Document Details
Client **Drainage Services Department**
Project **Contract No. DC/2007/24** **Harbour Area Treatment Scheme Stage 2A** **Construction of Sewage Conveyance System** **from Aberdeen to Sai Ying Pun**
Document Title **Monthly Environmental Monitoring and Audit Report No. 62** **Covering the Period from 1 February2015 to 28 February 2015**
Document No. **EMA/080**

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Submission Ref		Controlled Copy No.
SUBM Ref.		
Atkins Ref.(s)	DC/2007/24/19.10/OC029/OR021/EC/SO	

Revision History

Rev.	Date	Description	Prepared	Checked & Reviewed	Approved
B	11 March 2015	Submission to IEC and ER for review	Various	Sharifah Or	Eric Chui
A	9 March 2015	Submission to IEC and ER for review	Various	Sharifah Or	Eric Chui

Leighton - LNS Joint Venture

ATKINS

Rev.
B

EXECUTIVE SUMMARY

This is the sixty-second Monthly Environmental Monitoring and Audit Report prepared by Atkins China Ltd (ACL), for Contract No. DC/2007/24 Construction of Sewage Conveyance System from Aberdeen to Sai Ying Pun (hereinafter, the Project), in compliance with the Project EM&A Manual under EP No. EP-322/2008/G. The construction works under the Project was commenced on 23 December 2009. This report summarises the findings and results of the EM&A during the reporting period from 1 February 2015 to 28 February 2015.

Environmental Monitoring and Audit Progress

The monthly EM&A programme has been undertaken in accordance with the Project EM&A Manual. A summary of the monitoring activities carried out during this reporting month is listed below:

Noise and air monitoring at designated monitoring stations was undertaken as below table:

Parameter	ID	Description	Date
Noise Monitoring: $L_{eq(30\ mins)}$ during normal Daytime	M3	Kwan Yick Building Phase III	3, 9, 18 and 24 February 2015 (1)
	M5	Chuk Lam Ming Tong	3, 10, 17 and 23 February 2015
	M6a	Aegean Terrace	4, 10, 16 and 24 February 2015(2)
	M7a	Wah Ming House	4, 10, 16 and 24 February 2015 (2)
	M8	Wah Lai House	1, 11, 16, 23 and 29 January 2015 (2)
Noise Monitoring: $L_{eq(15\ mins)}$ during evening time and daytime of Sundays/ public holidays	M3	Kwan Yick Building Phase III	1 and 15 February 2015(1)
Noise Monitoring: $L_{eq(15\ mins)}$ during evening time	M3	Kwan Yick Building Phase III	10 and 24 February 2015(1)
Air Quality Monitoring: 1-hour and 24-hour TSP	CM_FM1	Western Wholesale Food Market	1-hour : 6, 12 18 and 24 February 2015(1) 24-hour: 6, 12, 18 and 24 February 2015(1)
	CM_CB1a	The Arcade, Cyberport	1-hour: 4, 10, 16, 18 and 24 February 2015(2) 24-hour: 3, 9, 14, 18 and 24 February 2015(2)
	CM_WF1a	Wah Ming House	1-hour: 4, 10, 16, 18 and 24 February 2015 (2) 24-hour: 3, 9, 14, 18 and 24 February 2015 (2)
	CM_AB1b	Work site boundary of Aberdeen PTW	1-hour: 4, 10, 16, 18 and 24 February 2015 (2)

Parameter	ID	Description	Date
			24-hour: 3, 9, 14, 18 and 24 February 2015 (2)
Landscape and Visual	n/a	n/a	16 February 2015
Hazard to Life	n/a	n/a	n/a
Cultural Heritage	n/a	n/a	n/a

Remarks:
(1) The data were provided by Contract No. DC/2007/23.
(2) The data were provided by Contract No. DC/2009/24.

Site inspections were undertaken jointly with the Contractor and Engineer Representative on 3, 10, 18 and 24 February 2015, with Independent Environmental Checker's participation on 18 February 2015.

Breaches of Action and Limit Levels

There were no environmental exceedances recorded during this reporting period.

Complaint Log

One environmental complaint was received by EPD on 17 February 2015 regarding dark water flowing into the sea from the construction site near Le Meridien Cyberport at Information Crescent. The complaint investigation result was reported in Complaint Enquiry Form 016 and provided in Appendix M.

Notifications of Summons and Prosecutions

There were no notifications of summons or prosecutions received during this reporting period.

Environmental Non-compliance

There were no environmental non-compliances recorded during this reporting period.

Reporting Changes

This report has been developed in compliance with the reporting requirements for the subsequent monthly EM&A report as required by the Project EM&A Manual.

Future Key Issues

<u>Aberdeen</u>

1) Reinstatement (implement method statement and standard EMP mitigations)

<u>Wah Fu</u>

1) Reinstatement (implement method statement and standard EMP mitigations)

<u>Cyberport</u>

1) Reinstatement (implement method statement and standard EMP mitigations)

Sandy Bay

1) Reinstatement (implement method statement and standard EMP mitigations)

Sai Ying Pun

1) Reinstatement (implement method statement and standard EMP mitigations).

CONTENTS

Page

LIST OF TABLES

LIST OF FIGURES

APPENDICES

1 INTRODUCTION

1.1 Basic Project Information

The Harbour Area Treatment Scheme (HATS) Stage 2A Sewage Conveyance System is proposed to collect and convey the pre-treated sewage from eight existing Preliminary Treatment Works (PTW), located along the northern and south-western shoreline of Hong Kong Island, to the Stonecutters Island Sewage Treatment Works (SCISTW) for treatment before final disposal into the western harbour via an existing submarine outfall.

The sewerage tunnels to be constructed under Contract No. DC/2007/24 Harbour Area Treatment Scheme Stage 2A Construction of Sewage Conveyance System from Aberdeen to Sai Yin Pun (hereinafter referred as the Project) run from Aberdeen PTW Production/Drop Shaft towards Sai Ying Pun Junction Shaft. The tunnel has a total length of approximately 7.5km and it has various internal sizes. The transitions are located at the junctions with audits connecting to the drop shafts at Aberdeen, Wah Fu, Cyberport, Sandy Bay and Sai Ying Pun. An overall layout plan of the Project is provided in Figure 1.1.

Atkins China Ltd (ACL) was appointed by Leighton-LNS Joint Venture (the Contractor of this Project, hereinafter referred as the Contractor) as the Environmental Team (ET) of this Project, to undertake a Environmental Monitoring and Audit (EM&A) of this Project in accordance with "HATS Stage 2A Environmental Impact Assessment Study – Investigation, Final EM&A Manual" (Register No. AEIAR-121/2008) under Environmental Permit (EP) No. EP-322/2008/G Part D, Condition 4.2.

1.2 Project Organisation and Contact Details

The key parties included:

- Project Proponent – Drainage Services Department
- Contractor – Leighton-LNS JV
- Environmental Authority – Environmental Protection Department
- The Engineer's Representative (ER) – Metcalf & Eddy-AECOM JV
- Independent Environmental Checker (IEC) - Mott MacDonald Hong Kong Ltd.
- Contractor's Environmental Team (ET) – Atkins China Ltd.

Project organisation and contact details are shown in Appendix A.

1.3 Construction Programme

The Contractor's 3-month construction programme is provided in Appendix B.

1.4 Locations of Monitoring Stations

Details of the monitoring stations are provided in Section 3 and relevant figures are shown in Figures 2.1 to 2.7.

2 ENVIRONMENTAL STATUS

2.1 Work undertaken during the Reporting Period

The major construction activities undertaken during this reporting period are summarised below (see Figures 2.1 to 2.7 for the site locations):

Aberdeen

1) Reinstatement (implement method statement and standard EMP mitigations).

Wah Fu

1) Reinstatement (implement method statement and standard EMP mitigations).

Cyberport

1) Reinstatement (implement method statement and standard EMP mitigations).

Sandy Bay

1) Reinstatement (implement method statement and standard EMP mitigations).

Sai Ying Pun

1) Shaft backfilling (implement method statement and standard EMP mitigations)

2.2 Environmental Permit and License

The Environmental Permit (EP-322/2008/G) was issued on 9 May 2014 by EPD.

Chemical Waste

The Project's registrations as a Chemical Waste Producer are listed in Table 2.1.

Table 2.1 Summary of Registrations as a Chemical Waste Producer

No.	Location	WPN Number	Issue Date
1	Cyberport	5213-171-L2699-01	30 Oct 2009
2	Sandy Bay	5213-171-L2699-05	30 Oct 2009
3	Sai Ying Pun	5111-112-L2702-01	8 Dec 2009
4	Wah Fu	5213-172-L2699-02	30 Oct 2009
5	Aberdeen PTW	5213-173-L2699-04	30 Oct 2009
6	Aberdeen Workshop	5213-173-L2699-03	30 Oct 2009

Water Discharge Licence

Details of water discharge licences for all the Project locations are listed in Table 2.2.

Table 2.2 Summary of Water Discharge Licences

No.	Location	Licence Number	Issue Date	Validity
1	Cyberport	WT00017312-2013	4 Oct 2013	31 Oct 2018
2	Sandy Bay	WT00020493-2014	5 Dec 2014	31 Dec 2019
3	Sai Ying Pun	WT00020591-2014	6 Jan 2015	30 Nov 2019
4	Wah Fu	WT00020491-2014	5 Dec 2014	31 Dec 2019
5	Aberdeen PTW	WT00020396-2014	3 Dec 2014	31 Dec 2019

Construction Noise Permit

The statuses of Construction Noise Permits (CNPs) for this Project are shown in Table 2.3.

Table 2.3 Status of Construction Noise Permits

No	Location	Time	Duration	CNP Number
1	Cyberport	24 hours	26 Sep 2014 ~ 28 Feb 2015	CNP GW-RS0941-14
2	Cyberport	1900-2300 normal day 0700-2300 holiday	27 Aug 2014 ~ 26 Feb 2015	CNP GW-RS 0868-14 (Expired and it will not be renewed)
3	Sandy Bay	24 hours	12 Jan 2015 ~ 14 Jul 2015	CNP GW-RS 0037-15
4	Sai Ying Pun	24 hours	15 Jan 2015 ~ 14 Jul 2015	CNP GW-RS0018-15
5	Aberdeen	24 hours	25 Sep 2014 ~ 28 Feb 2015	CNP GW-RS 1033-14

Remark:

All CNPs have specific terms and conditions, please refer to the relevant CNPs for details.

2.3 Environmental Document Submission

A summary of Environmental Certification Sheet submissions during the reporting period under the Project EP is presented in Table 2.4.

Table 2.4 Summary of Environmental Document Submission

No.	Document Title	Date of Submission by ET	Date of Verification by IEC
1	Monthly Environmental Monitoring and Audit Report No.61, Covering the Period from 1 January 2015 to 31 January 2015 (EMA/078, Rev B)	12 February 2015	12 February 2015

2.4 Environmental Monitoring Locations

There are five noise monitoring stations and four air quality monitoring stations designated for the Project and the relevant locations and sensitive receivers are shown on Figures 2.1 to 2.4 and Figures 2.5 to 2.7 respectively. Descriptions of these monitoring stations are provided in Table 2.5.

Table 2.5 Noise and Air Quality Monitoring Stations Descriptions

Monitoring ID	Description	Uses/ Location of Measurement	Easting	Northing
Noise Monitoring Stations				
M3 (1)	Rooftop (24/F) of Block A, Kwan Yick Building Phase III (Fung Mat Road Site)	Medium-rise domestic premises – private housing estate	832480	816602
M5	Rooftop (4/F) of Chuk Lam Ming Tong (Sandy Bay PTW)	Hospital and clinics - home for the aged	830779	814609
M6a (2), (4)	2m above ground, outside of Aegean Terrace (Cyberport PTW)	Low-rise domestic premises – private housing	831304	813890
M7a (2), (4)	Rooftop (19/F) of Wah Ming House (Wah Fu PTW)	Medium-rise domestic premises – public housing estate	---	---
M8 (4)	Roof (39/F) of Wah Lai House (Aberdeen PTW)	High-rise domestic premises – public housing estate	---	---
Air Quality Monitoring Stations				
CM_FM1 (3)	Western Wholesale Food Market (Fung Mat Road Site)	Podium	832341	816776
CM_CB1a (2), (4)	The Arcade, Cyberport (Cyberport PTW)	Ground level at children playground, adjacent to Project site office	---	---
CM_WF1a (2), (4)	Wah Ming House (Wah Fu PTW)	Roof	---	---
CM_AB1b (4) ,(5)	Work Site Boundary of Aberdeen PTW	---	---	---

Notes:

(1) The baseline noise monitoring results obtained by ET of Contact No. DC/2007/23 was used as a reference and impact noise monitoring results obtained by ET of Contact No. DC/2007/23 are presented in this Report.

(2) Revision to the original monitoring location in Project EM&A Manual was made and was verified by IEC on 19 November 2009 and subsequently approved by EPD on 27 November 2009.

(3) The impact air quality are undertaken by the ET of Contract No. DC/2007/23. The monitoring details and results are provided in the monthly EM&A Reports prepared for Contract No. DC/2007/23 and the monitoring results obtained at this station are also presented in this monthly EM&A Report for information.

(4) The monitoring works at this location is conducted by ET of Contract No. DC/2009/24. The monitoring details and results are provided in the monthly EM&A Reports prepared for Contract No. DC/2009/24 and the monitoring results obtained at this station are also presented in this monthly EM&A Report for information.

(5) The monitoring location was relocated and was verified by IEC on 15 Jul 2014 and approved by ER on 22 Jul 2014.

3 EM&A REQUIREMENTS

3.1 Summary of Impact EM&A Requirements

The EM&A for this Project requires quantitative monitoring on noise and air quality (Total Suspended Particulates (TSP)) on regular and ad-hoc basis, in addition to site inspections. A summary of key impact EM&A requirements for this Project is presented in Table 3.1.

Table 3.1 Summary of Impact EM&A Requirements

Parameter	Description	Frequency
Noise	$L_{eq(30min)}$ between 07:00 – 19:00 hours on normal weekdays, $L_{eq(15min)}$ for other time periods and L_{10} and L_{90} (On-site measurement using sound level meter)	Once a week. One set of measurements between 0700 and 1900 hours on normal weekdays. If construction works are extended to include works during the hours of 1900 – 0700 as well as public holidays and Sundays, additional weekly impact monitoring shall be carried out during respective restricted periods.
Air Quality	24-hour TSP (On-site measurement using High Volume Sampler) 1-hour TSP (Measured by direct reading methods which are capable of producing comparable results as that by the high volume sampling method) (1) (2)	For 24-hour TSP monitoring, the sampling frequency is at least once in every six-days. For 1-hour TSP monitoring, the sampling frequency is at least three times in every six-days.
Waste	Routine supervision of construction works	As per site inspection schedule.
Landscape and Visual	Survey of full effectuation of mitigation measures	Once per month
Hazard to Life	Ground vibration monitoring along boundary of HKCG Depot	N/A(3)
Cultural Heritage	Vibration level at identified historical buildings	N/A(3)

Notes:
(1) Except at CM_FM1, where HVS is used for the impact monitoring of 1 hour TSP.
(2) Laser Particle Photometer (hand held) was used.
(3) As the tunnel blasting and lining works have been completed and there are no construction works which would induce vibrations or settlements near the HKCG Depot and heritage buildings along the tunnel, no monitoring for cultural heritage and hazard to life was undertaken.

3.2 Environmental Quality Performance Limits

Environmental Quality Performance Limits (Action and Limit levels) for noise and air quality have been developed for the Project Baseline Monitoring Report and are summarised in Table 3.2 and Table 3.3 respectively.

Table 3.2 Action and Limit Levels for Impact Noise Monitoring

Time Period	Action	Limit
0700-1900 hrs on normal weekdays	When one documented complaint is received	75dB(A)(1)
0700-2300 hrs on holidays and 1900-2300 hrs on all other days		60/65/70dB(A)(2)
2300-0700 of next day		45/50/55dB(A)(2)

Note: (1) Between 0700-1900, construction noise limit for school during normal term time is 70dB(A) and 65dB(A) during examination period.
(2) To be selected based on Area Sensitivity Rating

Table 3.3 Action and Limit Levels for Air Quality Monitoring

Monitoring ID	1-hour TSP Level, µg/m³		24-hour TSP Level, µg/m³	
	Action	Limit	Action	Limit
CM_FM1	332 (1)	500	188 (2)	260
CM_CB1a	280 (1)	500	178 (2)	260
CM_WF1a	285 (1)	500	185 (2)	260
CM_AB1b	283 (1)	500	174 (2)	260

Notes: (1) For Baseline Level ≤ 384 µg/m³, Action Level = (Baseline Level*1.3 + Limit Level)/2;
For Baseline Level > 384 µg/m³, Action Level = Limit Level
(2) For Baseline Level ≤ 200 µg/m³, Action Level = (Baseline Level*1.3 + Limit Level)/2;
For Baseline Level > 200 µg/m³, Action Level = Limit Level

3.3 Event and Action Plan

Event and Action Plans for noise, air quality as well as visual and landscape aspects have been developed as part of the Baseline Monitoring Report for the Project and the details are provided in Appendix C.

3.4 Environmental Measures and Implementation Status

The mitigation measures listed in the Project EIA Report, EM&A Manual and Environmental Permit as well as relevant implementation status are provided in Appendix D. Based on the site inspection findings, it appears that the Contractor has implemented the required mitigation measures during construction works to date.

4 MONITORING RESULTS

4.1 Monitoring Methodology and QA/QC Procedure

Noise Monitoring

Noise monitoring methodology and QA/QC procedure was detailed in Section 4.1 of Monthly EM&A Report No. 1 (GEN/030 Rev B). No change in noise monitoring methodology and QA/QC procedure was made.

However, the noise impact monitoring at M6a, M7a and M8 has been undertaken by the ET of Contract No. DC/2009/24 since July 2014. The monitoring methodology and QA/QC procedures for these monitoring stations are presented in the monthly EM&A Reports for Contract No. DC/2009/24.

Air Quality

No air quality monitoring has been undertaken at CM_FM1 by the ET of Contract No. DC/2007/24 since January 2015. The air quality monitoring at CM_FM1 is currently undertaken by the ET of Contract No. DC/2007/23 and the monitoring details are provided in the monthly EM&A Reports prepared for Contract No. DC/2007/23.

No air quality monitoring has been undertaken at CM_CB1a and CM_AB1b by the ET of Contract No. DC/2007/24 since August 2014. The air quality monitoring at CM_CB1a and CM_AB1b (an alternative location for CM_AB1a) is currently undertaken by the ET of Contract No. DC/2009/24 and the monitoring details are provided in the monthly EM&A Reports prepared for Contract No. DC/2009/24.

No air quality monitoring has been undertaken at CM_WF1a by the ET of Contract No. DC/2007/24 since July 2014. The air quality monitoring at CM_WF1a is currently undertaken by the ET of Contract No. DC/2009/24 and the monitoring details are provided in the monthly EM&A Reports prepared for Contract No. DC/2009/24.

Landscape and Visual

A monthly site audit is undertaken to check the design, implementation and maintenance of landscape and visual mitigation measures at all Project work sites.

4.2 Monitoring Equipment

Noise

The equipment used for noise monitoring is listed in Table 4.1.

Table 4.1 Equipment for Noise Monitoring

Equipment	Model
Integrated Sound Level Meters	B&K 2238 Serial no. 2684503
Integrated Sound Level Meters	B&K 2238 Serial no. 2800932

Calibrator	B&K 4231, Serial no. 3004068
Calibrator	B&K 4231, Serial no. 3003246

Air Quality

The air quality monitoring for the Project are currently undertaken by the ET of Contract No. DC/2007/23 and Contract No. DC/2009/24. The details of monitoring equipment are presented in the monthly EM&A reports prepared for Contract No. DC/2007/23 and Contract No. DC/2009/24.

4.3 Equipment Calibration

The calibration frequency of the monitoring equipment is shown in Error! Reference source not found.

Table 4.2 Equipment Calibration Frequency

Equipment	Calibration Frequency
Integrated SLM and Calibrator	Every year

Copies of the calibration certificates for the equipment are presented in Appendix F.

4.4 Impact Monitoring Schedule from 1 February 2015 to 28 February 2015

The noise and air quality monitoring schedule for the reporting period is shown in Appendix G. The visual and landscape monitoring was carried out on 16 February 2015.

Regular site inspections were carried out to assess whether the project's environmental protection and pollution control measures were in compliance with the contract specifications. Inspections were carried out on 3, 10, 18 and 24 February 2015, with Independent Environmental Checker's participation on 18 February 2015.

4.5 Impact Monitoring Results

Noise Monitoring Results

The noise monitoring results at the monitoring stations are provided in Appendix H. Graphical presentation of the noise monitoring data is shown in Appendix I.

Air Quality Results

The air quality monitoring results at the monitoring stations are presented in Appendix J. Graphical presentation of the air quality monitoring data is provided in Appendix K.

4.6 Weather Condition during Reporting Period

The weather conditions during reporting period are provided in Appendix E.

4.7 Waste Management

A summary of waste flow for February 2015 is outlined in **Table 4.3**. Inert construction and demolition (C&D) wastes (i.e. public fill) were disposed of at Chai

Wan Public Fill Barging Point/fill bank at Tseung Kwan O Area 137. Other C&D wastes such as paper/ cardboard were collected by a local waste recycling contractor whilst general refuse were disposed of at South East New Territories Landfill.

Table 4.3 Summary of Waste Flow for February 2015

Month	Actual Quantities of Inert C&D Materials Generated Monthly					
	Total Quantity Generated	Broken Concrete (2)	Reused in the Contract	Reused in other Projects	Disposed as Public Fill	Imported Fill
	(in '000 m³ (4))					
February 2015	0.420	0	0	0	0.420	0
Month	**Actual Quantities of C&D Wastes Generated Monthly**					
	Metals	Paper/ cardboard packaging	Plastics (3)	Chemical Waste	Others, e.g. general refuse	
	(in '000 kg)	(in '000 kg)	(in '000 kg)	(in '000 kg)	(in '000 m³ (4))	
February 2015	31.92	0	0	3418 L(5)	0.031	

Notes:
(1) The waste flow table will also include C&D materials that are specified in the Contract to be imported for use at the Site.
(2) Broken concrete for recycling into aggregates.
(3) Plastics refer to plastic bottles/containers, plastic sheets/foam from packaging material.
(4) Assumption: 1m³ of Inert C&D Materials weigh 1.9 tonnes and 1m³ of C&D Wastes weigh 1.6 tonnes.
(5) The chemical waste was in liquid form during this reporting period.

4.8 Landscape and Visual

The monthly site audit was undertaken on 16 February 2015 to check the design, implementation and maintenance of landscape and visual mitigation measures, as laid out in the Project EM&A Manual, at work sites in Aberdeen, Wah Fu, Cyberport, Sandy Bay and Sai Ying Pun. The landscape and visual monitoring report is attached in Appendix L.

4.9 Hazard to Life

As the tunnel blasting and lining works have been completed and there are no construction works which would induce vibrations or settlements near the HKCG Depot, no monitoring was undertaken for hazard to life.

4.10 Cultural Heritage

As the tunnel blasting and lining works have been completed and there are no construction works which would induce vibrations or settlements near the heritage buildings along the tunnel, no monitoring was undertaken for cultural heritage.

5 ENVIRONMENTAL COMPLAINT AND NON-COMPLIANCE

5.1 Environmental Exceedance

There were no environmental exceedances recorded during this reporting period.

During the reporting period, all landscape and visual mitigation measures listed out in the Project EM&A Manual have been implemented where practical.

In Cyberport site, the condition of the retained tree T068(R) was still observed deteriorating with shrunken leaves. Tree tags for retained trees T065(R), T067(R), T072(R) and T074(R) were observed damaged or missing. General refuse was found inside the tree protection zones of retained trees General refuse was found inside the tree protection zones of retained trees T065(R) and T066(R). The tree protection fence for retained tree T074(R) was observed damaged.

In Sandy Bay site, the T017 (T) was still in very poor health. The condition of the retained tree T053(R) was still deteriorating with damages to its stems and foliage since the audit of September 2011. Tree identification tag was still observed missing for retained tree T039(R). The tree without label at the entrance of Sandy Bay site was observed with decay fungi. The retain tree T058(R) was observed poor health. The retain trees T006(R) and T052(R) were observed fungal infection in broken branches. Tree identification tag was still observed missing for retained tree T049(R).

In the Aberdeen site, the conditions of the retained trees T078(R), T079(R) and T080(R) were still deteriorating with some of their stems and leaves dying off since the audit of November 2011. The tree without label at the backyard of Aberdeen storage site was observed with decay fungi. And the tree protection zone for retained trees T078(R), T079(R), T080(R) and T106(R) were observed damaged.

According to the Contractor's information, no exceedance in structural settlement monitoring results was recorded during the reporting period.

5.2 Site Inspections and Audit

A joint site inspection with the IEC and the Contractor was undertaken on 18 February 2015. All the works areas were observed to be generally complied with the environmental mitigation requirements and no particular water quality impacts found.

Records of site inspections observations and corrective actions during the reporting period are provided in Appendix N. Following the environmental inspections, the Contractor has undertaken remedial actions to improve the implementation of mitigation measures.

The Contractor has prepared a Waste Management Plan for the project, although it is not an EP requirement. During the site inspection, the Contractor was seen to have implemented good site practices and mitigation measures as stated in the EM&A Manual.

5.3 Environmental Complaint and Prosecution

One environmental complaint was received by EPD on 17 February 2015 regarding dark water flowing into the sea from the construction site near Le Meridien Cyberport at Information Crescent. A complaint investigation was undertaken and findings were documented in a Complaint Enquiry as shown in Appendix M.

The summary of environmental complaints is shown in Table 5.1.

Table 5.1 Summary of Environmental Complaints

Total No. of Complaints Received	No. of Complaints Received during Reporting Period	No. of Active Complaints	No. of Closed Complaints
16	1	0	16

No notifications of summons or prosecutions were received in relation to environmental impact during the reporting period (see Table 5.2).

Table 5.2 Summary of Notifications of Summons and Prosecutions

Total No. of Notifications of Summons / Prosecutions Received	No. of Notifications of Summons / Prosecutions Received during Reporting Period	Status of Notifications of Summons / Prosecutions
0	0	N/A

6 FORECAST AND SCHEDULE

6.1 Key Issues for the Coming Months

The key issues with respect to the works in the forthcoming two months include:

Aberdeen

1) Reinstatement (implement method statement and standard EMP mitigations).

Wah Fu

1) Reinstatement (implement method statement and standard EMP mitigations).

Cyberport

1) Reinstatement (implement method statement and standard EMP mitigations).

Sandy Bay

1) Reinstatement (implement method statement and standard EMP mitigations).

Sai Ying Pun

1) Reinstatement (implement method statement and standard EMP mitigations).

6.2 Monitoring Schedules for the Next Month

The proposed schedule for noise and air quality monitoring from 1 March 2015 to 31 March 2015 is provided in Appendix G.

7 CONCLUSION

This is the sixty-second Monthly EM&A Report prepared by ACL for Contract No. DC/2007/24 Construction of Sewage Conveyance System from Aberdeen to Sai Ying Pun. This Report summarises the results and findings of the EM&A during the reporting period from 1 to 28 February 2015.

During the reporting period, no environmental exceedances were recorded

No monitoring for cultural heritage and hazard to life was undertaken as the tunnel blasting and lining works have been completed and there are no construction works which would induce vibrations or settlements near the HKCG Depot and heritage buildings along the tunnel.

The total quantity of waste generated during the reporting period is 420 m^3.

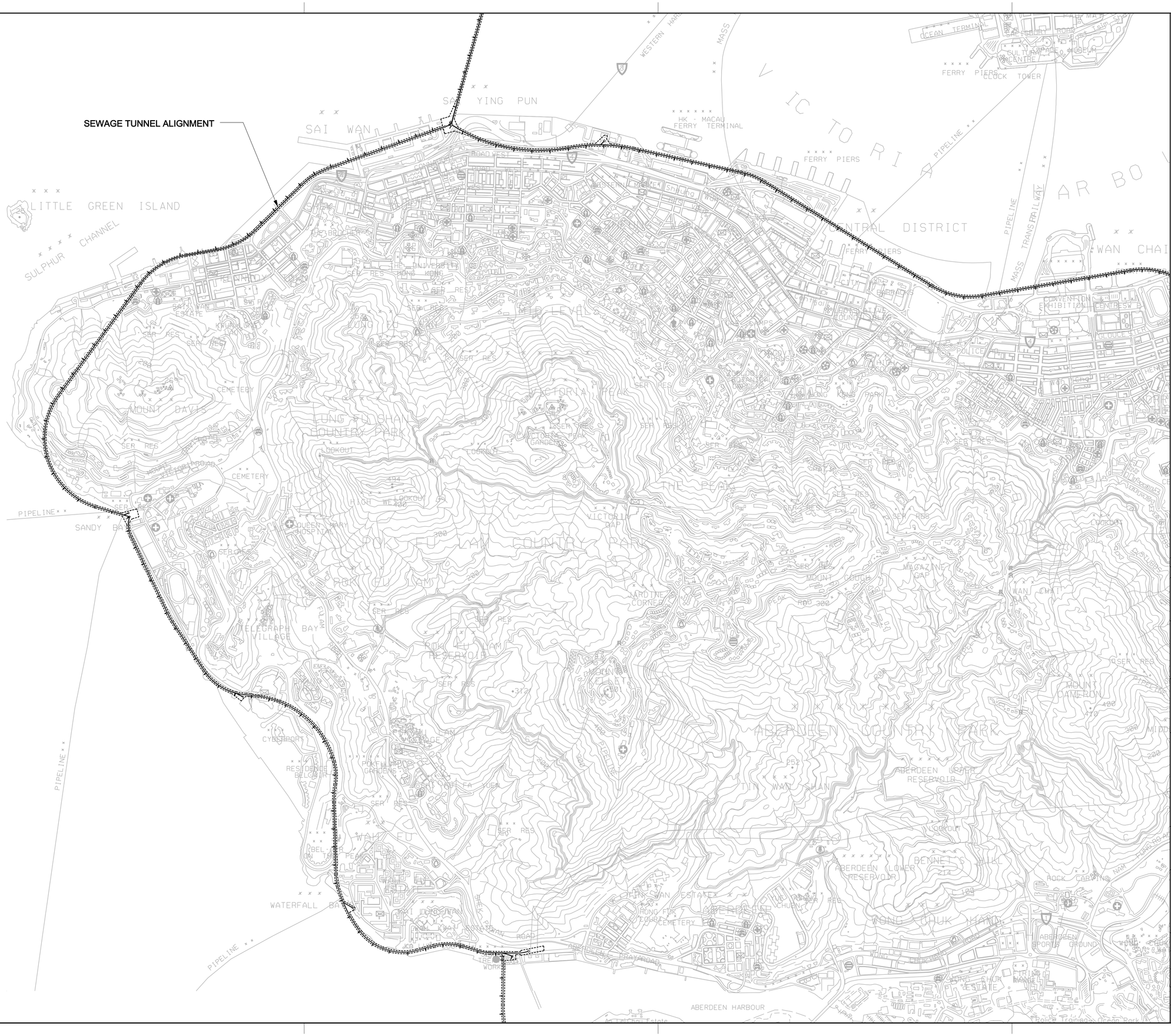
One environmental complaint was received during reporting period. The relevant investigation report was reported in Complaint Enquiry Form 016.

There were no non-compliances attributable to the Project works during the reporting period. Also no prosecution or summons was received during the reporting period. Mitigation measures stated in the Project EIA have been implemented.

The landscape and visual site audit was undertaken on 16 February 2015 to check the design, implementation and maintenance of landscape and visual mitigation measures at work sites. All landscape and visual mitigation measures listed out in the Project EM&A Manual have been implemented in full except Landscape Mitigation Measure ID No. CM2 (Existing trees to be retained on site should be carefully protected during construction.) at Cyberport, Aberdeen and Sandy Bay site.

Overall, environmental impacts arising from the Project construction activities have been controlled and properly rectified.

FIGURES



Rev	Description	Date	Dgn	Chk	Auth
A	FIRST ISSUE	03/02	SC	SB	EC

渠務署
DRAINAGE SERVICES DEPARTMENT

HARBOUR AREA TREATMENT SCHEME DIVISION

Project title

CONTRACT NO. DC/2007/24
HARBOUR AREA TREATMENT SCHEME STAGE 2A
CONSTRUCTION OF SEWAGE CONVEYANCE SYSTEM
FROM ABERDEEN TO SAI YING PUN

Supervising Officer

AECOM

Metcalf & Eddy – AECOM Joint Venture

Main Contractor

LEIGHTON 禮頓 | LNS

Leighton - LNS Joint Venture

Designer

ATKINS

Drawing title

OVERALL LAYOUT PLAN

Designed: SC	Scale at A3: N.T.S.
Drawn: AC	Status: MONTHLY EM&A REPORT
Checked: SB	
Authorised: EC	Figure No.: 1.1
CAD ref.: 4417-EM-FIG-1-1.dgn	Rev.: A

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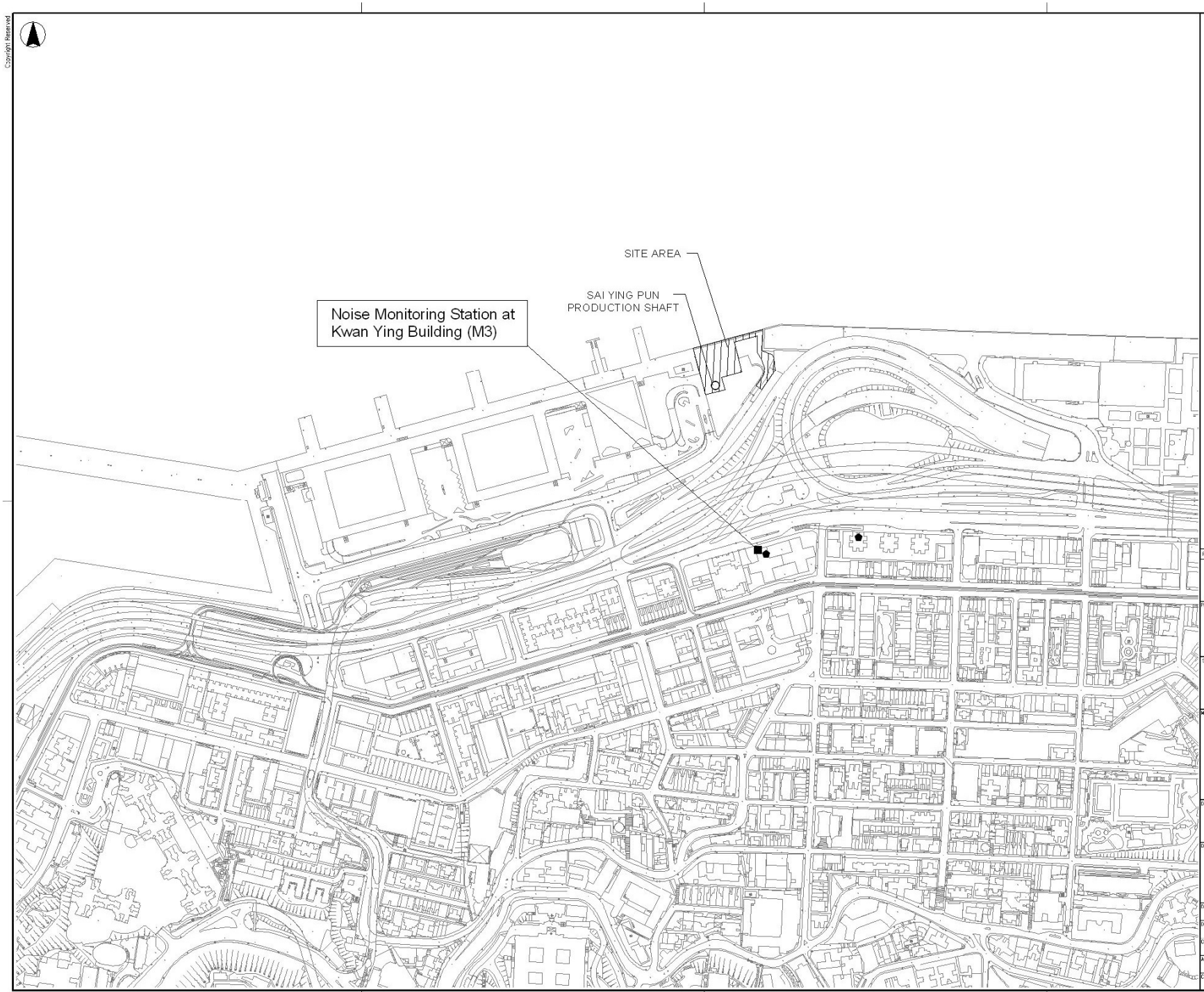


LEGEND
- NOISE MONITORING STATION
- NOISE SENSITIVE RECEIVERS

0 50 100 150 Meters

Rev	Description	Date	Dgn	Chk	Auth

DRAINAGE SERVICES DEPARTMENT
HARBOUR AREA TREATMENT SCHEME DIVISION

Project Title
CONTRACT NO. DC/2007/24
HARBOUR AREA TREATMENT SCHEME STAGE 2A
CONSTRUCTION OF SEWAGE CONVEYANCE SYSTEM
FROM ABERDEEN TO SAI YING PUN

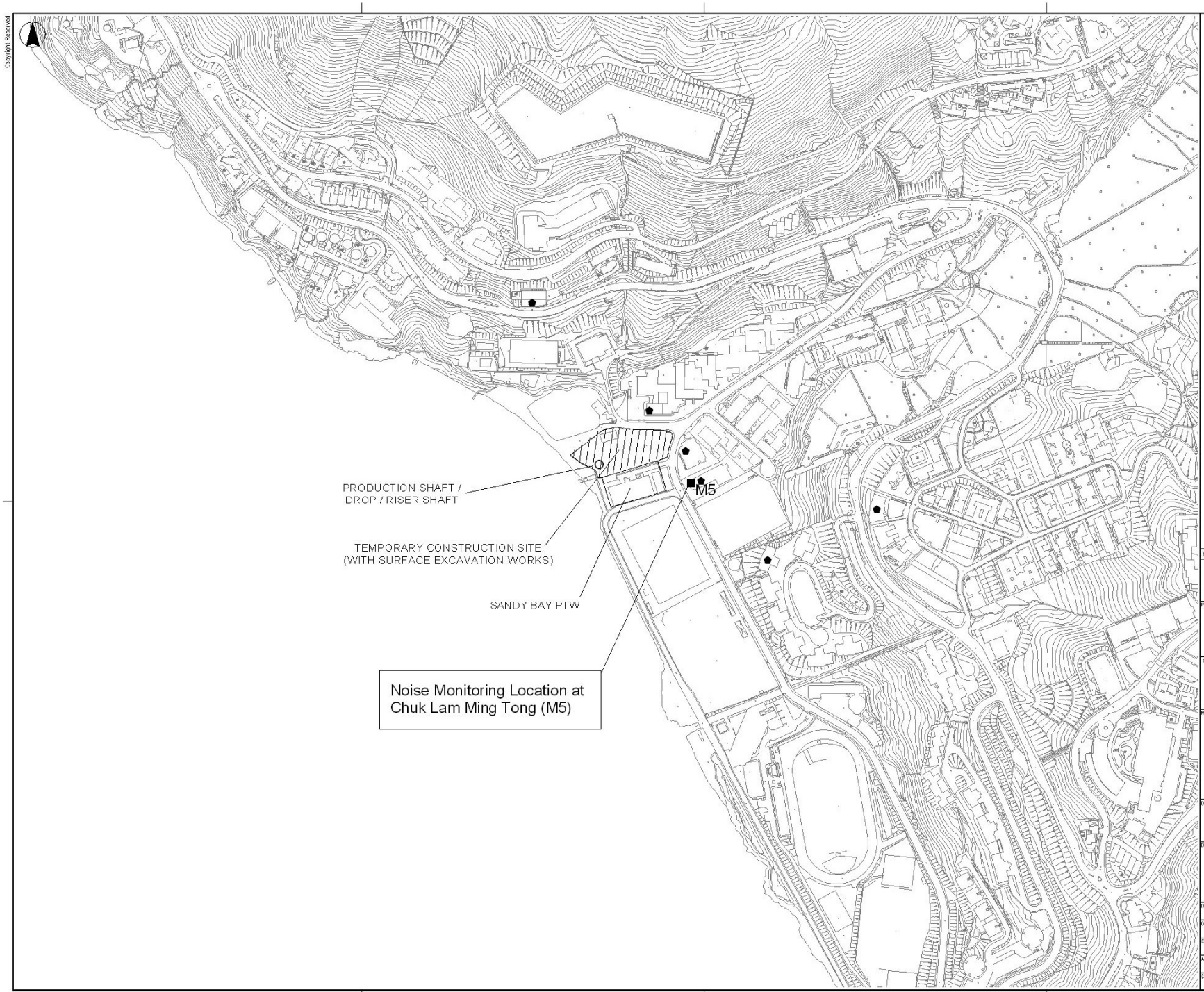
Supervising Officer: AECOM
Metcalf & Eddy – AECOM Joint Venture

Main Contractor: Leighton - LNS Joint Venture

Designer: ATKINS

Drawing Title
CONSTRUCTION NOISE
MONITORING STATION
AT FUNG MAT ROAD SITE

Designed | Scale at A1
Drawn | Status: MONTHLY EM&A REPORT
Checked
Authorised | Drawing No. 2.1 | Rev. A
CAD ref.



LEGEND

- NOISE MONITORING STATION
- NOISE SENSITIVE RECEIVERS

0 50 100 150 Meters

Rev	Description	Date	Dgn	Chk	Auth

DRAINAGE SERVICES DEPARTMENT

HARBOUR AREA TREATMENT SCHEME DIVISION

Project title

CONTRACT NO. DC/2007/24
HARBOUR AREA TREATMENT SCHEME STAGE 2A
CONSTRUCTION OF SEWAGE CONVEYANCE SYSTEM
FROM ABERDEEN TO SAI YING PUN

Supervising Officer

AECOM

Metcalf & Eddy – AECOM Joint Venture

Main Contractor

Leighton - LNS Joint Venture

Designer

ATKINS

Drawing title

CONSTRUCTION NOISE MONITORING STATION AT SANDY BAY PTW

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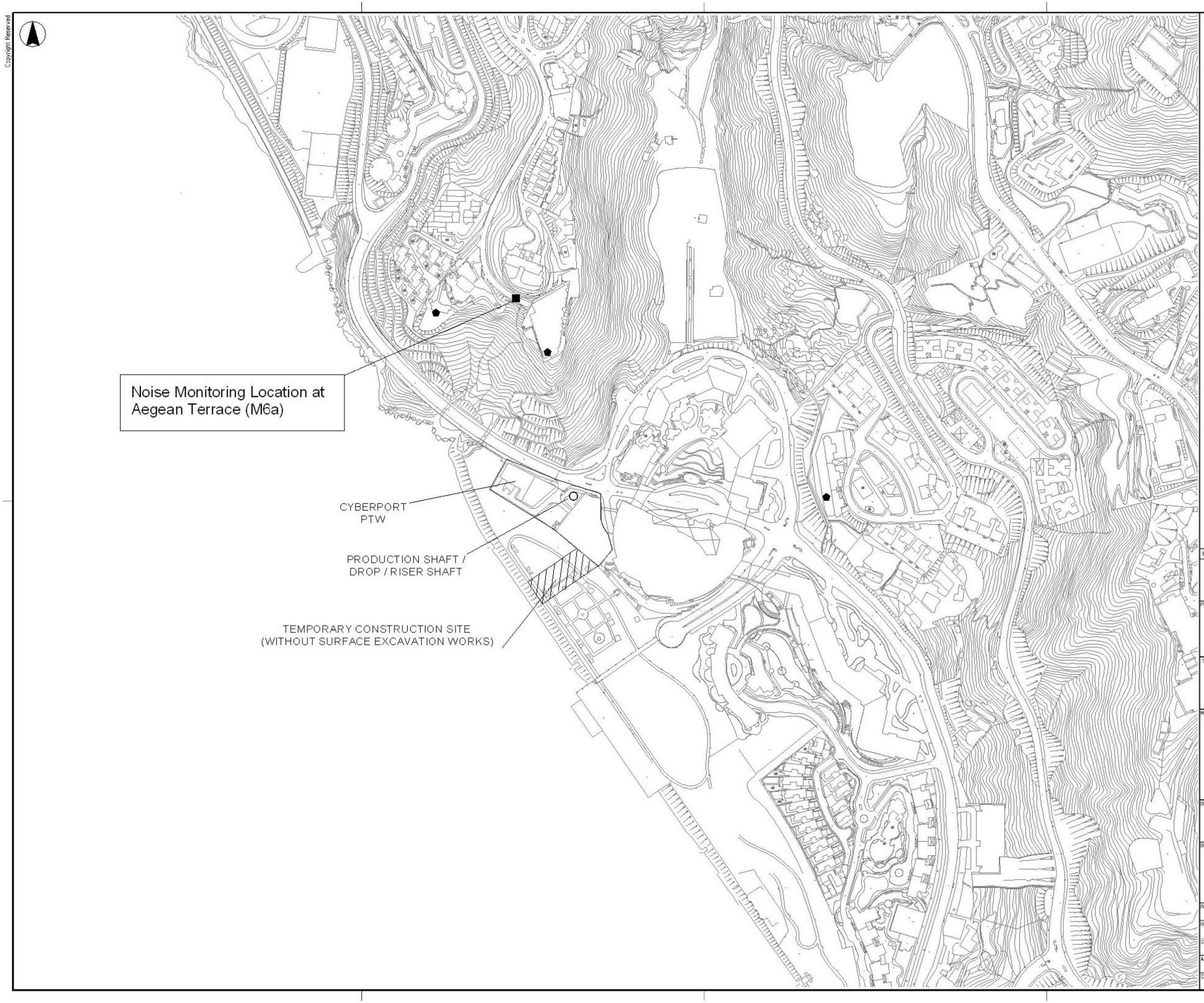
Checked	
Authorised	Drawing no.: 2.2
CAD ref.	Rev.: A



LEGEND
- NOISE MONITORING STATION
- NOISE SENSITIVE RECEIVERS

0 50 100 150 Meters

Rev	Description	Date	Dgn	Chk	Auth

DRAINAGE SERVICES DEPARTMENT
HARBOUR AREA TREATMENT SCHEME DIVISION

Project title
CONTRACT NO. DC/2007/24
HARBOUR AREA TREATMENT SCHEME STAGE 2A
CONSTRUCTION OF SEWAGE CONVEYANCE SYSTEM FROM ABERDEEN TO SAI YING PUN

Supervising Officer
AECOM
Metcaf & Eddy – AECOM Joint Venture

Main Contractor
Leighton - LNS Joint Venture

Designer
ATKINS

Drawing title
CONSTRUCTION NOISE MONITORING STATION AT CYBERPORT PTW

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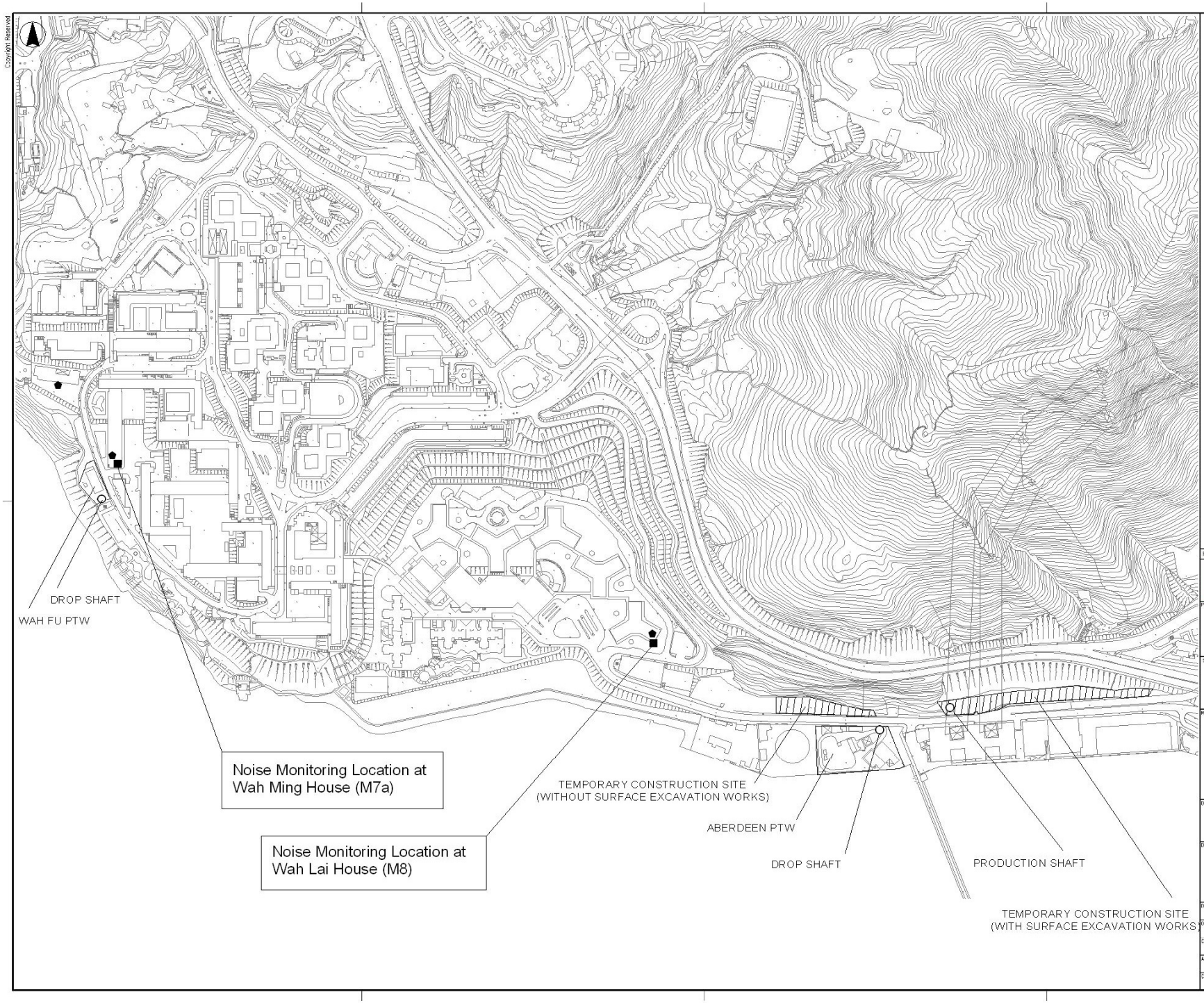
Authorised	Drawing No. 2.3 / Rev. A
CAD ref.	



Rev	Description	Date	Dgn	Chk	Auth

DRAINAGE SERVICES DEPARTMENT
HARBOUR AREA TREATMENT SCHEME DIVISION

Project title
CONTRACT NO. DC/2007/24
HARBOUR AREA TREATMENT SCHEME STAGE 2A
CONSTRUCTION OF SEWAGE CONVEYANCE SYSTEM
FROM ABERDEEN TO SAI YING PUN

Supervising Officer
AECOM
Metcalf & Eddy - AECOM Joint Venture

Main Contractor
Leighton - LNS Joint Venture

Designer
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Drawing title
CONSTRUCTION NOISE MONITORING STATION AT WAH FU AND ABERDEEN PTW

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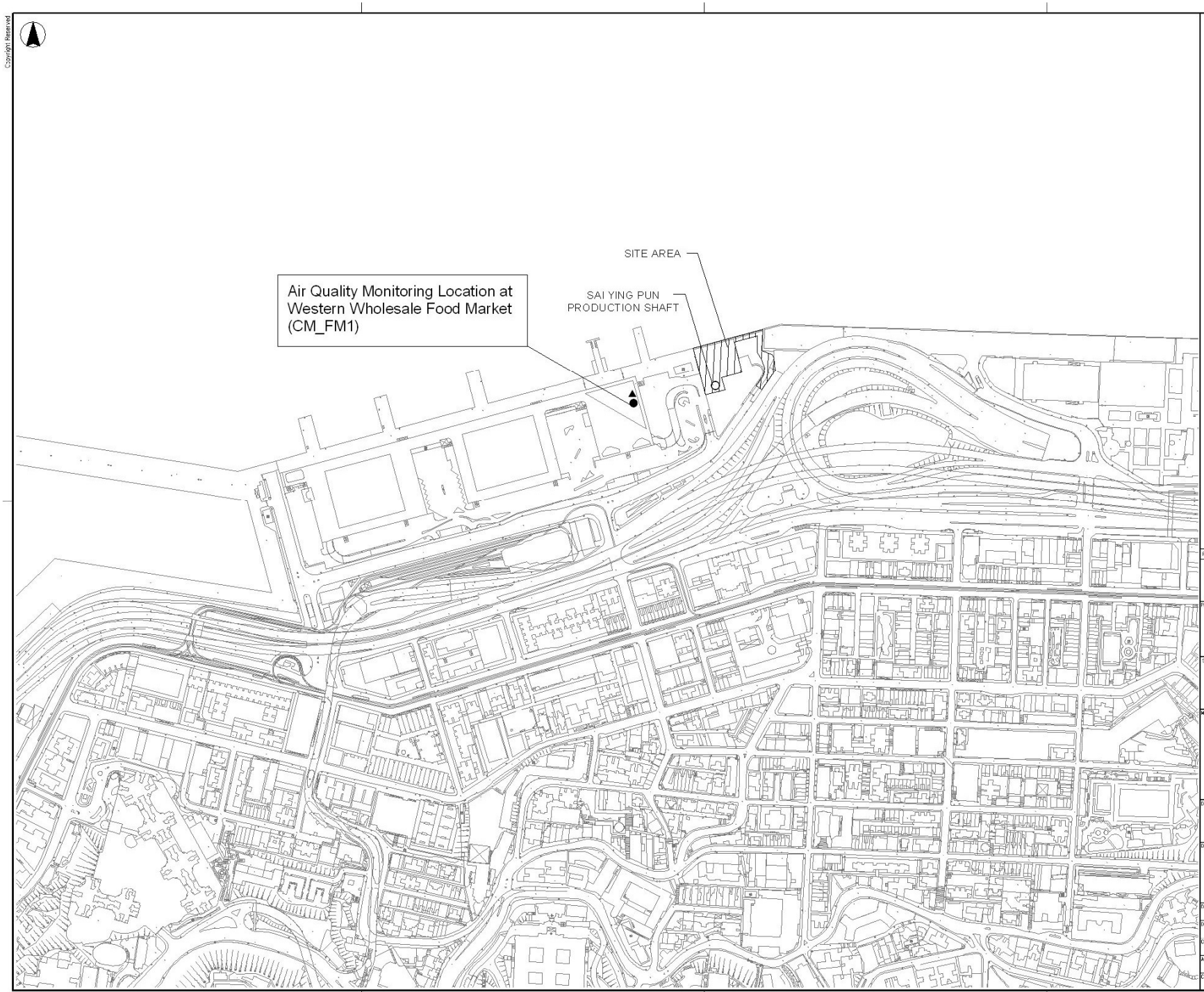

LEGEND
- ▲ AIR SENSITIVE RECEIVERS
- ● DUST MONITORING STATION

0 50 100 150 Meters

Rev	Description	Date	Dgn	Chk	Auth

土木工程拓展署
DRAINAGE SERVICES DEPARTMENT
HARBOUR AREA TREATMENT SCHEME DIVISION

Project Title
CONTRACT NO. DC/2007/24
HARBOUR AREA TREATMENT SCHEME STAGE 2A
CONSTRUCTION OF SEWAGE CONVEYANCE SYSTEM
FROM ABERDEEN TO SAI YING PUN

Supervising Officer
AECOM
Metcalf & Eddy – AECOM Joint Venture

Main Contractor
LEIGHTON 禮頓 LNS
Leighton - LNS Joint Venture

Designer
ATKINS

Drawing Title
CONSTRUCTION DUST
MONITORING STATION
AT FUNG MAT ROAD SITE

Designed	Scale at A1	
Drawn	Status	
Checked	MONTHLY EM&A REPORT	
Authorised	Drawing No.	Rev.
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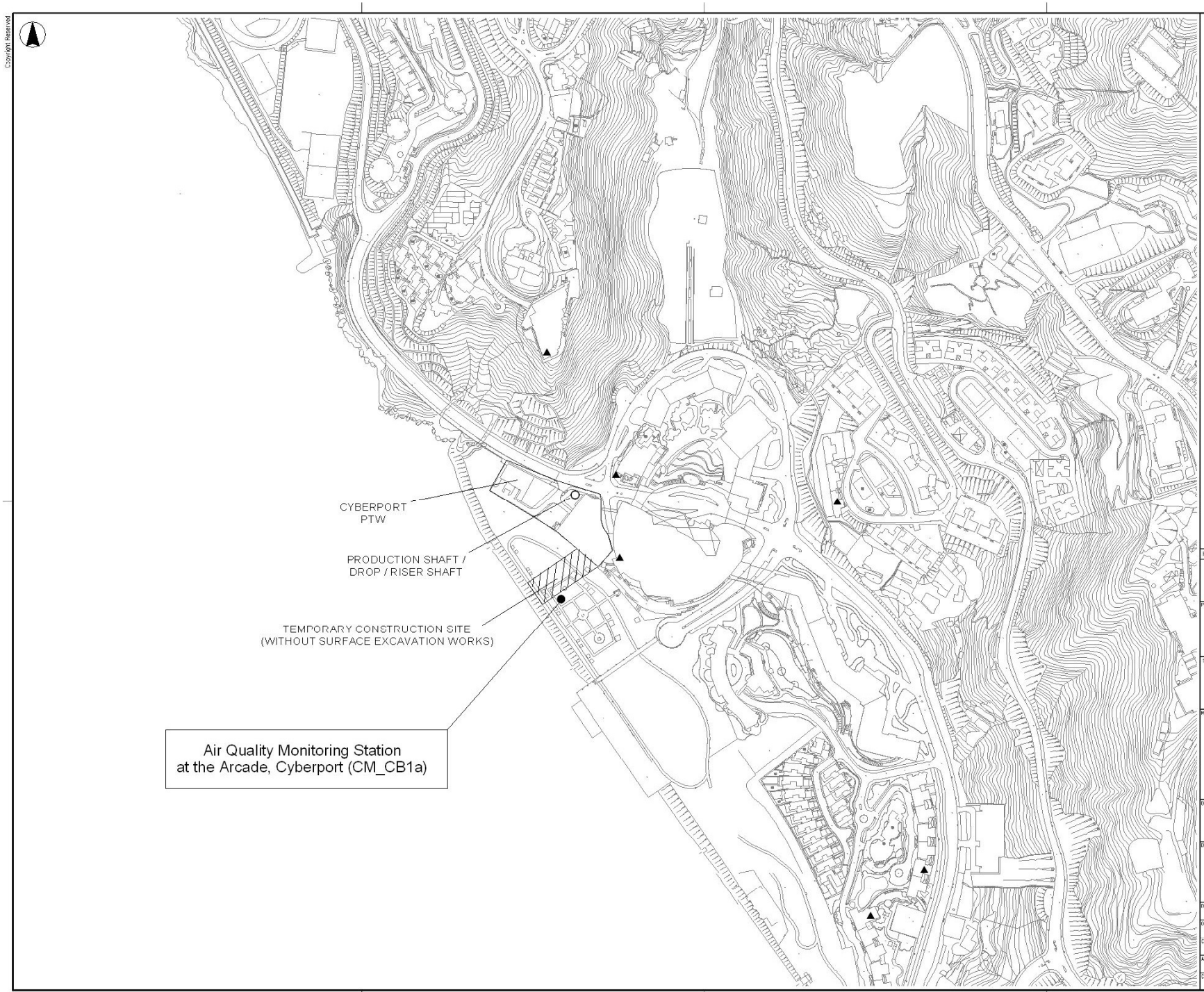

LEGEND
▲ AIR SENSITIVE RECEIVERS
● DUST MONITORING STATION
0 50 100 150 Meters

Rev	Description	Date	Dgn	Chk	Auth

DRAINAGE SERVICES DEPARTMENT
HARBOUR AREA TREATMENT SCHEME DIVISION

Project title
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HARBOUR AREA TREATMENT SCHEME STAGE 2A
CONSTRUCTION OF SEWAGE CONVEYANCE SYSTEM
FROM ABERDEEN TO SAI YING PUN

Supervising Officer
AECOM
Metcalf & Eddy – AECOM Joint Venture

Main Contractor
LEIGHTON 禮和 LNS
Leighton - LNS Joint Venture

Designer
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Drawing title
CONSTRUCTION DUST
MONITORING STATION AT
CYBERPORT PTW

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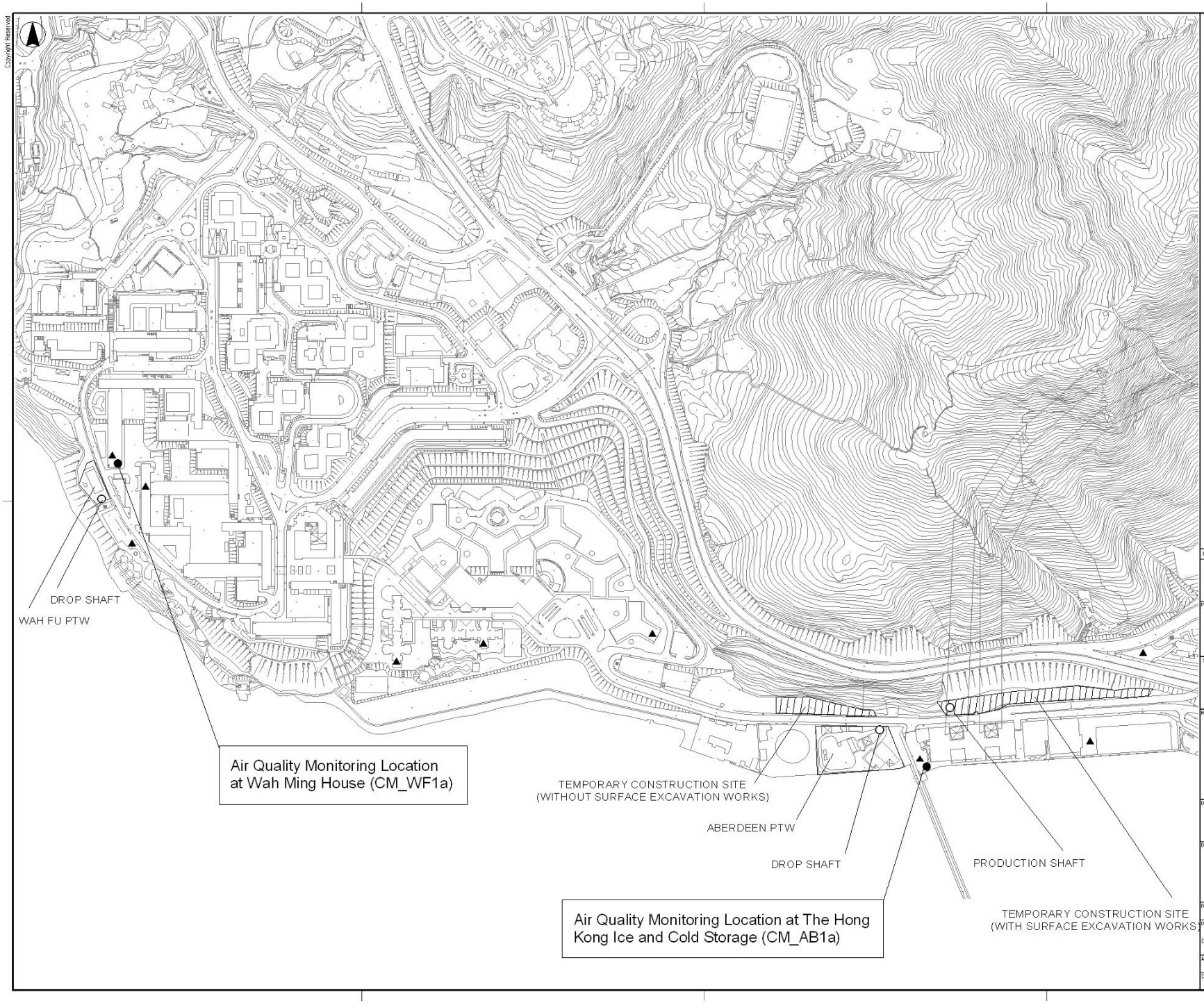

Rev	Description	Date	Dgn	Chk	Auth

DRAINAGE SERVICES DEPARTMENT
HARBOUR AREA TREATMENT SCHEME DIVISION

Project Title
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Supervising Officer
AECOM
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Main Contractor
LEIGHTON 禮和 LNS
Leighton - LNS Joint Venture

Designer
ATKINS

Drawing Title
CONSTRUCTION DUST MONITORING STATION AT WAH FU AND ABERDEEN PTW

Designed	Scale at A1
Drawn	Status: MONTHLY EM&A REPORT
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Authorised	Drawing No.: A-72
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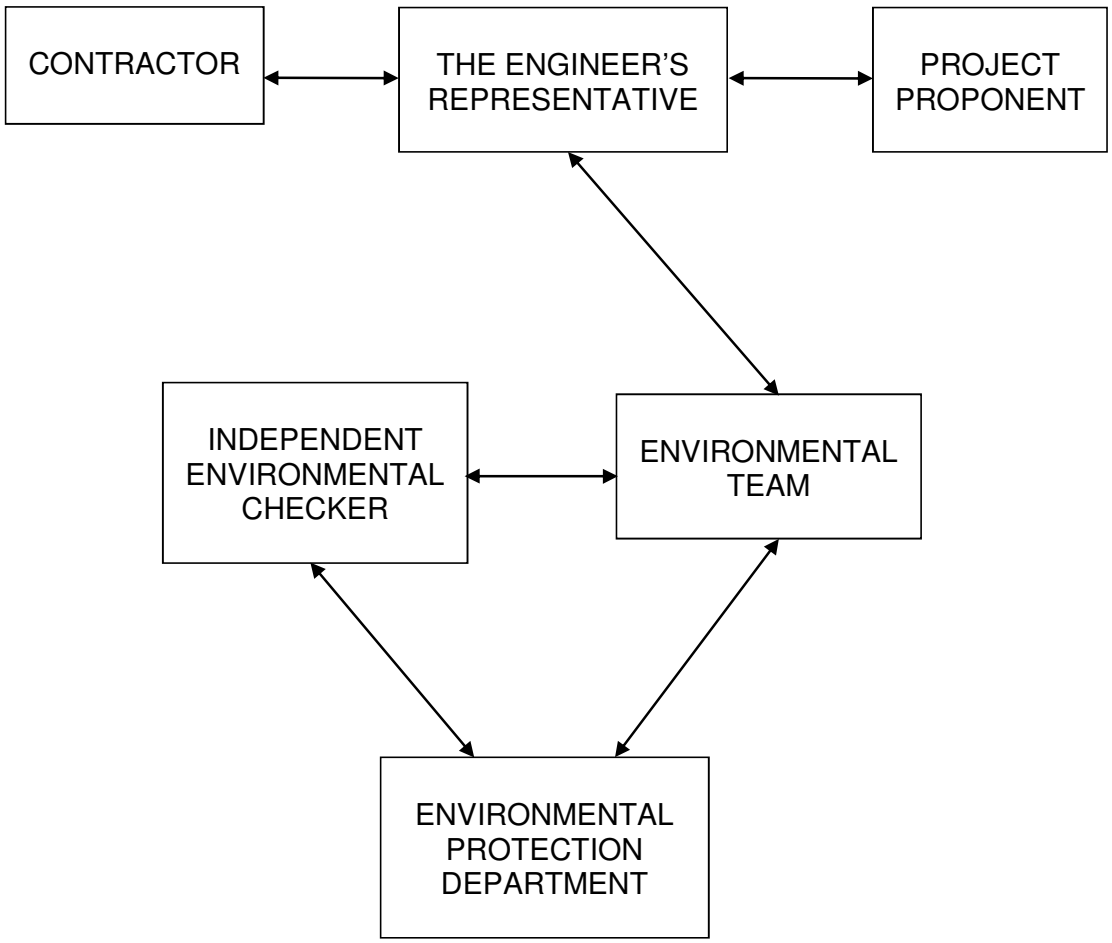
APPENDIX A

PROJECT ORGANISATION AND CONTACT DETAILS

Project Organisation



Legend:

↔ Line of communication

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APPENDIX B

THE CONTRACTOR'S 3-MONTH CONSTRUCTION PROGRAMME

Contract No. DC/2007/24
Habour Area Treatment Scheme Stage 2A
Construction of Sewage Conveyance System from Aberdeen to Sai Ying Pun

Location	Activities	2015				
		February	March	April	May	June
Aberdeen	Reinstatement					
	Maintenance Period					
Wah Fu	Reinstatement					
	Maintenance Period					
Cyberport	Reinstatement					
	Maintenance Period					
Sandy Bay	Reinstatement					
	Maintenance Period					
Sai Ying Pun	Reinstatement					
	Maintenance Period					

Remarks:

Actual Works
Remaining Works

APPENDIX C
EVENT AND ACTION PLANS

Event/ Action Plan for Construction Noise

Event	Action			
	ET	IEC	ER	Contractor
Action Level being exceeded	1. Notify ER, IEC and Contractor; 2. Carry out investigation; 3. Report the results of investigation to the IEC, ER and Contractor; 4. Discuss with the IEC and Contractor on remedial measures required; 5. Increase monitoring frequency to check mitigation effectiveness.	1. Review the investigation results submitted by the ET; 2. Review the proposed remedial measures by the Contractor and advise the ER accordingly; 3. Advise the ER on the effectiveness of the proposed remedial measures.	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.	1. Submit noise mitigation proposals to IEC and ER; 2. Implement noise mitigation proposals.
Limit Level being exceeded	1. Inform IEC, ER, Contractor and EPD; 2. Repeat measurements to confirm findings; 3. Increase monitoring frequency; 4. Identify source and investigate the cause of exceedance; 5. Carry out analysis of Contractor's working procedures; 6. Discuss with the IEC, Contractor and ER on remedial measures required; 7. Assess effectiveness of Contractor's remedial actions and keep IEC, EPD and ER informed of the results; 8. If exceedance stops, cease additional monitoring.	1. Discuss amongst ER, ET, and Contractor on the potential remedial actions; 2. Review Contractor's remedial actions whenever necessary to assure their effectiveness and advise the ER accordingly.	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 exceedance until the exceedance is abated.	1. Take immediate action to avoid further exceedance; 2. Submit proposals for remedial actions to IEC and ER within 3 working days of notification; 3. Implement the agreed proposals; 4. Submit further proposal if problem still not under control; 5. Stop the relevant portion of works as instructed by the ER until the exceedance is abated.

Event/ Action Plan for Construction Air Quality

Event	Action			
	ET	IEC	ER	Contractor
ACTION LEVEL				
1. Exceedance for one sample	1. Identify source, investigate the causes of exceedance and propose remedial measures; 2. Inform IEC and ER; 3. Repeat measurement to confirm finding; 4. Increase monitoring frequency to daily.	1. Check monitoring data submitted by ET; 2. Check Contractor's working method.	1. Notify Contractor.	1. Rectify any unacceptable practice; 2. Amend working methods if appropriate.
2. Exceedance for two or more consecutive samples	1. Identify source; 2. Inform IEC and ER; 3. Advise the ER on the effectiveness of the proposed remedial measures; 4. Repeat measurements to confirm findings; 5. Increase monitoring frequency to daily; 6. Discuss with IEC and Contractor on remedial actions required; 7. If exceedance continues, arrange meeting with IEC and ER; 8. If exceedance stops, cease additional monitoring.	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 ET on the effectiveness of the proposed remedial measures; 5. Supervise Implementation of remedial measures.	1. Confirm receipt of notification of failure in writing; 2. Notify Contractor; 3. Ensure remedial measures properly implemented.	1. Submit proposals for remedial to ER within 3 working days of notification; 2. Implement the agreed proposals; 3. Amend proposal if appropriate.
LIMIT LEVEL				
1. Exceedance for one sample	1. Identify source, investigate the causes of exceedance and propose remedial measures; 2. Inform ER, Contractor and EPD; 3. Repeat measurement to confirm finding; 4. Increase monitoring frequency to daily; 5. Assess effectiveness of Contractor's remedial actions and keep IEC, EPD and ER informed of the results.	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 ER on the effectiveness of the proposed remedial measures; 5. Supervise implementation of remedial measures.	1. Confirm receipt of notification of failure in writing; 2. Notify Contractor; 3. Ensure remedial measures properly implemented.	1. Take immediate action to avoid further exceedance; 2. Submit proposals for remedial actions to IEC within 3 working days of notification; 3. Implement the agreed proposals; 4. Amend proposal if appropriate.
2. Exceedance for two or more consecutive samples	1. Notify IEC, ER, Contractor and EPD; 2. Identify source; 3. Repeat measurement to confirm findings; 4. Increase monitoring frequency to daily; 5. Carry out analysis of Contractor's working procedures to determine possible mitigation to be implemented; 6. Arrange meeting with IEC and ER to discuss the remedial actions to be taken; 7. Assess effectiveness of Contractor's remedial actions and keep IEC, EPD and ER informed of the results; 8. If exceedance stops, cease additional monitoring.	1. Check monitoring data submitted by ET; 2. Check Contractor's working method; 3. Discuss amongst ER, ET, and Contractor on the potential remedial actions; 4. Review Contractor's remedial actions whenever necessary to assure their effectiveness and advise the ER accordingly; 5. Supervise the implementation of remedial measures.	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. Ensure remedial measures properly implemented; 5. If exceedance continues, consider what portion of the work is responsible and instruct the Contractor to stop that portion of work until the exceedance is abated.	1. Take immediate action to avoid further exceedance; 2. Submit proposals for remedial actions to IEC within 3 working days of notification; 3. Implement the agreed proposals; 4. Resubmit proposals if problem still not under control; 5. Stop the relevant portion of works as determined by the ER until the exceedance is abated.

Event and Action Plan for Landscape and Visual Impact - Construction Phase

Action Level	Environmental Team Leader (ETL)	Independent Environmental Checker (IEC)	Engineer's Representative (ER)	Contractor
Non-conformity on one occasion	1. Identify source 2. Inform the IEC and the ER 3. Discuss remedial actions with the IEC, the ER and the Contractor 4. Monitor remedial action until rectification has been completed	1. Check report 2. Check the Contractor's working method 3. Discuss with the ER and the Contractor on possible remedial measures 4. Advise the ER on effectiveness of proposed remedial measures	1. Notify the Contractor 2. Ensure remedial measures are properly implemented	1. Amend working methods 2. Rectify damage and undertake remedial measures or any necessary replacement
Repeated Non-conformity	1. Identify source 2. Inform the IEC and the ER 3. Increase monitoring (site audit) frequency 4. Discuss remedial actions with the IEC, the ER and the Contractor 5. Monitor remedial actions until rectification has been completed 6. If exceedance stops, cease additional monitoring (site audit)	1. Check report 2. Check the Contractor's working method 3. Discuss with the ER and the Contractor on possible remedial measures 4. Advise the ER on effectiveness of proposed remedial measures 5. Supervise implementation of remedial measures	1. Notify the Contractor 2. Ensure remedial measures are properly implemented	1. Amend working methods 2. Rectify damage and undertake remedial measures or any necessary replacement

APPENDIX D

MITIGATION MEASURES CHECKLIST

EIA Ref.	Final EM&A Manual Ref.	Environmental Aspect	Mitigation Measures	Timing	Compliance Status: √ = compliant; x = non-compliant; N/A = not applicable	
					Status	Remarks
3.64	2.55	Air Quality Control	• Watering twice per day within the worksites at North Point PTW, Wan Chai East PTW, Fung Mat Road Site, Sandy Bay PTW, Wah Fu PTW, Aberdeen PTW and SCS worksite at Aberdeen; • Watering 4 times per day within worksites at the Central PTW; • Barging points, if any, should be continuous watering throughout the whole unloading process; and • Watering 8 times per day within worksites at the SCS works area at Wan Chai East and North Point, SCISTW and the Disinfection Facilities of SCISTW.	During Construction	√	
3.74	2.54	Air Quality Control	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. • Skip hoist for material transport should be totally enclosed by impervious sheeting; • 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 hardcore; • Where a site boundary adjoins a road, streets or other areas accessible to the public, hoarding of not less than 2.4 m high from ground level should be provided along the entire length except for a site entrance or exit; • Use of regular watering, with complete coverage, to reduce dust emissions from exposed site surfaces and unpaved roads, particularly during dry weather; • Side enclosure and covering of any aggregate or dusty material storage piles to reduce emissions. Where this is not practicable owing to frequent usage, watering shall be applied to aggregate fines; • Open stockpiles shall be avoided or covered. Where possible, prevent placing dusty material storage piles near ASRs; • Tarpaulin covering of all dusty vehicle loads transported to, from and between site locations; • Imposition of speed controls for vehicles on unpaved site roads. Ten kilometers per hour is the recommended limit; • 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 3 sides; • Every vehicle should be washed to remove any dusty materials from its body and wheels before leaving the construction sites; and • Instigation of an environmental monitoring and auditing program to monitor the construction process in order to enforce controls and modify method of work if dusty conditions arise.	During Construction	√	
3.76	2.58	Air Quality Control	Good housekeeping for SCISTW and PTWs listed below should be followed to ameliorate any odour impact from the plant and these standard practices should be included in the plant operator manual. • Screens should be cleaned regularly to remove any accumulated organic debris • Grit and screening transfer systems should be flushed regularly with water to remove organic debris and grit • Grit and screened materials should be transferred to closed containers to minimize odour escape • Scum and grease collection wells and troughs should be emptied and flushed regularly to prevent putrefaction of accumulated organics • Skim and remove floating solids and grease from primary clarifiers regularly • Frequent sludge withdrawal from tanks is necessary to prevent the production of gases • Sludge cake should be transferred to closed containers • Sludge containers should be flushed with water regularly	During Operation	N/A	
	2.57	Air Quality Control	Fully covered design og the odour sources of the upgraded PTWs and SCISTW and the installation of deodorization system at the exhaust of ventilation system would adequately control potential odour impact.	During Operation	N/A	

EIA Ref.	Final EM&A Manual Ref.	Environmental Aspect	Mitigation Measures	Timing	Compliance Status: √ = compliant; x = non-compliant; N/A = not applicable	
					Status	Remarks
3.77	2.59	Air Quality Control	To avoid excessive extraction of the foul air from the drop shafts of the sedimentation tanks and also from the effluent flume structure of SCISTW to deodorization system, the extraction vent(s) of the deodorization system should be located away from the top openings of the drop shafts.	During Design Stage	N/A	
3.80	2.6	Air Quality Control	Commissioning tests for all deodorization system should be included in the Design and Construction Contract Document.	After completion of	N/A	
4.56-4.61	3.21-3.24	Noise Control	Use of quiet PME, movable barriers and acoustic mats	During Construction	√	
4.67	3.25	Noise Control	Good Site Practice: • Only well-maintained plant shall be operated on-site and plant shall be serviced regularly during the construction program. • Silencers or mufflers on construction equipment shall be utilized and shall be properly maintained during the construction program. • Mobile plant, if any, shall be sited as far away from NSRs as possible. • Machines and plant (such as trucks) that may be in intermittent use shall be shut down between works periods or shall be throttled down to a minimum. • Plant known to emit noise strongly in one direction shall, wherever possible, be orientated so that the noise is directed away from the nearby NSRs. • Material stockpiles and other structures shall be effectively utilized, wherever practicable, in screening noise from on-site construction activities.	During Construction	√	
4.63	3.28	Noise Control	Use of acoustic louvers for air supply fans/extraction fans of transfer pumping stations and ventilation fans of deodourization unit at Sandy Bay PTW, Cyberport PTW and Wah Fu PTW	During Operation and Design Stage	N/A	
4.64		Noise Control	The maximum allowable sound power level (SWL) of each new transformer at Sandy Bay PTW shall be limited to 89 dB(A).	During Operation and Design Stage	N/A	
6.349 - 6.375		Water Quality Control	Construction Site Runoff and General Construction Activities The mitigation measures as outlined in the ProPECC PN 1/94 Construction Site Drainage should be adopted where applicable.	During Construction	√	
6.376		Water Quality Control	Effluent Discharge 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. 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 WPCO license which is under the ambit of regional office (RO) of EPD. Minimum distances of 100 m should be maintained between the discharge points of construction site effluent and the existing saltwater intakes.	During Construction	√	
6.377		Water Quality Control	Accidental Spillage of Chemicals 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.	During Construction	√	
6.378		Water Quality Control	Any service shop and maintenance facilities should be located on hard standings within a bunded area, and sumps and oil interceptors should be provided. Maintenance of vehicles and equipment involving activities with potential for leakage and spillage should only be undertaken within the areas appropriately equipped to control these	During Construction	N/A	

EIA Ref.	Final EM&A Manual Ref.	Environmental Aspect	Mitigation Measures	Timing	Compliance Status: √ = compliant; x = non-compliant; N/A = not applicable	
					Status	Remarks
6.379		Water Quality Control	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. • Chemical waste containers should be suitably labelled, to notify and warn the personnel who are handling the wastes, to avoid accidents. • Storage area should be selected at a safe location on site and adequate space should be allocated to the storage area.	During Construction	√	
6.380		Water Quality Control	Construction Works in Close Proximity of Storm Drains or Seafront To minimize the potential water quality impacts from the construction works located at or near any watercourse, the practices outlined below should be adopted where applicable. • The use of less or smaller construction plants may be specified to reduce the disturbance to the storm water courses or marine environment. • Temporary storage of materials (e.g. equipment, filling materials, chemicals and fuel) and temporary stockpile of construction materials should be located well away from any water courses during carrying out of the construction works. • Stockpiling of construction materials and dusty materials should be covered and located away from any water courses. • Construction debris and spoil should be covered up and/or disposed of as soon as possible to avoid being washed into the nearby water receivers. • Construction activities, which generate large amount of wastewater, should be carried out in a distance away from the waterfront, where practicable.	During Construction	√	
6.381		Water Quality Control	Temporary Sewage Bypass It is recommended that the temporary sewage bypass required for (i) the modification to the existing pumping station at SCISTW and (ii) the interconnection between the existing main pumping station and the new pumping station on Stonecutters Island, if needed, should be scheduled at the same time as far as practicable in order to minimise the temporary discharge duration. It is also recommended that all the modification and interconnection to the existing facilities (including the modification to the existing NWKPS) should be programmed to avoid temporary sewage bypass in wet or bathing season (March to October) to minimize the potential impacts. Relevant government departments including EPD and LCSD should be informed of the planned sewage bypass prior to any discharge. During the sewage bypass period, water quality monitoring should be carried out at the water sensitive receivers to quantify the water quality impacts and to determine when the baseline water quality conditions are restored. Also, a framework of the response procedures has been formulated to minimize the impact of temporary	During Construction	✓	
6.344		Water Quality Control	Dual power supply, standby facilities for the main treatment units and standby equipment parts / accessories should be provided as far as possible at the SCISTW to minimize the chance of emergency discharge.	During Operation and Design Stage	N/A	
6.344		Water Quality Control	The response procedure and monitoring requirements for emergency discharge as stated in EM&A Manual should be followed.	During Operation	N/A	
6.345		Water Quality Control	Standby unit(s) and dual (backup) power supply would be provided at all the Stage 2 PTWs to reduce the risk of equipment breakdown at the PTWs.	During Operation and Design Stage	N/A	

EIA Ref.	Final EM&A Manual Ref.	Environmental Aspect	Mitigation Measures	Timing	Compliance Status: √ = compliant; x = non-compliant; N/A = not applicable	
					Status	Remarks
6.346		Water Quality Control	In case of total power outage of the dechlorination plant, the uninterruptible power supply (UPS) system to be provided would switch the power supply of the sodium bisulphite dosing pump to a backup battery almost instantaneously, allowing continuous dosage of sodium bisulphite for at least half an hour so that sufficient time can be provided for shutting down the chlorination plant to avoid the possibility of discharge of chlorinated effluent.	During Operation and Design Stage	N/A	
6.347		Water Quality Control	The model predicted that if Stage 2B is not implemented for HATS in 2021 as scheduled, the nutrient contents (both P and N) in the marine water would ultimately increase to exceed the baseline Stage 1 level when the HATS flow is reaching its design capacity of 2.45M m3/day. It is recommended that the future review study for Stage 2B should review the validity of the model predictions provided in this EIA and confirm the need of enhanced nutrient removal for HATS after 2021.	During Operation and Design Stage	N/A	
6.348		Water Quality Control	It should be noted that the mixing zone for TIN predicted for Stage 2B was large with an area of about 30 km2 and the area of exceedance would encroach on the nearby water sensitive receivers (e.g. Ma Wan Fish Culture Zone). This is due to the elevated oxidized nitrogen assumed for the proposed nitrification process at Stage 2B as well as the increased HATS effluent flow assumed for Stage 2B. It is recommended that these water quality issues should be further investigated / assessed under the future EIA for Stage 2B. Further mitigation measures / alternative treatment designs should also be considered under the future EIA for Stage 2B to mitigate / minimize the potential TIN exceedances.	Investigation Stage of Stage 2B	N/A	
9.107	7.8	Waste Management	Reusable steel or concrete panel shutters, fencing and hoarding and signboard should be used as a preferred alternative to items made of wood, to minimise wastage of wood. Attention should be paid to WBTC No. 19/2001 - Metallic Site Hoardings and Signboards to reduce the amount of timber used on construction sites. Metallic alternatives to timber are readily available and should be used rather than new timber. Precast concrete units should be adopted wherever feasible to minimize the use of timber formwork.	During Construction	N/A	
9.109	7.10	Waste Management Implication	All waste materials should be segregated into categories covering: • excavated materials suitable for reuse on-site; • excavated materials suitable for public filling facilities; • remaining C&D waste for landfill; • chemical waste; and • general refuse for landfill.	During Construction	√	
9.113	7.15	Waste Management Implication	Recommendations to achieve waste reduction include:- • Sort C&D waste from demolition of existing facilities to recover recyclable portions such as metals; • 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; • 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; • Any unused chemicals or those with remaining functional capacity shall be recycled; and • Proper storage and site practices to minimise the potential for damage or contamination of construction materials.	During Construction	√	
9.115	7.14	Waste Management Implication	Recommendations for good site practices during construction activities include:- • 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 • Training of site personnel in proper waste management and chemical waste handling procedures • Develop and provide toolbox talk for on-site sorting of C&D materials to enhance worker's awareness in handling, sorting, reuse and recycling of C&D materials. • Provision of sufficient waste disposal points and regular collection of waste • Regular cleaning and maintenance programme for drainage systems, sumps and oil interceptors	During Construction	√	

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9.125	7.14	Waste Management Implication	Bentonite slurries used in diaphragm wall construction should be reconditioned and reused wherever practicable. The disposal of residual used bentonite slurry should follow the good practice guidelines stated in ProPECC PN 1/94	During Construction	N/A	
9.131	7.26	Waste Management Implication	Adequate number of portable toilets at temporary works areas or the PTWs to ensure that sewage from site staff would be properly collected.	During Construction	√	
9.133	7.22	Waste Management Implication	General refuse should be stored in enclosed bins, skips or compaction units separating from C&D material and disposed of at designated landfill.	During Construction	√	
9.135	7.24	Waste Management Implication	The recyclable component of the municipal waste generated by the workforce, such as aluminium cans, paper and cleansed plastic containers should be separated from other waste. Provision and collection of recycling bins for different types of recyclable waste should be set up by the Contractor. The Contractor should also be responsible for arranging recycling companies to collect these materials.	During Construction	√	
9.137	7.28	Waste Management Implication	If chemical wastes are produced at the construction site, the Contractor would be required to register with the EPD as a chemical waste producer and to follow the guidelines stated in the Code of Practice on the Packaging, Labelling and Storage of Chemical Wastes. Good quality containers compatible with the chemical wastes should be used, and incompatible chemicals should be stored separately. Appropriate labels should be securely attached on each chemical waste container indicating the corresponding chemical characteristics of the chemical waste, such as explosive, flammable, oxidizing, irritant, toxic, harmful, corrosive, etc. The Contractor shall use a licensed collector to transport and dispose of the chemical wastes, to either the approved Chemical Waste Treatment Centre, or another licensed facility, in accordance with the Waste Disposal (Chemical Waste) (General) Regulation.	During Construction	√	
9.142	7.32 ~ 7.33	Waste Management Implication	Prior to excavation of the marine deposit layer, the deposit should be tested in accordance with the ETWB TC(W) No. 34/2002 and the results should be presented in a Preliminary Sediment Quality Report. The marine deposit should be disposed of at the disposal site designated by the Marine Fill Committee (MFC) or Director of Environmental Protection (DEP) depending on the test results.	During Construction	N/A	
9.148	7.36	Waste Management Implication	The sludge tanks should be air-tighten. Rotating brushes or other alternative devises should be installed at the upper frame of the sludge tank washing facilities to provide better cleaning of the surface around the top loading opening of the sludge tanks. Prior to making such provision, the top covers of the sludge transfer tanks should be water cleaned manually after unloading.	During Construction	N/A	
9.150	7.35	Waste Management Implication	Since the air tightness of tankers highly relies on the effectiveness of rubber seals at the loading openings and unloading doors, odour leakage from tankers are commonly resulted from the aging rubber seals. It is recommended to develop a preventive maintenance programme for rubber seals of loading openings and unloading doors of sludge transfer tanks to ensure the tightness of covers and doors. Rubber seals should be regularly replaced within its design life as specified by suppliers.	During Construction	N/A	
10.92		Terrestrial Ecology	All the proposed construction activities would be confined to developed area and wasteland of very low ecological value.	Design stage	N/A	
10.93		Terrestrial Ecology	To implement effective noise mitigation recommended in Section 4.	During Construction	√	
10.94		Terrestrial Ecology	Dust control practices such as regular watering, complete coverage of any aggregate or dusty material storage piles, and re-schedule of dusty activities during high-wind conditions as well as other measures recommended in Section 3, should be implemented.	During Construction	√	
10.95		Terrestrial Ecology	Fences/hoardings should be erected and installed along the boundary of the works areas.	During Construction	√	

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10.96		Terrestrial Ecology	Standard good site practices as suggested in Section 10 should be implemented.	During Construction	√	
10.97		Terrestrial Ecology	Provision of proper drainage system and runoff control measures such as use of sand/silt traps, oil/grease separators, sedimentation tanks, etc.	During Construction	√	
10.98		Terrestrial Ecology	Provision of compensatory planting of similar native tree species in no less than 1:1 compensatory ratio in terms of quality and quantity.	During Construction	N/A	
11.135		Marine Ecology	To minimize the potential indirect impacts on water quality from construction site runoff and various construction activities, the practices outlined in ProPECC PN 1/94 Construction Site Drainage should be adopted.	During Construction	√	
11.136		Marine Ecology	To avoid/minimize the impact to corals, it is proposed that they are translocated to the eastern end of the existing seawall, which has similar hydrographic parameters and supports healthy growth of the same species and is thus considered as a suitable recipient site (Figure 11.13). Coral translocation should be carried out during the winter season (November- March) in order to avoid disturbance to the transplanted colonies during the spawning period (i.e. July to October).	Pre-construction	N/A	
11.137		Marine Ecology	Dredging works will not be carried out and sheet piles or silt curtains will be used to contain filling material used during demolition/re-construction of the seawall. Water quality modelling predicts that no adverse impact on water quality at the proposed recipient (Figure 11.13) site would occur during construction works. Following this, no construction phase monitoring on translocated coral would be required. However, post-translocation monitoring is suggested to be carried out every 3 months for one year. This would be carried out by a marine ecological specialist that is approved by the Director. Translocation plan for corals will be submitted to the Director for approval prior to the commencement of construction works.	Pre-construction	N/A	
11.139		Marine Ecology	It is recommended that temporary sewage bypass should be programmed to avoid temporary sewage bypass in wet or bathing season (March to October) in order to minimize the potential impacts. Relevant government departments including EPD and LCSD should be informed of the planned sewage bypass prior to any discharge. During the sewage bypass period, water quality monitoring should be carried out at the water sensitive receivers to quantify the water quality impacts and to determine when the baseline water quality conditions are restored. Also, a framework of the response procedures has been formulated to minimize the impact of temporary discharges. Details are provided in the standalone EM&A Manual.	During Construction and Design stage	√	
Table 13.7		Landscape & Visual Impact	• Topsoil, where identified, should be stripped and stored for re-use in the construction of the soft landscape works, where practical. • Existing trees to be retained on site should be carefully protected during construction. • Trees unavoidably affected by the works should be transplanted where practical. • Compensatory tree planting should be provided to compensate for felled trees. • Control of night-time lighting. • Erection of decorative screen hoarding the surrounding setting.	Pre-construction	N/A	
Table 13.8		Landscape & Visual Impact	• Aesthetic design of the façade of PTW and associated structures to harmonize with the surrounding settings. • Shrub and Climbing Plants to soften proposed structures / Roof Greening. • Buffer Tree and Shrub Planting to screen proposed associated structures. • Reinstated of disturbed area	Pre-construction	N/A	
14A.198 & 14A.203		Hazard to Life	Limiting magnitude of ground settlement associated with shafts & tunnels construction, excavation and seawall demolition to 13mm and subject to requirements from relevant authorities.	During Construction	√	

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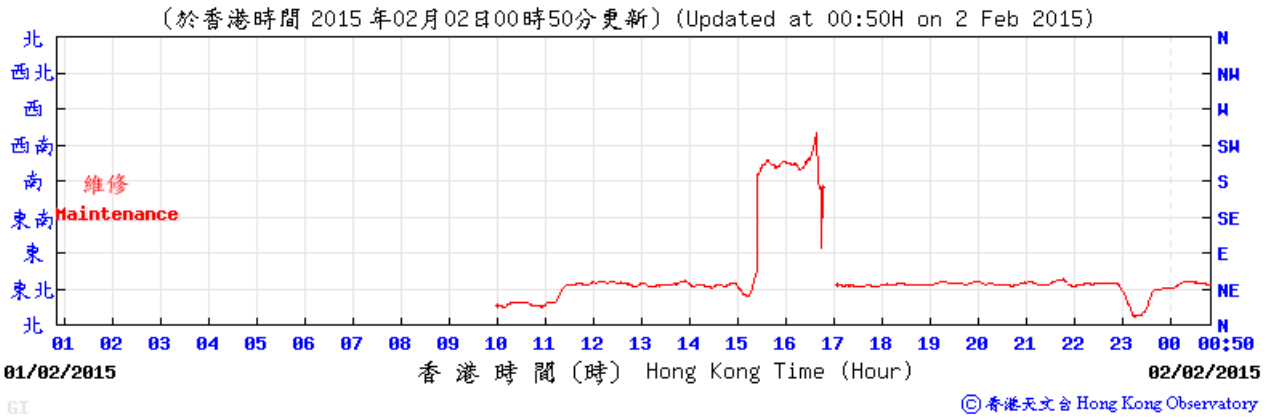
					Status	Remarks
14A.199 & 14A.204		Hazard to Life	Limiting of the vibration levels associated with the blasting programme for the Tunnel P, shafts and other construction works (including demolition & reconstruction of seawall, excavation for seawater pump house at the Aberdeen PTW) at the PTW sites to a peak particle velocity of 5mm/s and subject to requirements from relevant authorities. Moving array of sensors will be used as the tunnel is advanced.	During Construction	N/A	
14A.201		Hazard to Life	Limiting use of cranes in terms of locations, lifting height, swing angle and setting up safety zone.	During Construction	√	
14A.206		Hazard to Life	Establish emergency plan and procedures	During Construction	√	
14.C78		Hazard to Life	Ensuring Quality of Chemical Supplier • Only appoint chemical suppliers with satisfactory quality system. • Request the chemical supplier to employ an independent checker to audit the quality and safety management system of the supplier • The chemical supplied to SCISTW can only be produced in designated chemical production plants and delivered directly from designated locations. This measure will be included in the chemical supply contract.	During Construction	√	
Tables 15.8 - 15.11		Cultural Heritage	The construction vibration control limit (ppv of 25mm/s) shall be strictly followed. If vibration levels are found to exceed the limit level, the Contractor shall investigate the cause of the exceedance and take immediate corrective action by reducing the rate of forward progress, as necessary, to bring PPV levels within compliance.	During Blasting for tunnel, shafts, effluent conveyance system and disinfection facilities in the vicinity of the buildings/ structures	N/A	
15.70		Cultural Heritage	Monitoring of vibration limits shall be conducted and reported as a requirement of EM&A programme	During Blasting for tunnel, shafts, effluent conveyance system and disinfection facilities in the vicinity of the buildings/ structures	N/A	

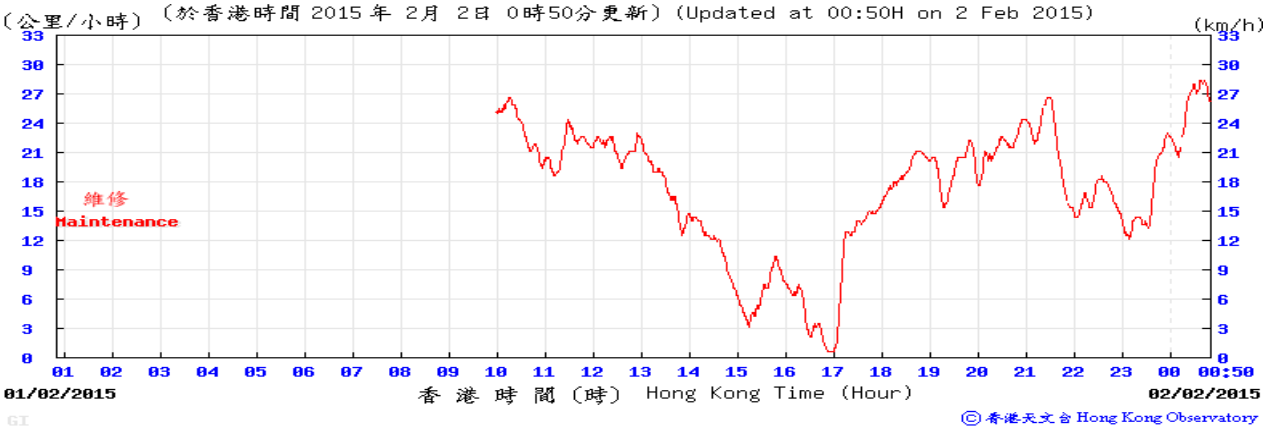
APPENDIX E

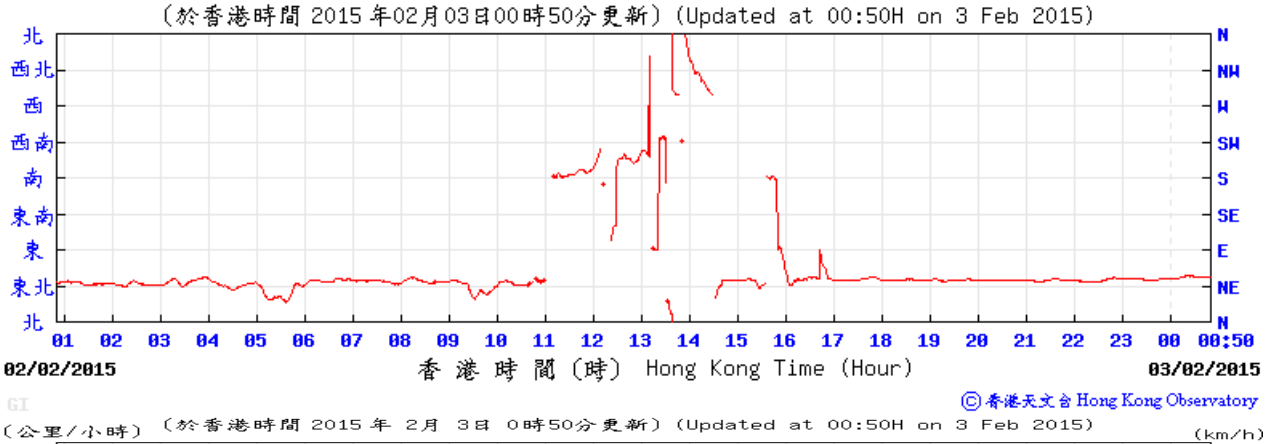
WEATHER CONDITION DURING REPORTING PERIOD

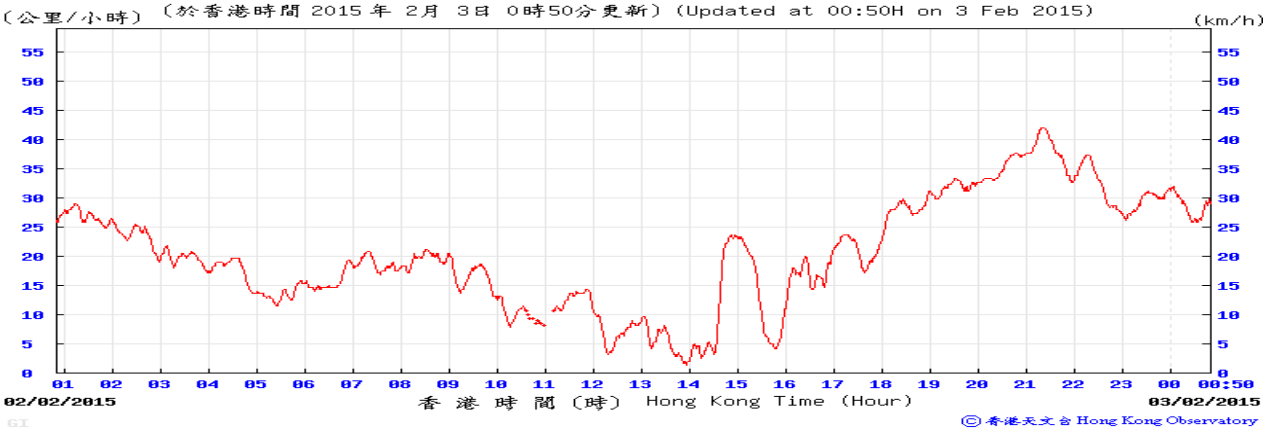
Construction of Sewage Conveyance System from Aberdeen to Sai Ying Pun

Weather Conditions at Green Island Weather Station during Monitoring Period









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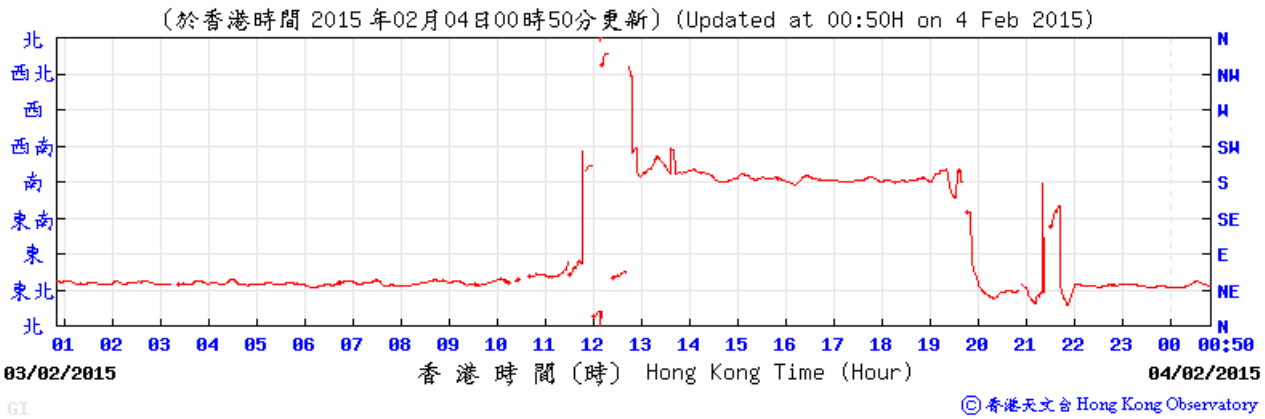

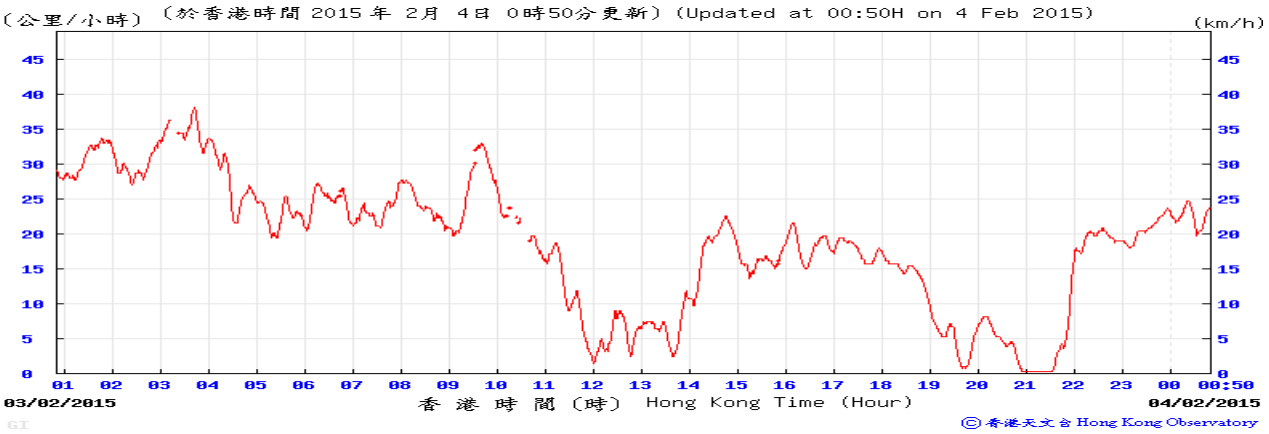

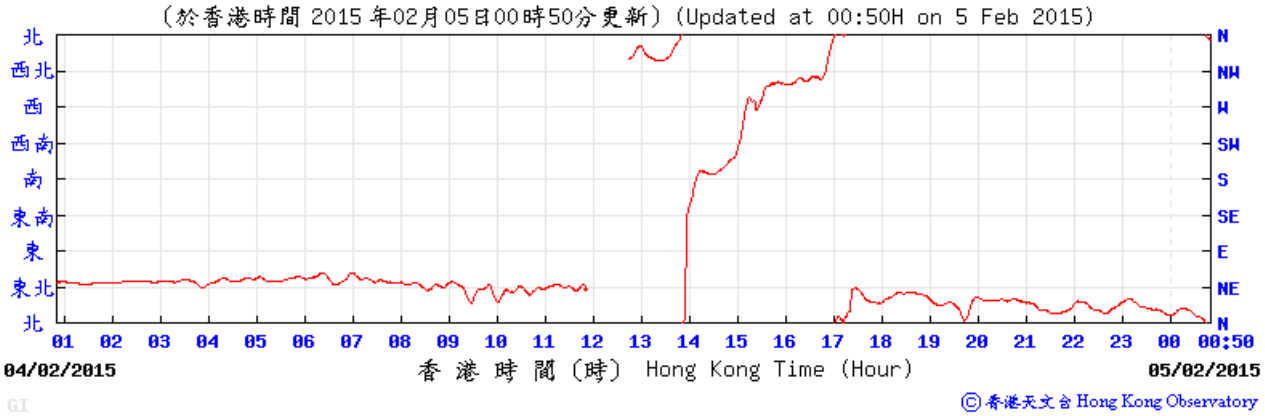

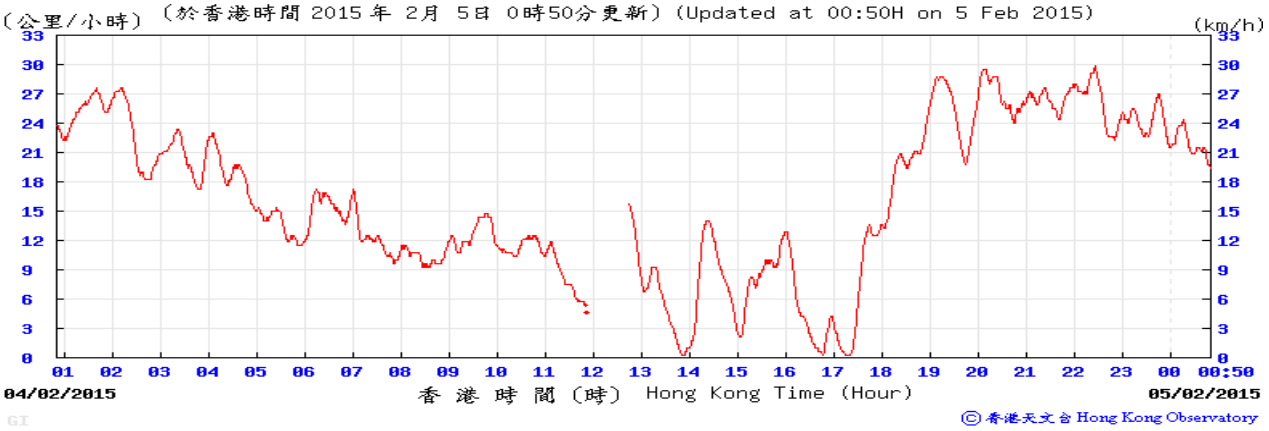

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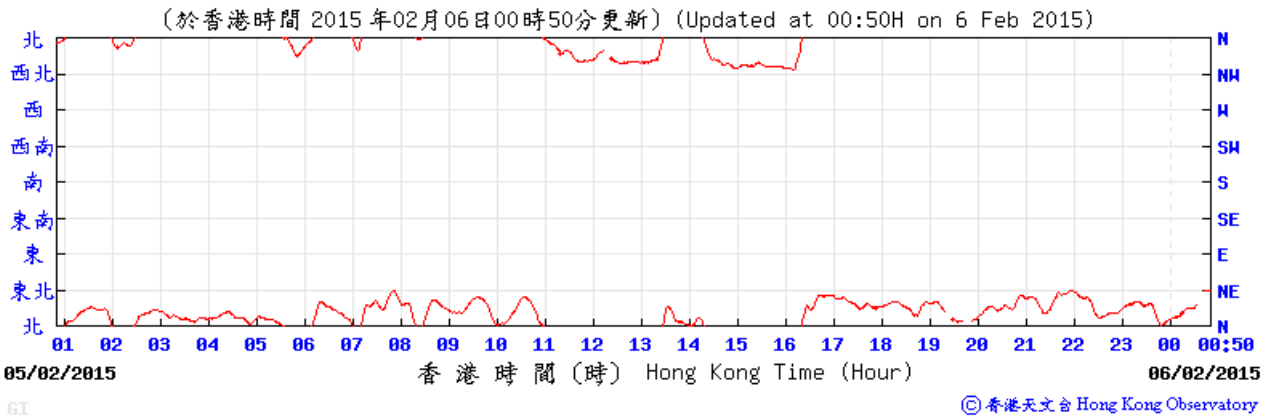

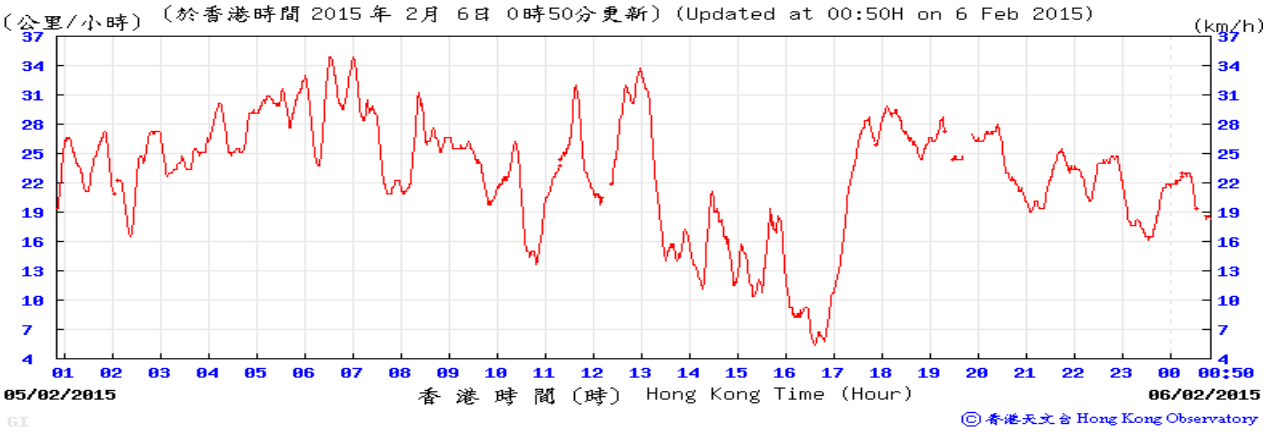

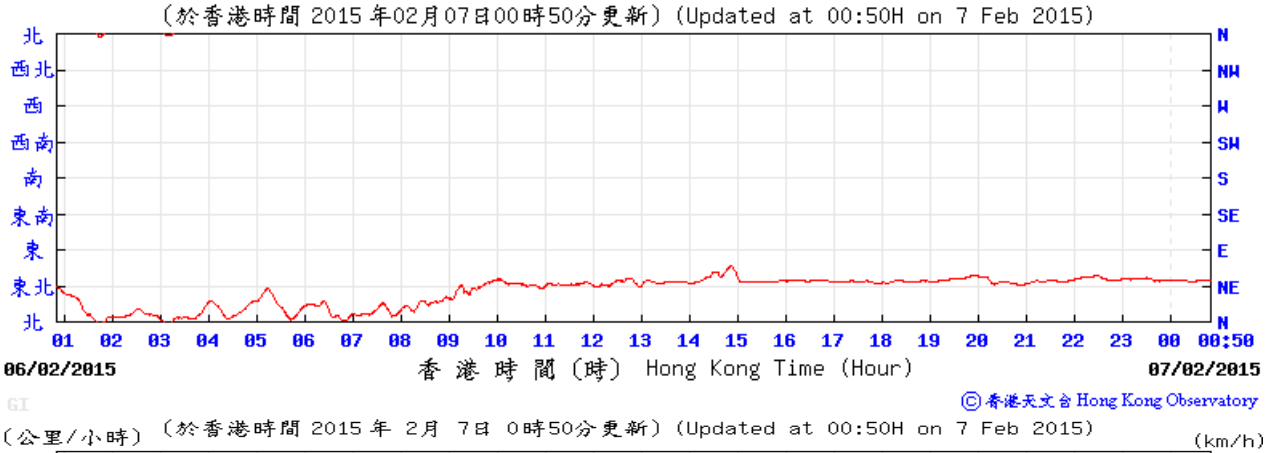

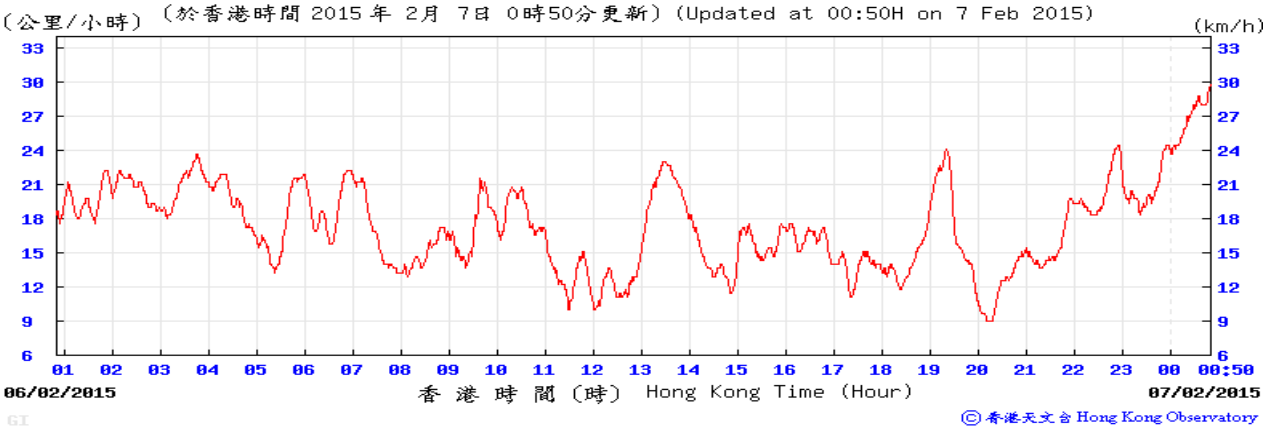

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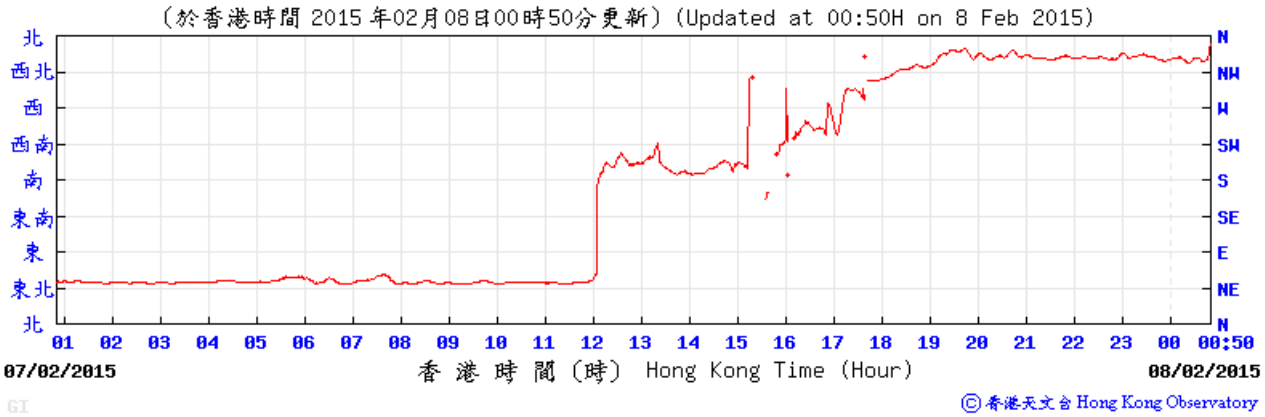

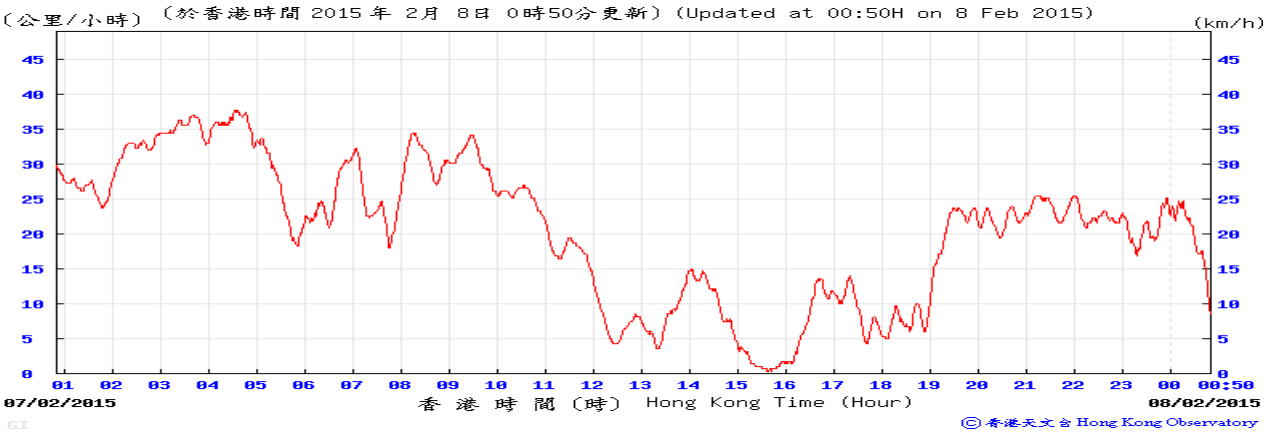

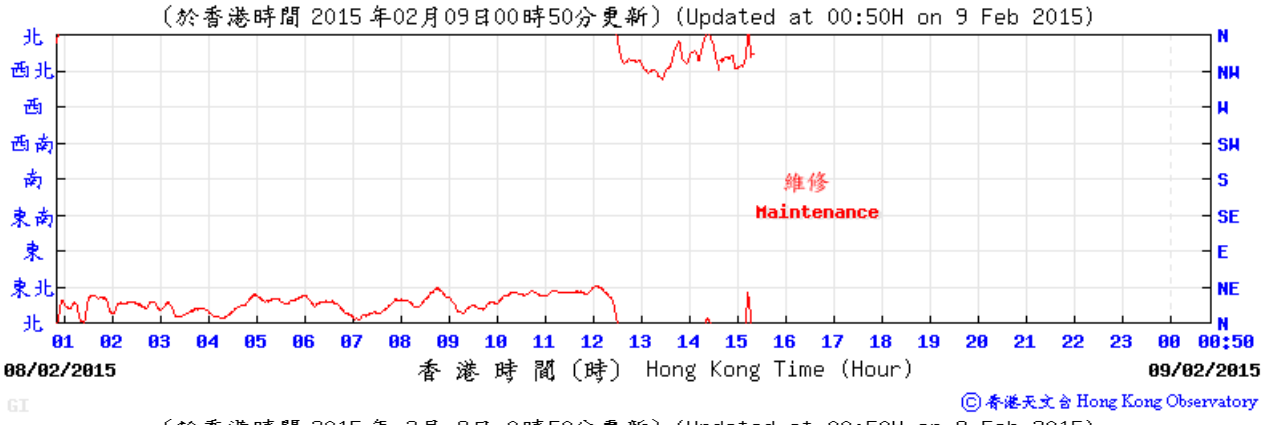

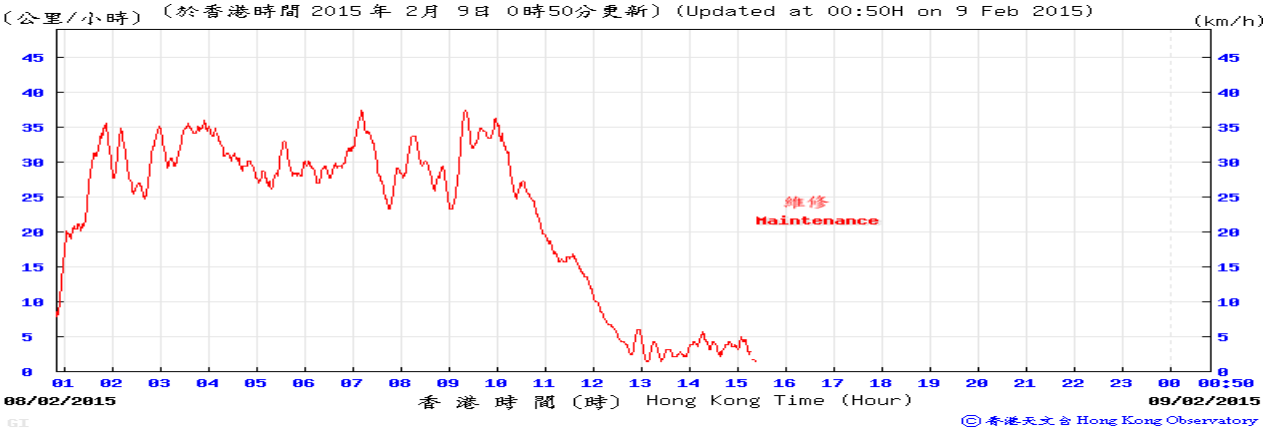

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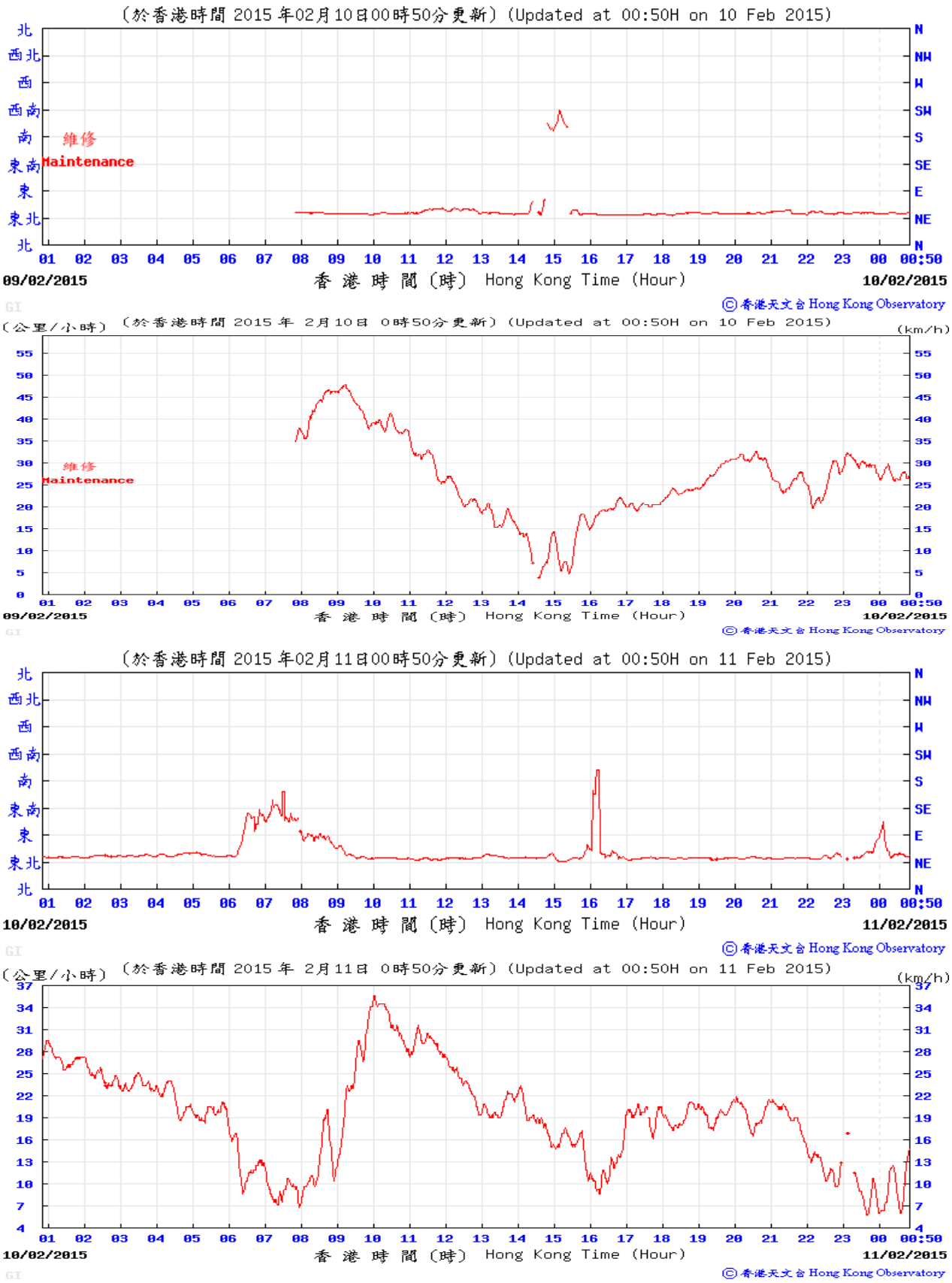

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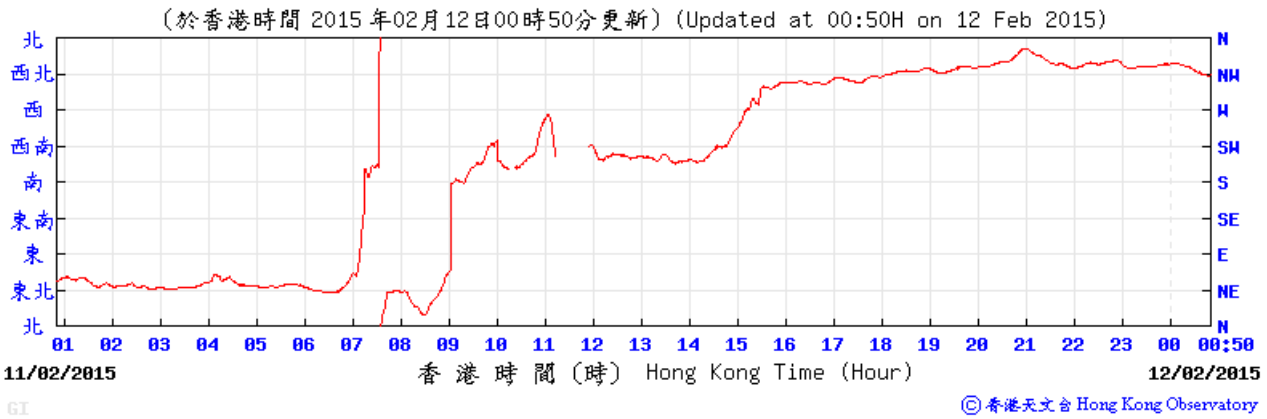

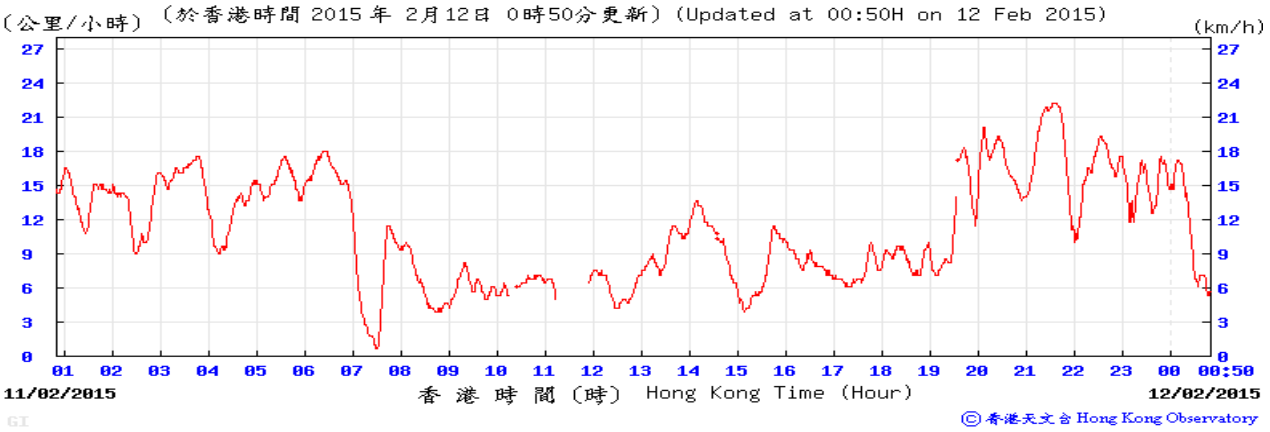

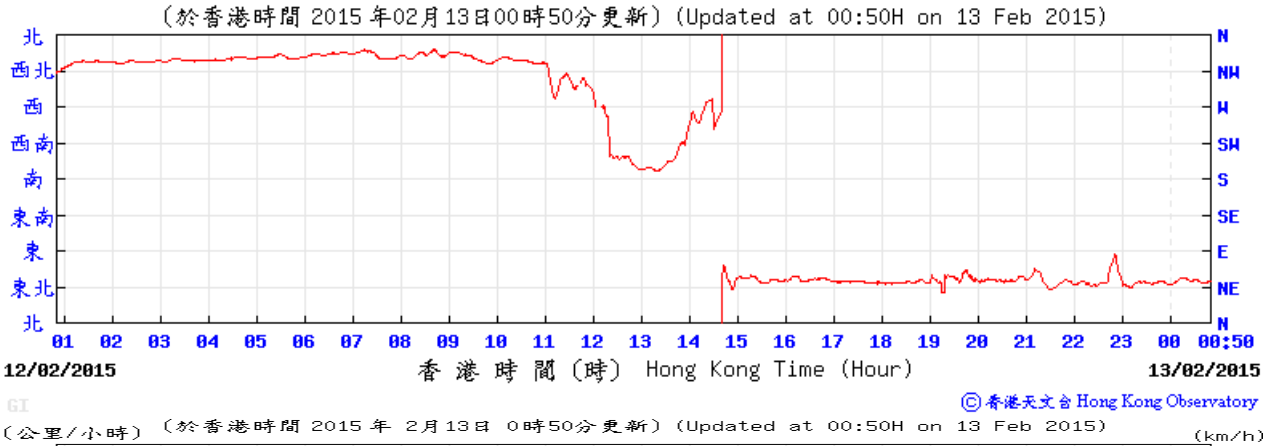

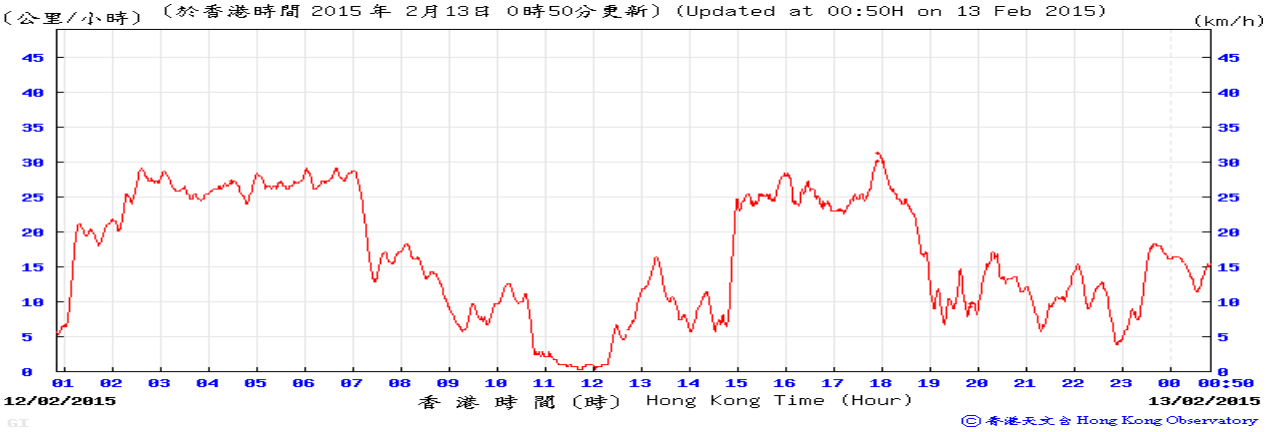

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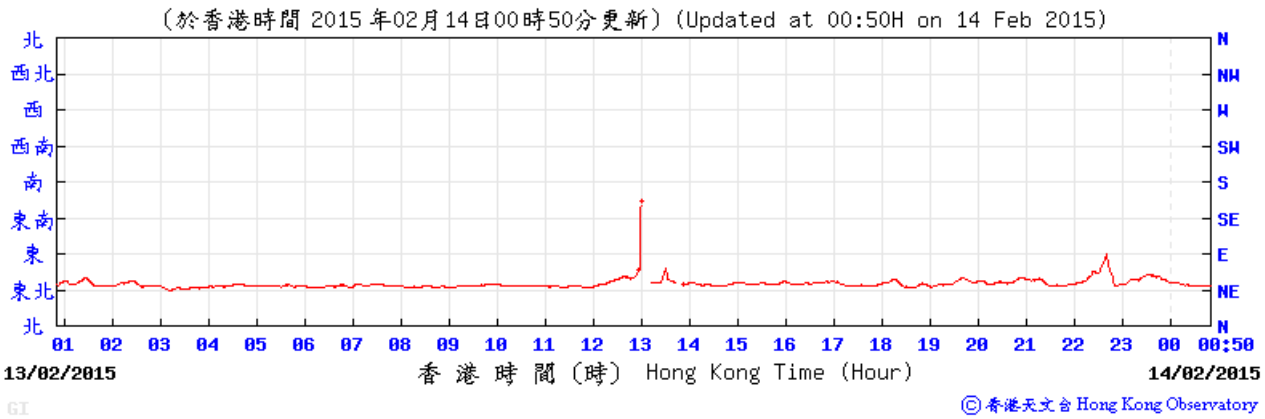

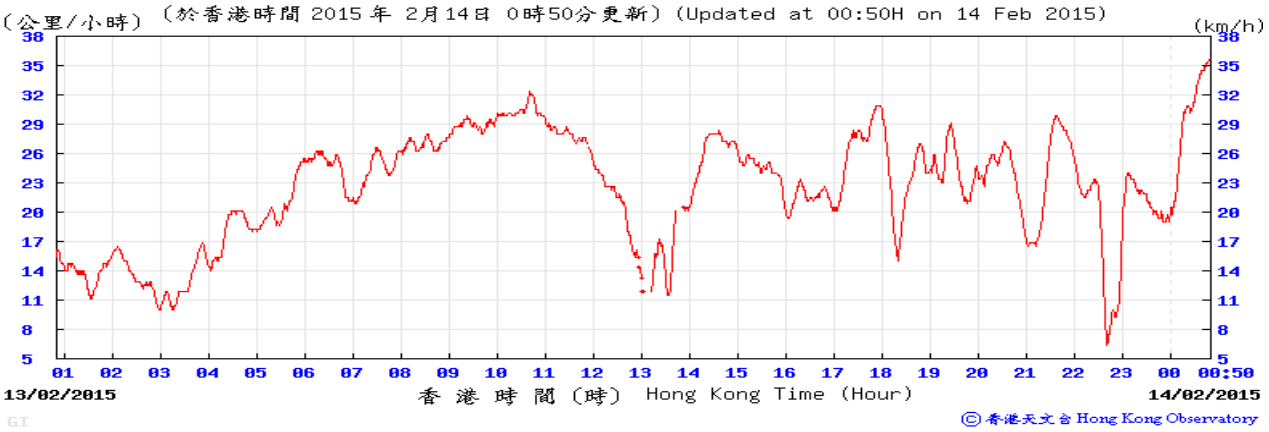

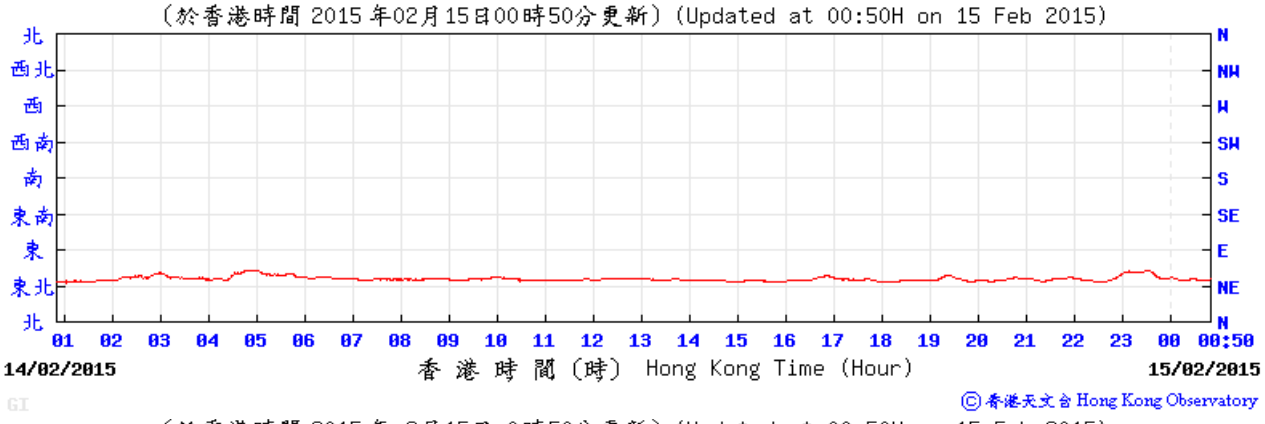

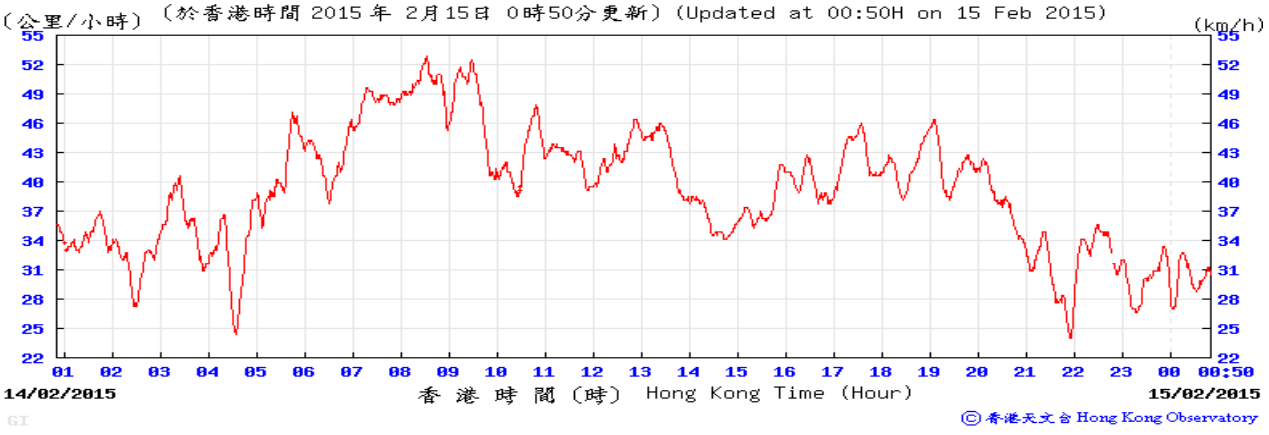

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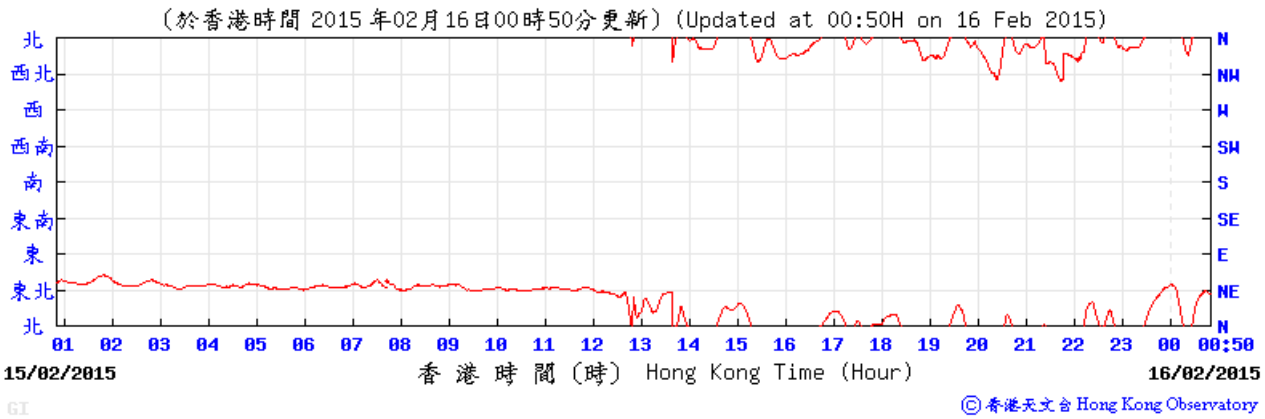

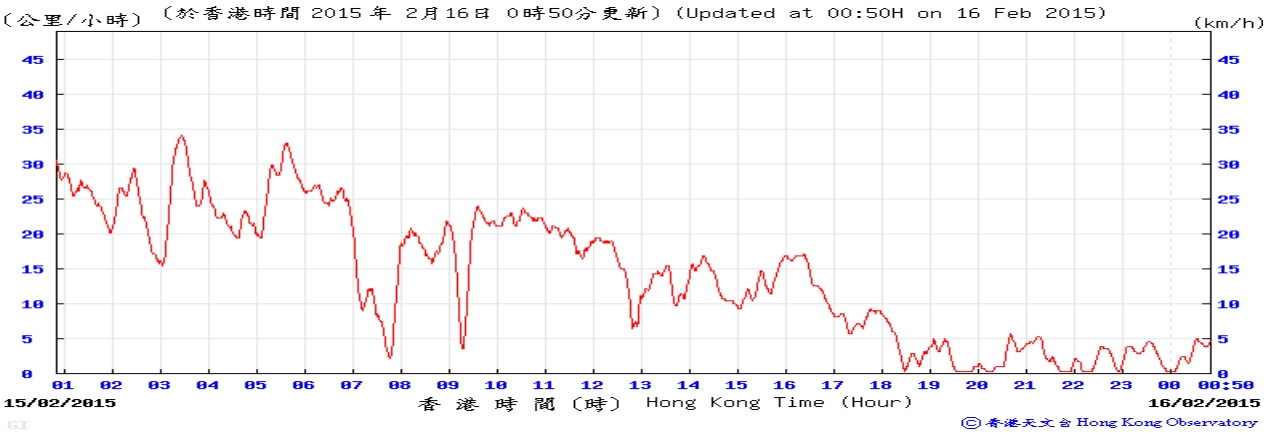

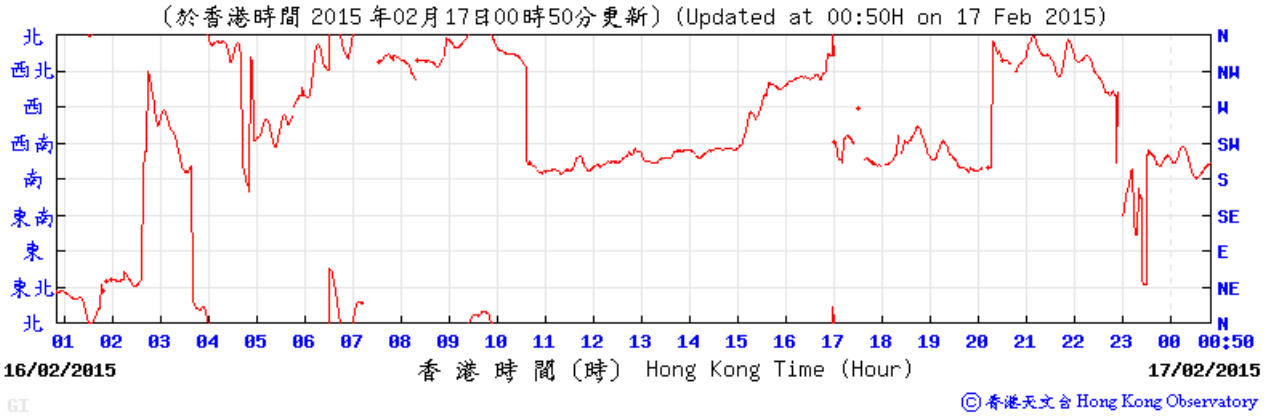

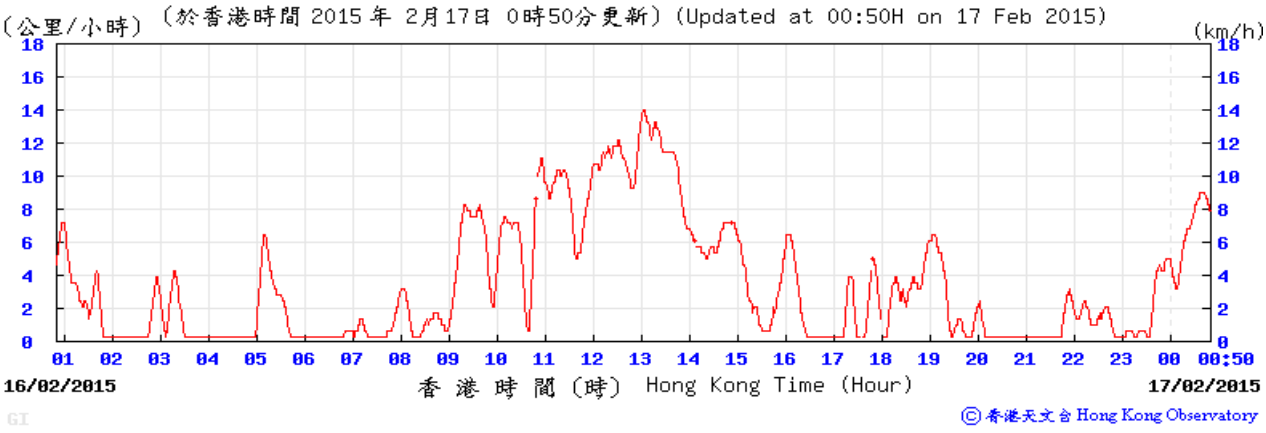

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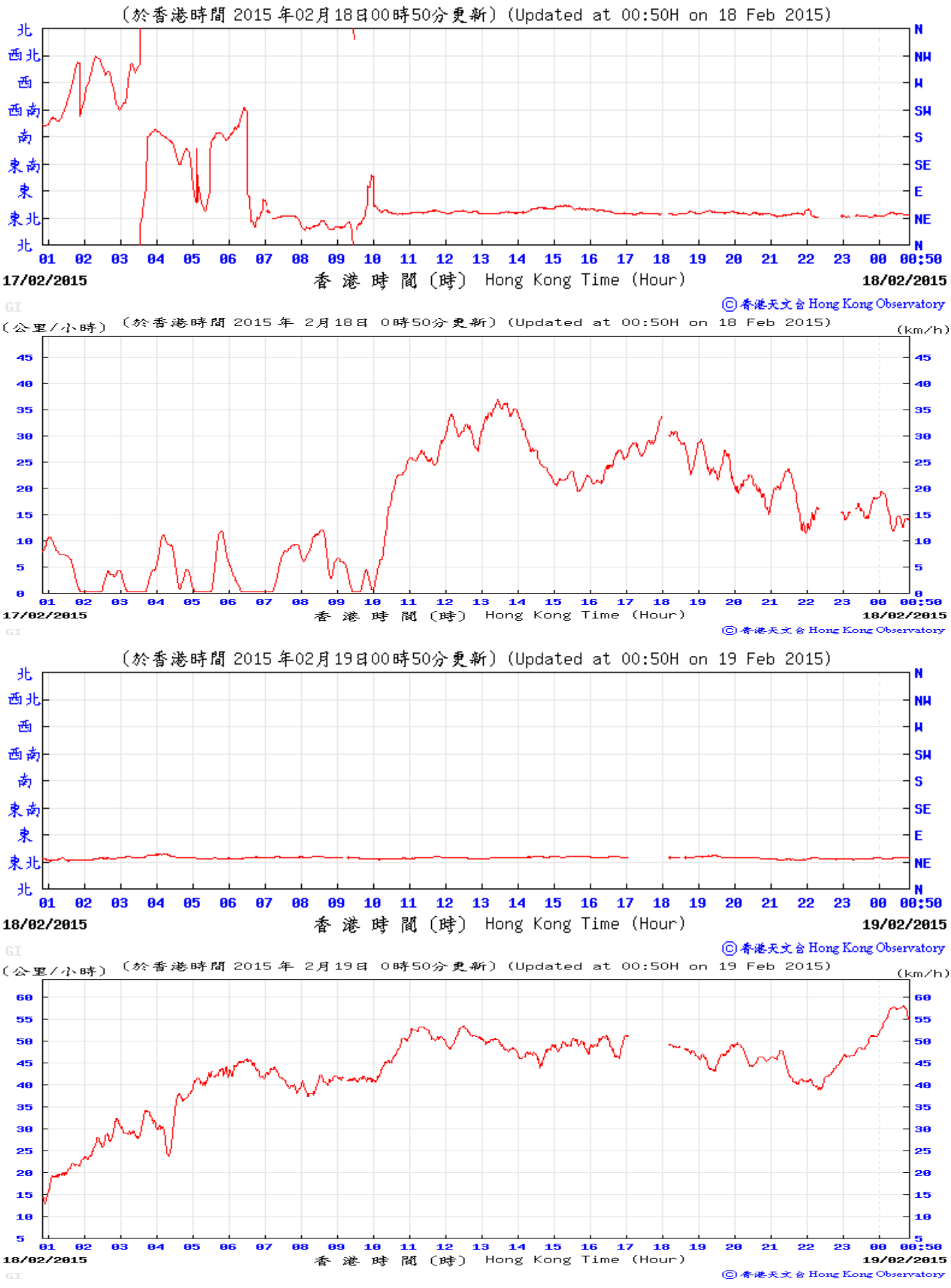

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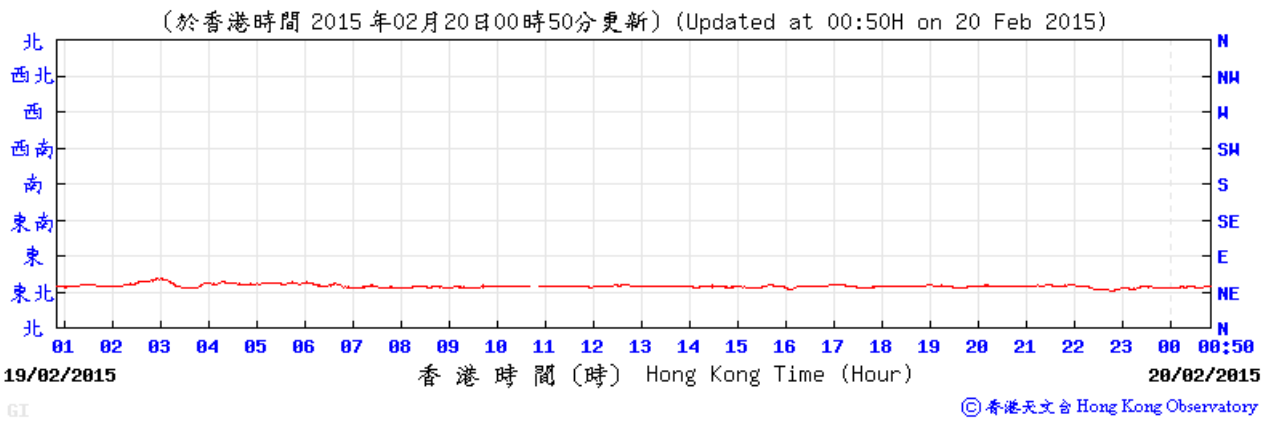

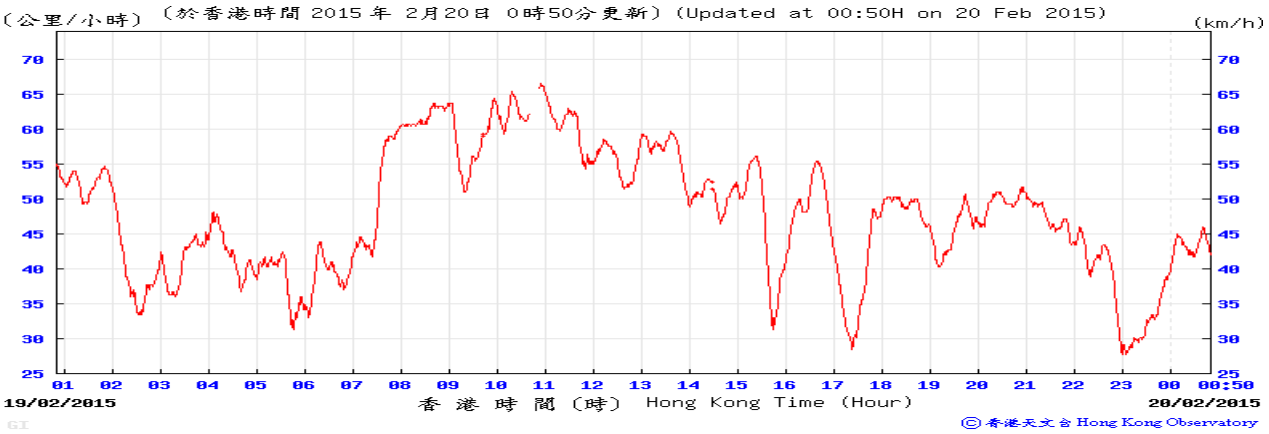

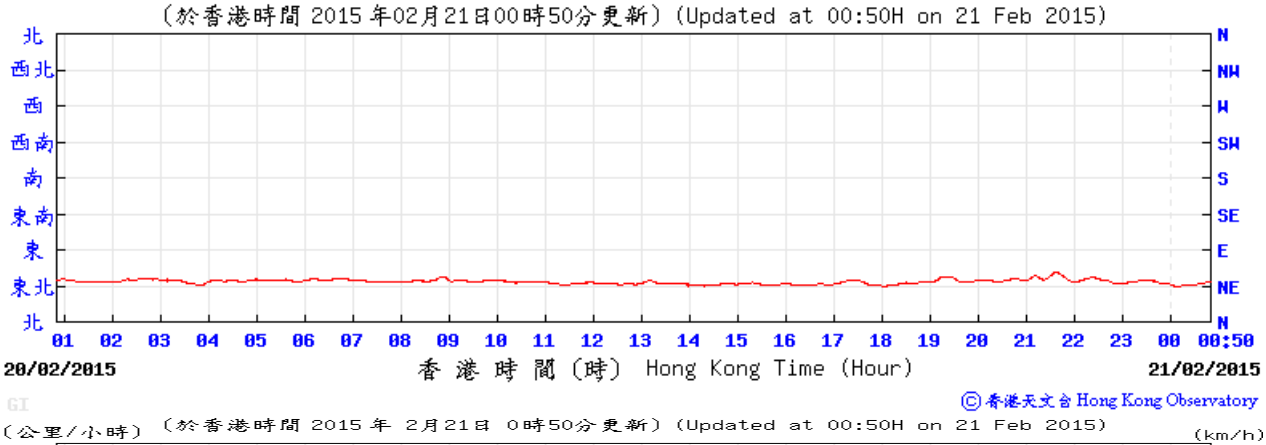

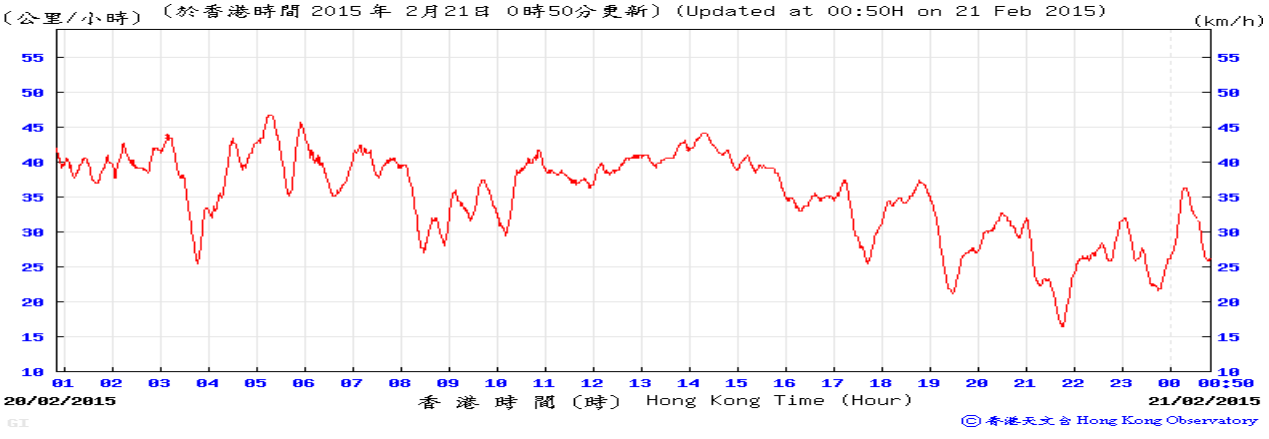

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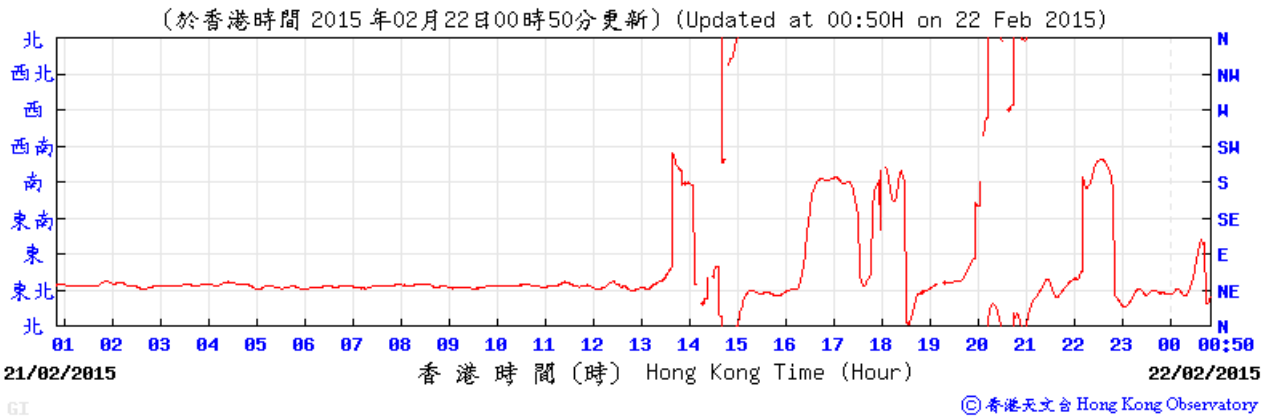

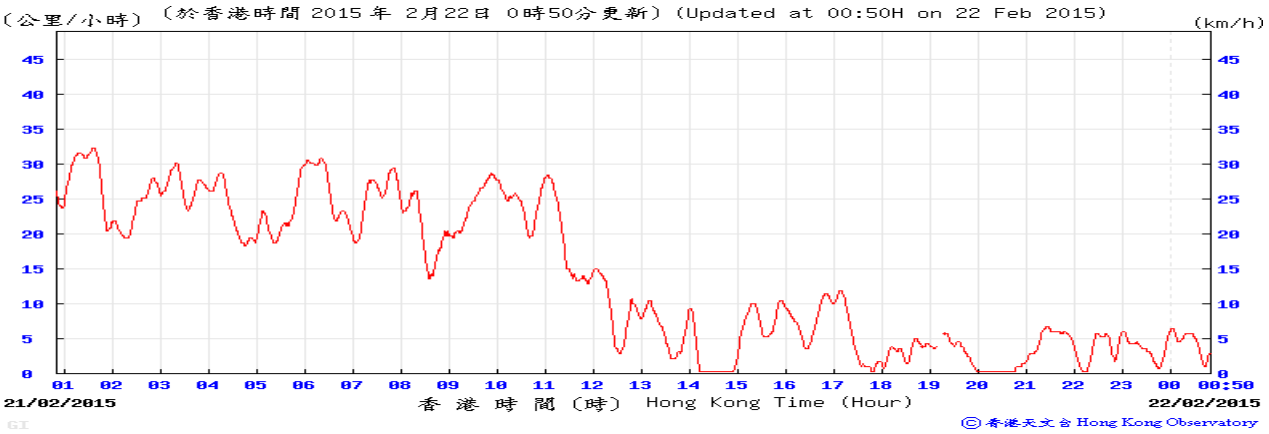

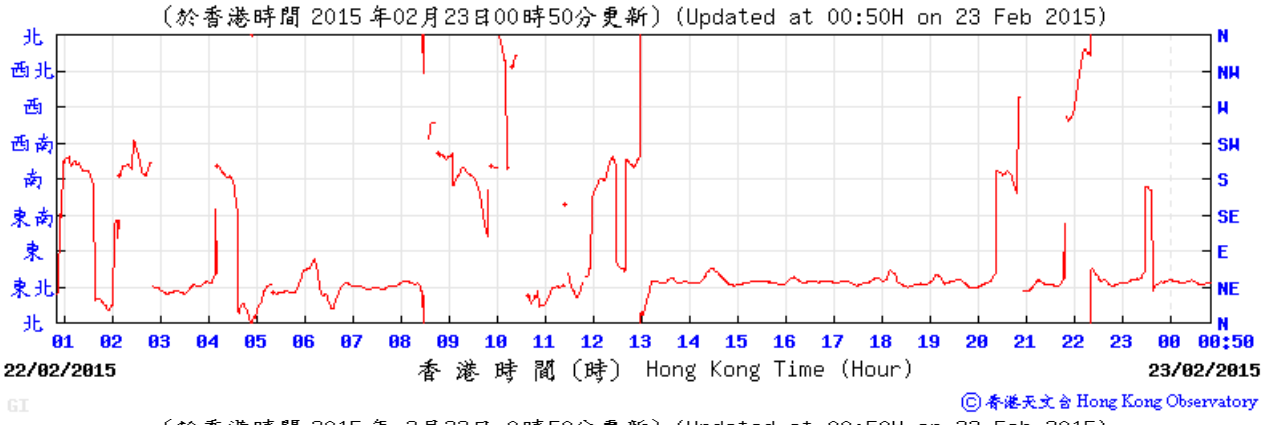

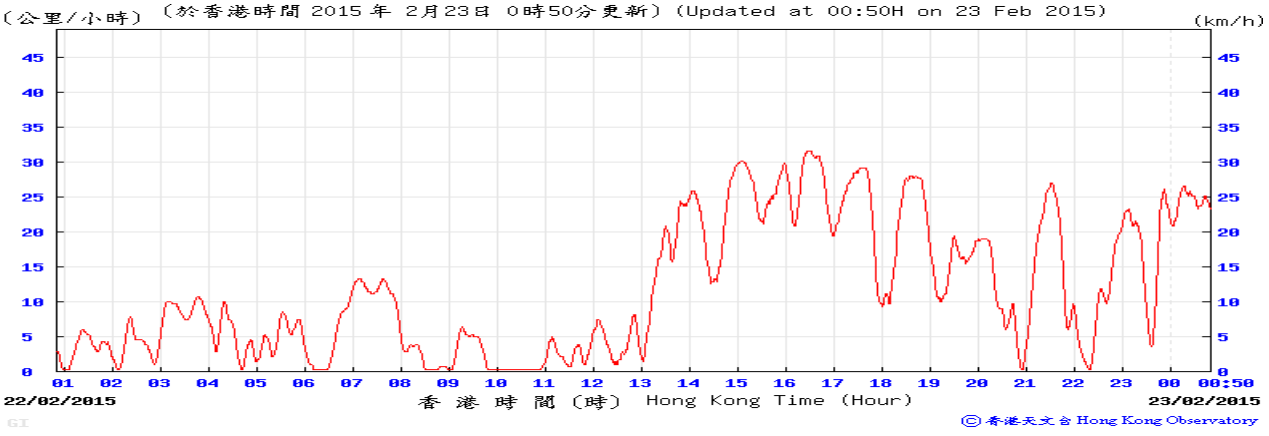

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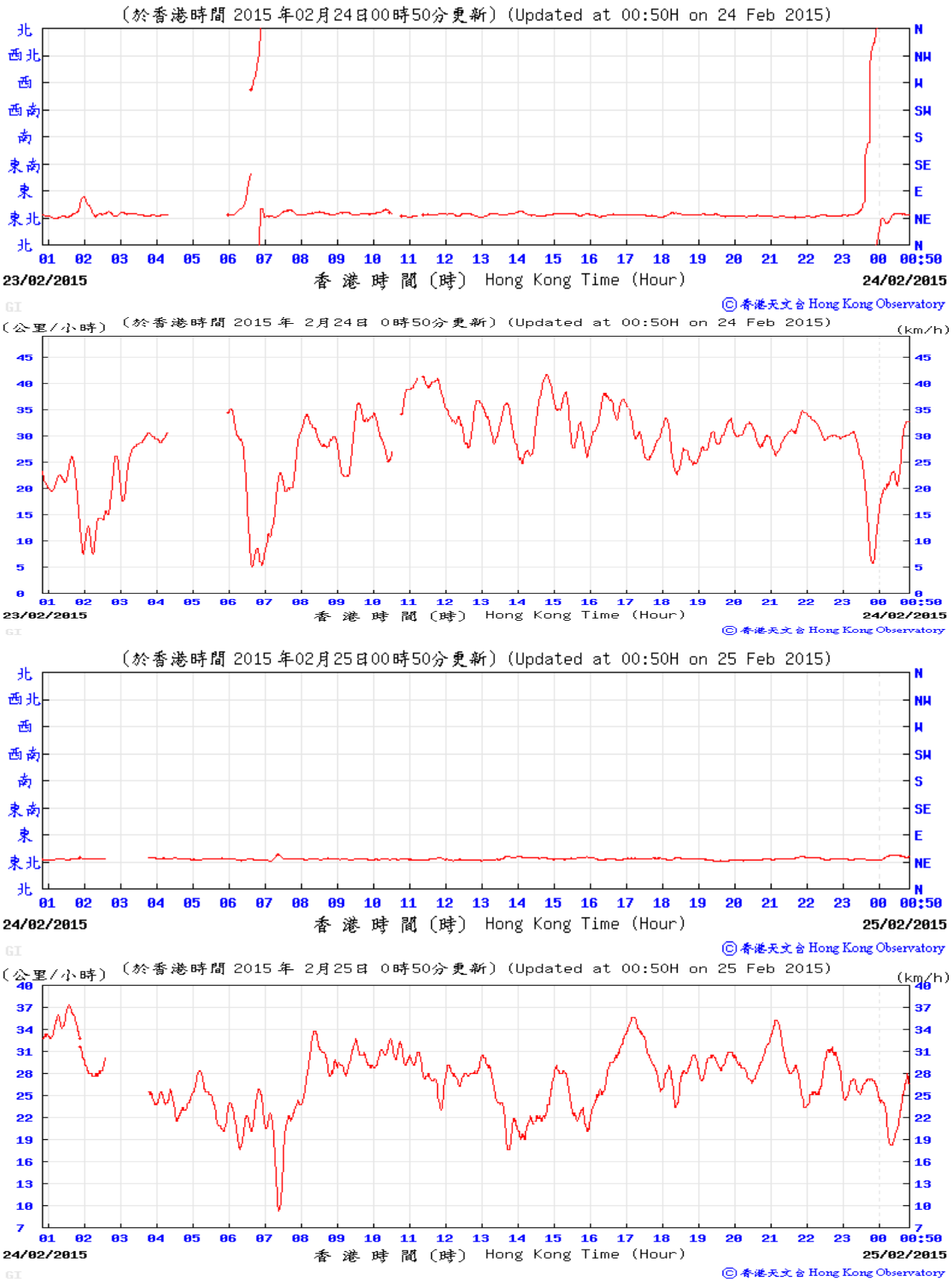

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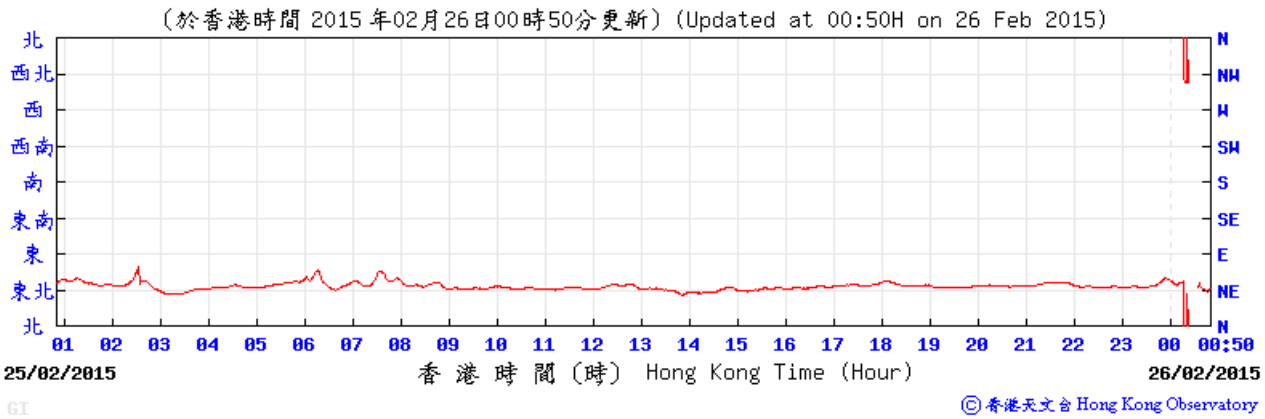

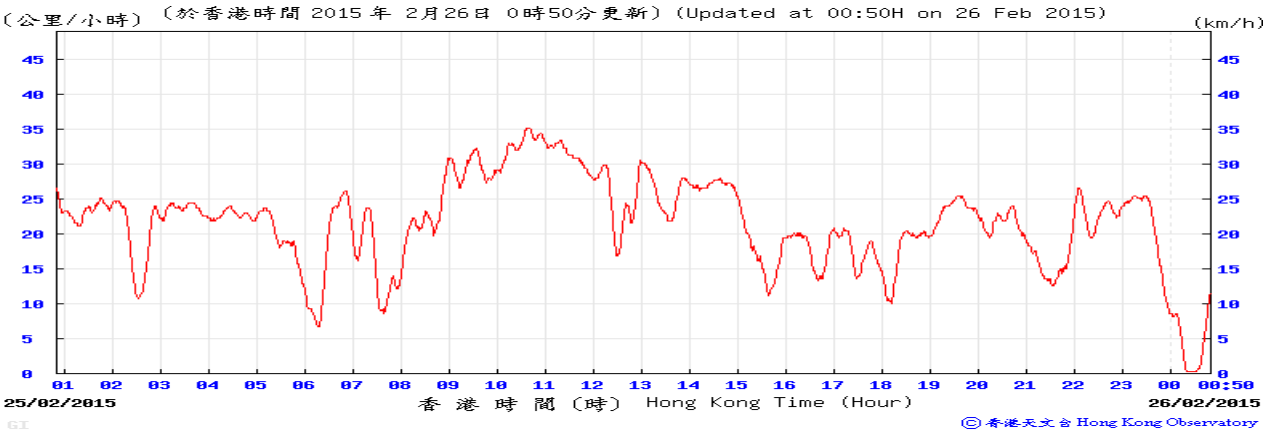

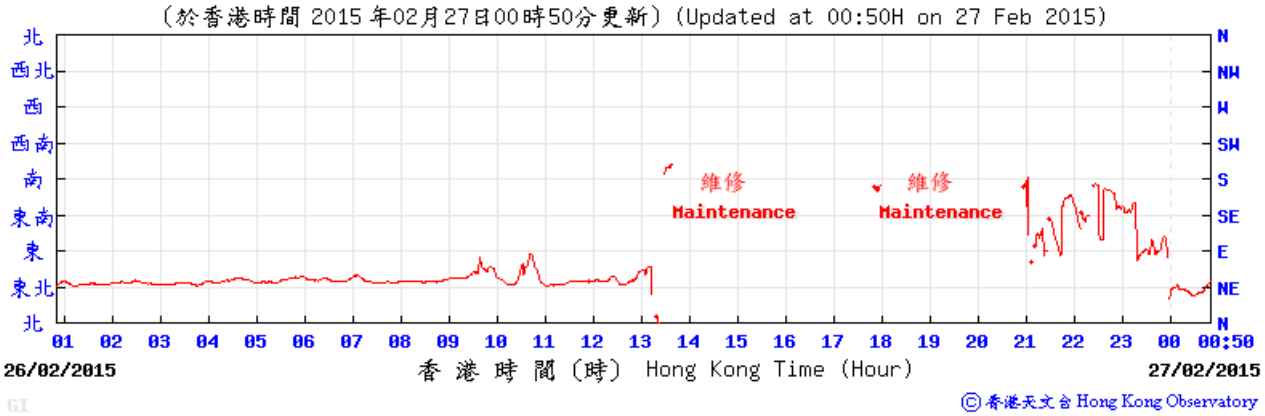

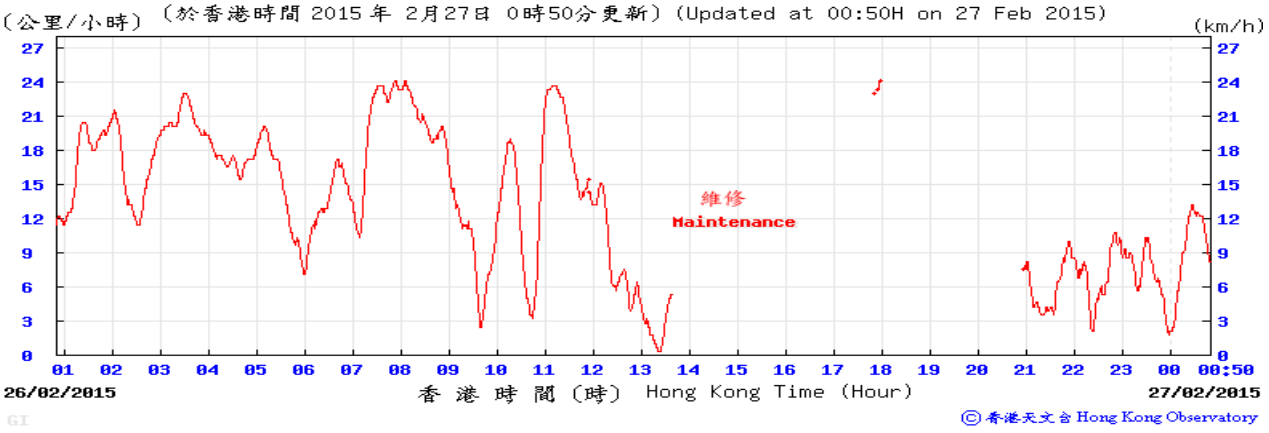

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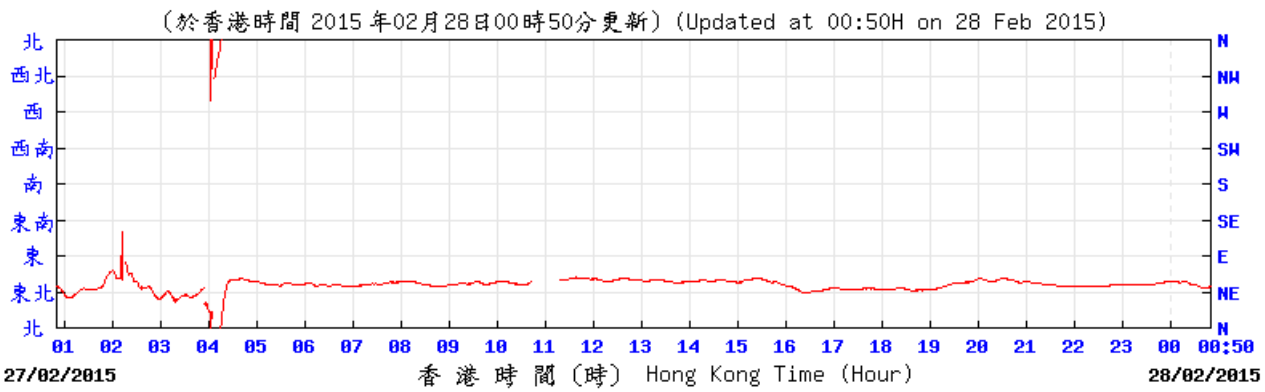
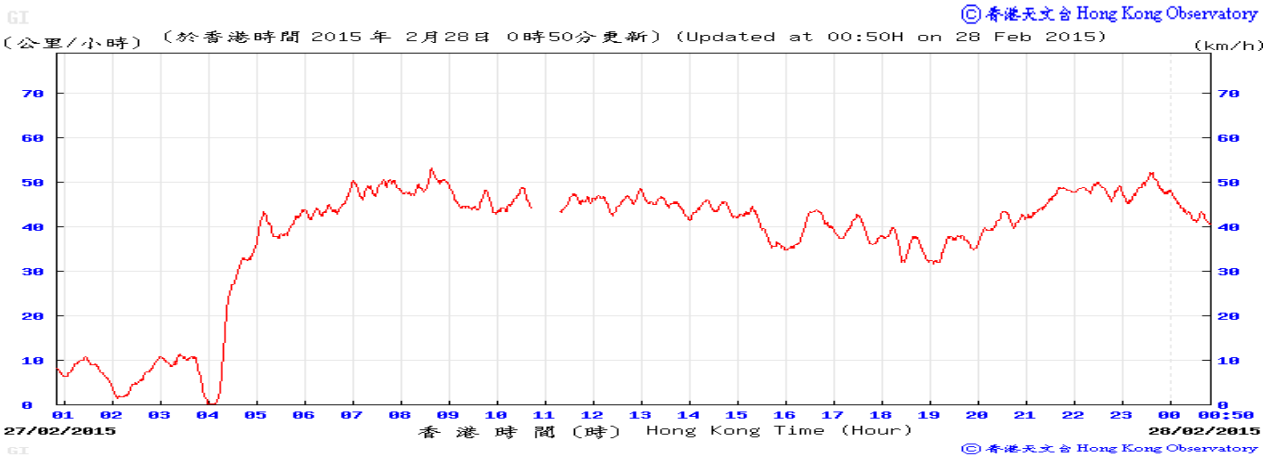
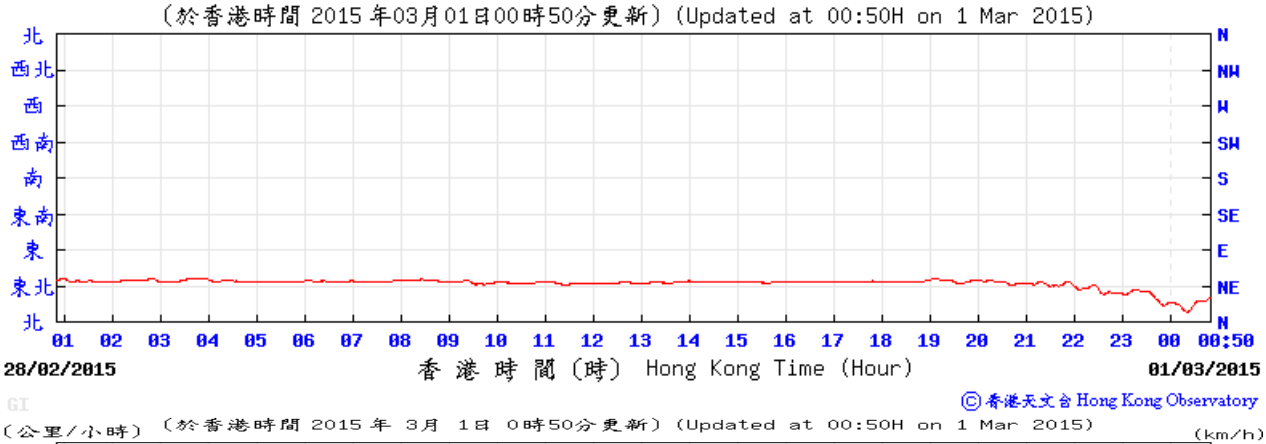
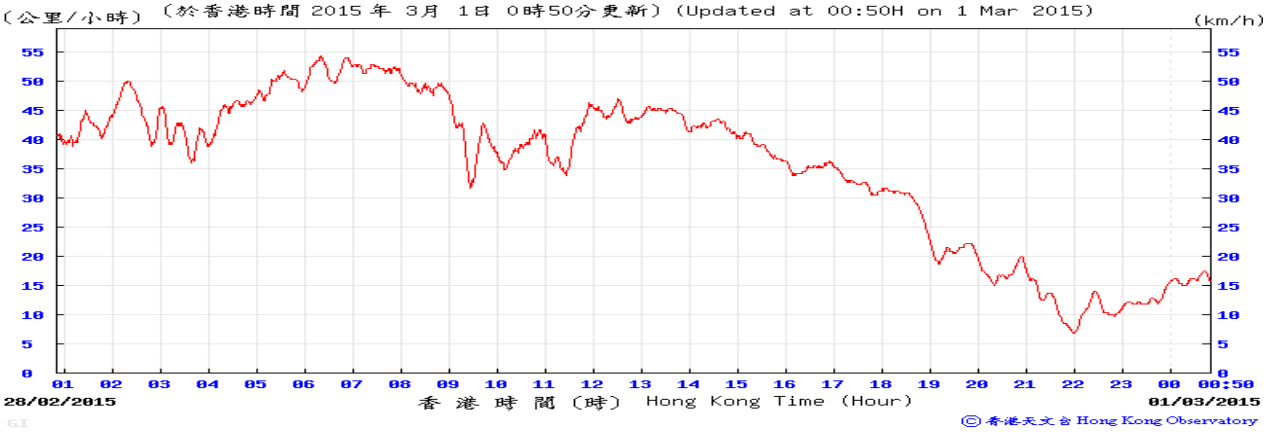


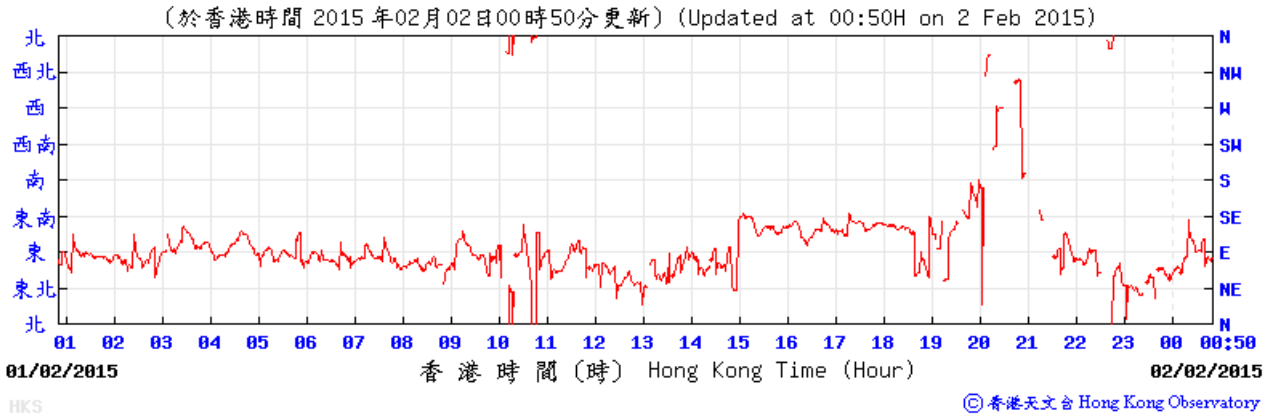


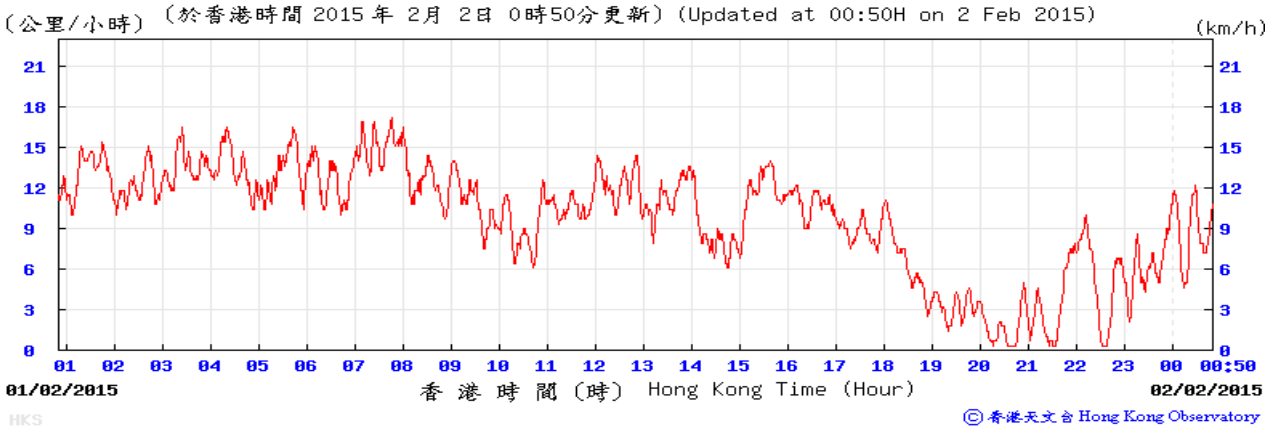


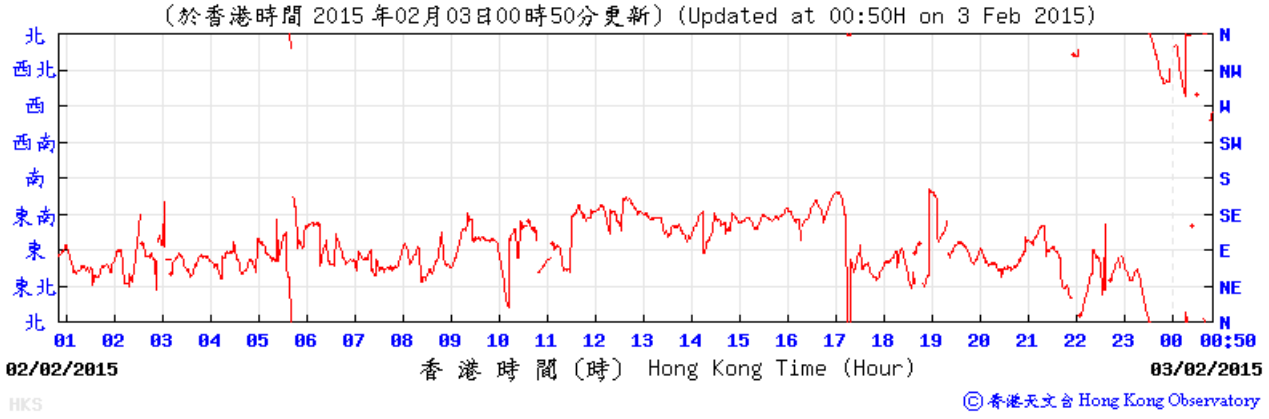


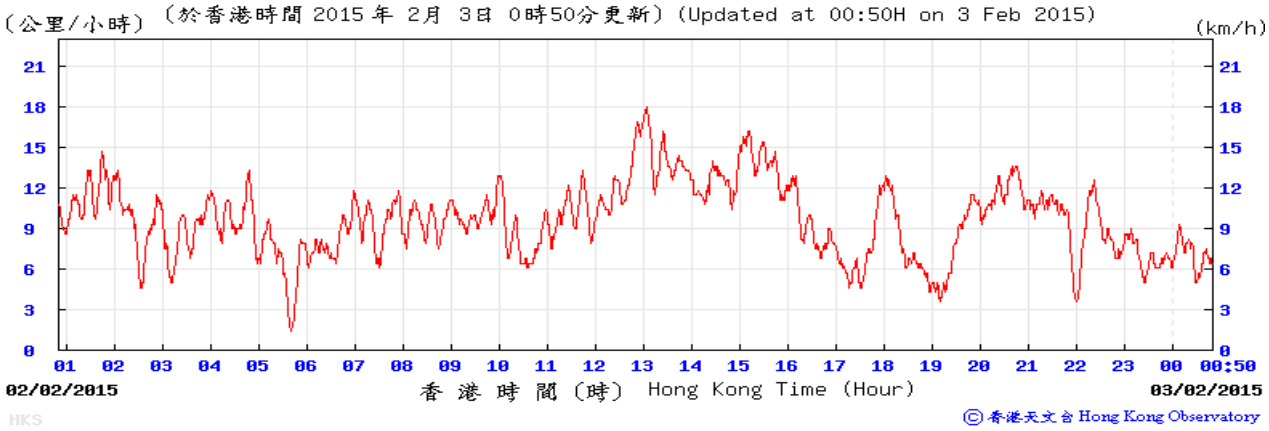
Construction of Sewage Conveyance System from Aberdeen to Sai Ying Pun

Weather Conditions at Wong Chuk Hang Weather Station during Monitoring Period









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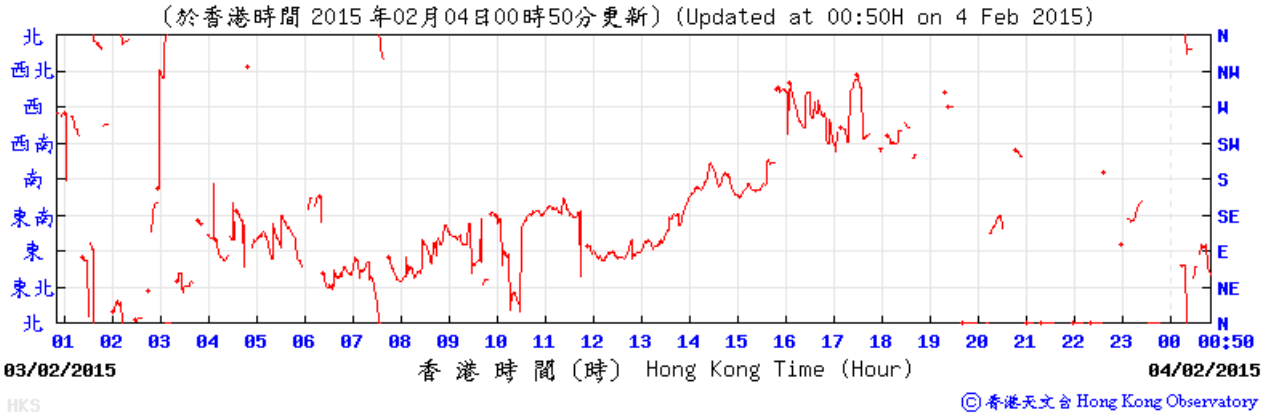

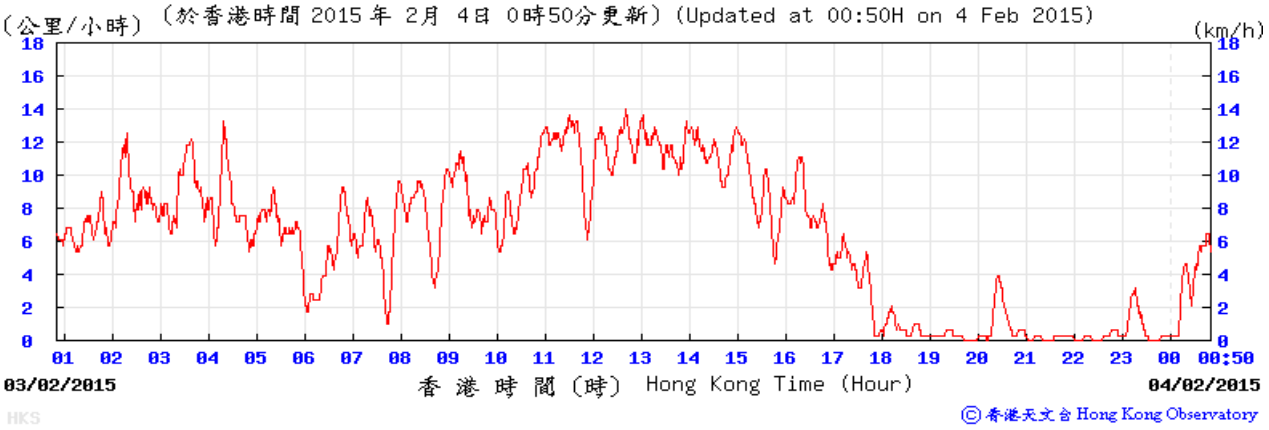

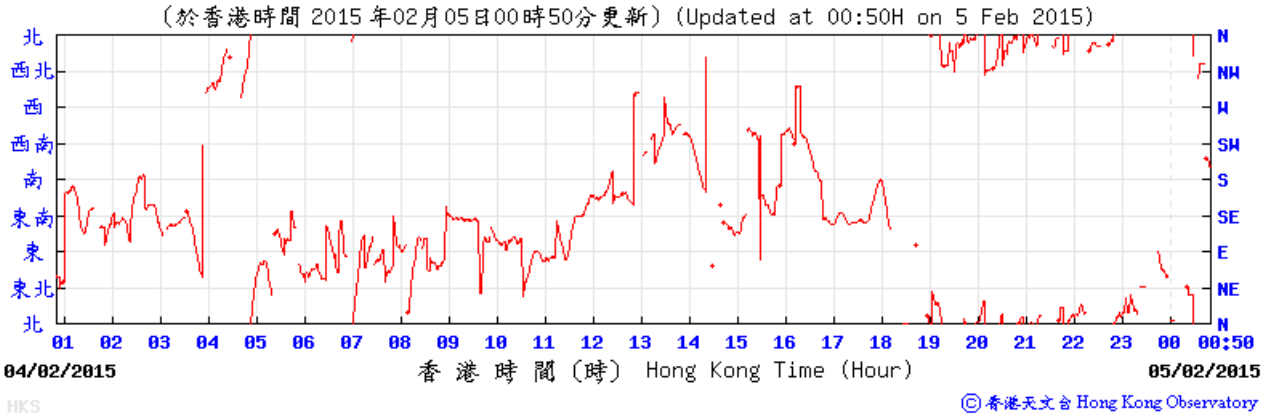

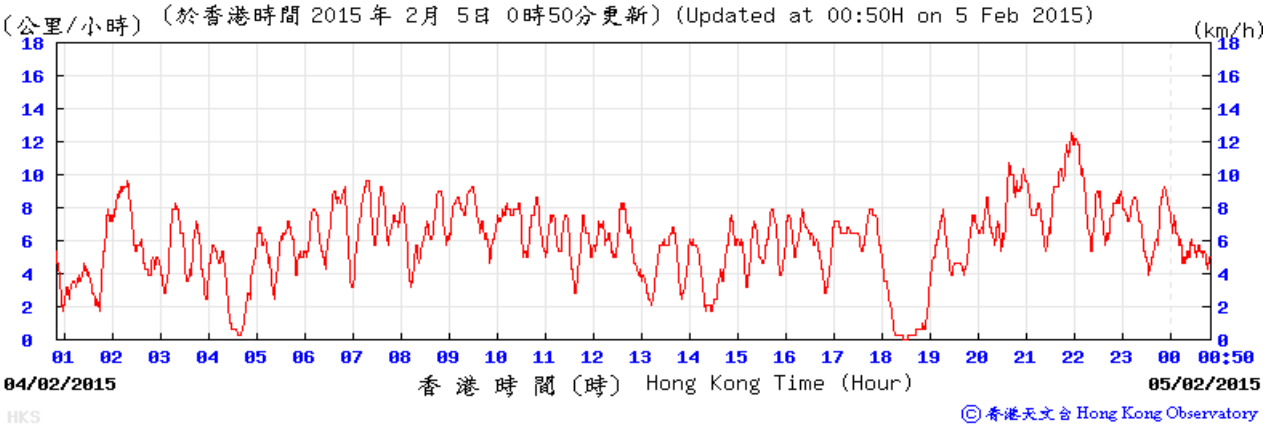

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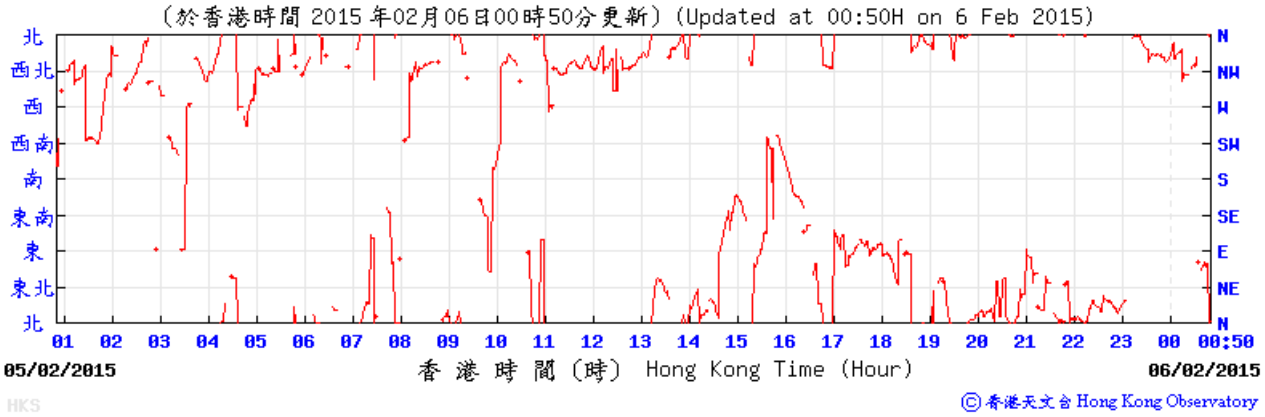

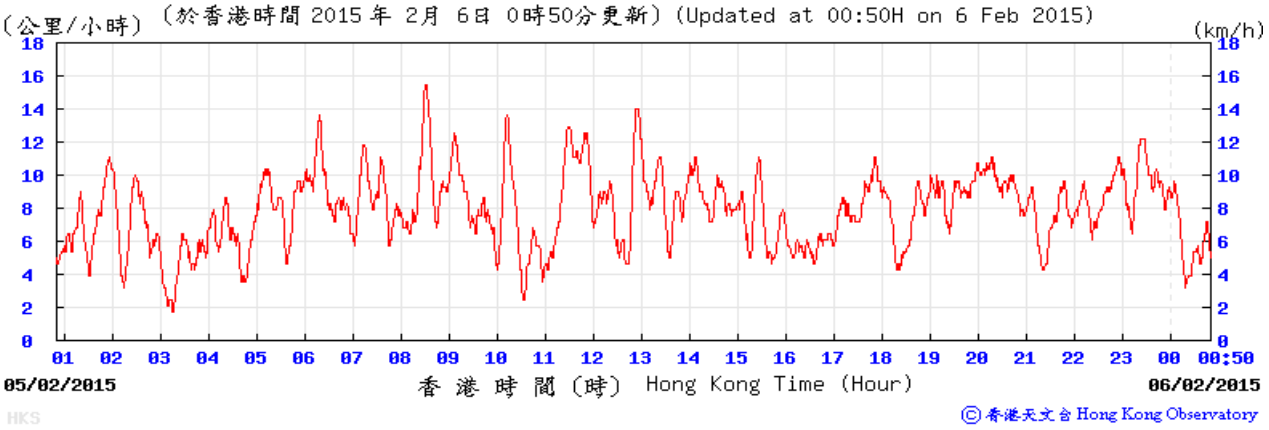

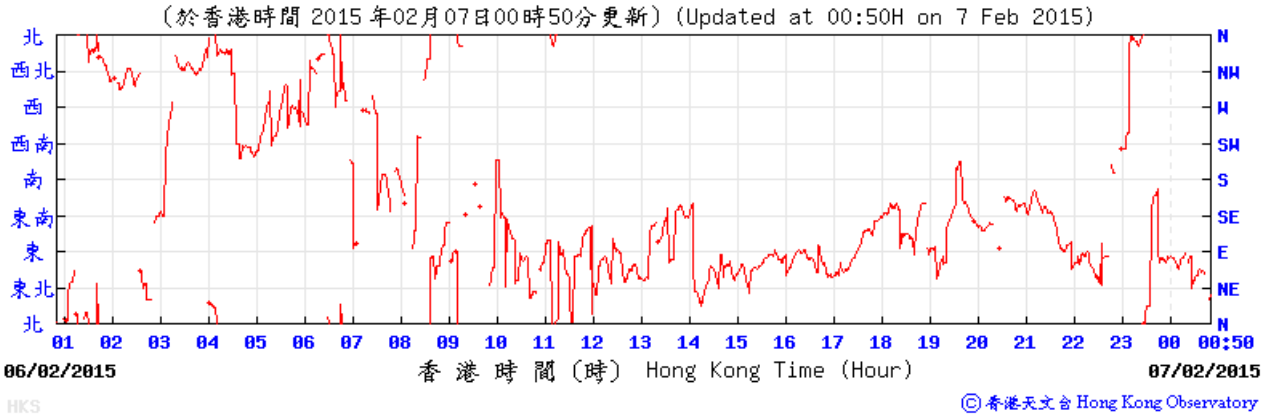

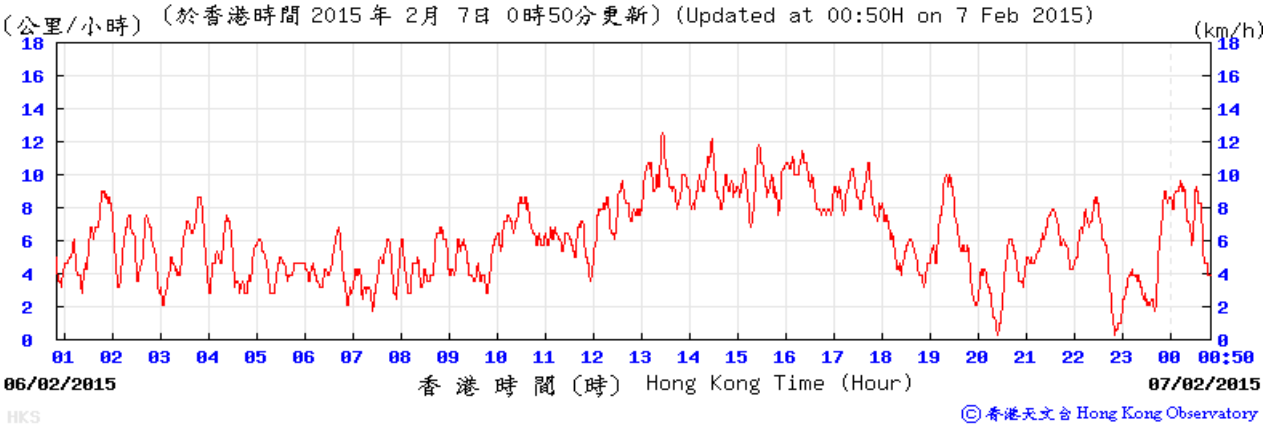

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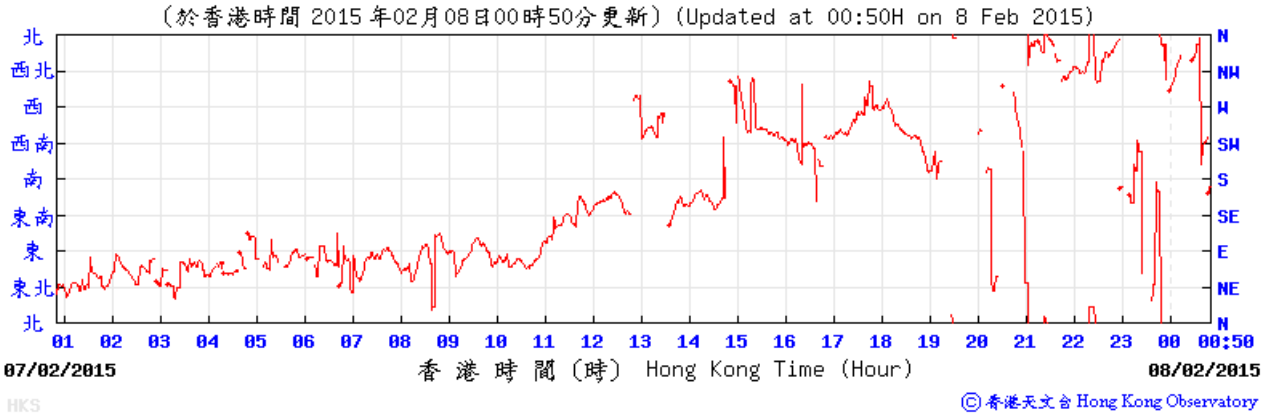

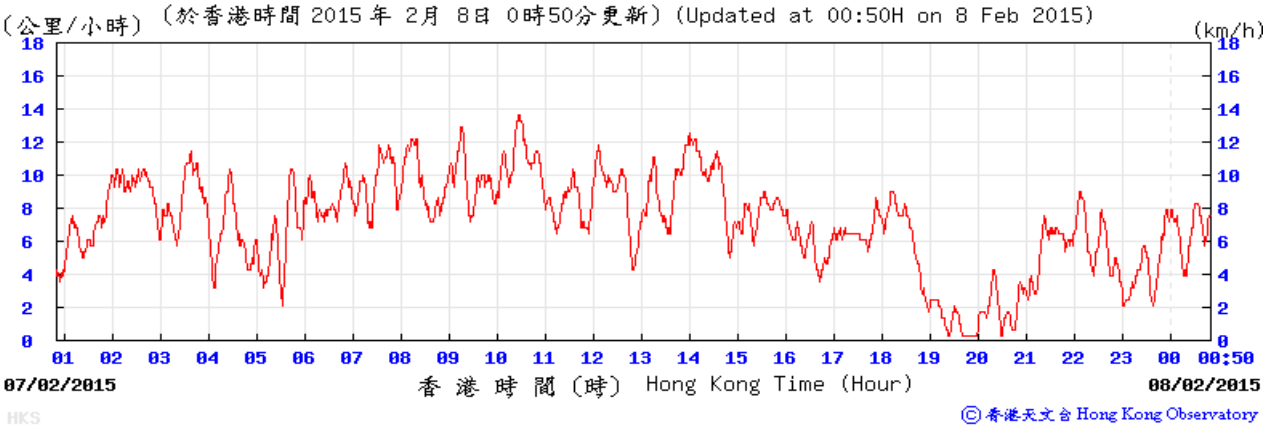

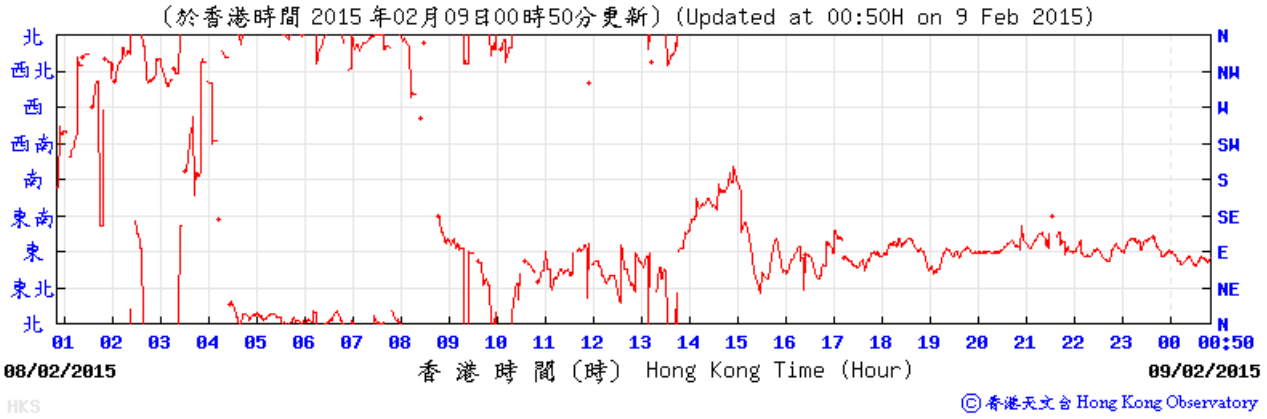

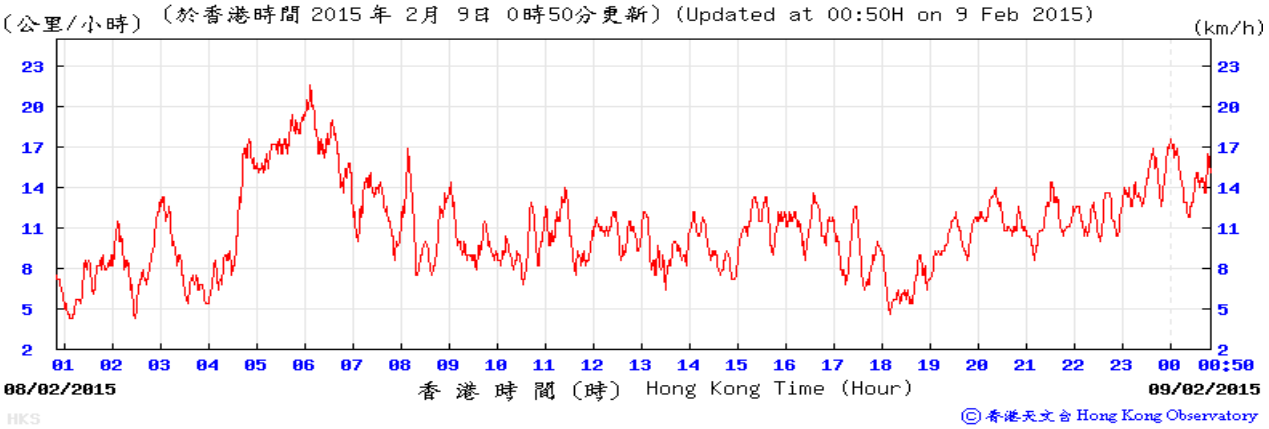

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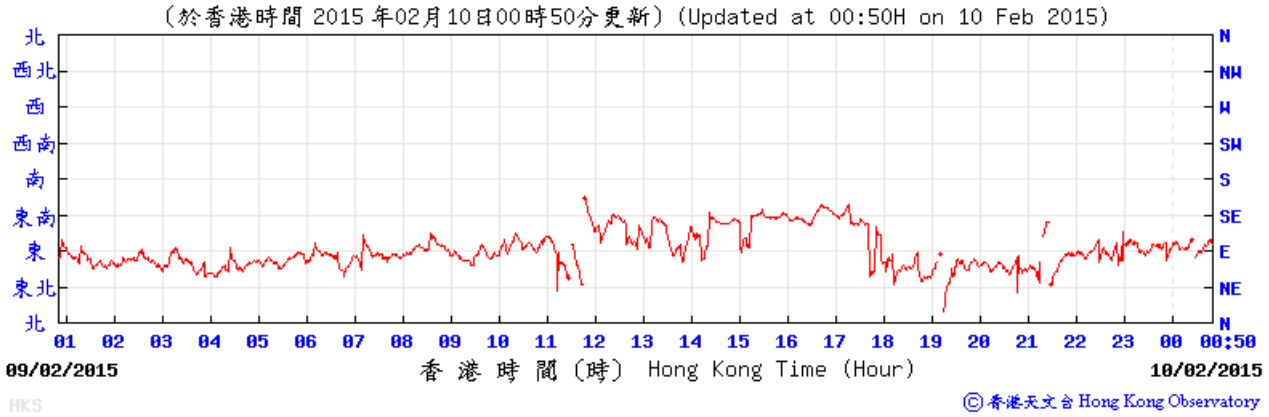

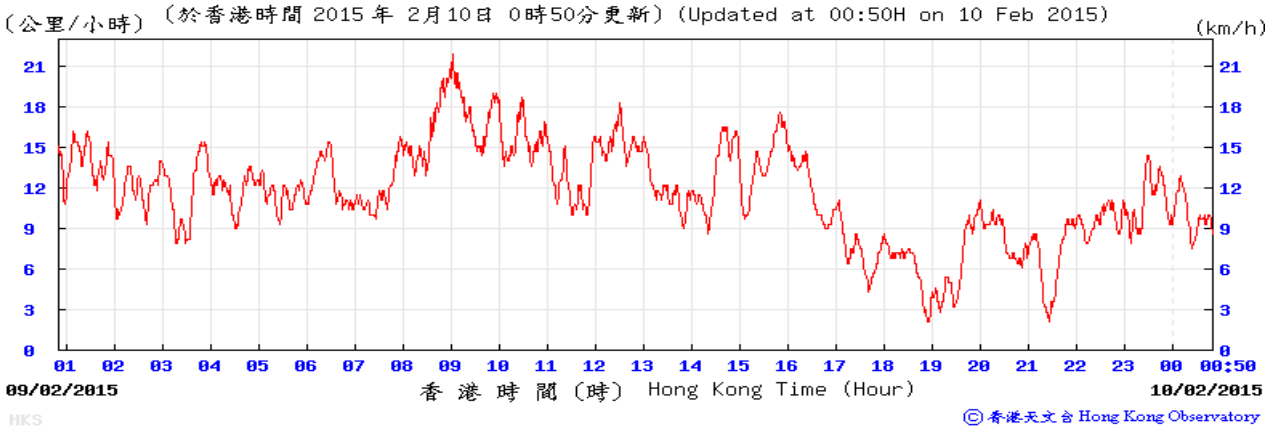

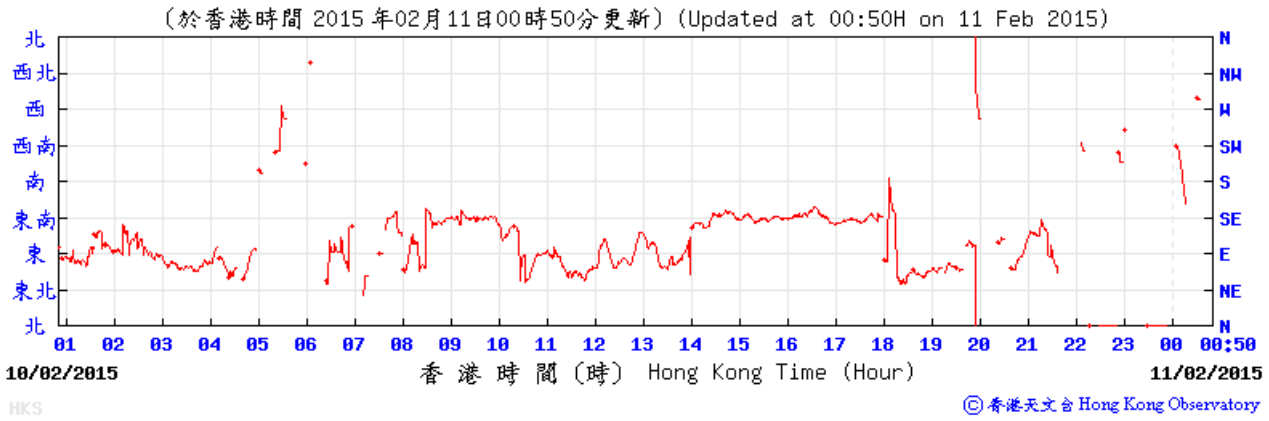

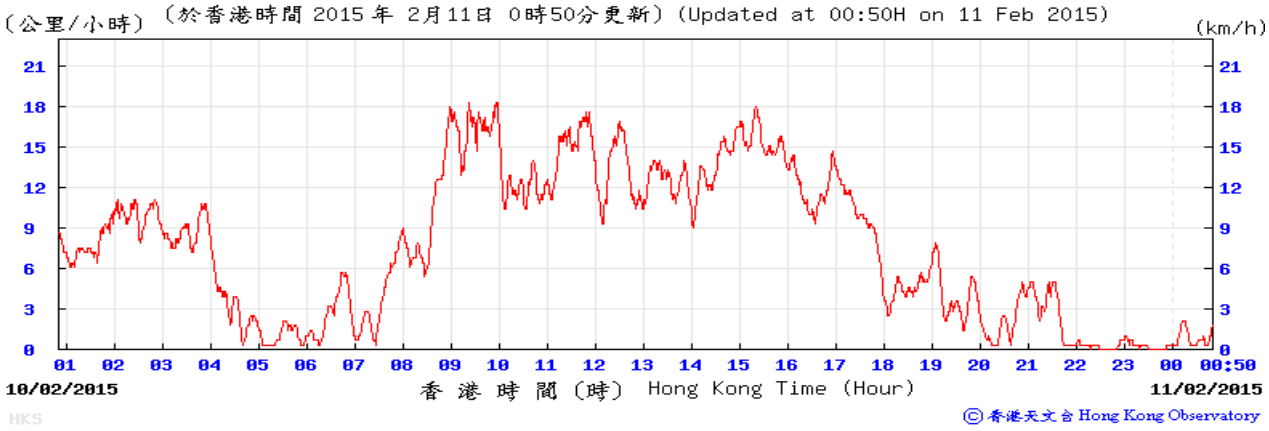

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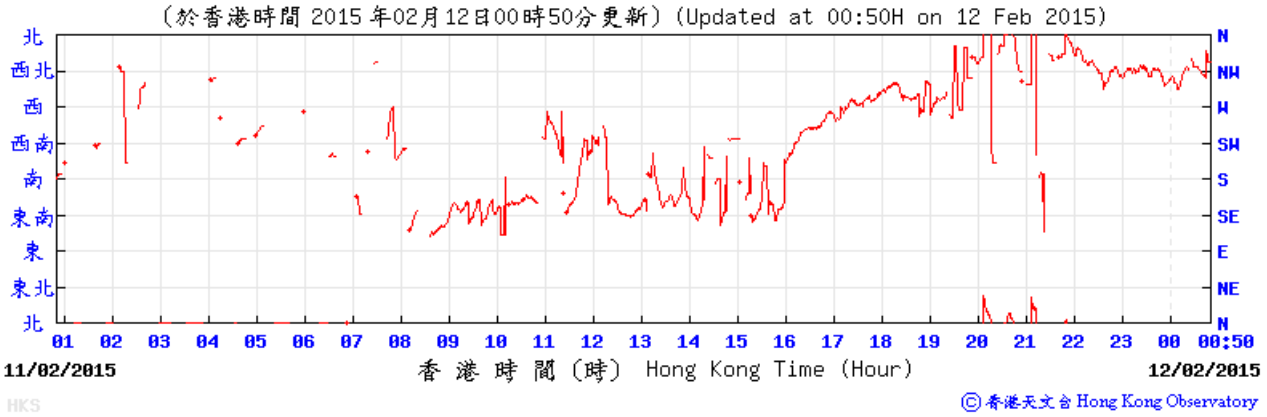

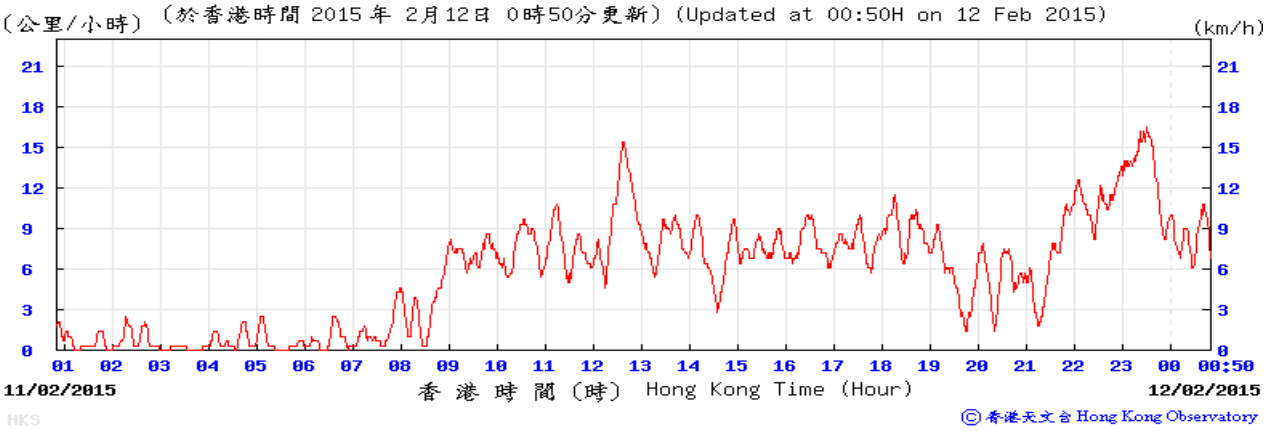

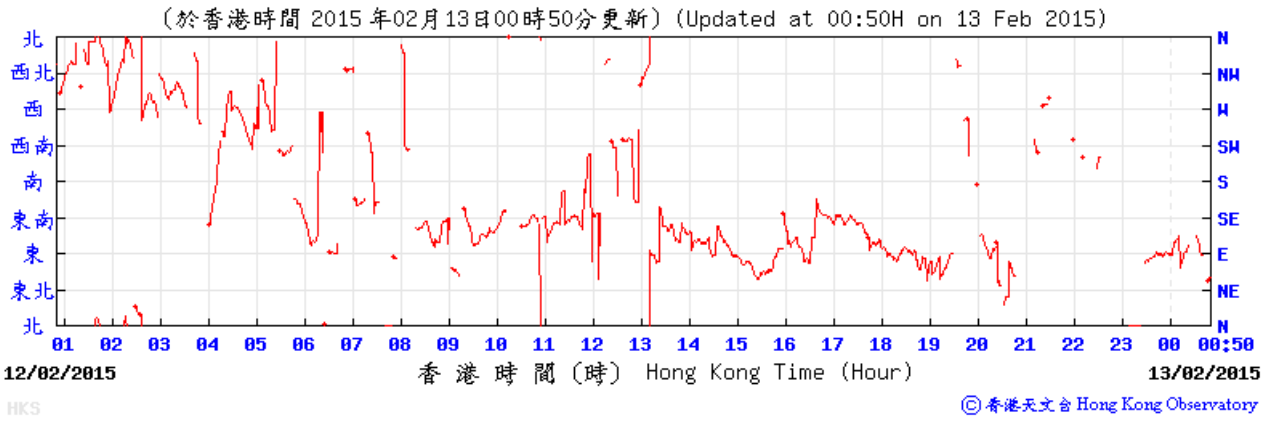

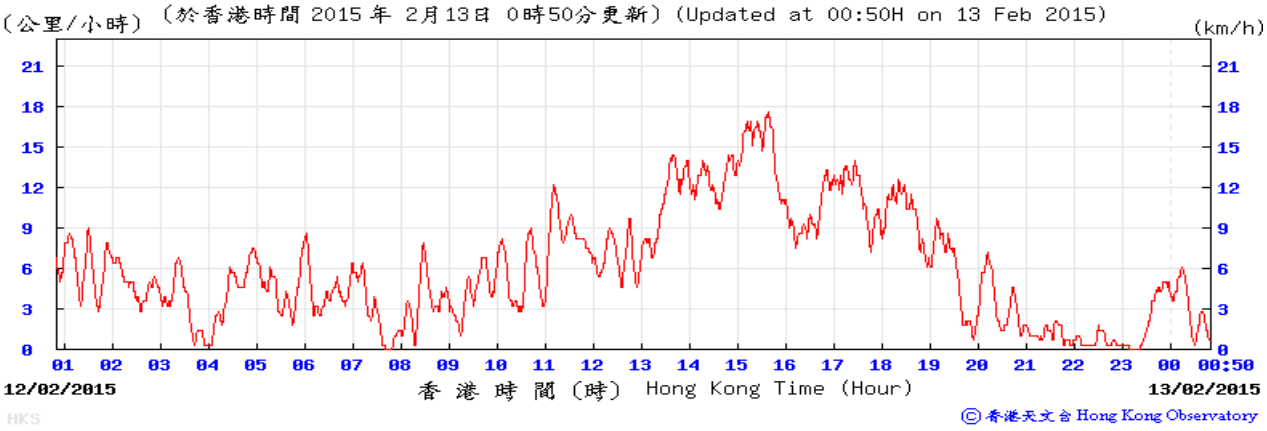

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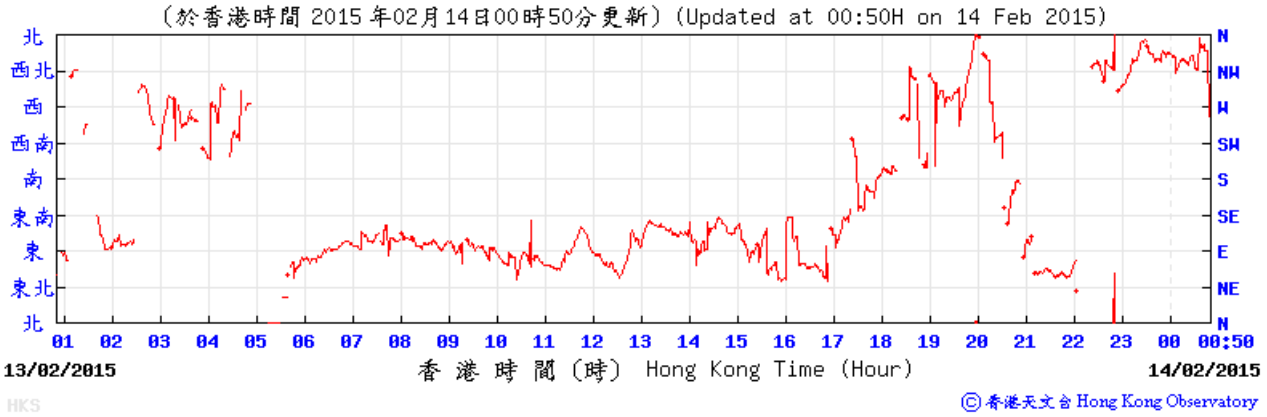

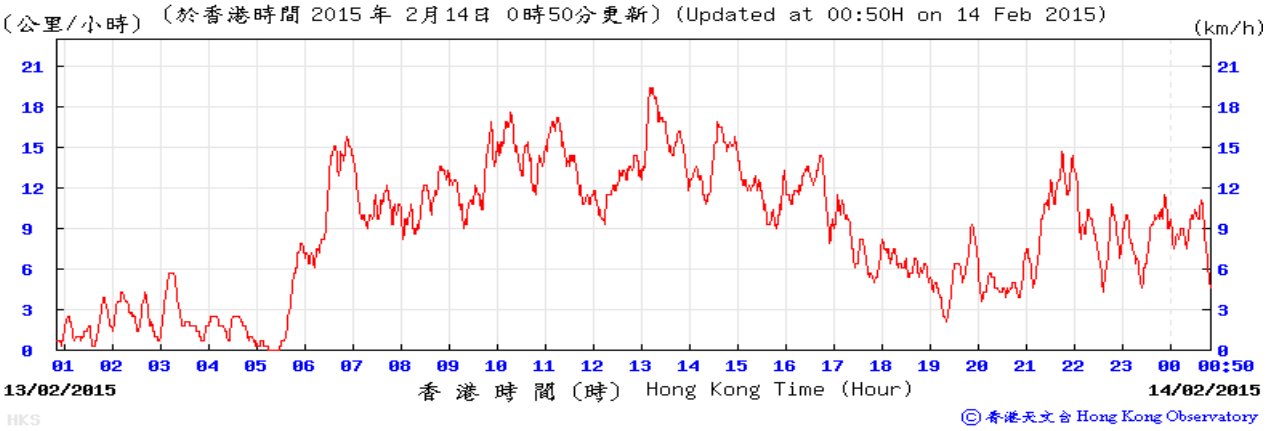

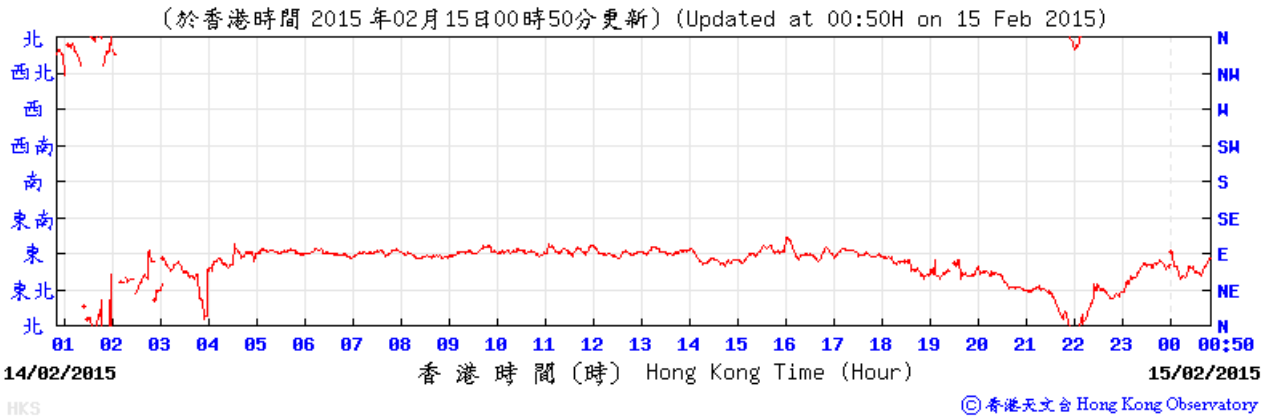

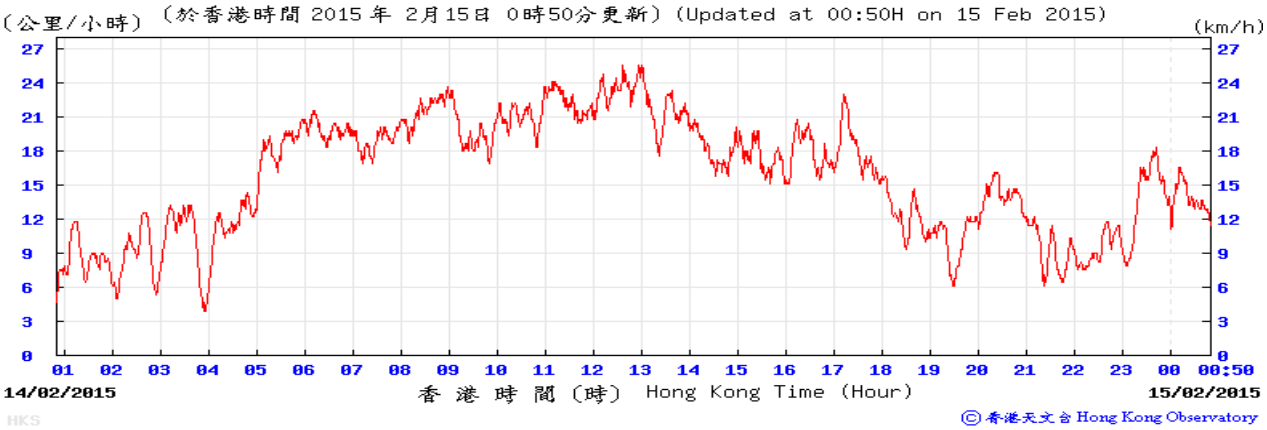

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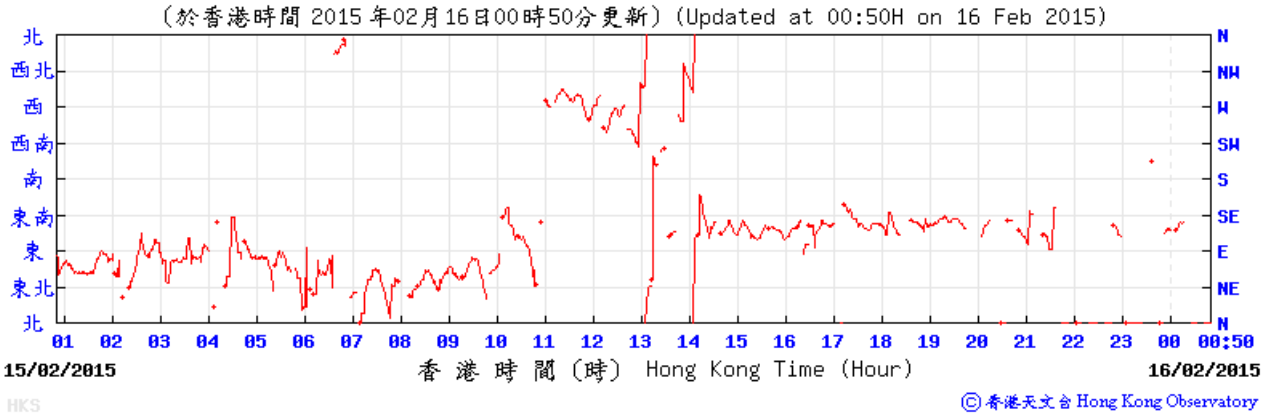

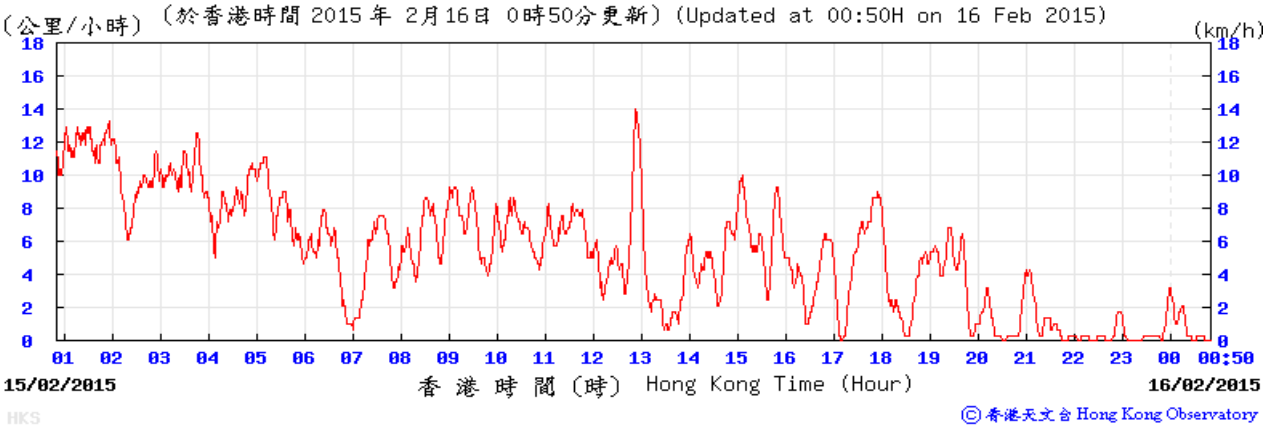

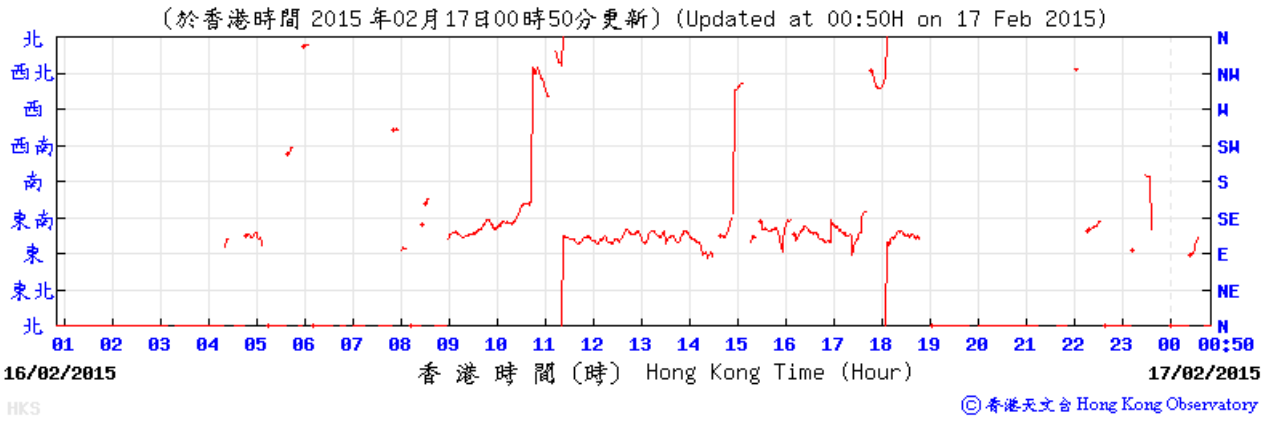

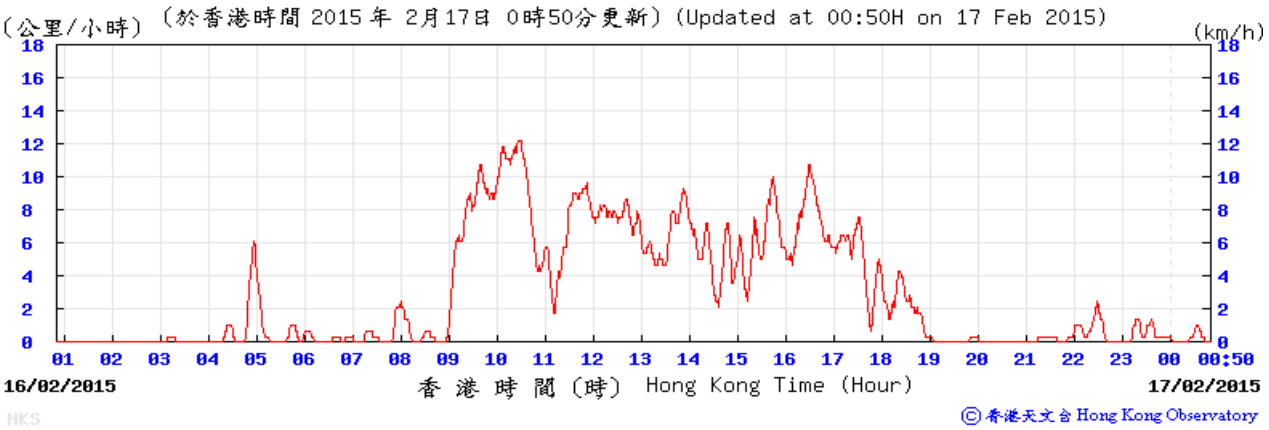

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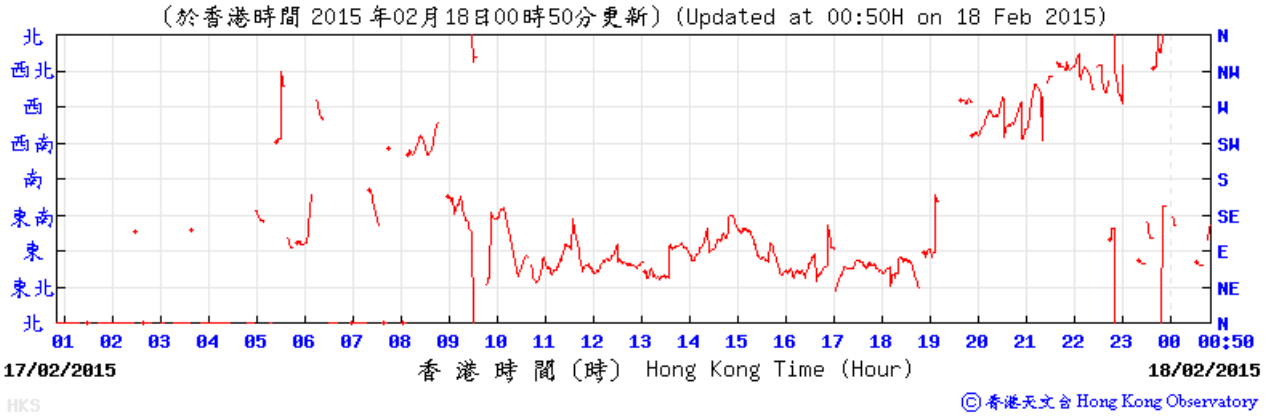

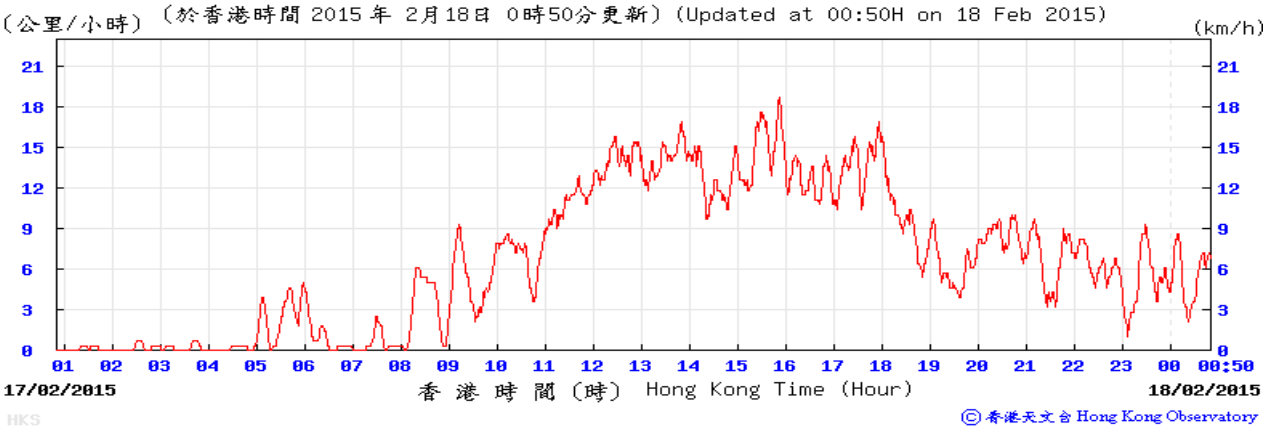

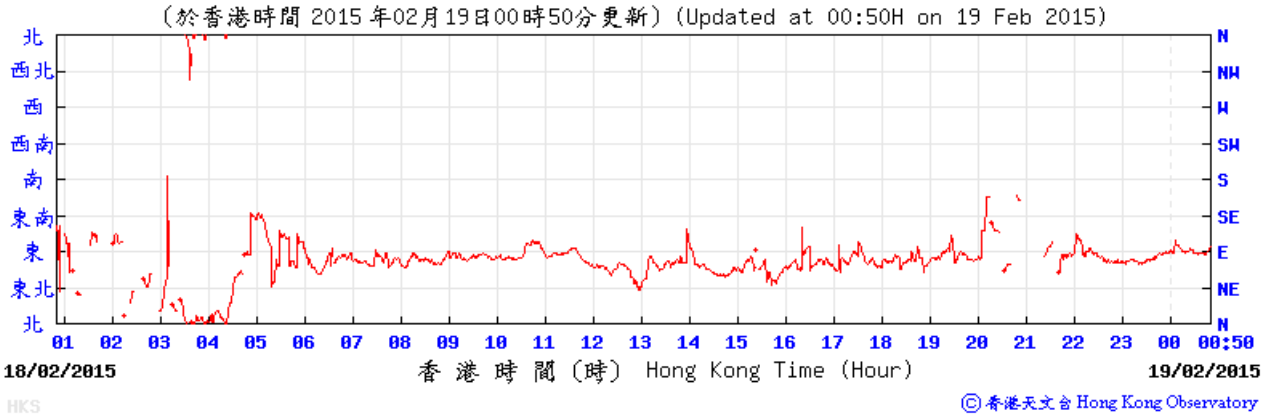

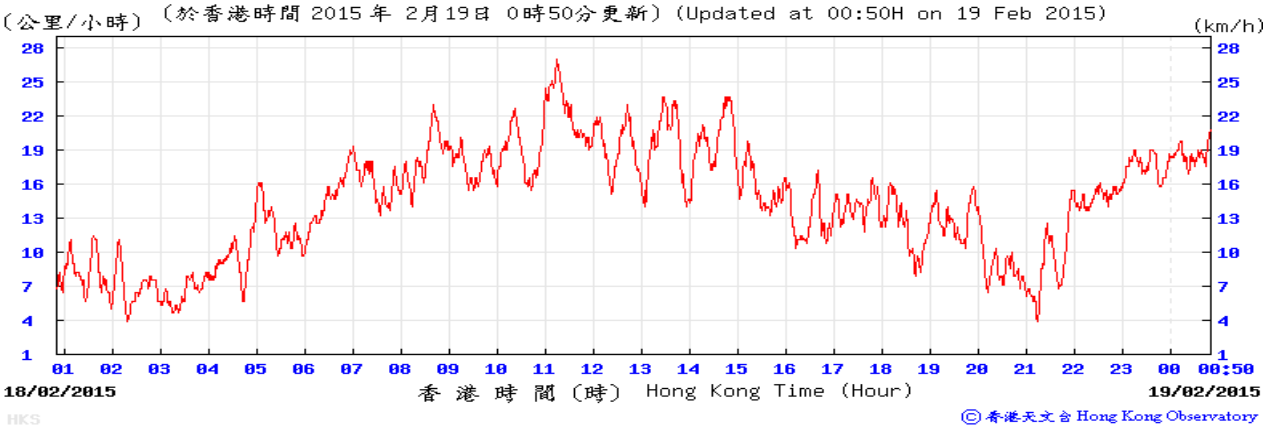

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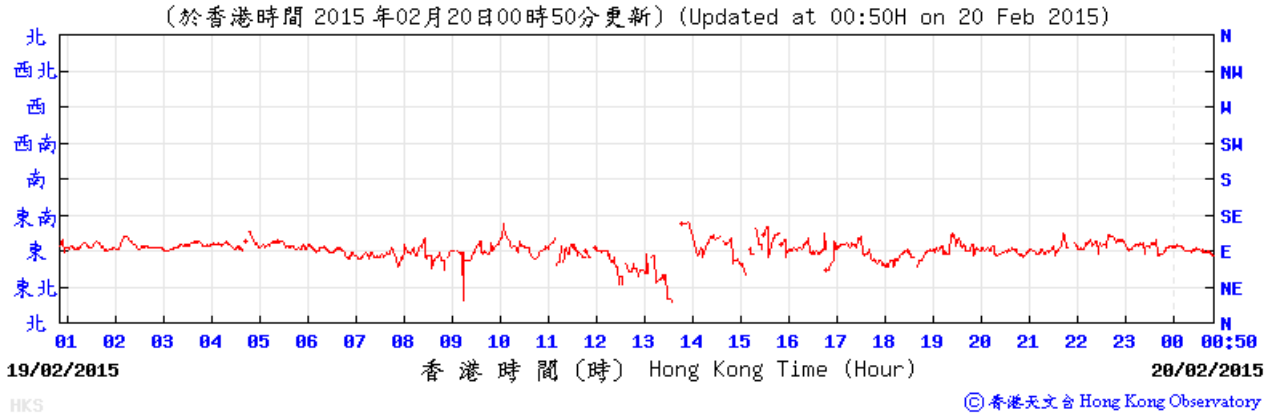

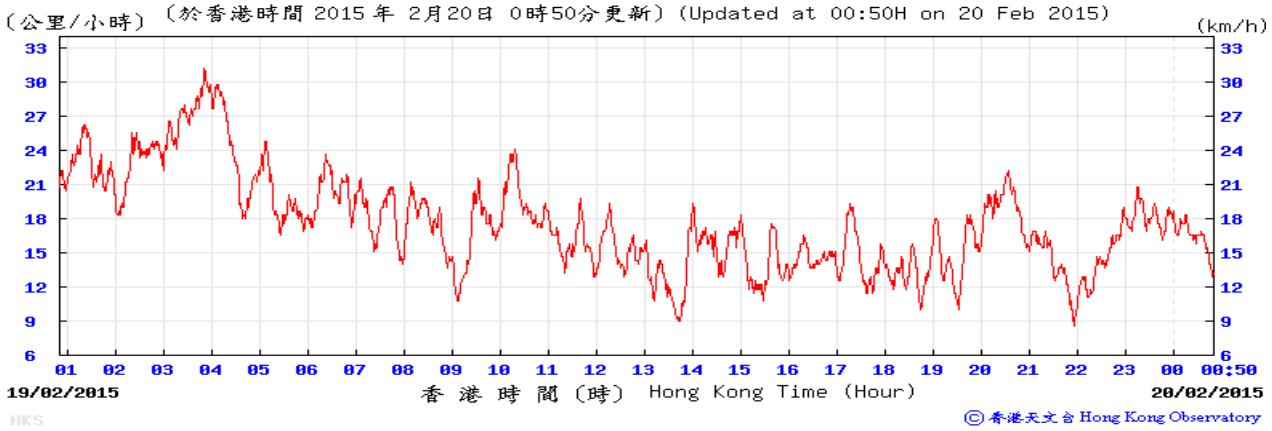

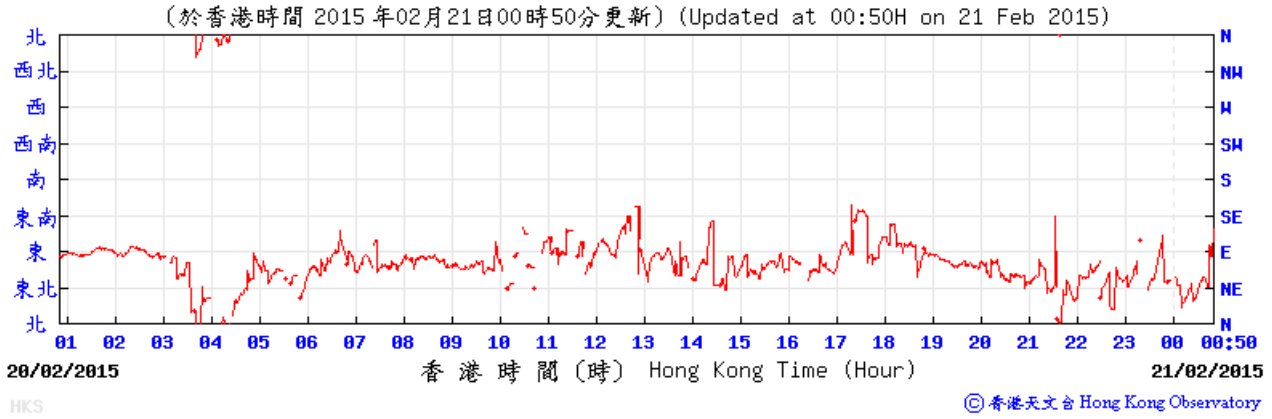

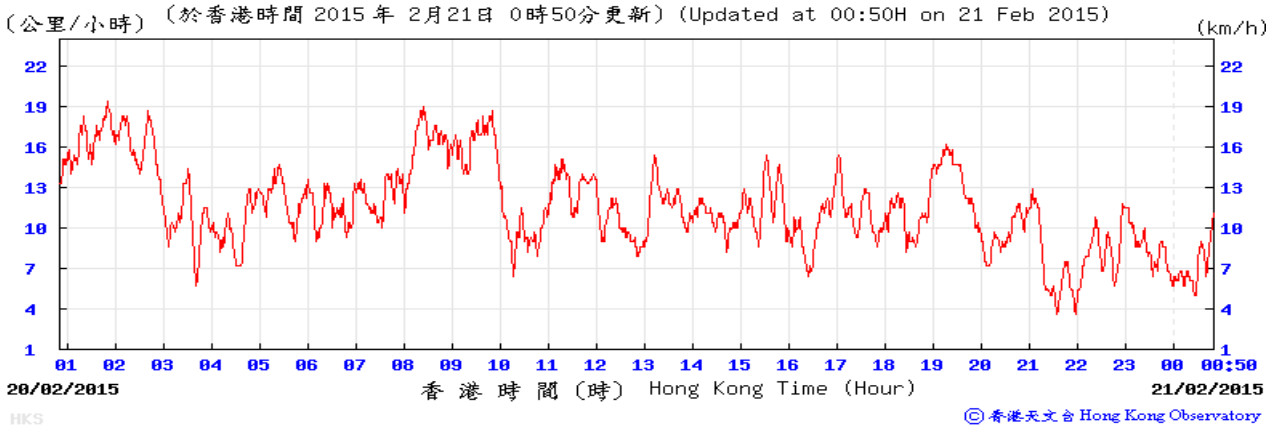

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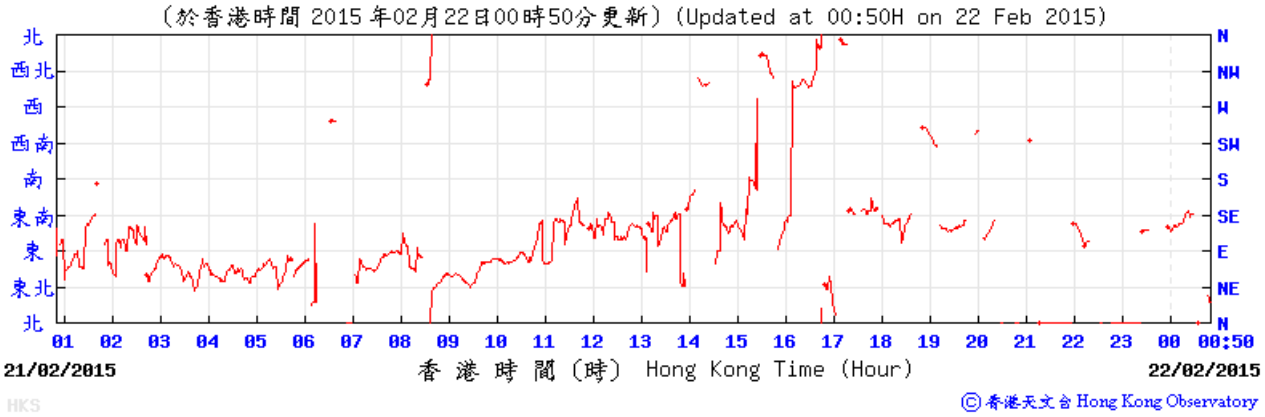

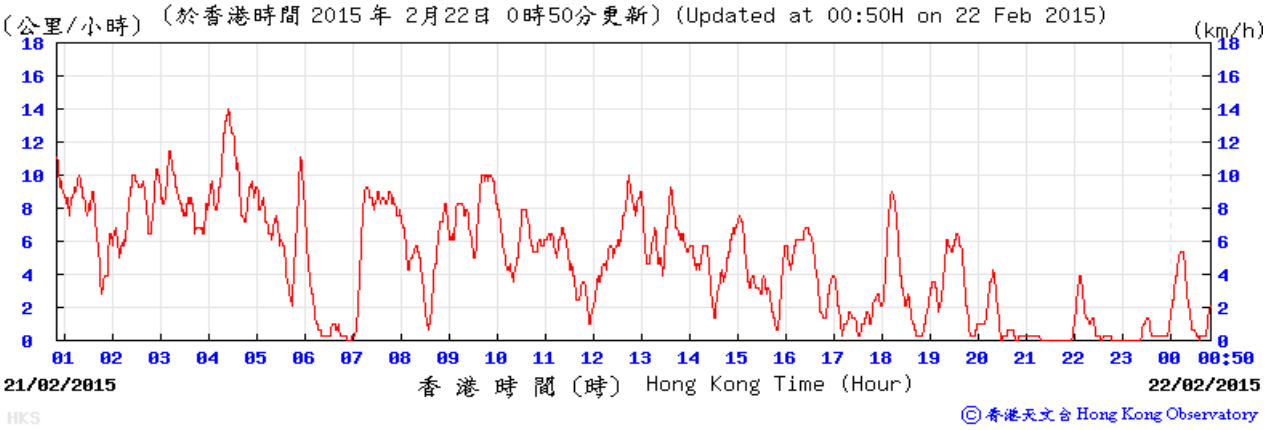

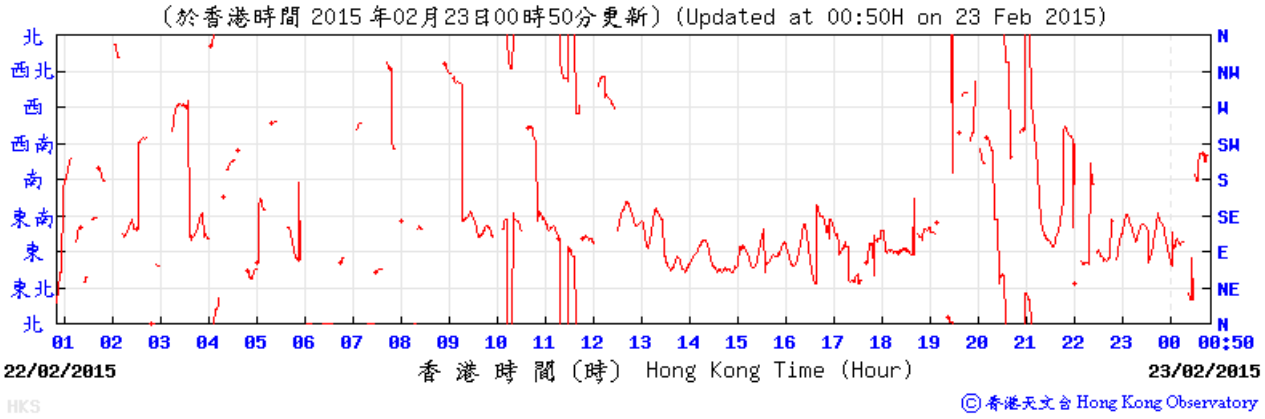

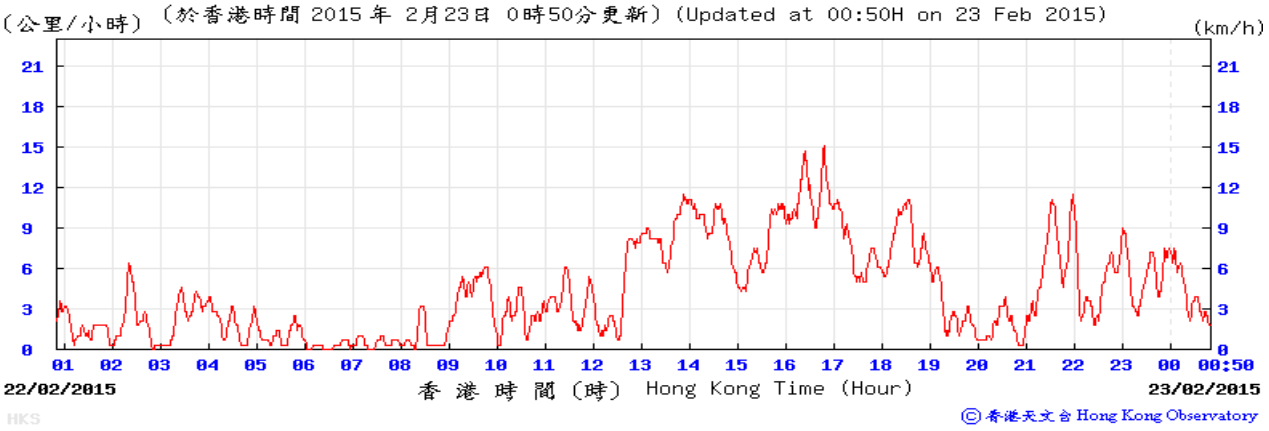

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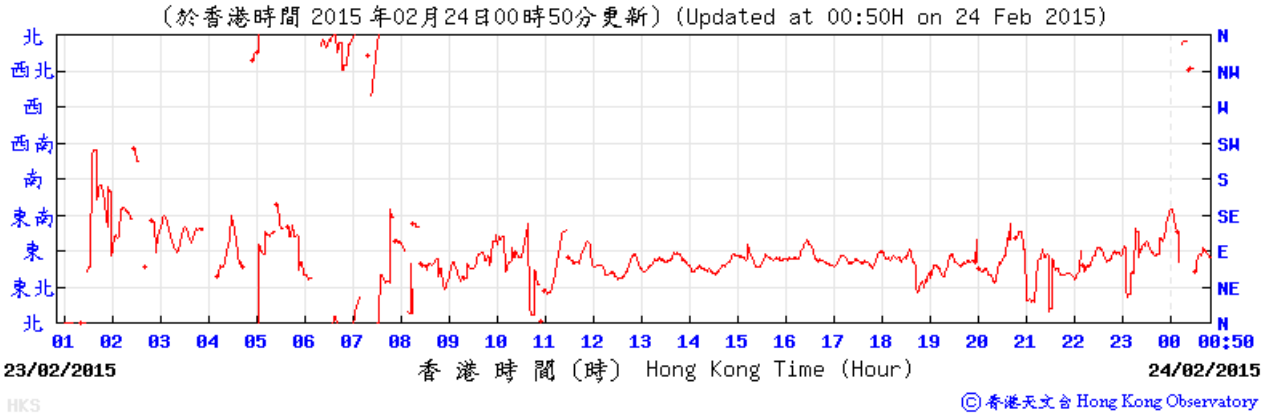
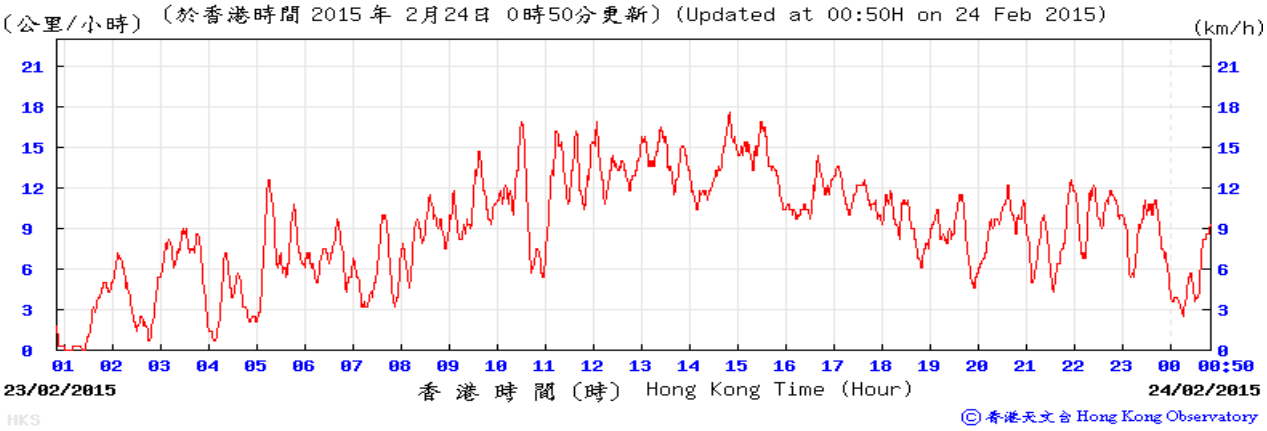
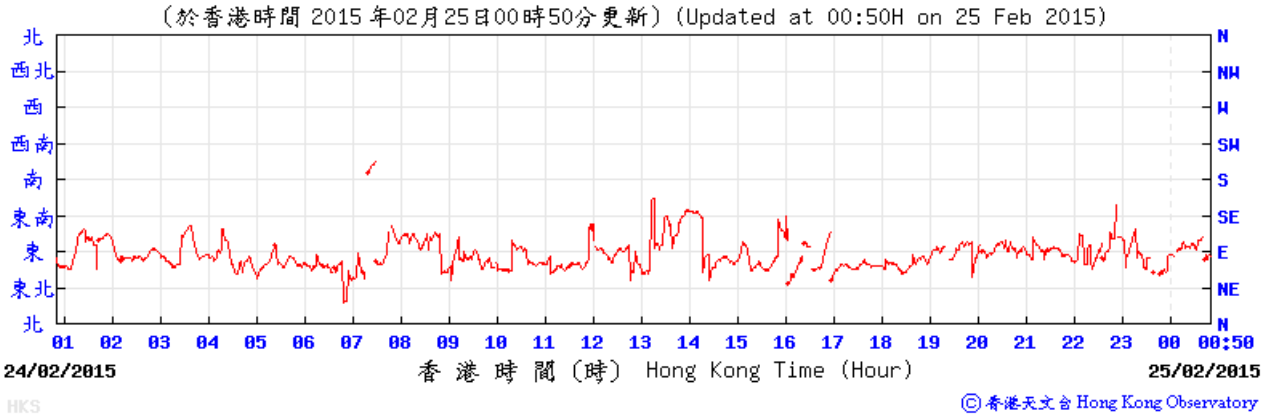
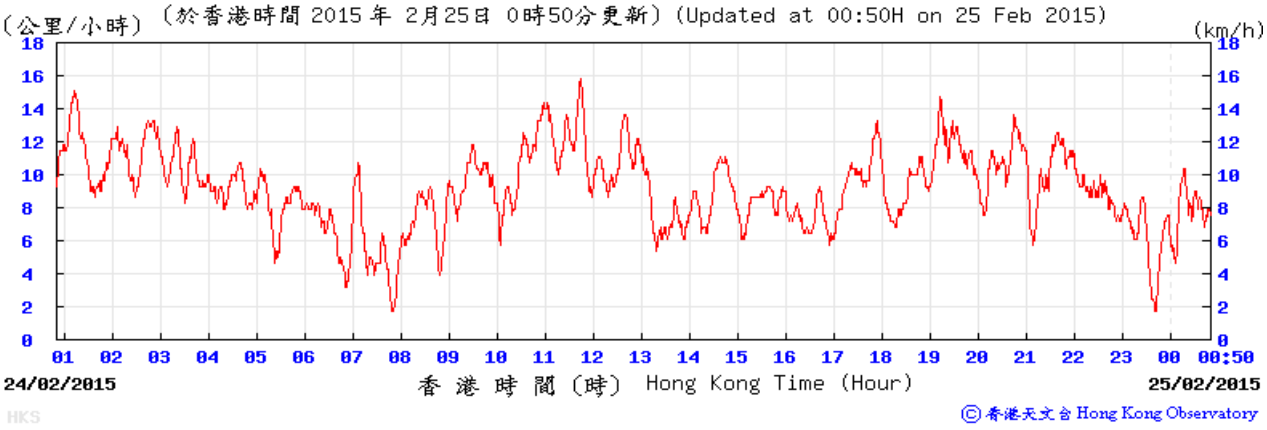


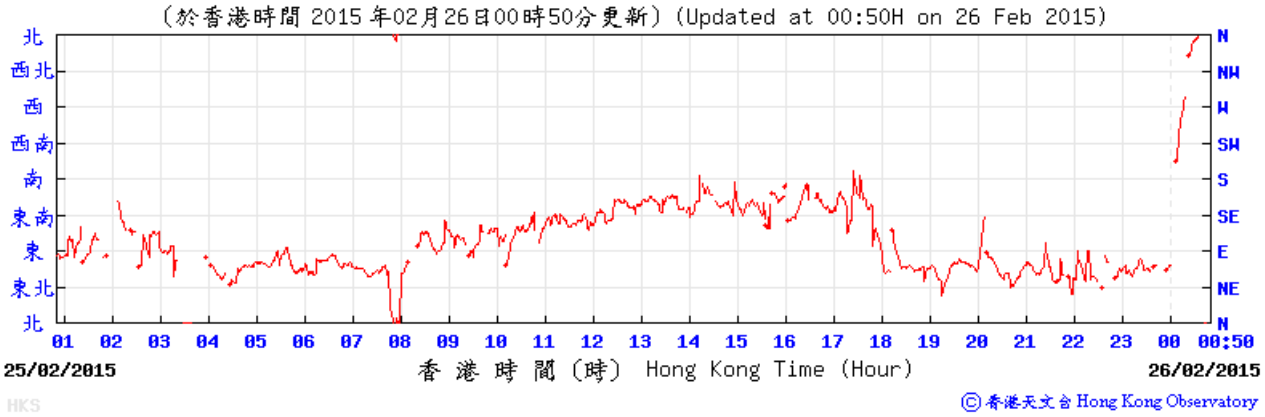


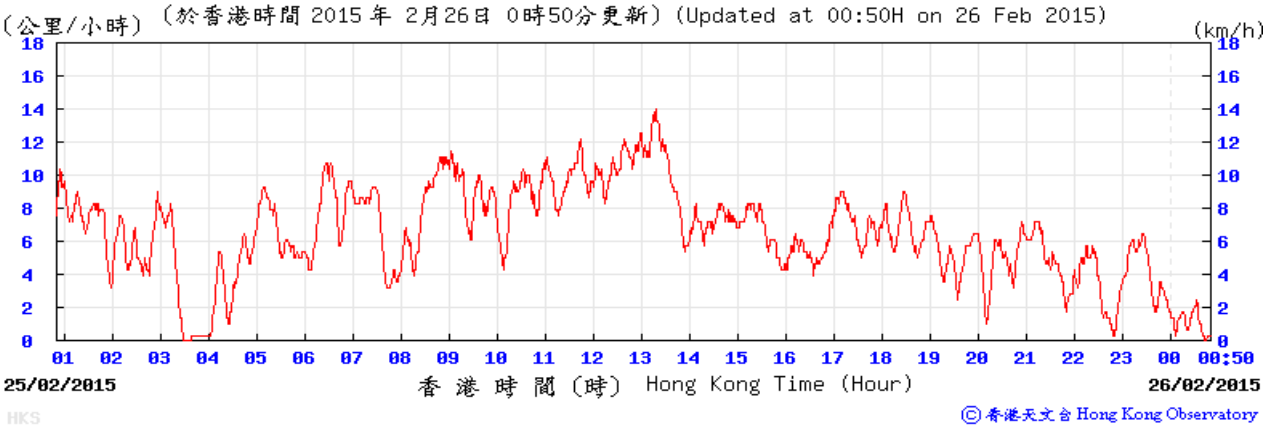


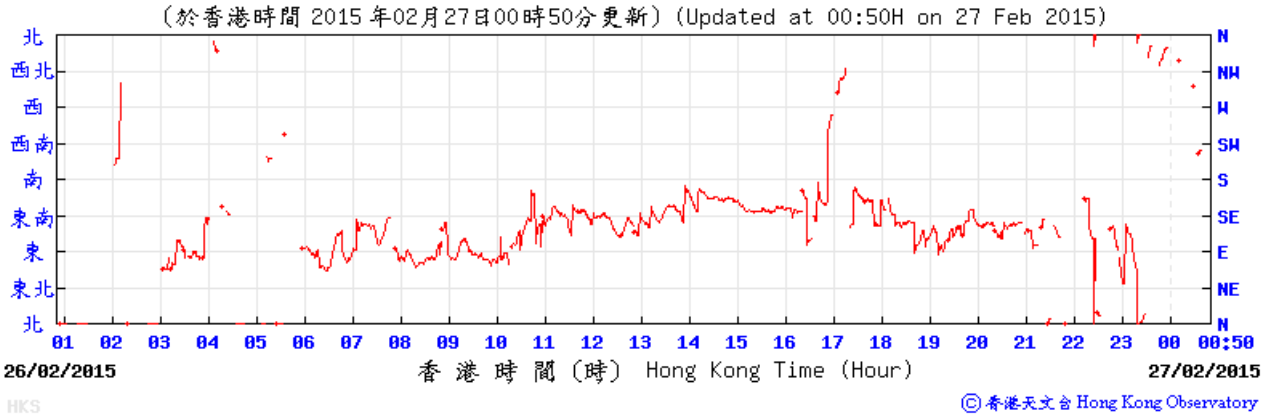


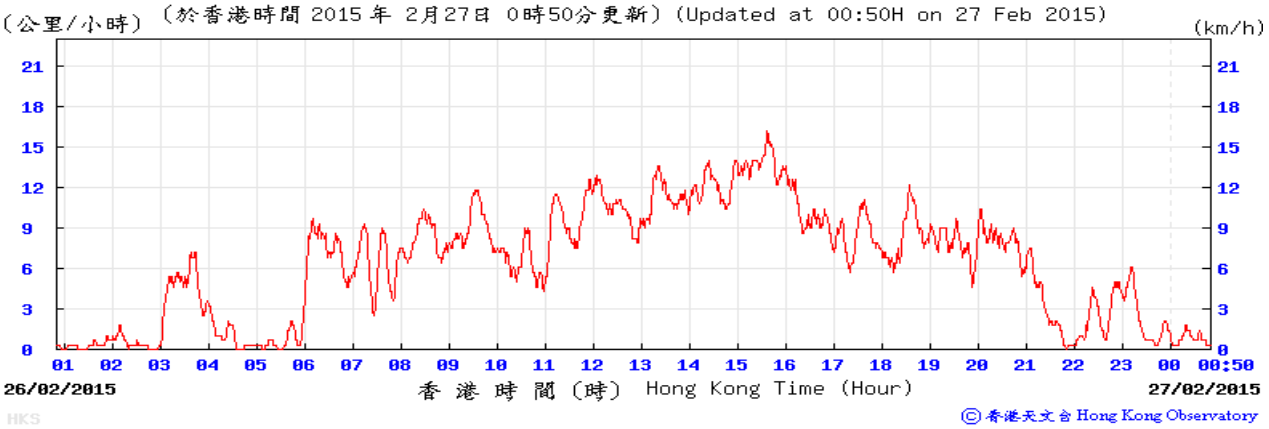
Construction of Sewage Conveyance System from Aberdeen to Sai Ying Pun

Weather Conditions at Wong Chuk Hang Weather Station during Monitoring Period



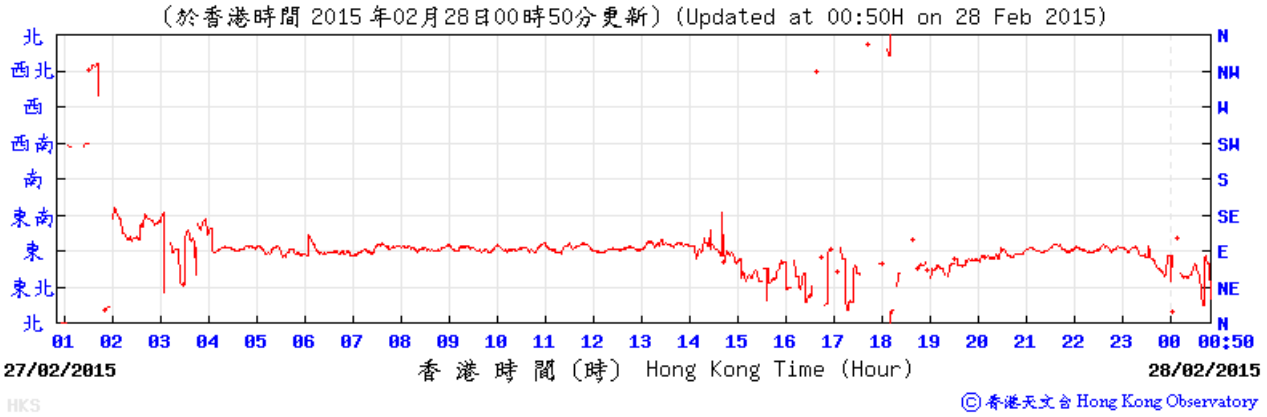


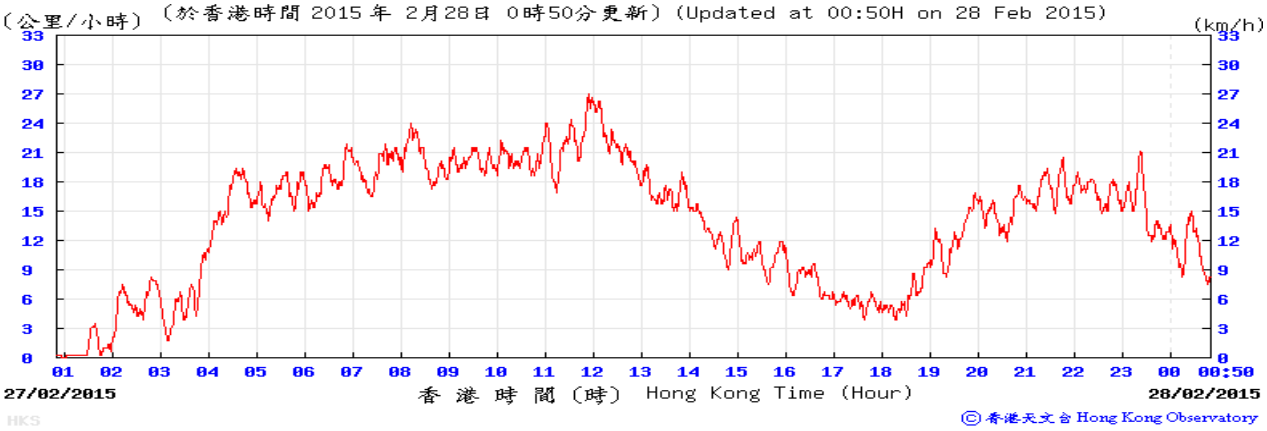


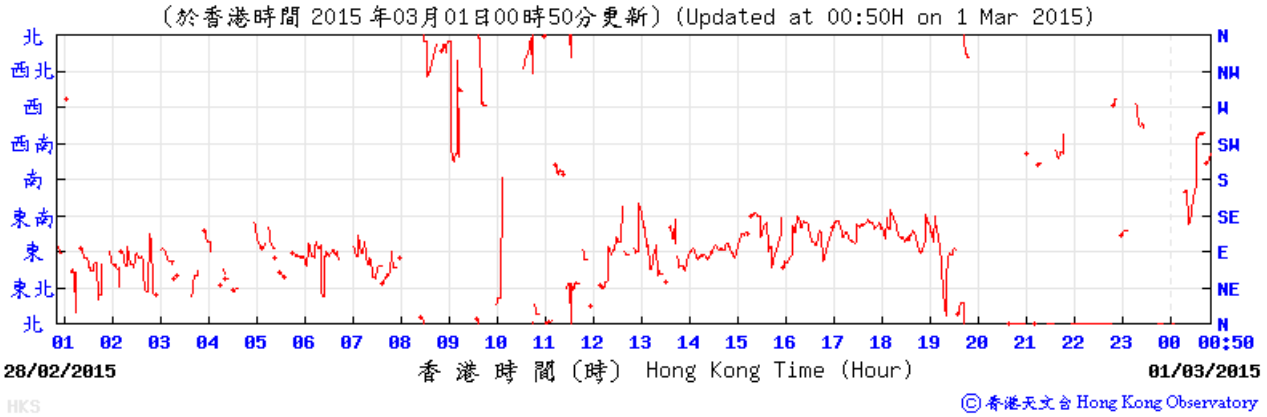


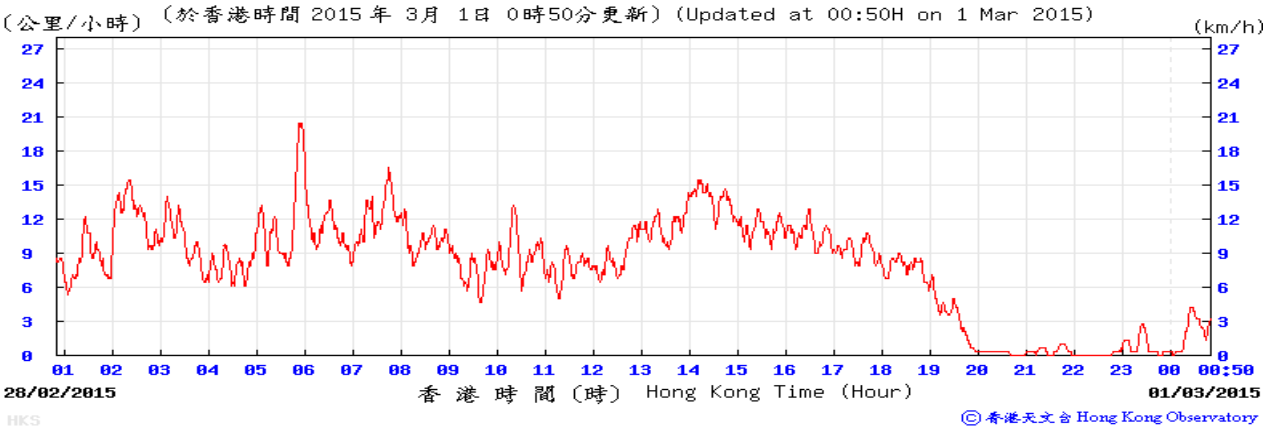
Construction of Sewage Conveyance System from Aberdeen to Sai Ying Pun

Weather Conditions at Wong Chuk Hang Weather Station during Monitoring Period









APPENDIX F

CALIBRATION CERTIFICATES FOR NOISE AND AIR QUALITY MONITORING EQUIPMENT

Summary of Calibration Date of Monitoring Equipment:

Equipment	Description	ID	Latest Calibration Date	Next Calibration Date
Calibrator for Sound Level Meters	B&K 4231	3004068	19th July 2014	18th July 2015
Integrated Sound Level Meters	B&K 2238	2684503	30th August 2014	29th August 2015
Calibrator for Sound Level Meters	B&K 4231	3003246	24th May 2014	23rd May 2015
Integrated Sound Level Meters	B&K 2238	2800932	19th July 2014	18th July 2015

輝創工程有限公司
Sun Creation Engineering Limited
Calibration and Testing Laboratory

Certificate of Calibration
校正證書

Certificate No. : C145326
證書編號

ITEM TESTED / 送檢項目 (Job No. / 序引編號 : IC14-2125) Date of Receipt / 收件日期 : 19 August 2014

Description / 儀器名稱 : Integrating Sound Level Meter
Manufacturer / 製造商 : Brüel & Kjær
Model No. / 型號 : 2238
Serial No. / 編號 : 2684503
Supplied By / 委託者 : Atkins China Limited
13/F, Wharf T&T Centre, Harbour City, Tsim Sha Tsui, Kowloon

TEST CONDITIONS / 測試條件

Temperature / 溫度 : (23 ± 2)°C
Relative Humidity / 相對濕度 : (55 ± 20)%
Line Voltage / 電壓 : ---

TEST SPECIFICATIONS / 測試規範

Calibration check

DATE OF TEST / 測試日期 : 30 August 2014

TEST RESULTS / 測試結果

The results apply to the particular unit-under-test only.
All results are within manufacturer's specification.
The results are detailed in the subsequent page(s).

The test equipment used for calibration are traceable to National Standards via :
- The Government of The Hong Kong Special Administrative Region Standard & Calibration Laboratory
- Rohde & Schwarz Laboratory, Germany
- Fluke Everett Service Center, USA
- Agilent Technologies, USA

Tested By 測試 : K C Lee, Project Engineer

Certified By 核證 : K M Wu, Engineer

Date of Issue 簽發日期 : 30 August 2014

Sun Creation Engineering Limited – Calibration & Testing Laboratory
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Sun Creation Engineering Limited
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Certificate of Calibration
校正證書

Certificate No. : C145326
證書編號

1. The unit-under-test (UUT) was allowed to stabilize in the laboratory for over 12 hours, and switched on to warm up for over 10 minutes before the commencement of the test.

2. Self-calibration using laboratory acoustic calibrator was performed before the test from 6.1.1.2 to 6.4.

3. The results presented are the mean of 3 measurements at each calibration point.

4. Test equipment :

Equipment ID	Description	Certificate No.
CL280	40 MHz Arbitrary Waveform Generator	C140016
CL281	Multifunction Acoustic Calibrator	DC130171

5. Test procedure : MA101N.

6. Results :

6.1 Sound Pressure Level

6.1.1 Reference Sound Pressure Level

6.1.1.1 Before Self-calibration

UUT Setting				Applied Value		UUT Reading (dB)
Range (dB)	Parameter	Frequency Weighting	Time Weighting	Level (dB)	Freq. (kHz)	
50 - 130	L_{AFP}	A	F	94.00	1	93.9

6.1.1.2 After Self-calibration

UUT Setting				Applied Value		UUT Reading (dB)	IEC 60651 Type 1 Spec. (dB)
Range (dB)	Parameter	Frequency Weighting	Time Weighting	Level (dB)	Freq. (kHz)		
50 - 130	L_{AFP}	A	F	94.00	1	94.0	± 0.7

6.1.2 Linearity

UUT Setting				Applied Value		UUT Reading (dB)
Range (dB)	Parameter	Frequency Weighting	Time Weighting	Level (dB)	Freq. (kHz)	
50 - 130	L_{AFP}	A	F	94.00	1	94.0 (Ref.)
				104.00		104.0
				114.00		114.0

IEC 60651 Type 1 Spec. : ± 0.4 dB per 10 dB step and ± 0.7 dB for overall different.

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Certificate of Calibration
校正證書

Certificate No. : C145326
證書編號

6.2 Time Weighting

6.2.1 Continuous Signal

UUT Setting				Applied Value		UUT Reading (dB)	IEC 60651 Type 1 Spec. (dB)
Range (dB)	Parameter	Frequency Weighting	Time Weighting	Level (dB)	Freq. (kHz)		
50 - 130	L_{AFP}	A	F	94.00	1	94.0	Ref.
	L_{ASP}		S			94.0	± 0.1
	L_{AIP}		I			94.1	± 0.1

6.2.2 Tone Burst Signal (2 kHz)

UUT Setting				Applied Value		UUT Reading (dB)	IEC 60651 Type 1 Spec. (dB)
Range (dB)	Parameter	Frequency Weighting	Time Weighting	Level (dB)	Burst Duration		
30 - 110	L_{AFP}	A	F	106.0	Continuous	106.0	Ref.
	L_{AFMax}				200 ms	105.0	-1.0 ± 1.0
	L_{ASP}		S		Continuous	106.0	Ref.
	L_{ASMax}				500 ms	102.0	-4.1 ± 1.0

6.3 Frequency Weighting

6.3.1 A-Weighting

UUT Setting				Applied Value		UUT Reading (dB)	IEC 60651 Type 1 Spec. (dB)
Range (dB)	Parameter	Frequency Weighting	Time Weighting	Level (dB)	Freq.		
50 - 130	L_{AFP}	A	F	94.00	31.5 Hz	54.7	-39.4 ± 1.5
					63 Hz	67.8	-26.2 ± 1.5
					125 Hz	77.8	-16.1 ± 1.0
					250 Hz	85.3	-8.6 ± 1.0
					500 Hz	90.7	-3.2 ± 1.0
					1 kHz	94.0	Ref.
					2 kHz	95.2	+1.2 ± 1.0
					4 kHz	95.0	+1.0 ± 1.0
					8 kHz	92.8	-1.1 (+1.5 ; -3.0)
					12.5 kHz	89.7	-4.3 (+3.0 ; -6.0)

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Certificate of Calibration
校正證書

Certificate No. : C145326
證書編號

6.3.2 C-Weighting

UUT Setting				Applied Value		UUT Reading (dB)	IEC 60651 Type 1 Spec. (dB)
Range (dB)	Parameter	Frequency Weighting	Time Weighting	Level (dB)	Freq.		
50 - 130	L_{CFP}	C	F	94.00	31.5 Hz	91.1	-3.0 ± 1.5
					63 Hz	93.2	-0.8 ± 1.5
					125 Hz	93.8	-0.2 ± 1.0
					250 Hz	94.0	0.0 ± 1.0
					500 Hz	94.0	0.0 ± 1.0
					1 kHz	94.0	Ref.
					2 kHz	93.8	-0.2 ± 1.0
					4 kHz	93.1	-0.8 ± 1.0
					8 kHz	90.9	-3.0 (+1.5 ; -3.0)
					12.5 kHz	87.8	-6.2 (+3.0 ; -6.0)

6.4 Time Averaging

UUT Setting				Applied Value					UUT Reading (dB)	IEC 60804 Type 1 Spec. (dB)
Range (dB)	Parameter	Frequency Weighting	Integrating Time	Frequency (kHz)	Burst Duration (ms)	Burst Duty Factor	Burst Level (dB)	Equivalent Level (dB)		
30 - 110	L_{Aeq}	A	10 sec.	4	1	1/10	110.0	100	99.9	± 0.5
						$1/10^2$		90	89.6	± 0.5
			60 sec.			$1/10^3$		80	79.7	± 1.0
			5 min.			$1/10^4$		70	69.8	± 1.0

Remarks : - UUT Microphone Model No. : 4188 & S/N : 2682524

- Mfr's Spec. : IEC 60651 Type 1 & IEC 60804 Type 1

- Uncertainties of Applied Value :

94 dB	: 31.5 Hz - 125 Hz	: ± 0.35 dB
	250 Hz - 500 Hz	: ± 0.30 dB
	1 kHz	: ± 0.20 dB
	2 kHz - 4 kHz	: ± 0.35 dB
	8 kHz	: ± 0.45 dB
	12.5 kHz	: ± 0.70 dB
104 dB	: 1 kHz	: ± 0.10 dB (Ref. 94 dB)
114 dB	: 1 kHz	: ± 0.10 dB (Ref. 94 dB)
Burst equivalent level		: ± 0.2 dB (Ref. 110 dB continuous sound level)

- The uncertainties are for a confidence probability of not less than 95 %.

Note :
The values given in this Certificate only relate to the values measured at the time of the test and any uncertainties quoted will not include allowance for the equipment long term drift, variations with environment changes, vibration and shock during transportation, overloading, mis-handling, or the capability of any other laboratory to repeat the measurement. Sun Creation Engineering Limited shall not be liable for any loss or damage resulting from the use of the equipment.

Sun Creation Engineering Limited – Calibration & Testing Laboratory
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輝創工程有限公司
Sun Creation Engineering Limited
Calibration and Testing Laboratory

Certificate of Calibration
校正證書

Certificate No. : C144277
證書編號

ITEM TESTED / 送檢項目 (Job No. / 序引編號 : IC14-1753) Date of Receipt / 收件日期 : 14 July 2014

Description / 儀器名稱	:	Acoustical Calibrator
Manufacturer / 製造商	:	Brüel & Kjær
Model No. / 型號	:	4231
Serial No. / 編號	:	3004068
Supplied By / 委託者	:	Atkins China Limited 13/F, Wharf T&T Centre, Harbour City, Tsim Sha Tsui, Kowloon

TEST CONDITIONS / 測試條件

Temperature / 溫度 : (23 ± 2)°C Relative Humidity / 相對濕度 : (55 ± 20)%
Line Voltage / 電壓 : ---

TEST SPECIFICATIONS / 測試規範

Calibration check

DATE OF TEST / 測試日期 : 19 July 2014

TEST RESULTS / 測試結果

The results apply to the particular unit-under-test only.
All results are within manufacturer's specification.
The results are detailed in the subsequent page(s).

The test equipment used for calibration are traceable to National Standards via :
- The Government of The Hong Kong Special Administrative Region Standard & Calibration Laboratory
- Rohde & Schwarz Laboratory, Germany
- Fluke Everett Service Center, USA
- Agilent Technologies, USA

Tested By 測試 : K C Lee, Project Engineer

Certified By 核證 : K M Wu, Engineer

Date of Issue 簽發日期 : 22 July 2014

Sun Creation Engineering Limited – Calibration & Testing Laboratory
c/o 4/F, Tsing Shan Wan Exchange Building, 1 Hing On Lane, Tuen Mun, New Territories, Hong Kong
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Tel/電話: 2927 2606 Fax/傳真: 2744 8986 E-mail/電郵: callab@suncreation.com Website/網址: www.suncreation.com

輝創工程有限公司
Sun Creation Engineering Limited
Calibration and Testing Laboratory

Certificate of Calibration
校正證書

Certificate No. : C144277
證書編號

1. The unit-under-test (UUT) was allowed to stabilize in the laboratory for over 12 hours before the commencement of the test.

2. The results presented are the mean of 3 measurements at each calibration point.

3. Test equipment :

Equipment ID	Description	Certificate No.
CL130	Universal Counter	C143868
CL281	Multifunction Acoustic Calibrator	DC130171
TST150A	Measuring Amplifier	C141558

4. Test procedure : MA100N.

5. Results :

5.1 Sound Level Accuracy

UUT Nominal Value	Measured Value (dB)	Mfr's Spec. (dB)	Uncertainty of Measured Value (dB)
94 dB, 1 kHz	94.0	± 0.2	± 0.2
114 dB, 1 kHz	114.0		

5.2 Frequency Accuracy

UUT Nominal Value (kHz)	Measured Value (kHz)	Mfr's Spec.	Uncertainty of Measured Value (Hz)
1	1.000 0	1 kHz ± 0.1 %	± 0.1

Remark : The uncertainties are for a confidence probability of not less than 95 %.

Note :
The values given in this Certificate only relate to the valucs measured at the time of the test and any uncertainties quoted will not include allowance for the equipment long term drift, variations with environment changes, vibration and shock during transportation, overloading, mis-handling, or the capability of any other laboratory to repeat the measurement. Sun Creation Engineering Limited shall not be liable for any loss or damage resulting from the use of the equipment.

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Sun Creation Engineering Limited
Calibration and Testing Laboratory

Certificate of Calibration
校正證書

Certificate No. : C143157
證書編號

ITEM TESTED / 送檢項目 (Job No. / 序引編號 : IC14-1278) Date of Receipt / 收件日期 : 15 May 2014

Description / 儀器名稱	:	Acoustical Calibrator
Manufacturer / 製造商	:	Brüel & Kjær
Model No. / 型號	:	4231
Serial No. / 編號	:	3003246
Supplied By / 委託者	:	Atkins China Limited 13/F, Wharf T&T Centre, Harbour City, Tsim Sha Tsui, Kowloon

TEST CONDITIONS / 測試條件

Temperature / 溫度 : (23 ± 2)°C
Relative Humidity / 相對濕度 : (55 ± 20)%
Line Voltage / 電壓 : ---

TEST SPECIFICATIONS / 測試規範

Calibration check

DATE OF TEST / 測試日期 : 24 May 2014

TEST RESULTS / 測試結果

The results apply to the particular unit-under-test only.
All results are within manufacturer's specification.
The results are detailed in the subsequent page(s).

The test equipment used for calibration are traceable to National Standards via :
- The Government of The Hong Kong Special Administrative Region Standard & Calibration Laboratory
- Rohde & Schwarz Laboratory, Germany
- Fluke Everett Service Center, USA
- Agilent Technologies, USA

Tested By 測試 : K C Lee, Project Engineer

Certified By 核證 : K M Wu, Engineer

Date of Issue 簽發日期 : 28 May 2014

Sun Creation Engineering Limited – Calibration & Testing Laboratory
c/o 4/F, Tsing Shan Wan Exchange Building, 1 Hing On Lane, Tuen Mun, New Territories, Hong Kong
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輝創工程有限公司
Sun Creation Engineering Limited
Calibration and Testing Laboratory

Certificate of Calibration
校正證書

Certificate No. : C143157
證書編號

1. The unit-under-test (UUT) was allowed to stabilize in the laboratory for over 12 hours before the commencement of the test.

2. The results presented are the mean of 3 measurements at each calibration point.

3. Test equipment :

Equipment ID	Description	Certificate No.
CL130	Universal Counter	C133632
CL281	Multifunction Acoustic Calibrator	DC130171
TST150A	Measuring Amplifier	C141558

4. Test procedure : MA100N.

5. Results :

5.1 Sound Level Accuracy

UUT Nominal Value	Measured Value (dB)	Mfr's Spec. (dB)	Uncertainty of Measured Value (dB)
94 dB, 1 kHz	94.0	± 0.2	± 0.2
114 dB, 1 kHz	114.0		

5.2 Frequency Accuracy

UUT Nominal Value (kHz)	Measured Value (kHz)	Mfr's Spec.	Uncertainty of Measured Value (Hz)
1	1.000 0	1 kHz ± 0.1 %	± 0.1

Remark : The uncertainties are for a confidence probability of not less than 95 %.

Note :
The values given in this Certificate only relate to the values measured at the time of the test and any uncertainties quoted will not include allowance for the equipment long term drift, variations with environment changes, vibration and shock during transportation, overloading, mis-handling, or the capability of any other laboratory to repeat the measurement. Sun Creation Engineering Limited shall not be liable for any loss or damage resulting from the use of the equipment.

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輝創工程有限公司
Sun Creation Engineering Limited
Calibration and Testing Laboratory

Certificate of Calibration
校正證書

Certificate No. : C144278
證書編號

ITEM TESTED / 送檢項目 (Job No. / 序引編號 : IC14-1753) Date of Receipt / 收件日期 : 14 July 2014

Description / 儀器名稱	:	Integrating Sound Level Meter
Manufacturer / 製造商	:	Brüel & Kjær
Model No. / 型號	:	2238
Serial No. / 編號	:	2800932
Supplied By / 委託者	:	Atkins China Limited 13/F, Wharf T&T Centre, Harbour City, Tsim Sha Tsui, Kowloon

TEST CONDITIONS / 測試條件

Temperature / 溫度 : (23 ± 2)°C Relative Humidity / 相對濕度 : (55 ± 20)%
Line Voltage / 電壓 : ---

TEST SPECIFICATIONS / 測試規範

Calibration check

DATE OF TEST / 測試日期 : 19 July 2014

TEST RESULTS / 測試結果

The results apply to the particular unit-under-test only.
All results are within manufacturer's specification.
The results are detailed in the subsequent page(s).

The test equipment used for calibration are traceable to National Standards via :
- The Government of The Hong Kong Special Administrative Region Standard & Calibration Laboratory
- Rohde & Schwarz Laboratory, Germany
- Fluke Everett Service Center, USA
- Agilent Technologies, USA

Tested By 測試 : K C Lee, Project Engineer

Certified By 核證 : K M Wu, Engineer

Date of Issue 簽發日期 : 22 July 2014

Sun Creation Engineering Limited – Calibration & Testing Laboratory
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Calibration and Testing Laboratory

Certificate of Calibration
校正證書

Certificate No. : C144278
證書編號

1. The unit-under-test (UUT) was allowed to stabilize in the laboratory for over 12 hours, and switched on to warm up for over 10 minutes before the commencement of the test.

2. Self-calibration using the B & K Acoustic Calibrator 4231, S/N : 3004068 was performed before the test.

3. The results presented are the mean of 3 measurements at each calibration point.

4. Test equipment :

Equipment ID	Description	Certificate No.
CL280	40 MHz Arbitrary Waveform Generator	C140016
CL281	Multifunction Acoustic Calibrator	DC130171

5. Test procedure : MA101N.

6. Results :

6.1 Sound Pressure Level

6.1.1 Reference Sound Pressure Level

UUT Setting				Applied Value		UUT	IEC 60651
Range (dB)	Parameter	Frequency Weighting	Time Weighting	Level (dB)	Freq. (kHz)	Reading (dB)	Type 1 Spec. (dB)
50 - 130	L_{AFP}	A	F	94.00	1	94.0	± 0.7

6.1.2 Linearity

UUT Setting				Applied Value		UUT
Range (dB)	Parameter	Frequency Weighting	Time Weighting	Level (dB)	Freq. (kHz)	Reading (dB)
50 - 130	L_{AFP}	A	F	94.00	1	94.0 (Ref.)
				104.00		104.0
				114.00		114.0

IEC 60651 Type 1 Spec. : ± 0.4 dB per 10 dB step and ± 0.7 dB for overall different.

6.2 Time Weighting

6.2.1 Continuous Signal

UUT Setting				Applied Value		UUT	IEC 60651
Range (dB)	Parameter	Frequency Weighting	Time Weighting	Level (dB)	Freq. (kHz)	Reading (dB)	Type 1 Spec. (dB)
50 - 130	L_{AFP}	A	F	94.00	1	94.0	Ref.
	L_{ASP}		S			94.0	± 0.1
	L_{AIP}		I			94.1	± 0.1

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Certificate of Calibration
校正證書

Certificate No. : C144278
證書編號

6.2.2 Tone Burst Signal (2 kHz)

UUT Setting				Applied Value		UUT Reading (dB)	IEC 60651 Type 1 Spec. (dB)
Range (dB)	Parameter	Frequency Weighting	Time Weighting	Level (dB)	Burst Duration		
30 - 110	L_{AFP}	A	F	106.0	Continuous	106.0	Ref.
	L_{AFMax}				200 ms	105.0	-1.0 ± 1.0
	L_{ASP}		S		Continuous	106.0	Ref.
	L_{ASMax}				500 ms	102.1	-4.1 ± 1.0

6.3 Frequency Weighting

6.3.1 A-Weighting

UUT Setting				Applied Value		UUT Reading (dB)	IEC 60651 Type 1 Spec. (dB)
Range (dB)	Parameter	Frequency Weighting	Time Weighting	Level (dB)	Freq.		
50 - 130	L_{AFP}	A	F	94.00	31.5 Hz	54.7	-39.4 ± 1.5
					63 Hz	67.8	-26.2 ± 1.5
					125 Hz	77.8	-16.1 ± 1.0
					250 Hz	85.3	-8.6 ± 1.0
					500 Hz	90.7	-3.2 ± 1.0
					1 kHz	94.0	Ref.
					2 kHz	95.2	+1.2 ± 1.0
					4 kHz	95.0	+1.0 ± 1.0
					8 kHz	92.8	-1.1 (+1.5 ; -3.0)
					12.5 kHz	89.7	-4.3 (+3.0 ; -6.0)

6.3.2 C-Weighting

UUT Setting				Applied Value		UUT Reading (dB)	IEC 60651 Type 1 Spec. (dB)
Range (dB)	Parameter	Frequency Weighting	Time Weighting	Level (dB)	Freq.		
50 - 130	L_{CFP}	C	F	94.00	31.5 Hz	91.1	-3.0 ± 1.5
					63 Hz	93.2	-0.8 ± 1.5
					125 Hz	93.8	-0.2 ± 1.0
					250 Hz	94.0	0.0 ± 1.0
					500 Hz	94.0	0.0 ± 1.0
					1 kHz	94.0	Ref.
					2 kHz	93.8	-0.2 ± 1.0
					4 kHz	93.1	-0.8 ± 1.0
					8 kHz	90.9	-3.0 (+1.5 ; -3.0)
					12.5 kHz	87.7	-6.2 (+3.0 ; -6.0)

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Certificate of Calibration
校正證書

Certificate No. : C144278
證書編號

6.4 Time Averaging

UUT Setting				Applied Value					UUT	IEC 60804
Range (dB)	Parameter	Frequency Weighting	Integrating Time	Frequency (kHz)	Burst Duration (ms)	Burst Duty Factor	Burst Level (dB)	Equivalent Level (dB)	Reading (dB)	Type 1 Spec. (dB)
30 - 110	L_{Aeq}	A	10 sec.	4	1	1/10	110.0	100	99.9	± 0.5
						$1/10^2$		90	89.7	± 0.5
			60 sec.			$1/10^3$		80	79.7	± 1.0
			5 min.			$1/10^4$		70	69.7	± 1.0

Remarks : - UUT Microphone Model No. : 4188 & S/N : 2793199

- Mfr's Spec. : IEC 60651 Type 1 & IEC 60804 Type 1

- Uncertainties of Applied Value :

94 dB	: 31.5 Hz - 125 Hz	: ± 0.35 dB
	250 Hz - 500 Hz	: ± 0.30 dB
	1 kHz	: ± 0.20 dB
	2 kHz - 4kHz	: ± 0.35 dB
	8 kHz	: ± 0.45 dB
	12.5 kHz	: ± 0.70 dB
104 dB	: 1 kHz	: ± 0.10 dB (Ref. 94 dB)
114 dB	: 1 kHz	: ± 0.10 dB (Ref. 94 dB)
Burst equivalent level		: ± 0.2 dB (Ref. 110 dB continuous sound level)

- The uncertainties are for a confidence probability of not less than 95 %.

Note :
The values given in this Certificate only relate to the values measured at the time of the test and any uncertainties quoted will not include allowance for the equipment long term drift, variations with environment changes, vibration and shock during transportation, overloading, mis-handling, or the capability of any other laboratory to repeat the measurement. Sun Creation Engineering Limited shall not be liable for any loss or damage resulting from the use of the equipment.

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APPENDIX G

MONITORING SCHEDULE FOR THE PRESENT AND NEXT REPORTING PERIOD

Monitoring Schedule during the Reporting Period

Parameter	Monitoring Station	Date
Noise	M3, Normal Daytime[1]	03-Feb-15 ; 09-Feb-15 ; 18-Feb-15 and 24-Feb-15
	M3, Holiday Daytime[1]	01-Feb-15 and 15-Feb-15
	M3, Evening Time[1]	10-Feb-15 24-Feb-15
	M5, Normal Daytime	03-Feb-15 ; 10-Feb-15 ; 17-Feb-15 and 23-Feb-15
	M6a, Normal Daytime[2]	04-Feb-15 ; 10-Feb-15 ; 16-Feb-15 and 24-Feb-15
	M7a,Normal Daytime[2]	04-Feb-15 ; 10-Feb-15 ; 16-Feb-15 and 24-Feb-15
	M8,Normal Daytime[2]	04-Feb-15 ; 10-Feb-15 ; 16-Feb-15 and 24-Feb-15
Air: 1-hr TSP	CM_FM1[1]	06-Feb-15 ; 12-Feb-15 ; 18-Feb-15 and 24-Feb-15
	CM_CB1a[2]	04-Feb-15 ; 10-Feb-15 ; 16-Feb-15 ; 18-Feb-15 and 24-Feb-15
	CM_WF1a[2]	04-Feb-15 ; 10-Feb-15 ; 16-Feb-15 ; 18-Feb-15 and 24-Feb-15
	CM_AB1b[2]	04-Feb-15 ; 10-Feb-15 ; 16-Feb-15 ; 18-Feb-15 and 24-Feb-15
Air: 24-hrs TSP	CM_FM1[1]	06-Feb-15 ; 12-Feb-15 ; 18-Feb-15 and 24-Feb-15
	CM_CB1a[2]	03-Feb-15 ; 09-Feb-15 ; 14-Feb-15 ; 18-Feb-15 and 24-Feb-15
	CM_WF1a[2]	03-Feb-15 ; 09-Feb-15 ; 14-Feb-15 ; 18-Feb-15 and 24-Feb-15
	CM_AB1b[2]	03-Feb-15 ; 09-Feb-15 ; 14-Feb-15 ; 18-Feb-15 and 24-Feb-15

Remarks:
(1) The information were provided by Contract No. DC/2007/23.
(2) The information were provided by Contract No. DC/2009/24.

Proposed Monitoring Schedule for Next Reporting Period

Parameter	Monitoring Station	Date
Noise	M3, Normal Daytime[1]	02-Mar-15 ; 13-Mar-15 ; 19-Mar-15 ; 25-Mar-15 and 31-Mar-15
	M5, Normal Daytime	04-Mar-15 ; 10-Mar-15 ; 17-Mar-15 and 25-Mar-15
	M6a, Normal Daytime[2]	02-Mar-15 ; 11-Mar-15 ; 17-Mar-15 and 26-Mar-15
	M7a, Normal Daytime[2]	02-Mar-15 ; 11-Mar-15 ; 17-Mar-15 and 26-Mar-15
	M8, Normal Daytime[2]	02-Mar-15 ; 11-Mar-15 ; 17-Mar-15 and 26-Mar-15
Air: 1-hr TSP	CM_FM1[1]	02-Mar-15 ; 07-Mar-15 ; 12-Mar-15 ; 18-Mar-15 ; 24-Mar-15 and 30-Mar-15
	CM_CB1a[2]	02-Mar-15 ; 06-Mar-15 ; 11-Mar-15 ; 17-Mar-15 ; 20-Mar-15 and 26-Mar-15
	CM_WF1a[2]	02-Mar-15 ; 06-Mar-15 ; 11-Mar-15 ; 17-Mar-15 ; 20-Mar-15 and 26-Mar-15
	CM_AB1b[2]	02-Mar-15 ; 06-Mar-15 ; 11-Mar-15 ; 17-Mar-15 ; 20-Mar-15 and 26-Mar-15
Air: 24-hrs TSP	CM_FM1[1]	02-Mar-15 ; 07-Mar-15 ; 12-Mar-15 ; 18-Mar-15 ; 24-Mar-15 and 30-Mar-15
	CM_CB1a[2]	02-Mar-15 ; 07-Mar-15 ; 13-Mar-15 ; 19-Mar-15 ; 25-Mar-15 and 31-Mar-15
	CM_WF1a[2]	02-Mar-15 ; 07-Mar-15 ; 13-Mar-15 ; 19-Mar-15 ; 25-Mar-15 and 31-Mar-15
	CM_AB1b[2]	02-Mar-15 ; 07-Mar-15 ; 13-Mar-15 ; 19-Mar-15 ; 25-Mar-15 and 31-Mar-15

Remarks:
(1) The monitoring will be conducted by Contract No. DC/2007/23.
(2) The monitoring will be conducted by Contract No. DC/2009/24

APPENDIX H

NOISE MONITORING RESULTS

Daytime Noise Monitoring Results -- Normal weekday

Station M3, Kwan Yick building (1)

Date	Start Time	End Time	Weather	Noise level (dB(A)), 30 min			Major Construction Noise Source(s) Observed	Other Noise Source(s) Observed	Remarks	Temp. (℃)	Wind Speed (m/s)	Noise Meter Model / ID	Calibrator Model / ID
				Leq	L10	L90							
03-Feb-15	10:24	10:54	Sunny	68	70	66	Lifting, Excavation	Traffic Noise	-	17.1	0.3	RION- NL52 (S/N 00131627)	RION-NL73 (S/N 10997142)
09-Feb-15	10:24	10:54	Sunny	68	70	66	Lifting, Excavation	Traffic Noise	-	14.9	0.5	RION- NL52 (S/N 00131627)	RION-NL73 (S/N 10997142)
18-Feb-15	14:30	15:00	Fine	67	68	65	-	Traffic Noise	-	18.1	0.3	RION- NL52 (S/N 00131627)	RION-NL73 (S/N 10997142)
24-Feb-15	13:30	14:00	Fine	68	70	67	Lifting	Traffic Noise	-	18.6	0.3	RION- NL52 (S/N 00131627)	RION-NL73 (S/N 10997142)
			Min.	**67**									
			Max.	**68**									

Remark:

(1)-The results were provided by Contract No. DC/2007/23. For calibration certificates of the sound level meter(s) and calibrator(s) please refer to the Monthly EM&A Report for Contract No. DC/2007/23.

Station M5, Chuk Lam Ming Tong

Date	Start Time	End Time	Weather	Noise level (dB(A)), 30 min			Major Construction Noise Source(s) Observed	Other Noise Source(s) Observed	Remarks	Temp. (℃)	Wind Speed (m/s)	Noise Meter Model / ID	Calibrator Model / ID
				Leq	L10	L90							
03-Feb-15	13:30	14:00	Sunny	69	72	59	Concrete braeaking, operatoring of excavator	Road traffic noise	N.A	17.1	<5	B&K 2238 S/N : 2684503	B&K 4231 S/N: 3004068
10-Feb-15	11:28	11:58	Sunny	62	64	55	Concrete braeaking, operatoring of excavator	Road traffic noise	N.A	14.5	<5	B&K 2238 S/N : 2684503	B&K 4231 S/N: 3004068
17-Feb-15	09:53	10:23	Foggy	63	66	58	operatoring of excavator	Road traffic noise	N.A	19.2	<5	B&K 2238 S/N : 2800932	B&K 4231 S/N: 3003246
23-Feb-15	13:00	13:30	Cloudy	62	64	58	operatoring of excavator	Road traffic noise	N.A	18.6	<5	B&K 2238 S/N : 2684503	B&K 4231 S/N: 3004068
			Min.	**62**									
			Max.	**69**									

Station M6a, Aegean Terrace (1)

Date	Start Time	End Time	Weather	Noise level (dB(A)), 30 min			Major Construction Noise Source(s) Observed	Other Noise Source(s) Observed	Remarks	Temp. (℃)	Wind Speed (m/s)	Noise Meter Model / ID	Calibrator Model / ID
				Leq (2)	L10	L90							
04-Feb-15	16:05	16:35	Cloudy	66	67	60	N.A	Road Traffic	Free-field measurement result Plant pruning nearby	16.2	N.A	SVAN 957 -- N.08.09	SV30A-- N.09.03
10-Feb-15	10:45	11:15	Sunny	56	63	49	N.A	N.A	Free-field measurement result	14.5	N.A	SVAN 957 -- N.08.08	B&K 4231-- N.02.01
16-Feb-15	16:10	16:40	Cloudy	53	56	50	N.A	Road Traffic	Free-field measurement result	19.7	N.A	SVAN 957 -- N.08.09	SV30A-- N.09.03
24-Feb-15	16:25	16:55	Cloudy	55	57	51	N.A	Road Traffic	Free-field measurement result	18.6	N.A	SVAN 955 -- N.08.02	SV30A-- N.09.05
			Min.	**53**									
			Max.	**66**									

Remark:
(1)-The results were provided by Contract No. DC/2009/24. For calibration certificates of the sound level meters and calibrators, please refer to the monthly EM&A reports prepared for Contract No. DC/2009/24.
(2)-Free-field measurement results.

Station M7a, Wah Ming House (1)

Date	Start Time	End Time	Weather	Noise level (dB(A)), 30 min			Major Construction Noise Source(s) Observed	Other Noise Source(s) Observed	Remarks	Temp. (℃)	Wind Speed (m/s)	Noise Meter Model / ID	Calibrator Model / ID
				Leq	L10	L90							
04-Feb-15	13:00	13:30	Cloudy	59	61	58	N.A	Road traffic noise	N.A	16.2	N.A	SVAN 955 -- N.08.09	SV30A-- N.09.03
10-Feb-15	09:00	09:30	Sunny	63	63	58	N.A	Road traffic noise	N.A	14.5	N.A	SVAN 955 -- N.08.08	B&K 4231-- N.02.01
16-Feb-15	14:10	14:40	Cloudy	60	62	58	N.A	Road traffic noise	Mobile crane	19.7	N.A	SVAN 957 -- N.08.09	SV30A-- N.09.03
24-Feb-15	14:15	14:45	Cloudy	62	63	59	N.A	N.A	Mobile crane	18.6	N.A	SVAN 955 -- N.08.02	SV30A-- N.09.05
			Min.	**59**									
			Max.	**63**									

Remark:

(1)-The results were provided by Contract No. DC/2009/24. For calibration certificates of the sound level meters and calibrators, please refer to the monthly EM&A reports prepared for Contract No. DC/2009/24.

Station M8, Wah Lai House (1)

Date	Start Time	End Time	Weather	Noise level (dB(A)), 30 min			Major Construction Noise Source(s) Observed	Other Noise Source(s) Observed	Remarks	Temp. (℃)	Wind Speed (m/s)	Noise Meter Model / ID	Calibrator Model / ID
				Leq	L10	L90							
04-Feb-15	13:40	14:10	Cloudy	70	72	68	N.A	Road Traffic	N.A	16.2	N.A	SVAN 957 N.08.09	SV30A--N.09.03
10-Feb-15	15:15	15:45	Sunny	70	71	68	N.A	Road Traffic	Excavator and concrete mixer truck	14.5	N.A	SVAN 957 N.08.08	SV30A--N.06.05
16-Feb-15	13:20	13:50	Cloudy	71	72	68	N.A	Road Traffic	N.A	19.7	N.A	SVAN 957 N.08.09	SV30A--N.09.03
24-Feb-15	13:15	13:45	Cloudy	69	72	68	N.A	Road Traffic	N.A	18.6	N.A	SVAN 955 N.08.02	SV30A--N.09.05
			Min.	**69**									
			Max.	**71**									

Remark:

(1)-The results were provided by Contract No. DC/2009/24. For calibration certificates of the sound level meters and calibrators, please refer to the monthly EM&A reports prepared for Contract No. DC/2009/24.

Noise Monitoring Results obtained during Public Holiday
Station M3, Kwan Yick building (1)

Date	Start Time	End Time	Weather	Noise level (dB(A)), 5 min			Major Construction Noise Source(s) Observed	Other Noise Source(s) Observed	Remarks	Temp. (℃)	Wind Speed (m/s)	Noise Meter Model / ID	Calibrator Model / ID
				Leq	L10	L90							
01-Feb-15	11:38	11:53	Cloudy	67	68	65	No major construction works	Traffic noise	-	29.3	0.3	RION- NL52 (S/N 00131627)	RION - NC73 (S/N 10997142)
15-Feb-15	11:14	11:29	Cloudy	66	68	65	No major construction works	Traffic noise	-	29.3	0.3	RION- NL52 (S/N 00131627)	RION - NC73 (S/N 10997142)
			Min.	**66**									
			Max.	**67**									

Remark:
(1)-The results were provided by Contract No. DC/2007/23. For calibration certificates of the sound level meters and calibrators, please refer to the monthly EM&A reports prepared for Contract No. DC/2007/23.

Noise Monitoring Results obtained during Evening Time of Normal Day

Station M3, Kwan Yick building (1)

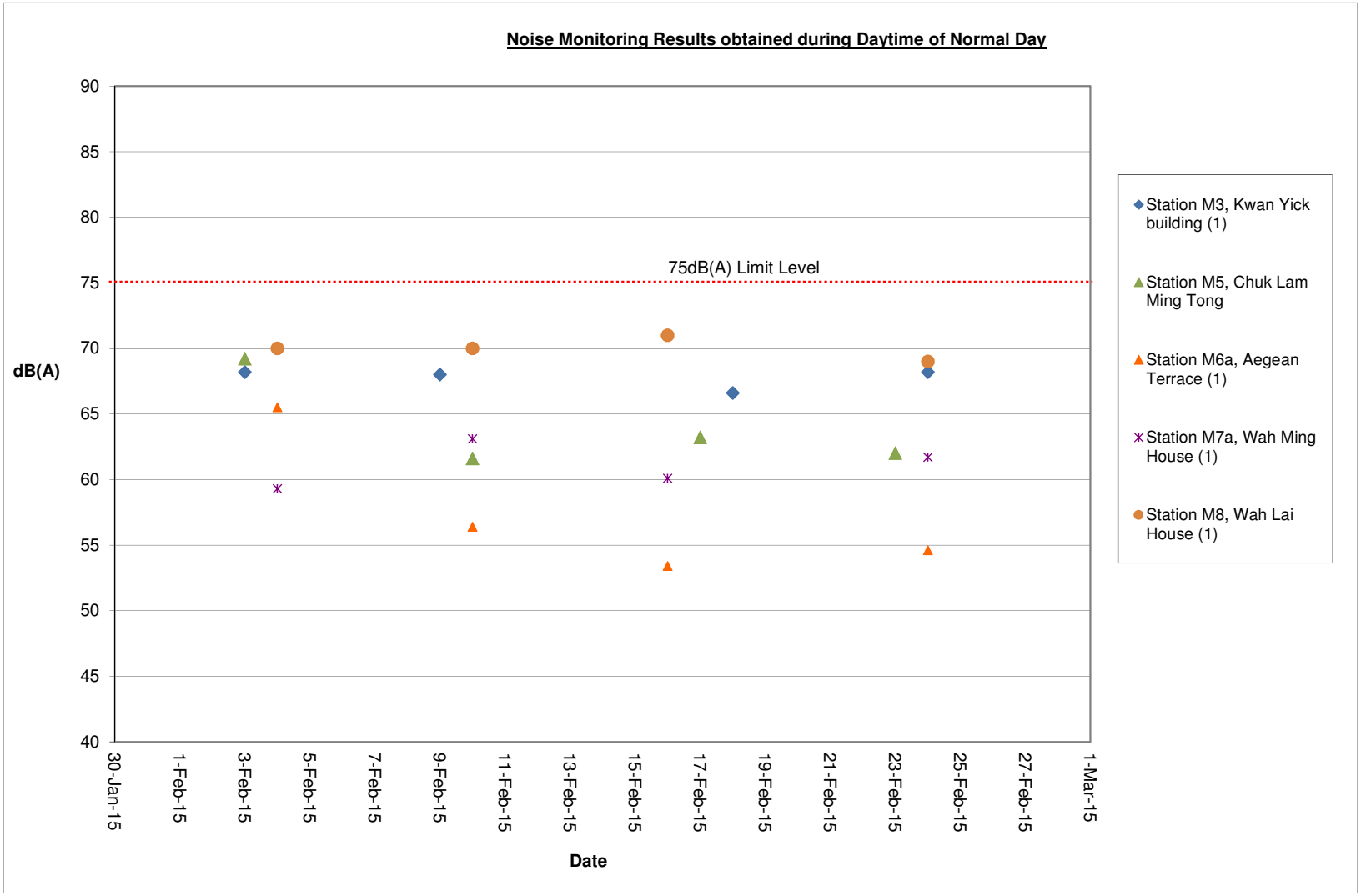
Date	Start Time	End Time	Weather	Noise level (dB(A)), 5 min			Major Construction Noise Source(s) Observed	Other Noise Source(s) Observed	Remarks	Temp. (°C)	Wind Speed (m/s)	Noise Meter Model / ID	Calibrator Model / ID
				Leq	L10	L90							
10-Feb-15	19:46	20:01	Fine	67	68	65	0	Traffic noise	-	14.0	0.3	RION- NL52 (S/N 00131627)	RION - NC73 (S/N 10997142)
24-Feb-15	21:07	21:22	Cloudy	66	67	63	0	Traffic noise	-	19.0	0.3	RION- NL52 (S/N 00131627)	RION - NC73 (S/N 10997142)
			Min.	**66**									
			Max.	**67**									

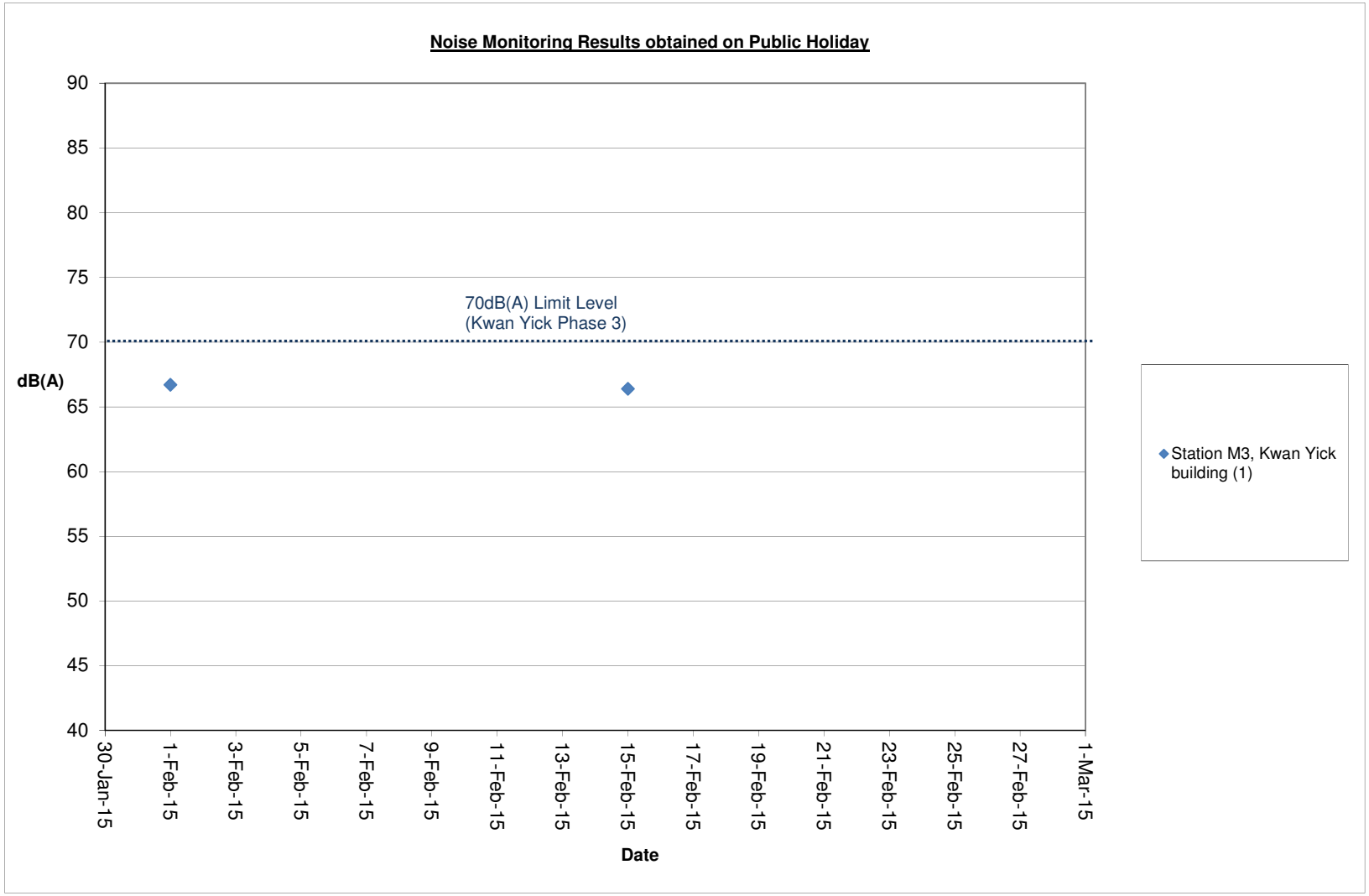
Remark:

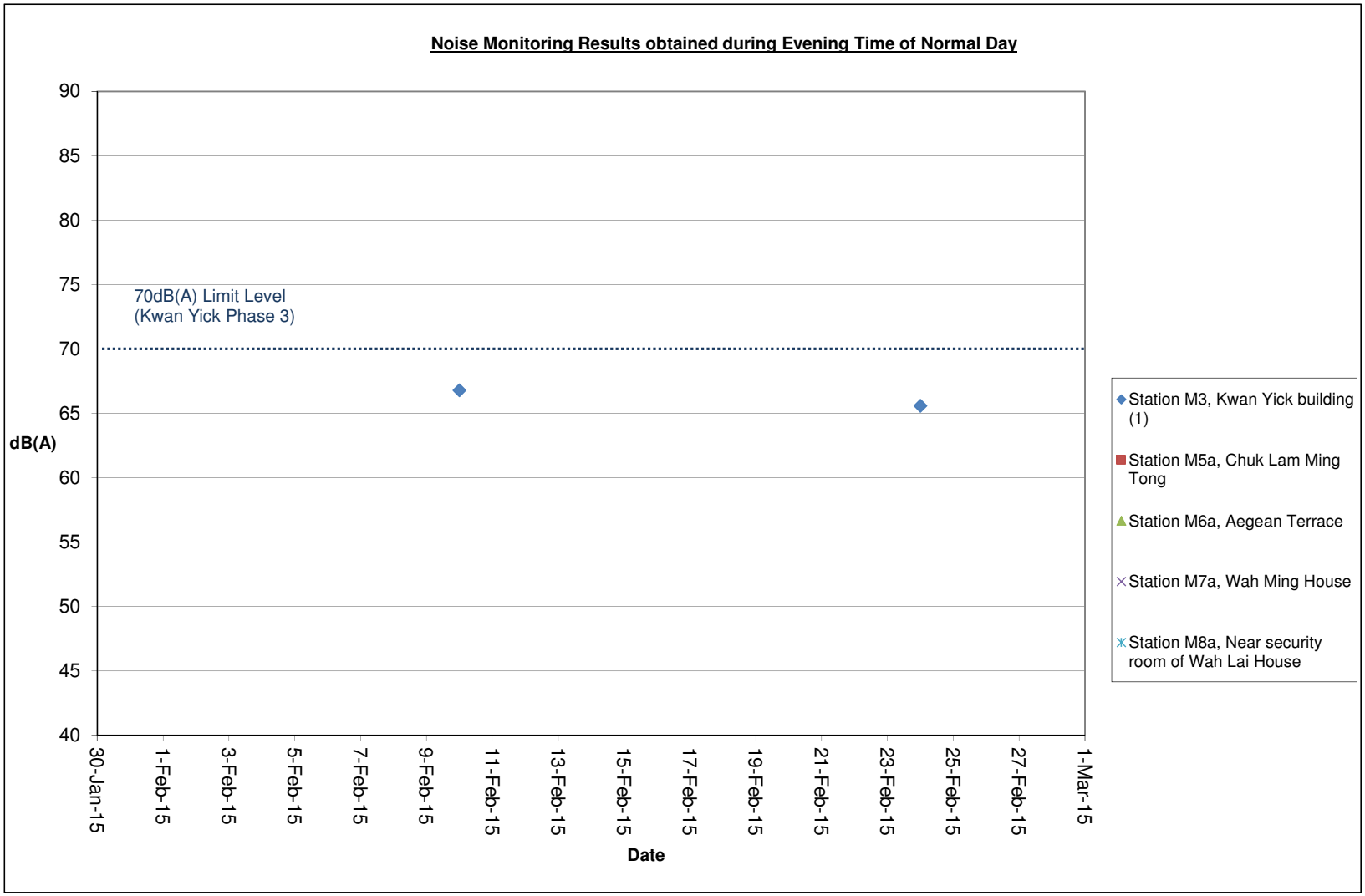
(1)-The results were provided by Contract No. DC/2007/23. For calibration certificates of the sound level meter(s) and calibrator(s) please refer to the Monthly EM&A Report for Contract No. DC/2007/23.

APPENDIX I

GRAPHICAL PRESENTATION OF NOISE MONITORING DATA


Noise Monitoring Results obtained during Daytime of Normal Day
90
85
80
75
70
65
60
55
50
45
40
dB(A)
75dB(A) Limit Level
30-Jan-15
1-Feb-15
3-Feb-15
5-Feb-15
7-Feb-15
9-Feb-15
11-Feb-15
13-Feb-15
15-Feb-15
17-Feb-15
19-Feb-15
21-Feb-15
23-Feb-15
25-Feb-15
27-Feb-15
1-Mar-15
Date
Station M3, Kwan Yick building (1)
Station M5, Chuk Lam Ming Tong
Station M6a, Aegean Terrace (1)
Station M7a, Wah Ming House (1)
Station M8, Wah Lai House (1)


Noise Monitoring Results obtained on Public Holiday
90
85
80
75
70
65
60
55
50
45
40
dB(A)
70dB(A) Limit Level
(Kwan Yick Phase 3)
30-Jan-15
1-Feb-15
3-Feb-15
5-Feb-15
7-Feb-15
9-Feb-15
11-Feb-15
13-Feb-15
15-Feb-15
17-Feb-15
19-Feb-15
21-Feb-15
23-Feb-15
25-Feb-15
27-Feb-15
1-Mar-15
Date
Station M3, Kwan Yick building (1)


Noise Monitoring Results obtained during Evening Time of Normal Day
90
85
80
75
70
65
60
55
50
45
40
dB(A)
70dB(A) Limit Level
(Kwan Yick Phase 3)
30-Jan-15
1-Feb-15
3-Feb-15
5-Feb-15
7-Feb-15
9-Feb-15
11-Feb-15
13-Feb-15
15-Feb-15
17-Feb-15
19-Feb-15
21-Feb-15
23-Feb-15
25-Feb-15
27-Feb-15
1-Mar-15
Date
Station M3, Kwan Yick building (1)
Station M5a, Chuk Lam Ming Tong
Station M6a, Aegean Terrace
Station M7a, Wah Ming House
Station M8a, Near security room of Wah Lai House

APPENDIX J

AIR QUALITY MONITORING RESULTS

1-hour TSP Monitoring Results

Station CM_FM1, Western Wholesale Food Market

Date	Start Time	Finish Time	Weather	TSP Concentration ($\mu g/m^3$)	Action Level ($\mu g/m^3$)	Limit Level ($\mu g/m^3$)	Site Conditions / Observations / Remarks	Temperature (°C)	Wind Speed (m/s)	Sampler ID	Filter ID
06-Feb-15	09:00	10:00	Cloudy	122.0	331.9	500	Construction work in progress	16	<5	GMW GS-2310 (S/N 0143)	5393
06-Feb-15	10:02	11:02	Cloudy	102.0	331.9	500	Construction work in progress	16	<5	GMW GS-2310 (S/N 0143)	5394
06-Feb-15	11:04	12:04	Cloudy	116.0	331.9	500	Construction work in progress	16	<5	GMW GS-2310 (S/N 0143)	5395
12-Feb-15	08:00	09:00	Sunny	107.0	331.9	500	Construction work in progress	19	<5	GMW GS-2310 (S/N 0143)	5485
12-Feb-15	09:02	10:02	Sunny	98.0	331.9	500	Construction work in progress	19	<5	GMW GS-2310 (S/N 0143)	5486
12-Feb-15	10:04	11:04	Sunny	108.0	331.9	500	Construction work in progress	19	<5	GMW GS-2310 (S/N 0143)	5487
18-Feb-15	12:10	13:10	Fine	98.0	331.9	500	Construction work in progress	18	<5	GMW GS-2310 (S/N 0143)	5497
18-Feb-15	13:12	14:12	Fine	104.0	331.9	500	Construction work in progress	18	<5	GMW GS-2310 (S/N 0143)	5498
18-Feb-15	14:14	15:14	Fine	107.0	331.9	500	Construction work in progress	18	<5	GMW GS-2310 (S/N 0143)	5499
24-Feb-15	12:10	13:10	Fine	92.0	331.9	500	Construction work in progress	20	<5	GMW GS-2310 (S/N 0143)	5557
24-Feb-15	13:12	14:12	Fine	92.0	331.9	500	Construction work in progress	20	<5	GMW GS-2310 (S/N 0143)	5558
24-Feb-15	14:14	15:14	Fine	92.0	331.9	500	Construction work in progress	20	<5	GMW GS-2310 (S/N 0143)	5559
			Min.	**92.0**							
			Max.	**122.0**							
			Average	**103**							

Remark:
(1)-The results were provided by Contract No. DC/2007/23. For calibration certificates for monitoring equitments, please refer to the Monthly EM&A Reports for Contract No. DC/2007/23.

Station CM_CB1a, The Arcade, Cyberport[(1)]

Date	Start Time	Finish Time	Weather	TSP Concentration ($\mu g/m^3$)	Action Level ($\mu g/m^3$)	Limit Level ($\mu g/m^3$)	Site Conditions / Observations / Remarks	Temperature (°C)	Wind Speed (m/s)	Sampler ID	Filter ID
04-Feb-15	13:45	14:45	Cloudy	259.7	279.9	500	N/A	16	<5	LD-3B-A.02.09	N/A
04-Feb-15	14:45	15:45	Cloudy	248.2	279.9	500	N/A	16	<5	LD-3B-A.02.09	N/A
04-Feb-15	15:45	16:45	Cloudy	256.5	279.9	500	N/A	16	<5	LD-3B-A.02.09	N/A
10-Feb-15	09:00	10:00	Cloudy	215.3	279.9	500	N/A	15	<5	LD-3B-A.02.08	N/A
10-Feb-15	10:00	11:00	Cloudy	213.4	279.9	500	N/A	15	<5	LD-3B-A.02.08	N/A
10-Feb-15	11:00	12:00	Cloudy	213.1	279.9	500	N/A	15	<5	LD-3B-A.02.08	N/A
16-Feb-15	14:20	15:20	Cloudy	276.3	279.9	500	N/A	20	<5	LD-3B-A.02.09	N/A
16-Feb-15	15:20	16:20	Cloudy	268.0	279.9	500	N/A	20	<5	LD-3B-A.02.09	N/A
16-Feb-15	16:20	17:20	Cloudy	269.1	279.9	500	N/A	20	<5	LD-3B-A.02.09	N/A
18-Feb-15	09:00	10:00	Cloudy and haze	236.2	279.9	500	N/A	18	<5	LD-3B-A.02.05	N/A
18-Feb-15	10:00	11:00	Cloudy and haze	231.6	279.9	500	N/A	18	<5	LD-3B-A.02.05	N/A
18-Feb-15	11:00	12:00	Cloudy and haze	221.6	279.9	500	N/A	18	<5	LD-3B-A.02.05	N/A
24-Feb-15	14:10	15:10	Cloudy	237.1	279.9	500	N/A	19	<5	LD-3B-A.02.08	N/A
24-Feb-15	15:10	16:10	Cloudy	223.5	279.9	500	N/A	19	<5	LD-3B-A.02.08	N/A
24-Feb-15	16:10	17:10	Cloudy	229.0	279.9	500	N/A	19	<5	LD-3B-A.02.08	N/A
			Min.	**213.1**							
			Max.	**276.3**							
			Average	**240**							

Remark:

(1)-The results were provided by Contract No. DC/2009/24. For calibration certificates for monitoring equitments, please refer to the Monthly EM&A Reports for Contract No. DC/2009/24.

Station CM_WF1a, The Wah Ming House(1)

Date	Start Time	Finish Time	Weather	TSP Concentration ($\mu g/m^3$)	Action Level ($\mu g/m^3$)	Limit Level ($\mu g/m^3$)	Site Conditions / Observations / Remarks	Temperature (℃)	Wind Speed (m/s)	Sampler ID	Filter ID
04-Feb-15	13:00	14:00	Cloudy	257.8	284.5	500	N.A	16	<5	LD-3B-A.02.10	N/A
04-Feb-15	14:00	15:00	Cloudy	248.8	284.5	500	N.A	16	<5	LD-3B-A.02.10	N/A
04-Feb-15	15:00	16:00	Cloudy	263.9	284.5	500	N.A	16	<5	LD-3B-A.02.10	N/A
10-Feb-15	09:00	10:00	Sunny	250.8	284.5	500	Road Traffic	15	<5	LD-3B-A.02.01	N/A
10-Feb-15	10:00	11:00	Sunny	251.8	284.5	500	Road Traffic	15	<5	LD-3B-A.02.01	N/A
10-Feb-15	11:00	12:00	Sunny	250.4	284.5	500	Road Traffic	15	<5	LD-3B-A.02.01	N/A
16-Feb-15	13:00	14:00	Cloudy	281.8	284.5	500	Mobile crane	20	<5	LD-3B-A.02.10	N/A
16-Feb-15	14:00	15:00	Cloudy	267.7	284.5	500	Mobile crane	20	<5	LD-3B-A.02.10	N/A
16-Feb-15	15:00	16:00	Cloudy	263.7	284.5	500	Mobile crane	20	<5	LD-3B-A.02.10	N/A
18-Feb-15	13:00	14:00	Cloudy	252.9	284.5	500	Road Traffic	18	<5	LD-3B-A.02.05	N/A
18-Feb-15	14:00	15:00	Cloudy	231.6	284.5	500	Road Traffic	18	<5	LD-3B-A.02.05	N/A
18-Feb-15	15:00	16:00	Cloudy	239.8	284.5	500	Road Traffic	18	<5	LD-3B-A.02.05	N/A
24-Feb-15	14:15	15:15	Cloudy	276.9	284.5	500	N/A	19	<5	LD-3B-A.02.10	N/A
24-Feb-15	15:15	16:15	Cloudy	265.4	284.5	500	N/A	19	<5	LD-3B-A.02.10	N/A
24-Feb-15	16:15	17:15	Cloudy	261.9	284.5	500	N/A	19	<5	LD-3B-A.02.10	N/A
			Min.	**231.6**							
			Max.	**281.8**							
			Average	**258**							

Remark:

(1)-The results were provided by Contract No. DC/2009/24. For calibration certificates for monitoring equitments, please refer to the Monthly EM&A Reports for Contract No. DC/2009/24.

Station CM_AB1b, Work site boundary of Aberdeen PTW(1)

Date	Start Time	Finish Time	Weather	TSP Concentration ($\mu g/m^3$)	Action Level ($\mu g/m^3$)	Limit Level ($\mu g/m^3$)	Site Conditions / Observations / Remarks	Temperature (℃)	Wind Speed (m/s)	Sampler ID	Filter ID
04-Feb-15	09:00	10:00	Cloudy	259.8	282.5	500	N/A	16	<5	LD-3B -A.02.10	N/A
04-Feb-15	10:00	11:00	Cloudy	264.9	282.5	500	N/A	16	<5	LD-3B -A.02.10	N/A
04-Feb-15	11:00	12:00	Cloudy	264.2	282.5	500	N/A	16	<5	LD-3B -A.02.10	N/A
10-Feb-15	13:00	14:00	Sunny	252.7	282.5	500	Excavator, concrete mixer truck	15	<5	LD-3B-A.02.01	N/A
10-Feb-15	14:00	15:00	Sunny	244.3	282.5	500	Excavator, concrete mixer truck	15	<5	LD-3B-A.02.01	N/A
10-Feb-15	15:00	16:00	Sunny	236.5	282.5	500	Excavator, concrete mixer truck	15	<5	LD-3B-A.02.01	N/A
16-Feb-15	09:00	10:00	Cloudy	266.8	282.5	500	Excavator, concrete mixer truck	20	<5	LD-3B-A.02.10	N/A
16-Feb-15	10:00	11:00	Cloudy	269.6	282.5	500	Excavator, concrete mixer truck	20	<5	LD-3B-A.02.10	N/A
16-Feb-15	11:00	12:00	Cloudy	262.0	282.5	500	Excavator, concrete mixer truck	20	<5	LD-3B-A.02.10	N/A
18-Feb-15	09:00	10:00	Cloudy	241.6	282.5	500	Road Ttraffic	18	<5	LD-3B-A.02.06	N/A
18-Feb-15	10:00	11:00	Cloudy	251.2	282.5	500	Road Ttraffic	18	<5	LD-3B-A.02.06	N/A
18-Feb-15	11:00	12:00	Cloudy	255.9	282.5	500	Road Ttraffic	18	<5	LD-3B-A.02.06	N/A
24-Feb-15	09:00	10:00	Cloudy	229.5	282.5	500	Road Ttraffic	19	<5	LD-3B-A.02.08	N/A
24-Feb-15	10:00	11:00	Cloudy	237.8	282.5	500	Road Ttraffic	19	<5	LD-3B-A.02.08	N/A
24-Feb-15	11:00	12:00	Cloudy	236.5	282.5	500	Road Ttraffic	19	<5	LD-3B-A.02.08	N/A
			Min.	**229.5**							
			Max.	**269.6**							
			Average	**252**							

Remark:

(1)-The results were provided by Contract No. DC/2009/24. For calibration certificates for monitoring equitments, please refer to the Monthly EM&A Reports for Contract No. DC/2009/24.

24-hour TSP Monitoring Results

Station CM_FM1, Western Wholesale Food Market

Start		Finish		Weather	Filter Weight (g)		Elapsed Time Reading		Sampling Time	Flow Rate (m^3/min)			TSP Conc.	Action Level	Limit Level	Observations / Remarks	Sampler ID	Filter ID
Date	Time	Date	Time		Initial	Final	Initial	Final	(hrs)	Initial	Final	Average	($\mu g/m^3$)	($\mu g/m^3$)	($\mu g/m^3$)			
06-Feb-15	12:06	07-Feb-15	12:06	Cloudy	2.8853	3.0075	16178.51	16202.51	24.00	1.2200	1.2200	1.2200	70	188.5	260	construction work in progress	GMW GS-2310 (S/N 0143)	5396
12-Feb-15	11:06	13-Feb-15	11:06	Sunny	2.8897	3.0049	16205.51	16229.51	24.00	1.2200	1.2200	1.2200	66	188.5	260	construction work in progress	GMW GS-2310 (S/N 0143)	5488
18-Feb-15	15:16	19-Feb-15	15:16	Fine	2.898	3.0525	16232.51	16256.51	24.00	1.2200	1.2200	1.2200	88	188.5	260	construction work in progress	GMW GS-2310 (S/N 0143)	5500
24-Feb-15	16:10	25-Feb-15	16:10	Fine	2.8039	2.9094	16259.51	16283.51	24.00	1.2200	1.2200	1.2200	60	188.5	260	construction work in progress	GMW GS-2310 (S/N 0143)	5560
												Min.	**60**					
												Max.	**88**					
												Average	**71**					

Remark:
(1)-The results were provided by Contract No. DC/2007/23. For calibration certificates for monitoring equitments, please refer to the Monthly EM&A Reports for Contract No. DC/2007/23.

Station CM_CB1a, The Arcade, Cyberport (1)

Start		Finish		Weather	Filter Weight (g)		Elapsed Time Reading		Sampling Time	Flow Rate (m^3/min)			TSP Conc.	Action Level	Limit Level	Observations / Remarks	Sampler ID	Filter ID
Date	Time	Date	Time		Initial	Final	Initial	Final	(hrs)	Initial	Final	Average	($\mu g/m^3$)	($\mu g/m^3$)	($\mu g/m^3$)			
03-Feb-15	09:00	04-Feb-15	09:00	Cloudy	3.2003	3.3273	1489.91	1513.91	24.00	1.2100	1.2100	1.2100	73	178.1	260	N.A	Arcade	1502021007
09-Feb-15	09:00	10-Feb-15	09:00	Cloudy	3.1852	3.4184	1513.91	1537.91	24.00	1.2100	1.2100	1.2100	133	178.1	260	N.A	Arcade	1502011024
14-Feb-15	09:00	15-Feb-15	09:00	Cloudy	3.2634	3.437	1537.91	1561.91	24.00	1.2000	1.2000	1.2000	100	178.1	260	N.A	Arcade	1502011009
18-Feb-15	09:00	19-Feb-15	09:00	Cloudy	3.2052	3.2749	1561.91	1585.91	24.00	1.2000	1.2000	1.2000	40	178.1	260	N.A	Arcade	1503011046
24-Feb-15	09:00	25-Feb-15	09:00	Sunny	3.2541	3.4153	1585.91	1609.91	24.00	1.2000	1.2000	1.2000	94	178.1	260	N.A	Arcade	1503011056
												Min.	**40**					
												Max.	**133**					
												Average	**88**					

Remark:
(1)-The results were provided by Contract No. DC/2009/24. For calibration certificates for monitoring equitments, please refer to the Monthly EM&A Reports for Contract No. DC/2009/24.

Station CM_WF1a, The Wah Ming House (1)

Start		Finish		Weather	Filter Weight (g)		Elapsed Time Reading		Sampling Time	Flow Rate (m^3/min)			TSP Conc.	Action Level	Limit Level	Observations / Remarks	Sampler ID	Filter ID
Date	Time	Date	Time		Initial	Final	Initial	Final	(hrs)	Initial	Final	Average	($\mu g/m^3$)	($\mu g/m^3$)	($\mu g/m^3$)			
03-Feb-15	09:00	04-Feb-15	09:00	Cloudy	3.1217	3.2583	2088.20	2112.20	24.00	1.2200	1.2200	1.2200	78	185.3	260	Mobile crane	Wah Fu	1501031025
09-Feb-15	09:00	10-Feb-15	09:00	Sunny	3.1842	3.4268	2112.20	2136.20	24.00	1.2200	1.2200	1.2200	138	185.3	260	Mobile crane	Wah Fu	1502011023
14-Feb-15	09:00	15-Feb-15	09:00	Cloudy	3.1907	3.3873	2136.20	2160.20	24.00	1.2100	1.2100	1.2100	113	185.3	260	Mobile crane	Wah Fu	1503011006
18-Feb-15	09:00	19-Feb-15	09:00	Cloudy	3.2226	3.297	2160.20	2184.20	24.00	1.2100	1.2100	1.2100	43	185.3	260	N.A	Wah Fu	1503011045
24-Feb-15	09:00	25-Feb-15	09:00	Sunny	3.234	3.3691	2184.20	2208.20	24.00	1.2200	1.2200	1.2200	77	185.3	260	N.A	Wah Fu	1503011055
												Min.	**43**					
												Max.	**138**					
												Average	**90**					

Remark:

(1)-The results were provided by Contract No. DC/2009/24. For calibration certificates for monitoring equitments, please refer to the Monthly EM&A Reports for Contract No. DC/2009/24.

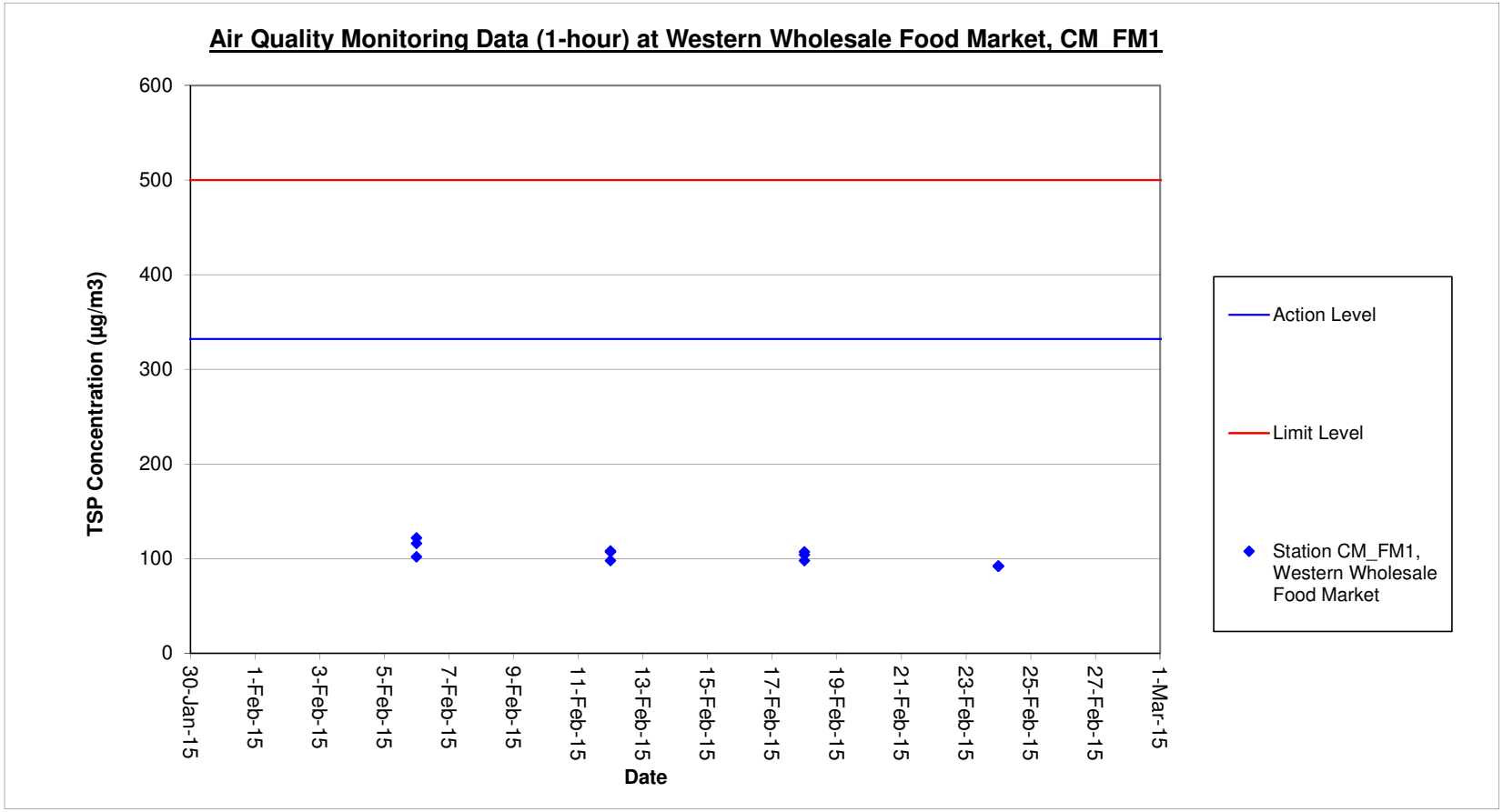
Station CM_AB1b, Work site boundary of Aberdeen PTW (1)

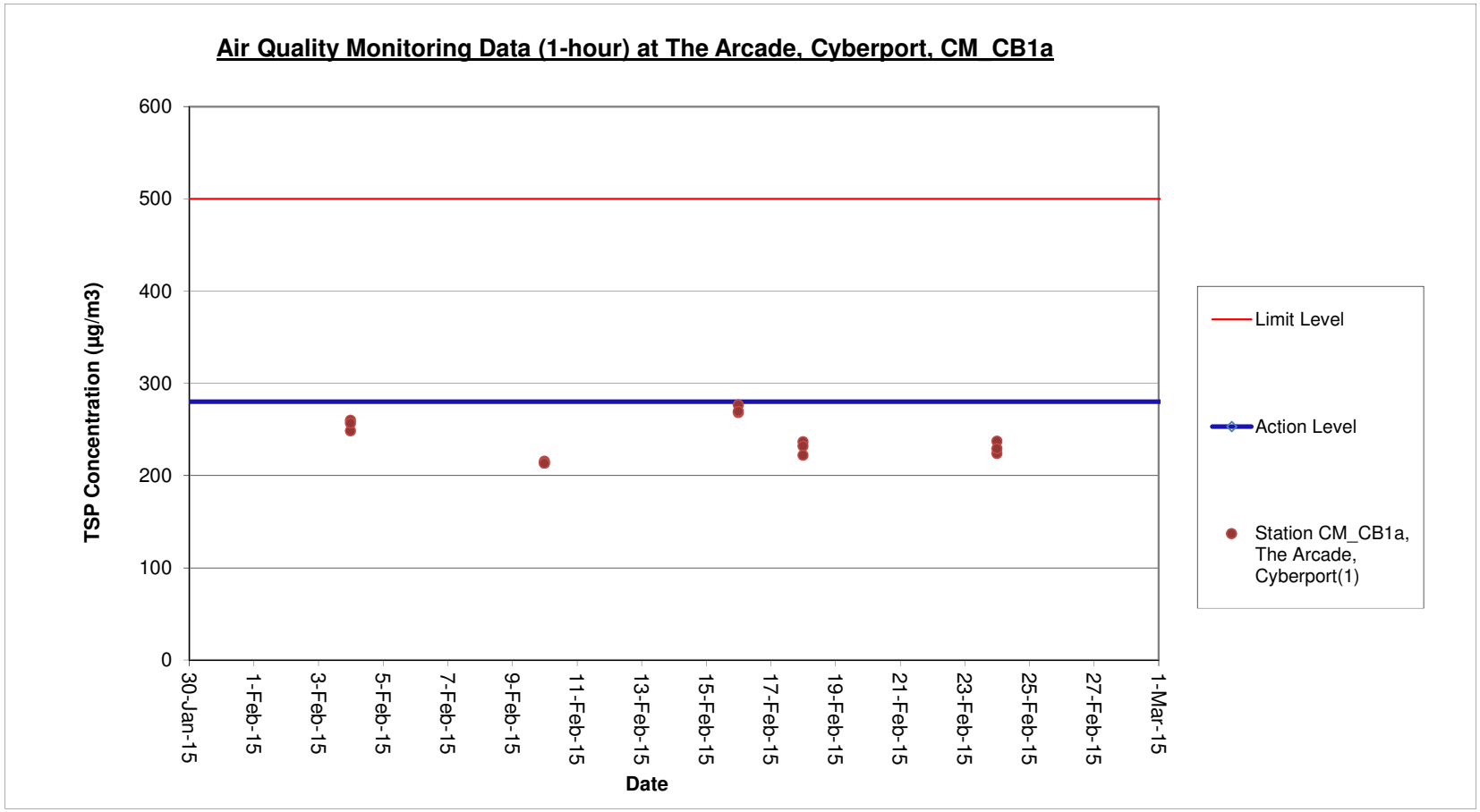
Start		Finish		Weather	Filter Weight (g)		Elapsed Time Reading		Sampling Time	Flow Rate (m^3/min)			TSP Conc.	Action Level	Limit Level	Observations / Remarks	Sampler	Filter
Date	Time	Date	Time		Initial	Final	Initial	Final	(hrs)	Initial	Final	Average	($\mu g/m^3$)	($\mu g/m^3$)	($\mu g/m^3$)		ID	ID
03-Feb-15	09:00	04-Feb-15	09:00	Cloudy	3.1331	3.3577	3323.11	3347.11	24.00	1.2100	1.2100	1.2100	129	174.2	260	N/A	Work site boundary of Aberdeen PTW	1501031024
09-Feb-15	09:00	10-Feb-15	09:00	Sunny	3.1869	3.3911	3347.11	3371.11	24.00	1.2100	1.2100	1.2100	116	174.2	260	Excavator and concrete mixer truck	Work site boundary of Aberdeen PTW	1501031032
14-Feb-15	09:00	15-Feb-15	09:00	Cloudy	3.1649	3.2794	3371.11	3395.11	24.00	1.2100	1.2100	1.2100	66	174.2	260	N.A	Work site boundary of Aberdeen PTW	1503011007
18-Feb-15	09:00	19-Feb-15	09:00	Cloudy	3.234	3.5215	3395.11	3419.11	24.00	1.2100	1.2100	1.2100	165	174.2	260	N.A	Work site boundary of Aberdeen PTW	1503011044
24-Feb-15	09:00	25-Feb-15	09:00	Sunny	3.2183	3.343	3419.11	3443.11	24.00	1.2100	1.2100	1.2100	72	174.2	260	Mobile Crane	Work site boundary of Aberdeen PTW	1503011054
												Min.	**66**					
												Max.	**165**					
												Average	**109**					

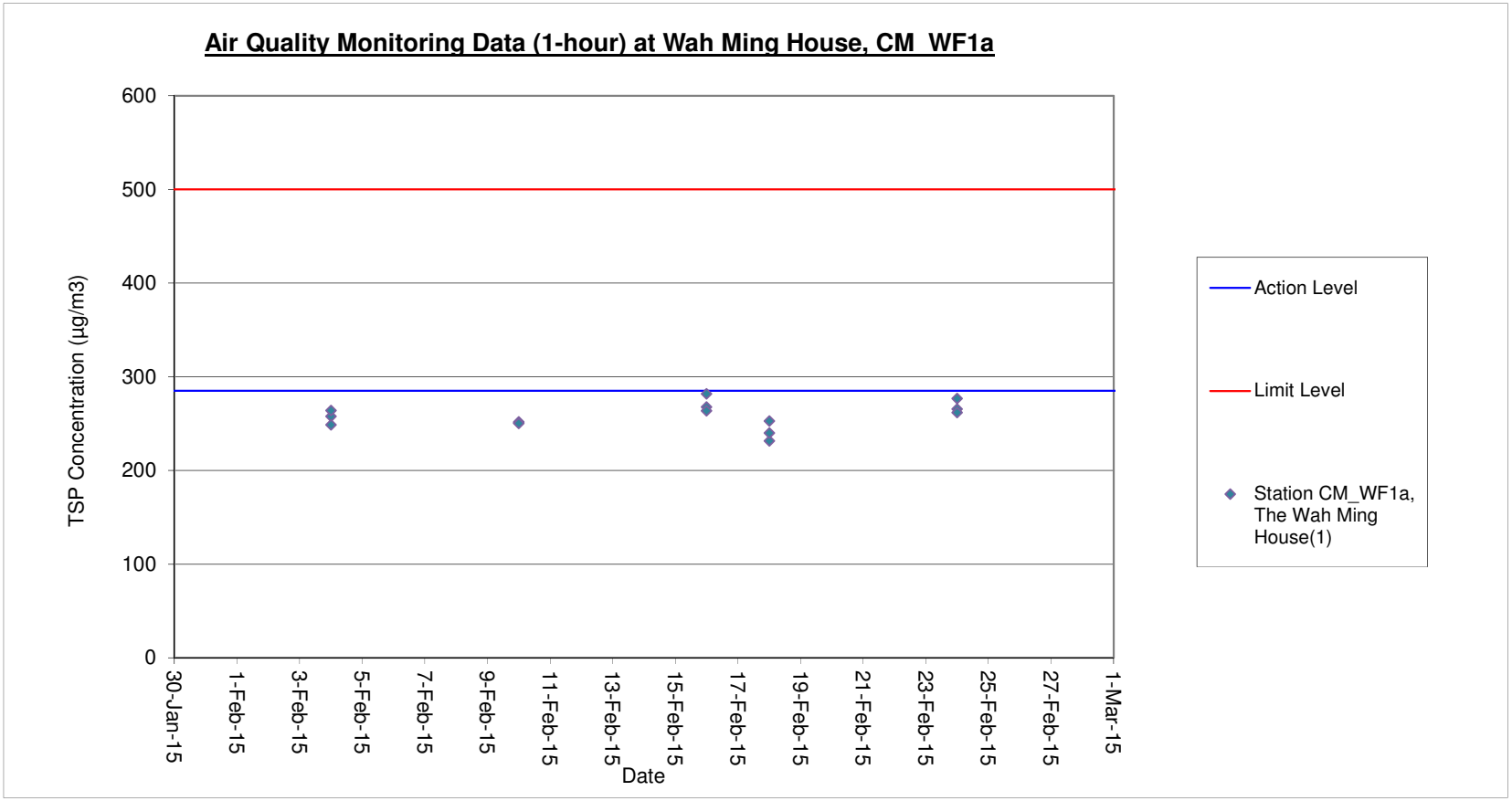
Remark:
(1)-The results were provided by Contract No. DC/2009/24. For calibration certificates for monitoring equitments, please refer to the Monthly EM&A Reports for Contract No. DC/2009/24.

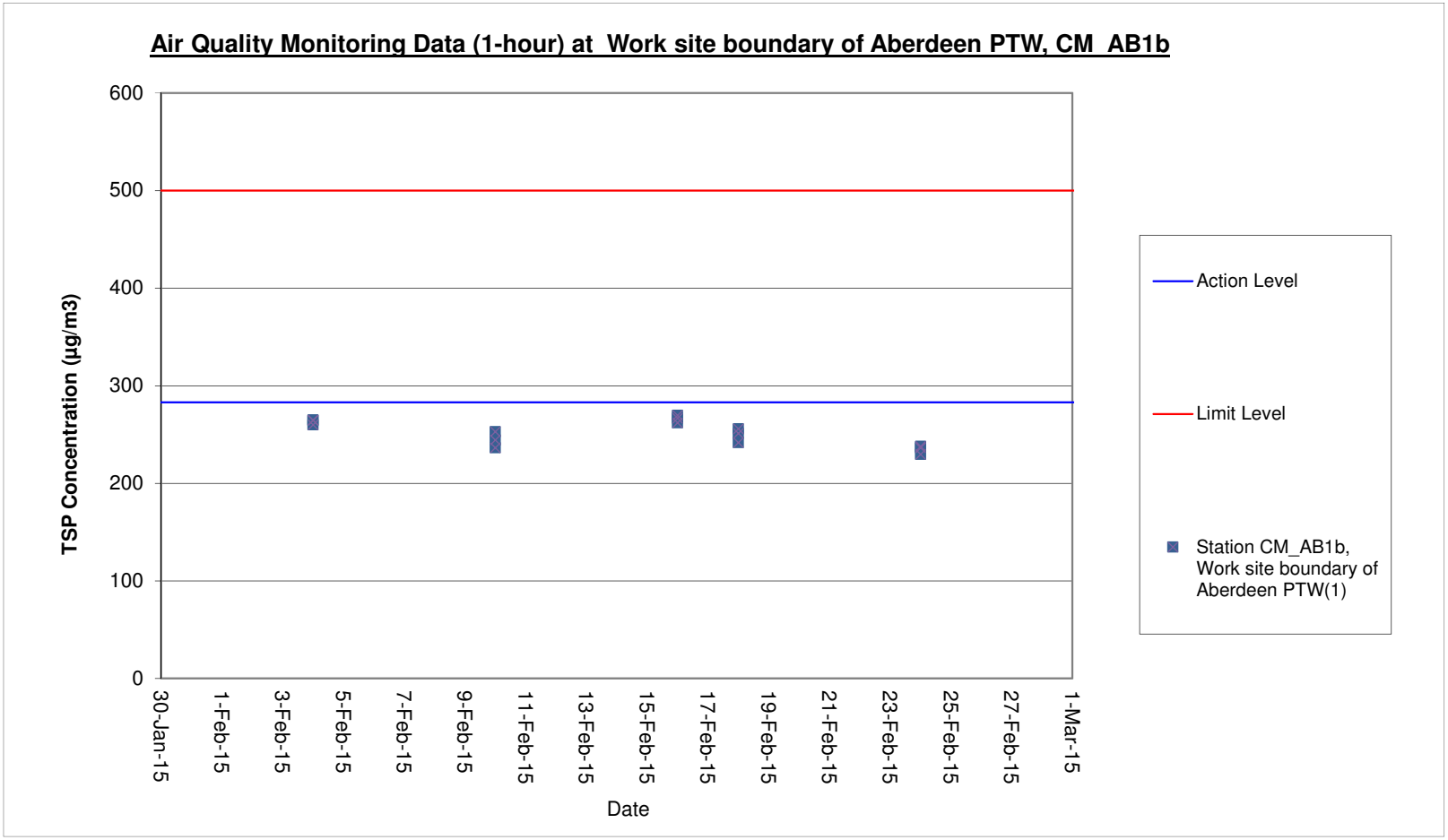
APPENDIX K

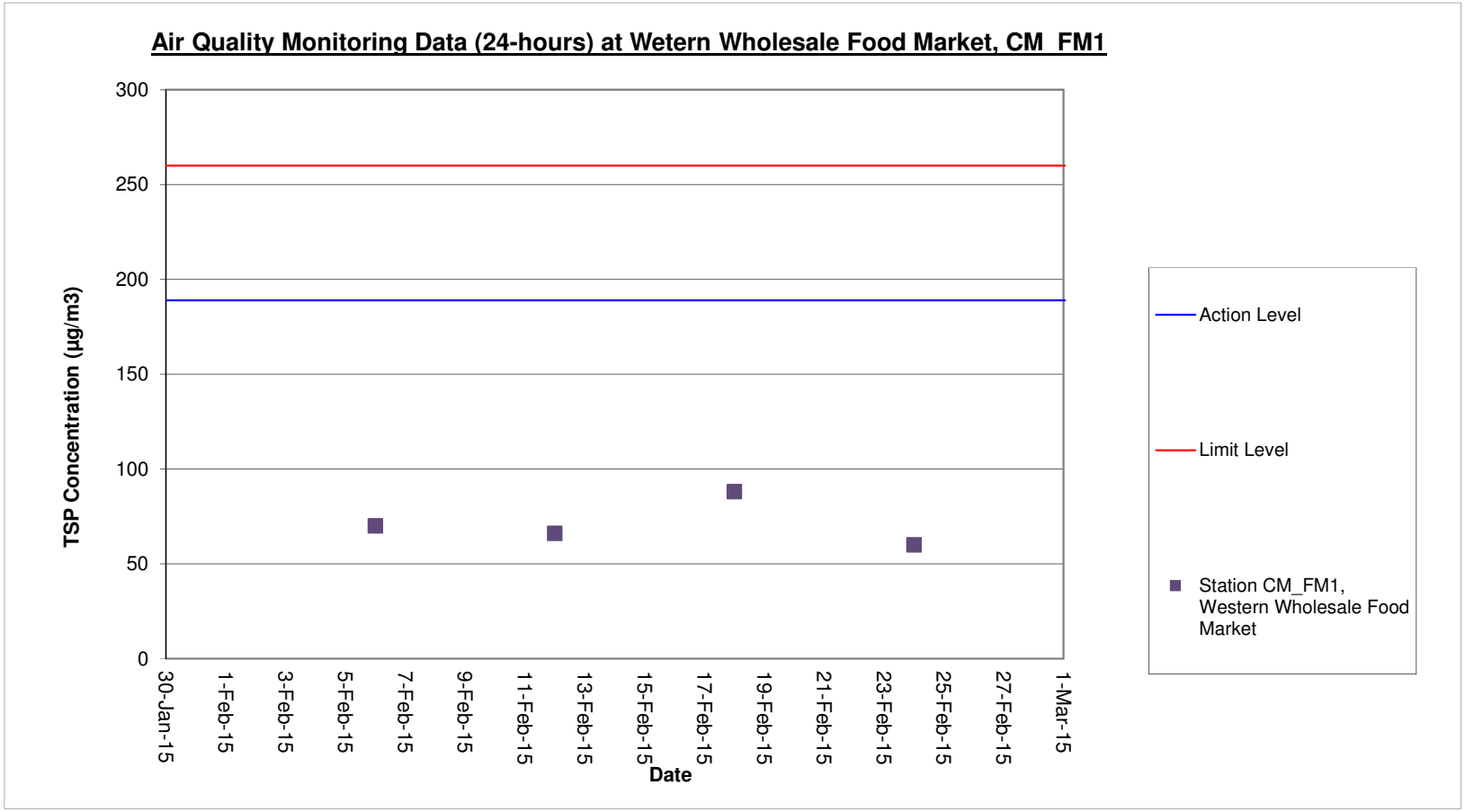
GRAPHICAL PRESENTATION OF AIR QUALITY MONITORING DATA

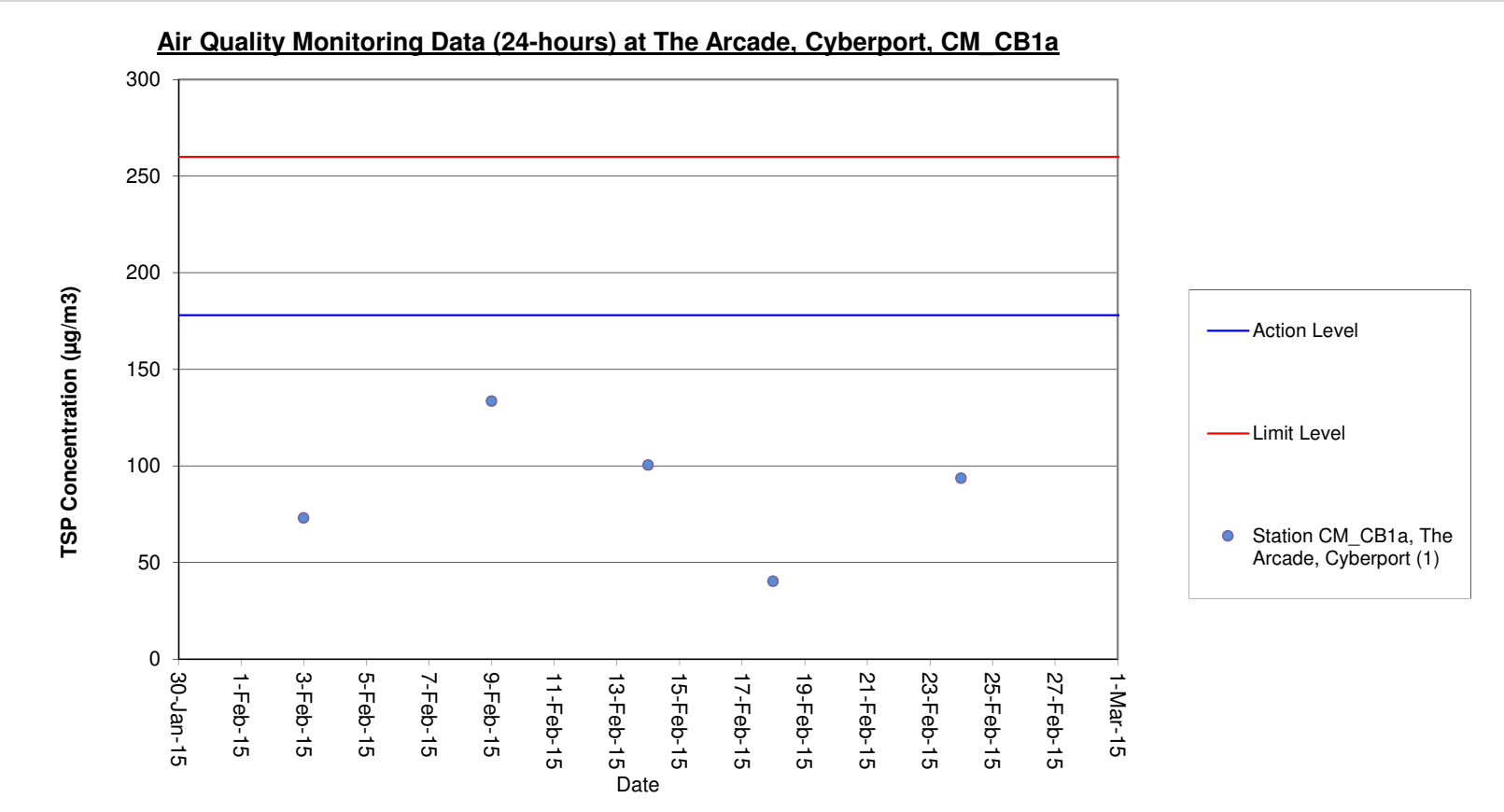

Air Quality Monitoring Data (1-hour) at Western Wholesale Food Market, CM_FM1
TSP Concentration (µg/m3)
600
500
400
300
200
100
0
30-Jan-15
1-Feb-15
3-Feb-15
5-Feb-15
7-Feb-15
9-Feb-15
11-Feb-15
13-Feb-15
15-Feb-15
17-Feb-15
19-Feb-15
21-Feb-15
23-Feb-15
25-Feb-15
27-Feb-15
1-Mar-15
Date
Action Level
Limit Level
Station CM_FM1, Western Wholesale Food Market

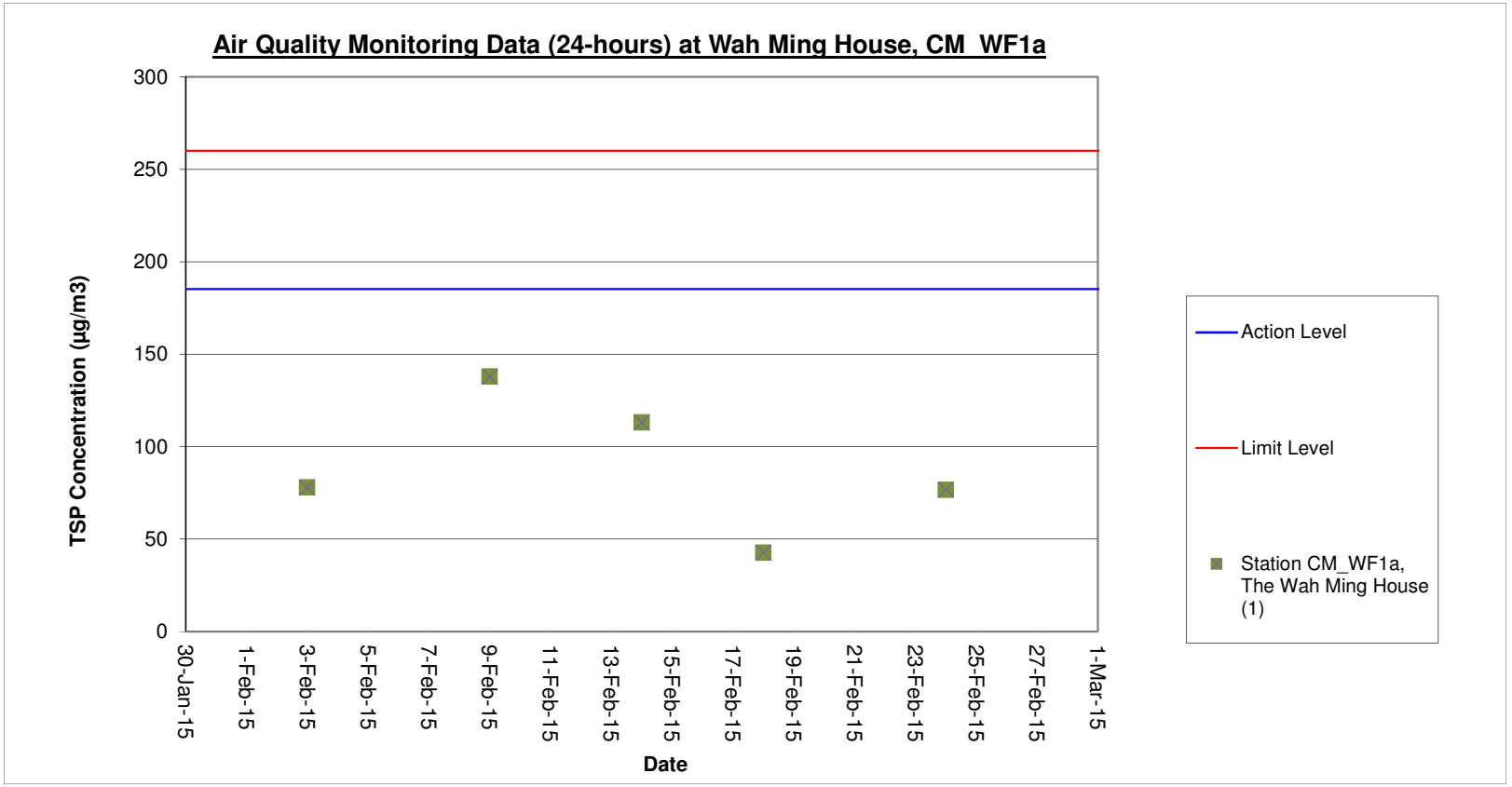

Air Quality Monitoring Data (1-hour) at The Arcade, Cyberport, CM_CB1a
TSP Concentration (µg/m3)
600
500
400
300
200
100
0
30-Jan-15
1-Feb-15
3-Feb-15
5-Feb-15
7-Feb-15
9-Feb-15
11-Feb-15
13-Feb-15
15-Feb-15
17-Feb-15
19-Feb-15
21-Feb-15
23-Feb-15
25-Feb-15
27-Feb-15
1-Mar-15
Date
Limit Level
Action Level
Station CM_CB1a, The Arcade, Cyberport(1)

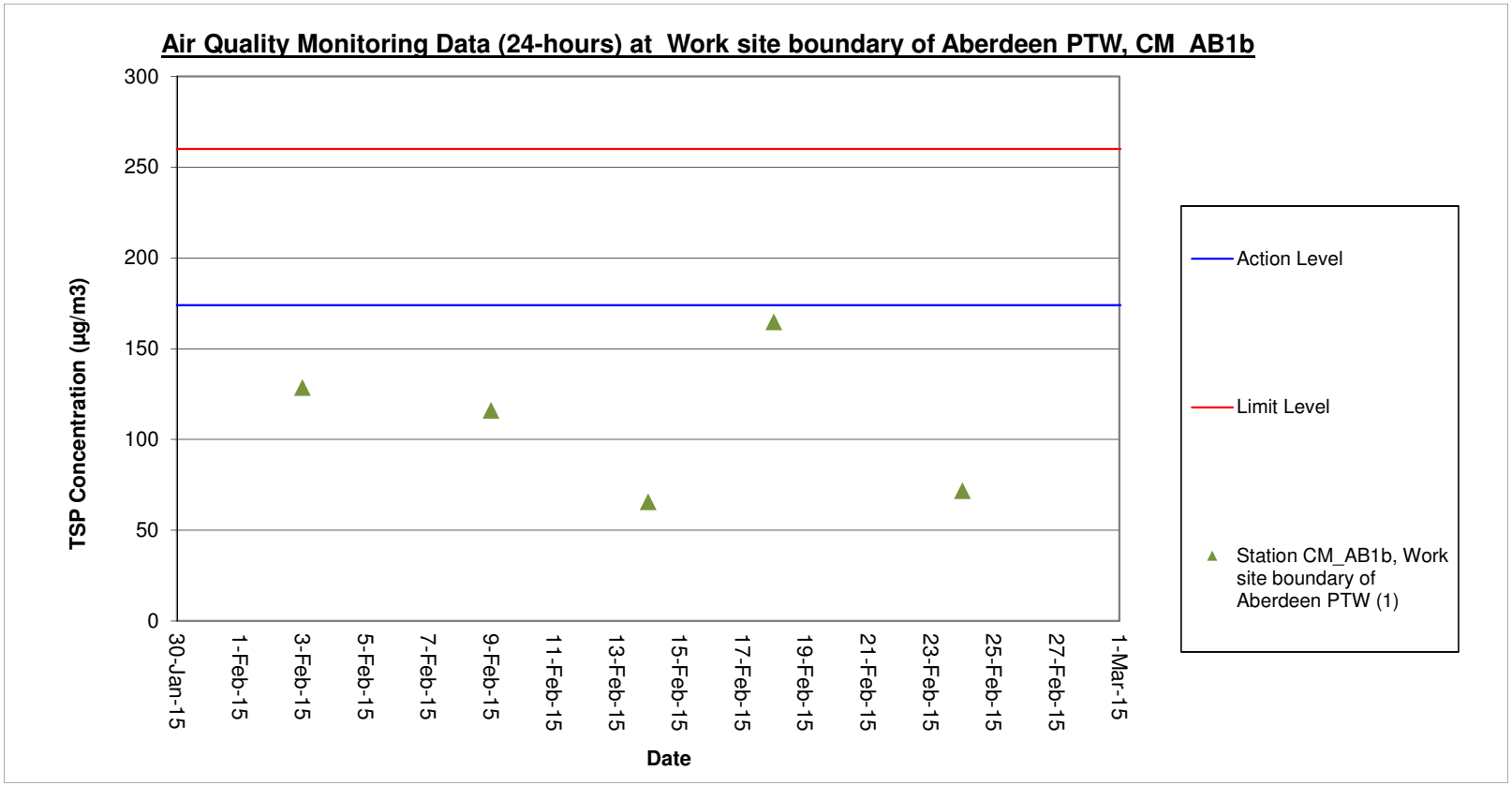

Air Quality Monitoring Data (1-hour) at Wah Ming House, CM_WF1a
TSP Concentration (μg/m3)
600
500
400
300
200
100
0
30-Jan-15
1-Feb-15
3-Feb-15
5-Feb-15
7-Feb-15
9-Feb-15
11-Feb-15
13-Feb-15
15-Feb-15
17-Feb-15
19-Feb-15
21-Feb-15
23-Feb-15
25-Feb-15
27-Feb-15
1-Mar-15
Date
Action Level
Limit Level
Station CM_WF1a, The Wah Ming House(1)


Air Quality Monitoring Data (1-hour) at Work site boundary of Aberdeen PTW, CM_AB1b
TSP Concentration (µg/m3)
600
500
400
300
200
100
0
30-Jan-15
1-Feb-15
3-Feb-15
5-Feb-15
7-Feb-15
9-Feb-15
11-Feb-15
13-Feb-15
15-Feb-15
17-Feb-15
19-Feb-15
21-Feb-15
23-Feb-15
25-Feb-15
27-Feb-15
1-Mar-15
Date
Action Level
Limit Level
Station CM_AB1b, Work site boundary of Aberdeen PTW(1)


Air Quality Monitoring Data (24-hours) at Wetern Wholesale Food Market, CM_FM1
TSP Concentration (µg/m3)
300
250
200
150
100
50
0
30-Jan-15
1-Feb-15
3-Feb-15
5-Feb-15
7-Feb-15
9-Feb-15
11-Feb-15
13-Feb-15
15-Feb-15
17-Feb-15
19-Feb-15
21-Feb-15
23-Feb-15
25-Feb-15
27-Feb-15
1-Mar-15
Date
Action Level
Limit Level
Station CM_FM1, Western Wholesale Food Market


Air Quality Monitoring Data (24-hours) at The Arcade, Cyberport, CM_CB1a
TSP Concentration (µg/m3)
300
250
200
150
100
50
0
30-Jan-15
1-Feb-15
3-Feb-15
5-Feb-15
7-Feb-15
9-Feb-15
11-Feb-15
13-Feb-15
15-Feb-15
17-Feb-15
19-Feb-15
21-Feb-15
23-Feb-15
25-Feb-15
27-Feb-15
1-Mar-15
Date
Action Level
Limit Level
Station CM_CB1a, The Arcade, Cyberport (1)


Air Quality Monitoring Data (24-hours) at Wah Ming House, CM_WF1a
TSP Concentration (µg/m3)
300
250
200
150
100
50
0
30-Jan-15
1-Feb-15
3-Feb-15
5-Feb-15
7-Feb-15
9-Feb-15
11-Feb-15
13-Feb-15
15-Feb-15
17-Feb-15
19-Feb-15
21-Feb-15
23-Feb-15
25-Feb-15
27-Feb-15
1-Mar-15
Date
Action Level
Limit Level
Station CM_WF1a, The Wah Ming House (1)


Air Quality Monitoring Data (24-hours) at Work site boundary of Aberdeen PTW, CM AB1b
TSP Concentration (µg/m3)
300
250
200
150
100
50
0
30-Jan-15
1-Feb-15
3-Feb-15
5-Feb-15
7-Feb-15
9-Feb-15
11-Feb-15
13-Feb-15
15-Feb-15
17-Feb-15
19-Feb-15
21-Feb-15
23-Feb-15
25-Feb-15
27-Feb-15
1-Mar-15
Date
Action Level
Limit Level
Station CM_AB1b, Work site boundary of Aberdeen PTW (1)

APPENDIX L

LANDSCAPE AND VISUAL MONITORING REPORT

REPORT

Leighton – LNS Joint Venture

Contract No. DC/2007/24 Harbour Area Treatment Scheme Stage 2A - Construction of Sewage Conveyance System from Aberdeen to Sai Ying Pun: 62th *Monthly Landscape & Visual Monitoring Report*

March 2015

Environmental Resources Management
16/F Berkshire House
25 Westland Road
Quarry Bay, Hong Kong
Telephone: (852) 2271 3000
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http://www.erm.com

REPORT

Leighton – LNS Joint Venture

Contract No. DC/2007/24 Harbour Area Treatment Scheme Stage 2A - Construction of Sewage Conveyance System from Aberdeen to Sai Ying Pun: 62th *Monthly Landscape & Visual Monitoring Report*

March 2015

Reference 0109356

For and on behalf of ERM-Hong Kong, Limited

Approved by: Frank Wan

Signed:

Position: Partner

Certified by:

Registered Landscape Architect,
Kenneth Ng

Date: 01 March 2015

CONTENTS

1 LANDSCAPE AND VISUAL IMPACT MONITORING

1.1 INTRODUCTION

The construction works of *DC/2007/24 Harbour Area Treatment Scheme Stage 2A (HATS2A) - Construction of Sewage Conveyance System from Aberdeen to Sai Ying Pun* (the Project) commenced on 23 December 2009. This is the sixtieth monthly landscape and visual (L&V) monitoring report presenting the findings of the L&V site audit conducted during the period from 1 to 28 February 2015.

1.2 MONITORING PARAMETERS

According to the EM&A Manual, the L&V monitoring includes auditing the design, implementation and maintenance of L&V mitigation measures to ensure that they are undertaken in accordance with the recommendations of the approved EIA Report (*EIA-148/2008*). The sixty-two monthly site audit was undertaken on 16 February 2015 at work sites in Sai Ying Pun, Sandy Bay, Cyberport, Wah Fu and Aberdeen.

The L&V mitigation measures recommended in the approved EIA Report (*EIA-148/2008*) for the construction phase are listed in *Table 1.1* and the landscape mitigation measure plan are shown in *Annex A*.

The implementation statuses of the proposed landscape mitigation measures for the construction phase are recorded and summarised in *Annex B*.

Table 1.1 Proposed Landscape Mitigation Measures for Construction Phase

ID No.	Landscape and Visual Mitigation Measures	Sites
CM1	Topsoil, where identified, should be stripped and stored for re-use in the construction of the soft landscape works, where practical.	Sai Ying Pun, Sandy Bay, Cyberport, Wah Fu and Aberdeen
CM2	Existing trees to be retained on site should be carefully protected during construction.	Sandy Bay, Cyberport, Wah Fu and Aberdeen,
CM3	Trees unavoidably affected by the works should be transplanted where practical.	Sandy Bay, Cyberport and Aberdeen
CM4	Compensatory tree planting should be provided to compensate for felled trees.	Sandy Bay, Cyberport and Aberdeen
CM5	Control of night-time lighting.	Sai Ying Pun, Sandy Bay, Cyberport, Wah Fu and Aberdeen
CM6	Erection of decorative screen hoarding compatible with the surrounding setting.	Sai Ying Pun, Sandy Bay, Cyberport, Wah Fu and Aberdeen

2 SITE AUDIT FINDINGS AND OBSERVATIONS

The L&V site audit was conducted on 16 February 2015 and the findings and observations are presented as below.

2.1 FOLLOW-UP ACTIONS AFTER THE PREVIOUS SITE AUDIT

Follow-up actions addressing general tree issues identified in the previous site audits (i.e. poor health of transplanted and retained trees) remain outstanding at the Sandy Bay, Cyberport and Aberdeen sites.

All L&V mitigation measures presented in *Table 1.1* have been implemented in full except for CM2 at the sites at Sandy Bay, Cyberport and Aberdeen site.

Sandy Bay Site

(1) The T017(T) were still in very poor health. The Contractor was recommended to provide sufficient watering and carry out necessary maintenance works for the trees and consult their landscape contractor to check the health condition of the tree / or replace the tree immediately.

(2) Tree tag for retained tree T039(R) was still missing. The Contractor was reminded to provide proper tree tags for all of retained trees.

(3) The condition of the retained tree T053(R) was still deteriorating with damages to its stems and foliage since the audit of September 2011. The Contractor was reminded to consult their landscape contractor immediately to maintain the tree.

(4) Tree identification tag was still observed missing for retained tree T049(R). The Contractor was reminded again to provide proper tree identification tags for the retaining trees; and

(5) The tree without label at the entrance of Sandy Bay site was still observed with decay fungi. The Contractor was strongly reminded to apply fungicide, remove the decayed part and provide tree identification tag for the tree.

(6) The retain tree T058(R) was observed poor health. The Contractor was recommended to provide sufficient watering and carry out necessary maintenance works for the trees and consult their landscape contractor to check the health condition of the tree / or replace the tree immediately.

(7) The retain tree no. T052(R) and T006(R) were observed fungal infection in broken branches. The Contractor was recommended to remove fungi and provide sufficient watering and carry out necessary maintenance works for the trees and consult their landscape contractor to check the health condition of the tree.

The Contractor was asked to inspect the conditions of the trees at Sandy Bay Site and take the necessary mitigation measures immediately to improve the overall health condition of all the retained and transplanted trees at the site.

Cyberport Site

(1) The condition of the retained tree T068(R) was still deteriorating with shrunken leaves. The Contractor was recommended to provide sufficient watering and carry out necessary maintenance works for the trees and consult their landscape contractor to check the health condition of the tree / or replace the tree immediately.

(2) Tree tag for retained trees T065(R), T067(R), T072(R) & T074(R) were observed damaged / missing. The Contractor was strongly reminded to provide proper tree identification tags for the retaining trees.

Aberdeen Site

(1) The conditions of the retained trees T078(R), T079(R) and T080(R) were still deteriorating with some of their stems and leaves dying off since the audit of November 2011. The Contractor was recommended to provide sufficient watering and carry out necessary maintenance works for the trees and consult their landscape contractor to check the health condition of the tree / or replace the tree immediately.

(2) The tree protection zone for retained tree T078(R), T079(R) and T080(R) was still observed damaged. The Contractor was reminded to repair the tree protection zone as soon as possible.

(3) The tree protection zone for retained tree T106 was still observed damaged. The Contractor was reminded to repair the tree protection zone as soon as possible; and

(4) The tree without label at the backyard of Aberdeen storage site was still observed with decay fungi. The Contractor was reminded to apply fungicide, remove the decayed part and provide tree identification tag for the tree.

The Contractor was asked to inspect the condition of the trees at Aberdeen works site and take the necessary mitigation measures immediately to improve the overall health condition of the retained trees.

2.2 *OBSERVATIONS AND RECOMMENDATIONS*

Apart from those outstanding observations mentioned in *Section 2.1*, the new observations recorded in this reporting month are as follows:

Sites at Sai Ying Pun, Wah Fu and Aberdeen Site

Nil

Sandy Bay Site

Nil

Cyberport Site

The key new observation during the site inspections at Cyberport site was as follows:

Photo 1 (Tree no. T065(R)):

- General refuse was found inside the tree protection zones of retained trees T065(R). The Contractor was reminded to remove refuse from the tree protection zone.

Photo 2 (Tree no. T066(R)):

- General refuse was found inside the tree protection zones of retained trees T066(R). The Contractor was reminded to remove refuse from the tree protection zone.

Photo 3 (Tree no. T068(R)):

- General refuse was removed and lower portion of tree trunk was wrapped by orange net. Tree protection zone of the retained trees T068(R) was established.

Photo 4 (Tree no. T074(R)):

- The tree protection fence for retained tree T074(R) still was observed damaged (same as last month).

The Contractor was repeatedly asked to follow-up the outstanding actions for this site.

This report observed some defects was same as last report in January with all defects and recommendation to urge contractor to rectify, yet for 2 months there seems to be no response from contractor in rectify the defective works or even remedial works on tree, we strong required contractor to provide a realist programme for this rectification or protection works to the trees.

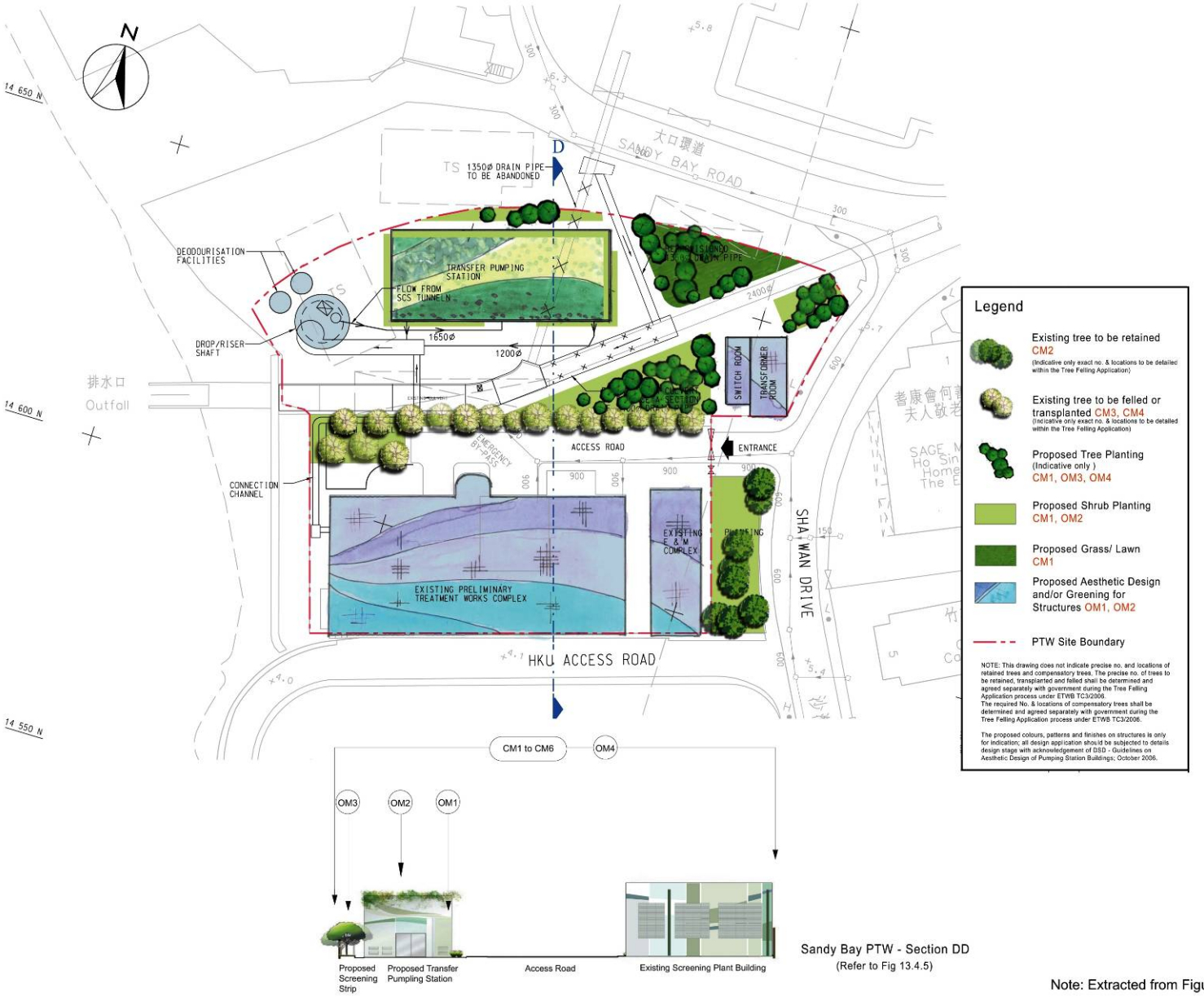
3 CONCLUSIONS

The sixtieth monthly landscape and visual site audit was undertaken on 16 February 2015 to check the design, implementation and maintenance of L&V mitigation measures at work sites in Sai Ying Pun, Sandy Bay, Cyber Port, Wah Fu and Aberdeen under the Contract *DC/2007/24 of Harbour Area Treatment Scheme Stage 2A (HATS2A) - Construction of Sewage Conveyance System from Aberdeen to Sai Ying Pun*.

All L&V mitigation measures have been implemented in full except for several areas as described in *Sections 2.1* and *2.2*. After discussion with the Contractor about the issues, feasible and effective remedial measures have been agreed. The Contractor was asked to ensure that proper mitigation measures are implemented.

Annex A

Landscape Mitigation Measures (Reference to Approved EIA Report EIA-148/2008)



Note: Extracted from Figures 13.4.5 & 13.4.12 of EIA-148/2008.

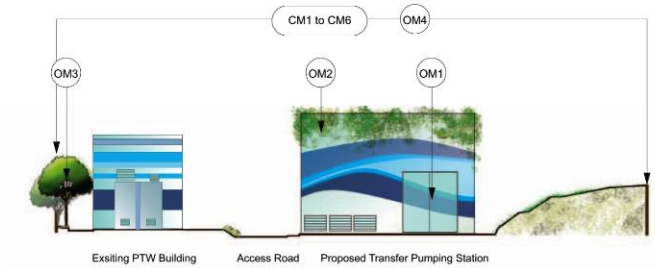
Figure 1.1

Landscape Mitigation Measure in Sandy Bay

FILE: 0109356-ILV-SB-Fig1.1
DATE: 30 March 2010

Environmental Resources Management

ERM



Cyberport PTW - Section EE
(Refer to Fig 13.4.6)

Note: Extracted from Figures 13.4.6 & 13.4.13 of EIA-148/2008.

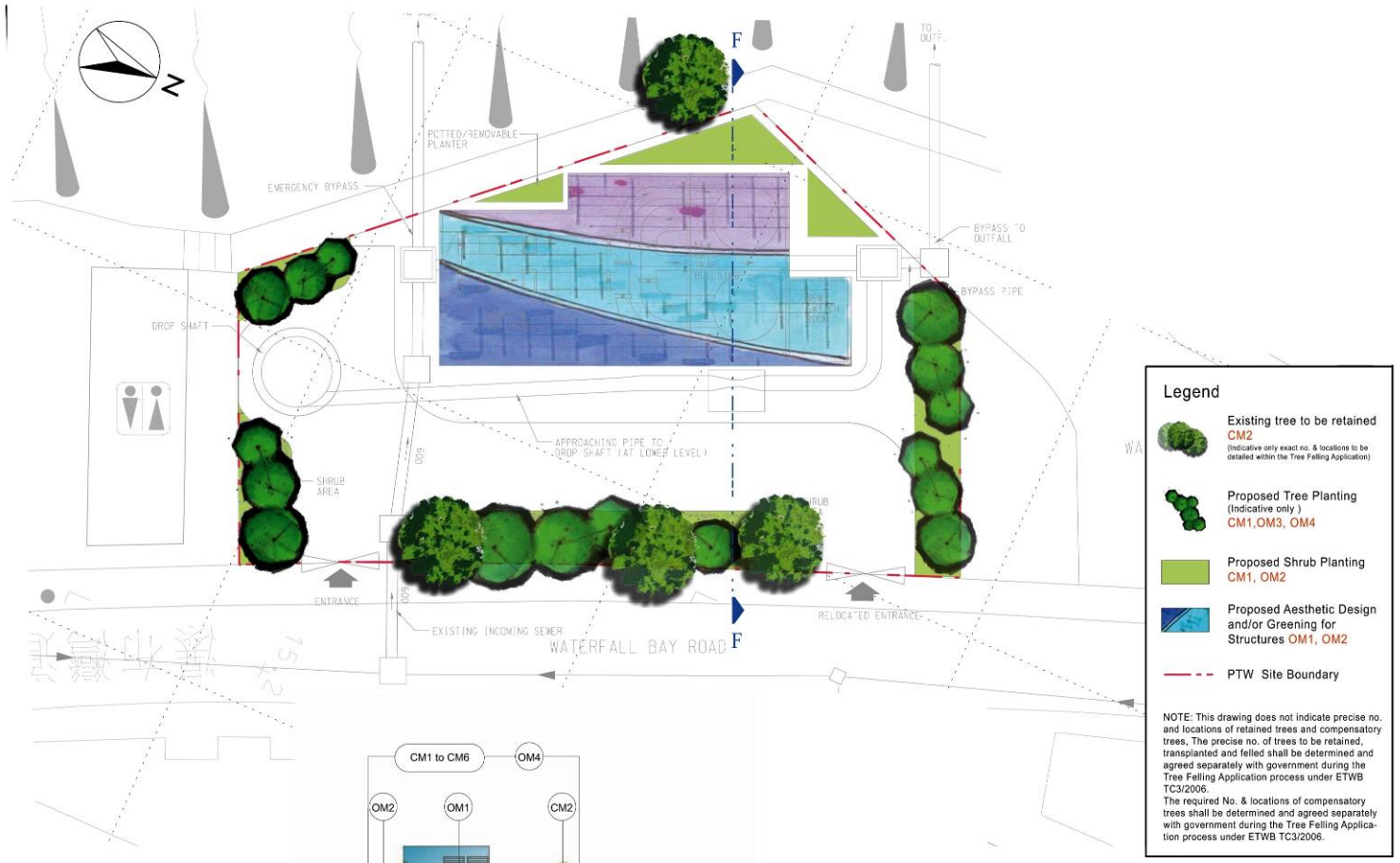
Figure 1.2

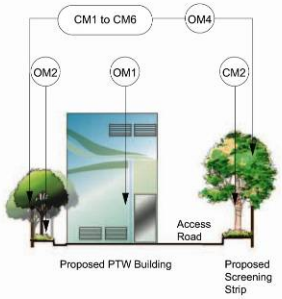
Landscape Mitigation Measure in Cyberport

FILE: 0109356-ILV-CP-Fig1.2.cdr
DATE: 30 March 2010

Environmental Resources Management

ERM





Wah Fu PTW - Section FF
(Refer to Fig 13.4.7)

Note: Extracted from Figures 13.4.7 & 13.4.13 of EIA-148/2008.

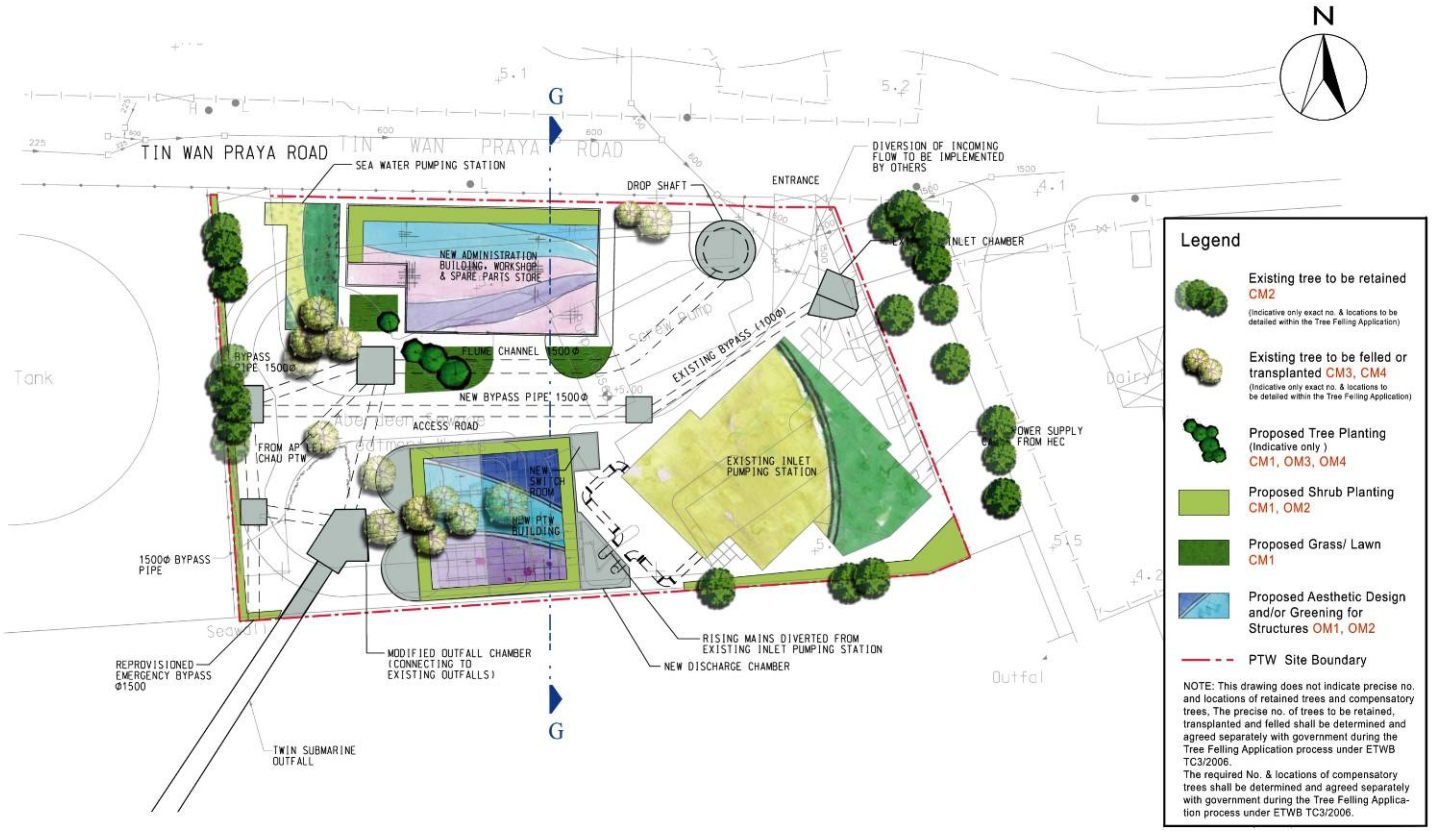
Figure 1.3

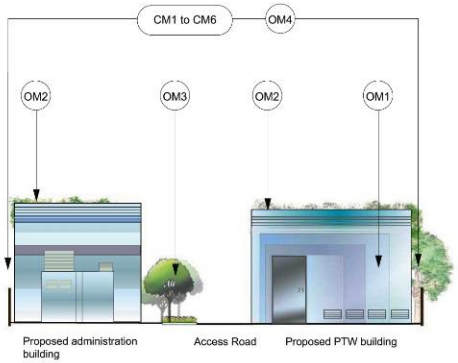
Landscape Mitigation Measure in Wah Fu

FILE: 0109356-ILV-WF-Fig1.3.cdr
DATE: 30 March 2010

Environmental Resources Management

ERM





Aberdeen PTW - Section GG
(Refer to Fig 13.4.8)

Note: Extracted from Figures 13.4.8 & 13.4.14 of EIA-148/2008.

Figure 1.4

Landscape Mitigation Measure in Aberdeen

FILE: 0109356-ILV-A-Fig1.4.cdr
DATE: 30 March 2010

Environmental Resources Management

ERM

Annex B

Site Inspection Checklist

Harbour Area Treatment Scheme (HATS) Stage 2A
Contract No. DC/2007/24
Construction of Sewage Conveyance from Aberdeen to Sai Ying Pun
Landscape & Visual Monitoring Report

Reporting Period : 1 February to 28 February 2015

Site Inspection Date : 16 February 2015

Inspected By : Jacob Ma

Site	CM1	CM2	CM3	CM4	CM5	CM6	Recommendations
	Topsoil identified stripped and stored for re-use in the construction of soft landscape works, where practical	**Existing trees to be retained on site should be carefully protected during construction**	**Trees unavoidably affected by the works should be transplanted where practical.**	**Compensatory tree planting should be provided to compensate for felled trees.**	**Control of night-time lighting.**	**Erection of decorative screen hoarding compatible with the surrounding setting.**	
Sai Ying Pun	No major excavation works had been conducted since the last audit. No stockpile of excavated soil was observed.	Not Applicable - No tree was identified at the Sai Ying Pun Area	Not Applicable - No tree was identified at the Sai Ying Pun Area	Not applicable - No tree was identified at the Sai Ying Pun Area	Night-time lighting with appropriate controls was used for 24 hours a day from 1 to 28 February 2015 except on Sunday	Decorative screen hoarding were erected and is compatible to the surrounding setting.	Not required
Sandy Bay	No major excavation works had been conducted since the last audit. No stockpile of excavated soil was observed.	Not Applicable - No tree was identified at the Sandy Bay Area	No tree was transplanted during this reporting month.	Not applicable - Compensatory tree planting has not been started yet.	Night-time lighting with appropriate controls was used for 24 hours a day from 1 to 28 February 2015 except on Sunday	Decorative screen hoarding were erected and is compatible to the surrounding setting.	The Contractor has been asked to implement all necessary measures to protect the trees.

Site	CM1 **Topsoil identified stripped and stored for re-use in the construction of soft landscape works, where practical**	CM2 **Existing trees to be retained on site should be carefully protected during construction**	CM3 **Trees unavoidably affected by the works should be transplanted where practical.**	CM4 **Compensatory tree planting should be provided to compensate for felled trees.**	CM5 **Control of night-time lighting.**	CM6 **Erection of decorative screen hoarding compatible with the surrounding setting.**	**Recommendations**
Cyberport	No major excavation works had been conducted since the last audit. No stockpile of excavated soil was observed.	General refuse were found inside the tree protection zones of retained trees T065(R) and T066(R). General refuse was removed and lower portion of tree trunk was wrapped by orange net. Tree protection zone of the retained trees T068(R) was established The tree protection fence for retained tree T074(R) still was observed damaged. (same as last month) (Please see following attached Photos)	No tree was transplanted during this reporting month.	Not applicable - Compensatory tree planting has not been started yet.	Night-time lighting with appropriate controls was used for 24 hours a day from 1 to 28 February 2015	Noise enclosure was erected over the shaft. A yellow tone was used for the materials of the noise enclosure, similar to the colour of the existing STW façade.	The Contractor has been asked to implement all necessary measures to protect the trees.
Wah Fu	No major excavation works had been conducted since the last audit. No stockpile of excavated soil was observed.	Existing trees have been retained on site, fenced off and protected properly.	Not Applicable - No existing tree was identified to be within the works area.	Not applicable - No existing tree was identified to be within the works area.	Not applicable - No night-time lighting was used.	Screening was erected and was compatible to the surrounding setting.	Not required
Aberdeen	No major excavation works had been conducted since the last audit. No stockpile of excavated soil was observed.	Existing trees have been retained on site, fenced off and protected properly	All the tree transplantation works have been completed and all transplanted trees were properly supported by tripods.	Not applicable - Compensatory tree planting has not been started yet.	Night-time lighting with appropriate controls was used for 24 hours a day from 1 to 28 February 2015	Screen hoarding was erected and the grey colour is compatible to the surrounding setting.	The Contractor has been asked to implement all necessary measures to protect the trees.

Cyberport Site

Photo 1 (Tree no. T065(R)):

- General refuse was found inside the tree protection zones of retained trees T065(R). The Contractor was reminded to remove refuse from the tree protection zone.

Cyberport Site

<u>Photo 2 (Tree no. T066(R)):</u>

General refuse was found inside the tree protection zones of retained trees T066(R). The Contractor was reminded to remove refuse from the tree protection zone.

Cyberport Site

<u>Photo 3 (Tree no. T068(R)):</u>

General refuse was removed and lower portion of tree trunk was wrapped by orange net. Tree protection zone of the retained trees T068(R) was established.

Cyberport Site

<u>Photo 4 (Tree no. T074(R)):</u>

The tree protection fence for retained tree T074(R) still was observed damaged (same as last month).

APPENDIX M

COMPLAINT ENQUIRY FORM

Contract No. DC/2007/24
Harbour Area Treatment Scheme Stage 2A
Construction of Sewage Conveyance System from Aberdeen to Sai Ying Pun

Environmental Complaint/ Enquiry Form

Ref No.: 016

Complaint/ ~~Enquiry~~ Received

Date: 17 February 2015
Time: 15:30 pm
By: Mr. Louis Chan (EPD)
Via: E-mail : louischan@epd.gov.hk
Tel: N/A

Complainant/ ~~Enquirer~~*:

Name: Undisclosed
Tel: Undisclosed
Address: Undisclosed

Complaint/ Enquiry*:

Date of complaint/ enquiry: 17 February 2015
Time of complaint/ enquiry: 12:00 p.m
Media: ~~Dust~~ ~~Noise~~ Water ~~Other~~
Description: A public complaint was received by EPD regarding dark water flowing into the sea from the construction site near Le Meridien Cyberport at INFORMATION CRESCENT.

Investigation Result & Response:

IEC and ER notified on: 17 February 2015
Investigation conducted on: 18 February 2015

Result of investigation:

The ET carried out a site visit on 18 February 2015 to check whether the dark water flowing into sea from construction site was generated from Contract No.DC/2007/24.

During the site visit, the ET observed that no wastewater was being discharged into the drainage system and the Contractor did not carry out any construction works near the sea. According to the Contractor, no construction activities were undertaken near the sea on 17 February 2015 and there was no wastewater discharge. Therefore, it is considered that the complaint was not contract related.

Recommendations/ mitigation measures/ actions if necessary:

The complaint investigation found that no wastewater was discharged from the work site of Contract No. DC/2007/24. No mitigation measures/ actions are considered necessary.

Reviewed by : Sharifah Or Title : ET Leader

Date : 23 February 2015

Copied to : Engineer's Representative, IEC, EPD, Contractor

APPENDIX N

SUMMARY RECORDS OF SITE INSPECTIONS

3 February 2015

Aberdeen PTW

No inspection was undertaken for this week due to the Contractor's arrangement

Cyberport PTW

Follow up actions for previous site audit: **Previous Environmental Site Inspection Checklist – Report No. 150127:** N/A
Notes / Issues Recorded On Site: **Chemical Storage:** 1. Unknown chemical was found in an inappropriate container in storage area. (Photo 1)
Corrective Actions – Mitigation Measures Implemented or Proposed (if any): **Current Environmental Site Inspection Checklist – Report No. 150203:** 1. The Contractor was reminded to provide a suitable container and labels for the chemicals in work areas.

Photo 1 Unknown chemical was found in an inappropriate container in storage area.

Fung Mat Road Site

Follow up actions for previous site audit: **Previous Environmental Site Inspection Checklist – Report No. 150127:** N/A
Notes / Issues Recorded On Site: N/A
Corrective Actions – Mitigation Measures Implemented or Proposed (if any): **Current Environmental Site Inspection Checklist – Report No. 150203:** N/A

Sandy Bay PTW

Follow up actions for previous site audit:

Previous Environmental Site Inspection Checklist – Report No. 150127:

1. Construction materials were placed to a tree since the site inspection undertaken on 18 November 2014.(Photos 1a and 1b)

Notes / Issues Recorded On Site:
Landscape and Visual Impacts:

1. Construction materials were placed next to a tree which is located next to a red container. (Photos 1a and 1b)

Remark:
Waste Storage:

i. It is noted that the original chemical waste storage container was removed from the site. According to the Contractor, a temporary barrel/container will be provided if necessary.

Corrective Actions – Mitigation Measures Implemented or Proposed (if any):

Current Environmental Site Inspection Checklist – Report No. 150203:

1. The Contractor was recommended to remove the construction materials to prevent damage to the tree.

Photo 1a Construction materials were placed next to a tree which is located next to a red container

Photo 1b The red container.

Wah Fu PTW

No inspection was undertaken for this week due to the Contractor's arrangement

10 February 2015

Aberdeen PTW

No inspection was undertaken for this week due to the Contractor's arrangement

Cyberport PTW

Follow up actions for previous site audit:

Previous Environmental Site Inspection Checklist – Report No. 150203:

1. Unknown chemical was found in an inappropriate container in a storage area since the site inspection undertaken on 3 February 2015. (Photo 1)

Notes / Issues Recorded On Site:

Chemical Storage:

1. Unknown chemical was found in an inappropriate container in a storage area. (Photo 1)

Air quality:

2. Cement bags were not covered properly in a storage area. (Photos 2a and 2b)

Corrective Actions – Mitigation Measures Implemented or Proposed (if any):

Current Environmental Site Inspection Checklist – Report No. 150210:

1. The Contractor was reminded to provide a suitable container and labels for the chemicals.
2. The Contractor was reminded to cover cement bags properly.

Photo 1 Unknown chemical was found in an inappropriate

Photo 2a Cement bags were not covered properly in a

Photo 2b The storage area.

Fung Mat Road Site

Follow up actions for previous site audit: **Previous Environmental Site Inspection Checklist – Report No. 150203:** N/A
Notes / Issues Recorded On Site: N/A
Corrective Actions – Mitigation Measures Implemented or Proposed (if any): **Current Environmental Site Inspection Checklist – Report No. 150210:** N/A

Sandy Bay PTW

No inspection was undertaken for this week due to the Contractor's arrangement

Wah Fu PTW

No inspection was undertaken for this week due to the Contractor's arrangement

18 February 2015

Aberdeen PTW

Follow up actions for previous site audit:
Previous Environmental Site Inspection Checklist – Report No. 150210

N/A

Notes / Issues Recorded On Site:

General Housekeeping:

1. Stagnant water was found inside a drip tray for a red generator. (Photo 1)

Other Observation:

2. An oil stain was found near electricity boxes.(Photo 2)

Corrective Actions – Mitigation Measures Implemented or Proposed (if any):

Current Environmental Site Inspection Checklist – Report No. 150218:

1. The Contractor was reminded to clear the stagnant water inside the drip tray.
2. The Contractor was reminded to treat the oil stain with oil dispenser and prevent oil leaking from plants.

Photo 1 Stagnant water was found inside a drip tray for a red generator

Photo 2 An oil stain was found near electricity boxes

Cyberport PTW

Follow up actions for previous site audit:

1. The unknown chemical was removed. (PhotoF_1)
2. The cement bags were removed. (PhotoF_2)

Previous Environmental Site Inspection Checklist – Report No. 150210:

N/A

Notes / Issues Recorded On Site:

N/A

Corrective Actions – Mitigation Measures Implemented or Proposed (if any):

Current Environmental Site Inspection Checklist – Report No. 150218:

N/A

PhotoF_1 The unknown chemical was removed.

PhotoF_2 The cement bags were removed.

Fung Mat Road Site

Follow up actions for previous site audit:

Previous Environmental Site Inspection Checklist – Report No. 150210:

N/A

Notes / Issues Recorded On Site:

N/A

Corrective Actions – Mitigation Measures Implemented or Proposed (if any):

Current Environmental Site Inspection Checklist – Report No. 150218:

N/A

Sandy Bay PTW

Follow up actions for previous site audit:

Previous Environmental Site Inspection Checklist – Report No. 150210:

1. Construction materials were placed next to a tree since the site inspection undertaken on 18 November 2014.(Photos 1a and 1b)

Notes / Issues Recorded On Site:
Landscape and Visual Impacts:

1. Construction materials were placed next to a tree which is located next to a red container. (Photos 1a and 1b)

Remark:
Waste Storage:

ii. It is noted that the original chemical waste storage container was removed from the site. According to the Contractor, a temporary barrel/container will be provided if necessary.

Corrective Actions – Mitigation Measures Implemented or Proposed (if any):

Current Environmental Site Inspection Checklist – Report No. 150218:

1. The Contractor was recommended to remove the construction materials to prevent damage to the tree.

Photo 1a Construction materials were placed next to a tree which is located next to a red container

Photo 1b The red container.

Wah Fu PTW

Follow up actions for previous site audit: **Previous Environmental Site Inspection Checklist – Report No. 150210:** N/A
Notes / Issues Recorded On Site: **Chemical Storage:** N/A
Corrective Actions – Mitigation Measures Implemented or Proposed (if any): **Current Environmental Site Inspection Checklist – Report No. 150218:** N/A

24 February 2015

Aberdeen PTW

Follow up actions for previous site audit:

Previous Environmental Site Inspection Checklist – Report No. 150218

1. Stagnant water was found inside a drip tray for a red generator since the site inspection undertaken on 10 February 2015 .(Photo 1)
2. An oil stain was found near electricity boxes since the site inspection undertaken on 10 February 2015. (Photo 2)

Notes / Issues Recorded On Site:

General Housekeeping:

1. Stagnant water was found inside a drip tray for a red generator. (Photo 1)

Other Observation:

2. An oil stain was found near electricity boxes.(Photo 2)

Corrective Actions – Mitigation Measures Implemented or Proposed (if any):

Current Environmental Site Inspection Checklist – Report No. 150224:

1. The Contractor was reminded to clear the stagnant water inside the drip tray.
2. The Contractor was reminded to treat the oil stain with oil dispenser and prevent oil leaking from plants.

Photo 1 Stagnant water was found inside a drip tray for a red generator.

Photo 2 An oil stain was found near electricity boxes.

Cyberport PTW

Follow up actions for previous site audit: **Previous Environmental Site Inspection Checklist – Report No. 150218:** N/A
Notes / Issues Recorded On Site: N/A
Corrective Actions – Mitigation Measures Implemented or Proposed (if any): **Current Environmental Site Inspection Checklist – Report No. 150224:** N/A

Fung Mat Road Site

Follow up actions for previous site audit: **Previous Environmental Site Inspection Checklist – Report No. 150218:** N/A
Notes / Issues Recorded On Site: N/A
Corrective Actions – Mitigation Measures Implemented or Proposed (if any): **Current Environmental Site Inspection Checklist – Report No. 150224:** N/A

Sandy Bay PTW

Follow up actions for previous site audit:

Previous Environmental Site Inspection Checklist – Report No. 150218:

1. Construction materials were placed next to a tree since the site inspection undertaken on 18 November 2014.(Photos 1a and 1b)

Notes / Issues Recorded On Site:

Landscape and Visual Impacts:

1. Construction materials were placed next to a tree which is located next to a red container. (Photos 1a and 1b)

Other Observation:

2. Sandy trails were observed at the site entrance. (Photo 2)

General Housekeeping:

3. Stagnant water was found inside a drip tray near the site entrance.(Photo 3)

Remark:

Waste Storage:

iii. It is noted that the original chemical waste storage container was removed from the site. According to the Contractor, a temporary barrel/container will be provided if necessary.

Corrective Actions – Mitigation Measures Implemented or Proposed (if any):

Current Environmental Site Inspection Checklist – Report No. 150224:

1. The Contractor was recommended to remove the construction materials to prevent damage to the tree.
2. The Contractor was reminded to clear the sandy trails and provide a wheel washing facility at the site entrance.
3. The Contractor was reminded to clear the stagnant water inside a drip tray.

Photo 1a Construction materials were placed next to a tree which is located next to a red container

Photo 1b The red container.

Photo 2 Sandy trails were observed at the site entrance

Photo 3 Stagnant water was found inside a drip tray near the site entrance.

Wah Fu PTW

Follow up actions for previous site audit: **Previous Environmental Site Inspection Checklist – Report No. 150218:** N/A
Notes / Issues Recorded On Site: **Chemical Storage:** N/A
Corrective Actions – Mitigation Measures Implemented or Proposed (if any): **Current Environmental Site Inspection Checklist – Report No. 150224:** N/A