ENVIRONMENTAL MONITORING &
AUDIT REPORT

Hip Hing – Ngo Kee Joint Venture

Hong Kong Convention and Exhibition Centre Expansion Project:
Monthly Environmental Monitoring and Audit Report for June 2008

July 2008

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July 2008

Reference 0050690

For and on behalf of
Environmental Resources Management

Approved by: Dr. Andrew Jackson

Signed: _____

Position: Managing Director

Certified by: _____
(Environmental Team Leader – Marcus Ip)

Date: 09 July 2008

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LIST OF ANNEXES

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-third monthly Environmental Monitoring and Audit (EM&A) report presenting the EM&A work carried out during the period from 1 to 30 June 2008 in accordance with the EM&A Manual.

Summary of Construction Works undertaken during the Reporting month

The major construction works undertaken during the reporting month included the installation of transfer truss, roof truss A, B, C , D and E assembly, the construction works of the transformer room, new pump house building work, HV cable room ground structure and superstructure, pump room underground structural works, floor structures, removal of glass wall and linkbridge corbel installation.

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	16 sets
Environmental site auditing	4 times

Air Quality

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

Water Quality

Water quality monitoring at the designated monitoring stations (W3, W4 and W5) was not conducted during the 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. There will not be any water quality monitoring until the next dry season or the removal of temporary marine piles, whichever is earlier.

Construction Waste Management

A total of 40 tonnes of inert C&D materials and 108.6 tonnes of C&D wastes were generated during the 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.

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 the reporting month.

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

Future Key Issues

Major works to be undertaken in the coming month are roof truss E load transfer, HV cable room superstructure work (L1M – L2), pump room works, construction of floor structure (L3 & L5), removal of glass wall and linkbridge corbel installation.

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-third EM&A report which summarises the impact monitoring results and audit findings of the EM&A programme during the reporting month from **1 June 2008** to **30 June 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 PROJECT INFORMATION

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

Construction Activities Undertaken
• Transfer Truss Installation
• Roof Truss A Assembly
• Roof Truss B Assembly
• Roof Truss C Assembly
• Roof Truss D Assembly
• Roof Truss E Assembly
• Construction Works for Transformer Room
• New Pump House Builder Work
• HV Cable Room Ground Structure
• HV Cable Room Superstructure (L1M - L2)
• Pump Room underground Structural Works
• Floor Structure (L3 & L5)
• Removal of Glass Wall
• Linkbridge Corbel Installation

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

Permit/ Licenses/ Notification	Reference	Validity Period	Remarks
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	--	--	Notification on 23 June 2006

Permit/ Licenses/ Notification	Reference	Validity Period	Remarks
under Air Pollution Control (Construction Dust) Regulation			
Discharge Licence under Water Pollution Control Ordinance	EP860/W10/XY0145	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-RS0029-08	Valid from 31 January 2008 to 28 June 2008	
	GW-RS0086-08	Valid from 29 February to 30 June 2008	
	GW-RS0087-08	Valid from 29 February to 30 June 2008	
	GW-RS0220-08	Valid from 15 April to 15 October 2008	
	GW-RS0228-08	Valid from 15 April to 14 October 2008	
	GW-RS0273-08	Valid from 1 May to 30 October 2008	
	GW-RS0343-08	Valid from 29 May 1 to 30 October 2008	
	GW-RS0382-08	Valid from 11 June to 30 September 2008	
	GW-RS0383-08	Valid from 10 June to 29 September 2008	
	GW-RS0384-08	Valid from 12 June to 30 June 2008	
	GW-RS00385-08	Valid from 10 June to 31 August 2008	

3 ENVIRONMENTAL MONITORING METHODOLOGY

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, μg/m³	Limit Level, μg/m³
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-5025 A
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-5025 A

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 ± 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^3/min. The range specified in the EM&A Manual was between 0.6 – 1.7 m^3/min;

- the programmable timer was set for a sampling period of 24 hours ± 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 were calibrated using an orifice calibrator. Initial calibration of the dust monitoring equipments were conducted upon installation and prior to commissioning. Five-point calibration was carried out for HVS's using Tisch TE-5025 A 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 Water Quality Monitoring

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 the reporting month.

3.2.2 Additional Water Quality Monitoring

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. There will not be any water quality monitoring until the next dry season or the removal of temporary marine piles, whichever is earlier.

3.2.3 Event / Action Plan

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

4 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[1]. Relevant submissions made on these measures and requirements during the reporting month are summarised in *Annex I*.

[1] The last Monthly EM&A Report for May 2008 was submitted to the EPD on 18 June 2008.

5 MONITORING RESULTS

5.1 AIR QUALITY

The monitoring data at AM1 and AM2 were provided by ETS-Testconsult Ltd. Five sets of 24-hour and sixteen sets of 1-hour TSP monitoring were carried out at the designated monitoring stations (AM1 & AM2) during the reporting month. 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 the 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

	Quantity		
Month / Year	**C&D Materials (inert) [a]**	**C&D Materials (non-inert) [b]**	**Chemical Waste**
June 2008	40 tonnes	108.85 tonnes	0

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 5, 12, 19 and 26 June 2008 respectively. There was no non-compliance event recorded in the reporting month.

The following reminder was given to the Contractor during the reporting month:

(i) On 19 June 2008, the waste skip at the eastern corner near Gate No.4 of the Site was observed to be full. The Contractor was reminded to arrange *ad hoc* waste collections when waste volumes were higher than usual. The contractor was also reminded to clear rainwater in drip trays after poor weather conditions.

Water Discharge Sampling

In accordance with the discharge licence issued under WPCO, water sampling should be conducted quarterly to ensure the quality of treated effluent at three designated discharge points complies with the requirements of discharge license. Two water samples at Discharge Point 2 and Discharge Point 3 were taken on 16 June 2008. *Table 6.1* shows that the effluent discharged from the Project was in compliance with the discharge limit stipulated in the Water Discharge License. The laboratory testing reports of the water sampling and the map showing the locations of discharge points are presented in *Annex L*.

Table 6.1 Results of Water Discharge Sampling

Sampling Location	Parameter	Test Result	Discharge Limit
Discharge Point 2 (H200605 WT-25)	pH	7.5	6-10
	Total Suspended Solids (TSS) Dried at 103-105°C (mg/L)	<2.5	≤30
	Chemical Oxygen Demand (COD) (mgO_2/L)	<50	≤80
Discharge Point 3 (H200605 WT-21)	pH	7.7	6-10
	Total Suspended Solids (TSS) Dried at 103-105°C (mg/L)	<2.5	≤30
	Chemical Oxygen Demand (COD) (mgO_2/L)	<50	≤80

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 the reporting period.

7.2 SUMMARY OF ENVIRONMENTAL NON-COMPLIANCE

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

7.3 SUMMARY OF ENVIRONMENTAL COMPLAINT

No complaint was received during the reporting month.

7.4 SUMMARY OF ENVIRONMENTAL SUMMONS AND PROSECUTION

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

8 FUTURE KEY ISSUES

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
• Roof Truss E Load Transfer
• HV Cable Room Superstructure Work (L1M – L2)
• Pump Room (G.L. 17/A1 to A)
• Floor Structure (L3 & L5)
• Removal of Glass Wall
• Linkbridge Corbel Installation

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. There will not be any water quality monitoring until the next dry season or the removal of temporary marine piles, whichever is earlier.

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, ug/m3	Measured 24-hour TSP Monitoring Results, ug/m3 (2)	
		24 hour (1)	Average	Range
AM1	AM8	260	40	23 – 145
AM2	AM6	260	34	14 - 145

Remarks:

(1) Only 24-hour TSP monitoring results were compared as there is no maximum allowable concentration of 1 hour TSP in HKAQO.

(2) Average and range of data were calculated for the period of monitoring between August 2006 and the reporting month.

The monitoring results show that the 24-hour TSP levels during the reporting month were well below the maximum allowable concentration stipulated in the HKAQO. Recommended mitigation measures in *Section 4.24* of EIA were implemented during the reporting month and were considered effective.

9.2 WASTE MANAGEMENT

The estimated amount of waste generated in this Project and the quantities of waste generated during the 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 reporting month and regarded as effective.

Table 9.2 Comparison of the Estimated and Actual Amount of Waste Generated

Type of Material	Estimated Amount of C&D Materials in EIA (inert & non-inert)	Actual Amount of C&D Materials Recorded(1) (inert & non-inert)
Demolition of temporary footbridge	585 tonnes	0
Demolition of existing Atrium Link	4,680 tonnes	2,505.5 tonnes
Demolition of temporary working platform	390 tonnes	0
Construction of foundations and pile caps	20,000 tonnes	21,690.8 tonnes
General Refuse	Insignificant	1,193.4 tonnes
Chemical Waste	Small	288 Litres

Remark:
(1) 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 during the reporting month 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.

10 CONCLUSION

The Environmental Monitoring and Audit (EM&A) Report presents the EM&A work undertaken during the period from 1 June to 30 June 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 the reporting month.

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

No complaint and summons/prosecution was received during the 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

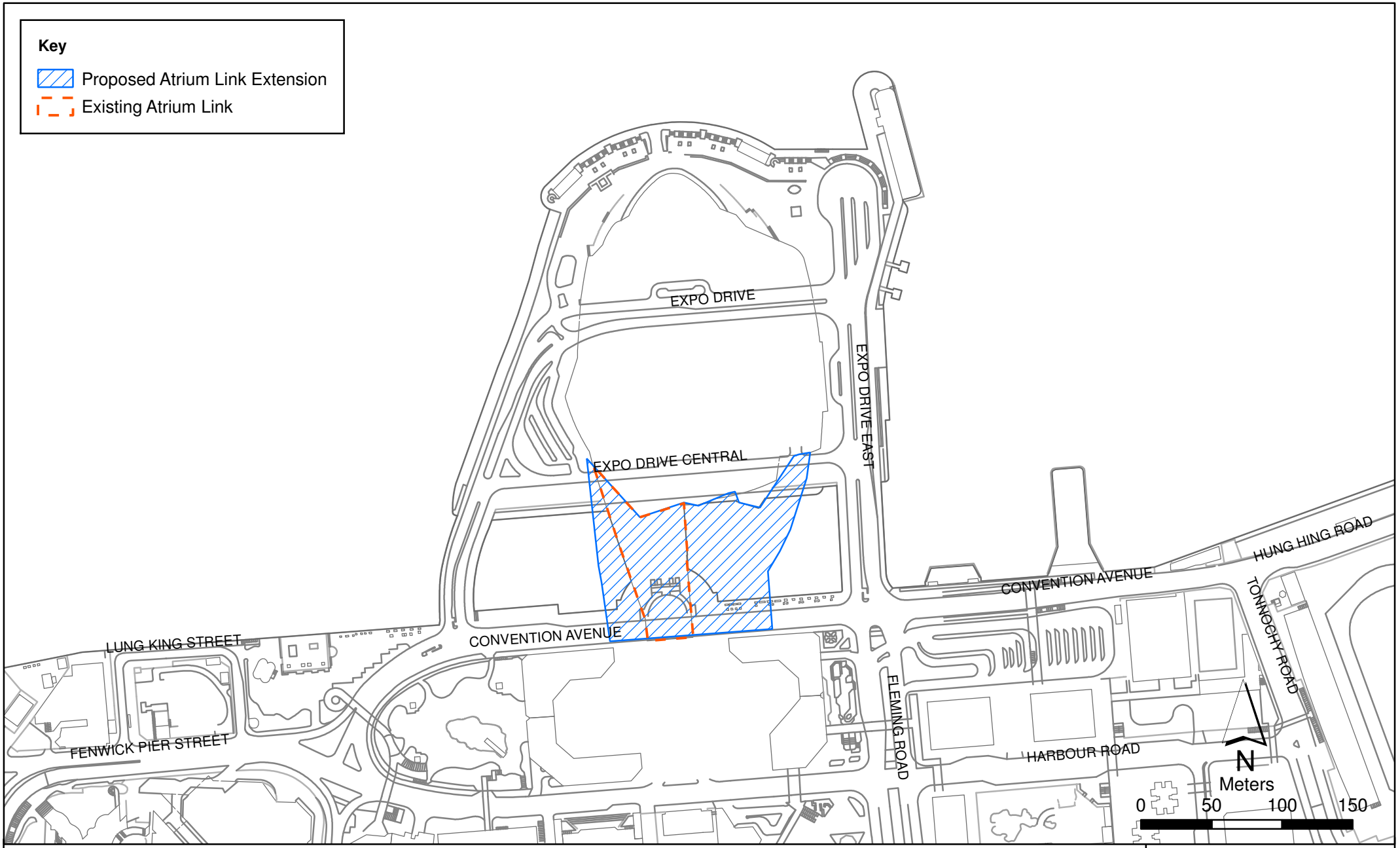

Figure A1

Location of Atrium Link Extension

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Environmental Resources Management

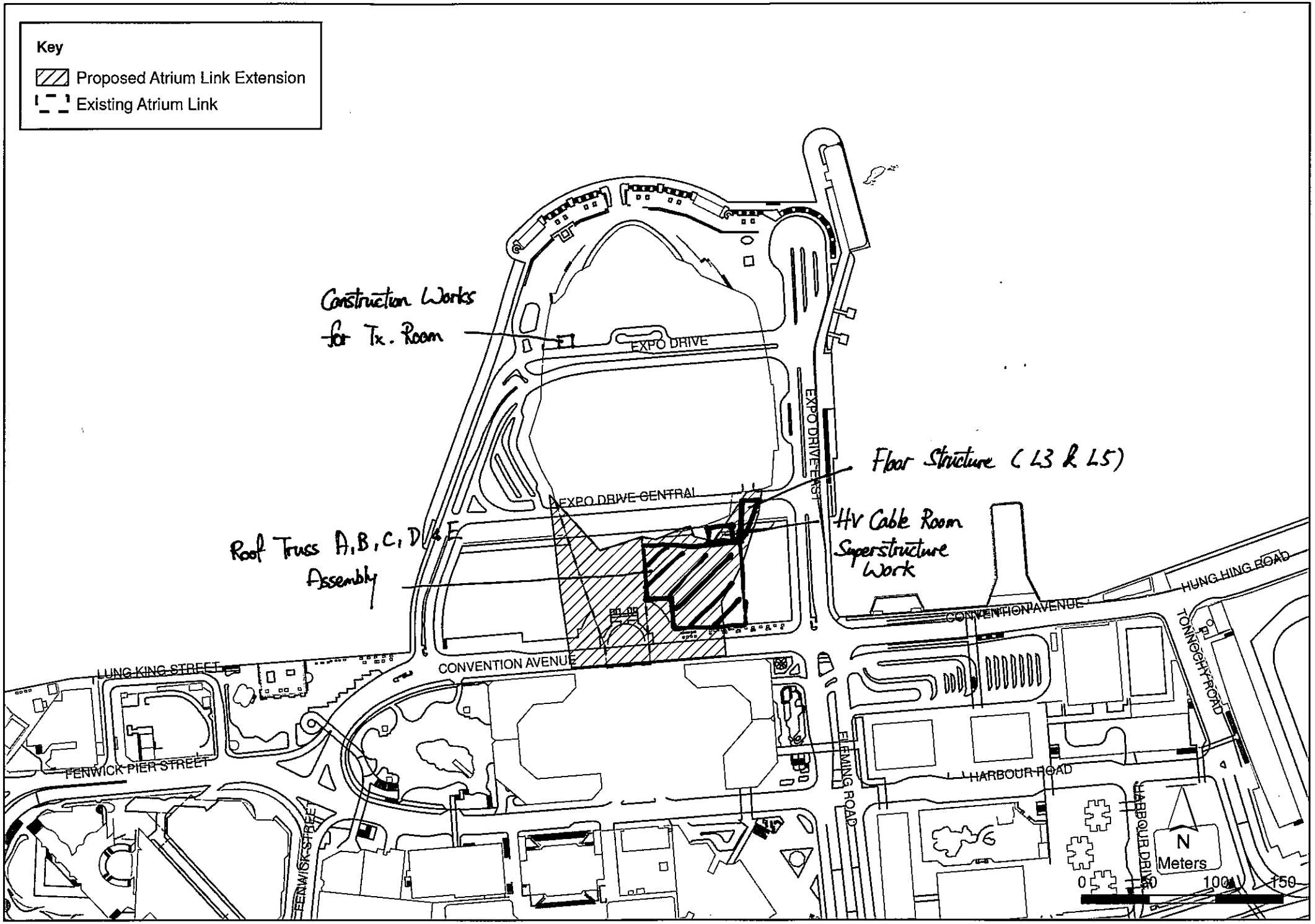
ERM

Annex B

Location of Construction Activities during the Reporting Month

Summary of Works for May 2008

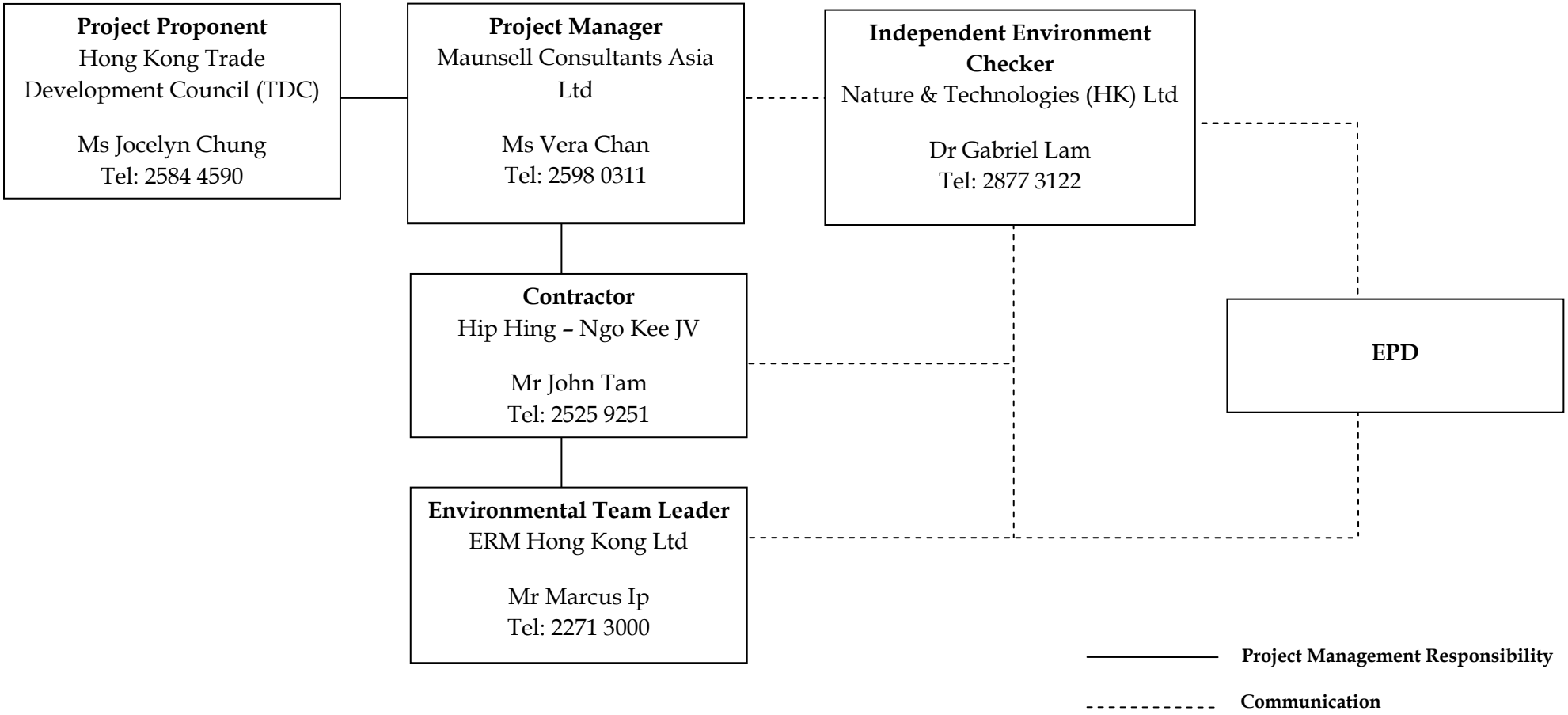
Description	Location
Transfer Truss Installation	GridA-B/24
Roof Truss A Assembly	Grid A
Roof Truss B Assembly	Grid B
Roof Truss C Assembly	Grid C
Roof Truss D Assembly	Grid D
Roof Truss E Assembly	Grid D-E
Construction works for Transformer Room	L1, Phase II
HV Cable Room Superstructure Work (L1-L1M)	Grid D-E.17
HV Cable Room Superstructure Work (L1M-L2)	Grid D-E.17
Floor Structure (L3 & L5)	Grid D-E/15-19
Removal of Glass Wall	Façade Phase I
Linkbridge Corbel Installation	Grid D-E/15-19


Key
Proposed Atrium Link Extension
Existing Atrium Link
Construction Works for Tx. Room
Floor Structure (L3 & L5)
HV Cable Room Superstructure Work
Roof Truss A, B, C, D & E Assembly
EXPO DRIVE
EXPO DRIVE EAST
EXPO DRIVE CENTRAL
CONVENTION AVENUE
HUNG HING ROAD
TONNOCHY ROAD
LUNG KING STREET
FENWICK PIER STREET
FENWICK STREET
FLEMING ROAD
HARBOUR ROAD
HARBOUR DRIVE
N
Meters
0
50
100
150

Annex C

Project Organization Chart and Contact Detail

Project Organization (with contact details)



Annex D

Location of Air Quality Monitoring Stations

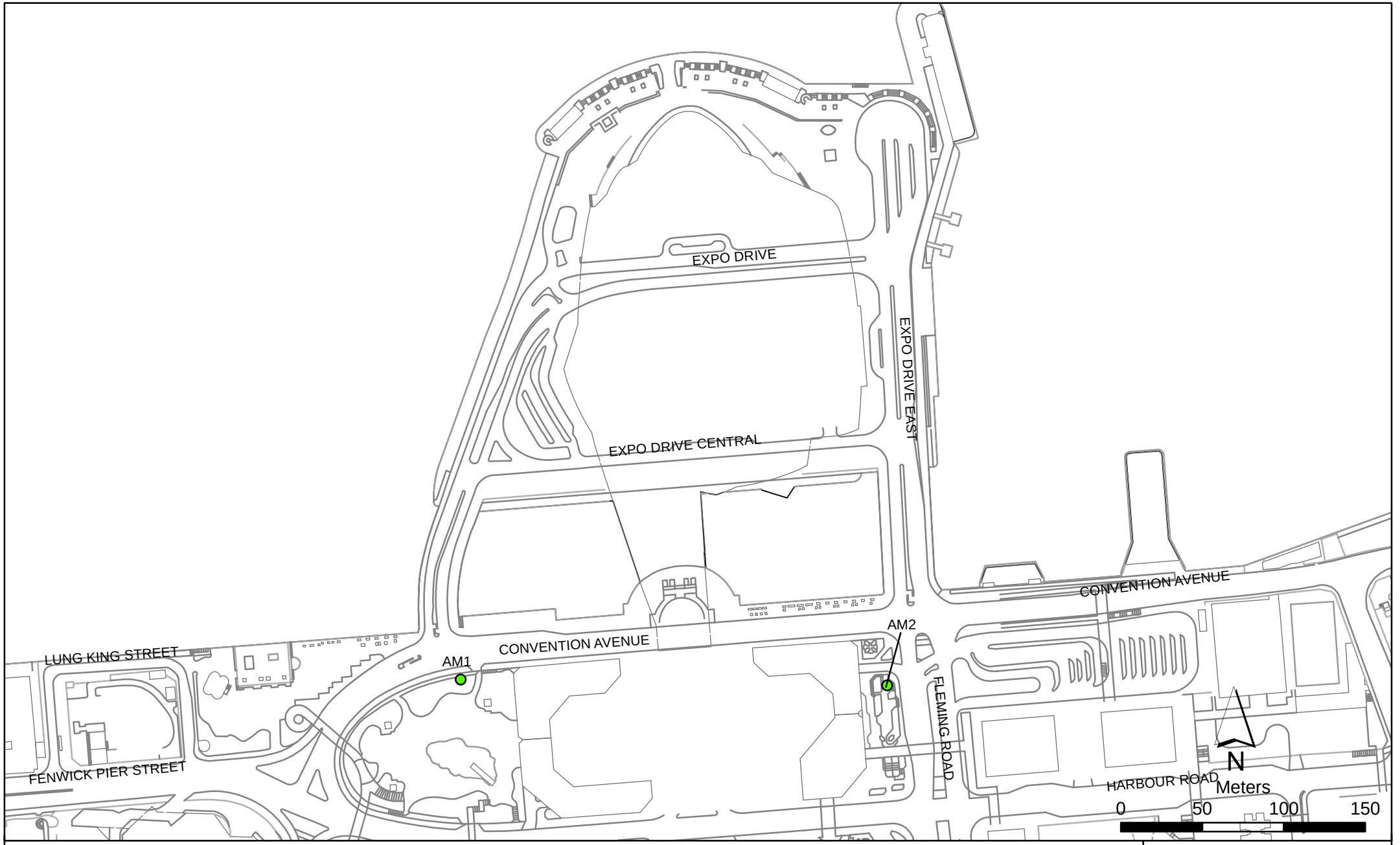


Figure D1

Air Quality Monitoring Station

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Environmental Resources Management

ERM

D1 AIR QUALITY MONITORING STATION

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 - April 2008

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

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

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

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

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

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

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
		01-Jul	02-Jul	03-Jul	04-Jul	05-Jul
			1 hr and 24 hr TSP		1hr TSP	
06-Jul	07-Jul	08-Jul	09-Jul	10-Jul	11-Jul	12-Jul
	1hr TSP	1 hr and 24 hr TSP	1hr TSP		1hr TSP	
13-Jul	14-Jul	15-Jul	16-Jul	17-Jul	18-Jul	19-Jul
	1 hr and 24 hr TSP		1 hr TSP		1hr TSP	1 hr and 24 hr TSP
20-Jul	21-Jul	22-Jul	23-Jul	24-Jul	25-Jul	26-Jul
	1 hr TSP		1 hr TSP		1 hr and 24 hr TSP	
27-Jul	28-Jul	29-Jul	30-Jul	31-Jul		
	1 hr TSP		1 hr TSP	1 hr and 24 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 : 28 April 2008

Serial No. : 9864 (ET / EA / 003 / 19)

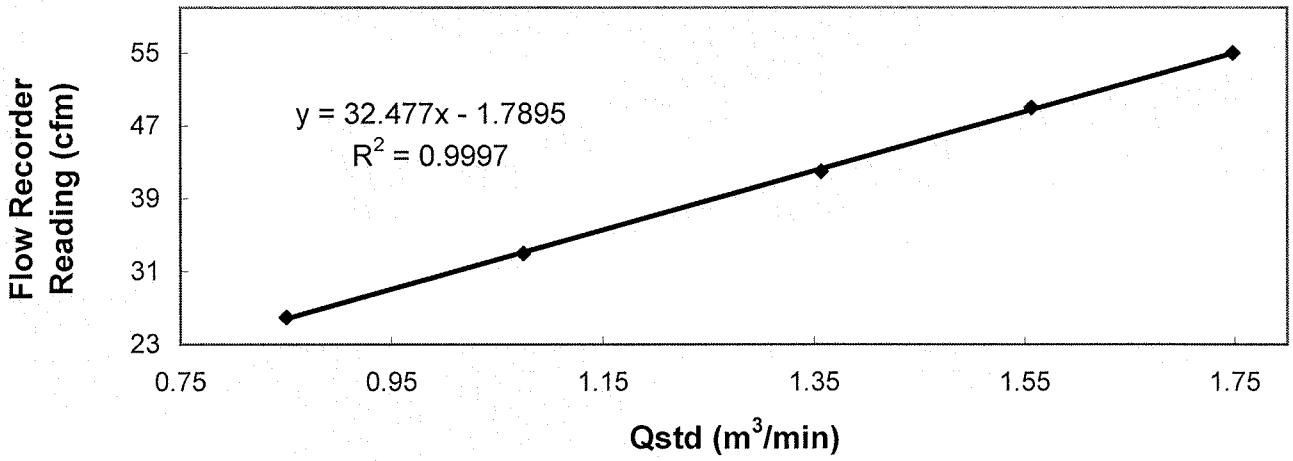
Calibration Due Date : 27 June 2008

Method : Based on Operations Manual for the 5-point calibration using standard calibration kit manufactured by Tisch TE-5025 A

Results :

Flow recorder reading (cfm)	55	49	42	33	26
Qstd (Actual flow rate, m^3/min)	1.75	1.56	1.36	1.08	0.85
Pressure : 763.56 mm Hg		Temp. : 295 K			

Sampler 9864 Calibration Curve
Site: Wan Chai (AM-1)
Date of Calibration: 28 April 2008



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 : Mak Kei Wai
MAK, Kei Wai
(Senior Technician)

Approved by :
CHOW, Hoi Tat
(Asst. 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 : 28 April 2008

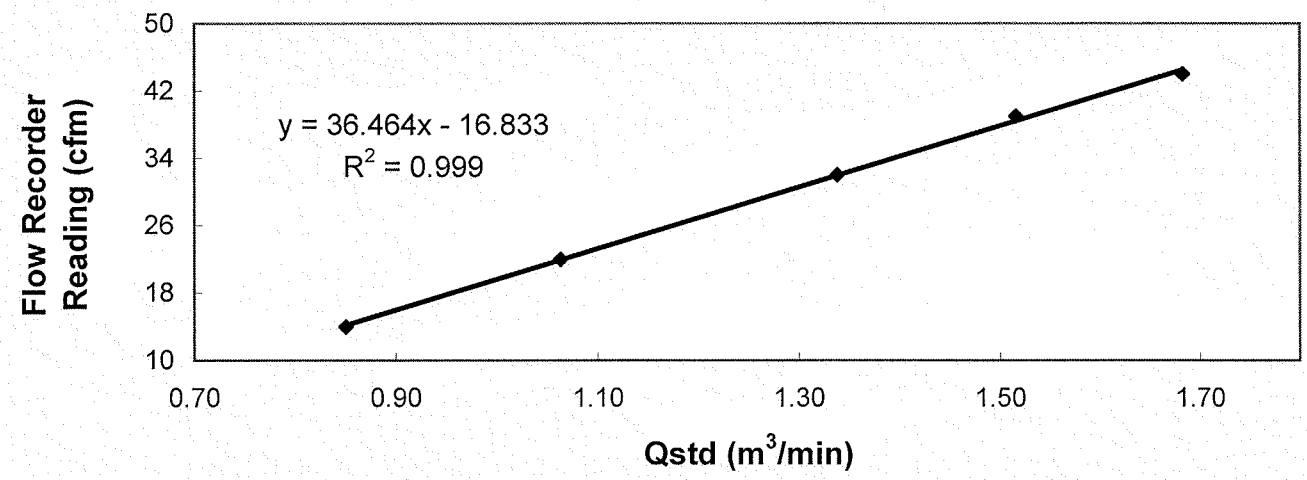
Serial No. : 9795 (ET / EA / 003 / 18) Calibration Due Date : 27 June 2008

Method : Based on Operations Manual for the 5-point calibration using standard calibration kit manufactured by Tisch TE-5025 A

Results :

Flow recorder reading (cfm)	44	39	32	22	14
Qstd (Actual flow rate, m^3/min)	1.68	1.52	1.34	1.06	0.85
Pressure : 763.56 mm Hg		Temp. : 295 K			

Sampler 9795 Calibration Curve
Site: Wan Chai (AM-2)
Date of Calibration: 28 April 2008



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 : Mak Kei Wai
Mak, Kei Wai
(Senior Technician)

Approved by :
CHOW, Hoi Tat
(Asst. Environmental Officer)

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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 June 2008

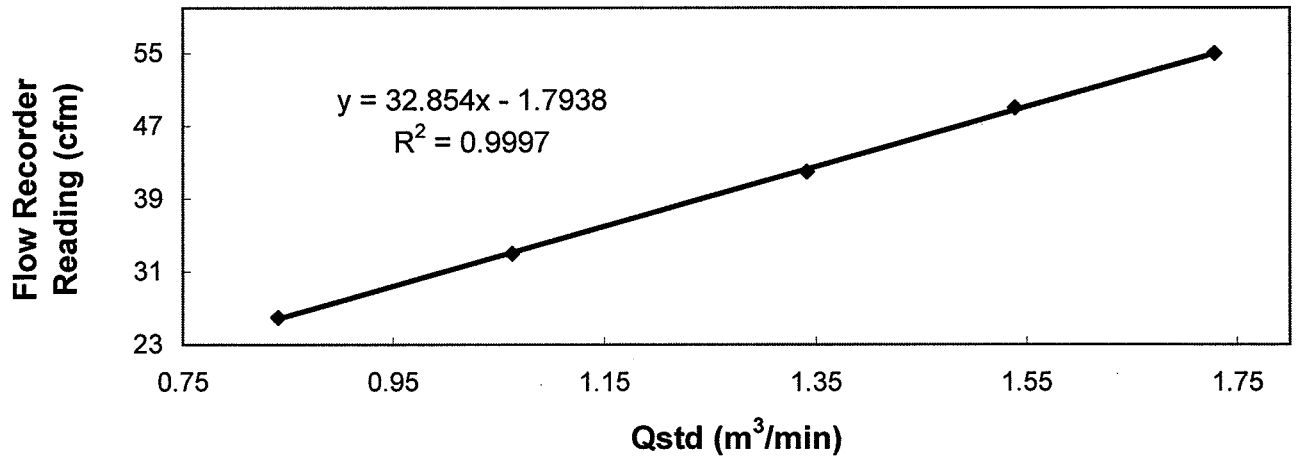
Serial No. : 9864 (ET / EA / 003 / 19) Calibration Due Date : 26 August 2008

Method : Based on Operations Manual for the 5-point calibration using standard calibration kit manufactured by Tisch TE-5025 A

Results :

Flow recorder reading (cfm)	55	49	42	33	26
Qstd (Actual flow rate, m^3/min)	1.73	1.54	1.34	1.06	0.84
Pressure : 761.31 mm Hg		Temp. : 301 K			

Sampler 9864 Calibration Curve
Site: Wan Chai (AM-1)
Date of Calibration: 27 June 2008



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 : _____
LI, Wan Lung
(Technician)

Approved by : _____
CHOW, Hoi Tat
(Asst. 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 June 2008

Serial No. : 9795 (ET / EA / 003 / 18)

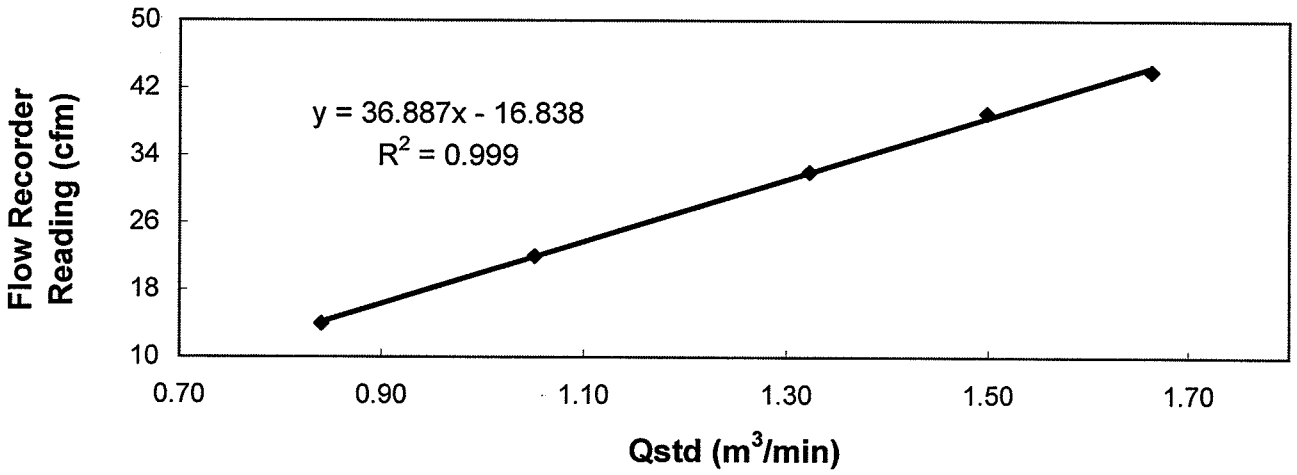
Calibration Due Date : 26 August 2008

Method : Based on Operations Manual for the 5-point calibration using standard calibration kit manufactured by Tisch TE-5025 A

Results :

Flow recorder reading (cfm)	44	39	32	22	14
Qstd (Actual flow rate, m^3/min)	1.66	1.50	1.32	1.05	0.84
Pressure : 761.31 mm Hg		Temp. : 301 K			

Sampler 9795 Calibration Curve
Site: Wan Chai (AM-2)
Date of Calibration: 27 June 2008



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 : _____
LI, Wan Lung
(Technician)

Approved by : _____
CHOW, Hoi Tat
(Asst. 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^3/min.)		Elapse Time		Sampling Time(hrs.)	Conc. (µg/m^3)	Weather Condition	Ave. Air Temp. (^oC)	Particulate weight(g)	Av. flow (m^3/min)	Total vol. (m^3)
	Initial	Final	Initial	Final	Initial	Final							
3/6/08 - 4/6/08	2.8258	2.9027	1.1636	1.1636	13571.30	13595.30	24.0	46	Rainy	25.7	0.0769	1.1636	1675.58
10/6/08 - 11/6/08	2.8433	2.9105	1.1328	1.1328	13598.30	13622.30	24.0	41	Rainy	28.1	0.0672	1.1328	1631.23
14/6/08 - 15/6/08	2.8329	2.8768	1.0712	1.0712	13625.30	13649.30	24.0	28	Rainy	25.3	0.0439	1.0712	1542.53
20/6/08 - 21/6/08	2.8600	2.9401	0.9788	0.9788	13652.30	13676.30	24.0	57	Sunny	28.6	0.0801	0.9788	1409.47
26/6/08 - 27/6/08	2.8253	2.8715	1.0712	1.0712	13679.30	13703.30	24.0	30	Rainy	26	0.0462	1.0712	1542.53
							Min	28					
							Max	57					
							Average	40					

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

Date	Filter Weight (g)		Flow Rate (m^3/min.)		Elapse Time		Sampling Time(hrs.)	Conc. (µg/m^3)	Weather Condition	Ave. Air Temp. (^oC)	Particulate weight(g)	Av. flow (m^3/min)	Total vol. (m^3)
	Initial	Final	Initial	Final	Initial	Final							
3/6/08 - 4/6/08	2.8449	2.9064	1.4215	1.4215	11900.70	11924.71	24.0	30	Rainy	25.7	0.0615	1.4215	2047.81
10/6/08 - 11/6/08	2.8169	2.9012	1.3941	1.3941	11927.71	11951.71	24.0	42	Rainy	28.1	0.0843	1.3941	2007.50
14/6/08 - 15/6/08	2.8437	2.9068	1.4489	1.4489	11954.71	11978.71	24.0	30	Rainy	25.3	0.0631	1.4489	2086.42
20/6/08 - 21/6/08	2.8342	2.9124	1.3392	1.3392	11981.71	12005.71	24.0	41	Sunny	28.6	0.0782	1.3392	1928.45
26/6/08 - 27/6/08	2.8876	2.9485	1.4489	1.4489	12008.71	12032.71	24.0	29	Rainy	26	0.0609	1.4489	2086.42
							Min	29					
							Max	42					
							Average	34					

1-hour TSP Monitoring Results

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

Date	Filter Weight (g)		Flow Rate (m^3/min.)		Elapse Time		Sampling Time(hrs.)	Conc. ($\mu g/m^3$)	Weather Condition	Ave. Air Temp. (^oC)	Particulate weight(g)	Av. flow (m^3/min)	Total vol. (m^3)
	Initial	Final	Initial	Final	Initial	Final							
02-Jun-08	2.8719	2.8819	1.1328	1.1328	13569.30	13570.30	1.00	147	Rainy	25.4	0.0100	1.1328	67.97
03-Jun-08	2.8442	2.8565	1.1328	1.1328	13570.30	13571.30	1.00	181	Rainy	25.7	0.0123	1.1328	67.97
04-Jun-08	2.7998	2.8061	1.1328	1.1328	13595.30	13596.30	1.00	93	Rainy	24.9	0.0063	1.1328	67.97
06-Jun-08	2.8369	2.8430	1.1944	1.1944	13596.30	13597.30	1.00	85	Rainy	23.7	0.0061	1.1944	71.66
10-Jun-08	2.8156	2.8274	1.1328	1.1328	13597.30	13598.30	1.00	174	Rainy	28.1	0.0118	1.1328	67.97
11-Jun-08	2.8252	2.8294	1.1636	1.1636	13622.30	13623.30	1.00	60	Rainy	27.8	0.0042	1.1636	69.82
13-Jun-08	2.8096	2.8147	1.1020	1.1020	13623.30	13624.30	1.00	77	Rainy	27.1	0.0051	1.1020	66.12
14-Jun-08	2.7911	2.7983	1.0712	1.0712	13624.30	13625.30	1.00	112	Rainy	25.3	0.0072	1.0712	64.27
16-Jun-08	2.8344	2.8394	1.1328	1.1328	13649.30	13650.30	1.00	74	Rainy	26.3	0.0050	1.1328	67.97
18-Jun-08	2.8278	2.8375	1.1636	1.1636	13650.30	13651.30	1.00	139	Rainy	25.7	0.0097	1.1636	69.82
20-Jun-08	2.8626	2.8673	1.1328	1.1328	13651.30	13652.30	1.00	69	Sunny	28.6	0.0047	1.1328	67.97
23-Jun-08	2.8478	2.8563	0.9788	0.9788	13676.30	13677.30	1.00	145	Sunny	29	0.0085	0.9788	58.73
25-Jun-08	2.8236	2.8314	1.0096	1.0096	13677.30	13678.30	1.00	129	Rainy	25.4	0.0078	1.0096	60.58
26-Jun-08	2.8830	2.8883	0.9788	0.9788	13678.30	13679.30	1.00	90	Rainy	26	0.0053	0.9788	58.73
27-Jun-08	2.8158	2.8201	1.0404	1.0404	13703.30	13704.30	1.00	69	Rainy	25.5	0.0043	1.0404	62.42
30-Jun-08	2.8395	2.8462	1.0286	1.0286	13704.30	13705.30	1.00	109	Rainy	26	0.0067	1.0286	61.72

Min	60
Max	181
Average	109

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

Date	Filter Weight (g)		Flow Rate (m^3/min.)		Elapse Time		Sampling Time(hrs.)	Conc. ($\mu g/m^3$)	Weather Condition	Ave. Air Temp. (^oC)	Particulate weight(g)	Av. flow (m^3/min)	Total vol. (m^3)
	Initial	Final	Initial	Final	Initial	Final							
02-Jun-08	2.8064	2.8187	1.3666	1.3666	11898.70	11899.70	1.00	150	Rainy	25.4	0.0123	1.3666	82.00
03-Jun-08	2.8489	2.8589	1.3941	1.3941	11899.70	11900.70	1.00	120	Rainy	25.7	0.0100	1.3941	83.65
04-Jun-08	2.8337	2.8421	1.3666	1.3666	11924.71	11925.71	1.00	102	Rainy	24.9	0.0084	1.3666	82.00
06-Jun-08	2.8349	2.8427	1.3666	1.3666	11925.71	11926.71	1.00	95	Rainy	23.7	0.0078	1.3666	82.00
10-Jun-08	2.8130	2.8285	1.3666	1.3666	11926.71	11927.71	1.00	189	Rainy	28.1	0.0155	1.3666	82.00
11-Jun-08	2.8129	2.8185	1.3941	1.3941	11951.71	11952.71	1.00	67	Rainy	27.8	0.0056	1.3941	83.65
13-Jun-08	2.8278	2.8346	1.3392	1.3392	11952.71	11953.71	1.00	85	Rainy	27.1	0.0068	1.3392	80.35
14-Jun-08	2.7925	2.8028	1.3392	1.3392	11953.71	11954.71	1.00	128	Rainy	25.3	0.0103	1.3392	80.35
16-Jun-08	2.8163	2.8223	1.4489	1.4489	11978.71	11979.71	1.00	69	Rainy	26.3	0.0060	1.4489	86.93
18-Jun-08	2.8409	2.8519	1.3666	1.3666	11979.71	11980.71	1.00	134	Rainy	25.7	0.0110	1.3666	82.00
20-Jun-08	2.8576	2.8625	1.3941	1.3941	11980.71	11981.71	1.00	59	Sunny	28.6	0.0049	1.3941	83.65
23-Jun-08	2.8425	2.8568	1.3666	1.3666	12005.71	12006.71	1.00	174	Sunny	29	0.0143	1.3666	82.00
25-Jun-08	2.8621	2.8752	1.3666	1.3666	12006.71	12007.71	1.00	160	Rainy	25.4	0.0131	1.3666	82.00
26-Jun-08	2.8556	2.8641	1.3666	1.3666	12007.71	12008.71	1.00	104	Rainy	26	0.0085	1.3666	82.00
27-Jun-08	2.8126	2.8185	1.3941	1.3941	12032.71	12033.71	1.00	71	Rainy	25.5	0.0059	1.3941	83.65
30-Jun-08	2.8444	2.8538	1.3511	1.3511	12033.71	12034.71	1.00	116	Rainy	26	0.0094	1.3511	81.07

Min	59
Max	189
Average	114

Figure G1 - Meausred 24-hour TSP Concentration (μgm^{-3}) at AM1

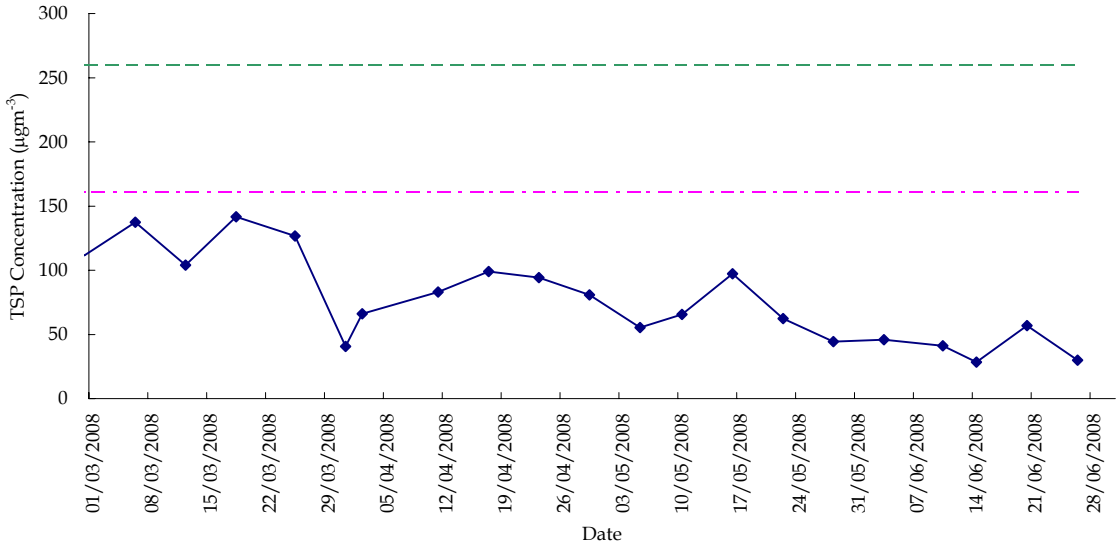


Figure G2 - Measured 24-hour TSP Concentration (μgm^{-3}) at AM2

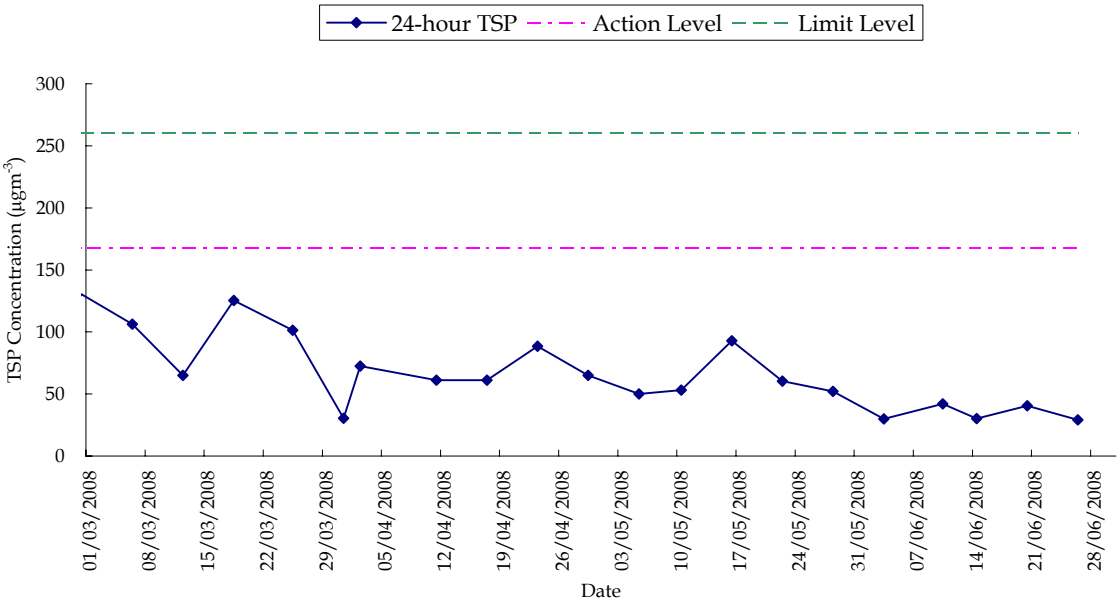


Figure G3 - Meausred 1-hour TSP Concentration (μgm^{-3}) at AM1

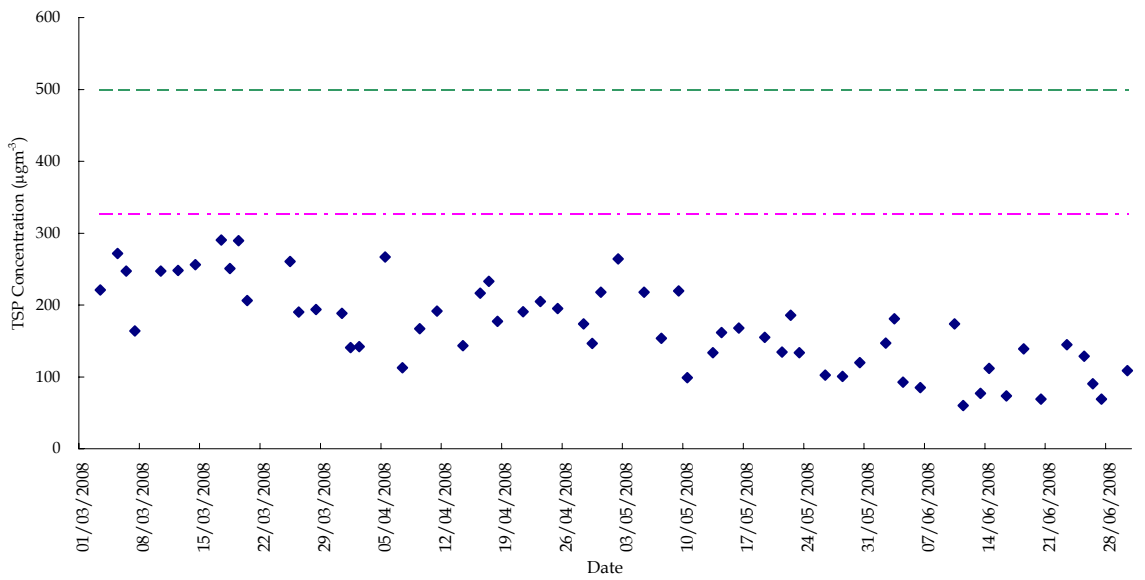
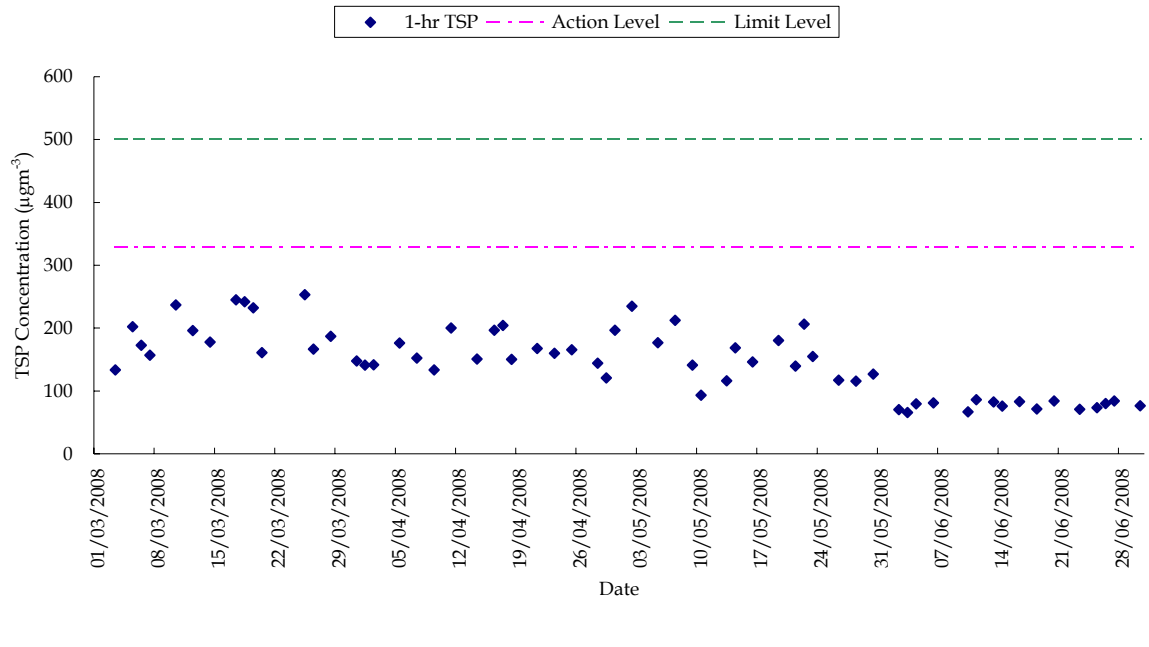


Figure G4 - Measured 1-hour TSP Concentration (μgm^{-3}) at AM2



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	1. Identify source 2. Notify IEC, ER and Contractor within 1 working day after receiving the laboratory results. 3. Conduct additional monitoring to investigate the causes. 4. Report the investigation results and if exceedance is due to contractor's construction works to the IEC, ER and Contractor. 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.	1. Take immediate action to avoid further exceedance and rectify any unacceptable practice. 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 3. Implement agreed proposal within a time scale agreed with ER and IEC.	1. Confirm receipt of notification of failure in writing. 2. Notify Contractor. 3. Require Contractor to submit air mitigation proposal. 4. Ensure remedial measures are properly implemented.	1. Review monitoring data and investigation report submitted by ET. 2. Review Contractor's air mitigation proposal and advise the ER accordingly. 3. Supervise and confirm in writing the implementation of remedial measures within 2 working days after receipt of the mitigation proposal.
Exceedance for two or more consecutive samples	1. Identify source 2. Notify EPD, IEC, ER and Contractor within 1 working day after receiving the laboratory results 3. Conduct additional monitoring to investigate the causes. 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. 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. 6. If exceedances continue after 1-week monitoring events, request ER to arrange meeting with ER, IEC and contractor to discuss remedial actions.	1. Take immediate action to avoid further exceedance and rectify any unacceptable practice 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 3. Implement agreed proposal within a time scale agreed with ER and IEC. 4. Amend working methods if appropriate.	1. Confirm receipt of notification of failure in writing. 2. Notify Contractor. 3. Require Contractor to submit air mitigation proposal. 4. Ensure remedial measures are properly implemented.	1. Review monitoring data and investigation report submitted by ET. 2. Discuss amongst ER, ET and Contractor in order to formulate air mitigation proposal. 3. Review Contractor's air mitigation proposal and advise the ER accordingly. 4. Supervise and confirm in writing the implementation of remedial measures within 2 working days after receipt of the mitigation proposal.

Event Limit Level	Action			
	ET	Contractor	ER	IEC
Exceedance for one sample	1. Identify source 2. Notify EPD, IEC, ER and Contractor within 1 working day after receiving the laboratory results 3. Conduct additional monitoring to investigate the causes. 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. 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.	1. Take immediate action to avoid further exceedance and rectify any unacceptable practice 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 3. Implement agreed proposal within a time scale agreed with ER and IEC. 4. Amend working methods if appropriate.	1. Confirm receipt of notification of failure in writing. 2. Notify Contractor. 3. Require Contractor to submit air mitigation proposal. 4. Ensure remedial measures are properly implemented.	1. Review monitoring data and investigation report submitted by ET. 2. Discuss amongst ER, ET and Contractor in order to formulate air mitigation proposal. 3. Review Contractor's air mitigation proposal and advise the ER accordingly. 4. Supervise and confirm in writing the implementation of remedial measures within 2 working days after receipt of the mitigation proposal.
Exceedance for two or more consecutive samples	1. Identify source 2. Notify EPD, IEC, ER and Contractor within 1 working day after receiving the laboratory results 3. Conduct additional monitoring to investigate the causes. 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. 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. 6. If exceedances continue after 2 consecutive monitoring events, request ER to arrange meeting with IEC and contractor to discuss remedial actions.	1. Take immediate action to avoid further exceedance and rectify any unacceptable practice 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 3. Implement agreed proposal within a time scale agreed with ER and IEC. 4. Amend working methods and proposal if appropriate. 5. Stop relevant portion(s) of works as required by ER, ET and IEC	1. Confirm receipt of notification of failure in writing. 2. Notify Contractor. 3. Require Contractor to submit air mitigation proposal. 4. Ensure remedial measures are properly implemented. 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.	1. Review monitoring data and investigation report submitted by ET. 2. Discuss amongst ER, ET and Contractor in order to formulate air mitigation proposal. 3. Review Contractor's air mitigation proposal and advise the ER accordingly. 4. Supervise and confirm in writing the implementation of remedial measures within 2 working days after receipt of the mitigation proposal.

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
Measures for Mitigating Water Quality Impact			
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.
Measures for Mitigating Air Quality Impact			
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	---
Measures for Mitigating Landscape and Visual Impact			
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
Construction Phase			
Air Quality	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: • skip hoist for material transport should be totally enclosed by impervious sheeting; • every vehicle should be washed to remove any dusty materials from its body and wheels before leaving a construction site; • 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; • 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; • 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; • all dusty materials should be sprayed with water prior to any loading, unloading or transfer operation so as to maintain the dusty materials wet; • the height from which excavated materials dropped should be controlled to a minimum practical height to limit fugitive dust generation from unloading; • 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 • 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.	Work site / during construction	√

Summary of Mitigation Measures Implementation Schedule

Type of Impact	Environmental Protection Measures	Location/ Timing	Status
Operational Phase			
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_2 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
Construction Phase			
Noise	Good Site Practice: • only well-maintained plant should be operated on-site and plant should be serviced regularly during the construction program; • silencers or mufflers on construction equipment should be utilized and should be properly maintained during the construction program; • mobile plant, if any, should be sited as far from NSRs as possible; • 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; • 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 • material stockpiles and other structures should be effectively utilised, wherever practicable, in screening noise from on-site construction activities; Environmental audit shall be carried out to ensure that appropriate noise control measures would be properly implemented.	Construction work areas / Construction period	√

Summary of Mitigation Measures Implementation Schedule

Type of Impact	Environmental Protection Measures	Location/ Timing	Status
Operational Phase			
Noise	The following noise reduction measures should be considered as far as practicable during detailed design: • choose quieter plant such as those which have been effectively silenced; • include noise levels specification when ordering new plant; • locate fixed plant away from any NSRs as far as practicable; • locate fixed plant in plant rooms with thick walls or specially designed enclosure; • locate noisy machines in basement or a completely separate building; and • develop and implement a regularly scheduled plant maintenance programme in order to maintain controlled level of noise.	Plant Room / Design and Operation Stage	Relevant design and plant procurement procedures to commence at a later stage
Construction Phase			
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
	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.		
Water Quality	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.	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	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.	Works areas / construction period	√

Summary of Mitigation Measures Implementation Schedule

Type of Impact	Environmental Protection Measures	Location/ Timing	Status
Water Quality	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.	Works areas / construction period	√
Water Quality	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. Measures should be taken to minimize the ingress of rainwater into trenches. If excavation of trenches in wet seasons is	Works areas / construction period	√

Summary of Mitigation Measures Implementation Schedule

Type of Impact	Environmental Protection Measures	Location/ Timing	Status
	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. 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. 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.		
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	√
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
	kept to a minimum. 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. 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.		
Water Quality	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. 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.	Works areas / construction period	√
Water Quality	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. 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.	Works areas / construction period	√

Summary of Mitigation Measures Implementation Schedule

Type of Impact	Environmental Protection Measures	Location/ Timing	Status
	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. 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.	Works areas / construction period	
Water Quality	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. 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.	Works areas / construction period	√
Water Quality	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.	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	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. Drainage serving an open oil filling point should be connected to storm drains via a petrol interceptors with peak storm bypass. 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.	Works areas / construction period	√
Water Quality	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. 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.	Works areas / construction period	√
Water Quality	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.	Works areas / construction period	√
Water	Any service shop and maintenance facilities should be located on	Works areas / construction period	√

Summary of Mitigation Measures Implementation Schedule

Type of Impact	Environmental Protection Measures	Location/ Timing	Status
Quality	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. Disposal of chemical wastes should be carried out in compliance with the Waste Disposal Ordinance. The Code of Practice on the Packaging, Labelling and Storage of Chemical Wastes published under the Waste Disposal Ordinance details the requirements to deal with chemical wastes. General requirements are given as follows: • suitable containers should be used to hold the chemical wastes to avoid leakage or spillage during storage, handling and transport; • chemical waste containers should be suitably labelled, to notify and warn the personnel who are handling the wastes, to avoid accidents; and • storage area should be selected at a safe location on site and adequate space should be allocated to the storage area.		
Water Quality	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: • the use of less or smaller construction plants may be specified to reduce the disturbance to the seabed; • temporary sewerage system should be designed to prevent wastewater from entering the storm system and sea; • temporary storage of materials (e.g. equipment, filling materials, chemicals and fuel) and temporary stockpile of construction materials should be located well away from any water courses during carrying out of the construction works; • stockpiling of construction materials and dusty materials should be covered and located away from any water courses; • construction debris and spoil should be covered up and/or disposed of as soon as possible to avoid being washed into	Works areas / construction period	√

Summary of Mitigation Measures Implementation Schedule

Type of Impact	Environmental Protection Measures	Location/ Timing	Status
	the nearby water receivers; • construction activities, which generate large amount of wastewater, should be carried out in a distance away from the waterfront, where practicable; • 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; • construction effluent, site run-off and sewage should be properly collected and/or treated; • proper shoring may need to be erected in order to prevent soil/mud from slipping into the storm culvert/sea; and • supervisory staff should be assigned to station on site to closely supervise and monitor the works.		
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
Construction Phase			
Waste	Recommendations for good site practices during the construction activities include: • nomination of an approved person, such as a site manager, to be responsible for good site practices, arrangements for collection and effective disposal to an appropriate facility, of all Wastes generated at the site; • training of site personnel in proper waste management and chemical handling procedures; • provision of sufficient waste disposal points and regular collection of waste; • appropriate measures to minimize windblown litter and dust during transportation of waste by either covering trucks or by transporting wastes in enclosed containers; and • regular cleaning and maintenance programme for drainage systems, sumps and oil interceptors.	Work site / during the construction period	√
Waste	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: • sorting of demolition debris and excavated materials from demolition works to recover reusable/ recyclable portions (ie soil, broken concrete, metal, etc);	Work site / during the construction period	√

Summary of Mitigation Measures Implementation Schedule

Type of Impact	Environmental Protection Measures	Location/ Timing	Status
	• segregation and storage of different types of waste in different containers, skips or stockpiles to enhance reuse or recycling of materials and their proper disposal; • encourage collection of 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; • proper storage and site practices to minimize the potential for damage to contamination of construction materials; and • plan and stock construction materials carefully to minimize amount of waste generated and avoid unnecessary generation of waste.		
Waste	<u>General Refuse</u> General refuse should be stored in enclosed bins or compaction units separate from C&D material. A reputable waste collector should be employed by the contractor to remove general refuse from the site, separately from C&D material. Preferably an enclosed and covered area should be provided to reduce the occurrence of 'wind blown' light material.	Work site / during the construction period	√
Waste	<u>Construction and Demolition Material</u> • In order to minimize the impact resulting from collection and transportation of C&D material for off-site disposal, the C&D material from the following construction activities should be reused and recycled as far as possible to reduce the net amount of C&D material generated from the Project; • a Waste Management Plan should be prepared in accordance with ETWB TCW No. 19/2005; • a recording system for the amount of wastes generated, recycled and disposed (including the disposal sites) should be proposed; • in order to monitor the disposal of C&D and solid wastes at	Work site / during the construction period	√

Summary of Mitigation Measures Implementation Schedule

Type of Impact	Environmental Protection Measures	Location/ Timing	Status
	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; • the large amount of C&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.		
Waste	<u>Chemical Wastes</u> If chemical wastes are produced at the construction site, the Contractor would be required to register with the EPD as a Chemical Waste Producer and to follow the guidelines stated in the *Code of Practice on the Packaging, Labelling and Storage of Chemical Wastes*. Good quality containers compatible with the chemical wastes should be used, and incompatible chemicals should be stored separately. Appropriate labels should be securely attached on each chemical waste container Indicating the corresponding chemical characteristics of the chemical waste, such as 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.	Work site / during the construction period	√
Operational Phase			
Waste	<u>General Refuse</u> 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	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.		
Construction Phase			
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	√
Operational Phase			
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 10^3 Kg) [1] [2]					Actual Quantities of C&D Wastes (in 10^3 Kg) [4]									
	Total Quantity Generated	Broken Concrete [3]	Reused in the Contract	Reused in other Projects [3]	Disposed as Public Fill	Steel Materials				Paper/cardboard packaging		Chemical Waste (L)		General refuse	Other waste [6]
						Demolition of existing Atrium Link		Demolition of existing working platform							
	(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 [5]	0	0	0	0.2	0.04	0	0	30	122
February	539	0	0	0	539	20 [5]	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															
July															
August															
Sep															
October															
November															
December															
Total	2099	0	0	0	2099	36 [5]	0	0	0	1.17	0.15	0	0	136.4	351

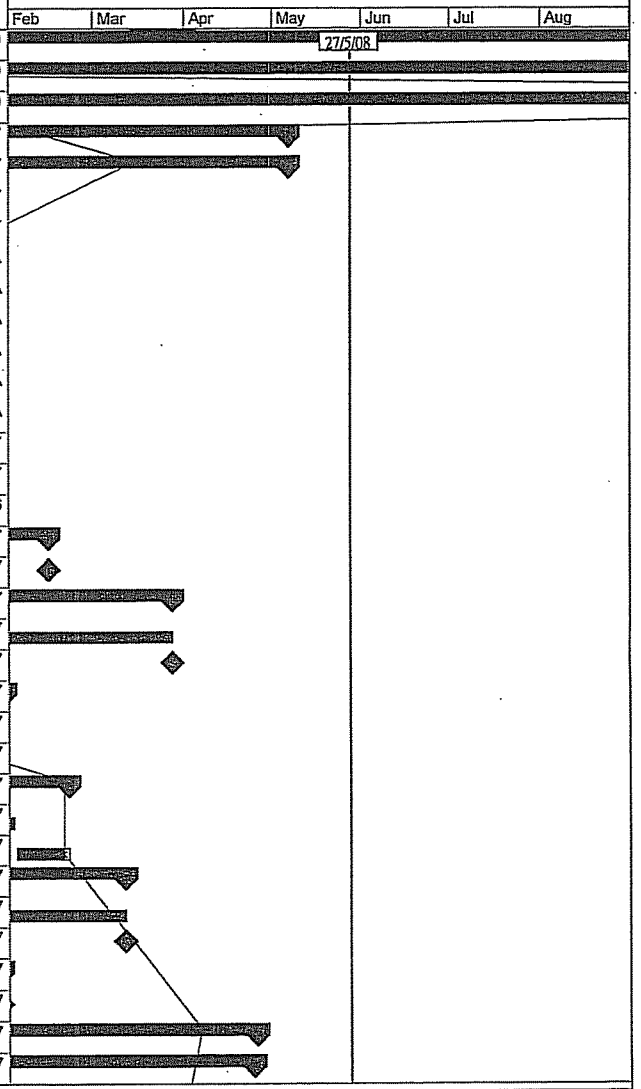
Note:
[1] Inert C&D materials include bricks, concrete, building debris, rubble and excavated soil.
[2] Inert C&D material mainly generated from demolition of atrium link.
[3] Broken concrete fro recycling into aggregates.
[4] C&D wastes include steel materials generated from demolition, paper / cardboard packaging waste, chemical waste and other wastes such as general refuse. Wastes other than general refuse will be disposed of at Tsueng Kwan O Area 137 temporary construction waste sorting facility.
[5] Waste from demolition of steel structure at existing Atrium Link of HKCEC (Phase 2).
[6] 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 27 May 08

ID	Task Name	% Compl	Actual Start	Actual Finish	Baseline Start 1	Baseline Finish 1
1	PROJECT WIDE	42%	Fri 26/5/06	NA	Fri 26/5/06	Fri 12/6/09
2	Critical Dates	42%	Fri 26/5/06	NA	Fri 26/5/06	Fri 12/6/09
3	Project Milestones	99%	Fri 26/5/06	NA	Fri 26/5/06	Fri 12/6/09
155	Design Submission & Approval (Permanent Works)	96%	Thu 25/5/06	NA	Thu 25/5/06	Mon 24/12/07
234	Architectural Design	97%	Sat 26/8/06	NA	Thu 17/8/06	Mon 24/12/07
240	Fire curtain / Shutter and Smoke curtain schedule	100%	Mon 28/8/06	Wed 21/11/07	Mon 28/8/06	Sat 21/7/07
249	DDR for Fire curtain / Shutter and Smoke curtain schedule	100%	Wed 21/11/07	Wed 21/11/07	Sat 21/7/07	Sat 21/7/07
259	Amendment for AST 1&2, 5&6	99%	Tue 15/5/07	NA	NA	NA
261	Design Check by Design Checker	100%	Mon 24/9/07	Mon 24/12/07	NA	NA
262	DDR by PM	97%	Fri 28/12/07	NA	NA	NA
264	Amendment for AST 7 & 8	99%	Mon 14/5/07	NA	NA	NA
266	Design Check by Design Checker	100%	Thu 11/10/07	Thu 27/12/07	NA	NA
267	DDR by PM	97%	Fri 28/12/07	NA	NA	NA
287	Foyer Floors and Wall at Level 2,5 and 7	99%	Wed 30/5/07	NA	Thu 17/8/06	Wed 18/7/07
289	Design Check by Design Checker	100%	Tue 14/8/07	Mon 26/11/07	Fri 17/8/07	Thu 30/8/07
290	RIP/DDR by PM	95%	Tue 27/11/07	NA	Thu 31/8/06	Thu 14/9/06
292	Feature Wall at Level 2 Foyer	100%	Fri 13/7/07	Thu 14/2/08	Fri 13/7/07	Fri 14/9/07
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
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
301	RIP/DDR by PM	100%	Mon 28/1/08	Thu 27/3/08	Fri 31/8/07	Fri 14/9/07
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
303	Foyer Floor and Walls at Level 3 and 6, Interior of Dressing Rm	99%	Fri 27/7/07	NA	Fri 27/7/07	Fri 28/9/07
305	Design Check by Design Checker	100%	Mon 10/9/07	Wed 16/1/08	Fri 31/8/07	Thu 13/9/07
306	RIP/DDR by PM	90%	Thu 17/1/08	NA	Fri 14/9/07	Fri 28/9/07
308	Internal Aluminium Cladding	99%	Thu 7/6/07	NA	Thu 7/6/07	Thu 13/9/07
310	Design Check by Design Checker	100%	Tue 14/8/07	Sat 2/2/08	Tue 14/8/07	Wed 29/8/07
311	RIP/DDR by PM	85%	Mon 4/2/08	NA	Thu 30/8/07	Thu 13/9/07
313	Foyer reflected ceiling plan	100%	Thu 31/5/07	Tue 11/3/08	Thu 31/5/07	Thu 13/9/07
316	RIP by PM	100%	Thu 11/10/07	Tue 11/3/08	Fri 31/8/07	Thu 13/9/07
317	RIP for Foyer reflected ceiling plan	100%	Tue 11/3/08	Tue 11/3/08	Thu 13/9/07	Thu 13/9/07
324	Remaining Washrooms	100%	Fri 27/7/07	Tue 29/1/08	Fri 27/7/07	Fri 28/9/07
328	RIP/DDR for Remaining Washrooms	100%	Tue 29/1/08	Tue 29/1/08	Fri 28/9/07	Fri 28/9/07
329	Exhibition Halls / Service Counters and Organiser's Offices	97%	Fri 29/9/06	NA	Fri 29/9/06	Sat 15/9/07
340	Exhibition Halls	100%	Wed 30/5/07	Thu 24/4/08	Wed 30/5/07	Wed 15/8/07



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Hong Kong Convention and Exhibition Centre
Expansion Project
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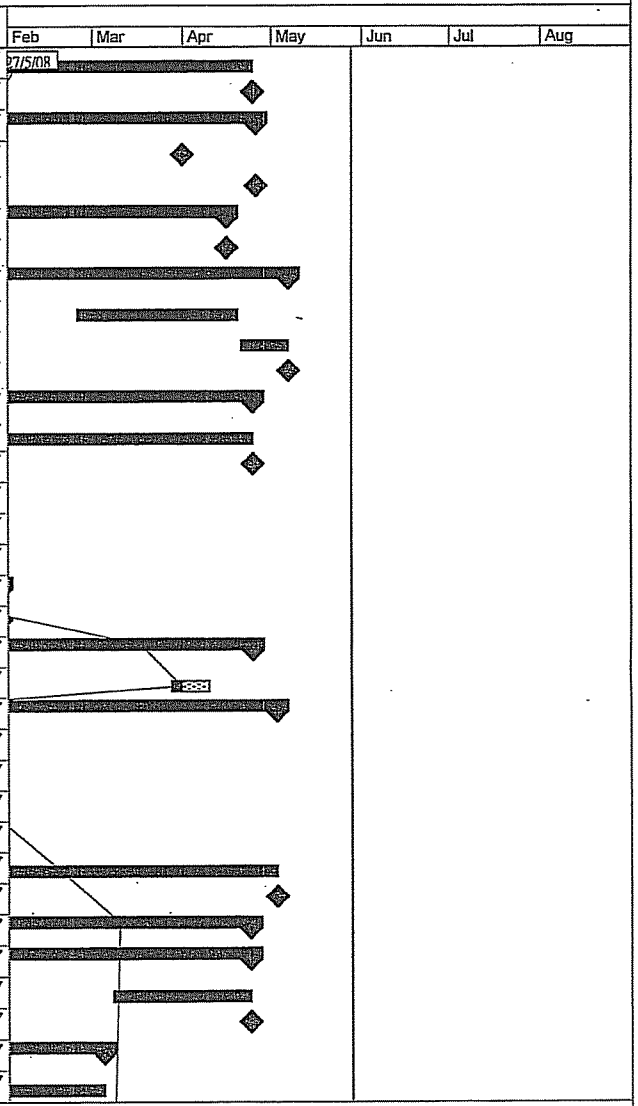
ID	Task Name	% Compl	Actual Start	Actual Finish	Baseline Start 1	Baseline Finish 1
343	DDR by PM	100%	Sat 10/11/07	Thu 24/4/08	Tue 31/7/07	Wed 15/8/07
344	DDR for Exhibition Halls	100%	Thu 24/4/08	Thu 24/4/08	Wed 15/8/07	Wed 15/8/07
350	**Food Concession Area**	100%	Thu 14/6/07	Fri 25/4/08	Thu 14/6/07	Sat 15/9/07
354	RIP for Food Concession Area	100%	Mon 31/3/08	Mon 31/3/08	Thu 16/8/07	Thu 16/8/07
358	DDR for Food Concession Area	100%	Fri 25/4/08	Fri 25/4/08	Sat 15/9/07	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
367	DDR for Door schedule	100%	Wed 16/4/08	Wed 16/4/08	Thu 13/9/07	Thu 13/9/07
368	**Ironmongery schedule**	100%	Wed 3/1/07	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 2/8/07	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**	98%	Wed 16/5/07	NA	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	85%	Tue 23/10/07	NA	Thu 26/7/07	Thu 9/8/07
405	**Glass Balustrade/Metal Railing**	100%	Thu 26/10/06	Wed 30/1/08	Thu 26/10/06	Wed 1/8/07
413	DDR for Glass Balustrade / Metal Railing	100%	Wed 30/1/08	Wed 30/1/08	Wed 1/8/07	Wed 1/8/07
424	**Signage & Electronic Sign (Permanent)**	67%	Tue 26/6/07	NA	Tue 26/6/07	Sat 1/9/07
426	Design Check by Design Checker	25%	Fri 28/3/08	NA	Wed 1/8/07	Thu 16/8/07
439	**Landscape Works**	81%	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 1/12/07
447	DDR for landscape master plan by PM	95%	Sat 12/1/08	NA	Mon 3/12/07	Sat 15/12/07
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	100%	Sat 12/1/08	Fri 2/5/08	Tue 11/12/07	Mon 24/12/07
456	DDR for Landscaping Plan	100%	Fri 2/5/08	Fri 2/5/08	Mon 24/12/07	Mon 24/12/07
466	**Miscellanous Details**	95%	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



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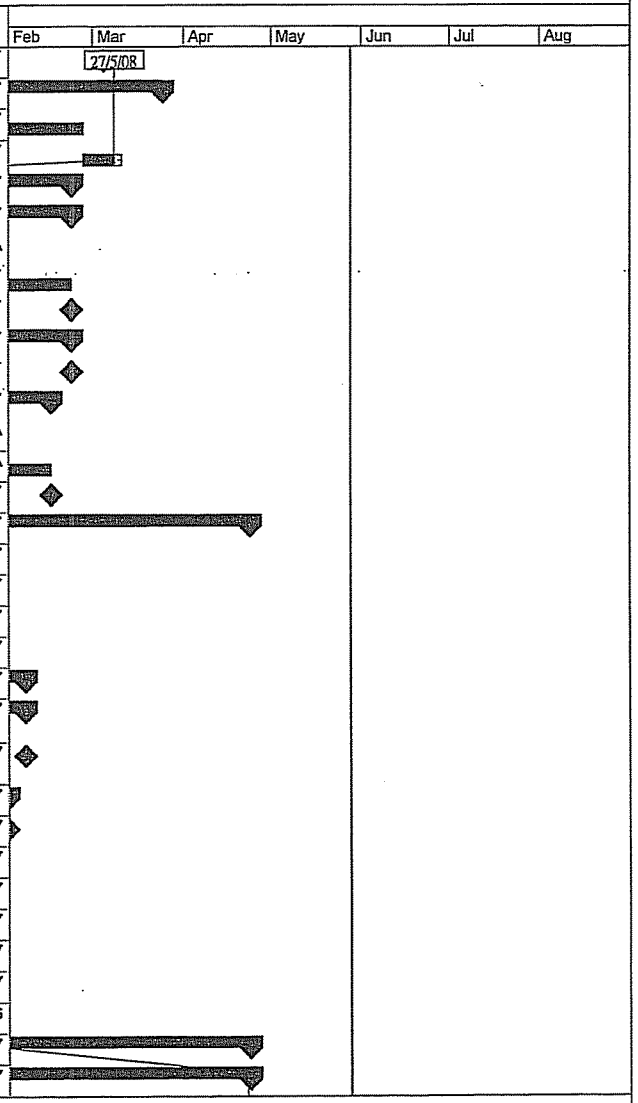
ID	Task Name	% Compl	Actual Start	Actual Finish	Baseline Start 1	Baseline Finish 1
481	RIP/DDR for Carpark, Driveway/loading and unloading areas	100%	Tue 4/3/08	Tue 4/3/08	Sat 15/9/07	Sat 15/9/07
482	**Expansion Joint and wall expansion details for Ph I & II**	95%	Fri 6/4/07	NA	Fri 6/4/07	Fri 14/9/07
487	Detailed Design Preparation	100%	Thu 9/8/07	Tue 26/2/08	Thu 9/8/07	Mon 20/8/07
488	Design Check by Design Checker	85%	Wed 27/2/08	NA	Tue 21/8/07	Wed 29/8/07
515	**Structural Design**	92%	Fri 26/5/06	NA	Fri 26/5/06	Thu 27/9/07
601	**Stage 3 A&A Works Modification of Existing Atrium Link Structure**	100%	Fri 17/11/06	Fri 22/2/08	Fri 17/11/06	Sat 22/9/07
604	Resubmission to IDC for Review	100%	Wed 24/10/07	Thu 31/1/08	NA	NA
605	RIP/DDR Submission by PM	100%	Fri 1/2/08	Fri 22/2/08	Thu 2/8/07	Sat 22/9/07
606	RIP/DDR for Structural Plan	100%	Fri 22/2/08	Fri 22/2/08	Sat 22/9/07	Sat 22/9/07
616	**Strengthening works of steel truss between Grid A&B at L2**	100%	Tue 9/1/07	Fri 22/2/08	Tue 9/1/07	Fri 20/7/07
620	DDR for Strengthening works	100%	Fri 22/2/08	Fri 22/2/08	Fri 20/7/07	Fri 20/7/07
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 elect**	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	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 3/11/06	Tue 13/11/07	Fri 3/11/06	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	**Reivew 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
847	**BS Diversion Plan for Pedestrain Tunnel (Phase 2)**	99%	Fri 5/10/07	NA	Sat 25/8/07	Sat 3/11/07



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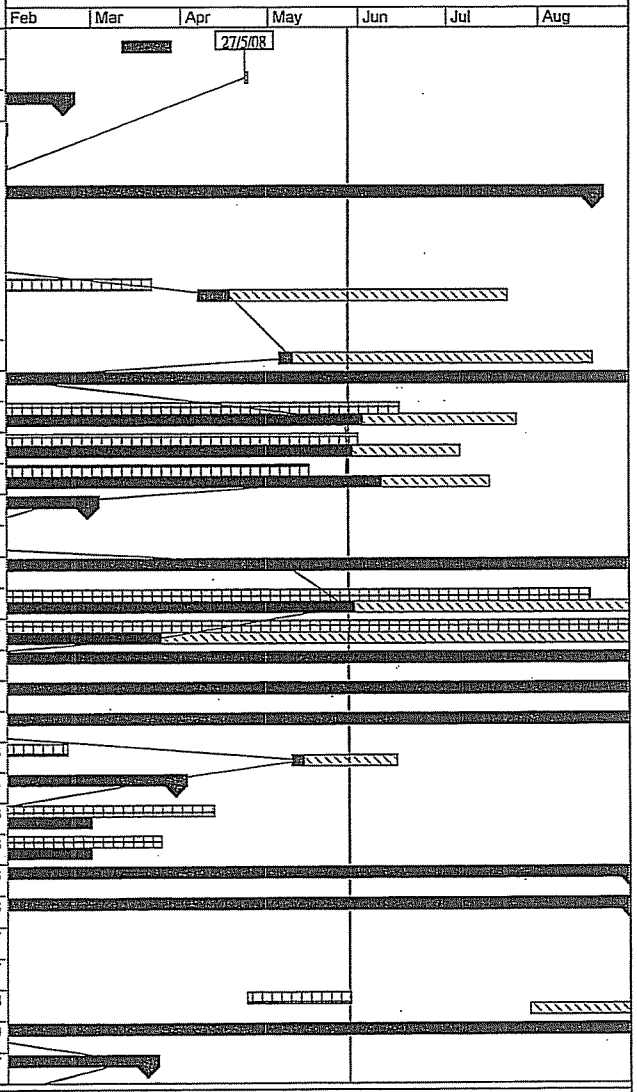
850	RIP/DDR for Submission by PM (resubmission req.)	100%	Wed 12/3/08	Fri 28/3/08	Thu 18/10/07	Sat 3/11/07
851	Resubmit for RIP/DDR	0%	NA	NA	NA	NA
873	**BS Diversion Plan for A&A works at Phase II**	100%	Mon 24/9/07	Wed 20/2/08	Mon 24/9/07	Wed 19/12/07
883	**BS Design for Additional Slab at Level 5 & 7 at Phase II**	100%	Fri 15/6/07	Mon 28/1/08	Fri 15/6/07	Mon 10/9/07
887	RIP/DDR for Additional Slab at Level 5 & 7 at Phase II	100%	Mon 28/1/08	Mon 28/1/08	Mon 10/9/07	Mon 10/9/07
936	**Curtain Wall / Cladding**	39%	Fri 20/4/07	NA	Fri 20/4/07	Fri 21/3/08
938	Shop Drawing Submission & Approval	75%	Thu 20/9/07	NA	Sat 4/8/07	Wed 3/10/07
939	Visual and Performance Mock Up Test	80%	Wed 21/11/07	NA	Thu 4/10/07	Mon 3/12/07
940	Production & Delivery of Steel Post & frames (transom + mullion), Aluminium compon	10%	Mon 7/4/08	NA	Tue 4/12/07	Fri 21/3/08
941	Production & Delivery of Inserts & Anchors	5%	Mon 5/5/08	NA	Thu 4/10/07	Tue 22/1/08
944	**M & E Long - Lead Items**	35%	Sat 16/6/07	NA	Sat 16/6/07	Mon 15/9/08
945	HVAC Equipment Procurement	80%	Wed 15/8/07	NA	Fri 21/9/07	Sat 14/6/08
946	Electrical Equipment	85%	Thu 1/11/07	NA	Thu 27/9/07	Sat 31/5/08
947	Lift & Escalator Procurement & Delivery	80%	Mon 7/1/08	NA	Sat 3/11/07	Wed 14/5/08
952	**Bearing for Steel Truss**	98%	Thu 12/10/06	NA	Thu 12/10/06	Wed 5/9/07
954	Bearing Procument and Delivery	95%	Fri 20/10/06	NA	Fri 20/10/06	Wed 5/9/07
986	**CSWD / CBWD**	56%	Fri 14/9/07	NA	Wed 15/8/07	Sat 27/9/08
987	CSW/CBW Submission/Comment/Re-submit/Approval	68%	Fri 14/9/07	NA	Wed 15/8/07	Mon 18/8/08
989	Shop Drawing Submission/Comment/Re-submit/Approval	40%	Mon 29/10/07	NA	Wed 26/9/07	Sat 27/9/08
990	**Site Works**	31%	Mon 19/6/06	NA	Mon 19/6/06	Fri 12/6/09
1016	**A & A Works to Existing HKCEC Phase 1 and 2**	65%	Wed 26/7/06	NA	Wed 26/7/06	Fri 10/10/08
1020	**HK CEC Phase 1 - New Atrium Link Connection**	26%	Mon 30/4/07	NA	Mon 30/4/07	Fri 10/10/08
1025	Modification Works for External Façade (level +10.40 to 51.80)	10%	Fri 9/5/08	NA	Tue 15/1/08	Thu 21/2/08
1054	**HKCEC Phase 2 - New Additional Slab At L5 & L7**	98%	Thu 1/11/07	NA	Fri 16/11/07	Fri 11/4/08
1060	New Builders' & Finishing Works	100%	Sat 22/12/07	Fri 29/2/08	Fri 1/2/08	Fri 11/4/08
1061	E&M works	100%	Sat 22/12/07	Fri 29/2/08	Fri 1/2/08	Mon 24/3/08
1072	**Demolition of Existing Artrium Link**	92%	Wed 14/3/07	NA	Wed 14/3/07	Wed 28/5/08
1078	**Demolition of Existing Atrium Link**	90%	Wed 14/3/07	NA	Wed 14/3/07	Wed 28/5/08
1087	Install Replacement Truss (RF to L2) and Remove L7/L5 Slab & secondary beam	85%	Fri 29/6/07	NA	Fri 29/6/07	Mon 20/8/07
1090	Remove Top Portion of Existing Eastern Façade Truss	100%	Fri 7/9/07	Sat 29/9/07	Tue 4/9/07	Wed 19/9/07
1091	Removal of remaining Existing Eastern & Western Façade Truss	0%	NA	NA	Wed 23/4/08	Wed 28/5/08
1092	**New Atrium Link Extension**	25%	Tue 27/6/06	NA	Tue 27/6/06	Fri 12/6/09
1170	**Substructure Construction - Gride 16 & 17 (Minipile locations)**	94%	Mon 5/11/07	NA	Sat 6/10/07	Wed 31/10/07



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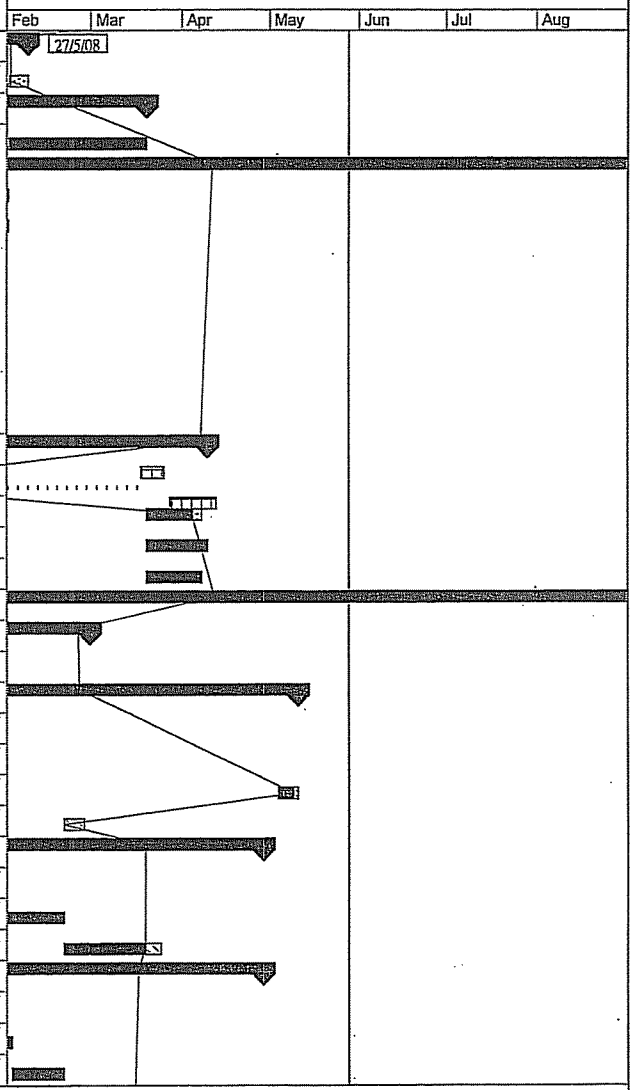
1171	**Pile Cap Construction (Grid A1-A/16-17)**	78%	Sat 24/11/07	NA	Sat 6/10/07	Wed 31/10/07
1172	Pile Cap Construction /Tie Beams / Ground Slab	78%	Sat 24/11/07	NA	Sat 6/10/07	Wed 31/10/07
1173	**Pile Cap Construction (Grid D-E/16-17)**	100%	Mon 5/11/07	Wed 19/3/08	Sat 6/10/07	Wed 31/10/07
1174	Pile Cap Construction /Tie Beams / Ground Slab	100%	Mon 5/11/07	Wed 19/3/08	Sat 6/10/07	Wed 31/10/07
1175	**Superstructure**	53%	Thu 30/11/06	NA	Thu 30/11/06	Thu 25/9/08
1176	**Columns to Steel Truss - Grid 17**	100%	Mon 4/12/06	Mon 28/1/08	Mon 4/12/06	Tue 4/12/07
1180	**Column E/17**	100%	Fri 5/10/07	Mon 28/1/08	Thu 8/11/07	Tue 4/12/07
1182	Bearing Installation at Column E/17	100%	Mon 28/1/08	Mon 28/1/08	Sat 1/12/07	Tue 4/12/07
1192	**Column D/17**	100%	Fri 18/5/07	Wed 23/1/08	Fri 18/5/07	Sat 8/9/07
1194	Bearing Installation at Column D/17	100%	Wed 23/1/08	Wed 23/1/08	Wed 5/9/07	Sat 8/9/07
1195	**Columns to Steel Truss - Grid 24**	100%	Thu 14/12/06	Wed 23/1/08	Thu 14/12/06	Sat 8/9/07
1209	**Columns D/24**	100%	Wed 16/5/07	Wed 23/1/08	Wed 16/5/07	Sat 8/9/07
1211	Bearing Installation at Column D/24	100%	Wed 23/1/08	Wed 23/1/08	Wed 5/9/07	Sat 8/9/07
1212	**Additional Columns E/17a, E/17/b & connecting R.C Structures at L1M**	95%	Tue 4/12/07	NA	Thu 1/11/07	Sat 12/4/08
1213	Ground Beams/Slab	100%	Tue 4/12/07	Wed 19/3/08	Tue 18/3/08	Tue 25/3/08
1214	L1M columns & floor structures	85%	Thu 20/3/08	NA	Fri 28/3/08	Sat 12/4/08
1215	Construction of Column E/17a	100%	Thu 20/3/08	Wed 9/4/08	Thu 1/11/07	Mon 31/12/07
1216	Construction of Column E/17b	100%	Thu 20/3/08	Mon 7/4/08	Thu 1/11/07	Mon 31/12/07
1217	**Steel Roof Trusses and Superstructure**	40%	Thu 30/11/06	NA	Thu 30/11/06	Thu 25/9/08
1280	**Temporary Works for Sliding & Heavy Lifting**	72%	Sat 8/9/07	NA	Sat 8/9/07	Wed 19/12/07
1281	Heavy Lifting & Sliding System Installation	100%	Sat 8/9/07	Sun 6/1/08	Sat 8/9/07	Mon 22/10/07
1283	**Transfer Truss for Grid 24/A-B**	81%	Fri 14/9/07	NA	Fri 14/9/07	Mon 17/12/07
1284	Delivery of Materials	100%	Fri 14/9/07	Tue 18/9/07	Fri 14/9/07	Wed 26/9/07
1285	Assembly Steel Transfer Truss on Column A1a/24 & Ba/24	100%	Mon 17/9/07	Wed 31/10/07	Mon 17/9/07	Mon 5/11/07
1286	Connection of Roof Truss A	70%	Sun 4/5/08	NA	Tue 11/12/07	Mon 17/12/07
1287	Connection to Roof Truss B	0%	NA	NA	Tue 11/12/07	Mon 17/12/07
1288	**Roof Truss A**	70%	Sun 14/10/07	NA	Wed 10/10/07	Wed 20/2/08
1292	Lifting Up to Grid C High Level	100%	Mon 7/1/08	Tue 8/1/08	Thu 15/11/07	Sat 17/11/07
1293	Sliding to Permanent Position at Grid A	100%	Tue 22/1/08	Wed 20/2/08	Mon 19/11/07	Mon 10/12/07
1294	Installation of Capital / Load Transfer / Bracing for Roof Truss A & B	85%	Thu 21/2/08	NA	Tue 11/12/07	Wed 16/1/08
1297	**Roof Truss B**	72%	Wed 14/11/07	NA	Wed 10/10/07	Wed 20/2/08
1301	Lifting Up to Grid D High Level	100%	Mon 7/1/08	Tue 8/1/08	Thu 15/11/07	Sat 17/11/07
1302	Launch Truss B to Grid C & lift to final level	100%	Mon 21/1/08	Sat 2/2/08	Mon 19/11/07	Fri 7/12/07
1303	Launch to Permanent Position at Grid B	100%	Sun 3/2/08	Wed 20/2/08	Sat 8/12/07	Mon 10/12/07

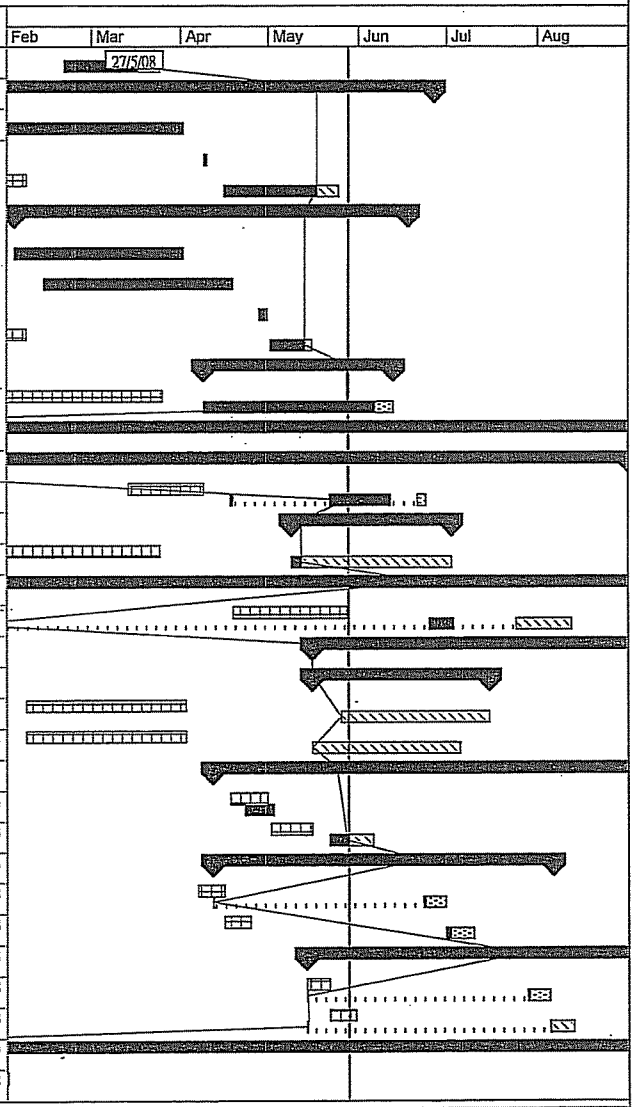


Project:3 Month Rolling Programme based on revised
Date: 27/5/2008

Task | Milestone | External Tasks | Baseline 1
Critical Task | Summary | Project Summary
Progress | Split | Group By Summary

Hong Kong Convention and Exhibition Centre
Expansion Project
3 Month Rolling Programme based on revised Master Programme Rev. 2 updating on 27 May 08

ID	Task Name	% Compl	Actual Start	Actual Finish	Baseline Start 1	Baseline Finish 1
1304	Installation of Capital / Load Transfer / Bracing for Roof Truss A & B	75%	Thu 21/2/08	NA	Tue 11/12/07	Wed 16/1/08
1306	**Roof Truss C**	76%	Thu 20/12/07	NA	Wed 14/11/07	Thu 13/3/08
1308	Assembly of Steel Roof Truss C on Site	100%	Fri 25/1/08	Tue 1/4/08	Mon 19/11/07	Mon 14/1/08
1309	Lifting of Roof Truss C to Permanent Level	100%	Wed 9/4/08	Wed 9/4/08	Tue 15/1/08	Tue 22/1/08
1310	Installation of Capitals / load transfer & Bracing for Roof Truss C & D	80%	Wed 16/4/08	NA	Fri 25/1/08	Thu 7/2/08
1312	**Roof Truss D**	79%	Mon 4/2/08	NA	Wed 14/11/07	Thu 13/3/08
1313	Delivery of Materials	100%	Mon 4/2/08	Tue 1/4/08	Wed 14/11/07	Sat 24/11/07
1314	Assembly of Steel Roof Truss D on Site	100%	Thu 14/2/08	Fri 18/4/08	Mon 19/11/07	Thu 17/1/08
1315	Lifting of Roof Truss D to Permanent Level	100%	Mon 28/4/08	Wed 30/4/08	Fri 18/1/08	Thu 24/1/08
1316	Installation of Capitals / load transfer & Bracing for Roof Truss C & D	80%	Fri 2/5/08	NA	Fri 25/1/08	Thu 7/2/08
1318	**Panel Truss E**	90%	Wed 9/4/08	NA	Mon 21/1/08	Tue 25/3/08
1319	Assembly of Steel Panel Truss E with Back Span	90%	Wed 9/4/08	NA	Mon 21/1/08	Tue 25/3/08
1320	**Steel Structure for Existing Façade to Grid B**	8%	Tue 4/9/07	NA	Tue 4/9/07	Wed 2/7/08
1321	**Strengthening Works,Removal of Replacement Truss**	22%	Tue 4/9/07	NA	Tue 4/9/07	Wed 28/5/08
1323	Strengthening of Bottom Chord of Existing East Truss at L2	90%	Fri 18/4/08	NA	Fri 14/3/08	Tue 8/4/08
1326	**Hanger Columns and Main Truss () Erection**	5%	Fri 9/5/08	NA	Tue 29/1/08	Mon 24/3/08
1327	Hanger Columns Installation to Level 2 & Truss Along Grid A & B	5%	Fri 9/5/08	NA	Tue 29/1/08	Mon 24/3/08
1328	**Level 2 +14.40 (Existing Façade to Grid A)**	22%	Tue 8/1/08	NA	Sat 19/4/08	Wed 2/7/08
1329	Remove Existing Slab and Install L2 Main Truss for Level 2	50%	Tue 8/1/08	NA	Sat 19/4/08	Tue 27/5/08
1367	**Steel Structure for Grid B to D**	0%	NA	NA	Fri 8/2/08	Mon 7/7/08
1368	**Hanger Columns and Main Truss Erection**	0%	NA	NA	Fri 8/2/08	Wed 2/4/08
1369	Hanger Columns and Main Truss Erection from Roof to Level 2 at Grid	0%	NA	NA	Fri 8/2/08	Wed 2/4/08
1370	Hanger Columns and Main Truss Erection from Roof to Level 2 at Grid	0%	NA	NA	Fri 8/2/08	Wed 2/4/08
1398	**Steel Structure for Grid D to E**	5%	Sat 12/4/08	NA	Wed 5/3/08	Thu 31/7/08
1399	Transfer Trusses Installation at Level 6 (Grid E/15-19)	100%	Wed 23/4/08	Fri 2/5/08	Fri 18/4/08	Wed 30/4/08
1400	Hanger Columns and Main Beam Erection from Level 7 to Level 2 (GL D-E/	45%	Thu 22/5/08	NA	Fri 2/5/08	Thu 15/5/08
1410	**Level 3 +22.90**	4%	Sat 12/4/08	NA	Mon 7/4/08	Thu 22/5/08
1411	Main Floor Trusses for Level 3	10%	Sat 12/4/08	NA	Mon 7/4/08	Tue 15/4/08
1412	Secondary Floor Trusses for Level 3	10%	Mon 30/6/08	NA	Wed 16/4/08	Thu 24/4/08
1420	**Level 5 +29.40**	4%	Wed 14/5/08	NA	Wed 14/5/08	Fri 27/6/08
1421	Main Floor Trusses for Level 5	10%	Wed 14/5/08	NA	Wed 14/5/08	Wed 21/5/08
1422	Secondary Floor Trusses for Level 5	10%	Wed 14/5/08	NA	Thu 22/5/08	Fri 30/5/08
1599	**Building Services Installation**	12%	Thu 8/3/07	NA	Thu 8/3/07	Fri 5/6/09
1609	**Transformer Installation at Phase 2 (For sea water pump room)**	100%	Fri 28/12/07	Tue 29/1/08	Mon 3/12/07	Tue 22/1/08



Project:3 Month Rolling Programme based on revised
Date: 27/5/2008

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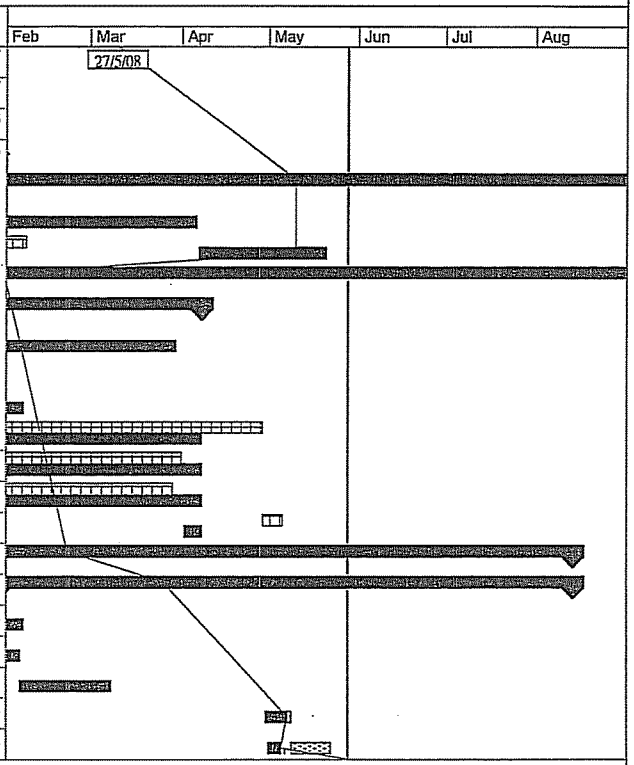
Hong Kong Convention and Exhibition Centre
Expansion Project
3 Month Rolling Programme based on revised Master Programme Rev. 2 updating on 27 May 08

ID	Task Name	% Compl	Actual Start	Actual Finish	Baseline Start 1	Baseline Finish 1
1610	Transformer Delivery & Installation (by HEC)	100%	Fri 28/12/07	Wed 2/1/08	Mon 3/12/07	Mon 10/12/07
1611	Electrical Cable Installation by HKE	100%	Sat 29/12/07	Wed 2/1/08	Mon 10/12/07	Thu 20/12/07
1612	Engerisation	100%	Wed 2/1/08	Tue 22/1/08	Wed 2/1/08	Tue 22/1/08
1613	Power On	100%	Tue 29/1/08	Tue 29/1/08	Tue 22/1/08	Tue 22/1/08
1626	**Transformer Installation at Level 1 Phase 2**	68%	**Fri 1/6/07**	NA	**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	Buider's Works for Transformer room	100%	Mon 7/4/08	Tue 20/5/08	Sat 1/12/07	Thu 7/2/08
1747	**Heating / Ventilation and Air-Condition Installation**	20%	**Thu 8/3/07**	NA	**Thu 8/3/07**	Mon 2/3/09
1748	**Sea Water System (at Phase II)**	100%	**Mon 5/11/07**	**Mon 7/4/08**	**Mon 15/10/07**	Mon 5/5/08
1749	Plinth & Builders works	100%	Mon 5/11/07	Sat 29/3/08	Mon 15/10/07	Mon 31/12/07
1750	Electrical Installation	100%	Sat 15/12/07	Mon 28/1/08	Wed 7/11/07	Mon 31/12/07
1751	Fire Service Installation	100%	Thu 24/1/08	Wed 6/2/08	Tue 4/12/07	Mon 31/12/07
1752	Upgrade the Phase 2 sea water pumps	100%	Tue 1/1/08	Mon 7/4/08	Sat 1/12/07	Mon 28/4/08
1753	Electrochlorinator System Installation	100%	Mon 28/1/08	Mon 7/4/08	Fri 1/2/08	Mon 31/3/08
1754	Electrical & control Installation	100%	Tue 15/1/08	Mon 7/4/08	Thu 29/11/07	Fri 28/3/08
1755	Overall System Testing & Commissioning and Handover	100%	Wed 2/4/08	Mon 7/4/08	Tue 29/4/08	Mon 5/5/08
1756	**Chiller Plant Room Installation**	8%	**Sat 26/1/08**	NA	NA	NA
1757	**HVAC - Chiller Plant Room Works**	9%	**Wed 30/1/08**	NA	NA	NA
1758	Pipework Preparation / Diversion before Tee-off Works	100%	Wed 30/1/08	Wed 6/2/08	NA	NA
1759	Heat Pump Disconnection / Dismantling works	100%	Thu 31/1/08	Tue 5/2/08	NA	NA
1760	Pipe Tee-off Work	100%	Wed 6/2/08	Fri 7/3/08	NA	NA
1761	Chiller,Pump & AHU Hoisting & Delivery	80%	Wed 30/4/08	NA	NA	NA
1762	Chiller Installation	15%	Thu 1/5/08	NA	NA	NA



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Annex L

Laboratory Result of Water Discharge Sampling

ENVIRO LABS LIMITED

環境化驗有限公司

TEST REPORT

JOB NO.	:	806150		
DATE OF ISSUE	:	7 July 2008	**PAGE**	: 1 of 1

1. Customer

Hip Hing Construction Co. Ltd.
5/F, 38 Sheung On Street, Chai Wan, Hong Kong
Attn.: Mr. Ken Leung

2. Sample Identification

Sample Description	:	Two batches of water samples said to be wastewater were received in cool condition
Quantity of Sample	:	2 x 1L in plastic bottles (for TSS) and 2 x 250mL in plastic bottles (for COD)
Sampling	:	Conducted by the staff of Enviro Labs Ltd.
Sampling Point	:	Outlet of Wastewater Treatment Facility (HKCEC Expansion Project, **H200605**)
Preservation	:	Stored under refrigerated condition, COD: conc. H_2SO_4 was added to pH < 2
Sampling Date	:	16 Jun2008
Testing Period	:	16 – 26 Jun 2008

3. Test Method

Parameter	*Reference Method*
(i) pH	Phenol Red Method
(ii) Total Suspended Solids (TSS) Dried at 103-105°C	APHA[1] 17e 2540 D
(iii) Chemical Oxygen Demand (COD)	APHA[1] 20e 5220 C

1. APHA Standard Methods for the Examination of Water and Wastewater

4. Test Result*

Label marked by customer	*Test Parameter*	*Sample No.*	*Test Result*	*Discharge Limit* **	*Unit*
HKCEC Expansion Project H200605 WT-25	pH	806150-1	7.4	6 – 10	--
	TSS	806150-1	< 2.5	≤30	mg/L
	COD	806150-2	< 50	≤80	mgO_2/L
HKCEC Expansion Project H200605 WT-21	pH	806150-3	7.7	6 – 10	--
	TSS	806150-3	< 2.5	≤30	mg/L
	COD	806150-4	< 50	≤80	mgO_2/L

* Test results relate only to the items received.
** Information provided by the Customer. *(It is not a test result, information for reference only).*

--- END OF REPORT ---

APPROVED SIGNATORY :
Kenneth Kar Kin LAM
(Laboratory Manager)

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