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QUARTERLY EM&A REPORT

June 2016 – August 2016

Client : Civil Engineering and Development
Department, HKSAR

Contract No. : KLN/2015/07

Contract Name : Environmental Monitoring Works for
Contract KL/2014/03 – Kai Tak Development
– Stage 3 Infrastructure Works for Developments
at the Southern Part of the Former Runway

Report No. : 0405/15/ED/0606A

EP-337/2009 New Distributor Roads Serving the Planned Kai Tak
Development Area

EP-339/2009/A Decommissioning of the Remaining Parts (Ex-GFS
Building, Radar Station and Hong Kong Aviation Club)
of the former Kai Tak Airport

EP-451/2013 Trunk Road T2

Prepared by : Alfred Y. S. Lam

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Certified by : 
Colin K. L. Yung
Environmental Team Leader
MaterialLab Consultants Limited

Ref.: CEDKTDS3EM00_0_0120L.16

20 October 2016

Hyder-Meinhardt Joint Venture
20/F., AXA Tower,
Landmark East,
100 How Ming Street,
Kwun Tong,
Kowloon, Hong Kong

By Post and Email

Attention: Mr. Wong W K, Chris

Dear Mr. Wong,

Re: Contract No. KL/2014/03 – Kai Tak Development – Stage 3 Infrastructure Works for Developments at the Southern Part of the Former Runway Quarterly EM&A Report for June to August 2016

Reference is made to the Environmental Team's submission of the Quarterly EM&A Report for June to August 2016 (Report No. 0405/15/ED/0606A) we received by e-mail on 19 October 2016.

Please be informed that we have no adverse comment on the captioned report

Thank you for your attention. Please do not hesitate to contact us should you have any queries.

Yours sincerely,
For and on behalf of
Ramboll Environ Hong Kong Limited



F. C. Tsang
Independent Environmental Checker

c.c.	CEDD	Attn.: Ms. Amy Chu	Fax: 2369 4980
	MateriaLab	Attn.: Mr. Colin K. L. Yung	Fax: 2450 8032
	CRBC	Attn.: Mr. Arnold Chan	Fax: 2283 1689

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EXECUTIVE SUMMARY

- i. The Civil Engineering and Development Department HKSAR has appointed MaterialLab Consultants Limited (MCL) to undertake the Environmental Team services for the Project and implement the EM&A works.
- ii. This is the second Quarterly EM&A Report presents the environmental monitoring and audit works for the period between 1 June 2016 and 31 August 2016. As informed by the Contractor, major activities in the reporting period included:

June 2016	July 2016	August 2016
<ul style="list-style-type: none"> • Carrying out pre-drilling; • Construction of guide walls and D-walls at Zone 2; • Construction of H piles at Zone 1, 3 & 4; • Demolition of foundation at Zone 4; • Construction of temporary utility diversion at Zone 1; • Construction of subway B at Zone 1; • Implementation of Temporary Traffic Arrangement (TTA) along Cheung Yip Street and Shing Cheong Road; • Erection of scaffolding at Radar Tower; • Removal of Asbestos materials at Radar Tower; and • Construction of temporary road at Zone 4. 	<ul style="list-style-type: none"> • Carrying out pre-drilling; • Construction of guide walls and D-walls at Zone 2; • Construction of H piles at Zone 1 to Zone 4; • Demolition of foundation at Zone 4; • Construction of temporary utility diversion at Zone 1,3 & 4; • Erection and installation of Earth Lateral Support (ELS) of subway B at Zone 1; • Erection of scaffolding at Radar Tower; • Setting up stockpiling area at Portion I and K; • Construction of temporary road at Zone 4 and • Installation of bulkhead wall at Zone 1. 	<ul style="list-style-type: none"> • Carrying out pre-drilling; • Rebar bending; • Construction of guide walls and temporary D-walls; • Construction of Socketed H piles; • Pumping test; • Temporary utility diversion; • Excavation and Earth Lateral Support (ELS) construction; • Demolition of Radar Tower; • Implementation of Temporary Traffic Arrangement; and • Construction of temporary road.

Breaches of the Action and Limit Levels

- iii. No Action and Limit Level exceedance for 24-hr TSP and noise was recorded in the reporting period at all monitoring stations.

Complaint, Notification of Summons and Successful Prosecution

- iv. No environmental complaint and no notification of summons and successful prosecution were received in the reporting period.

1. INTRODUCTION

1.1 Background

1.1.1 The Kai Tak Development is located in the south-eastern part of Kowloon Peninsula of the HKSAR, comprising the apron and runway areas of the former Kai Tak Airport and existing waterfront areas at To Kwa Wan, Ma Tau Kok, Kowloon Bay, Kwun Tong and Cha Kwo Ling.

1.1.2 Contract No. KL/2014/03 is the works package to construct an approximately 420m long supporting underground structure (SUS) underneath Shing Cheong Road and Cheung Yip Street. The EM&A programme under this Contract is governed by three EPs (EP-337/2009, EP-339/2009/A and EP-451/2013) and two EM&A Manuals (AEIAR-130/2009 and AEIAR-174/2013). The Works to be executed under this Contract and corresponding EPs include but not be limited to the following main items:

EP-451/2013 – Trunk Road T2

(i) Construction of approximately 420m long supporting underground structure (SUS) including diaphragm walls, barrettes, piled foundation, top and bottom slabs, end wall and adits underneath Shing Cheong Road and Cheung Yip Street;

EP-337/2009 – New Distributor Roads Serving the Planned Kai Tak Development

(ii) Widening and re-alignment of Cheung Yip Street of approximately 330m long and associated footpaths;

(iii) Demolition, reconstruction and widening of Shing Cheong Road of approximately 410m long and associated footpaths;

(iv) Construction of drainage outfall and modification of existing seawall;

(v) Construction of ancillary works including surface drainage, sewerage, water, fire fighting, street lighting, street furniture, road marking, road signage, utilities and services, irrigation and landscape works.

EP-339/2009/A – Decommissioning of the Remaining Parts (Ex-GFS Building, Radar Station and Hong Kong Aviation Club) of the former Kai Tak Airport

(vi) Demolition of RADAR Tower and guard house;

Other works not covered by any EP

(vii) Construction of two subways between Phase II of New Acute Hospital (Site A) and Hong Kong Children's Hospital (Site C), and between Phase I of New Acute Hospital (Site B) and Site C;

(viii) Construction of District Cooling System (DCS) along Cheung Yip Street and Shing Cheong Road

1.1.3 The location and boundary of the site is shown in **Figure 1**.

1.1.4 This Quarterly EM&A report is required under Section 16.1.2 and 16.7.1 of the EM&A Manual AEIAR-130/2009. It is to report the results and findings of the EM&A programme required in the EM&A Manual.

1.1.5 This is the second quarterly EM&A Report which summaries the impact monitoring results and audit findings for the Project within the period between 1 June 2016 and 31 August 2016.

1.2 Project Organization

1.2.1 The project proponent was the Civil Engineering and Development Department, HKSAR (CEDD). Hyder Meinhardt Joint Venture (HMJV) was commissioned by CEDD as the Engineer for the Project. Ramboll Environ Hong Kong Limited was commissioned as the Independent Environmental Checker (IEC). China Road and Bridge Corporation (Hong Kong) (CRBC) was appointed as the main contractor for the construction works under the contract KL/2014/03. MaterialLab Consultants Limited (MCL) was appointed as the Environmental Team (ET) by CEDD to implement the EM&A programme for the Project.

1.2.2 The organization structure is shown in **Appendix B**. The key personnel contact names and numbers for the Project are summarized in **Table 1.1**.

Table 1.1 Contact Information of Key Personnel

Party	Position	Name	Telephone	Fax
Project Proponent (CEDD)	Co-ordinator	Ms. Amy Chu	3106 3172	2369 4980
Engineer's Representative (HMJV)	Chief Resident Engineer	Mr. W. K., Chris Wong	3742 3803	3742 3899
IEC (Ramboll Environ Hong Kong Limited)	Independent Environmental Checker	Mr. F. C. Tsang	3465 2888	3465 2899
Main Contractor (CRBC)	Site Agent	Mr. Chan See Wai, Arnold	9380 4110	2283 1689
	Environmental Officer	Mr. Andy Choy	6278 2693	2283 1689
ET (MCL)	Environmental Team Leader	Mr. Colin Yung	3565 4114	3565 4160

1.3 Construction Programme and Activities

1.3.1 The construction of the Project commenced in February 2016 and is expected to complete in 2020. The construction programme is shown in **Appendix A**.

1.3.2 A summary of the major construction activities undertaken in the reporting period were:

June 2016	July 2016	August 2016
<ul style="list-style-type: none"> • Carrying out pre-drilling; • Construction of guide walls and D-walls at Zone 2; • Construction of H piles at Zone 1, 3 & 4; • Demolition of foundation at Zone 4; • Construction of temporary utility diversion at Zone 1; • Construction of subway B at Zone 1; • Implementation of Temporary Traffic Arrangement (TTA) along Cheung Yip Street and Shing Cheong Road; • Erection of scaffolding at Radar Tower; • Removal of Asbestos materials at Radar Tower; and • Construction of temporary road at Zone 4. 	<ul style="list-style-type: none"> • Carrying out pre-drilling; • Construction of guide walls and D-walls at Zone 2; • Construction of H piles at Zone 1 to Zone 4; • Demolition of foundation at Zone 4; • Construction of temporary utility diversion at Zone 1,3 & 4; • Erection and installation of Earth Lateral Support (ELS) of subway B at Zone 1; • Erection of scaffolding at Radar Tower; • Setting up stockpiling area at Portion I and K; • Construction of temporary road at Zone 4 and • Installation of bulkhead wall at Zone 1. 	<ul style="list-style-type: none"> • Carrying out pre-drilling; • Rebar bending; • Construction of guide walls and temporary D-walls; • Construction of Socketed H piles; • Pumping test; • Temporary utility diversion; • Excavation and Earth Lateral Support (ELS) construction; • Demolition of Radar Tower; • Implementation of Temporary Traffic Arrangement; and • Construction of temporary road.

2. SUMMARY OF EM&A REQUIREMENTS AND MONITORING RESULTS

2.1 Monitoring Requirement

In accordance with the approved EM&A Manuals, 24-hour Total Suspended Particulates (TSP) level and Leq (30min) at the designated monitoring stations is required. Impact 24-hour TSP monitoring should be carried out at least once every 6 days. In case of complaints, 1-hour TSP monitoring should be carried out at least 3 times per 6 days when the highest dust impacts are likely to occur. Leq (30min) monitoring is conducted for at least once a week during the construction phase between 0700 and 1900 on normal weekdays. The Action and Limit Levels of the air quality monitoring and noise monitoring are given in **Appendix C**

2.2 Monitoring Locations

2.2.1 According to the EM&A Manual, three monitoring locations for air quality monitoring and noise monitoring, namely KTD1, KTD2 and KER1, are covered by this Contract within the South Apron Area of Former Kai Tak Airport. The other two air quality monitoring locations and two noise monitoring locations which are identified in Cha Kwo Ling area, are farther than 500m and 300m away from the site boundary respectively and thus not covered by this Contract. The monitoring works in Cha Kwo Ling area are covered by other Contract(s) respectively.

2.2.2 According to the approved alternative baseline air quality and noise monitoring locations (EPD reference: EP2/K19/A/21 Pt.5), the original monitoring locations (KTD1, KTD2 and KER1) are proposed to be replaced by alternative monitoring locations (KTD1a, KTD2a and KER1a), they are summarized in **Table 2.1** and shown in **Figure 2**.

Table 2.1 Location of Air Quality Monitoring and Noise Monitoring Station

Monitoring Station	Location
KTD1a	Centre of Excellence in Paediatrics (Children's Hospital)
KTD2a	G/IC Zone next to Kwun Tong Bypass (Future Hospital at Site 3C1)
KER1a	Site Boundary at Cheung Yip Street

2.3 Results and Observations

2.3.1 The 24-hr TSP monitoring at KTD 1a on 29 July 2016 was postponed due to the insufficient power supply. After investigation, the voltage supplied to the HVS at KTD 1a was stepped down to 110V which was not enough to activate the HVS. The HVS at KTD 1a was re-activated after the 220V electricity supply was resumed on 2 August 2016. The 24-hr TSP monitoring at KTD 1a on 29 July 2016 was rescheduled to 2 August 2016.

2.3.2 No Action and Limit Level exceedance for 24-hr TSP was recorded in the reporting period at all monitoring stations.

2.3.3 No Action / Limit Level exceedance was recorded for construction noise in the reporting period.

2.3.4 No complaint of air quality was received. Therefore, no impact 1-hour TSP monitoring was conducted in the reporting period.

2.3.5 No raining and wind with speed over 5 m/s was observed during noise monitoring according to the onsite observation.

2.3.6 During the reporting period, major dust sources including loading and unloading of C&D wastes, vehicles movement were observed in the site. Major noise sources including noise emission from plant & PME and some other construction activities, travel of vehicles, loading and unloading of C&D waste were observed in the site. Non-project related construction activities at the nearby construction site and road traffic along Shing Cheong Road, Cheung Yip Street and the Kwun Tong By-pass were observed. The above factors may affect the monitoring results.

2.3.7 Graphical presentation of the monitoring data in the reporting period is presented in **Appendix D**.

2.4 Comparison of Monitoring Results with EIA Predictions

2.4.1 The monitoring data was compared with the EIA predictions as summarized in **Table 2.4** and **Table 2.5**.

Table 2.4 Comparison of 24-hr TSP data with EIA predictions

Monitoring Station	Receiver Reference	Predicted Maximum 24-hour TSP Concentration ($\mu\text{g}/\text{m}^3$)	24-hour TSP concentration in Reporting Period ($\mu\text{g}/\text{m}^3$)			Average 24-hour TSP concentration in Reporting Period ($\mu\text{g}/\text{m}^3$)		
			June 2016	July 2016	August 2016	June 2016	July 2016	August 2016
KTD1a	KTD3	126	46 – 146	44 – 81	36 – 127	79	59	67
KTD2a	-	-	39 – 66	22 – 73	25 – 70	51	48	43
KER1a	KTD6	169	19 – 59	24 – 65	48 – 106	38	50	72

Note:

For KTD2a, there was no receiver reference in the EIA report, EIAR-174/2013.

Predicted Maximum TSP Concentration extracted from Table 4.14 of EIA Report, EIAR-174/2013.

Table 2.5 Comparison of Noise Monitoring data with EIA predictions

Monitoring Station	Receiver Reference	Maximum Predicted Mitigated Construction Noise Level, dB(A)	Leq (30min) dB(A) in Reporting Period		
			June 2016	July 2016	August 2016
KTD1a	KTD1	74	60 - 72	62 - 74	68 - 72
KTD2a	KTD2	75	59 - 63	58 - 69	62 - 72
KER1a	KER1	75	67 - 70	68 - 72	66 - 72

Note:

Maximum Predicted Mitigated Construction Noise Level extracted from Table 5.13 of EIA Report, EIAR-174/2013.

2.4.2 The 24-hour TSP concentration of KER1a in the reporting period was below the Predicted Maximum 24-hr TSP concentration in the approved Environmental Impact Assessment (EIA) Report.

2.4.3 The 24-hour TSP monitoring results of KTD1a, two monitoring results in the reporting period, on 25 June 2016 and 22 August 2016, exceeded the prediction in the approved Environmental Impact Assessment (EIA) Report. However, the result did not exceed the Action Level.

2.4.4 For the exceedance in 24-hour TSP prediction in approved EIA report on 25 June 2016, mitigation measures, including water spraying and covering of stockpiles of dusty materials were adopted and observed during the site inspection on 23 June 2016 and 30 June 2016.

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The logo for MaterialLab, featuring the word "MaterialLab" in a bold, black, sans-serif font. The text is centered between two thick, horizontal black bars, one above and one below the text.

The discrepancy between the 24-hour TSP concentration and EIA Prediction at KTD1a is considered due to dust source from the non-project related construction activities near the monitoring station and the road travel along Shing Fung Road.

- 2.4.5 For the exceedance in 24-hour TSP prediction in approved EIA report on 22 August 2016, exposed excavated materials were found nearby the monitoring station KTD 1a according to the site observation on 22 August 2016 which may be the potential dust source. Contractor was reminded to implement appropriate mitigation measures, including adequate water spraying for dust emitting activities and main haul road, and proper cover of large stockpiles of dusty material by impermeable sheeting.
- 2.4.6 The impact noise monitoring results in the reporting month did not exceed the Maximum Predicted Mitigated Construction Noise Level in the approved Environmental Impact Assessment (EIA) Report and no Action / Limit Level exceedance was recorded in the reporting period.

3. LANDSCAPE AND VISUAL

3.1 Results and Observations

- 3.1.1 To monitor and audit the implementation of landscape and visual mitigation measures, 13 weekly Landscape and Visual Site audits were carried out and 7 of them were carried out by a Registered Landscape Architect. The weekly Landscape and Visual Impact reports were counter-signed by IEC as according to the requirement of EM&A Manual (AEIAR-130/2009).
- 3.1.2 Total 5 no. of non-compliance was recorded in the weekly Landscape and Visual Site audits in the reporting period.
- 3.1.3 During the Site audit on 2 June 2016, it is observed that open stockpiles at Portion Q were not fully covered. The item was rectified by the Contractor and inspected on 8 June 2016.
- 3.1.4 During the Site audit on 7 July 2016, it is observed that open stockpiles at Portion C were not fully covered. The item was rectified by the Contractor and inspected on 14 July 2016.
- 3.1.5 During the Site audit on 20 July 2016, it is observed that open stockpiles at Portion C were not fully covered. The item was rectified by the Contractor and inspected on 28 July 2016.
- 3.1.6 During the Site audit on 4 August 2016, it is observed that open stockpiles at Portion F and M were not fully covered. The item was rectified by the Contractor and inspected on 12 August 2016.
- 3.1.7 During the Site audit on 12 August 2016, it is observed that open stockpiles at Portion Q were not fully covered. The item was rectified by the Contractor and inspected on 19 August 2016.

4. WASTE MANAGEMENT

4.1 Results and Observations

- 4.1.1 C&D materials and wastes sorting were carried out on site. Receptacles were available for C&D wastes and general refuse collection.
- 4.1.2 The amount of wastes generated by the site activities in the reporting period is shown in **Appendix E**.
- 4.1.3 The Contractor is advised to properly maintain on site C&D materials and wastes collection, sorting and recording system and maximize reuse / recycle of C&D materials and wastes. The Contractor is reminded to properly maintain the site tidiness and dispose of the wastes accumulated on site regularly and properly.
- 4.1.4 The Contractor is reminded that chemical waste containers should be properly treated and stored temporarily in designated chemical waste storage area on site in accordance with the Code of Practice on the Packaging, Labelling and Storage of Chemical Wastes.

5. SITE INSPECTION

5.1 Site Inspection

- 5.1.1 Site inspections were carried out weekly to monitor the implementation of proper environmental pollution control and mitigation measures for the Project. A summary of the mitigation measures implementation schedule is provided in **Appendix F**.
- 5.1.2 In the reporting month, 13 site inspections were carried out. Seven of them were the joint inspections with the IEC, ER, the Contractor and the ET.
- 5.1.3 No outstanding issues were reported during the reporting period.
- 5.1.4 All the follow-up actions requested by Contractor’s ET and IEC during the site inspections were undertaken as reported by the Contractor and confirmed in the following weekly site inspection conducted during the reporting month.
- 5.1.5 Details of observations recorded during the site inspections are presented in **Table 5.1**.

Table 5.1 Observations and Recommendations of Site Audit

Parameters	Date	Observations and Recommendations	Follow-up
Air Quality	2 June 2016	Open stockpile shall be covered with impermeable sheeting to prevent dust emission at Portion Q.	The item was rectified by the Contractor and inspected on 8 June 2016.
	23 June 2016	Stock of more than 20 bags of cement or PFA should be covered entirely by impervious sheeting or placed in area sheltered on top and 3 sides at Portion N. Cement or PFA should be stored properly at Portion N.	The item was rectified by the Contractor and inspected on 30 June 2016.
	7 July 2016	Open stockpile shall be covered with impermeable sheeting to prevent dust emission in Portion C.	The item was rectified by the Contractor and inspected on 14 July 2016.
	4 August 2016	Open stockpile shall be covered with impermeable sheeting to prevent dust emission in Portion F and M.	The item was rectified by the Contractor and inspected on 12 August 2016.
	4 August 2016	Cement or dry PFA shall be placed in area shelter on the top and 3 sides in Portion N.	The item was rectified by the Contractor and inspected on 12 August 2016.
	19 August 2016	Impermeable sheeting shall be provided at the site boundary or repaired as necessary to prevent dust emission from site in Portion Q.	The item was rectified by the Contractor and inspected on 25 August 2016.
	19 August 2016	Contractor was reminded to spray water during breaking or drilling in Portion F to prevent dust emission.	The item was rectified by the Contractor and inspected on 25 August 2016.

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Parameters	Date	Observations and Recommendations	Follow-up
	25 August 2016	Fill materials should be covered properly to prevent overflow and runoff of construction materials in Portion Q. Impervious sheeting should be bundled properly to reduce dust emission to the haul road.	The item was rectified by the Contractor and inspected on 1 September 2016.
Noise	7 July 2016	Noise absorbing material shall be provided to wrap the breaker tips which operating in Portion N.	The item was rectified by the Contractor and inspected on 14 July 2016.
	14 July 2016	Noise absorbing material shall be provided to wrap the breaker tips which operating in Portion F.	The item was rectified by the Contractor and inspected on 20 July 2016.
	4 August 2016	The door of the generator in Portion Q should be closed to reduce noise emission.	The item was rectified by the Contractor and inspected on 12 August 2016.
	19 August 2016	Impermeable sheeting shall be provided at the site boundary or repaired as necessary to prevent noise emission from site in Portion Q.	The item was rectified by the Contractor and inspected on 25 August 2016.
Water Quality	23 June 2016	Stagnant water shall be removed at Portion Q.	The items were rectified by the Contractor and inspected on 30 June 2016.
	30 June 2016	Surface runoff shall be prevented from entering the discharge channel directly. Sediment in the channel shall be cleaned up at Portion P.	The items were rectified by the Contractor and inspected on 7 July 2016.
	20 July 2016	The dyke shall be repaired to prevent seepage of wastewater in Portion P.	The items were rectified by the Contractor and inspected on 28 July 2016.
Chemical and Waste Management	8 June 2016	Chemicals and lubricant shall be stored properly at Portion M.	The items were rectified by the Contractor and inspected on 15 June 2016.
	15 June 2016	Construction waste shall be removed at Portion X.	The items were rectified by the Contractor and inspected on 23 June 2016.
	23 June 2016	Aluminum cans should be collected properly by separate labelled bins at Portion Q. Adequate recycling bins should be provided.	The items were rectified by the Contractor and inspected on 30 June 2016.
	30 June 2016	The hole of drip tray shall be sealed to prevent leakage of chemicals at all Zone.	The items were rectified by the Contractor and inspected on 7 July 2016.
	14 July 2016	The hole of drip tray shall be sealed to prevent leakage of chemicals at Portion X and Q. The oil spilled on ground was observed at Portion X and Q.	The items were rectified by the Contractor and inspected on 20 July 2016.

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Parameters	Date	Observations and Recommendations	Follow-up
	20 July 2016	Construction waste shall be removed or covered properly in Portion X.	The items were rectified by the Contractor and inspected on 28 July 2016.
	28 July 2016	Regular collection for disposal shall be provided. Segregation of different types of waste shall be implemented in Portion Q.	The items were rectified by the Contractor and inspected on 4 August 2016.
	12 August 2016	Stagnant water in the tray shall be removed regularly in Portion Q.	The item was rectified by the Contractor and inspected on 19 August 2016.
	19 August 2016	Spillage of oil was found in Portion F. The spilled oil shall be removed properly.	The item was rectified by the Contractor and inspected on 25 August 2016.
	25 August 2016	Extra drip tray should be provided to prevent over storage of chemicals and fuel oil in Portion Q.	The item was rectified by the Contractor and inspected on 1 September 2016.
	25 August 2016	Wastewater should be discharged and handled properly in Portion Q.	The item was rectified by the Contractor and inspected on 1 September 2016.
Land Contamination	NA		
Landscape and Visual Impact	2 June 2016	Open stockpiles shall be covered by unobtrusive sheeting to prevent dust and dirt spreading to adjacent landscape areas and vegetation, and to create a neat and tidy visual appearance at Portion Q..	The item was rectified by the Contractor and inspected on 8 June 2016.
	7 July 2016	Open stockpiles shall be covered by unobtrusive sheeting to prevent dust and dirt spreading to adjacent landscape areas and vegetation, and to create a neat and tidy visual appearance in Portion C.	The item was rectified by the Contractor and inspected on 14 July 2016.
	20 July 2016	Open stockpiles shall be covered by unobtrusive sheeting to prevent dust and dirt spreading to adjacent landscape areas and vegetation, and to create a neat and tidy visual appearance in Portion C.	The item was rectified by the Contractor and inspected on 28 July 2016.
	4 August 2016	Open stockpiles shall be covered by unobtrusive sheeting to prevent dust and dirt spreading to adjacent landscape areas and vegetation, and to create a neat and tidy visual	The item was rectified by the Contractor and inspected on 12 August 2016.

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Parameters	Date	Observations and Recommendations	Follow-up
		appearance in Portion F and M.	
	12 August 2016	Open stockpiles shall be covered by unobtrusive sheeting to prevent dust and dirt spreading to adjacent landscape areas and vegetation, and to create a neat and tidy visual appearance in Portion Q.	The item was rectified by the Contractor and inspected on 19 August 2016.
General Condition	NA		

6. ENVIRONMENTAL COMPLAINT AND NON-COMPLIANCE

6.1 Environmental Exceedance

6.1.1 No Action and Limit Level exceedance for 24-hr TSP and noise was recorded in the reporting period at all monitoring stations. Number of exceedance in the reporting period was summarized in **Table 6.1**.

Table 6.1 Summary of Exceedance in Reporting Period

Monitoring Station		Number of exceedance in the reporting period						Total
		24hr TSP µg/m ³			Leq (30min) dB(A)			
		June 2016	July 2016	August 2016	June 2016	July 2016	August 2016	
KTD1a	AL	0	0	0	0	0	0	0
	LL	0	0	0	0	0	0	0
KTD2a	AL	0	0	0	0	0	0	0
	LL	0	0	0	0	0	0	0
KER1a	AL	0	0	0	0	0	0	0
	LL	0	0	0	0	0	0	0
Total	AL	0	0	0	0	0	0	0
	LL	0	0	0	0	0	0	0

6.2 Complaints, Notification of Summons and Prosecution

6.2.1 No complaint, inspection notice, notification of summons or prosecution was received in this reporting period. Cumulative complaint log, summaries of complaints, notification of summons and successful prosecutions are presented in **Table 6.2, 6.3 and 6.4**.

Table 6.2 Environmental Complaints Log

Complaint Log No.	Date of Receipt	Received From and Received By	Nature of Complaint	Date Investigated	Outcome	Date of Reply
Nil	-	-	-	-	-	-

Table 6.3 Cumulative Statistics on Complaints

Environmental Parameters	Cumulative No. Brought Forward	No. of Complaints This Reporting Period			Cumulative Project-to-Date
		June 2016	July 2016	August 2016	
Air	0	0	0	0	0
Noise	0	0	0	0	0
Water	0	0	0	0	0
Waste	0	0	0	0	0
Total	0	0	0	0	0

Table 6.4 Cumulative Statistics on Successful Prosecutions

Environmental Parameters	Cumulative No. Brought Forward	No. of Complaints This Reporting Period			Cumulative Project-to-Date
		June 2016	July 2016	August 2016	
Air	0	0	0	0	0
Noise	0	0	0	0	0
Water	0	0	0	0	0
Waste	0	0	0	0	0
Total	0	0	0	0	0

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The logo for MaterialLab, featuring the word "MaterialLab" in a bold, black, sans-serif font. The text is centered between two thick, horizontal black bars.

7. IMPLEMENTATION STATUS OF ENVIRONMENTAL MITIGATION MEASURES

7.1 Implementation Status

- 7.1.1 The Contractor has implemented environmental mitigation measures and requirements as stated in the EIA Reports, the EP and the EM&A Manuals. The implementation status of the mitigation measures during the reporting period is summarized in **Appendix F**.

8. CONCLUSIONS

- 8.1.1 No Action and Limit Level exceedance for 24-hr TSP and noise was recorded in the reporting period at all monitoring stations.
- 8.1.2 No complaint of air quality was received. Therefore, no impact 1-hour TSP monitoring was conducted in the reporting period.
- 8.1.3 13 weekly environmental site inspections were carried out in the reporting period. Recommendations on mitigation measures on air quality, water quality, noise, waste management and landscape and visual impact were given to the Contractor for remediating the deficiencies identified during the site inspections.
- 8.1.4 13 weekly Landscape and Visual Site audits were carried out on in the reporting period and 7 of them were carried out by a Registered Landscape Architect in the reporting period. The weekly Landscape and Visual Impact reports were counter-signed by IEC as according to the requirement of EM&A Manual (AEIAR-130/2009). Total 5 no. of non-compliance was recorded in the weekly Landscape and Visual Site audits in the reporting period.
- 8.1.5 Referring to the Contractor's information, no environmental complaint, notification of summons and successful prosecution was received in the reporting period.

8.2 Comment and Recommendations

- 8.2.1 The recommended environmental mitigation measures, as proposed in the EIA reports and EM&A Manuals shall be effectively implemented to minimize the potential environmental impacts from the Project. The EM&A programme would effectively monitor the environmental impacts generated from the construction activities and ensure the proper implementation of mitigation measures.
- 8.2.2 According to the environmental audit performed in the reporting period, the following recommendations were made:

Air Quality Impact

- Open stockpiles shall be covered by unobtrusive sheeting to prevent dust emission.
- Stock of more than 20 bags of cement or PFA should be covered entirely by impervious sheeting or placed in area sheltered on top and 3 sides.
- Contractor was reminded to spray water during breaking or drilling to prevent dust emission.

Construction Noise Impact

- Appropriate noise absorption material shall be used to wrap the breaker machine.
- The door of the generator should be closed to reduce noise emission.
- Impermeable sheeting shall be provided at the site boundary or repaired as necessary to reduce noise emission.

Water Quality Impact

- Implement effective/preventive measures to prevent accumulation of stagnant water.
- Surface runoff shall be prevented from entering the discharge channel directly. Sediment in the channel shall be cleaned up.

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Chemical and Waste Management

- Chemical and Waste Management shall be provided properly.
- Construction waste shall be removed regularly.
- Chemicals and lubricant shall be stored on drip tray properly. The hole of drip tray shall be sealed to prevent leakage of chemicals
- Extra drip tray should be provided to prevent over storage of chemicals and fuel oil.
- Different types of waste shall be segregated and stored in different containers, skips or stockpiles to enhance reuse or recycling of materials and their proper disposal.
- The spilled oil shall be removed properly.

Landscape and Visual Impact

- Open stockpiles shall be covered by unobtrusive sheeting to prevent dust and dirt spreading to adjacent landscape areas and vegetation, and to create a neat and tidy visual appearance.

Permit / Licenses

- No specific observation was identified in the reporting period.

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Figure 1
Project General Layout

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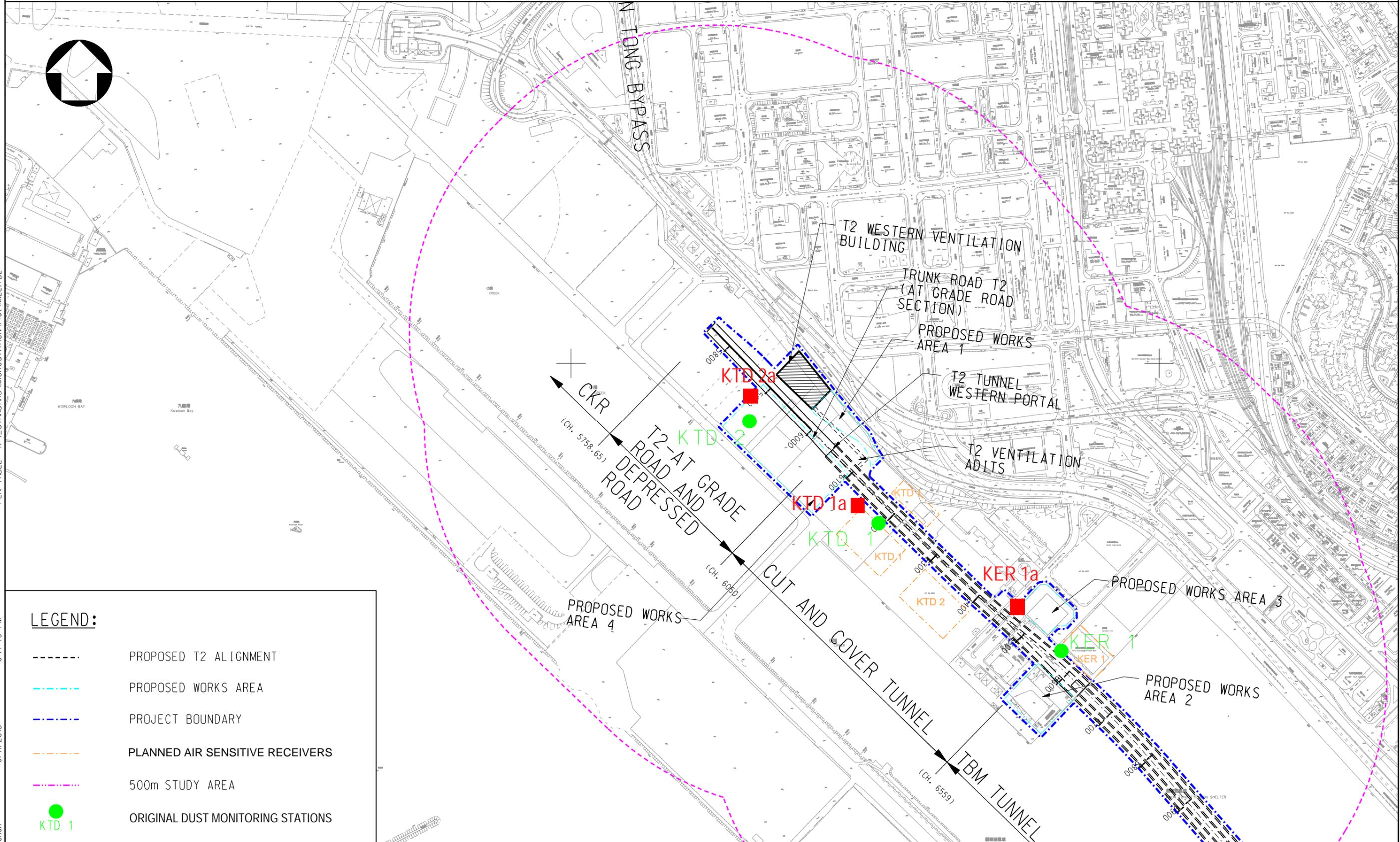
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Figure 2

Air and Noise Monitoring Locations



LEGEND:

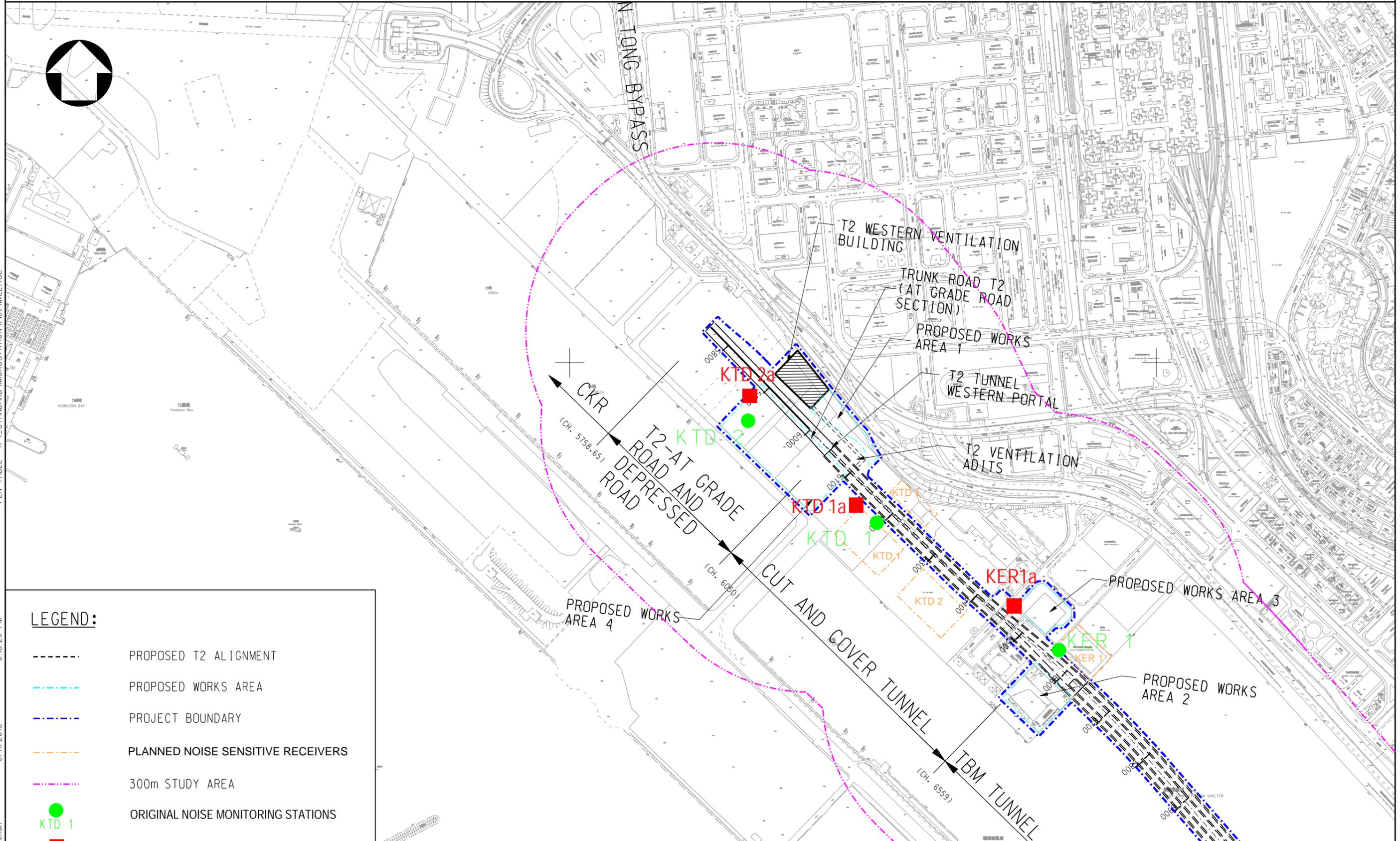
-  PROPOSED T2 ALIGNMENT
-  PROPOSED WORKS AREA
-  PROJECT BOUNDARY
-  PLANNED AIR SENSITIVE RECEIVERS
-  500m STUDY AREA
-  ORIGINAL DUST MONITORING STATIONS
-  PROPOSED DUST MONITORING STATIONS

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Rev.	Description	Date

Drawing title	IDENTIFIED DUST MONITORING STATIONS AT SOUTH APRON OF FORMER KAI TAK AIRPORT
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Original Size	A3	Scale	1 : 6000	Date	30/01/2012
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Rev.					--



LEGEND:

-  PROPOSED T2 ALIGNMENT
-  PROPOSED WORKS AREA
-  PROJECT BOUNDARY
-  PLANNED NOISE SENSITIVE RECEIVERS
-  300m STUDY AREA
-  ORIGINAL NOISE MONITORING STATIONS
KTD 1
-  PROPOSED NOISE MONITORING STATIONS
KTD 1a

Drawing title

IDENTIFIED NOISE MONITORING STATIONS AT SOUTH APRON OF FORMER KAI TAK AIRPORT

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FIGURE 3.1a (revised)

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Appendix A
Construction Programme

KL/2014/03 Kai Tak Development-Stage 3 Infrastructure Works for Developments at the Southern Part of the Former Runway

Activity ID	Activity Name	Original Duration	Start	Finish	Predecessors	Successors	2016				
							May	Jun	Jul	Aug	Sep
KL/2014/03-Stage 3 Infrastructure Works for Developments at the Southern Part of the Former Runway											
Preliminaries, Alternative Design, Submission and Approval											
	Alternative Design for Supporting Underground Structure(SUS)	241	24-Nov-15 A	24-Aug-16							
K-PA-ADS-100	AIP Submission and approval	35	24-Dec-15 A	10-Jun-16	K-PA-ADS-090	K-PA-ADS-135, K-1A-SV1-008, K-1A-SV1-320					
K-PA-ADS-110	DDA Submission and approval- Tunnel box from CH6+150 to CH6+227	35	19-May-16 A	04-Jul-16	K-PA-ADS-100						
K-PA-ADS-115	DDA Submission and approval- SUS D-Wall from CH6+227 to CH6+568	35	26-Feb-16 A	24-Jun-16	K-PA-ADS-100	K-1A-SV3-135, K-1A-SV2-230,					
K-PA-ADS-135	DDA Submission and approval- SUS Top&Base slab and Intermediate wall from CH6+227 to CH6+568	35	20-Jul-16	24-Aug-16	K-PA-ADS-100	K-1A-SV2-420, K-1A-SUS-800,					
General Submission Under PS											
Programming / Reporting											
	Works Programme	60	19-Mar-16 A	04-Jun-16							
K-PA-GSP-420	Prepare & submit Works Programme	60	19-Mar-16 A	04-Jun-16	K-PA-GSP-410	K-PA-GSP-430					
Major Temporary Works Design											
K-PA-GSP-6800	ELS design for construction of SUS and ventilation adit from CH6+150 to CH6+227 - vertical member	35	07-Jan-16 A	13-Jun-16	K-DW-PRE-120, K-PA-GSP-665, K-1A-SV1-320						
K-PA-GSP-6810	ELS design for construction of SUS and ventilation adit from CH6+150 to CH6+227 - horizontal member	35	06-May-16 A	20-Jun-16	K-PA-GSP-665, K-PA-GSP-665, K-1A-SV1-320						
K-PA-GSP-6820	ELS design for construction of SUS from CH6+467 to CH6+568 in Zone 2 to 4	35	19-Aug-16	22-Sep-16	K-PA-GSP-679, K-PA-GSP-679, K-1A-SV2-420, K-1A-SUS-720, K-PA-GSP-7460, K-4A-BAY-150						
K-PA-GSP-6840	ELS design for construction of subway A	35	19-Aug-16	22-Sep-16	K-PA-GSP-679, K-PA-GSP-679, K-1A-SV2-420, K-1A-SUS-720, K-PA-GSP-7460, K-4A-BAY-150						
K-PA-GSP-6870	Temporary vehicular and pedestrian access for HKCH	35	10-Jul-16	13-Aug-16	K-PA-GSP-679, K-PA-GSP-679, K-1A-SV2-420, K-1A-SUS-720, K-PA-GSP-7460, K-4A-BAY-150						
K-PA-GSP-7000	ELS design for construction of DCS	35	20-Jul-16	23-Aug-16	K-PA-GSP-679, K-PA-GSP-679, K-1A-SV2-420, K-1A-SUS-720, K-PA-GSP-7460, K-4A-BAY-150						
K-PA-GSP-8350	Temporary work design for construction of subway structure	35	20-Jun-16	24-Jul-16	K-PA-GSP-679, K-PA-GSP-679, K-1A-SV2-420, K-1A-SUS-720, K-PA-GSP-7460, K-4A-BAY-150						
K-PA-GSP-8750	Pumping Test for SUS Cofferdam in Zone 1	35	09-Mar-16 A	31-May-16	K-PA-GSP-6850	K-PA-GSP-8850					
K-PA-GSP-8850	Pumping Test for SUS Cofferdam in Zone 2 to 4	35	25-Jul-16	28-Aug-16	K-PA-GSP-8750	K-1A-SUS-700, K-PA-GSP-6860,					
Major Construction Works Method Statement											
K-PA-GSP-7145	Method statement of Excavation and ELS - Engineer's comment and approval	28	19-May-16 A	22-Jun-16	K-PA-GSP-7140	K-1A-SV1-320, K-1A-SV2-420					
K-PA-GSP-7325	Method statement for Demolition of Rader Tower - Engineer's comment and approval	28	09-May-16 A	08-Jun-16	K-PA-GSP-7320	K-02-DRT-1050, K-PA-GSP-7340, K-02-DCH-135, K-02-DCH-130					
K-PA-GSP-7345	Method statement for Demolition of Guard House - Engineer's comment and approval	28	09-May-16 A	08-Jun-16	K-PA-GSP-7340	K-02-DCH-135, K-02-DCH-130					
K-PA-GSP-7400	Method statement for Construction of tunnel box structure	28	20-Jun-16	17-Jul-16	K-PA-GSP-7400	K-PA-GSP-7405					
K-PA-GSP-7405	Method statement for Construction of tunnel box structure - Engineer's comment and approval	28	18-Jul-16	14-Aug-16	K-PA-GSP-7400	K-1A-SV1-350					
K-PA-GSP-7485	Method statement for Construction of subway B - Engineer's comment and approval	28	31-May-16 A	27-Jun-16	K-PA-GSP-7480	K-4B-BAY-2000					
Temporary Utility Diversion/ Relocation											
K-PA-GSP-666	Submission and approval utility diversion scheme in Zone 1	30	12-Jan-16 A	02-Jun-16	K-PA-GSP-666	K-PA-GSP-668, K-PA-TUD-1000, K-PA-GSP-845					
K-PA-GSP-667	Submission and approval utility diversion scheme in Zone 2,3&4	45	25-Jan-16 A	08-Jun-16	K-PA-GSP-665						
Temporary Utility Diversion Works at Zone 1											
K-PA-TUD-0500	Procurement and delivery watermain material	45	07-May-16 A	30-Jun-16	K-PA-GSP-666	K-PA-TUD-1100, K-PA-TUD-2000, K-PA-TUD-1120, K-PA-TUD-1400					
K-PA-TUD-1100	Excavation trench for DN600 MS and DI fresh watermain	30	14-Jun-16	19-Jul-16	K-PA-TUD-0500	K-PA-TUD-1120, K-PA-TUD-1400					
K-PA-TUD-1120	Laying DN600 MS and DI fresh watermain at subway B & Zone 1	25	02-Jul-16	30-Jul-16	K-PA-TUD-1100	K-PA-TUD-1150					
K-PA-TUD-1150	DN600 DI connected (X1 and X2)	0		29-Aug-16	K-PA-TUD-1120	K-PA-TUD-1160					
K-PA-TUD-1160	DN600 DI connected (X3)	0		29-Aug-16	K-PA-TUD-1150	K-PA-TUD-1250					
K-PA-TUD-1200	Excavation trench for DN300 MS salt watermain at subway B & Zone 1	30	14-Jun-16	19-Jul-16	K-PA-TUD-0500	K-PA-TUD-1210, K-PA-TUD-2600					
K-PA-TUD-1210	Laying DN600 MS and DI fresh watermain at subway B & Zone 1	25	02-Jul-16	30-Jul-16	K-PA-TUD-1200	K-PA-TUD-1250					
K-PA-TUD-1250	DN300 DI connected (Y1 and Y2)	0		29-Aug-16	K-PA-TUD-1160, K-PA-TUD-1210						
K-PA-TUD-1400	Excavation trench for 600UC, 900 and 450 MS pipe and manhole at Zone 1	15	03-May-16 A	18-Jun-16	K-PA-TUD-1100	K-PA-TUD-1500, K-PA-TUD-1410, K-PA-TUD-1420					
K-PA-TUD-1410	Construction 600UC at Zone 1	10	16-May-16 A	22-Jun-16	K-PA-TUD-1400						
K-PA-TUD-1420	Laying 900 and 450 MS pipe at Zone 1	15	16-May-16 A	29-Jun-16	K-PA-TUD-1410	K-PA-TUD-1450					

█ Remaining Level of Effort █ Remaining Work
█ Actual Work █ Critical Remaining Work

3 MRP - June to August (based on IWP Rev.2)

Date	Revision	Checked	Approved
31-May-16	2		

Activity ID	Activity Name	Original Duration	Start	Finish	Predecessors	Successors	2016													
							May	Jun	Jul	Aug	Sep									
K-PA-TUD-1450	Construction manhole at Zone 1 (SMH12-1 to 3)	20	16-May-16 A	07-Jul-16	K-PA-TUD-1420															
K-PA-TUD-1500	Breaking and excavation trench for DN750 sewerage pipe at Zone 1 - stage 1	20	18-Jun-16	13-Jul-16	K-PA-TUD-1400	K-PA-TUD-1520, K-PA-TUD-3300														
K-PA-TUD-1520	Laying DN750 sewerage pipe at Zone 1 - stage 1	20	13-Jul-16	05-Aug-16	K-PA-TUD-1500	K-PA-TUD-1540														
K-PA-TUD-1540	Construction manhole at Zone 1 (FMH001-A)	20	05-Aug-16	29-Aug-16	K-PA-TUD-1520															
Temporary Utility Diversion Works at Zone 2 to 4		115	14-Jun-16	31-Oct-16																
K-PA-TUD-2000	Excavation trench for DN450 DI fresh watermain at Zone 2 to 4	35	02-Jul-16	12-Aug-16	K-PA-TUD-0500	K-PA-TUD-2020, K-PA-TUD-2100, K-PA-TUD-2040														
K-PA-TUD-2020	Laying DN450 DI fresh watermain at Zone 2	14	11-Jul-16	27-Jul-16	K-PA-TUD-2000															
K-PA-TUD-2040	Laying DN450 DI fresh watermain at Zone 3	14	27-Jul-16	12-Aug-16	K-PA-TUD-2020	K-PA-TUD-2060														
K-PA-TUD-2060	Laying DN450 DI fresh watermain at Zone 4	14	12-Aug-16	29-Aug-16	K-PA-TUD-2040	K-PA-TUD-2080														
K-PA-TUD-2100	Excavation trench for DN300 DI fresh watermain at Zone 4	35	02-Jul-16	12-Aug-16	K-PA-TUD-2000	K-PA-TUD-2120														
K-PA-TUD-2120	Laying DN300 DI fresh watermain at Zone 4	30	27-Jul-16	31-Aug-16	K-PA-TUD-2100	K-PA-TUD-2140														
K-PA-TUD-2200	Excavation trench for DN300 DI salt watermain at Zone 2 to 4	35	02-Jul-16	12-Aug-16	K-PA-TUD-2000	K-PA-TUD-2220, K-PA-TUD-2400														
K-PA-TUD-2220	Laying DN300 DI fresh watermain at Zone 2	14	11-Jul-16	27-Jul-16	K-PA-TUD-2200	K-PA-TUD-2240														
K-PA-TUD-2240	Laying DN300 DI fresh watermain at Zone 3	14	27-Jul-16	12-Aug-16	K-PA-TUD-2220	K-PA-TUD-2260														
K-PA-TUD-2260	Laying DN300 DI fresh watermain at Zone 4	14	12-Aug-16	29-Aug-16	K-PA-TUD-2240	K-PA-TUD-2280														
K-PA-TUD-2400	Excavation trench for DN250 DI salt watermain at Zone 4	35	02-Jul-16	12-Aug-16	K-PA-TUD-2200	K-PA-TUD-2420, K-PA-TUD-2500														
K-PA-TUD-2420	Laying DN250 DI salt watermain at Zone 4	30	27-Jul-16	31-Aug-16	K-PA-TUD-2400	K-PA-TUD-2440														
K-PA-TUD-2500	Excavation trench for DN2100 storm drain diversion at Zone 4	15	02-Jul-16	20-Jul-16	K-PA-TUD-2400	K-PA-TUD-2520, K-PA-TUD-2920														
K-PA-TUD-2520	Diversion DN2100 storm drain at Zone 4	15	20-Jul-16	06-Aug-16	K-PA-TUD-2500	K-PA-TUD-2540														
K-PA-TUD-2540	Backfilling works	10	06-Aug-16	18-Aug-16	K-PA-TUD-2520															
K-PA-TUD-2600	Excavation for 600 covered channel (E/B) at Zone 3	15	14-Jun-16	30-Jun-16	K-PA-TUD-1200	K-PA-TUD-2620														
K-PA-TUD-2620	Construction 600 covered channel (E/B) at Zone 3	15	02-Jul-16	19-Jul-16	K-PA-TUD-2600	K-PA-TUD-2640														
K-PA-TUD-2640	Excavation for 600 covered channel (E/B) at Zone 4	15	20-Jul-16	05-Aug-16	K-PA-TUD-2620	K-PA-TUD-2660														
K-PA-TUD-2660	Construction 600 covered channel (E/B) at Zone 4	15	06-Aug-16	23-Aug-16	K-PA-TUD-2640															
K-PA-TUD-2920	Excavation trench for gas diversion at Zone 4	50	02-Jul-16	30-Aug-16	K-PA-TUD-2500	K-PA-TUD-3000, K-PA-TUD-2930														
K-PA-TUD-2930	Gas pipe laying and connection at Zone 4	50	30-Aug-16	31-Oct-16	K-PA-TUD-2920															
K-PA-TUD-3300	Breaking and excavation trench for DN450 sewerage pipe at Zone 2 - stage 1	15	18-Jun-16	07-Jul-16	K-PA-TUD-1500	K-PA-TUD-3320														
K-PA-TUD-3320	Laying DN450 sewerage pipe at Zone 2 - stage 1	15	07-Jul-16	25-Jul-16	K-PA-TUD-3300															
Utility Works by Others		223	23-Nov-15 A	02-Jul-16																
K-1A-LDN-120	Diversion of existing 132kv CLP cable at Cheung Yip Street by others	223	23-Nov-15 A	02-Jul-16	K-PK-PCC-100	K-03-DCS-130, K-1A-SV2-230,														
Temporary Traffic Management		90	15-Jun-16	12-Sep-16																
Temp Traffic Arrangement		90	15-Jun-16	12-Sep-16																
K-PA-GSP-810	Submission and approval of TTA schemes-TTA stage 2 for D-wall W/B at Zone 2	90	15-Jun-16	12-Sep-16	K-PA-GSP-800, K-PA-GSP-805	K-1A-SV2-205, K-PA-GSP-890														
Preliminaries		171	29-Apr-16 A	18-Oct-16																
K-DR-PRE-140	Submit temporary works design and method statement for barging point	35	29-Apr-16 A	03-Jul-16	K-DR-PRE-135	K-DR-PRE-145														
K-DR-PRE-145	Set up temporary barging point	100	10-Jul-16	18-Oct-16	K-DR-PRE-140, K-PK-SPD-220															
Section 1A of the Works -Construction of Supporting Underground Structure(Alternative Design)		196	18-Jan-16 A	23-Nov-16																
SUS and Ventilation Adits from CH6+150 to CH6+224 in Zone 1		166	26-Feb-16 A	21-Oct-16																
Preparation Works		110	10-Jun-16	21-Oct-16																
K-1A-SV1-008	Fabrication and delivery of ELS strut/waling	110	10-Jun-16	21-Oct-16	K-PA-ADS-100	K-1A-SV1-482, K-1A-SV1-220														
Temporary D-Wall and Piling Works		104	26-Feb-16 A	09-Jul-16																
K-1A-SV1-120	Construction of temporary D-wall eastbound and End Wall (CH6+150 - CH6+224)	80	12-Mar-16 A	11-Jun-16	K-1A-SV1-100, K-1A-SV1-115, K-1A-SV1-120	K-1A-SV1-140, K-1A-SV3-133, K-1A-SV2-128, K-1A-SV1-200, K-1A-SV1-200, K-1A-SV1-320														
K-1A-SV1-130	Construction of temporary D-wall westbound (CH6+150 - CH6+224)	65	11-Mar-16 A	08-Jun-16																
K-1A-SV1-135	Installation of temporary bulkhead wall at CH6+224	21	31-May-16	24-Jun-16	K-1A-SV1-120															
K-1A-SV1-140	Installation of socketted H-piles for Intermediate Wall	70	26-Feb-16 A	29-Jun-16	K-1A-SV1-120, K-PA-ADS-125,	K-1A-SV3-150,														

█ Remaining Level of Effort █ Remaining Work
█ Actual Work █ Critical Remaining Work

3 MRP - June to August (based on IWP Rev.2)

Date	Revision	Checked	Approved
31-May-16	2		

Activity ID	Activity Name	Original Duration	Start	Finish	Predecessors	Successors	2016				
							May	Jun	Jul	Aug	
K-IA-SV1-340	Installation of socketted H-piles for Eastbound and Westbound	70	22-Apr-16 A	25-Jun-16	K-PA-GSP-713, K-IA-SV1-120, K-IA-SV1-340, K-IA-SV1-140	K-IA-SV2-300, K-IA-SV3-150, K-IA-SV1-220					
K-IA-SV1-462	Loading test for socketted H-Piles	8	29-Jun-16	09-Jul-16							
Tunnel Box Structure											
K-IA-SV1-200	Installation of dewatering well, observation well and recharging well in Zone 1	30	25-Jun-16	30-Jul-16	K-IA-SV1-140, K-IA-SV1-340, K-IA-SV1-200	K-IA-SV1-210					
K-IA-SV1-210	Pumping test for excavation in Zone 1	14	01-Aug-16	16-Aug-16							
K-IA-SV1-220	Excavation and ELS up to formation level of tunnel box(6+191-6+224)	30	17-Aug-16	21-Sep-16	K-IA-SV1-008, K-IA-SV1-462	K-IA-SV1-230, K-IA-SV1-320					
SUS and Ventilation Adits from CH6+224 to CH6+348 in Zone 2											
D-Wall and Piling Works											
E/B D-Wall and Socketted H-Piles(CH6+224 to CH6+348) in TTA Stage 1											
K-IA-SV2-125	Construction of guide wall	25	25-Apr-16 A	08-Jun-16	K-PA-GSP-712, K-IA-SV2-110	K-IA-SV2-130					
K-IA-SV2-127	Procurement and delivery H-pile material	60	01-Apr-16 A	02-Jun-16		K-IA-SV3-280, K-IA-SV3-150, K-IA-SV2-130					
K-IA-SV2-128	Plant mobilization and set up for D-wall and socketted H-Pile	5	08-Jun-16	15-Jun-16	K-IA-SV1-130, K-PA-GSP-712, K-IA-SV2-128, K-PA-ADS-100, K-IA-SV1-340, K-IA-SV1-140	K-IA-SV2-230, K-IA-SV2-790, K-IA-SV2-800, K-IA-SV2-205					
K-IA-SV2-130	Construction of D-wall eastbound(CH6+254 to CH6+348)	72	24-Jun-16	19-Sep-16							
K-IA-SV2-300	Installation of socketted H-piles (CH6+227 to CH6+348)	112	13-Jul-16	23-Nov-16							
W/B D-Wall (CH6+224 to CH6+348) in TTA Stage 2											
K-IA-SV2-210	Predrilling works	42	02-Aug-16	20-Sep-16	K-IA-UDN-120	K-IA-SV3-252, K-IA-SV2-215					
SUS Structure from CH6+348 to 6+467 in Zone 3											
D-Wall and Piling Works											
E/B D-Wall and Socketted H-Piles in TTA Stage 1											
K-IA-SV3-132	Construction of guide wall	21	31-May-16	24-Jun-16	K-IA-SV3-130	K-IA-SV3-136					
K-IA-SV3-133	Plant mobilization and set up for D-wall and socketted H-Pile	5	11-Jun-16	17-Jun-16	K-IA-SV1-120, K-PA-GSP-679, K-IA-SV3-133, K-IA-SV3-132, K-IA-SV1-140, K-IA-SV1-340	K-IA-SV3-136, K-IA-SV3-150, K-IA-SV3-390, K-IA-SV3-490, K-IA-SV3-276					
K-IA-SV3-136	Construction of D-wall eastbound(CH6+348 to CH6+467)	62	25-Jun-16	06-Sep-16							
K-IA-SV3-150	Installation of socketted H-piles (CH6+348 to CH6+467)	112	29-Jun-16	11-Nov-16							
W/B D-Wall in TTA Stage 1A											
K-IA-SV3-252	Predrilling works	32	02-Aug-16	07-Sep-16	K-IA-SV2-210	K-IA-SV3-480, K-IA-SV3-300, K-IA-SV3-321, K-IA-SV3-340, K-IA-SV3-322					
K-IA-SV3-320	Construction of temporary diversion road for TTA stage 1A	94	31-May-16	20-Sep-16							
K-IA-SV3-321	Construction of temporary drainage at zone 2 to 4	25	31-May-16	29-Jun-16	K-IA-SV3-320	K-IA-SV3-322					
K-IA-SV3-322	Construction of concrete pavement at zone 4	14	13-Jun-16	28-Jun-16	K-IA-SV3-321	K-IA-SV3-323					
K-IA-SV3-323	Construction of concrete pavement at zone 3	14	29-Jun-16	15-Jul-16	K-IA-SV3-322	K-IA-SV3-324					
K-IA-SV3-324	Construction of concrete pavement at zone 2	25	16-Jul-16	13-Aug-16	K-IA-SV3-323	K-IA-SV3-325					
K-IA-SV3-325	Installation of street lighting	14	15-Aug-16	30-Aug-16	K-IA-SV3-324	K-IA-SV3-326					
SUS Structure from CH6+467 to 6+568 in Zone 4											
D-Wall and Piling Works											
E/B D-Wall and Socketted H-Piles in TTA Stage 1											
K-IA-SV3-100	Predrilling works	35	18-Jan-16 A	07-Jun-16	K-PK-SPD-200, K-PA-GSP-665, K-IA-SV3-100	K-IA-SV3-120, K-IA-SV3-130, K-IA-SV3-135, K-IA-SV3-120					
K-IA-SV3-110	Plant mobilization and set up for D-wall and socketted H-Pile	10	08-Jun-16	20-Jun-16							
K-IA-SV3-120	Construction of guide wall	21	08-Jun-16	04-Jul-16	K-IA-SV3-100, K-PA-GSP-712, K-PA-ADS-115, K-IA-SV3-110, K-IA-SV3-135, K-IA-SV2-127	K-IA-SV3-135, K-IA-SV3-120, K-IA-SV3-135					
K-IA-SV3-135	Construction of D-wall eastbound(CH6+467 to CH6+550)	91	05-Jul-16	21-Oct-16							
K-IA-SV3-152	Installation of socketted H-piles(CH6+467 to CH6+550)	112	05-Jul-16	15-Nov-16							
W/B D-Wall, E/B D-Wall and End Wall in TTA Stage 1A											
K-IA-SV3-210	Predrilling works	32	02-Aug-16	07-Sep-16	K-IA-SV3-252	K-IA-SV3-220					
K-IA-SV3-220	Construction of guide wall	35	15-Aug-16	24-Sep-16	K-IA-SV3-210	K-IA-SV3-250					
Section 2 of the Works-Demolition of Radar Tower and Guard House											
K-02-DRG-110	Condition survey and installation of monitoring point	30	31-May-16	06-Jul-16	K-PK-SPD-230	K-02-DRT-1200, K-02-DRT-1050					
Demolition of Radar Tower											

█ Remaining Level of Effort █ Remaining Work
█ Actual Work █ Critical Remaining Work

3 MRP - June to August (based on IWP Rev.2)

Date	Revision	Checked	Approved
31-May-16	2		

Activity ID	Activity Name	Original Duration	Start	Finish	Predecessors	Successors	2016				
							May	Jun	Jul	Aug	Sep
K-02-DRT-1100	Demolition and erection of hoarding	40	16-May-16 A	18-Jun-16			Demolition and erection of hoarding				
K-02-DRT-1200	Erection of temporary scaffolding/proping	50	16-May-16 A	06-Jul-16	K-02-DRG-110, K-PA-GSP-7325	K-02-DRT-1300, K-02-DRT-1250,	Erection of temporary scaffolding/proping				
K-02-DRT-1250	Removal of asbestos materials	15	07-Jul-16	23-Jul-16	K-02-DRT-1200, K-02-DRT-1050		Removal of asbestos materials				
K-02-DRT-1270	Demolition G/F pump room	14	31-May-16 A	14-Jun-16	K-02-DRT-1200	K-02-DRT-1300	Demolition G/F pump room				
K-02-DRT-1300	Demolition and Removal of 13/F to Roof	40	07-Jul-16	22-Aug-16	K-PA-GSP-6940, K-02-DRT-1200, K-02-DRT-1300	K-02-DRT-1350, K-PK-SCC-204	Demolition and Removal of 13/F to Roof				
K-02-DRT-1350	Demolition and Removal of 11/F to 13/F	40	23-Aug-16	11-Oct-16			Demolition and Removal of 11/F to 13/F				
Demolition of Guard House		32	10-May-16 A	13-Jun-16			Demolition of Guard House				
K-02-DGH-140	Demolition of Guard House	32	10-May-16 A	13-Jun-16	K-02-DGH-130, K-02-DGH-135	K-PK-SCC-204	Demolition of Guard House				
Section 3 of the Works- Construction of District Cooling System (Subject to Excision)		90	24-Aug-16	09-Dec-16			Section 3 of the Works- Construction of District Cooling System (Subject to Excision)				
Preparation Works		90	24-Aug-16	09-Dec-16			Preparation Works				
K-03-DCS-095	Procurement and delivery of DCS pipe	90	24-Aug-16	09-Dec-16	K-PA-GSP-7300, K-PA-GSP-7000,	K-03-DCS-110	Procurement and delivery of DCS pipe				
Section 4B of the Works- Construction of Subway B (Subject to Excision)		73	27-May-16 A	10-Sep-16			Section 4B of the Works- Construction of Subway B (Subject to Excision)				
Bay 1&2		73	27-May-16 A	10-Sep-16			Bay 1&2				
K-4B-BAY-2000	Installation of sheetpile for Bay 1&2	15	27-May-16 A	17-Jun-16	K-PA-GSP-7485, K-PA-GSP-6850,	K-4B-BAY-2050, K-4B-BAY-220	Installation of sheetpile for Bay 1&2				
K-4B-BAY-2050	Excavation and ELS works of Bay 1&2	28	17-Jun-16	21-Jul-16	K-4B-BAY-2000		Excavation and ELS works of Bay 1&2				
K-4B-BAY-220	Construction of Bay 1	21	25-Jul-16	17-Aug-16	K-4B-BAY-2050, K-4B-BAY-2000,	K-4B-BAY-230	Construction of Bay 1				
K-4B-BAY-230	Construction of Bay 2	21	18-Aug-16	10-Sep-16	K-4B-BAY-220	K-4B-BAY-310, K-4B-BAY-235	Construction of Bay 2				
Section 7 of the Works-Preservation and Protection of Existing Trees		1200	29-Feb-16 A	12-Jun-19			Section 7 of the Works-Preservation and Protection of Existing Trees				
K-07-001-001	Section 7 of the Works-Preservation and Protection of Existing Trees	1200	29-Feb-16 A	12-Jun-19	K-DR-PRE-173, K-DR-PRE-175	K-PK-SCC-250	Section 7 of the Works-Preservation and Protection of Existing Trees				

█ Remaining Level of Effort █ Remaining Work
█ Actual Work █ Critical Remaining Work

3 MRP - June to August (based on IWP Rev.2)

Date	Revision	Checked	Approved
31-May-16	2		

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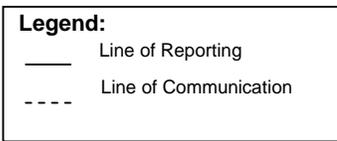
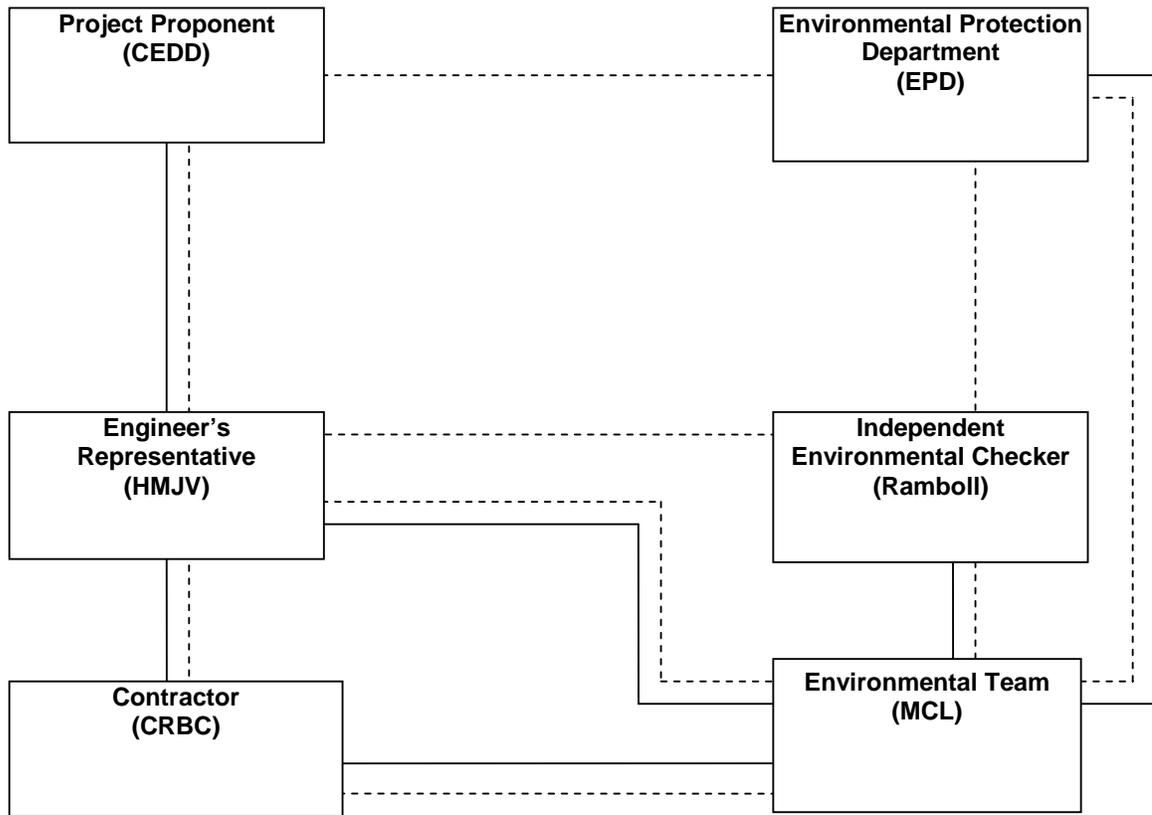


Appendix B
Project Organization Chart

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Appendix C

Action and Limit Levels for Air Quality and Noise

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MaterialLab**Action and Limit Levels for 24-hr TSP and 1-hr TSP**

Parameter	Monitoring Station	Action Level ($\mu\text{g}/\text{m}^3$)	Limit Level ($\mu\text{g}/\text{m}^3$)
24-hr TSP ($\mu\text{g}/\text{m}^3$)	KTD1a	177	260
	KTD2a	157	
	KER1a	172	
*1-hr TSP ($\mu\text{g}/\text{m}^3$)	KTD1a	285	500
	KTD2a	279	
	KER1a	295	

Note:

1-hr TSP monitoring should be required in case of complaints.

Action and Limit Levels for Construction Noise, Leq (30min), dB(A)

Time Period	Location	Action	Limit
0700-1900 hrs on normal weekdays	KTD1a KTD2a KER1a	When one documented complaint is received	75 dB(A)

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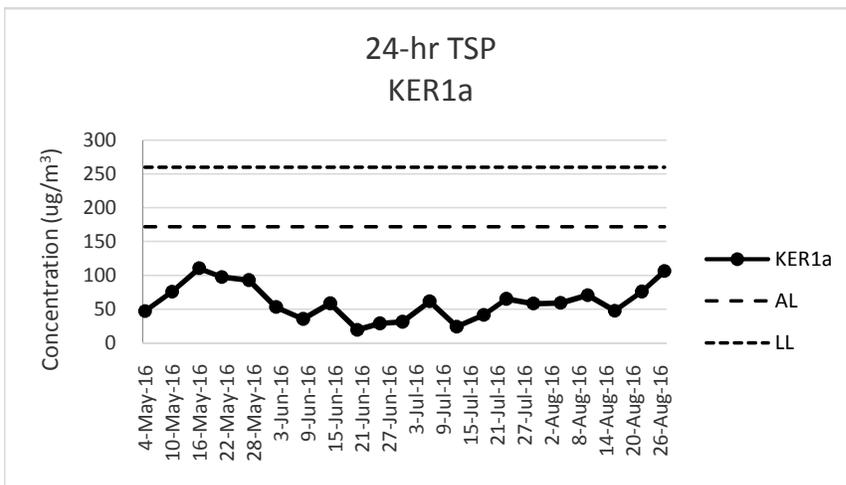
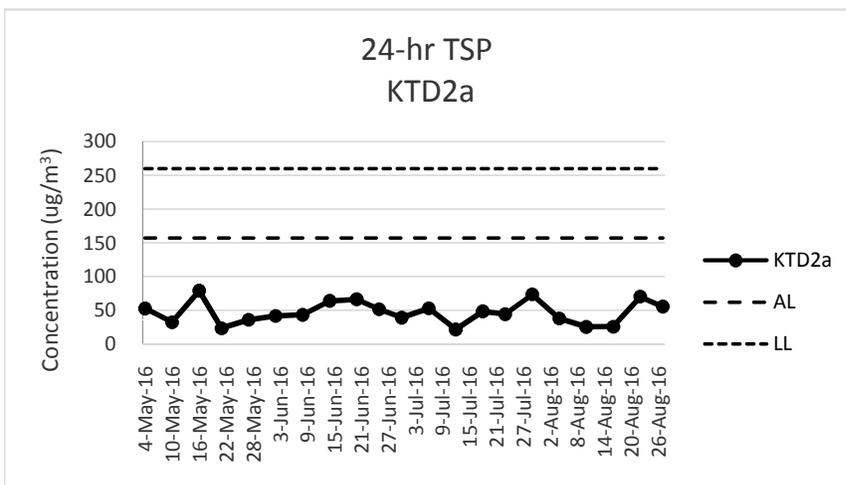
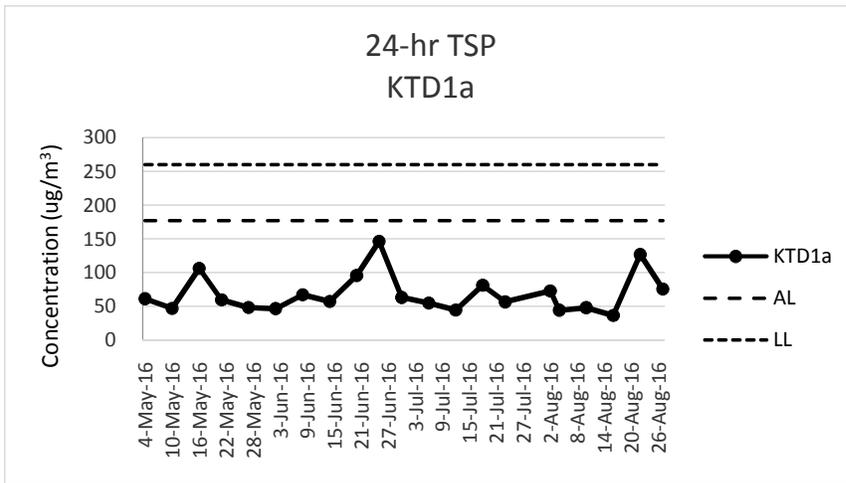
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Appendix D

Graphical Presentation of Monitoring Data

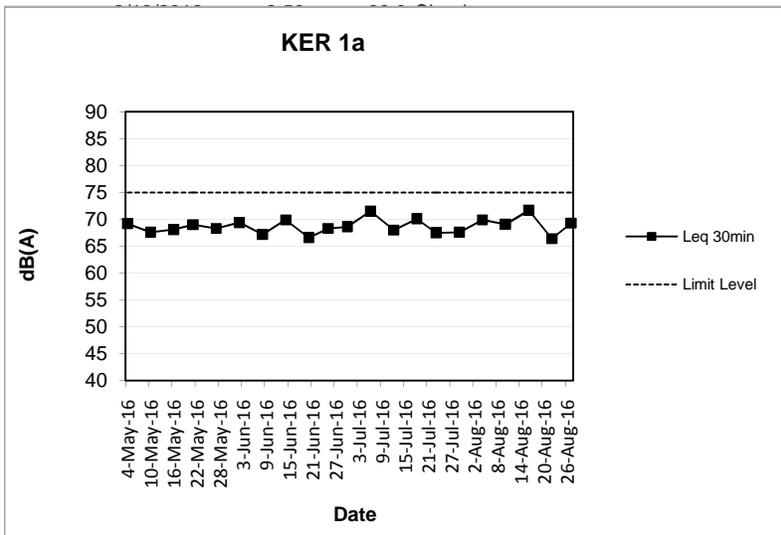
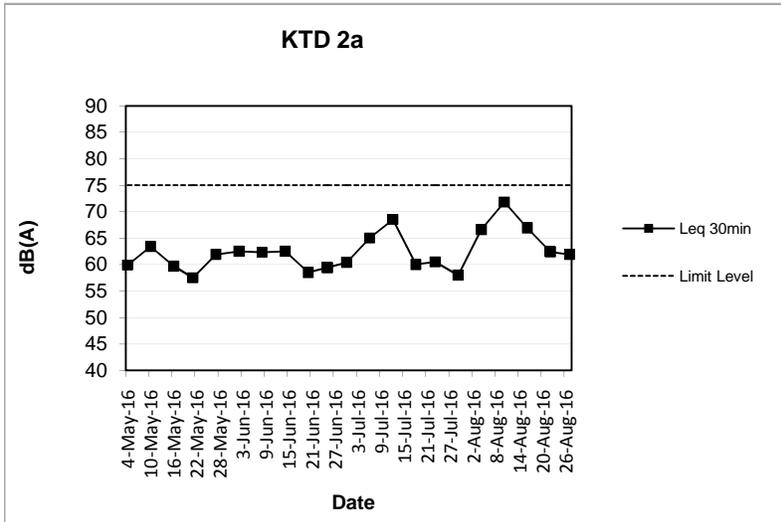
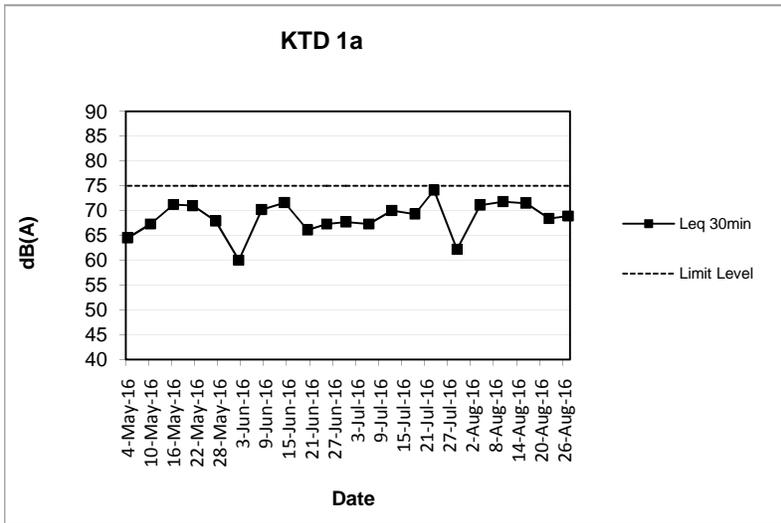
Graphical Presentation on 24-hr TSP Monitoring Results



Note:

- 1) The major activities being carried out on site during the reporting period can be referred to Section 1.3.2.
- 2) The weather conditions during monitoring in the reporting period was range from cloudy, fine and sunny.
- 3) Any other factors which might affect the monitoring results can be referred to Section 2.3.8.
- 4) The 24-hr TSP monitoring at KTD 1a on 29 July 2016 was postponed due to the insufficient power supply and rescheduled to 2 August 2016.

Graphical Presentation on Noise Monitoring Results



Note:

- 1) The major activities being carried out on site during the reporting period can be referred to Section 1.3.2.
- 2) The weather conditions during monitoring in the reporting period was range from cloudy, fine and sunny. No raining or wind with speed over 5 m/s was observed during monitoring in the reporting period.
- 3) Any other factors which might affect the monitoing results can be referred to Section 2.3.8.

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The logo for MaterialLab, featuring the word "MaterialLab" in a bold, black, sans-serif font. The text is centered between two thick, horizontal black bars, one above and one below the text.

Appendix E

Waste Flow Table

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Monthly Ending	Actual Quantities of Inert C&D Materials Generated Monthly						Actual Quantities of Non-inert C&D Wastes Generated Monthly				
	Total Quantity Generated (Inert C&D)	Hard Rock and Large Broken Concrete	Reused in the Contract	Reused in other Projects	Disposed as Public Fill	Imported Fill	Metals	Paper/ cardboard packaging	Plastics (see Note 2)	Chemical Waste	Others, e.g. general refuse
	(in '000m ³)	(in '000m ³)	(in '000m ³)	(in '000m ³)	(in '000m ³)	(in '000m ³)	(in '000 kg)	(in '000kg)	(in '000kg)	(in '000kg)	(in '000m ³)
2016 Jan	0.159	0.101	0.058	Nil	Nil	Nil	Nil	0.023	0.00002	0.0158	0.0335
2016 Feb	0.291	0.050	0.241	Nil	Nil	Nil	1.34	0.023	0.00002	0.0158	0.0335
2016 Mar	2.7389	0.0407	0.0662	Nil	2.632	Nil	5.92	0.023	0.00002	0.0158	0.0571
2016 Apr	4.1718	0.0578	0.462	Nil	3.652	Nil	12.5	0.023	0.00002	0.0158	0.0426
2016 May	3.592	Nil	0.299	Nil	3.293	Nil	5.23	0.023	0.00002	0.0158	0.0621
2016 June	4.6035	Nil	0.8555	Nil	3.748	Nil	Nil	0.023	0.00002	0.0158	0.0619
2016 July	6.155	0.153	0.015	Nil	5.987	Nil	7.84	0.023	0.00002	0.0158	0.0433
2016 Aug	10.231	Nil	Nil	Nil	10.231	Nil	19.93	0.023	Nil	Nil	0.0250
2016 Sept											
2016 Oct											
2016 Nov											
2016 Dec											
Total	31.9422	0.40	2.00	Nil	29.633	Nil	52.76	0.184	0.00014	0.11	0.359

Note:

- 1) The waste flow table shall also include C&D materials that are specified in the Contract to be imported for use at the Site.
- 2) Plastics refer to plastic bottles/containers, plastic sheets/foam from packaging materials.

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Appendix F

Environmental Mitigation Implementation Schedule (EMIS)

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EIA Ref	EM&A Ref	Environmental Protection Measures / Mitigation Measures	Who to implement the measure	Location / Timing	Construction Phase Implementation Status
<u>Air Quality Measures</u>					
<u>New Distributor Roads Serving the Planned KTD</u>					
AEIAR-130/2009 S3.2	AEIAR 130/2009 EM&A Manual S2.2	8 times daily watering of the work site with active dust emitting activities.	Contractor	All relevant worksites	Implemented
<u>Decommissioning of the Radar Station of the former Kai Tak Airport</u>					
AEIAR-130/2009 S5.2.19	AEIAR 130/2009 EM&A Manual S4.2.4	The excavation area should be limited to as small in size as possible and backfilled with clean and/or treated soil shortly after excavation work. The exposed excavated area should be covered by the tarpaulin during night time. The top layer soils should be sprayed with fine misting of water immediately before the excavation.	Contractor	All relevant worksites	Not Applicable
<u>Trunk Road T2</u>					
AEIAR-174/2013 S4.9.2.1	AEIAR-174/2013 EM&A Manual S2.3.1.1	Watering of the construction areas 12 times per day to reduce dust emissions by 91.7%, with reference to the "Control of Open Fugitive Dust Sources" (USEPA AP-42). The amount of water to be applied would be 0.91L/m ² for the respective watering frequency.	Contractor	All relevant worksites	Implemented
		Dust enclosures with watering would be provided along the loading ramps and conveyor belts for unloading the C&D materials to the barge for dust suppression.	Contractor	All relevant worksites	Not Applicable
		8 km per hour is the recommended limit of the speed for vehicles on unpaved site roads.	Contractor	All relevant worksites	Implemented
<u>Good Site Practices</u>					
AEIAR-130/2009 S3.2, S5.2.19, AEIAR-174/2013 S4.9.2.2	AEIAR 130/2009 EM&A Manual S2.2, S4.2, AEIAR 174/2013 EM&A Manual S2.3.1.2	Stockpiling site(s) should be lined with impermeable sheeting and banded. Stockpiles should be fully covered by impermeable sheeting to reduce dust emission.	Contractor	All relevant worksites	Partially Implemented
		Use of regular watering to reduce dust emissions from exposed site surfaces and unpaved roads, particularly during dry weather. Use of frequent watering for particularly dusty construction areas and areas close to ASRs.	Contractor	All relevant worksites	Partially Implemented
		Misting for the dusty material should be carried out before being loaded into the vehicle. Any vehicle with an open load carrying area should have properly fitted side and tail boards.	Contractor	All relevant worksites	Implemented
		Material having the potential to create dust should not be loaded from a level higher than the side and tail boards and should be dampened and covered by a clean tarpaulin.	Contractor	All relevant worksites	Partially Implemented
		Tarpaulin covering of all dusty vehicle loads transported to, from and between site locations; The tarpaulin should be properly secured and should extent at least 300 mm over the edges of the sides and tailboards. The material should also be dampened if necessary before	Contractor	All relevant worksites	Partially Implemented

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EIA Ref	EM&A Ref	Environmental Protection Measures / Mitigation Measures	Who to implement the measure	Location / Timing	Construction Phase
					Implementation Status
		transportation.			
		The vehicles should be restricted to maximum speed of 10 km per hour. Confined haulage and delivery vehicle to designated roadways inside the site. Onsite unpaved roads should be compacted and kept free of loose materials.	Contractor	All relevant worksites	Implemented
		Vehicle washing facilities should be provided at every vehicle exit point. Every vehicle should be washed to remove any dusty materials from its body and wheels before leaving the construction sites.	Contractor	All relevant worksites	Implemented
		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.			
		Every main haul road should be sealed with concrete and kept clear of dusty materials or sprayed with water so as to maintain the entire road surface wet.	Contractor	All relevant worksites	Implemented
		Every stock of more than 20 bags of cement or dry pulverised fuel ash (PFA) should be covered entirely by impervious sheeting or placed in an area sheltered on the top and the 3 sides.	Contractor	All relevant worksites	Partially Implemented
		Cement or dry PFA delivered in bulk should be stored in a closed silo fitted with an audible high level alarm which is interlocked with the material filling line and no overfilling is allowed.	Contractor	All relevant worksites	Implemented
		Loading, unloading, transfer, handling or storage of bulk cement or dry PFA should be carried out in a totally enclosed system or facility, and any vent or exhaust should be fitted with an effective fabric filter or equivalent air pollution control system.	Contractor	All relevant worksites	Implemented
		Side enclosure and covering of any aggregate or dusty material storage piles to reduce emissions. Where this is not practicable owing to frequent usage, watering shall be applied to aggregate fines.	Contractor	All relevant worksites	Implemented
		Open stockpiles shall be avoided or covered. Prevent placing dusty material storage piles near ASRs.	Contractor	All relevant worksites	Partially Implemented
		Routing of vehicles and position of construction plant should be at the maximum possible distance from ASRs.	Contractor	All relevant worksites	Not Applicable
		<u>Dark smoke</u>			
		Dark smoke emission shall be controlled in accordance with the Air Pollution Control (Smoke) Regulation and ETWB TCW 19/2005.	Contractor	All relevant worksites	Implemented
		Plant and equipment should be well maintained to prevent dark smoke emission.	Contractor	All relevant worksites	Implemented
<u>Noise Measures</u>					
Trunk Road T2					

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EIA Ref	EM&A Ref	Environmental Protection Measures / Mitigation Measures	Who to implement the measure	Location / Timing	Construction Phase
					Implementation Status
AEIAR-174/2013 S5.9.2.1	AEIAR-174/2013 EM&A Manual S3.4.1.1	The use of quieter plant, including Quality Powered Mechanical Equipment (QPME) is specified for the list of equipment: <ul style="list-style-type: none"> • Concrete lorry mixer • Dump Truck, 5.5 tonne < gross vehicle weight <= 38 tonne • Generator, Super Silenced, 70 dB(A) at 7m • Poker, vibratory, Hand-held (electric) • Water Pump, Submersible (Electric) • Mobile Crane - KOBELCO CKS900 • Excavator, wheeled/tracked - HYUNDAI R80CR-9 	Contractor	All relevant worksites	Implemented
		Use of temporary or fixed noise barriers with a surface density of at least 10kg/m ² to screen noise from movable and stationary plant.	Contractor	All relevant worksites	Not Applicable
		Use of enclosures with covers at top and three sides and a surface density of at least 10kg/m ² to screen noise from generally static noisy plant such as air compressors.	Contractor	All relevant worksites	Not Applicable
		Use of acoustic fabric for the silent piling system, drill rigs, rock drills etc.	Contractor	All relevant worksites	Partially Implemented
		<u>Good Site Practices</u>			
AEIAR-130/2009 S3.3, S5.3.10, AEIAR-174/2013 S5.9.2.1	AEIAR 130/2009 EM&A Manual S2.3, S4.3.2, AEIAR-174/2013 EM&A Manual S3.4.1.1	Only well-maintained plant should be operated on-site and plant shall be serviced regularly during the construction/ decommissioning program.	Contractor	All relevant worksites	Implemented
		Silencers or mufflers on construction equipment should be utilized and shall be properly maintained during the construction/ decommissioning program.	Contractor	All relevant worksites	Not Applicable
		Mobile plant, if any, should be sited as far away from NSRs as possible.	Contractor	All relevant worksites	Implemented
		Machines and plant (such as trucks) that may be in intermittent use shall be shut down between works periods or should be throttled down to a minimum.	Contractor	All relevant worksites	Implemented
		Plant known to emit noise strongly in one direction shall, wherever possible, be orientated so that the noise is directed away from the nearby NSRs.	Contractor	All relevant worksites	Implemented
		Material stockpiles and other structures should be effectively utilized, wherever practicable, in screening noise from on-site construction/ decommissioning activities.	Contractor	All relevant worksites	Implemented
		Use of site hoarding as a noise barrier to screen noise at low level NSRs.	Contractor	All relevant worksites	Implemented
		For the use of hand held percussive breakers (with mass of above 10kg) and portable air compressors (supply air at 500 kPa or above), the noise level of such PME shall comply with a stringent noise emission standard and a noise emission label shall be obtained from the DEP before use at any time in construction site.	Contractor	All relevant worksites	Implemented

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EIA Ref	EM&A Ref	Environmental Protection Measures / Mitigation Measures	Who to implement the measure	Location / Timing	Construction Phase
					Implementation Status
		Quiet powered mechanical equipment (PME) shall be used for the construction of the Project.	Contractor	All relevant worksites	Implemented
		Full enclosures shall be used to screen noise from relatively static PMEs (including air compressor, bar bender, concrete pump, generator and water pump) from sensitive receiver(s).	Contractor	All relevant worksites	Not Applicable
		Movable cantilevered noise barriers shall be used to screen noise from mobile PMEs (including asphalt paver, breaker, excavator and hand-held breaker) from sensitive receiver(s). These movable cantilevered noise barriers shall be located close to the mobile PMEs and shall be moved/adjusted iteratively in step with each movement of the corresponding mobile PMEs in order to maximize their noise reduction effects.	Contractor	All relevant worksites	Not Applicable
		Only approved or exempted Non-road Mobile Machineries (NRMMS) including regulated machines and non-road vehicles with proper labels are allowed to be used in specified activities on-site.	Contractor	All relevant worksites	Implemented
Water Quality Measures					
Trunk Road T2					
		Accidental Spillage			
AEIAR-174/2013 S6.4.8.5	AEIAR-174/2013 EM&A Manual S4.2.1.1	All bentonite slurry should be stored in a container that resistant to corrosion, maintained in good conditions and securely closed; The container should be labelled in English and Chinese and note that the container is for storage of bentonite slurry only.	Contractor	All relevant worksites	Implemented
		The storage container should be placed on an area of impermeable flooring and bunded with capacity to accommodate 110% of the volume of the container size or 20% by volume stored in the area and enclosed with at least 3 sides.	Contractor	All relevant worksites	Implemented
		The storage container should be sufficiently covered to prevent rainfall entering the container or bunded area (water collected within the bund must be tested and disposed of as chemical waste, if necessary). An emergency clean up kit shall be readily available where bentonite fluid will be stored or used.	Contractor	All relevant worksites	Implemented
		The handling and disposal of bentonite slurries should be undertaken in accordance within ProPECC PN 1/94. Surplus bentonite slurries used in construction works shall be reconditioned and reused wherever practicable. Residual bentonite slurry shall be disposed of from the site as soon as possible as stipulated in Clause 8.56 of the General Specification for Civil Engineering Works. The Contractor should explore alternative disposal outlets for the residual bentonite slurry (dewatered bentonite slurry to be disposed to a public filling area and liquid bentonite slurry, if mixed with inert fill material, to be disposed to a public filling area) and disposal at landfill should be the last resort.	Contractor	All relevant worksites	Implemented
AEIAR-174/2013 S6.4.8.8	AEIAR-174/2013 EM&A Manual	In order to protect against impacts to the surrounding marine waters of the KTTS and Victoria Harbour in the event of an accidental spillage of fuel or oil, the Contractor will be required to	Contractor	All relevant worksites	Implemented

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					Implementation Status
	S4.2.1.1	prepare a spill response plan to the satisfaction of AFCD, EPD, FSD, Police, TD and WSD to define procedures for the control, containment and clean-up of any spillage that could occur on the construction site.			
		<u>Dredging, Reclamation and Filling</u>			
		No dredging, reclamation or filling in the marine environment shall be carried out.	Contractor	All relevant worksites	Implemented
Decommissioning of the Radar Station of the former Kai Tak Airport					
		<u>Building Demolition</u>			
AEIAR-130/2009 S5.4	AEIAR 130/2009 EM&A Manual S4.4	The site practices outlined in ProPECC PN 1/94 "Construction Site Drainage" should be followed as far as practicable in order to minimise surface runoff and the chance of erosion.	Contractor	All relevant worksites	Not Applicable
		There is a need to apply to EPD for a discharge licence under the WPCO for discharging effluent from the construction site. The discharge quality is required to meet the requirements specified in the discharge licence. All the runoff, wastewater or extracted groundwater generated from the works areas should be treated so that it satisfies all the standards listed in the TM-DSS. It is anticipated that the wastewater generated from the works areas would be of small quantity. Monitoring of the treated effluent quality from the works areas should be carried out in accordance with the WPCO license which is under the ambit of regional office (RO) of EPD.	Contractor	All relevant worksites	Implemented
		<u>General Construction Works</u>			
		<u>Construction Runoff</u>			
AEIAR-130/2009 S3.4, S5.4/ AEIAR-174/2013 S6.4.8.1	AEIAR 130/2009 EM&A Manual S2.4, S4.4/ AEIAR-174/2013 EM&A Manual S4.2.1.1	Exposed soil areas should be minimised to reduce the potential for increased siltation, contamination of runoff, and erosion. Construction runoff related impacts associated with the above ground construction activities can be readily controlled through the use of appropriate mitigation measures which include the use of sediment traps and adequate maintenance of drainage systems to prevent flooding and overflow.	Contractor	All relevant worksites	Partially Implemented
		Construction site should be provided with adequately designed perimeter channel and pre-treatment facilities and proper maintenance. The boundaries of critical areas of earthworks should be marked and surrounded by dykes or embankments for flood protection. Temporary ditches should be provided to facilitate runoff discharge into the appropriate watercourses, via a silt retention pond. Permanent drainage channels should incorporate sediment basins or traps and baffles to enhance deposition rates. The design of efficient silt removal facilities should be based on the guidelines in Appendix A1 of ProPECC PN 1/94.	Contractor	All relevant worksites	Implemented
		Ideally, construction works should be programmed to minimise surface excavation works during the rainy season (April to September). All exposed earth areas should be completed as soon as possible after earthworks have been completed, or alternatively, within 14 days of the	Contractor	All relevant worksites	Implemented

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					Implementation Status
		cessation of earthworks where practicable. If excavation of soil cannot be avoided during the rainy season, or at any time of year when rainstorms are likely, exposed slope surfaces should be covered by tarpaulin or other means.			
		Sediment tanks of sufficient capacity, constructed from pre-formed individual cells of approximately 6 to 8 m ³ capacity, are recommended as a general mitigation measure which can be used for settling surface runoff prior to disposal. The system capacity is flexible and able to handle multiple inputs from a variety of sources and particularly suited to applications where the influent is pumped.	Contractor	All relevant worksites	Implemented
		Open stockpiles of construction materials (for examples, aggregates, sand and fill material) of more than 50 m ³ 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.	Contractor	All relevant worksites	Partially Implemented
		Manholes (including newly constructed ones) should always be adequately covered and temporarily sealed so as to prevent silt, construction materials or debris being washed into the drainage system and storm runoff being directed into foul sewers.	Contractor	All relevant worksites	Implemented
		Precautions to be taken at any time of year when rainstorms are likely, actions to be taken when a rainstorm is imminent or forecast, and actions to be taken during or after rainstorms are summarised in Appendix A2 of ProPECC PN 1/94. Particular attention should be paid to the control of silty surface runoff during storm events.	Contractor	All relevant worksites	Not Applicable
		Oil interceptors should be provided in the drainage system and regularly cleaned to prevent the release of oils and grease into the storm water drainage system after accidental spillages. The interceptor should have a bypass to prevent flushing during periods of heavy rain.	Contractor	All relevant worksites	Not Applicable
		An adequately designed and located wheel washing bay should be provided at every site exit, and wash-water should have sand and silt settled out and removed at least on a weekly basis to ensure the continued efficiency of the process. The section of access road leading to, and exiting from, the wheel-wash bay to the public road should be paved with sufficient backfall toward the wheel-wash bay to prevent vehicle tracking of soil and silty water to public roads and drains.	Contractor	All relevant worksites	Implemented
		<u>Drainage</u> It is recommended that on-site drainage system should be installed prior to the commencement of other construction activities. Sediment traps should be installed in order to minimise the sediment loading of the effluent prior to discharge into foul sewers. There should be no direct discharge of effluent from the site into the sea.	Contractor	All relevant worksites	Implemented
		All temporary and permanent drainage pipes and culverts provided to facilitate runoff discharge should be adequately designed for the controlled release of storm flows. All sediment control	Contractor	All relevant worksites	Partially Implemented

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		measures should be regularly inspected and maintained to ensure proper and efficient operation at all times and particularly following rain storms. The temporarily diverted drainage should be reinstated to its original condition when the construction work has finished or the temporary diversion is no longer required.			
		<u>Stormwater Discharges</u>			
		Minimum distances of 100 m should be maintained between the existing or planned stormwater discharges and the existing or planned seawater intakes.	Contractor	All relevant worksites	Not Applicable
		<u>Sewage Effluent</u>			
		Construction work force sewage discharges on site are expected to be connected to the existing trunk sewer or sewage treatment facilities. The construction sewage may need to be handled by portable chemical toilets prior to the commission of the on-site sewer system. Appropriate numbers of portable toilets should be provided by a licensed contractor to serve the large number of construction workers over the construction site. The Contractor should also be responsible for waste disposal and maintenance practices.	Contractor	All relevant worksites	Implemented
		<u>Debris and Litter</u>			
		In order to maintain water quality in acceptable conditions with regard to aesthetic quality, contractors should be required, under conditions of contract, to ensure that site management is optimised and that disposal of any solid materials, litter or wastes to marine waters does not occur. Debris and refuse generated on-site should be collected, handled and disposed of properly to avoid entering into the adjacent harbour waters. Stockpiles of cement and other construction materials should be kept covered when not being used.	Contractor	All relevant worksites	Implemented
		<u>Accidental Spillage</u>			
		Oils and fuels should only be used and stored in designated areas which have pollution prevention facilities. To prevent spillage of fuels and solvents to the nearby harbour waters, all fuel tanks and storage areas should be provided with locks and be sited on sealed areas, within bunds of a capacity equal to 110% of the storage capacity of the largest tank, to prevent spilled fuel oils from reaching the coastal waters of the Victoria Harbour WCZ. The bund should be drained of rainwater after a rain event.	Contractor	All relevant worksites	Implemented
<u>Waste Management Measures</u>					
		<u>Waste Management Plan</u>			
AEIAR-174/2013 S11.4.8.1	AEIAR-174/2013 EM&A Manual S9.2.1.2	Contractor should be requested to submit an outline Waste Management Plan (WMP) prior to the commencement of construction work, in accordance with the ETWB TC(W) No.19/2005 so as to provide an overall framework of waste management and reduction.	Contractor	All relevant worksites	Implemented
		<u>Good Site Practices</u>			

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				Location / Timing	Implementation Status
AEIAR-130/2009 S3.5, S5.5	AEIAR 130/2009 EM&A Manual S2.5, S4.5	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.	Contractor	All relevant worksites	Implemented
		Training of site personnel in proper waste management and chemical waste handling procedures.	Contractor	All relevant worksites	Implemented
		Provision of sufficient waste disposal points and regular collection for disposal.	Contractor	All relevant worksites	Partially Implemented
		Appropriate measures to minimize windblown litter and dust during transportation of waste by either covering trucks or by transporting wastes in enclosed containers.	Contractor	All relevant worksites	Implemented
		A recording system for the amount of wastes generated, recycled and disposed of (including the disposal sites).	Contractor	All relevant worksites	Implemented
		<u>Waste Reduction Measures</u>			
		Sort C&D waste from demolition of the remaining structures to recover recyclable portions such as metals.	Contractor	All relevant worksites	Not Applicable
		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.	Contractor	All relevant worksites	Partially Implemented
		Encourage collection of aluminum cans, PET bottles and paper by providing separate labelled bins to enable these wastes to be segregated from other general refuse generated by the work force.	Contractor	All relevant worksites	Implemented
		Any unused chemicals or those with remaining functional capacity should be recycled.	Contractor	All relevant worksites	Implemented
		Proper storage and site practices to minimize the potential for damage or contamination of construction materials.	Contractor	All relevant worksites	Implemented
		<u>Construction and Demolition Materials</u>			
		Where it is unavoidable to have transient stockpiles of C&D material within the work site pending collection for disposal, the transient stockpiles shall be located away from waterfront or storm drains as far as possible.	Contractor	All relevant worksites	Implemented
		Open stockpiles of construction materials or construction wastes on-site should be covered with tarpaulin or similar fabric.	Contractor	All relevant worksites	Partially Implemented
		Skip hoist for material transport should be totally enclosed by impervious sheeting.	Contractor	All relevant worksites	Implemented
		Every vehicle should be washed to remove any dusty materials from its body and wheels before leaving a construction site.	Contractor	All relevant worksites	Implemented
The area where vehicle washing takes place and the section of the road between the washing	Contractor	All relevant	Implemented		

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					Implementation Status
		facilities and the exit point should be paved with concrete, bituminous materials or hardcores.		worksites	
		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.	Contractor	All relevant worksites	Implemented
		All dusty materials should be sprayed with water prior to any loading, unloading or transfer operation so as to maintain the dusty materials wet.	Contractor	All relevant worksites	Implemented
		The height from which excavated materials are dropped should be controlled to a minimum practical height to limit fugitive dust generation from unloading.	Contractor	All relevant worksites	Implemented
		When delivering inert C&D material to public fill reception facilities, the material should consist entirely of inert construction waste and of size less than 250mm or other sizes as agreed with the Secretary of the Public Fill Committee. In order to monitor the disposal of the surplus C&D material at the designed public fill reception facility and to control fly tipping, a trip-ticket system as stipulated in the ETWB TCW No. 31/2004 "Trip Ticket System for Disposal of Construction and Demolition Materials" should be included as one of the contractual requirements and implemented by an Environmental Team undertaking the Environmental Monitoring and Audit work. An Independent Environmental Checker should be responsible for auditing the results of the system.	Contractor	All relevant worksites	Implemented
		Chemical Waste			
		After use, chemical wastes (for example, cleaning fluids, solvents, lubrication oil and fuel) should be handled according to the Code of Practice on the Packaging, Labelling and Storage of Chemical Wastes. Spent chemicals should be collected by a licensed collector for disposal at the CWTF or other licensed facility, in accordance with the Waste Disposal (Chemical Waste) (General) Regulation.	Contractor	All relevant worksites	Partially Implemented
		General Refuse			
		General refuse should be stored in enclosed bins or compaction units separate from C&D material. A licensed waste collector should be employed by the contractor to remove general refuse from the site, separately from C&D material. Effective collection and storage methods (including enclosed and covered area) of site wastes would be required to prevent waste materials from being blown around by wind, wastewater discharge by flushing or leaching into the marine environment, or creating odour nuisance or pest and vermin problem.	Contractor	All relevant worksites	Partially Implemented
Land Contamination Measures					
		For any excavation works conducted at Radar Station			
AEIAR-130/2009 S3.6.57	AEIAR 130/2009 EM&A Manual S4.6	As the risk due to dermal contact with groundwater by site workers is uncertain, it is recommended that personnel protective equipment (PPE) be used by site workers as a mitigation measure.	Contractor	All relevant worksites	Not Applicable

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					Implementation Status
Landscape and Visual Impact					
New Distributor Roads Serving the Planned KTD					
		Construction Phase			
AEIAR-130/2009 S3.8.12	AEIAR 130/2009 EM&A Manual S2.8	All existing trees should be carefully protected during construction.	Contractor	All relevant worksites	Not Applicable
		Trees unavoidably affected by the works should be transplanted where practical. Detailed transplanting proposal will be submitted to relevant government departments for approval in accordance with ETWBC 2/2004 and 3/2006. Final locations of transplanted trees should be agreed prior to commencement of the work.	Contractor	All relevant worksites	Not Applicable
		Control of night-time lighting.	Contractor	All relevant worksites	Not Applicable
		Erection of decorative screen hoarding.	Contractor	All relevant worksites	Implemented
Trunk Road T2					
		Construction Phase			
AEIAR-174/2013 S9.9.1.1	AEIAR-174/2013 EM&A Manual S7.2.1.2	All works shall be carefully designed to minimize impacts on existing landscape resources and visually sensitive receivers. Existing trees within works area shall be retained and protected.	Contractor	All relevant worksites	Not Applicable
		Existing trees of good quality and condition that are unavoidably affected by the works should be transplanted.	Contractor	All relevant worksites	Not Applicable
		Large temporary stockpiles of excavated material shall be covered with unobtrusive sheeting to prevent dust and dirt spreading to adjacent landscape areas and vegetation, and to create a neat and tidy visual appearance.	Contractor	All relevant worksites	Partially Implemented
		Construction plant and building material shall be orderly and carefully stored in order to create a neat and tidy visual appearance.	Contractor	All relevant worksites	Implemented
		Erection of decorative screen hoarding should be designed to be compatible with the existing urban context.	Contractor	All relevant worksites	Implemented
		All lighting in construction site shall be carefully controlled to minimize light pollution and night-time glare to nearby residences and GIC user. The contractor shall consider other security measures, which shall minimize the visual impacts.	Contractor	All relevant worksites	Not Applicable
General Condition					
		The Permit Holder shall display conspicuously a copy of this Permit on the Project site(s) at all vehicular site entrances/exits or at a convenient location for public's information at all times.	Contractor	All relevant worksites	Implemented

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		The Permit Holder shall ensure that the most updated information about the Permit, including any amended Permit, is displayed at such locations. If the Permit Holder surrenders a part or the whole of the Permit, the notice he sends to the Director shall also be displayed at the same locations as the original Permit. The suspended, varied or cancelled Permit shall be removed from display at the Project site(s).			

Implementation status: Implemented / Partially Implemented / Not Implemented / Not Applicable