JOB NO.: TCS01216/21

WSD Contract No.: 3/WSD/20 -

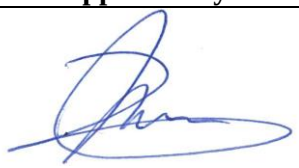
Reclaimed Water Supply to Sheung Shui and Fanling

MONTHLY ENVIRONMENTAL MONITORING & AUDIT REPORT (NO.6) – MAY 2022

PREPARED FOR

WATER SUPPLIES DEPARTMENT

Quality Index

Date	Reference No.	Prepared By	Approved By
10 June 2022	TCS01216/21/600/R0040v1	 Martin Li Environmental Consultant	 TW Tam Environmental Team Leader

Version	Date	Description
1	10 June 2022	First Submission

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Date: 14th June 2022

Project Manager
Water Supplies Department
Immigration Tower, 7 Gloucester Road,
Wan Chai, Hong Kong
Attn: Mr. Freeman Kei

Dear Sir,

Agreement No. CE67/2017(WS)
Reclaimed Water Supply to Sheung Shi and Fanling – Investigation, Design and Construction
Independent Environmental Checker (IEC) Services for
Shek Wu Hui Water Reclamation Plant under Contract No. 3/WSD/20

Monthly EM&A Monitoring Report for May 2022

We refer to the monthly EM&A Report for May 2022 for WSD Contract No.: 3/WSD/20 – Reclaimed Water Supply to Sheung Shui and Fanling certified by the Environmental Team Leader on 10th June 2022. Please note we have no adverse comments on the captioned submission. The captioned submission is hereby verified in accordance with the requirement stipulated in Condition 3.4 of Environmental Permit No. FEP-01/470/2013.

Should you have any query, please feel free to contact the undersigned at 6113 2368.

Yours Sincerely,

Vega Wong
Independent Environmental Checker

c.c.
- ET Leader –- AUES (Attn: Mr. T.W. Tam) [by Email: twtam@fordbusiness.com]
- Resident Engineer – Binnies Hong Kong Limited (Attn: Mr. Chester Chan) [by Email: chancw@binnies.com]

EXECUTIVE SUMMARY

ES.01 Water Supplies Department (WSD) is the Project Proponent and the Permit Holder of **Reclaimed Water Supply to Sheung Shui and Fanling** (hereinafter referred as "the Contract Works"), which is a Designated Project to be implemented under Further Environmental Permit number FEP-01/470/2013 (hereinafter referred as "the FEP-01/470/2013" or "the FEP").

ES.02 In according with the Updated EM&A Manual stipulation and the location of Contract Works, only construction noise monitoring and waterbird of ecological monitoring are required during the construction phase of the Contract Works.

ES.03 As part of the EM&A programme, Baseline Monitoring Report which determined Action and Limit Levels (A/L Levels) based on the baseline data, has been verified by Independent Environmental Checker (IEC) and submitted to EPD endorsement on ***24 November 2021***. Also, construction activities under the Contract Works were commenced on ***7 December 2021***.

ES.04 This is the **6th** monthly EM&A report presenting the monitoring results and inspection findings for the reporting period from **1** to **31 May 2022** (hereinafter 'the Reporting Period').

ENVIRONMENTAL MONITORING AND AUDIT ACTIVITIES

ES.06 Environmental monitoring activities under the EM&A programme in the Reporting Period are summarized in the following table.

Table ES-1 Environmental monitoring activities in the Reporting Period

Environmental Aspect	Environmental Monitoring Parameters / Inspection	Total Occasions during Reporting Period
Construction Noise	$L_{eq(30min)}$ Daytime	**5**
Ecology	Waterbirds	**4**
Site Inspection / Audit	ET, the Contractor and RE joint site Environmental Inspection	**4**

BREACH OF ACTION AND LIMIT (A/L) LEVELS

ES.07 In the Reporting Period, no construction noise limit level exceedance construction noise was recorded and no noise complaint (i.e. Action Level) was received. No action and limit level exceedance for waterbirds survey was recorded in the Reporting Period. No Notifications of Exceedances (NOEs) was issued to the Resident Engineer (RE), IEC and the Main Contractor. The statistics of environmental exceedance, NOE issued and investigation of exceedance are summarized in the following table.

Table ES-2 Breach of Action and Limit (A/L) Levels in the Reporting Period

Environmental Aspect	Monitoring Parameters	Action Level	Limit Level	Event & Action		
				NOE Issued	Investigation	Corrective Actions
Construction Noise	$L_{eq(30min)}$ Daytime	0	0	0	0	0
Ecology	Waterbirds Abundance	0	0	0	0	0

ENVIRONMENTAL COMPLAINT

ES.08 No environmental complaint was recorded or received in this Reporting Month. The statistics of environmental complaint are summarized in the following table.

Table ES-3 Environmental Complaint Summaries in the Reporting Month

Reporting Period	Environmental Complaint Statistics		
	Frequency	Cumulative	Complaint Nature
1 – 31 May 2022	0	0	NA

ES.09 In addition, no complaints received and emergency events relating to violation of environmental legislation for illegal dumping and landfilling were received.

NOTIFICATION OF SUMMONS AND SUCCESSFUL PROSECUTIONS

ES.10 No environmental summons or successful prosecution was recorded in this Reporting Month. The statistics of summons or successful prosecutions are summarized in the following tables.

Table ES-4 Environmental Summons Summaries in the Reporting Month

Reporting Period	Environmental Summons Statistics		
	Frequency	Cumulative	Complaint Nature
1 – 31 May 2022	0	0	NA

Table ES-5 Environmental Prosecution Summaries in the Reporting Month

Reporting Period	Environmental Prosecution Statistics		
	Frequency	Cumulative	Complaint Nature
1 – 31 May 2022	0	0	NA

REPORTING CHANGE

ES.11 No reporting change was made in the Reporting Period.

SITE INSPECTION

ES.12 Weekly site inspections to evaluate the site environmental performance have been carried out by the RE, ET and the Main Contractor on ***5, 12, 19*** and ***24 May 2022***. No non-compliance was noted during the site inspection.

ES.13 No site visit was undertaken by AFCD and EPD within the Reporting Period. IEC inspection was conducted on 31 May 2022.

FUTURE KEY ISSUES

ES.14 In coming month, excavation works will be ongoing underway. Therefore, construction noise would be a key environmental issue during construction work of the Project. Noise mitigation measures such as using quiet plants or mobile noise barriers should be implemented in accordance with the EM&A requirement.

ES.15 Due to wet season has approached, the Contractor was reminded that all the works being undertaken must fulfill environmental statutory requirements and to paid attention to water quality mitigation measures to prevent surface runoff into nearby water bodies or public areas.

ES.16 Moreover, the Contractor shall fully implement mitigation measures prevent dust emission.

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1. INTRODUCTION

1.1 BACKGROUND

1.1.1 Water Supplies Department (WSD) is the Project Proponent of Utilization of Treated Sewage Effluent (TSE) from Shek Wu Hui Sewage Treatment Works. On 30th July 2021, China Geo-Engineering Corporation (hereinafter named as "the Main-Contractor") was awarded WSD Contract Works 3/WSD/20 - Reclaimed Water Supply to Sheung Shui and Fanling (hereinafter referred as "the Contract Works").

1.1.2 The Contract Work mainly comprise construction of Shek Wu Hui Water Reclamation Plant and laying of the associated water main to produce reclaimed water for supply to the Northeast New Territories areas for non-potable used. It is estimated that about 22 million cubic metres of fresh water can be saved each year ultimately.

1.1.3 For the Contract Works, the construction of Shek Wu Hui Water Reclamation Plant is a Designated Project to be implemented under Further Environmental Permit number FEP-01/470/2013 (hereinafter referred as "the FEP-01/470/2013" or "the FEP"). Location of Shek Wu Hui Water Reclamation Plant is shown in ***Appendix A***.

1.1.4 The major work of the Work Contract under FEP included:

- Civil engineering construction works, including structures, foundations and earthworks for the SWHWRP and ancillary buildings;
- Electrical and mechanical (E&M), building services, fire services installations, and treatment process system engineering work;
- And other associated systems and facilities for the SWHWRP.

1.1.5 Pursuant to the FEP stipulation, the Main Contractor has commissioned Action-United Environmental Services & Consulting (hereinafter referred as "AUES") as Environmental Team (hereinafter referred as "ET") perform relevant EM&A programme and as well as the associated duties.

1.1.6 As part of the EM&A programme, Baseline Monitoring Report which determined Action and Limit Levels (A/L Levels) based on the baseline data, has been verified by Independent Environmental Checker (IEC) and submitted to EPD endorsement on ***24 November 2021***. Also, construction activities of the Contract were commencement on ***7 December 2021***.

1.1.7 This is **6th** monthly EM&A report to presenting the monitoring results and inspection findings from ***1*** to ***31 May 2022*** of the Reporting Period.

1.2 REPORT STRUCTURE

1.2.1 The report was structured into the following sections:-

Section 1	*Introduction*
Section 2	*Project Organization and Construction Progress*
Section 3	*Summary of Impact Monitoring Requirements*
Section 4	*Construction Noise Monitoring*
Section 5	*Ecology Waterbirds Monitoring*
Section 6	*Waste Management*
Section 7	*Site Inspections*
Section 8	*Environmental Complaints and Non-Compliance*
Section 9	*Implementation Status of Mitigation Measures*
Section 10	*Conclusions and Recommendations*

2. PROJECT ORGANIZATION AND CONSTRUCTION PROGRESS

2.1 PROJECT ORGANIZATION

2.1.1 The project organization is shown in ***Appendix B***. The roles and responsibilities of the various parties involved in the EM&A process and the organizational structure of the organizations responsible for implementing the EM&A programme are outlined below.

Water Supplies Department (WSD)

2.1.2 WSD is the Project Proponent and the Permit Holder of the EP of the development of the Project and will assume overall responsibility for the project. An Independent Environmental Checker (IEC) shall be employed by WSD to audit the results of the EM&A works carried out by the ET.

Environmental Protection Department (EPD)

2.1.3 EPD is the statutory enforcement body for environmental protection matters in Hong Kong.

Engineer or Engineers Representative (ER)

2.1.4 The ER is responsible for overseeing the construction works and for ensuring that the works are undertaken by the Contractor in accordance with the specification and contract requirements. The duties and responsibilities of the ER with respect to EM&A are:

- Supervise the Contractor's activities and ensure that the requirements in the Contract Works Specific EM&A Manual are fully complied with;
- Inform the Contractor when action is required to reduce impacts in accordance with the Even and Action Plans;
- Employ an IEC to audit the results of the EM&A works carried out by the ET; and
- Comply with the agreed Event Contingency Plan in the event of any exceedance.

The Main Contractor

2.1.5 The Main Contractor is responsible perform construction works and for ensuring that the works are undertaken compliance with the specification and contract requirements. The duties and responsibilities of the Main Contractor with respect to EM&A are:

- Employ an Environmental Team (ET) to undertake monitoring, laboratory analysis and reporting of environmental monitoring and audit;
- Provide assistance to ET in carrying out monitoring and auditing;
- Submit proposals on mitigation measures in case of exceedances of Action and Limit levels in accordance with the Event and Action Plans;
- Implement measures to reduce impact where Action and Limit levels are exceeded; and
- Adhere to the agreed procedures for carrying out compliant investigation.

Environmental Team (ET)

2.1.6 The ET is responsible perform implementation EM&A programmes of the Contract Works as stipulated in the Updated EM&A Manual ensure the works are fully compliance with environmental regulations. The duties and responsibilities of the ET with respect to EM&A are:

- Set up all the required environmental monitoring stations;
- Monitor various environmental parameters as required in the EM&A Manual;
- Analyze the EM&A data and review the success of EM&A programme to cost effectively confirm the adequacy of mitigation measures implemented and the validity of the EIA predictions and to identify any adverse environmental impacts arising;
- Carry out site inspection to investigate and audit the Contractors' site practice, equipment and work methodologies with respect to pollution control and environmental mitigation, and take proactive actions to pre-empt problems;
- Audit and prepare audit reports on the environmental monitoring data and site environmental conditions;
- Report on the EM&A results to the IEC, Contractor, the ER and EPD or its delegated representative;
- Recommend suitable mitigation measures to the Contractor in the case of exceedance of

Action and Limit levels in accordance with the Event and Action Plans;
- Undertake regular and ad-hoc on-site audits / inspections and report to the Contractor and the ER of any potential non-compliance; and
- Follow up and close out non-compliance actions.

Independent Environmental Checker (IEC)

2.1.7 The duties and responsibilities of IEC with respect to EM&A are:
- Review the EM&A works performed by the ET (at not less than monthly intervals);
- Audit the monitoring activities and results (at not less than monthly intervals);
- Report the audit results to the ER and EPD in parallel;
- Review the EM&A reports (monthly summary reports) submitted by the ET;
- Review the proposal on mitigation measures submitted by the Contractor in accordance with the Event and Action Plans;
- Check the mitigation measures submitted by the Contractor in accordance with the Event and Action Plans;
- Check the mitigation measures that have been recommended in the EIA and this Manual, and ensure they are properly implemented in a timely manner, when necessary;
- Report the findings of site inspections and other environmental performance reviews to ER and EPD;
- Coordinate the monitoring and auditing works for all the on-going contracts in the area in order to identify possible sources / causes of exceedances and recommend suitable remedial actions where appropriate; and
- Coordinate the assessment and response to complaints / enquires from locals, green groups, district councils or the public at large.

2.2 CONSTRUCTION PROGRESS

2.2.1 In the Reporting Period, the construction activities of the Contract Works under FEP are listed in below. Moreover, the master construction program and site overview photo in the reporting period are enclosed in ***Appendix C***.
- Excavation and lateral support work for Shek Wu Hui Water Reclamation Plant – 3 Excavators

2.3 SUMMARY OF ENVIRONMENTAL SUBMISSIONS

2.3.1 To according with the FEP stipulation, the required documents has submitted to EPD for retention as listed below:
- Project Location Plans;
- Updated Environmental Monitoring and Audit Manual of Project Specific (*TCS01176/21/600/R0012v2*); and
- Baseline Monitoring Report (*TCS01216/21/600/R0017v3*) for the Project.

2.3.2 Summary of the relevant permits, licenses, and/or notifications on environmental protection for the Project is presented in ***Table 2-3-1***.

Table 2-3-1 Status of Environmental Licenses and Permits

Item	Description	Licence/Permit Status		
		Ref. no.	Effective Date	Expiry Date
1	Air Pollution Control (Construction Dust) Regulation	Notification was made on 3 Aug 2021	3 Aug 2021	Till the Contract ends
2	Waste Disposal Regulation – Billing Account for Disposal of Construction Waste	Account No.: 7041397	8 Aug 2021	Till the Contract ends
3	Chemical Waste Producer Registration	Application was made on 3 Aug 2021	3 Aug 2021	Till the Contract ends
4	Water Pollution Control Ordinance – Discharge Licence	Discharge Licence No.: WT00039707-2021	17 Nov 2021	30/11/2026

Item	Description	Licence/Permit Status		
		Ref. no.	Effective Date	Expiry Date
5	Construction Noise Permit	CNP No. GW-RN0197-22	13 Mar 2021	23 May 2022

3. SUMMARY OF IMPACT MONITORING REQUIREMENTS

3.1 GENERAL

3.1.1 According to the Updated EM&A Manual and the location of the Contract Works, only construction noise monitoring and waterbirds ecological of environmental monitoring are related the Contract Works during the construction phase. Details requirement of noise and waterbirds ecological impact monitoring are presented sub-sections as below.

3.2 REQUIREMENT OF CONSTRUCTION NOISE MONITORING

3.2.1 One set of $L_{eq(30min)}$ as 6 consecutive $L_{eq(5min)}$ between 0700-1900 hours on normal weekdays and once every week during course of works. If construction work necessary to carry out at other time periods, i.e. restricted time period (19:00 to 07:00 the next morning and whole day on public holidays) (hereinafter referred as "the restricted hours"), $L_{eq(5min)}$ measurement will be carried out in accordance with the CNP requirements. Supplementary information for data auditing, statistical results such as L_{10} and L_{90} shall also be obtained for reference.

3.2.2 Noise measurements shall not be made in fog, rain, wind with a steady speed exceeding 5m/s or wind with gusts exceeding 10m/s. The wind speed shall be checked with a portable wind speed meter capable of measuring the wind speed in m/s.

3.3 LOCATION OF CONSTRUCTION NOISE IMPACT MONITORING

3.3.1 According to the Updated EM&A Manual of CEDD Contract No. NDO 14/2018 - *Advance and First Stage Works of Kwu Tung North and Fanling North New Development Areas*, four noise sensitive receivers are designated on Fanling North New Development Areas for construction noise monitoring.

3.3.2 According to the geographic location of proposed Shek Wu Hui Water Reclamation Plant and all the recommended designated construction noise monitoring stations, only the designated noise monitoring station CP-KTN-NMS5 (prior named "CP-NMS7") shown in ***Appendix D***, is located near the proposed Shek Wu Hui Water Reclamation Plant within 300m (distance about 110m). Therefore, the designated noise monitoring station CP-KTN-NMS5 is recommended for the Contract Works to undertake construction noise monitoring. If the recommended noise monitoring location CP-KTN-NMS5 not available, the ET shall propose alternative monitoring locations/additional monitoring locations and seek approval from the Supervisor of the proposal. When alternative/new monitoring location is proposed, the monitoring location shall be chosen based on the following criteria:

(i) at locations close to the major site activities which are likely to have noise impacts;
(ii) close to the noise sensitive receivers; and
(iii) for monitoring locations located in the vicinity of the sensitive receivers, care shall be taken to cause minimal disturbance to the occupants during monitoring.

3.3.3 The construction noise monitoring station shall normally be at a point 1 m from the exterior of the sensitive receivers building façade and be a position 1.2m above the ground. If there is problem with access to the normal monitoring position, an alternative position may be chosen, and a correction to the measurements shall be made to the free field measurements. The ET shall agree with the Supervisor on the monitoring station that is chosen for impact monitoring.

3.4 ACTION AND LIMIT LEVEL FOR CONSTRUCTION NOISE

3.4.1 The Action and Limit levels for construction noise are defined in ***Table 3-4-1***. Should non-compliance of the criteria occur, action in accordance with the Action Plan which shown in Section 4 of this report**,** shall be carried out.

Table 3-4-1 Action and Limit Levels for Construction Noise

Monitoring Location	Action Level	Limit Level in dB(A)
	Time Period: 0700-1900 hours on normal weekdays	
CP-KTN-NMS5	When one or more documented complaints are received	75 dB(A)[Note 1]
Note 1: If works are to be carried out during restricted hours, the conditions stipulated in the construction noise permit issued by the NCA have to be followed.		

3.5 NOISE MONITORING METHODOLOGY

Monitoring Equipment

3.5.1 Sound level meter in compliance with the International Electrotechnical Commission Publications 651: 1979 (Type 1) and 804: 1985 (Type 1) specifications was used for carrying out the noise monitoring. Noise equipment used for impact monitoring is listed in ***Table 3-5-1***.

Table 3-5-1 Equipment of Noise Impact Monitoring

Equipment	Model
Integrating Sound Level Meter	Rion NL – 52
Calibrator	B&K 4231

Remark: Sound level meter IEC 60651:1979 (Type 1) was replaced by 60672 (Type 1) in 2002 (Ref: https://webstore.iec.ch/publication/17086

3.5.2 The sound level meter and calibrator are calibrated and certified by a laboratory accredited under HOKLAS or any other international accreditation scheme at yearly basis. The valid calibration certificates of the monitoring equipment are shown in ***Appendix E***.

3.6 MONITORING PROCEDURE

3.6.1 All noise measurements were performed with the meter set to FAST response and on the A-weighted equivalent continuous sound pressure level (Leq). $Leq_{(30min)}$ in six consecutive $Leq_{(5min)}$ measurements was used as the monitoring parameter for the time period between 07:00-19:00 hours during the baseline monitoring.

3.6.2 In general, the sound level meter would be mounted on a tripod at a height of 1.2 m and placed at the assessment point and oriented such that the microphone was pointed to the site with the microphone facing perpendicular to the line of sight. The windshield would be fitted for all measurement. Where a measurement was to be carried out at a building, the assessment point would normally be at a position 1 m from the exterior of the building façade. Where a measurement was to be made for noise being received at a place other than a building, the assessment point would be at a position 1.2 m above the ground in a free-field situation, i.e. at least 3.5 m away from reflective surfaces such as adjacent buildings or walls.

3.6.3 Immediately prior to and following each noise measurement the accuracy of the sound level meter was checked using an acoustic calibrator generating a known sound pressure level at a known frequency. Measurements would be accepted as valid only if the calibration level from before and after the noise measurement agrees to within 1.0 dB.

3.6.4 Noise measurements would not be made in fog, rain, wind with a steady speed exceeding 5m/s or wind with gusts exceeding 10m/s. The wind speed would be checked with a portable wind speed meter capable of measuring the wind speed in m/s.

3.7 DATA MANAGEMENT AND DATA QA/QC CONTROL

3.7.1 The monitoring data recorded in the equipment would be downloaded directly from the equipment at each monitoring day. The downloaded monitoring data would input into a computerized database properly maintained and handled by the ET's in-house data recording and management system.

3.8 REQUIREMENT OF WATERBIRDS ECOLOGICAL IMPACT MONITORING

3.8.1 Where development under the NDAs project is undertaken within 200m (the maximum distance at which it is predicted there may be some disturbance, and hence a reduction in numbers, of large waterbirds) of the Ng Tung, Sheung Yue and Shek Sheung Rivers and Long Valley the monitoring protocol detailed in the updated EM&A Manual Table 12.1 should be followed. A transect should be undertaken throughout the sections of the rivers where NDA construction activities are proposed; as the sensitive receivers (large waterbirds) are easily visible, the transect route needs only follow one bank of the rivers. The transect route should remain the same during the different phases in order to ensure that data are comparable. Monitoring of large waterbirds should be conducted in pre-construction, construction and operational phases of the concerned development.

3.8.2 The proposed Shek Wu Hui Water Reclamation Plant location is located less than 200m to Ng Tung River, Sheung Yue River and Shek Sheung River, waterbirds ecological monitoring included pre-construction (i.e. baseline), construction (i.e. impact) and post-construction (i.e. operating) should be requires. The detailed monitoring protocol is listed in ***Table 3-8-1***.

Table 3-8-1 Monitoring of Measures to Minimize Disturbance to Waterbirds on the Ng Tung, Sheung Yue and Shek Sheung Rivers

Phase	Methodology
Pre-construction (baseline)	Weekly transect at both high and low tides to identify and enumerate all bird species utilising the river channels for 12 months prior to the commencement of construction.
Construction	Weekly transect at both high and low tides to identify and enumerate all bird species utilising the river channels and identify any sources of actual or potential disturbance to birds due to construction activities throughout the construction period.
Post-construction	Weekly transect at both high and low tides to identify and enumerate all bird species utilising the river channels and identify any sources of actual or potential disturbance to birds due to operational activities for 12 months following the completion of the construction period.

3.8.3 Waterbirds ecological baseline monitoring at Ng Tung River, Sheung Yue River and Shek Sheung River was conducted by DSD between ***December 2017*** and ***June 2019*** (total 19 months baseline monitoring)**,** in compliance with the Updated EM&A Manual. Thus, the action and limit levels and responses to evidence of disturbance to waterbirds using in Ng Tung, Sheung Yue and Shek Sheung Rivers will be made reference during construction phase of the Project.

3.9 MONITORING METHODOLOGY FOR WATERBIRDS ECOLOGICAL IMPACT MONITORING

3.9.1 Three transects and seven point count locations were selected at the Ng Tung, Sheung Yue and Shek Sheung River. These locations are shown in Appendix K and summarized in ***Table 3-9-1***.

Table 3-9-1 Ecological Monitoring Stations

Monitoring Stations	Descriptions	Influenced by Tidal Action
Transect T1	Along Ng Tung River	No
Transect T2		
Point Count Location P1		
Point Count Location P2		
Point Count Location P3		
Point Count Location P4		
Point Count Location P5	At Shek Sheung River (Low-flow Channel)	No
Transect T3	Along Shek Sheung River & Sheung Yue River	Yes
Point Count Location P6	At Shek Sheung River	Yes
Point Count Location P7	At Intersection between Sheung Yue and Shek Sheung River	Yes

3.9.2 Surveys will be conducted on a weekly basis at both high and low tides (it is considered high tide when tidal levels are above 1.5m and low tide when tidal level are below 1.5m at Tsim Bei Tsui Station).

3.9.3 All avifauna species that were seen or heard would be identified and quantified along transects and at point count locations. Survey data would be recorded continuously by the surveyor as they walk along the transects, while survey data of each point count location would be collected for 5-minutes after surveyor reaches the designated point count location.

3.9.4 Noticeable behaviours such as breeding, nesting, roosting, feeding and presences of recently fledged juveniles were recorded and reported. In the case which such behaviours were observed for species of conservation importance, the Resident Engineer (RE), the Contractor and the Independent Environmental Checker (IEC) would be immediately notified after the survey such that the Contractor could review the current construction programme and minimize disturbances due to construction activities.

3.10 EVENT ACTION PLAN

Noise

3.10.1 Should non-compliance of the construction noise criteria occur, action in accordance with the Action Plan in **Table 3-10-1** shall be carried out.

Table 3-10-1 Event and Action Plan for Construction Noise

Event	Action			
	ET	**IEC**	**ER**	**Contractor**
Action Level Exceedance	1. Notify the IEC, ER and Contractor; 2. Carry out investigation; 3. Report the results of investigation to the IEC, ER and Contractor; 4. Discuss with the Contractor and formulate remedial measures; 5. Increase monitoring frequency to check mitigation effectiveness.	1. Review the monitoring data submitted by the ET; 2. Review the construction methods and proposed remedial measures by the Contractor, and advise the ET and ER if the proposed remedial measures would be sufficient; 3. Supervise the implementation of remedial measures.	1. Confirm receipt of notification of failure in writing; 2. Notify the Contractor; 3. Require the Contractor to propose remedial measures for the analyzed noise problem; 4. Ensure remedial measures are properly implemented.	1. Submit noise mitigation proposals to the ER and IEC and copy to the ET; 2. Implement noise mitigation proposals.
Limit Level Exceedance	1. Identify sources. 2. Inform IEC, ER, EPD and Contractor; 3. Repeat measurements to confirm findings; 4. Increase the monitoring frequency; 5. Carry out analysis of the Contractor's working procedures with the ER and Contractor to determine possible mitigations to be implemented; 6. Inform IEC, ER, EPD and Contractor the causes and	1. Discuss amongst the ER, ET and Contractor on the potential remedial actions; 2. Review the Contractor's remedial action whenever necessary to assure their effectiveness and advise the ER accordingly; 3. Supervise the implementation of remedial measures.	1. Confirm receipt of notification of exceedance in writing; 2. Notify the Contractor. 3. Require the Contractor to propose remedial measures for the analyzed noise problems; 4. Ensure remedial measures are properly implemented; 5. If exceedance continues,	1. Take immediate action to avoid further exceedance; 2. Submit proposals for remedial action to the ER and IEC and copy to the ET within 3 working days of notification; 3. Implement the agreed proposals; 4. Resubmit

Event	Action			
	ET	IEC	ER	Contractor
	actions taken for the exceedances; 7. Assess the effectiveness of the Contractor's remedial action with the ER and keep the IEC informed of the results; 8. If exceedance stops, cease additional monitoring.		consider what portion of work is responsible and instruct the Contractor to stop that portion of works until the exceedance is abated.	proposals if problems still not under control; stop the relevant portion of works as determined by the ER until the exceedance is abated.

Waterbird of Ecological

3.10.2 Should any exceedance encountered during construction phase, action in accordance with the Action Plan listed in ***Table 3-10-2*** shall be carried out.

Table 3-10-2 Event and Action Plan of Waterbirds of Ecological

Action Level	Response	Limit Level	Response
Construction Phase			
Decline in numbers of all waterbird species relative to numbers during Baseline Monitoring such that the Action Level response is triggered.	Investigate cause and if cause identified as related to NDAs project instigate remedial action to remove or reduce source of disturbance.	Decline in numbers of all waterbird species relative to numbers during Baseline Monitoring such that the Limit Level response is triggered.	Investigate cause and if caused identified as related to NDAs project instigate remedial action. Review and adjust LVNP management measures to improve conditions for affected species.
Decline in numbers of any one waterbird species occurring in significant numbers* during Baseline Monitoring such that the Action Level response is triggered.	Investigate cause and if cause identified as related to NDAs project instigate remedial action to remove or reduce source of disturbance.	Decline in numbers of any one waterbird species occurring in significant numbers* during Baseline Monitoring such that the Limit Level response is triggered.	Investigate cause and if caused identified as related to NDAs project instigate remedial action. Review and adjust LVNP management measures to improve conditions for affected species.

(*) W*aterbird numbers refer to combined numbers using the channels*

4. CONSTRUCTION NOISE MONITORING

4.1 GENERAL

4.1.1 The noise monitoring schedule is presented in ***Appendix F*** and the monitoring results are presented in the following sections.

4.2 RESULTS OF NOISE MONITORING

4.2.1 In the Reporting Period, a total of **5** occasions noise monitoring were carried out at the designated location CP-KTN-NMS5. The sound level meter was set in free-field situation, and therefore, façade correction (+3dB) is added according to acoustical principles and EPD guidelines. The noise monitoring results at the designated locations are summarized in ***Tables 4-2-1.*** The detailed noise monitoring data is presented in ***Appendix G*** and the relevant graphical plot shown in ***Appendix H***.

Table 4-2-1 Summaries of Noise Monitoring Results of CP-KTN-NMS5

Date	Start Time	$L_{Aeq30min}$ (dB(A))
6-May-22	13:02	56
13-May-22	9:25	57
18-May-22	9:25	57
24-May-22	14:24	59
30-May-22	9:23	60
Limit Level		**75 dB(A)**

Note: façade correction +3dB has added according to acoustical principles and EPD guidelines

4.2.2 During construction noise monitoring, no rain was encountered and wind speed is below 5m/s and gusts not exceeding 10m/s.

4.2.3 As shown in ***Table 4-2-1***, the noise level measured at the designated monitoring location was below 75dB(A). Furthermore, there were no noise complaints (Action Level exceedance) received by the RE, Contractor, WSD or EPD in the Reporting Period. Therefore, no Action or Limit Level exceedance was triggered and no corrective action was therefore required.

4.2.4 During the reporting period, no construction work was carried out during restricted hours.

5. ECOLOGY WATERBIRD MONITORING

5.1 GENERAL

5.1.1 Ecological monitoring for waterbirds shall be performed as transects and point count surveys along Ng Tung River, Sheung Yue River and Shek Sheung River in accordance with general surveying practices.

5.1.2 The surveying shall be undertaken by a qualified ecologist and he/she shall be a member of the ET. Throughout the construction period, weekly transect shall be conducted at both high and low tides to identify and enumerate all bird species utilising the river channels and identify any sources of actual or potential disturbance to birds due to construction activities.

5.1.3 Since occurrence of waterbirds has distinctive seasonal pattern, the construction phase data for all waterbirds and representative waterbirds shall be compared with the baseline data for the respective month and season. Total number of Waterbirds and six representative Waterbird species are used as an indicator of the level disturbance to water birds at each of the survey location. The representatives of waterbirds are listed in ***Table 5-1-1***.

Table 5-1-1 Representative Waterbirds

Species Name	Common Name	Chinese Name
Egretta garzetta	Little Egret	小白鷺
Ardea alba	Great Egret	大白鷺
Ardea cinerea	Grey Heron	蒼鷺
Ardeola bacchus	Chinese Pond Heron	池鷺
Bubulcus coromandus	Eastern Cattle Egret	牛背鷺
Phalacrocorax carbo	Great Cormorant	普通鸕鷀

5.2 RESULTS OF WATERBIRDS SURVEY

5.2.1 Four (4) occasion of waterbirds survey were conducted in the Reporting Month.

5.2.2 Abundance and diversity of key waterbirds species in the Reporting Month are summarized in **Table 5-2-1** and **Table 5-2-2**.

Table 5-2-1 Total Bird Species and Abundance in the Reporting Month

Category	Number of Species	Abundance
All Avifauna	35	843
Waterbirds	13	204

Table 5-2-2 Total Bird Species and Abundance in the Reporting Month

Common Name	Species Name	Chinese Name	Abundance
Chinese Pond Heron	Ardeola bacchus	池鷺	34
Eastern Cattle Egret	Bubulcus coromandus	牛背鷺	33
Grey Heron	Ardea cinerea	蒼鷺	1
Great Egret	Ardea alba	大白鷺	24
Little Egret	Egretta garzetta	小白鷺	68
Great Cormorant	Phalacrocorax carbo	普通鸕鷀	0

5.2.3 The result was compared with the baseline data. While the total number of waterbirds and most representative species have not declined compared to the baseline data, the numbers of Chinese Pond Heron was slightly declined.

5.2.4 A table showing the waterbirds abundance comparison with baseline data was provided in **Appendix K**. (Appendix C of the waterbirds survey report).

5.2.5 Although declined in number of Chinese Pond Heron was recorded, it is concluded that the drop is due to natural fluctuations or factors outside of disturbances caused by the Project.

5.2.6 It is also suggests that cumulative effects of increased disturbance at the study area and more attractive wetland habitats at Long Valley Nature Park (LVNP) may have caused waterbirds to deprioritize activities within the study area.

5.2.7 No site runoff and no specific instances of noise or activities from the construction site that has scared away waterbirds was observed during the survey in the Reporting Period. No action and limit level exceedance was therefore considered triggered in the Reporting Month.

5.2.8 The details of the waterbirds survey for the Reporting Month can be referred to the full waterbirds survey report provided in **Appendix K**.

6. WASTE MANAGEMENT

6.1 GENERAL WASTE MANAGEMENT

6.1.1 Waste management was carried out by an on-site Environmental Officer or an Environmental Supervisor from time to time.

6.2 RECORDS OF WASTE QUANTITIES

6.2.1 All types of waste arising from the construction work are classified into the following:

- Construction & Demolition (C&D) Material;
- Chemical Waste;
- General Refuse; and
- Excavated Soil.

6.2.2 The quantities of waste for disposal in this Reporting Period are summarized in ***Tables 6-2-1*** and ***6-2-2*** and the Monthly Summary Waste Flow Table is shown in ***Appendix I***. Whenever possible, materials were reused on-site as far as practicable.

Table 6-2-1 Summary of Quantities of Inert C&D Materials

Type of Waste	Quantity	Disposal Location
C&D Materials (Inert) (in '000m^3)	3.8704	-
Reused in this Contract (Inert) (in '000 m^3)	0	-
Reused in other Contracts/ Projects (Inert) (in '000 m^3)	0	-
Disposal as Public Fill (Inert) (in '000 m^3)	3.8704	TM38

Table 6-2-2 Summary of Quantities of C&D Wastes

Type of Waste	Quantity	Disposal Location
Recycled Metal (‘000kg)	0	-
Recycled Paper / Cardboard Packing (‘000kg)	0	-
Recycled Plastic (‘000kg)	0	-
Chemical Wastes (‘000kg)	0	-
General Refuses (‘000m^3)	0.0057	SENT

7. SITE INSPECTION

7.1 REQUIREMENTS

7.1.1 According to the approved Updated EM&A Manual, the environmental site inspection shall be formulation by ET Leader. Weekly environmental site inspections should carry out to confirm the environmental performance.

7.2 FINDINGS / DEFICIENCIES DURING THE REPORTING MONTH

7.2.1 In the Reporting Month, weekly regular site inspection by the RE, the Main Contractor and ET was carried out on ***5, 12, 19*** and ***24 May 2022*** to evaluate site environmental performance of the Contract Works. During the site inspections, no non-compliance was noted.

7.2.2 The findings/deficiencies of the Contract Works observed that during the weekly site inspection are listed in ***Table 7-2-1***.

Table 7-2-1 Site Observations

Date	Findings / Deficiencies	Follow-Up Status
5 May 2022	• No adverse environmental issue was observed during site inspection.	NA
12 May 2022	• No adverse environmental issue was observed during site inspection.	NA
19 May 2022	• Stagnant water accumulated inside drip tray should be removed to prevent mosquito breeding. • NRMM Label for the generator should be properly displayed.	Stagnant water was removed. NRMM label was displayed properly.
24 May 2022	• No adverse environmental issue was observed during site inspection.	NA

8. ENVIRONMENTAL COMPLAINT AND NON-COMPLIANCE

8.1 ENVIRONMENTAL COMPLAINT, SUMMONS AND PROSECUTION

8.1.1 For the Contract Works, no environmental complaint, summons and prosecution was received in the Reporting Period. The statistical summary table of environmental complaint is presented in ***Tables 8-1-1, 8-1-2*** and ***8-1-3***.

Table 8-1-1 Statistical Summary of Environmental Complaints

Reporting Period	Environmental Complaint Statistics		
	Frequency	Cumulative	Complaint Nature
1 – 31 May 2022	0	0	NA

Table 8-1-2 Statistical Summary of Environmental Summons

Reporting Period	Environmental Summons Statistics		
	Frequency	Cumulative	Complaint Nature
1 – 31 May 2022	0	0	NA

Table 8-1-3 Statistical Summary of Environmental Prosecution

Reporting Period	Environmental Prosecution Statistics		
	Frequency	Cumulative	Complaint Nature
1 – 31 May 2022	0	0	NA

9. IMPLEMENTATION STATUS OF MITIGATION MEASURES

9.1 GENERAL REQUIREMENTS

9.1.1 The environmental mitigation measures that recommended in the Implementation Schedule for Environmental Mitigation Measures (ISEMM) in the approved Updated EM&A Manual covered the issues of dust, noise, water, ecological and waste and they are summarized presented in ***Appendix J.***

9.1.2 The Contract Works shall be implementing the required environmental mitigation measures according to the approved Updated EM&A Manual as subject to the site condition. Environmental mitigation measures generally implemented by the Main Contractor in this Reporting Month are summarized in ***Table 9-1-1***.

Table 9-1-1 Environmental Mitigation Measures

Issues	Environmental Mitigation Measures
Water Quality	• Wastewater to be treated by filtration system such as sedimentation tank and storage on-site. After Wastewater Discharge Permit is obtained to carry out dispose.
Air Quality	• Maintain damp / wet surface on access road • Keep slow speed in the sites • All vehicles must use wheel washing facility before off site • Sprayed water during breaking or excavation works • Soil stockpile greater than $50m^3$ has cover with plastic sheets
Noise	• Restrain operation time of plants from 07:00 to 19:00 on any working day except for Public Holiday and Sunday. • Keep good maintenance of plants • Shut down the plants when not in used.
Waste and Chemical Management	• Follow requirements and procedures of the “Trip-ticket System” • The site was generally kept tidy and clean.

9.2 TENTATIVE CONSTRUCTION ACTIVITIES IN THE COMING MONTH

9.2.1 The construction works under the Contract Works under FEP in the coming month are listed below:

- Excavation and lateral support work for Shek Wu Hui Water Reclamation Plant

9.3 KEY ISSUES FOR THE COMING MONTH

9.3.1 Key issues to be considered in the coming month for the Contract Works under FEP include:

- Regular clearance of stagnant water during wet season;
- Ensure the wastewater treatment facilities are functioned properly to avoid muddy discharge during wet season;
- The periphery U channel and interceptors on site should be double checked to ensure their functions and to reduce potential wastewater quality impact due to surface runoff;
- Implementation of dust suppression measures to reduce potential fugitive dust quality impact due from the dry/loose/exposure soil surface/dusty material;
- Implementation of construction noise preventative control measures as far as practicable

9.3.2 The Main contractor should pay special attention on noise and dust and water quality mitigation measures and fully implement according to the ISEMM of the approved Updated EM&A Manual.

10. CONCLUSIONS AND RECOMMENDATIONS

10.1 CONCLUSIONS

10.1.1 This is **6th** monthly EM&A report presenting the monitoring results and inspection findings for the Reporting Period from **1** to **31 May 2022**.

10.1.2 No noise complaint (which is an Action Level exceedance) was received and no construction noise measurement results that exceeded the Limit Level were recorded in the Reporting Period. No NOEs or the associated corrective actions were therefore issued.

10.1.3 Four (4) occasions of the weekly waterbirds survey has been taken in the Reporting Period. Although decrease in one species of the waterbirds abundance was recorded in the Reporting Period, the cause of abundance decline was considered unlikely due to the Project. No action and limit level exceedance was considered triggered in the Reporting Month.

10.1.4 No documented complaint, notification of summons or successful prosecution was received by either the RE or WSD or the Main Contractor.

10.1.5 Weekly site inspection by the RE, ET and the Main Contractor had carried out on ***4, 11, 20*** and ***24 May 2022***. The mitigation measures implemented was considered satisfactory. No non-compliance observed during the site inspection.

10.2 RECOMMENDATIONS

10.2.1 Due to wet season has approached, the Contractor was reminded that all the works being undertaken must fulfill environmental statutory requirements and to paid attention to water quality mitigation measures to prevent surface runoff into nearby water bodies or public areas.

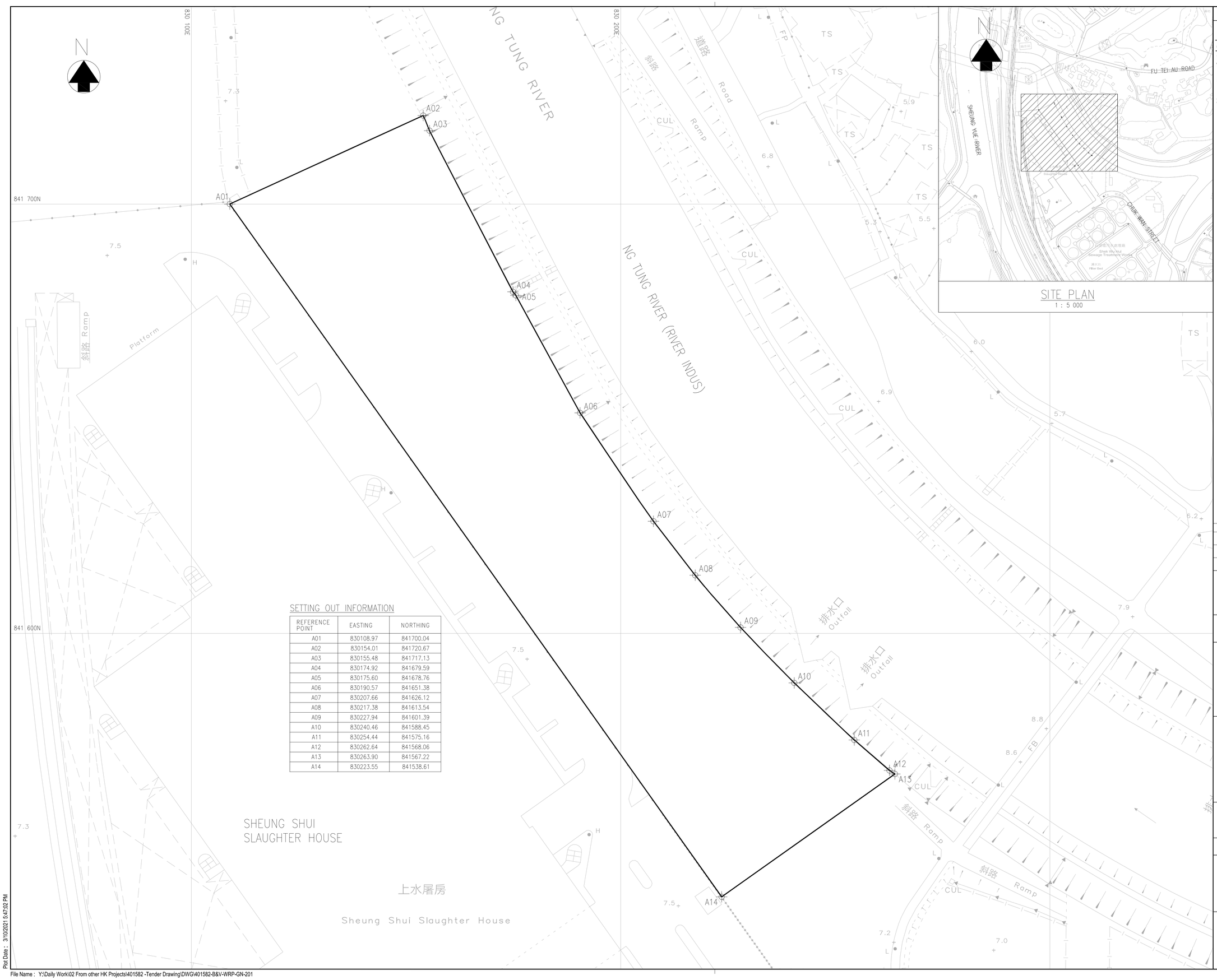
10.2.2 Construction noise would be a key environmental issue during construction work of the Contract Works. Noise mitigation measures such as using quiet plants should be implemented in accordance with the approved Updated EM&A Manual requirement.

10.2.3 All effluent discharge shall complied with discharge permits stipulation.

10.2.4 Moreover, mosquito control should be implemented to prevent mosquito breeding on site; and daily cleaning and weekly tidiness shall be properly performed.

Appendix A

Location of Shek Wu Hui Water Reclamation Plant



SITE PLAN
1 : 5 000

SETTING OUT INFORMATION

REFERENCE POINT	EASTING	NORTHING
A01	830108.97	841700.04
A02	830154.01	841720.67
A03	830155.48	841717.13
A04	830174.92	841679.59
A05	830175.60	841678.76
A06	830190.57	841651.38
A07	830207.66	841626.12
A08	830217.38	841613.54
A09	830227.94	841601.39
A10	830240.46	841588.45
A11	830254.44	841575.16
A12	830262.64	841568.06
A13	830263.90	841567.22
A14	830223.55	841538.61

NOTES:

1. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS OTHERWISE SPECIFIED.
2. THE BASE PLAN IS EXTRACTED FROM SURVEY SHEET NOS. 2-SE AND 3-SW.

Revision	Date	Description			Initial
	Designed	Checked	Drawn	Checked	
Initial	CWC	WH	SZ	GC	
Date	02/21	02/21	02/21	02/21	

Approved

Contract No.
3/WSD/20

Contract Title
RECLAIMED WATER SUPPLY TO SHEUNG SHUI AND FANLING

Drawing Title
SWHWRP
(PART 1 OF THE SITE) –
SETTING OUT PLAN

Drawing No.	Revision
401582/B&V/WRP/GN/201	–

Scale: A1 1 : 400, A3 1 : 800

水 務 署
Water Supplies Department

BINNIES HONG KONG LIMITED
賓尼斯工程顧問有限公司

Plot Date : 3/10/2021 5:47:02 PM

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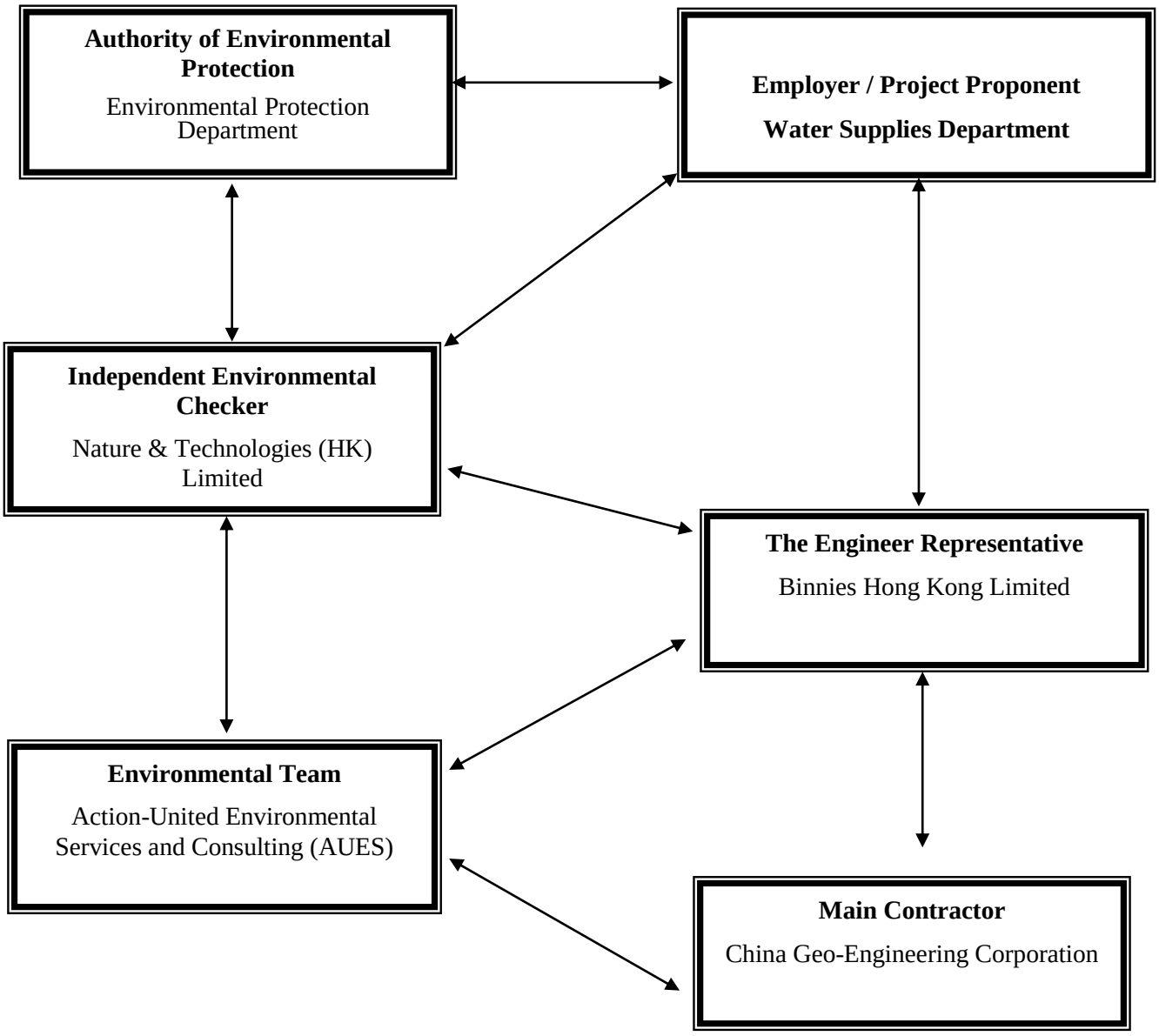
Appendix B

Project Organization

Project Organization Chart



Contact Details of Key Personnel for the Project

Organization	Project Role	Name of Key Staff	Tel No.	Email
WSD	Project Proponent	Tim Wong	2829 5638	tim_cw_wong@wsd.gov.hk
Binnies	Senior Resident Engineer	S.H. Chung	2608 7380	sre.3wsd20@gmail.com
Binnies	Resident Engineer	Chester Chan,	2608 7380	chancw@binnies.com
N&T	Independent Environmental Checker	Vega Wong	2877 3122	vegawong@nt.com.hk
CGC	Site Agent	Chan Tsz Kin	6874 8835	3wsd20@gmail.com
CGC	Environmental Officer	Luke Chung	6488 0975	3wsd20@gmail.com
AUES	Environmental Team Leader	T. W. Tam	2959 6059	twtam@fordbusiness.com
AUES	Environmental Consultant	Nicola Hon	2959 6059	nicolahon@fordbusiness.com
AUES	Environmental Consultant	Martin Li	2959 6059	martinli@fordbusiness.com
AUES	Assistant Environmental Consultant	Fai So	2959 6059	faiso@fordbusiness.com

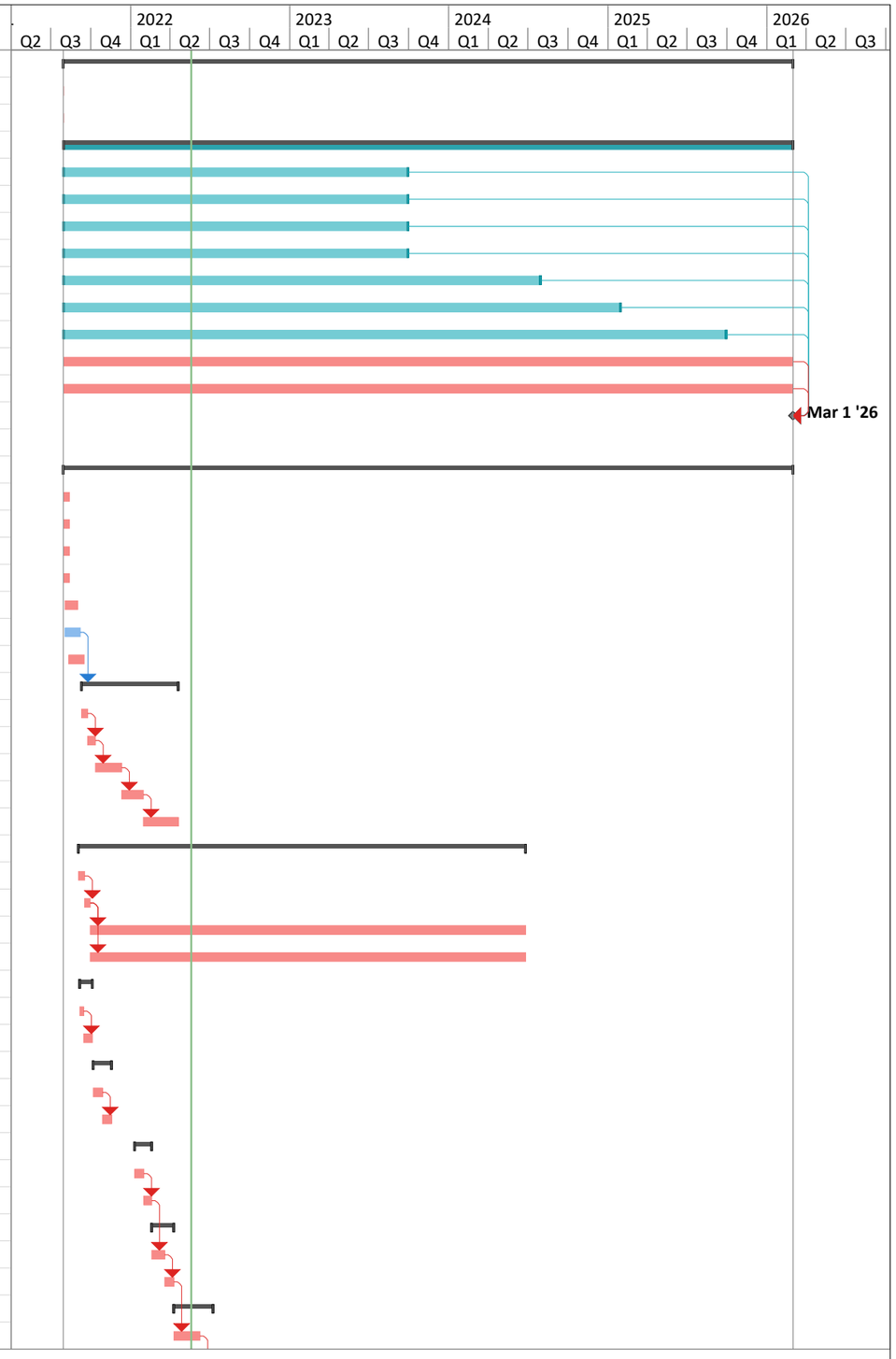
Legend:

WSD (Employer) – Water Supplies Department
Binnies (Engineer Representative) – Binnies Hong Kong Limited
CGC (Main Contractor) –China Geo-Engineering Corporation
N&T (IEC) –Nature & Technologies (HK) Limited
AUES (ET) – Action-United Environmental Services and Consulting (AUES)

Appendix C

Master Construction Program and Site Overview Photo in the Reporting Period

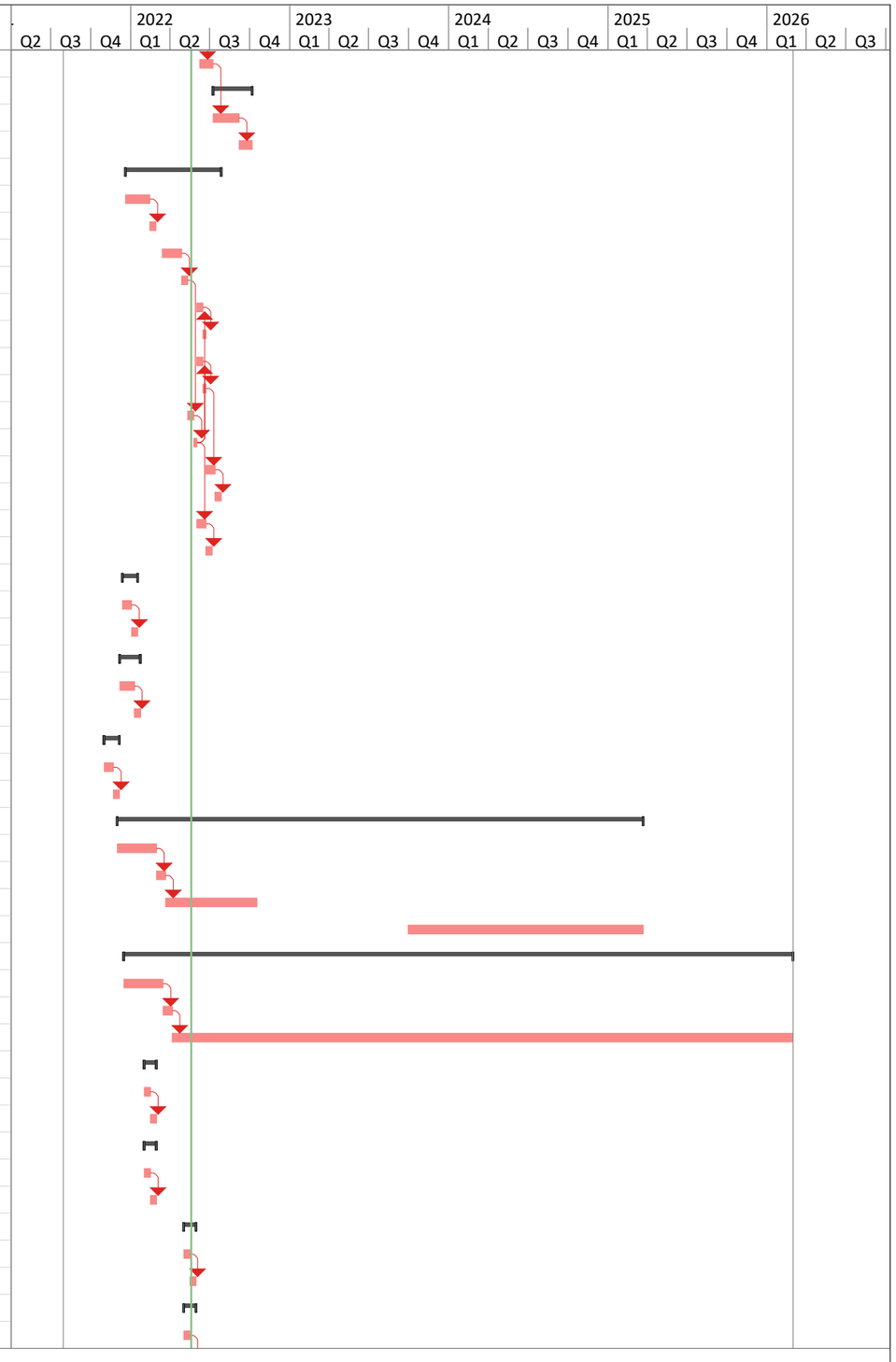
ID	Task Name	Duration	Start	Finish	TRA	Notes
1	**Key Dates**	**1676 days**	**Jul 30 '21**	**Mar 1 '26**		
2	Contract Date	1 day	Jul 30 '21	Jul 30 '21		
3	Starting Date	1 day	Jul 30 '21	Jul 30 '21		
4	**Contract Period**	**1675 days**	**Jul 31 '21**	**Mar 1 '26**		
5	Section 1 - Shek Wu Hui Water Reclamation Plant (SWHWRP)	791 days	Jul 31 '21	Sep 29 '23		
6	Section 2 - Landscaping works of SWHWRP	791 days	Jul 31 '21	Sep 29 '23		
7	Section 3 - Modification of Table Hill Reclaimed Water Service Reservoir	791 days	Jul 31 '21	Sep 29 '23		
8	Section 4 - Mainlaying works in part 3 of the Site	791 days	Jul 31 '21	Sep 29 '23		
9	Section 5 - Mainlaying works in part 4 of the Site	1095 days	Jul 31 '21	Jul 29 '24		
10	Section 6 - Mainlaying works in part 5 of the Site	1279 days	Jul 31 '21	Jan 29 '25		
11	Section 7 - Mainlaying works in part 6 of the Site	1522 days	Jul 31 '21	Sep 29 '25		
12	Section 8 - Mainlaying works in part 7 of the Site & remaining WM works	1675 days	Jul 31 '21	Mar 1 '26		
13	Section 9 - Conversion works of reclaimed water	1675 days	Jul 31 '21	Mar 1 '26		
14	**Contract Completion date**	**0 days**	**Mar 1 '26**	**Mar 1 '26**		
15						
16	**Preliminary & General**	**1676 days**	**Jul 30 '21**	**Mar 1 '26**		
17	Submission of Draft Safety Plan	14 days	Jul 30 '21	Aug 12 '21		
18	Submission of Draft Environmental Management Plan	14 days	Jul 30 '21	Aug 12 '21		
19	Submission of Sub-contractor Management Plan	14 days	Jul 30 '21	Aug 12 '21		
20	Notification & request for UU record from utility undertakers	14 days	Jul 30 '21	Aug 12 '21		
21	Submission and acceptance of selection procedure for supplier	29 days	Aug 3 '21	Aug 31 '21		
22	Submission and acceptance of selection procedure for subcontractor	35 days	Aug 3 '21	Sep 6 '21		
23	Agreement on preliminary office layout	35 days	Aug 12 '21	Sep 15 '21		
24	Provision of Project Manager's Accommodation	222 days	Sep 10 '21	Apr 19 '22		
25	Submission and acceptance of subletting package	14 days	Sep 10 '21	Sep 23 '21		
26	Selection of Subcontractor	18 days	Sep 24 '21	Oct 11 '21		
27	Submission and acceptance of design and material	60 days	Oct 12 '21	Dec 10 '21		
28	Manufacture and delivery of MiC office	50 days	Dec 11 '21	Jan 29 '22		
29	Erection of Project Manager's Accommodation	80 days	Jan 30 '22	Apr 19 '22		
30	**Selection of Traffic Consultant**	**1027 days**	**Sep 3 '21**	**Jun 25 '24**		
31	Submission and acceptance of subletting package	14 days	Sep 3 '21	Sep 16 '21		
32	Selection of traffic consultant	13 days	Sep 17 '21	Sep 29 '21		
33	XP application for different Sections	1000 days	Sep 30 '21	Jun 25 '24		
34	TTA application and Attend TMLG Meetings for different Sections	1000 days	Sep 30 '21	Jun 25 '24		
35	**Selection of Concrete Supplier**	**29 days**	**Sep 6 '21**	**Oct 4 '21**		
36	Submission and acceptance of subletting package	9 days	Sep 6 '21	Sep 14 '21		
37	Selection of concrete supplier	20 days	Sep 15 '21	Oct 4 '21		
38	**Selection of Subcontractor for Excavation and ELS Works at SWHWRP**	**42 days**	**Oct 7 '21**	**Nov 17 '21**		
39	Submission and acceptance of subletting package	21 days	Oct 7 '21	Oct 27 '21		
40	Selection of subcontractor	21 days	Oct 28 '21	Nov 17 '21		
41	**Selection of Subcontractor for Structural Works**	**39 days**	**Jan 10 '22**	**Feb 17 '22**		
42	Submission and acceptance of subletting package	21 days	Jan 10 '22	Jan 30 '22		
43	Selection of subcontractor	18 days	Jan 31 '22	Feb 17 '22		
44	**Selection of Subcontractor for Roadworks**	**51 days**	**Feb 18 '22**	**Apr 9 '22**		
45	Submission and acceptance of subletting package	30 days	Feb 18 '22	Mar 19 '22		
46	Selection of subcontractor	21 days	Mar 20 '22	Apr 9 '22		
47	**Selection of Subcontractor for Architectural Works**	**90 days**	**Apr 10 '22**	**Jul 8 '22**		
48	Submission and acceptance of subletting package	60 days	Apr 10 '22	Jun 8 '22		



Project: 3WSD20 Programme
Date: May 20 '22

Task	Inactive Task	Manual Summary Rollup	External Milestone	Manual Progress
Split	Inactive Milestone	Manual Summary	Deadline	
Milestone	Inactive Summary	Start-only	Critical	
Summary	Manual Task	Finish-only	Critical Split	
Project Summary	Duration-only	External Tasks	Progress	

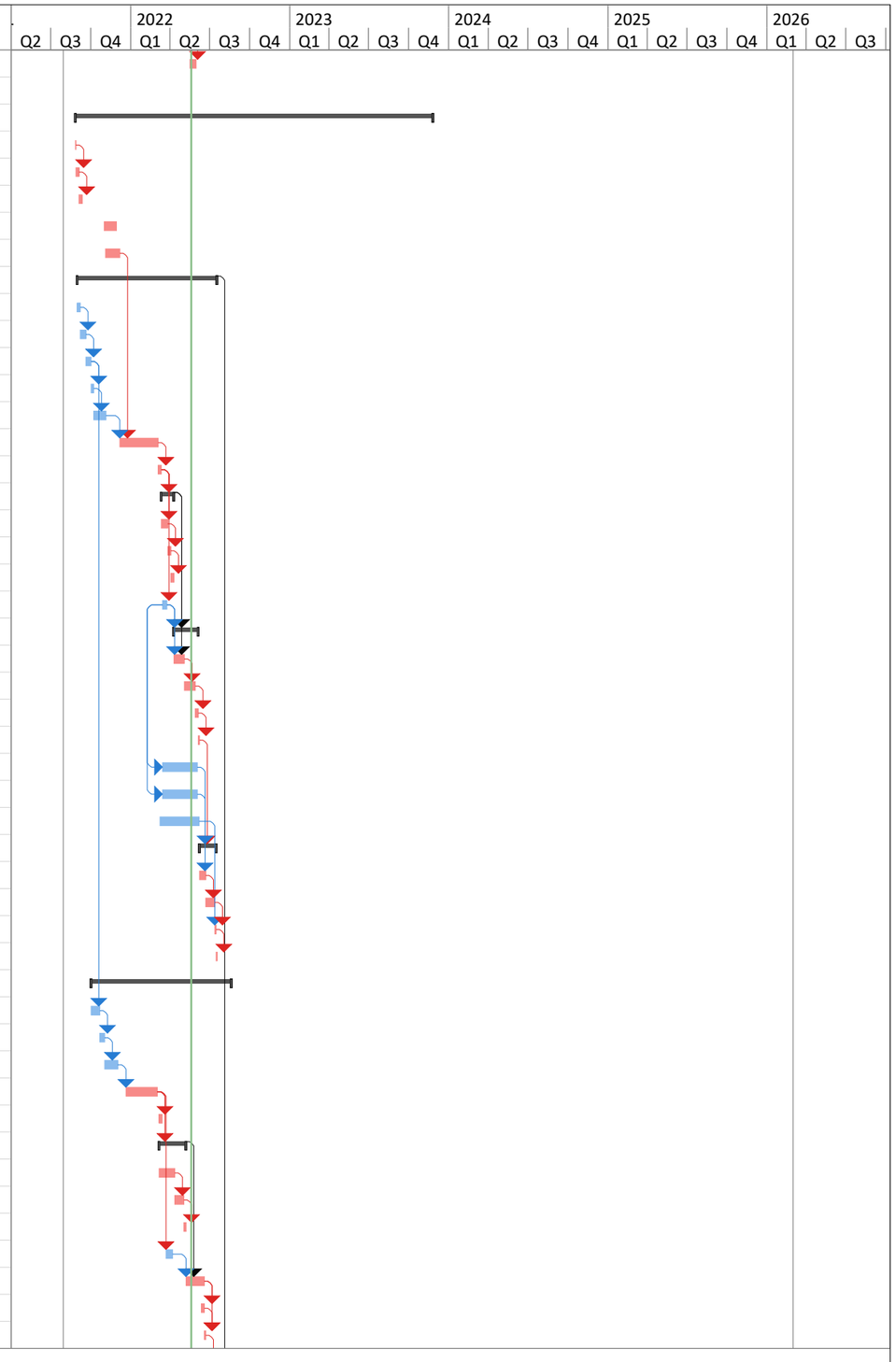
ID	Task Name	Duration	Start	Finish	TRA	Notes
49	Selection of subcontractor	30 days	Jun 9 '22	Jul 8 '22		
50	**Selection of Subcontractor for Landscape Works**	**90 days**	**Jul 9 '22**	**Oct 6 '22**		
51	Submission and acceptance of subletting package	60 days	Jul 9 '22	Sep 6 '22		
52	Selection of subcontractor	30 days	Sep 7 '22	Oct 6 '22		
53	**Selection of Subcontractor for Mainlaying Works**	**220 days**	**Dec 20 '21**	**Jul 27 '22**		
54	Submission and acceptance of subletting package - open trench (for Section 4)	56 days	Dec 20 '21	Feb 13 '22		
55	Selection of subcontractor - open trench (for Section 4)	14 days	Feb 14 '22	Feb 27 '22		
56	Submission and acceptance of subletting package - open trench (for Section 5)	45 days	Mar 14 '22	Apr 27 '22		
57	Selection of subcontractor - open trench (for Section 5)	14 days	Apr 28 '22	May 11 '22		
58	Submission and acceptance of subletting package - open trench (for Section 6)	14 days	Jun 2 '22	Jun 15 '22		
59	Selection of subcontractor - open trench (for Section 6)	7 days	Jun 16 '22	Jun 22 '22		
60	Submission and acceptance of subletting package - open trench (for Section 7)	14 days	Jun 2 '22	Jun 15 '22		
61	Selection of subcontractor - open trench (for Section 7)	7 days	Jun 16 '22	Jun 22 '22		
62	Submission and acceptance of subletting package - open trench (for Section 8)	14 days	May 12 '22	May 25 '22		
63	Selection of subcontractor - open trench (for Section 8)	7 days	May 26 '22	Jun 1 '22		
64	Submission and acceptance of subletting package - open trench (for Section 9)	21 days	Jun 23 '22	Jul 13 '22		
65	Selection of subcontractor - open trench (for Section 9)	14 days	Jul 14 '22	Jul 27 '22		
66	Submission and acceptance of subletting package - trenchless	21 days	Jun 2 '22	Jun 22 '22		
67	Selection of subcontractor - trenchless	14 days	Jun 23 '22	Jul 6 '22		
68	**Selection of Supplier for Survey Equipment**	**35 days**	**Dec 13 '21**	**Jan 16 '22**		
69	Submission and acceptance of subletting package	21 days	Dec 13 '21	Jan 2 '22		
70	Selection of subcontractor	14 days	Jan 3 '22	Jan 16 '22		
71	**Selection of Supplier for Computer Facilities**	**47 days**	**Dec 7 '21**	**Jan 22 '22**		
72	Submission and acceptance of subletting package	33 days	Dec 7 '21	Jan 8 '22		
73	Selection of subcontractor	14 days	Jan 9 '22	Jan 22 '22		
74	**Selection of Environment Team**	**35 days**	**Nov 1 '21**	**Dec 5 '21**		
75	Submission and acceptance of subletting package	21 days	Nov 1 '21	Nov 21 '21		
76	Selection of Environment Team	14 days	Nov 22 '21	Dec 5 '21		
77	**BEAM Plus**	**1208 days**	**Dec 1 '21**	**Mar 22 '25**		
78	Submission and acceptance of subletting package	90 days	Dec 1 '21	Feb 28 '22		
79	Selection of BEAM plus consultant	21 days	Mar 1 '22	Mar 21 '22		
80	BEAM Plus PA submission	210 days	Mar 22 '22	Oct 17 '22		
81	BEAM Plus FA submission	540 days	Sep 30 '23	Mar 22 '25		
82	**BIM**	**1537 days**	**Dec 16 '21**	**Mar 1 '26**		
83	Submission and acceptance of subletting package	90 days	Dec 16 '21	Mar 15 '22		
84	Selection of BIM consultant	21 days	Mar 16 '22	Apr 5 '22		
85	Execution of BIM (rebar BIM, CSD and CBWD coordination and production)	1426 days	Apr 6 '22	Mar 1 '26		
86	**Selection of Contractor's Designer for foundation works**	**28 days**	**Feb 1 '22**	**Feb 28 '22**		
87	Submission and acceptance of subletting package	14 days	Feb 1 '22	Feb 14 '22		
88	Selection of Contractor's Designer	14 days	Feb 15 '22	Feb 28 '22		
89	**Selection of Independent Checking Engineer (ICE) for Permanent Works (foundation)**	**28 days**	**Feb 1 '22**	**Feb 28 '22**		
90	Submission and acceptance of subletting package	14 days	Feb 1 '22	Feb 14 '22		
91	Selection of ICE for Permanent Works	14 days	Feb 15 '22	Feb 28 '22		
92	**Selection of Contractor's Designer for Civil & Structural Works**	**28 days**	**May 3 '22**	**May 30 '22**		
93	Submission and acceptance of subletting package	14 days	May 3 '22	May 16 '22		
94	Selection of Contractor's Designer	14 days	May 17 '22	May 30 '22		
95	**Selection of Independent Checking Engineer (ICE) for Permanent Works (Civil & Structural)**	**28 days**	**May 3 '22**	**May 30 '22**		
96	Submission and acceptance of subletting package	14 days	May 3 '22	May 16 '22		



Project: 3WSD20 Programme
Date: May 20 '22

Task	Inactive Task	Manual Summary Rollup	External Milestone	Manual Progress
Split	Inactive Milestone	Manual Summary	Deadline	
Milestone	Inactive Summary	Start-only	Critical	
Summary	Manual Task	Finish-only	Critical Split	
Project Summary	Duration-only	External Tasks	Progress	

ID	Task Name	Duration	Start	Finish	TRA	Notes
97	Selection of ICE for Permanent Works	14 days	May 17 '22	May 30 '22		
98						
99	**Section 1 & 2 - Construction of SWHWRP and Landscaping Works**	**821 days**	**Aug 27 '21**	**Nov 25 '23**		
100	Access Date (part 1 of the Site)	1 day	Aug 27 '21	Aug 27 '21		
101	Site clearance	7 days	Aug 28 '21	Sep 3 '21		
102	Initial survey	7 days	Sep 4 '21	Sep 10 '21		
103	Installation of monitoring instruments and take initial readings	28 days	Nov 1 '21	Nov 28 '21		
104	Environmental baseline montioring by ET	33 days	Nov 4 '21	Dec 6 '21		
105	**Foundation Works - ReWPS**	**321 days**	**Aug 31 '21**	**Jul 17 '22**		
106	Submission and approval of subletting package for pre-drilling works	7 days	Aug 31 '21	Sep 6 '21		
107	Selection of pre-drilling subcontractor	13 days	Sep 7 '21	Sep 19 '21		
108	Pre-drilling works (15 nos.)	12 days	Sep 20 '21	Oct 1 '21		5 x 4d/hole
109	Pre-drill log report and Point Load Test	6 days	Oct 2 '21	Oct 7 '21		
110	Design review for foundation works	28 days	Oct 8 '21	Nov 4 '21		
111	Piling works (54 nos. of pre-bored H piles) - Total length = 2387m	88 days	Dec 7 '21	Mar 4 '22		
112	Installation of King Post	7 days	Mar 5 '22	Mar 11 '22		
113	Testing of pre-bored H-pile - tension load test	29 days	Mar 12 '22	Apr 9 '22		
114	Shortage of Acetylene Gas	15 days	Mar 12 '22	Mar 26 '22		
115	Setting up of load test	7 days	Mar 27 '22	Apr 2 '22		
116	Tension Load Test	7 days	Apr 3 '22	Apr 9 '22		
117	Sheet piling works for ELS - 300 pcs (length 12m)	10 days	Mar 15 '22	Mar 24 '22		
118	Excavation works (6900m3) and ELS installation	56 days	Apr 10 '22	Jun 4 '22		280m3/day
119	Shortage of Acetylene Gas	24 days	Apr 10 '22	May 3 '22		
120	ELS installation and excavation	25 days	May 4 '22	May 28 '22		
121	Welding of pile head capping plate	7 days	May 29 '22	Jun 4 '22		
122	Laying of blinding layer	3 days	Jun 5 '22	Jun 7 '22		
123	Submission and acceptance of method statement for pile cap construction	80 days	Mar 15 '22	Jun 2 '22		
124	Submission and acceptance of water proofing material	80 days	Mar 15 '22	Jun 2 '22		
125	Concrete mix submission, plant trial and acceptance of Grade 50 concrete	90 days	Mar 9 '22	Jun 6 '22		
126	Construction of pile cap	38 days	Jun 8 '22	Jul 15 '22		
127	Installation of water proofing system and testing	14 days	Jun 8 '22	Jun 21 '22		
128	Rebar fixing	21 days	Jun 22 '22	Jul 12 '22		
129	Concreting of pile cap (996 m3)	3 days	Jul 13 '22	Jul 15 '22		
130	Backfilling to pile cap top level	2 days	Jul 16 '22	Jul 17 '22		
131	**Foundation Works - HCF**	**322 days**	**Oct 2 '21**	**Aug 19 '22**		
132	Pre-drilling works (25 nos.)	20 days	Oct 2 '21	Oct 21 '21		5 x 4d/hole
133	Pre-drill log report and Point Load Test	11 days	Oct 22 '21	Nov 1 '21		
134	Design review for foundation works	30 days	Nov 2 '21	Dec 1 '21		
135	Piling works - HCF (56 nos. of pre-bored H piles) - Total length = 1871m	72 days	Dec 21 '21	Mar 2 '22		
136	Testing of pre-bored H-pile - proof drilling	7 days	Mar 7 '22	Mar 13 '22		
137	Testing of pre-bored H-pile - compression load test	62 days	Mar 7 '22	May 7 '22		
138	Shortage of Acetylene Gas	36 days	Mar 7 '22	Apr 11 '22		
139	Construction of mini-piles and setting up of load test	21 days	Apr 12 '22	May 2 '22		
140	Compression load test	5 days	May 3 '22	May 7 '22		
141	Sheet piling works for ELS - 425 pcs (length 6m)	15 days	Mar 23 '22	Apr 6 '22	3	60 pcs/day
142	Excavation works (7600m3)	42 days	May 8 '22	Jun 18 '22	14	280m3/day
143	Welding of pile head capping plate	7 days	Jun 12 '22	Jun 18 '22		
144	Laying of blinding layer	3 days	Jun 19 '22	Jun 21 '22		



Project: 3WSD20 Programme
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Task
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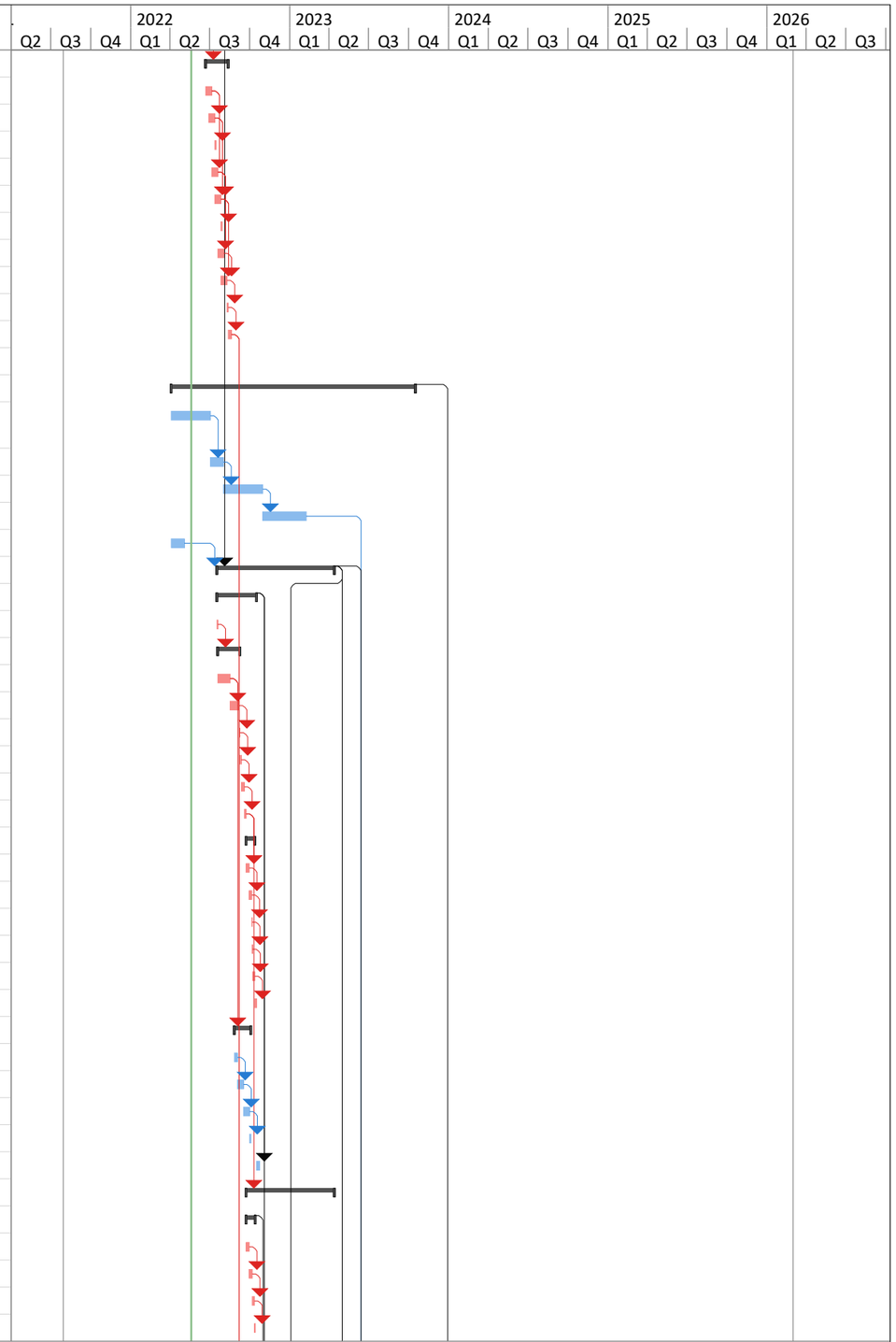
ID	Task Name	Duration	Start	Finish	TRA	Notes
145	Construction of pile cap	52 days	Jun 22 '22	Aug 12 '22		
146	Installation of water proofing system and testing (1/3)	14 days	Jun 22 '22	Jul 5 '22		From G.L. 1
147	Rebar fixing (1/3)	14 days	Jun 29 '22	Jul 12 '22		
148	Concreting of pile cap (1/3) - 920m3	3 days	Jul 13 '22	Jul 15 '22		
149	Installation of water proofing system and testing (1/3)	14 days	Jul 6 '22	Jul 19 '22		
150	Rebar fixing (1/3)	14 days	Jul 13 '22	Jul 26 '22		
151	Concreting of pile cap (1/3) - 920m3	3 days	Jul 27 '22	Jul 29 '22		
152	Installation of water proofing system and testing (1/3)	14 days	Jul 20 '22	Aug 2 '22		
153	Rebar fixing (1/3)	14 days	Jul 27 '22	Aug 9 '22		
154	Concreting of pile cap (1/3) - 920m3	3 days	Aug 10 '22	Aug 12 '22		
155	Backfilling to pile cap top level	7 days	Aug 13 '22	Aug 19 '22		
156						
157	**Construction of SWHWRP**	**561 days**	**Apr 4 '22**	**Oct 16 '23**		
158	Submission and acceptance of DfMA proposal for bathroom unit, outdoor staircase, valves chamber, water refilling station	90 days	Apr 4 '22	Jul 2 '22		
159	Selection of Supplier for DfMA	30 days	Jul 3 '22	Aug 1 '22		
160	Manufacture of DfMA Precast Segments	90 days	Aug 2 '22	Oct 30 '22		
161	Installation of DfMA segments	100 days	Oct 31 '22	Feb 7 '23		
162	Submission and acceptance of method statement for construction ReWPS and HCF	30 days	Apr 4 '22	May 3 '22		
163	**Construction of RC structure of ReWPS**	**270 days**	**Jul 18 '22**	**Apr 13 '23**		
164	**Construction of basement (below ground)**	**91 days**	**Jul 18 '22**	**Oct 16 '22**		
165	Removal of ELS strut and wailing (2nd layer)	2 days	Jul 18 '22	Jul 19 '22		
166	Construction of external walls, W6, W8-W15, beams and slabs (+0mPD to +5.6mPD)	51 days	Jul 20 '22	Sep 8 '22		
167	Scaffolding erection and rebar fixing	28 days	Jul 20 '22	Aug 16 '22		
168	Falsework and Formwork erection	21 days	Aug 17 '22	Sep 6 '22		
169	Concreting	2 days	Sep 7 '22	Sep 8 '22		
170	Removal of formwork	3 days	Sep 9 '22	Sep 11 '22		
171	Installation and testing of water proofing system	7 days	Sep 12 '22	Sep 18 '22		
172	Backfilling and removal of ELS strut and wailing (1st layer)	4 days	Sep 19 '22	Sep 22 '22		
173	Construction of external walls, W6, W8-W15 (+5.6mPD to +7.2mPD)	20 days	Sep 23 '22	Oct 12 '22		
174	Scaffolding erection and rebar fixing	7 days	Sep 23 '22	Sep 29 '22		
175	Formwork erection	6 days	Sep 30 '22	Oct 5 '22		
176	Concreting	1 day	Oct 6 '22	Oct 6 '22		
177	Removal of formwork	1 day	Oct 7 '22	Oct 7 '22		
178	Installation and testing of water proofing system	5 days	Oct 8 '22	Oct 12 '22		
179	Backfilling from +5.6mPD to +7.2mPD	4 days	Oct 13 '22	Oct 16 '22		
180	Construction of Staircase ST1, ST2 (+0mPD to +7.2mPD)	38 days	Aug 27 '22	Oct 3 '22		
181	Scaffolding and falsework erection	7 days	Aug 27 '22	Sep 2 '22		
182	Rebar fixing	14 days	Sep 3 '22	Sep 16 '22		
183	Formwork erection	14 days	Sep 17 '22	Sep 30 '22		
184	Concreting	3 days	Oct 1 '22	Oct 3 '22		
185	Removal of ELS sheet piles	7 days	Oct 17 '22	Oct 23 '22		
186	**Construction of Superstructure (above ground) - Grid Line 4-6**	**203 days**	**Sep 23 '22**	**Apr 13 '23**		
187	Construction of base slab (+4.45mPD to +5.95mPD & +5.6mPD to +7.1mPD)	21 days	Sep 23 '22	Oct 13 '22		
188	Installation of water proofing system	7 days	Sep 23 '22	Sep 29 '22		
189	Rebar fixing	7 days	Sep 30 '22	Oct 6 '22		
190	Formwork erection	5 days	Oct 7 '22	Oct 11 '22		
191	Concreting	2 days	Oct 12 '22	Oct 13 '22		



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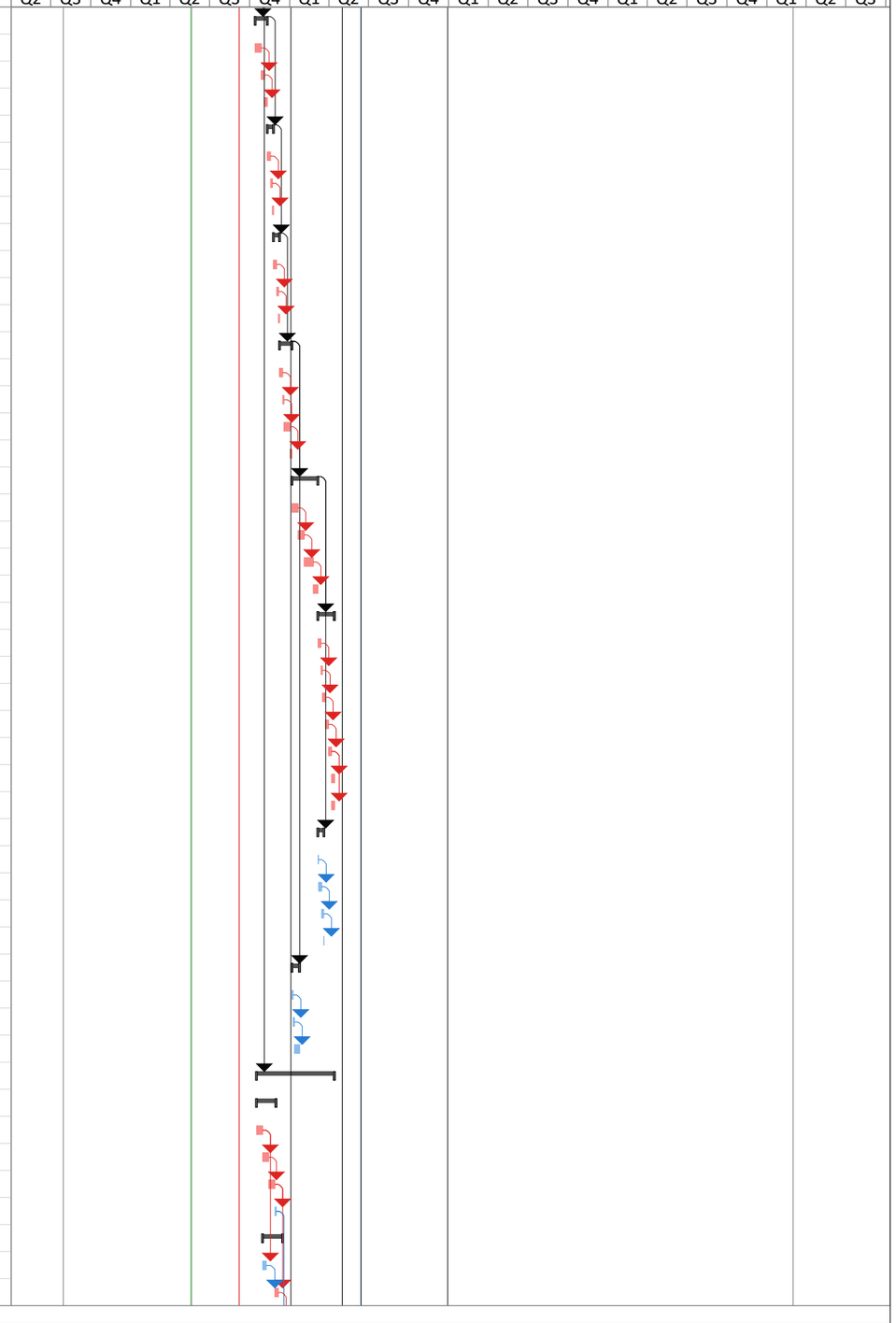
Task	Inactive Task	Manual Summary Rollup	External Milestone	Manual Progress	
Split	Inactive Milestone	Manual Summary	Deadline		
Milestone	Inactive Summary	Start-only	Critical		
Summary	Manual Task	Finish-only	Critical Split		
Project Summary	Duration-only	External Tasks	Progress		

ID	Task Name	Duration	Start	Finish	TRA	Notes
192	Construction of Columns (+5.95mPD to +13.25mPD)	28 days	Oct 14 '22	Nov 10 '22		
193	Scaffolding erection and rebar fixing	14 days	Oct 14 '22	Oct 27 '22		
194	Formwork erection	7 days	Oct 28 '22	Nov 3 '22		
195	Concreting	7 days	Nov 4 '22	Nov 10 '22		
196	Construction of Bearing walls and Slabs (+5.95mPD to +7.2mPD)	14 days	Nov 11 '22	Nov 24 '22		
197	Rebar fixing	7 days	Nov 11 '22	Nov 17 '22		
198	Formwork erection	4 days	Nov 18 '22	Nov 21 '22		
199	Concreting and curing of concrete	3 days	Nov 22 '22	Nov 24 '22		
200	Construction of Bearing walls (+7.2mPD to +13.25mPD)	14 days	Nov 25 '22	Dec 8 '22		
201	Rebar fixing	7 days	Nov 25 '22	Dec 1 '22		
202	Formwork erection	4 days	Dec 2 '22	Dec 5 '22		
203	Concreting and curing of concrete	3 days	Dec 6 '22	Dec 8 '22		
204	Construction of Beams and Slabs at +11.8mPD	28 days	Dec 9 '22	Jan 5 '23		
205	Scaffolding and falsework erection	7 days	Dec 9 '22	Dec 15 '22		
206	Formwork erection	3 days	Dec 16 '22	Dec 18 '22		
207	Rebar fixing	14 days	Dec 19 '22	Jan 1 '23		
208	Concreting and curing of concrete	4 days	Jan 2 '23	Jan 5 '23		
209	Construction of Beams and Slabs at +13.25mPD	60 days	Jan 6 '23	Mar 6 '23		
210	Scaffolding and falsework erection	14 days	Jan 6 '23	Jan 19 '23		
211	Formwork erection	14 days	Jan 20 '23	Feb 2 '23		
212	Rebar fixing	21 days	Feb 3 '23	Feb 23 '23		
213	Concreting and curing of concrete	11 days	Feb 24 '23	Mar 6 '23		
214	Installation of internal finishing works for Grid Line 4-6	38 days	Mar 7 '23	Apr 13 '23		
215	Mass concrete for cable trench	7 days	Mar 7 '23	Mar 13 '23		
216	Waterproofing system at slabs	3 days	Mar 14 '23	Mar 16 '23		
217	Epoxy painting on floor finish	7 days	Mar 17 '23	Mar 23 '23		
218	Plaster and paint at wall and soffit	7 days	Mar 24 '23	Mar 30 '23		
219	Chequer plate system at cable trench and aerator room	7 days	Mar 31 '23	Apr 6 '23		
220	Steel grating floor system at chemical storage rooms	7 days	Apr 7 '23	Apr 13 '23		
221	SS door and aluminum louver	7 days	Apr 7 '23	Apr 13 '23		
222	Construction of Parapet Walls (+13.25mPD to +14.65mPD)	14 days	Mar 7 '23	Mar 20 '23		
223	Scaffolding erection	1 day	Mar 7 '23	Mar 7 '23		
224	Rebar fixing	7 days	Mar 8 '23	Mar 14 '23		
225	Formwork erection	5 days	Mar 15 '23	Mar 19 '23		
226	Concreting	1 day	Mar 20 '23	Mar 20 '23		
227	Construction of Staircase ST3 (+7.1mPD to +13.5mPD)	18 days	Jan 6 '23	Jan 23 '23		
228	Installation of precast segments	3 days	Jan 6 '23	Jan 8 '23		
229	Rebar fixing	3 days	Jan 9 '23	Jan 11 '23		
230	Concreting and curing of concrete	12 days	Jan 12 '23	Jan 23 '23		
231	**Construction of Superstructure (above ground) - Grid Line 1-4**	**179 days**	**Oct 17 '22**	**Apr 13 '23**		
232	Construction of Beams and Slabs at +7.2mPD	45 days	Oct 17 '22	Nov 30 '22		
233	Falsework erection	14 days	Oct 17 '22	Oct 30 '22		
234	Formwork erection	14 days	Oct 31 '22	Nov 13 '22		
235	Rebar fixing	14 days	Nov 14 '22	Nov 27 '22		
236	Concreting	3 days	Nov 28 '22	Nov 30 '22		
237	Construction of Beams and Slabs at +9.1mPD	46 days	Oct 31 '22	Dec 15 '22		
238	Falsework erection	8 days	Oct 31 '22	Nov 7 '22		
239	Formwork erection	8 days	Nov 28 '22	Dec 5 '22		



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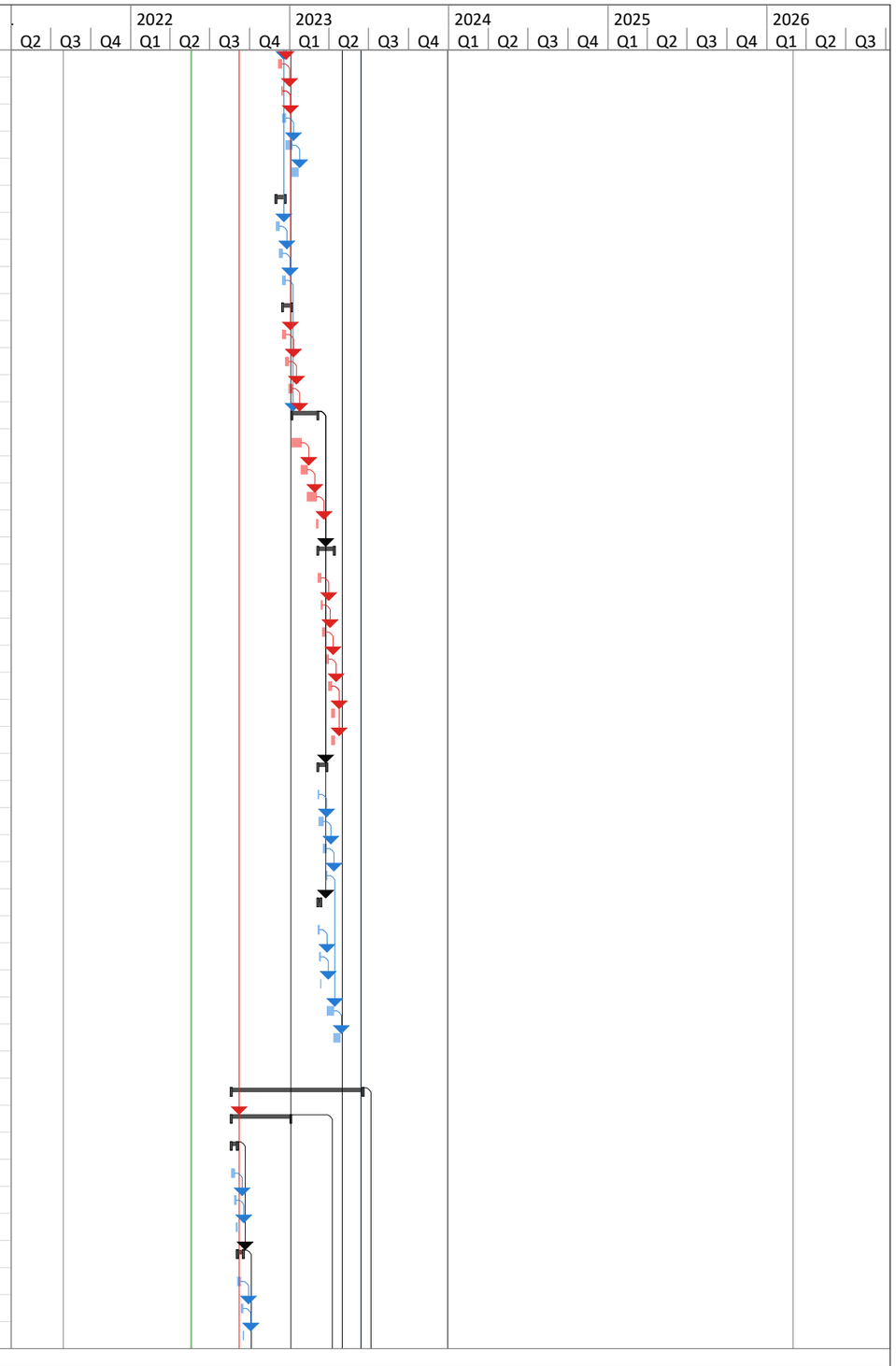
ID	Task Name	Duration	Start	Finish	TRA	Notes
240	Rebar fixing	8 days	Dec 6 '22	Dec 13 '22		
241	Concreting	2 days	Dec 14 '22	Dec 15 '22		
242	Removal of formwork and falsework	7 days	Dec 16 '22	Dec 22 '22		
243	Watertightness test	14 days	Dec 23 '22	Jan 5 '23		
244	Installation of internal finishing works for basement	14 days	Jan 6 '23	Jan 19 '23		
245	Construction of Walls and Columns (+7.2mPD to +15.2mPD)	21 days	Dec 1 '22	Dec 21 '22		
246	Scaffolding erection and rebar fixing	7 days	Dec 1 '22	Dec 7 '22		
247	Formwork erection	7 days	Dec 8 '22	Dec 14 '22		
248	Concreting	7 days	Dec 15 '22	Dec 21 '22		
249	Construction of Walls and Columns (+9.1mPD to +15.2mPD)	21 days	Dec 16 '22	Jan 5 '23		
250	Scaffolding erection and rebar fixing	7 days	Dec 16 '22	Dec 22 '22		
251	Formwork erection	7 days	Dec 23 '22	Dec 29 '22		
252	Concreting	7 days	Dec 30 '22	Jan 5 '23		
253	Construction of Beams and Slabs at +15.2mPD	60 days	Jan 6 '23	Mar 6 '23		
254	Falsework erection	21 days	Jan 6 '23	Jan 26 '23		
255	Formwork erection	14 days	Jan 27 '23	Feb 9 '23		
256	Rebar fixing	21 days	Feb 10 '23	Mar 2 '23		
257	Concreting	4 days	Mar 3 '23	Mar 6 '23		
258	Installation of internal finishing works for Grid Line 1-4 above ground	38 days	Mar 7 '23	Apr 13 '23		
259	Mass concrete for cable trench	7 days	Mar 7 '23	Mar 13 '23		
260	Waterproofing system at slabs	3 days	Mar 14 '23	Mar 16 '23		
261	Epoxy painting on floor finish	7 days	Mar 17 '23	Mar 23 '23		
262	Plaster and paint at wall and soffit	7 days	Mar 24 '23	Mar 30 '23		
263	Chequer plate system at cable trench and aerator room	7 days	Mar 31 '23	Apr 6 '23		
264	Steel grating floor system at chemical storage rooms	7 days	Apr 7 '23	Apr 13 '23		
265	SS door and aluminum louver	7 days	Apr 7 '23	Apr 13 '23		
266	Construction of Parapet Walls (+15.2mPD to +16.6mPD)	21 days	Mar 7 '23	Mar 27 '23		
267	Scaffolding erection	2 days	Mar 7 '23	Mar 8 '23		
268	Rebar fixing	10 days	Mar 9 '23	Mar 18 '23		
269	Formwork erection	7 days	Mar 19 '23	Mar 25 '23		
270	Concreting	2 days	Mar 26 '23	Mar 27 '23		
271	Construction of Staircase ST3 (+13.5mPD to +15.45mPD)	7 days	Mar 7 '23	Mar 13 '23		
272	Installation of precast segments	3 days	Mar 7 '23	Mar 9 '23		
273	Rebar fixing	3 days	Mar 10 '23	Mar 12 '23		
274	Concreting and curing of concrete	1 day	Mar 13 '23	Mar 13 '23		
275	**Construction of water proofing system at roof slab of ReWPS**	**15 days**	**Mar 28 '23**	**Apr 11 '23**		
276	**Water tightness test for roof slab of ReWPS**	**15 days**	**Apr 12 '23**	**Apr 26 '23**		
277						
278	**Construction of RC structure of HCF**	**303 days**	**Aug 20 '22**	**Jun 18 '23**		
279	**Construction of Superstructure (above ground) - Grid Line 1-3**	**137 days**	**Aug 20 '22**	**Jan 3 '23**		
280	Construction of Columns (+5.55mPD to +13.00mPD)	14 days	Aug 20 '22	Sep 2 '22		
281	Scaffolding erection and rebar fixing	7 days	Aug 20 '22	Aug 26 '22		
282	Formwork erection	4 days	Aug 27 '22	Aug 30 '22		
283	Concreting	3 days	Aug 31 '22	Sep 2 '22		
284	Construction of Wall W8 (+5.8mPD to +10.4mPD)	14 days	Sep 3 '22	Sep 16 '22		
285	Scaffolding erection and Rebar fixing	8 days	Sep 3 '22	Sep 10 '22		
286	Formwork erection	5 days	Sep 11 '22	Sep 15 '22		
287	Concreting	1 day	Sep 16 '22	Sep 16 '22		



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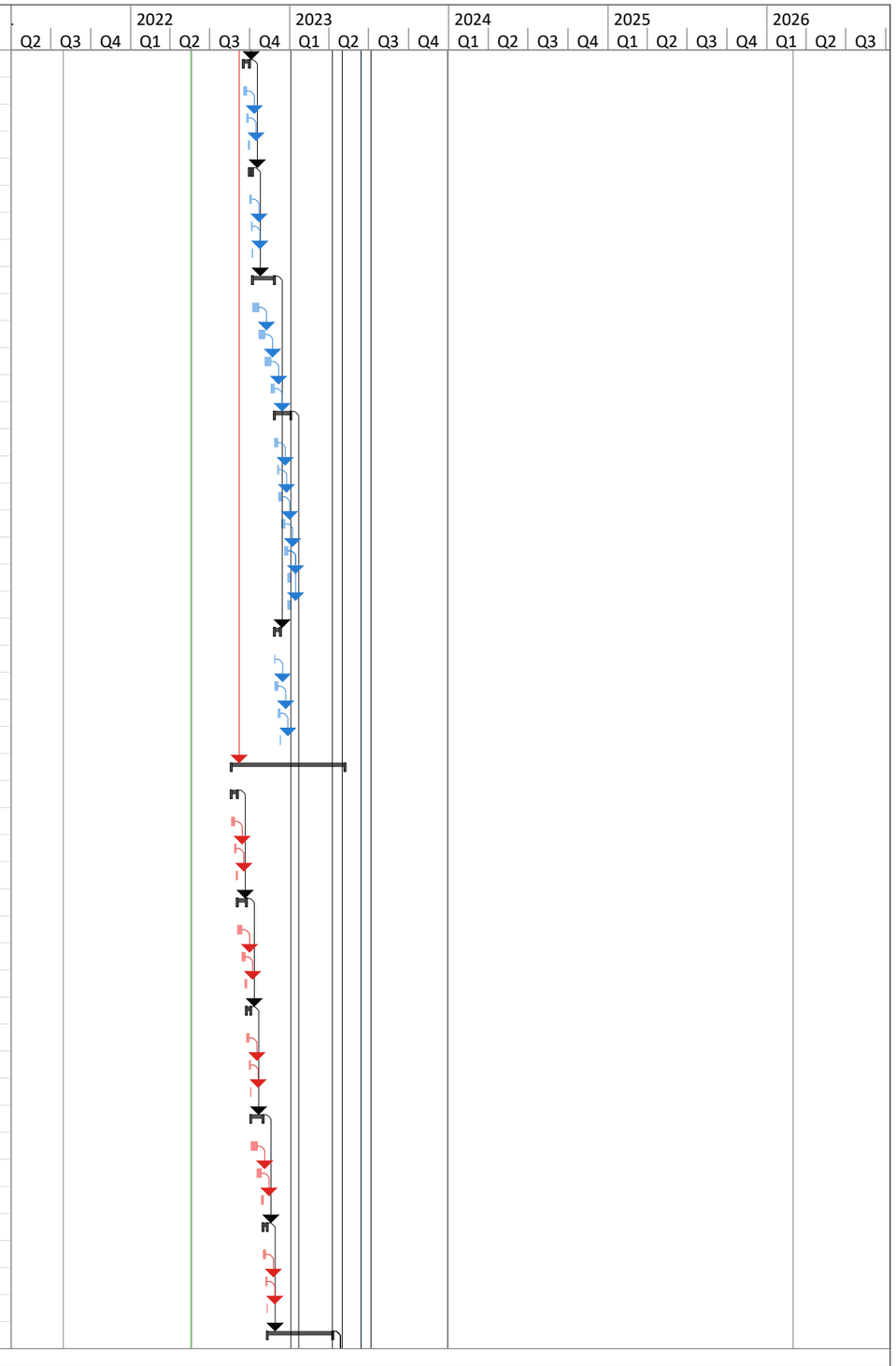
288	Construction of Bearing walls and Slabs (+5.55mPD to +7.1mPD)	14 days	Sep 17 '22	Sep 30 '22		
289	Rebar fixing	7 days	Sep 17 '22	Sep 23 '22		
290	Formwork erection	4 days	Sep 24 '22	Sep 27 '22		
291	Concreting and curing of concrete	3 days	Sep 28 '22	Sep 30 '22		
292	Construction of Columns (+10.4mPD to +13.00mPD)	7 days	Oct 1 '22	Oct 7 '22		
293	Scaffolding erection and Rebar fixing	4 days	Oct 1 '22	Oct 4 '22		
294	Formwork erection	2 days	Oct 5 '22	Oct 6 '22		
295	Concreting	1 day	Oct 7 '22	Oct 7 '22		
296	Construction of Beams and Slabs at +13.00mPD	50 days	Oct 8 '22	Nov 26 '22		
297	Scaffolding and falsework erection	14 days	Oct 8 '22	Oct 21 '22		
298	Formwork erection	14 days	Oct 22 '22	Nov 4 '22		
299	Rebar fixing	14 days	Nov 5 '22	Nov 18 '22		
300	Concreting and curing of concrete	8 days	Nov 19 '22	Nov 26 '22		
301	Installation of internal finishing works for Grid Line 1-3	38 days	Nov 27 '22	Jan 3 '23		
302	Mass concrete for cable trench	7 days	Nov 27 '22	Dec 3 '22		
303	Waterproofing system at slabs	3 days	Dec 4 '22	Dec 6 '22		
304	Epoxy painting on floor finish	7 days	Dec 7 '22	Dec 13 '22		
305	Plaster and paint at wall and soffit	7 days	Dec 14 '22	Dec 20 '22		
306	Chequer plate system at cable trench and aerator room	7 days	Dec 21 '22	Dec 27 '22		
307	Steel grating floor system at chemical storage rooms	7 days	Dec 28 '22	Jan 3 '23		
308	SS door and aluminum louver	7 days	Dec 28 '22	Jan 3 '23		
309	Construction of Parapet Walls (+13.00mPD to +15.1mPD)	14 days	Nov 27 '22	Dec 10 '22		
310	Scaffolding erection	1 day	Nov 27 '22	Nov 27 '22		
311	Rebar fixing	7 days	Nov 28 '22	Dec 4 '22		
312	Formwork erection	5 days	Dec 5 '22	Dec 9 '22		
313	Concreting	1 day	Dec 10 '22	Dec 10 '22		
314	**Construction of Superstructure (above ground) - Grid Line 3-7**	**261 days**	**Aug 20 '22**	**May 7 '23**		
315	Construction of Columns (+4.55mPD to +10.8mPD)	14 days	Aug 20 '22	Sep 2 '22		
316	Scaffolding erection and rebar fixing	7 days	Aug 20 '22	Aug 26 '22		
317	Formwork erection	4 days	Aug 27 '22	Aug 30 '22		
318	Concreting	3 days	Aug 31 '22	Sep 2 '22		
319	Construction of Walls W1, W7, W19, W20, W29	21 days	Sep 3 '22	Sep 23 '22		
320	Scaffolding erection and Rebar fixing	10 days	Sep 3 '22	Sep 12 '22		
321	Formwork erection	7 days	Sep 13 '22	Sep 19 '22		
322	Concreting	4 days	Sep 20 '22	Sep 23 '22		
323	Construction of Walls W9, W13, W14, W37, W38	10 days	Sep 24 '22	Oct 3 '22		
324	Scaffolding erection and Rebar fixing	6 days	Sep 24 '22	Sep 29 '22		
325	Formwork erection	3 days	Sep 30 '22	Oct 2 '22		
326	Concreting	1 day	Oct 3 '22	Oct 3 '22		
327	Construction of Walls W2 to W6	28 days	Oct 4 '22	Oct 31 '22		
328	Scaffolding erection and Rebar fixing	14 days	Oct 4 '22	Oct 17 '22		
329	Formwork erection	10 days	Oct 18 '22	Oct 27 '22		
330	Concreting	4 days	Oct 28 '22	Oct 31 '22		
331	Construction of Walls W10, W11, W15, W16, W12, W35, W36	10 days	Nov 1 '22	Nov 10 '22		
332	Scaffolding erection and Rebar fixing	6 days	Nov 1 '22	Nov 6 '22		
333	Formwork erection	3 days	Nov 7 '22	Nov 9 '22		
334	Concreting	1 day	Nov 10 '22	Nov 10 '22		
335	Construction of Beams and Slabs at +10.4mPD and +10.8mPD	150 days	Nov 11 '22	Apr 9 '23		



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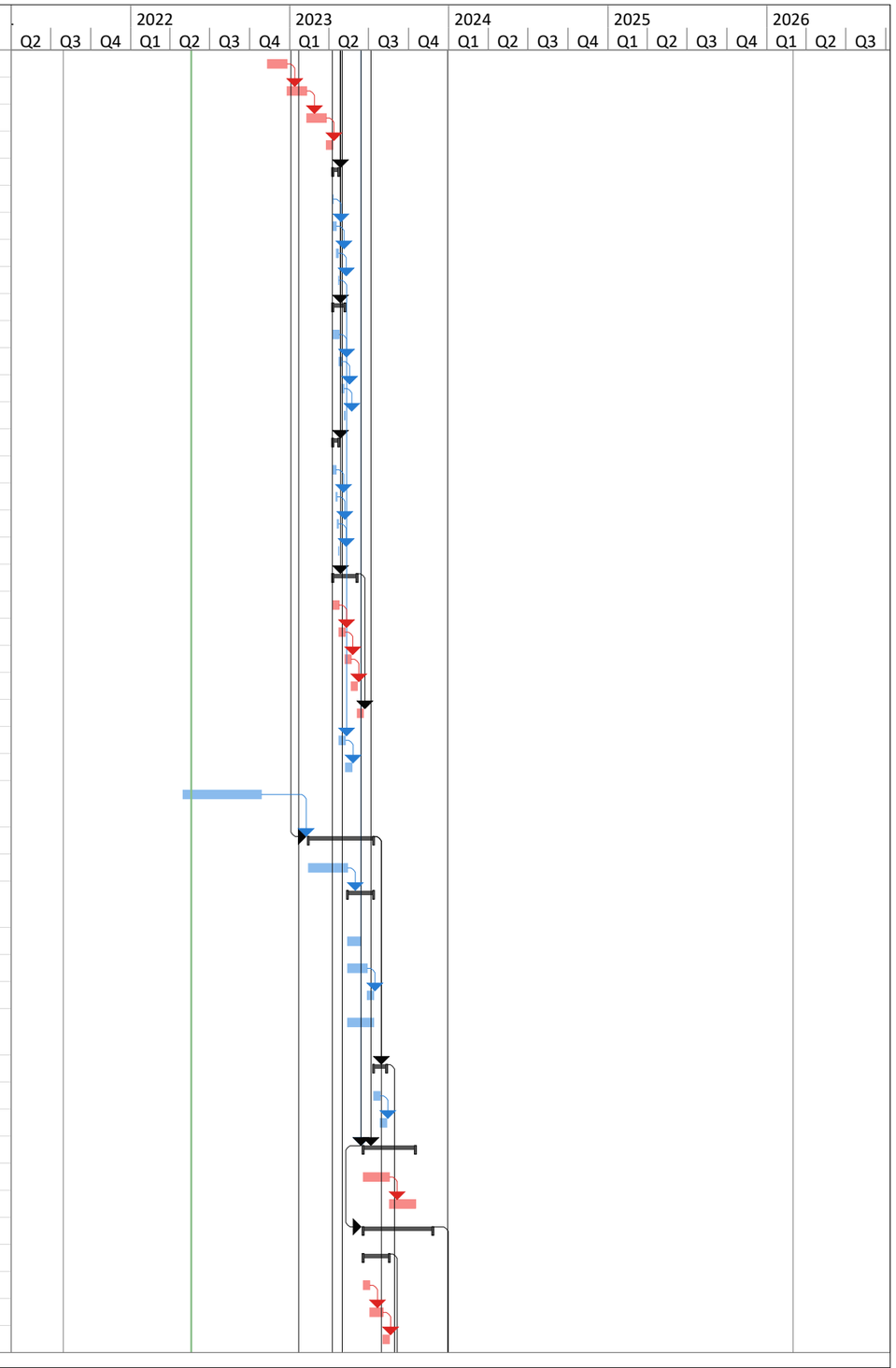
336	Scaffolding and falsework erection	45 days	Nov 11 '22	Dec 25 '22		
337	Formwork erection	45 days	Dec 26 '22	Feb 8 '23		
338	Rebar fixing	45 days	Feb 9 '23	Mar 25 '23		
339	Concreting and curing of concrete	15 days	Mar 26 '23	Apr 9 '23		
340	Construction of Parapet Walls (+10.4mPD/+10.8mPD to +12.5mPD)	14 days	Apr 10 '23	Apr 23 '23		
341	Scaffolding erection	1 day	Apr 10 '23	Apr 10 '23		
342	Rebar fixing	7 days	Apr 11 '23	Apr 17 '23		
343	Formwork erection	5 days	Apr 18 '23	Apr 22 '23		
344	Concreting	1 day	Apr 23 '23	Apr 23 '23		
345	Construction of Staircase ST01 (+7.1mPD to +11.35mPD)	28 days	Apr 10 '23	May 7 '23		
346	Scaffolding and falsework erection	14 days	Apr 10 '23	Apr 23 '23		
347	Rebar fixing	7 days	Apr 24 '23	Apr 30 '23		
348	Formwork erection	5 days	May 1 '23	May 5 '23		
349	Concreting	2 days	May 6 '23	May 7 '23		
350	Construction of Staircase ST02 (+10.4mPD to +13.95mPD)	14 days	Apr 10 '23	Apr 23 '23		
351	Scaffolding and falsework erection	7 days	Apr 10 '23	Apr 16 '23		
352	Rebar fixing	3 days	Apr 17 '23	Apr 19 '23		
353	Formwork erection	3 days	Apr 20 '23	Apr 22 '23		
354	Concreting	1 day	Apr 23 '23	Apr 23 '23		
355	Watertightness test in stages	56 days	Apr 10 '23	Jun 4 '23		
356	Inlet Channel and Outlet Channel	14 days	Apr 10 '23	Apr 23 '23		
357	On duty contact tank	14 days	Apr 24 '23	May 7 '23		
358	Standby contact tank	14 days	May 8 '23	May 21 '23		
359	Overall water retaining structure at HCF	14 days	May 22 '23	Jun 4 '23		
360	Installation of internal finishing works for Grid Line 3-7	14 days	Jun 5 '23	Jun 18 '23		
361	Construction of water proofing system at roof slab of HCF	15 days	Apr 24 '23	May 8 '23		
362	Water tightness test for roof slab of HCF	15 days	May 9 '23	May 23 '23		
363	WWO542 design submission for Street Fire Hydrant, potable, flushing, cleansing & irrigation water supply	180 days	May 1 '22	Oct 27 '22		
364	**Construction of roadworks**	**150 days**	**Feb 13 '23**	**Jul 12 '23**		
365	Construction of fence wall	90 days	Feb 13 '23	May 13 '23		
366	Construction of underground utilities (drainage, irrigation system, cable ducting, street fire hydrant, etc)	60 days	May 14 '23	Jul 12 '23		
367	Laying of pipe work system outside ReWPS and HCF	30 days	May 14 '23	Jun 12 '23		
368	Construction of chambers and water refilling station	45 days	May 14 '23	Jun 27 '23		
369	Installation of surge vessels	15 days	Jun 28 '23	Jul 12 '23		
370	Construction of underground utilities (drainage, irrigation system, cable ducting, street fire hydrant, etc)	60 days	May 14 '23	Jul 12 '23		
371	**Construction of EVA road pavement**	**30 days**	**Jul 13 '23**	**Aug 11 '23**		
372	Construction of road pavement near ReWPS	15 days	Jul 13 '23	Jul 27 '23		
373	Construction of road pavement near HCF	15 days	Jul 28 '23	Aug 11 '23		
374	**Installation of architectural works**	**120 days**	**Jun 19 '23**	**Oct 16 '23**		
375	Installation of architectural works near ReWPS	60 days	Jun 19 '23	Aug 17 '23		
376	Installation of architectural works near HCF	60 days	Aug 18 '23	Oct 16 '23		
377	**Landscape works**	**160 days**	**Jun 19 '23**	**Nov 25 '23**		
378	Landscape works at roof top	60 days	Jun 19 '23	Aug 17 '23		
379	Installation of composite timber decking with pedestal	15 days	Jun 19 '23	Jul 3 '23		
380	Laying of artificial granite floor tile / paver block	30 days	Jul 4 '23	Aug 2 '23		
381	Construciton of roof drainage system	15 days	Aug 3 '23	Aug 17 '23		



Project: 3WSD20 Programme
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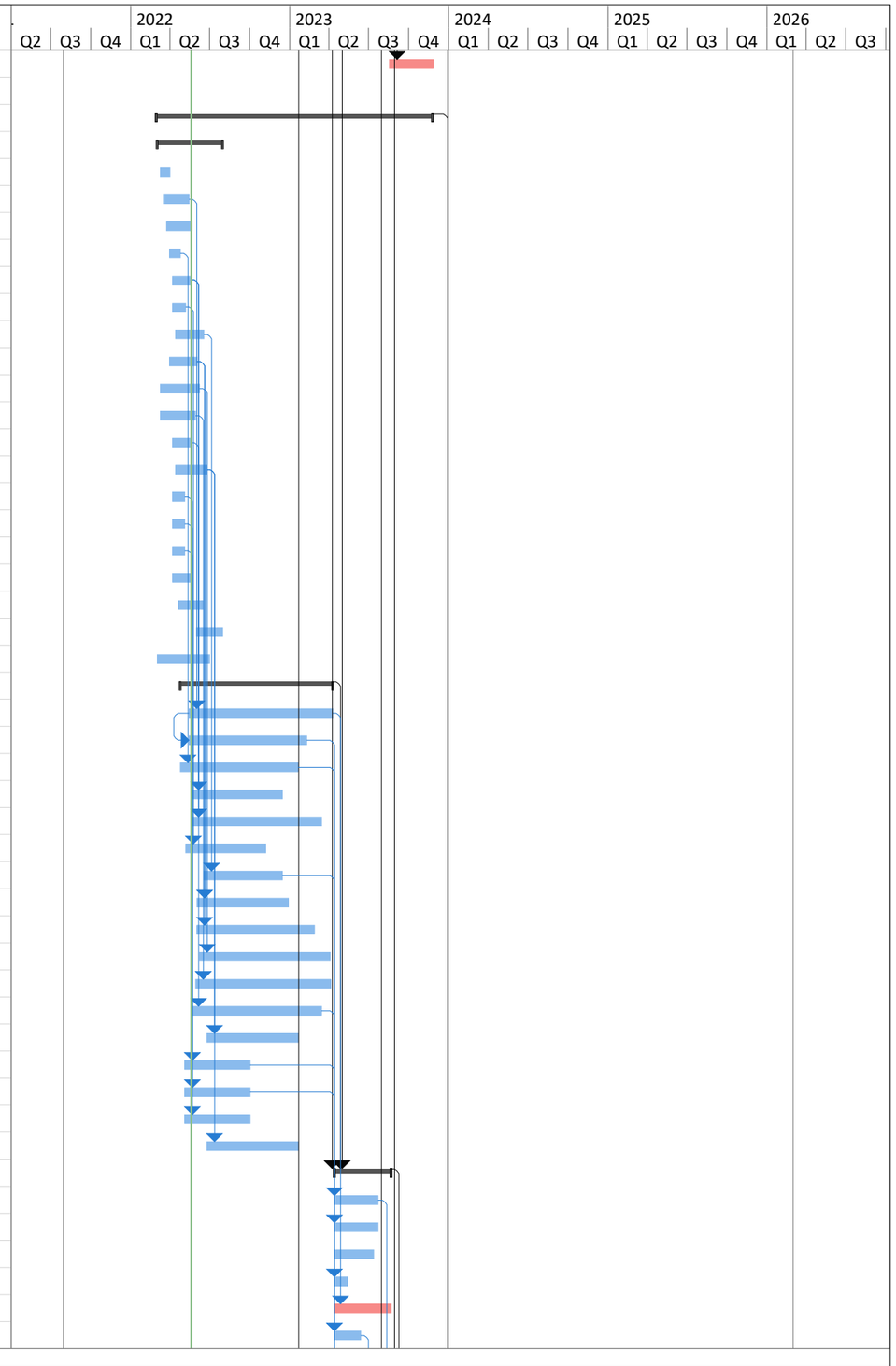
ID	Task Name	Duration	Start	Finish	TRA	Notes
382	Landscape works within SWHWRP	100 days	Aug 18 '23	Nov 25 '23		
383						
384	**E&M Works of SWHWRP**	**634 days**	**Mar 1 '22**	**Nov 24 '23**		
385	**Design and Submission Stage**	**150 days**	**Mar 3 '22**	**Jul 30 '22**		
386	Submission and acceptance of Surge Analysis Report	22 days	Mar 10 '22	Mar 31 '22		
387	Submission and acceptance of Reclaimed Water Main Pumps	59 days	Mar 17 '22	May 14 '22		
388	Submission and acceptance of Surge Vessels and Air Compressors	59 days	Mar 24 '22	May 21 '22		
389	Submission and acceptance of Penstock & Stoplog	25 days	Mar 31 '22	Apr 24 '22		
390	Submission and acceptance of Chemical Dosing System & Static In-line Mixer	42 days	Apr 7 '22	May 18 '22		
391	Submission and acceptance of Air Blower and Air Diffuser	30 days	Apr 7 '22	May 6 '22		
392	Submission and acceptance of Lifting Appliances	65 days	Apr 14 '22	Jun 17 '22		
393	Submission and acceptance of Minor Mechanical Equipment	63 days	Mar 31 '22	Jun 1 '22		
394	Submission and acceptance of LV switchboard	90 days	Mar 10 '22	Jun 7 '22		
395	Submission and acceptance of DCS	81 days	Mar 10 '22	May 29 '22		
396	Submission and acceptance of Instrumenation & Water Monitoring Equipment	42 days	Apr 7 '22	May 18 '22		
397	Submission and acceptance of Misc. Electrical Items	72 days	Apr 14 '22	Jun 24 '22		
398	Submission and acceptance of Fire Services Equipment	28 days	Apr 7 '22	May 4 '22		
399	Submission and acceptance of MVAC Equipment	28 days	Apr 7 '22	May 4 '22		
400	Submission and acceptance of Plumbing & Drainage Equipment	28 days	Apr 7 '22	May 4 '22		
401	Submission and acceptance of General Arrangement Drawing	42 days	Apr 7 '22	May 18 '22		
402	Submission and acceptance of Civil Requirement Drawing	56 days	Apr 21 '22	Jun 15 '22		
403	Submission and acceptance of method statement for E&M installation works	60 days	Jun 1 '22	Jul 30 '22		
404	CSD, CBWD coordination	120 days	Mar 3 '22	Jun 30 '22		
405	**Procurement and Delivery of Equipment**	**350 days**	**Apr 25 '22**	**Apr 9 '23**		
406	Reclaimed Water Main Pumps (6 nos.)	330 days	May 15 '22	Apr 9 '23		
407	Surge Vessels and Air Compressors	270 days	May 15 '22	Feb 8 '23		
408	Penstock & Stoplog	270 days	Apr 25 '22	Jan 19 '23		
409	Chemical Dosing System	210 days	May 19 '22	Dec 14 '22		
410	Static In-line Mixer	300 days	May 19 '22	Mar 14 '23		
411	Air Blower and Air Diffuser	184 days	May 7 '22	Nov 6 '22		
412	Lifting Appliances	180 days	Jun 18 '22	Dec 14 '22		
413	Sump Pumps	210 days	Jun 2 '22	Dec 28 '22		
414	Pipework and Valves	270 days	Jun 2 '22	Feb 26 '23		
415	LV switchboard	300 days	Jun 8 '22	Apr 3 '23		
416	DCS	310 days	May 30 '22	Apr 4 '23		
417	Instrumenation and Water Monitoring Equipment	300 days	May 19 '22	Mar 14 '23		
418	Misc. Electrical Items (PV Panel, Earthing & Cables, etc)	210 days	Jun 25 '22	Jan 20 '23		
419	Fire Services Equipment	150 days	May 5 '22	Oct 1 '22		
420	MVAC Equipment	150 days	May 5 '22	Oct 1 '22		
421	Plumbing & Drainage Equipment	150 days	May 5 '22	Oct 1 '22		
422	Misc. Electrical Items (Cables, Cable Containment, Lightings)	210 days	Jun 25 '22	Jan 20 '23		
423	**Installation Works**	**130 days**	**Apr 14 '23**	**Aug 21 '23**		
424	Installation FS Equipment	100 days	Apr 14 '23	Jul 22 '23		
425	Installation of MVAC Equipment	100 days	Apr 14 '23	Jul 22 '23		
426	Installation of BS Equipment	90 days	Apr 14 '23	Jul 12 '23		
427	Installation of Lifting Appliance (12 nos.)	30 days	Apr 14 '23	May 13 '23		
428	Installation of Reclaimed Water Pumps (6 Nos.)	130 days	Apr 14 '23	Aug 21 '23		
429	Installation of penstocks (10 nos.) & Stoplogs (2 nos.)	60 days	Apr 14 '23	Jun 12 '23		



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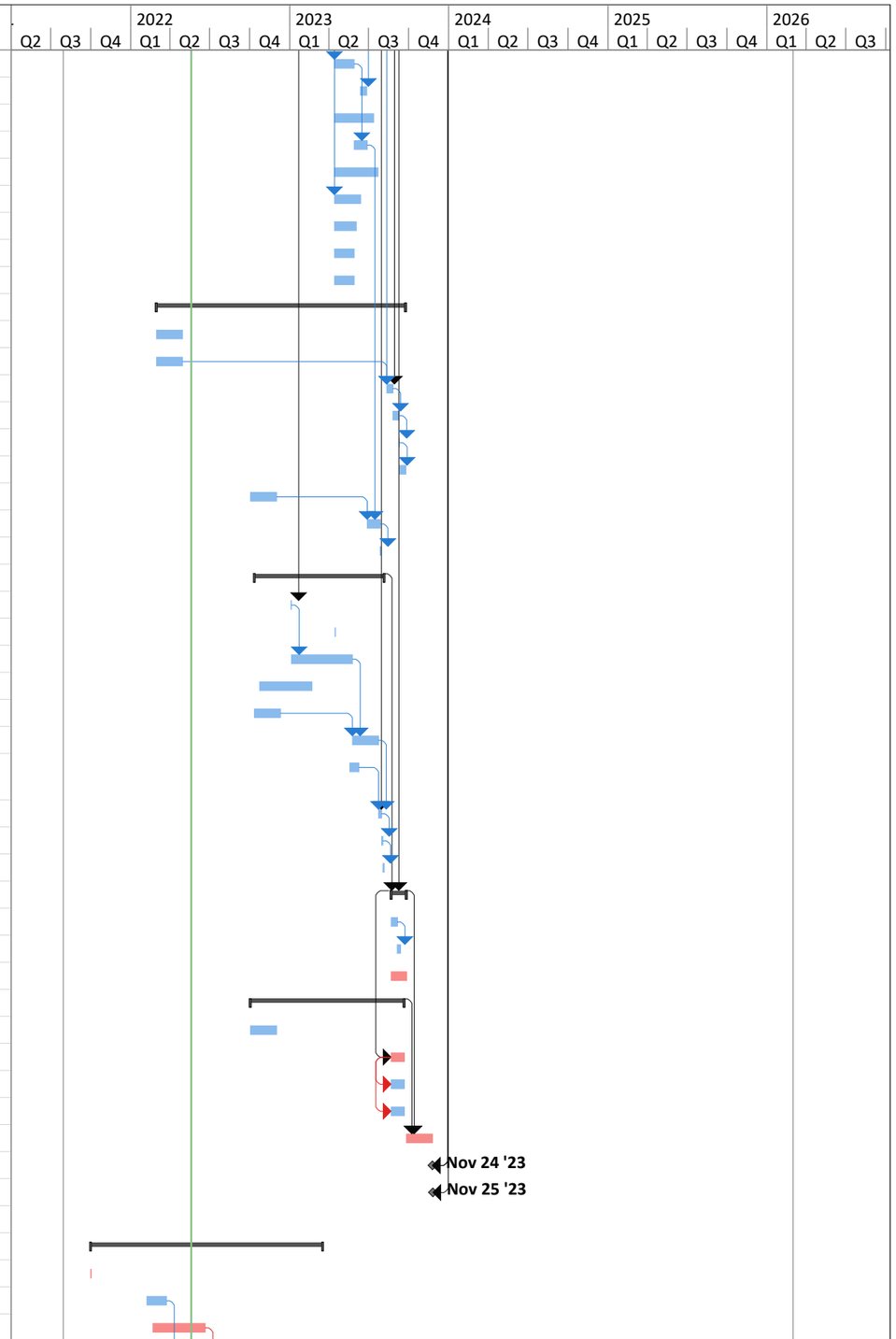
430	Installation of Surge Vessel (4 Nos.) & Air Compressor (4 Nos.)	45 days	Apr 14 '23	May 28 '23		
431	Installation of Air Blower (2 Nos.) & Air Diffuser (1 set)	14 days	Jun 13 '23	Jun 26 '23		
432	Installation of tanks (14 nos.) & Chemical Pumps (12 nos.)	90 days	Apr 14 '23	Jul 12 '23		
433	Installation of Pipeworks (DI, Chemical pipe, Air pipe)	30 days	May 29 '23	Jun 27 '23		
434	Installation of Cabling, MCC & DCS	100 days	Apr 14 '23	Jul 22 '23		
435	Installation of Instrumentation and Monitoring Stations	60 days	Apr 14 '23	Jun 12 '23		
436	Installation of ELV System (CCTV & Access Control)	50 days	Apr 14 '23	Jun 2 '23		
437	Installation of Plumbing & Drainage Equipment	45 days	Apr 14 '23	May 28 '23		
438	Installation of PV Panels	45 days	Apr 14 '23	May 28 '23		
439	**FS / DG Inspection Related Items**	**572 days**	**Mar 1 '22**	**Sep 23 '23**		
440	VAC Desgin Submission to FSD	60 days	Mar 1 '22	Apr 29 '22		
441	FS related statutory submission to FSD	60 days	Mar 1 '22	Apr 29 '22		
442	T&C of FS Related Installation	14 days	Aug 12 '23	Aug 25 '23		
443	Submission of FS 314 & 501	14 days	Aug 26 '23	Sep 8 '23		
444	Target FS Inpsection	1 day	Sep 9 '23	Sep 9 '23		
445	Obtain Form FS172 (Fire Certificate)	14 days	Sep 10 '23	Sep 23 '23		
446	DG Design Submission to FSD	60 days	Oct 3 '22	Dec 1 '22		
447	DG Inspection	30 days	Jun 28 '23	Jul 27 '23		
448	Obtain DG License	1 day	Jul 28 '23	Jul 28 '23		
449	**Power Energization Related Items**	**298 days**	**Oct 12 '22**	**Aug 5 '23**		
450	CLP Room Ready for BS installation (HCF)	1 day	Jan 4 '23	Jan 4 '23		
451	CLP Room Ready for BS installation (ReWPS)	1 day	Apr 15 '23	Apr 15 '23		
452	Installation of BS Equipment (HCF & ReWPS)	140 days	Jan 5 '23	May 24 '23		
453	CLP meter application	120 days	Oct 24 '22	Feb 20 '23		
454	Cable laying by CLP in DSD's EVA	60 days	Oct 12 '22	Dec 10 '22		
455	Lead time for CLP installation works	60 days	May 25 '23	Jul 23 '23		
456	CLP's Inspection for Transformer Room(ReWPS), CLP Room(HCF), draw pit and accsociated cable ducts	21 days	May 19 '23	Jun 8 '23		
457	CLP to install Transformers and Cabling	7 days	Jul 24 '23	Jul 30 '23		
458	Power Energization from CLP Transformer to LVSB	3 days	Jul 31 '23	Aug 2 '23		
459	Power Energization from LVSB to All Equipment	3 days	Aug 3 '23	Aug 5 '23		
460	**Preliminary Test of Equipment**	**35 days**	**Aug 22 '23**	**Sep 25 '23**		
461	Inspection of Equipment/System with SOR	14 days	Aug 22 '23	Sep 4 '23		
462	Trial Run of Equipment/System	7 days	Sep 5 '23	Sep 11 '23		
463	Site Acceptance Test of Equipment/Systems with SOR	35 days	Aug 22 '23	Sep 25 '23		
464	**Submission**	**353 days**	**Oct 3 '22**	**Sep 20 '23**		
465	Submission of Testing Procedures & Commissioning Plan	60 days	Oct 3 '22	Dec 1 '22		
466	Submission of As Fitted Drawings	30 days	Aug 22 '23	Sep 20 '23		
467	Submission of Manual	30 days	Aug 22 '23	Sep 20 '23		
468	Submission of Training Material	30 days	Aug 22 '23	Sep 20 '23		
469	**System Commissioning Test**	**60 days**	**Sep 26 '23**	**Nov 24 '23**		
470	**Planned completion for section 1**	**0 days**	**Nov 24 '23**	**Nov 24 '23**		
471	**Planned completion for section 2**	**0 days**	**Nov 25 '23**	**Nov 25 '23**		
472						
473	**Section 3 - Modification of Table Hill Reclaimed Water Service Reservoir**	**533 days**	**Oct 1 '21**	**Mar 17 '23**		
474	Access Date (part 2 of the Site)	1 day	Oct 1 '21	Oct 1 '21		
475	Initial survey and condition survey	45 days	Feb 7 '22	Mar 23 '22		
476	Design submission and acceptance of the supplementary dosing and dyeing system (E&M)	120 days	Feb 21 '22	Jun 20 '22		



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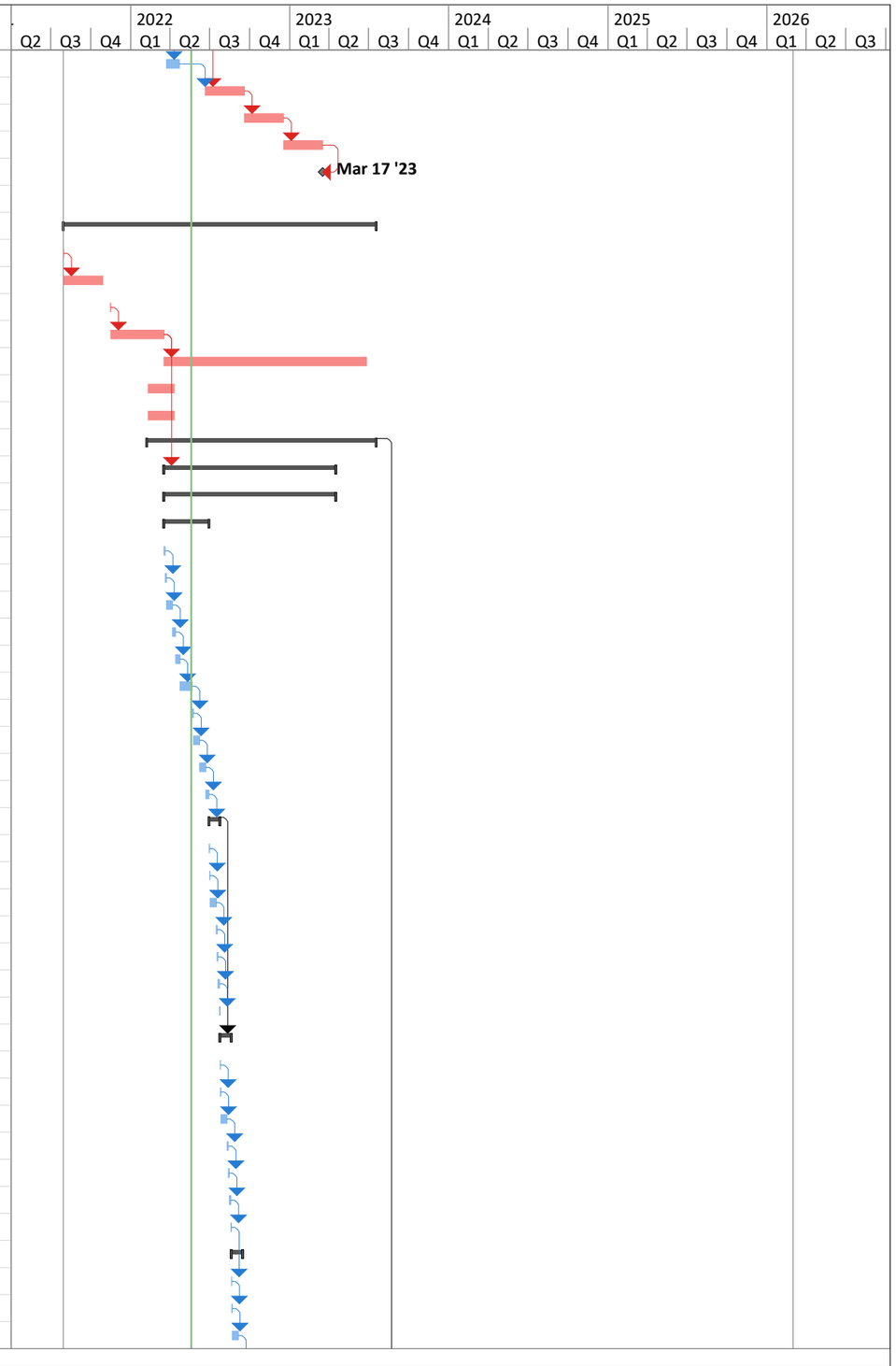
477	Submission and acceptance of method statement for supplementary dosing and dyeing system	30 days	Mar 24 '22	Apr 22 '22		
478	Construction of civil works	90 days	Jun 21 '22	Sep 18 '22		
479	Installation of supplementary dosing and dyeing system	90 days	Sep 19 '22	Dec 17 '22		
480	T&C of E&M equipment	90 days	Dec 18 '22	Mar 17 '23		
481	Planned completion for section 3	0 days	Mar 17 '23	Mar 17 '23		
482						
483	**Section 4 - Water main laying works in part 3 of the Site**	**719 days**	**Jul 30 '21**	**Jul 18 '23**		
484	Access Date (part 3 of the Site)	1 day	Jul 30 '21	Jul 30 '21		
485	Initial survey (utility survey, condition survey, initial photo)	90 days	Jul 31 '21	Oct 28 '21		
486	1st TMLG meeting	1 day	Nov 15 '21	Nov 15 '21		
487	Application and approval of XP and TTA, including local consultation	122 days	Nov 16 '21	Mar 17 '22		
488	Implementation of TTA by stages	465 days	Mar 18 '22	Jun 25 '23		
489	Procurement and Delivery of pipes, fittings and related materials	60 days	Feb 10 '22	Apr 10 '22		
490	Submission and acceptance of method statement and material	60 days	Feb 10 '22	Apr 10 '22		
491	**Mainlaying by open trench method (RW03 & RW43)**	**527 days**	**Feb 7 '22**	**Jul 18 '23**		
492	**RW03 : DN600 DI pipe - 1092m**	**395 days**	**Mar 18 '22**	**Apr 16 '23**		
493	**Team A : CH000 - CH540**	**395 days**	**Mar 18 '22**	**Apr 16 '23**		
494	CH440 - CH540 (100m)	104 days	Mar 18 '22	Jun 29 '22		
495	TTA establishment	3 days	Mar 18 '22	Mar 20 '22		
496	Hard material excavation and disposal	3 days	Mar 21 '22	Mar 23 '22		
497	Soil excavation , laying sheetpile and disposal	14 days	Mar 24 '22	Apr 6 '22		
498	Obstruction of unchart 900mm pipe	7 days	Apr 7 '22	Apr 13 '22		
499	Pending for setting out of DSD	10 days	Apr 14 '22	Apr 23 '22		
500	Amendment of ELS	28 days	Apr 24 '22	May 21 '22		
501	Treatment of bedding	3 days	May 22 '22	May 24 '22		
502	Pipe laying D.I. & PE	14 days	May 25 '22	Jun 7 '22		
503	Backfilling sand/aggregate, concurrent bend block	14 days	Jun 8 '22	Jun 21 '22		
504	Reinstatement	8 days	Jun 22 '22	Jun 29 '22		
505	CH410 - CH440 (30m)	25 days	Jun 30 '22	Jul 24 '22		
506	TTA establishment	1 day	Jun 30 '22	Jun 30 '22		
507	Hard material excavation and disposal	1 day	Jul 1 '22	Jul 1 '22		
508	Soil excavation , laying sheetpile and disposal	14 days	Jul 2 '22	Jul 15 '22		
509	Treatment of bedding	2 days	Jul 16 '22	Jul 17 '22		
510	Pipe laying D.I.	2 days	Jul 18 '22	Jul 19 '22		
511	Backfilling sand/aggregate, concurrent bend block	4 days	Jul 20 '22	Jul 23 '22		
512	Reinstatement	1 day	Jul 24 '22	Jul 24 '22		
513	CH380 - CH410 (30m)	26 days	Jul 25 '22	Aug 19 '22		
514	TTA establishment	1 day	Jul 25 '22	Jul 25 '22		
515	Hard material excavation and disposal	1 day	Jul 26 '22	Jul 26 '22		
516	Soil excavation , laying sheetpile and disposal	14 days	Jul 27 '22	Aug 9 '22		
517	Treatment of bedding	3 days	Aug 10 '22	Aug 12 '22		
518	Pipe laying D.I.	2 days	Aug 13 '22	Aug 14 '22		
519	Backfilling sand/aggregate, concurrent bend block	4 days	Aug 15 '22	Aug 18 '22		
520	Reinstatement	1 day	Aug 19 '22	Aug 19 '22		
521	CH350 - CH380 (30m)	26 days	Aug 20 '22	Sep 14 '22		
522	TTA establishment	1 day	Aug 20 '22	Aug 20 '22		
523	Hard material excavation and disposal	1 day	Aug 21 '22	Aug 21 '22		
524	Soil excavation , laying sheetpile and disposal	14 days	Aug 22 '22	Sep 4 '22		



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Milestone	Inactive Summary	Start-only	Critical	
Summary	Manual Task	Finish-only	Critical Split	
Project Summary	Duration-only	External Tasks	Progress	

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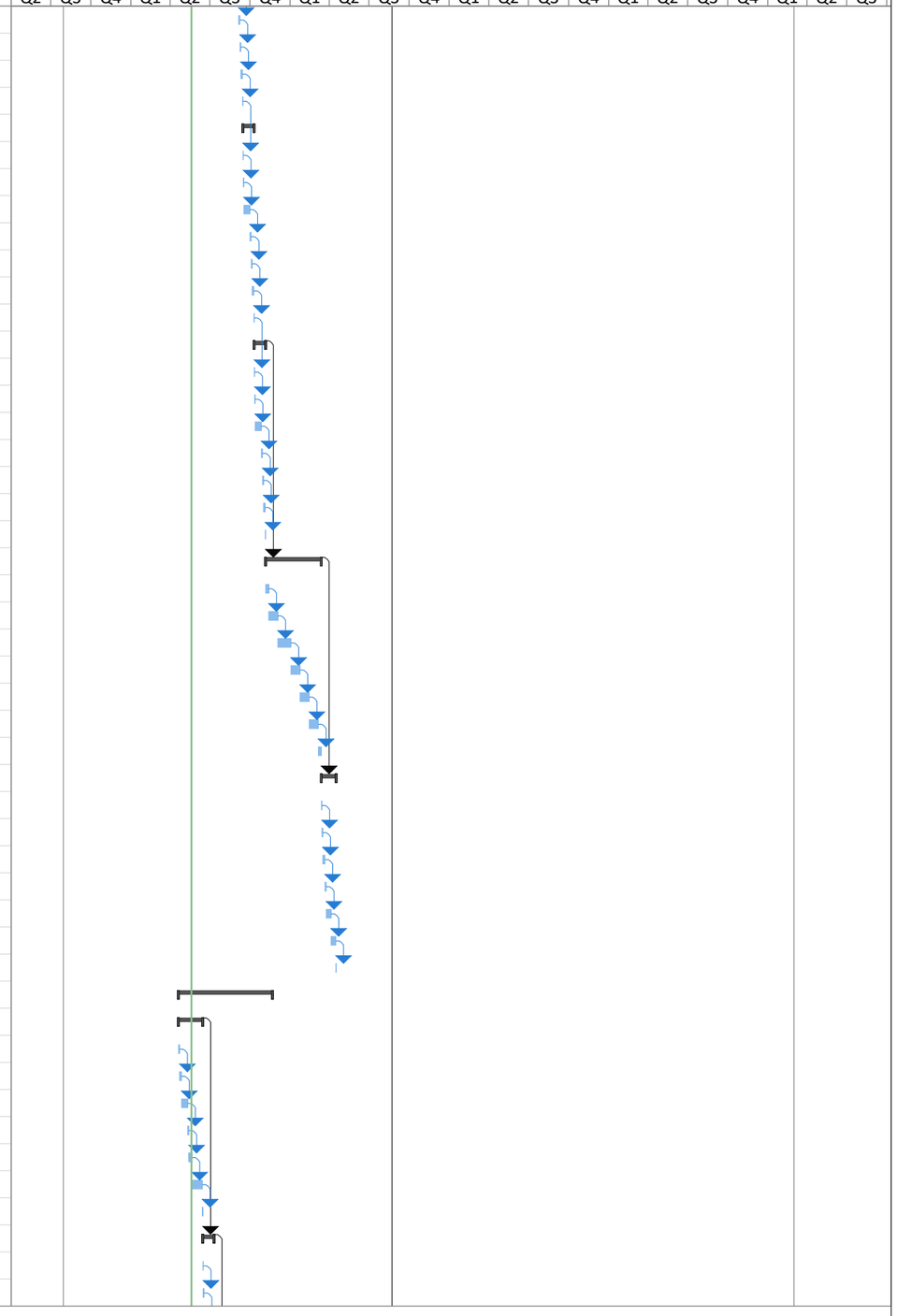
525	Treatment of bedding	3 days	Sep 5 '22	Sep 7 '22		
526	Pipe laying D.I.	2 days	Sep 8 '22	Sep 9 '22		
527	Backfilling sand/aggregate, concurrent bend block	4 days	Sep 10 '22	Sep 13 '22		
528	Reinstatement	1 day	Sep 14 '22	Sep 14 '22		
529	CH320 - CH350 (30m)	26 days	Sep 15 '22	Oct 10 '22		
530	TTA establishment	1 day	Sep 15 '22	Sep 15 '22		
531	Hard material excavation and disposal	1 day	Sep 16 '22	Sep 16 '22		
532	Soil excavation , laying sheetpile and disposal	14 days	Sep 17 '22	Sep 30 '22		
533	Treatment of bedding	3 days	Oct 1 '22	Oct 3 '22		
534	Pipe laying D.I.	2 days	Oct 4 '22	Oct 5 '22		
535	Backfilling sand/aggregate, concurrent bend block	4 days	Oct 6 '22	Oct 9 '22		
536	Reinstatement	1 day	Oct 10 '22	Oct 10 '22		
537	CH290 - CH320 (30m)	26 days	Oct 11 '22	Nov 5 '22		
538	TTA establishment	1 day	Oct 11 '22	Oct 11 '22		
539	Hard material excavation and disposal	1 day	Oct 12 '22	Oct 12 '22		
540	Soil excavation , laying sheetpile and disposal	14 days	Oct 13 '22	Oct 26 '22		
541	Treatment of bedding	3 days	Oct 27 '22	Oct 29 '22		
542	Pipe laying D.I.	2 days	Oct 30 '22	Oct 31 '22		
543	Backfilling sand/aggregate, concurrent bend block	4 days	Nov 1 '22	Nov 4 '22		
544	Reinstatement	1 day	Nov 5 '22	Nov 5 '22		
545	CH100 - CH290 (190m)	128 days	Nov 6 '22	Mar 13 '23		
546	TTA establishment	7 days	Nov 6 '22	Nov 12 '22		
547	Hard material excavation and disposal	21 days	Nov 13 '22	Dec 3 '22		
548	Soil excavation , laying sheetpile and disposal	30 days	Dec 4 '22	Jan 2 '23		
549	Treatment of bedding	21 days	Jan 3 '23	Jan 23 '23		
550	Pipe laying D.I.	21 days	Jan 24 '23	Feb 13 '23		
551	Backfilling sand/aggregate, concurrent bend block	21 days	Feb 14 '23	Mar 6 '23		
552	Reinstatement	7 days	Mar 7 '23	Mar 13 '23		
553	CH000 - CH100 (100m)	34 days	Mar 14 '23	Apr 16 '23		
554	TTA establishment	1 day	Mar 14 '23	Mar 14 '23		
555	Hard material excavation and disposal	2 days	Mar 15 '23	Mar 16 '23		
556	Soil excavation , laying sheetpile and disposal	5 days	Mar 17 '23	Mar 21 '23		
557	Treatment of bedding	3 days	Mar 22 '23	Mar 24 '23		
558	Pipe laying D.I.	11 days	Mar 25 '23	Apr 4 '23		
559	Backfilling sand/aggregate, concurrent bend block	11 days	Apr 5 '23	Apr 15 '23		
560	Reinstatement	1 day	Apr 16 '23	Apr 16 '23		
561	**Team B : CH540 - CH1090 (550m)**	**216 days**	**Apr 20 '22**	**Nov 21 '22**		
562	CH980 - CH1010 (30m)	56 days	Apr 20 '22	Jun 14 '22		
563	TTA establishment	3 days	Apr 20 '22	Apr 22 '22		
564	Hard material excavation and disposal	4 days	Apr 23 '22	Apr 26 '22		
565	Soil excavation , laying sheetpile and disposal	14 days	Apr 27 '22	May 10 '22		
566	Treatment of bedding	3 days	May 11 '22	May 13 '22		
567	Pipe laying D.I.	7 days	May 14 '22	May 20 '22		
568	Backfilling sand/aggregate, concurrent bend block	24 days	May 21 '22	Jun 13 '22		
569	Reinstatement	1 day	Jun 14 '22	Jun 14 '22		
570	CH910 - CH980 (70m)	26 days	Jun 15 '22	Jul 10 '22		
571	TTA establishment	1 day	Jun 15 '22	Jun 15 '22		
572	Hard material excavation and disposal	2 days	Jun 16 '22	Jun 17 '22		



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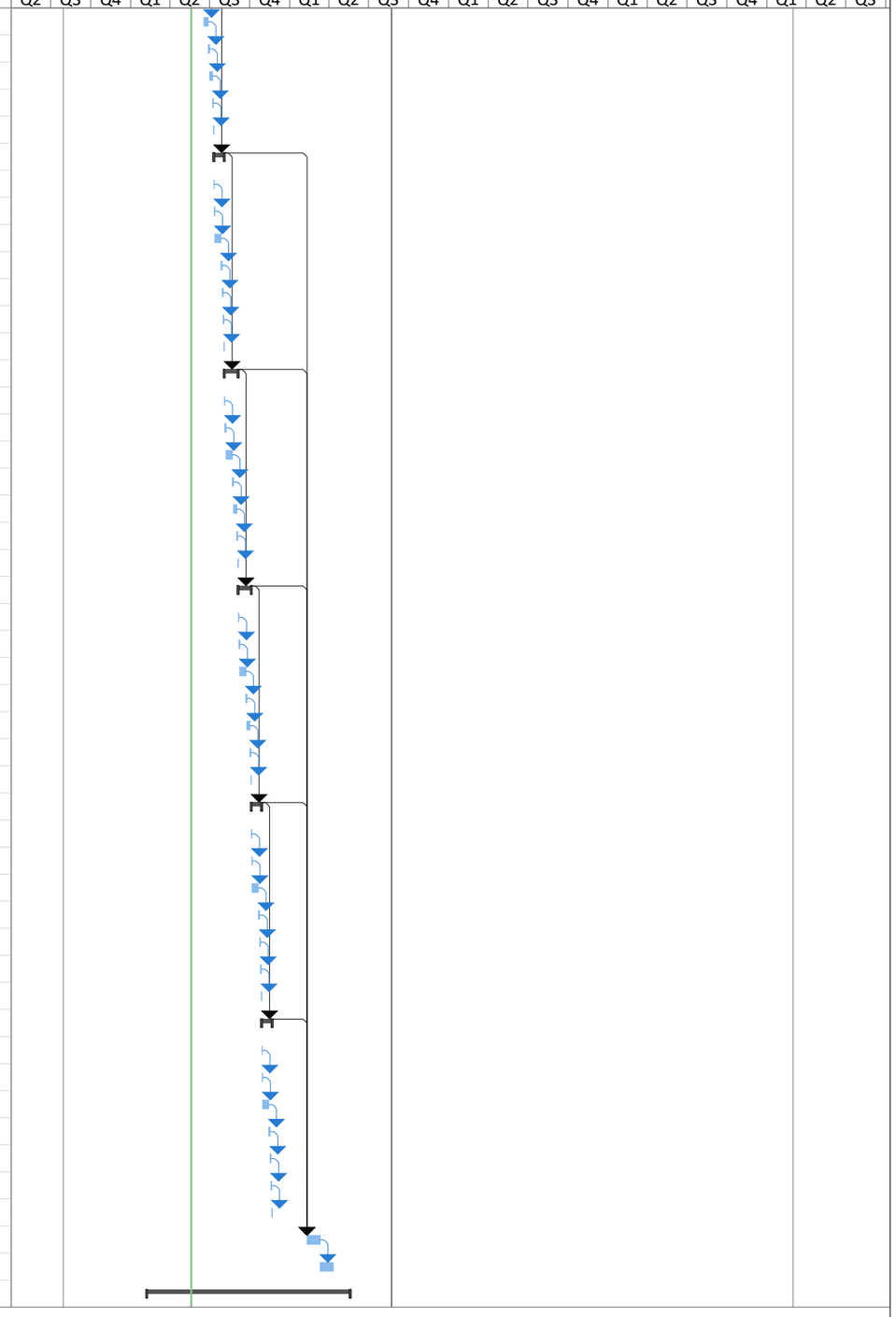
573	Soil excavation , laying sheetpile and disposal	10 days	Jun 18 '22	Jun 27 '22		
574	Treatment of bedding	3 days	Jun 28 '22	Jun 30 '22		
575	Pipe laying D.I.	7 days	Jul 1 '22	Jul 7 '22		
576	Backfilling sand/aggregate, concurrent bend block	2 days	Jul 8 '22	Jul 9 '22		
577	Reinstatement	1 day	Jul 10 '22	Jul 10 '22		
578	CH840 - CH910 (70m)	24 days	Jul 11 '22	Aug 3 '22		
579	TTA establishment	1 day	Jul 11 '22	Jul 11 '22		
580	Hard material excavation and disposal	1 day	Jul 12 '22	Jul 12 '22		
581	Soil excavation , laying sheetpile and disposal	14 days	Jul 13 '22	Jul 26 '22		
582	Treatment of bedding	3 days	Jul 27 '22	Jul 29 '22		
583	Pipe laying D.I.	2 days	Jul 30 '22	Jul 31 '22		
584	Backfilling sand/aggregate, concurrent bend block	2 days	Aug 1 '22	Aug 2 '22		
585	Reinstatement	1 day	Aug 3 '22	Aug 3 '22		
586	CH740 - CH840 (100m)	32 days	Aug 4 '22	Sep 4 '22		
587	TTA establishment	1 day	Aug 4 '22	Aug 4 '22		
588	Hard material excavation and disposal	3 days	Aug 5 '22	Aug 7 '22		
589	Soil excavation , laying sheetpile and disposal	14 days	Aug 8 '22	Aug 21 '22		
590	Treatment of bedding	3 days	Aug 22 '22	Aug 24 '22		
591	Pipe laying D.I.	7 days	Aug 25 '22	Aug 31 '22		
592	Backfilling sand/aggregate, concurrent bend block	3 days	Sep 1 '22	Sep 3 '22		
593	Reinstatement	1 day	Sep 4 '22	Sep 4 '22		
594	CH640 - CH740 (100m)	30 days	Sep 5 '22	Oct 4 '22		
595	TTA establishment	1 day	Sep 5 '22	Sep 5 '22		
596	Hard material excavation and disposal	2 days	Sep 6 '22	Sep 7 '22		
597	Soil excavation , laying sheetpile and disposal	14 days	Sep 8 '22	Sep 21 '22		
598	Treatment of bedding	3 days	Sep 22 '22	Sep 24 '22		
599	Pipe laying D.I.	7 days	Sep 25 '22	Oct 1 '22		
600	Backfilling sand/aggregate, concurrent bend block	2 days	Oct 2 '22	Oct 3 '22		
601	Reinstatement	1 day	Oct 4 '22	Oct 4 '22		
602	CH540 - CH640 (100m)	24 days	Oct 5 '22	Oct 28 '22		
603	TTA establishment	1 day	Oct 5 '22	Oct 5 '22		
604	Hard material excavation and disposal	1 day	Oct 6 '22	Oct 6 '22		
605	Soil excavation , laying sheetpile and disposal	14 days	Oct 7 '22	Oct 20 '22		
606	Treatment of bedding	3 days	Oct 21 '22	Oct 23 '22		
607	Pipe laying D.I.	2 days	Oct 24 '22	Oct 25 '22		
608	Backfilling sand/aggregate, concurrent bend block	2 days	Oct 26 '22	Oct 27 '22		
609	Reinstatement	1 day	Oct 28 '22	Oct 28 '22		
610	CH1010 - CH1090 (80m)	24 days	Oct 29 '22	Nov 21 '22		
611	TTA establishment	1 day	Oct 29 '22	Oct 29 '22		
612	Hard material excavation and disposal	1 day	Oct 30 '22	Oct 30 '22		
613	Soil excavation , laying sheetpile and disposal	14 days	Oct 31 '22	Nov 13 '22		
614	Treatment of bedding	3 days	Nov 14 '22	Nov 16 '22		
615	Pipe laying D.I.	2 days	Nov 17 '22	Nov 18 '22		
616	Backfilling sand/aggregate, concurrent bend block	2 days	Nov 19 '22	Nov 20 '22		
617	Reinstatement	1 day	Nov 21 '22	Nov 21 '22		
618	Overall pressure test	30 days	Feb 10 '23	Mar 11 '23		
619	Pipe connection and completion	30 days	Mar 12 '23	Apr 10 '23		
620	**RW43 : DN150 DI pipe - 1144m**	**467 days**	**Feb 7 '22**	**May 19 '23**		



Project: 3WSD20 Programme
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Task
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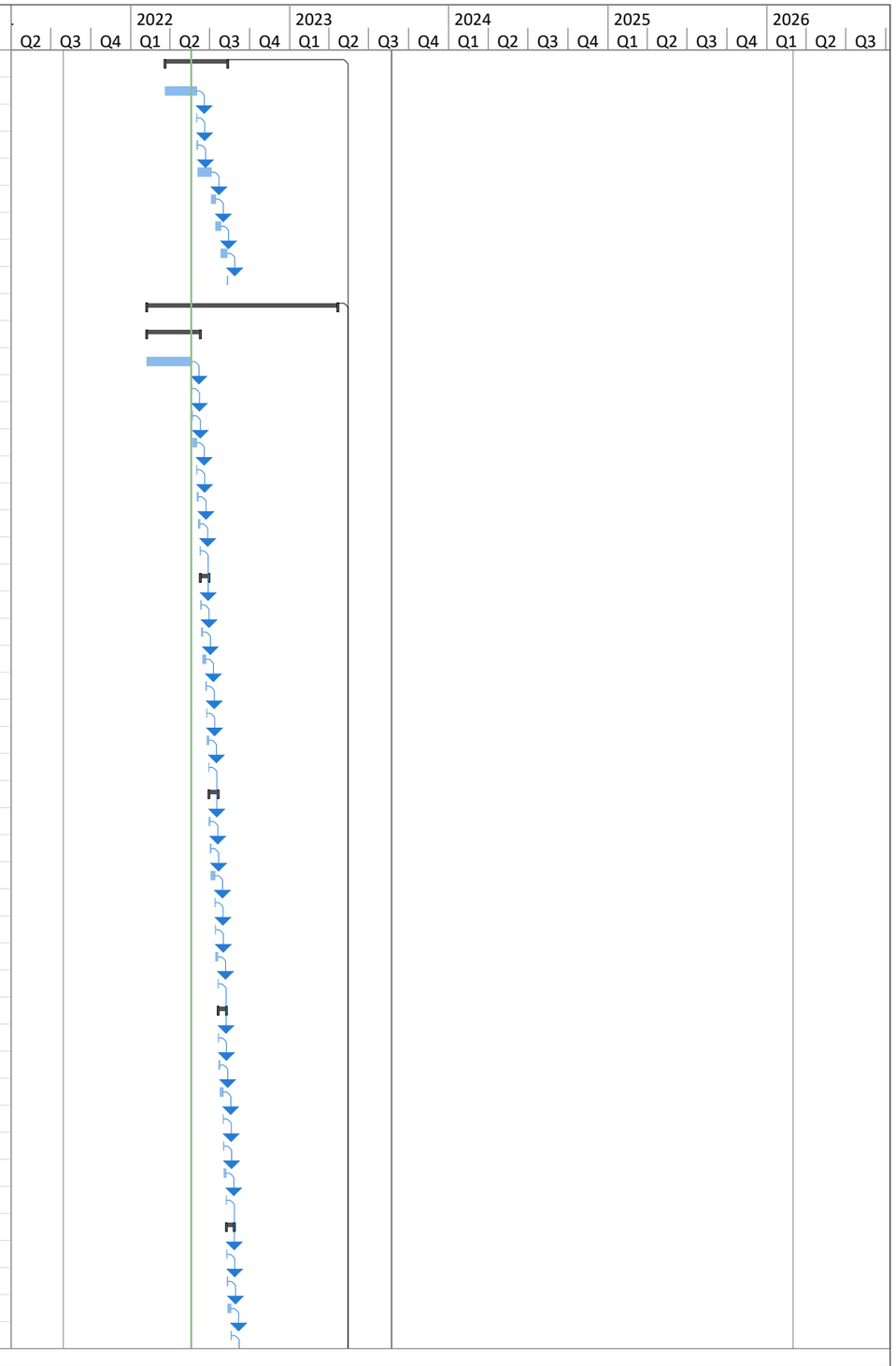
ID	Task Name	Duration	Start	Finish	TRA	Notes
621	**Team A CH0 to CH150 (150m) - with the DSD Project DC/2018/06**	**144 days**	**Mar 21 '22**	**Aug 11 '22**		
622	Pending for release of EVA from DSD Contract	72 days	Mar 21 '22	May 31 '22		
623	TTA establishment	1 day	Jun 1 '22	Jun 1 '22		
624	Hard material excavation and disposal	2 days	Jun 2 '22	Jun 3 '22		
625	Soil excavation , laying sheetpile and disposal	31 days	Jun 4 '22	Jul 4 '22		
626	Treatment of bedding	10 days	Jul 5 '22	Jul 14 '22		
627	Pipe laying D.I.	12 days	Jul 15 '22	Jul 26 '22		
628	Backfilling gerneral fill and compaction	14 days	Jul 27 '22	Aug 9 '22		
629	Reinstatement	2 days	Aug 10 '22	Aug 11 '22		
630	**Team B CH150 to CH710 (560m) - Chu Wan Street , trench depth 1.5m, trench width 0.6m**	**439 days**	**Feb 7 '22**	**Apr 21 '23**		
631	Team B CH180 to CH210 (30m)	123 days	Feb 7 '22	Jun 9 '22		
632	Pending for release of TTA from other Contractor	102 days	Feb 7 '22	May 19 '22		
633	TTA establishment	1 day	May 20 '22	May 20 '22		
634	Hard material excavation and disposal	2 days	May 21 '22	May 22 '22		
635	Soil excavation , laying sheetpile and disposal	9 days	May 23 '22	May 31 '22		
636	Treatment of bedding	1 day	Jun 1 '22	Jun 1 '22		
637	Pipe laying D.I.	3 days	Jun 2 '22	Jun 4 '22		
638	Backfilling general fill and compaction	4 days	Jun 5 '22	Jun 8 '22		
639	Reinstatement	1 day	Jun 9 '22	Jun 9 '22		
640	Team B CH210 to CH240 (30m)	20 days	Jun 10 '22	Jun 29 '22		
641	TTA establishment	2 days	Jun 10 '22	Jun 11 '22		
642	Hard material excavation and disposal	3 days	Jun 12 '22	Jun 14 '22		
643	Soil excavation , laying sheetpile and disposal	7 days	Jun 15 '22	Jun 21 '22		
644	Treatment of bedding	2 days	Jun 22 '22	Jun 23 '22		
645	Pipe laying D.I.	1 day	Jun 24 '22	Jun 24 '22		
646	Backfilling general fill and compaction	4 days	Jun 25 '22	Jun 28 '22		
647	Reinstatement	1 day	Jun 29 '22	Jun 29 '22		
648	Team B CH270 to CH300 (30m)	21 days	Jun 30 '22	Jul 20 '22		
649	TTA establishment	2 days	Jun 30 '22	Jul 1 '22		
650	Hard material excavation and disposal	2 days	Jul 2 '22	Jul 3 '22		
651	Soil excavation , laying sheetpile and disposal	9 days	Jul 4 '22	Jul 12 '22		
652	Treatment of bedding	1 day	Jul 13 '22	Jul 13 '22		
653	Pipe laying D.I.	1 day	Jul 14 '22	Jul 14 '22		
654	Backfilling general fill and compaction	5 days	Jul 15 '22	Jul 19 '22		
655	Reinstatement	1 day	Jul 20 '22	Jul 20 '22		
656	Team B CH300 to CH300 (30m)	19 days	Jul 21 '22	Aug 8 '22		
657	TTA establishment	1 day	Jul 21 '22	Jul 21 '22		
658	Hard material excavation and disposal	3 days	Jul 22 '22	Jul 24 '22		
659	Soil excavation , laying sheetpile and disposal	7 days	Jul 25 '22	Jul 31 '22		
660	Treatment of bedding	1 day	Aug 1 '22	Aug 1 '22		
661	Pipe laying D.I.	1 day	Aug 2 '22	Aug 2 '22		
662	Backfilling general fill and compaction	5 days	Aug 3 '22	Aug 7 '22		
663	Reinstatement	1 day	Aug 8 '22	Aug 8 '22		
664	Team B CH330 to CH360 (30m)	18 days	Aug 9 '22	Aug 26 '22		
665	TTA establishment	1 day	Aug 9 '22	Aug 9 '22		
666	Hard material excavation and disposal	2 days	Aug 10 '22	Aug 11 '22		
667	Soil excavation , laying sheetpile and disposal	7 days	Aug 12 '22	Aug 18 '22		
668	Treatment of bedding	1 day	Aug 19 '22	Aug 19 '22		



Project: 3WSD20 Programme
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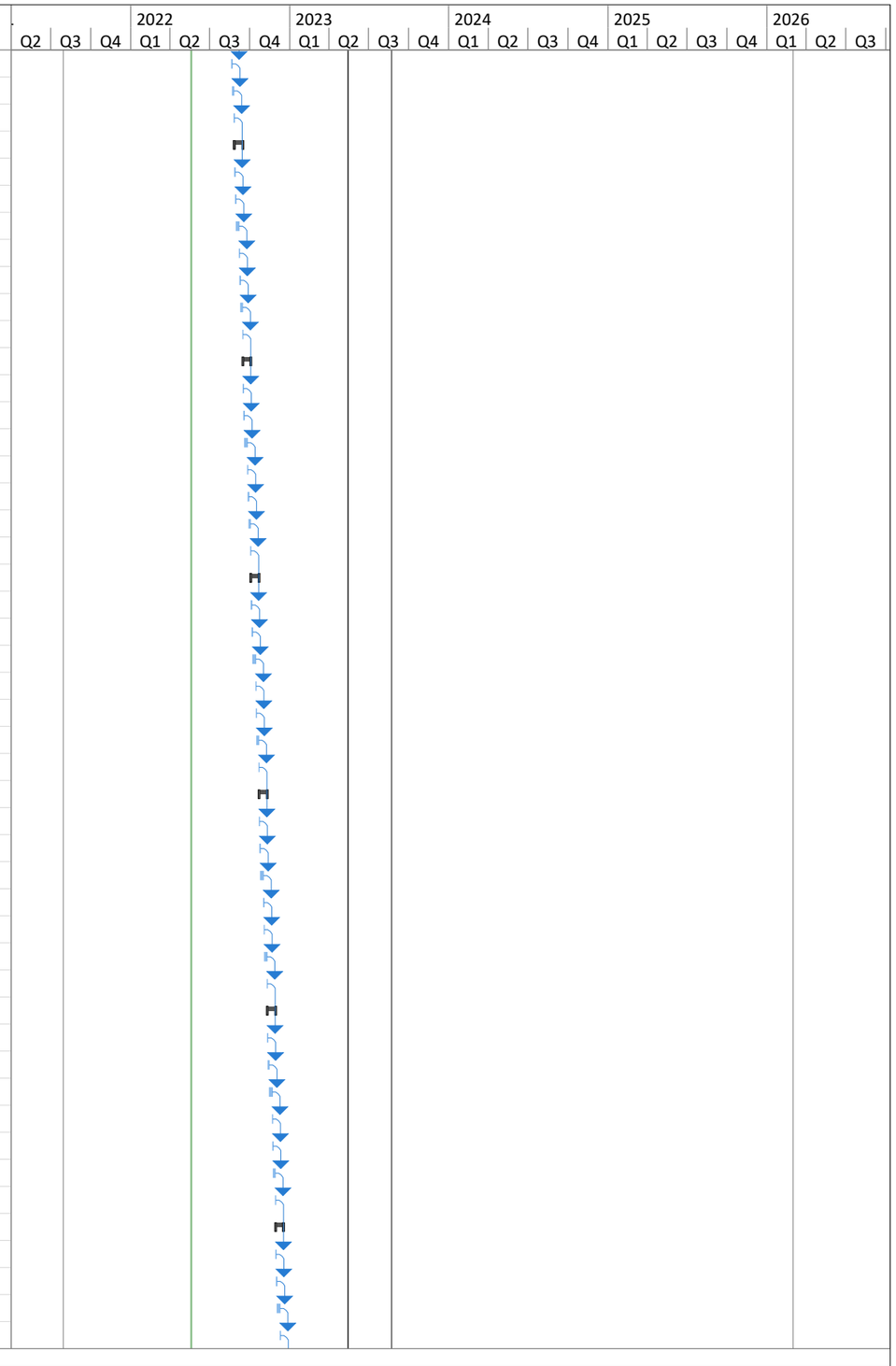
ID	Task Name	Duration	Start	Finish	TRA	Notes
669	Pipe laying D.I.	2 days	Aug 20 '22	Aug 21 '22		
670	Backfilling general fill and compaction	4 days	Aug 22 '22	Aug 25 '22		
671	Reinstatement	1 day	Aug 26 '22	Aug 26 '22		
672	Team B CH360 to CH390 (30m)	20 days	Aug 27 '22	Sep 15 '22		
673	TTA establishment	2 days	Aug 27 '22	Aug 28 '22		
674	Hard material excavation and disposal	2 days	Aug 29 '22	Aug 30 '22		
675	Soil excavation , laying sheetpile and disposal	7 days	Aug 31 '22	Sep 6 '22		
676	Treatment of bedding	1 day	Sep 7 '22	Sep 7 '22		
677	Pipe laying D.I.	2 days	Sep 8 '22	Sep 9 '22		
678	Backfilling general fill and compaction	5 days	Sep 10 '22	Sep 14 '22		
679	Reinstatement	1 day	Sep 15 '22	Sep 15 '22		
680	Team B CH390 to CH420 (30m) (Shek Shueng River Bridge)	18 days	Sep 16 '22	Oct 3 '22		
681	TTA establishment	1 day	Sep 16 '22	Sep 16 '22		
682	Hard material excavation and disposal	2 days	Sep 17 '22	Sep 18 '22		
683	Soil excavation , laying sheetpile and disposal	7 days	Sep 19 '22	Sep 25 '22		
684	Treatment of bedding	1 day	Sep 26 '22	Sep 26 '22		
685	Pipe laying D.I.	2 days	Sep 27 '22	Sep 28 '22		
686	Backfilling general fill and compaction	4 days	Sep 29 '22	Oct 2 '22		
687	Reinstatement	1 day	Oct 3 '22	Oct 3 '22		
688	Team B CH420 to CH450 (30m) (Shek Shueng River Bridge)	19 days	Oct 4 '22	Oct 22 '22		
689	TTA establishment	2 days	Oct 4 '22	Oct 5 '22		
690	Hard material excavation and disposal	2 days	Oct 6 '22	Oct 7 '22		
691	Soil excavation , laying sheetpile and disposal	7 days	Oct 8 '22	Oct 14 '22		
692	Treatment of bedding	1 day	Oct 15 '22	Oct 15 '22		
693	Pipe laying D.I.	1 day	Oct 16 '22	Oct 16 '22		
694	Backfilling general fill and compaction	5 days	Oct 17 '22	Oct 21 '22		
695	Reinstatement	1 day	Oct 22 '22	Oct 22 '22		
696	Team B CH450 to CH480 (30m)	19 days	Oct 23 '22	Nov 10 '22		
697	TTA establishment	1 day	Oct 23 '22	Oct 23 '22		
698	Hard material excavation and disposal	2 days	Oct 24 '22	Oct 25 '22		
699	Soil excavation , laying sheetpile and disposal	7 days	Oct 26 '22	Nov 1 '22		
700	Treatment of bedding	1 day	Nov 2 '22	Nov 2 '22		
701	Pipe laying D.I.	1 day	Nov 3 '22	Nov 3 '22		
702	Backfilling general fill and compaction	6 days	Nov 4 '22	Nov 9 '22		
703	Reinstatement	1 day	Nov 10 '22	Nov 10 '22		
704	Team B CH480 to CH510 (30m)	19 days	Nov 11 '22	Nov 29 '22		
705	TTA establishment	1 day	Nov 11 '22	Nov 11 '22		
706	Hard material excavation and disposal	3 days	Nov 12 '22	Nov 14 '22		
707	Soil excavation , laying sheetpile and disposal	7 days	Nov 15 '22	Nov 21 '22		
708	Treatment of bedding	1 day	Nov 22 '22	Nov 22 '22		
709	Pipe laying D.I.	1 day	Nov 23 '22	Nov 23 '22		
710	Backfilling general fill and compaction	5 days	Nov 24 '22	Nov 28 '22		
711	Reinstatement	1 day	Nov 29 '22	Nov 29 '22		
712	Team B CH510 to CH540 (30m)	18 days	Nov 30 '22	Dec 17 '22		
713	TTA establishment	1 day	Nov 30 '22	Nov 30 '22		
714	Hard material excavation and disposal	2 days	Dec 1 '22	Dec 2 '22		
715	Soil excavation , laying sheetpile and disposal	7 days	Dec 3 '22	Dec 9 '22		
716	Treatment of bedding	1 day	Dec 10 '22	Dec 10 '22		



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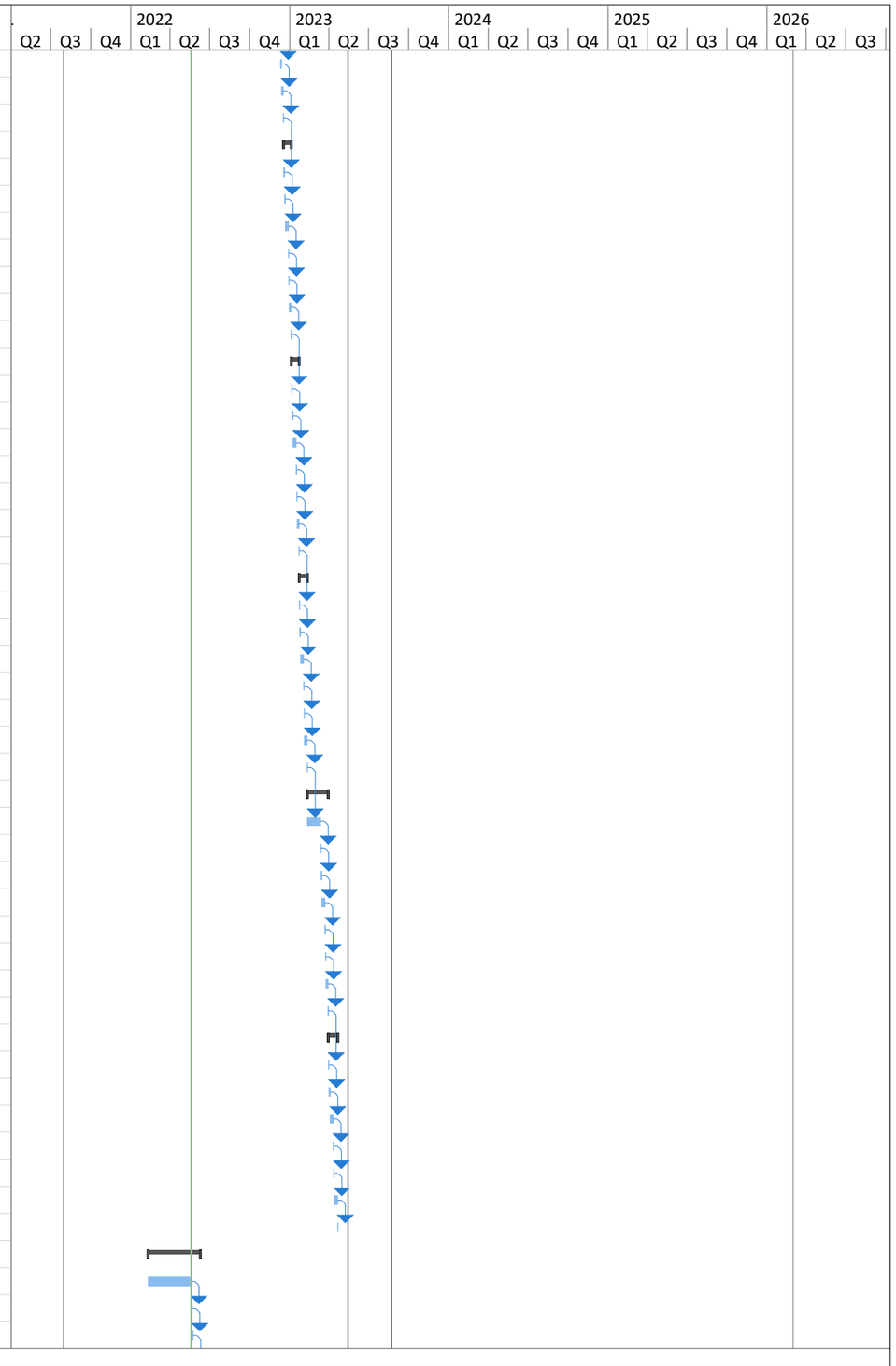
717	Pipe laying D.I.	2 days	Dec 11 '22	Dec 12 '22		
718	Backfilling general fill and compaction	4 days	Dec 13 '22	Dec 16 '22		
719	Reinstatement	1 day	Dec 17 '22	Dec 17 '22		
720	Team B CH540 to CH570 (30m) (crossing Po Wan Road)	18 days	Dec 18 '22	Jan 4 '23		
721	TTA establishment	2 days	Dec 18 '22	Dec 19 '22		
722	Hard material excavation and disposal	2 days	Dec 20 '22	Dec 21 '22		
723	Soil excavation , laying sheetpile and disposal	7 days	Dec 22 '22	Dec 28 '22		
724	Treatment of bedding	1 day	Dec 29 '22	Dec 29 '22		
725	Pipe laying D.I.	1 day	Dec 30 '22	Dec 30 '22		
726	Backfilling general fill and compaction	4 days	Dec 31 '22	Jan 3 '23		
727	Reinstatement	1 day	Jan 4 '23	Jan 4 '23		
728	Team B CH570 to CH600 (30m)	18 days	Jan 5 '23	Jan 22 '23		
729	TTA establishment	1 day	Jan 5 '23	Jan 5 '23		
730	Hard material excavation and disposal	3 days	Jan 6 '23	Jan 8 '23		
731	Soil excavation , laying sheetpile and disposal	7 days	Jan 9 '23	Jan 15 '23		
732	Treatment of bedding	1 day	Jan 16 '23	Jan 16 '23		
733	Pipe laying D.I.	1 day	Jan 17 '23	Jan 17 '23		
734	Backfilling general fill and compaction	4 days	Jan 18 '23	Jan 21 '23		
735	Reinstatement	1 day	Jan 22 '23	Jan 22 '23		
736	Team B CH600 to CH630 (30m)	19 days	Jan 23 '23	Feb 10 '23		
737	TTA establishment	1 day	Jan 23 '23	Jan 23 '23		
738	Hard material excavation and disposal	2 days	Jan 24 '23	Jan 25 '23		
739	Soil excavation , laying sheetpile and disposal	7 days	Jan 26 '23	Feb 1 '23		
740	Treatment of bedding	1 day	Feb 2 '23	Feb 2 '23		
741	Pipe laying D.I.	1 day	Feb 3 '23	Feb 3 '23		
742	Backfilling general fill and compaction	6 days	Feb 4 '23	Feb 9 '23		
743	Reinstatement	1 day	Feb 10 '23	Feb 10 '23		
744	Team B CH150 to CH180 (30m)	48 days	Feb 11 '23	Mar 30 '23		
745	Pending for release of TTA from other Contractor	30 days	Feb 11 '23	Mar 12 '23		
746	TTA establishment	1 day	Mar 13 '23	Mar 13 '23		
747	Hard material excavation and disposal	2 days	Mar 14 '23	Mar 15 '23		
748	Soil excavation , laying sheetpile and disposal	7 days	Mar 16 '23	Mar 22 '23		
749	Treatment of bedding	1 day	Mar 23 '23	Mar 23 '23		
750	Pipe laying D.I.	1 day	Mar 24 '23	Mar 24 '23		
751	Backfilling general fill and compaction	5 days	Mar 25 '23	Mar 29 '23		
752	Reinstatement	1 day	Mar 30 '23	Mar 30 '23		
753	Team B CH240 to CH270 (30m)	22 days	Mar 31 '23	Apr 21 '23		
754	TTA establishment	1 day	Mar 31 '23	Mar 31 '23		
755	Hard material excavation and disposal	3 days	Apr 1 '23	Apr 3 '23		
756	Soil excavation , laying sheetpile and disposal	7 days	Apr 4 '23	Apr 10 '23		
757	Treatment of bedding	1 day	Apr 11 '23	Apr 11 '23		
758	Pipe laying D.I.	1 day	Apr 12 '23	Apr 12 '23		
759	Backfilling general fill and compaction	8 days	Apr 13 '23	Apr 20 '23		
760	Reinstatement	1 day	Apr 21 '23	Apr 21 '23		
761	Team C CH630 to CH650 (20m)	120 days	Feb 10 '22	Jun 9 '22		
762	Pending for IIB of pipe fittings	99 days	Feb 10 '22	May 19 '22		
763	TTA establishment	2 days	May 20 '22	May 21 '22		
764	Hard material excavation and disposal	2 days	May 22 '22	May 23 '22		



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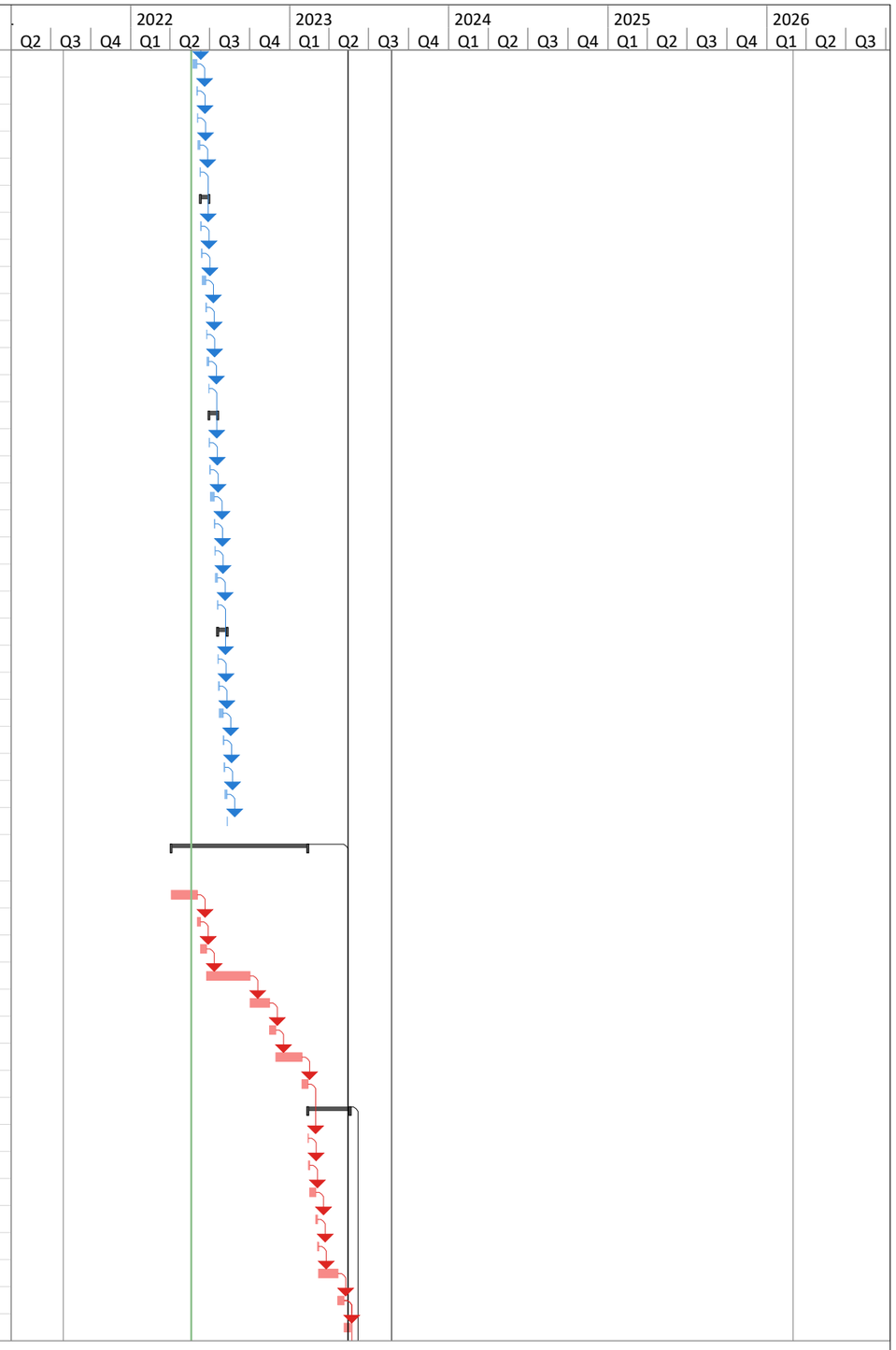
765	Soil excavation , laying sheetpile and disposal	9 days	May 24 '22	Jun 1 '22		
766	Treatment of bedding	1 day	Jun 2 '22	Jun 2 '22		
767	Pipe laying D.I.	1 day	Jun 3 '22	Jun 3 '22		
768	Backfilling general fill and compaction	5 days	Jun 4 '22	Jun 8 '22		
769	Reinstatement	1 day	Jun 9 '22	Jun 9 '22		
770	Team C CH650 to CH670 (20m)	20 days	Jun 10 '22	Jun 29 '22		
771	TTA establishment	2 days	Jun 10 '22	Jun 11 '22		
772	Hard material excavation and disposal	2 days	Jun 12 '22	Jun 13 '22		
773	Soil excavation , laying sheetpile and disposal	8 days	Jun 14 '22	Jun 21 '22		
774	Treatment of bedding	2 days	Jun 22 '22	Jun 23 '22		
775	Pipe laying D.I.	1 day	Jun 24 '22	Jun 24 '22		
776	Backfilling general fill and compaction	4 days	Jun 25 '22	Jun 28 '22		
777	Reinstatement	1 day	Jun 29 '22	Jun 29 '22		
778	Team C CH670 to CH690 (20m)	20 days	Jun 30 '22	Jul 19 '22		
779	TTA establishment	1 day	Jun 30 '22	Jun 30 '22		
780	Hard material excavation and disposal	2 days	Jul 1 '22	Jul 2 '22		
781	Soil excavation , laying sheetpile and disposal	9 days	Jul 3 '22	Jul 11 '22		
782	Treatment of bedding	1 day	Jul 12 '22	Jul 12 '22		
783	Pipe laying D.I.	1 day	Jul 13 '22	Jul 13 '22		
784	Backfilling general fill and compaction	5 days	Jul 14 '22	Jul 18 '22		
785	Reinstatement	1 day	Jul 19 '22	Jul 19 '22		
786	Team C CH690 to CH710 (20m)	22 days	Jul 20 '22	Aug 10 '22		
787	TTA establishment	1 day	Jul 20 '22	Jul 20 '22		
788	Hard material excavation and disposal	2 days	Jul 21 '22	Jul 22 '22		
789	Soil excavation , laying sheetpile and disposal	9 days	Jul 23 '22	Jul 31 '22		
790	Treatment of bedding	2 days	Aug 1 '22	Aug 2 '22		
791	Pipe laying D.I.	2 days	Aug 3 '22	Aug 4 '22		
792	Backfilling general fill and compaction	5 days	Aug 5 '22	Aug 9 '22		
793	Reinstatement	1 day	Aug 10 '22	Aug 10 '22		
794	**Team C CH710 to CH1050 (340m) -within the scope of Shueng Shui Hueng, trecnch depth 1.5m, trench width 0.6m**	**314 days**	**Apr 4 '22**	**Feb 11 '23**		
795	Pending for release of STLA	60 days	Apr 4 '22	Jun 2 '22		
796	TTA establishment	7 days	Jun 3 '22	Jun 9 '22		
797	Hard material excavation and disposal	14 days	Jun 10 '22	Jun 23 '22		
798	Soil excavation , laying sheetpile and disposal	100 days	Jun 24 '22	Oct 1 '22		
799	Treatment of bedding	45 days	Oct 2 '22	Nov 15 '22		
800	Pipe laying D.I.	14 days	Nov 16 '22	Nov 29 '22		
801	Backfilling general fill and compaction	60 days	Nov 30 '22	Jan 28 '23		
802	Reinstatement	14 days	Jan 29 '23	Feb 11 '23		
803	**Team C CH1050 to CH1140 (94m) -Crossing Jockey Club Road to Connect the point of 4/WSD/16**	**97 days**	**Feb 12 '23**	**May 19 '23**		
804	TTA establishment	1 day	Feb 12 '23	Feb 12 '23		
805	Hard material excavation and disposal	3 days	Feb 13 '23	Feb 15 '23		
806	Soil excavation , laying sheetpile and disposal	14 days	Feb 16 '23	Mar 1 '23		
807	Treatment of bedding	4 days	Mar 2 '23	Mar 5 '23		
808	Pipe layging for Open-cut trench	2 days	Mar 6 '23	Mar 7 '23		
809	Trenchless	45 days	Mar 8 '23	Apr 21 '23		
810	Trenchless-Pipe laying D.I.	14 days	Apr 22 '23	May 5 '23		
811	Manhole for Flowmeter and by-pss	14 days	May 6 '23	May 19 '23		



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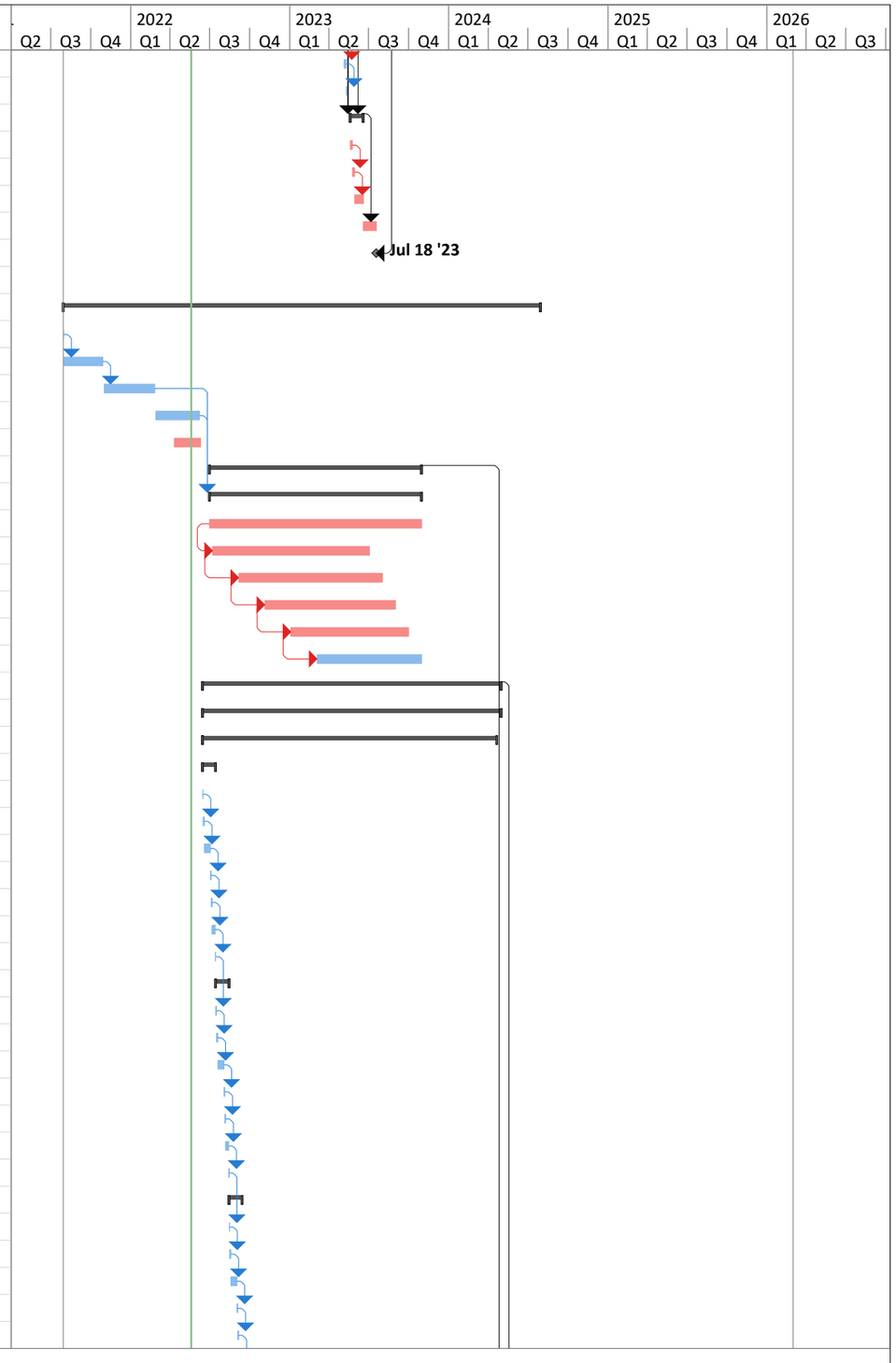
812	Backfilling gerneral fill and compaction	5 days	May 6 '23	May 10 '23		
813	Reinstatement	1 day	May 11 '23	May 11 '23		
814	Overall testing	30 days	May 20 '23	Jun 18 '23		
815	Swabbing	5 days	May 20 '23	May 24 '23		
816	CCTV	5 days	May 25 '23	May 29 '23		
817	Hydrostatic pressure test	20 days	May 30 '23	Jun 18 '23		
818	Pipe connection and completion	30 days	Jun 19 '23	Jul 18 '23		
819	Planned completion for section 4	0 days	Jul 18 '23	Jul 18 '23		
820						
821	**Section 5 - Water main laying works in part 4 of the Site**	**1096 days**	**Jul 30 '21**	**Jul 29 '24**		
822	Access Date (part 4 of the Site)	1 day	Jul 30 '21	Jul 30 '21		
823	Initial survey (utility survey, condition survey, initial photo)	90 days	Jul 31 '21	Oct 28 '21		
824	Application and approval of XP and TTA	116 days	Nov 1 '21	Feb 24 '22		
825	Procurement and Delivery of pipes, fittings and related materials	100 days	Feb 28 '22	Jun 7 '22		
826	Submission and acceptance of method statement and material	60 days	Apr 11 '22	Jun 9 '22		
827	**Mainlaying by trenchless method (RW04)**	**487 days**	**Jul 1 '22**	**Oct 30 '23**		
828	**DN450 DI pipe (6 locations , total length 237m)**	**487 days**	**Jul 1 '22**	**Oct 30 '23**	**60**	
829	TTA implementation	487 days	Jul 1 '22	Oct 30 '23		
830	Contruction of jacking pit and receiving pit	360 days	Jul 8 '22	Jul 2 '23		30d/pit
831	Trenchless works and pipe laying	330 days	Sep 6 '22	Aug 1 '23		
832	Manhole / Chamber construction	300 days	Nov 5 '22	Aug 31 '23		
833	Backfilling and compaction	270 days	Jan 4 '23	Sep 30 '23		
834	Reinstatement	240 days	Mar 5 '23	Oct 30 '23		
835	**Mainlaying by open trench method (RW04)**	**686 days**	**Jun 15 '22**	**Apr 30 '24**		
836	**RW04 : DN450 DI Pipe**	**686 days**	**Jun 15 '22**	**Apr 30 '24**		
837	Tin Ping Road (1377m)	676 days	Jun 15 '22	Apr 20 '24		
838	CH050 to CH080 (30m)	30 days	Jun 15 '22	Jul 14 '22		
839	TTA establishment	1 day	Jun 15 '22	Jun 15 '22		
840	Hard material excavation and disposal	3 days	Jun 16 '22	Jun 18 '22		
841	Soil excavation , laying sheetpile and disposal	14 days	Jun 19 '22	Jul 2 '22		
842	Treatment of bedding	2 days	Jul 3 '22	Jul 4 '22		
843	Pipe laying D.I.	2 days	Jul 5 '22	Jul 6 '22		
844	Backfilling general fill and compaction	7 days	Jul 7 '22	Jul 13 '22		
845	Reinstatement	1 day	Jul 14 '22	Jul 14 '22		
846	CH080 to CH110 (30m)	31 days	Jul 15 '22	Aug 14 '22		
847	TTA establishment	2 days	Jul 15 '22	Jul 16 '22		
848	Hard material excavation and disposal	3 days	Jul 17 '22	Jul 19 '22		
849	Soil excavation , laying sheetpile and disposal	14 days	Jul 20 '22	Aug 2 '22		
850	Treatment of bedding	2 days	Aug 3 '22	Aug 4 '22		
851	Pipe laying D.I.	2 days	Aug 5 '22	Aug 6 '22		
852	Backfilling general fill and compaction	7 days	Aug 7 '22	Aug 13 '22		
853	Reinstatement	1 day	Aug 14 '22	Aug 14 '22		
854	CH110 to CH140 (30m)	30 days	Aug 15 '22	Sep 13 '22		
855	TTA establishment	1 day	Aug 15 '22	Aug 15 '22		
856	Hard material excavation and disposal	3 days	Aug 16 '22	Aug 18 '22		
857	Soil excavation , laying sheetpile and disposal	14 days	Aug 19 '22	Sep 1 '22		
858	Treatment of bedding	2 days	Sep 2 '22	Sep 3 '22		
859	Pipe laying D.I.	2 days	Sep 4 '22	Sep 5 '22		



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Summary	Manual Task	Finish-only	Critical Split	
Project Summary	Duration-only	External Tasks	Progress	

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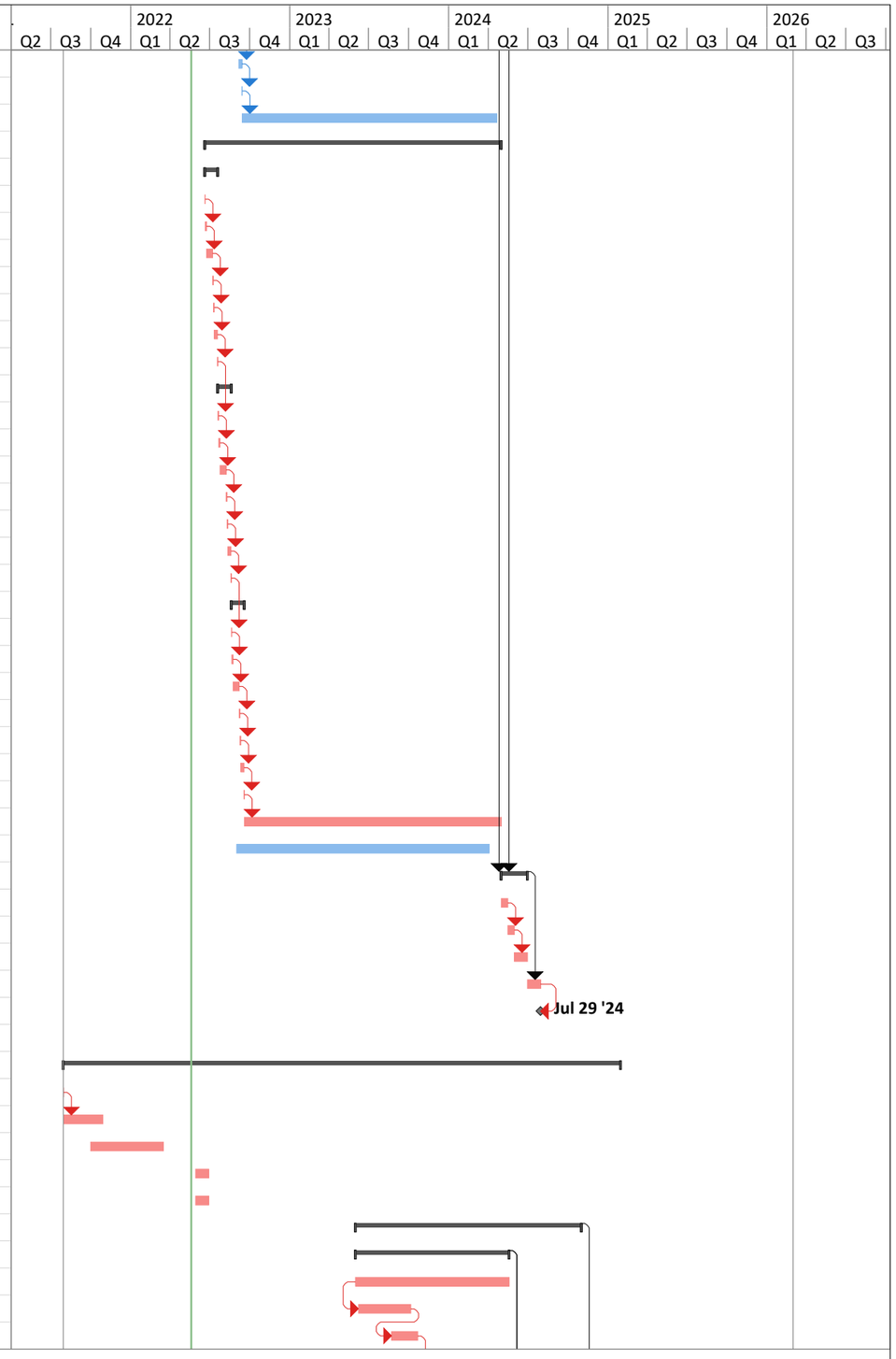
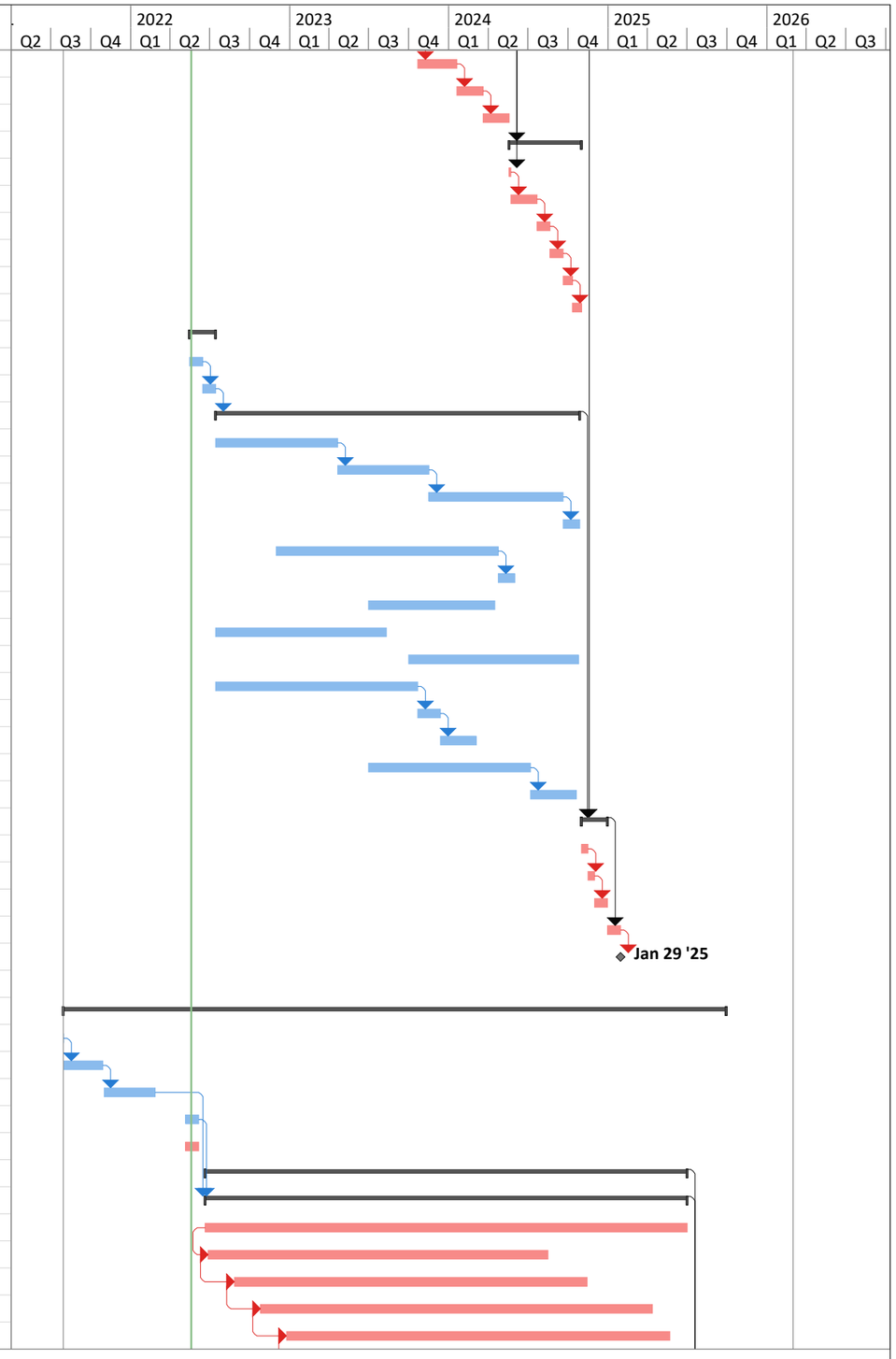
860	Backfilling general fill and compaction	7 days	Sep 6 '22	Sep 12 '22		
861	Reinstatement	1 day	Sep 13 '22	Sep 13 '22		
862	Remaining Section of Tin Ping Road (1287m)	585 days	Sep 14 '22	Apr 20 '24		
863	**Ma Sik Road (1323m)**	**681 days**	**Jun 20 '22**	**Apr 30 '24**		
864	CH1400 to CH1430 (30m)	30 days	Jun 20 '22	Jul 19 '22		
865	TTA establishment	1 day	Jun 20 '22	Jun 20 '22		
866	Hard material excavation and disposal	3 days	Jun 21 '22	Jun 23 '22		
867	Soil excavation , laying sheetpile and disposal	14 days	Jun 24 '22	Jul 7 '22		
868	Treatment of bedding	2 days	Jul 8 '22	Jul 9 '22		
869	Pipe laying D.I.	2 days	Jul 10 '22	Jul 11 '22		
870	Backfilling general fill and compaction	7 days	Jul 12 '22	Jul 18 '22		
871	Reinstatement	1 day	Jul 19 '22	Jul 19 '22		
872	CH1430 to CH1460 (30m)	31 days	Jul 20 '22	Aug 19 '22		
873	TTA establishment	2 days	Jul 20 '22	Jul 21 '22		
874	Hard material excavation and disposal	3 days	Jul 22 '22	Jul 24 '22		
875	Soil excavation , laying sheetpile and disposal	14 days	Jul 25 '22	Aug 7 '22		
876	Treatment of bedding	2 days	Aug 8 '22	Aug 9 '22		
877	Pipe laying D.I.	2 days	Aug 10 '22	Aug 11 '22		
878	Backfilling general fill and compaction	7 days	Aug 12 '22	Aug 18 '22		
879	Reinstatement	1 day	Aug 19 '22	Aug 19 '22		
880	CH1460 to CH1490 (30m)	30 days	Aug 20 '22	Sep 18 '22		
881	TTA establishment	1 day	Aug 20 '22	Aug 20 '22		
882	Hard material excavation and disposal	3 days	Aug 21 '22	Aug 23 '22		
883	Soil excavation , laying sheetpile and disposal	14 days	Aug 24 '22	Sep 6 '22		
884	Treatment of bedding	2 days	Sep 7 '22	Sep 8 '22		
885	Pipe laying D.I.	2 days	Sep 9 '22	Sep 10 '22		
886	Backfilling general fill and compaction	7 days	Sep 11 '22	Sep 17 '22		
887	Reinstatement	1 day	Sep 18 '22	Sep 18 '22		
888	Remaining Section of Ma Sik Road (1233m)	590 days	Sep 19 '22	Apr 30 '24		
889	**Sha Tau Kok Road (869m)**	**580 days**	**Sep 1 '22**	**Apr 2 '24**		**1.5m/day**
890	**Overall testing**	**60 days**	**May 1 '24**	**Jun 29 '24**		
891	Swabbing	15 days	May 1 '24	May 15 '24		
892	CCTV	15 days	May 16 '24	May 30 '24		
893	Hydrostatic pressure test	30 days	May 31 '24	Jun 29 '24		
894	Pipe connection and completion	30 days	Jun 30 '24	Jul 29 '24		
895	Planned completion for section 5	0 days	Jul 29 '24	Jul 29 '24		
896						
897	**Section 6 - Water main laying works in part 5 of the Site**	**1280 days**	**Jul 30 '21**	**Jan 29 '25**		
898	Access Date (part 5 of the Site)	1 day	Jul 30 '21	Jul 30 '21		
899	Initial survey (utility survey, condition survey, initial photo)	90 days	Jul 31 '21	Oct 28 '21		
900	Application and approval of XP and TTA	167 days	Oct 1 '21	Mar 16 '22		
901	Procurement and Delivery of pipes, fittings and related materials	30 days	May 30 '22	Jun 28 '22		
902	Submission and acceptance of method statement and material	30 days	May 30 '22	Jun 28 '22		
903	**Mainlaying by trenchless method**	**519 days**	**Jun 1 '23**	**Oct 31 '24**		
904	**DN400, DN300 DI pipe (2 locations , total length 126m)**	**353 days**	**Jun 1 '23**	**May 18 '24**	**30**	
905	TTA implementation	353 days	Jun 1 '23	May 18 '24		
906	Contruction of jacking pit and receiving pit	120 days	Jun 8 '23	Oct 5 '23		30d/pit
907	Trenchless works and pipe laying	60 days	Aug 23 '23	Oct 21 '23		



Project: 3WSD20 Programme
Date: May 20 '22

Task
Split
Milestone
Summary
Project Summary
Inactive Task
Inactive Milestone
Inactive Summary
Manual Task
Duration-only
Manual Summary Rollup
Manual Summary
Start-only
Finish-only
External Tasks
External Milestone
Deadline
Critical
Critical Split
Progress
Manual Progress

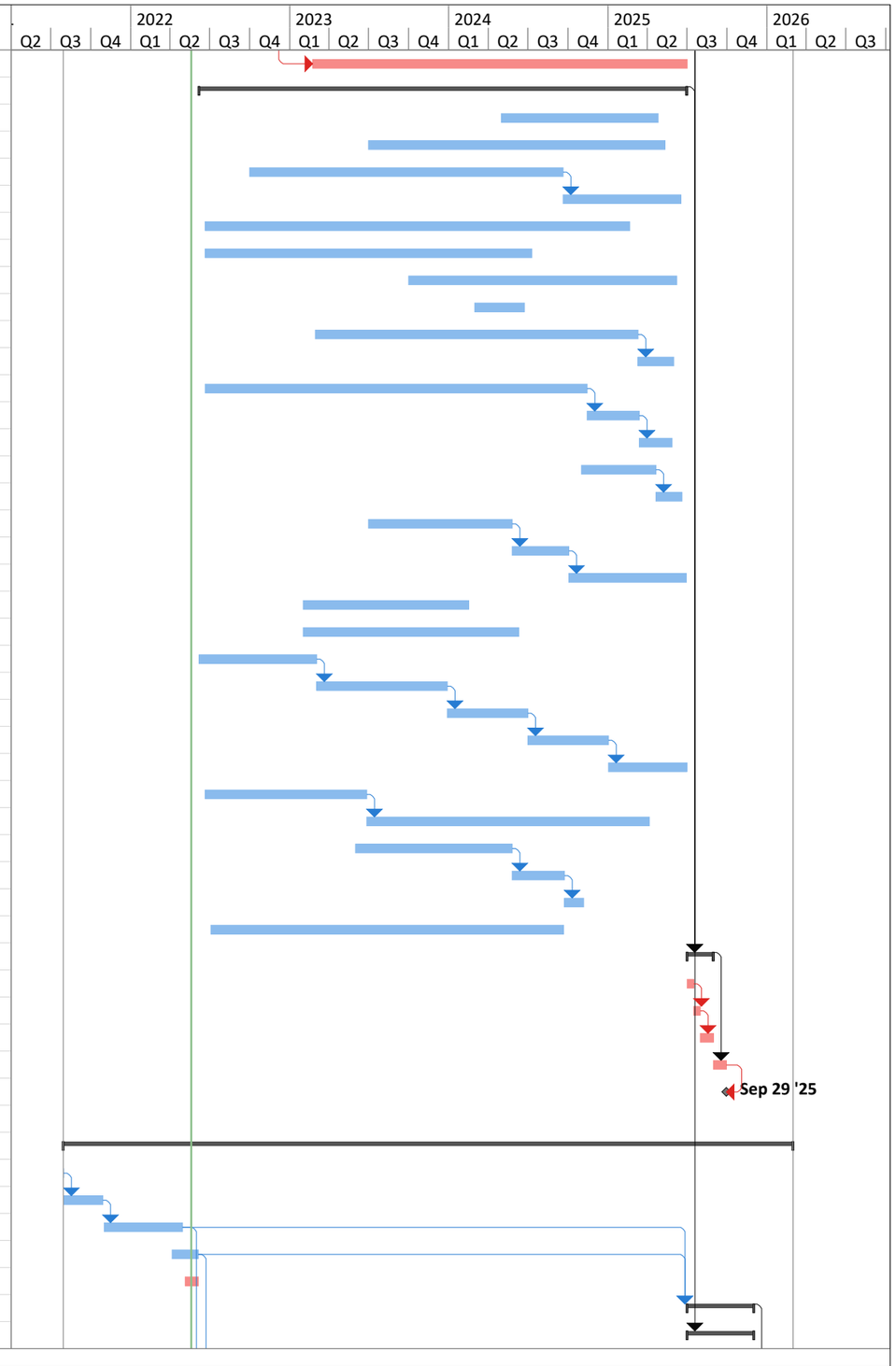
ID	Task Name	Duration	Start	Finish	TRA	Notes
908	Manhole / Chamber construction	90 days	Oct 22 '23	Jan 19 '24		
909	Backfilling and compaction	60 days	Jan 20 '24	Mar 19 '24		
910	Reinstatement	60 days	Mar 20 '24	May 18 '24		
911	**DN150 DI pipe (1 location , total length 33m)**	**166 days**	**May 19 '24**	**Oct 31 '24**	**15**	
912	TTA implementation	4 days	May 19 '24	May 22 '24		
913	Contruction of jacking pit and receiving pit	60 days	May 23 '24	Jul 21 '24		30d/pit
914	Trenchless works and pipe laying	30 days	Jul 22 '24	Aug 20 '24		
915	Manhole / Chamber construction	30 days	Aug 21 '24	Sep 19 '24		
916	Backfilling and compaction	21 days	Sep 20 '24	Oct 10 '24		
917	Reinstatement	21 days	Oct 11 '24	Oct 31 '24		
918	**Contractor's Design and Construction of distribution mains**	**60 days**	**May 16 '22**	**Jul 14 '22**		
919	Submission and acceptance of detailed design proposal	30 days	May 16 '22	Jun 14 '22		
920	Site investigation and liaison with relevant parties	30 days	Jun 15 '22	Jul 14 '22		
921	**Mainlaying by open trench method**	**836 days**	**Jul 15 '22**	**Oct 27 '24**		
922	RW41 (DN150) - Sheung Shui Tung Hing Road (288m)	280 days	Jul 15 '22	Apr 20 '23		
923	RW42 (DN150) - No name road in Sheung Shui Heung (210m)	210 days	Apr 21 '23	Nov 16 '23		
924	RW71 (DN150) - Jockey Club Road (308m)	308 days	Nov 17 '23	Sep 19 '24		
925	RW44 (DN150) - Jockey Club Road (38m)	38 days	Sep 20 '24	Oct 27 '24		
926	RW11 (DN150) - Fung Nam Road (480m)	510 days	Dec 1 '22	Apr 23 '24	30	
927	RW46 (DN150) - Fung Nam Lane (38m)	38 days	Apr 24 '24	May 31 '24		
928	RW06 (DN300) - Lung Sum Avenue (290m)	290 days	Jul 1 '23	Apr 15 '24		
929	RW05 (DN400) - Jockey Club Road (377m)	392 days	Jul 15 '22	Aug 10 '23	15	
930	RW15 (DN150) - Sun Fung Road / Sun Shing Road (390m)	390 days	Oct 1 '23	Oct 24 '24		
931	RW18 (DN150) - San Hong Street (464m)	464 days	Jul 15 '22	Oct 21 '23		
932	RW20 (DN150) - Sun Wing Street (52m)	52 days	Oct 22 '23	Dec 12 '23		
933	RW45 (DN150) - Tsun Fu Street (82m)	82 days	Dec 13 '23	Mar 3 '24		
934	RW14 (DN150) - Fu Hing Street (372m)	372 days	Jul 1 '23	Jul 6 '24		
935	RW21 (DN150) - Sun Fat Street (105m)	105 days	Jul 7 '24	Oct 19 '24		
936	Overall testing	60 days	Nov 1 '24	Dec 30 '24		
937	Swabbing	15 days	Nov 1 '24	Nov 15 '24		
938	CCTV	15 days	Nov 16 '24	Nov 30 '24		
939	Hydrostatic pressure test	30 days	Dec 1 '24	Dec 30 '24		
940	Pipe connection and completion	30 days	Dec 31 '24	Jan 29 '25		
941	Planned completion for section 6	0 days	Jan 29 '25	Jan 29 '25		
942						
943	**Section 7 - Water main laying works in part 6 of the Site**	**1523 days**	**Jul 30 '21**	**Sep 29 '25**		
944	Access Date (part 6 of the Site)	1 day	Jul 30 '21	Jul 30 '21		
945	Initial survey (utility survey, condition survey, initial photo)	90 days	Jul 31 '21	Oct 28 '21		
946	Application and approval of XP and TTA	117 days	Nov 1 '21	Feb 25 '22		
947	Procurement and Delivery of pipes, fittings and related materials	30 days	May 7 '22	Jun 5 '22		
948	Submission and acceptance of method statement and material	30 days	May 7 '22	Jun 5 '22		
949	**Mainlaying by trenchless method**	**1107 days**	**Jun 21 '22**	**Jul 1 '25**		
950	**DN450, DN400, DN300 DI pipe (13 locations , total length 1028m)**	**1107 days**	**Jun 21 '22**	**Jul 1 '25**	**21**	
951	TTA implementation	1107 days	Jun 21 '22	Jul 1 '25		
952	Contruction of jacking pit and receiving pit	780 days	Jun 28 '22	Aug 15 '24		30d/pit
953	Trenchless works and pipe laying	810 days	Aug 27 '22	Nov 13 '24	30	
954	Manhole / Chamber construction	900 days	Oct 26 '22	Apr 12 '25		
955	Backfilling and compaction	880 days	Dec 25 '22	May 22 '25		



Project: 3WSD20 Programme
Date: May 20 '22

Task	Inactive Task	Manual Summary Rollup	External Milestone	Manual Progress
Split	Inactive Milestone	Manual Summary	Deadline	
Milestone	Inactive Summary	Start-only	Critical	
Summary	Manual Task	Finish-only	Critical Split	
Project Summary	Duration-only	External Tasks	Progress	

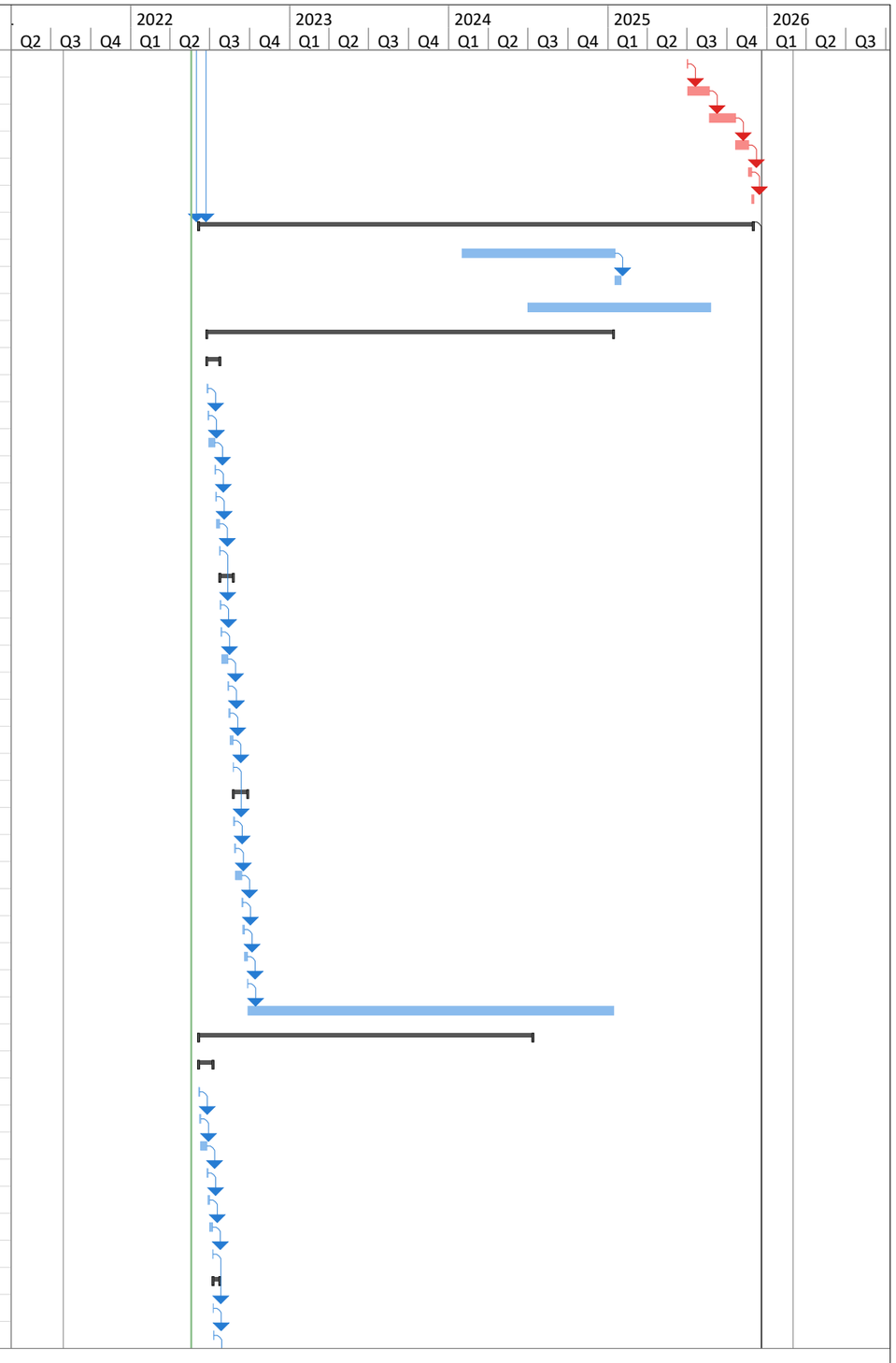
ID	Task Name	Duration	Start	Finish	TRA	Notes
956	Reinstatement	860 days	Feb 23 '23	Jul 1 '25		
957	**Mainlaying by open trench method**	**1120 days**	**Jun 7 '22**	**Jun 30 '25**		
958	RW07 (DN300) - Ma Sik Road (360m)	360 days	May 1 '24	Apr 25 '25		
959	RW05 (DN400) - Jockey Club Road (681m)	681 days	Jul 1 '23	May 11 '25		
960	RW05 (DN300) - Jackey Club Road (720m)	720 days	Oct 1 '22	Sep 19 '24		
961	RW05 (DN300) - Pik Fung Road (270m)	270 days	Sep 20 '24	Jun 16 '25		
962	RW05 (DN300) - Sun Wan Road (945m)	975 days	Jun 21 '22	Feb 19 '25	30	
963	RW08 (DN400) - Fanling Lau Road (750m)	750 days	Jun 21 '22	Jul 9 '24		
964	RW08 (DN400) - Lok Yip Road (616m)	616 days	Oct 1 '23	Jun 7 '25		
965	RW17 (DN150) - Sun Shing Road (114m)	114 days	Mar 1 '24	Jun 22 '24		
966	RW16 (DN250) - Sun Fung Road / Lung Sum Avenue (741m)	741 days	Mar 1 '23	Mar 10 '25		
967	RW47 (DN100) - Tee to Sun Fung Road (82m)	82 days	Mar 11 '25	May 31 '25		
968	RW22 (DN150) - San Wan Road (877m)	877 days	Jun 21 '22	Nov 13 '24		
969	RW24 (DN150) - Chi Ming Street (120m)	120 days	Nov 14 '24	Mar 13 '25		
970	RW49 (DN150) - San Wan Road (75m)	75 days	Mar 14 '25	May 27 '25		
971	RW23 (DN150) - Lung Wan Street (171m)	171 days	Nov 1 '24	Apr 20 '25		
972	RW69 (DN150) - Lung Sum Lane (60m)	60 days	Apr 21 '25	Jun 19 '25		
973	RW25 (DN150) - Road to Fanling Wai (330m)	330 days	Jul 1 '23	May 25 '24		
974	RW26 (DN150) - Ka Siu Road (133m)	130 days	May 26 '24	Oct 2 '24		
975	RW27 (DN150) - Fanling Station Road (273m)	270 days	Oct 3 '24	Jun 29 '25		
976	RW34 (DN150) - Road Tee from RW08 (380m)	380 days	Feb 1 '23	Feb 15 '24		
977	RW36 (DN150) - Lok Fung Street (495m)	495 days	Feb 1 '23	Jun 9 '24		
978	RW13 (DN150) - Wo Tai Street (270m)	270 days	Jun 7 '22	Mar 3 '23		
979	RW28 (DN150) - Wo Mun Street (312m)	300 days	Mar 4 '23	Dec 28 '23		
980	RW31 (DN150) - Luen Cheong Street (185m)	185 days	Dec 29 '23	Jun 30 '24		
981	RW32 (DN150) - Luen Shing Street (185m)	185 days	Jul 1 '24	Jan 1 '25		
982	RW33 (DN150) - Luen Hing Street (199m)	180 days	Jan 2 '25	Jun 30 '25		
983	RW13 (DN150) - Wo Tai Street (371m)	371 days	Jun 21 '22	Jun 26 '23		
984	RW30 (DN150) - Luen On Street / Luen Wo Road / Luen Fai Street (649m)	649 days	Jun 27 '23	Apr 5 '25		
985	RW29 (DN150) - Wo Muk Street / Luen Hing Street (360m)	360 days	Jun 1 '23	May 25 '24		
986	RW12 (DN150) - Luen Chit Street (120m)	120 days	May 26 '24	Sep 22 '24		
987	RW55 (DN150) - Mount One (44m)	44 days	Sep 23 '24	Nov 5 '24		
988	RW03 (DN450) - Jockey Club Road / MTR Railway (810m)	810 days	Jul 4 '22	Sep 20 '24		
989	Overall testing	60 days	Jul 2 '25	Aug 30 '25		
990	Swabbing	15 days	Jul 2 '25	Jul 16 '25		
991	CCTV	15 days	Jul 17 '25	Jul 31 '25		
992	Hydrostatic pressure test	30 days	Aug 1 '25	Aug 30 '25		
993	Pipe connection and completion	30 days	Aug 31 '25	Sep 29 '25		
994	Planned completion for section 7	0 days	Sep 29 '25	Sep 29 '25		
995						
996	**Section 8 - Water main laying works in part 7 of the Site**	**1676 days**	**Jul 30 '21**	**Mar 1 '26**		
997	Access Date (part 7 of the Site)	1 day	Jul 30 '21	Jul 30 '21		
998	Initial survey (utility survey, condition survey, initial photo)	90 days	Jul 31 '21	Oct 28 '21		
999	Application and approval of XP and TTA	180 days	Nov 1 '21	Apr 29 '22		
1000	Procurement and Delivery of pipes, fittings and related materials	60 days	Apr 6 '22	Jun 4 '22		
1001	Submission and acceptance of method statement and material	30 days	May 6 '22	Jun 4 '22		
1002	**Mainlaying by trenchless method**	**153 days**	**Jul 2 '25**	**Dec 1 '25**		
1003	**DN300 DI pipe (1 locations , total length 58m)**	**153 days**	**Jul 2 '25**	**Dec 1 '25**		



Project: 3WSD20 Programme
Date: May 20 '22

Task
Split
Milestone
Summary
Project Summary
Inactive Task
Inactive Milestone
Inactive Summary
Manual Task
Duration-only
Manual Summary Rollup
Manual Summary
Start-only
Finish-only
External Tasks
External Milestone
Deadline
Critical
Critical Split
Progress
Manual Progress

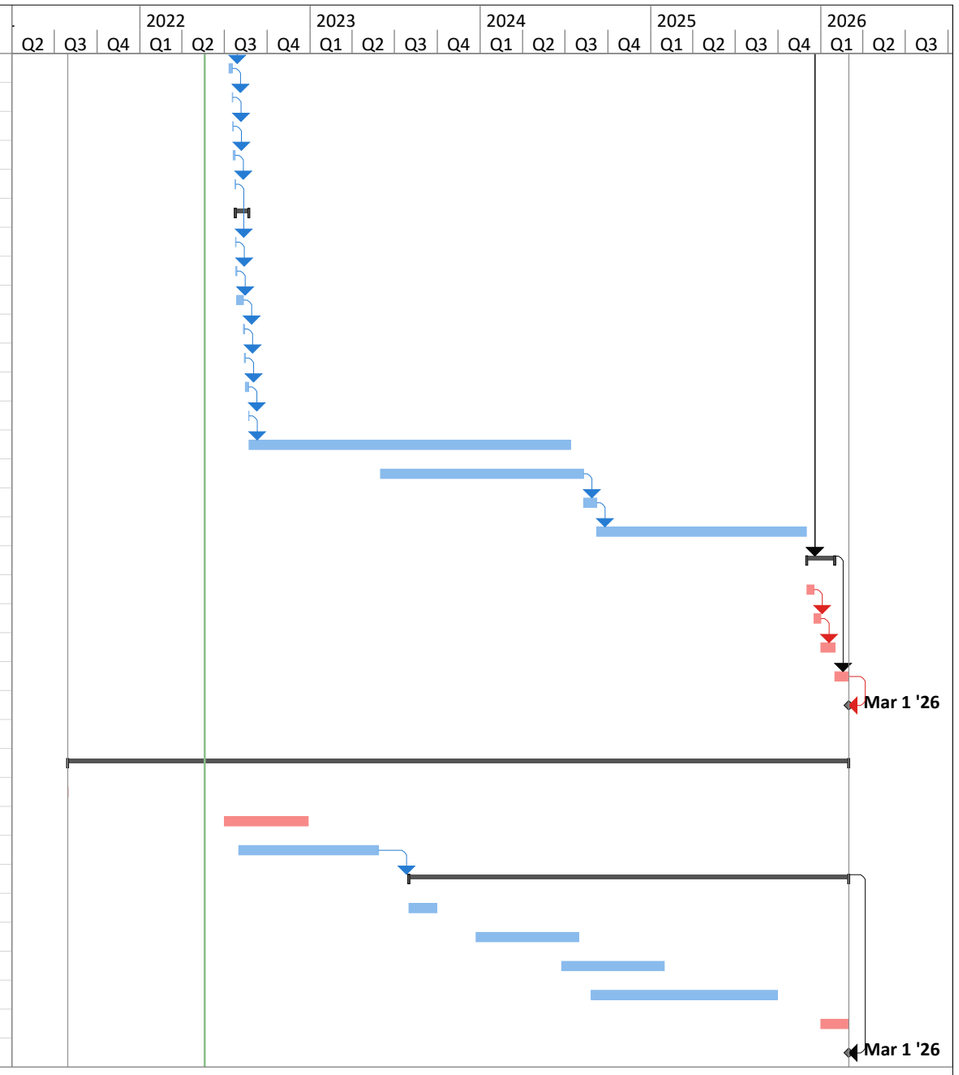
ID	Task Name	Duration	Start	Finish	TRA	Notes
1004	TTA implementation	1 day	Jul 2 '25	Jul 2 '25		
1005	Contruction of jacking pit and receiving pit	50 days	Jul 3 '25	Aug 21 '25		
1006	Trenchless works and pipe laying	60 days	Aug 22 '25	Oct 20 '25		
1007	Manhole / Chamber construction	30 days	Oct 21 '25	Nov 19 '25		
1008	Backfilling and compaction	7 days	Nov 20 '25	Nov 26 '25		
1009	Reinstatement	5 days	Nov 27 '25	Dec 1 '25		
1010	**Mainlaying by open trench method**	**1274 days**	**Jun 6 '22**	**Nov 30 '25**		
1011	RW38 (DN150) - Yip Cheong Street (351m)	351 days	Feb 1 '24	Jan 16 '25		
1012	RW39 (DN150) - Yip Cheong Street (14m)	14 days	Jan 17 '25	Jan 30 '25		
1013	RW37 (DN150) - Yip Wo Street (420m)	420 days	Jul 1 '24	Aug 24 '25		
1014	RW10 (DN300) - On Lok Mun Street (930m)	934 days	Jun 25 '22	Jan 13 '25		
1015	CH000 to CH030 (30m)	30 days	Jun 25 '22	Jul 24 '22		
1016	TTA establishment	2 days	Jun 25 '22	Jun 26 '22		
1017	Hard material excavation and disposal	2 days	Jun 27 '22	Jun 28 '22		
1018	Soil excavation , laying sheetpile and disposal	14 days	Jun 29 '22	Jul 12 '22		
1019	Treatment of bedding	2 days	Jul 13 '22	Jul 14 '22		
1020	Pipe laying D.I.	2 days	Jul 15 '22	Jul 16 '22		
1021	Backfilling general fill and compaction	7 days	Jul 17 '22	Jul 23 '22		
1022	Reinstatement	1 day	Jul 24 '22	Jul 24 '22		
1023	CH030 to CH060 (30m)	31 days	Jul 25 '22	Aug 24 '22		
1024	TTA establishment	2 days	Jul 25 '22	Jul 26 '22		
1025	Hard material excavation and disposal	2 days	Jul 27 '22	Jul 28 '22		
1026	Soil excavation , laying sheetpile and disposal	14 days	Jul 29 '22	Aug 11 '22		
1027	Treatment of bedding	2 days	Aug 12 '22	Aug 13 '22		
1028	Pipe laying D.I.	3 days	Aug 14 '22	Aug 16 '22		
1029	Backfilling general fill and compaction	7 days	Aug 17 '22	Aug 23 '22		
1030	Reinstatement	1 day	Aug 24 '22	Aug 24 '22		
1031	CH600 to CH900 (30m)	33 days	Aug 25 '22	Sep 26 '22		
1032	TTA establishment	2 days	Aug 25 '22	Aug 26 '22		
1033	Hard material excavation and disposal	3 days	Aug 27 '22	Aug 29 '22		
1034	Soil excavation , laying sheetpile and disposal	14 days	Aug 30 '22	Sep 12 '22		
1035	Treatment of bedding	2 days	Sep 13 '22	Sep 14 '22		
1036	Pipe laying D.I.	4 days	Sep 15 '22	Sep 18 '22		
1037	Backfilling general fill and compaction	7 days	Sep 19 '22	Sep 25 '22		
1038	Reinstatement	1 day	Sep 26 '22	Sep 26 '22		
1039	Remaining Section of On Lok Mun Street (840m)	840 days	Sep 27 '22	Jan 13 '25		
1040	RW35 (DN150) - On Chuen Street (720m)	768 days	Jun 6 '22	Jul 12 '24		
1041	CH650 to CH680 (30m)	33 days	Jun 6 '22	Jul 8 '22		
1042	TTA establishment	2 days	Jun 6 '22	Jun 7 '22		
1043	Hard material excavation and disposal	3 days	Jun 8 '22	Jun 10 '22		
1044	Soil excavation , laying sheetpile and disposal	14 days	Jun 11 '22	Jun 24 '22		
1045	Treatment of bedding	2 days	Jun 25 '22	Jun 26 '22		
1046	Pipe laying D.I.	4 days	Jun 27 '22	Jun 30 '22		
1047	Backfilling general fill and compaction	7 days	Jul 1 '22	Jul 7 '22		
1048	Reinstatement	1 day	Jul 8 '22	Jul 8 '22		
1049	CH620 to CH650 (30m)	16 days	Jul 9 '22	Jul 24 '22		
1050	TTA establishment	1 day	Jul 9 '22	Jul 9 '22		
1051	Hard material excavation and disposal	1 day	Jul 10 '22	Jul 10 '22		



Project: 3WSD20 Programme
Date: May 20 '22

Task
Split
Milestone
Summary
Project Summary
Inactive Task
Inactive Milestone
Inactive Summary
Manual Task
Duration-only
Manual Summary Rollup
Manual Summary
Start-only
Finish-only
External Tasks
External Milestone
Deadline
Critical
Critical Split
Progress
Manual Progress

ID	Task Name	Duration	Start	Finish	TRA	Notes
1052	Soil excavation , laying sheetpile and disposal	7 days	Jul 11 '22	Jul 17 '22		
1053	Treatment of bedding	1 day	Jul 18 '22	Jul 18 '22		
1054	Pipe laying D.I.	1 day	Jul 19 '22	Jul 19 '22		
1055	Backfilling general fill and compaction	4 days	Jul 20 '22	Jul 23 '22		
1056	Reinstatement	1 day	Jul 24 '22	Jul 24 '22		
1057	CH590 to CH620 (30m)	29 days	Jul 25 '22	Aug 22 '22		
1058	TTA establishment	1 day	Jul 25 '22	Jul 25 '22		
1059	Hard material excavation and disposal	2 days	Jul 26 '22	Jul 27 '22		
1060	Soil excavation , laying sheetpile and disposal	14 days	Jul 28 '22	Aug 10 '22		
1061	Treatment of bedding	2 days	Aug 11 '22	Aug 12 '22		
1062	Pipe laying D.I.	2 days	Aug 13 '22	Aug 14 '22		
1063	Backfilling general fill and compaction	7 days	Aug 15 '22	Aug 21 '22		
1064	Reinstatement	1 day	Aug 22 '22	Aug 22 '22		
1065	Remaining Section of On Chuen Street (630m)	690 days	Aug 23 '22	Jul 12 '24	60	
1066	RW09 (DN150) - Wo Hing Road (436m)	436 days	Jun 1 '23	Aug 9 '24		
1067	RW60 (DN150) - Tee from RW09 (14m)	28 days	Aug 10 '24	Sep 6 '24	14	
1068	RW40 (DN150) - Tai Wo Service Road West (420m)	450 days	Sep 7 '24	Nov 30 '25	30	
1069	Overall testing	60 days	Dec 2 '25	Jan 30 '26		
1070	Swabbing	15 days	Dec 2 '25	Dec 16 '25		
1071	CCTV	15 days	Dec 17 '25	Dec 31 '25		
1072	Hydrostatic pressure test	30 days	Jan 1 '26	Jan 30 '26		
1073	Pipe connection and completion	30 days	Jan 31 '26	Mar 1 '26		
1074	Planned completion for section 8	0 days	Mar 1 '26	Mar 1 '26		
1075						
1076	**Section 9 - Conversion works to effect the supply of reclaimed water**	**1676 days**	**Jul 30 '21**	**Mar 1 '26**		
1077	Access Date	1 day	Jul 30 '21	Jul 30 '21		
1078	Initial survey by stages	180 days	Jul 1 '22	Dec 27 '22		
1079	Liaison, coordination and enabling work for conversion	300 days	Aug 1 '22	May 27 '23		
1080	**Conversion works**	**944 days**	**Aug 1 '23**	**Mar 1 '26**		
1081	Section 4 (Part 3) - 3 nos.	60 days	Aug 1 '23	Sep 29 '23		
1082	Section 5 (Part 4) - 11 nos.	220 days	Dec 23 '23	Jul 29 '24		
1083	Section 6 (Part 5) - 11 nos.	220 days	Jun 24 '24	Jan 29 '25		
1084	Section 7 (Part 6) - 40 nos.	400 days	Aug 26 '24	Sep 29 '25		
1085	Section 8 (Part 7) - 3 nos.	60 days	Jan 1 '26	Mar 1 '26		
1086	Planned completion for section 9	0 days	Mar 1 '26	Mar 1 '26		



Project: 3WSD20 Programme
Date: May 20 '22

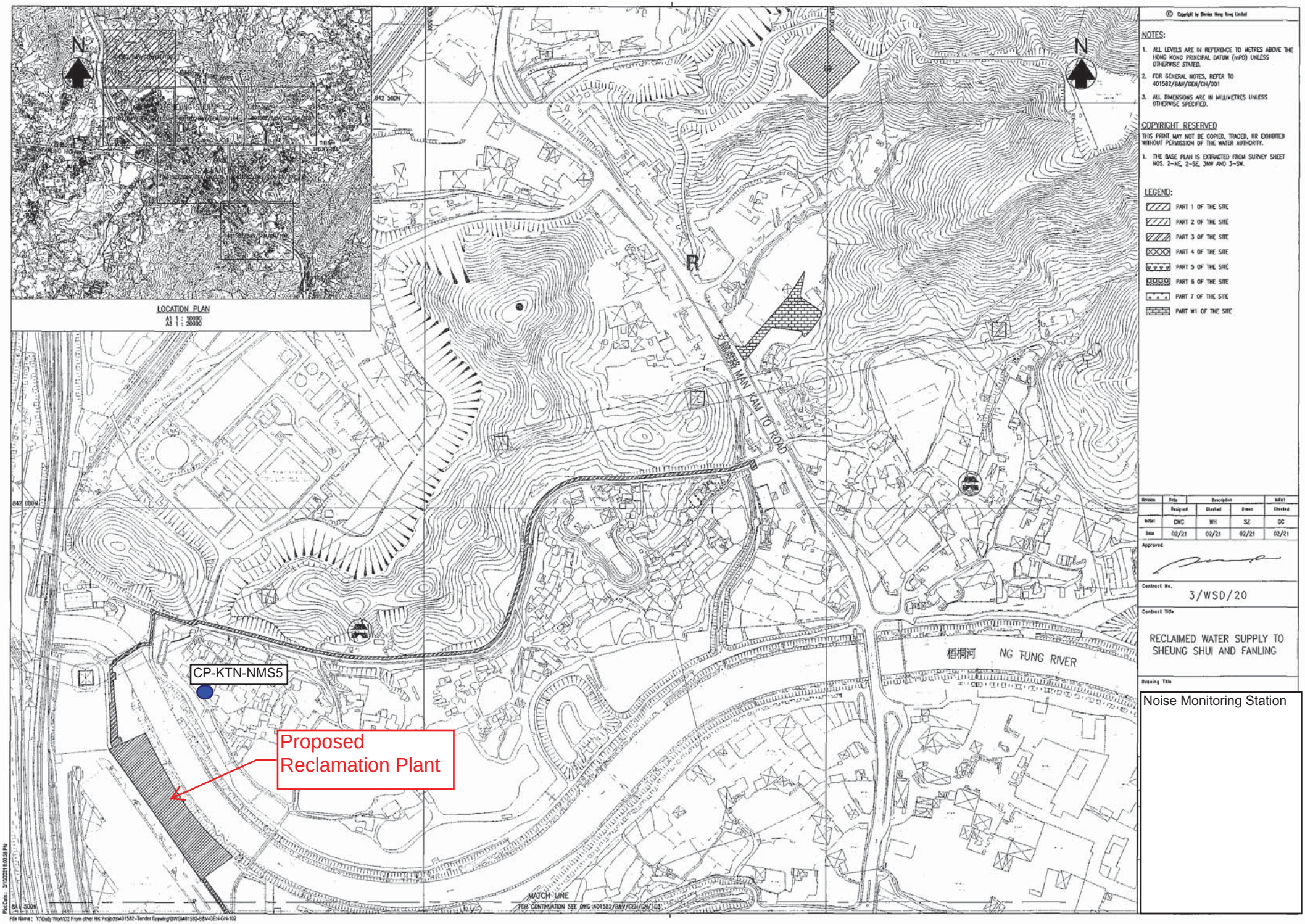
Task	Inactive Task	Manual Summary Rollup	External Milestone	Manual Progress
Split	Inactive Milestone	Manual Summary	Deadline	
Milestone	Inactive Summary	Start-only	Critical	
Summary	Manual Task	Finish-only	Critical Split	
Project Summary	Duration-only	External Tasks	Progress	

SITE OVERVIEW PHOTO IN THE REPORTING PERIOD

Excavation and Lateral Support Work for Shek Wu Hui Water Reclamation Plant

Appendix D

Location of Designated Noise Monitoring Station CP-KTN-NMS5



NOTES:

1. ALL LEVELS ARE IN REFERENCE TO METRES ABOVE THE HONG KONG PRINCIPAL DATUM (mPD) UNLESS OTHERWISE STATED.
2. FOR GENERAL NOTES, REFER TO 401582/B&V/GEN/GN/001
3. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS OTHERWISE SPECIFIED.

1. THE BASE PLAN IS EXTRACTED FROM SURVEY SHEET NOS. 2-NC, 2-SE, JNW AND J-SW.

LEGEND:

- PART 1 OF THE SITE
- PART 2 OF THE SITE
- PART 3 OF THE SITE
- PART 4 OF THE SITE
- PART 5 OF THE SITE
- PART 6 OF THE SITE
- PART 7 OF THE SITE
- PART W1 OF THE SITE

Revision	Date	Description			Initial
	Designed	Checked	Drawn		Checked
Initial	CWC	WH	SZ		CC
Date	02/21	02/21	02/21		02/21

Approved

Contract No.
3/WSD/20

Contract Title
RECLAIMED WATER SUPPLY TO SHEUNG SHUI AND FANLING

Drawing Title
Noise Monitoring Station

Plot Date: 3/3/2021 8:03:58 PM
File Name: T:\Daily Work\22 From other HK Projects\401582 -Tender Drawing\DWG\401582-B&V-GEN-GN-102

Appendix E

Valid Calibration Certificates of Monitoring 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. : C216479
證書編號

ITEM TESTED / 送檢項目 (Job No. / 序引編號 : IC21-2189) Date of Receipt / 收件日期 : 25 October 2021

Description / 儀器名稱 : Sound Level Meter (EQ016)
Manufacturer / 製造商 : Rion
Model No. / 型號 : NL-52
Serial No. / 編號 : 00464681
Supplied By / 委託者 : Action-United Environmental Services and Consulting
Unit A, 20/F., Gold King Industrial Building,
35-41 Tai Lin Pai Road, Kwai Chung, N.T.

TEST CONDITIONS / 測試條件

Temperature / 溫度 : (23 ± 2)°C Relative Humidity / 相對濕度 : (50 ± 25)%
Line Voltage / 電壓 : ---

TEST SPECIFICATIONS / 測試規範

Calibration check

DATE OF TEST / 測試日期 : 9 November 2021

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
- Agilent Technologies / Keysight Technologies
- Fluke Everett Service Center, USA

Tested By 測試 : Cheuk
K P Cheuk
Project Engineer

Certified By 核證 :
K C Lee
Engineer

Date of Issue 簽發日期 : 10 November 2021

Sun Creation Engineering Limited – Calibration & Testing Laboratory
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Certificate of Calibration
校正證書

Certificate No. : C216479
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 was performed before the test.

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	C210084
CL281	Multifunction Acoustic Calibrator	AV210017

5. Test procedure : MA101N.

6. Results :

6.1 Sound Pressure Level

6.1.1 Reference Sound Pressure Level

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	93.6	± 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	93.6 (Ref.)
				104.00		103.6
				114.00		113.6

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

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	93.6	Ref.
			Slow			93.6	± 0.3

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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	67.3	-26.2 ± 1.5
					125 Hz	77.4	-16.1 ± 1.5
					250 Hz	84.9	-8.6 ± 1.4
					500 Hz	90.4	-3.2 ± 1.4
					1 kHz	93.6	Ref.
					2 kHz	94.8	+1.2 ± 1.6
					4 kHz	94.6	+1.0 ± 1.6
					8 kHz	92.6	-1.1 (+2.1 ; -3.1)
					16 kHz	85.7	-6.6 (+3.5 ; -17.0)

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	92.7	-0.8 ± 1.5
					125 Hz	93.4	-0.2 ± 1.5
					250 Hz	93.6	0.0 ± 1.4
					500 Hz	93.6	0.0 ± 1.4
					1 kHz	93.6	Ref.
					2 kHz	93.5	-0.2 ± 1.6
					4 kHz	92.8	-0.8 ± 1.6
					8 kHz	90.7	-3.0 (+2.1 ; -3.1)
					16 kHz	83.7	-8.5 (+3.5 ; -17.0)

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Remarks : - UUT Microphone Model No. : UC-59 & S/N : 17434

- 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
	16 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.

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.

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輝創工程有限公司
Sun Creation Engineering Limited
Calibration & Testing Laboratory

Certificate of Calibration
校正證書

Certificate No. : C214361
證書編號

ITEM TESTED / 送檢項目 (Job No. / 序引編號 : IC21-1345) Date of Receipt / 收件日期 : 8 July 2021

Description / 儀器名稱 : Sound Calibrator (EQ082)
Manufacturer / 製造商 : Brüel & Kjær
Model No. / 型號 : 4231
Serial No. / 編號 : 2713428
Supplied By / 委託者 : Action-United Environmental Services and Consulting
Unit A, 20/F., Gold King Industrial Building,
35-41 Tai Lin Pai Road, Kwai Chung, N.T.

TEST CONDITIONS / 測試條件

Temperature / 溫度 : (23 ± 2)°C Relative Humidity / 相對濕度 : (50 ± 25)%
Line Voltage / 電壓 : ---

TEST SPECIFICATIONS / 測試規範

Calibration check

DATE OF TEST / 測試日期 : 24 July 2021

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
- Agilent Technologies / Keysight Technologies
- Fluke Everett Service Center, USA

Tested By 測試 : K P Cheuk
Project Engineer

Certified By 核證 : K C Lee
Engineer

Date of Issue 簽發日期 : 26 July 2021

Sun Creation Engineering Limited – Calibration & Testing Laboratory
c/o 4/F, 1 Hing On Lane, Tuen Mun, New Territories, Hong Kong
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校正證書

Certificate No. : C214361
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1. The unit-under-test (UUT) was allowed to stabilize in the laboratory for over 12 hours before the commencement of the test.

2. The results presented are the mean of 3 measurements at each calibration point.

3. Test equipment :

Equipment ID	Description	Certificate No.
CL130	Universal Counter	C213954
CL281	Multifunction Acoustic Calibrator	AV210017
TST150A	Measuring Amplifier	C201309

4. Test procedure : MA100N.

5. 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	94.0	± 0.2	± 0.2
114 dB, 1 kHz	114.1		

5.2 Frequency Accuracy

UUT Nominal Value (kHz)	Measured Value (kHz)	Mfr's Spec.	Uncertainty of Measured Value (Hz)
1	1.000 0	1 kHz ± 0.1 %	± 0.1

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.

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Appendix F

Monitoring Schedule of the Reporting Month and Coming Month

The Reporting Monitoring Schedule (May 2022)

Date		Noise Monitoring (Leq30min)	Ecology Monitoring (Water Bird)
Sun	1-May-22		
Mon	2-May-22		
Tue	3-May-22		
Wed	4-May-22		✓ **(High Tide)**
Thu	5-May-22		
Fri	6-May-22	✓	
Sat	7-May-22		✓ **(Low Tide)**
Sun	8-May-22		
Mon	9-May-22		✓ **(High Tide)**
Tue	10-May-22		
Wed	11-May-22		
Thu	12-May-22		
Fri	13-May-22	✓	
Sat	14-May-22		✓ **(Low Tide)**
Sun	15-May-22		
Mon	16-May-22		
Tue	17-May-22		
Wed	18-May-22	✓	
Thu	19-May-22		✓ **(Low Tide)**
Fri	20-May-22		
Sat	21-May-22		✓ **(High Tide)**
Sun	22-May-22		
Mon	23-May-22		
Tue	24-May-22	✓	✓ **(High Tide)**
Wed	25-May-22		
Thu	26-May-22		✓ **(Low Tide)**
Fri	27-May-22		
Sat	28-May-22		
Sun	29-May-22		
Mon	30-May-22	✓	
Tue	31-May-22		

✓	Monitoring Day
	Sunday or Public Holiday

The Coming Month Monitoring Schedule (June 2022)

Date		Noise Monitoring (Leq30min)	Ecology Monitoring (Water Bird) *Note*
Wed	1-Jun-22		
Thu	2-Jun-22		
Fri	3-Jun-22		
Sat	4-Jun-22		
Sun	5-Jun-22		
Mon	6-Jun-22		
Tue	7-Jun-22		
Wed	8-Jun-22		
Thu	9-Jun-22		✓
Fri	10-Jun-22	✓	
Sat	11-Jun-22		
Sun	12-Jun-22		
Mon	13-Jun-22		
Tue	14-Jun-22		
Wed	15-Jun-22		✓
Thu	16-Jun-22	✓	
Fri	17-Jun-22		
Sat	18-Jun-22		
Sun	19-Jun-22		
Mon	20-Jun-22		
Tue	21-Jun-22		
Wed	22-Jun-22	✓	
Thu	23-Jun-22		✓
Fri	24-Jun-22		
Sat	25-Jun-22		
Sun	26-Jun-22		
Mon	27-Jun-22	✓	
Tue	28-Jun-22		✓
Wed	29-Jun-22		
Thu	30-Jun-22		

Note:

Ecology monitoring dates are tentative and are subject to change

✓	Monitoring Day
	Sunday or Public Holiday

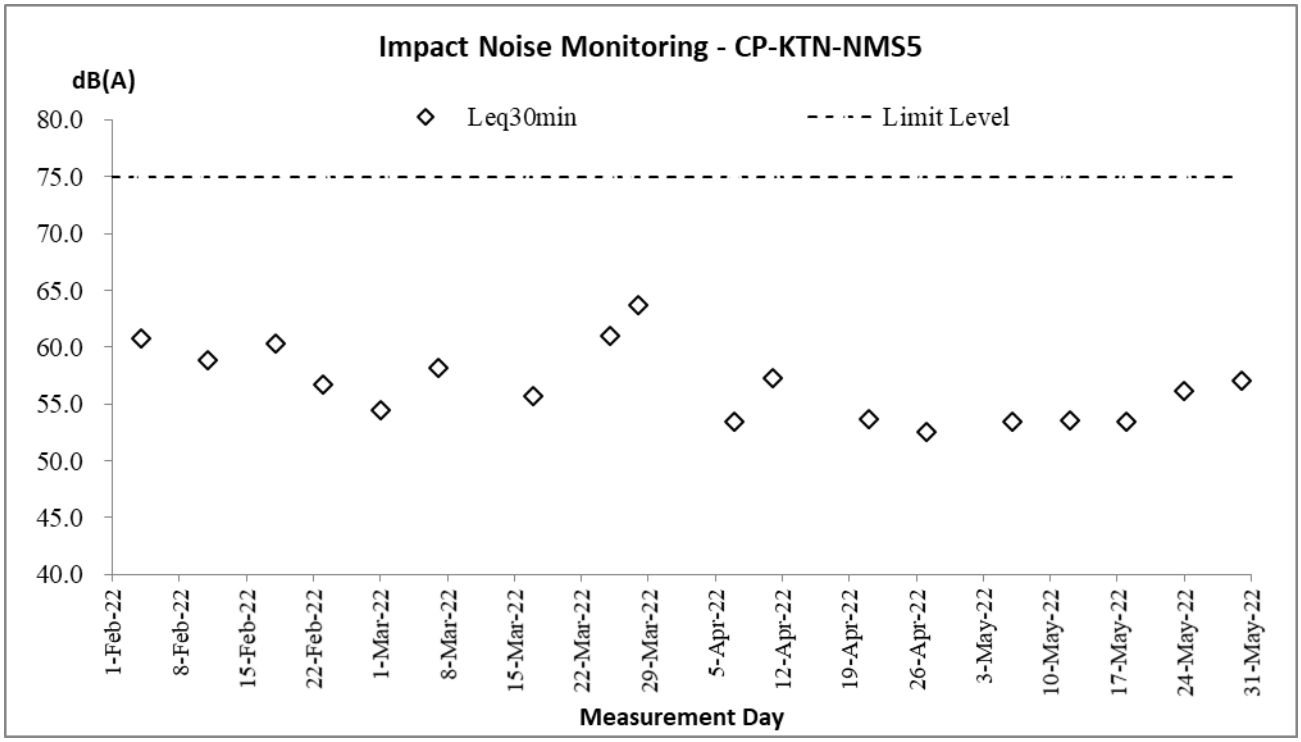
Appendix G

Database of Monitoring Result

Daytime Noise Measurement Results (dB) at CP-KTN-NMS5																				
Date	**Start Time**	**1st Leq (5min)**			**2nd Leq (5min)**			**3rd Leq (5min)**			**4th Leq (5min)**			**5th Leq (5min)**			**6th Leq (5min)**			**Leq30min, dB(A)**	**Corrected Leq30min dB(A)**
		Leq, dB(A)	**L10, dB(A)**	**L90, dB(A)**	**Leq, dB(A)**	**L10, dB(A)**	**L90, dB(A)**	**Leq, dB(A)**	**L10, dB(A)**	**L90, dB(A)**	**Leq, dB(A)**	**L10, dB(A)**	**L90, dB(A)**	**Leq, dB(A)**	**L10, dB(A)**	**L90, dB(A)**	**Leq, dB(A)**	**L10, dB(A)**	**L90, dB(A)**		
6-May-22	13:02	53.4	55.2	49.3	54.8	56.5	48.6	51.9	54.6	49.3	53.1	55.2	49.7	54.8	56.4	49.6	51.2	53.5	48.6	53.4	56.4
13-May-22	9:25	53.5	55.2	50.9	53.8	55.8	51.5	53.3	55.4	50.7	52.7	54.8	50.1	54.2	57.7	51.7	53.8	55.9	50.9	53.6	56.6
18-May-22	9:25	53.4	55.1	50.8	53.7	55.5	51.1	53.1	55.3	50.7	52.5	54.4	50.0	54.3	57.0	51.7	53.8	55.8	50.3	53.5	56.5
24-May-22	14:24	54.7	58.2	53.3	54.2	58.6	53.0	56.7	59.7	53.4	56.2	58.9	52.9	57.4	59.9	55.3	56.8	60.2	55.7	56.1	59.1
30-May-22	9:23	56.3	57.5	53.6	54.6	55.6	53.2	57.4	60.3	52.3	58.7	61.4	53.3	57.9	60.5	52.8	56.0	56.4	53.7	57.0	60.0

Appendix H

Graphical Plots for Monitoring Result


Impact Noise Monitoring - CP-KTN-NMS5
dB(A)
Leq30min
Limit Level
80.0
75.0
70.0
65.0
60.0
55.0
50.0
45.0
40.0
1-Feb-22
8-Feb-22
15-Feb-22
22-Feb-22
1-Mar-22
8-Mar-22
15-Mar-22
22-Mar-22
29-Mar-22
5-Apr-22
12-Apr-22
19-Apr-22
26-Apr-22
3-May-22
10-May-22
17-May-22
24-May-22
31-May-22
Measurement Day

Appendix I

Monthly Summary Waste Flow Table

Contract No. : 3/WSD/20
Contact Name: Reclaimed Water Supply to Sheung Shui and Fanling

Monthly Summary Waste Flow Table for _2022___ (year)

Month	Actual Quantities of Inert C&D Materials Generated Monthly						Actual Quantities of C&D Wastes Generated Monthly				
	Total Quantity Generated	Hard Rock and Large Broken Concrete	Reused in the Contract	Reused in other Projects	Disposed as Public Fill	Imported Fill	Metals	Paper/ cardboard packaging	Plastics (see Note 3)	Chemical Waste	Others, e.g. general refuse
	(in '000m^3)	(in '000m^3)	(in '000m^3)	(in '000m^3)	(in '000m^3)	(in '000m^3)	(in '000 kg)	(in '000kg)	(in '000kg)	(in '000kg)	(in '000m^3)
Jan	0.3031	0	0	0	0.3031	0	0	0	0	0	0.0016
Feb	0.5411	0	0	0	0.5411	0	0	0	0	0	0.0019
Mar	0.8459	0	0	0	0.8459	0	0	0	0	0	0.0014
Apr	3.2205	0	0	0	3.2205	0	0	0	0	0	0.0024
May	3.8704	0	0	0	3.8704	0	0	0	0	0	0.0057
June											
Sub-total	8.781	0	0	0	8.781	0	0	0	0	0	0.013
July											
Aug											
Sept											
Oct											
Nov											
Dec											
Total	8.781	0	0	0	8.781	0	0	0	0	0	0.013

Forecast of Total Quantities of C&D Materials to be Generated from the Contract*										
Total Quantity Generated	Hard Rock and Large Broken Concrete	Reused in the Contract	Reused in other Projects	Disposed as Public Fill	Imported Fill	Metals	Paper/ cardboard packaging	Plastics (see Note 3)	Chemical Waste	Others, e.g. general refuse
(in '000m^3)	(in '000m^3)	(in '000m^3)	(in '000m^3)	(in '000m^3)	(in '000m^3)	(in '000 kg)	(in '000kg)	(in '000kg)	(in '000kg)	(in '000m^3)
25.472	5.386	0	0	25.472	0	0	0	0	0	0.3885

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

(3) The quantities of C&D material indicated in the half-yearly status report should be in tonnes. If the project offices do not have information on the densities of the material for the time being, they could initially adopt the following conversion factors for reporting purpose: insitu densities of rock and soil to be 2.5 tonnes/m3 and 2.0 tonnes/m3 respectively; and densities of imported rock and soil to be 2.0 tonnes/m3 and 1.8 tonnes/m3 respectively.

(4) Boken concrete and bitumen = 2.4 tonnes/m3

(5) Conversion to 1000m3 for general refuse is weight in 1000kg multiply by 0.002

Appendix J

Implementation Schedule for Environmental Mitigation Measures (ISEMM)

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concerns to address	Who to implement the Measures?	Location of the measures	When to implement the Measures?	What requirements or standards for the measures to achieve?
Common Mitigation Measures (Applicable to ALL Project Components, including DPs and Non-DPs)							
Construction Dust Impact							
S3.8	D1	Mitigation measures in form of regular watering under a good site practice should be adopted. Watering once per hour on exposed worksites and haul road is proposed to achieve dust removal efficiency of 92.1%. While the above watering frequencies are to be followed, the extent of watering may vary depending on actual site conditions but should be sufficient to maintain an equivalent intensity of no less than 1.7 L/m2 to achieve the respective dust removal efficiencies.	Minimize dust impact at the nearby sensitive receivers	Contractor	All construction sites	Construction phase	APCO To control the dust impact to meet HKAQO and TM-EIAO
S3.8	D2	The Contractor shall follow the procedures and requirements given in the Air Pollution Control (Construction Dust) Regulation.	Minimize dust impact at the nearby sensitive receivers	Contractor	All construction sites	Construction phase	APCO To control the dust impact to meet HKAQO and TM-EIAO
S3.8	D3	Following dust suppression measures should also be incorporated by the Contractor to control the dust nuisance throughout the construction phase: • Any excavated or stockpile of dusty material should be covered entirely by impervious sheeting or sprayed with water to maintain the entire surface wet and then removed or backfilled or reinstated where practicable within 24 hours of the excavation or unloading; • Any dusty materials remaining after a stockpile is removed should be wetted with water and cleared from the surface of roads; • A stockpile of dusty material should not be extend beyond the pedestrian barriers, fencing or traffic cones; • The load of dusty materials on a vehicle leaving a construction site should be covered entirely by impervious sheeting to ensure that the dusty materials do not leak from the vehicle; • Where practicable, vehicle washing facilities with high pressure water jet should be provided at every discernible or designated vehicle exit point. The area where vehicle washing takes place and the road section between the washing facilities and the exit point should be paved with concrete, bituminous materials or hard cores; • When there are open excavation and reinstatement works, hoarding of not less than 2.4m high should be provided as far as practicable along the site boundary with provision for public crossing. Good site practice shall also be adopted by the Contractor to ensure the conditions of the hoardings are properly maintained throughout the construction period;	Minimize dust impact at the nearby sensitive receivers	Contractor	All construction sites	Construction phase	APCO To control the dust impact to meet HKAQO and TM-EIAO

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concerns to address	Who to implement the Measures?	Location of the measures	When to implement the Measures?	What requirements or standards for the measures to achieve?
		• The portion of any road leading only to construction site that is within 30m of a vehicle entrance or exit should be kept clear of dusty materials; • Surfaces where any pneumatic or power-driven drilling, cutting, polishing or other mechanical breaking operation takes place should be sprayed with water or a dust suppression chemical continuously; • Any area that involves demolition activities should be sprayed with water or a dust suppression chemical immediately prior to, during and immediately after the activities so as to maintain the entire surface wet; • Where a scaffolding is erected around the perimeter of a building under construction, effective dust screens, sheeting or netting should be provided to enclose the scaffolding from the ground floor level of the building, or a canopy should be provided from the first floor level up to the highest level of the scaffolding; • Any skip hoist for material transport should be totally enclosed by impervious sheeting; and • Every stock of more than 20 bags of cement or dry pulverized fuel ash (PFA) should be covered entirely by impervious sheeting or placed in an area sheltered on the top and the 3 sides.					
Noise Impact (Construction Phase)							
S4.9	N1	Implement the following good site management practices: • only well-maintained plant should be operated on-site and plant should be serviced regularly during the construction programme; • machines and plant (such as trucks, cranes) that may be in intermittent use should be shut down between work periods or should be throttled down to a minimum; • plant known to emit noise strongly in one direction, where possible, be orientated so that the noise is directed away from nearby NSRs; • silencers or mufflers on construction equipment should be properly fitted and maintained during the construction works; • mobile plant should be sited as far away from NSRs as possible and practicable; and • material stockpiles, mobile container site office and other structures should be effectively utilised, where practicable, to screen noise from on-site construction activities.	Control construction airborne noise	Contractor	All construction sites	Construction phase	Annex 5, TM-EIAO
S4.9	N2	Install temporary site hoarding (approx. 2.4m high) located on the site boundaries between noisy construction activities and NSRs. The conditions of the hoardings shall be properly maintained throughout the construction period.	Reduce the construction noise levels at low-level	Contractor	All construction sites	Construction phase	Annex 5, TM-EIAO

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concerns to address	Who to implement the Measures?	Location of the measures	When to implement the Measures?	What requirements or standards for the measures to achieve?
			zone of NSRs through partial screening.				
S4.9	N3	Install movable noise barriers, full enclosure and acoustic mat, screen the noisy plants including air compressor and generator.	Screen the noisy plant items to be used at all construction sites	Contractor	All construction sites	Construction phase	Annex 5, TM-EIAO
S4.9	N4	Use of "Quiet" Plant and Working Methods	Reduce the noise levels of plant items	Contractor	All construction sites	Construction phase	Annex 5, TM-EIAO
S4.9	N5	Sequencing operation of construction plants where practicable.	Operate sequentially within the same work site to reduce the construction airborne noise	Contractor	All construction sites	Construction phase	Annex 5, TM-EIAO
Water Quality Impact (Construction Phase)							
S5.7	W1	Construction Runoff In accordance with the Practice Note for Professional Persons on Construction Site Drainage, Environmental Protection Department, 1994 (ProPECC PN 1/94), construction phase mitigation measures should be provided and the Storm Water Pollution Control Plan is given below. **Storm Water Pollution Control Plan** • At the start of site establishment, perimeter cut-off drains to direct off-site water around the site should be constructed with internal drainage works and erosion and sedimentation control facilities implemented. Channels (both temporary and permanent drainage pipes and culverts), earth bunds or sand bag barriers should be provided on site to direct stormwater to silt removal facilities. The design of the temporary on-site drainage system will be undertaken by the Contractor prior to the commencement of construction. • Diversion of natural stormwater should be provided as far as possible. The design of temporary on-site drainage should prevent runoff going through site surface, construction machinery and equipment in order to avoid or minimize polluted runoff. Sedimentation tanks with sufficient capacity, constructed from pre-formed individual cells of approximately 6 to 8m3 capacities, are recommended as a general mitigation measure which can be used for settling surface runoff prior to disposal. The system capacity shall be flexible and able to handle multiple inputs from a variety of sources and suited to applications	Control construction runoff	Contractor	All construction sites	Construction phase	WPCO, EIAO, TM-EIAO

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concerns to address	Who to implement the Measures?	Location of the measures	When to implement the Measures?	What requirements or standards for the measures to achieve?
		where the influent is pumped. • The dikes or embankments for flood protection should be implemented around the boundaries of earthwork areas. Temporary ditches should be provided to facilitate the runoff discharge into an appropriate watercourse, through a silt/sediment trap. The silt/sediment traps should be incorporated in the permanent drainage channels to enhance deposition rates. • The design of efficient silt removal facilities should be based on the guidelines in Appendix A1 of ProPECC PN 1/94. The detailed design of the sand/silt traps should be undertaken by the Contractor prior to the commencement of construction. • Construction works should be programmed to minimize surface excavation works during the rainy seasons (April to September). All exposed earth areas should be completed and vegetated as soon as possible after earthworks have been completed. If excavation of soil cannot be avoided during the rainy season, or at any time of year when rainstorms are likely, exposed slope surfaces should be covered by tarpaulin or other means. • All drainage facilities and erosion and sediment control structures should be regularly inspected and maintained to ensure proper and efficient operation at all times and particularly following rainstorms. Deposited silt and grit should be removed regularly and disposed of by spreading evenly over stable, vegetated areas. • Measures should be taken to minimize the ingress of site drainage into excavations. If the excavation of trenches in wet periods is necessary, it should be dug and backfilled in short sections wherever practicable. Water pumped out from trenches or foundation excavations should be discharged into storm drains via silt removal facilities. • All open stockpiles of construction materials (for example, aggregates, sand and fill material) of more than 50m3 should be covered with tarpaulin or similar fabric during rainstorms. Measures should be taken to prevent the washing away of construction materials, soil, silt or debris into any drainage system. • Manholes (including newly constructed ones) should always be adequately covered and temporarily sealed so as to prevent silt, construction materials or debris being washed into the drainage system and storm runoff being directed into foul sewers. • Precautions be taken at any time of year when rainstorms are likely, actions to be taken when a rainstorm is imminent or forecasted, and actions to be taken during or after rainstorms are summarised in Appendix A2 of ProPECC PN 1/94. Particular attention should be paid to the control of silty surface runoff					

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concerns to address	Who to implement the Measures?	Location of the measures	When to implement the Measures?	What requirements or standards for the measures to achieve?
		during storm events. • All vehicles and plant should be cleaned before leaving a construction site to ensure no earth, mud, debris and the like is deposited by them on roads. An adequately designed and sited wheel washing facilities should be provided at every construction site exit where practicable. Wash-water should have sand and silt settled out and removed at least on a weekly basis to ensure the continued efficiency of the process. The section of access road leading to, and exiting from, the wheel wash bay to the public road should be paved with sufficient backfall toward the wheel-wash bay to prevent vehicle tracking of soil and silty water to public roads and drains. • Oil interceptors should be provided in the drainage system downstream of any oil/fuel pollution sources. The oil interceptors should be emptied and cleaned regularly to prevent the release of oil and grease into the storm water drainage system after accidental spillage. A bypass should be provided for the oil interceptors to prevent flushing during heavy rain. • Construction solid waste, debris and rubbish on site should be collected, handled and disposed of properly to avoid water quality impacts. • All fuel tanks and storage areas should be provided with locks and sited on sealed areas, within bunds of a capacity equal to 110% of the storage capacity of the largest tank to prevent spilled fuel oils from reaching water sensitive receivers nearby. • Regular environmental audit on the construction site should be carried out in order to prevent any malpractices. Notices should be posted at conspicuous locations to remind the workers not to discharge any sewage or wastewater into the meander, wetlands and fish ponds.					
S5.7	W2	**Sewage from Workforce** • Portable chemical toilets and sewage holding tanks should be provided for handling the construction sewage generated by the workforce. A licensed Contractor should be employed to provide appropriate and adequate portable toilets and be responsible for appropriate disposal and maintenance. • Notices should be posted at conspicuous locations to remind the workers not to discharge any sewage or wastewater into the nearby environment during the construction phase of the Project. Regular environmental audit on the construction site should be conducted in order to provide an effective control of any malpractices and achieve continual improvement of environmental performance on site. It is anticipated that sewage generation during the construction phase of the Project would not cause water quality impact after undertaking all required measures.	Handling of site sewage	Contractor	All construction sites	Construction phase	WPCO, EIAO, TM-EIAO

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concerns to address	Who to implement the Measures?	Location of the measures	When to implement the Measures?	What requirements or standards for the measures to achieve?
Waste Management (Construction Waste)							
S7.6	WM1	Waste Reduction Measures Waste reduction is best achieved at the planning and design phase, as well as by ensuring the implementation of good site practices. The following recommendations are proposed to achieve reduction: • segregate and store different types of waste in different containers, skip or stockpiles to enhance reuse or recycling of materials and their proper disposal; • proper storage and site practices to minimize the potential for damage and contamination of construction materials; • plan and stock construction materials carefully to minimize amount of waste generated and avoid unnecessary generation of waste; • sort out demolition debris and excavated materials from demolition works to recover reusable/recyclable portions (i.e. soil, broken concrete, metal etc.); and • provide training to workers on the importance of appropriate waste management procedures, including waste reduction, reuse and recycling.	Reduce waste generation	Contractor	All construction sites where practicable	Prior to the commencement of construction	Waste Disposal Ordinance
S7.6	WM2	Prepare Waste Management Plan and submit to the Engineer for approval	Minimize waste generation during construction	Contractor	All construction sites	Construction phase	Waste Disposal Ordinance
S7.6	WM3	**Good Site Practice** The following good site practices are recommended throughout the construction activities: • nomination of an approved personnel, such as a site manager, to be responsible for the implementation of good site practices, arrangements for collection and effective disposal to an appropriate facility, of all wastes generated at the site; • training of site personnel in site cleanliness, appropriate waste management procedures and concepts of waste reduction, reuse and recycling; • provision of sufficient waste disposal points and regular collection for disposal; • appropriate measures to minimize windblown litter and dust during transportation of waste by either covering trucks or by transporting wastes in enclosed containers; • regular cleaning and maintenance programme for drainage systems, sumps and oil interceptors;	Minimize waste generation during construction	Contractor	All construction sites	Construction phase	Waste Disposal Ordinance
S7.6	WM4	**Storage of Waste** The following recommendation should be implemented to minimize the impacts:	Minimize waste from storage impacts	Contractor	All construction	Construction phase	Waste Disposal Ordinance

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concerns to address	Who to implement the Measures?	Location of the measures	When to implement the Measures?	What requirements or standards for the measures to achieve?
		• waste such as soil should be handled and stored well to ensure secure containment; • stockpiling area should be provided with covers and water spraying system to prevent materials from wind-blown or being washed away; • different locations should be designated to stockpile each material to enhance reuse;			sites		
S7.6	WM5	**Collection and Transportation of Waste** The following recommendation should minimize the impacts: • remove waste in timely manner; • employ the trucks with cover or enclosed containers for waste transportation; • obtain relevant waste disposal permits from the appropriate authorities; and • disposal of waste should be done at licensed waste disposal facilities.	Minimize waste from storage impacts	Contractor	All construction sites	Construction phase	Waste Disposal Ordinance
S7.6	WM6	**Excavated and C&D Material** Wherever practicable, C&D materials should be segregated from other wastes to avoid contamination and ensure acceptability at public filling areas or reclamation sites. The following mitigation measures should be implemented in handling the excavated and C&D materials: • maintain temporary stockpiles and reuse excavated fill material for backfilling; • carry out on-site sorting; • deliver surplus artificial hard materials to Tuen Mun Area 38 recycling plant or its successor for recycling into subsequent useful products; • make provisions in the Contract documents to allow and promote the use of recycled aggregates where appropriate; • implement a recording system for the amount of waste generated, recycled and disposed of for checking; Standard formwork should be used as far as practicable in order to minimize the arising of C&D waste. The use of more durable formwork (e.g. metal hoarding) or plastic facing should be encouraged in order to enhance the possibility of recycling. The purchasing of construction materials should be carefully planned in order to avoid over ordering and wastage. Wheel wash facilities have to be provided at the site entrance before the trucks leaving the works area.	Minimize waste impacts from excavated and C&D materials	Contractor	All construction sites	Construction phase	• Land (Miscellaneous Provisions) Ordinance • Waste Disposal Ordinance • ETWB TCW No. 19/2005
S7.6	WM8	**Chemical Waste** • If chemical wastes are produced at the construction site, the Contractors should register with EPD as chemical waste producers. Chemical wastes should be stored in appropriate containers and collected by a licensed chemical waste Contractor. Chemical wastes (e.g. spent lubricant oil) should be recycled at an appropriate facility as far as possible, while the chemical	Control the chemical waste and ensure proper storage, handling and disposal.	Contractor	All construction sites	Construction phase	• Waste Disposal (Chemical Waste) General) Regulation • Code of Practice on the Packaging, Labelling and

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concerns to address	Who to implement the Measures?	Location of the measures	When to implement the Measures?	What requirements or standards for the measures to achieve?
		waste that cannot be recycled should be disposed of at either the Chemical Waste Treatment Centre, or another licensed facility, in accordance with the Waste Disposal (Chemical Waste) (General) Regulation.					Storage of Chemical Waste
S7.6	WM9	**General Waste** • General refuse should be stored in enclosed bins separately from construction and chemical wastes. Recycling bins should also be placed to encourage recycling. • Preferably enclosed and covered areas should be provided for general refuse collection and routine cleaning for these areas should also be implemented to keep areas clean. • A reputable waste collector should be employed to remove general refuse on a daily basis.	Minimize production of the general refuse and avoid odour, pest and litter impacts	Contractor	All construction sites	Construction phase	• Waste Disposal Ordinance
S7.6	WM10	**Sewage** • The WMP should document the locations and number of portable chemical toilets depending on the number of workers, land availability, site condition and activities. • Regularly collection by licensed collectors should be arranged to minimize potential environmental impacts.	Minimize production of sewage impacts	Contractor	All construction sites	Construction phase	• Waste Disposal Ordinance
S7.6	WM11	**Topsoil reuse** – Topsoil, where identified, should be stripped and stored for re-use in the construction of the soft landscape works, where practical. This is considered a general measure for good site practice.	Good site practice	Contractor / Project Proponent	Onsite	Construction Phase	• ETWB Technical Circular (Works) No.29/2004
Landscape and Visual (Construction)							
S.12.9 MM3	LV5	Open Space Provision - the principles adopted in the RODP planning ensure that public open space systems are incorporated. All requirements for open space areas stipulated in the planning documents for the formulation of the Preliminary Layout Plan should be adhered to.	Reprovision of open space. Enhance visual amenity of the area and improve the overall landscape character	Government Developer / Detailed Design Consultant / Contractor	Onsite as stipulated in the planning documents for the formulation of the Preliminary Layout Plan	Prior to Construction and Construction Phase	Hong Kong Planning Standards and Guidelines (HKPSG) issued by the Planning Department (As at Aug 2011); Sustainable Building Design Guidelines
S.12.9 MM4	LV6	Tree Protection & Preservation – Exiting trees to be retained within the Project Site should be carefully protected during construction. In particular OVTs will be preserved according to ETWB Technical Circular (Works) No. 29/2004. Detailed Tree Protection Specification shall be provided in the Contract Specification. Under this specification, the Contractor shall be required to submit, for approval, a detailed working method statement for the protection of trees prior to	Protect and Preserve Trees	Government Developer / Detailed Design Consultant / Contractor	Onsite as stipulated in the planning documents for the formulation of	Prior to Construction and Construction Phase	ETWB Technical Circular Works (TCW) No. 29/2004 and 3/2006

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concerns to address	Who to implement the Measures?	Location of the measures	When to implement the Measures?	What requirements or standards for the measures to achieve?
		undertaking any works adjacent to all retained trees, including trees in Contractor's works areas. A detailed tree survey will be carried out for the Tree Removal Application (TRA) process which will be carried out at the later detailed design stage of the Project. The detailed tree survey will propose which trees should be retained, transplanted or felled and will include details of tree protection measures for those trees to be retained.			the Preliminary Layout Plan		
S.12.9 MM5	LV7	Tree Transplantation – Trees unavoidably affected by the Project works should be transplanted where practical. Trees should be transplanted straight to their final receptor site and not held in a temporary nursery as far as possible. A detailed Tree Transplanting Specification shall be provided in the Contract Specification, where applicable. Sufficient time for necessary tree root and crown preparation periods shall be allowed in the project programme. A detailed transplanting proposal will be submitted to relevant government departments for approval in accordance with ETWBTC 2/2004 and 3/2006 and final locations of transplanted trees should be agreed prior to commencement of the work. For trees associated with highways e.g. roadside planting along highways, that are unavoidably affected and should be transplanted, HyD HQ/GN/13 'Interim Guidelines for Tree Transplanting Works under Highways Department's Vegetation Maintenance Ambit' should be referred to.	Transplant Trees where suitable for transplantation	Government Developer / Detailed Design Consultant / Contractor	Onsite where possible. Otherwise consider offsite locations	Prior to Construction, Construction Phase & Maintenance in Operation Phase	ETWB TCW 3/2006 and 2/2004 HyD HQ/GN/13 Interim Guidelines for Tree Transplanting Works under Highways Department's Vegetation Maintenance Ambit
S.12.9 MM7	LV9	Compensatory Planting – Compensatory tree planting for felled trees shall be provided to the satisfaction of relevant Government departments. Required numbers and locations of compensatory trees shall be determined and agreed separately with Government during the Tree Removal Application process under ETWBTC 3/2006. Compensatory planting is proposed at the potential open areas such as open spaces, amenity areas, open areas of the streetscapes, as well as the open areas within development lots. Compensatory planting for shrubs should be considered in suitable locations. Native species such as *Melastoma malabathricum, Diospyros vaccinioides, Gardenia jasminoides, Ixora chinensis, Ligustrum sinense, Litsea rotundifolia, Melastoma dodecandrum, Atalantia buxifolia, Rhodomyrtus tomentosa, Rhaphiolepis indica,* and *Rhododendron simsii* are suggested.	Compensate for trees and shrubs lost due to the Project.	Government Developer / Detailed Design Consultant / Contractor	Onsite where possible. Otherwise consider offsite locations	Prior to Construction, Construction Phase & Maintenance in Operation Phase	ETWB TCW 3/2006 and 2/2004
S.12.9 MM9	LV11	Vertical Greening – Planting of climbers to grow up vertical surfaces were appropriate (e.g. building edges, piers).	Soften hard surfaces and	Project Proponent /	On appropriate	Prior to Construction,	ETWB TCW No. 11/2004 – Cyber

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concerns to address	Who to implement the Measures?	Location of the measures	When to implement the Measures?	What requirements or standards for the measures to achieve?
			facilities	Detailed Design Consultant / Contractor / Maintenance Authority	structures	Construction Phase & Maintenance in Operation Phase	Manual for Greening
S.12.9 MM10	LV12	Green Roof – Roof greening where appropriate should be established on proposed buildings as per the guidelines stated. These guidelines provide further details including information regarding structural loading, design, maintenance, etc. considerations as well as providing information on what types of plants might be suitable.	Reduce exposure to untreated concrete surfaces and particularly mitigate visual impact to VSRs at high levels. Provide greening.	Project Proponent / Detailed Design Consultant / Contractor / Maintenance Authority	On appropriate buildings	Prior to Construction, Construction Phase & Maintenance in Operation Phase	CIBSE HK Branch, Technical Guidelines for Green Roof Systems in Hong Kong (2011); ArchSD/Urbis Study on Green Roof Application in HK (2007)
S.12.9 MM11	LV13	Screen Planting – Tall screen/buffer trees and shrubs should be planted. This measure may additionally form part of the compensatory planting.	To screen proposed structures such as roads and buildings. Improve compatibility with the surrounding environment and create a pleasant pedestrian environment	Government / Developer / Detailed Design Consultant / Contractor	Along roads, around suitable built structures, or around VSRs to contain their view out to the NDA Maintenance and create a pleasant Contractor structures	Prior to Construction, Construction Phase & Maintenance in Operation Phase	ETWBTC 3/2006
S12.9 MM14.5	LV20	Screen Hoarding – Screen hoarding shall be erected along areas of the construction works site boundary where the works site borders publically accessible routes and/or is close to visually sensitive receivers (VSRs). It is proposed that the screening be compatible with the surrounding environment and where possible, nonreflective, recessive colours be used. Any works areas near the ecological sensitive areas should erect 2m high dull green site boundary fence. Details can refer to the ecological impact assessment (Chapter 13 of the EIA report).	To screen undesirable views of the works site.	Contractor	Throughout NDAs	Construction Phase	
S12.9	LV21	Light Control – Construction day and night time lighting should be controlled to	To minimize glare	Government /	Throughout	Construction	

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concerns to address	Who to implement the Measures?	Location of the measures	When to implement the Measures?	What requirements or standards for the measures to achieve?
MM14.6		minimize glare impact to adjacent VSRs during the Construction phase. Street and night time lighting shall also be controlled to minimize glare impact to adjacent VSRs during the operation phase.	impact to adjacent VSRs	Developer / Contractor	NDAs	and Operation Phases	
Ecology (Construction Phase)							
S.13.9	E13	Review design and construction methods for bridges, especially those on the Sheung Yue and tidal Ng Tung Rivers, and adopt measures which minimize impacts on rivers and disturbance and fragmentation impacts on fauna. No construction during ardeid breeding season (1 March to 31 July) along Sheung Yue River north and east of KTN area D1-5 and east of D1-9 and C2-3 and restriction of working hours on new pedestrian bridges over the Sheung Yue River and tidal Ng Tung River to 09.00 to 17.30 during the ardeid breeding season (1 March to 31 July). Provision of alternative foraging habitat along main river channels for large waterbirds.	Minimize impacts on rivers and disturbance and fragmentation impacts on fauna.	Project Proponent / Detailed Design Consultant / Contractor	Along and within the Sheung Yue, Ng Tung and Shek Sheung Rivers	Detailed design and construction phases.	TM-EIAO.
S.13.9	E16	Creation of Green Corridors along the Sheung Yue, Ng Tung and Shek Sheung Rivers, retention and provision of screen plantings where feasible; provision of Open Space areas and development areas along river corridors; Design and erection of 2m high solid dull green site barrier fence between river channel and any active works area along or adjacent to Ng Tung, Sheung Yue and Shek Sheung Rivers. Ng Tung, Sheung Yue and Shek Sheung Rivers screen planting.	Minimize disturbance to waterbirds using Ng Tung, Sheung Yue and Shek Sheung River channels.	Detailed Design Consultant / Contractor	Ng Tung, Sheung Yue and Shek Sheung Rivers	Detailed design and construction phases.	TM-EIAO.
S.13.9	E19	Use opaque, non-transparent, non-reflective noise barriers for all construction sites. Unnecessary lighting should be avoided.	Minimize mortality impacts on birds.	Contractor	All construction sites	Construction phase.	TM-EIAO.

Appendix K

Waterbirds Survey Report for the Reporting Month

ecology
biodiversity
landscape

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WSD Contract No. 3/WSD/20 - Reclaimed Water Supply to Sheung Shui and Fanling - Provision of EM&A (Ecological) Monitoring

Monthly Report for May 2022
(Issue 1)

Job Ref.: 21/2063/582 AUES-SWHTSE
Date: 7th June 2022

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WSD Contract No. 3/WSD/20 - Reclaimed Water Supply to Sheung Shui and Fanling - Provision of EM&A (Ecological) Monitoring

Monthly Report for May 2022

(Issue 1)

June 2022

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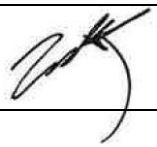
Prepared by:	**Nicholas Tam**	
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1 INTRODUCTION

1.1 According to Section 12.3.2.5 of "Updated EM&A Manual for Advance And First Stage Works of Kwu Tung North and Fanling North New Development Areas", monitor of measures to minimise disturbance to waterbirds on Ng Tung, Sheung Tue and Shek Sheung Rivers is required.

1.2 aec Ltd. has been appointed by Action-United Environmental Services & Consulting (AUES) to conduct weekly transect bird surveys at high and low tides along Ng Tung River, Sheung Yue River and Shek Sheung River; and identify sources of actual and potential disturbances to birds due to construction activities of WSD Contract No. 3/WSD/20 – Reclaimed Water Supply to Sheung Shui and Fanling. As instructed by the Contractor, the commencement date of the survey was in the week of 10th January 2022. This monthly report summarises the monitoring findings in May 2022.

2 MONITORING METHODOLOGY

2.1 The survey methodology references the methodology stated in approved Baseline Monitoring Report (Ecology) (Version 1) (prepared by Cinotech Consultants Limited (2019)) under "*Contract No. SPW 08/2019 – Shek Wu Hui Effluent Polishing Plant – Main Works Stage 1*". Three transects and seven point count locations were selected within the 500m boundary of Ng Tung, Sheung Yue and Shek Sheung River. These locations are shown in **Figure 1** and summarized in **Table 1**.

Table 1 Ecological Monitoring Stations

Monitoring Stations	Descriptions	Influenced by Tidal Action
Transect T1	Along Ng Tung River	No
Transect T2		
Point Count Location P1		
Point Count Location P2		
Point Count Location P3		
Point Count Location P4		
Point Count Location P5	At Shek Sheung River (Low-flow Channel)	No
Transect T3	Along Shek Sheung River & Sheung Yue River	Yes
Point Count Location P6	At Shek Sheung River	Yes
Point Count Location P7	At Intersection between Sheung Yue and Shek Sheung River	Yes

2.2 Surveys were conducted on a weekly basis at both high and low tides (it is considered high tide when tidal levels are above 1.5m and low tide when tidal level are below 1.5m at Tsim Bei Tsui Station).

2.3 All avifauna species that were seen or heard were identified and quantified along transects and at point count locations. Survey data would be recorded continuously by the surveyor as they walk along the transects, while survey data of each point count location would be collected for 5-minutes after surveyor reaches the designated point count location. During

the surveys, the utilisation of Ng Tung River, Sheung Yue River and Shek Shui River and their immediate environs/habitats by waterbirds will be focused. For comparison and data analysis, the transect routes and point count locations follows Figure 1 of the approved Baseline Monitoring Report (Ecology) (Version 1).

2.4 Noticeable behaviours such as breeding, nesting, roosting, feeding and presence of recently fledged juveniles were recorded and reported. In the case which such behaviours were observed for species of conservation importance, the Resident Engineer (RE), the Contractor and the Independent Environmental Checker (IEC) would be immediately notified after the survey such that the Contractor could review the current construction programme and minimize disturbances due to construction activities.

2.5 Weather conditions, tidal information, time of the survey and other noticeable activities occurring within the vicinity of the survey area were recorded.

3 ANALYTICAL METHODOLOGY

3.1 Total number of waterbirds and six representative waterbird species (listed in **Table 2**) are used as an indicator of the level disturbance to waterbirds at each of the survey location. Species listed as wetland-dependant according to Carey *et al*. (2001) are defined as waterbirds. A significant decline in the abundance of all or representative waterbirds would indicate a high level of disturbance.

Table 2 Representative Waterbirds

Common Name	Species Name	Chinese Name
Chinese Pond Heron	*Ardeola bacchus*	池鷺
Eastern Cattle Egret	*Bubulcus coromandus*	牛背鷺
Grey Heron	*Ardea cinerea*	蒼鷺
Great Egret	*Ardea alba*	大白鷺
Little Egret	*Egretta garzetta*	小白鷺
Great Cormorant	*Phalacrocorax carbo*	普通鸕鷀

3.2 Survey data from each month is compared to the baseline monitoring data. When a decline in the total number of Waterbirds or the number of the representative Waterbird species is recorded the survey data would be compared to the baseline data (from Shek Wu Hui Effluent Polishing Plant Baseline Monitoring Report (Ecology) by Cinotech Consultants Limited, 2019) using a two-sample one-tailed Student's t-test assuming unequal variance to analyse whether the decline is significant.

3.3 If the collected data for the reporting month shows a significant difference at the 95% confidence level, the action level will be triggered. If the collected data for the reporting month shows a significant difference at the 99% confidence level, the limit level is triggered and corresponding suggestions would be given to minimize the disturbances according to **Table 3**.

Table 3 Action and Limit Levels and Responses to Evidence of Disturbance to Waterbirds using Ng Tung, Sheung Yue and Shek Sheung Rivers during Construction Phase

Action Level	Response	Limit Level	Response
Decline in numbers of all waterbird species relative to numbers during Baseline Monitoring such that the Action Level response is triggered.	Investigate cause(s) and if cause(s) identified as related to NDAs project instigate remedial action to remove or reduce source of disturbance.	Decline in numbers of all waterbird species relative to numbers during Baseline Monitoring such that the Limit Level response is triggered.	Investigate cause(s) and if cause(s) identified as related to the NDAs project instigate remedial action. Review and adjust project's Long Valley Nature Park (LVNP) management measures to improve conditions for affected species.
Decline in numbers of any one Waterbird species occurring in significant numbers* during Baseline Monitoring such that the Action Level response is triggered.	Investigate cause(s) and if cause(s) identified as related to NDAs project instigate remedial action to remove or reduce source of disturbance.	Decline in numbers of any one Waterbird species occurring in significant numbers* during Baseline Monitoring such that the Limit Level response is triggered.	Investigate cause(s) and if cause(s) identified as related to the NDAs project instigate remedial action. Review and adjust project's LVNP management measures to improve conditions for affected species.

Note: Whether numbers are significant depend on species and season after collection and evaluation of baseline survey data.

3.4 In order to increase the sample size and reduce the random error on each survey day, survey data would be collectively analysed on a monthly basis. The collective data of each month is also compared to the baseline data of the respective month and season instead of the entire data set, to account for the seasonal variation in the abundance of waterbirds. In this study, the Winter season is defined as October to March, while the Summer season is defined as April to September.

4 RESULTS

4.1 The weather conditions and tide levels on the survey dates are listed in the table below.

Table 4 Weather Conditions and Tidal Information of Survey Dates in the Reporting Month

High Tide				Low Tide			
Date	**Time**	**Tide (m)**	**Weather**	**Date**	**Time**	**Tide (m)**	**Weather**
4-May-22	9:45	2.5	Sunny	7-May-22	7:00	1.2	Sunny
9-May-22	12:00	1.61	Sunny	14-May-22	13:00	1.2	Rainy
21-May-22	9:00	1.71	Sunny	19-May-22	16:00	1.5	Sunny
24-May-22	15:30	2	Sunny	26-May-22	15:30	0.5	Cloudy

4.2 Abundance and diversity of key species are summarized in **Table 5** and **Table 6.** Detailed list of avifauna recorded is provided in **Appendix A**.

Table 5 Total Bird Species and Abundance at Point Count Locations in the Reporting Month

Category	Number of Species	Abundance
All Avifauna	35	843
Waterbirds	13	204

Table 6 Abundance of Representative Waterbirds at Point Count Locations in the Reporting Month

Common Name	Species Name	Chinese Name	Abundance
Chinese Pond Heron	*Ardeola bacchus*	池鷺	34
Eastern Cattle Egret	*Bubulcus coromandus*	牛背鷺	33
Grey Heron	*Ardea cinerea*	蒼鷺	1
Great Egret	*Ardea alba*	大白鷺	24
Little Egret	*Egretta garzetta*	小白鷺	68
Great Cormorant	*Phalacrocorax carbo*	普通鸕鷀	0

5 ANALYSIS

5.1 The result of Student's t-test for all waterbirds and representative waterbirds are compiled in **Table 7** respectively. Further details are provided in **Appendices B** and **C**.

Table 7 T-test Result for Waterbirds in the Reporting Month

Category	Monthly					Seasonal				
	T-value	*df*	*p*	Action Level	Limit Level	T-value	*df*	*p*	Action Level	Limit Level
All Waterbirds	No decline					No decline				
Chinese Pond Heron	-2.457	8	0.020	*		-3.609	4	0.011	*	
Eastern Cattle Egret	No decline					No decline				
Grey Heron	No decline					-0.781	15	0.224		
Great Egret	No decline					No decline				
Little Egret	-1.331	10	0.106			-2.092	5	0.453	*	
Great Cormorant	No decline					No decline				

* = level triggered

5.2 Total number of waterbirds and most representative species have not declined compared to the baseline data. The only species that had triggered action level were Chinese Pond Heron and Little Egret.

5.3 The non-collective decline in waterbird numbers indicates that the decline in Chinese Pond Heron and Little Egret can be accounted by natural fluctuations. In fact, an addition of 38 Chinese Pond Heron and 60 Little Egret were recorded from the three surveyed transects in this reporting month, showing that considerable numbers of these two species still utilising the habitats within the survey area. Monitoring work will be continued next month to evaluate any construction impact on waterbirds. The construction site should continue keeping the best site practice in noise control to minimize disturbance caused to waterbirds.

6 OBSERVATIONS

6.1 Waterbird behavior observed during ecological monitoring is listed below:

- Flying
- Resting
- Foraging

6.2 The anthropogenic activities observed during ecological monitoring is listed in **Table 8**

Table 8 Observations during the Ecological Monitoring in the Reporting Month

Location	Observations
T1 (PC1, PC2)	Fishing
T2 (PC3, PC4)	Fishing
T3 (PC6, PC7)	Fishing

7 REFERENCES

Carey, G.J., Chalmers, M.L., Diskin, D.A., Kennerley, P.R., Leader, P.J., Leven, M.R., Lewthwaite, R.W., Melville, D.S., Turnbull, M., and Young, L. 2001. The Avifauna of Hong Kong. Hong Kong Bird Watching Society, Hong Kong.

Cinotech Consultants Limited. 2019. Contract No. SPW 08/2019 Shek Wu Hui Effluent Polishing Plant – Main Works Stage 1 Baseline Monitoring Report (Ecology) (Version 1). Accessed from https://shekwuhui.cinotech.hk/?page_id=24 in Jan 2022.

Appendix A Recorded Bird Species and their Abundance in the Reporting Month

Common Name	Chinese Name	Scientific Name	Waterbird	Point Count Abundance	Transect Abundance
Chinese Pond Heron	池鷺	*Ardeola bacchus*	Y	34	++++
Eastern Cattle Egret	牛背鷺	*Bubulcus coromandus*	Y	33	+
Grey Heron	蒼鷺	*Ardea cinerea*	Y	1	+
Great Egret	大白鷺	*Ardea alba*	Y	24	+++
Little Egret	小白鷺	*Egretta garzetta*	Y	68	+++++
Crested Serpent Eagle	蛇鵰	*Spilornis cheela*	N		+
Black Kite	黑鳶	*Milvus migrans*	N	2	+
White-breasted Waterhen	白胸苦惡鳥	*Amaurornis phoenicurus*	Y	1	+
Black-winged Stilt	黑翅長腳鷸	*Himantopus himantopus*	Y	17	+
Common Sandpiper	磯鷸	*Actitis hypoleucos*	Y	7	+
Common Greenshank	青腳鷸	*Tringa nebularia*	Y	12	+
Spotted Dove	珠頸斑鳩	*Spilopelia chinensis*	N	52	+++++
Greater Coucal	褐翅鴉鵑	*Centropus sinensis*	N	4	
Asian Koel	噪鵑	*Eudynamys scolopaceus*	N	27	+++
Large Hawk-cuckoo	大鷹鵑	*Hierococcyx sparverioides*	N	7	+
House swift	小白腰雨燕	*Apus nipalensis*	N		+
White-throated Kingfisher	白胸翡翠	*Halcyon smyrnensis*	Y	3	+
Common Kingfisher	普通翠鳥	*Alcedo atthis*	Y	1	
Pied Kingfisher	斑魚狗	*Ceryle rudis*	Y	2	+
Black Drongo	黑卷尾	*Dicrurus macrocercus*	N	3	+
Red-billed Blue Magpie	紅嘴藍鵲	*Urocissa erythroryncha*	N	1	+
Oriental Magpie	喜鵲	*Pica serica*	N	5	++
Collared Crow	白頸鴉	*Corvus torquatus*	Y	1	
Cinereous Tit	蒼背山雀	*Parus cinereus*	N	10	++
Red-whiskered Bulbul	紅耳鵯	*Pycnonotus jocosus*	N	30	+++++
Chinese Bulbul	白頭鵯	*Pycnonotus sinensis*	N	21	++
Barn Swallow	家燕	*Hirundo rustica*	N	36	+++++
Yellow-bellied Prinia	黃腹鷦鶯	*Prinia flaviventris*	N	42	+++
Plain Prinia	純色鷦鶯	*Prinia inornata*	N	1	
Common Tailorbird	長尾縫葉鶯	*Orthotomus sutorius*	N	20	++
Masked Laughingthrush	黑臉噪鶥	*Pterorhinus perspicillatus*	N	24	+++++
Swinhoe's white-eye	暗綠繡眼鳥	*Zosterops simplex*	N	18	++++
Crested Myna	八哥	*Acridotheres cristatellus*	N	250	+++++
Black-collared Starling	黑領椋鳥	*Gracupica nigricollis*	N	57	+++++
Oriental Magpie Robin	鵲鴝	*Copsychus saularis*	N	4	+
Eurasian Tree Sparrow	樹麻雀	*Passer montanus*	N	17	++
White Wagtail	白鶺鴒	*Motacilla alba*	N	8	++
		Total Point Count Abundance		843	
		Total Waterbirds		204	

For transect abundance, +: 1-10, ++: 11-20, +++: 21-30, ++++: 31-40, +++++: >40

Appendix B Total Waterbird Abundance from Point Count

Survey Information				Number of Waterbirds	
Week	**Date**	**Time**	**Tide Level**	**Individuals Recorded**	**Total**
1	4-May-22	9:45	High	15	73
	7-May-22	7:00	Low	58	
2	9-May-22	12:00	High	12	66
	14-May-22	13:00	Low	54	
3	19-May-22	9:00	Low	23	34
	21-May-22	16:00	High	11	
4	24-May-22	15:30	High	10	31
	26-May-22	15:30	Low	21	
				Survey Average	51
				May Average	41.44
				Summer Average	45.34

Appendix C Abundance of Representative Waterbirds from Point Count

Representative Species		Recorded Abundance (May 2022)						Baseline	
Common Name	**Species Name**	**Week 1**	**Week 2**	**Week 3**	**Week 4**		**Average**	**May Average**	**Summer Average**
Chinese Pond Heron	*Ardeola bacchus*	12	10	3	9		8.5	15	16.18
Eastern Cattle Egret	*Bubulcus coromandus*	5	23	5	0		8.25	2.33	3.32
Grey Heron	*Ardea cinerea*	0	0	0	1		0.25	0	5.55
Great Egret	*Ardea alba*	10	4	4	6		6	1.67	2.61
Little Egret	*Egretta garzetta*	18	20	17	13		17	20	20.53
Great Cormorant	*Phalacrocorax carbo*	0	0	0	0		0	0	0

Appendix D Survey Photos

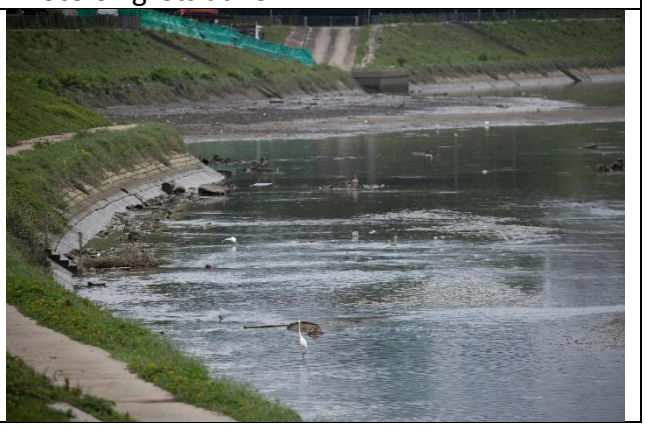
Photo 1 Site Condition of T1	**Photo 2** Construction Site at T2
	
Photo 3 Fishing Activities at P3	**Photo 4** Grey Heron at T2
	
Photo 5 Little Egret at T3	**Photo 6** Egrets at T3
	

Figure 1

Transect and Point Count Location

P4
P1
P3
P2
T1
P7
T2
P5
T3
P6

Proposed Shek Wu Hui Water Reclamation Plant
500m Survey Boundary
Proposed Retained Water Mains
Walk Transect
Point Count Locations

ecology
biodiversity
landscape
aec

Project Title:

WSD Contract No. 3/WSD/20 -
Reclaimed Water Supply to Sheung Shui and Fanling -
Provision of EM&A (Ecological) Monitoring

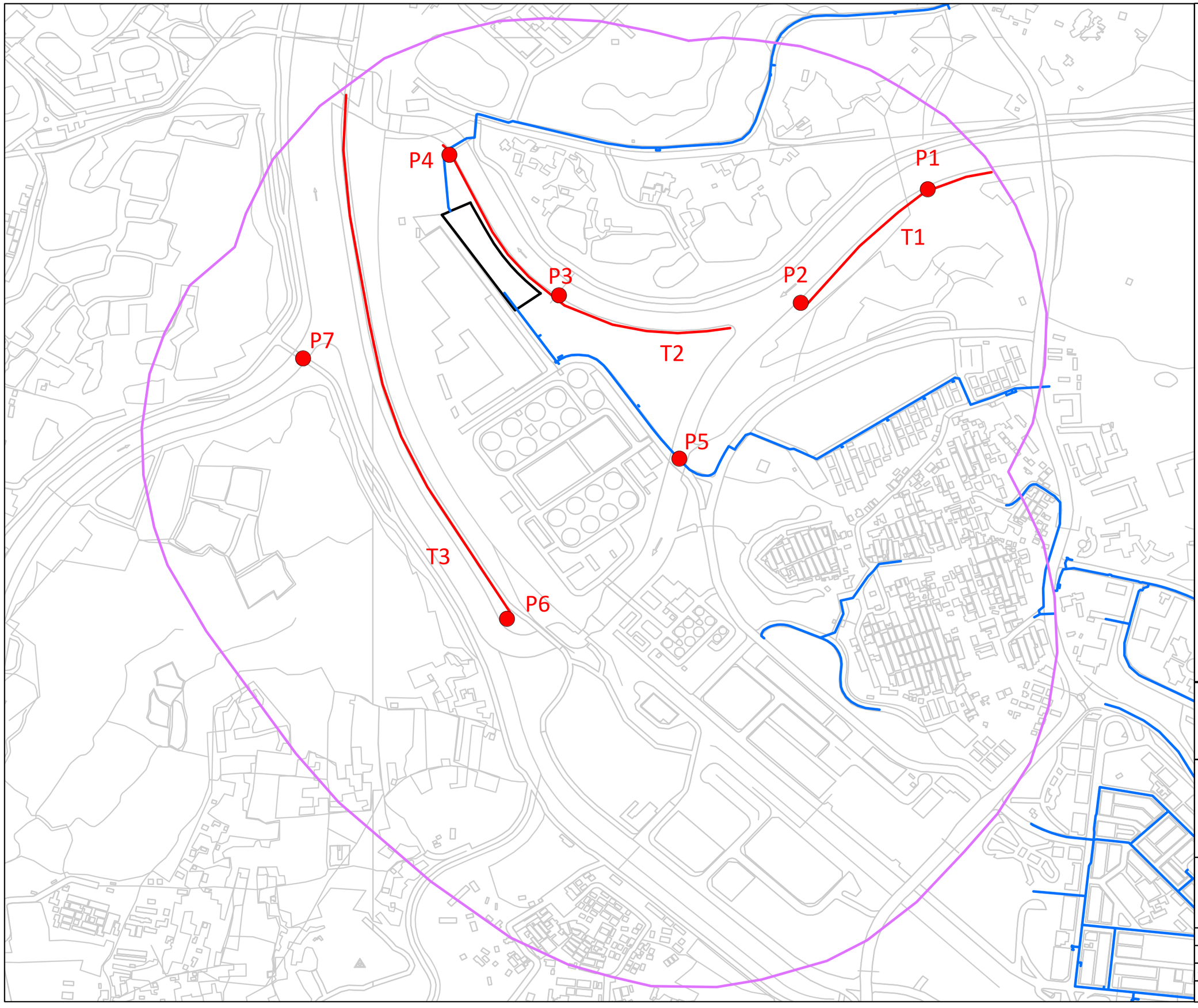
Figure Title:

Transect and Point Count Locations

Drawn by:	JH	Scale:	1:14,500 on A3
Checked By:	NT	Date:	11 Mar 2022
Approved by:	IY		
Figure Number:	Figure 1	Revision:	1

Figure 1a

Transect and Point Count Location (Zoomed In)



Proposed Shek Wu Hui Water Reclamation Plant

500m Survey Boundary

Proposed Retained Water Mains

Walk Transect

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Provision of EM&A (Ecological) Monitoring

Figure Title:

Transect and Point Count Locations (zoomed in)

Drawn by:	JH	Scale:	1:6,000 on A3
Checked By:	NT	Date:	11 Mar 2022
Approved by:	IY		
Figure Number:	Figure 1a	Revision:	1