Room 723 & 725, 7/F, Block B, Tel : +852 2450 8238 Profit Industrial Building, Fax 1-15 Kwai Fung Crescent, Kwai Fong, Hona Kona.

: +852 2450 8032 E-mail : mcl@fugro.com Website: www.fugro.com



Report No.: 0405/15/ED/1282B

MONTHLY EM&A REPORT

February 2021

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/1282B

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

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 Toby K. H. Wan

Reviewed by Cyrus C. Y. Lai

Certified by Colin K. L. Yung

> **Environmental Team Leader** MateriaLab Consultants Limited



Ref.: CEDKTDS3EM00_0_0541L.21

12 March 2021

By Post and Email

Hyder-Meinhardt Joint Venture 17/F, Two Harbour Square, 180 Wai Yip Street, Kwun Tong Kowloon, Hong Kong

Attention: Mr. Pat Lam

Dear Mr. Lam,

Re: Contract No. KL/2014/03 - Kai Tak Development - Stage 3 Infrastructure Works for Developments at the Southern Part of the Former Runway Monthly EM&A Report for February 2021

Reference is made to the Environmental Team's submission of the Monthly EM&A Report for February 2021 (Report No. 0405/15/ED/1282B) we received by e-mail on 11 March 2021.

Please be informed that we have no adverse comment on the captioned report. We hereby verify the captioned submission according to Condition 3.3 of EP-337/2009, Condition 3.3 of EP-339/2009/A and Condition 3.4 of EP-451/2013.

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 Hong Kong Limited

Manson Yeung

Independent Environmental Checker

c.c. CEDD Attn.: Mr. Simon Kwok Fax: 2739 0076

Fugro Attn.: Mr. Colin Yung By email

CRBC Attn.: Mr. Dickey Yau Fax: 2283 1689

Tel

: +852 2450 8238

Room 723 & 725, 7/F, Block B, Profit Industrial Building, 1-15 Kwai Fung Crescent, Kwai Fong, Hong Kong.

Fax : +852 2450 8032 E-mail : mcl@fugro.com Website : www.fugro.com



TABLE OF CONTENTS

EXE	CUTIVE SUMMARY	1
1.	INTRODUCTION	2
2.	AIR QUALITY	5
3.	NOISE	7
4.	LANDSCAPE AND VISUAL	9
5.	WASTE MANAGEMENT	10
6.	SITE INSPECTION	11
7.	ENVIRONMENTAL COMPLAINT AND NON-COMPLIANCE	12
8.	IMPLEMENTATION STATUS OF ENVIRONMENTAL MITIGATION MEASURES	13
9.	FUTURE KEY ISSUES	14
10.	CONCLUSIONS	15

FIGURES

Figure 1 **Project General Layout**

Air and Noise Monitoring Locations Figure 2

LIST OF APPENDICES

Appendix A Appendix B	Project Organization Chart Event Action Plans
Appendix C	Waste Flow Table
Appendix D	Environmental Mitigation Implementation Schedule (EMIS)
Appendix E	Weather and Meteorological Conditions during Reporting Month
Appendix F	Cumulative statistics on Environmental Complaints, Notifications of Summons and Successful Prosecutions
Appendix G	Summary of Site Audit in the Reporting Month
Appendix H	Outstanding Issues and Deficiencies
Appendix I	Action and Limit Levels for Air Quality and Noise

Room 723 & 725, 7/F, Block B, Profit Industrial Building, 1-15 Kwai Fung Crescent, Kwai Fong, Hong Kong. Tel : +852 2450 8238 Fax : +852 2450 8032 E-mail : mcl@fugro.com Website : www.fugro.com



EXECUTIVE SUMMARY

- i. The Civil Engineering and Development Department HKSAR has appointed MateriaLab Consultants Limited (MCL) to undertake the Environmental Team services for the Project and implement the EM&A works.
- ii. This Monthly EM&A report presents the environmental monitoring and audit works for the period between 1 February and 28 February 2021. As informed by the Contractor, no major construction activities were carried out in the reporting month.

Breaches of the Action and Limit Levels

- iii. An Action Level exceedance for 24-hr TSP were recorded in the reporting month. An exceedance were recorded at KTD2c on 1 February 2021.
- iv. No Action / Limit Level exceedance was recorded for 24-hr TSP at KTD1 and KER1 in the reporting month.
- v. No Action / Limit Level exceedance was recorded for construction noise at KTD1, KTD2c and KER1 in the reporting month.

Complaint, Notification of Summons and Successful Prosecution

vi. No environmental complaint, notification of summons and successful prosecution were received in the reporting month.

Reporting Changes

vii. There was no reporting change in the reporting month.

Future Key Issues

viii. There was no future key issues in the reporting month.

Room 723 & 725, 7/F, Block B, Profit Industrial Building, 1-15 Kwai Fung Crescent, Kwai Fong, Hong Kong. Tel : +852 2450 8238 Fax : +852 2450 8032 E-mail : mcl@fugro.com Website : www.fugro.com



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 Monthly EM&A report is required under EP-337/2009 Condition 3.3, EP-339/2009/A Condition 3.3 and EP-451/2013 Condition 3.4. It is to report the results and findings of the EM&A programme required in the EM&A Manuals.
- 1.1.5 This is the 60th monthly EM&A Report which summarize the impact monitoring results and audit findings for the Project within the period between 1 February and 28 February 2021.

Room 723 & 725, 7/F, Block B, Profit Industrial Building, 1-15 Kwai Fung Crescent, Kwai Fong, Hong Kong. Tel :+852 2450 8238 Fax :+852 2450 8032 E-mail :mcl@fugro.com Website :www.fugro.com



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 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. MateriaLab 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 A**. The key personnel contact names and numbers for the Project are summarized in **Table 1.1**.

Table 1.1 Contact Information of Key Personnel

Table 1.1 Contact information of Key Fersonner							
Party	Position	Name	Telephone	Fax			
Project Proponent (CEDD)	Engineer	Mr. Simon Kwok	3842 7140	2739 0076			
Engineer's Representative (HMJV)	Senior Resident Engineer	Mr. Pat Lam	3742 3803	3742 3899			
IEC (Ramboll Hong Kong Limited)	Independent Environmental Checker	Mr. Manson Yeung	9700 6767	3465 2899			
Main Contractor (CRBC)	Site Agent	Mr. Yau Kwok Kiu, Dickey	5699 4503	2283 1689			
	Environmental Officer	Miss. Lila Lui	9790 5433	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.
- 1.3.2 No major construction activities undertaken in the reporting month.

Room 723 & 725, 7/F, Block B, Profit Industrial Building, 1-15 Kwai Fung Crescent, Kwai Fong, Hong Kong. Tel : +852 2450 8238 Fax : +852 2450 8032 E-mail : mcl@fugro.com Website : www.fugro.com



1.4 Status of Environmental Licences, Notifications and Permits

1.4.1 A summary of the relevant environmental licenses, permits and/or notifications on environmental protection for this Contract is presented in **Table 1.2**.

Table 1.2 Relevant Environmental Licenses, Permits and/or Notifications

Environmental License / Permit / Notification	Reference Number	Valid From	Valid Till					
Environmental Permit	EP-337/2009 EP-339/2009/A EP-451/2013	23 April 2009 18 June 2009 19 September 2013	Not Applicable Not Applicable Not Applicable					
Notification pursuant to Air Pollution (Construction Dust) Regulation	395601	4 December 2015	Not Applicable					
Billing Account for Waste Disposal	A/C No.: 7023814	22 December 2015	Not Applicable					
Chemical Waste Producer License	5213-247-C1232-12	23 November 2015	Not Applicable					

Room 723 & 725, 7/F, Block B, Profit Industrial Building, 1-15 Kwai Fung Crescent, Kwai Fong, Hong Kong. Tel : +852 2450 8238 Fax : +852 2450 8032 E-mail : mcl@fugro.com Website : www.fugro.com



2. AIR QUALITY

2.1 Monitoring Requirement

- 2.1.1 In accordance with the approved EM&A Manuals, 24-hour Total Suspended Particulates (TSP) monitoring at the designated air quality monitoring station 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.
- 2.1.2 The monitoring equipment, monitoring methodology and monitoring schedule are detailed in the monthly EM&A Reports for EP-451/2013 prepared for Contract No. ED/2018/04.

2.2 Monitoring Locations

- 2.2.1 According to the EM&A Manual, three air quality monitoring locations, 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, which are identified in Cha Kwo Ling area, are farther than 500m away from the site boundary and thus not covered by this Contract. The monitoring works in Cha Kwo Ling area are covered by Contract No. ED/2018/04.
- 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) for air quality monitoring.
- 2.2.3 According to the approved relocation of monitoring location KER1a (EPD reference: () in EP2/K19/A/21 pt.5), the monitoring location KER1a are proposed to be relocated by alternative monitoring location KER1b for air quality monitoring.
- 2.2.4 According to the approved relocation of monitoring location KTD2a (EPD reference: () in EP2/K19/A/21 pt.6), the monitoring location KTD2a are proposed to be relocated by alternative monitoring location KTD2b for air quality monitoring.
- 2.2.5 According to the approved relocation of monitoring location KTD2b (EPD reference: () in EP2/K19/A/21 pt.7), the monitoring location KTD2b are proposed to be relocated by alternative monitoring location KTD2c for air quality monitoring.
- 2.2.6 As informed by the ET of Contract No. ED/2018/04, the monitoring location KTD1a and KER1b have been relocated to KTD1 and KER1 for air monitoring on 3 August 2020.
- 2.2.7 The most updated locations are summarized in **Table 2.1** and shown in **Figure 2**.

Table 2.1 Location of Air Quality Monitoring Station

Monitoring Station	Location
KTD1	Centre of Excellence in Paediatrics (Rooftop of Children's Hospital)
KTD2c	G/IC Zone next to Kwun Tong Bypass (Next to the Kowloon Bay Sewage Interception Station)
KER1	Future Residential Development at Kerry Godown

Room 723 & 725, 7/F, Block B, Profit Industrial Building, 1-15 Kwai Fung Crescent, Kwai Fong, Hong Kong. Tel : +852 2450 8238 Fax : +852 2450 8032 E-mail : mcl@fugro.com Website : www.fugro.com



2.3 Results and Observations

- 2.3.1 The monitoring results and observations for KTD1, KTD2c and KER1 are reported in the Monthly EM&A Reports for EP-451/2013 prepared for Contract No. ED/2018/04.
- 2.3.2 An Action Level exceedance for 24-hr TSP were recorded in the reporting month. An exceedance were recorded at KTD2c on 1 February 2021.
- 2.3.3 No Action / Limit Level exceedance was recorded for 24-hr TSP at KTD1 and KER1 in the reporting month.
- 2.3.4 On 1 February 2021, at KTD2c non-project related spoil heaps were identified around the monitoring station. Dust generated from construction site of Trunk Road T2 when piling works and handling of C&D material was carried out near the monitoring station. Also, dust arising from the road traffic along the Kwun Tong Bypass. Thus, it is considered that this exceedance is not project related.
- 2.3.5 No complaint of air quality was received. Therefore, no impact 1-hour TSP monitoring was conducted in the reporting month.
- 2.3.6 The weather conditions during the monitoring are provided in **Appendix E**.

Room 723 & 725, 7/F, Block B, Profit Industrial Building, 1-15 Kwai Fung Crescent, Kwai Fong, Hong Kong. Tel : +852 2450 8238 Fax : +852 2450 8032 E-mail : mcl@fugro.com Website : www.fugro.com



NOISE

3.1 Monitoring Requirement

- 3.1.1 In accordance with the approved EM&A Manuals, Leq (30min) monitoring is conducted for at least once a week during the construction phase between 0700 and 1900 on normal weekdays at the designated monitoring locations.
- 3.1.2 The monitoring equipment, monitoring methodology and monitoring schedule are detailed in the monthly EM&A Reports for EP-451/2013 prepared for Contract No. ED/2018/04.

3.2 Monitoring Locations

- 3.2.1 According to the EM&A Manual, three noise monitoring locations, namely KTD1, KTD2 and KER1, are covered by this Contract within the South Apron Area of Former Kai Tak Airport. The other two noise monitoring locations, which are identified in Cha Kwo Ling area, are farther than 300m away from the site boundary and thus not covered by this Contract. The monitoring works in Cha Kwo Ling area are covered by Contract No. ED/2018/04.
- 3.2.2 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) for noise monitoring.
- 3.2.3 According to the approved relocation of monitoring location KER1a (EPD reference: () in EP2/K19/A/21 Pt.5), the monitoring location KER1a are proposed to be relocated by alternative monitoring location KER1b for noise monitoring.
- 3.2.4 According to the approved relocation of monitoring location KTD2a (EPD reference: () in EP2/K19/A/21 Pt.6), the monitoring location KTD2a are proposed to be relocated by alternative monitoring location KTD2b for noise monitoring.
- 3.2.5 According to the approved relocation of monitoring location KTD2b (EPD reference: () in EP2/K19/A/21 pt.7), the monitoring location KTD2b are proposed to be relocated by alternative monitoring location KTD2c for noise monitoring.
- 3.2.6 As informed by the ET of Contract No. ED/2018/04, the monitoring location KTD1a and KER1b have been relocated to KTD1 and KER1 for noise monitoring on 3 August 2020.
- 3.2.7 The most updated locations are summarized in **Table 3.1** and shown in **Figure 2**.

Table 3.1 Location of Noise Monitoring Station

Monitoring Station	Location
KTD1	Centre of Excellence in Paediatrics (Rooftop of Children's Hospital)
KTD2c	G/IC Zone next to Kwun Tong Bypass (Next to the Kowloon Bay Sewage Interception Station)
KER1	Future Residential Development at Kerry Godown

Tel

: +852 2450 8238

Room 723 & 725, 7/F, Block B, Profit Industrial Building,

Fax : +852 2450 8032 1-15 Kwai Fung Crescent, Kwai Fong, Hong Kong. E-mail : mcl@fugro.com Website: www.fugro.com



3.3 **Results and Observations**

- 3.3.1 The monitoring results and observations for KTD1, KTD2c and KER1 are reported in the Monthly EM&A Reports for EP-451/2013 prepared for Contract No. ED/2018/04.
- 3.3.2 No Action / Limit Level exceedance was recorded for construction noise at KTD1, KTD2c and KER1 in the reporting month.

Room 723 & 725, 7/F, Block B, Profit Industrial Building, 1-15 Kwai Fung Crescent, Kwai Fong, Hong Kong. Tel : +852 2450 8238 Fax : +852 2450 8032 E-mail : mcl@fugro.com Website : www.fugro.com



4. LANDSCAPE AND VISUAL

4.1 Audit Requirements

- 4.1.1 As per the Trunk Road T2 EM&A Manual, the landscape and visual mitigation measures during the construction phase shall be audited by a Registered Landscape Architect, as a member of the Environmental Team, at least once every two weeks to ensure compliance with the intended aims of the measures.
- 4.1.2 According to the Kai Tak Development EM&A Manual, measures to mitigate landscape and visual impacts during construction should be checked to ensure compliance with the intended aims of the measures. The progress of the engineering works shall be regularly reviewed onsite to identify the earliest practical opportunities for the landscape works to be undertaken. The ET shall report on the Contractor's compliance on a weekly basis.

4.2 Results and Observations

- 4.2.1 To monitor and audit the implementation of landscape and visual mitigation measures, four weekly landscape and visual site audits were carried out on 3, 10, 17 and 24 February 2021 and two of them 10 and 24 February 2021 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).
- 4.2.2 Should non-compliance of the landscape and visual impact occur, action in accordance to the event action plan presented in **Appendix B** shall be carried out.

Room 723 & 725, 7/F, Block B, Profit Industrial Building, 1-15 Kwai Fung Crescent, Kwai Fong, Hong Kong. Tel : +852 2450 8238 Fax : +852 2450 8032 E-mail : mcl@fugro.com Website : www.fugro.com



5. WASTE MANAGEMENT

5.1 Audit Requirements

- 5.1.1 The effective management of waste arising during the construction phase will be monitored through the site audit programme. Regular audits and site inspections should be carried out to ensure that the recommended good site practices and other mitigation measures are implemented by the Contractor.
- 5.1.2 The audit should look at all aspects of on-site waste management practices including the waste generation, storage, recycling, transport and disposal. The aims of waste audit are:
 - to ensure the waste arising from the works are handled, stored, collected, transferred and disposed of in an environmentally acceptable manner;
 - verify the implementation status and evaluate the effectiveness of the mitigation measures; and
 - to encourage the reuse and recycling of material.

5.2 Results and Observations

- 5.2.1 C&D materials and wastes sorting were carried out on site. Receptacles were available for C&D wastes and general refuse collection.
- 5.2.2 The amount of wastes generated by the site activities in the reporting month is shown in **Appendix C**.

Tel

Room 723 & 725, 7/F, Block B, Profit Industrial Building, 1-15 Kwai Fung Crescent, Kwai Fong,

: +852 2450 8238 Fax : +852 2450 8032 E-mail : mcl@fugro.com Hong Kong. Website: www.fugro.com



6. SITE INSPECTION

6.1 **Site Inspection**

- Site inspections were carried out weekly to monitor the implementation of proper 6.1.1 environmental pollution control and mitigation measures for the Project. A summary of the mitigation measures implementation schedule is provided in **Appendix D**.
- 6.1.2 In the reporting month, four site inspections were carried out 3, 10, 17 and 24 February 2021.
- No outstanding issues were reported during the reporting month. Details of observations 6.1.3 recorded during the site inspections are summarized in **Appendix G**.
- All the follow-up actions requested by Contractor's ET and IEC during the site inspections 6.1.4 were undertaken as reported by the Contractor and confirmed in the following weekly site inspection conducted during the reporting month.

Room 723 & 725, 7/F, Block B, Profit Industrial Building, 1-15 Kwai Fung Crescent, Kwai Fong, Hong Kong. Tel : +852 2450 8238 Fax : +852 2450 8032 E-mail : mcl@fugro.com Website : www.fugro.com



7. ENVIRONMENTAL COMPLAINT AND NON-COMPLIANCE

7.1 Environmental Exceedance

- 7.1.1 An Action Level exceedance for 24-hr TSP were recorded in the reporting month. An exceedance were recorded at KTD2c on 1 February 2021. It is considered that this exceedance is not project related.
- 7.1.2 No Action / Limit Level exceedance was recorded for 24-hr TSP at KTD1 and KER1 in the reporting month.
- 7.1.3 No Action / Limit Level exceedance was recorded for construction noise at KER1, KTD1 and KTD2c in the reporting month.

7.2 Complaints, Notification of Summons and Prosecution

- 7.2.1 No environmental complaint, notification of summons and successful prosecution were received in the reporting month.
- 7.2.2 Cumulative complaint log, summaries of complaints, notification of summons and successful prosecutions are presented in **Appendix F.**

Tel

Room 723 & 725, 7/F, Block B, Profit Industrial Building,

: +852 2450 8238 Fax : +852 2450 8032 1-15 Kwai Fung Crescent, Kwai Fong, Hong Kong. E-mail : mcl@fugro.com Website: www.fugro.com



8. IMPLEMENTATION STATUS OF ENVIRONMENTAL MITIGATION MEASURES

8.1 **Implementation Status**

The Contractor has implemented environmental mitigation measures and requirements as 8.1.1 stated in the EIA Reports, the EP and the EM&A Manuals. The implementation status of the mitigation measures during the reporting month is summarized in Appendix D. Status of required submission under the EP during the reporting period is summarized in Table 8.1.

Table 8 1 Status of Required Submission under Environmental Permit

able 6.1 Status of Nequired Submission under Environmental Fermit							
EP Condition	Submission	Submission Date					
EP-337/2009							
Condition 2.3	Management Organization of Main Construction Companies	18/12/2015					
Condition 2.4	Design Drawing of the Project	18/12/2015					
Condition 2.11	Landscape Mitigation Plan(s)	18/12/2015					
Condition 3.3	Monthly EM&A Report (January 2021)	11/2/2021					
EP-339/2009/A							
Condition 2.4	Management Organization of Main Construction Companies	18/12/2015					
Condition 2.5	Design Drawing of the Project	18/12/2015					
Condition 3.3	Monthly EM&A Report (January 2021)	11/2/2021					
EP-451/2013							
Condition 2.3	Management Organization of Main Construction Companies	18/12/2015					
Condition 2.4	Design Drawing of the Project	18/12/2015					
Condition 2.5	Landscape Mitigation Plan(s)	18/12/2015					
Condition 2.10	Supplementary Contamination Assessment Report	18/12/2015					
Condition 3.3	12/02/2016						
Condition 3.4	Monthly EM&A Report (January 2021)	11/2/2021					

Tel

Room 723 & 725, 7/F, Block B, Profit Industrial Building,

Fax : +852 2450 8032 1-15 Kwai Fung Crescent, Kwai Fong, Hong Kong. E-mail : mcl@fugro.com Website: www.fugro.com



9. **FUTURE KEY ISSUES**

9.1 **Key Issues for the Coming Month**

There was no key issues for the coming month. 9.1.1

9.2 **Monitoring Schedules for the Next Three Months**

: +852 2450 8238

The tentative schedules for environmental monitoring in the coming three months are reported 9.2.1 in the monthly EM&A Report for EP-451/2013 prepared for Contract No. ED/2018/04.

Tel

: +852 2450 8238

Room 723 & 725, 7/F, Block B, Profit Industrial Building, 1-15 Kwai Fung Crescent, Kwai Fong,

Fax : +852 2450 8032 E-mail : mcl@fugro.com Hona Kona. Website: www.fugro.com



CONCLUSIONS 10.

- 10.1.1 24-hour TSP impact monitoring and construction noise monitoring were carried out in the reporting month.
- 10.1.2 An Action Level exceedance for 24-hr TSP were recorded in the reporting month. An exceedance were recorded at KTD2c on 1 February 2021. It is considered that this exceedance is not project related.
- 10.1.3 No Action / Limit Level exceedance was recorded for 24-hr TSP at KTD1 and KER1 in the reporting month.
- 10.1.4 No Action / Limit Level exceedance was recorded for construction noise at KTD1, KTD2c and KER1 in the reporting month.
- 10.1.5 No complaint of air quality was received. Therefore, no impact 1-hour TSP monitoring was conducted in the reporting month.
- 10.1.6 Four environmental site inspections were carried out in the reporting month. No recommendation was given to the Contractor for remediating the deficiencies identified during the site inspections.
- 10.1.7 Four weekly Landscape and Visual Site audits were carried out 3, 10, 17 and 24 February 2021 and two of them 10 and 24 February 2021 were carried out by a Registered Landscape Architect in the reporting month. The weekly Landscape and Visual Impact reports were counter-signed by IEC as according to the requirement of EM&A Manual (AEIAR-130/2009).
- 10.1.8 Referring to the Contractor's information, no environmental complaint, notification of summons and successful prosecution was received in the reporting month.

10.2 Comment and Recommendations

- 10.2.1 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.
- 10.2.2 According to the environmental audit performed in the reporting month, the following recommendations were made:

Air Quality Impact

No specific observation was identified in the reporting month.

Construction Noise Impact

No specific observation was identified in the reporting month.

Water Quality Impact

No specific observation was identified in the reporting month.

Chemical and Waste Management

No specific observation was identified in the reporting month.

Tel

Room 723 & 725, 7/F, Block B, Profit Industrial Building, 1-15 Kwai Fung Crescent, Kwai Fong, Hong Kong.

Fax : +852 2450 8032 E-mail: mcl@fugro.com
Website: www.fugro.com



Land Contamination

No specific observation was identified in the reporting month.

: +852 2450 8238

Landscape and Visual Impact

No specific observation was identified in the reporting month.

General Condition

No specific observation was identified in the reporting month.

Permit / Licenses

No specific observation was identified in the reporting month.

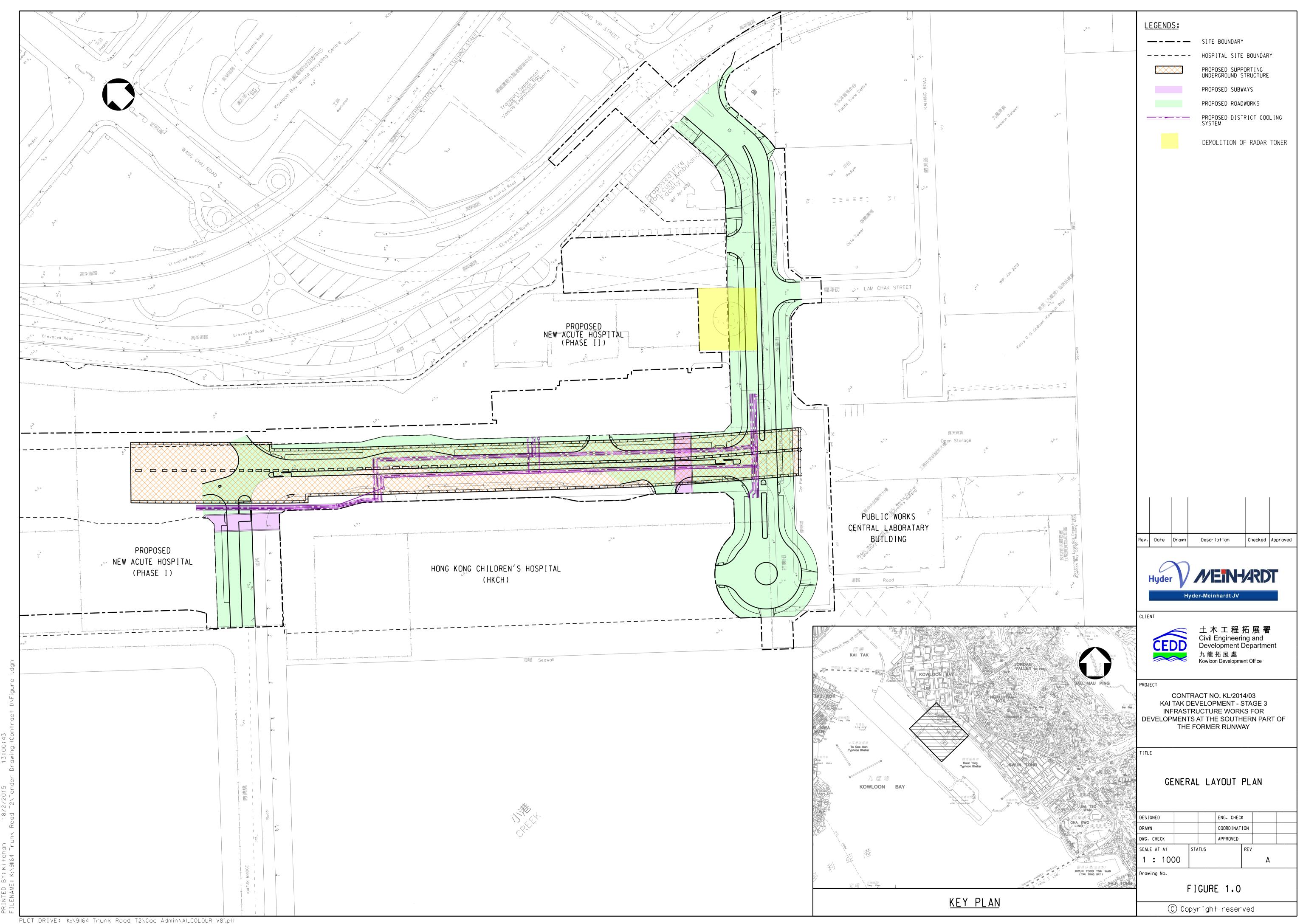
Room 723 & 725, 7/F, Block B, Profit Industrial Building, 1-15 Kwai Fung Crescent, Kwai Fong, Hong Kong.





Figure 1

Project General Layout



Tel

: +852 2450 8238

Room 723 & 725, 7/F, Block B,

Profit Industrial Building, 1-15 Kwai Fung Crescent, Kwai Fong, Hong Kong. Fax : +852 2450 8032 E-mail : mcl@fugro.com Website : www.fugro.com



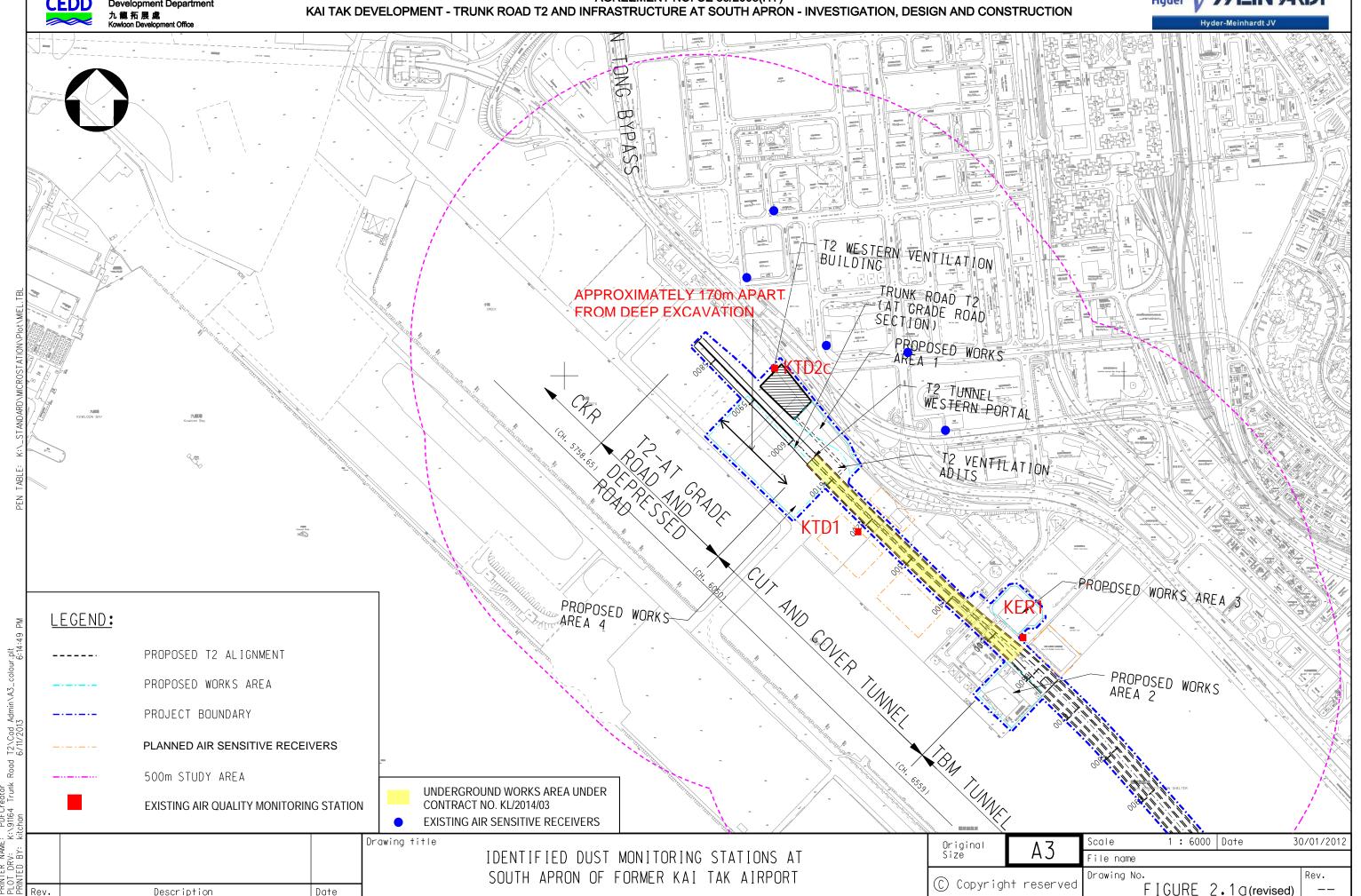
Figure 2

Air and Noise Monitoring Locations

土木工程拓展署 Civil Engineering and Development Department

AGREEMENT NO. CE 38/2008(HY) KAI TAK DEVELOPMENT - TRUNK ROAD T2 AND INFRASTRUCTURE AT SOUTH APRON - INVESTIGATION, DESIGN AND CONSTRUCTION

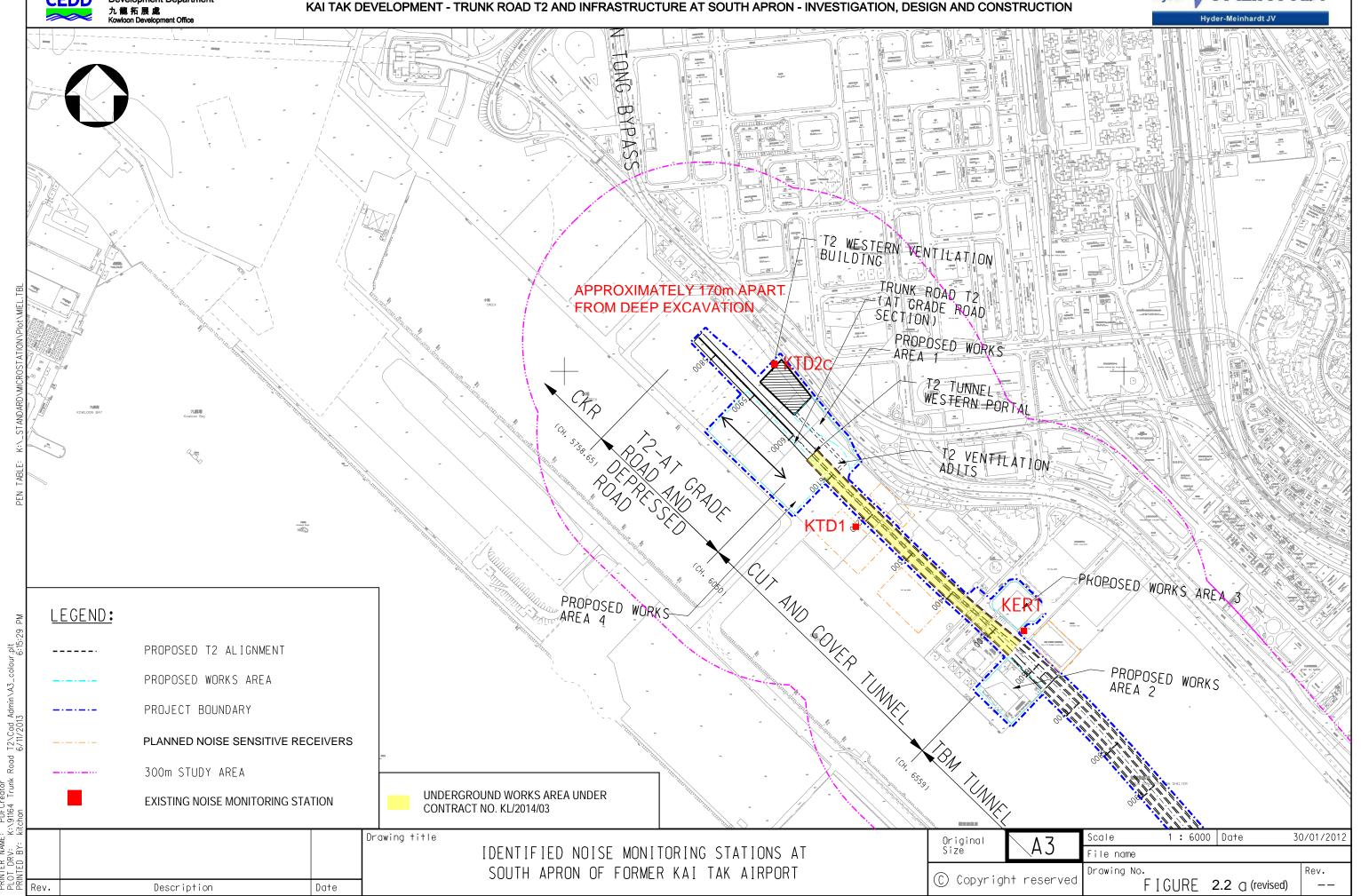




上木工程拓展署
Civil Engineering and
Development Department
九龍拓展處
Kowloon Development Office

AGREEMENT NO. CE 38/2008(HY) KAI TAK DEVELOPMENT - TRUNK ROAD T2 AND INFRASTRUCTURE AT SOUTH APRON - INVESTIGATION, DESIGN AND CONSTRUCTION





Tel

: +852 2450 8238

Room 723 & 725, 7/F, Block B,

Profit Industrial Building, 1-15 Kwai Fung Crescent, Kwai Fong, Hong Kong. Fax : +852 2450 8032 E-mail : mcl@fugro.com Website : www.fugro.com



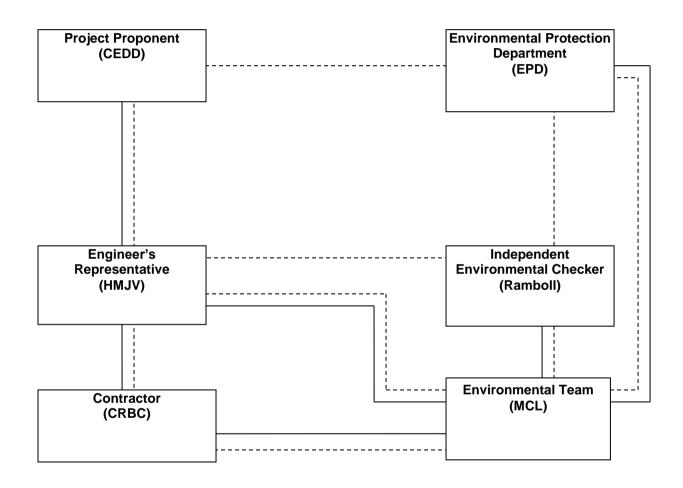
Appendix A

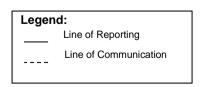
Project Organization Chart

Room 723 & 725, 7/F, Block B, Profit Industrial Building,

1-15 Kwai Fung Crescent, Kwai Fong, Hong Kong. Tel :+852 2450 8238 Fax :+852 2450 8032 E-mail :mcl@fugro.com Website :www.fugro.com







Tel

: +852 2450 8238

Room 723 & 725, 7/F, Block B,

Profit Industrial Building, 1-15 Kwai Fung Crescent, Kwai Fong, Hong Kong. Fax : +852 2450 8032 E-mail : mcl@fugro.com Website : www.fugro.com



Appendix B

Events and Action Plan

Room 723 & 725, 7/F, Block B, Profit Industrial Building, 1-15 Kwai Fung Crescent, Kwai Fong, Hong Kong.





Event and Action Plan for Construction Dust Monitoring

Tel

EVENT ACTION								
	ET	IEC	ER	Contractor				
Action Level								
Exceedance for one sample.	I. Identify sources, investigate the causes of complaint and propose remedial measures. Inform IEC and ER. Repeat measurement to confirm finding;. Increase monitoring frequency	Check monitoring data submitted by the ET. Check the Contractor's working methods.	Notify the Contractor.	Rectify any unacceptable practices. Amend working methods agreed with the ER as appropriate.				
Exceedance for two or more consecutive samples.	1.Identify sources. 2.Inform the IEC and ER. 3.Advise the ER on the effectiveness of the proposed remedial measures; 4.Repeat measurements to confirm findings. 5.Increase monitoring frequency to daily. 6.Discuss with the IEC, ER and Contractor on remedial action required. 7.If exceedance continues, arrange meeting with the IEC, Contractor and ER. 8.If exceedance stops, cease additional monitoring.	1. Check monitoring data submitted by the ET. 2. Check the Contractor's working methods. 3. Discuss with the ET, ER and Contractor on possible remedial measures if required. 4. Advise the ER on the effectiveness of proposed remedial measures if required.	Notify the Contractor. Ensure remedial measures properly implemented.	1. Submit proposals for remedial action to the ER within 3 working days of notification. 2. Implement the agreed proposals. 3. Amend proposal as appropriate				
Limit Lovol	monitoring.							
Exceedance for one sample. Exceedance for two or	1. Identify sources, investigate causes of exceedance and proposed remedial measures. 2. Inform the IEC, ER, and Contractor. 3. Repeat measurement to confirm finding. 4. 4. Increase monitoring frequency to daily. 5. Assess effectiveness of the Contractor's remedial action and keep the IEC and ER informed of the results 1. Notify the IEC, ER and	1. Check monitoring data submitted by the ET. 2. Check the Contractor's working methods. 3. Discuss with the ET, ER and Contractor on possible remedial measures. 4. Advise the ER and ET on the effectiveness of the proposed remedial measures. 5. Supervise the implementation of remedial measures. 1. Discuss amongst the	Confirm receipt of the notification of exceedance in writing. Notify the Contractor. Ensure remedial measures are properly implemented. Confirm receipt of the	1. Take immediate action to avoid further exceedance. 2. Submit proposals for remedial action to the ER and copy to the ET and IEC within 3 working days of notification. 3. Implement the agreed proposals. 4. Amend proposal as appropriate. 1. Take immediate action				
more consecutive samples	Contractor. 2. Identify sources. 3. Repeat measurements to confirm findings. 4. Increase monitoring frequency to daily. 5. Carry out analysis of the Contractor's working procedures with the ER to determine the possible mitigation to be implemented. 6. Arrange meeting with the IEC and ER to discuss the remedial	ER, ET and Contractor on the potential remedial action. 2. Review the Contractor's remedial action whenever necessary to assure their effectiveness and advise the ER and ET accordingly. 3. Supervise the implementation of remedial measures.	notification of exceedance in writing. 2. Notify the Contractor. 3. In consultation with the IEC and ET, agree with the Contractor on the remedial measures to be implemented. 4. Ensure remedial measures are properly implemented. 5. If exceedance continues, consider	to avoid further exceedance. 2. Submit proposals for remedial action to the ER and copy to the IEC and ET within 3 working days of notification. 3. Implement the agreed proposals. 4. Resubmit proposals if problems still not under control. 5. Stop the relevant portion of works as determined by the ER				

Room 723 & 725, 7/F, Block B, Profit Industrial Building, 1-15 Kwai Fung Crescent, Kwai Fong, Hong Kong.

Tel : +852 2450 8238 Fax : +852 2450 8032 E-mail : mcl@fugro.com Website : www.fugro.com



EVENT	ACTION							
EVENT	ET IEC		ER	Contractor				
	action to be taken. 7. Assess the effectiveness of the Contractor's remedial action and keep the IEC, EPD and ER informed of the results. 8. If exceedance stops, cease additional monitoring		what portion of works is responsible and instruct the Contractor to stop that portion of works until the exceedance is abated.	until the exceedance is abated.				

Room 723 & 725, 7/F, Block B, Profit Industrial Building, 1-15 Kwai Fung Crescent, Kwai Fong, Hong Kong.

: +852 2450 8238 Tel Fax : +852 2450 8032 E-mail : mcl@fugro.com Website : www.fugro.com



Event and Action Plan for Noise Impact

	n Plan for Noise imp		ΓΙΟΝ	
EVENT	ET	IEC	ER	Contractor
Action Level	1.Notify the IEC, ER and Contractor. 2.Carry out investigation. 3.Report the results of investigation to the IEC and Contractor. 4.Discuss jointly with the ER and Contractor and formulate remedial measures. 5.Increase the monitoring frequency to check the mitigation effectiveness	Review the monitoring data submitted by the ET. Review the construction methods and proposed redial measures by the Contractor, and advise the ET and ER if the proposed remedial measures would be sufficient	Notify the Contractor. Require the Contractor to propose remedial measures for implementation if required.	Submit noise mitigation proposals to the ER and copy to the IEC and ET. Implement noise mitigation proposals.
Limit Level	1.Notify the IEC, ER and Contractor. 2.Identify sources. 3.Repeat measurements to confirm findings. 4.Carry out analysis of the Contractor's working procedures with the ER and Contractor to determine possible mitigations to be implemented. 5.Record the causes and action taken for the exceedances. 6.Increase the monitoring frequency. 7.Assess the effectiveness of the Contractor's remedial action with the ER and keep the IEC informed of the results. 8.If exceedance stops, cease additional monitoring	1.Discuss amongst the ER, ET and Contractor on the potential remedial action. 2.Review the Contractor's remedial action whenever necessary to assure their effectiveness and advise the ER accordingly. 3.Supervise the implementation of remedial measures.	1.Confirm receipt of notification of exceedance in writing. 2.Notify the Contractor. 3.Require the Contractor to propose remedial measures for the analysed noise problems. 4.Ensure remedial measures are properly implemented. 5.If exceedance continues, consider what portion of work is responsible and instruct the Contractor to stop that portion of works until the exceedance is abated.	1.Take immediate action to avoid further exceedance. 2.Submit proposals for remedial action to the ER and copy to the ET and IEC within 3 working days of notification. 3.Implement the agreed proposals. 4.Resubmit proposals if problems still not under control. 5.Stop the relevant portion of works as determined by the ER until the exceedance is abated.

Room 723 & 725, 7/F, Block B, Profit Industrial Building, 1-15 Kwai Fung Crescent, Kwai Fong, Hong Kong.

Fax : +852 2450 8032 E-mail : mcl@fugro.com Website : www.fugro.com



Event and Action Plan for Landscape and Visual Impact

Tel

: +852 2450 8238

EVENT	ACTION						
EVENI	ET	IEC	ER	Contractor			
Non-conformity on one occasion	1. Identify Source 2. Inform the IEC and the ER 3. Discuss remedial actions with the IEC, the ER and the Contractor 4. Monitor remedial actions until rectification has been completed	1. Check report 2. Check the Contractor's working method 3. Discuss with the ET and the Contractor on possible remedial measures 4. Advise the ER on effectiveness of proposed remedial measures. 5. Check implementation of remedial measures.	Notify Contractor Ensure remedial measures are properly implemented	1. Amend working methods 2. Rectify damage and undertake any necessary replacement			
Repeated Non-conformity	1. Identify Source 2. Inform the IEC and the ER 3. Increase monitoring frequency 4. Discuss remedial actions with the IEC, the ER and the Contractor 5. Monitor remedial actions until rectification has been completed 6. If exceedance stops, cease additional monitoring	1. Check monitoring report 2. Check the Contractor's working method 3. Discuss with the ET and the Contractor on possible remedial measures 4. Advise the ER on effectiveness of proposed remedial measures 5. Supervise implementation of remedial measures.	Notify the Contractor Ensure remedial measures are properly implemented	Amend working methods Rectify damage and undertake any necessary replacement			

Room 723 & 725, 7/F, Block B, Profit Industrial Building, 1-15 Kwai Fung Crescent, Kwai Fong, Hong Kong.

: +852 2450 8238 Tel Fax : +852 2450 8032 E-mail : mcl@fugro.com Website : www.fugro.com



Appendix C

Waste Flow Table

Room 723 & 725, 7/F, Block B, Profit Industrial Building, 1-15 Kwai Fung Crescent, Kwai Fong, Hong Kong. Tel : +852 2450 8238 Fax : +852 2450 8032 E-mail : mcl@fugro.com Website : www.fugro.com



Waste Flow Table for Year 2016											
	Actual Quantities of Inert C&D Materials Generated Monthly					Actual Quantities of Non-inert C&D Wastes Generated Monthly					
Monthly Ending	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 '000m³)	(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 Jun	4.6035	Nil	0.8555	Nil	3.748	Nil	Nil	0.023	0.00002	0.0158	0.0619
2016 Jul	6.155	0.153	0.015	Nil	5.987	Nil	7.84	0.023	0.00002	0.0158	0.0433
2016 Aug	5.1155	Nil	Nil	Nil	5.1155	Nil	19.93	0.023	Nil	Nil	0.0147
2016 Sept	7.2267	Nil	Nil	Nil	7.2267	Nil	33.65	0.023	Nil	Nil	0.0103
2016 Oct	4.6448	Nil	Nil	Nil	4.6448	Nil	13.30	0.023	Nil	Nil	0.0385
2016 Nov	6.1626	Nil	Nil	Nil	6.1626	Nil	27.06	0.023	Nil	Nil	0.0192
2016 Dec	6.3522	Nil	Nil	Nil	6.3522	Nil	13.30	0.023	Nil	Nil	0.0121
Total	51.213	0.4025	1.9967	Nil	48.8138	Nil	140.07	0.276	0.00014	0.1106	0.4288

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.
- 3) Total Quantity Generated (Inert) = Hard Rock and Large Broken Concrete + Reused in the Contract + Disposed as Public Fill Imported Fill

Room 723 & 725, 7/F, Block B, Profit Industrial Building, 1-15 Kwai Fung Crescent, Kwai Fong, Hong Kong. Tel : +852 2450 8238 Fax : +852 2450 8032 E-mail : mcl@fugro.com Website : www.fugro.com



Waste Flow Table for Year 2017												
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 '000m³)	(in '000m ³)	(in '000m ³)	(in '000m ³)	(in '000 kg)	(in '000kg)	(in '000kg)	(in '000kg)	(in '000m ³)	
2017 Jan	4.2300	Nil	Nil	Nil	4.2300	Nil	0.015	0.023	Nil	Nil	0.0109	
2017 Feb	3.2128	Nil	Nil	Nil	3.2128	Nil	0.015	0.023	Nil	Nil	0.0096	
2017 Mar	9.4759	Nil	Nil	Nil	9.4759	Nil	0.034	0.023	Nil	Nil	0.0162	
2017 Apr	4.8827	Nil	Nil	Nil	4.8827	Nil	0.016	0.023	Nil	Nil	0.0062	
2017 May	3.0366	Nil	Nil	Nil	3.0366	Nil	0.022	0.023	Nil	Nil	0.0282	
2017 Jun	2.5656	Nil	Nil	Nil	2.5656	Nil	41.25	Nil	Nil	Nil	0.0357	
2017 Jul	5.5267	Nil	0.7851	Nil	4.7416	Nil	4.01	0.4515	Nil	0.25	0.0364	
2017 Aug	11.4734	Nil	0.0276	Nil	11.4458	Nil	7.4	Nil	Nil	Nil	0.0196	
2017 Sep	23.9373	Nil	2.6167	Nil	21.3206	Nil	3.52	Nil	Nil	Nil	0.0333	
2017 Oct	17.8261	Nil	0.4069	Nil	17.4192	Nil	Nil	Nil	Nil	Nil	0.0156	
2017 Nov	5.8834	Nil	0.6664	Nil	5.217	Nil	Nil	Nil	Nil	Nil	0.023	
2017 Dec	21.3554	Nil	0.4763	Nil	20.8791	Nil	29.13	Nil	Nil	Nil	0.022	
Total	113.4059	Nil	4.9790	Nil	108.4269	Nil	85.412	0.5665	Nil	0.25	0.2567	

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.
- 3) Total Quantity Generated (Inert) = Hard Rock and Large Broken Concrete + Reused in the Contract + Disposed as Public Fill Imported Fill

Room 723 & 725, 7/F, Block B, Profit Industrial Building, 1-15 Kwai Fung Crescent, Kwai Fong,

Tel : +852 2450 8238 Fax : +852 2450 8032 E-mail: mcl@fugro.com

Website: www.fugro.com Hong Kong.



Waste Flow Table for Year 2018													
	Actual Quantities of Inert C&D Materials Generated Monthly							Actual Quantities of Non-inert C&D Wastes Generated Monthly					
Monthly Ending	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 '000m³)	(in '000m ³)	(in '000m ³)	(in '000m ³)	(in '000m³)	(in '000 kg)	(in '000kg)	(in '000kg)	(in '000kg)	(in '000m ³)		
2018 Jan	10.2340	Nil	Nil	Nil	10.2340	Nil	32.39	Nil	Nil	Nil	0.0161		
2018 Feb	6.5256	Nil	Nil	Nil	6.5256	Nil	Nil	Nil	Nil	Nil	0.0235		
2018 Mar	28.1995	Nil	Nil	Nil	28.1995	Nil	54.54	Nil	Nil	Nil	0.0190		
2018 Apr	11.2165	Nil	Nil	Nil	11.2165	Nil	Nil	Nil	Nil	Nil	0.0270		
2018 May	5.6011	Nil	Nil	Nil	5.6011	Nil	Nil	Nil	Nil	Nil	0.0140		
2018 Jun	5.8072	Nil	Nil	Nil	5.8072	Nil	93.3	Nil	Nil	Nil	0.0235		
2018 Jul	7.4206	Nil	Nil	Nil	7.4206	Nil	Nil	Nil	Nil	Nil	0.0383		
2018 Aug	2.0815	Nil	Nil	Nil	2.0815	Nil	Nil	Nil	Nil	Nil	0.0665		
2018 Sep	0.3710	Nil	Nil	Nil	0.3710	Nil	Nil	Nil	Nil	Nil	0.0436		
2018 Oct	0.9087	Nil	Nil	Nil	0.9620	0.0533	Nil	Nil	Nil	Nil	0.0444		
2018 Nov	0.7291	Nil	Nil	Nil	0.7733	0.0589	Nil	Nil	Nil	Nil	0.0225		
2018 Dec	-0.0931	Nil	Nil	Nil	0.3860	0.4791	Nil	Nil	Nil	Nil	0.0228		
Total	79.0017	Nil	Nil	Nil	79.5783	0.5913	180.23	Nil	Nil	Nil	0.3614		

- 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.
- 3) Total Quantity Generated (Inert) = Hard Rock and Large Broken Concrete + Reused in the Contract + Disposed as Public Fill Imported Fill

Room 723 & 725, 7/F, Block B, Profit Industrial Building, 1-15 Kwai Fung Crescent, Kwai Fong, Hong Kong.

Tel : +852 2450 8238

Fax : +852 2450 8032 E-mail: mcl@fugro.com Website: www.fugro.com



Waste Flow Table for Year 2019													
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 '000m³)	(in '000m ³)	(in '000m ³)	(in '000 kg)	(in '000kg)	(in '000kg)	(in '000kg)	(in '000m ³)		
2019 Jan	0.2485	Nil	Nil	Nil	0.7063	0.45774	Nil	Nil	Nil	Nil	0.0100		
2019 Feb	0.2790	Nil	Nil	Nil	0.2790	Nil	Nil	Nil	Nil	Nil	0.0076		
2019 Mar	0.7376	Nil	Nil	Nil	0.7376	Nil	Nil	Nil	Nil	Nil	0.0929		
2019 Apr	0.3694	Nil	Nil	Nil	0.3694	Nil	Nil	Nil	Nil	Nil	0.0365		
2019 May	0.4683	Nil	Nil	Nil	0.4683	Nil	Nil	Nil	Nil	Nil	0.0383		
2019 Jun	0.8571	Nil	Nil	Nil	0.8571	Nil	Nil	Nil	Nil	Nil	0.0160		
2019 Jul	15.2091	Nil	Nil	Nil	15.2091	Nil	Nil	Nil	Nil	Nil	0.0331		
2019 Aug	5.7307	Nil	Nil	Nil	5.7307	Nil	Nil	Nil	Nil	Nil	0.0249		
2019 Sep	9.0074	Nil	Nil	Nil	9.0074	Nil	Nil	Nil	Nil	Nil	0.0541		
2019 Oct	0.6616	Nil	Nil	Nil	0.6616	Nil	Nil	Nil	Nil	Nil	0.0269		
2019 Nov	0.8783	Nil	Nil	Nil	0.8783	Nil	Nil	0.17	Nil	Nil	0.0453		
2019 Dec	0.6110	Nil	Nil	Nil	0.6110	Nil	Nil	Nil	Nil	Nil	0.0519		
Total	35.058	0	0	0	35.5158	0.4577	0	0.17	0	0	0.4375		

- 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.
- 3) Total Quantity Generated (Inert) = Hard Rock and Large Broken Concrete + Reused in the Contract + Disposed as Public Fill Imported Fill

Room 723 & 725, 7/F, Block B, Profit Industrial Building, 1-15 Kwai Fung Crescent, Kwai Fong, Hong Kong. Tel : +852 2450 8238 Fax : +852 2450 8032 E-mail : mcl@fugro.com Website : www.fugro.com



Waste Flow	Waste Flow Table for Year 2020										
		Actual Quan	tities of Inert C&I	D Materials Gene	erated Monthly		Actua	Quantities of Non-	inert C&D Wast	es Generated N	<i>l</i> onthly
Monthly Ending	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)
2020 Jan	0.3807	Nil	Nil	Nil	0.3807	Nil	Nil	Nil	Nil	Nil	0.0276
2020 Feb	0.2862	Nil	Nil	Nil	0.2862	Nil	Nil	Nil	Nil	Nil	0.0365
2020 Mar	0.4291	Nil	Nil	Nil	0.4291	Nil	Nil	Nil	Nil	Nil	0.0270
2020 Apr	0.1812	Nil	Nil	Nil	0.1812	Nil	Nil	Nil	Nil	Nil	0.0201
2020 May	0.2966	Nil	Nil	Nil	0.2966	Nil	Nil	Nil	Nil	Nil	0.0168
2020 Jun	0.1691	Nil	Nil	Nil	0.1691	Nil	Nil	Nil	Nil	Nil	0.0079
2020 Jul	0.0630	Nil	Nil	Nil	0.0630	Nil	Nil	Nil	Nil	Nil	0.0273
2020 Aug	0.1189	Nil	Nil	Nil	0.1189	Nil	Nil	Nil	Nil	Nil	0.0116
2020 Sep	0.1151	Nil	Nil	Nil	0.1151	Nil	Nil	Nil	Nil	Nil	0.0090
2020 Oct	0.0400	Nil	Nil	Nil	0.0400	Nil	Nil	Nil	Nil	Nil	0.0083
2020 Nov	0.0123	Nil	Nil	Nil	0.0123	Nil	Nil	Nil	Nil	Nil	0.0154
2020 Dec	0.1070	Nil	Nil	Nil	0.1070	Nil	Nil	Nil	Nil	Nil	0.1070
Total	2.1992	0	0	0	2.1992	0	0	0	0	0	0.3145

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.
- 3) Total Quantity Generated (Inert) = Hard Rock and Large Broken Concrete + Reused in the Contract + Disposed as Public Fill Imported Fill

Room 723 & 725, 7/F, Block B, Profit Industrial Building, 1-15 Kwai Fung Crescent, Kwai Fong, Hong Kong. Tel : +852 2450 8238 Fax : +852 2450 8032 E-mail : mcl@fugro.com Website : www.fugro.com



Waste Flow	v Table for Ye	ear 2021									
		Actual Quan	tities of Inert C&I	D Materials Gene	erated Monthly		Actual Quantities of Non-inert C&D Wastes Generated Monthly				
Monthly Ending	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 '000m³)	(in '000m ³)	(in '000m ³)	(in '000 kg)	(in '000kg)	(in '000kg)	(in '000kg)	(in '000m ³)
2021 Jan	0.0318	-	-	-	0.0318	-	-	-	-	-	0.0786
2021 Feb	0.1662	-	-	-	0.1662	-	-	-	-	-	-
2021 Mar											
2021 Apr											
2021 May											
2021 Jun											
2021 Jul											
2021 Aug											
2021 Sep											
2021 Oct											
2021 Nov											
2021 Dec											
Total	0.1980	0	0	0	0.1980	0	0	0	0	0	0.0786

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.
- 3) Total Quantity Generated (Inert) = Hard Rock and Large Broken Concrete + Reused in the Contract + Disposed as Public Fill Imported Fill

Room 723 & 725, 7/F, Block B, Profit Industrial Building, 1-15 Kwai Fung Crescent, Kwai Fong, Hong Kong.

: +852 2450 8238 Tel Fax : +852 2450 8032 E-mail : mcl@fugro.com Website : www.fugro.com



Appendix D

Environmental Mitigation Implementation Schedule (EMIS)

Room 723 & 725, 7/F, Block B, Profit Industrial Building, 1-15 Kwai Fung Crescent, Kwai Fong,

Fax : +852 2450 8032 E-mail : mcl@fugro.com Website: www.fugro.com

Tel : +852 2450 8238

Hong Kong.



EIA Ref	EM&A Ref	Environmental Protection Measures / Mitigation Measures	Who to implement the measure	Location / Timing	Construction Phase Implementation Status
Air Quality Measur	<u>es</u>				
New Distributor Ro	oads Serving the Pla	anned KTD			
AEIAR-130/2009 \$3.2	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	Not Applicable
Decommissioning	of the Radar Station	n of the former Kai Tak Airport			
AEIAR-130/2009 \$5.2.19	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
Trunk Road T2			1		
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/m2 for the respective watering frequency.	Contractor	All relevant worksites	Not Applicable
		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	Not Applicable

Room 723 & 725, 7/F, Block B, Profit Industrial Building, 1-15 Kwai Fung Crescent, Kwai Fong, Hong Kong.



EIA Ref	EM&A Ref	Environmental Protection Measures / Mitigation Measures	Who to implement the measure	Location / Timing	Construction Phase Implementation Status														
		Good Site Practices																	
AEIAR-130/2009 S3.2, S5.2.19, AEIAR-174/2013	AEIAR 130/2009 EM&A Manual S2.2, S4.2, AEIAR	Stockpiling site(s) should be lined with impermeable sheeting and bunded. Stockpiles should be fully covered by impermeable sheeting to reduce dust emission.	Contractor	All relevant worksites	Not Applicable														
S4.9.2.2	174/2013 EM&A Manual S2.3.1.2	Use of regular watering to reduce dust emissions from exposed site surfaces and unpaved	Contractor	All relevant worksites	Not Applicable														
		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	Not Applicable														
		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	Not Applicable														
			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 transportation.	Contractor	All relevant worksites	Not Applicable													
																		The vehicles should be restricted to maximum speed of 10 km per hour. Confined haulage and delivery vehicle to designated roadways insider the site. Onsite unpaved roads should be compacted and kept free of lose materials.	Contractor
		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	Not Applicable														
		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 scaled 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	Not Applicable														

Room 723 & 725, 7/F, Block B, Profit Industrial Building, 1-15 Kwai Fung Crescent, Kwai Fong, Hong Kong. Tel : +852 2450 8238 Fax : +852 2450 8032 E-mail : mcl@fugro.com Website : www.fugro.com



EIA Ref	EM&A Ref	Environmental Protection Measures / Mitigation Measures	Who to implement the measure	Location / Timing	Construction Phase Implementation Status
		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	Not Applicable
		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	Not Applicable
		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	Not Applicable
		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	Not Applicable
		Open stockpiles shall be avoided or covered. Prevent placing dusty material storage piles near ASRs.	Contractor	All relevant worksites	Not Applicable
		Routing of vehicles and position of construction plant should be at the maximum possible distance from ASRs.	Contractor	All relevant worksites	Not Applicable
		Dark smoke			
		Dark smoke emission shall be control in accordance with the Air Pollution Control (Smoke) Regulation and ETWB TCW 19/2005.	Contractor	All relevant worksites	Not Applicable
		Plant and equipment should be well maintained to prevent dark smoke emission.	Contractor	All relevant worksites	Not Applicable
Noise Measures					
Trunk Road T2					

The copyright of this document is owned by MateriaLab Consultants Ltd. It may not be reproduced except with prior written approval from the Company.

Room 723 & 725, 7/F, Block B, Profit Industrial Building, 1-15 Kwai Fung Crescent, Kwai Fong, Hong Kong.



EIA Ref	EM&A Ref	Environmental Protection Measures / Mitigation Measures	Who to implement the measure	Location / Timing	Construction Phase Implementation Status
AEIAR-174/2013 \$5.9.2.1	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: • 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	Not Applicable
		Use of temporary or fixed noise barriers with a surface density of at least 10kg/m² 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	Not Applicable
		Good Site Practices			
AEIAR-130/2009 S3.3, S5.3.10,	AEIAR 130/2009 EM&A Manual	Only well-maintained plant should be operated on-site and plant shall be serviced regularly during the construction/ decommissioning program.	Contractor	All relevant worksites	Not Applicable
AEIAR-174/2013 S5.9.2.1	S2.3, S4.3.2, AEIAR-174/2013 EM&A Manual	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
	\$3.4.1.1	Mobile plant, if any, should be sited as far away from NSRs as possible.	Contractor	All relevant worksites	Not Applicable
		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	Not Applicable

Room 723 & 725, 7/F, Block B, Profit Industrial Building, 1-15 Kwai Fung Crescent, Kwai Fong, Hong Kong. Tel : +852 2450 8238 Fax : +852 2450 8032 E-mail : mcl@fugro.com Website : www.fugro.com



EIA Ref	EM&A Ref	Environmental Protection Measures / Mitigation Measures	Who to implement the measure	Location / Timing	Construction Phase Implementation
			the measure		Status
		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	Not Applicable
		Material stockpiles and other structures should be effectively utilized, wherever practicable, in screening noise from on-site construction/ decommissioning activities.	Contractor	All relevant worksites	Not Applicable
		Use of site hoarding as a noise barrier to screen noise at low level NSRs.	Contractor	All relevant worksites	Not Applicable
		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	Not Applicable
		Quiet powered mechanical equipment (PME) shall be used for the construction of the Project.	Contractor	All relevant worksites	Not Applicable
		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 vechicles with proper labels are allowed to be used in specified activities on-site.	Contractor	All relevant worksites	Not Applicable
Water Quality Mea	<u>Isures</u>	1			1
Trunk Road T2					

The copyright of this document is owned by MateriaLab Consultants Ltd. It may not be reproduced except with prior written approval from the Company.

Room 723 & 725, 7/F, Block B, Profit Industrial Building, 1-15 Kwai Fung Crescent, Kwai Fong, Hong Kong.



EIA Ref	EM&A Ref	Environmental Protection Measures / Mitigation Measures	Who to implement the measure	Location / Timing	Construction Phase Implementation Status
		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	Not Applicable
		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	Not Applicable
		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	Not Applicable
		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	Not Applicable
AEIAR-174/2013 \$6.4.8.8	AEIAR-174/2013 EM&A Manual S4.2.1.1	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 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.	Contractor	All relevant worksites	Not Applicable
		Dredging, Reclamation and Filling			
		No dredging, reclamation or filling in the marine environment shall be carried out.	Contractor	All relevant	Not Applicable

Room 723 & 725, 7/F, Block B, Profit Industrial Building, 1-15 Kwai Fung Crescent, Kwai Fong, Hong Kong.



EIA Ref	EM&A Ref	Environmental Protection Measures / Mitigation Measures	Who to implement the measure	Location / Timing	Construction Phase Implementation Status
				worksites	
Decommissioning	of the Radar Station	n of the former Kai Tak Airport			
		Building Demolition			
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
	54.4	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	Not Applicable
		General Construction Works			
		Construction Runoff			
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	Not Applicable
		Construction site should be provided with adequately designed perimeter channel and pretreatment 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	Contractor	All relevant worksites	Not Applicable

Room 723 & 725, 7/F, Block B, Profit Industrial Building, 1-15 Kwai Fung Crescent, Kwai Fong, Hong Kong.



EIA Ref	EM&A Ref	Environmental Protection Measures / Mitigation Measures	Who to implement the measure	Location / Timing	Construction Phase Implementation Status
		based on the guidelines in Appendix A1 of ProPECC PN 1/94.			
		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 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.	Contractor	All relevant worksites	Not Applicable
		Sediment tanks of sufficient capacity, constructed from pre-formed individual cells of approximately 6 to 8 m3 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	Not Applicable
		Open stockpiles of construction materials (for examples, aggregates, sand and fill material) of more than 50 m³ 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	Not Applicable
		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	Not Applicable
		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,	Contractor	All relevant	Not Applicable

Room 723 & 725, 7/F, Block B, Profit Industrial Building, 1-15 Kwai Fung Crescent, Kwai Fong, Hong Kong.



EIA Ref	EM&A Ref	Environmental Protection Measures / Mitigation Measures	Who to implement the measure	Location / Timing	Construction Phase Implementation Status
		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.		worksites	
		<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	Not Applicable
		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 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.	Contractor	All relevant worksites	Not Applicable
		Stormwater Discharges			
		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
		Sewage Effluent			
		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	Not Applicable

Room 723 & 725, 7/F, Block B, Profit Industrial Building, 1-15 Kwai Fung Crescent, Kwai Fong, Hong Kong.



EIA Ref	EM&A Ref	Environmental Protection Measures / Mitigation Measures	Who to implement the measure	Location / Timing	Construction Phase Implementation Status
		Debris and Litter			
		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	Not Applicable
		Accidental Spillage			
		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	Not Applicable
		Waste Management Measures			
		Waste Management Plan			
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
		Good Site Practices			
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	Not Applicable
		Training of site personnel in proper waste management and chemical waste handling	Contractor	All relevant	Not Applicable

Room 723 & 725, 7/F, Block B, Profit Industrial Building, 1-15 Kwai Fung Crescent, Kwai Fong, Hong Kong.

Tel : +852 2450 8238 Fax : +852 2450 8032

E-mail : mcl@fugro.com Website: www.fugro.com



EIA Ref	EM&A Ref	Environmental Protection Measures / Mitigation Measures t		Location / Timing	Construction Phase Implementation Status
		procedures.		worksites	
		Provision of sufficient waste disposal points and regular collection for disposal.	Contractor	All relevant worksites	Not Applicable
		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	Not Applicable
		A recording system for the amount of wastes generated, recycled and disposed of (including the disposal sites).	Contractor	All relevant worksites	Implemented
		Waste Reduction Measures			
		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	Not Applicable
		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	Not Applicable
		Any unused chemicals or those with remaining functional capacity should be recycled.	Contractor	All relevant worksites	Not Applicable
		Proper storage and site practices to minimize the potential for damage or contamination of construction materials.	Contractor	All relevant worksites	Not Applicable
		Construction and Demolition Materials			
		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	Not Applicable

Room 723 & 725, 7/F, Block B, Profit Industrial Building, 1-15 Kwai Fung Crescent, Kwai Fong, Hong Kong.



EIA Ref	EM&A Ref	Environmental Protection Measures / Mitigation Measures		Location / Timing	Construction Phase Implementation Status
		Open stockpiles of construction materials or construction wastes on-site should be covered with tarpaulin or similar fabric.	Contractor	All relevant worksites	Not Applicable
		Skip hoist for material transport should be totally enclosed by impervious sheeting.	Contractor	All relevant worksites	Not Applicable
		Every vehicle should be washed to remove any dusty materials from its body and wheels before leaving a construction site.	Contractor	All relevant worksites	Not Applicable
		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.	Contractor	All relevant worksites	Not Applicable
		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	Not Applicable
		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	Not Applicable
		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	Not Applicable
		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	Not Applicable
		Chemical Waste			

Room 723 & 725, 7/F, Block B, Profit Industrial Building, 1-15 Kwai Fung Crescent, Kwai Fong, Hong Kong.



EIA Ref	EM&A Ref Environmental Protection Measures / Mitigation Measures		Who to implement the measure	Location / Timing	Construction Phase Implementation Status
shou of Ch at the		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	Not Applicable
		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	Not Applicable
Land Contamination	on Measures				
		For any excavation works conducted at Radar Station			
		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
Landscape and Vi	sual Impact				
		New Distributor Roads Serving the Planned KTD			
		Construction Phase			
		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	Contractor	All relevant	Not Applicable

Room 723 & 725, 7/F, Block B, Profit Industrial Building,

1-15 Kwai Fung Crescent, Kwai Fong, Hong Kong.



EIA Ref	EM&A Ref	Environmental Protection Measures / Mitigation Measures t		Location / Timing	Construction Phase Implementation Status
		accordance with ETWBC 2/2004 and 3/2006. Final locations of transplanted trees should be agreed prior to commencement of the work.		worksites	
		Control of night-time lighting.	Contractor	All relevant worksites	Not Applicable
		Erection of decorative screen hoarding.	Contractor	All relevant worksites	Not Applicable
		Trunk Road T2			
		Construction Phase			
S9.9.1.1 EM&A Manual		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
	S7.2.1.2	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	Not Applicable
		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	Not Applicable
	Erection of decorative screen hoarding should be designed to be compatible with the existing urban context.	Contractor	All relevant worksites	Not Applicable	
		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	l				

Room 723 & 725, 7/F, Block B, Profit Industrial Building,

1-15 Kwai Fung Crescent, Kwai Fong,

Hong Kong.

Tel : +852 2450 8238 Fax : +852 2450 8032 E-mail: mcl@fugro.com Website: www.fugro.com

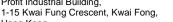


EIA Ref	EM&A Ref	Environmental Protection Measures / Mitigation Measures	Who to implement the measure	Location / Timing	Construction Phase Implementation Status
		The Permit Holder shall display conspicuously a copy of this Permit on the Project site(s) at all vehicular site entrances/exits or at a convenient location for public's information at all times. 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).	Contractor	All relevant worksites	Not Applicable

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

Room 723 & 725, 7/F, Block B, Profit Industrial Building, 1-15 Kwai Fung Crescent, Kwai Fong, Hong Kong.

: +852 2450 8238 Tel Fax : +852 2450 8032 E-mail : mcl@fugro.com





Appendix E

Weather and Meteorological Conditions during Reporting Month

Room 723 & 725, 7/F, Block B, Profit Industrial Building, 1-15 Kwai Fung Crescent, Kwai Fong, Hong Kong.

Tel : +852 2450 8238 Fax : +852 2450 8032 E-mail : mcl@fugro.com



Mean		Air Temperature			Mean Relative	Total
Date	Pressure (hPa)	Maximum (deg. C)	Mean (deg. C)	Minimum (deg. C)	Humidity (%)	Rainfall (mm)
			February 2021			
1	1019.4	25.1	20.3	17.2	76	0.0
2	1019.7	27.6	20.9	17.7	76	0.0
3	1022.0	21.7	18.4	16.7	69	0.0
4	1021.7	23.8	19.4	16.8	68	0.0
5	1019.8	23.9	19.9	17.3	72	0.0
6	1017.4	25.7	20.7	17.5	73	0.0
7	1017.6	24.1	20.3	18.1	74	0.0
8	1018.9	22.7	19.9	18.2	79	0.0
9	1017.5	19.7	18.5	17.3	76	Trace
10	1013.5	17.4	16.5	15.8	89	32.2
11	1014.7	19.9	17.4	15.3	78	0.0
12	1016.3	22.3	18.4	15.5	69	0.0
13	1017.3	23.8	19.2	16.5	76	0.0
14	1016.1	22.8	19.9	17.4	75	0.0
15	1015.0	26.2	21.1	17.8	70	0.0
16	1016.1	24.2	20.3	18.2	71	0.0
17	1019.6	24.6	20.4	18.3	70	0.0
18	1024.5	22.9	18.5	16.7	65	0.0
19	1023.4	22.9	18.5	15.8	66	0.0
20	1019.9	23.9	19.6	16.7	73	0.0
21	1017.5	24.9	20.4	17.3	74	0.0
22	1015.8	26.0	21.4	18.4	78	0.0
23	1015.0	26.4	21.7	18.8	74	0.0
24	1014.3	22.9	20.3	18.9	79	Trace
25	1011.2	22.7	20.2	18.8	85	1.8
26	1009.8	25.1	22.3	20.4	86	14.7
27	1014.0	20.8	18.8	18.1	89	13.4
28	1015.7	22.8	19.9	18.1	83	Trace

Source: Hong Kong Observatory

Tel

: +852 2450 8238

Room 723 & 725, 7/F, Block B, Profit Industrial Building, 1-15 Kwai Fung Crescent, Kwai Fong, Hong Kong.

Fax : +852 2450 8032 E-mail : mcl@fugro.com



Appendix F

Cumulative statistics on Environmental Complaints, Notifications of Summons and **Successful Prosecution**

Room 723 & 725, 7/F, Block B, Profit Industrial Building, 1-15 Kwai Fung Crescent, Kwai Fong, Hong Kong. Tel : +852 2450 8238 Fax : +852 2450 8032 E-mail : mcl@fugro.com



Environmental Complaints Log

Reference No.	Date of Complaint Received	Received From	Received By	Nature of Complaint	Date of Investigation	Outcome	Date of Reply
20161207_complaint_c	7 Dec 2016	EPD	Andy Choy (CRBC)	Air	13 Feb 2017	Project- related	13 Feb 2017
20170209_complaint_c	9 Feb 2017	EPD	Andy Choy (CRBC)	Air	22 Feb2017	Not Project- related	7 Mar 2017
20170502_complaint_c	2 May 2017	CEDD	Andy Choy (CRBC)	Noise	4 May 2017	Not Valid	22 May 2017
20170716_complaint_a	16 July 2017	CEDD	HMJV	Water Quality	4 Aug 2017	Not Project- related	4 Aug 2017
20180530_complaint	30 May 2018	EPD	CRBC	Air	9 June 2018	Not Valid	20 June 2018

Cumulative Statistics on Complaints

Environmental Parameters	Cumulative No. Brought Forward	No. of Complaints This Month	Cumulative Project- to-Date
Air	3	0	3
Noise	1	0	1
Water	1	0	1
Waste	0	0	0
Total	0	0	0

Cumulative Statistics on Notification of Summons and Successful Prosecutions

Environmental Parameters	Cumulative No. Brought Forward	No. of Notification of Summons and Prosecutions This Month	Cumulative Project- to-Date
Air	0	0	0
Noise	0	0	0
Water	0	0	0
Waste	0	0	0
Total	0	0	0

Room 723 & 725, 7/F, Block B, Profit Industrial Building, 1-15 Kwai Fung Crescent, Kwai Fong, Hong Kong.

: +852 2450 8238 Tel Fax : +852 2450 8032 E-mail : mcl@fugro.com



Appendix G

Summary of Site Audit in the Reporting Month

Room 723 & 725, 7/F, Block B, Profit Industrial Building, 1-15 Kwai Fung Crescent, Kwai Fong, Hong Kong. Tel : +852 2450 8238 Fax : +852 2450 8032 E-mail : mcl@fugro.com



Summary of Site Audit in the Reporting Month

	ite Audit in the Reporting I	Observations and	Fallow w
Parameters	Date	Recommendations	Follow-up
Air Quality		NA	
Noise		NA	
Water Quality		NA	
Chemical and Waste Management		NA	
Land Contamination		NA	
Landscape and Visual Impact		NA	
General Condition		NA	
Permit / Licenses		NA	

Room 723 & 725, 7/F, Block B, Profit Industrial Building, 1-15 Kwai Fung Crescent, Kwai Fong, Hong Kong. Tel : +852 2450 8238 Fax : +852 2450 8032 E-mail : mcl@fugro.com



Appendix H

Outstanding Issues and Deficiencies

Room 723 & 725, 7/F, Block B, Profit Industrial Building, 1-15 Kwai Fung Crescent, Kwai Fong, Hong Kong.

Tel : +852 2450 8238 Fax : +852 2450 8032 E-mail : mcl@fugro.com



Summary of Outstanding Issues and Deficiencies in the Reporting Month							
Parameters	Outstanding Issues	Deficiencies					
Air Quality	NA						
Noise	NA						
Water Quality	NA						
Chemical and Waste Management	NA	Any items of deficiencies can be referred to Appendix G .					
Land Contamination	NA						
Landscape and Visual Impact	NA						
General Condition	NA						
Others	NA						

Room 723 & 725, 7/F, Block B, Profit Industrial Building, 1-15 Kwai Fung Crescent, Kwai Fong, Hong Kong.

: +852 2450 8238 Tel Fax : +852 2450 8032 E-mail : mcl@fugro.com



Appendix I

Action and Limit Levels for Air Quality and Noise

Room 723 & 725, 7/F, Block B, Tel Fax : +852 2450 8032 E-mail : mcl@fugro.com Profit Industrial Building, 1-15 Kwai Fung Crescent, Kwai Fong,

Hong Kong.



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

: +852 2450 8238

Parameter	Monitoring Station	Action Level (μg/m³)	Limit Level (µg/ m³)
24 br TSD	KTD1	177	
24-hr TSP (μg/m³)	KTD2c	157	260
(μg/m²)	KER1	172	
*1-hr TSP (µg/m³)	KTD1	285	
	KTD2c	279	500
(µg/III°)	KER1	295	

Note:

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

Time Period	Location	Action	Limit
0700-1900 hrs on normal weekdays	KTD1 KTD2c KER1	When one documented complaint is received	75 dB(A)

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