



Development at West Kowloon Cultural District

Monthly Environmental Monitoring and Audit
(EM&A) Report for August 2018

September 2018

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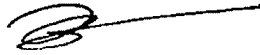
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This Monthly EM&A Report has been reviewed and certified by the Environmental Team Leader (ETL) and verified by the Independent Environmental Checker (IEC).

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Executive Summary

Mott MacDonald Hong Kong Limited (MMHK) was commissioned to undertake the Environmental Team (ET) services (including environmental monitoring and audit (EM&A)) for the construction of M+ Museum Main Works (Contract No.: CC/2015/3A/022) and Lyric Theatre Complex including the Foundation Works (Contract No.: CC/2015/3A/014) and L1 Contract (Contract No. CC/2017/3A/030) at West Kowloon Cultural District (WKCD) (The Project) as part of the WKCD development. The Project Proponent is the West Kowloon Cultural District Authority (WKCDA). The construction works and EM&A programme for M+ Museum and Lyric Theatre Complex commenced on 31 October 2015 and 1 March 2016 respectively.

The overall works for the WKCD fall under two separate categories of Designated Project (DP) of the Environmental Impact Assessment Ordinance (EIAO), namely an “engineering feasibility study of urban development projects with a study area covering more than 20 ha or involving a total population of more than 100 000” (Item 3 of Schedule 3) and “an underpass more than 100m in length under the built areas” (Item A.9, Part I, Schedule 2). An Environmental Permit No. EP-453/2013/B (EP) was issued with respect to the “Underpass Road and Austin Road Flyover Serving the West Kowloon Cultural District” which specifically includes the abovementioned category of DP under Item A.9, Part I, Schedule 2 of the EIAO.

Due to the situation where Hsin Chong Construction Company Limited has been determined by WKCDA on 17 August 2018 for the M+ Main Works Contract, construction works at M+ Museum have been suspended from 18 August 2018 onwards. This Monthly EM&A Report presents the monitoring works for M+ Museum conducted from 1 August and 17 August 2018, where data is available; and the monitoring works at Lyric Theatre Complex conducted from 1 August to 31 August 2018.

Exceedance of Action and Limit Levels

There was no breach of Action or Limit levels for Air Quality (1-hour TSP and 24-hour TSP) and Noise in this reporting month.

Implementation of Mitigation Measures

Construction phase weekly site inspections were carried out on 2, 9 and 16 August 2018 for M+ Museum and 1, 8, 15, 22 and 29 August 2018 for Lyric Theatre Complex to confirm the implementation measures undertaken by the Contractors in the reporting month. The outcomes are presented in Section 4 and the status of implementation of mitigation measures in the site is shown in **Appendix J**.

Landscape and visual impact inspections were conducted as part of the abovementioned weekly site inspections during the reporting month. No adverse comment on landscape and visual aspects was made during these inspections.

Record of Complaints

No environmental complaint was recorded in the reporting month.

Record of Notification of Summons and Successful Prosecutions

No notification of summons and successful prosecution were recorded in the reporting month.

Future Key Issues

The major site works for Lyric Theatre Complex scheduled to be commissioned in the coming month include:

- Excavation and lateral support works;

- Bulk excavation;
- Drainage work (PIW works); and
- Extended basement structure construction of Area 06

Potential environmental impacts due to the construction activities, including air quality, noise, water quality, waste, landscape and visual, will be monitored or reviewed. The recommended environmental mitigation measures shall be implemented on site and regular inspections as required will be carried out to ensure that the environmental conditions are acceptable.

1 Introduction

1.1 Background

Mott MacDonald Hong Kong Limited (MMHK) was commissioned to undertake the Environmental Team (ET) services (including environmental monitoring and audit (EM&A)) for the construction of M+ Museum Main Works (Contract No.: CC/2015/3A/022) and Lyric Theatre Complex including the Foundation Works (Contract No.: CC/2015/3A/014) and L1 Contract (Contract No. CC/2017/3A/030) at West Kowloon Cultural District (WKCD) (The Project) as part of the WKCD development. The Project Proponent is the West Kowloon Cultural District Authority (WKCDA). The construction works and EM&A programme for M+ Museum and Lyric Theatre Complex commenced on 31 October 2015 and 1 March 2016 respectively.

The overall works for the WKCD fall under two separate categories of Designated Project (DP) of the Environmental Impact Assessment Ordinance (EIAO), namely an “engineering feasibility study of urban development projects with a study area covering more than 20 ha or involving a total population of more than 100 000” (Item 3 of Schedule 3) and “an underpass more than 100m in length under the built areas” (Item A.9, Part I, Schedule 2). An Environmental Permit No. EP-453/2013/B (EP) was issued with respect to the “Underpass Road and Austin Road Flyover Serving the West Kowloon Cultural District” which specifically includes the abovementioned category of DP under Item A.9, Part I, Schedule 2 of the EIAO. The captioned projects include part of the abovementioned underpass road located within the site boundary also falls under this same category.

The M+ museum development aims to provide an iconic presence for the M+ museum, semi-transparent vertical plane, housing education facilities, a public restaurant and museum offices. At ground and lower levels, generous access will be provided to the park and other West Kowloon Cultural District facilities, alongside a public resource centre, theatres, retail and dining, and back-of-house functions.

The 1,200-seat Lyric Theatre Complex will be Hong Kong’s first world-class facility for dance performances, including ballet, contemporary and Chinese dance forms. In the run up to the opening of further major performing arts venues in the WKCD, it will also be used for a wide variety of performing arts events including drama, opera and musical performances. The Lyric Theatre Complex will act as a platform for Hong Kong’s leading arts organisations, and be a new major venue to show programmes from Asia and worldwide.

The Monthly EM&A Report is prepared in accordance with the Condition 3.4 of the Environmental Permit No. EP-453/2013/B. Due to the situation where Hsin Chong Construction Company Limited has been determined by WKCDA on 17 August 2018 for the M+ Main Works Contract, construction works at M+ Museum have been suspended from 18 August 2018 onwards. This Monthly EM&A Report presents the monitoring works for M+ Museum conducted from 1 August and 17 August 2018, where data is available; and the monitoring works at Lyric Theatre Complex conducted from 1 August to 31 August 2018. The purpose of this report is to summarise the findings in the EM&A of the project over the reporting period.

1.2 Project Organisation

The organisation chart and lines of communication with respect to the on-site environmental management structure together with the contact information of the key personnel are shown in **Appendix A**.

1.3 Environmental Status in the Reporting Period

During 1 August 2018 to 17 August 2018, construction works at M+ Museum undertaken include:

- M+ Main Works (Podium) construction of:
 - 16F Columns, Walls & RF Slab (M1)
 - Columns and walls from 14/F to 15/F slab (M2);
 - Columns and walls from 13/F to 14/F slab (M3);
- RDE Building Construction of:
 - Columns & Walls & Slab and Beam from 6/F to 7MF (Zone B)
 - Columns, Walls & RF & Slab and Sunshade from 5/F to 6/F (Zone A & C)
- CSF Building (Zone A & B) Construction of:
 - Columns, Walls & RF & Slab from 7/F to 8/F (Zone A)
 - Columns & Walls & Slab and Beam from 6/F to 7MF (Zone B)

During the reporting period, construction works at Lyric Theatre Complex undertaken include:

- Excavation and lateral support works
- Drainage work (PIW works) and
- Extended basement structure construction of Area 06

The Construction Works Programmes of M+ Museum and Lyric Theatre Complex are provided in **Appendix B**. A layout plan of the Project is provided in **Figure 1**. Please refer to **Table 4.3** on the status of the environmental licenses.

1.4 Summary of EM&A Requirements

The EM&A programme requires environmental monitoring of air quality, noise, landscape and visual as specified in the approved EM&A Manual.

A summary of impact EM&A requirements is presented in **Table 1.1**.

Table 1.1: Summary of Impact EM&A Requirements

Parameters	Descriptions	Locations	Frequencies
Air Quality	24-Hour TSP	AM1 - International Commerce Centre	At least once every 6 days
	1-Hour TSP	AM1 - International Commerce Centre	At least 3 times every 6 days
	24-Hour TSP	AM2A – Austin Road West opposite to The Harbourside Tower 1	At least once every 6 days
	1-Hour TSP	AM2A – Austin Road West opposite to The Harbourside Tower 1	At least 3 times every 6 days
Noise	Leq, 30 minutes	NM1A- Podium level of The Harbourside Tower 1	Weekly
Landscape & Visual	Monitor implementation of proposed mitigation measures during the construction stage	As described in Table 9.1 and 9.2 of the EM&A Manual	Bi-weekly

Given that the Project covers only a small part of the whole WKCD area (i.e. M+ Museum, Lyric Theatre Complex and respective portions of underpass road), it was proposed that the EM&A programme for the Project should only require 1 noise monitoring station and 2 air quality monitoring stations located closest to the Project area. Currently, the works under the captioned project are confined in the western part of the WKCD site. Therefore, only the monitoring stations AM1, AM2 and NM1 were set up. Other

monitoring locations are too far away (i.e. AM3 to AM5 and NM2 to NM5) are not included in this EM&A programme until the construction of the corresponding area commences.

The Harbourside management office formally rejected our proposal of setting up air quality and noise monitoring equipment on its premises at the podium level of Tower 1 (AM2/NM1) on 10 November 2015. Alternative noise monitoring location was identified at The Arch (NM2), however The Arch management office formally rejected our proposal of setting up noise monitoring equipment on its premises on 23 November 2015. Nevertheless, suitable air quality monitoring location at AM2 was identified on the ground floor in front of The Harbourside Tower 1, which is at the same location as that of baseline monitoring for consistency. No management approval is required at the ground floor for conducting the air monitoring. However, the electricity supply at AM2 was suspended from 31 August 2016 and was no longer available. In order to have a more secure electricity supply, an alternative air monitoring location (AM2A) was identified at Austin Road West opposite to The Harbourside Tower 1, which is close to Lyric Theatre Complex site entrance. This alternative air monitoring location was approved by EPD on 28 September 2016. Noise monitoring at G/F of Harbourside will not be representative. Approval from the management office of the International Commerce Centre has been granted on 29 February 2016 for conducting noise monitoring at the alternative noise monitoring location identified at the podium floor (NM1A) which is free from screening to the construction activities. Therefore, 2 air quality monitoring stations and 1 noise impact monitoring station were confirmed for the impact monitoring.

The Environmental Quality Performance Limits for air quality and noise are shown in **Appendix C**.

The Event and Action Plan for air quality, construction noise, landscape and visual are shown in **Appendix D**.

The EM&A programme followed the recommended mitigation measures in the EM&A Manual. The EM&A requirements as well as the summary of implementation status of the environmental mitigation measures are provided in **Appendix J**.

2 Impact Monitoring Methodology

2.1 Introduction

For air quality and noise, the monitoring methodology, including the monitoring locations, monitoring equipment used, monitoring parameters, and frequency and duration etc., for air quality and noise are detailed in this Section. The environmental monitoring schedules for the reporting period and the tentative monitoring Schedule for the coming month are provided in **Appendix E**.

For landscape and audit impact, the relevant EM&A monitoring requirements and details are also presented in this Section.

2.2 Air Quality

2.2.1 Monitoring Parameters, Frequency and Duration

Table 2.1 summarizes the monitoring parameters, frequency and duration of the TSP monitoring.

Table 2.1: Air Quality Monitoring Parameters, Frequency and Duration

Parameter	Frequency	Duration
24-hour TSP	At least once in every six-days	24 hours
1-hour TSP	At least 3 times every six-days	60 minutes

2.2.2 Monitoring Locations

Currently, the works under the captioned project are confined in the western part of the WKCD site. Therefore, only the monitoring stations AM1 and AM2A were set up at the proposed locations in accordance with updated EM&A Manual. Location of the monitoring station is given in **Table 2.2** and shown in **Figure 1**.

Table 2.2: Air Quality Monitoring Station

Monitoring Station	Location
AM1	International Commerce Centre (ICC)
AM2A	Austin Road West opposite to The Harbourside Tower 1

2.2.3 Monitoring Equipment

Continuous 24-hour TSP air quality monitoring was conducted using High Volume Sampler (HVS) (Model: TE-5170) located at the designated monitoring station. The HVS meets all the requirements stated in of the EM&A Manual. Portable direct reading dust meter was used to carry out the 1-hour TSP monitoring. **Table 2.3** summarizes the equipment used in the impact air quality monitoring. Copies of the calibration certificates for the HVS, calibration kit and portable dust meters are attached in **Appendix F**.

Table 2.3: TSP Monitoring Equipment

Equipment	Model
24-hour TSP monitoring	
High Volume Sampler	TE-5170 (Serial No.: 0767 and 8919)
Calibrator	TE-5025A (Orifice I.D.: 2454)
1-hour TSP monitoring	
Portable direct reading dust meter	Sibata LD-5R (Serial No.: 841723 and 841724)

Calibration of the HVS (five point calibration) using Calibration Kit was carried out every two months. The HVS calibration orifice will be calibrated annually. Calibration certificate of the TE-5025A Calibration Kit and the HVS are provided in **Appendix F**

The 1-hour TSP monitoring should be determined periodically (e.g. annually) by the HVS to check the validity and accuracy of the results measured by direct reading method.

2.2.4 Monitoring Methodology

24-hour TSP Monitoring

Installation

The HVS was installed at the site boundary. The following criteria were considered in the installation of the HVS.

- A horizontal platform with appropriate support to secure the sampler against gusty wind was provided.
- The distance between the HVS and any obstacles, such as buildings, was at least twice the height that the obstacle protrudes above the HVS.
- A minimum of 2 metres separation from walls, parapets and penthouse was required for rooftop sampler.
- A minimum of 2 metres separation from any supporting structure, measured horizontally was required.
- No furnace or incinerator flues or building vent were nearby.
- Airflow around the sampler was unrestricted.
- The sampler has been more than 20 metres from any drip line.
- Permission was obtained to set up the sampler and to obtain access to the monitoring station.
- A secured supply of electricity is needed to operate the sampler.

Preparation of Filter Papers

- Glass fibre filters were labelled and sufficient filters that were clean and without pinholes were selected.
- The filters used are specified to have a minimum collection efficiency of 99 percent for 0.3 µm (DOP) particles.
- All filters were equilibrated in the conditioning environment for 24 hours before weighing. The conditioning environment temperature was around 25 °C and not variable by more than ±3 °C with relative humidity (RH) < 50% and was not variable by more than ±5 %. A convenient working RH was 40%. All preparation of filters was done by Hong Kong Laboratory Accreditation Scheme (HOKLAS) accredited laboratory.

Field Monitoring Procedures

- The power supply was checked to ensure the HVS works properly.
- The filter holder and the area surrounding the filter were cleaned.
- The filter holder was removed by loosening the four bolts and a new filter, with stamped number upward, on a supporting screen was aligned carefully.
- The filter was properly aligned on the screen so that the gasket formed an airtight seal on the outer edges of the filter.
- The swing bolts were fastened to hold the filter holder down to the frame. The pressure applied should be sufficient to avoid air leakage at the edges.
- The shelter lid was closed and was secured with the aluminium strip.
- The HVS was warmed-up for about 5 minutes to establish run-temperature conditions.
- A new flow rate record sheet was set into the flow recorder.
- The flow rate of the HVS was checked and adjusted at around 1.3 m³/min. The range specified in the EM&A Manual was between 0.6-1.7 m³/min.

- The programmable timer was set for a sampling period of 24 hours, and the starting time, weather condition and the filter number were recorded.
- The initial elapsed time was recorded.
- At the end of sampling, the sampled filter was removed carefully and folded in half length so that only surfaces with collected particulate matter were in contact.
- It was then placed in a clean plastic envelope and sealed.
- All monitoring information was recorded on a standard data sheet.
- Filters were sent to a Hong Kong Laboratory Accreditation Scheme (HOKLAS) accredited laboratory for analysis.

Maintenance and Calibration

- The HVS and its accessories are maintained in good working condition, such as replacing motor brushes routinely and checking electrical wiring to ensure a continuous power supply.
- HVSs were calibrated upon installation and thereafter at bi-monthly intervals. The calibration kits were calibrated annually.
- Calibration records for HVS and calibration kit are shown in **Appendix F**.

1-hour TSP Monitoring

Field Monitoring

The measuring procedures of the 1-hour dust meter are in accordance with the Manufacturer's Instruction Manual as follows:

- Turn the power on.
- Close the air collecting opening cover.
- Push the "TIME SETTING" switch to [BG].
- Push "START/STOP" switch to perform background measurement for 6 seconds.
- Turn the knob at SENSI ADJ position to insert the light scattering plate.
- Leave the equipment for 1 minute upon "SPAN CHECK" is indicated in the display.
- Push "START/STOP" switch to perform automatic sensitivity adjustment. This measurement takes 1 minute.
- Pull out the knob and return it to MEASURE position.
- Setting time period of 1 hour for the 1-hour TSP measurement.
- Push "START/STOP" to start the 1-hour TSP measurement.
- Regular checking of the time period setting to ensure monitoring time of 1 hour.

Maintenance and Calibration

- The 1-hour dust meter would be checked at 3-month intervals and calibrated at 1-year intervals throughout all stages of the air quality monitoring.
- Calibration records for direct dust meters are shown in **Appendix F**.

Weather Condition

- Meteorological data extracted from Hong Kong Observatory for the reporting month is provided in **Appendix H**.

2.3 Noise

2.3.1 Monitoring Parameters, Frequency and Duration

Table 2.4 summarizes the monitoring parameters, frequency and duration of noise monitoring. The noise in A-weighted levels L_{eq} , L_{10} and L_{90} are recorded in a 30-minute interval between 0700 and 1900 hours.

Table 2.4: Noise Monitoring Parameters, Period and Frequency

Time Period	Parameters	Frequency
Daytime on normal weekdays (0700-1900 hours)	$L_{eq}(30 \text{ min})$, $L_{90}(30 \text{ min})$ & $L_{10}(30 \text{ min})$	Once every week

2.3.2 Monitoring Location

Currently, the works under the captioned project are confined in the western part of the WKCD site. Therefore, only the monitoring station NM1A was set up at the proposed location in accordance with updated EM&A Manual. Location of the monitoring station is given in **Table 2.5** and shown in **Figure 1**.

Table 2.5: Noise Monitoring Station

Monitoring Station	Location
NM1A	Podium floor of International Commerce Centre (ICC)

2.3.3 Monitoring Equipment

Integrating Sound Level Meter was used for noise monitoring. It was a Type 1 sound level meter capable of giving a continuous readout of the noise level readings including equivalent continuous sound pressure level (L_{Aeq}) and percentile sound pressure level (L_x). They comply with International Electrotechnical Commission Publications 651:1979 (Type 1) and 804:1985 (Type 1). **Table 2.6** summarizes the noise monitoring equipment model being used.

Table 2.6: Noise Monitoring Equipments

Monitoring Station	Equipment Model	
	Integrating Sound Level Meter	Calibrator
NM1A	Rion NL-52 (Serial No. 00331805)	Rion NC-73 (Serial No. 10486660)

2.3.4 Monitoring Methodology

Field Monitoring

- The microphone of the Sound Level Meter was set at least 1.2 m above the ground.
- Free Field measurement was made at the monitoring locations.
- The battery condition was checked to ensure the correct functioning of the meter.
- Parameters such as frequency weighting, the time weighting and the measurement time were set as follows:
 - frequency weighting: A
 - time weighting: Fast
 - time measurement: 30 minutes intervals (between 0700-1900 on normal weekdays)
- Prior to and after each noise measurement, the meter was calibrated using a Calibrator for 94 dB at 1 kHz. If the difference in the calibration level before and after measurement was more than 1 dB, the measurement would be considered invalid and has to be repeated after re-calibration or repair of the equipment.
- During the monitoring period, the L_{eq} , L_{10} and L_{90} were recorded. In addition, any site observations and noise sources were recorded on a standard record sheet.
- A correction of +3dB(A) was made to the free field measurements.

Maintenance and Calibration

- The microphone head of the sound level meter and calibrator is cleaned with soft cloth at quarterly intervals.

- The sound level meter and calibrator are sent to the supplier or HOKLAS laboratory to check and calibrate at yearly intervals.
- Calibration records are shown in **Appendix F**.

Weather Condition

- Meteorological data extracted from Hong Kong Observatory for the reporting month is provided in **Appendix H**.

2.4 Landscape and Visual

2.4.1 Monitoring Program

Table 2.7 details the monitoring program (as proposed in the WKCD EIA report) for landscape and visual impact during the construction phase.

Table 2.7: Monitoring Program for Landscape and Visual Impact during Construction Phase

Stage	Monitoring Task	Frequency	Report	Approval
Construction	Monitor implementation of proposed mitigation measures during the construction stage.	Bi-weekly	ET to report on Contractor's compliance	Counter-signed by IEC

During the landscape and visual impact monitoring, any changes in relation to the landscape and visual amenity should be monitored with reference to the baseline conditions of the site. In addition, mitigation measures were proposed in the WKCD EIA report to minimise the landscape and visual impacts during the construction phase. The proposed mitigation measures as shown in Table 9.1 and Table 9.2 of the EM&A Manual should be checked for proper implementation.

3 Monitoring Results

3.1 Impact Monitoring

Construction impact monitoring for air quality, noise and landscape and visual impact was undertaken in compliance with the EM&A Manual during the reporting month.

3.2 Air Quality Monitoring

3.2.1 1-hour TSP

Results of 1-hour TSP at the monitoring location AM1 and AM2A are summarised in **Table 3.1**. Graphical plots of the monitoring results are shown in **Appendix G**.

Table 3.1: Summary of 1-hour TSP monitoring results

Monitoring Station	Monitoring Date	Start Time	1-hour TSP ($\mu\text{g}/\text{m}^3$)			Range ($\mu\text{g}/\text{m}^3$)	Action Level ($\mu\text{g}/\text{m}^3$)	Limit Level ($\mu\text{g}/\text{m}^3$)
			1st Result	2nd Result	3rd Result			
AM1	6-Aug-18	7:50	68	75	82	34 - 107	273.7	500
	10-Aug-18	8:02	43	39	37			
	16-Aug-18	8:10	34	37	41			
	22-Aug-18	8:12	82	91	107			
	28-Aug-18	8:08	82	91	102			
AM2A	6-Aug-18	8:02	75	86	98	49 - 109	274.2	500
	10-Aug-18	8:14	62	49	56			
	16-Aug-18	8:22	62	66	58			
	22-Aug-18	8:24	84	93	109			
	28-Aug-18	8:23	85	93	105			

3.2.2 24-hour TSP

Results of 24-hour TSP at the monitoring location AM1 and AM2A are summarised in **Table 3.2**. Graphical plots of the monitoring results are shown in **Appendix G**.

Table 3.2: Summary of 24-hour TSP monitoring results

Monitoring Station	Monitoring Date	Start Time	Monitoring Results ($\mu\text{g}/\text{m}^3$)	Range ($\mu\text{g}/\text{m}^3$)	Action Level ($\mu\text{g}/\text{m}^3$)	Limit Level ($\mu\text{g}/\text{m}^3$)
AM1	6-Aug-18	7:48	32	25 - 33	143.6	260
	10-Aug-18	8:00	29			
	16-Aug-18	8:08	25			
	22-Aug-18	8:10	28			
	28-Aug-18	8:05	33			
AM2A	6-Aug-18	8:00	52	33 - 52	151.1	260
	10-Aug-18	8:12	52			
	16-Aug-18	8:20	33			
	22-Aug-18	8:22	36			
	28-Aug-18	8:20	41			

No exceedance of 1-hour and 24-hour TSP (Action or Limit Level) was recorded in the reporting period.

3.3 Noise Monitoring

The construction noise monitoring results at the monitoring location NM1A are summarized in **Table 3.3**. Graphical plots of the monitoring data and the station set-up of a free-field measurement are shown in **Appendix G**.

Table 3.3: Summary of noise monitoring results during normal weekdays

Monitoring Date	Start Time	End Time	Leq (30 mins)*, dB(A)	Limit Level for Leq (dB(A))
6-Aug-18	10:14	10:44	69	75
16-Aug-18	10:36	11:06	69	
22-Aug-18	9:12	9:42	69	
28-Aug-18	9:05	9:35	69	

Remarks:

* +3dB (A) correction was applied to free-field measurement.

No exceedance (Action/Limit Level) of construction noise was recorded in the reporting period as no noise related environmental complaint was received during the reporting period and noise levels recorded during the monitoring period were below 75 dB(A).

Construction works were extended to holidays on 5, 12 and 19 August 2018. In accordance with the EM&A Manual, additional monitoring was carried out during the restricted hours on 5, 12 and 19 August 2018. All the L_{eq} (5 mins) is in the range of 59-60 dB(A). Major noise source includes traffic. Construction Noise Permits for the works carried out during restricted hours were obtained and listed in **Table 4.3**.

3.4 Landscape and Visual Impact

Landscape and visual impact inspections were conducted as part of the weekly site inspections on 2 and 16 August 2018 for M+ Museum and 1, 15 and 29 August 2018 for Lyric Theatre Complex during the reporting month. As reviewed by the registered Landscape Architect, no adverse comment on landscape and visual aspects was made during these inspections.

The landscape and visual mitigation measures were implemented during the reporting period. The summary of implementation status of the environmental mitigation measures are provided in **Appendix J**.

4 Environmental Site Inspection

4.1 Site Inspection

4.1.1 M+ Museum

Construction phase weekly site inspections were carried out on 2, 9 and 16 August 2018. The joint site inspection with IEC, ET, ER and Contractor scheduled on 23 August 2018 was cancelled due to suspension of works. All observations have been recorded in the site inspection checklist and passed to the Contractor together with the appropriate recommended mitigation measures where necessary.

The key observations from the site inspections and associated recommendations are summarized in **Table 4.1**.

Table 4.1: Summary of Site Inspections and Recommendations for M+ Museum

Inspection Date	Parameter	Observation / Recommendation	Contractor's Responses / Action(s) Undertaken	Close-out (Date)
2 Aug 2018	Air quality	Cement bags were found without proper cover. The contractor was reminded to well cover it with impervious sheeting to reduce dust impact.	Impervious sheeting was provided to cover the cement bags.	8 Aug 2018
2 Aug 2018	Air quality	Haul road near old CSO was found dry and dusty. The contractor was reminded to enhance water spraying to reduce dust impact.	Water spraying was enhanced for the haul road near old CSO.	8 Aug 2018
2 Aug 2018	Water quality	Effluent quality at wetsep no.1 was checked. It was found visually clear when comparing with standard solution and within proper pH range.	N/A	N/A
9 Aug 2018	Water quality	Stagnant water pond was observed at B2/F. The Contractor was reminded to clear the stagnant water to reduce water quality impact.	The contractor has cleared the stagnant water previously found at B2/F.	15 Aug 2018
9 Aug 2018	Water quality	Effluent quality at wetsep no.1 was checked. It was found visually clear when comparing with standard solution and within proper pH range.	N/A	N/A
16 Aug 2018	Air quality	Cement bags were found without proper cover at B2. The contractor was reminded to provide impervious sheeting for the cement bags to reduce dust impact.	Follow up action could not carried out due to suspension of works.	N/A
16 Aug 2018	Water quality	Effluent quality at wetsep no.1 was checked. It was found visually clear when comparing with standard solution and within proper pH range.	N/A	N/A

4.1.2 Lyric Theatre Complex

Construction phase weekly site inspections were carried out on 1, 8, 15, 22 and 29 August 2018. The joint site inspection with IEC, ET, ER and Contractor was held on 22 August 2018. All observations

have been recorded in the site inspection checklist and passed to the Contractor together with the appropriate recommended mitigation measures where necessary.

The key observations from the site inspections and associated recommendations are summarized in **Table 4.2**.

Table 4.2: Summary of Site Inspections and Recommendations for Lyric Theatre Complex

Inspection Date	Parameter	Observation / Recommendation	Contractor's Responses / Action(s) Undertaken	Close-out (Date)
25 Jul 2018	Water Quality	Turbid water was observed at wetsep #1. The contractor was reminded to clear the suspended solid in order to keep good quality of discharge water.	Contractor had cleared the suspended solid in order to keep good quality of discharge water.	1 Aug 2018
8 Aug 2018	Air Quality	A pile of dry rock was observed at PIW area. Contractor was reminded to increase water spraying frequency to avoid dust impact.	Contractor had increased water spraying frequency at PIW to avoid dust impact.	9 Aug 2018
22 Aug 2018	Water Quality	Broken bunding was observed near the seaside. The contractor was reminded to repair the bunding to avoid muddy water leakage to the sea.	Contractor had repaired the bunding to avoid muddy water leakage to the sea.	21 Aug 2018

4.2 Advice on the Solid and Liquid Waste Management Status

The Contractors have been registered as a chemical waste producer for the Project. Construction and demolition (C&D) material sorting will be carried out on site. A sufficient number of receptacles were available for general refuse collection.

4.2.1 M+ Museum

No data is provided by the Contractor for construction works during 1 August 2018 to 17 August 2018.

The cumulative waste generation records for M+ Museum are shown in **Appendix I**.

4.2.2 Lyric Theatre Complex

As advised by the Contractor, 677.22 tonnes and 257.12 tonnes of inert C&D material were disposed of as public fill to Tseung Kwan O Area 137 and Tuen Mun Area 38, while 42.4 tonnes of general refuse were disposed of at SENT landfill. 148.1 tonne of metals, 0 tonne of paper/cardboard packaging, 0 tonne of plastic and 0 tonne of timber were collected by recycling contractors in the reporting month. 0 tonne of inert C&D materials was reused on site. 214.3 tonnes of fill materials were imported for use at site and 32,917.7 tonnes of inert C&D materials were reused in other projects. 0 tonne of chemical waste was collected by licensed contractors in the reporting period.

The actual amounts of different types of waste generated by the activities of construction works at Lyric Theatre Complex in the reporting month are shown in **Appendix I**.

4.3 Status of Environmental Licenses and Permits

The environmental permits, licenses, and/or notifications on environmental protection for this Project which were valid during the period are summarised in **Table 4.3-4.4**.

4.3.1 M+ Museum

Table 4.3: Status of Environmental Submissions, Licenses and Permits for M+ Museum

Permit / License No. / Notification / Reference No.	Valid Period		Status	Remarks
	From	To		
Chemical Waste Producer Registration				
5213-217-H2913-45	05-Nov-15	--	Valid	--
Billing Account Construction Waste Disposal				
7023393	13-Oct-15	--	Account Active	--
Construction Noise Permit				
GW-RE0214-18	2-Apr-18	30-Sep-18	Valid	
Wastewater Discharge License				
WT00023633-2016	4-Mar-16	31-Mar-21	Valid	--
Notification under Air Pollution Control (Construction Dust) Regulation				
394083	7-Oct-15	--	Notified	--

4.3.2 Lyric Theatre Complex

Table 4.4: Status of Environmental Submissions, Licenses and Permits for Lyric Theatre Complex

Permit / License No. / Notification / Reference No.	Valid Period		Status	Remarks
	From	To		
Chemical Waste Producer Registration				
5213-217-G2347-39	17-Feb-16	--	Valid	--
Billing Account Construction Waste Disposal				
7029925	22-Jan-18	--	Account Active	--
Construction Noise Permit				
GW-RE0439-18	27-Jun-18	24-Dec-18	Valid	
Wastewater Discharge License				
WT-00030694-2018	6-Apr-18	30-Apr-23	Valid	
Notification under Air Pollution Control (Construction Dust) Regulation				
429708	16-Jan-18	--	Notified	--

4.4 Recommended Mitigation Measures

The EM&A programme followed the recommended mitigation measures in the EM&A Manual. The EM&A requirements as well as the summary of implementation status of the environmental mitigation measures are provided in **Appendix J**. In particular, the following mitigation measures were brought to attention during the site inspections:

4.4.1 M+ Museum

Air Quality

- Maintain high standard of housekeeping to prevent emission of fugitive dust.
- Cement bags should be well covered by impervious sheeting to reduce dust impact. Regular water spraying should be provided to haul roads for dust suppression.

Water Quality

- Stagnant water should be regularly cleared to reduce water quality impact.

4.4.2 Lyric Theatre Complex

Water Quality

- Earth bunds should be well maintained near seafront to prevent leakage of site runoff into the sea.

Air Quality

- Dusty materials should be frequently sprayed with water to reduce dust impact.

5 Compliance with Environmental Permit

The status of the required submission under the EP during the reporting period is summarized in **Table 5.1**.

Table 5.1: Status of Submissions under the Environmental Permit

EP Condition	Submission	Submission Date
Condition 3.4	Monthly EM&A Report for July 2018	14 August 2018

6 Report in Non-compliance, Complaints, Notification of Summons and Successful Prosecutions

6.1 Record on Non-compliance of Action and Limit Levels

There was no breach of Action or Limit Levels for Air Quality and Noise monitoring in the reporting month.

6.2 Record on Environmental Complaints Received

No environmental complaint was recorded in the reporting month. The cumulative statistics on complaints were provided in **Appendix K**.

6.3 Record on Notifications of Summons and Successful Prosecution

No notifications of summons or successful prosecution were received this month. The cumulative statistics on notifications of summons and successful prosecutions were provided in **Appendix K**.

7 Future Key Issues

7.1 Construction Works for the Coming Month(s)

7.1.1 M+ Museum

Construction works have been suspended from 18 August 2018 onwards.

7.1.2 Lyric Theatre Complex

The major site works for Lyric Theatre Complex scheduled to be commissioned in the coming month include:

- Excavation and lateral support works;
- Bulk excavation;
- Drainage work (PIW works); and
- Extended basement structure construction of Area 06

7.2 Key Issues for the Coming Month

7.2.1 M+ Museum

Construction works have been suspended from 18 August 2018 onwards.

7.2.2 Lyric Theatre Complex

Key issues to be considered in the coming month include:

- Generation of dust from construction works;
- Noise impact from operating equipment and machinery on-site;
- Generation of site surface runoffs and wastewater from activities on-site;
- Management of stockpiles and slopes, particularly on rainy days;
- Sorting, recycling, storage and disposal of general refuse and construction waste; and
- Management of chemicals and avoidance of oil spillage on-site.

7.3 Monitoring Schedule for the Coming Month

The environmental site inspection and environmental monitoring will be continued in the coming month. Impact monitoring for air quality and noise in accordance with the approved EM&A Manual has commenced since 31 October 2015 and 5 March 2016 respectively. The tentative monitoring schedule for the coming month is shown in the **Appendix E**.

8 Conclusions and Recommendations

8.1 Conclusions

The EM&A programme as recommended in the EM&A Manual has been undertaken since the construction of M+ Museum main works commenced on 31 October 2015, and the construction of Lyric Theatre Complex commenced on 1 March 2016.

It should be noted that Hsin Chong Construction Company Limited has been determined by WKCD on 17 August 2018 for the M+ Main Works Contract, construction works at M+ Museum have been suspended from 18 August 2018 onwards.

Monitoring of air quality and noise with respect to the Projects is underway. In particular, the 1-hour TSP, 24-hour TSP, noise level (as Leq, 30 minutes) under monitoring have been checked against established Action and Limit levels. There was no breach of Action and Limit Levels for 1-hour TSP, 24-hour TSP and noise in the reporting month.

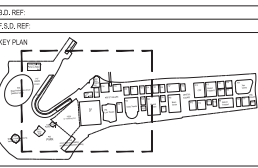
No environmental complaint, notifications of summons or successful prosecution were received during the reporting month.

Weekly construction phase site inspections and bi-weekly landscape and visual impact inspections were conducted during the reporting month as required. It was observed that the Contractors had implemented all possible and feasible mitigation measures to mitigate the potential environmental impacts during construction phase works.

8.2 Recommendations

Potential environmental impacts due to the construction activities, including air quality, noise, water quality, waste, landscape and visual, will be monitored or reviewed. The recommended environmental mitigation measures shall be implemented on site and regular inspections as required will be carried out to ensure that the environmental conditions are acceptable.

Figure 1 Site Layout Plan and Monitoring Stations



- NOTES:
- WKCD BOUNDARY
 - M+ MUSEUM BOUNDARY
 - LYRIC THEATRE BOUNDARY
 - BOUNDARY OF UNDERPASS ROAD SERVING THE PLANNED WKCD
 - CONSTRUCTION AIR/NOISE MONITORING STATION

REV.	DATE	DESCRIPTION	INITIAL

JOB TITLE: **M+ MUSEUM FOR VISUAL CULTURE (MAIN CONTRACT WORKS) & LYRIC THEATRE COMPLEX**

DRAWING TITLE: **PROPOSED LOCATIONS OF CONSTRUCTION AIR/NOISE MONITORING STATIONS**

SCALE	1:100	PRINTED	A1
CHECKED		DATE	
APPROVED		DATE	
DRAWN	TY	DATE	16-10-2015

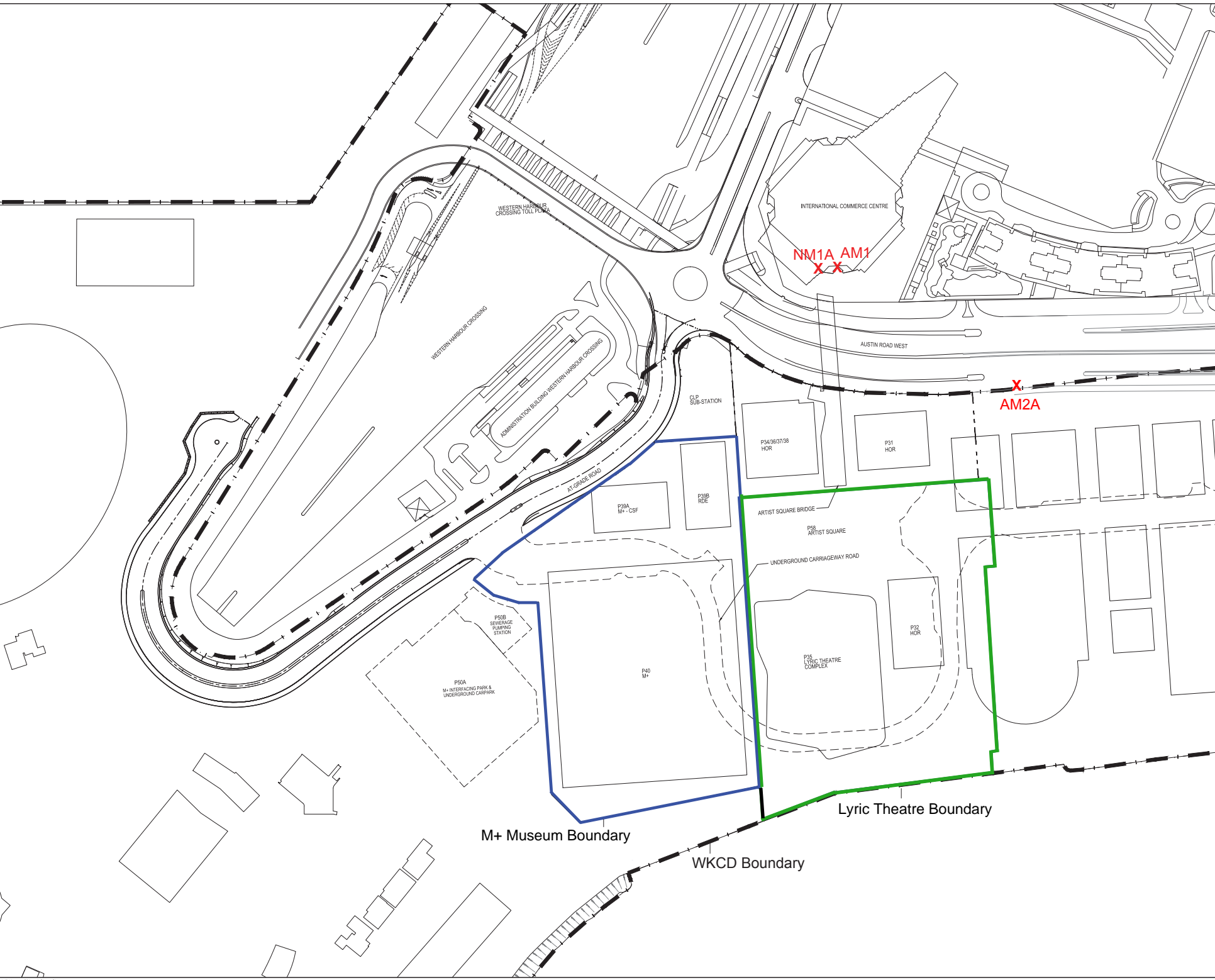
CONTRACT NO.

DRAWING NO.	FIGURE 1	REV.	XA
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CAD REF NAME: XXXXX\AUT\PHS\DWG\PC02\00000000000000000000.dwg

AUTHORITY

westKowloon
西九文化區



Appendices

- A. Project Organisation
- B. Tentative Construction Programme
- C. Action and Limit Levels for Construction Phase
- D. Event and Action Plan for Air Quality, Noise, Landscape and Visual Impact
- E. Monitoring Schedule
- F. Calibration Certifications
- G. Graphical Plots of the Monitoring Results
- H. Meteorological Data Extracted from Hong Kong Observatory
- I. Waste Flow table
- J. Environmental Mitigation Measures – Implementation Status
- K. Cumulative Statistics on Complaints, Notifications of Summons and Successful Prosecutions

A. Project Organisation

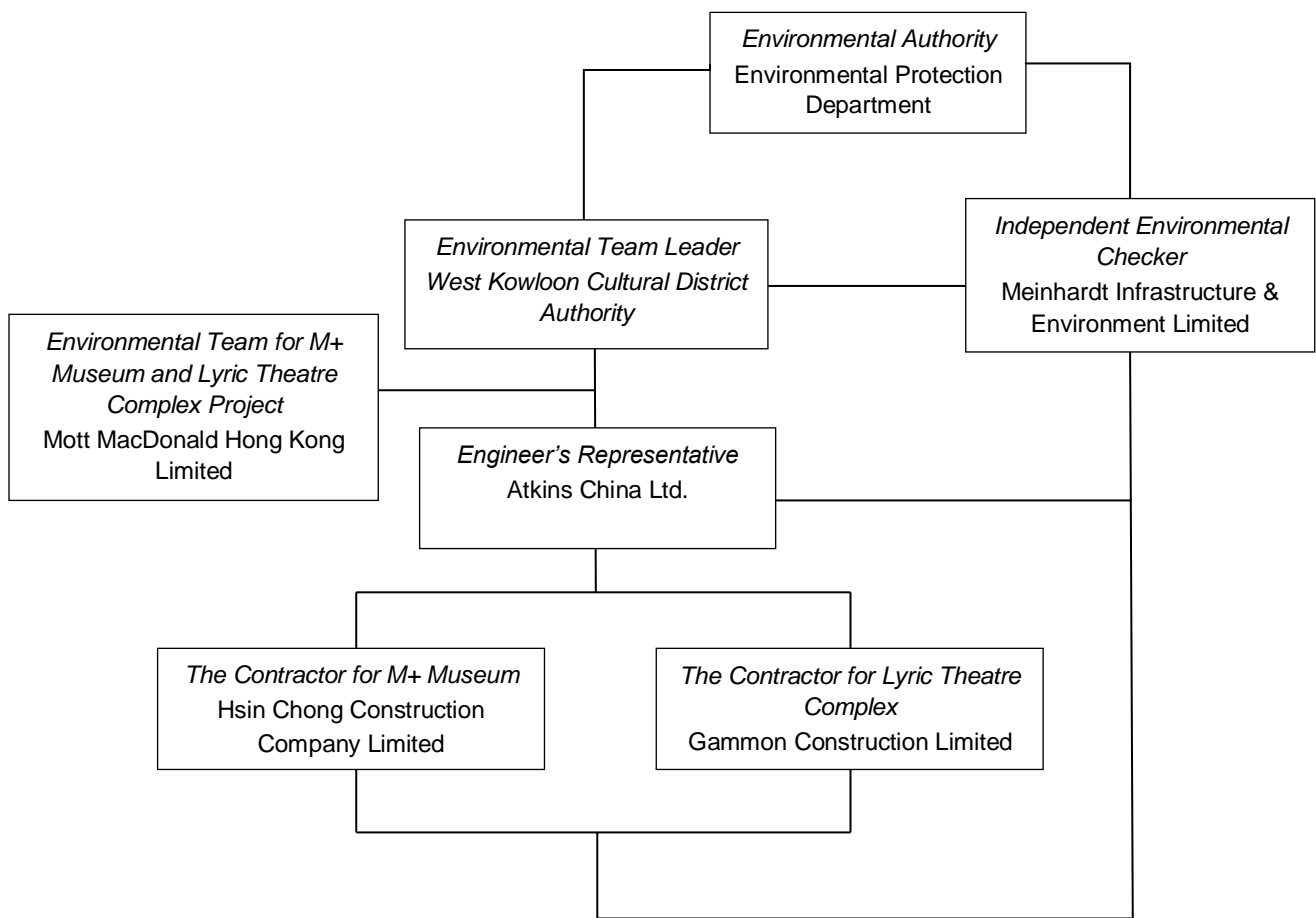


Table A-1: Contact information

Company Name	Role	Name	Telephone
Atkins China Ltd.	Assistant Resident Engineer	Ms. Gloria Lui	5506 6361
Meinhardt Infrastructure & Environment Limited	Independent Environmental Checker	Mr. Fredrick Leong	2859 1739
Hsin Chong Construction Company Limited	Environmental Manager	Mr. Andy Leung	9016 2503
Gammon Construction Limited	Environmental Manager	Ms. Sammie Chan	9864 4296
Mott MacDonald Hong Kong Ltd.	Contractor's Environmental Team Leader	Mr Brandon Wong	2828 5875
West Kowloon Cultural District Authority	Senior Environmental Specialist	Mr. Brian Tam	2200 0059

B. Tentative Construction Programme

M+ Museum

Three Months Rolling Programme (3MRP) - Mth 33 30 June 2018

Activity ID	Activity Name	CMWP Dur.	CMWP - R0(D8) Start	CMWP - R0(D8) Finish	Actual / Forecast Start	Actual / Forecast Finish	Planned B/L % Complete	June				July				August				September			
								27	03	10	17	24	01	08	15	22	29	05	12	19	26	02	09
3MRP-33 Three Months Rolling Programme at 30 Jun 2018																							
M+ Podium & Tower FACADE Preliminaries																							
BD SUBMISSIONS FACADE SYSTEM & EMBEDS																							
BD Submission - Garden Gallery Ceramic Cladding System & Embed																							
A51790	Garden Gallery Ceramic - Consent	24	10-Nov-17	20-Nov-17	01-Jul-18	25-Jul-18	100%																
BD Submission - Glass Wall with Ceramic/Precast Concrete Mullion, Concrete Tube & Perforated Cladding																							
A52010	Glass Wall with Ceramic & Precast Concrete Mullion - BD Approval	48	01-Nov-17	21-Nov-17	13-Jun-18 A	07-Aug-18	100%																
A52020	Glass Wall with Ceramic & Precast Concrete Mullion - Consent	24	21-Nov-17	01-Dec-17	08-Aug-18	31-Aug-18	100%																
A52000	Glass Wall with Ceramic & Precast Concrete Mullion - Submission to BD	0		01-Nov-17		06-Jun-18 A	100%																
SHOPDRAWING SUBMISSIONS - FACADE DOORS																							
Facade Doors Package #1 - Glazed door between Ceramic Concrete Mullion - Total No. of Doors = 53																							
A52130	1st Shopdrawing Submission - Review & Approval	17	30-Oct-17	06-Nov-17	21-Jul-18	07-Aug-18	100%																
Facade Doors Package #2 - Sliding door at L3 Storefront - Total No. of Doors = 4																							
A52200	2nd Shopdrawing Submission - Review & Approval	17	12-Nov-17	19-Nov-17	04-Jul-18	20-Jul-18	100%																
Facade Doors Package #3 - Swing Door at L3 Cafe- Total No. of Doors = 1																							
A52250	2nd Shopdrawing Submission - Review & Approval	17	11-Nov-17	18-Nov-17	04-Jul-18	20-Jul-18	100%																
Facade Doors Package #4 - Swing Door mounted in GW with T Mullion - Total No. of Doors = 29																							
A52290	2nd Shopdrawing Submission - Review & Approval	17	11-Nov-17	18-Nov-17	04-Jul-18	20-Jul-18	100%																
Facade Doors Package #5 - Large double door at B1 Transformer Room - Total No. of Doors = 1																							
A52340	2nd Shopdrawing Submission - Review & Approval	17	11-Nov-17	18-Nov-17	04-Jul-18	20-Jul-18	100%																
Facade Doors Package #6 - B1 Exit Door - Total No. of Doors = 7 (7 x Manual)																							
A52380	2nd Shopdrawing Submission - Review & Approval	17	11-Nov-17	18-Nov-17	04-Jul-18	20-Jul-18	100%																
Facade Doors Package #7 - Garden Gallery Door - Total No. of Doors = 2 (2 x Manual)																							
A52430	2nd Shopdrawing Submission - Review & Approval	17	11-Nov-17	18-Nov-17	04-Jul-18	20-Jul-18	100%																
Facade Doors Package #8 - Doors located in Metal Cladding - Total No. of Doors = 20 (20 x Manual)																							
A52470	2nd Shopdrawing Submission - Review & Approval	17	11-Nov-17	18-Nov-17	04-Jul-18	20-Jul-18	100%																
Facade Doors Package #9 - GF Lobby Access Door in Ceramic Tube - Total No. of Doors = 8																							
A52520	2nd Shopdrawing Submission - Review & Approval	17	11-Nov-17	18-Nov-17	04-Jul-18	20-Jul-18	100%																
Facade Doors Package #10 - B1 Carriageway Access Panel & Doors - Total No. of Doors = 24																							
A52560	2nd Shopdrawing Submission - Review & Approval	17	21-Nov-17	28-Nov-17	04-Jul-18	20-Jul-18	100%																
Facade Doors Package #12 - B1 Smoke Vent Panel - Total No. of Doors = 1																							
A52610	2nd Shopdrawing Submission - Review & Approval	17	07-Dec-17	14-Dec-17	04-Jul-18	20-Jul-18	100%																
PERFORMANCE TEST - SHOPDRAWING SUBMISSION, FABRICATION, INSTALLATION & TEST																							
PMU SHOPDRAWING SUBMISSION & TEST - Podium Facade Precast Panel																							
A54680	Perf MU - Testing & Report Submission of Podium Facade PC+CW	14	31-Oct-17	06-Nov-17	02-Jul-18	17-Jul-18	100%																
PMU SHOPDRAWING SUBMISSION & TEST - Kinked Glass with T Mullion																							
A54730	Perf MU - Testing & Report Submission of GW with T Mullion + Reflective Glass	14	29-Nov-17	05-Dec-17	06-Jun-18 A	10-Jul-18	100%																
PMU SHOPDRAWING SUBMISSION & TEST - Glass Wall with Ceramic Mullions at GF																							
A54750	Perf MU - GW with Ceramic Mullion G/F Installation	22	26-Nov-17	05-Dec-17	15-Jul-18	06-Aug-18	100%																
A54760	Perf MU - Commence Testing of GW with Ceramic Mullion G/F	0	05-Dec-17		06-Aug-18		100%																
A54770	Perf MU - Testing & Report Submission of GW with Ceramic Mullion G/F	12	05-Dec-17	10-Dec-17	06-Aug-18	18-Aug-18	100%																
PMU SHOPDRAWING SUBMISSION & TEST - Vertical Glass Wall at Skylight Gallery																							
A54850	Perf MU - Testing & Report Submission of Vertical Glass Wall Skylight Gallery	10	25-Nov-17	29-Nov-17	06-Jun-18 A	06-Jul-18	100%																
PMU SHOPDRAWING SUBMISSION & TEST - Plaza Skylight 3/F Terrace																							
A54800	Perf MU - Commence Testing of Plaza Skylight 3/F Terrace	0	09-Nov-17		29-Jun-18		100%																
A54810	Perf MU - Testing & Report Submission of Plaza Skylight 3/F Terrace	10	09-Nov-17	13-Nov-17	29-Jun-18	08-Jul-18	100%																
A54790	Perf MU - Plaza Skylight 3/F Terrace Installation	24	30-Oct-17	09-Nov-17	20-Jun-18 A	20-Jun-18 A	100%																
PRODUCTION MOCK UP & INSPECTION																							
Prod MU - Kinked Glass with T Mullion																							
A55400	GW with T Mullion (Kinked & Straight) Prod MU	48	05-Dec-17	25-Dec-17	29-Jun-18	15-Aug-18	100%																
A55410	Inspection (Prod MU) - GW with T Mullion (Kinked & Straight)	0	25-Dec-17		18-Aug-18		100%																
Prod MU - Glass Wall with Ceramic Mullions at GF																							
A55420	GW with Ceramic Mullion Prod MU	48	10-Dec-17	30-Dec-17	25-Sep-18	12-Nov-18	100%																
Prod MU - Vertical Glass Wall at Skylight Gallery																							
A55440	Vertical GW with Skylight Gallery Prod MU	48	29-Nov-17	19-Dec-17	04-Jul-18	21-Aug-18	100%																
A55450	Inspection (Prod MU) - Vertical GW with Skylight Gallery	0	19-Dec-17		29-Aug-18		100%																
Prod MU - Plaza Skylight 3/F Terrace																							
A55460	Plaza Skylight Prod MU	48	13-Nov-17	03-Dec-17	12-Jul-18	29-Aug-18	100%																
A55470	Inspection (Prod MU) - Plaza Skylight	0	03-Dec-17		29-Aug-18		100%																
FABRICATION & DELIVERY OF M+ TOWER & PODIUM FACADE SYSTEM																							
01A Tower Facade PC+CW (Bulk)																							

■ Remaining Level of Effort
■ Actual Level of Effort
◆ Milestone
◆ Critical Milestone
■ Actual Work
■ Remaining Work
◆ Critical Remaining Work
◆ Actual Milestone
— Project Baseline
— Project LoE Baseline
◆ Baseline Milestone

West Kowloon Cultural District Authority
M+ Contractor's Main Works Programme CMWP -
(Rev. 0 - Draft 8)



Date	Revision	Che...	Approved
28-F...	3MRP-Mth2...	Rob...	Chris Chau / Ricky Lau
31-M...	3MRP-Mth3...	Rob...	Chris Chau / Ricky Lau
30-A...	3MRP-Mth3...	Rob...	Chris Chau / Ricky Lau
31-M...	3MRP-Mth3...	Rob...	Chris Chau / Ricky Lau
30-J...	3MRP-Mth3...	Rob...	Chris Chau / Ricky Lau

Three Months Rolling Programme (3MRP) - Mth 33 30 June 2018

Activity ID	Activity Name	CMWP Dur.	CMWP - R0(D8) Start	CMWP - R0(D8) Finish	Actual / Forecast Start	Actual / Forecast Finish	Planned B/L % Complete	June				July				August				September			
								27	03	10	17	24	01	08	15	22	29	05	12	19	26	02	09
Terracotta Production																							
Tower Tiles TE501 Production																							
A64330	TE501-L02-08 (13F & 14F)	50	28-Nov-17	19-Dec-17	06-Jun-18 A	18-Aug-18	100%																
A64340	TE501-L02-09 (15F & 16F)	50	19-Dec-17	09-Jan-18	18-Aug-18	07-Oct-18	100%																
Tower Tiles TE502 Production																							
A64440	TE502-L02-09 (15F & 16F)	50	17-Dec-17	07-Jan-18	06-Jun-18 A	18-Aug-18	100%																
A64360	TE502-L02-01 (West)	14	07-Jan-18	13-Jan-18	18-Aug-18	01-Sep-18	100%																
A64370	TE502-L02-02 (East)	14	13-Jan-18	19-Jan-18	01-Sep-18	16-Sep-18	100%																
A64450	TE502-L02-10 (Roof)	14	19-Jan-18	25-Jan-18	16-Sep-18	30-Sep-18	100%																
Tower Tiles TE505 Production																							
A64560	TE505-L02-01 (West)	14	01-Dec-17	07-Dec-17	13-Jul-18	27-Jul-18	100%																
A64570	TE505-L02-02 (East)	14	07-Dec-17	13-Dec-17	27-Jul-18	11-Aug-18	100%																
02 Podium Facade PC + CW (Bulk)																							
A54480	1st Delivery to Site - Precast Panel for Podium	0	27-Dec-17		25-Jul-18		100%																
Precast Concrete Facade																							
A10140	Inspection, Packing & Delivery to Site - Podium Facade	93	09-Apr-18	07-Aug-18	29-Jun-18	29-Sep-18	66.75%																
A10150	Precast Panel 1st Delivery to Site - Podium	0	27-Dec-17		25-Jul-18		100%																
03 GW with T Mullion (Kinked & Straight B1F to GF) (Bulk)																							
A54490	Production & Fabrication - GW with T Mullion (Kinked & Straight B1F to GF)	151	12-Nov-17	14-Jan-18	18-Aug-18	16-Jan-19	100%																
Glass Production & Fabrication																							
A10190	Coated Glass Production	84	13-Nov-17	24-Feb-18	18-Aug-18	28-Nov-18	100%																
A10200	Fabrication of Insulated Glass Panel	67	26-Feb-18	19-May-18	25-Aug-18	15-Nov-18	100%																
A10300	Delivery of Glass Panel to Site	46	28-Mar-18	28-May-18	25-Aug-18	22-Oct-18	100%																
Alum Section Production & Fabrication																							
A10240	Fabrication & Assemble of Curtain Wall Unit	35	04-Apr-18	17-May-18	09-Jul-18	18-Aug-18	100%																
T Painted GMS Mullion, Transom & Brackets																							
A10260	Painting	88	13-Feb-18	06-Jun-18	29-Jun-18	12-Oct-18	100%																
A10270	Packing & Delivery	81	13-Mar-18	23-Jun-18	25-Jul-18	31-Oct-18	100%																
A10280	1st Delivery T-Mullion B1	0	20-Mar-18		31-Jul-18		100%																
04A GW with PC Mullion at 2F Courtyard (Bulk)																							
A54530	1st Delivery to Site - GW with PC Mullion at 2F Courtyard	0	30-Jan-18		29-Jun-18		100%																
Glass Production & Fabrication																							
A10320	Fabrication of Insulated Glass Panel	19	19-Mar-18	11-Apr-18	25-Aug-18	13-Sep-18	100%																
A10330	Delivery of Glass Panel to Site	2	12-Apr-18	13-Apr-18	13-Sep-18	15-Sep-18	100%																
04B GW with Ceramic Mullion (GF & 1F) (Bulk)																							
Glass Production & Fabrication																							
A10470	Fabrication of Insulated Glass Panel	110	11-Jan-18	29-May-18	18-Sep-18	31-Jan-19	100%																
Terracotta Production																							
A10570	Application of PVF2 Coating	67	09-Feb-18	08-May-18	29-Jun-18	15-Sep-18	100%																
Precast Concrete Facade Die Making																							
A10600	Curing of 1st Lot	5	06-Mar-18	12-Mar-18	21-Jul-18	27-Jul-18	100%																
Precast Concrete Facade																							
A10530	Delivery of Precast Concrete to Site	112	11-Jun-18	25-Oct-18	29-Jun-18	10-Nov-18	12.8%																
05 Ceramic Concrete Tubes & Perforated Cladding (Bulk)																							
A54610	1st Delivery to Site - Ceramic Concrete Tubes & Perforated Cladding	0	26-Feb-18		11-Sep-18		100%																
Alum Frame Production & Fabrication																							
A10660	Application of PVF2 Coating	5	19-Mar-18	24-Mar-18	01-Aug-18	06-Aug-18	100%																
A10670	Fabrication of Aluminium Frame to Site	46	24-Mar-18	24-May-18	07-Aug-18	29-Sep-18	100%																
Terracotta Production																							
A10690	Terracotta Production (Bulk)	67	13-Jan-18	09-Apr-18	14-Jun-18 A	15-Sep-18	100%																
Precast Concrete Facade Die Making																							
A10720	Concreting of Precast Concrete	88	05-Jan-18	25-Apr-18	24-Jul-18	07-Nov-18	100%																
A10730	Curing of 1st Lot	6	11-Jan-18	18-Jan-18	24-Jul-18	31-Jul-18	100%																
A10740	Assemble of Brackets to Ceramic Concrete Tubes	97	02-Feb-18	06-Jun-18	22-Aug-18	17-Dec-18	100%																
A10750	1st Delivery to Site - Ceramic Concrete Tubes	0	26-Feb-18		11-Sep-18*		100%																
06A Plaza Skylight 3F (Bulk)																							
Alum Frame Production & Fabrication																							
A18780	Aluminium Extrusion Production	32	02-Feb-18	14-Mar-18	01-Aug-18	07-Sep-18	100%																
A18790	Application of PVF2 Coating	9	15-Mar-18	24-Mar-18	07-Sep-18	18-Sep-18	100%																
A18800	Fabrication of Frame Members	32	26-Mar-18	07-May-18	18-Sep-18	29-Oct-18	100%																
06B STrip CW Skylight Gallery 3F (Bulk)																							
Glass Production & Fabrication																							
A19160	Fabrication of Insulated Glass Panel	25	07-Mar-18	09-Apr-18	14-Sep-18	16-Oct-18	100%																
Alum Frame Production & Fabrication																							
A18840	Aluminium Extrusion Production	22	07-Feb-18	08-Mar-18	31-Jul-18	24-Aug-18	100%																
A18850	Application of PVF2 Coating	11	08-Mar-18	21-Mar-18	25-Aug-18	06-Sep-18	100%																
A18860	Fabrication of Frame Members	36	21-Mar-18	08-May-18	07-Sep-18	22-Oct-18	100%																
07 L3 Storefront (Bulk)																							

Activity ID	Activity Name	CMWP Dur.	CMWP - R0(D8) Start	CMWP - R0(D8) Finish	Actual / Forecast Start	Actual / Forecast Finish	Planned B/L % Complete	June				July				August				September							
								27	03	10	17	24	01	08	15	22	29	05	12	19	26	02	09	16	23		
A16390	Stage 5 - Construct B1-GF wall, column & GF-1MF Hanger Column (GL 5-7/D-F)	16	06-Mar-18	23-Mar-18	13-Sep-18	03-Oct-18	100%																				
Podium Structure Zone K, L & P (Deferred Zone Near T1 & T2)																											
Zone P (Revised Sequence) @ GL 8-11/D-H																											
WB11 Construction																											
A60137	3F Concrete Curing	7	28-Feb-18	03-Mar-18	05-Jul-18	12-Jul-18	100%																				
A60138	De-prop 2F (GL 8-11/D-J)	3	03-Mar-18	07-Mar-18	12-Jul-18	26-Jul-18	100%																				
A60070	Construct GF column & slab (GL 8-11/E-H)	20	12-Apr-18	07-May-18	26-Jul-18	18-Aug-18	100%																				
A60090	GF Concrete Curing	2	07-May-18	08-May-18	18-Aug-18	20-Aug-18	100%																				
A60110	Construct 1F hanger column & walls (GL 9-11/D-J)	14	08-May-18	25-May-18	20-Aug-18	03-Sep-18	100%																				
A60140	De-prop 1F (GL 9-11/D-J)	3	25-May-18	29-May-18	03-Sep-18	06-Sep-18	100%																				
A65200	Construct Found Space	0			03-Sep-18	05-Oct-18	0%																				
A60150	De-prop GF (GL 8-11/D-J)	3	29-May-18	01-Jun-18	06-Sep-18	10-Sep-18	100%																				
Retaining Wall @ GL 8-11/D-F																											
A64020	Stage 4 - Construct retaining wall @B2F +1 to +2mPD @ GL 8-11/D-F	6	28-Feb-18	07-Mar-18	16-Jun-18 A	29-Jun-18	100%																				
A64030	Stage 4 - Construct slab @ +2mPD GL 8-11/D-F	11	07-Mar-18	20-Mar-18	16-Jun-18 A	06-Jul-18	100%																				
A64040	Stage 4 - Construct retaining wall @B2F +2 to +6mPD @GL 8-11/D-F	9	20-Mar-18	03-Apr-18	15-Jun-18 A	09-Jul-18	100%																				
A64010	Stage 4 - Excavate existing GF @ +5mPD to +2mPDF @ GL 8-11/D-F	11	12-Feb-18	28-Feb-18	16-Jun-18 A	19-Jun-18 A	100%																				
A64000	Stage 4 - Remove strut @ GL 8-11/D-F	2	09-Feb-18	12-Feb-18	16-Jun-18 A	20-Jun-18 A	100%																				
Zone K & L (Revised Sequence) @GL 8-11/H-M (K, L & P de-prop together)																											
A60218	Stage 8 - Construct B1 slab (GL 8-11/H-K)	25	26-Mar-18	27-Apr-18	04-Jul-18	02-Aug-18	100%																				
A60225	Stage 9 - Construct GF slab (GL 8-11/H-M)	25	28-Apr-18	29-May-18	04-Jul-18	02-Aug-18	100%																				
A60230	Stage 10 - Construct GF hanger column & wall (GL 8-11/H-M)	23	30-May-18	26-Jun-18	02-Aug-18	29-Aug-18	100%																				
A60250	Stage 10 - GF Concrete Curing	17	26-Jun-18	03-Jul-18	29-Aug-18	15-Sep-18	28.57%																				
A60255	Stage 10 - De-prop GF (GL 8-11/H-M)	6	04-Jul-18	10-Jul-18	15-Sep-18	22-Sep-18	0%																				
A60310	Stage 11 - De-prop GF (GL 10-12)	3	11-Jul-18	13-Jul-18	22-Sep-18	27-Sep-18	0%																				
A60317	Stage 12 - Construct LGF column & slab (GL 8-11/H-M)	11	14-Jul-18	26-Jul-18	27-Sep-18	11-Oct-18	0%																				
180-Seat Cinema (G.L. 8-10 / H-K)																											
A64990	Construct LGF-GF walls, columns, beam, GF slab	16	28-Apr-18	17-May-18	02-Aug-18	21-Aug-18	100%																				
A65000	Construct GF hanger columns	16	18-May-18	06-Jun-18	21-Aug-18	08-Sep-18	100%																				
A64980	Construct B1F-LGF walls, columns, 180-seat cinema inclined slab, LGF slab	38	07-Jun-18	23-Jul-18	08-Sep-18	26-Oct-18	47.37%																				
Podium Structure Zone E, G & J (Deferred Zone Near T3 & T4)																											
Zone E1 Connecting Zone @GL 8-11/C-D																											
A65190	Stage 8 - Construct B1/F slab	0			29-Jun-18	13-Jul-18	0%																				
A17025	Stage 9 - Construct GF-1F Wall/Column Slab (GL 11-8/C-D)	16	16-Mar-18	09-Apr-18	11-Jul-18	30-Jul-18	100%																				
A17040	Stage 8 - 1F, GF, 2/F & 3F slab Concrete Curing	7	16-Mar-18	19-Mar-18	11-Jul-18	18-Jul-18	100%																				
A17060	Stage 9 - Complete De-propping 1MF for E1 & E2	0		12-Apr-18		02-Jun-18 A	100%																				
Zone G @GL 11-14/A-F (Revised Sequence)																											
A63000	Complete Zone G Structure	0		30-May-18		06-Aug-18	100%																				
GL 11-14/B-E (B1 to L3)																											
A63280	Construct GF-1F Wall/Column/Slab, Hanger Column to 1MF	16	25-Apr-18	15-May-18	14-Jun-18 A	18-Jul-18	100%																				
A63220	Construct B1 Slab	16	06-Apr-18	25-Apr-18	05-Jul-18	24-Jul-18	100%																				
A63250	Stage 8 - Construct escalator structure (GL 12-11/D)	7	15-May-18	24-May-18	18-Jul-18	26-Jul-18	100%																				
A63260	Stage 8 - GF, 1F & escalator structure Concrete Curing	7	24-May-18	27-May-18	26-Jul-18	02-Aug-18	100%																				
A63270	Stage 9 - De-prop 1F & escalator structure	3	28-May-18	30-May-18	02-Aug-18	06-Aug-18	100%																				
Zone J @ GL 11-14/H-F																											
A46355	De-prop 1MF (GL 12-14/E-H)	3	08-Feb-18	12-Feb-18	29-Jun-18	03-Jul-18	100%																				
A46360	Construct Wall, Column & 3F slab (GL 11-14/E-H)	11	19-Apr-18	03-May-18	18-Jun-18 A	11-Jul-18	100%																				
A46370	Construct B1 slab (GL 11-14/E-H)	16	03-May-18	23-May-18	04-Jul-18	17-Jul-18	100%																				
A46380	Construct Wall, Column & LGF, (Cinema), GF slab (GL 11-14/F-H)	16	23-May-18	11-Jun-18	18-Jul-18	01-Aug-18	100%																				
A46400	Construct Wall, Column 1F (GL 11-14/F-H)	8	11-Jun-18	21-Jun-18	02-Aug-18	10-Aug-18	100%																				
A46410	De-prop 1F (GL 11-14/F-H)	3	21-Jun-18	25-Jun-18	11-Aug-18	14-Aug-18	100%																				
A46415	De-prop GF (GL 11-14/F-H)	3	25-Jun-18	28-Jun-18	15-Aug-18	17-Aug-18	100%																				
A46420	Complete Zone J Structure	0		28-Jun-18		17-Aug-18	100%																				
Auditorium																											
A60270	Construct auditorium beam & slab (GL 10-13)	18	17-May-18	08-Jun-18	04-Jul-18	31-Aug-18	100%																				
A60290	Auditorium slab Concrete Curing	17	08-Jun-18	15-Jun-18	31-Aug-18	17-Sep-18	100%																				
A60300	De-prop auditorium beam & slab	3	15-Jun-18	20-Jun-18	17-Sep-18	20-Sep-18	100%																				
A60780	Construct enclosure above Auditorium	5	08-Jun-18	14-Jun-18	17-Sep-18	04-Dec-18	100%																				
M+ Podium Glass Wall & Skylight (By Red Land, Permasteelisa)																											
(By Permasteelisa) Preliminary Works																											
A41120	Surveying for Embeds	54	22-Dec-17	01-Mar-18	06-Jun-18 A	06-Sep-18	100%																				
A41130	Submission of Embeds Survey Report	54	10-Jan-18	17-Mar-18	29-Jun-18	31-Aug-18	100%																				
1/F to 2/F Level																											
(By Permasteelisa) Glass Wall with Ceramic/Ceramic Mullion/Precast Concrete																											
Zone G																											
A46630	Handover Zone G - 1/F Working Area	0		28-May-18		02-Aug-18	100%																				
A46790	PISA-Install Glass Wall with Ceramic Mullion @ GL 11-13/E-G (FAC-CW-04, 05, 06)	18	28-May-18	16-Jun-18	02-Aug-18	23-Aug-18	100%																				
A46800	PISA-Install Ceramic Tube @ GL 11/G-H (FAC-CW-02, 03)	6	20-Jul-18	27-Jul-18	08-Sep-18	14-Sep-18	0%																				

Three Months Rolling Programme (3MRP) - Mth 33 30 June 2018

Activity ID	Activity Name	CMWP Dur.	CMWP - R0(D8) Start	CMWP - R0(D8) Finish	Actual / Forecast Start	Actual / Forecast Finish	Planned B/L % Complete	June				July				August				September			
								27	03	10	17	24	01	08	15	22	29	05	12	19	26	02	09
Podium Facade Panel (2/F External)																							
A22465	Bracket Installation & Embed Remedial 2/F @ GL 7-8/M	4	23-Nov-17	28-Nov-17	05-Jul-18	09-Jul-18	100%																
Zone C & D																							
Podium Facade Panel (1M/F External)																							
A47070	Handover Zone C & D - 1M/F Working Area	0		22-Feb-18		09-Jul-18	100%																
A47075	Bracket Installation & Embed Remedial @ GL 1-7/M	8	23-Feb-18	03-Mar-18	10-Jul-18	18-Jul-18	100%																
A47805	Bracket Installation & Embed Remedial @ GL 1/H-M	8	14-Mar-18	22-Mar-18	13-Jul-18	21-Jul-18	100%																
Podium Facade Panel (2/F External)																							
A47220	Handover Zone C & D - 2/F Working Area	0		22-Feb-18		29-Jun-18	100%																
A47225	Bracket Installation & Embed Remedial @ GL 1-7/M	8	05-Mar-18	13-Mar-18	10-Jul-18	18-Jul-18	100%																
A47235	Bracket Installation & Embed Remedial @ GL 1/H-M	8	23-Mar-18	04-Apr-18	13-Jul-18	21-Jul-18	100%																
M+ Podium Lift & Escalator Installation																							
Art Lift (LT11) @ Zone M																							
LT10475	Builders' Work for LT11 Lift Shaft & M/C Room	11	18-May-18	31-May-18	28-Jul-18	10-Aug-18	100%																
LT10470	Available of lift Shaft LT11 (w/ Tower A Weathertight)	0	18-May-18		28-Jul-18		100%																
LT10490	Lift M/C Room Installation @ B2/F (LT11)	23	01-Jun-18	28-Jun-18	10-Aug-18	06-Sep-18	100%																
LT10480	Commence LT11 Lift M/C Room Installation	0	31-May-18		10-Aug-18		100%																
LT10500	Lift Car Installation (LT11)	80	29-Jun-18	03-Oct-18	06-Sep-18	12-Dec-18	0%																
Art Lift (LT13) @ Zone A1																							
LT10560	Lift Car Installation (LT13)	80	05-Mar-18	13-Jun-18	26-Jun-18 A	03-Oct-18	100%																
LT10535	Builders' Work for LT13 Lift Shaft & M/C Room	11	20-Jan-18	02-Feb-18	13-Jun-18 A	06-Jul-18	100%																
LT10530	Available of lift Shaft LT13 (w/ Zone A1 Temporary watertight)	0	20-Jan-18		04-Jul-18		100%																
LT10540	Commence LT13 Lift M/C Room Installation	0	02-Feb-18		06-Jul-18		100%																
LT10550	Lift M/C Room Installation @ B2/F (LT13)	23	02-Feb-18	05-Mar-18	06-Jul-18	02-Aug-18	100%																
Passenger Lift, FS & Disable Lift (LT12) @ Zone A1																							
LT10590	Available of lift Shaft LT12 (w/ Zone A1 Temporary watertight)	0	21-Dec-17		04-Jul-18		100%																
LT10600	Builders' Work for LT12 Lift Shaft	23	22-Dec-17	20-Jan-18	04-Jul-18	01-Aug-18	100%																
LT10610	Lift Car Installation (LT12)	54	22-Jan-18	28-Mar-18	02-Aug-18	05-Oct-18	100%																
Passenger Lift, FS & Disable Lift (LT14) @ Zone A4																							
LT10640	Available of lift Shaft LT14 (w/ Zone A4 Temporary watertight)	0	21-Dec-17		04-Jul-18		100%																
LT10650	Builders' Work for LT14 Lift Shaft	23	22-Dec-17	20-Jan-18	04-Jul-18	01-Aug-18	100%																
LT10660	Lift Car Installation (LT14)	54	22-Jan-18	28-Mar-18	02-Aug-18	05-Oct-18	100%																
Passenger Lift, Diable Lift (LT15, LT16 & LT17) @ Zone A4																							
LT10700	Builders' Work for LT15, LT16 & LT17 Lift Shafts	23	20-Jan-18	20-Feb-18	30-May-18 A	17-Jul-18	100%																
LT10690	Available of lift Shaft LT15 (w/ Zone A4 Temporary watertight)	0	20-Jan-18		13-Jun-18 A		100%																
Passenger Lift, FS Lift (LT21 & LT22) @ Zone E																							
LT10830	Builders' Work for LT21 & LT22 Lift Shaft	23	15-Nov-17	11-Dec-17	16-Jul-18	10-Aug-18	100%																
LT10840	Lifts Car Installation (LT21 & LT22)	54	12-Dec-17	15-Feb-18	11-Aug-18	15-Oct-18	100%																
Escalators (ES01 & ES02) @ Zone E																							
LT11130	Available of Escalator Pit ES01 & ES02 at Zone E	0				15-Aug-18	0%																
LT11140	Escalators ES01 & ES02 Installation	0			15-Aug-18	19-Oct-18	0%																
Escalators (ES03 & ES04) @ Zone A B1F to GF																							
LT11170	Available of Escalator Pit ES03 & ES04 at Zone A	0			15-Aug-18		0%																
LT11180	Escalators ES03 & ES04 Installation	0			15-Aug-18	20-Oct-18	0%																
Escalators (ES13 & ES14) @ Zone G 1F to 3F																							
LT11290	Available of Escalator Pit ES13 & ES14 at Zone E	0			06-Aug-18		0%																
LT11300	Escalators ES13 & ES14 Installation	0			06-Aug-18	26-Oct-18	0%																
M+ Basement & Podium ABWF & Building Services																							
B2/F																							
1. CSF/RDE Zone																							
General Areas /BOH/ Corridor																							
Corridor/Lift Lobby																							
BS-B2-1C	MEP- 2nd Fix (Cabling)/Install AC equipment & connection	50	01-Feb-18	09-Apr-18	17-Aug-18	16-Oct-18	100%																
BOH Office/Storages Rooms (GL C' to J')																							
BS-B2-1C	MEP- 2nd Fix- Cabling/AC Equipment Installation/connection	50	06-Mar-18	09-May-18	17-Aug-18	16-Oct-18	100%																
Loading & Unloading Area Including Loading Bay																							
BS-B2-10'	MEP 2nd Fix Installation-Cabling	54	06-Mar-18	14-May-18	20-Jun-18 A	30-Aug-18	100%																
AW-B2-1'	HC-Construction Logistic/Temporary Site Storage Period	187	15-Jan-18	03-Sep-18	24-Jul-18	09-Mar-19	70.41%																
Cappark EAF Room (B2-1-005)																							
BS-B2-10'	MEP 1st / 2nd Fix	27	16-Dec-17	20-Jan-18	18-Jul-18*	18-Aug-18	100%																
BS-B2-11'	MEP Fan / LMCP Installation	54	20-Jan-18	28-Mar-18	18-Aug-18	24-Oct-18	100%																
BS-B2-11'	MEP - AC equipment on site	0	20-Jan-18		18-Aug-18		100%																
PAU Room (B2-1-807M & B2-1-808M)																							
AW-B2-1'	ABWF-Wet Trade (Plastering/Floor Screeding/1st coat painting/Sealer) -Ceiling/Wall/Floor	19	13-Nov-17	04-Dec-17	29-Jun-18	21-Jul-18	100%																
BS-B2-10'	MEP 1st / 2nd	27	05-Dec-17	08-Jan-18	23-Jul-18*	22-Aug-18	100%																
BS-B2-11'	MEP - PAU equipment on site	0	09-Jan-18		23-Aug-18*		100%																
BS-B2-11'	MEP PAU / LMCP Installation	54	09-Jan-18	15-Mar-18	23-Aug-18	27-Oct-18	100%																
Staircase Press (B2-1-801M) at GL D'-E' 4																							

Three Months Rolling Programme (3MRP) - Mth 33 30 June 2018

Activity ID	Activity Name	CMWP Dur.	CMWP - R0(D8) Start	CMWP - R0(D8) Finish	Actual / Forecast Start	Actual / Forecast Finish	Planned B/L % Complete	June				July				August				September					
								27	03	10	17	24	01	08	15	22	29	05	12	19	26	02	09	16	23
Zone D1, D2, N, L, K, H																									
MAF / SEF Room (B1-1-800C, 802C, 803C)																									
AW-B1-1	General Builder's Works	7	07-Mar-18	15-Mar-18	02-Aug-18	10-Aug-18	100%																		
AS-B1-1C	Access for ABWF / MEP Installation	0	07-Mar-18		02-Aug-18		100%																		
AW-B1-1	ABWF - Ceiling / Wall / floor - 1st Coat	19	15-Mar-18	11-Apr-18	10-Aug-18	01-Sep-18	100%																		
BS-B1-1C	MEP 1st / 2nd Fix	54	03-Apr-18	08-Jun-18	24-Aug-18	30-Oct-18	100%																		
BS-B1-1C	MEP-SEF Equipment On Site	0	15-Feb-18		25-Aug-18*		100%																		
3. Zone A_M_E_N																									
General Area - BOH/Office/Storage/Corridor/Toilets/Lobby																									
Corridors/Lobbys																									
AW-B1-1	ABWF-Soffit Sealer	7	18-Dec-17	28-Dec-17	29-Jun-18	07-Jul-18	100%																		
AW-B1-1	ABWF-Ceiling Frame (FS Ceiling)	13	28-May-18	12-Jun-18	12-Jun-18 A	14-Jul-18	100%																		
AW-B1-1	ABWF- FS Ceiling Close up	13	28-Jun-18	13-Jul-18	29-Jun-18	14-Jul-18	7.69%																		
BS-B1-11	MEP-Ceiling Final Fix	13	14-Jul-18	28-Jul-18	16-Jul-18	30-Jul-18	0%																		
AW-B1-1	ABWF-Wall Final Paint/Corner Protection	13	14-Jul-18	28-Jul-18	16-Jul-18	30-Jul-18	0%																		
AW-B1-1	ABWF-Door/Ironmongeries	13	30-Jul-18	13-Aug-18	31-Jul-18	14-Aug-18	0%																		
BOH Workshop, Office and Facilities Rooms																									
AW-B1-1	ABWF-Ceiling Frame/Grid (Office Ceiling Area)	13	28-May-18	12-Jun-18	26-Jul-18	10-Aug-18	100%																		
BS-B1-11	MEP- FS/Lighting/A/C Dropper (Office Ceiling Area)	27	12-Jun-18	16-Jul-18	10-Aug-18	11-Sep-18	49.79%																		
AW-B1-1	ABWF-Ceiling Close Up (Office Ceiling Area)	27	16-Jul-18	16-Aug-18	11-Sep-18	15-Oct-18	0%																		
BS-B1-11	MEP-Ceiling/Wall Final Fix	54	16-Jul-18	17-Sep-18	11-Sep-18	16-Nov-18	0%																		
Toilets & Toilet Lobby																									
Public Toilet at GL 6,D																									
AW-B1-1	ABWF-Ceiling Close up/Ceiling Finish	7	23-May-18	31-May-18	03-Jul-18	11-Jul-18	100%																		
AW-B1-1	ABWF-Waterproofing/Water Test	7	16-Apr-18	24-Apr-18	09-Jul-18	17-Jul-18	100%																		
AW-B1-1	ABWF-Cubic Partition	7	31-May-18	08-Jun-18	11-Jul-18	19-Jul-18	100%																		
AW-B1-1	ABWF-Floor screeding/Wall Plastering/Tiling/Counter Steel Frame	13	24-Apr-18	10-May-18	17-Jul-18	01-Aug-18	100%																		
AW-B1-1	ABWF-Final Fix-Sanitaryware/Sink/Door	7	08-Jun-18	16-Jun-18	19-Jul-18	27-Jul-18	100%																		
BS-B1-1	MEP Final Fix	7	16-Jun-18	26-Jun-18	27-Jul-18	04-Aug-18	100%																		
AW-B1-1	ABWF-Ceiling Grid/Ceiling Panel with Service Openings	7	10-May-18	18-May-18	01-Aug-18	09-Aug-18	100%																		
AS-B1-1	ABWF/MEP Installation Completed	0		26-Jun-18		04-Aug-18	100%																		
Transformer Room 1 & 2 (B1-1-700 & B1-1-702)																									
BS-B1-11	Tx Rm 1 & 2 Power On by CLP	0		24-Mar-18		29-Jun-18	100%																		
LV Main Switchroom 1 & 2 (B1-1-704 & B1-1-703)																									
AW-B1-1C	ABWF - Door frame & panels & ironmongeries installation	7	11-Jan-18	18-Jan-18	29-Jun-18	07-Jul-18	100%																		
BS-B1-10	Installation Completed and Ready for Power On	0		14-Mar-18		22-Jun-18 A	100%																		
Main IT Room (B1-1-954)																									
AW-B1-1	ABWF-Wet Trade (Up to 1st coat painting) - Ceiling / Wall / Floor	19	08-Dec-17	03-Jan-18	29-Jun-18	21-Jul-18	100%																		
AW-B1-1	ABWF-Ceiling Frame w/ service panels	7	25-Jan-18	02-Feb-18	20-Jul-18	27-Jul-18	100%																		
AW-B1-1	ABWF-Raised Floor Setting out/Padestal/Grid/Door	7	02-Feb-18	10-Feb-18	28-Jul-18	04-Aug-18	100%																		
BS-B1-11	MEP-H/L Dropper	3	02-Feb-18	06-Feb-18	28-Jul-18	31-Jul-18	100%																		
AW-B1-1	Ceiling close up	3	06-Feb-18	09-Feb-18	01-Aug-18	03-Aug-18	100%																		
BS-B1-11	MEP Wall & Ceiling Final Fix	5	24-Feb-18	02-Mar-18	04-Aug-18	09-Aug-18	100%																		
AW-B1-1	ABWF-Raised Floor Panel Close-up	3	14-Feb-18	21-Feb-18	06-Aug-18	08-Aug-18	100%																		
AW-B1-1	ABWF/MEP Installation Completed (Ready for FS T&C)	0		02-Mar-18		10-Aug-18	100%																		
BS-B1-11	ELV- Equipment Rack Installation	13	02-Mar-18	17-Mar-18	10-Aug-18	24-Aug-18	100%																		
BS-B1-11	ELV- Backbone Cabling From Various Floors	107	02-Mar-18	14-Jul-18	10-Aug-18	26-Nov-18	88.58%																		
Central Control Centre & Central Control Centre Equip. Rm & Network Operation Centre (G.L. 6-12/A)																									
AW-B1-1C	ABWF/MEP Installation in Central Control Equipment Rm(Detail refer to Main IT Room)	63	10-Apr-18	26-Jun-18	04-Jul-18	14-Sep-18	100%																		
AW-B1-1C	ABWF/MEP Installation in Network Operation Centre (Detail refer to Main IT Room)	63	18-Apr-18	04-Jul-18	11-Jul-18	22-Sep-18	93.65%																		
AS-B1-10	Ready for DC access	0		05-Jul-18		22-Sep-18	0%																		
Cafe kitchen (B1-1-044) GL 10-12/A-E & Catering Kitchen (G.L. 10 / B)																									
BS-B1-11	MEP- Install Floor Drain/Wall Concealed Pipework	7	25-Apr-18	04-May-18	19-Jul-18	27-Jul-18	100%																		
AW-B1-1C	ABWF-Waterproofing & floor screeding/Rendering/Tile	25	04-May-18	04-Jun-18	27-Jul-18	25-Aug-18	100%																		
BS-B1-10	KIT-Installation Kitchen Equipment	38	04-Jun-18	20-Jul-18	25-Aug-18	11-Oct-18	53.8%																		
BS-B1-11	MEP-2nd fix-connection to Kitchen Equipment/Cabling	38	20-Jun-18	03-Aug-18	08-Sep-18	26-Oct-18	21.05%																		
5. Zone C_D1																									
BOH Corridor along G.L.J																									
AS-B1-10	Access for ABWF/MEP Installation	0	07-Mar-18		02-Aug-18		100%																		
AW-B1-1	ABWF-Sealer paint	3	07-Mar-18	10-Mar-18	02-Aug-18	06-Aug-18	100%																		
BS-B1-11	MEP 1stFix-Main Chilled Water Header Installation/Connection to Risers	54	10-Mar-18	18-May-18	06-Aug-18	10-Oct-18	100%																		
ICT Riser Room																									
AS-B1-10	Access for ABWF/MEP Installation	0	07-Mar-18		02-Aug-18		100%																		
AW-B1-1	ABWF-Sealer paint	3	07-Mar-18	10-Mar-18	02-Aug-18	06-Aug-18	100%																		
BS-B1-11	MEP 1st/2nd Fix	13	10-Mar-18	26-Mar-18	06-Aug-18	21-Aug-18	100%																		
AW-B1-1	ABWF-Door/Ironmongeries	3	26-Mar-18	29-Mar-18	21-Aug-18	24-Aug-18	100%																		
AS-B1-10	Ready for DC Access	0		29-Mar-18		24-Aug-18	100%																		
ELV Room																									

Three Months Rolling Programme (3MRP) - Mth 33 30 June 2018

Activity ID	Activity Name	CMWP Dur.	CMWP - R0(D8) Start	CMWP - R0(D8) Finish	Actual / Forecast Start	Actual / Forecast Finish	Planned B/L % Complete	June							July							August							September						
								27	03	10	17	24	01	08	15	22	29	05	12	19	26	02	09	16	23										
6. Zone G																																			
Museum Cafe																																			
AS-B1-10	Access for ABWF/MEP Installation	0	07-Mar-18		02-Aug-18		100%	◆ Access for ABWF/MEP Installation, 02-Aug-18																											
AW-B1-11	ABWF Sealer paint	3	07-Mar-18	10-Mar-18	02-Aug-18	06-Aug-18	100%																												
BS-B1-11	MEP 1st/2nd Fix	13	10-Mar-18	26-Mar-18	06-Aug-18	21-Aug-18	100%																												
AW-B1-12	ABWF-Door / Ironmongeries	3	26-Mar-18	29-Mar-18	15-Aug-18	18-Aug-18	100%																												
BS-B1-11	ELV- Equipment Ract / Cabling / Connection	27	29-Mar-18	05-May-18	18-Aug-18	19-Sep-18	100%																												
AS-B1-11	Ready for ELV system T&C	0		05-May-18		19-Sep-18	100%	◆ Ready for ELV																											
7. Zone H																																			
Transformer Room C																																			
BS-B1-12i	CLP Power On	0		30-Apr-18		05-Jul-18	100%	◆ CLP Power On,																											
LG/F																																			
CSF/RDE Zone																																			
Carpark Area																																			
BS-LG-10c	MEP 2nd Fix Installation-Cabling	54	24-Mar-18	02-Jun-18	20-Jun-18 A	29-Aug-18	100%																												
AW-LG-10	ABWF - Wet Trade / Block wall / rendering / Ceiling / Floor	19	15-Jan-18	06-Feb-18	29-Jun-18	21-Jul-18	100%																												
BaP-LG-1C	HC-Construction Logistic/Temporary Site Storage Period	143	24-Mar-18	17-Sep-18	02-Aug-18	23-Jan-19	52.76%																												
LV Switch Room (LG-3-700R) GL 4-5/H-F																																			
BS-LG-10c	Ready for Power On	0		18-Apr-18		29-Jun-18	100%	◆ Ready for Power On,																											
RDE Stair Pressurization (LG-3-800R)																																			
AS-LG-10	Access for ABWF/MEP Installation	0	03-Jan-18		29-Jun-18		100%	◆ Access for ABWF/MEP Installation, 29-Jun-18																											
AW-LG-10	BW-Plinth	7	15-Jan-18	23-Jan-18	29-Jun-18	07-Jul-18	100%																												
BS-LG-10c	MEP 1st/2nd Fix Installation	54	06-Feb-18	18-Apr-18	13-Jun-18 A	29-Aug-18	100%																												
AW-LG-10	ABWF - Ceiling / Wall / floor - 1st Coat	19	23-Jan-18	14-Feb-18	09-Jul-18	30-Jul-18	100%																												
AW-LG-10	ABWF - Door frame & panels & ironmongeries installation	7	18-Apr-18	26-Apr-18	29-Aug-18	06-Sep-18	100%																												
BS-B2-11i	MEP-Stair pressurization equipment on site	0	18-Apr-18		29-Aug-18*		100%	◆ MEP-Stair pressurization equipment on site, 29-																											
BS-LG-10i	MEP Stair pressuaction installation	54	18-Apr-18	23-Jun-18	29-Aug-18	03-Nov-18	100%																												
AW-LG-10	ABWF final touch up/Door	7	26-Apr-18	05-May-18	06-Sep-18	14-Sep-18	100%																												
G/F																																			
1. Zone A, M, E																																			
Temporary Exhibition (G-1-004)																																			
AS-GF-10	Access for ABWF / MEP / Fit-out Installation	0	23-Mar-18		15-Jul-18		100%	◆ Access for ABWF / MEP / Fit-out Installation, 15-Jul-18																											
RC-GF-10	RC defect rectification	13	23-Mar-18	12-Apr-18	16-Jul-18	30-Jul-18	100%																												
AW-GF-1C	PISA-Glass Wall/Mullion	9	12-Apr-18	23-Apr-18	31-Jul-18	09-Aug-18	100%																												
BS-GF-10	MEP H/L - 1st fix - riser duct installation	19	14-Apr-18	07-May-18	01-Aug-18	23-Aug-18	100%																												
BS-GF-10i	MEP H/L 2nd Fix - Lighting wiring / lighting / AC equipment	13	23-Apr-18	09-May-18	10-Aug-18	24-Aug-18	100%																												
BS-GF-10i	MEP H/L - final fix - sprinkler head / alignment (after pipew / dropper install @ 1MF)	13	23-Apr-18	09-May-18	10-Aug-18	24-Aug-18	100%																												
AW-GF-1C	ABWF and MEP H/L 1st/2nd Fix Completed	0		09-May-18		25-Aug-18	100%	◆ ABWF and MEP H/L 1st/2nd Fix Completed,																											
AW-GF-1C	ABWF - Raised floor - setting out / install pedestal / grid (partial)	7	09-May-18	17-May-18	25-Aug-18	01-Sep-18	100%																												
BS-GF-10	MEP (under raised floor) - A/C duct with insulation / containment wiring / fs sprinkler	27	17-May-18	20-Jun-18	03-Sep-18	05-Oct-18	100%																												
Zone A - Lift Lobby / Corridor / Staff Entrance																																			
AS-GF-10	Access for ABWF / MEP / Fit-out Installation	0	23-Dec-17		15-Jul-18		100%	◆ Access for ABWF / MEP / Fit-out Installation, 15-Jul-18																											
AW-GF-1C	ABWF - Wet trade - rendering / ceiling / wall 1st coat	13	23-Dec-17	11-Jan-18	16-Jul-18	30-Jul-18	100%																												
BS-GF-10i	MEP Installation H/L 1st & 2nd Fix / riser	40	11-Jan-18	02-Mar-18	31-Jul-18	14-Sep-18	100%																												
BS-GF-10i	MEP - 2nd fix cabling & wiring / AC equipment	27	02-Mar-18	07-Apr-18	15-Sep-18	19-Oct-18	100%																												
Zone M - Lift Lobby / Corridor / Concourse																																			
AS-GF-10	Access for ABWF / MEP / Fit-out Installation	0	11-Jan-18		31-Jul-18		100%	◆ Access for ABWF / MEP / Fit-out Installation, 31-Jul-18																											
AW-GF-1C	ABWF - Wet trade - rendering / ceiling / wall 1st coat	13	11-Jan-18	26-Jan-18	31-Jul-18	14-Aug-18	100%																												
BS-GF-10i	MEP Installation H/L 1st & 2nd Fix / riser / AC equipment	40	26-Jan-18	17-Mar-18	15-Aug-18	02-Oct-18	100%																												
Toilets & Toilet Lobbies																																			
AS-GF-10	Access for ABWF and MEP Installation (Link from Zone E1/E2)	0	23-Mar-18		12-Jul-18		100%	◆ Access for ABWF and MEP Installation (Link from Zone E1/E2), 12-Jul-18																											
AW-GF-1C	ABWF/MEP Installation (detail sequence please "B2 Toilet")	107	23-Mar-18	04-Aug-18	12-Jul-18	17-Nov-18	71.75%																												
FS Inlet Cabinet GL 2-3/A-D																																			
AS-GF-10	Access for MEP Installation	0	03-Apr-18		15-Jul-18*		100%	◆ Access for MEP Installation, 15-Jul-18*																											
BS-GF-10	FS inlet cabinet installation	40	03-Apr-18	21-May-18	07-Aug-18	21-Sep-18	100%																												
BS-GF-10	FS inlet pipework installation	40	25-Apr-18	13-Jun-18	28-Aug-18	16-Oct-18	100%																												
2. Zone B, F, Q, P (Main Lobby)																																			
Main Lobby (G-1-014), including Zone A Portion-GL 3-6																																			
Zone A (GL 3-6)																																			
AW-GF-1	ABWF- Ceiling Sealer (GL 3-6)	7	22-Dec-17	02-Jan-18	29-Jun-18	07-Jul-18	100%																												
BS-GF-1C	MEP 1st/2nd Fix (Around Columnn)/H/L 2nd Fix (Lighting Wiring)- (GL 3-6) / AC equipment	25	03-Jan-18	31-Jan-18	09-Jul-18	06-Aug-18	100%																												
AS-GF-1C	Access for ABWF / MEP / Fit-out Installation (Zone A Portion- GL 3-6)	0	07-Dec-17		14-Jul-18		100%	◆ Access for ABWF / MEP / Fit-out Installation (Zone A Portion- GL 3-6), 14-Jul-18																											
BS-GF-1C	MEP-Final Fix-H/L Light Fitting	25	30-May-18	29-Jun-18	07-Sep-18	08-Oct-18	97.33%																												
Zone Q, B, F (GL 6-8)																																			
AS-GF-1C	Access for ABWF / MEP / Fit-out Installation (GL 6-8)- Link from Zone B, Q, F	0	03-Apr-18		28-Sep-18*		100%																												
AW-GF-1	RC-Defect Rectification (GL 6-8)	13	03-Apr-18	19-Apr-18	28-Sep-18	15-Oct-18	100%																												

Three Months Rolling Programme (3MRP) - Mth 33 30 June 2018

Activity ID	Activity Name	CMWP Dur.	CMWP - R0(D8) Start	CMWP - R0(D8) Finish	Actual / Forecast Start	Actual / Forecast Finish	Planned B/L % Complete	June				July				August				September			
								27	03	10	17	24	01	08	15	22	29	05	12	19	26	02	09
Zone E, P (GL 8-11)																							
AS-GF-1C	Access for ABWF / MEP / Fit-out Installation- Link from Zone P Slab Cast	0	04-Apr-18		17-Jul-18		100%	♦ Access for ABWF / MEP / Fit-out Installation- Link from Zone P Slab Cast, 17-Jul-18															
AW-GF-1	RC-Defect Rectification	13	04-Apr-18	20-Apr-18	17-Jul-18	31-Jul-18	100%																
AW-GF-1	PISA-Install Ceramic Tube/Mullion/Glass Wall	43	20-Apr-18	12-Jun-18	01-Aug-18	19-Sep-18	100%																
AW-GF-1	ABWF- Ceiling Sealer	7	20-Apr-18	28-Apr-18	01-Aug-18	08-Aug-18	100%																
BS-GF-1C	MEP- Erect Escalator Truss (ES01, 02)- From GF to B2	13	28-Apr-18	15-May-18	09-Aug-18	23-Aug-18	100%																
BS-GF-1C	MEP 1st/2nd Fix (Around Columnn)/H/L 2nd Fix (Lighting Wiring) / AC equipment	25	28-Apr-18	30-May-18	09-Aug-18	06-Sep-18	100%																
BS-GF-1C	MEP-Escalator Installation/T&C	54	15-May-18	20-Jul-18	24-Aug-18	29-Oct-18	67.28%																
AW-GF-1	PISA-Install Ceramic Tube/Mullion/Glass Wall (GL D-H, 11 and D-E, 11-12)	27	15-Jun-18	18-Jul-18	24-Aug-18	24-Sep-18	40.74%																
BS-GF-1C	MEP-H/L Final Fix	13	30-May-18	14-Jun-18	07-Sep-18	21-Sep-18	100%																
AW-GF-1	ABWF-Install FS/Security Shutter	19	12-Jun-18	06-Jul-18	20-Sep-18	13-Oct-18	70.18%																
Zone L & K Toilets & Toilet Lobbies GL J/9-10																							
AS-GF-1C	Access for ABWF and MEP Installation (Link from Zone E1/E2)	0	04-Apr-18		17-Jul-18		100%	♦ Access for ABWF and MEP Installation (Link from Zone E1/E2), 17-Jul-18															
AW-GF-1	ABWF/MEP Installation (detail sequence please "B2 Toilet")	107	04-Apr-18	13-Aug-18	17-Jul-18	21-Nov-18	64.8%																
3. Zone G																							
150-Seat lecture theatre/Workshop / Multi-purpose Lounge/Storage/Lobby																							
AS-GF-10	Access for ABWF / MEP / Fit-out Installation	0	24-Apr-18		14-Aug-18		100%	♦ Access for ABWF / MEP / Fit-out Installation, 14-Aug-18															
AW-GF-1C	ABWF-Isolated floor on structure floor slab at the 150-seat lecture theatre	19	24-Apr-18	17-May-18	14-Aug-18	05-Sep-18	100%																
AW-GF-11	ABWF-Patching up the tie-bolt hole	9	24-Apr-18	05-May-18	14-Aug-18	24-Aug-18	100%																
BS-GF-10	MEP 1st / 2nd fix HL	25	17-May-18	16-Jun-18	05-Sep-18	06-Oct-18	100%																
AW-GF-1C	ABWF-dry wall installation	25	17-May-18	16-Jun-18	05-Sep-18	06-Oct-18	100%																
Learning Centre GL 10/C-D																							
AW-GF-11	ABWF-Patching up the tie-bolt hole	10	12-Jun-18	25-Jun-18	14-Aug-18	25-Aug-18	100%																
AS-GF-10	Access for ABWF / MEP / Fit-out Installation	0	12-Jun-18		14-Aug-18		100%	♦ Access for ABWF / MEP / Fit-out Installation, 14-Aug-18															
AW-GF-11	ABWF-Isolated floor on structure floor slab at the 150-seat lecture theatre	19	12-Jun-18	06-Jul-18	14-Aug-18	05-Sep-18	69.59%																
AW-GF-11	ABWF-dry wall frame & shutter installation	13	06-Jul-18	21-Jul-18	14-Aug-18	29-Aug-18	0%																
BS-GF-10	MEP H/L 1st Fix	25	19-Jul-18	17-Aug-18	17-Aug-18	15-Sep-18	0%																
BS-GF-10	MEP 2nd fix AC equipment /Cabling/Connection	19	17-Aug-18	08-Sep-18	15-Sep-18	10-Oct-18	0%																
AW-GF-11	PISA - Glass wall installation (GL 9-11/B-E)	32	17-Aug-18	24-Sep-18	15-Sep-18	26-Oct-18	0%																
4. Zone C, D1, D2 and N																							
Zone D, N - Lift Lobby / Corridor / Concourse (GL 5 and 7)																							
AS-GF-10	Access for ABWF / MEP / Fit-out Installation	0	03-Feb-18		14-Jul-18		100%	♦ Access for ABWF / MEP / Fit-out Installation, 14-Jul-18															
AW-GF-1C	ABWF - Wet trade - rendering / ceiling / wall 1st coat	13	03-Feb-18	22-Feb-18	14-Jul-18	28-Jul-18	100%																
BS-GF-10	MEP Installation H/L 1st & 2nd Fix / riser	40	22-Feb-18	14-Apr-18	30-Jul-18	13-Sep-18	100%																
BS-GF-10	MEP - 2nd fix cabling & wiring	27	14-Apr-18	17-May-18	14-Sep-18	18-Oct-18	100%																
Fire Control Room (G-1-057)																							
AS-GF-10	Access for ABWF/MEP Installation	0	22-Dec-17		14-Jul-18		100%	♦ Access for ABWF/MEP Installation, 14-Jul-18															
AW-GF-1C	General Builder's Works	13	22-Dec-17	10-Jan-18	14-Jul-18	28-Jul-18	100%																
AW-GF-1C	ABWF - Ceiling / Wall / floor - 1st Coat	13	10-Jan-18	25-Jan-18	30-Jul-18	13-Aug-18	100%																
BS-GF-10	MEP Installation H/L 1st & 2nd Fix	19	17-Jan-18	08-Feb-18	06-Aug-18	28-Aug-18	100%																
BS-GF-10	MEP Cabling & Wiring	7	08-Feb-18	20-Feb-18	27-Aug-18	04-Sep-18	100%																
AW-GF-1C	ABWF - Door frame & panels & ironmongeries installation	7	20-Feb-18	28-Feb-18	04-Sep-18	12-Sep-18	100%																
AW-GF-1C	ABWF final touch up	7	03-Mar-18	12-Mar-18	17-Sep-18	26-Sep-18	100%																
BS-GF-10	MEP-Fire Control System Installation/Connection	80	12-Mar-18	21-Jun-18	26-Sep-18	03-Jan-19	100%																
Museum shop / Other Area																							
AD-GF-10	Access for ABWF / MEP / Fit-out Installation	0	09-May-18		13-Sep-18		100%	♦ Access for ABWF / MEP															
AW-GF-1C	ABWF-Ceiling/Wall Sealer	7	09-May-18	17-May-18	13-Sep-18	20-Sep-18	100%																
BS-GF-10	MEP 1st/2nd Fix -Containment/A/C/duct/FS Pipe/ Riser	25	17-May-18	16-Jun-18	21-Sep-18	23-Oct-18	100%																
AD-GF-10	PISA-Glass Wall/Ceramic Mullion	23	17-May-18	14-Jun-18	21-Sep-18	20-Oct-18	100%																
5. Pedestrian Pavement Works (Around M+ Podium)																							
PW-M-101	Access for ABWF / MEP Installation (GL A, 1-7)	0	03-Feb-18		14-Jul-18		100%	♦ Access for ABWF / MEP Installation (GL A, 1-7), 14-Jul-18															
PW-M-101	Waterproofing / test / insulation layer / screeding (GL A,1-7)	19	03-Feb-18	01-Mar-18	14-Jul-18	04-Aug-18	100%																
PW-M-101	MEP P/D & ELE / ELV 1st & 2nd fix (GL A,1-7)	13	01-Mar-18	16-Mar-18	06-Aug-18	20-Aug-18	100%																
PW-M-101	Concrete bedding & precast concrete bench (GL A, 1-7)	19	16-Mar-18	12-Apr-18	21-Aug-18	11-Sep-18	100%																
PW-M-102	Pavement Work (GL A-E, 1-3)- (Detail Sequence refer to Act PW-GF10100 to 10130)	32	12-Apr-18	21-May-18	12-Sep-18	22-Oct-18	100%																
6. EVA																							
Zone A1, A2, A3 & M (GL 7'-7/A)																							
EVA-M-1C	Access for ABWF / MEP Installation (GL 7'-7/A)	0	20-Aug-18		20-Aug-18*		0%	♦ Access for ABWF / MEP Installation (GL 7'-7/A), 20-Aug-18*															
EVA-M-1C	Waterproofing / Test / Insulation layer / screeding (Part 1)	16	20-Aug-18	06-Sep-18	20-Aug-18	06-Sep-18	0%																
EVA-M-1C	Road Finishes (Part 1)	16	07-Sep-18	26-Sep-18	07-Sep-18	26-Sep-18	0%																
EVA-M-1C	Waterproofing / Test / Insulation layer / screeding (Part 2)	16	27-Sep-18	16-Oct-18	27-Sep-18	16-Oct-18	0%																
Zone D & N (GL 7'-7/M)																							
EVA-M-1C	Access for ABWF / MEP Installation (GL 7'-7/M)	0	27-Sep-18		27-Sep-18		0%																
EVA-M-1C	Waterproofing / Test / Insulation layer / screeding (Part 1)	16	27-Sep-18	16-Oct-18	27-Sep-18	16-Oct-18	0%																
1/F																							
Zone G																							
Courtyard																							
AW-MIC-	ABWF - Erection of scaffolding / working platform	7	31-May-18	07-Jun-18	06-Aug-18	14-Aug-18	100%																

Three Months Rolling Programme (3MRP) - Mth 33 30 June 2018

Activity ID	Activity Name	CMWP Dur.	CMWP - R0(D8) Start	CMWP - R0(D8) Finish	Actual / Forecast Start	Actual / Forecast Finish	Planned B/L % Complete	June			July			August			September						
								27	03	10	17	24	01	08	15	22	29	05	12	19	26	02	09
AW-2F-1C	ABWF-Ceiling Frame(FOH)/ Door Frame/Fire Shutter(BOH)	25	13-Apr-18	12-May-18	11-Sep-18	12-Oct-18	100%																
Zone M-Stair/Lift Lobbys/First Aid Room																							
AW-2F-1C	ABWF-Floor screeding/Door Frame, Ceiling/Wall/Floor Paint	54	10-Apr-18	14-Jun-18	12-Jul-18	13-Sep-18	100%																
BS-2F-10C	MEP H/L 1st/2nd Fix -Containment/A/C duct/FS Pipe/ Rainwater Pipe	80	17-Apr-18	24-Jul-18	19-Jul-18	24-Oct-18	74.31%																
Zone E-Gallery 8/BOH/Lift lobby and Gallery Study Area																							
AW-2F-1C	ABWF Installation before A/C On- Typical Sequence Please refer Temporary Exhibition Section	107	14-Jun-18	23-Oct-18	13-Sep-18	23-Jan-19	10.9%																
BS-2F-10C	MEP Installation before A/C On - Typical Sequence Please refer Temporary Exhibition Section	107	14-Jun-18	23-Oct-18	13-Sep-18	23-Jan-19	10.9%																
AS-2F-10C	Access for ABWF/MEP Installation (Link from L3 slab/deprop date - zone E)	0	14-Jun-18		13-Sep-18		100%																
Zone E- Gallery Tolient																							
AS-2F-10C	Access for ABWF/MEP Installation	0	14-Jun-18		13-Sep-18		100%																
AW-2F-1C	ABWF-Block Wall	7	14-Jun-18	23-Jun-18	13-Sep-18	21-Sep-18	100%																
BS-2F-10C	MEP-Low Level P&D Pipework, H/L 1st/2nd Fix	13	23-Jun-18	10-Jul-18	21-Sep-18	09-Oct-18	35.9%																
3. Zone G GL 11-14/A-H																							
Gallery 10 and Courtyard View Gallery																							
AS-2F-10C	Access for ABWF/MEP Installation (Link from L3 Slab cast/deprop date-zone G)	0	17-May-18		14-Jul-18		100%																
BS-2F-10C	MEP Installation before A/C On - Typical Sequence Please refer Temporary Exhibition Section	89	09-Jun-18	24-Sep-18	06-Aug-18	21-Nov-18	17.73%																
AW-2F-1C	ABWF Installation before A/C On- Typical Sequence Please refer Temporary Exhibition Section	89	20-Jun-18	05-Oct-18	15-Aug-18	30-Nov-18	8.74%																
Park View Gallery, Gallery 9, Harbour Gallery 1 and Garden Gallery 2																							
AW-2F-1C	ABWF Installation before A/C On- Typical Sequence Please refer Temporary Exhibition Section	107	17-May-18	22-Sep-18	14-Jul-18	20-Nov-18	32.19%																
BS-2F-10C	MEP Installation before A/C On - Typical Sequence Please refer Temporary Exhibition Section	107	17-May-18	22-Sep-18	14-Jul-18	20-Nov-18	32.19%																
AS-2F-10C	Access for ABWF/MEP Installation (Link from L3 Slab cast/deprop date-zone G)	0	17-May-18		14-Jul-18		100%																
2. Zone C, D1 and D2																							
Zone D1- Plaza view Gallery, Gallery 1-4 and 14 & 15 and BOH along GL M & GL 5-6																							
AS-2F-10C	Access for ABWF/MEP Installation (Link from L3 Slab cast/deprop date-zone D2)	0	21-Mar-18		23-Jul-18		100%																
AW-2F-1C	ABWF Installation before A/C On- Typical Sequence Please refer Temporary Exhibition Section	94	21-Mar-18	18-Jul-18	23-Jul-18	13-Nov-18	83.45%																
BS-2F-10C	MEP Installation before A/C On - Typical Sequence Please refer Temporary Exhibition Section	94	21-Mar-18	18-Jul-18	23-Jul-18	13-Nov-18	83.45%																
Zone C- Skylight Gallery and BOH along GL 1 and GL K																							
AS-2F-10C	Access for ABWF/MEP Installation (Link from L3 Precast-Wall and Roof Cladding) Act A4749C	0	26-Jan-18		23-Jul-18		100%																
AW-2F-1C	Skylight Installation Completed (Link from Act ID 47350)	0		29-Mar-18		08-Sep-18	100%																
5. Zone B, Q, F, P, E1																							
Zone E1- Gallery 7 and Garden Gallery 1																							
AS-2F-10C	Facade Completed and Weathertight	0		23-May-18		30-Jun-18*	100%																
BS-2F-10C	MEP Installation before A/C On - Typical Sequence Please refer Temporary Exhibition Section	107	20-Jan-18	05-Jun-18	12-Jul-18	17-Nov-18	100%																
AS-2F-10C	Access for ABWF/MEP Installation (Link from L3 Slab cast/deprop date-zone E1)	0	20-Jan-18		12-Jul-18		100%																
AW-2F-1C	ABWF Installation before A/C On- Typical Sequence Please refer Temporary Exhibition Section	107	20-Jan-18	05-Jun-18	12-Jul-18	17-Nov-18	100%																
Zone P- Jukebox Gallery and Gallery 11																							
AS-2F-10C	Access for ABWF/MEP Installation (Link from L3 Slab cast/deprop date-zone P)	0	01-Apr-18		08-Sep-18		100%																
AS-2F-10C	Facade Completed and Weathertight	0		29-Mar-18		08-Sep-18	100%																
4. Zone L, K, H, J																							
Zone L, K, H- Open Gallery, Harbour View Gallery, Corridor and BOH																							
AS-2F-10C	Access for ABWF/MEP Installation (Link from L3 Slab cast/deprop date-zone L,K)	0	14-Jun-18		28-Jul-18		100%																
AW-2F-1C	ABWF Installation before A/C On- Typical Sequence Please refer Temporary Exhibition Section	107	14-Jun-18	23-Oct-18	28-Jul-18	02-Nov-18	11.11%																
Zone J Gallery 12																							
AS-2F-10C	Access for ABWF/MEP Installation (Link from L3 Slab cast/deprop date-zone L,K)	0	21-Mar-18		12-Jul-18		100%																
AW-2F-1C	ABWF Installation before A/C On- Typical Sequence Please refer Temporary Exhibition Section	107	17-Jul-18	22-Nov-18	29-Aug-18	04-Dec-18	0%																
3/F																							
Roof Terrace																							
Zone A (G.L. A-H/1-6)																							
AS-3F-11C	ABWF/MEP Access Installation	0	26-Jan-18		12-Jul-18		100%																
AW-3F-1C	ABWF-Wet Trade / Screeding / Water Proofing / Test / Insulation / Screeding	38	26-Jan-18	15-Mar-18	12-Jul-18	25-Aug-18	100%																
BS-3F-10C	MEP-1st & 2nd Fix	54	15-Mar-18	24-May-18	25-Aug-18	31-Oct-18	100%																
Zone E & P & G (G.L. A-G/8-14)																							
Zone P																							
AW-3F-1	Zone P Remaining Structure for Skylight (Link from Zone P 3/F slab cast)	27	26-Jan-18	02-Mar-18	12-Jul-18	13-Aug-18	100%																
AW-3F-1	PISA-Skylight Installation	23	02-Mar-18	29-Mar-18	13-Aug-18	08-Sep-18	100%																
Zone B & C & D (G.L. A-E/8-11)																							
Zone B & D																							
AS-3F-11C	ABWF/MEP Access Installation	0	02-Mar-18		12-Jul-18		100%																
Zone C																							
AW-3F-1	Zone C Remaining Structure for Skylight (Link from Zone C 3/F slab cast)	27	01-Feb-18	07-Mar-18	29-Jun-18	31-Jul-18	100%																
AW-3F-1	REL-Precast Wall / Roof Ready	27	08-Mar-18	12-Apr-18	01-Aug-18	31-Aug-18	100%																
AW-3F-1	PISA-Skylight Installation	23	13-Apr-18	10-May-18	01-Sep-18	28-Sep-18	100%																
Zone F																							
Staircase & Staircase Lobby																							
ST-B2-10C	Staircase ST-76 (Similiar working procedures as ST-04B)	75	03-Mar-18	06-Jun-18	12-Jul-18	10-Oct-18	100%																
Moving Image Centre Working Programme																							
B1/F																							
Cooridor along G.L. 10-14/K																							

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Activity ID	Activity Name	CMWP Dur.	CMWP - R0(D8) Start	CMWP - R0(D8) Finish	Actual / Forecast Start	Actual / Forecast Finish	Planned B/L % Complete	June				July				August				September							
								27	03	10	17	24	01	08	15	22	29	05	12	19	26	02	09	16	23		
AS-MC-1C	Access for ABWF/MEP Installation	0	28-Apr-18		29-Jun-18		100%	Access for ABWF/MEP Installation, 29-Jun-18																			
AW-MC-1	ABWF-Wet Trade-Block Wall/Rendering/1st Coat	27	28-Apr-18	01-Jun-18	29-Jun-18	31-Jul-18	100%																				
BS-MC-1C	MEP- Install Main CHW Header along GL K-L, 12-8 (linked to Pri Sys Flushing)	32	04-May-18	12-Jun-18	31-Aug-18	10-Oct-18	100%																				
BS-MC-1C	MEP-1st Fix/2nd Fix-AC/Elect/PD/FS	27	28-May-18	29-Jun-18	22-Sep-18	27-Oct-18	98.35%																				
G/F																											
Main Auditorium / Open Cinema (G/F - 2/F) (2-1-053)																											
AS-Aud-1	Access for ABWF / MEP installation (Link from A60290 Auditorium clab curing)	0	15-Jun-18		31-Aug-18		100%	Access for ABWF / MEP installation:(Link from																			
RC-Aud-1	Steel truss construction	27	15-Jun-18	19-Jul-18	31-Aug-18	04-Oct-18	39.09%																				
AW-Aud-1	Bamboo scaffolding erection	13	19-Jul-18	03-Aug-18	26-Sep-18	12-Oct-18	0%																				
All Levels Works																											
Risers																											
1. Zone A & M																											
BS-ALL-1C	Zone A(GLH)- MEP Riser Installation-1st/2nd Fix Installation	54	01-Mar-18	09-May-18	12-Jul-18	13-Sep-18	100%																				
BS-ALL-1C	Zone M-MEP Riser Installation-Cabling	54	30-May-18	03-Aug-18	14-Aug-18	19-Oct-18	45.68%																				
BS-ALL-1C	Zone A(GL B & E)-MEP Riser Installation-Cabling	54	07-Apr-18	12-Jun-18	29-Aug-18	03-Nov-18	100%																				
BS-ALL-1C	Zone A(GLH)-MEP Riser Installation-Cabling	54	09-May-18	14-Jul-18	13-Sep-18	19-Nov-18	76.75%																				
2. Zone N																											
BS-ALL-1C	Zone N- MEP Riser Installation-1st/2nd Fix Installation	41	24-Apr-18	13-Jun-18	29-Aug-18	19-Oct-18	100%																				
3. Zone G																											
BS-ALL-1C	Zone G- MEP Riser Installation-1st/2nd Fix Installation	41	17-May-18	07-Jul-18	14-Jul-18	31-Aug-18	84.01%																				
BS-ALL-1C	Zone G-MEP Riser Installation-Cabling	54	07-Jul-18	08-Sep-18	31-Aug-18	06-Nov-18	0%																				
4. Zone D1																											
BS-ALL-1C	Zone D1- MEP Riser Installation-1st/2nd Fix Installation	41	02-Mar-18	24-Apr-18	12-Jul-18	29-Aug-18	100%																				
BS-ALL-1C	Zone D1-MEP Riser Installation-Cabling	54	24-Apr-18	29-Jun-18	29-Aug-18	03-Nov-18	98.97%																				
5. Zone H																											
BS-ALL-1C	Zone H- MEP Riser Installation-1st/2nd Fix Installation	27	14-May-18	15-Jun-18	14-Jul-18	15-Aug-18	100%																				
BS-ALL-1C	Zone H-MEP Riser Installation-Cabling	27	15-Jun-18	19-Jul-18	15-Aug-18	15-Sep-18	37.86%																				
6. Zone E																											
BS-ALL-1C	Zone E- MEP Riser Installation-1st/2nd Fix Installation	41	11-Dec-17	31-Jan-18	27-Jun-18 A	15-Aug-18	100%																				
BS-ALL-1C	Zone E-MEP Riser Installation-Cabling	54	31-Jan-18	12-Apr-18	15-Aug-18	20-Oct-18	100%																				
Staircases																											
M+																											
Stair cores @ GL B-C/3 (Zone A)																											
Staircase B2/F - G/F Staircase ST-04B																											
AS-ALL-	Access Date for ST-04B	0	07-Dec-17		14-Jul-18		100%	Access Date for ST-04B, 14-Jul-18:																			
BS-ALL-	MEP 1st /2nd Fix, FS Riser / Containment	7	07-Dec-17	14-Dec-17	14-Jul-18	21-Jul-18	100%																				
AW-ALL-	ABWF-Metal Work- Hand rail, balustrade (7 days)	7	15-Dec-17	22-Dec-17	23-Jul-18	30-Jul-18	100%																				
AW-ALL-	ABWF-Wet Trade, Floor/Wall/Ceiling	19	23-Dec-17	17-Jan-18	31-Jul-18	21-Aug-18	100%																				
BS-ALL-	MEP Final Fix (7days)	7	18-Jan-18	25-Jan-18	22-Aug-18	29-Aug-18	100%																				
AW-ALL-	ABWF-Door/Ironmongeries	7	26-Jan-18	02-Feb-18	30-Aug-18	06-Sep-18	100%																				
Staircase G/F/ - 3/F Staircase ST-04																											
AS-ALL-	Access Date for ST-04	0	03-Feb-18		07-Sep-18		100%	Access Date for ST-04, 07-Sep-18																			
BS-ALL-	MEP 1st /2nd Fix, FS Riser / Containment	13	03-Feb-18	21-Feb-18	07-Sep-18	21-Sep-18	100%																				
AW-ALL-	ABWF-Metal Work- Hand rail, balustrade (7 days)	13	22-Feb-18	08-Mar-18	22-Sep-18	09-Oct-18	100%																				
Stair cores @ A-B/7-8 (Zone M)																											
Staircase B1/F - G/F Staircase ST-01B																											
AS-ALL-	Access Date for ST-01B	0	07-Dec-17		14-Jul-18		100%	Access Date for ST-01B, 14-Jul-18:																			
BS-ALL-	MEP 1st /2nd Fix, FS Riser / Containment	7	07-Dec-17	14-Dec-17	14-Jul-18	21-Jul-18	100%																				
AW-ALL-	ABWF-Metal Work- Hand rail, balustrade	7	15-Dec-17	22-Dec-17	23-Jul-18	30-Jul-18	100%																				
AW-ALL-	ABWF-Wet Trade, Floor/Wall/Ceiling	19	23-Dec-17	17-Jan-18	31-Jul-18	21-Aug-18	100%																				
BS-ALL-	MEP Final Fix	7	18-Jan-18	25-Jan-18	22-Aug-18	29-Aug-18	100%																				
AW-ALL-	ABWF-Door/Ironmongeries	7	22-Jan-18	30-Jan-18	25-Aug-18	03-Sep-18	100%																				
Staircase G/F/ - 3/F Staircase ST-01																											
AS-ALL-	Access Date for ST-03	0	10-Apr-18		03-Sep-18		100%	Access Date for ST-03, 03-Sep-18																			
BS-ALL-	MEP 1st /2nd Fix, FS Riser / Containment	13	10-Apr-18	25-Apr-18	03-Sep-18	18-Sep-18	100%																				
AW-ALL-	ABWF-Metal Work- Hand rail, balustrade	13	25-Apr-18	11-May-18	18-Sep-18	05-Oct-18	100%																				
M+ Basement & Podium Testing & Commissioning																											
MEP System T&C																											
Electrical																											
M+ Podium																											
EL-CLP-10	TX Room A CLP power on (M+ & CSF)	0		24-Mar-18		05-Jul-18	100%	TX Room A CLP power on (M+ & CSF),																			
EL-CLP-10	TX Room B CLP power on (M+ & CSF)	0		24-Mar-18		05-Jul-18	100%	TX Room B CLP power on (M+ & CSF),																			
EL-CLP-10	TX Room C CLP power on (DCS)	0		30-Apr-18		18-Jul-18	100%	TX Room C CLP power on (DCS),																			
HVAC																											
BS-BaP-TC	T&C for Seawater Side	13	03-Feb-18	22-Feb-18	29-Jun-18	14-Jul-18	100%																				
BS-BaP-TC	CHW pumping system Inc MCC self test (DCS)	13	11-May-18	26-May-18	27-Sep-18	13-Oct-18	100%																				
M+ Tower																											
Tower Crane Provision																											

Three Months Rolling Programme (3MRP) - Mth 33 30 June 2018

Activity ID	Activity Name	CMWP Dur.	CMWP - R0(D8) Start	CMWP - R0(D8) Finish	Actual / Forecast Start	Actual / Forecast Finish	Planned B/L % Complete	June				July				August				September					
								27	03	10	17	24	01	08	15	22	29	05	12	19	26	02	09	16	23
Provision of TC7 (Tower Facade Installation & Dismantle of TC2)																									
TC7-2 Erection																									
A59310	Commencement of TC7-2 erection @ M+ Tower Roof Slab	0	03-Aug-18		18-Aug-18		0%																		
A59320	Erect TC7-2 @ M+ Tower Roof Slab (to 118.7mPD)	9	03-Aug-18	14-Aug-18	18-Aug-18	28-Aug-18	0%																		
A59330	Inspection and ICE & RPE Certification	5	14-Aug-18	20-Aug-18	29-Aug-18	03-Sep-18	0%																		
A64630	TC7-2 Operational Period	122	20-Aug-18	16-Jan-19	04-Sep-18	22-Feb-19	0%																		
Critical Key Dates																									
Critical Key Dates - M+ Tower Structure RC Works																									
Critical Key Dates - M+ Tower Structure Works - West Core																									
A12900	Complete West Core Wall - R/F Slab, Wall & Column (GL 7-8/A-E)	0		10-May-18		07-Jul-18	100%																		
A12910	Complete West Core Wall - UR/F Slab, Wall & Column (GL 7-8/A-E)	0		17-May-18		28-Jul-18	100%																		
Critical Key Dates - M+ Tower Structure Works - East Core																									
A13050	Complete East Core Wall - R/F Slab, Wall & Column (GL 7-8/L-M)	0		01-Aug-18		11-Sep-18	0%																		
Critical Key Dates - M+ Tower Structure Works - Tower																									
A13230	Complete Tower Structure - R/F Slab, Wall & Column (GL 7-8/E-L)	0		28-Jul-18		14-Aug-18	0%																		
A13240	Complete Tower Structure - UR/F Slab, Wall & Column (GL 7-8/E-L)	0		22-Aug-18		04-Sep-18	0%																		
M+ Tower RC Structure Construction (4/F - 16/F & R/F - UR/F)																									
Tower Structure - West Core Wall (Non-deferred Zone M) @ GL 7-8/A-D (M1)																									
Tower Structure - West Core Wall @GL7-8/A-D (TC2 TIE TO WCW)																									
A37630	16F-RF Wall, Column & RF slab (GL 7-8/A-D)	12	26-Apr-18	10-May-18	18-Jun-18 A	07-Jul-18	100%																		
A37640	RF-URF Wall, Column & URF (GL 7-8/A-D)	6	11-May-18	17-May-18	07-Jul-18	28-Jul-18	100%																		
A37650	Complete West Core Wall Structure to RF slab	0		18-May-18		28-Jul-18	100%																		
A37620	15F-16F Wall, Column & 16F slab (GL 7-8/A-D)	12	12-Apr-18	25-Apr-18	29-May-18 A	16-Jun-18 A	100%																		
Tower Structure - Deferred Zone F @ GL 7-8/D-H (M2)																									
Tower Structure - Deferred Zone F @ GL 7-8/D-H																									
A37860	14F-15F Wall, Column & 15F slab (GL 7-8/D-H)	12	15-Jun-18	29-Jun-18	22-Jun-18 A	10-Jul-18	91.67%																		
A37870	15F-16F Wall, Column & 16F slab (GL 7-8/D-H)	12	30-Jun-18	14-Jul-18	11-Jul-18	27-Jul-18	0%																		
A37900	16F-RF Wall, Column & RF slab (GL 7-8/D-H)	12	16-Jul-18	28-Jul-18	28-Jul-18	14-Aug-18	0%																		
A37910	RF-URF Wall, Column & URF (GL 7-8/D-H)	21	30-Jul-18	22-Aug-18	15-Aug-18	04-Sep-18	0%																		
A37850	13F-14F Wall, Column & 14F slab (GL 7-8/D-H)	12	01-Jun-18	14-Jun-18	01-Jun-18 A	21-Jun-18 A	100%																		
Tower Structure - Deferred Zone F & East Core Wall Zone N @GL 7-8/H-M (M3)																									
Tower Structure - Deferred Zone F & East Core Wall Zone N @GL7-8/H-M																									
A37700	13F-14F Wall, Column & 14F slab (GL 7-8/H-M)	13	31-May-18	14-Jun-18	28-Jun-18 A	20-Jul-18	100%																		
A37710	14F-15F Wall, Column & 15F slab (GL 7-8/H-M)	13	15-Jun-18	30-Jun-18	20-Jul-18	07-Aug-18	84.62%																		
A37720	15F-16F Wall, Column & 16F slab (GL 7-8/H-M)	13	03-Jul-18	17-Jul-18	07-Aug-18	24-Aug-18	0%																		
A37730	16F-RF Wall, Column & RF slab (GL 7-8/H-M)	13	18-Jul-18	01-Aug-18	24-Aug-18	11-Sep-18	0%																		
A37740	RF-URF Wall, Column & URF (GL 7-8/H-M)	21	02-Aug-18	25-Aug-18	11-Sep-18	03-Oct-18	0%																		
A37690	12F-13F Wall, Column & 13F slab (GL 7-8/H-M)	13	15-May-18	30-May-18	08-Jun-18 A	27-Jun-18 A	100%																		
M+ Tower Temporary Works																									
MTFF-10010	Fair Face Concrete Remedial Works - M+ Tower 1/F	0			17-Jul-18	01-Aug-18	0%																		
MTFF-10020	Fair Face Concrete Remedial Works - M+ Tower 2/F	0			02-Aug-18	17-Aug-18	0%																		
MTFF-10030	Fair Face Concrete Remedial Works - M+ Tower 3/F	0			18-Aug-18	03-Sep-18	0%																		
MTFF-10040	Fair Face Concrete Remedial Works - M+ Tower 4/F	0			04-Sep-18	19-Sep-18	0%																		
MTFF-10050	Fair Face Concrete Remedial Works - M+ Tower 5/F	0			20-Sep-18	08-Oct-18	0%																		
M+ Tower External Envelope (By Permasteelisa)																									
Tower Facade Advance Works																									
Provision of Catchfan																									
Provision of Catch fan @ 9/F for Block A																									
A47985	Dismantle Catchfan at 9th/F Block A	5	02-Oct-18	08-Oct-18	22-Jun-18 A	28-Jun-18 A	0%																		
Provision of Catch fan @ 13/F for Block A																									
A38200	Install Catch fan @ 13/F North Elevation Block A	5	14-Apr-18	19-Apr-18	16-Jun-18 A	29-Jun-18	100%																		
A38210	Inspection, ICE & RPE certification for Catchfan @15/F Block A	5	20-Apr-18	25-Apr-18	16-Jun-18 A	29-Jun-18	100%																		
A38180	Remove Scaffolding @ 14/F Block A	2	12-Apr-18	13-Apr-18	29-Jun-18	30-Jun-18	100%																		
A38240	Dismantle Catchfan at 15/F Block A	5	08-Nov-18	13-Nov-18	23-Aug-18	29-Aug-18	0%																		
A38190	Install Catch fan @ 13/F South Elevation Block A	5	14-Apr-18	19-Apr-18	16-Jun-18 A	22-Jun-18 A	100%																		
A38220	Install Working Platform @ 12th/F & 14th/F for South North Elevation Block A	5	12-Apr-18	17-Apr-18	16-Jun-18 A	21-Jun-18 A	100%																		
A38230	Inspection, ICE & RPE certification for Working Platform @ Block A	5	18-Apr-18	23-Apr-18	16-Jun-18 A	21-Jun-18 A	100%																		
Provision of Catch fan @ 9/F for Block B																									
A43550	Dismantle Catchfan at 11th/F Block B	5	26-Sep-18	03-Oct-18	12-Jul-18	18-Jul-18	0%																		
Provision of Catch fan @ 13/F for Block B																									
A15270	14/F RC Structure Completed	0	16-Jul-18		29-Jun-18		0%																		
A15275	Install Catch fan @ 13/F South Elevation Block B	5	16-Jul-18	20-Jul-18	29-Jun-18	05-Jul-18	0%																		
A15280	Install Catch fan @ 13/F North Elevation Block B	5	16-Jul-18	20-Jul-18	29-Jun-18	05-Jul-18	0%																		
A15295	Install Working Platform@10th & 12th for South/North Elevation Block B	5	30-Jun-18	06-Jul-18	29-Jun-18	05-Jul-18	0%																		
A15290	Inspection, ICE & RPE certification for Catchfan @13/F Block B	5	21-Jul-18	26-Jul-18	06-Jul-18	11-Jul-18	0%																		
A15305	Inspection, ICE & RPE certification for Working Platform @ Block B	5	07-Jul-18	12-Jul-18	06-Jul-18	11-Jul-18	0%																		
A22510	Dismantle Catchfan at 13/F Block B	5	10-Nov-18	16-Nov-18	31-Aug-18	06-Sep-18	0%																		
Provision of Monorails, Catch fan & Working Platform																									

Three Months Rolling Programme (3MRP) - Mth 33 30 June 2018

Activity ID	Activity Name	CMWP Dur.	CMWP - R0(D8) Start	CMWP - R0(D8) Finish	Actual / Forecast Start	Actual / Forecast Finish	Planned B/L % Complete	June							July							August							September						
								27	03	10	17	24	01	08	15	22	29	05	12	19	26	02	09	16	23										
Provision of Monorail @ 8/F																																			
Monorail-Block A (8/F)																																			
A14900	Dismantle Monorails at 8/F @ Block A	5	31-Aug-18	06-Sep-18	16-Jun-18 A	20-Jun-18 A	0%																												
Monorail-Block B (8/F)																																			
A15000	Dismantle Monorails at 8/F @ Block B	5	20-Jul-18	25-Jul-18	16-Jun-18 A	30-Jun-18	0%																												
Provision of Monorails @ 12/F																																			
Monorail-Block A (12/F)																																			
A14910	14/F Structure Complete	0	12-Apr-18		29-Jun-18		100%																												
A14930	Monorail Operation Period@12/F Block A	160	02-May-18	10-Nov-18	20-Jun-18 A	18-Aug-18	30.08%																												
A14940	Dismantle Monorails at 12/F @ Block A	5	10-Nov-18	16-Nov-18	18-Aug-18	24-Aug-18	0%																												
A14920	Install/ICE Inspect monorails at 12/F slab @ Block A	16	12-Apr-18	30-Apr-18	16-Jun-18 A	20-Jun-18 A	100%																												
Monorail-Block B (12/F)																																			
A15020	Install/ICE Inspect monorails at 12/F slab @ Block B	16	30-Jun-18	19-Jul-18	16-Jun-18 A	16-Jul-18	0%																												
A15030	Monorail Operation Period	95	20-Jul-18	10-Nov-18	16-Jul-18	18-Aug-18	0%																												
A15010	14/F Structure Completed	0	30-Jun-18		20-Jul-18		0%																												
A15040	Dismantle Monorails at 12/F @ Block B	5	10-Nov-18	16-Nov-18	18-Aug-18	24-Aug-18	0%																												
Facade Installation by TC6-2, TC2, TC7-2 & Monorail																																			
Preparation Works																																			
A59820	Survey, Setup & Bracket Installation for 1st Installation - Staircase Zone	22	16-Nov-17	11-Dec-17	06-Jul-18	01-Aug-18	100%																												
Monorail @8/F - North & South Elevation 4/F to 8/F (Weathertight Zone)																																			
Block A																																			
A59740	M+ Tower 5/F - External Facade 2nd Fix -Remaining	5	20-Aug-18	25-Aug-18	25-Jun-18 A	05-Jul-18	0%																												
A60080	M+ Tower 6/F - External Facade 2nd Fix -Remaining	5	25-Aug-18	31-Aug-18	05-Jul-18	11-Jul-18	0%																												
Block B																																			
A59720	M+ Tower 5/F - External Facade 2nd Fix	10	01-Sep-18	13-Sep-18	25-Jun-18 A	29-Jun-18	0%																												
A59730	M+ Tower 6/F - External Facade 2nd Fix	10	13-Sep-18	26-Sep-18	29-Jun-18	12-Jul-18	0%																												
Monorail @12/F - North & South Elevation 7/F to 10/F (Weathertight Zone)																																			
Block A																																			
A64840	M+ Tower 7/F - External Facade 2nd Fix	5	06-Sep-18	12-Sep-18	29-Jun-18	05-Jul-18	0%																												
A64850	M+ Tower 8/F - External Facade 2nd Fix	5	12-Sep-18	18-Sep-18	06-Jul-18	11-Jul-18	0%																												
A64860	M+ Tower 9/F - External Facade 2nd Fix	5	18-Sep-18	24-Sep-18	12-Jul-18	17-Jul-18	0%																												
A64870	M+ Tower 10/F - External Facade 2nd Fix	5	24-Sep-18	02-Oct-18	18-Jul-18	23-Jul-18	0%																												
A64890	M+ Tower - Monorail Installed and Operated @ 12/F	0	06-Sep-18		29-Jun-18 A		0%																												
Block B																																			
A64900	M+ Tower - Monorail Installed and Operated @ 12/F	0	26-Jul-18		30-Jun-18		0%																												
A59620	M+ Tower 7/F - External Facade 2nd Fix	7	26-Sep-18	05-Oct-18	12-Jul-18	21-Jul-18	0%																												
A59630	M+ Tower 8/F - External Facade 2nd Fix	7	08-Oct-18	16-Oct-18	21-Jul-18	31-Jul-18	0%																												
A59640	M+ Tower 9/F - External Facade 2nd Fix	7	16-Oct-18	25-Oct-18	31-Jul-18	09-Aug-18	0%																												
A59650	M+ Tower 10/F - External Facade 2nd Fix	7	25-Oct-18	02-Nov-18	09-Aug-18	18-Aug-18	0%																												
Tower Crane - North & South Elevation 11/F to R/F (Weathertight Zone)																																			
A59660	M+ Tower 11/F - External Facade 2nd Fix (88 panels)	7	02-Nov-18	10-Nov-18	18-Aug-18	31-Aug-18	0%																												
A59750	M+ Tower 12/F - External Facade 2nd Fix (88 panels)	6	15-Nov-18	22-Nov-18	31-Aug-18	13-Sep-18	0%																												
A59760	M+ Tower 13/F - External Facade 2nd Fix (88 panels)	6	22-Nov-18	29-Nov-18	13-Sep-18	27-Sep-18	0%																												
A59770	M+ Tower 14/F - External Facade 2nd Fix (88 panels)	6	29-Nov-18	06-Dec-18	27-Sep-18	11-Oct-18	0%																												
Final Fix - North & South Elevation																																			
A59340	M+ Tower 4/F - External Facade Final Fix	6	01-Sep-18	08-Sep-18	07-Jul-18	14-Jul-18	0%																												
A59350	M+ Tower 5/F - External Facade Final Fix	6	13-Sep-18	20-Sep-18	14-Jul-18	21-Jul-18	0%																												
A59360	M+ Tower 6/F - External Facade Final Fix	6	26-Sep-18	04-Oct-18	21-Jul-18	28-Jul-18	0%																												
A59370	M+ Tower 7/F - External Facade Final Fix	6	05-Oct-18	12-Oct-18	28-Jul-18	04-Aug-18	0%																												
A59380	M+ Tower 8/F - External Facade Final Fix	6	16-Oct-18	24-Oct-18	04-Aug-18	11-Aug-18	0%																												
A59390	M+ Tower 9/F - External Facade Final Fix	6	25-Oct-18	01-Nov-18	11-Aug-18	18-Aug-18	0%																												
A59400	M+ Tower 10/F - External Facade Final Fix	6	02-Nov-18	09-Nov-18	18-Aug-18	25-Aug-18	0%																												
A59410	M+ Tower 11/F - External Facade Final Fix	6	10-Nov-18	17-Nov-18	31-Aug-18	07-Sep-18	0%																												
A59420	M+ Tower 12/F - External Facade Final Fix	6	22-Nov-18	29-Nov-18	13-Sep-18	20-Sep-18	0%																												
A59430	M+ Tower 13/F - External Facade Final Fix	6	29-Nov-18	06-Dec-18	27-Sep-18	05-Oct-18	0%																												
M+ Tower Lift Installation																																			
Service Lifts (LT01 & 02)																																			
LT10010	Commence Lift LT01 & LT02 M/C Room Installation @ Roof	0	18-May-18		28-Jul-18		100%																												
LT10000	Available of lift pit at B2F, LT01 & LT02	0	18-May-18		28-Jul-18		100%																												
LT10020	Builders' Work & Lift M/C Room Installation @ R/F (LT01 & 02)	19	18-May-18	09-Jun-18	28-Jul-18	20-Aug-18	100%																												
LT10030	Lift Car Installation (LT01 & 02)	54	11-Jun-18	14-Aug-18	20-Aug-18	25-Oct-18	27.78%																												
Public Lifts (LT05, LT06, LT07 & LT08, 4nos, pit in B2F)																																			
LT10360	Lift Shaft Builders' Work (LT08)	16	18-May-18	06-Jun-18	25-Jun-18 A	06-Jul-18	100%																												
LT10255	Builders' Work for Lift Shaft & M/C Room	23	18-May-18	14-Jun-18	25-Jun-18 A	14-Jul-18	100%																												
LT10370	Lift car Installation (LT08)	54	07-Jun-18	10-Aug-18	06-Jul-18	07-Sep-18	33.33%																												
LT10260	Commence LT05, LT06 & LT07 Lift M/C Room Installation	0		14-Jun-18		14-Jul-18	100%																												
LT10280	Lift M/C Room Installation @ R/F (LT05 & LT06)	23	15-Jun-18	13-Jul-18	14-Jul-18	10-Aug-18	47.83%																												
LT10320	Lift M/C Room Installation @ 4F/5F/6F (LT07)	23	15-Jun-18	13-Jul-18	14-Jul-18	10-Aug-18	47.83%																												

Three Months Rolling Programme (3MRP) - Mth 33 30 June 2018

Activity ID	Activity Name	CMWP Dur.	CMWP - R0(D8) Start	CMWP - R0(D8) Finish	Actual / Forecast Start	Actual / Forecast Finish	Planned B/L % Complete	Gantt Chart															
								June				July				August				September			
								27	03	10	17	24	01	08	15	22	29	05	12	19	26	02	09
A19530	Perf MU - CSF Facade Installation	38	06-Feb-18	24-Mar-18	22-Jun-18 A	21-Jul-18	100%																
A19540	Perf MU - Commence Testing of CSF Facade	0		24-Mar-18		21-Jul-18	100%																
Fabrication & Delivery of CSF Facade System																							
A19560	Glass Wall Production and Fabrication	187	06-Nov-17	26-Jun-18	17-Jul-18	01-Mar-19	100%																
A19570	Glass Production and Fabrication	113	07-Dec-17	30-Apr-18	17-Aug-18	03-Jan-19	100%																
A19580	Roof Louvre Wall Production & Fabrication	144	03-Jan-18	03-Jul-18	10-Sep-18	07-Mar-19	98.53%																
Glass Production & Fabrication																							
A19600	Fabrication of Insulated Glass Panel	54	03-Jan-18	09-Mar-18	14-Jul-18	15-Sep-18	100%																
Glass Wall Production & Fabrication																							
A19640	Application of PVF2 Coating	16	24-Jan-18	12-Feb-18	23-Jul-18	10-Aug-18	100%																
A19650	Steel Frame Fabrication - Roof Louvre	66	14-Mar-18	06-Jun-18	10-Aug-18	30-Oct-18	100%																
Roof Louvre Wall Production & Fabrication																							
A19700	Aluminium Extrusion Production	27	10-Mar-18	16-Apr-18	23-Aug-18	24-Sep-18	100%																
A19710	PVF2 Paint Ordering	27	10-Mar-18	16-Apr-18	23-Aug-18	24-Sep-18	100%																
A19680	Steel Frame Fabrication - Roof Louvre	107	03-Jan-18	17-May-18	10-Sep-18	19-Jan-19	100%																
A19720	Application of PVF2 Coating	11	16-Apr-18	28-Apr-18	24-Sep-18	09-Oct-18	100%																
CSF External Envelope																							
CSF Structure Milestones																							
A19830	CSF - Wall, Column & 6/F to 7/F Slab Complete	0		27-Jan-18		03-Jul-18	100%																
A19840	CSF - Wall, Column & 7/F to 8/F Slab Complete	0		13-Feb-18		24-Jul-18	100%																
FACADE INSTALLATION - by Permasteelisa																							
A19951	PISA-Embed Survey/Report/Remedial/Bracket Installation (G/F to 1/F)	57	21-Nov-17	30-Jan-18	29-Jun-18	04-Sep-18	100%																
A19961	PISA-Embed Survey/Report/Remedial/Bracket Installation (6/F to 7/F)	7	09-Feb-18	21-Feb-18	14-Jul-18	23-Jul-18	100%																
A19860	Access for PISA Survey (6/F to 8/F)	0		09-Feb-18		14-Jul-18	100%																
CSF Tower ABWF & Building Services (G/F - 8/F & R/F)																							
CSF Tower GF-1F, 3-6F																							
CSF-10350	1/F BOH /FOH ABWF/MEP Installation	85	23-Dec-17	12-Apr-18	26-Jun-18 A	07-Sep-18	100%																
CSF-10370	G/F BOH /FOH ABWF/MEP Installation	85	07-Dec-17	22-Mar-18	28-Jun-18 A	04-Oct-18	100%																
CSF-10310	3/F BOH /FOH ABWF/MEP Installation	85	29-Jan-18	16-May-18	03-Jul-18	12-Oct-18	100%																
CSF-10320	4/F BOH /FOH ABWF/MEP Installation	85	14-Feb-18	02-Jun-18	24-Jul-18	03-Nov-18	100%																
CSF-10330	5/F BOH /FOH ABWF/MEP Installation	85	06-Mar-18	20-Jun-18	21-Aug-18	01-Dec-18	100%																
2/F																							
2/F GL B'-F' (FOH Area)																							
AS-CSF-10	Access for ABWF/MEP Installation	0	12-Jan-18		29-Jun-18		100%																
AW-CSF-1:	ABWF-Dry Wall Stud	7	12-Jan-18	19-Jan-18	29-Jun-18	07-Jul-18	100%																
BS-CSF-11	MEP-1st/2nd Fix-Duct/Containment/ Pipe/FCU	25	12-Jan-18	09-Feb-18	27-Jun-18 A	23-Jul-18	100%																
AW-CSF-1:	ABWF-Dry Wall Close-up/	7	10-Feb-18	21-Feb-18	24-Jul-18	31-Jul-18	100%																
AW-CSF-1:	ABWF-Ceiling Frame	7	22-Feb-18	01-Mar-18	01-Aug-18	08-Aug-18	100%																
BS-CSF-11	MEP- MEP Dropper	7	02-Mar-18	09-Mar-18	09-Aug-18	16-Aug-18	100%																
AW-CSF-1:	ABWF-Ceiling Close-up	7	10-Mar-18	17-Mar-18	17-Aug-18	24-Aug-18	100%																
AW-CSF-1:	ABWF-Wall/Ceiling/Floor Final Finishing	25	19-Mar-18	20-Apr-18	25-Aug-18	22-Sep-18	100%																
AW-CSF-1:	ABWF-Door/Ironmongeries	6	21-Apr-18	27-Apr-18	24-Sep-18	02-Oct-18	100%																
BS-CSF-11	MEP Final Fix	7	21-Apr-18	28-Apr-18	24-Sep-18	03-Oct-18	100%																
2/F- GL B-C (BOH/Plant Room Area)																							
AS-CSF-10	Access for ABWF/ MEP Installation	0	12-Jan-18		29-Jun-18		100%																
AW-CSF-1:	ABWF - Block Wall / Rendering / Floor Screeding	19	12-Jan-18	02-Feb-18	29-Jun-18	21-Jul-18	100%																
AW-CSF-1:	BW - Equipment Plinth	7	03-Feb-18	10-Feb-18	23-Jul-18	30-Jul-18	100%																
AW-CSF-1:	ABWF- Wall / Ceiling 1st Coat	7	12-Feb-18	22-Feb-18	31-Jul-18	07-Aug-18	100%																
BS-CSF-11	MEP - ICT Room Installation - 1st / 2nd / Final Fix Installaion	25	23-Feb-18	23-Mar-18	08-Aug-18	05-Sep-18	100%																
BS-CSF-11	MEP - AHU Room Installation-1st / 2nd / Final Fix Installation	54	23-Feb-18	02-May-18	08-Aug-18	11-Oct-18	100%																
BS-CSF-11	MEP/ ELV-ELV Room Installation-1st / 2nd / Final Fix Installation	54	23-Feb-18	02-May-18	08-Aug-18	11-Oct-18	100%																
AS-CSF-10	MEP - Riser Installation (Linked from 8/F Access Date)	54	06-Mar-18	12-May-18	21-Aug-18	26-Oct-18	100%																
CSF Tower Testing & Commissioning (G/F - 8/F & R/F)																							
MEP System T&C																							
Electrical																							
EL-CLP-101	TX Room A CLP power on (M+ & CSF)	0		24-Mar-18		05-Jul-18	100%																
RDE Tower																							
Tower Crane Provision																							
Provision of TC1-A & TC1-B (RDE & CSF Construction)																							
TC1-A & TC1-B Erection																							
A64660	TC1-B 1st Operational Period	61	25-Oct-17	08-Jan-18	16-Jul-18	21-Jul-18	100%																
TC1-A & TC1-B 1st Jack																							
A64140	1st Raise & Jack up of TC1-A to 65.1mPD	2	06-Jan-18	08-Jan-18	16-Jul-18	17-Jul-18	100%																
A64690	TC1-A 2nd Operational Period	88	09-Jan-18	28-Apr-18	18-Jul-18	26-Nov-18	100%																
A64150	1st Raise & Jack up of TC1-B to 55.1mPD	2	09-Jan-18	10-Jan-18	18-Jul-18	19-Jul-18	100%																
A64680	TC1-B 2nd Operational Period	88	11-Jan-18	02-May-18	23-Jul-18	30-Nov-18	100%																
TC1-A & TC1-B 2nd Jack																							
A64170	Install & Connect Tie-in between TC1-A & TC1-B & RDE 8/F slab	1	24-Apr-18	24-Apr-18	03-Aug-18	04-Aug-18	100%																

Three Months Rolling Programme (3MRP) - Mth 33 30 June 2018

Activity ID	Activity Name	CMWP Dur.	CMWP - R0(D8) Start	CMWP - R0(D8) Finish	Actual / Forecast Start	Actual / Forecast Finish	Planned B/L % Complete	Gantt Chart																											
								June							July							August							September						
								27	03	10	17	24	01	08	15	22	29	05	12	19	26	02	09	16	23										
A64160	RDE 8/F Slab Portion B Completed	0		07-Apr-18		03-Aug-18	100%	◆ RDE 8/F Slab Portion B Completed,																											
A64180	Inspection and ICE & RPE Certification for TC1-A & TC1-B Ties	2	25-Apr-18	26-Apr-18	04-Aug-18	07-Aug-18	100%																												
RDE Tower RC Structure Construction (GF - 15M/F & UR/F)																																			
RDE Super-Structure RC Works																																			
RDE Building																																			
RDE Structure @ Portion - U (G/F to 15M/F)																																			
Block A Grid Line G' to J' / 1' to 6'																																			
A50890	RDE - Walls, Columns & 6/F Slab - Zone A	14	10-Feb-18	01-Mar-18	01-Jun-18 A	03-Jul-18	100%																												
A50905	RDE - Walls, Columns & 7/F Slab - Zone B	14	24-Feb-18	12-Mar-18	25-Jun-18 A	09-Jul-18	100%																												
A50900	RDE - Walls, Columns & 7/F Slab - Zone A	14	02-Mar-18	17-Mar-18	03-Jul-18	17-Jul-18	100%																												
A50915	RDE - Walls, Columns & 8/F Slab - Zone B	14	13-Mar-18	28-Mar-18	09-Jul-18	26-Jul-18	100%																												
A50910	RDE - Walls, Columns & 8/F Slab - Zone A	14	19-Mar-18	07-Apr-18	17-Jul-18	03-Aug-18	100%																												
A50925	RDE - Walls, Columns & 9/F Slab - Zone B	14	29-Mar-18	18-Apr-18	26-Jul-18	13-Aug-18	100%																												
A50920	RDE - Walls, Columns & 9/F Slab - Zone A	14	09-Apr-18	24-Apr-18	03-Aug-18	20-Aug-18	100%																												
A50945	RDE - Walls, Columns & 10/F Slab - Zone B	14	19-Apr-18	05-May-18	13-Aug-18	29-Aug-18	100%																												
A50940	RDE - Walls, Columns & 10/F Slab - Zone A	14	25-Apr-18	11-May-18	20-Aug-18	05-Sep-18	100%																												
A50955	RDE - Walls, Columns & 11/F Slab - Zone B	14	07-May-18	23-May-18	29-Aug-18	10-Sep-18	100%																												
A50950	RDE - Walls, Columns & 11/F Slab - Zone A	14	12-May-18	29-May-18	05-Sep-18	19-Sep-18	100%																												
A50965	RDE - Walls, Columns & 12/F Slab - Zone B	14	24-May-18	08-Jun-18	10-Sep-18	24-Sep-18	100%																												
A50960	RDE - Walls, Columns & 12/F Slab - Zone A	14	30-May-18	14-Jun-18	19-Sep-18	05-Oct-18	100%																												
A50975	RDE - Walls, Columns & 13/F Slab - Zone B	14	09-Jun-18	26-Jun-18	24-Sep-18	10-Oct-18	100%																												
A50895	RDE - Walls, Columns & 6/F Slab - Zone B	14	05-Feb-18	23-Feb-18	30-May-18 A	22-Jun-18 A	100%																												
RDE Building Temporary Works																																			
RDFF-10020	Fair Face Concrete Remedial Works - RDE 1/F	0			06-Jun-18 A	14-Jul-18	0%																												
RDFF-10030	Fair Face Concrete Remedial Works - RDE 2/F	0			14-Jul-18	31-Jul-18	0%																												
RD10090	Material Hoist Erection (Initial)	8	25-Jan-18	02-Feb-18	17-Jul-18	26-Jul-18	100%																												
RDFF-10040	Fair Face Concrete Remedial Works - RDE 3/F	0			31-Jul-18	16-Aug-18	0%																												
RDFF-10050	Fair Face Concrete Remedial Works - RDE 4/F	0			16-Aug-18	01-Sep-18	0%																												
RDFF-10060	Fair Face Concrete Remedial Works - RDE 5/F	0			01-Sep-18	18-Sep-18	0%																												
RDFF-10070	Fair Face Concrete Remedial Works - RDE 6/F	0			18-Sep-18	06-Oct-18	0%																												
RDE External Envelope																																			
RDE Structure																																			
A21260	RDE - Wall, Column & 7/F Slab Complete	0		18-Mar-18		17-Jul-18	100%	◆ RDE - Wall, Column & 7/F Slab Complete,																											
FACADE INSTALLATION - by Permasteelisa																																			
NORTH ELEVATION - Glazed Glass Curtain Wall (FC-WW-03a, 03b, 04, 05a & 05b)																																			
A21290	Handover of Working Area (after completion of 7/F Slab)	0		19-Mar-18		17-Jul-18	100%	◆ Handover of Working Area (after completion of 7/F Slab),																											
A21295	RDE - Survey & Setting Out G/F to 7/F (North Elevation)	13	19-Mar-18	06-Apr-18	17-Jul-18	01-Aug-18	100%																												
A21310	RDE - 2/F to 3/F Install Window Curtain Wall (2 wks per floor)	3	07-Apr-18	10-Apr-18	01-Aug-18	04-Aug-18	100%																												
A21320	RDE - 3/F to 4/F Install Window Curtain Wall	3	21-Apr-18	24-Apr-18	15-Aug-18	18-Aug-18	100%																												
A21330	RDE - 4/F to 5/F Install Window Curtain Wall	3	07-May-18	09-May-18	29-Aug-18	01-Sep-18	100%																												
A21340	RDE - 5/F to 6/F Install Window Curtain Wall	3	21-May-18	24-May-18	12-Sep-18	15-Sep-18	100%																												
A21350	RDE - 6/F to 7/F Install Window Curtain Wall	3	05-Jun-18	07-Jun-18	27-Sep-18	02-Oct-18	100%																												
WEST ELEVATION - Glazed Glass Curtain Wall (FC-WW-03a, 03b, 04, 05a & 05b)																																			
A64730	RDE - Survey & Setting Out G/F to 7/F (West Elevation)	13	19-Mar-18	06-Apr-18	17-Jul-18	01-Aug-18	100%																												
A21450	Handover of Working Area (after completion of 7/F Slab)	0		19-Mar-18		17-Jul-18	100%	◆ Handover of Working Area (after completion of 7/F Slab),																											
A21470	RDE - 2/F to 3/F Install Window Curtain Wall	3	11-Apr-18	13-Apr-18	04-Aug-18	08-Aug-18	100%																												
A21480	RDE - 3/F to 4/F Install Window Curtain Wall	3	25-Apr-18	27-Apr-18	18-Aug-18	22-Aug-18	100%																												
A21490	RDE - 4/F to 5/F Install Window Curtain Wall	3	10-May-18	12-May-18	01-Sep-18	05-Sep-18	100%																												
A21500	RDE - 5/F to 6/F Install Window Curtain Wall	3	25-May-18	28-May-18	15-Sep-18	19-Sep-18	100%																												
SOUTH ELEVATION - Glazed Glass Curtain Wall (FC-WW-03a, 03b, 04, 05a & 05b)																																			
A64740	RDE - Survey & Setting Out G/F to 7/F (South Elevation)	13	19-Mar-18	06-Apr-18	17-Jul-18	01-Aug-18	100%																												
A21640	Handover of Working Area (after completion of 7/F Slab)	0		19-Mar-18		17-Jul-18	100%	◆ Handover of Working Area (after completion of 7/F Slab),																											
A21660	RDE - 2/F to 3/F Install Window Curtain Wall	3	14-Apr-18	17-Apr-18	08-Aug-18	11-Aug-18	100%																												
A21670	RDE - 3/F to 4/F Install Window Curtain Wall	3	28-Apr-18	02-May-18	22-Aug-18	25-Aug-18	100%																												
A21680	RDE - 4/F to 5/F Install Window Curtain Wall	3	14-May-18	16-May-18	05-Sep-18	08-Sep-18	100%																												
A21690	RDE - 5/F to 6/F Install Window Curtain Wall	3	29-May-18	31-May-18	19-Sep-18	22-Sep-18	100%																												
EAST ELEVATION - Glazed Glass Curtain Wall (FC-WW-03a, 03b, 04, 05a & 05b)																																			
A21800	Handover of Working Area (after completion of 7/F Slab)	0		19-Mar-18		17-Jul-18	100%	◆ Handover of Working Area (after completion of 7/F Slab),																											
A64750	RDE - Survey & Setting Out G/F to 7/F (East Elevation)	13	19-Mar-18	06-Apr-18	17-Jul-18	01-Aug-18	100%																												
A21820	RDE - 2/F to 3/F Install Window Curtain Wall	3	18-Apr-18	20-Apr-18	11-Aug-18	15-Aug-18	100%																												
A21830	RDE - 3/F to 4/F Install Window Curtain Wall	3	03-May-18	05-May-18	25-Aug-18	29-Aug-18	100%																												
A21840	RDE - 4/F to 5/F Install Window Curtain Wall	3	17-May-18	19-May-18	08-Sep-18	12-Sep-18	100%																												
A21850	RDE - 5/F to 6/F Install Window Curtain Wall	3	01-Jun-18	04-Jun-18	22-Sep-18	27-Sep-18	100%																												
WEST ELEVATION - Facade Louvre (FC-LV-01) (2/F to 4/F)																																			
A21610	RDE - 2/F Install Facade Louvre	13	29-May-18	12-Jun-18	19-Sep-18	06-Oct-18	100%																												
FACADE INSTALLATION - by ISP																																			
SOUTH ELEVATION - Facade Mesh Balustrade (FC-BA-02)																																			
A22020	RDE - 2/F Install Facade Mesh Balustrade (FC-BA-02)	11	21-Apr-18	04-May-18	15-Aug-18	27-Aug-18	100%																												

Three Months Rolling Programme (3MRP) - Mth 33 30 June 2018

Activity ID	Activity Name	CMWP Dur.	CMWP - R0(D8) Start	CMWP - R0(D8) Finish	Actual / Forecast Start	Actual / Forecast Finish	Planned B/L % Complete	June				July				August				September			
								27	03	10	17	24	01	08	15	22	29	05	12	19	26	02	09
Milestone Dates																							
IPA.MS.02	IPA-02 Complete HCC scope and Ready for Handover to SFK - Area A	0				24-Jul-18*	0%	◆ IPA-02 Complete HCC scope and Ready for Handover to SFK - Area A,															
IPA.MS.03	IPA-03 Complete HCC scope and Ready for Handover to SFK - Area C	0				08-Aug-18*	0%	◆ IPA-03 Complete HCC scope and Ready for Handover to SFK - Area C,															
IPA Area A - Earthwork																							
Construction of IPA works																							
IPA.AA.390	Construct fencing	0			29-Jun-18	23-Jul-18	0%	[Red bar: 29-Jun-18 to 23-Jul-18]															
IPA.AA.330	Construct Root Barriers	0			29-Jun-18	05-Jul-18	0%	[Red bar: 29-Jun-18 to 05-Jul-18]															
IPA.AA.360	Construct irrigation system	0			11-Jun-18 A	23-Jul-18	0%	[Red bar: 11-Jun-18 to 23-Jul-18]															
IPA.AA.370	Construct main path & secondary path	0			30-Jun-18	24-Jul-18	0%	[Red bar: 30-Jun-18 to 24-Jul-18]															
IPA.AA.420	Complete HCC scope and Ready for Handover of Area A to Park Contractor	0				24-Jul-18	0%	◆ Complete HCC scope and Ready for Handover of Area A to Park Contractor,															
IPA Area B - Earthwork																							
Clear up & water proofing ICP & use as facade yard (High level - South)																							
IPA.AB.90	Clear up Area B	0			29-Jun-18	05-Jul-18	0%	[Green bar: 29-Jun-18 to 05-Jul-18]															
Construction of UU																							
IPA.AB.130	Construct drainage, catch pits & UC	0			23-Jul-18	23-Aug-18	0%	[Red bar: 23-Jul-18 to 23-Aug-18]															
IPA.AB.140	Construct district wide CLP Cable ducts & Draw pits	0			16-Aug-18	17-Sep-18	0%	[Red bar: 16-Aug-18 to 17-Sep-18]															
IPA.AB.150	Construct light ducts & pole footings	0			30-Aug-18	22-Sep-18	0%	[Red bar: 30-Aug-18 to 22-Sep-18]															
IPA.AB.160	Construct CLP cable ducts & Draw pits Southside	0			24-Sep-18	19-Oct-18	0%	[Red bar: 24-Sep-18 to 19-Oct-18]															
IPA Area C - Earthwork																							
Backfill of soil as per temp profile																							
IPA.AC.230	Backfill to design profile (deferred area)	0			18-Jul-18	28-Jul-18	0%	[Red bar: 18-Jul-18 to 28-Jul-18]															
Construction of Storm Drain																							
Between SE2.7 - DM52C (~39m)																							
IPA.AC.1	Testing	0			04-Jul-18	04-Jul-18	0%	[Green bar: 04-Jul-18]															
Construction of Sewer Drain																							
Between F2.1E - SM19																							
IPA.AC.1	Install sheet piles	0			29-Jun-18	04-Jul-18	0%	[Red bar: 29-Jun-18 to 04-Jul-18]															
IPA.AC.1	Excavate & install ELS (1st layer)	0			05-Jul-18	07-Jul-18	0%	[Red bar: 05-Jul-18 to 07-Jul-18]															
IPA.AC.1	Excavate to formation & SRT & blinding	0			09-Jul-18	10-Jul-18	0%	[Red bar: 09-Jul-18 to 10-Jul-18]															
IPA.AC.1	Install 300DI pipes	0			11-Jul-18	12-Jul-18	0%	[Red bar: 11-Jul-18 to 12-Jul-18]															
IPA.AC.2	Testing	0			13-Jul-18	13-Jul-18	0%	[Green bar: 13-Jul-18]															
IPA.AC.2	Plug off manhole F2.1E & SM19	0			14-Jul-18	14-Jul-18	0%	[Red bar: 14-Jul-18]															
IPA.AC.2	Backfill & SRT & remove ELS	0			16-Jul-18	17-Jul-18	0%	[Red bar: 16-Jul-18 to 17-Jul-18]															
Construction of remaining UU																							
IPA.AC.240	Construct drainage, catch pits & UC	0			30-Jul-18	17-Aug-18	0%	[Red bar: 30-Jul-18 to 17-Aug-18]															
Construct district wide CLP ducts																							
IPA.AC.3	Lay ducts	0			10-Jul-18	13-Jul-18	0%	[Red bar: 10-Jul-18 to 13-Jul-18]															
IPA.AC.3	Backfill & SRT	0			14-Jul-18	19-Jul-18	0%	[Red bar: 14-Jul-18 to 19-Jul-18]															
Construct light ducts & pole footings																							
IPA.AC.2	Excavate to formation & SRT & blinding	0			30-Jul-18	31-Jul-18	0%	[Red bar: 30-Jul-18 to 31-Jul-18]															
IPA.AC.2	Install ducts & backfill	0			01-Aug-18	04-Aug-18	0%	[Red bar: 01-Aug-18 to 04-Aug-18]															
Lighting cable ducts																							
IPA.AC.2	Excavate to formation & SRT & blinding	0			01-Aug-18	01-Aug-18	0%	[Red bar: 01-Aug-18]															
IPA.AC.3	Install ducts & backfill	0			02-Aug-18	06-Aug-18	0%	[Red bar: 02-Aug-18 to 06-Aug-18]															
IPA.AC.3	Construct lighting base	0			07-Aug-18	10-Aug-18	0%	[Red bar: 07-Aug-18 to 10-Aug-18]															
Construction of EVA																							
South side																							
IPA.AC.2	Prepare formation and SRT	0			30-Jul-18	01-Aug-18	0%	[Red bar: 30-Jul-18 to 01-Aug-18]															
IPA.AC.2	Lay kerbs	0			02-Aug-18	11-Aug-18	0%	[Red bar: 02-Aug-18 to 11-Aug-18]															
IPA.AC.2	Lay path base	0			07-Aug-18	17-Aug-18	0%	[Red bar: 07-Aug-18 to 17-Aug-18]															
IPA.AC.2	Lay path surface	0			13-Aug-18	23-Aug-18*	0%	[Red bar: 13-Aug-18 to 23-Aug-18]															
Construction of remaining paths & EVA																							
IPA.AC.360	Open cut to formation & SRT & blinding	0			14-Jul-18	17-Jul-18	0%	[Red bar: 14-Jul-18 to 17-Jul-18]															
IPA.AC.380	Lay kerbs	0			18-Jul-18	23-Jul-18	0%	[Red bar: 18-Jul-18 to 23-Jul-18]															
IPA.AC.390	Lay path base	0			24-Jul-18	30-Jul-18	0%	[Red bar: 24-Jul-18 to 30-Jul-18]															
IPA.AC.400	Lay path surface	0			31-Jul-18	07-Aug-18	0%	[Red bar: 31-Jul-18 to 07-Aug-18]															
IPA.AC.410	Complete HCC scope and Ready for Handover of Area C to Park Contractor	0			08-Aug-18		0%	◆ Complete HCC scope and Ready for Handover of Area C to Park Contractor, 08-Aug-															
DCS Plant Feeding CHW to Park Freespace Building																							
KD & MS																							
DCS-03	Commission DCS System and complete all works necessary to provide Chilled Water to Park	0				14-Sep-18*	0%	◆ Commission DCS Syst															
DCS-02	Energise Transformer Room TX C	0				20-Sep-18*	0%	◆ Energise Tra															
DCS-01	Complete Installation of Cable Ducts for CLP Inspection	0				20-Jun-18 A	0%	◆ Complete Installation of Cable Ducts for CLP Inspection,															
Construction																							
DCS.170	Cable Laying (by CLP)	0			06-Aug-18	01-Sep-18	0%	[Red bar: 06-Aug-18 to 01-Sep-18]															
DCS.220	Power On	0			03-Sep-18	20-Sep-18	0%	[Red bar: 03-Sep-18 to 20-Sep-18]															
U/G chilled water pipes																							
DCS.110	Pipe Flushing incl. Testing and Commissioning	0			21-Jul-18*	14-Sep-18*	0%	[Red bar: 21-Jul-18 to 14-Sep-18]															
DCS.200	Ready for final connection by Park	0				14-Sep-18	0%	◆ Ready for final connec															

Three Months Rolling Programme (3MRP) - Mth 33 30 June 2018

Activity ID	Activity Name	CMWP Dur.	CMWP - R0(D8) Start	CMWP - R0(D8) Finish	Actual / Forecast Start	Actual / Forecast Finish	Planned B/L % Complete	June				July				August				September			
								27	03	10	17	24	01	08	15	22	29	05	12	19	26	02	09
PC-MTSA-	Carpet, linoleum & mats	216	14-Nov-17	09-Aug-18	03-Jul-18	18-Mar-19	83.85%																
Procurement																							
Long Lead Items																							
Doors																							
PC-MTPR-	Priority Doors (for Mechanical Rooms)	80	03-Nov-17	08-Feb-18	05-Sep-18	11-Dec-18	100%																
Ironmongeries																							
PC-MTPR-	Priority Door Ironmongeries (for Mechanical Rooms)	80	03-Nov-17	08-Feb-18	29-Aug-18	04-Dec-18	100%																
Tiling Works																							
PC-MTPR-	Other Tiling Areas	107	30-Jan-18	14-Jun-18	22-Aug-18	29-Dec-18	100%																
Other Long Lead Items																							
PC-MTPR-	FF&E Items (seating/ cushion, curtain, blinds, etc)	107	27-Oct-18	08-Mar-19	14-Jul-18	19-Nov-18	0%																
PC-MTPR-	Fixed & loose furniture	149	13-Dec-18	19-Jun-19	14-Jul-18	27-Dec-18	0%																
PC-MTPR-	Metal ceiling	80	29-Mar-18	09-Jul-18	13-Aug-18	17-Nov-18	90%																
PC-MTPR-	Security Shutters (Top mounted)	107	30-Jan-18	14-Jun-18	22-Aug-18	29-Dec-18	100%																
PC-MTPR-	Security shutters (Lateral sliding type)	80	23-Feb-18	04-Jun-18	12-Sep-18	18-Dec-18	100%																
PC-MTPR-	Glazing works	107	06-Apr-18	13-Aug-18	12-Sep-18	22-Jan-19	64.49%																
PC-MTPR-	Fire shutters	54	06-Mar-18	12-May-18	21-Sep-18	27-Nov-18	100%																
PC-MTPR-	Smoke curtain	54	06-Mar-18	12-May-18	21-Sep-18	27-Nov-18	100%																
Construction																							
Seawater Outfall Pipe																							
Construction at CH0+86 to CH0+108																							
Construct Cofferdam & Pipe works for Lead In (CH0+102 to CH0+108)																							
A26880	Pressure Test	6	11-Jan-18	17-Jan-18	29-Jun-18	06-Jul-18	100%																
A26890	Back Filling to Ground Level	2	18-Jan-18	19-Jan-18	07-Jul-18	13-Jul-18	100%																
Construction at CH0+0 to CH66																							
Trench Excavation & Pipe works CH0+0 to CH0+32																							
A27180	Pressure Test	6	26-Mar-18	04-Apr-18	29-Jun-18	06-Jul-18	100%																
A27160	Construct Bend Blocks	9	15-Mar-18	24-Mar-18	05-Jul-18	23-Jul-18	100%																
A27190	Back Filling to 1st layer Struts	1	06-Apr-18	06-Apr-18	07-Jul-18	07-Jul-18	100%																
A27200	Dismantle 1st Layer Struts & Walling	6	07-Apr-18	13-Apr-18	09-Jul-18	14-Jul-18	100%																
A27210	Back Filling to GL	1	14-Apr-18	14-Apr-18	16-Jul-18	16-Jul-18	100%																
DCS Box (Portion M15&M16)																							
A27300	DCS Box complete	0		31-Oct-17		17-Jul-18	100%																
Seawater Pump Cell																							
BME																							
A58670	Install electrical & Control	56	11-Nov-17	19-Jan-18	20-Jun-18 A	28-Aug-18	100%																
A58680	Install Pump motor	29	04-Dec-17	10-Jan-18	12-Jul-18	15-Aug-18	100%																
A58690	Hydraulic Test of DI pipe	11	20-Mar-18	04-Apr-18	28-Aug-18	10-Sep-18	100%																
A58700	T&C of Sea water Pump	27	06-Apr-18	08-May-18	10-Sep-18	13-Oct-18	100%																
Plumbing & Drainage																							
A58780	Install Sump Pump Panels	10	19-May-18	31-May-18	30-May-18 A	09-Jul-18	100%																
A58740	Install Sump Pumps	25	23-Oct-17	21-Nov-17	29-Jun-18	13-Jul-18	100%																
A58790	Hydraulic Test (Cleansing Pipes)	6	01-Jun-18	07-Jun-18	09-Jul-18	16-Jul-18	100%																
A58800	T&C of Sump Pumps	13	08-Jun-18	23-Jun-18	16-Jul-18	31-Jul-18	100%																
Electrical Works																							
A58880	Install MCB Board	10	14-Jul-18	25-Jul-18	30-May-18 A	05-Jul-18	0%																
A58900	T&C of Electrical Works	8	26-Jul-18	03-Aug-18	05-Jul-18	14-Jul-18	0%																
Fire Service Works																							
A58930	T&C of heat detection system	4	09-Aug-18	13-Aug-18	03-Jul-18	07-Jul-18	0%																
Sewerage																							
Sewerage at Portion M01, Gridline A / 3-14																							
A27940	HCC grant access to Park Contractor for SM100 construction	0	22-Nov-17		11-Sep-18		100%																
MH F2.1E to MH F2.1D																							
A28160	Construct Manholes F2.1E	6	08-Nov-17	14-Nov-17	25-Jul-18	17-Aug-18	100%																
A28170	Lay Sewerage Pipe between MH F2.1E to F2.1D (DN375mm) (Approx. 25m)	6	08-Nov-17	14-Nov-17	25-Jul-18	31-Aug-18	100%																
A28180	Pressure Test	3	15-Nov-17	17-Nov-17	01-Sep-18	05-Sep-18	100%																
A28190	Backfill to ground level	3	18-Nov-17	21-Nov-17	06-Sep-18	10-Sep-18	100%																
Storm Drainage																							
Storm Drain DN1050 along Gridline A/14 (MH S2.8 to S2.9a to SE2.7)																							
A28650	Lay DN1050 pipe from Manholes S2.8 to S2.9a to SE2.7 (Approx. 37m)	7	20-Jan-18	29-Jan-18	30-May-18 A	04-Jul-18	100%																
A28660	Pressure Test	3	29-Jan-18	01-Feb-18	04-Jul-18	07-Jul-18	100%																
A28670	Backfill to existing ground level	5	01-Feb-18	07-Feb-18	07-Jul-18	13-Jul-18	100%																
A28640	Construct Manhole S2.9a & SE2.7	11	08-Jan-18	20-Jan-18	30-May-18 A	06-Jun-18 A	100%																
Storm Drain at Gridline M/13																							
A28880	Excavate and lay 225 U-Channel Drain with Gully Trap	3	07-Nov-17	10-Nov-17	29-Jun-18	03-Jul-18	100%																
A28890	Excavate trench and lay 150DN Pipe from Gully Trap to MH S2.13	5	10-Nov-17	16-Nov-17	04-Jul-18	09-Jul-18	100%																
A28900	Backfill to existing ground level	1	16-Nov-17	17-Nov-17	10-Jul-18	10-Jul-18	100%																
Storm Drain DN750 along Gridline A-B/14 (MH S2.9c to S2.9b to S2.9a)																							

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Activity ID	Activity Name	CMWP Dur.	CMWP - R0(D8) Start	CMWP - R0(D8) Finish	Actual / Forecast Start	Actual / Forecast Finish	Planned B/L % Complete	June							July							August				September									
								33							34							35				36									
								27	03	10	17	24	01	08	15	22	29	05	12	19	26	02	09	16	23										
A29020	Excavate Trial Trench	3	14-Nov-17	16-Nov-17	30-Jun-18	04-Jul-18	100%																												
A29030	Excavate to formation level	6	17-Nov-17	23-Nov-17	05-Jul-18	11-Jul-18	100%																												
A29050	Lay DN750 pipe from Manholes S2.9c to S2.9b to S2.9a (Approx. 21m)	6	11-Dec-17	16-Dec-17	09-Jul-18	14-Jul-18	100%																												
A29060	Pressure Test	3	18-Dec-17	20-Dec-17	16-Jul-18	18-Jul-18	100%																												
A29070	Backfill to existing ground level	3	21-Dec-17	23-Dec-17	19-Jul-18	21-Jul-18	100%																												
Storm Drain DN450 suspended along Gridline J/1'-M/1																																			
Storm Drain at Portion M12																																			
A29090	Install scaffolding @ M12	6	18-Jan-18	24-Jan-18	04-Jul-18	11-Jul-18*	100%																												
A29100	Install Brackets for Suspension Pipe	9	25-Jan-18	03-Feb-18	11-Jul-18	21-Jul-18	100%																												
A29110	Lay horizontal suspended DN450 pipe (Approx. 120m)	6	05-Feb-18	10-Feb-18	21-Jul-18	04-Aug-18	100%																												
A29120	Install suspended vertical Rain Water Outlet DN150 - 4 nos	2	07-Feb-18	09-Feb-18	24-Jul-18	14-Aug-18	100%																												
A29130	Install suspended vertical Drainage DN100 - 5 nos	5	09-Feb-18	15-Feb-18	14-Aug-18	07-Sep-18	100%																												
A29140	Pressure Test	3	15-Feb-18	22-Feb-18	07-Sep-18	11-Sep-18	100%																												
A29145	Removal of scaffolding @M12	4	22-Feb-18	27-Feb-18	11-Sep-18	15-Sep-18	100%																												
A29155	Finish clear up @ M12	1	27-Feb-18	28-Feb-18	15-Sep-18	17-Sep-18	100%																												
A29150	Complete suspended Storm Drain at Portion M12 & Remove scaffolding	0		27-Feb-18		15-Sep-18	100%																						◆ Complete suspended						
Storm Drain DN350 suspended along Gridline M/1-4																																			
Storm Drain at Portion M13																																			
A29160	External Wall @ Gridline M/1-4 (including Wall finish) - complete	0		24-Jan-18		04-Jul-18	100%																												
A29170	Install scaffolding @ M13	6	25-Jan-18	31-Jan-18	04-Jul-18	11-Jul-18	100%																												
A29180	Install Brackets for Suspension Pipe	9	01-Feb-18	10-Feb-18	11-Jul-18	21-Jul-18	100%																												
A29190	Lay suspended horizontal DN350 pipe (Approx. 50m)	6	12-Feb-18	21-Feb-18	04-Aug-18	11-Aug-18	100%																												
A29200	Install suspended vertical Rain Water Outlet DN150 - 2 nos	1	14-Feb-18	15-Feb-18	07-Aug-18	08-Aug-18	100%																												
A29210	Install suspended vertical Drainage Pipe DN100 - 2 nos	3	15-Feb-18	22-Feb-18	08-Aug-18	11-Aug-18	100%																												
A29220	Pressure Test	3	22-Feb-18	26-Feb-18	11-Aug-18	15-Aug-18	100%																												
A29225	Removal of scaffolding @M13	4	26-Feb-18	02-Mar-18	15-Aug-18	20-Aug-18	100%																												
A29235	Finish clear up @ M13	1	02-Mar-18	03-Mar-18	15-Sep-18	17-Sep-18	100%																												
A29230	Complete suspended Storm Drain at Portion M13	0		02-Mar-18		15-Sep-18	100%																						◆ Complete suspended						
Storm Drain DN250 suspended along Gridline M/4-12																																			
Storm Drain at Portion M14																																			
A29250	External Wall @ M14 Gridline M/4-12 (including Wall finish) - complete	0		24-Jan-18		04-Jul-18	100%																												
A29260	Install scaffolding at M14	6	01-Feb-18	07-Feb-18	11-Jul-18	18-Jul-18	100%																												
A29270	Install Brackets for Suspension Pipe	5	12-Feb-18	20-Feb-18	21-Jul-18	27-Jul-18	100%																												
A29280	Lay suspended horizontal DN250 pipe (Approx. 105m)	8	22-Feb-18	02-Mar-18	11-Aug-18	21-Aug-18	100%																												
A29310	Install suspended vertical Drainage Pipe DN100 - 5 nos	5	24-Feb-18	02-Mar-18	14-Aug-18	20-Aug-18	100%																												
A29290	Install suspended vertical Rain Water Outlet DN150 - 6 nos	3	24-Feb-18	28-Feb-18	14-Aug-18	17-Aug-18	100%																												
A29300	Install suspended vertical Rain Water Outlet DN80- 2 nos	1	28-Feb-18	01-Mar-18	17-Aug-18	18-Aug-18	100%																												
A29320	Pressure Test	3	03-Mar-18	06-Mar-18	21-Aug-18	24-Aug-18	100%																												
A29325	Removal of scaffolding @M14	4	07-Mar-18	10-Mar-18	24-Aug-18	29-Aug-18	100%																												
A29330	Complete suspended Storm Drain along Portion M14	0		10-Mar-18		15-Sep-18	100%																						◆ Complete suspended						
A29335	Finish clear up @ M13	1	12-Mar-18	12-Mar-18	15-Sep-18	17-Sep-18	100%																												
Storm Drain DN600 at Portion M45																																			
Storm Drain along Gridline D'-E'/1'-2' (MH WHC6_1c to S3.4)																																			
A29380	Formation and Construct MH S3.4	8	20-Oct-17	30-Oct-17	04-Jul-18	25-Jul-18	100%																												
Storm Drain along Gridline E'-G' / 1'-2' (MH S3.4 to S3.3 to S3.2)																																			
A29440	Formation & Construct MH S3.3 & S3.2	9	20-Oct-17	31-Oct-17	14-Jul-18	25-Jul-18	100%																												
A29470	Formation & Lay DN600 pipe from S3.4 to S3.3 to S3.2 (Approx 7m)	3	20-Oct-17	23-Oct-17	14-Jul-18	21-Jul-18	100%																												
A29450	Connect DN250 pipe x 3Nos to MH S3.3	1	31-Oct-17	31-Oct-17	24-Jul-18	25-Jul-18	100%																												
A29460	Connect DN250 pipe x 2Nos to MH S3.2	1	31-Oct-17	31-Oct-17	24-Jul-18	25-Jul-18	100%																												
A29480	Pressure Test	3	01-Nov-17	03-Nov-17	25-Jul-18	30-Jul-18	100%																												
A29490	Backfill trench to Ground Level	0	04-Nov-17		30-Jul-18		100%																						◆ Backfill trench to Ground Level, 30-Jul-18						
Storm Drain DN450 at Portion M01																																			
Storm Drain along Gridline G'-J' /1'-2' (MH S3.2 to S3.1 to S3.1b to S3.1a)																																			
A29500	Formation & Construct MH S3.1, S3.1b & S3.1a	14	04-Nov-17	20-Nov-17	04-Jul-18	25-Jul-18	100%																												
A29540	Formation & Lay DN450 pipe from MH3.2 to S3.1a (Approx. 39m)	4	04-Nov-17	08-Nov-17	06-Jul-18	12-Jul-18	100%																												
A29510	Connect DN200 pipe to MH S3.1	1	20-Nov-17	20-Nov-17	24-Jul-18	25-Jul-18	100%																												
A29520	Connect DN200 pipe to MH S3.1b	1	20-Nov-17	20-Nov-17	24-Jul-18	25-Jul-18	100%																												
A29530	Connect DN300 & DN400 pipe to MH S3.1a	1	20-Nov-17	20-Nov-17	24-Jul-18	25-Jul-18	100%																												
A29550	Pressure Test	3	21-Nov-17	23-Nov-17	25-Jul-18	30-Jul-18	100%																												
A29560	Backfill trench to Ground Level	2	24-Nov-17	25-Nov-17	30-Jul-18	01-Aug-18	100%																												
Storm Drain DN300 at Portion M44 (MH6_2a.1 to DM65)																																			
Grd Lvl - Storm / Drainage Connection (Outside SPS)																																			
A37300	Inform DSD for Inspection of Storm Drain	2	07-Dec-17	09-Dec-17	03-Jul-18	09-Jul-18	100%																												
A37310	DSD Inspection	1	09-Dec-17	11-Dec-17	10-Jul-18	10-Jul-18	100%																												
Grd Lvl - External Storm Drainage Connection																																			
A37460	DSD Inspection & Acceptance Test	11	17-Nov-17	30-Nov-17	12-Jul-18	24-Jul-18	100%																												
WSD																																			
Water Main Works at Portion M01 (Refer to M+ MEP Programme)																																			

Three Months Rolling Programme (3MRP) - Mth 33 30 June 2018

Activity ID	Activity Name	CMWP Dur.	CMWP - R0(D8) Start	CMWP - R0(D8) Finish	Actual / Forecast Start	Actual / Forecast Finish	Planned B/L % Complete	June					July					August				September		
								27	03	10	17	24	01	08	15	22	29	05	12	19	26	02	09	16
Cable Laying & Testing (By Telco)																								
A30990	Cable Laying & Testing (By Telco) @ GL M/14-12	2	30-Apr-18	03-May-18	14-Aug-18	15-Aug-18	100%																	
A30980	Cable Laying & Testing (By Telco) @ GL A-M/14	11	20-Apr-18	04-May-18	23-Aug-18	04-Sep-18	100%																	
Backfilling and EVA																								
Backfilling																								
A31080	Backfilling to +12.70mPD	16	04-Dec-17	21-Dec-17	14-Jul-18	02-Aug-18	100%																	
Construction of EVA																								
A31090	Construct EVA South of ICP (+5.00mPD)	8	24-May-18	02-Jun-18	09-Jul-18	18-Jul-18	100%																	
A31100	Construct EVA (+8.50mPD)	8	04-May-18	14-May-18	18-Sep-18	27-Sep-18	100%																	
A31110	Construct EVA (+10.50mPD)	9	14-May-18	25-May-18	28-Sep-18	09-Oct-18	100%																	
Fuel Tank																								
A31250	Excavate to Base Slab & Wall of Fuel Tank	11	20-Oct-17	02-Nov-17	29-Jun-18	12-Jul-18	100%																	
A31260	Construct Bottom Level of Fuel Oil Storage Tank	11	03-Nov-17	15-Nov-17	13-Jul-18	25-Jul-18	100%																	
A31270	Mechanical Fitting	16	16-Nov-17	04-Dec-17	26-Jul-18	13-Aug-18	100%																	
A38020	T&C of Fuel Oil Storage Tank	6	05-Dec-17	11-Dec-17	14-Aug-18	20-Aug-18	100%																	
A31280	Construct Top Level of Fuel Oil Storage Tank	13	12-Dec-17	28-Dec-17	21-Aug-18	04-Sep-18	100%																	
A31290	Backfill	11	29-Dec-17	11-Jan-18	05-Sep-18	17-Sep-18	100%																	
M+ ABWF & MEP																								
RC Structure Completion & De-propping Date																								
M+ Basement & Podium																								
B2/F																								
Scheduled De-propping																								
AS-B2-10	Scheduled De-propping - Zone A4-A5 - B2F	11	25-Oct-17	07-Nov-17	29-Jun-18	13-Jul-18	100%																	
AS-B2-10	Scheduled De-propping - Zone D1 - B2F	11	22-Jan-18	02-Feb-18	03-Jul-18	14-Jul-18	100%																	
AS-B2-10	Scheduled De-propping - Zone U - RDE - B2F	11	20-Oct-17	02-Nov-17	05-Jul-18	19-Jul-18	100%																	
AS-B2-10	Scheduled De-propping - Zone C - B2F	11	11-Nov-17	24-Nov-17	06-Jul-18	19-Jul-18	100%																	
AS-B2-10	Scheduled De-propping - Zone H - B2F	11	04-Nov-17	16-Nov-17	06-Jul-18	19-Jul-18	100%																	
AS-B2-10	Scheduled De-propping - Zone Q - B2F	11	22-Jan-18	02-Feb-18	19-Jul-18	31-Jul-18	100%																	
AS-B2-10	Scheduled De-propping - Zone B - B2F	11	09-Feb-18	24-Feb-18	01-Sep-18	13-Sep-18	100%																	
B1/F																								
RC Completion																								
AS-B1-10	RC Completion - Zone A4-A5 - B1F (GL 2-7/D-H)	0		25-Oct-17		29-Jun-18	100%	◆ RC Completion - Zone A4-A5 - B1F (GL 2-7/D-H)																
AS-B1-10	RC Completion - Zone D1 - B1F @ GL 7'-4/K-M	0		22-Jan-18		03-Jul-18	100%	◆ RC Completion - Zone D1 - B1F @ GL 7'-4/K-M																
AS-B1-10	RC Completion - Zone H - B1F @ GL 11-14/K-M	0		04-Nov-17		06-Jul-18	100%	◆ RC Completion - Zone H - B1F @ GL 11-14/K-M																
AS-B1-10	RC Completion - Zone J - B1F @ GL 12-14/G-H	0		23-May-18		17-Jul-18	100%	◆ RC Completion - Zone J - B1F @ GL 12-14/G-H																
AS-B1-10	RC Completion - Zone Q - B1F @ GL 6-7/E-F	0		22-Jan-18		18-Jul-18	100%	◆ RC Completion - Zone Q - B1F @ GL 6-7/E-F																
AS-B1-10	(no B1) RC Completion - Zone B - B1F @ GL 6-7/E-J	0		03-Jan-18		25-Jul-18	100%	◆ (no B1) RC Completion - Zone B - B1F @ GL 6-7/E-J																
AS-B1-10	RC Completion - Zone K & L - B1F @ GL 8-10/H-K, GL 12/G-H	0		28-Apr-18		02-Aug-18	100%	◆ RC Completion - Zone K & L - B1F @ GL 8-10/H-K, GL 12/G-H																
Scheduled De-propping																								
AS-B1-10	Scheduled De-propping - Zone U - RDE - B1F (GL 1'-6'/F'-J')	11	01-Nov-17	14-Nov-17	29-Jun-18	12-Jul-18	100%																	
AS-B1-10	Scheduled De-propping - Zone T - CSF - B1F (GL 1'-6'/A'-F')	11	20-Oct-17	02-Nov-17	29-Jun-18	06-Jul-18	100%																	
AS-B1-10	Scheduled De-propping - Zone E1 - B1F (GL 8-11/C-D)	11	16-Mar-18	29-Mar-18	29-Jun-18	12-Jul-18	100%																	
AS-B1-10	Scheduled De-propping - Zone E - B1F (GL 8-11/A-C)	11	28-Nov-17	11-Dec-17	29-Jun-18	12-Jul-18	100%																	
AS-B1-10	Scheduled De-propping - Zone S - B1F	11	18-Nov-17	01-Dec-17	29-Jun-18	13-Jul-18	100%																	
AS-B1-10	Scheduled De-propping - Zone H - B1F (GL 11-14/K-M)	11	05-Dec-17	16-Dec-17	06-Jul-18	19-Jul-18	100%																	
AS-B1-10	Scheduled De-propping - Zone A4-A5 - B1F	11	25-Nov-17	08-Dec-17	12-Jul-18	26-Jul-18	100%																	
AS-B1-10	Scheduled De-propping - Zone D1 - B1F GL (7'-4/K-M)	11	23-Feb-18	07-Mar-18	20-Jul-18	02-Aug-18	100%																	
AS-B1-10	(no B1) Scheduled De-propping - Zone B - B1F (GL 5-7/E-J)	11	03-Jan-18	15-Jan-18	26-Jul-18	07-Aug-18	100%																	
AS-B1-10	Scheduled De-propping - Zone G - B1F (GL 11-14/A-H)	11	28-May-18	08-Jun-18	02-Aug-18	15-Aug-18	100%																	
AS-B1-10	Scheduled De-propping - Zone Q - B1F (GL 5-7/D-F)	11	09-Feb-18	24-Feb-18	07-Aug-18	18-Aug-18	100%																	
AS-B1-10	Scheduled De-propping - Zone J - B1F (GL 12-14/G-H)	11	28-Jun-18	12-Jul-18	18-Aug-18	30-Aug-18	1.04%																	
AS-B1-10	Scheduled De-propping - Zone F - B1F	11	01-Jun-18	13-Jun-18	10-Sep-18	22-Sep-18	100%																	
AS-B1-10	Scheduled De-propping - Zone A1-A3 - B1F (GL 2-7/A-D)	11	03-Nov-17	16-Nov-17	13-Sep-18	27-Sep-18	100%																	
AS-B1-10	Scheduled De-propping - Zone K & L - B1F (GL 8-10/H-K, GL 12/G-H)	11	11-Jul-18	23-Jul-18	22-Sep-18	08-Oct-18	0%																	
LG/F																								
Scheduled De-propping																								
AS-LG-10	Scheduled De-propping - CSF - LGF (GL 1'-6'/D'-J')	11	02-Nov-17	15-Nov-17	29-Jun-18	12-Jul-18	100%																	
AS-LG-10	Scheduled De-propping - RDE - LGF (GL 1'-6'/F'-J')	11	02-Jan-18	15-Jan-18	29-Jun-18	12-Jul-18	100%																	
G/F																								
RC Completion																								
AS-GF-10	RC Completion - Zone A5 GF (3F GL 4-6/E-H)	0		30-Oct-17		12-Jul-18	100%	◆ RC Completion - Zone A5 GF (3F GL 4-6/E-H)																
AS-GF-10	RC Completion - Zone D1 GF (3F GL 1-5/K-M)	0		23-Feb-18		20-Jul-18	100%	◆ RC Completion - Zone D1 GF (3F GL 1-5/K-M)																
AS-GF-10	RC Completion - Zone S and R (EVA Area)	0		29-Mar-18		01-Aug-18	100%	◆ RC Completion - Zone S and R (EVA Area)																
AS-GF-10	RC Completion - Zone G - GF (GL 11-14/A-H)	0		28-May-18		02-Aug-18	100%	◆ RC Completion - Zone G - GF (GL 11-14/A-H)																
AS-GF-10	RC Completion - Zone C GF (GL 1-5/H-K)	0		26-Feb-18		06-Aug-18	100%	◆ RC Completion - Zone C GF (GL 1-5/H-K)																
AS-GF-10	RC Completion - Zone Q - GF	0		09-Feb-18		06-Aug-18	100%	◆ RC Completion - Zone Q - GF																
AS-GF-10	RC Completion - Zone J GF (3F GL 11-14/H-F)	0		28-Jun-18		17-Aug-18	100%	◆ RC Completion - Zone J GF (3F GL 11-14/H-F)																
AS-GF-10	RC Completion - Zone F - GF	0		01-Jun-18		10-Sep-18	100%	◆ RC Completion - Zone F - GF																

Three Months Rolling Programme (3MRP) - Mth 33 30 June 2018

Activity ID	Activity Name	CMWP Dur.	CMWP - R0(D8) Start	CMWP - R0(D8) Finish	Actual / Forecast Start	Actual / Forecast Finish	Planned B/L % Complete	June				July				August				September				
								27	03	10	17	24	01	08	15	22	29	05	12	19	26	02	09	16
M+ Tower RC Structure																								
AS-M+10050	9/F Curing & Falseworks Stripping	0		30-Apr-18		29-Jun-18	100%	9/F Curing & Falseworks Stripping, 11/F Curing & Falseworks Stripping, 12/F Curing & Falseworks Stripping, 13/F Curing & Falseworks Stripping, 14/F Curing & Falseworks Stripping, 15/F Curing & Falseworks Stripping, 16/F Curing & Falseworks Stripping																
AS-M+10070	11/F Curing & Falseworks Stripping	0		30-May-18		29-Jun-18	100%	11/F Curing & Falseworks Stripping																
AS-M+10090	12/F Curing & Falseworks Stripping	0		13-Jun-18		10-Jul-18	100%	12/F Curing & Falseworks Stripping																
AS-M+10110	13/F Curing & Falseworks Stripping	0		28-Jun-18		01-Aug-18	100%	13/F Curing & Falseworks Stripping																
AS-M+10120	14/F Curing & Falseworks Stripping	0		14-Jul-18		18-Aug-18	0%	14/F Curing & Falseworks Stripping																
AS-M+10140	15/F Curing & Falseworks Stripping	0		30-Jul-18		05-Sep-18	0%	15/F Curing & Falseworks Stripping																
AS-M+10160	16/F Curing & Falseworks Stripping	0		14-Aug-18		22-Sep-18	0%	16/F Curing & Falseworks Stripping																
AS-M+10060	10/F Curing & Falseworks Stripping	0		15-May-18		30-May-18 A	100%	10/F Curing & Falseworks Stripping																
CSF RC Structure																								
AS-CS-10060	6/F Curing & Falseworks Stripping	0		29-Jan-18		03-Jul-18	100%	6/F Curing & Falseworks Stripping																
AS-CS-10070	7/F Curing & Falseworks Stripping	0		14-Feb-18		24-Jul-18	100%	7/F Curing & Falseworks Stripping																
AS-CS-10080	8/F to +61mPD Curing & Falseworks Stripping	0		06-Mar-18		21-Aug-18	100%	8/F to +61mPD Curing & Falseworks Stripping																
AS-CS-10050	5/F Curing & Falseworks Stripping	0		12-Jan-18		29-May-18 A	100%	5/F Curing & Falseworks Stripping																
RDE RC Structure																								
AS-RD-1001	5/F Curing & Falseworks Stripping	0		24-Feb-18		29-Jun-18	100%	5/F Curing & Falseworks Stripping																
AS-RD-1001	6/F Curing & Falseworks Stripping	0		13-Mar-18		09-Jul-18	100%	6/F Curing & Falseworks Stripping																
AS-RD-1001	7/F Curing & Falseworks Stripping	0		29-Mar-18		26-Jul-18	100%	7/F Curing & Falseworks Stripping																
AS-RD-1001	8/F Curing & Falseworks Stripping	0		19-Apr-18		13-Aug-18	100%	8/F Curing & Falseworks Stripping																
AS-RD-1001	9/F Curing & Falseworks Stripping	0		07-May-18		29-Aug-18	100%	9/F Curing & Falseworks Stripping																
AS-RD-1011	10/F Curing & Falseworks Stripping	0		24-May-18		10-Sep-18	100%	10/F Curing & Falseworks Stripping																
AS-RD-1011	11/F Curing & Falseworks Stripping	0		09-Jun-18		24-Sep-18	100%	11/F Curing & Falseworks Stripping																
Watertight Achieved																								
M+ Podium																								
WA-PD-10	Zone A Facade Installation Completed (2F GL1-8/A & 1/A-H)	0		07-Mar-18		27-Aug-18	100%	Zone A Facade Installation Completed (2F GL1-8/A & 1/A-H)																
WA-PD-10	Zone M Facade Installation Completed (2F GL7-8/A-D)	0		18-May-18		28-Aug-18	100%	Zone M Facade Installation Completed (2F GL7-8/A-D)																
WA-PD-10	Zone P Plaza Skylight Installation Completed (3F GL6-7/E-H - FAC-SK-01,02)	0		29-Mar-18		08-Sep-18	100%	Zone P Plaza Skylight Installation Completed (3F GL6-7/E-H - FAC-SK-01,02)																
Provisional Items Cost Centre G (FS / OP non related items tentative for reference only)																								
1A) Fixed & loose furniture at Conservation & Storage Facilities																								
P1A6000	CAI for Fixed & loose furniture at Conservation & Storage Facilities	0				29-Jun-18	0%	CAI for Fixed & loose furniture at Conservation & Storage Facilities, 29-Jun-18																
P1A6010	Fixed & loose furniture at Conservation & Storage Facilities subletting	0				08-Jul-18	24-Aug-18	0%	P1A6010															
P1A6050	Fixed & loose furniture at Conservation & Storage Facilities Design/Shop drawing submit & approval	0				25-Aug-18	06-Jun-19	0%	P1A6050															
1B) Fixed & loose furniture at M+ Tower																								
P1B6000	CAI for Fixed & loose furniture at M+ Tower	0				29-Jun-18	0%	CAI for Fixed & loose furniture at M+ Tower, 29-Jun-18																
P1B6010	Fixed & loose furniture at M+ Tower subletting	0				08-Jul-18	24-Aug-18	0%	P1B6010															
P1B6060	Fixed & loose furniture at M+ Tower Design/Shop drawing submit & approval	0				25-Aug-18	08-Jun-19	0%	P1B6060															
1C) Fixed & loose furniture at M+ Galleries																								
P1C6000	CAI for Fixed & loose furniture at M+ Galleries	0				29-Jun-18	0%	CAI for Fixed & loose furniture at M+ Galleries, 29-Jun-18																
P1C6010	Fixed & loose furniture at M+ Galleries subletting	0				08-Jul-18	24-Aug-18	0%	P1C6010															
P1C6050	Fixed & loose furniture at M+ Galleries Design/Shop drawing submit & approval	0				25-Aug-18	08-Jun-19	0%	P1C6050															
1D) Juke Box equipment system & machinery																								
P1D6000	CAI for Juke Box equipment system & machinery	0				29-Jun-18	0%	CAI for Juke Box equipment system & machinery, 29-Jun-18																
P1D6010	Juke Box equipment system & machinery subletting	0				08-Jul-18	24-Aug-18	0%	P1D6010															
P1D6060	Fixed & loose furniture at M+ Galleries Design/Shop drawing submit & approval	0				25-Aug-18	08-Jun-19	0%	P1D6060															
1E) Fixed & loose furniture for Learning Centre																								
P1E6000	CAI for Fixed & loose furniture for Learning Centre	0				29-Jun-18	0%	CAI for Fixed & loose furniture for Learning Centre, 29-Jun-18																
P1E6010	Fixed & loose furniture for Learning Centre subletting	0				08-Jul-18	24-Aug-18	0%	P1E6010															
P1E6060	Fixed & loose furniture at M+ Galleries Design/Shop drawing submit & approval	0				25-Aug-18	08-Jun-19	0%	P1E6060															
1F) Fixed & loose furniture for Moving Image Centre																								
P1F6000	CAI for Fixed & loose furniture for Moving Image Centre	0				29-Jun-18	0%	CAI for Fixed & loose furniture for Moving Image Centre, 29-Jun-18																
P1F6010	Fixed & loose furniture for Moving Image Centre subletting	0				08-Jul-18	24-Aug-18	0%	P1F6010															
P1F6070	Fixed & loose furniture for Moving Image Centre Design/Shop drawing submit & approval	0				25-Aug-18	08-Jun-19	0%	P1F6070															
1G) Fixed & loose furniture at M+ Workshop & BOH Area																								
P1G6000	CAI for Fixed & loose furniture at M+ Workshop & BOH Area	0				29-Jun-18	0%	CAI for Fixed & loose furniture at M+ Workshop & BOH Area, 29-Jun-18																
P1G6010	Fixed & loose furniture at M+ Workshop & BOH Area subletting	0				08-Jul-18	24-Aug-18	0%	P1G6010															
P1G6080	Fixed & loose furniture at M+ Workshop & BOH Area Design/Shop drawing submit & approval	0				25-Aug-18	08-Jun-19	0%	P1G6080															
1H) Fitting out works for cafes at B1/F & L3/F																								
P1H6000	CAI for Fitting out works for cafes at B1/F & L3/F	0				29-Jun-18	0%	CAI for Fitting out works for cafes at B1/F & L3/F, 29-Jun-18																
P1H6010	Fitting out works for cafes at B1/F & L3/F subletting	0				08-Jul-18	24-Aug-18	0%	P1H6010															
P1H6090	Fitting out works for cafes at B1/F & L3/F Design/Shop drawing submit & approval	0				25-Aug-18	08-Jun-19	0%	P1H6090															
1J) Compliance of statutory requirement for food license works for Cafes at B1/F & L3/F																								
P1J6000	CAI for Compliance of statutory requirement for food license works for Cafes at B1/F & L3/F	0				29-Jun-18	0%	CAI for Compliance of statutory requirement for food license works for Cafes at B1/F & L3/F, 29-Jun-18																
P1J6010	Compliance of statutory requirement for food license works for Cafes at B1/F & L3/F	0				08-Jul-18	22-Dec-18	0%	P1J6010															
1K) Fixed & loose furniture at M+ Shop including Espresso Bar																								
P1K6000	CAI for Fixed & loose furniture at M+ Shop including Espresso Bar	0				29-Jun-18	0%	CAI for Fixed & loose furniture at M+ Shop including Espresso Bar, 29-Jun-18																
P1K6010	Fixed & loose furniture at M+ Shop including Espresso Bar subletting	0				08-Jul-18	24-Aug-18	0%	P1K6010															
P1K6100	Fixed & loose furniture at M+ Shop including Espresso Bar Design/Shop drawing submit & approval	0				25-Aug-18	08-Jun-19	0%	P1K6100															
2A) Non digital way-finding signage & digital signage																								

Lyric Theatre Complex

Activity ID	Activity Name	Start Date	Finish Date	2018			
				Aug 8	Sep 9	Oct 10	Nov 11
L1 Contract for Lyric Theatre Complex (3MRP)							
Cost Centre B - Excavation and Lateral Support (ELS) Stage 2							
Excavation and ELS Works (Stage 2)							
Area 1							
CB161450	Area 1: Excavate to -3.0mPD	10-Sep-18*	22-Sep-18				
CB161460	Area 1: Install Waling & Strut Layer S3	24-Sep-18	12-Oct-18				
CB161470	Area 1: Excavate to -6.1mPD	13-Oct-18	31-Oct-18				
CB161480	Area 1: Install Waling & Strut Layer S4	01-Nov-18	17-Nov-18				
CB161490	Area 1: Excavate to -9.0, -11.3, -14.2 w/ soil Berm	19-Nov-18	05-Dec-18*				
Area 2							
CB162440	Area 2: Install Waling & Strut Layer S2	13-Jul-18 A	06-Aug-18 A				
CB162450	Area 2: Excavate to -3.0mPD	17-Sep-18	02-Oct-18				
CB162460	Area 2: Install Waling & Strut Layer S3	03-Oct-18	20-Oct-18				
CB162470	Area 2: Area 2: Excavate to -6.1mPD	22-Oct-18	07-Nov-18				
CB162480	Area 2: Install Waling & Strut Layer S4	08-Nov-18	24-Nov-18				
CB162490	Area 2: Excavate to -9.0, -11.3, -14.2 w/ soil Berm	26-Nov-18	12-Dec-18*				
Area 3							
CB163440	Area 3: Install Waling & Strut Layer S2	18-Jul-18 A	14-Aug-18 A				
CB163450	Area 3: Excavate to -3.0mPD	24-Sep-18	12-Oct-18				
CB163460	Area 3: Install Waling & Strut Layer S3	13-Oct-18	31-Oct-18				
CB163470	Area 3: Excavate to -6.1mPD	01-Nov-18	17-Nov-18				
CB163480	Area 3: Install Waling & Strut Layer S4	19-Nov-18	08-Dec-18				
Area 4							
CB164440	Area 4: Install Waling & Strut Layer S2	03-Aug-18 A	01-Sep-18				
CB164450	Area 4: Excavate to -3.0mPD	13-Oct-18	31-Oct-18				
CB164460	Area 4: Install Waling & Strut Layer S3	01-Nov-18	17-Nov-18				
CB164470	Area 4: Excavate to -6.1mPD	19-Nov-18	05-Dec-18				

Remaining Work Critical Remaining Work Actual Work Milestone	Project ID: L13MRP-20180831 Layout: L1-3MRP (Env) Page: 1 of 2	<p align="center"> West Kowloon Cultural District Authority L1 Contract for Lyric Theatre Complex & Extended Basement Three Month Rolling Programme (3MRP) - Status as of 31 Aug 2018 </p>	
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Activity ID	Activity Name	Start Date	Finish Date	2018			
				Aug 8	Sep 9	Oct 10	Nov 11
Cost Centre C - Basement							
Cost Centre C1 - Essential Basement Structure (Excl. AET Protection & Box Culvert)							
Area 6							
CC106110	B1-A1a: Pile Head Treatment / Blinding / Pile Cap / Slab	09-Jun-18 A	22-Sep-18				
CC106210	B1-A2a: Pile Head Treatment / Blinding / Pile Cap / Slab	13-Jun-18 A	13-Oct-18				
CC106120	B1-A1b: Pile Head Treatment / Blinding / Pile Cap / Slab	03-Jul-18 A	29-Sep-18				
CC106220	B1-A2b: Pile Head Treatment / Blinding / Pile Cap / Slab	23-Jul-18 A	13-Oct-18				
CC106510	B1-A5: Pile Head Treatment / Blinding / Pile Cap / Slab	07-Aug-18 A	13-Oct-18				
CC106410	B1-A4: Pile Head Treatment / Blinding / Pile Cap / Slab	10-Sep-18	24-Oct-18				
CC106310	B1-A3: Pile Head Treatment / Blinding / Pile Cap / Slab	24-Sep-18	07-Nov-18				
Cost Centre D - Public Infrastructure Works (PIW)							
Cost Centre D2 - Austin Road West Lay-by							
MC30-Ch.160 to MC30-Ch.150 (MH EAR 2.18a to SF_1.4)							
CD201460	MC30 Ch.150-Ch.170: Install Drainage bet. MH EAR_2.18 to SF_1.4)	25-Jul-18 A	09-Aug-18 A				
CD201470	MC30 Ch.150-Ch.170:Construct Manhole SF_1.4	25-Jul-18 A	29-Aug-18 A				
MC30-Ch.150 to MC30-Ch.100 (MH SF_1.4 to SF_1.3)							
CD201320	MC30 CH100-Ch150: Install Sheet Pile Wall	25-Jul-18 A	18-Aug-18 A				
CD201330	MC30 CH100-Ch150:Excavation & ELS	07-Aug-18 A	31-Aug-18 A				
CD201340	MC30 CH30-Ch40: Install Drainage Pipe (bet. MH SF_1.4 to MH SF_1.3)	16-Aug-18 A	08-Sep-18				
CD201350	MC30 CH30-Ch40: Construct Manhole SF_1.3	10-Sep-18	02-Oct-18*				
MC30-Ch.100 to MC30-Ch.60 (MH SF_1.3 to SF1.2)							
CD201210	MC30 CH60-Ch100: Excavation for Trail Trench	16-Aug-18 A	25-Aug-18 A				
CD201220	MC30 CH60-Ch100: Install Sheet Pile Wall	24-Aug-18 A	21-Sep-18				
CD201230	MC30 CH60-Ch100: Excavation & ELS	14-Sep-18	06-Oct-18				
CD201240	MC30 CH60-Ch100: Install Drainage Pipe (bet. MH SF_1.3 to MH SF_1.2)	08-Oct-18	22-Oct-18				
CD201250	MC30 CH60-Ch100: Construct Manhole SF_1.2	23-Oct-18	12-Nov-18*				

Remaining Work
 Critical Remaining Work
 Actual Work
 Milestone

Project ID: L13MRP-20180831
 Layout: L1-3MRP (Env)
 Page: 2 of 2

West Kowloon Cultural District Authority
L1 Contract for Lyric Theatre Complex & Extended Basement
Three Month Rolling Programme (3MRP) - Status as of 31 Aug 2018



C. Action and Limit Levels for Construction Phase

Air Quality

The Action and Limit Levels for 1-hour and 24-hour TSP for the monitoring station are presented in following tables:

Table C-1: Action and Limit Levels for 1-hour TSP

Monitoring Station	Action Level (mg/m ³)	Limit Level (mg/m ³)
AM1	273.7	500
AM2A	274.2	500

Table C-2: Action and Limit Levels for 24-hour TSP

Monitoring Station	Action Level (µg/m ³)	Limit Level (µg/m ³)
AM1	143.6	260
AM2A	151.1	260

Noise

The Action and Limit Levels for Noise for the monitoring stations are presented in following table:

Table C-3: Action and Limit Levels for Construction Noise

Time Period & Monitoring Locations	Action Level	Limit Level
NM1A		
0700-1900 hours on normal weekdays	When one documented complaint is received from any one of the sensitive receivers	75 dB(A)

D. Event and Action Plan for Air Quality, Noise, Landscape and Visual Impact

Air Quality

In case the Action and Limit Levels are not complied during construction stage, the following Event and Action Plan should be followed:

Table D-1: Event and Action Plan for Air Quality

Event	Action			
	ET	IEC	WKCD A	Contractor
Action Level				
1. Exceedance for one sample	<ol style="list-style-type: none"> 1. Identify source, investigate the causes of exceedance and propose remedial measures; 2. Inform IEC and WKCD A; 3. Repeat measurement to confirm finding; 4. Increase monitoring frequency to daily. 	<ol style="list-style-type: none"> 1. Check monitoring data submitted by ET; 2. Check Contractor's working method. 	<ol style="list-style-type: none"> 1. Notify Contractor 	<ol style="list-style-type: none"> 1. Rectify any unacceptable practice; 2. Amend working methods if appropriate.
2. Exceedance for two or more consecutive samples	<ol style="list-style-type: none"> 1. Identify source; 2. Inform IEC and WKCD A; 3. Advise the WKCD A on the effectiveness of the proposed remedial measures; 4. Repeat measurements to confirm findings; 5. Increase monitoring frequency to daily; 6. Discuss with IEC and Contractor on remedial actions required; 7. If exceedance continues, arrange meeting with IEC and WKCD A; 8. If exceedance stops, cease additional monitoring. 	<ol style="list-style-type: none"> 1. Check monitoring data submitted by ET; 2. Check Contractor's working method; 3. Discuss with ET and Contractor on possible remedial measures; 4. Advise the ET on the effectiveness of the proposed remedial measures; 5. Monitor the implementation of remedial measures. 	<ol style="list-style-type: none"> 1. Confirm receipt of notification of failure in writing; 2. Notify Contractor; 3. Ensure remedial measures properly implemented. 	<ol style="list-style-type: none"> 1. Submit proposals for remedial to WKCD A within three working days of notification; 2. Implement the agreed proposals; 3. Amend proposal if appropriate.
Limit Level				
1. Exceedance for one sample	<ol style="list-style-type: none"> 1. Identify source, investigate the causes of exceedance and propose remedial measures; 2. Inform WKCD A, Contractor and EPD; 3. Repeat measurement to confirm finding; 4. Increase monitoring frequency to daily; 5. Assess effectiveness of Contractor's remedial actions and keep IEC, EPD and WKCD A informed of the results. 	<ol style="list-style-type: none"> 1. Check monitoring data submitted by ET; 2. Check Contractor's working method; 3. Discuss with ET and Contractor on possible remedial measures; 4. Advise the WKCD A on the effectiveness of the proposed remedial measures; 5. Monitor the implementation of remedial measures. 	<ol style="list-style-type: none"> 1. Confirm receipt of notification of failure in writing; 2. Notify Contractor; 3. Ensure remedial measures properly implemented. 	<ol style="list-style-type: none"> 1. Take immediate action to avoid further exceedance; 2. Submit proposals for remedial actions to IEC within three working days of notification; 3. Implement the agreed proposals; 4. Amend proposal if appropriate.

Event**Action**

2. Exceedance for two or more consecutive samples	<ol style="list-style-type: none">1. Notify IEC, WKCDA, Contractor and EPD;2. Identify source;3. Repeat measurement to confirm findings;4. Increase monitoring frequency to daily;5. Carry out analysis of Contractor's working procedures to determine possible mitigation to be implemented;6. Arrange meeting with IEC and WKCDA to discuss the remedial actions to be taken;7. Assess effectiveness of Contractor's remedial actions and keep IEC, EPD and WKCDA informed of the results;8. If exceedance stops, cease additional monitoring.	<ol style="list-style-type: none">1. Check monitoring data submitted by ET;2. Check Contractor's working method;3. Discuss amongst WKCDA, ET, and Contractor on the potential remedial actions;4. Review Contractor's remedial actions whenever necessary to assure their effectiveness and advise the WKCDA accordingly;5. Monitor the implementation of remedial measures.	<ol style="list-style-type: none">1. Confirm receipt of notification of failure in writing;2. Notify Contractor;3. In consolidation with the IEC, agree on the remedial measures to be implemented;4. Ensure remedial measures properly implemented;5. If exceedance continues, consider what portion of the work is responsible and instruct the Contractor to stop that portion of work until the exceedance is abated.	<ol style="list-style-type: none">1. Take immediate action to avoid further exceedance;2. Submit proposals for remedial actions to IEC within three working days of notification;3. Implement the agreed proposals;4. Resubmit proposals if problem still not under control;5. Stop the relevant portion of works as determined by the WKCDA until the exceedance is abated.
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Construction Noise

In case the Action and Limit Levels are not complied during construction stage, the following Event and Action Plan should be followed:

Table D-2: Event and Action Plan for Construction Noise

Event	Action			
	ET	IEC	WKCD	Contractor
Action Level	<ol style="list-style-type: none"> 1. Notify WKCD, IEC and Contractor; 2. Carry out investigation; 3. Report the results of investigation to the IEC, WKCD and Contractor; 4. Discuss with the IEC and Contractor on remedial measures required; 5. Increase monitoring frequency to check mitigation effectiveness. 	<ol style="list-style-type: none"> 1. Review the investigation results submitted by the ET; 2. Review the proposed remedial measures by the Contractor and advise the WKCD accordingly; 3. Advise the WKCD on the effectiveness of the proposed remedial measures. 	<ol style="list-style-type: none"> 1. Confirm receipt of notification of failure in writing; 2. Notify Contractor; 3. In consolidation with the IEC, agree with the Contractor on the remedial measures to be implemented; 4. Supervise the implementation of remedial measures. 	<ol style="list-style-type: none"> 1. Submit noise mitigation proposals to IEC and WKCD; 2. Implement noise mitigation proposals.
Limit Level	<ol style="list-style-type: none"> 1. Inform IEC, WKCD, Contractor and EPD; 2. Repeat measurements to confirm findings; 3. Increase monitoring frequency; 4. Identify source and investigate the cause of exceedance; 5. Carry out analysis of Contractor's working procedures; 6. Discuss with the IEC, Contractor and WKCD on remedial measures required; 7. Assess effectiveness of Contractor's remedial actions and keep IEC, EPD and WKCD informed of the results; 8. If exceedance stops, cease additional monitoring. 	<ol style="list-style-type: none"> 1. Discuss amongst WKCD, ET, and Contractor on the potential remedial actions; 2. Review Contractor's remedial actions whenever necessary to assure their effectiveness and advise the WKCD accordingly. 	<ol style="list-style-type: none"> 1. Confirm receipt of notification of failure in writing; 2. Notify Contractor; 3. In consolidation with the IEC, agree with the Contractor on the remedial measures to be implemented; 4. Supervise the implementation of remedial measures; 5. If exceedance continues, consider stopping the Contractor to continue working on that portion of work which causes the exceedance until the exceedance is abated. 	<ol style="list-style-type: none"> 1. Take immediate action to avoid further exceedance; 2. Submit proposals for remedial actions to IEC and WKCD within 3 working days of notification; 3. Implement the agreed proposals; 4. Submit further proposal if problem still not under control; 5. Stop the relevant portion of works as instructed by the WKCD until the exceedance is abated.

Landscape and Visual Impact

In case of non-compliance of landscape and visual impacts, procedures in accordance with the Event and Action Plan should be followed:

Table D-3: Event and Action Plan for Landscape and Visual Impact

Event	Action			
	ET	IEC	WKCD A	Contractor
Design Check	<ol style="list-style-type: none"> 1. Design check to make sure the design complies with all the proposed mitigation measures in the EIA report; 2. Prepare and submit report. 	<ol style="list-style-type: none"> 1. Check report submitted by ET; 2. Recommend remedial design if necessary. 	<ol style="list-style-type: none"> 1. Undertake remedial design if necessary. 	-
Non-conformity on one occasion	<ol style="list-style-type: none"> 1. Identify source of non-conformity; 2. Report to IEC and WKCD A; 3. Discuss remedial actions with IEC, WKCD A and Contractor; 4. Monitor remedial actions until rectification has been completed. 	<ol style="list-style-type: none"> 1. Check and verify source of non-conformity; 2. Discuss remedial actions with ET and Contractor; 3. Advise WKCD A on effectiveness of proposed remedial actions; 4. Check implementation of remedial actions. 	<ol style="list-style-type: none"> 1. Notify Contractor; 2. Ensure remedial actions are properly implemented. 	<ol style="list-style-type: none"> 1. Amend working method as necessary; 2. Rectify damage and undertake necessary replacement and remedial actions.
Repeated conformity	<ol style="list-style-type: none"> 1. Identify source of non-conformity; 2. Report to IEC and WKCD A; 3. Increase monitoring frequency; 4. Discuss remedial actions with IEC, WKCD A and Contractor; 5. Monitor remedial actions until rectification has been completed; 6. If non-conformity rectified, reduce monitoring frequency back to normal. 	<ol style="list-style-type: none"> 1. Check and verify source of non-conformity; 2. Check Contractor's working method; 3. Discuss remedial actions with ET and Contractor; 4. Advise WKCD A on effectiveness of proposed remedial actions; 5. Supervise implementation of remedial actions. 	<ol style="list-style-type: none"> 1. Notify Contractor; 2. Ensure remedial actions are properly implemented. 	<ol style="list-style-type: none"> 1. Amend working method as necessary; 2. Rectify damage and undertake necessary replacement and remedial actions.

E. Monitoring Schedule

AUGUST 2018

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
			1	2	3	4
5	6 AM1, AM2A - 24hrTSP, 1hr TSP x3 NM1A - Noise Impact Monitoring	7	8	9	10 AM1, AM2A - 24hrTSP, 1hr TSP x3	11
12	13	14	15	16 AM1, AM2A - 24hrTSP, 1hr TSP x3 NM1A - Noise Impact Monitoring	17	18
19	20	21	22 AM1, AM2A - 24hrTSP, 1hr TSP x3 NM1A - Noise Impact Monitoring	23	24	25
26	27	28 AM1, AM2A - 24hrTSP, 1hr TSP x3 NM1A - Noise Impact Monitoring	29	30	31	
		Notes: AM1 - International Commerce Centre (ICC) AM2A - Austin Road West (Opposite to The Harbourside) NM1A - International Commerce Centre (ICC)				

SEPTEMBER 2018

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
						1
2	3 AM1, AM2A - 24hrTSP, 1hr TSP x3 NM1A - Noise Impact Monitoring	4	5	6	7 AM1, AM2A - 24hrTSP, 1hr TSP x3	8
9	10	11	12	13 AM1, AM2A - 24hrTSP, 1hr TSP x3 NM1A - Noise Impact Monitoring	14	15
16	17	18	19 AM1, AM2A - 24hrTSP, 1hr TSP x3 NM1A - Noise Impact Monitoring	20	21	22
23	24 AM1, AM2A - 24hrTSP, 1hr TSP x3 NM1A - Noise Impact Monitoring	25	26	27	28	29 AM1, AM2A - 24hrTSP, 1hr TSP x3
30		Notes: AM1 - International Commerce Centre (ICC) AM2A - Austin Road West (Opposite to The Harbourside) NM1A - International Commerce Centre (ICC)				

F. Calibration Certifications

High-Volume TSP Sampler
5-Point Calibration Record

Location : AM1(ICC)
 Calibrated by : K.T.Ho
 Date : 12/06/2018

Sampler

Model : TE-5170
 Serial Number : S/N 0767

Calibration Orifice and Standard Calibration Relationship

Serial Number : 2454
 Service Date : 19 Mar 2018
 Slope (m) : 2.05242
 Intercept (b) : -0.01383
 Correlation Coefficient(r) : 0.99994

Standard Condition

Pstd (hpa) : 1013
 Tstd (K) : 298.18

Calibration Condition


Pa (hpa) : 1002
 Ta(K) : 302

Resistance Plate	dH [green liquid] (inch water)	Z	X=Qstd (cubic meter/min)	IC (chart)	Y (corrected)
1 18 holes	10.0	3.124	1.529	58	57.30
2 13 holes	6.8	2.576	1.262	48	47.42
3 10 holes	4.8	2.164	1.061	38	37.54
4 7 holes	3.2	1.767	0.868	30	29.64
5 5 holes	2.2	1.465	0.721	20	19.76

Notes: $Z = \sqrt{dH(Pa/Pstd)(Tstd/Ta)}$, $X = Z/m - b$, $Y(\text{Corrected Flow}) = IC * \{\sqrt{Pa/Pstd}(Tstd/Ta)\}$

Sampler Calibration Relationship

Slope(m): 45.752 Intercept(b): -11.452 Correlation Coefficient(r): 0.9954

Checked by: 
 Magnum Fan

Date: 15/06/2018

High-Volume TSP Sampler
5-Point Calibration Record

Location : AM1(ICC)
 Calibrated by : K.T.Ho
 Date : 12/08/2018

Sampler

Model : TE-5170
 Serial Number : S/N 0767

Calibration Orifice and Standard Calibration Relationship

Serial Number : 2454
 Service Date : 19 Mar 2018
 Slope (m) : 2.05242
 Intercept (b) : -0.01383
 Correlation Coefficient(r) : 0.99994

Standard Condition

Pstd (hpa) : 1013
 Tstd (K) : 298.18

Calibration Condition


Pa (hpa) : 996
 Ta(K) : 301

Resistance Plate		dH [green liquid] (inch water)	Z	X=Qstd (cubic meter/min)	IC (chart)	Y (corrected)
1	18 holes	10.2	3.151	1.542	58	57.22
2	13 holes	7.0	2.610	1.279	48	47.36
3	10 holes	5.2	2.250	1.103	36	35.52
4	7 holes	3.8	1.923	0.944	26	25.65
5	5 holes	2.6	1.591	0.782	18	17.76

Notes: $Z = \sqrt{dH(Pa/Pstd)(Tstd/Ta)}$, $X = Z/m - b$, $Y(\text{Corrected Flow}) = IC * \sqrt{Pa/Pstd}(Tstd/Ta)$

Sampler Calibration Relationship

Slope(m): 53.735 Intercept(b): -24.01 Correlation Coefficient(r): 0.9946

Checked by: 
 Magnum Fan

Date: 14/08/2018

High-Volume TSP Sampler
5-Point Calibration Record

Location : AM2A (Harbourside)
 Calibrated by : K.T.Ho
 Date : 12/06/2018

Sampler

Model : TE-5170
 Serial Number : S/N 8919

Calibration Orifice and Standard Calibration Relationship

Serial Number : 2454
 Service Date : 19 Mar 2018
 Slope (m) : 2.05242
 Intercept (b) : -0.01383
 Correlation Coefficient(r) : 0.99994

Standard Condition

Pstd (hpa) : 1013
 Tstd (K) : 298.18

Calibration Condition


Pa (hpa) : 1002
 Ta(K) : 302

Resistance Plate		dH [green liquid] (inch water)	Z	X=Qstd (cubic meter/min)	IC (chart)	Y (corrected)
1	18 holes	12.0	3.422	1.674	60	59.28
2	13 holes	8.2	2.829	1.385	50	49.40
3	10 holes	6.0	2.420	1.186	40	39.52
4	7 holes	3.8	1.926	0.945	30	29.64
5	5 holes	2.4	1.531	0.752	20	19.76

Notes: $Z = \sqrt{dH(Pa/Pstd)(Tstd/Ta)}$, $X = Z/m - b$, $Y(\text{Corrected Flow}) = IC * \{\sqrt{Pa/Pstd}(Tstd/Ta)\}$

Sampler Calibration Relationship

Slope(m): 43.056 Intercept(b): -11.656 Correlation Coefficient(r): 0.9976

Checked by: 
 Magnum Fan

Date: 15/06/2018

High-Volume TSP Sampler
5-Point Calibration Record

Location : AM2A (Harbourside)
 Calibrated by : K.T.Ho
 Date : 12/08/2018

Sampler

Model : TE-5170
 Serial Number : S/N 8919

Calibration Orifice and Standard Calibration Relationship

Serial Number : 2454
 Service Date : 19 Mar 2018
 Slope (m) : 2.05242
 Intercept (b) : -0.01383
 Correlation Coefficient(r) : 0.99994

Standard Condition

Pstd (hpa) : 1013
 Tstd (K) : 298.18

Calibration Condition


Pa (hpa) : 996
 Ta(K) : 301

Resistance Plate	dH [green liquid] (inch water)	Z	X=Qstd (cubic meter/min)	IC (chart)	Y (corrected)
1 18 holes	12.2	3.446	1.686	62	61.17
2 13 holes	8.8	2.927	1.433	52	51.30
3 10 holes	6.4	2.496	1.223	40	39.46
4 7 holes	4.0	1.973	0.968	32	31.57
5 5 holes	2.6	1.591	0.782	20	19.73

Notes: $Z = \text{SQRT}\{dH(Pa/Pstd)(Tstd/Ta)\}$, $X = Z/m - b$, $Y(\text{Corrected Flow}) = IC * \{\text{SQRT}(Pa/Pstd)(Tstd/Ta)\}$

Sampler Calibration Relationship

Slope(m): 44.962 Intercept(b): -14.128 Correlation Coefficient(r): 0.9954

Checked by: 
 Magnum Fan

Date: 14/08/2018



Certificate of Calibration

Calibration Certification Information			
Cal. Date: March 19, 2018	Rootsmeter S/N: 438320	Ta: 294	°K
Operator: Jim Tisch		Pa: 746.8	mm Hg
Calibration Model #: TE-5025A	Calibrator S/N: 2454		

Run	Vol. Init (m3)	Vol. Final (m3)	ΔVol. (m3)	ΔTime (min)	ΔP (mm Hg)	ΔH (in H2O)
1	1	2	1	1.4300	3.2	2.00
2	3	4	1	1.0040	6.4	4.00
3	5	6	1	0.9030	7.9	5.00
4	7	8	1	0.8590	8.7	5.50
5	9	10	1	0.7080	12.8	8.00

Data Tabulation					
Vstd (m3)	Qstd (x-axis)	$\sqrt{\Delta H \left(\frac{Pa}{Pstd} \right) \left(\frac{Tstd}{Ta} \right)}$ (y-axis)	Va	Qa (x-axis)	$\sqrt{\Delta H \left(\frac{Ta}{Pa} \right)}$ (y-axis)
0.9917	0.6935	1.4113	0.9957	0.6963	0.8874
0.9874	0.9835	1.9959	0.9914	0.9875	1.2549
0.9854	1.0913	2.2315	0.9894	1.0957	1.4030
0.9843	1.1459	2.3405	0.9883	1.1506	1.4715
0.9789	1.3826	2.8227	0.9829	1.3882	1.7747
QSTD	m=	2.05242	QA	m=	1.28519
	b=	-0.01383		b=	-0.00869
	r=	0.99994		r=	0.99994

Calculations	
Vstd= $\Delta Vol \left(\frac{Pa - \Delta P}{Pstd} \right) \left(\frac{Tstd}{Ta} \right)$	Va= $\Delta Vol \left(\frac{Pa - \Delta P}{Pa} \right)$
Qstd= Vstd/ΔTime	Qa= Va/ΔTime
For subsequent flow rate calculations:	
Qstd= $1/m \left(\left(\sqrt{\Delta H \left(\frac{Pa}{Pstd} \right) \left(\frac{Tstd}{Ta} \right)} \right) - b \right)$	Qa= $1/m \left(\left(\sqrt{\Delta H \left(\frac{Ta}{Pa} \right)} \right) - b \right)$

Standard Conditions	
Tstd:	298.15 °K
Pstd:	760 mm Hg
Key	
ΔH: calibrator manometer reading (in H2O)	
ΔP: rootsmeter manometer reading (mm Hg)	
Ta: actual absolute temperature (°K)	
Pa: actual barometric pressure (mm Hg)	
b: intercept	
m: slope	

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

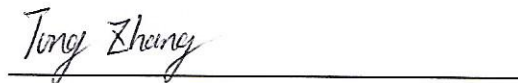
CALIBRATION CERTIFICATE

Date: April 6th, 2018

Equipment Name	:	Digital Dust Indicator, Model LD-5R
Code No.	:	080000-72
Quantity	:	1 unit
Serial No.	:	841723
Sensitivity	:	0.001 mg/m ³
Sensitivity Adjustment	:	615CPM
Scale Setting	:	April 2rd, 2018

We hereby certify that the above mentioned instrument has been calibrated satisfactory.

Sincerely

SIBATA SCIENTIFIC TECHNOLOGY LTD.

Tong Zhang

Overseas Sales Division



REPORT OF EQUIPMENT PERFORMANCE CHECK / CALIBRATION

REPORT NO. : HK180419
 PROJECT NAME : PERFORMANCE CHECK / CALIBRATION OF DUST METER
 DATE OF ISSUE : 2/5/2018

CUSTOMER : Envirotech Services Company
 ADDRESS : Rm. 113, 1/F., MY LOFT, 9 HOI WING ROAD, TUEN MUN, N.T.

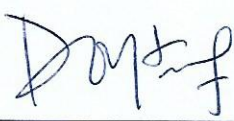
REPORT NO. : HK180419
 PROJECT ITEM NO. : HK180419-01
 PERFORMANCE CHECK / CALIBRATED EQUIPMENT
 TYPE : Digital Dust Indicator
 MANUFACTURER : SIBATA
 MODEL NO. : LD-5R
 SERIAL NO. : 841723
 EQUIPMENT NO. : ---
 RECEIPT DATE : 27/4/2018
 PERFORMANCE CHECK / CALIBRATION DATE : 28/4/2018

PERFORMANCE CHECK / CALIBRATION Information

CODE	Calibration Parameter	Method Procedure	Reference Method
Dust PC/CAL	Performance Check / Calibration of Dust Meter	CAL003	General Technical Requirements of Environmental Monitoring, Environmental Monitoring & Audit Guidelines for Development Projects in HK

- Notes : 1. This report shall not be reproduced, except in full, without prior approval from Pilot Testing Limited.
 2. Performance Check / Calibration result relates to performance check / calibration item(s) as received.

Approved Signatory

: 

 Wong Po Yan Pauline
 (Assistant Laboratory Manager)

Issue Date: 2/5/2018


REPORT OF PERFORMANCE CHECK / CALIBRATION

PROJECT NAME : PERFORMANCE CHECK / CALIBRATION OF DUST METER
 DATE OF ISSUE : 2/5/2018
 REPORT NO. : HK180419

PERFORMANCE CHECK / CALIBRATED EQUIPMENT

TYPE : Digital Dust Indicator
 MANUFACTURER : SIBATA
 MODEL NO. : LD-5R
 SERIAL NO. : 841723
 EQUIPMENT NO. : ---
 SENSITIVITY ADJUSTMENT (CPM) : 615
 PERFORMANCE CHECK / CALIBRATION DATE : 28/4/2018

STANDARD EQUIPMENT

TYPE : HIGH VOLUME AIR SAMPLER
 MANUFACTURER : TISCH
 MODEL NO. : TE-5170
 EQUIPMENT REF NO. : PTL_HV002
 LAST CALIBRATION DATE : 27/4/2018

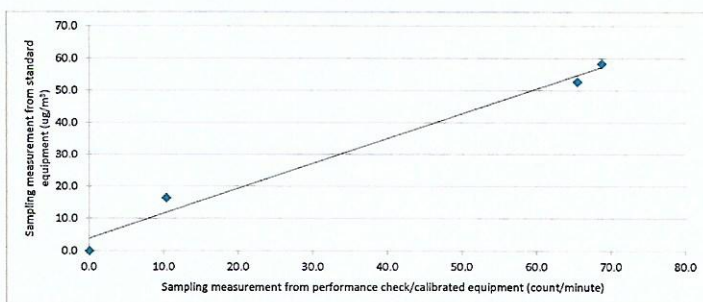
EQUIPMENT PERFORMANCE CHECK / CALIBRATION RESULTS:

Sensitivity Adjustment Scale Setting (Before Performance check / Calibration): 615 CPM
 Sensitivity Adjustment Scale Setting (After Performance check / Calibration): 615 CPM

Trial no. in 1-hr period	Time	Mean Temp (°C)	Mean Pressure (hPa)	Concentration in ug/m ³ (Standard equipment) (Y - Axis)	Total Count ² (Performance Check / Calibrated equipment)	Concentration in Count/Minute ³ (Performance Check / Calibrated equipment) (X - Axis)
Zero Check ¹	28/4/2018,9:50:00 AM	24.9	1015	0	0	0
1	28/4/2018,11:32:00 AM	24.9	1015	53	3926	65
2	28/4/2018,12:38:00 PM	24.9	1015	58	4121	69
3	28/4/2018,1:46:00 PM	24.9	1015	16	618	10

Linear Regression of Y on X

Slope (K- factor) : 0.8
 Correlation Coefficient : 0.9914
 Validity of Performance Check / Calibration Record : 28/4/2019



- Notes : 1. Zero check conducted as per CAL003 SOP and manufacturer's manual as appropriate.
 2. Total Count was measured by Digital Dust Indicator.
 3. Count/minute was calculated by (Total Count/60)
 4. This report shall not be reproduced, except in full, without prior approval from Pilot Testing Limited.
 5. Performance Check / Calibration result relates to performance check / calibration item(s) as received.

Operator: MA Ching Him, Jackey Signature: Date: 28/4/2018

Checked by: Wong Po Yan, Pauline Signature: Date: 2/5/2018

CALIBRATION CERTIFICATE

Date: April 6th, 2018

Equipment Name	:	Digital Dust Indicator, Model LD-5R
Code No.	:	080000-72
Quantity	:	1 unit
Serial No.	:	841724
Sensitivity	:	0.001 mg/m ³
Sensitivity Adjustment	:	618CPM
Scale Setting	:	April 2rd, 2018

We hereby certify that the above mentioned instrument has been calibrated satisfactorily.

Sincerely

SIBATA SCIENTIFIC TECHNOLOGY LTD.



Tong Zhang

Overseas Sales Division


REPORT OF EQUIPMENT PERFORMANCE CHECK / CALIBRATION

REPORT NO. : HK180420
PROJECT NAME : PERFORMANCE CHECK / CALIBRATION OF DUST METER
DATE OF ISSUE : 2/5/2018

CUSTOMER : Envirotech Services Company
ADDRESS : Rm. 113, 1/F., MY LOFT, 9 HOI WING ROAD, TUEN MUN, N.T.

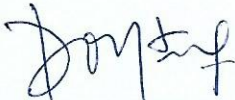
REPORT NO. : HK180420
PROJECT ITEM NO. : HK180420-01
PERFORMANCE CHECK / CALIBRATED EQUIPMENT
TYPE : Digital Dust Indicator
MANUFACTURER : SIBATA
MODEL NO. : LD-5R
SERIAL NO. : 841724
EQUIPMENT NO. : ---
RECEIPT DATE : 27/4/2018
PERFORMANCE CHECK / CALIBRATION DATE : 28/4/2018

PERFORMANCE CHECK / CALIBRATION Information

CODE	Calibration Parameter	Method Procedure	Reference Method
Dust PC/CAL	Performance Check / Calibration of Dust Meter	CAL003	General Technical Requirements of Environmental Monitoring, Environmental Monitoring & Audit Guidelines for Development Projects in HK

- Notes : 1. This report shall not be reproduced, except in full, without prior approval from Pilot Testing Limited.
 2. Performance Check / Calibration result relates to performance check / calibration item(s) as received.

Approved Signatory



 Wong Po Yan Pauline
 (Assistant Laboratory Manager)

Issue Date: 2/5/2018


REPORT OF PERFORMANCE CHECK / CALIBRATION

PROJECT NAME : PERFORMANCE CHECK / CALIBRATION OF DUST METER
 DATE OF ISSUE : 2/5/2018
 REPORT NO. : HK180420

PERFORMANCE CHECK / CALIBRATED EQUIPMENT

TYPE : Digital Dust Indicator
 MANUFACTURER : SIBATA
 MODEL NO. : LD-5R
 SERIAL NO. : 841724
 EQUIPMENT NO. : —
 SENSITIVITY ADJUSTMENT (CPM) : 618
 PERFORMANCE CHECK / CALIBRATION DATE : 28/4/2018

STANDARD EQUIPMENT

TYPE : HIGH VOLUME AIR SAMPLER
 MANUFACTURER : TISCH
 MODEL NO. : TE-5170
 EQUIPMENT REF NO. : PTL_HV002
 LAST CALIBRATION DATE : 27/4/2018

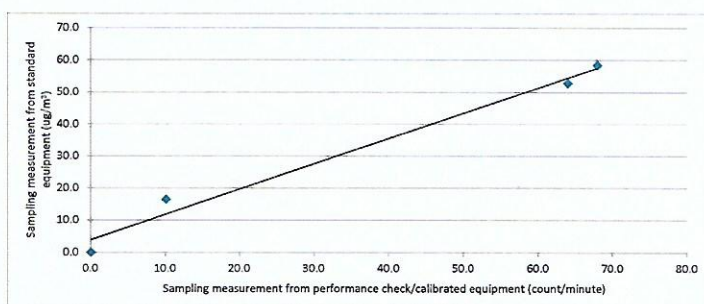
EQUIPMENT PERFORMANCE CHECK / CALIBRATION RESULTS:

Sensitivity Adjustment Scale Setting (Before Performance check / Calibration): 617 CPM
 Sensitivity Adjustment Scale Setting (After Performance check / Calibration): 617 CPM

Trial no. in 1-hr period	Time	Mean Temp (°C)	Mean Pressure (hPa)	Concentration in ug/m ³ (Standard equipment) (Y - Axis)	Total Count ² (Performance Check / Calibrated equipment)	Concentration in Count/Minute ³ (Performance Check / Calibrated equipment) (X - Axis)
Zero Check ¹	28/4/2018,9:50:00 AM	24.9	1015	0	0	0
1	28/4/2018,11:32:00 AM	24.9	1015	53	3840	64
2	28/4/2018,12:38:00 PM	24.9	1015	58	4079	68
3	28/4/2018,1:46:00 PM	24.9	1015	16	604	10

Linear Regression of Y on X

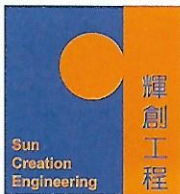
Slope (K- factor) : 0.8
 Correlation Coefficient : 0.9916
 Validity of Performance Check / Calibration Record : 28/4/2019



- Notes : 1. Zero check conducted as per CAL003 SOP and manufacturer's manual as appropriate.
 2. Total Count was measured by Digital Dust Indicator.
 3. Count/minute was calculated by (Total Count/60)
 4. This report shall not be reproduced, except in full, without prior approval from Pilot Testing Limited.
 5. Performance Check / Calibration result relates to performance check / calibration item(s) as received.

Operator: MA Ching Him, Jackey Signature:  Date: 28/4/2018

Checked by: Wong Po Yan, Pauline Signature:  Date: 2/5/2018



Certificate of Calibration 校正證書

Certificate No. : C183089
證書編號

ITEM TESTED / 送檢項目 (Job No. / 序引編號 : IC18-1132) Date of Receipt / 收件日期 : 31 May 2018
Description / 儀器名稱 : Sound Level Meter
Manufacturer / 製造商 : Rion
Model No. / 型號 : NL-52
Serial No. / 編號 : 00331805
Supplied By / 委託者 : Envirotech Services Co.
Room 113, 1/F, My Loft, 9 Hoi Wing Road, Tuen Mun,
New Territories, Hong Kong

TEST CONDITIONS / 測試條件

Temperature / 溫度 : (23 ± 2)°C Relative Humidity / 相對濕度 : (50 ± 25)%
Line Voltage / 電壓 : ---

TEST SPECIFICATIONS / 測試規範

Calibration check

DATE OF TEST / 測試日期 : 10 June 2018

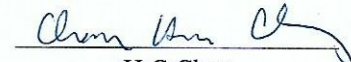
TEST RESULTS / 測試結果

The results apply to the particular unit-under-test only.
The results do not exceed manufacturer's specification.
The results are detailed in the subsequent page(s).

The test equipment used for calibration are traceable to National Standards via :

- The Government of The Hong Kong Special Administrative Region Standard & Calibration Laboratory
- Agilent Technologies / Keysight Technologies
- Rohde & Schwarz Laboratory, Germany
- Fluke Everett Service Center, USA

Tested By : 
測試 : K C Lee
Engineer

Certified By : 
核證 : H C Chan
Engineer

Date of Issue : 14 June 2018
簽發日期

The test equipment used for calibration are traceable to the Nation Standards as specified in this certificate. This certificate shall not be reproduced except in full, without the prior written approval of this laboratory.

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Certificate of Calibration

校正證書

Certificate No. : C183089

證書編號

- The unit-under-test (UUT) was allowed to stabilize in the laboratory for over 12 hours, and switched on to warm up for over 10 minutes before the commencement of the test.
- Self-calibration was performed before the test.
- The results presented are the mean of 3 measurements at each calibration point.

4. Test equipment :

<u>Equipment ID</u>	<u>Description</u>	<u>Certificate No.</u>
CL280	40 MHz Arbitrary Waveform Generator	C180024
CL281	Multifunction Acoustic Calibrator	PA160023

5. Test procedure : MA101N.

6. Results :

6.1 Sound Pressure Level

6.1.1 Reference Sound Pressure Level

UUT Setting				Applied Value		UUT Reading (dB)	IEC 61672 Class 1 Spec. (dB)
Range (dB)	Function	Frequency Weighting	Time Weighting	Level (dB)	Freq. (kHz)		
30 - 130	L _A	A	Fast	94.00	1	94.2	± 1.1

6.1.2 Linearity

UUT Setting				Applied Value		UUT Reading (dB)
Range (dB)	Function	Frequency Weighting	Time Weighting	Level (dB)	Freq. (kHz)	
30 - 130	L _A	A	Fast	94.00	1	94.2 (Ref.)
				104.00		104.2
				114.00		114.2

IEC 61672 Class 1 Spec. : ± 0.6 dB per 10 dB step and ± 1.1 dB for overall different.

6.2 Time Weighting

UUT Setting				Applied Value		UUT Reading (dB)	IEC 61672 Class 1 Spec. (dB)
Range (dB)	Function	Frequency Weighting	Time Weighting	Level (dB)	Freq. (kHz)		
30 - 130	L _A	A	Fast	94.00	1	94.2	Ref.
			Slow			94.2	± 0.3

The test equipment used for calibration are traceable to the Nation Standards as specified in this certificate. This certificate shall not be reproduced except in full, without the prior written approval of this laboratory.

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Certificate of Calibration

校正證書

Certificate No. : C183089

證書編號

6.3 Frequency Weighting

6.3.1 A-Weighting

UUT Setting				Applied Value		UUT Reading (dB)	IEC 61672 Class 1 Spec. (dB)
Range (dB)	Function	Frequency Weighting	Time Weighting	Level (dB)	Freq.		
30 - 130	L _A	A	Fast	94.00	63 Hz	67.9	-26.2 ± 1.5
					125 Hz	78.0	-16.1 ± 1.5
					250 Hz	85.5	-8.6 ± 1.4
					500 Hz	91.0	-3.2 ± 1.4
					1 kHz	94.2	Ref.
					2 kHz	95.4	+1.2 ± 1.6
					4 kHz	95.2	+1.0 ± 1.6
					8 kHz	93.2	-1.1 (+2.1 ; -3.1)
					12.5 kHz	89.8	-4.3 (+3.0 ; -6.0)

6.3.2 C-Weighting

UUT Setting				Applied Value		UUT Reading (dB)	IEC 61672 Class 1 Spec. (dB)
Range (dB)	Function	Frequency Weighting	Time Weighting	Level (dB)	Freq.		
30 - 130	L _C	C	Fast	94.00	63 Hz	93.3	-0.8 ± 1.5
					125 Hz	94.0	-0.2 ± 1.5
					250 Hz	94.2	0.0 ± 1.4
					500 Hz	94.2	0.0 ± 1.4
					1 kHz	94.2	Ref.
					2 kHz	94.1	-0.2 ± 1.6
					4 kHz	93.4	-0.8 ± 1.6
					8 kHz	91.3	-3.0 (+2.1 ; -3.1)
					12.5 kHz	87.9	-6.2 (+3.0 ; -6.0)

Remarks : - UUT Microphone Model No. : UC-59 & S/N : 04870

- Mfr's Spec. : IEC 61672 Class 1

- Uncertainties of Applied Value :

94 dB :	63 Hz - 125 Hz	: ± 0.35 dB
	250 Hz - 500 Hz	: ± 0.30 dB
	1 kHz	: ± 0.20 dB
	2 kHz - 4 kHz	: ± 0.35 dB
	8 kHz	: ± 0.45 dB
	12.5 kHz	: ± 0.70 dB
104 dB :	1 kHz	: ± 0.10 dB (Ref. 94 dB)
114 dB :	1 kHz	: ± 0.10 dB (Ref. 94 dB)

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

Note :

Only the original copy or the laboratory's certified true copy is valid.

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

The test equipment used for calibration are traceable to the Nation Standards as specified in this certificate. This certificate shall not be reproduced except in full, without the prior written approval of this laboratory.

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輝創工程有限公司

Sun Creation Engineering Limited

Calibration & Testing Laboratory

Certificate of Calibration

校正證書

Certificate No. : C181755

證書編號

ITEM TESTED / 送檢項目 (Job No. / 序引編號 : IC18-0616) Date of Receipt / 收件日期 : 20 March 2018

Description / 儀器名稱 : Sound Level Calibrator
Manufacturer / 製造商 : Rion
Model No. / 型號 : NC-73
Serial No. / 編號 : 10486660
Supplied By / 委託者 : Envirotech Services Co.
Room 113, 1/F, My Loft, 9 Hoi Wing Road, Tuen Mun,
New Territories, Hong Kong

TEST CONDITIONS / 測試條件

Temperature / 溫度 : $(23 \pm 2)^{\circ}\text{C}$ Relative Humidity / 相對濕度 : $(50 \pm 25)\%$
Line Voltage / 電壓 : ---

TEST SPECIFICATIONS / 測試規範

Calibration check

DATE OF TEST / 測試日期 : 5 April 2018

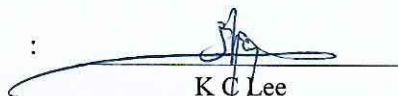
TEST RESULTS / 測試結果

The results apply to the particular unit-under-test only.
The results do not exceed manufacturer's specification.
The results are detailed in the subsequent page(s).

The test equipment used for calibration are traceable to National Standards via :

- The Government of The Hong Kong Special Administrative Region Standard & Calibration Laboratory
- Agilent Technologies / Keysight Technologies
- Rohde & Schwarz Laboratory, Germany
- Fluke Everett Service Center, USA

Tested By
測試


K C Lee
Engineer

Certified By
核證


H C Chan
Engineer

Date of Issue
簽發日期

11 April 2018

The test equipment used for calibration are traceable to the Nation Standards as specified in this certificate. This certificate shall not be reproduced except in full, without the prior written approval of this laboratory.

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Sun Creation Engineering Limited - Calibration & Testing Laboratory

c/o 4/F, 1 Hing On Lane, Tuen Mun, New Territories, Hong Kong

輝創工程有限公司 - 校正及檢測實驗室

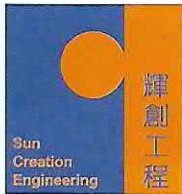
c/o 香港新界屯門興安里一號四樓

Tel/電話: (852) 2927 2606

Fax/傳真: (852) 2744 8986

E-mail/電郵: callab@suncreation.com

Website/網址: www.suncreation.com



輝創工程有限公司

Sun Creation Engineering Limited

Calibration & Testing Laboratory

Certificate of Calibration 校正證書

Certificate No. : C181755

證書編號

1. The unit-under-test (UUT) was allowed to stabilize in the laboratory for over 12 hours before the commencement of the test.
2. The results presented are the mean of 3 measurements at each calibration point.
3. Test equipment :

<u>Equipment ID</u>	<u>Description</u>	<u>Certificate No.</u>
CL130	Universal Counter	C173864
CL281	Multifunction Acoustic Calibrator	PA160023
TST150A	Measuring Amplifier	C181288

4. Test procedure : MA100N.

5. Results :

- 5.1 Sound Level Accuracy

UUT Nominal Value	Measured Value (dB)	Mfr's Spec. (dB)	Uncertainty of Measured Value (dB)
94 dB, 1 kHz	93.7	± 0.5	± 0.2

- 5.2 Frequency Accuracy

UUT Nominal Value (kHz)	Measured Value (kHz)	Mfr's Spec.	Uncertainty of Measured Value (Hz)
1	0.988	1 kHz ± 2 %	± 1

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

Note :

Only the original copy or the laboratory's certified true copy is valid.

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

The test equipment used for calibration are traceable to the Nation Standards as specified in this certificate. This certificate shall not be reproduced except in full, without the prior written approval of this laboratory.

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Sun Creation Engineering Limited – Calibration & Testing Laboratory

c/o 4/F, 1 Hing On Lane, Tuen Mun, New Territories, Hong Kong

輝創工程有限公司 — 校正及檢測實驗室

c/o 香港新界屯門興安里一號四樓

Tel/電話: (852) 2927 2606

Fax/傳真: (852) 2744 8986

E-mail/電郵: callab@suncreation.com

Website 網址: www.suncreation.com

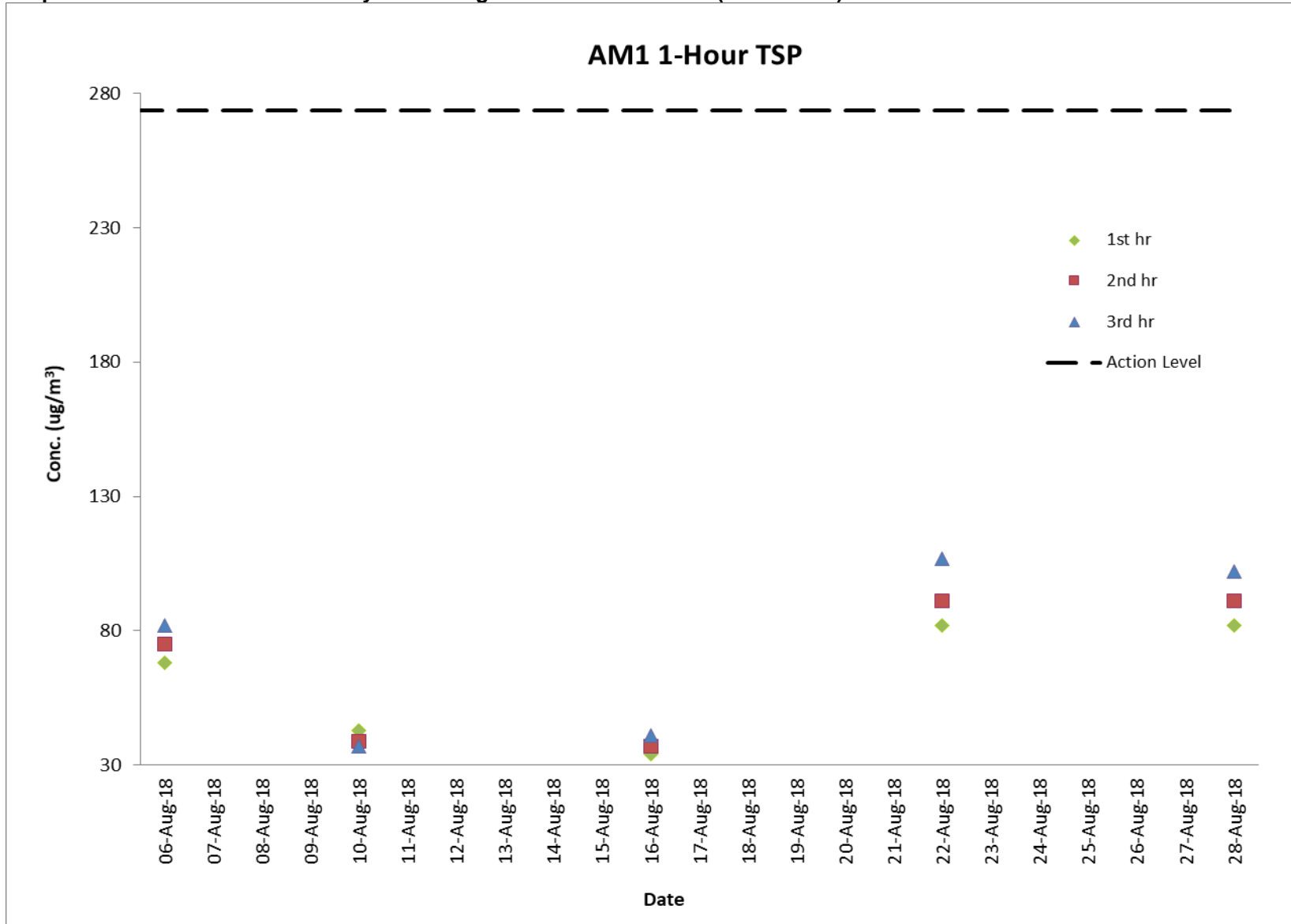
Page 2 of 2

G. Graphical Plots of the Monitoring Results

Air Quality Monitoring Result at Station AM1 (1-hour TSP)

Date	Weather Condition	Time	Conc. ($\mu\text{g}/\text{m}^3$)			Action Level ($\mu\text{g}/\text{m}^3$)	Limit Level ($\mu\text{g}/\text{m}^3$)
			1st Hour	2nd Hour	3rd Hour		
6-Aug-18	Fine	7:50 - 10:50	68	75	82	273.7	500
10-Aug-18	Cloudy	8:02 - 11:02	43	39	37	273.7	500
16-Aug-18	Cloudy	8:10 - 11:10	34	37	41	273.7	500
22-Aug-18	Fine	8:12 - 11:12	82	91	107	273.7	500
28-Aug-18	Cloudy	8:08 - 11:08	82	91	102	273.7	500

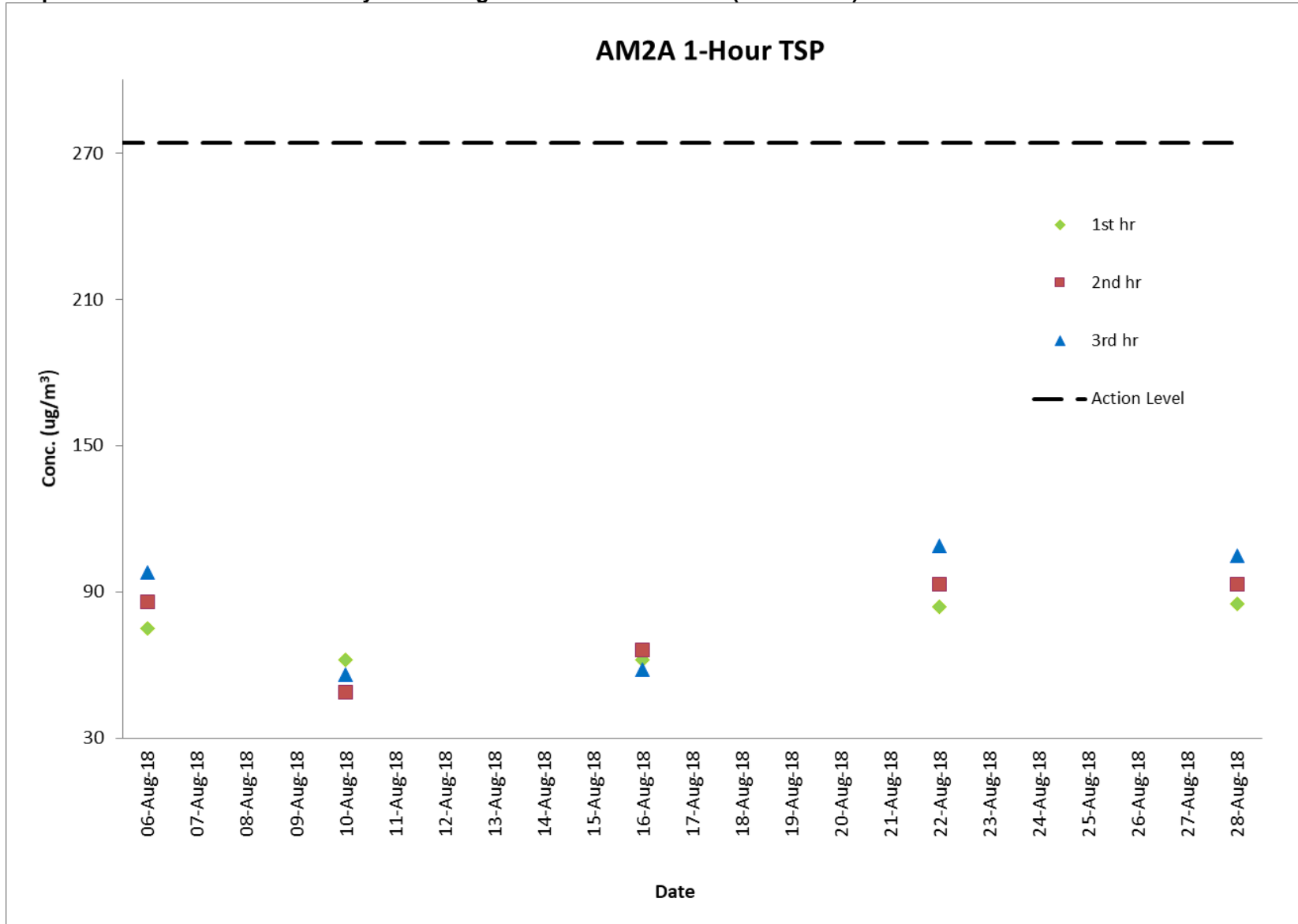
Graphical Presentation of Air Quality Monitoring Result at Station AM1 (1-hour TSP)



Air Quality Monitoring Result at Station AM2A (1-hour TSP)

Date	Weather Condition	Time	Conc. ($\mu\text{g}/\text{m}^3$)			Action Level ($\mu\text{g}/\text{m}^3$)	Limit Level ($\mu\text{g}/\text{m}^3$)
			1st Hour	2nd Hour	3rd Hour		
6-Aug-18	Fine	8:02 - 11:02	75	86	98	274.2	500
10-Aug-18	Cloudy	8:14 - 11:14	62	49	56	274.2	500
16-Aug-18	Cloudy	8:22 - 11:22	62	66	58	274.2	500
22-Aug-18	Fine	8:24 - 11:24	84	93	109	274.2	500
28-Aug-18	Cloudy	8:23 - 11:23	85	93	105	274.2	500

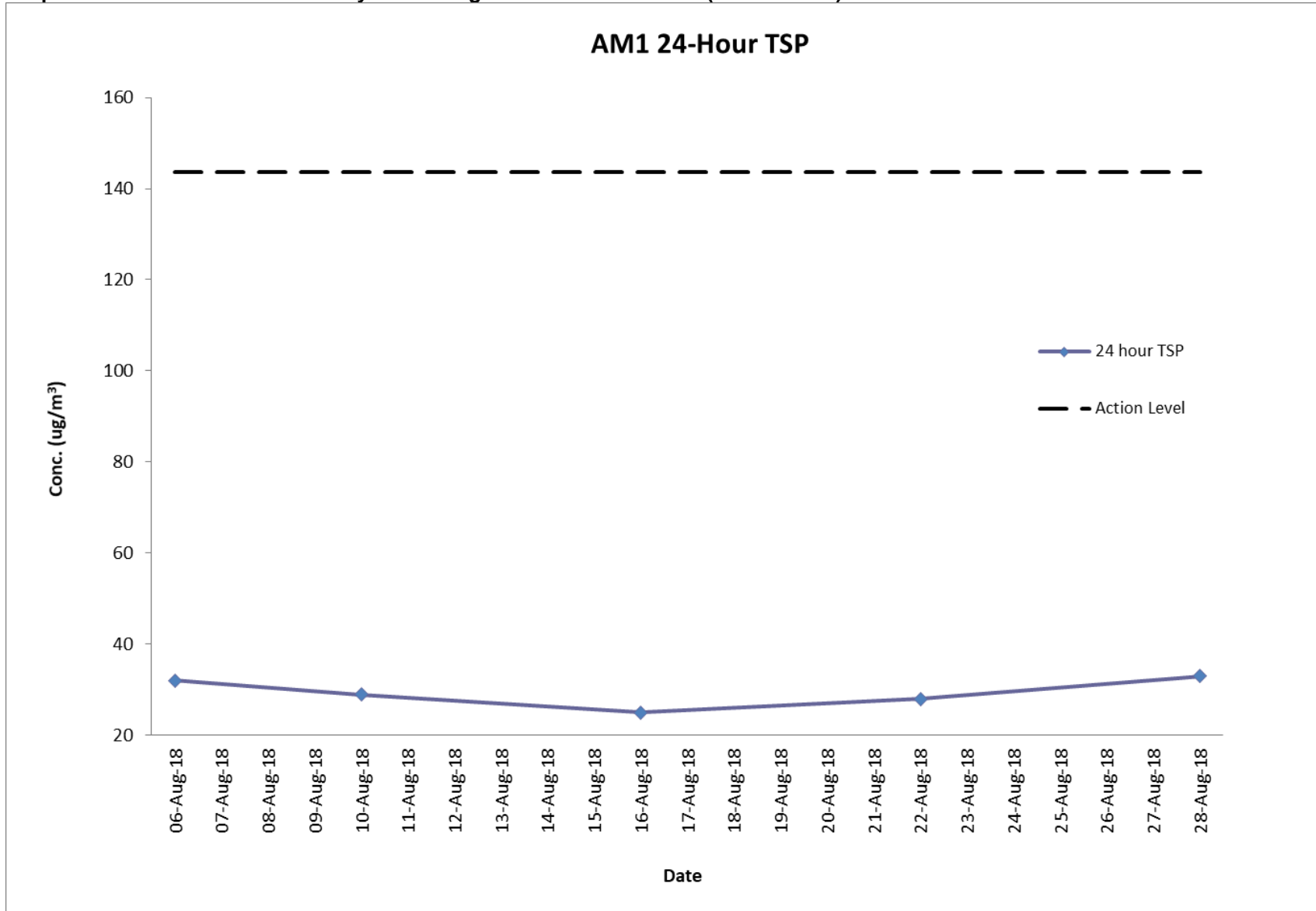
Graphical Presentation of Air Quality Monitoring Result at Station AM2A (1-hour TSP)



Air Quality Monitoring Result at Station AM1 (24-hour TSP)

Start		Finish		Filter Weight (g)		Elapsed Time Reading		Sampling Time (hrs)	Flow Rate (m3/min)			Conc. (µg/m3)	Weather Condition	Action Level	Limit Level
Date	Time	Date	Time	Initial	Final	Initial	Final		Initial	Final	Average				
6-Aug-18	7:48	7-Aug-18	7:48	2.5711	2.6247	22992.38	23016.38	24	1.17	1.17	1.17	32	Fine	151.1	260
10-Aug-18	8:00	11-Aug-18	8:00	2.6036	2.6526	23016.38	23040.38	24	1.17	1.17	1.17	29	Cloudy	151.1	260
16-Aug-18	8:08	17-Aug-18	8:08	2.5902	2.6353	23040.38	23064.38	24	1.23	1.23	1.23	25	Cloudy	151.1	260
22-Aug-18	8:10	23-Aug-18	8:10	2.6818	2.7318	23064.38	23088.38	24	1.23	1.23	1.23	28	Fine	151.1	260
28-Aug-18	8:05	29-Aug-18	8:05	2.683	2.7419	23088.38	23112.38	24	1.23	1.23	1.23	33	Cloudy	151.1	260

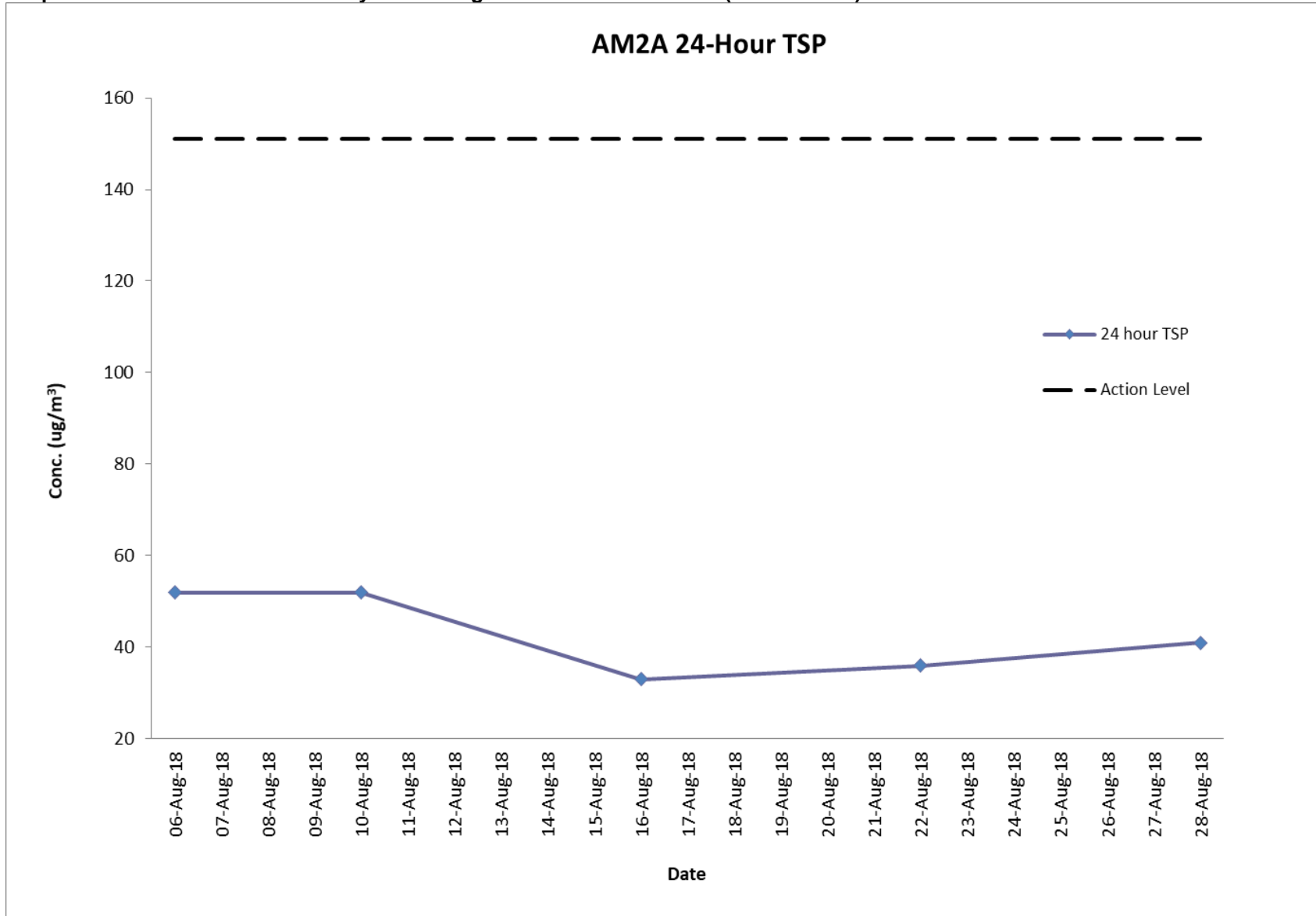
Graphical Presentation of Air Quality Monitoring Result at Station AM1 (24-hour TSP)



Air Quality Monitoring Result at Station AM2A (24-hour TSP)

Start		Finish		Filter Weight (g)		Elapsed Time Reading		Sampling Time (hrs)	Flow Rate (m3/min)			Conc. (µg/m3)	Weather Condition	Action Level	Limit Level
Date	Time	Date	Time	Initial	Final	Initial	Final		Initial	Final	Average				
6-Aug-18	8:00	7-Aug-18	8:00	2.5756	2.6694	18647.59	18671.59	24	1.25	1.25	1.25	52	Fine	151.1	260
10-Aug-18	8:12	11-Aug-18	8:12	2.5967	2.6910	18671.59	18695.59	24	1.25	1.25	1.25	52	Cloudy	151.1	260
16-Aug-18	8:20	17-Aug-18	8:20	2.5982	2.6574	18695.59	18719.59	24	1.25	1.25	1.25	33	Cloudy	151.1	260
22-Aug-18	8:22	23-Aug-18	8:22	2.6876	2.7515	18719.59	18743.59	24	1.24	1.24	1.24	36	Fine	151.1	260
28-Aug-18	8:20	29-Aug-18	8:20	2.6673	2.7402	18743.59	18767.59	24	1.25	1.25	1.25	41	Cloudy	151.1	260

Graphical Presentation of Air Quality Monitoring Result at Station AM2A (24-hour TSP)



Noise Monitoring Result at Station NM1A

Date	Time	Measured L ₁₀ , dB(A)	Measured L ₉₀ , dB(A)	L _{eq} (30 min.)*, dB(A)
6-Aug-18	10:14	67.5	62.7	69
6-Aug-18	10:19	68.4	64.7	
6-Aug-18	10:24	66.9	62.4	
6-Aug-18	10:29	68.0	63.7	
6-Aug-18	10:34	68.4	63.8	
6-Aug-18	10:39	68.9	64.0	
16-Aug-18	10:36	67.9	62.7	69
16-Aug-18	10:41	68.4	63.2	
16-Aug-18	10:46	67.5	62.4	
16-Aug-18	10:51	69.0	62.5	
16-Aug-18	10:56	68.4	63.1	
16-Aug-18	11:01	66.7	62.7	
22-Aug-18	9:12	67.9	63.4	69
22-Aug-18	9:17	66.7	62.5	
22-Aug-18	9:22	67.8	63.7	
22-Aug-18	9:27	68.4	64.7	
22-Aug-18	9:32	69.2	65.0	
22-Aug-18	9:37	67.7	63.8	
28-Aug-18	9:05	67.2	63.7	69
28-Aug-18	9:10	68.4	64.1	
28-Aug-18	9:15	66.9	62.7	
28-Aug-18	9:20	67.1	63.5	
28-Aug-18	9:25	66.9	62.9	
28-Aug-18	9:30	68.0	63.7	

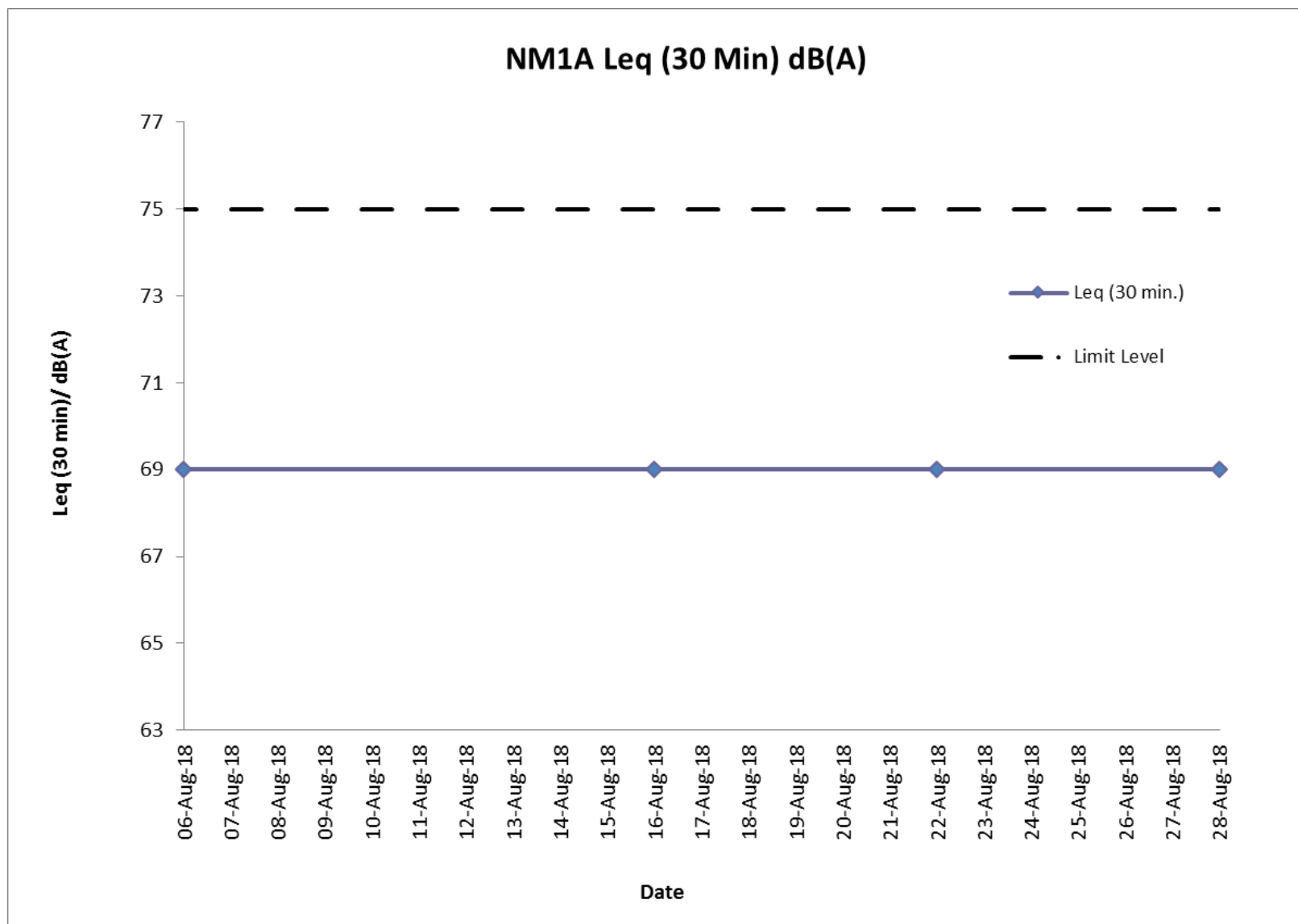
Remarks:

* +3dB (A) correction was applied to free-field measurement.



The station set-up of a free-field measurement at Station NM1A.

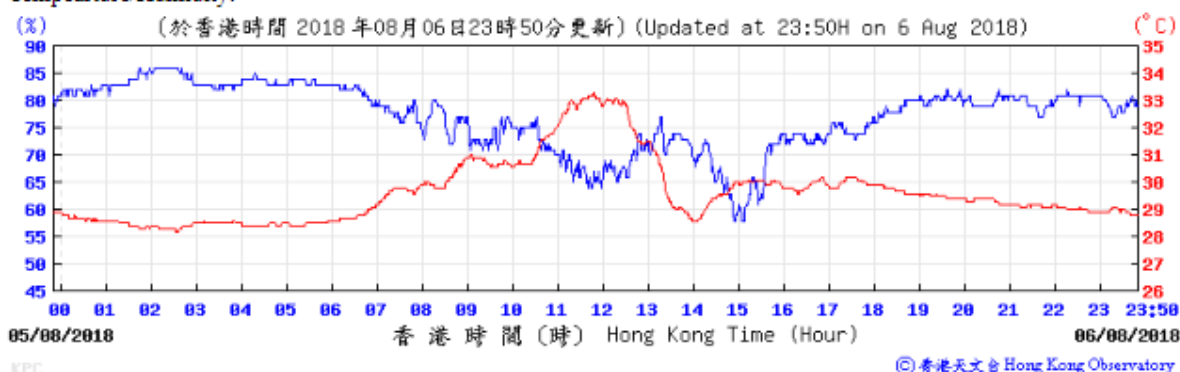
Graphical Presentation Noise Monitoring Result at Station NM1A



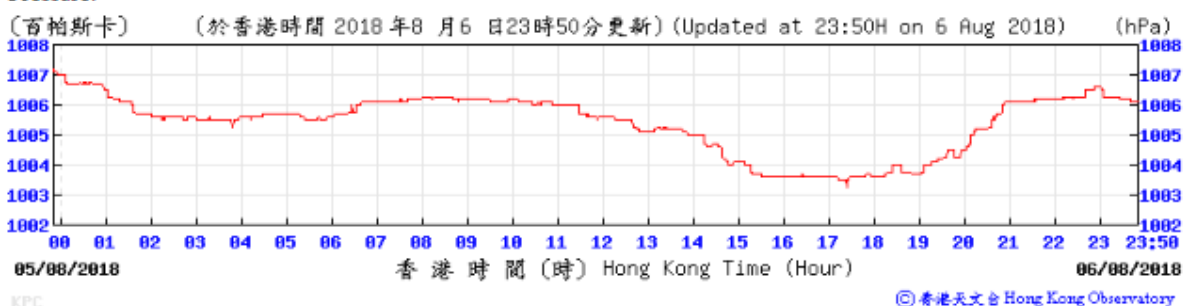
H. Meteorological Data Extracted from Hong Kong Observatory

Extract of Meteorological Observations for King's Park Automatic Weather Station, August 2018

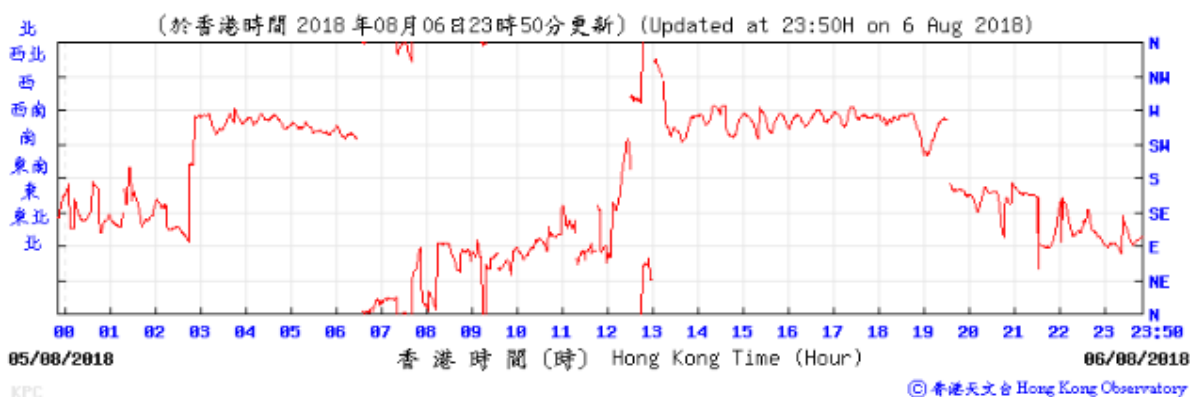
Temperature/Humidity:



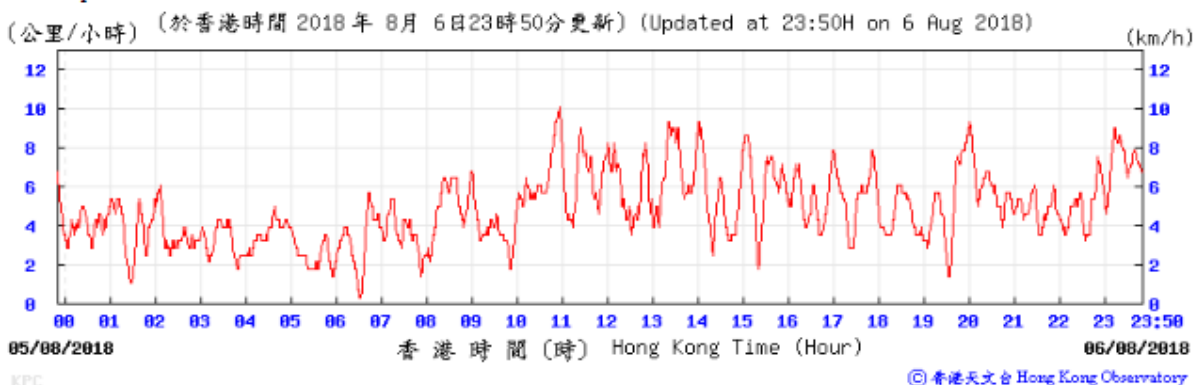
Pressure:



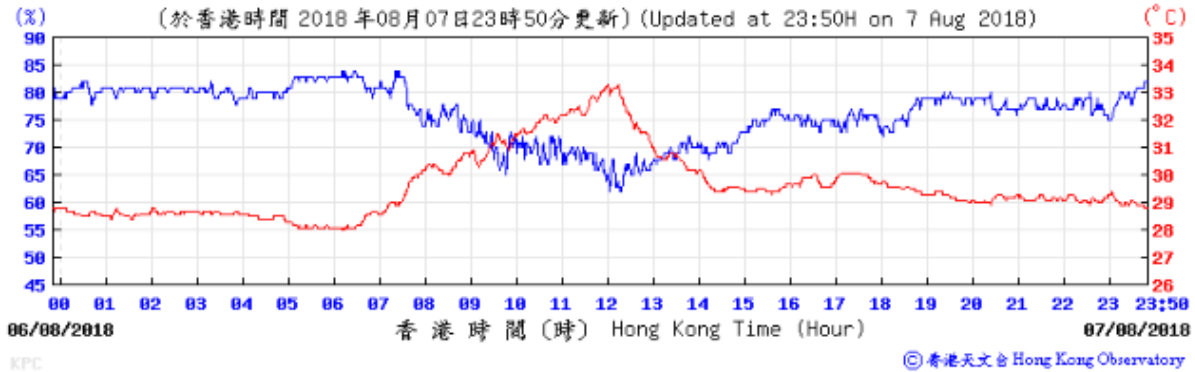
Wind Direction:



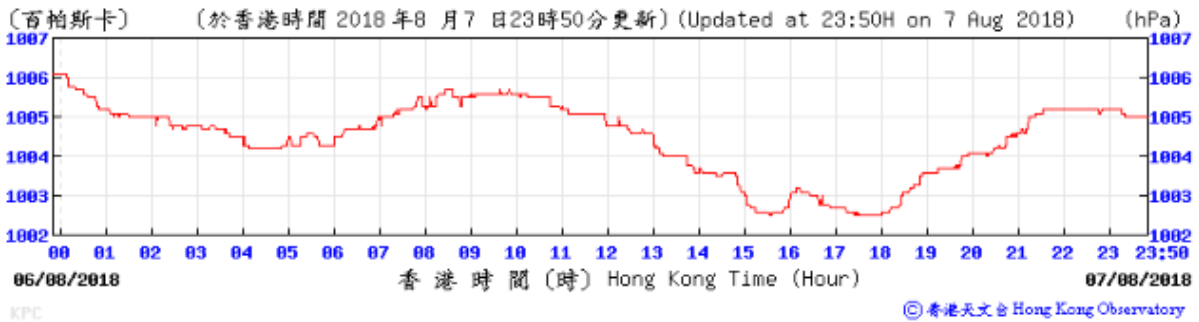
Wind Speed:



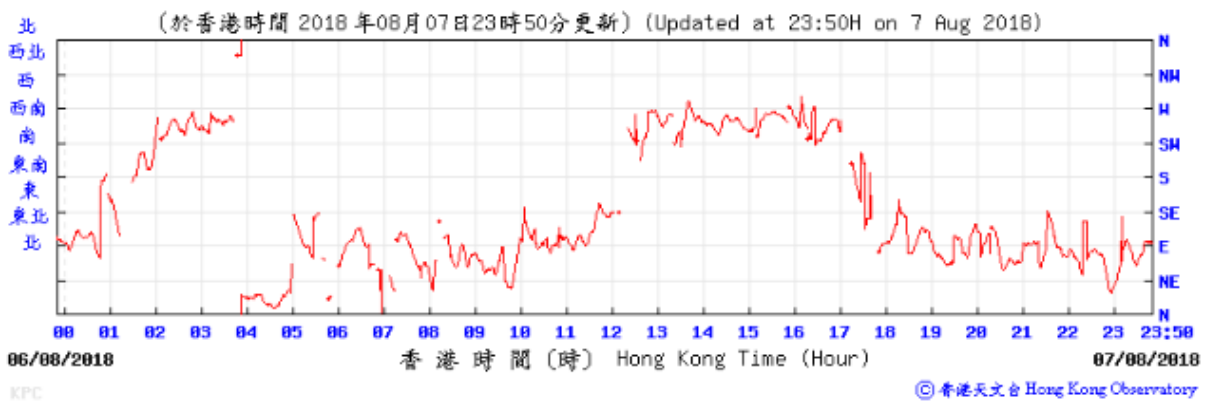
Temperature/Humidity:



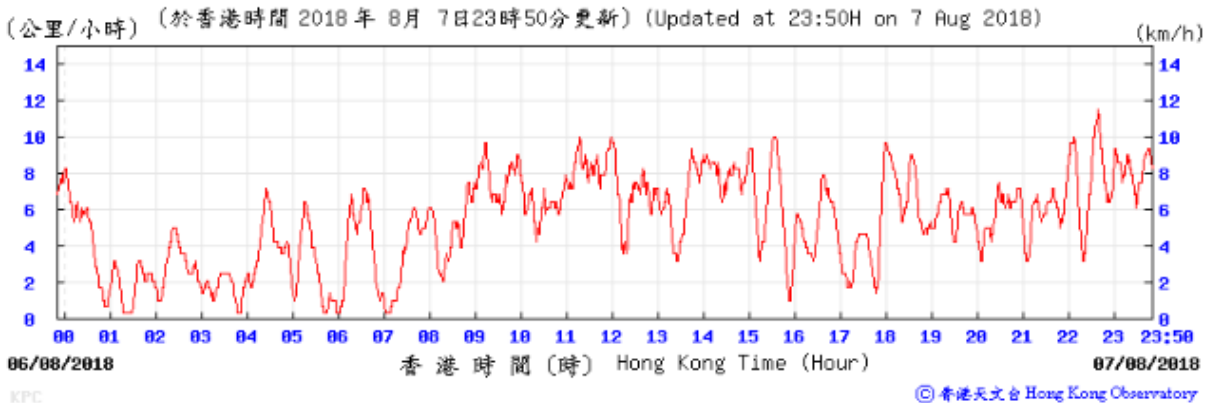
Pressure:



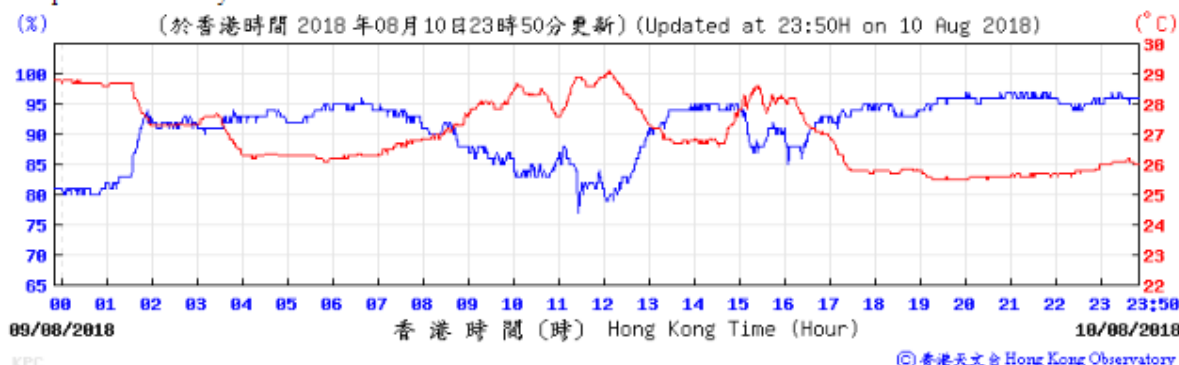
Wind Direction:



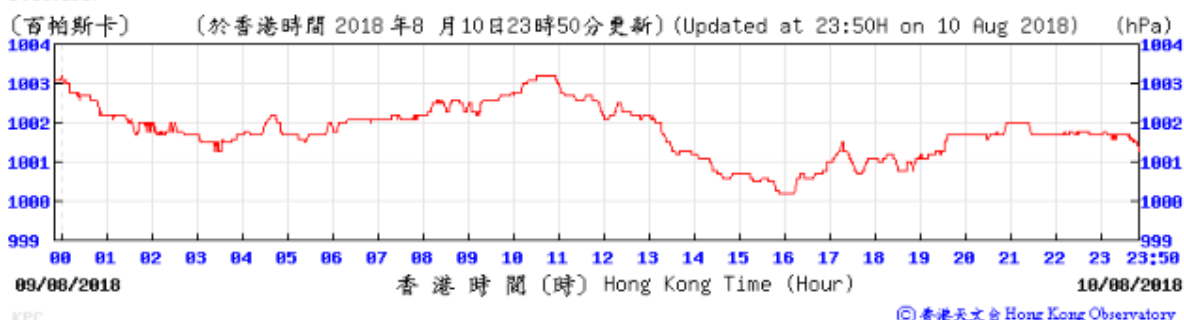
Wind Speed:



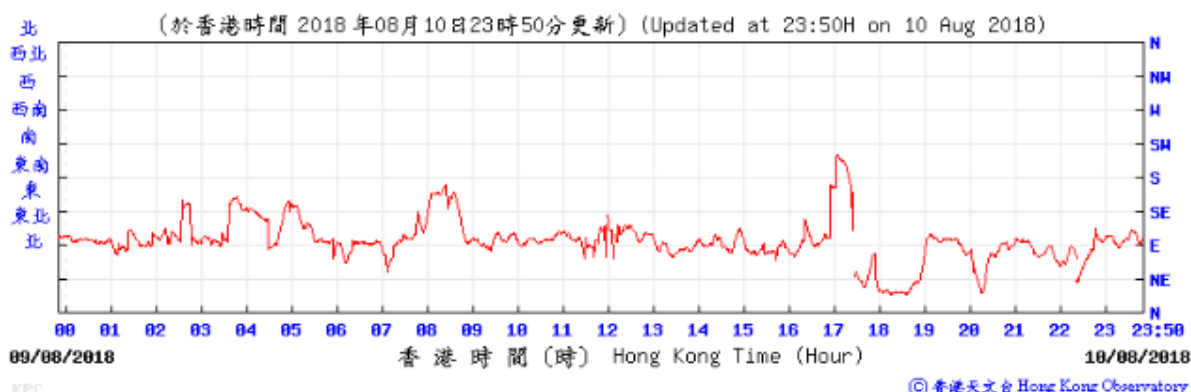
Temperature/Humidity:



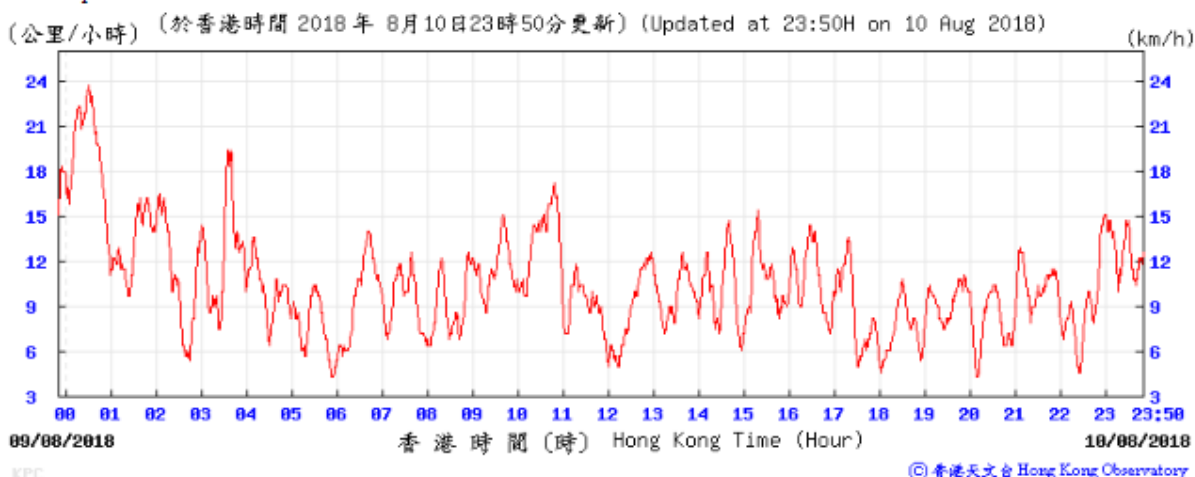
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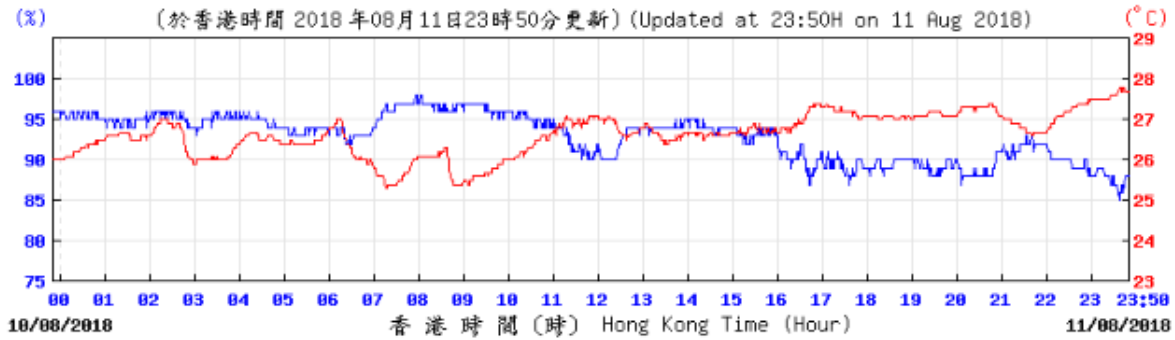
Wind Direction:



Wind Speed:



Temperature/Humidity:



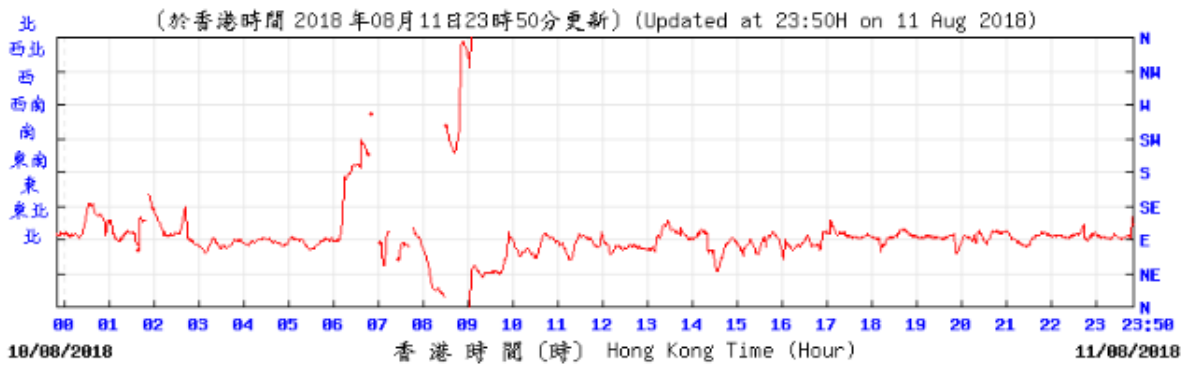
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Pressure:



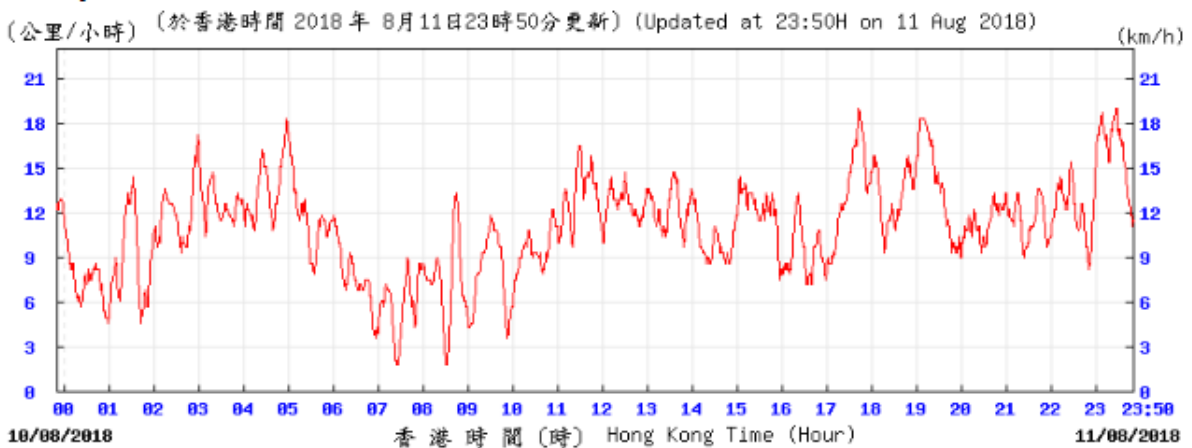
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Wind Direction:



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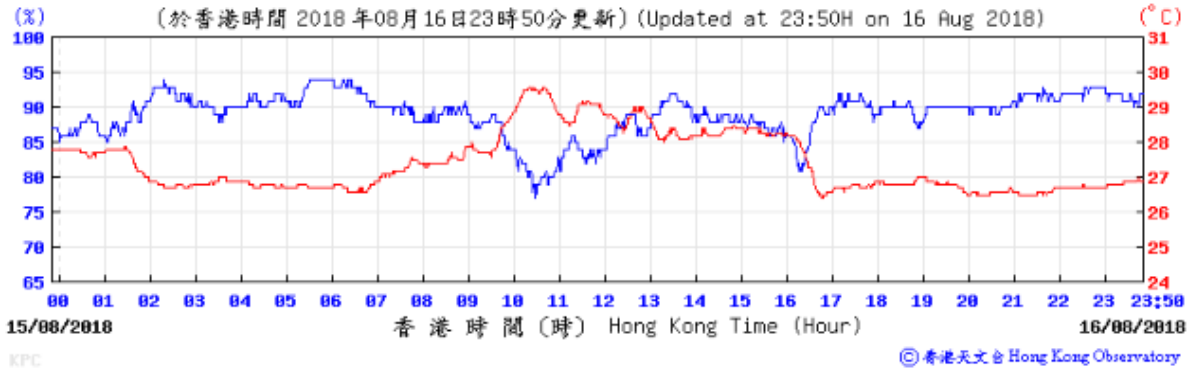
Wind Speed:



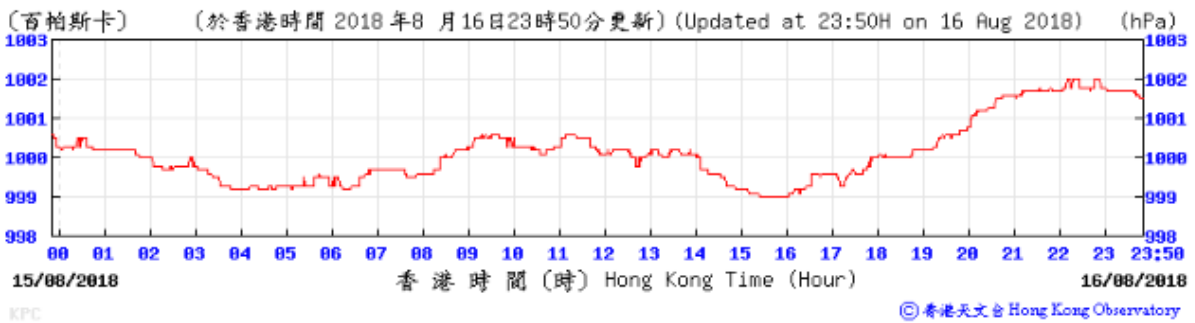
KPC

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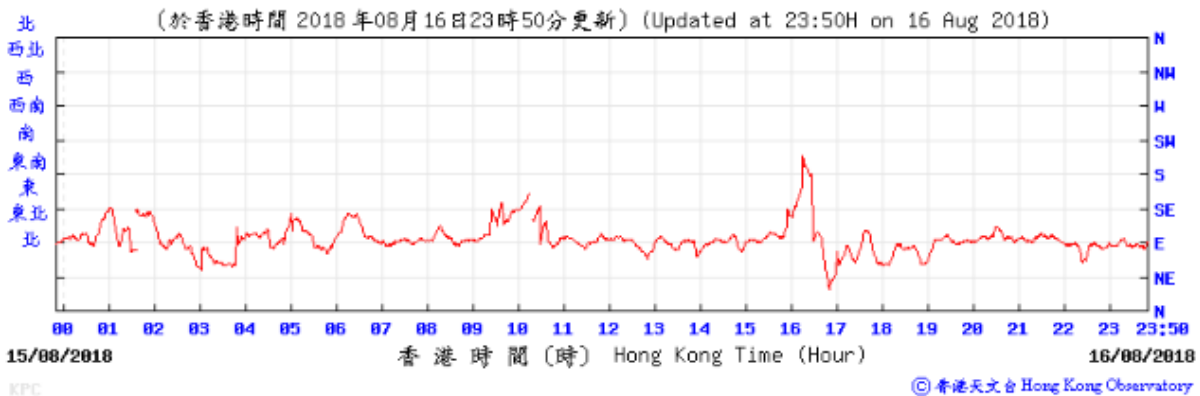
Temperature/Humidity:



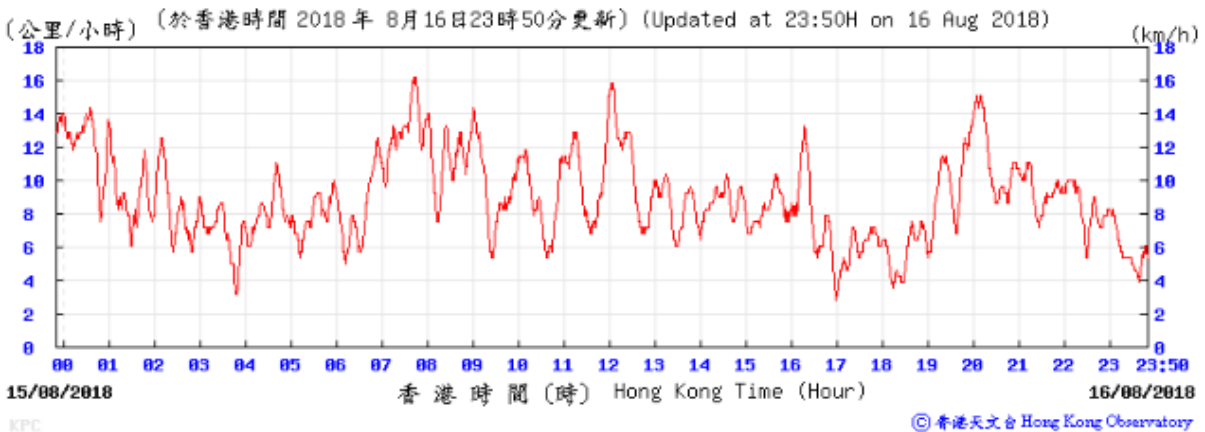
Pressure:



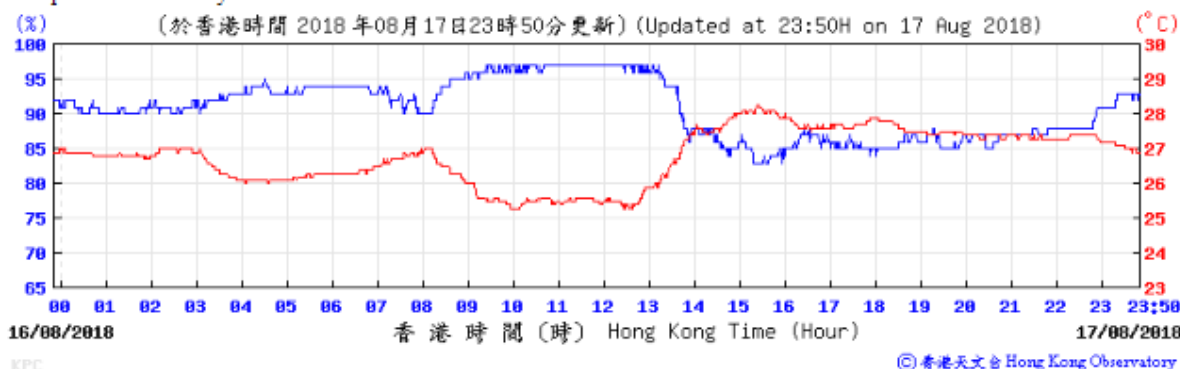
Wind Direction:



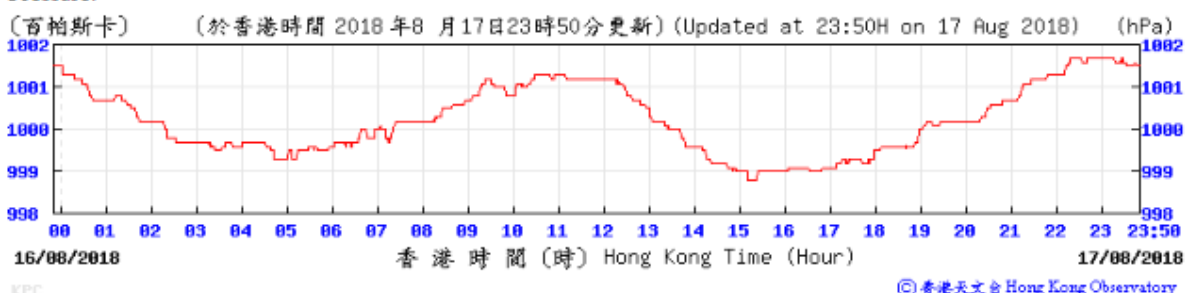
Wind Speed:



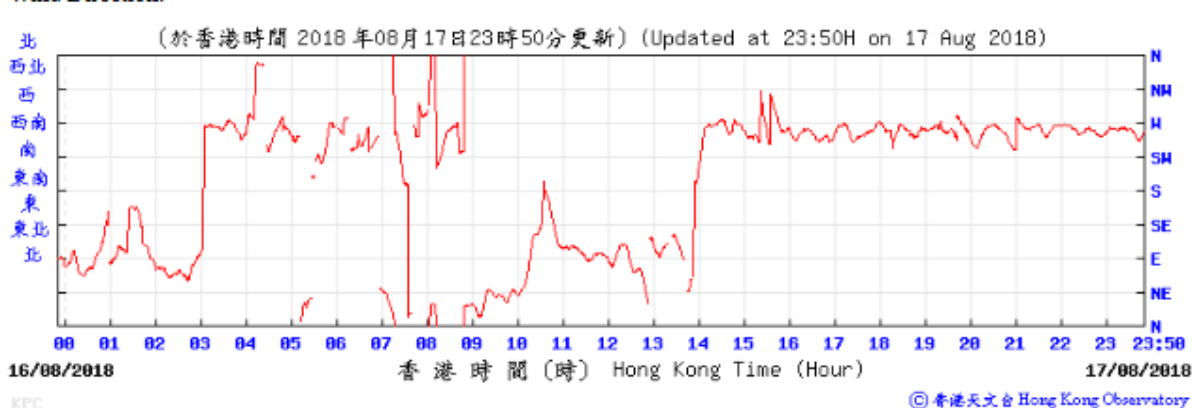
Temperature/Humidity:



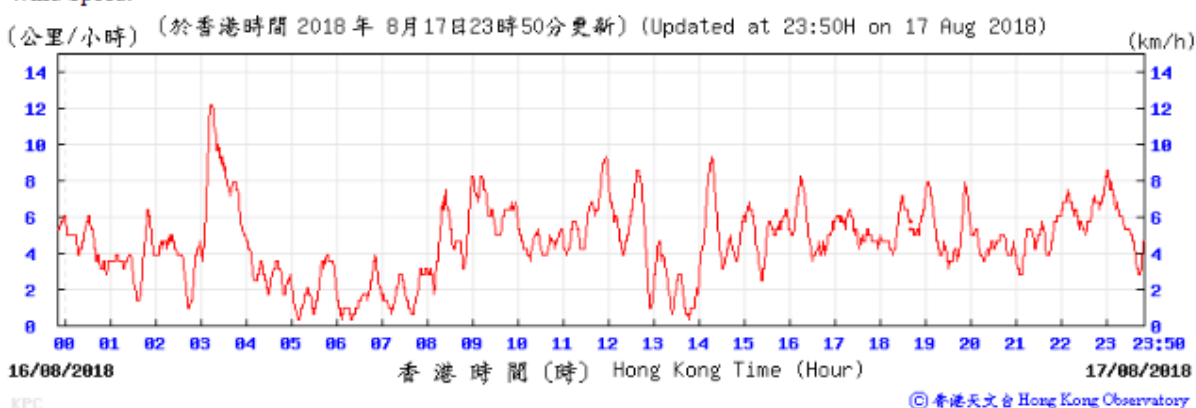
Pressure:



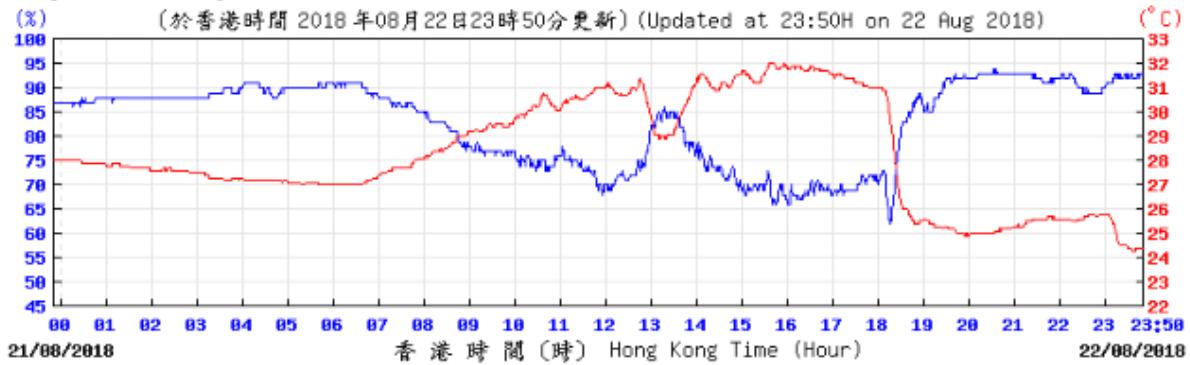
Wind Direction:



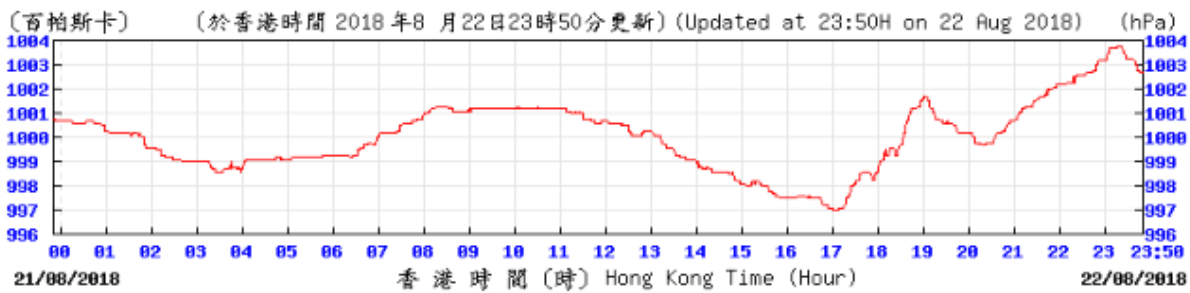
Wind Speed:



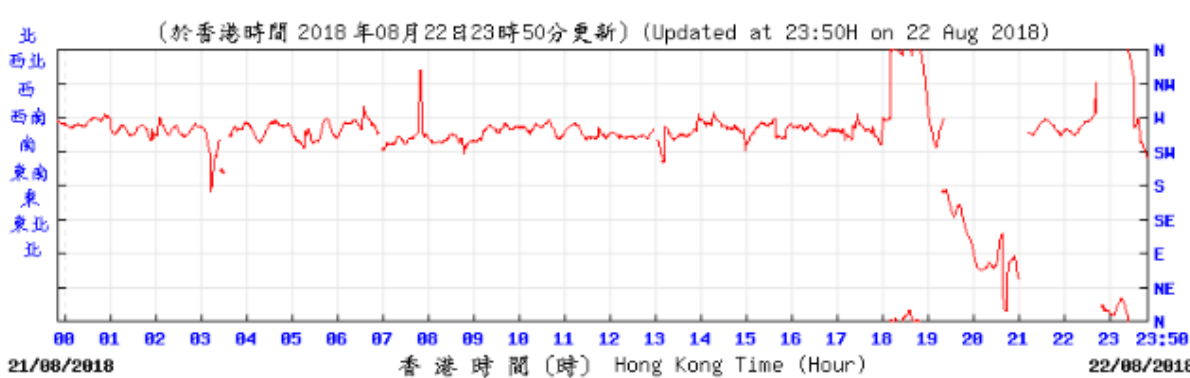
Temperature/Humidity:



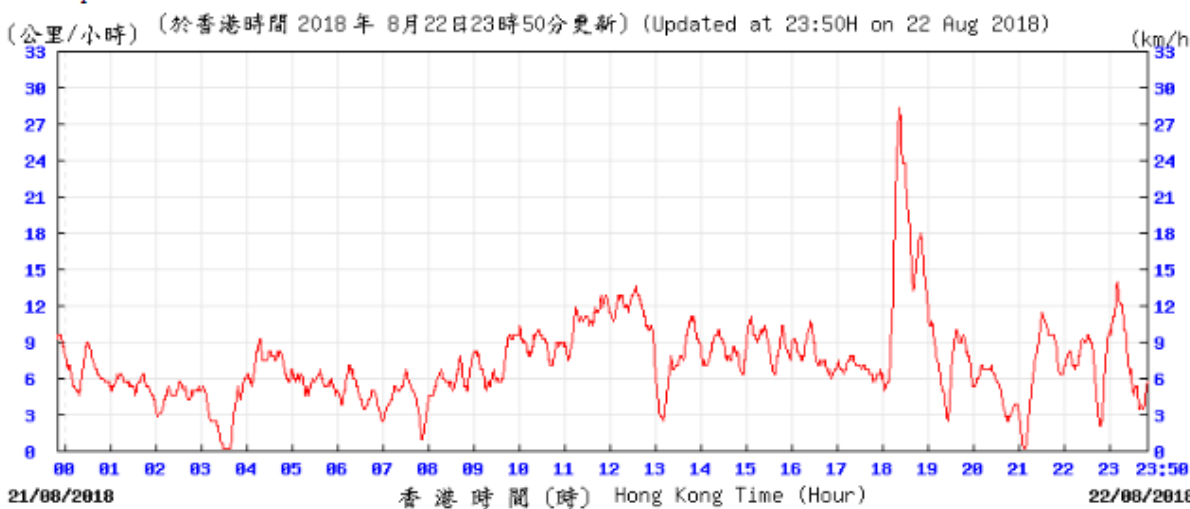
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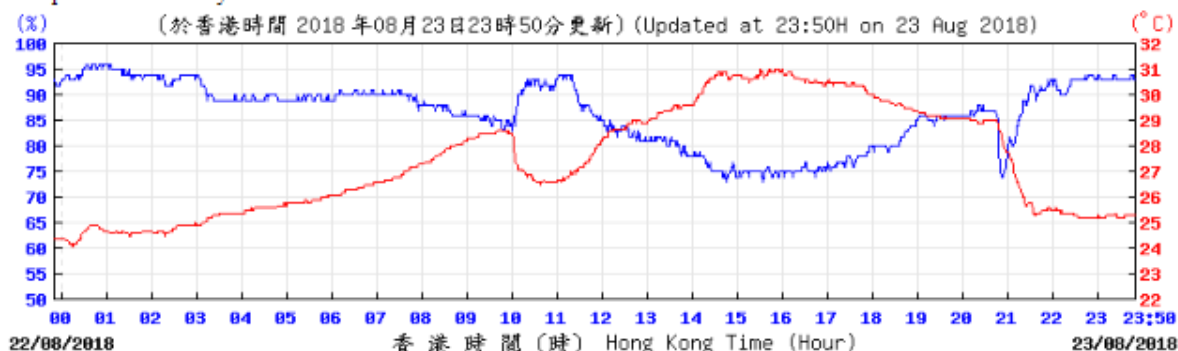
Wind Direction:



Wind Speed:

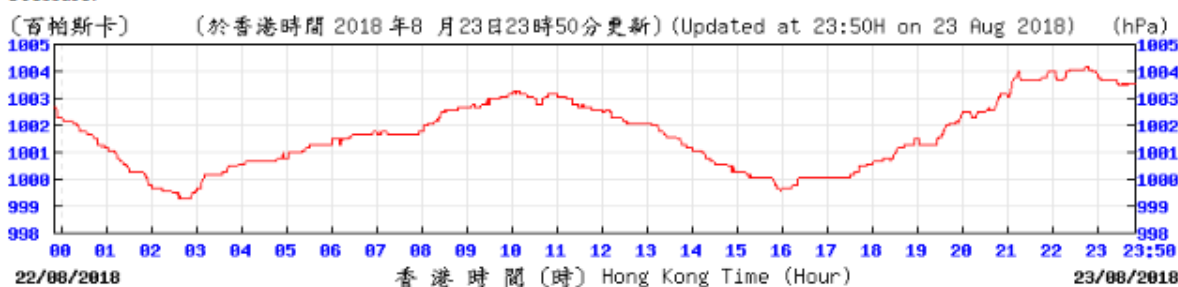


Temperature/Humidity:



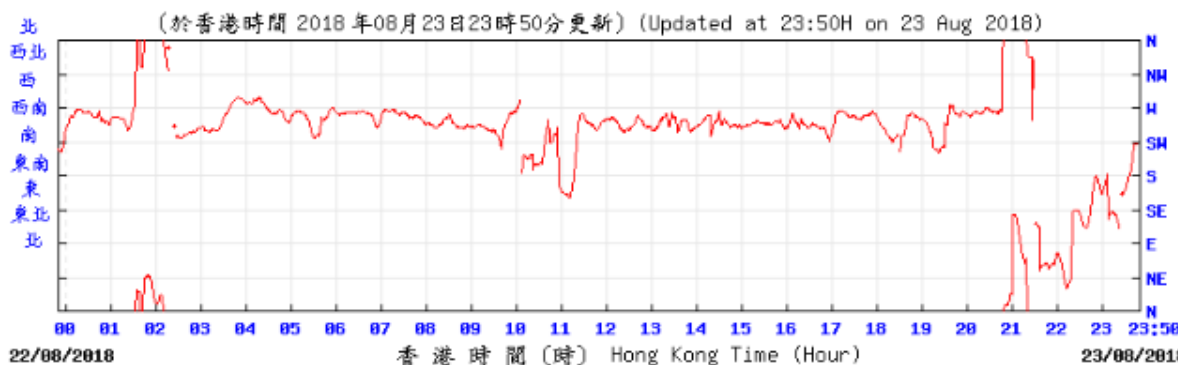
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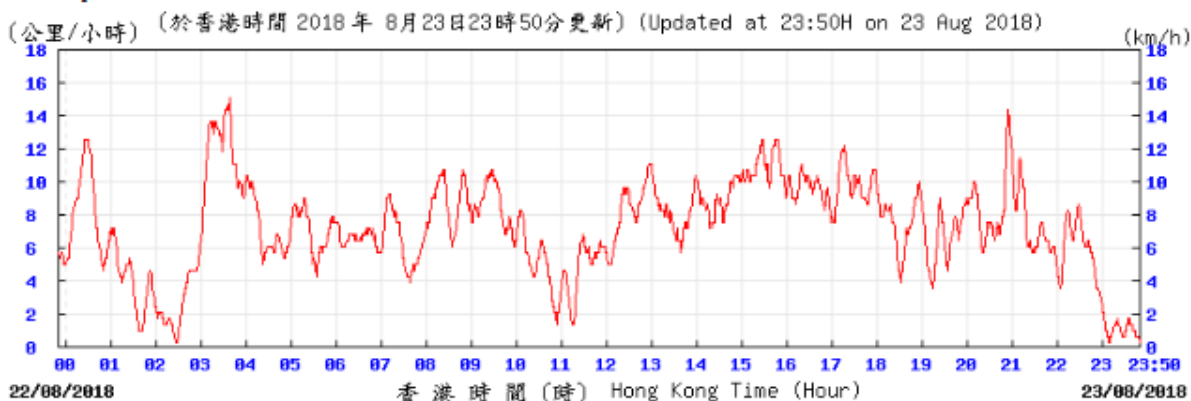
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Wind Direction:



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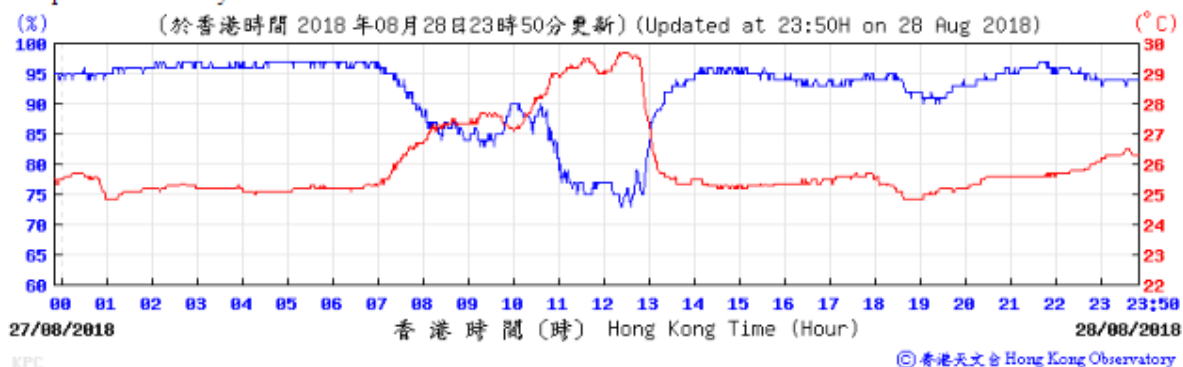
Wind Speed:



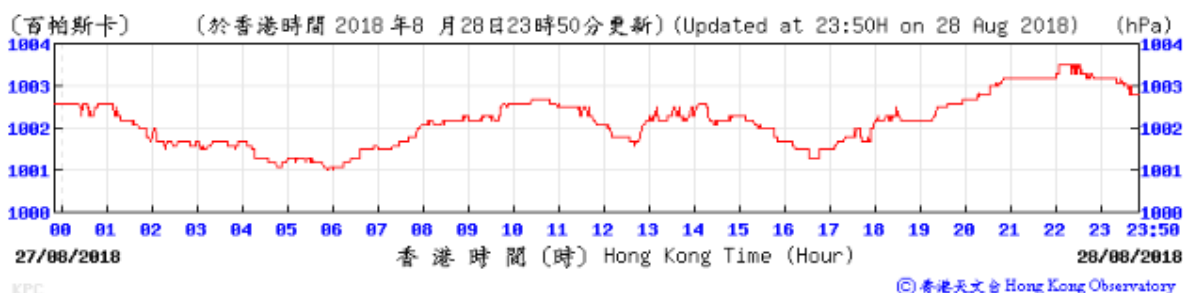
KPC

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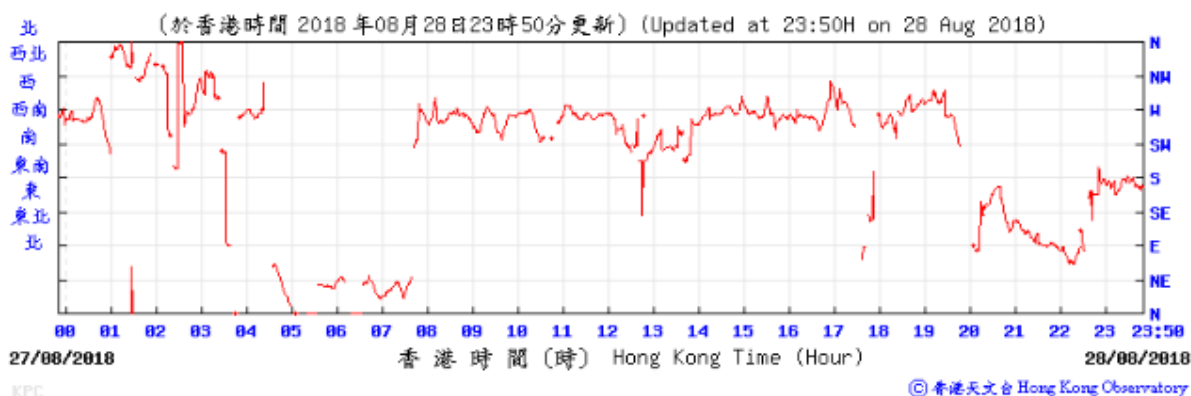
Temperature/Humidity:



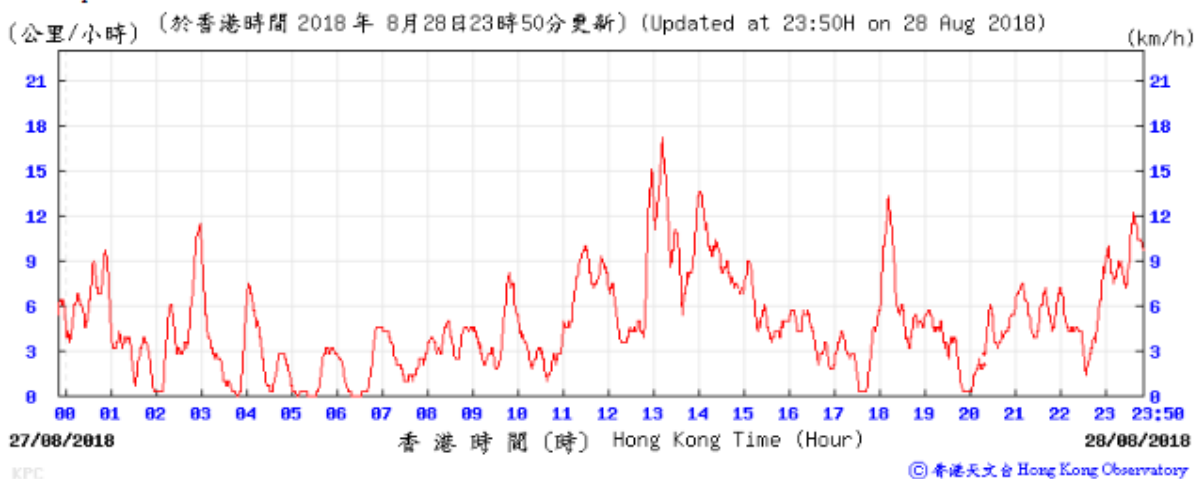
Pressure:



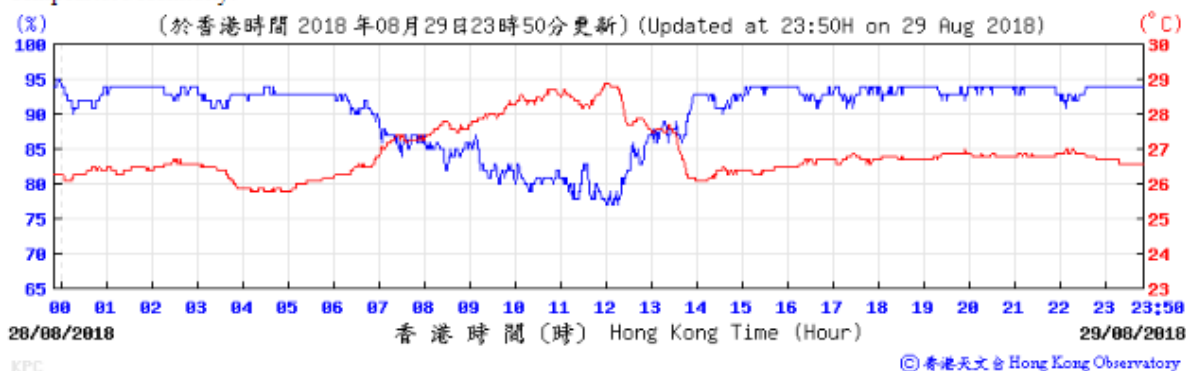
Wind Direction:



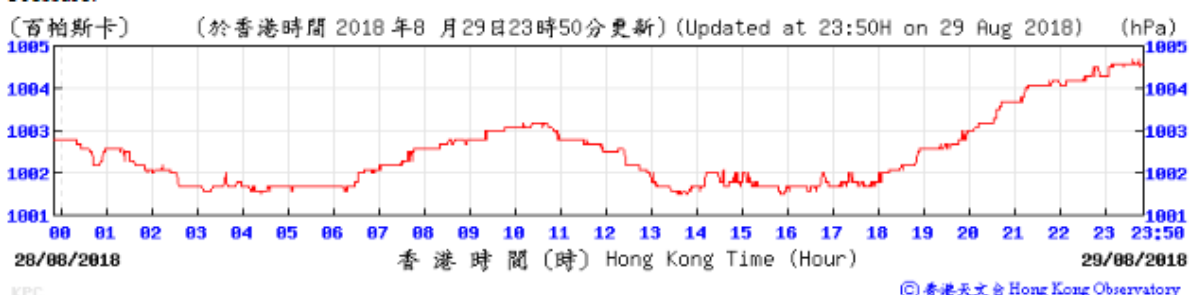
Wind Speed:



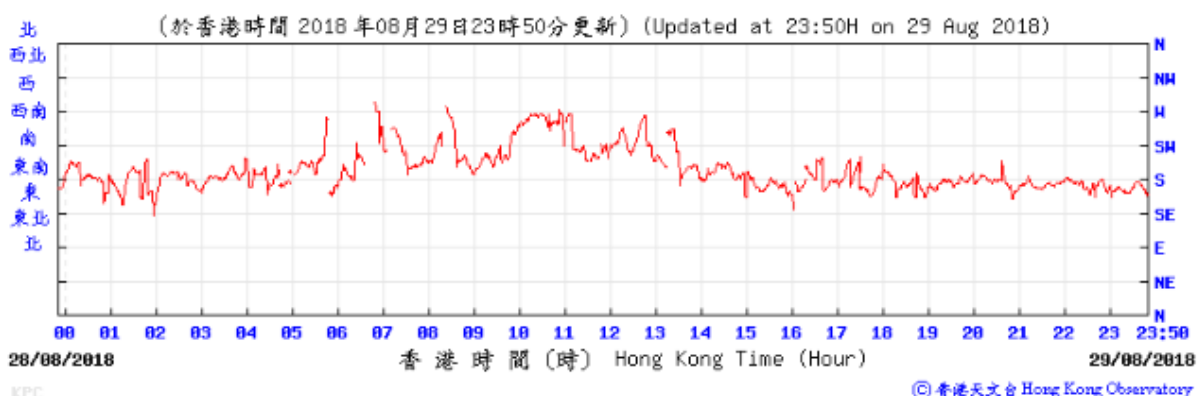
Temperature/Humidity:



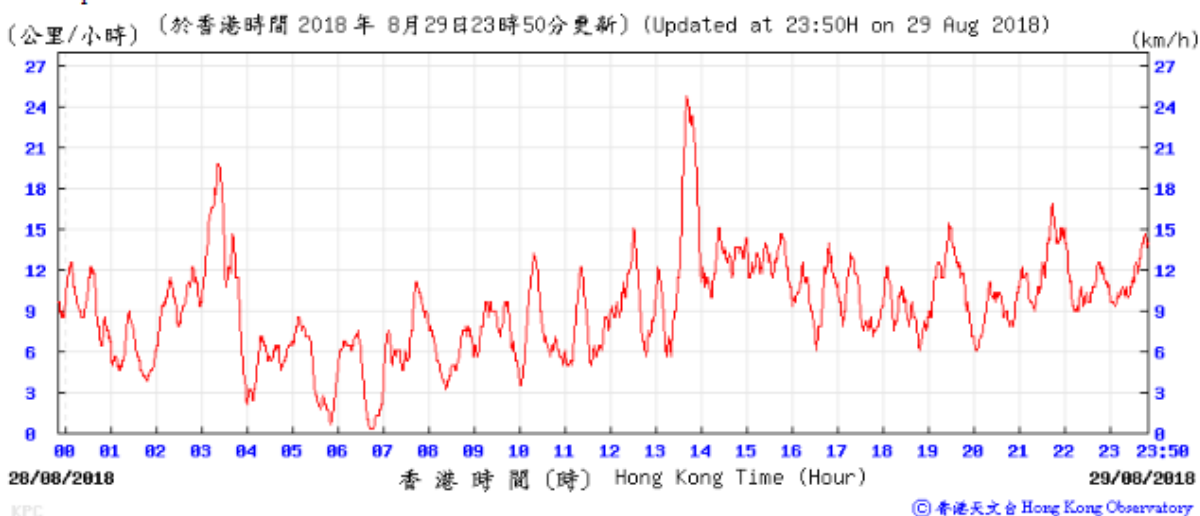
Pressure:



Wind Direction:



Wind Speed:



I. Waste Flow table

M+ Museum

Table I-1: Monthly Waste Flow Table for M+ Museum

Month	Actual Quantities of Inert C&D Materials Generated Monthly							Actual Quantities of 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	Disposed to Sorting Facility	Imported Fill	Metals	Paper/ Cardboard Packaging	Plastics	Wood/ Timber	Chemical Waste	Others, e.g. General Refuse
	(in tonnes)	(in tonnes)	(in tonnes)	(in tonnes)	(in tonnes)	(in tonnes)	(in tonnes)	(in tonnes)	(in tonnes)	(in tonnes)	(in tonnes)	(in tonnes)	(in tonnes)
2015													
Nov	46607.4	0.0	0.0	8240.0	38367.4	0.0	0.0	76.2	0.0	0.0	0.0	0.0	67.6
Dec	29652.9	0.0	0.0	29621.4	31.5	0.0	0.0	26.3	0.0	0.0	0.0	1.0	66.0
Sub-total (2015)	76260.3	0.0	0.0	37861.4	38398.9	0.0	0.0	102.5	0.0	0.0	0.0	1.0	133.6
2016													
Jan	21077.4	0.0	6352.0	14576.0	149.4	0.0	0.0	18.8	0.0	0.0	0.0	0.0	23.2
Feb	7626.2	0.0	3424.0	4048.0	154.2	0.0	0.0	59.8	0.0	0.0	0.0	0.0	20.5
Mar	10442.5	0.0	1600.0	7888.0	954.5	0.0	0.0	29.7	0.0	0.0	0.0	0.0	46.3
Apr	30413.2	0.0	6352.0	23408.0	653.2	0.0	0.0	25.8	0.1	0.0	27.8	0.0	34.5
May	24083.5	0.0	112.0	23216.0	755.5	0.0	0.0	61.5	0.4	0.0	33.6	0.0	62.3
Jun	7880.1	0.0	4736.0	2384.0	760.1	0.0	0.0	106.6	0.1	0.0	14.6	0.0	52.8
Jul	5893.1	0.0	2656.0	2240.0	997.1	0.0	0.0	77.6	0.0	0.0	33.6	0.0	83.1
Aug	13709.6	0.0	0.0	12432.0	1277.6	0.0	0.0	111.3	0.2	0.0	38.5	0.0	104.9
Sep	6702.0	0.0	0.0	5648.0	1000.1	53.9	0.0	104.2	0.0	0.0	45.5	0.2	107.9
Oct	2103.6	0.0	0.0	496.0	1595.4	12.2	0.0	83.0	0.4	0.0	73.5	0.0	108.2
Nov	3302.7	0.0	0.0	2384.0	855.5	63.2	0.0	88.4	0.6	0.0	63.0	0.0	129.1
Dec	899.8	0.0	0.0	736.0	126.8	37.0	0.0	48.3	0.6	0.0	70.0	0.0	89.0
Sub-total (2016)	134133.5	0.0	25232.0	99456.0	9279.3	166.3	0.0	814.9	2.3	0.0	400.1	0.2	861.8
2017													
Jan	675.2	0.0	0.0	432.0	237.9	5.3	0.0	79.5	1.0	0.0	70.0	0.0	79.7
Feb	927.7	0.0	0.0	768.0	125.6	34.0	0.0	70.5	0.6	0.0	84.0	0.0	81.4
Mar	1856.7	0.0	0.0	1280.0	466.9	109.8	0.0	62.8	0.4	0.0	98.0	0.0	148.5
Apr	642.4	0.0	0.0	160.0	324.9	157.5	0.0	87.5	0.7	0.0	175.0	0.0	102.5
May	1118.2	0.0	0.0	528.0	416.4	173.7	0.0	118.3	0.0	0.0	280.0	0.0	139.0
Jun	650.0	0.0	0.0	0.0	451.6	198.4	0.0	199.7	1.4	0.0	350.0	0.0	98.7
Jul	1762.0	0.0	0.0	0.0	1466.6	295.4	0.0	36.9	1.2	0.0	244.0	0.0	164.2
Aug	1231.5	0.0	0.0	0.0	867.5	364.0	0.0	50.9	0.9	0.0	59.0	0.0	186.9
Sep	1681.7	0.0	0.0	0.0	1342.0	339.7	0.0	52.3	0.7	0.0	77.0	0.0	265.3
Oct	483.6	0.0	0.0	0.0	242.5	241.1	0.0	374.8	0.6	0.0	24.1	0.0	128.5
Nov	822.8	0.0	0.0	0.0	344.5	478.3	0.0	948.5	0.7	0.0	140.0	0.2	219.1
Dec	601.3	0.0	0.0	0.0	236.2	365.1	0.0	903.6	0.8	0.0	320.0	0.0	241.9

Month	Actual Quantities of Inert C&D Materials Generated Monthly							Actual Quantities of 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	Disposed to Sorting Facility	Imported Fill	Metals	Paper/ Cardboard Packaging	Plastics	Wood/ Timber	Chemical Waste	Others, e.g. General Refuse
	(in tonnes)	(in tonnes)	(in tonnes)	(in tonnes)	(in tonnes)	(in tonnes)	(in tonnes)	(in tonnes)	(in tonnes)	(in tonnes)	(in tonnes)	(in tonnes)	(in tonnes)
Sub-total (2017)	12453.0	0.0	0.0	3168.0	6522.6	2762.4	0.0	2985.3	8.9	0.0	1921.1	0.2	1855.5
2018													
Jan	1015.3	0.0	0.0	0.0	574.1	441.2	0.0	773.3	1.5	0.0	100.0	0.0	183.6
Feb	847.6	0.0	0.0	0.0	608.3	239.3	0.0	34.0	1.0	0.0	25.0	0.0	154.9
Mar	1507.0	0.0	0.0	0.0	1102.1	404.9	0.0	39.5	1.5	0.0	120.0	0.0	264.1
Apr	2942.8	0.0	0.0	0.0	2542.4	400.4	0.0	60.1	0.3	0.0	100.0	0.0	252.5
May	2109.2	0.0	0.0	0.0	1593.3	515.9	0.0	37.0	0.4	0.0	70.0	0.0	311.4
Jun	1697.6	0.0	0.0	0.0	1162.4	535.2	0.0	47.0	0.3	0.0	105.0	0.0	188.2
Jul	945.5	0.0	0.0	0.0	646.1	299.4	0.0	15.2	0.4	0.0	100.0	0.0	277.6
Aug	No data is provided by the Contractor for construction works during 1 August 2018 to 17 August 2018.												
Sub-total (2018)	11064.8	0.0	0.0	0.0	8228.6	2836.3	0.0	1006.1	5.4	0.0	620.0	0.0	1632.3
Total	233911.6	0.0	25232.0	140485.4	62429.3	5765.0	0.0	4908.8	16.7	0.0	2941.2	1.4	4483.2

Note:
-For inert C&D materials reused in other projects, the projects refer to (1) Green Valley; (2) Advance Works for Shek Wu Hui Sewage Treatment Works (3) Design and Construction of Kai Tak Cable Tunnel, CLP; (4) MTR Contract 1002 Whampoa Station and Overrun Tunnel; (5) CEDD Tuen Mun Area 54 Contract No. CV/2015/03; (6) Union Construction Ltd.'s site; (7) Foundation Works at Marriot Hotel at Ocean Park.

Lyric Theatre Complex

Table I-2: Monthly Waste Flow Table for Lyric Theatre Complex

Month	Actual Quantities of Inert C&D Materials Generated Monthly							Actual Quantities of 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	Disposed to Sorting Facility	Imported Fill	Metals	Paper/ Cardboard Packaging	Plastics	Wood/ Timber	Chemical Waste	Others, e.g. General Refuse
	(in tonnes)	(in tonnes)	(in tonnes)	(in tonnes)	(in tonnes)	(in tonnes)	(in tonnes)	(in tonnes)	(in tonnes)	(in tonnes)	(in tonnes)	(in tonnes)	(in tonnes)
2016													
Mar	2702.1	0.0	0.0	0.0	2702.1	0.0	0.0	4.5	0.1	0.0	0.0	0.0	30.6
Apr	8631.5	0.0	0.0	0.0	8631.5	0.0	0.0	16.0	0.0	0.0	0.0	0.0	19.2
May	12487.8	0.0	0.0	0.0	12487.8	0.0	0.0	34.0	0.0	0.0	0.0	0.7	60.5
Jun	8600.8	0.0	0.0	0.0	8600.8	0.0	0.0	31.4	0.2	0.0	0.0	0.5	13.5
Jul	12624.2	0.0	0.0	0.0	12624.2	0.0	0.0	19.6	0.0	0.0	0.0	2.0	9.9
Aug	14419.9	0.0	0.0	0.0	14419.9	0.0	0.0	43.9	0.0	0.0	0.0	0.0	11.1
Sep	13671.3	0.0	0.0	0.0	13671.3	0.0	0.0	59.8	0.0	0.0	0.0	1.6	12.4
Oct	13088.9	0.0	0.0	0.0	13088.9	0.0	0.0	36.9	0.2	1.5	0.0	0.0	15.2
Nov	12424.7	0.0	0.0	0.0	12424.7	0.0	0.0	74.7	0.0	0.0	0.0	1.4	10.2
Dec	12487.6	0.0	0.0	0.0	12487.6	0.0	0.0	13.9	0.0	0.0	0.0	1.3	9.0
Sub-total (2016)	111138.8	0.0	0.0	0.0	111138.8	0.0	0.0	334.5	0.4	1.5	0.0	7.6	191.6
2017													
Jan	9607.8	0.0	0.0	0.0	9607.8	0.0	0.0	29.5	0.0	0.0	0.0	0.0	7.3
Feb	9108.2	0.0	0.0	0.0	9108.2	0.0	0.0	50.2	0.2	0.0	0.0	0.7	9.8
Mar	11361.7	0.0	0.0	0.0	11361.7	0.0	0.0	16.1	0.0	0.0	0.0	1.4	8.5
Apr	2591.5	0.0	0.0	0.0	2591.5	0.0	0.0	35.7	0.0	0.0	0.0	0.0	4.7
May	2579.3	0.0	0.0	99.0	2480.3	0.0	0.0	20.9	0.1	0.0	0.0	0.5	10.0
Jun	476.0	0.0	0.0	341.0	129.7	5.3	0.0	0.0	0.0	0.0	0.0	0.0	7.6
Jul	3419.0	0.0	0.0	804.0	2615.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	17.8
Aug	3730.9	0.0	0.0	1377.5	2353.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.4
Sep	2108.2	0.0	0.0	1133.5	974.7	0.0	0.0	34.6	0.2	0.0	0.0	0.0	10.8
Oct	9159.0	0.0	0.0	7868.0	1291.0	0.0	0.0	0.0	0.0	0.0	0.0	0.7	9.3
Nov	5095.4	0.0	0.0	4352.0	725.2	18.1	0.0	0.0	0.0	0.0	0.0	0.0	38.8
Dec	3856.2	0.0	0.0	3076.0	780.2	0.0	0.0	0.0	0.2	0.0	0.0	0.4	8.4
Sub-total (2017)	63093.1	0.0	0.0	19051.0	44018.7	23.4	0.0	187.1	0.7	0.0	0.0	3.8	137.3

Month	Actual Quantities of Inert C&D Materials Generated Monthly							Actual Quantities of 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	Disposed to Sorting Facility	Imported Fill	Metals	Paper/ Cardboard Packaging	Plastics	Wood/ Timber	Chemical Waste	Others, e.g. General Refuse
	(in tonnes)	(in tonnes)	(in tonnes)	(in tonnes)	(in tonnes)	(in tonnes)	(in tonnes)	(in tonnes)	(in tonnes)	(in tonnes)	(in tonnes)	(in tonnes)	(in tonnes)
2018													
Jan	4083.7	0.0	0.0	1455.0	2628.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.9
Feb	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.2
Mar	6120.2	0.0	0.0	5782.0	338.2	0.0	0.0	0.0	0.0	1.0	0.0	0.5	17.6
Apr	14460.3	0.0	0.0	12484.1	1976.3	0.0	0.0	0.0	0.0	0.2	0.0	0.0	7.6
May	59783.7	0.0	0.0	46989.0	12794.7	0.0	0.0	59.3	0.0	0.0	0.0	0.0	9.4
Jun	53117.5	0.0	0.0	37642.8	15474.7	0.0	0.0	51.2	0.2	0.0	0.0	0.0	12.8
Jul	89901.5	0.0	0.0	85317.1	4584.4	0.0	165.1	114.6	0.0	0.0	0.0	0.0	41.3
Aug	33852.0	0.0	0.0	32917.7	934.3	0.0	214.3	148.1	0.0	0.0	0.0	0.0	42.4
Sub-total (2018)	261319.0	0.0	0.0	222587.7	38731.3	0.0	379.3	373.2	0.2	1.2	0.0	0.5	135.0
Total	435930.2	0.0	0.0	241638.7	193888.7	23.4	379.3	894.7	1.2	2.7	0.0	11.9	463.9

Note:

-677.22 tonnes and 257.12 tonnes of inert C&D material were disposed of as public fill to Tseung Kwan O Area 137 and Tuen Mun Area 38 Public Fill respectively in the reporting month.

-Quantities of waste materials generated for the previous reporting months have been updated by Contractor.

J. Environmental Mitigation Measures – Implementation Status

Table J-1: Environmental Mitigation Measures Implementation Status

EM&A Ref.	Recommendation Measures	Implementation Stage	
		M+ Museum	Lyric Theatre Complex
Air Quality Impact (Construction)			
2.1 & 10.3.1	<p>General Dust Control Measures</p> <p>Frequent water spraying for active construction areas (12 times a day or once every one hour), including Heavy construction activities such as construction of buildings or roads, drilling, ground excavation, cut and fill operations (i.e., earth moving)</p>	Obs	✓
2.1 & 10.3.1	<p>Best Practice For Dust Control</p> <p>The relevant best practices for dust control as stipulated in the Air Pollution Control (construction Dust) Regulation should be adopted to further reduce the construction dust impacts from the Project. These best practices include:</p> <p><i>Good Site Management</i></p> <ul style="list-style-type: none"> • Good site management is important to help reducing potential air quality impact down to an acceptable level. As a general guide, the Contractor should maintain high standard of housekeeping to prevent emission of fugitive dust. Loading, unloading, handling and storage of raw materials, wastes or by-products should be carried out in a manner so as to minimise the release of visible dust emission. Any piles of materials accumulated on or around the work areas should be cleaned up regularly. Cleaning, repair and maintenance of all plant facilities within the work areas should be carried out in a manner minimising generation of fugitive dust emissions. The material should be handled properly to prevent fugitive dust emission before cleaning. <p><i>Disturbed Parts of the Roads</i></p> <ul style="list-style-type: none"> • Each and every main temporary access should be paved with concrete, bituminous hardcore materials or metal plates and kept clear of dusty materials; or • Unpaved parts of the road should be sprayed with water or a dust suppression chemical so as to keep the entire road surface wet. <p><i>Exposed Earth</i></p> <ul style="list-style-type: none"> • Exposed earth should be properly treated by compaction, hydroseeding, vegetation planting or seating with latex, vinyl, bitumen within six months after the last construction activity on the site or part of the site where the exposed earth lies. <p><i>Loading, Unloading or Transfer of Dusty Materials</i></p> <ul style="list-style-type: none"> • All dusty materials should be sprayed with water immediately prior to any loading or transfer operation 	Obs	Obs
		✓	✓
		✓	✓
		N/A	N/A
		✓	✓

EM&A Ref.	Recommendation Measures	Implementation Stage	
		M+ Museum	Lyric Theatre Complex
	so as to keep the dusty material wet.		
	<i>Debris Handling</i>		
	<ul style="list-style-type: none"> Any debris should be covered entirely by impervious sheeting or stored in a debris collection area sheltered on the top and the three sides. 	✓	✓
	<ul style="list-style-type: none"> Before debris is dumped into a chute, water should be sprayed so that it remains wet when it is dumped. 	✓	✓
	<i>Transport of Dusty Materials</i>		
	<ul style="list-style-type: none"> Vehicle used for transporting dusty materials/spoils should be covered with tarpaulin or similar material. The cover should extend over the edges of the sides and tailboards. 	✓	✓
	<i>Wheel washing</i>		
	<ul style="list-style-type: none"> Vehicle wheel washing facilities should be provided at each construction site exit. Immediately before leaving the construction site, every vehicle should be washed to remove any dusty materials from its body and wheels. 	✓	✓
	<i>Use of vehicles</i>		
	<ul style="list-style-type: none"> The speed of the trucks within the site should be controlled to about 10km/hour in order to reduce adverse dust impacts and secure the safe movement around the site. 	✓	✓
	<ul style="list-style-type: none"> Immediately before leaving the construction site, every vehicle should be washed to remove any dusty materials from its body and wheels. 	✓	✓
	<ul style="list-style-type: none"> Where a vehicle leaving the construction site is carrying a load of dusty materials, the load should be covered entirely by clean impervious sheeting to ensure that the dusty materials do not leak from the vehicle. 	✓	✓
	<i>Site hoarding</i>		
	<ul style="list-style-type: none"> Where a site boundary adjoins a road, street, service lane or other area accessible to the public, hoarding of not less than 2.4m high from ground level should be provided along the entire length of that portion of the site boundary except for a site entrance or exit. 	✓	✓
2.1 & 10.3.1	<p>Best Practicable Means for Cement Works (Concrete Batching Plant)</p> <p>The relevant best practices for dust control as stipulated in the Guidance Note on the Best Practicable Means for Cement Works (Concrete Batching Plant) BPM 3/2(93) should be followed and implemented to further reduce the construction dust impacts of the Project. These best practices include:</p> <p>Exhaust from Dust Arrestment Plant</p>		

EM&A Ref.	Recommendation Measures	Implementation Stage	
		M+ Museum	Lyric Theatre Complex
	<ul style="list-style-type: none"> Wherever possible the final discharge point from particulate matter arrestment plant, where is not necessary to achieve dispersion from residual pollutants, should be at low level to minimise the effect on the local community in the case of abnormal emissions and to facilitate maintenance and inspection 	✓	✓
	Emission Limits		
	<ul style="list-style-type: none"> All emissions to air, other than steam or water vapour, shall be colourless and free from persistent mist or smoke 	✓	✓
	Engineering Design/Technical Requirements		
	<ul style="list-style-type: none"> As a general guidance, the loading, unloading, handling and storage of fuel, raw materials, products, wastes or by-products should be carried out in a manner so as to prevent the release of visible dust and/or other noxious or offensive emissions 	✓	✓
-	<p>Non-Road Mobile Machinery (NRMM):</p> <p>All NRMMs operating on-site which are subject to emission control of Air Pollution Control (Non-road Mobile Machinery) (Emission) Regulation are approved/exempted (as the case may be) and affixed with the requisite approval/exemption labels.</p>	✓	✓
Noise Impact (Construction)			
3.1 & 10.4.1	<p>Good Site Practice</p> <p>Good site practice and noise management can significantly reduce the impact of construction site activities on nearby NSRs. The following package of measures should be followed during each phase of construction:</p> <ul style="list-style-type: none"> only well-maintained plant to be operated on-site and plant should be serviced regularly during the construction works; machines and plant that may be in intermittent use to be shut down between work periods or should be throttled down to a minimum; plant known to emit noise strongly in one direction, should, where possible, be orientated to direct noise away from the NSRs; mobile plant should be sited as far away from NSRs as possible; and material stockpiles and other structures to be effectively utilised, where practicable, to screen noise from on-site construction activities. 	✓	✓
3.1 & 10.4.1	<p>Adoption of Quieter PME</p> <p>The recommended quieter PME adopted in the assessment were taken from the EPD's QPME Inventory and "Sound Power Levels of Other Commonly Used PME" are presented in Table 4.26 in the EIA report. It should be noted that the silenced PME selected for assessment can be found in Hong Kong.</p>	N/A	N/A

EM&A Ref.	Recommendation Measures	Implementation Stage	
		M+ Museum	Lyric Theatre Complex
3.1 & 10.4.1	Use of Movable Noise Barriers Movable noise barriers can be very effective in screening noise from particular items of plant when constructing the Project. Noise barriers located along the active works area close to the noise generating component of a PME could produce at least 10 dB(A) screening for stationary plant and 5 dB(A) for mobile plant provided the direct line of sight between the PME and the NSRs is blocked.	N/A	✓
3.1 & 10.4.1	Use of Noise Enclosure/ Acoustic Shed The use of noise enclosure or acoustic shed is to cover stationary PME such as air compressor and concrete pump. With the adoption of the noise enclosure, the PME could be completely screened, and noise reduction of 15 dB(A) can be achieved according to the EIAO Guidance Note No.9/2010.	N/A	N/A
3.1 & 10.4.1	Use of Noise Insulating Fabric Noise insulating fabric can also be adopted for certain PME (e.g. drill rig, pilling machine etc). The fabric should be lapped such that there are no openings or gaps on the joints. According to the approved Tsim Sha Tsui Station Northern Subway EIA report (AEIAR-127/2008), a noise reduction of 10 dB(A) can be achieved for the PME lapped with the noise insulating fabric.	✓	✓
3.1 & 10.4.1	Scheduling of Construction Works outside School Examination Periods During construction phase, the contractor should liaise with the educational institutions (including NSRs LCS and CRGPS) to obtain the examination schedule and avoid the noisy construction activities during school examination periods.	N/A	N/A
Water Quality Impact (Construction)			
4.1 & 10.5.1	Construction site runoff and drainage The site practices outlined in ProPECC Note PN 1/94 should be followed as far as practicable in order to minimise surface runoff and the chance of erosion. The following measures are recommended to protect water quality and sensitive uses of the coastal area, and when properly implemented should be sufficient to adequately control site discharges so as to avoid water quality impacts: <ul style="list-style-type: none"> At the start of site establishment, perimeter cut-off drains to direct off-site water around the site should be constructed with internal drainage works and erosion and sedimentation control facilities implemented. Channels, earth bunds or sand bag barriers should be provided on site to direct storm water to silt removal facilities. The design of the temporary on-site drainage system should be undertaken by the WKCDA's Contractor prior to the commencement of construction; Sand/silt removal facilities such as sand/silt traps and sediment basins should be provided to remove sand/silt particles from runoff to meet the requirements of the TM standards under the WPCO. The design of efficient silt removal facilities should be based on the guidelines in Appendix A1 of ProPECC Note PN 1/94. Sizes may vary depending upon the flow rate. The detailed design of the sand/silt traps should be undertaken by the WKCDA's Contractor prior to the commencement of construction. All drainage facilities and erosion and sediment control structures should be regularly inspected and 	✓	Obs
		✓	✓
		✓	✓

EM&A Ref.	Recommendation Measures	Implementation Stage	
		M+ Museum	Lyric Theatre Complex
	maintained to ensure proper and efficient operation at all times and particularly during rainstorms. Deposited silt and grit should be regularly removed, at the onset of and after each rainstorm to ensure that these facilities are functioning properly at all times.		
	<ul style="list-style-type: none"> Measures should be taken to minimize the ingress of site drainage into excavations. If excavation of trenches in wet periods is necessary, they should be dug and backfilled in short sections wherever practicable. Water pumped out from foundation excavations should be discharged into storm drains via silt removal facilities. 	✓	✓
	<ul style="list-style-type: none"> All vehicles and plant should be cleaned before leaving a construction site to ensure no earth, mud, debris and the like is deposited by them on roads. An adequately designed and sited wheel washing facility should be provided at construction site exit where practicable. Wash-water should have sand and silt settled out and removed regularly to ensure the continued efficiency of the process. The section of access road leading to, and exiting from, the wheel-wash bay to the public road should be paved with sufficient backfall toward the wheel-wash bay to prevent vehicle tracking of soil and silty water to public roads and drains. 	✓	✓
	<ul style="list-style-type: none"> Open stockpiles of construction materials or construction wastes on-site should be covered with tarpaulin or similar fabric during rainstorms. Measures should be taken to prevent the washing away of construction materials, soil, silt or debris into any drainage system. 	✓	✓
	<ul style="list-style-type: none"> Manholes (including newly constructed ones) should be adequately covered and temporarily sealed so as to prevent silt, construction materials or debris being washed into the drainage system and stormwater runoff being directed into foul sewers. 	✓	✓
	<ul style="list-style-type: none"> Precautions should be taken at any time of the year when rainstorms are likely. Actions should be taken when a rainstorm is imminent or forecasted and actions to be taken during or after rainstorms are summarized in Appendix A2 of ProPECC Note PN 1/94. Particular attention should be paid to the control of silty surface runoff during storm events, especially for areas located near steep slopes. 	Obs	✓
	<ul style="list-style-type: none"> Bentonite slurries used in piling or slurry walling should be reconditioned and reused wherever practicable. Temporary enclosed storage locations should be provided on-site for any unused bentonite that needs to be transported away after all the related construction activities are completed. The requirements in ProPECC Note PN 1/94 should be adhered to in the handling and disposal of bentonite slurries. 	N/A	N/A
	Barging facilities and activities		
	Recommendations for good site practices during operation of the proposed barging point include:		
	<ul style="list-style-type: none"> All vessels should be sized so that adequate clearance is maintained between vessels and the seabed in all tide conditions, to ensure that undue turbidity is not generated by turbulence from vessel movement or propeller wash; 	N/A	N/A
	<ul style="list-style-type: none"> Loading of barges and hoppers should be controlled to prevent splashing of material into the surrounding water. Barges or hoppers should not be filled to a level that will cause the overflow of 	N/A	N/A

EM&A Ref.	Recommendation Measures	Implementation Stage	
		M+ Museum	Lyric Theatre Complex
	materials or polluted water during loading or transportation;		
	<ul style="list-style-type: none"> All hopper barges should be fitted with tight fitting seals to their bottom openings to prevent leakage of material; and Construction activities should not cause foam, oil, grease, scum, litter or other objectionable matter to be present on the water within the site. 	N/A	N/A
4.1 & 10.5.1	<p>Sewage effluent from construction workforce</p> <p>Temporary sanitary facilities, such as portable chemical toilets, should be employed on-site where necessary to handle sewage from the workforce. A licensed contractor should be employed to provide appropriate and adequate portable toilets and be responsible for appropriate disposal and maintenance.</p>	✓	✓
4.1 & 10.5.1	<p>General construction activities</p> <ul style="list-style-type: none"> Construction solid waste, debris and refuse generated on-site should be collected, handled and disposed of properly to avoid entering any nearby storm water drain. Stockpiles of cement and other construction materials should be kept covered when not being used. Oils and fuels should only be stored in designated areas which have pollution prevention facilities. To prevent spillage of fuels and solvents to any nearby storm water drain, all fuel tanks and storage areas should be provided with locks and be sited on sealed areas, within bunds of a capacity equal to 110% of the storage capacity of the largest tank. The bund should be drained of rainwater after a rain event. 	✓	✓
Waste Management Implications (Construction)			
6.1 & 10.7.1	<p>Good Site Practices</p> <p>Recommendations for good site practices during the construction activities include:</p> <ul style="list-style-type: none"> Nomination of an approved person, such as a site manager, to be responsible for good site practices, arrangements for collection and effective disposal to an appropriate facility, of all wastes generated at the site Training of site personnel in proper waste management and chemical handling procedures Provision of sufficient waste disposal points and regular collection of waste Appropriate measures to minimise windblown litter and dust/odour during transportation of waste by either covering trucks or by transporting wastes in enclosed containers Provision of wheel washing facilities before the trucks leaving the works area so as to minimise dust introduction to public roads Well planned delivery programme for offsite disposal such that adverse environmental impact from transporting the inert or non-inert C&D materials is not anticipated 	✓	✓
6.1 & 10.7.1	<p>Waste Reduction Measures</p> <p>Recommendations to achieve waste reduction include:</p>		

EM&A Ref.	Recommendation Measures	Implementation Stage	
		M+ Museum	Lyric Theatre Complex
	<ul style="list-style-type: none"> Sort inert C&D material to recover any recyclable portions such as metals Segregation and storage of different types of waste in different containers or skips to enhance reuse or recycling of materials and their proper disposal Encourage collection of recyclable waste such as waste paper and aluminium cans by providing separate labelled bins to enable such waste to be segregated from other general refuse generated by the work force Proper site practices to minimise the potential for damage or contamination of inert C&D materials Plan the use of construction materials carefully to minimise amount of waste generated and avoid unnecessary generation of waste 	✓ ✓ ✓ ✓ ✓	✓ ✓ ✓ ✓ ✓
6.1 & 10.7.1	<p>Inert and Non-inert C&D Materials</p> <p>In order to minimise impacts resulting from collection and transportation of inert C&D material for off-site disposal, the excavated materials should be reused on-site as fill material as far as practicable. In addition, inert C&D material generated from excavation works could be reused as fill materials in local projects that require public fill for reclamation.</p> <ul style="list-style-type: none"> The surplus inert C&D material will be disposed of at the Government's PFRFs for beneficial use by other projects in Hong Kong. Liaison with the CEDD Public Fill Committee (PFC) on the allocation of space for disposal of the inert C&D materials at PFRF is underway. No construction work is allowed to proceed until all issues on management of inert C&D materials have been resolved and all relevant arrangements have been endorsed by the relevant authorities including PFC and EPD. The C&D materials generated from general site clearance should be sorted on site to segregate any inert materials for reuse or disposal of at PFRFs whereas the non-inert materials will be disposed of at the designated landfill site. In order to monitor the disposal of inert and non-inert C&D materials at respectively PFRFs and the designated landfill site, and to control fly-tipping, it is recommended that the Contractor should follow the Technical Circular (Works) No.6/2010 for Trip Ticket System for Disposal of Construction & Demolition Materials issued by Development Bureau. In addition, it is also recommended that the Contractor should prepare and implement a Waste Management Plan detailing their various waste arising and waste management practices in accordance with the relevant requirements of the Technical Circular (Works) No. 19/2005 Environmental Management on Construction Site. 	✓ ✓ ✓ ✓ ✓	✓ ✓ ✓ ✓ ✓
6.1 & 10.7.1	<p>Chemical Waste</p> <ul style="list-style-type: none"> If chemical wastes are produced at the construction site, the Contractor will be required to register with the EPD as a chemical waste producer and to follow the guidelines stated in the "Code of Practice on 		

EM&A Ref.	Recommendation Measures	Implementation Stage	
		M+ Museum	Lyric Theatre Complex
	<p>the Packaging Labelling and Storage of Chemical Wastes". Good quality containers compatible with the chemical wastes should be used, and incompatible chemicals should be stored separately. Appropriate labels should be securely attached on each chemical waste container indicating the corresponding chemical characteristics of the chemical waste, such as explosive, flammable, oxidizing, irritant, toxic, harmful, corrosive, etc. The Contractor should use a licensed collector to transport and dispose of the chemical wastes at the approved Chemical Waste Treatment Centre or other licensed recycling facilities, in accordance with the Waste Disposal (Chemical Waste) (General) Regulation.</p> <ul style="list-style-type: none"> Potential environmental impacts arising from the handling activities (including storage, collection, transportation and disposal of chemical waste) are expected to be minimal with the implementation of appropriate mitigation measures as recommended. 	✓	✓
6.1 & 10.7.1	<p>General Refuse</p> <p>General refuse should be stored in enclosed bins or compaction units separated from inert C&D materials. A reputable waste collector should be employed by the Contractor to remove general refuse from the site, separately from inert C&D materials. Preferably an enclosed and covered area should be provided to reduce the occurrence of 'wind blown' light material.</p>	✓	✓
Land Contamination (Construction)			
7.1 & 10.8.1	<p>The potential for land contamination issues at the TST Fire Station due to its future relocation will be confirmed by site investigation after land acquisition. Where necessary, mitigation measures for minimising potential exposure to contaminated materials (if any) or remediation measures will be identified. If contaminated land is identified (e.g., during decommissioning of fuel oil storage tanks) after the commencement of works, mitigation measures are proposed in order to minimise the potentially adverse effects on the health and safety of construction workers and impacts arising from the disposal of potentially contaminated materials.</p> <p>The following measures are proposed for excavation and transportation of contaminated material:</p> <ul style="list-style-type: none"> To minimize the chance for construction workers to come into contact with any contaminated materials, bulk earth-moving excavation equipment should be employed; Contact with contaminated materials can be minimised by wearing appropriate clothing and personal protective equipment such as gloves and masks (especially when interacting directly with contaminated material), provision of washing facilities and prohibition of smoking and eating on site; Stockpiling of contaminated excavated materials on site should be avoided as far as possible; The use of contaminated soil for landscaping purpose should be avoided unless pre-treatment was carried out; Vehicles containing any contaminated excavated materials should be suitably covered to reduce dust 	N/A	N/A
		N/A	N/A
		N/A	N/A
		N/A	N/A
		N/A	N/A

EM&A Ref.	Recommendation Measures	Implementation Stage	
		M+ Museum	Lyric Theatre Complex
	emissions and/or release of contaminated wastewater;	N/A	N/A
	<ul style="list-style-type: none"> • Truck bodies and tailgates should be sealed to stop any discharge; • Only licensed waste haulers should be used to collect and transport contaminated material to treatment/disposal site and should be equipped with tracking system to avoid fly tipping; • Speed control for trucks carrying contaminated materials should be exercised; • Observe all relevant regulations in relation to waste handling, such as Waste Disposal Ordinance (Cap 354), Waste Disposal (Chemical Waste) (General) Regulation (Cap 354) and obtain all necessary permits where required; and • Maintain records of waste generation and disposal quantities and disposal arrangements. 	N/A	N/A
Ecological Impact (Construction)			
No mitigation measure is required.			
Landscape and Visual Impact (Construction)			
Table 9.1 & 10.8 (CM1)	Trees should be retained in situ on site as far as possible. Should tree removal be unavoidable due to construction impacts, trees will be transplanted or felled with reference to the stated criteria in the Tree Removal Applications to be submitted to relevant government departments for approval in accordance to ETWB TCW No. 29/2004 and 3/2006.	N/A	N/A
Table 9.1 & 10.8 (CM2)	Compensatory tree planting shall be incorporated to the proposed project and maximize the new tree, shrubs and other vegetation planting to compensate tree felled and vegetation removed. Also, implementation of compensatory planting should be of a ratio not less than 1:1 in terms of quality and quantity within the site.	N/A	N/A
Table 9.1 & 10.8 (CM3)	Buffer trees for screening purposes to soften the hard architectural and engineering structures and facilities.	N/A	N/A
Table 9.1 & 10.8 (CM4)	Softscape treatments such as vertical green wall panel /planting of climbing and/or weeping plants, etc, to maximize the green coverage and soften the hard architectural and engineering structures and facilities.	N/A	N/A
Table 9.1 & 10.8 (CM5)	Roof greening by means of intensive and extensive green roof to maximize the green coverage and improve aesthetic appeal and visual quality of the building/structure.	N/A	N/A
Table 9.1 & 10.8 (CM6)	Sensitive streetscape design should be incorporated along all new roads and streets.	N/A	N/A
Table 9.1 & 10.8 (CM7)	Structure, ornamental planting shall be provided along amenity strips to enhance the landscape quality.	N/A	N/A
Table 9.1 & 10.8 (CM8)	Landscape design shall be incorporated to architectural and engineering structures in order to provide aesthetically pleasing designs.	N/A	N/A

EM&A Ref.	Recommendation Measures	Implementation Stage	
		M+ Museum	Lyric Theatre Complex
Table 9.1 (CM9)	Minimize the structure of marine facilities to be built on the seabed and foreshore in order to minimize the affected extent to the waterbody	N/A	N/A
Table 9.2 & 10.9 (MCP1)	Use of decorative screen hoarding/boards	✓	✓
Table 9.2 & 10.9 (MCP2)	Early introduction of landscape treatments	N/A	N/A
Table 9.2 & 10.9 (MCP3)	Adoption of light colour for the temporary ventilation shafts for the basement during the transition period.	N/A	N/A
Table 9.2 & 10.9 (MCP4)	Control of night time lighting	✓	✓
Table 9.2 & 10.9 (MCP5)	Use of greenery such as grass cover for the temporary open areas will help achieve the visual balance and soften the hard edges of the structures.	N/A	N/A

N/A - Not Applicable

✓ - Implemented

Obs - Observed

Rem - Reminder

K. Cumulative Statistics on Complaints, Notifications of Summons and Successful Prosecutions

Cumulative statistics for complaints, notifications of summons and successful prosecutions for the Project account for period starting from the date of commencement of construction works (i.e. 31 October 2015 for M+ Museum main works and 1 March 2016 for Lyric Theatre Complex) to the end of the reporting month and are summarised in the **Table K-1** and **Table K-2** below respectively.

Table K-1: Statistics for complaints, notifications of summons and successful prosecutions for M+ Museum Main Works

Reporting Period	Cumulative Statistics		
	Complaints	Notifications of summons	Successful prosecutions
This reporting month	0	0	0
From 31 October 2015 to end of the reporting month	4	1	0

Table K-2: Statistics for complaints, notifications of summons and successful prosecutions for Lyric Theatre Complex

Reporting Period	Cumulative Statistics		
	Complaints	Notifications of summons	Successful prosecutions
This reporting month	0	0	0
From 1 March 2016 to end of the reporting month	5	0	0