JOB NO.: TCS00371/07

REVISION NO.: 2

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

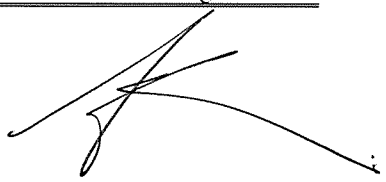
KT15 - MONTHLY EM&A REPORT FOR MARCH 2009 (NO. 21)

PREPARED FOR

CHIT CHEUNG CONSTRUCTION COMPANY LIMITED

Quality Index

Date	Reference No.	Prepared By	Certified By
20 April 2009	TCS00371/07/600/R1247r2	-	Ken Wong



- Environmental Team Leader

Rev. No.	Date	Remarks
1	02 Apr 2009	First Submission
2	20 Apr 2009	Response to IEC's comments received on 03 April 2009 via e-mail.

EXECUTIVE SUMMARY

ES01. 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.

ES02. 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).

ES03. 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.

ES04. This Monthly EM&A Report for **March 2009 (No. 21)** is present the environmental impact monitoring and audit (EM&A) results of the project EM&A program for the reporting month **March 2009** during the period from **26 February 2009 to 25 March 2009**.

BREACH OF ACTION AND LIMIT (A/L) LEVELS

ES05. Dated and parameter of exceedance recorded in this reporting period are summaries in following table.

Monitoring	Parameters	Action Level	Limit Level
Air Quality	1-Hour TSP	-	-
	24-Hour TSP	-	-
Noise	Leq (30min) Daytime	-	-
Stream Water	Dissolve Oxygen (DO)	-	-
	Turbidity (NTU)	-	-
	pH	-	-
	Suspended Solids (SS)	-	-
	Ammonia Nitrogen	-	-
	Zinc	-	-
Ecology	Number of species of wetland birds	-	24 Mar 09
	Total number of wetland birds	-	24 Mar 09

Note: According to the EM&A Manual S7.5.1(b), fauna monitoring only undertaken during wet seasons (April to July)

COMPLAINTS LOG

ES06. No environmental complaint was received in this reporting period.

NOTIFICATIONS OF ANY SUMMONS AND SUCCESSFUL PROSECUTIONS

ES07. There was no environmental summons or successful prosecution was recorded in this reporting period.

REPORTING CHANGES

ES08. There are no changes to be reported in this reporting period.

FUTURE KEY ISSUES

ES09. Construction activities to be undertaken in **April 2009** included construction and excavation works, stream diversion, tree protection and tree transplanting works, carrying out joined survey, utilities companies liaison, dumping activities and gabion installation. Potential environmental impacts for this project generally include air quality, noise, ecology, 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

ES10. A summary of the monitoring activities in this reporting period is listed below: -

• 1-Hour TSP Monitoring	**15**	Events
• 24-Hour TSP Monitoring	**5**	Events
• Noise Monitoring	**5**	Events
• Stream Water Quality	**14**	Events
• Ecology (Fauna)	**1**	Event
• Site Inspection Audit	**4**	Times

AIR QUALITY

ES11. No 1-Hour and 24-Hour TSP monitoring results trigger the Action or Limit Level was recorded in this reporting period.

CONSTRUCTION NOISE

ES12. No construction noise complaint (Action Level) was received and no construction noise monitoring exceeded the Limit Level was recorded in this reporting period.

STREAM WATER QUALITY

ES13. No stream water quality monitoring result trigger the Action or Limit Level was recorded in this reporting period.

ECOLOGY (FAUNA)

ES14. Non-compliance with the ecological criteria was found during the monitoring month on 24 March 2009. No intrusions of construction activities into the wetland areas nor adverse impact was observed. Based on the findings in the pervious monthly monitoring, the non-compliance in wetland dependent bird or fauna was not caused by the project.

SUMMARY OF MONITORING EXCEEDANCES

ES15. A summary of monitoring exceedances during the reporting period for air quality, construction noise, stream water quality and ecology (fauna) monitoring are presented below:-

Monitoring	Parameters	Work-Related Exceedance %	Investigation & Corrective Actions
Air Quality	1-Hour TSP	0	Not Required for 0% Project Related Exceedance
	24-Hour TSP	0	Not Required for 0% Project Related Exceedance
Noise	Leq (30min) Daytime	0	Not Required for 0% Project Related Exceedance
Stream Water	Dissolve Oxygen (DO)	0	Not Required for 0% Project Related Exceedance
	Turbidity (NTU)	0	Not Required for 0% Project Related Exceedance
	pH	0	Not Required for 0% Project Related Exceedance
	Suspended Solids (SS)	0	Not Required for 0% Project Related Exceedance
	Ammonia Nitrogen	0	Not Required for 0% Project Related Exceedance
	Zinc	0	Not Required for 0% Project Related Exceedance
Ecology	Decrease in number of species of wetland birds of conservation importance from baseline.	0	Not Required for 0% Project Related Exceedance
	Decrease in the total number of wetland birds of conservation importance from baseline.	0	Not Required for 0% Project Related Exceedance

Note: According to the Project Profile Secondary Channels KT14 & KT15 Attachment 4 EM&A Manual Section 7.5.1 (b), fauna monitoring only undertaken in wet seasons (April to July) in monthly basis.

SITE INSPECTION BY EXTERNAL PARTIES

ES16. No site visit or inspection carried out by Environmental Protection Department in this reporting period.

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LIST OF APPENDICES

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. Location plan of the project site is presented in **Appendix A** and the 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 0.8 km 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 **March 2009** during the period from **26 February 2009 to 25 March 2009**.

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:-

- Construction and excavation works;
- Dumping activities;
- Sheet pile driving;
- Tree protection and tree transplanting works;
- Utilities companies liaison;
- Carrying out joined survey; and
- Gabion Installation.

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

Items	Item Description	License/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 locations (W9A and W9B) twice per week. Dissolved Oxygen (DO), pH and 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 through the year and other faunal groups (reptiles, amphibians, dragonflies and butterflies) are conducted monthly in wet season (April to July inclusive) only. Photographic record should be made at six month intervals.

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

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

Monitoring Station	Action Level ($\mu g/m^3$)		Limit Level ($\mu g/m^3$)	
	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)		
Action Level	NA	> 73.5*
Limit Level	NA	> 78.2**
pH		
Action Level	NA	> 7.0*
Limit Level	NA	> 7.1**
Suspended Solids (mg/L)		
Action Level	NA	> 148*
Limit Level	NA	> 159**
Ammonia Nitrogen (mg/L)		
Action Level	NA	> 30.91*
Limit Level	NA	> 32.20**
Zinc (μg/L)		
Action Level	NA	> 242*
Limit Level	NA	> 252**

Note: # Act as Control Station for Impact Stream Water Quality Monitoring.
* Alternative Action Level is 120% of upstream control station of same day.
** Alternative Limit Level is 130% of upstream control station of same day.

Table 3-5 Action and Limit Levels for Ecology Monitoring

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

3.08 The Event/Action Plan of air quality, construction noise, stream water quality and ecology monitoring 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 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, Construction 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 extracted 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 **15** 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 of **5** monitoring events were carried out in this reporting period.

NOISE MONITORING

4.05 Impact noise monitoring was undertaken at location N10a once per week. Total of **5** monitoring events were carried out in this reporting period.

STREAM WATER QUALITY MONITORING

4.06 The stream water quality monitoring was undertaken at two locations W9A & W9B twice per week. Total of **14** monitoring events were carried out in this reporting period.

ECOLOGY MONITORING

4.07 Bird survey should be conducted in monthly throughout the year and other faunal groups (reptiles, amphibians, dragonflies and butterflies) are conducted monthly in wet season (April to July inclusive) in the seasonal wetland area. Photographic record should be made at six monthly intervals.

MONITORING EQUIPMENT

4.08 Monitoring equipment used by the ET in EM&A program is presented in **Table 4-2**.

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 550A or YSI 85/10FT
DO	Thermometer & DO Meter	YSI 550A or YSI 85/10FT
pH	pH Meter	Hanna HI 98128 or 98107 or Extech Instruments, ExStik™ Model pH110
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 The 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 Measurement of 1-Hour TSP monitoring was taken by 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 extracted 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 (L_{eq}) 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 and associated acoustical calibrators in compliance with the International Electrotechnical Commission (IEC) Publication 651:1979 (Type 1) and 804:1985 (Type 1) specifications 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 (L_{eq}).

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°C 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.

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 20°C 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.

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.

Turbidity (NTU)

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.

Salinity

4.24 A portable salinometer capable of measuring salinity in percentage (g/L) will be used for in-situ measure the salinity of stream 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 4°C 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^{o}C as possible without being frozen. Samples collected will be delivered to the laboratory upon collection.

4.28 DO, water temperature, turbidity (NTU), 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 covers the seasonal wetland area as shown in Project Profile of KT15 Figures ATT 4-7.2.

Survey Method

4.30 Monthly monitoring was 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 were checked and reported if any.

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

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

4.33 Fauna monitoring is 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 is monthly, and the surveys 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 magnifications; 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 acoustical 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 acoustical 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 stream water quality monitoring instruments are calibrated and certified by a laboratory accredited under HOKLAS or any other international accreditation scheme at 3 monthly intervals throughout all monitoring stages.

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 was 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 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 monitoring was carried out by the ET in compliance with the project specific EM&A Manual. The impact monitoring schedules are shown in **Appendix G** and the monitoring results are present in the following sub-sections.

AIR QUALITY

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

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)
2-Mar-09	09:28	201	206	208	> 307	> 500
7-Mar-09	09:27	69	73	72	> 307	> 500
13-Mar-09	09:26	85	89	92	> 307	> 500
19-Mar-09	09:23	116	120	122	> 307	> 500
25-Mar-09	09:21	123	127	126	> 307	> 500

Note: Bold and italic is exceed the Action Level.
Bold and underline is exceed 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)
28-Feb-09	35	> 165	> 260
6-Mar-09	26	> 165	> 260
12-Mar-09	26	> 165	> 260
18-Mar-09	32	> 165	> 260
24-Mar-09	45	> 165	> 260

Note: Bold and italic is exceed the Action Level.
Bold and underline is exceed the Limit Level

5.03 No 1-Hour and 24-Hour TSP monitoring results trigger the Action or Limit Level 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 past four month monitoring results are shown 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
2-Mar-09	09:47	48.0	47.9	47.3	46.1	44.9	46.2	46.9
7-Mar-09	09:46	45.9	46.5	46.1	47.3	48.2	46.0	46.8
13-Mar-09	09:43	54.7	55.4	55.0	56.1	54.7	55.6	55.3
19-Mar-09	09:53	53.5	54.7	52.4	53.6	53.0	52.8	53.4
25-Mar-09	09:51	48.1	47.0	46.5	46.6	47.9	47.3	47.3
Limit Level		-						**> 75 dB(A)**

5.06 No construction noise complaint (Action Level) was received and all noise level below the Limit Level in this reporting period.

STREAM WATER QUALITY

5.07 No stream water quality monitoring result trigger the Action or Limit Level was recorded in this reporting period. The impact monitoring schedules are shown in **Appendix G**.

5.08 The stream water quality monitoring results are summarized in **Table 5-4** and graphical plots 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
2-Mar-09	2.5	3.2	215.0	41.8	7.0	6.9	339.0	39.0	313.00	20.40	1690	97
5-Mar-09	4.1	4.0	20.4	19.3	6.9	6.9	444.0	165.0	5.19	5.97	166	78
9-Mar-09	3.2	4.0	67.4	34.5	7.2	6.8	17.0	45.0	42.20	14.50	113	140
12-Mar-09	4.4	4.6	13.7	13.4	6.9	7.0	3.0	5.0	5.58	5.72	12	16
16-Mar-09	3.3	4.3	173.5	34.2	6.9	6.9	300.0	42.0	430.00	41.80	1490	161
19-Mar-09	3.6	3.7	21.0	18.6	7.0	7.1	1300.0	1290.0	0.08	0.19	21	14
23-Mar-09	3.7	4.1	41.5	48.2	7.1	6.9	74.0	48.0	82.60	0.17	319	32
Action Level	-	< 0.3*	-	> 73.5*	-	> 7.0*	-	> 148*	-	> 30.91*	-	> 242*
Limit Level	-	< 0.2**	-	> 78.2**	-	> 7.1**	-	> 159**	-	> 32.20**	-	> 252**

Notes: # Act as Control Station for the Impact Water Quality Monitoring.
Bold and italic is exceed the Action Level.
Bold and underline is exceed the Limit Level
* Alternative Action Level is 120% of upstream control station of same day.
** Alternative Limit Level is 130% of upstream control station of same day.

ECOLOGY

5.09 45 individuals of birds from 18 species were recorded during the survey for the present monthly monitoring on 24 March 2009. Among the birds recorded, no individual from any wetland bird species with abundance from the baseline (i.e. Cattle Egret and Chinese Pond Heron) was recorded. Compared with the average abundance of 1.2 individuals from 2 species of wetland dependent birds recorded during the baseline study for the KT15 Project Profile, the species number and individual number of wetland dependent bird recorded fell within the Limit Level for the monitoring requirements for ecology (i.e. decrease in the number of species or individuals > 40% from the baseline).

5.10 No intrusions of construction activities into the wetland areas nor adverse impact on the wetlands was found. Based on the findings in the pervious monthly monitoring, the non-compliance in wetland dependent bird species and individual number was not caused by the project.

5.11 From the EM&A Manual Section 7.5.1(b), fauna survey is required during wet season (i.e. April to July) and thus no fauna undertaken in this reporting period.

5.12 Photographic records are scheduled in six-month intervals, and the last photographic record was undertaken at **December 2008.** Thus no photographic records need undertaken in this report period. The next photographic record is schedule at **June 2009**.

5.13 The ecology impact monitoring results are presented in **Table 5-5**.

Table 5-5 Summary of Ecology Impact Monitoring Surveys Bird Survey

Scientific Name	Common Name	Abundance reported in the project profile	Abundance recorded in the present survey (24 Mar 09)
Birds			
Bubulcus ibis	**Cattle Egret**	**0.4**	
Ardeola bacchus	**Chinese Pond Heron**	**0.8**	
Amaurornis phoenicurus	White-breasted Waterhen	Recorded only	
Streptopelia chinensis	Spotted Dove	Recorded only	3
Hirundo rustica	Barn Swallow	Recorded only	2
Motacilla alba	White Wagtail	Recorded only	2
Pycnonotus jocosus	Red-whiskered Bulbul	Recorded only	4
Pycnonotus sinesis	Chinese Bulbul	Recorded only	1
Lanius schach	Long-tailed Shrike	Recorded only	
Copsychus saularis	Oriental Magpie Robin	Recorded only	2
Orthotomus sutorius	Common Tailorbird	Recorded only	1
Lonchura striata	White-rumped Munia	Recorded only	
Passer montanus	Eurasian Tree Sparrow	Recorded only	3
Sturnus nigricollis	Black-collared Starling	Recorded only	3
Acridotheres cristatellus	Crested Myna	Recorded only	2
Prinia flaviventris	Yellow-bellied Prinia	\	1
Eudynamis scolopacea	Common Koel	\	1
Halcyon smyrnensis	White-throated Kingfisher	\	
Garrulax perspicillatus	Masked Laughingthrush	\	6
Zosterops japonica	Japanese White Eye	\	5
Lonchura punctulata	Scaly-breasted Munia	\	5
Egretta garzetta	Little Egret	\	
Anthus hodgsoni	Olive-backed Pipit	\	1
Phylloscopus subaffinis	Dusky Warbler	\	1
Phylloscopus inornatus	Yellow-Browed Warbler	\	
Parus major	Great Tit	\	2
Prinia inornata	Plain Prinia	\	
Sturnus sericeus	Red-billied Starling		
Centropus bengalensis	Lesser Coucal	\	
Centropus sinensis	Greater Coucal	\	
Tringa glareola	Wood Sandpiper	\	
Motacilla citreola	Grey Wagtail	\	
Species Number		**15 spp. recorded, (only 2 species of wetland birds with abundance)**	**18 spp. (0 sp. from the wetland birds with abundance in the baseline)**
Individual Number		**1.2 (from the 2 species of wetland birds with abundance)**	**45 (0 from the wetland birds with abundance in the baseline)**

Note: * Wetland dependent species recorded with abundance during the baseline study with the names bolded

6.0 WASTE MANAGEMENT

6.01 The waste management was implemented 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;
- General Refuse; and
- Excavated Soil.

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	Tuen Mun Area 38

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 (m^3)	0	NENT Landfill

6.04 The quantities of excavation soil for marine disposal in this reporting period are summarized in **Table 6-3**.

Table 6-3 Summary of Excavated Soil for Marine Disposal

Type of Waste	Location	Date	Total	Disposal Location
Type 1 Materials (m^3)	-	-	-	East Sha Chau (Pitch 4a & 4b)
Type 2 Materials (m^3)	-	-	-	East Sha Chau (Pitch 4c)

7.0 SITE INSPECTION

7.01 According to the EM&A Manual Section 9.1.2, the environmental weekly site inspection should been formulation by ET Leader. ET had carried out the environmental weekly site inspection on **05, 12, 20 and 24 March 2009** with the Representatives of the Engineer and the Contractor to evaluate the site environmental performance in this reporting period. The IEC monthly site audit was conducted on **20 March 2009** by IEC's representative with the Engineer's, the Contractor's and ET's representative. No non-compliance and **eight** observations were noted.

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

- Unused timber scattered on-site was observed at CH380, the Contractor was reminded to tidy up and temporary store in designated location;
- Stagnant water accumulated on-site was observed at CH130, the Contractor was reminded to clear in regular basis;
- C&D waste accumulated on-site was observed at CH340, the Contractor was reminded to tidy up the C&D wastes and dispose off in regular basis;
- C&D wastes scattered on-site was observed at Bay 1-7 & 30-32, the contractor was reminded to dispose off in regular frequency and maintain the site tidy;
- Wheel wash water accumulated at the Kam Sheung Road site exit was observed, the Contractor was reminded to clear as necessary;
- Housekeeping at Bay 1-7 & 30-32 should be improved and construction wastes and general refuse should be removed regularly. General refuse at watercourse at Bay 30 should also be cleared;
- Stagnant water accumulated was observed at site boundary at Kam Tsuen Road. The Contractor was reminded to clear the stagnant water; and
- General refuse outside site boundary should be cleared and the Contractor should prevent wastes getting into area outside site boundary.

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

7.04 No site visit or inspection carried out by Environmental Protection Department in this reporting period.

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. Statistical summaries environmental complaint, summon and prosecution are presented in **Tables 8-1**, **8-2** and **8-3**.

Table 8-1 Statistical Summary of Environmental Complaints

Reporting Period	Environmental Complaint Statistics		
	Frequency	Cumulative	Complaint Nature
July – December 2007	0	0	NA
January – December 2008	0	0	NA
January – February 2009	0	0	NA
March 2009	0	0	NA

Table 8-2 Statistical Summary of Environmental Summons

Reporting Period	Environmental Summons Statistics		
	Frequency	Cumulative	Nature
July – December 2007	0	0	NA
January – December 2008	0	0	NA
January – February 2009	0	0	NA
March 2009	0	0	NA

Table 8-3 Statistical Summary of Environmental Prosecution

Reporting Period	Environmental Prosecution Statistics		
	Frequency	Cumulative	Nature
July – December 2007	0	0	NA
January – December 2008	0	0	NA
January – February 2009	0	0	NA
March 2009	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 minimize 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 prohibited;
- 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 **March 2009** 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 in **Table 11-1**.

Table 11-1 Summary of the Exceedances for Impact Monitoring

Monitoring	Parameters	Work-Related Exceedance %	Investigation & Corrective Actions
Air Quality	1-Hour TSP	0	Not Required for 0% Project Related Exceedance
	24-Hour TSP	0	Not Required for 0% Project Related Exceedance
Noise	Leq (30min) Daytime	0	Not Required for 0% Project Related Exceedance
Stream Water	Dissolve Oxygen (DO)	0	Not Required for 0% Project Related Exceedance
	Turbidity (NTU)	0	Not Required for 0% Project Related Exceedance
	pH	0	Not Required for 0% Project Related Exceedance
	Suspended Solids (SS)	0	Not Required for 0% Project Related Exceedance
	Ammonia Nitrogen	0	Not Required for 0% Project Related Exceedance
	Zinc	0	Not Required for 0% Project Related Exceedance
Ecology	Decrease in number of species of wetland birds of conservation importance from baseline.	0	Not Required for 0% Project Related Exceedance
	Decrease in the total number of wetland birds of conservation importance from baseline.	0	Not Required for 0% Project Related Exceedance

Note: According to the EM&A Manual S7.5.1(b), fauna monitoring only undertaken during wet seasons (April to July)

11.02 No 1-Hour and 24-Hour TSP monitoring results trigger the Action or Limit Level was recorded in this reporting period.

11.03 No construction noise complaint (Action Level) was received and no monitoring noise level above the Limit Level was recorded in this reporting period.

11.04 No stream water quality monitoring result trigger the Action or Limit Level was recorded in this reporting period.

11.05 Non-compliance with the ecological criteria was found during the monitoring on 24 March 2009. No intrusions of construction activities into the wetland areas nor adverse impact was observed. Based on the findings in the pervious monthly monitoring, the non-compliance in wetland dependent bird or fauna was not caused by the project.

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

RECOMMENDATIONS

11.07 Based on the ET environmental weekly site inspection and IEC monthly site audit records on **05, 12, 20 and 24 March 2009**, no non-compliance and **eight** observations were recorded. Details of the observations as follows:-

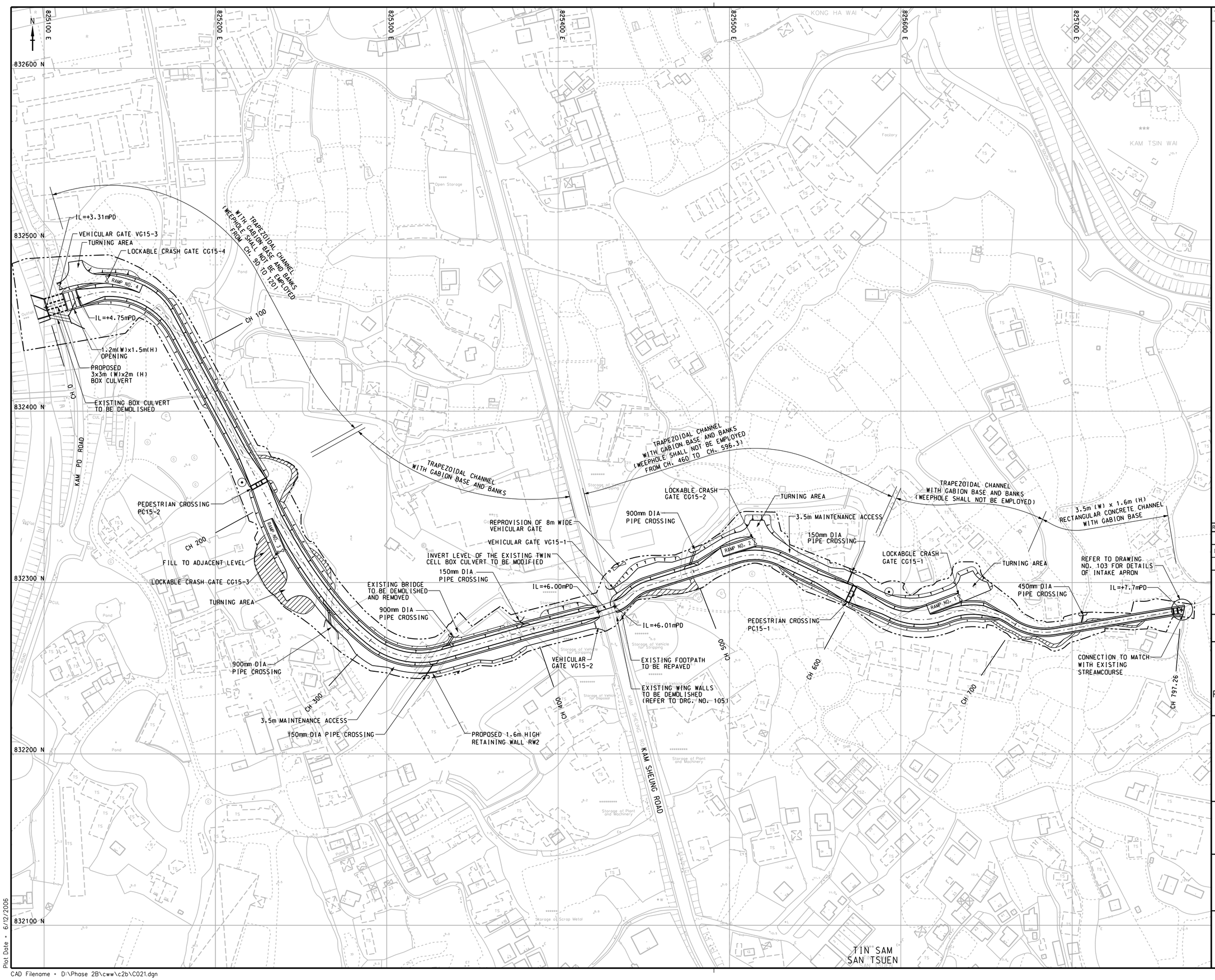
- Unused timber scattered on-site was observed at CH380, the Contractor was reminded to tidy up and temporary store in designated location;
- Stagnant water accumulated on-site was observed at CH130, the Contractor was reminded to clear in regular basis;
- C&D waste accumulated on-site was observed at CH340, the Contractor was reminded to tidy up the C&D wastes and dispose off in regular basis;
- C&D wastes scattered on-site was observed at Bay 1-7 & 30-32, the contractor was reminded to dispose off in regular frequency and maintain the site tidy;
- Wheel wash water accumulated at the Kam Sheung Road site exit was observed, the Contractor was reminded to clear as necessary;
- Housekeeping at Bay 1-7 & 30-32 should be improved and construction wastes and general refuse should be removed regularly. General refuse at watercourse at Bay 30 should also be cleared;
- Stagnant water accumulated was observed at site boundary at Kam Tsuen Road. The Contractor was reminded to clear the stagnant water; and
- General refuse outside site boundary should be cleared and the Contractor should prevent wastes getting into area outside site boundary.

11.08 No site visit or inspection carried out by Environmental Protection Department in this reporting period.

11.09 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. 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

Drawing title

CHANNEL KT15
GENERAL LAYOUT PLAN

Drawing no.	Scale
021	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

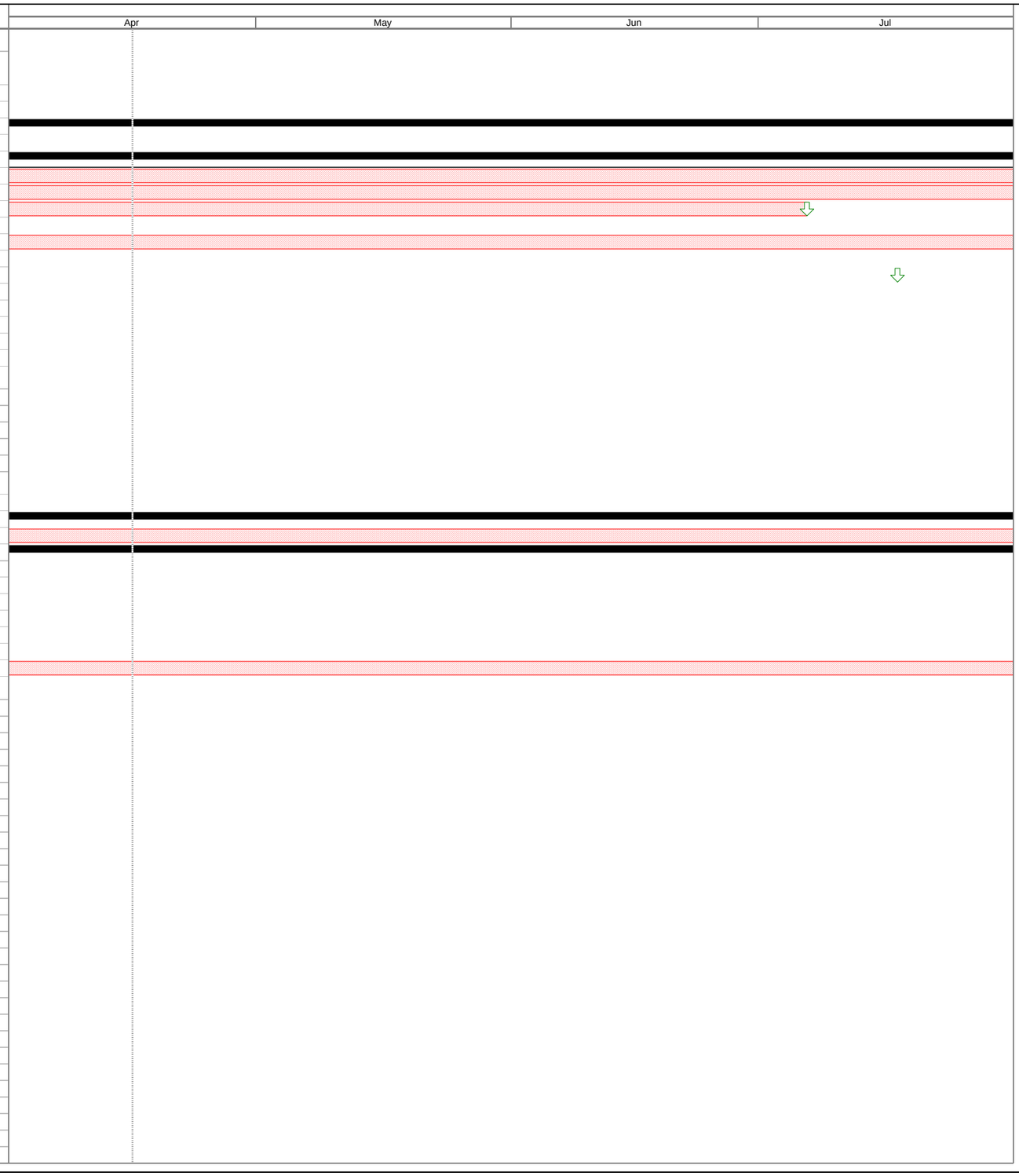
APPENDIX B

THREE-MONTH CONSTRUCTION PROGRAM

PROGRAMME OF WORKS - RP22
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 : APR 2009

ID	Task Name	Duration	Start	Finish	Predecessors
1	Letter of Acceptance	1 day	Wed 21/3/07	Wed 21/3/07	
2	Date for commencement of Works	1 day	Fri 30/3/07	Fri 30/3/07	
3	Execution of Article of Agreement	1 day	Tue 3/4/07	Tue 3/4/07	
4					
5	**Master Programme of the Works**	**902 days**	**Wed 21/3/07**	**Mon 7/9/09**	
6					
7	**Completion Dates**	**893 days**	**Fri 30/3/07**	**Mon 7/9/09**	
8	Section I - portions 1, 2 and 3	893 days	Fri 30/3/07	Mon 7/9/09	2SS
9	Section II - portions 4, 5 and 5C	893 days	Fri 30/3/07	Mon 7/9/09	2SS
10	Section III - portions 5A1, 5A2 and 5B	740 days	Thu 28/6/07	Mon 6/7/09	20FS-1 day
11	Section IV - temp vehicular access at portion 5A1	90 days	Thu 28/6/07	Tue 25/9/07	20FS-1 day
12	Section V - preservation and protection of existing trees	893 days	Fri 30/3/07	Mon 7/9/09	2SS
13					
14	**Possession of Site**	**200 days**	**Fri 30/3/07**	**Mon 15/10/07**	
15	Portion 1 - channel KT2	1 day	Fri 30/3/07	Fri 30/3/07	2SS
16	Portion 2 - channel KT2	61 days	Fri 30/3/07	Tue 29/5/07	2SS
17	Portion 3 - channel KT2	91 days	Fri 30/3/07	Thu 28/6/07	2SS
18	Portion 4 - channel KT15	1 day	Fri 30/3/07	Fri 30/3/07	2SS
19	Portion 5 - channel KT15	91 days	Fri 30/3/07	Thu 28/6/07	2SS
20	Portion 5A1 - channel KT15	91 days	Fri 30/3/07	Thu 28/6/07	2SS
21	Portion 5A2 - channel KT15	91 days	Fri 30/3/07	Thu 28/6/07	2SS
22	Portion 5B - channel KT15	20 days	Wed 26/9/07	Mon 15/10/07	11
23	Portion 5C - channel KT15	91 days	Fri 30/3/07	Thu 28/6/07	2SS
24	Portion 6 - Temp Storage Area at Chi Ho Road	1 day	Fri 30/3/07	Fri 30/3/07	2SS
25	Portion 7 - Berthing Area	1 day	Fri 30/3/07	Fri 30/3/07	2SS
26	Portion 8 - Site Accommodation	1 day	Fri 30/3/07	Fri 30/3/07	2SS
27					
28	**A. Preliminary Works**	**902 days**	**Wed 21/3/07**	**Mon 7/9/09**	
29	**1. Setting out of Works**	**893 days**	**Fri 30/3/07**	**Mon 7/9/09**	**2SS**
30	**2. Environmental Monitoring and Audit**	**893 days**	**Fri 30/3/07**	**Mon 7/9/09**	
31	2.1 Establishment of Environmental Team	14 days	Fri 30/3/07	Thu 12/4/07	8SS
32	2.2 approval by the Engineer	7 days	Fri 13/4/07	Thu 19/4/07	31
33	2.3 Environmental baseline monitoring	77 days	Fri 20/4/07	Thu 5/7/07	
34	a. Technical proposal & methodology	7 days	Fri 20/4/07	Thu 26/4/07	32
35	b. Approval by the Engineer	7 days	Fri 27/4/07	Thu 3/5/07	34
36	c. Baseline monitoring	63 days	Fri 4/5/07	Thu 5/7/07	35
37	2.4 Environmental impact monitoring and audit	777 days	Tue 24/7/07	Mon 7/9/09	36,8FF
38	**3. Environmental Management and Environmental Management Plan**	**73 days**	**Fri 30/3/07**	**Sun 10/6/07**	
39	3.1 Submission of draft EMP	21 days	Fri 30/3/07	Thu 19/4/07	2SS
40	3.2 Comment from the Engineer	7 days	Fri 20/4/07	Thu 26/4/07	39
41	3.3 Submission of EMP	45 days	Fri 27/4/07	Sun 10/6/07	40
42	**4. Engineer's Accommodation**	**51 days**	**Fri 30/3/07**	**Sat 19/5/07**	
43	4.1 Renovation	30 days	Fri 30/3/07	Sat 28/4/07	26SS
44	4.2 Equipment	51 days	Fri 30/3/07	Sat 19/5/07	
45	a. Contract telephone	21 days	Fri 30/3/07	Thu 19/4/07	26SS
46	b. Survey equipment	45 days	Fri 30/3/07	Sun 13/5/07	26SS
47	c. Contract computer facilities	**51 days**	**Fri 30/3/07**	**Sat 19/5/07**	
48	submission	14 days	Fri 30/3/07	Thu 12/4/07	26SS
49	approval	7 days	Fri 13/4/07	Thu 19/4/07	48
50	installation	21 days	Sun 22/4/07	Sat 12/5/07	49,43FS-7 days
51	testing & commissioning	7 days	Sun 13/5/07	Sat 19/5/07	50
52	4.3 utilities servicing	33 days	Fri 30/3/07	Tue 1/5/07	
53	a. Water	1 day	Fri 30/3/07	Fri 30/3/07	26SS
54	b. Electricity	1 day	Fri 30/3/07	Fri 30/3/07	26SS
55	c. Telephone	**33 days**	**Fri 30/3/07**	**Tue 1/5/07**	
56	temporary service	32 days	Fri 30/3/07	Mon 30/4/07	26SS
57	new service	**19 days**	**Fri 13/4/07**	**Tue 1/5/07**	
58	application	5 days	Fri 13/4/07	Tue 17/4/07	56SS+14 days
59	installation	14 days	Wed 18/4/07	Tue 1/5/07	58
60	d. Facsimile	**33 days**	**Fri 30/3/07**	**Tue 1/5/07**	
61	temporary service	32 days	Fri 30/3/07	Mon 30/4/07	26SS
62	new service	**19 days**	**Fri 13/4/07**	**Tue 1/5/07**	
63	application	5 days	Fri 13/4/07	Tue 17/4/07	61SS+14 days
64	installation	14 days	Wed 18/4/07	Tue 1/5/07	63
65	e. Internet broadband	**33 days**	**Fri 30/3/07**	**Tue 1/5/07**	
66	temporary service (56K)	32 days	Fri 30/3/07	Mon 30/4/07	26SS

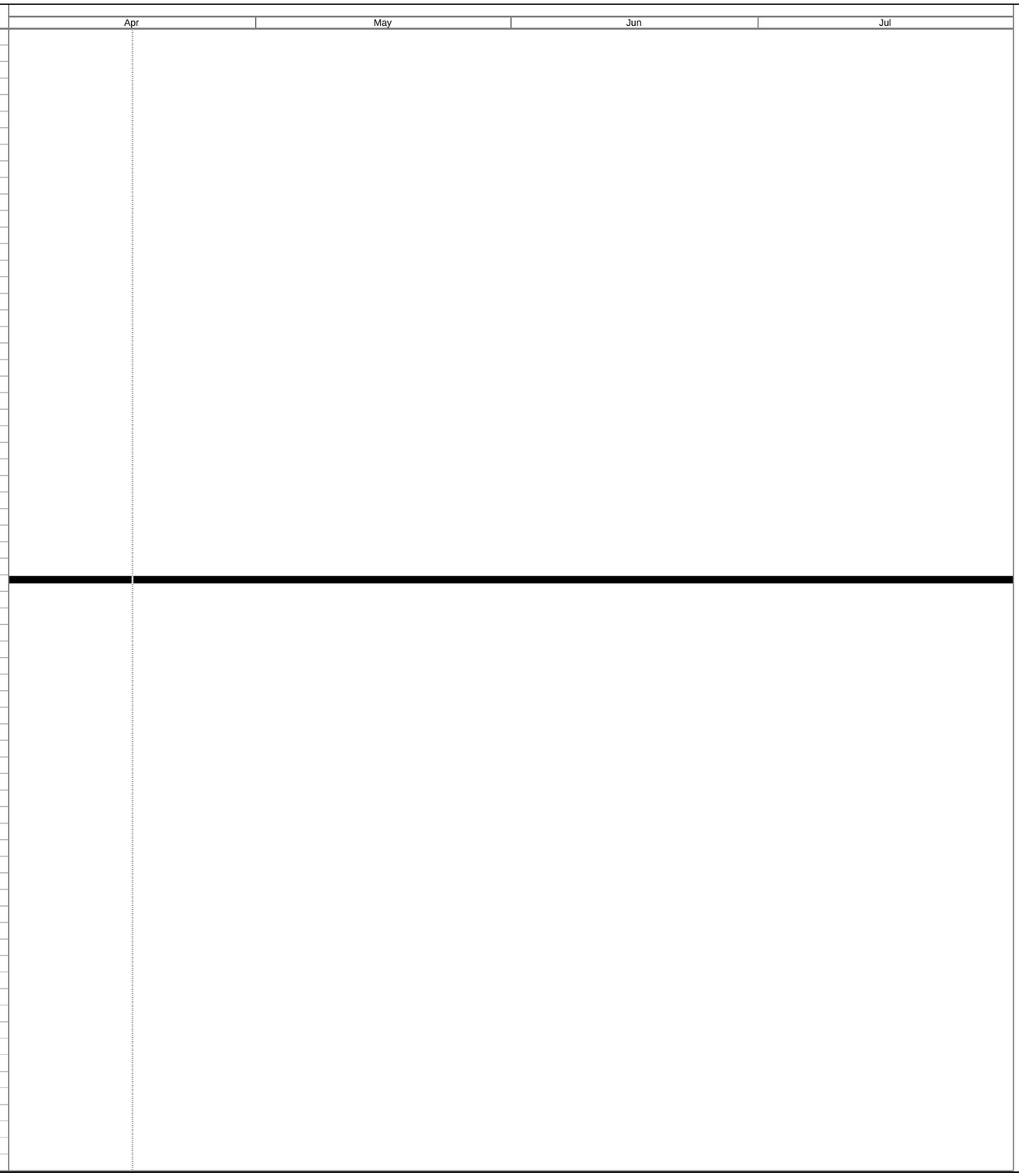


Task | Progress | Summary | Rolled Up Critical Task | Rolled Up Progress | External Tasks | Group By Summary
Critical Task | Milestone | Rolled Up Task | Rolled Up Milestone | Split | Project Summary | Deadline

PROGRAMME OF WORKS - RP22
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 : APR 2009

ID	Task Name	Duration	Start	Finish	Predecessors
67	new service	**19 days**	**Fri 13/4/07**	**Tue 1/5/07**	
68	application	5 days	Fri 13/4/07	Tue 17/4/07	66SS+14 days
69	installation	14 days	Wed 18/4/07	Tue 1/5/07	68
70	**5. Contractor's Accommodation**	**45 days**	**Fri 30/3/07**	**Sun 13/5/07**	
71	5.1 Provision	45 days	Fri 30/3/07	Sun 13/5/07	
72	a. Premises	45 days	Fri 30/3/07	Sun 13/5/07	26SS
73	b. Toilet facilities	21 days	Mon 23/4/07	Sun 13/5/07	72FF
74	c. Telephone service	30 days	Sat 14/4/07	Sun 13/5/07	72FF
75	d. Fascimile service	30 days	Sat 14/4/07	Sun 13/5/07	72FF
76	e. Internet broadband service	30 days	Sat 14/4/07	Sun 13/5/07	72FF
77	f. Water	1 day	Fri 30/3/07	Fri 30/3/07	26SS
78	g. electricity	1 day	Fri 30/3/07	Fri 30/3/07	26SS
79	**6. Transport (land) for the Engineer**	**124 days**	**Fri 30/3/07**	**Tue 31/7/07**	
80	6.1 submission	7 days	Fri 30/3/07	Thu 5/4/07	2SS
81	6.2 comment & approval	14 days	Fri 6/4/07	Thu 19/4/07	80
82	6.3 delivery	103 days	Fri 20/4/07	Tue 31/7/07	81
83	6.4 temp service	124 days	Fri 30/3/07	Tue 31/7/07	2SS,82FF
84	**7. Transport (land) for Public Works Regional Laboratory**	**124 days**	**Fri 30/3/07**	**Tue 31/7/07**	
85	7.1 submission	7 days	Fri 30/3/07	Thu 5/4/07	2SS
86	7.2 comment, approval & instruction	14 days	Fri 6/4/07	Thu 19/4/07	85
87	7.3 delivery	103 days	Fri 20/4/07	Tue 31/7/07	86
88	**8. Signboard**	**150 days**	**Fri 30/3/07**	**Sun 26/8/07**	
89	8.1 Major	150 days	Fri 30/3/07	Sun 26/8/07	
90	submission	90 days	Fri 30/3/07	Wed 27/6/07	2SS
91	comment & approval	90 days	Sun 29/4/07	Fri 27/7/07	90SS+30 days
92	erection	90 days	Tue 29/5/07	Sun 26/8/07	91SS+30 days
93	8.2 Minor	150 days	Fri 30/3/07	Sun 26/8/07	
94	submission	90 days	Fri 30/3/07	Wed 27/6/07	2SS
95	comment & approval	90 days	Sun 29/4/07	Fri 27/7/07	94SS+30 days
96	erection	90 days	Tue 29/5/07	Sun 26/8/07	95SS+30 days
97	**9. Telephone hotline**	**15 days**	**Sun 29/4/07**	**Sun 13/5/07**	
98	9.1 Engineer's instruction	1 day	Sun 29/4/07	Mon 30/4/07	99SF
99	9.2 installation	14 days	Mon 30/4/07	Sun 13/5/07	74FF
100	**10. Contractual general submissions**	**902 days**	**Wed 21/3/07**	**Mon 7/9/09**	
101	10.1 programmes	28 days	Wed 21/3/07	Tue 17/4/07	
102	a. GCC Clause 16 programme	14 days	Wed 21/3/07	Tue 3/4/07	1SS
103	b. Works programme & financial programme	14 days	Wed 4/4/07	Tue 17/4/07	102
104	c. 3-month rolling programme	14 days	Wed 4/4/07	Tue 17/4/07	102
105	10.2 contractor's superintendence	14 days	Fri 30/3/07	Thu 12/4/07	
106	a. Agent	7 days	Fri 30/3/07	Thu 5/4/07	2SS
107	b. Surveyor	14 days	Fri 30/3/07	Thu 12/4/07	2SS
108	c. Sub-agent	14 days	Fri 30/3/07	Thu 12/4/07	2SS
109	d. Geotechnical Engineer	7 days	Fri 30/3/07	Thu 5/4/07	2SS
110	e. Geotechnical Supervisor	14 days	Fri 30/3/07	Thu 12/4/07	2SS
111	f. Foreman - concrete	14 days	Fri 30/3/07	Thu 12/4/07	2SS
112	g. Foreman - drainage	14 days	Fri 30/3/07	Thu 12/4/07	2SS
113	h. Staff Organization Plan	14 days	Fri 30/3/07	Thu 12/4/07	2SS
114	10.3 Safety Organization	14 days	Fri 30/3/07	Thu 12/4/07	
115	a. Safety Officer	14 days	Fri 30/3/07	Thu 12/4/07	2SS
116	b. Safety Supervisor	14 days	Fri 30/3/07	Thu 12/4/07	2SS
117	c. Safety Representative	14 days	Fri 30/3/07	Thu 12/4/07	2SS
118	10.4 TTMS design	7 days	Fri 30/3/07	Thu 5/4/07	
119	a. Independent Traffic Consultant	7 days	Fri 30/3/07	Thu 5/4/07	2SS
120	b. Traffic Engineer	7 days	Fri 30/3/07	Thu 5/4/07	2SS
121	10.5 Assistant to Engineer	33 days	Fri 30/3/07	Tue 1/5/07	
122	a. Chainmen (4)	33 days	Fri 30/3/07	Tue 1/5/07	2SS
123	b. Watchmen (2)	33 days	Fri 30/3/07	Tue 1/5/07	2SS
124	c. Field assistant (1)	33 days	Fri 30/3/07	Tue 1/5/07	2SS
125	d. Technical assistant (1)	33 days	Fri 30/3/07	Tue 1/5/07	2SS
126	e. Clerical assistant (1)	33 days	Fri 30/3/07	Tue 1/5/07	2SS
127	f. Office assistant (1)	33 days	Fri 30/3/07	Tue 1/5/07	2SS
128	10.6 Underground service detection equipment	35 days	Fri 30/3/07	Thu 3/5/07	
129	a. Submission	7 days	Fri 30/3/07	Thu 5/4/07	2SS
130	b. Comment & approval	14 days	Fri 6/4/07	Thu 19/4/07	129
131	c. Provision	14 days	Fri 20/4/07	Thu 3/5/07	130
132	10.7 Independent Checking of Temporary Works	28 days	Fri 30/3/07	Thu 26/4/07	
133	a. Submission of independent checking engineer	14 days	Fri 30/3/07	Thu 12/4/07	2SS
134	b. Comment & approval	14 days	Fri 13/4/07	Thu 26/4/07	133
135	10.8 Trip ticket system for C & D material	59 days	Fri 30/3/07	Sun 27/5/07	

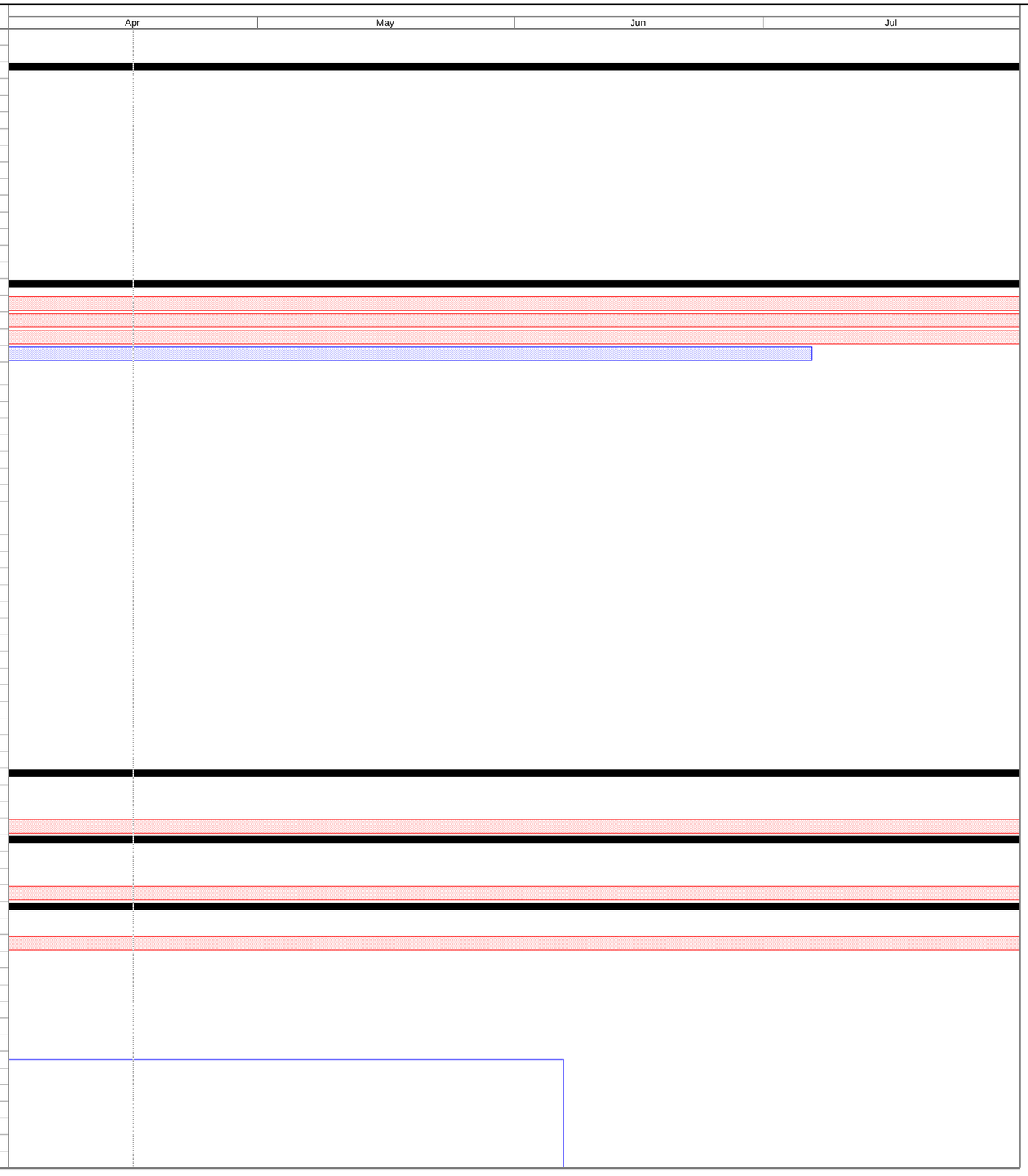


Task | Progress | Summary | Rolled Up Critical Task | Rolled Up Progress | External Tasks | Group By Summary
Critical Task | Milestone | Rolled Up Task | Rolled Up Milestone | Split | Project Summary | Deadline

PROGRAMME OF WORKS - RP22
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 : APR 2009

ID	Task Name	Duration	Start	Finish	Predecessors
136	a. Submission of site management plan	45 days	Fri 30/3/07	Sun 13/5/07	2SS
137	b. Comment & approval	14 days	Mon 14/5/07	Sun 27/5/07	136
138	10.9. Condition survey and structral monitoring	893 days	Fri 30/3/07	Mon 7/9/09	
139	a. Submission of Independent Structural Engineer	14 days	Fri 30/3/07	Thu 12/4/07	2SS
140	b. Comment & approval	7 days	Fri 13/4/07	Thu 19/4/07	139
141	c. Proposal for condition survey & structural monitoring	209 days	Fri 20/4/07	Wed 14/11/07	
142	Portion 1, 4, 6, 7, 8	30 days	Fri 20/4/07	Sat 19/5/07	140
143	Portion 2	30 days	Wed 30/5/07	Thu 28/6/07	16
144	Portion 3, 5	30 days	Fri 29/6/07	Sat 28/7/07	17,19,20,21
145	Portion 5A1, 5A2 and 5B	30 days	Tue 16/10/07	Wed 14/11/07	22
146	d. Comment & approval	193 days	Sun 20/5/07	Wed 28/11/07	
147	Portion 1, 4, 6, 7, 8	14 days	Sun 20/5/07	Sat 2/6/07	142
148	Portion 2	14 days	Fri 29/6/07	Thu 12/7/07	143
149	Portion 3, 5	14 days	Sun 29/7/07	Sat 11/8/07	144
150	Portion 5A1, 5A2 and 5B	14 days	Thu 15/11/07	Wed 28/11/07	145
151	e. Condition survey & structral monitoring	828 days	Sun 3/6/07	Mon 7/9/09	
152	Portion 1, 4, 6, 7, 8	828 days	Sun 3/6/07	Mon 7/9/09	147
153	Portion 2	788 days	Fri 13/7/07	Mon 7/9/09	148
154	Portion 3, 5	758 days	Sun 12/8/07	Mon 7/9/09	149
155	Portion 5A1, 5A2 and 5B	586 days	Thu 29/11/07	Mon 6/7/09	150
156	10.10 Handling & disposal of Type 1 & 2 contaminated materials	74 days	Sat 14/7/07	Tue 25/9/07	
157	a. Proposed type of dump truck	44 days	Sun 15/7/07	Mon 27/8/07	
158	Submission	30 days	Sun 15/7/07	Mon 13/8/07	832SS-44 days
159	Comment & approval	14 days	Tue 14/8/07	Mon 27/8/07	158
160	b. Proposal of berthing area arrangement	44 days	Mon 30/7/07	Tue 11/9/07	
161	Submission	30 days	Mon 30/7/07	Tue 28/8/07	
162	Comment & approval	14 days	Wed 29/8/07	Tue 11/9/07	161
163	c. Proposal of disposal arrangement	74 days	Sat 14/7/07	Tue 25/9/07	
164	Submission	60 days	Sat 14/7/07	Tue 11/9/07	
165	Comment & approval	14 days	Wed 12/9/07	Tue 25/9/07	164
166	10.11 Type 3 contaminated material	290 days	Fri 30/3/07	Sun 13/1/08	
167	a. Decontamination specialist	134 days	Fri 30/3/07	Fri 10/8/07	
168	Submission	120 days	Fri 30/3/07	Fri 27/7/07	2SS
169	Comment & approval	14 days	Sat 28/7/07	Fri 10/8/07	168
170	b. Statement & treatment programme	42 days	Sat 11/8/07	Fri 21/9/07	
171	(1) Submission	28 days	Sat 11/8/07	Fri 7/9/07	169
172	(2) Comment & approval	14 days	Sat 8/9/07	Fri 21/9/07	
173	by the Engineer	14 days	Sat 8/9/07	Fri 21/9/07	171
174	by the EPD	14 days	Sat 8/9/07	Fri 21/9/07	171
175	c. Setting up of Treatment Plant	60 days	Thu 15/11/07	Sun 13/1/08	174
176	10.12 Safety Plan	35 days	Wed 21/3/07	Tue 24/4/07	
177	a. Submission of draft Safety Plan	14 days	Wed 21/3/07	Tue 3/4/07	1SS
178	b. Comment by the Engineer	7 days	Wed 4/4/07	Tue 10/4/07	177
179	c. Submission of Safety Plan	14 days	Wed 11/4/07	Tue 24/4/07	178
180	10.13 Sub-contractor Management Plan	902 days	Wed 21/3/07	Mon 7/9/09	
181	a. Submission of SMP	30 days	Wed 21/3/07	Thu 19/4/07	1SS
182	b. For information & Comments	14 days	Fri 20/4/07	Thu 3/5/07	181
183	c. Update SMP	858 days	Fri 4/5/07	Mon 7/9/09	182
184	10.14 proof of plant ownership	893 days	Fri 30/3/07	Mon 7/9/09	
185	a. Submission of draft written undertaking	14 days	Fri 30/3/07	Thu 12/4/07	2SS
186	b. Comment by the Engineer / Employer	14 days	Fri 13/4/07	Thu 26/4/07	185
187	c. Engineer's request	865 days	Fri 27/4/07	Mon 7/9/09	186
188	10.15 Contractor's Management Team	893 days	Fri 30/3/07	Mon 7/9/09	
189	a. Submission of staff member details	14 days	Fri 30/3/07	Thu 12/4/07	2SS
190	b. Update management / site supervision team	879 days	Fri 13/4/07	Mon 7/9/09	189
191	10.16 Water supply pipeworks material	651 days	Wed 21/3/07	Tue 30/12/08	
192	a. Supplier	28 days	Wed 21/3/07	Tue 17/4/07	
193	Submission	14 days	Wed 21/3/07	Tue 3/4/07	1SS
194	comment & approval	14 days	Wed 4/4/07	Tue 17/4/07	193
195	b. Manufacturer	28 days	Wed 21/3/07	Tue 17/4/07	
196	Submission	14 days	Wed 21/3/07	Tue 3/4/07	1SS
197	comment & approval	14 days	Wed 4/4/07	Tue 17/4/07	196
198	c. Independent Inspection Agent (IIA)	28 days	Wed 21/3/07	Tue 17/4/07	
199	Submission	14 days	Wed 21/3/07	Tue 3/4/07	1SS
200	comment & approval	14 days	Wed 4/4/07	Tue 17/4/07	199
201	d. Representative of the IIA	28 days	Wed 21/3/07	Tue 17/4/07	
202	Submission	14 days	Wed 21/3/07	Tue 3/4/07	1SS
203	comment & approval	14 days	Wed 4/4/07	Tue 17/4/07	202



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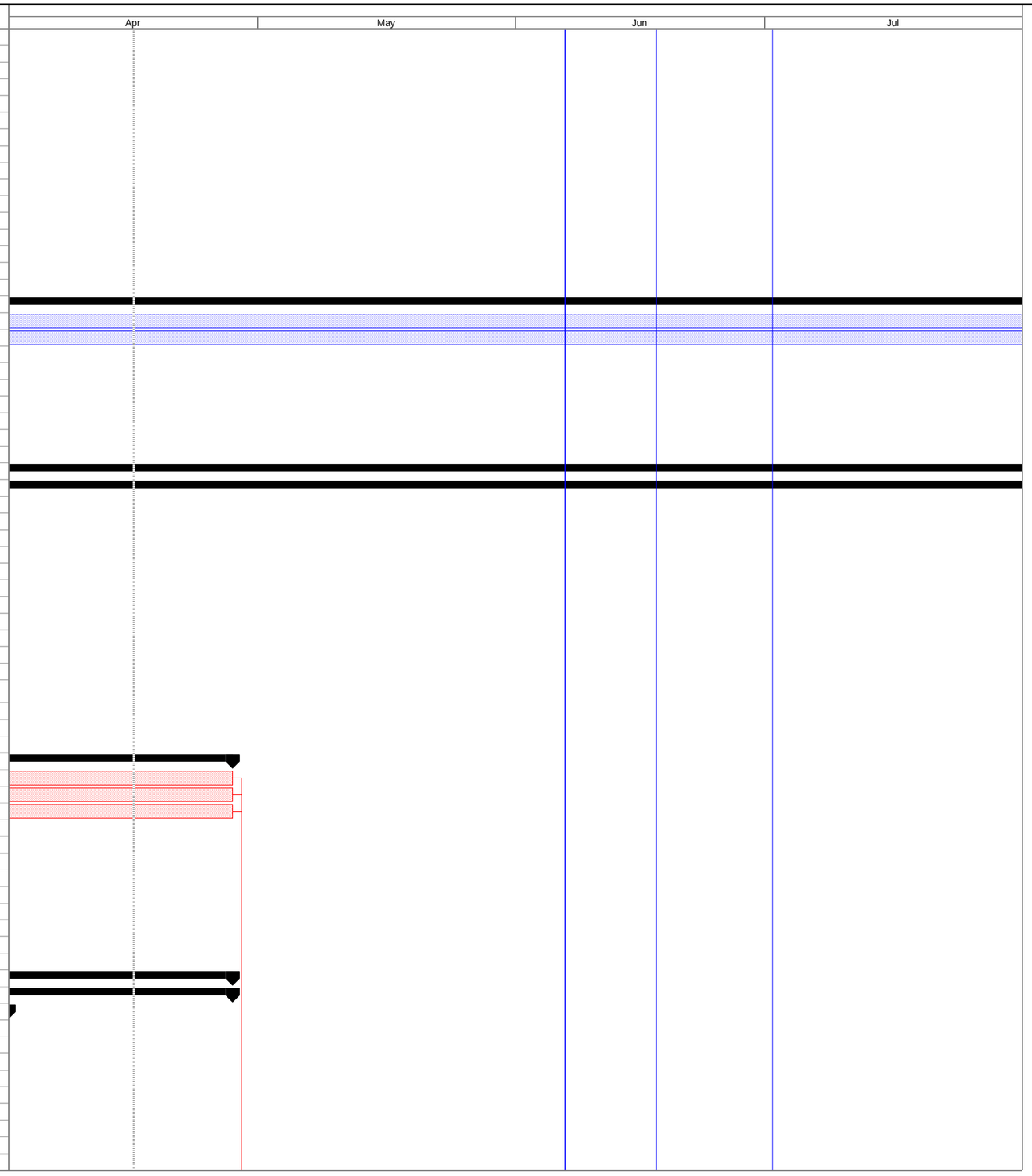
PROGRAMME OF WORKS - RP22
Contract No. : DC / 2006 / 02
Contract Title : Yuen Long, Kam Tin, Ngau Tam Mei and Tin Shui Wai Drainage Improvements,
Stage 1, Phase 2B - Cheung Chun San Tsuen and Kam Tsin Wai

CHIT CHEUNG CONSTRUCTION CO., LTD.
DATE : APR 2009

ID	Task Name	Duration	Start	Finish	Predecessors
205	10.17 Landscape softworks and establishment works	28 days	Fri 30/3/07	Thu 26/4/07	
206	a. Submission of technical information	14 days	Fri 30/3/07	Thu 12/4/07	2SS
207	b. Comment & approval	14 days	Fri 13/4/07	Thu 26/4/07	206
208	10.18 Preservation and protection of existing trees	59 days	Wed 21/3/07	Fri 18/5/07	
209	a. Specialist contractor (landscaping Class I)	28 days	Fri 30/3/07	Thu 26/4/07	
210	Submission	14 days	Fri 30/3/07	Thu 12/4/07	2SS
211	Comment & approval	14 days	Fri 13/4/07	Thu 26/4/07	210
212	b. Site supervisory staff	59 days	Wed 21/3/07	Fri 18/5/07	
213	Submission	45 days	Wed 21/3/07	Fri 4/5/07	1SS
214	Comment & approval	14 days	Sat 5/5/07	Fri 18/5/07	213
215	10.19 Concrete (ready mix)	28 days	Fri 30/3/07	Thu 26/4/07	
216	a. Submission of supplier & design mix	21 days	Fri 30/3/07	Thu 19/4/07	2SS
217	b. Comment & approval	7 days	Fri 20/4/07	Thu 26/4/07	216
218	10.20 Steel reinforcement	35 days	Fri 30/3/07	Thu 3/5/07	
219	a. Submission of supplier	28 days	Fri 30/3/07	Thu 26/4/07	2SS
220	b. Comment & approval	7 days	Fri 27/4/07	Thu 3/5/07	219
221	10.21 Submissions of method statement / materials	811 days	Tue 15/5/07	Sun 2/8/09	
222	a. Submission of materials	811 days	Tue 15/5/07	Sun 2/8/09	15FS+45 days
223	b. Submission of method statement	811 days	Tue 15/5/07	Sun 2/8/09	15FS+45 days
224	**11. Provision of wheel washing facilities**	**180 days**	**Fri 30/3/07**	**Tue 25/9/07**	
225	11.1 Channel KT2	120 days	Fri 30/3/07	Fri 27/7/07	2SS
226	11.2 Channel KT15	90 days	Thu 28/6/07	Tue 25/9/07	19FS-1 day
227	11.3 Berthing area	90 days	Fri 30/3/07	Wed 27/6/07	2SS
228	11.4 Portion 6	45 days	Fri 30/3/07	Sun 13/5/07	2SS
229	**12. Setting up of traffic management liaison group**	30 days	Fri 30/3/07	Sat 28/4/07	2SS
230					
231	**B. Section I of the Works**	**893 days**	**Fri 30/3/07**	**Mon 7/9/09**	
232	**B1. Portion 1**	**893 days**	**Fri 30/3/07**	**Mon 7/9/09**	
233	**1. Site clearance**	**30 days**	**Sat 28/7/07**	**Sun 26/8/07**	
234	1.1 General site clearance	30 days	Sat 28/7/07	Sun 26/8/07	36,225,1021,1019
235	**2. Temporary Traffic Management Scheme**	**59 days**	**Fri 30/3/07**	**Sun 27/5/07**	
236	2.1 TTMS Proposal (trial pits in Chi Ho Road for utilities)	59 days	Fri 30/3/07	Sun 27/5/07	
237	a. Submission	45 days	Fri 30/3/07	Sun 13/5/07	2SS
238	b. comments & approvals by Engineer & TMLG	14 days	Mon 14/5/07	Sun 27/5/07	237
239	2.2 TTMS Proposal (for construction of box culvet)	59 days	Fri 30/3/07	Sun 27/5/07	
240	a. Submission	45 days	Fri 30/3/07	Sun 13/5/07	
241	b. comments & approvals by Engineer & TMLG	14 days	Mon 14/5/07	Sun 27/5/07	240
242	**3. Excavation Permits**	**507 days**	**Mon 28/5/07**	**Wed 15/10/08**	
243	3.1 application and issue of permit (trial pits in Chi Ho Road	180 days	Mon 28/5/07	Fri 23/11/07	238
244	3.2 application and issue of permits (for construction of box culvert)	180 days	Sat 19/4/08	Wed 15/10/08	241
245	**4. Underground utilities detection**	**253 days**	**Fri 30/3/07**	**Fri 7/12/07**	
246	4.1 utlities detection	28 days	Fri 30/3/07	Thu 26/4/07	2SS
247	4.2 trial trench excavtion & identification	14 days	Sat 24/11/07	Fri 7/12/07	246,243
248	**5. Utilities temporary diversion / protection**	**579 days**	**Thu 27/9/07**	**Mon 27/4/09**	
249	a. WSD watermain along village vehicular access	171 days	Sat 8/11/08	Mon 27/4/09	338
250	b. Street lighting along village vehicular access	171 days	Sat 8/11/08	Mon 27/4/09	295SS
251	c. PCCW along village vehicular access	171 days	Sat 8/11/08	Mon 27/4/09	295SS
252	d. CLP overhead cable at Bay 4	160 days	Thu 7/2/08	Tue 15/7/08	285
253	e. CH 816~CH841 underground cables (33kV)	42 days	Thu 27/9/07	Wed 7/11/07	260
254	f. CH 816~CH841 underground cables (132kV)	56 days	Thu 8/11/07	Wed 2/1/08	253
255	g. Street lighting at Chi Ho Road	86 days	Thu 23/10/08	Fri 16/1/09	266SS,247
256	h. Irrigation pipe at Chi Ho Road	86 days	Thu 23/10/08	Fri 16/1/09	266SS
257	**6. Drainage Management Plan (Ch810 to Ch850)**	**77 days**	**Thu 12/7/07**	**Wed 26/9/07**	
258	6.1 Submission of DMPs	1 day	Thu 12/7/07	Thu 12/7/07	
259	6.2 Comments by the Engineer	14 days	Fri 13/7/07	Thu 26/7/07	258
260	6.3 Implementation of DMP	3 days	Mon 24/9/07	Wed 26/9/07	259SF
261	**7. Box Culvert and Channel**	**636 days**	**Wed 1/8/07**	**Mon 27/4/09**	
262	7.1 Box Culvert BC2-1	636 days	Wed 1/8/07	Mon 27/4/09	78
263	a. Ch0-Ch15 (Bay 1 and Outlet)	167 days	Thu 16/10/08	Tue 31/3/09	
264	Construction of cofferdam	7 days	Thu 16/10/08	Wed 22/10/08	244
265	Remove road pavement and expose existing utiliti	7 days	Thu 16/10/08	Wed 22/10/08	244
266	Excavation	9 days	Thu 23/10/08	Fri 31/10/08	265,348,264
267	Granular Bedding	4 days	Sat 1/11/08	Tue 4/11/08	266
268	Base Slab	21 days	Wed 5/11/08	Tue 25/11/08	267
269	Wall and Deck	22 days	Wed 26/11/08	Wed 17/12/08	268
270	Curing	10 days	Thu 18/12/08	Sat 27/12/08	269
271	Trench Backfill	7 days	Sun 28/12/08	Sat 3/1/09	270
272	Reinstatement of Chi Ho Road	13 days	Sun 4/1/09	Fri 16/1/09	271,255FF,256FF



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PROGRAMME OF WORKS - RP22
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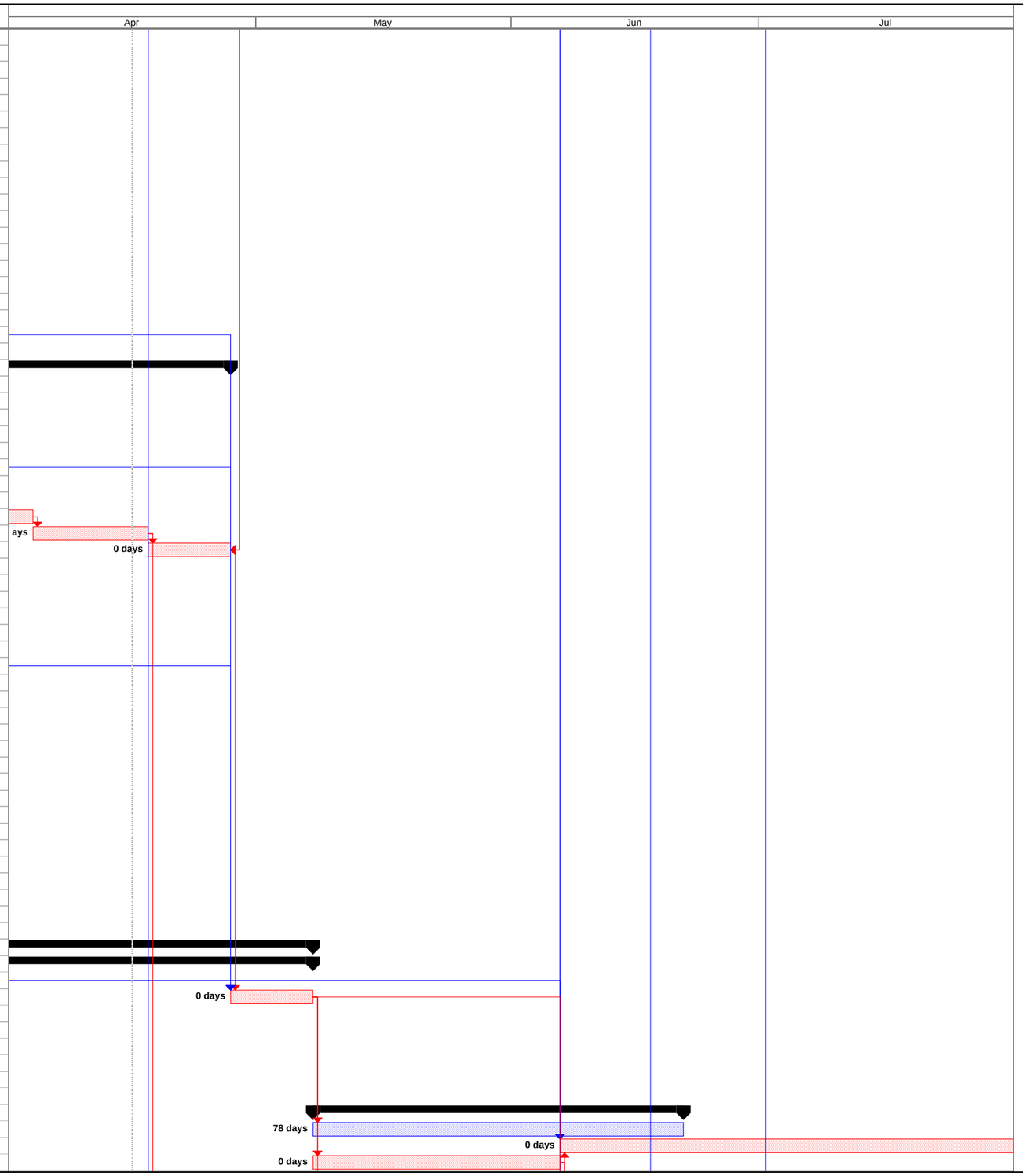
Contract Title : Yuen Long, Kam Tin, Ngau Tam Mei and Tin Shui Wai Drainage Improvements,
Stage 1, Phase 2B - Cheung Chun San Tsuen and Kam Tsin Wai

CHIT CHEUNG CONSTRUCTION CO., LTD.
DATE : APR 2009

ID	Task Name	Duration	Start	Finish	Predecessors
274	b. Temporary Bund in AFCD Pond	87 days	Wed 1/8/07	Fri 26/10/07	
275	1. Proposal	31 days	Wed 1/8/07	Fri 31/8/07	
276	2. Comments by the Engineer and AFCD	30 days	Sat 1/9/07	Sun 30/9/07	275
277	3.Modified chain link fence	11 days	Mon 1/10/07	Thu 11/10/07	276
278	4. Construction of temporary bund	15 days	Fri 12/10/07	Fri 26/10/07	277
279	c. Ch15-Ch32 (Bays 2 & 3)	103 days	Sat 27/10/07	Wed 6/2/08	
280	Excavation	25 days	Sat 27/10/07	Tue 20/11/07	278
281	Granular Bedding	7 days	Wed 21/11/07	Tue 27/11/07	280
282	Base Slab	18 days	Wed 28/11/07	Sat 15/12/07	281
283	Wall and Deck	32 days	Sun 16/12/07	Wed 16/1/08	282
284	Curing	14 days	Thu 17/1/08	Wed 30/1/08	283
285	Trench Backfill	7 days	Thu 31/1/08	Wed 6/2/08	284
286	d. Ch32-Ch42 (Bay 4)	**76 days**	**Thu 18/9/08**	**Tue 2/12/08**	
287	Excavation	10 days	Fri 19/9/08	Sun 28/9/08	293
288	Granular Bedding	9 days	Mon 29/9/08	Tue 7/10/08	287
289	Base Slab	14 days	Wed 8/10/08	Tue 21/10/08	288
290	Wall and Deck	16 days	Wed 22/10/08	Thu 6/11/08	289
291	Curing	14 days	Fri 7/11/08	Thu 20/11/08	290
292	Trench Backfill	12 days	Fri 21/11/08	Tue 2/12/08	291
293	Removal of CLP underground cable at Bay 4	1 day	Thu 18/9/08	Thu 18/9/08	
294	e. Ch42-Ch76 (Bays 5 - 7)	**171 days**	**Sat 8/11/08**	**Mon 27/4/09**	
295	Excavation	45 days	Sat 8/11/08	Mon 22/12/08	338,252,470
296	Granular Bedding	7 days	Tue 23/12/08	Mon 29/12/08	295
297	Base Slab (Bay 5 and Bay 7)	21 days	Tue 30/12/08	Mon 19/1/09	296
298	Wall and Deck (Bay 5 and Bay 7)	29 days	Tue 20/1/09	Tue 17/2/09	297
299	Curing (Bay 5 and Bay 7)	14 days	Wed 18/2/09	Tue 3/3/09	298
300	Trench Backfill (Bay 5 and Bay 7)	11 days	Wed 4/3/09	Sat 14/3/09	299
301	Modification of temporary support to watermain fo	7 days	Wed 4/3/09	Tue 10/3/09	299
302	base slab (Bay 6)	10 days	Wed 11/3/09	Fri 20/3/09	301
303	Wall and Deck (Bay 6)	14 days	Sat 21/3/09	Fri 3/4/09	302
304	Curing (Bay 6)	14 days	Sat 4/4/09	Fri 17/4/09	303
305	Backfill (Bay 6)	10 days	Sat 18/4/09	Mon 27/4/09	304,249FF,250FF,251FF
306	f. Ch76-Ch88 (Bay 8)	**51 days**	**Fri 1/8/08**	**Sat 20/9/08**	
307	Excavation	3 days	Fri 1/8/08	Sun 3/8/08	470
308	Granular Bedding	2 days	Mon 4/8/08	Tue 5/8/08	307
309	Base Slab	14 days	Wed 6/8/08	Tue 19/8/08	308
310	Wall and Deck	16 days	Wed 20/8/08	Thu 4/9/08	309
311	Curing	7 days	Fri 5/9/08	Thu 11/9/08	310
312	Trench Backfill	9 days	Fri 12/9/08	Sat 20/9/08	311
313	7.2 Channel	189 days	Thu 3/1/08	Wed 9/7/08	
314	a. Ch840-Ch844 (Bay 56b)	91 days	Thu 3/1/08	Wed 2/4/08	
315	Excavation (including contamination materials)	25 days	Thu 3/1/08	Sun 27/1/08	254
316	Granular Bedding	3 days	Mon 28/1/08	Wed 30/1/08	315
317	Base Slab	22 days	Thu 31/1/08	Thu 21/2/08	316
318	Wall and Deck	23 days	Fri 22/2/08	Sat 15/3/08	317
319	Curing	14 days	Sun 16/3/08	Sat 29/3/08	318
320	Trench Backfill	4 days	Sun 30/3/08	Wed 2/4/08	319
321	b. Demolition of existing crossing	7 days	Sun 30/3/08	Sat 5/4/08	319
322	c. Ch800-840 (Bay 56a)	95 days	Sun 6/4/08	Wed 9/7/08	
323	Excavation (including contamination materials)	8 days	Sun 6/4/08	Sun 13/4/08	321
324	Granular Bedding	7 days	Mon 14/4/08	Sun 20/4/08	323
325	Base Slab	40 days	Mon 21/4/08	Fri 30/5/08	324
326	Wall and Deck	31 days	Sat 31/5/08	Mon 30/6/08	325
327	Curing	26 days	Tue 10/6/08	Sat 5/7/08	326SS+10 days
328	Trench Backfill	16 days	Tue 24/6/08	Wed 9/7/08	327SS+14 days
329	**8. Filling in Platform**	**400 days**	**Thu 3/4/08**	**Thu 7/5/09**	
330	8.1 Box Culvert	124 days	Sun 4/1/09	Thu 7/5/09	
331	a. Ch0-Ch15 (Bay 1 and Outlet)	3 days	Sun 4/1/09	Tue 6/1/09	271
332	b. Ch15-Ch88 (Bay 2 to Bay 8)	10 days	Tue 28/4/09	Thu 7/5/09	305,312,292,300
333	8.2 Channel	118 days	Thu 3/4/08	Tue 29/7/08	
334	a. Ch840-Ch844 (Bay 56b)	5 days	Thu 3/4/08	Mon 7/4/08	320
335	b. Ch800-840 (Bay 56a)	20 days	Thu 10/7/08	Tue 29/7/08	328
336	**9. Geotechnical Instrumentation for CLP Pylon**	**4 days**	**Mon 24/9/07**	**Thu 27/9/07**	
337	**10. Trial pits for watermain under existing village access**	4 days	Fri 1/8/08	Mon 4/8/08	
338	**11. Temporary support to existing watermain**	21 days	Sat 18/10/08	Fri 7/11/08	349
339	**12. Drainage works (except Bays 56a and 56b)**	**45 days**	**Fri 8/5/09**	**Sun 21/6/09**	
340	a. surface drain	45 days	Fri 8/5/09	Sun 21/6/09	332
341	**13. Water supply pipeworks**	**60 days**	**Sun 7/6/09**	**Wed 5/8/09**	**197,204,342**
342	**14. Roads and paving (except Bays 56a and 56b)**	**30 days**	**Fri 8/5/09**	**Sat 6/6/09**	**332**

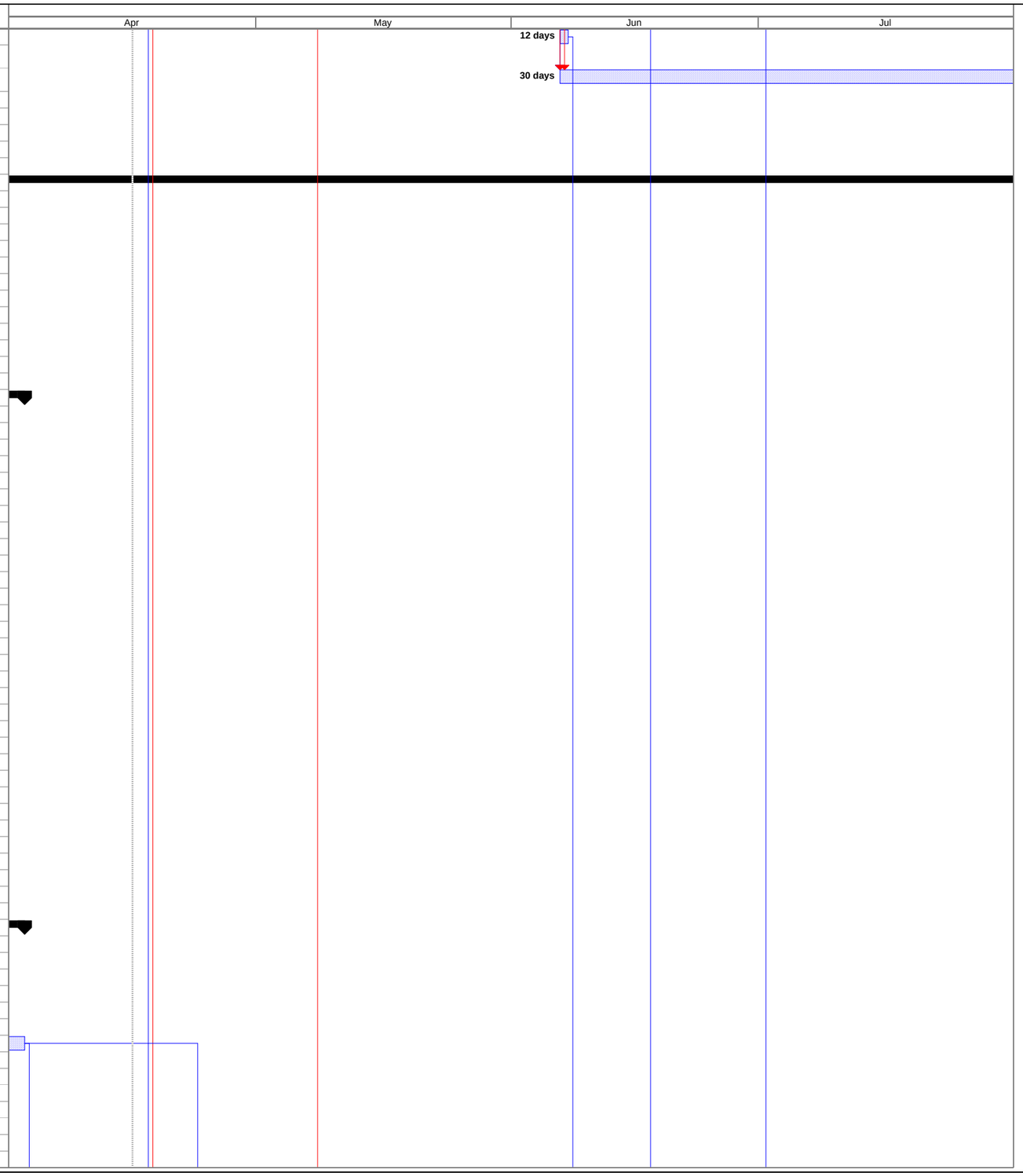


Task | Progress | Summary | Rolled Up Critical Task | Rolled Up Progress | External Tasks | Group By Summary
Critical Task | Milestone | Rolled Up Task | Rolled Up Milestone | Split | Project Summary | Deadline

PROGRAMME OF WORKS - RP22
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 : APR 2009

ID	Task Name	Duration	Start	Finish	Predecessors
343	**15. Diversion of traffic to permanent access from Bay 4 to B**	1 day	Sun 7/6/09	Sun 7/6/09	342
344	**16. Street furnitures / traffic sign / road marking (except Bay**	**16 days**	**Thu 6/8/09**	**Fri 21/8/09**	**341**
345	**17. Landscape softworks / hardworks (except Bays 56a and**	**63 days**	**Sun 7/6/09**	**Sat 8/8/09**	**331,332,342**
346	**18. Road Diversion in Chi Ho Road**	**5 days**	**Thu 16/10/08**	**Mon 20/10/08**	
347	a. Construction of temporary footpath above Box Culvert	4 days	Thu 16/10/08	Sun 19/10/08	244
348	b. Implementation of footpath diversion	1 day	Mon 20/10/08	Mon 20/10/08	347
349	**19. Removal of Tree No. 501**	2 days	Thu 16/10/08	Fri 17/10/08	
350	**20. Permanent footpath**	33 days	Thu 6/8/09	Mon 7/9/09	341
351	**B2. Portion 2**	**893 days**	**Fri 30/3/07**	**Mon 7/9/09**	
352	**1. Site clearance**	**90 days**	**Tue 14/8/07**	**Sun 11/11/07**	
353	1.1 General clearance	90 days	Tue 14/8/07	Sun 11/11/07	36,1025,225,1027
354	**2. Underground utilities detection**	**42 days**	**Tue 3/7/07**	**Mon 13/8/07**	
355	2.1 utilities detection	28 days	Tue 3/7/07	Mon 30/7/07	
356	2.2 trial trench excavtion & identification	14 days	Tue 31/7/07	Mon 13/8/07	355
357	**3. Utilities temporary diversion / protection**	**463 days**	**Fri 30/3/07**	**Fri 4/7/08**	
358	a. WSD water main along village vehicular access	90 days	Wed 10/10/07	Mon 7/1/08	374SS
359	b. Street lighting along village vehicular access	269 days	Wed 10/10/07	Fri 4/7/08	374SS
360	c. PCCW along village vehicular access	245 days	Wed 10/10/07	Tue 10/6/08	374SS
361	d. CLP overhead cables / street lighting at CH 290 ~ CH 33	90 days	Fri 30/3/07	Wed 27/6/07	
362	**4. Geotechnical Instrumentation for AFCD**	6 days	Thu 27/9/07	Tue 2/10/07	
363	**5. Discussion with Pond Owner**	39 days	Wed 1/8/07	Sat 8/9/07	
364	**6. Box Culvert, Channel and Crossings**	**572 days**	**Sun 9/9/07**	**Thu 2/4/09**	
365	a. Ch88-Ch120 (Bays 9 - 11)	83 days	Fri 29/2/08	Wed 21/5/08	
366	Excavation	21 days	Fri 29/2/08	Thu 20/3/08	336,362,379
367	Granular Bedding	15 days	Mon 10/3/08	Mon 24/3/08	366SS+10 days
368	Base Slab	15 days	Sun 16/3/08	Sun 30/3/08	367SS+6 days
369	Wall and Deck	22 days	Sun 23/3/08	Sun 13/4/08	368SS+7 days
370	Curing	25 days	Thu 3/4/08	Sun 27/4/08	369SS+11 days
371	Trench Backfill	35 days	Thu 17/4/08	Wed 21/5/08	370SS+14 days
372	b. Ch120-Ch205 (Bay 12 - Bay 17)	159 days	Sun 23/9/07	Thu 28/2/08	
373	Haul access	16 days	Sun 23/9/07	Mon 8/10/07	381
374	Excavation	46 days	Wed 10/10/07	Sat 24/11/07	362,356,373
375	Granular Bedding	43 days	Sat 20/10/07	Sat 1/12/07	374SS+10 days
376	Base Slab	50 days	Fri 26/10/07	Fri 14/12/07	375SS+6 days
377	Wall and Deck	53 days	Tue 6/11/07	Fri 28/12/07	376SS+11 days
378	Curing	53 days	Tue 13/11/07	Fri 4/1/08	377SS+7 days
379	Trench Backfill	46 days	Mon 14/1/08	Thu 28/2/08	378SS+62 days,358FF
380	c. Ch205-Ch310 (Bay 18 - Bay 24)	93 days	Sun 9/9/07	Mon 10/12/07	
381	Haul access	14 days	Sun 9/9/07	Sat 22/9/07	363
382	Excavation	27 days	Sun 23/9/07	Fri 19/10/07	361,381
383	Granular Bedding	23 days	Wed 3/10/07	Thu 25/10/07	382SS+10 days,381
384	Base Slab	39 days	Tue 9/10/07	Fri 16/11/07	383SS+6 days
385	Wall and Deck	42 days	Sat 20/10/07	Fri 30/11/07	384SS+11 days
386	Curing	42 days	Sat 27/10/07	Fri 7/12/07	385SS+7 days
387	Trench Backfill	31 days	Sat 10/11/07	Mon 10/12/07	386SS+14 days
388	d. Ch310-Ch361 (Bay 25 - Bay 27)	273 days	Sun 23/9/07	Sat 21/6/08	
389	Haul access	15 days	Sun 23/9/07	Sun 7/10/07	381
390	Excavation	52 days	Tue 11/12/07	Thu 31/1/08	389,387
391	Granular Bedding	85 days	Fri 1/2/08	Fri 25/4/08	390
392	Base Slab	78 days	Sat 1/3/08	Sat 17/5/08	391SS+29 days
393	Wall and Deck	83 days	Mon 10/3/08	Sat 31/5/08	392SS+9 days
394	Curing	90 days	Mon 17/3/08	Sat 14/6/08	393SS+7 days
395	Trench Backfill	83 days	Mon 31/3/08	Sat 21/6/08	394SS+14 days
396	e. Ch361-Ch413 (Bays 28 to Bay 31)	**543 days**	**Mon 8/10/07**	**Thu 2/4/09**	
397	Haul access	10 days	Mon 8/10/07	Wed 17/10/07	389
398	Excavation	68 days	Mon 1/12/08	Fri 6/2/09	472,397,395,478
399	Granular Bedding	65 days	Thu 11/12/08	Fri 13/2/09	398SS+10 days
400	Base Slab	65 days	Sun 21/12/08	Mon 23/2/09	399SS+10 days
401	Wall and Deck	65 days	Sun 4/1/09	Mon 9/3/09	400SS+14 days
402	Curing	72 days	Sun 11/1/09	Mon 23/3/09	401SS+7 days
403	Trench Backfill	68 days	Sun 25/1/09	Thu 2/4/09	402SS+14 days
404	f. Ch413-Ch445 (Bay 32 and Bay 33)	**164 days**	**Tue 27/5/08**	**Thu 6/11/08**	
405	Flow diversion	7 days	Tue 27/5/08	Mon 2/6/08	406SS-7 days
406	Excavation	40 days	Tue 3/6/08	Sat 12/7/08	471
407	Granular Bedding	5 days	Sun 13/7/08	Thu 17/7/08	406
408	Base Slab	35 days	Fri 18/7/08	Thu 21/8/08	407
409	Wall and Deck	43 days	Fri 22/8/08	Fri 3/10/08	408
410	Curing	14 days	Sat 4/10/08	Fri 17/10/08	409



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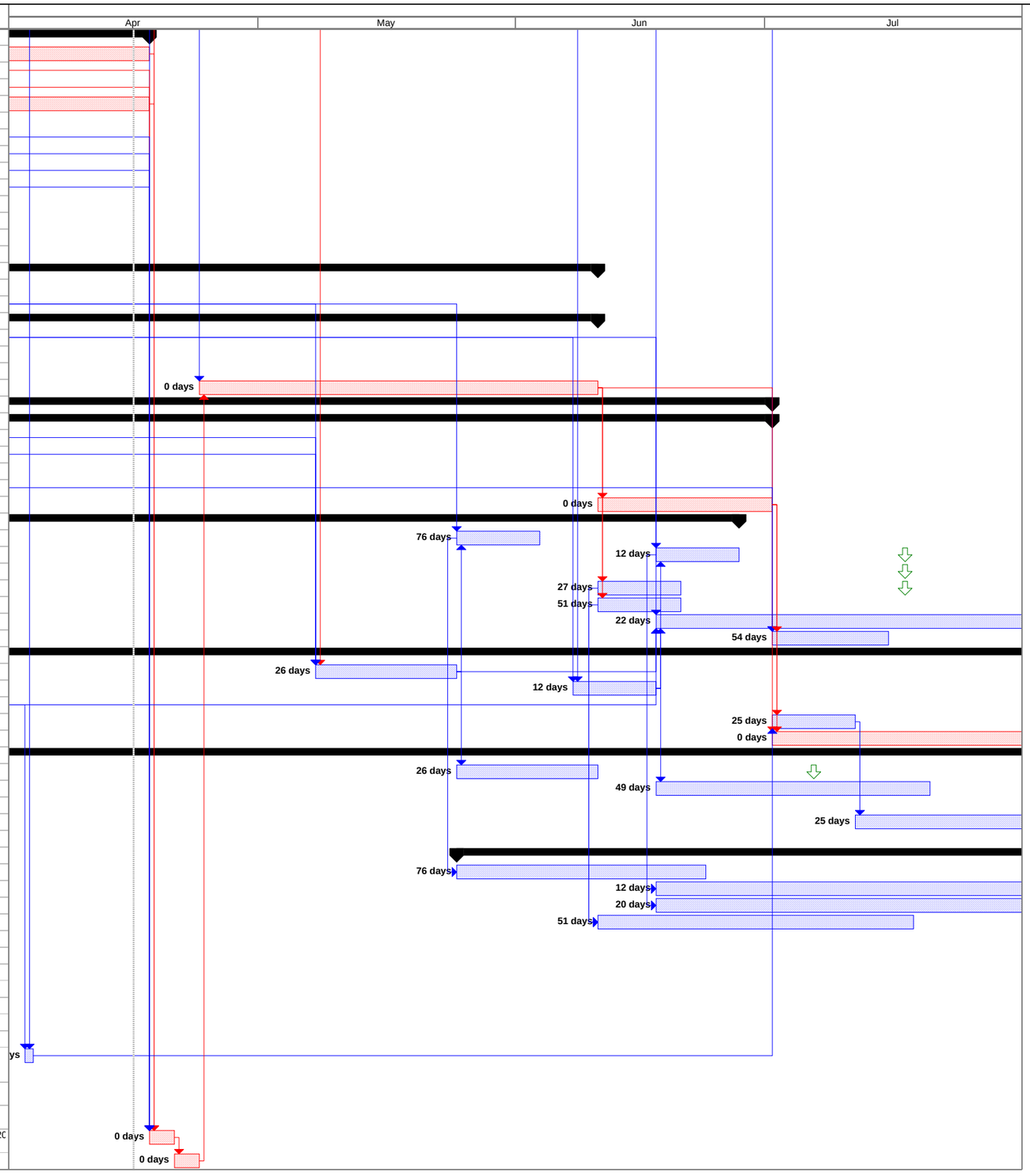
PROGRAMME OF WORKS - RP22
Contract No. : DC / 2006 / 02
Contract Title : Yuen Long, Kam Tin, Ngau Tam Mei and Tin Shui Wai Drainage Improvements,
Stage 1, Phase 2B - Cheung Chun San Tsuen and Kam Tsin Wai

CHIT CHEUNG CONSTRUCTION CO., LTD.
DATE : APR 2009

ID	Task Name	Duration	Start	Finish	Predecessors
412	**7. Gabion**	**321 days**	**Sun 1/6/08**	**Fri 17/4/09**	
413	Ch120-Ch148 (Bay 12 - Bay 13)	287 days	Sat 5/7/08	Fri 17/4/09	414
414	Ch163 - Ch205 (Bay 15 - Bay 17)	34 days	Sun 1/6/08	Fri 4/7/08	393
415	Ch205 - Ch325 (Bay 18 - Bay 25)	248 days	Sat 5/7/08	Mon 9/3/09	414
416	Ch348 - CH413 (Bay27 - Bay31)	39 days	Tue 10/3/09	Fri 17/4/09	415,401
417	**8. Granite Stone Facing**	**178 days**	**Mon 28/4/08**	**Wed 22/10/08**	
418	Ch100 -Ch120 (Bay 10 - Bay 11)	11 days	Mon 28/4/08	Thu 8/5/08	370
419	Ch325 - Ch348 (Bay 26a and Bay 26c)	6 days	Sun 15/6/08	Fri 20/6/08	394
420	Ch120 - Ch163 (Bay 12 - Bay 14)	16 days	Fri 9/5/08	Sat 24/5/08	378,418
421	Ch413 - Ch436 (Bay 32a and Bay 32c)	5 days	Sat 18/10/08	Wed 22/10/08	410
422	**9. Ramp No. 3 (Ch356 - Ch405)**	**17 days**	**Fri 30/3/07**	**Sun 15/4/07**	
423	General fill	5 days	Fri 30/3/07	Tue 3/4/07	
424	Granular fill and blinding	2 days	Wed 4/4/07	Thu 5/4/07	423
425	Concrete pavement	10 days	Fri 6/4/07	Sun 15/4/07	424
426	**10. Filling in Platform**	**548 days**	**Tue 11/12/07**	**Wed 10/6/09**	
427	10.1 Box Culvert BC2-1	10 days	Thu 22/5/08	Sat 31/5/08	
428	a. Ch88-Ch120 (South of Bay 9 - Bay 11)	10 days	Thu 22/5/08	Sat 31/5/08	371
429	10.2 Channel and Crossing	548 days	Tue 11/12/07	Wed 10/6/09	
430	a. Ch120-Ch205 (Bay 12 - Bay 17)	90 days	Fri 29/2/08	Wed 28/5/08	379
431	b. Ch205-Ch310 (Bay 18 - Bay 24)	118 days	Tue 11/12/07	Sun 6/4/08	387
432	c. Ch310-Ch361 (Bay 25 - Bay 27)	31 days	Sun 22/6/08	Tue 22/7/08	395
433	d. Ch361-Ch413 (Bay 28 - Bay 31)	48 days	Fri 24/4/09	Wed 10/6/09	403,477
434	**11. Drainage works**	**451 days**	**Mon 7/4/08**	**Wed 1/7/09**	
435	11.1 storm drain with manhole and headwall	451 days	Mon 7/4/08	Wed 1/7/09	
436	a. Ch88-Ch 120 (Bay 9 - Bay 11)	20 days	Sun 1/6/08	Fri 20/6/08	428
437	b. Ch120-Ch205 (Bay 12 - Bay 17)	20 days	Thu 29/5/08	Tue 17/6/08	430
438	c. Ch205-Ch310 (Bay 18 - Bay 24)	20 days	Mon 7/4/08	Sat 26/4/08	431
439	d. Ch310-Ch361 (Bay 25 - Bay 27)	20 days	Wed 23/7/08	Mon 11/8/08	432
440	e. Ch361-Ch436 (Bay 28 - Bay 32)	21 days	Thu 11/6/09	Wed 1/7/09	433
441	11.2. surface drain	270 days	Wed 1/10/08	Sat 27/6/09	
442	a. Ch88-Ch 120 (Bay 9 - Bay 11)	10 days	Mon 25/5/09	Wed 3/6/09	428,450
443	b. Ch120-Ch190 (Bay 12 - Bay 16)	10 days	Thu 18/6/09	Sat 27/6/09	430,451
444	c. Ch190-Ch348 (Bay 17 - Bay 26)	15 days	Wed 1/10/08	Wed 15/10/08	431,452
445	d. Ch348-Ch390 (Bay 27 - Bay 29)	10 days	Thu 11/6/09	Sat 20/6/09	433
446	e. Ch390-Ch436 (Bay 30 - Bay 32)	10 days	Thu 11/6/09	Sat 20/6/09	433
447	**12.1. Water supply pipeworks (Bay 9 to Bay 26)**	**60 days**	**Thu 18/6/09**	**Sun 16/8/09**	**450,451,452,204**
448	**12.2. Water supply pipeworks (Bay 27 to Bay 32)**	14 days	Thu 2/7/09	Wed 15/7/09	439,440,204
449	**13. Roads and paving**	**369 days**	**Tue 12/8/08**	**Sat 15/8/09**	
450	a. Ch88-Ch 148 (Bay 9 - Bay 13)	17 days	Fri 8/5/09	Sun 24/5/09	437,428,436,332
451	b. Ch148-Ch190 (Bay 14 - Bay 16)	10 days	Mon 8/6/09	Wed 17/6/09	430,343
452	c. Ch190-Ch348 (Bay 17 - Bay 26)	50 days	Tue 12/8/08	Tue 30/9/08	438,439,432
453	d. Ch348-Ch390 (Bay 27 - Bay 29)	10 days	Thu 2/7/09	Sat 11/7/09	473,440
454	e. Ch390-Ch436 (Bay 30 to Bay 32)	45 days	Thu 2/7/09	Sat 15/8/09	440,433
455	**14. Road furnitures**	**334 days**	**Wed 1/10/08**	**Sun 30/8/09**	
456	a. Ch88-Ch 120 (Bay 9 - Bay 11)	17 days	Mon 25/5/09	Wed 10/6/09	450
457	b. Ch120-Ch205 (Bay 12 - Bay 17)	33 days	Thu 18/6/09	Mon 20/7/09	451
458	c. Ch205-Ch348 (Bay 18 - Bay 26)	50 days	Wed 1/10/08	Wed 19/11/08	452
459	d. Ch348-Ch390 (Bay 27 - Bay 29)	33 days	Sun 12/7/09	Thu 13/8/09	453
460	e. Ch390-Ch436 (Bay 30 - Bay 32)	15 days	Sun 16/8/09	Sun 30/8/09	454
461	**15. Landscape softworks / hardworks**	**106 days**	**Mon 25/5/09**	**Mon 7/9/09**	
462	a. Ch88-Ch 120 (Bay 9 - Bay 11)	30 days	Mon 25/5/09	Tue 23/6/09	442SS
463	b. Ch120-Ch205 (Bay 12 - Bay 17)	70 days	Thu 18/6/09	Wed 26/8/09	443SS
464	c. Ch205-Ch310 (Bay 18 - Bay 24)	62 days	Thu 18/6/09	Tue 18/8/09	463SS
465	d. Ch310-Ch436 (Bay 25 - Bay 32) south	38 days	Thu 11/6/09	Sat 18/7/09	445SS,446SS
466	e. Ch310-Ch436 (Bay 25 - Bay 32) north	8 days	Mon 31/8/09	Mon 7/9/09	467
467	**16. Final trimming of north platform from Bay 26 to Bay 32**	15 days	Sun 16/8/09	Sun 30/8/09	454
468	**17. Construct temporary access (Bay 5 to Bay 14)**	25 days	Thu 22/5/08	Sun 15/6/08	371,379
469	**18. Removal of existing public light controller near Bay 14**	1 day	Wed 30/7/08	Wed 30/7/08	
470	**19. Traffic diversion at north of Bay 5 to Bay 14**	1 day	Thu 31/7/08	Thu 31/7/08	469,468
471	**20. Temporary Village Access on Bay 28 - Bay 30**	2 days	Sun 1/6/08	Mon 2/6/08	393
472	**21. Temporary Village Access on Bay 32**	3 days	Fri 7/11/08	Sun 9/11/08	411
473	**22. Diversion of traffice to permanent access between Bay 1**	1 day	Fri 3/4/09	Fri 3/4/09	403,452
474	**23. Temporary pipe crossing at south of Bay 30**	4 days	Thu 28/8/08	Sun 31/8/08	475SS-4 days
475	**24. Diversion of traffic from Cheung Chun San Chuen to the**	1 day	Mon 1/9/08	Mon 1/9/08	
476	**25. Diversion of existing stream to constructed channel**	3 days	Sat 18/4/09	Mon 20/4/09	416,273,413,414,415,418,419,420
477	**26. Demolition of existing vehicular bridge**	3 days	Tue 21/4/09	Thu 23/4/09	476



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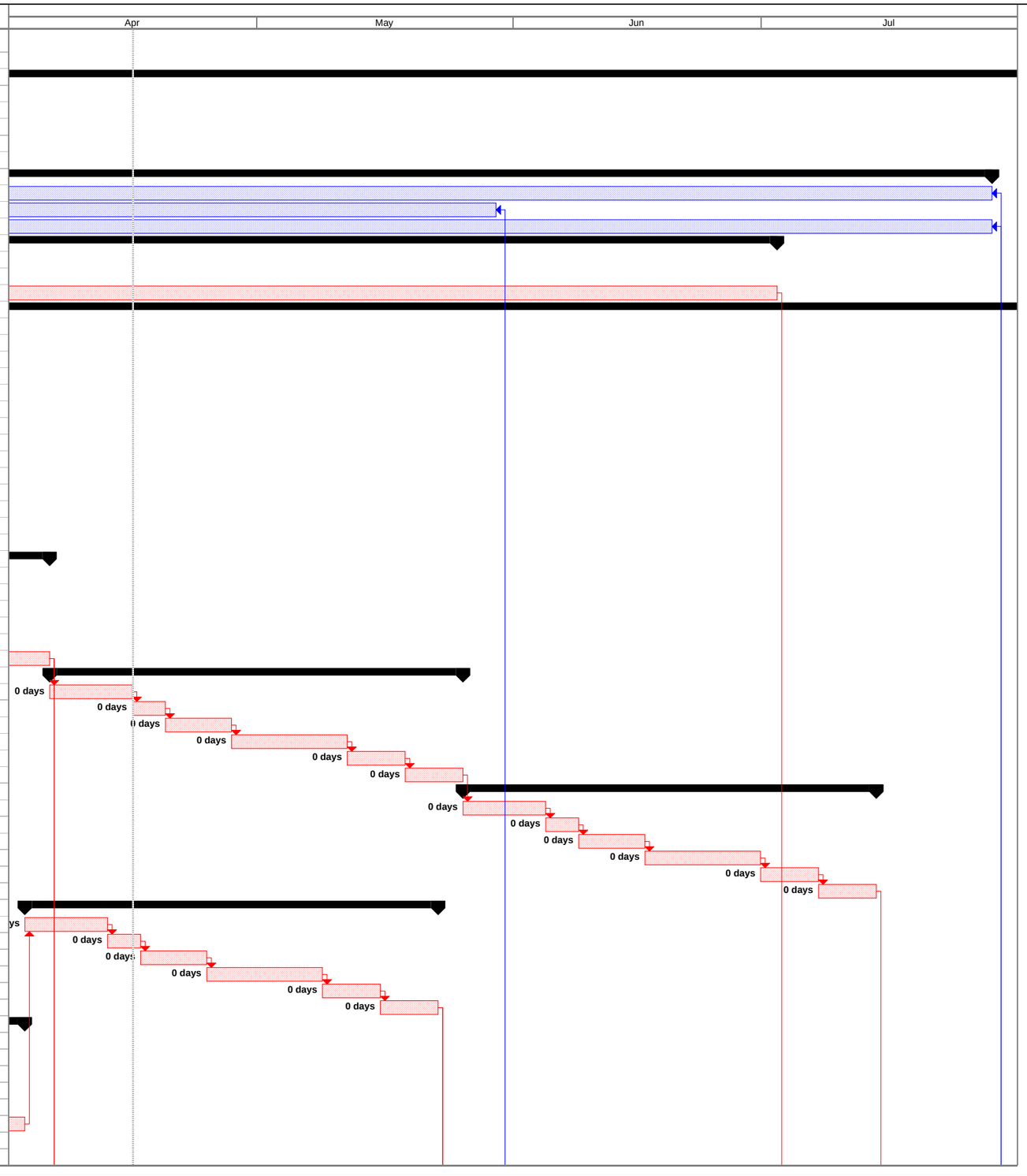
ID	Task Name	Duration	Start	Finish	Predecessors
478	**27. diversion of uncharted 50 dia watermain (Bay 28 to Bay**	61 days	Wed 1/10/08	Sun 30/11/08	475
479					
480	**B3. Portion 3**	**789 days**	**Thu 12/7/07**	**Mon 7/9/09**	
481	**1. Site clearance**	**90 days**	**Sat 15/9/07**	**Thu 13/12/07**	
482	1.1 General clearance	90 days	Sat 15/9/07	Thu 13/12/07	17,225,1031,1033
483	**2. Underground utilities detection**	**42 days**	**Tue 31/7/07**	**Mon 10/9/07**	
484	2.1 utilities detection	28 days	Tue 31/7/07	Mon 27/8/07	355
485	2.2 trial trench excavtion & identification	14 days	Tue 28/8/07	Mon 10/9/07	484
486	**3. Utilities temporary diversion / protection**	**153 days**	**Thu 26/2/09**	**Tue 28/7/09**	
487	a. WSD water main along village access at CH 1150	153 days	Thu 26/2/09	Tue 28/7/09	625SS,630FF+60 days
488	b. Street lighting along village access at CH 1150	93 days	Thu 26/2/09	Fri 29/5/09	625SS,630FF
489	c. PCCW along village access at CH 1150	153 days	Thu 26/2/09	Tue 28/7/09	625SS,630FF+60 days
490	**4. Drainage Management Plan**	**722 days**	**Thu 12/7/07**	**Thu 2/7/09**	
491	4.1 Submission of DMPs	1 day	Thu 12/7/07	Thu 12/7/07	
492	4.2 Comments by the Engineer	14 days	Fri 13/7/07	Thu 26/7/07	491
493	4.3 Implementation of DMP	707 days	Fri 27/7/07	Thu 2/7/09	492
494	**5. Channel and Crossings**	**733 days**	**Sat 1/9/07**	**Wed 2/9/09**	
495	a. Ch445-Ch475 (Bay 34-35)	**50 days**	**Fri 7/11/08**	**Fri 26/12/08**	
496	Excavation	10 days	Fri 7/11/08	Sun 16/11/08	411
497	Granular Bedding	4 days	Mon 17/11/08	Thu 20/11/08	496
498	Base Slab	8 days	Fri 21/11/08	Fri 28/11/08	497
499	Wall and Deck	14 days	Sat 29/11/08	Fri 12/12/08	498
500	Curing	7 days	Sat 13/12/08	Fri 19/12/08	499
501	Trench Backfill	7 days	Sat 20/12/08	Fri 26/12/08	500
502	b. Ch475-Ch505 (Bay 36-37)	**50 days**	**Sat 27/12/08**	**Sat 14/2/09**	
503	Excavation	10 days	Sat 27/12/08	Mon 5/1/09	501
504	Granular Bedding	4 days	Tue 6/1/09	Fri 9/1/09	503
505	Base Slab	8 days	Sat 10/1/09	Sat 17/1/09	504
506	Wall and Deck	14 days	Sun 18/1/09	Sat 31/1/09	505
507	Curing	7 days	Sun 1/2/09	Sat 7/2/09	506
508	Trench Backfill	7 days	Sun 8/2/09	Sat 14/2/09	507
509	c. Ch505-Ch535 (Bay 38-39)	**50 days**	**Sun 15/2/09**	**Sun 5/4/09**	
510	Excavation	10 days	Sun 15/2/09	Tue 24/2/09	508
511	Granular Bedding	4 days	Wed 25/2/09	Sat 28/2/09	510
512	Base Slab	8 days	Sun 1/3/09	Sun 8/3/09	511
513	Wall and Deck	14 days	Mon 9/3/09	Sun 22/3/09	512
514	Curing	7 days	Mon 23/3/09	Sun 29/3/09	513
515	Trench Backfill	7 days	Mon 30/3/09	Sun 5/4/09	514
516	d. Ch535-Ch565 (Bay 40-41)	**50 days**	**Mon 6/4/09**	**Mon 25/5/09**	
517	Excavation	10 days	Mon 6/4/09	Wed 15/4/09	515
518	Granular Bedding	4 days	Thu 16/4/09	Sun 19/4/09	517
519	Base Slab	8 days	Mon 20/4/09	Mon 27/4/09	518
520	Wall and Deck	14 days	Tue 28/4/09	Mon 11/5/09	519
521	Curing	7 days	Tue 12/5/09	Mon 18/5/09	520
522	Trench Backfill	7 days	Tue 19/5/09	Mon 25/5/09	521
523	e. Ch565-Ch595 (Bay 42-43)	**50 days**	**Tue 26/5/09**	**Tue 14/7/09**	
524	Excavation	10 days	Tue 26/5/09	Thu 4/6/09	522
525	Granular Bedding	4 days	Fri 5/6/09	Mon 8/6/09	524
526	Base Slab	8 days	Tue 9/6/09	Tue 16/6/09	525
527	Wall and Deck	14 days	Wed 17/6/09	Tue 30/6/09	526
528	Curing	7 days	Wed 1/7/09	Tue 7/7/09	527
529	Trench Backfill	7 days	Wed 8/7/09	Tue 14/7/09	528
530	f. Ch595-Ch625 (Bay 44-45)	**50 days**	**Fri 3/4/09**	**Fri 22/5/09**	
531	Excavation	10 days	Fri 3/4/09	Sun 12/4/09	543
532	Granular Bedding	4 days	Mon 13/4/09	Thu 16/4/09	531
533	Base Slab	8 days	Fri 17/4/09	Fri 24/4/09	532
534	Wall and Deck	14 days	Sat 25/4/09	Fri 8/5/09	533
535	Curing	7 days	Sat 9/5/09	Fri 15/5/09	534
536	Trench Backfill	7 days	Sat 16/5/09	Fri 22/5/09	535
537	g. Ch625-CH655 (Bay 46-47)	**50 days**	**Thu 12/2/09**	**Thu 2/4/09**	
538	Excavation	10 days	Thu 12/2/09	Sat 21/2/09	550
539	Granular Bedding	4 days	Sun 22/2/09	Wed 25/2/09	538
540	Base Slab	8 days	Thu 26/2/09	Thu 5/3/09	539
541	Wall and Deck	14 days	Fri 6/3/09	Thu 19/3/09	540
542	Curing	7 days	Fri 20/3/09	Thu 26/3/09	541
543	Trench Backfill	7 days	Fri 27/3/09	Thu 2/4/09	542
544	h. Ch655-Ch685 (Bay 48-49)	**50 days**	**Wed 24/12/08**	**Wed 11/2/09**	
545	Excavation	10 days	Wed 24/12/08	Fri 2/1/09	557

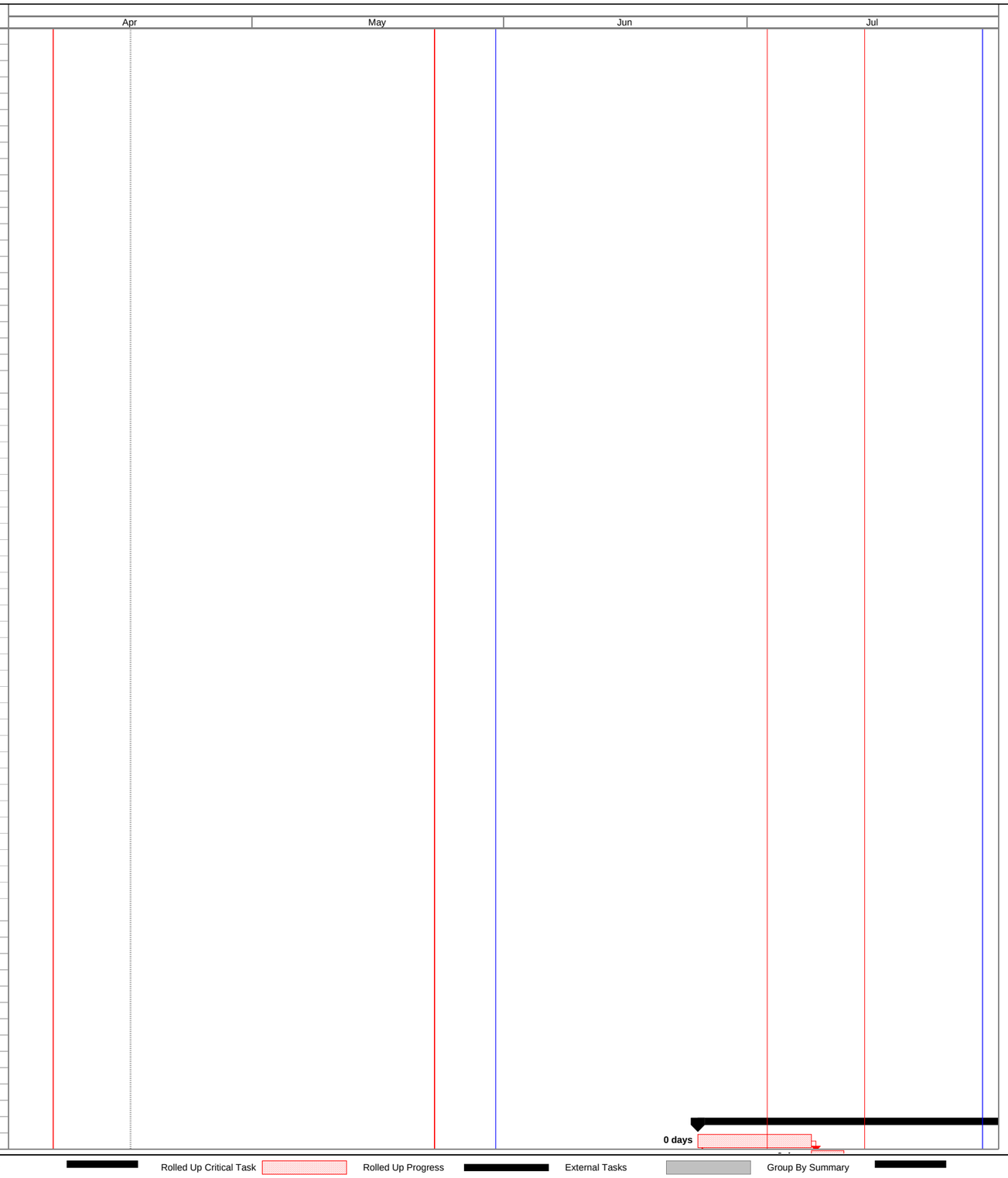


Task | Progress | Summary | Rolled Up Critical Task | Rolled Up Progress | External Tasks | Group By Summary
Critical Task | Milestone | Rolled Up Task | Rolled Up Milestone | Split | Project Summary | Deadline

PROGRAMME OF WORKS - RP22
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 : APR 2009

ID	Task Name	Duration	Start	Finish	Predecessors
547	Base Slab	8 days	Wed 7/1/09	Wed 14/1/09	546
548	Wall and Deck	14 days	Thu 15/1/09	Wed 28/1/09	547
549	Curing	7 days	Thu 29/1/09	Wed 4/2/09	548
550	Trench Backfill	7 days	Thu 5/2/09	Wed 11/2/09	549
551	i. Ch685-Ch715 (Bay 50-51)	**50 days**	**Tue 4/11/08**	**Tue 23/12/08**	
552	Excavation	10 days	Tue 4/11/08	Thu 13/11/08	564
553	Granular Bedding	4 days	Fri 14/11/08	Mon 17/11/08	552
554	Base Slab	8 days	Tue 18/11/08	Tue 25/11/08	553
555	Wall and Deck	14 days	Wed 26/11/08	Tue 9/12/08	554
556	Curing	7 days	Wed 10/12/08	Tue 16/12/08	555
557	Trench Backfill	7 days	Wed 17/12/08	Tue 23/12/08	556
558	j. Ch715-Ch738 (Bay 52-53)	**50 days**	**Mon 15/9/08**	**Mon 3/11/08**	
559	Excavation	10 days	Mon 15/9/08	Wed 24/9/08	573
560	Granular Bedding	4 days	Thu 25/9/08	Sun 28/9/08	559
561	Base Slab	8 days	Mon 29/9/08	Mon 6/10/08	560
562	Wall and Deck	14 days	Tue 7/10/08	Mon 20/10/08	561
563	Curing	7 days	Tue 21/10/08	Mon 27/10/08	562
564	Trench Backfill	7 days	Tue 28/10/08	Mon 3/11/08	563
565	k. Ch738-Ch801 (Bay 54 - Bay 55)	380 days	Sat 1/9/07	Sun 14/9/08	
566	Haul access	6 days	Sat 1/9/07	Thu 6/9/07	
567	Flow diversion	10 days	Sun 3/2/08	Tue 12/2/08	
568	Excavation (including contamination material)	120 days	Wed 13/2/08	Wed 11/6/08	482SS+10 days,485,1031,566,227,567
569	Granular Bedding	116 days	Sat 23/2/08	Tue 17/6/08	568SS+10 days
570	Base Slab	131 days	Fri 29/2/08	Tue 8/7/08	569SS+6 days
571	Wall and Deck	144 days	Tue 11/3/08	Fri 1/8/08	570SS+11 days
572	Curing	151 days	Tue 18/3/08	Fri 15/8/08	571SS+7 days
573	Trench Backfill	167 days	Tue 1/4/08	Sun 14/9/08	572SS+14 days
574	l. Ch844-Ch925 (Bay 56c - Bay 59 south)	206 days	Fri 7/9/07	Sun 30/3/08	
575	Haul access	10 days	Fri 7/9/07	Sun 16/9/07	566
576	Flow diversion	10 days	Mon 5/11/07	Wed 14/11/07	
577	Excavation (including contamination material)	66 days	Thu 15/11/07	Sat 19/1/08	575,576
578	Granular Bedding	64 days	Sun 25/11/07	Sun 27/1/08	577SS+10 days
579	Base Slab (except Bay 59)	79 days	Sat 1/12/07	Sun 17/2/08	578SS+6 days
580	Wall and Deck (except Bay 59)	82 days	Wed 12/12/07	Sun 2/3/08	579SS+11 days
581	Curing (except Bay 59)	89 days	Wed 19/12/07	Sun 16/3/08	580SS+7 days
582	Trench Backfill (except Bay 59)	89 days	Wed 2/1/08	Sun 30/3/08	581SS+14 days
583	m. Ch910-Ch925 (Bay 59 north)	**41 days**	**Mon 22/12/08**	**Sat 31/1/09**	
584	Base Slab	10 days	Mon 22/12/08	Wed 31/12/08	643
585	Wall and Deck	7 days	Thu 1/1/09	Wed 7/1/09	584
586	Curing	14 days	Thu 8/1/09	Wed 21/1/09	585
587	Trench Backfill	10 days	Thu 22/1/09	Sat 31/1/09	586
588	n. Ch925-Ch1051 (Bay 60 - Bay 67)	**218 days**	**Mon 17/9/07**	**Mon 21/4/08**	
589	Haul access	10 days	Mon 17/9/07	Wed 26/9/07	575
590	Flow diversion	10 days	Wed 10/10/07	Fri 19/10/07	
591	Excavation and Handling of Type 3 Contaminated Mat	116 days	Sat 20/10/07	Tue 12/2/08	590
592	Granular Bedding	116 days	Tue 30/10/07	Fri 22/2/08	591SS+10 days
593	Base Slab	127 days	Mon 5/11/07	Mon 10/3/08	592SS+6 days
594	Wall and Deck	130 days	Fri 16/11/07	Mon 24/3/08	593SS+11 days
595	Curing	137 days	Fri 23/11/07	Mon 7/4/08	594SS+7 days
596	Trench Backfill	137 days	Fri 7/12/07	Mon 21/4/08	595SS+14 days
597	o. Ch1051-Ch1135 (Bay 68 - Bay 70)	455 days	Thu 27/9/07	Wed 24/12/08	
598	Haul access	5 days	Thu 27/9/07	Mon 1/10/07	589
599	Flow diversion	10 days	Fri 4/1/08	Sun 13/1/08	
600	Excavation and Handling of Type 3 Contaminated Material	285 days	Mon 14/1/08	Fri 24/10/08	175,599
601	Granular Bedding	281 days	Thu 24/1/08	Thu 30/10/08	600SS+10 days
602	Base Slab	285 days	Wed 30/1/08	Sun 9/11/08	601SS+6 days
603	Wall and Deck	285 days	Sun 10/2/08	Thu 20/11/08	602SS+11 days
604	Curing	300 days	Sun 17/2/08	Fri 12/12/08	603SS+7 days
605	Trench Backfill	298 days	Sun 2/3/08	Wed 24/12/08	604SS+14 days
606	p. Ch1135-Ch1180 (Bay 71 to Bay 73)	**97 days**	**Tue 23/12/08**	**Sun 29/3/09**	
607	Excavation	30 days	Tue 23/12/08	Wed 21/1/09	727,734
608	Granular Bedding	30 days	Mon 29/12/08	Tue 27/1/09	607SS+6 days
609	Base Slab	45 days	Thu 8/1/09	Sat 21/2/09	608SS+10 days
610	Wall and Deck	45 days	Thu 22/1/09	Sat 7/3/09	609SS+14 days
611	Curing	45 days	Thu 5/2/09	Sat 21/3/09	610SS+14 days
612	Trench Backfill	33 days	Wed 25/2/09	Sun 29/3/09	611SS+20 days
613	q. Ch1180-Ch1210 (Bay 74 and Bay 75)	**70 days**	**Thu 25/6/09**	**Wed 2/9/09**	
614	Excavation	14 days	Thu 25/6/09	Wed 8/7/09	728

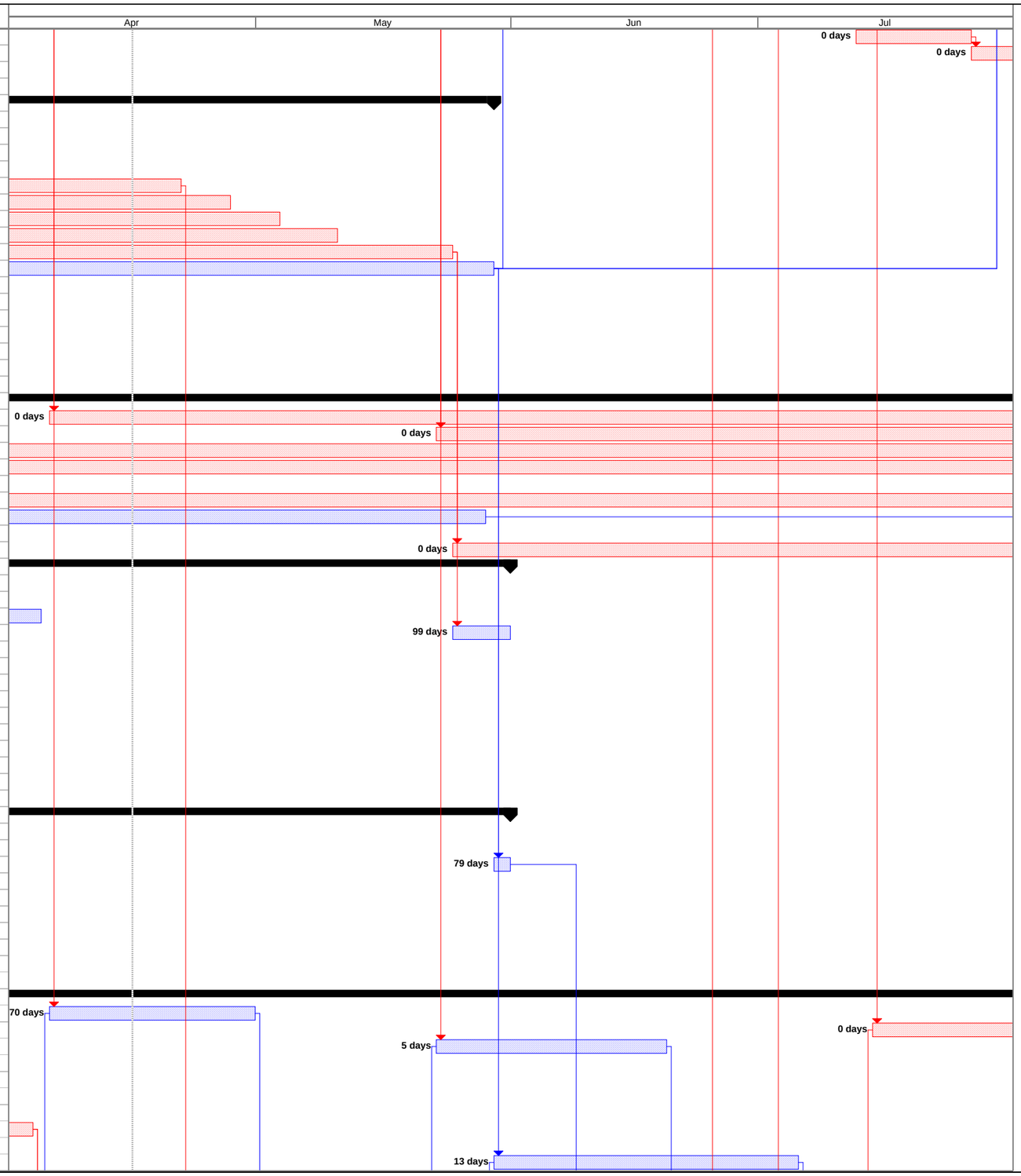


Task | Progress | Summary | Rolled Up Critical Task | Rolled Up Progress | External Tasks | Group By Summary
Critical Task | Milestone | Rolled Up Task | Rolled Up Milestone | Split | Project Summary | Deadline

PROGRAMME OF WORKS - RP22
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 : APR 2009

ID	Task Name	Duration	Start	Finish	Predecessors
616	Base Slab	14 days	Mon 13/7/09	Sun 26/7/09	615
617	Wall and Deck	14 days	Mon 27/7/09	Sun 9/8/09	616
618	Curing	14 days	Mon 10/8/09	Sun 23/8/09	617
619	Trench Backfill	10 days	Mon 24/8/09	Wed 2/9/09	618
620	r. Ch1210-Ch1306 (Bay 76 - Bay 83)	502 days	Mon 14/1/08	Fri 29/5/09	
621	Haul access	5 days	Mon 8/12/08	Fri 12/12/08	625SS-15 days
622	Flow diversion	10 days	Sat 13/12/08	Mon 22/12/08	625SS-10 days
623	Handling of Type 3 Contaminated Material	78 days	Mon 14/1/08	Mon 31/3/08	175
624	Demolition of existing footbridge (Bay 83)	7 days	Tue 16/12/08	Mon 22/12/08	665
625	Excavation	120 days	Tue 23/12/08	Tue 21/4/09	624,735,623
626	Granular Bedding	116 days	Fri 2/1/09	Mon 27/4/09	625SS+10 days
627	Base Slab	116 days	Thu 8/1/09	Sun 3/5/09	626SS+6 days
628	Wall and Deck	112 days	Mon 19/1/09	Sun 10/5/09	627SS+11 days
629	Curing	119 days	Mon 26/1/09	Sun 24/5/09	628SS+7 days
630	Trench Backfill	110 days	Mon 9/2/09	Fri 29/5/09	629SS+14 days
631	s. Ch1306-Ch1330 (Bay 84)	**45 days**	**Sat 1/11/08**	**Mon 15/12/08**	
632	Excavation	6 days	Sat 1/11/08	Thu 6/11/08	733
633	Granular Bedding	3 days	Fri 7/11/08	Sun 9/11/08	632
634	Base Slab	8 days	Mon 10/11/08	Mon 17/11/08	633
635	Wall and Deck	14 days	Tue 18/11/08	Mon 1/12/08	634
636	Curing	7 days	Tue 2/12/08	Mon 8/12/08	635
637	Trench Backfill	7 days	Tue 9/12/08	Mon 15/12/08	636
638	**6. Gabion**	**430 days**	**Sat 5/7/08**	**Mon 7/9/09**	
639	a. Bay 33- Bay39 (Ch436-Ch535)	155 days	Mon 6/4/09	Mon 7/9/09	515
640	b. Bay 40 - Bay 45 (CH535-Ch625)	108 days	Sat 23/5/09	Mon 7/9/09	536
641	c. Bay 46 - Bay 53 (Ch625-Ch738)	308 days	Tue 4/11/08	Mon 7/9/09	564
642	e. Bay 57 - Bay 59 (Ch881-Ch925)	229 days	Thu 22/1/09	Mon 7/9/09	586
643	f. Bay 60 - Bay 66 (Ch925-Ch1038)	170 days	Sat 5/7/08	Sun 21/12/08	595,414
644	g. Bay 67 - Bay 70 (Ch1038-Ch1135)	269 days	Sat 13/12/08	Mon 7/9/09	604
645	h. Bay 71 - Bay 73 (Ch1135-Ch1180)	60 days	Mon 30/3/09	Thu 28/5/09	612
646	i. Bay 74 - Bay 75 (Ch1180-Ch1210)	15 days	Mon 24/8/09	Mon 7/9/09	618,645
647	j. Bay 76 - Bay 82 (Ch1210-Ch1302)	106 days	Mon 25/5/09	Mon 7/9/09	629
648	**7. Granite Stone Facing**	**289 days**	**Sat 16/8/08**	**Sun 31/5/09**	
649	Bay 54 to Bay 56 (Ch738 - Ch881)	78 days	Sat 16/8/08	Sat 1/11/08	572
650	Bay 67, Bay 68 and Bay 69a (Ch1038 -Ch1108)	23 days	Sat 13/12/08	Sun 4/1/09	604
651	Granite facing stone Bay 72 (Ch1146 to Ch1165)	14 days	Sun 22/3/09	Sat 4/4/09	611
652	Bay 83 and Bay 84 (Ch1301-Ch1330)	7 days	Mon 25/5/09	Sun 31/5/09	629
653	**8. Ramp No. 2 (Ch752 - Ch800, Bay 55)**	**17 days**	**Sat 16/8/08**	**Mon 1/9/08**	
654	General fill	5 days	Sat 16/8/08	Wed 20/8/08	572
655	Granular fill and blinding	2 days	Thu 21/8/08	Fri 22/8/08	654
656	Concrete pavement	10 days	Sat 23/8/08	Mon 1/9/08	655
657	**9. Ramp No. 1 (Ch1052 - Ch1103, Bay 68)**	**31 days**	**Sat 13/12/08**	**Mon 12/1/09**	
658	base slab	12 days	Sat 13/12/08	Wed 24/12/08	604,603SS+21 days,581
659	Wall	10 days	Thu 25/12/08	Sat 3/1/09	658
660	General fill	5 days	Sun 4/1/09	Thu 8/1/09	659
661	Granular fill and blinding	2 days	Fri 9/1/09	Sat 10/1/09	660
662	Concrete pavement	2 days	Sun 11/1/09	Mon 12/1/09	661
663	**10. Pedestrian Temporary Crossing at Bay 82 (Ch1295)**	**173 days**	**Wed 10/12/08**	**Sun 31/5/09**	
664	11.1 Construction	5 days	Wed 10/12/08	Sun 14/12/08	
665	11.2 Pedestrian diversion	1 day	Mon 15/12/08	Mon 15/12/08	664
666	11.3 Demolition of Temp crossing	2 days	Sat 30/5/09	Sun 31/5/09	630
667	**11. Retaining Wall RW1 (Ch430-Ch490)**	**173 days**	**Thu 1/11/07**	**Mon 21/4/08**	
668	Excavation	26 days	Thu 1/11/07	Mon 26/11/07	
669	Granular bedding	7 days	Tue 27/11/07	Mon 3/12/07	668
670	Base slab	24 days	Tue 4/12/07	Thu 27/12/07	669
671	Wall	56 days	Fri 28/12/07	Thu 21/2/08	670
672	Curing	14 days	Fri 22/2/08	Thu 6/3/08	671
673	Backfilling (including sub-soil drain and catchpit)	46 days	Fri 7/3/08	Mon 21/4/08	672
674	**12. Filling in Platform**	**504 days**	**Tue 22/4/08**	**Mon 7/9/09**	
675	a. Bay 33- Bay39 (Ch436-Ch535)	25 days	Mon 6/4/09	Thu 30/4/09	515
676	b. Bay 40 - Bay 43 (CH535-Ch595)	25 days	Wed 15/7/09	Sat 8/8/09	529
677	c. Bay 44 - Bay 53 (Ch595-Ch738)	28 days	Sat 23/5/09	Fri 19/6/09	536
678	d. Bay 54 - Bay 55 (Ch738-Ch800)	19 days	Mon 15/9/08	Fri 3/10/08	573,656FF
679	e. Bay 56c - Bay 59 (Ch844-Ch925)	21 days	Sun 1/2/09	Sat 21/2/09	582,587
680	f. Bay 60 - Bay 66 (Ch925-Ch1038)	41 days	Tue 22/4/08	Sun 1/6/08	596
681	g. Bay 67 - Bay 70 (Ch1038-Ch1135)	10 days	Thu 25/12/08	Sat 3/1/09	605
682	h. Bay 71 - Bay 73 (Ch1135-CH1180)	5 days	Mon 30/3/09	Fri 3/4/09	612
683	i. Bay 74 and Bay 75(Ch1180-CH1210)	5 days	Thu 3/9/09	Mon 7/9/09	619
684	j. Bay 76 - Bay 84 (Ch1210-Ch1330)	37 days	Sat 30/5/09	Sun 5/7/09	630



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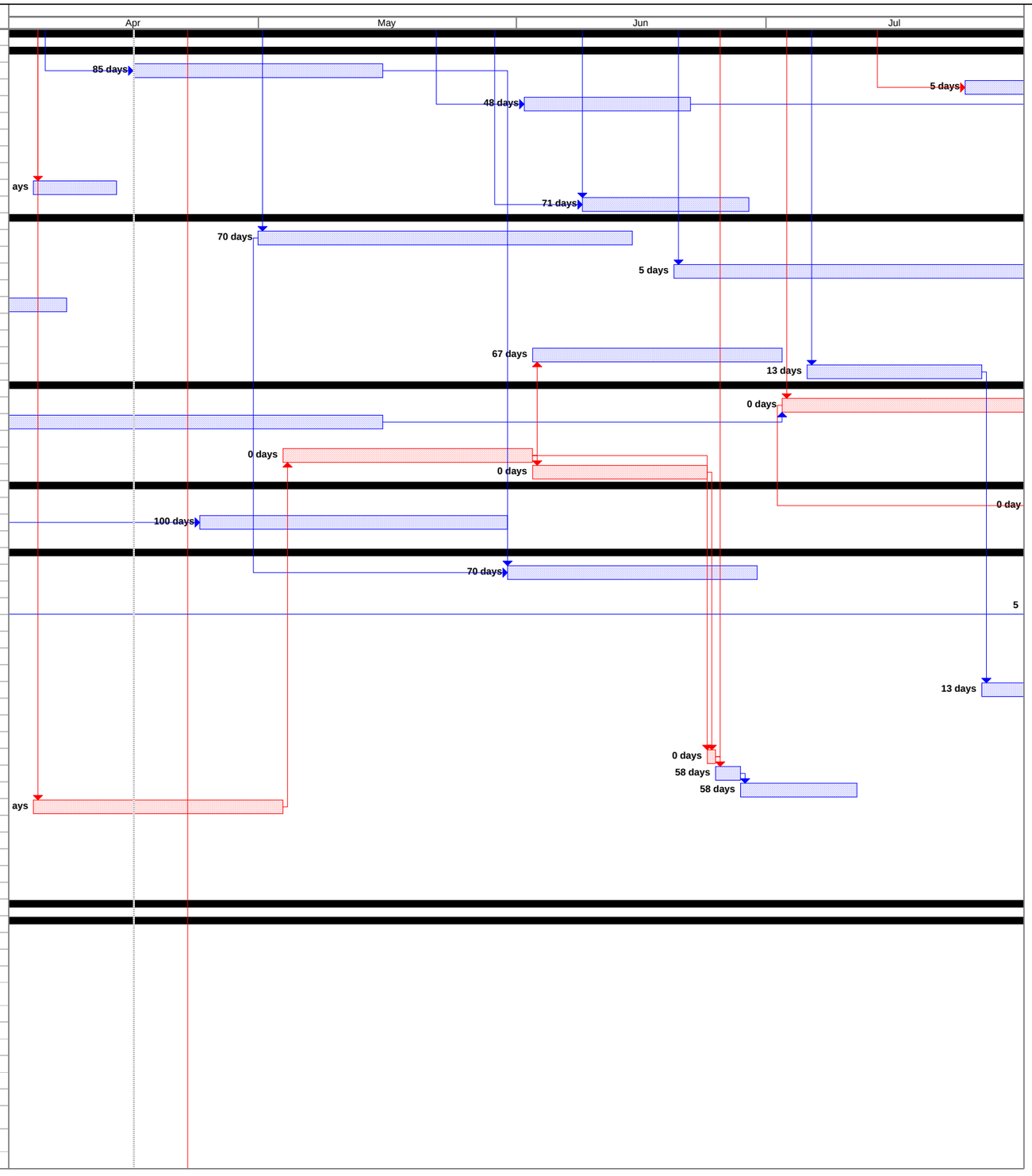
CHIT CHEUNG CONSTRUCTION CO., LTD.
DATE : APR 2009

ID	Task Name	Duration	Start	Finish	Predecessors
685	**13. Drainage works**	**484 days**	**Fri 2/5/08**	**Fri 28/8/09**	
686	13.1 storm drain with manhole	469 days	Fri 2/5/08	Thu 13/8/09	
687	a. Bay 33- Bay39 (Ch436-Ch535)	30 days	Thu 16/4/09	Fri 15/5/09	675SS+10 days
688	b. Bay 40 - Bay 45 (CH535-Ch625)	20 days	Sat 25/7/09	Thu 13/8/09	676SS+10 days
689	c. Bay 46 - Bay 53 (Ch625-Ch738)	20 days	Tue 2/6/09	Sun 21/6/09	677SS+10 days
690	d. Bay 54 - Bay 55 (Ch738-Ch800)	20 days	Thu 25/9/08	Tue 14/10/08	678SS+10 days
691	e. Bay 56 - Bay 59 (Ch800-Ch925)	30 days	Wed 11/2/09	Thu 12/3/09	679SS+10 days,335FF,334FF
692	f. Bay 60 - Bay 66 (Ch925-Ch1038)	60 days	Fri 2/5/08	Mon 30/6/08	680SS+10 days
693	g. Bay 67 - Bay 70 (Ch1038-Ch1135)	20 days	Sun 4/1/09	Fri 23/1/09	681SS+10 days
694	h. Bay 71 - Bay 73 (Ch1135-CH1180)	10 days	Sat 4/4/09	Mon 13/4/09	682
695	i. Bay 74 - Bay 84 (Ch1180-Ch1330)	20 days	Tue 9/6/09	Sun 28/6/09	684SS+10 days,666
696	13.2. surface drain	453 days	Mon 2/6/08	Fri 28/8/09	
697	a. Bay 33- Bay39 (Ch436-Ch535)	45 days	Fri 1/5/09	Sun 14/6/09	675
698	b. Bay 40 - Bay 45 (CH535-Ch625)	20 days	Sun 9/8/09	Fri 28/8/09	676
699	c. Bay 46 - Bay 53 (Ch625-Ch738)	45 days	Sat 20/6/09	Mon 3/8/09	677
700	d. Bay 54 - Bay 55 (Ch738-Ch800)	45 days	Sat 4/10/08	Mon 17/11/08	678
701	e. Bay 56 - Bay 59 (Ch800-Ch925)	45 days	Sun 22/2/09	Tue 7/4/09	679
702	f. Bay 60 - Bay 66 (Ch925-Ch1038)	45 days	Mon 2/6/08	Wed 16/7/08	680
703	g. Bay 67 - Bay 70 (Ch1038-Ch1135)	45 days	Sun 4/1/09	Tue 17/2/09	681
704	h. Bay 71 - Bay 73 (Ch1135-CH1180)	30 days	Wed 3/6/09	Thu 2/7/09	710
705	h. Bay 74 - Bay 84 (Ch1180-Ch1330)	21 days	Mon 6/7/09	Sun 26/7/09	684
706	**14. Roads and paving**	**220 days**	**Sat 24/1/09**	**Mon 31/8/09**	
707	a. Ch800-Ch881(Bay 56a to Bay 56c)	60 days	Fri 3/7/09	Mon 31/8/09	708,493
708	b. Ch881-CH1037 (Bay57 to Bay 66)	52 days	Wed 25/3/09	Fri 15/5/09	709,692
709	c. CH1037-CH1135 (Bay 67 to Bay 70)	60 days	Sat 24/1/09	Tue 24/3/09	693
710	d. CH1135-CH1180 (Bay 71 and Bay 73)	30 days	Mon 4/5/09	Tue 2/6/09	731
711	e. Bay 72b	21 days	Wed 3/6/09	Tue 23/6/09	710
712	**15. Street furnitures / traffic sign / road marking**	**197 days**	**Mon 23/2/09**	**Mon 7/9/09**	
713	a. Ch800-Ch881	37 days	Sun 2/8/09	Mon 7/9/09	707SS+30 days
714	b. Ch881-CH1037	37 days	Fri 24/4/09	Sat 30/5/09	708SS+30 days
715	c. CH1037-CH1165	37 days	Mon 23/2/09	Tue 31/3/09	709SS+30 days
716	**16. Landscape softworks / hardworks**	**418 days**	**Thu 17/7/08**	**Mon 7/9/09**	
717	a. Bay 33- Bay39 (Ch436-Ch535)	30 days	Sun 31/5/09	Mon 29/6/09	697SS+30 days,687
718	b. Bay 40 - Bay 45 (CH535-Ch625)	20 days	Wed 19/8/09	Mon 7/9/09	698SS+10 days,688
719	c. Bay 46 - Bay 53 (Ch625-Ch738)	30 days	Tue 4/8/09	Wed 2/9/09	720SF,689,699
720	d. Bay 54 - Bay 55 (Ch738-Ch800)	45 days	Tue 18/11/08	Thu 1/1/09	721SF,690,700
721	e. Bay 56c - Bay 59 (Ch844-Ch925)	17 days	Sun 3/8/08	Tue 19/8/08	722
722	f. Bay 60 - Bay 66 (Ch925-Ch1038)	17 days	Thu 17/7/08	Sat 2/8/08	702
723	g. Bay 67 - Bay 70 (Ch1038-Ch1135)	45 days	Mon 26/1/09	Wed 11/3/09	703SS+22 days
724	h. Bay 71 - Bay 84 (Ch1135-Ch1330)	30 days	Mon 27/7/09	Tue 25/8/09	705
725	**17. Temporary village access at Bay 74**	7 days	Sat 1/11/08	Fri 7/11/08	
726	**18. Diversion of watermain at Bay 72**	30 days	Sat 8/11/08	Sun 7/12/08	725
727	**19. Demolition of existing crossing at Bay 72**	3 days	Mon 8/12/08	Wed 10/12/08	726
728	**20. Diversion of traffic to Bay 72**	1 day	Wed 24/6/09	Wed 24/6/09	710,711
729	**21. Diversion of traffic to dog training school**	3 days	Thu 25/6/09	Sat 27/6/09	728
730	**22. Road Pavement to dog training school**	14 days	Sun 28/6/09	Sat 11/7/09	729
731	**23. Construction of 80 dia. PE pipe at Shui Mei Tsuen**	30 days	Sat 4/4/09	Sun 3/5/09	682
732	**24. Noise Barrier Installation**	**55 days**	**Wed 29/10/08**	**Mon 22/12/08**	
733	a. Bay 84	3 days	Wed 29/10/08	Fri 31/10/08	
734	b. Bay 71 - Bay 73	7 days	Tue 16/12/08	Mon 22/12/08	
735	c. Bay 76 - Bay 83	7 days	Tue 16/12/08	Mon 22/12/08	637
736					
737	**C. Section II of the Works**	**893 days**	**Fri 30/3/07**	**Mon 7/9/09**	
738	**C1. Portion 4**	**893 days**	**Fri 30/3/07**	**Mon 7/9/09**	
739	**1. Site clearance**	**14 days**	**Wed 26/9/07**	**Tue 9/10/07**	
740	1.1 General clearance	14 days	Wed 26/9/07	Tue 9/10/07	226,36,1037,1039
741	**2. Temporary Traffic Management Scheme**	**60 days**	**Fri 30/3/07**	**Mon 28/5/07**	
742	2.1 TTMS Proposal (trial pits for utilities and site entrance ir	59 days	Sat 31/3/07	Mon 28/5/07	
743	a. Submission	45 days	Sat 31/3/07	Mon 14/5/07	18
744	b. comments & approvals by Engineer & TMLG	14 days	Tue 15/5/07	Mon 28/5/07	743
745	2.2 TTMS Proposal (for construction of box culvet)	59 days	Fri 30/3/07	Sun 27/5/07	
746	a. Submission	45 days	Fri 30/3/07	Sun 13/5/07	
747	b. comments & approvals by Engineer & TMLG	14 days	Mon 14/5/07	Sun 27/5/07	746
748	**3. Excavation Permits**	**505 days**	**Tue 29/5/07**	**Tue 14/10/08**	
749	3.1 application and issue of permit (trial pits for utilities and site entrance in Kam Po Road)	60 days	Tue 29/5/07	Fri 27/7/07	744
750	3.2 application and issue of permits (for construction of box culvert)	180 days	Fri 18/4/08	Tue 14/10/08	747
751	**4. Underground utilities detection**	**43 days**	**Fri 29/6/07**	**Fri 10/8/07**	

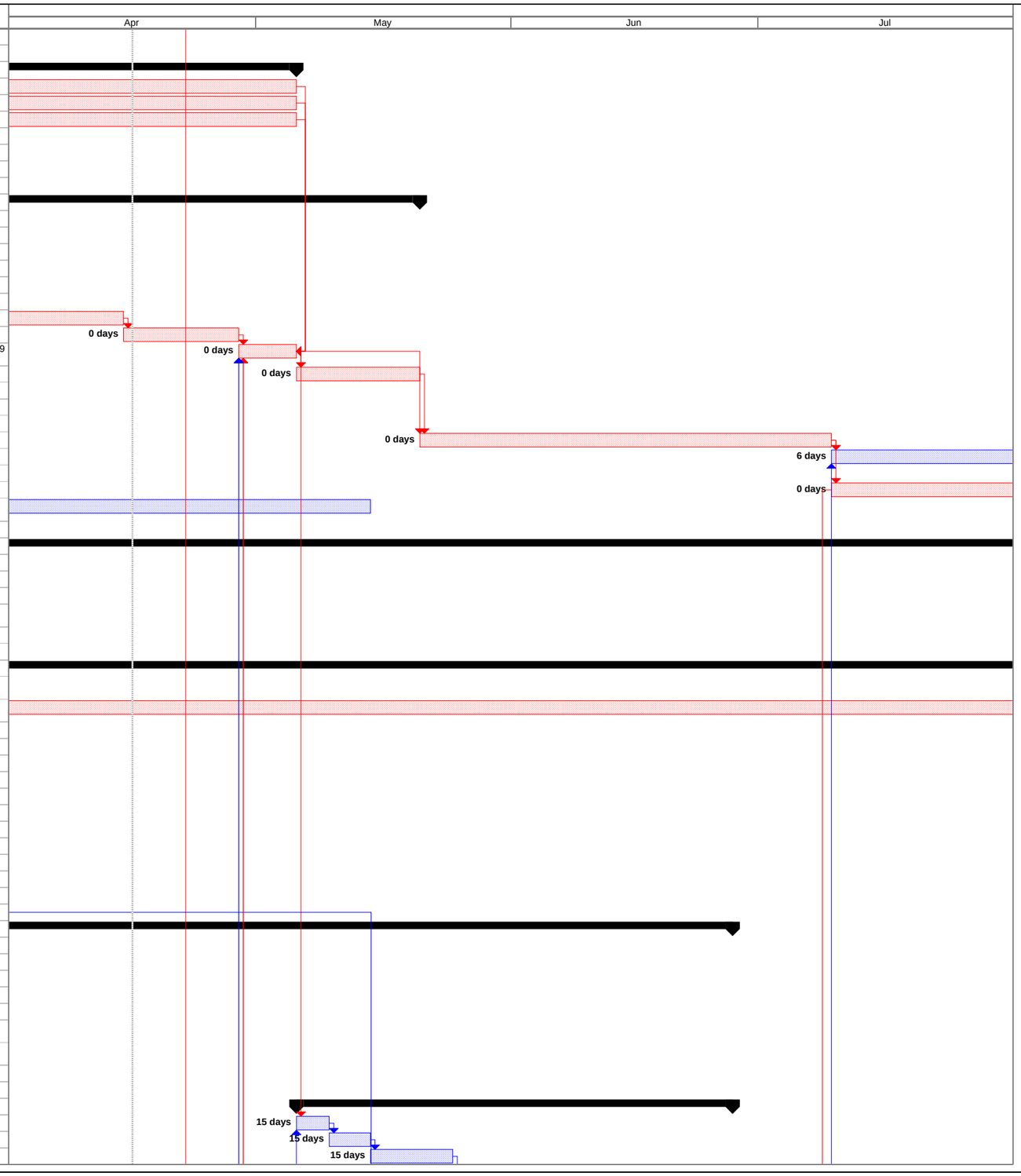


Task | Progress | Summary | Rolled Up Critical Task | Rolled Up Progress | External Tasks | Group By Summary
Critical Task | Milestone | Rolled Up Task | Rolled Up Milestone | Split | Project Summary | Deadline

PROGRAMME OF WORKS - RP22
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 : APR 2009

ID	Task Name	Duration	Start	Finish	Predecessors
752	4.1 utilities detection	28 days	Fri 29/6/07	Fri 27/7/07	753SF-1 day
753	4.2 trial trench excavtion & identification	14 days	Sat 28/7/07	Fri 10/8/07	749
754	**5. Utilities temporary diversion / protection**	**164 days**	**Sun 23/11/08**	**Tue 5/5/09**	
755	a. WSD water main along Kam Po Road	164 days	Sun 23/11/08	Tue 5/5/09	764SS
756	b. Street lighting along Kam Po Road	164 days	Sun 23/11/08	Tue 5/5/09	764SS
757	c. DSD storm Drain	164 days	Sun 23/11/08	Tue 5/5/09	764SS
758	**6. Drainage Management Plan**	**715 days**	**Fri 30/3/07**	**Fri 13/3/09**	
759	6.1 Submission of DMPs	1 day	Fri 30/3/07	Fri 30/3/07	
760	6.2 Comments by the Engineer	14 days	Sat 31/3/07	Fri 13/4/07	759
761	6.3 Implementation of DMPs	57 days	Fri 16/1/09	Fri 13/3/09	765,760
762	**7. Box Culvert Ch0-Ch19.5 (Bay 1 to Bay 3)**	**217 days**	**Thu 16/10/08**	**Wed 20/5/09**	
763	Remove road pavement and expose existing utilities	8 days	Thu 16/10/08	Thu 23/10/08	753,750,774
764	Excavation	21 days	Sun 23/11/08	Sat 13/12/08	763,740,775,956
765	Remove existing box culvert	28 days	Fri 19/12/08	Thu 15/1/09	766
766	flow diversion	5 days	Sun 14/12/08	Thu 18/12/08	764
767	Granular Bedding	9 days	Fri 16/1/09	Sat 24/1/09	765
768	Base Slab	35 days	Sun 25/1/09	Sat 28/2/09	767
769	Wall and Deck	45 days	Sun 1/3/09	Tue 14/4/09	768
770	Curing	14 days	Wed 15/4/09	Tue 28/4/09	769
771	Trench Backfill	7 days	Wed 29/4/09	Tue 5/5/09	770,755FF,756FF,757FF,888,889
772	Reinstatement of Kam Po Road	15 days	Wed 6/5/09	Wed 20/5/09	771
773	**8. Construction of temporary access at Bay 4**	21 days	Wed 24/9/08	Tue 14/10/08	813,750FF
774	**9. Diversion of traffic to Bay 4**	1 day	Wed 15/10/08	Wed 15/10/08	773
775	**10. Temporary support to existing watermain at Kam Po Roa**	30 days	Fri 24/10/08	Sat 22/11/08	763
776	**11. Fill in Platform**	**50 days**	**Thu 21/5/09**	**Thu 9/7/09**	**771,772**
777	**12. Roads and paving (Bay 3 and Bay 4)**	**40 days**	**Fri 10/7/09**	**Tue 18/8/09**	**776,924**
778	**13. Street furnitures**	**14 days**	**Wed 19/8/09**	**Tue 1/9/09**	**777**
779	**14. Landscape softworks / hardworks**	**60 days**	**Fri 10/7/09**	**Mon 7/9/09**	**776**
780	**15. Modification to invert level of box culvert at Kam Sheun**	**45 days**	**Tue 31/3/09**	**Thu 14/5/09**	**854,990**
781					
782	**C2. Portion 5 and 5C**	**893 days**	**Fri 30/3/07**	**Mon 7/9/09**	
783	**1. Site clearance**	**90 days**	**Thu 20/9/07**	**Tue 18/12/07**	
784	1.1 General clearance	90 days	Thu 20/9/07	Tue 18/12/07	36,226SS+75 days,1043,1045
785	**2. Temporary Traffic Management Scheme**	**59 days**	**Fri 30/3/07**	**Sun 27/5/07**	
786	TTMS Proposal (trial pits for utilities and site entrance in Ka	59 days	Fri 30/3/07	Sun 27/5/07	
787	a. Submission	45 days	Fri 30/3/07	Sun 13/5/07	2SS
788	b. comments & approvals by Engineer & TMLG	14 days	Mon 14/5/07	Sun 27/5/07	787
789	**3. Excavation Permits**	**804 days**	**Mon 28/5/07**	**Sat 8/8/09**	
790	3.1 application and issue of permit (trial pits for utilities and temporary site entrance in Kam Sheung Road)	60 days	Mon 28/5/07	Thu 26/7/07	788
791	3.2 application and issue of permits (for construction of permanent entrance)	180 days	Tue 10/2/09	Sat 8/8/09	7FS-210 days
792	**4. Underground utilities detection**	**42 days**	**Fri 29/6/07**	**Thu 9/8/07**	
793	a. utilities detection	28 days	Fri 29/6/07	Thu 26/7/07	19
794	b. trial trench excavtion & identification	14 days	Fri 27/7/07	Thu 9/8/07	790,793
795	**5. Utilities temporary diversion / protection**	**223 days**	**Fri 30/3/07**	**Wed 7/11/07**	
796	a. CLP overhead cables at CH 100 ~ CH 120	90 days	Fri 10/8/07	Wed 7/11/07	794
797	b. CLP overhead cables at CH 530 ~ CH 550	38 days	Fri 10/8/07	Sun 16/9/07	794
798	c. CLP overhead cables at CH 670 ~ CH 690	90 days	Fri 10/8/07	Wed 7/11/07	794
799	d. Gas main at Kam Sheung Road	84 days	Fri 30/3/07	Thu 21/6/07	
800	**6. Drainage Management Plan**	**692 days**	**Fri 30/3/07**	**Wed 18/2/09**	
801	5.1 Submission of DMPs	1 day	Fri 30/3/07	Fri 30/3/07	759SS
802	5.2 Comments by the Engineer	14 days	Sat 31/3/07	Fri 13/4/07	801
803	5.3 Implementation of DMP	551 days	Sat 18/8/07	Wed 18/2/09	831SS,802
804	**7. Channel and Crossings**	**821 days**	**Fri 30/3/07**	**Sat 27/6/09**	
805	a. Ch20-Ch130 (Bay 4 - Bay 11)	230 days	Thu 23/8/07	Tue 8/4/08	
806	Haul access	5 days	Thu 23/8/07	Mon 27/8/07	821
807	Flow diversion	10 days	Wed 2/1/08	Fri 11/1/08	808SS-10 days
808	Excavation (including contamination material)	44 days	Sat 12/1/08	Sun 24/2/08	796,806,837
809	Granular Bedding	40 days	Tue 22/1/08	Sat 1/3/08	808SS+10 days
810	Base Slab (except south of Bay 6 and north of Bay 7)	44 days	Mon 28/1/08	Tue 11/3/08	809SS+6 days
811	Wall and Deck (except south of Bay 6 and north of Bay	37 days	Mon 11/2/08	Tue 18/3/08	810SS+14 days
812	Curing	44 days	Mon 18/2/08	Tue 1/4/08	811SS+7 days
813	Trench Backfill	37 days	Mon 3/3/08	Tue 8/4/08	812SS+14 days
814	b. South of Bay 6 and north of Bay 7	**53 days**	**Wed 6/5/09**	**Sat 27/6/09**	
815	Excavation	4 days	Wed 6/5/09	Sat 9/5/09	771,996
816	Granular Bedding	5 days	Sun 10/5/09	Thu 14/5/09	815
817	Base Slab and Wall	10 days	Fri 15/5/09	Sun 24/5/09	816



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CHIT CHEUNG CONSTRUCTION CO., LTD.
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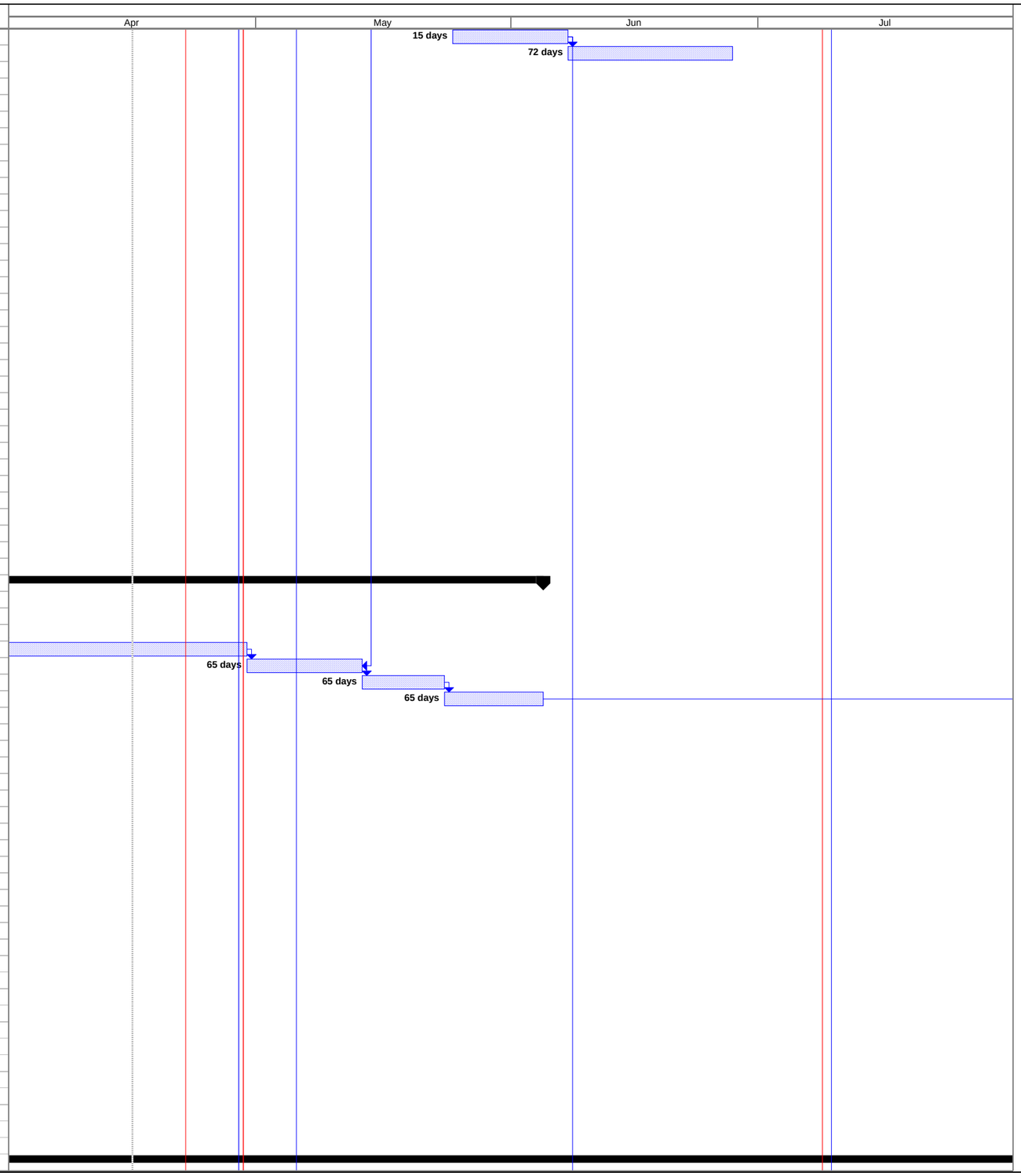
ID	Task Name	Duration	Start	Finish	Predecessors
818	Curing	14 days	Mon 25/5/09	Sun 7/6/09	817
819	Trench Backfill	20 days	Mon 8/6/09	Sat 27/6/09	818
820	c. Ch130-Ch233 (Bay 12 - Bay 19)	342 days	Sat 18/8/07	Thu 24/7/08	
821	Haul access	5 days	Sat 18/8/07	Wed 22/8/07	830
822	Flow diversion	10 days	Sun 30/3/08	Tue 8/4/08	823SS-10 days
823	Excavation (including contamination material)	33 days	Wed 9/4/08	Sun 11/5/08	821,813
824	Granular Bedding	29 days	Sat 19/4/08	Sat 17/5/08	823SS+10 days
825	Base Slab	50 days	Fri 25/4/08	Fri 13/6/08	824SS+6 days
826	Wall and Deck	56 days	Fri 9/5/08	Thu 3/7/08	825SS+14 days
827	Curing	63 days	Fri 16/5/08	Thu 17/7/08	826SS+7 days
828	Trench Backfill	56 days	Fri 30/5/08	Thu 24/7/08	827SS+14 days
829	d. Ch233-Ch380 (Bay 20 - Bay 30)	152 days	Mon 13/8/07	Fri 11/1/08	
830	Haul access	5 days	Mon 13/8/07	Fri 17/8/07	832SS-15 days
831	Flow diversion	10 days	Sat 18/8/07	Mon 27/8/07	830
832	Excavation (including contamination material)	60 days	Tue 28/8/07	Fri 26/10/07	
833	Granular Bedding	70 days	Fri 7/9/07	Thu 15/11/07	832SS+10 days
834	Base Slab	78 days	Thu 13/9/07	Thu 29/11/07	833SS+6 days
835	Wall and Deck	85 days	Thu 27/9/07	Thu 20/12/07	834SS+14 days
836	Curing	92 days	Thu 4/10/07	Thu 3/1/08	835SS+7 days
837	Trench Backfill	86 days	Thu 18/10/07	Fri 11/1/08	836SS+14 days
838	e. Ch464-Ch489 (North of Bay 38 and Bay 39)	**95 days**	**Thu 5/6/08**	**Sun 7/9/08**	
839	Excavation	28 days	Thu 5/6/08	Wed 2/7/08	876SS+97 days
840	Granular Bedding	10 days	Thu 3/7/08	Sat 12/7/08	839
841	Base Slab and Wall	24 days	Sun 13/7/08	Tue 5/8/08	840
842	Curing	14 days	Wed 6/8/08	Tue 19/8/08	841
843	Trench Backfill	17 days	Wed 20/8/08	Fri 5/9/08	842
844	Forming site access at north of Bay 38 and Bay 39	2 days	Sat 6/9/08	Sun 7/9/08	843
845	f. Ch464-CH504 (Bay 40, South of Bay 38 and Bay 39)	**146 days**	**Mon 8/9/08**	**Sat 31/1/09**	
846	Excavation	97 days	Mon 8/9/08	Sat 13/12/08	844
847	Granular Bedding	97 days	Mon 22/9/08	Sat 27/12/08	846SS+14 days
848	Base Slab and Wall	96 days	Tue 30/9/08	Sat 3/1/09	847SS+8 days
849	Curing	96 days	Tue 21/10/08	Sat 24/1/09	848SS+21 days
850	Trench Backfill	96 days	Tue 28/10/08	Sat 31/1/09	849SS+7 days
851	g. Ch449-Ch464 (Bay 37)	**124 days**	**Sun 1/2/09**	**Thu 4/6/09**	
852	Excavation	21 days	Sun 1/2/09	Sat 21/2/09	850
853	Granular Bedding	7 days	Sun 22/2/09	Sat 28/2/09	852
854	Base Slab	30 days	Sun 1/3/09	Mon 30/3/09	853
855	Wall and Deck	30 days	Tue 31/3/09	Wed 29/4/09	854
856	Curing	14 days	Thu 30/4/09	Wed 13/5/09	855,803FF
857	Trench Backfill	10 days	Thu 14/5/09	Sat 23/5/09	856
858	Filling Platform Bay 37	12 days	Sun 24/5/09	Thu 4/6/09	857
859	h. Ch504-Ch586 (Bay 41 - Bay 46)	285 days	Fri 30/3/07	Tue 8/1/08	
860	Haul access	3 days	Fri 30/3/07	Sun 1/4/07	
861	Flow diversion	5 days	Fri 7/9/07	Tue 11/9/07	862SS-10 days
862	Excavation (including contamination material)	45 days	Mon 17/9/07	Wed 31/10/07	797
863	Granular Bedding	55 days	Thu 27/9/07	Tue 20/11/07	862SS+10 days
864	Base Slab	63 days	Wed 3/10/07	Tue 4/12/07	863SS+6 days
865	Wall and Deck	63 days	Wed 17/10/07	Tue 18/12/07	864SS+14 days
866	Curing	70 days	Wed 24/10/07	Tue 1/1/08	865SS+7 days
867	Trench Backfill	63 days	Wed 7/11/07	Tue 8/1/08	866SS+14 days
868	i. Ch586-Ch712 (Bay 47 - Bay 57)	393 days	Mon 2/4/07	Mon 28/4/08	
869	Haul access	5 days	Mon 2/4/07	Fri 6/4/07	860
870	Flow diversion	3 days	Sun 30/12/07	Tue 1/1/08	871SS-10 days
871	Excavation (including contamination material)	60 days	Wed 9/1/08	Sat 8/3/08	1066,867,798
872	Granular Bedding	60 days	Sat 19/1/08	Tue 18/3/08	871SS+10 days
873	Base Slab	60 days	Fri 25/1/08	Mon 24/3/08	872SS+6 days
874	Wall and Deck	60 days	Fri 8/2/08	Mon 7/4/08	873SS+14 days
875	Curing	67 days	Fri 15/2/08	Mon 21/4/08	874SS+7 days
876	Trench Backfill	60 days	Fri 29/2/08	Mon 28/4/08	875SS+14 days
877	j. Ch712-Ch799 (Bay 58 - Bay 63)	699 days	Sat 7/4/07	Thu 5/3/09	
878	Haul access	3 days	Sat 7/4/07	Mon 9/4/07	869
879	Flow diversion	3 days	Fri 5/9/08	Sun 7/9/08	880SS-3 days
880	Excavation (including contamination material)	134 days	Mon 8/9/08	Mon 19/1/09	878,876,844
881	Granular Bedding	134 days	Thu 18/9/08	Thu 29/1/09	880SS+10 days
882	Base Slab	134 days	Wed 24/9/08	Wed 4/2/09	881SS+6 days
883	Wall and Deck	125 days	Wed 8/10/08	Mon 9/2/09	882SS+14 days
884	Curing	132 days	Wed 15/10/08	Mon 23/2/09	883SS+7 days
885	Trench Backfill	128 days	Wed 29/10/08	Thu 5/3/09	884SS+14 days
886	**8. Gabion**	**613 days**	**Fri 4/1/08**	**Mon 7/9/09**	



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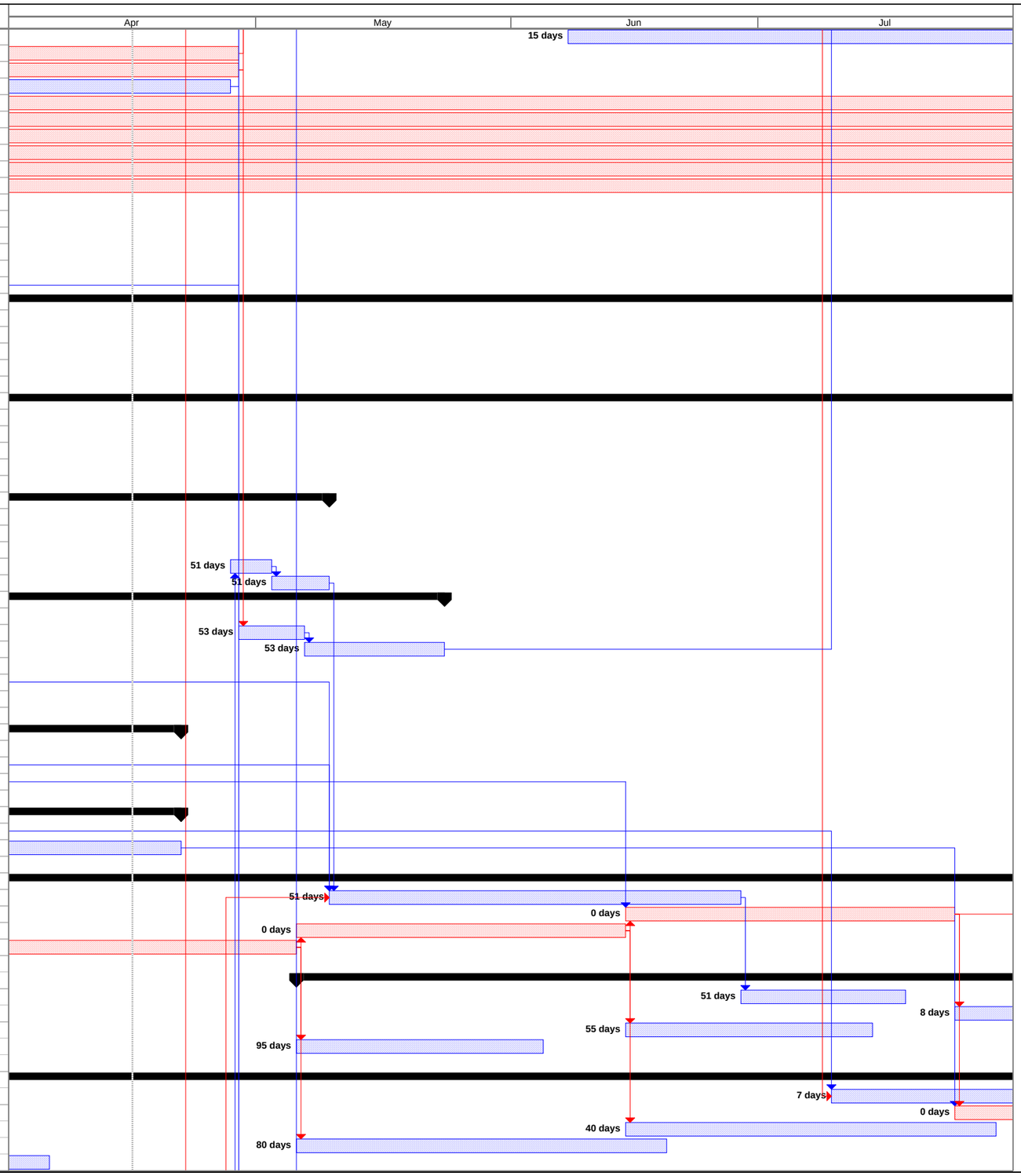
ID	Task Name	Duration	Start	Finish	Predecessors
887	Bay 5- Bay 7 (Ch35-Ch75)	77 days	Mon 8/6/09	Sun 23/8/09	818
888	Bay 8- Bay 11 (Ch75-Ch130)	392 days	Wed 2/4/08	Tue 28/4/09	812
889	Bay 12 - Bay 19 (Ch130-Ch233)	285 days	Fri 18/7/08	Tue 28/4/09	827
890	Bay 20 - Bay 27 (Ch233-Ch340)	480 days	Fri 4/1/08	Mon 27/4/09	836
891	Bay 28 to Bay 30 (Ch340 to Ch380)	206 days	Sat 14/2/09	Mon 7/9/09	985
892	Bay 38 - Bay 43 (Ch464-Ch549)	226 days	Sun 25/1/09	Mon 7/9/09	849
893	Bay 44 - Bay 45 (Ch549-Ch576)	492 days	Tue 22/4/08	Wed 26/8/09	875
894	Bay 50 to Bay 54 (Ch631 to Ch675)	504 days	Tue 22/4/08	Mon 7/9/09	875
895	Bay 56 - Bay 59 (Ch688-Ch741)	196 days	Tue 24/2/09	Mon 7/9/09	884
896	Bay 60 - Bay 62 (Ch741-Ch786)	184 days	Tue 24/2/09	Wed 26/8/09	884
897	**9. Granite Stone Facing**	**716 days**	**Fri 30/3/07**	**Sat 14/3/09**	
898	Bay 4 and Bay 5 (Ch19.5-Ch55)	5 days	Wed 2/4/08	Sun 6/4/08	812
899	Bay 15 - Bay 19 (Ch166-Ch233)	12 days	Fri 18/7/08	Tue 29/7/08	827
900	Bay 37 (Ch449-Ch464)	7 days	Fri 30/3/07	Thu 5/4/07	
901	Bay 41, Bay 42 and Bay 46 (Ch504-Ch586)	6 days	Sat 28/2/09	Thu 5/3/09	997
902	Bay 47 - Bay 55 (Ch586-Ch688)	9 days	Fri 6/3/09	Sat 14/3/09	901
903	**10. Ramp No. 1 (Ch645 - Ch668, Bay 52 - Bay 53)**	**504 days**	**Tue 22/4/08**	**Mon 7/9/09**	
904	base slab	12 days	Tue 22/4/08	Sat 3/5/08	875
905	Wall	10 days	Sun 4/5/08	Tue 13/5/08	904
906	General fill	5 days	Wed 14/5/08	Sun 18/5/08	905
907	Granular fill and blinding	5 days	Thu 27/8/09	Mon 31/8/09	896
908	Concrete pavement	7 days	Tue 1/9/09	Mon 7/9/09	907
909	**11. Ramp No. 2 (Ch516 - Ch537, Bay 42)**	**893 days**	**Fri 30/3/07**	**Mon 7/9/09**	
910	base slab	12 days	Fri 30/3/07	Tue 10/4/07	
911	Wall	10 days	Wed 11/4/07	Fri 20/4/07	910
912	General fill	20 days	Sat 21/4/07	Thu 10/5/07	911
913	Granular fill and blinding	5 days	Thu 27/8/09	Mon 31/8/09	893
914	Concrete pavement	7 days	Tue 1/9/09	Mon 7/9/09	913
915	**12. Ramp No. 3 (Ch209 - Ch233, Bay 18 - Bay 19)**	**296 days**	**Fri 18/7/08**	**Sat 9/5/09**	
916	base slab	12 days	Fri 18/7/08	Tue 29/7/08	827
917	Wall	10 days	Wed 30/7/08	Fri 8/8/08	916
918	General fill	20 days	Sat 9/8/08	Thu 28/8/08	917
919	Granular fill and blinding	5 days	Tue 28/4/09	Sat 2/5/09	996
920	Concrete pavement	7 days	Sun 3/5/09	Sat 9/5/09	919
921	**13 Ramp No. 4 (Ch35 - Ch55, Bay5)**	**417 days**	**Wed 2/4/08**	**Sat 23/5/09**	
922	General fill	7 days	Wed 2/4/08	Tue 8/4/08	812
923	Subbase	8 days	Wed 29/4/09	Wed 6/5/09	889
924	Concrete pavement	17 days	Thu 7/5/09	Sat 23/5/09	923
925	**14. Filling in Platform**	**231 days**	**Fri 25/7/08**	**Thu 12/3/09**	
926	a. Bay 3- Bay 27 (Ch11-Ch340)	34 days	Fri 25/7/08	Wed 27/8/08	813,828
927	b. Bay 38 - Bay 55 (Ch464-Ch688)	20 days	Sun 1/2/09	Fri 20/2/09	876,867,843,850
928	c. Bay 56 - Bay 63 (Ch688-Ch797)	7 days	Fri 6/3/09	Thu 12/3/09	885
929	**15. Drainage works**	**261 days**	**Mon 4/8/08**	**Tue 21/4/09**	
930	16.1 storm drain with manhole and headwall	235 days	Mon 4/8/08	Thu 26/3/09	
931	a. Bay 3- Bay 27 (Ch11-Ch340)	20 days	Mon 4/8/08	Sat 23/8/08	926SS+10 days
932	b. Bay 37 - Bay 55 (Ch449-Ch688)	30 days	Wed 11/2/09	Thu 12/3/09	927SS+10 days
933	c. Bay 56 - Bay 63 (Ch688-Ch797)	14 days	Fri 13/3/09	Thu 26/3/09	928
934	16.2 surface drain	237 days	Thu 28/8/08	Tue 21/4/09	
935	a. Bay 3- Bay 27 (Ch11-Ch340)	34 days	Thu 28/8/08	Tue 30/9/08	926
936	b. Bay 37 - Bay 55 (Ch449-Ch688)	60 days	Sat 21/2/09	Tue 21/4/09	927
937	c. Bay 56 - Bay 63 (Ch688-Ch797)	14 days	Fri 13/3/09	Thu 26/3/09	928
938	**16. Roads and paving**	**158 days**	**Fri 27/3/09**	**Mon 31/8/09**	
939	a. Ch233 - Ch340	50 days	Sun 10/5/09	Sun 28/6/09	926,920,931,1002SS-30 days
940	b. Ch464 - Ch549	40 days	Mon 15/6/09	Fri 24/7/09	941,932
941	c. Ch549 - Ch609	40 days	Wed 6/5/09	Sun 14/6/09	942
942	d. Ch609 - Ch688	40 days	Fri 27/3/09	Tue 5/5/09	933,928
943	e. Permanent Entrance at Ch449 to Ch464	23 days	Sun 9/8/09	Mon 31/8/09	791,858,940
944	**17. Street furnitures**	**125 days**	**Wed 6/5/09**	**Mon 7/9/09**	
945	a. Ch233 - Ch340	20 days	Mon 29/6/09	Sat 18/7/09	939
946	b. Ch449 - Ch549	30 days	Sat 25/7/09	Sun 23/8/09	940
947	c. Ch549 - Ch609	30 days	Mon 15/6/09	Tue 14/7/09	941
948	d. Ch609 - Ch688	30 days	Wed 6/5/09	Thu 4/6/09	942
949	e. Permanent Entrance at Ch449	7 days	Tue 1/9/09	Mon 7/9/09	943,946
950	**18. Landscape softworks / hardworks**	**165 days**	**Fri 27/3/09**	**Mon 7/9/09**	
951	a. Ch35 - Ch340	53 days	Fri 10/7/09	Mon 31/8/09	935,779SS
952	b. Ch449 - Ch549	45 days	Sat 25/7/09	Mon 7/9/09	936,940
953	c. Ch549 - Ch609	45 days	Mon 15/6/09	Wed 29/7/09	941
954	d. Ch609 - Ch688	45 days	Wed 6/5/09	Fri 19/6/09	942
955	e. Ch688 - Ch797	10 days	Fri 27/3/09	Sun 5/4/09	937

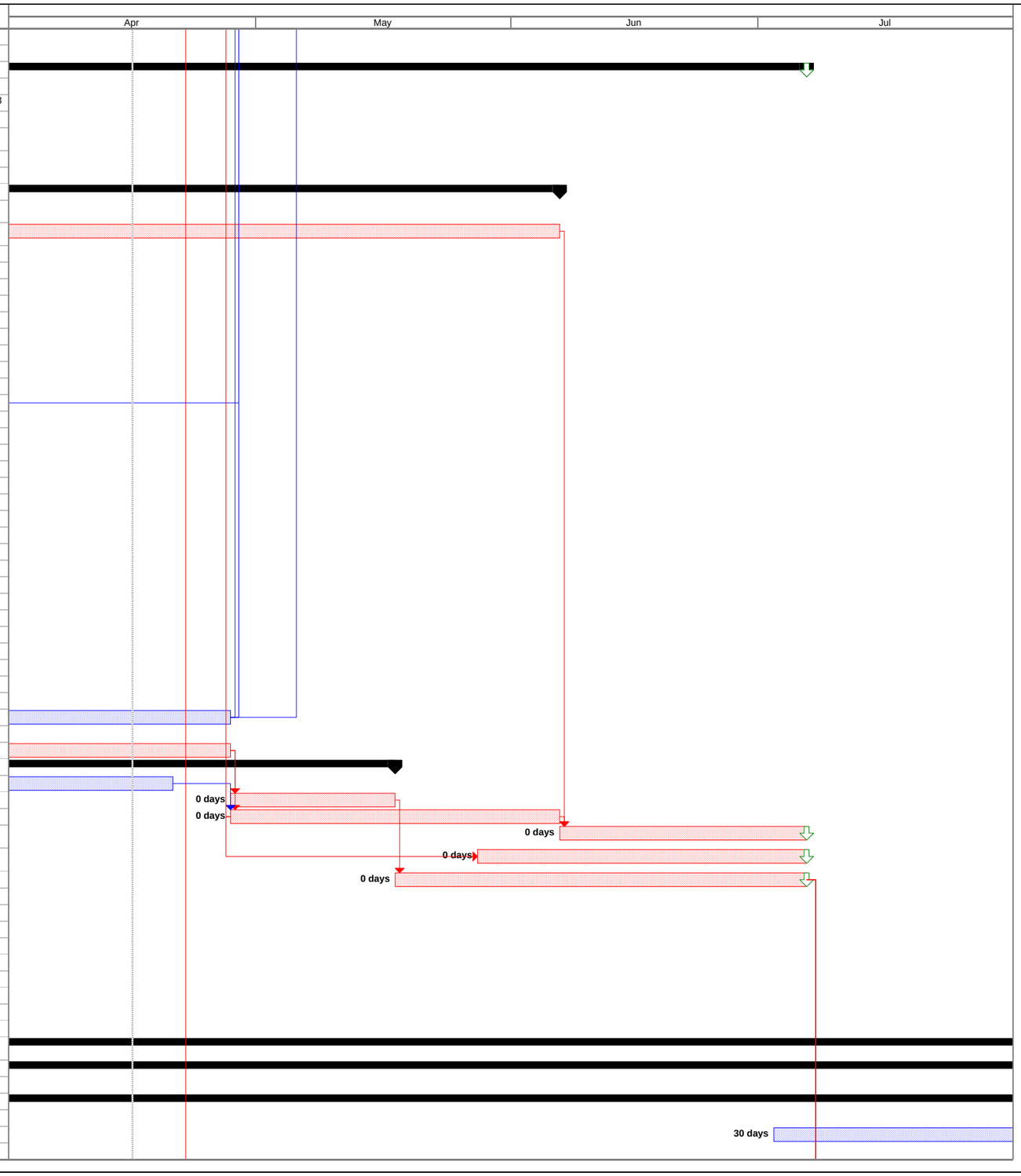


Task | Progress | Summary | Rolled Up Critical Task | Rolled Up Progress | External Tasks | Group By Summary
Critical Task | Milestone | Rolled Up Task | Rolled Up Milestone | Split | Project Summary | Deadline

PROGRAMME OF WORKS - RP22
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 : APR 2009

ID	Task Name	Duration	Start	Finish	Predecessors
956	**19. Construction of cofferdam**	21 days	Sat 1/11/08	Fri 21/11/08	
957					
958	**D. Section III of the Works - Portions 5A1, 5A2 and 5B**	**830 days**	**Fri 30/3/07**	**Mon 6/7/09**	
959	**1. Site clearance**	**4 days**	**Mon 31/12/07**	**Thu 3/1/08**	
960	1.1 General site clearance	4 days	Mon 31/12/07	Thu 3/1/08	1049,1051,1055,1057,1061,1063
961	**2. Temporary Traffic Management Scheme**	**59 days**	**Fri 30/3/07**	**Sun 27/5/07**	
962	TTMS Proposal (trial pits for utilities and site entrance in Kam Sh	59 days	Fri 30/3/07	Sun 27/5/07	
963	a. Submission	45 days	Fri 30/3/07	Sun 13/5/07	2SS
964	b. comments & approvals by Engineer & TMLG	14 days	Mon 14/5/07	Sun 27/5/07	963
965	**3. Excavation Permits**	**741 days**	**Mon 28/5/07**	**Sat 6/6/09**	
966	3.1 application and issue of permit (trial pits for utilities and temporary site entrance in Kam Sheung Road)	60 days	Mon 28/5/07	Thu 26/7/07	964
967	3.2 application and issue of permits (for construction of permanent entrance)	180 days	Tue 9/12/08	Sat 6/6/09	7FS-273 days
968	**4. Underground utilities detection**	**42 days**	**Fri 29/6/07**	**Thu 9/8/07**	
969	a. utilities detection	2 days	Fri 29/6/07	Sat 30/6/07	20
970	b. trial trench excavtion & identification	14 days	Fri 27/7/07	Thu 9/8/07	966,969
971	**5. Utilities temporary diversion / protection**	**590 days**	**Thu 26/7/07**	**Fri 6/3/09**	
972	a. Completion of WSD 450 diameter water main (By WSD)	1 day	Thu 26/7/07	Thu 26/7/07	
973	b. Telephone line	87 days	Wed 10/12/08	Fri 6/3/09	981SS,986FF,970
974	**6. Drainage Management Plan**	**715 days**	**Fri 30/3/07**	**Fri 13/3/09**	
975	a Submission of DMPs	1 day	Fri 30/3/07	Fri 30/3/07	759SS
976	b Comments by the Engineer	14 days	Sat 31/3/07	Fri 13/4/07	975
977	c Implementation of DMP	558 days	Mon 3/9/07	Fri 13/3/09	976,761FF
978	**7.1 Channel - Ch380-Ch429 (Bay 31 - Bay 34)**	**443 days**	**Thu 20/12/07**	**Fri 6/3/09**	
979	Haul access	15 days	Thu 20/12/07	Thu 3/1/08	1049,960FF
980	Flow diversion	4 days	Wed 17/9/08	Sat 20/9/08	813FF,1008
981	Excavation (including contamination material)	70 days	Sun 21/9/08	Sat 29/11/08	813,979,980
982	Granular Bedding	70 days	Sat 11/10/08	Fri 19/12/08	981SS+20 days
983	Base Slab	77 days	Sat 25/10/08	Fri 9/1/09	982SS+14 days
984	Wall and Deck	77 days	Sat 15/11/08	Fri 30/1/09	983SS+21 days
985	Curing	84 days	Sat 22/11/08	Fri 13/2/09	984SS+7 days
986	Trench Backfill	91 days	Sat 6/12/08	Fri 6/3/09	985SS+14 days
987	**7.2 Channel - Ch429-Ch439 (Bay 35)**	**97 days**	**Sun 30/11/08**	**Fri 6/3/09**	
988	Excavation	10 days	Sun 30/11/08	Tue 9/12/08	981
989	Granular Bedding	7 days	Wed 10/12/08	Tue 16/12/08	988
990	Base Slab	21 days	Wed 17/12/08	Tue 6/1/09	989
991	Wall and Deck	35 days	Wed 7/1/09	Tue 10/2/09	990
992	Curing	14 days	Wed 11/2/09	Tue 24/2/09	991
993	Trench Backfill	10 days	Wed 25/2/09	Fri 6/3/09	992
994	**8. Demolition of existing structures**	**2 days**	**Sun 26/8/07**	**Mon 27/8/07**	
995	a. Existing footbridge at Ch350 (Bay 29)	2 days	Sun 26/8/07	Mon 27/8/07	832SS-2 days
996	**9. Gabion**	73 days	Sat 14/2/09	Mon 27/4/09	985
997	**10. Granite Stone Facing (Bay 35)**	3 days	Wed 25/2/09	Fri 27/2/09	899,992
998	**11. Fill in Platform**	52 days	Sat 7/3/09	Mon 27/4/09	986,993
999	**12. Drainage works**	**62 days**	**Tue 17/3/09**	**Sun 17/5/09**	
1000	a. storm drain with manhole	35 days	Tue 17/3/09	Mon 20/4/09	998SS+10 days
1001	b. surface drain	20 days	Tue 28/4/09	Sun 17/5/09	998
1002	**13. Roads and paving**	40 days	Tue 28/4/09	Sat 6/6/09	998,1000
1003	**14. Permanent Entrance, road marking and street furnitures at C**	30 days	Sun 7/6/09	Mon 6/7/09	967,1002
1004	**15. Street furnitures(Bay 31 to Bay 34) / traffic sign / road markir**	40 days	Thu 28/5/09	Mon 6/7/09	1002SS+30 days
1005	**16. Landscape softworks / hardworks**	50 days	Mon 18/5/09	Mon 6/7/09	1001
1006	**17. Temp vehicular access in Portion 5A1**	**191 days**	**Wed 26/9/07**	**Thu 3/4/08**	
1007	a. Maintenance and operation	188 days	Wed 26/9/07	Mon 31/3/08	1013
1008	b. Removal	3 days	Tue 1/4/08	Thu 3/4/08	1007
1009					
1010	**E. Section IV of the Works**	**20 days**	**Thu 6/9/07**	**Tue 25/9/07**	
1011	1. Formation for temp vehicular access	2 days	Thu 6/9/07	Fri 7/9/07	1049,972
1012	2. Construction of temp vehicular access	17 days	Sat 8/9/07	Mon 24/9/07	1011,11FF-1 day
1013	3. Opening of temp vehicular access to the Public	1 day	Tue 25/9/07	Tue 25/9/07	1012
1014					
1015	**F. Section V of the Works - Preservation and protection to existing trees**	**892 days**	**Sat 31/3/07**	**Mon 7/9/09**	
1016	**1. Portion 1**	**862 days**	**Sat 31/3/07**	**Sat 8/8/09**	
1017	1.1 Tree survey	14 days	Sat 31/3/07	Fri 13/4/07	15
1018	1.2 Tree transplant	813 days	Sat 19/5/07	Sat 8/8/09	
1019	a. To Temp holding nursery	62 days	Sat 19/5/07	Thu 19/7/07	1017,214
1020	b. To final location	37 days	Fri 3/7/09	Sat 8/8/09	345FF
1021	1.3 Tree protection	62 days	Sat 19/5/07	Thu 19/7/07	1019SS



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 - RP22
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 : APR 2009

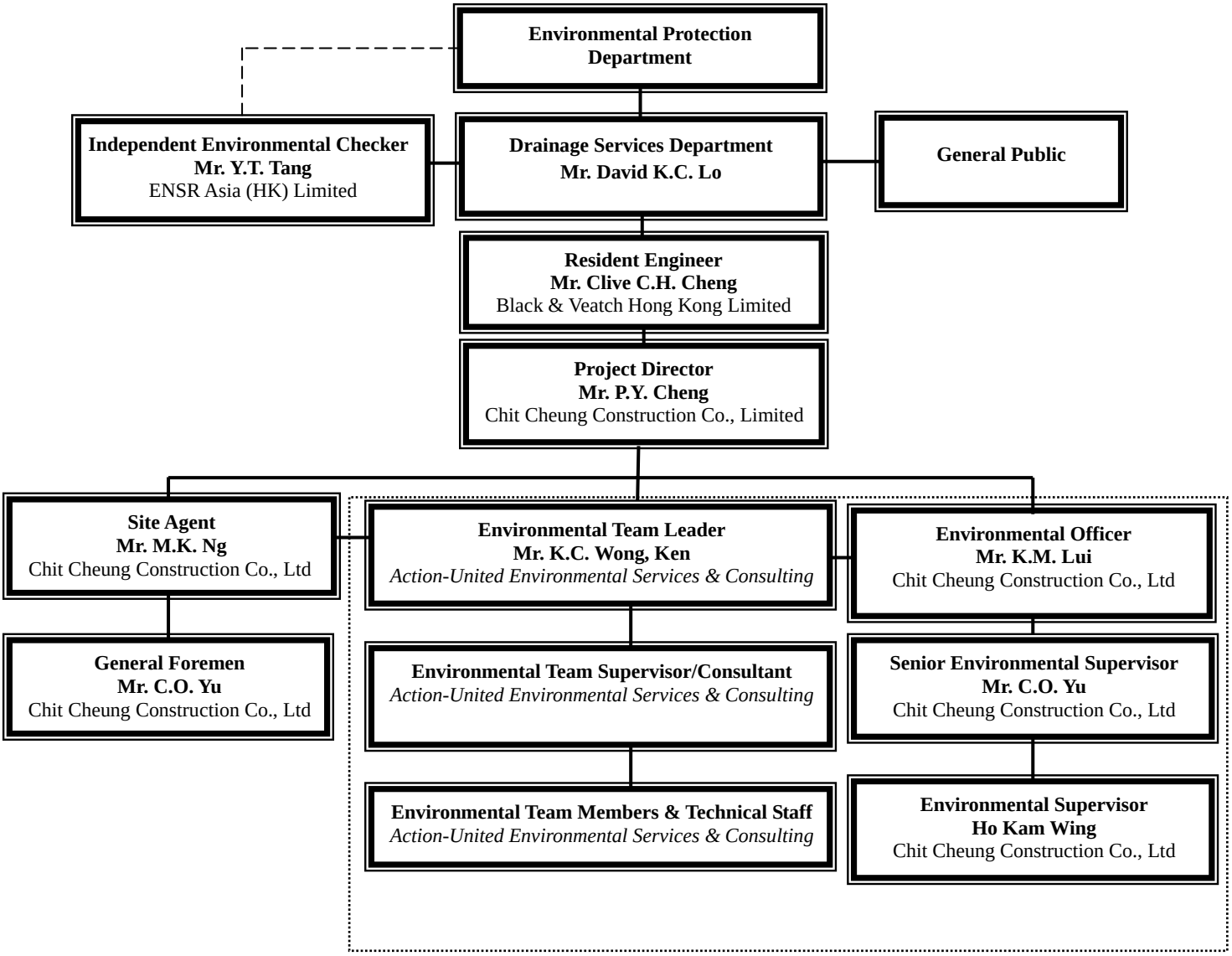
ID	Task Name	Duration	Start	Finish	Predecessors
1022	**2. Portion 2**	**832 days**	**Wed 30/5/07**	**Mon 7/9/09**	
1023	2.1 Tree survey	14 days	Wed 30/5/07	Tue 12/6/07	16
1024	2.2 Tree transplant	818 days	Wed 13/6/07	Mon 7/9/09	
1025	a. To Temp holding nursery	62 days	Wed 13/6/07	Mon 13/8/07	1023,214,228
1026	b. To final location	132 days	Wed 29/4/09	Mon 7/9/09	461FF
1027	2.3 Tree protection	62 days	Wed 13/6/07	Mon 13/8/07	1025SS
1028	**3. Portion 3**	**802 days**	**Fri 29/6/07**	**Mon 7/9/09**	
1029	3.1 Tree survey	14 days	Fri 29/6/07	Thu 12/7/07	17
1030	3.2 Tree transplant	788 days	Fri 13/7/07	Mon 7/9/09	
1031	a. To Temp holding nursery	64 days	Fri 13/7/07	Fri 14/9/07	1029,214
1032	b. To final location	301 days	Tue 11/11/08	Mon 7/9/09	716FF
1033	3.3 Tree protection	64 days	Fri 13/7/07	Fri 14/9/07	1031SS
1034	**4. Portion 4**	**892 days**	**Sat 31/3/07**	**Mon 7/9/09**	
1035	4.1 Tree survey	14 days	Sat 31/3/07	Fri 13/4/07	18
1036	4.2 Tree transplant	843 days	Sat 19/5/07	Mon 7/9/09	
1037	a. To Temp holding nursery	62 days	Sat 19/5/07	Thu 19/7/07	1035,214
1038	b. To final location	53 days	Fri 17/7/09	Mon 7/9/09	779FF
1039	4.3 Tree protection	62 days	Sat 19/5/07	Thu 19/7/07	1037SS
1040	**5. Portion 5**	**802 days**	**Fri 29/6/07**	**Mon 7/9/09**	
1041	5.1 Tree survey	14 days	Fri 29/6/07	Thu 12/7/07	19
1042	5.2 Tree transplant	**788 days**	**Fri 13/7/07**	**Mon 7/9/09**	
1043	a. To Temp holding nursery	69 days	Fri 13/7/07	Wed 19/9/07	1041,214
1044	b. To final location	195 days	Wed 25/2/09	Mon 7/9/09	950FF
1045	5.3 Tree protection	69 days	Fri 13/7/07	Wed 19/9/07	1043SS
1046	**6. Portion 5A1**	**739 days**	**Fri 29/6/07**	**Mon 6/7/09**	
1047	6.1 Tree survey	7 days	Fri 29/6/07	Thu 5/7/07	20
1048	6.2 Tree transplant	732 days	Fri 6/7/07	Mon 6/7/09	
1049	a. To Temp holding nursery	62 days	Fri 6/7/07	Wed 5/9/07	1047,214
1050	b. To final location	61 days	Thu 7/5/09	Mon 6/7/09	1005FF
1051	6.3 Tree protection	62 days	Fri 6/7/07	Wed 5/9/07	1049SS
1052	**7. Portion 5A2**	**739 days**	**Fri 29/6/07**	**Mon 6/7/09**	
1053	7.1 Tree survey	14 days	Fri 29/6/07	Thu 12/7/07	21
1054	7.2 Tree transplant	725 days	Fri 13/7/07	Mon 6/7/09	
1055	a. To Temp holding nursery	62 days	Fri 13/7/07	Wed 12/9/07	1053,214
1056	b. To final location	61 days	Thu 7/5/09	Mon 6/7/09	1005FF
1057	7.3 Tree protection	62 days	Fri 13/7/07	Wed 12/9/07	1055SS
1058	**8. Portion 5B**	**630 days**	**Tue 16/10/07**	**Mon 6/7/09**	
1059	8.1 Tree survey	14 days	Tue 16/10/07	Mon 29/10/07	22
1060	8.2 Tree transplant	616 days	Tue 30/10/07	Mon 6/7/09	
1061	a. To Temp holding nursery	62 days	Tue 30/10/07	Sun 30/12/07	1059,214
1062	b. To final location	61 days	Thu 7/5/09	Mon 6/7/09	1005FF
1063	8.3 Tree protection	62 days	Tue 30/10/07	Sun 30/12/07	1061SS
1064					
1065	**G. Berthing Area**	**597 days**	**Wed 12/9/07**	**Thu 30/4/09**	
1066	**1. Construction of Loading Facilities**	**27 days**	**Wed 12/9/07**	**Mon 8/10/07**	**162**
1067	**2. Removal of Loading Facilities**	**2 days**	**Wed 22/4/09**	**Thu 23/4/09**	**625**
1068	**3. Reinstatement of Berthing Area**	**7 days**	**Fri 24/4/09**	**Thu 30/4/09**	**1067**

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



Contractor's Environmental Team (CET)

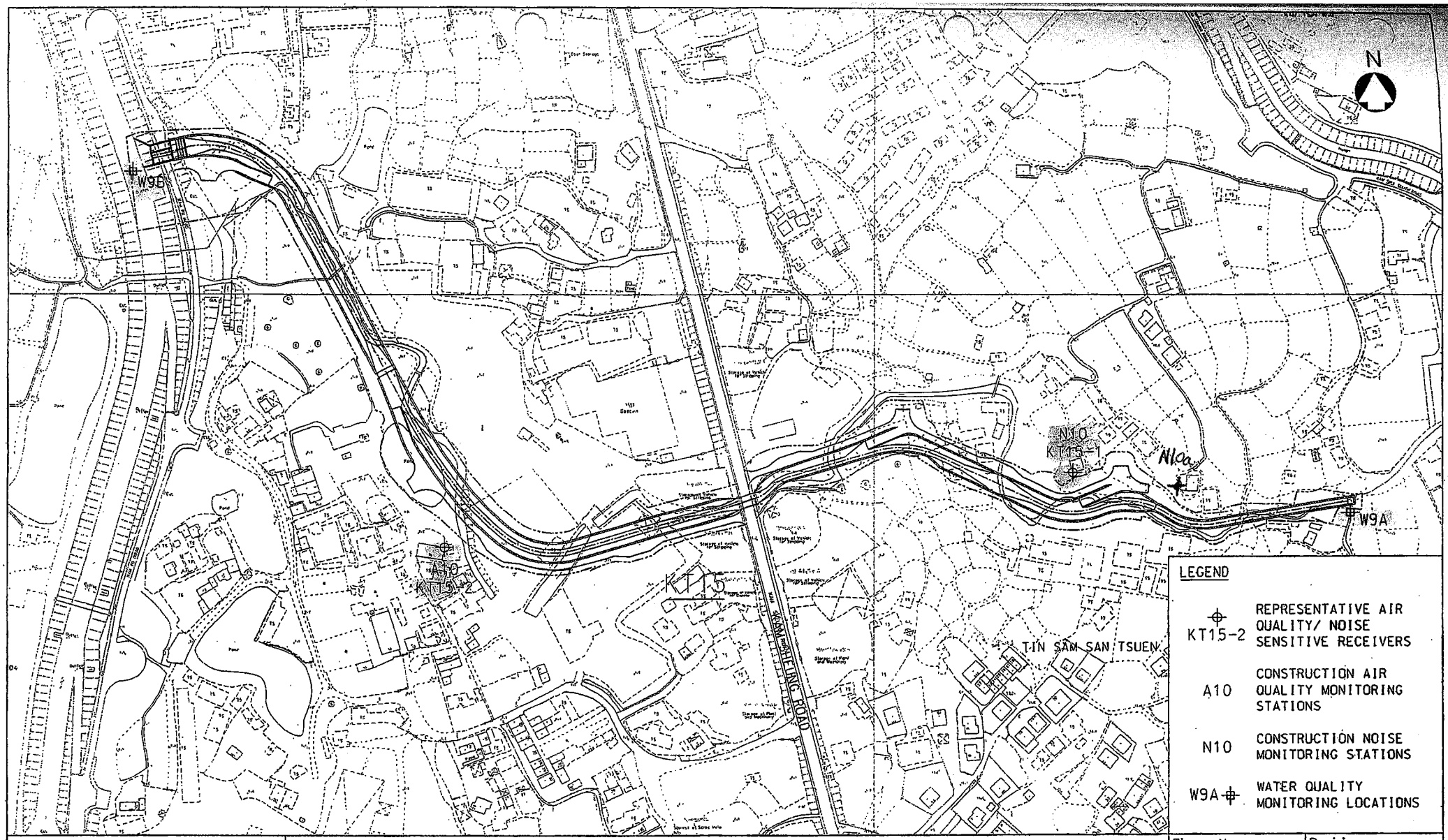
Contact Details of Key Personnel

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	2478-9161	2478-9396
ENSR	Independent Environmental Checker	Mr. Y.T. Tang	3105-8537	2891-0305
CCC	Project Director	Mr. P.Y. CHENG	9023-4821	2403-1162
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	Ho Kam Wing	9016-0592	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

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

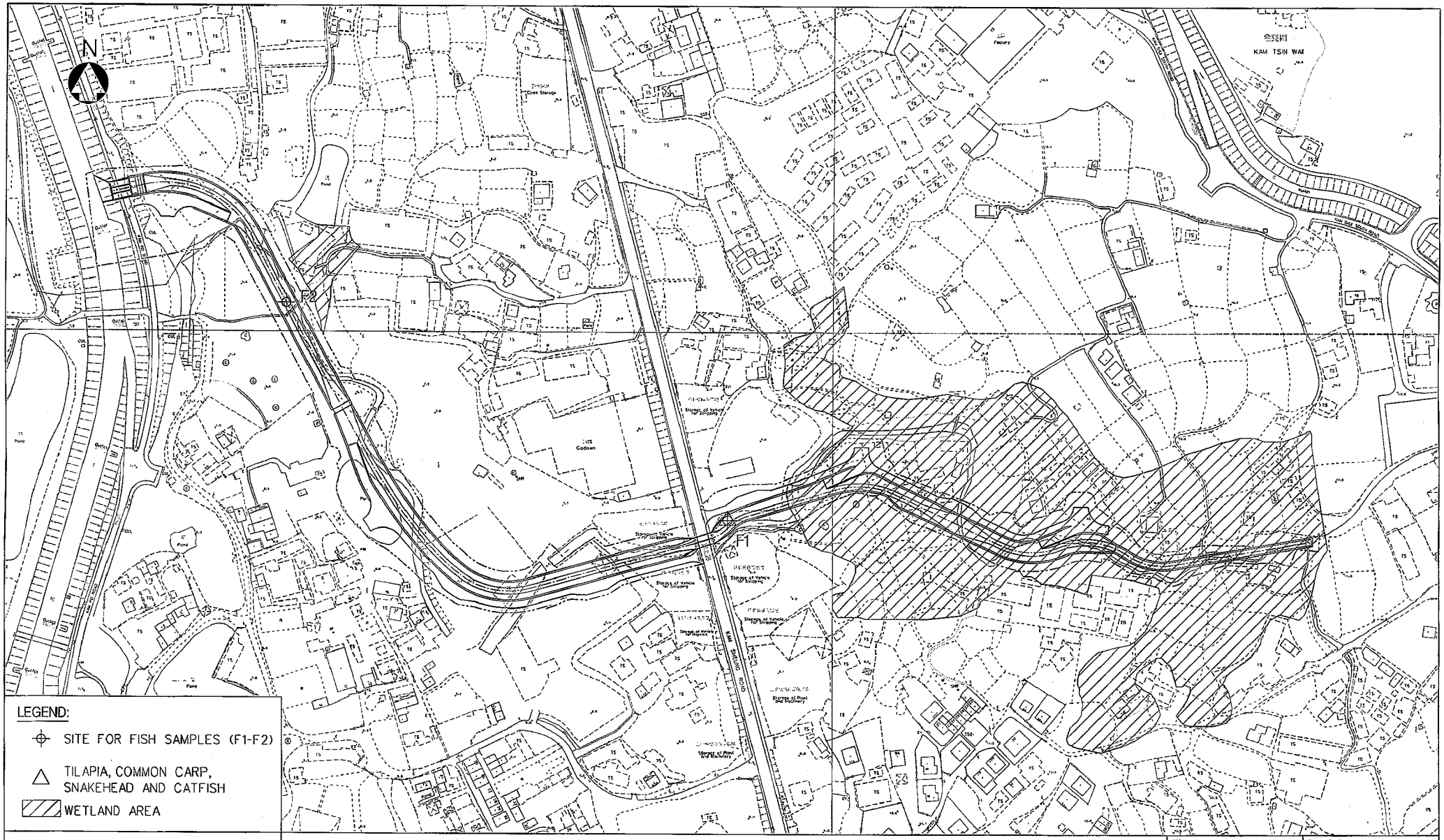
BLACK & VEATCH HONG KONG LIMITED
博威工程顧問有限公司

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

...\env study\3820470201-137.dgn Aug. 24, 2005 09:01:07



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.	Revision
3.3	0
Reference	File Name
-	3820470201-114.DGN
Prepared	Checked
AEC	WYC
Date	Scale
MAR. 2003	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; 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 5. Consider and instruct, if necessary, the Contractor to slow down or to stop all or part of the construction activities until daily until no exceedance of Limit level	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 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

Items	Aspect	Description of Equipment	Date of Calibration	Date of Next Calibration
1*	Air	Greasby Anderson GMWS2310 High Volume Sampler	08 Mar 09	08 May 09
2		EQ094 - Sibata LD-3 Laser Dust Meter	20 Jun 08	19 Jun 09
3		EQ096 - Sibata LD-3 Laser Dust Meter	20 Jun 08	19 Jun 09
4	Noise	Bruel & Kjaer 4231 Acoustical Calibrator	22 Apr 08	22 Apr 09
5		Bruel & Kjaer 2238 Integrating Sound Level Meter	22 Apr 08	22 Apr 09
6	Water	YSI Multimeter YSI 550A (Serial No. 05F2063AZ)	19 Jan 09	19 Apr 09
7*		Extech Instruments, ExStik™ Model pH110 (Serial No. 49702)	09 Feb 09	09 May 09
8*		Hanna pH Meter HI98107 (Serial No. S411364)	17 Mar 09	17 Jun 09
9*		Turbidimeter HACH 2100p (Serial No. 08070C031408)	09 Feb 09	09 May 09
10		Hand refractometer ATAGO (Serial No. 289468)	19 Jan 09	19 Apr 09

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: 8-Mar-09
Next Calibration Date: 8-May-09
Technician: Mr. Ben Tam

CONDITIONS

Sea Level Pressure (hPa)	1050.32	Corrected Pressure (mm Hg)	787.74
Temperature (^{o}C)	13.7	Temperature (K)	287

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	LINEAR REGRESSION
18	4.6	4.6	9.2	1.615	51	53.97	Slope = 51.0725
13	3.2	3.2	6.4	1.346	42	44.44	Intercept = -27.0081
10	2.6	2.6	5.2	1.214	33	34.92	Corr. coeff. = 0.9945
7	2	2	4	1.064	25	26.46	
5	1.2	1.2	2.4	0.824	14	14.81	

Calculations :

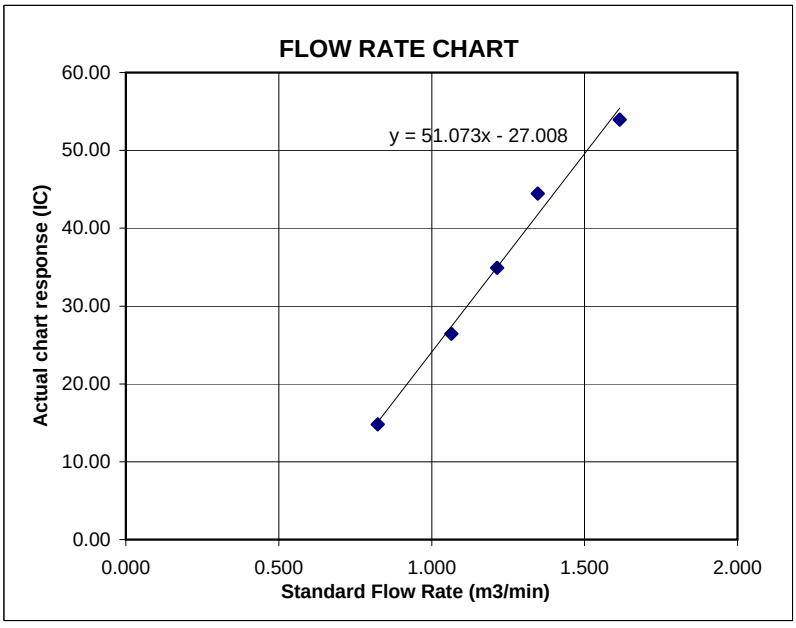
Qstd = 1/m[Sqrt(H20(Pa/Pstd)(Tstd/Ta))-b]
IC = I[Sqrt(Pa/Pstd)(Tstd/Ta)]

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



CERTIFICATE OF ANALYSIS

Batch: HK0902048
Date of Issue: 09/02/2009
Client: ACTION UNITED ENVIRO SERVICES
Client Reference: DC_2007_08 - DRAINAGE IMPROVEMENT WORKS AT TAI PO TIN PING CHE MAN UK PIN AND LIN MA HANG

Calibration of pH System

Item : pH Waterproof Meter

Model No. : Extech Instruments, ExStik ™ Models pH110

Serial No. : 49702

Equipment No. : pHM01

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

Date of Calibration : 09 February, 2009

Testing Results :

Expected Reading	Recording Reading
4.00	3.83
7.00	6.98
10.0	10.0
Allowing Deviation	± 0.2

Ms Wong Wai Man, Alice
Laboratory Manager - Hong Kong

CERTIFICATE OF ANALYSIS

Batch: HK0904933
Date of Issue: 17/03/2009
Client: ACTION UNITED ENVIRO SERVICES
Client Reference:

Calibration of pH System

Item : pH Meter

Model No. : Hanna HI98107

Serial No. : s411364

Equipment No. : --

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

Date of Calibration : 17 March, 2009

Testing Results :

Expected Reading	Recording Reading
4.00	3.9
7.00	7.0
10.0	9.9
Allowing Deviation	± 0.2

Ms Wong Wai Man, Alice
Laboratory Manager - Hong Kong

CERTIFICATE OF ANALYSIS

Batch: HK0902047
Date of Issue: 09/02/2009
Client: ACTION UNITED ENVIRO SERVICES
Client Reference: DC_2007_08 - DRAINAGE IMPROVEMENT WORKS AT TAI PO TIN PING CHE MAN UK PIN AND LIN MA HANG

Calibration of Turbidity System

Item : Portable Turbidimeter

Model No. : HACH 2100P

Serial No. : 08070C031408

Equipment No. : 3054010

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

Date of Calibration : 09 February, 2009

Testing Results :

Expected Reading	Recording Reading
0.00 NTU	0.22 NTU
1 .00 NTU	1.03 NTU
2.00 NTU	2.10 NTU
4.00 NTU	4.15 NTU
16.0 NTU	16.3 NTU
40.0 NTU	39.8 NTU
80.0 NTU	81.9 NTU
160 NTU	168 NTU
400 NTU	414 NTU
600 NTU	593 NTU
800 NTU	805 NTU
Allowing Deviation	±10%

Ms Wong Wai Man, Alice
Laboratory Manager - Hong Kong

APPENDIX G

IMPACT MONITORING SCHEDULES

Impact Monitoring Schedules in this Reporting Period

Date		Air Quality		Noise Leq 30min	Stream Water Quality	Ecology Surveys
		1-Hour TSP	24-Hour TSP			
26-Feb-09	Thu					
27-Feb-09	Fri					
28-Feb-09	Sat		✓			
1-Mar-09	Sun					
2-Mar-09	Mon	✓		✓	✓	
3-Mar-09	Tue					
4-Mar-09	Wed					
5-Mar-09	Thu				✓	
6-Mar-09	Fri		✓			
7-Mar-09	Sat	✓		✓		
8-Mar-09	Sun					
9-Mar-09	Mon				✓	
10-Mar-09	Tue					
11-Mar-09	Wed					
12-Mar-09	Thu		✓		✓	
13-Mar-09	Fri	✓		✓		
14-Mar-09	Sat					
15-Mar-09	Sun					
16-Mar-09	Mon				✓	
17-Mar-09	Tue					
18-Mar-09	Wed		✓			
19-Mar-09	Thu	✓		✓	✓	
20-Mar-09	Fri					
21-Mar-09	Sat					
22-Mar-09	Sun					
23-Mar-09	Mon				✓	
24-Mar-09	Tue		✓			✓
25-Mar-09	Wed	✓		✓		

✓	Monitoring Day
	Sunday or Public Holiday

Impact Monitoring Schedules in the Next Reporting Period

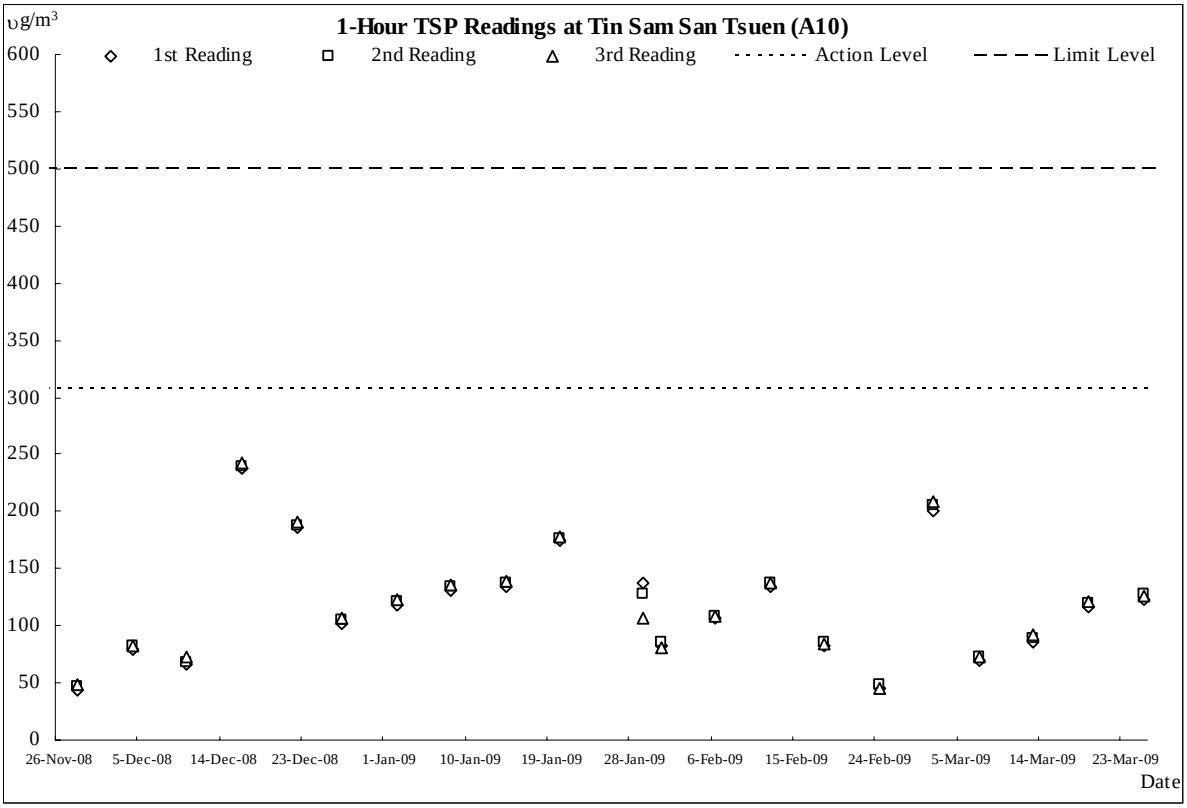
Date		Air Quality		Noise Leq 30min	Stream Water Quality	Ecology Surveys
		1-Hour TSP	24-Hour TSP			
26-Mar-09	Thu				✓	
27-Mar-09	Fri					
28-Mar-09	Sat					
29-Mar-09	Sun					
30-Mar-09	Mon		✓		✓	
31-Mar-09	Tue	✓		✓		
1-Apr-09	Wed				✓	
2-Apr-09	Thu					
3-Apr-09	Fri					
4-Apr-09	Sat					
5-Apr-09	Sun					
6-Apr-09	Mon		✓		✓	
7-Apr-09	Tue	✓		✓		
8-Apr-09	Wed				✓	
9-Apr-09	Thu					
10-Apr-09	Fri					
11-Apr-09	Sat					
12-Apr-09	Sun					
13-Apr-09	Mon					
14-Apr-09	Tue		✓		✓	
15-Apr-09	Wed					
16-Apr-09	Thu	✓		✓	✓	
17-Apr-09	Fri					
18-Apr-09	Sat					✓
19-Apr-09	Sun					
20-Apr-09	Mon		✓		✓	
21-Apr-09	Tue					
22-Apr-09	Wed	✓		✓	✓	
23-Apr-09	Thu					
24-Apr-09	Fri					
25-Apr-09	Sat					

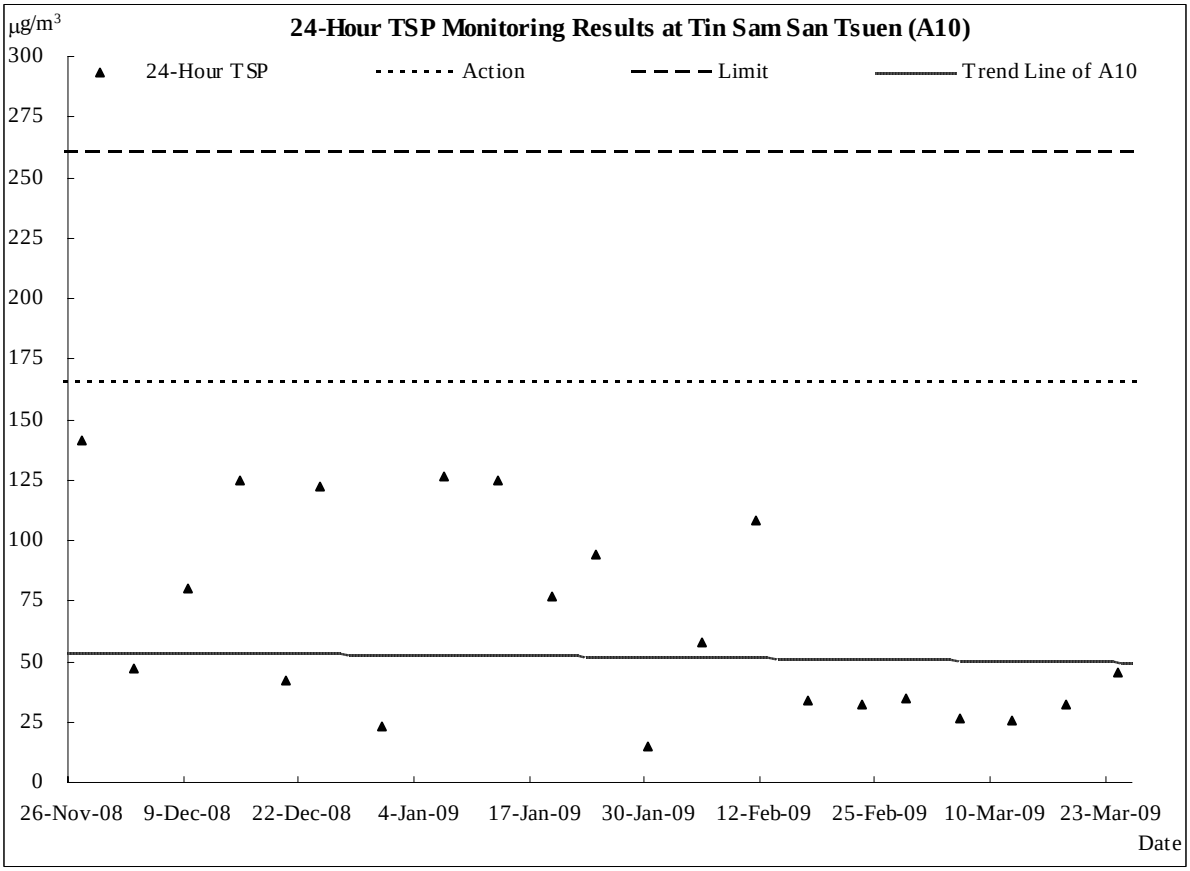
✓	Monitoring Day
	Sunday or Public Holiday

APPENDIX H

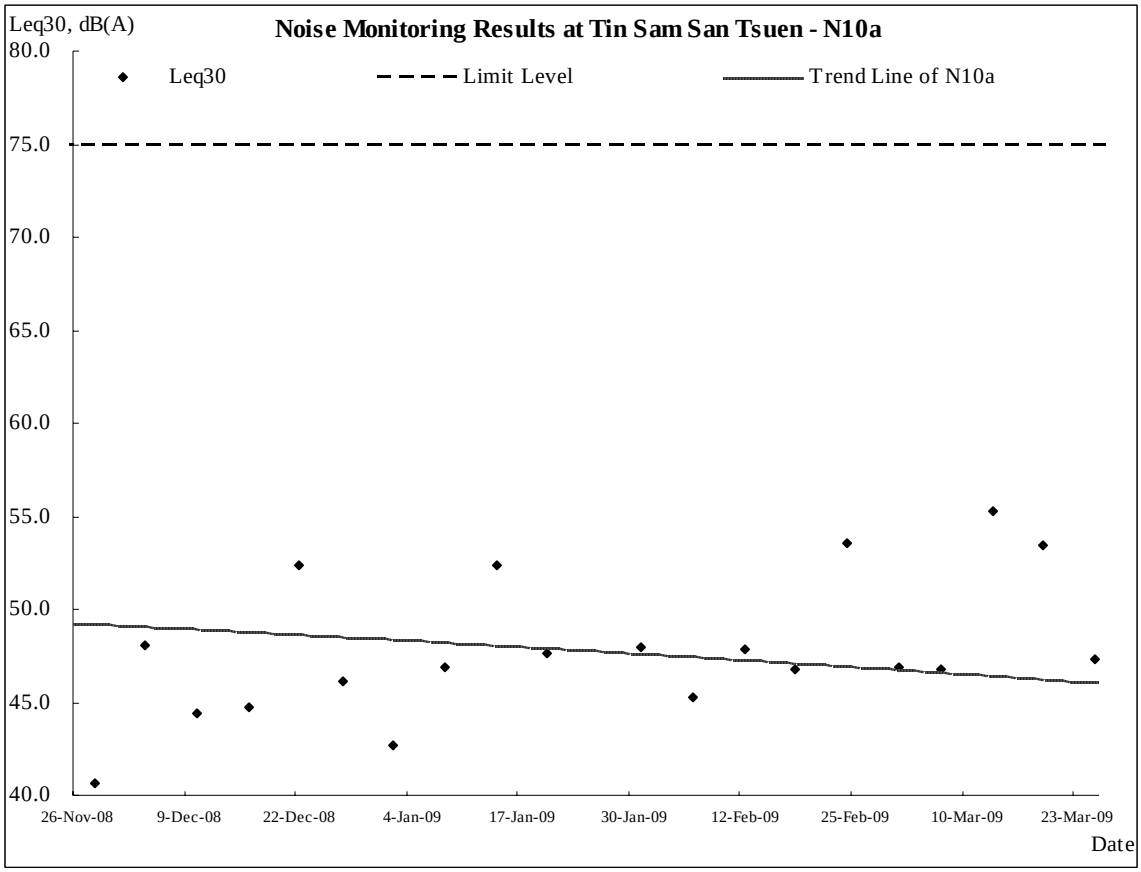
GRAPHICAL PLOTS OF AIR QUALITY, CONSTRUCTION NOISE AND STREAM WATER QUALITY MONITORING RESULTS

AIR QUALITY

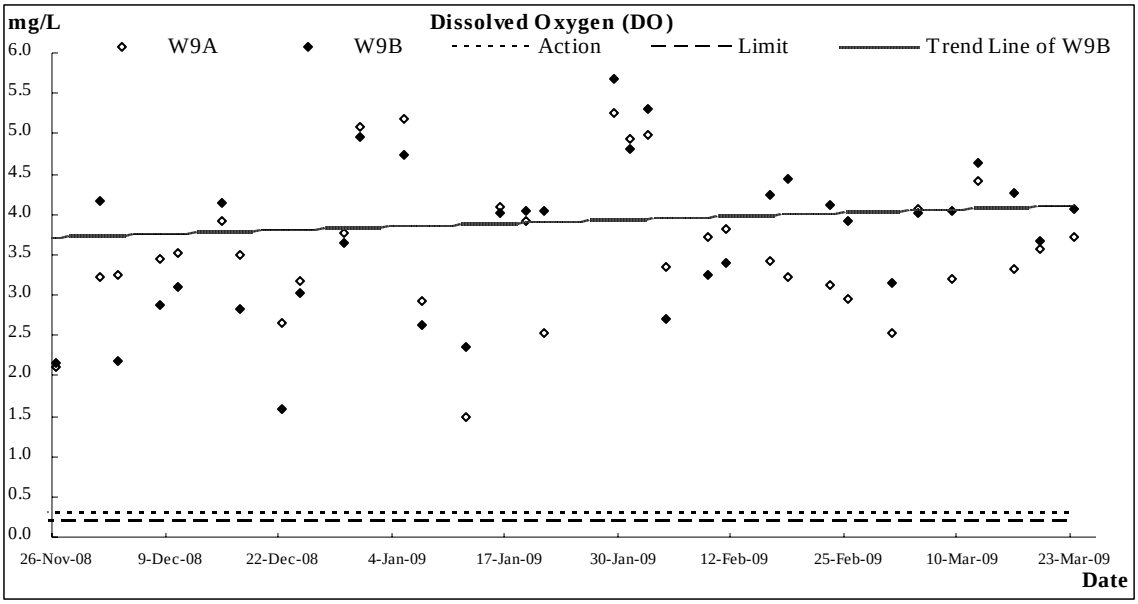

1-Hour TSP Readings at Tin Sam San Tsuen (A10)
υg/m³
1st Reading
2nd Reading
3rd Reading
Action Level
Limit Level
600
550
500
450
400
350
300
250
200
150
100
50
0
26-Nov-08
5-Dec-08
14-Dec-08
23-Dec-08
1-Jan-09
10-Jan-09
19-Jan-09
28-Jan-09
6-Feb-09
15-Feb-09
24-Feb-09
5-Mar-09
14-Mar-09
23-Mar-09
Date

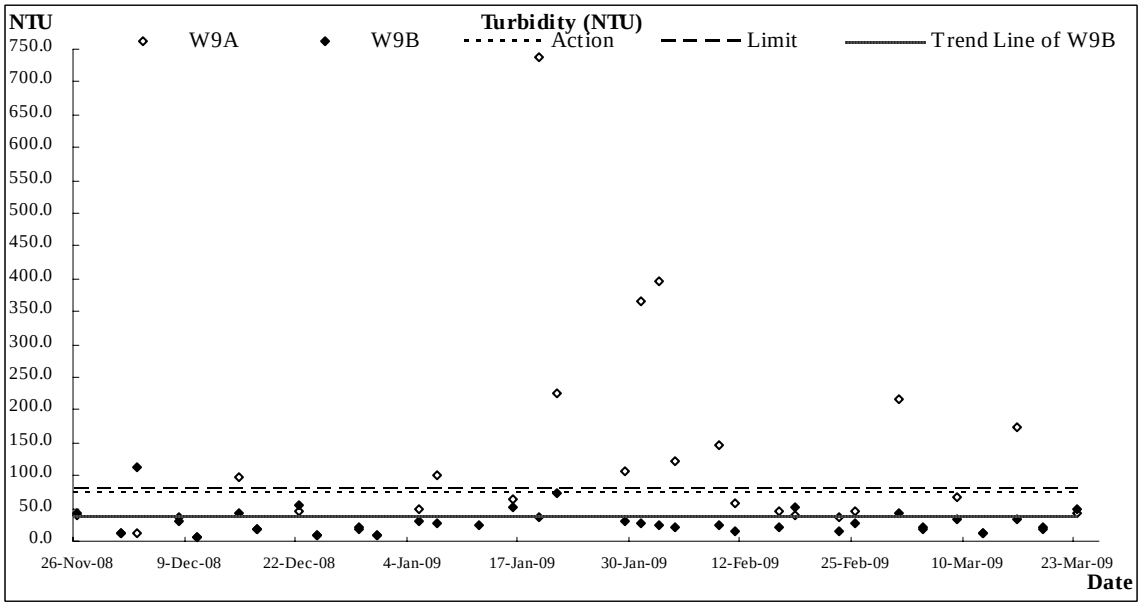

24-Hour TSP Monitoring Results at Tin Sam San Tsuen (A10)
μg/m³
24-Hour TSP
Action
Limit
Trend Line of A10
300
275
250
225
200
175
150
125
100
75
50
25
0
26-Nov-08
9-Dec-08
22-Dec-08
4-Jan-09
17-Jan-09
30-Jan-09
12-Feb-09
25-Feb-09
10-Mar-09
23-Mar-09
Date

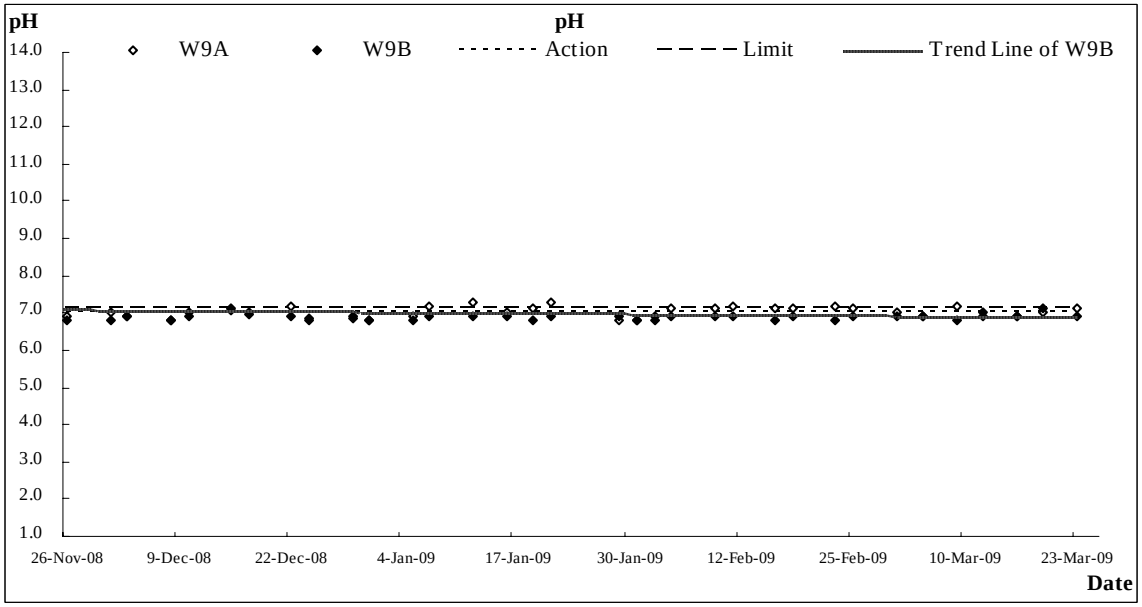
CONSTRUCTION NOISE

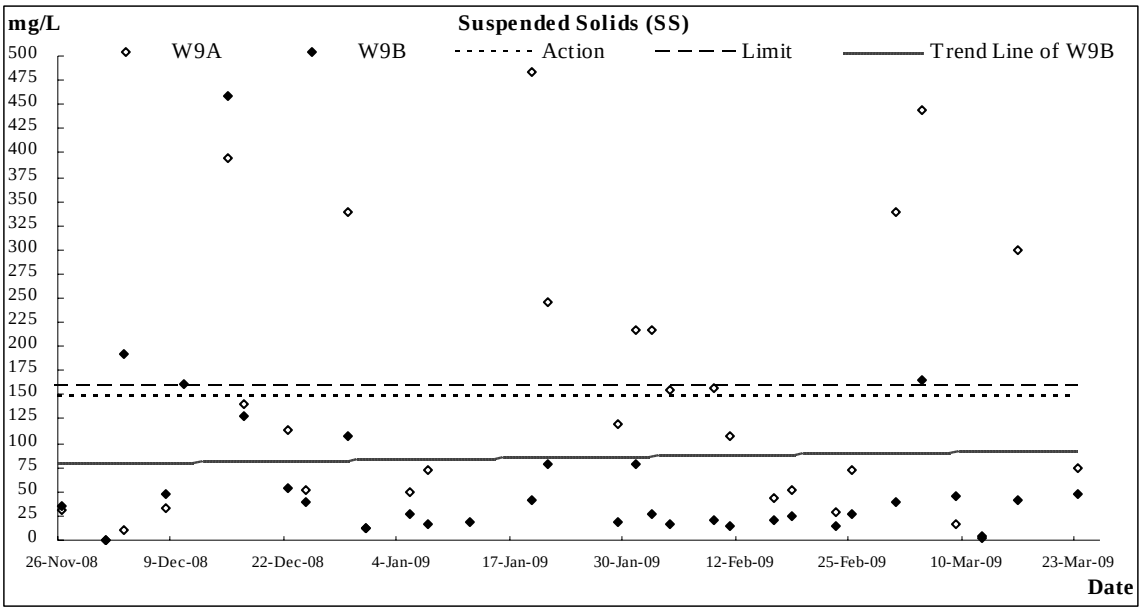


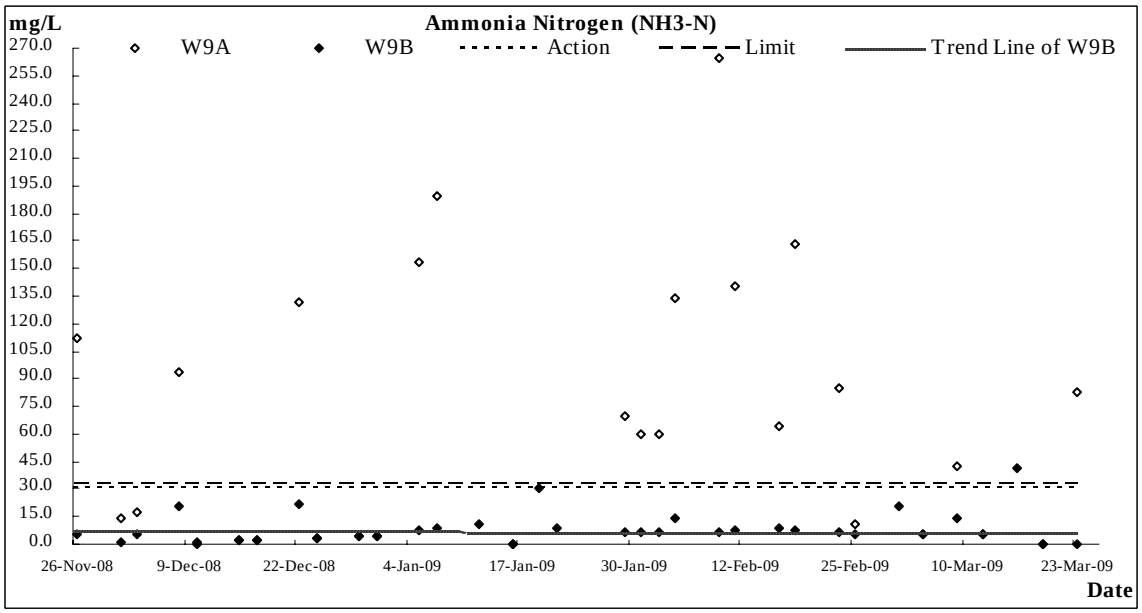
STREAM WATER QUALITY

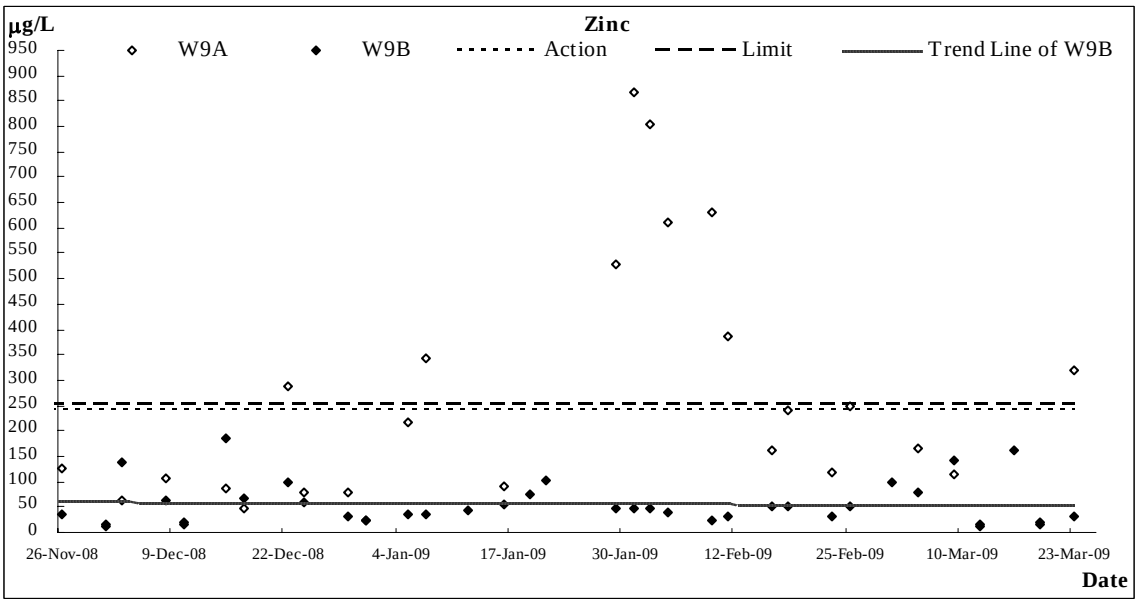







Suspended Solids (SS)
mg/L
W9A
W9B
Action
Limit
Trend Line of W9B
500
475
450
425
400
375
350
325
300
275
250
225
200
175
150
125
100
75
50
25
0
26-Nov-08
9-Dec-08
22-Dec-08
4-Jan-09
17-Jan-09
30-Jan-09
12-Feb-09
25-Feb-09
10-Mar-09
23-Mar-09
Date


Ammonia Nitrogen (NH3-N)
mg/L
W9A
W9B
Action
Limit
Trend Line of W9B
270.0
255.0
240.0
225.0
210.0
195.0
180.0
165.0
150.0
135.0
120.0
105.0
90.0
75.0
60.0
45.0
30.0
15.0
0.0
26-Nov-08
9-Dec-08
22-Dec-08
4-Jan-09
17-Jan-09
30-Jan-09
12-Feb-09
25-Feb-09
10-Mar-09
23-Mar-09
Date


Zinc
µg/L
W9A
W9B
Action
Limit
Trend Line of W9B
950
900
850
800
750
700
650
600
550
500
450
400
350
300
250
200
150
100
50
0
26-Nov-08
9-Dec-08
22-Dec-08
4-Jan-09
17-Jan-09
30-Jan-09
12-Feb-09
25-Feb-09
10-Mar-09
23-Mar-09
Date

Date	2-Mar-09																			
Location	**Time**	**Depth (m)**	**Temp (oC)**		**DO (mg/L)**		**DOS (%)**		**Turbidity (NTU)**		**Salinity**		**pH**		**SS**	**NH3-N**	**Zinc**
W9A	09:20	0.14	21.4	21.4	2.57	2.54	30.3	29.9	217.0	215.0	0	0.0	7.00	7.00	339.0	313.0	1690.0
			21.4		2.5		29.4		213.0		0		7.00				
W9B	09:35	0.23	23.6	23.6	3.13	3.15	34.7	35.0	42.1	41.8	0	0.0	6.90	6.90	39.0	20.4	97.0
			23.6		3.16		35.2		41.4		0		6.90				

Date	5-Mar-09																			
Location	**Time**	**Depth (m)**	**Temp (oC)**		**DO (mg/L)**		**DOS (%)**		**Turbidity (NTU)**		**Salinity**		**pH**		**SS**	**NH3-N**	**Zinc**
W9A	14:20	0.15	23.4	23.3	4.01	4.07	42.5	42.9	20.4	20.4	0	0.0	6.90	6.90	444.0	5.2	166.0
			23.2		4.13		43.3		20.4		0		6.90				
W9B	14:30	0.26	23.3	23.3	4.06	4.01	41.7	41.0	19.8	19.3	0	0.0	6.90	6.90	165.0	6.0	78.0
			23.3		3.95		40.2		18.7		0		6.90				

Date	9-Mar-09																			
Location	**Time**	**Depth (m)**	**Temp (oC)**		**DO (mg/L)**		**DOS (%)**		**Turbidity (NTU)**		**Salinity**		**pH**		**SS**	**NH3-N**	**Zinc**
W9A	11:15	0.18	17.7	17.7	3.16	3.19	35.7	36.1	67.7	67.4	0	0.0	7.20	7.20	17.0	42.2	113.0
			17.7		3.22		36.4		67.1		0		7.20				
W9B	11:05	0.23	18.4	18.4	4.02	4.04	43.4	43.6	34.2	34.5	0	0.0	6.80	6.80	45.0	14.5	140.0
			18.4		4.05		43.8		34.8		0		6.80				

Date	12-Mar-09																			
Location	**Time**	**Depth (m)**	**Temp (oC)**		**DO (mg/L)**		**DOS (%)**		**Turbidity (NTU)**		**Salinity**		**pH**		**SS**	**NH3-N**	**Zinc**
W9A	10:20	0.15	23.0	23.0	4.45	4.41	46.9	46.1	13.6	13.7	0	0.0	6.90	6.90	3.0	5.6	12.0
			23.0		4.37		45.2		13.8		0		6.90				
W9B	10:30	0.16	23.1	23.1	4.69	4.63	48.3	47.4	13.5	13.4	0	0.0	7.00	7.00	5.0	5.7	16.0
			23.1		4.56		46.5		13.3		0		7.00				

Date	16-Mar-09																			
Location	**Time**	**Depth (m)**	**Temp (oC)**		**DO (mg/L)**		**DOS (%)**		**Turbidity (NTU)**		**Salinity**		**pH**		**SS**	**NH3-N**	**Zinc**
W9A	16:25	0.17	23.4	23.4	3.28	3.31	34.6	34.9	176.0	173.5	0	0.0	6.90	6.90	300.0	430.0	1490.0
			23.4		3.34		35.2		171.0		0		6.90				
W9B	16:35	0.24	24.3	24.3	4.29	4.27	45.8	45.5	34.5	34.2	0	0.0	6.90	6.90	42.0	41.8	161.0
			24.3		4.24		45.1		33.8		0		6.90				

Date	19-Mar-09																			
Location	**Time**	**Depth (m)**	**Temp (oC)**		**DO (mg/L)**		**DOS (%)**		**Turbidity (NTU)**		**Salinity**		**pH**		**SS**	**NH3-N**	**Zinc**
W9A	14:00	0.16	22.3	22.3	3.51	3.57	36.0	36.6	21.2	21.0	0	0.0	7.00	7.00	1300.0	0.1	21.0
			22.3		3.63		37.1		20.8		0		7.00				
W9B	14:10	0.25	22.5	22.5	3.71	3.68	38.1	37.7	18.6	18.6	0	0.0	7.10	7.10	1290.0	0.2	14.0
			22.5		3.65		37.3		18.5		0		7.10				

Date	23-Mar-09																			
Location	**Time**	**Depth (m)**	**Temp (oC)**		**DO (mg/L)**		**DOS (%)**		**Turbidity (NTU)**		**Salinity**		**pH**		**SS**	**NH3-N**	**Zinc**
W9A	11:40	0.19	21.4	21.4	3.73	3.72	39.7	39.5	41.7	41.5	0	0.0	7.10	7.10	74.0	82.6	319.0
			21.4		3.7		39.2		41.2		0		7.10				
W9B	11:30	0.28	22.0	22.0	4.1	4.06	44.7	44.3	48.4	48.2	0	0.0	6.90	6.90	48.0	0.2	32.0
			22.0		4.01		43.9		48.0		0		6.90				

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 Temperature (°C)	Wind Speed (km/h)	Mean Relative Humidity (%)	Wind Direction
26-Feb-09	Thu	cloudy/foggy/drizzle/moderate/fresh	0.3	24.8	11.7	73.5	E/SE
27-Feb-09	Fri	cloudy/mist/moderate	Trace	24.1	15.5	72	E
28-Feb-09	Sat	cloudy/rain/moderate/fresh	Trace	22.6	12.7	73.7	E/NE
1-Mar-09	Sun	cloudy/rain/moderate/fresh	0.8	18.6	8.7	74.5	E/NE
2-Mar-09	Mon	cloudy/rain/moderate/fresh	Trace	18.1	10	80.5	E/NE
3-Mar-09	Tue	cloudy/sunny intervals/moderate	Trace	18.6	9.2	67	E/NE
4-Mar-09	Wed	cloudy/rain/mist/moderate/fresh	0.4	19.7	9.5	72.5	E/NE
5-Mar-09	Thu	foggy/rain/moderate/fresh	28.5	23.3	21.5	78	E/NE
6-Mar-09	Fri	cloudy/rain/squally thunderstorm/cool/moderate/fresh	11.6	15.4	27	84.5	E/NE
7-Mar-09	Sat	cool/rain/moderate/fresh	0.2	12.9	17	85.7	N/NE
8-Mar-09	Sun	cloudy/moderate/sunny intervals	0.1	13.7	8.5	90	E/NE
9-Mar-09	Mon	sunny intervals/cloudy/moderate/warm	0.4	16.1	10.2	77.7	N/NE
10-Mar-09	Tue	cloudy/fresh/strong	0	19.2	10.5	67.7	E/SE
11-Mar-09	Wed	cloudy/sunny intervals/fresh/strong	Trace	22.4	11.5	69.5	E
12-Mar-09	Thu	cloudy/sunny intervals/misty/fresh/strong	Trace	23.2	19.5	71	E/SE
13-Mar-09	Fri	cloudy/rain/fog/light winds	Trace	19.1	19	75.5	E/NE
14-Mar-09	Sat	fine/dry/moderate/fresh	Trace	16.4	34	58.5	N/NE
15-Mar-09	Sun	fine/moderate	0	17.4	9	52	S/SE
16-Mar-09	Mon	fine/moderate	0	19.4	7.7	72	E/NE
17-Mar-09	Tue	fine/moderate	0	22.3	12	74.5	W/SW
18-Mar-09	Wed	fine/warm/cloudy/light winds	0	23	11.5	66.5	S/SE
19-Mar-09	Thu	mist/sunny periods/cloudy/light winds	0	22	14.5	80	S/SE
20-Mar-09	Fri	fog/sunny periods/cloudy/light winds	0	24.1	8.5	84.5	W/SW
21-Mar-09	Sat	cloudy/fog/rain/moderate/fresh	0.1	25.1	12.2	78.7	S/SE
22-Mar-09	Sun	fog/light winds/rain	Trace	26.4	15.2	78	SW
23-Mar-09	Mon	foggy/rain/moderate	Trace	26.7	9.7	80.7	S/SE
24-Mar-09	Tue	cloudy/rain/moderate/fresh	27.1	20.8	18	76.5	E/NE
25-Mar-09	Wed	cloudy/rain/squally thunderstorm/moderate/fresh	27.9	18.1	13	83.2	E/NE

APPENDIX J

ENVIRONMENTAL TEAM 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/RE's representative:	K. P. Cheung
Inspection		**IEC/IEC's representative:**	
Date:	05 March 2009	**ETL/ ET's representative:**	Anfernee Chow
Time:	10:15	**Contractor's representative:**	K. M. Lui
		Checklist No.	KT15-050309

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

Weather:	☐ Sunny	☐ Fine	☐ Cloudy	☑ Rainy
Temperature:	23.4 ^{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?	☐	☐	☐	☐	☑	
1.22	Are the oil interceptors/grease traps maintained properly?	☐	☐	☐	☐	☑	

		Not Obs.	Yes	No	Follow up	N/A	Photo/ Remarks
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.	☐	☑	☐	☐	☐	
1.28	License collector should be employed for handling the sewage of mobile toilet.	☐	☑	☐	☐	☐	
1.29	Prevent any stagnant water accumulated within the excavation trench or site working area.	☐	☑	☐	☐	☐	
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 be removed from 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?	☑	☐	☐	☐	☐	
3.08	Are flaps and panels of mechanical equipment closed during operation?	☐	☑	☐	☐	☐	
3.09	Are Construction Noise Permit(s) applied for percussive piling works?	☐	☐	☐	☐	☑	

		Not Obs.	Yes	No	Follow up	N/A	Photo/ Remarks
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.	☐	☑	☐	☐	☐	
Section 5: Landscape & Visual							
5.01	Are retained and transplanted trees in health condition?	☐	☑	☐	☐	☐	

		Not Obs.	Yes	No	Follow up	N/A	Photo/ Remarks
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

Follow-Up of Last Site Inspection on 24 February 2009:

Stagnant water accumulated at CH489 had been clear.

Finding of Site Inspection on 05 March 2009:

Unused timber scattered on-site was observed at CH380, the Contractor was reminded to tidy up and temporary store in designated location.

RE's representative	*IEC's representative*	*ET's representative*	*Contractor's representative*
			
( )	( )	(Anfernee Chow)	( )

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:	K. P. Cheung
Inspection		**IEC/IEC's representative:**	
Date:	12 March 2009	**ETL/ ET's representative:**	Anfernee Chow
Time:	14:00	**Contractor's representative:**	K. M. Lui
		Checklist No.	KT15-120309

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

Weather:	☐ Sunny	☑ Fine	☐ Cloudy	☐ Rainy
Temperature:	23.2 ^{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?	☐	☐	☐	☐	☑	
1.22	Are the oil interceptors/grease traps maintained properly?	☐	☐	☐	☐	☑	

		Not Obs.	Yes	No	Follow up	N/A	Photo/ Remarks
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.	☐	☑	☐	☐	☐	
1.28	License collector should be employed for handling the sewage of mobile toilet.	☐	☑	☐	☐	☐	
1.29	Prevent any stagnant water accumulated within the excavation trench or site working area.	☐	☐	☑	☐	☐	
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 be removed from 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?	☑	☐	☐	☐	☐	
3.08	Are flaps and panels of mechanical equipment closed during operation?	☐	☑	☐	☐	☐	
3.09	Are Construction Noise Permit(s) applied for percussive piling works?	☐	☐	☐	☐	☑	

		Not Obs.	Yes	No	Follow up	N/A	Photo/ Remarks
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.	☐	☑	☐	☐	☐	
Section 5: Landscape & Visual							
5.01	Are retained and transplanted trees in health condition?	☐	☑	☐	☐	☐	

		Not Obs.	Yes	No	Follow up	N/A	Photo/ Remarks
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

Follow-Up of Last Site Inspection (05 March 2009):

Unused timber at CH380 had been tidy up and store at designated location.

Finding of Site Inspection on 12 March 2009:

Stagnant water accumulated on-site was observed at CH130, the Contractor was reminded to clear in regular basis.

C&D waste accumulated on-site was observed at CH340, the Contractor was reminded to tidy up the C&D wastes and dispose off in regular basis.

RE's representative	*IEC's representative*	*ET's representative*	*Contractor's representative*
( )	( )	(Anfernee Chow)	( )

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:	Joe Chan
Inspection		**IEC/IEC's representative:**	Cyrus Lau
Date:	20 March 2009	**ETL/ ET's representative:**	Ben Tam
Time:	14:15	**Contractor's representative:**	M. K. Ng / K. M. Lui
		Checklist No.	KT15-200309

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

Weather:	☑ Sunny	☐ Fine	☐ Cloudy	☐ Rainy
Temperature:	23 ^{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?	☐	☐	☐	☐	☑	
1.22	Are the oil interceptors/grease traps maintained properly?	☐	☐	☐	☐	☑	

		Not Obs.	Yes	No	Follow up	N/A	Photo/ Remarks
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.	☐	☑	☐	☐	☐	
1.28	License collector should be employed for handling the sewage of mobile toilet.	☐	☑	☐	☐	☐	
1.29	Prevent any stagnant water accumulated within the excavation trench or site working area.	☐	☑	☐	☐	☐	
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 be removed from 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?	☑	☐	☐	☐	☐	
3.08	Are flaps and panels of mechanical equipment closed during operation?	☐	☑	☐	☐	☐	
3.09	Are Construction Noise Permit(s) applied for percussive piling works?	☐	☐	☐	☐	☑	

		Not Obs.	Yes	No	Follow up	N/A	Photo/ Remarks
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.	☐	☑	☐	☐	☐	
Section 5: Landscape & Visual							
5.01	Are retained and transplanted trees in health condition?	☐	☑	☐	☐	☐	

		Not Obs.	Yes	No	Follow up	N/A	Photo/ Remarks
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

Follow-Up of Last Site Inspection (12 March 2009):

C&D wastes accumulated at CH340 had been removed.
Stagnant water accumulated at CH130 had been clear.

Finding of Site Inspection on 20 March 2009:




1. C&D wastes scattered on-site was observed at Bay 1-7 & 30-32, the contractor was reminded to dispose off in regular frequency and maintain the site tidy.

2. Wheel wash water accumulated at the Kam Sheung Road site exit was observed, the Contractor was reminded to clear as necessary.

RE's representative	*IEC's representative*	*ET's representative*	*Contractor's representative*
(Joe Chan)	(Cyrus Lau)	(Ben Tam)	(K.M. Lee)

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:	Mr. Cheung
Inspection		**IEC/IEC's representative:**	
Date:	24 March 2009	**ETL/ ET's representative:**	Ben Tam
Time:	09:30	**Contractor's representative:**	M. K. Ng / K. M. Lui
		Checklist No.	KT15-240309

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

Weather:	☐ Sunny	☐ Fine	☐ Cloudy	☑ Rainy
Temperature:	23 ^{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?	☐	☐	☐	☐	☑	
1.22	Are the oil interceptors/grease traps maintained properly?	☐	☐	☐	☐	☑	

		Not Obs.	Yes	No	Follow up	N/A	Photo/ Remarks
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.	☐	☑	☐	☐	☐	
1.28	License collector should be employed for handling the sewage of mobile toilet.	☐	☑	☐	☐	☐	
1.29	Prevent any stagnant water accumulated within the excavation trench or site working area.	☐	☑	☐	☐	☐	
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 be removed from 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?	☑	☐	☐	☐	☐	
3.08	Are flaps and panels of mechanical equipment closed during operation?	☐	☑	☐	☐	☐	
3.09	Are Construction Noise Permit(s) applied for percussive piling works?	☐	☐	☐	☐	☑	

		Not Obs.	Yes	No	Follow up	N/A	Photo/ Remarks
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.	☐	☑	☐	☐	☐	
Section 5: Landscape & Visual							
5.01	Are retained and transplanted trees in health condition?	☐	☑	☐	☐	☐	

		Not Obs.	Yes	No	Follow up	N/A	Photo/ Remarks
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

Follow-Up of Last Site Inspection (20 March 2009):

C&D wastes at Bay 1-7 & 30-32 had been clear.
Wheel wash water accumulated at the Kam Sheung Road site exit had been clear.

Finding of Site Inspection on 24 March 2009:

In general, the site was kept clean and tidy. No environmental observation was recorded during the site inspection.

RE's representative	IEC's representative	ET's representative	Contractor's representative
( )	( )	(Ben Tam)	( )

APPENDIX K

RESPONSE TO COMMENT

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 – Monthly EM&A Summary Report for March 2009 (R1247 Revision 1) submit on 02 April 2009
Response to IEC's comments [Received from e-mail on 03 April 2009]

Items	Section / Paragraph	Comments	Response to Comments
1	Table 5.4/ Appendix H	According to the data set listed in Appendix H, the measured D.O. value at W9B on 2-Mar-09 should be rounded off as 3.2. Please revise and update the captioned table.	Table 5-4 had been updated.
2	S5.09	Please delete the sentence ", while individual number….comply with A/L level." in the last line, as it not consistent with the data presented.	S5.09 had been amended.
3	7.02/11.07	There are some typos at item no. 3, 4 and 5. Item no. 3 and 4: Please rephrase the word "disposal" as "dispose off". Item no. 5: Please add the words "was observed" after the word "…site exit".	S7.02 and 11.07 had been amended.
4	Appendix B	Please update the tentative 3-month rolling program with inclusion of the coming two months.	Noted.
5	Appendix F	Please provide the updated calibration certificate and update the date of calibration and next calibration.	Relevant calibration certificate as enclosed.
6	Appendix G	1. In the impact monitoring schedule in this reporting period, the date of ecology survey carried out should be 24-Mar-09. 2. Tentative monitoring schedule in the next monitoring period for 1-Hour, 24-Hour TSP and Noise should be revised in order to keep in a 6-day monitoring schedule for the captioned parameter.	Amended Noted.
7	Appendix H	Measured values for Ammonia Nitrogen and Zinc recorded on 2-Mar-09 and 16-Mar-09 at W9A were also out of the reporting range. Please add them into the "Note" under the graph of Zinc.	Noted under the graph of Zinc had been deleted.

Items	Section / Paragraph	Comments	Response to Comments
8	Appendix J	1. In site inspection checklist on 05-Mar-09, according to the site inspection finding, item no. 4.04 should not be marked as "No". Instead, item no. 4.17 should be marked as "Follow-up/ No". Please check and revise accordingly.	Amended.
		2. In site inspection checklist on 12-Mar-09, ¨ Temperature recorded is unreasonably high. ¨ According to the site inspection finding, item no. 4.04 should not be marked as "No". Instead, item no. 4.17 should be marked as "Follow-up/ No". ¨ Please add the date of last inspection in the follow-up observation for easy reference. ¨ Please rephrase the word "disposal" to "dispose off" in the 2nd item of the site inspection finding. Please check and revise accordingly.	 Noted Noted. Noted. Noted.
		3. In site inspection checklist on 20-Mar-09, ¨ According to the site inspection finding, item no. 4.04 should not be marked as "No". Instead, item no. 4.17 should be marked as "Follow-up/ No". ¨ Please rephrase the word "disposal" to "dispose off" in the 1st item of the site inspection finding. ¨ Please add the word "was observed" after the word "…site exit" in the 2nd item of the site inspection finding. Please check and revise accordingly.	 Noted. Noted. Noted.
		4. In site inspection checklist on 24-Mar-09, ¨ According to the site inspection finding, item no. 1.14 and 4.04 should not be marked as "No". ¨ In the follow-up findings of last site inspection (20 March 2009), the locations of C&D wastes cleared are not consistent with the location marked in site inspection checklist marked on 20 March 2009. Please check and revise accordingly.	 Noted. Noted.