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22nd CONSOLIDATED QUARTERLY EM&A REPORT

April 2022 - June 2022

Client : Civil Engineering and Development Department, HKSAR

EP No. : EP-337/2009 –

New Distributor Roads Serving the Planned Kai Tak

Development Area

Contract No. : KLN/2016/05 -

Independent Environmental Checker for

Contract No. KL/2015/02 Kai Tak Development – Stage 5A Infrastructure at Former North Apron Area

Report No. : 0087/16/ED/1164

Prepared by : Cyrus Lai

Reviewed by : Calvin Leung

Certified by :

Colin Yung

Independent Environmental Checker Fugro Technical Services Limited

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Appendix B Quarterly EM&A Report For Contract No. KL/2015/02

Kai Tak Development - Stage 5A Infrastructure at Former North Apron Area

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EXECUTIVE SUMMARY

i. This is the 22nd Consolidated Quarterly EM&A Report which summaries the quarterly EM&A works undertaken by respective contracts under the EP-337/2009 within the reporting period between April and June 2022.

Construction Activities for the Reporting Period

ii. The major construction activities undertaken are summarized as follow:

Contract No. KL/2014/01:

- TTA implementation, minor works at Shing Fung Road and Wang Chiu Road / Kai Cheung Road;
- · Laying of paving blocks for footpath;
- · Erection of noise barrier panels;
- Planting works along footpath and at deck level;
- Architectural features works at landscaped deck and ground floor open space;
- E&M works;
- Remedial Work of Holding Down Bolts of noise barrier;
- Construction of pedestrian streets; and
- Dismantle of temporary working platform at Kai Tak Bridge

Contract No. KL/2015/02:

April 2022

- Lift installation work of LT1 at SKLR Playground
- Excavating and laying cable ducts for E&M works at SKLR Playground
- Carry out water proofing works and backfilling works at TTA stage 3 & 4 of PERE
- Install bulkhead lighting works at Subway

May 2022

- Lift installation work of LT1 at SKLR Playground
- Excavating and laying cable ducts for E&M works at SKLR Playground
- Carry out water proofing works and backfilling works at TTA stage 3 & 4 of PERE
- Install bulkhead lighting works at Subway

June 2022

- Fix steel frame members of staircase cover of ST1 at SKLR Playground
- Install lift inside the lift shaft of LT1 at SKLR ground
- Carry out finishing works & E&M works inside subway
- Carry out backfilling works to the subway at PERE

Breaches of Action and Limit Levels for Air Quality

iii. No Action or Limit Level Exceedance of 1-hr TSP monitoring was recorded in the reporting period.

Breaches of Action and Limit Levels for Noise

iv. No Action or Limit Level exceedance of construction noise was recorded in the reporting period.

Complaint, Notifications of Summons and Successful Prosecutions

v. No environmental complaint was received during the reporting period.

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vi. No notification of summons or prosecution was received in the reporting period.

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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 A study of environmental impact assessment (EIA) was undertaken to consider the key issues of air quality, noise, water quality, waste, land contamination, cultural heritage and landscape and visual impact, and identify possible mitigation measures associated with the works. EIA Report (Register No. AEIAR-130/2009) was approved by the Environmental Protection Department (EPD) on 4 March 2009.
- 1.1.3 The EP-337/2009 was issued on 23 April 2009 for the new distributor roads serving the planned Kai Tak Development to the following scale and slope:
 - a) Road D1 a dual 2-lane carriageway of approximately 1.3 km long.
 - Road D2 a dual 3-lane carriageway of approximately 1.1 km long.
 - c) Road D3 a dual 2-lane carriageway of approximately 2.3 km long.
 - d) Road D4 a dual 2-lane carriageway of approximately 0.9 km long.
- 1.1.4 The Civil Engineering and Development Department HKSAR (CEDD) has appointed Fugro Technical Services Limited (FTS) to undertake the role of Independent Environmental Checker (IEC) for the Contract No. KL/2015/02.
- 1.1.5 This is the 22nd Consolidated Quarterly EM&A Report which summaries the quarterly EM&A works undertaken by respective contracts under the EP-337/2009 within the reporting period between April and June 2022.

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1.2 Summary of relevant Contract Information of Key Personnel

Party	Position	Name	Telephone	Fax		
Contract No. KL/2014/01:						
Project Proponent	Senior Engineer	Mr. Keith Chu	3579 2450	3579 4516		
(CEDD)	Engineer	Ms. Adonia Yung	3579 2124	3379 4316		
Engineer's Representative (AECOM)	CRE	Mr. Clive Cheng	3746 1801	2798 0783		
IEC (KSMC)	IEC	Dr. M. T. Wong	2618 2166	2120 7752		
	ET Leader	Mr. K.S Lee	2151 2091			
ET (Cinotech)	Audit Team Leader	Ms. Betty Choi	2151 2072	3107 1388		
Main Contractor (CCJV)	EO	Mr. Jack Lai	2960 1398	2960 1399		
Contract No. KL/2015/0	2:					
Project Proponent (CEDD)	Senior Engineer	Mr. Ricky Chan	2116 3753	2116 0714		
Engineer's Representative (AECOM)	SRE	Mr. Vincent Lee	2798 0771	2210 6110		
IEC (FTS)	IEC	Mr. Colin Yung	3565 4114	2450 8032		
	ET Leader	Mr. K.S Lee	2151 2091			
ET (Cinotech)	Audit Team Leader	Ms. Betty Choi	2151 2072	3107 1388		
Main Contractor (PWHJV)	Site Agent	Mr. W. M. Wong	6386 3535	2398 8301		

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1.3 Summary of Construction Programme and Activities

1.3.1 The construction programme of each Contract is summarized in the appendices of the corresponding Quarterly EM&A.

1.4 Works undertaken in reporting period

1.4.1 The major construction activities undertaken are summarized as follow:

Contract No. KL/2014/01:

- TTA implementation, minor works at Shing Fung Road and Wang Chiu Road / Kai Cheung Road;
- · Laying of paving blocks for footpath;
- Erection of noise barrier panels;
- Planting works along footpath and at deck level;
- Architectural features works at landscaped deck and ground floor open space;
- E&M works;
- Remedial Work of Holding Down Bolts of noise barrier;
- Construction of pedestrian streets; and
- Dismantle of temporary working platform at Kai Tak Bridge

Contract No. KL/2015/02:

April 2022

- Lift installation work of LT1 at SKLR Playground
- Excavating and laying cable ducts for E&M works at SKLR Playground
- Carry out water proofing works and backfilling works at TTA stage 3 & 4 of PERE
- Install bulkhead lighting works at Subway

May 2022

- Lift installation work of LT1 at SKLR Playground
- Excavating and laying cable ducts for E&M works at SKLR Playground
- Carry out water proofing works and backfilling works at TTA stage 3 & 4 of PERE
- Install bulkhead lighting works at Subway

June 2022

- Fix steel frame members of staircase cover of ST1 at SKLR Playground
- Install lift inside the lift shaft of LT1 at SKLR ground
- Carry out finishing works & E&M works inside subway
- Carry out backfilling works to the subway at PERE

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2. ENVIRONMENTAL MONITORING & AUDIT

2.1 Results and Observations

2.1.1 Contract No. KL/2014/01:

Air Quality and Construction Noise

No monitoring for air quality and noise impact is required under the Project.

Landscape and Visual

 No non-compliance of the landscape and visual impact was recorded in the reporting quarter.

2.1.2 Contract No. KL/2015/02:

Air Quality

• No Action/ Limit Level exceedance was recorded in the reporting period.

Construction Noise

No Action/ Limit Level exceedance was recorded in the reporting period.

Landscape and Visual

- No non-compliance of the landscape and visual impact was recorded in the reporting period.
- 2.1.3 Summary of exceedances and graphical presentations are presented in the appendices of the corresponding Quarterly EM&A reports.

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3. ENVIRONMENTAL SITE INSPECTION AND AUDIT

3.1 Site Inspection

- 3.1.1 Site inspections were carried out weekly to monitor the implementation of proper environmental pollution control and mitigation measures for the Project.
- 3.1.2 Detailed of observation, recommendation of site inspections and summary of the mitigation measures implementation schedule is provided in the appendices of the corresponding Quarterly EM&A Reports.

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4. ENVIRONMENTAL COMPLAINT AND NON-COMPLIANCE

4.1 Complaints, Notification of Summons and Prosecution

4.1.1 The summary of complaints, notification of summons and prosecution in the reporting month is shown as **Table 4.1**. Detailed records are presented in the appendices of the corresponding Quarterly EM&A Reports.

Table 4.1 Summary of Complaints, Notification of Summons and Prosecution

Event	No. of Event(s) This Reporting Period	Remark
Contract No. KL/2014/01:		
Complaint received	0	NA
Notifications of any summons & prosecutions received	0	NA
Contract No. KL/2015/02:		
Complaint received	0	NA
Notifications of any summons & prosecutions received	0	NA

- 4.1.2 No environmental complaint was received during the reporting period.
- 4.1.3 No notification of summons or prosecution was received in the reporting period.

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5. IMPLEMENTATION STATUS OF ENVIRONMENTAL MITIGATION MEASURES

5.1 Implementation Status

5.1.1 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 month are presented in the appendices of the corresponding Quarterly EM&A Reports.

5.2 Waste Management

5.2.1 The amount of wastes generated of relevant Contracts is shown in the appendices of the corresponding Quarterly EM&A Reports.

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6. CONCLUSIONS

- 6.1.1 No Action or Limit Level Exceedance of 1-hr TSP monitoring was recorded in the reporting period.
- 6.1.2 No Action or Limit Level exceedance of construction noise was recorded in the reporting period.
- 6.1.3 No environmental complaint was received during the reporting period.
- 6.1.4 No notification of summons or prosecution was received in the reporting period.

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Appendix A

Quarterly EM&A Report
For
Contract No. KL/2014/01
Kai Tak Development - Stage 2 Infrastructure works for Developments at Southern
Part of the Former Runway

Civil Engineering and Development Department

EP-337/2009 & EP-445/2013/A Contract No. KL/2014/01

Kai Tak Development – Stage 2 Infrastructure works for Developments at Southern Part of the Former Runway

Quarterly EM&A Report

April 2022 to June 2022

(Version 1.0)

Approved By

(Environmental Team Leader)

REMARKS:

The information supplied and contained within this report is, to the best of our knowledge, correct at the time of printing.

CINOTECH accepts no responsibility for changes made to this report by third parties

CINOTECH CONSULTANTS LTD

Room 1710, Technology Park, 18 On Lai Street, Shatin, NT, Hong Kong Tel: (852) 2151 2083 Fax: (852) 3107 1388

Email: info@cinotech.com.hk

嘉誠管理顧問有限公司





Ka Shing management consultant Limited Carbon Auditwest

Our ref: 12-7-2022

12-7-2022 By email: clive.cheng@aecom-ktd.com and By hand

Supervising Officer Representative

Aecom Asia Co Ltd.

8/F Grand Central Plaza Tower 2

138 Shatin Rural Committee Road

Sha Tin, N.T. Hong Kong

(Attn: Mr. Cheng Chi Hung)

Dear Mr. Cheng,

Re: Contract No. KL/2014/01 (Environmental Permit Nos. EP-337/2009 and EP-445/2013/A)

Kai Tak Development -Stage 2 Infrastructure Works for Developments at Southern Part of the Former Runway

Quarterly EM&A report for April 2022 to June 2022

Reference is made to the Environmental Team's submission of the draft Quarterly EM&A Report (version 1.0) for April 2022 to June 2022 provided to Independent Environmental Checker (IEC) via email dated on 12th July 2022 for review and comment.

Please be informed that IEC has no adverse comment on the captioned submission. IEC writes to verify the captioned submission in accordance with Specific Condition 2.2 of the Environmental Permit No. 337/2009 and 445/2013/A.

Thank you very much for your attention and please feel free to contact the undersigned should you require further information.

Yours faithfully,

For and on behalf of

Ka Shing Management Consultant Limited

Ir. Dr. Douglas WONG

Houghes Wong

Independent Environmental Checker

c.c. CEDD Mr. Patrick Lee (By email: patricksllee@cedd.gov.hk)

AECOM Mr. Anthony Lok (By email: anthony.lok@aecom-ktd.com)

Cinotech Mr K.S Lee (By email: ks.lee@cinotech.com.hk)

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ISO 14001 Environmental Management ISO 45001 Occupational Health and Safety Management

FS 681274 EMS 717625

OHS 717629

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Table 1.1 Key Project Contacts

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EXECUTIVE SUMMARY

Introduction

- 1. This is the 24th Quarterly Environmental Monitoring and Audit (EM&A) Report prepared by Cinotech Consultants Limited for the "Contract No. KL/2014/01 Kai Tak Development Stage 2 Infrastructure Works for Developments at the Southern Part of the Former Runway" (Hereafter referred to as "the Project"). This contract work comprises two Schedule 2 designated project (DP), namely the new distributor road D4 (part) and roads D3A & D4A serving the planned KTD. The DPs are part of the designated projects under Environmental Permits (EP) No.: EP-337/2009 ("New distributor roads serving the planned Kai Tak Development") and EP-445/2013/A ("Kai Tak Development Roads D3A & D4A") respectively. This summary report presents the EM&A works performed in the period between 1 April 2022 and 30 June 2022.
- 2. With reference to the same principle of EIA report of the Project, air quality monitoring station should be provided at the Air Sensitive Receivers (ASR) within 500 m from the boundary of this Project while construction noise monitoring station should be provided at the Noise Sensitive Receivers (NSR) within 300 m from the boundary of this Project. Since the opening of the Centre of Excellence in Paediatrics (Children's Hospital) on 18 December 2018, the hospital is considered as the only relevant monitoring location and therefore the monitoring is required.
- 3. The construction activities undertaken in the reporting quarter were:
 - TTA implementation, minor works at Shing Fung Road and Wang Chiu Road / Kai Cheung Road;
 - Laying of paving blocks for footpath;
 - Erection of noise barrier panels;
 - Planting works along footpath and at deck level;
 - Architectural features works at landscaped deck and ground floor open space;
 - E&M works:
 - Remedial Work of Holding Down Bolts of noise barrier;
 - Construction of pedestrian streets; and
 - Dismantle of temporary working platform at Kai Tak Bridge

Environmental Monitoring Works

- 4. Environmental monitoring for the Project was performed in accordance with the EM&A Manual and the monitoring results were checked and reviewed. Site Inspections/Audits were conducted once per week. The implementation of the environmental mitigation measures, Event Action Plans and environmental complaint handling procedures were also checked.
- 5. Summary of the non-compliance in the reporting quarter for the Project is tabulated in **Table I**.

Table I Non-compliance Record for the Project in the Reporting Quarter

Paramete	No. of Exce	Action			
r	r Action Level L		Taken		
April 2022					
Noise	0	0	N/A		
May 2022					
Noise	0	0	N/A		
June 2022					
Noise	0	0	N/A		

6. No monitoring for air quality and construction noise is required. No Action/Limit Level exceedance was recorded.

Environmental Licenses and Permits

- 7. Licenses/Permits granted to the Project include the Environmental Permits (EP) for the Project, EP-337/2009 issued on 23 April 2009 and EP-445/2013 issued on 3 May 2013 (Amended Environmental Permit (No.: EP-445/2013/A) issued on 13 August 2014).
- 8. Billing Account for Disposal of Construction Waste (A/C No. 7024073)
- 9. Registration of Chemical Waste Producer (License: 5213-247-C4004-01).
- 10. Water Discharge License (License No.: WT00023634-2016).
- 11. Construction Noise Permit (License No: GW-RE0442-20 & GW-RE0639-20).

Key Information in the Reporting Quarter

12. Summary of key information in the reporting quarter is tabulated in **Table II**.

Table II Summary Table for Key Information in the Reporting Quarter

Event	Event Details		Action Taken	Status	Remark
	Number	Nature			
Complaint received	0		N/A	N/A	
Reporting Changes	0		N/A	N/A	
Notifications of any summons & prosecutions received	0		N/A	N/A	

13. Environmental monitoring works for the Project are considered effective and are generating data to categorically identify the environmental impacts from the works and influencing factors in the vicinity of monitoring stations.

1. INTRODUCTION

Background

- 1.1 The Kai Tak Development (KTD) is located in the south-eastern part of Kowloon Peninsula, 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. It covers a land area of about 328 hectares. Stage 2 Infrastructure Works for Developments for Southern Part of the Former Runway is one of the construction stages of KTD. It contains two Schedule 2 DPs including new distributor roads serving the planned KTD and KTD Roads D3A & D4A. The general layout of the Project is shown in **Figure 1**.
- 1.2 One Environmental Permit (EP) No.: EP-337/2009 was issued on 23 April 2009 for new distributor roads serving the planned KTD and one Environmental Permit No.: EP-445/2013 was issued on 3 May 2013 for Kai Tak Development Roads D3A & D4A to Civil Engineering and Development Department (CEDD) as the Permit Holder. Pursuant to Section 13 of the EIAO, the Director of Environmental Protection amended the Environmental Permit No.: EP-445/2013 based on the Application No. VEP-449/2014 and the Environmental Permit (No.: EP-445/2013/A) was issued on 13 August 2014.
- 1.3 A study of environmental impact assessment (EIA) was undertaken to consider the key issues of air quality, noise, water quality, waste, land contamination, cultural heritage and landscape and visual impact, and identify possible mitigation measures associated with the works. EIA Reports (Register No. AEIAR-130/2009 and AEIAR-170/2013) were approved by the Environmental Protection Department (EPD) on 4 March 2009 and 3 May 2013 respectively.
- 1.4 Cinotech Consultants Limited (Cinotech) was commissioned by Civil Engineering and Development Department (CEDD) to undertake the role of the Environmental Team (ET) for the Contract No. KL/2014/01 Stage 2 Infrastructure Works for Developments at the Southern Part of the Former Runway. The construction work under KL/2014/01 comprises the construction of part of the Road D4 under the EP (EP-337/2009) and the construction of Roads D3A & D4A under the EP (EP-445/2013/A).
- 1.5 Cinotech Consultants Limited was commissioned by Civil Engineering and Development Department (CEDD) to undertake the Environmental Monitoring and Audit (EM&A) works for the Project. The construction commencement of this Contract is on 13 April 2016. This summary report presents the EM&A works performed in the period between 1 April 2022 and 30 June 2022.

Project Organizations

- 1.6 Different parties with different levels of involvement in the project organization include:
 - Project Proponent Civil Engineering and Development Department (CEDD).
 - The Supervising Officer and the Supervising Officer's Representative (SO) AECOM Asia Co. Ltd. (AECOM).
 - Environmental Team (ET) Cinotech Consultants Limited (CCL).
 - Independent Environmental Checker (IEC) Ka Shing Management Consultant Ltd. (KSMC).
 - Contractor Continental Engineering Corp. and Chit Cheung Construction Co. Ltd. Joint Venture (CCJV).
- 1.7 The key contacts of the Project are shown in **Table 1.1**.

Table 1.1 Key Project Contacts

Tubic 1.1	Key 110jeet Contacts				
Party	Role	Contact Person	Position	Phone No.	Fax No.
Project Project		Mr. Keith Chu	Senior Engineer	3579 2450	3579 4516
CEDD	Proponent	Ms. Adonia Yung	Engineer	3579 2124	33/9 4310
AECOM	Supervising Officer	Mr. Clive Cheng	CRE	3746 1801	2798 0783
	Environmental	Mr. K S Lee	Environmental Team Leader	2151 2091	2105 1200
Cinotech	Cinotech Team		Audit Team Leader	2151 2072	3107 1388
KSMC	Independent Environmental Checker	Dr. M. T. Wong	IEC	2618 2166	2120 7752
CCJV	Contractor	Mr. Jack Lai	Environmental Officer	2960 1398	2960 1399

2. ENVIRONMENTAL MONITORING AND AUDIT REQUIREMENTS

Monitoring Parameters and Monitoring Locations

2.1 With reference to the same principle of EIA report of the Project, air quality monitoring station should be provided at the Air Sensitive Receivers (ASR) within 500 m from the boundary of this Project while construction noise monitoring station should be provided at the Noise Sensitive Receivers (NSR) within 300 m from the boundary of this Project. Since the opening of the Centre of Excellence in Paediatrics (Children's Hospital) on 18 December 2018, the hospital is considered as the only relevant monitoring location and therefore the monitoring is required.

Monitoring Methodology

2.2 Monitoring works/equipments were conducted/calibrated regularly in accordance with the EM&A Manual.

Environmental Quality Performance Limits (Action and Limit Levels)

2.3 Should the environmental quality parameters exceed the Action/Limit Levels, the respective action plans would be implemented. The Action/Limit Levels for each environmental parameter are given in **Appendix A**.

Implementation Status of Environmental Mitigation Measures

2.4 Relevant mitigation measures as recommended in the project EIA report have been stipulated in the EM&A Manual for the Contractor to implement. The implementation status of environmental mitigation measures (EMIS) is given in **Appendix B**.

Site Audit Summary

2.5 Site audits were carried out on a weekly basis. During site inspections in the reporting period, no non-conformance was identified. The observations and recommendations made during the reporting period are summarized in **Appendix C**.

Status of Waste Management

2.6 The amount of wastes generated by the major site activities of this Project during the reporting month is shown in **Appendix D**.

3. Monitoring Results

Air Quality and Construction Noise

- 3.1 As the monitoring works for the hospital is covered by the Contract KL/2014/03 (Kai Tak Development Stage 3 Infrastructure Works for Developments at the Southern Part of the Former Runway) at the monitoring station (KTD1), the corresponding monitoring results for April June 2022 should be accessed in the EM&A report for the reporting month. **Appendix A** shows the established Action and Limit Levels for the environmental monitoring works.
- 3.2 Site audits were carried out to monitor and audit the timely implementation of air quality and noise mitigation measures under the Project on a weekly basis. No non-compliance of the air quality impact and noise impact was recorded in the reporting quarter.

Landscape and Visual

3.3 Site audits were carried out on a weekly basis to monitor and audit the timely implementation of landscape and visual mitigation measures under the Project. No non-compliance of the landscape and visual impact was recorded in the reporting quarter.

4. Non-compliance (exceedances) of the Environmental Quality Performance Limits (Action and Limit Levels)

Summary of Exceedances

- 4.1 A summary of exceedances is attached in **Appendix E**. The details of each exceedance were attached in the Monthly EM&A Reports.
 - Air Quality and Construction Noise
- 4.2 No Action/ Limit Level exceedance was recorded in the reporting quarter.
 - Landscape and Visual
- 4.3 No non-compliance of the landscape and visual impact was recorded in the reporting quarter.

Review of the Reasons for and the Implications of Non-compliance

4.4 There was no non-compliance from the site audits in the reporting quarter. The observations and recommendations made in each individual site audit session were attached in the **Appendix C**.

Summary of Environmental Complaints and Prosecutions

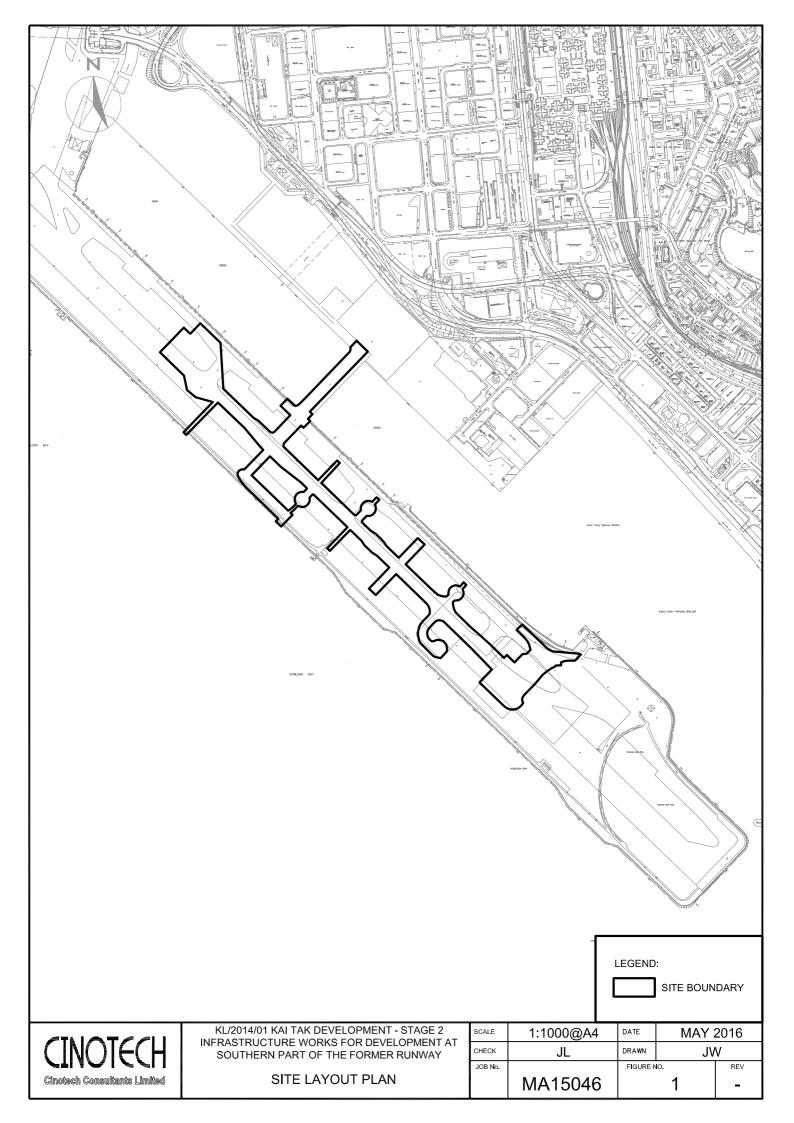
- 4.5 No environmental complaint was received during the reporting quarter.
- 4.6 No warning, summon and notification of successful prosecution was received in the reporting period.
- 4.7 There were no environmental complaints, warnings, summons and successful prosecutions received since the commencement of the Project.

5. COMMENTS, CONCLUSIONS AND RECOMMENDATIONS

Effectiveness of Mitigation Measures

- 5.1 The mitigation measures recommended in the EIA report are considered effective in minimizing environmental impacts.
- 5.2 The Contractor has implemented the recommended mitigation measures except those mitigation measures not applicable at this stage.
- 5.3 Environmental monitoring works were performed in the reporting quarter and all monitoring results were checked and reviewed. No non-compliance (exceedances) of Action/Limit Level was recorded.
- 5.4 No environmental complaints and environmental prosecution were received in the reporting quarter.

FIGURE(S)



APPENDIX A ACTION AND LIMIT LEVELS

Appendix A - Action and Limit Levels

Table A-1 Action and Limit Levels for Air Quality Monitoring

Monitoring Station	Parameter	Action Level (μg/ m³)	Limit Level ⁽¹⁾⁽²⁾ (μg/ m³)
KTD1a	24-hr TSP	177	260
KTD1a*	1-hr TSP	285	500

^{* 1-}hr TSP monitoring should be required in case of complaints.

Table A-2 Action and Limit Levels for Construction Noise Monitoring

Time Period	Action Level	Limit Level ⁽¹⁾⁽²⁾
0700-1900 hrs on normal weekdays	When one documented complaint is received	75 dB(A) 70dB(A)/65dB(A)*

Remarks: (1) If works are to be carried out during restricted hours, the conditions stipulated in the Construction Noise Permit (CNP) issued by the Noise Control Authority have to be followed.

⁽²⁾ No regular noise impact monitoring station for this Contract. It is subject to the noise sensitive receiver(s) and additional monitoring work.

^{(*) 70}dB(A) and 65dB(A) for schools during normal teaching periods and school examination periods respectively.

APPENDIX B ENVIRONMENTAL MITIGATION IMPLEMENTATION SCHEDULE (EMIS)

Appendix B - Summary of Implementation Schedule of Mitigation Measures for Construction Phase

EIA Ref.	Mitigation Measures	Status	
Construction Air Quality			
S3.2 (AEIAR-130/2009)	8 times daily watering of the work site with active dust emitting activities.	٨	
S4.8 (AEIAR-170/2013)	Control measures stipulated in the approved KTD Schedule 3 EIA Report should be strictly followed.	٨	
S3.2 (AEIAR-130/2009) and S4.8	Implementation of dust suppression measures stipulated in Air Pollution Control (Construction Dust) Regulation. The following mitigation measures, good site practices and a comprehensive dust monitoring and audit programme are recommended to minimize cumulative dust impacts.		
(AEIAR-170/2013)	 Stockpiling site(s) should be lined with impermeable sheeting and bunded. Stockpiles should be fully covered by impermeable sheeting to reduce dust emission. 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.	٨	
	• 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.	۸	
	• 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.	۸	
	• The vehicles should be restricted to maximum speed of 10 km per hour and confined haulage and delivery vehicle to designated roadways insider the site. Onsite unpaved roads should be compacted and kept free of lose materials.	۸	
	Vehicle washing facilities should be provided at every vehicle exit point.	۸	

EIA Ref.	Mitigation Measures	Status
	 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. Every stock of more than 20 bags of cement should be covered entirely by impervious sheeting placed in an area sheltered on the top and the three sides; and Every vehicle should be washed to remove any dusty materials from its body and wheels before leaving the construction sites. 	
Construction Noise		
S3.3 (AEIAR-130/2009)	Use of quiet PME, movable barriers barrier for Asphalt Paver, Breaker, Excavator and Hand-held breaker and full enclosure for Air Compressor, Bar Bender, Concrete Pump, Generator and Water Pump.	٨
S3.3	Good Site Practice:	
(AEIAR-130/2009)	 Only well-maintained plant should be operated on-site and plant should be serviced regularly during the construction program. 	۸
	• Silencers or mufflers on construction equipment should be utilized and should be properly maintained during the construction program.	٨
	 Mobile plant, if any, should be sited as far away from NSRs as possible. 	٨
	 Machines and plant (such as trucks) that may be in intermittent use should be shut down between works periods or should be throttled down to a minimum. 	٨
	Plant known to emit noise strongly in one direction should, wherever possible, be orientated so that the noise is directed away from the nearby NSRs.	٨
	Material stockpiles and other structures should be effectively utilized, wherever	^

EIA Ref.	Mitigation Measures	Status
	practicable, in screening noise from on-site construction activities.	
S3.3 (AEIAR-130/2009)	Scheduling of Construction Works during School Examination Period	N/A
S3.8 (AEIAR-170/2013)	Provision of a landscaped deck along Roads D3A & D4A.	N/A
S3.8 (AEIAR-170/2013)	 Provision of about 1090 m length of vertical noise barrier (connected to the deck) at Roads D3A & D4A; Provision of about 60 m length of overhang vertical noise barrier (connected to the deck) at Road D4A; and Provision of staircases with noise barriers next to Sites 4A1 and 4B1 It should be noted that the exact length of the mitigation measures would be subject to minor refinement during the detailed design stage. 	N/A N/A N/A
S3.8 (AEIAR-170/2013)	Non-noise sensitive use areas within Sites 4A1 and 4B1.	N/A
S3.8 (AEIAR-170/2013)	Avoid sensitive façade with openable window facing Road D3A.	N/A
Construction Water	Quality	
S3.4 (AEIAR-130/2009) and S5.8 (AEIAR-170/2013)	 Construction Runoff 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: use of sediment traps adequate maintenance of drainage systems to prevent flooding and overflow 	^ ^

EIA Ref.	Mitigation Measures	Status
	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 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.	٨
S5.8 (AEIAR-170/2013)	Earthworks final surfaces should be well compacted and the subsequent permanent work or surface protection should be carried out immediately after the final surfaces are formed to prevent erosion caused by rainstorms. Appropriate drainage like intercepting channels should be provided where necessary.	٨
	Measures should be taken to minimize the ingress of rainwater into trenches. If excavation of trenches in wet seasons is necessary, they should be dug and backfilled in short sections. Rainwater pumped out from trenches or foundation excavations should be discharged into storm drains via silt removal facilities.	^
S3.4 (AEIAR-130/2009)	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	۸

EIA Ref.	Mitigation Measures	Status
	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.	
S3.4 (AEIAR-130/2009) and S5.8 (AEIAR-170/2013)	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.	٨
	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.	٨
S3.4 (AEIAR-130/2009)	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.	٨
	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.	٨
S3.4 (AEIAR-130/2009) and S5.8 (AEIAR-170/2013)	All vehicles and plant should be cleaned before leaving a construction site to ensure no earth, mud, debris and the like is deposited by them on roads. An adequately designed and 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	٨

EIA Ref.	Mitigation Measures	Status
	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.	
S5.8 (AEIAR-170/2013)	Boring and Drilling Water Water used in ground boring and drilling for site investigation or rock / soil anchoring should as far as practicable be re-circulated after sedimentation. When there is a need for final disposal, the wastewater should be discharged into storm drains via silt removal facilities.	٨
	Acid Cleaning, Etching and Pickling Wastewater Acidic wastewater generated from acid cleaning, etching, pickling and similar activities should be neutralized to within the pH range of 6 to 10 before discharging into foul sewers	^
S3.4 (AEIAR-130/2009)	Drainage 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.	٨
S3.4 (AEIAR-130/2009)	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.	٨

EIA Ref.	Mitigation Measures	Status
S3.4 (AEIAR-130/2009)	All fuel tanks and storage areas should be provided with locks and be located 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.	٨
S5.8 (AEIAR-170/2013)	There is a need to apply to EPD for a discharge licence for discharge of effluent from the construction site under the WPCO. The discharge quality must meet the requirements specified in the discharge licence. All the runoff and wastewater generated from the works areas should be treated so that it satisfies all the standards listed in the TM-DSS. Minimum distance of 100 m should be maintained between the discharge points of construction site effluent and the existing seawater intakes and the planned WSR mentioned in S5.3.1 as appropriate. The beneficial uses of the treated effluent for other on-site activities such as dust suppression, wheel washing and general cleaning etc., can minimise water consumption and reduce the effluent discharge volume. If monitoring of the treated effluent quality from the works areas is required during the construction phase of the Project, the monitoring should be carried out in accordance with the relevant WPCO licence which is under the ambit of regional office (RO) of EPD.	^
S3.4 (AEIAR-130/2009) and S5.8 (AEIAR-170/2013)	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.	^
S5.8	Notices should be posted at conspicuous locations to remind the workers not to discharge	۸

EIA Ref.	Mitigation Measures	Status
(AEIAR-170/2013)	any sewage or wastewater into the surrounding environment. Regular environmental audit of the construction site will provide an effective control of any malpractices and can encourage continual improvement of environmental performance on site. It is anticipated that sewage generation during the construction phase of the project would not cause water pollution problem after undertaking all required measures.	
S3.4 (AEIAR-130/2009) and S5.8 (AEIAR-170/2013)	Stormwater Discharges Minimum distances of 100 m should be maintained between the existing or planned stormwater discharges and the existing or planned seawater intakes.	^
	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.	٨
S5.8 (AEIAR-170/2013)	Accidental Spillage Contractor must register as a chemical waste producer if chemical wastes would be produced from the construction activities. The Waste Disposal Ordinance (Cap 354) and its subsidiary regulations in particular the Waste Disposal (Chemical Waste) (General) Regulation, should be observed and complied with for control of chemical wastes. Any service shop and maintenance facilities should be located on hard standings within a bunded area, and sumps and oil interceptors should be provided. Maintenance of vehicles and equipment involving activities with potential for leakage and spillage should only be undertaken within the areas appropriately equipped to control these discharges.	^

EIA Ref.	Mitigation Measures	Status
	 Disposal of chemical wastes should be carried out in compliance with the Waste Disposal Ordinance. The Code of Practice on the Packaging, Labelling and Storage of Chemical Wastes published under the Waste Disposal Ordinance details the requirements to deal with chemical wastes. General requirements are given as follows: Suitable containers should be used to hold the chemical wastes to avoid leakage or spillage during storage, handling and transport. Chemical waste containers should be suitably labelled, to notify and warn the personnel who are handling the wastes, to avoid accidents. 	^ ^
	 Storage area should be selected at a safe location on site and adequate space should be allocated to the storage area. 	۸
Construction Waste	Management	
S6.7 (AEIAR-170/2013)	Prepare a Waste Management Plan, which becomes a part of the Environmental Management Plan, in accordance with the requirements stipulated in ETWB TC (W) No. 19/2005, approved by the Engineer/Supervising Officer of the Project based on current practices on construction sites.	۸
S3.5 (AEIAR-130/2009) and S6.7 (AEIAR-170/2013)	Good Site Practices It is not anticipated that adverse waste management related impacts would arise, provided that good site practices are adhered to. Recommendations for good site practices during construction activities include: ■ Nomination of an approved person, such as a site manager, to be responsible for good site practices, arrangements for collection and effective disposal to an appropriate facility, of all wastes generated at the site Training of site personnel in proper waste management and chemical waste handling procedures	^
	Provision of sufficient waste disposal points and regular collection for disposal	٨

EIA Ref.	Mitigation Measures	Status
	Appropriate measures to minimise windblown litter and dust during transportation of	٨
	waste by either covering trucks or by transporting wastes in enclosed containers	
	• A recording system for the amount of wastes generated, recycled and disposed of (including the disposal sites)	^
	 Regular cleaning and maintenance systems, sumps and oil interceptors 	^
	 Separation of chemical wastes for special handling and appropriate treatment 	٨
	Waste Reduction Measures	
	Good management and control can prevent the generation of a significant amount of	
	waste. Waste reduction is best achieved at the planning and design stage, as well as by	
	ensuring the implementation of good site practices. Recommendations to achieve waste reduction include:	
	 Sort C&D waste from demolition of the remaining structures to recover recyclable portions such as metals 	^
	• Segregation and storage of different types of waste in different containers, skips or	^
	stockpiles to enhance reuse or recycling of materials and their proper disposal	
	• Encourage collection of aluminium 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	
	• Any unused chemicals or those with remaining functional capacity should be recycled	٨
	Proper storage and site practices to minimise the potential for damage or contamination of construction materials	^
	Plan and stock construction materials carefully to minimize amount of waste generated and avoid unnecessary generation of waste	^
	 Training should be provided to workers about the concepts of site cleanliness and 	^
	appropriate waste management procedures, including waste reduction, reuse and recycle.	

EIA Ref.	Mitigation Measures	Status
S3.5 (AEIAR-130/2009)	Construction and Demolition Materials Mitigation measures and good site practices should be incorporated in the contract document to control potential environmental impact from handling and transportation of C&D material. The mitigation measures include: • Where it is unavoidable to have transient stockpiles of C&D material within the Project work site pending collection for disposal, the transient stockpiles shall be located away from waterfront or storm drains as far as possible.	^
	• Open stockpiles of construction materials or construction wastes on-site should be covered with tarpaulin or similar fabric.	٨
	• Skip hoist for material transport should be totally enclosed by impervious sheeting.	٨
	• Every vehicle should be washed to remove any dusty materials from its body and wheels before leaving a construction site.	۸
	• 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.	^
	• 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.	^
	• All dusty materials should be sprayed with water prior to any loading, unloading or transfer operation so as to maintain the dusty materials wet.	٨
	The height from which excavated materials are dropped should be controlled to a minimum practical height to limit fugitive dust generation from unloading.	^
	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	^

EIA Ref.	Mitigation Measures	Status		
	System for Disposal of Construction and Demolition Materials" should be included as one of the contractual requirement sand 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.			
General Refuse (AEIAR-130/2009) 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				
Construction Lands	scape and Visual	L		
S3.8.12	Minimized construction area and contractor's temporary works areas.	٨		
(AEIAR-130/2009)	• All existing trees should be carefully protected during construction.	٨		
and	• Trees unavoidably affected by the works should be transplanted where practical.	٨		
S7.9 (AEIAR-170/2013)	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.			
	• Control of night-time lighting.	٨		
	• Erection of decorative screen hoarding.	٨		
	Reduction of construction period to practical minimum.	٨		
	• Limitation of / Ensuring no run-off into surrounding landscape and adjacent seawater areas.	٨		
	• Temporary or advance landscape should be provided along the temporary access roads to the Cruise Terminal until such time as road D3 is open.	٨		

Remarks:	EIA Report (AEIAR-130/2009) – Kai Tak Development						
	EIA Report (AEIAR-170/2013) – Kai Tak Development – Roads D3A & D4A						
	^ Compliance of mitigation measure; N/A Not Applicable at this stage;	X Non-compliance of mitigation measure; Non-compliance but rectified by the					
	N/A(1) Not observed;	contractor;					
	* Recommendation was made during site audit						
	but improved/rectified by the contractor.	audit but not yet improved/rectified by the contractor.					

APPENDIX C SITE AUDIT SUMMARY

Appendix C Summary of Observation and Recommendation Made during Site Inspection

Summary of Observation and Recommendation Made during Site Inspection in Apr – Jun 2022

Parameters	Date	Observations and Recommendations	Follow-up
Water Quality			
muer quanty			
Air Quality			
Noise			
Waste/ Chemical Management			
Landscape and Visual			
Permits/ Licences			

APPENDIX D WASTE GENERATED QUANTITY

Appendix D. Monthly Summary Waste Flow Table

Name of Department:	CEDD	Contract No:	KL/2014/01

Monthly Summary Waste Flow Table for 2022

	Actual Quantities of Inert C&D Materials Generated Monthly					Actual Quantities of C&D Wastes Generated Monthly					
Month	Total Quantity Generated	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	Chemical Waste	Others, e.g. general refuse
	(in tonne)	(in tonne)	(in tonne)	(in tonne)	(in tonne)	(in tonne)	(in '000 kg)	(in '000kg)	(in '000kg)	(in '000kg)	(in tonne)
Jan	43.77	0	0	0	0.00	0	0	0	0	0	43.77
Feb	58.14	0	0	0	0.00	0	0	0	0	0	58.14
Mar	87.83	0	0	0	0.00	0	0	0	0	0	87.83
Apr	247.25	0	0	0	0.00	0	0	0	0	0	247.25
May	173.63	0	0	0	0.00	0	0	0	0	0	173.63
June	114.17	0	0	0	0.00	0	0	0	0	0	114.17
Sub-total	724.79	0	0	0	0.00	0	0	0	0	0	724.79
July		0	0	0		0	0	0	0	0	
Aug		0	0	0		0	0	0	0	0	
Sept		0	0	0		0	0	0	0	0	
Oct		0	0	0		0	0	0	0	0	
Nov		0	0	0		0	0	0	0	0	
Dec		0	0	0		0	0	0	0	0	
Total	724.79	0	0	0	0.00	0	0	0	0	0	724.79

^{*} Transfer to alterative disposal ground at Lung Kwu Sheung Tan EPD approved recycler

APPENDIX E SUMMARY OF EXCEEDANCES

Contract No. KL/2014/01 Kai Tak Development –Stage 2 Infrastructure Works for Developments at the Southern Part of the Former Runway

Appendix E – Summary of Exceedance

Exceedance Record for Contract No. KL/2014/01

Report period: April 2022 to June 2022

(A) Exceedance Record for Construction Dust

(NIL in the reporting month)

(B) Exceedance Record for Construction Noise

(NIL in the reporting month)

(C) Exceedance Record for Landscape and Visual

(NIL in the reporting month)

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Appendix B

Quarterly EM&A Report
For
Contract No. KL/2015/02
Kai Tak Development - Stage 5A Infrastructure at Former North Apron Area

Civil Engineering and Development Department

Contract No. KLN/2016/04 Environmental Monitoring Works for Contract No. KL/2015/02 Kai Tak Development – Stage 5A Infrastructure at Former North Apron Area

Quarterly EM&A Report

April to June 2022

(Version 1.0)

Approved By

(Environmental Team Leader)

REMARKS:

The information supplied and contained within this report is, to the best of our knowledge, correct at the time of printing.

CINOTECH accepts no responsibility for changes made to this report by third parties

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FUGRO TECHNICAL SERVICES LIMITED

19/F, Fugro House - KCC2 1 Kwai On Road, Kwai Chung New Territories, Hong Kong

Date

29 July 2022

Our Ref. MCL/ED/0284/2022/C

Cinotech Consultants Limited Rm 1710, Technology Park, 18 On Lai Street, Shatin, New Territories, Hong Kong

BY EMAIL

Attn.: Mr. K.S Lee

Dear Sir,

Contract No. KL/2015/02 Kai Tak Development -Stage 5A Infrastructure at Former North Apron Verification of Quarterly EM&A Report – April 2022 to June 2022

We refer to your emails dated 28 July 2022 for the captioned report prepared by the ET.

We have no further comment and hereby verify the captioned report.

Should you require further information, please do not hesitate to contact Mr. Cyrus Lai at 3565 4442 or the undersigned on 3565 4114.

Assuring you of our best attention at all times.

Yours faithfully, For and on behalf of FUGRO TECHNICAL SERVICES LIMITED

Colin K. L. Yung

Independent Environmental Checker

CY/cl

CEDD -C.C.

Attn.: Mr. Ricky Chan

AECOM -

Attn.: Mr. Vincent Yip Attn.: Mr. Vincent Lee

Attn.: Mr. Teddy Shih

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EXECUTIVE SUMMARY

Introduction

- 1. This is the 22nd Quarterly Environmental Monitoring and Audit (EM&A) Report prepared by Cinotech Consultants Limited for the "Contract No. KL/2015/02 Kai Tak Development Stage 5A Infrastructure at Former North Apron Area" (hereinafter called "the Project"). This contract comprises one Schedule 2 designated project (DP), namely the new distributor Road D1 serving the planned KTD. The DP is part of the designated project under Environmental Permit (EP) No.: EP-337/2009 ("New distributor roads serving the planned Kai Tak Development") respectively. This summary report presents the EM&A works performed in the period between April and June 2022.
- 2. With reference to the same principle of EIA report of the Project, air quality monitoring stations within 500 m and noise monitoring stations within 300 m from the boundary of this Project are considered as relevant monitoring locations. In such regard, the relevant air quality and noise monitoring locations are tabulated in **Table I** (see **Figure 2** and **3** for their locations).

Table I – Air Quality and Noise Monitoring Stations for this Project

Locations	Monitoring Stations In accordance with EM&A Manual	Alternative Monitoring Stations				
Air Quality Monitoring Stations						
AM2 - Lee Kau Yan Memorial	Yes (1-hour TSP)	N/A				
School	No (24-hour TSP)	AM2(A) – Ng Wah Catholic Secondary School				
Noise Monitoring Stations						
M3 - Cognitio College	No	M3(A) – The Bridge connecting The Latitude				
M4 - Lee Kau Yan Memorial School	Yes	N/A				
M5 – Nam Yuen	No	M5(C) – Mercy Grace's Home				

3. The construction activities undertaken in the reporting period were:

April 2022

- Lift installation work of LT1 at SKLR Playground
- Excavating and laying cable ducts for E&M works at SKLR Playground
- Carry out water proofing works and backfilling works at TTA Stage 3 & 4 of PERE
- Install bulkhead lighting works at Subway

May 2022

- Lift installation work of LT1 at SKLR Playground
- Excavating and laying cable ducts for E&M works at SKLR Playground
- Carry out water proofing works and backfilling works at TTA Stage 3 & 4 of PERE
- Install bulkhead lighting works at Subway

June 2022

- Fix steel frame members of staircase cover of ST1 at SKLR Playground
- Install lift inside the lift shaft of LT1 at SKLR Playground
- Carry out finishing works & E&M works inside subway
- Carry out backfilling works to the subway at PERE

Environmental Monitoring Works

4. Environmental monitoring for the Project was performed in accordance with the EM&A Manual and the monitoring results were checked and reviewed. Site Inspections/Audits were conducted once per week. The implementation of the environmental mitigation measures, Event Action Plans and environmental complaint handling procedures were also checked.

5. Summary of the non-compliance in the reporting period for the Project is tabulated in **Table II**.

Table II Summary of Non-compliance Record for the Project in the Reporting Period

Domomoton	No. of Exc	Action Taken	
Parameter	Action Level	Action Level Limit Level	
April 2022			
1-hr TSP	0	0	N/A
24-hr TSP	0	0	N/A
Noise	0	0	N/A
May 2022			
1-hr TSP	0	0	N/A
24-hr TSP	0	0	N/A
Noise	0	0	N/A
June 2022			
1-hr TSP	0	0	N/A
24-hr TSP	0	0	N/A
Noise	0	0	N/A

1-hour & 24-hour TSP Monitoring

6. All 1-hour & 24-hour TSP monitoring was conducted as scheduled in the reporting month. No Action/Limit Level exceedance was recorded.

Construction Noise

7. All construction noise monitoring was conducted as scheduled in the reporting month. No Action/Limit Level exceedance was record.

Environmental Licenses and Permits

8. All permit/licenses obtained for the Project are summarized in **Table III**.

Kai Tak Development – Stage 5A Infrastructure at Former North Apron Area

Quarterly EM&A Report – April to June 2022

Table III Summary of Environmental Licensing and Permit Status

D 4437	Valid F	G				
Permit No.	From	To	Status			
Environmental Permit (EP)	Environmental Permit (EP)					
EP-337/2009	23 Apr 2009	N/A	Valid			
Effluent Discharge License						
WT00027495-2017	28 Mar 2017	31 Mar 2022	Expired			
Billing Account for Construction Waste	Disposal					
A/C# 7026164	20 Oct 2016	N/A	Valid			
Registration of Chemical Waste Produce	er					
WPN5213-229-P3271-01	14 Aug 2017	N/A	Valid			
Construction Noise Permit (CNP)						
GW-RE0915-19	8 Nov 2019	4 May 2020	Expired			
GW-RE0984-19	15 Dec 2019	24 Feb 2020	Expired			
GW-RE0083-20	1 Mar 2020	1 June 2020	Expired			
GW-RE0266-20	2 May 2020	31 Jul 2020	Expired			
GW-RE0779-21	30 Jul 2021	30 Nov 2021	Expired			
GW-RE0858-21	31 Jul 2021	30 Aug 2021	Expired			

Key Information in the Reporting Period

9. Summary of key information in the reporting period is tabulated in **Table IV**.

Table IV Summary Table for Key Information in the Reporting Period

	1 0				
Event	Event Details		Action Taken	Status	Remark
Event	Number	Nature	Action Taken	Status	Kemark
Complaint received	0		N/A	N/A	
Reporting Changes	0		N/A	N/A	
Notifications of any summons & prosecutions received	0		N/A	N/A	

10. Environmental monitoring works for the Project are considered effective and is generating data to categorically identify the environmental impacts from the works and influencing factors in the vicinity of monitoring stations.

1. INTRODUCTION

Background

- 1.1 The Kai Tak Development (KTD) is located in the south-eastern part of Kowloon Peninsula, 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. It covers a land area of about 328 hectares. Stage 5A Infrastructure at Former North Apron Area is one of the construction stages of KTD. It contains one Schedule 2 DP including new distributor roads serving the planned KTD. The general layout of the Project is shown in **Figure 1.**
- 1.2 One Environmental Permit (EP) No. EP-337/2009 was also issued on 23 April 2009 for new distributor roads serving the planned KTD to Civil Engineering and Development Department as the Permit Holder.
- 1.3 A study of environmental impact assessment (EIA) was undertaken to consider the key issues of air quality, noise, water quality, waste, land contamination, cultural heritage and landscape and visual impact, and identify possible mitigation measures associated with the works. An EIA Report (Register No. AEIAR-130/2009) was approved by the Environmental Protection Department (EPD) on 4 April 2009.
- 1.4 Cinotech Consultants Limited (Cinotech) was commissioned by Civil Engineering and Development Department (CEDD) to undertake the role of the Environmental Team (ET) for the Contract No. KL/2015/02 Stage 5A Infrastructure at Former North Apron Area. The construction work under KL/2015/02 comprises the construction of part of the Road D1 under the EP (EP-337/2009).
- 1.5 Cinotech Consultants Limited was commissioned by Civil Engineering and Development Department (CEDD) to undertake the Environmental Monitoring and Audit (EM&A) works for the Project. The commencement date of construction of Road D1 (part) under this Contract was on 16 January 2017. This summary report presents the EM&A works performed in the period between April and June 2022.
- 1.6 Different parties with different levels of involvement in the project organization include:

Project Organizations

- Project Proponent Civil Engineering and Development Department (CEDD).
- The Engineer and the Engineer's Representative (ER) AECOM Asia Co. Ltd (AECOM).
- Environmental Team (ET) Cinotech Consultants Limited (CCL).
- Independent Environmental Checker (IEC) Fugro Technical Services Limited (FTS).
- Contractor Peako Wo Hing Joint Venture (PWHJV).
- 1.7 The key contacts of the Project are shown in **Table 1.1**.

Quarterly EM&A Report – April to June 2022

Table 1.1 Key Project Contacts

Party	Role	Contact Person	Position	Phone No.	Fax No.	
CEDD	Project Proponent	Mr. CHAN Wai Kit, Ricky	Senior Engineer	2116 3753	2116 0714	
AECOM	Engineer's Representative	Mr. Vincent Lee	SRE	2798 0771	2210 6110	
Cinotech	Environmental Team	Mr. K.S Lee	Environmental Team Leader	2151 2091		
		Ms. Betty Choi	Audit Team Leader	2151 2072	3107 1388	
FTS	Independent Environmental Checker	Mr. Colin Yung	Independent Environmental Checker	3565 4114	2450 8032	
PWHJV	Contractor	Mr. W.M. Wong	Site Agent	6386 3535	2398 8301	

2. ENVIRONMENTAL MONITORING AND AUDIT REQUIREMENTS

Monitoring Parameters and Monitoring Locations

2.1 The EM&A Manual designates locations for the ET to monitor environmental impacts in terms of air quality, noise, landscape and visual due to the Project. The Project area and monitoring locations are depicted in **Figures 2** and **3**. **Appendix A** gives details of monitoring requirements.

Monitoring Methodology and Calibration Details

2.2 Monitoring works/equipments were conducted/calibrated regularly in accordance with the EM&A Manual. Copies of calibration certificates are attached in the appendices of the Monthly EM&A Reports.

Environmental Quality Performance Limits (Action and Limit Levels)

2.3 The environmental quality performance limits, i.e. Action and Limit Levels were derived from the baseline monitoring results. Should the measured environmental quality parameters exceed the Action/Limit Levels, the respective action plans would be implemented. The Action/Limit Levels for each environmental parameter are given in **Appendix B**.

Implementation Status of Environmental Mitigation Measures

2.4 Relevant mitigation measures as recommended in the project EIA report have been stipulated in the EM&A Manual for the Contractor to implement. The implementation status of environmental mitigation measures (EMIS) is given in **Appendix E**.

Site Audit Summary

2.5 During site inspections in the reporting period, no non-conformance was identified. The observations and recommendations made during the reporting period are summarized in **Appendix F**.

Status of Waste Management

2.6 The amount of wastes generated by the major site activities of this Project during the reporting month is shown in **Appendix G**.

3. MONITORING RESULTS

Weather Conditions

3.1 The weather conditions were generally sunny and cloudy during the monitoring sessions of this reporting period. The detail of weather conditions for each individual monitoring session was presented in monthly EM&A report.

Air Quality

1-hour TSP Monitoring

3.2 All 1-hour TSP monitoring was conducted as scheduled in the reporting month. No Action/Limit Level exceedance was recorded for 1-hr TSP monitoring in the reporting period.

24-hour TSP Monitoring

- 3.3 All 24-hour TSP monitoring was conducted as scheduled in the reporting month. No Action/Limit Level exceedance was recorded for 24-hr TSP monitoring in the reporting period.
- 3.4 The graphical presentations of the air quality monitoring results are shown in **Appendix** C.

Construction Noise

- 3.5 Noise monitoring at 3 monitoring stations, M3(A) The Bridge connecting The Latitude, M5(C) Mercy Grace's Home and M4 Lee Kau Yan Memorial College was conducted as schedule in the reporting period. No Action/Limit Level exceedance was recorded.
- 3.6 The graphical presentations of the noise monitoring results are shown in **Appendix D**.

Landscape and Visual

3.7 Site audits were carried out on a weekly basis to monitor and audit the timely implementation of landscape and visual mitigation measures within KTD. No non-compliance of the landscape and visual impact was recorded in the reporting period.

Influencing Factors on the Monitoring Results

3.8 During the reporting period, the major dust and noise sources identified at the designated monitoring stations are as follows:

AM2 - Lee Kau Yan Memorial School

- Road Traffic Dust
- Exposed site area and open stockpiles
- Excavation works
- Site vehicle movement

AM2(A) – Ng Wah Catholic Secondary School

- Road Traffic Dust
- Exposed site area and open stockpiles
- Excavation works
- Site vehicle movement

M3(A) – The Bridge connecting The Latitude

- Traffic Noise
- Site vehicle movement

M4 – Lee Kau Yan Memorial School

- Daily school activities
- Traffic Noise
- Site vehicle movement
- Excavation works
- Piling works

M5(C) – Mercy Grace's Home

- Site vehicle movement
- Traffic Noise

Comparison of EM&A results with EIA predictions

- 3.9 The EM&A data was compared with the EIA predictions and summarized in **Appendix** I.
- 3.10 All 1-hour and 24-hour average TSP concentration in the reporting period were below the prediction of the approved Environmental Impact Assessment (EIA) Report and no Action/Limit Level exceedance was recorded in the reporting period.
- 3.11 Mitigated construction noise levels at M3(A) and M5(C) were not predicted in EIA Report.
- 3.12 The noise monitoring results in reporting months at M4 were slightly higher than the range of the predicted mitigated constriction noise levels in the EIA Report.
- 3.13 Road traffic noise from Prince Edward Road East recorded during the monitoring period was considered to be the reason behind the discrepancy between the EM&A data and EIA predictions.

4. NON-COMPLIANCE (EXCEEDANCES) OF THE ENVIRONMENTAL QUALITY PERFORMANCE LIMITS (ACTION AND LIMIT LEVELS)

Summary of Exceedances

4.1 Environmental monitoring works were performed in the reporting period and all monitoring results were checked and reviewed. A summary of exceedances is attached in **Appendix H**. The details of each exceedance were attached in the Monthly EM&A Reports.

Air Quality

4.2 No Action/ Limit Level exceedance was recorded in the reporting period.

Construction Noise

4.3 No Action/Limit Level exceedance was recorded in the reporting period.

Landscape and Visual

4.4 No non-compliance of the landscape and visual impact was recorded in the reporting period.

Review of the Reasons for and the Implications of Non-compliance

4.5 There was no non-compliance from the site audits in the reporting period. The observations and recommendations made in each individual site audit session were attached in the **Appendix F**.

Summary of Environmental Complaints and Prosecutions

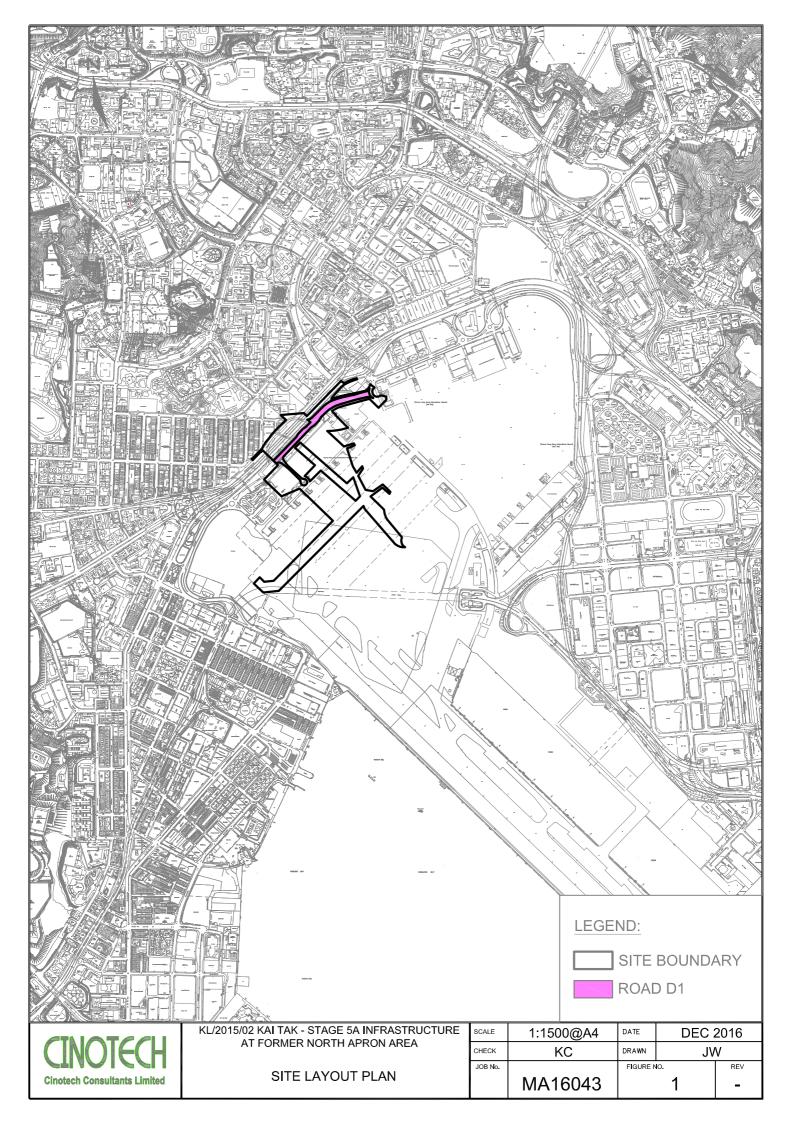
- 4.6 No environmental complaints were received during the reporting period.
- 4.7 No environmental prosecution was received during the reporting period.
- 4.8 No warning, summon and notification of successful prosecution was received in the reporting period.
- 4.9 There were no warnings, summons and successful prosecutions received since the commencement of the Project.

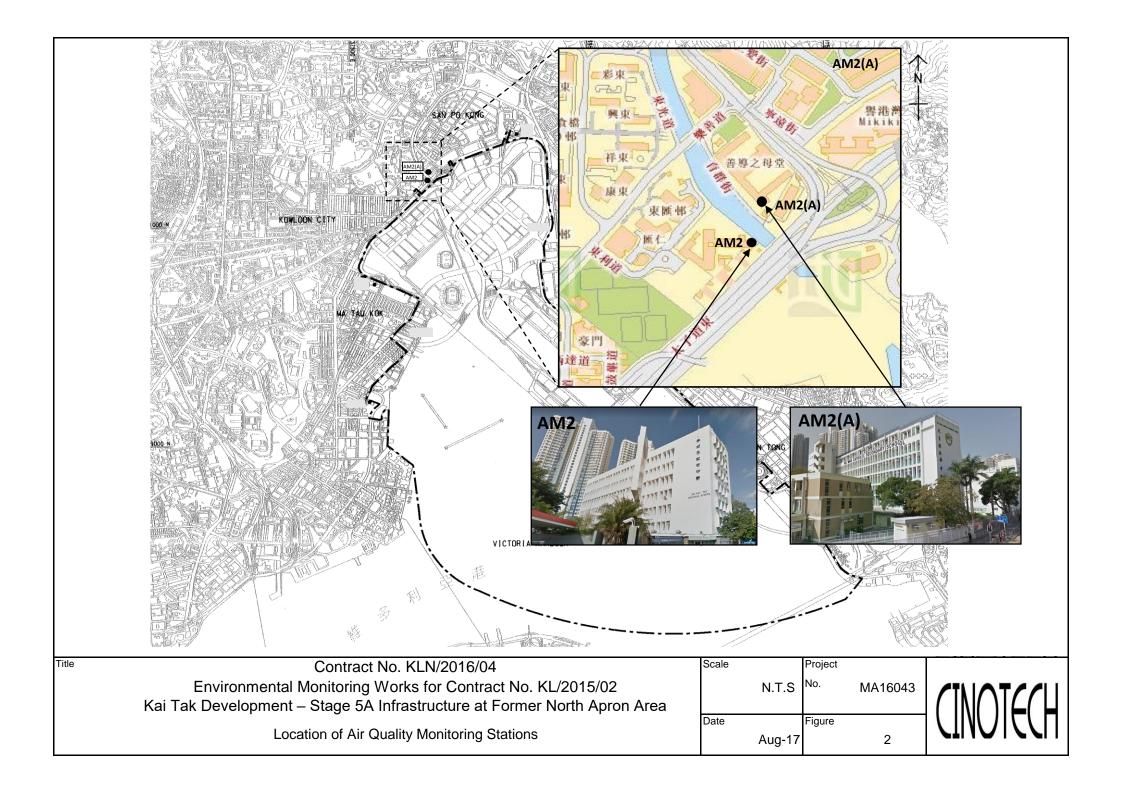
5. COMMENTS, CONCLUSIONS AND RECOMMENDATIONS

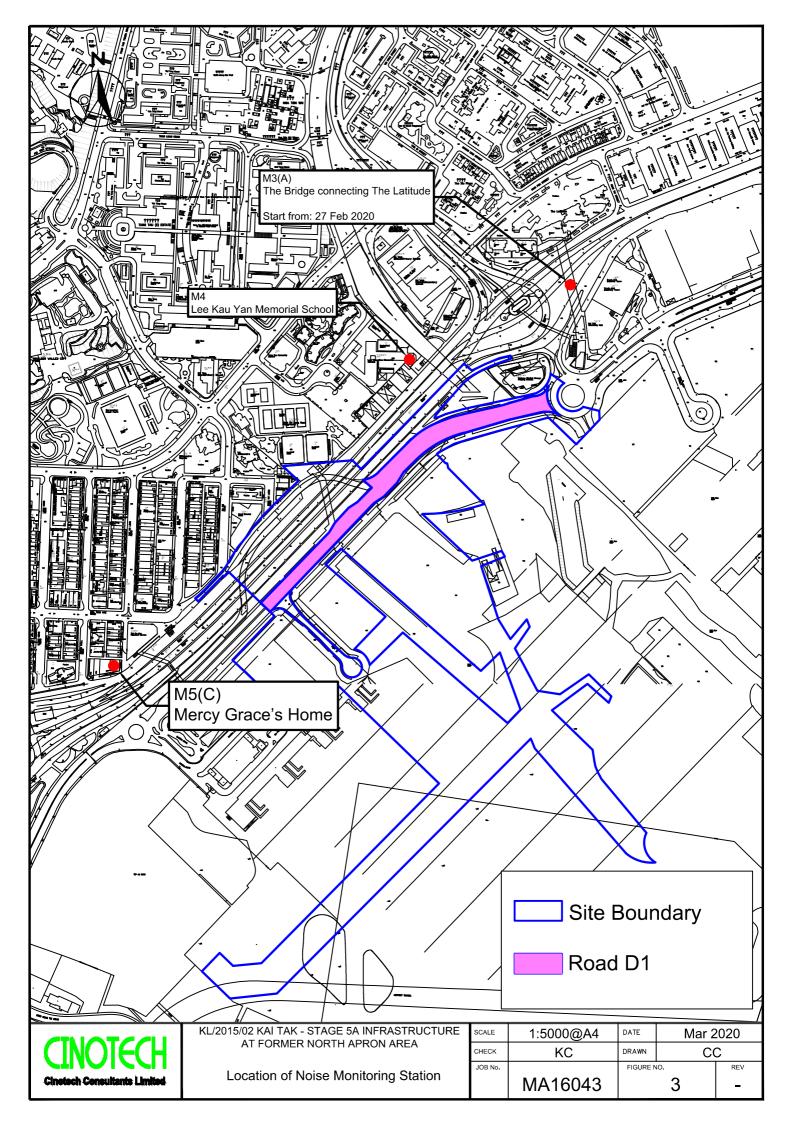
Effectiveness of Mitigation Measures

- 5.1 The mitigation measures recommended in the EIA report are considered effective in minimizing environmental impacts.
- 5.2 The Contractor has implemented the recommended mitigation measures except those mitigation measures not applicable at this stage.
- 5.3 No non-compliance (exceedances) of Action/Limit Level was recorded.
- 5.4 No environmental complaints were received in the reporting period.
- 5.5 No environmental prosecution was received in the reporting period.

FIGURES







APPENDIX A MONITORING REQUIREMENTS

 $\label{lem:appendix} \textbf{A} \textbf{-} \textbf{Environmental Impact Monitoring Requirements}$

Type of Monitoring	Parameter	Frequency	Location	Measurement Conditions
	1 hour TSP	Three times / 6 days		
Air Quality	24 hour TSP	Once / 6 days	 AM2 – Lee Kau Yan Memorial School (1 hour TSP) AM2(A) – Ng Wah Catholic Secondary School (24 hour TSP) 	 AM2 – Rooftop (about 8/F) Area AM2(A) – Rooftop (about 8/F) Area

Type of Monitoring	Parameter	Frequency	Location	Measurement Conditions
Construction Noise	L _{eq} , L ₉₀ & L ₁₀ at 30 minute intervals during (0700 to 1900 on normal weekdays)	Once per week	 M3(A) – The Bridge connecting The Latitude M4 (Lee Kau Yan Memorial School) M5(C) (Mercy Grace's Home) 	 M3(A) - In the middle of the foot bridge connecting The Latitude M4 - Facade measurement at Rooftop (about 7/F) Area M5(C) - Façade measurement at Rooftop (about 5/F) Area / Ground in front of the building entrance facing Prince Edward Road East (noise monitoring is not allowed on the rooftop from 27 February 2020, due to the coronavirus countermeasure in Mercy Grace's Home)

APPENDIX B ACTION AND LIMIT LEVELS FOR AIR QUALITY AND NOISE

Appendix B - Action and Limit Levels

Table B-1 Action and Limit Levels for 1-Hour TSP

Location	Action Level, μg/m ³	Limit Level, μg/m³
AM2	346	500

Table B-2 Action and Limit Levels for 24-Hour TSP

Location	Action Level, μg/m ³	Limit Level, μg/m³
AM2(A)	157	260

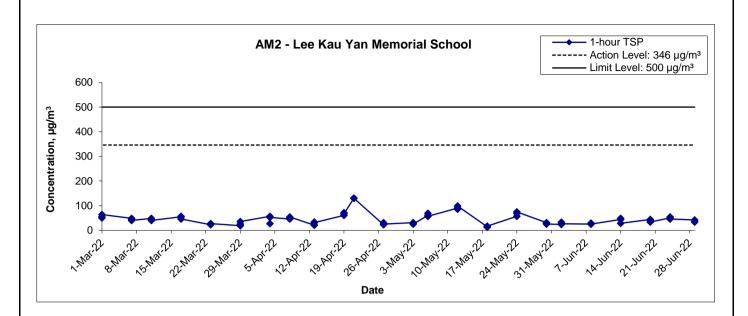
Table B-3 Action and Limit Levels for Construction Noise

Time Period	Action Level	Limit Level
0700-1900 hrs on normal weekdays	When one documented complaint is received	75 dB(A) 70dB(A)/65dB(A)*

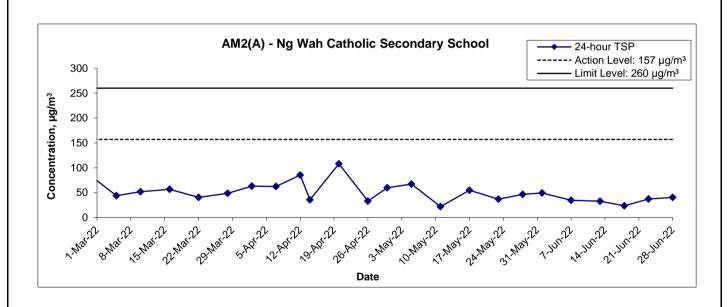
Remarks: If works are to be carried out during restricted hours, the conditions stipulated in the Construction Noise Permit (CNP) issued by the Noise Control Authority have to be followed. *70dB(A) and 65dB(A) for schools during normal teaching periods and school examination periods, respectively.

APPENDIX C GRAPHICAL PRESENTATION OF AIR QUALITY MONITORING RESULTS

1-hr TSP Concentration Levels



24-hr TSP Concentration Levels



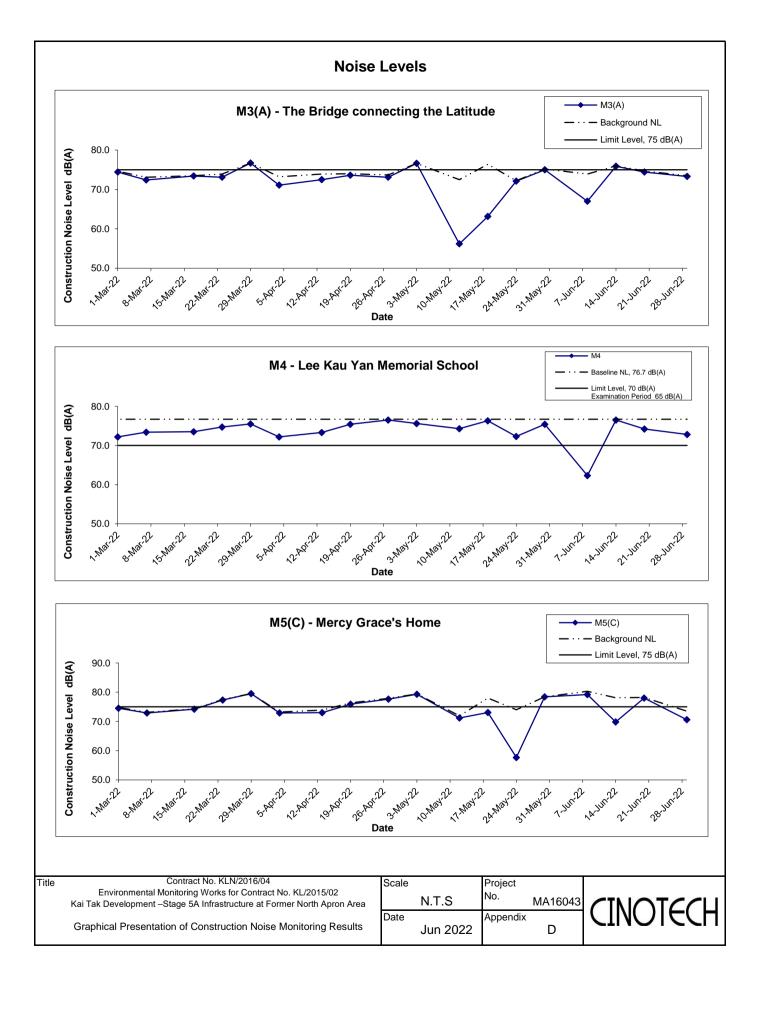
Contract No. KLN/2016/04
Environmental Monitoring Works for Contract No. KL/2015/02
Kai Tak Development –Stage 5A Infrastructure at Former North Apron Area
Graphical Presentation of 1-hour and 24-hour TSP
Monitoring Results

Scale
N.T.S
Project
No. MA16043

Date
Jun 22
Appendix
C

Title

APPENDIX D GRAPHICAL PRESENTATION OF NOISE MONITORING RESULTS



APPENDIX E ENVIRONMENTAL MITIGATION IMPLEMENTATION SCHEDULE (EMIS)

EIA Ref.	Recommended Mitigation Measures	Implementation
LIA Kei.	Recommended Midgation Measures	Status
Constructi	ion Air Quality	
S6.5	8 times daily watering of the work site with active dust emitting activities.	۸
S6.8	Implementation of dust suppression measures stipulated in Air Pollution Control (Construction Dust) Regulation. The following mitigation	۸
	measures, good site practices and a comprehensive dust monitoring and audit programme are recommended to minimize cumulative dust impacts.	
	Stockpiling site(s) should be lined with impermeable sheeting and bunded. Stockpiles should be fully covered by impermeable sheeting to	٨
	reduce dust emission.	
	Misting for the dusty material should be carried out before being loaded into the vehicle. Any vehicle with an open load carrying area should	٨
	have properly fitted side and tail boards.	
	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	٨
	and covered by a clean tarpaulin.	
	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.	
	The vehicles should be restricted to maximum speed of 10 km per hour and confined haulage and delivery vehicle to designated roadways	٨
	insider the site. Onsite unpaved roads should be compacted and kept free of lose materials.	
	Vehicle washing facilities should be provided at every vehicle exit point.	٨
	• 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	٨
	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	٨
	surface wet.	
	• Every stock of more than 20 bags of cement should be covered entirely by impervious sheeting placed in an area sheltered on the top and the	^
	three sides.	
	Every vehicle should be washed to remove any dusty materials from its body and wheels before leaving the construction sites.	۸

DWFI compound for JVBC:	
A DWFI compound is proposed at the downstream of JVC to contain pollution in drainage systems entering the KTAC and KTTS by	N/A
interception facilities until the ultimate removal of the pollution sources. Tidal barriers and desiliting facilities will form part of the	
compounds to prevent any accumulation of sediment within the downstream section of JVBC and hence fully mitigate the potential odour	
emissions from the headspace of JVBC near the existing discharge locations. The odour generating operations within the proposed desilting	
compound will be fully enclosed and the odorous air will be collected and treated by high efficiency deodorizers before discharge to the	
atmosphere.	
Desilting compound for KTN:	
Two desilting compounds are proposed for KTN (at Site 1D6 and Site 1P1) to contain pollution in drainage systems entering the KTAC and	N/A
KTTS by interception facilities until the ultimate removal of the pollution sources. Tidal barriers and desiliting facilities will form part of the	
compounds to prevent any accumulation of sediment within the downstream section of KTN and hence fully mitigate the potential odour	
emissions from the headspace of KTN near the existing discharge locations. The odour generating operations within the proposed desilting	
compound will be fully enclosed and the odorous air will be collected and treated by high efficiency deodorizers before discharge to the	
atmosphere.	
Decking or reconstruction of KTN within apron area:	
It is proposed to deck the KTN or reconstruct the KTN within the former Apron area into Kai Tak River from the south of Road D1 to the	N/A
north of Road D2 along the existing alignment of KTN. The Kai Tak River will compose of a number of channels flowing with nonodorous	
fresh water and THEES effluent. The channel flowing with THEES effluent will be designed with the width of water surface of not more	
than 16m.	
Localised maintenance dredging:	
Localised maintenance dredging should be conducted to provide water depth of not less than 3.5m over the whole of KTAC and KTTS. With	N/A
reference to the water depth data recorded during the odour survey, only some of the areas in the northern part of KTAC (i.e. to the north of	
taxiway bridge) including the area near the northern edge of KTAC, the area near western bank of KTAC, and the area near the JVC	
discharge have water depths shallower than 3.5m. The area involved would be about 40% of the northern KTAC and the dredging depth	
required would be from about 2.7m to less than 1m. The maintenance dredging to be carried out prior to the occupation of any new	
development in the immediate vicinity of KTAC to avoid potential localized odour impacts at the future ASRs during the maintenance	
	A DWFI compound is proposed at the downstream of JVC to contain pollution in drainage systems entering the KTAC and KTTS by interception facilities until the ultimate removal of the pollution sources. Tidal barriers and desiliting facilities will form part of the compounds to prevent any accumulation of sediment within the downstream section of JVBC and hence fully mitigate the potential odour emissions from the headspace of JVBC near the existing discharge locations. The odour generating operations within the proposed desilting compound will be fully enclosed and the odorous air will be collected and treated by high efficiency deodorizers before discharge to the atmosphere. Desilting compounds for KTN: Two desilting compounds are proposed for KTN (at Site 1D6 and Site 1P1) to contain pollution in drainage systems entering the KTAC and KTTS by interception facilities until the ultimate removal of the pollution sources. Tidal barriers and desiliting facilities will form part of the compounds to prevent any accumulation of sediment within the downstream section of KTN and hence fully mitigate the potential odour emissions from the headspace of KTN near the existing discharge locations. The odour generating operations within the proposed desilting compound will be fully enclosed and the odorous air will be collected and treated by high efficiency deodorizers before discharge to the atmosphere. Decking or reconstruction of KTN within apron area: It is proposed to deck the KTN or reconstruct the KTN within the former Apron area into Kai Tak River from the south of Road D1 to the north of Road D2 along the existing alignment of KTN. The Kai Tak River will compose of a number of channels flowing with nonodorous fresh water and THEES effluent. The channel flowing with THEES effluent will be designed with the width of water surface of not more than 16m. Localised maintenance dredgings should be conducted to provide water depth of not less than 3.5m over the whole of KTAC and KTTS. With reference to the water depth

	dredging operation.	
	Improvement of water circulation in KTAC and KTTS:	
	600m gap opening at the northern part of the former Kai Tak runway, the water circulation in KTAC and KTTS would be substantially	N/A
	improved. Together with the improvement in water circulation, the DO level in KTAC and KTTS would also be increased.	
	In-situ sediment treatment by bioremediation:	
	Bioremediation would be applied to the entire KTAC and KTTS.	N/A
Construc	tion Noise	
S7.8	Use of quiet PME, movable barriers barrier for Asphalt Paver, Breaker, Excavator and Hand-held breaker and full enclosure for Air Compressor, Bar	٨
	Bender, Concrete Pump, Generator and Water Pump.	
S7.9	Good Site Practice:	
	Only well-maintained plant should be operated on-site and plant should be serviced regularly during the construction program.	۸
	Silencers or mufflers on construction equipment should be utilized and should be properly maintained during the construction program.	٨
	Mobile plant, if any, should be sited as far away from NSRs as possible.	
	Machines and plant (such as trucks) that may be in intermittent use should be shut down between works periods or should be throttled down	۸
	to a minimum.	
	Plant known to emit noise strongly in one direction should, wherever possible, be orientated so that the noise is directed away from the	٨
	nearby NSRs.	
	Material stockpiles and other structures should be effectively utilized, wherever practicable, in screening noise from on-site construction	۸
	activities.	
S7.9	Scheduling of Construction Works during School Examination Period	۸
S7.8	(i) Provision of low noise surfacing in a section of Road L2; and	N/A
	(ii) Provision of structural fins	N/A
S7.8	(i) Avoid the sensitive façade of class room facing Road L2 and L4; and	N/A
	(ii) Provision of low noise surfacing in a section of Road L2 & L4	N/A

S7.8	(i) Provision of low noise surfacing in a section of Road L4 before occupation of Site 111; and	N/A
	(ii) Setback of building about 5m from site boundary.	N/A
S7.8	Setback of building about 35m to the northwest direction at 1L3 and 5m at Site 1L2.	N/A
S7.8	(i) avoid any sensitive façades with openable window facing the existing Kowloon City Road network; and Avoid the sensitive façade of	N/A
	class room facing Road L2 and L4; and	
	(ii) for the sensitive facades facing the To Kwa Wan direction, either setback the facades by about 5m to the northeast direction or do not	N/A
	provide the facades with openable window.	
S7.8	(i) avoid any sensitive facades with openable window facing the existing To Kwa Wan Road or	N/A
	(ii) provision of 17.5m high noise tolerant building fronting To Kwa Wan Road and restrict the height of the residential block(s) located at	N/A
	less than 55m away from To Kwa Wan Road to no more than 25m above ground	
S7.8	(i) avoid any sensitive facades with openable window facing the slip road connecting Prince Edward Road East and San Po Kong or other	۸
	alternative mitigation measures and at-source mitigation measures for the surrounding new local roads to minimise the potential traffic	
	noise impacts from the slip road	
S7.8	All the ventilation fans installed in the below will be provided with silencers or acoustics treatment.	
	(i) SPS	N/A
	(ii) ESS	N/A
	(iii) Tunnel Ventilation Shaft	N/A
	(iv) EFTS depot	N/A
S7.8	Installation of retractable roof or other equivalent measures	N/A
Constru	ction Water Quality	
S8.8	The following mitigation measures are proposed to be incorporated in the design of the SPS at KTD, including:	
	 Dual power supply or emergency generator should be provided at all the SPSs to secure electrical power supply; 	N/A
	Standby pumps should be provided at all SPSs to ensure smooth operation of the SPS during maintenance of the duty pumps;	N/A
	An alarm should be installed to signal emergency high water level in the wet well at all SPSs; and	N/A
	For all unmanned SPSs, a remote monitor system connecting SPSs with the control station through telemetry system should be provided	N/A
	so that swift actions could be taken in case of malfunction of unmanned facilities	

S8.8	Construction Phase	
	Marine-based Construction	
	Capital and Maintenance Dredging for Cruise Terminal	
	Mitigation measures for construction of the proposed cruise terminal should follow those recommended in the approved EIA for CT Dredging.	N/A
S8.8	Fireboat Berth, Runway Opening and Road T2	
	Silt curtains should be deployed around the close grab dredger to minimize release of sediment and other contaminants for any dredging and filling	N/A
	activities in open water.	
S8.8	Dredging at and near the seawall area for construction of the public landing steps cum fireboat berth should be carried out at a maximum production	N/A
	rate of 1,000m³ per day using one grab dredger.	
S8.8	The proposed construction method for runway opening should adopt an approach where the existing seawall at the runway will not be removed until	N/A
	completion of all excavation and dredging works for demolition of the runway. Thus, excavation of bulk fill and majority of the dredging works will	
	be carried out behind the existing seawall, and the sediment plume can be effectively contained within the works area. As there is likely some	
	accumulation of sediments alongside the runway, there will be a need to dredge the existing seabed after completion of all the demolition works.	
	Dredging alongside the 600m opening should be carried out at a maximum production rate of 2,000m³ per day using one grab dredger.	
8.8	Dredging for Road T2 should be conducted at a maximum rate of 8,000m³ per day (using four grab dredgers) whereas the sand filling should be	N/A
	conducted at a maximum rate of 2,000m3 per day (using two grab dredgers).	
8.8	Silt screens shall be applied to seawater intakes at WSD seawater intake.	N/A

S8.8	<u>Land-based Construction</u>	
	Construction Runoff	
	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:	
	use of sediment traps	٨
	adequate maintenance of drainage systems to prevent flooding and overflow	^
S8.8	Ideally, construction works should be programmed to minimise surface excavation works during the rainy season (April to September). All exposed	۸
	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.	
S8.8	Construction site should be provided with adequately designed perimeter channel and pre-treatment facilities and proper maintenance. The	۸
	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.	
S8.8	Sediment tanks of sufficient capacity, constructed from pre-formed individual cells of approximately 6 to 8 m ³ capacity, are recommended as a	۸
	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.	
S8.8	Open stockpiles of construction materials (for examples, aggregates, sand and fill material) of more than 50 m³ should be covered with tarpaulin or	۸
	similar fabric during rainstorms. Measures should be taken to prevent the washing away of construction materials, soil, silt or debris into any	
	drainage system.	
S8.8	Manholes (including newly constructed ones) should always be adequately covered and temporarily sealed so as to prevent silt, construction	۸
	materials or debris being washed into the drainage system and storm runoff being directed into foul sewers.	
S8.8	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	۸
	be taken during or after rainstorms are summarized in Appendix A2 of ProPECC PN 1/94. Particular attention should be paid to the control of silty	

	surface runoff during storm events.	
S8.8	Oil interceptors should be provided in the drainage system and regularly cleaned to prevent the release of oils and grease into the storm water	N/A(1)
	drainage system after accidental spillages. The interceptor should have a bypass to prevent flushing during periods of heavy rain.	
S8.8	All vehicles and plant should be cleaned before leaving a construction site to ensure no earth, mud, debris and the like is deposited by them on	۸
	roads. 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.	
S8.8	Drainage	
	It is recommended that on-site drainage system should be installed prior to the commencement of other construction activities. Sediment traps	٨
	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	
S8.8	All temporary and permanent drainage pipes and culverts provided to facilitate runoff discharge should be adequately designed for the controlled	٨
	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.	
S8.8	All fuel tanks and storage areas should be provided with locks and be located on sealed areas, within bunds of a capacity equal to 110% of the	٨
	storage capacity of the largest tank, to prevent spilled fuel oils from reaching the coastal waters of the Victoria Harbour WCZ.	
S8.8	Sewage Effluent	
	Construction work force sewage discharges on site are expected to be connected to the existing trunk sewer or sewage treatment facilities. The	٨
	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.	

S8.8	Stormwater Discharges	
	Minimum distances of 100 m should be maintained between the existing or planned stormwater discharges and the existing or planned seawater	^
	intakes	
S8.8	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	
S8.8	Construction Works at or in Close Proximity of Storm Culvert or Seafront	
	The proposed works should preferably be carried out within the dry season where the flow in the drainage channel /storm culvert/ nullah is low.	۸
S8.8	The use of less or smaller construction plants may be specified to reduce the disturbance to the bottom sediment at the drainage channel /storm	٨
	culvert / nullah.	
S8.8	Temporary storage of materials (e.g. equipment, filling materials, chemicals and fuel) and temporary stockpile of construction materials should be	٨
	located well away from any water courses during carrying out of the construction works	
S8.8	Stockpiling of construction materials and dusty materials should be covered and located away from any water courses.	۸
S8.8	Construction debris and spoil should be covered up and/or disposed of as soon as possible to avoid being washed into the nearby water receivers.	۸
S8.8	Construction activities, which generate large amount of wastewater, should be carried out in a distance away from the waterfront, where practicable.	٨
S8.8	Mitigation measures to control site runoff from entering the nearby water environment should be implemented to minimize water quality impacts.	٨
	Surface channels should be provided along the edge of the waterfront within the work sites to intercept the runoff.	
S8.8	Construction effluent, site run-off and sewage should be properly collected and/or treated.	٨
S8.8	Any works site inside the storm water courses should be temporarily isolated, such as by placing of sandbags or silt curtains with lead edge at	N/A
	bottom and properly supported props to prevent adverse impact on the storm water quality.	
S8.8	Silt curtain may be installed around the construction activities at the seafront to minimize the potential impacts due to accidental spillage of	N/A
	construction materials.	
S8.8	Proper shoring may need to be erected in order to prevent soil/mud from slipping into the storm culvert/drainage channel/sea.	N/A

S8.8	Supervisory staff should be assigned to station on site to closely supervise and monitor the works	۸
S8.8	Marine water quality monitoring and audit programme shall be implemented for the proposed sediment treatment operation.	N/A
Construct	ion Waste Management	
S9.5	Good Site Practices	
	It is not anticipated that adverse waste management related impacts would arise, provided that good site practices are adhered to. Recommendations	
	for good site practices during the dredging activities include:	
	Nomination of an approved person, such as a site manager, be responsible for good site practices, arrangements for collection and effective	٨
	disposal to an appropriate facility, of all wastes generated at the site.	
	Training of site personnel in proper waste management and chemical waste handling procedures.	٨
	Provision of sufficient waste disposal points and regular collection for disposal.	٨
	Appropriate measure to minimize windblown litter and dust during transportation of waste by either covering trucks or by transporting	٨
	wastes in enclosed containers.	
	A recording system for the amount of wastes generated, recycled and disposed of (including the disposal sites).	٨
S9.5	Waste Reduction Measures	
	Good management and control can prevent the generation of a significant amount of waste. Waste reduction is best achieved at the planning and	
	design stage, as well as by ensuring the implementation of good site practices. Recommendations to achieve waste reduction include:	
	Sort C&D waste from demolition of the remaining structures to recover recyclable portions such as metals	٨
	Segregation and storage of different types of waste in different containers, skips or stockpiles to enhance reuse or recycling of materials and	٨
	their proper disposal	
	Encourage collection of aluminium cans, PET bottles and paper by providing separate labelled bins to enable these wastes to be segregated	٨
	from other general refuse generated by the work force	
	Any unused chemicals or those with remaining functional capacity should be recycled	٨
	Proper storage and site practices to minimise the potential for damage or contamination of construction materials	٨

S9.5	Dredged Marine Sediment	
	The basic requirements and procedures for dredged mud disposal are specified under the ETWB TCW No. 34/2002. The management of the	N/A
	dredging, use and disposal of marine mud is monitored by the MFC, while the licensing of marine dumping is required under the Dumping at Sea	
	Ordinance and is the responsibility of the Director of Environmental Protection (DEP)	
S9.5	The dredged marine sediments would be loaded onto barges and transported to the designated disposal sites allocated by the MFC depending on	N/A
	their level of contamination. Sediment classified as Category L would be suitable for Type 1 - Open Sea Disposal. Contaminated sediment would	
	require either Type 1 – Open Sea Disposal (Dedicated Sites), Type 2 - Confined Marine Disposal, or Type 3 – Special Treatment / Disposal and must	
	be dredged and transported with great care in accordance with ETWB TCW No. 34/2002. Subject to the final allocation of the disposal sites by	
	MFC, the dredged contaminated sediment must be effectively isolated from the environment and disposed properly at the designated disposal site	
S9.5	It will be the responsibility of the contractor to satisfy the appropriate authorities that the contamination levels of the marine sediment to be dredged	
	have been analysed and recorded. According to the ETWB TCW No. 34/2002, this will involve the submission of a formal Sediment Quality Report	
	to the DEP, prior to the dredging contract being tendered. The contractor for the dredging works should apply for allocation of marine disposal sites	
	and all necessary permits from relevant authorities for the disposal of dredged sediment. During transportation and disposal of the dredged marine	
	sediments requiring Type 1, Type 2, or Type 3 disposal, the following measures should be taken to minimise potential impacts on water quality:	
	Bottom opening of barges should be fitted with tight fitting seals to prevent leakage of material. Excess material should be cleaned from the	N/A
	decks and exposed fittings of barges and hopper dredgers before the vessel is moved	
	Monitoring of the barge loading should be conducted to ensure that loss of material does not take place during transportation. Transport	N/A
	barges or vessels should be equipped with automatic selfmonitoring devices as required under the Dumping at Sea Ordinance and as	
	specified by the DEP	
	Barges or hopper barges should not be filled to a level that would cause the overflow of materials or sediment laden water during loading or	N/A
	transportation	
S9.5	Construction and Demolition Material	
	Mitigation measures and good site practices should be incorporated into contract document to control potential environmental impact from handling	
	and transportation of C&D material. The mitigation measures include:	
	Where it is unavoidable to have transient stockpiles of C&D material within the Project work site pending collection for disposal, the	٨

	transient stockpiles should be located away from waterfront or storm drains as far as possible	
	Open stockpiles of construction materials or construction wastes on-site should be covered with tarpaulin or similar fabric	٨
	Skip hoist for material transport should be totally enclosed by impervious sheeting	٨
	Every vehicle should be washed to remove any dusty materials from its body and wheels before leaving a construction site	٨
	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	٨
	concrete, bituminous materials or hardcores	
	• The load of dusty materials carried by vehicle leaving a construction site should be covered entirely by clean impervious sheeting to ensure	٨
	dust materials do not leak from the vehicle	
	All dusty materials should be sprayed with water prior to any loading, unloading or transfer operation so as to maintain the dusty materials	٨
	wet	
	The height from which excavated materials are dropped should be controlled to a minimum practical height to limit fugitive dust generation	٨
	from unloading	
	When delivering inert C&D material to public fill reception facilities, the material should consist entirely of inert construction waste and of size less	۸
	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.	
S9.5	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	

S9.5	General F	Refuse	
	General r	efuse should be stored in enclosed bins or compaction units separate from C&D material. A licensed waste collector should be employed by	^
	the contra	actor to remove general refuse from the site, separately from C&D material. Effective collection and storage methods (including enclosed	
	and cover	red area) of site wastes would be required to prevent waste materials from being blown around by wind, wastewater discharge by flushing	
	or leachin	ng into the marine environment, or creating odour nuisance or pest and vermin problem	
Construct	ion Lands		
S13.9	CM1	All existing trees should be carefully protected during construction.	^
	CM2	Trees unavoidably affected by the works should be transplanted where practical. Detailed transplanting proposal will be submitted to	٨
		relevant government departments for approval in accordance with ETWBC 2/2004 and 3/2006. Final locations of transplanted trees	
	CM3	Control of night-time lighting.	N/A(1)
	CM4	Erection of decorative screen hoarding.	^

Remarks:

^	Compliance of mitigation measure
*	Recommendations were made during site audits but improved/rectified by the Contractor
#	Recommendations were made during site audits but has not yet been improved/rectified by the Contractor
•	Non-compliance but rectified by the Contractor
X	Non-compliance of mitigation measure
N/A	Not Applicable at this stage
N/A(1)	Not observed

APPENDIX F SITE AUDIT SUMMARY

<u>April 2022</u>

Parameters	Ref No.	Date	Observations and Recommendations	Follow-up/Rectification
Water Quality	N/A	N/A		
Air Quality	N/A	N/A		
Noise	N/A	N/A		
Waste/ Chemical Management	N/A	N/A		
Landscape and Visual	N/A	N/A		
Permits/ Licenses	N/A	N/A		

May 2022

Parameters	Ref No.	Date	Observations and Recommendations	Follow-up/Rectification
Water Quality	Water Quality N/A N/A			
Air Quality	N/A	N/A		
Noise	N/A	N/A		
Waste/ Chemical Management	mical N/A N/A			
Landscape and Visual	N/A	N/A		
Permits/ Licenses	N/A	N/A		

June 2022

Parameters	Ref No.	Date	Observations and Recommendations	Follow-up/Rectification
Water Quality	N/A	N/A		
Air Quality	N/A	N/A		
Noise	N/A	N/A		
Waste/ Chemical Management	N/A	N/A		
Landscape and Visual	N/A	N/A		
Permits/ Licenses	N/A	N/A		

APPENDIX G WASTE GENERATED QUANTITY

Department:

CEDD

Contract No.:

KL/2015/02

Project:

Kai Tak Development - Stage 5A Infrastructure at Former North Apron Area



Monthly Summary Waste Flow Table for 2022

As at 4 Jul 2022

	Quantities of Inert C & D Materials Generated Monthly							Quantities of C & D Wastes Generated Monthly				
Month	Total Quantity Generated	and Large Broken	Reused in the Contract	Reused in other Projects	Disposed as Public Fill	Imported Fill	Metals	Paper/ Cardboard packaging	Plastics (see Note 3)	Chemical Waste	Others, e.g. general refuse	
	(in '000m³)	(in '000m³)	(in '000m³)	(in '000m³)	(in '000m³)	(in '000m³)	(in '000kg)	(in '000kg)	(in '000kg)	(in '000kg)	(in '000m³)	
Jan	0	0	0	0	0	0	0	0	0	0	0.014	
Feb	0	0	0	0	0	0	0	0	0	0	0	
Mar	0	0	0	0	0	0	0	0	0	0	0	
Apr	0	0	0	0	0	0	0	0	0	0	0.007	
May	0	0	0	0	0	0	0	0	0	0	0.007	
June	0	0	0	0	0	0	0	0	0	0	0.007	
Sub-total	68.229	0	0	0.406	68.229	0	0	0	0	0	2.751	
July Aug Sept Oct Nov Dec												
Total	68.229	0	0	0.406	68.229	0	0	0	0	0	2.751	

Forecast of Total Quantities of C&D Materials to be Generated from the Contract*										
Total Quantity Generated	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 3)	Chemical Waste	Others, e.g. general refuse
(in '000m ³)	(in '000m ³)	(in '000m ³)	$(in '000m^3)$	(in '000m ³)	(in '000m³)	(in '000kg)	(in '000kg)	(in '000kg)	(in '000kg)	$(in '000m^3)$
67	0	0	1	67	0	0	0	0	0	2.5

Notes:

- (1) The performance targets are given in PS clause 6(14).
- (2) The waste flow table shall also include C & D materials that are specified in the Contract to be imported for use at the Site.
- (3) Plastics refer to plastic bottles/ containers, plastic sheets/ foam from packaging material.
- (4) The Contractor shall also submit the latest forcast of the total amount of C&D materials exected to be generated from the Works, together with a braskdown of the nature where the total amount of C&D materials expected to be generated from the Works is equal to or excreeding 50,00 m³. (PS Cleuse 25.02A(7) refers).

APPENDIX H SUMMARY OF EXCEEDANCES

Appendix H - Summary of Exceedance

Exceedance Report for Contract No. KL/2015/02 Reporting Quarter: April – June 2022

- (A) Exceedance Report for Air Quality (NIL in the reporting quarter)
- (B) Exceedance Report for Construction Noise (NIL in the reporting quarter)
- (C) Exceedance Report for Landscape and Visual (NIL in the reporting quarter)

APPENDIX I COMPARISON OF EM&A DATA AND EIA PREDICTIONS

Appendix I – Comparison of EM&A Data and EIA Predictions

Comparison of 1-hr TSP data with EIA predictions

	Predicted 1-hi	Measured 1-hr TSP conc.						
Station	Scenario1 (Mid 2009 to Mid 2013),	Scenario2 (Mid 2013 to Late	Reporting Month (April 2022), μg/m ³		Reporting Month (May 2022), µg/m ³		Reporting Month (June 2022), μg/m ³	
	μg/m ³	2016), $\mu g/m^3$	Average	Range	Average	Range	Average	Range
AM2 – Lee Kau Yan Memorial School	290	312	57.9	21.0 – 130.2	48.7	12.6 – 99.0	36.9	24.2 – 54.6

Comparison of 24-hr TSP data with EIA predictions

Station	Predicted 24-hr TSP conc.		Measured 24-hr TSP conc.					
	Scenario1 (Mid 2009 to Mid 2013), µg/m³	Scenario2 (Mid 2013 to Late 2016), µg/m ³	Reporting Month (April 2022), µg/m³		Reporting Month (May 2022), μg/m ³		Reporting Month (June 2022), μg/m ³	
			Average	Range	Average	Range	Average	Range
AM2(A) – Ng Wah								
Catholic Secondary	145	169	63.9	33.2 - 107.8	45.4	21.9 – 67.1	36.3	23.5 - 49.4
School								

Appendix I – Comparison of EM&A Data and EIA Predictions

Comparison of Noise Monitoring Data with EIA predictions

Stations	Predicted Mitigated Construction Noise Levels during Normal Working Hour (Leq (30min) dB(A))	Reporting Month (April 2022), L _{eq (30min)} dB(A)	Reporting Month (May 2022), L _{eq (30min)} dB(A)	Reporting Month (June 2022), $L_{eq~(30min)}~dB(A)$
M3(A) – The Bridge connecting The Latitude	Not Predicted in EIA Report	71.1 - 73.6 ⁽²⁾	56.2 - 76.6 ⁽²⁾	67.0 - 75.9 ⁽²⁾
M4 - Lee Kau Yan Memorial School	47 – 74	72.2 - 76.5 (1)	72.3 - 76.3 (1)	62.3 - 76.5 (1)
M5(C) – Mercy Grace's Home	Not Predicted in EIA Report	72.9 - 77.6 ⁽²⁾	57.7 - 79.3 ⁽²⁾	69.8 - 79.2 ⁽²⁾

Remarks:

- (1) Since the baseline noise level was higher than those recorded during the construction period, the recorded noise levels were considered non-valid exceedance of Noise Limit Level.
- (2) Since the background noise level recorded during 12:00 to 13:00 was higher than those recorded during the construction period, the recorded noise levels were considered non-valid exceedance of Noise Limit Level.