

Hip Hing - Ngo Kee Joint Venture

Hong Kong Convention and  
Exhibition Centre Expansion  
Project:

*Monthly Environmental Monitoring  
and Audit Report for November 2008*

December 2008

**Environmental Resources Management**

21/F Lincoln House  
979 King's Road  
Taikoo Place  
Island East, Hong Kong  
Telephone: (852) 2271 3000  
Facsimile: (852) 2723 5660  
E-mail: [post.hk@erm.com](mailto:post.hk@erm.com)  
<http://www.erm.com>

ENVIRONMENTAL MONITORING &  
AUDIT REPORT

Hip Hing – Ngo Kee Joint Venture

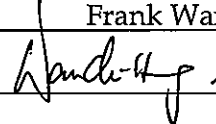
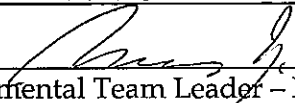
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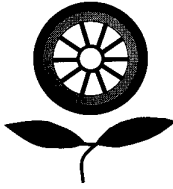
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For and on behalf of Environmental Resources Management
Approved by: <u>Frank Wan</u>
Signed: <u></u>
Position: <u>Partner</u>
Certified by: <u></u> (Environmental Team Leader – Marcus Ip)
Date: <u>16 December 2008</u>

This report has been prepared by Environmental Resources Management the trading name of 'ERM Hong-Kong, Limited', with all reasonable skill, care and diligence within the terms of the Contract with the client, incorporating our General Terms and Conditions of Business and taking account of the resources devoted to it by agreement with the client.

We disclaim any responsibility to the client and others in respect of any matters outside the scope of the above.

This report is confidential to the client and we accept no responsibility of whatsoever nature to third parties to whom this report, or any part thereof, is made known. Any such party relies on the report at their own risk.



**NATURE & TECHNOLOGIES (HK) LIMITED**  
**科技環保(香港)有限公司**

Unit 2 & 3, 4/F., Wellborne Commercial Centre, 8 Java Road, North Point, Hong Kong.  
香港北角渣華道8號威邦商業中心4樓2及3室 Tel電話 : (852) 2877 3122 Fax傳真 : (852) 2511 0922  
Email電郵: enquiry@nt.com.hk Web page網址 : http://www.nt.com.hk

Our Ref: 3.16/014/2006/at

16 December 2008

Maunsell Consultants Asia Ltd  
Grand Central Plaza, Tower 2  
138 Shatin Rural Committee Road  
Shatin, N.T., Hong Kong

Attn: Ms Vera Chan

Dear Sir/Madam,

**Hong Kong Convention Centre Expansion Project**  
**Monthly EM&A Audit Report for November 2008**  
**(Environmental Permit No. EP-239/2006/B)**

With reference to the captioned document concerning the Monthly EM&A report for November 2008 received from ERM revised on 12 December 2008, we are pleased to provide our verification for the document pursuant to condition 3 of the Environmental Permit (EP) No. EP-239/2006/B.

Yours faithfully,  
Nature & Technologies (HK) Limited

Ir Dr Gabriel C K Lam  
Independent Environmental Checker

- cc: - Hong Kong Trade Development Council (Attn: Mr. K. F. Chan)  
- Hip Hing Ngo Kee Joint Venture (Attn: Mr. Eric Lau & Mr. William Tam)  
- ERM (Attn: Mr. Marcus Ip)

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## **EXECUTIVE SUMMARY**

The construction works for Hong Kong Convention and Exhibition Centre Expansion Project (EIAO Register No: AEIAR-100/2006) commenced on 1 August 2006. This is the twenty-eighth monthly Environmental Monitoring and Audit (EM&A) report presenting the EM&A work carried out during the period from 1 to 30 November 2008 in accordance with the EM&A Manual.

### Summary of Construction Works undertaken during the Reporting month

The major construction works undertaken during this reporting month included the installation of the floor structure, the concreting of the floor slab, the erection of steel posts for the west and east façades, the installation of façade panel/louvers, HVAC, partition walls, plumbing and town gas systems, escalators, electrical and fire services system and the erection of staircases.

### Environmental Monitoring and Audit Progress

A summary of the monitoring activities in this reporting month is listed below:

24-hour Total Suspended Particulates (TSP) monitoring	5 sets
1-hour TSP monitoring	15 sets
Environmental site auditing	4 times

### Air Quality

Five sets of 24-hour and fifteen sets of 1-hour TSP monitoring were carried out at the designated monitoring stations (AM1 & AM2) during this reporting month. There were no exceedances recorded during this reporting month.

### Water Quality

Water quality monitoring at the designated monitoring stations (W3, W4 and W5) was not conducted during this reporting month subsequent to the completion of installation of marine piles on 23 April 2007. Additional water quality monitoring for the dry season was also completed on 14 December 2007.

### Construction Waste Management

A total of 20.0 tonnes of inert C&D materials and 285.55 tonnes of C&D wastes were generated during this reporting month. The C&D wastes and inert C&D materials generated from the Project were disposed of at SENT Landfill / Tseung Kwan O Area 137 Fill Bank and the public fill barging point at Quarry Bay respectively. No steel materials were sent to recyclers within this reporting month.

### Environmental Site Auditing

Four weekly environmental site audits were carried out by the ET. Details of the audit findings and implementation status are presented in *Section 6*.

#### Environmental Non-conformance

No environmental non-compliance was identified during this reporting month.

No environmental complaint or summons was received during this reporting month.

#### Future Key Issues

Major works to be undertaken in the coming month will be the construction of floor structure and concreting for the floor slab.

Potential environmental impacts arising from the construction activities in the coming month are mainly associated with dust, site runoff, marine water quality and waste.

# 1 INTRODUCTION

ERM-Hong Kong, Limited (ERM) was appointed by Hip Hing – Ngo Kee Joint Venture as the Environmental Team (ET) to implement the Environmental Monitoring and Audit (EM&A) programme for Hong Kong Convention and Exhibition Centre Expansion Project (the Project).

## 1.1 PURPOSE OF THE REPORT

This is the twenty-eighth EM&A report which summarises the impact monitoring results and audit findings of the EM&A programme during the reporting month from **1 November 2008** to **30 November 2008**.

## 1.2 STRUCTURE OF THE REPORT

The structure of the report is as follows:

Section 1 : **Introduction**

details the scope and structure of the report.

Section 2 : **Project Information**

summarises background and scope of the Project, site description, project organisation and contact details, construction programme, the construction works undertaken and the status of Environmental Permits/Licences during the reporting month.

Section 3 : **Environmental Monitoring Requirement**

summarises the monitoring parameters, monitoring programmes, monitoring methodologies, monitoring frequency, monitoring locations, Action and Limit Levels and Event / Action Plans.

Section 4 : **Implementation Status on Environmental Mitigation Measures**

summarises the implementation of environmental protection measures during the reporting month.

Section 5 : **Monitoring Results**

summarises the monitoring results obtained in the reporting month.

Section 6 : **Environmental Site Auditing**

summarises the audit findings of the weekly site inspections undertaken within the reporting month.

Section 7 : **Environmental Non-conformance**

summarises any environmental exceedance, environmental complaints and environmental summons received within the reporting month.



Section 8 : **Future Key Issues**

summarises the impact forecast and monitoring schedule for the next three months.

Section 9 : **Review of EM&A Data and EIA Predictions**

compares and contrasts the EM&A data in the month with the EIA predictions and annotates with explanation for any discrepancies.

Section 10 : **Conclusion**

## 2.1 BACKGROUND

The Hong Kong Trade Development Council (HKTDC) is expanding its existing facilities to provide additional space for Hong Kong's leading trade fairs to be held at the Hong Kong Convention and Exhibition Centre (HKCEC). The Project is located in North Wan Chai and will occupy the aerial space between Phase I and Phase II of the HKCEC. The new Atrium Link Extension (ALE) will span across the water channel between Phase I and Phase II of the HKCEC to accommodate 3 main levels of Exhibition Hall Extensions. The level of the main roof of the Extension will be of similar height as that of the podium roof of the Phase I building. A northern row of permanent supporting columns will be located on land close to Expo Drive Central and similarly a southern row will land near to Convention Avenue. There will be no permanent intermediate columns in the waterway.

The major works activities for the ALE will comprise the following:

- Construction and demolition of the temporary footbridge;
- Demolition of the existing Atrium Link;
- Construction and demolition of a temporary working platform;
- Construction of foundations and pile caps for the ALE; and
- Construction of superstructure for the ALE.

The potential environmental impacts of the Project have been studied in the *"Hong Kong Convention and Exhibition Centre, Atrium Link Extension – Environmental Impact Assessment Report"* (EIAO Register No: AEIAR-100/2006). The EIA was approved on 21 April 2006 under the *Environmental Impact Assessment Ordinance* (EIAO). An Environmental Permit (EP-239/2006) for the works was granted on 12 May 2006. An application for variation of the Environmental Permit was made on 25 January 2007, an amended Environmental Permit (EP-239/2006/A) was granted on 12 February 2007. An application for further variation of the Environmental Permit was made on 18 April 2008, and an amended Environmental Permit (EP-239/2006/B) was granted on 12 May 2008. Under the requirements of Condition 3.1 of Environmental Permit EP-239/2006/B, an EM&A programme as set out in the EM&A Manual and its supplement is required to be implemented.

The construction works commenced on 1 August 2006 and are scheduled to be completed by March 2009.

## 2.2 *SITE DESCRIPTION*

The works areas of the Project are illustrated in *Annex A*.

## 2.3 *CONSTRUCTION ACTIVITIES*

A summary of the major construction activities undertaken in this reporting month is shown in *Table 2.1*. The locations of the construction activities are shown in *Annex B*.

*Table 2.1 Summary of Construction Activities Undertaken during the Reporting Month*

<b>Construction Activities Undertaken</b>
<ul style="list-style-type: none"><li>• Floor Structure (L2, L3, L5, L6, L7 &amp; R/F)</li><li>• Concreting for Floor Slab (L2, L3, L5, L6, L7, L7M &amp; R/F)</li><li>• Steel Post Erection for Façade (West)</li><li>• Steel Post Erection for Façade (East)</li><li>• Installation of Façade Panel/Louvre</li><li>• Installation of Partition Wall</li><li>• Erection of Staircase</li><li>• Installation of HVAC</li><li>• Installation of Electrical Facilities</li><li>• Installation of Fire Services</li><li>• Installation of Plumbing and Town Gas</li><li>• Installation of Escalators</li></ul>

## 2.4 *PROJECT ORGANISATION*

The Project organisation chart and contact details are shown in *Annex C*.

## 2.5 *STATUS OF ENVIRONMENTAL APPROVAL DOCUMENTS*

A summary of the relevant permits, licences, and/or notifications on environmental protection for this Project since August 2006 is presented in *Table 2.2*.

**Table 2.2 Summary of Environmental Licensing, Notification and Permit Status**

<b>Permit/ Licenses/ Notification</b>	<b>Reference</b>	<b>Validity Period</b>	<b>Remarks</b>
Environmental Permit	EP-239/2006/B	Throughout the Contract	Environmental Permit (EP) EP-239/2006 granted originally on 12 May 2006. Since then the EP have been varied twice. The latest revised EP was issued on 12 May 2008
Notification of Construction Works under Air Pollution Control (Construction Dust) Regulation	--	--	Notification on 23 June 2006
Discharge Licence under Water Pollution Control Ordinance	EP860/W10/XY0 145	N/A	-
Chemical Waste Producer Registration	WPN5213-134-H3125-01	N/A	Chemical waste types: spent paint, acid, alkaline, adhesive, diesel fuel, lubricating oil and bitumen.
Valid Construction Noise Permit for area inside the Atrium Link	GW-RS0713-08 GW-RS0759-08	Valid from 15 October 2008 to 15 March 2009 Valid from 31 October to 31 December 2008	

### 3.1 AIR QUALITY MONITORING

#### 3.1.1 Monitoring Location

In accordance with the EM&A Manual, 24-hour and 1-hour Total Suspended Particulates (TSP) levels were conducted at the monitoring stations listed in *Table 3.1*. Maps and photographs showing the monitoring stations are presented in *Annex D*.

**Table 3.1** *Air Monitoring Stations*

Monitoring Station	Description
AM1	Pedestrian Plaza
AM2	Renaissance Harbour View Hotel Hong Kong

#### 3.1.2 Monitoring Parameters, Frequency and Programme

Air quality monitoring was conducted in accordance with the requirements stipulated in the EM&A Manual (*Table 3.2*). The monitoring programme for this and next three months is shown in *Annex E*.

**Table 3.2** *TSP Monitoring Parameter and Frequency*

Parameter	Frequency
24-hour TSP	Once every 6 days
1-hour TSP	3 times every 6 days

#### 3.1.3 Action and Limit Levels

The Action and Limit levels were established in accordance with the EM&A Manual and are presented in *Table 3.3*.

**Table 3.3** *Action and Limit Levels for Air Quality*

Parameter	Air Monitoring Station	Action Level, $\mu\text{gm}^{-3}$	Limit Level, $\mu\text{gm}^{-3}$
24-hour TSP	AM1	161	260
	AM2	168	260
1-hour TSP	AM1	327	500
	AM2	329	500

#### 3.1.4 Monitoring Equipment

Continuous 24-hour and 1-hour TSP monitoring were performed using High Volume Samplers (HVS) with appropriate sampling inlets installed, located at the designated monitoring station. The performance specification of HVS complies with the standard method "Determination of Suspended Particulate Matter in the Atmosphere (High Volume Method)" as stipulated in US EPA Standard Title 40, Code of Federation Regulations Chapter 1 (Part 50 Appendix B).

Table 3.4 summarises the equipment that was used in the 24-hour and 1-hour TSP monitoring.

**Table 3.4 TSP Monitoring Equipment**

Monitoring Station	Equipment	Model (HVS, Calibration Kit)
AM1 (for 24-hr TSP)	HVS, Calibration Kit	GMW-9503, Tisch TE-5025A
AM2 (for 24-hr TSP)	HVS, Calibration Kit	GMW-9795, Tisch TE-5025A
AM1 (for 1-hr TSP)	HVS, Calibration Kit	GMW-9864, Tisch TE-5025A
AM2 (for 1-hr TSP)	HVS, Calibration Kit	GMW-8115, Tisch TE-5025A

### 3.1.5 Monitoring Methodology

#### *Installation*

The HVS's at AM1 and AM2 were placed at about 1.3 m above local ground level and about 4.3 m above local ground respectively. All of the HVS's were free-standing with no obstruction.

The following criteria were considered in the installation of the HVS's:

- horizontal platform with appropriate support to secure the samplers against gusty wind were provided at AM1 & AM2;
- a minimum of 2 m separation from walls, parapets and penthouses was required for rooftop samplers;
- no furnace or incinerator flues were nearby;
- airflow around the sampler was unrestricted; and
- permission was obtained to set up the samplers and to gain access to the monitoring stations.

#### *Preparation of Filter Papers by ETS-Test Consultant Ltd*

- glass fibre filters were labelled and sufficient filters that were clean and without pinholes were selected;
- 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  $\pm 3$  °C; the relative humidity (RH) was 40%; and
- ETS-Test Consultant Ltd, a HOKLAS accredited laboratory, implements comprehensive quality assurance and quality control programmes.

#### *Field Monitoring*

- the power supply was checked to ensure that the HVS's were working properly;
- the filter holder and the area surrounding the filter were cleaned;

- the filter holder was removed by loosening the foul 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;
- then the shelter lid was closed and secured with the aluminium strip;
- the HVS's were warmed-up for about 5 minutes to establish run-temperature conditions;
- a new flowrate record sheet was set into the flow recorder;
- the flow rate of the HVS's was checked and adjust at around 0.6 -1.44 m<sup>3</sup>/min. The range specified in the EM&A Manual was between 0.6 - 1.7 m<sup>3</sup>/min;
- the programmable timer was set for a sampling period of 24 hours ± 1 hour, 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; and
- filters were sent to ETS-Test Consultant Ltd for analysis.

### 3.1.6 *Maintenance and Calibration*

The HVS's and their accessories were maintained in good working condition, such as replacing motor brushes routinely and checking electrical wiring to ensure a continuous power supply.

The flow rate of each HVS with mass flow controller was calibrated using an orifice calibrator. Initial calibration of the dust monitoring equipments was conducted upon installation and prior to commissioning. Five-point calibration was carried out for HVS's using Tisch TE-5025A Calibration Kit. The calibration records for the HVS's are given in *Annex F*.

### **3.1.7 *Event Action Plan***

The Event / Action Plan (EAP) for air quality monitoring is presented in *Annex H*.

## **3.2 *WATER QUALITY MONITORING***

### **3.2.1 *Marine Water Quality Monitoring during Installation and Removal of Marine Piles***

In accordance with the EM&A Manual, the marine water quality monitoring should be conducted at three designated monitoring stations during the installation and removal of temporary marine piles. The installation of temporary marine piles was completed on 23 April 2007 and therefore water quality monitoring for marine pile installation works was not conducted during this reporting month.

### **3.2.2 *Additional Water Quality Monitoring in Marine Channel during Installation and Removal of Marine Piles***

As part of the Application for Variation of Environmental Permit (Application No. VEP-227/2007) submitted on 25 January 2007, the Permit Holder undertook additional water quality monitoring in the marine channel in connection with the installation of temporary marine piles.

The installation of temporary marine piles was completed on 23 April 2007 and four weeks of additional water quality monitoring was also completed on 21 May 2007 after the completion of marine piling works. In accordance with the additional water quality programme submitted to the EPD on 4 April 2007, four weeks of additional water quality monitoring during the dry season was undertaken and was completed on 14 December 2007.

### **3.2.3 *Event / Action Plan***

The Event / Action Plan (EAP) for water quality monitoring is presented in *Annex J*.



## ***IMPLEMENTATION STATUS ON ENVIRONMENTAL PROTECTION REQUIREMENTS***

The Contractor has implemented environmental mitigation measures and requirements as stated in the EIA Report, the Environmental Permit and EM&A Manual. The implementation status of environmental mitigation and status of relevant required submissions under the EP are reported as part of the monthly EM&A report <sup>(1)</sup>. Relevant submissions made on these measures and requirements during the reporting month are summarised in *Annex I*.

<sup>(1)</sup> The last Monthly EM&A Report for October 2008 was submitted to the EPD on 20 November 2008.

### 5.1 AIR QUALITY

The monitoring data at AM1 and AM2 were provided by ETS-Testconsult Ltd. Five sets of 24-hour and fifteen sets of 1-hour TSP monitoring were carried out at the designated monitoring stations (AM1 & AM2) during this reporting month. The monitoring results from both 24-hour and 1-hour TSP monitoring were below the respective Action and Limit Levels. The monitoring data for 24-hour TSP and 1-hour TSP together with wind data and graphical presentations are presented in *Annex G*. In addition, the monitoring results can also be found at the web-site (<http://www.hkcecema.com/index.html>).

Monitoring of air samples were carried out under both sunny and rainy conditions. The local impacts observed near the monitoring stations were mainly vehicle emissions along Convention Avenue and Fleming Road.

### 5.2 WATER QUALITY

Water quality monitoring for marine pile installation works was not conducted during this reporting month at the designated monitoring stations (W3, W4 and W5) subsequent to the completion of installation of marine piles on 23 April 2007.

### 5.3 WASTE MANAGEMENT

Waste generated from this Project includes inert construction and demolition (C&D) materials and non-inert C&D wastes. Reference has been made on the Monthly Summary Waste Flow Table prepared by Hip Hing – Ngo Kee Joint Venture (*Annex J*). With reference to relevant handling records and trip tickets of this Project, the quantities of different types of waste generated in the reporting quarter are summarised in *Table 5.1*. The C&D wastes and inert C&D materials generated from the Project were disposed of at SENT Landfill / Tseung Kwan O Area 137 Fill Bank and the public fill barging point at Quarry Bay respectively.

**Table 5.1** Quantities of Waste Generated from the Project

Month / Year	Quantity		
	C&D Materials (inert) <sup>(a)</sup>	C&D Materials (non-inert) <sup>(b)</sup>	Chemical Waste
November 2008	20.0 tonnes	285.55 tonnes (no steel materials were sent to recyclers this month)	0

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**Quantity**

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Notes:

- (a) Inert C&D materials include bricks, concrete, building debris, rubble and excavated soil. No inert C&D material was reused in this Project during the reporting period. Non-reused inert C&D materials were disposed of at the public fill barging point at Quarry Bay.
  - (b) C&D wastes include steel materials generated from demolition of footbridge, the existing Atrium Link and working platform, paper / cardboard packaging waste, chemical waste and other wastes such as general refuse. The C&D wastes other than general refuse were disposed of at SENT Landfill / Tseung Kwan O Area 137 temporary construction waste sorting facility.
-

Weekly site inspections were carried out by the ET. Four site inspections were conducted on 3, 13, 22 and 27 November 2008 respectively. There was no non-compliance event recorded in this reporting month.

The following reminders were given to the Contractor during this reporting month:

- (i) On 3 and 13 November 2008, water was observed to be dropping into the marine channel from the works platform. The Contractor was recommended to implement measures so that site discharges are directed into silt removal facilities for treatment prior to discharge.
- (ii) On 3, 13 and 27 November 2008, inert and non-inert wastes were collected in the same waste skip on the marine platform on the work site. The Contractor was reminded to segregate inert/recyclable materials from non-inert waste to minimize disposal at landfills. The waste skips should also be clearly labeled to facilitate waste separation.
- (iii) On 13 November 2008, diesel was observed to be dripping from the pumping system of a fuel truck on the western marine platform. The Contractor was recommended to provide drip trays at appropriate locations, eg underneath hose joints, during refueling so that any leakages might be properly contained. The Contractor was also recommended to clean up any dripped diesel on the platform with oil absorbent as soon as the refueling operations were completed.
- (iv) On 22 November 2008, dust plumes were observed over the western marine platform as the protective scaffolding screens on the West Façade of the extended Atrium Link were rearranged. The Contractor was recommended to implement appropriate dust suppression measures during the rearrangement of scaffolding screens, eg wetting the screens with water spray.
- (v) On 22 November 2008, the marine platform on the western end of work site under the West Façade of the extended Atrium Link was covered with dust/grit. The Contractor was reminded to remove the dust/grit and implement appropriate dust suppression measures.
- (vi) On 27 November 2008, floating refuse was observed in the marine channel on the western end of the work site. The Contractor was reminded to arrange ad hoc collection of floating refuse should be arranged as soon as possible to maintain the cleanliness of the marine channel at all times.
- (vii) On 27 November 2008, refuse and debris were observed in a gully on the access road near Gate No.2 on the western end of the work site. The Contractor was reminded to clear the debris from the gully as soon as possible to avoid blockage and contamination of the flow in the storm drainage system.

#### *Landscape and Visual Monitoring*

In accordance with *Section 6.7* of the EM&A Manual, bi-weekly landscape and visual monitoring is required to ensure that the design, implementation and maintenance of landscape and visual mitigation measures are fully achieved. The monitoring has commenced since January 2007 and is conducted by Earthasia Limited. Landscape and visual mitigation measures were implemented by the Contractor and the implementation status is given in *Annex I*.

## 7 ENVIRONMENTAL NON-CONFORMANCE

### 7.1 SUMMARY OF ENVIRONMENTAL EXCEEDANCE

No exceedance of the Action and Limit Levels of 24-hour and 1-hour TSP was recorded at monitoring stations during this reporting period.

### 7.2 SUMMARY OF ENVIRONMENTAL NON-COMPLIANCE

No non-compliance event was recorded during this reporting month.

### 7.3 SUMMARY OF ENVIRONMENTAL COMPLAINT

No complaint was received during this reporting month.

### 7.4 SUMMARY OF ENVIRONMENTAL SUMMONS AND PROSECUTION

No summons or prosecution on environmental matters was received during this reporting month.

### 8.1 KEY ISSUES FOR THE COMING MONTH

Works to be carried out for the coming monitoring period are summarised in *Table 8.1*.

*Table 8.1 Construction Works to be Undertaken in the Coming Month*

---

**Work to be taken**

---

- Floor Structure Installation
  - Concreting for Floor Slab
- 

Potential environmental impacts arising from the above construction activities are mainly associated with dust, site runoff and waste management.

### 8.2 MONITORING SCHEDULE FOR THE COMING MONTHS

The tentative schedule of TSP monitoring for next month is presented in *Annex E*. The environmental monitoring will be conducted at the same monitoring locations as those for this reporting month.

The installation of temporary marine piles was completed on 23 April 2007 and four weeks of additional water quality monitoring was also completed on 21 May 2007 after the completion of marine piling works. Four weeks of additional water quality for the dry season commenced on 19 November 2007 and was completed on 14 December 2007.

The construction programme for the next three months is presented in *Annex K*.

## 9.1 AIR QUALITY

Since the EIA only have qualitative assessment of dust impact during construction phase, the comparison was made between the monitoring results and the Hong Kong Air Quality Objectives (HKAQO) (Table 9.1).

**Table 9.1 Comparison of the HKAQO and Air Quality Monitoring Results**

Monitoring Stations	Corresponding ASR in EIA	HKAQO, $\mu\text{g}\cdot\text{m}^{-3}$	Measured 24-hour TSP Monitoring Results, $\mu\text{g}\cdot\text{m}^{-3}$ (a) (b)	
		24 hour <sup>(1)</sup>	Average	Range
AM1	AM8	260	79	23 - 158
AM2	AM6	260	70	14 - 161

Notes:

(a) Only 24-hour TSP monitoring results were compared as there is no 1 hour TSP criterion in HKAQO.

(b) Average and range of data were calculated between the commencement of construction works and this reporting month.

The monitoring results show that the average and range of 24-hour TSP levels recorded since the commencement of the construction works were well below the 24-hour TSP criterion in the HKAQO. Recommended mitigation measures in Section 4.24 of EIA were implemented throughout the construction period and were considered effective.

## 9.2 WASTE MANAGEMENT

The estimated amount of waste generated in this Project and the accumulated quantities of waste generated up to this reporting month are presented in Table 9.2. Recommended mitigation measures in Sections 6.35 to 6.41 of the EIA were implemented during the construction stage and regarded as effective.



**Table 9.2 Comparison of Estimated and Actual Amounts of Waste Generated**

Type of Material	Estimated Amount of C&D Materials in EIA (inert & non-inert)	Accumulated Actual Amount of C&D Materials Recorded <sup>(a)</sup> (inert & non-inert)
Demolition of temporary footbridge	585 tonnes	0
Demolition of existing Atrium Link	4,680 tonnes	2,675.5 tonnes
Demolition of temporary working platform	390 tonnes	0
Construction of foundations and pile caps	20,000 tonnes	22,704.3 tonnes
General Refuse	Insignificant	1,563.9 tonnes
Chemical Waste	Small	288 Litres

Note:

(a) The actual amount of C&D Materials was recorded since the commencement of construction works.

### 9.3 CONCLUSION OF REVIEW

The EIA predictions and the monitoring results since the commencement of construction works have been reviewed. The EIA concluded that the Project would not cause adverse impacts to the environment, and the monitoring results also indicated that the construction of the Project has not caused adverse impacts to the environment. Recommendations given in the EIA are also considered to be adequate and effective for minimising the environmental impacts.

The Environmental Monitoring and Audit (EM&A) Report presents the EM&A work undertaken during the period from 1 November to 30 November 2008 in accordance with EM&A Manual and the requirements under EP-239/2006/B.

No exceedance of the Action and Limit Levels of 24-hour and 1-hour TSP was recorded at the monitoring stations during this reporting month.

No non-compliance event was recorded during this reporting month.



No complaint and summons/prosecution was received during this reporting month.

The ET will keep track of the EM&A programme to ensure compliance of environmental requirements and the proper implementation of all necessary mitigation measures.

Annex A

## Locations of Works Areas

**Key**

-  Proposed Atrium Link Extension
-  Existing Atrium Link

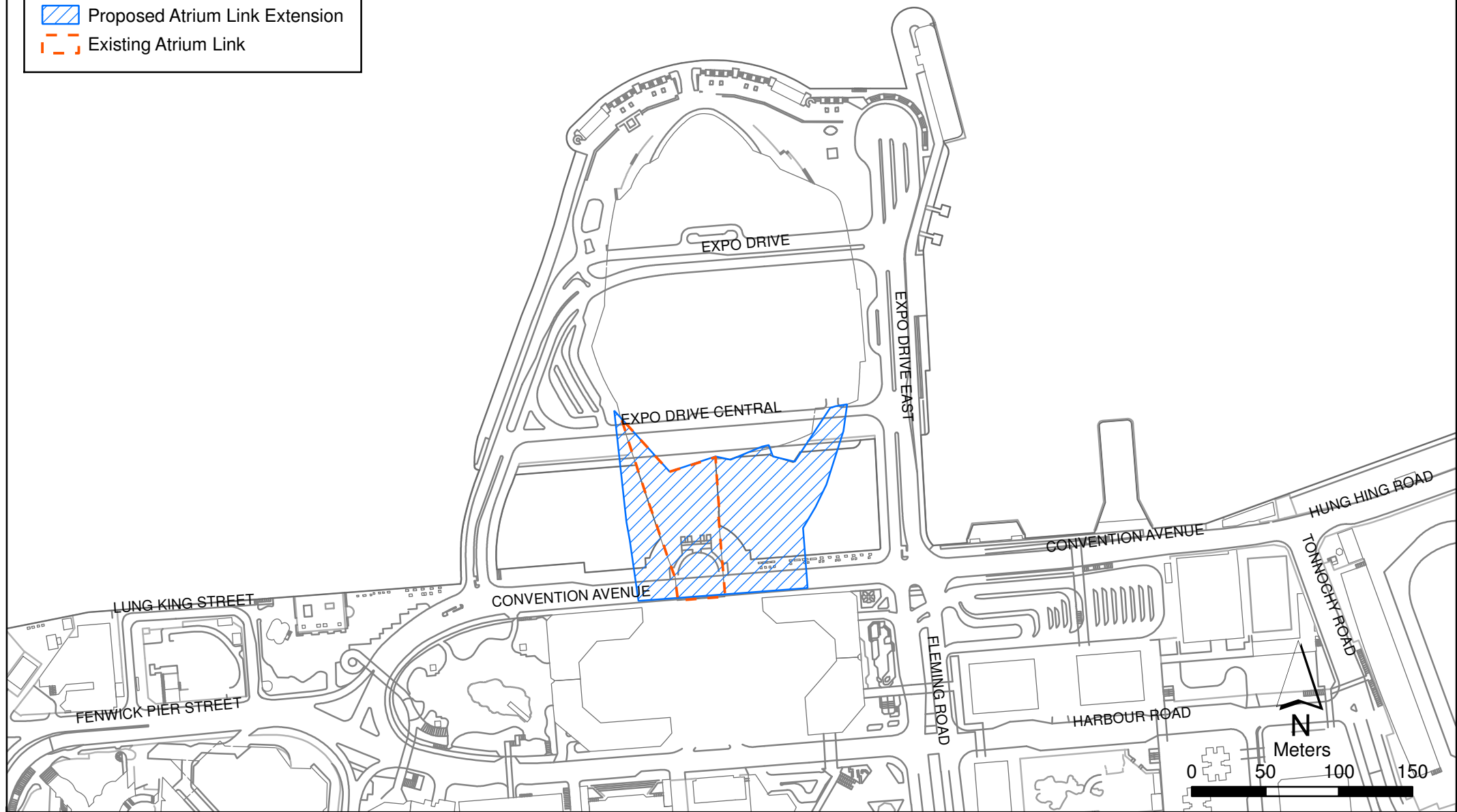


Figure A1

Location of Atrium Link Extension



Annex B

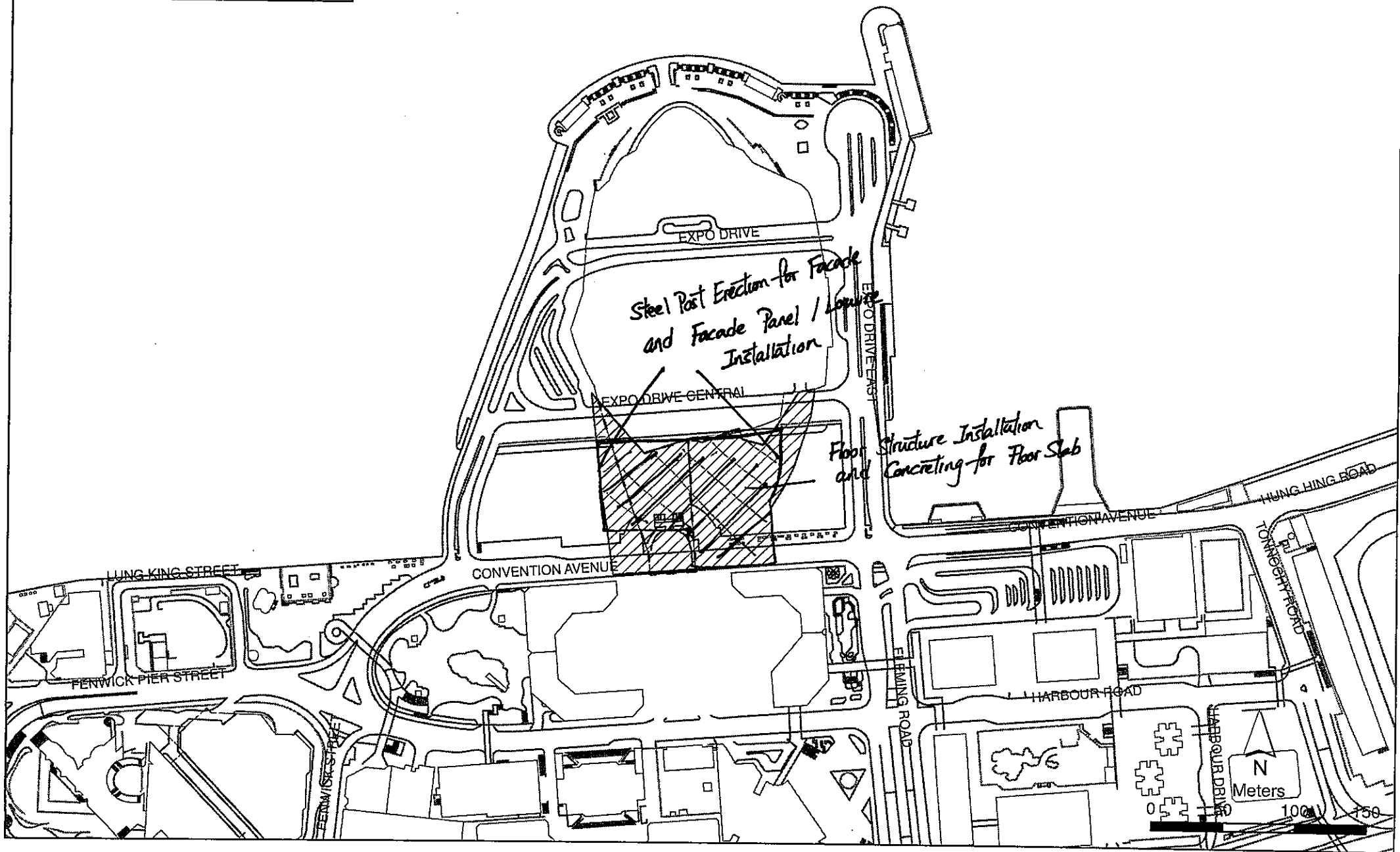
Location of Construction  
Activities during the  
Reporting Month

## Summary of Works for November 2008

<b>Description</b>	<b>Location</b>
Floor Structure Installation (L2, L3, L5, L6, L7 & R/F)	Grid A1-E
Concreting for Floor Slab (L2 - L7, L7M and R/F)	G.L. A1-E
Installation of Façade Panel/Louvre	West and East Façade
Steel CHS Post Erection for Façade	West Façade
Steel Post RHS Erection for Façade	East Façade
Partition Wall	
Staircase Erection	
HVAC Installation	
Electrical Installation	
F.S. Installation	
Plumbing and Town Gas Installation	
Escalator Installation	

Key

-  Proposed Atrium Link Extension
-  Existing Atrium Link

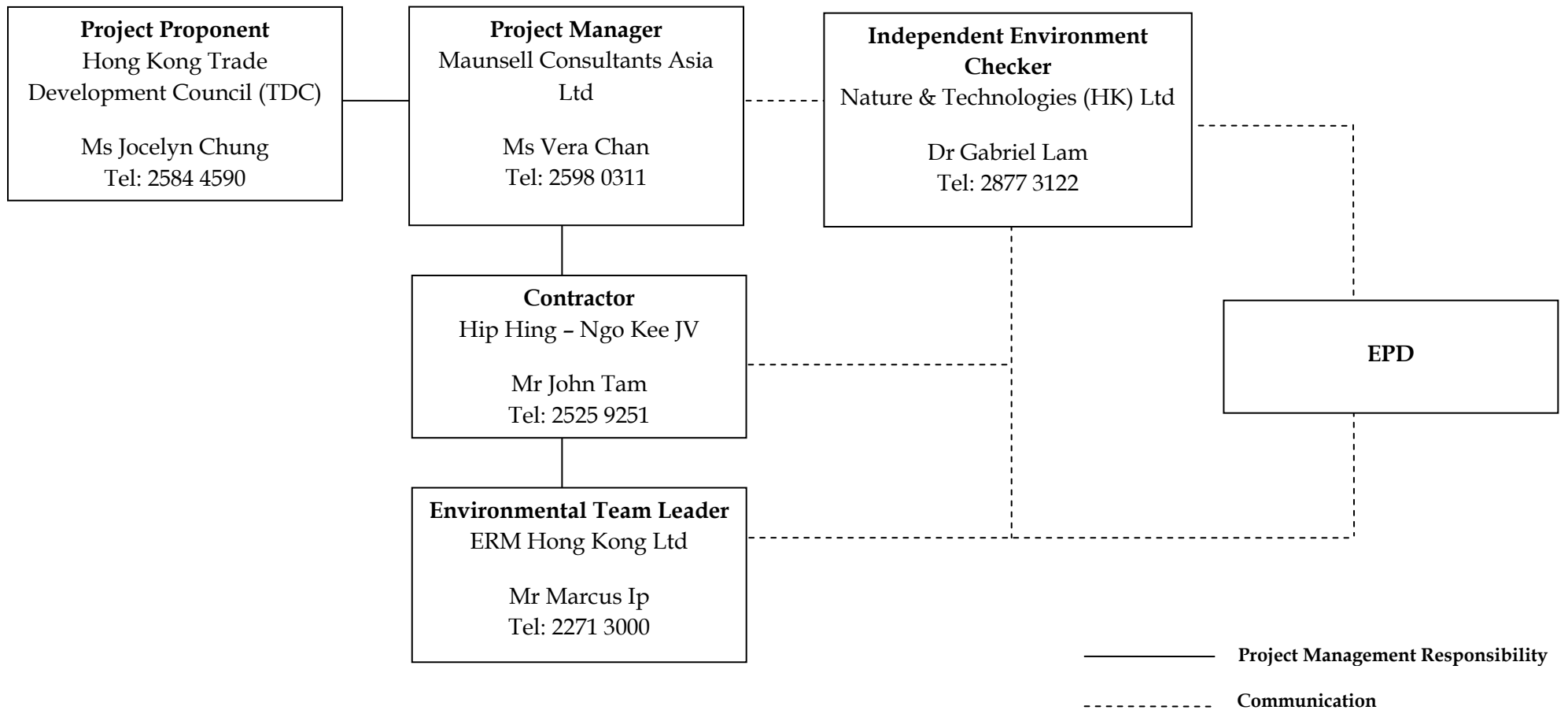


Annex C

## Project Organization Chart and Contact Detail



Project Organization (with contact details)



Annex D

## Location of Air Quality Monitoring Stations

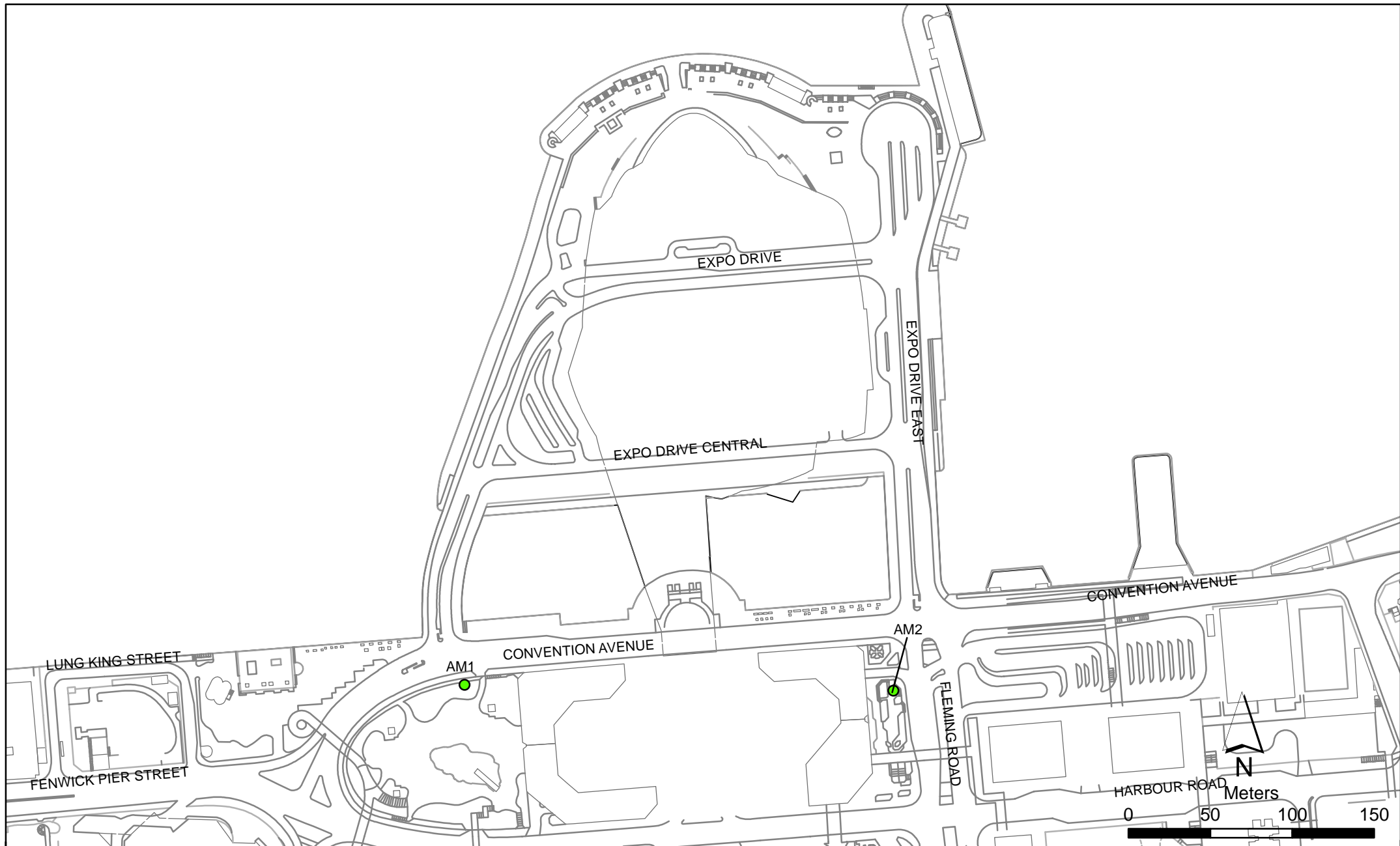


Figure D1

Air Quality Monitoring Station

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Date: 08/09/2006

Environmental  
Resources  
Management





**Air Quality Monitoring Station (AM1)**



**Air Quality Monitoring Station (AM2)**

Annex E

## Monitoring Schedule for the Reporting Month and Next Month

**Hong Kong Convention and Exhibition Centre, Atrium Link Extension  
Air Quality Monitoring Schedule - September 2008**

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
	01-Sep	02-Sep	03-Sep	04-Sep	05-Sep	06-Sep
	1 hr TSP		1 hr TSP	1 hr and 24 hr TSP	1hr TSP	
07-Sep	08-Sep	09-Sep	10-Sep	11-Sep	12-Sep	13-Sep
	1hr TSP		1 hr and 24 hr TSP		1hr TSP	1 hr TSP
14-Sep	15-Sep	16-Sep	17-Sep	18-Sep	19-Sep	20-Sep
		1 hr and 24 hr TSP	1 hr TSP		1hr TSP	
21-Sep	22-Sep	23-Sep	24-Sep	25-Sep	26-Sep	27-Sep
	1 hr and 24 hr TSP		1 hr TSP		1 hr TSP	1 hr and 24 hr TSP
28-Sep	29-Sep	30-Sep				
	1 hr TSP					

**Hong Kong Convention and Exhibition Centre, Atrium Link Extension  
Air Quality Monitoring Schedule - October 2008**

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
			01-Oct	02-Oct	03-Oct	04-Oct
				1 hr TSP	1hr and 24hr TSP	
05-Oct	06-Oct	07-Oct	08-Oct	09-Oct	10-Oct	11-Oct
	1hr TSP		1 hr TSP	1hr and 24hr TSP	1hr TSP	
12-Oct	13-Oct	14-Oct	15-Oct	16-Oct	17-Oct	18-Oct
	1 hr TSP		1hr and 24hr TSP		1hr TSP	
19-Oct	20-Oct	21-Oct	22-Oct	23-Oct	24-Oct	25-Oct
	1 hr TSP	1hr and 24hr TSP	1 hr TSP		1 hr TSP	
26-Oct	27-Oct	28-Oct	29-Oct	30-Oct	31-Oct	
	1hr and 24hr TSP		1 hr TSP		1 hr TSP	

**Hong Kong Convention and Exhibition Centre, Atrium Link Extension  
Air Quality Monitoring Schedule - November 2008**

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
						01-Nov 1hr and 24hr TSP
02-Nov	03-Nov	04-Nov	05-Nov	06-Nov	07-Nov	08-Nov
	1hr TSP		1 hr TSP		1hr and 24hr TSP	
09-Nov	10-Nov	11-Nov	12-Nov	13-Nov	14-Nov	15-Nov
	1 hr TSP		1 hr TSP	1hr and 24hr TSP	1hr TSP	
16-Nov	17-Nov	18-Nov	19-Nov	20-Nov	21-Nov	22-Nov
	1 hr TSP		1hr and 24hr TSP		1 hr TSP	
23-Nov	24-Nov	25-Nov	26-Nov	27-Nov	28-Nov	29-Nov
	1 hr TSP	1hr and 24hr TSP	1 hr TSP		1 hr TSP	
30-Nov						

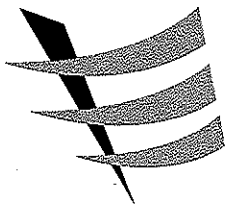


**Hong Kong Convention and Exhibition Centre, Atrium Link Extension  
Air Quality Monitoring Schedule - December 2008**

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
	01-Dec	02-Dec	03-Dec	04-Dec	05-Dec	06-Dec
	1hr and 24hr TSP		1 hr TSP		1 hr TSP	1hr and 24hr TSP
	07-Dec	08-Dec	09-Dec	10-Dec	11-Dec	12-Dec
	1hr TSP		1 hr TSP		1hr and 24hr TSP	
	14-Dec	15-Dec	16-Dec	17-Dec	18-Dec	19-Dec
	1 hr TSP		1 hr TSP	1hr and 24hr TSP	1hr TSP	
	21-Dec	22-Dec	23-Dec	24-Dec	25-Dec	26-Dec
	1 hr TSP		1hr (2X) and 24hr TSP			
	28-Dec	29-Dec	30-Dec	31-Dec		
	1 hr TSP	1hr and 24hr TSP	1 hr TSP			

Annex F

## Calibration Reports for HVSs



東業德勤測試顧問有限公司  
ETS-TESTCONSULT LIMITED

8/F., Block B, Veristrong Industrial Centre, 34-36 Au Pui Wan Street, Fotan, Hong Kong  
Tel : 2695 8318 E-mail : etl@ets-testconsult.com  
Fax : 2695 3944 Web site : www.ets-testconsult.com

**TEST REPORT**

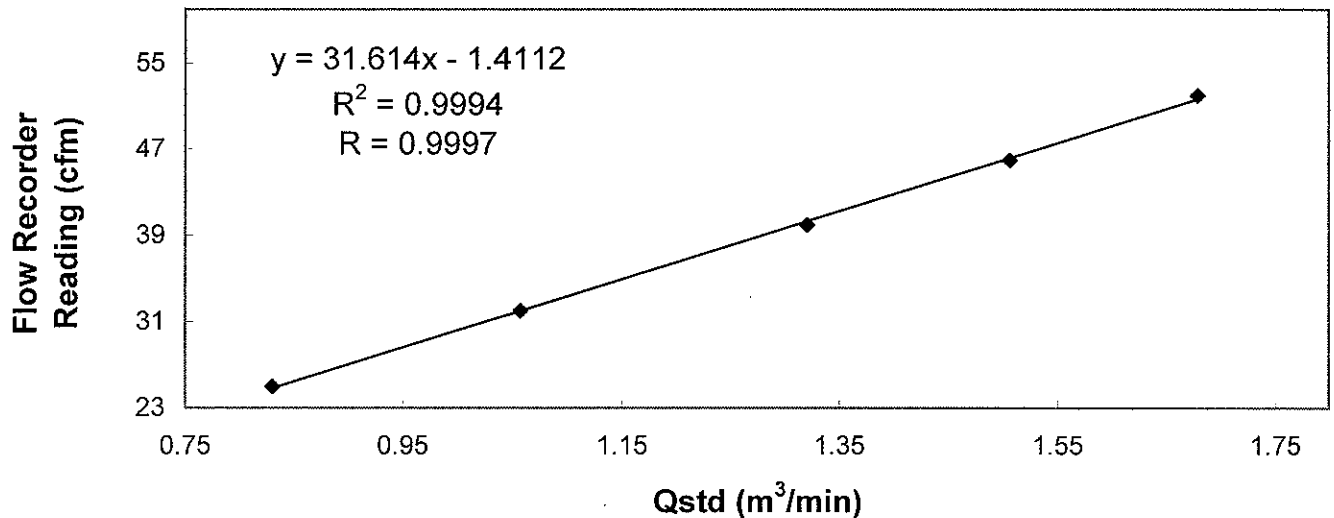
**Calibration Report**  
of  
**High Volume Air Sampler**

**Manufacturer** : Graseby GMW Date of Calibration : 27 October 2008  
**Serial No.** : 9864 ( ET / EA / 003 / 19 ) Calibration Due Date : 26 December 2008  
**Method** : Five-point calibration by using standard calibration kit Tisch TE-5025A refer to the Operations Manual

**Results** :

Flow recorder reading (cfm)	52	46	40	32	25
Qstd (Actual flow rate, m <sup>3</sup> /min)	1.68	1.51	1.32	1.06	0.83
Pressure :	766.56 mm Hg			Temp. :	300 K

**Sampler 9864 Calibration Curve**  
Site: Wan Chai (AM-1)

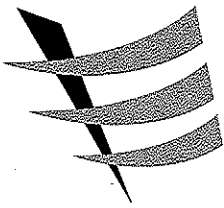


Acceptance Criteria : Correlation coefficient (r) of the calibration curve greater than 0.990 after a 5-point calibration

The high volume sampler complies\* / ~~does not comply\*~~ with the specified requirements and is deemed acceptable\* / unacceptable\* for use.

Calibrated by : LEUNG, Ka Ming  
(Assistant Environmental Officer)

Approved by : Lau Sau Yee  
LAW, Sau Yee  
(Senior Environmental Officer)



東業德勤測試顧問有限公司  
ETS-TESTCONSULT LIMITED

8/F., Block B, Veristrong Industrial Centre, 34-36 Au Pui Wan Street, Fotan, Hong Kong  
Tel : 2695 8318 E-mail : etl@ets-testconsult.com  
Fax : 2695 3944 Web site : www.ets-testconsult.com

**TEST REPORT**

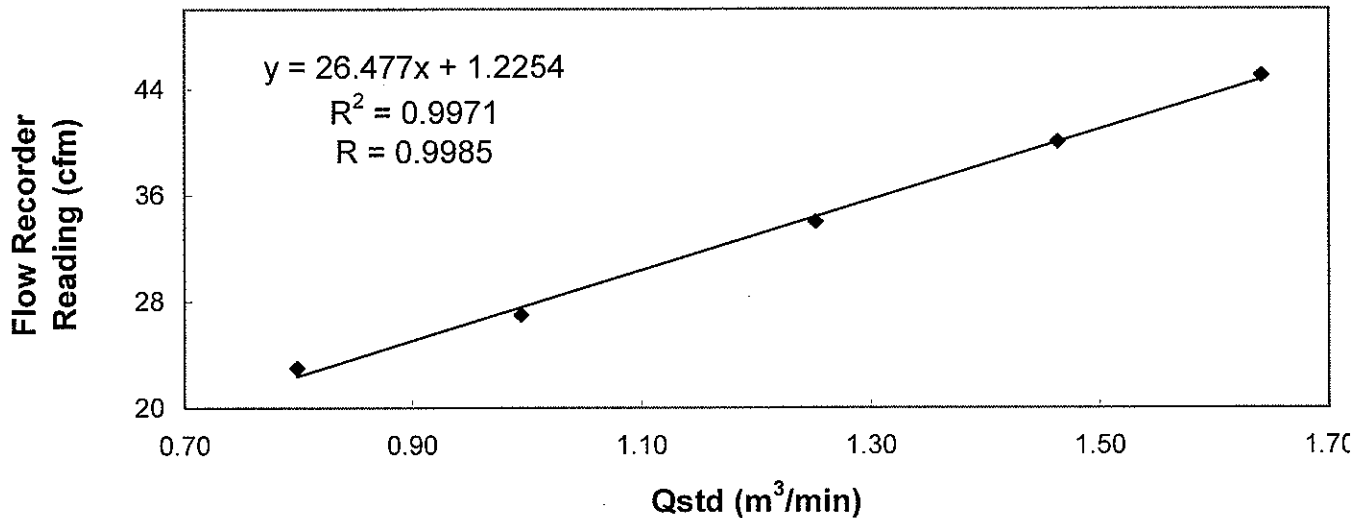
**Calibration Report  
of  
High Volume Air Sampler**

**Manufacturer** : Graseby GMW **Date of Calibration** : 27 October 2008  
**Serial No.** : 9795 ( ET / EA / 003 / 18 ) **Calibration Due Date** : 26 December 2008  
**Method** : Five-point calibration by using standard calibration kit Tisch TE-5025A refer to the Operations Manual

**Results** :

Flow recorder reading (cfm)	45	40	34	27	23
Qstd (Actual flow rate, m <sup>3</sup> /min)	1.64	1.46	1.25	1.00	0.80
Pressure :	766.56 mm Hg			Temp. :	300 K

**Sampler 9795 Calibration Curve  
Site: Wan Chai (AM-2)**



Acceptance Criteria : Correlation coefficient (r) of the calibration curve greater than 0.990 after a 5-point calibration

The high volume sampler complies\* / does not comply\* with the specified requirements and is deemed acceptable\*/ unacceptable\* for use.

Calibrated by :   
LEUNG, Ka Ming  
(Assistant Environmental Officer)

Approved by :   
LAW, Sau Yee  
(Senior Environmental Officer)

Annex G

## 24-hour and 1-hour TSP Monitoring Results

## 24-hour TSP Monitoring Results

### 24-hour TSP Monitoring Results at Station AM1 (Nearby The Grand Hyatt)

Date	Filter Weight (g)		Flow Rate (m <sup>3</sup> /min.)		Elapse Time		Sampling Time(hrs.)	Conc. (µg/m <sup>3</sup> )	Weather Condition	Ave. Air Temp. (°C)	Particulate weight(g)	Av. flow (m <sup>3</sup> /min)	Total vol. (m <sup>3</sup> )
	Initial	Final	Initial	Final	Initial	Final							
01 to 02 Nov 2008	2.8219	2.9679	1.2466	1.2466	14274.37	14298.37	24.0	81	Sunny	26	0.1460	1.2466	1795.10
07 to 08 Nov 2008	2.7484	2.8901	1.3099	1.3099	14301.37	14325.37	24.0	75	Sunny	27	0.1417	1.3099	1886.26
13 to 14 Nov 2008	2.7518	2.9691	1.2466	1.2466	14328.37	14352.37	24.0	121	Sunny	24	0.2173	1.2466	1795.10
19 to 20 Nov 2008	2.7615	2.9751	1.1201	1.1201	14355.37	14379.37	24.0	132	Sunny	20	0.2136	1.1201	1612.94
25 to 26 Nov 2008	2.7871	3.0117	1.2150	1.2150	14382.37	14406.37	24.0	128	Sunny	19	0.2246	1.2150	1749.60

Min	75
Max	132
Average	108

### 24-hour TSP Monitoring Results at Station AM2 (Nearby Renaissance Harbour View Hotel)

Date	Filter Weight (g)		Flow Rate (m <sup>3</sup> /min.)		Elapse Time		Sampling Time(hrs.)	Conc. (µg/m <sup>3</sup> )	Weather Condition	Ave. Air Temp. (°C)	Particulate weight(g)	Av. flow (m <sup>3</sup> /min)	Total vol. (m <sup>3</sup> )
	Initial	Final	Initial	Final	Initial	Final							
01 to 02 Nov 2008	2.7679	2.8735	1.1623	1.1623	12602.13	12626.13	24.0	63	Sunny	26	0.1056	1.1623	1673.71
07 to 08 Nov 2008	2.7626	2.8628	1.2379	1.2379	12629.13	12653.13	24.0	56	Sunny	27	0.1002	1.2379	1782.58
13 to 14 Nov 2008	2.7443	2.8790	1.2756	1.2756	12656.13	12680.13	24.0	73	Sunny	24	0.1347	1.2756	1836.86
19 to 20 Nov 2008	2.7729	2.9855	1.2379	1.2379	12683.13	12707.13	24.0	119	Sunny	20	0.2126	1.2379	1782.58
25 to 26 Nov 2008	2.7814	2.9448	1.2001	1.2001	12710.13	12734.13	24.0	95	Sunny	19	0.1634	1.2001	1728.14

Min	56
Max	119
Average	81

## Meteorological Data Extracted from King's Park Stations of the Hong Kong Observatory

Date	Weather	King's Park Station				
		Average Air Temperature (°C)	Average Relative Humidity (%)	Total Rainfall (mm)	Wind Direction (Degree)	Average Wind Speed (km/h)
1-Nov-08	Sunny	25.8	83	0.0	100	14.0
3-Nov-08	Rainy	24.7	84	39.5	100	8.1
5-Nov-08	Rainy	25.1	85	0.5	100	12.5
7-Nov-08	Sunny	26.5	83	0.0	100	8.8
10-Nov-08	Sunny	19.4	48	0.0	20	15.0
13-Nov-08	Sunny	22.2	62	0.0	20	7.2
15-Nov-08	Sunny	23.7	77	0.0	100	6.8
17-Nov-08	Sunny	22.9	75	0.0	100	10.6
19-Nov-08	Sunny	18.3	68	0.0	20	13.6
21-Nov-08	Sunny	19.5	62	0.0	100	9.3
22-Nov-08	Sunny	21.1	69	0.0	100	8.1
24-Nov-08	Sunny	23.1	58	0.0	20#	6.9#
27-Nov-08	Sunny	19.3	32	0.0	30	15.8
29-Nov-08	Sunny	17	31	0.0	20	9.5
30-Nov-08	Sunny	17.3	43	0.0	30	7.7

Notes:

# - missing (less than 24 hourly observations a day)

NA - not available

## 1-hour TSP Monitoring Results

### 1-hour TSP Monitoring Results at Station AM1 (Nearby The Grand Hyatt)

Date	Filter Weight (g)		Flow Rate (m <sup>3</sup> /min.)		Elapse Time		Sampling Time(hrs.)	Conc. (µg/m <sup>3</sup> )	Weather Condition	Ave. Air Temp. (°C)	Particulate weight(g)	Av. flow (m <sup>3</sup> /min)	Total vol. (m <sup>3</sup> )
	Initial	Final	Initial	Final	Initial	Final							
01 Nov 08	2.7533	2.7670	1.0885	1.0885	14273.37	14274.37	1.00	210	Sunny	26	0.0137	1.0885	65.31
03 Nov 08	2.7763	2.7851	1.0885	1.0885	14298.37	14299.37	1.00	135	Rainy	25	0.0088	1.0885	65.31
05 Nov 08	2.7456	2.7587	1.0885	1.0885	14299.37	14300.37	1.00	201	Rainy	25	0.0131	1.0885	65.31
07 Nov 08	2.7179	2.7265	1.1201	1.1201	14300.37	14301.37	1.00	128	Sunny	27	0.0086	1.1201	67.21
10 Nov 08	2.7742	2.7829	1.2783	1.2783	14325.37	14326.37	1.00	113	Sunny	19	0.0087	1.2783	76.70
12 Nov 08	2.7642	2.7774	1.2466	1.2466	14326.37	14327.37	1.00	176	Sunny	22	0.0132	1.2466	74.80
13 Nov 08	2.7325	2.7410	1.1517	1.1517	14327.37	14328.37	1.00	123	Sunny	24	0.0085	1.1517	69.10
14 Nov 08	2.7573	2.7693	1.3415	1.3415	14352.37	14353.37	1.00	149	Sunny	23	0.0120	1.3415	80.49
17 Nov 08	2.7680	2.7843	1.1517	1.1517	14353.37	14354.37	1.00	236	Sunny	17	0.0163	1.1517	69.10
19 Nov 08	2.7572	2.7721	1.0885	1.0885	14354.37	14355.37	1.00	228	Sunny	20	0.0149	1.0885	65.31
21 Nov 08	2.7227	2.7353	1.1517	1.1517	14379.37	14380.37	1.00	182	Sunny	21	0.0126	1.1517	69.10
24 Nov 08	2.7420	2.7554	1.1201	1.1201	14380.37	14381.37	1.00	199	Sunny	23	0.0134	1.1201	67.21
25 Nov 08	2.7410	2.7542	1.1517	1.1517	14381.37	14382.37	1.00	191	Sunny	19	0.0132	1.1517	69.10
26 Nov 08	2.7594	2.7732	1.2150	1.2150	14406.37	14407.37	1.00	189	Sunny	17	0.0138	1.2150	72.90
28 Nov 08	2.7015	2.7141	1.2466	1.2466	14407.37	14408.37	1.00	168	Sunny	17	0.0126	1.2466	74.80
								Min	113				
								Max	236				
								Average	175				

### 1-hour TSP Monitoring Results at Station AM2 (Nearby Renaissance Harbour View Hotel)

Date	Filter Weight (g)		Flow Rate (m <sup>3</sup> /min.)		Elapse Time		Sampling Time(hrs.)	Conc. (µg/m <sup>3</sup> )	Weather Condition	Ave. Air Temp. (°C)	Particulate weight(g)	Av. flow (m <sup>3</sup> /min)	Total vol. (m <sup>3</sup> )
	Initial	Final	Initial	Final	Initial	Final							
01 Nov 08	2.7304	2.7402	0.8602	0.8602	12601.13	12602.13	1.00	190	Sunny	26	0.0098	0.8602	51.61
03 Nov 08	2.7932	2.8029	1.0868	1.0868	12626.13	12627.13	1.00	149	Rainy	25	0.0097	1.0868	65.21
05 Nov 08	2.7500	2.7597	0.8602	0.8602	12627.13	12628.13	1.00	188	Rainy	25	0.0097	0.8602	51.61
07 Nov 08	2.7603	2.7680	1.0112	1.0112	12628.13	12629.13	1.00	127	Sunny	27	0.0077	1.0112	60.67
10 Nov 08	2.7607	2.7659	1.2756	1.2756	12653.13	12654.13	1.00	68	Sunny	19	0.0052	1.2756	76.54
12 Nov 08	2.7619	2.7698	1.3134	1.3134	12654.13	12655.13	1.00	100	Sunny	22	0.0079	1.3134	78.80
13 Nov 08	2.7363	2.7420	1.2756	1.2756	12655.13	12656.13	1.00	74	Sunny	24	0.0057	1.2756	76.54
14 Nov 08	2.7466	2.7562	1.3134	1.3134	12680.13	12681.13	1.00	122	Sunny	23	0.0096	1.3134	78.80
17 Nov 08	2.7529	2.7664	1.2756	1.2756	12681.13	12682.13	1.00	176	Sunny	17	0.0135	1.2756	76.54
19 Nov 08	2.7669	2.7774	1.2756	1.2756	12682.13	12683.13	1.00	137	Sunny	20	0.0105	1.2756	76.54
21 Nov 08	2.7334	2.7446	1.2001	1.2001	12707.13	12708.13	1.00	156	Sunny	21	0.0112	1.2001	72.01
24 Nov 08	2.7380	2.7481	1.2001	1.2001	12708.13	12709.13	1.00	140	Sunny	23	0.0101	1.2001	72.01
25 Nov 08	2.7395	2.7507	1.2001	1.2001	12709.13	12710.13	1.00	156	Sunny	19	0.0112	1.2001	72.01
26 Nov 08	2.7479	2.7604	1.2756	1.2756	12734.13	12735.13	1.00	163	Sunny	17	0.0125	1.2756	76.54
28 Nov 08	2.7533	2.7617	1.1245	1.1245	12735.13	12736.13	1.00	124	Sunny	17	0.0084	1.1245	67.47
								Min	68				
								Max	190				
								Average	138				



Figure G1 - Measured 24-hour TSP Concentration ( $\mu\text{g}\text{m}^{-3}$ ) at AM1

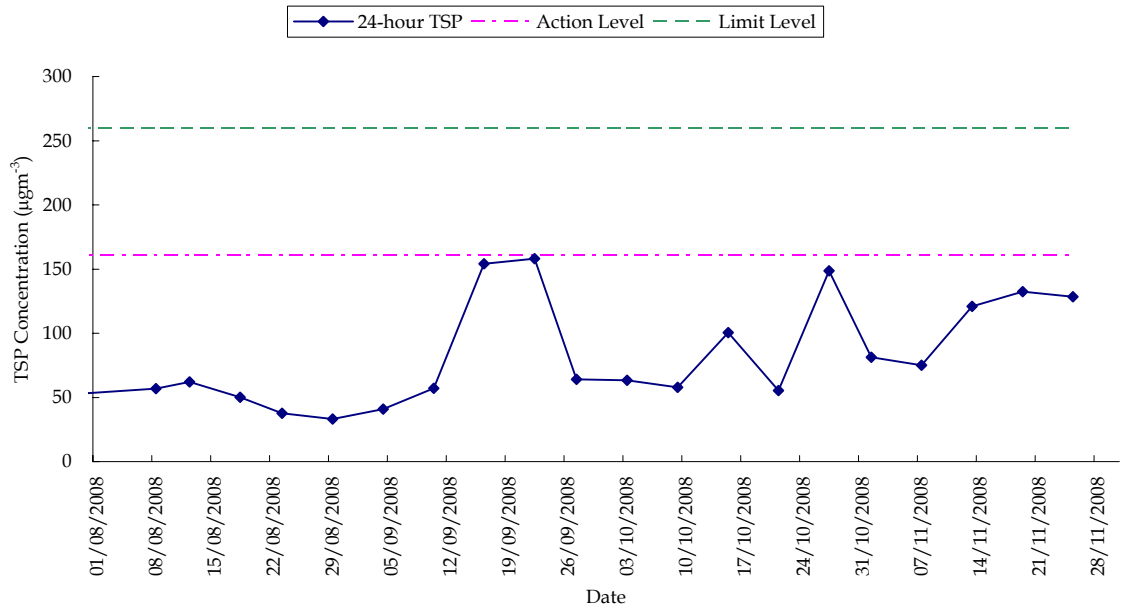


Figure G2 - Measured 24-hour TSP Concentration ( $\mu\text{g}\text{m}^{-3}$ ) at AM2

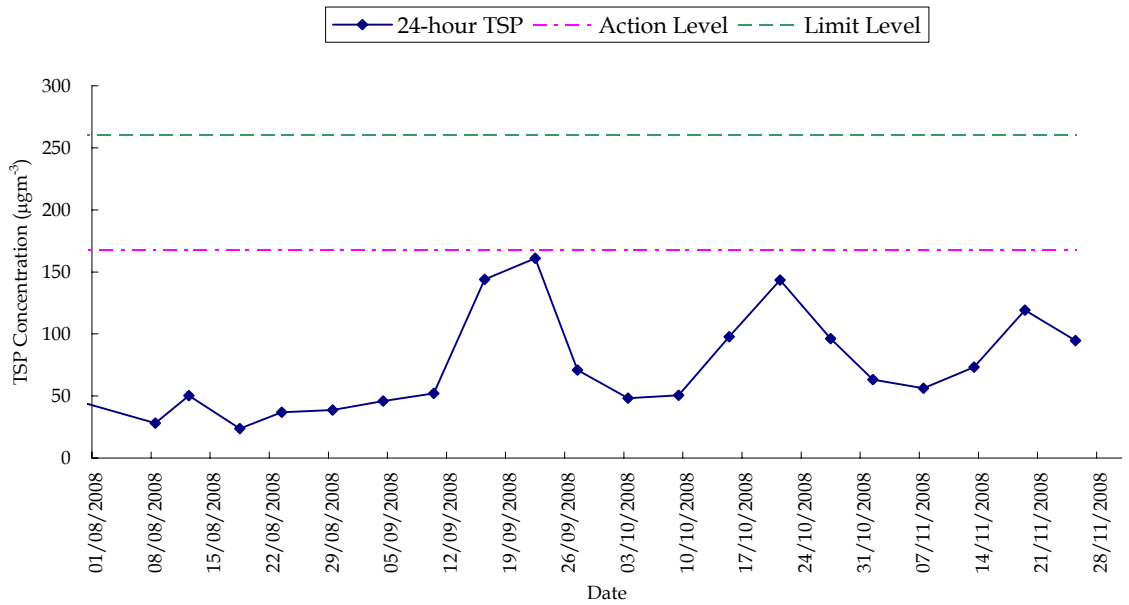


Figure G3 - Measured 1-hour TSP Concentration ( $\mu\text{g}\text{m}^{-3}$ ) at AM1

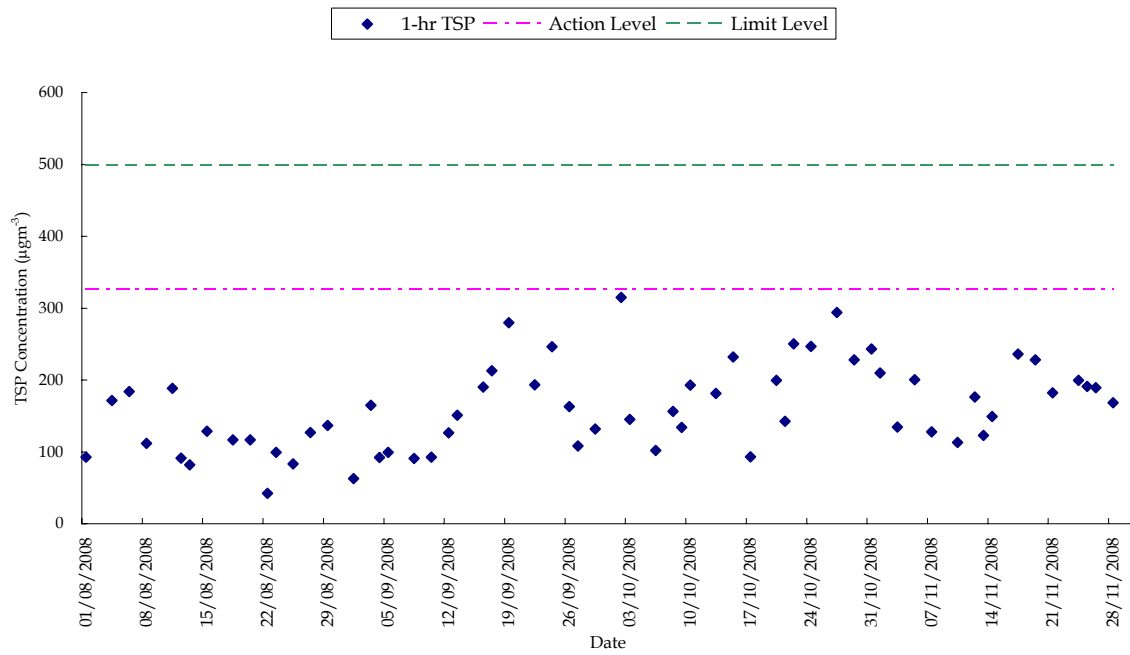
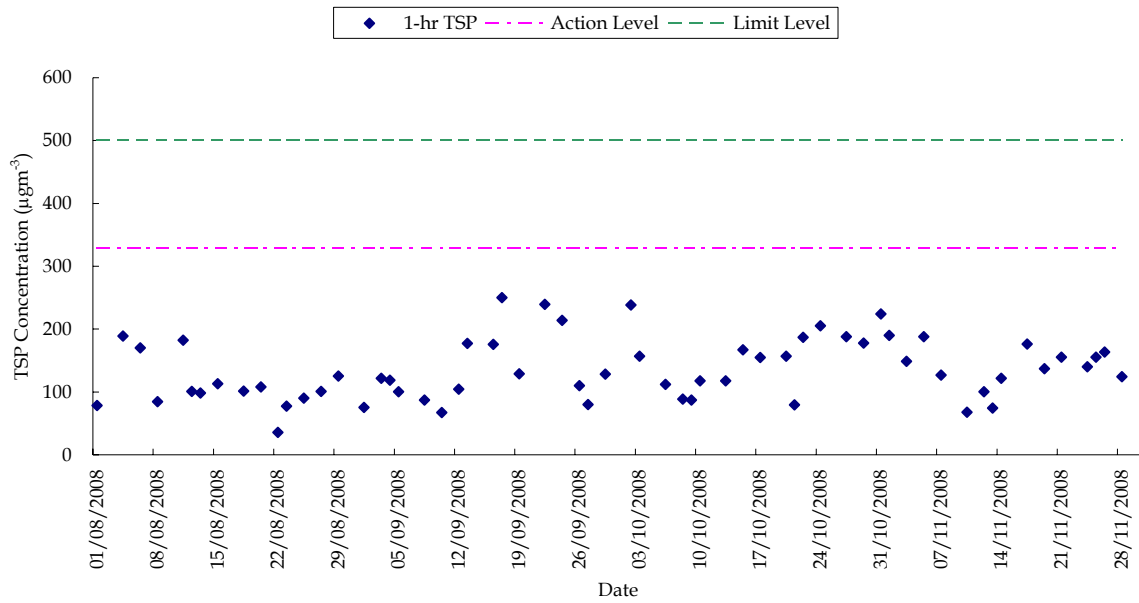


Figure G4 - Measured 1-hour TSP Concentration ( $\mu\text{g}\text{m}^{-3}$ ) at AM2



Annex H

## Event / Action Plans for Air Quality Monitoring

**Table H1 Event Action Plans for Air Quality**

Event Action Level	Action			
	ET	Contractor	ER	IEC
Exceedance for one sample	<ol style="list-style-type: none"> <li>1. Identify source</li> <li>2. Notify IEC, ER and Contractor within 1 working day after receiving the laboratory results.</li> <li>3. Conduct additional monitoring to investigate the causes.</li> <li>4. Report the investigation results and if exceedance is due to contractor's construction works to the IEC, ER and Contractor.</li> <li>5. Increase monitoring frequency to once per 2 days for 24-hour TSP and daily for 1-hour TSP until exceedance stops if exceedances are considered related to contractor's construction works and report the results to IEC, ER and Contractor within 1 working day after receiving the laboratory results.</li> </ol>	<ol style="list-style-type: none"> <li>1. Take immediate action to avoid further exceedance and rectify any unacceptable practice.</li> <li>2. Submit air mitigation proposal to IEC and ER for agreement within 3 working days if ET indicated that exceedance is related to the construction works</li> <li>3. Implement agreed proposal within a time scale agreed with ER and IEC.</li> </ol>	<ol style="list-style-type: none"> <li>1. Confirm receipt of notification of failure in writing.</li> <li>2. Notify Contractor.</li> <li>3. Require Contractor to submit air mitigation proposal.</li> <li>4. Ensure remedial measures are properly implemented.</li> </ol>	<ol style="list-style-type: none"> <li>1. Review monitoring data and investigation report submitted by ET.</li> <li>2. Review Contractor's air mitigation proposal and advise the ER accordingly.</li> <li>3. Supervise and confirm in writing the implementation of remedial measures within 2 working days after receipt of the mitigation proposal.</li> </ol>
Exceedance for two or more consecutive samples	<ol style="list-style-type: none"> <li>1. Identify source</li> <li>2. Notify EPD, IEC, ER and Contractor within 1 working day after receiving the laboratory results</li> <li>3. Conduct additional monitoring to investigate the causes.</li> <li>4. Report the investigation results and if exceedances are due to contractor's construction works to EPD, IEC, ER and Contractor within 3 working days after additional monitoring.</li> <li>5. Increase monitoring frequency to daily for 24-hour TSP and 1-hour TSP if exceedances are considered related to contractor's construction works until exceedance stops, and report the results to EPD, IEC, ER and Contractor within 1 working day after receiving the laboratory results.</li> <li>6. If exceedances continue after 1-week monitoring events, request ER to arrange meeting with ER, IEC and contractor to discuss remedial actions.</li> </ol>	<ol style="list-style-type: none"> <li>1. Take immediate action to avoid further exceedance and rectify any unacceptable practice</li> <li>2. In consultation with the IEC, submit air mitigation proposal to IEC and ER for agreement within 3 working days of notification if ET indicated that exceedances are related to construction works</li> <li>3. Implement agreed proposal within a time scale agreed with ER and IEC.</li> <li>4. Amend working methods if appropriate.</li> </ol>	<ol style="list-style-type: none"> <li>1. Confirm receipt of notification of failure in writing.</li> <li>2. Notify Contractor.</li> <li>3. Require Contractor to submit air mitigation proposal.</li> <li>4. Ensure remedial measures are properly implemented.</li> </ol>	<ol style="list-style-type: none"> <li>1. Review monitoring data and investigation report submitted by ET.</li> <li>2. Discuss amongst ER, ET and Contractor in order to formulate air mitigation proposal.</li> <li>3. Review Contractor's air mitigation proposal and advise the ER accordingly.</li> <li>4. Supervise and confirm in writing the implementation of remedial measures within 2 working days after receipt of the mitigation proposal.</li> </ol>

Event Limit Level	Action			
	ET	Contractor	ER	IEC
Exceedance for one sample	<ol style="list-style-type: none"> <li>1. Identify source</li> <li>2. Notify EPD, IEC, ER and Contractor within 1 working day after receiving the laboratory results</li> <li>3. Conduct additional monitoring to investigate the causes.</li> <li>4. Report the investigation results and if exceedances are due to contractor's construction works to EPD, IEC, ER and Contractor within 3 working days after additional monitoring.</li> <li>5. Increase monitoring frequency to daily if exceedances are considered related to contractor's construction works until exceedance stops, and report the results to EPD, IEC, ER and Contractor within 1 working day after receiving the laboratory results.</li> </ol>	<ol style="list-style-type: none"> <li>1. Take immediate action to avoid further exceedance and rectify any unacceptable practice</li> <li>2. In consultation with the IEC, submit air mitigation proposal to IEC and ER for agreement within 3 working days of notification if ET indicated that exceedances are related to construction works</li> <li>3. Implement agreed proposal within a time scale agreed with ER and IEC.</li> <li>4. Amend working methods if appropriate.</li> </ol>	<ol style="list-style-type: none"> <li>1. Confirm receipt of notification of failure in writing.</li> <li>2. Notify Contractor.</li> <li>3. Require Contractor to submit air mitigation proposal.</li> <li>4. Ensure remedial measures are properly implemented.</li> </ol>	<ol style="list-style-type: none"> <li>1. Review monitoring data and investigation report submitted by ET.</li> <li>2. Discuss amongst ER, ET and Contractor in order to formulate air mitigation proposal.</li> <li>3. Review Contractor's air mitigation proposal and advise the ER accordingly.</li> <li>4. Supervise and confirm in writing the implementation of remedial measures within 2 working days after receipt of the mitigation proposal.</li> </ol>
Exceedance for two or more consecutive samples	<ol style="list-style-type: none"> <li>1. Identify source</li> <li>2. Notify EPD, IEC, ER and Contractor within 1 working day after receiving the laboratory results</li> <li>3. Conduct additional monitoring to investigate the causes.</li> <li>4. Report the investigation results and if exceedances are due to contractor's construction works to EPD, IEC, ER and Contractor within 3 working days after additional monitoring.</li> <li>5. Increase monitoring frequency to daily if exceedances are considered related to contractor's construction works until exceedance stops, and report the results to EPD, IEC, ER and Contractor within 1 working day after receiving the laboratory results.</li> <li>6. If exceedances continue after 2 consecutive monitoring events, request ER to arrange meeting with IEC and contractor to discuss remedial actions.</li> </ol>	<ol style="list-style-type: none"> <li>1. Take immediate action to avoid further exceedance and rectify any unacceptable practice</li> <li>2. In consultation with the IEC, submit air mitigation proposal to IEC and ER for agreement within 3 working days of notification if ET indicated that exceedances are related to construction works</li> <li>3. Implement agreed proposal within a time scale agreed with ER and IEC.</li> <li>4. Amend working methods and proposal if appropriate.</li> <li>5. Stop relevant portion(s) of works as required by ER, ET and IEC</li> </ol>	<ol style="list-style-type: none"> <li>1. Confirm receipt of notification of failure in writing.</li> <li>2. Notify Contractor.</li> <li>3. Require Contractor to submit air mitigation proposal.</li> <li>4. Ensure remedial measures are properly implemented.</li> <li>5. If exceedances continue arrange meeting with Contractor, IEC and ET and to consider what portion(s) of works should be further mitigated or have to stop.</li> </ol>	<ol style="list-style-type: none"> <li>1. Review monitoring data and investigation report submitted by ET.</li> <li>2. Discuss amongst ER, ET and Contractor in order to formulate air mitigation proposal.</li> <li>3. Review Contractor's air mitigation proposal and advise the ER accordingly.</li> <li>4. Supervise and confirm in writing the implementation of remedial measures within 2 working days after receipt of the mitigation proposal.</li> </ol>

Annex I

## Summary of Implementation Status

## Annex I - Summary of Environmental Protection / Mitigation Activities

Environmental Permit No. EP-239/2006/B

EP Condition Ref	Submission	Action Required by the Permit Holder	Implementation Status
<b>Measures for Mitigating Water Quality Impact</b>			
2.4	Method statement on silt screens for seawater intakes (including design and maintenance requirements)	2 weeks before commencement of marine pile installation works	Method statement was submitted to the EPD on 21/6/06. Method statement (Revision A) was submitted to the EPD on 29/9/06. Method statement (Revision B) and supplementary information was submitted to the EPD on 23/5/07 and 18/6/07 respectively.
2.5	Method statement on silt curtain system for marine piling works (including design and maintenance requirements)	2 weeks before commencement of marine pile installation works	Method statement was submitted to the EPD on 15/9/06.
2.8	Design drawings specifying pile dimension and layout	2 weeks before commencement of marine pile installation works	Marine pile layout (final stage) was submitted to the EPD on 15/2/07.  Revised marine pile layout (final stage) was submitted to the EPD on 26/3/07.
<b>Measures for Mitigating Air Quality Impact</b>			
2.9	Design drawings of ventilation facility for fresh air intakes (req'd only before operation of Project)	2 weeks before commencement of installation of ventilation facility	---
<b>Measures for Mitigating Landscape and Visual Impact</b>			
2.10	Implementation programme for landscape and visual mitigation measures (for both construction and operational phases of Project)	Within 6 months after commencement of construction of Project	Implementation programme (CM01, CM04 and CM05) was submitted to the EPD on 8/12/06.
2.10	Details of each landscape and visual mitigation measures package (incl plans)	2 weeks before implementation of a particular mitigation package	Proposal on protection and transplantation of existing trees was submitted to the EPD on 8/12/06. Proposal for CM03 was submitted to the EPD on 8/12/06. Proposal for CM01, CM04 and CM05 was submitted to the EPD on 15/12/06. CM01 Rev 1 was submitted to the EPD on 22/1/07. Proposal CM02 was submitted to the EPD on 13/3/07. Proposal for OM01 was submitted to the EPD on 15/11/07.
3.2	Baseline Monitoring Report	One week before the commencement of construction	Report was submitted to the EPD on 24/7/06 and comments from the EPD was received on 3/8/06. Revised report was submitted to EPD on 17/8/06 and no further comments received.

## Summary of Mitigation Measures Implementation Schedule

Type of Impact	Environmental Protection Measures	Location/ Timing	Status
<i>Construction Phase</i>			
Air Quality	<p>The Air Pollution Control (Construction Dust) Regulation shall be implemented and good site practices shall be incorporated in the contract clauses to minimize construction dust impact. A number of practical measures are listed below:</p> <ul style="list-style-type: none"> <li>• skip hoist for material transport should be totally enclosed by impervious sheeting;</li> <li>• every vehicle should be washed to remove any dusty materials from its body and wheels before leaving a construction site;</li> <li>• the area where vehicle washing takes place and the section of the road between the washing facilities and the exit point should be paved with concrete, bituminous materials or hardcores;</li> <li>• where a site boundary adjoins a road, streets or other accessible to the public, hoarding of not less than 2.4 m high from ground level should be provided along the entire length except for a site entrance or exit;</li> <li>• every stock of more than 20 bags of cement should be covered entirely by impervious sheeting placed in an area sheltered on the top and the 3 sides;</li> <li>• all dusty materials should be sprayed with water prior to any loading, unloading or transfer operation so as to maintain the dusty materials wet;</li> <li>• the height from which excavated materials dropped should be controlled to a minimum practical height to limit fugitive dust generation from unloading;</li> <li>• the load of dusty materials carried by vehicle leaving a construction site should be covered entirely by clean impervious sheeting to ensure dust materials do not leak from the vehicle; and</li> <li>• instigation of an environmental monitoring auditing program to monitor the construction process in order to enforce controls and modify method of work if dusty conditions arise.</li> </ul>	Work site / during construction	Δ



## Summary of Mitigation Measures Implementation Schedule

Type of Impact	Environmental Protection Measures	Location/ Timing	Status
<i>Operational Phase</i>			
Air Quality	Some fresh air intakes of the Hong Kong Convention and Exhibition Centre Phase I, Renaissance Harbour View Hotel and Grand Hyatt Hotel (ASRs A4, A5 and A6) should be re-diverted to the new air vent shaft provided for Atrium Link Extension where fresh air intake located at +55.8mPD.	Location of ASRs A4, A5 & A6 / Design & Operation Stage (Long-term and Interim Scenario)	Measures not required until commencement of operational phase
Air Quality	Monitoring of NO <sub>2</sub> concentration underneath the Atrium Link Extension should be conducted.	Underneath the deckover / The first six months upon completion of the ALE.	Measures not required until commencement of operational phase
<i>Construction Phase</i>			
Noise	<p>Good Site Practice:</p> <ul style="list-style-type: none"> <li>• only well-maintained plant should be operated on-site and plant should be serviced regularly during the construction program;</li> <li>• silencers or mufflers on construction equipment should be utilized and should be properly maintained during the construction program;</li> <li>• mobile plant, if any, should be sited as far from NSRs as possible;</li> <li>• machines and plant (such as trucks) that may be in intermittent use should be shut down between work periods or should be throttled down to a minimum;</li> <li>• plant known to emit noise strongly in one direction should, wherever possible, be orientated so that the noise is directed away from the nearby NSRs; and</li> <li>• material stockpiles and other structures should be effectively utilised, wherever practicable, in screening noise from on-site construction activities;</li> </ul> <p>Environmental audit shall be carried out to ensure that appropriate noise control measures would be properly implemented.</p>	Construction work areas / Construction period	√

## Summary of Mitigation Measures Implementation Schedule

Type of Impact	Environmental Protection Measures	Location/ Timing	Status
<i>Operational Phase</i>			
Noise	<p>The following noise reduction measures should be considered as far as practicable during detailed design:</p> <ul style="list-style-type: none"> <li>• choose quieter plant such as those which have been effectively silenced;</li> <li>• include noise levels specification when ordering new plant;</li> <li>• locate fixed plant away from any NSRs as far as practicable;</li> <li>• locate fixed plant in plant rooms with thick walls or specially designed enclosure;</li> <li>• locate noisy machines in basement or a completely separate building; and</li> <li>• develop and implement a regularly scheduled plant maintenance programme in order to maintain controlled level of noise.</li> </ul>	Plant Room / Design and Operation Stage	Relevant design and plant procurement procedures to commence at a later stage
<i>Construction Phase</i>			
Water Quality	There should be no permanent structure in the water channel.	At the ALE sea channel / during operational phase	√
Water Quality	No dredging and no reclamation should be carried out for the Project.	At work sites / during construction phase	√
Water Quality	The marine pile layout as shown in Figure 3 of the Environmental Permit should be adopted. No more than approximately 80 numbers of temporary marine piles should be installed in the ALE sea channel during the construction phase. The dimension of each temporary marine pile should be 800mm nominal diameter. These piles should be driven into position and internal space should not be excavated, i.e. left as soil. No dredging or soil / sediment excavation should be carried out. Marine piles would be removed by reverse driving.	At work sites / during construction phase	√
Water Quality	Two layers of silt curtain should be installed around each of the marine piling and pile extraction locations. The proposed silt curtain should be extended to seabed with sinker blocks and regularly inspected and maintained to ensure it is serviceable.	At marine work sites and nearby seawater intakes / during marine piling and marine pile extraction	The installation of temporary marine piles was completed on 23 April 2007.

## Summary of Mitigation Measures Implementation Schedule

Type of Impact	Environmental Protection Measures	Location/ Timing	Status
	<p>All marine works should be carried out in a controlled manner such that release of sediments into the marine environment would be minimized. All wastewater generated from the piling activities should be collected and be treated before controlled discharge. Spoil should also be properly collected for proper disposal.</p>		
Water Quality	<p>In view of the close vicinity of the seawater intakes to the work site, silt screens are recommended to be deployed at the seawater intakes shown in Figure 5.2 of the EIA report during the whole construction period. Silt screens to be provided at seawater intakes should be regularly checked and maintained to ensure that they are serviceable. Refuse collection vessel should be mobilized on a need basis to collect any floating refuse lost from/ trapped at the work site during the construction period.</p>	At seawater intakes / during the whole construction period	The installation of temporary marine piles was completed on 23 April 2007. Silt screens were removed as requested by the intake owners. Silt screens will be reinstalled at seawater intakes prior to the removal of marine piles.
Water Quality	<p>Surface run-off from construction sites should be discharged into storm drains via adequately designed sand/silt removal facilities such as sand traps, silt traps and sedimentation basins. Channels or earth bunds or sand bag barriers should be provided on site to properly direct stormwater to such silt removal facilities. Perimeter channels at site boundaries should be provided where necessary to intercept storm runoff from outside the site so that it will not wash across the site. Catchpits and perimeter channels should be constructed in advance of site formation works and earthworks. Silt removal facilities, channels and manholes should be maintained and the deposited silt and grit should be removed regularly, at the onset of and after each rainstorm to ensure that these facilities are functioning properly at all times. Any practical options for the diversion and re-alignment of drainage should comply with both engineering and environmental requirements in order to ensure adequate hydraulic capacity of all drains. Minimum distances of 100 m should be maintained between the discharge points of construction site runoff and the nearby saltwater intakes.</p>	Works areas / construction period	Δ

## Summary of Mitigation Measures Implementation Schedule

Type of Impact	Environmental Protection Measures	Location/ Timing	Status
Water Quality	<p>There is a need to apply to EPD for a discharge license for discharge of effluent from the construction site under the WPCO. The discharge quality must meet the requirements specified in the discharge license. All the runoff and wastewater generated from the works areas should be treated so that it satisfies all the standards listed in the TM-DSS. Reuse and recycling of the treated effluent can minimize water consumption and reduce the effluent discharge volume. The beneficial uses of the treated effluent may include dust suppression, wheel washing and general cleaning. It is anticipated that only a small quantity of wastewater would be generated from the works areas. Any effluent discharge from the construction activities should be diverted away from the sea channel so as to avoid adverse water quality impact. Construction works should be programmed to minimize excavation works in rainy seasons (April to September). If excavation in soil could not be avoided in these months or at any time of year when rainstorms are likely, for the purpose of preventing soil erosion, temporary exposed slope surfaces should be covered e.g. by tarpaulin, and temporary access roads should be protected by crushed stone or gravel, as excavation proceeds. Intercepting channels should be provided (e.g. along the crest / edge of excavation) to prevent storm runoff from washing across exposed soil surfaces. Arrangements should always be in place to ensure that adequate surface protection measures can be safely carried out well before the arrival of a rainstorm.</p>	Works areas / construction period	√
Water Quality	<p>Earthworks final surfaces should be well compacted and the subsequent permanent work or surface protection should be carried out immediately after the final surfaces are formed to prevent erosion caused by rainstorms. Appropriate drainage like intercepting channels should be provided where necessary.</p> <p>Measures should be taken to minimize the ingress of rainwater into trenches. If excavation of trenches in wet seasons is</p>	Works areas / construction period	√

## Summary of Mitigation Measures Implementation Schedule

Type of Impact	Environmental Protection Measures	Location/ Timing	Status
	<p>necessary, they should be dug and backfilled in short sections. Rainwater pumped out from trenches or foundation excavations should be discharged into storm drains via silt removal facilities.</p> <p>Open stockpiles of construction materials (e.g. aggregates, sand and fill material) on sites 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.</p> <p>Manholes (including newly constructed ones) should always be adequately covered and temporarily sealed so as to prevent silt, construction materials or debris from getting into the drainage system, and to prevent storm run-off from getting into foul sewers. Discharge of surface run-off into foul sewers must always be prevented in order not to unduly overload the foul sewerage system.</p>		
Water Quality	Good site practices should be adopted to remove rubbish and litter from construction sites so as to prevent the rubbish and litter from spreading from the site area. It is recommended to clean the construction sites on a regular basis.	Works areas / construction period	Δ
Water Quality	Under normal circumstances, groundwater pumped out of wells, etc. for the lowering of ground water level in basement or foundation construction should be discharged into storm drains after the removal of silt in silt removal facilities.	Works areas / construction period	√
Water Quality	Water used in ground boring and drilling or rock /soil anchoring should as far as practicable be re-circulated after sedimentation. When there is a need for final disposal, the wastewater should be discharged into storm drains via silt removal facilities.	Works areas / construction period	√
Water Quality	Wastewater generated from the washing down of mixing trucks and drum mixers and similar equipment should whenever practicable be recycled. The discharge of wastewater should be	Works areas / construction period	√

## Summary of Mitigation Measures Implementation Schedule

Type of Impact	Environmental Protection Measures	Location/ Timing	Status
	<p>kept to a minimum.</p> <p>To prevent pollution from wastewater overflow, the pump sump of any water recycling system should be provided with an on-line standby pump of adequate capacity and with automatic alternating devices.</p> <p>Under normal circumstances, surplus wastewater may be discharged into foul sewers after treatment in silt removal and pH adjustment facilities (to within the pH range of 6 to 10). Disposal of wastewater into storm drains will require more elaborate treatment.</p>		
Water Quality	<p>All vehicles and plant should be cleaned before they leave a construction site to ensure no earth, mud, debris and the like is deposited by them on roads.</p> <p>A wheel washing bay should be provided at every site exit if practicable and wash-water should have sand and silt settled out or removed before discharging into storm drains. The section of construction road between the wheel washing bay and the public road should be paved with backfall to reduce vehicle tracking of soil and to prevent site run-off from entering public road drains.</p>	Works areas / construction period	Δ
Water Quality	<p>Bentonite slurries used in diaphragm wall and bore-pile construction should be reconditioned and reused wherever practicable. If the disposal of a certain residual quantity cannot be avoided, the used slurry may be disposed of at the marine spoil grounds subject to obtaining a marine dumping licence from EPD on a case-by-case basis.</p> <p>If the used bentonite slurry is intended to be disposed of through the public drainage system, it should be treated to the respective effluent standards applicable to foul sewer, storm drains or the receiving waters as set out in the WPCO Technical Memorandum on Effluent Standards.</p>	Works areas / construction period	√

## Summary of Mitigation Measures Implementation Schedule

Type of Impact	Environmental Protection Measures	Location/ Timing	Status
	<p>Water used in water testing to check leakage of structures and pipes should be reused for other purposes as far as practicable. Surplus unpolluted water could be discharged into storm drains.</p> <p>Sterilization is commonly accomplished by chlorination. Specific advice from EPD should be sought during the design stage of the works with regard to the disposal of the sterilizing water. The sterilizing water should be reused wherever practicable. Discharge of sterilization effluent should be properly pre-treated for compliance with TM/WPCO requirements, such as but not limited to total residual chlorine.</p>	Works areas / construction period	
Water Quality	<p>Effluent discharges from building construction and other construction site activities are subject to WPCO control. Before commencing any demolition works, all sewer and drainage connections should be sealed to prevent building debris, soil, sand etc. from entering public sewers/drains.</p> <p>Wastewater generated from building construction activities including concreting, plastering, internal decoration, cleaning of works and similar activities should not be discharged into the stormwater drainage system. If the wastewater is to be discharged into foul sewers, it should undergo the removal of settleable solids in a silt removal facility, and pH adjustment as necessary.</p>	Works areas / construction period	Δ
Water Quality	<p>Acidic wastewater generated from acid cleaning, etching, pickling and similar activities should be neutralized to within the pH range of 6 to 10 before discharging into foul sewers. If there is no public foul sewer in the vicinity, the neutralized wastewater should be tinkered off site for disposal into foul sewers or treated to a standard acceptable to storm drains and the receiving waters.</p>	Works areas / construction period	No acidic wastewater will be generated.

## Summary of Mitigation Measures Implementation Schedule

Type of Impact	Environmental Protection Measures	Location/ Timing	Status
Water Quality	<p>Wastewater collected from canteen kitchens, including that from basins, sinks and floor drains, should be discharged into foul sewer via grease traps capable of providing at least 20 minutes retention during peak flow.</p> <p>Drainage serving an open oil filling point should be connected to storm drains via a petrol interceptors with peak storm bypass.</p> <p>Vehicle and plant servicing areas, vehicle wash bays and lubrication bays should as far as possible be located within roofed areas. The drainage in these covered areas should be connected to foul sewers via a petrol interceptor. Oil leakage or spillage should be contained and cleaned up immediately. Waste oil should be collected and stored for recycling or disposal in accordance with the Waste Disposal Ordinance.</p>	Works areas / construction period	√
Water Quality	<p>It is recommended to provide sufficient chemical toilets in the works areas. The toilet facilities should be more than 30 m from the seafront or any watercourse. A licensed waste collector should be deployed to clean the chemical toilets on a regular basis.</p> <p>Notices should be posted at conspicuous locations to remind the workers not to discharge any sewage or wastewater into the nearby environment. Regular environmental audit on the construction site can provide an effective control of any malpractices and can encourage continual improvement of environmental performance on site.</p>	Works areas / construction period	√
Water Quality	<p>Contractor must register as a chemical waste producer if chemical wastes would be produced from the construction activities. The Waste Disposal Ordinance (Cap 354) and its subsidiary regulations in particular the Waste Disposal (Chemical Waste) (General) Regulation should be observed and complied with for control of chemical wastes.</p>	Works areas / construction period	√
Water	<p>Any service shop and maintenance facilities should be located on</p>	Works areas / construction period	√



## Summary of Mitigation Measures Implementation Schedule

Type of Impact	Environmental Protection Measures	Location/ Timing	Status
Quality	<p>hard standings within a bunded area, and sumps and oil interceptors should be provided. Maintenance of vehicles and equipment involving activities with potential for leakage and spillage should only be undertaken within the areas appropriately equipped to control these discharges.</p> <p>Disposal of chemical wastes should be carried out in compliance with the Waste Disposal Ordinance. The Code of Practice on the Packaging, Labelling and Storage of Chemical Wastes published under the Waste Disposal Ordinance details the requirements to deal with chemical wastes. General requirements are given as follows:</p> <ul style="list-style-type: none"> <li>• suitable containers should be used to hold the chemical wastes to avoid leakage or spillage during storage, handling and transport;</li> <li>• chemical waste containers should be suitably labelled, to notify and warn the personnel who are handling the wastes, to avoid accidents; and</li> <li>• storage area should be selected at a safe location on site and adequate space should be allocated to the storage area.</li> </ul>		
Water Quality	<p>To minimize the potential water quality impacts from the construction works located at or near the storm system or seafront, the following mitigation measures should be adopted:</p> <ul style="list-style-type: none"> <li>• the use of less or smaller construction plants may be specified to reduce the disturbance to the seabed;</li> <li>• temporary sewerage system should be designed to prevent wastewater from entering the storm system and sea;</li> <li>• temporary storage of materials (e.g. equipment, filling materials, chemicals and fuel) and temporary stockpile of construction materials should be located well away from any water courses during carrying out of the construction works;</li> <li>• stockpiling of construction materials and dusty materials should be covered and located away from any water courses;</li> <li>• construction debris and spoil should be covered up and/or disposed of as soon as possible to avoid being washed into</li> </ul>	Works areas / construction period	√

## Summary of Mitigation Measures Implementation Schedule

Type of Impact	Environmental Protection Measures	Location/ Timing	Status
	<p>the nearby water receivers;</p> <ul style="list-style-type: none"> <li>• construction activities, which generate large amount of wastewater, should be carried out in a distance away from the waterfront, where practicable;</li> <li>• mitigation measures to control site runoff from entering the nearby water environment should be implemented to minimize water quality impacts. Surface channels should be provided along the edge of the waterfront within the work sites to intercept the runoff;</li> <li>• construction effluent, site run-off and sewage should be properly collected and/or treated;</li> <li>• proper shoring may need to be erected in order to prevent soil/mud from slipping into the storm culvert/sea; and</li> <li>• supervisory staff should be assigned to station on site to closely supervise and monitor the works.</li> </ul>		
Water Quality	If monitoring of the treated effluent quality from the Works Areas is required during the construction phase of the Project, the monitoring should be carried out in accordance with the WPCO license which is under the ambit of regional office (RO) of EPD. The contractor should submit detailed monitoring programme to EPD for approval before commencement of the construction activities.	Works areas / construction period	√
Water Quality	Monitoring of the water quality at the seawater intakes inside the ALE sea channel should be conducted.	ALE sea channel / Before construction period and during installation and removal of temporary marine piles.	√
Water Quality	All barges should be fitted with tight seals to their bottom opening to prevent leakage of materials. The decks of all vessels should be kept tidy and free of oil or other substances that might be accidentally or otherwise washed overboard. Loading of barges should be controlled to prevent splashing of materials to the surrounding environment and barges should under no circumstances be filled to a level which would cause overflowing of material or sediment laden water during loading and	Works areas / construction period	No barge will be required for the project.

## Summary of Mitigation Measures Implementation Schedule

Type of Impact	Environmental Protection Measures	Location/ Timing	Status
	transportation. All barges should maintain adequate clearance between vessels and the seabed at all states of the tide and should operate at a reduced speeds to ensure that undue turbidity is not generated by turbulence from vessel movement or propeller wash.		
Water Quality	Connection of sewage generated from the ALE will be connected to the existing public sewer. For handling, treatment and disposal of other operational stage effluent, the practices outlined in ProPECC PN 5/93 should be adopted where applicable. Consensus from DSD should be sought on technical details of the drainage and sewerage proposals.	Project site / design and construction period	Relevant works have yet to be commenced / completed
<i>Construction Phase</i>			
Waste	<p>Recommendations for good site practices during the construction activities include:</p> <ul style="list-style-type: none"> <li>• 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;</li> <li>• training of site personnel in proper waste management and chemical handling procedures;</li> <li>• provision of sufficient waste disposal points and regular collection of waste;</li> <li>• appropriate measures to minimize windblown litter and dust during transportation of waste by either covering trucks or by transporting wastes in enclosed containers; and</li> <li>• regular cleaning and maintenance programme for drainage systems, sumps and oil interceptors.</li> </ul>	Work site / during the construction period	√
Waste	<p>Waste reduction is best achieved at the planning and design stage, as well as by ensuring the implementation of good site practices. Recommendations to achieve waste reduction include:</p> <ul style="list-style-type: none"> <li>• sorting of demolition debris and excavated materials from demolition works to recover reusable/ recyclable portions (ie soil, broken concrete, metal, etc);</li> </ul>	Work site / during the construction period	Δ

## Summary of Mitigation Measures Implementation Schedule

Type of Impact	Environmental Protection Measures	Location/ Timing	Status
	<ul style="list-style-type: none"> <li>• segregation and storage of different types of waste in different containers, skips or stockpiles to enhance reuse or recycling of materials and their proper disposal;</li> <li>• encourage collection of aluminum cans by individual collectors by providing separate labeled bins to enable this waste to be segregated from other general refuse generated by the work force;</li> <li>• proper storage and site practices to minimize the potential for damage to contamination of construction materials; and</li> <li>• plan and stock construction materials carefully to minimize amount of waste generated and avoid unnecessary generation of waste.</li> </ul>		
Waste	<p><u>General Refuse</u></p> <p>General refuse should be stored in enclosed bins or compaction units separate from C&amp;D material. A reputable waste collector should be employed by the contractor to remove general refuse from the site, separately from C&amp;D material. Preferably an enclosed and covered area should be provided to reduce the occurrence of 'wind blown' light material.</p>	Work site / during the construction period	√
Waste	<p><u>Construction and Demolition Material</u></p> <ul style="list-style-type: none"> <li>• In order to minimize the impact resulting from collection and transportation of C&amp;D material for off-site disposal, the C&amp;D material from the following construction activities should be reused and recycled as far as possible to reduce the net amount of C&amp;D material generated from the Project;</li> <li>• a Waste Management Plan should be prepared in accordance with ETWB TCW No. 19/2005;</li> <li>• a recording system for the amount of wastes generated, recycled and disposed (including the disposal sites) should be proposed;</li> <li>• in order to monitor the disposal of C&amp;D and solid wastes at</li> </ul>	Work site / during the construction period	√

## Summary of Mitigation Measures Implementation Schedule

Type of Impact	Environmental Protection Measures	Location/ Timing	Status
	<p>public filling facilities and landfills and to control fly-tipping, a trip-ticket system should be included. One may make reference to ETWB TCW No.31/2004 for details;</p> <ul style="list-style-type: none"> <li>the large amount of C&amp;D waste generated is mainly due to the piling works of large diameter piles' excavation at the sea front site. If however marine sediment is found during pile excavation, the handling and disposal of such wastes will be managed in accordance with the requirements of the DASO and the current ETWB Tech. Circular no. 34/2002.</li> </ul>		
Waste	<p><u>Chemical Wastes</u></p> <p>If chemical wastes are produced at the construction site, the Contractor would be required to register with the EPD as a Chemical Waste Producer and to follow the guidelines stated in the <i>Code of Practice on the Packaging, Labelling and Storage of Chemical Wastes</i>. 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 explosives, flammable, oxidizing, irritant, toxic, harmful, corrosive, etc. The Contractor shall use a licensed collector to transport and dispose of the chemical wastes, to either the Chemical Waste Treatment Centre at Tsing Yi, or another licensed facility, in accordance with the Waste Disposal (Chemical Waste) (General) Regulation. For this Project, the amount of chemical wastes produced would be small.</p>	Work site / during the construction period	Δ
<i>Operational Phase</i>			
Waste	<p><u>General Refuse</u></p> <p>Similar to the existing situation, the main waste type generated during the operation stage of the Project will be general refuse generated by the public and staff. These include waste paper, food wrappings and beverage containers. The disposal of future</p>	Work site / during the construction period	Measures not required until commencement of operational phase

## Summary of Mitigation Measures Implementation Schedule

Type of Impact	Environmental Protection Measures	Location/ Timing	Status
	waste arisings generated at the HKCEC would follow the existing handling and disposal arrangement. Provided proper arrangements are made with licensed contractors to collect the generated waste, adverse waste-related impact is not anticipated during the operation stage. It is expected that there will be a 5-7% increase ratio in the future operations.		
<i>Construction Phase</i>			
Landscape & Visual	Due consideration of appearance and view to 'hide' the construction through careful use of: (a) hoarding design; (b) temporary partition walls; (c) screen for hotels; and (d) temporary footbridge.	Entire works area and adjacent hotels	√
Landscape & Visual	Due consideration to protect existing trees.	Entire works area	√
Landscape & Visual	Due consideration of visual impact from construction activities: (a) construction workers access to reach construction areas without passing through hotels and existing HKCEC; and (b) construction light.	Entire works area	√
<i>Operational Phase</i>			
Landscape & Visual	Sensitive soft and hard landscape design for exposed rooftop garden and shady covered area underneath the Atrium Link Extension. Maximize greening opportunity via various in-situ planting and potted planting to achieve 30% of the roof area as planting area for the project.	Roof top and area underneath the Atrium Link Extension	Mitigation measures to be implemented during operational phase
Landscape & Visual	Sensitive building architecture to visually reduce the bulkiness of the building structure, to visually break down the scale of the facades, and to create rooftops for greening opportunities.	Building of the Atrium Link Extension	Mitigation measures to be implemented during operational phase

## Summary of Mitigation Measures Implementation Schedule

Type of Impact	Environmental Protection Measures	Location/ Timing	Status
Landscape & Visual	Appearance and view considerations: (a) avoid industrial feel of building service elements; (b) interior visual screens for lower levels of the hotels; (c) consider relocation of facilities of interior spaces of hotels; and (d) careful lighting design at roofs and for building façade to avoid night-time glare.	Entire proposed works and adjacent hotels	Mitigation measures to be implemented during operational phase
Landscape & Visual	Transplanting of trees to adjacent locations.	Convention Avenue	Mitigation measures to be implemented during operational phase
Landscape & Visual	Reinstatement of existing waterfront public footpaths along Convention Avenue and the existing open spaces near Fenwick Street.	Convention Avenue and Fenwick Street	Mitigation measures to be implemented during operational phase

### Remark:

- √ Compliance of Mitigation Measures
- <> Compliance of Mitigation but need improvement
- x Non-compliance of Mitigation Measures
- ▲ Non-compliance of Mitigation Measures but rectified by Hip Hing - Ngo Kee JV
- Δ Deficiency of Mitigation Measures but rectified by Hip Hing - Ngo Kee JV

Annex J

## Waste Flow Table



## HKCEC – Expansion Project

**Name of Project Proponent: HKTDC**

**Project Commencement Date: 1 Aug 2006**

**Construction Completion Date: March 2009**

### Monthly Summary Waste Flow Table for Year 2008

Year	Actual Quantities of inert C&D Materials (in 10 <sup>3</sup> Kg) <sup>(1)(2)</sup>					Actual Quantities of C&D Wastes (in 10 <sup>3</sup> Kg) <sup>(4)</sup>									
	Total Quantity Generated	Broken Concrete <sup>(3)</sup>	Reused in the Contract	Reused in other Projects <sup>(3)</sup>	Disposed as Public Fill	Steel Materials				Paper/cardboard packaging		Chemical Waste (L)		General refuse	Other waste <sup>(6)</sup>
						Demolition of existing Atrium Link		Demolition of existing working platform		Recycle	Disposal	Recycle	Disposal		
(a)	(b)	(c)	(d)	(a)-(b)-(c)-(d)	Recycle	Disposal	Recycle	Disposal	Recycle	Disposal	Recycle	Disposal	Disposal	Disposal	
January	495	0	0	0	495	10 <sup>(5)</sup>	0	0	0	0.2	0.04	0	0	30	122
February	539	0	0	0	539	20 <sup>(5)</sup>	0	0	0	0.5	0.02	0	0	33.4	20
March	485	0	0	0	485	5	0	0	0	0.5	0.02	0	0	20.0	59
April	545	0	0	0	545	1	0	0	0	0.5	0.02	0	0	25.0	80
May	35	0	0	0	35	0	0	0	0	1.0	0.05	0	0	28.0	70
June	40	0	0	0	40	0	0	0	0	1.5	0.05	0	0	44.0	63.3
July	83	0	0	0	83	50	0	0	0	1.5	0.05	0	0	67.0	43.8
August	217.5	0	0	0	217.5	60	0	0	0	2.0	0.05	0	0	59.0	257.0
Sep	9.0	0	0	0	9.0	50	0	0	0	2.5	0.05	0	0	74.0	126.7
October	15	0	0	0	15	10	0	0	0	3.0	0.05	0	0	40.0	90.5
November	20	0	0	0	20	0	0	0	0	4.0	0.05	0	0	130.5	151.0
December															
<b>Total</b>	2468.5	0	0	0	2468.5	196 <sup>(5)</sup>	0	0	0	20.2	0.40	0	0	510.9	992.8

Note:

<sup>(1)</sup> Inert C&D materials include bricks, concrete, building debris, rubble and excavated soil.

<sup>(2)</sup> Inert C&D material mainly generated from demolition of atrium link.

<sup>(3)</sup> Broken concrete fro recycling into aggregates.

<sup>(4)</sup> C&D wastes include steel materials generated from demolition, paper / cardboard packaging waste, chemical waste and other wastes such as general refuse. Wastes other than general refuse will be disposed of at Tsung Kwan O Area 137 temporary construction waste sorting facility.

<sup>(5)</sup> Waste from demolition of steel structure at existing Atrium Link of HKCEC (Phase 2).

<sup>(6)</sup> Wastes include materials associated with additional and alternation (A&A) works of HKCEC (e.g. demolition of E&M equipment and finishing materials, bamboo scaffolding) and piling works.

Annex K

## Construction Programme for Next Three Months

Hong Kong Convention and Exhibition Centre  
Expansion Project  
3 Month Rolling Programme based on revised Master Programme Rev. 2 updating on 30 November 08

ID	Task Name	% Compl.	Actual Start	Actual Finish	Baseline Start 1	Baseline Finish 1	2008
1	PROJECT WIDE	42%	Fri 26/5/06	NA	Fri 26/5/06	Fri 12/6/09	Dec
2	Critical Dates	42%	Fri 26/5/06	NA	Fri 26/5/06	Fri 12/6/09	Nov
3	Project Milestones	99%	Fri 26/5/06	NA	Fri 26/5/06	Fri 12/6/09	Oct
155	Design Submission & Approval (Permanent Works)	98%	Thu 25/5/06	NA	Thu 25/5/06	Mon 24/12/07	Sep
234	Architectural Design	98%	Sat 26/8/06	NA	Thu 17/8/06	Mon 24/12/07	Aug
259	Amendment for AST 1&2, 5&6	100%	Tue 15/5/07	Thu 26/6/08	NA	NA	Jul
261	Design Check by Design Checker	100%	Mon 24/9/07	Mon 24/12/07	NA	NA	Jun
262	DDR by PM	100%	Fri 28/12/07	Thu 26/6/08	NA	NA	May
264	Amendment for AST 7 & 8	100%	Mon 14/5/07	Thu 26/6/08	NA	NA	Apr
266	Design Check by Design Checker	100%	Thu 11/10/07	Thu 27/12/07	NA	NA	Mar
267	DDR by PM	100%	Fri 28/12/07	Thu 26/6/08	NA	NA	Feb
268	DDR for Staircase	100%	Thu 26/6/08	Thu 26/6/08	NA	NA	Jan
269	Internal Staircase at (A.20 L2-6) (A.18 L7-7M)	100%	Sat 21/10/06	Fri 1/8/08	Sat 21/10/06	Mon 23/7/07	Dec
274	Resubmit & DDR by PM	100%	Sat 19/1/08	Fri 1/8/08	NA	NA	Nov
275	DDR for Staircase	100%	Fri 1/8/08	Fri 1/8/08	NA	NA	Oct
287	Foyer Floors and Wall at Level 2, 5 and 7	100%	Wed 30/5/07	Tue 27/5/08	Thu 17/8/06	Wed 18/7/07	Sep
290	RIP/DDR by PM	100%	Tue 27/11/07	Tue 27/5/08	Thu 31/8/06	Thu 14/9/06	Aug
291	RIP/DDR for Foyer Floors and Wall at Level 2, 5 and 7	100%	Tue 27/5/08	Tue 27/5/08	Thu 14/9/06	Thu 14/9/06	Jul
292	Feature Wall at Level 2 Foyer	100%	Fri 13/7/07	Thu 14/2/08	Fri 13/7/07	Fri 14/9/07	Jun
296	RIP/DDR for Feature Wall at Level 2 Foyer	100%	Thu 14/2/08	Thu 14/2/08	Fri 14/9/07	Fri 14/9/07	May
297	Lift Lobbies at Level 2, 3, 5, 6, 7 and 7M	100%	Thu 28/6/07	Thu 27/3/08	Thu 28/6/07	Fri 14/9/07	Apr
301	RIP/DDR by PM	100%	Mon 28/1/08	Thu 27/3/08	Fri 31/8/07	Fri 14/9/07	Mar
302	RIP/DDR for Lift Lobbies at Level 2, 3, 5, 6, 7 and 7M	100%	Thu 27/3/08	Thu 27/3/08	Fri 14/9/07	Fri 14/9/07	Feb
303	Foyer Floor and Walls at Level 3 and 6, Interior of Dressing Rm	100%	Fri 27/7/07	Wed 20/8/08	Fri 27/7/07	Fri 28/9/07	Jan
306	RIP/DDR by PM	100%	Thu 17/1/08	Wed 20/8/08	Fri 14/9/07	Fri 28/9/07	Dec
307	RIP/DDR for Foyer Floor and Walls at Level 3 and 6, Interior of Dressing Rm	100%	Wed 20/8/08	Wed 20/8/08	Fri 14/9/07	Fri 28/9/07	Nov
308	Internal Aluminium Cladding	100%	Thu 7/6/07	Fri 27/6/08	Thu 7/6/07	Thu 13/9/07	Oct
311	RIP/DDR by PM	100%	Mon 4/2/08	Fri 27/6/08	Thu 30/9/07	Thu 13/9/07	Sep
312	RIP/DDR for Internal Aluminium Cladding	100%	Fri 27/6/08	Fri 27/6/08	Thu 13/9/07	Thu 13/9/07	Aug
313	Foyer reflected ceiling plan	100%	Thu 31/5/07	Tue 11/3/08	Thu 31/5/07	Thu 13/9/07	Jul
316	RIP by PM	100%	Thu 11/10/07	Tue 11/3/08	Fri 31/8/07	Thu 13/9/07	Jun
317	RIP for Foyer reflected ceiling plan	100%	Tue 11/3/08	Tue 11/3/08	Thu 13/9/07	Thu 13/9/07	May
324	Remaining Washrooms	100%	Fri 27/7/07	Tue 29/1/08	Fri 27/7/07	Fri 28/9/07	Apr
328	RIP/DDR for Remaining Washrooms	100%	Tue 29/1/08	Tue 29/1/08	Fri 28/9/07	Fri 28/9/07	Mar

Project: 3 Month Rolling Programme based on revised Master Programme Rev. 2  
Date: 30/11/2008

Legend:

- Task: [Solid Bar]
- Critical Task: [Hatched Bar]
- Progress: [Dotted Bar]
- Milestone: [Diamond]
- Summary: [Thick Arrow]
- Split: [Thin Arrow]
- External Tasks: [Grey Bar]
- Project Summary: [Thick Arrow]
- Group By Summary: [Thick Arrow]

Baseline 1

Page 1

Hong Kong Convention and Exhibition Centre  
Expansion Project  
3 Month Rolling Programme based on revised Master Programme Rev. 2 updating on 30 November 08

ID	Task Name	% Compl	Actual Start	Actual Finish	Baseline Start 1	Baseline Finish 1	Aug	Sep	Oct	Nov	Dec	Jan	Feb
329	Exhibition Halls / Service Counters and Organiser's Offices	97%	Fri 29/09/06	NA	Fri 29/09/06	Sat 15/09/07							
340	Exhibition Halls	100%	Wed 30/5/07	Thu 24/4/08	Wed 30/5/07	Wed 15/8/07							
343	DDR by PM	100%	Sat 10/11/07	Thu 24/4/08	Tue 31/7/07	Wed 15/8/07							
344	DDR for Exhibition Halls	100%	Thu 24/4/08	Thu 24/4/08	Wed 15/8/07	Wed 15/8/07							
350	Food Concession Area	100%	Thu 14/6/07	Fri 25/4/08	Thu 14/6/07	Sat 15/9/07							
359	Door schedule (incl. sliding and acoustic doors)	100%	Sat 30/9/06	Wed 16/4/08	Sat 30/9/06	Thu 13/9/07							
368	Ironmongery schedule	100%	Wed 31/1/07	Tue 6/5/08	Wed 3/1/07	Thu 4/10/07							
374	Design Check by Design Checker	100%	Mon 25/2/08	Sat 19/4/08	Fri 31/8/07	Sat 15/9/07							
375	DDR by PM	100%	Mon 21/4/08	Tue 6/5/08	Mon 17/9/07	Thu 4/10/07							
376	DDR for Ironmongery schedule	100%	Tue 6/5/08	Tue 6/5/08	Thu 4/10/07	Thu 4/10/07							
377	Maintenance access system - Gondola + BMU	100%	Wed 4/10/06	Thu 24/4/08	Wed 4/10/06	Wed 15/8/07							
384	DDR by PM	100%	Wed 16/1/08	Thu 24/4/08	Thu 28/8/07	Wed 15/8/07							
385	DDR for Maintenance access system / Gondola	100%	Thu 24/4/08	Thu 24/4/08	Wed 15/8/07	Wed 15/8/07							
386	Maintenance access system - Catwalks	100%	Wed 16/5/07	Fri 13/6/08	Wed 16/5/07	Thu 9/8/07							
388	Design Check by Design Checker	100%	Thu 21/6/07	Mon 22/10/07	Thu 21/6/07	Wed 25/7/07							
389	RIP/DDR by PM	100%	Tue 23/10/07	Fri 13/6/08	Thu 26/7/07	Thu 9/8/07							
390	RIP/DDR for Maintenance access system / Catwalks	100%	Fri 13/6/08	Fri 13/6/08	Thu 9/8/07	Thu 9/8/07							
424	Signage & Electronic Sign (Permanent)	74%	Tue 26/6/07	NA	Tue 26/6/07	Sat 19/07							
426	Design Check by Design Checker	85%	Fri 28/3/08	NA	Wed 18/8/07	Thu 16/8/07							
439	Landscape Works	88%	Mon 16/10/06	NA	Mon 16/10/06	Mon 24/12/07							
445	Landscape Master Plan Detail Design Preparation & Submission	100%	Mon 12/11/07	Tue 11/12/07	Tue 25/9/07	Sat 17/11/07							
446	Design Check by Design Checker	100%	Wed 12/12/07	Fri 11/1/08	Mon 19/11/07	Sat 11/12/07							
454	Design Check by Design Checker	100%	Wed 12/12/07	Fri 11/1/08	Tue 27/11/07	Mon 10/12/07							
455	DDR for Landscape by PM	90%	Sat 12/1/08	NA	Tue 11/12/07	Mon 24/12/07							
456	DDR for Landscaping Plan	0%	NA	NA	Mon 24/12/07	Mon 24/12/07							
466	Miscellaneous Details	98%	Fri 6/4/07	NA	Fri 6/4/07	Sat 15/9/07							
467	Steel & Metal Works (Tx. Rm.: Lift Machine rm....etc)	100%	Thu 14/6/07	Wed 23/4/08	Thu 14/6/07	Sat 15/9/07							
470	RIP/DDR for Steel & Metal Works by PM	100%	Sat 8/3/08	Wed 23/4/08	Fri 31/8/07	Sat 15/9/07							
471	RIP/DDR for Steel & Metal Works	100%	Wed 23/4/08	Wed 23/4/08	Sat 15/9/07	Sat 15/9/07							
477	Carpark, Driveway/loading and unloading areas	100%	Thu 14/6/07	Tue 4/3/08	Thu 14/6/07	Sat 15/9/07							
480	RIP/DDR for Carpark, Driveway/loading and unloading areas by PM	100%	Wed 16/1/08	Tue 4/3/08	Fri 31/8/07	Sat 15/9/07							
481	RIP/DDR for Carpark, Driveway/loading and unloading areas	100%	Tue 4/3/08	Tue 4/3/08	Sat 15/9/07	Sat 15/9/07							
482	Expansion Joint and wall expansion details for Ph 1 & II	100%	Fri 6/4/07	Thu 14/8/08	Fri 6/4/07	Fri 14/9/07							
488	Design Check by Design Checker	100%	Wed 27/2/08	Thu 12/6/08	Tue 21/8/07	Wed 29/8/07							

Project: 3 Month Rolling Programme based on revised Master Programme Re  
Date: 30/11/2008

Task  
Critical Task  
Progress

Milestone  
Summary  
Split

External Tasks  
Project Summary  
Group By Summary

Baseline 1

Hong Kong Convention and Exhibition Centre  
Expansion Project  
3 Month Rolling Programme based on revised Master Programme Rev. 2 updating on 30 November 08

ID	Task Name	% Compl.	Actual Start	Actual Finish	Baseline Start 1	Baseline Finish 1	2008														
							Aug	Sep	Oct	Nov	Dec	Jan	Feb								
489	DDR for Expansion Joint by PM	100%	Fri 13/6/08	Thu 14/8/08	Thu 30/6/07	Fri 14/9/07															
490	DDR for Expansion Joint	100%	Thu 14/8/08	Thu 14/8/08	Fri 14/9/07	Fri 14/9/07															
491	Internal Dry wall Partition Details	100%	Thu 14/6/07	Sat 28/6/08	Thu 14/6/07	Sat 18/8/07															
494	RIP/DDR for Internal Dry wall Partition Details by PM	100%	Tue 25/9/07	Sat 28/6/08	Fri 3/6/07	Sat 18/8/07															
495	RIP/DDR for Internal Dry wall Partition Details	100%	Sat 28/6/08	Sat 28/6/08	Sat 18/8/07	Sat 18/8/07															
515	Structural Design	96%	Fri 26/5/06	NA	Fri 26/5/06	Thu 27/9/07															
522	Details Design Review	96%	Wed 7/6/06	NA	Wed 7/6/06	Thu 27/9/07															
528	Roof Truss A to D and Transfer Truss A/B/24 - Amendment	100%	Mon 5/2/07	Thu 21/8/08	Mon 5/2/07	Fri 31/8/07															
531	DDR for DD Submission by PM	100%	Wed 31/10/07	Wed 20/8/08	Tue 3/17/07	Wed 15/8/07															
532	DDR for Structural Plan	100%	Thu 21/8/08	Thu 21/8/08	Thu 16/8/07	Fri 31/8/07															
641	External façade Design (Structural)	100%	Mon 29/1/07	Fri 15/2/08	Mon 29/1/07	Tue 28/8/07															
649	Resubmit to IDC	100%	Tue 6/11/07	Thu 31/1/08	NA	NA															
650	Resubmit to PM	100%	Fri 1/2/08	Fri 15/2/08	NA	NA															
651	DDR for External façade Design	100%	Fri 15/2/08	Fri 15/2/08	Tue 28/8/07	Tue 28/8/07															
652	BS Design	98%	Thu 1/6/06	NA	Thu 1/6/06	Wed 19/12/07															
653	BS - HVAC	100%	Fri 14/7/06	Mon 7/1/08	Fri 14/7/06	Wed 19/9/07															
665	Details Design Review	100%	Tue 5/9/06	Mon 7/1/08	Tue 5/9/06	Wed 19/9/07															
671	HVAC Layout	100%	Wed 30/5/07	Mon 7/1/08	Wed 30/5/07	Wed 19/9/07															
675	DDR for HVAC	100%	Mon 7/1/08	Mon 7/1/08	Wed 19/9/07	Wed 19/9/07															
676	BS - Electrical	100%	Fri 21/7/06	Wed 6/2/08	Fri 21/7/06	Wed 26/9/07															
677	Electrical loading calculation & Generator Sizing, Schematic design of electrical syste	100%	Fri 21/7/06	Wed 6/2/08	Fri 21/7/06	Wed 26/9/07															
685	DDR for Electrical loading calculation & Generator Sizing, Schematic design of electric	100%	Wed 6/2/08	Wed 6/2/08	Wed 26/9/07	Wed 26/9/07															
695	Lighting Installation	100%	Fri 21/7/06	Thu 31/1/08	Fri 21/7/06	Mon 27/8/07															
703	DDR for Lightning Installation	100%	Thu 31/1/08	Thu 31/1/08	Mon 27/8/07	Mon 27/8/07															
723	BS - Fire Services	100%	Wed 14/6/06	Tue 13/11/07	Wed 14/6/06	Thu 27/9/07															
735	Details Design Review	100%	Fri 3/1/06	Tue 13/11/07	Fri 3/1/06	Thu 27/9/07															
741	Stage 2	100%	Thu 14/6/07	Tue 13/11/07	Thu 14/6/07	Thu 27/9/07															
745	DDR for Fire Services	100%	Tue 13/11/07	Tue 13/11/07	Thu 27/9/07	Thu 27/9/07															
746	BS - Plumbing and Drainage	100%	Fri 2/6/06	Fri 7/12/07	Fri 2/6/06	Tue 28/8/07															
747	Review In Principle	100%	Fri 2/6/06	Mon 27/11/06	Fri 2/6/06	Mon 27/11/06															
821	BS - Diversion	92%	Thu 1/6/06	NA	Thu 1/6/06	Wed 19/12/07															
874	BS Diversion Plan for A&A works at Phase II	100%	Mon 24/9/07	Wed 20/2/08	Mon 24/9/07	Wed 19/12/07															
884	BS Design for Additional Slab at Level 5 & 7 at Phase II	100%	Fri 15/6/07	Mon 28/1/08	Fri 15/6/07	Mon 10/9/07															

Project: 3 Month Rolling Programme based on revised Master Programme Re  
Date: 30/11/2008

Task: External Tasks Project Summary Group By Summary

Milestone: Summary Split

Critical Task: Progress

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Hong Kong Convention and Exhibition Centre  
Expansion Project  
3 Month Rolling Programme based on revised Master Programme Rev. 2 updating on 30 November 08

ID	Task Name	% Compl.	Actual Start	Actual Finish	Baseline Start 1	Baseline Finish 1	2008				
							Aug	Sep	Oct	Nov	
1237	Level 5 + 29.40 deferred portion GL24-25/A1	100%	Fri 11/7/08	Sun 23/11/08	Tue 25/3/08	Thu 8/5/08					
1239	Secondary Floor Trusses/Beams for Level 5	100%	Wed 30/7/08	Sat 1/11/08	Fri 4/4/08	Wed 16/4/08					
1240	Composite Decking Slab for Level 5	100%	Mon 27/10/08	Sun 23/11/08	Tue 15/4/08	Thu 8/5/08					
1241	Level 6 + 36.90	76%	Sat 20/9/08	NA	Tue 25/3/08	Tue 6/5/08					
1242	Main Floor Trusses for Level 6	100%	Sat 20/9/08	Tue 11/11/08	Tue 25/3/08	Wed 2/4/08					
1243	Secondary Floor Trusses/Beams for Level 6	100%	Sun 19/10/08	Mon 17/11/08	Thu 3/4/08	Tue 15/4/08					
1244	Composite Decking Slab for Level 6	100%	Mon 10/11/08	Fri 21/11/08	Wed 16/4/08	Fri 2/5/08					
1246	Level 7 + 44.40	46%	Wed 10/9/08	NA	Wed 16/4/08	Sat 24/5/08					
1247	Main Floor Trusses for Level 7	90%	Wed 10/9/08	NA	Wed 16/4/08	Tue 22/4/08					
1248	Secondary Floor Trusses/Beams for Level 7	90%	Tue 11/10/08	NA	Wed 23/4/08	Mon 5/5/08					
1249	Composite Decking Slab for Level 7	60%	Wed 5/11/08	NA	Tue 6/5/08	Wed 21/5/08					
1251	Roof Level +51.80	57%	Sat 8/11/08	NA	Tue 6/5/08	Tue 17/6/08					
1252	Main Floor Trusses for Roof	90%	Sat 8/11/08	NA	Tue 6/5/08	Mon 12/5/08					
1253	Secondary Floor Trusses/Beams for Roof	90%	Sun 9/11/08	NA	Tue 13/5/08	Fri 23/5/08					
1254	Composite Decking Slab for Roof	30%	Mon 17/11/08	NA	Sat 24/5/08	Tue 17/6/08					
1271	Tunnel for Pedestrian Re-Diversion Access to New Structure	100%	Fri 1/8/08	Wed 15/10/08	Tue 9/6/08	Thu 25/9/08					
1272	Tunnel erection	100%	Fri 1/8/08	Sat 30/8/08	Tue 3/6/08	Sat 26/7/08					
1273	Floor Finish insides Re-Diversion Tunnel	100%	Mon 25/8/08	Sat 30/8/08	Tue 5/9/08	Wed 20/8/08					
1274	BS Installation	100%	Fri 15/8/08	Thu 4/9/08	Sat 28/6/08	Wed 6/8/08					
1275	HVAC Installation	100%	Fri 15/8/08	Sat 30/8/08	Sat 28/6/08	Wed 23/7/08					
1276	FS Installation	100%	Fri 15/8/08	Sat 30/8/08	Tue 8/7/08	Wed 23/7/08					
1277	T&C	100%	Wed 27/8/08	Thu 4/9/08	Thu 24/7/08	Mon 4/8/08					
1278	Form 501 Submission	100%	Thu 21/8/08	Thu 21/8/08	Wed 6/6/08	Wed 6/6/08					
1279	Inspection	100%	Fri 5/9/08	Fri 5/9/08	Fri 22/8/08	Wed 24/9/08					
1281	Temporary Works for Sliding & Heavy Lifting	97%	Sat 8/9/07	NA	Sat 8/9/07	Wed 19/12/07					
1282	Heavy Lifting & Sliding System Installation	100%	Sat 8/9/07	Sun 6/1/08	Sat 8/9/07	Mon 22/10/07					
1283	Remove Sliding Beams & Equipment From HL	88%	Mon 2/6/08	NA	Sat 15/12/07	Wed 19/12/07					
1289	Roof Truss A	100%	Sun 14/10/07	Sun 29/6/08	Wed 10/10/07	Wed 20/2/08					
1297	Assembly of Back Span for Steel Roof Truss A	100%	Sun 29/6/08	Sun 29/6/08	Thu 17/1/08	Wed 20/2/08					
1298	Roof Truss B	100%	Wed 14/11/07	Sun 17/8/08	Wed 10/10/07	Wed 20/2/08					
1306	Assembly of Back Span for Steel Roof Truss B	100%	Sun 17/8/08	Sun 17/8/08	Thu 17/1/08	Wed 20/2/08					
1307	Roof Truss C	100%	Thu 20/12/07	Sun 31/8/08	Wed 14/11/07	Thu 13/3/08					
1312	Assembly of Back Span for Steel Roof Truss C	100%	Sun 31/8/08	Sun 31/8/08	Fri 8/2/08	Thu 13/3/08					
1313	Roof Truss D	100%	Mon 4/2/08	Sun 7/9/08	Wed 14/11/07	Thu 13/3/08					

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ID	Task Name	% Compl.	Actual Start	Actual Finish	Baseline Start 1	Baseline Finish 1	2008						
							Aug	Sep	Oct	Nov	Dec	Jan	Feb
1318	Assembly of Back Span for Steel Roof Truss D	100%	Sun 7/9/08	Sun 7/9/08	Fri 8/2/08	Thu 13/3/08							
1319	Panel Truss E	100%	Wed 9/4/08	Tue 3/6/08	Mon 21/1/08	Tue 25/3/08							
1320	Assembly of Steel Panel Truss E with Back Span	100%	Wed 9/4/08	Tue 3/6/08	Mon 21/1/08	Tue 25/3/08							
1321	Steel Structure for Existing Façade to Grid B	78%	Tue 8/1/08	NA	Tue 4/9/07	Wed 27/08							
1322	Strengthening Works, Removal of Replacement Truss	100%	Tue 1/4/08	Tue 4/11/08	Tue 4/9/07	Wed 28/5/08							
1326	Remove Existing West Truss	100%	Sun 31/8/08	Tue 4/11/08	Wed 23/4/08	Wed 28/5/08							
1327	Hanger Columns and Main Truss () Erection	100%	Fri 9/5/08	Wed 16/7/08	Tue 29/1/08	Mon 24/3/08							
1328	Hanger Columns Installation to Level 2 & Truss Along Grid A & B	100%	Fri 9/5/08	Wed 16/7/08	Tue 29/1/08	Mon 24/3/08							
1329	Level 2 +14.40 (Existing Façade to Grid A)	89%	Tue 8/1/08	NA	Sat 19/4/08	Wed 27/08							
1330	Remove Existing Slab and Install L2 Main Truss for Level 2	100%	Tue 8/1/08	Thu 3/7/08	Sat 19/4/08	Tue 27/5/08							
1331	Secondary Floor Trusses/Beams for Level 2	97%	Fri 8/8/08	NA	Sat 17/5/08	Fri 30/5/08							
1332	Composite Decking Slab for Level 2	95%	Wed 27/8/08	NA	Tue 27/5/08	Sat 7/6/08							
1334	Level 2 +14.40 (Grid A to B)	81%	Wed 23/4/08	NA	Wed 9/4/08	Mon 28/4/08							
1335	Secondary Floor Trusses/Beams for Level 2	100%	Wed 23/4/08	Thu 31/7/08	Wed 9/4/08	Mon 21/4/08							
1336	Composite Decking Slab for Level 2	50%	Tue 26/8/08	NA	Tue 22/4/08	Mon 28/4/08							
1337	Level 3 +21.40	64%	Tue 26/8/08	NA	Tue 25/3/08	Fri 2/5/08							
1338	Secondary Floor Trusses/Beams for Level 3	95%	Tue 26/8/08	NA	Tue 25/3/08	Wed 2/4/08							
1339	Composite Decking Slab for Level 3	90%	Wed 22/10/08	NA	Thu 3/4/08	Mon 7/4/08							
1341	Level 3M +25.95	51%	Sat 9/8/08	NA	Thu 3/4/08	Thu 8/5/08							
1342	Secondary Floor Trusses for Level 3	90%	Sat 9/8/08	NA	Thu 3/4/08	Wed 9/4/08							
1343	Composite Decking Slab for Level 3M	75%	Wed 22/10/08	NA	Thu 10/4/08	Sat 12/4/08							
1345	Level 5 +29.40	49%	Wed 27/8/08	NA	Thu 10/4/08	Mon 19/5/08							
1346	Secondary Floor Trusses for Level 5	95%	Wed 27/8/08	NA	Thu 10/4/08	Thu 24/4/08							
1347	Composite Decking Slab for Level 5	90%	Mon 22/9/08	NA	Fri 18/4/08	Thu 24/4/08							
1349	Level 6 +36.90 & L6 Mezz.	29%	Fri 25/7/08	NA	Fri 25/4/08	Thu 29/5/08							
1350	Secondary Floor Trusses/Beams for Level 6	95%	Fri 25/7/08	NA	Fri 25/4/08	Fri 2/5/08							
1351	Composite Decking Slab for Level 6	90%	Mon 10/11/08	NA	Sat 3/5/08	Tue 6/5/08							
1353	Level 7 (lower level) +40.90	83%	Sat 1/11/08	NA	Sat 3/5/08	Fri 23/5/08							
1354	Floor Beams	95%	Sat 1/11/08	NA	Sat 3/5/08	Sat 10/5/08							
1356	Level 7 +44.40	41%	Fri 20/6/08	NA	Sat 3/5/08	Tue 17/6/08							
1357	Secondary Floor Trusses/Beams for Level 7	90%	Fri 20/6/08	NA	Sat 3/5/08	Fri 16/5/08							
1358	Composite Decking Slab for Level 7	80%	Tue 30/9/08	NA	Sat 17/5/08	Fri 23/5/08							
1360	Level 7M +51.55	26%	Wed 5/11/08	NA	Sat 17/5/08	Sat 14/6/08							
1361	Secondary Floor Beams	85%	Wed 5/11/08	NA	Sat 17/5/08	Fri 23/5/08							

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ID	Task Name	% Compl	Actual Start	Actual Finish	Baseline Start 1	Baseline Finish 1	2008									
							Aug	Sep	Oct	Nov	Dec	Jan	Feb			
1405	Main Floor Trusses for Level 2	100%	Fri 29/6/08	Thu 16/10/08	Tue 18/3/08	Tue 25/3/08										
1406	Secondary Floor Beams for Level 2	95%	Wed 8/10/08	NA	Fri 28/3/08	Sat 5/4/08										
1407	Composite Decking Slab for Level 2	85%	Mon 13/10/08	NA	Mon 7/4/08	Wed 9/4/08										
1411	Level 3 +22.90	73%	Sat 12/4/08	NA	Mon 7/4/08	Thu 22/5/08										
1412	Main Floor Trusses for Level 3	95%	Sat 12/4/08	NA	Mon 7/4/08	Tue 15/4/08										
1413	Secondary Floor Trusses for Level 3	95%	Wed 16/4/08	NA	Wed 16/4/08	Thu 24/4/08										
1414	Composite Decking Slab for Level 3	90%	Sat 31/5/08	NA	Fri 25/4/08	Mon 28/4/08										
1416	Level 3M +24.90	66%	Tue 8/7/08	NA	Fri 25/4/08	Tue 10/6/08										
1417	Main Floor Trusses for Level 3M	90%	Tue 8/7/08	NA	Fri 25/4/08	Sat 3/5/08										
1418	Secondary Floor Trusses for Level 3M	80%	Tue 8/7/08	NA	Mon 5/5/08	Tue 13/5/08										
1419	Composite Decking Slab for Level 3M	40%	Fri 11/7/08	NA	Wed 14/5/08	Fri 16/5/08										
1421	Level 5 +29.40	74%	Wed 14/5/08	NA	Wed 14/5/08	Fri 27/6/08										
1422	Main Floor Trusses for Level 5	95%	Wed 14/5/08	NA	Wed 14/5/08	Wed 21/5/08										
1423	Secondary Floor Trusses for Level 5	95%	Wed 14/5/08	NA	Thu 22/5/08	Fri 30/5/08										
1424	Composite Decking Slab for Level 5	90%	Mon 2/6/08	NA	Sat 31/5/08	Tue 3/6/08										
1426	Level 6 +36.90	51%	Fri 8/8/08	NA	Sat 31/5/08	Thu 17/7/08										
1427	Main Floor Trusses for Level 6	92%	Fri 8/8/08	NA	Sat 31/5/08	Mon 9/6/08										
1428	Secondary Floor Trusses for Level 6	92%	Fri 17/10/08	NA	Tue 10/6/08	Wed 18/6/08										
1429	Composite Decking Slab for Level 6	90%	Mon 27/10/08	NA	Thu 19/6/08	Mon 23/6/08										
1431	Level 7 +41.0 & +44.35	61%	Thu 7/8/08	NA	Thu 19/6/08	Fri 25/7/08										
1432	Main Floor Trusses for L7	90%	Thu 7/8/08	NA	Thu 19/6/08	Thu 26/6/08										
1433	Secondary Floor Trusses for L7	90%	Thu 7/8/08	NA	Fri 27/6/08	Mon 7/7/08										
1436	Level 7M +51.75	52%	Fri 10/10/08	NA	Tue 8/7/08	Thu 31/7/08										
1437	Main Floor Trusses	85%	Fri 10/10/08	NA	Tue 8/7/08	Tue 15/7/08										
1438	Secondary Floor Trusses	85%	Sat 11/10/08	NA	Wed 9/7/08	Thu 17/7/08										
1439	Composite Decking Slab	70%	Tue 14/10/08	NA	Tue 15/7/08	Fri 18/7/08										
1441	Roof Level +55.65	91%	Sat 11/10/08	NA	Fri 18/7/08	Thu 31/7/08										
1442	Main Floor Trusses for Roof	100%	Sat 11/10/08	Sat 1/11/08	Fri 18/7/08	Fri 25/7/08										
1443	Secondary Floor Trusses for Roof	100%	Sun 12/10/08	Sat 1/11/08	Sat 19/7/08	Sat 26/7/08										
1444	Composite Decking Slab for Roof	90%	Tue 18/11/08	NA	Thu 24/7/08	Mon 28/7/08										
1446	Architectural Finishes & Fittings	5%	Fri 25/4/08	NA	Fri 14/9/07	Sat 4/4/09										
1447	External Walling - Curtain Wall / Glass Wall / Window	10%	Fri 18/7/08	NA	Mon 12/5/08	Tue 17/2/09										
1448	West Side for Atrium Link Extension	10%	Mon 4/8/08	NA	Mon 12/5/08	Thu 29/1/09										
1449	Stage 1 (GL 20 to 25)	13%	Mon 4/8/08	NA	Mon 12/5/08	Thu 29/1/09										

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ID	Task Name	% Compl.	Actual Start	Actual Finish	Baseline Start 1	Baseline Finish 1	Aug	Sep	Oct	Nov	Dec	Jan	Feb
1450	Survey & Setting out Works	75%	Mon 4/8/08	NA	Mon 12/5/08	Mon 19/5/08							
1451	Framing Installation for Curtain Wall and Cladding	40%	Thu 28/8/08	NA	Tue 20/5/08	Sat 4/10/08							
1459	Stage 2 (GL 15 to 20)	7%	Mon 11/8/08	NA	Wed 16/7/08	Thu 8/1/09							
1460	Survey & Setting out Works	65%	Mon 11/8/08	NA	Wed 16/7/08	Wed 23/7/08							
1461	Framing Installation for Curtain Wall and Cladding	30%	Sun 23/11/08	NA	Wed 16/7/08	Tue 7/10/08							
1469	East Side & South Side Façade for Atrium Link Extension	11%	Fri 18/7/08	NA	Tue 29/7/08	Wed 7/1/09							
1470	Survey & Setting out Works	70%	Fri 18/7/08	NA	Tue 29/7/08	Tue 5/8/08							
1471	Framing Installation for Curtain Wall and Cladding	58%	Thu 28/8/08	NA	Tue 29/7/08	Thu 11/9/08							
1472	Sub-frame Louvre	8%	Sat 15/11/08	NA	Fri 12/9/08	Fri 24/10/08							
1473	Glazing Works for Curtain Walls & Cladding	5%	Sat 15/11/08	NA	Fri 12/9/08	Thu 30/10/08							
1485	ABWF - Internal Partitions and Doors	10%	Fri 25/7/08	NA	Mon 16/6/08	Tue 6/1/09							
1486	For Area between Grid A1 and A	16%	Wed 15/10/08	NA	Mon 16/6/08	Thu 9/10/08							
1497	L2 to Roof	16%	Wed 15/10/08	NA	Mon 16/6/08	Thu 9/10/08							
1498	Setting Out Works	45%	Wed 15/10/08	NA	Mon 16/6/08	Mon 23/6/08							
1499	Frame Works for Block & Dry Wall	30%	Mon 20/10/08	NA	Tue 24/6/08	Mon 4/8/08							
1500	Sub-Framing Works for Doors	30%	Thu 30/10/08	NA	Tue 24/6/08	Thu 17/7/08							
1501	Partitioning for Block & Dry Wall	30%	Tue 11/11/08	NA	Tue 5/8/08	Tue 9/9/08							
1502	Plastering / Painting work for plant rooms	10%	Thu 20/11/08	NA	Wed 13/8/08	Wed 17/9/08							
1503	Steel & Metal Works	5%	Thu 20/11/08	NA	Tue 24/6/08	Thu 9/10/08							
1511	For Area between Grid D and E	13%	Fri 25/7/08	NA	Tue 29/7/08	Tue 6/1/09							
1512	L2 to Roof	13%	Fri 25/7/08	NA	Tue 29/7/08	Tue 6/1/09							
1513	Setting Out Works	50%	Fri 25/7/08	NA	Tue 29/7/08	Tue 5/8/08							
1514	Frame Works for Block & Dry Wall	30%	Mon 28/7/08	NA	Wed 6/8/08	Tue 16/9/08							
1515	Sub-Framing Works for Doors	10%	Tue 5/8/08	NA	Wed 6/8/08	Thu 28/8/08							
1516	Partitioning for Block & Dry Wall	25%	Tue 12/8/08	NA	Wed 17/9/08	Thu 27/11/08							
1517	Plastering / Painting work for plant rooms	10%	Tue 26/8/08	NA	Thu 25/9/08	Fri 31/10/08							
1520	For Area between Grid A and D / Grid 16 and 24	7%	Thu 9/10/08	NA	Wed 27/08	Wed 12/11/08							
1521	Setting out works	30%	Thu 9/10/08	NA	Tue 8/7/08	Tue 15/7/08							
1522	Maintenance access system	0%	NA	NA	Wed 27/08	Fri 17/10/08							
1523	Frame Wks for Acoustic Operable Partition	25%	Mon 10/11/08	NA	Mon 14/7/08	Mon 22/9/08							
1524	Frame Works for Block & Dry Wall	15%	Fri 10/10/08	NA	Wed 16/7/08	Mon 25/8/08							
1525	Sub-Framing Works for Doors	10%	Mon 10/11/08	NA	Wed 16/7/08	Thu 7/8/08							
1526	Partitioning for Block & Dry Wall	10%	Tue 4/11/08	NA	Tue 26/8/08	Tue 30/9/08							
1528	Miscellaneous Steel & Metal Works	2%	Mon 20/10/08	NA	Mon 28/7/08	Wed 12/11/08							

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ID	Task Name	% Compl.	Actual Start	Actual Finish	Baseline Start 1	Baseline Finish 1	2008	2009	2010
1530	ABWF - Internal Finishes	1%	Sun 2/11/08	NA	Fri 29/8/08	Wed 14/1/09			
1531	For Area between Grid A1 and A	3%	Sun 2/11/08	NA	Wed 10/9/08	Tue 30/12/08			
1532	L2 to Roof	3%	Sun 2/11/08	NA	Wed 10/9/08	Tue 30/12/08			
1533	Waterproofing Works	5%	Sat 22/11/08	NA	Wed 10/9/08	Thu 25/9/08			
1537	Ceiling Grid Installation	5%	Sat 15/11/08	NA	Mon 29/9/08	Thu 13/11/08			
1538	Smoke Curtain Installation	10%	Mon 10/11/08	NA	Mon 10/11/08	Fri 28/11/08			
1539	Stone Floor Finishing / Tiling Works	5%	Mon 10/11/08	NA	Fri 10/10/08	Thu 20/11/08			
1540	Glass/Metal Balustrade Installation	10%	Sun 2/11/08	NA	Mon 10/11/08	Tue 2/12/08			
1557	For Area between Grid D and E	1%	Wed 5/11/08	NA	Tue 14/10/08	Tue 6/1/09			
1558	Waterproofing Works	5%	Wed 5/11/08	NA	Tue 14/10/08	Wed 29/10/08			
1561	Painting	3%	Wed 12/11/08	NA	Tue 4/11/08	Mon 8/12/08			
1569	For Area between Grid A and D / Grid 16 and 24	1%	Mon 3/11/08	NA	Thu 2/10/08	Wed 14/1/09			
1574	Smoke Curtain Installation	5%	Mon 3/11/08	NA	Wed 19/11/08	Wed 17/12/08			
1599	Building Services Installation	36%	Thu 8/3/07	NA	Thu 8/3/07	Fri 5/6/09			
1601	Chiller Plant Room & Chiller Pump Room	100%	Mon 28/1/08	Mon 28/1/08	Sat 15/3/08	Sat 15/3/08			
1603	AHU Rooms (East Side)	25%	Mon 3/11/08	NA	Fri 3/10/08	Fri 3/10/08			
1605	3/F Main Switch Room	100%	Fri 3/10/08	Sat 15/11/08	Thu 7/8/08	Thu 7/8/08			
1614	Transformer Installation Grid D-E	23%	Fri 4/7/08	NA	Thu 5/6/08	Mon 15/12/08			
1615	RC Works inside Room (Top & Floor double slabs)	100%	Fri 4/7/08	Fri 25/7/08	Fri 6/6/08	Sat 5/7/08			
1616	Builder's Works for HKE Transformer Room	100%	Mon 28/7/08	Sat 25/10/08	Thu 5/6/08	Thu 31/7/08			
1617	Builder's Works for Cable Draw Pit	100%	Mon 28/7/08	Fri 12/9/08	Thu 5/6/08	Sat 26/7/08			
1626	Transformer Installation at Level 1 Phase 2	100%	Fri 1/6/07	Fri 10/10/08	Fri 1/6/07	Mon 14/7/08			
1632	A&A Works for Transformer room	100%	Mon 15/10/07	Sat 5/4/08	Wed 1/8/07	Fri 30/11/07			
1633	Builder's Works for Transformer room	100%	Mon 7/4/08	Tue 20/5/08	Sat 1/12/07	Thu 7/2/08			
1634	Handover of Transformer Room to HKE	100%	Wed 11/6/08	Wed 11/6/08	Thu 14/2/08	Thu 14/2/08			
1635	Transformer Installation by HKE	100%	Tue 24/6/08	Thu 2/10/08	Fri 15/2/08	Mon 16/6/08			
1636	Energisation	100%	Thu 2/10/08	Mon 6/10/08	Wed 14/5/08	Mon 16/6/08			
1637	Power On	100%	Fri 10/10/08	Fri 10/10/08	Mon 14/7/08	Mon 14/7/08			
1638	Lift and Escalator Installation	16%	Wed 2/5/07	NA	Wed 2/5/07	Tue 27/1/09			
1639	Fireman's Lift (F1 to F4)	2%	Thu 13/11/08	NA	Tue 17/6/08	Wed 10/12/08			
1645	Fireman's Lift Installation (F2 + F4)	10%	Thu 13/11/08	NA	Fri 22/8/08	Thu 16/10/08			
1651	Passenger's Lift & Services Lift (P1 & P2, S1 & S2)	10%	Fri 7/11/08	NA	Mon 16/6/08	Wed 10/12/08			
1652	Builder's Work in Lift Shafts (P1 & P2)	20%	Fri 14/11/08	NA	Mon 16/6/08	Mon 14/7/08			
1655	Work in Lift Shafts & LMRs (S1 & S2)	65%	Fri 7/11/08	NA	Tue 29/7/08	Mon 25/8/08			

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1663	Escalator & General System	34%	Wed 2/6/07	NA	Wed 2/5/07	Tue 27/1/09							
1673	Handover Escalator Pits	8%	Mon 17/11/08	NA	Thu 11/9/08	Thu 11/9/08							
1674	Escalators Installation (E5 to E19)	8%	Mon 17/11/08	NA	Thu 11/9/08	Tue 4/11/08							
1681	Electrical Installation	37%	Thu 8/3/07	NA	Thu 8/3/07	Tue 3/2/09							
1682	Area for Grid A1-A	43%	Thu 8/3/07	NA	Thu 8/3/07	Fri 16/1/09							
1684	Structural Cast-in Conduit, Sleeves & Conduit	65%	Thu 8/3/07	NA	Thu 8/3/07	Wed 16/7/08							
1685	Electrical Installation - 1st Fix	10%	Wed 15/10/08	NA	Wed 7/5/08	Tue 26/8/08							
1688	Area for Grid A - D	27%	Wed 17/9/08	NA	Fri 18/4/08	Fri 18/1/09							
1689	Structural Cast-in Conduit, Sleeves & Conduit	70%	Wed 17/9/08	NA	Fri 18/4/08	Sat 28/6/08							
1690	Electrical Installation - 1st Fix	25%	Mon 6/10/08	NA	Sat 24/5/08	Fri 3/10/08							
1691	Electrical Installation- 2nd & Final Fix	5%	Fri 31/10/08	NA	Mon 22/9/08	Tue 23/12/08							
1693	Area for Grid D - E	39%	Wed 27/08	NA	Mon 7/4/08	Tue 3/2/09							
1694	Structural Cast-in Conduit, Sleeves & Conduit	90%	Wed 27/08	NA	Mon 7/4/08	Thu 19/6/08							
1695	Electrical Installation - 1st Fix	30%	Wed 6/8/08	NA	Sat 9/8/08	Wed 26/11/08							
1698	Main Switch Room Installation	60%	Fri 3/10/08	NA	Sat 27/9/08	Sat 10/1/09							
1700	Fire Services Installation	31%	Thu 8/3/07	NA	Thu 8/3/07	Mon 2/3/09							
1701	Area for Grid A1-A	43%	Thu 8/3/07	NA	Thu 8/3/07	Fri 7/11/08							
1702	Structural Cast-in Pipeworks & Sleeves	65%	Thu 8/3/07	NA	Thu 8/3/07	Thu 3/4/08							
1703	FS Installation - 1st Fix	10%	Mon 20/10/08	NA	Wed 7/5/08	Tue 26/8/08							
1705	Area for Grid A-D	30%	Wed 17/9/08	NA	Fri 18/4/08	Mon 22/12/08							
1706	Structural Cast-in Pipeworks & Sleeves	70%	Wed 17/9/08	NA	Fri 18/4/08	Sat 28/6/08							
1707	FS Installation - 1st Fix	25%	Mon 6/10/08	NA	Mon 9/6/08	Sat 18/10/08							
1708	FS Installation - 2nd Fix	5%	Fri 31/10/08	NA	Mon 22/9/08	Mon 22/12/08							
1709	Area for Grid D-E	33%	Wed 27/08	NA	Mon 7/4/08	Mon 29/12/08							
1710	Structural Cast-in Pipeworks & Sleeves	90%	Wed 27/08	NA	Mon 7/4/08	Tue 17/6/08							
1711	FS Installation - 1st Fix	25%	Wed 6/8/08	NA	Wed 9/7/08	Mon 27/10/08							
1722	Plumbing and Drainage Installation	31%	Thu 8/3/07	NA	Thu 8/3/07	Wed 25/2/09							
1723	Area for Grid A1-A	40%	Thu 8/3/07	NA	Thu 8/3/07	Mon 22/12/08							
1724	Structural Cast-in Pipeworks & Sleeves	65%	Thu 8/3/07	NA	Thu 8/3/07	Thu 3/4/08							
1725	P&D Installation - 1st Fix	10%	Mon 20/10/08	NA	Wed 7/5/08	Tue 26/8/08							
1728	Area for Grid A-D	28%	Wed 17/9/08	NA	Fri 18/4/08	Sat 10/1/09							
1729	Structural Cast-in Pipeworks & Sleeves	70%	Wed 17/9/08	NA	Fri 18/4/08	Sat 28/6/08							
1730	P&D Installation - 1st Fix	25%	Mon 6/10/08	NA	Mon 9/6/08	Sat 18/10/08							
1731	P&D Installation - 2nd Fix	5%	Fri 31/10/08	NA	Mon 22/9/08	Mon 8/12/08							

Project: 3 Month Rolling Programme based on revised Master Programme Re  
Date: 30/11/2008

Task  
Critical Task  
Progress

Milestone  
Summary  
Split

External Tasks  
Project Summary  
Group By Summary

Baseline 1



Hong Kong Convention and Exhibition Centre  
Expansion Project  
3 Month Rolling Programme based on revised Master Programme Rev. 2 updating on 30 November 08

ID	Task Name	% Compl	Actual Start	Actual Finish	Baseline Start 1	Baseline Finish 1	2008
1787	HVAC- 1st Fix	5%	Mon 6/10/08	NA	Tue 27/5/08	Mon 6/10/08	Aug   Sep   Oct   Nov   Dec   Jan   Feb
1789	<b>Area for Grid D-E</b>	20%	Wed 27/08	NA	Mon 7/4/08	Fri 9/1/09	
1790	Structural Castin Conduit, Sleevs & Conduit	90%	Wed 27/08	NA	Mon 7/4/08	Tue 17/6/08	
1791	HVAC- 1st Fix	15%	Wed 6/9/08	NA	Wed 9/7/08	Sat 25/10/08	
1792	HVAC - 2nd Fix	5%	Mon 27/10/08	NA	Wed 24/9/08	Mon 29/12/08	
1793	AHU / Fan Room Installation	5%	Sat 1/11/08	NA	Thu 9/10/08	Mon 29/12/08	
1824	<b>Emergency Generation Installation</b>	100%	Tue 1/4/08	Sat 25/10/08	Mon 2/6/08	Wed 15/10/08	
1825	Emergency Generator Installation	100%	Tue 1/4/08	Tue 8/7/08	Mon 2/6/08	Thu 14/8/08	
1826	Report Completion of DG	100%	Wed 9/7/08	Wed 9/7/08	Fri 15/8/08	Fri 15/8/08	
1827	DG Inspection	100%	Fri 18/7/08	Fri 18/7/08	Mon 1/9/08	Tue 30/9/08	
1828	Testing & Commissioning	100%	Sat 20/9/08	Sat 25/10/08	Sat 16/8/08	Tue 14/10/08	
1829	DG Certificate Obtain	100%	Wed 23/7/08	Wed 23/7/08	Wed 15/10/08	Wed 15/10/08	
1834	<b>External Works</b>	0%	Thu 20/11/08	NA	Sat 29/12/07	Fri 5/6/09	
1835	Underground Services Construction	2%	Thu 20/11/08	NA	Sat 29/12/07	Mon 7/4/08	

Project:3 Month Rolling Programme based on revised Master Programme Re  
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Baseline 1