PROJECT NO.: TCS00371/07

DRAINAGE SERVICES DEPARTMENT (DSD)
CONTRACT NO. DC/2006/02

YUEN LONG, KAM TIN, NGAU TAM MEI AND TIN SHUI WAI DRAINAGE IMPROVEMENTS, STAGE 1, PHASE 2B – CHEUNG CHUN SAN TSUEN AND KAM TSIN WAI

KT15 – 1st Monthly EM&A Report for July 2007

(Revision: 3)

PREPARED FOR
Chit Cheung Construction Company Limited

Quality Index

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Executive Summary

ES.01 Chit Cheung Construction Company Limited (CCC) has been awarded the Drainage Services Department (DSD) Contract No. DC/2006/02 Yuen Long, Kam Tin, Ngau Tam Mei and Tin Shui Wai Drainage Improvements, Stage 1, Phase 2B – Cheung Chun San Tsuen and Kam Tsin Wai (hereinafter "the Project") on 03 April 2007. According to the contract specification requirements an Environmental Monitoring & Audit program to be implemented by an Independent Environmental Team (ET) throughout the contract period.

ES.02 Under the Project Profile for Yuen Long, Kam Tin, Ngau Tam Mei and Tin Shui Wai, Drainage Improvement Stage 1 Phase 2B – Kam Tin Secondary Drainage Channels KT14 & KT15 (Ref.: 382047/E/PP/Issue 5), KT14 & KT15 was defined as Designated Project and governed by Environmental Permit (EP-231/2005/A).

ES.03 Action-United Environmental Services and Consulting (AUES) has been commissioned by CCC to be an Independent Environmental Team (ET) to implement the EM&A program in compliance with the requirements as stated in the Environmental Permit (EP-231/2005/A) and Environmental Monitoring &Audit Manual (EM&A Manual) for Secondary Channel KT14 & KT15 (August 2005). For this Contract (DC/2006/02) only covered KT15 and KT14 will carried out under other contract.

ES.04 This is the 1st Monthly EM&A Report (July 2007) reporting the environmental impact monitoring and audit (EM&A) results of the project EM&A program for the reporting month **July 2007** during the period from 20 to 25 July 2007.

Breach of Action and Limit (AL) Levels

ES.05 No Action/Limit Level exceedance was recorded in this reporting month. All the monitoring results were complied with standard.

Complaints Log

ES.06 No environmental complaint was received in this reporting period.

Notifications of Any Summons and Successful Prosecutions

ES.07 There was no environmental summons or successful prosecution was recorded in this reporting period.

Reporting Changes

ES.08 There are no changes to be reported in this reporting period.

Future Key Issues

ES.09 Construction activities to be undertaken in August 2007 included site clearance, installation of geotechnical instruments, construction works of open channel at Portion 5, erection of hoarding and tree transplanting at Portion 5A1. Potential environmental impacts for this project generally include air quality, noise, surface runoff and construction waste. The contractor shall properly implement the required environmental mitigation measures as per the Implementation Schedule in the EM&A manual to ensure no significant adverse environmental impact arises from the construction works. The contractor was reminded to maintain good house-keeping throughout the construction phase.

EM&A Activities in the Reporting Period

ES.10 A summary of the monitoring activities in this reporting period is listed below:

- 1-Hour TSP Monitoring 3 Events
- 24-Hour TSP Monitoring 1 Event
- Noise Monitoring 1 Event
- Stream Water Quality 2 Events
- Ecology (Fauna) 1 Event
- Site Inspection Audit 2 Times

Air Quality

ES.11 No Action or Limit Level of 1-Hour and 24-Hour TSP exceedance was recorded in this reporting period.

Construction Noise

ES.12 No exceedance in construction noise measurements was recorded and no construction noise complaint was received in this reporting period.

Stream Water Quality

ES.13 No exceedance in stream water quality was recorded in the reporting period.

Ecology (Fauna)

ES.14 No non-compliance with the ecological criteria was recorded in the reporting period.

Summary of Monitoring Exceedances

ES.15 A summary of monitoring exceedances in this reporting period of air quality, noise, stream water quality and ecology (fauna) monitoring are presented below:

Env. Quality	Parameters	Work-Related Exceedance %	Investigation & Corrective Actions
Air Quality	1-Hour TSP	0	Not Required for 0% Exceedance
	24-Hour TSP	0	Not Required for 0% Exceedance
Noise	Leq (30min) Daytime	0	Not Required for 0% Exceedance
Stream Water	Dissolve Oxygen (DO)	0	Not Required for 0% Exceedance
	Suspended Solids (SS)	0	Not Required for 0% Exceedance
	Turbidity (NTU)	0	Not Required for 0% Exceedance
	pH	0	Not Required for 0% Exceedance
	Ammonia Nitrogen	0	Not Required for 0% Exceedance
	Zinc	0	Not Required for 0% Exceedance
Ecology	Fauna	0	Not Required for 0% Exceedance

1.0 INTRODUCTION

1.01 Chit Cheung Construction Company Limited (CCC) has been awarded the Drainage Services Department (DSD) Contract No. DC/2006/02 Yuen Long, Kam Tin, Ngau Tam Mei and Tin Shui Wai Drainage Improvements, Stage 1, Phase 2B – Cheung Chun San Tsuen and Kam Tsin Wai (hereinafter "the Project") on 03 April 2007. According to the contract specification requirements the Project should implemented an Environmental Monitoring & Audit (EM&A) program by an Independent Environmental Team (ET) throughout the construction period in compliance with the requirements as stated in the project particular specification, Environmental Permit (EP-231/2005/A) and EM&A Manual for KT15. The location of the project site is presented in **Appendix A**. The project construction program is presented in **Appendix B**.

1.02 The works to be executed at the propose drainage Channel KT15 mainly comprise the following:

- Construction of about 0.8km secondary drainage channels;
- Construction of DSD maintenances access;
- Provisioning and re-provisioning of pedestrian crossings;
- Associated ancillary works; and
- Construction of temporary vehicular access in Portion 5A1 of the site for vehicular access from Kam Sheung Road to Lot Nos. 398RP, 395 in DD106 which are adjacent to the site.

1.03 Action-United Environmental Services and Consulting (AUES) has been commissioned by CCC to be the Independent Environmental Team (ET) for implementation of the EM&A program in accordance with the requirements as set out in the contract particular specification, Environmental Permit (EP-231/2005/A), EM&A Manual for KT15 and the Environment Impact Assessment Ordinance (EIAO).

1.04 This report presents the results of the project EM&A program for the reporting month **July 2007** during the period from 20 to 25 July 2007.

REPORT STRUCTURE

1.05 The EM&A report is structured into the following sections:

Section 1 Introduction
Section 2 Project Organization and Construction Progress
Section 3 Summary of Monitoring Requirements
Section 4 Impact Monitoring Methodology
Section 5 Impact Monitoring Results
Section 6 Waste Management
Section 7 Site Inspection
Section 8 Environmental Complaint and Non-Compliance
Section 9 Implementation Status of Mitigation Measures
Section 10 Impact Forecast
Section 11 Conclusions

2.0 PROJECT ORGANIZATION AND CONSTRUCTION PROGRESS

PROJECT ORGANIZATION AND MANAGEMENT STRUCTURE

2.01 The organization chart and lines of communication with respect to the on-site environmental management and monitoring program are shown in **Appendix C**.

CONSTRUCTION PROGRESS

2.02 The major construction activities undertaken in this reporting period are list below:-

- Erection of project sign board at Portion 8;
- Site clearance;
- Erection of hoarding at CH040 - 070; and
- Tree transplanting works.

SUMMARY OF ENVIRONMENTAL SUBMISSIONS

2.03 A summary of the relevant permits, licences, and/or notifications on environmental protection for this Project in this reporting period is presented in **Table 2-1**.

Table 2-1 Status of Environmental Licenses and Permits

Item	Item Description	Permit Status
1	Environmental Permit (EP-231/2005/A)	-
2	Air Pollution Control (Construction Dust)	Notified EPD on 09 July 2007
3	Chemical Waste Producer Registration WPN:5296-519-C3430-01 (Portion 8, Ma Fung Ling Road, Tong Yan San Tsuen, Yuen Long)	Registration on 20 April 2007
4	Chemical Waste Producer Registration WPN:5113-533-C3434-09 (Kam Tsin Wai, Kam Tin, Yuen Long)	Registration on 20 April 2007
5	Chemical Waste Producer Registration WPN:5213-424-C3431-01 (Portion 7, Birthing Area, Hoi Wan Road, Tuen Mun)	Registration on 20 April 2007
6	Water Pollution Control Ordinance (Discharge License) License No.: 1U450/1	Obtained on 20 July 2007
7	Billing Account for Disposal of Construction Waste (Account Number : 7005311)	Valid on 07 May 2007

3.0 SUMMARY OF IMPACT MONITORING REQUIREMENTS

3.01 Environmental monitoring and audit requirements are set out in the EM&A Manual. Air quality, construction noise, stream water quality and ecology have been identified to be the key environmental issues during the construction phase of the project.

3.02 A summary of the EM&A requirements for air quality, construction noise, stream water quality and ecology monitoring are shown in **Table 3-1.** The designated station of the air quality, construction noise, stream water quality locations and ecology monitoring area are shown in **Appendix D**.

Table 3-1 Summary of EM&A Requirements

Environmental Aspect	Monitoring Parameters		Monitoring Stations
Air Quality	1-Hour and 24-Hour TSP		A10
Construction Noise	$Leq_{(30min)}$ during normal working hours		N10a*
	Supplementary data of L_{10} and L_{90} for reference.		
Stream Water Quality	In Situ Measurement	• Dissolved Oxygen Concentration (mg/L);	W9A, W9B
		• Dissolved Oxygen Saturation (% Sat);	
		• Turbidity (NTU);	
		• pH;	
		• Salinity (%); Water Depth (m) and	
		• Temperature (^oC).	
	Laboratory Analysis	• Suspended Solids (mg/L);	
		• Ammonia Nitrogen (mg/L); and	
		• Zinc (μg/L).	
Ecology	Monthly monitoring of construction activities adjacent to the wetland areas to identify any intrusions of construction activities into the wetland areas; Monthly monitoring of wetland areas themselves to check that there is no adverse impact on the wetlands as a consequence of changes to the water table that are attributable to the project, if any; Photographic records at six-month intervals; and Monthly surveys of fauna in the wetland areas during the wet season (April to July inclusive) for reptiles, amphibians, dragonflies, and butterflies, and throughout the year for birds.		

Note: * The noise ambient condition within the victim area without significant change. Due to the accessibility, noise monitoring will undertake at N10a. Once the access is available, the impact noise monitoring will undertake at N10.

3.03 Air monitoring is carried out once every six days for 24-Hour TSP and 3 times every six days for 1-Hour TSP at one designated monitoring station A10.

3.04 Noise monitoring is conducted once per week at one designated monitoring location (N10a). Measurements of $Leq_{(30min)}$ shall be taken between 0700 and 1900 with supplementary L_{10} and L_{90} data will be collected for reference.

3.05 Stream water quality monitoring is conducted were undertaken at two location W9A & W9B twice per week. Dissolved Oxygen (DO), pH, Turbidity (NTU) were measured in-situ, water depth, temperature and salinity will be collected for relevant data. Suspended Solids (SS), Ammonia Nitrogen and Zinc were determined in a HOKLAS accredited laboratory respectively.

3.06 Ecological monitoring is conducted in the seasonal wetland area as shown in Project profile of KT15 Figure ATT 4-7.2). Bird survey should be conducted in monthly and other faunal groups (reptiles, amphibians, dragonflies and butterflies) are conducted in wet season (April to July inclusive).

3.07 A summary of the Action/Limit (A/L) Levels for air quality, construction noise, stream water quality and ecology are shown in **Tables 3-2, 3-3, 3-4** and **3-5.**

Table 3-2 Action and Limit Levels for Air Quality Monitoring

Monitoring Station	Action Level (μg/m^3)		Limit Level (μg/m^3)	
	1-Hour TSP	24-Hour TSP	1-Hour TSP	24-Hour TSP
A10	> 307	> 165	> 500	> 260

Table 3-3 Action and Limit Levels for Construction Noise Monitoring

Time Period	Action Level in dB(A)	Limit Level in dB(A)
0700-1900 hrs on normal weekdays	When one or more documented complaints are received	> 75* dB(A)

Note: * Reduces to 70dB(A) for schools and 65dB(A) during the school examination periods.

Table 3-4 Action and Limit Levels for Stream Water Quality Monitoring

Dissolved Oxygen (mg/l)	W9A (Upstream)#	W9B (Downstream)
Action Level	NA	0.3
Limit Level	NA	0.2
Turbidity (NTU)	W9A (Upstream)#	W9B (Downstream)
Action Level	NA	73.5*
Limit Level	NA	78.2**
pH	W9A (Upstream)#	W9B (Downstream)
Action Level	NA	7.0*
Limit Level	NA	7.1**
Suspended Solids (mg/L)	W9A (Upstream)#	W9B (Downstream)
Action Level	NA	148*
Limit Level	NA	159**
Ammonia Nitrogen (mg/L)	W9A (Upstream)#	W9B (Downstream)
Action Level	NA	30.91*
Limit Level	NA	32.20**
Zinc (μg/L)	W9A (Upstream)#	W9B (Downstream)
Action Level	NA	242*
Limit Level	NA	252**

Notes: # Act as Control Station for the Impact Water Quality Monitoring.
* Alternative Action Level of the Turbidity, pH, Suspended Solid, Ammonia Nitrogen and Zinc are 120% of upstream control station of same day.
** Alternative Limit Level of the Turbidity, pH, Suspended Solid, Ammonia Nitrogen and Zinc are 130% of upstream control station of same day.

Table 3-5 Action and Limit Levels for Construction Ecology Monitoring

Parameters	Action Level	Limit Level
Fauna: decrease in the total number of wetland dependent species or individuals of the surveyed faunal groups from baseline	20 – 40%	> 40%

3.08 The Event/Action Plan of air quality, construction noise, stream water quality and ecology has been implemented for this project. Details of the Event/Action Plan were presented in the **Appendix E**.

4.0 IMPACT MONITORING METHDOLOGY

MONITORING LOCATIONS

4.01 The 1-Hour TSP and 24-Hour TSP monitoring was carried out at one designated station A10. Impact construction noise monitoring was undertaken at the designated location N10a. Stream water quality monitoring was undertaken at two designated locations (W9A & W9B). The ecology monitoring was conducted within the wetland area in according to the EM&A Manual of KT15. The descriptions of monitoring stations are presented in **Tables 4-1.** The geographically location are shown in **Appendix D**.

Table 4-1 Location of Air Quality, Noise & Stream Water Quality Monitoring Station/Locations

Air Quality Station	
A10	Village House in Tin Sam San Tsuen
Construction Noise Location	
N10*	Village House in Tin Sam San Tsuen
N10a	Village House in Tin Sam San Tsuen
Water Quality Locations	
W9A#	Tin Sam San Tsuen
W9B	Tin Sam San Tsuen

Note: * The noise ambient condition within the victim area without significant change. Due to the accessibility, noise monitoring will undertake at N10a. Once the access is available, the impact noise monitoring will undertake at N10
Act as control station in impact monitoring

4.02 The meteorological data during the reporting period was obtained from the Lau Fau Shan Station of the Hong Kong Observatory (HKO).

MONITORING FREQUENCY AND PERIOD

1-HOUR TSP MONITORING

4.03 The 1-Hour TSP monitoring was conducted in designated station A10 in according to the EM&A Manual three times every 6 days. Total of 3 monitoring events were carried out in this reporting period.

24-HOUR TSP MONITORING

4.04 The 24-Hour TSP monitoring was conducted at station A10 once every six days. Total 1 monitoring event was carried out in this reporting period.

NOISE MONITORING

4.05 Impact noise monitoring was undertaken at one location N10a once per week. A total of 1 monitoring event was carried out in this reporting period.

STREAM WATER QUALITY MONITORING

4.06 The stream water quality monitoring were undertaken at two location W9A & W9B two time per week. A total of 4 monitoring events were carried out in this reporting period.

ECOLOGY MONITORING

4.07 Bird survey should be conducted in monthly and other faunal groups (reptiles, amphibians, dragonflies and butterflies) are conducted in wet season (April to July inclusive) in the seasonal wetland area.

MONITORING EQUIPMENT

4.08 The monitoring equipment used by the ET in the EM&A program is presented in the following table:

Table 4-2 Monitoring Equipment Used in EM&A Program

Parameters	Equipment	Monitoring Equipment
1-Hour TSP	Portable dust meter	Sibata LD-3 Laser Dust Meter
24-Hour TSP	High Volume Sampler	Grasby Anderson GMWS 2310 HVS / Tisch High Volume Sampler 515N
	Calibration Kit	TISCH Model TE-5028A
Leq30min	Integrating Sound Level Meter (Type1)	B&K Type 2238
	Calibrator	B&K Type 4231
	Portable Wind Speed Indicator	Testo Anemometer
Water Depth	Water Depth Detector	Eagle Sonar
Temperature	Thermometer & DO Meter	YSI 85/10FT
DO	Thermometer & DO Meter	YSI 85/10FT
pH	pH Meter	Hanna HI 98128
Turbidity	Turbidimeter	Hach 2100P
Salinity	Salinometer	ATAGO refractometer
-	Water Sampler	Teflon bailer / bucket
-	Sample Container	High density polythene bottles (provided by laboratory)
-	Storage Container	'Willow' 33-litter plastic cool box

24-HOUR TSP MONITORING

4.09 24-Hour TSP monitoring was carried out by a High Volume Sampler (HVS) in compliance with the USEPA Standards Title 40, Code of Federal Regulations Chapter 1 (Part 50) specifications. The HVS employed complied with the PS specifications including.

- Power supply of 220v/50 hz for 24-Hour continuous operation;
- 0.6-1.7 m^3/min (20-60 SCFM) adjustable flow rate;
- A 7-day mechanical timer for 24-Hour operation;
- An elapsed time indicator with ±2 minutes accuracy for 24-Hour operation;
- Minimum exposed area of 63 in^2;
- Flow control accuracy of ±2.5% deviation over 24-Hour operation;
- An anodized aluminum shelter to protect the filter and sampler;
- A motor speed-voltage control to control mass flow rate with accuracy of ±2.5% deviation over 24-Hour sampling period;
- Provision of a flow recorder for continuous monitoring;
- Provision of a peaked roof inlet;
- Incorporation with a manometer; and
- An 8"x10" stainless steel filter holder to hold, seal and easy to change the filter paper.

4.10 The filter papers used in 24-Hour TSP monitoring were of size 8"x10" and provided by a local HOKLAS-accredited laboratory, ALS Techichem Pty (HK) Limited (HOKLAS No. 66). The filters papers after measurements were returned to the laboratory for the required treatment and analysis.

1-HOUR TSP MONITORING

4.11 Measurements of 1-Hour TSP monitoring were taken by a Sibata LD-3 Laser Dust Meter that is a portable and battery-operated laser photometer capable of performing real time 1-Hour TSP measurements. A comparison test with HVS was carried out prior to baseline monitoring in compliance with the EM&A requirements and a conversion factor for direct reading of the dust meter has been established.

WIND DATA MONITORING

4.12 The meteorological data during the reporting period was obtained from the Lau Fau Shan Station of the Hong Kong Observatory (HKO).

NOISE MONITORING

4.13 Noise measurements were taken in terms of the A-weighted equivalent sound pressure level (Leq) measured in decibels (dB). Supplementary statistical results such as L_{10} and L_{90} were also obtained for reference.

4.14 Hand-held sound level meters (B&K Model 2238) and associated acoustical calibrators in compliance with the International Electrotechnical Commission (IEC) Publication 651:1979 (Type 1) and 804:1985 (Type 1) specification were used for taking the impact noise measurements.

4.15 Windshield was fitted in all measurements. All noise measurements were made with the meter set to FAST response and on the A-weighted equivalent continuous sound pressure level (Leq).

4.16 No noise measurement was carried out in the presence of fog, rain, wind with a steady speed exceeding 5 m/s or wind with gusts exceeding 10 m/s.

STREAM WATER QUALITY MONITORING

Water Depth

4.17 Water quality monitoring will be conducted at the middle of the water columns (Mid-Depth) if the depths of the water columns at the sampling locations are less than 3 meters during monitoring. Or else, monitoring will be performed at two depths, at 1 meter from surface and bottom respectively when the water depth is less than 6m.

4.18 Water depths will be determined prior to measurement and sampling at W9A and W9B, using a portable battery operated depth detector, brand named ‘Eagle Sonar’, if the depths exceed 3 meter. For the depths well below 1 meter, an appropriate steel ruler or rope with appropriate weight will be used for the depth estimation.

Water Temperature

4.19 Although the DO Meter automatically compensates ambient water temperature to a standard temperature of 20^0C for ease of comparison of the data under the changing reality, the temperature readings of the DO Meter will be recorded in the field data sheets. Calibration of the equipment will be regularly performed by ALS on quarterly basis.

Dissolved Oxygen (DO)

4.20 A portable YSI 85/10FT DO Meter will be used for in-situ DO measurement. The DO meter is capable of measuring DO in the range of 0 - 20 mg/L and 0 - 200 % saturation and checked against water saturated ambient air on each monitoring day prior to monitoring.

4.21 Although the DO Meter automatically compensates ambient water temperature to a standard temperature of 200C for ease of comparison of the data under the changing reality, the temperature readings of the DO Meter will be recorded in the field data sheets. Calibration of the equipment will be regularly performed by ALS on quarterly basis.

pH

4.22 A portable Hanna pH Meter will be used for in-situ pH measurement. The pH meter is capable of measuring pH in the range of 0 – 14 and readable to 0.1. Standard buffer solutions of at least pH7 and pH10 shall be used for calibration of the instrument before and after use. Calibration of the equipment will be regularly performed by ALS on quarterly basis.

Turbidity

4.23 A portable Hach 2100p turbidity Meter will be used for in-situ turbidity measurement. The turbidity meter is capable of measuring turbidity in the range of 0 – 1000 NTU. Calibration of the equipment will be regularly performed by ALS on quarterly basis.

Salinity

4.24 A portable salinometer capable of measuring salinity in percentage (g/L) will be used for measuring salinity of the water at each monitoring location.

Water Sampler

4.25 Water samples will be collected by the ET using a water sampler and 'PE' (Poly-Ethylene) sampling bottles provided by the laboratory. The water sampler will be rinsed before collection with the sample to be taken. Kahlsico Water Sampler will be used for sampling. One liter or 1000mL water sample will be collected from each depth for SS determination. The samples collected are stored in a cool box maintained at 40C and delivered to ALS upon completion of the sampling by end of each sampling day. Sampling in the stream with shallow water condition, plastic bucket will be used for sample collection.

Sample Container

4.26 Water samples will be contained in screw-cap PE (Poly-Ethylene) bottles, which will be provided and pretreated immediately prior to sampling according to HOKLAS quality requirements by ALS. The sampling bottles will be rinsed with the water to be contained. Water sample is then transferred from the sampler to the sample bottles to 95% bottle capacity to allow possible volume changes during delivery and storage.

Sample Storage

4.27 A 'Willow' 33-litter plastic cool box packed with ice will be used to preserve the collected water samples prior to arrival at the laboratory for SS determination. The water temperature of the cool box will be maintained at a temperature as close to 4^0C as possible without being frozen. Samples collected will be delivered to the laboratory upon collection.

4.28 DO, water temperature, turbidity, pH, salinity and water depth were measured in-situ whereas SS, Ammonia Nitrogen and Zinc were determined in a HOKLAS accredited laboratory (ALS).

ECOLOGY MONITORING

Study Area

4.29 The study area for the ecological monitoring programme for KT15 would cover the seasonal wetland area as shown in Project Profile of KT15 Figures ATT 4-7.2.

Survey Method

4.30 Monthly monitoring will be conducted by means of walk through survey, along the boundary and within the wetland areas in KT15. Any adverse impacts to the habitat, intrusions of construction activities into the wetland areas, and adverse changes in the wetlands will be checked and reported.

4.31 Photographic records will be made every six months on the fixed photo record points selected during the baseline survey. The photos from the construction phase ecological monitoring will be compared with those taken during the baseline which are used as the baseline conditions.

4.32 Bird monitoring will be conducted in the study areas monthly for KT15. Survey areas in KT15 will be the seasonal wetland area covered same as the Project Profile of KT15 Figures ATT 4-7.2.

4.33 Fauna monitoring will be conducted only during the wet season (April to July inclusive for KT15) in the same survey areas for bird monitoring. For KT15, the survey frequency will be monthly, and the surveys will cover reptiles, amphibians, dragonflies and butterflies.

Equipment

4.34 Standard portable field survey equipment was used for ecological monitoring, including 1) Binoculars of 10 x 40 magnification; 2) Digital camera; 3) Notebook; and/or 4) Butterfly net (when it is necessary to confirm identities of butterflies and dragonflies).

EQUIPMENT CALIBRATION

4.35 Initial calibration of the HVS was performed upon installation and thereafter at bi-monthly intervals in accordance with the manufacturer's instruction using the NIST-certified standard calibrator. The calibration data are properly documented and the records are maintained by ET for future reference.

4.36 The 1-Hour TSP meter was calibrated by the supplier prior to purchase. Zero response of the equipment is checked before and after each monitoring event. A comparison test was carried out with a HVS. A conversion factor (K) of 4.0 was generated in accordance with the equipment manufacturer's instruction. The meter counts in minutes multiplied by the conversion factor will generate the equivalent dust concentration by HVS.

4.37 The sound level meters are calibrated using an acoustic calibrator prior to and after measurements. The meters are regularly calibrated in accordance with the manufacturer's instructions. 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 are considered valid only if the calibration levels before and after the noise measurement agree to within 1.0 dB.

4.38 All in-situ monitoring instruments are calibrated and certified by a laboratory accredited under HOKLAS or any other international accreditation scheme at 3 monthly intervals throughout all stages of the water quality monitoring.

4.39 The calibration certificates of the monitoring equipment used during the impact monitoring program are attached in **Appendix F**.

ANALYTICAL LABORATORY

4.40 Our ET has commissioned a local HOKLAS-accredited laboratory, ALS Technichem (HK) Pty Ltd (HOKLAS No. 66) to provide analytical services for this project. ALS carried out sample and analysis control in accordance with the HOKLAS QA/QC requirements. The specified testing services provided by ALS as shown in **Table 4-3**.

Table 4-3 Analytical Method applied to Water Quality Samples

Determinant	Standard Method	Detection Limit
Suspended Solids	ALS Method EA025	2 mg/L
Ammonia Nitrogen	ALS Method EK055A	0.01 mg/L
Zinc	ALS Method EG020	10 μg/L

4.41 The analysis of suspended solids, ammonia nitrogen and zinc concentrations were follow the APHA Standard Methods for the Examination of Water and Wastewater 19ed 2540D. ALS Environmental has comprehensive quality assurance and quality control programs and has attained HOKLAS accreditation for a range of environmental testing. For QA/QC procedures, one duplicate sample for every batch of samples were analyses as required by the HOKLAS. The QA/QC results are presented in **Appendix H**.

DATA MANAGEMENT AND DATA QA/QC CONTROL

4.42 The impact monitoring data are handled by the ET's systematic data recording and management, which complies with in-house certified (ISO 9001:2000) Quality Management System. Standard Field Data Sheets (FDS) are used in the impact monitoring program.

4.43 The monitoring data recorded in the equipment e.g. 1-Hour TSP meters and noise meters are downloaded directly from the equipment at the end of each monitoring day. The downloaded monitoring data are input into a computerized database properly maintained by the ET. The laboratory results are input directly into the computerized database and QA/QC checked by personnel other than those who input the data.

4.44 For monitoring activities require laboratory analysis, the local laboratory follows the QA/QC requirements as set out under the HOKLAS scheme for all laboratory testing.

5.0 IMPACT MONITORING RESULTS

5.01 The impact EM&A program was carried out by the ET in compliance with the project specific EM&A Manual in this reporting period. The impact monitoring schedules are presented in **Appendix G** and the monitoring results are detailed in the following sub-sections.

AIR QUALITY

5.02 The 1-Hour and 24-Hour TSP impact air quality monitoring data are summarized in **Tables 5-1** and **5-2**. Graphical plots of the monitoring results are shown in **Appendix H** respectively.

Table 5-1 Summary of 1-Hour TSP Monitoring Results at A10

Monitoring Date	Start Time	1st Result (μg/m³)	2nd Result (μg/m³)	3rd Result (μg/m³)	Action Level (μg/m³)	Limit Level (μg/m³)
21-Jul-07	8:54	39	42	48	> 307	> 500

Note: * Monitoring result was exceeded the Action Level
Monitoring result was exceeded the Limit Level

Table 5-2 Summary of 24-Hour TSP Monitoring Results at A10

Monitoring Date	Monitoring Results (μg/m³)	Action Level (μg/m³)	Limit Level (μg/m³)
24-Jul-07	13	> 165	> 260

Note: * Monitoring result was exceeded the Action Level
Monitoring result was exceeded the Limit Level

5.03 No 1-Hour and 24-Hour TSP Action or Limit Level exceedance was recorded in this reporting period.

5.04 The meteorological data during the monitoring period are summarized in **Appendix I**.

CONSTRUCTION NOISE

5.05 The impact construction noise monitoring results are summarized in **Table 5-3**. Graphical plots of the monitoring data are presented in **Appendix H**.

Table 5-3 Summary of Noise Monitoring Results at N10a

Date	Start Time	1st Leq5	2nd Leq5	3rd Leq5	4th Leq5	5th Leq5	6th Leq5	Leq30
21-Jul-07	10:14	43.4	48.7	48.7	45.6	43.8	44.6	46.4
Limit Level		-						**> 75 dB(A)**

Note: * The noise ambient condition within the victim area without significant change. Due to the accessibility, baseline monitoring will undertake at N10a. The impact monitoring will undertake at N10 once the access is available.

5.06 No construction noise exceedance (Action/Limit Level) was recorded in this reporting period.

STREAM WATER QUALITY

5.07 The stream water quality monitoring results are summarized in **Table 5-4**. Details of the monitoring results and graphical plots for each parameter are presented in **Appendix H**.

Table 5-4 Summary of Stream Water Quality Results at W9A & W9B

Monitoring Date	DO in mg/L		Turbidity (NTU)		pH		SS in mg/L		Ammonia (mg/L)		Zinc (μg/L)	
	W9A#	W9B	W9A#	W9B	W9A#	W9B	W9A#	W9B	W9A#	W9B	W9A#	W9B
21 Jul 2007	1.71	0.57	11.6	26.4	7.6	7.5	14	28	17.2	14.1	21	58
25 Jul 2007	1.33	0.89	23.0	19.7	7.2	7.0	34	43	26.9	6.41	65	111
Action Level	-	< 0.3*	-	> 73.5*	-	> 7.0*	-	> 148.4*	-	> 30.9*	-	> 241.8*
Limit Level	-	< 0.2**	-	> 78.2**	-	> 7.1**	-	> 158.9**	-	> 32.2**	-	> 252.2**

Notes: # Act as Control Station for the Impact Water Quality Monitoring.
* Alternative Action Level of the Turbidity, pH, Suspended Solid, Ammonia Nitrogen and Zinc are 120% of upstream control station of same day.
** Alternative Limit Level of the Turbidity, pH, Suspended Solid, Ammonia Nitrogen and Zinc are 130% of upstream control station of same day.

ECOLOGY

5.08 89 individuals from 30 species were recorded during the survey for the present monthly monitoring. Compared with the average abundance of 46.19 from 23 species (with another 13 species without abundance) of fauna (including birds) recorded during the study for the KT15 Project Profile, the survey results indicated that the requirements for ecology was complied.

5.09 As the major construction works for the project was not commenced when the survey for the present monthly monitoring were conducted, the site basically remained the same conditions as reported in baseline monitoring report, and no intrusions of construction activities into the wetland areas nor adverse impact on the wetlands was found.

5.10 Photographic records are scheduled in six-month intervals and thus are not required in the present monthly monitoring.

5.11 Ecology Impact Monitoring Results are presented in the **Table 5-5**.

Table 5-5 Summary of Ecology Impact Monitoring Results

Scientific Name	Common Name	Abundance reported in the project profile	Abundance recorded in the present survey
Birds			
Bubulcus ibis	Cattle Egret	0.4	0
Ardeola bacchus	Chinese Pond Heron	0.8	0
Amaurornis phoenicurus	Water-breasted Waterhen	Recorded only	2
Streptopelia chinensis	Spotted Dove	Recorded only	2
Hirundo rustica	Barn Swallow	Recorded only	4
Motacilla alba	White Wagtail	Recorded only	0
Pycnonotus jocosus	Red-whiskered Bulbul	Recorded only	6
Pycnonotus sinesis	Chinese Bulbul	Recorded only	2
Lanius schach	Long-tailed Shrike	Recorded only	1
Copsychus saularis	Oriental Magpie Robin	Recorded only	3
Orthotomus sutorius	Common Tailorbird	Recorded only	0
Lonchura striata	White-rumped Munia	Recorded only	0
Passer montanus	Eurasian Tree Sparrow	Recorded only	6
Sturnus nigricollis	Black-collared Starling	Recorded only	3
Acridotheres cristatellus	Crested Myna	Recorded only	3
Eudynamis scolopacea	Common Koel	\	1
Halcyon smyrnensis	White-throated Kingfisher	\	1
Garrulax perspicillatus	Masked Laughingthrush	\	3
Zosterops japonica	Japanese White Eye	\	5
Lonchura punctulata	Scaly-breasted Munia	\	6
Herpetofauna			
Bufo melanostictus	Asian Common Toad	2	0
Rana guentheri	Gunther's Frog	2.33	0
Polyedates megacephalus	Brown Tree Frog	1.33	0
Calotes versicolor	Changeable Lizard	0.33	0
Odonata			
Ischnura senegalensis	Common Bluetail	4.5	2
Ceriagrion auranticum	Orange-tailed Sprite	6	1
Orthetrum pruinosum	Common Red Skimmer	1.5	6

Scientific Name	Common Name	Abundance reported in the project profile	Abundance recorded in the present survey
Trithemis aurora		0.5	0
Tramea virginia		1	0
Pantala flavescens	Wandering Glider	8.5	7
Butterfly			
Graphium sarpedon	Common Bluebottle	0.5	0
Papilio polytes	Common Mormon	1.5	1
Ariadne ariadne	Angled Castor	2	8
Euploea midamus	Blue-spotted Crow	2.5	0
Ideopsis similis	Ceylon Blue Glassy Tiger	1.5	0
Mycalesis mineus	Dark-branded Bush Brown	1.5	1
Catapsillia pomona	Lemon Emirgrant	0.5	3
Eurema hecabe	Common Grass Yellow	1	2
Zizeeria maha	Pale Grass Blue	2.5	4
Astictopterus jama	Forest Hopper	0.5	0
Erionota torus	Banana Skipper	3	0
Hypolimnas bolina	Great Egg-fly	\	1
Pieris canidia	Indian Cabbage White	\	2
Hebomoia glaucippe	Great Orange Tip	\	1
Danaus genutia	Common Tiger	\	1
Papilio memnon	Great Mormon	\	1
Species Number		36 spp. recorded, only 23 species with abundance	30
Individual Number		46.19	89

6.0 WASTE MANAGEMENT

6.01 The waste management carried by on-site Environmental Officer or Environmental Supervisor from time to time.

RECORDS OF WASTE QUANTITIES

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

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

6.03 The quantities of waste for disposal in this reporting period are summarized in **Tables 6-1** and **6-2.** Whenever possible, materials were reused on-site as far as practicable.

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

Type of Waste	Quantity	Disposal Location
Broken Concrete (Inert) (m^3)	0	Public Filling
Reused in this Contract (Inert) (m^3)	0	N/A
Reused in other Projects (Inert) (m^3)	0	N/A
Disposal as Public Fill (Inert) (m^3)	0	N/A

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

Type of Waste	Quantity	Disposal Location
Recycled Metal (kg)	0	NA
Recycled Paper / Cardboard Packing (kg)	0	NA
Recycled Plastic (kg)	0	NENT Landfill
Chemical Wastes (kg)	0	License Collector
General Refuses (kg)	0.0175	NENT Landfill

7.0 SITE INSPECTION

7.01 According to the EM&A Manual Section 9.1.2, the environmental site inspection should been formulation by ET Leader. ET had carried out the environmental site inspection on 20 and 25 July 2007 with the Representatives of the Engineer and the Contractor to evaluate the site environmental performance in this reporting period. The monthly general site inspection conducted by IEC's representative on 25 July 2007 with the representatives of the Engineer, the Contractor and ET Leader. No non-compliance and only one observation was noted.

7.02 The details of observation during the site inspections and monthly audit as follows:

- Relevant chemical label should stick on the chemical containers stored at the site office chemical storage area.

7.03 The ET site inspection checklists as shown in **Appendix J**. In general, the construction area of KT15 was kept clean and tidy.

8.0 ENVIRONMENTAL COMPLAINT AND NON-COMPLIANCE

ENVIRONMENTAL COMPLAINT, SUMMONS AND PROSECUTION

8.01 No environmental complaint, summons and prosecution was received in this reporting period. The statistical summary table of environmental complaint is presented in **Table 8-1**, **8-2** and **8-3**.

Table 8-1 Statistical Summary of Environmental Complaints

Reporting Period	Environmental Complaint Statistics		
	Frequency	Cumulative	Complaint Nature
20 – 25 July 2007	0	0	NA

Table 8-2 Statistical Summary of Environmental Summons

Reporting Period	Environmental Summons Statistics		
	Frequency	Cumulative	Nature
20 – 25 July 2007	0	0	NA

Table 8-3 Statistical Summary of Environmental Prosecution

Reporting Period	Environmental Prosecution Statistics		
	Frequency	Cumulative	Nature
20 – 25 July 2007	0	0	NA

9.0 IMPLEMENTATION STATUS OF MITIGATION MEASURES

9.01 CCC has been implementing the required environmental mitigation measures according to the EM&A Manual of KT15 - Mitigation Measures Implementation Schedule.

9.02 A summary of environmental mitigation measures generally implemented by CCC in this reporting period is presented as follows;

Water Quality

- Wastewater were appropriately treated by treatment facilities;
- Drainage channels were provided to convey run-off into the treatment facilities;
- Drainage systems were regularly and adequately maintained.

Air Quality

- Vehicles were cleaned of mud and debris before leaving the site;
- Site vehicles were limited to within 8 km/hr;
- Public roads around the site entrance/exit had been kept clean and free from dust;
- Dust suppression measures were properly provided to reduce dust emission from stockpile.

Noise

- Works and equipment were located to minimise noise nuisance from the nearest sensitive receiver;
- Idle equipments were either turned off or throttled down;
- Some of the Powered Mechanical Equipments were covered or shielded by appropriate acoustic materials if practicable.

Waste and Chemical Management

- Wastes were properly segregated into inert and non-inert in appropriate containers/areas;
- Excavated materials were reused where practicable.
- A chemical waste storage area had been provided on site;

General

- The site was generally kept tidy and clean.

10.0 IMPACT FORECAST

KEY ISSUES FOR THE COMING MONTH

10.01 Key issues to be considered in the coming month include:

- Implementation of dust suppression measures at all times;
- Potential wastewater quality impact due to surface runoff;
- Potential fugitive dust quality impact due to dry/windy season (November to March) from the dry/loose/exposure soil surface/dusty material;
- Disposal of empty engine oil containers within site area;
- Ensure dust suppression measures are implemented properly;
- Sediment catch-pits and silt removal facilities should be regularly maintained;
- Management of chemical wastes;
- Discharge of site effluent to the nearby wetland, stockpiling or disposal of materials, and any dredging or construction area at this area are prohibitied;
- Follow-up of improvement on general waste management issues; and
- Implementation of construction noise preventative control measures.

10.02 The tentative 3-month rolling program is presented in **Appendix B**.

11.0 CONCLUSION

11.01 The EM&A program in July 2007 was undertaken in compliance with the EM&A Manual for KT15. A summary of environmental compliance of air, noise, stream water quality and ecology in this reporting period are presented as follows:

Summary of the Exceedances for Impact Monitoring

Env. Quality	Parameters	Work-Related Exceedance %	Investigation & Corrective Actions
Air Quality	1-Hour TSP	0	Not Required for 0% Exceedance
	24-Hour TSP	0	Not Required for 0% Exceedance
Noise	Leq (30min) Daytime	0	Not Required for 0% Exceedance
Stream Water	DO in mg/L	0	Not Required for 0% Exceedance
	SS in mg/L	0	Not Required for 0% Exceedance
	Turbidity (NTU)	0	Not Required for 0% Exceedance
	pH	0	Not Required for 0% Exceedance
	Ammonia Nitrogen (mg/L)	0	Not Required for 0% Exceedance
	Zinc (μg/L)	0	Not Required for 0% Exceedance
Ecology	Decrease in the total number of wetland dependent species or individuals of the surveyed faunal groups from baseline	0	Not Required for 0% Exceedance

11.02 No 1-Hour and 24-Hour TSP exceeded the Action/Limit Level was recorded in this reporting period.

11.03 All measured daytime construction noise levels were below the Limit level and no complaint was received in this reporting period.

11.04 No stream water quality exceeded the Action/Limit Level was recorded during the reporting period.

11.05 No exceedance on the parameters for Ecology, nor intrusions into the wetland area/adverse impact on the wetlands, was found during the reporting period.

11.06 No environmental complaint, summons or prosecution was received in this reporting period.

RECOMMENDATIONS

11.07 Based on the ET regular and monthly IEC site inspection records on 20 and 25 July 2007, no non-compliance and only one observation was recorded. Details of the observation as follows:-

- Relevant chemical label should stick on the chemical containers stored at the site office chemical storage area.

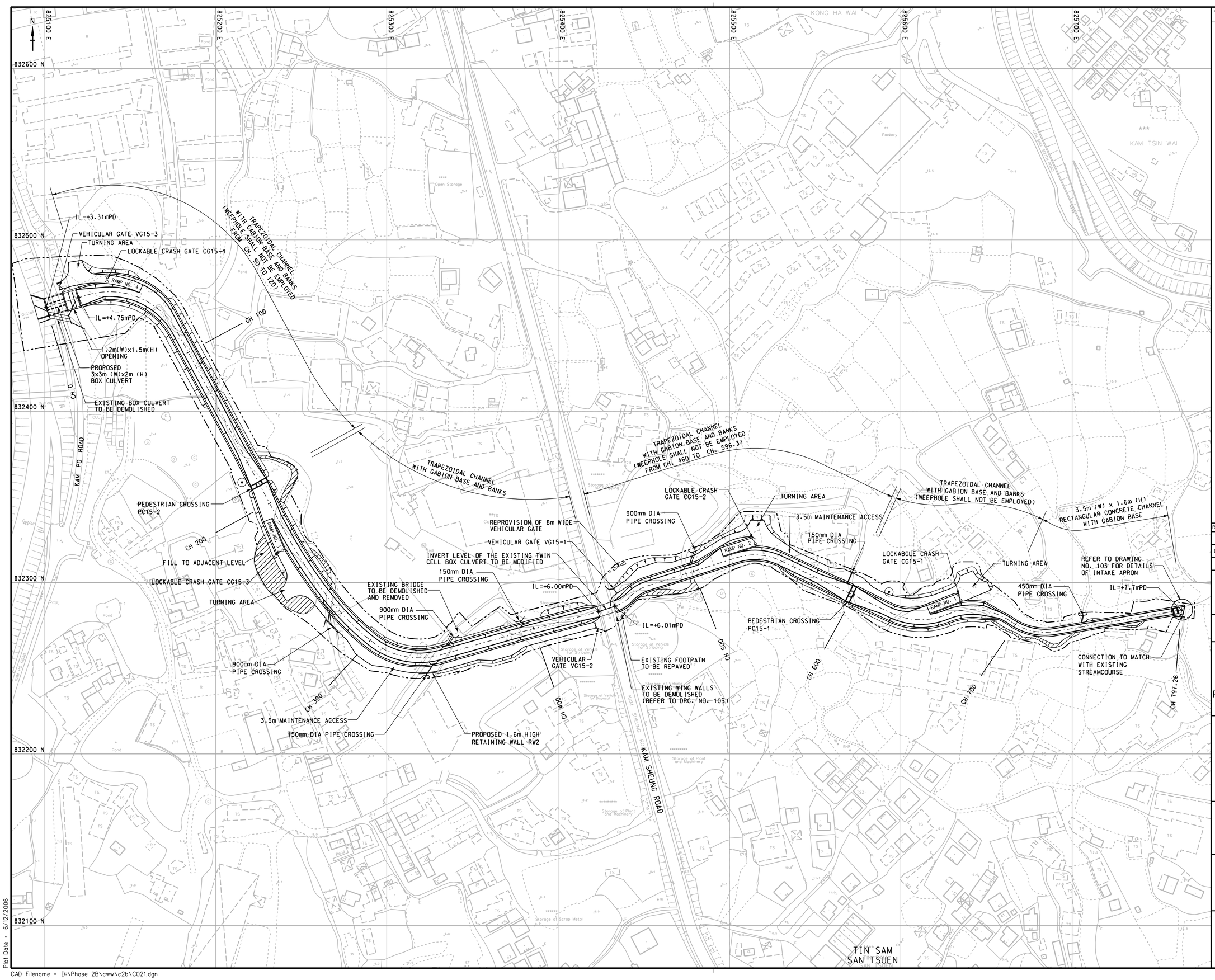
11.08 The ET will continue to implement the EM&A program and audit the implementation of the environmental mitigation measures.

Appendix A

Project Site Layout

NOTES :

1. REFER TO DRAWING NO. 020 FOR NOTES AND LEGENDS.



Revision	Date	Description			Initial
	Designed	Checked	Drawn	Verified	
Initial	SFL	KIL	MK	KIL	
Date	12/05	12/05	12/05	12/05	

Approved

CONTRACT NO. DC2006/02

Contract title

YUEN LONG, KAM TIN, NGAU TAM MEI AND TIN SHUI WAI DRAINAGE IMPROVEMENTS, STAGE 1, PHASE 2B – CHEUNG CHUN SAN TSUEN AND KAM TSIN WAI

Drawing title

CHANNEL KT15
GENERAL LAYOUT PLAN

Drawing no.

021

Scale

1:1000 A1
1:2000 A3

香港特別行政區政府渠務署
THE GOVERNMENT OF THE HONG KONG SPECIAL ADMINISTRATIVE REGION
DRAINAGE SERVICES DEPARTMENT

BLACK & VEATCH HONG KONG LIMITED
博威工程顧問有限公司

Plot Date • 6/12/2006

CAD Filename • D:\Phase 2B\cww\c2b\C021.dgn

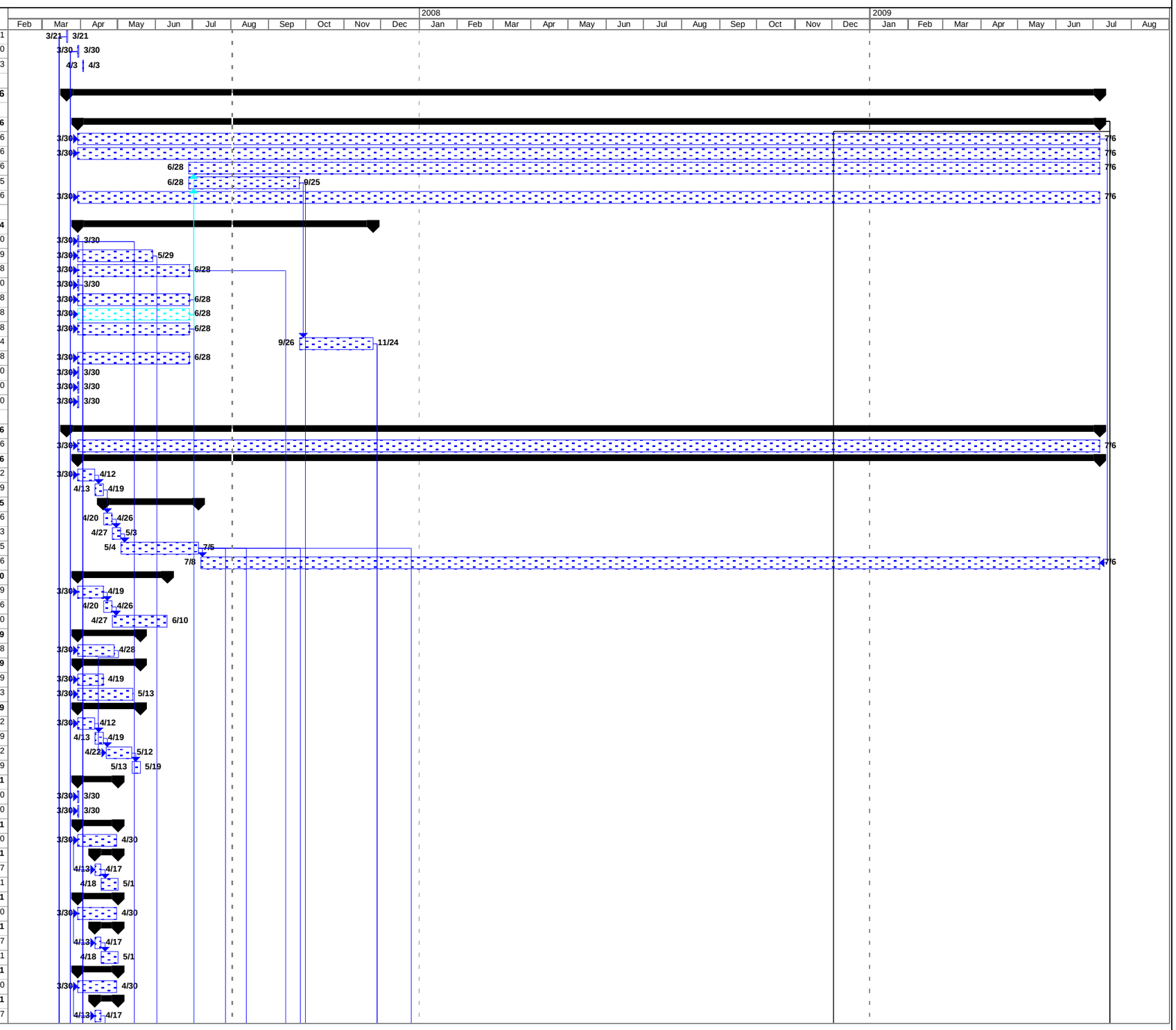
Appendix B

Three-Month Construction Program

PROGRAMME OF WORKS - MP02
Contract No. : DC / 2006 / 02
Contract Title : Yuen Long, Kam Tin, Ngau Tam Mei and Tin Shui Wai Drainage Improvements,
Stage 1, Phase 2B - Cheung Chun San Tsuen and Kam Tsin Wai

CHIT CHEUNG CONSTRUCTION CO., LTD.
DATE : July 2007

ID	Task Name	Duration	Start	Finish
1	Letter of Acceptance	1 day	Wed 07/3/21	Wed 07/3/21
2	Date for commencement of Works	1 day	Fri 07/3/30	Fri 07/3/30
3	Execution of Article of Agreement	1 day	Tue 07/4/3	Tue 07/4/3
4				
5	**Master Programme of the Works**	**839 days**	**Wed 07/3/21**	**Mon 09/7/6**
6				
7	**Completion Dates**	**830 days**	**Fri 07/3/30**	**Mon 09/7/6**
8	Section I - portions 1, 2 and 3	830 days	Fri 07/3/30	Mon 09/7/6
9	Section II - portions 4, 5 and 5C	830 days	Fri 07/3/30	Mon 09/7/6
10	Section III - portions 5A1, 5A2 and 5B	740 days	Thu 07/6/28	Mon 09/7/6
11	Section IV - temp vehicular access at portion 5A1	90 days	Thu 07/6/28	Tue 07/9/25
12	Section V - preservation and protection of existing trees	830 days	Fri 07/3/30	Mon 09/7/6
13				
14	**Possession of Site**	**240 days**	**Fri 07/3/30**	**Sat 07/11/24**
15	Portion 1 - channel KT2	1 day	Fri 07/3/30	Fri 07/3/30
16	Portion 2 - channel KT2	61 days	Fri 07/3/30	Tue 07/5/29
17	Portion 3 - channel KT2	91 days	Fri 07/3/30	Thu 07/6/28
18	Portion 4 - channel KT15	1 day	Fri 07/3/30	Fri 07/3/30
19	Portion 5 - channel KT15	91 days	Fri 07/3/30	Thu 07/6/28
20	Portion 5A1 - channel KT15	91 days	Fri 07/3/30	Thu 07/6/28
21	Portion 5A2 - channel KT15	91 days	Fri 07/3/30	Thu 07/6/28
22	Portion 5B - channel KT15	60 days	Wed 07/9/26	Sat 07/11/24
23	Portion 5C - channel KT15	91 days	Fri 07/3/30	Thu 07/6/28
24	Portion 6 - Temp Storage Area at Chi Ho Road	1 day	Fri 07/3/30	Fri 07/3/30
25	Portion 7 - Berthing Area	1 day	Fri 07/3/30	Fri 07/3/30
26	Portion 8 - Site Accommodation	1 day	Fri 07/3/30	Fri 07/3/30
27				
28	**A. Preliminary Works**	**839 days**	**Wed 07/3/21**	**Mon 09/7/6**
29	1. Setting out of Works	830 days	Fri 07/3/30	Mon 09/7/6
30	**2. Environmental Monitoring and Audit**	**830 days**	**Fri 07/3/30**	**Mon 09/7/6**
31	2.1 Establishment of Environmental Team	14 days	Fri 07/3/30	Thu 07/4/12
32	2.2 approval by the Engineer	7 days	Fri 07/4/13	Thu 07/4/19
33	**2.3 Environmental baseline monitoring**	**77 days**	**Fri 07/4/20**	**Thu 07/7/5**
34	a. Technical proposal & methodology	7 days	Fri 07/4/20	Thu 07/4/26
35	b. Approval by the Engineer	7 days	Fri 07/4/27	Thu 07/5/3
36	c. Baseline monitoring	63 days	Fri 07/5/4	Thu 07/7/5
37	2.4 Environmental impact monitoring and audit	730 days	Sun 07/7/8	Mon 09/7/6
38	**3. Environmental Management and Environmental Manage**	**73 days**	**Fri 07/3/30**	**Sun 07/6/10**
39	3.1 Submission of draft EMP	21 days	Fri 07/3/30	Thu 07/4/19
40	3.2 Comment from the Engineer	7 days	Fri 07/4/20	Thu 07/4/26
41	3.3 Submission of EMP	45 days	Fri 07/4/27	Sun 07/6/10
42	**4. Engineer's Accommodation**	**51 days**	**Fri 07/3/30**	**Sat 07/5/19**
43	**4.1 Renovation**	30 days	Fri 07/3/30	Sat 07/4/28
44	**4.2 Equipment**	**51 days**	**Fri 07/3/30**	**Sat 07/5/19**
45	a. Contract telephone	21 days	Fri 07/3/30	Thu 07/4/19
46	b. Survey equipment	45 days	Fri 07/3/30	Sun 07/5/13
47	c. Contract computer facilities	**51 days**	**Fri 07/3/30**	**Sat 07/5/19**
48	submission	14 days	Fri 07/3/30	Thu 07/4/12
49	approval	7 days	Fri 07/4/13	Thu 07/4/19
50	installation	21 days	Sun 07/4/22	Sat 07/5/12
51	testing & commissioning	7 days	Sun 07/5/13	Sat 07/5/19
52	**4.3 utilities servicing**	**33 days**	**Fri 07/3/30**	**Tue 07/5/1**
53	a. Water	1 day	Fri 07/3/30	Fri 07/3/30
54	b. Electricity	1 day	Fri 07/3/30	Fri 07/3/30
55	c. Telephone	**33 days**	**Fri 07/3/30**	**Tue 07/5/1**
56	temporary service	32 days	Fri 07/3/30	Mon 07/4/30
57	new service	**19 days**	**Fri 07/4/13**	**Tue 07/5/1**
58	application	5 days	Fri 07/4/13	Tue 07/4/17
59	installation	14 days	Wed 07/4/18	Tue 07/5/1
60	d. Facsimile	**33 days**	**Fri 07/3/30**	**Tue 07/5/1**
61	temporary service	32 days	Fri 07/3/30	Mon 07/4/30
62	new service	**19 days**	**Fri 07/4/13**	**Tue 07/5/1**
63	application	5 days	Fri 07/4/13	Tue 07/4/17
64	installation	14 days	Wed 07/4/18	Tue 07/5/1
65	e. Internet broadband	**33 days**	**Fri 07/3/30**	**Tue 07/5/1**
66	temporary service (56K)	32 days	Fri 07/3/30	Mon 07/4/30
67	new service	**19 days**	**Fri 07/4/13**	**Tue 07/5/1**
68	application	5 days	Fri 07/4/13	Tue 07/4/17

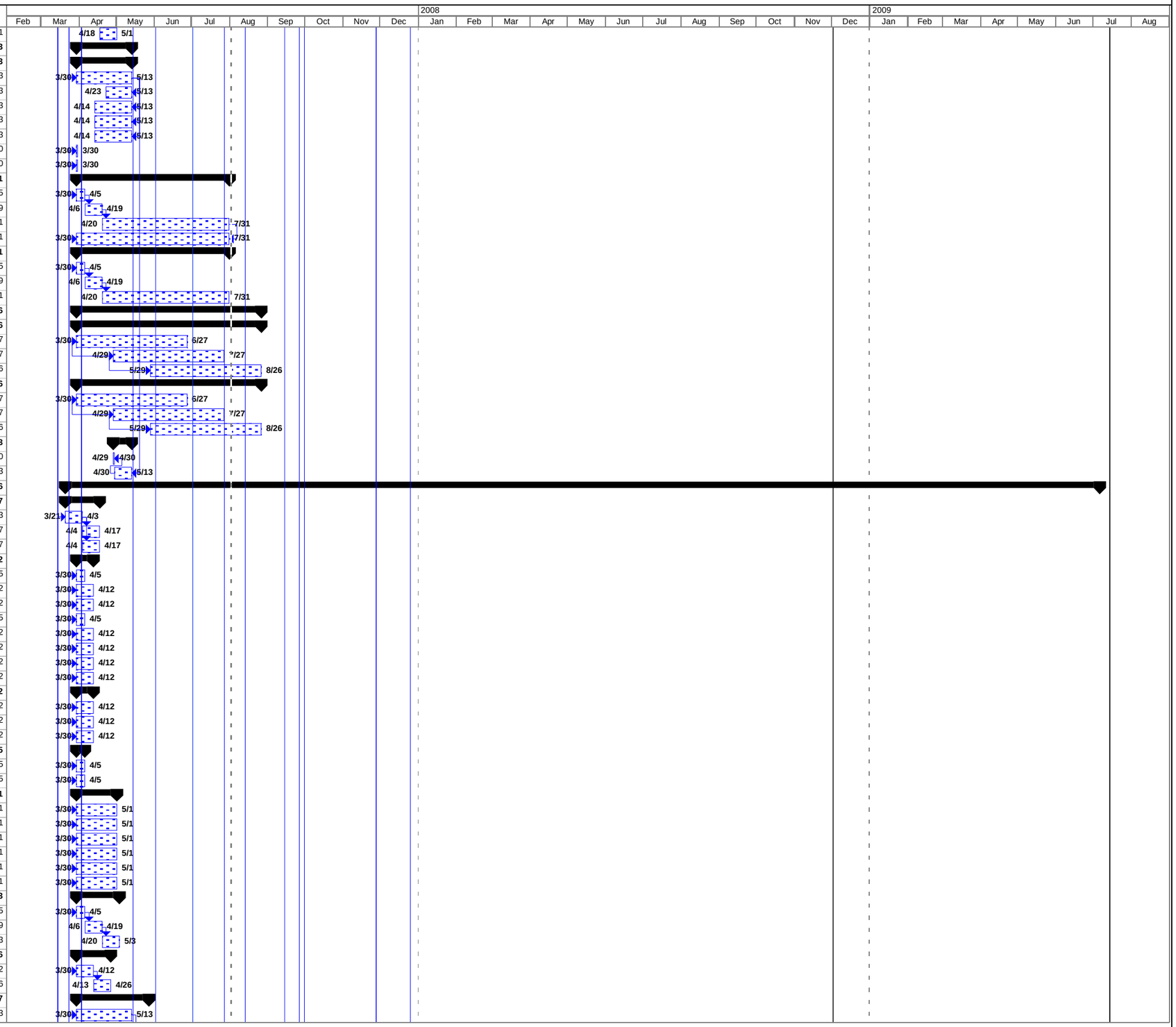


Task | Progress | Summary | Rolled Up Critical Task | Rolled Up Progress | External Tasks | Group By Summary
Critical Task | Milestone | Rolled Up Task | Rolled Up Milestone | Split | Project Summary | Deadline

PROGRAMME OF WORKS - MP02
Contract No. : DC / 2006 / 02
Contract Title : Yuen Long, Kam Tin, Ngau Tam Mei and Tin Shui Wai Drainage Improvements,
Stage 1, Phase 2B - Cheung Chun San Tsuen and Kam Tsin Wai

CHIT CHEUNG CONSTRUCTION CO., LTD.
DATE : July 2007

ID	Task Name	Duration	Start	Finish
69	installation	14 days	Wed 07/4/18	Tue 07/5/1
70	**5. Contractor's Accommodation**	**45 days**	**Fri 07/3/30**	**Sun 07/5/13**
71	**5.1 Provision**	**45 days**	**Fri 07/3/30**	**Sun 07/5/13**
72	a. Premises	45 days	Fri 07/3/30	Sun 07/5/13
73	b. Toilet facilities	21 days	Mon 07/4/23	Sun 07/5/13
74	c. Telephone service	30 days	Sat 07/4/14	Sun 07/5/13
75	d. Fascimile service	30 days	Sat 07/4/14	Sun 07/5/13
76	e. Internet broadband service	30 days	Sat 07/4/14	Sun 07/5/13
77	f. Water	1 day	Fri 07/3/30	Fri 07/3/30
78	g. electricity	1 day	Fri 07/3/30	Fri 07/3/30
79	**6. Transport (land) for the Engineer**	**124 days**	**Fri 07/3/30**	**Tue 07/7/31**
80	6.1 submission	7 days	Fri 07/3/30	Thu 07/4/5
81	6.2 comment & approval	14 days	Fri 07/4/6	Thu 07/4/19
82	6.3 delivery	103 days	Fri 07/4/20	Tue 07/7/31
83	6.4 temp service	124 days	Fri 07/3/30	Tue 07/7/31
84	**7. Transport (land) for Public Works Regional Laboratory**	**124 days**	**Fri 07/3/30**	**Tue 07/7/31**
85	7.1 submission	7 days	Fri 07/3/30	Thu 07/4/5
86	7.2 comment, approval & instruction	14 days	Fri 07/4/6	Thu 07/4/19
87	7.3 delivery	103 days	Fri 07/4/20	Tue 07/7/31
88	**8. Signboard**	**150 days**	**Fri 07/3/30**	**Sun 07/8/26**
89	**8.1 Major**	**150 days**	**Fri 07/3/30**	**Sun 07/8/26**
90	submission	90 days	Fri 07/3/30	Wed 07/6/27
91	comment & approval	90 days	Sun 07/4/29	Fri 07/7/27
92	erection	90 days	Tue 07/5/29	Sun 07/8/26
93	**8.2 Minor**	**150 days**	**Fri 07/3/30**	**Sun 07/8/26**
94	submission	90 days	Fri 07/3/30	Wed 07/6/27
95	comment & approval	90 days	Sun 07/4/29	Fri 07/7/27
96	erection	90 days	Tue 07/5/29	Sun 07/8/26
97	**9. Telephone hotline**	**15 days**	**Sun 07/4/29**	**Sun 07/5/13**
98	9.1 Engineer's instruction	1 day	Sun 07/4/29	Mon 07/4/30
99	9.2 installation	14 days	Mon 07/4/30	Sun 07/5/13
100	**10. Contractual general submissions**	**839 days**	**Wed 07/3/21**	**Mon 09/7/6**
101	**10.1 programmes**	**28 days**	**Wed 07/3/21**	**Tue 07/4/17**
102	a. GCC Clause 16 programme	14 days	Wed 07/3/21	Tue 07/4/3
103	b. Works programme & financial programme	14 days	Wed 07/4/4	Tue 07/4/17
104	c. 3-month rolling programme	14 days	Wed 07/4/4	Tue 07/4/17
105	**10.2 contractor's superintendence**	**14 days**	**Fri 07/3/30**	**Thu 07/4/12**
106	a. Agent	7 days	Fri 07/3/30	Thu 07/4/5
107	b. Surveyor	14 days	Fri 07/3/30	Thu 07/4/12
108	c. Sub-agent	14 days	Fri 07/3/30	Thu 07/4/12
109	d. Geotechnical Engineer	7 days	Fri 07/3/30	Thu 07/4/5
110	e. Geotechnical Supervisor	14 days	Fri 07/3/30	Thu 07/4/12
111	f. Foreman - concrete	14 days	Fri 07/3/30	Thu 07/4/12
112	g. Foreman - drainage	14 days	Fri 07/3/30	Thu 07/4/12
113	h. Staff Organization Plan	14 days	Fri 07/3/30	Thu 07/4/12
114	**10.3 Safety Organization**	**14 days**	**Fri 07/3/30**	**Thu 07/4/12**
115	a. Safety Officer	14 days	Fri 07/3/30	Thu 07/4/12
116	b. Safety Supervisor	14 days	Fri 07/3/30	Thu 07/4/12
117	c. Safety Representative	14 days	Fri 07/3/30	Thu 07/4/12
118	**10.4 TTMS design**	**7 days**	**Fri 07/3/30**	**Thu 07/4/5**
119	a. Independent Traffic Consultant	7 days	Fri 07/3/30	Thu 07/4/5
120	b. Traffic Engineer	7 days	Fri 07/3/30	Thu 07/4/5
121	**10.5 Assistant to Engineer**	**33 days**	**Fri 07/3/30**	**Tue 07/5/1**
122	a. Chainmen (4)	33 days	Fri 07/3/30	Tue 07/5/1
123	b. Watchmen (2)	33 days	Fri 07/3/30	Tue 07/5/1
124	c. Field assistant (1)	33 days	Fri 07/3/30	Tue 07/5/1
125	d. Technical assistant (1)	33 days	Fri 07/3/30	Tue 07/5/1
126	e. Clerical assistant (1)	33 days	Fri 07/3/30	Tue 07/5/1
127	f. Office assistant (1)	33 days	Fri 07/3/30	Tue 07/5/1
128	**10.6 Underground service detection equipment**	**35 days**	**Fri 07/3/30**	**Thu 07/5/3**
129	a. Submission	7 days	Fri 07/3/30	Thu 07/4/5
130	b. Comment & approval	14 days	Fri 07/4/6	Thu 07/4/19
131	c. Provision	14 days	Fri 07/4/20	Thu 07/5/3
132	**10.7 Independent Checking of Temporary Works**	**28 days**	**Fri 07/3/30**	**Thu 07/4/26**
133	a. Submission of independent checking engineer	14 days	Fri 07/3/30	Thu 07/4/12
134	b. Comment & approval	14 days	Fri 07/4/13	Thu 07/4/26
135	**10.8 Trip ticket system for C & D material**	**59 days**	**Fri 07/3/30**	**Sun 07/5/27**
136	a. Submission of site management plan	45 days	Fri 07/3/30	Sun 07/5/13



Task | Progress | Summary | Rolled Up Critical Task | Rolled Up Progress | External Tasks | Group By Summary
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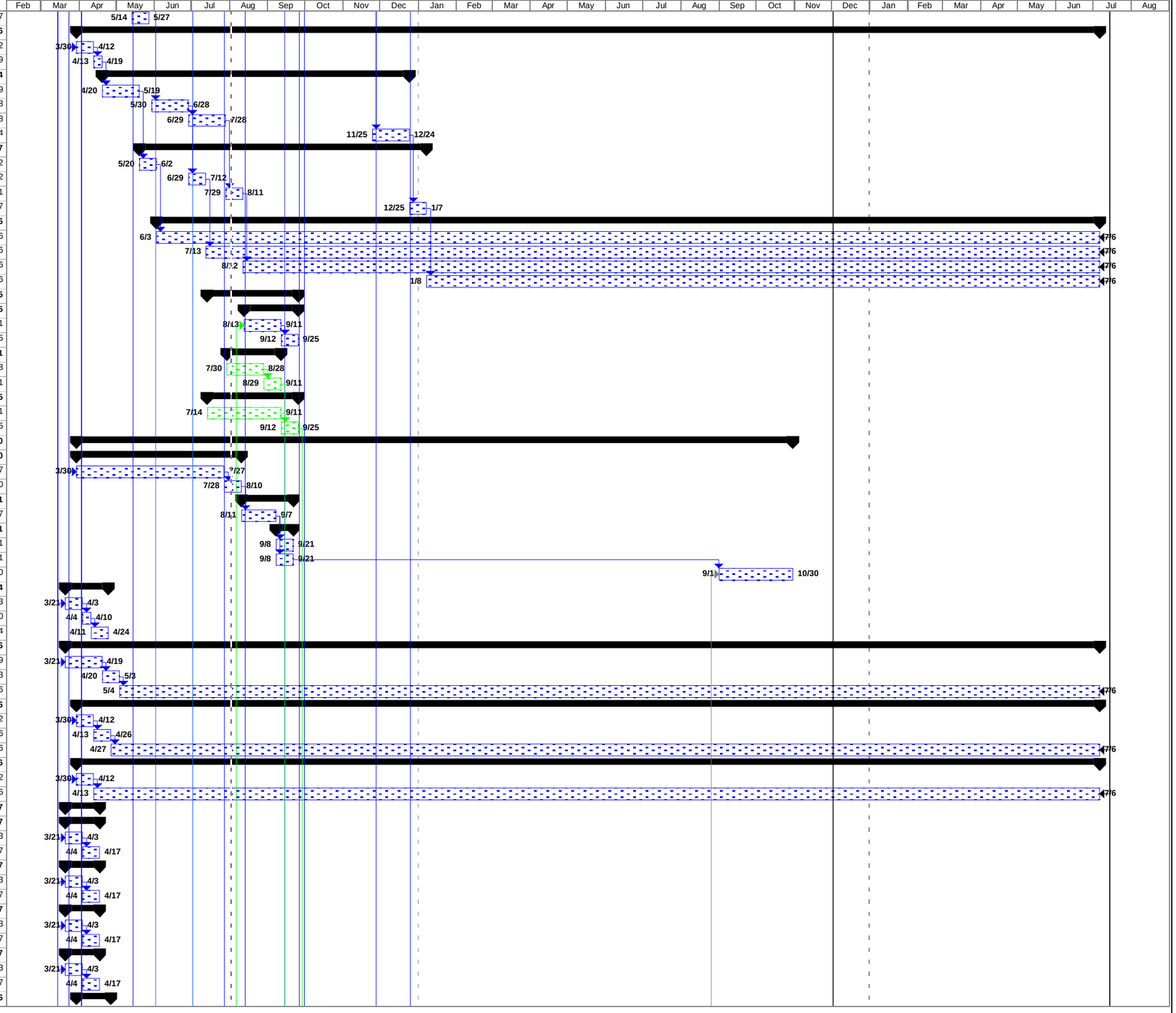
PROGRAMME OF WORKS - MP02
Contract No. : DC / 2006 / 02
Contract Title : Yuen Long, Kam Tin, Ngau Tam Mei and Tin Shui Wai Drainage Improvements,
Stage 1, Phase 2B - Cheung Chun San Tsuen and Kam Tsin Wai

CHIT CHEUNG CONSTRUCTION CO., LTD.
DATE : July 2007

ID	Task Name	Duration	Start	Finish
137	b. Comment & approval	14 days	Mon 07/5/14	Sun 07/5/27
138	**10.9. Condition survey and structral monitoring**	**830 days**	**Fri 07/3/30**	**Mon 09/7/6**
139	a. Submission of Independent Structural Engineer	14 days	Fri 07/3/30	Thu 07/4/12
140	b. Comment & approval	7 days	Fri 07/4/13	Thu 07/4/19
141	**c. Proposal for condition survey & structural mor**	**249 days**	**Fri 07/4/20**	**Mon 07/12/24**
142	Portion 1, 4, 6, 7, 8	30 days	Fri 07/4/20	Sat 07/5/19
143	Portion 2	30 days	Wed 07/5/30	Thu 07/6/28
144	Portion 3, 5, 5A1, 5A2	30 days	Fri 07/6/29	Sat 07/7/28
145	Portion 5B	30 days	Sun 07/11/25	Mon 07/12/24
146	**d. Comment & approval**	**233 days**	**Sun 07/5/20**	**Mon 08/1/7**
147	Portion 1, 4, 6, 7, 8	14 days	Sun 07/5/20	Sat 07/6/2
148	Portion 2	14 days	Fri 07/6/29	Thu 07/7/12
149	Portion 3, 5, 5A1, 5A2	14 days	Sun 07/7/29	Sat 07/8/11
150	Portion 5B	14 days	Tue 07/12/25	Mon 08/1/7
151	**e. Condition survey & structural monitoring**	**765 days**	**Sun 07/6/3**	**Mon 09/7/6**
152	Portion 1, 4, 6, 7, 8	765 days	Sun 07/6/3	Mon 09/7/6
153	Portion 2	725 days	Fri 07/7/13	Mon 09/7/6
154	Portion 3, 5, 5A1, 5A2	695 days	Sun 07/8/12	Mon 09/7/6
155	Portion 5B	546 days	Tue 08/1/8	Mon 09/7/6
156	**10.10 Handling & disposal of Type 1 & 2 contaminatec**	**74 days**	**Sat 07/7/14**	**Tue 07/9/25**
157	**a. Proposed type of dump truck**	**44 days**	**Mon 07/8/13**	**Tue 07/9/25**
158	Submission	30 days	Mon 07/8/13	Tue 07/9/11
159	Comment & approval	14 days	Wed 07/9/12	Tue 07/9/25
160	**b. Proposal of berthing area arrangement**	**44 days**	**Mon 07/7/30**	**Tue 07/9/11**
161	Submission	30 days	Mon 07/7/30	Tue 07/8/28
162	Comment & approval	14 days	Wed 07/8/29	Tue 07/9/11
163	**c. Proposal of disposal arrangement**	**74 days**	**Sat 07/7/14**	**Tue 07/9/25**
164	Submission	60 days	Sat 07/7/14	Tue 07/9/11
165	Comment & approval	14 days	Wed 07/9/12	Tue 07/9/25
166	**10.11 Handling & treatment of Type 3 contaminated m**	**581 days**	**Fri 07/3/30**	**Thu 08/10/30**
167	**a. Decontamination specialist**	**134 days**	**Fri 07/3/30**	**Fri 07/8/10**
168	Submission	120 days	Fri 07/3/30	Fri 07/7/27
169	Comment & approval	14 days	Sat 07/7/28	Fri 07/8/10
170	**b. Statement & treatment programme**	**42 days**	**Sat 07/8/11**	**Fri 07/9/21**
171	**(1) Submission**	28 days	Sat 07/8/11	Fri 07/9/7
172	**(2) Comment & approval**	**14 days**	**Sat 07/9/8**	**Fri 07/9/21**
173	by the Engineer	14 days	Sat 07/9/8	Fri 07/9/21
174	by the EPD	14 days	Sat 07/9/8	Fri 07/9/21
175	c. Setting up of Treatment Plant	60 days	Mon 08/9/1	Thu 08/10/30
176	**10.12 Safety Plan**	**35 days**	**Wed 07/3/21**	**Tue 07/4/24**
177	a. Submission of draft Safety Plan	14 days	Wed 07/3/21	Tue 07/4/3
178	b. Comment by the Engineer	7 days	Wed 07/4/4	Tue 07/4/10
179	c. Submission of Safety Plan	14 days	Wed 07/4/11	Tue 07/4/24
180	**10.13 Sub-contractor Management Plan**	**839 days**	**Wed 07/3/21**	**Mon 09/7/6**
181	a. Submission of SMP	30 days	Wed 07/3/21	Thu 07/4/19
182	b. For information & Comments	14 days	Fri 07/4/20	Thu 07/5/3
183	c. Update SMP	795 days	Fri 07/5/4	Mon 09/7/6
184	**10.14 proof of plant ownership**	**830 days**	**Fri 07/3/30**	**Mon 09/7/6**
185	a. Submission of draft written undertaking	14 days	Fri 07/3/30	Thu 07/4/12
186	b. Comment by the Engineer / Employer	14 days	Fri 07/4/13	Thu 07/4/26
187	c. Engineer's request	802 days	Fri 07/4/27	Mon 09/7/6
188	**10.15 Contractor's Management Team**	**830 days**	**Fri 07/3/30**	**Mon 09/7/6**
189	a. Submission of staff member details	14 days	Fri 07/3/30	Thu 07/4/12
190	b. Update management / site supervision team	816 days	Fri 07/4/13	Mon 09/7/6
191	**10.16 Water supply pipeworks material**	**28 days**	**Wed 07/3/21**	**Tue 07/4/17**
192	**a. Supplier**	**28 days**	**Wed 07/3/21**	**Tue 07/4/17**
193	Submission	14 days	Wed 07/3/21	Tue 07/4/3
194	comment & approval	14 days	Wed 07/4/4	Tue 07/4/17
195	**b. Manufacturer**	**28 days**	**Wed 07/3/21**	**Tue 07/4/17**
196	Submission	14 days	Wed 07/3/21	Tue 07/4/3
197	comment & approval	14 days	Wed 07/4/4	Tue 07/4/17
198	**c. Independent Inspection Agent (IIA)**	**28 days**	**Wed 07/3/21**	**Tue 07/4/17**
199	Submission	14 days	Wed 07/3/21	Tue 07/4/3
200	comment & approval	14 days	Wed 07/4/4	Tue 07/4/17
201	**d. Representative of the IIA**	**28 days**	**Wed 07/3/21**	**Tue 07/4/17**
202	Submission	14 days	Wed 07/3/21	Tue 07/4/3
203	comment & approval	14 days	Wed 07/4/4	Tue 07/4/17
204	**10.17 Landscape softworks and establishment works**	**28 days**	**Fri 07/3/30**	**Thu 07/4/26**



Task | Progress | Summary | Rolled Up Critical Task | Rolled Up Progress | External Tasks | Group By Summary
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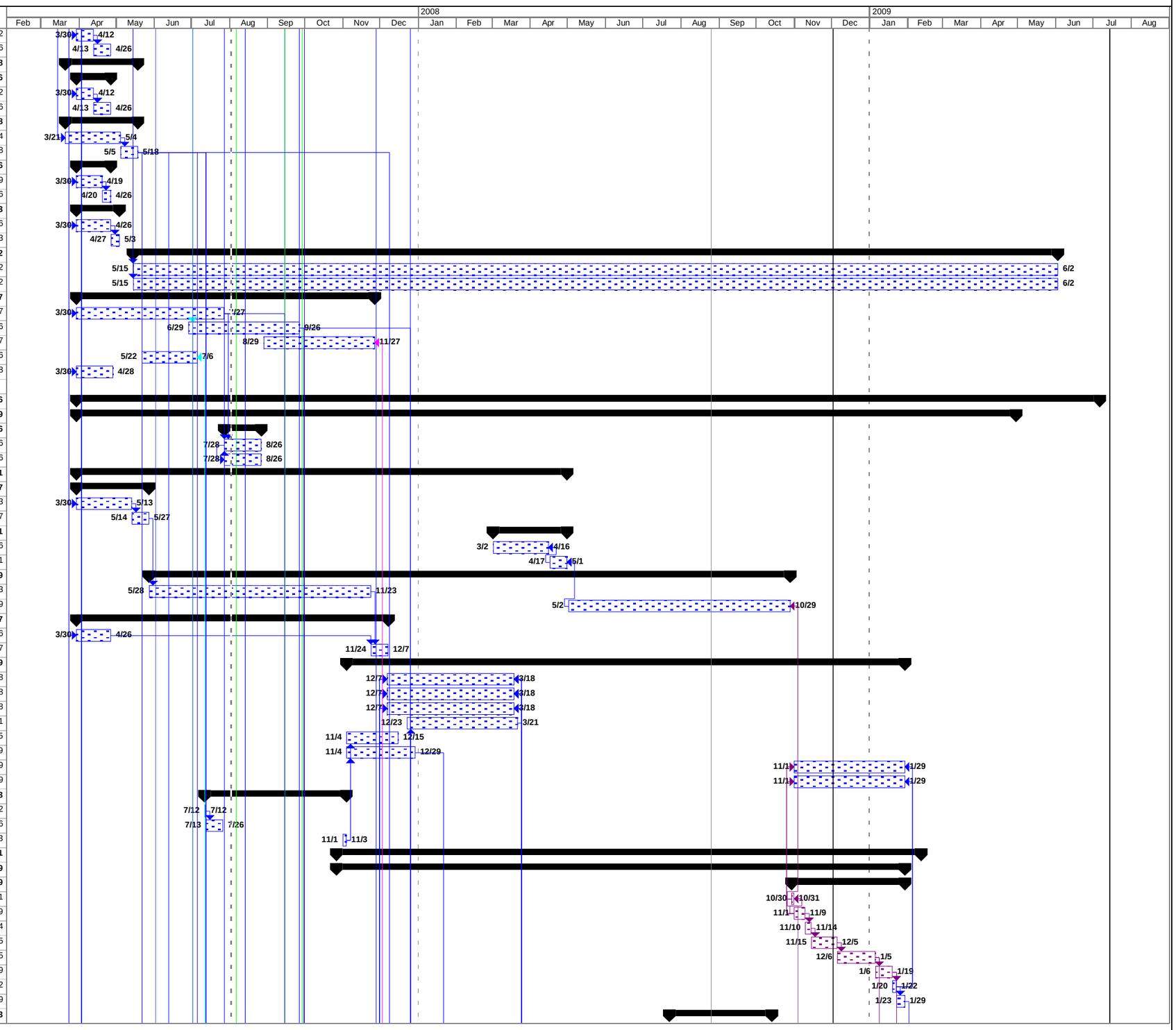
PROGRAMME OF WORKS - MP02
Contract No. : DC / 2006 / 02
Contract Title : Yuen Long, Kam Tin, Ngau Tam Mei and Tin Shui Wai Drainage Improvements,
Stage 1, Phase 2B - Cheung Chun San Tsuen and Kam Tsin Wai

CHIT CHEUNG CONSTRUCTION CO., LTD.
DATE : July 2007

ID	Task Name	Duration	Start	Finish
205	a. Submission of technical information	14 days	Fri 07/3/30	Thu 07/4/12
206	b. Comment & approval	14 days	Fri 07/4/13	Thu 07/4/26
207	**10.18 Preservation and protection of existing trees**	**59 days**	**Wed 07/3/21**	**Fri 07/5/18**
208	**a. Specialist contractor (landscaping Class I)**	**28 days**	**Fri 07/3/30**	**Thu 07/4/26**
209	Submission	14 days	Fri 07/3/30	Thu 07/4/12
210	Comment & approval	14 days	Fri 07/4/13	Thu 07/4/26
211	**b. Site supervisory staff**	**59 days**	**Wed 07/3/21**	**Fri 07/5/18**
212	Submission	45 days	Wed 07/3/21	Fri 07/5/4
213	Comment & approval	14 days	Sat 07/5/5	Fri 07/5/18
214	**10.19 Concrete (ready mix)**	**28 days**	**Fri 07/3/30**	**Thu 07/4/26**
215	a. Submission of supplier & design mix	21 days	Fri 07/3/30	Thu 07/4/19
216	b. Comment & approval	7 days	Fri 07/4/20	Thu 07/4/26
217	**10.20 Steel reinforcement**	**35 days**	**Fri 07/3/30**	**Thu 07/5/3**
218	a. Submission of supplier	28 days	Fri 07/3/30	Thu 07/4/26
219	b. Comment & approval	7 days	Fri 07/4/27	Thu 07/5/3
220	**10.21 Submissions of method statement / materials**	**750 days**	**Tue 07/5/15**	**Tue 09/6/2**
221	a. Submission of materials	750 days	Tue 07/5/15	Tue 09/6/2
222	b. Submission of method statement	750 days	Tue 07/5/15	Tue 09/6/2
223	**11. Provision of wheel washing facilities**	**242 days**	**Fri 07/3/30**	**Tue 07/11/27**
224	11.1 Channel KT2	120 days	Fri 07/3/30	Fri 07/7/27
225	11.2 Channel KT15	90 days	Fri 07/6/29	Wed 07/9/26
226	11.3 Berthing area	90 days	Wed 07/8/29	Tue 07/11/27
227	11.4 Portion 6	45 days	Tue 07/5/22	Fri 07/7/6
228	**12. Setting up of traffic management liaison group**	30 days	Fri 07/3/30	Sat 07/4/28
229				
230	**B. Section I of the Works**	**830 days**	**Fri 07/3/30**	**Mon 09/7/6**
231	**B1. Portion 1**	**762 days**	**Fri 07/3/30**	**Wed 09/4/29**
232	**1. Site clearance**	**30 days**	**Sat 07/7/28**	**Sun 07/8/26**
233	2.1 General site clearance	30 days	Sat 07/7/28	Sun 07/8/26
234	1.2 Demolition of existing building/ Huts	30 days	Sat 07/7/28	Sun 07/8/26
235	**2. Temporary Traffic Management Scheme**	**398 days**	**Fri 07/3/30**	**Thu 08/5/1**
236	**2.1 TTMS Proposal (trial pits in Chi Ho Road for u**	**59 days**	**Fri 07/3/30**	**Sun 07/5/27**
237	a. Submission	45 days	Fri 07/3/30	Sun 07/5/13
238	b. comments & approvals by Engineer & TMLG	14 days	Mon 07/5/14	Sun 07/5/27
239	**2.2 TTMS Proposal (for construction of box culve**	**60 days**	**Sun 08/3/2**	**Thu 08/5/1**
240	a. Submission	45 days	Sun 08/3/2	Wed 08/4/16
241	b. comments & approvals by Engineer & TMLG	14 days	Thu 08/4/17	Thu 08/5/1
242	**3. Excavation Permits**	**520 days**	**Mon 07/5/28**	**Wed 08/10/29**
243	3.1 application and issue of permit (trial pits in Chi Ho	180 days	Mon 07/5/28	Fri 07/11/23
244	3.2 application and issue of permits (for construction c	180 days	Fri 08/5/2	Wed 08/10/29
245	**4. Underground utilities detection**	**253 days**	**Fri 07/3/30**	**Fri 07/12/7**
246	4.1 utlities detection	28 days	Fri 07/3/30	Thu 07/4/26
247	4.2 trial trench excavtion & identification	14 days	Sat 07/11/24	Fri 07/12/7
248	**5. Utilities temporary diversion / protection**	**453 days**	**Sun 07/11/4**	**Thu 09/1/29**
249	a. WSD watermain along village vehicular access	103 days	Fri 07/12/7	Tue 08/3/18
250	b. Street lighting along village vehicular access	103 days	Fri 07/12/7	Tue 08/3/18
251	c. PCCW along village vehicular access	103 days	Fri 07/12/7	Tue 08/3/18
252	d. CLP overhead cable at Bay 4	90 days	Sun 07/12/23	Fri 08/3/21
253	e. CH 816~CH841 underground cables (33kV)	42 days	Sun 07/11/4	Sat 07/12/15
254	f. CH 816~CH841 underground cables (132kV)	56 days	Sun 07/11/4	Sat 07/12/29
255	g. Street lighting at Chi Ho Road	90 days	Sat 08/11/1	Thu 09/1/29
256	h. Irrigation pipe at Chi Ho Road	90 days	Sat 08/11/1	Thu 09/1/29
257	**6. Drainage Management Plan (Ch810 to Ch850)**	**115 days**	**Thu 07/7/12**	**Sat 07/11/3**
258	6.1 Submission of DMPs	1 day	Thu 07/7/12	Thu 07/7/12
259	6.2 Comments by the Engineer	14 days	Fri 07/7/13	Thu 07/7/26
260	6.3 Implementation of DMP	3 days	Thu 07/11/1	Sat 07/11/3
261	**7. Box Culvert and Channel**	**474 days**	**Sat 07/10/27**	**Wed 09/2/11**
262	**7.1 Box Culvert BC2-1**	**461 days**	**Sat 07/10/27**	**Thu 09/1/29**
263	**a. Ch0-Ch10 (Bay 1 and Outlet)**	**92 days**	**Thu 08/10/30**	**Thu 09/1/29**
264	Remove road pavement and expose existing	2 days	Thu 08/10/30	Fri 08/10/31
265	Excavation	9 days	Sat 08/11/1	Sun 08/11/9
266	Granular Bedding	5 days	Mon 08/11/10	Fri 08/11/14
267	Base Slab	21 days	Sat 08/11/15	Fri 08/12/5
268	Wall and Deck	31 days	Sat 08/12/6	Mon 09/1/5
269	Curing	14 days	Tue 09/1/6	Mon 09/1/19
270	Trench Backfill	3 days	Tue 09/1/20	Thu 09/1/22
271	Reinstatement of Chi Ho Road	7 days	Fri 09/1/23	Thu 09/1/29
272	**b. Ch10-Ch20 (Bay 2)**	**83 days**	**Wed 08/7/23**	**Mon 08/10/13**



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PROGRAMME OF WORKS - MP02
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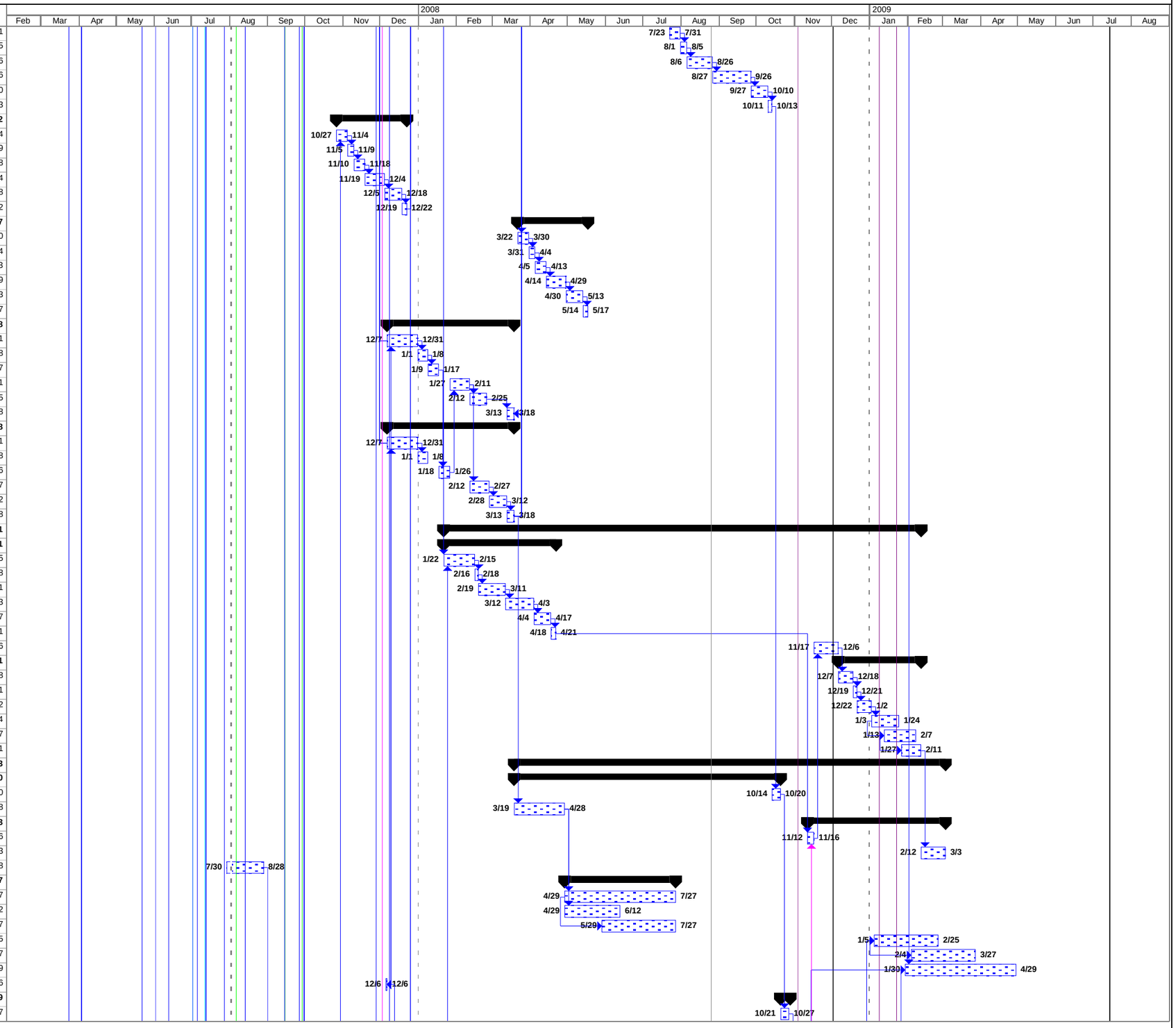
Contract Title : Yuen Long, Kam Tin, Ngau Tam Mei and Tin Shui Wai Drainage Improvements,
Stage 1, Phase 2B - Cheung Chun San Tsuen and Kam Tsin Wai

CHIT CHEUNG CONSTRUCTION CO., LTD.
DATE : July 2007

ID	Task Name	Duration	Start	Finish
273	Excavation	9 days	Wed 08/7/23	Thu 08/7/31
274	Granular Bedding	5 days	Fri 08/8/1	Tue 08/8/5
275	Base Slab	21 days	Wed 08/8/6	Tue 08/8/26
276	Wall and Deck	31 days	Wed 08/8/27	Fri 08/9/26
277	Curing	14 days	Sat 08/9/27	Fri 08/10/10
278	Trench Backfill	3 days	Sat 08/10/11	Mon 08/10/13
279	**c. Ch20-Ch32 (Bay 3)**	**57 days**	**Sat 07/10/27**	**Sat 07/12/22**
280	Excavation	9 days	Sat 07/10/27	Sun 07/11/4
281	Granular Bedding	5 days	Mon 07/11/5	Fri 07/11/9
282	Base Slab	9 days	Sat 07/11/10	Sun 07/11/18
283	Wall and Deck	16 days	Mon 07/11/19	Tue 07/12/4
284	Curing	14 days	Wed 07/12/5	Tue 07/12/18
285	Trench Backfill	4 days	Wed 07/12/19	Sat 07/12/22
286	**d. Ch32-Ch42 (Bay 4)**	**57 days**	**Sat 08/3/22**	**Sat 08/5/17**
287	Excavation	9 days	Sat 08/3/22	Sun 08/3/30
288	Granular Bedding	5 days	Mon 08/3/31	Fri 08/4/4
289	Base Slab	9 days	Sat 08/4/5	Sun 08/4/13
290	Wall and Deck	16 days	Mon 08/4/14	Tue 08/4/29
291	Curing	14 days	Wed 08/4/30	Tue 08/5/13
292	Trench Backfill	4 days	Wed 08/5/14	Sat 08/5/17
293	**e. Ch42-Ch52 and Ch64-Ch76 (Bay 5 and Bay**	**103 days**	**Fri 07/12/7**	**Tue 08/3/18**
294	Excavation	25 days	Fri 07/12/7	Mon 07/12/31
295	Granular Bedding	8 days	Tue 08/1/1	Tue 08/1/8
296	Base Slab	9 days	Wed 08/1/9	Thu 08/1/17
297	Wall and Deck	16 days	Sun 08/1/27	Mon 08/2/11
298	Curing	14 days	Tue 08/2/12	Mon 08/2/25
299	Trench Backfill	6 days	Thu 08/3/13	Tue 08/3/18
300	**f. Ch52-Ch64 and Ch76-Ch88 (Bay 6 and Bay**	**103 days**	**Fri 07/12/7**	**Tue 08/3/18**
301	Excavation	25 days	Fri 07/12/7	Mon 07/12/31
302	Granular Bedding	8 days	Tue 08/1/1	Tue 08/1/8
303	Base Slab	9 days	Fri 08/1/18	Sat 08/1/26
304	Wall and Deck	16 days	Tue 08/2/12	Wed 08/2/27
305	Curing	14 days	Thu 08/2/28	Wed 08/3/12
306	Trench Backfill	6 days	Thu 08/3/13	Tue 08/3/18
307	**7.2 Channel**	**387 days**	**Tue 08/1/22**	**Wed 09/2/11**
308	**a. Ch832-Ch844 (Bay 56b)**	**91 days**	**Tue 08/1/22**	**Mon 08/4/21**
309	Excavation (including contamination material	25 days	Tue 08/1/22	Fri 08/2/15
310	Granular Bedding	3 days	Sat 08/2/16	Mon 08/2/18
311	Base Slab	22 days	Tue 08/2/19	Tue 08/3/11
312	Wall and Deck	23 days	Wed 08/3/12	Thu 08/4/3
313	Curing	14 days	Fri 08/4/4	Thu 08/4/17
314	Trench Backfill	4 days	Fri 08/4/18	Mon 08/4/21
315	b. Demolition of existing crossing	20 days	Mon 08/11/17	Sat 08/12/6
316	**c. Ch800-833 (Bay 56a)**	**67 days**	**Sun 08/12/7**	**Wed 09/2/11**
317	Excavation (including contamination material	12 days	Sun 08/12/7	Thu 08/12/18
318	Granular Bedding	3 days	Fri 08/12/19	Sun 08/12/21
319	Base Slab	12 days	Mon 08/12/22	Fri 09/1/2
320	Wall and Deck	22 days	Sat 09/1/3	Sat 09/1/24
321	Curing	26 days	Tue 09/1/13	Sat 09/2/7
322	Trench Backfill	16 days	Tue 09/1/27	Wed 09/2/11
323	**8. Filling in Platform**	**350 days**	**Wed 08/3/19**	**Tue 09/3/3**
324	**8.1 Box Culvert**	**216 days**	**Wed 08/3/19**	**Mon 08/10/20**
325	a. Ch10-Ch20 (Bay 2)	7 days	Tue 08/10/14	Mon 08/10/20
326	b. Ch20-Ch88 (Bay 3 to Bay 8)	41 days	Wed 08/3/19	Mon 08/4/28
327	**8.2 Channel**	**112 days**	**Wed 08/11/12**	**Tue 09/3/3**
328	a. Ch832-Ch844 (Bay 56b)	5 days	Wed 08/11/12	Sun 08/11/16
329	b. Ch800-833 (Bay 56a)	20 days	Thu 09/2/12	Tue 09/3/3
330	9. Geotechnical Instrumentation for CLP Pylon	30 days	Mon 07/7/30	Tue 07/8/28
331	**10. Drainage works (except Bays 56a and 56b)**	**90 days**	**Tue 08/4/29**	**Sun 08/7/27**
332	a. storm drain with manhole	90 days	Tue 08/4/29	Sun 08/7/27
333	b. surface drain	45 days	Tue 08/4/29	Thu 08/6/12
334	11. Water supply pipeworks	60 days	Thu 08/5/29	Sun 08/7/27
335	12. Roads and paving (except Bays 56a and 56b)	52 days	Mon 09/1/5	Wed 09/2/25
336	13. Street furnitures / traffic sign / road marking (except Ba	52 days	Wed 09/2/4	Fri 09/3/27
337	14. Landscape softworks / hardworks (except Bays 56a an	90 days	Fri 09/1/30	Wed 09/4/29
338	15. Diversion of Village Vehicular Access	1 day	Thu 07/12/6	Thu 07/12/6
339	**16. Road Diversion in Chi Ho Road**	**8 days**	**Tue 08/10/21**	**Wed 08/10/29**
340	a. Construction of temporary road above Bay 2	7 days	Tue 08/10/21	Mon 08/10/27



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Task | Progress | Summary | Rolled Up Critical Task | Rolled Up Progress | External Tasks | Group By Summary
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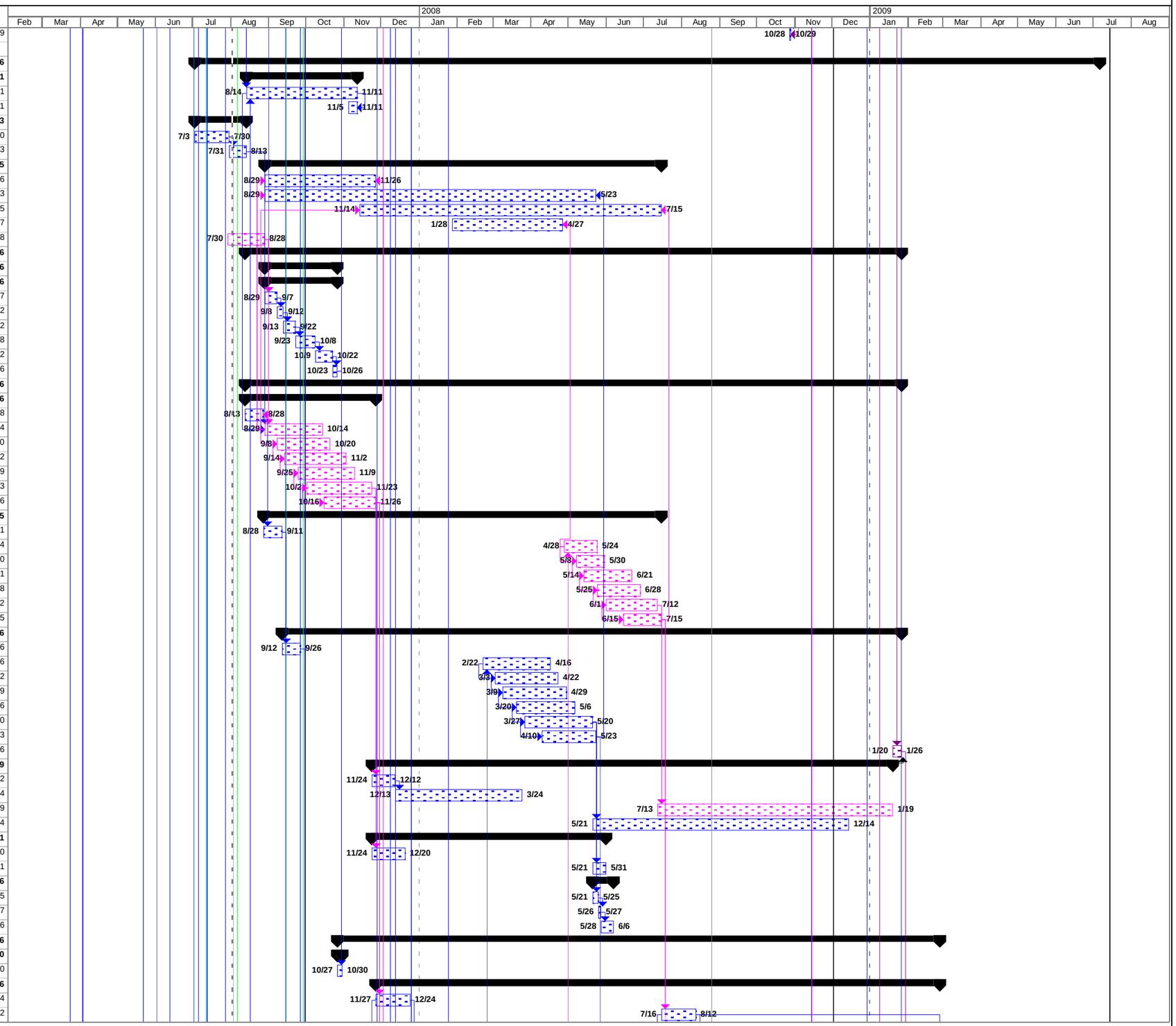
Stage 1, Phase 2B - Cheung Chun San Tsuen and Kam Tsin Wai

CHIT CHEUNG CONSTRUCTION CO., LTD.
DATE : July 2007

ID	Task Name	Duration	Start	Finish
341	b. Implementation of road diversion	1 day	Tue 08/10/28	Wed 08/10/29
342				
343	**B2. Portion 2**	**735 days**	**Tue 07/7/3**	**Mon 09/7/6**
344	**1. Site clearance**	**90 days**	**Tue 07/8/14**	**Sun 07/11/11**
345	1.1 General clearance	90 days	Tue 07/8/14	Sun 07/11/11
346	1.2 Demolition of existing building/ Huts	7 days	Mon 07/11/5	Sun 07/11/11
347	**2. Underground utilities detection**	**42 days**	**Tue 07/7/3**	**Mon 07/8/13**
348	2.1 utilities detection	28 days	Tue 07/7/3	Mon 07/7/30
349	2.2 trial trench excavtion & identification	14 days	Tue 07/7/31	Mon 07/8/13
350	**3. Utilities temporary diversion / protection**	**322 days**	**Wed 07/8/29**	**Tue 08/7/15**
351	a. WSD water main along village vehicular access	90 days	Wed 07/8/29	Mon 07/11/26
352	b. Street lighting along village vehicular access	269 days	Wed 07/8/29	Fri 08/5/23
353	c. PCCW along village vehicular access	245 days	Wed 07/11/14	Tue 08/7/15
354	d. CLP overhead cables / street lighting at CH 290 ~ C	90 days	Mon 08/1/28	Sun 08/4/27
355	4. Geotechnical Instrumentation for AFCD	30 days	Mon 07/7/30	Tue 07/8/28
356	**5. Box Culvert, Channel and Crossings**	**533 days**	**Mon 07/8/13**	**Mon 09/1/26**
357	**5.1 Box Culvert BC2-1**	**59 days**	**Wed 07/8/29**	**Fri 07/10/26**
358	**a. Ch88-Ch100 (Bay 9)**	**59 days**	**Wed 07/8/29**	**Fri 07/10/26**
359	Excavation	10 days	Wed 07/8/29	Fri 07/9/7
360	Granular Bedding	5 days	Sat 07/9/8	Wed 07/9/12
361	Base Slab	10 days	Thu 07/9/13	Sat 07/9/22
362	Wall and Deck	16 days	Sun 07/9/23	Mon 07/10/8
363	Curing	14 days	Tue 07/10/9	Mon 07/10/22
364	Trench Backfill	4 days	Tue 07/10/23	Fri 07/10/26
365	**5.2 Channel and Crossings**	**533 days**	**Mon 07/8/13**	**Mon 09/1/26**
366	**a. Ch100-Ch205 (Bay 10 - Bay 17)**	**106 days**	**Mon 07/8/13**	**Mon 07/11/26**
367	Haul access	15 days	Mon 07/8/13	Tue 07/8/28
368	Excavation	47 days	Wed 07/8/29	Sun 07/10/14
369	Granular Bedding	43 days	Sat 07/9/8	Sat 07/10/20
370	Base Slab	50 days	Fri 07/9/14	Fri 07/11/2
371	Wall and Deck	46 days	Tue 07/9/25	Fri 07/11/9
372	Curing	53 days	Tue 07/10/2	Fri 07/11/23
373	Trench Backfill	42 days	Tue 07/10/16	Mon 07/11/26
374	**b. Ch205-Ch310 (Bay 18 - Bay 24)**	**323 days**	**Tue 07/8/28**	**Tue 08/7/15**
375	Haul access	15 days	Tue 07/8/28	Tue 07/9/11
376	Excavation	27 days	Mon 08/4/28	Sat 08/5/24
377	Granular Bedding	23 days	Thu 08/5/8	Fri 08/5/30
378	Base Slab	39 days	Wed 08/5/14	Sat 08/6/21
379	Wall and Deck	35 days	Sun 08/5/25	Sat 08/6/28
380	Curing	42 days	Sun 08/6/1	Sat 08/7/12
381	Trench Backfill	31 days	Sun 08/6/15	Tue 08/7/15
382	**c. Ch310-Ch436 (Bay 25 - Bay 32)**	**503 days**	**Wed 07/9/12**	**Mon 09/1/26**
383	Haul access	15 days	Wed 07/9/12	Wed 07/9/26
384	Excavation	55 days	Fri 08/2/22	Wed 08/4/16
385	Granular Bedding	51 days	Mon 08/3/3	Tue 08/4/22
386	Base Slab	52 days	Sun 08/3/9	Tue 08/4/29
387	Wall and Deck	48 days	Thu 08/3/20	Tue 08/5/6
388	Curing	55 days	Thu 08/3/27	Tue 08/5/20
389	Trench Backfill	44 days	Thu 08/4/10	Fri 08/5/23
390	Demolition of Existing crossing at Ch410	7 days	Tue 09/1/20	Mon 09/1/26
391	**6. Gabion**	**423 days**	**Sat 07/11/24**	**Mon 09/1/19**
392	Ch120-Ch145.5 (Bay 12 - Bay 13)	19 days	Sat 07/11/24	Wed 07/12/12
393	Ch163 - Ch205 (Bay 15 - Bay 17)	103 days	Thu 07/12/13	Mon 08/3/24
394	Ch205 - Ch310 (Bay 18 - Bay 24)	191 days	Sun 08/7/13	Mon 09/1/19
395	Ch310 - Ch325, Ch348 - Ch436 (Bay 25, Bay 27 - Ba	208 days	Wed 08/5/21	Sun 08/12/14
396	**7. Granite Stone Facing**	**190 days**	**Sat 07/11/24**	**Sat 08/5/31**
397	Ch100 -Ch163 (Bay 10 - Bay 14)	27 days	Sat 07/11/24	Thu 07/12/20
398	Ch325 - Ch348 and Ch413 - Ch436 (Bay 26 and Bay 3	11 days	Wed 08/5/21	Sat 08/5/31
399	**8. Ramp No. 3 (Ch356 - Ch405)**	**17 days**	**Wed 08/5/21**	**Fri 08/6/6**
400	General fill	5 days	Wed 08/5/21	Sun 08/5/25
401	Granular fill and blinding	2 days	Mon 08/5/26	Tue 08/5/27
402	Road slab	10 days	Wed 08/5/28	Fri 08/6/6
403	**8. Filling in Platform**	**489 days**	**Sat 07/10/27**	**Thu 09/2/26**
404	**8.1 Box Culvert BC2-1**	**4 days**	**Sat 07/10/27**	**Tue 07/10/30**
405	a. Ch88-Ch100 (Bay 9)	4 days	Sat 07/10/27	Tue 07/10/30
406	**8.2 Channel and Crossing**	**458 days**	**Tue 07/11/27**	**Thu 09/2/26**
407	a. Ch100-Ch205 (Bay 10 - Bay 17)	28 days	Tue 07/11/27	Mon 07/12/24
408	b. Ch205-Ch310 (Bay 18 - Bay 24)	28 days	Wed 08/7/16	Tue 08/8/12



Task | Progress | Summary | Rolled Up Critical Task | Rolled Up Progress | External Tasks | Group By Summary
Critical Task | Milestone | Rolled Up Task | Rolled Up Milestone | Split | Project Summary | Deadline

PROGRAMME OF WORKS - MP02
Contract No. : DC / 2006 / 02
Contract Title : Yuen Long, Kam Tin, Ngau Tam Mei and Tin Shui Wai Drainage Improvements, Stage 1, Phase 2B - Cheung Chun San Tsuen and Kam Tsin Wai

CHIT CHEUNG CONSTRUCTION CO., LTD.
DATE : July 2007

ID	Task Name	Duration	Start	Finish
409	c. Ch310-Ch436 (Bay 25 - Bay 32)	31 days	Tue 09/1/27	Thu 09/2/26
410	**9. Drainage works**	**496 days**	**Tue 07/12/4**	**Sun 09/4/12**
411	**9.1 storm drain with manhole and headwall**	**472 days**	**Tue 07/12/4**	**Thu 09/3/19**
412	a. Ch100-Ch205 (Bay 10 - Bay 17)	20 days	Tue 07/12/4	Sun 07/12/23
413	b. Ch205-Ch310 (Bay 18 - Bay 24)	20 days	Wed 08/7/23	Mon 08/8/11
414	c. Ch310-Ch436 (Bay 25 - Bay 32)	45 days	Tue 09/2/3	Thu 09/3/19
415	**9.2. surface drain**	**475 days**	**Tue 07/12/25**	**Sun 09/4/12**
416	a. Ch100-Ch205 (Bay 10 - Bay 17)	45 days	Tue 07/12/25	Thu 08/2/7
417	b. Ch205-Ch310 (Bay 18 - Bay 24)	45 days	Wed 08/8/13	Fri 08/9/26
418	c. Ch310-Ch436 (Bay 25 - Bay 32)	45 days	Fri 09/2/27	Sun 09/4/12
419	10. Water supply pipeworks	60 days	Thu 08/1/3	Sun 08/3/2
420	**11. Roads and paving**	**157 days**	**Mon 09/1/5**	**Wed 09/6/10**
421	a. Ch90-Ch205 (Bay 9 - Bay 17)	52 days	Mon 09/1/5	Thu 09/2/26
422	b. Ch205-Ch436 (Bay 18 - Bay 32)	104 days	Fri 09/2/27	Wed 09/6/10
423	**12. Street furnitures / traffic sign / road marking**	**153 days**	**Wed 09/2/4**	**Mon 09/7/6**
424	a. Ch90-Ch205 (Bay 9 - Bay 17)	52 days	Wed 09/2/4	Fri 09/3/27
425	b. Ch205-Ch436 (Bay 18 - Bay 32)	100 days	Sun 09/3/29	Mon 09/7/6
426	**13. Landscape softworks / hardworks**	**231 days**	**Tue 08/11/18**	**Mon 09/7/6**
427	a. Ch90-Ch205 (Bay 9 - Bay 17)	100 days	Tue 08/11/18	Thu 09/2/26
428	b. Ch205-Ch436 (Bay 18 - Bay 32)	130 days	Fri 09/2/27	Mon 09/7/6
429	14. Temporary Decking on Bay 10	10 days	Tue 07/11/27	Thu 07/12/6
430	**B3. Portion 3**	**726 days**	**Thu 07/7/12**	**Mon 09/7/6**
431	**1. Site clearance**	**90 days**	**Sat 07/9/15**	**Thu 07/12/13**
432	1.1 General clearance	90 days	Sat 07/9/15	Thu 07/12/13
433	1.2 Demolition of existing building/ Huts	14 days	Fri 07/11/30	Thu 07/12/13
434	**2. Underground utilities detection**	**42 days**	**Tue 07/7/31**	**Mon 07/9/10**
435	4.1 utilities detection	28 days	Tue 07/7/31	Mon 07/8/27
436	4.2 trial trench excavtion & identification	14 days	Tue 07/8/28	Mon 07/9/10
437	**3. Utilities temporary diversion / protection**	**153 days**	**Sat 08/11/1**	**Thu 09/4/2**
438	a. WSD water main along village access at CH 1150	153 days	Sat 08/11/1	Thu 09/4/2
439	b. Street lighting along village access at CH 1150	93 days	Sat 08/11/1	Sun 09/2/1
440	c. PCCW along village access at CH 1150	153 days	Sat 08/11/1	Thu 09/4/2
441	**4. Drainage Management Plan**	**716 days**	**Thu 07/7/12**	**Fri 09/6/26**
442	4.1 Submission of DMPs	1 day	Thu 07/7/12	Thu 07/7/12
443	4.2 Comments by the Engineer	14 days	Fri 07/7/13	Thu 07/7/26
444	4.3 Implementation of DMP	659 days	Fri 07/9/7	Fri 09/6/26
445	**5. Channel and Crossings**	**598 days**	**Sat 07/9/1**	**Mon 09/4/20**
446	**a. Ch436-Ch530 (Bay 33 - Bay 39)**	**564 days**	**Thu 07/9/27**	**Sun 09/4/12**
447	Haul access	15 days	Thu 07/9/27	Thu 07/10/11
448	Flow diversion	10 days	Wed 09/1/14	Fri 09/1/23
449	Excavation (including contamination material)	49 days	Sat 09/1/24	Fri 09/3/13
450	Granular Bedding	45 days	Tue 09/2/3	Thu 09/3/19
451	Base Slab	39 days	Mon 09/2/9	Thu 09/3/19
452	Wall and Deck	35 days	Fri 09/2/20	Thu 09/3/26
453	Curing	42 days	Fri 09/2/27	Thu 09/4/9
454	Trench Backfill	31 days	Fri 09/3/13	Sun 09/4/12
455	**b. Ch530-Ch630 (Bay 40 - Bay 45)**	**470 days**	**Fri 07/10/12**	**Fri 09/1/23**
456	Haul access	15 days	Fri 07/10/12	Fri 07/10/26
457	Flow diversion	10 days	Sun 08/11/2	Tue 08/11/11
458	Excavation (including contamination material)	45 days	Wed 08/11/12	Fri 08/12/26
459	Granular Bedding	41 days	Sat 08/11/22	Thu 09/1/1
460	Base Slab	33 days	Fri 08/11/28	Tue 08/12/30
461	Wall and Deck	29 days	Tue 08/12/9	Tue 09/1/6
462	Curing	36 days	Tue 08/12/16	Tue 09/1/20
463	Trench Backfill	25 days	Tue 08/12/30	Fri 09/1/23
464	**c. Ch630-Ch730 (Bay 46 - Bay 52)**	**184 days**	**Sat 07/10/27**	**Sun 08/4/27**
465	Haul access	15 days	Sat 07/10/27	Sat 07/11/10
466	Flow diversion	10 days	Sat 08/2/9	Mon 08/2/18
467	Excavation (including contamination material)	49 days	Sat 08/2/9	Fri 08/3/28
468	Granular Bedding	45 days	Tue 08/2/19	Thu 08/4/3
469	Base Slab	34 days	Mon 08/2/25	Sat 08/3/29
470	Wall and Deck	35 days	Fri 08/3/7	Thu 08/4/10
471	Curing	42 days	Fri 08/3/14	Thu 08/4/24
472	Trench Backfill	31 days	Fri 08/3/28	Sun 08/4/27
473	**d. Ch730-Ch800 (Bay 53 - Bay 55)**	**161 days**	**Sat 07/9/1**	**Fri 08/2/8**
474	Haul access	6 days	Sat 07/9/1	Thu 07/9/6
475	Flow diversion	10 days	Fri 07/9/7	Sun 07/9/16
476	Excavation (including contamination material)	38 days	Tue 07/11/27	Thu 08/1/3

Task | Progress | Summary | Rolled Up Critical Task | Rolled Up Progress | External Tasks | Group By Summary
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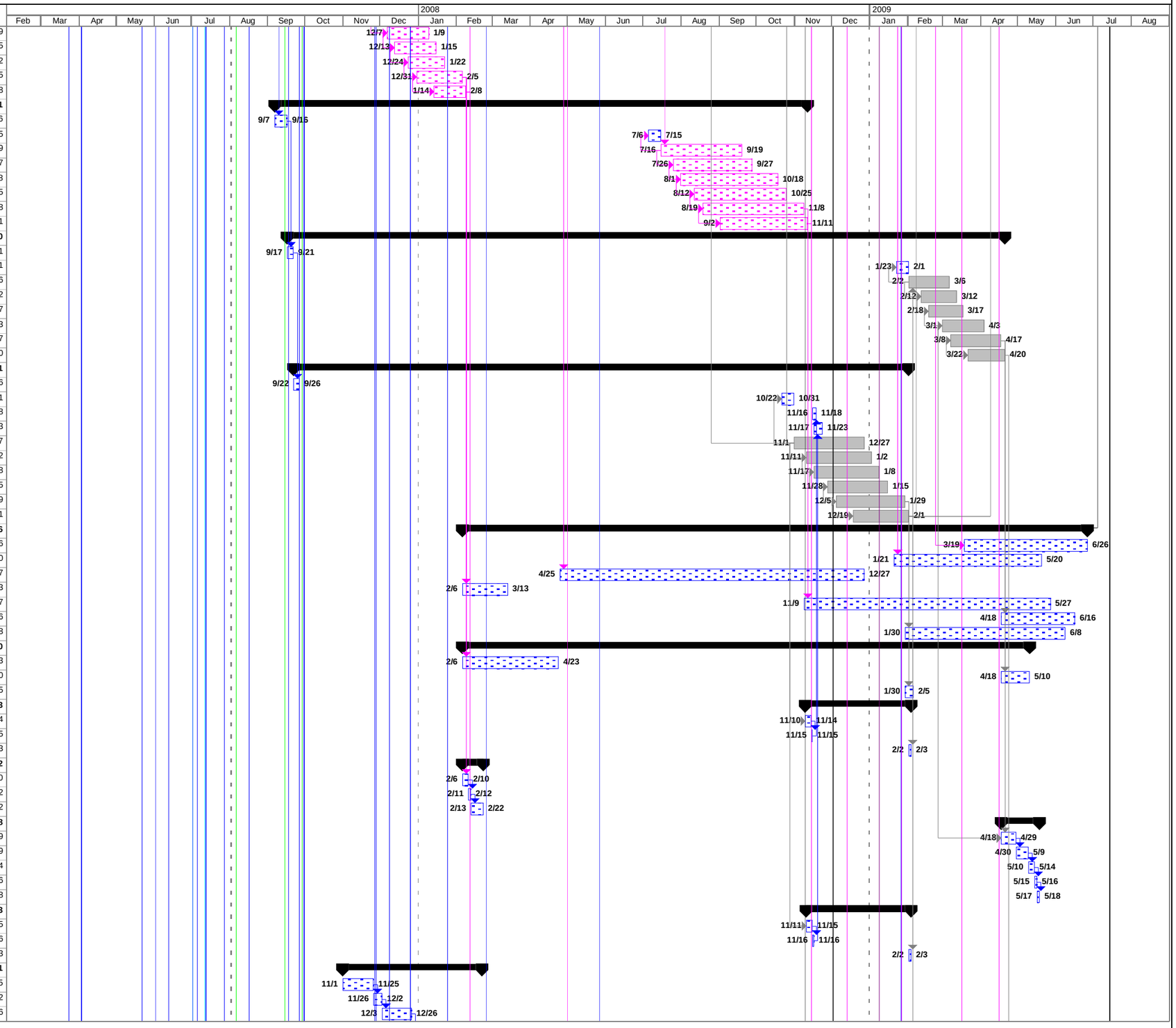
PROGRAMME OF WORKS - MP02
Contract No. : DC / 2006 / 02
Contract Title : Yuen Long, Kam Tin, Ngau Tam Mei and Tin Shui Wai Drainage Improvements,
Stage 1, Phase 2B - Cheung Chun San Tsuen and Kam Tsin Wai

CHIT CHEUNG CONSTRUCTION CO., LTD.
DATE : July 2007

ID	Task Name	Duration	Start	Finish
477	Granular Bedding	34 days	Fri 07/12/7	Wed 08/1/9
478	Base Slab	34 days	Thu 07/12/13	Tue 08/1/15
479	Wall and Deck	30 days	Mon 07/12/24	Tue 08/1/22
480	Curing	37 days	Mon 07/12/31	Tue 08/2/5
481	Trench Backfill	26 days	Mon 08/1/14	Fri 08/2/8
482	**e. Ch840-Ch1037 (Bay 56c - Bay 67)**	**432 days**	**Fri 07/9/7**	**Tue 08/11/11**
483	Haul access	10 days	Fri 07/9/7	Sun 07/9/16
484	Flow diversion	10 days	Sun 08/7/6	Tue 08/7/15
485	Excavation (including contamination material)	66 days	Wed 08/7/16	Fri 08/9/19
486	Granular Bedding	64 days	Sat 08/7/26	Sat 08/9/27
487	Base Slab	79 days	Fri 08/8/1	Sat 08/10/18
488	Wall and Deck	75 days	Tue 08/8/12	Sat 08/10/25
489	Curing	82 days	Tue 08/8/19	Sat 08/11/8
490	Trench Backfill	71 days	Tue 08/9/2	Tue 08/11/11
491	**f. Ch1037-Ch1160 (Bay 68 - Bay 71)**	**582 days**	**Mon 07/9/17**	**Mon 09/4/20**
492	Haul access	5 days	Mon 07/9/17	Fri 07/9/21
493	Flow diversion	10 days	Fri 09/1/23	Sun 09/2/1
494	Excavation and Handling of Type 3 Contaminated	33 days	Mon 09/2/2	Fri 09/3/6
495	Granular Bedding	29 days	Thu 09/2/12	Thu 09/3/12
496	Base Slab	28 days	Wed 09/2/18	Tue 09/3/17
497	Wall and Deck	34 days	Sun 09/3/1	Fri 09/4/3
498	Curing	41 days	Sun 09/3/8	Fri 09/4/17
499	Trench Backfill	30 days	Sun 09/3/22	Mon 09/4/20
500	**g. Ch1146-Ch1330 (Bay 72 - Bay 84)**	**499 days**	**Sat 07/9/22**	**Sun 09/2/1**
501	Haul access	5 days	Sat 07/9/22	Wed 07/9/26
502	Flow diversion	10 days	Wed 08/10/22	Fri 08/10/31
503	Demolition of existing crossing (Bay 72)	3 days	Sun 08/11/16	Tue 08/11/18
504	Demolition of existing footbridge (Bay 83)	7 days	Mon 08/11/17	Sun 08/11/23
505	Excavation and Handling of Type 3 Contaminated	57 days	Sat 08/11/1	Sat 08/12/27
506	Granular Bedding	53 days	Tue 08/11/11	Fri 09/1/2
507	Base Slab	53 days	Mon 08/11/17	Thu 09/1/8
508	Wall and Deck	49 days	Fri 08/11/28	Thu 09/1/15
509	Curing	56 days	Fri 08/12/5	Thu 09/1/29
510	Trench Backfill	45 days	Fri 08/12/19	Sun 09/2/1
511	**6. Gabion**	**507 days**	**Wed 08/2/6**	**Fri 09/6/26**
512	a. Bay 33- Bay39 (Ch436-Ch530)	100 days	Thu 09/3/19	Fri 09/6/26
513	b. Bay 40 - Bay 45 (CH530-Ch630)	120 days	Wed 09/1/21	Wed 09/5/20
514	c. Bay 46 - Bay 52 (Ch630-Ch730)	247 days	Fri 08/4/25	Sat 08/12/27
515	d. Bay 53 - Bay 55 (Ch730-Ch800)	37 days	Wed 08/2/6	Thu 08/3/13
516	e. Bay 56c - Bay 67 (Ch840-Ch1037)	200 days	Sun 08/11/9	Wed 09/5/27
517	f. Bay 68 - Bay 71 (Ch1037-Ch1160)	60 days	Sat 09/4/18	Tue 09/6/16
518	g. Bay 72 - Bay 84 (Ch1160-Ch1330)	130 days	Fri 09/1/30	Mon 09/6/8
519	**7. Granite Stone Facing**	**460 days**	**Wed 08/2/6**	**Sun 09/5/10**
520	Bay 54 to Bay 55 (Ch738 - Ch800)	78 days	Wed 08/2/6	Wed 08/4/23
521	Bay 68 and Bay 72 (Ch1038 -Ch1165)	23 days	Sat 09/4/18	Sun 09/5/10
522	Bay 83 and Bay 84 (Ch1301-Ch1330)	7 days	Fri 09/1/30	Thu 09/2/5
523	**8. Temp Crossing at Bay 71 (Ch1145)**	**86 days**	**Mon 08/11/10**	**Tue 09/2/3**
524	8.1 Construction	5 days	Mon 08/11/10	Fri 08/11/14
525	8.2 Pesdestrian diversion	1 day	Sat 08/11/15	Sat 08/11/15
526	8.3 Demolition of Temp crossing	2 days	Mon 09/2/2	Tue 09/2/3
527	**9. Ramp No. 2 (Ch752 - Ch800, Bay 55)**	**17 days**	**Wed 08/2/6**	**Fri 08/2/22**
528	General fill	5 days	Wed 08/2/6	Sun 08/2/10
529	Granular fill and blinding	2 days	Mon 08/2/11	Tue 08/2/12
530	Road slab	10 days	Wed 08/2/13	Fri 08/2/22
531	**10. Ramp No. 1 (Ch1052 - Ch1100, Bay 68)**	**31 days**	**Sat 09/4/18**	**Mon 09/5/18**
532	base slab	12 days	Sat 09/4/18	Wed 09/4/29
533	Wall	10 days	Thu 09/4/30	Sat 09/5/9
534	General fill	5 days	Sun 09/5/10	Thu 09/5/14
535	Granular fill and blinding	2 days	Fri 09/5/15	Sat 09/5/16
536	Road slab	2 days	Sun 09/5/17	Mon 09/5/18
537	**11. Pedestrian Temporary Crossing at Bay 83 (Ch1306)**	**85 days**	**Tue 08/11/11**	**Tue 09/2/3**
538	11.1 Construction	5 days	Tue 08/11/11	Sat 08/11/15
539	11.2 Pedestrian diversion	1 day	Sun 08/11/16	Sun 08/11/16
540	11.3 Demolition of Temp crossing	2 days	Mon 09/2/2	Tue 09/2/3
541	**12. Retaining Wall RW1 (Ch430-Ch490)**	**113 days**	**Thu 07/11/1**	**Thu 08/2/21**
542	Excavation	25 days	Thu 07/11/1	Sun 07/11/25
543	Granular bedding	7 days	Mon 07/11/26	Sun 07/12/2
544	Base slab	24 days	Mon 07/12/3	Wed 07/12/26

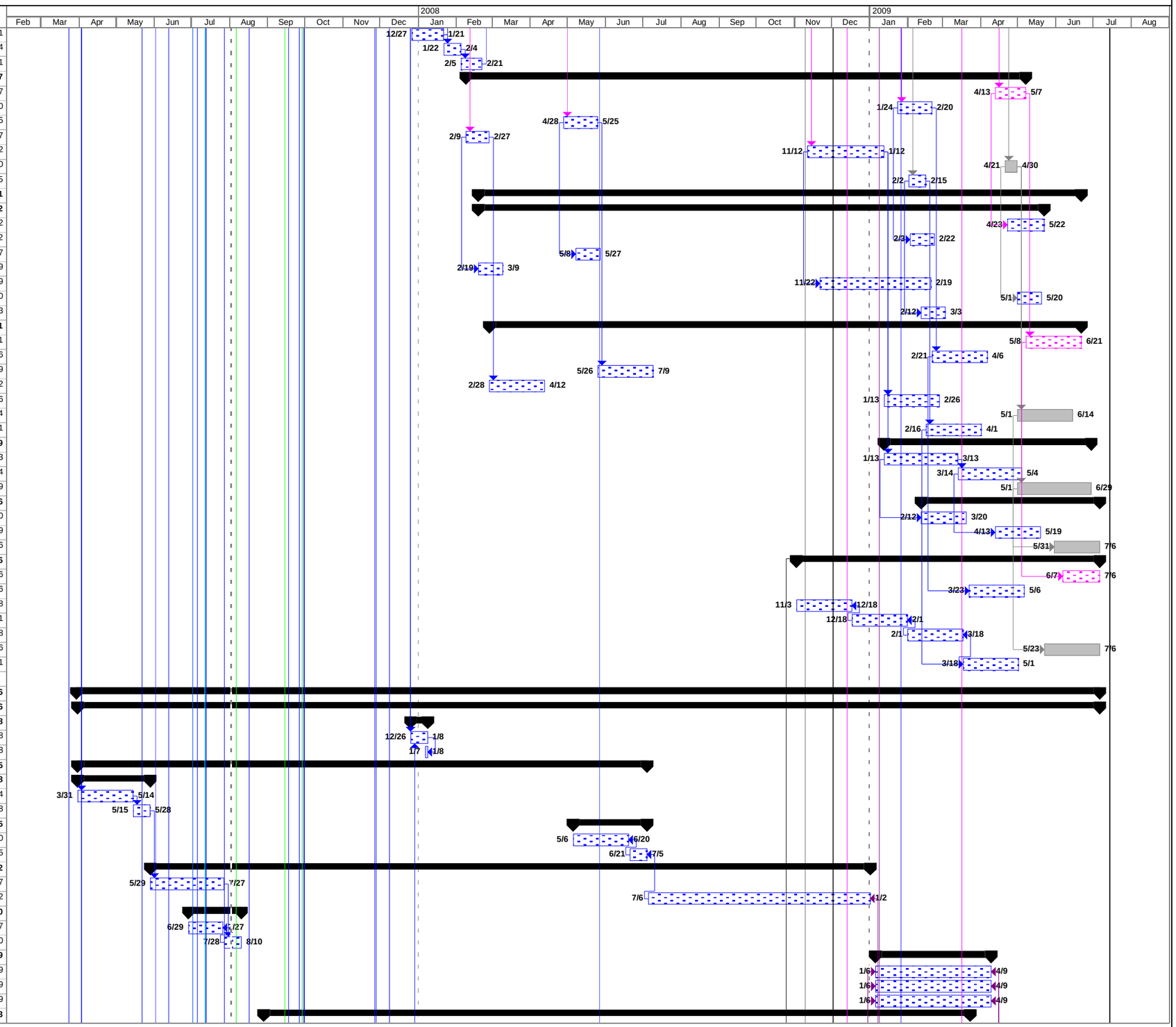


Task | Progress | Summary | Rolled Up Critical Task | Rolled Up Progress | External Tasks | Group By Summary
Critical Task | Milestone | Rolled Up Task | Rolled Up Milestone | Split | Project Summary | Deadline

PROGRAMME OF WORKS - MP02
Contract No. : DC / 2006 / 02
Contract Title : Yuen Long, Kam Tin, Ngau Tam Mei and Tin Shui Wai Drainage Improvements,
Stage 1, Phase 2B - Cheung Chun San Tsuen and Kam Tsin Wai

CHIT CHEUNG CONSTRUCTION CO., LTD.
DATE : July 2007

ID	Task Name	Duration	Start	Finish
545	Wall	26 days	Thu 07/12/27	Mon 08/1/21
546	Curing	14 days	Tue 08/1/22	Mon 08/2/4
547	Backfilling	17 days	Tue 08/2/5	Thu 08/2/21
548	**13. Filling in Platform**	**454 days**	**Sat 08/2/9**	**Thu 09/5/7**
549	a. Bay 33- Bay39 (Ch436-Ch530)	25 days	Mon 09/4/13	Thu 09/5/7
550	b. Bay 40 - Bay 45 (CH530-Ch630)	28 days	Sat 09/1/24	Fri 09/2/20
551	c. Bay 46 - Bay 52 (Ch630-Ch730)	28 days	Mon 08/4/28	Sun 08/5/25
552	d. Bay 53 - Bay 55 (Ch730-Ch800)	19 days	Sat 08/2/9	Wed 08/2/27
553	e. Bay 56c - Bay 67 (Ch844-Ch1037)	62 days	Wed 08/11/12	Mon 09/1/12
554	f. Bay 68 - Bay 71 (Ch1037-Ch1146)	10 days	Tue 09/4/21	Thu 09/4/30
555	g. Bay 72 - Bay 84 (Ch1146-Ch1330)	14 days	Mon 09/2/2	Sun 09/2/15
556	**14. Drainage works**	**489 days**	**Tue 08/2/19**	**Sun 09/6/21**
557	**14.1 storm drain with manhole**	**459 days**	**Tue 08/2/19**	**Fri 09/5/22**
558	a. Bay 33- Bay39 (Ch436-Ch530)	30 days	Thu 09/4/23	Fri 09/5/22
559	b. Bay 40 - Bay 45 (CH530-Ch630)	20 days	Tue 09/2/3	Sun 09/2/22
560	c. Bay 46 - Bay 52 (Ch630-Ch730)	20 days	Thu 08/5/8	Tue 08/5/27
561	d. Bay 53 - Bay 55 (Ch730-Ch800)	20 days	Tue 08/2/19	Sun 08/3/9
562	e. Bay 56c - Bay 67 (Ch844-Ch1037)	90 days	Sat 08/11/22	Thu 09/2/19
563	f. Bay 68 - Bay 71 (Ch1037-Ch1146)	20 days	Fri 09/5/1	Wed 09/5/20
564	g. Bay 72 - Bay 84 (Ch1146-Ch1330)	20 days	Thu 09/2/12	Tue 09/3/3
565	**14.2. surface drain**	**480 days**	**Thu 08/2/28**	**Sun 09/6/21**
566	a. Bay 33- Bay39 (Ch436-Ch530)	45 days	Fri 09/5/8	Sun 09/6/21
567	b. Bay 40 - Bay 45 (CH530-Ch630)	45 days	Sat 09/2/21	Mon 09/4/6
568	c. Bay 46 - Bay 52 (Ch630-Ch730)	45 days	Mon 08/5/26	Wed 08/7/9
569	d. Bay 53 - Bay 55 (Ch730-Ch800)	45 days	Thu 08/2/28	Sat 08/4/12
570	e. Bay 56c - Bay 67 (Ch844-Ch1037)	45 days	Tue 09/1/13	Thu 09/2/26
571	f. Bay 68 - Bay 71 (Ch1037-Ch1146)	45 days	Fri 09/5/1	Sun 09/6/14
572	g. Bay 72 - Bay 84 (Ch1146-Ch1330)	45 days	Mon 09/2/16	Wed 09/4/1
573	**15. Roads and paving**	**168 days**	**Tue 09/1/13**	**Mon 09/6/29**
574	a. Ch800-Ch881	60 days	Tue 09/1/13	Fri 09/3/13
575	b. Ch881-CH1037	52 days	Sat 09/3/14	Mon 09/5/4
576	c. CH1037-CH1165	60 days	Fri 09/5/1	Mon 09/6/29
577	**16. Street furnitures / traffic sign / road marking**	**145 days**	**Thu 09/2/12**	**Mon 09/7/6**
578	a. Ch800-Ch881	37 days	Thu 09/2/12	Fri 09/3/20
579	b. Ch881-CH1037	37 days	Mon 09/4/13	Tue 09/5/19
580	c. CH1037-CH1165	37 days	Sun 09/5/31	Mon 09/7/6
581	**17. Landscape softworks / hardworks**	**246 days**	**Mon 08/11/3**	**Mon 09/7/6**
582	a. Bay 33- Bay39 (Ch436-Ch530)	30 days	Sun 09/6/7	Mon 09/7/6
583	b. Bay 40 - Bay 45 (CH530-Ch630)	45 days	Mon 09/3/23	Wed 09/5/6
584	c. Bay 46 - Bay 52 (Ch630-Ch730)	45 days	Mon 08/11/3	Thu 08/12/18
585	d. Bay 53 - Bay 55 (Ch730-Ch800)	45 days	Thu 08/12/18	Sun 09/2/1
586	e. Bay 56c - Bay 67 (Ch844-Ch1037)	45 days	Sun 09/2/1	Wed 09/3/18
587	f. Bay 68 - Bay 71 (Ch1037-Ch1146)	45 days	Sat 09/5/23	Mon 09/7/6
588	g. Bay 72 - Bay 84 (Ch1146-Ch1330)	45 days	Wed 09/3/18	Fri 09/5/1
589				
590	**C. Section II of the Works**	**830 days**	**Fri 07/3/30**	**Mon 09/7/6**
591	**C1. Portion 4**	**829 days**	**Sat 07/3/31**	**Mon 09/7/6**
592	**1. Site clearance**	**14 days**	**Wed 07/12/26**	**Tue 08/1/8**
593	1.1 General clearance	14 days	Wed 07/12/26	Tue 08/1/8
594	1.2 Demolition of existing building/ Huts	2 days	Mon 08/1/7	Tue 08/1/8
595	**2. Temporary Traffic Management Scheme**	**462 days**	**Sat 07/3/31**	**Sat 08/7/5**
596	**2.1 TTMS Proposal (trial pits for utilities and site**	**59 days**	**Sat 07/3/31**	**Mon 07/5/28**
597	a. Submission	45 days	Sat 07/3/31	Mon 07/5/14
598	b. comments & approvals by Engineer & TMLG	14 days	Tue 07/5/15	Mon 07/5/28
599	**2.2 TTMS Proposal (for construction of box culve**	**60 days**	**Tue 08/5/6**	**Sat 08/7/5**
600	a. Submission	45 days	Tue 08/5/6	Fri 08/6/20
601	b. comments & approvals by Engineer & TMLG	14 days	Sat 08/6/21	Sat 08/7/5
602	**3. Excavation Permits**	**584 days**	**Tue 07/5/29**	**Fri 09/1/2**
603	3.1 application and issue of permit (trial pits for utilities	60 days	Tue 07/5/29	Fri 07/7/27
604	3.2 application and issue of permits (for construction c	180 days	Sun 08/7/6	Fri 09/1/2
605	**4. Underground utilities detection**	**43 days**	**Fri 07/6/29**	**Fri 07/8/10**
606	4.1 utilities detection	28 days	Fri 07/6/29	Fri 07/7/27
607	4.2 trial trench excavtion & identification	14 days	Sat 07/7/28	Fri 07/8/10
608	**5. Utilities temporary diversion / protection**	**94 days**	**Tue 09/1/6**	**Thu 09/4/9**
609	a. WSD water main along Kam Po Road	94 days	Tue 09/1/6	Thu 09/4/9
610	b. Street lighting along Kam Po Road	94 days	Tue 09/1/6	Thu 09/4/9
611	c. DSD storm Drain	94 days	Tue 09/1/6	Thu 09/4/9
612	**6. Drainage Management Plan**	**573 days**	**Wed 07/8/29**	**Mon 09/3/23**

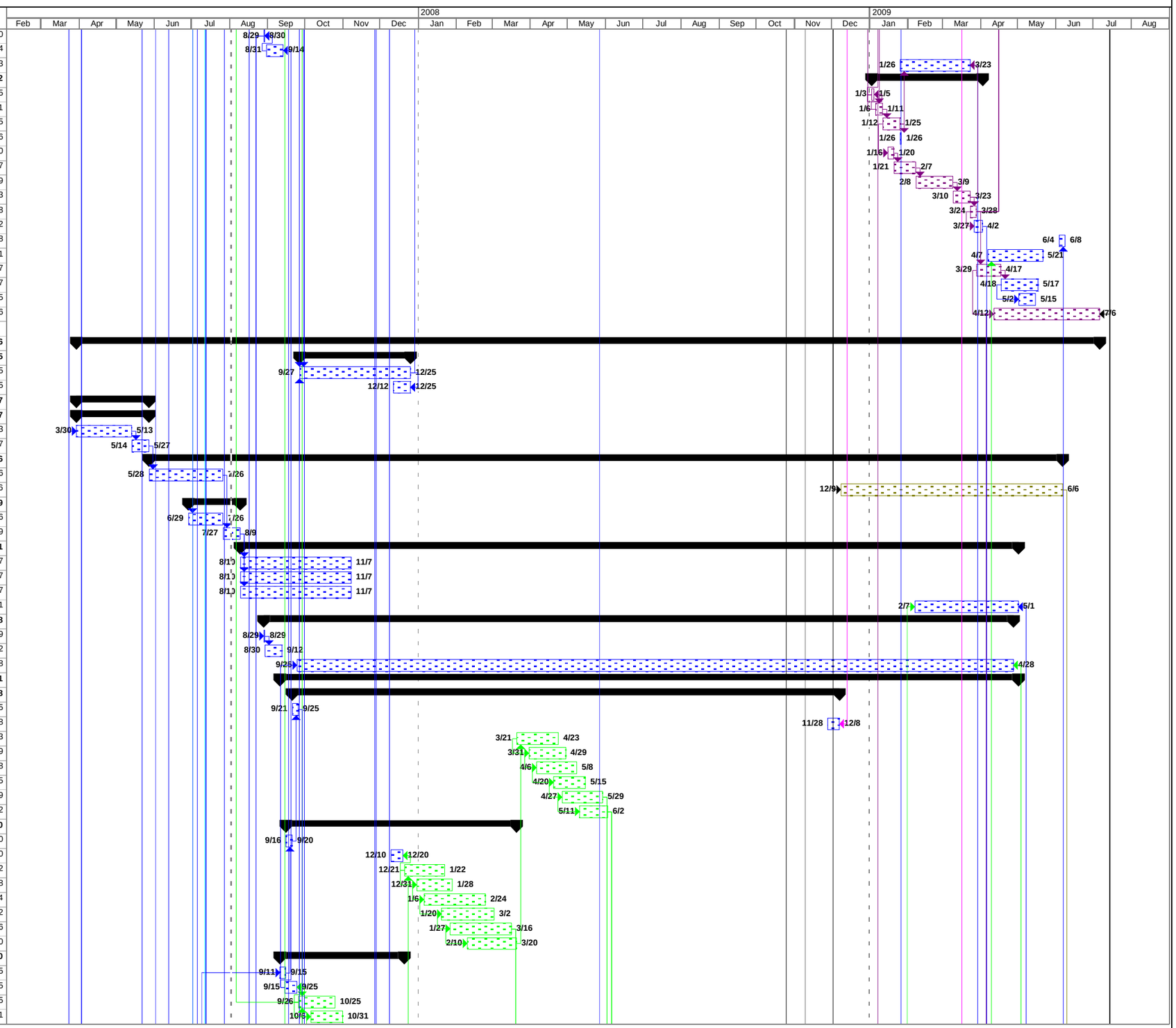


Task | Progress | Summary | Rolled Up Critical Task | Rolled Up Progress | External Tasks | Group By Summary
Critical Task | Milestone | Rolled Up Task | Rolled Up Milestone | Split | Project Summary | Deadline

PROGRAMME OF WORKS - MP02
Contract No. : DC / 2006 / 02
Contract Title : Yuen Long, Kam Tin, Ngau Tam Mei and Tin Shui Wai Drainage Improvements,
Stage 1, Phase 2B - Cheung Chun San Tsuen and Kam Tsin Wai

CHIT CHEUNG CONSTRUCTION CO., LTD.
DATE : July 2007

ID	Task Name	Duration	Start	Finish
613	7.1 Submission of DMPs	1 day	Wed 07/8/29	Thu 07/8/30
614	7.2 Comments by the Engineer	14 days	Fri 07/8/31	Fri 07/9/14
615	7.3 Implementation of DMPs	57 days	Mon 09/1/26	Mon 09/3/23
616	**7. Box Culvert Ch0-Ch11 (Bay 1 to Bay 2)**	**90 days**	**Sat 09/1/3**	**Thu 09/4/2**
617	Remove road pavement and expose existing utilities	2 days	Sat 09/1/3	Mon 09/1/5
618	Excavation	6 days	Tue 09/1/6	Sun 09/1/11
619	Remove exsiting box culvert	14 days	Mon 09/1/12	Sun 09/1/25
620	flow diversion	1 day	Mon 09/1/26	Mon 09/1/26
621	Granular Bedding	5 days	Fri 09/1/16	Tue 09/1/20
622	Base Slab	18 days	Wed 09/1/21	Sat 09/2/7
623	Wall and Deck	30 days	Sun 09/2/8	Mon 09/3/9
624	Curing	14 days	Tue 09/3/10	Mon 09/3/23
625	Trench Backfill	5 days	Tue 09/3/24	Sat 09/3/28
626	Reinstatement of Kam Po Road	7 days	Fri 09/3/27	Thu 09/4/2
627	8. Granite facing stone in Bay 4 (Ch19.5 -Ch35)	5 days	Thu 09/6/4	Mon 09/6/8
628	9. Modification to invert level of box culvert at Kam Sheung	45 days	Tue 09/4/7	Thu 09/5/21
629	10. Fill in Platform	20 days	Sun 09/3/29	Fri 09/4/17
630	11. Roads and paving	30 days	Sat 09/4/18	Sun 09/5/17
631	12. Street furnitures	14 days	Sat 09/5/2	Fri 09/5/15
632	13. Landscape softworks / hardworks	86 days	Sun 09/4/12	Mon 09/7/6
633				
634	**C2. Portion 5 and 5C**	**830 days**	**Fri 07/3/30**	**Mon 09/7/6**
635	**1. Site clearance**	**90 days**	**Thu 07/9/27**	**Tue 07/12/25**
636	1.1 General clearance	90 days	Thu 07/9/27	Tue 07/12/25
637	1.2 Demolition of existing building/ Huts	14 days	Wed 07/12/12	Tue 07/12/25
638	**2. Temporary Traffic Management Scheme**	**59 days**	**Fri 07/3/30**	**Sun 07/5/27**
639	**TTMS Proposal (trial pits for utilities and site entr**	**59 days**	**Fri 07/3/30**	**Sun 07/5/27**
640	a. Submission	45 days	Fri 07/3/30	Sun 07/5/13
641	b. comments & approvals by Engineer & TMLG	14 days	Mon 07/5/14	Sun 07/5/27
642	**3. Excavation Permits**	**741 days**	**Mon 07/5/28**	**Sat 09/6/6**
643	3.1 application and issue of permit (trial pits for utilities	60 days	Mon 07/5/28	Thu 07/7/26
644	3.2 application and issue of permits (for construction c	180 days	Tue 08/12/9	Sat 09/6/6
645	**4. Underground utilities detection**	**42 days**	**Fri 07/6/29**	**Thu 07/8/9**
646	a. utilities detection	28 days	Fri 07/6/29	Thu 07/7/26
647	b. trial trench excavtion & identification	14 days	Fri 07/7/27	Thu 07/8/9
648	**5. Utilities temporary diversion / protection**	**631 days**	**Fri 07/8/10**	**Fri 09/5/1**
649	a. CLP overhead cables at CH 100 ~ CH 120	90 days	Fri 07/8/10	Wed 07/11/7
650	b. CLP overhead cables at CH 530 ~ CH 550	90 days	Fri 07/8/10	Wed 07/11/7
651	c. CLP overhead cables at CH 670 ~ CH 690	90 days	Fri 07/8/10	Wed 07/11/7
652	d. Gas main at Kam Sheung Road	84 days	Sat 09/2/7	Fri 09/5/1
653	**6. Drainage Management Plan**	**608 days**	**Wed 07/8/29**	**Tue 09/4/28**
654	5.1 Submission of DMPs	1 day	Wed 07/8/29	Wed 07/8/29
655	5.2 Comments by the Engineer	14 days	Thu 07/8/30	Wed 07/9/12
656	5.3 Implementation of DMP	581 days	Tue 07/9/25	Tue 09/4/28
657	**7. Channel and Crossings**	**599 days**	**Tue 07/9/11**	**Fri 09/5/1**
658	**a. Ch11-Ch130 (Bay 3 - Bay 11)**	**444 days**	**Fri 07/9/21**	**Mon 08/12/8**
659	Haul access	5 days	Fri 07/9/21	Tue 07/9/25
660	Flow diversion	10 days	Fri 08/11/28	Mon 08/12/8
661	Excavation (including contamination material)	34 days	Fri 08/3/21	Wed 08/4/23
662	Granular Bedding	30 days	Mon 08/3/31	Tue 08/4/29
663	Base Slab	33 days	Sun 08/4/6	Thu 08/5/8
664	Wall and Deck	26 days	Sun 08/4/20	Thu 08/5/15
665	Curing	33 days	Sun 08/4/27	Thu 08/5/29
666	Trench Backfill	23 days	Sun 08/5/11	Mon 08/6/2
667	**b. Ch130-Ch233 (Bay 12 - Bay 19)**	**187 days**	**Sun 07/9/16**	**Thu 08/3/20**
668	Haul access	5 days	Sun 07/9/16	Thu 07/9/20
669	Flow diversion	10 days	Mon 07/12/10	Thu 07/12/20
670	Excavation (including contamination material)	33 days	Fri 07/12/21	Tue 08/1/22
671	Granular Bedding	29 days	Mon 07/12/31	Mon 08/1/28
672	Base Slab	50 days	Sun 08/1/6	Sun 08/2/24
673	Wall and Deck	43 days	Sun 08/1/20	Sun 08/3/2
674	Curing	50 days	Sun 08/1/27	Sun 08/3/16
675	Trench Backfill	40 days	Sun 08/2/10	Thu 08/3/20
676	**c. Ch233-Ch340 (Bay 20 - Bay 27)**	**101 days**	**Tue 07/9/11**	**Thu 07/12/20**
677	Haul access	5 days	Tue 07/9/11	Sat 07/9/15
678	Flow diversion	10 days	Sat 07/9/15	Tue 07/9/25
679	Excavation (including contamination material)	30 days	Wed 07/9/26	Thu 07/10/25
680	Granular Bedding	26 days	Sat 07/10/6	Wed 07/10/31

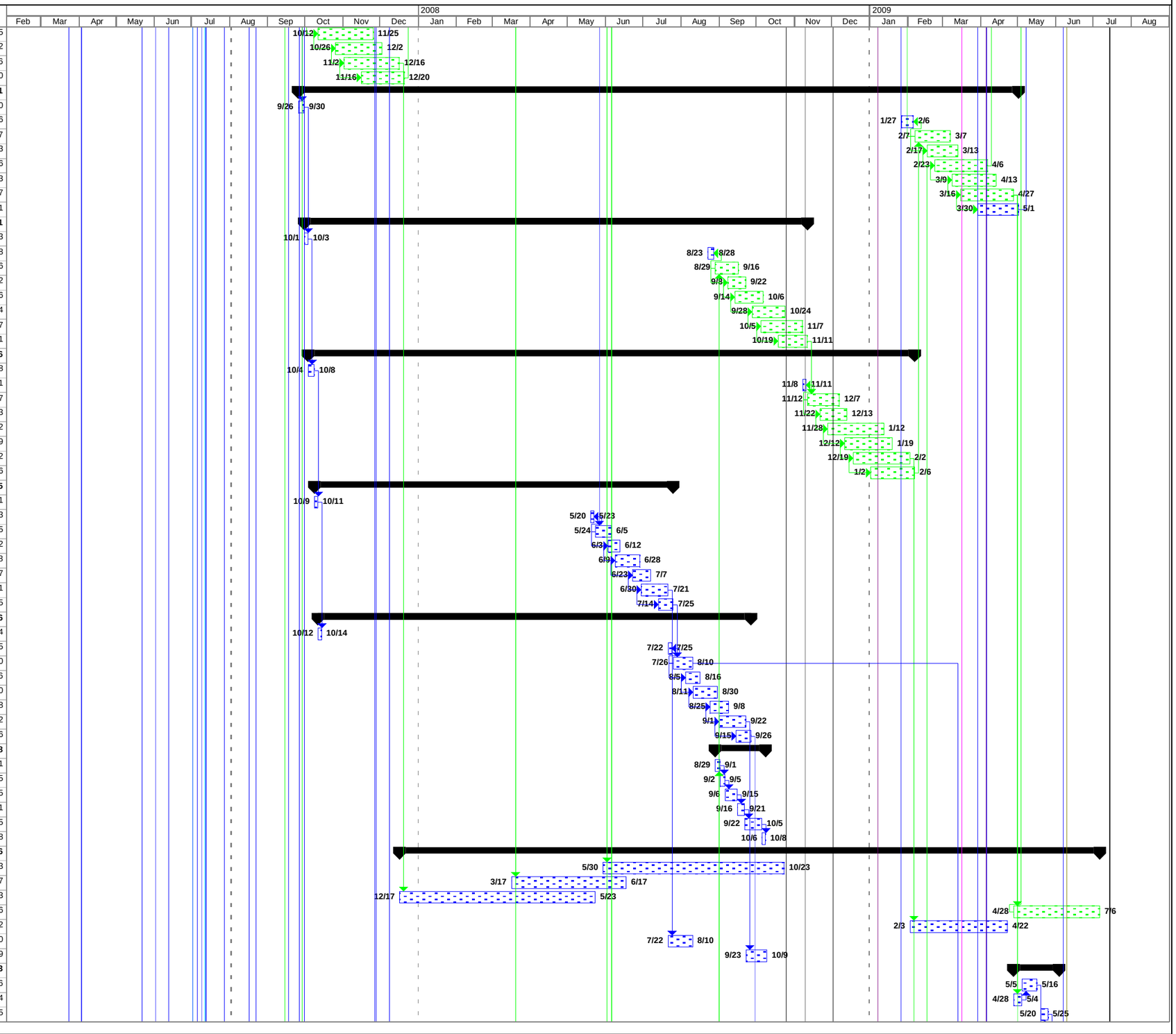


Task | Progress | Summary | Rolled Up Critical Task | Rolled Up Progress | External Tasks | Group By Summary
Critical Task | Milestone | Rolled Up Task | Rolled Up Milestone | Split | Project Summary | Deadline

PROGRAMME OF WORKS - MP02
Contract No. : DC / 2006 / 02
Contract Title : Yuen Long, Kam Tin, Ngau Tam Mei and Tin Shui Wai Drainage Improvements,
Stage 1, Phase 2B - Cheung Chun San Tsuen and Kam Tsin Wai

CHIT CHEUNG CONSTRUCTION CO., LTD.
DATE : July 2007

ID	Task Name	Duration	Start	Finish
681	Base Slab	45 days	Fri 07/10/12	Sun 07/11/25
682	Wall and Deck	38 days	Fri 07/10/26	Sun 07/12/2
683	Curing	45 days	Fri 07/11/2	Sun 07/12/16
684	Trench Backfill	35 days	Fri 07/11/16	Thu 07/12/20
685	**d. Ch449-Ch549 (Bay 37 - Bay 43)**	**584 days**	**Wed 07/9/26**	**Fri 09/5/1**
686	Haul access	5 days	Wed 07/9/26	Sun 07/9/30
687	Flow diversion	10 days	Tue 09/1/27	Fri 09/2/6
688	Excavation (including contamination material)	29 days	Sat 09/2/7	Sat 09/3/7
689	Granular Bedding	25 days	Tue 09/2/17	Fri 09/3/13
690	Base Slab	43 days	Mon 09/2/23	Mon 09/4/6
691	Wall and Deck	36 days	Mon 09/3/9	Mon 09/4/13
692	Curing	43 days	Mon 09/3/16	Mon 09/4/27
693	Trench Backfill	33 days	Mon 09/3/30	Fri 09/5/1
694	**e. Ch549-Ch608 (Bay 44 - Bay 47)**	**408 days**	**Mon 07/10/1**	**Tue 08/11/11**
695	Haul access	3 days	Mon 07/10/1	Wed 07/10/3
696	Flow diversion	5 days	Sat 08/8/23	Thu 08/8/28
697	Excavation (including contamination material)	19 days	Fri 08/8/29	Tue 08/9/16
698	Granular Bedding	15 days	Mon 08/9/8	Mon 08/9/22
699	Base Slab	23 days	Sun 08/9/14	Mon 08/10/6
700	Wall and Deck	27 days	Sun 08/9/28	Fri 08/10/24
701	Curing	34 days	Sun 08/10/5	Fri 08/11/7
702	Trench Backfill	24 days	Sun 08/10/19	Tue 08/11/11
703	**f. Ch608-Ch688 (Bay 48 - Bay 55)**	**492 days**	**Thu 07/10/4**	**Fri 09/2/6**
704	Haul access	5 days	Thu 07/10/4	Mon 07/10/8
705	Flow diversion	3 days	Sat 08/11/8	Tue 08/11/11
706	Excavation (including contamination material)	26 days	Wed 08/11/12	Sun 08/12/7
707	Granular Bedding	22 days	Sat 08/11/22	Sat 08/12/13
708	Base Slab	46 days	Fri 08/11/28	Mon 09/1/12
709	Wall and Deck	39 days	Fri 08/12/12	Mon 09/1/19
710	Curing	46 days	Fri 08/12/19	Mon 09/2/2
711	Trench Backfill	36 days	Fri 09/1/2	Fri 09/2/6
712	**g. Ch688-Ch745 (Bay 56 - Bay 59)**	**291 days**	**Tue 07/10/9**	**Fri 08/7/25**
713	Haul access	3 days	Tue 07/10/9	Thu 07/10/11
714	Flow diversion	3 days	Tue 08/5/20	Fri 08/5/23
715	Excavation (including contamination material)	13 days	Sat 08/5/24	Thu 08/6/5
716	Granular Bedding	10 days	Tue 08/6/3	Thu 08/6/12
717	Base Slab	20 days	Mon 08/6/9	Sat 08/6/28
718	Wall and Deck	15 days	Mon 08/6/23	Mon 08/7/7
719	Curing	22 days	Mon 08/6/30	Mon 08/7/21
720	Trench Backfill	12 days	Mon 08/7/14	Fri 08/7/25
721	**h. Ch745-Ch797 (Bay 60 - Bay 63)**	**351 days**	**Fri 07/10/12**	**Fri 08/9/26**
722	Haul access	3 days	Fri 07/10/12	Sun 07/10/14
723	Flow diversion	3 days	Tue 08/7/22	Fri 08/7/25
724	Excavation (including contamination material)	16 days	Sat 08/7/26	Sun 08/8/10
725	Granular Bedding	12 days	Tue 08/8/5	Sat 08/8/16
726	Base Slab	20 days	Mon 08/8/11	Sat 08/8/30
727	Wall and Deck	15 days	Mon 08/8/25	Mon 08/9/8
728	Curing	22 days	Mon 08/9/1	Mon 08/9/22
729	Trench Backfill	12 days	Mon 08/9/15	Fri 08/9/26
730	**8. Retaining Wall RW2 (Ch340-Ch350)**	**41 days**	**Fri 08/8/29**	**Wed 08/10/8**
731	Excavation	4 days	Fri 08/8/29	Mon 08/9/1
732	Granular bedding	4 days	Tue 08/9/2	Fri 08/9/5
733	Base slab	10 days	Sat 08/9/6	Mon 08/9/15
734	Wall	6 days	Tue 08/9/16	Sun 08/9/21
735	Curing	14 days	Mon 08/9/22	Sun 08/10/5
736	Backfilling	3 days	Mon 08/10/6	Wed 08/10/8
737	**9. Gabion**	**568 days**	**Mon 07/12/17**	**Mon 09/7/6**
738	Bay 5- Bay 11 (Ch35-Ch130)	147 days	Fri 08/5/30	Thu 08/10/23
739	Bay 12 - Bay 19 (Ch130-Ch233)	93 days	Mon 08/3/17	Tue 08/6/17
740	Bay 20 - Bay 27 (Ch233-Ch340)	159 days	Mon 07/12/17	Fri 08/5/23
741	Bay 37 - Bay 43 (Ch449-Ch549)	70 days	Tue 09/4/28	Mon 09/7/6
742	Bay 48 - Bay 55 (Ch608-Ch688)	79 days	Tue 09/2/3	Wed 09/4/22
743	Bay 56 - Bay 59 (Ch688-Ch745)	20 days	Tue 08/7/22	Sun 08/8/10
744	Bay 60 - Bay 63 (Ch745-Ch797)	17 days	Tue 08/9/23	Thu 08/10/9
745	**10. Granite Stone Facing**	**37 days**	**Tue 09/4/28**	**Wed 09/6/3**
746	Bay 12 - Bay 19 (Ch130-Ch233)	12 days	Tue 09/5/5	Sat 09/5/16
747	Bay 37 - Bay 43 (Ch449-Ch549)	7 days	Tue 09/4/28	Mon 09/5/4
748	Bay 44 - Bay 47 (Ch549-Ch608)	6 days	Wed 09/5/20	Mon 09/5/25

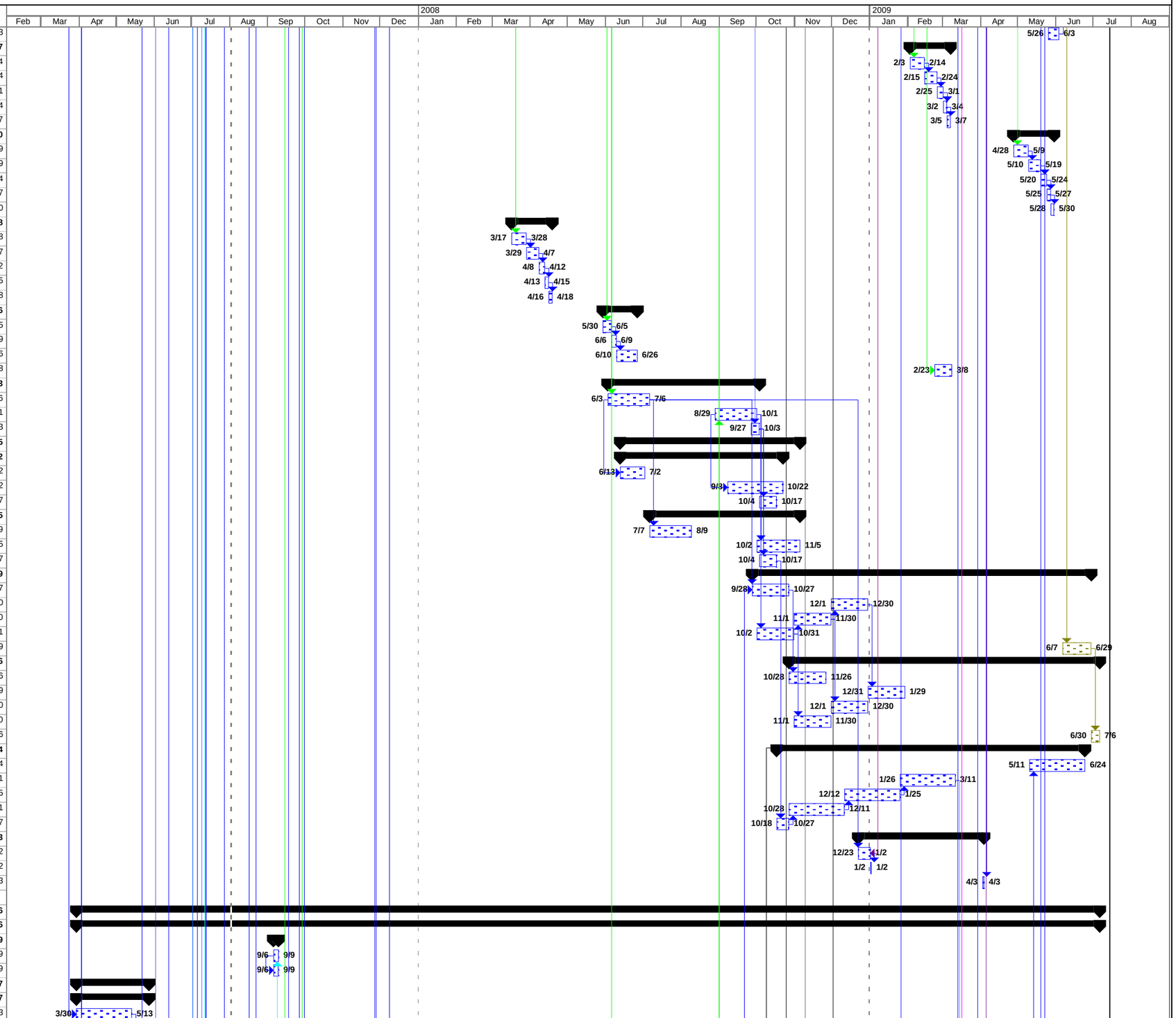


Task | Progress | Summary | Rolled Up Critical Task | Rolled Up Progress | External Tasks | Group By Summary
Critical Task | Milestone | Rolled Up Task | Rolled Up Milestone | Split | Project Summary | Deadline

PROGRAMME OF WORKS - MP02
Contract No. : DC / 2006 / 02
Contract Title : Yuen Long, Kam Tin, Ngau Tam Mei and Tin Shui Wai Drainage Improvements,
Stage 1, Phase 2B - Cheung Chun San Tsuen and Kam Tsin Wai

CHIT CHEUNG CONSTRUCTION CO., LTD.
DATE : July 2007

ID	Task Name	Duration	Start	Finish
749	Bay 48 - Bay 55 (Ch608-Ch688)	9 days	Tue 09/5/26	Wed 09/6/3
750	**11. Ramp No. 1 (Ch650 - Ch675, Bay 52-Bay 53)**	**33 days**	**Tue 09/2/3**	**Sat 09/3/7**
751	base slab	12 days	Tue 09/2/3	Sat 09/2/14
752	Wall	10 days	Sun 09/2/15	Tue 09/2/24
753	General fill	5 days	Wed 09/2/25	Sun 09/3/1
754	Granular fill and blinding	3 days	Mon 09/3/2	Wed 09/3/4
755	Road slab	3 days	Thu 09/3/5	Sat 09/3/7
756	**12. Ramp No. 2 (Ch515 - Ch540, Bay 42)**	**33 days**	**Tue 09/4/28**	**Sat 09/5/30**
757	base slab	12 days	Tue 09/4/28	Sat 09/5/9
758	Wall	10 days	Sun 09/5/10	Tue 09/5/19
759	General fill	5 days	Wed 09/5/20	Sun 09/5/24
760	Granular fill and blinding	3 days	Mon 09/5/25	Wed 09/5/27
761	Road slab	3 days	Thu 09/5/28	Sat 09/5/30
762	**13. Ramp No. 3 (Ch210 - Ch235, Bay 18-Bay19)**	**33 days**	**Mon 08/3/17**	**Fri 08/4/18**
763	base slab	12 days	Mon 08/3/17	Fri 08/3/28
764	Wall	10 days	Sat 08/3/29	Mon 08/4/7
765	General fill	5 days	Tue 08/4/8	Sat 08/4/12
766	Granular fill and blinding	3 days	Sun 08/4/13	Tue 08/4/15
767	Road slab	3 days	Wed 08/4/16	Fri 08/4/18
768	**14 Ramp No. 4 (Ch20 - Ch45, Bay 4-Bay5)**	**28 days**	**Fri 08/5/30**	**Thu 08/6/26**
769	General fill	7 days	Fri 08/5/30	Thu 08/6/5
770	Granular fill and blinding	4 days	Fri 08/6/6	Mon 08/6/9
771	Sloping side wall and road slab	17 days	Tue 08/6/10	Thu 08/6/26
772	**15. Demolition of existing wing walls Ch449**	14 days	Mon 09/2/23	Sun 09/3/8
773	**16. Filling in Platform**	**123 days**	**Tue 08/6/3**	**Fri 08/10/3**
774	a. Bay 3- Bay 27 (Ch11-Ch340)	34 days	Tue 08/6/3	Sun 08/7/6
775	b. Bay 37 - Bay 55 (Ch449-Ch688)	34 days	Fri 08/8/29	Wed 08/10/1
776	c. Bay 56 - Bay 63 (Ch688-Ch797)	7 days	Sat 08/9/27	Fri 08/10/3
777	**17. Drainage works**	**146 days**	**Fri 08/6/13**	**Wed 08/11/5**
778	**17.1 storm drain with manhole and headwall**	**132 days**	**Fri 08/6/13**	**Wed 08/10/22**
779	a. Bay 3- Bay 27 (Ch11-Ch340)	20 days	Fri 08/6/13	Wed 08/7/2
780	b. Bay 37 - Bay 55 (Ch449-Ch688)	45 days	Mon 08/9/8	Wed 08/10/22
781	c. Bay 56 - Bay 63 (Ch688-Ch797)	14 days	Sat 08/10/4	Fri 08/10/17
782	**17.2 surface drain**	**122 days**	**Mon 08/7/7**	**Wed 08/11/5**
783	a. Bay 3- Bay 27 (Ch11-Ch340)	34 days	Mon 08/7/7	Sat 08/8/9
784	b. Bay 37 - Bay 55 (Ch449-Ch688)	35 days	Thu 08/10/2	Wed 08/11/5
785	c. Bay 56 - Bay 63 (Ch688-Ch797)	14 days	Sat 08/10/4	Fri 08/10/17
786	**18. Roads and paving**	**275 days**	**Sun 08/9/28**	**Mon 09/6/29**
787	a. Ch233 - Ch340	30 days	Sun 08/9/28	Mon 08/10/27
788	b. Ch449 - Ch549	30 days	Mon 08/12/1	Tue 08/12/30
789	c. Ch549 - Ch609	30 days	Sat 08/11/1	Sun 08/11/30
790	d. Ch609 - Ch688	30 days	Thu 08/10/2	Fri 08/10/31
791	e. Permanent Entrance at Ch449	23 days	Sun 09/6/7	Mon 09/6/29
792	**19. Street furnitures**	**252 days**	**Tue 08/10/28**	**Mon 09/7/6**
793	a. Ch233 - Ch340	30 days	Tue 08/10/28	Wed 08/11/26
794	b. Ch449 - Ch549	30 days	Wed 08/12/31	Thu 09/1/29
795	c. Ch549 - Ch609	30 days	Mon 08/12/1	Tue 08/12/30
796	d. Ch609 - Ch688	30 days	Sat 08/11/1	Sun 08/11/30
797	e. Permanent Entrance at Ch449	7 days	Tue 09/6/30	Mon 09/7/6
798	**20. Landscape softworks / hardworks**	**250 days**	**Sat 08/10/18**	**Wed 09/6/24**
799	a. Ch35 - Ch340	45 days	Mon 09/5/11	Wed 09/6/24
800	b. Ch449 - Ch549	45 days	Mon 09/1/26	Wed 09/3/11
801	c. Ch549 - Ch609	45 days	Fri 08/12/12	Sun 09/1/25
802	d. Ch609 - Ch688	45 days	Tue 08/10/28	Thu 08/12/11
803	e. Ch688 - Ch797	10 days	Sat 08/10/18	Mon 08/10/27
804	**21. Road Diversion in Kam Po Road**	**102 days**	**Tue 08/12/23**	**Fri 09/4/3**
805	a. Temp Decking above Bay 3 and temp road pavemer	10 days	Tue 08/12/23	Fri 09/1/2
806	b. Implementation of road diversion	1 day	Fri 09/1/2	Fri 09/1/2
807	c. Removal of decking	1 day	Fri 09/4/3	Fri 09/4/3
808				
809	**D. Section III of the Works**	**830 days**	**Fri 07/3/30**	**Mon 09/7/6**
810	**D1. Portions 5A1, 5A2 and 5B**	**830 days**	**Fri 07/3/30**	**Mon 09/7/6**
811	**1. Site clearance**	**4 days**	**Thu 07/9/6**	**Sun 07/9/9**
812	1.1 General site clearance	4 days	Thu 07/9/6	Sun 07/9/9
813	1.2 Demolition of existing building/ Huts	4 days	Thu 07/9/6	Sun 07/9/9
814	**2. Temporary Traffic Management Scheme**	**59 days**	**Fri 07/3/30**	**Sun 07/5/27**
815	**TTMS Proposal (trial pits for utilities and site enti**	**59 days**	**Fri 07/3/30**	**Sun 07/5/27**
816	a. Submission	45 days	Fri 07/3/30	Sun 07/5/13



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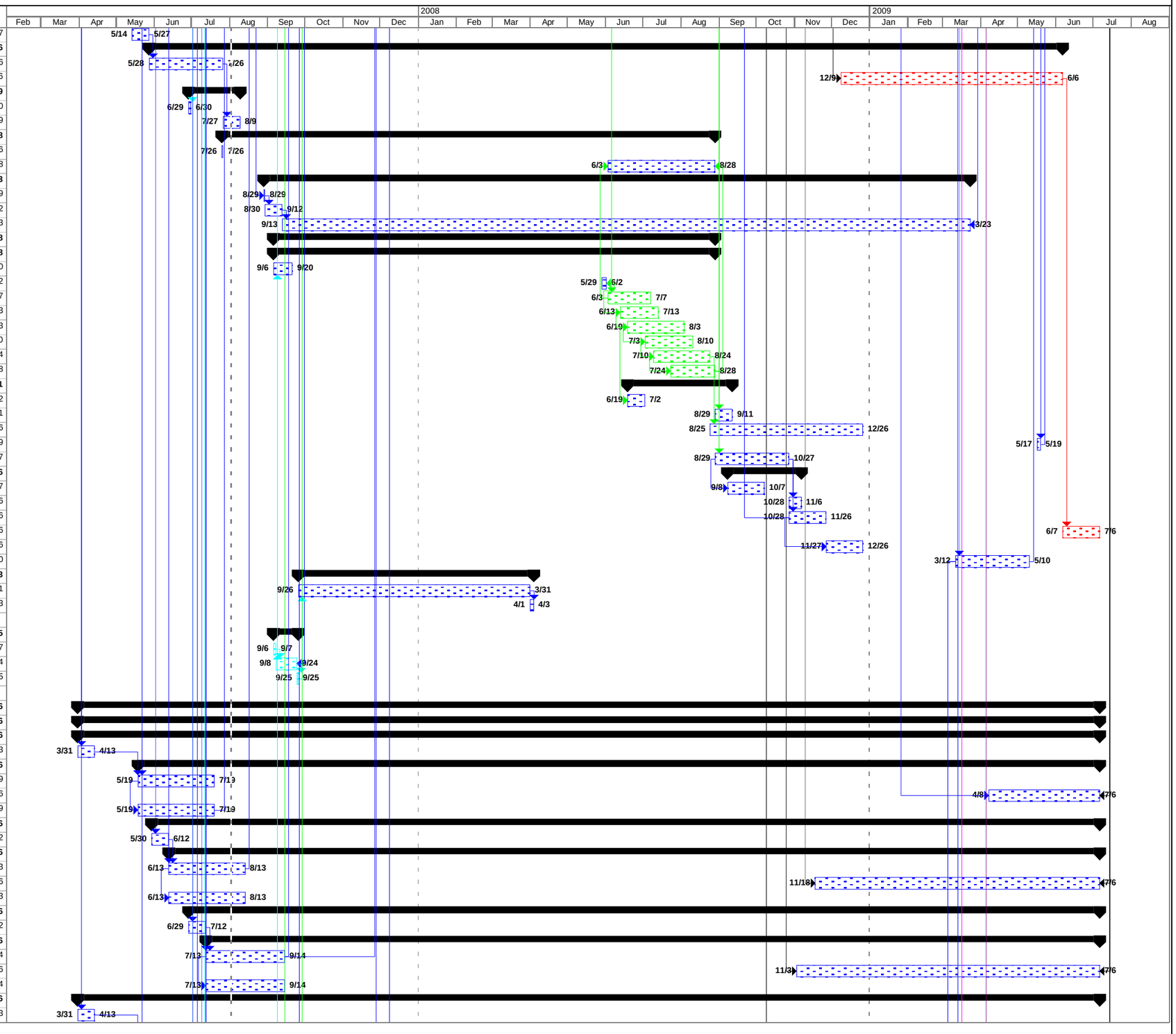
PROGRAMME OF WORKS - MP02
Contract No. : DC / 2006 / 02
Contract Title : Yuen Long, Kam Tin, Ngau Tam Mei and Tin Shui Wai Drainage Improvements,
Stage 1, Phase 2B - Cheung Chun San Tsuen and Kam Tsin Wai

CHIT CHEUNG CONSTRUCTION CO., LTD.
DATE : July 2007

ID	Task Name	Duration	Start	Finish
817	b. comments & approvals by Engineer & TMLG	14 days	Mon 07/5/14	Sun 07/5/27
818	**3. Excavation Permits**	**741 days**	**Mon 07/5/28**	**Sat 09/6/6**
819	3.1 application and issue of permit (trial pits for utilities	60 days	Mon 07/5/28	Thu 07/7/26
820	3.2 application and issue of permits (for construction c	180 days	Tue 08/12/9	Sat 09/6/6
821	**4. Underground utilities detection**	**42 days**	**Fri 07/6/29**	**Thu 07/8/9**
822	a. utilities detection	2 days	Fri 07/6/29	Sat 07/6/30
823	b. trial trench excavtion & identification	14 days	Fri 07/7/27	Thu 07/8/9
824	**5. Utilities temporary diversion / protection**	**400 days**	**Thu 07/7/26**	**Thu 08/8/28**
825	a. Completion of WSD 450 diameter water main (By W	1 day	Thu 07/7/26	Thu 07/7/26
826	b. Telephone line	87 days	Tue 08/6/3	Thu 08/8/28
827	**6. Drainage Management Plan**	**573 days**	**Wed 07/8/29**	**Mon 09/3/23**
828	a Submission of DMPs	1 day	Wed 07/8/29	Wed 07/8/29
829	b Comments by the Engineer	14 days	Thu 07/8/30	Wed 07/9/12
830	c Implementation of DMP	558 days	Thu 07/9/13	Mon 09/3/23
831	**7. Channel**	**358 days**	**Thu 07/9/6**	**Thu 08/8/28**
832	**a. Ch340-Ch439 (Bay 28 - Bay 35)**	**358 days**	**Thu 07/9/6**	**Thu 08/8/28**
833	Haul access	15 days	Thu 07/9/6	Thu 07/9/20
834	Flow diversion	4 days	Thu 08/5/29	Mon 08/6/2
835	Excavation (including contamination material)	35 days	Tue 08/6/3	Mon 08/7/7
836	Granular Bedding	31 days	Fri 08/6/13	Sun 08/7/13
837	Base Slab	46 days	Thu 08/6/19	Sun 08/8/3
838	Wall and Deck	39 days	Thu 08/7/3	Sun 08/8/10
839	Curing	46 days	Thu 08/7/10	Sun 08/8/24
840	Trench Backfill	36 days	Thu 08/7/24	Thu 08/8/28
841	**8. Demolition of existing structures**	**85 days**	**Thu 08/6/19**	**Thu 08/9/11**
842	a. Existing wing walls Ch439 (Bay35)	14 days	Thu 08/6/19	Wed 08/7/2
843	b. Existing footbridge at Ch350 (Bay 29)	14 days	Fri 08/8/29	Thu 08/9/11
844	**9. Gabion**	124 days	Mon 08/8/25	Fri 08/12/26
845	**10. Granite Stone Facing**	3 days	Sun 09/5/17	Tue 09/5/19
846	**11. Fill in Platform**	60 days	Fri 08/8/29	Mon 08/10/27
847	**12. Drainage works**	**60 days**	**Mon 08/9/8**	**Thu 08/11/6**
848	a. storm drain with manhole	30 days	Mon 08/9/8	Tue 08/10/7
849	b. surface drain	10 days	Tue 08/10/28	Thu 08/11/6
850	**13. Roads and paving**	30 days	Tue 08/10/28	Wed 08/11/26
851	**14. Permanent Entrance and street furnitrures at Ch4**	30 days	Sun 09/6/7	Mon 09/7/6
852	**15. Street furnitures / traffic sign / road marking**	30 days	Thu 08/11/27	Fri 08/12/26
853	**16. Landscape softworks / hardworks**	60 days	Thu 09/3/12	Sun 09/5/10
854	**17. Temp vehicular access in Portion 5A1**	**191 days**	**Wed 07/9/26**	**Thu 08/4/3**
855	a. Maintenance and operation	188 days	Wed 07/9/26	Mon 08/3/31
856	b. Removal	3 days	Tue 08/4/1	Thu 08/4/3
857				
858	**E. Section IV of the Works**	**20 days**	**Thu 07/9/6**	**Tue 07/9/25**
859	1. Formation for temp vehicular access	2 days	Thu 07/9/6	Fri 07/9/7
860	2. Construction of temp vehicular access	17 days	Sat 07/9/8	Mon 07/9/24
861	3. Opening of temp vehicular access to the Public	1 day	Tue 07/9/25	Tue 07/9/25
862				
863	**F. Section V of the Works**	**829 days**	**Sat 07/3/31**	**Mon 09/7/6**
864	**1. Preservation and protection to existing trees**	**829 days**	**Sat 07/3/31**	**Mon 09/7/6**
865	**Portion 1**	**829 days**	**Sat 07/3/31**	**Mon 09/7/6**
866	Tree survey	14 days	Sat 07/3/31	Fri 07/4/13
867	**Tree transplant**	**780 days**	**Sat 07/5/19**	**Mon 09/7/6**
868	a. To Temp holding nursery	62 days	Sat 07/5/19	Thu 07/7/19
869	b. To final location	90 days	Wed 09/4/8	Mon 09/7/6
870	Tree protection	62 days	Sat 07/5/19	Thu 07/7/19
871	**Portion 2**	**769 days**	**Wed 07/5/30**	**Mon 09/7/6**
872	Tree survey	14 days	Wed 07/5/30	Tue 07/6/12
873	**Tree transplant**	**755 days**	**Wed 07/6/13**	**Mon 09/7/6**
874	a. To Temp holding nursery	62 days	Wed 07/6/13	Mon 07/8/13
875	b. To final location	231 days	Tue 08/11/18	Mon 09/7/6
876	Tree protection	62 days	Wed 07/6/13	Mon 07/8/13
877	**Portion 3**	**739 days**	**Fri 07/6/29**	**Mon 09/7/6**
878	Tree survey	14 days	Fri 07/6/29	Thu 07/7/12
879	**Tree transplant**	**725 days**	**Fri 07/7/13**	**Mon 09/7/6**
880	a. To Temp holding nursery	64 days	Fri 07/7/13	Fri 07/9/14
881	b. To final location	246 days	Mon 08/11/3	Mon 09/7/6
882	Tree protection	64 days	Fri 07/7/13	Fri 07/9/14
883	**Portion 4**	**829 days**	**Sat 07/3/31**	**Mon 09/7/6**
884	Tree survey	14 days	Sat 07/3/31	Fri 07/4/13



Project: PROGRAMME OF WORKS
Page: 13 of 14

Task | Progress | Summary | Rolled Up Critical Task | Rolled Up Progress | External Tasks | Group By Summary
Critical Task | Milestone | Rolled Up Task | Rolled Up Milestone | Split | Project Summary | Deadline

PROGRAMME OF WORKS - MP02
Contract No. : DC / 2006 / 02
Contract Title : Yuen Long, Kam Tin, Ngau Tam Mei and Tin Shui Wai Drainage Improvements,
Stage 1, Phase 2B - Cheung Chun San Tsuen and Kam Tsin Wai

CHIT CHEUNG CONSTRUCTION CO., LTD.
DATE : July 2007

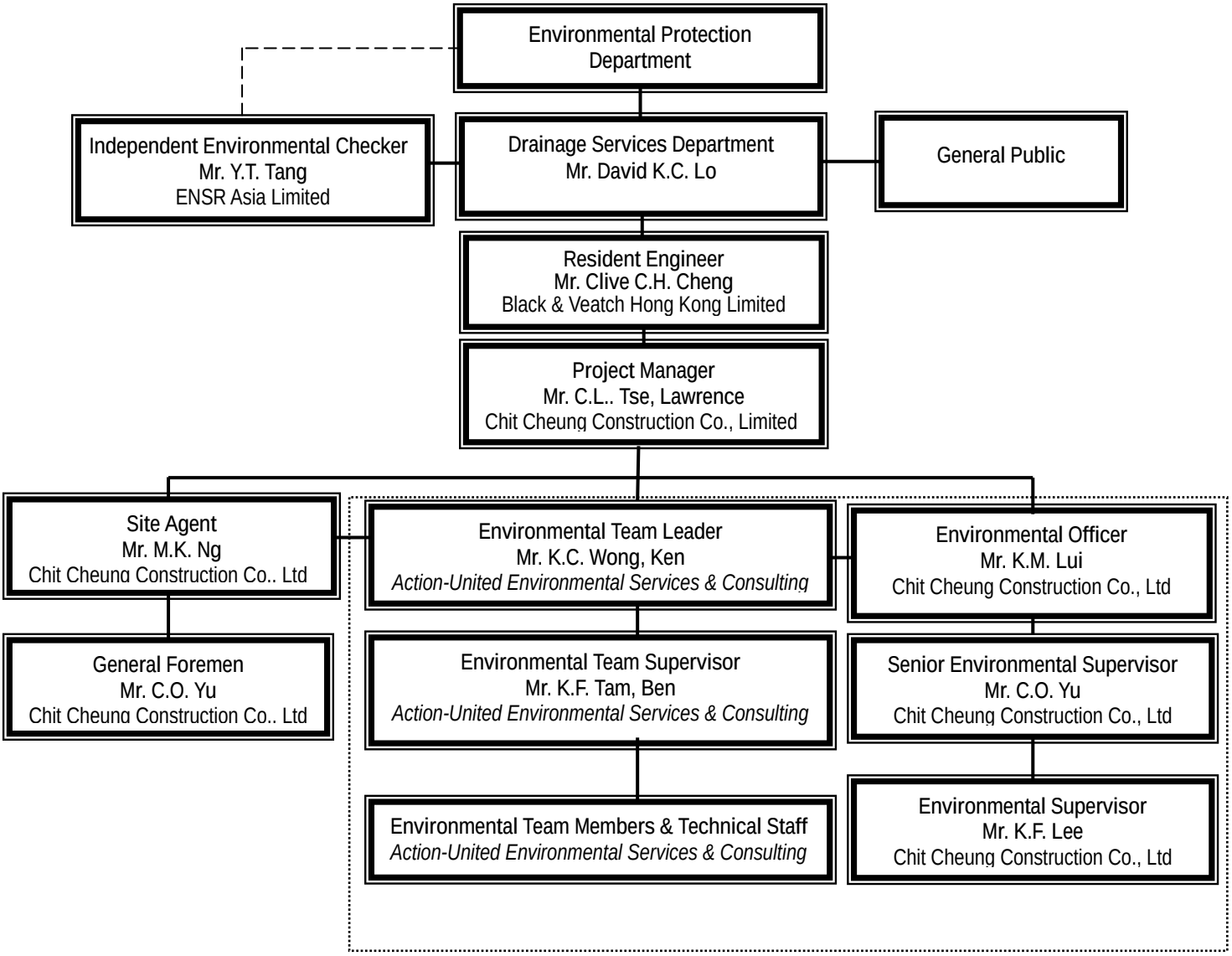
ID	Task Name	Duration	Start	Finish
885	**Tree transplant**	**780 days**	**Sat 07/5/19**	**Mon 09/7/6**
886	a. To Temp holding nursery	62 days	Sat 07/5/19	Thu 07/7/19
887	b. To final location	86 days	Sun 09/4/12	Mon 09/7/6
888	Tree protection	62 days	Sat 07/5/19	Thu 07/7/19
889	**Portion 5**	**739 days**	**Fri 07/6/29**	**Mon 09/7/6**
890	Tree survey	14 days	Fri 07/6/29	Thu 07/7/12
891	**Tree transplant**	**725 days**	**Fri 07/7/13**	**Mon 09/7/6**
892	a. To Temp holding nursery	69 days	Fri 07/7/13	Wed 07/9/19
893	b. To final location	262 days	Sat 08/10/18	Mon 09/7/6
894	Tree protection	69 days	Fri 07/7/13	Wed 07/9/19
895	**Portion 5A1**	**682 days**	**Fri 07/6/29**	**Sun 09/5/10**
896	Tree survey	7 days	Fri 07/6/29	Thu 07/7/5
897	**Tree transplant**	**675 days**	**Fri 07/7/6**	**Sun 09/5/10**
898	a. To Temp holding nursery	62 days	Fri 07/7/6	Wed 07/9/5
899	b. To final location	60 days	Thu 09/3/12	Sun 09/5/10
900	Tree protection	62 days	Fri 07/7/6	Wed 07/9/5
901	**Portion 5A2**	**682 days**	**Fri 07/6/29**	**Sun 09/5/10**
902	Tree survey	14 days	Fri 07/6/29	Thu 07/7/12
903	**Tree transplant**	**668 days**	**Fri 07/7/13**	**Sun 09/5/10**
904	a. To Temp holding nursery	62 days	Fri 07/7/13	Wed 07/9/12
905	b. To final location	60 days	Thu 09/3/12	Sun 09/5/10
906	Tree protection	62 days	Fri 07/7/13	Wed 07/9/12
907	**Portion 5B**	**533 days**	**Sun 07/11/25**	**Sun 09/5/10**
908	Tree survey	14 days	Sun 07/11/25	Sat 07/12/8
909	**Tree transplant**	**519 days**	**Sun 07/12/9**	**Sun 09/5/10**
910	a. To Temp holding nursery	62 days	Sun 07/12/9	Fri 08/2/8
911	b. To final location	60 days	Thu 09/3/12	Sun 09/5/10
912	Tree protection	62 days	Sun 07/12/9	Fri 08/2/8
913				
914	**H. Berthing Area**	**558 days**	**Wed 07/9/12**	**Sun 09/3/22**
915	1. Construction of Loading Facilities	14 days	Wed 07/9/12	Tue 07/9/25
916	2. Removal of Loading Facilities	2 days	Sat 09/3/14	Sun 09/3/15
917	3. Reinstatement of Berthing Area	7 days	Mon 09/3/16	Sun 09/3/22

Task | Progress | Summary | Rolled Up Critical Task | Rolled Up Progress | External Tasks | Group By Summary
Critical Task | Milestone | Rolled Up Task | Rolled Up Milestone | Split | Project Summary | Deadline

Appendix C

Environmental Organization Structure

Environmental Organization Structure



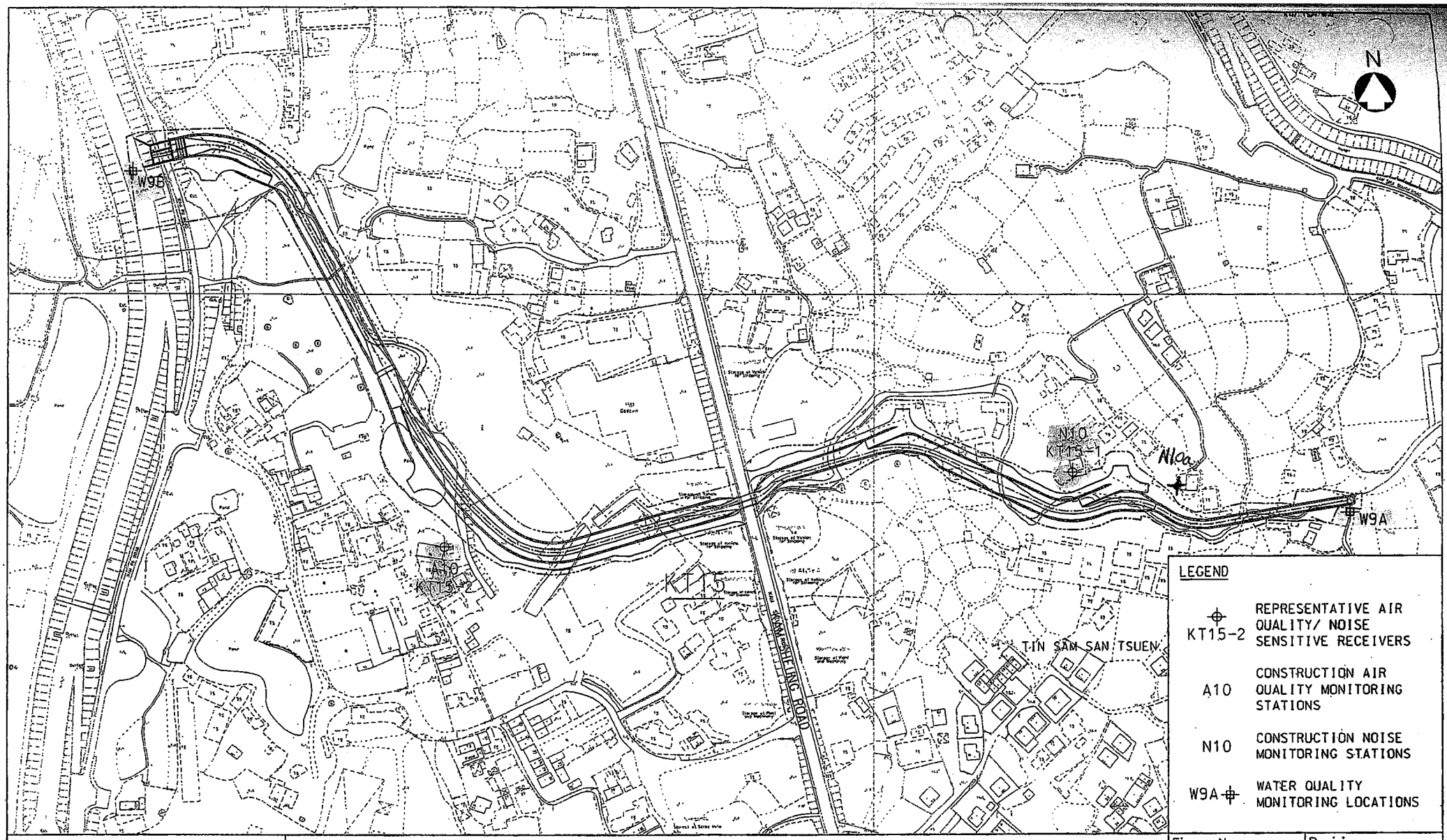
Contact Details of Key Personnel

Organization	Project Role	Name of Key Staff	Tel No.	Fax No.
DSD	Employer	Mr. David K.C. LO	2594-7254	2827-8526
B&V	Engineer	Mr. Kelvin N.F. LAU	2601-1000	2601-3988
B&V	Engineer's Representative	Mr. Clive C.H. CHENG	2443-1442	2443-7307
ENSR	Independent Environmental Checker	Mr. Y.T. Tang	3105-8537	2891-0305
CCC	Project Director	Mr. P.Y. CHENG	9023-4821	2403-1162
CCC	Project Manager	Mr. Lawrence TSE	9752-0748	2479-1365
CCC	Site Agent	Mr. M.K. NG	6603-9711	2479-1365
CCC	Site Engineer	Mr. Jimmy CHAN	9234-8632	2479-1365
CCC	Environmental Officer	Mr. LUI Kam Man	9257-9111	2479-1365
CCC	Senior Environmental Supervisor	Mr. YU Chor-on	9026-9501	2479-1365
CCC	Environmental Supervisor	Mr. LEE Kwok Fai	9868-9908	2479-1365
CCC	Safety Officer	Mr. SHEA Yan Keung	6086-4658	2479-1365
AUES	Environmental Team Leader	Ken Wong	2959-6059	2959-6079
AUES	Ecologist	Vincent Lai	9406-9784	2959-6079
AUES	Decontamination Specialist	David Yeung	2959-6059	2959-6079

Legend:
DSD (Employer) - Drainage Services Department
B&V (Engineer) - Black & Veatch Hong Kong Limited
CCC (Contractor) - Chit Cheung Construction Company Limited.
ENSR (IEC) - ENSR Asia (HK) Ltd.
AUES (ET) - Action-United Environmental Services & Consulting

Appendix D

Locations of Designated Monitoring Station/Locations/Area



YUEN LONG, KAM TIN,
NGAU TAM MEI AND TIN SHUI WAI
DRAINAGE IMPROVEMENT, STAGE1, PHASE 2B

BLACK & VEATCH HONG KONG LIMITED
博威工程顧問有限公司

Title :

CONSTRUCTION PHASE AIR QUALITY/NOISE/WATER QUALITY MONITORING LOCATIONS AT KT15

Figure No. ATT4-4.3	Revision -
Reference -	File Name 3820470201-137.DGN
Prepared WYC	Checked MC
Date DEC. 2002	Scale 1 : 2000

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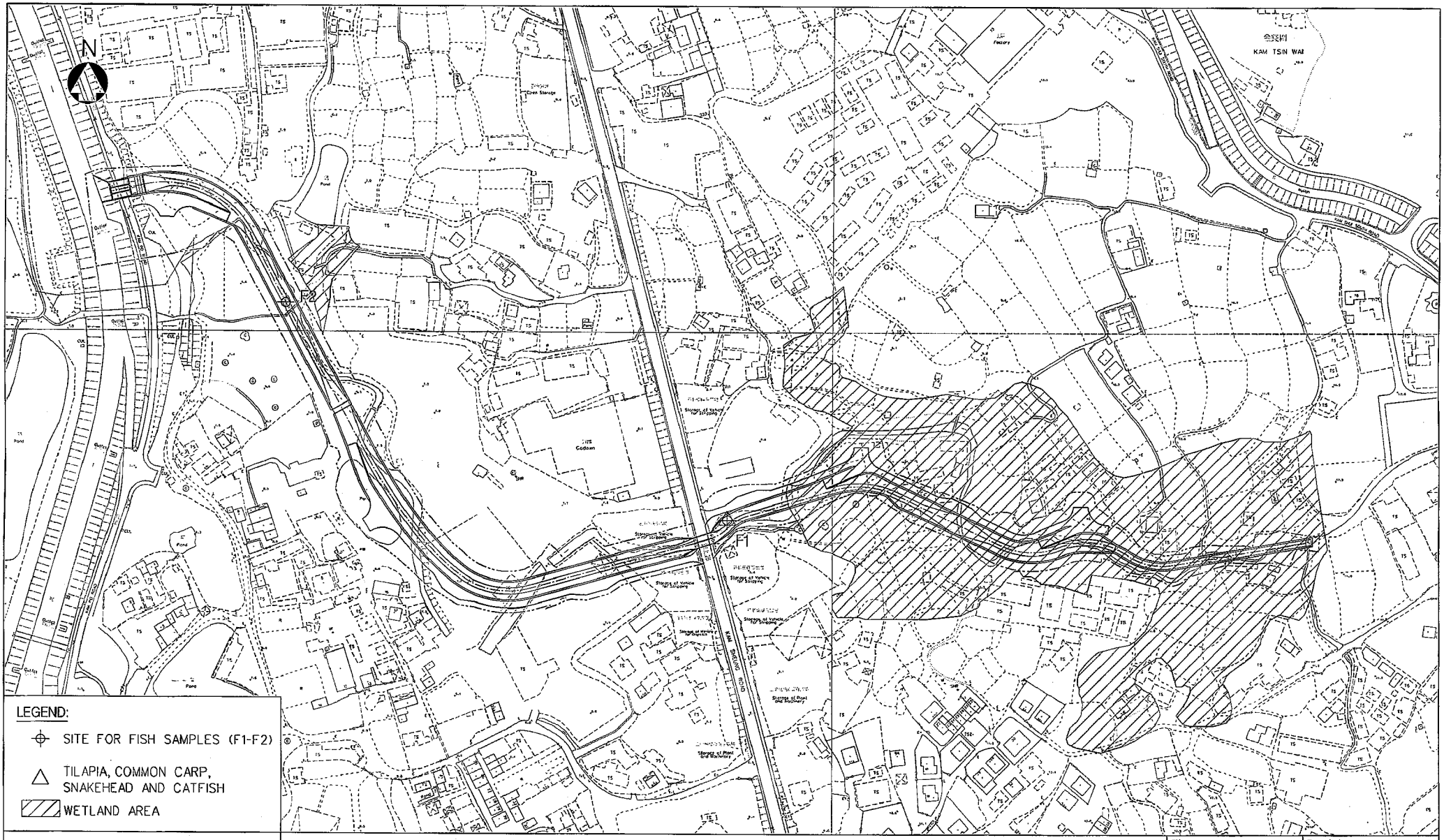

LEGEND:

- SITE FOR FISH SAMPLES (F1-F2)
- TILAPIA, COMMON CARP, SNAKEHEAD AND CATFISH
- WETLAND AREA

YUEN LONG, KAM TIN,
NGAU TAM MEI AND TIN SHUI WAI
DRAINAGE IMPROVEMENT, STAGE1, PHASE 2B

BLACK & VEATCH HONG KONG LIMITED
博威工程顧問有限公司

Title :

ECOLOGICAL MONITORING AREA KT15

Figure No. 3.3	Revision 0
Reference -	File Name 3820470201-114.DGN
Prepared AEC	Checked WYC
Date MAR. 2003	Scale 1 : 2000

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Appendix E

Event/Action Plan for Air Quality, Construction Noise, Stream Water Quality and Ecology

Event/Action Plan for Air Quality

EVENT	ACTION			
	ET	**IEC**	**Engineer**	**Contractor**
ACTION LEVEL				
1. Exeedance for one sample	1. Identify source 2. Inform IEC and Engineer 3. Repeat measurement to confirm finding 4. Increase monitoring frequency to daily	1. Check monitoring data submitted by ET 2. Check Contractor's working method	Notify Contractor	1. Rectify any unacceptable practice 2. Amend working methods if appropriate
2. Exeedance for two or more consecutive samples	1. Identify source 2. Inform IEC and Engineer 3. Repeat measurements to confirm findings 4. Increase monitoring frequency to daily 5. Discuss with IEC and Contractor on remedial actions required 6. If exceedance continues, arrange meeting with IEC and Engineer 7. 7. If exceedance stops, cease additional monitoring	1. Check monitoring data submitted by ET 2. Check Contractor's working method 3. Discuss with ET and Contractor on possible remedial measures 4. Advice Engineer on the effectiveness of the proposed remedial measures 5. Supervise implementation of remedial measures	1. Confirm receipt of notification of failure in writing 2. Notify Contractor 3. Ensure remedial measures properly implemented	1. Submit proposals for remedial actions to IEC within 3 working days of notification 2. Implement the agreed proposals 3. Amend proposal if appropriate
LIMIT LEVEL				
1. Exeedance for one sample	1. Identify source 2. Inform Engineer and EPD 3. Repeat measurement to confirm finding 4. Increase monitoring frequency to daily 5. Assess effectiveness of Contractor's remedial actions and keep IEC, EPD and Engineer informed of the results	1. Check monitoring data submitted by ET 2. Check Contractor's working method 3. Discuss with ET and Contractor on possible remedial measures 4. Advice Engineer on the effectiveness of the proposed remedial measures 5. Supervise implementation of remedial measures	1. Confirm receipt of notification of failure in writing 2. Notify Contractor 3. Ensure remedial measures properly implemented	1. Take immediate action to avoid further exceedance 2. Submit proposals for remedial actions to IEC within 3 working days of notification 3. Implement the agreed proposals 4. Amend proposal if appropriate
2. Exceedance for two or more consecutive samples	1. Notify IEC, Engineer and EPD 2. Identify source 3. Repeat measurement to confirm findings 4. Increase monitoring frequency to daily 5. Carry out analysis of Contractor's working procedures to determine possible mitigation to be implemented. 6. Arrange meeting with IEC and Engineer to discuss the remedial actions to be taken 7. Assess effectiveness of Contractor's remedial actions and keep IEC, EPD and Engineer informed of the results 8. If exceedance stops, cease additional monitoring	1. Discuss amongst Engineer, ET and Contractor on potential remedial actions 2. Review Contractor's remedial actions whether necessary to assure their effectiveness and advice the Engineer accordingly 3. Supervise implementation of remedial measures	1. Confirm receipt of notification of failure in writing 2. Notify Contractor 3. In consultation with the IEC, agree with the Contractor on the remedial measures to be implemented 4. Discuss amongst Environmental Team Leader and the Contractor potential remedial actions 5. Ensure remedial measures properly implemented 6. If exceedance continues, consider what portion of the work is responsible and instruct the Contractor to stop that portion of work until the exceedance is abated	1. Take immediate action to avoid further exceedance 2. Submit proposals for remedial actions to IEC within 3 working days of notification 3. Implement the agreed proposals 4. Resubmit proposals if problem still not under control 5. Stop the relevant portion of works as determined by the Engineer until the exceedance is abated

Event/Action Plan for Construction Noise

EVENT	ACTION			
	ET Leader	**IEC**	**Engineer**	**Contractor**
ACTION LEVEL	1. Notify Contractor and Engineer 2. Carry out investigation 3. Report the results of investigation to the IEC and Contractor 4. Discuss with the Contractor and formulate remedial measures 5. Increase monitoring frequency to check mitigation effectiveness	1. Review the analysed results submitted by ET 2. Review the proposed remedial measures by the Contractor and advice the Engineer accordingly 3. Supervise implementation of remedial measures	1. Confirm receipt of notification of failure in writing 2. Notify Contractor 3. Require Contractor to propose remedial measures for the analysed noise problem 4. Ensure remedial measures properly implemented	1. Submit noise mitigation proposals for remedial actions to IEC 2. Implement the agreed proposals
LIMIT LEVEL	1. Notify IEC, Engineer, EPD and Contractor 2. Identify source 3. Repeat measurement to confirm findings 4. Increase monitoring frequency 5. Carry out analysis of Contractor's working procedures to determine possible mitigation to be implemented 6. Inform IEC, Engineer and EPD the causes & actions taken for the exceedances 7. Assess effectiveness of Contractor's remedial actions and keep IEC, EPD and Engineer informed of the results 8. If exceedance stops, cease additional monitoring	1. Discuss amongst Engineer, ET and Contractor on potential remedial actions 2. Review Contractor's remedial actions whether necessary to assure their effectiveness and advice the Engineer accordingly 3. Supervise implementation of remedial measures	1. Confirm receipt of notification of failure in writing 2. Notify Contractor 3. Require Contractor to propose remedial measures for the analysed noise problem 4. Ensure remedial measures properly implemented 5. If exceedance continues, consider what portion of the work is responsible and instruct the Contractor to stop that portion of work until the exceedance is abated	1. Take immediate action to avoid further exceedance 2. Submit proposals for remedial actions to IEC within 3 working days of notification 3. Implement the agreed proposals 4. Resubmit proposals if problem still not under control 5. Stop the relevant portion of works as determined by the Engineer until the exceedance is abated

Event and Action Plan for Stream Water Quality

Event	ET Leader	IEC	Engineer	Contractor
ACTION LEVEL (being exceeded by one sampling day)	1. Repeat in-situ measurement to confirm findings 2. Identify source(s) of impact 3. Inform IEC and Contractor 4. Check monitoring data, all plant, equipment and Contractor's working methods 5. Discuss mitigation measures IEC and Contractor 6. Repeat measurement on next day of exceedance	1. Discuss with ET and Contractor on the mitigation measures 2. Review proposals on mitigation measures submitted by Contractor and advice Engineer accordingly 3. Assess the effectiveness of the implemented mitigation measures	1. Discuss with IEC on the proposed mitigation measures 2. Make agreement on the mitigation measures to be implemented	1. Inform Engineer and confirm notification of the non-compliance in writing 2. Rectify unacceptable practice 3. Check all plant and equipment 4. Consider changes of working methods 5. Discuss with ET and Contractor and propose mitigation measures to IEC and Engineer 6. Implement the agreed mitigation measures
ACTION LEVEL (being exceeded by more than one sampling day)	1. Repeat in-situ measurement to confirm findings 2. Identify source(s) of impact 3. Inform IEC, Contractor and EPD 4. Check monitoring data, all plant, equipment and Contractor's working methods 5. Discuss mitigation measures IEC, Engineer and Contractor 6. Repeat measurement on next day of exceedance 7. Ensure mitigation measures are implemented 8. Prepare to increase the monitoring frequency to daily 9. Repeat measurement on next day of exceedance	1. Discuss with ET and Contractor on the mitigation measures 2. Review proposals on mitigation measures submitted by Contractor and advice Engineer accordingly 3. Assess the effectiveness of the implemented mitigation measures	1. Discuss with IEC on the proposed mitigation measures 2. Make agreement on the mitigation measures to be implemented 3. Assess the effectiveness of the implemented mitigation measures	1. Inform Engineer and confirm notification of the non-compliance in writing 2. Rectify unacceptable practice 3. Check all plant and equipment 4. Consider changes of working methods 5. Discuss with ET and IEC and propose mitigation measures to IEC and Engineer within 3 working days 6. Implement the agreed mitigation measures
LIMIT LEVEL (being exceeded by one sampling days)	1. Repeat in-situ measurement to confirm findings 2. Identify source(s) of impact 3. Inform IEC, Contractor and EPD 4. Check monitoring data, all plant, equipment and Contractor's working methods 5. Discuss mitigation measures IEC, Engineer and Contractor 6. Ensure mitigation measures are implemented 7. Increase the monitoring frequency to daily until no exceedance of Limit level	1. Discuss with ET and Contractor on the mitigation measures 2. Review proposals on mitigation measures submitted by Contractor and advice Engineer accordingly 3. Assess the effectiveness of the implemented mitigation measures	1. Discuss with IEC, ET and Contractor on the proposed mitigation measures 2. Request Contractor to critically review the working methods 3. Make agreement on the mitigation measures to be implemented 4. Assess the effectiveness of the implemented mitigation measures	1. Inform Engineer and confirm notification of the non-compliance in writing 2. Rectify unacceptable practice 3. Check all plant and equipment 4. Consider changes of working methods 5. Discuss with ET, IEC and Engineer and propose mitigation measures to IEC and Engineer within 3 working days 6. Implement the agreed mitigation measures
LIMIT LEVEL (being exceeded by more than one sampling days)	1. Repeat in-situ measurement to confirm findings; 2. Identify source(s) of impact; 3. Inform Contractor, Engineer, IEC and EPD; 4. Check monitoring data, all plant, equipment and Contractor's working methods; 5. Discuss mitigation measures with IEC, Engineer and Contractor; 6. Ensure mitigation measures are implemented;	1. Discuss with ET and Contractor on the mitigation measures 2. Review proposals on mitigation measures submitted by Contractor and advice Engineer accordingly 3. Assess the effectiveness of the implemented mitigation measures	1. Discuss with IEC, ET and Contractor on the proposed mitigation measures 2. Request Contractor to critically review the working methods 3. Make agreement on the mitigation measures to be implemented 4. Assess the effectiveness of the implemented mitigation measures 5. Consider and instruct, if	1. Inform Engineer and confirm notification of the non-compliance in writing 2. Rectify unacceptable practice 3. Check all plant and equipment 4. Consider changes of working methods 5. Discuss with ET, IEC and Engineer and propose

Event	ET Leader	IEC	Engineer	Contractor
	7. Increase the monitoring frequency to daily until no exceedance of Limit level		necessary, the Contractor to slow down or to stop all or part of the construction activities until daily until no exceedance of Limit level	mitigation measures to IEC and Engineer within 3 working days Propose mitigation measures to Engineer within 3 working days 6. Implement the agreed mitigation measures; 7. As directed by Engineer, to slow down or to stop all or part of the construction activities

Event/Action Plan for Ecology

Event	ET Leader	IEC	Engineer	Contractor
Fauna The total number of species or individuals of the surveyed wetland dependent faunal groups is reduced by 20-40% from baseline	• Notify IEC and Contractor; • Check the position and state of the current works to identify the causes; • Discuss mitigation measures with IEC and Contractor	• Discuss with ET and Contractor on the mitigation measures • Review proposals on mitigation measures submitted by Contractor and advice Engineer accordingly • Assess the effectiveness of the implemented mitigation measures	• Discuss with IEC on the proposed mitigation measures; • Reach agreement on the mitigation measures to be implemented	• Inform Engineer and confirm notification of the non-compliance in writing • Take immediate action to avoid further exceedances; • Check all plant and equipment and working methods, especially noise emanating ones • Discuss with ET and IEC and propose mitigation measures to IEC and Engineer • Implement the agreed mitigation measures

Appendix F

Equipment Calibration Certificates

Equipment Calibration List for Construction of Yuen Long, Kam Tin, Ngau Tam Mei and Tin Shui Wai Drainage Improvements, Stage 1, Phase 2B – Cheung Chun San Tsuen and Kam Tsin Wai Project

Item	Aspect	Description of Equipment	Date of Calibration	Date of Next Calibration
1	Air	Greasby Anderson GMWS2310 High Volume Sampler	04 Jul 07	04 Sep 07
2		EQ094 - Sibata LD-3 Laser Dust Meter	22 Jun 07	21 Jun 08
3		EQ096 - Sibata LD-3 Laser Dust Meter	22 Jun 07	21 Jun 08
4	Noise	Bruel & Kjaer 4231 Acoustical Calibrator	17 Apr 07	17 Apr 08
5		Bruel & Kjaer 2238 Integrating Sound Level Meter	17 Apr 07	17 Apr 08
6	Water	YSI 550A or YSI 85/10FT DO Meter	19 Jul 07	19 Oct 07
7		Hanna HI 98128	19 Jul 07	19 Oct 07
8		Hach 2100p	19 Jul 07	19 Oct 07
9		ATAGO refractometer	19 Jul 07	19 Oct 07

Note: *Calibration certificates will only be provided if monitoring equipment is re-calibrated or new.

TSP SAMPLER CALIBRATION CALCULATION SPREADSHEET

Location : Tin Sam San Tsuen
Location ID : A10

Date of Calibration: 4-Jul-07
Next Calibration Date: 4-Sep-07
Technician: Mr. Ben Tam

CONDITIONS

Sea Level Pressure (hPa)	1020.6	Corrected Pressure (mm Hg)	765.45
Temperature (^{o}C)	19.1	Temperature (K)	292

CALIBRATION ORIFICE

Make->	TISCH	Qstd Slope ->	1.94872
Model->	515N	Qstd Intercept ->	0.00202
Serial # ->	9833620		

CALIBRATION

Plate No.	H20 (L) (in)	H2O (R) (in)	H20 (in)	Qstd (m3/min)	I (chart)	IC corrected
18	4.1	4.1	8.2	1.489	42	43.00
13	3.2	3.2	6.4	1.315	35	35.83
10	2.4	2.4	4.8	1.139	27	27.64
7	1.6	1.6	3.2	0.929	21	21.50
5	0.9	0.9	1.8	0.697	14	14.33

LINEAR REGRESSION

Slope = 36.1799
Intercept = -11.8292
Corr. coeff. = 0.9952

Calculations :

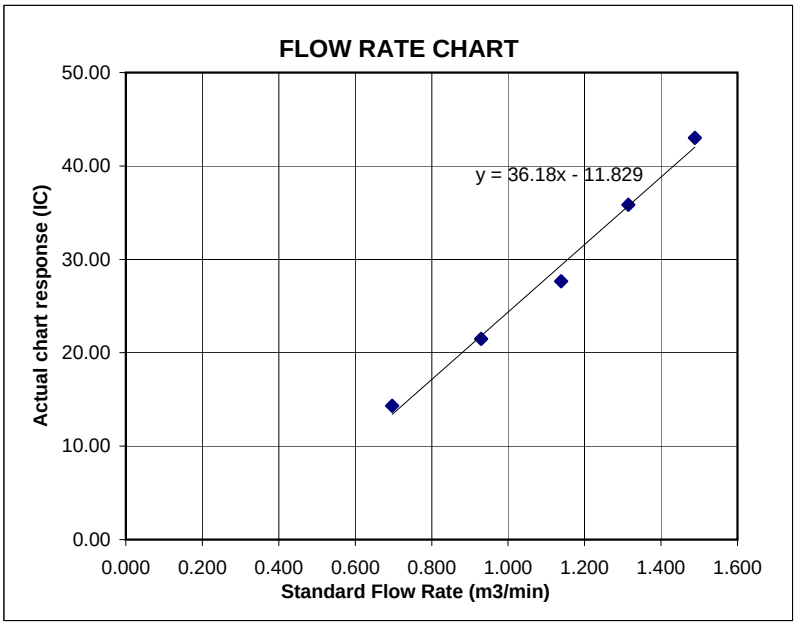
Qstd = 1/m[Sqrt(H20(Pa/Pstd)(Tstd/Ta))-b]
IC = I[Sqrt(Pa/Pstd)(Tstd/Ta)]

Qstd = standard flow rate
IC = corrected chart respones
I = actual chart response
m = calibrator Qstd slope
b = calibrator Qstd intercept
Ta = actual temperature during calibration (deg K)
Pstd = actual pressure during calibration (mm Hg)

For subsequent calculation of sampler flow:

1/m((I)[Sqrt(298/Tav)(Pav/760)]-b)

m = sampler slope
b = sampler intercept
I = chart response
Tav = daily average temperature
Pav = daily average pressure



Equipment Calibration Record

AUES

Equipment Calibrated:

Type:	Laser Dust monitor
Manufacturer:	Sibata
Serial No.	362337
Equipment Ref:	EQ094
Sensitivity	722 CPM

Standard Equipment:

Standard Equipment:	Higher Volume Sampler
Location & Location ID:	Au Tau abutment next to Yoho Town Phase 2
Equipment Ref:	AM 7
Last Calibration Date:	20 May 2007

Equipment Calibration Results:

Calibration Date: 22 June 2007

Hour	Time	Temp °C	RH %	Concentration in mg/m^3 (Standard Equipment)	Total Count (Calibrated Equipment)	Count/Minute (Total Count/60min)
1	13:12 ~ 14:12	32.3	74	0.133	3613	60.2
1	14:15 ~ 15:15	31.7	77	0.139	3872	64.5
1	15:20 ~ 16:20	31.3	79	0.122	3204	53.4

Sensitivity Adjustment Scale Setting (Before Calibration) 722 (CPM)

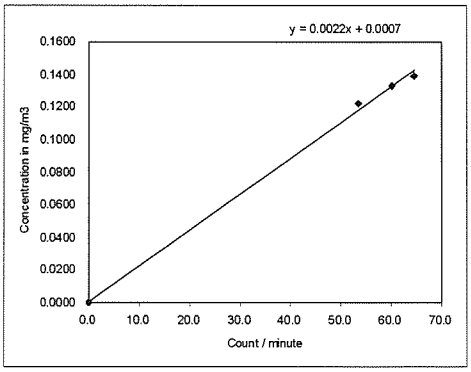
Sensitivity Adjustment Scale Setting (After Calibration) 722 (CPM)

Linear Regression of Y or X

Slope (K-factor): 0.0022

Correlation Coefficient 0.9987

Validity of Calibration Record 25 June 2007



Operator : Ben Tam Signature : Date : 25 June 2007

QC Reviewer : Kenneth Wong Signature : Date : 25 June 2007

Equipment Calibration Record

AUES

Equipment Calibrated:

Type:	Laser Dust monitor
Manufacturer:	Sibata
Serial No.	362359
Equipment Ref:	EQ096
Sensitivity	769 CPM

Standard Equipment:

Standard Equipment:	Higher Volume Sampler
Location & Location ID:	Au Tau abutment next to Yoho Town Phase 2
Equipment Ref:	AM 7
Last Calibration Date:	20 May 2007

Equipment Calibration Results:

Calibration Date: 22 June 2007

Hour	Time	Temp °C	RH %	Concentration in mg/m^3 (Standard Equipment)	Total Count (Calibrated Equipment)	Count/Minute (Total Count/60min)
1	13:12 ~ 14:12	32.3	74	0.133	3603	60.1
1	14:15 ~ 15:15	31.7	77	0.139	3930	65.5
1	15:20 ~ 16:20	31.3	79	0.122	3311	55.2

Sensitivity Adjustment Scale Setting (Before Calibration) 709 (CPM)

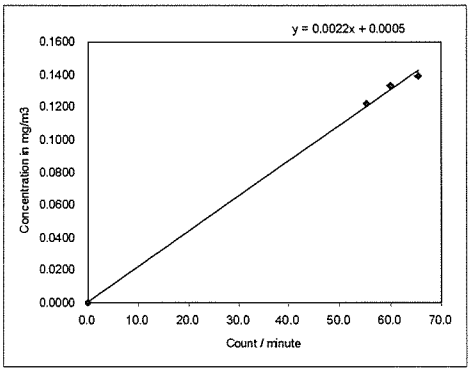
Sensitivity Adjustment Scale Setting (After Calibration) 709 (CPM)

Linear Regression of Y or X

Slope (K-factor): 0.0021

Correlation Coefficient 0.9990

Validity of Calibration Record 25 June 2007



Operator : Ben Tam Signature : Date : 25 June 2007

QC Reviewer : Kan Wong Signature : Date : 25 June 2007

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

Certificate No. : C071764

Certificate of Calibration

This is to certify that the equipment

Description : Acoustical Calibrator (EQ017)

Manufacturer : Bruel & Kjaer

Model No. : 4231

Serial No. : 2292168

has been calibrated for the specific items and ranges.
The results are shown in the Calibration Report No. C071764.

The equipment is supplied by

Co. Name : Action-United Environmental Services and Consulting

Address : Unit A, 20/F., Gold King Industrial Building,
35-41 Tai Lin Pai Road, Kwai Chung, N.T.

Date of Issue : 17 April 2007

Certified by : *K C Lee*

Calibration and Testing Laboratory of Sun Creation Engineering Limited
c/o 4/F, Tsing Shan Wan Exchange Building, 1 Hing On Lane, Tuen Mun, New Territories, Hong Kong
Tel: 2927 2606 Fax: 2744 8986 E-mail: callab@suncreation.com Website: www.suncreation.com

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

Certificate No. : C071765

Certificate of Calibration

This is to certify that the equipment

Description : Integrating Sound Level Meter (EQ010)

Manufacturer : Bruel & Kjaer

Model No. : 2238

Serial No. : 2285721

has been calibrated for the specific items and ranges.
The results are shown in the Calibration Report No. C071765.

The equipment is supplied by

Co. Name : Action-United Environmental Services and Consulting

Address : Unit A, 20/F., Gold King Industrial Building,
35-41 Tai Lin Pai Road, Kwai Chung, N.T.

Date of Issue : 17 April 2007

Certified by : K C Lee

Calibration and Testing Laboratory of Sun Creation Engineering Limited
c/o 4/F, Tsing Shan Wan Exchange Building, 1 Hing On Lane, Tuen Mun, New Territories, Hong Kong
Tel: 2927 2606 Fax: 2744 8986 E-mail: callab@suncreation.com Website: www.suncreation.com

CERTIFICATE OF ANALYSIS

Batch: HK0709810
Date of Issue: 19/07/2007
Client: ACTION UNITED ENVIRO SERVICES
Client Reference:

Calibration of DO System

Item : YSI Multimeter

Model No. : YSI 550A

Serial No. : 05F2063AZ

Equipment No.: HK0607963

Calibration Method : This meter was calibrated in accordance with standard method APHA (19th Ed.) 4500-O C and G

Date of Calibration : 19 July, 2007

Testing Results :

Expected Reading	Recording Reading
2.80 mg/L 4.82 mg/L 7.76 mg/L	2.89 mg/L 4.93 mg/L 7.59 mg/L
Allowing Deviation	±0.2 mg/L

Ms Wong Wai Man, Alice
Laboratory Manager - Hong Kong

CERTIFICATE OF ANALYSIS

Batch: HK0709811
Date of Issue: 19/07/2007
Client: ACTION UNITED ENVIRO SERVICES
Client Reference:

Calibration of pH System

Item : HANNA pH Meter

Model No. : HI98128

Serial No. : S229924

Equipment No. : EQ110

Calibration Method : This meter was calibrated in accordance with standard method APHA (19th Ed.) 4500-H

Date of Calibration : 19 July, 2007

Testing Results :

Expected Reading	Recording Reading
4.00	4.05
7.00	7.02
10.0	9.91
Allowing Deviation	± 0.2

Ms Wong Wai Man, Alice
Laboratory Manager - Hong Kong

CERTIFICATE OF ANALYSIS

Batch: HK0709812
Date of Issue: 19/07/2007
Client: ACTION UNITED ENVIRO SERVICES
Client Reference:

Calibration of Salinity System

Item : HAND REFRACTOMETER

Model No. : ATAGO

Serial No. : 289468

Equipment No. : EQ114

Calibration Method : This meter was calibrated in accordance with standard method APHA (19th Ed.) 2520 A and B

Date of Calibration : 19 July, 2007

Testing Results :

Expected Reading	Recording Reading
10.0 g/L	9.8 g/L
20.0 g/L	21.0 g/L
30.0 g/L	29.0 g/L
Allowing Deviation	±10%

Ms Wong Wai Man, Alice
Laboratory Manager - Hong Kong

CERTIFICATE OF ANALYSIS

Batch: HK0709813
Date of Issue: 19/07/2007
Client: ACTION UNITED ENVIRO SERVICES
Client Reference:

Calibration of Tubidimeter

Item : HACH Turbidimeter

Model No. : HACH 2100P

Serial No. : 950900008735

Equipment No. : EQ091

Calibration Method : This meter was calibrated in accordance with standard method APHA (19th Ed.) 2130B

Date of Calibration : 19 July, 2007

Testing Results :

Expected Reading	Recording Reading
0.0 NTU	0.1 NTU
4.0 NTU	4.3 NTU
16.0 NTU	15.4 NTU
40.0 NTU	37.0 NTU
80.0 NTU	81.0 NTU
Allowing Deviation	±10%

Ms Wong Wai Man, Alice
Laboratory Manager - Hong Kong

Appendix G

Impact Monitoring Schedules

Impact Monitoring Schedules in the Reporting Month

Date		Air Quality		Noise Leq 30min	Stream Water Quality	Ecology Surveys
		1-Hour TSP	24-Hour TSP			
1-July-07	Sun					
2-July-07	Mon					
3-July-07	Tue					
4-July-07	Wed					
5-July-07	Thu					
6-July-07	Fri					
7-July-07	Sat					
8-July-07	Sun					
9-July-07	Mon					
10-July-07	Tue					
11-July-07	Wed					
12-July-07	Thu					
13-July-07	Fri					
14-July-07	Sat					
15-July-07	Sun					
16-July-07	Mon					
17-July-07	Tue					
18-July-07	Wed					
19-July-07	Thu					
20-July-07	Fri					
21-July-07	Sat					
22-July-07	Sun					
23-July-07	Mon					
24-July-07	Tue					
25-July-07	Wed					

	Monitoring Day
	Sunday or Public Holiday

Impact Monitoring Schedules in the Next Reporting Month

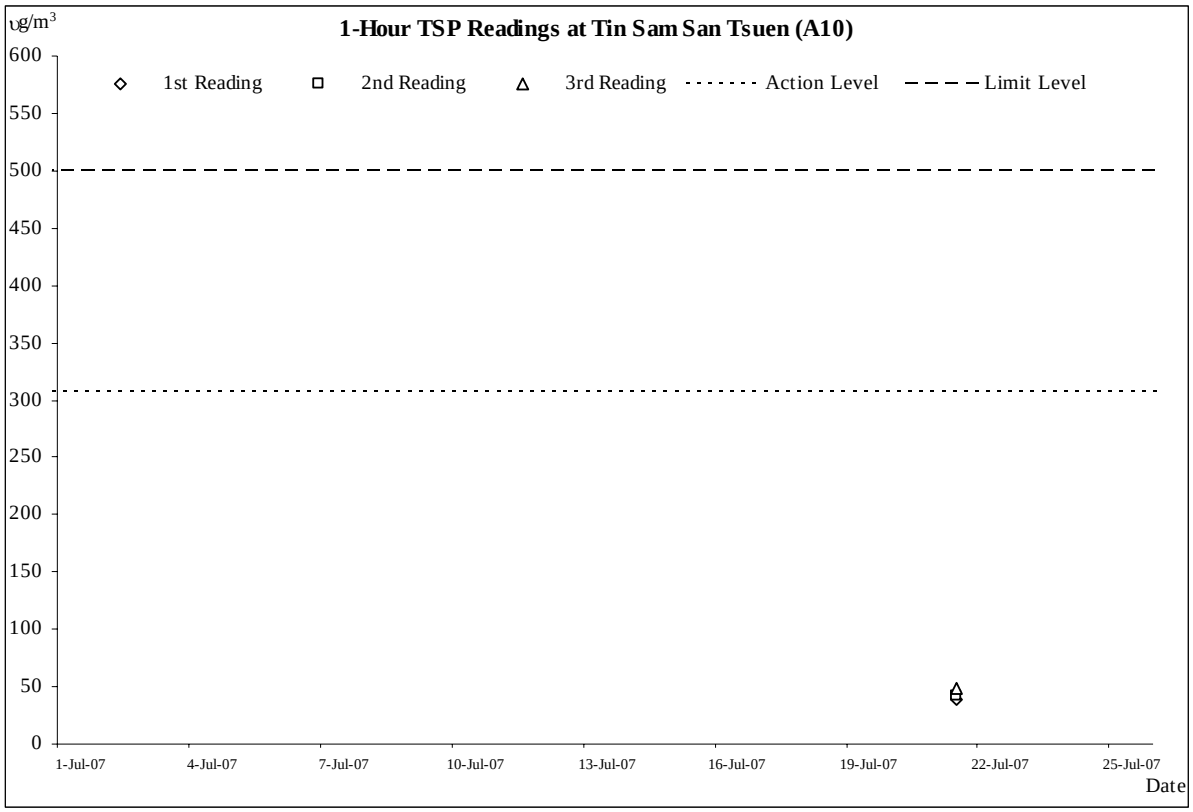
Date		Air Quality		Noise Leq 30min	Stream Water Quality	Ecology Surveys
		1-Hour TSP	24-Hour TSP			
26-July-07	Thu					
27-July-07	Fri	■		■	■	
28-July-07	Sat					
29-July-07	Sun					
30-July-07	Mon		■			
31-July-07	Tue				■	
1-Aug-07	Wed					
2-Aug-07	Thu	■		■	■	
3-Aug-07	Fri					
4-Aug-07	Sat		■			
5-Aug-07	Sun					
6-Aug-07	Mon					
7-Aug-07	Tue	■		■	■	
8-Aug-07	Wed					
9-Aug-07	Thu				■	
10-Aug-07	Fri		■			
11-Aug-07	Sat					
12-Aug-07	Sun					
13-Aug-07	Mon	■		■	■	
14-Aug-07	Tue					
15-Aug-07	Wed					
16-Aug-07	Thu		■			
17-Aug-07	Fri					
18-Aug-07	Sat	■		■	■	■
19-Aug-07	Sun					
20-Aug-07	Mon					
21-Aug-07	Tue				■	
22-Aug-07	Wed		■			
23-Aug-07	Thu					
24-Aug-07	Fri	■		■	■	
25-Aug-07	Sat					

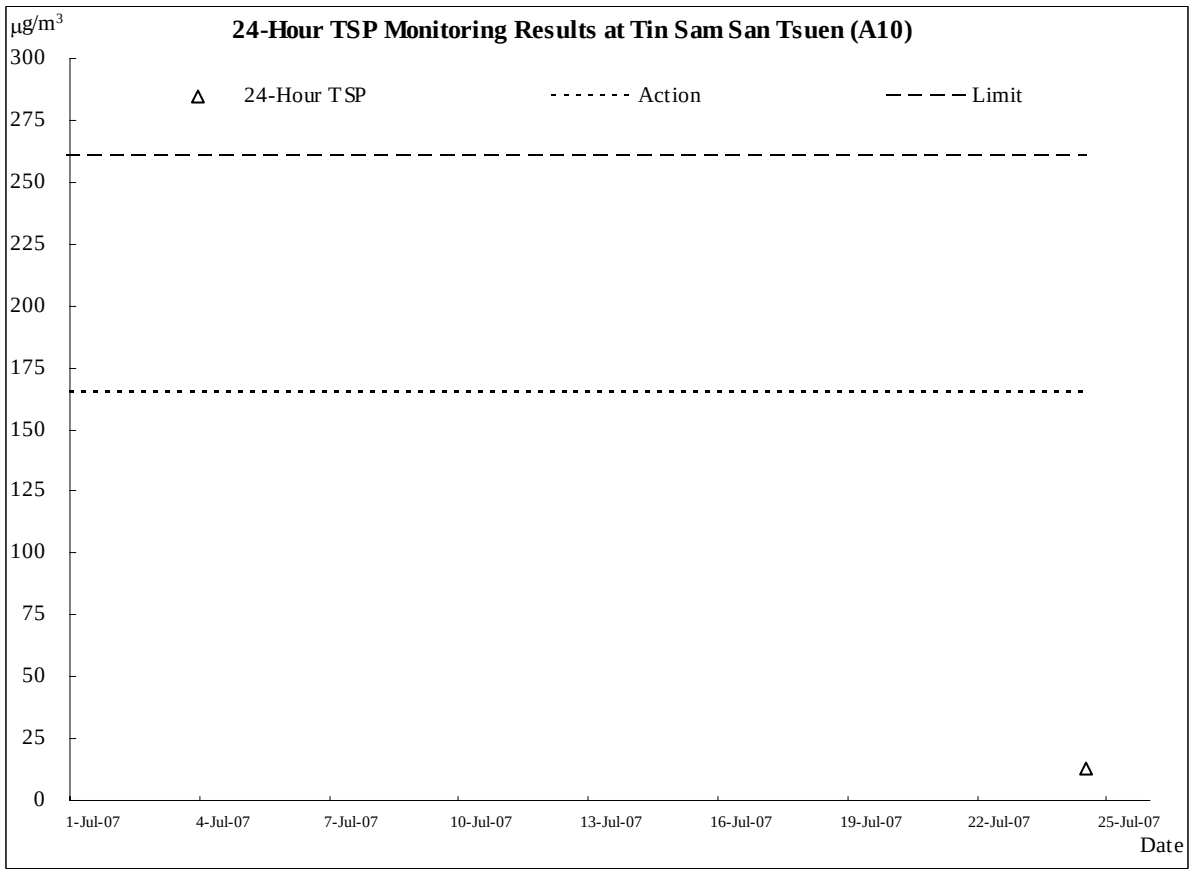
■	Monitoring Day
	Sunday or Public Holiday

Appendix H

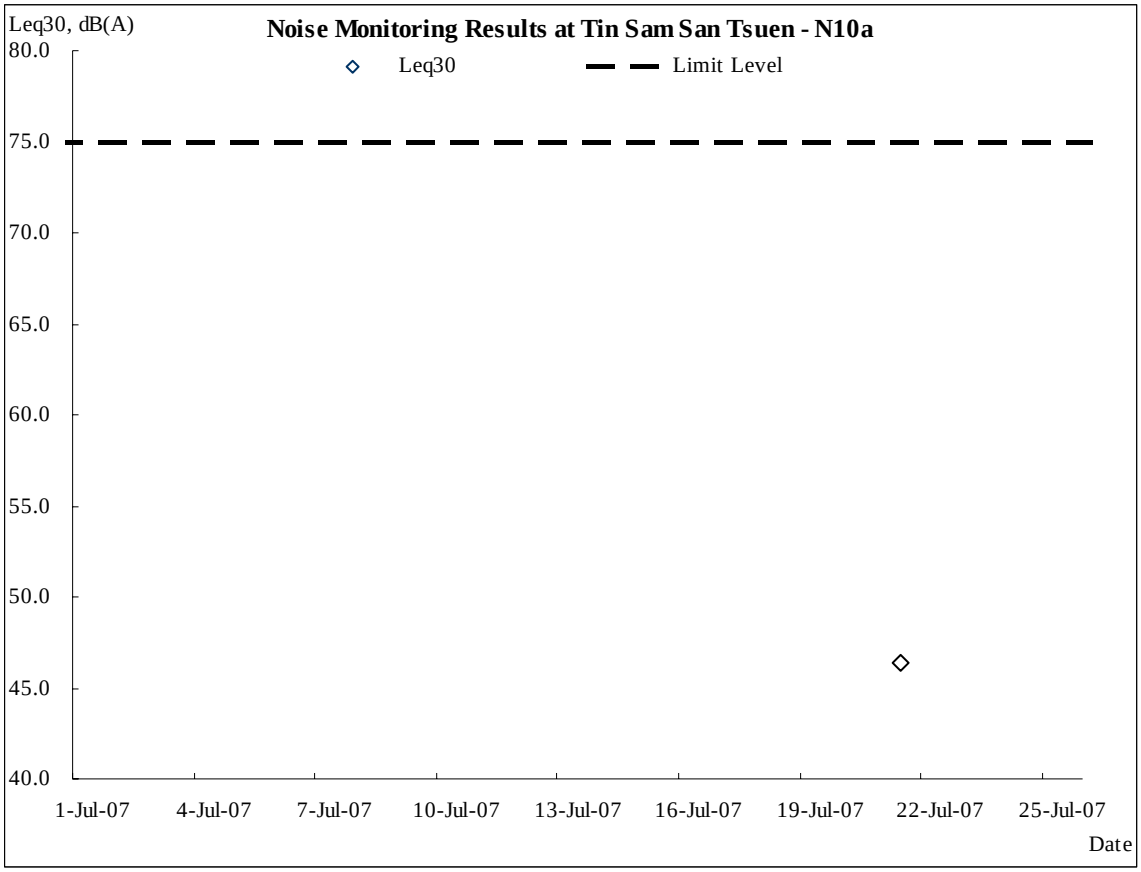
Graphical Plots of Air, Noise and Stream Water Quality Monitoring Results

Air Quality

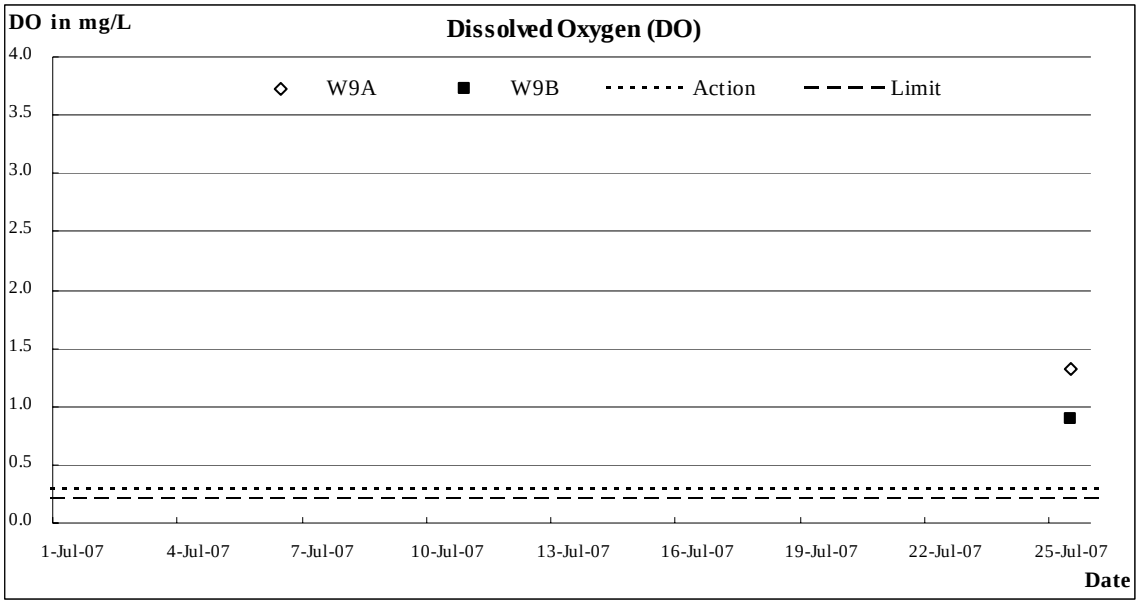

1-Hour TSP Readings at Tin Sam San Tsuen (A10)
μg/m3
1st Reading
2nd Reading
3rd Reading
Action Level
Limit Level
600
550
500
450
400
350
300
250
200
150
100
50
0
1-Jul-07
4-Jul-07
7-Jul-07
10-Jul-07
13-Jul-07
16-Jul-07
19-Jul-07
22-Jul-07
25-Jul-07
Date

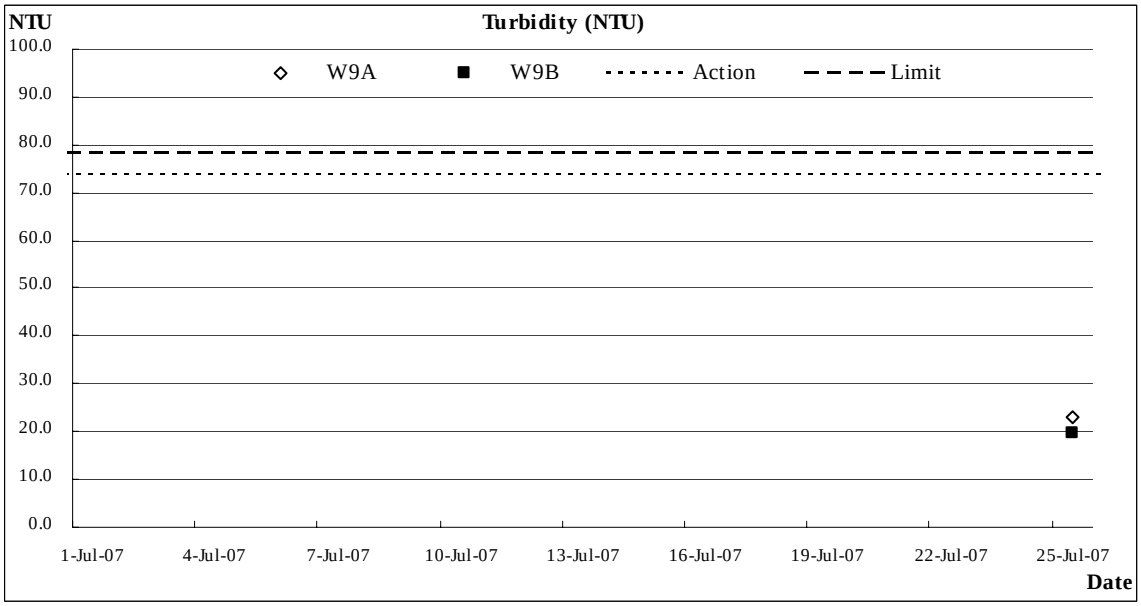

24-Hour TSP Monitoring Results at Tin Sam San Tsuen (A10)
μg/m3
24-Hour TSP
Action
Limit
300
275
250
225
200
175
150
125
100
75
50
25
0
1-Jul-07
4-Jul-07
7-Jul-07
10-Jul-07
13-Jul-07
16-Jul-07
19-Jul-07
22-Jul-07
25-Jul-07
Date

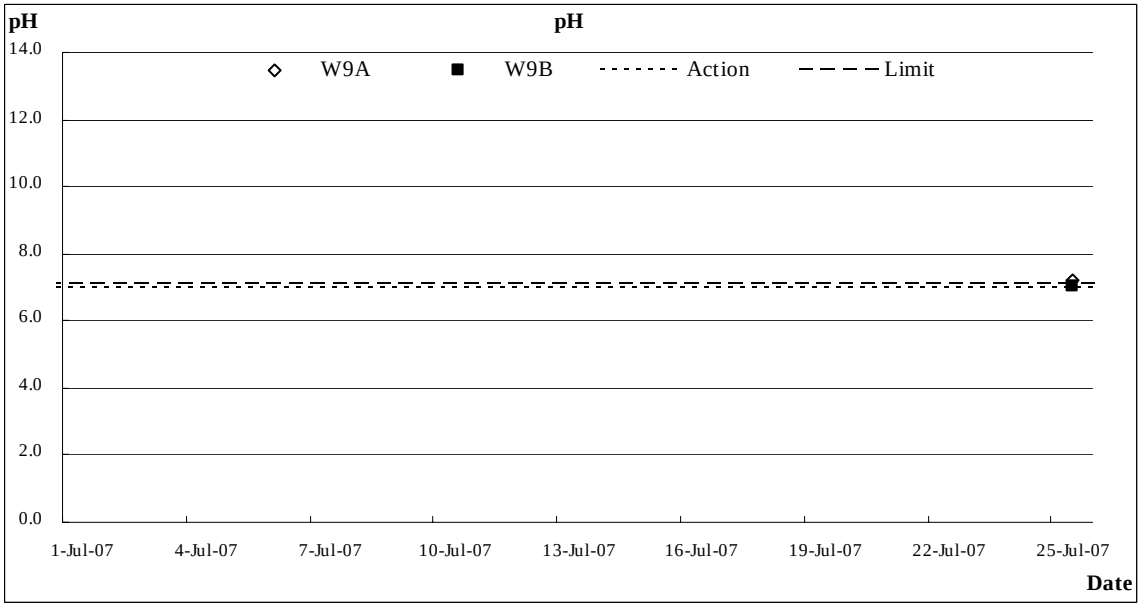
Construction Noise

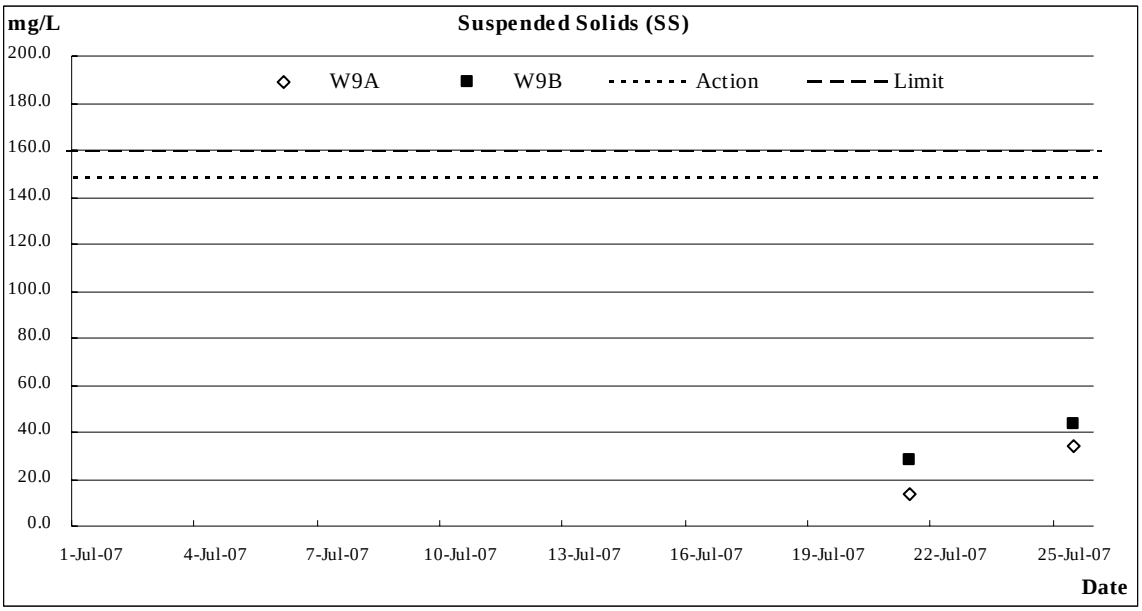


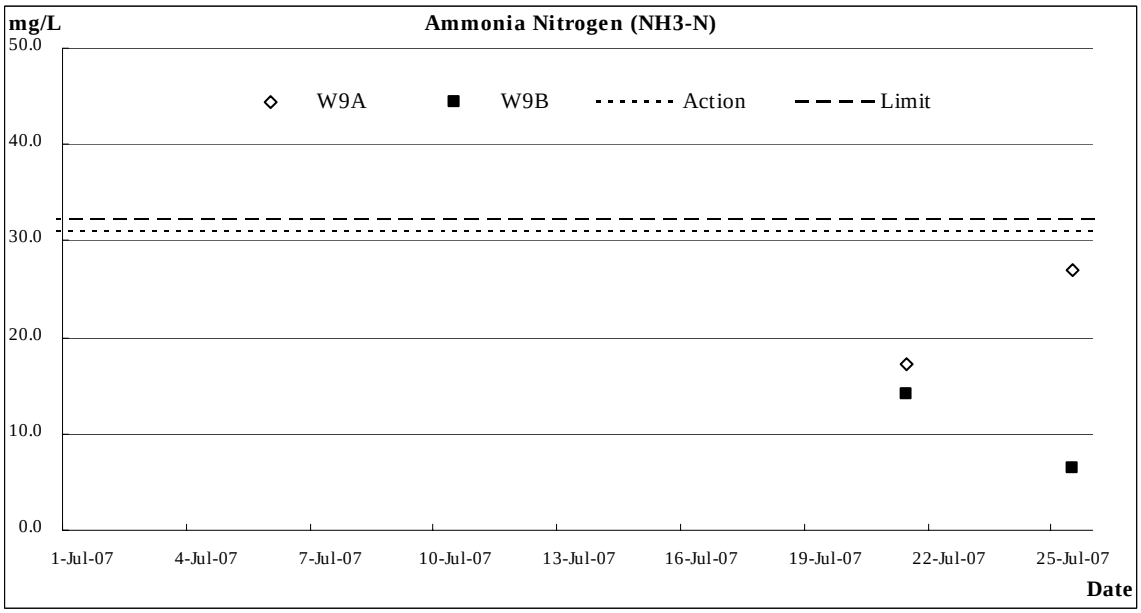
Stream Water Quality

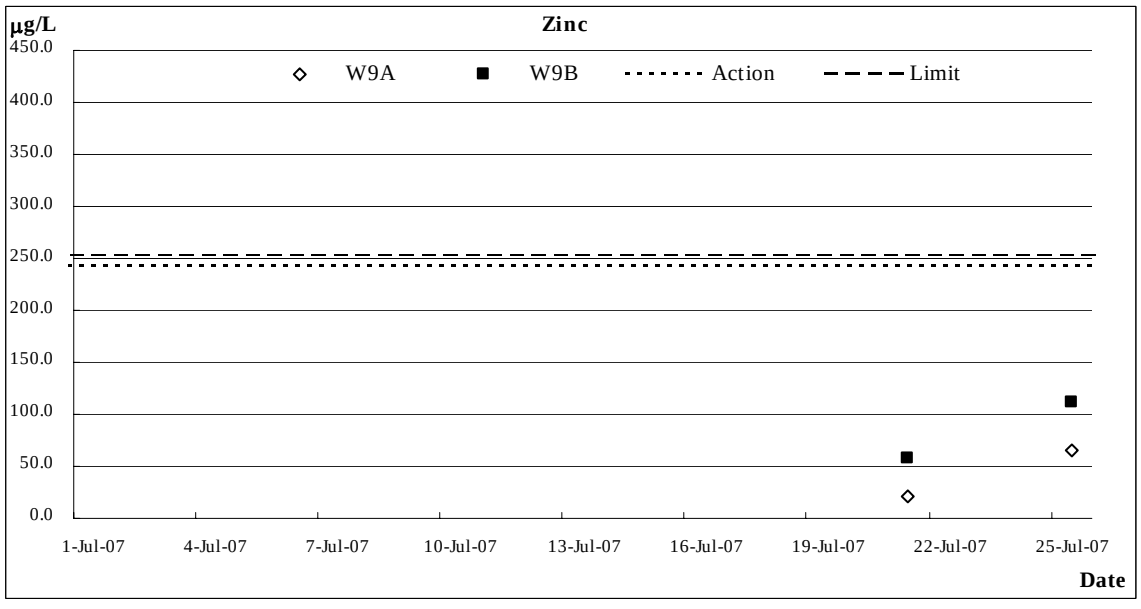







mg/L
Suspended Solids (SS)
W9A
W9B
Action
Limit
200.0
180.0
160.0
140.0
120.0
100.0
80.0
60.0
40.0
20.0
0.0
1-Jul-07
4-Jul-07
7-Jul-07
10-Jul-07
13-Jul-07
16-Jul-07
19-Jul-07
22-Jul-07
25-Jul-07
Date


mg/L
Ammonia Nitrogen (NH3-N)
W9A
W9B
Action
Limit
50.0
40.0
30.0
20.0
10.0
0.0
1-Jul-07
4-Jul-07
7-Jul-07
10-Jul-07
13-Jul-07
16-Jul-07
19-Jul-07
22-Jul-07
25-Jul-07
Date


µg/L
Zinc
W9A
W9B
Action
Limit
450.0
400.0
350.0
300.0
250.0
200.0
150.0
100.0
50.0
0.0
1-Jul-07
4-Jul-07
7-Jul-07
10-Jul-07
13-Jul-07
16-Jul-07
19-Jul-07
22-Jul-07
25-Jul-07
Date

Date	**21-Jul-07**																	
Location	**Time**	**Depth (m)**	**Temp (oC)**		**DO (mg/L)**		**DOS (%)**		**Turbidity (NTU)**		**Salinity**		**pH**		**SS**	**NH3-N**	**Zinc**
W9A	11:07	0.18	29.8	29.8	1.7	1.71	22.4	22.6	10.8	11.6	0	0.0	7.60	7.61	14.0	17.2	21.0
			29.8		1.72		22.8		12.4		0		7.61				
W9B	11:23	0.22	31.7	31.7	0.56	0.57	7.4	7.5	25.9	26.4	0	0.0	7.45	7.45	28.0	14.1	58.0
			31.6		0.57		7.6		26.9		0		7.45				

Date	**25-Jul-07**																	
Location	**Time**	**Depth (m)**	**Temp (oC)**		**DO (mg/L)**		**DOS (%)**		**Turbidity (NTU)**		**Salinity**		**pH**		**SS**	**NH3-N**	**Zinc**
W9A	13:41	0.13	31.9	31.9	1.32	1.33	18.2	18.3	22.6	23.0	0	0.0	7.23	7.23	34.0	26.9	65.0
			31.9		1.33		18.4		23.3		0		7.22				
W9B	13:26	0.24	24.1	24.1	0.88	0.89	12.3	12.4	19.0	19.7	0	0.0	7.03	7.03	43.0	6.4	111.0
			24.1		0.89		12.5		20.3		0		7.03				

Quality Control - Laboratory Duplicate (DUP) Results

Matrix Type: WATER				Duplicate (DUP) Results				
Laboratory Sample ID	Client Sample ID	Method: Analysis Description	CAS number	LOR	Units	Original Result	Duplicate Result	RPD (%)
EA/ED: Physical and Aggregate Properties (QC Lot: 458072)								
HK0710206-001	Anonymous	EA025: Suspended Solids (SS)	----	3	mg/L	163	139	15.8
HK0710212-001	W1A-1 &2 (MIX)	EA025: Suspended Solids (SS)	----	2	mg/L	43	42	2.7
ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 459182)								
HK0710239-001	Anonymous	EK055A: Ammonia as N	7664-41-7	0.1	mg/L	15.6	16.0	2.5
HK0710217-003	Anonymous	EK055A: Ammonia as N	7664-41-7	0.1	mg/L	0.1	0.1	0.0
EG: Metals and Major Cations (QC Lot: 457982)								
HK0710212-002	W1B-1 &2 (MIX)	EG020: Zinc	7440-66-6	10	µg/L	42	41	4.2

Quality Control - Method Blank (MB), Single Control Spike (SCS) and Duplicate Control Spike (DCS) Results

Matrix Type: WATER		Method Blank (MB) Results			Single Control Spike (SCS) and Duplicate Control Spike (DCS) Results						
					Spike	Spike Recovery (%)		Recovery Limits (%)		RPDs (%)	
Method: Analysis Description	CAS number	LOR	Units	Result	Concentration	SCS	DCS	Low	High	Value	Control Limit
EA/ED: Physical and Aggregate Properties (QCLot: 458072)											
EA025: Suspended Solids (SS)	----	2	mg/L	<2	20 mg/L	88.5	----	85	115	----	----
ED/EK: Inorganic Nonmetallic Parameters (QCLot: 459182)											
EK055A: Ammonia as N	7664-41-7	0.01	mg/L	<0.01	0.5 mg/L	96.8	----	85	115	----	----
EG: Metals and Major Cations (QCLot: 457982)											
EG020: Zinc	7440-66-6	10	µg/L	<10	100 µg/L	95.6	----	85	115	----	----

Quality Control - Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Results

Matrix Type: WATER				Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Results						
				Spike	Spike Recovery (%)		Recovery Limits (%)		RPDs (%)	
Laboratory Sample ID	Client Sample ID	Method: Analysis Description	CAS number	Concentration	MS	MSD	Low	High	Value	Control Limit
ED/EK: Inorganic Nonmetallic Parameters (QCLot: 459182)										
HK0710239-003	Anonymous	EK055A: Ammonia as N	7664-41-7	2.5 mg/L	113	----	75	125	----	----
EG: Metals and Major Cations (QCLot: 457982)										
HK0710212-001	W1A-1 &2 (MIX)	EG020: Zinc	7440-66-6	100 µg/L	92.0	----	75	125	----	----

Quality Control - Laboratory Duplicate (DUP) Results

Matrix Type: WATER

				Duplicate (DUP) Results				
Laboratory Sample ID	*Client Sample ID*	*Method: Analysis Description*	*CAS number*	*LOR*	*Units*	*Original Result*	*Duplicate Result*	*RPD (%)*
EA/ED: Physical and Aggregate Properties (QC Lot: 460425)								
HK0710377-013	Anonymous	EA025: Suspended Solids (SS)	----	2	mg/L	91	94	3.4
HK0710417-002	Anonymous	EA025: Suspended Solids (SS)	----	3	mg/L	224	227	1.3
ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 459989)								
HK0710328-002	Anonymous	EK055A: Ammonia as N	7664-41-7	0.1	mg/L	<0.1	<0.1	0.0
HK0710335-001	Anonymous	EK055A: Ammonia as N	7664-41-7	0.1	mg/L	3.4	3.5	0.0
ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 459990)								
HK0710333-001	Anonymous	EK055A: Ammonia as N	7664-41-7	0.1	mg/L	15.0	14.4	4.1
EG: Metals and Major Cations (QC Lot: 460925)								
HK0710380-001	Anonymous	EG020: Zinc	7440-66-6	10	µg/L	145	142	2.2

Quality Control - Method Blank (MB), Single Control Spike (SCS) and Duplicate Control Spike (DCS) Results

Matrix Type: WATER

		Method Blank (MB) Results			Single Control Spike (SCS) and Duplicate Control Spike (DCS) Results						
					Spike	Spike Recovery (%)		Recovery Limits (%)		RPDs (%)	
Method: Analysis Description	*CAS number*	*LOR*	*Units*	*Result*	*Concentration*	*SCS*	*DCS*	*Low*	*High*	*Value*	*Control Limit*
EA/ED: Physical and Aggregate Properties (QCLot: 460425)											
EA025: Suspended Solids (SS)	----	2	mg/L	<2	20 mg/L	93.5	----	85	115	----	----
ED/EK: Inorganic Nonmetallic Parameters (QCLot: 459989)											
EK055A: Ammonia as N	7664-41-7	0.01	mg/L	<0.01	0.5 mg/L	97.8	----	85	115	----	----
ED/EK: Inorganic Nonmetallic Parameters (QCLot: 459990)											
EK055A: Ammonia as N	7664-41-7	0.01	mg/L	<0.01	0.5 mg/L	96.2	----	85	115	----	----
EG: Metals and Major Cations (QCLot: 460925)											
EG020: Zinc	7440-66-6	10	µg/L	<10	100 µg/L	93.9	----	85	115	----	----

Quality Control - Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Results

Matrix Type: WATER

				Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Results						
				Spike	Spike Recovery (%)		Recovery Limits (%)		RPDs (%)	
Laboratory Sample ID	*Client Sample ID*	*Method: Analysis Description*	*CAS number*	*Concentration*	*MS*	*MSD*	*Low*	*High*	*Value*	*Control Limit*
ED/EK: Inorganic Nonmetallic Parameters (QCLot: 459989)										
HK0710329-002	Anonymous	EK055A: Ammonia as N	7664-41-7	2.5 mg/L	99.3	----	75	125	----	----
ED/EK: Inorganic Nonmetallic Parameters (QCLot: 459990)										
HK0710335-001	Anonymous	EK055A: Ammonia as N	7664-41-7	5 mg/L	110	----	75	125	----	----
EG: Metals and Major Cations (QCLot: 460925)										
HK0710380-001	Anonymous	EG020: Zinc	7440-66-6	100 µg/L	85.2	----	75	125	----	----

Appendix I

Meteorological Data in the Reporting Period

Meteorological Data Extracted from HKO in the Reporting Period

Date		Weather		Lau Fau Shan Weather Station			
			Total Rainfall (mm)	Mean Air Temperatures(°C)	Wind Speed (km/h)	Mean Relative Humidity (%)	Wind Direction
1-Jul-07	Sun	cloudy/moderate/fresh/thunderstorms	3	27	18.5	85	S/SE
2-Jul-07	Mon			Holiday			
3-Jul-07	Tue	cloudy/fresh/strong sunny/scattered showers/intervals	0.3	28.3	18.5	79	E/SE
4-Jul-07	Wed	sunny periods/scattered showers/moderate/fresh	19.3	29.3	14	78.5	SE
5-Jul-07	Thu	a few showers/moderate/squally thunderstorm/sunny periods/fresh	17.8	29.1	18	78	S/SE
6-Jul-07	Fri	sunny periods/a few showers/moderate	5.5	29.1	13.5	77	S/SE
7-Jul-07	Sat	fine/isolated showers/very hot/moderate	Trace	29.9	13.5	77	S/SE
8-Jul-07	Sun	fine/isolated showers/very hot/moderate	0.3	30	18	75	S/SE
9-Jul-07	Mon	fine/isolated showers/very hot/moderate	2.7	30	15.5	81.5	S/SE
10-Jul-07	Tue	fine/very hot/moderate/isolated showers	0.4	30.1	17.5	71.5	S/SW
11-Jul-07	Wed	fine/very hot/moderate	0	30.1	15	74.5	S.SW
12-Jul-07	Thu	fine/very hot/light winds/isolated showers	0	30.1	13.5	78	W/SW
13-Jul-07	Fri	fine/very hot/isolated showers/moderate	0	30.7	14	76.2	W/SW
14-Jul-07	Sat	fine/very jot/isolated showers/moderate	0	30.8	12	73.5	S/SW
15-Jul-07	Sun	fine/very jot/isolated showers/moderate	0.6	31.2	14.5	72	S
16-Jul-07	Mon	fine/very jot/isolated showers/moderate	0.8	30	14	83	W/SW
17-Jul-07	Tue	hot/a few showers/sunny	1.6	29.8	17.5	78.5	S
18-Jul-07	Wed	hot/a few showers/sunny	3.7	30.1	15.5	79	S
19-Jul-07	Thu	fine/hot/fresh/showers/moderate	5.4	30.6	17.5	75	S/SW
20-Jul-07	Fri	fine/very hot/fresh/moderate/isolate showers	0	30.8	22.5	72	S/SW
21-Jul-07	Sat	fine/very hot/moderate	0	30.5	20	73	S/SW
22-Jul-07	Sun	fine/very hot/moderate	0	31	16.5	70.5	S/SW
23-Jul-07	Mon	fine/very hot/moderate	0	30.6	13.5	79.5	S/SW
24-Jul-07	Tue	fine/very hot/moderate	0	31	17	74	S/SW
25-Jul-07	Wed	fine/very hot/moderate	0	30.2	16	71.5	S/SW

Appendix J

ET Site Inspection Checklists

Environmental Site Inspection Checklist for KT15

AUES

Project:	**Contract No.: DC/2006/02 Yuen Long, Kam Tin, Ngau Tam Mei and Tin Shui Wai Drainage Improvements, Stage 1, Phase 2B – Cheung Chun San Tsuen and Kam Tsin Wai**	**Inspected by**	
		RE's representative:	-
Inspection		**IEC's representative:**	-
Date:	20 July 2007	**ET's representative:**	Ken Wong
Time:	14:30	**Contractor's representative:**	M.K. Ng / K.M. Lui
		Checklist No.	KT15-200707

PART A: GENERAL INFORMATION **Environmental Permit No. EP-231/2005/A**

Weather:	☑ Sunny	☐ Fine	☐ Cloudy	☐ Rainy
Temperature:	30 ^{0}C			
Humidity:	☐ High	☑ Moderate	☐ Low	
Wind:	☐ Strong	☐ Breeze	☑ Light	☐ Calm

PART B: SITE AUDIT

		Not Obs.	Yes	No	Follow up	N/A	Photo/ Remarks
Section 1: Water Quality							
1.01	Is an effluent discharge license obtained for the Project?	☐	☑	☐	☐	☐	
1.02	Is the effluent discharged in accordance with the discharge licence?	☑	☐	☐	☐	☐	
1.03	Is the discharge of turbid water avoided?	☑	☐	☐	☐	☐	
1.04	Are there proper desilting facilities in the drainage systems to reduce SS levels in effluent?	☑	☐	☐	☐	☐	
1.05	Are there channels, sandbags or bunds to direct surface run-off to sedimentation tanks?	☑	☐	☐	☐	☐	
1.06	Are there any perimeter channels provided at site boundaries to intercept storm runoff from crossing the site?	☑	☐	☐	☐	☐	
1.07	Is drainage system well maintained?	☐	☑	☐	☐	☐	
1.08	As excavation proceeds, are temporary access roads protected by crushed stone or gravel?	☑	☐	☐	☐	☐	
1.09	Are temporary exposed slopes properly covered?	☑	☐	☐	☐	☐	
1.10	Are earthworks final surfaces well compacted or protected?	☐	☑	☐	☐	☐	
1.11	Are manholes adequately covered or temporarily sealed?	☑	☐	☐	☐	☐	
1.12	Are there any procedures and equipment for rainstorm protection?	☐	☑	☐	☐	☐	
1.13	Are wheel washing facilities well maintained?	☑	☐	☐	☐	☐	
1.14	Is runoff from wheel washing facilities avoided?	☑	☐	☐	☐	☐	
1.15	Are there toilets provided on site?	☑	☐	☐	☐	☐	
1.16	Are toilets properly maintained?	☑	☐	☐	☐	☐	
1.17	Are the vehicle and plant servicing areas paved and located within roofed areas?	☑	☐	☐	☐	☐	
1.18	Is the oil leakage or spillage avoided?	☑	☐	☐	☐	☐	
1.19	Are there any measures to prevent leaked oil from entering the drainage system?	☑	☐	☐	☐	☐	
1.20	Are there any measures to collect spilt cement and concrete washings during concreting works?	☑	☐	☐	☐	☐	
1.21	Are there any oil interceptors/grease traps in the drainage systems for vehicle and plant servicing areas, canteen kitchen, etc?	☑	☐	☐	☐	☐	

		Not Obs.	Yes	No	Follow up	N/A	Photo/ Remarks
1.22	Are the oil interceptors/grease traps maintained properly?	☑	☐	☐	☐	☐	
1.23	Is used bentonite recycled where appropriate?	☑	☐	☐	☐	☐	
1.24	Designated settlement area for runoff/wheel wash waste is provide and located at the streambed with 1-2m deep, 12m long and around 50m3 capacities for sedimentation.	☑	☐	☐	☐	☐	
1.25	No excavation is undertaken in the settlement area.	☐	☑	☐	☐	☐	
1.26	Concreting wastes water should be neutralized below the pH Action Levels before discharge.	☑	☐	☐	☐	☐	
1.27	Mobile toilets should provide on site and located away the KT15 stream course.	☑	☐	☐	☐	☐	
1.25	License collector should be employed for handling the sewage of mobile toilet.	☑	☐	☐	☐	☐	
Section 2: Air Quality							
2.01	Are there wheel washing facilities with high pressure jets provided at every vehicle exit point?	☑	☐	☐	☐	☐	
2.02	Are vehicles washed to remove any dusty materials from their bodies and wheels before leaving construction sites?	☑	☐	☐	☐	☐	
2.03	Are the excavated materials sprayed with water during handling?	☑	☐	☐	☐	☐	
2.04	Are stockpiles of dusty materials sprayed with water, covered or placed in sheltered areas?	☑	☐	☐	☐	☐	
2.05	Is the exposed earth properly treated within six months after the last construction activities?	☑	☐	☐	☐	☐	
2.06	Are the access roads sprayed with water to maintain the entire road surface wet or paved?	☐	☑	☐	☐	☐	
2.07	Is the surface where any drilling, cutting, polishing or breaking operation continuously sprayed with water?	☑	☐	☐	☐	☐	
2.08	Is the load on vehicles covered entirely by clean impervious sheeting?	☑	☐	☐	☐	☐	
2.09	Is the loading of materials to a level higher than the side and tail boards during transportation by vehicles avoided?	☑	☐	☐	☐	☐	
2.10	Is the road leading to the construction site within 30m of the vehicle entrance kept clear of dusty materials?	☐	☑	☐	☐	☐	
2.11	Is dark smoke emission from plant/equipment avoided?	☐	☑	☐	☐	☐	
2.12	Are de-bagging, batching and mixing processes carried out in sheltered areas during the use of bagged cement?	☑	☐	☐	☐	☐	
2.13	Are site vehicles travelling within the speed limit not more than 15km/hour?	☐	☑	☐	☐	☐	
2.14	Are hoardings of not less than 2.4m high provided along the site boundary, which adjoins areas accessible to the public?	☑	☐	☐	☐	☐	
2.15	Is open burning avoided?	☐	☑	☐	☐	☐	
2.16	Excavated materials from the stream must remove form site on the same day. The materials shall be stored in covered impermeable skips awaiting removal from site.	☑	☐	☐	☐	☐	
Section 3: Noise							
3.01	Are noisy equipment and activities positioned as far as practicable from the sensitive receivers?	☐	☑	☐	☐	☐	
3.02	Is silenced equipment adopted?	☑	☐	☐	☐	☐	
3.03	Is idle equipment turned off or throttled down?	☐	☑	☐	☐	☐	
3.04	Are all plant and equipment well maintained and in good condition?	☐	☑	☐	☐	☐	
3.05	Are noise barriers or enclosures provided at areas where construction activities cause noise impact on sensitive receivers?	☑	☐	☐	☐	☐	
3.06	Are hand held breakers fitted with valid noise emission labels during operation?	☑	☐	☐	☐	☐	
3.07	Are air compressors fitted with valid noise emission labels during operation?	☑	☐	☐	☐	☐	

		Not Obs.	Yes	No	Follow up	N/A	Photo/ Remarks
3.08	Are flaps and panels of mechanical equipment closed during operation?	☐	☑	☐	☐	☐	
3.09	Are Construction Noise Permit(s) applied for percussive piling works?	☐	☐	☐	☐	☑	
3.10	Are Construction Noise Permit(s) applied for general construction works during restricted hours?	☐	☐	☐	☐	☑	
3.11	Are valid Construction Noise Permit(s) posted at site entrances?	☐	☐	☐	☐	☑	
3.12	Use of quiet plant had been used on site to minimise the construction noise impact to the surrounding residences/dwellings (Level 1 mitigation measures).	☑	☐	☐	☐	☐	
3.13	Temporary/Moveable noise barrier or site hoarding are provide or erect at the site boundary to minimise the noise impact of the closest NSRs or stationary equipments shield by the noise barrier which cannot visible from NSRs (Level 2 mitigation measure)	☑	☐	☐	☐	☐	
3.14	Temporary/Moveable noise barrier equal to or more than 3m height with 10kg/m2 are provide for noise mitigation measures (Level 2 mitigation measures).	☑	☐	☐	☐	☐	
Section 4: Waste/Chemical Management							
4.01	Waste Management Plan had been submit to Engineer for approval.	☐	☑	☐	☐	☐	
4.02	Are receptacles available for general refuse collection?	☐	☑	☐	☐	☐	
4.03	Is general refuse sorting or recycling implemented?	☐	☑	☐	☐	☐	
4.04	Is general refuse disposed of properly and regularly?	☐	☑	☐	☐	☐	
4.05	Is the Contractor registered as a chemical waste producer?	☐	☑	☐	☐	☐	
4.06	Are the chemical waste containers properly labelled?	☐	☑	☐	☐	☐	
4.07	Are the chemical wastes stored in proper storage areas?	☐	☑	☐	☐	☐	
4.08	Is the chemical waste storage area properly labelled?	☐	☑	☐	☐	☐	
4.09	Is the chemical waste storage area used for storage of chemical waste only?	☐	☑	☐	☐	☐	
4.10	Are incompatible chemical wastes stored in different areas?	☐	☑	☐	☐	☐	
4.11	Are the chemical wastes disposed of by licensed collectors?	☑	☐	☐	☐	☐	
4.12	Are trip tickets for chemical wastes disposal available for inspection?	☐	☑	☐	☐	☐	
4.13	Are chemical/fuel storage areas bunded?	☐	☑	☐	☐	☐	
4.14	Are designated areas identified for storage and sorting of construction wastes?	☐	☑	☐	☐	☐	
4.15	Are construction wastes sorted (inert and non-inert) on site?	☐	☑	☐	☐	☐	
4.16	Are construction wastes reused?	☑	☐	☐	☐	☐	
4.17	Are construction wastes disposed of properly?	☐	☑	☐	☐	☐	
4.18	Are site hoardings and signboards made of durable materials instead of timber?	☑	☐	☐	☐	☐	
4.19	Is trip ticket system implemented for the disposal of construction wastes and records available for inspection?	☐	☑	☐	☐	☐	
4.20	Are appropriate procedures followed if contaminated material exists?	☐	☑	☐	☐	☐	
4.21	Is relevant license/ permit for disposal of construction waste or excavated materials available for inspection?	☐	☑	☐	☐	☐	
4.22	Site cleanliness and appropriate waste management training had provided for the site workers.	☐	☑	☐	☐	☐	
4.23	Contaminated sediments will managed according to WBTC No.12/2000 and EWTB TC(W) No. 34/2002.	☐	☑	☐	☐	☐	

		Not Obs.	Yes	No	Follow up	N/A	Photo/ Remarks
Section 5: Landscape & Visual							
5.01	Are retained and transplanted trees in health condition?	☐	☑	☐	☐	☐	
5.02	Are retained and transplanted trees properly protected?	☐	☑	☐	☐	☐	
5.03	Are surgery works carried out for the damaged trees?	☑	☐	☐	☐	☐	
5.04	Is damage to trees outside site boundary due to construction activities avoided?	☐	☑	☐	☐	☐	
5.05	Is the night-time lighting controlled to minimize glare to sensitive receivers?	☑	☐	☐	☐	☐	
Section 6: Ecology							
6.01	Gabion banks and base had been provide for channel linings and banks for typical sections of KT15?	☑	☐	☐	☐	☐	
6.02	Prevent site effluent/runoff discharge to the seasonal wetlands at KT15?	☐	☑	☐	☐	☐	
6.03	Stockpiling or disposal of materials, and any dredging or construction activities at the seasonal wetlands at KT15 are prohibited?	☐	☑	☐	☐	☐	
Section 7: Others							
7.01	Are relevant Environmental Permits posted at all vehicle site entrances/exits?	☑	☐	☐	☐	☐	

Remarks

1 As a general reminder, the Contractor was reminded liaison with the ER to display conspicuously a copy of the Environmental Permit (EP-231/2005/A on the site(s) at all vehicular site entrances/exists or at a convenient location for public's information at all times.

RE's representative	*IEC's representative*	*ET's representative*	*Contractor's representative*
( )	( )	(Ken Wong)	( )

Environmental Site Inspection Checklist for KT15

AUES

Project:	**Contract No.: DC/2006/02 Yuen Long, Kam Tin, Ngau Tam Mei and Tin Shui Wai Drainage Improvements, Stage 1, Phase 2B – Cheung Chun San Tsuen and Kam Tsin Wai**	**Inspected by**	
		RE/RE's representative:	A.F. Ng
Inspection		**IEC/IEC's representative:**	Connie Wong / Benny Liu
Date:	25 July 2007	**ETL/ ET's representative:**	Ken Wong / Ben Tam
Time:	14:30	**Contractor's representative:**	M.K. Ng / K.M. Lui
		Checklist No.	KT15-250707

PART A: GENERAL INFORMATION **Environmental Permit No. EP-231/2005/A**

Weather:	☑ Sunny	☐ Fine	☐ Cloudy	☐ Rainy
Temperature:	33 ^{0}C			
Humidity:	☐ High	☑ Moderate	☐ Low	
Wind:	☐ Strong	☐ Breeze	☑ Light	☐ Calm

PART B: SITE AUDIT

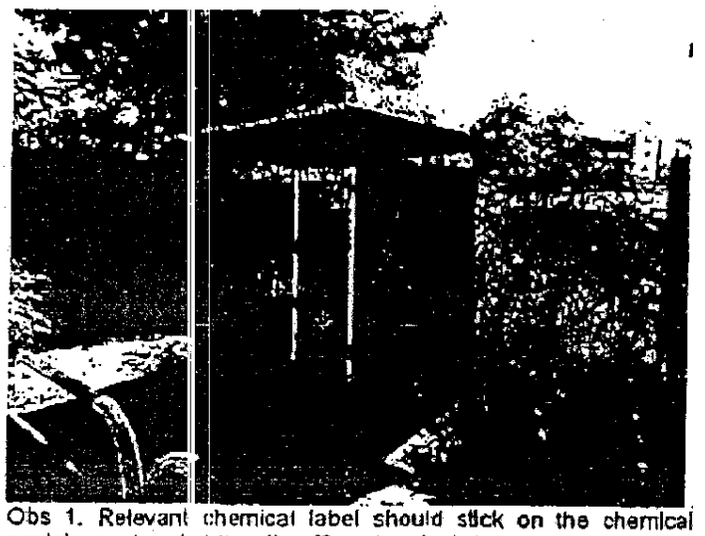
		Not Obs.	Yes	No	Follow up	N/A	Photo/ Remarks
Section 1: Water Quality							
1.01	Is an effluent discharge license obtained for the Project?	☐	☐	☐	☑	☐	Application in progress
1.02	Is the effluent discharged in accordance with the discharge licence?	☑	☐	☐	☐	☐	
1.03	Is the discharge of turbid water avoided?	☑	☐	☐	☐	☐	
1.04	Are there proper desilting facilities in the drainage systems to reduce SS levels in effluent?	☑	☐	☐	☐	☐	
1.05	Are there channels, sandbags or bunds to direct surface run-off to sedimentation tanks?	☑	☐	☐	☐	☐	
1.06	Are there any perimeter channels provided at site boundaries to intercept storm runoff from crossing the site?	☑	☐	☐	☐	☐	
1.07	Is drainage system well maintained?	☑	☐	☐	☐	☐	
1.08	As excavation proceeds, are temporary access roads protected by crushed stone or gravel?	☐	☐	☐	☐	☑	
1.09	Are temporary exposed slopes properly covered?	☐	☐	☐	☐	☑	
1.10	Are earthworks final surfaces well compacted or protected?	☐	☐	☐	☐	☑	
1.11	Are manholes adequately covered or temporarily sealed?	☐	☑	☐	☐	☐	
1.12	Are there any procedures and equipment for rainstorm protection?	☐	☑	☐	☐	☐	
1.13	Are wheel washing facilities well maintained?	☐	☐	☐	☐	☑	
1.14	Is runoff from wheel washing facilities avoided?	☐	☐	☐	☐	☑	
1.15	Are there toilets provided on site?	☐	☑	☐	☐	☐	
1.16	Are toilets properly maintained?	☐	☑	☐	☐	☐	
1.17	Are the vehicle and plant servicing areas paved and located within roofed areas?	☐	☐	☐	☐	☑	
1.18	Is the oil leakage or spillage avoided?	☐	☑	☐	☐	☐	
1.19	Are there any measures to prevent leaked oil from entering the drainage system?	☐	☑	☐	☐	☐	
1.20	Are there any measures to collect spilt cement and concrete washings during concreting works?	☐	☐	☐	☐	☑	
1.21	Are there any oil interceptors/grease traps in the drainage systems for vehicle and plant servicing areas, canteen kitchen, etc?	☐	☐	☐	☐	☑	

		Not Obs.	Yes	No	Follow up	N/A	Photo/ Remarks
1.22	Are the oil interceptors/grease traps maintained properly?	☐	☐	☐	☐	☑	
1.23	Is used bentonite recycled where appropriate?	☐	☐	☐	☐	☑	
1.24	Designated settlement area for runoff/wheel wash waste is provide and located at the streambed with 1-2m deep, 12m long and around 50m3 capacities for sedimentation.	☑	☐	☐	☐	☐	
1.25	No excavation is undertaken in the settlement area.	☐	☑	☐	☐	☐	
1.26	Concreting wastes water should be neutralized below the pH Action Levels before discharge.	☐	☐	☐	☐	☑	
1.27	Mobile toilets should provide on site and located away the KT15 stream course.	☐	☑	☐	☐	☐	
1.25	License collector should be employed for handling the sewage of mobile toilet.	☐	☑	☐	☐	☐	
Section 2: Air Quality							
2.01	Are there wheel washing facilities with high pressure jets provided at every vehicle exit point?	☑	☐	☐	☐	☐	
2.02	Are vehicles washed to remove any dusty materials from their bodies and wheels before leaving construction sites?	☑	☐	☐	☐	☐	
2.03	Are the excavated materials sprayed with water during handling?	☑	☐	☐	☐	☐	
2.04	Are stockpiles of dusty materials sprayed with water, covered or placed in sheltered areas?	☐	☑	☐	☐	☐	
2.05	Is the exposed earth properly treated within six months after the last construction activities?	☐	☐	☐	☐	☑	
2.06	Are the access roads sprayed with water to maintain the entire road surface wet or paved?	☑	☐	☐	☐	☐	
2.07	Is the surface where any drilling, cutting, polishing or breaking operation continuously sprayed with water?	☐	☐	☐	☐	☑	
2.08	Is the load on vehicles covered entirely by clean impervious sheeting?	☑	☐	☐	☐	☐	
2.09	Is the loading of materials to a level higher than the side and tail boards during transportation by vehicles avoided?	☑	☐	☐	☐	☐	
2.10	Is the road leading to the construction site within 30m of the vehicle entrance kept clear of dusty materials?	☐	☑	☐	☐	☐	
2.11	Is dark smoke emission from plant/equipment avoided?	☐	☑	☐	☐	☐	
2.12	Are de-bagging, batching and mixing processes carried out in sheltered areas during the use of bagged cement?	☐	☐	☐	☐	☑	
2.13	Are site vehicles travelling within the speed limit not more than 15km/hour?	☐	☑	☐	☐	☐	
2.14	Are hoardings of not less than 2.4m high provided along the site boundary, which adjoins areas accessible to the public?	☐	☑	☐	☐	☐	
2.15	Is open burning avoided?	☐	☑	☐	☐	☐	
2.16	Excavated materials from the stream must remove form site on the same day. The materials shall be stored in covered impermeable skips awaiting removal from site.	☐	☐	☐	☐	☑	
Section 3: Noise							
3.01	Are noisy equipment and activities positioned as far as practicable from the sensitive receivers?	☐	☑	☐	☐	☐	
3.02	Is silenced equipment adopted?	☑	☐	☐	☐	☐	
3.03	Is idle equipment turned off or throttled down?	☐	☑	☐	☐	☐	
3.04	Are all plant and equipment well maintained and in good condition?	☐	☑	☐	☐	☐	
3.05	Are noise barriers or enclosures provided at areas where construction activities cause noise impact on sensitive receivers?	☑	☐	☐	☐	☐	
3.06	Are hand held breakers fitted with valid noise emission labels during operation?	☐	☐	☐	☐	☑	
3.07	Are air compressors fitted with valid noise emission labels during operation?	☐	☐	☐	☐	☑	

		Not Obs.	Yes	No	Follow up	N/A	Photo/ Remarks
3.08	Are flaps and panels of mechanical equipment closed during operation?	☐	☑	☐	☐	☐	
3.09	Are Construction Noise Permit(s) applied for percussive piling works?	☐	☐	☐	☐	☑	
3.10	Are Construction Noise Permit(s) applied for general construction works during restricted hours?	☐	☐	☐	☐	☑	
3.11	Are valid Construction Noise Permit(s) posted at site entrances?	☐	☐	☐	☐	☑	
3.12	Use of quiet plant had been used on site to minimise the construction noise impact to the surrounding residences/dwellings (Level 1 mitigation measures).	☑	☐	☐	☐	☐	
3.13	Temporary/Moveable noise barrier or site hoarding are provide or erect at the site boundary to minimise the noise impact of the closest NSRs or stationary equipments shield by the noise barrier which cannot visible from NSRs (Level 2 mitigation measure)	☑	☐	☐	☐	☐	
3.14	Temporary/Moveable noise barrier equal to or more than 3m height with 10kg/m2 are provide for noise mitigation measures (Level 2 mitigation measures).	☑	☐	☐	☐	☐	
Section 4: Waste/Chemical Management							
4.01	Waste Management Plan had been submit to Engineer for approval.	☐	☑	☐	☐	☐	
4.02	Are receptacles available for general refuse collection?	☐	☑	☐	☐	☐	
4.03	Is general refuse sorting or recycling implemented?	☑	☐	☐	☐	☐	
4.04	Is general refuse disposed of properly and regularly?	☐	☑	☐	☐	☐	
4.05	Is the Contractor registered as a chemical waste producer?	☐	☑	☐	☐	☐	
4.06	Are the chemical waste containers properly labelled?	☐	☐	☐	☑	☐	Obs 1
4.07	Are the chemical wastes stored in proper storage areas?	☐	☑	☐	☐	☐	
4.08	Is the chemical waste storage area properly labelled?	☐	☑	☐	☐	☐	
4.09	Is the chemical waste storage area used for storage of chemical waste only?	☐	☑	☐	☐	☐	
4.10	Are incompatible chemical wastes stored in different areas?	☐	☑	☐	☐	☐	
4.11	Are the chemical wastes disposed of by licensed collectors?	☐	☐	☐	☐	☑	
4.12	Are trip tickets for chemical wastes disposal available for inspection?	☐	☐	☐	☐	☑	
4.13	Are chemical/fuel storage areas bunded?	☐	☑	☐	☐	☐	
4.14	Are designated areas identified for storage and sorting of construction wastes?	☐	☑	☐	☐	☐	
4.15	Are construction wastes sorted (inert and non-inert) on site?	☐	☑	☐	☐	☐	
4.16	Are construction wastes reused?	☑	☐	☐	☐	☐	
4.17	Are construction wastes disposed of properly?	☐	☑	☐	☐	☐	
4.18	Are site hoardings and signboards made of durable materials instead of timber?	☐	☑	☐	☐	☐	
4.19	Is trip ticket system implemented for the disposal of construction wastes and records available for inspection?	☐	☑	☐	☐	☐	
4.20	Are appropriate procedures followed if contaminated material exists?	☐	☐	☐	☐	☑	
4.21	Is relevant license/ permit for disposal of construction waste or excavated materials available for inspection?	☐	☑	☐	☐	☐	
4.22	Site cleanliness and appropriate waste management training had provided for the site workers.	☐	☑	☐	☐	☐	
4.23	Contaminated sediments will managed according to WBTC No.12/2000 and EWTB TC(W) No. 34/2002.	☐	☐	☐	☐	☑	

		Not Obs.	Yes	No	Follow up	N/A	Photo/ Remarks
Section 5: Landscape & Visual							
5.01	Are retained and transplanted trees in health condition?	☐	☑	☐	☐	☐	
5.02	Are retained and transplanted trees properly protected?	☐	☑	☐	☐	☐	
5.03	Are surgery works carried out for the damaged trees?	☑	☐	☐	☐	☐	
5.04	Is damage to trees outside site boundary due to construction activities avoided?	☐	☑	☐	☐	☐	
5.05	Is the night-time lighting controlled to minimize glare to sensitive receivers?	☑	☐	☐	☐	☐	
Section 6: Ecology							
6.01	Gabion banks and base had been provide for channel linings and banks for typical sections of KT15?	☐	☐	☐	☐	☑	
6.02	Prevent site effluent/runoff discharge to the seasonal wetlands at KT15?	☐	☑	☐	☐	☐	
6.03	Stockpiling or disposal of materials, and any dredging or construction activities at the seasonal wetlands at KT15 are prohibited?	☐	☑	☐	☐	☐	
Section 7: Others							
7.01	Are relevant Environmental Permits posted at all vehicle site entrances/exits?	☑	☑	☐	☐	☐	

Remarks



Obs 1. Relevant chemical label should stick on the chemical containers stored at the site office chemical storage area.

RE's representative	*IEC's representative*	*ET's representative*	*Contractor's representative*
( )	( )	(Ken Wong)	( )

Appendix K

Response to Comments

Contract No. DC/2006/02
Yuen Long, Kam Tin, Ngau Tam Mei and Tin Shui Wai Drainage Improvements, Stage 1, Phase 2B – Cheung Chun San Tsuen and Kam Tsin Wai
Response to IEC's comments on KT15 1st Monthly EM&A Report (Revision 0) [Received e-mail on 04 Aug 2007 16:45]

No.	Section / Paragraph	Comments	Ref.	Response to Comments
1	Cover	Please revise the "Cheung Chun San Yuen" to Cheung Chun San **T**suen".	N/A	Noted.
2	ES.02	Please revise the paragraph as both KT14 and KT15 are designated projects and governed by the EP-231/2005/A and please quote the EP No. in ES.	N/A	Noted.
3	ES.02 and ES.03	Please mention either in ES.02 or ES.03 that this Contract covers KT15 only while KT14 is carried out under another Contract.	N/A	Noted.
4	ES.10 and 4.03	There were only **3** events for 1-hour TSP monitoring which was carried out on 21 July 2007. Please revise accordingly.	N/A	Noted.
5	Table 2.1	Please include information of EP-231/2005/A as the Contractor is also governed by the EP.	N/A	Noted
6	Table 3.1, 3.04, 4.01, Table 4.1, 4.05, and Appendix D	Please clarify whether noise monitoring was carried out at N10 or N10a. If noise monitoring was carried out at N10a, please add remark. If noise monitoring was carried out at N10, please revise Appendix D.	N/A	Noted.
7	Table 3.1	Impact monitoring for Ecology in this reporting month should include the following :- • Monthly monitoring of construction activities adjacent to the wetland areas to identify any intrusion of construction activities into the wetland areas, • Monthly monitoring of the wetland areas themselves to check that there is no adverse impact on the wetlands as a consequence of changes to the water table that are attributable to the project, if any, and • Fauna monitoring	EM&A Manual 7.5.1	Noted
8	Table 3.4 and Table 5.4	Remarks for ** should be read as "Alternative **Limit** Level"	N/A	Noted.
9	Table 5.2	The monitoring result for 18 July 2007 was out of the reporting period (20 – 25 July 2007). The monitoring date should be 24 July 2007 as shown in Appendix F. Please revise accordingly.		Noted.
10	Appendix C	Telephone no. of IEC should be 3105 8**5**37.	N/A	Noted.
11	Section 5	For water quality monitoring, please provide QA/QC results and detection limits	EM&A Manual 10.3.3 (vi)	Please refer to S4.39, 4.40 & Appendix F
12	7.01 and 11.05	Please note that one observation was recorded from ET during site inspection on 20 July 2007.	N/A	From the ET point of view, statement as present in the ET's site inspection checklist on 20 July 2007 is reminder rather than observation. Therefore, no amendment should be required in S7.01 and S11.05.
13	Appendix E	Please update the calibration due date for the monitoring equipment was yet updated and provide calibration certificates for review.	N/A	Noted.

No.	Section / Paragraph	Comments	Ref.	Response to Comments
14	Appendix F	• Since construction of the project commenced on 20 July 2007, please revise the monitoring schedule with monitoring works carried out only on or after 20 July 2007. • Since the cut-off date for this report is 25 July 2007, please revise the monitoring schedule with monitoring works carried out up to 25 July 2007. • The dates given in the monitoring schedule for the next reporting month are incorrect. Stream water quality and Ecology Surveys schedule were not provided. Please revise. • Please delete the monitoring schedule for KT2 in Appendix F.	N/A	Noted Noted. Noted. Noted.
15	Appendix I	It may not be necessary to include the complete checklists in the report. However, if the ET wishes to do so, the checklists incorporated should be with signatures from relevant parties who have participated in the site inspection.	N/A	Site Inspection checklists excluded.
16	Appendix H	The weather station was in Tai Po which is inconsistent with station in section 4.10, please check	N/A	Noted
17	General	Please provide Event-Action Plans in relevant section	EM&A Manual 10.3.3 (iv)	Noted.
18	General	A number of Typo was found in the report, please check example ES.07, 8.0, 8.01, Table 8.2, 11.04: summons not summon ES.10, 2nd and 3rd bullet: 1 event not 1 events	N/A	 Noted. Noted.
19	General	While a number of information has not been incorporated in this report, please provide a full-report for review.	N/A	Noted.

Contract No. DC/2006/02

Yuen Long, Kam Tin, Ngau Tam Mei and Tin Shui Wai Drainage Improvements, Stage 1, Phase 2B – Cheung Chun San Tsuen and Kam Tsin Wai

Response to IEC's comments on KT15 1st Monthly EM&A Report (Revision 1) [Received e-mail on 08 Aug 2007 16:29]

No.	Section / Paragraph	Comments	Ref.	Response to Comments
1	1.02, Table 2.1, Table 6.2	Please update these sections accordingly by only providing information which belongs to KT15	N/A	Based on the Contactor provide information, Section 1.02, Table 2.1 and 6.2 had been updated.
2	Table 3.1 and Table 4.1	Remark for * should be provided for N10a monitoring station Please rewrite the sentence for the remark since the meaning is referring to baseline but not impact monitoring.	N/A	Noted. Noted.
3	3.04	As noise monitoring was carried out at N10a. Please rewrite the sentence as "Noise monitoring is conducted once per week at the designated monitoring location N10a.	N/A	Noted.
4	3.05, 4.06	The requirement for water quality monitoring is wrong and misunderstanding, please revise	N/A	Noted.
5	5.09	Please rewrite the first sentence as "As the major construction works for the project …. "	N/A	Noted.
6	Appendix D	Please provide monitoring location for ecological monitoring	EM&A Manual, 10.3.3 (vi)	Noted.
7	Appendix E	Please provide calibration certificates for review.	N/A	Noted.
8	Appendix G	The monitoring frequency for impact monitoring schedule in the next reporting month is incorrect. Please correct.	N/A	Noted.
9	Appendix I	Referring to our previous comment, we stated "it may not be necessary to include the complete checklists in the report. However, if the ET wishes to do so, the checklists incorporated should be with signatures from relevant parties who have participated in the site inspection. " If ET intend to exclude the site inspection checklists, as the checklists incorporated the Mitigation Measures Implementation Schedule from Project Profile in Annex A and also the observation identified during site inspection. Please incorporate those observation(s) identified in the site inspection and also provide Summary of Environmental Mitigation Implementation Schedule in relevant section accordingly.	N/A	Signed checklists with enclosed and observation had been added in Section 7.02, 11.07 and Appendix J.
10	General	Typo 4.05 A total of 6 monitoring events Appendix C Name of Engineer's Representative should be Mr. Clive C.H.CHENG Appendix G Nitrogen not Notrogen N10a not N10	N/A	 Noted. Noted. Noted. Noted.

Contract No. DC/2006/02

Yuen Long, Kam Tin, Ngau Tam Mei and Tin Shui Wai Drainage Improvements, Stage 1, Phase 2B – Cheung Chun San Tsuen and Kam Tsin Wai

Response to IEC's comments on KT15 1st Monthly EM&A Report (Revision 2) [Received e-mail on 13 Aug 2007 19:46]

No.	Section / Paragraph	Comments	Ref.	Response to Comments
1	3.05	Please note that water quality monitoring should be conducted at two location W9A & W9B twice a week., please revise	EM&A Manual Section 6.6.2	Noted.
2	Appendix E	Calibration of the HVS should be performed at bi-monthly intervals, please provide valid certificate	N/A	Noted.
3	General	Typo 4.05 It should be "a total of 1 monitoring event"	N/A	Noted.