



中國路橋工程有限責任公司
CHINA ROAD AND BRIDGE CORPORATION

Doc No:	MS-016
Rev:	5
Page:	1

YL/2020/02 - Development of Lok Ma Chau Loop: Main Works Package 1 – Contract 2 Western Connection Road Phase 2, Connection Roads to Fanling / San Tin Highway and Direct Road Link Phase 1
REEDBED CELL NO. 3A – PILOT TEST PLAN

PROJECT TITLE:	<i>Development of Lok Ma Chau Loop: Main Works Package 1 – Contract 2 Western Connection Road Phase 2, Connection Roads to Fanling / San Tin Highway and Direct Road Link Phase 1</i>
PROJECT NUMBER:	YL/2020/02

METHOD STATEMENT TITLE'
REEDBED CELL NO. 3A – PILOT TEST PLAN

	Prepared by: -		Reviewed by: -		Approved by: -
Name	Keith Wong	Roger Poon	YS Lee	Calvin So	Raymond Suen
Position	Wetland Plant Ecologist	Construction Team Leader	Safety Manager	Environmental Officer	Site Agent
Signature					
Date	4/3/2022	4/3/2022	4/3/2022	4/3/2022	4/3/2022



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Doc No:	MS-016
Rev:	5
Page:	2

Contents

1	Introduction	3
2	Objectives.....	3
3	Sampling Points	3
4	Testing Parameters and Methods	4
5	Schedule.....	5
6	Evaluation.....	6
7	Reporting.....	6
8	Rectification and Contingency Plan	7
9	Monitoring.....	7

Appendix A	Existing Reedbed System and Proposed Reedbed Cell No. 3A
Appendix B	Location of the Sampling Point
Appendix C	Details Approach of the Water Quality Testing
Appendix D	Tentative Programme of the Pilot Test
Appendix E	A. Flow Path of Effluent of Existing Reedbed Cell No. 2, 6, 3 and 7
	B. Flow Path of Effluent during Pilot Test in Reedbed Cell No. 2, 6, 3A and 7



YL/2020/02 - Development of Lok Ma Chau Loop: Main Works Package 1 – Contract 2 Western Connection Road Phase 2, Connection Roads to Fanling / San Tin Highway and Direct Road Link Phase 1

REEDBED CELL NO. 3A – PILOT TEST PLAN

1 Introduction

A reedbed system composed of 8 reedbed cells has been set up in the vicinity of the MTRC Lok Ma Chau Station (LMCS) to polish the treated effluent from the sewerage treatment plant of the station. The location and layout of the reedbed system are shown in the attachment of **Appendix A**.

Under the Lok Ma Chau Loop (LMCL) Development Project, a viaduct named Direct Road Link (DRL) will be constructed in this Contract to connect the LMCL to the LMCS, in which part of the substructure works, i.e. the construction of a pile cap (ref. DRL-P02) and two piles (Ref. DRL-P02(1) and DRL-P02(2)), will be undertaken on the Reedbed Cell No.3 of the reedbed system. Accordingly, temporarily isolation of this reedbed cell from the whole reedbed system would be require to provide working area for the above-mentioned construction works.

In order to ensure the polishing functions of the whole reedbed system and its performance will not be affected by the above arrangement, a reedbed cell named Reedbed Cell No. 3A will be constructed on a disused fishpond adjacent to the Reedbed Cell No. 7 to provide temporary compensation to the existing system and retain the treatment effectiveness of the existing reedbed system. Location of these two cells is shown in **Appendix A**. A method statement on the construction of the Reedbed Cell No. 3A has already submitted to the Supervisor and other stakeholder (including MTRC) before commencement of the construction work.

As required under the Condition 3.29(B) of the EP-129/2002/H, the Condition 3.14(B) of FEP-06/129/2002/I, as well as the P.S.31.8 (3) of the current Contract, a Pilot Test Plan detailing the sampling points and schedule to be submitted to the Supervisor and EPD and MTRCL and/or relevant authorities / authorities / stakeholder for acceptance.

2 Objectives

According to Clause 3.14 (B) of the Environmental Permit No. FEP-06/129/2002/I, the objective of the pilot test is to demonstrate the Reedbed Cell No. 3A can replace the water polishing function of Reedbed Cell No. 3, i.e., with the use of the Reedbed Cell No. 3A, the water quality at outlet of reedbed system is better than the water quality at inlet of reedbed system.

3 Sampling Points

During the pilot test, water samples from the following four sampling points will be collected for in-situ or laboratory testing as specified in the P.S. 31.6(13) and P.S. 31.8(2) (see **Appendix B** for their locations): -

- | | |
|-----|-------------------------------|
| W1. | Inlet of Reedbed System |
| W2. | Outlet of Reedbed System |
| W3. | Inlet of Reedbed Cell No. 3A |
| W4. | Outlet of Reedbed Cell No. 3A |



YL/2020/02 - Development of Lok Ma Chau Loop: Main Works Package 1 – Contract 2 Western Connection Road Phase 2, Connection Roads to Fanling / San Tin Highway and Direct Road Link Phase 1

REEDBED CELL NO. 3A – PILOT TEST PLAN

4 Testing Parameters and Methods

With the escort of the staff from MTR, water quality testing/sampling will be undertaken at all sampling points by standard testing/sampling techniques, for which the following 9 water quality parameters will either be measured in-situ or with samples collected for testing by an accredited laboratory :

In-situ measurement:

- Temperature
- Dissolved Oxygen (DO)
- Turbidity
- pH
- Flowrate

Laboratory testing

- 5-day biochemical oxygen demand (BOD₅)
- Ammonia nitrogen (NH₃-N)
- Suspended Solids (SS)
- *E. Coli*

Details on the methodology of the water quality measurement and testing are given in **Appendix C**.



YL/2020/02 - Development of Lok Ma Chau Loop: Main Works Package 1 – Contract 2 Western Connection Road Phase 2, Connection Roads to Fanling / San Tin Highway and Direct Road Link Phase 1

REEDBED CELL NO. 3A – PILOT TEST PLAN

5 Schedule

Prior the Commencement of Pilot Test

- With respect to the tight construction program of the Project and general vigour of the reed *Phragmites sp.*, the pilot test will be commenced as soon as the planted reeds are noted in stable condition by the Wetland Plant Ecologist (i.e., no signs of withering, and emergence of new bud, new shoots or growth of leaf blade observed) and completion of the construction work.
- The schedule of the pilot test will be provided to MTR at least 1 week before execution.
- The 9 water quality parameters will also be collected as reference at the inlet and outlet of the whole reedbed system (W1 and W2) and Reedbed Cell No.3A (W3 and W4).

During Each in-situ Testing/Sampling Event of Pilot Test

- Reedbed Cell No. 3 will be temporary isolated from the reedbed system the day before water testing/sampling
- Effluent from the equalization pit of Reedbed Cell No. 2 and No. 6 will flow to reedbed Cell No. 7 and Reedbed Cell No. 3A
- Water testing/sampling will be undertaken at the inlet and outlet of whole reedbed system and Reedbed Cell No. 3A (i.e., W1, W2, W3 and W4) at least after 20 hours after isolation of Reedbed Cell No.3

After Each in-situ Testing/Water Sampling Event of Pilot Test

- Reconnect Reedbed Cell No. 3 to the reedbed system

4 weeks after Commencement of Pilot Test

- Review and evaluate the results of the water quality monitoring and the performance of the Reedbed Cell No. 3A and the reedbed system with the use of the Reedbed Cell No. 3A, as well as necessity for extending the pilot test.

A schematic drawings showing the current flow direction of effluent and during the pilot test event among the concerned reedbed cells are shown in **Appendix E** and the tentative programme of the pilot test is shown in **Appendix D**.



YL/2020/02 - Development of Lok Ma Chau Loop: Main Works Package 1 – Contract 2 Western Connection Road Phase 2, Connection Roads to Fanling / San Tin Highway and Direct Road Link Phase 1

REEDBED CELL NO. 3A – PILOT TEST PLAN

6 Evaluation

Continuous Evaluation During the Pilot Test

For the whole reedbed system and Reedbed Cell No.3A, should the results of the *in-situ* water testing or the laboratory analysis revealed that the water quality in the outlet is poorer than the inlet (i.e. W2 is poorer than W1 or W4 is poorer than W3), further discharge of the effluent from the reedbed system or Reedbed Cell No. 3A would be stopped and the contingency action(s) as stated in the Schedule 8 will be implemented until a positive results received from next testing event.

4 weeks after commencement of the Pilot Test

The performance of the Reedbed Cell No 3A will be assessed and evaluated by the Constructed Wetland Specialist by comparing the water quality parameters obtained from the inlet and outlet of Reedbed Cell No. 3A (i.e., sampling points W3 and W4) and the whole reedbed system (i.e., sampling points W1 and W2) during the course of the testing period. Furthermore, the results will also be compared with the water quality data collected at W1 and W2 prior the commencement of the pilot test.

The Reedbed Cell No. 3A would be considered functionable and ready for operation should, in any 4 consecutive weeks (a complete pilot test cycle):

- a) the water quality at the outlet of Reedbed Cell No. 3A (W4) is better than the inlet of Reedbed Cell No. 3A (W3), and
- b) the water quality at the outlet of the reedbed system (W2) is better than the inlet of the whole reedbed system (W1), and hence fulfil the requirements of the discharge license of the MTRC's reedbed system.

7 Reporting

The pilot test results will be submitted to relevant government departments and the designated consultant for comments and acceptance, if necessary, as directed by the *Supervisor* within 1 month after completion of the pilot test.



YL/2020/02 - Development of Lok Ma Chau Loop: Main Works Package 1 – Contract 2 Western Connection Road Phase 2, Connection Roads to Fanling / San Tin Highway and Direct Road Link Phase 1

REEDBED CELL NO. 3A – PILOT TEST PLAN

8 Rectification and Contingency Plan

During the Pilot Test, should the results of the *in-situ* water testing or the laboratory analysis revealed that the water quality of the outlet is poorer than the inlet in the whole reedbed system and/or Reedbed Cell No. 3A (i.e. W2 is poorer than W1 or W4 is poorer than W3), the effluent from outlet (W2 and/or W4) will be re-circulated to upstream reedbed cell(s) without discharging for further polishing, until compliance confirmed from the next testing event (either testing results of the in-situ measurements and/or laboratory report).

Furthermore, the sources or cause of any under-performance of the Reedbed Cell No 3A will be reviewed and identified by the Constructed Wetland Specialist as far as possible, and corresponding rectification actions if considered necessary will be undertaken within the Reedbed Cell No. 3A prior the next testing/sampling event as far as practicable, including but not limited to fertilizing, increasing the plant density of the Reedbed Cell No 3A, or replacing those reeds in poor condition.

On the other hand, whilst the upkeeping of the polishing performance of other reedbed cells of the reedbed system are beyond the work scope of the Main Contractor, should the test results shown that the water quality at outlet of reedbed system (W2) do not better than the water quality at the inlet of reedbed system (W1), the Constructed Wetland Specialist will also make an attempt to locate and identify the cause/source of any under-performance of the reedbed system.

If the Pilot Test failed to confirm the water polishing function of Reedbed Cell No. 3 could be replaced by the Reedbed Cell No. 3A, alternative wastewater treatment method such as deployment of a temporary water treatment facility in the outlet of Reedbed Cell No. 3A will be proposed for the Director's approval before isolation of Reedbed Cell No. 3.

9 Monitoring

The polishing performance of Reedbed Cell No. 3A, i.e., the 9 water quality parameters, will be monitored in the inlet (W3) and outlet of the Reedbed Cell No.3A (W4) on a monthly basis during the course of the operation phase of the Reedbed Cell No. 3A



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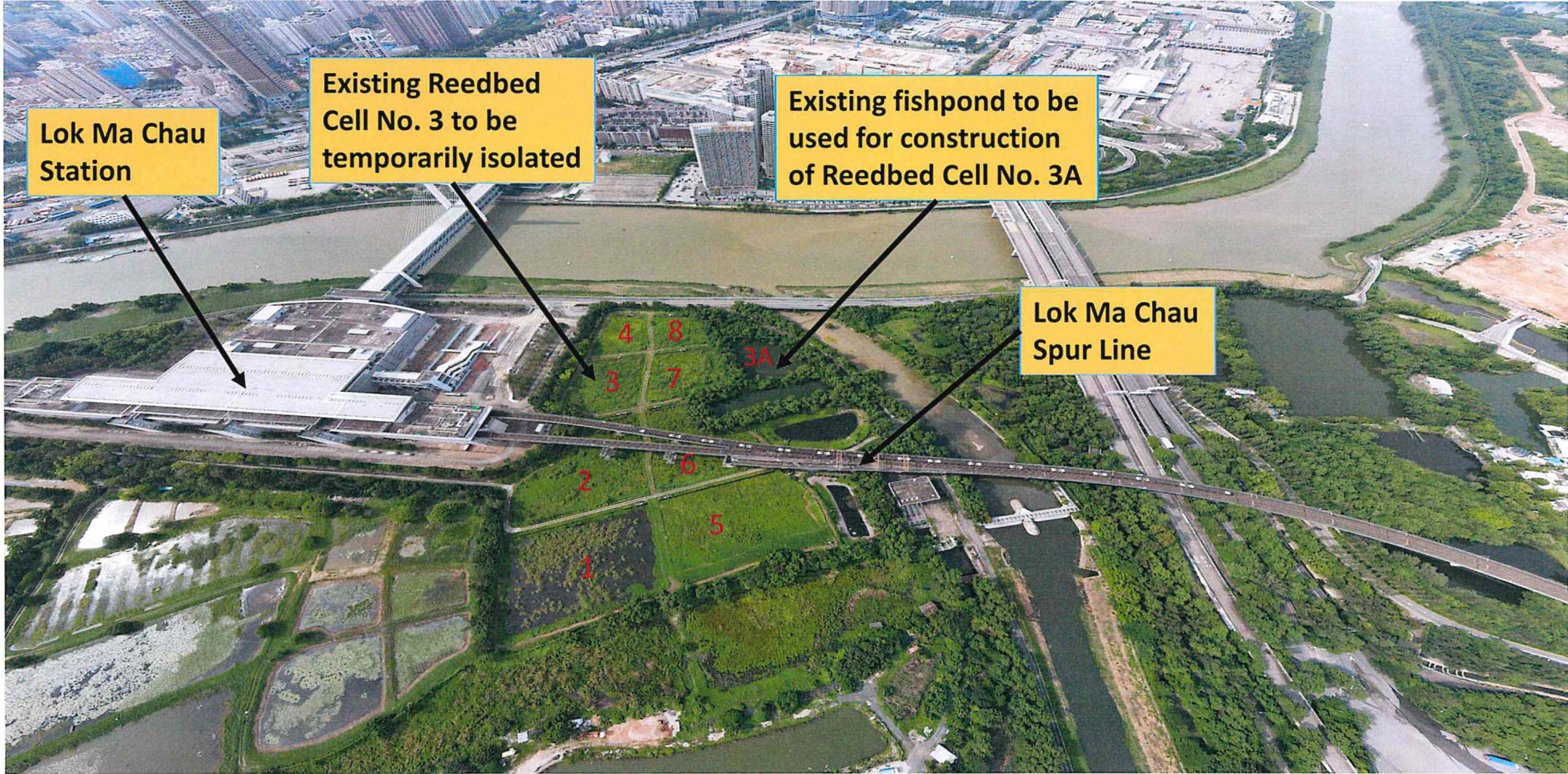
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REEDBED CELL NO. 3A – PILOT TEST PLAN

Doc No:	MS-016
Rev:	5
Page:	8

Appendix A

Existing Reedbed System and Proposed Reedbed Cell No. 3A



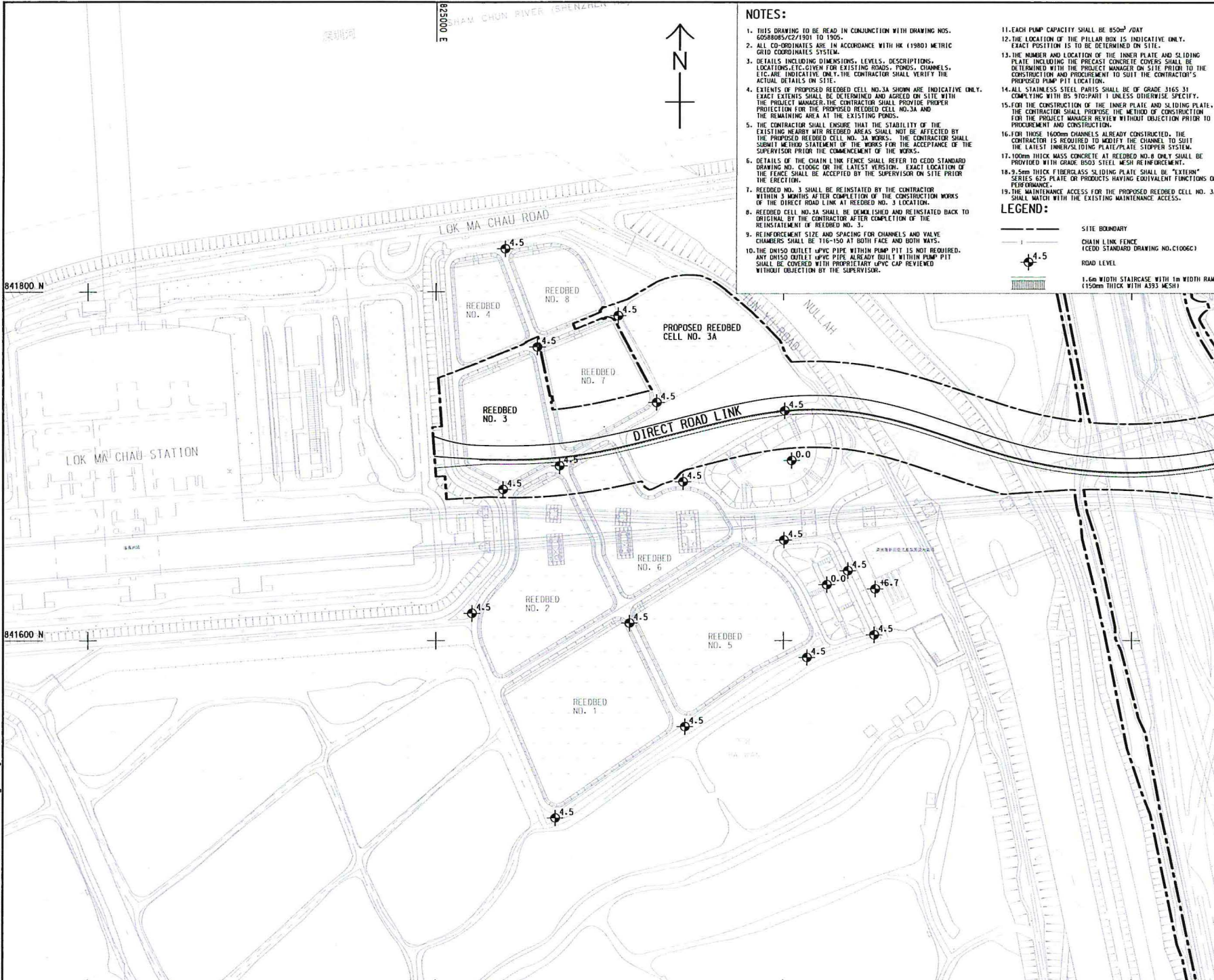
Lok Ma Chau Station

Existing Reedbed Cell No. 3 to be temporarily isolated

Existing fishpond to be used for construction of Reedbed Cell No. 3A

Lok Ma Chau Spur Line

1
2
3
4
5
6
7
8
3A




NOTES:

1. THIS DRAWING TO BE READ IN CONJUNCTION WITH DRAWING NOS. 60588085/C2/1901 TO 1905.
2. ALL CO-ORDINATES ARE IN ACCORDANCE WITH HK (1980) METRIC GRID COORDINATES SYSTEM.
3. DETAILS INCLUDING DIMENSIONS, LEVELS, DESCRIPTIONS, LOCATIONS ETC. GIVEN FOR EXISTING ROADS, PONDS, CHANNELS, ETC. ARE INDICATIVE ONLY. THE CONTRACTOR SHALL VERIFY THE ACTUAL DETAILS ON SITE.
4. EXTENTS OF PROPOSED REEDBED CELL NO. 3A SHOWN ARE INDICATIVE ONLY. EXACT EXTENTS SHALL BE DETERMINED AND AGREED ON SITE WITH THE PROJECT MANAGER. THE CONTRACTOR SHALL PROVIDE PROPER PROTECTION FOR THE PROPOSED REEDBED CELL NO. 3A AND THE REMAINING AREA AT THE EXISTING PONDS.
5. THE CONTRACTOR SHALL ENSURE THAT THE STABILITY OF THE EXISTING NEARBY WATER REEDBED AREAS SHALL NOT BE AFFECTED BY THE PROPOSED REEDBED CELL NO. 3A WORKS. THE CONTRACTOR SHALL SUBMIT METHOD STATEMENT OF THE WORKS FOR THE ACCEPTANCE OF THE SUPERVISOR PRIOR TO THE COMMENCEMENT OF THE WORKS.
6. DETAILS OF THE CHAIN LINK FENCE SHALL REFER TO CEDD STANDARD DRAWING NO. C1006C OR THE LATEST VERSION. EXACT LOCATION OF THE FENCE SHALL BE ACCEPTED BY THE SUPERVISOR ON SITE PRIOR TO THE ERECTION.
7. REEDBED NO. 3 SHALL BE REINSTATED BY THE CONTRACTOR WITHIN 3 MONTHS AFTER COMPLETION OF THE CONSTRUCTION WORKS OF THE DIRECT ROAD LINK AT REEDBED NO. 3 LOCATION.
8. REEDBED CELL NO. 3A SHALL BE DEMOLISHED AND REINSTATED BACK TO ORIGINAL BY THE CONTRACTOR AFTER COMPLETION OF THE REINSTATEMENT OF REEDBED NO. 3.
9. REINFORCEMENT SIZE AND SPACING FOR CHANNELS AND VALVE CHAMBERS SHALL BE 716-150 AT BOTH FACE AND BOTH WAYS. ANY DN150 OUTLET UPVC PIPE ALREADY BUILT WITHIN PUMP PIT SHALL BE COVERED WITH PROPRIETARY UPVC CAP REVIEWED WITHOUT OBJECTION BY THE SUPERVISOR.

11. EACH PUMP CAPACITY SHALL BE 850m³/DAY.
12. THE LOCATION OF THE PUMP BOX IS INDICATIVE ONLY. EXACT POSITION IS TO BE DETERMINED ON SITE.
13. THE NUMBER AND LOCATION OF THE INNER PLATE AND SLIDING PLATE INCLUDING THE PRECAST CONCRETE COVERS SHALL BE DETERMINED WITH THE PROJECT MANAGER ON SITE PRIOR TO THE CONSTRUCTION AND PROCUREMENT TO SUIT THE CONTRACTOR'S PROPOSED PUMP PIT LOCATION.
14. ALL STAINLESS STEEL PARTS SHALL BE OF GRADE 316S 316 COMPLYING WITH BS 970:PART 1 UNLESS OTHERWISE SPECIFY.
15. FOR THE CONSTRUCTION OF THE INNER PLATE AND SLIDING PLATE, THE CONTRACTOR SHALL PROPOSE THE METHOD OF CONSTRUCTION FOR THE PROJECT MANAGER REVIEW WITHOUT OBJECTION PRIOR TO PROCUREMENT AND CONSTRUCTION.
16. FOR THESE 1400mm CHANNELS ALREADY CONSTRUCTED, THE CONTRACTOR IS REQUIRED TO MODIFY THE CHANNEL TO SUIT THE LATEST INNER/SLIDING PLATE/PLATE STOPPER SYSTEM.
17. 100mm THICK MASS CONCRETE AT REEDBED NO. 8 ONLY SHALL BE PROVIDED WITH GRADE BS502 STEEL MESH REINFORCEMENT.
18. 9.5mm THICK FIBERGLASS SLIDING PLATE SHALL BE 'EXTREM' SERIES 625 PLATE OR PRODUCTS HAVING EQUIVALENT FUNCTIONS OR PERFORMANCE.
19. THE MAINTENANCE ACCESS FOR THE PROPOSED REEDBED CELL NO. 3A SHALL MATCH WITH THE EXISTING MAINTENANCE ACCESS.


LEGEND:





PROJECT
 DEVELOPMENT OF
 LOK MA CHAU LOOP
 MAIN WORKS PACKAGE 1

CONTRACT TITLE
 CONTRACT 2 -
 WESTERN CONNECTION ROAD
 PHASE 2, CONNECTION ROADS TO
 FANLING/SAN TIN HIGHWAY AND
 DIRECT ROAD LINK PHASE 1

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NO.	DATE	DESCRIPTION	CHK	APP
-	APR. 21	TENDER DRAWING	BCC	

STATUS

SCALE A1 1:1000 **DIMENSION UNIT** METRES

KEY PLAN

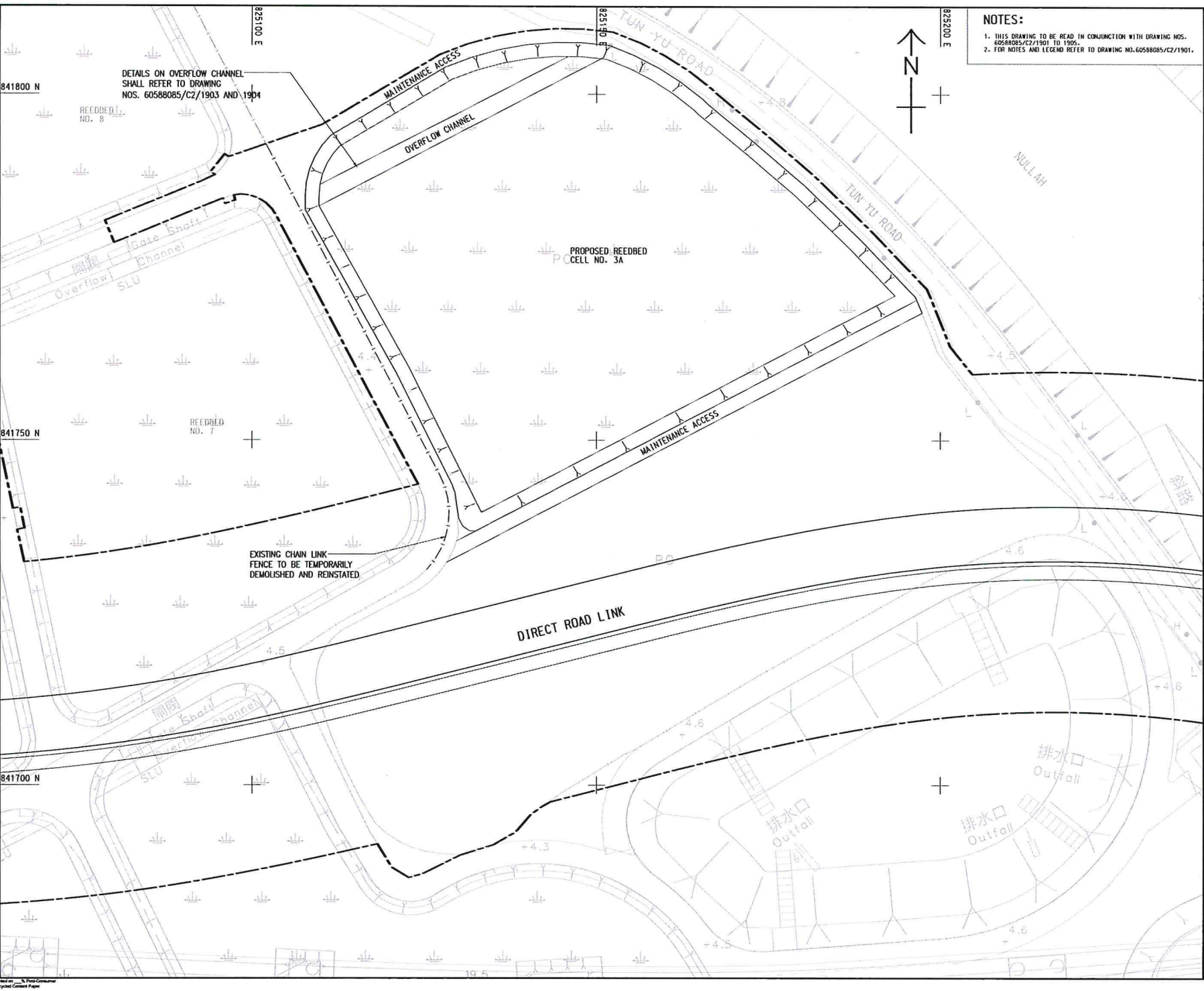
PROJECT NO. 60588085 **CONTRACT NO.** YL/2020/02

SHEET TITLE GENERAL LAYOUT OF REEDBED

SHEET NUMBER 60588085/C2/1901

The integrity of this drawing has been checked by the project manager. It is not to be used for any other purpose without the written approval of the project manager.

28/04/2021
 Plot File by: Xin-miao
 PATH: P:\PROJECT\930588085\DRAWING\CONTRACT\C2\1903\C2_1903.dwg
 Project Management Initials: Designer: TTKK Check: BCC Approved: DWN
 ISO A1 594mm x 841mm



NOTES:

1. THIS DRAWING TO BE READ IN CONJUNCTION WITH DRAWING NOS. 60588085/C2/1901 TO 1905.
2. FOR NOTES AND LEGEND REFER TO DRAWING NO. 60588085/C2/1901.



PROJECT
 DEVELOPMENT OF LOK MA CHAU LOOP
 MAIN WORKS PACKAGE 1

CONTRACT TITLE
 CONTRACT 2 -
 WESTERN CONNECTION ROAD
 PHASE 2, CONNECTION ROADS TO
 FANLINGI SAN TIN HIGHWAY AND
 DIRECT ROAD LINK PHASE 1

CLIENT
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 Civil Engineering and
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NO.	DATE	DESCRIPTION	CHK.
1	APR. 21	TENDER DRAWING	BCC

STATUS

SCALE
 A1 1:250

DIMENSION UNIT
 METRES

KEY PLAN

PROJECT NO.
 60588085

CONTRACT NO.
 YJ/2020/02

SHEET TITLE
 GENERAL LAYOUT OF PROPOSED
 REEDBED CELL NO. 3A

SHEET NUMBER
 60588085/C2/1902

This drawing shall provide information for the use of the contractor. It is not to be used for any other purpose. The contractor shall be responsible for the accuracy of the information provided. The contractor shall be responsible for the accuracy of the information provided.



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REEDBED CELL NO. 3A – PILOT TEST PLAN

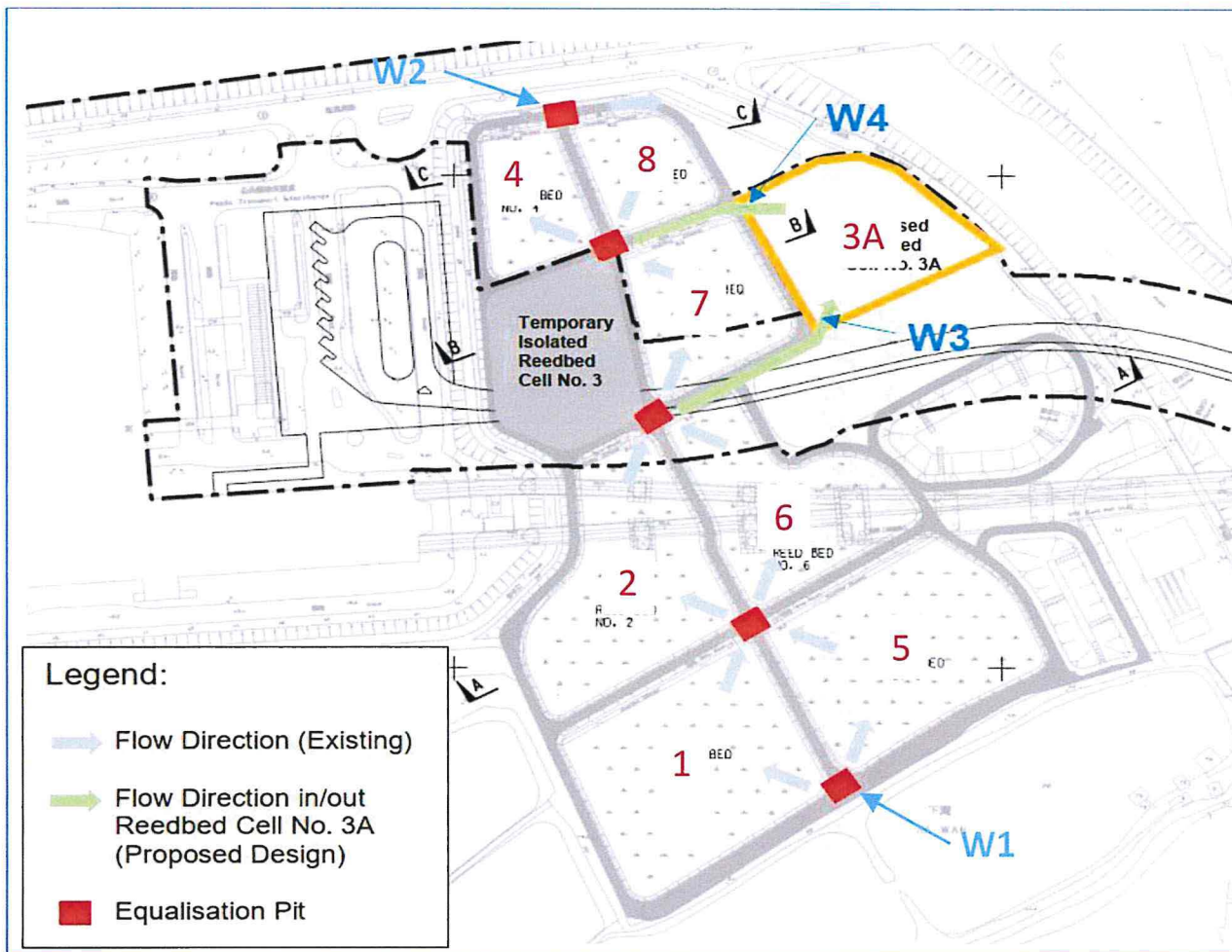
Doc No: MS-016

Rev: 5

Page: 9

Appendix B

Location of the Sampling Points



Station	Locations
W1	Inlet of Reedbed System
W2	Outlet of Reedbed System
W3	Inlet of Reedbed Cell No. 3A
W4	Outlet of Reedbed Cell No. 3A



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Doc No:	MS-016
Rev:	5
Page:	10

Appendix C

Details Approach of the Water Quality Testing

1. WATER QUALITY

1.1 The methodology of water quality monitoring during the pilot test are presented below.

REQUIREMENT

1.2 Parameters of in-situ measurement include:

- Temperature (°C)
- Dissolved Oxygen (DO) (mg/L)
- Turbidity (NTU)
- pH (unit); and
- Water flow rate (m/s)

1.3 Parameters of laboratory analysis include:

- 5-day biochemical oxygen demand (BOD₅) (mg/L)
- Ammonia nitrogen (NH₃-N) (mg/L)
- Suspended Solids (mg/L); and
- *E. Coli* (cfu/100ml)

MONITORING EQUIPMENT

1.4 Water quality monitoring equipment used in the monitoring is listed in below table.

Equipment	Model	Calibration Requirement
Thermometer & DO meter	YSI PRO20 Handheld Dissolved Oxygen Instrument / YSI 550A Multifunctional Meter / YSI Professional DSS Multifunctional Meter	Three months
pH meter	AZ8685 pH pen-style meter / YSI Professional DSS Multifunctional Meter	Three months
Turbidimeter	Hach 21 00Q / YSI Professional DSS Multifunctional Meter	Three months
Global Flow Probe	FP211	Bi-year
Sample Container	<ol style="list-style-type: none"> 1. High density polythene bottles provided by laboratory for SS & BOD₅ tests 2. Sterile plastic bottles containing sodium thiosulfate for <i>E.coli</i> analytical as provided by laboratory 3. H₂SO₄ preserved clear plastic bottles for Ammonia nitrogen testing as provided by laboratory 	NA
Storage Container	'Willow' 33-liter plastic cool box with ice pad	NA
Depth meter	Measuring tape	NA

IN-SITU MEASUREMENT

DO Measurement

1.5 The DO measuring instruments were portable and weatherproof. The equipment contained a membrane electrode with automatic temperature compensation. The equipment had a sensor and direct current (DC) power source and was capable of measuring:

- A DO level in the range of 0 – 20 mg/L and 0 – 200% saturation; and
- A temperature of 0 – 45 degree Celsius.

Turbidity Measurement

1.6 The turbidity measuring instruments were portable and weatherproof with DC power source, and had a photoelectric sensor capable of measuring turbidity level between 0 –1000 NTU.

pH Measurement

- 1.7 A portable pH meter capable of measuring a range between 0.0 and 14.0 was used to measure pH under the specified conditions according to the APHA Standard Methods.
- 1.8 All in-situ measurement equipment such as DO measuring instruments, turbidity measuring instruments and A portable pH meter, would be calibrated by HOKLAS accredited laboratory at three month intervals. Valid calibration certificates will be provided to relevant parties before the monitoring events.

Water Flow Measurement

- 1.9 A portable water flow meter, brand named “Global Water model FP211” will be used to determine the water current flow at the designated monitoring points. A water flow velocity will be measured at mid depth of current water body or 0.5m below water surface.

LABORATORY ANALYSIS

- 1.10 A local HOKLAS-accredited testing laboratory (ALS Technichem (HK) Pty Ltd HOKLAS registration no. 66) will be appointed to carry out chemical analytical. The HOKLAS accredited certificate of laboratory is attached in *Appendix C1*. The determination would be started within 24 hours of collection of water samples. The method of chemicals analysis is shown below table.

Analyze Description	Method Reference	Report Limit (mg/L)
5-day biochemical oxygen demand (BOD ₅)	APHA 5210B	2
Ammonia nitrogen	APHA 4500NH ₃ : G	0.01
Suspended Solids	APHA 2540 D	2 mg/L
<i>E. Coli</i>	TM09/EC/10/98 Issue 3, EPD,HK	1 cfu/100ml

MONITORING PROCEDURE

- 1.11 Before in-situ measurement or water sampling, general information such as the date and time of sampling, weather condition as well as the personnel responsible for the monitoring would be recorded on the field data sheet. In-situ measurement will be directly taken 0.5m below surface water level in water body. Replicates in-situ measurements and samples shall be collected at each the designated monitoring points. (i.e. 2 tests or samples at each event, each collection point)
- 1.12 An extendable stick connected with and self-made sampling buckets will be used to collect the water samples at about 0.5m below surface gently.
- 1.13 Water samples for laboratory analysis, a sampler will be rinsed with a portion of water sample. The collected water sample would respective be transferred to high-density polythene bottles, sterile plastic bottles containing sodium thiosulfate and H₂SO₄ preserved clear plastic bottles as provided by the laboratory, labeled with a unique sample number and sealed with a screw cap.
- 1.14 All water samples for laboratory measurement will be stored into a plastic cool box with ice pad as maintained 4 °C without being frozen and delivered to the laboratory in the same day as the samples were collected.
- 1.15 Analysis of chemical parameters should be carried out in a HOKLAS accredited laboratory - ALS Technichem (HK) Pty Ltd. Sufficient water samples should be collected at the ponds for carrying out the laboratory determination. The determination work should start within 24 hours after collection of the water samples. In addition, all remaining samples after analysis will be kept by the laboratory for 3 months in case repeat analysis to be required.

DATA MANAGEMENT AND DATA QA/QC CONTROL

- 1.16 All monitoring data will be handled by AUES’s in-house data recording and management system. The monitoring data recorded in the equipment will be downloaded directly from the equipment at the end of each monitoring day. The downloaded monitoring data will input into a computerized database maintained by the AUES. The laboratory results will be input directly into the computerized database

and checked by personnel other than those who input the data.

- 1.17 For monitoring parameters that require laboratory analysis, the local laboratory shall follow the QA/QC requirements as set out under the HOKLAS scheme for the relevant laboratory tests.



REPORT OF EQUIPMENT PERFORMANCE CHECK/CALIBRATION

CONTACT:	MR BEN TAM	WORK ORDER:	HK2152496
CLIENT:	ACTION-UNITED ENVIRONMENTAL SERVICES & CONSULTING	SUB- BATCH:	0
ADDRESS:	RM A 20/F., GOLD KING IND BLDG, NO. 35-41 TAI LIN PAI ROAD, KWAI CHUNG, N.T.	LABORATORY:	HONG KONG
		DATE RECEIVED:	20-Dec-2021
		DATE OF ISSUE:	28-Dec-2021

SPECIFIC COMMENTS

Equipment information (Brand name, Model No., Serial No. and Equipment No.) is provided by client. The performance of the equipment stated in this report is checked with independent reference material and results compared against a calibrated secondary source.

The "Tolerance Limit" quoted is the acceptance criteria applicable for similar equipment used by the laboratory or quoted from relevant international standards.

The "Next Calibration Date" is recommended according to best practice principle as practised by the laboratory or quoted from relevant international standards.

The validity of equipment/ meter performance only applies to the result(s) stated in the report.

Equipment Type:	Dissolved Oxygen Meter
Service Nature:	Performance Check
Scope:	Dissolved Oxygen and Temperature
Brand Name/ Model No.:	[YSI]/ [Pro 20]
Serial No./ Equipment No.:	[12C100570]/ [N/A]
Date of Calibration:	22-December-2021

GENERAL COMMENTS

This is the Final Report and supersedes any previous report(s) with this reference.

Mr Chan Siu Ming, Vico
Manager - Inorganics

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REPORT OF EQUIPMENT PERFORMANCE CHECK/CALIBRATION



WORK ORDER: HK2152496
SUB- BATCH: 0
DATE OF ISSUE: 28-Dec-2021
CLIENT: ACTION-UNITED ENVIRONMENTAL SERVICES & CONSULTING

Equipment Type: Dissolved Oxygen Meter
Brand Name/ Model No.: [YSI]/ [Pro 20]
Serial No./ Equipment No.: [12C100570]/ [N/A]
Date of Calibration: 22-December-2021 **Date of Next Calibration:** 22-March-2022

PARAMETERS:

Dissolved Oxygen **Method Ref:** APHA (21st edition), 4500O: G

Expected Reading (mg/L)	Displayed Reading (mg/L)	Tolerance (mg/L)
3.58	3.41	-0.17
5.96	5.85	-0.11
8.61	8.44	-0.17
	Tolerance Limit (mg/L)	±0.20

Temperature

Method Ref: Section 6 of International Accreditation New Zealand Technical Guide No. 3 Second edition March 2008: Working Thermometer Calibration Procedure.

Expected Reading (°C)	Displayed Reading (°C)	Tolerance (°C)
11.0	11.2	+0.2
20.5	21.3	+0.8
41.0	39.6	-1.4
	Tolerance Limit (°C)	±2.0

Remark: "Displayed Reading" presents the figures shown on item under calibration / checking regardless of equipment precision or significant figures.

Mr Chan Siu Ming, Vico
Manager - Inorganics



ALS Technichem (HK) Pty Ltd
11/F, Chung Shun Knitting Centre
1-3 Wing Yip Street, Kwai Chung
N.T., Hong Kong
T: +852 2610 1044 | F: +852 2610 2021

REPORT OF EQUIPMENT PERFORMANCE CHECK/CALIBRATION

CONTACT:	MR BEN TAM	WORK ORDER:	HK2149553
CLIENT:	ACTION-UNITED ENVIRONMENTAL SERVICES &	SUB- BATCH:	0
ADDRESS:	RM A 20/F., GOLD KING IND BLDG, NO. 35-41 TAI LIN PAI ROAD, KWAI CHUNG, N.T.	LABORATORY:	HONG KONG
		DATE RECEIVED:	02-Dec-2021
		DATE OF ISSUE:	08-Dec-2021

SPECIFIC COMMENTS

Equipment information (Brand name, Model No., Serial No. and Equipment No.) is provided by client. The performance of the equipment stated in this report is checked with independent reference material and results compared against a calibrated secondary source.

The "Tolerance Limit" quoted is the acceptance criteria applicable for similar equipment used by the laboratory or quoted from relevant international standards.

The "Next Calibration Date" is recommended according to best practice principle as practised by the laboratory or quoted from relevant international standards.

The validity of equipment/ meter performance only applies to the result(s) stated in the report.

Equipment Type:	Turbidimeter
Service Nature:	Performance Check
Scope:	Turbidity
Brand Name/ Model No.:	[HACH]/ [2100Q]
Serial No./ Equipment No.:	[12060C018266]/ [N/A]
Date of Calibration:	06-December-2021

GENERAL COMMENTS

This is the Final Report and supersedes any preliminary report with this batch number.

Mr Chan Siu Ming, Vico
Manager - Inorganics

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REPORT OF EQUIPMENT PERFORMANCE CHECK/CALIBRATION



WORK ORDER: HK2149553
SUB- BATCH: 0
DATE OF ISSUE: 08-Dec-2021
CLIENT: ACTION-UNITED ENVIRONMENTAL SERVICES & CONSULTING

Equipment Type: Turbidimeter
Brand Name/ [HACH]/ [2100Q]
Model No.:
Serial No./ [12060C018266]/ [N/A]
Equipment No.:
Date of Calibration: 06-December-2021 **Date of Next Calibration:** 06-March-2022

PARAMETERS:

Turbidity

Method Ref: APHA (21st edition), 2130B

Expected Reading (NTU)	Displayed Reading (NTU)	Tolerance (%)
0	0.42	--
4	4.18	+4.5
40	40.2	+0.5
80	81.6	+2.0
400	412	+3.0
	Tolerance Limit (%)	±10.0

Remark: "Displayed Reading" presents the figures shown on item under calibration / checking regardless of equipment precision or significant figures.

A handwritten signature in black ink, appearing to read 'Chan Siu Ming'.

Mr Chan Siu Ming, Vico
Manager - Inorganics



REPORT OF EQUIPMENT PERFORMANCE CHECK/CALIBRATION

CONTACT:	MR BEN TAM	WORK ORDER:	HK2149558
CLIENT:	ACTION-UNITED ENVIRONMENTAL SERVICES &	SUB- BATCH:	0
ADDRESS:	RM A 20/F., GOLD KING IND BLDG, NO. 35-41 TAI LIN PAI ROAD, KWAI CHUNG, N.T.	LABORATORY:	HONG KONG
		DATE RECEIVED:	02-Dec-2021
		DATE OF ISSUE:	08-Dec-2021

SPECIFIC COMMENTS

Equipment information (Brand name, Model No., Serial No. and Equipment No.) is provided by client. The performance of the equipment stated in this report is checked with independent reference material and results compared against a calibrated secondary source.

The "Tolerance Limit" quoted is the acceptance criteria applicable for similar equipment used by the laboratory or quoted from relevant international standards.

The "Next Calibration Date" is recommended according to best practice principle as practised by the laboratory or quoted from relevant international standards.

The validity of equipment/ meter performance only applies to the result(s) stated in the report.

Equipment Type:	pH meter
Service Nature:	Performance Check
Scope:	pH Value and Temperature
Brand Name/ Model No.:	[AZ]/ [AZ8685]
Serial No./ Equipment No.:	[1259868]/ [N/A]
Date of Calibration:	06-December-2021

GENERAL COMMENTS

This is the Final Report and supersedes any preliminary report with this batch number.

Mr Chan Siu Ming, Vico
Manager - Inorganics

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REPORT OF EQUIPMENT PERFORMANCE CHECK/CALIBRATION



WORK ORDER: HK2149558
SUB- BATCH: 0
DATE OF ISSUE: 08-Dec-2021
CLIENT: ACTION-UNITED ENVIRONMENTAL SERVICES & CONSULTING

Equipment Type: pH meter
Brand Name/ Model No.: [AZ]/ [AZ8685]
Serial No./ Equipment No.: [1259868]/ [N/A]
Date of Calibration: 06-December-2021 **Date of Next Calibration:** 06-March-2022

PARAMETERS:

pH Value

Method Ref: APHA (21st edition), 4500H: B

Expected Reading (pH unit)	Displayed Reading (pH unit)	Tolerance (pH unit)
4.0	4.2	+0.20
7.0	6.9	-0.10
10.0	9.8	-0.20
	Tolerance Limit (pH unit)	±0.20

Temperature

Method Ref: Section 6 of International Accreditation New Zealand Technical Guide No. 3 Second edition March 2008: Working Thermometer Calibration Procedure.

Expected Reading (°C)	Displayed Reading (°C)	Tolerance (°C)
11.5	11.3	-0.2
20.5	20.1	-0.4
40.5	39.1	-1.4
	Tolerance Limit (°C)	±2.0

Remark: "Displayed Reading" presents the figures shown on item under calibration / checking regardless of equipment precision or significant figures.

Mr Chan Siu Ming, Vico
Manager - Inorganics



REPORT OF EQUIPMENT PERFORMANCE CHECK/CALIBRATION

CONTACT:	MR BEN TAM	WORK ORDER:	HK2152511
CLIENT:	ACTION-UNITED ENVIRONMENTAL SERVICES & CONSULTING		
ADDRESS:	RM A 20/F., GOLD KING IND BLDG, NO. 35-41 TAI LIN PAI ROAD, Kwai Chung, N.T.	SUB- BATCH:	0
		LABORATORY:	HONG KONG
		DATE RECEIVED:	20-Dec-2021
		DATE OF ISSUE:	28-Dec-2021

SPECIFIC COMMENTS

Equipment information (Brand name, Model No., Serial No. and Equipment No.) is provided by client. The performance of the equipment stated in this report is checked with independent reference material and results compared against a calibrated secondary source.

The "Tolerance Limit" quoted is the acceptance criteria applicable for similar equipment used by the laboratory or quoted from relevant international standards.

The "Next Calibration Date" is recommended according to best practice principle as practised by the laboratory or quoted from relevant international standards.

The validity of equipment/ meter performance only applies to the result(s) stated in the report.

Equipment Type:	Multifunctional Meter
Service Nature:	Performance Check
Scope:	Conductivity, Dissolved Oxygen, pH Value, Turbidity, Salinity and Temperature
Brand Name/ Model No.:	[YSI]/ [Professional DSS]
Serial No./ Equipment No.:	[20J101862/15H103928]/ [EQW018]
Date of Calibration:	23-December-2021

GENERAL COMMENTS

This is the Final Report and supersedes any previous report(s) with this reference.

Mr Chan Siu Ming, Vico
Manager - Inorganics

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REPORT OF EQUIPMENT PERFORMANCE CHECK/CALIBRATION



WORK ORDER: HK2152511
SUB- BATCH: 0
DATE OF ISSUE: 28-Dec-2021
CLIENT: ACTION-UNITED ENVIRONMENTAL SERVICES & CONSULTING

Equipment Type: Multifunctional Meter
Brand Name/ Model No.: [YSI]/ [Professional DSS]
Serial No./ Equipment No.: [20J101862/15H103928]/ [EQW018]
Date of Calibration: 23-December-2021 **Date of Next Calibration:** 23-March-2022

PARAMETERS:

Conductivity

Method Ref: APHA (21st edition), 2510B

Expected Reading ($\mu\text{S}/\text{cm}$)	Displayed Reading ($\mu\text{S}/\text{cm}$)	Tolerance (%)
146.9	140.1	-4.6
6667	6354	-4.7
12890	12284	-4.7
58670	60173	+2.6
	Tolerance Limit (%)	± 10.0

Dissolved Oxygen

Method Ref: APHA (21st edition), 4500: G

Expected Reading (mg/L)	Displayed Reading (mg/L)	Tolerance (mg/L)
3.58	3.69	+0.11
5.78	5.59	-0.19
8.61	8.59	-0.02
	Tolerance Limit (mg/L)	± 0.20

Temperature

Method Ref: Section 6 of International Accreditation New Zealand Technical Guide No. 3 Second edition March 2008: Working Thermometer Calibration Procedure.

Expected Reading ($^{\circ}\text{C}$)	Displayed Reading ($^{\circ}\text{C}$)	Tolerance ($^{\circ}\text{C}$)
12.0	12.7	+0.7
23.0	22.8	-0.2
41.0	39.2	-1.8
	Tolerance Limit ($^{\circ}\text{C}$)	± 2.0

Remark: "Displayed Reading" presents the figures shown on item under calibration / checking regardless of equipment precision or significant figures.

Mr Chan Siu Ming, Vico
Manager - Inorganics

REPORT OF EQUIPMENT PERFORMANCE CHECK/CALIBRATION



WORK ORDER: HK2152511
SUB- BATCH: 0
DATE OF ISSUE: 28-Dec-2021
CLIENT: ACTION-UNITED ENVIRONMENTAL SERVICES & CONSULTING

Equipment Type: Multifunctional Meter
Brand Name/ Model No.: [YSI]/ [Professional DSS]
Serial No./ Equipment No.: [20]101862/15H103928]/ [EQW018]
Date of Calibration: 23-December-2021 **Date of Next Calibration:** 23-March-2022

PARAMETERS:

Turbidity

Method Ref: APHA (21st edition), 2130B

Expected Reading (NTU)	Displayed Reading (NTU)	Tolerance (%)
0	0.53	--
4	4.07	+1.8
40	40.28	+0.7
80	83.97	+5.0
400	410.28	+2.6
800	795.66	-0.5
	Tolerance Limit (%)	±10.0

Salinity

Method Ref: APHA (21st edition), 2520B

Expected Reading (ppt)	Displayed Reading (ppt)	Tolerance (%)
0	0.03	--
10	9.98	-0.2
20	20.08	+0.4
30	30.75	+2.5
	Tolerance Limit (%)	±10.0

Remark: "Displayed Reading" presents the figures shown on item under calibration / checking regardless of equipment precision or significant figures.

Mr Chan Siu Ming, Vico
Manager - Inorganics

REPORT OF EQUIPMENT PERFORMANCE CHECK/CALIBRATION



WORK ORDER: HK2152511
SUB- BATCH: 0
DATE OF ISSUE: 28-Dec-2021
CLIENT: ACTION-UNITED ENVIRONMENTAL SERVICES & CONSULTING

Equipment Type: Multifunctional Meter
Brand Name/ Model No.: [YSI]/ [Professional DSS]
Serial No./ Equipment No.: [20J101862/15H103928]/ [EQW018]
Date of Calibration: 23-December-2021 **Date of Next Calibration:** 23-March-2022

PARAMETERS:

pH Value

Method Ref: APHA (21st edition), 4500H:B

Expected Reading (pH unit)	Displayed Reading (pH unit)	Tolerance (pH unit)
4.0	3.75	-0.25
7.0	7.30	+0.30
10.0	10.22	+0.22
	Tolerance Limit (pH unit)	±0.20

Remark: "Displayed Reading" presents the figures shown on item under calibration / checking regardless of equipment precision or significant figures.

A handwritten signature in black ink, appearing to read 'Chan Siu Ming'.

Mr Chan Siu Ming, Vico
Manager - Inorganics



REPORT OF EQUIPMENT PERFORMANCE CHECK/CALIBRATION

CONTACT:	MR BEN TAM	WORK ORDER:	HK2200373
CLIENT:	ACTION-UNITED ENVIRONMENTAL SERVICES & CONSULTING	SUB- BATCH:	0
ADDRESS:	RM A 20/F., GOLD KING IND BLDG, NO. 35-41 TAI LIN PAI ROAD, KWAI CHUNG, N.T.	LABORATORY:	HONG KONG
		DATE RECEIVED:	04-Jan-2022
		DATE OF ISSUE:	11-Jan-2022

SPECIFIC COMMENTS

Equipment information (Brand name, Model No., Serial No. and Equipment No.) is provided by client. The performance of the equipment stated in this report is checked with independent reference material and results compared against a calibrated secondary source.

The "Tolerance Limit" quoted is the acceptance criteria applicable for similar equipment used by the laboratory or quoted from relevant international standards.

The "Next Calibration Date" is recommended according to best practice principle as practised by the laboratory or quoted from relevant international standards.

The validity of equipment/ meter performance only applies to the result(s) stated in the report.

Equipment Type:	Multifunctional Meter
Service Nature:	Performance Check
Scope:	pH Value and Temperature
Brand Name/ Model No.:	[YSI]/ [Professional DSS]
Serial No./ Equipment No.:	[20]101862/ 15H103928]/ [EQW018]
Date of Calibration:	10-January-2022

GENERAL COMMENTS

This is the Final Report and supersedes any previous report(s) with this reference.

Ms. Lin Wai Yu, Iris
Assistant Manager - Inorganics

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REPORT OF EQUIPMENT PERFORMANCE CHECK/CALIBRATION



WORK ORDER: HK2200373
SUB- BATCH: 0
DATE OF ISSUE: 11-Jan-2022
CLIENT: ACTION-UNITED ENVIRONMENTAL SERVICES & CONSULTING

Equipment Type: Multifunctional Meter
Brand Name/ Model No.: [YSI]/ [Professional DSS]
Serial No./ Equipment No.: [20]101862/ 15H103928]/ [EQW018]
Date of Calibration: 10-January-2022 Date of Next Calibration: 10-April-2022

PARAMETERS:

pH Value

Method Ref: APHA (21st edition), 4500H: B

Expected Reading (pH unit)	Displayed Reading (pH unit)	Tolerance (pH unit)
4.0	3.99	-0.01
7.0	7.13	+0.13
10.0	10.08	+0.08
	Tolerance Limit (pH unit)	±0.20

Temperature

Method Ref: Section 6 of International Accreditation New Zealand Technical Guide No. 3 Second edition March 2008: Working Thermometer Calibration Procedure.

Expected Reading (°C)	Displayed Reading (°C)	Tolerance (°C)
11.5	10.8	-0.7
21.0	20.5	-0.5
39.5	38.2	-1.3
	Tolerance Limit (°C)	±2.0

Remark: "Displayed Reading" presents the figures shown on item under calibration / checking regardless of equipment precision or significant figures.

Ms. Lin Wai Yu, Iris
Assistant Manager - Inorganic



ALS Technichem (HK) Pty Ltd
11/F, Chung Shun Knitting Centre
1-3 Wing Yip Street, Kwai Chung
N.T., Hong Kong
T: +852 2610 1044 | F: +852 2610 2021

REPORT OF EQUIPMENT PERFORMANCE CHECK/CALIBRATION

CONTACT: MR BEN TAM
CLIENT: ACTION UNITED ENVIRONMENT SERVICES AND CONSULTING
ADDRESS: RM A 20/F., GOLD KING IND BLDG,
NO. 35-41 TAI LIN PAI ROAD,
KWAI CHUNG, N.T. HONG KONG

WORK ORDER: HK2135790
SUB-BATCH: 0
LABORATORY: HONG KONG
DATE RECEIVED: 02-Sep-2021
DATE OF ISSUE: 10-Sep-2021

SPECIFIC COMMENTS

The calibration of flow rate performed by AUES staff on 02 September 2020.

Scope of Test: Flow rate
Equipment Type: Flow Meter
Brand Name: Global Water
Model No.: FP211
Serial No.: 1449006330
Equipment No.: --
Calibration Factor: 314
Date of Calibration: 01 September, 2021

GENERAL COMMENTS

This is the Final Report and supersedes any preliminary report with this batch number.


Mr. Fung Lim Chee, Richard
Managing Director, Life Sciences
Hong Kong

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Page 1 of 2

REPORT OF EQUIPMENT PERFORMANCE CHECK/CALIBRATION



Work Order: HK2135790
Sub-batch: 0
Date of Issue: 10-Sep-2021
Client: ACTION UNITED ENVIRONMENT SERVICES AND CONSULTING

Reference Equipment:

Model: SonTek IQ Standard
Serial Number : IQ1217004

Equipment to be calibrated:


Equipment Type: Flow Meter
Brand Name: Global Water
Model No.: FP211
Serial No.: 1449006330
Equipment No.: --
Calibration Factor: 314

Date of Calibration: 01 September, 2021

Parameters: The calibration of flow meter is verified with standard flow meter on site by AUES Staff.

Flow rate

Trial	Reading of Reference Equipment (m/s) SonTek IQ Standard Serial No: IQ1217004	Reading of Equipment to be calibrated (m/s) Global Water FP211 Serial No. 1449006330
1	0.10	0.1
2	0.19	0.2
3	0.41	0.4
4	0.78	0.8
5	1.02	1.0
6	1.11	1.1


Mr. Fung Lim Chee, Richard
Managing Director, Life Sciences
Hong Kong



Hong Kong Accreditation Service
香港認可處

Certificate of Accreditation
認可證書

This is to certify that
特此證明

ALS TECHNICHEM (HK) PTY LIMITED

11/F, Chung Shun Knitting Centre, 1-3 Wing Yip Street, Kwai Chung, New Territories, Hong Kong
香港新界葵涌永業街1-3號忠信針織中心11樓

*is accredited by the Hong Kong Accreditation Service (HKAS) to ISO/IEC 17025:2017
for performing specific laboratory activities as listed in the scope of accreditation within the test category of*
獲香港認可處根據ISO/IEC 17025:2017認可
進行載於認可範圍內下述測試類別中的指定實驗所活動

Environmental Testing
環境測試

*This accreditation to ISO/IEC 17025:2017 demonstrates technical competence for a defined scope and
the implementation of a management system relevant to laboratory operation*
(see joint IAF-ILAC-ISO Communiqué).
此項 ISO/IEC 17025:2017 的認可資格證明此實驗所具備指定範圍內所須的技術能力及
實施一套與實驗所運作相關的管理體系
(見國際認可論壇、國際實驗所認可合作組織及國際標準化組織的聯合公報)。

The common seal of HKAS is affixed hereto by the authority of the HKAS Executive
現經香港認可處執行機關授權在此蓋上香港認可處的印章

SHUM Wai-leung, Executive Administrator
執行幹事 沈偉良

Issue Date : 28 February 2020

簽發日期：二零二零年二月二十八日

Registration Number : HOKLAS 066
註冊號碼：



Date of First Registration : 15 September 1995
首次註冊日期：一九九五年九月十五日



中國路橋工程有限責任公司
CHINA ROAD AND BRIDGE CORPORATION

YL/2020/02 - Development of Lok Ma Chau Loop: Main Works Package 1 – Contract 2 Western Connection Road Phase 2, Connection Roads to Fanling / San Tin Highway and Direct Road Link Phase 1

REEDBED CELL NO. 3A – PILOT TEST PLAN

Doc No:	MS-016
Rev:	5
Page:	11

Appendix D

Tentative Programme of the Pilot Test



中國路橋工程有限責任公司
CHINA ROAD AND BRIDGE CORPORATION

YL/2020/02 - Development of Lok Ma Chau Loop: Main Works Package 1 – Contract 2 Western Connection Road Phase 2, Connection Roads to Fanling / San Tin Highway and Direct Road Link Phase 1

REEDBED CELL NO. 3A – PILOT TEST PLAN

Doc No: MS-016

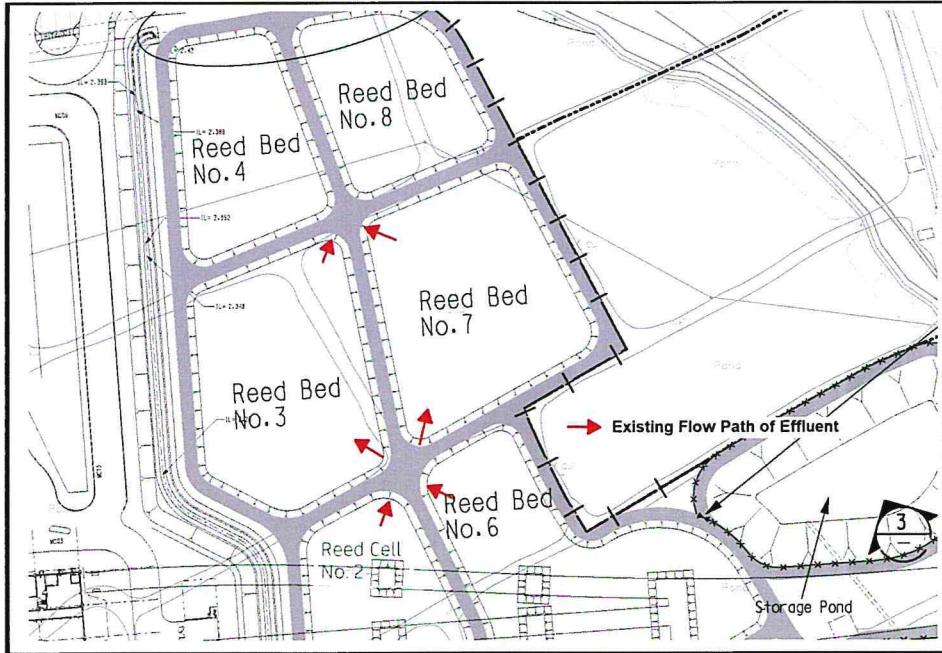
Rev: 5

Page: 12

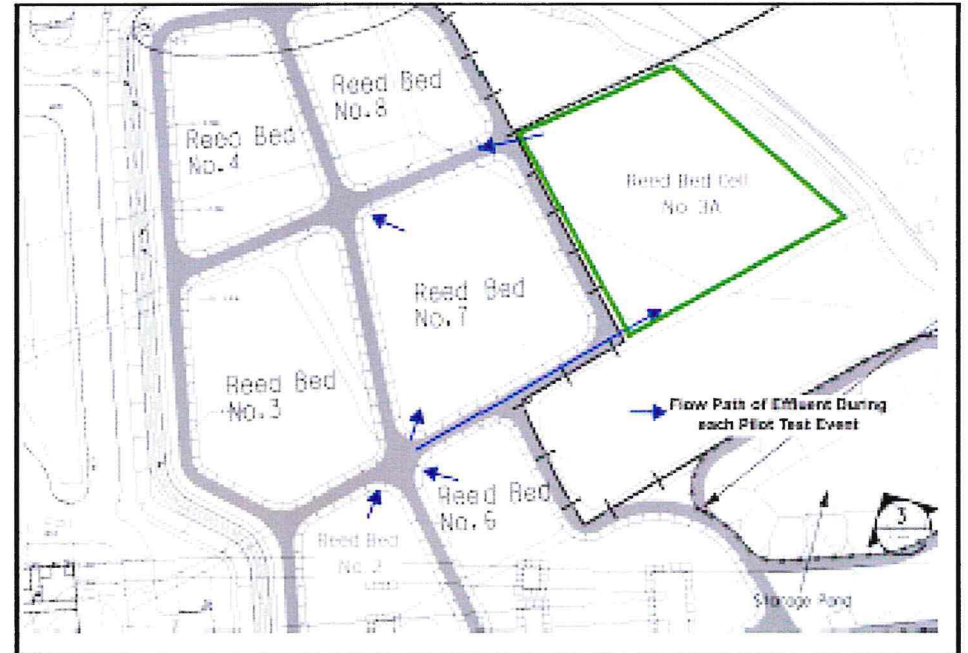
Appendix E

- A. Flow Path of Effluent of Existing Reedbed Cell No. 2, 6, 3 and 7**
- B. Flow Path of Effluent during Pilot Test in Reedbed Cell No. 2, 6, 3A and 7**

A. Flow Path of Effluent of Existing Reedbed Cell No. 2, 6, 3 and 7



B. Flow Path of Effluent during Pilot Test in Reedbed Cell No. 2, 6, 3A and 7



Our ref.: WL/WMA21009/Corres/Out/CEDD/it220304

Civil Engineering and Development Department
West Development Office
West Division (5)
26/F, Tsuen Wan Government Offices,
38 Sai Lau Kok Road,
Tsuen Wan, Hong Kong

By Mail
4th March 2022

Attn.: Ms. CHAN Fung Chi, Cathleen

Dear Ms. Chan,

**Service Contract No. WD/04/2020 Development of Lok Ma Chau Loop: Main Works
Package 1 – Environmental Team**

**Contract No.: YL/2020/02 - Development of Lok Ma Chau Loop: Main Works Package
1 – Contract 2 Western Connection Road Phase 2, Connection Roads to Fanling / San
Tin Highway and Direct Road Link Phase 1**


- Reedbed Cell No. 3A – Pilot Test Plan

I refer to the Reedbed Cell No. 3A – Pilot Test Plan submitted to us via email dated 4th March 2022 for the captioned Contract.

I am pleased to inform you that I have no further comment on your plan and agree to certify the above document in accordance with the Particular Specification Section 31 – Reedbed Cell No. 3A Clause 31.8(3).

Should you have any further information, please feel free to contact me at 2151 2089.

Yours faithfully,
Wellab Limited



Dr. Priscilla Choy
Environmental Team Leader

c.c. AECOM (Attn: Fiona Cheong)
IEC (Attn.: Mr. Raymond Dai)

By e-mail
By e-mail

- Pilot Test* 31.8
- (1) Pilot test to Reedbed Cell No. 3A shall be undertaken before the isolation of Reedbed Cell No. 3, upon completion of the works and reeds establishment period. For commissioning purpose, the *Contractor* shall submit to the *Supervisor* the sampling method and schedule for acceptance. During the establishment period, monthly sampling shall be taken. The Measurement shall be taken at all station, 3 days per week in 4 consequent weeks. The interval between two sampling surveys shall not be less than 30 hours. The Pilot Test shall demonstrate that water quality polishing performance of the reedbed system (based on monitoring results from inlet and outlet of the reedbed cell) shall be similar to previous baseline water quality monitoring data collected from MTRCL (i.e water quality at outlet of reedbed system is better than water quality at inlet of reedbed system).
- (2) The proposed locations of monitoring points for inlet of reedbed system (W1) and outlet of reedbed system (W2) are shown in Appendix PSA31.1.
- (3) A Pilot Test Plan detailing the sampling points and schedule shall be submitted to the *Supervisor* and EPD and MTRCL and/or relevant authorities / authorities / stakeholder for acceptance at least 1 month prior the test. This Pilot Test Plan shall be certified and verified by ET and IEC respectively.
- (4) For each water sample, no less than the following 9 parameters must be tested:
- a. Temperature
 - b. 5-day biochemical oxygen demand (BOD5)
 - c. Ammonia nitrogen
 - d. Suspended Solids
 - e. Dissolved Oxygen
 - f. Turbidity
 - g. pH
 - h. E. Coli
 - i. Flowrate
- (5) All water samples shall be tested by an accredited laboratory and samplings shall be done according to the approved method, schedule and locations. Sampling locations shall cover entire reedbed system and Reedbed Cell No. 3A or otherwise specified by the *Supervisor*.



Our ref.: LES/J2021-04/CS/L050
Date : 4 March 2022

By Post & Email

Civil Engineering and Development Department
West Development Office
26/F, Tsuen Wan Government Office,
38 Sai Lau Kok Road, Tsuen Wan,
New Territories

Attn: Ms. CHAN Fung Chi, Cathleen

Dear Ms. Chan,

Agreement No. WD/01/2020
Development of Lok Ma Chau Loop: Main Works Package 1 – Independent
Environmental Checker

Contract No.: YL/2020/02 - Development of Lok Ma Chau Loop: Main Works Package
1 – Contract 2 Western Connection Road Phase 2, Connection Roads to Fanling /
San Tin Highway and Direct Road Link Phase 1

Reedbed Cell No. 3A – Pilot Test Plan

Reference is made to the Reedbed Cell No. 3A – Pilot Test Plan received via email on 4th March 2022 for Contract No.: YL/2020/02 certified by the Environmental Team Leader as per their letter dated 4 March 2022. We hereby verify the captioned submission per the PS31.8(3).

Should you have any query, please feel free to contact the undersigned.

Yours faithfully,
For and On Behalf Of
Lam Environmental Services Limited

Raymond Dai
Independent Environmental Checker

c.c. AECOM
Wellab Limited

Ms. Fiona Cheong
Dr. Priscilla Choy

By Email
By Email