

The Jockey Club CPS Limited

Central Police Station Conservation
and Revitalisation Project:
84th Monthly EM&A Report
(1 October to 31 October 2020)

Issue Date: November 2020

Environmental Resources Management

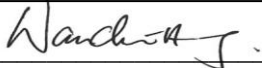

2507, 25/F Harbourfront
18 Tak Fung Street
Hung Hom, Kowloon, Hong Kong
Telephone: (852) 2271 3000
Facsimile: (852) 2723 5660
E-mail: post.hk@erm.com
<http://www.erm.com>

The Jockey Club CPS Limited

Central Police Station Conservation
and Revitalisation Project:
84th Monthly EM&A Report
(From 1 October to 31 October 2020)

Issue Date: November 2020

Reference 0529357

For and on behalf of ERM-Hong Kong, Limited	
Approved by:	Frank Wan
Signed:	
Position:	Partner
Certified by:	
	(Environmental Team Leader - Mandy To)
Date:	11 November 2020

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

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

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

Your ref. 0529357_let_Atkins_20201111 Monthly EM&A Report No.84.docx
Our ref. 5197395 /18.30/OC010/KC/EK
Date: 11 November 2020

13F Wharf T&T Centre
Harbour City
Tsim Sha Tsui
Kowloon Hong Kong

+852 2972 1000

+852 2890 6343

info.hk@atkinsglobal.com

By Email (mandy.to@erm.com)

ERM-Hong Kong Limited,
2507, 25/F,
One Harbourfront,
18 Tak Fung Street
Hung Hom, Kowloon,
Hong Kong

atkinsglobal.com

snclavalin.com

Attn: Ms Mandy To

Dear Mandy,

**Central Police Station Conservation and Revitalisation Project
(Environmental Permit No. EP-408/2011/C)
Verification of Monthly EM&A Report No. 84**

We refer to your letter dated 11 November 2020 regarding the Monthly EM&A Report No. 84. Atkins China Limited verifies, in the capacity of Independent Environmental Checker, that the report conforms the requirements provided in Condition 3.4 of the Environmental Permit (EP-408/2011/C).

**Yours faithfully,
for and on behalf of
Atkins China Limited**



**Keith Chau
Independent Environmental Checker**

c.c. HKJC – Mr. Henry Fung / Mr. Gary Chou (By Email)
Rocco Design Architect – Mr. Charles Kung (By Email)

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EXECUTIVE SUMMARY

The construction works of **Central Police Station Conservation and Revitalisation Project** commenced on 24 October 2011. Besides Block 4 Married Inspector Quarters and Deputy Superintendent House, all construction works of the Project were completed by 25 May 2018 and the Project commenced operation (i.e. Tai Kwun) since 25 May 2018. The construction EM&A programme was also suspended since 25 May 2018, as justified by the ET leader, verified by the Independent Environmental Checker (IEC) and approved by EPD under Condition 3.1 of the EP-408/2011/C.

As the site preparation works commenced on 1 June 2020 followed by the major construction of Block 4, which commenced on 15 June 2020. The construction EM&A programme of the Project was also resumed on 15 June 2020 for the major construction of Block 4.

Major construction activity conducted during the reporting period was installation of propping. Block 4 as mentioned throughout this Monthly EM&A report is the same as “Building 04” in the approved EIA Report.

This is the 84th monthly Environmental Monitoring and Audit (EM&A) report presenting the EM&A works carried out during the period from **1 to 31 October 2020** in accordance with the EM&A Manual.

Environmental Monitoring and Audit Progress

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

- Construction noise monitoring during normal weekdays at each monitoring station 4 time(s)
- Joint environmental site inspection 1 time(s)
- Heritage site inspections 4 time(s)

Noise

4 sets of 30-minute construction noise measurements were carried out at each of the monitoring stations (N2a and N5a) during normal weekdays on 7, 14, 20 and 29 October 2020. No exceedance of the Action or Limit Level of construction noise was recorded during the reporting period.

Cultural Heritage

Heritage site audits were conducted on 8, 14, 22 and 27 October 2020 by the Heritage Checker during the reporting period.

Major Observations and Recommendations during the Site Audits of this Reporting Month:

- No adverse observations were noted during the site audits of this reporting month.

Waste Management

No inert C&D materials was generated during the reporting period. No non-inert C&D materials were generated during the reporting period. No metal, paper/cardboard packaging or plastic waste was recycled during the reporting period. No chemical waste was collected by licenced chemical waste collector during the reporting period.

Environmental Site Inspection

A joint environmental site inspection was carried out by the representatives of the JCCPS, Contractor, the IEC and the ET on 22 October 2020. Key observations and recommendations during the environmental site inspection were listed below:

- Protective measure to the door frames was not provided yet. The Contractor was reminded to provide protective measure to the door frame to prevent damage. (Based on the photos provided by HKJC on 28 October 2020, the door frames were wrapped with plastic sheet as a protective measure.)

Environmental Exceedance/Non-conformance/Compliant/Enquiry/Summons and Prosecution

No exceedance of the Action or Limit Level of construction noise was recorded at designated monitoring stations during the reporting period.

No enquiry was received during the reporting period.

No environmental non-compliance event was recorded during the reporting period. No non-compliance report related to the character defining elements, historic buildings and structures was issued during the reporting period.

No complaint was received during the reporting period.

No summons/prosecution was received during the reporting period.

Future Key Issues

The construction works of the Project will be confined to the Block 4 site only. Major construction activities are expected to be on hold for the coming reporting month since the trigger levels of the building structural monitoring were reached.

1 INTRODUCTION

ERM-Hong Kong, Limited (ERM) was appointed by the Jockey Club CPS Limited (JCCPS) as the Environmental Team (ET) to undertake the Environmental Monitoring and Audit (EM&A) programme for the **Central Police Station Conservation and Revitalisation Project** (the Project).

1.1 PURPOSE OF THE REPORT

This is the 84th monthly EM&A report which summarises the impact monitoring results and audit findings for the EM&A programme during the reporting period from **1 to 31 October 2020**.

1.2 STRUCTURE OF THE REPORT

The structure of the report is as follows:

Section 1 : **Introduction**

details the scope and structure of the report.

Section 2 : **Project Information**

summarises background and scope of the Project, site description, project organization and contact details, construction programme, the construction works undertaken and the status of Environmental Permit(s)/License(s) during the reporting period.

Section 3 : **Environmental Monitoring Requirements**

summarises the monitoring parameters, monitoring programmes, monitoring methodologies, monitoring frequency, monitoring locations, Action and Limit Levels, Event/Action Plans, environmental mitigation measures as recommended in the EIA report and relevant environmental requirements.

Section 4 : **Implementation Status on Environmental Protection Requirements**

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

Section 5 : **Monitoring Results**

summarises the monitoring results obtained in the reporting period.

Section 6 : **Environmental Site Inspection**

summarises the audit findings of the site inspections undertaken within the reporting period.

Section 7 : **Environmental Non-conformance**

summarises any monitoring exceedance, environmental complaints and environmental summons within the reporting period.

Section 8 : **Future Key Issues**

mentions completion of construction and commencement of operation.

Section 9 : **Conclusions**

2 PROJECT INFORMATION

2.1 BACKGROUND

Besides Block 4 Married Inspector Quarters and Deputy Superintendent House, all construction works of the Project were completed by 25 May 2018 and the Project commenced operation (i.e. Tai Kwun) since 25 May 2018. The construction EM&A programme was also suspended since 25 May 2018, as justified by the ET leader, verified by the Independent Environmental Checker (IEC) and approved by EPD under Condition 3.1 of the EP-408/2011/C.

As the site preparation works commenced on 1 June 2020 followed by the major construction of Block 4, which commenced on 15 June 2020. The construction EM&A programme of the Project was also resumed on 15 June 2020 for the major construction of Block 4.

2.2 SITE DESCRIPTION

The location of the Project Site is shown in *Annex A1*. The Site is bounded by Hollywood Road to the north, Arbuthnot Road to the east, Chancery Lane to the south and Old Bailey Street to the west.

The Site comprises three Declared Monuments designated under the *Antiquities and Monuments Ordinance* in 1995. They are:

- Central Police Station;
- Former Central Magistracy; and
- Victoria Prison Compound.

They are collectively named the Central Police Station (CPS). *Annex A2* shows the location of the Declared Monuments within CPS and the buildings within the CPS.

2.3 CONSTRUCTION ACTIVITIES

The construction works of the Project are confined to the Block 4 site only. Major construction activity conducted during the reporting period was installation of propping.

2.4 PROJECT ORGANISATION

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

2.5 STATUS OF ENVIRONMENTAL APPROVAL DOCUMENTS

A summary of the valid permits, licences, and/or notifications on environmental protection for this Project in the reporting period is presented in *Table 2.1*.

Table 2.1 *Summary of Environmental Licensing, Notification and Permit Status*

Permit/ Licences/ Notification	Reference	Validity Period	Remarks
Environmental Permit (EP)	EP-408/2011/C	Throughout the Contract	Permit granted on 29 April 2016
Notification of Construction Works as required under <i>Air Pollution Control (Construction Dust) Regulation</i>	Ref. No. 457024	Throughout the Contract	-
Registration of Chemical Waste Producer under <i>Waste Disposal Ordinance</i>	Chemical Waste Producer No.: 5213-122-S4253-01	Throughout the Contract	-
Disposal of C&D material/waste	Billing Account Number: 7030507	Throughout the Contract	-
Effluent Discharge License under <i>Water Pollution Control Ordinance</i>	WT00036403-2020	2 September 2020 to 30 September 2025	-

3.1 NOISE MONITORING

3.1.1 Monitoring Location

The construction noise monitoring locations are listed in *Table 3.1* and are shown in *Annex C*.

Table 3.1 Construction Phase Noise Monitoring Station

Monitoring Location	Proposed Construction Noise Monitoring Station			
	ID in EM&A Manual	ID	Type of Measurement	Remark
2 nd Floor of Block 3 at Tai Kwun	---	N2a	Façade	Access to the original proposed monitoring location in the EM&A Manual, Rooftop of Ho Fook Building (N2/NM2) could not be obtained; alternative location (N2a) was therefore proposed and approved by the Authorised Person (AP), IEC and EPD.
Outside of Boundary Wall of Tai Kwun at Chancery Lane	---	N5a	Free field	Access to the original proposed monitoring location in the EM&A Manual, Chancery House (N5), was denied; and the previous alternative location of Chancery Mansion (N6/NM6) was demolished; alternative location (N5a) was therefore proposed and approved by AP, IEC and EPD.
Notes:				
(a) Block 3 as mentioned in this Monthly EM&A report is the same as "Building 03" in the approved EIA Report.				

The noise sensitive receivers are also shown in *Annex C*.

3.1.2 Monitoring Parameters, Frequency and Programme

Weekly construction noise monitoring was conducted in accordance with the requirements stipulated in the EM&A Manual. The monitoring programme for this reporting period is shown in *Annex D*.

The construction noise levels were measured in terms of A-weighted equivalent continuous sound pressure level (L_{eq}) in decibels dB(A). $L_{eq(30min)}$ were used as the monitoring parameter for the time period in between 0700 – 1900 hours on normal weekdays. Supplementary information for data auditing, two statistical sound levels L_{10} and L_{90} - the levels exceeded for 10 and 90 percent of the time respectively, were also recorded during the monitoring for reference. The measured noise levels were logged in every 5 minutes throughout the impact monitoring period.

3.1.3 *Monitoring Equipment and Methodology*

Construction noise measurements were conducted in accordance with the calibration and measurement procedures as stated in *Annex – General Calibration and Measurement Procedures of Technical Memorandum on Noise from Construction Work other than Percussive Piling (GW-TM)* issued under the *Noise Control Ordinance (NCO) (Cap 400)*.

The sound level meters and calibrator used for the noise measurement, as listed in *Table 3.2*, complies with the IEC 651: 1979 and 804:1985 (Type 1) specifications. The calibration certificates of the sound level meters are appended in *Annex E*.

Table 3.2 *Noise Monitoring Equipment*

Monitoring Stations	Monitoring Equipment (Sound Level Meter and Calibrator)
N2a, N5a	<u>Calibrator</u> LARSON DAVIS CAL200 (S/N 16172)
	<u>Sound Level Meter</u> Rion NL-52 (S/N 00643039)

Immediately prior to and following the noise measurements, the accuracy of the measurement equipment was checked using an acoustic calibrator generating a known sound pressure level at a known frequency.

Measurements were accepted as the calibration level from before and after the noise measurement agree to within 1.0 dB(A).

3.1.4 *Event / Action Plan*

Table 3.3 *Action and Limit Levels for Construction Noise Monitoring*

Noise Monitoring Location	Action Level	Limit Level, $L_{eq}(30mins), dB(A)$	Remark
N2a, N5a	When one documented complaint is received from any one of the sensitive receivers	75 (note)	Applicable during 0700 – 1900 hours on normal weekdays.

Notes:

- (a) Acceptable Noise Levels for Area Sensitivity Rating of A/B/C. Limit Level is reduced to 70dB(A) for schools and 65dB(A) during school examination periods.
- (b) If works are to be carried out during restricted hours, the conditions stipulated in the CNP issued by the NCA have to be followed.

The Event / Action Plan (EAP) for noise monitoring is presented in *Annex F*.

3.1.5 *Mitigation Measures*

The mitigation measures in accordance with the EP, EIA and EM&A Manual and their implementation status are presented in *Annex G*.

3.2 *CULTURAL HERITAGE*

3.2.1 *Vibration Monitoring*

The construction works of the Project are currently confined to the Block 4 site only. The construction works involved the removal works at the West Room of Block 4 and are not expected to cause vibration impact to the surrounding historic buildings and structures. Hence, vibration monitoring is considered not necessary.

3.2.2 *Mitigation Measures*

Cultural heritage mitigation measures in accordance with the EP, EIA and EM&A Manual were implemented by the Contractor and the implementation status is given in *Annex G*.

3.3 *LANDSCAPE AND VISUAL MONITORING*

The construction works of the Project are currently confined to the Block 4 site only. No trees are located within the Block 4 site. Tree inspection is considered not necessary. Implementation of mitigation measures for landscape and visual resources recommended in the EIA Report was monitored during the site inspection.

3.3.1 *Mitigation Measures*

Landscape and visual mitigation measures in accordance with the EP, EIA and EM&A Manual were implemented by the Contractor and the implementation status is given in *Annex G*.

3.4 *ENVIRONMENTAL REQUIREMENTS IN CONTRACT DOCUMENTS*

The environmental requirements as specified in the contract documents were reviewed and were covered in the EIA's requirements.

IMPLEMENTATION STATUS ON ENVIRONMENTAL PROTECTION REQUIREMENTS

The Contractor has generally implemented the environmental mitigation measures and requirements as stated in the EIA Report, the EP and EM&A Manual and the contract documents. The implementation status during the reporting period is summarised in *Annex G*.

Status of required submissions under the EP and EM&A Manual during the reporting period is presented in *Table 4.1*.

Table 4.1 *Status of Required Submissions*

Submission		Submission Date
<i>EP Condition</i>		
Condition 3.4	83 rd Monthly EM&A Report	14 October 2020

5.1 NOISE

A total of 4 sets of 30-minute construction noise measurements were carried out at the monitoring stations (N2a and N5a) during normal weekdays on 7, 14, 20 and 29 October 2020. The monitoring results together with graphical presentations are presented in *Annex H*. The local impacts observed near the monitoring stations of N2a and N5a were summarised below:

- N2a: Traffic noise.
- N5a: Traffic noise and construction noise from the construction site nearby.

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

5.2 CULTURAL HERITAGE

5.2.1 Heritage Site Audit

Heritage site audits were conducted on 8, 14, 22 and 27 October 2020 by the Heritage Checker during the reporting period.

Major Observations and Recommendations during the Site Audits of this Reporting Month:

- No adverse observations were noted during the site audits of this reporting month.

5.3 WASTE MANAGEMENT

Wastes generated from this Project may include inert construction and demolition (C&D) materials and non-inert C&D materials. With reference to relevant handling records and trip tickets of this Project, the quantities of different types of waste generated in the reporting period are summarised in *Table 5.1*.

Table 5.1 Quantities of Waste Generated from the Project

Month / Year	Quantity						
	C&D Materials (inert) ^(a)	C&D Materials (non-inert) ^(b)	Chemical Waste		Recycled materials		
			Solid	Liquid	Paper/ cardboard	Plastics	Metals
October 2020	0 tonnes	0 tonnes	0 kg	0 L	0 kg	0 kg	0 kg

Notes:
 (a) Inert C&D materials include bricks, concrete, building debris, rubble and excavated soil.
 Non-inert C&D materials include general refuse and mixed construction waste.

Joint environmental site inspection was conducted by the representatives of the JCCPS, Contractor, IEC and the ET in the reporting period on 22 October 2020. There was no non-compliance recorded during the site inspection.

Follow-up Actions for the Last Site Audit

- Protective measure was not provided to the door frame yet.

Observations and Recommendations of this Reporting Month

- Protective measure to the door frames was not provided yet. The Contractor was reminded to provide protective measure to the door frame to prevent damage. (Based on the photos provided by HKJC on 28 October 2020, the door frames were wrapped with plastic sheet as a protective measure.)

7 ENVIRONMENTAL NON-CONFORMANCE

7.1 SUMMARY OF MONITORING EXCEEDANCE

No exceedance of the Action or Limit Level of construction noise was recorded at designated monitoring stations during the reporting period.

7.2 SUMMARY OF ENQUIRY

No enquiry was received during the reporting period.

7.3 SUMMARY OF NON-COMPLIANCE

No environmental non-compliance event was recorded during the reporting period. No non-compliance report related to the character defining elements, historic buildings and structures was issued during the reporting period.

7.4 SUMMARY OF ENVIRONMENTAL COMPLAINT

No complaint was received during the reporting period. The cumulative number of complaints are presented in *Annex K*.

7.5 SUMMARY OF ENVIRONMENTAL SUMMONS AND SUCCESSFUL PROSECUTION

No summons/prosecution was received during the reporting period.

8 *FUTURE KEY ISSUES*

8.1 *KEY ACTIVITIES FOR THE COMING MONTH*

The construction works of the Project will be confined to the Block 4 site only. Major construction activities are expected to be on hold for the coming reporting month since the trigger levels of the building structural monitoring were reached.

8.2 *MONITORING SCHEDULE FOR THE NEXT MONTH*

The tentative schedule of noise monitoring for the next reporting period is presented in *Annex D*.

8.3 *CONSTRUCTION PROGRAMME FOR THE NEXT MONTH*

The most updated construction programme for the Project is presented in *Annex I*.

CONCLUSIONS

This *Monthly Environmental Monitoring and Audit (EM&A) Report* presents the EM&A works undertaken during the period from **1 to 31 October 2020** in accordance with EM&A Manual and the requirement under EP-408/2011/C.

No exceedance of the Action or Limit Level of construction noise was recorded at designated monitoring stations during the reporting period.

No enquiry was received during the reporting period.

No environmental non-compliance event was recorded during the reporting period. No non-compliance report related to the character defining elements, historic buildings and structures was issued during the reporting period.

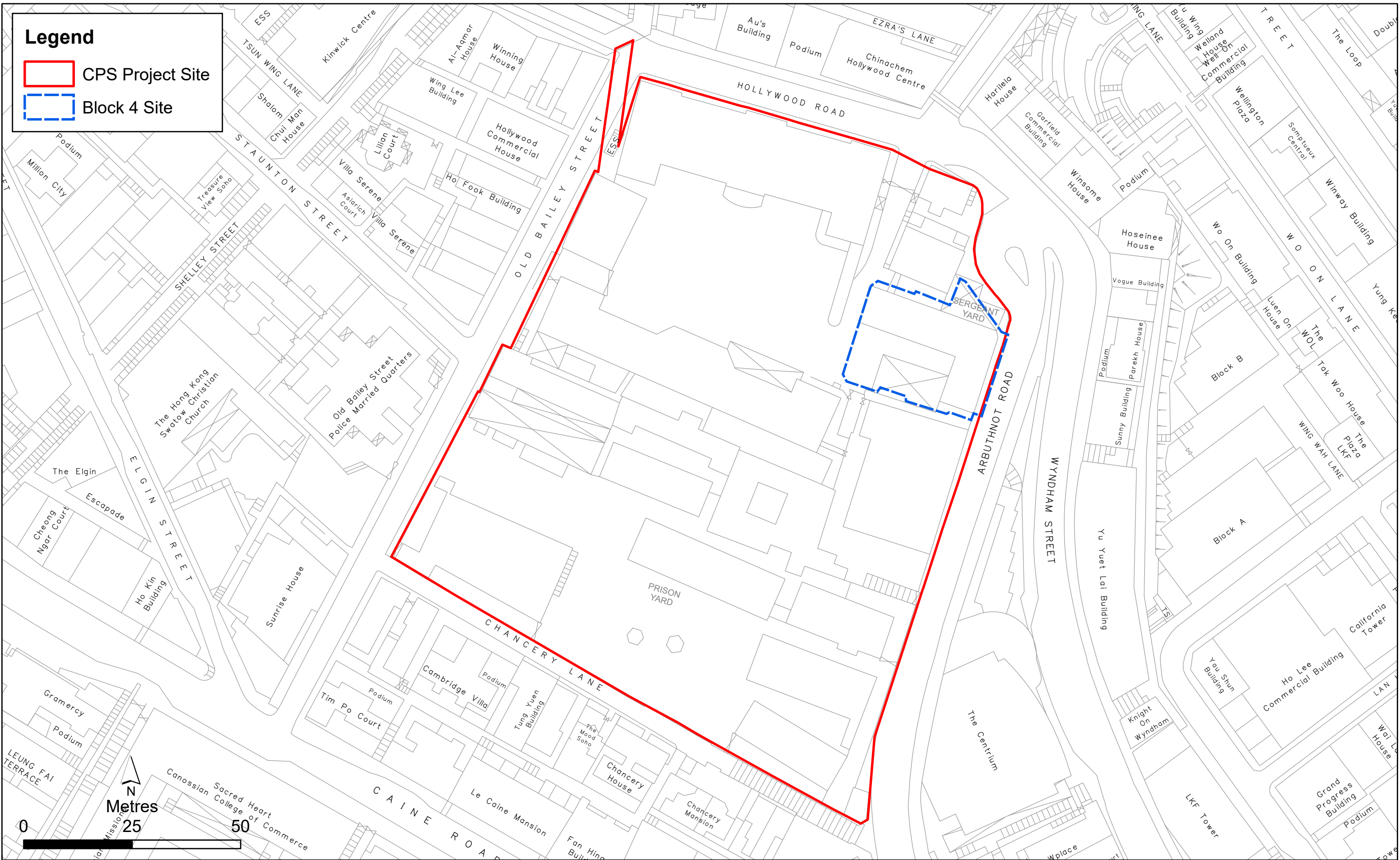
No complaint was received during the reporting period.

No summons/prosecution was received during the reporting period.

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

Annex A

Location of Works Areas and the Surroundings



Annex A1

Project Location

Environmental
Resources
Management





Annex A2

Declared Monuments within the Project Site

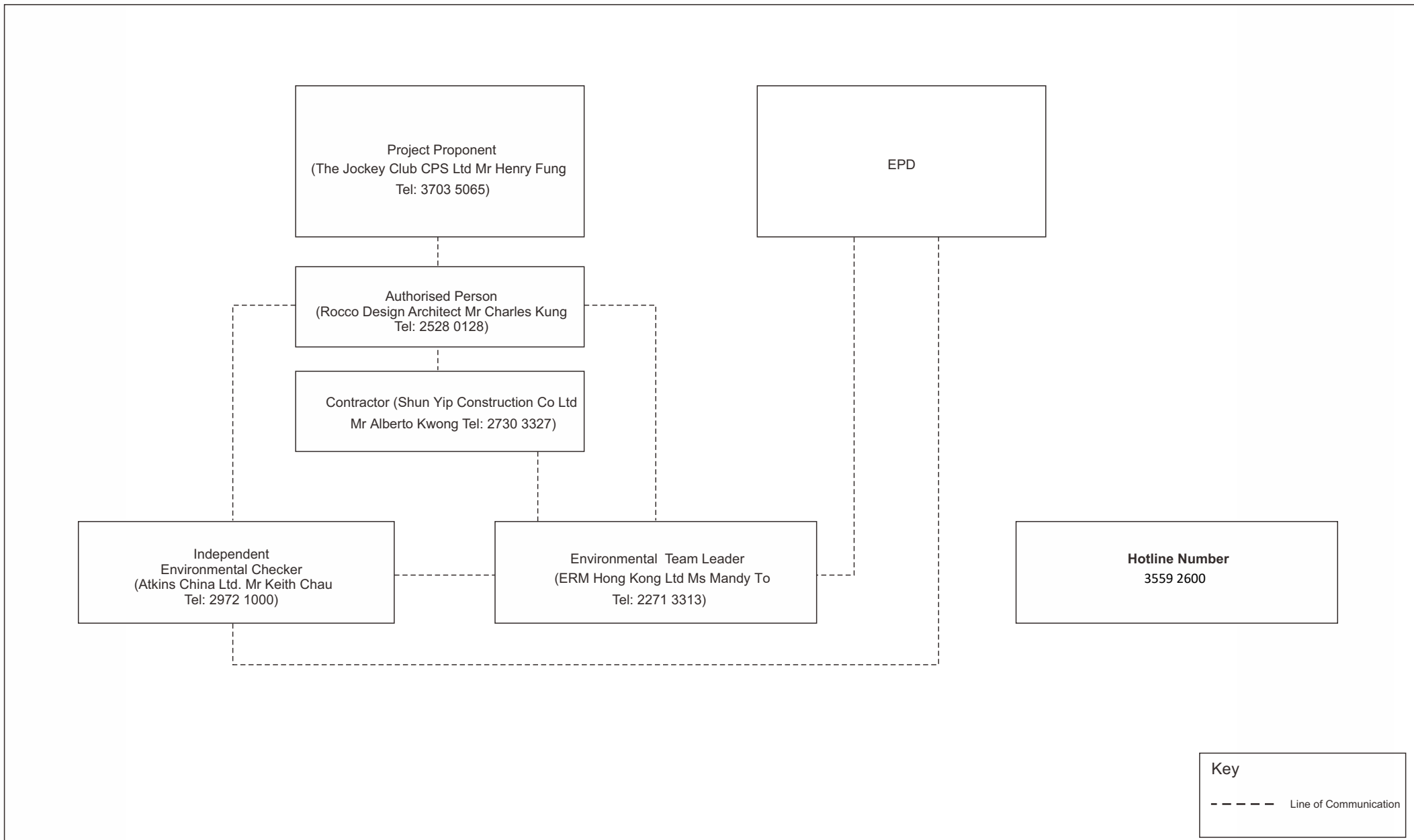
Environmental Resources Management



賽馬會文物保育有限公司
The Jockey Club CPS Limited

Annex B

Project Organisation Chart and Contact Detail



Key
 - - - - - Line of Communication

Annex C

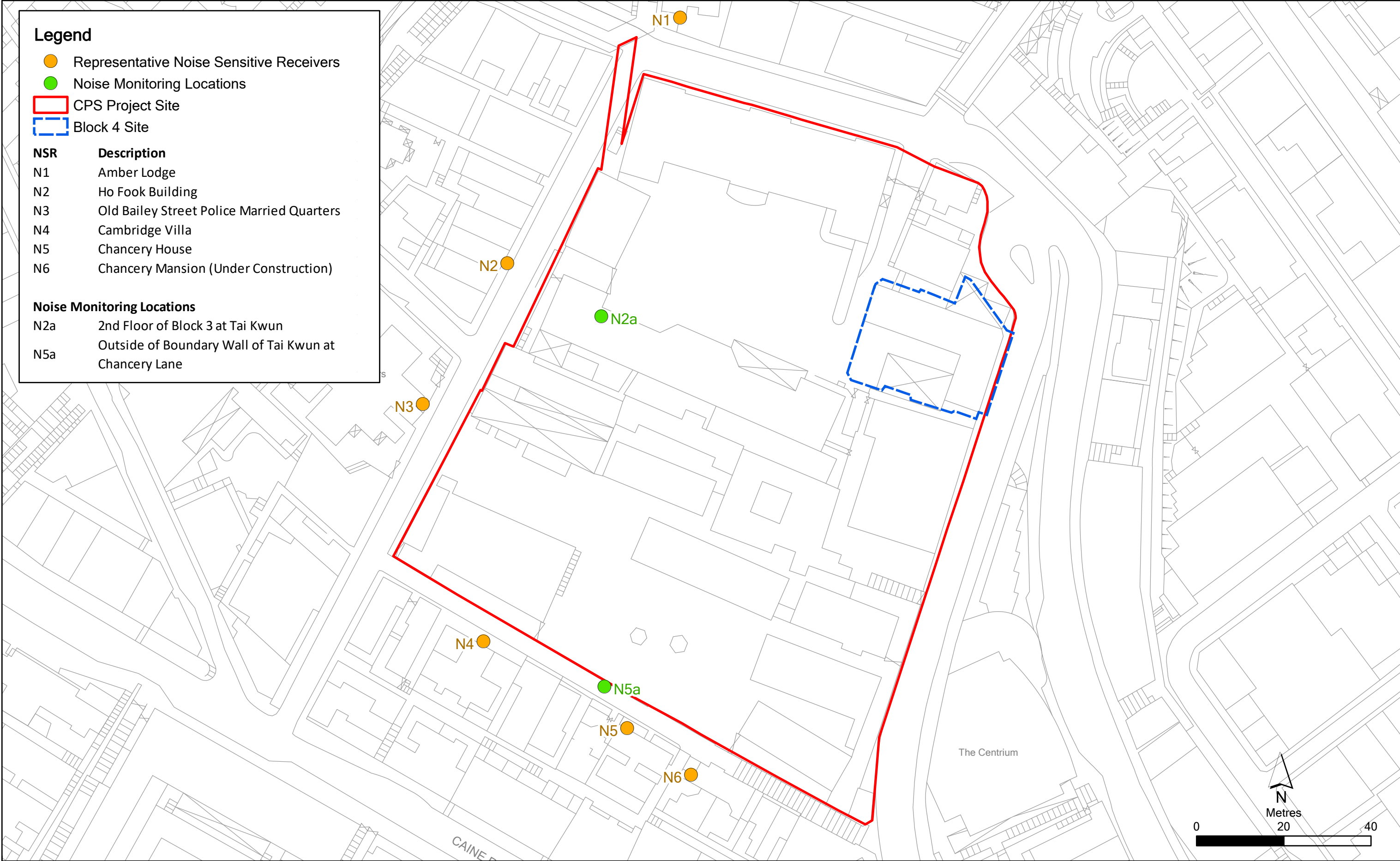
Locations of Noise Monitoring Stations and Noise Sensitive Receivers

Legend

- Representative Noise Sensitive Receivers
- Noise Monitoring Locations
- CPS Project Site
- Block 4 Site

NSR	Description
N1	Amber Lodge
N2	Ho Fook Building
N3	Old Bailey Street Police Married Quarters
N4	Cambridge Villa
N5	Chancery House
N6	Chancery Mansion (Under Construction)

Noise Monitoring Locations	
N2a	2nd Floor of Block 3 at Tai Kwun
N5a	Outside of Boundary Wall of Tai Kwun at Chancery Lane



Annex D

Monitoring Schedule of the Reporting Month and Next Month

Central Police Station Conservation and Revitalisation Project
(2nd Floor of Block 3 at Tai Kwun - N2a & Outside of Boundary Wall of Tai Kwun at Chancery Lane - N5a)
Monitoring Schedule for Reporting Month - October 2020

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
				1-Oct	2-Oct	3-Oct
4-Oct	5-Oct	6-Oct	7-Oct	8-Oct	9-Oct	10-Oct
			Noise Monitoring at N2a & N5a			
11-Oct	12-Oct	13-Oct	14-Oct	15-Oct	16-Oct	17-Oct
			Noise Monitoring at N2a & N5a			
18-Oct	19-Oct	20-Oct	21-Oct	22-Oct	23-Oct	24-Oct
		Noise Monitoring at N2a & N5a				
25-Oct	26-Oct	27-Oct	28-Oct	29-Oct	30-Oct	31-Oct
				Noise Monitoring at N2a & N5a		

Central Police Station Conservation and Revitalisation Project
(2nd Floor of Block 3 at Tai Kwun - N2a & Outside of Boundary Wall of Tai Kwun at Chancery Lane - N5a)
Monitoring Schedule for Next Reporting Month - November 2020

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
1-Nov	2-Nov	3-Nov	4-Nov	5-Nov	6-Nov	7-Nov
			Noise Monitoring at N2a & N5a			
8-Nov	9-Nov	10-Nov	11-Nov	12-Nov	13-Nov	14-Nov
			Noise Monitoring at N2a & N5a			
15-Nov	16-Nov	17-Nov	18-Nov	19-Nov	20-Nov	21-Nov
		Noise Monitoring at N2a & N5a				
22-Nov	23-Nov	24-Nov	25-Nov	26-Nov	27-Nov	28-Nov
			Noise Monitoring at N2a & N5a			
29-Nov	30-Nov					

Annex E

Calibration Reports for Calibrators and Sound Level Meters



輝創工程有限公司

Sun Creation Engineering Limited

Calibration & Testing Laboratory

Certificate of Calibration 校正證書

Certificate No. : C196121

證書編號

ITEM TESTED / 送檢項目 (Job No. / 序引編號 : IC19-2324) Date of Receipt / 收件日期 : 4 November 2019

Description / 儀器名稱 : Precision Acoustic Calibrator

Manufacturer / 製造商 : LARSON DAVIS

Model No. / 型號 : CAL200

Serial No. / 編號 : 16172

Supplied By / 委託者 : Envirotech Services Co.
Room 113, 1/F, My Loft, 9 Hoi Wing Road, Tuen Mun,
New Territories, Hong Kong

TEST CONDITIONS / 測試條件

Temperature / 溫度 : $(23 \pm 2)^{\circ}\text{C}$

Relative Humidity / 相對濕度 : $(50 \pm 25)\%$

Line Voltage / 電壓 : ---

TEST SPECIFICATIONS / 測試規範

Calibration check

DATE OF TEST / 測試日期 : 10 November 2019

TEST RESULTS / 測試結果

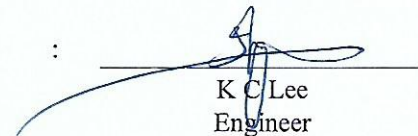
The results apply to the particular unit-under-test only.
The results do not exceed manufacturer's specification.
The results are detailed in the subsequent page(s).

The test equipment used for calibration are traceable to National Standards via :

- The Government of The Hong Kong Special Administrative Region Standard & Calibration Laboratory
- The Bruel & Kjaer Calibration Laboratory, Denmark
- Agilent Technologies / Keysight Technologies
- Fluke Everett Service Center, USA

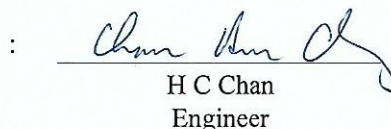
Tested By

測試


K C Lee
Engineer

Certified By

核證


H C Chan
Engineer

Date of Issue

簽發日期

18 November 2019

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Sun Creation Engineering Limited – Calibration & Testing Laboratory

c/o 4/F, 1 Hing On Lane, Tuen Mun, New Territories, Hong Kong

輝創工程有限公司 – 校正及檢測實驗室

c/o 香港新界屯門興安里一號四樓

Tel/電話: (852) 2927 2606 Fax/傳真: (852) 2744 8986

E-mail/電郵: callab@suncreation.com

Website/網址: www.suncreation.com



Certificate of Calibration

校正證書

Certificate No. : C196121
證書編號

- The unit-under-test (UUT) was allowed to stabilize in the laboratory for over 12 hours before the commencement of the test.
- The results presented are the mean of 3 measurements at each calibration point.
- Test equipment :

<u>Equipment ID</u>	<u>Description</u>	<u>Certificate No.</u>
CL130	Universal Counter	C193756
CL281	Multifunction Acoustic Calibrator	CDK1806821
TST150A	Measuring Amplifier	C181288

- Test procedure : MA100N.

- Results :

5.1 Sound Level Accuracy

UUT Nominal Value	Measured Value (dB)	Mfr's Spec. (dB)	Uncertainty of Measured Value (dB)
94 dB, 1 kHz	93.9	± 0.2	± 0.2
114 dB, 1 kHz	113.9		

5.2 Frequency Accuracy

UUT Nominal Value (kHz)	Measured Value (kHz)	Mfr's Spec.	Uncertainty of Measured Value (Hz)
1	1.000	1 kHz ± 1 %	± 1

Remark : The uncertainties are for a confidence probability of not less than 95 %.

Note :

Only the original copy or the laboratory's certified true copy is valid.

The values given in this Certificate only relate to the values measured at the time of the test and any uncertainties quoted will not include allowance for the equipment long term drift, variations with environment changes, vibration and shock during transportation, overloading, mis-handling, or the capability of any other laboratory to repeat the measurement. Sun Creation Engineering Limited shall not be liable for any loss or damage resulting from the use of the equipment.



輝創工程有限公司

Sun Creation Engineering Limited

Calibration & Testing Laboratory

Certificate of Calibration

校正證書

Certificate No. : C202701
證書編號

ITEM TESTED / 送檢項目 (Job No. / 序引編號 : IC20-0981)

Date of Receipt / 收件日期 : 7 May 2020

Description / 儀器名稱 : Sound Level Meter

Manufacturer / 製造商 : Rion

Model No. / 型號 : NL-52

Serial No. / 編號 : 00643039

Supplied By / 委託者 : Envirotech Services Co.

Room 113, 1/F, My Loft, 9 Hoi Wing Road, Tuen Mun,
New Territories, Hong Kong

TEST CONDITIONS / 測試條件

Temperature / 溫度 : $(23 \pm 2)^{\circ}\text{C}$

Relative Humidity / 相對濕度 : $(50 \pm 25)\%$

Line Voltage / 電壓 : ---

TEST SPECIFICATIONS / 測試規範

Calibration

DATE OF TEST / 測試日期 : 18 May 2020

TEST RESULTS / 測試結果

The results apply to the particular unit-under-test only.

The results do not exceed manufacturer's specification. (after adjustment)

The results are detailed in the subsequent page(s).

The test equipment used for calibration are traceable to National Standards via :

- The Government of The Hong Kong Special Administrative Region Standard & Calibration Laboratory
- The Bruel & Kjaer Calibration Laboratory, Denmark
- Agilent Technologies / Keysight Technologies
- Fluke Everett Service Center, USA

Tested By

測試

K P Cheuk

Assistant Engineer

Certified By

核證

K C Lee

Engineer

Date of Issue

簽發日期

22 May 2020

The test equipment used for calibration is traceable to the National Standards as specified in this certificate. This certificate shall not be reproduced except in full, without the prior written approval of this laboratory.

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Tel/電話: (852) 2927 2606

Fax/傳真: (852) 2744 8986

E-mail/電郵: callab@suncreation.com

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Certificate of Calibration

校正證書

Certificate No. : C202701

證書編號

1. The unit-under-test (UUT) was allowed to stabilize in the laboratory for over 12 hours, and switched on to warm up for over 10 minutes before the commencement of the test.
2. Self-calibration using the internal standard (After Adjustment) was performed before the test 6.1.1.2 to 6.3.2.
3. The results presented are the mean of 3 measurements at each calibration point.
4. Test equipment :

Equipment ID	Description	Certificate No.
CL280	40 MHz Arbitrary Waveform Generator	C200258
CL281	Multifunction Acoustic Calibrator	CDK1806821

5. Test procedure : MA101N.

6. Results :

6.1 Sound Pressure Level

6.1.1 Reference Sound Pressure Level

6.1.1.1 Before Adjustment

UUT Setting				Applied Value		UUT Reading (dB)	IEC 61672 Class 1 Spec. (dB)
Range (dB)	Function	Frequency Weighting	Time Weighting	Level (dB)	Freq. (kHz)		
30 - 130	L _A	A	Fast	94.00	1	* 97.3	± 1.1

* Out of IEC 61672 Class 1 Spec.

6.1.1.2 After Adjustment

UUT Setting				Applied Value		UUT Reading (dB)	IEC 61672 Class 1 Spec. (dB)
Range (dB)	Function	Frequency Weighting	Time Weighting	Level (dB)	Freq. (kHz)		
30 - 130	L _A	A	Fast	94.00	1	94.0	± 1.1

6.1.2 Linearity

UUT Setting				Applied Value		UUT Reading (dB)
Range (dB)	Function	Frequency Weighting	Time Weighting	Level (dB)	Freq. (kHz)	
30 - 130	L _A	A	Fast	94.00	1	94.0 (Ref.)
				104.00		104.0
				114.00		114.0

IEC 61672 Class 1 Spec. : ± 0.6 dB per 10 dB step and ± 1.1 dB for overall different.

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Certificate No. : C202701
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6.2 Time Weighting

UUT Setting				Applied Value		UUT Reading (dB)	IEC 61672 Class 1 Spec. (dB)
Range (dB)	Function	Frequency Weighting	Time Weighting	Level (dB)	Freq. (kHz)		
30 - 130	L _A	A	Fast	94.00	1	94.0	Ref.
			Slow			94.0	± 0.3

6.3 Frequency Weighting

6.3.1 A-Weighting

UUT Setting				Applied Value		UUT Reading (dB)	IEC 61672 Class 1 Spec. (dB)
Range (dB)	Function	Frequency Weighting	Time Weighting	Level (dB)	Freq.		
30 - 130	L _A	A	Fast	94.00	63 Hz	67.7	-26.2 ± 1.5
					125 Hz	77.8	-16.1 ± 1.5
					250 Hz	85.3	-8.6 ± 1.4
					500 Hz	90.8	-3.2 ± 1.4
					1 kHz	94.0	Ref.
					2 kHz	95.3	+1.2 ± 1.6
					4 kHz	95.1	+1.0 ± 1.6
					8 kHz	93.0	-1.1 (+2.1 ; -3.1)
					12.5 kHz	89.6	-4.3 (+3.0 ; -6.0)

6.3.2 C-Weighting

UUT Setting				Applied Value		UUT Reading (dB)	IEC 61672 Class 1 Spec. (dB)
Range (dB)	Function	Frequency Weighting	Time Weighting	Level (dB)	Freq.		
30 - 130	L _C	C	Fast	94.00	63 Hz	93.2	-0.8 ± 1.5
					125 Hz	93.9	-0.2 ± 1.5
					250 Hz	94.0	0.0 ± 1.4
					500 Hz	94.0	0.0 ± 1.4
					1 kHz	94.0	Ref.
					2 kHz	93.9	-0.2 ± 1.6
					4 kHz	93.2	-0.8 ± 1.6
					8 kHz	91.1	-3.0 (+2.1 ; -3.1)
					12.5 kHz	87.7	-6.2 (+3.0 ; -6.0)

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Calibration & Testing Laboratory

Certificate of Calibration

校正證書

Certificate No. : C202701
證書編號

Remarks : - UUT Microphone Model No. : UC-59 & S/N : 12128

- Mfr's Spec. : IEC 61672 Class 1

- Uncertainties of Applied Value :

94 dB	: 63 Hz - 125 Hz	: ± 0.35 dB
	250 Hz - 500 Hz	: ± 0.30 dB
	1 kHz	: ± 0.20 dB
	2 kHz - 4 kHz	: ± 0.35 dB
	8 kHz	: ± 0.45 dB
	12.5 kHz	: ± 0.70 dB
104 dB	: 1 kHz	: ± 0.10 dB (Ref. 94 dB)
114 dB	: 1 kHz	: ± 0.10 dB (Ref. 94 dB)

- The uncertainties are for a confidence probability of not less than 95 %.

Note :

Only the original copy or the laboratory's certified true copy is valid.

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c/o 香港新界屯門興安里一號四樓

Tel/電話: (852) 2927 2606

Fax/傳真: (852) 2744 8986

E-mail/電郵: callab@suncreation.com

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Annex F

Event/ Action Plans for Noise

Annex F Event and Action Plan for Noise

Event	Action			
	Environmental Team (ET)	Independent Environmental Checker (IEC)	Authorised Person (AP)	Contractor
Action Level	<ol style="list-style-type: none"> 1. Notify IEC and Contractor; 2. Carry out investigation; 3. Report the results of investigation to the IEC, AP and Contractor; 4. Discuss with the Contractor and formulate remedial measures; 5. Increase monitoring frequency to check mitigation effectiveness. 	<ol style="list-style-type: none"> 1. Review the analysed results submitted by the ET; 2. Review the proposed remedial measures by the Contractor and advise the AP accordingly; 3. Supervise the implementation of remedial measures. 	<ol style="list-style-type: none"> 1. Confirm receipt of notification of failure in writing; 2. Notify Contractor; 3. Require Contractor to proposed remedial measures for the analysed noise problem; 4. Ensure remedial measures are properly implemented. 	<ol style="list-style-type: none"> 1. Submit noise mitigation proposals to IEC; 2. Implement noise mitigation proposals.
Limit Level	<ol style="list-style-type: none"> 1. Identify source; 2. Inform IEC and AP; 3. Repeat measurements to confirm findings; 4. Increase monitoring frequency; 5. Carry out analysis of Contractor's working procedures to determine possible mitigation to be implemented; 6. Inform IEC, AP and EPD the causes and actions taken for the exceedances; 7. Assess effectiveness of Contractor's remedial actions and keep IEC, EPD and AP informed of the results; 8. If exceedance stops, cease additional monitoring. 	<ol style="list-style-type: none"> 1. Discuss amongst AP, ET, and Contractor on the potential remedial actions; 2. Review Contractors remedial actions whenever necessary to assure their effectiveness and advise the AP accordingly; 3. Supervise the implementation of remedial measures. 	<ol style="list-style-type: none"> 1. Confirm receipt of notification of failure in writing; 2. Notify Contractor; 3. Require Contractor to propose remedial measures for the analysed noise problem; 4. Ensure remedial measures properly implemented; 5. If exceedance continues, consider what portion of the work is responsible and instruct the Contractor to stop that portion of work until the exceedance is abated. 	<ol style="list-style-type: none"> 1. Take immediate action to avoid further exceedance; 2. Submit proposals for remedial actions to IEC within 3 working days of notification; 3. Implement the agreed proposals; 4. Resubmit proposals if problem still not under control; 5. Stop the relevant portion of works as determined by the AP until the exceedance is abated.

Annex G

Summary of Implementation Status

Annex G Implementation Schedule for Environmental Protection Measures

EIA Ref.	EM&A Ref.	Recommended Mitigation Measures	Location	When to Implement the Measure	Status
<i>Cultural Heritage</i>					
S3.9.1	S3.2.6	Subject to the outcome of the archaeological investigation, if archaeological deposits are identified to be impacted by the proposed development, appropriate mitigation measures will be recommended and agreed with AMO.	In accordance with the recommendations in the Archaeological Action Plan (AAP) issued on 21 Dec 11 and approved on 30 Dec 11 by AMO	During detailed design and construction	N/A
S3.9.2	S3.3.1	<u>Vibration Monitoring</u> A baseline condition survey and baseline vibration impact will be conducted by a specialist for the approval of AMO and Buildings Department prior to commencement of the construction works to define the vibration control limits and recommend a vibration monitoring proposal for the concerned historic buildings and structures in and outside CPS for AMO's prior approval before commencement of the construction works.	Historic buildings and structures in CPS, the granite walls at Old Bailey Street and the proposed Grade 3 historic building (No. 20 Hollywood Road)	During detailed design and construction	N/A
S3.9.2	S3.3.3	<u>Compliance of the Approved Measures and Auditing</u> Staff training by an experience building conservation expert or relevant competent person(s) in the environmental team of the project should be provided to the on-site staffs, contractors, sub-contractors and workers of the project before commencement of works to ensure their full understanding of the approved protection schedule, restoration proposal and work methodologies related to cultural heritage, and their respective responsibilities in the implementation of the environmental protection measures. Regular site audit for cultural heritage should be carried out in the construction phase by an experience building conservation expert in the environmental team ("the Heritage Checker") to investigate the site practice of the contractors and workers and their compliance of the approved work methodologies with respect of conservation works, mitigations for cultural heritage and any related works. A detailed	Whole site	Prior to and during construction	<>

EIA Ref.	EM&A Ref.	Recommended Mitigation Measures	Location	When to Implement the Measure	Status
		<p>proposal of the regular audit such as methodology (e.g. performance and monitoring indicators, control tools, frequency of the audit, etc.) and the conservation professionals to be engaged should be agreed with AMO prior to work commencement.</p> <p>The Heritage Checker shall also attend the regular site meetings with AMO and report the compliance and effectiveness of the mitigation measures for cultural heritage.</p>			
S3.9.3	S3.3.4	<p><u>Archival Recording</u></p> <p>An archival recording should be conducted to provide a detailed reference for the update of the Conservation Management Plan and inventory of historical features of the monuments, the preparation of as-built drawings showing the condition of the historic buildings and structures after the completion of the construction works. These archival records will be a reference source for future maintenance of the character defining elements, conservation of the monuments, interpretation and conservation education of the Site. The archival recording shall include but not limit to the video and photographic recording on the detailed process of the repair trials for different kinds of historical features, conservation works of character defining elements and historic fabrics of the monuments, and a written records of any new changes to the detailed design made in the construction phase illustrate with photos and drawings. A full set of the archives records (including both hard and soft copies) should be submitted to the AMO for approval after the work completion for record purpose. Any new findings related to the conservation of built heritage in the Site identified during the detailed design stage and construction phases shall be properly recorded in details for notification to the AMO and update of the Conservation Management Plan.</p>	Whole Site	During detailed design, construction and prior to operation	N/A - Archival recording will be conducted at later stage.
S3.7.3	-	<p><u>General Construction Methods</u></p> <p>Prior to the commencement of the modification/refurbishment works at an existing building or structure (e.g. masonry walls near the Old Bailey Wing) , a site survey will be carried out by the design team, and all building dimensions and levels of the building/structure shown will be</p>	Whole site	During construction	√

EIA Ref.	EM&A Ref.	Recommended Mitigation Measures	Location	When to Implement the Measure	Status
		checked and confirmed by the contractor. Non-percussive piling methods will be adopted for the construction of the foundation for the new buildings. Protective and precaution measures to the existing buildings and structure adjacent to the work area (including the proposed Grade 3 historic building (No. 20 Hollywood road) and the granite boundary walls between the Ablutions Block of the police station (building no. 08) and the General Office of the prison area (building no. 18) which is adjacent to the new construction of the Old Bailey Wing and for an old granite walls at Old Bailey Street within 15m from the new construction) shall be provided to avoid damage to the existing features and to safeguard the structural integrity during the course of construction. Small scale handheld pneumatic tools with minimal vibration impact to the existing buildings/ structures are selected so as to have a better logistic and handling at the existing buildings and structures, which usually have only narrow working areas. In cases of the local demolition of structural elements, demountable platforms will be erected to temporarily support the affected area and divert the loading from above to avoid instability and create excessive cracking and settlement of the building/structure.			
S3.7.1 & 3.7.2	-	<p>Implementation and update of the Conservation Management Plan (CMP). Any new findings related to the conservation of the built heritage in the site identified during the detailed design and construction stage shall be properly recorded in details for the notification to the AMO and update in the CMP. After the construction, a cartographic and photographic recording on the restored historic buildings, historic features and the site shall be conducted and the following records shall be included into the CMP as appendices for updating and record purpose:</p> <ul style="list-style-type: none"> • one set of measured drawings and photographic records showing the as-built condition of historic buildings and structures; and • an updated inventory list of the historic features together with the cross referenced location plans and photo records. <p>One set of updated CMP shall be submitted to the AMO for approval before the operation stage of the project.</p>	Whole site	During detailed design, construction, post-construction and operation	√ - CMP (last updated in May 2019) was implemented during the reporting month.

EIA Ref.	EM&A Ref.	Recommended Mitigation Measures	Location	When to Implement the Measure	Status
<i>Landscape & Visual</i>					
S4.7.27	-	<p><u><i>In-situ Tree Protection - Cordon Zone (CZ)</i></u></p> <p>Cordon off each tree along its drip line (below the crown) with a chain-link fencing of 2.5 m height with padlocked gate, allowing limited access to area only to authorized persons. The base of the perimeter fence will be sealed up to 30 cm height to ensure that no construction drainage water will enter. If grouting is to be conducted less than 5 m from the edge of the CZ, a waterproof membrane will be installed below the ground to a depth of 1.5 m on the outer edge of the CZ to prevent the subsurface lateral movement of contaminated construction wastewater from intruding the soil inside the CZ.</p>	Whole site	During construction	N/A
S4.7.2	-	<p><u><i>In-situ Tree Protection - Advanced & Phased Root Pruning</i></u></p> <p>All edges of the CZ that will be affected by excavation will undergo root pruning by a trained arborist or horticulturist, in advance of the earth work. The entire affected length of the CZ, plus 3 m additional length at both ends, shall be designated as the root pruning segment (RPS). The require trench will be opened manually in the RPS, be 1.5 m deep and 1 m wide, and closed on the same day after pruning with a good soil mix. All roots with a diameter >20 mm encountered in the course of trench opening shall be cut flushed with the inner wall of the trench. If the RPS exceeds one-quarter of the CZ circumference, the root pruning should be conducted in two stages. Each phase will tackle half of the RPS length. After the first phase, the tree will be allowed to recuperate for not less than four months before the second phase root pruning is conducted. The RPS shall be protected by sheet piles along the outer edge. The rig that installs the piles and the associated operations shall not intrude into the CZ or injure the protected tree.</p>	Whole site	During construction	N/A
S4.7.2	-	<p><u><i>In-situ Tree Protection - Foliage cleansing system</i></u></p> <p>A sprinkler cleansing system will be installed either in the crown of the tree or at a suitable location on an adjacent building to provide the</p>	Whole site	During construction	N/A

EIA Ref.	EM&A Ref.	Recommended Mitigation Measures	Location	When to Implement the Measure	Status
		means to wash the foliage of the accumulated dust when necessary, particularly in the dry season.			
S4.7.2	S4	<p><u>In-situ Tree Protection - Monthly inspection</u></p> <p>Monthly inspection of affected trees by an experienced and appropriately trained arborist or horticulturist using Form 1 – Tree Group Inspection Form and Form 2 – Tree Risk Assessment Form developed by Development Bureau (http://www.trees.gov.hk/en/doc/TRAGuideline_July2010version_combine.pdf) or a form designed by a tree expert and approved by Tree Management Office. All irregularities that deviate from the recommended tree protection measures, or could impose deleterious impacts on the protected trees, must be reported to the authorized person or the tree expert within two days.</p>	Whole site	During construction	N/A
S4.7.2	-	<p><u>Light Control</u></p> <p>Control of night-time lighting shall be implemented to minimise impact to adjacent VSRs.</p>	Whole site	During construction and operation	√
S4.7.2	S4	<p><u>Compensatory Tree Planting</u></p> <p>A new planting site has been identified for compensatory tree planting in the Parade Ground. The planting is to compensate for felling of T10 and T10a. The existing tree site will be enlarged to become a wide tree strip to accommodate the compensatory trees. The entire strip of land that accommodates T1 to T4 should be revamped to improve the soil condition for future tree growth.</p> <p>The new tree strip should be 4 m wide and covered by porous unit pavers to permit the entry of rain and irrigation water and air exchange between the soil and the atmosphere. The unit pavers should be supported by small columns to create a vault-like structure so as to avoid compaction of the underlying soil due to pedestrian trampling. The unit pavers will be movable to provide access to the soil underneath so that fertilizers and conditioners could be added on a</p>	At identified compensatory tree planting location at the Parade Ground	During detailed design and construction	N/A

EIA Ref.	EM&A Ref.	Recommended Mitigation Measures	Location	When to Implement the Measure	Status
		regular basis. The air conditioner unit currently located near the proposed planting site should also be removed. This new tree planting site should also be provided with proper irrigation. Pursuant to the "Environment, Transport and Works Bureau Technical Circular (Works) No. 3/2006 Tree Preservation", the compensation ratio should preferably be 1:1 according to trunk girth. An aggregate DBH of the new trees would be 60cm, the rate of compensation is beyond the requirements The replacement trees should be planted in accordance with the requirement of the landscape proposal approved by the Planning Department.			
S4.7.2	S4	<u>Existing Granite Revetment Wall</u> The inner stone face along the southern wall of the Site shall be preserved to its original historical appearance.	Inner Southern Wall	During detailed design and construction	N/A
S4.7.2	-	<u>New Custom Paving</u> New, Patterned, High Quality, Concrete Custom Pavers should replace most of the existing paving in the open spaces.	Whole site	During detailed design and construction	N/A
S4.7.2	S4	<u>In-situ Tree Protection - Quarterly inspection</u> Quarterly Inspection of affected and newly planted trees by an experienced and appropriately trained arborist or horticulturist using Form 1 - Tree Group Inspection Form and Form 2 - Tree Risk Assessment Form developed by Development Bureau (http://www.trees.gov.hk/en/doc/TRAGuideline_July2010version_combine.pdf) or a form designed by a tree expert and approved by Tree Management Office for a period of 12 months after construction.	Whole site	During post construction and operation	N/A
<i>Noise</i>					
S5.9	-	The following site practices should be followed during the construction of the Project:	Whole Site	During	√

EIA Ref.	EM&A Ref.	Recommended Mitigation Measures	Location	When to Implement the Measure	Status
		<ul style="list-style-type: none"> Only well-maintained plant will be operated on-site and plant will be serviced regularly during the construction phase; Silencers or mufflers on construction equipment will be utilised and will be properly maintained during the construction phase; Mobile plant, if any, will be sited as far away from NSRs as possible; Machines and plant (such as trucks) that may be in intermittent use will be shut down between work periods or will be throttled down to a minimum; Plant known to emit noise strongly in one direction will, wherever possible, be orientated so that the noise is directed away from the nearby NSRs; and Material stockpiles and other structures will be effectively utilised, wherever practicable, in screening noise from on-site construction activities. 		construction	
S5.9	-	Noise insulating sheet would be adopted for certain PME (eg drill rig, excavator for demolition of existing structures, etc). The noise insulating sheet should be deployed such that there would be no opening or gaps on the joints.	Whole Site	During construction	N/A - Not observed.
S5.9	-	Use temporary noise barriers to mitigate the noise impact arising from the construction works, particularly for low-rise NSRs. Movable noise barriers of 3 m in height with skid footing should be used and located within a few metres of stationary plant and mobile plant such that the line of sight to the NSR is blocked by the barriers. The length of the barrier should be at least five times greater than its height. The noise barrier material should have a superficial surface density of at least 7 kg m ⁻² and have no openings or gaps.	Whole Site	During construction	N/A - Not observed.
S5.9	-	Use quiet PME as far as practicable to mitigate the construction noise impact.	Whole Site	During construction	√
S5.9	-	Scheduling of construction activities with identified grouping of PMEs.	Whole Site	During construction	√
S5.11	S5	Weekly noise monitoring will be undertaken at the representative NSRs (i.e. 2nd Floor of Block 3 at Tai Kwun (N2a) and Outside of Boundary Wall of Tai Kwun at Chancery Lane (N5a)). Monthly site audits will	Whole Site	During construction	√

EIA Ref.	EM&A Ref.	Recommended Mitigation Measures	Location	When to Implement the Measure	Status
		be conducted to ensure that the recommended mitigation measures are properly implemented during the construction stage.			
<i>Air Quality</i>					
S6.8.1	-	Dust control measures stipulated in the <i>Air Pollution Control (Construction Dust) Regulation</i> will be implemented during the construction phase to control the potential fugitive dust emissions.	Whole Site	During construction	√
S6.8.1	-	In particular: Temporary stockpiles of dusty materials will be either covered entirely by impervious sheets; placed in an area sheltered on the top and three sides; or sprayed with water to maintain the entire surface wet at all the time.	Whole Site	During construction	√
S6.8.1	-	Impervious sheet will be provided for skip hoist for material transport.	Whole Site	During construction	√
S6.8.1	-	Vehicle washing facilities will be provided at the designated vehicle exit points.	Whole Site	During construction	N/A
S6.8.1	-	Every vehicle will be washed to remove any dusty materials from its chassis and wheels immediately before leaving the worksite.	Whole Site	During construction	N/A
S6.8.1	-	Road sections between vehicle-wash areas and vehicular entrances will be paved.	Whole Site	During construction	√
S6.8.1	-	The load carried by the trucks will be covered entirely to ensure no dust emission from the vehicles.	Whole Site	During construction	√
S6.8.1	-	Hoarding of not less than 2.4m high from ground level will be provided along the Project Site boundary adjoining a road where the new buildings (Old Bailey Wing and Arbuthnot Wing) will be constructed.	Whole Site	During construction	√
S6.8.1	-	Stockpiles of more than 20 bags of cement, dry pulverised fuel ash and dusty construction materials will be covered entirely by impervious sheeting sheltered on top and 3-sides.	Whole Site	During construction	N/A
S6.8.1	-	An effective dust screen will be provided to enclose scaffolding, if required, from the ground floor level of building for construction of superstructure of the new buildings.	Whole Site	During construction	√

EIA Ref.	EM&A Ref.	Recommended Mitigation Measures	Location	When to Implement the Measure	Status
S6.8.1	-	Impervious dust screen or sheeting will be implemented for demolition of structures and renovation of outer surfaces of structures that abuts or fronts open area accessible to the public to no less than 1m higher than the highest level of the structure being demolished.	Whole Site	During construction	√
S6.8.1	-	The area at which demolition work takes place will be sprayed with water or dust suppression chemical immediately prior to, during and immediately after the demolition activity.	Area for Demolition Work	During construction	√
S6.8.1	-	ULSD will be used for all construction plant on-site.	Whole Site	During construction	√
S6.8.1	-	The engine of the construction equipment or trucks during idling will be switched off.	Whole Site	During construction	√
S6.8.1	-	Site practices such as regular maintenance and checking of construction equipment deployed on-site will be conducted to avoid any black smoke emissions and to minimise gaseous emissions.	Whole Site	During construction	N/A – Not observed.
S6.10	S3.2	Monthly environmental site audits to ensure that appropriate dust control measures are properly implemented and good construction site practices are adopted throughout the construction period.	Whole Site	During construction	√
<i>Water Quality</i>					
S7.6	-	Channels, earth bunds or sand bag barriers will be provided on site to direct stormwater to silt removal facilities. The design of silt removal facilities will make reference to the guidelines in <i>Appendix A1 of ProPECC PN 1/94</i> . All drainage facilities and erosion and sediment control structures will be inspected on a regular basis and maintained to confirm proper and efficient operation at all times and particularly during rainstorms. Deposited silt and grit will be removed regularly.	Whole Site	During construction	√
S7.6	-	All drainage facilities and erosion and sediment control structures will be regularly inspected and maintained to ensure proper and efficient operation at all times and particularly following rainstorms. Deposited silt and grit will be removed regularly and disposed of.	Whole Site	During construction	N/A – Not observed.

EIA Ref.	EM&A Ref.	Recommended Mitigation Measures	Location	When to Implement the Measure	Status
S7.6	-	Measures will be taken to reduce the ingress of stormwater into excavation areas. If the excavation of the concrete foundation is to be carried out in wet season, they will be dug and backfilled in short sections wherever practicable. Water pumped out from trenches or foundation excavations will be discharged into stormwater drains via silt removal facilities.	Whole Site	During construction	N/A
S7.6	-	Open stockpiles of excavated and demolition materials will be covered with tarpaulin or similar fabric during rainstorms. Measures will be taken to prevent the washing away of residues, chemicals or debris into any drainage system.	Whole Site	During construction	√
S7.6	-	Manholes (including newly constructed ones) will always be adequately covered and temporarily sealed so as to prevent silt, construction materials or debris being washed into the drainage system.	Whole Site	During construction	N/A – Not observed.
S7.6	-	Precautions will be taken when a rainstorm is imminent or forecasted, and actions to be taken during or after rainstorms are summarised in Appendix A2 of <i>ProPECC PN 1/94</i> . Particular attention will be paid to the control of silty surface runoff during storm events.	Whole Site	During construction	N/A – Not observed.
S7.6	-	All temporary and permanent drainage pipes and culverts provided to facilitate runoff discharge will be adequately designed for the controlled release of stormwater flows. All sediment traps will be regularly cleaned and maintained. The temporary diverted drainage will be reinstated to the original condition when the construction work has finished or the temporary diversion is no longer required.	Whole Site	During construction	N/A – Not observed.
S7.6	-	Vehicle and plant servicing areas, vehicle washing bays and lubrication bays will, as far as possible, be located within roofed areas. The drainage in these covered areas will be connected to foul sewers via a petrol interceptor.	Whole Site	During construction	N/A – Not observed.
S7.6	-	Oil leakage or spillage will be contained and cleaned up immediately. Waste oil will be collected and stored for recycling or disposal.	Whole Site	During construction	N/A – Not observed.
S7.6	-	Waste streams classifiable as chemical wastes will be properly stored, collected and treated.	Whole Site	During construction	N/A – Not observed.
S7.6	-	All fuel tanks and chemical storage areas will be provided with locks and be sited on paved areas.	Whole Site	During construction	N/A – Not observed.

EIA Ref.	EM&A Ref.	Recommended Mitigation Measures	Location	When to Implement the Measure	Status
S7.6	-	The storage areas will be surrounded by bunds with a capacity equal to 110% of the storage capacity of the largest tank to prevent spilled oil, fuel and chemicals from reaching the receiving waters.	Whole Site	During construction	N/A - Not observed.
S7.6	-	The Contractors will prepare guidelines and procedures for immediate clean-up actions following any spillages of oil, fuel or chemicals.	Whole Site	During construction	√
S7.6	-	Surface runoff from bunded areas will pass through oil/grease traps prior to discharge to the stormwater system	Whole Site	During construction	N/A - Not observed.
S7.6	-	The stormwater discharge from the site will be monitored as part of the routine monitoring under the WPCO licence, if applicable.	Whole Site	During construction	N/A - Not observed.
S7.6	-	The existing toilet facilities of the CPS will be available to the construction workforce. The sewage will be discharged to the public sewer.	Whole Site	During construction	√
S7.8	S5.2	Monthly site audits of the works areas will be carried out during the construction phase to monitor the environmental performance of the Project and to enable prompt actions to rectify any malpractice which may give rise to water pollution problem.	Whole Site	During construction	√
<i>Waste Management</i>					
S8.5	S6.3.1 & Table 6.1	<u>General</u> The Contractor shall apply for and obtain all the necessary waste disposal permits or licences are obtained prior to the commencement of the construction works.	Whole Site	During construction	√
S8.5	-	<u>Management of Waste Disposal</u> The construction contractor will open a billing account with the EPD. Every construction waste or public fill load to be transferred to the Government waste disposal facilities such as public fill reception facilities, sorting facilities, landfills will require a valid "chit" which contains the information of the account holder to facilitate waste transaction recording and billing to the waste producer.	Whole Site	During construction	√
S8.5	S6.2	A trip-ticket system will also be established to monitor the disposal of construction waste at landfill and to control fly-tipping. The trip-ticket	Whole Site	During construction	√

EIA Ref.	EM&A Ref.	Recommended Mitigation Measures	Location	When to Implement the Measure	Status
		system will be included as one of the contractual requirements and implemented by the contractor.			
S8.5	S6 & Table 6.1	A recording system for the amount of wastes generated/recycled and disposed of will be established during the construction phase.	Whole Site	During construction	√
S8.5	S6.3	<u>Reduction of Construction Waste Generation</u> C&D material will be segregated on-site into public fill and construction waste and stored in different containers or skips to facilitate reuse of the public fill and proper disposal of the construction waste. Specific areas of the work site will be designated for such segregation and storage if immediate use is not practicable.	Whole Site	During construction	√
S8.5	S6	<u>Chemical Waste</u> The contractor will register as a chemical waste producer with the EPD.	Whole Site	During construction and operation	√
S8.5	S6	Containers used for storage of chemical waste shall: <ul style="list-style-type: none"> • Be suitable for the substance they are holding, resistant to corrosion, maintained in a good condition, and securely closed; • Have a capacity of less than 450 L unless the specifications have been approved by the EPD; and • Display a label in English and Chinese in accordance with instructions prescribed in <i>Schedule 2 of the Regulations</i>. 	Whole Site	During construction and operation	N/A - Not observed.
S8.5	S6	Storage areas for chemical waste shall: <ul style="list-style-type: none"> • Be clearly labelled and used solely for the storage of chemical waste; • Be enclosed on at least 3 sides; • Have an impermeable floor and bunding, of capacity to accommodate 110% of the volume of the largest container or 20% by volume of the chemical waste stored in that area, whichever is the greatest; • Have adequate ventilation; • Be covered to prevent rainfall entering (water collected within the bund must be tested and disposed of as chemical waste, if necessary); and 	Whole Site	During construction and operation	N/A - Not observed.

EIA Ref.	EM&A Ref.	Recommended Mitigation Measures	Location	When to Implement the Measure	Status
		<ul style="list-style-type: none"> Be arranged so that incompatible materials are appropriately separated. 			
S8.5	S6	A licensed contractor shall be employed to collect chemical waste for delivery to a licensed treatment facility.	Chemical Waste Treatment Centre at Tsing Yi	During construction and operation	√
S8.5	S6 & Table 6.1	<u>General Refuse</u> General refuse will be stored in enclosed bins separately from construction and chemical wastes. The general refuse will be delivered to the transfer station, separately from construction and chemical wastes, on a daily basis to reduce odour, pest and litter impacts.	Whole site	During construction	√
S8.5	S6	Recycling bins will be provided at strategic locations to facilitate recovery of aluminium can and waste paper from the Site. Materials recovered will be sold for recycling.	Whole site	During construction and operation	√
S8.5	S6	<u>Staff Training</u> At the commencement of the construction works, training will be provided to workers on the concepts of site cleanliness and on appropriate waste management procedures, including waste reduction, reuse and recycling.	Whole site	Commencement of construction	√
S8.7	S6.1 & 6.3	Monthly audits of the waste management practices will be carried out during the construction phases to determine if wastes are being managed in accordance with the recommended good site practices. The audits will examine all aspects of waste management including waste generation, storage, recycling, transport and disposal.	Whole site	During construction	√

Remark:

- √ Compliance of Mitigation Measures
- <> Compliance of Mitigation but need improvement
- x Non-compliance of Mitigation Measures
- ▲ Non-compliance of Mitigation Measures but rectified by the Contractor
- Δ Deficiency of Mitigation Measures but rectified by the Contractor
- N/A Not Applicable in Reporting Period

Annex H

Noise Monitoring Results

Annex H Noise Monitoring Results

Daytime Noise Monitoring Results

2nd Floor of Block 3 at Tai Kwun (N2a)

Date	Start Time	End Time	Weather	Noise level (dB(A)), 30 min			Major Construction Noise Source(s) Observed	Other Noise Source(s) Observed	Remarks	Wind Speed (m/s)	Noise Meter Model / ID	Calibrator Model / ID
				Leq	L10	L90						
7-Oct-20	13:10	13:40	Cloudy	63.6	65.7	61.7	-	-	-	0.5	Rion NL-52 (S/N 00643039)	LARSON DAVIS CAL200 (S/N 16172)
14-Oct-20	8:40	9:10	Cloudy	61.7	63.6	59.1	-	-	-	0.5	Rion NL-52 (S/N 00643039)	LARSON DAVIS CAL200 (S/N 16172)
20-Oct-20	9:00	9:30	Sunny	63.5	65.3	61.3	-	-	-	0.5	Rion NL-52 (S/N 00643039)	LARSON DAVIS CAL200 (S/N 16172)
29-Oct-20	8:35	9:05	Cloudy	71.8	73.7	68.8	-	Traffic noise	-	0.4	Rion NL-52 (S/N 00643039)	LARSON DAVIS CAL200 (S/N 16172)
				Min.	61.7							
				Max.	71.8							

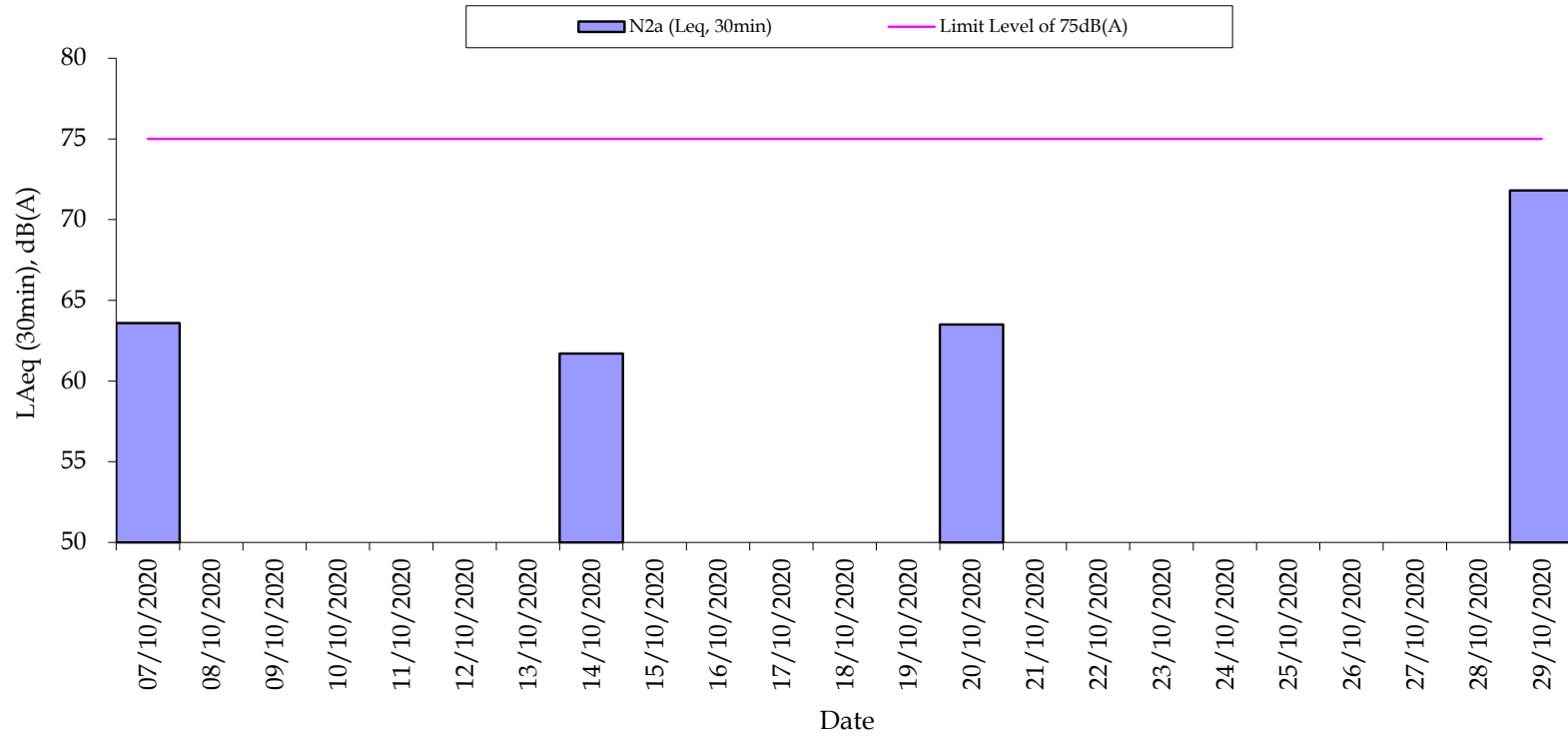
Outside of Boundary Wall of Tai Kwun at Chancery Lane (N5a) ^(a)

Date	Start Time	End Time	Weather	Noise level (dB(A)), 30 min			Major Construction Noise Source(s) Observed	Other Noise Source(s) Observed	Remarks	Wind Speed (m/s)	Noise Meter Model / ID	Calibrator Model / ID
				Leq	L10	L90						
7-Oct-20	14:00	14:30	Cloudy	70.5	72.5	67.2	-	Traffic noise	-	0.7	Rion NL-52 (S/N 00643039)	LARSON DAVIS CAL200 (S/N 16172)
14-Oct-20	9:30	10:00	Cloudy	70.2	71.0	66.7	-	Noise from construction site nearby	-	1.0	Rion NL-52 (S/N 00643039)	LARSON DAVIS CAL200 (S/N 16172)
20-Oct-20	9:45	10:15	Sunny	71.4	72.8	67.5	-	Noise from construction site nearby	-	0.7	Rion NL-52 (S/N 00643039)	LARSON DAVIS CAL200 (S/N 16172)
29-Oct-20	9:30	10:00	Cloudy	61.5	63.4	59.9	-	Noise from construction site nearby	-	0.7	Rion NL-52 (S/N 00643039)	LARSON DAVIS CAL200 (S/N 16172)
				Min.	61.5							
				Max.	71.4							

Note:

(a) Correction of +3dB(A) was added to the monitoring data for free-field measurement.

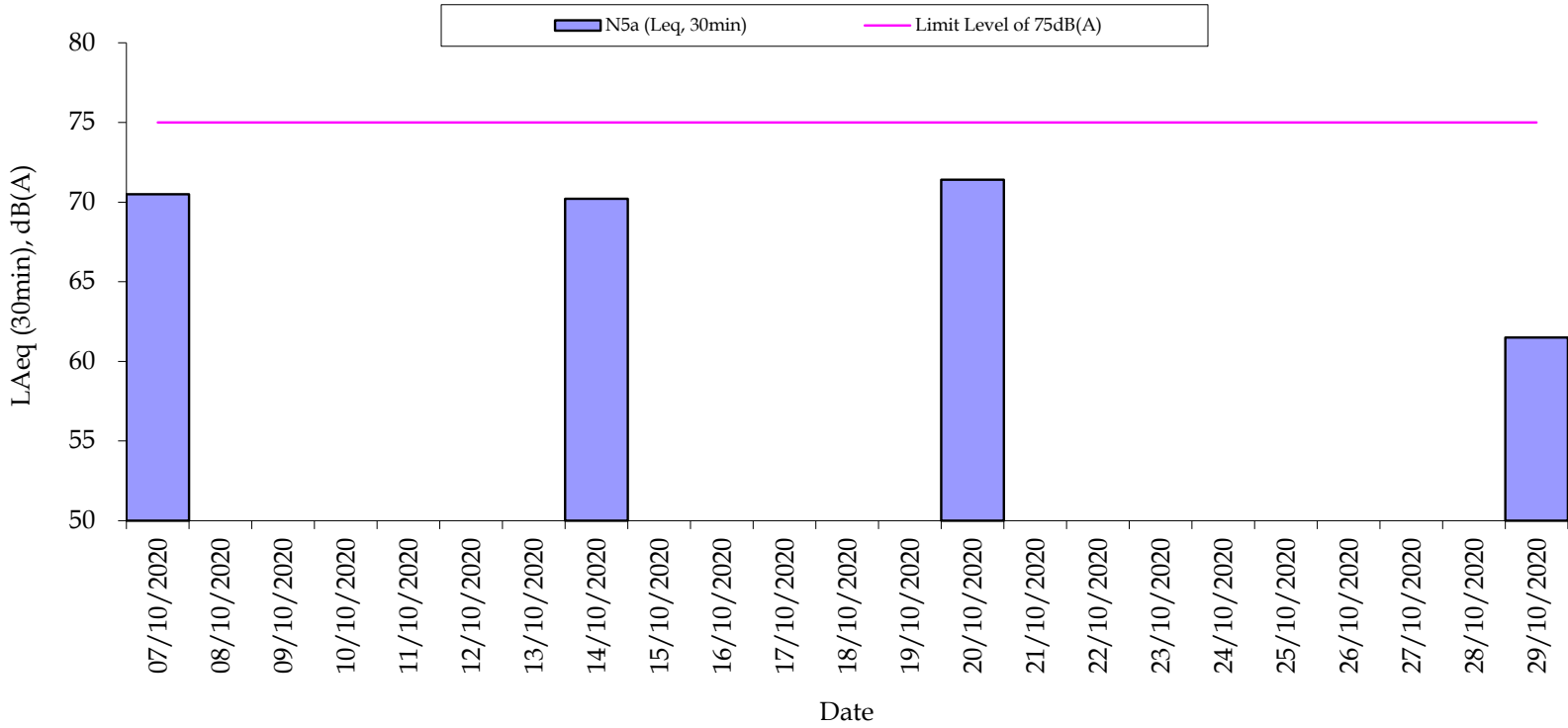
Normal Weekdays Noise Monitoring Results at 2nd Floor of Block 3 at Tai Kwun (N2a) (Leq, 30min)



Remark:

- 75dB(A) was adopted as the Limit Level during normal weekdays in the reporting period

Normal Weekdays Noise Monitoring Results Outside of Boundary Wall of Tai Kwun at Chancery Lane (N5a) (Leq, 30min)

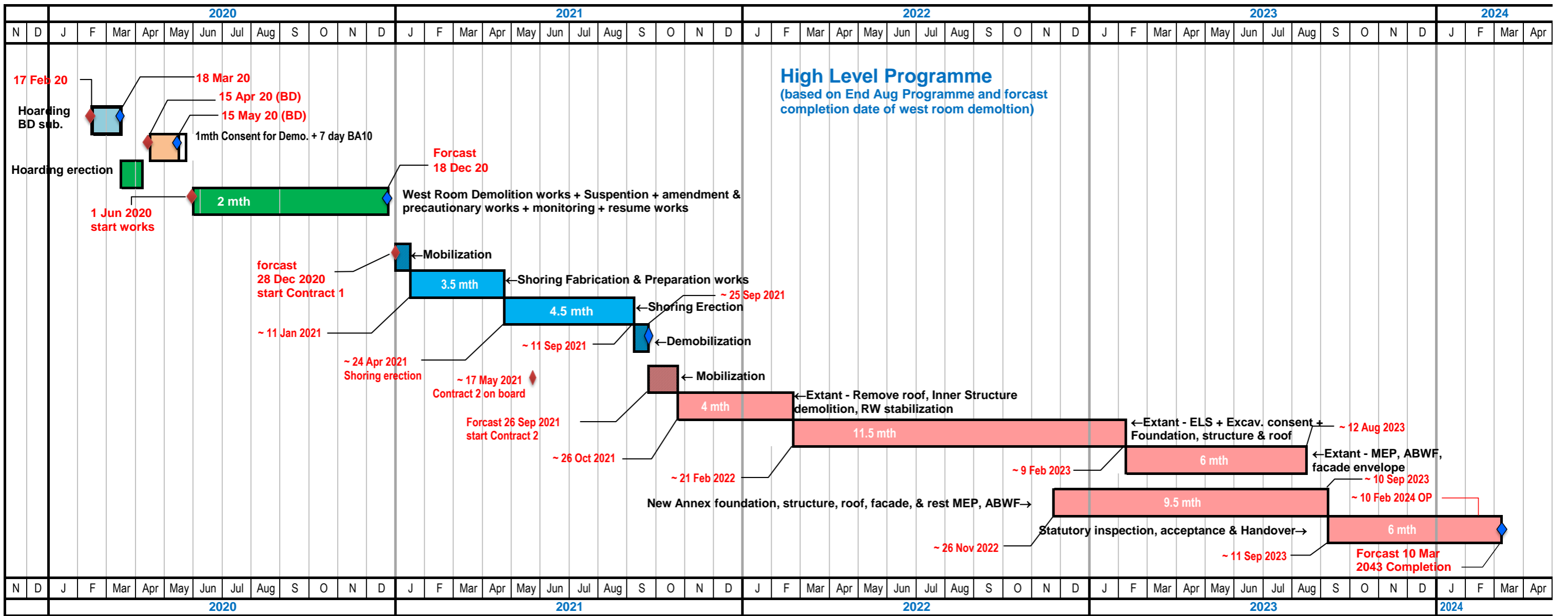


Remark:

- 75dB(A) was adopted as the Limit Level during normal weekdays in the reporting period.
- Correction of +3dB(A) was added to the monitoring data for free-field measurement.

Annex I

Construction Programme of the Project



Annex J

Not Used

Annex K

Environmental Complaint,
Enquiry, Environmental
Summons and Prosecution Log

Annex K Cumulative Complaint and Summons/Prosecutions Log

Reporting Month	Number of Complaints in Reporting Month	Number of Summons/Prosecutions in Reporting Month
November 2011	0	0
December 2011	0	0
January 2012	0	0
February 2012	0	0
March 2012	4	0
April 2012	0	0
May 2012	0	0
June 2012	2	0
July 2012	1	0
August 2012	0	0
September 2012	0	0
October 2012	0	0
November 2012	2	0
December 2012	0	0
January 2013	0	0
February 2013	1	0
March 2013	1	0
April 2013	0	0

Reporting Month	Number of Complaints in Reporting Month	Number of Summons/Prosecutions in Reporting Month
May 2013	0	0
June 2013	0	0
July 2013	0	0
August 2013	0	0
September 2013	0	0
October 2013	0	0
November 2013	0	0
December 2013	0	0
January 2014	2	0
February 2014	1	0
March 2014	1	0
April 2014	1	0
May 2014	0	0
June 2014	0	0
July 2014	2	0
August 2014	3	0
September 2014	2	0
October 2014	1	0
November 2014	0	0

Reporting Month	Number of Complaints in Reporting Month	Number of Summons/Prosecutions in Reporting Month
December 2014	0	0
January 2015	0	0
February 2015	1	0
March 2015	1	0
April 2015	0	0
May 2015	1	0
June 2015	1	0
July 2015	1	0
August 2015	1	0
September 2015	0	0
October 2015	0	0
November 2015	0	0
December 2015	0	0
January 2016	0	0
February 2016	0	0
March 2016	1	0
April 2016	0	0
May 2016	0	0
June 2016	0	0

Reporting Month	Number of Complaints in Reporting Month	Number of Summons/Prosecutions in Reporting Month
July 2016	0	0
August 2016	0	0
September 2016	1	0
October 2016	0	0
November 2016	0	0
December 2016	0	0
January 2017	0	0
February 2017	0	0
March 2017	0	0
April 2017	0	0
May 2017	0	0
June 2017	0	0
July 2017	0	0
August 2017	0	0
September 2017	0	0
October 2017	0	0
November 2017	0	0
December 2017	1	0
January 2018	1	0

Reporting Month	Number of Complaints in Reporting Month	Number of Summons/Prosecutions in Reporting Month
February 2018	0	0
March 2018	1	0
April 2018	0	0
May 2018	0	0
June 2020	0	0
July 2020	0	0
August 2020	0	0
September 2020	0	0
October 2020	0	0
Overall Total	35	0

Note:

Besides Block 4 Married Inspector Quarters and Deputy Superintendent House, all construction works of the Project were completed by 25 May 2018 and the construction EM&A programme was thus suspended since 25 May 2018. As the construction of Block 4 commenced on 15 June 2020, the construction EM&A programme of the Project was also resumed on this date.