -34.6 | -34.6 | 0.0 | ±1.0 | P | 0.5 |
| 50 | -30.2 | -30.2 | 0.0 | ±1.0 | P | 0.5 |
| 63 | -26.1 | -26.2 | 0.1 | ±1.0 | P | 0.5 |
| 80 | -22.3 | -22.5 | 0.2 | ±1.0 | P | 0.5 |
| 100 | -19.1 | -19.1 | 0.0 | ±1.0 | P | 0.5 |
| 125 | -16.1 | -16.1 | 0.0 | ±1.0 | P | 0.5 |
| 160 | -13.2 | -13.4 | 0.2 | ±1.0 | P | 0.5 |
| 200 | -10.7 | -10.9 | 0.2 | ±1.0 | P | 0.5 |
| 250 | -8.7 | -8.6 | -0.1 | ±1.0 | P | 0.5 |
| 315 | -6.8 | -6.6 | -0.2 | ±1.0 | P | 0.4 |
| 400 | -4.7 | -4.8 | 0.1 | ±1.0 | P | 0.4 |
| 500 | -3.1 | -3.2 | 0.1 | ±1.0 | P | 0.4 |
| 630 | -1.8 | -1.9 | 0.1 | ±1.0 | P | 0.4 |
| 800 | -0.7 | -0.8 | 0.1 | ±1.0 | P | 0.4 |
| 1000(Ref.) | 0.0 | 0.0 | 0.0 | ±0.7 | P | 0.4 |
| 1250 | 0.6 | 0.6 | 0.0 | ±1.0 | P | 0.6 |
| 1600 | 1.0 | 1.0 | 0.0 | ±1.0 | P | 0.6 |
| 2000 | 1.1 | 1.2 | -0.1 | ±1.0 | P | 0.6 |
| 2500 | 1.1 | 1.3 | -0.2 | ±1.0 | P | 0.6 |
| 3150 | 1.0 | 1.2 | -0.2 | ±1.0 | P | 0.6 |
| 4000 | 0.7 | 1.0 | -0.3 | ±1.0 | P | 0.6 |
| 5000 | 0.4 | 0.5 | -0.1 | ±1.5 | P | 0.6 |
| 6300 | -0.2 | -0.1 | -0.1 | +1.5 ~ -2.0 | P | 0.6 |
| 8000 | -1.0 | -1.1 | 0.1 | +1.5 ~ -2.5 | P | 0.6 |
| 10000 | -2.3 | -2.5 | 0.2 | +2.0 ~ -3.0 | P | 0.6 |
| 12500 | -4.2 | -4.3 | 0.1 | +2.0 ~ -5.0 | P | 1.0 |
| 16000 | -8.5 | -6.6 | -1.9 | +2.5 ~ -16.0 | P | 1.0 |
| 20000 | -18.4 | -9.3 | -9.1 | +3.0 ~ ∞ | P | 1.0 |

Calibration Certificate of Sound Level Meter



证书编号(Certificate No.): 2HB23001488-0004

5 C计权特性(C-Weighting Characteristic)

| 频率 (Frequency) (Hz) | 实测值 (Actual) (dB) | 理论值 (Theoretical value) (dB) | 误差 (Error) (dB) | 允许误差 (Limit) (dB) | 结论 (Pass/Fail) (P/F) | U (k=2) (dB) |
|---------------------------|-------------------------|------------------------------------|-----------------------|-------------------------|----------------------------|--------------------|
| 20 | -6.3 | -6.2 | -0.1 | ±2.0 | P | 0.5 |
| 25 | -4.5 | -4.4 | -0.1 | +2.0 ~ -1.5 | P | 0.5 |
| 31.5 | -3.0 | -3.0 | 0.0 | ±1.5 | P | 0.5 |
| 40 | -2.0 | -2.0 | 0.0 | ±1.0 | P | 0.5 |
| 50 | -1.2 | -1.3 | 0.1 | ±1.0 | P | 0.5 |
| 63 | -0.7 | -0.8 | 0.1 | ±1.0 | P | 0.5 |
| 80 | -0.4 | -0.5 | 0.1 | ±1.0 | P | 0.5 |
| 100 | -0.2 | -0.3 | 0.1 | ±1.0 | P | 0.5 |
| 125 | -0.1 | -0.2 | 0.1 | ±1.0 | P | 0.5 |
| 160 | 0.0 | -0.1 | 0.1 | ±1.0 | P | 0.5 |
| 200 | 0.0 | 0.0 | 0.0 | ±1.0 | P | 0.5 |
| 250 | 0.0 | 0.0 | 0.0 | ±1.0 | P | 0.5 |
| 315 | 0.0 | 0.0 | 0.0 | ±1.0 | P | 0.4 |
| 400 | 0.0 | 0.0 | 0.0 | ±1.0 | P | 0.4 |
| 500 | 0.0 | 0.0 | 0.0 | ±1.0 | P | 0.4 |
| 630 | 0.0 | 0.0 | 0.0 | ±1.0 | P | 0.4 |
| 800 | 0.0 | 0.0 | 0.0 | ±1.0 | P | 0.4 |
| 1000(Ref.) | 0.0 | 0.0 | 0.0 | ±0.7 | P | 0.4 |
| 1250 | -0.1 | 0.0 | -0.1 | ±1.0 | P | 0.6 |
| 1600 | -0.2 | -0.1 | -0.1 | ±1.0 | P | 0.6 |
| 2000 | -0.3 | -0.2 | -0.1 | ±1.0 | P | 0.6 |
| 2500 | -0.5 | -0.3 | -0.2 | ±1.0 | P | 0.6 |
| 3150 | -0.8 | -0.5 | -0.3 | ±1.0 | P | 0.6 |
| 4000 | -1.1 | -0.8 | -0.3 | ±1.0 | P | 0.6 |
| 5000 | -1.5 | -1.3 | -0.2 | ±1.5 | P | 0.6 |
| 6300 | -2.1 | -2.0 | -0.1 | +1.5 ~ -2.0 | P | 0.6 |
| 8000 | -2.9 | -3.0 | 0.1 | +1.5 ~ -2.5 | P | 0.6 |
| 10000 | -4.2 | -4.4 | 0.2 | +2.0 ~ -3.0 | P | 0.6 |
| 12500 | -6.2 | -6.2 | 0.0 | +2.0 ~ -5.0 | P | 1.0 |
| 16000 | -10.4 | -8.5 | -1.9 | +2.5 ~ -16.0 | P | 1.0 |
| 20000 | -20.4 | -11.2 | -9.2 | +3.0 ~ ∞ | P | 1.0 |



证书编号(Certificate No.): 2HB23001488-0004

6 自生噪声 (Autogenous noise)

| 计权 (Weighting) | 实测值 (Actual) (dB) |
|-------------------|-------------------------|
| A | 17.7 |

以下空白/No data hereafter



Calibration Certificate of Sound Level Meter

 中国赛宝实验室计量检测中心
(工业和信息化部电子第五研究所计量检测中心)
CHINA CEPREI LABORATORY CALIBRATION & TESTING CENTRE

校准证书 CALIBRATION CERTIFICATE

证书编号: 2HB23001488-0003
Certificate No. 



委托单位: Castco Testing Centre Limited
Client

仪器名称: Sound Level Meter
Description

型号规格: NL-52
Model/Type

制造商: RION
Manufacturer

机身号: 00976204
Serial No.

管理号: AAST-SLM-11
Asset No.

接收日期: 2023-07-28 校准日期: 2023-08-07
Rec. Date Cal. Date

签发日期: 2023-08-08 建议校准周期: 12个月(12 months)
App. Date Reference Cal. Period

结论: 所校准项目符合技术要求(The calibrated items meet the technical requirements)
Conclusion

校准: 赵文钰
Calibrated by

核验: 钟颖
Inspected by

签发: 郑木力
Approved by

印章: Stamp



扫一扫查真伪

赛宝计量检测中心
总部地址: 广州市增城区朱村街朱村大道西78号
实验室地址: 广州市增城区朱村街朱村大道西78号
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证书编号(Certificate No.): 2HB23001488-0003

说明 DIRECTIONS

1. 本机构质量管理体系符合ISO/IEC 17025:2017标准的要求, 获得中国合格评定国家认可委员会(CNAS)认可, 认可证书号为: CNAS L13344。
This laboratory quality management system meets the ISO/IEC 17025:2017 and is accredited by the China National Accreditation Service for Conformity Assessment, No. CNAS L13344.
2. 本机构出具的数据均可溯源到国际单位制(SI)单位和社会公用计量标准。
The data issued by this laboratory is traceable to International system of Units (SI) and national primary standards.
3. 本次校准的技术依据及CNAS认可范围(Reference documents and CNAS accredited scopes):
* JJG 188-2017 声级计检定规程: Sound pressure level: (20~130)dB; Frequency Weighting: (20~130)dB, (10 Hz~20kHz)
* 详细内容请查看CNAS网站中注册编号为L13344的证书附件, 超出范围的内容未被认可, 其结果/结论所依据的合格评定活动不在认可范围内。(Please see the attachment of certificate No. L13344 at CNAS website for details, beyond which is not accredited, the conformity assessment activities on which the results/conclusions are based are outside the scope of accreditation.)

4. 本次校准所使用的主要测量标准(The main measurement standards used during the calibration):

| 名称 (Description) | 证书号/有效期/溯源单位 (Certificate No./Due Date/Traceability to) | 技术指标 (Specification) | 测量范围 (Measuring Range) |
|-----------------------|--|--|---|
| 实验室标准传声器(2246 093) | GFJGL1001230304187/2024-04-13/航空304所 | $U=(0.05-0.20)dB (k=2)$ | 10Hz~20kHz |
| 正弦信号发生器(243165 6) | 4GC22000542-0057/2023-10-26/赛宝(广州) | f: $\pm 1mHz$; 失真度: $< -70dB$ | f: 0.001Hz~200kHz; U : 100 μ V~5Vrms |
| 前置放大器(3194482) | 4GC22000429-0039/2023-08-29/赛宝(广州) | $\pm 0.1dB$ | 10Hz~50kHz |
| 数字多用表(MY5300648 3) | 4GC22000447-0003/2023-09-26/赛宝(广州) | DCV: $\pm 0.0035%$; ACV: 0.06%; DCI: $\pm 0.05%$; ACI: $(0.001 \sim 750)V$; $\pm 0.1%$; R: $\pm 0.01%$; f: $\pm 0.001%$ | DCV: $\pm 0.001Hz \sim 1000V$; ACV: $0.001 \sim 750V$; DCI: $(0 \sim 3)A$; ACI: $(0 \sim 3)A$; $\pm 5kHz$; R: $(0 \sim 100)M\Omega$; f: $3Hz \sim 300kHz$ |
| 功率放大器(2536312) | 4GC22000600-0093/2023-11-30/赛宝(广州) | 频率响应: $\pm 1dB$, 失真度: $< 0.2%$ | 20Hz~50kHz |
| PULSE分析系统(3160-06540) | 4GC23000001-0137/2024-01-03/赛宝(广州) | 频率: $U_{ref}=0.001%, k=2$; 电压: $U_{ref}=0.10%, k=2$ | 频率: 0.001Hz~51.2kHz; 电压: $(1 \times 10^{-3} \sim 30)V$ |
| 声校准器(2272351) | 4GC22000600-0073/2023-11-29/赛宝(广州) | 1级 First Level | 31.5Hz~16kHz |

5. 校准地点(The calibration place):
广州市增城区朱村街朱村大道西78号9栋110室
6. 环境条件(Environmental conditions):
温度(Temperature): 25.3°C 相对湿度(Relative Humidity): 65%
7. 本证书中给出的扩展不确定度依据JJF1059.1-2012《测量不确定度的评定与表示》评定, 由合成标准不确定度乘以包含概率约为95%时对应的包含因子k得到。
The extended uncertainty given in this certificate is evaluated according to JJF1059.1-2012 "Evaluation and Expression of Uncertainty in Measurement", and is calculated by multiplying the combined standard uncertainty by the coverage factor k which corresponding to the coverage probability about 95%.
8. 证书中"P"、"合格"代表"测量结果在允许范围内", "F"、"不合格"代表"测量结果不在允许范围内", "N/A"代表"不适用或技术指标暂时无法确认等"。本证书报告的结论仅供参考, 使用人员应结合实际测量的要求合理使用, 如考虑测量结果测量不确定度的影响等。
"P" and "Pass" in this certificate stand for "Low Limit: the measured value \leq High Limit", "F" and "Fail" stand for "the measured value $<$ Low Limit or the measured value $>$ High Limit", "N/A" stands for "Not Applicable or The technical specification has not been confirmed etc". The conclusions of this certificate are for reference only. Users should use them reasonably according to the actual measurement requirements, such as considering the impact of measurement uncertainty, etc.

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Calibration Certificate of Sound Level Meter



证书编号(Certificate No.): 2HB23001488-0003

1 外观与工作正常性检查 (Appearance and Function Check)

无影响证书中测量结果准确度的因素和缺陷。

There are no factor and defect that affect the measurement result accuracy of the certificate.

2 指示声级调整 (Indication SPL Calibration)

频率(Frequency)=1000Hz

| 传声器型号 (Microphone Type) | 传声器编号 (Microphone SN.) | 放大器型号 (Preamplifier Type) | 放大器编号 (Preamplifier SN.) |
|----------------------------|---------------------------|------------------------------|-----------------------------|
| / | / | / | / |

| 声校准器型号 (Calibrator Type) | 标准声压级 (Reference SPL) | 校准前示值 (Before Calibration) | 校准后示值 (After Calibration) | U (k=2) |
|-----------------------------|--------------------------|-------------------------------|------------------------------|------------|
| | (dB) | (dB) | (dB) | (dB) |
| 4226 | 94.0 | 93.8 | 93.8 | 0.2 |

3 级线性 (Level Linearity)

3.1 参考级量程 (Reference Range)

频率(Frequency): 8000Hz

| 标准声级 (Standard) | 指示声级 (Indication) | 误差 (Error) | 允许误差 (Limit) | 结论 (Pass/Fail) | U (k=2) |
|--------------------|----------------------|---------------|-----------------|-------------------|------------|
| (dB) | (dB) | (dB) | (dB) | (P/F) | (dB) |
| 130.0 | 129.8 | -0.2 | ±0.8 | P | 0.3 |
| 129.0 | 128.8 | -0.2 | ±0.8 | P | 0.3 |
| 128.0 | 127.8 | -0.2 | ±0.8 | P | 0.3 |
| 127.0 | 126.8 | -0.2 | ±0.8 | P | 0.3 |
| 126.0 | 125.9 | -0.1 | ±0.8 | P | 0.3 |
| 125.0 | 124.9 | -0.1 | ±0.8 | P | 0.3 |
| 120.0 | 119.9 | -0.1 | ±0.8 | P | 0.3 |
| 110.0 | 110.0 | 0.0 | ±0.8 | P | 0.3 |
| 100.0 | 100.0 | 0.0 | ±0.8 | P | 0.3 |
| 90.0 | 90.0 | 0.0 | ±0.8 | P | 0.3 |
| 80.0 | 79.9 | -0.1 | ±0.8 | P | 0.3 |
| 70.0 | 69.9 | -0.1 | ±0.8 | P | 0.3 |
| 60.0 | 60.0 | 0.0 | ±0.8 | P | 0.3 |
| 50.0 | 49.9 | -0.1 | ±0.8 | P | 0.3 |
| 40.0 | 39.9 | -0.1 | ±0.8 | P | 0.3 |
| 35.0 | 34.8 | -0.2 | ±0.8 | P | 0.3 |
| 34.0 | 33.8 | -0.2 | ±0.8 | P | 0.3 |
| 33.0 | 32.9 | -0.1 | ±0.8 | P | 0.3 |
| 32.0 | 31.8 | -0.2 | ±0.8 | P | 0.3 |
| 31.0 | 30.8 | -0.2 | ±0.8 | P | 0.3 |
| 30.0 | 29.8 | -0.2 | ±0.8 | P | 0.3 |

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证书编号(Certificate No.): 2HB23001488-0003

3.2 其它级量程 (Other Range)

频率(Frequency): 1000Hz

| 标准声级 (Standard) | 指示声级 (Indication) | 误差 (Error) | 允许误差 (Limit) | 结论 (Pass/Fail) | U (k=2) |
|--------------------|----------------------|---------------|-----------------|-------------------|------------|
| (dB) | (dB) | (dB) | (dB) | (P/F) | (dB) |
| 130.0 | 129.9 | -0.1 | ±0.8 | P | 0.3 |
| 129.0 | 128.9 | -0.1 | ±0.8 | P | 0.3 |
| 128.0 | 127.9 | -0.1 | ±0.8 | P | 0.3 |
| 127.0 | 126.9 | -0.1 | ±0.8 | P | 0.3 |
| 126.0 | 125.9 | -0.1 | ±0.8 | P | 0.3 |
| 125.0 | 124.9 | -0.1 | ±0.8 | P | 0.3 |
| 120.0 | 120.0 | 0.0 | ±0.8 | P | 0.3 |
| 110.0 | 110.0 | 0.0 | ±0.8 | P | 0.3 |
| 100.0 | 100.0 | 0.0 | ±0.8 | P | 0.3 |
| 90.0 | 90.0 | 0.0 | ±0.8 | P | 0.3 |
| 80.0 | 80.0 | 0.0 | ±0.8 | P | 0.3 |
| 70.0 | 70.0 | 0.0 | ±0.8 | P | 0.3 |
| 60.0 | 60.0 | 0.0 | ±0.8 | P | 0.3 |
| 50.0 | 50.0 | 0.0 | ±0.8 | P | 0.3 |
| 40.0 | 40.0 | 0.0 | ±0.8 | P | 0.3 |
| 35.0 | 34.9 | -0.1 | ±0.8 | P | 0.3 |
| 34.0 | 33.9 | -0.1 | ±0.8 | P | 0.3 |
| 33.0 | 32.9 | -0.1 | ±0.8 | P | 0.3 |
| 32.0 | 31.9 | -0.1 | ±0.8 | P | 0.3 |
| 31.0 | 30.9 | -0.1 | ±0.8 | P | 0.3 |
| 30.0 | 29.9 | -0.1 | ±0.8 | P | 0.3 |

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Calibration Certificate of Sound Level Meter



证书编号(Certificate No.): 2HB23001488-0003

4 A计权特性(A-Weighting Characteristic)

| 频率 (Frequency) (Hz) | 实测值 (Actual) (dB) | 理论值 (Theoretical value) (dB) | 误差 (Error) (dB) | 允许误差 (Limit) (dB) | 结论 (Pass/Fail) (P/F) | U (k=2) (dB) |
|---------------------------|-------------------------|------------------------------------|-----------------------|-------------------------|----------------------------|--------------------|
| 20 | -50.5 | -50.5 | 0.0 | ±2.0 | P | 0.5 |
| 25 | -44.9 | -44.7 | -0.2 | +2.0 ~ -1.5 | P | 0.5 |
| 31.5 | -39.7 | -39.4 | -0.3 | ±1.5 | P | 0.5 |
| 40 | -34.5 | -34.6 | 0.1 | ±1.0 | P | 0.5 |
| 50 | -30.3 | -30.2 | -0.1 | ±1.0 | P | 0.5 |
| 63 | -26.2 | -26.2 | 0.0 | ±1.0 | P | 0.5 |
| 80 | -22.3 | -22.5 | 0.2 | ±1.0 | P | 0.5 |
| 100 | -19.1 | -19.1 | 0.0 | ±1.0 | P | 0.5 |
| 125 | -16.1 | -16.1 | 0.0 | ±1.0 | P | 0.5 |
| 160 | -13.2 | -13.4 | 0.2 | ±1.0 | P | 0.5 |
| 200 | -10.8 | -10.9 | 0.1 | ±1.0 | P | 0.5 |
| 250 | -8.6 | -8.6 | 0.0 | ±1.0 | P | 0.5 |
| 315 | -6.6 | -6.6 | 0.0 | ±1.0 | P | 0.4 |
| 400 | -4.7 | -4.8 | 0.1 | ±1.0 | P | 0.4 |
| 500 | -3.2 | -3.2 | 0.0 | ±1.0 | P | 0.4 |
| 630 | -1.9 | -1.9 | 0.0 | ±1.0 | P | 0.4 |
| 800 | -0.8 | -0.8 | 0.0 | ±1.0 | P | 0.4 |
| 1000(Ref.) | 0.0 | 0.0 | 0.0 | ±0.7 | P | 0.4 |
| 1250 | 0.5 | 0.6 | -0.1 | ±1.0 | P | 0.6 |
| 1600 | 0.9 | 1.0 | -0.1 | ±1.0 | P | 0.6 |
| 2000 | 1.1 | 1.2 | -0.1 | ±1.0 | P | 0.6 |
| 2500 | 1.1 | 1.3 | -0.2 | ±1.0 | P | 0.6 |
| 3150 | 0.9 | 1.2 | -0.3 | ±1.0 | P | 0.6 |
| 4000 | 0.7 | 1.0 | -0.3 | ±1.0 | P | 0.6 |
| 5000 | 0.3 | 0.5 | -0.2 | ±1.5 | P | 0.6 |
| 6300 | -0.2 | -0.1 | -0.1 | +1.5 ~ -2.0 | P | 0.6 |
| 8000 | -1.1 | -1.1 | 0.0 | +1.5 ~ -2.5 | P | 0.6 |
| 10000 | -2.3 | -2.5 | 0.2 | +2.0 ~ -3.0 | P | 0.6 |
| 12500 | -4.3 | -4.3 | 0.0 | +2.0 ~ -5.0 | P | 1.0 |
| 16000 | -8.5 | -6.6 | -1.9 | +2.5 ~ -16.0 | P | 1.0 |
| 20000 | -18.4 | -9.3 | -9.1 | +3.0 ~ -∞ | P | 1.0 |

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证书编号(Certificate No.): 2HB23001488-0003

5 C计权特性(C-Weighting Characteristic)

| 频率 (Frequency) (Hz) | 实测值 (Actual) (dB) | 理论值 (Theoretical value) (dB) | 误差 (Error) (dB) | 允许误差 (Limit) (dB) | 结论 (Pass/Fail) (P/F) | U (k=2) (dB) |
|---------------------------|-------------------------|------------------------------------|-----------------------|-------------------------|----------------------------|--------------------|
| 20 | -6.6 | -6.2 | -0.4 | ±2.0 | P | 0.5 |
| 25 | -4.7 | -4.4 | -0.3 | +2.0 ~ -1.5 | P | 0.5 |
| 31.5 | -3.0 | -3.0 | 0.0 | ±1.5 | P | 0.5 |
| 40 | -2.0 | -2.0 | 0.0 | ±1.0 | P | 0.5 |
| 50 | -1.3 | -1.3 | 0.0 | ±1.0 | P | 0.5 |
| 63 | -0.8 | -0.8 | 0.0 | ±1.0 | P | 0.5 |
| 80 | -0.4 | -0.5 | 0.1 | ±1.0 | P | 0.5 |
| 100 | -0.2 | -0.3 | 0.1 | ±1.0 | P | 0.5 |
| 125 | -0.1 | -0.2 | 0.1 | ±1.0 | P | 0.5 |
| 160 | 0.0 | -0.1 | 0.1 | ±1.0 | P | 0.5 |
| 200 | 0.0 | 0.0 | 0.0 | ±1.0 | P | 0.5 |
| 250 | 0.0 | 0.0 | 0.0 | ±1.0 | P | 0.5 |
| 315 | 0.0 | 0.0 | 0.0 | ±1.0 | P | 0.4 |
| 400 | 0.0 | 0.0 | 0.0 | ±1.0 | P | 0.4 |
| 500 | 0.0 | 0.0 | 0.0 | ±1.0 | P | 0.4 |
| 630 | 0.0 | 0.0 | 0.0 | ±1.0 | P | 0.4 |
| 800 | 0.0 | 0.0 | 0.0 | ±1.0 | P | 0.4 |
| 1000(Ref.) | 0.0 | 0.0 | 0.0 | ±0.7 | P | 0.4 |
| 1250 | -0.1 | 0.0 | -0.1 | ±1.0 | P | 0.6 |
| 1600 | -0.2 | -0.1 | -0.1 | ±1.0 | P | 0.6 |
| 2000 | -0.3 | -0.2 | -0.1 | ±1.0 | P | 0.6 |
| 2500 | -0.5 | -0.3 | -0.2 | ±1.0 | P | 0.6 |
| 3150 | -0.8 | -0.5 | -0.3 | ±1.0 | P | 0.6 |
| 4000 | -1.1 | -0.8 | -0.3 | ±1.0 | P | 0.6 |
| 5000 | -1.5 | -1.3 | -0.2 | ±1.5 | P | 0.6 |
| 6300 | -2.1 | -2.0 | -0.1 | +1.5 ~ -2.0 | P | 0.6 |
| 8000 | -3.0 | -3.0 | 0.0 | +1.5 ~ -2.5 | P | 0.6 |
| 10000 | -4.3 | -4.4 | 0.1 | +2.0 ~ -3.0 | P | 0.6 |
| 12500 | -6.2 | -6.2 | 0.0 | +2.0 ~ -5.0 | P | 1.0 |
| 16000 | -10.4 | -8.5 | -1.9 | +2.5 ~ -16.0 | P | 1.0 |
| 20000 | -20.3 | -11.2 | -9.1 | +3.0 ~ -∞ | P | 1.0 |

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Catalogue of Sound Calibrator

For microphone calibration **NC-74**

How to use

Carefully insert the microphone all the way into the coupler of the NC-74. Then simply turn the power on to apply a constant sound pressure level to the diaphragm of the microphone.

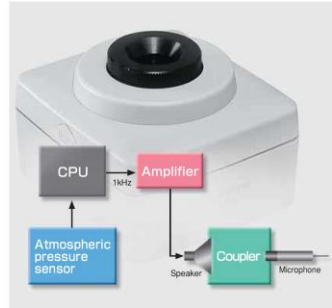


Usage example (NL series)

The performance of the NC-74 is suitable for calibration of high-precision sound level meters. The unit is compact, lightweight, and easy to use. Two IEC LR6 (size AA) alkaline batteries will power the unit for more than 30 hours of continuous use at room temperature.

Atmospheric pressure compensation principle

The NC-74 incorporates a sensor that detects atmospheric pressure. Based on the information provided by the sensor, the CPU controls the signal amplitude. This allows the unit to always provide the correct output for achieving constant sound pressure level, regardless of fluctuations in atmospheric pressure.



Using the 1/2-inch adapter

To allow calibration of sound level meter microphones with 1 inch diameter, the 1/2-inch microphone adapter can be removed. 1/2-inch microphones are calibrated with the adapter in place.



Specifications

| | | |
|--------------------------------|---|--|
| Applicable standards | IEC 60942:2003 Class 1 JIS C1615:2004 Class 1 | |
| Suitable microphones | 1-inch microphones | IEC 61094-1 Type LS1P UC-27 UC-25 UC-34 |
| | 1/2-inch microphones | IEC 61094-1 Type LS2aP UC-59 UC-57 UC-58a UC-56 UC-26 UC-30 UC-31 UC-33P |
| Nominal sound pressure level | 94 dB | |
| Sound pressure level tolerance | ±0.3 dB | |
| Nominal frequency | 1 kHz | |
| Frequency tolerance | ±1.0 % or less | |
| Power requirements | IEC LR6 (size AA) alkaline battery X 2 | |
| Dimensions, mass | Approx. 49 (H) X 80 (W) X 74 (D) mm Approx. 200 g (including batteries) | |
| Supplied accessories | Class X 1 | |
| | IEC LR6 (size AA) alkaline battery X 2 1/2-inch microphone adapter NC-74-002 X 1 | |

* Specification subject to change without notice.

RION CO., LTD.

3-20-41, Higashimotomachi, Kokubunji, Tokyo 185-8533, Japan
Tel: +81-42-359-7888 Fax: +81-42-359-7442
<http://www.rion.co.jp/english/>

Distributed by:

Printed in Japan 0510-1 0807.P.MP

Calibration Certificate of Sound Calibrator



中国赛宝实验室计量检测中心
(工业和信息化部电子第五研究所计量检测中心)
CHINA CEPREI LABORATORY CALIBRATION & TESTING CENTRE

校准证书 CALIBRATION CERTIFICATE

证书编号: 2HB23001488-0001
Certificate No.



委托单位: Castco Testing Centre Limited
Client
仪器名称: Sound Level Calibrator
Description
型号规格: NC-74
Model/Type
制造商: RION
Manufacturer
机身号: 34178129
Serial No.
管理号: AAST-SLC-05
Asset No.
接收日期: 2023-07-28
Rec. Date
校准日期: 2023-08-08
Cal. Date
签发日期: 2023-08-10
App. Date
建议校准周期: 12个月(12 months)
Reference Cal. Period
结论: 所校准项目符合技术要求(The calibrated items meet the technical requirements)
Conclusion

校准: 赵文钰
Calibrated by

检验: 钟灏
Inspected by

签发: 郑术力
Approved by

印章: Stamp



扫一扫查真伪

赛宝计量检测中心
总部地址: 广州市增城区朱村街朱村大道西78号
实验室地址: 广州市增城区朱村街朱村大道西78号
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Website: www.ceprei-cal.com

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Calibration Certificate of Sound Calibrator

证书编号(Certificate No.): 2HB23001488-0001

说明 DIRECTIONS

1. 本机构质量管理体系符合ISO/IEC 17025:2017标准的要求, 获得中国合格评定国家认可委员会(CNAS) 认可, 认可证书号为: CNAS L13344。
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* JIG 176-2022 声校准器检定规程: Sound Pressure Level: 94dB, 104dB, 114dB, 124dB(63Hz~8kHz); 94dB、104dB、114dB,(31.5Hz~16kHz); Frequency: 31.5Hz~16kHz; Harmonic Distortion: 0.1%~10%, (20Hz~20kHz)

* 详细内容请查看CNAS网站中注册编号为L13344的证书附件, 超出范围的内容未被认可, 其结果/结论所依据的合格评定活动不在认可范围内。(Please see the attachment of certificate No. L13344 at CNAS website for details, beyond which is not accredited, the conformity assessment activities on which the results/conclusions are based are outside the scope of accreditation.)

4. 本次校准所使用的主要测量标准(The main measurement standards used during the calibration):

| 名称 (Description) | 证书号/有效期/溯源单位 (Certificate No./Due Date/Traceability to) | 技术指标 (Specification) | 测量范围 (Measuring Range) |
|-------------------------|--|---|--|
| 实验室标准传声器(2246 093) | GFJGJL1001230304187/2024-04-13/航空304所 | $U=(0.05-0.20)$ dB ($k=2$) | 10Hz~20kHz |
| 前置放大器(3194482) | 4GC22000429-0039/2023-08-29/赛宝(广州) | ± 0.1 dB | 10Hz~50kHz |
| 数字多用表(MY5300648 3) | 4GC22000447-0003/2023-09-26/赛宝(广州) | DCV: $\pm 0.0035\%$; ACV: $\pm DCV(0\sim 1000)V$; ACV 0.06%; DCI: $\pm 0.05\%$; ACI: $\pm 0.001\sim 750V$ @(3Hz~300kHz); DCI $(0\sim 3)A$; ACI $(0\sim 3)A$ @(3Hz~5kHz); R $(0\sim 100)M\Omega$; $\pm 0.001\%$ | 10Hz~50kHz |
| PULSE分析系统(3050-1 02038) | 4GC23000001-0135/2024-01-03/赛宝(广州) | 频率: $E_{rel}=0.001\%$, $k=2$;电压: $U_{rel}=0.04\%$, $k=2$ | 频率:0.001Hz~51.2kHz, 电压: $(1\cdot 10^{-3}\sim 30)V$ |

5. 校准地点(The calibration place):
广州市增城区朱村街朱村大道西78号9栋110室

6. 环境条件(Environmental conditions):
温度(Temperature): 22.6°C 相对湿度(Relative Humidity): 58%

7. 本证书中给出的扩展不确定度依据JJF1059.1-2012《测量不确定度的评定与表示》评定, 由合成标准不确定度乘以包含概率约为95%时对应的包含因子 k 得到。
The extended uncertainty given in this certificate is evaluated according to JJF1059.1-2012 "Evaluation and Expression of Uncertainty in Measurement", and is calculated by multiplying the combined standard uncertainty by the coverage factor k which corresponding to the coverage probability about 95%.

8. 证书中"P"、"合格"代表"测量结果在允许范围内", "F"、"不合格"代表"测量结果不在允许范围内", "N/A"代表"不适用或技术指标暂时无法确认等"。本证书报告的结论仅供参考, 使用人员应结合实际测量的要求合理使用, 如考虑测量结果测量不确定度的影响等。
"P" and "Pass" in this certificate stand for "Low Limit \leq the measured value \leq High Limit", "F" and "Fail" stand for "the measured value $<$ Low Limit or the measured value $>$ High Limit", "N/A" stands for "Not Applicable or The technical specification has not been confirmed etc". The conclusions of this certificate are for reference only. Users should use them reasonably according to the actual measurement requirements, such as considering the impact of measurement uncertainty, etc.

9. 建议校准周期是本实验室依据本证书报告的技术依据和仪器设备常规使用条件给出的建议, 供委托方参考。委托方可以根据实际使用情况自行决定样品的校准周期。



证书编号(Certificate No.): 2HB23001488-0001

1 外观与工作正常性检查 (Appearance and Function Check)

无影响证书中测量结果准确度的因素和缺陷。

There are no factor and defect that affect the measurement result accuracy of the certificate.

2 声压级 (Sound Pressure Level)

| 规定声压级 (Prescribed SPL) | 测量声压级 (Measured SPL) | 声压级差的绝对值 (Absolute value of SPL) | 接受限 (Limit) | 结论 (Pass/Fail) | U ($k=2$) (dB) |
|---------------------------|-------------------------|-------------------------------------|----------------|-------------------|--------------------------|
| (dB) | (dB) | (dB) | (dB) | | (dB) |
| 94 | 93.95 | 0.05 | ≤ 0.25 | P | 0.10 |

3 频率 (Frequency)

| 规定频率 (Prescribed Fre.) | 测量频率 (Measured Fre.) | 频率误差的绝对值 (Absolute value of Fre.) | 接受限 (Limit) | 结论 (Pass/Fail) | U_{rel} ($k=2$) (%) |
|---------------------------|-------------------------|--------------------------------------|----------------|-------------------|-------------------------------|
| (Hz) | (Hz) | (%) | (%) | | (%) |
| 1000 | 1002.1 | 0.21 | ≤ 0.70 | P | 0.10 |

4 总失真+噪声 (Distortion and noise)

| 规定声压级 (Prescribed SPL) | 规定频率 (Measured Fre.) | 总失真+噪声 (Distortion and noise) | 接受限 (Limit) | 结论 (Pass/Fail) | U_{rel} ($k=2$) (%) |
|---------------------------|-------------------------|----------------------------------|----------------|-------------------|-------------------------------|
| (dB) | (Hz) | (%) | (%) | | (%) |
| 94 | 1000 | 0.57 | ≤ 2.50 | P | 5.0 |

以下空白/No data hereafter

CEPREI

Calibration Certificate of Sound Calibrator



中国赛宝实验室计量检测中心
(工业和信息化部电子第五研究所计量检测中心)
CHINA CEPREI LABORATORY CALIBRATION & TESTING CENTRE

校准证书

CALIBRATION CERTIFICATE

证书编号(Certificate No.): 2HB23001715-0001

证书编号: 2HB23001715-0001
Certificate No. 




中国认可
国际互认
校准
CALIBRATION
CNAS L13344

委托单位: Castco Testing Centre Limited
Client

仪器名称: Sound Level Calibrator
Description

型号规格: NC-74
Model/Type

制造商: RION
Manufacturer

机身号: 34678556
Serial No.

管理号: AAST-SLC-06
Asset No.

接收日期: 2023-08-23 校准日期: 2023-09-05
Rec. Date Cal. Date

签发日期: 2023-09-05 建议校准周期: 12个月(12 months)
App. Date Reference Cal. Period

结论: 所校准项目符合技术要求(The calibrated items meet the technical requirements)
Conclusion

校准: 赵文钰 赵文钰
Inspected by

签发: 郑木力 郑木力
Approved by

核校: 钟灏 钟灏
Inspected by

印章: 
Stamp



扫一扫查真伪

赛宝计量检测中心
总部地址: 广州市增城区朱村街朱村大道西78号
实验室地址: 广州市增城区朱村街朱村大道西78号
客服电话: 020-87237633 传真: 020-87236189
投诉电话: 020-87236896
邮件: cal@ceprei.com
网址: www.ceprei-cal.com

CEPREI Calibration and Testing Centre
HQ Addr: No.78,Zhucun Avenue West,Zengcheng District,Guangzhou,China
Add of the Lab: No.78,Zhucun Avenue West,Zengcheng District,Guangzhou,China
Service Tel: 020-87237633 Fax: 020-87236189
Complaint Tel: 020-87236896
Email: cal@ceprei.com
Website: www.ceprei-cal.com

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说明


DIRECTIONS

1. 本机构质量管理体系符合ISO/IEC 17025:2017标准的要求, 获得中国合格评定国家认可委员会 (CNAS) 认可, 认可证书号为: CNAS L13344.
This laboratory quality management system meets the ISO/IEC 17025:2017 and is accredited by the China National Accreditation Service for Conformity Assessment, No. CNAS L13344.
2. 本机构出具的数据均可溯源到国际单位制 (SI) 单位和社会公用计量标准。
The data issued by this laboratory is traceable to International system of Units (SI) and national primary standards.
3. 本次校准的技术依据及CNAS认可范围(Reference documents and CNAS accredited scopes):
* JJG 176-2022 声校准器检定规程: Sound Pressure Level: 94dB、104dB、114dB、124dB(63Hz~8kHz); 94dB、104dB、114dB(31.5Hz~16kHz); Frequency: 31.5Hz~16kHz; Harmonic Distortion: 0.1%~10% (20Hz~20kHz)
* 详细内容请查看CNAS网站中注册编号为L13344的证书附件, 超出范围的内容未被认可, 其结果/结论所依据的合格评定活动不在认可范围内。(Please see the attachment of certificate No. L13344 at CNAS website for details, beyond which is not accredited, the conformity assessment activities on which the results/conclusions are based are outside the scope of accreditation.)
4. 本次校准所使用的主要测量标准(The main measurement standards used during the calibration):

| 名称 | 证书号/有效期/溯源单位 | 技术指标 | 测量范围 |
|------------------------|--|---|--|
| (Description) | (Certificate No./Due Date/Traceability to) | (Specification) | (Measuring Range) |
| 前置放大器(2239843) | GFJGIL1001230304185/2024-03-22/航空304所 | 频率响应: $\pm 0.1\text{dB}$ | (10~50000) Hz |
| 数字多用表(MY45051674) | GFJGIL1004230400378/2024-04-02/航天514所 | DCV: $\pm 8 \times 10^{-3}$; DCI: $\pm 2 \times 10^{-3}$; ACV: $\pm 0.02\%$; ACI: $\pm 0.03\%$; R: $\pm 1 \times 10^{-3}$; f: $\pm 0.01\%$ | DCV: 10nV~1000V; DCI: 1pA~1A; ACV: (10nV~700V) @ (100pA~1A) @ 10Hz~2MHz); ACI: 1Hz~100kHz); R: 10 $\mu\Omega$ ~1G Ω ; f: 1Hz~10MHz |
| P/LSE分析系统(3160-106540) | 4GC23000528-0009/2024-08-16/赛宝(广州) | 频率: $U_{95}=0.001\%$, $k=2$; 电压: $U_{95}=0.10\%$, $k=2$ | 频率: 0.001Hz~51.2kHz 电压: (1~10 ⁻³)~30V |
| 实验室标准传声器(2246093) | GFJGIL1001230304187/2024-04-13/航空304所 | LS级 | 10Hz~25kHz |
5. 校准地点(The calibration place):
广州市增城区朱村街朱村大道西78号9栋110室
6. 环境条件(Environmental conditions):
温度(Temperature): 21.2°C 相对湿度(Relative Humidity): 60%
7. 本证书中给出的扩展不确定度依据JJF1059.1-2012《测量不确定度的评定与表示》评定, 由合成标准不确定度乘以包含概率约为95%时对应的包含因子k得到。
The extended uncertainty given in this certificate is evaluated according to JJF1059.1-2012 "Evaluation and Expression of Uncertainty in Measurement", and is calculated by multiplying the combined standard uncertainty by the coverage factor k which corresponding to the coverage probability about 95%.
8. 证书中"P"、"合格"代表"测量结果在允许范围内", "F"、"不合格"代表"测量结果不在允许范围内", "N/A"代表"不适用或技术指标暂时无法确认等"。本证书报告的结论仅供参考, 使用人员应结合实际测量的要求合理使用, 如考虑测量结果测量不确定度的影响等。
"P" and "Pass" in this certificate stand for "Low Limit \leq the measured value \leq High Limit", "F" and "Fail" stand for "the measured value < Low Limit or the measured value > High Limit", "N/A" stands for "Not Applicable or The technical specification has not been confirmed etc". The conclusions of this certificate are for reference only. Users should use them reasonably according to the actual measurement requirements, such as considering the impact of measurement uncertainty, etc.
9. 建议校准周期是实验室依据本证书报告的技术依据和仪器设备常规使用条件给出的建议, 供委托方参考。委托方可以根据实际使用情况自行决定样品的校准周期。

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Calibration Certificate of Sound Calibrator



证书编号(Certificate No.): 2HB23001715-0001

1 外观与工作正常性检查 (Appearance and Function Check)
无影响证书中测量结果准确度的因素和缺陷。
There are no factor and defect that affect the measurement result accuracy of the certificate.

2 声压级 (Sound Pressure Level)

| 规定声压级 (Prescribed SPL) | 测量声压级 (Measured SPL) | 声压级差的绝对值 (Absolute value of SPL) | 接受限 (Limit) | 结论 (Pass/Fail) | U |
|---------------------------|-------------------------|-------------------------------------|----------------|-------------------|------|
| (dB) | (dB) | (dB) | (dB) | | (dB) |
| 94 | 93.86 | 0.14 | ≤0.25 | P | 0.10 |

3 频率 (Frequency)

| 规定频率 (Prescribed Fre.) | 测量频率 (Measured Fre.) | 频率误差的绝对值 (Absolute value of Fre.) | 接受限 (Limit) | 结论 (Pass/Fail) | U _{rel} |
|---------------------------|-------------------------|--------------------------------------|----------------|-------------------|------------------|
| (Hz) | (Hz) | (%) | (%) | | (%) |
| 1000 | 1003.7 | 0.37 | ≤0.70 | P | 0.10 |

4 总失真+噪声 (Distortion and noise)

| 规定声压级 (Prescribed SPL) | 规定频率 (Measured Fre.) | 总失真+噪声 (Distortion and noise) | 接受限 (Limit) | 结论 (Pass/Fail) | U _{rel} |
|---------------------------|-------------------------|----------------------------------|----------------|-------------------|------------------|
| (dB) | (Hz) | (%) | (%) | | (%) |
| 94 | 1000 | 0.69 | ≤2.50 | P | 5.0 |

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数据页(Data sheet) ID: 013393

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Catalogue of Air Flow Meter (TSI TA440)

SPECIFICATIONS

THERMAL ANEMOMETERS MODELS TA410, TA430 AND TA440

Velocity

Range (TA410) 0 to 20 m/s (0 to 4,000 ft/min)
 Range (TA430, TA440) 0 to 30 m/s (0 to 6,000 ft/min)
 Accuracy (TA410)^{1,2} ±5% of reading or ±0.025 m/s (±5 ft/min), whichever is greater
 Accuracy (TA430, TA440)^{1,2} ±3% of reading or ±0.015 m/s (±3 ft/min), whichever is greater
 Resolution 0.01 m/s (1 ft/min)

Duct Size (TA430, TA440)

Dimensions 1 to 635 cm in increments of 0.1 cm (1 to 250 inches in increments of 0.1 in.)

Volumetric Flow Rate (TA430, TA440)

Range Actual range is a function of velocity, and duct size

Temperature

Range (TA410, TA430) -18 to 93°C (0 to 200°F)
 Range (TA440) -10 to 60°C (14 to 140°F)
 Accuracy³ ±0.3°C (±0.5°F)
 Resolution 0.1°C (0.1°F)

Relative Humidity (TA440 only)

Range 5 to 95% RH
 Accuracy⁴ ±3% RH
 Resolution 0.1% RH

Wet Bulb Temperature (TA440 only)

Range 5 to 60°C (40 to 140°F)
 Resolution 0.1°C (0.1°F)

Dew Point (TA440 only)

Range -15 to 49°C (5 to 120°F)
 Resolution 0.1°C (0.1°F)

Instrument Temperature Range

Operating (Electronics) 5 to 45°C (40 to 113°F)
 Model TA410, TA430 Operating (Probe) -18 to 93°C (0 to 200°F)
 Model TA440 Operating (Probe) -10 to 60°C (14 to 140°F)
 Storage -20 to 60°C (-4 to 140°F)

Data Storage Capabilities (TA430, TA440)

Range 12,700+ samples and 100 test IDs

Logging Interval (TA430, TA440)

1 second to 1 hour

Specifications subject to change without notice.

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Airflow Instruments, TSI Instruments Ltd.
 Visit our website at www.airflowinstruments.co.uk for more information.

UK Tel: +44 149 4 459200 Germany Tel: +49 241 523030
 France Tel: +33 491 11 87 64

P/N 2980548 Rev D (A4) ©2014 TSI Incorporated

Time Constant (TA430, TA440)

User selectable

External Meter Dimensions

8.4 cm x 17.8 cm x 4.4 cm (3.3 in. x 7.0 in. x 1.8 in.)

Meter Weight with Batteries

0.27 kg (0.6 lbs.)

Meter Probe Dimensions

Probe Length 101.6 cm (40 in.)
 Probe Diameter of Tip 7.0 mm (0.28 in.)
 Probe Diameter of Base 13.0 mm (0.51 in.)

Articulating Probe Dimensions

Articulating Section Length 19.7 cm (7.8 in.)
 Diameter of Articulating Knuckle 9.5 mm (0.38 in.)

Power Requirements

Four AA-size batteries or AC adapter

| | TA410 | TA430 TA430-A | TA440 TA440-A |
|--|----------|-------------------------------|-------------------------------|
| Velocity range 0 to 20.00 m/s (0 to 4000 ft/min) | + | | |
| Velocity range 0 to 30.00 m/s (0 to 6000 ft/min) | | + | + |
| Temperature | + | + | + |
| Flow | | + | + |
| Humidity, wet bulb, dew point | | | + |
| Probe | Straight | Straight or -A articulated | Straight or -A articulated |
| Variable time constant | | + | + |
| Manual data logging | | + | + |
| Auto save data logging | | | + |
| Statistics | | + | + |
| Review data | | + | + |
| LogDat2 downloading software | | + | + |
| Free Certificate of Calibration | + | + | + |

¹ Temperature compensated over an air temperature range of 5 to 65°C (40 to 150°F).

² The accuracy statement begins at 30 ft/min through 4000 ft/min (0.15 m/s through 20 m/s) for the Model TA410, and 30 ft/min through 6000 ft/min (0.15 m/s through 30 m/s) for Models TA430 and TA440.

³ Accuracy with instrument case at 25°C (77°F), add uncertainty of 0.03°C (0.05°F/F) for change in instrument temperature.

⁴ Accuracy with probe at 25°C (77°F). Add uncertainty of 0.2% RH/°C (0.1% RH/°F) for change in probe temperature. Includes 1% hysteresis.

Calibration Certificate of Air Flow Meter



Cal Lab Limited 校正實驗室有限公司

Room 2103, Technology Plaza, 29-35 Sha Tsui Road,
Tsuen Wan, NT, Hong Kong
Tel: +852 25680106 Email: info@callab.com.hk
Fax: +852 30116194 Website: www.callab.com.hk



Calibration Certificate No.: CC0222301

Customer Information

Customer: Castco Testing Centre Limited
Address: 33, On Kui Street, Fanling, N.T.

Equipment Identification

| Equipment Description | Manufacturer | Model No. | Serial No. | Assigned equipment No. |
|-----------------------|--------------|---------------|--------------|------------------------|
| Air Velocity Monitor | TSI | AIRFLOW TA440 | TA4401706003 | AAST-FLOW-03 |

Certificate Information

| | | | |
|--------------------------|-----------------|------------------------|------------------------|
| Date of Receipt: | 11 January 2023 | Calibration Condition: | 23.5°C, 58%RH, 1003hPa |
| Date of Calibration: | 13 January 2023 | Adjustment: | N/A |
| Due Date of Calibration: | N/A | Appearance: | Good |
| Calibration Procedure: | SOP-112 | Remark: | N/A |

Reference Equipment Identification

| Equipment Description | Model | Serial No. | Expiration Date |
|-----------------------|-------|--------------|-----------------|
| Hot Wire Anemometer | 9535 | T95351316004 | 11 August 2024 |

Result of Calibration

Air flow rate – Error of indication

| Reference reading (L/min) | Measured reading (L/min) | Error (%) | Uncertainty (%FS) | Technical Requirement | Technical Reference Doc. |
|---------------------------|--------------------------|-----------|-------------------|-----------------------|--------------------------|
| 0.5 | 0.51 | 2.0 | 3.6 | ± 5 % | JIG 956-2013 |
| 1.0 | 0.99 | -1.0 | 3.6 | ± 5 % | JIG 956-2013 |
| 2.0 | 2.03 | 1.5 | 3.6 | ± 5 % | JIG 956-2013 |
| 5.0 | 5.07 | 1.4 | 3.6 | ± 5 % | JIG 956-2013 |

CT-AFR-01

- Note1: The estimated expanded uncertainties have been calculated in "Evaluation and expression of uncertainty in measurement" and give an internal estimated to have a level of confidence of 95%. A coverage factor of 2 is assumed unless explicitly stated.
 Note2: The standard (s) and instrument used in the calibration are traceable to national or international recognized standard and are calibrated on a schedule to maintain the accuracy and good condition.
 Note3: The result reported in this certificate refer to the condition of the instrument on the date of calibration and carry no implication regarding the long term stability of the instrument.
 Note4: The result shows in this calibration certificate relate only to the item calibrated, and the result only applies to the calibration item as received.

Calibrated By:

Wing Cheng
Wing Cheng

Checked and Approved By:

Warren Yeung
Warren Yeung

Company Chop:



Certificate Issue Date: 13 January 2023

CT-BEG-03

*** End of Certificate ***

1. The certificate shall not be reproduced except in full, without written approval of Cal Lab Calibration
 2. The certificate is issued subject to the latest Terms and Conditions, available at our web site
- CC0222301
Page 1 of 1

AAST-FLOW-04, Cal Cert: 13 Jan 2023



Cal Lab Limited 校正實驗室有限公司

Room 2103, Technology Plaza, 29-35 Sha Tsui Road,
Tsuen Wan, NT, Hong Kong
Tel: +852 25680106 Email: info@callab.com.hk
Fax: +852 30116194 Website: www.callab.com.hk



Calibration Certificate No.: CC0312212

Customer Information

Customer: Castco Testing Centre Limited
Address: 33, On Kui Street, Fanling, N.T.

Equipment Identification

| Equipment Description | Manufacturer | Model No. | Serial No. | Assigned equipment No. |
|-----------------------|--------------|---------------|--------------|------------------------|
| Air Velocity Monitor | TSI | AIRFLOW TA440 | TA4401739003 | AAST-FLOW-04 |

Certificate Information

| | | | |
|--------------------------|------------------|------------------------|------------------------|
| Date of Receipt: | 19 December 2022 | Calibration Condition: | 23.5°C, 58%RH, 1003hPa |
| Date of Calibration: | 13 January 2023 | Adjustment: | N/A |
| Due Date of Calibration: | N/A | Appearance: | Good |
| Calibration Procedure: | SOP-112 | Remark: | N/A |

Reference Equipment Identification

| Equipment Description | Model | Serial No. | Expiration Date |
|-----------------------|-------|--------------|-----------------|
| Hot Wire Anemometer | 9535 | T95351316004 | 11 August 2024 |

Result of Calibration

Air flow rate – Error of indication

| Reference reading (L/min) | Measured reading (L/min) | Error (%) | Uncertainty (%FS) | Technical Requirement | Technical Reference Doc. |
|---------------------------|--------------------------|-----------|-------------------|-----------------------|--------------------------|
| 0.5 | 0.49 | -2.0 | 3.6 | ± 5 % | JIG 956-2013 |
| 1.0 | 1.02 | 2.0 | 3.6 | ± 5 % | JIG 956-2013 |
| 2.0 | 2.02 | 1.0 | 3.6 | ± 5 % | JIG 956-2013 |
| 5.0 | 5.05 | 1.0 | 3.6 | ± 5 % | JIG 956-2013 |

CT-AFR-01

- Note1: The estimated expanded uncertainties have been calculated in "Evaluation and expression of uncertainty in measurement" and give an internal estimated to have a level of confidence of 95%. A coverage factor of 2 is assumed unless explicitly stated.
 Note2: The standard (s) and instrument used in the calibration are traceable to national or international recognized standard and are calibrated on a schedule to maintain the accuracy and good condition.
 Note3: The result reported in this certificate refer to the condition of the instrument on the date of calibration and carry no implication regarding the long term stability of the instrument.
 Note4: The result shows in this calibration certificate relate only to the item calibrated, and the result only applies to the calibration item as received.

Calibrated By:

Wing Cheng
Wing Cheng

Checked and Approved By:

Warren Yeung
Warren Yeung

Company Chop:



Certificate Issue Date: 13 January 2023

CT-BEG-03

*** End of Certificate ***

1. The certificate shall not be reproduced except in full, without written approval of Cal Lab Calibration
 2. The certificate is issued subject to the latest Terms and Conditions, available at our web site
- CC0312212
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Appendix L – Noise monitoring results and graphical presentation

M11 - The Hong Kong Society for the Blind's Factory cum Sheltered Workshop

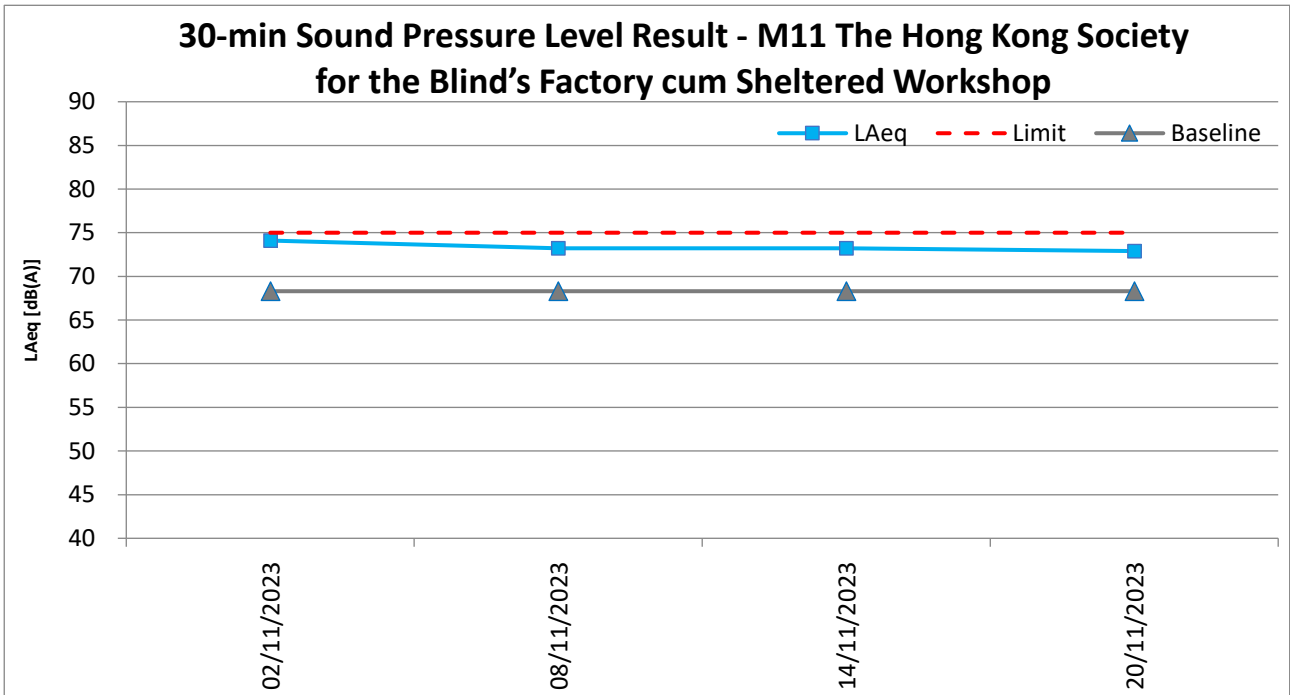
| Date | Temp (°C) | Weather | Measured Noise Level at M11, dB(A) | | | | | | Limit | |
|------------|-----------|---------|------------------------------------|---|-------|----------|------------------|------------------|-------|------------------|
| | | | Time | | | Baseline | L _{Aeq} | L _{A10} | | L _{A90} |
| 02/11/2023 | 27.4 | Sunny | 14:15 | - | 14:45 | 68.3 | 74.1 | 76.9 | 65.8 | 75 |
| 08/11/2023 | 25.7 | Sunny | 10:40 | - | 11:10 | 68.3 | 73.2 | 76.8 | 64.9 | 75 |
| 14/11/2023 | 18.8 | Cloudy | 9:35 | - | 10:05 | 68.3 | 73.2 | 76.4 | 64.6 | 75 |
| 20/11/2023 | 25.4 | Sunny | 14:26 | - | 14:56 | 68.3 | 72.9 | 75.3 | 64.1 | 75 |
| Maximum | | | | | | | 74.1 | | | |
| Minimum | | | | | | | 72.9 | | | |
| Average | | | | | | | 73.4 | | | |

NOTE: Due to the relocation of The Hong Kong Society for the Blind's Factory cum Sheltered Workshop (M11), the premises owner rejected ET to conduct impact monitoring since 1 Sept 2022. 30-min noise monitoring at M11 were conducted on the ground floor with orienting to the Project site. ET will resume the impact monitoring once the alternative monitoring location for M11 is confirmed.

M12 - Hong Kong Children's Hospital

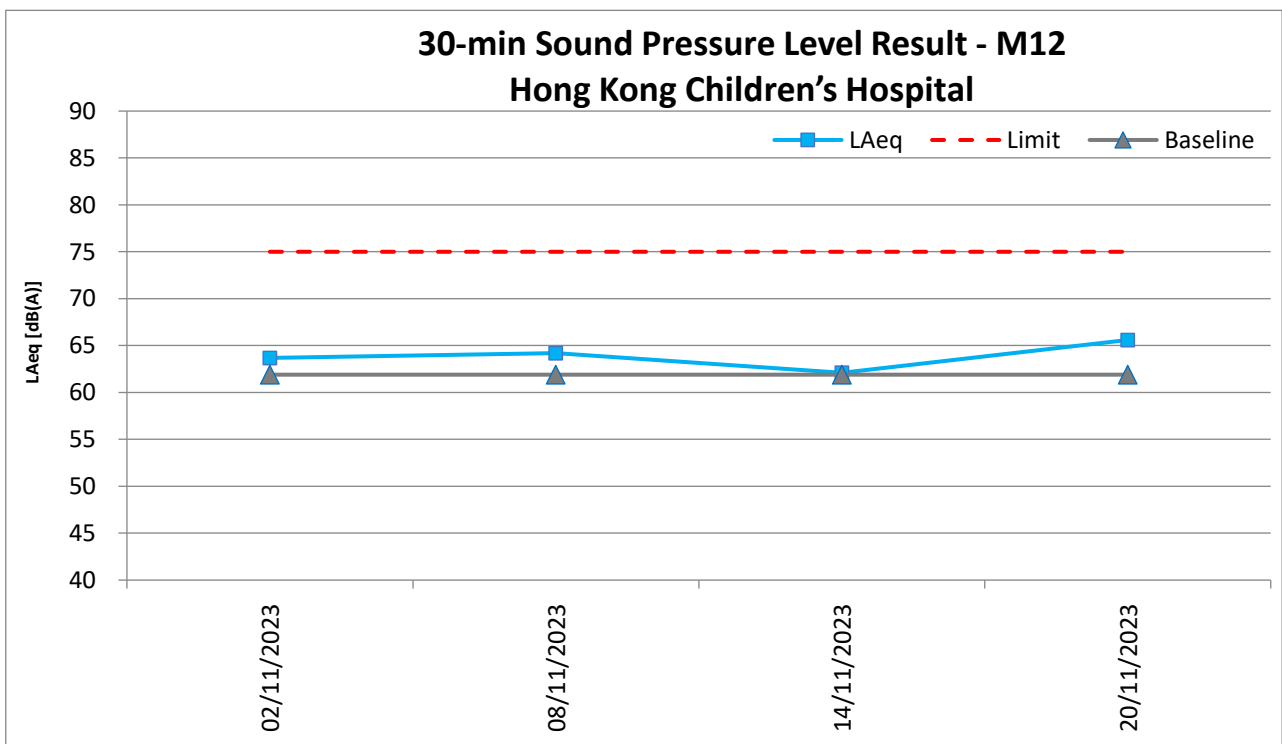
| Date | Temp (°C) | Weather | Measured Noise Level at M12, dB(A) | | | | | | Limit | |
|------------|-----------|---------|------------------------------------|---|-------|----------|------------------|------------------|-------|------------------|
| | | | Time | | | Baseline | L _{Aeq} | L _{A10} | | L _{A90} |
| 02/11/2023 | 27.4 | Sunny | 10:12 | - | 10:42 | 61.9 | 63.7 | 66.7 | 60.3 | 75 |
| 08/11/2023 | 25.7 | Sunny | 14:33 | - | 15:03 | 61.9 | 64.2 | 67.2 | 60.6 | 75 |
| 14/11/2023 | 18.8 | Cloudy | 13:35 | - | 14:05 | 61.9 | 62.1 | 64.3 | 58.8 | 75 |
| 20/11/2023 | 25.4 | Sunny | 10:16 | - | 10:46 | 61.9 | 65.6 | 68.8 | 61.9 | 75 |
| Maximum | | | | | | | 65.6 | | | |
| Minimum | | | | | | | 62.1 | | | |
| Average | | | | | | | 64.1 | | | |

L_{Aeq}, 30-min graphical results of M11 - The Hong Kong Society for the Blind's Factory cum Sheltered Workshop



NOTE: Due to the relocation of The Hong Kong Society for the Blind's Factory cum Sheltered Workshop (M11), the premises owner rejected ET to conduct impact monitoring since 1 Sept 2022. 30-min noise monitoring at M11 were conducted on the ground floor with orienting to the Project site. ET will resume the impact monitoring once the alternative monitoring location for M11 is confirmed.

L_{Aeq}, 30-min graphical results of M12 - Hong Kong Children's Hospital



Appendix M – Event and Action Plan for noise

| Event | Action | | | |
|-----------------------------|--|--|---|--|
| | ET | IEC | Supervisor / ER | Contractor |
| Action Level being exceeded | <ol style="list-style-type: none"> 1. Notify Supervisor / ER, IEC and Contractor; 2. Carry out investigation; 3. Report the results of investigation to the IEC, Supervisor / ER and Contractor; 4. Discuss with the IEC and Contractor on remedial measures required; 5. Increase monitoring frequency to check mitigation effectiveness. <p>(The above actions should be taken within 2 working days after the exceedance is identified.)</p> | <ol style="list-style-type: none"> 1. Review the investigation results submitted by the ET; 2. Review the proposed remedial measures submitted by the Contractor and advise the ER accordingly; 3. Advise the Supervisor / ER on the proposed remedial measures. <p>(The above actions should be taken within 2 working days after the exceedance is identified.)</p> | <ol style="list-style-type: none"> 1. Confirm receipt of notification of failure in writing; 2. Notify Contractor; 3. In consolidation with the IEC, agree with the Contractor on the remedial measures to be implemented; 4. Supervise the implementation of remedial measures. <p>(The above actions should be taken within 2 working days after the exceedance is identified.)</p> | <ol style="list-style-type: none"> 1. Submit noise mitigation proposal to IEC and Supervisor / ER; 2. Implement noise mitigation proposals. <p>(The above actions should be taken within 2 working days after the exceedance is identified.)</p> |
| Limit Level being exceeded | <ol style="list-style-type: none"> 1. Inform IEC, Supervisor /ER, Contractor and EPD; 2. Repeat measurement to confirm findings; 3. Increase monitoring frequency; 4. Identify source and investigate the cause of exceedance; 5. Carry out analysis of Contract's working procedure; 6. Discuss remedial measures required with the IEC, Contractor and Supervisor /ER; 7. Assess effectiveness of | <ol style="list-style-type: none"> 1. Discuss the potential remedial actions with Supervisor /ER, ET and Contractor; 2. Review Contractor's remedial actions whenever necessary to assure their effectiveness and advise the Supervisor /ER accordingly. <p>(The above actions should be taken within 2 working days after the exceedance is identified.)</p> | <ol style="list-style-type: none"> 1. Confirm receipt of notification of failure in writing; 2. Notify Contractor; 3. In consolidation with the IEC, agree with the Contractor on the remedial measures to be implemented; 4. Supervise the implementation of remedial measures; 5. If exceedance continues, consider stopping the Contractor to continue working on that portion of work which causes the | <ol style="list-style-type: none"> 1. Take immediate action to avoid further exceedance; 2. Submit proposals for remedial actions to IEC and Supervisor /ER within 3 working days of notification; 3. Implement the agreed proposal; 4. Submit further proposal if problem still not under control; 5. Stop the relevant portion of works as instructed by the Supervisor /ER until the exceedance is abated. <p>(The above actions should be</p> |

| Event | Action | | | |
|-------|---|-----|---|---|
| | ET | IEC | Supervisor / ER | Contractor |
| | <p>Contractor's remedial actions and keep IEC, EPD, and Supervisor /ER informed of the results;</p> <p>8. If exceedance stops, cease additional monitoring. (The above actions should be taken within 2 working days after the exceedance is identified.)</p> | | <p>exceedance until the exceedance is abated. (The above actions should be taken within 2 working days after the exceedance is identified.)</p> | <p>taken within 2 working days after the exceedance is identified.)</p> |

Appendix N – Event and Action Plan for Landscape and Visual Impact

| Event | Action | | | |
|--------------------------------|--|---|--|---|
| | ET | IEC | Supervisor / ER | Contractor |
| Design Check | <ol style="list-style-type: none"> 1. Check final design conforms to the requirements of EP and prepare report. | <ol style="list-style-type: none"> 1. Check report. 2. Recommend remedial design if necessary. | <ol style="list-style-type: none"> 1. Undertake remedial design if necessary. | |
| Non-conformity on one occasion | <ol style="list-style-type: none"> 1. Identify Source. 2. Inform IEC and Supervisor /ER. 3. Discuss remedial actions with IEC, Supervisor /ER and Contractor. 4. Monitor remedial actions until rectification has been completed. | <ol style="list-style-type: none"> 1. Check report. 2. Check Contractor's working method. 3. Discuss with ET and Contractor on possible remedial measures. 4. Advise Supervisor /ER on effectiveness of proposed remedial measures. 5. Check implementation of remedial measures. | <ol style="list-style-type: none"> 1. Notify Contractor. 2. Ensure remedial measures are properly implemented. | <ol style="list-style-type: none"> 1. Amend working methods. 2. Rectify damage and undertake any necessary replacement. |
| Repeated Non-conformity | <ol style="list-style-type: none"> 1. Identify Source. 2. Inform IEC and Supervisor /ER. 3. Increase monitoring frequency. 4. Discuss remedial actions with IEC, Supervisor /ER and Contractor. 5. Monitor remedial actions until rectification has been completed. 6. If non-conformity stops, cease additional monitoring. | <ol style="list-style-type: none"> 1. Check monitoring report. 2. Check Contractor's working method. 3. Discuss with ET and Contractor on possible remedial measures. 4. Advise Supervisor /ER on effectiveness of proposed remedial measures. 5. Supervise implementation of remedial measures. | <ol style="list-style-type: none"> 1. Notify Contractor. 2. Ensure remedial measures are properly implemented. | <ol style="list-style-type: none"> 1. Amend working methods. 2. Rectify damage and undertake any necessary replacement. |

Appendix O – Waste Flow Table

Appendix F - Monthly Summary Waste Flow Table

Name of Department: CEDD

Contract No.: ED/2018/01

Monthly Summary Waste Flow Table for October 2023

| Month | Actual Quantities of Inert C&D Materials Generated Monthly | | | | | | Actual Quantities of C&D Wastes Generated Monthly | | | | |
|--|--|-------------------------------------|--------------------------|--------------------------|--------------------------|--------------------------|---|-----------------------------|-----------------------|-----------------------------|-----------------------------|
| | Total Quantity Generated | Hard Rock and Large Broken Concrete | Reused in the Contract | Reused in other Projects | Disposed as Public Fill | Imported Fill | Metals | Paper / cardboard packaging | Plastics (see Note 3) | Chemical Waste | Others, e.g. general refuse |
| | (in '000m ³) | (in '000m ³) | (in '000m ³) | (in '000m ³) | (in '000m ³) | (in '000m ³) | (in '000 kg) | (in '000kg) | (in '000kg) | (in '000kg) | (in '000m ³) |
| Jan | 1.894 | 0.109 | 0.351 | -- | 1.543 | -- | -- | -- | -- | -- | 0.142 |
| Feb | 3.330 | 0.086 | -- | -- | 3.330 | 0.474 | -- | -- | -- | -- | 0.139 |
| Mar | 3.384 | 0.301 | 1.484 | -- | 1.900 | 0.474 | -- | 0.312 | -- | -- | 0.155 |
| Apr | 1.590 | 0.149 | 0.748 | -- | 0.842 | -- | -- | -- | -- | -- | 0.141 |
| May | 3.017 | 0.102 | 0.758 | -- | 2.259 | -- | -- | 0.11 | -- | -- | 0.137 |
| Jun | 2.332 | 0.063 | 0.208 | -- | 2.124 | 1.100 | -- | 2023-- | -- | -- | 0.134 |
| Sub-total | 15.547 | 0.810 | 3.549 | -- | 11.998 | 2.048 | -- | 0.422 | -- | -- | 0.848 |
| July | 4.085 | 0.074 | 0.300 | -- | 3.785 | 0.150 | -- | 0.035 | -- | -- | 0.153 |
| Aug | 1.597 | 0.093 | -- | -- | 1.597 | -- | -- | -- | -- | -- | 0.147 |
| Sep | 1.519 | 0.187 | -- | -- | 1.519 | -- | -- | -- | -- | -- | 0.133 |
| Oct | 2.691 | 0.855 | -- | -- | 2.691 | -- | -- | -- | -- | -- | 0.141 |
| Nov | | | | | | | | | | | |
| Dec | | | | | | | | | | | |
| Total | 25.439 | 2.019 | 3.849 | -- | 21.59 | 2.198 | -- | 0.457 | -- | -- | 1.422 |
| Forecast of Total Quantities of C&D Materials to be Generated from the Contract* | | | | | | | | | | | |
| Total Quantity Generated | Hard Rock and Large Broken Concrete | Reused in the Contract | Reused in other Projects | Disposed as Public Fill | Imported Fill | Metals | Paper / cardboard packaging | Plastics (see Note 3) | Chemical Waste | Others, e.g. general refuse | |
| (in '000m ³) | (in '000m ³) | (in '000m ³) | (in '000m ³) | (in '000m ³) | (in '000m ³) | (in '000 kg) | (in '000kg) | (in '000kg) | (in '000kg) | (in '000m ³) | |
| 207.384 | 2.103 | 10.2 | 140 | 27.415 | 25 | 200 | 0.8 | 0.1 | -- | 3.891 | |

- Notes: (1) The performance targets are given in **ER Appendix 8I Clause 14** and the EM&A Manual
(2) The waste flow table shall also include C&D materials to be imported for use at the Site
(3) Plastics refer to plastic bottles/containers, plastic sheets/foam from packaging material and water barrier
(4) The Contractor shall also submit the latest forecast of the total amount of C&D materials expected to be generated from the works, together with a breakdown of the nature where the total amount of C&D materials expected to be generated from the Works is equal to or exceeding 50,000m³ (**ER Part 8 Clause 8.7.5(d)(ii)** refers)
(5) Assume inert C&D materials density and non-inert C&D materials are 1.9 ton/m³ and 1.5 ton/m³

**Appendix P – Environmental Mitigation Implementation Schedule
(EMIS)**

| Implementation Schedule for Air Quality Measures | | | |
|---|---|---|---------------|
| EIA for KTD Development Ref. | EIA for KTD – Roads D3A & D4A Ref. | Environmental Protection Measures / Mitigation Measures | Status |
| S3.2 | | 8 times daily watering of the work site with active dust emitting activities. | ^ |
| S3.2 | S4.8 | Implementation of dust suppression measures stipulated in Air Pollution Control (Construction Dust) Regulation. The following mitigation measures, good site practices and a comprehensive dust monitoring and audit programme are recommended to minimize cumulative dust impacts. | ^ |
| | | - Stockpiling site(s) should be lined with impermeable sheeting and bunded. Stockpiles should be fully covered by impermeable sheeting to reduce dust emission. | ^ |
| | | - Misting for the dusty material should be carried out before being loaded into the vehicle. | ^ |
| | | - Any vehicle with an open load carrying area should have properly fitted side and tail boards. | ^ |
| | | - Material having the potential to create dust should not be loaded from a level higher than the side and tail boards and should be dampened and covered by a clean tarpaulin. | ^ |
| | | - The tarpaulin should be properly secured and should extent at least 300 mm over the edges of the sides and tailboards. The material should also be dampened if necessary, before transportation. | ^ |
| | | - The vehicles should be restricted to maximum speed of 10 km per hour and confined haulage and delivery vehicle to designated roadways insider the site. On- site unpaved roads should be compacted and kept free of lose materials. | ^ |
| | | - Vehicle washing facilities should be provided at every vehicle exit point. | ^ |
| | | - The area where vehicle washing takes place and the section of the road between the washing facilities and the exit point should be paved with concrete, bituminous materials or hardcores. | ^ |
| | | - Every main haul road should be scaled with concrete and kept clear of dusty materials or sprayed with water so as to maintain the entire road surface wet. | ^ |
| | | - Every stock of more than 20 bags of cement should be covered entirely by impervious sheeting placed in an area sheltered on the top and the three sides. | ^ |
| | | - Every vehicle should be washed to remove any dusty materials from its body and wheels before leaving the construction sites. | ^ |

| Implementation Schedule for Noise Measures | | | |
|---|---|--|---------------|
| EIA for KTD Development Ref. | EIA for KTD – Roads D3A & D4A Ref. | Environmental Protection Measures / Mitigation Measures | Status |
| S3.3 | | Use of quiet PME, movable barriers for Asphalt Paver, Breaker, Excavator and Hand-held breaker and full enclosure for Air Compressor, Bar Bender, Concrete Pump, Generator and Water Pump. | ^ |
| S3.3 | | Good Site Practice: | |
| S3.3 | | - Only well-maintained plant should be operated on-site and plant should be serviced regularly during the construction program. | ^* |
| | | - Silencers or mufflers on construction equipment should be utilized and should be properly maintained during the construction program. | ^ |
| | | - Mobile plant, if any, should be sited as far away from NSRs as possible. | ^ |
| | | - Machines and plant (such as trucks) that may be in intermittent use should be shut down between works periods or should be throttled down to a minimum. | ^ |
| | | - Plant known to emit noise strongly in one direction should, wherever possible, be orientated so that the noise is directed away from the nearby NSRs. | ^ |
| | | - Material stockpiles and other structures should be effectively utilized, wherever practicable, in screening noise from on-site construction activities. | ^ |
| | | - Scheduling of Construction Works during School Examination Period | N/A |

| Implementation Schedule for Water Quality Measures | | | |
|---|---|--|---------------|
| EIA for KTD Development Ref. | EIA for KTD – Roads D3A & D4A Ref. | Environmental Protection Measures / Mitigation Measures | Status |
| S3.4 | | <u>Construction Runoff</u> Exposed soil areas should be minimised to reduce the potential for increased siltation, contamination of runoff, and erosion. Construction runoff related impacts associated with the above ground construction activities can be readily controlled through the use of appropriate mitigation measures which include: | ^ |
| S3.4 | | - use of sediment traps. | ^ |
| S3.4 | | - adequate maintenance of drainage systems to prevent flooding and overflow. | ^ |

| Implementation Schedule for Water Quality Measures | | | |
|---|---|--|---------------|
| EIA for KTD Development Ref. | EIA for KTD – Roads D3A & D4A Ref. | Environmental Protection Measures / Mitigation Measures | Status |
| | S5.8 | - Surface run-off from construction sites should be discharged into storm drains via adequately designed sand/silt removal facilities such as sand traps, silt traps and sedimentation basins. | ^ |
| | S5.8 | - Channels or earth bunds or sand bag barriers should be provided on site to properly direct stormwater to such silt removal facilities. Perimeter channels should be provided on site boundaries where necessary to intercept storm run-off from outside the site so that it will not wash across the site. Catchpits and perimeter channels should be constructed in advance of site formation works and earthworks. | ^ |
| | S5.8 | - Silt removal facilities, channels and manholes should be maintained and the deposited silt and grit should be removed regularly, at the onset of and after each rainstorm to prevent local flooding. Any practical options for the diversion and re-alignment of drainage should comply with both engineering and environmental requirements in order to provide adequate hydraulic capacity of all drains. Minimum distance of 100 m should be maintained between the discharge points of construction site run-off and the existing saltwater intakes. | ^ |
| | S5.8 | - Earthworks final surfaces should be well compacted and the subsequent permanent work or surface protection should be carried out immediately after the final surfaces are formed to prevent erosion caused by rainstorms. Appropriate drainage like intercepting channels should be provided where necessary. | ^ |
| | S5.8 | - Measures should be taken to minimize the ingress of rainwater into trenches. If excavation of trenches in wet seasons is necessary, they should be dug and backfilled in short sections. Rainwater pumped out from trenches or foundation excavations should be discharged into storm drains via silt removal facilities. | ^ |
| | S5.8 | - Open stockpiles of construction materials (e.g. aggregates, sand and fill material) on sites should be covered with tarpaulin or similar fabric during rainstorms. | ^ |
| | S5.8 | - Manholes (including newly constructed ones) should always be adequately covered and temporarily sealed so as to prevent silt, construction materials or debris from getting into the drainage system, and to prevent storm run-off from getting into foul sewers. Discharge of surface run-off into foul sewers must always be prevented in order not to unduly overload the foul | ^ |

| Implementation Schedule for Water Quality Measures | | | |
|---|---|---|---------------|
| EIA for KTD Development Ref. | EIA for KTD – Roads D3A & D4A Ref. | Environmental Protection Measures / Mitigation Measures | Status |
| | | sewerage system. | |
| | S5.8 | - Good site practices should be adopted to remove rubbish and litter from construction sites so as to prevent the rubbish and litter from spreading from the site area. It is recommended to clean the construction sites on a regular basis. | ^ |
| S3.4 | | Construction site should be provided with adequately designed perimeter channel and pre-treatment facilities and proper maintenance. The boundaries of critical areas of earthworks should be marked and surrounded by dykes or embankments for flood protection. Temporary ditches should be provided to facilitate runoff discharge into the appropriate watercourses, via a silt retention pond. Permanent drainage channels should incorporate sediment basins or traps and baffles to enhance deposition rates. The design of efficient silt removal facilities should be based on the guidelines in Appendix A1 of ProPECC PN 1/94. | ^ |
| S3.4 | S5.8 | Ideally, construction works should be programmed to minimise surface excavation works during the rainy season (April to September). All exposed earth areas should be completed as soon as possible after earthworks have been completed, or alternatively, within 14 days of the cessation of earthworks where practicable. If excavation of soil cannot be avoided during the rainy season, or at any time of year when rainstorms are likely, exposed slope surfaces should be covered by tarpaulin or other means. If excavation in soil cannot be avoided in these months or at any time of year when rainstorms are likely, for the purpose of preventing soil erosion, temporary exposed slope surfaces should be covered e.g. by tarpaulin, and temporary access roads should be protected by crushed stone or gravel, as excavation proceeds. Intercepting channels should be provided (e.g. along the crest / edge of excavation) to prevent storm runoff from washing across exposed soil surfaces. Arrangements should always be in place in such a way that adequate surface protection measures can be safely carried out well before the arrival of a rainstorm. | ^ |
| S3.4 | | Sediment tanks of sufficient capacity, constructed from pre-formed individual cells of approximately 6 to 8 m ³ capacity, are recommended as a general mitigation measure which can be used for settling surface runoff prior to disposal. The system capacity is flexible and able to handle multiple inputs from a variety of sources | ^ |

| Implementation Schedule for Water Quality Measures | | | |
|---|---|--|---------------|
| EIA for KTD Development Ref. | EIA for KTD – Roads D3A & D4A Ref. | Environmental Protection Measures / Mitigation Measures | Status |
| | | and particularly suited to applications where the influent is pumped. | |
| S3.4 | | Open stockpiles of construction materials (for examples, aggregates, sand and fill material) of more than 50 m ³ 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. | ^ |
| S3.4 | | 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. | ^ |
| S3.4 | | Precautions to be taken at any time of year when rainstorms are likely, actions to be taken when a rainstorm is imminent or forecast, and actions to be taken during or after rainstorms are summarised in Appendix A2 of ProPECC PN 1/94. Particular attention should be paid to the control of silty surface runoff during storm events. | ^ |
| S3.4 | | Oil interceptors should be provided in the drainage system and regularly cleaned to prevent the release of oils and grease into the storm water drainage system after accidental spillages. The interceptor should have a bypass to prevent flushing during periods of heavy rain. | NA |
| S3.4 | S5.8 | <u>Wheel Washing Water</u> 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 located wheel washing bay should be provided at every site exit, and wash-water 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. | ^ |
| S3.4 | | <u>Drainage</u> It is recommended that on-site drainage system should be installed prior to the commencement of other construction activities. Sediment traps should be installed in order to minimise the sediment loading of the effluent prior to discharge into foul sewers. There should be no direct discharge of effluent from the site into the sea. | ^ |
| S3.4 | | All temporary and permanent drainage pipes and culverts provided | ^ |

| Implementation Schedule for Water Quality Measures | | | |
|---|---|---|---------------|
| EIA for KTD Development Ref. | EIA for KTD – Roads D3A & D4A Ref. | Environmental Protection Measures / Mitigation Measures | Status |
| | | to facilitate runoff discharge should be adequately designed for the controlled release of storm flows. All sediment control measures should be regularly inspected and maintained to ensure proper and efficient operation at all times and particularly following rain storms. The temporarily diverted drainage should be reinstated to its original condition when the construction work has finished or the temporary diversion is no longer required. | |
| S3.4 | | All fuel tanks and storage areas should be provided with locks and be located 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 the coastal waters of the Victoria Harbour WCZ. | ^ |
| S3.4 | S5.8 | <p><u>Sewage Effluent</u></p> <p>Construction work force sewage discharges on site are expected to be connected to the existing trunk sewer or sewage treatment facilities. The construction sewage may need to be handled by portable chemical toilets prior to the commission of the on-site sewer system. Appropriate numbers of portable toilets should be provided by a licensed contractor to serve the large number of construction workers over the construction site. The Contractor should also be responsible for waste disposal and maintenance practices.</p> <p>Notices should be posted at conspicuous locations to remind the workers not to discharge any sewage or wastewater into the surrounding environment. Regular environmental audit of the construction site will provide an effective control of any malpractices and can encourage continual improvement of environmental performance on site. It is anticipated that sewage generation during the construction phase of the project would not cause water pollution problem after undertaking all required measures.</p> | ^ |
| S3.4 | | <p><u>Stormwater Discharges</u></p> <p>Minimum distances of 100 m should be maintained between the existing or planned stormwater discharges and the existing or planned seawater intakes</p> | ^ |
| S3.4 | | <p><u>Debris and Litter</u></p> <p>In order to maintain water quality in acceptable conditions with regard to aesthetic quality, contractors should be required, under conditions of contract, to ensure that site management is optimised</p> | ^ |

| Implementation Schedule for Water Quality Measures | | | |
|---|---|---|---------------|
| EIA for KTD Development Ref. | EIA for KTD – Roads D3A & D4A Ref. | Environmental Protection Measures / Mitigation Measures | Status |
| | | and that disposal of any solid materials, litter or wastes to marine waters does not occur. | |
| | S5.8 | <u>Boring and Drilling Water</u> Water used in ground boring and drilling for site investigation or rock / soil anchoring should as far as practicable be re-circulated after sedimentation. When there is a need for final disposal, the wastewater should be discharged into storm drains via silt removal facilities. | ^ |
| | S5.8 | <u>Acid Cleaning, Etching and Pickling Wastewater</u> Acidic wastewater generated from acid cleaning, etching, pickling and similar activities should be neutralized to within the pH range of 6 to 10 before discharging into foul sewers. | NA |
| | S5.8 | <u>Effluent Discharge</u> There is a need to apply to EPD for a discharge licence for discharge of effluent from the construction site under the WPCO. The discharge quality must meet the requirements specified in the discharge licence. All the runoff and wastewater generated from the works areas should be treated so that it satisfies all the standards listed in the TM-DSS. Minimum distance of 100 m should be maintained between the discharge points of construction site effluent and the existing seawater intakes and the planned WSR mentioned in S5.3.1 as appropriate. The beneficial uses of the treated effluent for other on-site activities such as dust suppression, wheel washing and general cleaning etc., can minimise water consumption and reduce the effluent discharge volume. If monitoring of the treated effluent quality from the works areas is required during the construction phase of the Project, the monitoring should be carried out in accordance with the relevant WPCO licence which is under the ambit of regional office (RO) of EPD. | ^ |
| | S5.8 | <u>Accidental Spillage</u> Contractor must register as a chemical waste producer if chemical wastes would be produced from the construction activities. The Waste Disposal Ordinance (Cap 354) and its subsidiary regulations in particular the Waste Disposal (Chemical Waste) (General) Regulation, should be observed and complied with for control of chemical wastes. Any service shop and maintenance facilities should be located on | ^ |

| Implementation Schedule for Water Quality Measures | | | |
|---|---|--|---------------|
| EIA for KTD Development Ref. | EIA for KTD – Roads D3A & D4A Ref. | Environmental Protection Measures / Mitigation Measures | Status |
| | | hard standings within a bunded area, and sumps and oil interceptors should be provided. Maintenance of vehicles and equipment involving activities with potential for leakage and spillage should only be undertaken within the areas appropriately equipped to control these discharges. | |
| | S5.8 | Disposal of chemical wastes should be carried out in compliance with the Waste Disposal Ordinance. The Code of Practice on the Packaging, Labelling and Storage of Chemical Wastes published under the Waste Disposal Ordinance details the requirements to deal with chemical wastes. General requirements are given as follows: - Suitable containers should be used to hold the chemical wastes to avoid leakage or spillage during storage, handling and transport. | ^ |
| | S5.8 | - Chemical waste containers should be suitably labelled, to notify and warn the personnel who are handling the wastes, to avoid accidents. | ^ |
| | S5.8 | - Storage area should be selected at a safe location on site and adequate space should be allocated to the storage area. | ^ |

| Implementation Schedule for Waste Management Measures | | | |
|--|---|---|---------------|
| EIA for KTD Development Ref. | EIA for KTD – Roads D3A & D4A Ref. | Environmental Protection Measures / Mitigation Measures | Status |
| S3.5 | | <u>Good Site Practices</u> It is not anticipated that adverse waste management related impacts would arise, provided that good site practices are adhered to. Recommendations for good site practices during construction activities include: | |
| S3.5 | | - Nomination of an approved person, such as a site manager, to be responsible for good site practices, arrangements for collection and effective disposal to an appropriate facility, of all wastes generated at the site. | ^ |
| | S6.7 | - Prepare a Waste Management Plan, which becomes a part of the Environmental Management Plan, in accordance with the requirements stipulated in ETWB TC(W) No. 19/2005, approved by the Engineer/Supervising Officer of the Project based on current practices on construction sites. | ^ |
| S3.5 | S6.7 | - Training of site personnel in proper waste management and chemical waste handling procedures. | ^ |

| Implementation Schedule for Waste Management Measures | | | |
|--|---|--|---------------|
| EIA for KTD Development Ref. | EIA for KTD – Roads D3A & D4A Ref. | Environmental Protection Measures / Mitigation Measures | Status |
| S3.5 | S6.7 | - Provision of sufficient waste disposal points and regular collection for disposal. | ^* |
| S3.5 | S6.7 | - Appropriate measures to minimise windblown litter and dust during transportation of waste by either covering trucks or by transporting wastes in enclosed containers. | ^ |
| S3.5 | | - A recording system for the amount of wastes generated, recycled and disposed of (including the disposal sites). | ^ |
| | S6.7 | - Regular cleaning and maintenance programme for drainage systems, sumps and oil interceptors. | ^ |
| | S6.7 | - Training should be provided to workers about the concepts of site cleanliness and appropriate waste management procedures, including waste reduction, reuse and recycle. | ^ |
| S3.5 | | <u>Waste Reduction Measures</u> Good management and control can prevent the generation of a significant amount of waste. Waste reduction is best achieved at the planning and design stage, as well as by ensuring the implementation of good site practices. Recommendations to achieve waste reduction include: | |
| S3.5 | S6.7 | - Sort C&D waste from demolition of the remaining structures to recover recyclable portions such as metals. | NA |
| S3.5 | S6.7 | - Segregation and storage of different types of waste in different containers, skips or stockpiles to enhance reuse or recycling of materials and their proper disposal. | ^ |
| S3.5 | S6.7 | - Encourage collection of aluminium cans, PET bottles and paper by providing separate labelled bins to enable these wastes to be segregated from other general refuse generated by the work force. | ^ |
| S3.5 | | - Any unused chemicals or those with remaining functional capacity should be recycled. | ^ |
| S3.5 | S6.7 | - Proper storage and site practices to minimise the potential for damage or contamination of construction materials. | ^ |
| S3.5 | | <u>Construction and Demolition Materials</u> Mitigation measures and good site practices should be incorporated in the contract document to control potential environmental impact from handling and transportation of C&D material. The mitigation measures include: | |
| S3.5 | | - Where it is unavoidable to have transient stockpiles of C&D material within the Project work site pending collection for | ^ |

| Implementation Schedule for Waste Management Measures | | | |
|--|---|---|---------------|
| EIA for KTD Development Ref. | EIA for KTD – Roads D3A & D4A Ref. | Environmental Protection Measures / Mitigation Measures | Status |
| | | disposal, the transient stockpiles shall be located away from waterfront or storm drains as far as possible. | |
| S3.5 | | - Open stockpiles of construction materials or construction wastes on-site should be covered with tarpaulin or similar fabric. | ^ |
| S3.5 | | - Skip hoist for material transport should be totally enclosed by impervious sheeting. | ^ |
| S3.5 | | - Every vehicle should be washed to remove any dusty materials from its body and wheels before leaving a construction site. | ^ |
| S3.5 | | - The area where vehicle washing takes place and the section of the road between the washing facilities and the exit point should be paved with concrete, bituminous materials or hardcores. | ^ |
| S3.5 | | - The load of dusty materials carried by vehicle leaving a construction site should be covered entirely by clean impervious sheeting to ensure dust materials do not leak from the vehicle. | ^ |
| S3.5 | | - All dusty materials should be sprayed with water prior to any loading, unloading or transfer operation so as to maintain the dusty materials wet. | ^ |
| S3.5 | | - The height from which excavated materials are dropped should be controlled to a minimum practical height to limit fugitive dust generation from unloading. | ^ |
| S3.5 | | - When delivering inert C&D material to public fill reception facilities, the material should consist entirely of inert construction waste and of size less than 250mm or other sizes as agreed with the Secretary of the Public Fill Committee. In order to monitor the disposal of the surplus C&D material at the designed public fill reception facility and to control fly tipping, a trip-ticket system as stipulated in the ETWB TCW No. 31/2004 “Trip Ticket System for Disposal of Construction and Demolition Materials” should be included as one of the contractual requirements and implemented by an Environmental Team undertaking the Environmental Monitoring and Audit work. An Independent Environmental Checker should be responsible for auditing the results of the system. | ^ |
| | S6.7 | - Plan and stock construction materials carefully to minimize amount of waste generated and avoid unnecessary generation | ^ |

| Implementation Schedule for Waste Management Measures | | | |
|--|---|--|---------------|
| EIA for KTD Development Ref. | EIA for KTD – Roads D3A & D4A Ref. | Environmental Protection Measures / Mitigation Measures | Status |
| | | of waste. | |
| S3.5 | | <u>Chemical Waste</u> After use, chemical wastes (for example, cleaning fluids, solvents, lubrication oil and fuel) should be handled according to the Code of Practice on the Packaging, Labelling and Storage of Chemical Wastes. Spent chemicals should be collected by a licensed collector for disposal at the CWTF or other licensed facility, in accordance with the Waste Disposal (Chemical Waste) (General) Regulation. | ^* |
| | S6.7 | Separation of chemical wastes for special handling and appropriate treatment. | ^ |
| S3.5 | | <u>General Refuse</u> General refuse should be stored in enclosed bins or compaction units separate from C&D material. A licensed waste collector should be employed by the contractor to remove general refuse from the site, separately from C&D material. Effective collection and storage methods (including enclosed and covered area) of site wastes would be required to prevent waste materials from being blown around by wind, wastewater discharge by flushing or leaching into the marine environment, or creating odour nuisance or pest and vermin problem. | ^ |

| Implementation Schedule for Landscape and Visual Measures | | | |
|--|---|---|---------------|
| EIA for KTD Development Ref. | EIA for KTD – Roads D3A & D4A Ref. | Environmental Protection Measures / Mitigation Measures | Status |
| S3.8.12 | | All existing trees should be carefully protected during construction. | ^ |
| S3.8.12 | | Trees unavoidably affected by the works should be transplanted where practical. Detailed transplanting proposal will be submitted to relevant government departments for approval in accordance with ETWBC 2/2004 and 3/2006. Final locations of transplanted trees should be agreed prior to commencement of the work. | NA |
| S3.8.12 | | Control of night-time lighting. | ^ |
| S3.8.12 | | Erection of decorative screen hoarding. | ^ |
| | S7.9 | <u>Construction Site Control</u> - CM1 - Minimized construction area and contractor's temporary works areas. | ^ |
| | | - CM2- Control of night-time lighting and glare by hooding all lights. | ^ |
| | | - CM3 - Erection of decorative mesh screens or construction | ^ |

| Implementation Schedule for Landscape and Visual Measures | | | |
|--|---|---|---------------|
| EIA for KTD Development Ref. | EIA for KTD – Roads D3A & D4A Ref. | Environmental Protection Measures / Mitigation Measures | Status |
| | | hoardings around works areas in visually unobtrusive colours. | |
| | | - CM4 - Reduction of construction period to practical minimum. | ^ |
| | | - CM5 - Limitation of / Ensuring no run-off into surrounding landscape and adjacent seawater areas. | ^ |
| | | - CM6 - Temporary or advance landscape should be provided along the temporary access roads to the Cruise Terminal until such time as road D3 is open. | NA |

| Remarks: | | | |
|-----------------|---|---|---|
| ^ | Compliance of mitigation measure. | X | Non-compliance of mitigation measure. |
| N/A | Not Applicable at this stage. | ● | Non-compliance but rectified by the contractor. |
| N/A (1) | Not observed. | | |
| * | Recommendation was made during site audit but improved/rectified by the contractor. | # | Recommendation was made during audit and to be improved/ rectified by the contractor. |

Mitigation Measures undertaken by the Contractor for site inspections

| | | | |
|--|--|---|---|
|  | |  | |
| Date: | 02 November 2023 | Date: | 02 November 2023 |
| Mitigation Measures: | The water pump was maintained properly to ensure proper and efficient operation. | Mitigation Measures: | Equipment with NRMM label was used. |
|  | |  | |
| Date: | 23 November 2023 | Date: | 30 November 2023 |
| Mitigation Measures: | The portable toilets were provided in the construction site. | Mitigation Measures: | Haul road was sprayed with water to maintain the entire road surface wet. |

**Appendix Q – Summaries of Environmental Complaint, Warning,
Summon and Notification of Successful Prosecution**

Reporting Month: November 2023

| Contract No. | Record of Complaint (Yes/No) | Record of Warning (Yes/No) | Notification of Summons and Successful Prosecutions (Yes/No) |
|---------------------|---|---------------------------------------|---|
| ED/2018/01 | No | No | No |

Cumulative Statistics on Complaints, Notification of Summons and Successful Prosecutions upto reporting month

| Contract No. | Record of Complaint | Record of Warning | Notification of Summons and Successful Prosecutions |
|---------------------|----------------------------|--------------------------|--|
| ED/2018/01 | 14 | 0 | 0 |

| Complaint Log for ED/2018/01 | | | | |
|-------------------------------------|--|---|--|---|
| Complaint Ref. No. | Date of Complaint | Description of Complaint | Investigation / Actions taken / Recommendations | Close-Out Date / Status |
| C0001 | A dust complaint was referred from the Contractor on 21 Oct 2020 regarding a public complaint via 1823 hotline (Case no. 3-6518939602) on 20 Oct 2020. | <ol style="list-style-type: none"> 1. The water spraying system was not operated in proper time. 2. Stockpile was not covered properly. 3. Haul road was not wetted. 4. Materials transported on trucks were not provided with mechanical covers. | <p><u>Investigation</u></p> <ol style="list-style-type: none"> 1. Based on the information provided by the Contractor on 22 Oct 2020, the water sprinklers system was sprayed every 15 minutes with 70 seconds interval automatically. For the area that water sprinklers system was not covered, manual water spraying was provided. Dump trucks were covered with mechanical cover after loading the materials. The stockpile area was covered by the tarpaulin during night time. 2. Based on the monitoring results on 16 Oct 2020, the 1-hour and 24-hour TSP results were below the Action Levels and Limit Levels. 3. Regular site inspection was conducted by ET on 22 Oct 2020, no adverse observation against the dust impact was recorded. <p><u>Action taken</u></p> <p>As per the Contractor, the water sprinkler are now adjusted to start at 8:00am and end at 6:00pm for Monday to Saturday while from 8:00am to 5:00pm on Sunday. Water spraying are set with 5-minute time interval with duration 30-60 seconds.</p> <p><u>Recommendations</u></p> <p>To minimize the impact for air quality, mitigation measures should be enhanced specially in dry seasons are recommended:</p> <ol style="list-style-type: none"> 1. Increase the frequency and duration for automatic water spraying system. 2. Main haul road and the area that water sprinklers system was not covered in the construction site should be wetted by water trucks or manually in regular basis. 3. Ensure stockpiling sites should be lined with impermeable sheeting and banded. Stockpiles should be fully covered by impermeable sheeting at all time except during working | <ul style="list-style-type: none"> - Closed-out on 5 Nov 2020. - No further complaint was received. |

| Complaint Log for ED/2018/01 | | | | |
|-------------------------------------|--|--|--|---|
| Complaint Ref. No. | Date of Complaint | Description of Complaint | Investigation / Actions taken / Recommendations | Close-Out Date / Status |
| | | | process. | |
| C0002 | A dust complaint was referred from the Contractor on 8 Sep 2021 through E-Mail regarding a complaint received by EPD (EPD ref.: K19/RE/00021205-21) on 7 Sep 2021. | Complaint of dust problem at the pavement of Muk Tai Street near Sports Park. | <p><u>Investigation</u> As per contractor, part of the complaint area was within the site boundary of the project.</p> <ol style="list-style-type: none"> 1. Manual water spraying was provided. 2. The exposed surface and stockpile areas were covered by the impermeable tarpaulin sheet. <p><u>Action taken</u> The exposed surface and stockpile area was covered by the impermeable tarpaulin sheet.</p> <p><u>Recommendations</u> There was no direct evidence showing that the dust nuisance was caused by the contractor at the complaint area, however the contractor is recommended to implement the following measures to minimize the impact for air quality:</p> <ol style="list-style-type: none"> 1. Ensure stockpiling sites should be lined with impermeable sheeting and banded. 2. Stockpiles should be fully covered by impermeable sheeting at all time except during working process. 3. Ensure the work fulfill the relevant statutory requirements on control of air pollution. 4. Take necessary measures to minimize the environmental nuisance arising from the construction site. | <ul style="list-style-type: none"> - Closed-out on 4 Oct 2021. - No further complaint was received. |
| C0003 | A water discharge complaint was referred from the Contractor on 10 Dec 2021 through E-Mail regarding a complaint received by | Complaint of muddy water being discharged into the sea of To Kwa Wan Typhoon Shelter via a DSD outfall near the roundabout of Shing Fung Road. | <p><u>Investigation</u> Joint site inspection was conducted by ER, IEC, ET and the contractor on 14 Dec 2021, no adverse observation against the water impact was recorded.</p> <ol style="list-style-type: none"> 1. There was no muddy water discharge to DSD outfall near the roundabout of Shing Fung Road. | <ul style="list-style-type: none"> - Closed-out on 5 Jan 2022. - No further complaint was |

| Complaint Log for ED/2018/01 | | | | |
|------------------------------|---|---|---|---|
| Complaint Ref. No. | Date of Complaint | Description of Complaint | Investigation / Actions taken / Recommendations | Close-Out Date / Status |
| | EPD (ref.: K19/RE/00029046-21) on 9 Dec 2021. | | <p>2. The sandbag with layers and filter were provided at the manholes.</p> <p><u>Action taken</u></p> <ul style="list-style-type: none"> - Sandbags and filter were used to block the manholes. - Manholes had been adequately covered and replace the filter frequently. <p><u>Recommendations</u></p> <p>There was no direct evidence showing that the water nuisance was caused by the contractor at the complaint area. Some of muddy water generated from wheel washing might be flow to the outfall inside the site boundary, however the contractor had taken the mitigation measure by using sandbag and filter to ease the nuisance. The contractor is recommended to implement the following measures to minimize the impact for waste water:</p> <ol style="list-style-type: none"> 1. Enhance the sandbag with several layers instead of one layer only and replace the filter frequently. 2. Modify the wheel washing area such that the muddy water will be directly flow to the pit and then waste water treatment facility. 3. Take necessary measures to minimize the environmental nuisance arising from the construction site. | received. |
| C0004 | A dust complaint was received by EPD on 16 Dec 2022. Contractor received Notification of Environmental Complaints from EPD | Complaint of mud/ silt being brought out by vehicles from the project site casing mud/silt accumulation on Shing Fung Road. | <p><u>Investigation</u></p> <p>Regular site inspection was conducted by ET on 29 Dec 2022.</p> <ol style="list-style-type: none"> 1. As per the Contractor, mud / slit generated from nearby construction sites might be brought to Shing Fung Road roundabout. 2. No adverse observation against the dust impact was recorded during site inspection. | <p>- Closed-out on 13 Jan 2023.</p> <p>- No further complaint was received.</p> |

| Complaint Log for ED/2018/01 | | | | |
|------------------------------|--|--|---|---|
| Complaint Ref. No. | Date of Complaint | Description of Complaint | Investigation / Actions taken / Recommendations | Close-Out Date / Status |
| | (ref.: K19/RE/00029136-22) by E-Mail on 22 Dec 2021. | | <p><u>Action taken</u></p> <ol style="list-style-type: none"> 1. Watering manually frequently. 2. Haul Road surfaces were wetted by water truck. 3. Wheel washing for the trucks and vehicles before leaving the project site. <p><u>Recommendations</u></p> <p>To minimize the impact for air quality, mitigation measures should be enhanced specially in dry seasons are recommended:</p> <ol style="list-style-type: none"> 1. Increase the frequency and duration for automatic water spraying system. 2. Main haul road and the area that water sprinklers system was not covered in the construction site should be wetted by water trucks or manually in regular basis. 3. Regular wash and clean the share haul road and roundabout in Shing Fung Road. 4. Wheel washing for the trucks and vehicles before leaving the project site. The muddy water after the wheel washing should be directed to sedimentation tank and wastewater treatment facility before discharging to gully. 5. Ensure stockpiling sites should be lined with impermeable sheeting and bunded. Stockpiles should be fully covered by impermeable sheeting at all time except during working process. 6. Dusty materials transported on truck shall be covered. | |
| C0005 | A noise complaint was received by EPD on 21 Dec 2022. Contractor received Notification of Environmental | Complaint of construction noise arising from the project site near Shing Kai Toad and Muk Tai Street continued to 01:30 am on 21 Dec 2022. | <p><u>Investigation</u></p> <p>Regular site inspection was conducted by ET and the Contractor on 29 Dec 2022</p> <ol style="list-style-type: none"> 1. As per the Contractor, the complaint was still under investigation and could not conclude the complaint related to the project site or not. 2. Status of CNPs in the works area near Shing Kai Road and | - During the SSMEC meeting on 10 Jan 2023, the Contractor explained |

| Complaint Log for ED/2018/01 | | | | | | | | | | | | | | |
|------------------------------|--|---|---|--|------------------------------|------------|------------|--------------|-------------|-------------|--------------|-------------|-------------|---|
| Complaint Ref. No. | Date of Complaint | Description of Complaint | Investigation / Actions taken / Recommendations | | Close-Out Date / Status | | | | | | | | | |
| | Complaints from EPD (EPD ref.: K19/RE/00029422-22) on 22 Dec 2022. IEC received the notification on 22 Dec 2022 from EPD and forwarded the notification to CEDD, Contractor, ER and ET on same day. | | <p>Muk Tai Street were checked and all of them were valid.</p> <table border="1"> <thead> <tr> <th>Construction Noise Permit</th> <th>Valid Form</th> <th>Valid Till</th> </tr> </thead> <tbody> <tr> <td>GW-RE1297-22</td> <td>10 Dec 2022</td> <td>08 Jun 2023</td> </tr> <tr> <td>GW-RE1299-22</td> <td>17 Dec 2022</td> <td>15 Jun 2023</td> </tr> </tbody> </table> <p><u>Action taken</u></p> <ol style="list-style-type: none"> 1. Trainings for CNP were provided to the labour on 22 Dec 2022. 2. No construction activities were allowed in the restricted hours for those areas without valid CNP. <p><u>Recommendations</u></p> <p>To minimize the impact for construction noise, mitigation measures are recommended:</p> <ol style="list-style-type: none"> 1. Training to new staff and regular enhance training for staff for CNP and other environmental issues. 2. Regularly check the status of ALL CNP and other environmental permits. | | Construction Noise Permit | Valid Form | Valid Till | GW-RE1297-22 | 10 Dec 2022 | 08 Jun 2023 | GW-RE1299-22 | 17 Dec 2022 | 15 Jun 2023 | that the noise complaint case has already passed to head office and waiting for the Legal opinion. No further information could be provided for Incident Report on Complaint Investigation at that moment. - Under investigation in the reporting month. |
| Construction Noise Permit | Valid Form | Valid Till | | | | | | | | | | | | |
| GW-RE1297-22 | 10 Dec 2022 | 08 Jun 2023 | | | | | | | | | | | | |
| GW-RE1299-22 | 17 Dec 2022 | 15 Jun 2023 | | | | | | | | | | | | |
| C0006 | A dust complaint was received by EPD on 6 Dec 2022. Contractor (POC) | Complaint of construction dust arising from construction sites along Shing Fung Road. | <p><u>Investigation</u></p> <p>Site inspections were conducted by ET on 26 Jan 2023 and joint site inspection was conducted by Contractor (POC), ER, ET and IEC on 8 Feb 2023.</p> <ol style="list-style-type: none"> 1. The concerned area (roundabout) is the common road for | | - Closed-out on 16 Mar 2023. | | | | | | | | | |

| Complaint Log for ED/2018/01 | | | | |
|------------------------------|--|--------------------------|---|-------------------------|
| Complaint Ref. No. | Date of Complaint | Description of Complaint | Investigation / Actions taken / Recommendations | Close-Out Date / Status |
| | <p>received Notification of Environmental Complaints from EPD (ref.: K19/RE/00027862-22) by E-Mail on 7 Dec 2022.</p> <p>IEC received the notification on 19 Jan 2023 and forwarded the notification to CEDD, ER and ET on same day.</p> | | <p>public vehicles. In addition, construction vehicles from several nearby construction sites also use the concerned road, especially a lots of dump trucks.</p> <ol style="list-style-type: none"> 2. Construction vehicles from Contractor (POC) project site are not allowed leaving the site to Shing Fung Road directly as the exit was blocked by barriers since 21 Jan 2023. 3. Worker of sub-contractor from Contractor (POC) wetted the part of the concerned road surface during the site inspection on 8 Feb 2023 to suppress dust emission. 4. No construction works was observed on 26 Jan 2023 and no adverse observation against the dust impact were found during the site inspection on both dates. <p><u>Action taken</u></p> <ol style="list-style-type: none"> 1. Haul Road surfaces were wetted manually and washed the dusty water barrier regularly. 2. Wheel washing for the trucks and vehicles before leaving the project site directly through Shing Fung Road exit. 3. Construction vehicles from Contractor (POC) are not allowed leaving the site to Shing Fung Road directly as the exit was blocked by barriers since 21 Jan 2023. <p><u>Recommendations</u></p> <p>There was no direct evidence showing that the dust nuisance was caused by the contractor at the complaint area, however Contractor (POC) is recommended to implement the following measures to minimize the impact for air quality:</p> <ol style="list-style-type: none"> 1. Main haul road and the area that water sprinklers system was not covered in the construction site should be wetted manually in regular basis. 2. Regular wash the share haul road and roundabout in Shing Fung Road. 3. Wheel washing for the trucks and vehicles before leaving | |

| Complaint Log for ED/2018/01 | | | | |
|------------------------------|--|--|---|-------------------------------------|
| Complaint Ref. No. | Date of Complaint | Description of Complaint | Investigation / Actions taken / Recommendations | Close-Out Date / Status |
| | | | <p>the project site. The muddy water after the wheel washing should be directed to sedimentation tank and wastewater treatment facility before discharging to gully.</p> <p>4. Dusty materials transported on truck shall be covered.</p> | |
| C0007 | <p>A dust complaint was received by EPD on 19 Jan 2023.</p> <p>Contractor (POC) received Notification of Environmental Complaints from EPD (ref.: K19/RE/00001988-23) by E-Mail on 2 Feb 2023.</p> <p>IEC received the notification on 2 Feb 2023 and forwarded the notification to CEDD, ER and ET on the same day.</p> | <p>Complaint of dusty environment at the new road connecting Shing Fung Road and Shing Kai Road caused by vehicles from construction sites nearby.</p> | <p><u>Investigation</u></p> <p>Joint site inspection was conducted by Contractor (POC), ER, ET and IEC on 8 Feb 2023.</p> <ol style="list-style-type: none"> 1. The concerned area (new road connecting Shing Fung Road & Shing Kai Road) has been open for public vehicles (not only project related vehicles) since 31 Dec 2022. 2. Construction vehicles from POC are not allowed leaving the site to Shing Fung Road directly with barriers blocked since 21 Jan 2023. 3. Contractor (POC) has restricted the construction vehicles from nearby construction site (Gammon site) using this site entrance for any construction activities since 4 Feb 2023. 4. Worker of sub-contractor from Contractor (POC) wetted the part of the concerned road surface during the site inspection on 8 Feb 2023 to suppress dust emission. 5. No adverse observation against the dust impact were found during the site inspection along the new road. <p><u>Action taken</u></p> <ol style="list-style-type: none"> 1. Haul Road surfaces were wetted manually and washed the dusty water barrier regularly. 2. Wheel washing for the trucks and vehicles before leaving the project site. 3. Contractor (POC) has restricted the construction vehicles from nearby construction site (Gammon site) using this site entrance for any construction activities since 4 Feb 2023. <p><u>Recommendations</u></p> | <p>- Closed-out on 16 Mar 2023.</p> |

| Complaint Log for ED/2018/01 | | | | |
|------------------------------|--|--|--|------------------------------|
| Complaint Ref. No. | Date of Complaint | Description of Complaint | Investigation / Actions taken / Recommendations | Close-Out Date / Status |
| | | | <p>There was no direct evidence showing that the dust nuisance was caused by the contractor at the complaint area, however Contractor (POC) is recommended to implement the following measures to minimize the impact for air quality:</p> <ol style="list-style-type: none"> 1. Main haul road and the area that water sprinklers system was not covered in the construction site should be wetted by water trucks or manually in regular basis. 2. Regular wash the share haul road in Shing Fung Road. 3. Wheel washing for the trucks and vehicles before leaving the project site. The muddy water after the wheel washing should be directed to sedimentation tank and wastewater treatment facility before discharging to gully. 4. Dusty materials transported on truck shall be covered. | |
| C0008 | <p>A dust complaint was received by EPD on 13 Feb 2023.</p> <p>Contractor (POC) received the Notification of Environmental Complaints from EPD (ref.: K19/RE/00003909-23) by E-Mail on 17 Feb 2023 and forwarded the E-mail to ER, ET and IEC on same day.</p> | <p>Complaint of silt / mud accumulation on the new road connecting Shing Fung Road and Shing Kai Road caused by vehicles from construction sites nearby.</p> | <p><u>Investigation</u> Joint site inspection was conducted by Contractor (POC), ER, ET and IEC on 23 Feb 2023 and regular site inspection was conducted by Contractor (POC), ER and ET on 2 Mar 2023.</p> <ol style="list-style-type: none"> 1. The concerned area (new road connecting Shing Fung Road & Shing Kai Road) has been open for public vehicles (not only project related vehicles) since 31 Dec 2022. Vehicles from nearby construction sites also used the concerned road. Those are the possible sources of dust nuisance. 2. Construction vehicles from POC are not allowed leaving the site to Shing Fung Road directly with barriers blocked since 21 Jan 2023. 3. Contractor (POC) has restricted the construction vehicles from nearby construction site (Gammon site) using this site entrance for any construction activities since 4 Feb 2023. 4. As per Contractor (POC), EPD conducted site visit on 16 Feb 2023. 5. No adverse observation against the dust / muddy water impact were found during the site inspection on both dates. | - Closed-out on 29 Mar 2023. |

| Complaint Log for ED/2018/01 | | | | | | | | | | | | | | |
|------------------------------|---|--------------------------|---|-------------------------|-----------------|------------|---|------------|---|-------------|---|-------------|---|--|
| Complaint Ref. No. | Date of Complaint | Description of Complaint | Investigation / Actions taken / Recommendations | Close-Out Date / Status | | | | | | | | | | |
| | | | <p><u>Action taken</u></p> <ol style="list-style-type: none"> 1. Construction vehicles from Contractor (POC) are not allowed leaving the site to Shing Fung Road directly as the exit was blocked by barriers since 21 Jan 2023. 2. Contractor (POC) has restricted the construction vehicles from nearby construction site (Gammon site) using this site entrance for any construction activities since 4 Feb 2023. 3. Haul Road surfaces were wetted manually and washed the dusty water barrier regularly. 4. Wheel washing for the trucks and vehicles before leaving the project site. 5. As per instruction from CEDD and AECOM, road washing along the new road (connecting Shing Fung Road and Shing Kai Road) and Shing Fung Road by water truck was conducted once a week as follow: <table border="1" data-bbox="1146 852 1904 1029"> <thead> <tr> <th>Date</th> <th>Road Washing by</th> </tr> </thead> <tbody> <tr> <td>8 Mar 2023</td> <td>Sweeper truck with water spraying truck</td> </tr> <tr> <td>9 Mar 2023</td> <td>Sweeper truck with water spraying truck</td> </tr> <tr> <td>14 Mar 2023</td> <td>Sweeper truck with water spraying truck</td> </tr> <tr> <td>22 Mar 2023</td> <td>Sweeper truck with water spraying truck</td> </tr> </tbody> </table> 6. During the two site inspections, mitigation measures implemented by the Contractor (POC) were found properly based on existing site condition and resources. <p><u>Recommendations</u></p> <p>There was no direct evidence showing that the dust nuisance was caused by the contractor at the complaint area, however Contractor (POC) is recommended to implement the following measures to minimize the impact for air quality:</p> <ol style="list-style-type: none"> 1. Main haul road and the area that water sprinklers system was not covered in the construction site should be wetted by water trucks or manually in regular basis. | Date | Road Washing by | 8 Mar 2023 | Sweeper truck with water spraying truck | 9 Mar 2023 | Sweeper truck with water spraying truck | 14 Mar 2023 | Sweeper truck with water spraying truck | 22 Mar 2023 | Sweeper truck with water spraying truck | |
| Date | Road Washing by | | | | | | | | | | | | | |
| 8 Mar 2023 | Sweeper truck with water spraying truck | | | | | | | | | | | | | |
| 9 Mar 2023 | Sweeper truck with water spraying truck | | | | | | | | | | | | | |
| 14 Mar 2023 | Sweeper truck with water spraying truck | | | | | | | | | | | | | |
| 22 Mar 2023 | Sweeper truck with water spraying truck | | | | | | | | | | | | | |

| Complaint Log for ED/2018/01 | | | | |
|------------------------------|--|--|--|------------------------------|
| Complaint Ref. No. | Date of Complaint | Description of Complaint | Investigation / Actions taken / Recommendations | Close-Out Date / Status |
| | | | <ol style="list-style-type: none"> 2. Regular wash the share haul road in Shing Fung Road. 3. Dusty materials transported on truck shall be covered. | |
| C0009 | <p>A dust complaint was received by EPD on 15 Feb 2023.</p> <p>Contractor (POC) received the Notification of Environmental Complaints from EPD (ref.: K19/RE/00004280-23) by E-Mail on 22 Feb 2023 and forwarded the E-mail to ER, ET and IEC on same day.</p> | <p>Complaint of mud / silt being brought out by vehicles from construction site at Shing Fung Road roundabout (near Lamp Post DF4831) causing mud / silt accumulation along Shing Fung Road.</p> | <p><u>Investigation</u></p> <p>Joint site inspection was conducted by Contractor (POC), ER, ET and IEC on 23 Feb 2023 and regular site inspection was conducted by Contractor (POC), ER and ET on 2 Mar 2023.</p> <ol style="list-style-type: none"> 1. The concerned area (new road connecting Shing Fung Road & Shing Kai Road) has been open for public vehicles (not only project related vehicles) since 31 Dec 2022. Vehicles from nearby construction sites also used the concerned road. Those are the possible sources of dust nuisance. 2. Construction vehicles from POC are not allowed leaving the site to Shing Fung Road directly with barriers blocked since 21 Jan 2023. 3. Contractor (POC) has restricted the construction vehicles from nearby construction site (Gammon site) using this site entrance for any construction activities since 4 Feb 2023. 4. As per Contractor (POC), EPD conducted site visit on 16 Feb 2023. 5. No adverse observation against the dust impact were found during the site inspection on both dates. <p><u>Action taken</u></p> <ol style="list-style-type: none"> 1. Construction vehicles from Contractor (POC) are not allowed leaving the site to Shing Fung Road directly as the exit was blocked by barriers since 21 Jan 2023. 2. Contractor (POC) has restricted the construction vehicles from nearby construction site (Gammon site) using this site entrance for any construction activities since 4 Feb 2023. 3. Haul Road surfaces were wetted manually and washed the dusty water barrier regularly. 4. Wheel washing for the trucks and vehicles before leaving | - Closed-out on 29 Mar 2023. |

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| | | | <p>the project site.</p> <p>5. As per instruction from CEDD and AECOM, road washing along the new road (connecting Shing Fung Road and Shing Kai Road) and Shing Fung Road by water truck was conducted once a week as follow:</p> <table border="1"> <thead> <tr> <th>Date</th> <th>Road Washing by</th> </tr> </thead> <tbody> <tr> <td>8 Mar 2023</td> <td>Sweeper truck with water spraying truck</td> </tr> <tr> <td>9 Mar 2023</td> <td>Sweeper truck with water spraying truck</td> </tr> <tr> <td>14 Mar 2023</td> <td>Sweeper truck with water spraying truck</td> </tr> <tr> <td>22 Mar 2023</td> <td>Sweeper truck with water spraying truck</td> </tr> </tbody> </table> <p>6. During the two site inspections, mitigation measures implemented by the Contractor (POC) were found properly based on existing site condition and resources.</p> <p><u>Recommendations</u></p> <p>There was no direct evidence showing that the dust nuisance was caused by the contractor at the complaint area, however Contractor (POC) is recommended to implement the following measures to minimize the impact for air quality:</p> <ol style="list-style-type: none"> 1. Main haul road and the area that water sprinklers system was not covered in the construction site should be wetted by water trucks or manually in regular basis. 2. Regular wash the share haul road in Shing Fung Road. 3. Dusty materials transported on truck shall be covered. | Date | Road Washing by | 8 Mar 2023 | Sweeper truck with water spraying truck | 9 Mar 2023 | Sweeper truck with water spraying truck | 14 Mar 2023 | Sweeper truck with water spraying truck | 22 Mar 2023 | Sweeper truck with water spraying truck | |
| Date | Road Washing by | | | | | | | | | | | | | |
| 8 Mar 2023 | Sweeper truck with water spraying truck | | | | | | | | | | | | | |
| 9 Mar 2023 | Sweeper truck with water spraying truck | | | | | | | | | | | | | |
| 14 Mar 2023 | Sweeper truck with water spraying truck | | | | | | | | | | | | | |
| 22 Mar 2023 | Sweeper truck with water spraying truck | | | | | | | | | | | | | |
| C0010 | <p>A dust and muddy water complaint was received by Hotline 1823 on 9 Mar 2023.</p> <p>ER received the transfer from the Hotline 1823 on 9 Mar 2023 and forwarded the E-mail to</p> | <p>Complaint of dusty environment at the new road (connecting Shing Fung Road and Shing Kai Road) and Shing Fung Road roundabout.</p> <p>Worker wetted the road surface and might cause mud / silt problem.</p> | <p><u>Investigation</u></p> <p>Joint site inspection was conducted by Contractor (POC), ER, and ET on 16 Mar 2023 and 23 Mar 2023.</p> <ol style="list-style-type: none"> 1. The concerned area (new road connecting Shing Fung Road & Shing Kai Road) has been open for public vehicles (not only project related vehicles) since 31 Dec 2022. Vehicles from nearby construction sites also used the concerned road. Those are the possible sources of dust nuisance. 2. Construction vehicles from POC are not allowed leaving the | - Closed-out on 6 Apr 2023. | | | | | | | | | | |

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| | Contractor (POC), ET and IEC on same day. | | <p>site to Shing Fung Road directly with barriers blocked since 21 Jan 2023.</p> <ol style="list-style-type: none"> 3. Contractor (POC) has restricted the construction vehicles from nearby construction site (Gammon site) using this site entrance for any construction activities since 4 Feb 2023. 4. The sandbags were provided around the manholes. 5. No adverse observation against the dust / muddy water impact were found during the site inspection on both dates. <p><u>Action taken</u></p> <ol style="list-style-type: none"> 1. Construction vehicles from Contractor (POC) are not allowed leaving the site to Shing Fung Road directly as the exit was blocked by barriers since 21 Jan 2023. 2. Contractor (POC) has restricted the construction vehicles from nearby construction site (Gammon site) using this site entrance for any construction activities since 4 Feb 2023. 3. Haul Road surfaces were wetted manually and washed the dusty water barrier regularly. 4. Wheel washing for the trucks and vehicles before leaving the project site. 5. As per instruction from CEDD and AECOM, road washing along the new road (connecting Shing Fung Road and Shing Kai Road) and Shing Fung Road by water truck was conducted once a week as follow: <table border="1" data-bbox="1146 1114 1904 1289"> <thead> <tr> <th>Date</th> <th>Road Washing by</th> </tr> </thead> <tbody> <tr> <td>8 Mar 2023</td> <td>Sweeper truck with water spraying truck</td> </tr> <tr> <td>9 Mar 2023</td> <td>Sweeper truck with water spraying truck</td> </tr> <tr> <td>14 Mar 2023</td> <td>Sweeper truck with water spraying truck</td> </tr> <tr> <td>22 Mar 2023</td> <td>Sweeper truck with water spraying truck</td> </tr> </tbody> </table> 6. The sandbags were provided around the manholes. 7. During the two site inspections, mitigation measures implemented by the Contractor (POC) were found properly based on existing site condition and resources. | Date | Road Washing by | 8 Mar 2023 | Sweeper truck with water spraying truck | 9 Mar 2023 | Sweeper truck with water spraying truck | 14 Mar 2023 | Sweeper truck with water spraying truck | 22 Mar 2023 | Sweeper truck with water spraying truck | |
| Date | Road Washing by | | | | | | | | | | | | | |
| 8 Mar 2023 | Sweeper truck with water spraying truck | | | | | | | | | | | | | |
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| Complaint Ref. No. | Date of Complaint | Description of Complaint | Investigation / Actions taken / Recommendations | Close-Out Date / Status | | | | | | |
| | | | <u>Recommendations</u> There was no direct evidence showing that the dust nuisance was caused by the contractor at the complaint area, however Contractor (POC) is recommended to implement the following measures to minimize the impact for air and water quality: <ol style="list-style-type: none"> 1. Dusty materials transported on truck shall be covered. 2. Enhance the sandbags with several layers of filters and replace the filter frequently. | | | | | | | |
| C0011 | A muddy water complaint was received by EPD on 9 Mar 2023. Contractor (POC) received the Notification of Environmental Complaints from EPD (ref.: K19/RE/00004280-23) by E-Mail on 22 Feb 2023 and forwarded the E-mail to ER, ET and IEC on same day. | Complaint of water being sprayed onto vehicles passing by and mud / silt being washed into roadside gully near Shing Fung Road roundabout. | <u>Investigation</u> Joint site inspection was conducted by Contractor (POC), ER and ET on 23 Mar 2023. <ol style="list-style-type: none"> 1. The concerned area (new road connecting Shing Fung Road & Shing Kai Road) has been open for public vehicles (not only project related vehicles) since 31 Dec 2022. Vehicles from nearby construction sites also used the concerned road. Those are the possible sources of dust / mud / silt nuisance. 2. The sandbags were provided around the manholes. 3. No adverse observation against the muddy water impact were found during the site inspection on both dates. <u>Action taken</u> <ol style="list-style-type: none"> 1. As per Contractor (POC), no manually road surfaces watering on Shing Fung Road after receiving complaint (16 Mar 2023). 2. As per instruction from CEDD and AECOM, road washing along the new road (connecting Shing Fung Road and Shing Kai Road) and Shing Fung Road by water truck was conducted once a week as follow: <table border="1" data-bbox="1146 1316 1904 1422"> <thead> <tr> <th>Date</th> <th>Road Washing by</th> </tr> </thead> <tbody> <tr> <td>8 Mar 2023</td> <td>Sweeper truck with water spraying truck</td> </tr> <tr> <td>9 Mar 2023</td> <td>Sweeper truck with water spraying truck</td> </tr> </tbody> </table> | Date | Road Washing by | 8 Mar 2023 | Sweeper truck with water spraying truck | 9 Mar 2023 | Sweeper truck with water spraying truck | - Closed-out on 6 Apr 2023. |
| Date | Road Washing by | | | | | | | | | |
| 8 Mar 2023 | Sweeper truck with water spraying truck | | | | | | | | | |
| 9 Mar 2023 | Sweeper truck with water spraying truck | | | | | | | | | |

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|------------------------------|---|--|--|---|-------------------------------|
| Complaint Ref. No. | Date of Complaint | Description of Complaint | Investigation / Actions taken / Recommendations | | Close-Out Date / Status |
| | | | 14 Mar 2023 | Sweeper truck with water spraying truck | |
| | | | 22 Mar 2023 | Sweeper truck with water spraying truck | |
| | | | 3. The sandbags were provided around the manholes. | | |
| | | | <u>Recommendations</u> There was no direct evidence showing that the muddy water nuisance was caused by the contractor at the complaint area, however Contractor (POC) is recommended to implement the following measures to minimize the impact for air and water quality: 1. Enhance the sandbags with several layers of filters and replace the filter frequently. | | |
| C0012 | A dust complaint was received by EPD on 31 May 2023. Contractor (POC) received the Notification of Environmental Complaints from EPD (ref.: K19/RE/00013488-23) by E-Mail on 6 June 2023 and forwarded the E-mail to ER, ET and IEC on same day. | Complaint of silt / mud accumulation on the new road connecting Shing Fung Road and Shing Kai Road caused by vehicles from construction site nearby. | <u>Investigation</u> Joint site inspection was conducted by Contractor (POC), ER and ET on 8 June 2023. 1. As per Mr. Tony Tang from POC, the concerned area was the section of Shing Fung Road at the entrance of Gammon site accommodation. 2. The new road connecting Shing Fung Road & Shing Kai Road) has been open for public vehicles (not only project related vehicles) since 31 December 2022. Vehicles from nearby construction sites also used the concerned road. Those are the possible sources of dust / silt nuisance. 3. As per Mr. Tony Tang from POC, recycled water was used in wheel washing machine near the entrance of Gammon site. Those are the possible sources of mud nuisance. 4. No adverse observation against the dust impact were found during the site inspection. <u>Action taken</u> 1. As per instruction from CEDD and AECOM, road washing along the new road (connecting Shing Fung Road and | | - Closed-out on 19 June 2023. |

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| | | | <p>Shing Kai Road) and Shing Fung Road by water truck was conducted twice a week start from 11 May 2023.</p> <table border="1"> <thead> <tr> <th>Date</th> <th>Road Washing by</th> </tr> </thead> <tbody> <tr> <td>19 May 2023</td> <td>Sweeper truck with water spraying truck</td> </tr> <tr> <td>23 May 2023</td> <td>Sweeper truck with water spraying truck</td> </tr> <tr> <td>25 May 2023</td> <td>Sweeper truck with water spraying truck</td> </tr> <tr> <td>30 May 2023</td> <td>Sweeper truck with water spraying truck</td> </tr> <tr> <td>2 June 2023</td> <td>Sweeper truck with water spraying truck</td> </tr> <tr> <td>6 June 2023</td> <td>Sweeper truck with water spraying truck</td> </tr> <tr> <td>9 June 2023</td> <td>Sweeper truck with water spraying truck</td> </tr> <tr> <td>13 June 2023</td> <td>Sweeper truck with water spraying truck</td> </tr> </tbody> </table> <p>2. Wheel washing for the vehicles before leaving the construction site.</p> <p><u>Recommendations</u> There was no direct evidence showing that the dust nuisance was caused by the contractor at the complaint area, however Contractor (POC) is recommended to implement the following measures to minimize the impact for air quality:</p> <ol style="list-style-type: none"> 1. Regular wash the share haul road in Shing Fung Road and Shing Kai Road. 2. Dusty materials transported on truck should be covered. | Date | Road Washing by | 19 May 2023 | Sweeper truck with water spraying truck | 23 May 2023 | Sweeper truck with water spraying truck | 25 May 2023 | Sweeper truck with water spraying truck | 30 May 2023 | Sweeper truck with water spraying truck | 2 June 2023 | Sweeper truck with water spraying truck | 6 June 2023 | Sweeper truck with water spraying truck | 9 June 2023 | Sweeper truck with water spraying truck | 13 June 2023 | Sweeper truck with water spraying truck | |
| Date | Road Washing by | | | | | | | | | | | | | | | | | | | | | |
| 19 May 2023 | Sweeper truck with water spraying truck | | | | | | | | | | | | | | | | | | | | | |
| 23 May 2023 | Sweeper truck with water spraying truck | | | | | | | | | | | | | | | | | | | | | |
| 25 May 2023 | Sweeper truck with water spraying truck | | | | | | | | | | | | | | | | | | | | | |
| 30 May 2023 | Sweeper truck with water spraying truck | | | | | | | | | | | | | | | | | | | | | |
| 2 June 2023 | Sweeper truck with water spraying truck | | | | | | | | | | | | | | | | | | | | | |
| 6 June 2023 | Sweeper truck with water spraying truck | | | | | | | | | | | | | | | | | | | | | |
| 9 June 2023 | Sweeper truck with water spraying truck | | | | | | | | | | | | | | | | | | | | | |
| 13 June 2023 | Sweeper truck with water spraying truck | | | | | | | | | | | | | | | | | | | | | |
| C0013 | <p>A water complaint was received by EPD on 19 June 2023.</p> <p>Contractor (POC) received the Notification of Environmental Complaints from EPD (ref.: K19/RE/00014944-23)</p> | <ul style="list-style-type: none"> - Complaint of muddy water being discharged into Kai Tak Approach Channel on 18 Jun 2023. - Complaint of construction work being conducted on the Sunday of 18 Jun 2023. | <p><u>Investigation</u> Joint site inspection was conducted by Contractor (POC), ER and ET on 6 Jul 2023.</p> <ol style="list-style-type: none"> 1. As per Mr. Tony Tang from POC, the concerned area was the section of Shing Fung Road at the nearby channel. 2. Heavy raining was recorded on 18 Jun 2023. The recorded rainfall was 35.8mm (sourced from manned weather station of Hong Kong Observatory at https://www.hko.gov.hk/en/cis/dailyExtract.htm?v=2023&m=6). The implication of heavy rainfall storm runoff | - Closed-out on 2 Aug 2023. | | | | | | | | | | | | | | | | | | |

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| | by E-Mail on 29 June 2023 and forwarded the E-mail to ER, ET and IEC on 4 July 2023. | | <p>might wash across the exposed soil surfaces which was direct muddy water discharge. This is the possible source of water nuisance.</p> <ol style="list-style-type: none"> As per Mr. Tony Tang from POC, no construction work was conducted on 18 Jun 2023. Based on the attendance record, 6 employees including 4 watchman, labourer and driver, were on site on 18 Jun 2023 and they were not involved in the construction work. In the joint site inspection, no construction work was conducted on the nearby channel. No adverse observation against the muddy water impact were found during the site inspection on 14 and 20 June 2023, and 6 July 2023. The sedimentation tank and wastewater treatment plant are operating efficiently during the site inspection. <p><u>Action taken</u></p> <ol style="list-style-type: none"> The ditch is maintained regularly and excavated deeper by workers. Pumps are placed at the ditch to prevent flooding and overflow. Enhanced training for site workers to prevent flushing during heavy rain by placing pumps in the ditch to prevent flooding and overflow during periods of heavy rain during Tool- Box-Talk training. <p><u>Recommendations</u></p> <p>There was no direct evidence showing that the muddy water nuisance was caused by the contractor at the complaint area, however Contractor (POC) is recommended to implement the following measures to minimize the impact for water quality:</p> <ol style="list-style-type: none"> Regular cleaning and maintenance drainage systems at the nearby Kai Tak Approach Channel. | |

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| C0014 | A polluting discharge complaint was received by EPD on 16 October 2023. Contractor (POC) received the Notification of Environmental Complaints from EPD (ref.: K19/RE/00024581-23) by E-Mail on 19 October 2023 and forwarded the E-mail to ER, ET and IEC on 21 October 2023. | - Complaint of polluting discharge from the construction site of Stage 4 Infrastructure at the Former Runway and South Apron, Kowloon City (“illegal discharge from kai tak 6577 construction site the main contractor should be hip hing) | <p><u>Investigation</u></p> <p>Joint site inspection was conducted by Contractor (POC), ER and ET on 26 October 2023.</p> <ol style="list-style-type: none"> 1. The concerned area is near at Former Runway and South Apron, Kowloon City. Those are the possible sources should be illegal discharge from Kai Tak 6577 construction site which the main contractor should be hip hing. The possible source of polluting discharge does not come from the Contractor (POC). 2. No adverse observation against the muddy water impact were found during the site inspection on dates. No surface runoff is observed, and the sedimentation tank and wastewater treatment plant were implemented normally. <p><u>Action taken</u></p> <ol style="list-style-type: none"> 1. As per Contractor (POC), no wastewater generated at concerned area and ensure fulfil the conditions stipulated in the valid WPCO licence after receiving complaint (16 October 2023). The effluent discharge has been implemented properly. 2. The silt curtain has been installed around the construction activities at the concerned area. (referring to Photo 2) The sedimentation tank and wastewater treatment has been implemented properly. 3. The pump has been installed and collected sewage | - Closed-out on 15 November 2023. |

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| | | | <p>at the channel which can minimize water quality impacts and prevent overload the foul sewage system. (referring to Photo 3) The channel and ditches have been clear after receiving complaint.</p> <p><u>Recommendations</u></p> <p>There was no direct evidence showing that the muddy water nuisance was caused by the contractor at the complaint area, however Contractor (POC) is recommended to implement the following measures to minimize the impact for water quality:</p> <ol style="list-style-type: none"> 1. The silt removal facilities, channels and manholes should be maintained regularly. 2. The silt curtain and equipment should be properly maintained. | |