Development at West Kowloon Cultural District

Monthly Environmental Monitoring and Audit (EM&A) Report for June 2016

July 2016

Mott MacDonald

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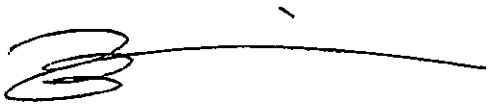
This Monthly EM&A Report has been reviewed and certified by the Environmental Team Leader (ETL) and verified by the Independent Environmental Checker (IEC).

Certified by:



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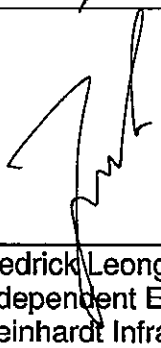

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Executive Summary

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 Foundation Works (Contract No.: CC/2015/3A/014) 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/A (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.

This Monthly EM&A Report presents the monitoring works at both the main works of M+ Museum and foundation works of Lyric Theatre Complex conducted from 1 June to 30 June 2016.

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, 10 (with follow-up inspection on 13 June 2016), 16, 23 and 30 June 2016 for M+ Museum and 1, 7, 17, 22 and 28 June 2016 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.

EPD site inspection with Contractor was conducted on 10, 21 and 22 June 2016 at M+ Museum. A pink form was issued to the Contractor on 10 June 2016 and water sample at discharge point at ICP of M+ Museum was collected by EPD.

EPD site inspection with Contractor was conducted on 29 June 2016 at Lyric Theatre Complex.

Record of Complaints

One environmental complaint regarding muddy water discharge 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 at M+ Museum scheduled to be commissioned in the coming month include:

- Excavation
- Construction of pile caps
- Installation/ removal of strut of lateral support
- Construction of slab
- Construction of core wall

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

- H-Pile Construction
- Bored Pile Construction
- Excavation and lateral support

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 Foundation Works (Contract No.: CC/2015/3A/014) 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/A (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/A. This Monthly EM&A Report presents the monitoring works at both the main works of M+ Museum and foundation works of Lyric Theatre Complex conducted from 1 June to 30 June 2016. 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 the reporting period, construction works at M+ Museum undertaken include:

- Excavation
- Construction of pile caps
- Installation of lateral support
- Construction of slab
- Construction of water tank
- Construction of core wall

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

- H-Pile Construction
- Bored Pile Construction
- Excavation and lateral support

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	AM2 - The Harbourside Tower 1	At least once every 6 days
	1-Hour TSP	AM2 - The Harbourside Tower 1	At least 3 times every 6 days
Noise	L_{eq}, 30 minutes	NM1- 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 and a secure electricity supply is available there. 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 AM2 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)
AM2	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-3B (Serial No.: 245834)

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 m^3/min. The range specified in the EM&A Manual was between 0.6-1.7 m^3/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**.

<u>1-hour TSP Monitoring</u>

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 min), L_{90}(30 min) & L_{10} (30 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

	Equipment Model	
Monitoring Station	Integrating Sound Level Meter	Calibrator
NM1	Rion NL-18 (Serial No.00360030)	Rion NC-73 (Serial No.10997142)

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 AM2 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 (µg/m^3)			Range (µg/m^3)	Action Level (µg/m^3)	Limit Level (µg/m^3)
			1st Result	2nd Result	3rd Result			
AM1	02-Jun-16	10:38	64	61	55	51-64	273.7	500
	08-Jun-16	10:30	56	51	52			
	14-Jun-16	10:30	56	59	61			
	20-Jun-16	10:40	52	55	60			
	24-Jun-16	8:15	52	59	60			
	30-Jun-16	10:30	59	64	61			
AM2	02-Jun-16	10:48	70	63	59	51-78	274.2	500
	08-Jun-16	10:37	61	58	54			
	14-Jun-16	10:42	66	56	63			
	20-Jun-16	10:50	58	62	57			
	24-Jun-16	8:27	58	62	51			
	30-Jun-16	10:40	69	72	78			

3.2.2 24-hour TSP

Results of 24-hour TSP at the monitoring location AM1 and AM2 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 (µg/m^3)	Range (µg/m^3)	Action Level (µg/m^3)	Limit Level (µg/m^3)
AM1	02-Jun-16	10:35	44	43-53	143.6	260
	08-Jun-16	10:32	51			
	14-Jun-16	10:32	53			
	20-Jun-16	10:38	47			

Monitoring Station	Monitoring Date	Start Time	Monitoring Results ($\mu g/m^3$)	Range ($\mu g/m^3$)	Action Level ($\mu g/m^3$)	Limit Level ($\mu g/m^3$)
AM2	24-Jun-16	08:17	47	44-58	151.1	260
	30-Jun-16	10:32	43			
	02-Jun-16	10:50	51			
	08-Jun-16	10:40	58			
	14-Jun-16	10:44	49			
	20-Jun-16	10:51	49			
	24-Jun-16	08:30	44			
	30-Jun-16	10:42	54			

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	L_{eq} (30 mins), dB(A)	Limit Level for L_{eq} (dB(A))
02-Jun-16	14:00	14:30	69.4	75
08-Jun-16	14:00	14:30	67.8	
14-Jun-16	14:00	14:30	68.7	
20-Jun-16	14:00	14:30	68.7	
30-Jun-16	14:00	14:30	69.4	

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, 19 and 26 June 2016. Additional monitoring was carried out during the restricted hours on 5, 12, 19 and 26 June 2016. The measured L_{eq} (30 mins) is in the range of 68.0 – 68.9 dB(A). Construction Noise Permit for the works carried out during restricted hours was 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 10 and 23 June 2016 for M+ Museum and 7 and 22 June 2016 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, 10 (with follow-up inspection on 13 June), 16, 23 and 30 June 2016. The joint site inspection with IEC, ET, ER and Contractor was held on 10 June 2016. EPD site inspection with Contractor was conducted on 10, 21 and 22 June 2016. Items including overall drainage arrangements, water samples at discharge points and M66 stockpile area were inspected. A pink from has been issued to the Contractor on 10 June 2016 and water sample was collected at discharge point at ICP of M+ Museum by EPD. No non-compliance was recorded during the site inspection. 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	Contactor's Responses / Action(s) Undertaken	Close-out (Date)
2 Jun 2016	Air quality	The contractor was reminded to increase water spraying frequency to prevent dust impact.	The contractor has enhanced water spraying frequency in site area.	10 Jun 2016
2 Jun 2016	Waste management	Chemicals was found on bare gorund. The contractor should provide drip tray to store chemicals.	The contractor has removed the chemicals previously observed without drip trays.	3 Jun 2016
2 Jun 2016	Waste management	General refuse and construction waste was not properly stored on AEL. The contractor should have a good housekeeping of the site.	The contractor has removed the general refuse and construction waste on AEL.	3 Jun 2016
10 Jun 2016	Waste management	The drip tray of the generator was observed without plug. The contractor was reminded to provide plug for the drip tray.	Plug has been provided for the generator.	15 Jun 2016
10 Jun 2016	Water quality	The contractor was reminded to review the water treatment performance and ensure all site runoff/ wastewater are properly treated in accordance with WPCO requirement before the discharge.	The discharge water quality at discharge points at gate 1 and ICP was found clear and acceptable. All wastewater has been treated in wetseps to ensure acceptable water discharge quality.	23 Jun 2016
10 Jun 2016	Waste management	Some chemicals and a generator were observed without drip trays. The contractor was reminded to provied drip trays for all chemicals and generators on site.	The chemicals previously observed without drip trays has been removed. The generator has a built-in drip tray.	15 Jun 2016
10 Jun 2016	Noise	Two hand-held breakers were observed without noise label. The contractor was reminded to provide noise labels for the hand-held breakers with mass above 10kg.	The two hand-held breakers previously found without noise emission labels have been prohibited to be used and has been replaced.	15 Jun 2016
10 Jun 2016	Noise	No noise barrier or insulating fabric was provided for the breaking work at gate 1. The	Noise insulating fabric has been provided for the breaking work at gate 1.	15 Jun 2016

Inspection Date	Parameter	Observation / Recommendation	Contactor's Responses / Action(s) Undertaken	Close-out (Date)
		contractor was reminded to provide noise mitigation measure to reduce noise impact.		
13 Jun 2016	Water quality	Muddy water was observed discharging at discharge point at both gate 1 and ICP. The contractor was reminded to ensure the discharge quality to comply with the discharge standard of the discharge license. The contractor has switched off the pump at ICP during inspection. The contractor was reminded to disconnect the pipes with wastewater not being treated in wetseps from the discharge point immediately.	The discharge water quality at discharge points at gate 1 and ICP was found clear and acceptable. All wastewater has been treated in wetseps to ensure acceptable water discharge quality.	23 Jun 2016
13 Jun 2016	Water quality	There were excavation works near discharge point at gate 1. The contractor was reminded to provide preventive measures to prevent any soil or rock from entering the discharge point.	The excavation work previously observed at the discharge point was completed and filling materials has been provided.	15 Jun 2016
16 Jun 2016	Waste management	Chemicals were found without drip trays. The contractor was reminded to provide drip trays for all chemicals in site.	The contractor has removed chemicals previously observed without drip trays.	23 Jun 2016
16 Jun 2016	Water quality	The pH display of wetsep no.2 was found not function. The contractor was reminded to ensure proper functioning of pH display to monitor the function of wetsep.	The pH display of wetsep no. 2 has been repaired and it function properly.	23 Jun 2016
23 Jun 2016	Waste management	Chemicals stored at wetsep no.1 was found without drip tray. The contractor was reminded to remove the chemicals if not in use.	The chemicals previously storing at wetsep no.1 found without drip tray were removed.	28 June 2016
23 Jun 2016	Air quality	The stockpile at M66 was observed without any dust suppression mitigation measures. The contractor was reminded to apply dust suppression spraying to the stockpile.	Follow-up status will be provided in the next reporting month	On-going
30 June 2016	Waste management	Chemical without drip tray was found. The contractor was reminded to provide drip tray for the chemical.	Follow-up status will be provided in the next reporting month	On-going
30 June 2016	Water quality	The treated wastewater of wetsep no.4 was found with some floating particulates. The contractor was reminded to rectifiy it and ensure the quality of the treated wastewater to comply with the discharge license.	Follow-up status will be provided in the next reporting month	On-going
30 June 2016	Water quality	Some stagnant water/ wheel washing water was observed near vehicular entrance of M66. The contractor was reminded to	Follow-up status will be provided in the next reporting month	On-going

Inspection Date	Parameter	Observation / Recommendation	Contactor's Responses / Action(s) Undertaken	Close-out (Date)
		provide wastewater collection facilities and apply proper wastewater treatment to the wastewater collected before discharge.		

4.1.2 Lyric Theatre Complex

Construction phase weekly site inspections were carried out on 1, 7, 17, 22 and 28 June 2016. The joint site inspection with IEC, ET, ER and Contractor was held on 17 June 2016. EPD site inspection with Contractor was conducted on 29 June 2016. Items including overall drainage system and chemical waste store were inspected. No non-compliance was recorded during the site inspection. 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	Contactor's Responses / Action(s) Undertaken	Close-out (Date)
25 May 2016	Waste management	The contractor was reminded to securely seal the outer sides of the chemical storage area to prevent any leakage of chemicals.	Drip tray was provided to store the chemicals.	1 Jun 2016
1 Jun 2016	Air quality	The contractor was reminded to increase water spraying frequency to reduce dust impact.	The contractor has enhanced water spraying frequency.	2 Jun 2016
1 Jun 2016	Waste management	Oil leakage was found on the site. The contractor should remove it and treat it as chemical waste.	The contractor has removed the oil leakage found on ground.	2 Jun 2016
7 Jun 2016	Waste management	Some refuse was found on the ground. The contractor was reminded to maintain good housekeeping and can add more rubbish bins in site area.	The contractor has removed the refuse found on ground.	10 Jun 2016
7 Jun 2016	Water quality	Stagnant water was observed in some area in the site. The contractor was reminded to remove the stagnant water by using pump more frequently and especially in case of rainstorms.	The contractor has removed the stagnant water in the site.	10 Jun 2016
17 Jun 2016	General	The Environmental Permit copy at the site entrance was damaged and should be replaced with a new copy.	The EP has been replaced with a new copy.	20 Jun 2016
17 Jun 2016	Waste management	A drip tray was completely filled with stagnant water. The Contractor was reminded to clear the stagnant water at regular intervals to avoid overflow.	Stagnant water previously observed inside the drip tray has been cleared and the chemicals have been removed off site.	20 Jun 2016
17 Jun 2016	Water quality	Seepage of muddy site runoff under the site hoarding onto the	The muddy seepage previously observed has been rectified and the	20 Jun 2016

Inspection Date	Parameter	Observation / Recommendation	Contactor's Responses / Action(s) Undertaken	Close-out (Date)
		public footpath was observed. The contractor was reminded to seal any leaks under the hoarding and clear the muddy runoff from the public footpath.	leakage point has been sealed.	
17 Jun 2016	Air quality	Haul road in Area L06 was dry. The contractor was reminded to wet the haul road to minimise dust emission.	Haul road previously dry in Area L06 has been sprayed with water regularly.	20 Jun 2016
22 Jun 2016	Air quality	The ground was observed dry and dusty. The contractor was reminded to enhance water spraying frequency to reduce dust impact.	The contractor has increased water spraying frequency to prevent dust impact.	28 Jun 2016
22 Jun 2016	Water quality	Some soil/ sand was observed on the ground near the discharge point. The contractor was reminded to replace the sand bags at the discharge point to prevent any leakage of sand from sand bags into the discharge point. Some stagnant water was observed near wetsep located near site entrance. The contractor was reminded to clear the stagnant water.	Sand bags were replaced and stagnant water was removed.	28 Jun 2016
28 Jun 2016	Noise	The panel of the power generator was found open. The contractor was reminded to close the panel of the generator to reduce noise impact.	Follow-up status will be provided in the next reporting month.	On-going

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

As advised by the Contractor, 23.42 ton, 184.24 ton and 552.42 ton of inert C&D material were disposed of as public fill to Chai Wan Public Fill Barging Point, Tuen Mun Area 38 and Tseung Kwan O Area 137 Public Fill respectively, while 52.8 ton of general refuse was disposed of at SENT landfill. 106.6 ton of metals, 0.1 ton of paper/cardboard packaging, 0 ton of plastic and 14.6 ton of timber were collected by recycling contractors in the reporting month. 4,736.0 ton of inert C&D materials was reused on site. 2,384.0 ton of inert C&D materials was reused in other projects. 0 ton of chemical wastes 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 M+ Museum in the reporting month are shown in **Appendix I**.

4.2.2 Lyric Theatre Complex

As advised by the Contractor, 636.1 ton and 7964.7 ton of inert C&D material were disposed of as public fill to Tuen Mun Area 38 and Tseung Kwan O Area 137 respectively, while 13.5 ton of general refuse was disposed of at SENT landfill. 31.4 ton of metals, 0.1 ton of paper/cardboard packaging, 0 ton of plastic and 0 ton of timber were collected by recycling contractors in the reporting month. 0 ton of inert C&D materials was reused on site. 0 ton of inert C&D materials was reused in other projects. 0.5 ton of chemical wastes 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 and Table 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-RE0399-16	28-Apr-16	27-Oct-16	Cancelled on 2-Jun 16	--
GW-RE0554-16	2-Jun-16	1-Dec-16	Cancelled on 30-Jun 16	--
GW-RE0637-16	30-Jun-16	29-Dec-16	Vaild	--

Permit / License No. / Notification / Reference No.	Valid Period		Status	Remarks
	From	To		
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				
7024189	25-Jan-16	--	Account Active	--
Construction Noise Permit				
GW-RE0402-16	25-Apr-16	24-Oct-16	Valid	--
Wastewater Discharge License				
WT00023648-2016	9-Mar-16	31-Mar-21	Valid	--
Notification under Air Pollution Control (Construction Dust) Regulation				
398075	18-Jan-16	--	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

Chemical and Waste Management

- All chemicals stored on site should be provided with drip trays.
- Drip trays should be kept in good condition.
- Good housekeeping of site should be maintained.

Air Quality

- Maintain high standard of housekeeping to prevent emission of fugitive dust.
- Enhance water spraying frequency to reduce dust impact.
- All stockpile should be well covered or applied with dust suppression spraying to reduce dust impact.

Water Quality

- Wetsep units should be regularly checked to ensure proper function of the system to treat wastewater or runoff before discharge.
- All wastewater or site runoff must be treated in wastewater treatment facilities before discharging.
- All treated wastewater or runoff must be comply with the standard as stipulated in the discharge license.
- When there are excavation works near discharge point, appropriate measures should be in place to prevent any soil or rock from entering the discharge point.
- All wheel washing water should be collected for proper wastewater treatment before discharging.

Noise

- Noise emission lables must be provided for hand-held breakers of mass greater than 10 kg
- Noise barriers or noise insulating fabric should be used for all breaking works to reduce noise impact.

4.4.2 Lyric Theatre Complex

Chemical and Waste Management

- All chemicals store on site should be provided with drip trays.
- Drip trays should be kept in good condition.
- Chemical waste in drip trays should be frequently removed and ensure no leakage of oil/ chemicals from machines.
- General refuse should be regularly removed.

Air Quality

- Enhance water spraying frequency to reduce dust impact.

Water Quality

- Stagnant water at the site should be regularly removed.
- No leakage of site runoff from the site near site boundary and discharge point should be ensured.

Noise

- The panel of the power generator should always be closed.

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 May 2016	14 June 2016

6 Report on 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

One environmental complaint was referred from EPD on 21 June 2016 in the reporting month. The complaint was handled in accordance with the EM&A Manual and relevant parties including the Engineer's Representative and IEC were informed of the complaint.

The complainant claimed that muddy water was generated from the WKCDA construction sites and discharged to the harbour, and the location of the incident was near the Northern Ventilation Building of the Western Harbour Crossing. After investigation with the contractors, the wastewater treatment facilities at both M+ Museum and Lyric Theatre Complex were checked. Therefore, it is considered that the muddy water discharged to the harbour is unlikely from M+ Museum and Lyric Theatre Complex. However, water quality mitigation measures would continue to be strictly implemented on-site to ensure the water discharge should comply with the standard as stipulated in the discharge license.

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

The major site works scheduled to be commissioned in the coming month include:

- Excavation
- Construction of pile caps
- Installation/ removal of strut of lateral support
- Construction of slab
- Construction of core wall

7.1.2 Lyric Theatre Complex

The major site works scheduled to be commissioned in the coming month include:

- H-Pile Construction
- Bored Pile Construction
- Excavation and lateral support

7.2 Key Issues for the Coming Month

7.2.1 M+ Museum

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.

7.2.2 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 Therate Complex foundation works commenced on 1 March 2016.

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.

One environmental complaint and no notifications of summons or successful prosecution were received during the reporting month.

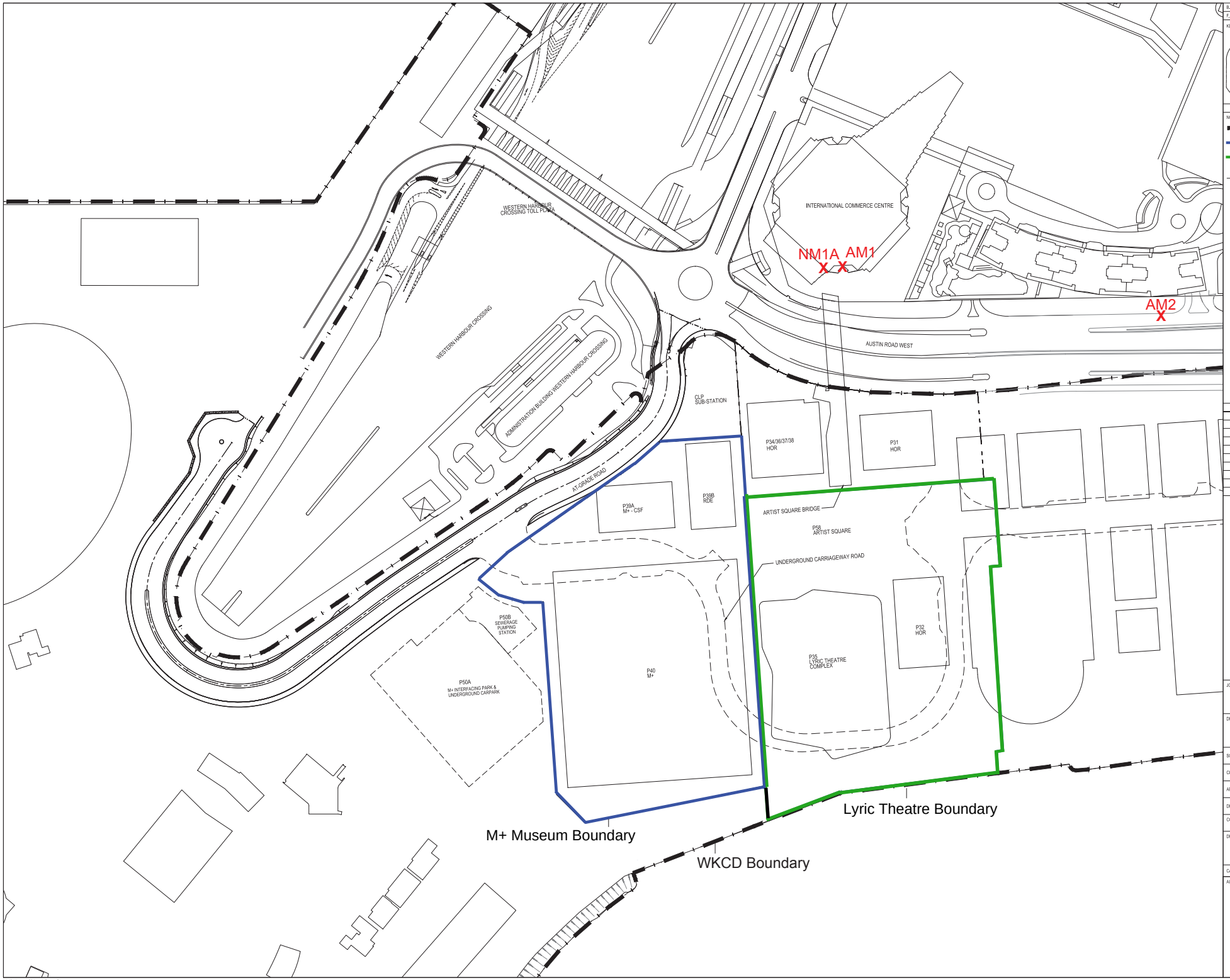
Weekly construction phase site inspections and bi-weekly landscape and visual impact inspections were conducted during the reporting month as required. It was observed that the Contractors had implemented all possible and feasible mitigation measures to mitigate the potential environmental impacts during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

A pink form was issued to the Contractor of M+ Museum on 10 June 2016 and water sample at discharge point at ICP of M+ Museum was collected by EPD.

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



B.D. REF:

F.S.D. REF:

KEY PLAN

KEY PLAN

NOTES:

WKCD BOUNDARY

M+ MUSEUM BOUNDARY

LYRIC THEATRE BOUNDARY

BOUNDARY OF UNDERPASS ROAD SERVING THE PLANNED WKCD

X 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

CAD REF NAME: XXXXX-AUT-PMS-DWG-P00-L000-0000-XXX.dwg

AUTHORITY

westKowloon 西九文化區

A1 (841mm x 594mm) Sheet Size

Appendices

Appendix A. Project Organisation

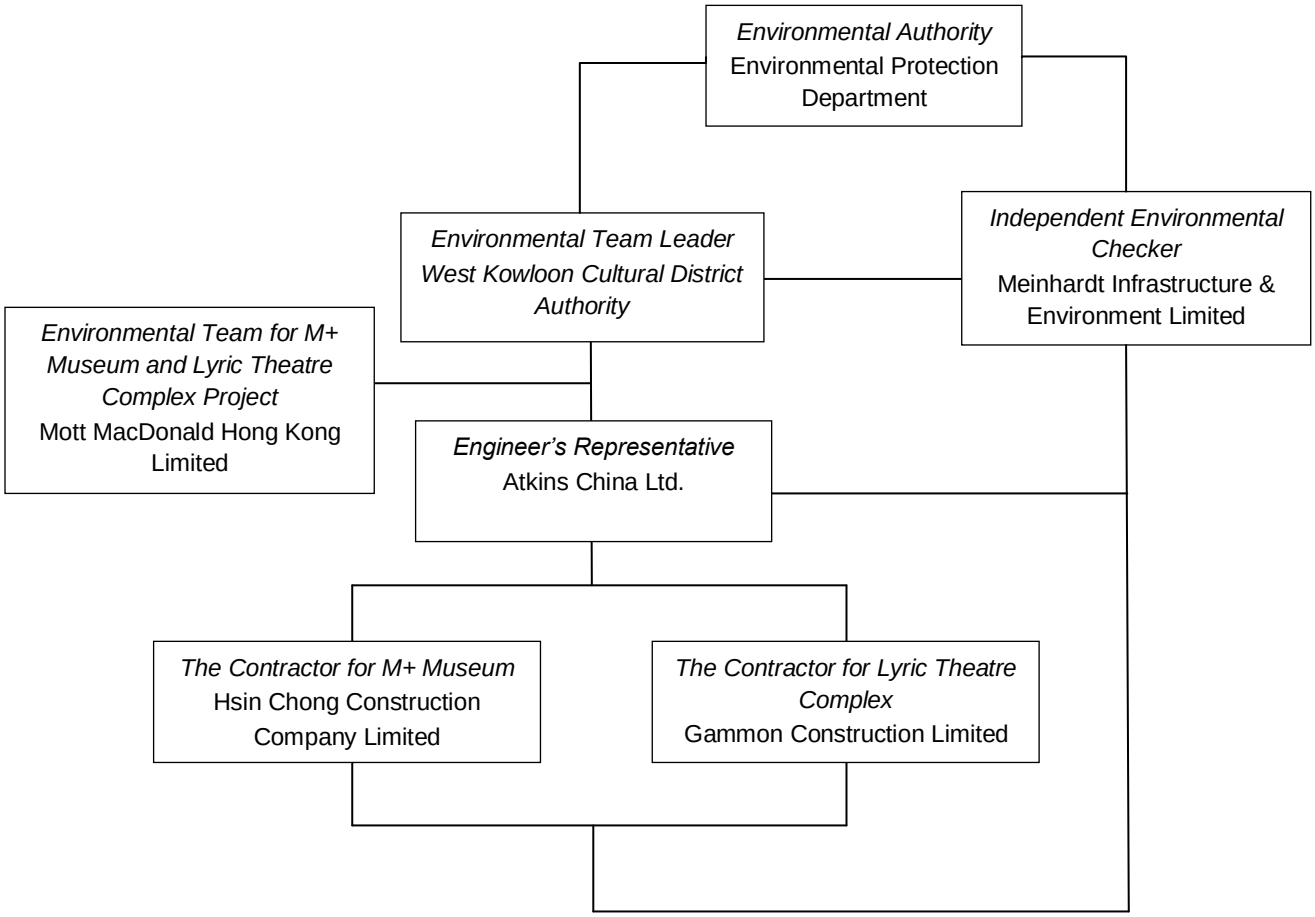


Table A-1: Contact information

Company Name	Role	Name	Telephone
Atkins China Ltd.	Senior Resident Engineer	Mr. Alfred Lee	5401 7289
Meinhardt Infrastructure & Environment Limited	IEC	Mr. Fredrick Leong	2859 1739
Hsin Chong Construction Company Limited	Environmental Manager	Mr. Leo Chow	9266 6855
Gammon Construction Limited	Environmental Manager	Ms. Michelle Tang	9267 8866
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

Appendix B. Tentative Construction Programme

M+ Museum

3 Months Rolling Programme (3MRP)

Activity ID	Activity Name	Ori. Dur.	BaseLine Start	BaseLine Finish	Forecast / Actual Start	Forcast / Actual Finish
3-MRP Three Months Rolling Programme DD 30 June 2016						
Contract Key Dates & Milestones						
Contract Dates						
CP02	Contract Period (1218 days)	1216	26-Sep-15	23-Jan-19	26-Sep-15 A	02-Mar-19
Schedule of Milesones						
Cost Centre A - Preliminaries and General Requirements						
MSA.06	Compliance Review to the CA's satisfaction on Project Time & Construction I	0		30-Jun-16		30-Jun-16
Cost Centre B - M+						
MSB.04	Complete Pile Caps for Trusses 1, 2 & 5 (t=M9)	0		31-Aug-16		31-Aug-16
Cost Centre C - Public Works and Tunnel Protection Works						
MSC.01	Obtain Notice of No Objection from Contract Administrator for all Truss Stee	0		31-Jul-16		31-Jul-16
MSC.02	First delivery of major Truss Steelwork elements to the Site for Trusses (t=M9	0		31-Aug-16		31-Aug-16
MSC.03	Complete Pile Caps for Trusses 1, 2 & 5 (t=M9)	0		31-Aug-16		31-Aug-16
Cost Centre D1 - Sewage Pumping Station						
MSD1.01	Complete all ELS & excavation works for the Sewge pumping station (t=M8)	0		31-Aug-16		31-Aug-16
Interface Dates						
Access Date						
AD1160	M15 - M+ / Lyric Staircase (2nd access) (30Jun16)	0	30-Jun-16		30-Jun-16	
AD1180	M16 - Lyric Interface South (2nd access) (30Jun16)	0	30-Jun-16		30-Jun-16	
AD1410	M44 - At-grade Road Footpath at ICP / SPS Frontage (from PIW) (01Jun2016)	0	11-Aug-16		11-Aug-16	
AD1420	M45 - At-grade Road Footpath along M+ Basement (from PIW) (01Jun2016)	0	11-Aug-16		11-Aug-16	
AD1340	M38 - Lyric Waterfront (Part of MTR Area A1) (from Lyric) (31Aug2016)	0	31-Aug-16		31-Aug-16	
AD1350	M39 - Lyric Waterfront / through ESS Compound (Subject to Gov't Approval -	0	31-Aug-16		31-Aug-16	
Vacation Date						
VD1340	M38 - Lyric Waterfront (Part of MTR Area A1) (H/O to Lyric) (31May2017)	0		30-Jun-16		30-Jun-16
VD1372	M42 - Lyric Waterfront east of barging point (Prior to Lyric Main Ctr) (31May.	0		30-Jun-16		30-Jun-16
VD1300	M29 - New Temporary Access Road (refer M74 & M75) (25Jan18)	0		30-Jun-16		30-Jun-16
VD1330	M35 - Temporary Access Road Junction at KVB (for Access to Park Ctr) (15Jur	0		02-Jul-16		02-Jul-16
VD1370	M41 - Lyric Waterfront at Barging Point (Part of MTR Area 3) (Prior to Lyric M	0		30-Jul-16		30-Jul-16
Interface Schedule (Refer to Interface Schedule - Appendix D1 20-Nov-2015)						
Lyric Theatre Complex and Extended Basement (Lyric)						
Along Interface North of AEL						
IF1020	Complete excavation north of AEL for B2/F slab and vacate M12	0		30-Jun-16		30-Jun-16
Along Interface South of AEL						
IF1080	Complete seawater discharge pipes in Portions M15, M16, M38, M39	0		30-Jun-16		30-Jun-16
IF1100	Vacate portions M16, M38 and M39	0		30-Jun-16		30-Jun-16
IF1050	Take possession of M38 and M39	0	31-Aug-16		31-Aug-16	
DCS Basement Area						
IF1030	Take possession of M15 and M16 after pipe piles and grouting by Lyric Contra	0	30-Jun-16		30-Jun-16	
IF1090	Complete the staircase and external wall and vacate M15	0		30-Jun-16		30-Jun-16
Grid 6 & 12 Area						
IF1045	Install new hoarding between Portion M14 & M14a for vacation of M14a	12	30-Jun-16	19-Jul-16	30-Jun-16	19-Jul-16
IF1036	Complete PC109 & Basement Road Wall between PC109 & 116 to G/F Level	0		12-Jul-16		12-Jul-16
IF1039	Complete Basement Road Wall between PC96, 103 & 105 to G/F Level	0		12-Jul-16		12-Jul-16
IF1034	Complete External Wall from B1/F to G/F Level between Grid 6 & 12 (M14 =	0		12-Jul-16		12-Jul-16
IF1040	Vacate Portion M14	0		19-Jul-16		19-Jul-16
IF1038	Complete Core Walls on PC96 to G/F Level	0		11-Aug-16		11-Aug-16
PIW Phase 1						
Civil & Structual Interface with PIW At-Grade Road						
M+ North West Boundary						
IF2095	Submit Hoarding Design for BD Approval	30	11-Aug-16	09-Sep-16	11-Aug-16	09-Sep-16
IF2090	Take possession of the At-grade road footway within M45	0	11-Aug-16		11-Aug-16	
Interface Car Park Utilities Works						

◇ Baseline Milestone
◆ Milestone
Non-Critical
Critical Bar
Actual Work

West Kowloon Cultural District Authority

3 Months Rolling Programme (3MRP)

(3A Draft)

Date	Revision	Checked	Approved
04-Mar-16	CMWP (4th draft) Submission	Jojo / David	Desmond Sze
30-Jun-16	3 MRP Submission	Edgar / Jojo	Desmond Sze

3 Months Rolling Programme (3MRP)

Activity ID	Activity Name	Ori. Dur.	BaseLine Start	BaseLine Finish	Forecast / Actual Start	Forcast / Actual Finish
IF2180	Construct U/G utilities connections from footway to ICP/SPS	70	30-Jun-16	17-Oct-16	30-Jun-16	17-Oct-16
Sewage Pump Station						
IF2290	Construction of SPS incl. ELS, Structure, T&C	361	19-May-16	16-Oct-17	20-May-16 A	26-Oct-17
Drainage Interface with PIW						
IF2310	PIW take possession of M26, M04 (by others)	0	30-Jun-16		30-Jun-16	
IF2320	Construct the DN150 storm drain within At-grade Road (M26)	72	30-Jun-16	20-Oct-16	30-Jun-16	20-Oct-16
Water Main Interface with PIW						
IF2370	Take possession of At-grade road within Portion M45	0	11-Aug-16		11-Aug-16	
IF2380	Remove hoarding fixed to the sheet pile	5	11-Aug-16	16-Aug-16	11-Aug-16	16-Aug-16
IF2390	Install hoarding on road-side edge of footway (500mm clearance from carria	12	18-Aug-16	03-Sep-16	18-Aug-16	03-Sep-16
IF2400	Construct two DN150 DI fresh water, and one DN100 DI salt water pipes (by	12	05-Sep-16	22-Sep-16	05-Sep-16	22-Sep-16
IF2410	Pressure test, Remove blank flange and make final connections (by WSD)	1	23-Sep-16	23-Sep-16	23-Sep-16	23-Sep-16
IF2420	Backfill pipes to the footway formation levels	1	24-Sep-16	24-Sep-16	24-Sep-16	24-Sep-16
IF2430	Complete WSD works for At-grade road (8Jul17)	0		24-Sep-16		24-Sep-16
Towngas Interface with PIW						
IF2440	Take possession of At-grade road within Portion M44	0	11-Aug-16		11-Aug-16	
IF2450	Trench excavation for gas pipe installation	5	11-Aug-16	16-Aug-16	11-Aug-16	16-Aug-16
IF2460	Construct portion of M+ & RDE building gas main (by Towngas)	130	18-Aug-16	09-Feb-17	18-Aug-16	09-Feb-17
Power Interface with PIW						
IF2230	Take possession of the completed At-grade road pavement in M44	0	11-Aug-16		11-Aug-16	
IF2240	Excavate trenches for laying 11kV & 132kV cable by CLP	73	11-Aug-16	22-Nov-16	11-Aug-16	22-Nov-16
Telecoms Interface with PIW						
IF2500	Take possession of the completed At-grade road pavement in M44	0	11-Aug-16		11-Aug-16	
IF2510	Excavate trenches for laying telecom ducts	5	11-Aug-16	16-Aug-16	11-Aug-16	16-Aug-16
IF2520	Lay ducts & leave connecting ends for PIW drawpit consstruction (agreed wit	72	18-Aug-16	26-Nov-16	18-Aug-16	26-Nov-16
Sewerage Interface with PIW						
IF4010	Construct the DN375 sewer drain within Austin Road West and its footway	50	29-Feb-16	03-May-16	05-Dec-15 A	30-Jul-16
IF4020	Vacate L08, L19 to Lyric foundation contractor	0		30-Jul-16		30-Jul-16
Seawater Intake & Discharge Pipes Interface with PIW						
IF4100	Take Possession of M15,M16, M38 & M39	0	02-Sep-16		02-Sep-16	
IF4110	Install two DN600 Seawater Intake mains, DN100 Chorinationand three DN5	120	02-Sep-16	09-Feb-17	02-Sep-16	09-Feb-17
Summary Facade Programme						
Pre-Construction, Procurements & Bulk Production						
SUM.0050	Facade - Material Submission	205	31-Mar-16	05-Dec-16	22-Oct-15 A	15-Aug-16
SUM.0020	Facade - Shop Drawings	145	31-Mar-16	23-Sep-16	05-Mar-16 A	22-Oct-16
SUM.0030	Facade - Embed BD Submission	204	26-Apr-16	30-Dec-16	14-Mar-16 A	12-Nov-16
SUM.0060	Facade - Visual Mock-Up	231	31-Mar-16	07-Jan-17	27-Oct-15 A	13-Sep-16
SUM.0025	Facade Door - Shop Drawings	113	18-Jul-16	30-Nov-16	18-Jul-16	30-Nov-16
SUM.0040	Facade - BD Submission	185	21-Jul-16	03-Mar-17	21-Jul-16	03-Mar-17
SUM.0080	Facade - Performance Test Mock-Up	242	16-Aug-16	10-Jun-17	16-Aug-16	10-Jun-17
SUM.0070	Facade - Production Mock-Up	216	24-Aug-16	19-May-17	24-Aug-16	19-May-17
M+ RC Structure						
M+ Podium						
SUM.0100	Podium - B1/Floor Slab Structure	215	31-Mar-16	16-Dec-16	15-Mar-16 A	19-Jan-17
Preliminaries						
Pre-Construction - Design & Procurements						
External Facade for M+ Podium (By Permasteelisa)						
Facade Shop Drawing Submission						
Tower Facade						
DS.2004.06	2nd Submission	21	17-May-16	10-Jun-16	15-Apr-16 A	15-Jul-16
DS.2004.08	Comment on 2nd Submission	11	18-Jul-16	29-Jul-16	18-Jul-16	29-Jul-16
DS.2004.10	3rd Submission	10	30-Jul-16	10-Aug-16	30-Jul-16	10-Aug-16
DS.2004.12	Approval	11	11-Aug-16	23-Aug-16	11-Aug-16	23-Aug-16
Podium Facade						
DS.2004.14	1st Submission	10	30-Apr-16	12-May-16	07-Apr-16 A	20-Jul-16

◇ Baseline Milestone
◆ Milestone
Non-Critical
Critical Bar
Actual Work

West Kowloon Cultural District Authority

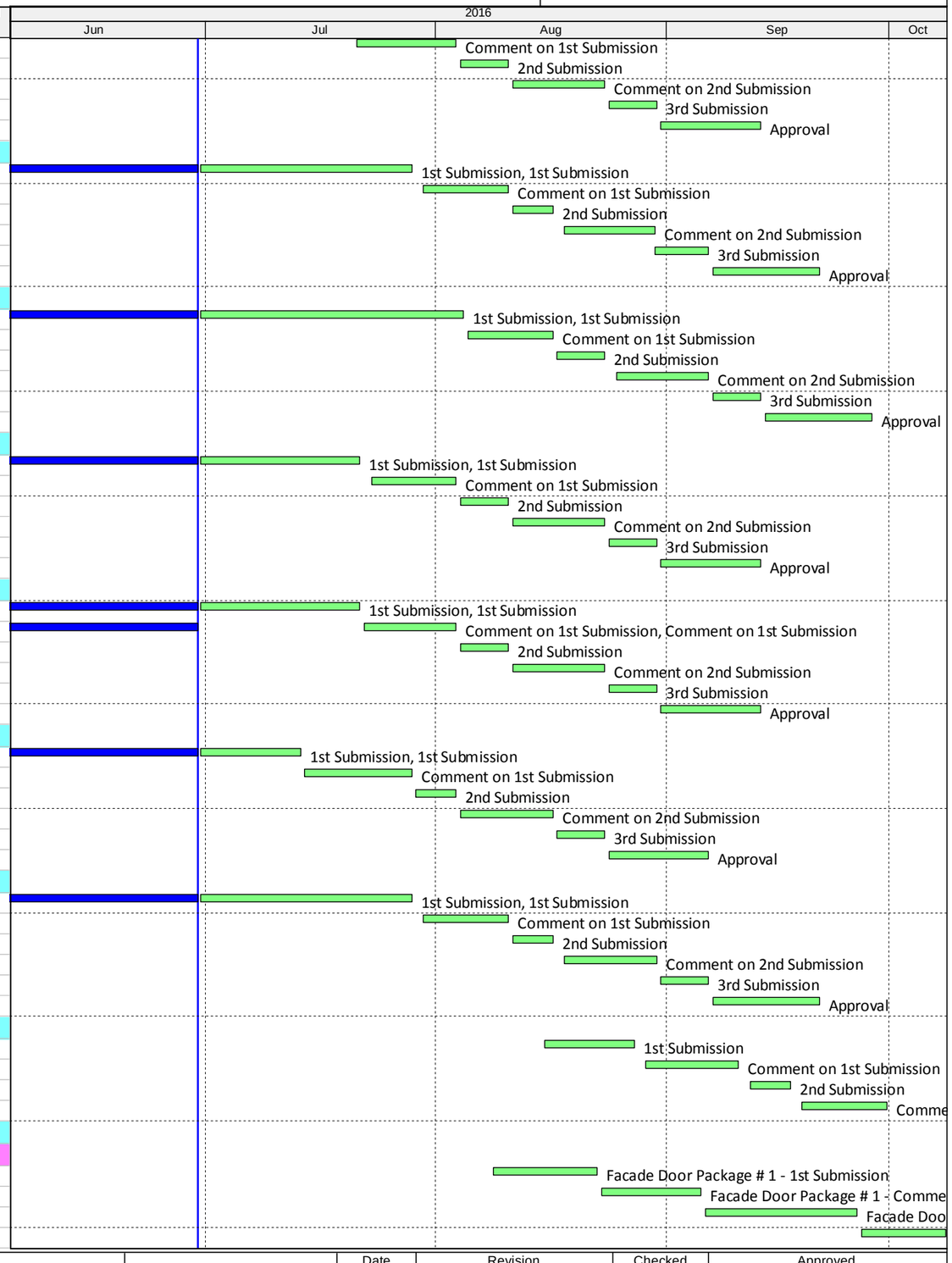
3 Months Rolling Programme (3MRP)

(3A Draft)

Date	Revision	Checked	Approved
04-Mar-16	CMWP (4th draft) Submission	Jojo / David	Desmond Sze
30-Jun-16	3 MRP Submission	Edgar / Jojo	Desmond Sze

3 Months Rolling Programme (3MRP)

Activity ID	Activity Name	Ori. Dur.	BaseLine Start	BaseLine Finish	Forecast / Actual Start	Forcast / Actual Finish
DS.2004.16	Comment on 1st Submission	12	21-Jul-16	03-Aug-16	21-Jul-16	03-Aug-16
DS.2004.18	2nd Submission	6	04-Aug-16	10-Aug-16	04-Aug-16	10-Aug-16
DS.2004.20	Comment on 2nd Submission	11	11-Aug-16	23-Aug-16	11-Aug-16	23-Aug-16
DS.2004.22	3rd Submission	6	24-Aug-16	30-Aug-16	24-Aug-16	30-Aug-16
DS.2004.24	Approval	12	31-Aug-16	13-Sep-16	31-Aug-16	13-Sep-16
Glass Wall with T Mullion (Kinked & Straight B1/F & G/F),CW-01a to 03d						
DS.2004.26	1st Submission	8	07-Apr-16	16-Apr-16	30-Apr-16 A	28-Jul-16
DS.2004.28	Comment on 1st Submission	10	30-Jul-16	10-Aug-16	30-Jul-16	10-Aug-16
DS.2004.30	2nd Submission	5	11-Aug-16	16-Aug-16	11-Aug-16	16-Aug-16
DS.2004.32	Comment on 2nd Submission	10	18-Aug-16	30-Aug-16	18-Aug-16	30-Aug-16
DS.2004.34	3rd Submission	7	30-Aug-16	06-Sep-16	30-Aug-16	06-Sep-16
DS.2004.36	Approval	12	07-Sep-16	21-Sep-16	07-Sep-16	21-Sep-16
Glass Wall with Precast Mullion & Caremic Mullion,CW-04-05d and 07						
DS.2004.38	1st Submission	10	30-May-16	10-Jun-16	30-May-16 A	04-Aug-16
DS.2004.40	Comment on 1st Submission	10	05-Aug-16	16-Aug-16	05-Aug-16	16-Aug-16
DS.2004.42	2nd Submission	6	17-Aug-16	23-Aug-16	17-Aug-16	23-Aug-16
DS.2004.44	Comment on 2nd Submission	11	25-Aug-16	06-Sep-16	25-Aug-16	06-Sep-16
DS.2004.46	3rd Submission	6	07-Sep-16	13-Sep-16	07-Sep-16	13-Sep-16
DS.2004.48	Approval	12	14-Sep-16	28-Sep-16	14-Sep-16	28-Sep-16
Podium Ceramic Concrete Tubes & with Perforated Cladding, FAC-CW-07						
DS.2004.50	1st Submission	10	31-May-16	11-Jun-16	27-May-16 A	21-Jul-16
DS.2004.52	Comment on 1st Submission	10	23-Jul-16	03-Aug-16	23-Jul-16	03-Aug-16
DS.2004.54	2nd Submission	6	04-Aug-16	10-Aug-16	04-Aug-16	10-Aug-16
DS.2004.56	Comment on 2nd Submission	11	11-Aug-16	23-Aug-16	11-Aug-16	23-Aug-16
DS.2004.58	3rd Submission	6	24-Aug-16	30-Aug-16	24-Aug-16	30-Aug-16
DS.2004.60	Approval	12	31-Aug-16	13-Sep-16	31-Aug-16	13-Sep-16
Garden Gallery Ceramic Cladding & Ceiling,CE-03a,03b,03c						
DS.2004.62	1st Submission	10	30-Apr-16	12-May-16	17-Apr-16 A	21-Jul-16
DS.2004.64	Comment on 1st Submission	11	12-May-16	26-May-16	29-Apr-16 A	03-Aug-16
DS.2004.66	2nd Submission	6	04-Aug-16	10-Aug-16	04-Aug-16	10-Aug-16
DS.2004.68	Comment on 2nd Submission	11	11-Aug-16	23-Aug-16	11-Aug-16	23-Aug-16
DS.2004.70	3rd Submission	6	24-Aug-16	30-Aug-16	24-Aug-16	30-Aug-16
DS.2004.72	Approval	12	31-Aug-16	13-Sep-16	31-Aug-16	13-Sep-16
L3 Storefront,CW-08a,08b						
DS.2004.74	1st Submission	10	10-May-16	23-May-16	29-Apr-16 A	13-Jul-16
DS.2004.76	Comment on 1st Submission	12	14-Jul-16	28-Jul-16	14-Jul-16	28-Jul-16
DS.2004.78	2nd Submission	5	29-Jul-16	03-Aug-16	29-Jul-16	03-Aug-16
DS.2004.80	Comment on 2nd Submission	11	04-Aug-16	16-Aug-16	04-Aug-16	16-Aug-16
DS.2004.82	3rd Submission	6	17-Aug-16	23-Aug-16	17-Aug-16	23-Aug-16
DS.2004.84	Approval	12	24-Aug-16	06-Sep-16	24-Aug-16	06-Sep-16
Strip Glazing at Skylight Gallery L3 & Plaza Skylight,CW10,SK-01,02						
DS.2004.86	1st Submission	10	31-May-16	11-Jun-16	14-May-16 A	28-Jul-16
DS.2004.88	Comment on 1st Submission	10	30-Jul-16	10-Aug-16	30-Jul-16	10-Aug-16
DS.2004.90	2nd Submission	5	11-Aug-16	16-Aug-16	11-Aug-16	16-Aug-16
DS.2004.92	Comment on 2nd Submission	11	18-Aug-16	30-Aug-16	18-Aug-16	30-Aug-16
DS.2004.94	3rd Submission	6	31-Aug-16	06-Sep-16	31-Aug-16	06-Sep-16
DS.2004.96	Approval	12	07-Sep-16	21-Sep-16	07-Sep-16	21-Sep-16
Shop Drawings Metal Cladding FAC-LV-01b (Additional Scope)						
DS.2004.1	1st Submission	11	15-Aug-16	27-Aug-16	15-Aug-16*	27-Aug-16
DS.2004.1	Comment on 1st Submission	12	29-Aug-16	10-Sep-16	29-Aug-16	10-Sep-16
DS.2004.1	2nd Submission	5	12-Sep-16	17-Sep-16	12-Sep-16	17-Sep-16
DS.2004.1	Comment on 2nd Submission	11	19-Sep-16	30-Sep-16	19-Sep-16	30-Sep-16
Facade Doors - Shop Drawings Submission (Additional Works)						
Facade Door Package # 1: Glazed Doors Bet Ceramic Concrete Mullion (Total = 53 nos)						
DS.2004.:	Facade Door Package # 1 - 1st Submission	12	08-Aug-16	22-Aug-16	08-Aug-16*	22-Aug-16
DS.2004.:	Facade Door Package # 1 - Comment on 1st Submission	12	23-Aug-16	05-Sep-16	23-Aug-16	05-Sep-16
DS.2004.:	Facade Door Package # 1 - 2nd Submission	17	06-Sep-16	26-Sep-16	06-Sep-16	26-Sep-16
DS.2004.:	Facade Door Package # 1 - Comment on 2nd Submission	10	27-Sep-16	08-Oct-16	27-Sep-16	08-Oct-16



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Non-Critical
Critical Bar
Actual Work

West Kowloon Cultural District Authority

3 Months Rolling Programme (3MRP)

(3A Draft)

Date	Revision	Checked	Approved
04-Mar-16	CMWP (4th draft) Submission	Jojo / David	Desmond Sze
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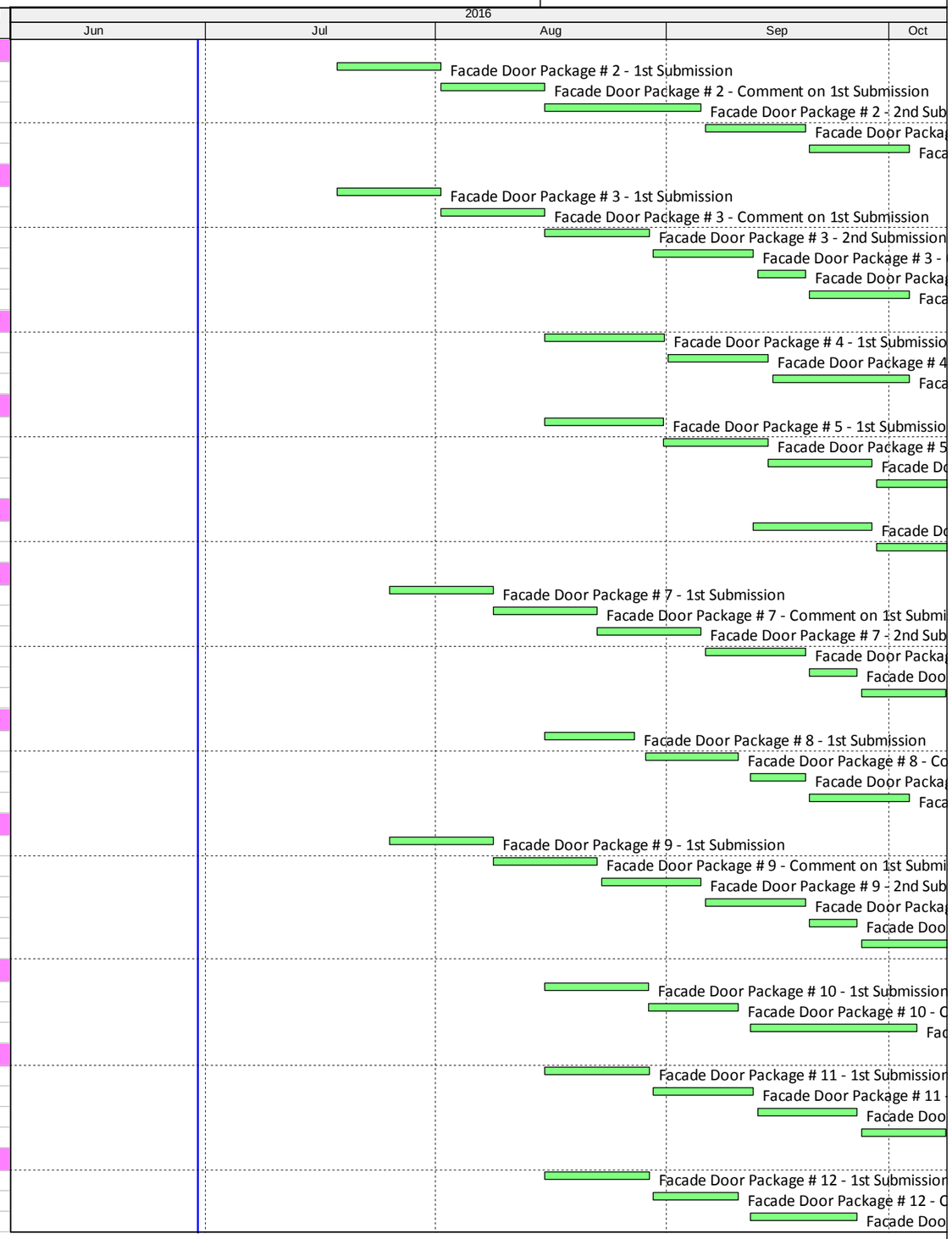
3 Months Rolling Programme (3MRP)

Activity ID	Activity Name	Ori. Dur.	BaseLine Start	BaseLine Finish	Forecast / Actual Start	Forcast / Actual Finish
Facade Door Package # 2: Sliding Door in L3 Storefront (Total = 4 nos automatic)						
DS.2004.2	Facade Door Package # 2 - 1st Submission	12	18-Jul-16	01-Aug-16	18-Jul-16*	01-Aug-16
DS.2004.2	Facade Door Package # 2 - Comment on 1st Submission	12	01-Aug-16	15-Aug-16	01-Aug-16	15-Aug-16
DS.2004.2	Facade Door Package # 2 - 2nd Submission	18	15-Aug-16	05-Sep-16	15-Aug-16	05-Sep-16
DS.2004.2	Facade Door Package # 2 - Comment on 2nd Submission	11	06-Sep-16	19-Sep-16	06-Sep-16	19-Sep-16
DS.2004.2	Facade Door Package # 2 - 3rd Submission	11	20-Sep-16	03-Oct-16	20-Sep-16	03-Oct-16
Facade Door Package # 3: Swing Door at L3 Cafe (Total = 1 no Manual)						
DS.2004.2	Facade Door Package # 3 - 1st Submission	12	18-Jul-16	01-Aug-16	18-Jul-16*	01-Aug-16
DS.2004.2	Facade Door Package # 3 - Comment on 1st Submission	12	01-Aug-16	15-Aug-16	01-Aug-16	15-Aug-16
DS.2004.3	Facade Door Package # 3 - 2nd Submission	12	15-Aug-16	29-Aug-16	15-Aug-16	29-Aug-16
DS.2004.3	Facade Door Package # 3 - Comment on 2nd Submission	12	30-Aug-16	12-Sep-16	30-Aug-16	12-Sep-16
DS.2004.3	Facade Door Package # 3 - 3rd Submission	5	13-Sep-16	19-Sep-16	13-Sep-16	19-Sep-16
DS.2004.3	Facade Door Package # 3 - Approval	11	20-Sep-16	03-Oct-16	20-Sep-16	03-Oct-16
Facade Door Package # 4: Swing Door Mounted in GW with T-Mullion (Total = 29 nos)						
DS.2004.3	Facade Door Package # 4 - 1st Submission	14	15-Aug-16	31-Aug-16	15-Aug-16*	31-Aug-16
DS.2004.3	Facade Door Package # 4 - omment on 1st Submission	12	01-Sep-16	14-Sep-16	01-Sep-16	14-Sep-16
DS.2004.3	Facade Door Package # 4 - 2nd Submission	14	15-Sep-16	03-Oct-16	15-Sep-16	03-Oct-16
Facade Door Package # 5: Large Double Door at B1/F Transformaer Room (Total = 1 no manual)						
DS.2004.4	Facade Door Package # 5 - 1st Submission	14	15-Aug-16	31-Aug-16	15-Aug-16*	31-Aug-16
DS.2004.4	Facade Door Package # 5 - Comment on 1st Submission	12	31-Aug-16	14-Sep-16	31-Aug-16	14-Sep-16
DS.2004.4	Facade Door Package # 5 - 2nd Submission	11	14-Sep-16	28-Sep-16	14-Sep-16	28-Sep-16
DS.2004.4	Facade Door Package # 5 - Comment on 2nd Submission	10	29-Sep-16	12-Oct-16	29-Sep-16	12-Oct-16
Facade Door Package # 6: B1/F Exit Doors (Total = 7 nos manual)						
DS.2004.4	Facade Door Package # 6 - 1st Submission	13	12-Sep-16	28-Sep-16	12-Sep-16*	28-Sep-16
DS.2004.4	Facade Door Package # 6 - Comment on 1st Submission	10	29-Sep-16	12-Oct-16	29-Sep-16	12-Oct-16
Facade Door Package # 7: Garden Gallery Door (Total = 2 nos manual)						
DS.2004.5	Facade Door Package # 7 - 1st Submission	12	25-Jul-16	08-Aug-16	25-Jul-16*	08-Aug-16
DS.2004.5	Facade Door Package # 7 - Comment on 1st Submission	12	08-Aug-16	22-Aug-16	08-Aug-16	22-Aug-16
DS.2004.5	Facade Door Package # 7 - 2nd Submission	12	22-Aug-16	05-Sep-16	22-Aug-16	05-Sep-16
DS.2004.5	Facade Door Package # 7 - Comment on 2nd Submission	11	06-Sep-16	19-Sep-16	06-Sep-16	19-Sep-16
DS.2004.5	Facade Door Package # 7 - 3rd Submission	6	20-Sep-16	26-Sep-16	20-Sep-16	26-Sep-16
DS.2004.5	Facade Door Package # 7 - Approval	10	27-Sep-16	08-Oct-16	27-Sep-16	08-Oct-16
Facade Door Package # 8: Door Loacted at Metal Claddings (Total = 20 nos manual)						
DS.2004.5	Facade Door Package # 8 - 1st Submission	11	15-Aug-16	27-Aug-16	15-Aug-16*	27-Aug-16
DS.2004.5	Facade Door Package # 8 - Comment on 1st Submission	12	29-Aug-16	10-Sep-16	29-Aug-16	10-Sep-16
DS.2004.6	Facade Door Package # 8 - 2nd Submission	6	12-Sep-16	19-Sep-16	12-Sep-16	19-Sep-16
DS.2004.6	Facade Door Package # 8 - Comment on 2nd Submission	11	20-Sep-16	03-Oct-16	20-Sep-16	03-Oct-16
Facade Door Package # 9: G/F Access Door in Ceramic Tube (Total = 8 nos)						
DS.2004.6	Facade Door Package # 9 - 1st Submission	12	25-Jul-16	08-Aug-16	25-Jul-16*	08-Aug-16
DS.2004.6	Facade Door Package # 9 - Comment on 1st Submission	12	08-Aug-16	22-Aug-16	08-Aug-16	22-Aug-16
DS.2004.6	Facade Door Package # 9 - 2nd Submission	12	23-Aug-16	05-Sep-16	23-Aug-16	05-Sep-16
DS.2004.6	Facade Door Package # 9 - Comment on 2nd Submission	11	06-Sep-16	19-Sep-16	06-Sep-16	19-Sep-16
DS.2004.6	Facade Door Package # 9 - 3rd Submission	6	20-Sep-16	26-Sep-16	20-Sep-16	26-Sep-16
DS.2004.6	Facade Door Package # 9 - Approval	11	27-Sep-16	11-Oct-16	27-Sep-16	11-Oct-16
Facade Door Package # 10: B1/F Carriageway Access Panel / Doors (Total = 24 nos)						
DS.2004.7	Facade Door Package # 10 - 1st Submission	12	15-Aug-16	29-Aug-16	15-Aug-16*	29-Aug-16
DS.2004.7	Facade Door Package # 10 - Comment on 1st Submission	11	29-Aug-16	10-Sep-16	29-Aug-16	10-Sep-16
DS.2004.7	Facade Door Package # 10 - 2nd Submission	18	12-Sep-16	04-Oct-16	12-Sep-16	04-Oct-16
Facade Door Package # 11: CSF Bldg (Total = 2 nos)						
DS.2004.7	Facade Door Package # 11 - 1st Submission	12	15-Aug-16	29-Aug-16	15-Aug-16*	29-Aug-16
DS.2004.7	Facade Door Package # 11 - Comment on 1st Submission	12	30-Aug-16	12-Sep-16	30-Aug-16	12-Sep-16
DS.2004.7	Facade Door Package # 11 - 2nd Submission	11	13-Sep-16	26-Sep-16	13-Sep-16	26-Sep-16
DS.2004.7	Facade Door Package # 11 - Comment on 2nd Submission	10	27-Sep-16	08-Oct-16	27-Sep-16	08-Oct-16
Facade Door Package # 12: B1/F Smoke Vent Panel (Total = 1 no)						
DS.2004.8	Facade Door Package # 12 - 1st Submission	12	15-Aug-16	29-Aug-16	15-Aug-16*	29-Aug-16
DS.2004.8	Facade Door Package # 12 - Comment on 1st Submission	11	30-Aug-16	10-Sep-16	30-Aug-16	10-Sep-16
DS.2004.8	Facade Door Package # 12 - 2nd Submission	12	12-Sep-16	26-Sep-16	12-Sep-16	26-Sep-16



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West Kowloon Cultural District Authority

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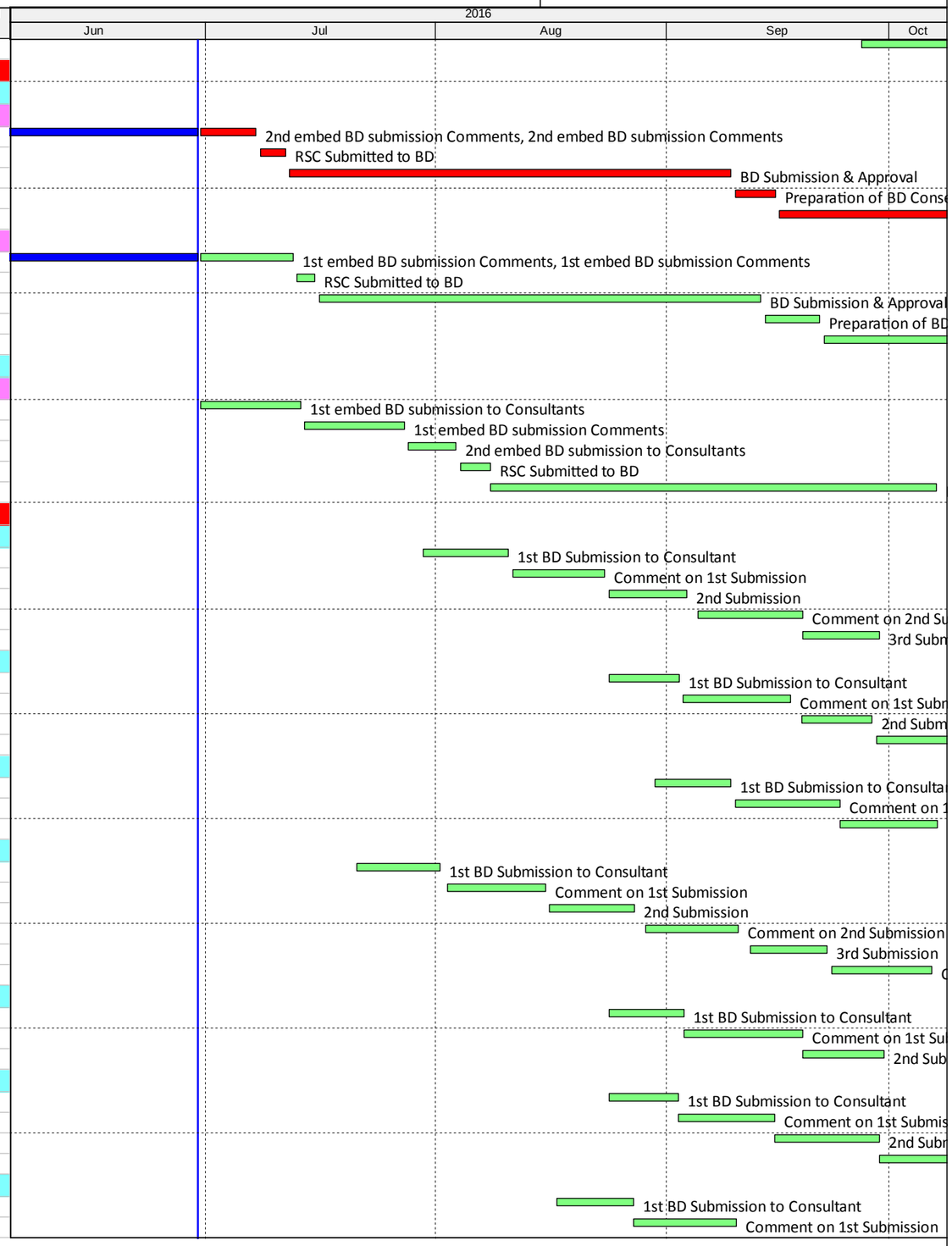
3 Months Rolling Programme (3MRP)

Activity ID	Activity Name	Ori. Dur.	BaseLine Start	BaseLine Finish	Forecast / Actual Start	Forcast / Actual Finish
DS.2004.(	Facade Door Package # 12 - Comment on 2nd Submission	12	27-Sep-16	12-Oct-16	27-Sep-16	12-Oct-16
Embed BD Submission						
M+ Podium						
M+ Podium (B1/F) - Embed Submission						
DS.2005.(	2nd embed BD submission Comments	11	31-May-16	13-Jun-16	16-May-16 A	07-Jul-16
DS.2005.(	RSC Submitted to BD	3	08-Jul-16	11-Jul-16	08-Jul-16	11-Jul-16
DS.2005.:	BD Submission & Approval	60	12-Jul-16	09-Sep-16	12-Jul-16	09-Sep-16
DS.2005.:	Preparation of BD Consent Application	5	10-Sep-16	15-Sep-16	10-Sep-16	15-Sep-16
DS.2005.:	BD Consent Application	30	16-Sep-16	15-Oct-16	16-Sep-16	15-Oct-16
M+ Podium (G/F to 3/F) - Embed Submission						
DS.2005.:	1st embed BD submission Comments	8	11-May-16	20-May-16	30-Apr-16 A	12-Jul-16
DS.2005.:	RSC Submitted to BD	3	13-Jul-16	15-Jul-16	13-Jul-16	15-Jul-16
DS.2005.:	BD Submission & Approval	60	16-Jul-16	13-Sep-16	16-Jul-16	13-Sep-16
DS.2005.:	Preparation of BD Consent Application	6	14-Sep-16	21-Sep-16	14-Sep-16	21-Sep-16
DS.2005.:	BD Consent Application	30	22-Sep-16	21-Oct-16	22-Sep-16	21-Oct-16
M+ Tower						
M+ Tower (4/F to RF/F) - Embed Submission						
DS.2006.(	1st embed BD submission to Consultants	11	30-Jun-16	13-Jul-16	30-Jun-16*	13-Jul-16
DS.2006.(	1st embed BD submission Comments	11	14-Jul-16	27-Jul-16	14-Jul-16	27-Jul-16
DS.2006.(	2nd embed BD submission to Consultants	6	28-Jul-16	03-Aug-16	28-Jul-16	03-Aug-16
DS.2006.(	RSC Submitted to BD	3	04-Aug-16	08-Aug-16	04-Aug-16	08-Aug-16
DS.2006.:	BD Submission & Approval	60	08-Aug-16	07-Oct-16	08-Aug-16	07-Oct-16
BD Submission, Consent & Approval						
Tower Precast Unitized Facade						
DS.2016.12	1st BD Submission to Consultant	10	30-Jul-16	10-Aug-16	30-Jul-16*	10-Aug-16
DS.2016.14	Comment on 1st Submission	11	11-Aug-16	23-Aug-16	11-Aug-16	23-Aug-16
DS.2016.16	2nd Submission	10	24-Aug-16	03-Sep-16	24-Aug-16	03-Sep-16
DS.2016.18	Comment on 2nd Submission	11	05-Sep-16	19-Sep-16	05-Sep-16	19-Sep-16
DS.2016.20	3rd Submission	10	19-Sep-16	29-Sep-16	19-Sep-16	29-Sep-16
Podium Precast Unitized Facade						
DS.2016.32	1st BD Submission to Consultant	9	24-Aug-16	02-Sep-16	24-Aug-16*	02-Sep-16
DS.2016.34	Comment on 1st Submission	12	03-Sep-16	17-Sep-16	03-Sep-16	17-Sep-16
DS.2016.36	2nd Submission	9	19-Sep-16	28-Sep-16	19-Sep-16	28-Sep-16
DS.2016.38	Comment on 2nd Submission	11	29-Sep-16	13-Oct-16	29-Sep-16	13-Oct-16
Glass Wall with T Mullion (Kinked & Straight B1/F & G/F),CW-01a-03d						
DS.2016.52	1st BD Submission to Consultant	10	30-Aug-16	09-Sep-16	30-Aug-16	09-Sep-16
DS.2016.54	Comment on 1st Submission	11	10-Sep-16	24-Sep-16	10-Sep-16	24-Sep-16
DS.2016.56	2nd Submission	10	24-Sep-16	07-Oct-16	24-Sep-16	07-Oct-16
Glass Wall with Precast Mullion & Caremic Mullion,CW-04 to 05d and 07						
DS.2016.72	1st BD Submission to Consultant	10	21-Jul-16	01-Aug-16	21-Jul-16*	01-Aug-16
DS.2016.74	Comment on 1st Submission	11	02-Aug-16	15-Aug-16	02-Aug-16	15-Aug-16
DS.2016.76	2nd Submission	11	16-Aug-16	27-Aug-16	16-Aug-16	27-Aug-16
DS.2016.78	Comment on 2nd Submission	12	29-Aug-16	10-Sep-16	29-Aug-16	10-Sep-16
DS.2016.80	3rd Submission	9	12-Sep-16	22-Sep-16	12-Sep-16	22-Sep-16
DS.2016.82	Comment on 3rd Submission	11	23-Sep-16	06-Oct-16	23-Sep-16	06-Oct-16
Podium Ceramic Concrete Tubes & with Perforated Cladding,CE01a,01b,02a						
DS.2016.0	1st BD Submission to Consultant	9	24-Aug-16	03-Sep-16	24-Aug-16*	03-Sep-16
DS.2016.0	Comment on 1st Submission	12	03-Sep-16	19-Sep-16	03-Sep-16	19-Sep-16
DS.2016.0	2nd Submission	10	19-Sep-16	30-Sep-16	19-Sep-16	30-Sep-16
Garden Gallery Ceramic Cladding & Ceiling,CE-3a,3b,3c						
DS.2016.1	1st BD Submission to Consultant	9	24-Aug-16	02-Sep-16	24-Aug-16*	02-Sep-16
DS.2016.1	Comment on 1st Submission	11	02-Sep-16	15-Sep-16	02-Sep-16	15-Sep-16
DS.2016.1	2nd Submission	11	15-Sep-16	29-Sep-16	15-Sep-16	29-Sep-16
DS.2016.1	Comment on 2nd Submission	11	29-Sep-16	14-Oct-16	29-Sep-16	14-Oct-16
L3 Storefront,CW-08a,08b						
DS.2016.1	1st BD Submission to Consultant	10	17-Aug-16	27-Aug-16	17-Aug-16*	27-Aug-16
DS.2016.1	Comment on 1st Submission	12	27-Aug-16	10-Sep-16	27-Aug-16	10-Sep-16



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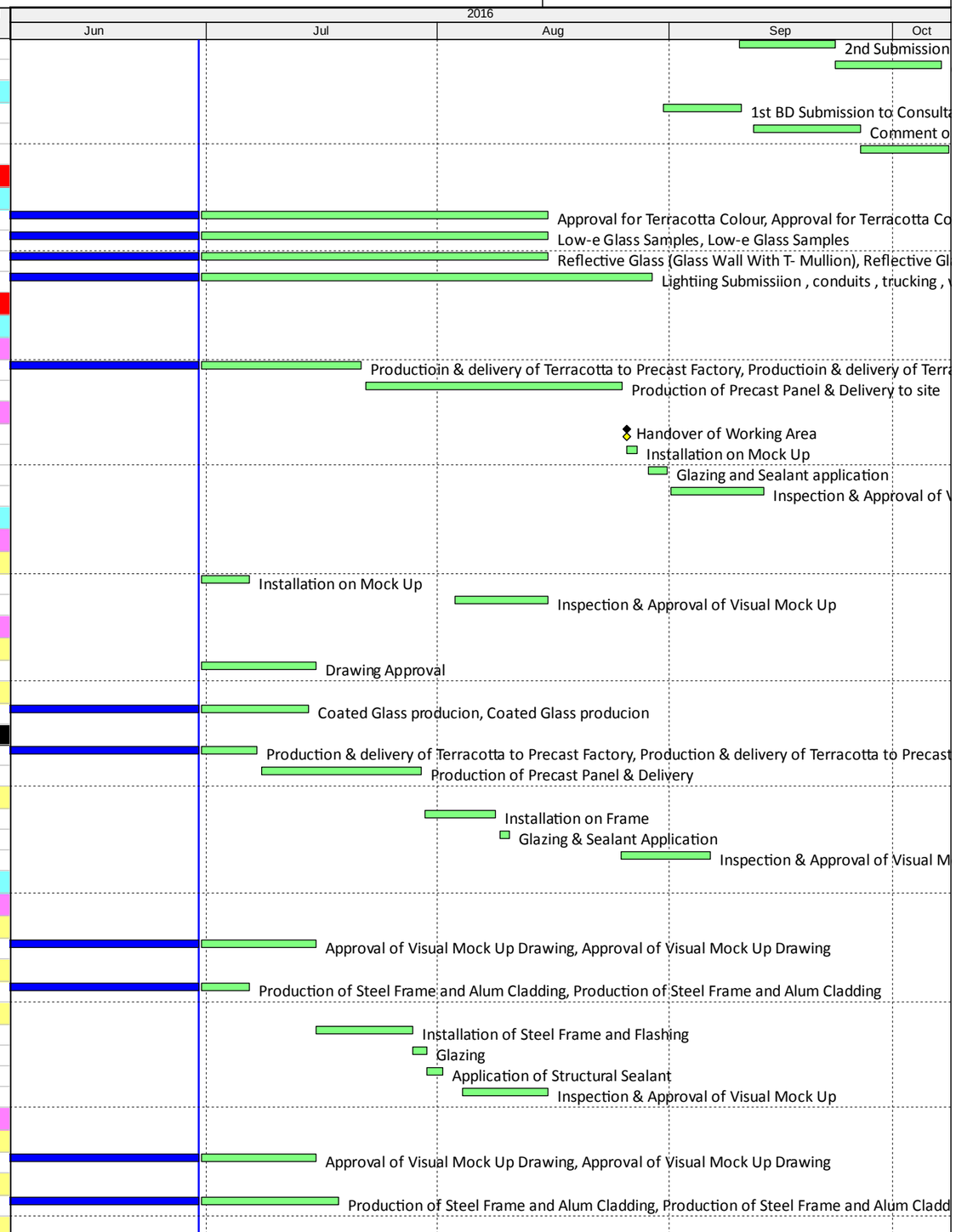
3 Months Rolling Programme (3MRP)

Activity ID	Activity Name	Ori. Dur.	BaseLine Start	BaseLine Finish	Forecast / Actual Start	Forcast / Actual Finish
DS.2016.1	2nd Submission	10	10-Sep-16	23-Sep-16	10-Sep-16	23-Sep-16
DS.2016.1	Comment on 2nd Submission	11	23-Sep-16	07-Oct-16	23-Sep-16	07-Oct-16
Strip Glazing at Skylight Gallery L3 & Plaza Skylight,CW-10,SK-01,02						
DS.2016.1	1st BD Submission to Consultant	10	31-Aug-16	10-Sep-16	31-Aug-16*	10-Sep-16
DS.2016.1	Comment on 1st Submission	12	12-Sep-16	26-Sep-16	12-Sep-16	26-Sep-16
DS.2016.1	2nd Submission	10	26-Sep-16	08-Oct-16	26-Sep-16	08-Oct-16
Material Submission & Approval						
Material Approval						
DS.2020.12	Approval for Terracotta Colour	11	30-Apr-16	16-May-16	27-Dec-15 A	15-Aug-16
DS.2020.14	Low-e Glass Samples	208	21-Dec-15	06-Sep-16	21-Dec-15 A	15-Aug-16
DS.2020.16	Reflective Glass (Glass Wall With T- Mullion)	208	31-Mar-16	08-Dec-16	21-Dec-15 A	15-Aug-16
DS.2020.10	Lightiing Submissiion , conduits , trucking , wiring , junction box, etc.	11	30-Apr-16	16-May-16	20-Dec-15 A	29-Aug-16
Visual Mock Up						
Tower Facade Panel Visual Mock Up						
Terracotta						
DS.2021.1	Productioin & delivery of Terracotta to Precast Factory	12	30-Apr-16	17-May-16	05-Apr-16 A	21-Jul-16
DS.2021.1	Production of Precast Panel & Delivery to site	30	22-Jul-16	25-Aug-16	22-Jul-16	25-Aug-16
Installation						
DS.2021.1	Handover of Working Area	0	26-Aug-16		26-Aug-16	
DS.2021.1	Installation on Mock Up	2	26-Aug-16	27-Aug-16	26-Aug-16	27-Aug-16
DS.2021.1	Glazing and Sealant application	3	29-Aug-16	31-Aug-16	29-Aug-16	31-Aug-16
DS.2021.1	Inspection & Approval of Visual Mock Up	11	01-Sep-16	13-Sep-16	01-Sep-16	13-Sep-16
Concrete Shell Mock Up						
Podium Facade Panel Visual Mock Up						
Installation						
DS.2021.	Installation on Mock Up	5	30-Jun-16	06-Jul-16	30-Jun-16	06-Jul-16
DS.2021.	Inspection & Approval of Visual Mock Up	11	03-Aug-16	15-Aug-16	03-Aug-16	15-Aug-16
Ground Floor Ceramic Cladding , Glass Wall with Ceramic Mullion & Concrete Mullion						
Visual Mock Up Drawing Submission						
DS.2021.	Drawing Approval	13	30-Jun-16	15-Jul-16	30-Jun-16	15-Jul-16
Ordering & Production of Concrete Shell Mock Up Material						
DS.2021.	Coated Glass producion	60	31-Mar-16	13-Jun-16	02-Mar-16 A	14-Jul-16
Terracotta						
DS.2021	Production & delivery of Terracotta to Precast Factory	12	30-Apr-16	17-May-16	24-Mar-16 A	07-Jul-16
DS.2021	Production of Precast Panel & Delivery	18	08-Jul-16	29-Jul-16	08-Jul-16	29-Jul-16
Installation						
DS.2021.	Installation on Frame	8	30-Jul-16	08-Aug-16	30-Jul-16	08-Aug-16
DS.2021.	Glazing & Sealant Application	2	09-Aug-16	10-Aug-16	09-Aug-16	10-Aug-16
DS.2021.	Inspection & Approval of Visual Mock Up	10	25-Aug-16	06-Sep-16	25-Aug-16	06-Sep-16
Hybrid Mock Up						
Glass Wall with T-Mullion,CW-02a,02b						
Shopdrawing Submission						
DS.2021.	Approval of Visual Mock Up Drawing	13	15-Jun-16	30-Jun-16	27-May-16 A	15-Jul-16
Ordering & Production of Hybrid Mock Up Mateial						
DS.2021.	Production of Steel Frame and Alum Cladding	30	16-May-16	20-Jun-16	02-Mar-16 A	06-Jul-16
Installation of Mock Up Sample						
DS.2021.	Installation of Steel Frame and Flashing	10	15-Jul-16	28-Jul-16	15-Jul-16	28-Jul-16
DS.2021.	Glazing	2	28-Jul-16	30-Jul-16	28-Jul-16	30-Jul-16
DS.2021.	Application of Structural Sealant	2	30-Jul-16	01-Aug-16	30-Jul-16	01-Aug-16
DS.2021.	Inspection & Approval of Visual Mock Up	10	04-Aug-16	15-Aug-16	04-Aug-16	15-Aug-16
L3 Storefront,CW-08						
Shopdrawing Submission						
DS.2021.	Approval of Visual Mock Up Drawing	13	15-Jun-16	30-Jun-16	11-May-16 A	15-Jul-16
Ordering & Production of Hybrid Mock Up Mateial						
DS.2021.	Production of Steel Frame and Alum Cladding	36	05-Apr-16	19-May-16	04-Mar-16 A	18-Jul-16
Installation of Mock Up Sample						



◇ Baseline Milestone
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West Kowloon Cultural District Authority

3 Months Rolling Programme (3MRP)

(3A Draft)

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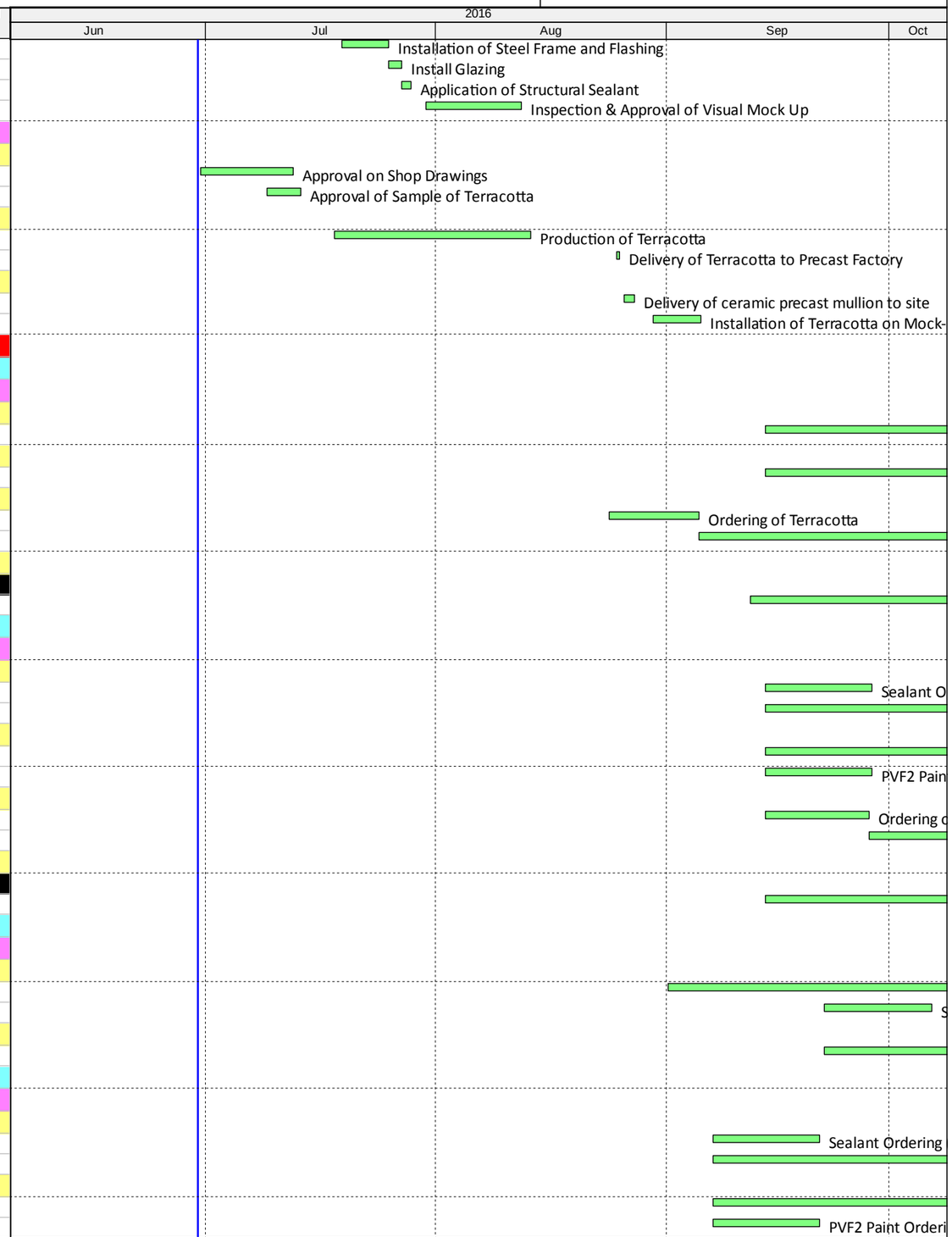
3 Months Rolling Programme (3MRP)

Activity ID	Activity Name	Ori. Dur.	BaseLine Start	BaseLine Finish	Forecast / Actual Start	Forcast / Actual Finish
DS.2021.	Installation of Steel Frame and Flashing	6	19-Jul-16	25-Jul-16	19-Jul-16	25-Jul-16
DS.2021.	Install Glazing	2	25-Jul-16	27-Jul-16	25-Jul-16	27-Jul-16
DS.2021.	Application of Structural Sealant	2	27-Jul-16	28-Jul-16	27-Jul-16	28-Jul-16
DS.2021.	Inspection & Approval of Visual Mock Up	11	30-Jul-16	12-Aug-16	30-Jul-16	12-Aug-16
Garden Galley Visual Mock Up,ce-03a,03c						
Visual Mock Up Drawing Submission						
DS.2021.	Approval on Shop Drawings	10	30-Jun-16	12-Jul-16	30-Jun-16*	12-Jul-16
DS.2021.	Approval of Sample of Terracotta	4	09-Jul-16	13-Jul-16	09-Jul-16	13-Jul-16
Terracotta						
DS.2021.	Production of Terracotta	24	18-Jul-16	13-Aug-16	18-Jul-16	13-Aug-16
DS.2021.	Delivery of Terracotta to Precast Factory	1	25-Aug-16	25-Aug-16	25-Aug-16	25-Aug-16
Installation						
DS.2021.	Delivery of ceramic precast mullion to site	2	26-Aug-16	27-Aug-16	26-Aug-16	27-Aug-16
DS.2021.	Installation of Terracotta on Mock-up	6	30-Aug-16	05-Sep-16	30-Aug-16	05-Sep-16
Production Mock Up						
Tower Precast Facade Panels w/ Percast Concrete , Terracotta, lighting & Curtain Wall						
Tower Facade - Ordering & Production of Material						
Tower Facade - Glass Production & Fabrication						
DS.2022.6	Coated Glass Production	48	14-Sep-16	11-Nov-16	14-Sep-16*	11-Nov-16
Tower Facade - Curtain Wall glazed panel production and Fabricatioin						
DS.2022.	Die Making	50	14-Sep-16	14-Nov-16	14-Sep-16*	14-Nov-16
Tower Facade - Terracotta						
DS.2022.	Ordering of Terracotta	10	24-Aug-16	05-Sep-16	24-Aug-16*	05-Sep-16
DS.2022.	Die Making of Terracotta	50	05-Sep-16	05-Nov-16	05-Sep-16	05-Nov-16
Tower Facade - Precast Concrete Facade						
Tower Facade - Precast Facade Die Making						
DS.2022	Tower Facade Precast Concrete Mould Making	74	12-Sep-16	09-Dec-16	12-Sep-16	09-Dec-16
Podium Precast Facade Panel w/ Percast Concrete , Terracotta & Curtain Wall						
Podium Facade - Ordering & Production of Material						
Podium Facade - Glass Production & Fabrication						
DS.2022.	Sealant Ordering (Typical two weeks time, tailor made need three months)	12	14-Sep-16	28-Sep-16	14-Sep-16*	28-Sep-16
DS.2022.	Coated Glass Production	48	14-Sep-16	11-Nov-16	14-Sep-16	11-Nov-16
Podium Facade - Curtain Wall glazed panel production and Fabricatioin						
DS.2022.	Die Making	48	14-Sep-16	11-Nov-16	14-Sep-16	11-Nov-16
DS.2022.	PVF2 Paint Ordering	12	14-Sep-16	28-Sep-16	14-Sep-16	28-Sep-16
Podium Facade - Terracotta						
DS.2022.	Ordering of Terracotta	11	14-Sep-16	28-Sep-16	14-Sep-16	28-Sep-16
DS.2022.	Die Making of Terracotta	72	28-Sep-16	24-Dec-16	28-Sep-16	24-Dec-16
Podium Facade - Precast Concrete Facade						
Podium Facade - Percast Facade Die Making						
DS.2022	Percast Concrete Mould Making	72	14-Sep-16	09-Dec-16	14-Sep-16	09-Dec-16
Kinked Glass Wall with T Mullion and reflective Glass at B1,CW-02b						
Kinked Glass Wall with T Mullion - Ordering & Production of Material						
Kinked Glass Wall with T Mullion - Glass Production & Fabrication						
DS.2022.	Coated Glass Production	48	01-Sep-16	29-Oct-16	01-Sep-16*	29-Oct-16
DS.2022.	Sealant Ordering (Typical two weeks time, tailor made need three months)	12	22-Sep-16	06-Oct-16	22-Sep-16*	06-Oct-16
Kinked Glass Wall with T Mullion - Curtain Wall glazed panel production and Fabricatioin						
DS.2022.	Die Making	48	22-Sep-16	18-Nov-16	22-Sep-16*	18-Nov-16
L3 Storefront,CW-08						
L3 Storefront - Ordering & Production of Material						
Glass Production & Fabrication						
DS.2022.	Sealant Ordering (Typical two weeks time, tailor made need three months)	12	07-Sep-16	21-Sep-16	07-Sep-16	21-Sep-16
DS.2022.	Coated Glass Production	48	07-Sep-16	04-Nov-16	07-Sep-16	04-Nov-16
Glass Wall glazed panel production and Fabricatioin						
DS.2022.	Die Making	48	07-Sep-16	04-Nov-16	07-Sep-16	04-Nov-16
DS.2022.	PVF2 Paint Ordering	12	07-Sep-16	21-Sep-16	07-Sep-16	21-Sep-16



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3 Months Rolling Programme (3MRP)

Activity ID	Activity Name	Ori. Dur.	BaseLine Start	BaseLine Finish	Forecast / Actual Start	Forcast / Actual Finish
G/F Facade - Precast Concrete Tubes , Ceramic Rows Rainscreen Cladding, Ceramic Precast Mull						
G/F Facade - Ordering & Production of Material						
DS.2022.:	Sealant Ordering (Typical two weeks time, tailor made need three months)	12	29-Sep-16	14-Oct-16	29-Sep-16*	14-Oct-16
G/F Facade - Glass Production & Fabrication						
DS.2022.	Coated Glass producion	48	29-Sep-16	25-Nov-16	29-Sep-16	25-Nov-16
G/F Facade - Curtain Wall glazed panel production and Fabricatioin						
DS.2022.	Die Making	48	29-Sep-16	25-Nov-16	29-Sep-16	25-Nov-16
DS.2022.	PVF2 Paint Ordering	12	29-Sep-16	14-Oct-16	29-Sep-16	14-Oct-16
G/F Facade - Terracotta						
DS.2022.	Ordering of Terracotta	11	29-Sep-16	14-Oct-16	29-Sep-16*	14-Oct-16
Garden Gallery,CE-03a,03c						
Garden Gallery - Ordering & Production of Material						
Garden Gallery - Terracotta						
DS.2022.	Ordering of Terracotta	11	14-Sep-16	28-Sep-16	14-Sep-16	28-Sep-16
DS.2022.	Die Making of Terracotta	36	28-Sep-16	11-Nov-16	28-Sep-16	11-Nov-16
Performance Testing Mock Up						
Tower Precast Facade Panels w/ Precast Concrete , Terracotta, lighting & Curtain Wall						
Tower Facade - Drawing Submission						
DS.2026.2	1st Shop Drawing Submission	11	30-Jul-16	12-Aug-16	30-Jul-16*	12-Aug-16
DS.2026.4	1st Shop Drawing Comment	11	12-Aug-16	25-Aug-16	12-Aug-16	25-Aug-16
DS.2026.6	2nd Shop Drawing Submission	11	25-Aug-16	07-Sep-16	25-Aug-16	07-Sep-16
DS.2026.8	Approval of Performance Mock Up Drawing	11	07-Sep-16	21-Sep-16	07-Sep-16	21-Sep-16
Tower Facade - Submission of Testing Proposal						
DS.2026.:	1st Submission of Testing Proposal	11	21-Sep-16	05-Oct-16	21-Sep-16	05-Oct-16
Tower Facade - Ordering & Production of Material						
DS.2026.:	Sealant Ordering (Typical two weeks time, tailor made need three months)	12	14-Sep-16	28-Sep-16	14-Sep-16	28-Sep-16
Tower Facade - Glass Production & Fabrication						
DS.2026.	Coated Glass Production	48	21-Sep-16	18-Nov-16	21-Sep-16	18-Nov-16
Tower Facade - Curtain Wall glazed panel production and Fabricatioin						
DS.2026.	Die Making	48	14-Sep-16	11-Nov-16	14-Sep-16	11-Nov-16
DS.2026.	PVF2 Paint Ordering	12	14-Sep-16	28-Sep-16	14-Sep-16*	28-Sep-16
Tower Facade - Terracotta						
DS.2026.	Ordering of Terracotta	11	14-Sep-16	28-Sep-16	14-Sep-16	28-Sep-16
DS.2026.	Die Making of Terracotta	24	28-Sep-16	28-Oct-16	28-Sep-16	28-Oct-16
Tower Facade - Precast Concrete Facade						
Tower Facade - Precast Facade Die Making						
DS.2026	Percast Concrete Mould Making	96	14-Sep-16	10-Jan-17	14-Sep-16	10-Jan-17
Podium Facade Wall Performance Testing						
Podium Facade - Drawing Submission						
DS.2026.9	1st PMU Drawing Submission	11	24-Aug-16	06-Sep-16	24-Aug-16	06-Sep-16
DS.2026.(	1st PMU Drawing Comment	11	06-Sep-16	20-Sep-16	06-Sep-16	20-Sep-16
DS.2026.(	2nd PMU Drawing Submission	11	20-Sep-16	04-Oct-16	20-Sep-16	04-Oct-16
Podium Facade - Ordering & Production of Material						
DS.2026.:	Sealant Ordering (Typical two weeks time, tailor made need three months)	12	16-Aug-16	29-Aug-16	16-Aug-16	29-Aug-16
Podium Facade - Glass Production & Fabrication						
DS.2026.	Coated Glass Producion	48	16-Aug-16	13-Oct-16	16-Aug-16	13-Oct-16
Podium Facade - Curtain Wall glazed panel production and Fabricatioin						
DS.2026.	Die Making	48	16-Aug-16	13-Oct-16	16-Aug-16	13-Oct-16
Podium Facade - Precast Concrete Facade						
Podium Facade - Precast Facade Die Making						
DS.2026	Percast Concrete Mould Making	96	16-Aug-16	08-Dec-16	16-Aug-16	08-Dec-16
Kinked Glass Wall with T Mullion and Reflective Glass at B1,CW-02b						
Kinked Glass Wall - Ordering & Production of Material						
Kinked Glass Wall - Curtain Wall glazed panel production and Fabricatioin						
DS.2026.	Die Making	48	16-Aug-16	13-Oct-16	16-Aug-16	13-Oct-16
DS.2026.	PVF2 Paint Ordering	49	16-Aug-16	14-Oct-16	16-Aug-16	14-Oct-16

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West Kowloon Cultural District Authority

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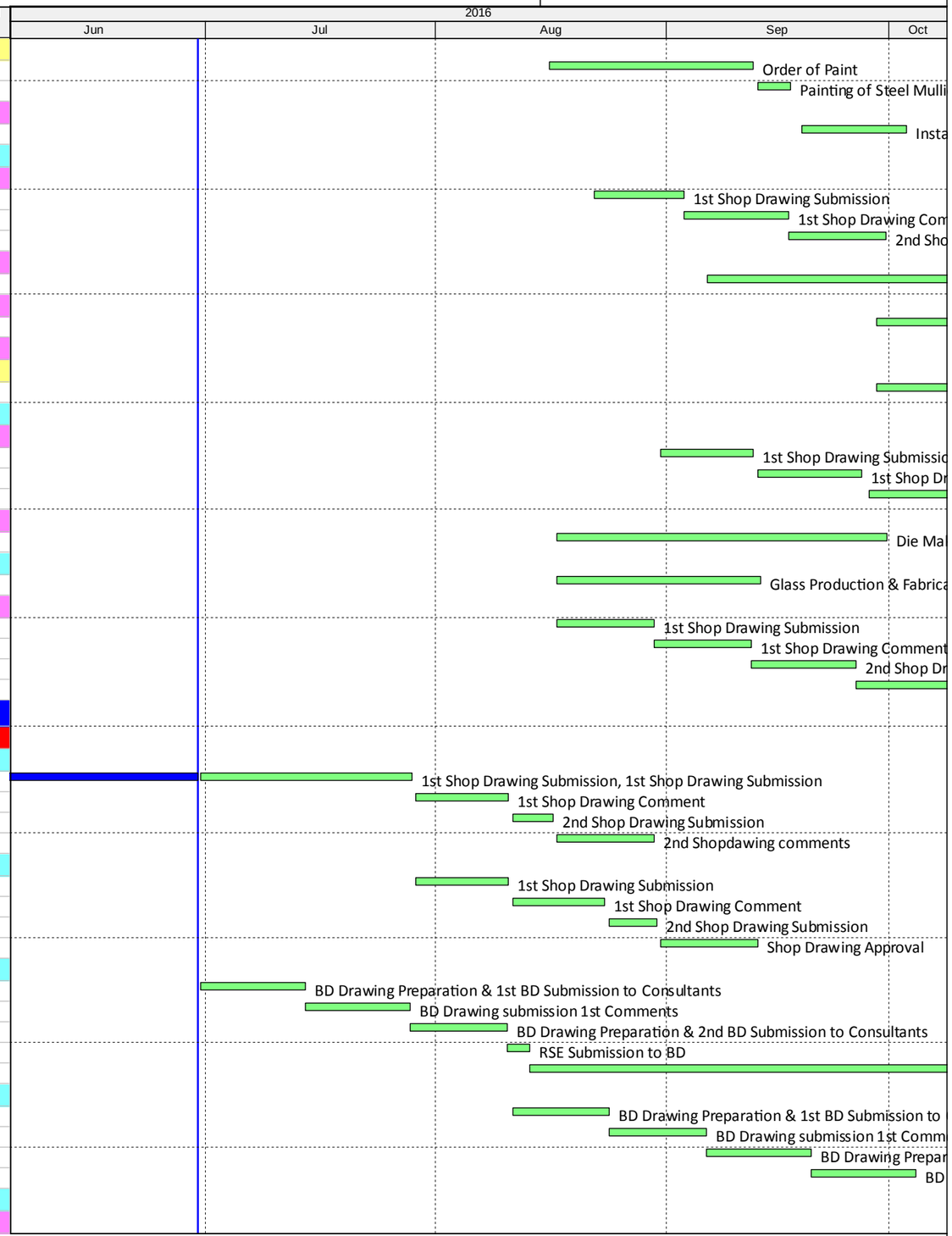
3 Months Rolling Programme (3MRP)

Activity ID	Activity Name	Ori. Dur.	BaseLine Start	BaseLine Finish	Forecast / Actual Start	Forcast / Actual Finish
	Kinked Glass Wall - T Steel Mullion Production					
DS.2026.	Order of Paint	24	16-Aug-16	12-Sep-16	16-Aug-16	12-Sep-16
DS.2026.	Painting of Steel Mullion	4	13-Sep-16	17-Sep-16	13-Sep-16	17-Sep-16
	Kinked Glass Wall - Installation					
DS.2026.:	Installation on Mock Up	11	19-Sep-16	03-Oct-16	19-Sep-16	03-Oct-16
	Glass Wall with Ceramic Precast Mullions at ground Flr Main Enterance,CW-04					
	Glass Wall with PC Mullions - Drawing Submission					
DS.2026.:	1st Shop Drawing Submission	11	22-Aug-16	03-Sep-16	22-Aug-16	03-Sep-16
DS.2026.:	1st Shop Drawing Comment	11	03-Sep-16	17-Sep-16	03-Sep-16	17-Sep-16
DS.2026.:	2nd Shop Drawing Submission	11	17-Sep-16	30-Sep-16	17-Sep-16	30-Sep-16
	Glass Wall with PC Mullions - Glass Production & Fabrication					
DS.2026.:	Coated Glass Producion	72	06-Sep-16	02-Dec-16	06-Sep-16	02-Dec-16
	Glass Wall with PC Mullions - Glazed Panel production and Fabricatioin					
DS.2026.:	Die Making	36	29-Sep-16	11-Nov-16	29-Sep-16	11-Nov-16
	Glass Wall with PC Mullions - Precast Concrete Facade					
	Glass Wall with PC Mullions - Precast Facade Die Making					
DS.2026.	Percast Concrete Mould Making	24	29-Sep-16	28-Oct-16	29-Sep-16	28-Oct-16
	Vertical Glass Wall at Skylight Gallery,CW-10					
	Vertical Glass Wall @ Gallery - Drawing Submission					
DS.2026.:	1st Shop Drawing Submission	11	31-Aug-16	12-Sep-16	31-Aug-16	12-Sep-16
DS.2026.:	1st Shop Drawing Comment	11	13-Sep-16	27-Sep-16	13-Sep-16	27-Sep-16
DS.2026.:	2nd Shop Drawing Submission	11	28-Sep-16	13-Oct-16	28-Sep-16	13-Oct-16
	Vertical Glass Wall @ Gallery - Alum Frame					
DS.2026.:	Die Making	38	17-Aug-16	30-Sep-16	17-Aug-16*	30-Sep-16
	3/F Plaza Skylight & Terrace,SK-01					
DS.2026.2	Glass Production & Fabrication	24	17-Aug-16	13-Sep-16	17-Aug-16	13-Sep-16
	3/F Plaza Skylight - Drawing Submission					
DS.2026.:	1st Shop Drawing Submission	11	17-Aug-16	30-Aug-16	17-Aug-16	30-Aug-16
DS.2026.:	1st Shop Drawing Comment	11	30-Aug-16	12-Sep-16	30-Aug-16	12-Sep-16
DS.2026.:	2nd Shop Drawing Submission	11	12-Sep-16	26-Sep-16	12-Sep-16	26-Sep-16
DS.2026.:	Approval of Performance Mock Up Drawing	11	26-Sep-16	11-Oct-16	26-Sep-16	11-Oct-16
	(By Permasteelisa) External Facade for CSF Bldg					
	CSF Glass Wall (South Ele. 6/F-7/F,North Ele.6/F-8/F,South Ele. G/F)					
	CSF Glass Wall Shopdawing Submission & Approval					
DS.2260.10	1st Shop Drawing Submission	11	31-May-16	14-Jun-16	18-May-16 A	28-Jul-16
DS.2260.12	1st Shop Drawing Comment	11	29-Jul-16	10-Aug-16	29-Jul-16	10-Aug-16
DS.2260.14	2nd Shop Drawing Submission	5	11-Aug-16	16-Aug-16	11-Aug-16	16-Aug-16
DS.2260.16	2nd Shopdawing comments	11	17-Aug-16	30-Aug-16	17-Aug-16	30-Aug-16
	CSF Louvre - FAC-LV-03 (Additional Works)					
DS.2260.18	1st Shop Drawing Submission	11	29-Jul-16	10-Aug-16	29-Jul-16	10-Aug-16
DS.2260.20	1st Shop Drawing Comment	11	11-Aug-16	23-Aug-16	11-Aug-16	23-Aug-16
DS.2260.21	2nd Shop Drawing Submission	6	24-Aug-16	30-Aug-16	24-Aug-16	30-Aug-16
DS.2260.22	Shop Drawing Approval	11	31-Aug-16	13-Sep-16	31-Aug-16	13-Sep-16
	CSF Embed BD Submission & Approval					
DS.2260.24	BD Drawing Preparation & 1st BD Submission to Consultants	11	30-Jun-16	14-Jul-16	30-Jun-16*	14-Jul-16
DS.2260.26	BD Drawing submission 1st Comments	11	14-Jul-16	28-Jul-16	14-Jul-16	28-Jul-16
DS.2260.28	BD Drawing Preparation & 2nd BD Submission to Consultants	11	28-Jul-16	10-Aug-16	28-Jul-16	10-Aug-16
DS.2260.30	RSE Submission to BD	3	10-Aug-16	13-Aug-16	10-Aug-16	13-Aug-16
DS.2260.32	BD Submission & Approval	48	13-Aug-16	12-Oct-16	13-Aug-16	12-Oct-16
	CSF Glass Wall BD Submission & Approval					
DS.2260.38	BD Drawing Preparation & 1st BD Submission to Consultants	11	11-Aug-16	24-Aug-16	11-Aug-16	24-Aug-16
DS.2260.40	BD Drawing submission 1st Comments	11	24-Aug-16	06-Sep-16	24-Aug-16	06-Sep-16
DS.2260.42	BD Drawing Preparation & 2nd BD Submission to Consultants	11	06-Sep-16	20-Sep-16	06-Sep-16	20-Sep-16
DS.2260.44	BD Drawing submission 2nd Comments	11	20-Sep-16	04-Oct-16	20-Sep-16	04-Oct-16
	CSF Glass Wall Performance Testing					
	Ordering & Production of Material					



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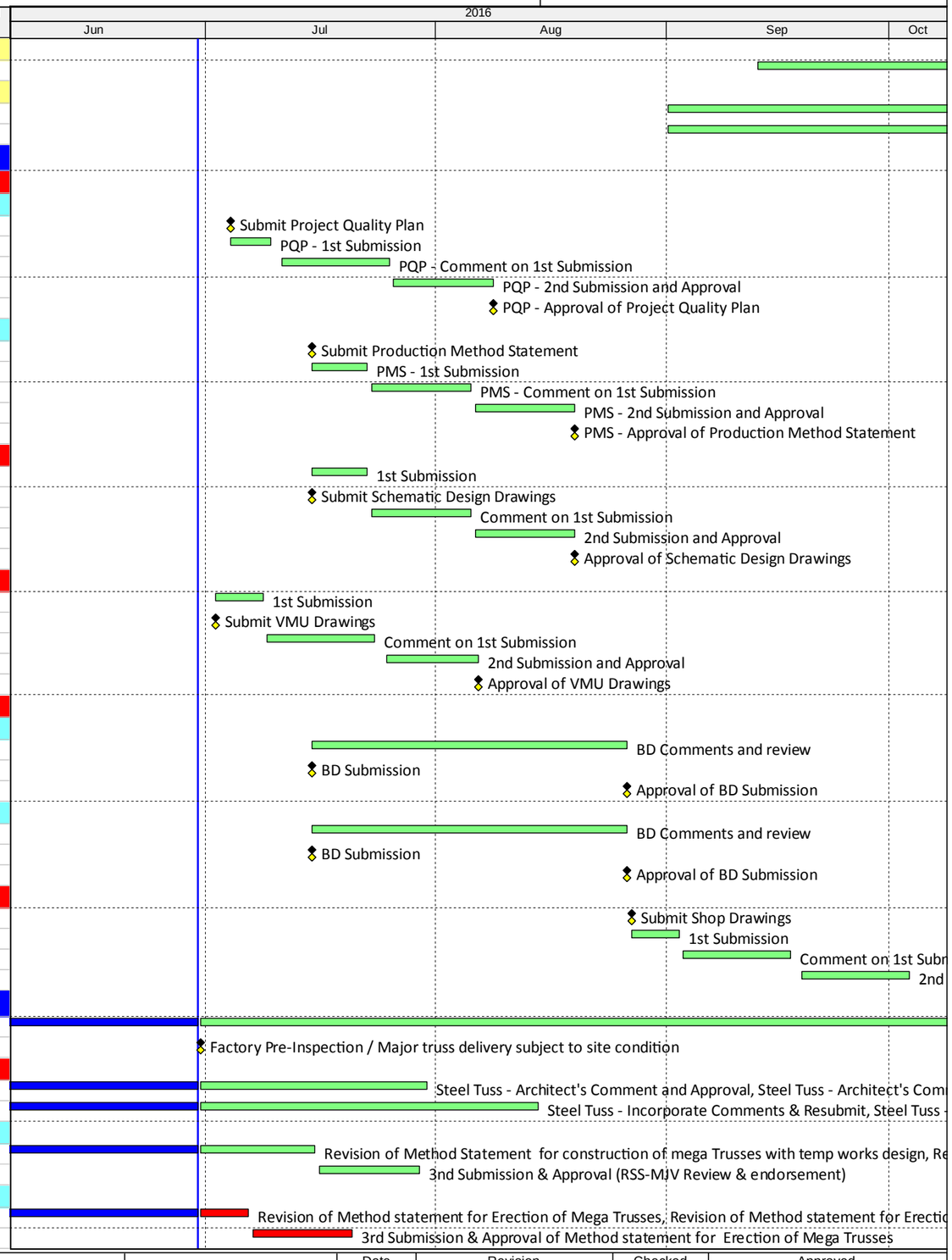
Glass Production & Fabrication						
DS.2260.	Coated Glass Production	48	13-Sep-16	11-Nov-16	13-Sep-16*	11-Nov-16
Curtain Wall glazed panel production and Fabricatioin						
DS.2260.	Die Making	48	01-Sep-16	29-Oct-16	01-Sep-16*	29-Oct-16
DS.2260.	PVF2 Paint Ordering	49	01-Sep-16	31-Oct-16	01-Sep-16*	31-Oct-16
(Redland) Precast Facade for M+ Podium & CSF Bldg						
(Redland) General Submission						
(Redland) Project Quality Plan						
DS.3210	Submit Project Quality Plan	0	04-Jul-16		04-Jul-16*	
DS.3220	PQP - 1st Submission	6	04-Jul-16	09-Jul-16	04-Jul-16	09-Jul-16
DS.3230	PQP - Comment on 1st Submission	12	11-Jul-16	25-Jul-16	11-Jul-16	25-Jul-16
DS.3240	PQP - 2nd Submission and Approval	12	26-Jul-16	08-Aug-16	26-Jul-16	08-Aug-16
DS.3250	PQP - Approval of Project Quality Plan	0		08-Aug-16		08-Aug-16
(Redland) Production Method Statement						
DS.3260	Submit Production Method Statement	0	15-Jul-16		15-Jul-16*	
DS.3270	PMS - 1st Submission	6	15-Jul-16	22-Jul-16	15-Jul-16	22-Jul-16
DS.3280	PMS - Comment on 1st Submission	12	23-Jul-16	05-Aug-16	23-Jul-16	05-Aug-16
DS.3290	PMS - 2nd Submission and Approval	12	06-Aug-16	19-Aug-16	06-Aug-16	19-Aug-16
DS.3300	PMS - Approval of Production Method Statement	0		19-Aug-16		19-Aug-16
(Redland) Drawing Submission and Approval						
DS.3320	1st Submission	6	15-Jul-16	22-Jul-16	15-Jul-16	22-Jul-16
DS.3310	Submit Schematic Design Drawings	0	15-Jul-16		15-Jul-16*	
DS.3330	Comment on 1st Submission	12	23-Jul-16	05-Aug-16	23-Jul-16	05-Aug-16
DS.3340	2nd Submission and Approval	12	06-Aug-16	19-Aug-16	06-Aug-16	19-Aug-16
DS.3350	Approval of Schematic Design Drawings	0		19-Aug-16		19-Aug-16
(Redland) Visual Mock-Up FAC-PC-04						
DS.3370	1st Submission	6	02-Jul-16	08-Jul-16	02-Jul-16	08-Jul-16
DS.3360	Submit VMU Drawings	0	02-Jul-16		02-Jul-16*	
DS.3380	Comment on 1st Submission	12	09-Jul-16	23-Jul-16	09-Jul-16	23-Jul-16
DS.3390	2nd Submission and Approval	12	25-Jul-16	06-Aug-16	25-Jul-16	06-Aug-16
DS.3400	Approval of VMU Drawings	0		06-Aug-16		06-Aug-16
(Redland) BD Submission and Approval						
(Redland) BD Submission						
DS.3420	BD Comments and review	36	15-Jul-16	26-Aug-16	15-Jul-16	26-Aug-16
DS.3410	BD Submission	0	15-Jul-16		15-Jul-16*	
DS.3430	Approval of BD Submission	0		26-Aug-16		26-Aug-16
(Redland) Fixing Layout for ARUP's Onward Submission to BD						
DS.3450	BD Comments and review	36	15-Jul-16	26-Aug-16	15-Jul-16	26-Aug-16
DS.3440	BD Submission	0	15-Jul-16		15-Jul-16*	
DS.3460	Approval of BD Submission	0		26-Aug-16		26-Aug-16
(Redland) Shop Drawings						
DS.3470	Submit Shop Drawings	0	27-Aug-16		27-Aug-16	
DS.3480	1st Submission	6	27-Aug-16	02-Sep-16	27-Aug-16	02-Sep-16
DS.3490	Comment on 1st Submission	12	03-Sep-16	17-Sep-16	03-Sep-16	17-Sep-16
DS.3500	2nd Submission and Approval	12	19-Sep-16	03-Oct-16	19-Sep-16	03-Oct-16
Structural Steel Trusses						
DS.1130	Steel Tuss - Procurement, Fabrication & Delivery	188	14-Jun-16	02-Mar-17	29-Jan-16 A	15-Dec-16
MS.1000	Factory Pre-Inspection / Major truss delivery subject to site condition	0	30-Jun-16		30-Jun-16*	
Design, Shop Dwgs, Materials, Method Statement & Welding)						
DS.1030	Steel Tuss - Architect's Comment and Approval	75	29-Feb-16	13-May-16	03-Dec-15 A	30-Jul-16
DS.1020	Steel Tuss - Incorporate Comments & Resubmit	30	30-Dec-15	28-Jan-16	09-Nov-15 A	14-Aug-16
Method statement for Construction of Mega Trusses with Temporary Works Design						
DS.1030.13	Revision of Method Statement for construction of mega Trusses with temp v	30	30-Apr-16	29-May-16	30-Apr-16 A	15-Jul-16
DS.1030.23	3nd Submission & Approval (RSS-MJV Review & endorsement)	14	16-Jul-16	29-Jul-16	16-Jul-16	29-Jul-16
Method Statement for Erection						
DS.1030.3	Revision of Method statement for Erection of Mega Trusses	14	24-May-16	06-Jun-16	26-May-16 A	06-Jul-16
DS.1030.3	3rd Submission & Approval of Method statement for Erection of Mega Truss	14	07-Jul-16	20-Jul-16	07-Jul-16	20-Jul-16



◇ Baseline Milestone
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West Kowloon Cultural District Authority

3 Months Rolling Programme (3MRP)

(3A Draft)

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30-Jun-16	3 MRP Submission	Edgar / Jojo	Desmond Sze

3 Months Rolling Programme (3MRP)

Activity ID	Activity Name	Ori. Dur.	BaseLine Start	BaseLine Finish	Forecast / Actual Start	Forcast / Actual Finish
Shop Drawings						
DS.1030.41	Shop Drawing submission and approval of Steelwork for Shear Plates, Mega	117	21-Dec-15	15-Apr-16	21-Dec-15 A	30-Jul-16
Welding Procedure						
DS.1030.61	Revision of Site welding procedure	14	31-Mar-16	13-Apr-16	31-Mar-16 A	06-Jul-16
DS.1030.71	3rd Submission & Approval for site welding procedure	14	07-Jul-16	20-Jul-16	07-Jul-16	20-Jul-16
Statutory Approval Status e.g. (BD & MTRC Approval)-1						
DS.7060b10	MTRC Review and Endorsement for ARUP to submit to BD	30	25-May-16	24-Jun-16	12-May-16 A	10-Jul-16
DS.7060b11	BD issue endorsement to ARUP	14	11-Jul-16	24-Jul-16	11-Jul-16	24-Jul-16
Materials Procurements						
DS.1040	Steel Tuss - Procurement, Fabrication & Delivery	150	23-May-16	19-Oct-16	01-Oct-15 A	30-Aug-16
Material Procurement - Temporary Works						
DS.1040.33	Material Procurement of proprietary system	9	31-May-16	08-Jun-16	25-May-16 A	08-Jul-16
DS.1040.34	Material Procurement for non proprietary system	9	31-May-16	08-Jun-16	25-May-16 A	08-Jul-16
Material Sampling and Lab Test						
DS.1040.66	Material Sampling and Lab Test (6th Lot) if required	30	30-Jun-16	29-Jul-16	30-Jun-16	29-Jul-16
DS.1040.60	Material Sampling and Lab Test (4th Lot) if required	30	16-May-16	14-Jun-16	12-May-16 A	15-Jul-16
DS.1040.65	Material Sampling and Lab Test (5th Lot) if required	30	01-Jul-16	30-Jul-16	01-Jul-16	30-Jul-16
Fabrication & Delivery To Site						
DS.1050	Steel Tuss - First Batch Arrival on Site (Contract Requirement - MSC.02 on 31I	0	30-Jul-16		30-Jul-16	
Temporary Support System for Trusses - Proprietary & Non Proprietary System						
DS.1040.68	Fabrication & Delivery of non-proprietary system	50	09-Jul-16	27-Aug-16	09-Jul-16	27-Aug-16
DS.1040.67	Delivery of proprietary system	0		14-Aug-16		14-Aug-16
Hanger Column						
DS.1040.85	Fabrication of Hanger Column Suspended from RC	43	08-Jul-16	19-Aug-16	08-Jul-16	19-Aug-16
DS.1040.80	Fabrication of Hanger Column Suspended from mega Truss	43	08-Jul-16	19-Aug-16	08-Jul-16	19-Aug-16
DS.1040.86	Delivery of hanger column	0	10-Sep-16		10-Sep-16	
Composite Column						
DS.1040.91	Composite Column Fabrication	34	02-Jan-16	04-Feb-16	02-Jan-16 A	18-Jul-16
DS.1040.92	Delivery of Composite Column for T3 (*C85)	0		22-Jul-16		22-Jul-16
DS.1040.93	Delivery of Composite Column for T4 (*C94 & *C96)	0		14-Aug-16		14-Aug-16
DS.1040.94	Delivery of Composite Column for T5 (*C25)	0		30-Aug-16		30-Aug-16
Steel Truss Support Fabrication						
DS.1050.01	Steel Truss Support @ East Core Wall for Trusses # 1, 2 & 5	21	30-Apr-16	20-May-16	23-Apr-16 A	30-Jul-16
DS.1055	Steel Truss Support Fabrication for Truss # 1 & 2 (Column 68 & Column 71)	21	04-Jun-16	24-Jun-16	09-May-16 A	30-Jul-16
DS.1056	Steel Truss Support Fabrication for Truss 3 (*C85 & C86)	21	31-Jul-16	20-Aug-16	31-Jul-16	20-Aug-16
DS.1110	Steel Truss Support Fabrication for Truss 5 (*C25)	21	31-Jul-16	20-Aug-16	31-Jul-16	20-Aug-16
DS.1090	Steel Truss Support Fabrication for Truss 4 (*C94 & *C96)	21	21-Aug-16	10-Sep-16	21-Aug-16	10-Sep-16
Steel Truss Support Delivery to Site						
DS.1050.10	Steel Truss Support @ East Core Wall for Trusses # 1, 2 & 5	0	05-Aug-16		05-Aug-16	
DS.1130.10	Steel Truss Support for Truss # 5 (*C25)	0	01-Sep-16		01-Sep-16	
DS.1055.10	Steel Truss Support for Truss # 1 & 2(Column 68 & Column 71)	0	08-Sep-16		08-Sep-16	
DS.1090.10	Steel Truss Support for Truss # 3 (*C85 & C86)	0	21-Sep-16		21-Sep-16	
Steel Truss Members Fabrication						
DS.1080	Steel Truss Fabrication for Truss # 3	69	05-May-16	12-Jul-16	23-Apr-16 A	17-Oct-16
DS.1070	Steel Truss Fabrication for Truss # 2	69	01-May-16	08-Jul-16	23-Apr-16 A	26-Sep-16
DS.1060.1	Steel Truss Fabrication for Truss # 1	69	30-Apr-16	07-Jul-16	23-Apr-16 A	12-Sep-16
DS.1100	Steel Truss Fabrication for Truss # 4	69	13-May-16	20-Jul-16	09-May-16 A	24-Oct-16
DS.1120	Steel Truss Fabrication for Truss # 5	69	30-Apr-16	07-Jul-16	23-Apr-16 A	17-Oct-16
Steel Truss Members Delivery to Site						
DS.1070.10	Steel Truss Members for Truss # 1	0	13-Sep-16		13-Sep-16	
DS.1080.10	Steel Truss Members for Truss # 2	0	27-Sep-16		27-Sep-16	
Building Services						
MVAC						
DS.3070	MVAC - Shop Drawings, Materials & Method Statements Submission	120	01-Dec-15	29-Mar-16	01-Dec-15 A	17-Sep-16
DS.3080	MVAC - CA Review & Comments	30	23-Aug-16	21-Sep-16	01-Apr-16 A	22-Jul-16
DS.3090	MVAC - Incorporate Comments & Resubmit	30	15-Sep-16	14-Oct-16	15-Apr-16 A	19-Aug-16
DS.3100	MVAC - CA Review & Approval	30	13-Oct-16	11-Nov-16	02-May-16 A	14-Sep-16

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Activity ID	Activity Name	Ori. Dur.	BaseLine Start	BaseLine Finish	Forecast / Actual Start	Forcast / Actual Finish
Electrical and ELV Systems						
DS.4120	Elect & ELV Systems - Shop Drawings and Materials Submission and Approval	120	29-Feb-16	27-Jun-16	01-Dec-15 A	17-Sep-16
DS.4130	Elect & ELV Systems - CA Review & Comments	30	01-Aug-16	30-Aug-16	01-Apr-16 A	25-Jul-16
DS.4140	Elect & ELV Systems - Incorporate Comments & Resubmit	30	31-Aug-16	29-Sep-16	15-Apr-16 A	21-Aug-16
DS.4150	Elect & ELV Systems - CA Review & Approval	30	30-Sep-16	29-Oct-16	16-May-16 A	17-Sep-16
Fire Services						
DS.4010	FS - Shop Drawings and Materials Submission and Approval	120	01-Dec-15	29-Mar-16	01-Dec-15 A	14-Jul-16
DS.4020	FS - CA Review & Comments	30	01-Jun-16	30-Jun-16	15-Apr-16 A	29-Jul-16
DS.4030	FS - Incorporate Comments & Resubmit	30	01-Jul-16	30-Jul-16	22-Apr-16 A	13-Aug-16
DS.4040	FS - CA Review & Approval	30	31-Jul-16	29-Aug-16	16-May-16 A	28-Aug-16
DS.4050	FS - Procurement and Delivery	200	29-Aug-16	16-Mar-17	29-Aug-16	16-Mar-17
Plumbing and Drainage						
DS.3010	Plumbing & Drainage - Shop Drawings, Materials & Method Statements Subm	90	30-Dec-15	28-Mar-16	30-Dec-15 A	14-Aug-16
DS.3020	Plumbing & Drainage - CA Review & Comments	30	01-Aug-16	30-Aug-16	01-Apr-16 A	09-Sep-16
DS.3030	Plumbing & Drainage - Incorporate Comments & Resubmit	30	31-Aug-16	29-Sep-16	14-Apr-16 A	08-Oct-16
Mechanical and Lifting Platform						
DS.5210	Lifting Platform - Shop Drawings, Materials & Method Statements Submissior	90	31-May-16	28-Aug-16	01-Dec-15 A	30-Jul-16
DS.5220	Lifting Platform - CA Review & Comments	30	31-Jul-16	29-Aug-16	31-Jul-16	29-Aug-16
DS.5230	Lifting Platform - Incorporate Comments & Resubmit	30	30-Aug-16	28-Sep-16	30-Aug-16	28-Sep-16
DS.5240	Lifting Platform - CA Review & Approval	30	29-Sep-16	28-Oct-16	29-Sep-16	28-Oct-16
Lifts and Escalator						
DS.5110	Lift & Escalator - Shop Drawings, Materials & Method Statements Submission	90	01-Dec-15	28-Feb-16	01-Dec-15 A	30-Jul-16
DS.5120	Lift & Escalator - CA Review & Comments	30	01-Aug-16	30-Aug-16	15-Apr-16 A	14-Aug-16
DS.5130	Lift & Escalator - Incorporate Comments & Resubmit	30	31-Aug-16	29-Sep-16	30-Apr-16 A	29-Aug-16
DS.5140	Lift & Escalator- CA Review & Approval	30	30-Sep-16	29-Oct-16	16-May-16 A	13-Sep-16
DS.5150	Lift & Escalator - Procurement and Delivery	300	14-Sep-16	10-Jul-17	14-Sep-16	10-Jul-17
Art Lift (LT-11 & LT-13)						
DS.5020	Art Lift - Shop Drawings, Materials & Method Statements Submission	90	01-Dec-15	28-Feb-16	01-Dec-15 A	30-Jul-16
DS.5025	Art Lift - CA Review & Comments	30	01-Aug-16	30-Aug-16	15-Apr-16 A	29-Aug-16
DS.5030	Art Lift - Incorporate Comments & Resubmit	30	30-Aug-16	28-Sep-16	30-Aug-16	28-Sep-16
DS.5040	Art Lift - CA Review & Approval	30	29-Sep-16	28-Oct-16	29-Sep-16	28-Oct-16
ABWF and Fitout						
Ceramic Tile						
DS.6010	Ceramic Tile - Shop Drawings, Materials Sample Submission	90	30-Nov-15	27-Feb-16	30-Nov-15 A	30-Jul-16
DS.6020	Ceramic Tile - CA Review & Comments	30	31-Jul-16	29-Aug-16	31-Jul-16	29-Aug-16
DS.6030	Ceramic Tile - Incorporate Comments & Resubmit	30	30-Aug-16	28-Sep-16	30-Aug-16	28-Sep-16
DS.6040	Ceramic Tile - CA Review & Approval	30	29-Sep-16	28-Oct-16	29-Sep-16	28-Oct-16
Soft and Hard Landscaping						
DS.7010	Landscaping - Shop Drawings, Materials & Method Statements Submission	90	30-Jun-16	27-Sep-16	30-Jun-16	27-Sep-16
DS.7000	Landscaping - Award Specialist Subcontractor	0	30-Jun-16		30-Jun-16	
DS.7020	Landscaping - CA Review & Comments	30	28-Sep-16	27-Oct-16	28-Sep-16	27-Oct-16
Design Detailing / Buildability Co-ordination						
Spatial Coordination for BIM / CSD / CBWD						
Basement						
B00.0010	Preparation and submission for BIM / CSD / CBWD at B1/F (Team B)	60	01-Oct-15	29-Nov-15	01-Oct-15 A	30-Jul-16
B00.0030	Review, resubmission and approval for BIM / CSD / CBWD at B1/F (Team B)	30	30-Nov-15	29-Dec-15	30-Nov-15 A	29-Aug-16
M+ Podium						
B00.0040	Preparation and submission for BIM / CSD / CBWD at G/F (Team A)	60	30-Nov-15	28-Jan-16	30-Nov-15 A	10-Jul-16
B00.0080	Preparation and submission for BIM / CSD / CBWD at 1M/F (Team A)	60	30-Jun-16	28-Aug-16	30-Jun-16	28-Aug-16
B00.0120	Preparation and submission for BIM / CSD / CBWD at 3/F (Team A)	60	30-Jun-16	28-Aug-16	30-Jun-16	28-Aug-16
B00.0060	Review, resubmission and approval for BIM / CSD / CBWD at G/F (Team A)	30	11-Jul-16	09-Aug-16	11-Jul-16	09-Aug-16
B00.0050	Preparation and submission for BIM / CSD / CBWD at 1/F (Team B)	60	31-Jul-16	28-Sep-16	31-Jul-16	28-Sep-16
B00.0100	Review, resubmission and approval for BIM / CSD / CBWD at 1M/F (Team A)	30	29-Aug-16	27-Sep-16	29-Aug-16	27-Sep-16
B00.0130	Review, resubmission and approval for BIM / CSD / CBWD at 3/F (Team A)	30	29-Aug-16	27-Sep-16	29-Aug-16	27-Sep-16
B00.0070	Review, resubmission and approval for BIM / CSD / CBWD at 1/F (Team B)	30	29-Sep-16	28-Oct-16	29-Sep-16	28-Oct-16
B00.0090	Preparation and submission for BIM / CSD / CBWD at 2/F (Team B)	60	29-Sep-16	27-Nov-16	29-Sep-16	27-Nov-16

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M+ Tower						
B6B.0030	Preparation and submission for BIM / CSD / CBWD at 5/F (Team B)	45	29-Aug-16	12-Oct-16	29-Aug-16	12-Oct-16
B6B.0000	Preparation and submission for BIM / CSD / CBWD at 4/F (Team B)	45	29-Sep-16	12-Nov-16	29-Sep-16	12-Nov-16
CSF Block						
B20.0280	Preparation and submission for BIM / CSD / CBWD at G/F (Team C)	45	30-Jun-16	13-Aug-16	30-Jun-16*	13-Aug-16
B20.0290	Review, resubmission and approval for BIM / CSD / CBWD at G/F (Team C)	20	14-Aug-16	02-Sep-16	14-Aug-16	02-Sep-16
B20.0300	Preparation and submission for BIM / CSD / CBWD at 1-5/F (Team C)	60	14-Aug-16	12-Oct-16	14-Aug-16	12-Oct-16
Interfacing Car Park and Sewage Pumping Station (SPS)						
D02.0000B	Preparation and submission for BIM / CSD / CBWD at ICP B/2	45	01-Apr-16	15-May-16	01-Apr-16 A	17-Jul-16
D01.0000A	Preparation and submission for BIM / CSD / CBWD at SPS , B1- UG/F	45	01-Apr-16	15-May-16	01-Apr-16 A	22-Jul-16
D02.0000	Preparation and submission for BIM / CSD / CBWD at ICP B1/F (Team C)	45	31-May-16	14-Jul-16	01-Apr-16 A	08-Aug-16
D01.0000	Preparation and submission for BIM / CSD / CBWD at SPS (Team C)	45	31-May-16	14-Jul-16	01-Apr-16 A	10-Aug-16
D02.0000C	Preparation and submission for BIM / CSD / CBWD at ICP B/1	45	18-Jul-16	31-Aug-16	18-Jul-16	31-Aug-16
D02.0020A	Preparation and submission for BIM / CSD / CBWD at ICP R/F	45	18-Jul-16	31-Aug-16	18-Jul-16	31-Aug-16
D01.0000B	Preparation and submission for BIM / CSD / CBWD at SPS, B1/F	45	22-Jul-16	05-Sep-16	22-Jul-16	05-Sep-16
D01.0000C	Preparation and submission for BIM / CSD / CBWD at SPS,R/F	45	22-Jul-16	05-Sep-16	22-Jul-16	05-Sep-16
D02.0010	Review, resubmission and approval for BIM / CSD / CBWD at ICP B1/F (Team	15	09-Aug-16	23-Aug-16	09-Aug-16	23-Aug-16
D02.0020	Preparation and submission for BIM / CSD / CBWD at ICP G/F (Team C)	45	09-Aug-16	22-Sep-16	09-Aug-16	22-Sep-16
D01.0010	Review, resubmission and approval for BIM / CSD / CBWD at SPS (Team C)	15	05-Sep-16	20-Sep-16	05-Sep-16	20-Sep-16
D02.0030	Review, resubmission and approval for BIM / CSD / CBWD at ICP G/F (Team (	30	23-Sep-16	22-Oct-16	23-Sep-16	22-Oct-16
4D Time Management (1st Draft)						
B00.0160	Facade works	75	30-Jun-16	12-Sep-16	30-Jun-16	12-Sep-16
B20.0420	ICP and SPS	75	30-Jun-16	12-Sep-16	30-Jun-16	12-Sep-16
Visual Mock-Up (VMU)						
VMU Preliminary						
A00.3610	VMU Works Period (Contract requirement of 200 calendar days Including obt	333	01-Oct-15	28-Aug-16	01-Oct-15 A	08-Oct-16
VMU Document / Drawing Submission						
A00.3020	Submit & Approve of Shop Drawing for Cast-in Items	45	01-Oct-15	14-Nov-15	25-Nov-15 A	04-Jul-16
A00.3050	Submit & Approve of CSD/CBWD	46	05-Oct-15	19-Nov-15	25-Nov-15 A	31-Jul-16
A00.3060	Submit & Approve of Facade Shop Drawings & Samples	105	01-Oct-15	13-Jan-16	26-Nov-15 A	30-Jun-16
VMU Procurements / Materials Delivery to Site						
A00.3620	Facade - Ordering & Production for Concrete Shell Mock-Up	84	29-Feb-16	22-May-16	29-Feb-16 A	30-Jul-16
A00.3630	Building Services Works - Materials Ordering / Fabrication / Delivery	90	29-Feb-16	28-May-16	01-Feb-16 A	08-Jul-16
A00.3625	Facade - Ordering & Production for Hybrid Mock-Up	114	30-Apr-16	21-Aug-16	24-Mar-16 A	30-Jul-16
VMU Construction						
Step 2.0 - Existing Concrete Shell						
VMU Building Service Works						
A00.3202	Building Services (MVAC) - (1st & 2nd Fix) Ceiling Bracket / Ductworks	12	30-Jun-16	14-Jul-16	02-May-16 A	06-Jul-16
A00.3208	Building Services (FS) - Install Cable Containment / Wiring for ELV at Floor	6	31-May-16	06-Jun-16	30-Apr-16 A	30-Jun-16
A00.3230	Building Services (FS) - (Final Fix) Fire Alarm, PA Speaker, Smoke Detector, Spri	6	09-Aug-16	15-Aug-16	01-Apr-16 A	30-Jun-16
A00.3210	Building Services (MVAC) - Final Fix) Ceiling dumper, Air Grilles	4	13-Jul-16	19-Jul-16	30-Apr-16 A	19-Jul-16
A00.3220	Building Services (Elect & ELV) - (Final Fix) CCTV Camera, Emergency lightings	6	19-Jul-16	26-Jul-16	30-Apr-16 A	20-Jul-16
VMU ABWF & Finishes						
VMU Gallery & B1 Plaza Space						
VMU Celling						
A00.3110	Ceiling Painting	4	04-Jul-16	07-Jul-16	18-May-16 A	08-Jul-16
VMU Floor						
A00.3130	Install Timber Flanks Flooring	6	30-Jun-16	08-Jul-16	30-Jun-16	08-Jul-16
VMU Wall						
A00.3140	Install Gypsum Wall & Door Frames	15	29-Feb-16	16-Mar-16	17-May-16 A	18-Jul-16
A00.3150	Wall Painting	6	04-Jul-16	11-Jul-16	04-Jul-16	11-Jul-16
A00.3145	Installation of Mullion cap on facade glass panel	12	04-Jul-16	19-Jul-16	04-Jul-16	19-Jul-16
A00.3160	Install Door Panels	4	20-Jul-16	23-Jul-16	20-Jul-16	23-Jul-16
VMU Lobby Space						
VMU Wall						
A00.3190	Install Ceramic Cladding & Rain Screen	7	30-Jun-16	08-Jul-16	30-Jun-16	08-Jul-16

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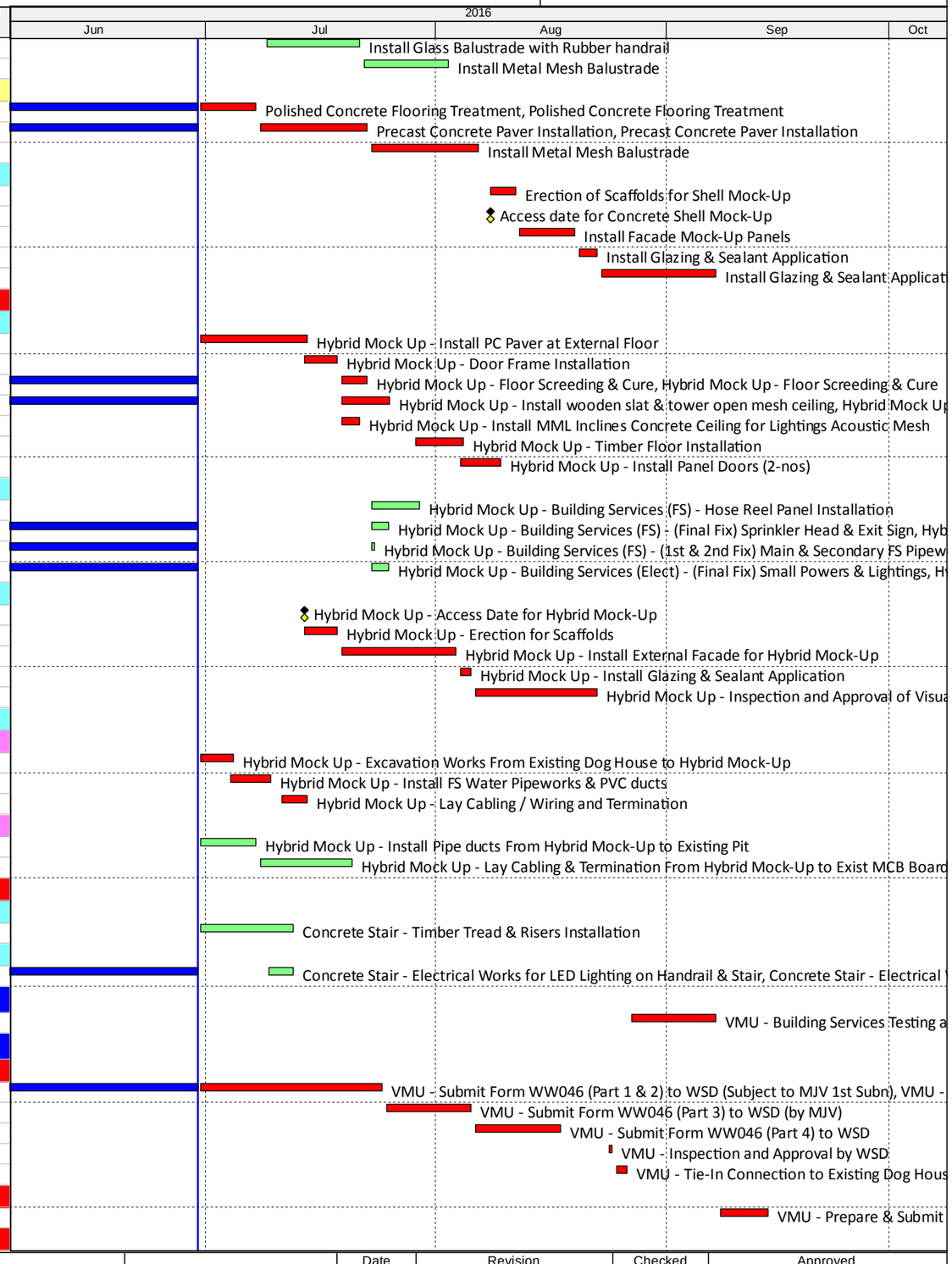
A00.3200	Install Glass Balustrade with Rubber handrail	10	09-Jul-16	21-Jul-16	09-Jul-16	21-Jul-16
A00.3650	Install Metal Mesh Balustrade	10	22-Jul-16	02-Aug-16	22-Jul-16	02-Aug-16
VMU Floor						
A00.3660	Polished Concrete Flooring Treatment	6	31-May-16	06-Jun-16	04-May-16 A	07-Jul-16
A00.3670	Precast Concrete Paver Installation	12	07-Jun-16	21-Jun-16	11-May-16 A	22-Jul-16
A00.3680	Install Metal Mesh Balustrade	13	23-Jul-16	06-Aug-16	23-Jul-16	06-Aug-16
VMU Facade Works						
A00.3690	Erection of Scaffolds for Shell Mock-Up	4	08-Aug-16	11-Aug-16	08-Aug-16	11-Aug-16
A00.3685	Access date for Concrete Shell Mock-Up	0	08-Aug-16		08-Aug-16	
A00.3700	Install Facade Mock-Up Panels	7	12-Aug-16	19-Aug-16	12-Aug-16	19-Aug-16
A00.3815	Install Glazing & Sealant Application	2	20-Aug-16	22-Aug-16	20-Aug-16	22-Aug-16
A00.3825	Install Glazing & Sealant Application	14	23-Aug-16	07-Sep-16	23-Aug-16	07-Sep-16
VMU Step 2.1 - Hybrid Shell Mock-Up						
VMU ABWF & Finishes						
A00.3280	Hybrid Mock Up - Install PC Paver at External Floor	12	30-Jun-16	14-Jul-16	30-Jun-16	14-Jul-16
A00.3300	Hybrid Mock Up - Door Frame Installation	3	14-Jul-16	18-Jul-16	14-Jul-16	18-Jul-16
A00.3310	Hybrid Mock Up - Floor Screeding & Cure	4	21-Jun-16	24-Jun-16	23-May-16 A	22-Jul-16
A00.3320	Hybrid Mock Up - Install wooden slat & tower open mesh ceiling	6	08-Jul-16	14-Jul-16	04-May-16 A	25-Jul-16
A00.3330	Hybrid Mock Up - Install MML Inclines Concrete Ceiling for Lightings Acoustic	3	19-Jul-16	21-Jul-16	19-Jul-16	21-Jul-16
A00.3340	Hybrid Mock Up - Timber Floor Installation	6	29-Jul-16	04-Aug-16	29-Jul-16	04-Aug-16
A00.3350	Hybrid Mock Up - Install Panel Doors (2-nos)	5	04-Aug-16	09-Aug-16	04-Aug-16	09-Aug-16
VMU MEP Building Service Works						
A00.3390	Hybrid Mock Up - Building Services (FS) - Hose Reel Panel Installation	6	23-Jul-16	29-Jul-16	23-Jul-16	29-Jul-16
A00.3400	Hybrid Mock Up - Building Services (FS) - (Final Fix) Sprinkler Head & Exit Sign	6	23-Jul-16	29-Jul-16	25-Apr-16 A	25-Jul-16
A00.3370	Hybrid Mock Up - Building Services (FS) - (1st & 2nd Fix) Main & Secondary FS	10	22-Jun-16	04-Jul-16	01-Apr-16 A	23-Jul-16
A00.3380	Hybrid Mock Up - Building Services (Elect) - (Final Fix) Small Powers & Lightin	6	19-Jul-16	25-Jul-16	15-Apr-16 A	25-Jul-16
VMU External Facade						
A00.3765	Hybrid Mock Up - Access Date for Hybrid Mock-Up	0	14-Jul-16		14-Jul-16	
A00.3775	Hybrid Mock Up - Erection for Scaffolds	3	14-Jul-16	18-Jul-16	14-Jul-16	18-Jul-16
A00.3785	Hybrid Mock Up - Install External Facade for Hybrid Mock-Up	14	19-Jul-16	03-Aug-16	19-Jul-16	03-Aug-16
A00.3795	Hybrid Mock Up - Install Glazing & Sealant Application	2	04-Aug-16	05-Aug-16	04-Aug-16	05-Aug-16
A00.3805	Hybrid Mock Up - Inspection and Approval of Visual Mock-up	14	06-Aug-16	22-Aug-16	06-Aug-16	22-Aug-16
VMU External Works						
VMU MEP - FS Pipeworks						
A00.3835	Hybrid Mock Up - Excavation Works From Existing Dog House to Hybrid Mocl	3	30-Jun-16	04-Jul-16	30-Jun-16	04-Jul-16
A00.3845	Hybrid Mock Up - Install FS Water Pipeworks & PVC ducts	6	04-Jul-16	09-Jul-16	04-Jul-16	09-Jul-16
A00.3855	Hybrid Mock Up - Lay Cabling / Wiring and Termination	4	11-Jul-16	14-Jul-16	11-Jul-16	14-Jul-16
VMU MEP - Electrical Works						
A00.3865	Hybrid Mock Up - Install Pipe ducts From Hybrid Mock-Up to Existing Pit	6	30-Jun-16	07-Jul-16	30-Jun-16	07-Jul-16
A00.3875	Hybrid Mock Up - Lay Cabling & Termination From Hybrid Mock-Up to Exist M	10	08-Jul-16	20-Jul-16	08-Jul-16	20-Jul-16
VMU Step 2.2 - Concrete Stair						
VMU ABWF & Finishes						
A00.3430	Concrete Stair - Timber Tread & Risers Installation	10	30-Jun-16	12-Jul-16	30-Jun-16	12-Jul-16
VMU MEP Building Service Works						
A00.3480	Concrete Stair - Electrical Works for LED Lighting on Handrail & Stair	8	17-Jun-16	25-Jun-16	02-May-16 A	12-Jul-16
VMU MEP Testing and Commissioning						
A00.3485	VMU - Building Services Testing and Commissioning	10	27-Aug-16	07-Sep-16	27-Aug-16	07-Sep-16
VMU Statutory Submission & Inspection						
VMU WSD (FS Pipeworks)						
A00.3880	VMU - Submit Form WW046 (Part 1 & 2) to WSD (Subject to MJV 1st Subn)	90	30-Apr-16	28-Jul-16	12-Jan-16 A	24-Jul-16
A00.3890	VMU - Submit Form WW046 (Part 3) to WSD (by MJV)	12	25-Jul-16	05-Aug-16	25-Jul-16	05-Aug-16
A00.3900	VMU - Submit Form WW046 (Part 4) to WSD	12	06-Aug-16	17-Aug-16	06-Aug-16	17-Aug-16
A00.3910	VMU - Inspection and Approval by WSD	1	24-Aug-16	24-Aug-16	24-Aug-16	24-Aug-16
A00.3920	VMU - Tie-In Connection to Existing Dog House	2	25-Aug-16	26-Aug-16	25-Aug-16	26-Aug-16
VMU EMSD (Electrical)						
A00.3930	VMU - Prepare & Submit Form WR1 to EMSD (For records only)	6	08-Sep-16	14-Sep-16	08-Sep-16	14-Sep-16
VMU FSD (Fire Service)						



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West Kowloon Cultural District Authority

3 Months Rolling Programme (3MRP)

(3A Draft)

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30-Jun-16	3 MRP Submission	Edgar / Jojo	Desmond Sze

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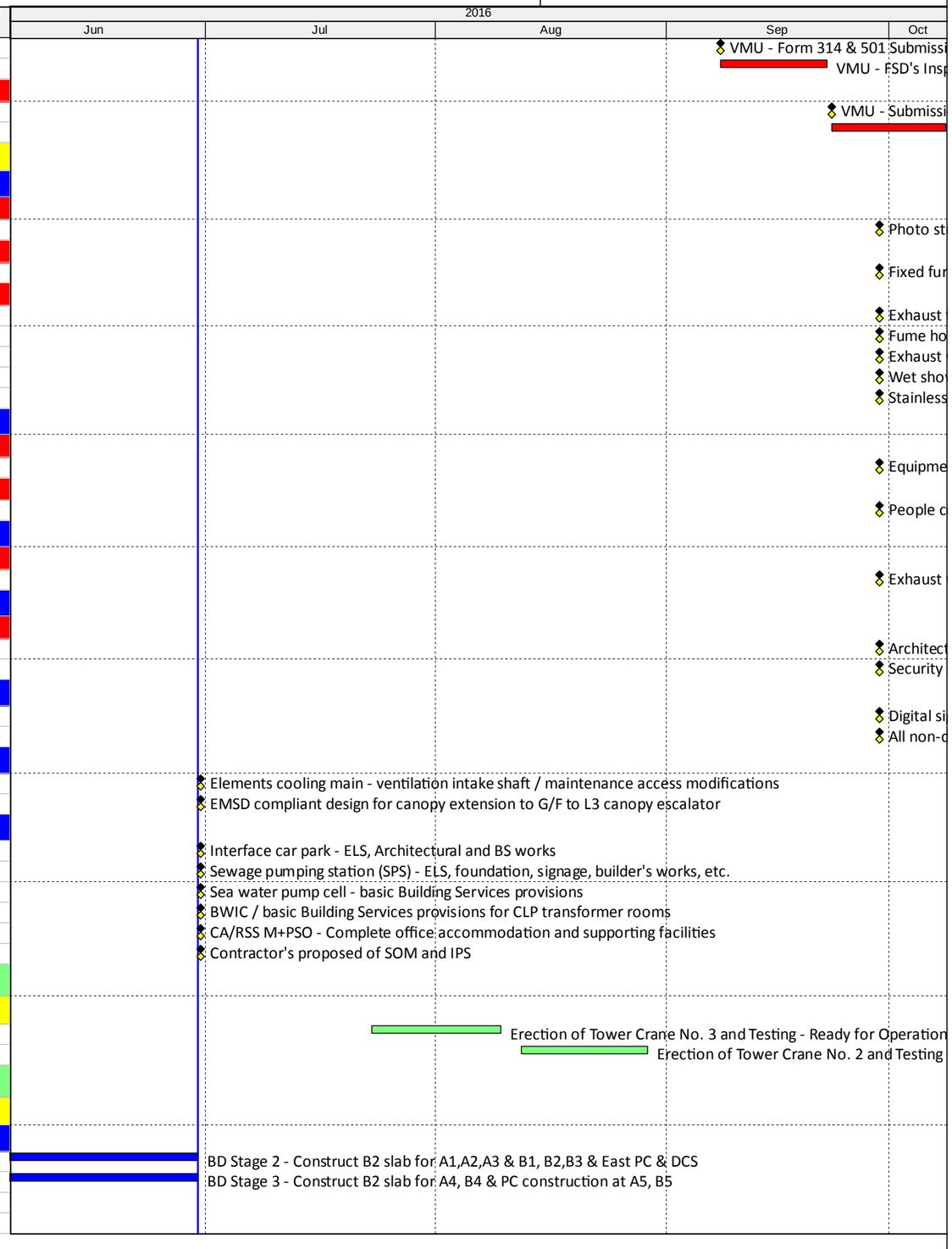
Activity ID	Activity Name	Ori. Dur.	BaseLine Start	BaseLine Finish	Forecast / Actual Start	Forcast / Actual Finish
A00.3490	VMU - Form 314 & 501 Submission	0	08-Sep-16		08-Sep-16	
A00.3500	VMU - FSD's Inspection & Fire Certificate Issuance	15	08-Sep-16	22-Sep-16	08-Sep-16	22-Sep-16
VMU BD (OP)						
A00.3510	VMU - Submission of BA14	0	23-Sep-16		23-Sep-16	
A00.3520	VMU - BD Inspection	16	23-Sep-16	08-Oct-16	23-Sep-16	08-Oct-16
Last Date for Exercising Provisional Sum & Optional Items (Refer Annex B to Preamble) (To be r						
Conservation & Storage Facility (CSF)						
Storage - Fitting-out Works						
PA1.4	Photo studio (2/F) - x-ray protection enhancement	0		29-Sep-16		29-Sep-16
Conseration Laboratory - Furniture and Fixtures						
PA6.5	Fixed furniture in pantry	0		29-Sep-16		29-Sep-16
Conseration Laboratory - Laboratory Equipment						
PA7.1	Exhaust trucks-overhead mounted fume extraction arms	0		29-Sep-16		29-Sep-16
PA7.2	Fume hood cabinet	0		29-Sep-16		29-Sep-16
PA7.3	Exhaust wall (size 5m (L) x 3m (H)	0		29-Sep-16		29-Sep-16
PA7.5	Wet shower area free standing enclosure	0		29-Sep-16		29-Sep-16
PA7.7	Stainless steel laboratory sink	0		29-Sep-16		29-Sep-16
Museum						
Juke Box Installation						
PE3.2	Equipment system and machinery for "Juke Box" installation	0		29-Sep-16		29-Sep-16
Items Related to Museum Operations						
PE4.6	People counting system - module enhancement to CCTV system	0		29-Sep-16		29-Sep-16
Back of House including Museum Workshop and Art Handling						
Workshop						
PH4.3	Exhaust wall	0		29-Sep-16		29-Sep-16
L1 and B1 Museum Shop including Espresso Bar						
Fitting-out Works						
PJ2.2	Architectural lightings	0		29-Sep-16		29-Sep-16
PJ2.3	Security shutter	0		29-Sep-16		29-Sep-16
Signage						
PM3	Digital signage at information counters	0		29-Sep-16		29-Sep-16
PM2	All non-digital way-finding signage	0		29-Sep-16		29-Sep-16
External Works / Hard & Soft Landscape						
PN2	Elements cooling main - ventilation intake shaft / maintenance access modifi	0	30-Jun-16		30-Jun-16	
PN4	EMSD compliant design for canopy extension to G/F to L3 canopy escalator	0		30-Jun-16		30-Jun-16
Other Provisional Sums / Options for M+ Main Works Contract						
PP2.2	Interface car park - ELS, Architectural and BS works	0		30-Jun-16		30-Jun-16
PP3.2	Sewage pumping station (SPS) - ELS, foundation, signage, builder's works, etc	0		30-Jun-16		30-Jun-16
PP4	Sea water pump cell - basic Building Services provisions	0		30-Jun-16		30-Jun-16
PP5	BWIC / basic Building Services provisions for CLP transformer rooms	0		30-Jun-16		30-Jun-16
PP6	CA/RSS M+PSO - Complete office accommodation and supporting facilities	0		30-Jun-16		30-Jun-16
PP7	Contractor's proposed of SOM and IPS	0		30-Jun-16		30-Jun-16
Preliminaries / Construction						
Plant & Equipment						
A00.2100	Erection of Tower Crane No. 3 and Testing - Ready for Operation	12	23-Jul-16	09-Aug-16	23-Jul-16	09-Aug-16
A00.2000	Erection of Tower Crane No. 2 and Testing - Ready for Operation	12	12-Aug-16	29-Aug-16	12-Aug-16	29-Aug-16
Excavation & ELS						
BD Milestones & BD Stages LOE						
Portion M01						
B10.3370	BD Stage 2 - Construct B2 slab for A1,A2,A3 & B1, B2,B3 & East PC & DCS	136	12-Nov-15	30-Apr-16	12-Nov-15 A	30-Jun-16
B10.3380	BD Stage 3 - Construct B2 slab for A4, B4 & PC construction at A5, B5	21	06-Jun-16	08-Jul-16	23-May-16 A	09-Aug-16
B10.3400	BD Stage 5 - Construct B2 slab for A6, A7, A8, B6 & Site formation for A9, B8,	81	30-Jun-16	01-Nov-16	30-Jun-16	01-Nov-16
B10.3390	BD Stage 4 - Construct B2 slab for A5, B5 & Site formation for A6, A7, A8, B6,	99	14-Jul-16	01-Dec-16	14-Jul-16	01-Dec-16



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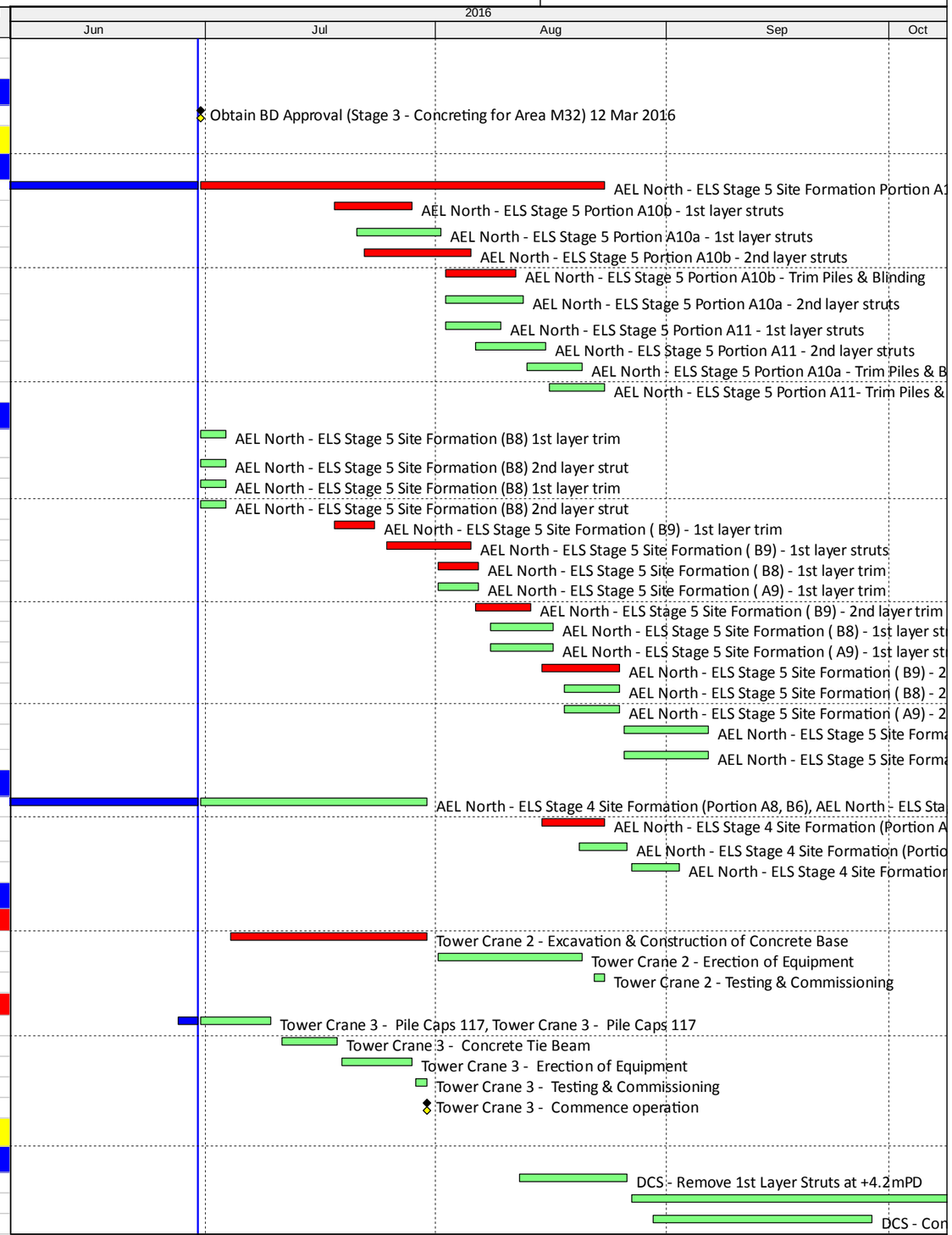
Activity ID	Activity Name	Ori. Dur.	BaseLine Start	BaseLine Finish	Forecast / Actual Start	Forcast / Actual Finish
B10.3410	BD Stage 6 - Construct PC for A9, A10, A11, A12, B7, B8, B9	5	26-Aug-16	02-Sep-16	26-Aug-16	02-Sep-16
B10.3420	BD Stage 7 - Construct B2 slab for A9, A10, A11, A12, B7, B8, B9	67	02-Sep-16	02-Dec-16	02-Sep-16	02-Dec-16
Portion M32						
B10.1015	Obtain BD Approval (Stage 3 - Concreting for Area M32) 12 Mar 2016	0	30-Jun-16		30-Jun-16	
AEL North						
Portion A6, A7, A10, A11						
B10.2110	AEL North - ELS Stage 5 Site Formation Portion A10a, A10b & A11	30	21-Jul-16	02-Sep-16	06-May-16 A	23-Aug-16
B10.2120	AEL North - ELS Stage 5 Portion A10b - 1st layer struts	8	18-Jul-16	28-Jul-16	18-Jul-16*	28-Jul-16
B10.2170	AEL North - ELS Stage 5 Portion A10a - 1st layer struts	9	21-Jul-16	01-Aug-16	21-Jul-16	01-Aug-16
B10.2150	AEL North - ELS Stage 5 Portion A10b - 2nd layer struts	10	22-Jul-16	05-Aug-16	22-Jul-16	05-Aug-16
B10.2160	AEL North - ELS Stage 5 Portion A10b - Trim Piles & Blinding	6	02-Aug-16	11-Aug-16	02-Aug-16	11-Aug-16
B10.2190	AEL North - ELS Stage 5 Portion A10a - 2nd layer struts	7	02-Aug-16	12-Aug-16	02-Aug-16	12-Aug-16
B10.2210	AEL North - ELS Stage 5 Portion A11 - 1st layer struts	5	02-Aug-16	09-Aug-16	02-Aug-16	09-Aug-16
B10.2240	AEL North - ELS Stage 5 Portion A11 - 2nd layer struts	7	06-Aug-16	15-Aug-16	06-Aug-16	15-Aug-16
B10.2200	AEL North - ELS Stage 5 Portion A10a - Trim Piles & Blinding	6	13-Aug-16	20-Aug-16	13-Aug-16	20-Aug-16
B10.2250	AEL North - ELS Stage 5 Portion A11- Trim Piles & Blinding	6	16-Aug-16	23-Aug-16	16-Aug-16	23-Aug-16
Portion B8 & A9, B9						
B10.2260	AEL North - ELS Stage 5 Site Formation (B8) 1st layer trim	4	30-Jun-16	03-Jul-16	30-Jun-16	03-Jul-16
B10.2270	AEL North - ELS Stage 5 Site Formation (B8) 2nd layer strut	4	30-Jun-16	03-Jul-16	30-Jun-16	03-Jul-16
B10.2280	AEL North - ELS Stage 5 Site Formation (B8) 1st layer trim	4	30-Jun-16	03-Jul-16	30-Jun-16	03-Jul-16
B10.2290	AEL North - ELS Stage 5 Site Formation (B8) 2nd layer strut	4	30-Jun-16	03-Jul-16	30-Jun-16	03-Jul-16
B10.2370	AEL North - ELS Stage 5 Site Formation (B9) - 1st layer trim	5	18-Jul-16	23-Jul-16	18-Jul-16	23-Jul-16
B10.2380	AEL North - ELS Stage 5 Site Formation (B9) - 1st layer struts	8	25-Jul-16	05-Aug-16	25-Jul-16	05-Aug-16
B10.2100	AEL North - ELS Stage 5 Site Formation (B8) - 1st layer trim	4	01-Aug-16	06-Aug-16	01-Aug-16*	06-Aug-16
B10.2330	AEL North - ELS Stage 5 Site Formation (A9) - 1st layer trim	4	01-Aug-16	06-Aug-16	01-Aug-16	06-Aug-16
B10.2390	AEL North - ELS Stage 5 Site Formation (B9) - 2nd layer trim	6	06-Aug-16	13-Aug-16	06-Aug-16	13-Aug-16
B10.2300	AEL North - ELS Stage 5 Site Formation (B8) - 1st layer struts	7	08-Aug-16	16-Aug-16	08-Aug-16	16-Aug-16
B10.2340	AEL North - ELS Stage 5 Site Formation (A9) - 1st layer struts	7	08-Aug-16	16-Aug-16	08-Aug-16	16-Aug-16
B10.2400	AEL North - ELS Stage 5 Site Formation (B9) - 2nd layer struts	8	15-Aug-16	25-Aug-16	15-Aug-16	25-Aug-16
B10.2310	AEL North - ELS Stage 5 Site Formation (B8) - 2nd layer trim	6	18-Aug-16	25-Aug-16	18-Aug-16	25-Aug-16
B10.2350	AEL North - ELS Stage 5 Site Formation (A9) - 2nd layer trim	6	18-Aug-16	25-Aug-16	18-Aug-16	25-Aug-16
B10.2320	AEL North - ELS Stage 5 Site Formation (B8) - 2nd layer struts	8	26-Aug-16	06-Sep-16	26-Aug-16	06-Sep-16
B10.2360	AEL North - ELS Stage 5 Site Formation (A9) - 1st layer struts	8	26-Aug-16	06-Sep-16	26-Aug-16	06-Sep-16
Portion A8, B6, A12, B7						
B10.3570	AEL North - ELS Stage 4 Site Formation (Portion A8, B6)	26	31-May-16	11-Jul-16	29-Mar-16 A	30-Jul-16
B10.3910	AEL North - ELS Stage 4 Site Formation (Portion A12) - 1st Layer Struts	7	15-Aug-16	23-Aug-16	15-Aug-16*	23-Aug-16
B10.3920	AEL North - ELS Stage 4 Site Formation (Portion A12) - 2nd Layer Struts	5	20-Aug-16	26-Aug-16	20-Aug-16	26-Aug-16
B10.3930	AEL North - ELS Stage 4 Site Formation (Portion A12) - Trim & Blinding	7	27-Aug-16	02-Sep-16	27-Aug-16	02-Sep-16
Provision for Tower Crane						
Tower Crane 2						
TC.1000	Tower Crane 2 - Excavation & Construction of Concrete Base	18	04-Jul-16	30-Jul-16	04-Jul-16*	30-Jul-16
TC.1010	Tower Crane 2 - Erection of Equipment	14	01-Aug-16	20-Aug-16	01-Aug-16	20-Aug-16
TC.1020	Tower Crane 2 - Testing & Commissioning	2	22-Aug-16	23-Aug-16	22-Aug-16	23-Aug-16
Tower Crane 3						
TC.1030	Tower Crane 3 - Pile Caps 117	10	27-Jun-16	12-Jul-16	27-Jun-16 A	09-Jul-16
TC.1040	Tower Crane 3 - Concrete Tie Beam	5	11-Jul-16	18-Jul-16	11-Jul-16	18-Jul-16
TC.1050	Tower Crane 3 - Erection of Equipment	7	19-Jul-16	28-Jul-16	19-Jul-16	28-Jul-16
TC.1060	Tower Crane 3 - Testing & Commissioning	2	29-Jul-16	30-Jul-16	29-Jul-16	30-Jul-16
TC.1070	Tower Crane 3 - Commence operation	0		30-Jul-16		30-Jul-16
AEL South						
DCS						
B10.2220	DCS - Remove 1st Layer Struts at +4.2mPD	11	12-Aug-16	26-Aug-16	12-Aug-16	26-Aug-16
B10.2230	DCS - Backfilling and Install Access Hatch and Misc. Works	50	27-Aug-16	09-Nov-16	27-Aug-16	09-Nov-16
B10.1210a	DCS - Construct Sump Pit & Overflow Pipes (Defer Area)	25	30-Aug-16	28-Sep-16	30-Aug-16	28-Sep-16



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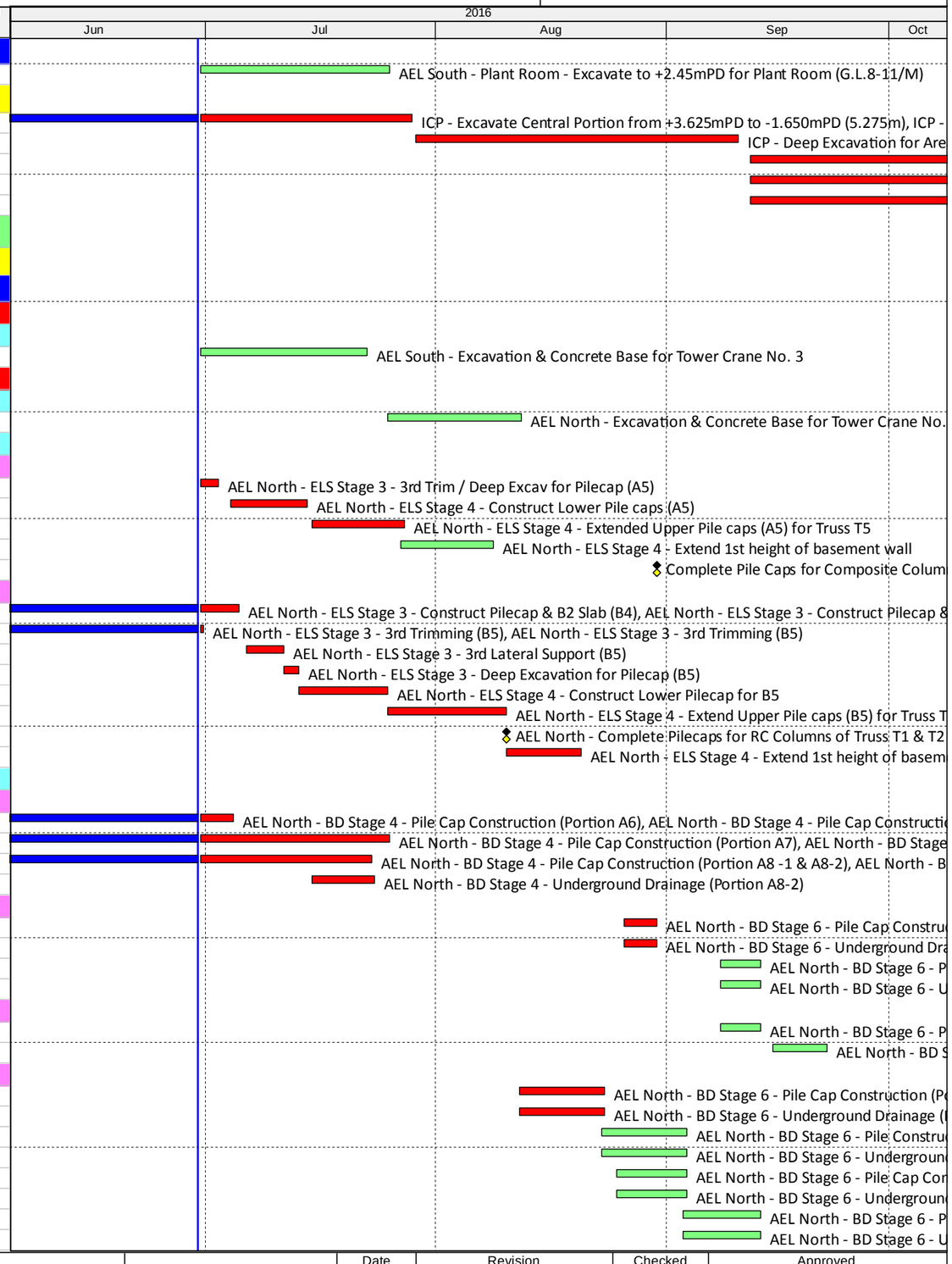
Activity ID	Activity Name	Ori. Dur.	BaseLine Start	BaseLine Finish	Forecast / Actual Start	Forcast / Actual Finish
AEL South except DCS						
B10.1090	AEL South - Plant Room - Excavate to +2.45mPD for Plant Room (G.L.8-11/M)	16	30-Jun-16	25-Jul-16	30-Jun-16	25-Jul-16
ICP						
B10.3190	ICP - Excavate Central Portion from +3.625mPD to -1.650mPD (5.275m)	30	31-May-16	18-Jul-16	20-May-16 A	28-Jul-16
B10.3200	ICP - Deep Excavation for Area A to -1.650mPD	30	29-Jul-16	10-Sep-16	29-Jul-16	10-Sep-16
B10.3240	ICP - Lateral Support	50	12-Sep-16	21-Nov-16	12-Sep-16	21-Nov-16
B10.3210	ICP - Deep Excavation for Area B to -1.650mPD	20	12-Sep-16	14-Oct-16	12-Sep-16	14-Oct-16
B10.3220	ICP - Pile Cap Construction of Area A	25	12-Sep-16	21-Oct-16	12-Sep-16	21-Oct-16
Structures						
Basement Structures / Sub-Structure						
Pilecaps						
AEL South						
Stage 1 - East Pilecap & DCS						
B10.1225	AEL South - Excavation & Concrete Base for Tower Crane No. 3	14	30-Jun-16	22-Jul-16	30-Jun-16	22-Jul-16
AEL North						
Stage 2 - Pilecap (A1,A2,A3,B1,B2,B3)						
B10.3027	AEL North - Excavation & Concrete Base for Tower Crane No. 2	12	25-Jul-16	12-Aug-16	25-Jul-16	12-Aug-16
Stage 3 - Pilecap (A4,A5,B4,B5)						
Pilecap (A4 & A5)						
B10.2060g	AEL North - ELS Stage 3 - 3rd Trim / Deep Excav for Pilecap (A5)	2	30-Jun-16	02-Jul-16	30-Jun-16	02-Jul-16
B10.2060h	AEL North - ELS Stage 4 - Construct Lower Pile caps (A5)	10	04-Jul-16	14-Jul-16	04-Jul-16	14-Jul-16
B10.2060k	AEL North - ELS Stage 4 - Extended Upper Pile caps (A5) for Truss T5	10	15-Jul-16	27-Jul-16	15-Jul-16	27-Jul-16
B10.2060p	AEL North - ELS Stage 4 - Extend 1st height of basement wall	11	27-Jul-16	08-Aug-16	27-Jul-16	08-Aug-16
B10.2060	Complete Pile Caps for Composite Column of Steel Truss T5	0		30-Aug-16		30-Aug-16
Pilecap (B4 & B5)						
B10.2070f	AEL North - ELS Stage 3 - Construct Pilecap & B2 Slab (B4)	10	11-Jun-16	22-Jun-16	23-May-16 A	05-Jul-16
B10.2070g	AEL North - ELS Stage 3 - 3rd Trimming (B5)	3	31-May-16	02-Jun-16	23-May-16 A	30-Jun-16
B10.2070h	AEL North - ELS Stage 3 - 3rd Lateral Support (B5)	4	06-Jul-16	11-Jul-16	06-Jul-16	11-Jul-16
B10.2070i	AEL North - ELS Stage 3 - Deep Excavation for Pilecap (B5)	2	11-Jul-16	13-Jul-16	11-Jul-16	13-Jul-16
B10.2070j	AEL North - ELS Stage 4 - Construct Lower Pilecap for B5	9	13-Jul-16	25-Jul-16	13-Jul-16	25-Jul-16
B10.2070k	AEL North - ELS Stage 4 - Extend Upper Pile caps (B5) for Truss T1 & T2	14	25-Jul-16	10-Aug-16	25-Jul-16	10-Aug-16
B10.2070l	AEL North - Complete Pilecaps for RC Columns of Truss T1 & T2	0		10-Aug-16		10-Aug-16
B10.2070	AEL North - ELS Stage 4 - Extend 1st height of basement wall	9	10-Aug-16	20-Aug-16	10-Aug-16	20-Aug-16
Stage 4 to 7: ELS & Excavation (A6, A7, A8, A9, A10, A11, A12 & B6, B7, B8, B9)						
Pilecaps - Portion (A6, A7 & A8)						
B10.3101	AEL North - BD Stage 4 - Pile Cap Construction (Portion A6)	43	09-May-16	14-Jul-16	27-Apr-16 A	04-Jul-16
B10.3111	AEL North - BD Stage 4 - Pile Cap Construction (Portion A7)	43	27-Apr-16	02-Jul-16	27-Apr-16 A	25-Jul-16
B10.3121	AEL North - BD Stage 4 - Pile Cap Construction (Portion A8 -1 & A8-2)	43	27-Apr-16	02-Jul-16	29-Mar-16 A	23-Jul-16
B10.3131	AEL North - BD Stage 4 - Underground Drainage (Portion A8-2)	9	15-Jul-16	23-Jul-16	15-Jul-16*	23-Jul-16
Pilecaps - Portion (B8 & B9)						
B10.3134	AEL North - BD Stage 6 - Pile Cap Construction (Portion B9)	4	26-Aug-16	30-Aug-16	26-Aug-16	30-Aug-16
B10.3144	AEL North - BD Stage 6 - Underground Drainage (Portion B9)	4	26-Aug-16	30-Aug-16	26-Aug-16	30-Aug-16
B10.3103	AEL North - BD Stage 6 - Pile Cap Construction (Portion B8)	5	08-Sep-16	13-Sep-16	08-Sep-16	13-Sep-16
B10.3104	AEL North - BD Stage 6 - Underground Drainage (Portion B8)	5	08-Sep-16	13-Sep-16	08-Sep-16	13-Sep-16
Pilecaps - Portion (A9)						
B10.3114	AEL North - BD Stage 6 - Pile Cap Construction (Portion A9)	5	08-Sep-16	13-Sep-16	08-Sep-16	13-Sep-16
B10.3124	AEL North - BD Stage 6 - Underground Drainage (Portion A9)	5	15-Sep-16	22-Sep-16	15-Sep-16	22-Sep-16
Pilecaps - Portion (A10a, A10b, A11 & A12)						
B10.3590	AEL North - BD Stage 6 - Pile Cap Construction (Portion A10b)	9	12-Aug-16	23-Aug-16	12-Aug-16	23-Aug-16
B10.3600	AEL North - BD Stage 6 - Underground Drainage (Portion A10b)	9	12-Aug-16	23-Aug-16	12-Aug-16	23-Aug-16
B10.3790	AEL North - BD Stage 6 - Pile Construction (Portion A10a)	8	23-Aug-16	03-Sep-16	23-Aug-16	03-Sep-16
B10.3900	AEL North - BD Stage 6 - Underground Drainage (Portion A10a)	8	23-Aug-16	03-Sep-16	23-Aug-16	03-Sep-16
B10.3710	AEL North - BD Stage 6 - Pile Cap Construction (Portion A11)	7	25-Aug-16	03-Sep-16	25-Aug-16	03-Sep-16
B10.3720	AEL North - BD Stage 6 - Underground Drainage (Portion A11)	7	25-Aug-16	03-Sep-16	25-Aug-16	03-Sep-16
B10.3630	AEL North - BD Stage 6 - Pile Cap Construction (Portion A12)	8	03-Sep-16	13-Sep-16	03-Sep-16	13-Sep-16
B10.3640	AEL North - BD Stage 6 - Underground Drainage (Portion A12)	8	03-Sep-16	13-Sep-16	03-Sep-16	13-Sep-16



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(3A Draft)

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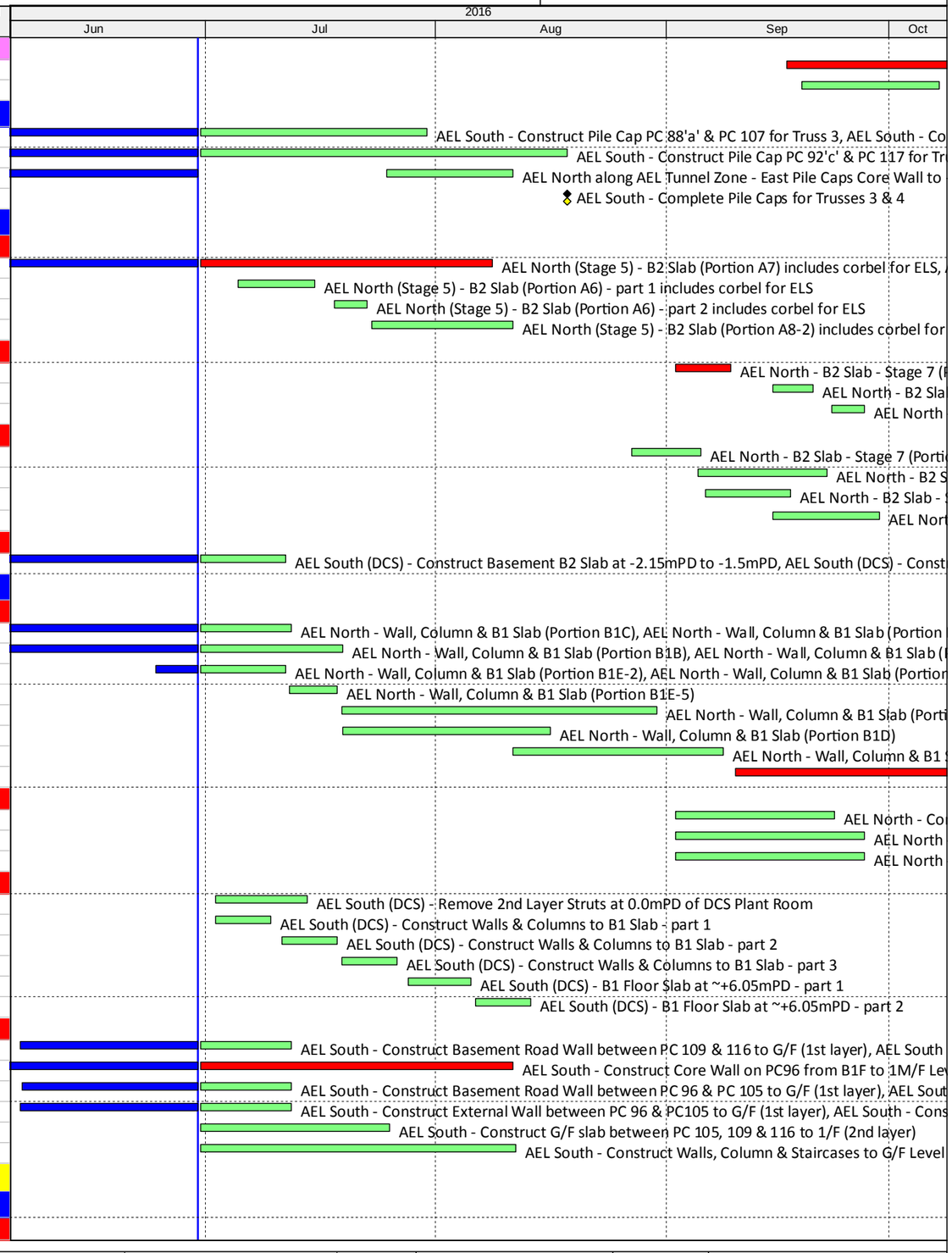
Activity ID	Activity Name	Ori. Dur.	BaseLine Start	BaseLine Finish	Forecast / Actual Start	Forcast / Actual Finish
Pilecaps - Portion (B6)						
B10.3610	AEL North - BD Stage 4 - Pile Cap Construction (Portion B6)	30	17-Sep-16	01-Nov-16	17-Sep-16	01-Nov-16
B10.3620	AEL North - BD Stage 5 - Underground Drainage (Portion B6)	12	19-Sep-16	07-Oct-16	19-Sep-16	07-Oct-16
RC Structures for Trusses						
B6A.2002	AEL South - Construct Pile Cap PC 88'a' & PC 107 for Truss 3	18	15-Aug-16	09-Sep-16	28-Jan-16 A	30-Jul-16
B6A.2004	AEL South - Construct Pile Cap PC 92'c' & PC 117 for Truss 4	18	31-May-16	27-Jun-16	06-Apr-16 A	18-Aug-16
C10.0090	AEL North along AEL Tunnel Zone - East Pile Caps Core Wall to -2.3mPD (Trus	37	31-May-16	28-Jul-16	05-Apr-16 A	11-Aug-16
B6A.2006	AEL South - Complete Pile Caps for Trusses 3 & 4	0		18-Aug-16		18-Aug-16
B2/F Slabs						
B2 Slab - Portion (A6, A7, A8 & B6)						
B10.3480	AEL North (Stage 5) - B2 Slab (Portion A7) includes corbel for ELS	29	11-Jul-16	22-Aug-16	24-May-16 A	08-Aug-16
B10.3700	AEL North (Stage 5) - B2 Slab (Portion A6) - part 1 includes corbel for ELS	7	05-Jul-16	15-Jul-16	05-Jul-16	15-Jul-16
B10.3940	AEL North (Stage 5) - B2 Slab (Portion A6) - part 2 includes corbel for ELS	4	18-Jul-16	22-Jul-16	18-Jul-16	22-Jul-16
B10.3510	AEL North (Stage 5) - B2 Slab (Portion A8-2) includes corbel for ELS	12	23-Jul-16	11-Aug-16	23-Jul-16	11-Aug-16
B2 Slab - Portion B8, A9 & B9						
B10.3500	AEL North - B2 Slab - Stage 7 (Portion B9)	6	02-Sep-16	09-Sep-16	02-Sep-16	09-Sep-16
B10.3490	AEL North - B2 Slab - Stage 7 (Portion B8)	4	15-Sep-16	20-Sep-16	15-Sep-16	20-Sep-16
B10.3530	AEL North - B2 Slab - Stage 7 (Portion A9)	4	23-Sep-16	27-Sep-16	23-Sep-16	27-Sep-16
B2 Slab - Portion A10a, A10b, A11 & A12						
B10.3035	AEL North - B2 Slab - Stage 7 (Portion A10b)	6	27-Aug-16	05-Sep-16	27-Aug-16	05-Sep-16
B10.3075	AEL North - B2 Slab - Stage 7 (Portion A11)	12	05-Sep-16	22-Sep-16	05-Sep-16	22-Sep-16
B10.3045	AEL North - B2 Slab - Stage 7 (Portion A10a)	8	06-Sep-16	17-Sep-16	06-Sep-16	17-Sep-16
B10.3085	AEL North - B2 Slab - Stage 7 (Portion A12)	10	15-Sep-16	29-Sep-16	15-Sep-16	29-Sep-16
AEL South						
B10.2180	AEL South (DCS) - Construct Basement B2 Slab at -2.15mPD to -1.5mPD	27	31-May-16	12-Jul-16	16-May-16 A	11-Jul-16
B1/F Slab - Walls, Columns & B1/F Slabs						
AEL North - B1/F Slab other than AEL Zone						
B10.3060	AEL North - Wall, Column & B1 Slab (Portion B1C)	34	31-May-16	23-Jul-16	24-Mar-16 A	12-Jul-16
B10.3055	AEL North - Wall, Column & B1 Slab (Portion B1B)	15	15-Mar-16	05-Apr-16	30-Mar-16 A	19-Jul-16
B10.3522	AEL North - Wall, Column & B1 Slab (Portion B1E-2)	18	24-Jun-16	11-Jul-16	24-Jun-16 A	11-Jul-16
B10.3525	AEL North - Wall, Column & B1 Slab (Portion B1E-5)	7	12-Jul-16	18-Jul-16	12-Jul-16	18-Jul-16
B10.3526	AEL North - Wall, Column & B1 Slab (Portion B1E-6)	43	19-Jul-16	30-Aug-16	19-Jul-16	30-Aug-16
B10.3065	AEL North - Wall, Column & B1 Slab (Portion B1D)	19	19-Jul-16	16-Aug-16	19-Jul-16	16-Aug-16
B10.3540	AEL North - Wall, Column & B1 Slab (Portion B1F)	20	11-Aug-16	08-Sep-16	11-Aug-16	08-Sep-16
B10.3690	AEL North - Wall, Column & B1 Slab (Portion B1R)	20	10-Sep-16	13-Oct-16	10-Sep-16	13-Oct-16
AEL North - B1/F Slab for Truss T1, T2 & T5 Erection						
C10.0120	AEL North - Construct Found Space Basement Wall and Cols to +1.7mPD	15	02-Sep-16	23-Sep-16	02-Sep-16	23-Sep-16
B10.3090	AEL North - Wall, Column & B1 Slab (Portion A4)	18	02-Sep-16	27-Sep-16	02-Sep-16	27-Sep-16
B10.3100	AEL North - Wall, Column & B1 Slab (Portion A5)	18	02-Sep-16	27-Sep-16	02-Sep-16	27-Sep-16
AEL South - B1/F Slab for DCS to facilitateTruss Erection						
B10.2115	AEL South (DCS) - Remove 2nd Layer Struts at 0.0mPD of DCS Plant Room	8	02-Jul-16	14-Jul-16	02-Jul-16	14-Jul-16
B10.2125	AEL South (DCS) - Construct Walls & Columns to B1 Slab - part 1	5	02-Jul-16	09-Jul-16	02-Jul-16	09-Jul-16
B10.2126	AEL South (DCS) - Construct Walls & Columns to B1 Slab - part 2	5	11-Jul-16	18-Jul-16	11-Jul-16	18-Jul-16
B10.2128	AEL South (DCS) - Construct Walls & Columns to B1 Slab - part 3	6	19-Jul-16	26-Jul-16	19-Jul-16	26-Jul-16
B10.2130	AEL South (DCS) - B1 Floor Slab at ~+6.05mPD - part 1	6	28-Jul-16	05-Aug-16	28-Jul-16	05-Aug-16
B10.2135	AEL South (DCS) - B1 Floor Slab at ~+6.05mPD - part 2	6	06-Aug-16	13-Aug-16	06-Aug-16	13-Aug-16
AEL South - RC Structures Prior to Area M14 H/O						
B10.3310	AEL South - Construct Basement Road Wall between PC 109 & 116 to G/F (1s	17	30-Jun-16	26-Jul-16	06-Jun-16 A	12-Jul-16
B10.1040	AEL South - Construct Core Wall on PC96 from B1F to 1M/F Level (3rd layer)	35	31-May-16	25-Jul-16	09-May-16 A	11-Aug-16
B10.3290	AEL South - Construct Basement Road Wall between PC 96 & PC 105 to G/F (	17	06-Jun-16	30-Jun-16	06-Jun-16 A	12-Jul-16
B10.3300	AEL South - Construct External Wall between PC 96 & PC105 to G/F (1st layer	17	30-Jun-16	26-Jul-16	06-Jun-16 A	12-Jul-16
B10.3320	AEL South - Construct G/F slab between PC 105, 109 & 116 to 1/F (2nd layer)	16	30-Jun-16	25-Jul-16	30-Jun-16	25-Jul-16
B10.3315	AEL South - Construct Walls, Column & Staircases to G/F Level	27	30-Jun-16	11-Aug-16	30-Jun-16	11-Aug-16
Podium Super-Structures						
Trusses						
Mega Truss Temporary Falseworks						



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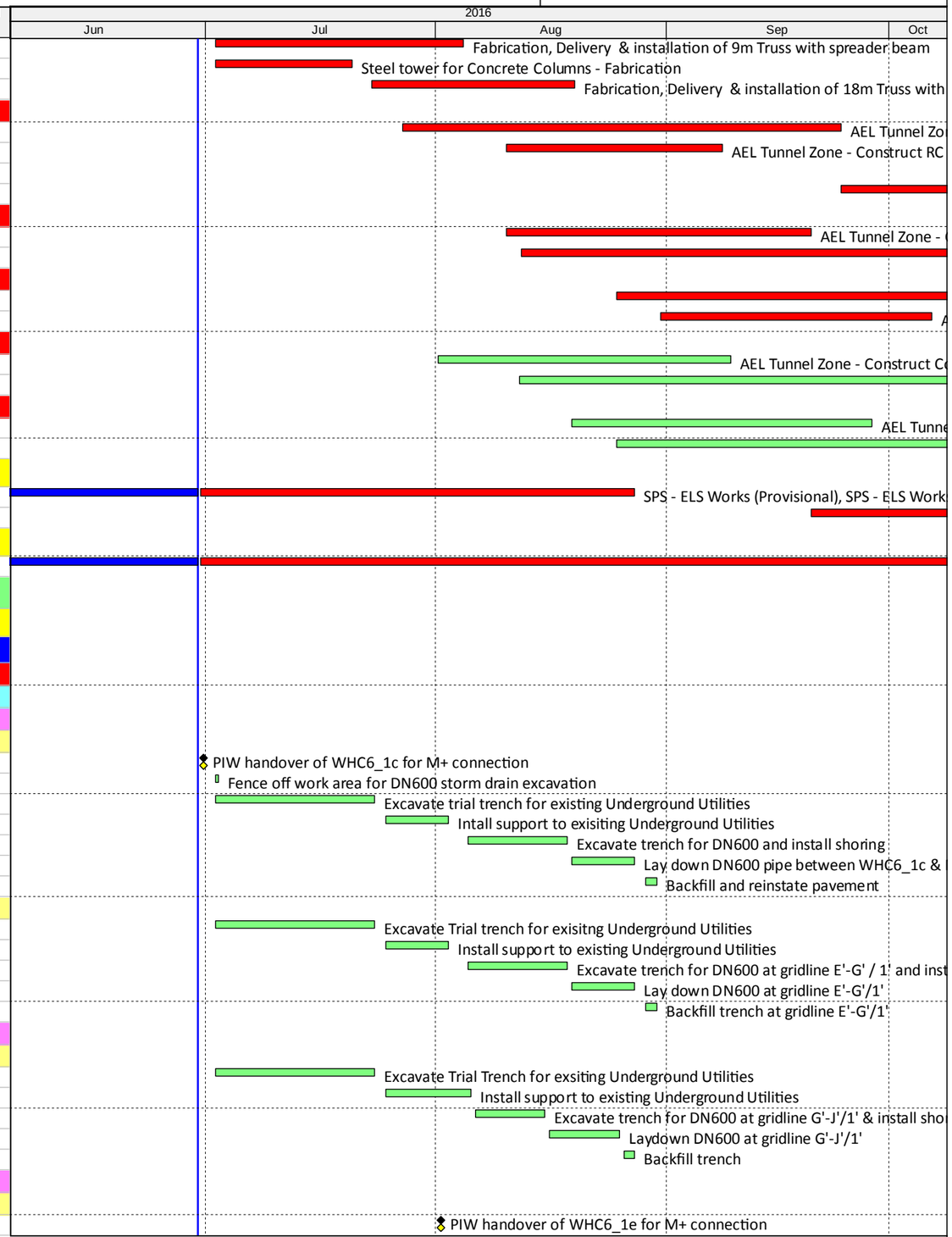
Activity ID	Activity Name	Ori. Dur.	BaseLine Start	BaseLine Finish	Forecast / Actual Start	Forcast / Actual Finish
B6A.2012	Fabrication, Delivery & installation of 9m Truss with spreader beam	28	02-Jul-16	04-Aug-16	02-Jul-16*	04-Aug-16
B6A.2022	Steel tower for Concrete Columns - Fabrication	15	02-Jul-16	20-Jul-16	02-Jul-16	20-Jul-16
B6A.2052	Fabrication, Delivery & installation of 18m Truss with spreader beam	24	23-Jul-16	19-Aug-16	23-Jul-16	19-Aug-16
AEL Tunnel Zone -Trusses 1						
C10.0150	AEL Tunnel Zone - Erection of Temp Working Platform and Falsework for T1	50	27-Jul-16	24-Sep-16	27-Jul-16	24-Sep-16
C10.0145	AEL Tunnel Zone - Construct RC Column for Steel Trusses T1	25	10-Aug-16	08-Sep-16	10-Aug-16	08-Sep-16
C10.0155	AEL Tunnel Zone - Truss 1 Construction Summary	117	24-Sep-16	24-Feb-17	24-Sep-16	24-Feb-17
C10.0160	AEL Tunnel Zone - Truss 1 Concreting of 1st pour of bottom chord (750mm)	12	24-Sep-16	15-Oct-16	24-Sep-16	15-Oct-16
AEL Tunnel Zone -Trusses 2						
C10.0161	AEL Tunnel Zone - Construct RC Column for Steel Trusses T2	34	10-Aug-16	20-Sep-16	10-Aug-16	20-Sep-16
C10.0162	AEL Tunnel Zone - Erection of Temp Working Platform and Falsework for Trus	50	12-Aug-16	13-Oct-16	12-Aug-16	13-Oct-16
AEL Tunnel Zone -Trusses 5						
C10.0172	AEL Tunnel Zone - Erection of Temp Working Platform and Falsework for Trus	50	25-Aug-16	25-Oct-16	25-Aug-16	25-Oct-16
C10.0168	AEL Tunnel Zone - Construct Composite Columns for Truss T5	30	31-Aug-16	06-Oct-16	31-Aug-16	06-Oct-16
AEL South - Trusses 3						
B6A.1999	AEL Tunnel Zone - Construct Composite/RC Columns for Truss T3	35	01-Aug-16	09-Sep-16	01-Aug-16	09-Sep-16
B6A.2000	AEL South - Erection of Temp Working Platform and Falsework for Truss 3	50	12-Aug-16	12-Oct-16	12-Aug-16*	12-Oct-16
AEL South - Trusses 4						
B6A.2024	AEL Tunnel Zone - Construct Composite Columns for Truss T4	34	19-Aug-16	28-Sep-16	19-Aug-16	28-Sep-16
B6A.2025	AEL South - Erection of Temp Working Platform and Falsework for Truss 4	50	25-Aug-16	25-Oct-16	25-Aug-16	25-Oct-16
SPS Structures (include Excavation)						
D01.3000	SPS - ELS Works (Provisional)	61	31-May-16	12-Aug-16	20-May-16 A	27-Aug-16
D01.3010	SPS - Construct Basement Structure	100	20-Sep-16	20-Jan-17	20-Sep-16	20-Jan-17
ICP Structures (include Excavation)						
A3980	ICP - ELS works (Provisional)	110	31-May-16	12-Nov-16	20-May-16 A	21-Nov-16
External Works						
M+ External Works						
Utitlities						
Utitlities						
Drainage						
Storm Drain DN600 at Portion M45						
Storm Drain along Gridline D'-E'/1'-2'						
EW1750	PIW handover of WHC6 1c for M+ connection	0		30-Jun-16		30-Jun-16*
EW1700	Fence off work area for DN600 storm drain excavation	1	02-Jul-16	02-Jul-16	02-Jul-16	02-Jul-16
EW1705	Excavate trial trench for existing Underground Utilities	14	02-Jul-16	23-Jul-16	02-Jul-16	23-Jul-16
EW1708	Intall support to exisiting Underground Utilities	7	25-Jul-16	02-Aug-16	25-Jul-16	02-Aug-16
EW1710	Excavate trench for DN600 and install shoring	10	05-Aug-16	18-Aug-16	05-Aug-16	18-Aug-16
EW1730	Lay down DN600 pipe between WHC6_1c & MHS3.4	7	19-Aug-16	27-Aug-16	19-Aug-16	27-Aug-16
EW1740	Backfill and reinstate pavement	2	29-Aug-16	30-Aug-16	29-Aug-16	30-Aug-16
Storm Drain along Gridline E'-G' / 1'-2'						
EW1755	Excavate Trial trench for exisitng Underground Utilities	14	02-Jul-16	23-Jul-16	02-Jul-16	23-Jul-16
EW1758	Install support to existing Underground Utilities	7	25-Jul-16	02-Aug-16	25-Jul-16	02-Aug-16
EW1760	Excavate trench for DN600 at gridline E'-G' / 1' and install shoring	10	05-Aug-16	18-Aug-16	05-Aug-16	18-Aug-16
EW1780	Lay down DN600 at gridline E'-G'/1'	7	19-Aug-16	27-Aug-16	19-Aug-16	27-Aug-16
EW1800	Backfill trench at gridline E'-G'/1'	2	29-Aug-16	30-Aug-16	29-Aug-16	30-Aug-16
Storm Drain DN450 at Portion M01						
Storm Drain along Gridline G'-J' /1'-2						
EW1820	Excavate Trial Trench for exsiting Underground Utilities	14	02-Jul-16	23-Jul-16	02-Jul-16	23-Jul-16
EW1850	Install support to existing Underground Utilities	8	25-Jul-16	05-Aug-16	25-Jul-16	05-Aug-16
EW1810	Excavate trench for DN600 at gridline G'-J'/1' & install shoring	7	06-Aug-16	15-Aug-16	06-Aug-16	15-Aug-16
EW1830	Laydown DN600 at gridline G'-J'/1'	7	16-Aug-16	25-Aug-16	16-Aug-16	25-Aug-16
EW1840	Backfill trench	2	26-Aug-16	27-Aug-16	26-Aug-16	27-Aug-16
Storm Drain DN375 at Portion M45						
Storm Drain along Gridline A-K' / 5'						
EW1640	PIW handover of WHC6_1e for M+ connection	0		01-Aug-16		01-Aug-16*



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Activity ID	Activity Name	Ori. Dur.	BaseLine Start	BaseLine Finish	Forecast / Actual Start	Forcast / Actual Finish
EW6110	Fence off Work area for DN375 storm drain excavation	1	02-Aug-16	02-Aug-16	02-Aug-16	02-Aug-16
EW1615	Excavate Trial Trench for existing Underground Utilities	14	02-Aug-16	22-Aug-16	02-Aug-16	22-Aug-16
EW1618	Install support to exisiting underground Utilities	14	23-Aug-16	12-Sep-16	23-Aug-16	12-Sep-16
EW6120	Excavate trench for DN375 and install shoring	15	13-Sep-16	07-Oct-16	13-Sep-16	07-Oct-16
Storm Drain DN150 at Portion M45						
Storm Drain along Gridline A / 5' - 6'						
EW1900	PIW handover of WHC6_1f for M+ connection	0		10-Aug-16		10-Aug-16*
EW1910	Fence off work area for DN150 storm drain excavation	1	11-Aug-16	11-Aug-16	11-Aug-16	11-Aug-16
EW1915	Excavate Trial Trench fo exisiting Underground Utilities	14	12-Aug-16	30-Aug-16	12-Aug-16	30-Aug-16
EW1930	Install support to exisiting Underground Utilities	12	31-Aug-16	11-Sep-16	31-Aug-16	11-Sep-16
EW1920	Excavate trench for DN150 and install shoring	7	12-Sep-16	22-Sep-16	12-Sep-16	22-Sep-16
EW1940	Lay down DN150 and connect to WHC6_1f	9	23-Sep-16	07-Oct-16	23-Sep-16	07-Oct-16
Storm Drain DN300 along Gridline G-M/14						
EW1955	Prepare / Submit Temp Works ELS with ICE Cert	14	30-Jun-16	22-Jul-16	30-Jun-16	22-Jul-16
EW1945	DCS Plant Room RC Structure complete	0		30-Jun-16		30-Jun-16
EW1960	Excavate Trial Trench for existing underground utilities	14	09-Jul-16	29-Jul-16	09-Jul-16	29-Jul-16
EW1970	Install support on existing underground utilities	14	30-Jul-16	19-Aug-16	30-Jul-16	19-Aug-16
EW1980	Excavate to formation level & install laterla support	14	20-Aug-16	09-Sep-16	20-Aug-16	09-Sep-16
EW1990	Construct Mnahole S2.12 & S2.13	14	10-Sep-16	30-Sep-16	10-Sep-16	30-Sep-16
Strom Drain DN600 along Gridline B-G/14						
EW8610	Excavate Trial Trench for existing underground utilities	14	30-Jun-16	22-Jul-16	30-Jun-16	22-Jul-16
EW8605	Completion of B1 Slab (Portion B1E)	0		30-Jun-16		30-Jun-16
EW8620	Install support on existing underground utilities	14	23-Jul-16	12-Aug-16	23-Jul-16	12-Aug-16
EW8630	Excavate to formation level & install laterla support	14	13-Aug-16	02-Sep-16	13-Aug-16	02-Sep-16
EW8640	Construct Mnahole S2.12 & S2.13	14	03-Sep-16	23-Sep-16	03-Sep-16	23-Sep-16
EW8650	Install DN300 pipe and connect to Manholes S2.12 & S2.13	7	24-Sep-16	04-Oct-16	24-Sep-16	04-Oct-16
Storm Drain DN750 along Gridline A-B/14						
EW8670	Excavate Trial Trench for existing underground utilities	14	13-Aug-16	02-Sep-16	13-Aug-16	02-Sep-16
EW8680	Install support on existing underground utilities	14	03-Sep-16	23-Sep-16	03-Sep-16	23-Sep-16
EW8690	Excavate to formation level & install laterla support	14	24-Sep-16	17-Oct-16	24-Sep-16	17-Oct-16
Storm Drain DN700 along Gridline A/3-11						
EW8760	Excavate Trial Trench for existing underground utilities	14	24-Sep-16	17-Oct-16	24-Sep-16	17-Oct-16
Sewage						
Sewage DN300 at Portion M01, Gridline A / 3-14						
EW1355	Completion of B1 Slab (Portion B1G, Portion A6, A7)	0		30-Jun-16		30-Jun-16
EW1356	Excavate Trial Trench for existing Underground Utilities	21	30-Jun-16	01-Aug-16	30-Jun-16	01-Aug-16
EW1358	Install support to existing Underground Utilities	7	02-Aug-16	12-Aug-16	02-Aug-16	12-Aug-16
EW1360	Excavate Trench and install shoring	21	13-Aug-16	12-Sep-16	13-Aug-16	12-Sep-16
EW1370	Construct Manholes F2.1A, F2.1B, F2.1C, F2.1D & Terminal Manhole F2.1E	28	13-Sep-16	27-Oct-16	13-Sep-16	27-Oct-16
Gas						
Gas Main at Portion M45						
Gas Main along Gridline E' - I' / 1'						
EW1035	Take Possession date of M45 (M45 IS Appendix D1, 31 July 16)	0	31-Jul-16		31-Jul-16*	
EW1095	Mobilise Equipment / Materials to Site	4	31-Jul-16	03-Aug-16	31-Jul-16	03-Aug-16
EW1105	Trial Trench for Underground Utilities	10	04-Aug-16	13-Aug-16	04-Aug-16	13-Aug-16
EW1115	Install support for existing Underground Utilities	7	14-Aug-16	20-Aug-16	14-Aug-16	20-Aug-16
EW1165	Excavate Trench for Main Gas 100mm and install shoring	14	21-Aug-16	03-Sep-16	21-Aug-16	03-Sep-16
EW1175	Lay down Main Gas 100mm	14	04-Sep-16	17-Sep-16	04-Sep-16	17-Sep-16
EW1185	Backfill Trench to Ground Level	7	18-Sep-16	24-Sep-16	18-Sep-16	24-Sep-16
EW1195	Testing and Inspection	5	25-Sep-16	29-Sep-16	25-Sep-16	29-Sep-16
WSD						
Water Main Works at Portion M45						
EW1147	Watermain (FH-CH250) interface : M+Planned date (1 Jun16)	0	30-Jun-16		30-Jun-16*	
EW1150	PIW Contractor Handover Portion M45 to HCC (IS Appendix D1, item 36, 31 J	0	31-Jul-16		31-Jul-16*	
EW1160	Remove existing hoarding fixed to Sheet pile	14	01-Aug-16	20-Aug-16	01-Aug-16	20-Aug-16
EW1170	Install a new hoarding with 500mm clearance from roadside	7	22-Aug-16	30-Aug-16	22-Aug-16	30-Aug-16
EW1180	Excavate Trench to expose watermains by PIW & install shoring	7	02-Sep-16	10-Sep-16	02-Sep-16	10-Sep-16

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04-Mar-16	CMWP (4th draft) Submission	Jojo / David	Desmond Sze
30-Jun-16	3 MRP Submission	Edgar / Jojo	Desmond Sze

3 Months Rolling Programme (3MRP)

Activity ID	Activity Name	Ori. Dur.	BaseLine Start	BaseLine Finish	Forecast / Actual Start	Forcast / Actual Finish
EW1190	Cut down sheet piles for water pipe connections	7	12-Sep-16	22-Sep-16	12-Sep-16	22-Sep-16
EW1510	Construct Incoming Water Mains (1- DN100 salt water)	21	23-Sep-16	13-Oct-16	23-Sep-16	13-Oct-16
EW1500	Construct Incoming Water Mains (2- DN150 Fresh Water)	21	23-Sep-16	13-Oct-16	23-Sep-16	13-Oct-16
Telecom						
EW1590	Construct ICT & ELV drawpits @ Gridline M/14	15	30-Jun-16	23-Jul-16	30-Jun-16	23-Jul-16
EW1600	Construct 28 DN100 FTNS drawpit @ gridline M/14	14	25-Jul-16	13-Aug-16	25-Jul-16	13-Aug-16
EW1610	Construct 4# 28 DN100 FTNS drawpit @ gridline A-M/14	14	15-Aug-16	03-Sep-16	15-Aug-16	03-Sep-16
EW1620	Construct 4# 28DN100 FTNS drawpit @ gridline A/6-14	14	05-Sep-16	24-Sep-16	05-Sep-16	24-Sep-16
EW1630	Construct ICT & ELV drawpit @ gridline A/9 & A/7	14	26-Sep-16	18-Oct-16	26-Sep-16	18-Oct-16
CLP						
EW1090	Excavate trench in footway for the 11kV direct buried cables	12	30-Jun-16	19-Jul-16	30-Jun-16	19-Jul-16
EW1100	Lay 11kV power cable by CLP (by others)	25	21-Jul-16	25-Aug-16	21-Jul-16	25-Aug-16
EW1110	Backfilling footway to adjacent ground level	6	26-Aug-16	03-Sep-16	26-Aug-16	03-Sep-16
EW1120	Allow Access for PIW Contractor to carry out works for 132kV cables	0	04-Sep-16		04-Sep-16	
EW1130	Lay 132kV cable by CLP (by others)	25	05-Sep-16	14-Oct-16	05-Sep-16	14-Oct-16
Seawater Intake and Chilled Water Pipeworks						
Seawater Intake Pipeworks						
B10.1100	Intake Chiller Mains - Install Grout Curtain along Sheet Piles	53	30-Jun-16	31-Aug-16	30-Jun-16	31-Aug-16
B10.1120	Intake Chiller Mains - Excavate to +0.4mPD	30	31-Aug-16	07-Oct-16	31-Aug-16	07-Oct-16
B10.1110	Intake Chiller Mains - Dewatering Complete	0		31-Aug-16		31-Aug-16
Setting-out / Preparation Works						
B10.1423	AEL South - DCS Construct Walls & Columnsto B1 Slab complete	0		30-Jun-16		30-Jun-16
B10.1440	Prepare Detailed Design and Modifcation	14	18-Jun-16	06-Jul-16	18-Jun-16 A	26-Jul-16
B10.1425	Trial Pits and Trench	14	12-Jul-16	29-Jul-16	12-Jul-16	29-Jul-16
Stage 1 - Pipeworks Adjacent DCS						
B10.1428	Stage 1 - Form Access Road / Traffic Diversion (Along Seawall)	7	22-Jul-16	29-Jul-16	22-Jul-16	29-Jul-16
B10.1450	Stage 1 - Drill holes, Inject Curtain Grout & backfill (Adjacent DCS)	20	29-Jul-16	22-Aug-16	29-Jul-16	22-Aug-16
B10.1200	Stage 1 - Excavate from G/F (+4.5mPD) to formation Level (+0.3mPD)	25	22-Aug-16	21-Sep-16	22-Aug-16	21-Sep-16
B10.1220	Stage 1 - Install 1st & 2nd layer Underground Utilities support frames	16	08-Sep-16	28-Sep-16	08-Sep-16	28-Sep-16
B10.1490	Stage 1 - Install DN600 Seawater Intake Pipes	12	28-Sep-16	14-Oct-16	28-Sep-16	14-Oct-16
B10.1500	Stage 1 - Install DN100 Chlorination Pipe	12	28-Sep-16	14-Oct-16	28-Sep-16	14-Oct-16
B10.1510	Stage 1 - Install DN28 Cleansing Pipe	12	28-Sep-16	14-Oct-16	28-Sep-16	14-Oct-16
B10.1520	Stage 1 - Install DN1000 Seawater Intake Pipe (Header)	18	28-Sep-16	21-Oct-16	28-Sep-16	21-Oct-16
Stage 2 - Pipeworks Adjacent Waterfront / Seawall						
B10.1452	Stage 2 - Form Access Road / Traffic Diversion (Adjacent DCS)	7	22-Aug-16	29-Aug-16	22-Aug-16	29-Aug-16
B10.1455	Stage 2 - Drillholes and Inject Curtain Grout (Along Seawall)	20	30-Aug-16	22-Sep-16	30-Aug-16	22-Sep-16
Sea Water Drainage Pipe						
Seawater Intake and Outfall Pipeworks						
EW3000	Take Possession of M38 & M39 (Appendix D2. 31Aug16)	0	30-Jun-16		30-Jun-16	
EW3030	Take Possession of Site Portion M41 & M42 (Appendix D2, 1Oct16)	0	30-Jun-16		30-Jun-16	
Seawater outfall pipeworks underground section Ch0 - 108 (starting from Ch108)						
EW3080	Trial Pits and trenches for exposing Underground Utilities	40	30-Jun-16	29-Aug-16	30-Jun-16	29-Aug-16
EW3380	New Activity	4	30-Jun-16	03-Jul-16	30-Jun-16	03-Jul-16
EW3090	Detailed design for trench lateral support and underground utilities support	14	14-Jul-16	02-Aug-16	14-Jul-16	02-Aug-16
EW3100	Driving of sheet piles	32	05-Aug-16	20-Sep-16	05-Aug-16	20-Sep-16
EW3110	Pre-boring for overcoming underground obstructions	20	12-Aug-16	10-Sep-16	12-Aug-16	10-Sep-16
EW3120	Excavation for installing 1st layer of walings and struts	10	12-Sep-16	27-Sep-16	12-Sep-16	27-Sep-16
EW3130	Installing 1st layer of walings and struts	18	22-Sep-16	20-Oct-16	22-Sep-16	20-Oct-16
EW3140	Hanging and supporting of existing underground KGO and other services	9	29-Sep-16	15-Oct-16	29-Sep-16	15-Oct-16
Ch105 to 108, for future connections by Lyric (trench fromation -3.6mPD)						
EW3200	Excavation for installing 2nd layer of walings and struts	5	29-Sep-16	08-Oct-16	29-Sep-16	08-Oct-16
CH5 to 40 (trench formation +0.9mPD), Ch40 to 105 (trench formation+1.8mPD),						
EW3280	Excavation to bottom of trench	14	29-Sep-16	22-Oct-16	29-Sep-16	22-Oct-16
Roads & Landscaping						
EW5010	Complete EVA by Park contractor for M+ FSD inspection	0		30-Jun-16		30-Jun-16
Statutory Inspections & Occupation Permit (OP)						

Baseline Milestone
Milestone
Non-Critical
Critical Bar
Actual Work

West Kowloon Cultural District Authority

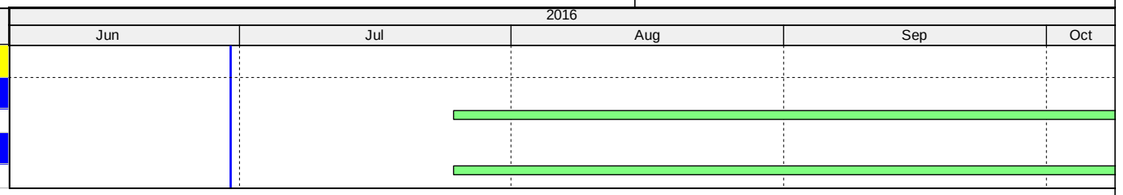
3 Months Rolling Programme (3MRP)

(3A Draft)

Date	Revision	Checked	Approved
04-Mar-16	CMWP (4th draft) Submission	Jojo / David	Desmond Sze
30-Jun-16	3 MRP Submission	Edgar / Jojo	Desmond Sze

3 Months Rolling Programme (3MRP)

Activity ID	Activity Name	Ori. Dur.	BaseLine Start	BaseLine Finish	Forecast / Actual Start	Forcast / Actual Finish
M+ Museum - Statutory Inspection & Approval						
M+ Museum - WSD (FS Pipeworks) Inspection & Approval						
SH4200	FS - Submit Form WW046 (Part 1 & 2) and Approval by WSD (Subject to MJV 1	90	25-Jul-16	22-Oct-16	25-Jul-16*	22-Oct-16
M+ Museum - WSD (Plumbing) Inspection & Approval						
SH4260	Plumbing - Submit Form WW046 (Part 1 & 2) to WSD (Subject to MJV 1st Sub	90	25-Jul-16	22-Oct-16	25-Jul-16*	22-Oct-16



- Baseline Milestone
- Milestone
- Non-Critical
- Critical Bar
- Actual Work

West Kowloon Cultural District Authority

3 Months Rolling Programme (3MRP)

(3A Draft)

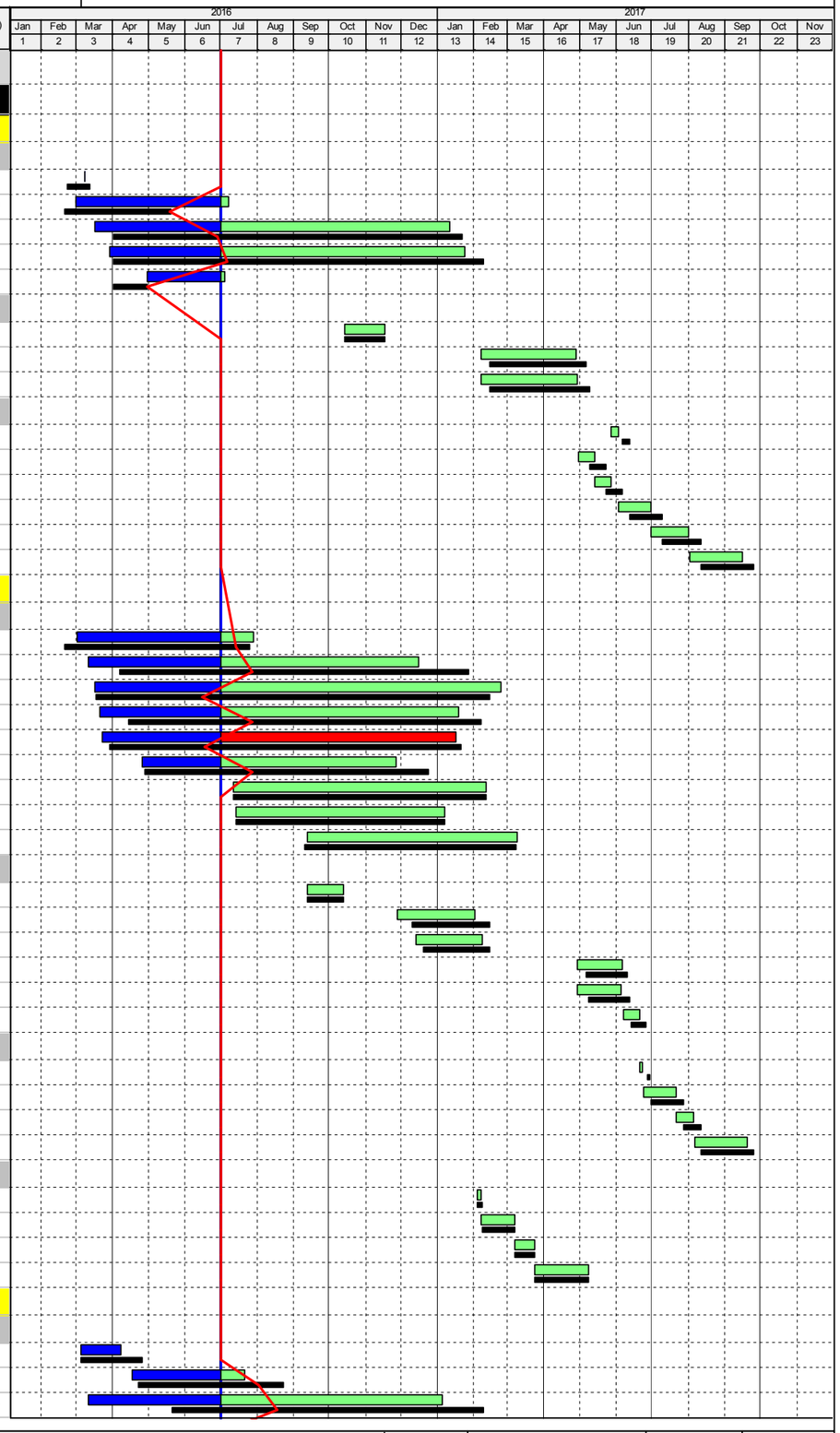
Date	Revision	Checked	Approved
04-Mar-16	CMWP (4th draft) Submission	Jojo / David	Desmond Sze
30-Jun-16	3 MRP Submission	Edgar / Jojo	Desmond Sze

Lyric Theatre Complex

CONTRACT NO: CC/2015/3A/014

SUMMARY PROGRAMME PROGRESS AS OF 01-JUL-2016

Activity ID	Activity Name	Durn. (Days)	Programme Rev A Start	Programme Rev A Finish	Current / Actual Start	Current / Actual Finish	Physical % Complete	Finish Variance	Float (Days)
F2 Foundation Works for Lyric Theatre Complex									
Summary for Major Works									
Pre-bored H-Pile									
Pre-bored H-Pile Construction									
LT.0087	Trial Pile and Obtain BD's Acknowledgement	18	22-Feb-16	12-Mar-16	08-Mar-16 A	09-Mar-16 A	100%	4	
LT.0088	Predrilling, Excluding Portions L02 and L03; 56 nos.	71	20-Feb-16	20-May-16	01-Mar-16 A	07-Jul-16	98.2%	-39	150
LT.0089	Pre-bored H-Pile Construction; Rig 1, 119 nos	243	01-Apr-16	21-Jan-17	17-Mar-16 A	11-Jan-17	30%	9	26
LT.2225	Pre-bored H-Pile Construction; Rig 2, 119 nos	255	01-Apr-16	08-Feb-17	30-Mar-16 A	23-Jan-17	31%	11	15
LT.2226	Pre-bored H-Pile Construction; Rig 3, 23 nos	25	01-Apr-16	30-Apr-16	30-Apr-16 A	04-Jul-16	98%	-51	274
Contract Administrator's Instruction No. 8									
LT.3010	Predrilling in Portions L02 and L03; 14 nos.	30	14-Oct-16	17-Nov-16	14-Oct-16	17-Nov-16	0%	0	69
LT.3015	Pre-bored H-Pile Construction; Rig 1, 31 nos	65	14-Feb-17	06-May-17	07-Feb-17	27-Apr-17	0%	6	7
LT.3020	Pre-bored H-Pile Construction; Rig 2, 32 nos	67	14-Feb-17	09-May-17	07-Feb-17	29-Apr-17	0%	6	6
BA14 and Testing									
LT.0094	Submission of BA14	6	06-Jun-17	12-Jun-17	28-May-17	02-Jun-17	0%	10	11
LT.0095	CA's Selection of Proof Drilling Locations	14	09-May-17	23-May-17	30-Apr-17	13-May-17	0%	10	11
LT.0096	Proof Drilling	14	23-May-17	06-Jun-17	14-May-17	27-May-17	0%	10	11
LT.0097	BD's Selection of Test Piles	28	12-Jun-17	10-Jul-17	03-Jun-17	30-Jun-17	0%	10	11
LT.0098	Load Testing and Submit Reports	32	10-Jul-17	11-Aug-17	30-Jun-17	01-Aug-17	0%	10	11
LT.0099	BD's Acknowledgement	45	11-Aug-17	25-Sep-17	02-Aug-17	15-Sep-17	0%	10	28
Bored Pile									
Bored Pile Construction									
LT.0102	Predrilling, Excluding Portions L02 and L03; 145 nos.	125	20-Feb-16	25-Jul-16	02-Mar-16 A	29-Jul-16*	93%	-4	38
LT.0103	Bored Pile Construction; RCD Rig 1, 24 nos.	244	07-Apr-16	27-Jan-17	12-Mar-16 A	15-Dec-16	38%	34	6
LT.1895	Bored Pile Construction; RCD Rig 2, 27 nos.	268	18-Mar-16	13-Feb-17	17-Mar-16 A	23-Feb-17	27%	-9	87
LT.1905	Bored Pile Construction; RCD Rig 3, 25 nos.	243	14-Apr-16	06-Feb-17	21-Mar-16 A	18-Jan-17	35%	13	115
LT.1915	Bored Pile Construction; RCD Rig 4, 25 nos.	245	29-Mar-16	20-Jan-17	23-Mar-16 A	16-Jan-17	27%	4	-3
LT.1925	Bored Pile Construction; RCD Rig 5, 15 nos.	200	28-Apr-16	24-Dec-16	26-Apr-16 A	26-Nov-16	38%	24	10
LT.1935	Bored Pile Construction; RCD Rig 6, 16 nos.	175	12-Jul-16	10-Feb-17	12-Jul-16	10-Feb-17	0%	0	98
LT.1945	Bored Pile Construction; RCD Rig 7, 13 nos.	146	14-Jul-16	06-Jan-17	14-Jul-16	06-Jan-17	0%	0	4
LT.2215	Sonic Logging and Interface Coring Test; Excluding Portions L02 and L03	145	10-Sep-16	08-Mar-17	12-Sep-16	09-Mar-17	0%	-1	87
Contract Administrator's Instruction No. 8									
LT.2891	Predrilling in Portions L02 and L03; 11 nos.	24	13-Sep-16	13-Oct-16	13-Sep-16	13-Oct-16	0%	0	48
LT.2895	Bored Pile Construction; RCD Rig 5, 4 nos.	51	10-Dec-16	14-Feb-17	28-Nov-16	01-Feb-17	0%	11	10
LT.2905	Bored Pile Construction; RCD Rig 1, 3 nos.	43	20-Dec-16	14-Feb-17	13-Dec-16	07-Feb-17	0%	6	6
LT.2915	Bored Pile Construction; RCD Rig 5, 2 nos.	30	06-May-17	10-Jun-17	29-Apr-17	06-Jun-17	0%	4	6
LT.2925	Bored Pile Construction; RCD Rig 1, 2 nos.	29	09-May-17	12-Jun-17	29-Apr-17	05-Jun-17	0%	6	7
LT.2935	Sonic Logging and Interface Coring Test; Portions L02 and L03	12	13-Jun-17	26-Jun-17	07-Jun-17	20-Jun-17	0%	5	6
BA14 and Testing									
LT.0108	Submission of BA14	3	27-Jun-17	29-Jun-17	21-Jun-17	23-Jun-17	0%	5	6
LT.0109	BD's Selection of Test Piles	28	30-Jun-17	27-Jul-17	24-Jun-17	21-Jul-17	0%	6	7
LT.0110	Concrete Coring Test and Submit Reports	13	27-Jul-17	11-Aug-17	21-Jul-17	05-Aug-17	0%	5	6
LT.0111	BD's Acknowledgement	45	12-Aug-17	25-Sep-17	06-Aug-17	19-Sep-17	0%	6	24
BA14 and Testing at Area 6 if Option is Exercised									
LT.0113	Submission of BA14	3	03-Feb-17	07-Feb-17	03-Feb-17	07-Feb-17	0%	0	24
LT.0114	BD's Selection of Test Piles	28	07-Feb-17	07-Mar-17	07-Feb-17	07-Mar-17	0%	0	28
LT.0115	Concrete Coring Test and Submit Reports	15	07-Mar-17	24-Mar-17	07-Mar-17	24-Mar-17	0%	0	24
LT.3110	BD's Acknowledgement	45	24-Mar-17	08-May-17	24-Mar-17	08-May-17	0%	0	97
Excavation and Lateral Support									
Pipe Pile									
LT.0120	Pre-grouting Works at Seawall Area; Portions M15, M16, L01 and L16	40	05-Mar-16	26-Apr-16	05-Mar-16 A	08-Apr-16 A	100%	16	
LT.0121	Pre-grouting Works at Portions L05, L07, M14b and M12	101	23-Apr-16	23-Aug-16	18-Apr-16 A	21-Jul-16	83%	28	91
LT.0122	Pipe Pile and Grout Curtain; Portions L04, L05, L14, L24, M14 and M14b (PP 443 nos and CPP 3 nos.)	215	21-May-16	08-Feb-17	12-Mar-16 A	04-Jan-17	34%	27	146



Secondary Baseline
Actual Work
Remaining Work
Critical Remaining Work
Milestone

WEST KOWLOON CULTURAL DISTRICT AUTHORITY
FOUNDATION WORKS FOR LYRIC THEATRE COMPLEX
AND THE EXTENDED BASEMENT IN ZONE 3B
SUMAMRY PROGRAMME BASED ON
REVISED CONSTRUCTION WORKS PROGRAMME - REV. "0"

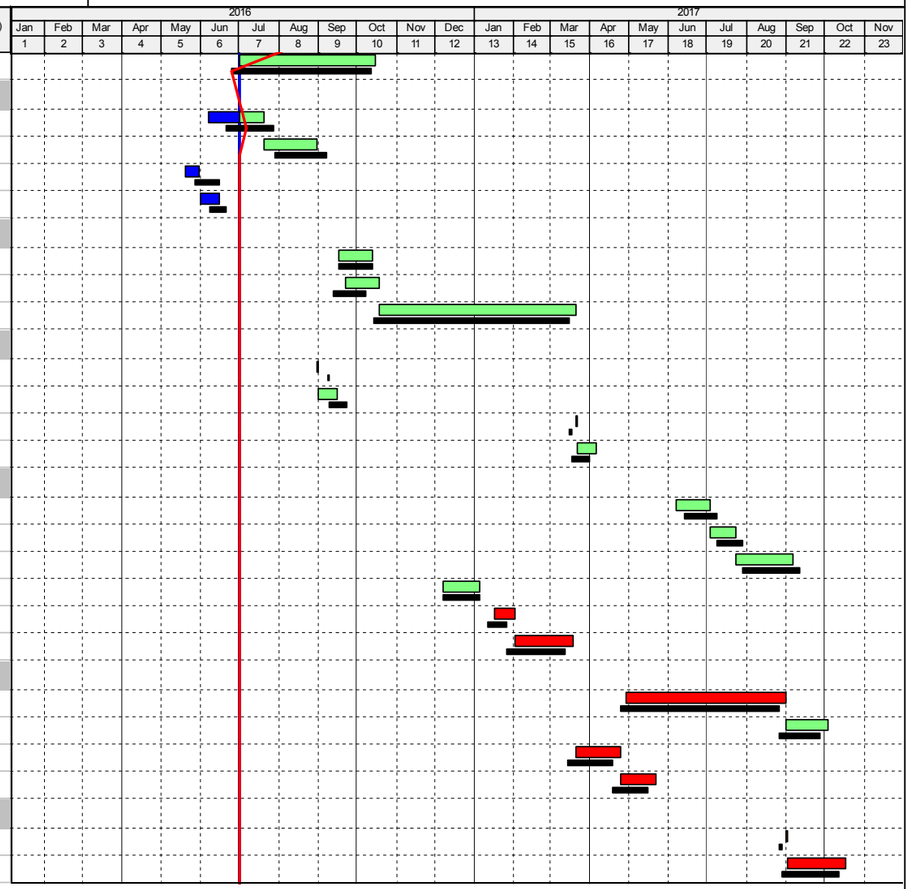
Gammon

Date	Revision	Checked	Approved
01-Jul-16	For Information	R.L.	A.W.

CONTRACT NO: CC/2015/3A/014

SUMMARY PROGRAMME PROGRESS AS OF 01-JUL-2016

Activity ID	Activity Name	Durn. (Days)	Programme Rev A Start	Programme Rev A Finish	Current / Actual Start	Current / Actual Finish	Physical % Complete	Finish Variance	Float (Days)
LT.3030	Clutched Pipe Pile and Grout Curtain; Portions M14a, L16 and L01 (CPP 82 nos.)	89	25-Jun-16	12-Oct-16	02-Jul-16	15-Oct-16	0%	-4	87
Sheet Piles									
LT.0124	Sheet Piles Installation in Portion L06; 1,472m2	32	21-Jun-16	28-Jul-16	07-Jun-16 A	20-Jul-16	43%	7	96
LT.2945	Sheet Piles Installation in Portions L07 and M12; 1,640m2	35	29-Jul-16	07-Sep-16	21-Jul-16	30-Aug-16	0%	7	96
LT.2950	Instrument Installation for Instrumental Sheet Pile	15	28-May-16	15-Jun-16	21-May-16 A	31-May-16 A	100%	13	
LT.2955	Drive Instrumental Sheet Pile and Report Submission	10	08-Jun-16	20-Jun-16	01-Jun-16 A	16-Jun-16 A	100%	4	
Contract Administrator's Instruction No. 8									
LT.3050	Pre-grouting Works adjacent Seawall Portion L03	21	17-Sep-16	13-Oct-16	17-Sep-16	13-Oct-16	0%	0	89
LT.3060	Pipe Pile and Grout Curtain; Portion L02 (PP 21nos.)	20	13-Sep-16	07-Oct-16	22-Sep-16	18-Oct-16	0%	-8	85
LT.3070	Clutched Pipe Pile and Grout Curtain; Portion L03 (CPP 104 nos. and PP 4 nos)	125	14-Oct-16	15-Mar-17	18-Oct-16	20-Mar-17	0%	-4	85
BA14									
LT.0126	Submission of BA14 for Stage 1 ELS Sheet Piling Works at Area 6	2	08-Sep-16	09-Sep-16	31-Aug-16	01-Sep-16	0%	7	96
LT.0127	BD's Acknowledgement	14	09-Sep-16	23-Sep-16	01-Sep-16	15-Sep-16	0%	8	118
LT.0128	Submission of BA14 for Stage 1 ELS Piling Works at Area 1 to 5	2	16-Mar-17	17-Mar-17	20-Mar-17	22-Mar-17	0%	-4	85
LT.0129	BD's Acknowledgement	14	17-Mar-17	31-Mar-17	22-Mar-17	05-Apr-17	0%	-5	109
Pumping Test									
LT.0131	Install Area 1 to Area 5 Pumping Test Instrumentation & Wells (16 PW + 32 OW) and Submission of Initial Readin	22	13-Jun-17	08-Jul-17	07-Jun-17	03-Jul-17	0%	5	17
LT.0132	Carry Out Pumping Test in Area 1 to Area 5 and Submission to BD	20	09-Jul-17	28-Jul-17	04-Jul-17	23-Jul-17	0%	5	20
LT.0133	Obtain BD's Acknowledgement of Area 1 to 5 Pumping Test Results	45	29-Jul-17	11-Sep-17	24-Jul-17	06-Sep-17	0%	5	37
LT.0134	Install Area 6 Pumping Test Instrumentation & Wells (3 PW + 6 OW) and Submission of Initial Readings	21	07-Dec-16	04-Jan-17	07-Dec-16	04-Jan-17	0%	0	7
LT.0135	Carry Out Pumping Test in Area 6 and submission to BD	16	11-Jan-17	26-Jan-17	16-Jan-17	01-Feb-17	0%	-6	-4
LT.0136	Obtain BD's Acknowledgement of Area 6 Pumping Test Results	45	26-Jan-17	12-Mar-17	01-Feb-17	18-Mar-17	0%	-7	-5
Option Stage 2 ELS and Excavation Works at Area 6									
LT.0138	Bulk Excavation and Installation of Struts	102	25-Apr-17	26-Aug-17	29-Apr-17	31-Aug-17	0%	-4	-3
LT.0139	Trim Pile Head and Clearance	27	26-Aug-17	27-Sep-17	31-Aug-17	03-Oct-17	0%	-4	8
LT.3075	Submission of BA8 and BA10 for Bulk Excavation Works	35	14-Mar-17	18-Apr-17	20-Mar-17	24-Apr-17	0%	-7	-5
LT.3080	Installation of Temporary Platform	22	18-Apr-17	16-May-17	24-Apr-17	22-May-17	0%	-5	-3
BA14 for Option Stage 2 ELS and Excavation Works at Area 6									
LT.0141	Submission of BA14 for Stage 2 ELS and Excavation Works at Area 6	2	26-Aug-17	29-Aug-17	31-Aug-17	02-Sep-17	0%	-4	-3
LT.0142	BD's Acknowledgement	45	28-Aug-17	12-Oct-17	02-Sep-17	17-Oct-17	0%	-5	-4



Secondary Baseline
Actual Work
Remaining Work
Critical Remaining Work
Milestone

WEST KOWLOON CULTURAL DISTRICT AUTHORITY
FOUNDATION WORKS FOR LYRIC THEATRE COMPLEX
AND THE EXTENDED BASEMENT IN ZONE 3B
SUMAMRY PROGRAMME BASED ON
REVISED CONSTRUCTION WORKS PROGRAMME - REV. "0"

Gammon

Date	Revision	Checked	Approved
01-Jul-16	For Information	R.L.	A.W.

Appendix 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 (µg/m3)	Limit Level (µg/m3)
AM1	273.7	500
AM2	274.2	500

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

Monitoring Station	Action Level (µg/m3)	Limit Level (µg/m3)
AM1	143.6	260
AM2	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
NM1		
0700-1900 hours on normal weekdays	When one documented complaint is received from any one of the sensitive receivers	75 dB(A)

Appendix 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	WKCDA	Contractor
Action Level				
1. Exceedance for one sample	1. Identify source, investigate the causes of exceedance and propose remedial measures; 2. Inform IEC and WKCDA; 3. Repeat measurement to confirm finding; 4. Increase monitoring frequency to daily.	1. Check monitoring data submitted by ET; 2. Check Contractor's working method.	1. Notify Contractor	1. Rectify any unacceptable practice; 2. Amend working methods if appropriate.
2. Exceedance for two or more consecutive samples	1. Identify source; 2. Inform IEC and WKCDA; 3. Advise the WKCDA 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 WKCDA; 8. If exceedance stops, cease additional monitoring.	1. Check monitoring data submitted by ET; 2. Check Contractor's working method; 3. Discuss with ET and Contractor on possible remedial measures; 4. Advise the ET on the effectiveness of the proposed remedial measures; 5. Monitor the implementation of remedial measures.	1. Confirm receipt of notification of failure in writing; 2. Notify Contractor; 3. Ensure remedial measures properly implemented.	1. Submit proposals for remedial to WKCDA within three working days of notification; 2. Implement the agreed proposals; 3. Amend proposal if appropriate.
Limit Level				
1. Exceedance for one sample	1. Identify source, investigate the causes of exceedance and propose remedial measures; 2. Inform WKCDA, Contractor and EPD; 3. Repeat measurement to confirm finding; 4. Increase monitoring frequency to daily; 5. Assess effectiveness of Contractor's remedial	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 WKCDA on the effectiveness of the proposed remedial measures; 5. Monitor the implementation of	1. Confirm receipt of notification of failure in writing; 2. Notify Contractor; 3. Ensure remedial measures properly implemented.	1. Take immediate action to avoid further exceedance; 2. Submit proposals for remedial actions to IEC within three working days of notification; 3. Implement the agreed proposals; 4. Amend proposal if appropriate.

Event	Action			
	ET	IEC	WKCDA	Contractor
	actions and keep IEC, EPD and WKCDA informed of the results.	remedial measures.		
2. Exceedance for two or more consecutive samples	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.	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.	1. Confirm receipt of notification of failure in writing; 2. Notify Contractor; 3. In consolidation with the IEC, agree with the Contractor on the remedial measures to be implemented; 4. Ensure remedial measures properly implemented; 5. If exceedance continues, consider what portion of the work is responsible and instruct the Contractor to stop that portion of work until the exceedance is abated.	1. Take immediate action to avoid further exceedance; 2. Submit proposals for remedial actions to IEC within 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.

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

	Action			
Event	**ET Leader**	**IEC**	**WKCDA**	**Contractor**
Action Level	1. Notify WKCDA, IEC and Contractor; 2. Carry out investigation; 3. Report the results of investigation to the IEC, WKCDA and Contractor; 4. Discuss with the IEC and Contractor on remedial measures required; 5. Increase monitoring frequency to check mitigation effectiveness.	1. Review the investigation results submitted by the ET; 2. Review the proposed remedial measures by the Contractor and advise the WKCDA accordingly; 3. Advise the WKCDA on the effectiveness of the proposed remedial measures.	1. Confirm receipt of notification of failure in writing; 2. Notify Contractor; 3. In consolidation with the IEC, agree with the Contractor on the remedial measures to be implemented; 4. Supervise the implementation of remedial measures.	1. Submit noise mitigation proposals to IEC and WKCDA; 2. Implement noise mitigation proposals.
Limit Level	1. Inform IEC, WKCDA, 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 WKCDA on remedial measures required; 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.	1. Discuss amongst WKCDA, ET, and Contractor on the potential remedial actions; 2. Review Contractor's remedial actions whenever necessary to assure their effectiveness and advise the WKCDA accordingly.	1. Confirm receipt of notification of failure in writing; 2. Notify Contractor; 3. In consolidation with the IEC, agree with the Contractor on the remedial measures to be implemented; 4. Supervise the implementation of remedial measures; 5. If exceedance continues, consider stopping the Contractor to continue working on that portion of work which causes the exceedance until the exceedance is abated.	1. Take immediate action to avoid further exceedance; 2. Submit proposals for remedial actions to IEC and WKCDA 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 WKCDA 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

	Action			
Event	**ET Leader**	**IEC**	**WKCDA**	**Contractor**
Design Check	1. Design check to make sure the design complies with all the proposed mitigation measures in the EIA report; 2. Prepare and submit report.	1. Check report submitted by ET; 2. Recommend remedial design if necessary.	1. Undertake remedial design if necessary.	-
Non-conformity on one occasion	1. Identify source of non-conformity; 2. Report to IEC and WKCDA; 3. Discuss remedial actions with IEC, WKCDA and Contractor; 4. Monitor remedial actions until rectification has been completed.	1. Check and verify source of non-conformity; 2. Discuss remedial actions with ET and Contractor; 3. Advise WKCDA on effectiveness of proposed remedial actions; 4. Check implementation of remedial actions.	1. Notify Contractor; 2. Ensure remedial actions are properly implemented.	1. Amend working method as necessary; 2. Rectify damage and undertake necessary replacement and remedial actions.
Repeated non-conformity	1. Identify source of non-conformity; 2. Report to IEC and WKCDA; 3. Increase monitoring frequency; 4. Discuss remedial actions with IEC, WKCDA and Contractor; 5. Monitor remedial actions until rectification has been completed; 6. If non-conformity rectified, reduce monitoring frequency back to normal.	1. Check and verify source of non-conformity; 2. Check Contractor's working method; 3. Discuss remedial actions with ET and Contractor; 4. Advise WKCDA on effectiveness of proposed remedial actions; 5. Supervise implementation of remedial actions.	1. Notify Contractor; 2. Ensure remedial actions are properly implemented.	1. Amend working method as necessary; 2. Rectify damage and undertake necessary replacement and remedial actions.

Appendix E. Monitoring Schedule

JUNE 2016

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
			1	2 AM1, AM2 - 24hrTSP, 1hr TSP x3 NM1A - Noise Impact Monitoring	3	4
5	6	7	8 AM1, AM2 - 24hrTSP, 1hr TSP x3 NM1A - Noise Impact Monitoring	9	10	11
12	13	14 AM1, AM2 - 24hrTSP, 1hr TSP x3 NM1A - Noise Impact Monitoring	15	16	17	18
19	20 AM1, AM2 - 24hrTSP, 1hr TSP x3 NM1A - Noise Impact Monitoring	21	22	23	24 AM1, AM2 - 24hrTSP, 1hr TSP x3	25
26	27	28	29	30 AM1, AM2 - 24hrTSP, 1hr TSP x3 NM1A - Noise Impact Monitoring		
		Notes: AM1 - International Commerce Centre (ICC) AM2 - The Harbourside Tower 1 NM1A - International Commerce Centre (ICC)				

JULY 2016

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
					1	2
3	4	5	6 AM1, AM2 - 24hrTSP, 1hr TSP x3 NM1A - Noise Impact Monitoring	7	8	9
10	11	12 AM1, AM2 - 24hrTSP, 1hr TSP x3 NM1A - Noise Impact Monitoring	13	14	15	16
17	18 AM1, AM2 - 24hrTSP, 1hr TSP x3 NM1A - Noise Impact Monitoring	19	20	21	22 AM1, AM2 - 24hrTSP, 1hr TSP x3	23
24	25	26	27	28 AM1, AM2 - 24hrTSP, 1hr TSP x3 NM1A - Noise Impact Monitoring	29	30
31		Notes: AM1 - International Commerce Centre (ICC) AM2 - The Harbourside Tower 1 NM1A - International Commerce Centre (ICC)				

Appendix F. Calibration Certifications

High-Volume TSP Sampler
5-Point Calibration Record

Location	:	AM1(ICC)
Calibrated by	:	K.T.Ho
Date	:	16/04/2016

Sampler

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

Calibration Orfice and Standard Calibration Relationship

Serial Number	:	2454
Service Date	:	14 Mar 2016
Slope (m)	:	2.09532
Intercept (b)	:	-0.03812
Correlation Coefficient(r)	:	0.99994

Standard Condition

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

Calibration Condition

Pa (hpa)	:	1008
Ta(K)	:	296

Resistance Plate		dH [green liquid] (inch water)	Z	X=Qstd (cubic meter/min)	IC (chart)	Y (corrected)
1	18 holes	10.2	3.197	1.552	60	60.05
2	13 holes	8.4	2.901	1.411	54	54.05
3	10 holes	6.2	2.492	1.217	44	44.04
4	7 holes	4.4	2.099	1.030	36	36.03
5	5 holes	2.6	1.614	0.799	26	26.02

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

Sampler Calibration Relationship

Slope(m):45.600 Intercept(b): -10.760 Correlation Coefficient(r): 0.9994

Checked by: _____ Date: 22/04/2016

Magnum Fan

High-Volume TSP Sampler
5-Point Calibration Record

Location	:	AM1(ICC)
Calibrated by	:	K.T.Ho
Date	:	16/06/2016

Sampler

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

Calibration Orfice and Standard Calibration Relationship

Serial Number	:	2454
Service Date	:	14 Mar 2016
Slope (m)	:	2.09532
Intercept (b)	:	-0.03812
Correlation Coefficient(r)	:	0.99994

Standard Condition

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

Calibration Condition

Pa (hpa)	:	1008
Ta(K)	:	304

Resistance Plate		dH [green liquid] (inch water)	Z	X=Qstd (cubic meter/min)	IC (chart)	Y (corrected)
1	18 holes	10.0	3.118	1.514	58	57.19
2	13 holes	8.0	2.789	1.358	50	49.30
3	10 holes	5.8	2.375	1.161	40	39.44
4	7 holes	4.0	1.972	0.969	32	31.55
5	5 holes	2.2	1.462	0.727	20	19.72

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

Sampler Calibration Relationship

Slope(m):47.189 Intercept(b): -14.634 Correlation Coefficient(r): 0.9995

Checked by:_____ Date: 22/06/2016

Magnum Fan

High-Volume TSP Sampler
5-Point Calibration Record

Location	:	AM2 (Harbourside)
Calibrated by	:	K.T.Ho
Date	:	16/04/2016

Sampler

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

Calibration Orfice and Standard Calibration Relationship

Serial Number	:	2454
Service Date	:	14 Mar 2016
Slope (m)	:	2.10326
Intercept (b)	:	-0.06696
Correlation Coefficient(r)	:	0.99989

Standard Condition

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

Calibration Condition

Pa (hpa)	:	1008
Ta(K)	:	296

Resistance Plate		dH [green liquid] (inch water)	Z	X=Qstd (cubic meter/min)	IC (chart)	Y (corrected)
1	18 holes	12.0	3.467	1.680	60	60.05
2	13 holes	9.0	3.003	1.459	52	52.05
3	10 holes	6.5	2.552	1.245	42	42.04
4	7 holes	4.4	2.099	1.030	32	32.03
5	5 holes	2.4	1.551	0.769	22	22.02

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

Sampler Calibration Relationship

Slope(m):42.631 Intercept(b):-11.089 Correlation Coefficient(r): 0.9990

Checked by: Date: 22/04/2016

Magnum Fan

High-Volume TSP Sampler
5-Point Calibration Record

Location	:	AM2 (Harbourside)
Calibrated by	:	K.T.Ho
Date	:	16/06/2016

Sampler

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

Calibration Orfice and Standard Calibration Relationship

Serial Number	:	2454
Service Date	:	14 Mar 2016
Slope (m)	:	2.10326
Intercept (b)	:	-0.06696
Correlation Coefficient(r)	:	0.99989

Standard Condition

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

Calibration Condition

Pa (hpa)	:	1008
Ta(K)	:	304

Resistance Plate		dH [green liquid] (inch water)	Z	X=Qstd (cubic meter/min)	IC (chart)	Y (corrected)
1	18 holes	12.0	3.416	1.656	58	57.19
2	13 holes	9.0	2.958	1.438	50	49.30
3	10 holes	7.0	2.609	1.272	42	41.41
4	7 holes	4.4	2.068	1.015	32	31.55
5	5 holes	2.4	1.528	0.758	20	19.72

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

Sampler Calibration Relationship

Slope(m):41.792 Intercept(b):-11.482 Correlation Coefficient(r): 0.9992

Checked by: Date: 22/06/2016

Magnum Fan

SIBATA SCIENTIFIC TECHNOLOGY LTD.
1-1-62, Nakane, Soka, Saitama, 340-0005 Japan
TEL : 048-933-1582 FAX : 048-933-1591

CALIBRATION CERTIFICATE

Date: October 7, 2015

Equipment Name	:	Digital Dust Indicator, Model LD-3B
Code No.	:	080000-42
Quantity	:	1 unit
Serial No.	:	245834
Sensitivity	:	0.001 mg/m3
Sensitivity Adjustment	:	710CPM
Scale Setting	:	October 2, 2015

We hereby certify that the avobe mentioned instrment has been calibrated satisfactory.

Sincerely

SIBATA SCIENTIFIC TECHNOLOGY LTD.

Shintaro Okamura

Shintaro Okamura
Overseas Sales Division

TEST CERTIFICATE

Report No. 15-1461

CUSTOMER : INNOTECH INSTRUMENTATION CO.LTD.

SIBATA SCIENTIFIC TECHNOLOGY LTD.

DATE 05/October /2015

APPROVE DY	VERIFIED BY	ISSUED BY

PRODUCT NAME	:	Digital Dust Indicator
MODEL NUMBER	:	LD−3B
SERIAL NUMBER	:	245834
CALIBRATION DATE	:	02−October−2015

Testing Category	Judging Standard	Judgment			
Function Test	Switch, Display, Wiring will nomally function	OK			
Sensitivity Calibration	Count is ±2% accurate to the master by the standard calibration particle	Reading of Master	Reading of this Instrument	Correction	Inspection chart
		797 CPM	792 CPM	−0.6 %	Reference Value(S)
Dust Concentration Measuring	Count is ±10% accurate to the master under the 3 different concentration.	2068 CPM	2040 CPM	−1.4 %	710 CPM
		1038 CPM	1042 CPM	+0.4 %	
		532 CPM	538 CPM	+1.1 %	Test atmosphere
Stability	The maximum value of the sensitivity adjustment scale setting value of the machine and the difference with minimum value are within 5% compared with the maximum value. (The measurement is repeated three times for one minute.)	OK			Temperature: 23 ℃ / Humidity: 60 %
Synthetic Judgment		Good			

TISCH Environmental

TISCH ENVIRONMENTAL, INC.
145 SOUTH MIAMI AVE
VILLAGE OF CLEVES, OH
45002
513.467.9000
877.263.7610 TOLL FREE
513.467.9009 FAX

ORIFICE TRANSFER STANDARD CERTIFICATION WORKSHEET TE-5025A

Date - Mar 14, 2016 Rootsmeter S/N 0438320 Ta (K) - 295
Operator Tisch Orifice I.D. - 2454 Pa (mm) - 745.49

PLATE OR Run #	VOLUME START (m3)	VOLUME STOP (m3)	DIFF VOLUME (m3)	DIFF TIME (min)	METER DIFF Hg (mm)	ORFICE DIFF H2O (in.)
1	NA	NA	1.00	1.4020	3.2	2.00
2	NA	NA	1.00	1.0060	6.4	4.00
3	NA	NA	1.00	0.9010	7.9	5.00
4	NA	NA	1.00	0.8590	8.8	5.50
5	NA	NA	1.00	0.7090	12.8	8.00

DATA TABULATION

Vstd	(x axis) Qstd	(y axis)
0.9866	0.7037	1.4078
0.9824	0.9765	1.9909
0.9803	1.0880	2.2259
0.9792	1.1399	2.3345
0.9738	1.3735	2.8155

Qstd slope (m) = 2.10326
intercept (b) = -0.06696
coefficient (r) = 0.99989

y axis = SQRT[H2O(Pa/760)(298/Ta)]

Va	(x axis) Qa	(y axis)
0.9957	0.7102	0.8896
0.9914	0.9855	1.2581
0.9893	1.0980	1.4066
0.9882	1.1504	1.4753
0.9828	1.3862	1.7792

Qa slope (m) = 1.31703
intercept (b) = -0.04232
coefficient (r) = 0.99989

y axis = SQRT[H2O(Ta/Pa)]

CALCULATIONS

Vstd = Diff. Vol[(Pa-Diff. Hg)/760](298/Ta)
Qstd = Vstd/Time

Va = Diff Vol [(Pa-Diff Hg)/Pa]
Qa = Va/Time

For subsequent flow rate calculations:

Qstd = 1/m{[SQRT(H2O(Pa/760)(298/Ta))]- b}
Qa = 1/m{[SQRT H2O(Ta/Pa)]- b}

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

Certificate of Calibration
校正證書

Certificate No. : C153930
證書編號

ITEM TESTED / 送檢項目 (Job No. / 序引編號 : IC15-1508) Date of Receipt / 收件日期 : 6 July 2015

Description / 儀器名稱 : Precision Integrating Sound Level Meter
Manufacturer / 製造商 : Rion
Model No. / 型號 : NL-18
Serial No. / 編號 : 00360030
Supplied By / 委託者 : Envirotech Services Co.
Shop 6, G/F., Casio Mansion, 209 Shaukeiwan Road,
Hong Kong

TEST CONDITIONS / 測試條件

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

TEST SPECIFICATIONS / 測試規範

Calibration check

DATE OF TEST / 測試日期 : 20 July 2015

TEST RESULTS / 測試結果

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

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

Tested By 測試 : H T Wong
Assistant Technical Officer

Certified By 核證 : K C Lee
Project Engineer

Date of Issue 簽發日期 : 22 July 2015

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

Certificate of Calibration
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Certificate No. : C153930
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1. The unit-under-test (UUT) was allowed to stabilize in the laboratory for over 12 hours, and switched on to warm up for over 10 minutes before the commencement of the test.

2. Self-calibration was performed before the test.

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

4. Test equipment :

Equipment ID	Description	Certificate No.
CL280	40 MHz Arbitrary Waveform Generator	C150014
CL281	Multifunction Acoustic Calibrator	DC130171

5. Test procedure : MA101N.

6. Results :

6.1 Sound Pressure Level

6.1.1 Reference Sound Pressure Level

UUT Setting				Applied Value		UUT Reading (dB)	IEC 60651 Type 1 Spec. (dB)
Range (dB)	Mode	Frequency Weighting	Time Weighting	Level (dB)	Freq. (kHz)		
50 - 110	LA	A	Fast	94.00	1	93.6	± 0.7

6.1.2 Linearity

UUT Setting				Applied Value		UUT Reading (dB)
Range (dB)	Mode	Frequency Weighting	Time Weighting	Level (dB)	Freq. (kHz)	
60 - 120	LA	A	Fast	94.00	1	93.6 (Ref.)
				104.00		103.6
				114.00		113.6

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

6.2 Time Weighting

6.2.1 Continuous Signal

UUT Setting				Applied Value		UUT Reading (dB)	IEC 60651 Type 1 Spec. (dB)
Range (dB)	Mode	Frequency Weighting	Time Weighting	Level (dB)	Freq. (kHz)		
50 - 110	LA	A	Fast	94.00	1	93.6	Ref.
			Slow			93.6	± 0.1

Sun Creation Engineering Limited - Calibration & Testing Laboratory
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6.2.2 Tone Burst Signal (2 kHz)

UUT Setting				Applied Value		UUT Reading (dB)	IEC 60651 Type 1 Spec. (dB)
Range (dB)	Mode	Frequency Weighting	Time Weighting	Level (dB)	Burst Duration		
50 -110	LA	A	Fast	106.00	Continuous	106.0	Ref.
	LAmx				200 ms	105.0	-1.0 ± 1.0
	LA		Slow		Continuous	106.0	Ref.
	LAmx				500 ms	102.4	-4.1 ± 1.0

6.3 Frequency Weighting

6.3.1 A-Weighting

UUT Setting				Applied Value		UUT Reading (dB)	IEC 60651 Type 1 Spec. (dB)
Range (dB)	Mode	Frequency Weighting	Time Weighting	Level (dB)	Freq.		
50 - 110	LA	A	Fast	94.00	31.5 Hz	53.9	-39.4 ± 1.5
					63 Hz	67.2	-26.2 ± 1.5
					125 Hz	77.2	-16.1 ± 1.0
					250 Hz	84.8	-8.6 ± 1.0
					500 Hz	90.3	-3.2 ± 1.0
					1 kHz	93.6	Ref.
					2 kHz	94.9	+1.2 ± 1.0
					4 kHz	94.7	+1.0 ± 1.0
					8 kHz	92.5	-1.1 (+1.5 ; -3.0)
					12.5 kHz	89.3	-4.3 (+3.0 ; -6.0)

6.3.2 C-Weighting

UUT Setting				Applied Value		UUT Reading (dB)	IEC 60651 Type 1 Spec. (dB)
Range (dB)	Mode	Frequency Weighting	Time Weighting	Level (dB)	Freq.		
50 - 110	LC	C	Fast	94.00	31.5 Hz	90.5	-3.0 ± 1.5
					63 Hz	92.8	-0.8 ± 1.5
					125 Hz	93.5	-0.2 ± 1.0
					250 Hz	93.6	0.0 ± 1.0
					500 Hz	93.6	0.0 ± 1.0
					1 kHz	93.6	Ref.
					2 kHz	93.5	-0.2 ± 1.0
					4 kHz	92.8	-0.8 ± 1.0
					8 kHz	90.6	-3.0 (+1.5 ; -3.0)
					12.5 kHz	87.3	-6.2 (+3.0 ; -6.0)

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6.4 Time Averaging

UUT Setting				Applied Value					UUT Reading (dB)	IEC 60804 Type 1 Spec. (dB)
Range (dB)	Mode	Frequency Weighting	Integrating Time	Freq. (kHz)	Burst Duration (ms)	Burst Duty Factor	Burst Level (dB)	Equivalent Level (dB)		
50 - 110	LAeq	A	10 sec.	4	1	1/10	110	100	100.1	± 0.5
						$1/10^2$		90	90.1	± 0.5
			60 sec.			$1/10^3$		80	79.6	± 1.0
			5 min.			$1/10^4$		70	69.8	± 1.0

Remarks : - UUT Microphone Model No. : UC-53A & S/N : 307435

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

- Uncertainties of Applied Value :

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

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

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

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

Certificate of Calibration
校正證書

Certificate No. : C153241
證書編號

ITEM TESTED / 送檢項目 (Job No. / 序引編號 : IC15-1330) Date of Receipt / 收件日期 : 10 June 2015

Description / 儀器名稱 : Sound Level Calibrator
Manufacturer / 製造商 : Rion
Model No. / 型號 : NC-73
Serial No. / 編號 : 10997142
Supplied By / 委託者 : Envirotech Services Co.
Shop 6, G/F., Casio Mansion, 209 Shaukeiwan Road,
Hong Kong

TEST CONDITIONS / 測試條件

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

TEST SPECIFICATIONS / 測試規範

Calibration check

DATE OF TEST / 測試日期 : 14 June 2015

TEST RESULTS / 測試結果

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

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

Tested By 測試 : K C Lee
Project Engineer

Certified By 核證 : H C Chan
Engineer

Date of Issue 簽發日期 : 16 June 2015

Sun Creation Engineering Limited Calibration & Testing Laboratory
c/o 4/F, Tsing Shan Wan Exchange Building, 1 Hing On Lane, Tuen Mun, New Territories, Hong Kong
輝創工程有限公司 - 校正及檢測實驗所
c/o 香港新界屯門興安里一號青山灣機樓四樓
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輝創工程有限公司
Sun Creation Engineering Limited
Calibration and Testing Laboratory

Certificate of Calibration
校正證書

Certificate No. : C153241
證書編號

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

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

3. Test equipment :

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

4. Test procedure : MA100N.

5. Results :

5.1 Sound Level Accuracy

UUT Nominal Value	Measured Value (dB)	Mfr's Spec. (dB)	Uncertainty of Measured Value (dB)
94 dB, 1 kHz	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	0.986	1 kHz ± 2 %	± 1

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

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

Sun Creation Engineering Limited Calibration & Testing Laboratory
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輝創工程有限公司 校正及檢測實驗所
c/o 香港新界屯門興安里一號青山灣機樓四樓
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輝創工程有限公司
Sun Creation Engineering Limited
Calibration and Testing Laboratory

Certificate of Calibration
校正證書

Certificate No. : C163248
證書編號

ITEM TESTED / 送檢項目 (Job No. / 序引編號 : IC16-1307) Date of Receipt / 收件日期 : 10 June 2016

Description / 儀器名稱 : Sound Level Calibrator
Manufacturer / 製造商 : Rion
Model No. / 型號 : NC-73
Serial No. / 編號 : 10997142
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 : (55 ± 20)%
Line Voltage / 電壓 : ---

TEST SPECIFICATIONS / 測試規範

Calibration check

DATE OF TEST / 測試日期 : 15 June 2016

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 : H T Wong, Technical Officer

Certified By 核證 : K C Lee, Project Engineer

Date of Issue 簽發日期 : 17 June 2016

Sun Creation Engineering Limited – Calibration & Testing Laboratory
c/o 4/F, Tsing Shan Wan Exchange Building, 1 Hing On Lane, Tuen Mun, New Territories, Hong Kong
輝創工程有限公司 – 校正及檢測實驗所
c/o 香港新界屯門興安里一號青山灣機樓四樓
Tel/電話: 2927 2606 Fax/傳真: 2744 8986 E-mail/電郵: callab@suncreation.com Website/網址: www.suncreation.com

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

Certificate of Calibration
校正證書

Certificate No. : C163248
證書編號

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

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

3. Test equipment :

Equipment ID	Description	Certificate No.
CL130	Universal Counter	C153519
CL281	Multifunction Acoustic Calibrator	PA160023
TST150A	Measuring Amplifier	C161175

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	0.985	1 kHz ± 2 %	± 1

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

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

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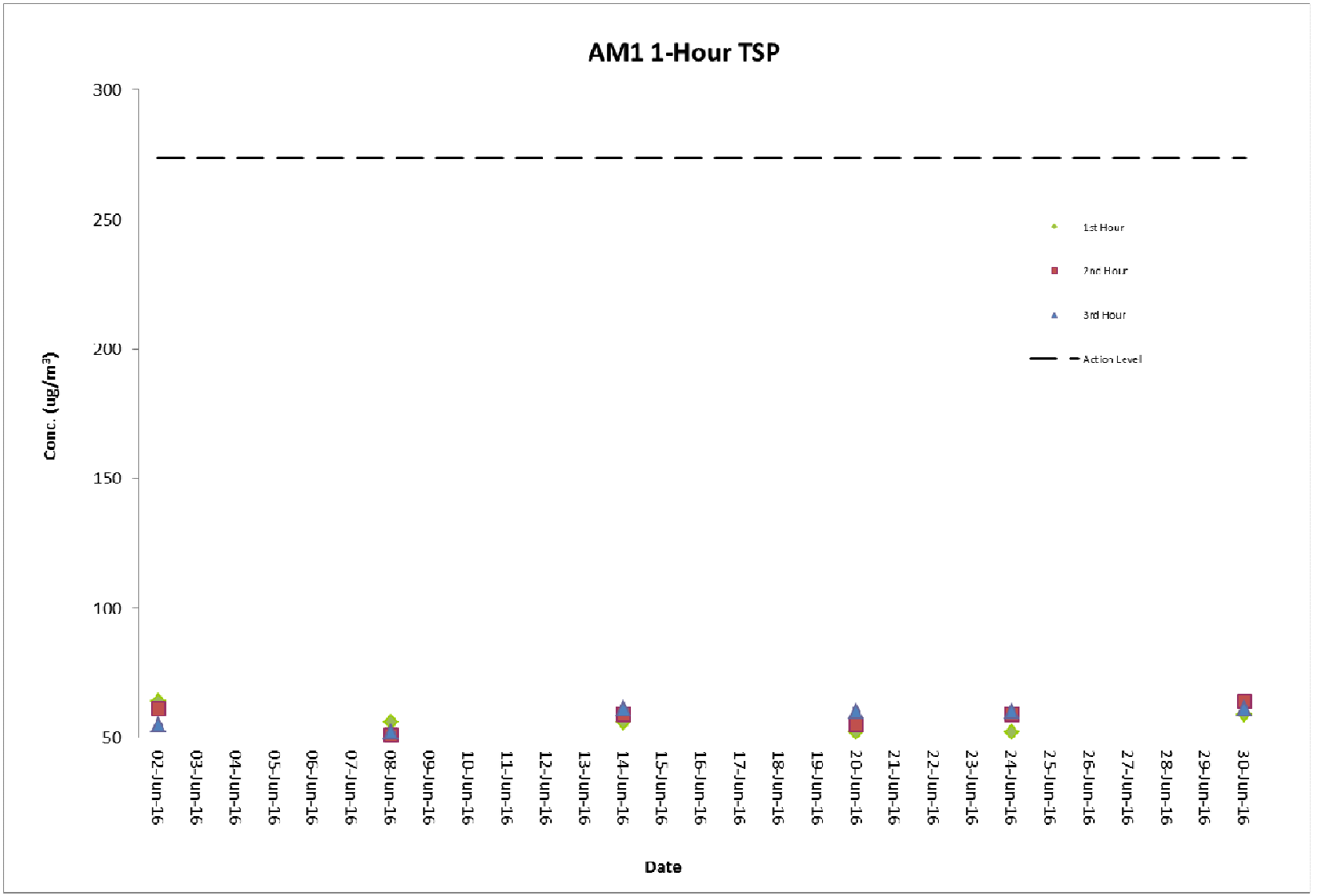
Appendix G. Graphical Plots of the Monitoring Results

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

Date	Weather Condition	Time	Conc. (μg/m^3)			Action Level (μg/m^3)	Limit Level (μg/m^3)
			1st Hour	2nd Hour	3rd Hour		
02-Jun-16	Sunny	10:38 - 16:00	64	61	55	273.7	500
08-Jun-16	Cloudy	10:30 - 16:00	56	51	52	273.7	500
14-Jun-16	Cloudy	10:30 - 16:00	56	59	61	273.7	500
20-Jun-16	Sunny	10:40 - 16:00	52	55	60	273.7	500
24-Jun-16	Sunny	8:15 - 11:15	52	59	60	273.7	500
30-Jun-16	Fine	10:30 - 16:00	59	64	61	273.7	500

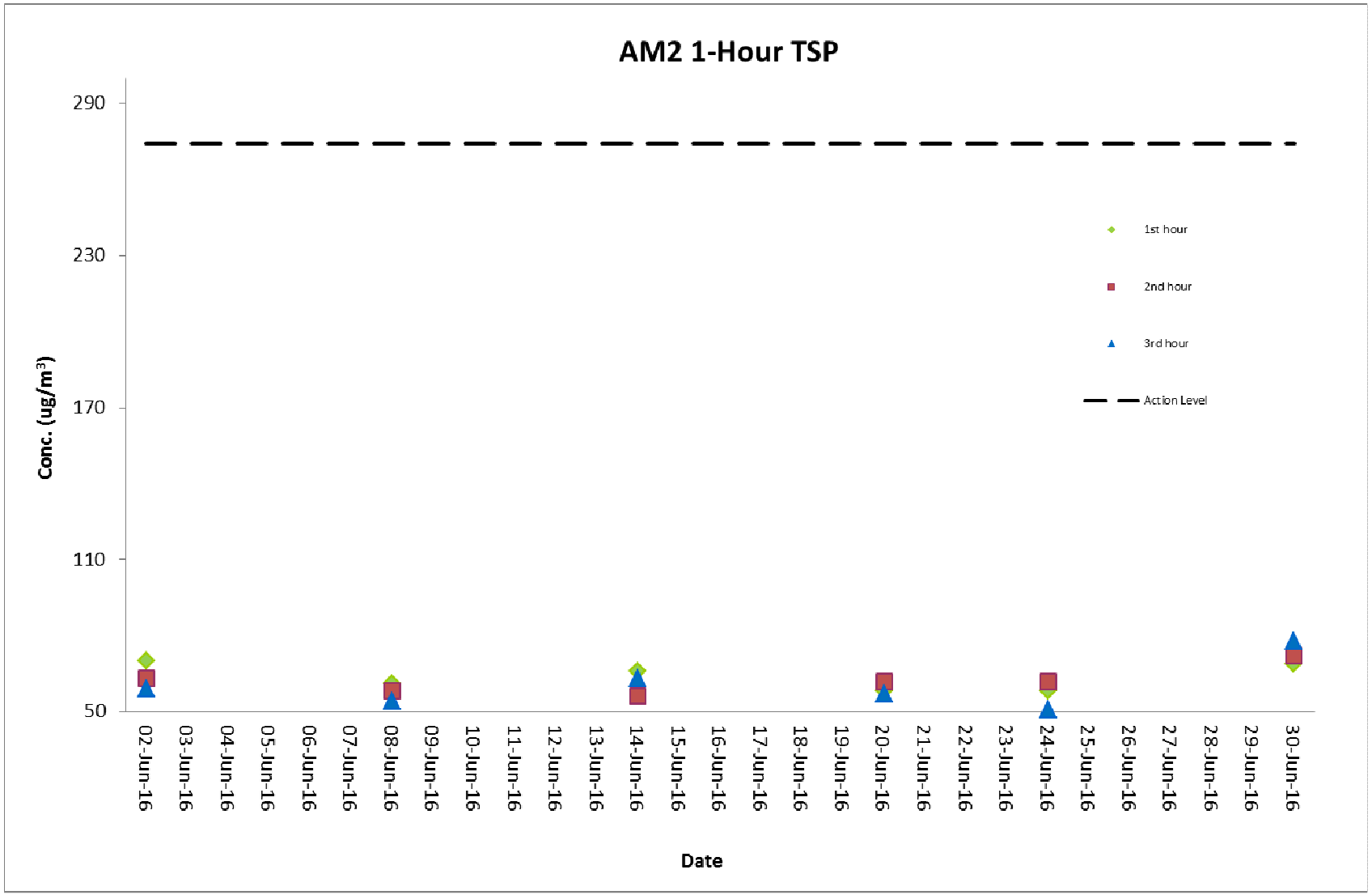
Graphical Presentation of Air Quality Monitoring Result at Station AM1 (1-hour TSP)



Air Quality Monitoring Result at Station AM2 (1-hour TSP)

Date	Weather Condition	Time	Conc. (μg/m^3)			Action Level (μg/m^3)	Limit Level (μg/m^3)
			1st Hour	2nd Hour	3rd Hour		
02-Jun-16	Sunny	10:48 - 16:10	70	63	59	274.2	500
08-Jun-16	Cloudy	10:37 - 16:10	61	58	54	274.2	500
14-Jun-16	Cloudy	10:42 - 16:10	66	56	63	274.2	500
20-Jun-16	Sunny	10:50 - 16:10	58	62	57	274.2	500
24-Jun-16	Sunny	8:27 - 11:27	58	62	51	274.2	500
30-Jun-16	Fine	10:40 - 16:10	69	72	78	274.2	500

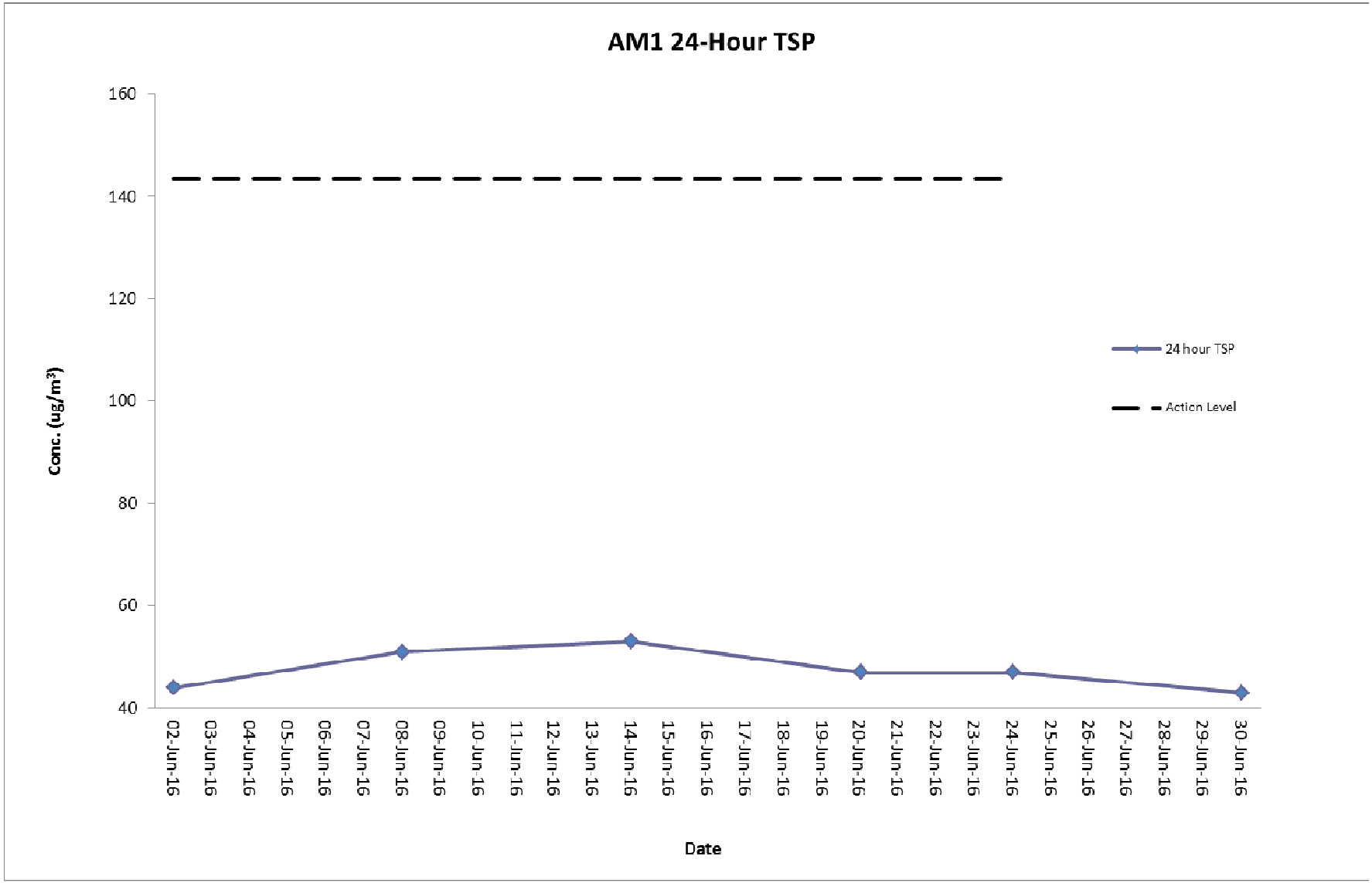
Graphical Presentation of Air Quality Monitoring Result at Station AM2 (1-hour TSP)



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

Start		Finish		Filter Weight (g)		Elapsed Time Reading		Sampling Time (hrs)	Flow Rate (m^3/min)			Conc. ($\mu g/m^3$)	Weather Condition	Action Level	Limit Level
Date	Time	Date	Time	Initial	Final	Initial	Final		Initial	Final	Average				
02-Jun-16	10:35	03-Jun-16	10:35	2.7874	2.8642	19560.38	19584.38	24	1.2	1.2	1.2	44	Sunny	143.6	260
08-Jun-16	10:32	09-Jun-16	10:32	2.8129	2.9009	19584.38	19608.38	24	1.2	1.2	1.2	51	Cloudy	143.6	260
14-Jun-16	10:32	15-Jun-16	10:32	2.8003	2.8911	19608.38	19632.38	24	1.2	1.2	1.2	53	Cloudy	143.6	260
20-Jun-16	10:38	21-Jun-16	10:38	2.8135	2.8972	19632.38	19656.38	24	1.24	1.24	1.24	47	Sunny	143.6	260
24-Jun-16	08:17	25-Jun-16	08:17	2.8138	2.8972	19656.38	19680.38	24	1.24	1.24	1.24	47	Sunny	143.6	260
30-Jun-16	10:32	01-Jul-16	10:32	2.7961	2.8727	19680.38	19704.38	24	1.24	1.24	1.24	43	Fine	143.6	260

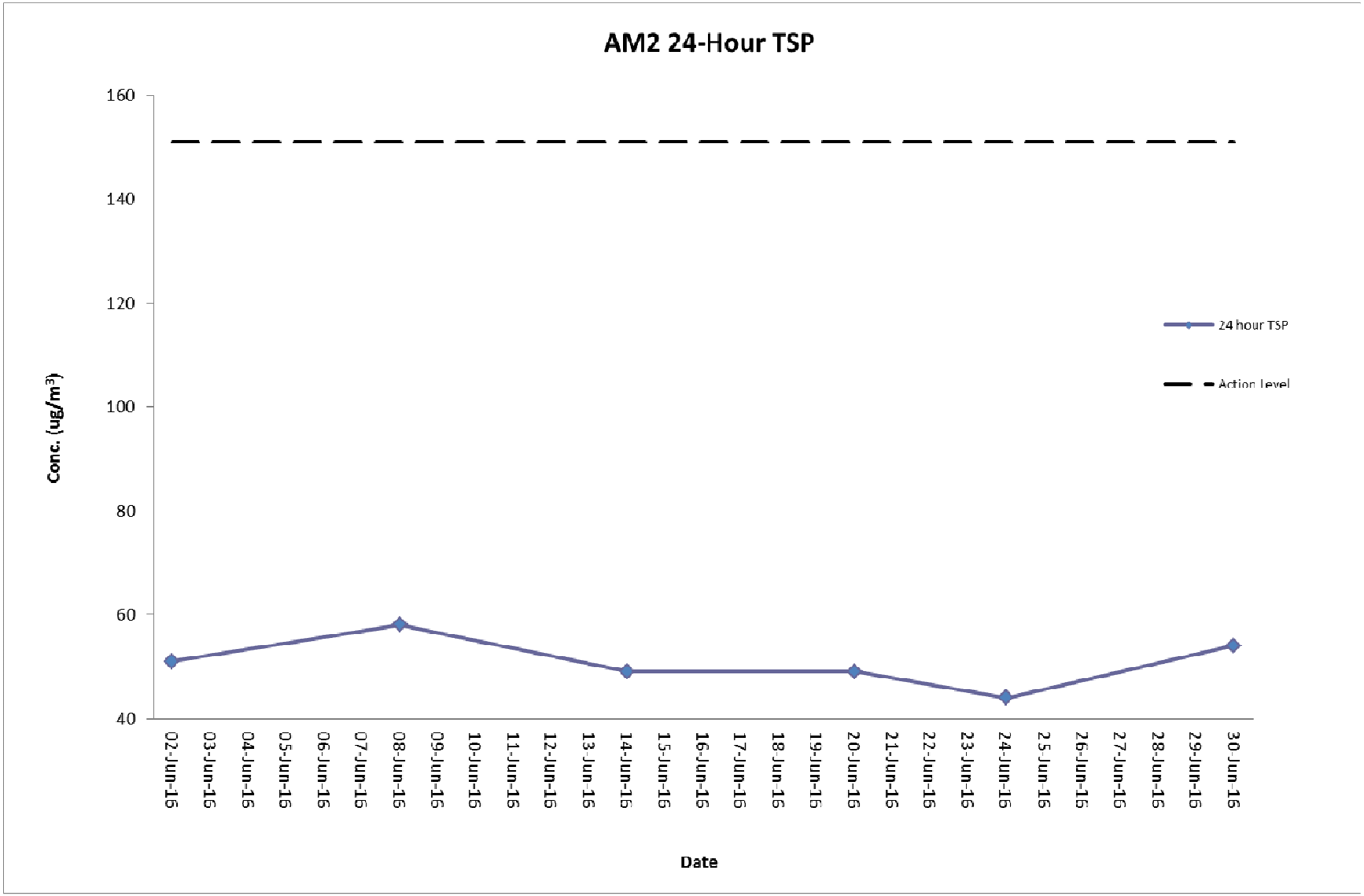
Graphical Presentation of Air Quality Monitoring Result at Station AM1 (24-hour TSP)



Air Quality Monitoring Result at Station AM2 (24-hour TSP)

Start		Finish		Filter Weight (g)		Elapsed Time Reading		Sampling Time (hrs)	Flow Rate (m^3/min)			Conc. ($\mu g/m^3$)	Weather Condition	Action Level	Limit Level
Date	Time	Date	Time	Initial	Final	Initial	Final		Initial	Final	Average				
02-Jun-16	10:50	03-Jun-16	10:50	2.7965	2.8891	15263.59	15287.59	24	1.25	1.25	1.25	51	Sunny	151.1	260
08-Jun-16	10:40	09-Jun-16	10:40	2.7756	2.8802	15287.59	15311.59	24	1.25	1.25	1.25	58	Cloudy	151.1	260
14-Jun-16	10:44	15-Jun-16	10:44	2.8118	2.9006	15311.59	15335.59	24	1.25	1.25	1.25	49	Cloudy	151.1	260
20-Jun-16	10:51	21-Jun-16	10:51	2.82	2.9112	15335.59	15359.59	24	1.28	1.28	1.28	49	Sunny	151.1	260
24-Jun-16	08:30	25-Jun-16	08:30	2.8073	2.8883	15359.59	15383.59	24	1.28	1.28	1.28	44	Sunny	151.1	260
30-Jun-16	10:42	01-Jul-16	10:42	2.8178	2.9179	15383.59	15407.59	24	1.28	1.28	1.28	54	Fine	151.1	260

Graphical Presentation of Air Quality Monitoring Result at Station AM2 (24-hour TSP)



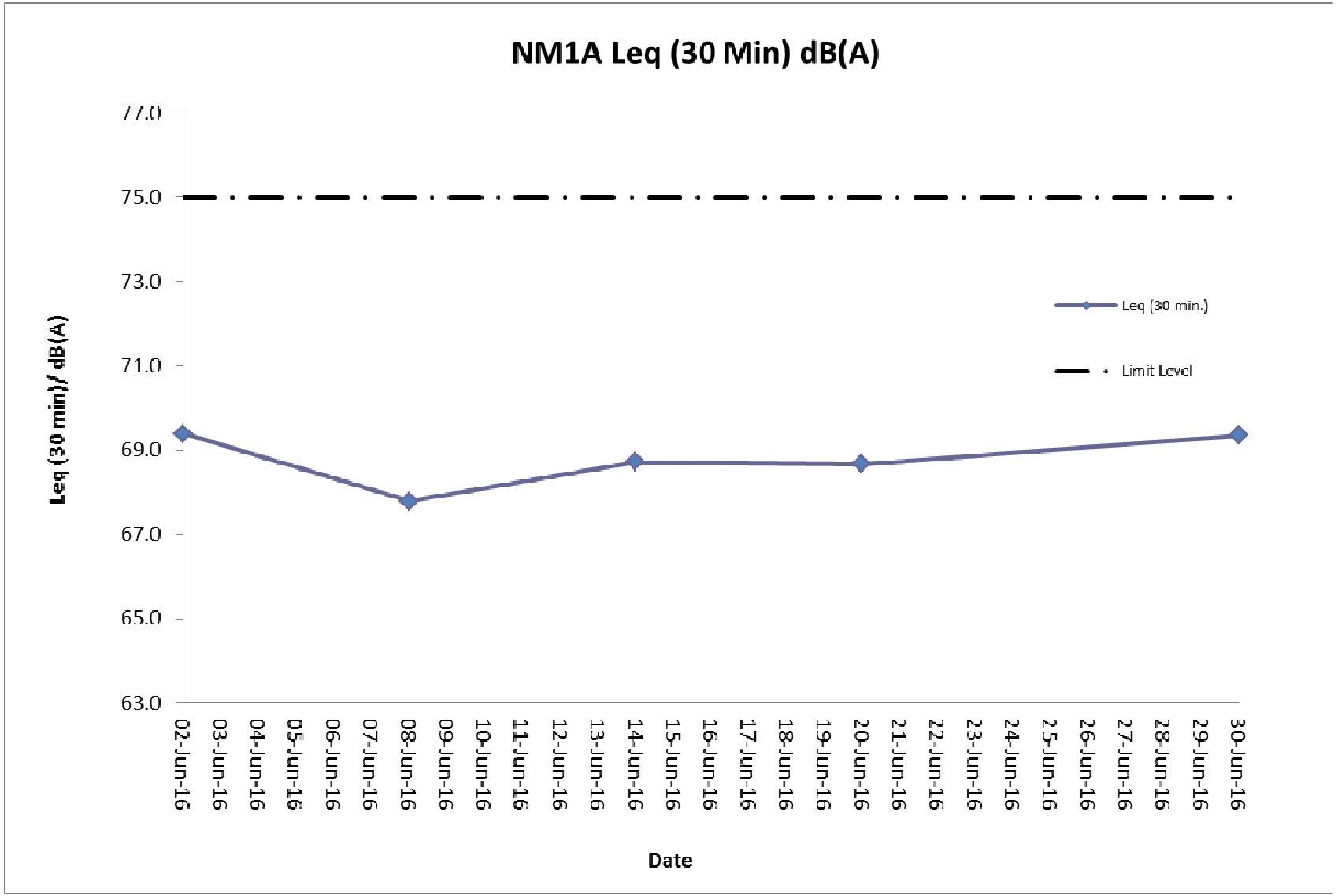
Noise Monitoring Result at Station NM1A

Date	Time	Measured L_{10} dB(A)	Measured L_{90} dB(A)	L_{eq} (30 min.) dB(A)
02-Jun-16	14:00	67.1	63.7	69.4
02-Jun-16	14:05	66.8	62.9	
02-Jun-16	14:10	68.9	64.1	
02-Jun-16	14:15	69.0	65.0	
02-Jun-16	14:20	69.9	65.5	
02-Jun-16	14:25	68.0	63.7	
08-Jun-16	14:00	66.0	61.1	67.8
08-Jun-16	14:05	66.4	62.2	
08-Jun-16	14:10	66.9	62.9	
08-Jun-16	14:15	67.2	63.1	
08-Jun-16	14:20	67.7	63.4	
08-Jun-16	14:25	67.1	62.8	
14-Jun-16	14:00	66.0	62.0	68.7
14-Jun-16	14:05	68.0	64.1	
14-Jun-16	14:10	68.7	64.7	
14-Jun-16	14:15	67.9	63.9	
14-Jun-16	14:20	66.8	62.8	
14-Jun-16	14:25	68.0	64.7	
20-Jun-16	14:00	67.0	63.1	68.7
20-Jun-16	14:05	67.0	62.7	
20-Jun-16	14:10	68.2	64.0	
20-Jun-16	14:15	67.7	64.2	
20-Jun-16	14:20	68.0	63.9	
20-Jun-16	14:25	67.9	63.6	
30-Jun-16	14:00	68.0	64.1	69.4
30-Jun-16	14:05	67.9	63.9	
30-Jun-16	14:10	68.4	64.7	
30-Jun-16	14:15	67.7	63.8	
30-Jun-16	14:20	68.7	64.9	
30-Jun-16	14:25	68.8	64.7	

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

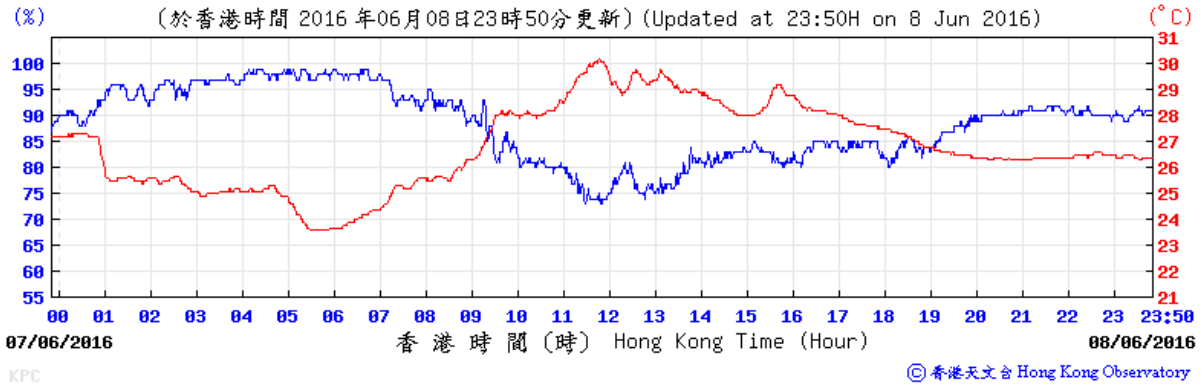


Appendix H. Meteorological Data Extracted from Hong Kong Observatory

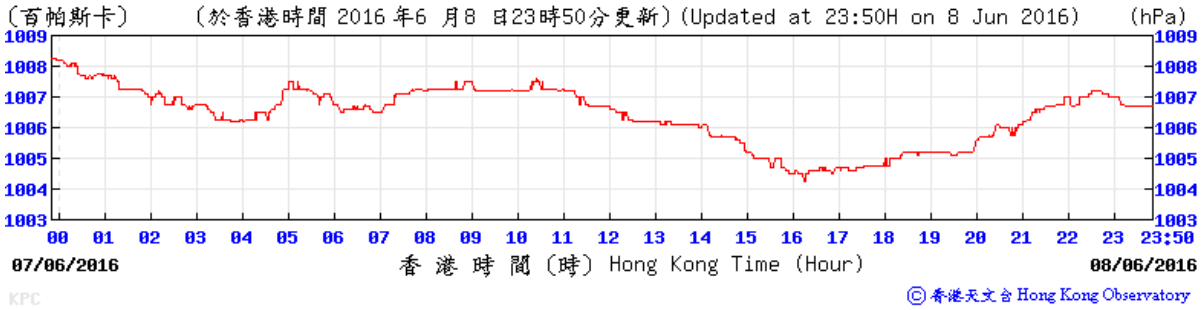
Table H-1: Extract of Meteorological Observations for King's Park Automatic Weather Station, June 2016

Meteorological data for 2/6/2016 is not available.

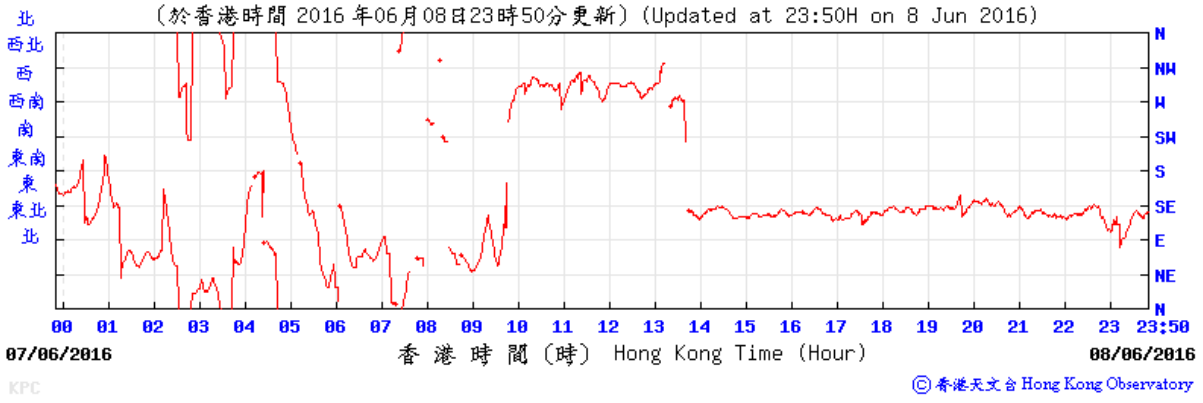
Temperature/Humidity:



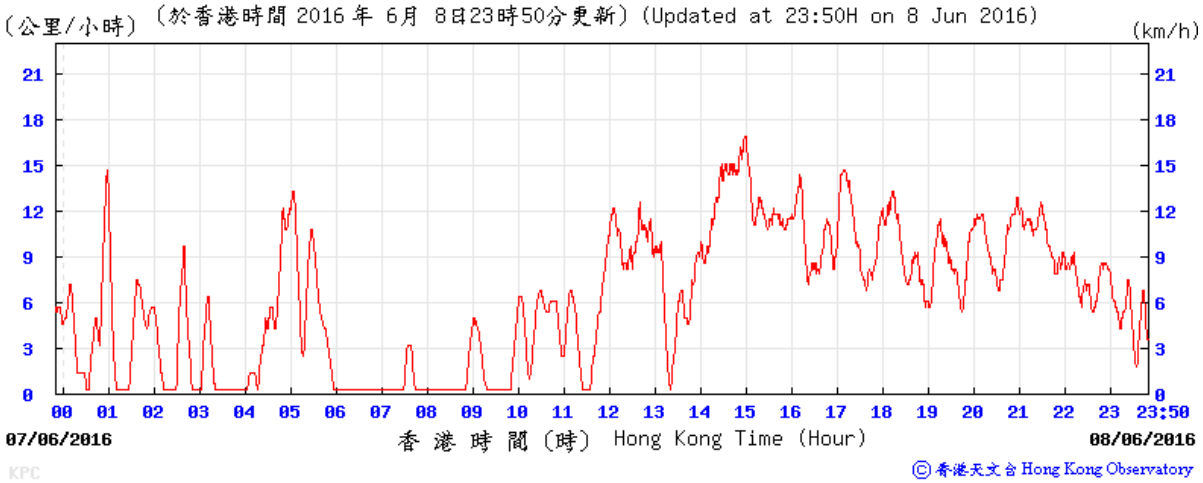
Pressure:



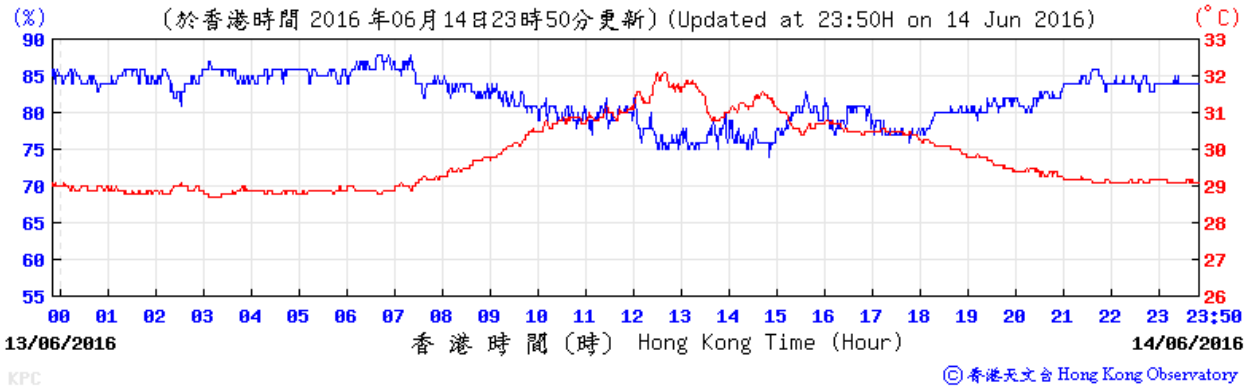
Wind Direction:



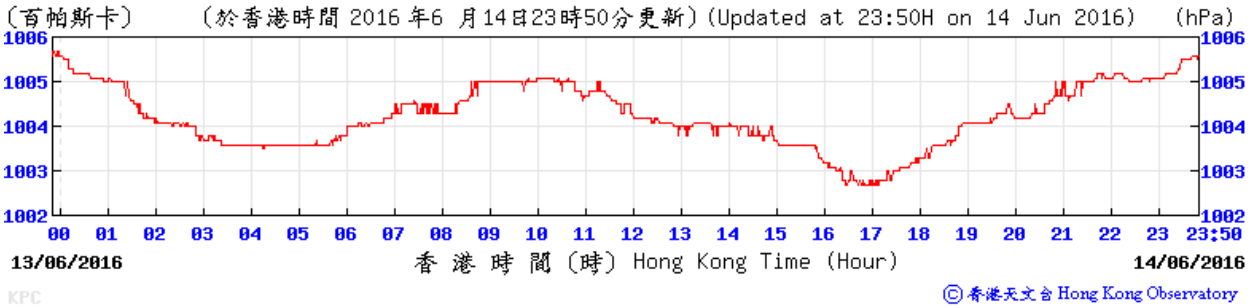
Wind Speed:



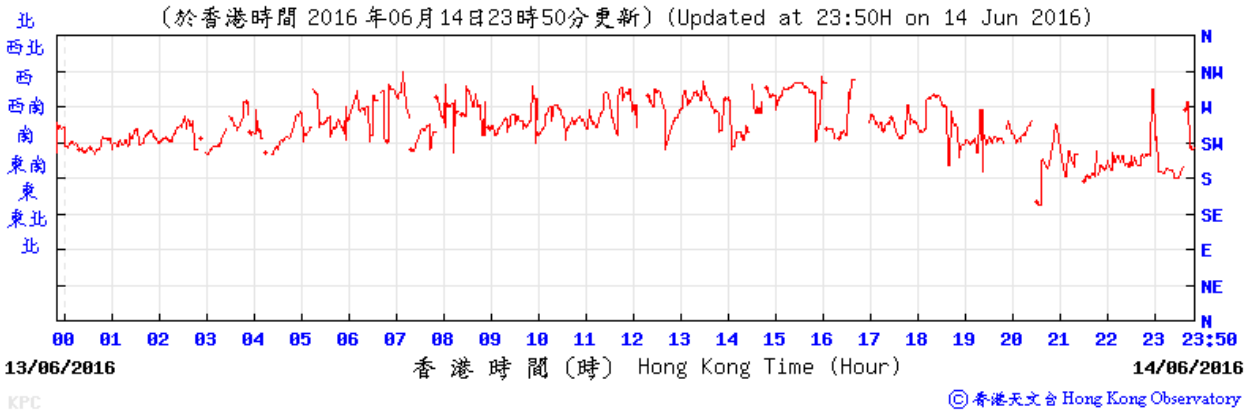
Temperature/Humidity:



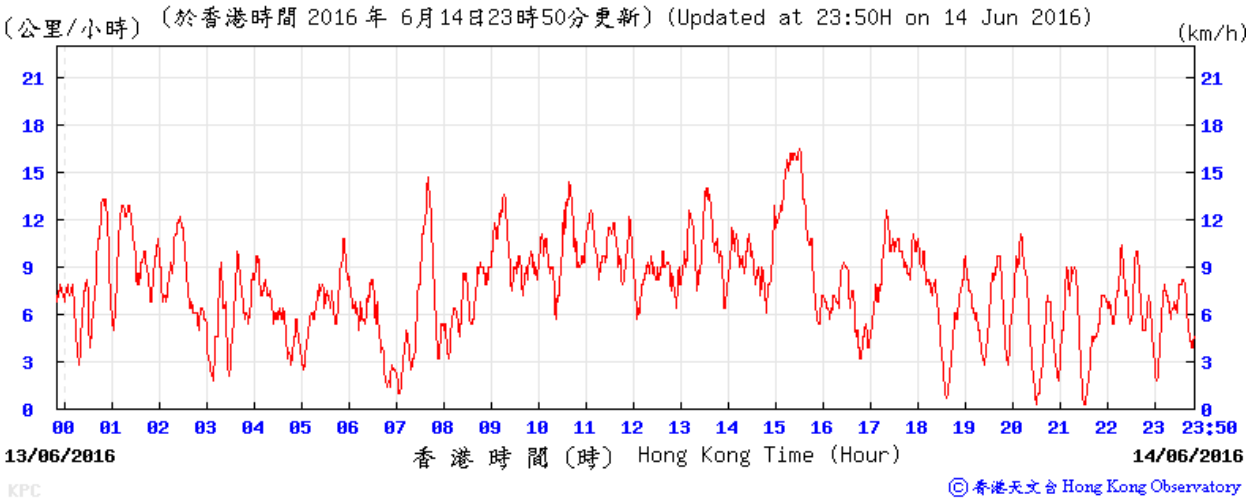
Pressure:



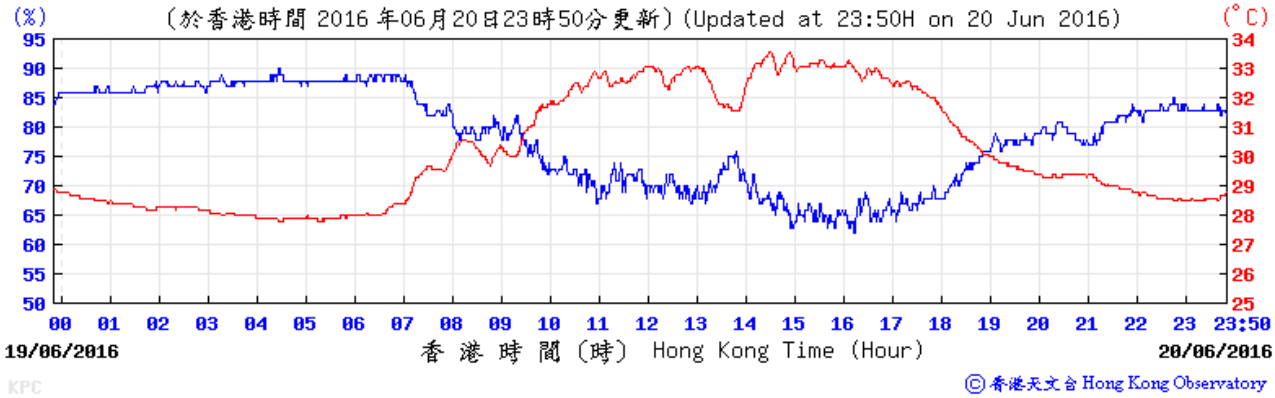
Wind Direction:



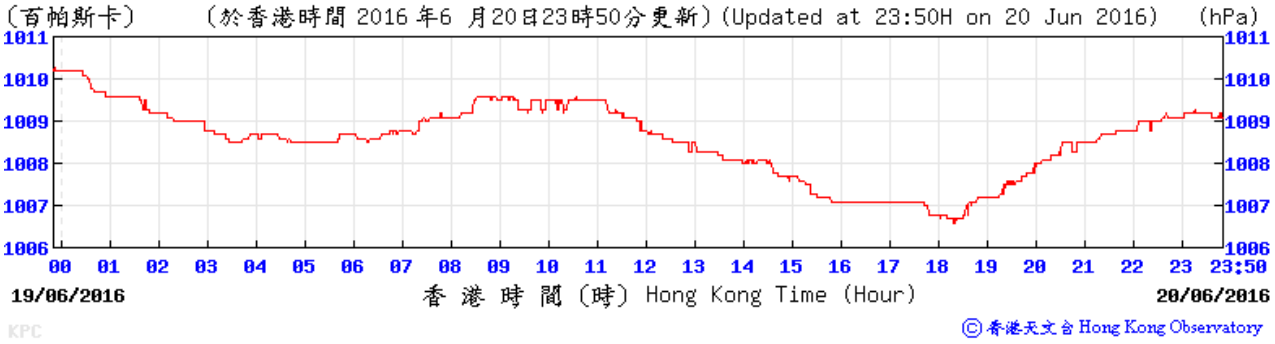
Wind Speed:



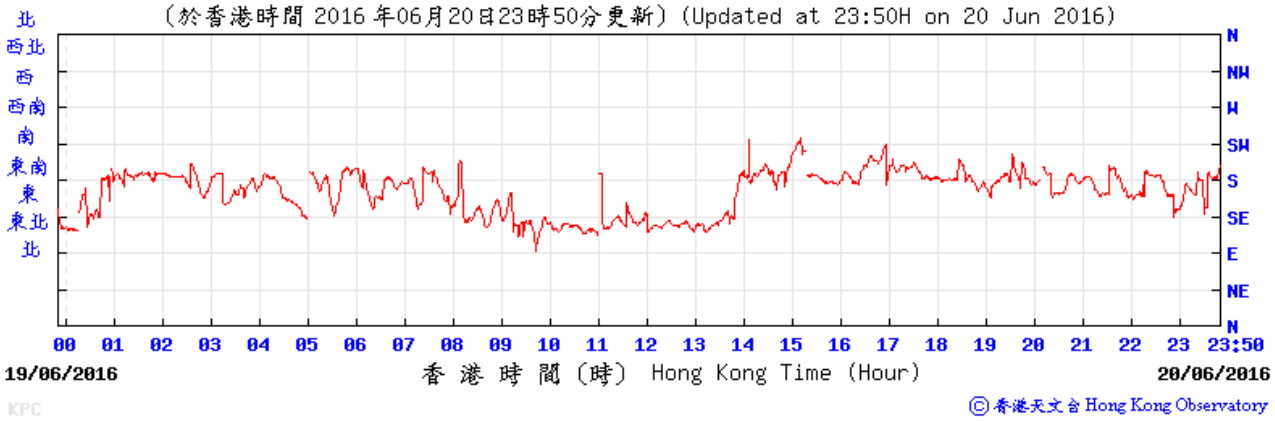
Temperature/Humidity:



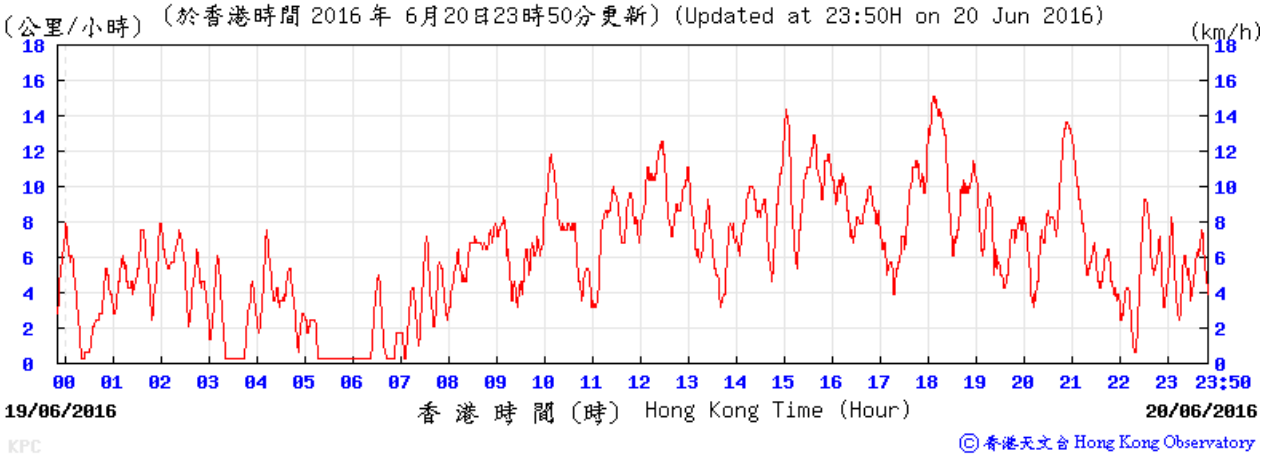
Pressure:



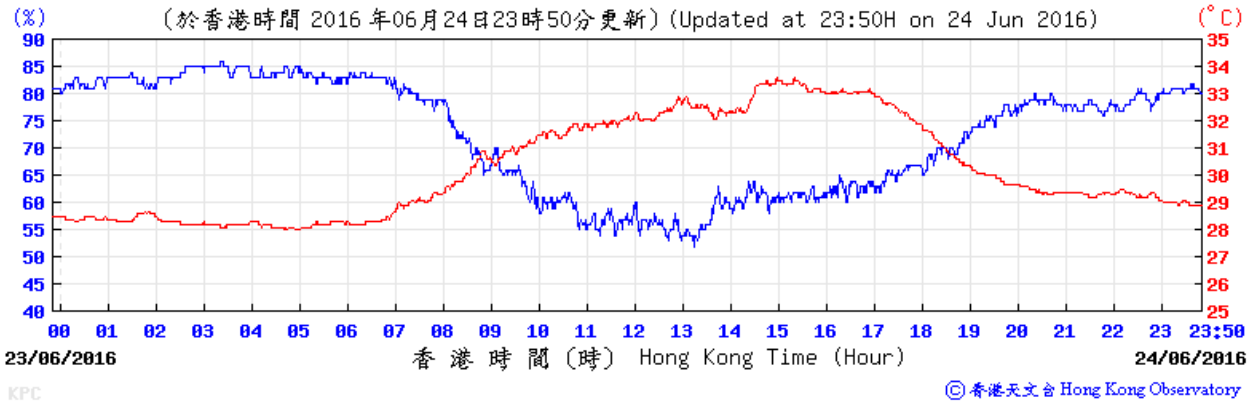
Wind Direction:



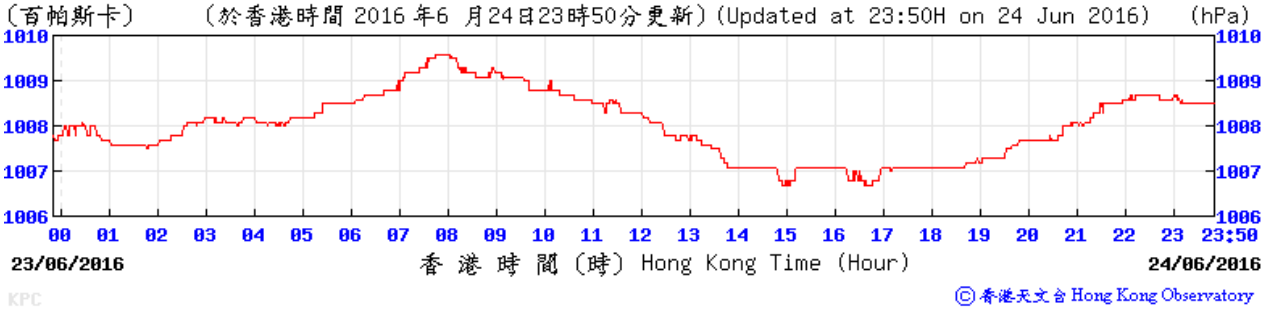
Wind Speed:



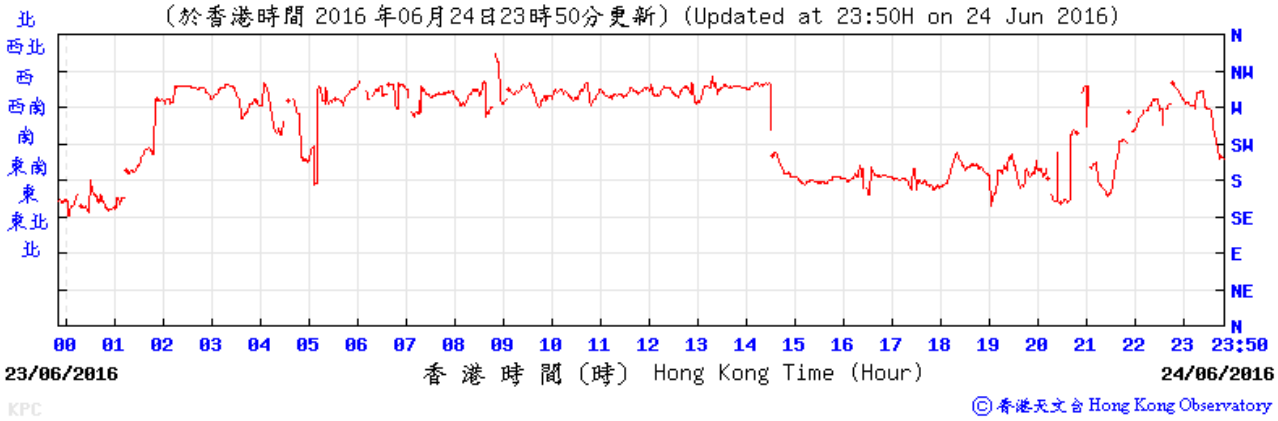
Temperature/Humidity:



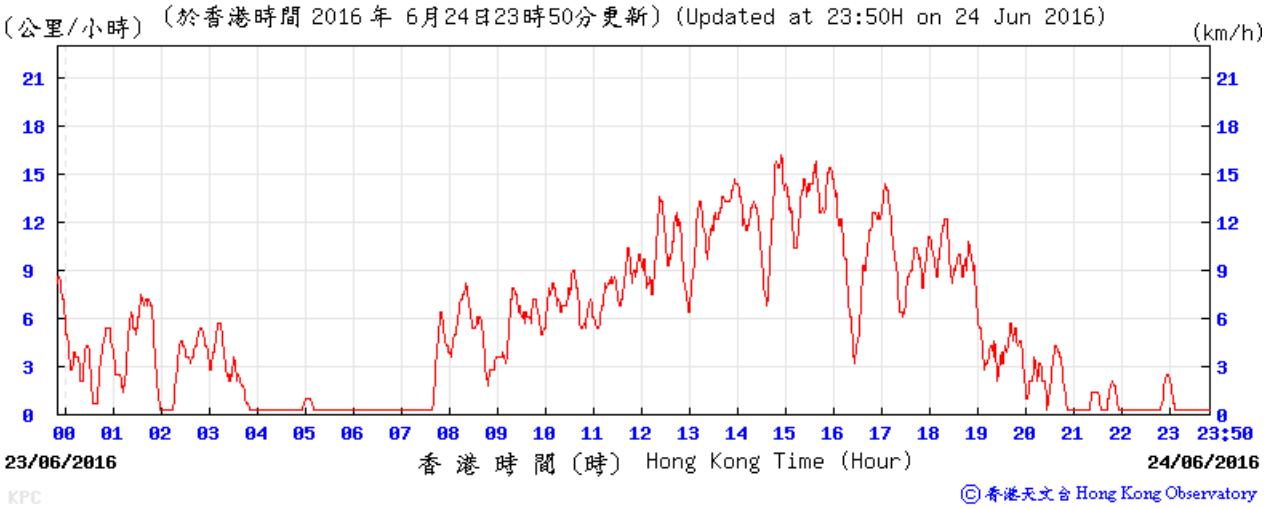
Pressure:



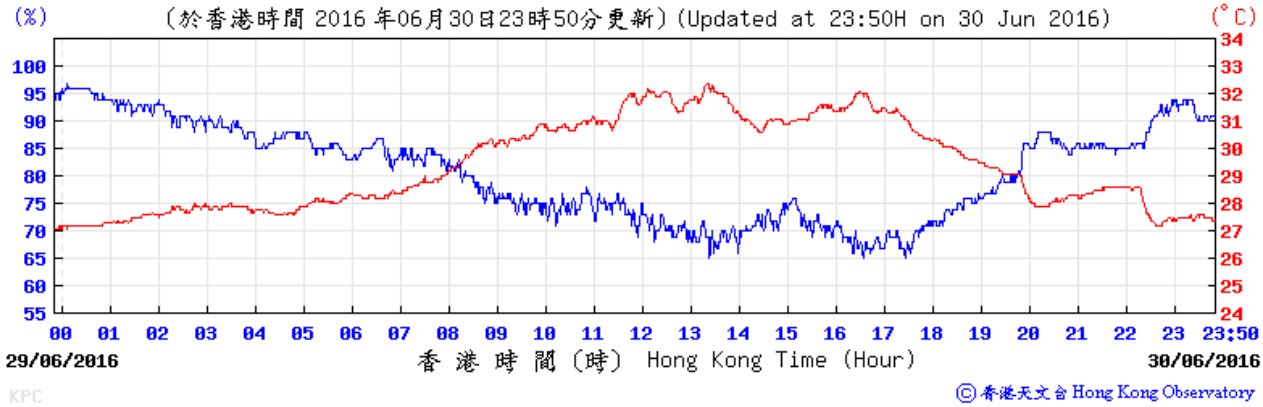
Wind Direction:



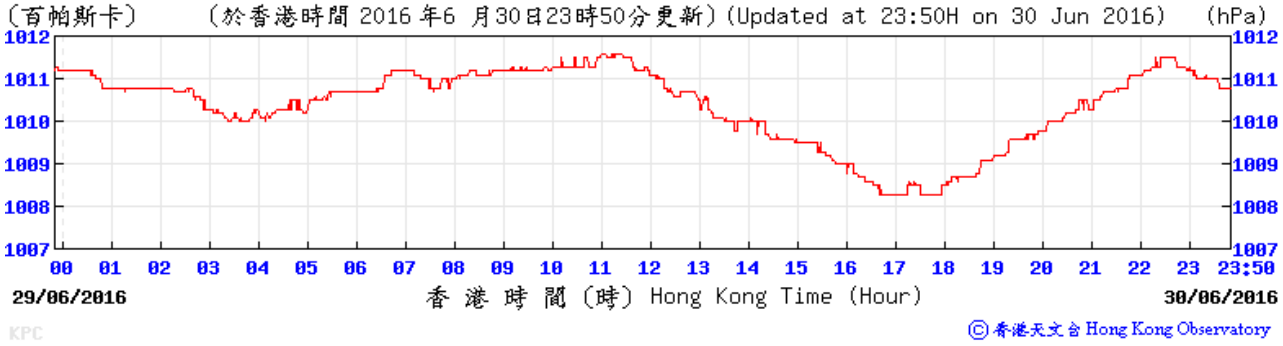
Wind Speed:



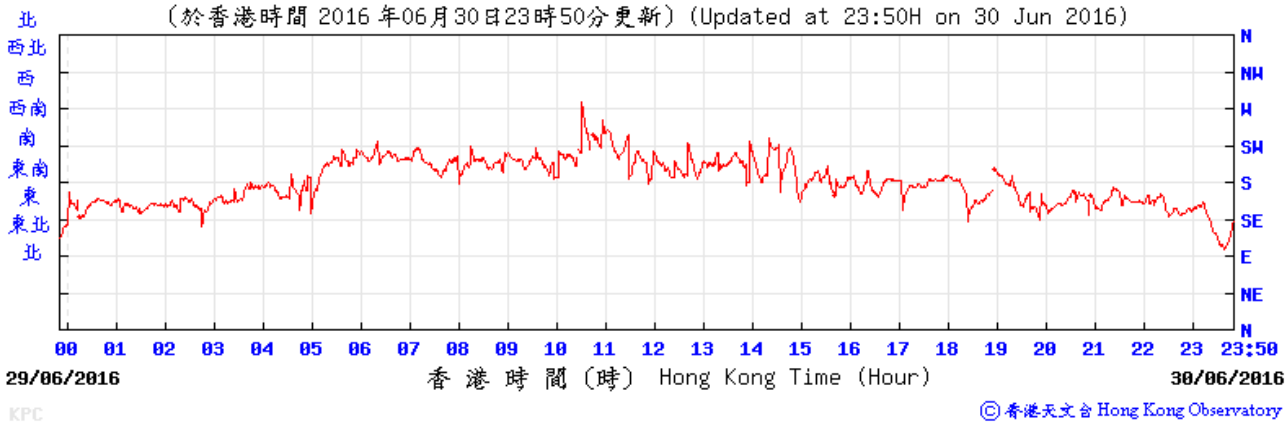
Temperature/Humidity:



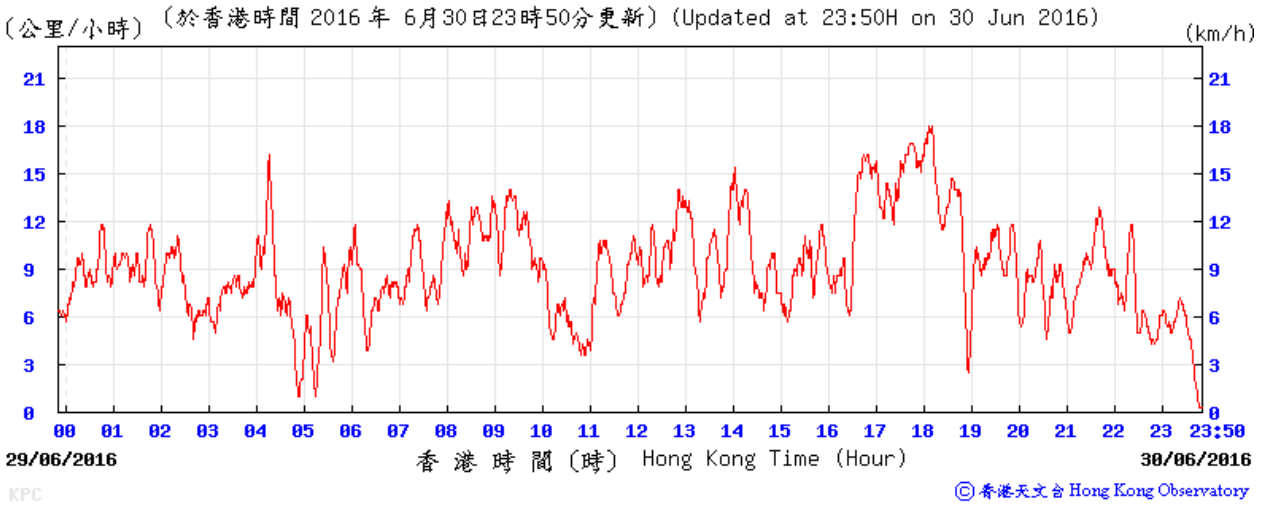
Pressure:



Wind Direction:



Wind Speed:



Appendix 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 Facilty	Imported Fill	Metals	Paper/ Cardboard Packaging	Plastics	Wood/ Timber	Chemical Waste	Others, e.g. General Refuse
	(in ton)	(in ton)	(in ton)	(in ton)	(in ton)	(in ton)	(in ton)	(in ton)	(in ton)	(in ton)	(in ton)	(in ton)	(in ton)
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													
Aug													
Sep													
Oct													
Nov													
Dec													
Sub-total (2016)	101522.8	0.0	22576.0	75520.0	3426.8	0.0	0.0	302.2	0.6	0.0	76.0	0.0	239.6
Total	177783.1	0.0	22576.0	113381.4	41825.7	0.0	0.0	404.7	0.6	0.0	76.0	1.0	373.2

Note:

-23.42, 184.24 ton and 552.42 ton of inert C&D material were disposed of as public fill to Chai Wan Public Fill Barging Point, Tuen Mun Area 38 and Tseung Kwan O Area 137 Public Fill respectively in the reporting month.

-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.

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 Facilty	Imported Fill	Metals	Paper/ Cardboard Packaging	Plastics	Wood/ Timber	Chemical Waste	Others, e.g. General Refuse
	(in ton)	(in ton)	(in ton)	(in ton)	(in ton)	(in ton)	(in ton)	(in ton)	(in ton)	(in ton)	(in ton)	(in ton)	(in ton)
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	0.1	0.0	0.0	0.5	13.5
Jul	0.0												
Aug	0.0												
Sep	0.0												
Oct	0.0												
Nov	0.0												
Dec	0.0												
Sub-total (2016)	32422.2	0.0	0.0	0.0	32422.2	0.0	0.0	85.8	0.2	0.0	0.0	1.3	123.8
2017													
Jan	0.0												
Feb	0.0												
Mar	0.0												
Apr	0.0												
May	0.0												
Jun	0.0												
Sub-total (2017)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total	32422.2	0.0	0.0	0.0	32422.2	0.0	0.0	85.8	0.2	0.0	0.0	1.3	123.8

Note:
-636.1 ton and 7964.7 ton of inert C&D material were disposed of as public fill to Tuen Mun Area 38 and Tseung Kwan O Area 137 respectively in the reporting month.

Appendix 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	**General Dust Control Measures** 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)	Rem	Rem/Obs
2.1 & 10.3.1	**Best Practice For Dust Control** 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:		
	Good Site Management		
	▪ 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.	✓	✓
	Disturbed Parts of the Roads		
	▪ 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.	✓	✓
	Exposed Earth		
	▪ 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.	N/A	N/A
	Loading, Unloading or Transfer of Dusty Materials		
	▪ All dusty materials should be sprayed with water immediately prior to any loading or transfer operation	✓	✓

EM&A Ref.	Recommendation Measures	Implementation Stage	
		M+ Museum	Lyric Theatre Complex
	so as to keep the dusty material wet.		
	Debris Handling		
	▪ Any debris should be covered entirely by impervious sheeting or stored in a debris collection area sheltered on the top and the three sides.	✓	✓
	▪ Before debris is dumped into a chute, water should be sprayed so that it remains wet when it is dumped.	✓	✓
	Transport of Dusty Materials		
	▪ 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.	✓	✓
	Wheel washing		
	▪ 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.	✓	✓
	Use of vehicles		
	▪ 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.	✓	✓
	▪ Immediately before leaving the construction site, every vehicle should be washed to remove any dusty materials from its body and wheels.	✓	✓
	▪ 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.	✓	✓
	Site hoarding		
	▪ 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	**Best Practicable Means for Cement Works (Concrete Batching Plant)** 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:		
	Exhaust from Dust Arrestment Plant		
	▪ Wherever possible the final discharge point from particulate matter arrestment plant, where is not	✓	✓

EM&A Ref.	Recommendation Measures	Implementation Stage	
		M+ Museum	Lyric Theatre Complex
	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		
	▪ All emissions to air, other than steam or water vapour, shall be colourless and free from persistent mist or smoke	✓	✓
	Engineering Design/Technical Requirements		
	▪ 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	✓	✓
-	**Non-Road Mobile Machinery (NRMM):**		
	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.	✓	✓
Noise Impact (Construction)			
3.1 & 10.4.1	**Good Site Practice** 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:		
	▪ 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.	✓	Obs
3.1 & 10.4.1	**Adoption of Quieter PME** 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	N/A	N/A

EM&A Ref.	Recommendation Measures	Implementation Stage	
		M+ Museum	Lyric Theatre Complex
	should be noted that the silenced PME selected for assessment can be found in Hong Kong.		
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.	✓	✓
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.	Obs	✓
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:		
	▪ 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;	Obs	Obs
	▪ 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.	✓	Obs

EM&A Ref.	Recommendation Measures	Implementation Stage	
		M+ Museum	Lyric Theatre Complex
	▪ All drainage facilities and erosion and sediment control structures should be regularly inspected and maintained to ensure proper and efficient operation at all times and particularly 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.	Rem/ Obs	✓
	▪ 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.	✓	✓
	▪ 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.	Obs	✓
	▪ 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.	Obs	✓
	▪ 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.	✓	✓
	▪ 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.	✓	✓
	▪ 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:		
	▪ 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		

EM&A Ref.	Recommendation Measures	Implementation Stage	
		M+ Museum	Lyric Theatre Complex
	movement or propeller wash;	N/A	N/A
	▪ 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 materials or polluted water during loading or transportation;	N/A	N/A
	▪ All hopper barges should be fitted with tight fitting seals to their bottom openings to prevent leakage of material; and	N/A	N/A
	▪ 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	**Sewage effluent from construction workforce** 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.	✓	✓
4.1 & 10.5.1	**General construction activities** ▪ 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.	Obs	✓
	▪ 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.	Obs	Obs
Waste Management Implications (Construction)			
6.1 & 10.7.1	**Good Site Practices** Recommendations for good site practices during the construction activities include:		
	▪ Nomination of an approved person, such as a site manager, to be responsible for good site practices, arrangements for collection and effective disposal to an appropriate facility, of all wastes generated at the site	✓	✓
	▪ Training of site personnel in proper waste management and chemical handling procedures	✓	✓
	▪ Provision of sufficient waste disposal points and regular collection of waste	Obs	✓
	▪ 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	✓	✓

EM&A Ref.	Recommendation Measures	Implementation Stage	
		M+ Museum	Lyric Theatre Complex
	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	**Waste Reduction Measures**		
	Recommendations to achieve waste reduction include:		
	▪ 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	**Inert and Non-inert C&D Materials**		
	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.	✓	✓
	▪ 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	✓	✓

EM&A Ref.	Recommendation Measures	Implementation Stage	
		M+ Museum	Lyric Theatre Complex
	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	**Chemical Waste** ▪ 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 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.	Obs/ Rem	Rem
	▪ 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	**General Refuse** 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.	✓	Rem
Land Contamination (Construction)			
7.1 & 10.8.1	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. The following measures are proposed for excavation and transportation of contaminated material: ▪ To minimize the chance for construction workers to come into contact with any contaminated materials,		

EM&A Ref.	Recommendation Measures	Implementation Stage	
		M+ Museum	Lyric Theatre Complex
	bulk earth-moving excavation equipment should be employed;	N/A	N/A
	▪ 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;	N/A	N/A
	▪ Stockpiling of contaminated excavated materials on site should be avoided as far as possible;	N/A	N/A
	▪ The use of contaminated soil for landscaping purpose should be avoided unless pre-treatment was carried out;	N/A	N/A
	▪ Vehicles containing any contaminated excavated materials should be suitably covered to reduce dust emissions and/or release of contaminated wastewater;	N/A	N/A
	▪ Truck bodies and tailgates should be sealed to stop any discharge;	N/A	N/A
	▪ 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;	N/A	N/A
	▪ Speed control for trucks carrying contaminated materials should be exercised;	N/A	N/A
	▪ 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	N/A	N/A
	▪ 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 &	Softscape treatments such as vertical green wall panel /planting of climbing and/or weeping plants, etc, to	N/A	N/A

EM&A Ref.	Recommendation Measures	Implementation Stage	
		M+ Museum	Lyric Theatre Complex
10.8 (CM4)	maximize the green coverage and soften the hard architectural and engineering structures and facilities.		
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
Table 9.1 (CM9)	Minimize the structure of marine facilities to 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

Appendix 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 foundation works) to the end of the reporting month and are summarized 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	1	0	0
From 31 October 2015 to end of the reporting month	2	0	0

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

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