



Maeda Corporation

# **QUARTERLY EM&A REPORT (DECEMBER 2018 TO FEBRUARY 2019)**

MTRCL Contract C3840-13C

Tsim Sha Tsui Station Carnarvon Road Subway and  
Entrances Modification Works

Your Ref:

Our Ref: 60453136.40032976/2019000095E

**By Email and Post**

MTR Corporation Limited  
Fo Tan Railway House  
No. 9, Lok King Street, Fo Tan  
Shatin, N.T.,  
Hong Kong

Attn.: Mr. Alfa Liu

15 March 2019

Dear Sirs

**Consultancy Agreement A130-13  
Independent Environmental Checker for CRS and LTS  
CRS - Verification for 20<sup>th</sup> Quarterly Environmental Monitoring and Audit (EM&A) Report  
(December 2018 to February 2019) (Report No.: EB001340R0826)**

We refer to the 20<sup>th</sup> Quarterly EM&A Report (December 2018 to February 2019) received under cover of the email from the Environmental Team, Arcadis Design & Engineering Limited, dated on 11 March 2019.

Further to our comments provided on 12, 13 and 14 March 2019 and subsequent final revision of the Report by Arcadis Design & Engineering Limited on 14 March 2019, we have no further comment and have verified the captioned report (Report No.: EB001340R0826).

Should you have any queries, please feel free to contact the undersigned at 3922 9366.

Yours faithfully

**AECOM Consulting Services Ltd**



Y. W. Fung  
Independent Environmental Checker

LLMC/wwsc

cc Arcadis Design & Engineering Limited  
Maeda Corporation

(Attn.: Mr. F. N. Wong) via email  
(Attn.: Mr. Calvin Chan) via email



Maeda Corporation

# QUARTERLY EM&A REPORT

## (DECEMBER 2018 TO FEBRUARY 2019)

MTRCL Contract C3840-13C

Tsim Sha Tsui Station Carnarvon Road Subway and  
Entrances Modification Works

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<b>Report No</b>	EB001340R0826	

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## EXECUTIVE SUMMARY

### Breaches of Action and Limit Levels

- ES01 No exceedances of AL Levels of air quality and construction noise were registered during the Reporting Period, no Notice of Exceedance (NOE) and the associated investigation and follow-up actions were required.
- ES02 In addition, the site inspection and environmental audit during the Reporting Period identified no deficiencies, non-compliance or adverse environmental impacts within the site of the project and the sensitive receivers environed with the site. No remedial actions or corrective actions were required.

### Environmental Complaints

- ES03 No environmental complaints were recorded during the Report Period.

### Notification of Summons & Successful Prosecutions

- ES04 No notification of summons and successful prosecutions were recorded during the Reporting Period.

### Changes of EM&A Program

- ES05 1-Hr TSP monitoring at K11 continued during the Reporting Period. The proposed change of monitoring parameter was approved by EPD under the EP Condition 3.1 of EP No. EP-440/2012.
- ES06 The proposed termination of the EM&A programme was approved by EPD on 27 February 2019.

### Future Key Issues

- ES07 The construction work under the Project has been substantially completed while the Reinstatement of Carnarvon Road and the Entrance D2 have been completed and re-opened to the public. Entrance D1 has also been completed which will be re-opened shortly subject to final inspection by BD.
- ES08 The remaining works to be carried out in the near future comprises only very minor defective work within Entrance D1 with insignificant environmental impacts anticipated. No particular corrective actions or remedial measures are therefore required.

# 1 INTRODUCTION

## 1.1 Project Background

- 1.1.1 In order to improve the appearance of Carnarvon Road Entrance D1 and D2 of Tsim Sha Tsui Station (hereafter referred as 'TST') and to provide a more comfortable walking environment nearby, MTR Corporation Limited (hereafter referred as 'MTRCL') proposed the MTRCL Contract C3840-13C Tsim Sha Tsui Station Carnarvon Road Subway and Entrances Modification Works (the Project) and commissioned Meada Corporation as the Contractor (hereinafter referred as 'MC' or the 'Contractor') to implement the construction of the Project.
- 1.1.2 The Project was proposed to rebuild the existing Entrance D1 and D2 and construct a new Entrance D3 at the basement B2 level of the K11 Art Mall to connect to the TST station by a subway, which extended from the Entrance D1 and D2 and ran approximately 80m along Carnarvon Road and across the Bristol Avenue to the Entrance D3.
- 1.1.3 The existing TST Station was in operation before the Environmental Impact Assessment Ordinance (hereafter referred as 'EIAO') was effective on 1 April 1998. It constituted an exempted Designated Project (hereinafter referred as 'DP') according to Section 9(2) (g) of the EIAO (Cap. 499). As the Project involved a material change to an exempted DP which might have potential environmental impacts, an environmental permit was required prior to the commencement of the modification works. The Project Profile (PP-462/2012) (hereinafter referred as 'PP') was developed to provide information for direct application of an environmental permit (hereinafter referred as 'the EP'). The EP No. EP-440/2012EP was granted on 18 July 2012.
- 1.1.4 Site map, works area and locations of the environmental monitoring under the Project are illustrated in Figure 1.1 Site Location Plan of **Appendix A**.
- 1.1.5 Management structure of the Project, including organization chart, lines of communication and contact names and telephone numbers of key personnel, are demonstrated in **Appendix B**.
- 1.1.6 Construction programme is shown in **Appendix C**, whereas implementation schedule for the recommended environmental mitigation measures (hereinafter referred as 'the Implementation Schedule') are summarised in **Appendix D**, which fine tuned the construction activities and showed inter-relationships with the environmental protection/ mitigation measures for the construction period. Where appropriate, the construction programme was continuously reviewed and updated upon availability of more solid information.
- 1.1.7 This is the 20<sup>th</sup> quarterly EM&A report (hereinafter referred as 'This Report'). According to EPD's approval for termination of the EM&A programme under the Project granted on 27 February 2019, no EM&A activities will be conducted in March 2019 and thereafter. This Report will therefore be the last quarterly EM&A report under EP-440/2012.
- 1.1.8 This Report was written in accordance with the **Environmental Monitoring and Audit Plan** (hereinafter referred as 'the EM&A Plan') enclosed in the **Project Profile – MTR Tsim Sha Tsui Station Carnarvon Road Subway and Entrances Modification Works**, which is registered in the Environmental Permit No. EP-440/2012 (hereinafter referred as 'the EP') (Register No.: PP-462/2012). This Report presents the construction and EM&A activities conducted from 1<sup>st</sup> December 2018 to 28<sup>th</sup> February 2019 (hereinafter referred as 'the Reporting Period'), during which the construction under the Project was substantially completed in December 2018.

## 1.2 Construction Activities

### **Substantial Completion of the Construction Activities**

- 1.2.1 The construction work under the Project has been substantially completed while the reinstatement of Carnarvon Road and the Entrance D2 has been completed and re-opened to the public on the 30<sup>th</sup> December 2018. Entrance D1 has also been completed which will be re-opened shortly subject to final inspection by BD.
- 1.2.2 The remaining works to be carried out in the near future comprises only very minor defective work within Entrance D1 with insignificant environmental impacts anticipated. No particular corrective actions or remedial measures are therefore required.

### **Remaining Construction Activities**

- 1.2.3 Construction activities undertaken during the Reporting Period and the remaining minor construction activities to be undertaken in the following period are summarised in **Table 1-4-1**:

**Table 1-4-1 Construction Activities**

<b>Item</b>	<b>Description</b>
<b><u>Construction Activities Undertaken during the Reporting Period</u></b>	
1	BS and ABWF for Entrance D1
2	Asphalt paving for road reinstatement and re-open of Carnarvon Road
3	Southern Pedestrian footpath reinstatement
<b><u>Remaining minor construction activities to be Undertaken in the following period</u></b>	
1	Defective works for Entrance D1

## 1.3 Environmental Status

### **EM&A Personnel**

- 1.3.1 In compliance with the EP conditions, AECOM Consulting Services Limited was appointed as the Independent Environmental Checker under the Project (hereinafter referred as 'the IEC'), whereas Arcadis Design and Engineering Limited (formerly known as Hyder Consulting Limited) was appointed as the Environmental Team under the Project (hereinafter referred as 'the ET').

### **Baseline Monitoring**

- 1.3.2 According to the conditions set out in clauses 3.2(a) and (b) of the EP and the associated PP and EM&A Plan, the baseline monitoring was conducted between 10<sup>th</sup> and 24<sup>th</sup> January 2014 prior to commencement of the works under the Project. The Baseline Monitoring Report, certified by the ET Leader and verified by the IEC, was submitted to EPD with cover letter ref. EB001340R0022 dated 14<sup>th</sup> February 2014, where the environmental quality performance limits (Action and Limit Levels (hereinafter referred as "the AL Levels") were established according to Table 3.1 of the PP, Typical Action and Limit Levels for Air Quality, for implementation of the Event and Action Plan as shown in **Appendix F**.

### **Status of Environmental Permits/License/Notification**

- 1.3.3 Status of relevant environmental permits, licences, and/or notifications on environmental protection for the Project are detailed in **Appendix E** and summarised in **Table 1-3-1** below.

**Table 1-3-1 Summary of Status of Environmental Licenses and Permits**

Item	Description	License/Permit Status
1	Air Pollution Control (Construction Dust)	Notification Ref. 403252, 421293 & 433242 acknowledged on 02 Jun 2016, 18 Sep 2017 & 07 May 2018 respectively
2	Water Pollution Control Ordinance (Discharge License)	The discharge license (Ref No. WT00019722-2014) was granted on 01 Sep 2014 superseding the previous license (Ref No. WT00018229-2014)
3	Billing Account for Disposal of Construction Waste	A/C Ref. 7018523 granted on 25 Oct 2013
4	Chemical Waste Producer Registration	Registration Ref. 5213-2214-M2446-16 granted on 4 Mar 2014
5	Construction Noise Permit	GW-RE0635-18 approved on 19 September 2018 for operation of 4 submersible water pump (electric) or 1 drill for 24-hr; 4 drill & 4 grinder for 07:00-23:00 from 1 October 2018 to 30 March 2019*. *The CNP was formally cancelled on 12 Feb 2019.

### ***Termination of the EM&A Programme under the Project***

- 1.3.4 Termination of the construction dust and noise monitoring programme under the Project was proposed after substantial completion of the construction under the Project. It has been certified by the ET Leader and verified by the IEC.
- 1.3.5 EPD's approval for the proposed termination of the EM&A programme (construction dust and noise monitoring) under the Project was granted on 27th February 2019 after the joint site visit conducted on 20<sup>th</sup> February 2019 by the representatives of EPD, MTRCL, IEC, ETL and Maeda. The rationale for termination of the EM&A programme is summarized as follows:
- a) The construction of subway and entrances of TST Station was substantially completed except some minor defects rectification works;
  - b) Construction dust and noise monitoring have been conducted in accordance with the EM&A Plan. All the monitoring results complied with the AL Levels since the commencement of monitoring and the monitoring results demonstrated that the ambient TSP levels and noise levels have been reinstated;
  - c) There is no environmental prosecution and outstanding environmental complaints against the construction works; and
  - d) During the process of hand over and re-opening of Carnarvon Road in December 2018, relevant government departments and local communities (including nearby buildings such as K11 and Mirador Mansion) were consulted through email or tele-conversation about the project and environmental monitoring activities. And the government and local communities have no comments on such arrangement.

## 2 EM&A REQUIREMENTS

### 2.1 Air Quality

#### **Monitoring Location**

2.1.1 According to the EM&A Plan, Mirador Mansion was designated to be the air quality monitoring station of the Project. As the access to the air monitoring location designated in the EM&A Plan was denied by the owner of the property, the ET proposed an alternative monitoring location on the roof-top above the 4/F of the commercial complex of K11 (hereinafter referred as 'K11'), which was agreed among MTRC, IEC and MC, and the associated access to K11 was granted by the management office of K11 prior to the commencement of the baseline monitoring in January 2014.

2.1.2 Air quality monitoring location is summarised in **Table 2-1-1** and illustrated in **Appendix A**.

**Table 2-1-1 Air Quality Monitoring Location**

Location ID	Name of Premises	Description
K11	K11 Art Mall	Rooftop, 4/F

#### **Monitoring Parameters**

2.1.3 According to the EM&A Plan, 24-Hour Total Suspended Particulates (hereinafter referred as '24-hr TSP') is required to be monitored once a week during construction period of the Project. 1-hr Total Suspended Particulates (hereinafter referred as '1-hr TSP') is required to be monitored when exceedances of 24-Hr TSP occur, following the Event and Action Plan presented in **Appendix F**.

#### **Change of Monitoring Parameters**

2.1.4 Since 21<sup>st</sup> September 2018, the 24-hr TSP monitoring by high volume sampler (HVS) at K11 had been replaced by 3 x 1-hr TSP monitoring by portable dust meter for the rationale as follows:

- a) the HVS was damage by the typhoon Mangkhut on 16 Sept 2018;
- b) reinstatement of the damaged HVS involved permission from the landlord and establishment of a safe access to the HVS, which would take time and unlikely be completed by December 2018, when the construction under the Project would had been substantially completed; and
- c) monitoring datad to date recorded no exceedances of the 24-Hr TSP AL Levels and no significant environmental impacts were anticipated for the remaining construction works.

2.1.5 The proposed change of monitoring parameter for the remaining construction period, which was certified by the ET Leader and verified by the IEC, was approved by EPD under the EP Condition 3.1 of EP No. EP-440/2012.

#### **Action and Limit Levels**

2.1.6 The established AL Levels for 1-Hr TSP are summarised in **Table 2-1-4** as follows:

**Table 2-1-4 Action & Limit Levels for Air Quality at K11,  $\mu\text{g}/\text{m}^3$**

Parameter	Action Level	Limit Level
1-Hr TSP	250	500

## **Event and Action Plan**

- 2.1.7 In case exceedances of the AL Levels for air quality occur, Event and Action Plan for Air Quality enclosed in **Appendix F** should be implemented.

## **Environmental Mitigation Measures for Air Quality**

- 2.1.8 Although most of the construction works would be carried out underground, appropriate dust mitigation measures as stipulated in the EP, Project Profile, related environmental regulation including Air Pollution Control (Construction Dust) Regulation and those recommended in the Implementation Schedule should be implemented to control fugitive dust emission. The key dust suppression measures are summarized as follows:
- Decking over the excavation areas;
  - Regular watering to reduce dust emissions from all exposed site surface, particularly during dry weather;
  - Frequent watering for particularly dusty construction areas and areas close to air sensitive receivers;
  - Provision of vehicle washing facilities at the exit points of the site; and
  - Provision of tarpaulin covering for any dusty materials on a vehicle leaving the site.

## **2.2 Construction Noise**

### **Monitoring Parameters**

- 2.2.1 **Table 2-2-1** summarizes the monitoring parameters and frequency for construction noise:

**Table 2-2-1 Noise Monitoring Parameters and Frequency**

Parameters	Frequency
$L_{eq}$ in 30 minutes	Once a week

### **Monitoring Location**

- 2.2.2 As agreed among MTRC, IEC and MC, the construction noise monitoring was performed at K11 as summarized in **Table 2-2-3** and illustrated in **Appendix A**.

**Table 2-2-3 Noise Monitoring Location**

Location ID	Name of Premises	Description
K11	K11 Art Mall	Rooftop, 4/F

### **Action and Limit Levels**

- 2.2.3 The AL Levels established in the Baseline Monitoring Report are summarised in **Table 2-2-4** as follows:

**Table 2-2-4 Action and Limit Levels for Construction Noise**

Time Period	Action Level	Limit Level
0700-1900 hours on normal weekdays	When one valid documented complaint is received.	75*

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

## ***Event and Action Plan***

- 2.2.4 In case exceedances of AL Levels for construction noise occur, the Event and Action Plan enclosed in **Appendix F** should be triggered.

## ***Mitigation Measures for Construction Noise***

- 2.2.5 Although no residual noise impact would be generated after the proposed mitigation measures were in place, the general construction noise control measures stipulated in the EP, Project Profile as well as those recommended in the Implementation Schedule should be fully implemented in order to minimise noise impacts during the construction phase. They are summarised as follows:
- a) The Code of Practice on Good Management Practice to Prevent Violation of the Noise Control Ordinance (Chapter 400) (for Construction Industry) published by EPD should be adopted;
  - b) The statutory and non-statutory requirements and guidelines should be complied with;
  - c) Approval for the method of working, equipment and noise mitigation measures intended to be used at the site should be granted from the Project Engineer before commencing any work;
  - d) Working methods to minimize the noise impact on the surrounding NSRs should be formulated and executed, and the implementation of these methods should be monitored by experienced personnel with suitable training;
  - e) Noisy equipment and noisy activities should be located as far away from the NSRs as is practical;
  - f) Unused equipment should be turned off;
  - g) PME should be kept to a minimum and the parallel use of noisy equipment / machinery should be avoided;
  - h) All plant and equipment should be maintained regularly; and
  - i) Material stockpiles and other structures should be effectively utilised as noise barriers, whenever practicable.
- 2.2.6 Details of the implementation schedule for the mitigation measures are presented in **Appendix D**.

## **2.3 Monitoring Schedules**

- 2.3.1 Monitoring schedules for 24-Hr TSP and construction noise for the Reporting Period were prepared and submitted to MTRC, IEC and MC prior to implementation via e-mail and/ or facsimile.
- 2.3.2 Where amendment is necessary under ad hoc conditions, including actual and broadcast adverse weather, accidental instrument failures, etc., advanced notification is given at least 24 hours prior to implementation or as practical as possible.

### 3 MONITORING RESULTS

#### 3.1 Air Quality

##### **Monitoring Results**

3.1.1 The 1-Hr TSP monitoring during the Reporting Period was conducted according to the monitoring schedule.

3.1.2 The 1-Hr TSP results of the Reporting Period are summarised in the following **Table 3-1-1**. Graphical plots of the parameter are illustrated in **Appendix H**.

**Table 3-1-1 Summary of TSP Monitoring Results,  $\mu\text{g}/\text{m}^3$**

Monitoring Date	1-Hr TSP			Action Level	Limit Level
	Test 1	Test 2	Test 3		
04 December 2018 Average (Min – Max)	66 (62-156)	67 (63-164)	61 (54-228)	250	500
11 December 2018 Average (Min – Max)	57 (52-190)	54 (46-137)	58 (49-379)		
18 December 2018 Average (Min – Max)	61 (56-156)	62 (58-84)	62 (57-179)		
27 December 2018 Average (Min – Max)	52 (50-57)	56 (50-269)	53 (49-191)		
02 January 2019 Average (Min – Max)	61 (56 – 156)	62 (58 – 84)	62 (57 – 179)		
08 January 2019 Average (Min – Max)	67 (58 – 83)	70 (67 – 142)	78 (32 – 637)		
15 January 2019 Average (Min – Max)	76 (69 -133)	71 (67 -121)	61 (55 -211)		
22 January 2019 Average (Min – Max)	102 (95 -154)	83 (77 - 165)	72 (66 - 225)		
29 January 2019 Average (Min – Max)	101 (96 - 138)	83 (77 - 165)	84 (77 - 172)		
8 February 2019 Average (Min – Max)	54 (46-137)	70 (60-127)	70 (61-184)		
15 February 2019 Average (Min – Max)	71 (49-541)	58 (13-217)	103 (75-297)		
22 February 2019 Average (Min – Max)	48 (25-206)	35 (18-407)	35 (20-367)		
Overall Average (Min – Max)	66 (35 – 103)				

##### **Discussion**

3.1.3 **Table 3-1-1** demonstrates that all 1-Hr TSP results of the Reporting Period fluctuated well below the AL Levels of the parameter, ranging from 35 to 103 with an average of 66  $\mu\text{g}/\text{m}^3$ . No exceedances of the AL Levels of the parameter were recorded.

3.1.4 No Notice of Exceedances (thereinafter referred as ‘NOE’) and the associated NOE Investigation as well as remedial actions were required during the Reporting Period.



## 3.2 Construction Noise

### **Monitoring Results**

- 3.2.1 Construction noise monitoring during the Reporting Period was conducted according to the monitoring schedule.
- 3.2.2 Construction noise monitoring results of the Reporting Period are summarised in the following **Table 3-2-1**. Graphical plots of the parameter are illustrated in **Appendix H**.

**Table 3-2-1 Summary of Construction Noise Monitoring Results at K11, dB(A)**

Monitoring Date	L <sub>eq</sub> (30 min)	Action Level	Limit Level
04 December 2018	71.3	<b>Any documented complaint against construction noise.</b>	<b>75</b>
11 December 2018	70.5		
18 December 2018	70.5		
27 December 2018	68.1		
02 January 2019	70.5		
08 January 2019	68.5		
15 January 2019	69.1		
22 January 2019	69.9		
29 January 2019	67.4		
08 February 2019	69.7		
15 February 2019	68.5		
22 February 2019	69.5		
<b>Mean (Min – Max), Leq (30 min)</b>	<b>69.6 (67.4-71.3)</b>		

### **Discussion**

- 3.2.3 No environmental complaint against construction noise was registered during the Reporting Period and hence no Action Levels were exceeded. As demonstrated in **Table 3-2-1**, all construction noise results were fell below the Limit Level during the Reporting Period. In summary, no exceedances of construction noise AL Levels were recorded.
- 3.2.4 Neither NOE nor NOE investigation and the associated remedial actions were required during the Reporting Period.
- 3.2.5 As the major construction activities have been substantially completed in December 2018 of the Reporting Period and the remaining works comprises only minor defective works for Entrance D1 and Southern Pedestrian footpath reinstatement, which are not anticipated to cause significant environmental impacts, no specific mitigation measures were required during the Reporting Period and the next period.

## 3.3 Weather Conditions

- 2.3.1 No weather conditions or any other factors having significant effects on the air and noise monitoring results were identified during the Reporting Period.
- 2.3.2 Weather information during the Reporting Period which was extracted from Hong Kong Observatory King's Park Weather Station and enclosed for reference in **Appendix G**.

## 3.4 Conclusions and Recommendations

### ***Conclusions***

- 3.4.1 No exceedances of AL Levels of air quality and construction noise were registered during the Reporting Period.
- 3.4.2 No NOE and the associated NOE Investigation and corrected actions were required during the Reporting Period.

### ***Recommendations***

- 3.4.3 As the major construction activities have been substantially completed in December 2018 of the Reporting Period and the remaining works comprises only minor defective works for Entrance D1 and Southern Pedestrian footpath reinstatement, which are not anticipated to cause significant environmental impacts, no specific mitigation measures were required during the Reporting Period and the next period.

## 4 ENVIRONMENTAL AUDIT

### 4.1 Site Inspection

- 4.1.1 Weekly site inspections during the Reporting Period were conducted by MTRC, MC and ET. The site inspection followed strictly the agreed Site Inspection Checklist, which covered all the site audit requirements stipulated in the EP, PP and EM&A Plan as well as all relevant environmental laws.
- 4.1.2 The completed Site Inspection Checklists were distributed to relevant parties upon completion of the site inspection for agreement and signature of the relevant parties, and for implementation of the recommended follow up actions where appropriate.
- 4.1.3 There were 12 site inspections conducted within the Reporting Period. Deficiencies or findings of the site audits and the associated follow up actions are summarized in **Table 4-1-1**.

**Table 4-1-1 Summary of Findings and Follow-Up Actions of the Site Inspection**

Date	Deficiencies or findings	Follow-Up Action
04, 11, 18 & 27 December 2018	<b>Follow-up item(s)</b>	
	No follow-up item.	Not required.
	<b>Observation(s) on the day of inspection</b>	
02, 8, 15, 22 & 29 January 2019	No deficiency was observed on site.	Not required.
	<b>Follow-up item(s)</b>	
	No follow-up item.	Not required.
8 & 15 February 2019	<b>Observation(s) on the day of inspection</b>	
	No deficiency was observed on site.	Not required.
	<b>Follow-up item(s)</b>	
20 February 2019 (Monthly IEC Site Audit cum Joint Site Inspection with EPD)	No follow-up item.	Not required.
	<b>Observation(s) on the day of inspection</b>	
	No deficiency was observed on site.	Not required.

- 4.1.4 As shown in **Table 4-1-1**, no deficiencies or non-compliance of environmental mitigation measures or adverse environmental impacts were observed during the Reporting Period.

### 4.2 Compliance with Legal/Contractual Requirements

- 4.2.1 Construction activities under the Project during the Reporting Period complied with all environmental protection and pollution control laws in Hong Kong, as well as the contractual requirements of the Project. **Table 4-2-1** summarizes the identified breaches of legal and contractual requirements.

**Table 4-2-1 Summary of Breaches of Legal and Contractual Requirements**

Month	No. of Breach(s)	Cumulative no. from March 2014 to the Reporting Period
December 2018	0	0
January 2019	0	0
February 2019	0	0

## 4.3 Environmental Complaints

4.3.1 Where appropriate, environmental complaints were handled following closely the flow chart of complaint response procedures, as shown in **Appendix I**.

4.3.2 Environmental complaints registered during the Reporting Period are summarised in **Table 4-3-1** below:

**Table 4-3-1 Summary of Complaint**

Month	No. of Complaint(s)	Cumulative no. from March 2014 to the months in the Reporting Period
December 2018	0	6
January 2019	0	6
February 2019	0	6

## 4.4 Notification of Summons/Successful Prosecutions

4.4.1 Notification of summons and successful prosecutions registered during the Reporting Period are summarised in **Table 4-4-1** below:

**Table 4-4-1 Summary of Summon and Successful Prosecutions**

Month	No. of Breach(s)	Cumulative no. from March 2014 to the Reporting Period
December 2018	0	0
January 2019	0	0
February 2019	0	0

## 5 CONSTRUCTION WASTE

### 5.1 Waste Management

5.1.1 Waste management under the Project was performed in accordance with the Waste Management Plan, which was prepared for implementation of the construction waste mitigation measures in compliance with the requirements stipulated in the EM&A Plan, PS, Waste Disposal Ordinance and the associated subsidiary regulations.

### 5.2 Waste Management Status and Record

5.2.1 Updated waste management status is detailed in **Appendix J**, where the 3-R status of the construction waste generated from construction of the Project during the Reporting Period is presented.

5.2.2 Despite small scale of the Project and the amount of C&D material that needed to be hauled off site and disposed of was anticipated to be insignificant, 3-R waste management i.e. Reduce, Reuse and Recycle, was adopted in order to minimize adverse environmental impacts to be generated from construction of the Project.

## 6 FUTURE ENVIRONMENTAL ISSUES

### 6.1 Future Key Environmental Issues

6.1.1 Construction under the Project has been substantially completed, including the road reinstatement work for Carnarvon Road and super-structures of Entrance D1 and D2, etc., and Carnarvon Road has been re-opened to public since 30 December 2018.

6.1.2 Reinstatement of the south-side pedestrian footpath (Entrance D1 and D2 side) was carried out from January 2019 and minor internal defect fixing works within Entrance D1 was also conducted as necessary.

6.1.3 The remaining works to be carried out in the near future comprises only very minor defective work within Entrance D1 with anticipated insignificant environmental impacts. No particular key environmental issues are expected in the future, and no particular corrective actions or remedial measures are therefore required.

## 7 CONCLUSIONS AND RECOMMENDATIONS

### 7.1 Conclusions

- 7.1.1 The proposed termination of the EM&A programme was approved by EPD on 27 February 2019 after substantial completion of the construction under the Project.
- 7.1.2 1-Hr TSP monitoring at K11 continued during the Reporting Period. The proposed change of monitoring parameter was approved by EPD under the EP Condition 3.1 of EP No. EP-440/2012.
- 7.1.2 EM&A results during the Reporting Period showed full compliance with the AL Levels, indicating no adverse environmental impacts were generated from the remaining construction activities and hence neither NOE/ NOE Investigation nor corrective actions were required during the Reporting Period.
- 7.1.4 No deficiencies, non-compliance or adverse environmental impacts were observed on the sensitive receivers environed with the site of the Project during the Reporting Period, and hence no remedial actions were taken.
- 7.1.5 In addition, no notification of summons and successful prosecutions were reported during the Reporting Period.

### 7.2 Recommendations

- 7.2.1 The construction work under the Project has been substantially completed while the Reinstatement of Carnarvon Road and the Entrance D2 have been completed and re-opened to the public. Entrance D1 has also been completed which will be re-opened shortly subject to final inspection by BD. The remaining works to be carried out in the near future comprises only very minor defective work within Entrance D1 with insignificant environmental impacts anticipated, no particular corrective actions or remedial measures are therefore required.

**APPENDIX A**  
**SITE LOCATION PLAN**





**APPENDIX B**

**MANAGEMENT STRUCTURE**

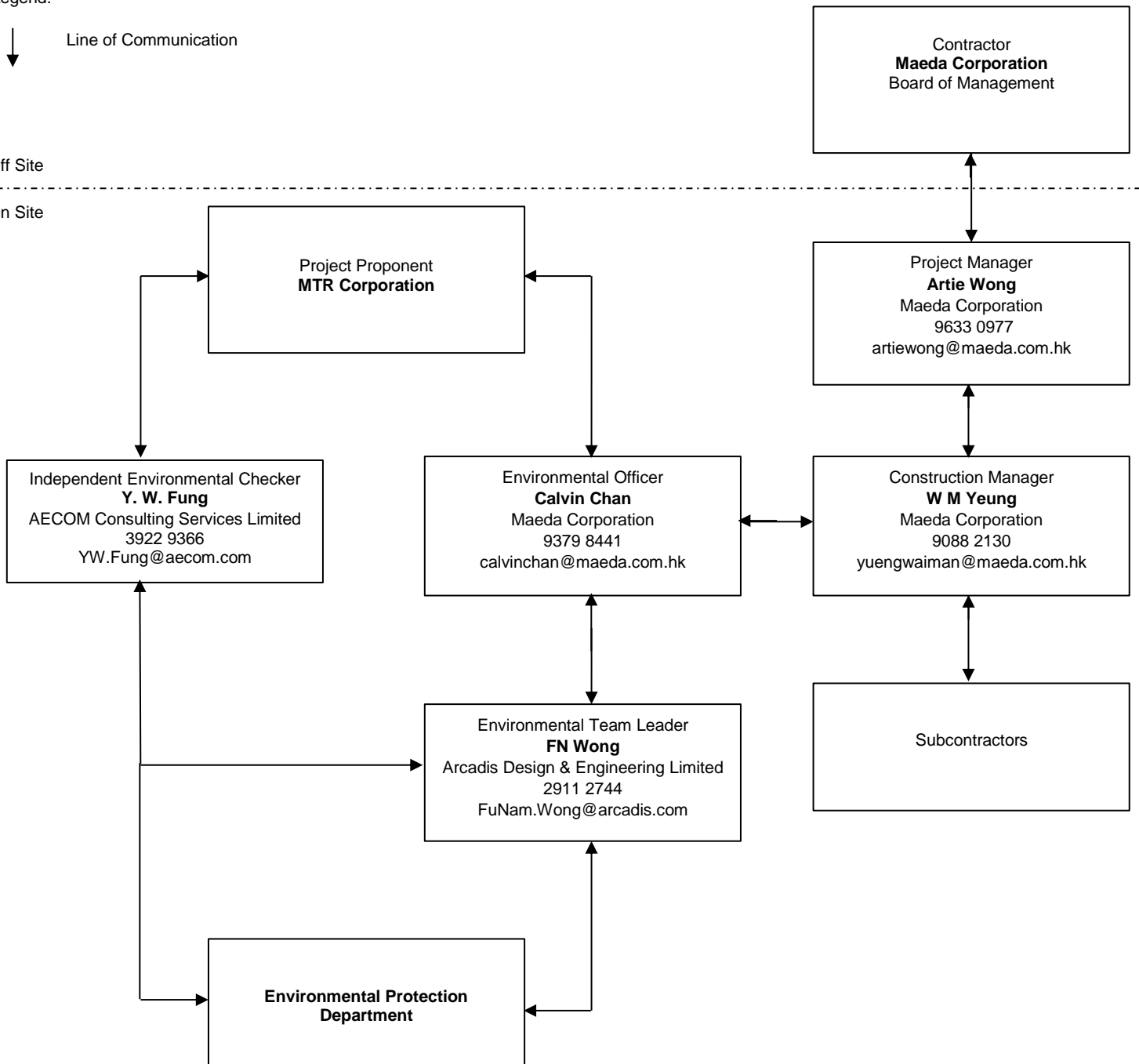
# Project Organization Chart in Environmental Management (Rev.05)

Legend:

↓ Line of Communication

Off Site

On Site



Note: In Compliance with

i) Clause.1.3 of Environmental Monitoring and Audit Manual (Appendix VII of Project Profile PP462/2012)

**APPENDIX C**

**CONSTRUCTION PROGRAMME**



Contract C3840-13C

Tsim Sha Tsui Station, Carnarvon Road Subway



Activity ID	Activity Name	Orig Dur	Rem Dur	Start	Finish	% Complete	Total Float	2014							2015							2016							2017							2018							2019																																											
								O	N	D	J	F	M	A	M	J	Jul	A	S	O	N	D	J	F	M	A	M	J	Jul	A	S	O	N	D	J	F	M	A	M	J	Jul	A	S	O	N	D	J	F	M	A	M	J	Jul	A	S	O	N	D	J	F	M	A	M	J	Jul	A	S	O	N	D	J	F	M	A	M	J	Jul	A	S	O	N	D	J	F	M	A
<b>Master Programme Revision As Per SA1</b>																																																																																						
<b>Preliminaries</b>																																																																																						
<b>Contract Key Dates</b>																																																																																						
C3840-CD-10	Date of Contract Award	0d	0d	11-Oct-13 A		100%		◆ Date of Contract Award																																																																														
C3840-CD-20	Date of Commencement	0d	0d	14-Oct-13 A		100%		◆ Date of Commencement																																																																														
C3840-CD-30	Date for completion of the whole of the Works	0d	0d		26-Oct-18*	0%	0d	◆ Date for com																																																																														
<b>Specified Degrees of Completion</b>																																																																																						
C3840-CD-2A	Complete to Deg. 1 status for all civil engineering works and ABWF in Subway outside K11 Lot Boundary	0d	0d		26-Feb-18 A	100%		◆ Complete to Deg. 1 status for all civil engin																																																																														
C3840-CD-2B	Comp. Deg. 1 for all civil & BS in Subw. inside K11, incl. works ass. with breakthro & make good K11 D. wall	0d	0d		08-Feb-18 A	100%		◆ Comp. Deg. 1 for all civil & BS in Subw. insid																																																																														
C3840-CD-2C	Complete energisation of the power isolator in the Telephone Equipment Rm	0d	0d		18-Apr-18 A	100%		◆ Complete energisation of the power																																																																														
C3840-CD-2D	Complete energisation of MCCBs CRS1 and CRS2 in the Electrical Rm	0d	0d		08-May-18 A	100%		◆ Complete energisation of MCCBs																																																																														
C3840-CD-2E	Complete all Works in the Subway and New Entrances D2 and D3	0d	0d		13-Jun-18	0%	16d	◆ Complete all Works in the Su																																																																														
<b>Possession of Works Area As PS Clause P8 &amp; PS Appendix G</b>																																																																																						
C3840-AD-20	Access Date for Works Area 3840.W1 (subject to SLG/TMLG Approval)	0d	0d	31-Oct-13 A		100%		◆ Access Date for Works Area 3840.W1 (subject to SLG/TMLG Approval)																																																																														
C3840-AD-30	Access Date for Works Areas 3840.W2 (subject to SLG/TMLG Approval)	0d	0d	31-Oct-13 A		100%		◆ Access Date for Works Areas 3840.W2 (subject to SLG/TMLG Approval)																																																																														
<b>Initial Site Survey</b>																																																																																						
C3840-SS-20	Validate the survey record and carry out any necessary additional survey at Works Areas 3840.W1 & W2	35d	0d	31-Oct-13 A	10-Dec-13 A	100%		Validate the survey record and carry but any necessary additional survey at Works Areas 3840.W1 & W2																																																																														
<b>Vacation of Works Areas as PS Clause P8 and PS Appendix G</b>																																																																																						
C3840-VD-20	Vacate Date for Works Area 3840.W1 (subject to SLG/TMLG Approval)	0d	0d		26-Oct-18	0%	65d	◆ Vacate Date																																																																														
C3840-VD-30	Vacate Date for Works Area 3840.W2 (subject to SLG/TMLG Approval)	0d	0d		26-Oct-18	0%	65d	◆ Vacate Date																																																																														
<b>Procurement of Subcontract Packages</b>																																																																																						
<b>Preliminaries and Utilities Diversion</b>																																																																																						
C3840-PRC-100	Hoardings, Fencing and Associated Metalwork	40d	0d	15-Oct-13 A	13-Jan-14 A	100%		Hoardings, Fencing and Associated Metalwork																																																																														
C3840-PRC-110	Land Survey/Setting Out	5d	0d	15-Oct-13 A	19-Oct-13 A	100%		Land Survey/Setting Out																																																																														
C3840-PRC-120	Instrumentation and Monitoring	53d	0d	15-Oct-13 A	14-Dec-13 A	100%		Instrumentation and Monitoring																																																																														
C3840-PRC-130	Advance Ground Works	28d	0d	15-Oct-13 A	15-Nov-13 A	100%		Advance Ground Works																																																																														
C3840-PRC-140	Temporary Traffic Diversion (Consultant)	4d	0d	11-Oct-13 A	18-Oct-13 A	100%		Temporary Traffic Diversion (Consultant)																																																																														
C3840-PRC-150	Obtain Eng's Approval for Temporary Traffic Diversion (Consultant)	6d	0d	19-Oct-13 A	31-Oct-13 A	100%		Obtain Eng's Approval for Temporary Traffic Diversion (Consultant)																																																																														
C3840-PRC-160	Site Security	48d	0d	15-Oct-13 A	24-Dec-13 A	100%		Site Security																																																																														
C3840-PRC-200	Independent Checking Engineer (ICE)	6d	0d	18-Nov-13 A	27-Nov-13 A	100%		Independent Checking Engineer (ICE)																																																																														
C3840-PRC-210	Obtain Eng's Approval for ICE	6d	0d	27-Nov-13 A	13-Dec-13 A	100%		Obtain Eng's Approval for ICE																																																																														
C3840-PRC-220	Ground Investigation (Pre-drilling work)	60d	0d	15-Oct-13 A	28-Dec-13 A	100%		Ground Investigation (Pre-drilling work)																																																																														
<b>Temporary Works, ELS &amp; Earthworks</b>																																																																																						
C3840-PRC-240	Specialist Demolition Contractor	40d	0d	16-Dec-13 A	20-Feb-14 A	100%		Specialist Demolition Contractor																																																																														

- Current Bar
- Critical Remaining Work
- Actual Work
- ◆ Milestone
- Remaining Work

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**Master Programme Revision RMPRSA1**

RMPRSA1

Date	Revision	Checked	Approved
01-Jun-18		BG	AW





**Contract C3840-13C**  
**Tsim Sha Tsui Station, Carnarvon Road Subway**



Activity ID	Activity Name	Orig Dur	Rem Dur	Start	Finish	% Complete	Total Float	Gantt Chart (2014-2019)																																																			
								2014	2015	2016	2017	2018	2019																																														
C3840-EQ-170	Confirm monitoring location & setup noise monitoring devices	30d	0d	17-Dec-13 A	09-Jan-14 A	100%		■ Confirm monitoring location & setup noise monitoring devices																																																			
C3840-EQ-180	Baseline noise monitoring	14d	0d	10-Jan-14 A	24-Jan-14 A	100%		■ Baseline noise monitoring																																																			
C3840-EQ-190	Prepare baseline noise monitoring report & submit to Eng, ICE and EPD	7d	0d	25-Jan-14 A	11-Feb-14 A	100%		■ Prepare baseline noise monitoring report & submit to Eng, ICE and EPD																																																			
C3840-EQ-200	Baseline noise monitoring report review and approved by Eng, ICE and EPD	14d	0d	14-Feb-14 A	01-Apr-14 A	100%		■ Baseline noise monitoring report review and approved by Eng, ICE and EPD																																																			
C3840-EQ-210	Confirm monitoring location & setup air monitoring devices	30d	0d	17-Dec-13 A	09-Jan-14 A	100%		■ Confirm monitoring location & setup air monitoring devices																																																			
C3840-EQ-220	Baseline air monitoring	14d	0d	10-Jan-14 A	25-Jan-14 A	100%		■ Baseline air monitoring																																																			
C3840-EQ-230	Prepare baseline air monitoring report & submit to Eng, ICE and EPD	7d	0d	27-Jan-14 A	11-Feb-14 A	100%		■ Prepare baseline air monitoring report & submit to Eng, ICE and EPD																																																			
C3840-EQ-240	Baseline air monitoring report review and approved by Eng, ICE and EPD	14d	0d	14-Feb-14 A	01-Apr-14 A	100%		■ Baseline air monitoring report review and approved by Eng, ICE and EPD																																																			
C3840-EQ-320	Quality Plan (G9.2.1) - Prepare and submit for Eng approval	28d	0d	14-Oct-13 A	30-Dec-13 A	100%		■ Quality Plan (G9.2.1) - Prepare and submit for Eng approval																																																			
C3840-EQ-330	Quality Plan - Eng comment and approve	14d	0d	31-Dec-13 A	28-Apr-14 A	100%		■ Quality Plan - Eng comment and approve																																																			
<b>Health &amp; Safety Plan</b>		<b>74d</b>	<b>0d</b>	<b>11-Oct-13 A</b>	<b>22-Jan-14 A</b>																																																						
C3840-HS-100	Health and Safety Plan (G3.6.1) - Prepare and submit for Eng approval	60d	0d	11-Oct-13 A	13-Dec-13 A	100%		■ Health and Safety Plan (G3.6.1) - Prepare and submit for Eng approval																																																			
C3840-HS-110	Health and Safety Plan - Eng comment and approve	14d	0d	14-Dec-13 A	22-Jan-14 A	100%		■ Health and Safety Plan - Eng comment and approve																																																			
C3840-HS-130	System Assurance Plan as per App. K of PS - Prepare and submit for Eng approval	28d	0d	11-Oct-13 A	20-Dec-13 A	100%		■ System Assurance Plan as per App. K of PS - Prepare and submit for Eng approval																																																			
C3840-HS-140	System Assurance Plan - Eng comment and approve	14d	0d	21-Dec-13 A	09-Jan-14 A	100%		■ System Assurance Plan - Eng comment and approve																																																			
<b>Programme Management</b>		<b>116d</b>	<b>0d</b>	<b>11-Oct-13 A</b>	<b>30-Mar-14 A</b>																																																						
C3840-PM-100	Initial Three Month Rolling Programme (G4.8.1) - Prepare and submit for Eng review	14d	0d	11-Oct-13 A	28-Oct-13 A	100%		■ Initial Three Month Rolling Programme (G4.8.1) - Prepare and submit for Eng review																																																			
C3840-PM-110	Preliminary Master Programme (G4.6.1) - Prepare and submit for Eng approval	60d	0d	11-Oct-13 A	12-Dec-13 A	100%		■ Preliminary Master Programme (G4.6.1) - Prepare and submit for Eng approval																																																			
C3840-PM-120	Preliminary Master Programme (G4.6.1) - Eng comment	28d	0d	13-Dec-13 A	13-Jan-14 A	100%		■ Preliminary Master Programme (G4.6.1) - Eng comment																																																			
C3840-PM-130	Preliminary Master Programme (G4.6.1) - Re-submit for Eng approval	14d	0d	14-Jan-14 A	11-Feb-14 A	100%		■ Preliminary Master Programme (G4.6.1) - Re-submit for Eng approval																																																			
C3840-PM-135	Preliminary Master Programme (G4.6.1) - Eng's further comment	14d	0d	12-Feb-14 A	22-Feb-14 A	100%		■ Preliminary Master Programme (G4.6.1) - Eng's further comment																																																			
C3840-PM-136	Preliminary Master Programme (G4.6.1) - Further re-submission	14d	0d	23-Feb-14 A	27-Feb-14 A	100%		■ Preliminary Master Programme (G4.6.1) - Further re-submission																																																			
C3840-PM-140	Preliminary Master Programme (G4.6.1) - Eng approval	14d	0d	28-Feb-14 A	07-Mar-14 A	100%		■ Preliminary Master Programme (G4.6.1) - Eng approval																																																			
C3840-PM-170	Submission Schedule (G12.11.1) - Prepare and submit for Eng approval	28d	0d	11-Oct-13 A	12-Nov-13 A	100%		■ Submission Schedule (G12.11.1) - Prepare and submit for Eng approval																																																			
C3840-PM-180	Submission Schedule - Eng comment and approve	28d	0d	13-Nov-13 A	30-Mar-14 A	100%		■ Submission Schedule - Eng comment and approve																																																			
<b>Temporary Works Design &amp; Approval Process (Incl. Demolition)</b>		<b>1581d</b>	<b>175d</b>	<b>15-Oct-13 A</b>	<b>30-Dec-18</b>		<b>0d</b>																																																				
<b>Hoarding Plan</b>		<b>84d</b>	<b>0d</b>	<b>15-Oct-13 A</b>	<b>18-Mar-14 A</b>																																																						
C3840-TD-100	Prepare Hoarding Plan	27d	0d	15-Oct-13 A	11-Jan-14 A	100%		■ Prepare Hoarding Plan																																																			
C3840-TD-110	Hoarding plan review & endorse by ICE	40d	0d	01-Feb-14 A	08-Mar-14 A	100%		■ Hoarding plan review & endorse by ICE																																																			
C3840-TD-120	Hoarding plan review & comment by Eng/MTRC	28d	0d	12-Jan-14 A	23-Jan-14 A	100%		■ Hoarding plan review & comment by Eng/MTRC																																																			
C3840-TD-140	Hoarding plan re-submission	11d	0d	24-Jan-14 A	28-Feb-14 A	100%		■ Hoarding plan re-submission																																																			
C3840-TD-150	Hoarding plan review & approve by Eng/MTRC	28d	0d	01-Mar-14 A	18-Mar-14 A	100%		■ Hoarding plan review & approve by Eng/MTRC																																																			
C3840-TD-160	Obtain Final Approval	0d	0d		18-Mar-14 A	100%		◆ Obtain Final Approval																																																			
<b>Flood Protection Wall</b>		<b>89d</b>	<b>0d</b>	<b>01-Dec-13 A</b>	<b>18-Mar-14 A</b>																																																						

■ Current Bar     ■ Critical Remaining Work  
■ Actual Work     ◆ Milestone  
■ Remaining Work

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01-Jun-18		BG	AW



Contract C3840-13C



Tsim Sha Tsui Station, Carnarvon Road Subway

Activity ID	Activity Name	Orig Dur	Rem Dur	Start	Finish	% Complete	Total Float	2014												2015												2016												2017												2018												2019											
								O	N	D	J	F	M	A	M	J	Jul	A	S	O	N	D	J	F	M	A	M	J	Jul	A	S	O	N	D	J	F	M	A	M	J	Jul	A	S	O	N	D	J	F	M	A	M	J	Jul	A	S	O	N	D	J	F	M	A	M	J	Jul	A	S	O	N	D	J	F	M	A	M	J	Jul	A	S
C3840-TD-170	Prepare Temporary Work Design	24d	0d	01-Dec-13 A	06-Jan-14 A	100%		■ Prepare Temporary Work Design																																																																							
C3840-TD-180	Design review & endorse by ICE	40d	0d	02-Jan-14 A	04-Feb-14 A	100%		■ Design review & endorse by ICE																																																																							
C3840-TD-190	Design review & comment by Eng/MTRC	28d	0d	07-Jan-14 A	21-Jan-14 A	100%		■ Design review & comment by Eng/MTRC																																																																							
C3840-TD-210	Design review & approve by Eng/MTRC	28d	0d	05-Feb-14 A	18-Mar-14 A	100%		■ Design review & approve by Eng/MTRC																																																																							
C3840-TD-220	Obtain Final Approval	0d	0d		18-Mar-14 A	100%		◆ Obtain Final Approval																																																																							
<b>Temporary Works Design for Temporary Traffic Decking</b>		129d	0d	18-Dec-13 A	23-Jun-14 A			■ Prepare Temporary Work Design																																																																							
C3840-TD-230	Prepare Temporary Work Design	24d	0d	18-Dec-13 A	09-Jan-14 A	100%		■ Prepare Temporary Work Design																																																																							
C3840-TD-240	Design review & endorse by ICE	40d	0d	27-Mar-14 A	11-Jun-14 A	100%		■ Design review & endorse by ICE																																																																							
C3840-TD-250	Design review and comment by Eng/MTRC	28d	0d	10-Jan-14 A	14-Apr-14 A	100%		■ Design review and comment by Eng/MTRC																																																																							
C3840-TD-260	Design re-submission	18d	0d	01-Mar-14 A	26-Mar-14 A	100%		■ Design re-submission																																																																							
C3840-TD-270	Design review and approve by Eng/MTRC	28d	0d	27-Mar-14 A	23-Jun-14 A	100%		■ Design review and approve by Eng/MTRC																																																																							
C3840-TD-310	Obtain Final Approval	0d	0d		23-Jun-14 A	100%		◆ Obtain Final Approval																																																																							
<b>Temporary Work Design for Utilities Supports</b>		118d	0d	16-Dec-13 A	23-Jun-14 A			■ Prepare Temporary Work Design																																																																							
C3840-TD-320	Prepare Temporary Work Design	24d	0d	16-Dec-13 A	09-Jan-14 A	100%		■ Prepare Temporary Work Design																																																																							
C3840-TD-330	Design review & endorse by ICE	24d	0d	27-Mar-14 A	11-Jun-14 A	100%		■ Design review & endorse by ICE																																																																							
C3840-TD-340	Design review & comment by Eng/MTRC	28d	0d	10-Jan-14 A	14-Apr-14 A	100%		■ Design review & comment by Eng/MTRC																																																																							
C3840-TD-350	Design re-submission	18d	0d	01-Mar-14 A	26-Mar-14 A	100%		■ Design re-submission																																																																							
C3840-TD-360	Design review & approve by Eng/MTRC	28d	0d	27-Mar-14 A	23-Jun-14 A	100%		■ Design review & approve by Eng/MTRC																																																																							
C3840-TD-370	Obtain Final Approval	0d	0d		23-Jun-14 A	100%		◆ Obtain Final Approval																																																																							
<b>Demolition Plan for Existing D1, D2 and Subway</b>		89d	0d	15-Nov-13 A	18-Mar-14 A			■ Develop Demolition Plan, Temporary Works Design, Risk Assessment & Method Statement																																																																							
C3840-DMD-100	Develop Demolition Plan, Temporary Works Design, Risk Assessment & Method Statement	24d	0d	15-Nov-13 A	24-Dec-13 A	100%		■ Develop Demolition Plan, Temporary Works Design, Risk Assessment & Method Statement																																																																							
C3840-DMD-110	Demolition plan review & endorse by ICE	24d	0d	01-Feb-14 A	06-Mar-14 A	100%		■ Demolition plan review & endorse by ICE																																																																							
C3840-DMD-120	Demolition plan review & comment by Eng/MTRC/ BD consultation	28d	0d	25-Dec-13 A	13-Jan-14 A	100%		■ Demolition plan review & comment by Eng/MTRC/ BD consultation																																																																							
C3840-DMD-130	Demolition plan re-submission	18d	0d	14-Jan-14 A	08-Mar-14 A	100%		■ Demolition plan re-submission																																																																							
C3840-DMD-140	Demolition plan review & approve by Eng/MTRC/ BD consultation	28d	0d	09-Mar-14 A	18-Mar-14 A	100%		■ Demolition plan review & approve by Eng/MTRC/ BD consultation																																																																							
C3840-DMD-190	Final approval for demolition to commence granted	0d	0d		18-Mar-14 A	100%		◆ Final approval for demolition to commence granted																																																																							
<b>Submission/Approval for Demolition &amp; Modification Works at Basement Wall of K11</b>		99d	0d	18-Aug-14 A	27-Jul-15 A			■ Develop & submit Demolition Plan																																																																							
C3840-DMD-400	Develop & submit Demolition Plan	24d	0d	18-Aug-14 A	18-Sep-14 A	100%		■ Develop & submit Demolition Plan																																																																							
C3840-DMD-430	Review & comment by Eng/MTRC	28d	0d	19-Sep-14 A	23-Oct-14 A	100%		■ Review & comment by Eng/MTRC																																																																							
C3840-DMD-440	Demolition Plan re-submission	18d	0d	24-Oct-14 A	31-Oct-14 A	100%		■ Demolition Plan re-submission																																																																							
C3840-DMD-450	Review & approve by Eng/MTRC	28d	0d	01-Nov-14 A	27-Jul-15 A	100%		■ Review & approve by Eng/MTRC																																																																							
<b>ELS Design for Tunnel (Vertical Shaft)</b>		118d	0d	15-Oct-13 A	26-May-14 A			■ Prepare Temporary Work Design																																																																							
C3840-ED-100	Prepare Temporary Work Design	55d	0d	15-Oct-13 A	12-Nov-13 A	100%		■ Prepare Temporary Work Design																																																																							
C3840-ED-110	Design review & endorse by ICE	40d	0d	22-Jan-14 A	12-May-14 A	100%		■ Design review & endorse by ICE																																																																							

- Current Bar
- Critical Remaining Work
- Actual Work
- Milestone
- Remaining Work

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Master Programme Revision RMPRSA1

RMPSA1

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01-Jun-18		BG	AW





Contract C3840-13C



Tsim Sha Tsui Station, Carnarvon Road Subway

Activity ID	Activity Name	Orig Dur	Rem Dur	Start	Finish	% Complete	Total Float	Gantt Chart (2014-2019)																																																													
								2014														2015														2016														2017														2018					
C3840-ED-120	Design review & comment by Eng/MTRC, GEO and BD consultation	28d	0d	13-Nov-13 A	27-Jan-14 A	100%		[Gantt bar: Design review & comment by Eng/MTRC, GEO and BD consultation]																																																													
C3840-ED-130	Design re-submission	14d	0d	09-Jan-14 A	22-May-14 A	100%		[Gantt bar: Design re-submission]																																																													
C3840-ED-140	Design review & approve by Eng/MTRC, GEO and BD consultation	28d	0d	13-Feb-14 A	26-May-14 A	100%		[Gantt bar: Design review & approve by Eng/MTRC, GEO and BD consultation]																																																													
C3840-ED-170	Obtain Final Approval	0d	0d		26-May-14 A	100%		[Milestone: Obtain Final Approval]																																																													
<b>ELS Design for Subway and Temporary Staircase</b>																																																																					
C3840-ED-180	Prepare ELS Design	24d	0d	18-Dec-13 A	09-Jan-14 A	100%		[Gantt bar: Prepare ELS Design]																																																													
C3840-ED-190	Design review & endorse by ICE	40d	0d	06-Mar-14 A	11-Jun-14 A	100%		[Gantt bar: Design review & endorse by ICE]																																																													
C3840-ED-200	Design review & comment by Eng/MTRC, GEO and BD consultation	28d	0d	10-Jan-14 A	27-Jan-14 A	100%		[Gantt bar: Design review & comment by Eng/MTRC, GEO and BD consultation]																																																													
C3840-ED-210	Design re-submission	12d	0d	05-Mar-14 A	12-Jun-14 A	100%		[Gantt bar: Design re-submission]																																																													
C3840-ED-220	Design review & approve by Eng/MTRC, GEO and BD consultation	28d	0d	06-Mar-14 A	23-Jun-14 A	100%		[Gantt bar: Design review & approve by Eng/MTRC, GEO and BD consultation]																																																													
C3840-ED-230	Obtain Final Approval	0d	0d		23-Jun-14 A	100%		[Milestone: Obtain Final Approval]																																																													
<b>ELS Design for Tunnel (Horizontal Pipe Piling)</b>																																																																					
C3840-ED-240	Prepare Temporary Work Design (AIP)	24d	0d	02-Jun-14 A	16-Jun-14 A	100%		[Gantt bar: Prepare Temporary Work Design (AIP)]																																																													
C3840-ED-260	Design review & comment by Eng/MTRC and GEO	28d	0d	17-Jun-14 A	22-Jul-14 A	100%		[Gantt bar: Design review & comment by Eng/MTRC and GEO]																																																													
C3840-ED-270	Design re-submission (DDA)	18d	0d	18-Jun-14 A	08-Aug-14 A	100%		[Gantt bar: Design re-submission (DDA)]																																																													
C3840-ED-280	Design review & approve by Eng/MTRC	28d	0d	09-Aug-14 A	13-Aug-14 A	100%		[Gantt bar: Design review & approve by Eng/MTRC]																																																													
C3840-ED-300	Design submission for BD approval	1d	0d	13-Aug-14 A	13-Aug-14 A	100%		[Gantt bar: Design submission for BD approval]																																																													
C3840-ED-310	BD & GEO review and approval	60d	0d	14-Aug-14 A	28-Oct-14 A	100%		[Gantt bar: BD & GEO review and approval]																																																													
C3840-ED-315	BA 8/ BA10 submission for ground treatment and GI field works	1d	0d	05-Feb-15 A	05-Feb-15 A	100%		[Gantt bar: BA 8/ BA10 submission for ground treatment and GI field works]																																																													
C3840-ED-320	BA 8 submission for BD consent for HPP works	1d	0d	23-Mar-15 A	23-Mar-15 A	100%		[Gantt bar: BA 8 submission for BD consent for HPP works]																																																													
C3840-ED-330	BD process BA 8/BA10 submission & BD issue consent	28d	0d	24-Mar-15 A	02-Jun-15 A	100%		[Gantt bar: BD process BA 8/BA10 submission & BD issue consent]																																																													
<b>ELS Design for Subway and D2 (C&amp;C)</b>																																																																					
C3840-ED-340	Prepare ELS Design	24d	0d	18-Dec-13 A	09-Jan-14 A	100%		[Gantt bar: Prepare ELS Design]																																																													
C3840-ED-350	Design review & endorse by ICE	40d	0d	27-Mar-14 A	11-Jun-14 A	100%		[Gantt bar: Design review & endorse by ICE]																																																													
C3840-ED-360	Design review & comment by Eng/MTRC, GEO and BD consultation	28d	0d	10-Jan-14 A	27-Jan-14 A	100%		[Gantt bar: Design review & comment by Eng/MTRC, GEO and BD consultation]																																																													
C3840-ED-370	Design re-submission	12d	0d	26-Mar-14 A	12-Jun-14 A	100%		[Gantt bar: Design re-submission]																																																													
C3840-ED-380	Design review & approve by Eng/MTRC, GEO and BD consultation	28d	0d	27-Mar-14 A	23-Jun-14 A	100%		[Gantt bar: Design review & approve by Eng/MTRC, GEO and BD consultation]																																																													
C3840-ED-410	Obtain Final Approval	0d	0d		23-Jun-14 A	100%		[Milestone: Obtain Final Approval]																																																													
<b>Temporary Traffic Mangement Schemes (TTMs) for Carnarvon Road Closure &amp; Piling works at TS and C&amp;C</b>																																																																					
C3840-TTM-100	Appoint Traffic Consultant	0d	0d		16-Oct-13 A	100%		[Milestone: Appoint Traffic Consultant]																																																													
C3840-TTM-110	Prepare & submit review by Eng Outline TTM Schemes as per PS P20.4	6d	0d	17-Oct-13 A	23-Oct-13 A	100%		[Gantt bar: Prepare & submit review by Eng Outline TTM Schemes as per PS P20.4]																																																													
C3840-TTM-120	Eng review Outline TTM Schemes	4d	0d	24-Oct-13 A	28-Oct-13 A	100%		[Gantt bar: Eng review Outline TTM Schemes]																																																													
C3840-TTM-130	Prepare Detailed TTMS	5d	0d	24-Oct-13 A	30-Oct-13 A	100%		[Gantt bar: Prepare Detailed TTMS]																																																													
C3840-TTM-140	Discussion and agree in principle at TMLG Meeting	1d	0d	30-Oct-13 A	30-Oct-13 A	100%		[Gantt bar: Discussion and agree in principle at TMLG Meeting]																																																													

- Current Bar
- Critical Remaining Work
- Actual Work
- Remaining Work
- Milestone

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**Contract C3840-13C**  
**Tsim Sha Tsui Station, Carnarvon Road Subway**



Activity ID	Activity Name	Orig Dur	Rem Dur	Start	Finish	% Complete	Total Float	2014												2015												2016												2017												2018												2019																																										
								O	N	D	J	F	M	A	M	J	Jul	A	S	O	N	D	J	F	M	A	M	J	Jul	A	S	O	N	D	J	F	M	A	M	J	Jul	A	S	O	N	D	J	F	M	A	M	J	Jul	A	S	O	N	D	J	F	M	A	M	J	Jul	A	S	O	N	D	J	F	M	A	M	J	Jul	A	S	O	N	D	J	F	M	A	M	J	Jul	A	S	O	N	D	J	F	M	A	M	J	Jul	A	S	O	N	D	J	F	M	A
C3840-INS-10	Prepare & submit instrumentation/monitoring plan for approval of Eng	28d	0d	16-Dec-13 A	28-Jan-14 A	100%		■ Prepare & submit instrumentation/monitoring plan for approval of Eng																																																																																																						
C3840-INS-20	Eng approve instrumentation/monitoring plan	7d	0d	29-Jan-14 A	05-Feb-14 A	100%		■ Eng approve instrumentation/monitoring plan																																																																																																						
C3840-INS-30	Installation of instrumentations	12d	0d	07-Jan-14 A	25-Feb-14 A	100%		■ Installation of instrumentations																																																																																																						
C3840-INS-40	Initial reading and agreement with Eng	14d	0d	24-Feb-14 A	30-Mar-14 A	100%		■ Initial reading and agreement with Eng																																																																																																						
C3840-INS-50	Commence regular monitoring	0d	0d	02-Apr-14 A		100%		◆ Commence regular monitoring																																																																																																						
<b>Utility Diversion</b>		<b>1292d</b>	<b>0d</b>	<b>14-Oct-13 A</b>	<b>12-Dec-15 A</b>																																																																																																									
C3840-UTD-010	Utility Detection Survey incl. prepare survey report	12d	0d	02-Nov-13 A	11-Dec-13 A	100%		■ Utility Detection Survey incl. prepare survey report																																																																																																						
C3840-UTD-030	Notification to Utility Companies and 1st ULG meeting	46d	0d	14-Oct-13 A	28-Nov-13 A	100%		■ Notification to Utility Companies and 1st ULG meeting																																																																																																						
C3840-UTD-040	Relocation of mail box	8d	0d	29-Nov-13 A	06-Dec-13 A	100%		■ Relocation of mail box																																																																																																						
C3840-UTD-110	Relocation of Telephone Kiosk by PCCW	40d	0d	23-Dec-13 A	08-Jan-14 A	100%		■ Relocation of Telephone Kiosk by PCCW																																																																																																						
C3840-UTD-290	Diversion of Gasmain crossing tunnel shaft	57d	0d	13-Feb-14 A	26-Mar-14 A	100%		■ Diversion of Gasmain crossing tunnel shaft																																																																																																						
C3840-UTD-295	Exposure & temporary support to underground gasmain and cable duct at TS	64d	0d	11-Mar-15 A	30-Jun-15 A	100%		■ Exposure & temporary support to underground gasmain and cable duct at TS																																																																																																						
C3840-UTD-320	Exposure & slewing of underground utilities for driving pipe piles except D2 area	57d	0d	13-Feb-14 A	31-Oct-14 A	100%		■ Exposure & slewing of underground utilities for driving pipe piles except D2 area																																																																																																						
C3840-UTD-335	Temporary Diversion of existing watermain that dash with temp. staircase	40d	0d	28-May-15 A	17-Jul-15 A	100%		■ Temporary Diversion of existing watermain that dash with temp. staircase																																																																																																						
C3840-UTD-360	Removal of Street Lighting Post near D2	57d	0d	13-Feb-14 A	23-May-14 A	100%		■ Removal of Street Lighting Post near D2																																																																																																						
C3840-UTD-455	Exposure & slewing of underground utilities for driving pipe piles at D2 area	51d	0d	07-Oct-15 A	12-Dec-15 A	100%		■ Exposure & slewing of underground utilities for driving pipe piles at D2 area																																																																																																						
<b>Remove Existing Escalator by Specialist Contractor</b>		<b>109d</b>	<b>0d</b>	<b>01-Mar-16 A</b>	<b>05-Aug-16 A</b>																																																																																																									
C3840-ESC-110	Appoint Specialist Contractor	0d	0d		11-Mar-16 A	100%		◆ Appoint Specialist Contractor																																																																																																						
C3840-ESC-120	Prepare method statement & delivery route for removal of exist. Escalator	6d	0d	01-Mar-16 A	11-Mar-16 A	100%		■ Prepare method statement & delivery route for removal of exist. Escalator																																																																																																						
C3840-ESC-130	Eng review and approve method statement & delivery route for removal of exist. Escalator	21d	0d	12-Mar-16 A	02-Jun-16 A	100%		■ Eng review and approve method statement & delivery route for removal of exist. Escalator																																																																																																						
C3840-ESC-140	Liaise with maintenance Contractor via. Eng and submit Form EL3 to EMSD	6d	0d	06-Apr-16 A	06-Jul-16 A	100%		■ Liaise with maintenance Contractor via. Eng and submit Form EL3 to EMSD																																																																																																						
C3840-ESC-150	EMSD/MTRC decommission existing escalator	3d	0d	06-Jul-16 A	06-Jul-16 A	100%		■ EMSD/MTRC decommission existing escalator																																																																																																						
C3840-ESC-152	MTR's testing on Existing Escalator	2d	0d	07-Jul-16 A	08-Jul-16 A	100%		■ MTR's testing on Existing Escalator																																																																																																						
C3840-ESC-160	Remove existing escalator	14d	0d	11-Jul-16 A	05-Aug-16 A	100%		■ Remove existing escalator																																																																																																						
<b>Open Cut Sequence 1 (Advance Ground Works &amp; Piling Works)</b>		<b>778d</b>	<b>0d</b>	<b>13-Nov-13 A</b>	<b>30-Sep-16 A</b>																																																																																																									
<b>Advance Ground Works</b>		<b>113d</b>	<b>0d</b>	<b>13-Nov-13 A</b>	<b>24-Jul-14 A</b>																																																																																																									
C3840-AGW-010	Site clearance	24d	0d	13-Nov-13 A	10-Dec-13 A	100%		■ Site clearance																																																																																																						
C3840-AGW-020	Trial Pit/trench excavation	69d	0d	14-Nov-13 A	31-Mar-14 A	100%		■ Trial Pit/trench excavation																																																																																																						
C3840-AGW-030	Temporary Hoarding Erection	15d	0d	11-Dec-13 A	30-Dec-13 A	100%		■ Temporary Hoarding Erection																																																																																																						
C3840-AGW-040	Pre-drilling works	24d	0d	30-Dec-13 A	24-Jan-14 A	100%		■ Pre-drilling works																																																																																																						
C3840-AGW-050	Permanent Hoarding Erection	25d	0d	28-Feb-14 A	08-Apr-14 A	100%		■ Permanent Hoarding Erection																																																																																																						
C3840-AGW-070	Joint Survey & Remove existing BS & ABWF Services	6d	0d	01-Feb-14 A	22-Feb-14 A	100%		■ Joint Survey & Remove existing BS & ABWF Services																																																																																																						
C3840-AGW-080	Close D1 & Construct Flood Barrier at D1	9d	0d	23-Feb-14 A	27-Feb-14 A	100%		■ Close D1 & Construct Flood Barrier at D1																																																																																																						
C3840-AGW-100	Demolish D1 above GL	12d	0d	18-Mar-14 A	24-Apr-14 A	100%		■ Demolish D1 above GL																																																																																																						

■ Current Bar     ■ Critical Remaining Work  
■ Actual Work     ◆ Milestone  
■ Remaining Work

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Contract C3840-13C  
Tsim Sha Tsui Station, Carnarvon Road Subway



Activity ID	Activity Name	Orig Dur	Rem Dur	Start	Finish	% Complete	Total Float	2014							2015							2016							2017							2018							2019																															
								O	N	D	J	F	M	A	M	J	Jul	A	S	O	N	D	J	F	M	A	M	J	Jul	A	S	O	N	D	J	F	M	A	M	J	Jul	A	S	O	N	D	J	F	M	A	M	J	Jul	A	S	O	N	D	J	F	M	A	M	J	Jul	A	S	O	N	D	J	F	M	A
<b>T&amp;C and Statutory Inspection Prior to Open Entrance D1 for Public Use</b>								24d	24d	26-Sep-18	25-Oct-18			0d																																																												
C3840-BSD1-170	T&C With Operation Inspection	24d	24d	26-Sep-18	25-Oct-18	0%	0d																																																																			
<b>Operational &amp; Maintenance Manuals, As-built Drawings, Design Data</b>								114d	103d	02-May-18 A	03-Oct-18			19d																																																												
C3840-OD-1000	Prepare and submit 1st draft of O&M Manuals as per PS 18	30d	0d	02-May-18 A	22-May-18 A	100%																																																																				
C3840-OD-1010	Eng review, comment & approve draft O&M Manuals as per PS 18	56d	40d	23-May-18 A	10-Jul-18	20%	43d																																																																			
C3840-OD-1020	Prepare and submit final version of O&M Manuals as per PS 18	15d	15d	11-Jul-18	25-Jul-18	0%	43d																																																																			
C3840-OD-1030	Eng approve final version of O&M Manuals as per PS 18	50d	50d	26-Jul-18	13-Sep-18	0%	43d																																																																			
C3840-OD-1040	Prepare and submit draft as-built Drawings as per PS 18	30d	30d	14-Jun-18	20-Jul-18	0%	19d																																																																			
C3840-OD-1050	Eng review, comment & approve draft as-built Drawings as per PS 18	30d	30d	21-Jul-18	19-Aug-18	0%	23d																																																																			
C3840-OD-1060	Prepare and submit final as-built Drawings as per PS 18	15d	15d	20-Aug-18	03-Sep-18	0%	23d																																																																			
C3840-OD-1070	Eng approve As-built Drawings as per PS 18	30d	30d	04-Sep-18	03-Oct-18	0%	23d																																																																			
<b>Milestones for Cost Centre C - Building Services</b>								1304d	0d	10-Nov-14 A	29-Jun-18			184d																																																												
C3840-MS-C01	C1- Approval of detailed designs for BS works, suppliers/models/types of BS equip./mat. & SD for T. E.	0d	0d		10-Nov-14 A	100%		◆ C1- Approval of detailed designs for BS works, suppliers/models/types of BS equip./mat. & SD for T. E.																																																																		
C3840-MS-C02	C2- Approval in principle of all BS Shop Drwgs	0d	0d		10-Nov-14 A	100%		◆ C2- Approval in principle of all BS Shop Drwgs																																																																		
C3840-MS-C03	C3- Comp. placing all orders for all major BS equipment & materials	0d	0d		16-Mar-15 A	100%		◆ C3- Comp. placing all orders for all major BS equipment & materials																																																																		
C3840-MS-C04	C4- Comp. all factory acceptance testing	0d	0d		22-Jan-18 A	100%		◆ C4- Comp. all factory acceptance testing																																																																		
C3840-MS-C05	C5- Comp. delivery to site of all major equipment for the basement E&M plant room	0d	0d		29-Jan-18 A	100%		◆ C5- Comp. delivery to site of all major equipm																																																																		
C3840-MS-C06	C6- Comp. T&C/all statutory & operational team inspections for New Entrance D2	0d	0d		29-Jun-18	0%	184d	◆ C6- Comp. T&C/all statutor																																																																		
C3840-MS-C07	C7- Comp. T&C/all statutory & operanal team inspection for new Entrance D3 and Subway	0d	0d		29-Jun-18	0%	184d	◆ C7- Comp. T&C/all statutor																																																																		
<b>DSD Entrusted Drainage Works - Option</b>								1119d	44d	20-Dec-13 A	24-Jul-18			131d																																																												
<b>Submissions</b>								1368d	0d	20-Dec-13 A	14-May-18 A																																																															
C3840-ENT-010	Engineer Exercise Option 1 (Assume 1 year after Contract Commence)	0d	0d		08-Oct-14 A	100%		◆ Engineer Exercise Option 1 (Assume 1 year after Contract Commence)																																																																		
C3840-ENT-020	Material submission & get approval from MTRC	60d	0d	18-Apr-18 A	14-May-18 A	100%		■ Material submission & get approv																																																																		
C3840-ENT-030	Proposed procedures for diversion agreed during meeting held on 20 Dec 13	0d	0d		20-Dec-13 A	100%		◆ Proposed procedures for diversion agreed during meeting held on 20 Dec 13																																																																		
<b>DSD Entrusted Sewage Works</b>								604d	44d	26-Jul-16 A	24-Jul-18			78d																																																												
C3840-ENT-070	Temporary diversion of existing flows	18d	0d	26-Jul-16 A	09-Nov-16 A	100%		■ Temporary diversion of existing flows																																																																		
C3840-ENT-080	Construct 4 nos. manholes and pipe laying in between 4 nos. manholes (85%)	13d	0d	26-Apr-18 A	31-May-18 A	100%		■ Construct 4 nos. manholes and																																																																		
C3840-ENT-082	Inspection & Diversion of sewer flow from temporary sewer pipeline to newly constructed sewer pipeline	18d	18d	01-Jun-18 A	22-Jun-18	0%	78d	■ Inspection & Diversion of sei																																																																		
C3840-ENT-090	Consturct remaining section of entrusted sewage works (15%)	8d	8d	23-Jun-18	03-Jul-18	0%	78d	■ Consturct remaining sectio																																																																		
C3840-ENT-160	CCTV Inspection including report	12d	12d	04-Jul-18	17-Jul-18	0%	78d	■ CCTV Inspection includin																																																																		
C3840-ENT-170	Backfill & Install manhole cover	12d	12d	04-Jul-18	17-Jul-18	0%	78d	■ Backfill & Install manhole																																																																		
C3840-ENT-180	Handover Inspection	6d	6d	18-Jul-18	24-Jul-18	0%	78d	■ Handover, Inspection																																																																		
C3840-ENT-190	Handover to DSD	0d	0d		24-Jul-18	0%	78d	◆ Handover to DSD																																																																		
<b>Milestones for Cost Centre E - DSD Entrusted Drainage Works - Option</b>								21d	21d	03-Jul-18	24-Jul-18			159d																																																												

- Current Bar
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- ◆ Milestone

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**APPENDIX D**

**IMPLEMENTATION SCHEDULE**

## Appendix VIII

### Implementation Schedule

Project Profile Ref.	Recommended Mitigation Measures		Objectives of the Recommended Measures & Main Concerns to address	Implementation Parties	Location of the measure	When to implement the measure	Relevant requirements or standards for the measure to achieve
S.3.1	Noise Impact	Use of quieter plant	To minimize construction noise emissions	Contractor	Work site	Construction Stage	ProPECC PN2/93 and Noise Control Ordinance
S.3.1		<p>Use of noise enclosure and movable barrier</p> <ul style="list-style-type: none"> <li>movable barrier can achieve a 5 dB(A) reduction for movable PME and 10 dB(A) reduction for stationary PME;</li> <li>noise enclosure can achieve 15dB(A) reduction for PME;</li> <li>A typical design barrier with a steel frame of vertical / cantilever type would be adopted and located close to the noise generating part of PME;</li> <li>Barrier material of surface mass in excess of 7kg/m<sup>2</sup> shall be required to achieve the maximum screening effect (and minimum 10kg/m<sup>2</sup> for noise enclosure);</li> <li>The length of barrier should generally be at least five times greater than its height and the minimum height of a barrier should be such that no part of the noise source will be visible from the noise sensitive receiver being protected.</li> </ul>	To minimize construction noise emissions	Contractor	Work site	Construction Stage	ProPECC PN2/93, Noise Control Ordinance and EIAO Guidance Note NO. 9/2010
S.3.1		<p>General Construction Noise Control Measures</p> <ul style="list-style-type: none"> <li>The Code of Practice on Good Management Practice</li> </ul>	To minimize construction noise	Contractor	Work site	Construction Stage	ProPECC PN2/93 and Noise Control

Project Profile Ref.	Recommended Mitigation Measures		Objectives of the Recommended Measures & Main Concerns to address	Implementation Parties	Location of the measure	When to implement the measure	Relevant requirements or standards for the measure to achieve
		<p>to Prevent Violation of the Noise Control Ordinance (Chapter 400) (for Construction Industry) published by EPD shall be adopted;</p> <ul style="list-style-type: none"> <li>• The statutory and non-statutory requirements and guidelines shall be complied with;</li> <li>• Approval for the method of working, equipment and noise mitigation measures intended to be used at the site shall be granted from the Project Engineer before commencing any work;</li> <li>• Working methods to minimize the noise impact on the surrounding NSRs shall be formulated and executed, and the implementation of these methods shall be monitored by experienced personnel with suitable training;</li> <li>• Noisy equipment and noisy activities shall be located as far away from the NSRs as is practical;</li> <li>• Unused equipment shall be turned off;</li> <li>• PME should be kept to a minimum and the parallel use of noisy equipment / machinery should be avoided;</li> <li>• All plant and equipment shall be maintained regularly; and</li> <li>• Material stockpiles and other structures shall be effectively utilized as noise barriers, whenever practicable.</li> </ul>					Ordinance
	Air Quality Impact						
S.3.2	Construction Dust Control Measures	<ul style="list-style-type: none"> <li>• Decking will be provided subsequent to the completion of surface excavation works. The duration</li> </ul>	To minimise the dust impacts arising from the	Contractor	Work site	Construction Stage	Air Pollution Control (Construction)



Project Profile Ref.	Recommended Mitigation Measures		Objectives of the Recommended Measures & Main Concerns to address	Implementation Parties	Location of the measure	When to implement the measure	Relevant requirements or standards for the measure to achieve
	Recommended Mitigation Measures						
		<p>of decking is around 13 months after surface excavation works;</p> <ul style="list-style-type: none"> <li>Regular watering to reduce dust emissions from all exposed site surface, particularly during dry weather;</li> <li>Frequent watering for particularly dusty construction areas and areas close to air sensitive receivers;</li> <li>Cover all excavated or stockpile of dusty material by impervious sheeting or spraying with water to maintain the entire surface wet;</li> <li>Provision of vehicle washing facilities at the exit points of the site; and</li> <li>Provision of tarpaulin covering of any dusty materials on a vehicle leaving the site.</li> </ul>	construction works				Dust) Regulation
S.3.3	<p><b>Water Quality Impact</b></p> <p>Construction Water Quality Impact Measures</p> <ul style="list-style-type: none"> <li>The Contractor should design and implement all the mitigation measures and practices specified in the ProPECC PN 1/94 "Construction Site Drainage" and "Recommended Pollution Control Clauses for Construction Contracts" issued by EPD.</li> <li>All runoffs arising from the construction site should be properly collected and treated to ensure the discharge standards as stipulated in WPCO are met. Silt trap and oil interceptor should be provided to remove the oil, lubricants, grease, silt, grit and debris from the wastewater before being pumped to the public stormwater drainage system. The silt traps and oil interceptors should be cleaned and maintained regularly.</li> </ul>		To reduce water quality impact induced by the construction work	Contractor	Work Site	Construction Stage	ProPECC PN1/94; Water Pollution Control Ordinance

Project Profile Ref.	Recommended Mitigation Measures		Objectives of the Recommended Measures & Main Concerns to address	Implementation Parties	Location of the measure	When to implement the measure	Relevant requirements or standards for the measure to achieve
		<ul style="list-style-type: none"> <li>Any foul effluent should not be discharged into any public sewer and stormwater drain, unless an effluent discharge permit is obtained under the WPCO by the Contractor.</li> <li>Site toilet facilities, if needed, should be chemical toilets or should have the foul water effluent directed to a foul sewer.</li> </ul>					
S.3.4	<b>Waste Management</b> Construction Waste Management Measures <ul style="list-style-type: none"> <li>Excavated material should be reused on site as far as possible to minimise off-site disposal. Scrap metals or abandoned equipment should be recycled if possible.</li> <li>Waste arising should be kept to a minimum and be handled, transported and disposed of in a suitable manner.</li> <li>The Contractor should adopt a trip ticket system for the disposal of C&amp;D materials to any designated public filling facility and/or landfill. Independent audits of the Contractor and resident site staff will be undertaken to ensure that the correct procedures are being followed.</li> <li>Chemical waste shall be handled in accordance with the Code of Practice on the Packaging, Handling and Storage of Chemical Wastes.</li> <li>All general refuse should be segregated and stored in enclosed bins or compaction units and waste separation facilities for paper, aluminium cans, plastic bottles etc. should be provided to facilitate reuse or</li> </ul>		To adopt waste management measures in the way of avoiding, minimising, reusing and recycling so as to reduce waste generation	Contractor	Work Site	Construction Stage	Waste Disposal Ordinance (Cap. 54); Waste Disposal (Chemical Waste) (General) Regulation; ETWB TCW No. 31/2004; ETWB TCW No. 19/2005.

Project Profile Ref.	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concerns to address	Implementation Parties	Location of the measure	When to implement the measure	Relevant requirements or standards for the measure to achieve
	recycling of materials and their proper disposal.					
	Landscape and Visual Impact					
S.3.5	Landscape and Visual Measures <ul style="list-style-type: none"> <li>Screening of construction works by hoardings/noise barriers around works area with visually unobtrusive colours</li> </ul>	To reduce visual impact by construction works.	Contractor	Temporary Storage Area at Salisbury Road	Construction Stage	EIAO
S.3.5	<ul style="list-style-type: none"> <li>Reinstating the affected amenity planting area at Salisbury Road after the completion of works</li> </ul>	To prevent loss of planter after construction	Contractor	Temporary Storage Area at Salisbury Road	Operation Stage	ETWB TCW No. 2/2004

**APPENDIX E**

**STATUS OF ENVIRONMENTAL LICENSES AND PERMITS**

**APPENDIX E**

**STATUS OF ENVIRONMENTAL LICENSES AND PERMITS**



# Maeda Corporation

Contract No. C3840-13C

Tsim Sha Tsui Station Carnarvon Road Subway

Last Update: 01-December-2018

## Licence Summary

Item No.	Our Ref.	Govt. Ord.	Type? (License / Permit / Account / Notification / Registration & etc.)	Description	Submission	Ref. No	Date of Submission (to EPD) (DD-MM-YYYY)	Date of Approval / Receipt (from EPD) (DD-MM-YYYY)	Date of Activation (DD-MM-YYYY)	Date of Expiry (DD-MM-YYYY) Green = expire next mth; Yellow = expire this wk; Red = Expired	Description	Remarks
000	000	EIAO	Permit	Environmental Permit	N/A	AEP-440/2012	N/A	N/A	18 - 07 - 2012	N/A	Baseline, Air & Noise Impact Monitoring	
001	APCO #004	APCO	Notification	Construction Dust Notification	Form NB – Notification S3(3) of APCO (Construction Dust)	433242	04 - 05 - 2018	07 - 05 - 2018	01 - 01 - 2016	31 - 12 - 2018	Construction of the Superstructure of a Building	Change of anticipated date of completion is notified
001	APCO #002	APCO	Notification	Construction Dust Notification	Form NB – Notification S3(3) of APCO (Construction Dust)	403252	27 - 05 - 2016	02 - 06 - 2016	01 - 11 - 2016	28 - 02 - 2019	Road Construction Work	Change of anticipated date of completion is notified
002	APCO #002	WDO	Account	Construction Waste Billing Account	EPD-211 (Form 1) Application for a Billing Account for Disposal of Construction Waste	7018523	18 - 10 - 2013	25 - 10 - 2013	25 - 10 - 2013	N/A	Disposal of C&D Waste	Application No. WFG12765
003	WPCO #002	WPCO	Licence	Water Discharge Licence	EPD-117 (Form A) Application for a Licence of Water Discharge	WT00019722-2014	24 - 07 - 2014	01 - 09 - 2014	01 - 09 - 2014	31 - 03 - 2019	Quarterly Report FlowRate 25m3/d, pH 6-9, SS 30mg/L, COD 80mg/L	
004	CWP #001	WDO	Registration	Chemical Waste Producer	EPD-129 Application for Registration as a Chemical Waste Producer	5213-2214-M2446-16	15 - 01 - 2014	04 - 03 - 2014	04 - 03 - 2014	N/A	Surplus paint, spent lubricating oil, spent battery	
006	CNP#011	NCO	Permit	Construction Noise Permit	EPD74A(s) Form 1 - Application for a Construction Noise Permit	OSS Ref: 002069312 Permit: GW-RE0635-18	05 - 09 - 2018	19 - 09 - 2018	01 - 10 - 2018	30 - 03 - 2019	4nos Submersible Water pump (Electric) or 1 drill for 24-hr; 4 drill & 4 grinder for 07:00-23:00	Working Area includes the underground area



# Maeda Corporation

Contract No. C3840-13C

Tsim Sha Tsui Station Carnarvon Road Subway

Last Update: 01-March-2019

## Licence Summary

Item No.	Our Ref.	Govt. Ord.	Type? (License / Permit / Account / Notification / Registration & etc.)	Description	Submission	Ref. No	Date of Submission (to EPD) (DD-MM-YYYY)	Date of Approval / Receipt (from EPD) (DD-MM-YYYY)	Date of Activation (DD-MM-YYYY)	Date of Expiry (DD-MM-YYYY) Green = expire next mth; Yellow = expire this wk; Red = Expired	Description	Remarks
000	000	EIAO	Permit	Environmental Permit	N/A	AEP-440/2012	N/A	N/A	18 - 07 - 2012	N/A	Baseline, Air & Noise Impact Monitoring	Termination of construction phase EM&A Program was approved by EPD on 28 Feb 2019
002	APCO #002	WDO	Account	Construction Waste Billing Account	EPD-211 (Form 1) Application for a Billing Account for Disposal of Construction Waste	7018523	18 - 10 - 2013	25 - 10 - 2013	25 - 10 - 2013	N/A	Disposal of C&D Waste	Application No. WFG12765
003	WPCO #002	WPCO	Licence	Water Discharge Licence	EPD-117 (Form A) Application for a Licence of Water Discharge	WT00019722-2014	24 - 07 - 2014	01 - 09 - 2014	01 - 09 - 2014	31 - 03 - 2019	Quarterly Report FlowRate 25m3/d, pH 6-9, SS 30mg/L, COD 80mg/L	
004	CWP #001	WDO	Registration	Chemical Waste Producer	EPD-129 Application for Registration as a Chemical Waste Producer	5213-2214-M2446-16	15 - 01 - 2014	04 - 03 - 2014	04 - 03 - 2014	N/A	Surplus paint, spent lubricating oil, spent battery	



**APPENDIX F**

**EVENT AND ACTION PLAN**

# Event and Action Plan for Air Quality

In case the Action and Limit Levels are not complied during construction stage, the Event and Action Plan shown below should be followed.

Event / Action	ET	IEC	ER	Contractor
<b>Action Level</b>				
Exceedance for one sample	<ol style="list-style-type: none"> <li>1. Identify source;</li> <li>2. If valid, inform IEC and ER;</li> <li>3. Repeat measurement to confirm finding;</li> <li>4. Increase monitoring frequency to daily.</li> </ol>	<ol style="list-style-type: none"> <li>1. Check monitoring data submitted by ET;</li> <li>2. Check Contractor's working method.</li> </ol>	<ol style="list-style-type: none"> <li>1. Notify Contractor</li> </ol>	<ol style="list-style-type: none"> <li>1. Rectify any unacceptable practice;</li> <li>2. Amend working methods if appropriate</li> </ol>
Exceedance for two or more consecutive samples	<ol style="list-style-type: none"> <li>1. Identify source;</li> <li>2. Inform IEC and EPD;</li> <li>3. Repeat measurements to confirm findings;</li> <li>4. Increase monitoring frequency to daily;</li> <li>5. Discuss with IEC and Contractor on remedial action required;</li> <li>6. If exceedance continues, arrange meeting with IEC and ER;</li> <li>7. If exceedance stops, cease additional monitoring.</li> </ol>	<ol style="list-style-type: none"> <li>1. Check monitoring data submitted by ET;</li> <li>2. Check Contractor's working method;</li> <li>3. Discuss with ET and Contractor on possible remedial measures;</li> <li>4. Advise the ER on the effectiveness of the proposed remedial measures;</li> <li>5. Supervise implementation of remedial measures.</li> </ol>	<ol style="list-style-type: none"> <li>1. Confirm receipt of notification of failure in writing;</li> <li>2. Notify Contractor;</li> <li>3. Ensure remedial measure properly implemented.</li> </ol>	<ol style="list-style-type: none"> <li>1. Submit proposals for remedial action to IEC within 3 working days of notification;</li> <li>2. Implement the agreed proposals;</li> <li>3. Amend proposal if appropriate.</li> </ol>
<b>Limit Level</b>				
Exceedance for one sample	<ol style="list-style-type: none"> <li>1. Identify source;</li> <li>2. Inform ER and EPD;</li> <li>3. Repeat measurement to confirm finding;</li> <li>4. Increase</li> </ol>	<ol style="list-style-type: none"> <li>1. Check monitoring</li> <li>2. data submitted by ET;</li> <li>3. Check Contractor's working</li> </ol>	<ol style="list-style-type: none"> <li>1. Confirm receipt of notification of failure in writing;</li> <li>2. Notify Contractor;</li> <li>3. Ensure remedial</li> </ol>	<ol style="list-style-type: none"> <li>1. Take immediate action to avoid further exceedance;</li> <li>2. Submit proposals for remedial actions to IEC</li> </ol>

Event / Action	ET	IEC	ER	Contractor
	<p>monitoring frequency to daily;</p> <p>5. Assess effectiveness of Contractor's remedial actions and keep IEC, EPD and ER informed of the results.</p>	<p>method;</p> <p>4. Discuss with ET and the Contractor on possible remedial measures;</p> <p>5. Advise the ER on the effectiveness of the proposed remedial measures;</p> <p>6. Supervise implementation of remedial measures.</p>	<p>measures properly implemented.</p>	<p>within 3 working days of notification;</p> <p>3. Implement the agreed proposals;</p> <p>4. Amend proposal if appropriate.</p>
Exceedance for two or more consecutive samples	<p>1. Notify IEC, ER, Contractor and EPD;</p> <p>2. Identify sources;</p> <p>3. Repeat measurement to confirm findings;</p> <p>4. Increase monitoring frequency to daily;</p> <p>5. Carry out analysis of Contractor's working procedures to determine possible mitigation to be implemented;</p> <p>6. Arrange meeting with IEC and ER to discuss the remedial actions to be taken;</p> <p>7. Assess the effectiveness of Contractor's remedial actions and keep IEC, EPD and ER informed of the</p>	<p>1. Discuss amongst ER, ET and Contractor on the potential remedial actions;</p> <p>2. Review Contractor's remedial actions whenever necessary to assure their effectiveness and advise the ET accordingly.</p> <p>3. Supervise the implementation of remedial measures.</p>	<p>1. Confirm receipt of notification of failure in writing;</p> <p>2. Notify Contractor;</p> <p>3. In consultation with IEC, agree with the Contractor on the remedial measures to be implemented;</p> <p>4. Ensure remedial measures properly implemented;</p> <p>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.</p>	<p>1. Take immediate action to avoid further exceedance;</p> <p>2. Submit proposals for remedial actions to IEC within 3 working days of notification;</p> <p>3. Implement the agreed proposals;</p> <p>4. Resubmit proposals if problem still not under control;</p> <p>5. Stop the relevant portion of works as determined by the ER until the exceedance is abated.</p>

Event / Action	ET	IEC	ER	Contractor
	results; 8. If exceedance stops, cease additional monitoring.			

# Event and Action Plan for Construction Noise

In case the Action and Limit Levels are not complied during the construction stage, the Event and Action Plan shown below should be followed.

Event / Action	ET	IEC	ER	Contractor
Action Level	<ol style="list-style-type: none"> <li>1. Notify IEC and Contractor.</li> <li>2. Carry out investigation.</li> <li>3. Report the results of investigation to the IEC and Contractor.</li> <li>4. Discuss with the Contractor and formulate remedial measures</li> <li>5. Increase monitoring frequency to check mitigation effectiveness.</li> </ol>	<ol style="list-style-type: none"> <li>1. Review the analyzed result submitted by ET.</li> <li>2. Review the proposed remedial measures by the Contractor and advise the ER accordingly.</li> <li>3. Supervise the implementation of remedial measures.</li> </ol>	<ol style="list-style-type: none"> <li>1. Confirm receipt of notification of exceedance</li> <li>2. Notify Contractor</li> <li>3. Require Contractor to propose remedial measures for the analysed noise problem</li> <li>4. Ensure remedial measures are properly implemented.</li> </ol>	<ol style="list-style-type: none"> <li>1. Submit noise mitigation proposals to IEC</li> <li>2. Implement noise mitigation proposals</li> </ol>
Limit Level	<ol style="list-style-type: none"> <li>1. Notify IEC, ER, EPD and Contractor, and follow other actions</li> <li>2. Identify source</li> <li>3. Repeat measurement to confirm findings</li> <li>4. Increase monitoring frequency</li> <li>5. Check Contractor's working procedures to determine possible mitigation to be implemented</li> <li>6. Inform IEC, ER and EPD the causes and actions taken for the exceedances</li> <li>7. Assess effectiveness of Contractor's</li> </ol>	<ol style="list-style-type: none"> <li>1. Discuss amongst ER, ET and Contractor on the potential remedial actions</li> <li>2. Review Contractor's remedial actions whenever necessary to assure their effectiveness and advise the ET accordingly</li> <li>3. Supervise the implementation of remedial measures</li> </ol>	<ol style="list-style-type: none"> <li>1. Confirm receipt of notification of exceedances</li> <li>2. Notify Contractor</li> <li>3. Require Contractor to propose remedial measures</li> <li>4. Ensure remedial measures are properly implemented</li> <li>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.</li> </ol>	<ol style="list-style-type: none"> <li>1. Take immediate action to avoid further exceedance</li> <li>2. Submit proposals for remedial actions to IEC within 3 working days of notifications</li> <li>3. Implement the agreed proposals</li> <li>4. Revise and resubmit proposals if problem still not under control</li> <li>5. Stop the relevant portion of works as determined by the ER until the exceedance is abated</li> </ol>

Event / Action	ET	IEC	ER	Contractor
	remedial actions and keep IEC, EPD, ER informed of the results 8. If exceedance stops, cease additional monitoring			



**APPENDIX G**

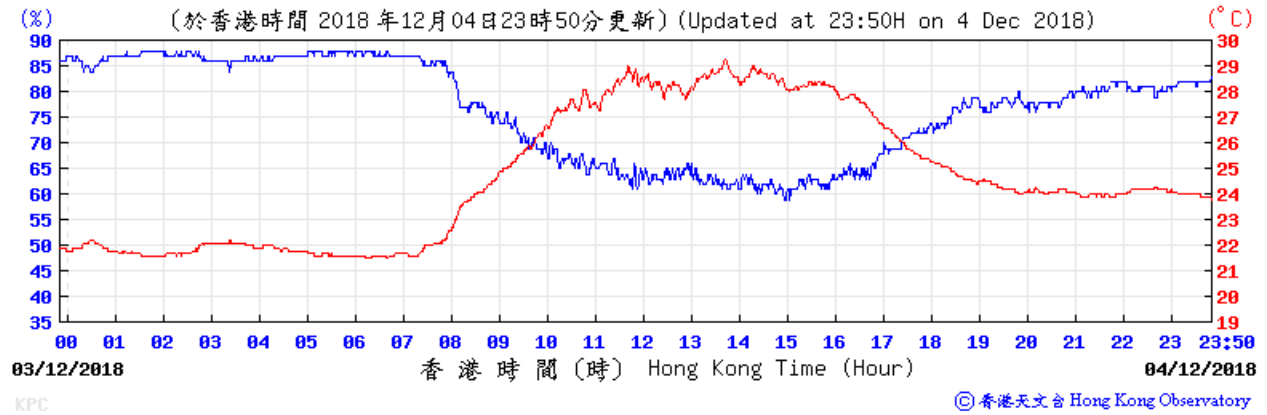
**WEATHER INFORMATION EXTRACTED FROM HK OBSERVATORY**

### Daily Total Rainfall at King's Park HKO Weather Monitoring Station - December 2018

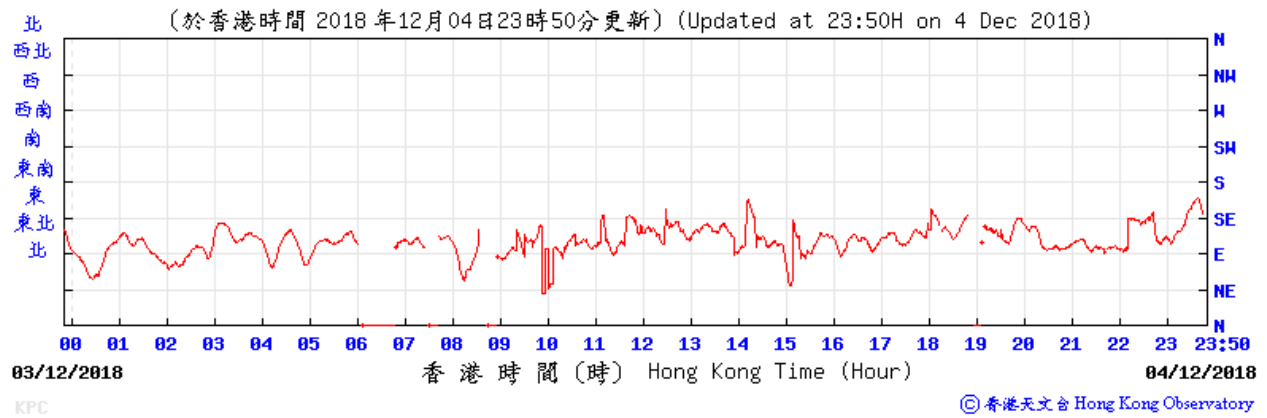
Day	Total Rainfall, mm	1-hr TSP	Noise	Remarks
1	0.0			
2	0.0			
3	0.0			
4	0.0	✓	✓	No significant rainfall during noise measurement
5	Trace			
6	0.1			
7	1.0			
8	0.0			
9	Trace			
10	0.2			
11	Trace	✓	✓	No significant rainfall during noise measurement
12	0.0			
13	0.0			
14	0.0			
15	0.0			
16	Trace			
17	0.0			
18	0.0	✓	✓	No significant rainfall during noise measurement
19	0.0			
20	0.0			
21	0.0			
22	0.0			
23	10.5			
24	0.1			
25	0.0			
26	0.0			
27	Trace	✓	✓	No significant rainfall during noise measurement
28	Trace			
29	Trace			
30	Trace			
31	0.0			
Mean/Total	11.9			

# King's Park Weather Station – 04 December 2018

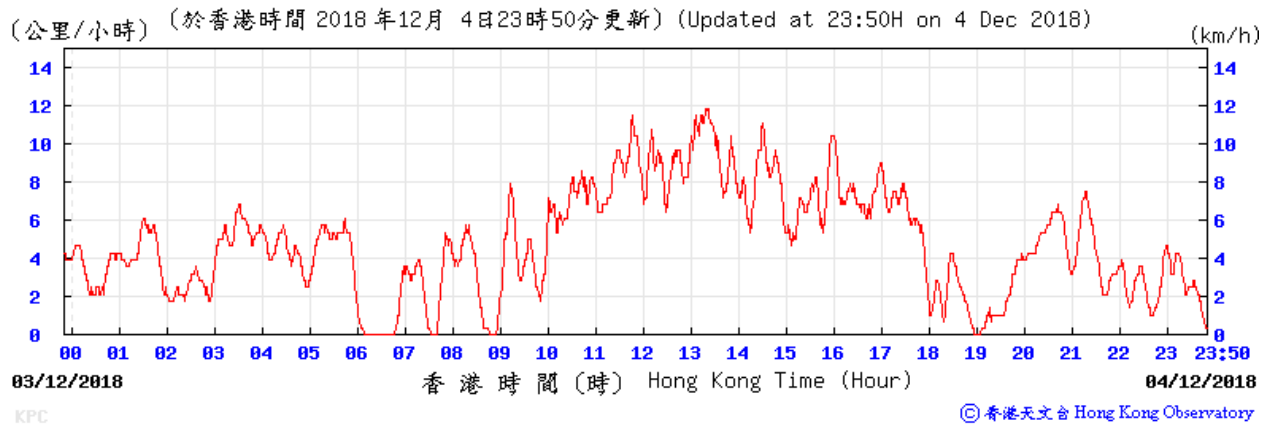
## Temperature/Humidity:



## Wind Direction:

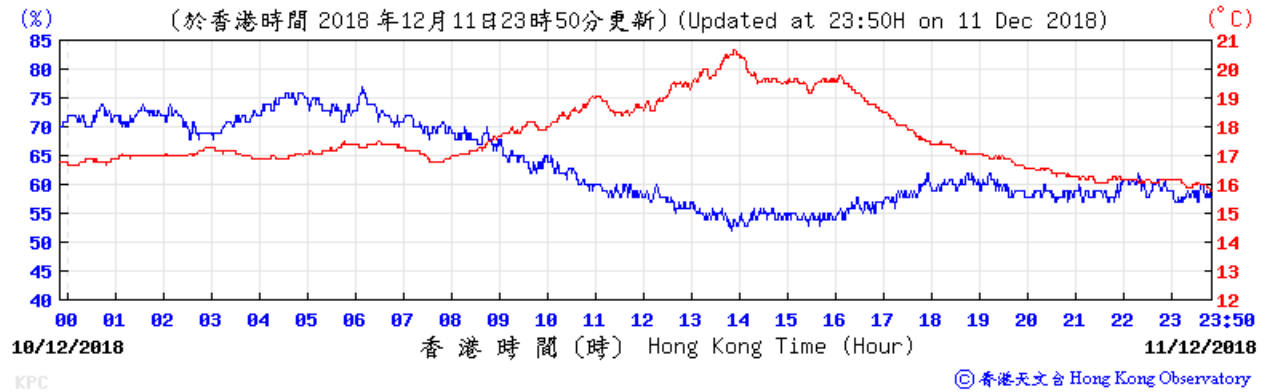


## Wind Speed:

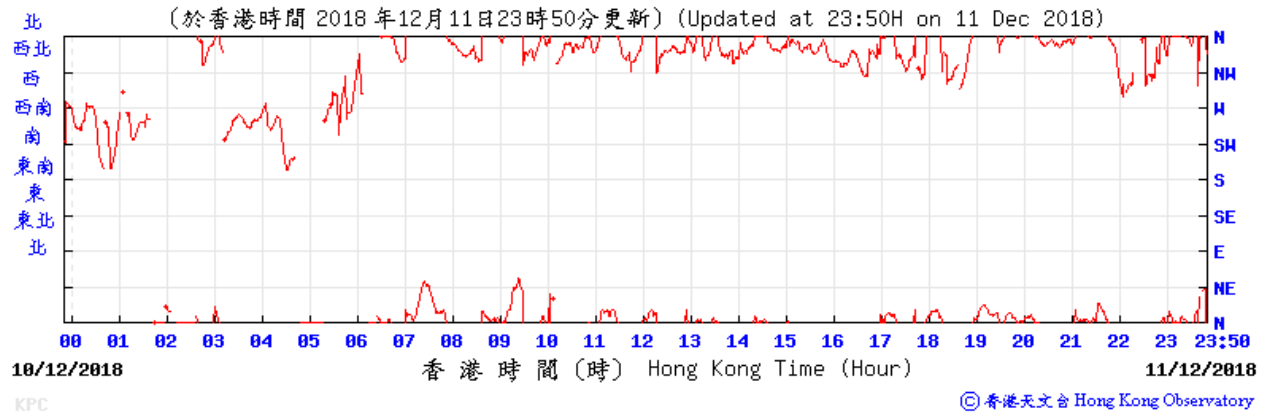


# King's Park Weather Station – 11 December 2018

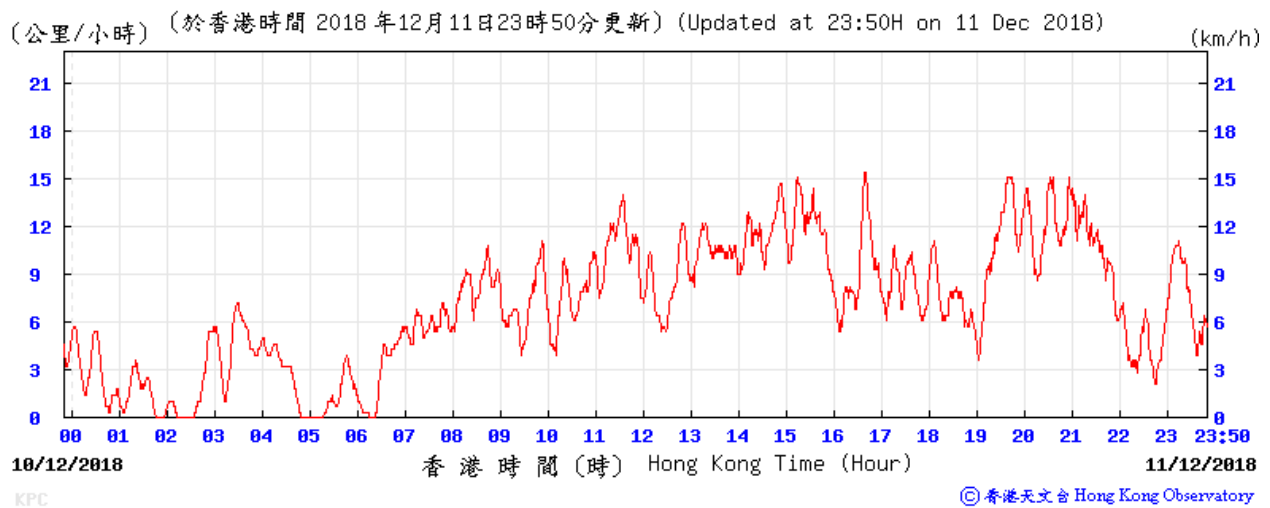
## Temperature/Humidity:



## Wind Direction:

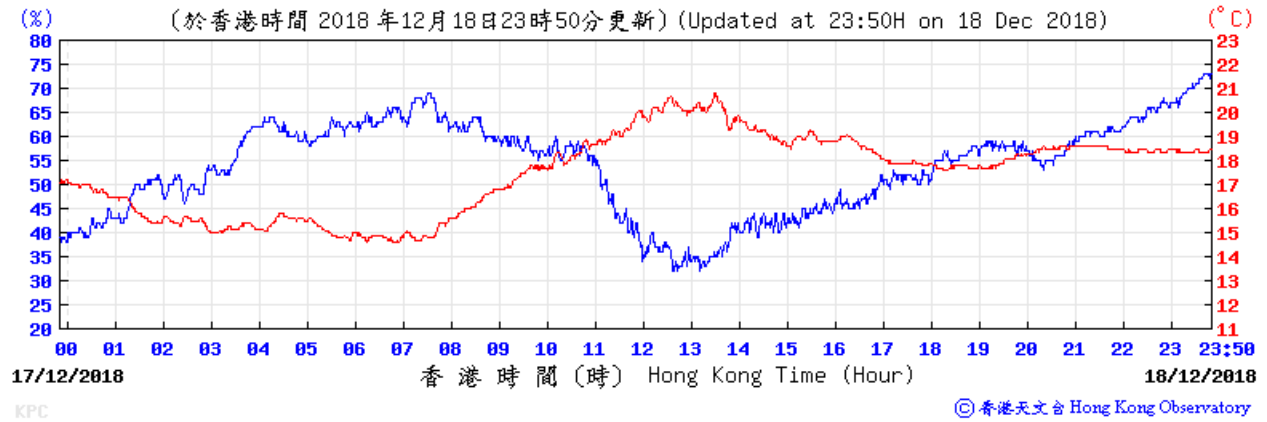


## Wind Speed:

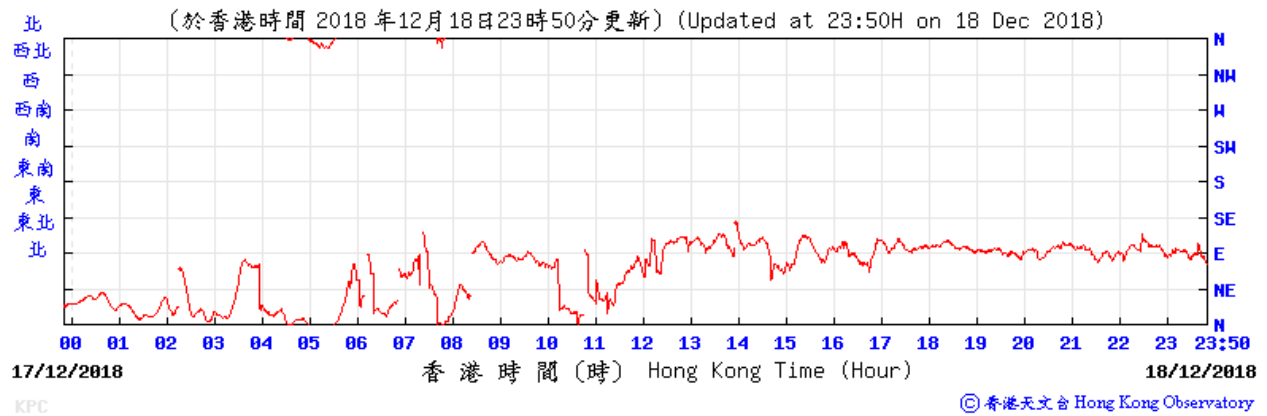


# King's Park Weather Station – 18 December 2018

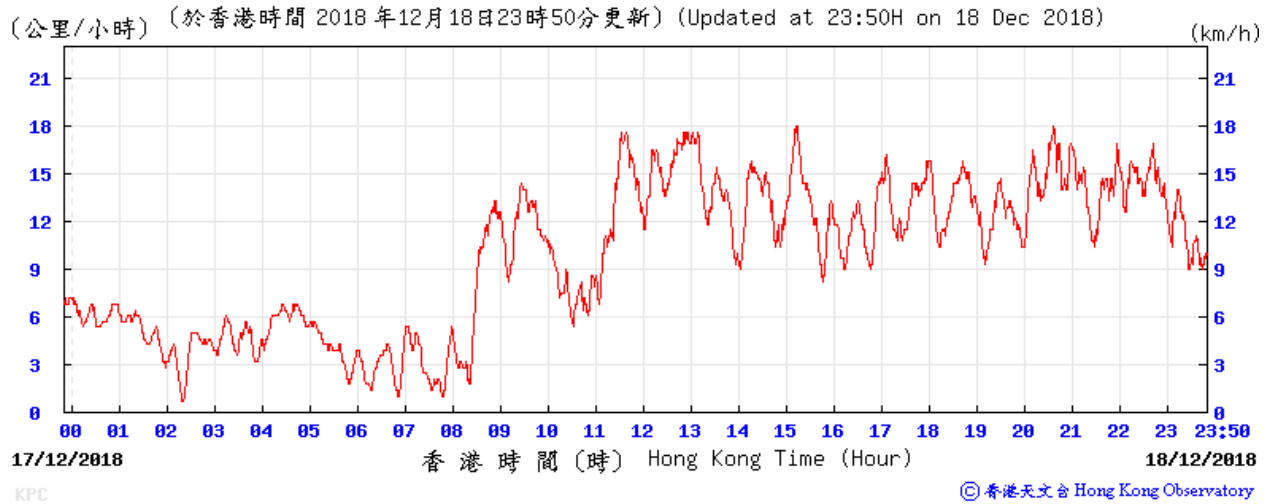
## Temperature/Humidity:



## Wind Direction:

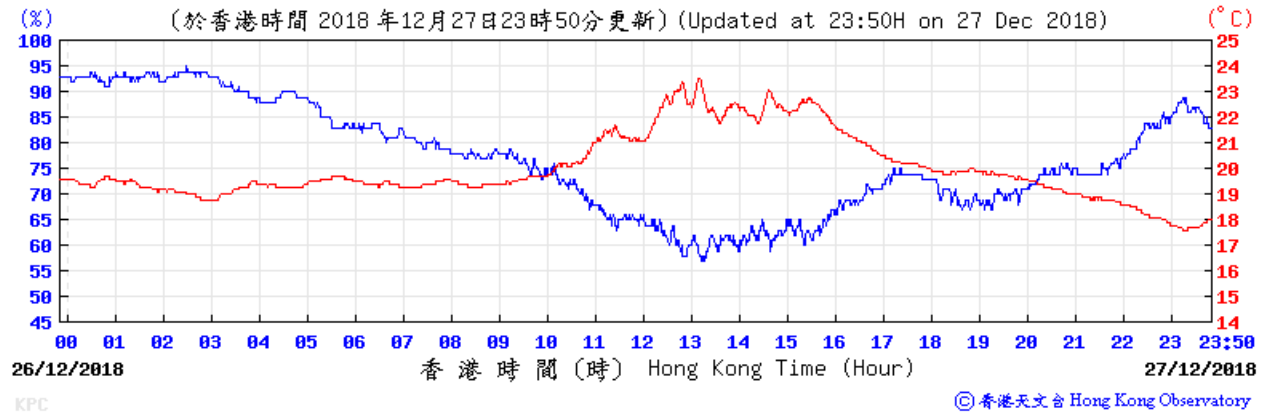


## Wind Speed:

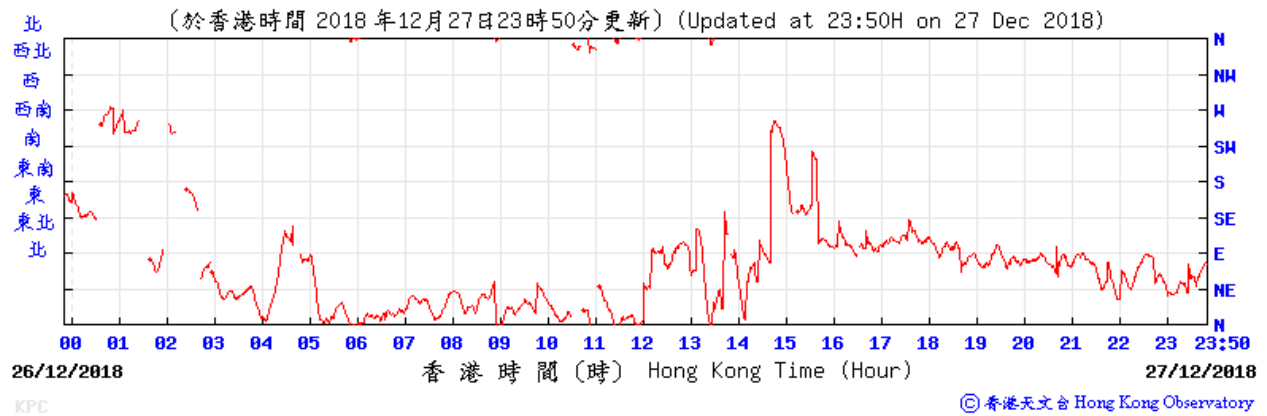


# King's Park Weather Station – 27 December 2018

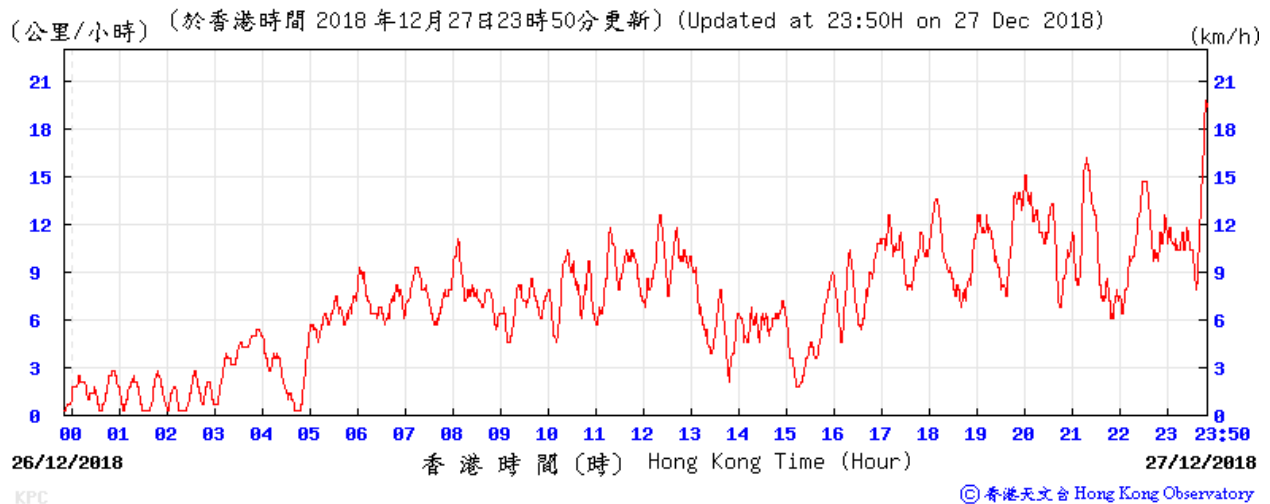
## Temperature/Humidity:



## Wind Direction:



## Wind Speed:



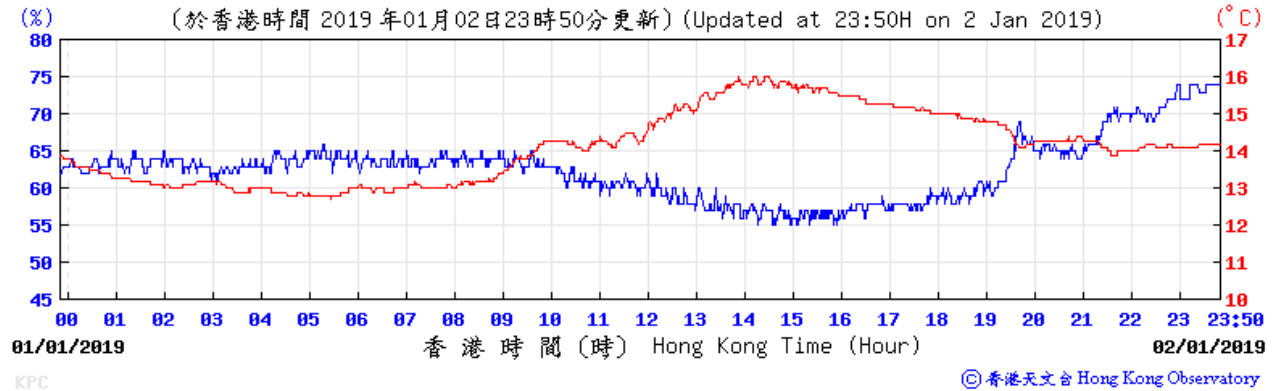


### Daily Total Rainfall at King's Park HKO Weather Monitoring Station - January 2019

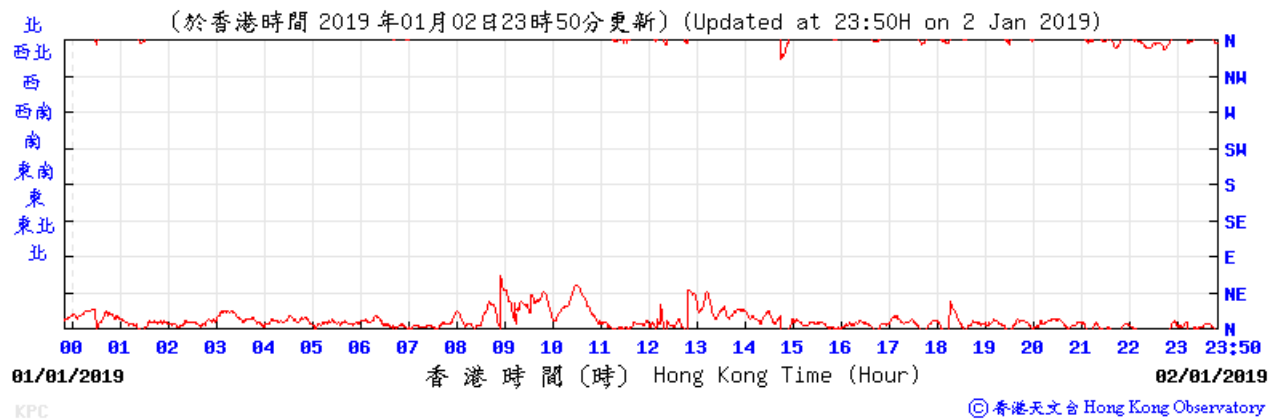
Day	Total Rainfall, mm	1-hr TSP	Noise	Remarks
1	Trace			
2	Trace	✓	✓	No significant rainfall during noise measurement
3	0.1			
4	0.1			
5	-			
6	Trace			
7	-			
8	0.2	✓	✓	No significant rainfall during noise measurement
9	-			
10	-			
11	-			
12	Trace			
13	Trace			
14	Trace			
15	4	✓	✓	No significant rainfall during noise measurement
16	-			
17	-			
18	-			
19	0.2			
20	0.1			
21	-			
22	-	✓	✓	No significant rainfall during noise measurement
23	-			
24	-			
25	-			
26	-			
27	-			
28	-			
29	-	✓	✓	No significant rainfall during noise measurement
30	-			
31	-			
Mean/Total	4.7 / 24.7			

# King's Park Weather Station – 2 January 2019

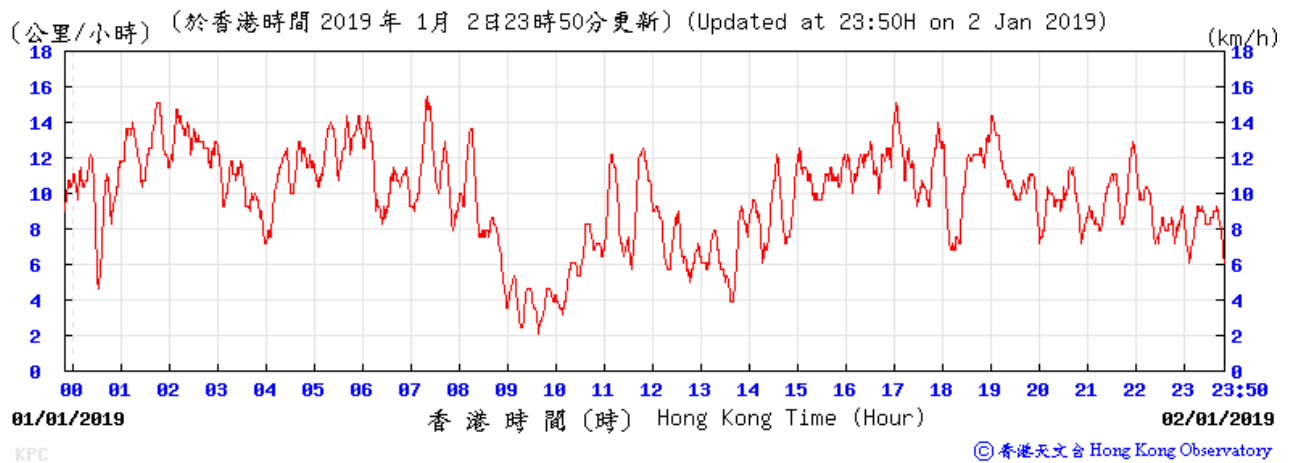
Temperature/Humidity:



Wind Direction:

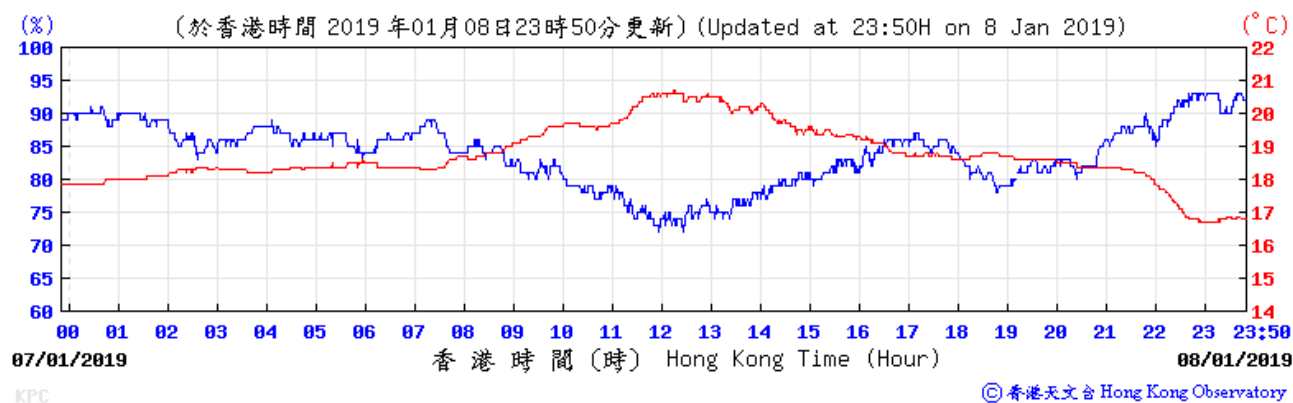


Wind Speed:

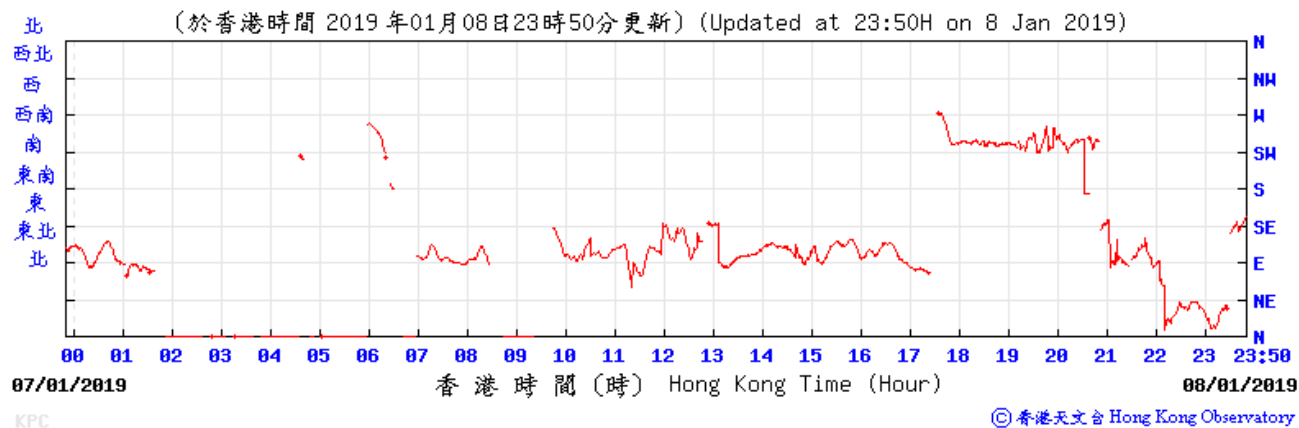


# King's Park Weather Station – 8 January 2019

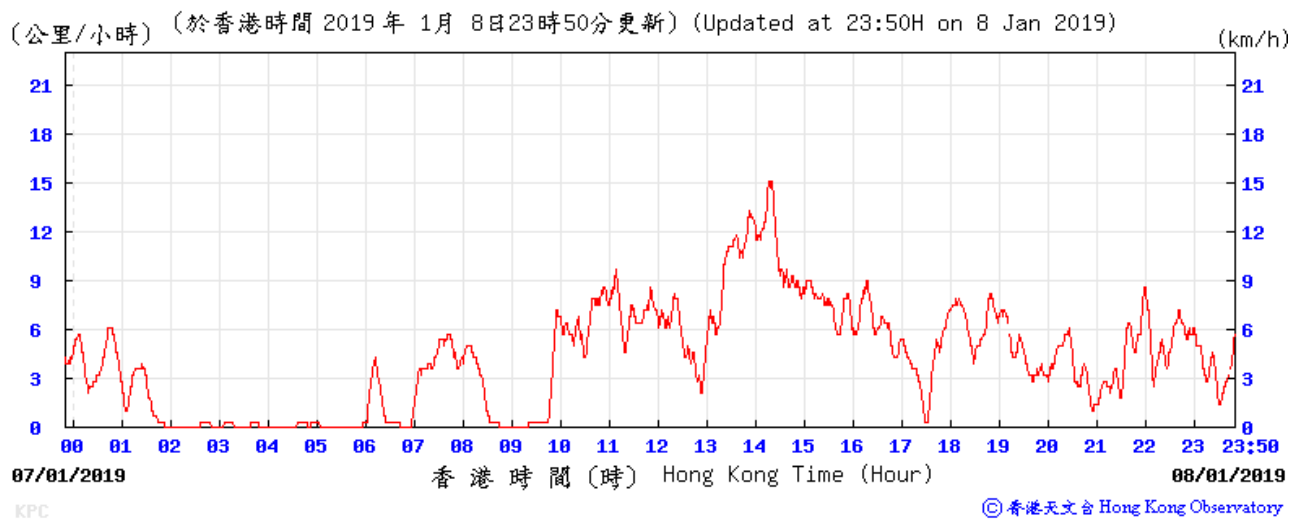
Temperature/Humidity:



Wind Direction:

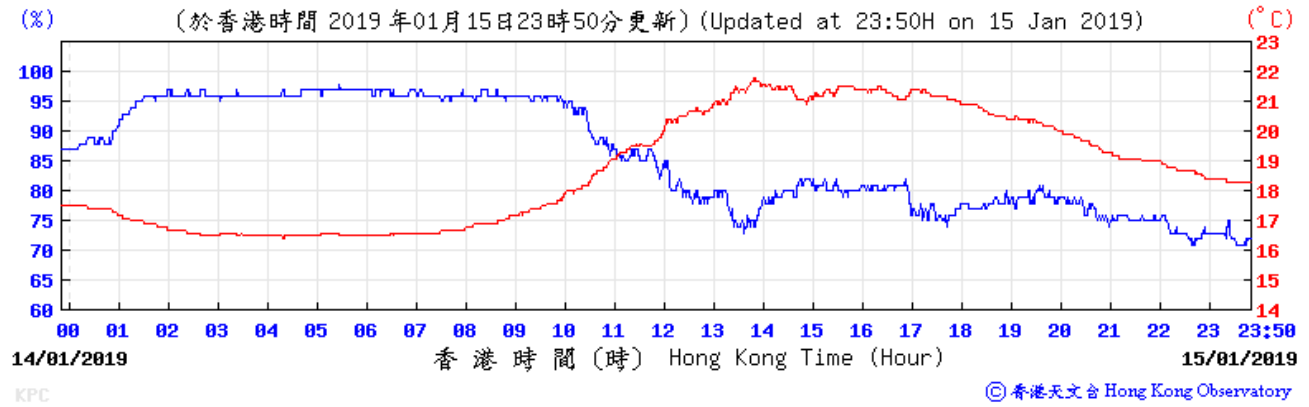


Wind Speed:

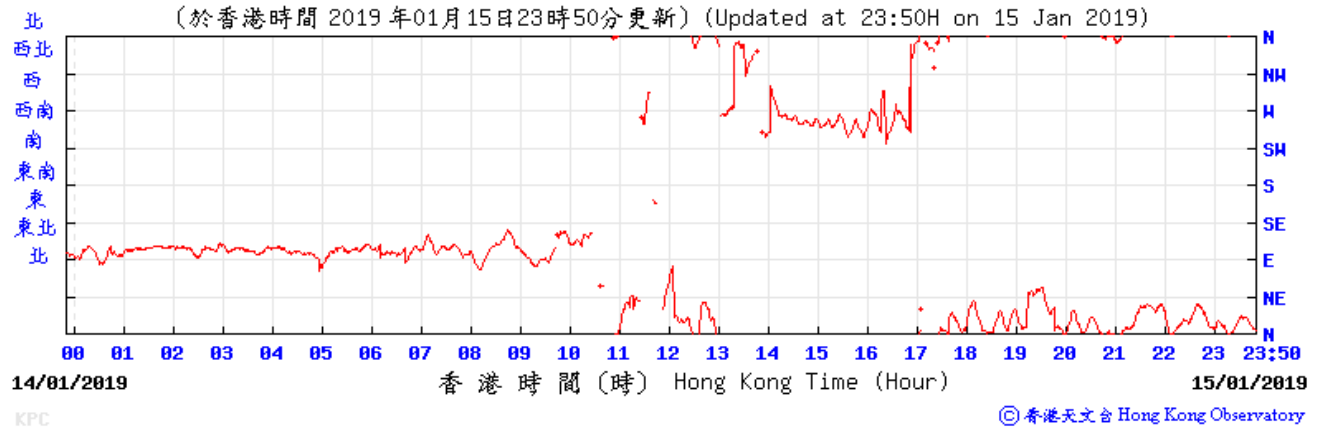


# King's Park Weather Station – 15 January 2019

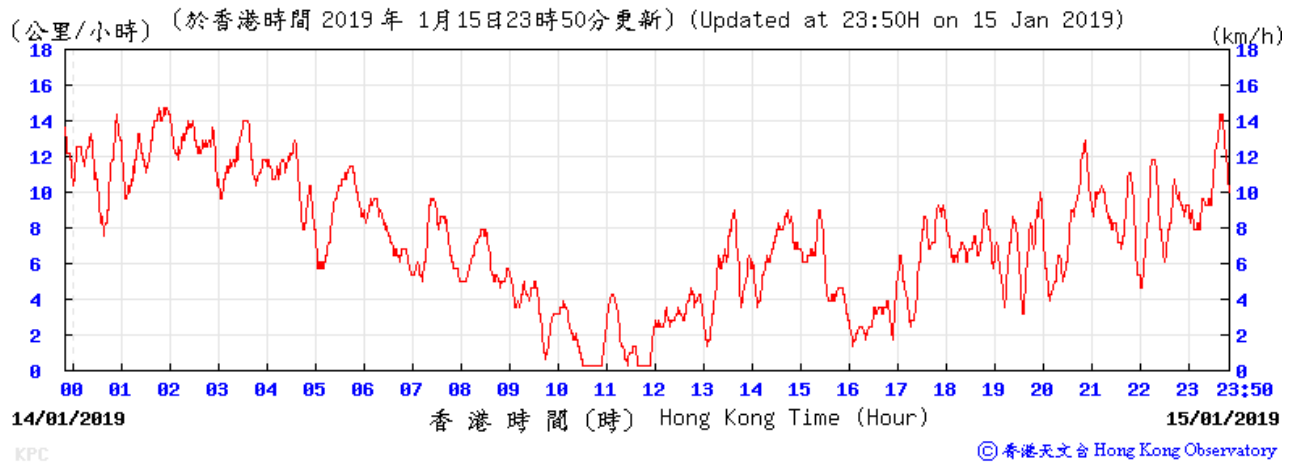
## Temperature/Humidity:



## Wind Direction:

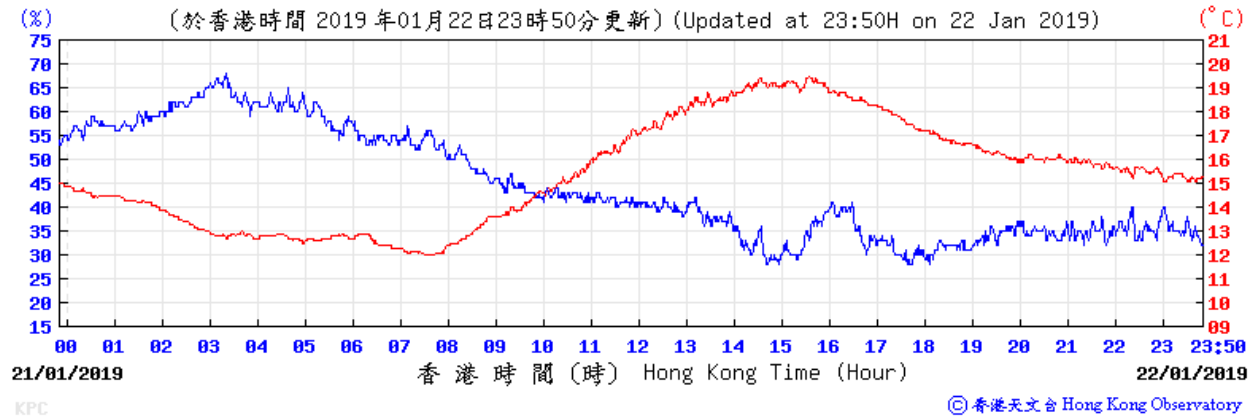


## Wind Speed:

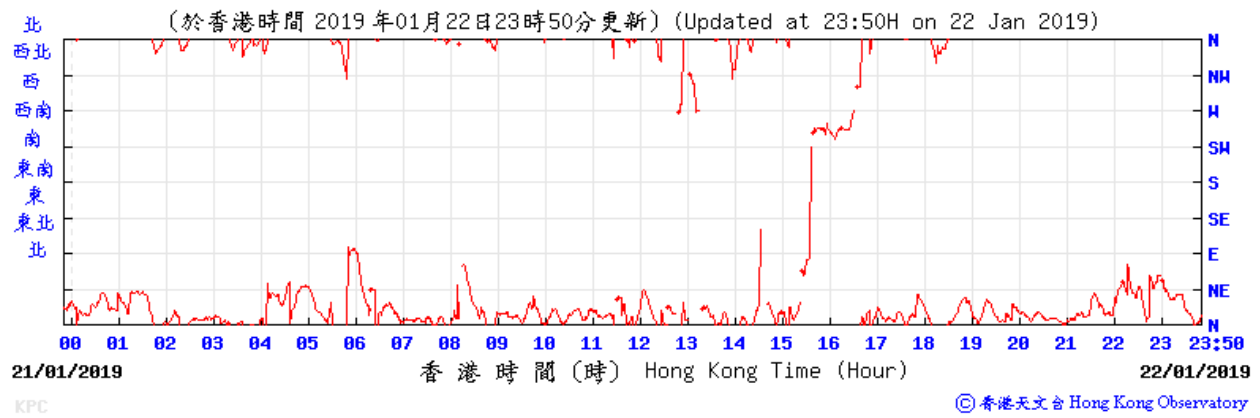


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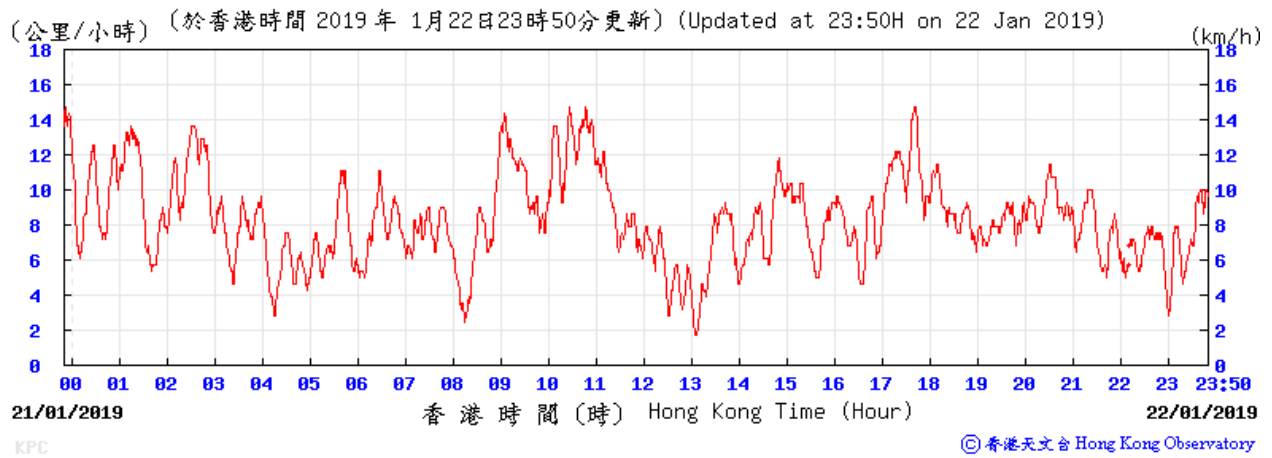
## Temperature/Humidity:



## Wind Direction:

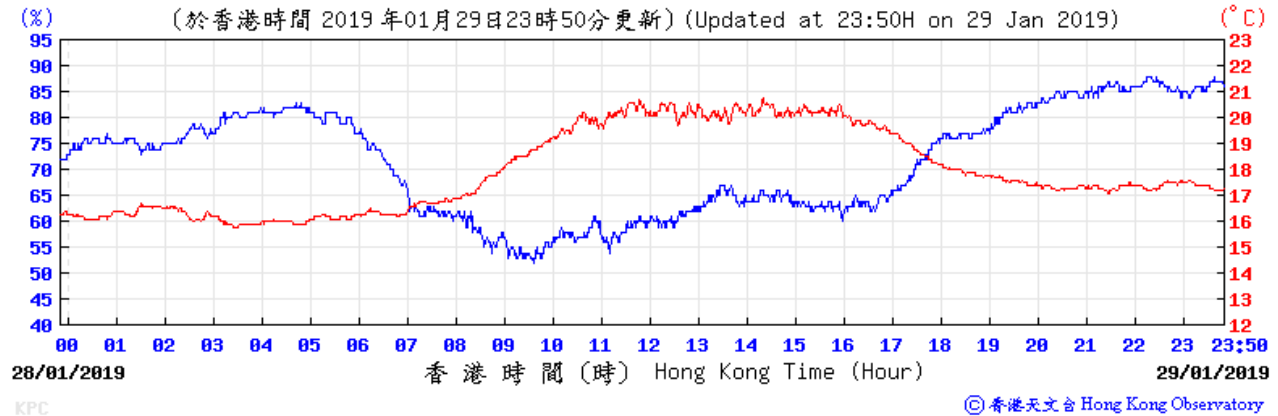


## Wind Speed:

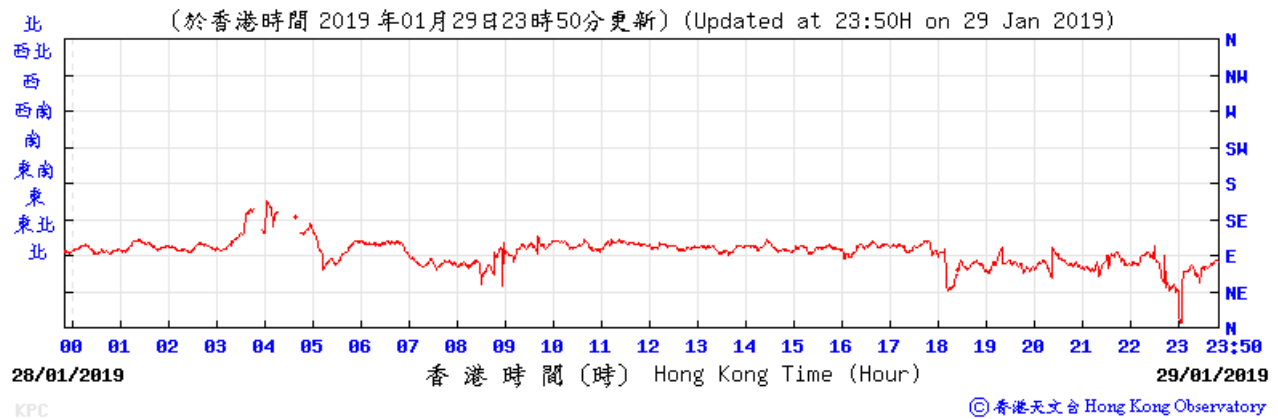


# King's Park Weather Station – 29 January 2019

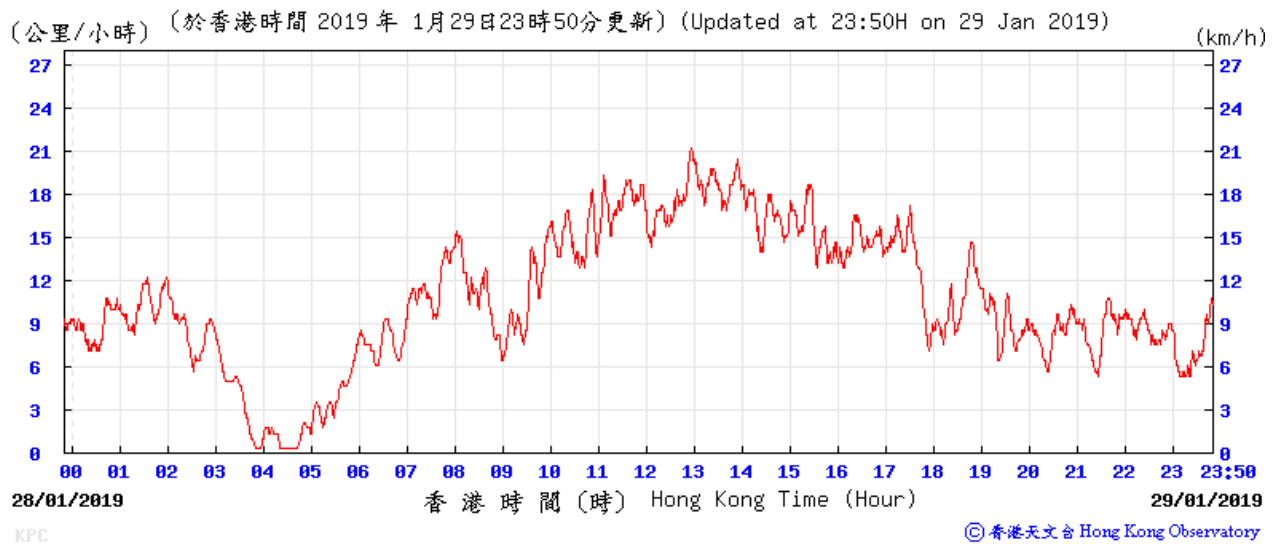
## Temperature/Humidity:



## Wind Direction:



## Wind Speed:



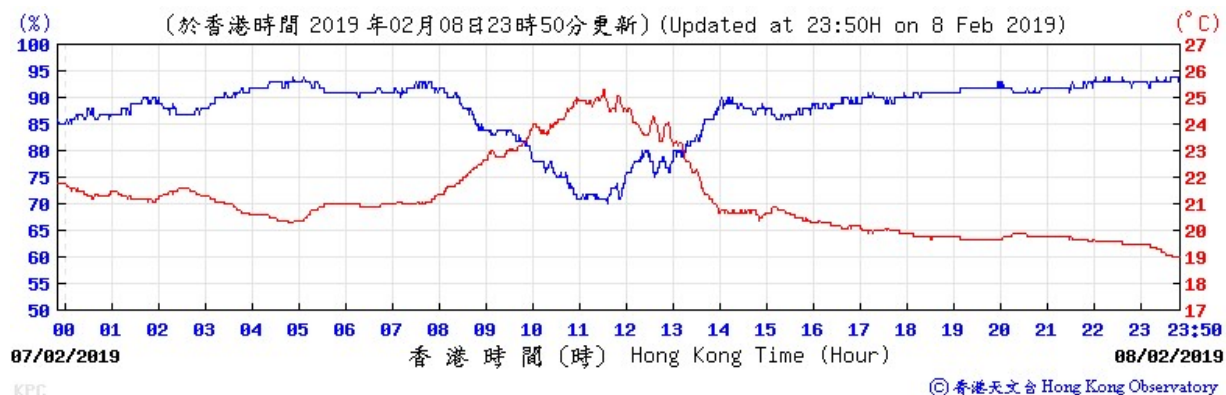


### Daily Total Rainfall at King's Park HKO Weather Monitoring Station -February 2019

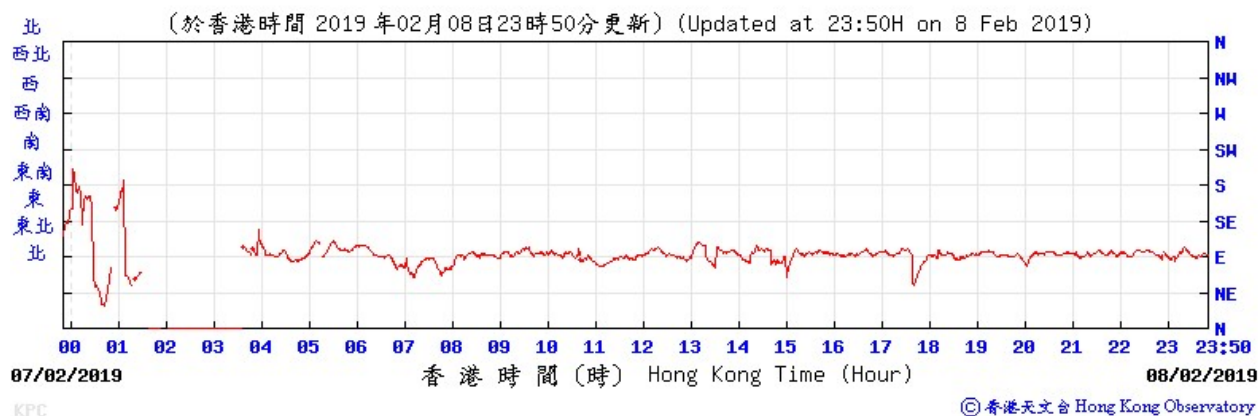
Day	Total Rainfall, mm	1-hr TSP	Noise	Remarks
1	-			
2	Trace			
3	Trace			
4	-			
5	-			
6	-			
7	Trace			
8	Trace	✓		No significant rainfall during noise measurement
9	0.8			
10	0.8			
11	Trace			
12	0.2			
13	-			
14	Trace			
15	0.2	✓		No significant rainfall during noise measurement
16	-			
17	0.1			
18	18.1			
19	31			
20	0.2			
21	Trace			
22	1.6	✓		No significant rainfall during noise measurement
23	12.3			
24	3.4			
25	Trace			
26	Trace			
27	Trace			
28	-			
Mean/Total	68.7			
Normal*	54.4			
Station	Hong Kong Observatory			

## King's Park Weather Station – 8 February 2019

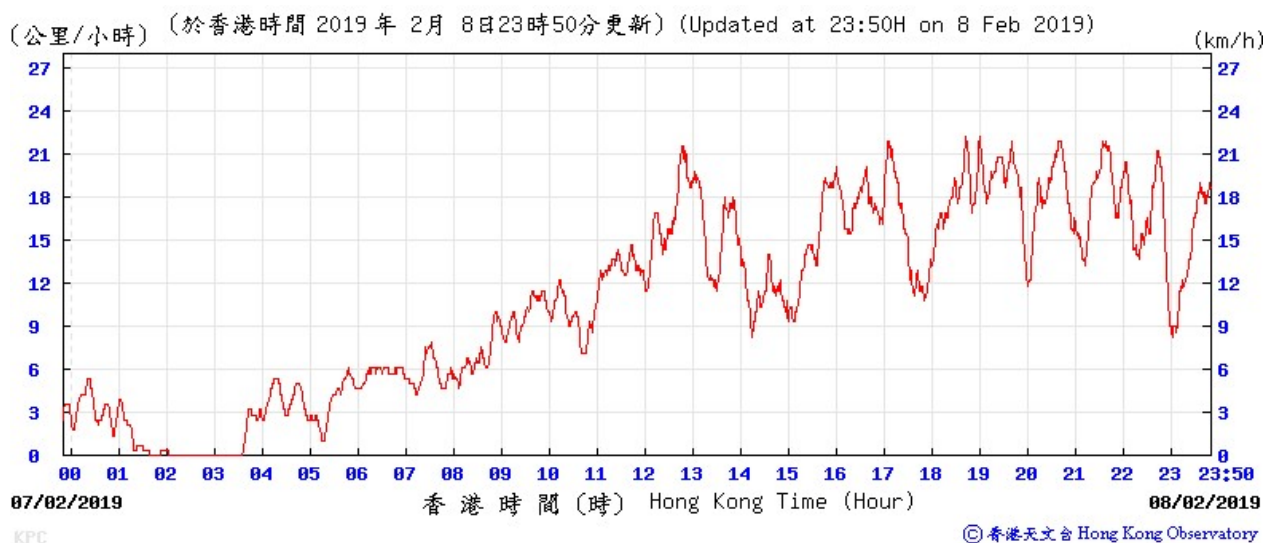
Temperature/Humidity:



Wind Direction:

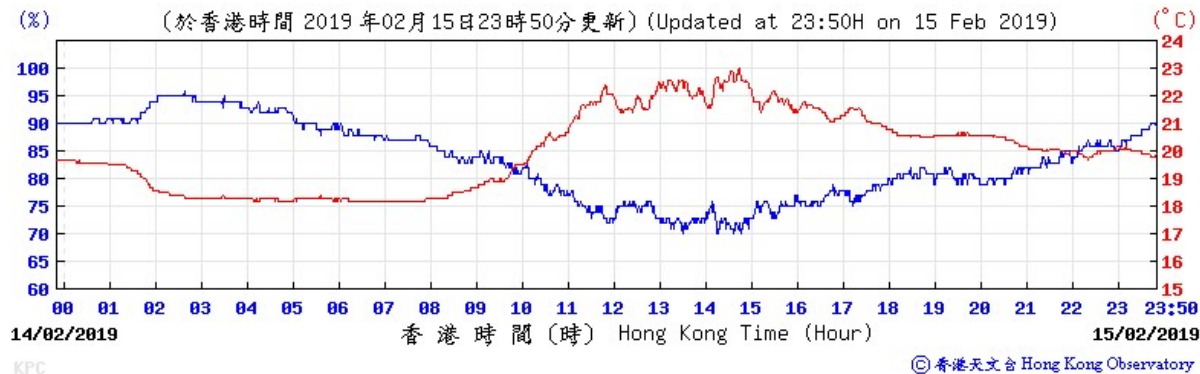


Wind Speed:

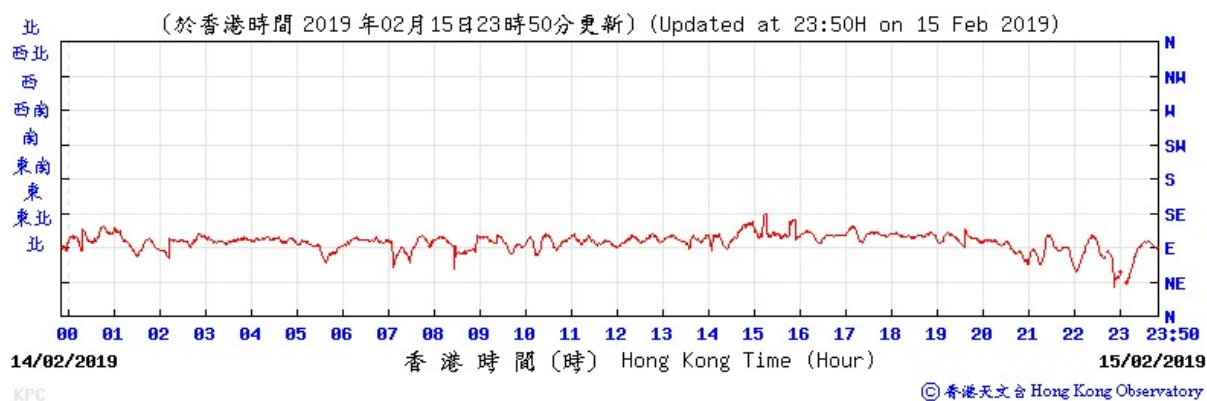


### King's Park Weather Station – 15 February 2019

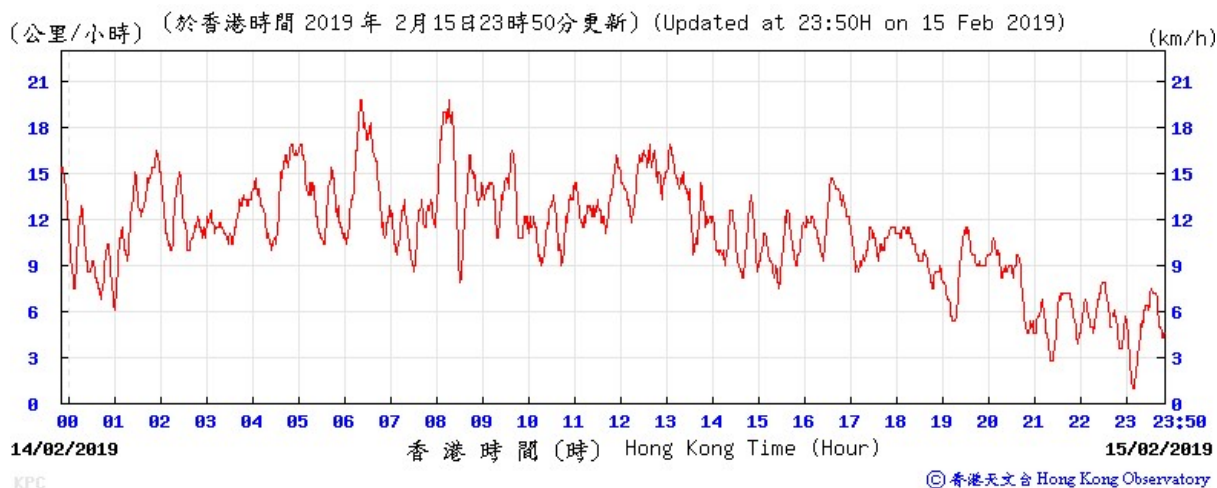
#### Temperature/Humidity:



#### Wind Direction:

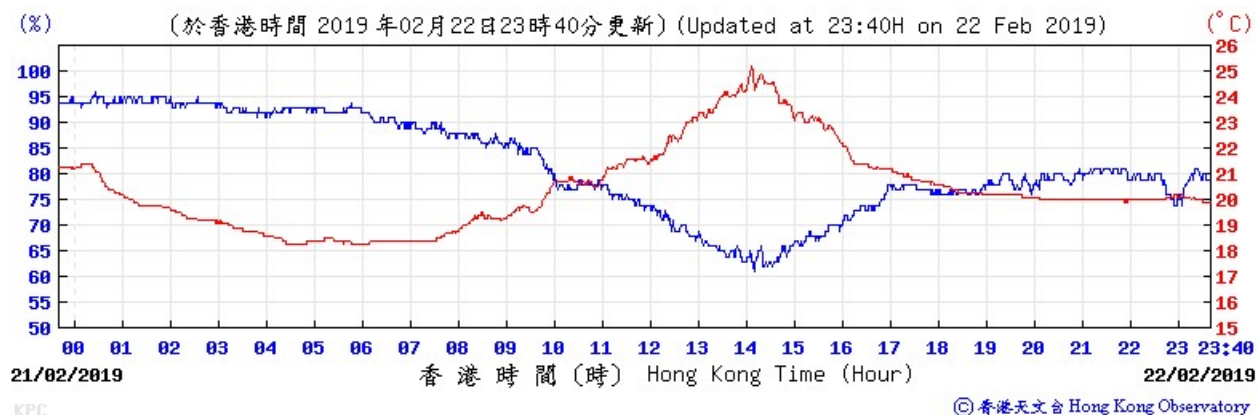


#### Wind Speed:

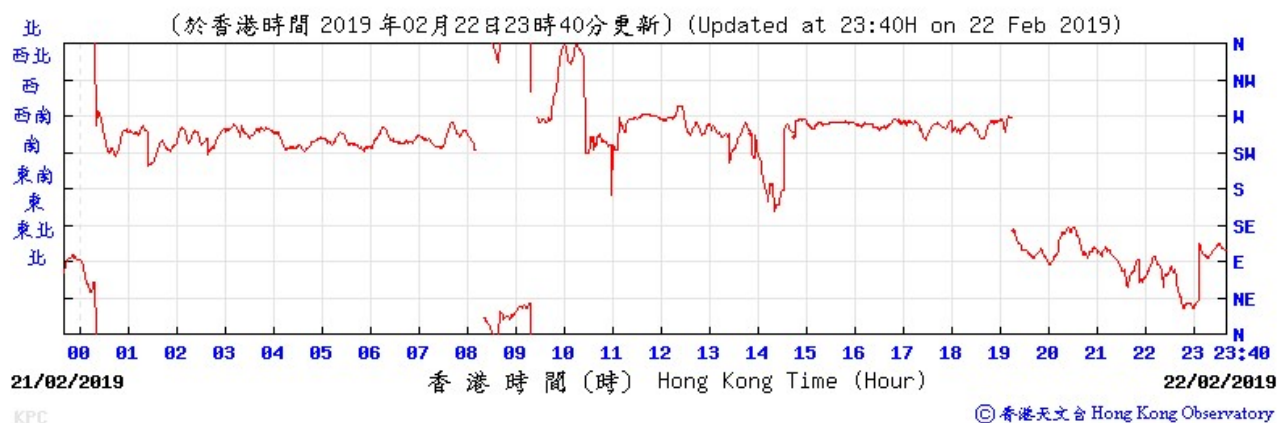


## King's Park Weather Station – 22 February 2019

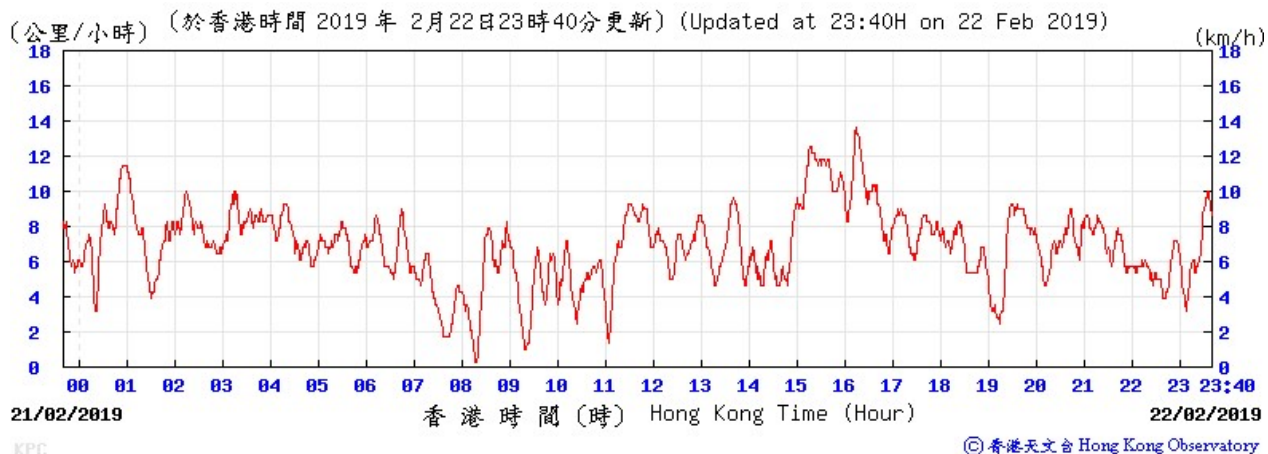
Temperature/Humidity:



Wind Direction:



Wind Speed:

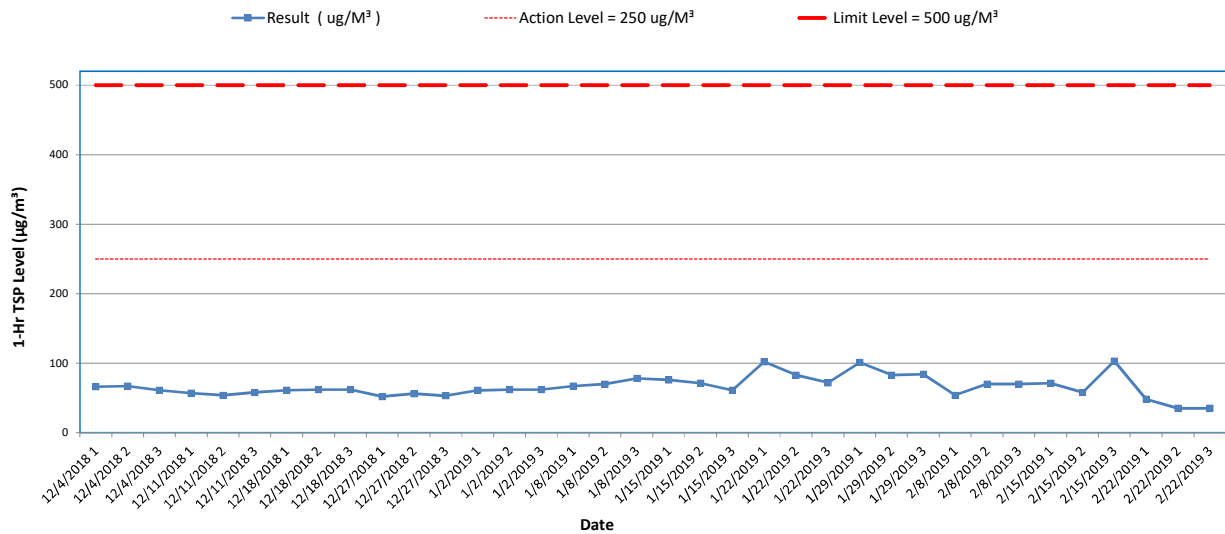


**APPENDIX H**

**MONITORING RESULTS AND PLOTS**

1-Hr TSP Results				
Date	Time	Result ( ug/M <sup>3</sup> )	Action Level = 250 ug/M <sup>3</sup>	Limit Level = 500 ug/M <sup>3</sup>
12/4/2018 1	09:00-10:00	66	250	500
12/4/2018 2	10:00-11:00	67	250	500
12/4/2018 3	11:00-12:00	61	250	500
12/11/2018 1	09:00-10:00	57	250	500
12/11/2018 2	10:00-11:00	54	250	500
12/11/2018 3	11:00-12:00	58	250	500
12/18/2018 1	09:00-10:00	61	250	500
12/18/2018 2	10:00-11:00	62	250	500
12/18/2018 3	11:00-12:00	62	250	500
12/27/2018 1	09:00-10:00	52	250	500
12/27/2018 2	10:00-11:00	56	250	500
12/27/2018 3	11:00-12:00	53	250	500
1/2/2019 1	09:00-10:00	61	250	500
1/2/2019 2	10:00-11:00	62	250	500
1/2/2019 3	11:00-12:00	62	250	500
1/8/2019 1	09:00-10:00	67	250	500
1/8/2019 2	10:00-11:00	70	250	500
1/8/2019 3	11:00-12:00	78	250	500
1/15/2019 1	09:00-10:00	76	250	500
1/15/2019 2	10:00-11:00	71	250	500
1/15/2019 3	11:00-12:00	61	250	500
1/22/2019 1	09:00-10:00	102	250	500
1/22/2019 2	10:00-11:00	83	250	500
1/22/2019 3	11:00-12:00	72	250	500
1/29/2019 1	09:00-10:00	101	250	500
1/29/2019 2	10:00-11:00	83	250	500
1/29/2019 3	11:00-12:00	84	250	500
2/8/2019 1	09:00-10:00	54	250	500
2/8/2019 2	10:00-11:00	70	250	500
2/8/2019 3	11:00-12:00	70	250	500
2/15/2019 1	09:00-10:00	71	250	500
2/15/2019 2	10:00-11:00	58	250	500
2/15/2019 3	11:00-12:00	103	250	500
2/22/2019 1	09:00-10:00	48	250	500
2/22/2019 2	10:00-11:00	35	250	500
2/22/2019 3	11:00-12:00	35	250	500

**1-Hr TSP Concentration (December 2018 to February 2019) \***  
 Note: \* 1-Hr TSP has replaced the 24-Hr TSP since 21 September 2018 due to HVS outage

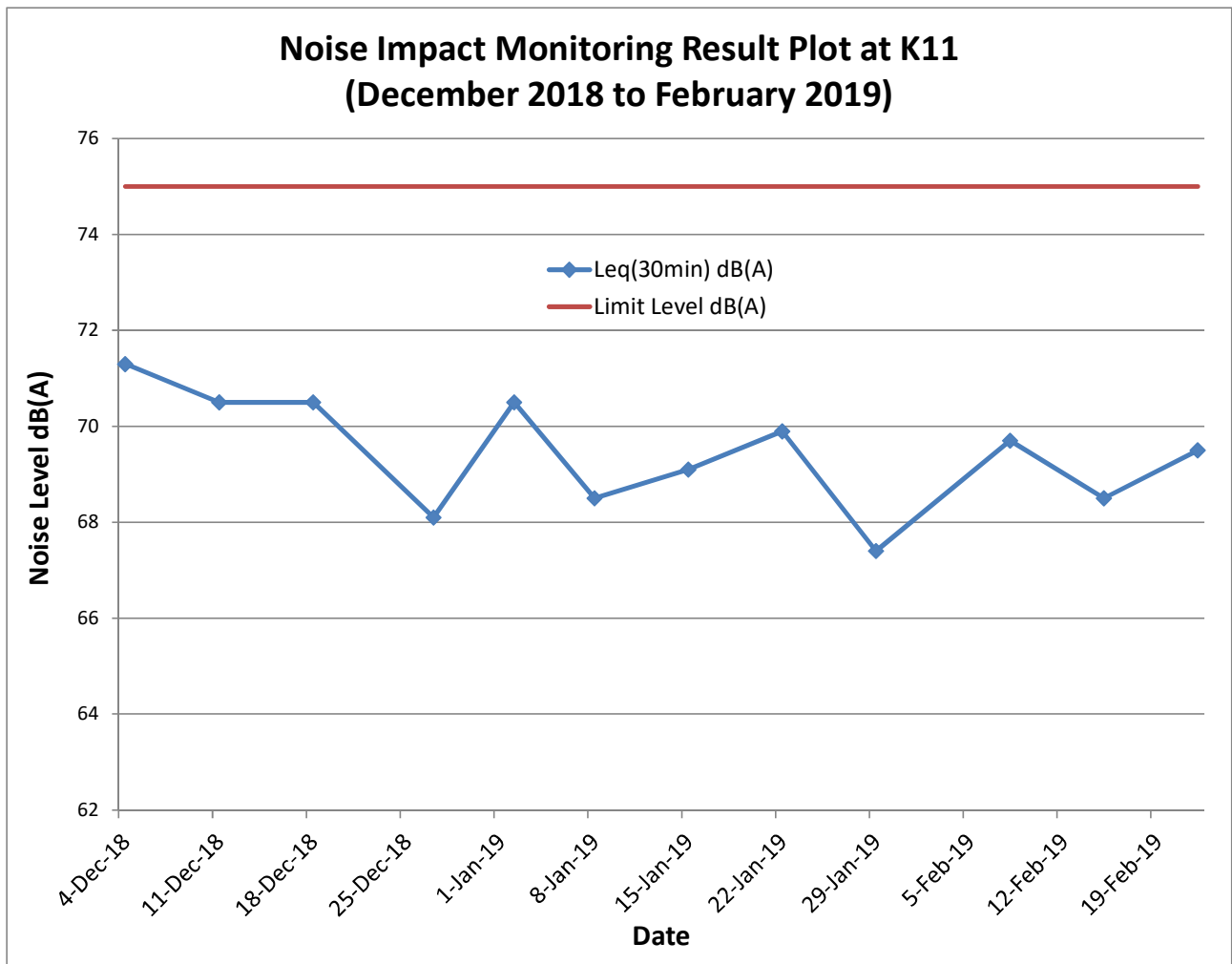


### Noise Impact Monitoring Results at K11 (December 2018 to February 2019)

Monitoring Locations	Date	Background Level dB(A)	Limit Level dB(A)	Leq(30min) dB(A)
K11 Art Mall	4-Dec-18	65.3	75	71.3
	11-Dec-18	65.3	75	70.5
	18-Dec-18	65.3	75	70.5
	27-Dec-18	65.3	75	68.1
	2-Jan-19	65.3	75	70.5
	8-Jan-19	65.3	75	68.5
	15-Jan-19	65.3	75	69.1
	22-Jan-19	65.3	75	69.9
	29-Jan-19	65.3	75	67.4
	8-Feb-19	65.3	75	69.7
	15-Feb-19	65.3	75	68.5
	22-Feb-19	65.3	75	69.5

\* Not collected

**Red Bold indicates an exceedance of Limit Level**

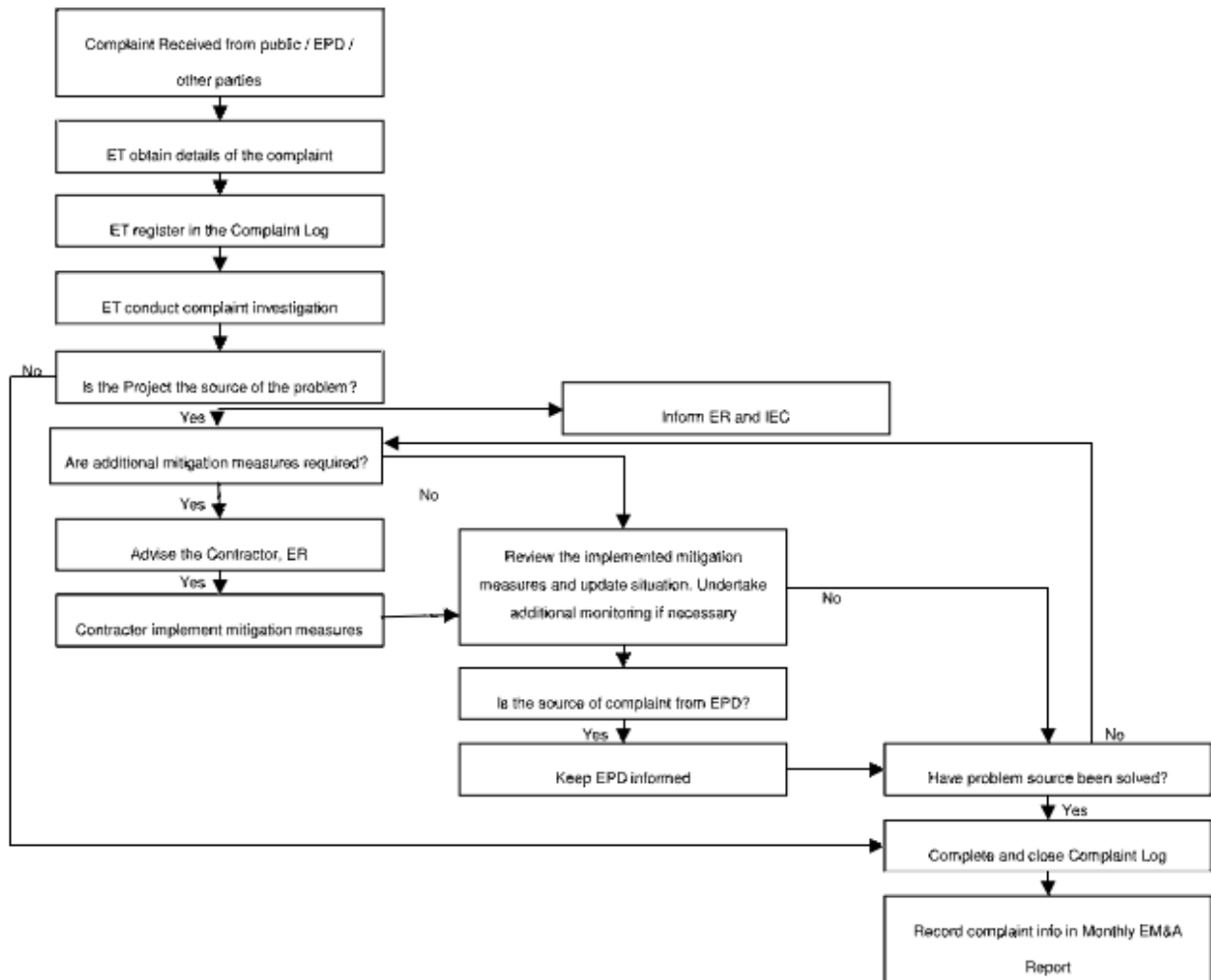




**APPENDIX I**

**FLOW CHART FOR HANDLING ENVIRONMENTAL COMPLAINTS**

# Complaint Response Procedure



**APPENDIX J**

**WASTE MANAGEMENT RECORDS**

## Monthly Summary Waste Flow Table for 2018 (year)

**Contract No:** C3840-13C Tsim Sha Tsui Station Carnarvon Road Subway  
**Date Reported:** 2-January-2019

Month	Actual Quantities of Inert C&D Materials Generated Monthly						Actual Quantities of Non-inert C&D Wastes Generated Monthly					
	Total Quantity Generated	Hard Rocks and Large Broken Concrete	Reused in the Contract	Reused in other Projects	Disposed as Public Fill	Imported Fill	Metals	Paper/ cardboard packaging	Plastics	Chemical Waste	Others, e.g. general refuse	
		(See Note 3)							(see Note 2)			
(in '000m <sup>3</sup> )	(in '000m <sup>3</sup> )	(in '000m <sup>3</sup> )	(in '000m <sup>3</sup> )	(in '000m <sup>3</sup> )	(in '000m <sup>3</sup> )	(in '000m <sup>3</sup> )	(in '000kg)	(in '000kg)	(in '000kg)	(in'000kg)	(in '000m <sup>3</sup> /tonne)	
Carried from Project Start	9.6228	-	-	-	9.6228	-	-	-	-	-	0.1930	
Jan	0.0212	-	-	-	0.0212	-	-	-	-	-	0.0198	
Feb	0.0033	-	-	-	0.0033	-	-	-	-	-	0.0090	
Mar	0.0072	-	-	-	0.0072	-	-	-	-	-	0.0089	
Apr	0.0024	-	-	-	0.0024	-	-	-	-	-	0.0048	
May	0.0022	-	-	-	0.0022	-	-	-	-	-	0.0065	
June	0.0000	-	-	-	0.0000	-	-	-	-	-	0.0192	
Sub-total	0.0363	-	-	-	0.0363	-	-	-	-	-	0.0682	
July	0.0540	-	-	-	0.0540	-	-	-	-	-	0.0081	
Aug	0.0410	-	-	-	0.0410	-	-	-	-	-	0.0092	
Sept	0.0057	-	-	-	0.0057	-	225.1300	-	-	-	0.0077	
Oct	0.0235	-	-	-	0.0235	-	41.6400	-	-	-	0.0084	
Nov	0.0216	-	-	-	0.0216	-	-	-	-	-	0.0069	
Dec	0.0272	-	-	-	0.0272	-	26.8600	-	-	-	0.0099	
Total	0.2093	-	-	-	0.2093	-	293.6300	-	-	-	0.1184	
Acc. Total	9.8321	(accumulated quantity of the project = carried amount + this year amount)										0.3114

**Notes:**

- (1) The performance targets are given below:
  - All excavated materials to be sorted for recovering the inert portion of C&D materials, e.g. hard rocks, soil and broken concrete, for reuse on the Site or disposal to designated outlets;
  - All metallic waste to be recovered for collection by recycling contractors;
  - All cardboard and paper packaging (for plant, equipment and materials) to be recovered, properly stockpiled in dry and covered condition to prevent cross contamination;
  - All chemical wastes to be collected and properly disposed of by specialist contractors; and
  - All demolition debris to be stored to recover broken concrete, reinforcement bars, mechanical and electrical fittings, hardware as well as other fitting / materials that have established recycling outlets.
- (2) Plastics refer to plastic bottles/containers, plastic sheets/foam from packaging material.
- (3) Broken concrete for recycling into aggregates.
- (4) The waste flow table shall also include C&D materials that are specified in the Contract to be imported for use at the Site.

## Monthly Summary Waste Flow Table for 2019 (year)

**Contract No:** C3840-13C Tsim Sha Tsui Station Carnarvon Road Subway  
**Date Reported:** 1-March-2019

Month	Actual Quantities of Inert C&D Materials Generated Monthly						Actual Quantities of Non-inert C&D Wastes Generated Monthly					
	Total Quantity Generated	Hard Rocks and Large Broken Concrete	Reused in the Contract	Reused in other Projects	Disposed as Public Fill	Imported Fill	Metals	Paper/ cardboard packaging	Plastics	Chemical Waste	Others, e.g. general refuse	
		(See Note 3)							(see Note 2)			
(in '000m <sup>3</sup> )	(in '000m <sup>3</sup> )	(in '000m <sup>3</sup> )	(in '000m <sup>3</sup> )	(in '000m <sup>3</sup> )	(in '000m <sup>3</sup> )	(in '000m <sup>3</sup> )	(in '000kg)	(in '000kg)	(in '000kg)	(in'000kg)	(in '000m <sup>3</sup> /tonne)	
Carried from Project Start	9.8321	-	-	-	9.8321	-	293.6300	-	-	-	0.3114	
Jan	0.0154	-	-	-	0.0154	-	-	-	-	-	0.0045	
Feb	0.0017	-	-	-	0.0017	-	-	-	-	-	0.0049	
Mar	-	-	-	-	-	-	-	-	-	-	-	
Apr	-	-	-	-	-	-	-	-	-	-	-	
May	-	-	-	-	-	-	-	-	-	-	-	
June	0.0000	-	-	-	-	-	-	-	-	-	-	
Sub-total	0.0171	-	-	-	0.0171	-	-	-	-	-	0.0094	
July	-	-	-	-	-	-	-	-	-	-	-	
Aug	-	-	-	-	-	-	-	-	-	-	-	
Sept	-	-	-	-	-	-	-	-	-	-	-	
Oct	-	-	-	-	-	-	-	-	-	-	-	
Nov	-	-	-	-	-	-	-	-	-	-	-	
Dec	-	-	-	-	-	-	-	-	-	-	-	
Total	0.0171	-	-	-	0.0171	-	-	-	-	-	0.0094	
Acc. Total	9.8492	(accumulated quantity of the project = carried amount + this year amount)					-	293.6300	-	-	-	0.3208

**Notes:**

- (1) The performance targets are given below:
  - All excavated materials to be sorted for recovering the inert portion of C&D materials, e.g. hard rocks, soil and broken concrete, for reuse on the Site or disposal to designated outlets;
  - All metallic waste to be recovered for collection by recycling contractors;
  - All cardboard and paper packaging (for plant, equipment and materials) to be recovered, properly stockpiled in dry and covered condition to prevent cross contamination;
  - All chemical wastes to be collected and properly disposed of by specialist contractors; and
  - All demolition debris to be stored to recover broken concrete, reinforcement bars, mechanical and electrical fittings, hardware as well as other fitting / materials that have established recycling outlets.
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- (4) The waste flow table shall also include C&D materials that are specified in the Contract to be imported for use at the Site.