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 JULY 2008 (NO. 13)

PREPARED FOR

CHIT CHEUNG CONSTRUCTION COMPANY LIMITED

Quality Index

Date	Reference No.	Prepared By	Certified By
11 August 2008	TCS00371/07/600/R0849r2	Ben Tam	Ken Wong

	Environmental Consultant	Environmental Team Leader

Rev. No.	Date	Prepared By	Certified By	Remarks
1	01 Aug 2008	Ben Tam	Ken Wong	First Submission
2	11 Aug 2008	Ben Tam	Ken Wong	Response to IEC's Comments (Received on 11 Aug 08)

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 **July 2008 (No. 13)** is present the environmental impact monitoring and audit (EM&A) results of the project EM&A program for the reporting month **July 2008** during the period from **26 June 2008 to 25 July 2008**.

BREACH OF ACTION AND LIMIT (AL) LEVELS

ES05. Exceedance of the stream water and ecology monitoring also recorded in this reporting period. Dated and exceedances parameter are summaries as 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)	-	-
	Suspended Solids (SS)	-	-
	Turbidity (NTU)	-	-
	pH	-	-
	Ammonia Nitrogen	-	-
	Zinc	-	-
Ecology	Number of species of wetland birds	-	24 July 08
	Total number of wetland birds	-	-
	Number of species of wetland fauna	24 July 08	-
	Total number of wetland fauna	-	24 July 08

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 **August 2008** 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	18	Events
• Ecology (Fauna)	1	Event
• Site Inspection Audit	5	Times

AIR QUALITY

ES11. No Action or Limit Level of 1-Hour and 24-Hour TSP exceedance was recorded in this reporting period.

CONSTRUCTION NOISE

ES12. No exceedance in construction noise measurements was recorded and no construction noise complaint was received in this reporting period.

STREAM WATER QUALITY

ES13. No exceedance in stream water quality was recorded in the reporting period.

ECOLOGY (FAUNA)

ES14. Non-compliance with the ecological criteria was found during the monitoring month on 24 July 2008. 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 and 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
	Suspended Solids (SS)	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
	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 number of species of wetland fauna 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
	Decrease in the total number of wetland fauna 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 inspection was undertaken by external parties in this reporting period.

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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 **July 2008** during the period from **26 June 2008 to 25 July 2008**.

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;
- Gabion Installation; and
- Marine dumping of Type 2 contaminated material

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
8	Type 1 (Open Sea Disposal) Marine Dumping Permit (EP/MD/09-011)	04 Jul 08 – 03 Jan 09
9	Type 2 (Confined Marine Disposal) Marine Dumping Permit (EP/MD/09-012)	04 Jul 08 – 03 Aug 08

3.0 SUMMARY OF IMPACT MONITORING REQUIREMENTS

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

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

Table 3-1 Summary of EM&A Requirements

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

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

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

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

3.05 Stream water quality monitoring is conducted were undertaken at two location W9A & W9B twice per week. Dissolved Oxygen (DO), pH 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 are shown in **Tables 3-2, 3-3, 3-4** and **3-5.**

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

Monitoring Station	Action Level ($\mu g/m^3$)		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)	**W9A (Upstream)#**	**W9B (Downstream)**
Action Level	NA	> 73.5*
Limit Level	NA	> 78.2**
pH	**W9A (Upstream)#**	**W9B (Downstream)**
Action Level	NA	> 7.0*
Limit Level	NA	> 7.1**
Suspended Solids (mg/L)	**W9A (Upstream)#**	**W9B (Downstream)**
Action Level	NA	> 148*
Limit Level	NA	> 159**
Ammonia Nitrogen (mg/L)	**W9A (Upstream)#**	**W9B (Downstream)**
Action Level	NA	> 30.91*
Limit Level	NA	> 32.20**
Zinc (μg/L)	**W9A (Upstream)#**	**W9B (Downstream)**
Action Level	NA	> 242*
Limit Level	NA	> 252**

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

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

Parameters	Action Level	Limit Level
Fauna: decrease in the total number of wetland 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 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 obtained from the Lau Fau Shan Station of the Hong Kong Observatory (HKO).

MONITORING FREQUENCY AND PERIOD

1-HOUR TSP MONITORING

4.03 The 1-Hour TSP monitoring was conducted in designated station A10 in according to the EM&A Manual three times every 6 days. Total of **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 two times per week. Total of **18** 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 The monitoring equipment used by the ET in the EM&A program is presented in the **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 85/10FT
DO	Thermometer & DO Meter	YSI 85/10FT
pH	pH Meter	Hanna HI 98128
Turbidity	Turbidimeter	Hach 2100P
Salinity	Salinometer	ATAGO refractometer
-	Water Sampler	Teflon bailer / bucket
-	Sample Container	High density polythene bottles (provided by laboratory)
-	Storage Container	'Willow' 33-litter plastic cool box

24-HOUR TSP MONITORING

4.09 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 Measurements of 1-Hour TSP monitoring were 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 obtained from the Lau Fau Shan Station of the Hong Kong Observatory (HKO).

NOISE MONITORING

4.13 Noise measurements were taken in terms of the A-weighted equivalent sound pressure level (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 (B&K Model 2238) and associated acoustical calibrators in compliance with the International Electrotechnical Commission (IEC) Publication 651:1979 (Type 1) and 804:1985 (Type 1) specification were used for taking the impact noise measurements.

4.15 Windshield was fitted in all measurements. All noise measurements were made with the meter set to FAST response and on the A-weighted equivalent continuous sound pressure level (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^{o}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. Calibration of the equipment will be regularly performed by ALS on quarterly basis.

Dissolved Oxygen (DO)

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

4.21 Although the DO Meter automatically compensates ambient water temperature to a standard temperature of 200^{o}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. Calibration of the equipment will be regularly performed by ALS on quarterly basis.

pH

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

Turbidity (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. Calibration of the equipment will be regularly performed by ALS on quarterly basis.

Salinity

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

Water Sampler

4.25 Water samples will be collected by the ET using a water sampler and 'PE' (Poly-Ethylene) sampling bottles provided by the laboratory. The water sampler will be rinsed before collection with the sample to be taken. Kahlsico Water Sampler will be used for sampling. One liter or 1000mL water sample will be collected from each depth for SS determination. The samples collected are stored in a cool box maintained at 40^{o}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 are 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 acoustic calibrator prior to and after measurements. The meters are regularly calibrated in accordance with the manufacturer's instructions. Prior to and following each noise measurement, the accuracy of the sound level meter was checked using an acoustic calibrator generating a known sound pressure level at a known frequency. Measurements are considered valid only if the calibration levels before and after the noise measurement agree to within 1.0 dB.

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

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

ANALYTICAL LABORATORY

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

Table 4-3 Analytical Method applied to Water Quality Samples

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

4.41 The analysis of suspended solids, ammonia nitrogen and zinc concentrations were follow the APHA Standard Methods for the Examination of Water and Wastewater 19ed 2540D. ALS Environmental has comprehensive quality assurance and quality control programs and has attained HOKLAS accreditation for a range of environmental testing. For QA/QC procedures, one duplicate sample for every batch of samples 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 EM&A program was carried out by the ET in compliance with the project specific EM&A Manual in this reporting period. The impact monitoring schedules are presented in **Appendix G** and the monitoring results are detailed in the following sub-sections.

AIR QUALITY

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

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

Monitoring Date	Start Time	1st Result (μg/m³)	2nd Result (μg/m³)	3rd Result (μg/m³)	Action Level (μg/m³)	Limit Level (μg/m³)
2-Jul-08	09:30	108	110	107	> 307	> 500
8-Jul-08	09:15	18	22	25	> 307	> 500
14-Jul-08	09:15	29	28	28	> 307	> 500
19-Jul-08	09:10	28	33	32	> 307	> 500
25-Jul-08	09:15	40	40	41	> 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)
27-Jul-08	23	> 165	> 260
4-Jul-08	29	> 165	> 260
9-Jul-08	28	> 165	> 260
15-Jul-08	21	> 165	> 260
21-Jul-08	16	> 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 Action or Limit Level exceedance was recorded in this reporting period.

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

CONSTRUCTION NOISE

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

Table 5-3 Summary of Noise Monitoring Results at N10a

Date	Start Time	1st Leq5	2nd Leq5	3rd Leq5	4th Leq5	5th Leq5	6th Leq5	Leq30
2-Jul-08	10:03	61.5	59.9	63.1	62.5	60.8	61.2	61.6
8-Jul-08	09:35	64.2	67.1	63.4	60.3	62.5	63.4	64.0
14-Jul-08	09:33	51.9	49.8	56.8	51.8	54.5	50.4	53.3
19-Jul-08	09:25	48.4	48.7	47.7	47.8	51.0	57.3	51.9
25-Jul-08	09:42	45.7	45.2	47.8	44.9	45.8	45.5	45.9
Limit Level		-						**> 75 dB(A)**

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

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

STREAM WATER QUALITY

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

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

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
27-Jun-08	4.2	5.5	10.3	12.6	7.0	6.9	6	10	8.74	0.98	30	36
2-Jul-08	2.3	3.3	15.9	26.7	7.7	8.0	<2	4	0.58	0.88	10	16
4-Jul-08	2.6	2.0	53.6	32.7	7.7	7.3	8	5	7.41	1.18	28	20
8-Jul-08	4.1	5.2	17.3	19.5	7.1	7.0	53	24	5.25	1.96	138	56
12-Jul-08	4.0	5.6	12.5	20.1	6.6	6.6	13	13	9.74	0.60	60	26
14-Jul-08	3.6	5.4	26.6	22.5	6.4	6.8	22	11	9.91	1.89	44	25
19-Jul-08	3.2	5.1	12.5	15.1	6.6	7.7	15	10	3.84	1.58	30	24
22-Jul-08	3.0	5.9	28.7	14.6	6.8	7.1	18	38	22.10	5.44	141	17
25-Jul-08	4.5	4.1	10.6	16.1	8.7	7.9	16	9	0.10	1.30	29	21
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.
* Alternative Action Level of the Turbidity, pH, Suspended Solid, Ammonia Nitrogen and Zinc are 120% of upstream control station of same day.
** Alternative Limit Level of the Turbidity, pH, Suspended Solid, Ammonia Nitrogen and Zinc are 130% of upstream control station of same day.

ECOLOGY

5.09 54 individuals of birds from 17 species were recorded during the survey for the present monthly monitoring on 24 July 2008. Among the birds recorded, one individual from one 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 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 26 individuals of fauna from 13 species were recorded during the survey for the present monthly monitoring on 24 July 2008. Compared with the total average abundance of 44.99 individuals from 21 species of fauna recorded during the baseline study for the KT15 Project Profile, the species number of fauna recorded fell within the Action Level for the monitoring requirements for ecology (i.e. decrease in the number of species or individuals > 20% from the baseline), while the individual number of fauna recorded fell within the Limit Level (i.e. decrease in the number of species or individuals > 40% from the baseline).

5.11 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.

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

5.13 Ecology Impact Monitoring Results are presented in the **Tables 5-5** and **5-6**.

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 Jul 08)
Birds			
Bubulcus ibis	**Cattle Egret**	**0.4**	
Ardeola bacchus	**Chinese Pond Heron**	**0.8**	**1**
Amaurornis phoenicurus	**White-breasted Waterhen**	**Recorded only**	
Streptopelia chinensis	Spotted Dove	Recorded only	3
Hirundo rustica	Barn Swallow	Recorded only	6
Motacilla alba	White Wagtail	Recorded only	
Pycnonotus jocosus	Red-whiskered Bulbul	Recorded only	4
Pycnonotus sinesis	Chinese Bulbul	Recorded only	3
Lanius schach	Long-tailed Shrike	Recorded only	1
Copsychus saularis	Oriental Magpie Robin	Recorded only	2
Orthotomus sutorius	Common Tailorbird	Recorded only	2
Lonchura striata	White-rumped Munia	Recorded only	
Passer montanus	Eurasian Tree Sparrow	Recorded only	4
Sturnus nigricollis	Black-collared Starling	Recorded only	3
Acridotheres cristatellus	Crested Myna	Recorded only	9
Prinia flaviventris	Yellow-bellied Prinia	\	3
Eudynamis scolopacea	Common Koel	\	
Halcyon smyrnensis	White-throated Kingfisher	\	1
Garrulax perspicillatus	Masked Laughingthrush	\	2
Zosterops japonica	Japanese White Eye	\	6
Lonchura punctulata	Scaly-breasted Munia	\	
Egretta garzetta	Little Egret	\	
Anthus hodgsoni	Olive-backed Pipit	\	
Phylloscopus subaffinis	Dusky Warbler	\	
Phylloscopus inornatus	Yellow-Browed Warbler	\	
Parus major	Great Tit	\	2
Anthus hodgsoni	Olive-backed Pipit	\	
Prinia inornata	Plain Prinia	\	
Sturnus sericeus	Red-billied Starling		
Centropus bengalensis	Lesser Coucal	\	
Centropus sinensis	Greater Coucal	\	2
Species Number		**15 spp. recorded, (only 2 species of wetland birds with abundance)**	**17 spp. (1 sp. from the wetland birds with abundance in the baseline)**
Individual Number		**1.2 (from the 2 species of wetland birds with abundance)**	**54 (1 from the wetland birds with abundance in the baseline)**

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

Table 5-6 Summary of Fauna Impact Monitoring Surveys

Scientific Name	Common Name	Abundance reported in the Project Profile	Abundance recorded in the present survey (24 Jul 08)
Mammals			
\	\	\	
Herpetofauna			
Bufo melanostictus	Asian Common Toad	2	
Rana guentheri	Gunther's Frog	2.33	
Polyedates megacephalus	Brown Tree Frog	1.33	
Calotes versicolor	Changeable Lizard	0.33	
Odonata			
Ischnura senegalensis	Common Bluetail	4.5	
Ceriagrion auranticum	Orange-tailed Sprite	6	2
Orthetrum pruinosum	Common Red Skimmer	1.5	2
Trithemis aurora	Crimson Dropwing	0.5	
Tramea virginia	Saddlebag Glider	1	1
Pantala flavescens	Wandering Glider	8.5	5
Orthetrum sabina	Green Skimmer	\	1
Butterfly			
Graphium sarpedon	Common Bluebottle	0.5	
Papilio polytes	Common Mormon	1.5	2
Ariadne ariadne	Angled Castor	2	4
Euploea midamus	Blue-spotted Crow	2.5	1
Ideopsis similis	Ceylon Blue Glassy Tiger	1.5	
Mycalesis mineus	Dark-branded Bush Brown	1.5	
Catapsillia pomona	Lemon Emirgrant	0.5	
Eurema hecabe	Common Grass Yellow	1	
Zizeeria maha	Pale Grass Blue	2.5	3
Astictopterus jama	Forest Hopper	0.5	
Erionota torus	Banana Skipper	3	
Hypolimnas bolina	Great Egg-fly	\	
Pieris canidia	Indian Cabbage White	\	2
Hebomoia glaucippe	Great Orange Tip	\	1
Danaus genutia	Common Tiger	\	
Papilio memnon	Great Mormon	\	1
Elymnias hypermnestra	Common Palmfly	\	
Papilio helenus	Red Helen	\	1
Total species number		**21 species with abundance**	**13 spp.**
Total individual number		**44.99**	**26**

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)	1,141	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)	42	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	Quantity	Disposal Location
Type 1 Materials (m^3)	0	East Sha Chau (Pitch 4a & 4b)
Type 2 Materials (m^3)	18	East Sha Chau (Pitch 4c)

7.0 SITE INSPECTION

7.01 According to the EM&A Manual Section 9.1.2, the environmental site inspection should been formulation by ET Leader. ET had carried out the environmental site inspection on 27 June, 03, 10, 17 and 25 July 2008 with the Representatives of the Engineer and the Contractor to evaluate the site environmental performance in this reporting period. The monthly IEC site audit conducted on 17 July 2008 by IEC's representative with the Engineer's, the Contractor's and ET's representative. No non-compliance and five observations were noted.

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

- Stagnant water was found within the site due to persisting heavy rain. Mosquito control measures are reminded;
- Black smoke was emitted from the back hoe was observed during the site inspection, the contractor was reminded to provide maintenance to prevent any back smoke emitted;
- Exposed soil surface was observed at KT15. Contractor was reminded to protect exposed soil surface and prevent soil runoff from entering the stream;
- Stagnant waster was cumulated on site, the contractor was reminded to clean to prevent mosquito breeding; and
- General and C&D waste was cumulated on site, the contractor was reminded to clean more frequency.

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

7.04 No site inspection was undertaken by external parties 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. The statistical summary table of environmental complaint is 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 – June 2008	0	0	NA
July 2008	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 – June 2008	0	0	NA
July 2008	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 – June 2008	0	0	NA
July 2008	0	0	NA

9.0 IMPLEMENTATION STATUS OF MITIGATION MEASURES

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

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

Water Quality

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

Air Quality

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

Noise

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

Waste and Chemical Management

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

General

- The site was generally kept tidy and clean.

10.0 IMPACT FORECAST

KEY ISSUES FOR THE COMING MONTH

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

- Implementation of dust suppression measures at all times;
- Potential wastewater quality impact due to surface runoff;
- Potential fugitive dust quality impact due to dry/windy season (November to March) from the dry/loose/exposure soil surface/dusty material;
- Disposal of empty engine oil containers within site area;
- Ensure dust suppression measures are implemented properly;
- Sediment catch-pits and silt removal facilities should be regularly maintained;
- Management of chemical wastes;
- Discharge of site effluent to the nearby wetland, stockpiling or disposal of materials, and any dredging or construction area at this area are 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 **July 2008** 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
	Suspended Solids (SS)	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
	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 number of species of wetland fauna 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
	Decrease in the total number of wetland fauna of conservation importance from baseline.	0	Not Required for 0% Project Related Exceedance

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

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

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

11.05 Non-compliance with the ecological criteria was found during the monitoring month on 24 July 2008. 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 and 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 regular and monthly IEC site audit inspection records on 27 June, 03, 10, 17 and 25 July 2008, no non-compliance and five observations were recorded. Details of the observations as follows:-

- Stagnant water was found within the site due to persisting heavy rain. Mosquito control measures are reminded;
- Back smoke was emitted from the back hoe was observed during the site inspection, the contractor was reminded to provide maintenance to prevent any back smoke emitted;
- Exposed soil surface was observed at KT15. Contractor was reminded to protect exposed soil surface and prevent soil runoff from entering the stream;
- Stagnant waster was cumulated on site, the contractor was reminded to clean to prevent mosquito breeding; and
- General and C&D waste was cumulated on site, the contractor was reminded to clean more frequency.

11.08 No site inspection was undertaken by external parties 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.

N

825100 E 825200 E 825300 E 825400 E 825500 E 825600 E 825700 E

832600 N 832500 N 832400 N 832300 N 832200 N 832100 N

KONG HA WAI

KAM TSIN WAI

IL=+3.31mPD
VEHICULAR GATE VG15-3
TURNING AREA
LOCKABLE CRASH GATE CG15-4
RAMP NO. 4
IL=+4.75mPD
1.2m(W)x1.5m(H) OPENING
PROPOSED 3x3m (W)x2m (H) BOX CULVERT
EXISTING BOX CULVERT TO BE DEMOLISHED
CH 0
KAM PO ROAD
PEDESTRIAN CROSSING PC15-2
RAMP NO. 3
CH 200
FILL TO ADJACENT LEVEL
LOCKABLE CRASH GATE CG15-3
TURNING AREA
900mm DIA PIPE CROSSING
CH 300
3.5m MAINTENANCE ACCESS
150mm DIA PIPE CROSSING
WITH TRAPEZOIDAL CHANNEL (WEEPHOLE SHALL NOT BE EMPLOYED FROM CH. 90 TO 120)
CH 100
TRAPEZOIDAL CHANNEL WITH GABION BASE AND BANKS
EXISTING BRIDGE TO BE DEMOLISHED AND REMOVED
900mm DIA PIPE CROSSING
150mm DIA PIPE CROSSING
REPROVISION OF 8m WIDE VEHICULAR GATE
VEHICULAR GATE VG15-1
INVERT LEVEL OF THE EXISTING TWIN CELL BOX CULVERT TO BE MODIFIED
IL=+6.00mPD
IL=+6.01mPD
VEHICULAR GATE VG15-2
CH 400
EXISTING FOOTPATH TO BE REPAVED
EXISTING WING WALLS TO BE DEMOLISHED (REFER TO DRG. NO. 105)
PROPOSED 1.6m HIGH RETAINING WALL RW2
KAM SHEUNG ROAD
TRAPEZOIDAL CHANNEL WITH GABION BASE AND BANKS (WEEPHOLE SHALL NOT BE EMPLOYED FROM CH. 460 TO CH. 596.31)
LOCKABLE CRASH GATE CG15-2
TURNING AREA
3.5m MAINTENANCE ACCESS
900mm DIA PIPE CROSSING
150mm DIA PIPE CROSSING
RAMP NO. 2
CH 500
CH 600
PEDESTRIAN CROSSING PC15-1
CH 700
TRAPEZOIDAL CHANNEL WITH GABION BASE AND BANKS (WEEPHOLE SHALL NOT BE EMPLOYED)
LOCKABGLE CRASH GATE CG15-1
TURNING AREA
RAMP NO. 1
450mm DIA PIPE CROSSING
3.5m (W) x 1.6m (H) RECTANGULAR CONCRETE CHANNEL WITH GABION BASE
REFER TO DRAWING NO. 103 FOR DETAILS OF INTAKE APRON
IL=+7.7mPD
CONNECTION TO MATCH WITH EXISTING STREAMCOURSE
CH 797.26

TIN SAM SAN TSUEN

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

Approved

CONTRACT NO. DC2006/02

Contract title

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

Drawing title

CHANNEL KT15
GENERAL LAYOUT PLAN

Drawing no. 021

Scale 1:1000 A1 1:2000 A3

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

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

Plot Date • 6/12/2006

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

APPENDIX B

THREE-MONTH CONSTRUCTION PROGRAM

PROGRAMME OF WORKS - RP13
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 : MAY 2008

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**	**850 days**	**Wed 21/3/07**	**Fri 17/7/09**	
6					
7	**Completion Dates**	**841 days**	**Fri 30/3/07**	**Fri 17/7/09**	
8	Section I - portions 1, 2 and 3	841 days	Fri 30/3/07	Fri 17/7/09	2SS
9	Section II - portions 4, 5 and 5C	841 days	Fri 30/3/07	Fri 17/7/09	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	841 days	Fri 30/3/07	Fri 17/7/09	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**	**850 days**	**Wed 21/3/07**	**Fri 17/7/09**	
29	**1. Setting out of Works**	**841 days**	**Fri 30/3/07**	**Fri 17/7/09**	**2SS**
30	**2. Environmental Monitoring and Audit**	**841 days**	**Fri 30/3/07**	**Fri 17/7/09**	
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	730 days	Thu 19/7/07	Fri 17/7/09	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
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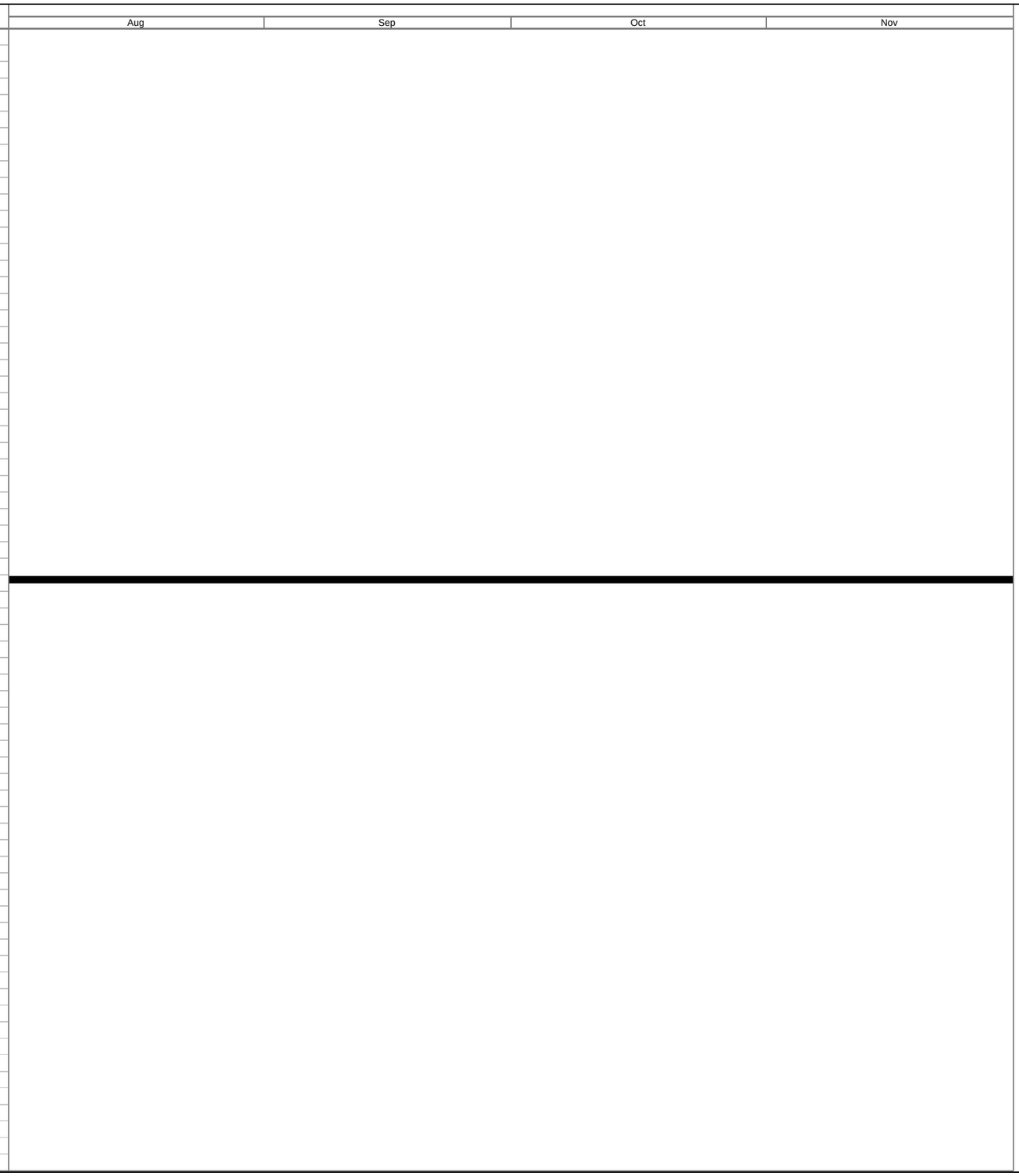
PROGRAMME OF WORKS - RP13
Contract No. : DC / 2006 / 02
Contract Title : Yuen Long, Kam Tin, Ngau Tam Mei and Tin Shui Wai Drainage Improvements,
Stage 1, Phase 2B - Cheung Chun San Tsuen and Kam Tsin Wai

CHIT CHEUNG CONSTRUCTION CO., LTD.
DATE : MAY 2008

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**	**850 days**	**Wed 21/3/07**	**Fri 17/7/09**	
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
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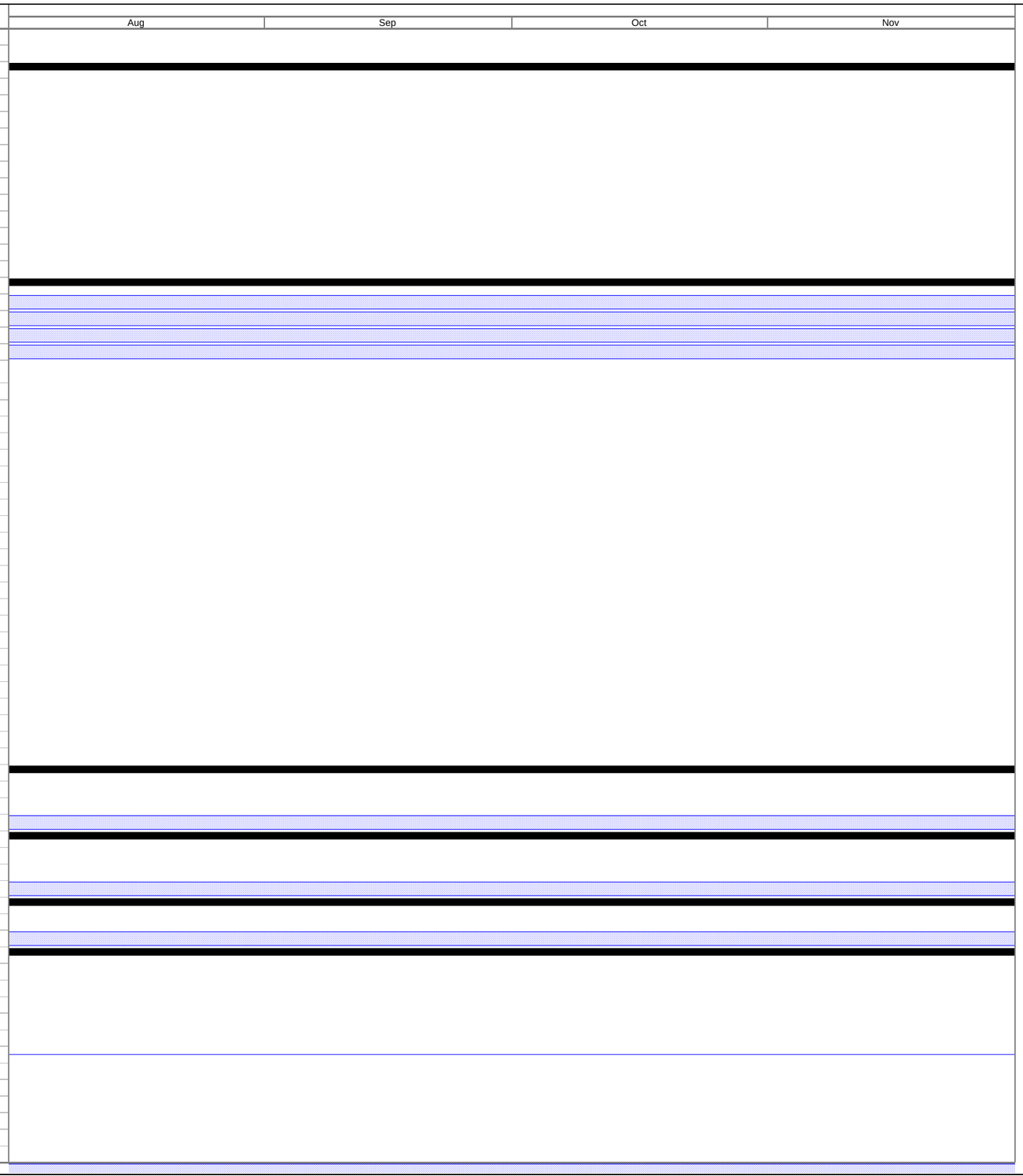
PROGRAMME OF WORKS - RP13
Contract No. : DC / 2006 / 02
Contract Title : Yuen Long, Kam Tin, Ngau Tam Mei and Tin Shui Wai Drainage Improvements,
Stage 1, Phase 2B - Cheung Chun San Tsuen and Kam Tsin Wai

CHIT CHEUNG CONSTRUCTION CO., LTD.
DATE : MAY 2008

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	841 days	Fri 30/3/07	Fri 17/7/09	
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, 5A1, 5A2	30 days	Fri 29/6/07	Sat 28/7/07	17,19,20,21
145	Portion 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, 5A1, 5A2	14 days	Sun 29/7/07	Sat 11/8/07	144
150	Portion 5B	14 days	Thu 15/11/07	Wed 28/11/07	145
151	e. Condition survey & structural monitoring	776 days	Sun 3/6/07	Fri 17/7/09	
152	Portion 1, 4, 6, 7, 8	776 days	Sun 3/6/07	Fri 17/7/09	147
153	Portion 2	736 days	Fri 13/7/07	Fri 17/7/09	148
154	Portion 3, 5, 5A1, 5A2	706 days	Sun 12/8/07	Fri 17/7/09	149
155	Portion 5B	597 days	Thu 29/11/07	Fri 17/7/09	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	757SS-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	850 days	Wed 21/3/07	Fri 17/7/09	
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	806 days	Fri 4/5/07	Fri 17/7/09	182
184	10.14 proof of plant ownership	841 days	Fri 30/3/07	Fri 17/7/09	
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	813 days	Fri 27/4/07	Fri 17/7/09	186
188	10.15 Contractor's Management Team	841 days	Fri 30/3/07	Fri 17/7/09	
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	827 days	Fri 13/4/07	Fri 17/7/09	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

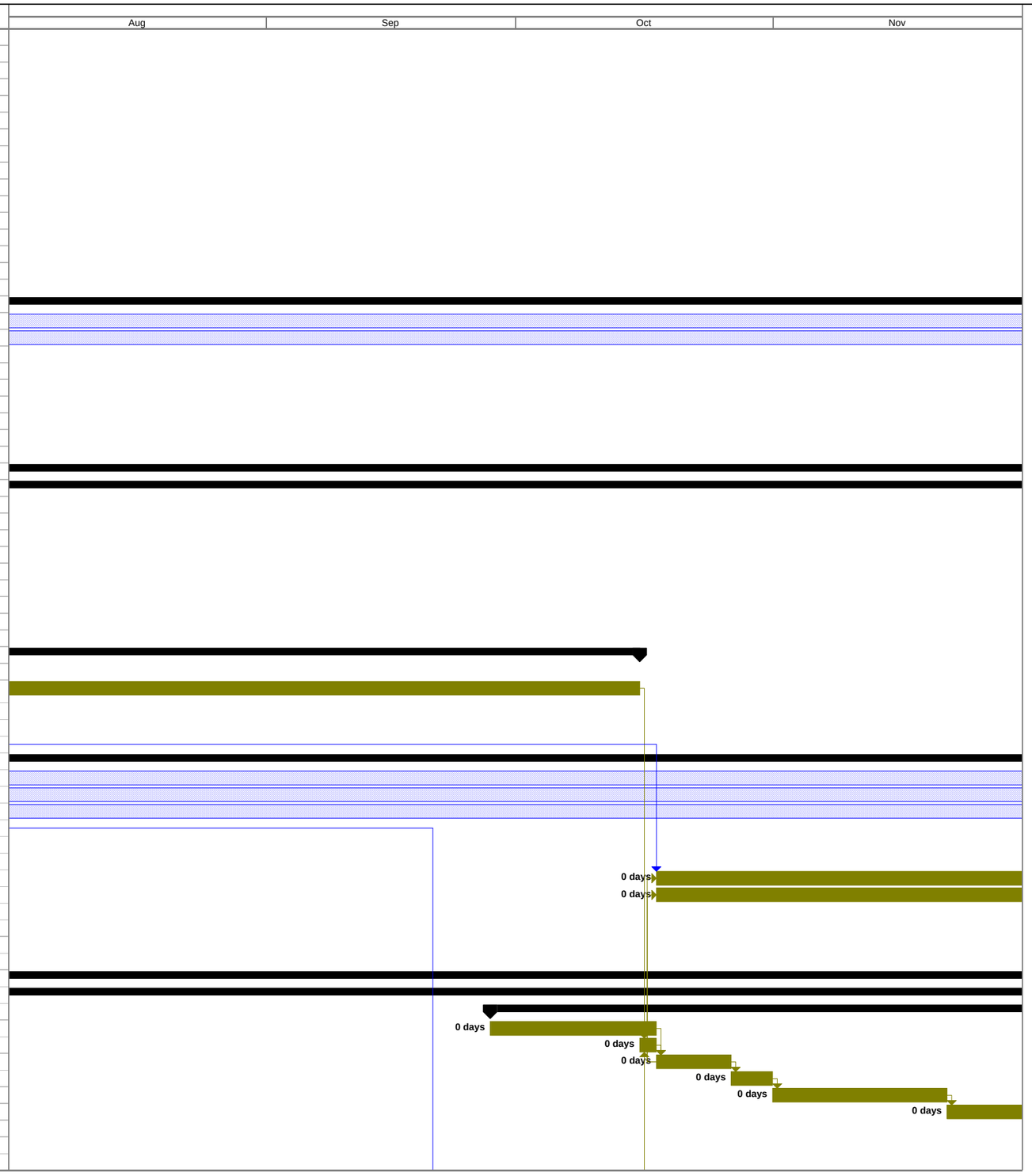


Task | Progress | Summary | Rolled Up Critical Task | Rolled Up Progress | External Tasks | Group By Summary
Critical Task | Milestone | Rolled Up Task | Rolled Up Milestone | Split | Project Summary | Deadline

PROGRAMME OF WORKS - RP13
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 : MAY 2008

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	750 days	Tue 15/5/07	Tue 2/6/09	
222	a. Submission of materials	750 days	Tue 15/5/07	Tue 2/6/09	15FS+45 days
223	b. Submission of method statement	750 days	Tue 15/5/07	Tue 2/6/09	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**	**841 days**	**Fri 30/3/07**	**Fri 17/7/09**	
232	**B1. Portion 1**	**841 days**	**Fri 30/3/07**	**Fri 17/7/09**	
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	36,225,947,945
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**	**474 days**	**Thu 27/9/07**	**Mon 12/1/09**	
249	a. WSD watermain along village vehicular access	207 days	Tue 17/6/08	Fri 9/1/09	287SS
250	b. Street lighting along village vehicular access	207 days	Tue 17/6/08	Fri 9/1/09	287SS
251	c. PCCW along village vehicular access	207 days	Tue 17/6/08	Fri 9/1/09	287SS
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	87 days	Sat 18/10/08	Mon 12/1/09	266SS,247
256	h. Irrigation pipe at Chi Ho Road	87 days	Sat 18/10/08	Mon 12/1/09	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**	**558 days**	**Wed 1/8/07**	**Sun 8/2/09**	
262	7.1 Box Culvert BC2-1	558 days	Wed 1/8/07	Sun 8/2/09	
263	a. Ch0-Ch15 (Bay 1 and Outlet)	134 days	Sun 28/9/08	Sun 8/2/09	
264	Construction of cofferdam	20 days	Sun 28/9/08	Fri 17/10/08	
265	Remove road pavement and expose existing utiliti	2 days	Thu 16/10/08	Fri 17/10/08	244,334
266	Excavation	9 days	Sat 18/10/08	Sun 26/10/08	265,264
267	Granular Bedding	5 days	Mon 27/10/08	Fri 31/10/08	266
268	Base Slab	21 days	Sat 1/11/08	Fri 21/11/08	267
269	Wall and Deck	31 days	Sat 22/11/08	Mon 22/12/08	268
270	Curing	14 days	Tue 23/12/08	Mon 5/1/09	269
271	Trench Backfill	7 days	Tue 6/1/09	Mon 12/1/09	270
272	Reinstatement of Chi Ho Road	13 days	Tue 13/1/09	Sun 25/1/09	271,255,256

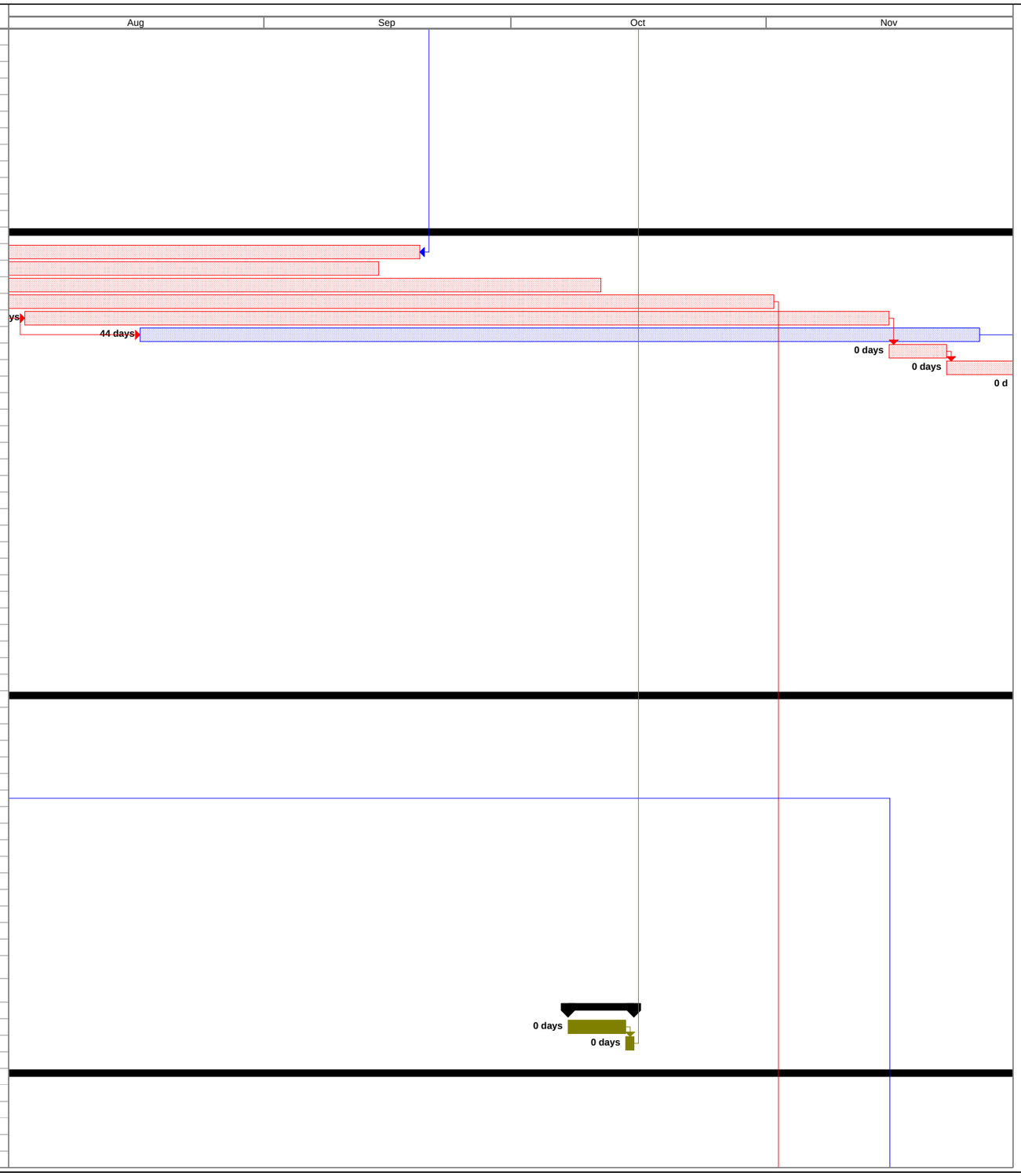


Task | Progress | Summary | Rolled Up Critical Task | Rolled Up Progress | External Tasks | Group By Summary
Critical Task | Milestone | Rolled Up Task | Rolled Up Milestone | Split | Project Summary | Deadline

PROGRAMME OF WORKS - RP13
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 : MAY 2008

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-Ch88 (Bays 4 - 8)	207 days	Tue 17/6/08	Fri 9/1/09	
287	Excavation	95 days	Tue 17/6/08	Fri 19/9/08	454,252FF+66 days
288	Granular Bedding	80 days	Fri 27/6/08	Sun 14/9/08	287SS+10 days
289	Base Slab (Bays 4, 5, 7 & 8)	95 days	Wed 9/7/08	Sat 11/10/08	288SS+12 days
290	Wall and Deck (Bays 4, 5, 7 & 8)	107 days	Fri 18/7/08	Sat 1/11/08	289SS+9 days
291	Curing	105 days	Sun 3/8/08	Sat 15/11/08	290SS+16 days
292	Trench Backfill	102 days	Sun 17/8/08	Wed 26/11/08	291SS+14 days
293	Modification of temporary support to watermain fo	7 days	Sun 16/11/08	Sat 22/11/08	291
294	base slab (Bay 6)	10 days	Sun 23/11/08	Tue 2/12/08	293
295	Wall and Deck (Bay 6)	14 days	Wed 3/12/08	Tue 16/12/08	294
296	Curing (Bay 6)	14 days	Wed 17/12/08	Tue 30/12/08	295
297	Backfill (Bay 6)	10 days	Wed 31/12/08	Fri 9/1/09	296,249FF,250FF,251FF
298	7.2 Channel	189 days	Thu 3/1/08	Wed 9/7/08	
299	a. Ch840-Ch844 (Bay 56b)	91 days	Thu 3/1/08	Wed 2/4/08	
300	Excavation (including contamination materials)	25 days	Thu 3/1/08	Sun 27/1/08	254
301	Granular Bedding	3 days	Mon 28/1/08	Wed 30/1/08	300
302	Base Slab	22 days	Thu 31/1/08	Thu 21/2/08	301
303	Wall and Deck	23 days	Fri 22/2/08	Sat 15/3/08	302
304	Curing	14 days	Sun 16/3/08	Sat 29/3/08	303
305	Trench Backfill	4 days	Sun 30/3/08	Wed 2/4/08	304
306	b. Demolition of existing crossing	7 days	Sun 30/3/08	Sat 5/4/08	304
307	c. Ch800-840 (Bay 56a)	95 days	Sun 6/4/08	Wed 9/7/08	
308	Excavation (including contamination materials)	8 days	Sun 6/4/08	Sun 13/4/08	306
309	Granular Bedding	7 days	Mon 14/4/08	Sun 20/4/08	308
310	Base Slab	40 days	Mon 21/4/08	Fri 30/5/08	309
311	Wall and Deck	31 days	Sat 31/5/08	Mon 30/6/08	310
312	Curing	26 days	Tue 10/6/08	Sat 5/7/08	311SS+10 days
313	Trench Backfill	16 days	Tue 24/6/08	Wed 9/7/08	312SS+14 days
314	**8. Filling in Platform**	**292 days**	**Thu 3/4/08**	**Mon 19/1/09**	
315	8.1 Box Culvert	10 days	Sat 10/1/09	Mon 19/1/09	
316	a. Ch0-Ch15 (Bay 1 and Outlet)	3 days	Tue 13/1/09	Thu 15/1/09	271
317	b. Ch15-Ch88 (Bay 2 to Bay 8)	10 days	Sat 10/1/09	Mon 19/1/09	292,297
318	8.2 Channel	118 days	Thu 3/4/08	Tue 29/7/08	
319	a. Ch840-Ch844 (Bay 56b)	5 days	Thu 3/4/08	Mon 7/4/08	305
320	b. Ch800-840 (Bay 56a)	20 days	Thu 10/7/08	Tue 29/7/08	313
321	**9. Geotechnical Instrumentation for CLP Pylon**	**4 days**	**Mon 24/9/07**	**Thu 27/9/07**	
322	**10. Trial pits for watermain under existing village access**	4 days	Tue 17/6/08	Fri 20/6/08	454
323	**11. Temporary support to existing watermain**	21 days	Sat 21/6/08	Fri 11/7/08	322
324	**12. Drainage works (except Bays 56a and 56b)**	**45 days**	**Tue 20/1/09**	**Thu 5/3/09**	
325	a. storm drain with manhole	30 days	Tue 20/1/09	Wed 18/2/09	317
326	b. surface drain	45 days	Tue 20/1/09	Thu 5/3/09	317
327	**13. Water supply pipeworks**	**60 days**	**Sun 12/4/09**	**Wed 10/6/09**	**197,204,328**
328	**14. Roads and paving (except Bays 56a and 56b)**	**52 days**	**Thu 19/2/09**	**Sat 11/4/09**	**325**
329	**15. Diversion of traffic to permanent access from Bay 4 to B**	1 day	Sun 12/4/09	Sun 12/4/09	328
330	**16. Street furnitures / traffic sign / road marking (except Bay**	**30 days**	**Thu 11/6/09**	**Fri 10/7/09**	**327**
331	**17. Landscape softworks / hardworks (except Bays 56a and**	**37 days**	**Thu 11/6/09**	**Fri 17/7/09**	**316,317,327**
332	**18. Road Diversion in Chi Ho Road**	**8 days**	**Wed 8/10/08**	**Wed 15/10/08**	
333	a. Construction of temporary footpath above Box Culvert	7 days	Wed 8/10/08	Tue 14/10/08	
334	b. Implementation of footpath diversion	1 day	Wed 15/10/08	Wed 15/10/08	333
335					
336	**B2. Portion 2**	**841 days**	**Fri 30/3/07**	**Fri 17/7/09**	
337	**1. Site clearance**	**90 days**	**Tue 14/8/07**	**Sun 11/11/07**	
338	1.1 General clearance	90 days	Tue 14/8/07	Sun 11/11/07	36,951,225,953
339	**2. Underground utilities detection**	**42 days**	**Tue 3/7/07**	**Mon 13/8/07**	
340	2.1 utilities detection	28 days	Tue 3/7/07	Mon 30/7/07	
341	2.2 trial trench excavtion & identification	14 days	Tue 31/7/07	Mon 13/8/07	340



Task | Progress | Summary | Rolled Up Critical Task | Rolled Up Progress | External Tasks | Group By Summary
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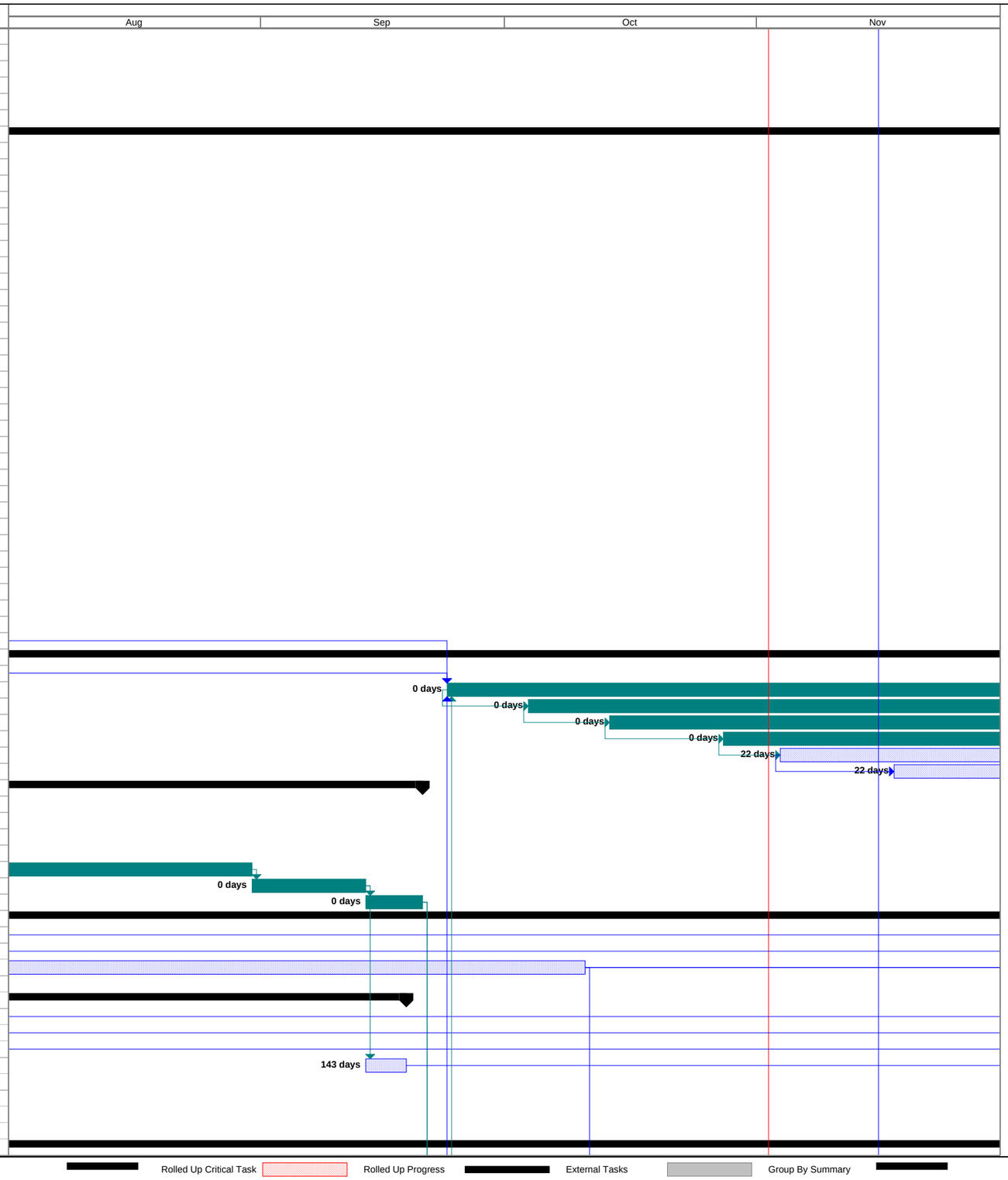
PROGRAMME OF WORKS - RP13
Contract No. : DC / 2006 / 02
Contract Title : Yuen Long, Kam Tin, Ngau Tam Mei and Tin Shui Wai Drainage Improvements,
Stage 1, Phase 2B - Cheung Chun San Tsuen and Kam Tsin Wai

CHIT CHEUNG CONSTRUCTION CO., LTD.
DATE : MAY 2008

ID	Task Name	Duration	Start	Finish	Predecessors
343	a. WSD water main along village vehicular access	90 days	Wed 10/10/07	Mon 7/1/08	359SS
344	b. Street lighting along village vehicular access	269 days	Wed 10/10/07	Fri 4/7/08	359SS
345	c. PCCW along village vehicular access	245 days	Wed 10/10/07	Tue 10/6/08	359SS
346	d. CLP overhead cables / street lighting at CH 290 ~ CH 33	90 days	Fri 30/3/07	Wed 27/6/07	
347	**4. Geotechnical Instrumentation for AFCD**	6 days	Thu 27/9/07	Tue 2/10/07	
348	**5. Discussion with Pond Owner**	39 days	Wed 1/8/07	Sat 8/9/07	
349	**6. Box Culvert, Channel and Crossings**	**504 days**	**Sun 9/9/07**	**Sat 24/1/09**	
350	a. Ch88-Ch120 (Bays 9 - 11)	83 days	Fri 29/2/08	Wed 21/5/08	
351	Excavation	21 days	Fri 29/2/08	Thu 20/3/08	321,347,364
352	Granular Bedding	15 days	Mon 10/3/08	Mon 24/3/08	351SS+10 days
353	Base Slab	15 days	Sun 16/3/08	Sun 30/3/08	352SS+6 days
354	Wall and Deck	22 days	Sun 23/3/08	Sun 13/4/08	353SS+7 days
355	Curing	25 days	Thu 3/4/08	Sun 27/4/08	354SS+11 days
356	Trench Backfill	35 days	Thu 17/4/08	Wed 21/5/08	355SS+14 days
357	b. Ch120-Ch205 (Bay 12 - Bay 17)	159 days	Sun 23/9/07	Thu 28/2/08	
358	Haul access	16 days	Sun 23/9/07	Mon 8/10/07	366
359	Excavation	46 days	Wed 10/10/07	Sat 24/11/07	347,341,358
360	Granular Bedding	43 days	Sat 20/10/07	Sat 1/12/07	359SS+10 days
361	Base Slab	50 days	Fri 26/10/07	Fri 14/12/07	360SS+6 days
362	Wall and Deck	53 days	Tue 6/11/07	Fri 28/12/07	361SS+11 days
363	Curing	53 days	Tue 13/11/07	Fri 4/1/08	362SS+7 days
364	Trench Backfill	46 days	Mon 14/1/08	Thu 28/2/08	363SS+62 days,343FF
365	c. Ch205-Ch310 (Bay 18 - Bay 24)	93 days	Sun 9/9/07	Mon 10/12/07	
366	Haul access	14 days	Sun 9/9/07	Sat 22/9/07	348
367	Excavation	27 days	Sun 23/9/07	Fri 19/10/07	346,366
368	Granular Bedding	23 days	Wed 3/10/07	Thu 25/10/07	367SS+10 days,366
369	Base Slab	39 days	Tue 9/10/07	Fri 16/11/07	368SS+6 days
370	Wall and Deck	42 days	Sat 20/10/07	Fri 30/11/07	369SS+11 days
371	Curing	42 days	Sat 27/10/07	Fri 7/12/07	370SS+7 days
372	Trench Backfill	31 days	Sat 10/11/07	Mon 10/12/07	371SS+14 days
373	d. Ch310-Ch375 (Bay 25 - Bay 27)	273 days	Sun 23/9/07	Sat 21/6/08	
374	Haul access	15 days	Sun 23/9/07	Sun 7/10/07	366
375	Excavation	52 days	Tue 11/12/07	Thu 31/1/08	374,372
376	Granular Bedding	85 days	Fri 1/2/08	Fri 25/4/08	375
377	Base Slab	78 days	Sat 1/3/08	Sat 17/5/08	376SS+29 days
378	Wall and Deck	83 days	Mon 10/3/08	Sat 31/5/08	377SS+9 days
379	Curing	90 days	Mon 17/3/08	Sat 14/6/08	378SS+7 days
380	Trench Backfill	83 days	Mon 31/3/08	Sat 21/6/08	379SS+14 days
381	e. Ch375-Ch413 (Bays 28 to Bay 31)	**475 days**	**Mon 8/10/07**	**Sat 24/1/09**	
382	Haul access	10 days	Mon 8/10/07	Wed 17/10/07	374
383	Excavation	68 days	Wed 24/9/08	Sun 30/11/08	456,382,380,459
384	Granular Bedding	65 days	Sat 4/10/08	Sun 7/12/08	383SS+10 days
385	Base Slab	65 days	Tue 14/10/08	Wed 17/12/08	384SS+10 days
386	Wall and Deck	65 days	Tue 28/10/08	Wed 31/12/08	385SS+14 days
387	Curing	72 days	Tue 4/11/08	Wed 14/1/09	386SS+7 days
388	Trench Backfill	68 days	Tue 18/11/08	Sat 24/1/09	387SS+14 days
389	f. Ch413-Ch436 (Bay 32)	**117 days**	**Tue 27/5/08**	**Sat 20/9/08**	
390	Flow diversion	7 days	Tue 27/5/08	Mon 2/6/08	391SS-7 days
391	Excavation	25 days	Tue 3/6/08	Fri 27/6/08	455
392	Granular Bedding	4 days	Sat 28/6/08	Tue 1/7/08	391
393	Base Slab	28 days	Wed 2/7/08	Tue 29/7/08	392
394	Wall and Deck	32 days	Wed 30/7/08	Sat 30/8/08	393
395	Curing	14 days	Sun 31/8/08	Sat 13/9/08	394
396	Trench Backfill	7 days	Sun 14/9/08	Sat 20/9/08	395
397	**7. Gabion**	**253 days**	**Sun 1/6/08**	**Sun 8/2/09**	
398	Ch120-Ch148 (Bay 12 - Bay 13)	10 days	Sat 5/7/08	Mon 14/7/08	399
399	Ch163 - Ch205 (Bay 15 - Bay 17)	34 days	Sun 1/6/08	Fri 4/7/08	378
400	Ch205 - Ch325 (Bay 18 - Bay 25)	98 days	Sat 5/7/08	Fri 10/10/08	399
401	Ch348 - CH413 (Bay27 - Bay31)	39 days	Thu 1/1/09	Sun 8/2/09	400,386
402	**8. Granite Stone Facing**	**144 days**	**Mon 28/4/08**	**Thu 18/9/08**	
403	Ch100 -Ch120 (Bay 10 - Bay 11)	11 days	Mon 28/4/08	Thu 8/5/08	355
404	Ch325 - Ch348 (Bay 26a and Bay 26c)	6 days	Sun 15/6/08	Fri 20/6/08	379
405	Ch120 - Ch163 (Bay 12 - Bay 14)	16 days	Fri 9/5/08	Sat 24/5/08	363,403
406	Ch413 - Ch436 (Bay 32a and Bay 32c)	5 days	Sun 14/9/08	Thu 18/9/08	395
407	**9. Ramp No. 3 (Ch356 - Ch405)**	**17 days**	**Fri 30/3/07**	**Sun 15/4/07**	
408	General fill	5 days	Fri 30/3/07	Tue 3/4/07	
409	Granular fill and blinding	2 days	Wed 4/4/07	Thu 5/4/07	408
410	Concrete pavement	10 days	Fri 6/4/07	Sun 15/4/07	409
411	**10. Filling in Platform**	**481 days**	**Tue 11/12/07**	**Sat 4/4/09**	



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PROGRAMME OF WORKS - RP13
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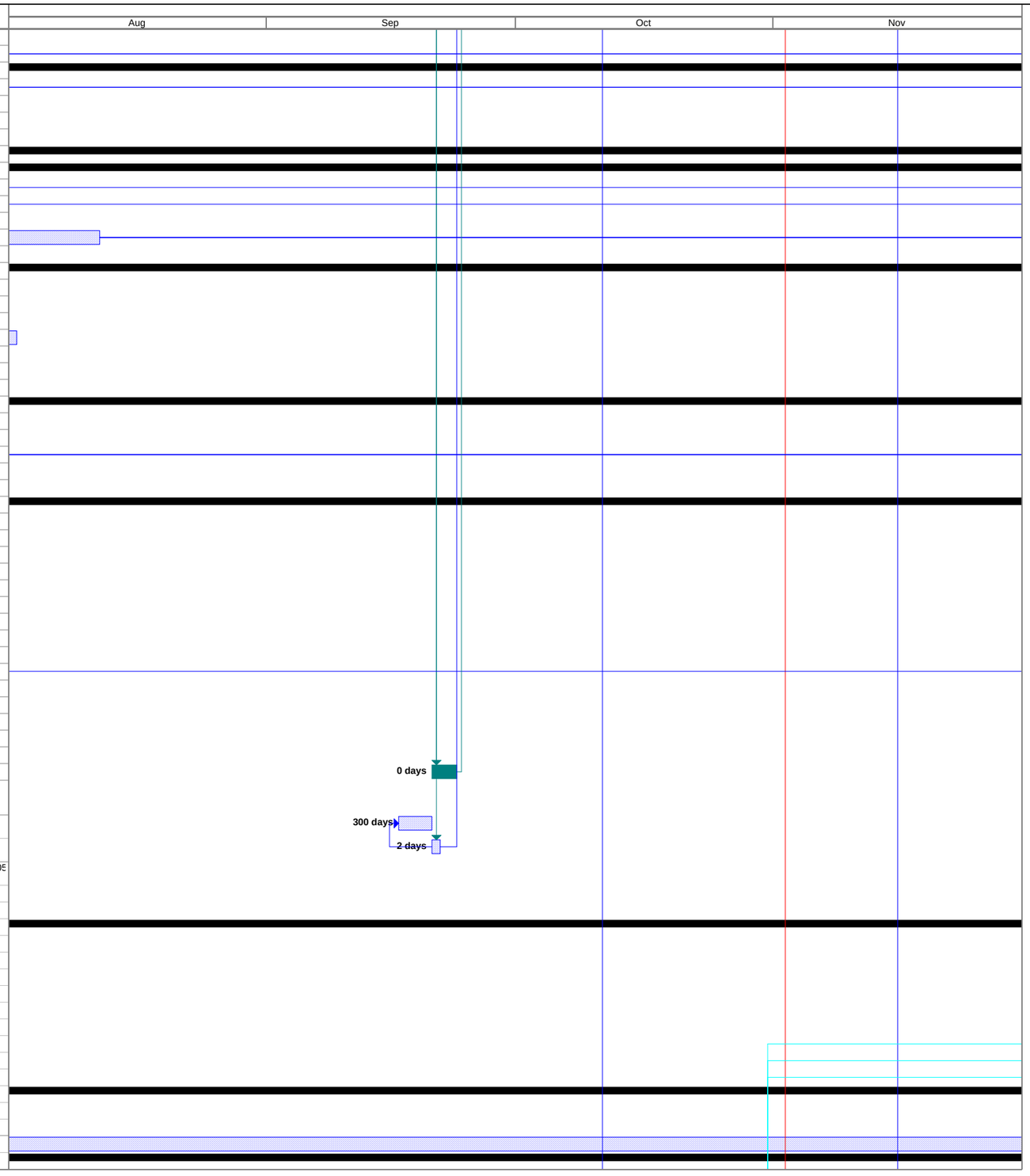
CHIT CHEUNG CONSTRUCTION CO., LTD.
DATE : MAY 2008

ID	Task Name	Duration	Start	Finish	Predecessors
412	10.1 Box Culvert BC2-1	10 days	Thu 22/5/08	Sat 31/5/08	
413	a. Ch88-Ch120 (South of Bay 9 - Bay 11)	10 days	Thu 22/5/08	Sat 31/5/08	356
414	10.2 Channel and Crossing	481 days	Tue 11/12/07	Sat 4/4/09	
415	a. Ch120-Ch205 (Bay 12 - Bay 17)	90 days	Fri 29/2/08	Wed 28/5/08	364
416	b. Ch205-Ch310 (Bay 18 - Bay 24)	118 days	Tue 11/12/07	Sun 6/4/08	372
417	c. Ch310-Ch361 (Bay 25 - Bay 27)	31 days	Sun 22/6/08	Tue 22/7/08	380
418	d. Ch361-Ch413 (Bay 28 - Bay 31)	48 days	Mon 16/2/09	Sat 4/4/09	388,461
419	**11. Drainage works**	**439 days**	**Mon 7/4/08**	**Fri 19/6/09**	
420	11.1 storm drain with manhole and headwall	384 days	Mon 7/4/08	Sat 25/4/09	
421	a. Ch88-Ch 120 (Bay 9 - Bay 11)	20 days	Sun 1/6/08	Fri 20/6/08	413
422	b. Ch120-Ch205 (Bay 12 - Bay 17)	20 days	Thu 29/5/08	Tue 17/6/08	415
423	c. Ch205-Ch310 (Bay 18 - Bay 24)	20 days	Mon 7/4/08	Sat 26/4/08	416
424	d. Ch310-Ch361 (Bay 25 - Bay 27)	20 days	Wed 23/7/08	Mon 11/8/08	417
425	e. Ch361-Ch436 (Bay 28 - Bay 32)	21 days	Sun 5/4/09	Sat 25/4/09	418
426	11.2. surface drain	389 days	Tue 27/5/08	Fri 19/6/09	
427	a. Ch88-Ch 120 (Bay 9 - Bay 11)	10 days	Sun 8/3/09	Tue 17/3/09	413,435
428	b. Ch120-Ch190 (Bay 12 - Bay 16)	10 days	Thu 23/4/09	Sat 2/5/09	415,436
429	c. Ch190-Ch348 (Bay 17 - Bay 26)	15 days	Tue 27/5/08	Tue 10/6/08	416,437
430	d. Ch348-Ch390 (Bay 27 - Bay 29)	10 days	Wed 23/7/08	Fri 1/8/08	417,438
431	e. Ch390-Ch436 (Bay 30 - Bay 32)	10 days	Wed 10/6/09	Fri 19/6/09	418,439
432	**12.1. Water supply pipeworks (Bay 9 to Bay 26)**	**60 days**	**Thu 23/4/09**	**Sun 21/6/09**	**435,436,437,204**
433	**12.2. Water supply pipeworks (Bay 27 to Bay 32)**	14 days	Sun 26/4/09	Sat 9/5/09	424,425,204
434	**13. Roads and paving**	**803 days**	**Fri 30/3/07**	**Tue 9/6/09**	
435	a. Ch88-Ch 148 (Bay 9 - Bay 13)	17 days	Thu 19/2/09	Sat 7/3/09	422,413,421,325
436	b. Ch148-Ch190 (Bay 14 - Bay 16)	10 days	Mon 13/4/09	Wed 22/4/09	415,329
437	c. Ch190-Ch348 (Bay 17 - Bay 26)	50 days	Mon 7/4/08	Mon 26/5/08	416
438	d. Ch348-Ch390 (Bay 27 - Bay 29)	10 days	Fri 30/3/07	Sun 8/4/07	
439	e. Ch390-Ch436 (Bay 30 to Bay 32)	45 days	Sun 26/4/09	Tue 9/6/09	424,425
440	**14. Road furnitures**	**808 days**	**Mon 9/4/07**	**Wed 24/6/09**	
441	a. Ch88-Ch 120 (Bay 9 - Bay 11)	17 days	Sun 8/3/09	Tue 24/3/09	435
442	b. Ch120-Ch205 (Bay 12 - Bay 17)	33 days	Thu 23/4/09	Mon 25/5/09	436
443	c. Ch205-Ch348 (Bay 18 - Bay 26)	50 days	Tue 27/5/08	Tue 15/7/08	437
444	d. Ch348-Ch390 (Bay 27 - Bay 29)	33 days	Mon 9/4/07	Fri 11/5/07	438
445	e. Ch390-Ch436 (Bay 30 - Bay 32)	15 days	Wed 10/6/09	Wed 24/6/09	439
446	**15. Landscape softworks / hardworks**	**132 days**	**Sun 8/3/09**	**Fri 17/7/09**	
447	a. Ch88-Ch 120 (Bay 9 - Bay 11)	30 days	Sun 8/3/09	Mon 6/4/09	427SS
448	b. Ch120-Ch205 (Bay 12 - Bay 17)	70 days	Thu 23/4/09	Wed 1/7/09	428SS
449	c. Ch205-Ch310 (Bay 18 - Bay 24)	62 days	Thu 23/4/09	Tue 23/6/09	448SS
450	d. Ch310-Ch436 (Bay 25 - Bay 32)	38 days	Wed 10/6/09	Fri 17/7/09	430SS,431SS
451	**16. Final trimming of north platform from Bay 26 to Bay 32**	26 days	Wed 10/6/09	Sun 5/7/09	439
452	**17. Construct temporary access (Bay 5 to Bay 14)**	25 days	Thu 22/5/08	Sun 15/6/08	356,364
453	**18. Removal of existing public light controller near Bay 14**	1 day	Sun 15/6/08	Sun 15/6/08	
454	**19. Traffic diversion at north of Bay 5 to Bay 14**	1 day	Mon 16/6/08	Mon 16/6/08	453,452
455	**20. Temporary Village Access on Bay 28 - Bay 30**	2 days	Sun 1/6/08	Mon 2/6/08	378
456	**21. Temporary Village Access on Bay 32**	3 days	Sun 21/9/08	Tue 23/9/08	396
457	**22. Diversion of traffice to permanent access between Bay 1**	1 day	Sun 25/1/09	Sun 25/1/09	388,437
458	**23. Temporary pipe crossing at south of Bay 30**	4 days	Wed 17/9/08	Sat 20/9/08	459SS-4 days
459	**24. Diversion of traffic from Cheung Chun San Chuen to the**	1 day	Sun 21/9/08	Sun 21/9/08	396
460	**25. Diversion of existing stream to constructed channel**	4 days	Mon 9/2/09	Thu 12/2/09	401,273,398,399,400,403,404,405
461	**26. Demolition of existing vehicular bridge**	3 days	Fri 13/2/09	Sun 15/2/09	460
462					
463	**B3. Portion 3**	**737 days**	**Thu 12/7/07**	**Fri 17/7/09**	
464	**1. Site clearance**	**90 days**	**Sat 15/9/07**	**Thu 13/12/07**	
465	1.1 General clearance	90 days	Sat 15/9/07	Thu 13/12/07	17,225,957,959
466	**2. Underground utilities detection**	**42 days**	**Tue 31/7/07**	**Mon 10/9/07**	
467	2.1 utilities detection	28 days	Tue 31/7/07	Mon 27/8/07	340
468	2.2 trial trench excavtion & identification	14 days	Tue 28/8/07	Mon 10/9/07	467
469	**3. Utilities temporary diversion / protection**	**153 days**	**Mon 5/1/09**	**Sat 6/6/09**	
470	a. WSD water main along village access at CH 1150	153 days	Mon 5/1/09	Sat 6/6/09	565SS,570FF+60 days
471	b. Street lighting along village access at CH 1150	93 days	Mon 5/1/09	Tue 7/4/09	565SS,570FF
472	c. PCCW along village access at CH 1150	153 days	Mon 5/1/09	Sat 6/6/09	565SS,570FF+60 days
473	**4. Drainage Management Plan**	**720 days**	**Thu 12/7/07**	**Tue 30/6/09**	
474	4.1 Submission of DMPs	1 day	Thu 12/7/07	Thu 12/7/07	
475	4.2 Comments by the Engineer	14 days	Fri 13/7/07	Thu 26/7/07	474
476	4.3 Implementation of DMP	659 days	Tue 11/9/07	Tue 30/6/09	571FF,475
477	**5. Channel and Crossings**	**697 days**	**Sat 28/7/07**	**Tue 23/6/09**	



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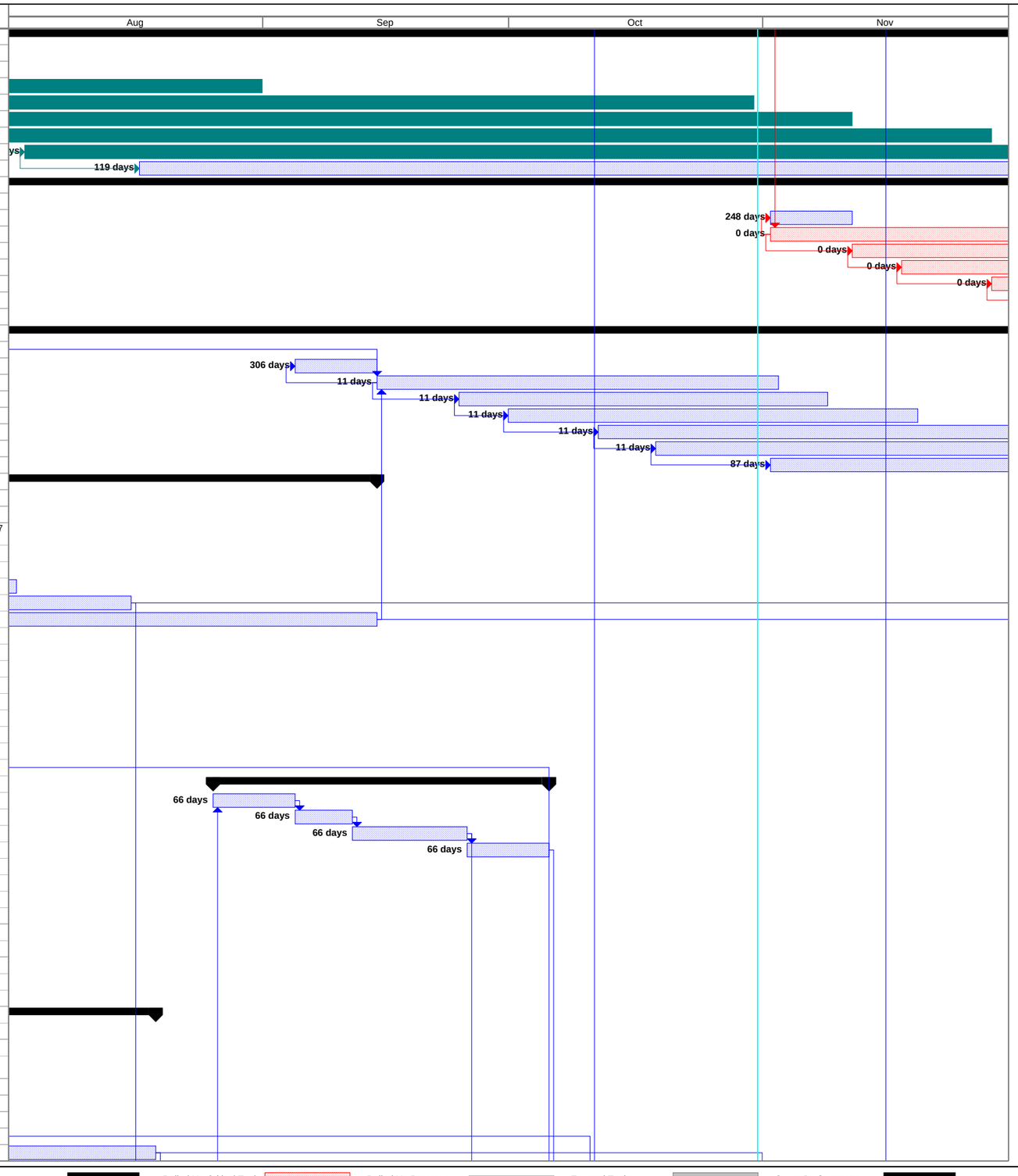
PROGRAMME OF WORKS - RP13
Contract No. : DC / 2006 / 02
Contract Title : Yuen Long, Kam Tin, Ngau Tam Mei and Tin Shui Wai Drainage Improvements,
Stage 1, Phase 2B - Cheung Chun San Tsuen and Kam Tsin Wai

CHIT CHEUNG CONSTRUCTION CO., LTD.
DATE : MAY 2008

ID	Task Name	Duration	Start	Finish	Predecessors
478	a. Ch436-Ch535 (Bay 33 - Bay 39)	435 days	Thu 18/10/07	Thu 25/12/08	
479	Haul access	6 days	Thu 18/10/07	Tue 23/10/07	382
480	Flow diversion	10 days	Sat 24/5/08	Mon 2/6/08	481SS-10 days
481	Excavation (including contamination material)	90 days	Tue 3/6/08	Sun 31/8/08	455
482	Granular Bedding	120 days	Thu 3/7/08	Thu 30/10/08	481SS+30 days
483	Base Slab	122 days	Sun 13/7/08	Tue 11/11/08	482SS+10 days
484	Wall and Deck	125 days	Sun 27/7/08	Fri 28/11/08	483SS+14 days
485	Curing	132 days	Sun 3/8/08	Fri 12/12/08	484SS+7 days
486	Trench Backfill	131 days	Sun 17/8/08	Thu 25/12/08	485SS+14 days
487	b. Ch535-Ch625 (Bay 40 - Bay 45)	626 days	Sat 28/7/07	Mon 13/4/09	
488	Haul access	15 days	Sat 28/7/07	Sat 11/8/07	225
489	Flow diversion	10 days	Sun 2/11/08	Tue 11/11/08	490SS-10 days
490	Excavation (including contamination material)	100 days	Sun 2/11/08	Mon 9/2/09	290
491	Granular Bedding	96 days	Wed 12/11/08	Sun 15/2/09	490SS+10 days
492	Base Slab	100 days	Tue 18/11/08	Wed 25/2/09	491SS+6 days
493	Wall and Deck	103 days	Sat 29/11/08	Wed 11/3/09	492SS+11 days
494	Curing	110 days	Sat 6/12/08	Wed 25/3/09	493SS+7 days
495	Trench Backfill	115 days	Sat 20/12/08	Mon 13/4/09	494SS+14 days
496	c. Ch625-Ch738 (Bay 46 - Bay 53)	501 days	Sun 12/8/07	Wed 24/12/08	
497	Haul access	15 days	Sun 12/8/07	Sun 26/8/07	488
498	Flow diversion	10 days	Fri 5/9/08	Sun 14/9/08	499SS-10 days
499	Excavation (including contamination material)	49 days	Mon 15/9/08	Sun 2/11/08	513,497
500	Granular Bedding	45 days	Thu 25/9/08	Sat 8/11/08	499SS+10 days
501	Base Slab	50 days	Wed 1/10/08	Wed 19/11/08	500SS+6 days
502	Wall and Deck	53 days	Sun 12/10/08	Wed 3/12/08	501SS+11 days
503	Curing	60 days	Sun 19/10/08	Wed 17/12/08	502SS+7 days
504	Trench Backfill	53 days	Sun 2/11/08	Wed 24/12/08	503SS+14 days
505	d. Ch738-Ch800 (Bay 54 - Bay 55)	380 days	Sat 1/9/07	Sun 14/9/08	
506	Haul access	6 days	Sat 1/9/07	Thu 6/9/07	497
507	Flow diversion	10 days	Sun 3/2/08	Tue 12/2/08	508SS-10 days
508	Excavation (including contamination material)	120 days	Wed 13/2/08	Wed 11/6/08	465SS+10 days,468,957,506,227
509	Granular Bedding	116 days	Sat 23/2/08	Tue 17/6/08	508SS+10 days
510	Base Slab	131 days	Fri 29/2/08	Tue 8/7/08	509SS+6 days
511	Wall and Deck	144 days	Tue 11/3/08	Fri 1/8/08	510SS+11 days
512	Curing	151 days	Tue 18/3/08	Fri 15/8/08	511SS+7 days
513	Trench Backfill	167 days	Tue 1/4/08	Sun 14/9/08	512SS+14 days
514	e. Ch844-Ch925 (Bay 56c - Bay 59)	206 days	Fri 7/9/07	Sun 30/3/08	
515	Haul access	10 days	Fri 7/9/07	Sun 16/9/07	506
516	Flow diversion	10 days	Mon 5/11/07	Wed 14/11/07	517SS-10 days
517	Excavation (including contamination material)	66 days	Thu 15/11/07	Sat 19/1/08	515
518	Granular Bedding	64 days	Sun 25/11/07	Sun 27/1/08	517SS+10 days
519	Base Slab (except Bay 59)	79 days	Sat 1/12/07	Sun 17/2/08	518SS+6 days
520	Wall and Deck (except Bay 59)	82 days	Wed 12/12/07	Sun 2/3/08	519SS+11 days
521	Curing (except Bay 59)	89 days	Wed 19/12/07	Sun 16/3/08	520SS+7 days
522	Trench Backfill (except Bay 59)	89 days	Wed 2/1/08	Sun 30/3/08	521SS+14 days
523	f. Construction of channel Bay 59	**41 days**	**Tue 26/8/08**	**Sun 5/10/08**	
524	Base Slab	10 days	Tue 26/8/08	Thu 4/9/08	591
525	Wall and Deck	7 days	Fri 5/9/08	Thu 11/9/08	524
526	Curing	14 days	Fri 12/9/08	Thu 25/9/08	525
527	Trench Backfill	10 days	Fri 26/9/08	Sun 5/10/08	526
528	g. Ch925-Ch1038 (Bay 60 - Bay 67)	**218 days**	**Mon 17/9/07**	**Mon 21/4/08**	
529	Haul access	10 days	Mon 17/9/07	Wed 26/9/07	515
530	Flow diversion	10 days	Wed 10/10/07	Fri 19/10/07	531SS-10 days
531	Excavation and Handling of Type 3 Contaminated Mat	116 days	Sat 20/10/07	Tue 12/2/08	
532	Granular Bedding	116 days	Tue 30/10/07	Fri 22/2/08	531SS+10 days
533	Base Slab	127 days	Mon 5/11/07	Mon 10/3/08	532SS+6 days
534	Wall and Deck	130 days	Fri 16/11/07	Mon 24/3/08	533SS+11 days
535	Curing	137 days	Fri 23/11/07	Mon 7/4/08	534SS+7 days
536	Trench Backfill	137 days	Fri 7/12/07	Mon 21/4/08	535SS+14 days
537	h. Ch1038-Ch1146 (Bay 68 - Bay 71)	327 days	Thu 27/9/07	Mon 18/8/08	
538	Haul access	5 days	Thu 27/9/07	Mon 1/10/07	529
539	Flow diversion	10 days	Fri 4/1/08	Sun 13/1/08	540SS-10 days
540	Excavation and Handling of Type 3 Contaminated Material	154 days	Mon 14/1/08	Sun 15/6/08	175
541	Granular Bedding	150 days	Thu 24/1/08	Sat 21/6/08	540SS+10 days
542	Base Slab	154 days	Wed 30/1/08	Tue 1/7/08	541SS+6 days
543	Wall and Deck	157 days	Sun 10/2/08	Tue 15/7/08	542SS+11 days
544	Curing	164 days	Sun 17/2/08	Tue 29/7/08	543SS+7 days
545	Trench Backfill	170 days	Sun 2/3/08	Mon 18/8/08	544SS+14 days



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

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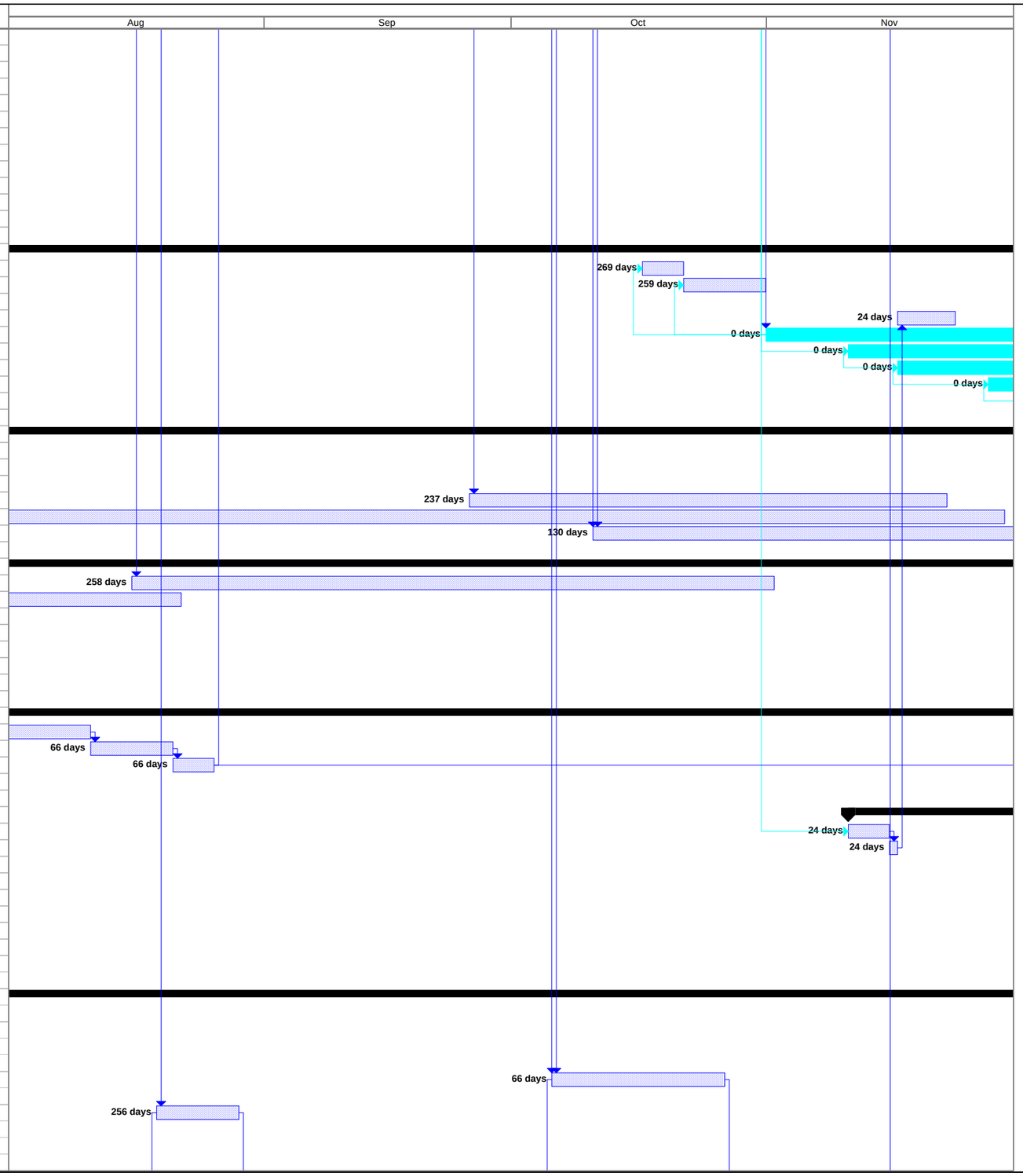
Stage 1, Phase 2B - Cheung Chun San Tsuen and Kam Tsin Wai

CHIT CHEUNG CONSTRUCTION CO., LTD.
DATE : MAY 2008

ID	Task Name	Duration	Start	Finish	Predecessors
547	Excavation	30 days	Thu 11/12/08	Fri 9/1/09	658
548	Granular Bedding	30 days	Wed 17/12/08	Thu 15/1/09	547SS+6 days
549	Base Slab	30 days	Sat 27/12/08	Sun 25/1/09	548SS+10 days
550	Wall and Deck	30 days	Sat 10/1/09	Sun 8/2/09	549SS+14 days
551	Curing	30 days	Sat 24/1/09	Sun 22/2/09	550SS+14 days
552	Trench Backfill	30 days	Fri 13/2/09	Sat 14/3/09	551SS+20 days
553	j. Construction of channel Bay 74	**55 days**	**Thu 30/4/09**	**Tue 23/6/09**	
554	Excavation	14 days	Thu 30/4/09	Wed 13/5/09	659
555	Granular Bedding	3 days	Thu 14/5/09	Sat 16/5/09	554
556	Base Slab	7 days	Sun 17/5/09	Sat 23/5/09	555
557	Wall and Deck	10 days	Sun 24/5/09	Tue 2/6/09	556
558	Curing	14 days	Wed 3/6/09	Tue 16/6/09	557
559	Trench Backfill	7 days	Wed 17/6/09	Tue 23/6/09	558
560	k. Ch1146-Ch1330 (Bay 75 - Bay 84)	450 days	Mon 14/1/08	Tue 7/4/09	
561	Haul access	5 days	Fri 17/10/08	Tue 21/10/08	565SS-15 days
562	Flow diversion	10 days	Wed 22/10/08	Fri 31/10/08	565SS-10 days
563	Handling of Type 3 Contaminated Material	78 days	Mon 14/1/08	Mon 31/3/08	175
564	Demolition of existing footbridge (Bay 83)	7 days	Mon 17/11/08	Sun 23/11/08	596
565	Excavation	120 days	Sat 1/11/08	Sat 28/2/09	545
566	Granular Bedding	116 days	Tue 11/11/08	Fri 6/3/09	565SS+10 days
567	Base Slab	116 days	Mon 17/11/08	Thu 12/3/09	566SS+6 days
568	Wall and Deck	112 days	Fri 28/11/08	Thu 19/3/09	567SS+11 days
569	Curing	119 days	Fri 5/12/08	Thu 2/4/09	568SS+7 days
570	Trench Backfill	110 days	Fri 19/12/08	Tue 7/4/09	569SS+14 days
571	**6. Gabion**	**361 days**	**Sat 5/7/08**	**Tue 30/6/09**	
572	a. Bay 33- Bay39 (Ch436-Ch535)	58 days	Sat 13/12/08	Sun 8/2/09	485
573	b. Bay 40 - Bay 45 (CH535-Ch625)	74 days	Thu 26/3/09	Sun 7/6/09	494
574	c. Bay 46 - Bay 53 (Ch625-Ch738)	94 days	Thu 18/12/08	Sat 21/3/09	503
575	e. Bay 57 - Bay 59 (Ch881-Ch925)	58 days	Fri 26/9/08	Sat 22/11/08	526
576	f. Bay 60 - Bay 66 (Ch925-Ch1038)	148 days	Sat 5/7/08	Sat 29/11/08	535,399
577	g. Bay 67 - Bay 71 (Ch1038-Ch1146)	57 days	Sat 11/10/08	Sat 6/12/08	544,400
578	h. Bay 73 - Bay 82 (Ch1165-Ch1301)	89 days	Fri 3/4/09	Tue 30/6/09	569,577
579	**7. Granite Stone Facing**	**254 days**	**Wed 30/7/08**	**Thu 9/4/09**	
580	Bay 54 to Bay 56 (Ch738 - Ch881)	78 days	Sat 16/8/08	Sat 1/11/08	512
581	Bay 67, Bay 68 and Bay 69a (Ch1038 -Ch1108)	23 days	Wed 30/7/08	Thu 21/8/08	544
582	Granite facing stone Bay 72 (Ch1146 to Ch1165)	14 days	Mon 23/2/09	Sun 8/3/09	551
583	Bay 83 and Bay 84 (Ch1301-Ch1330)	7 days	Fri 3/4/09	Thu 9/4/09	569
584	**8. Ramp No. 2 (Ch752 - Ch800, Bay 55)**	**17 days**	**Sun 22/3/09**	**Tue 7/4/09**	
585	General fill	5 days	Sun 22/3/09	Thu 26/3/09	512,574
586	Granular fill and blinding	2 days	Fri 27/3/09	Sat 28/3/09	585
587	Concrete pavement	10 days	Sun 29/3/09	Tue 7/4/09	586
588	**9. Ramp No. 1 (Ch1052 - Ch1103, Bay 68)**	**340 days**	**Wed 30/7/08**	**Sat 4/7/09**	
589	base slab	12 days	Wed 30/7/08	Sun 10/8/08	544,543SS+21 days
590	Wall	10 days	Mon 11/8/08	Wed 20/8/08	589
591	General fill	5 days	Thu 21/8/08	Mon 25/8/08	590
592	Granular fill and blinding	2 days	Wed 1/7/09	Thu 2/7/09	591,578
593	Concrete pavement	2 days	Fri 3/7/09	Sat 4/7/09	592
594	**10. Pedestrian Temporary Crossing at Bay 83 (Ch1306)**	**150 days**	**Tue 11/11/08**	**Thu 9/4/09**	
595	11.1 Construction	5 days	Tue 11/11/08	Sat 15/11/08	565SS+10 days
596	11.2 Pedestrian diversion	1 day	Sun 16/11/08	Sun 16/11/08	595
597	11.3 Demolition of Temp crossing	2 days	Wed 8/4/09	Thu 9/4/09	570
598	**11. Retaining Wall RW1 (Ch430-Ch490)**	**173 days**	**Thu 1/11/07**	**Mon 21/4/08**	
599	Excavation	26 days	Thu 1/11/07	Mon 26/11/07	
600	Granular bedding	7 days	Tue 27/11/07	Mon 3/12/07	599
601	Base slab	24 days	Tue 4/12/07	Thu 27/12/07	600
602	Wall	56 days	Fri 28/12/07	Thu 21/2/08	601
603	Curing	14 days	Fri 22/2/08	Thu 6/3/08	602
604	Backfilling (including sub-soil drain and catchpit)	46 days	Fri 7/3/08	Mon 21/4/08	603
605	**12. Filling in Platform**	**433 days**	**Tue 22/4/08**	**Sun 28/6/09**	
606	a. Bay 33- Bay39 (Ch436-Ch535)	25 days	Fri 26/12/08	Mon 19/1/09	486
607	b. Bay 40 - Bay 45 (CH535-Ch625)	28 days	Tue 14/4/09	Mon 11/5/09	495
608	c. Bay 46 - Bay 53 (Ch625-Ch738)	28 days	Thu 25/12/08	Wed 21/1/09	504
609	d. Bay 54 - Bay 55 (Ch738-Ch800)	19 days	Fri 20/3/09	Tue 7/4/09	513,587FF
610	e. Bay 56c - Bay 59 (Ch844-Ch925)	21 days	Mon 6/10/08	Sun 26/10/08	522,527
611	f. Bay 60 - Bay 66 (Ch925-Ch1038)	41 days	Tue 22/4/08	Sun 1/6/08	536
612	g. Bay 67 - Bay 71 (Ch1038-Ch1146)	10 days	Tue 19/8/08	Thu 28/8/08	545
613	h. Bay 72 - Bay 73 (Ch1146-CH1180)	5 days	Sun 15/3/09	Thu 19/3/09	552
614	i. Bay 74 (Ch1180-CH1195)	5 days	Wed 24/6/09	Sun 28/6/09	559
615	j. Bay 75 - Bay 84 (Ch1195-Ch1330)	7 days	Wed 8/4/09	Tue 14/4/09	570



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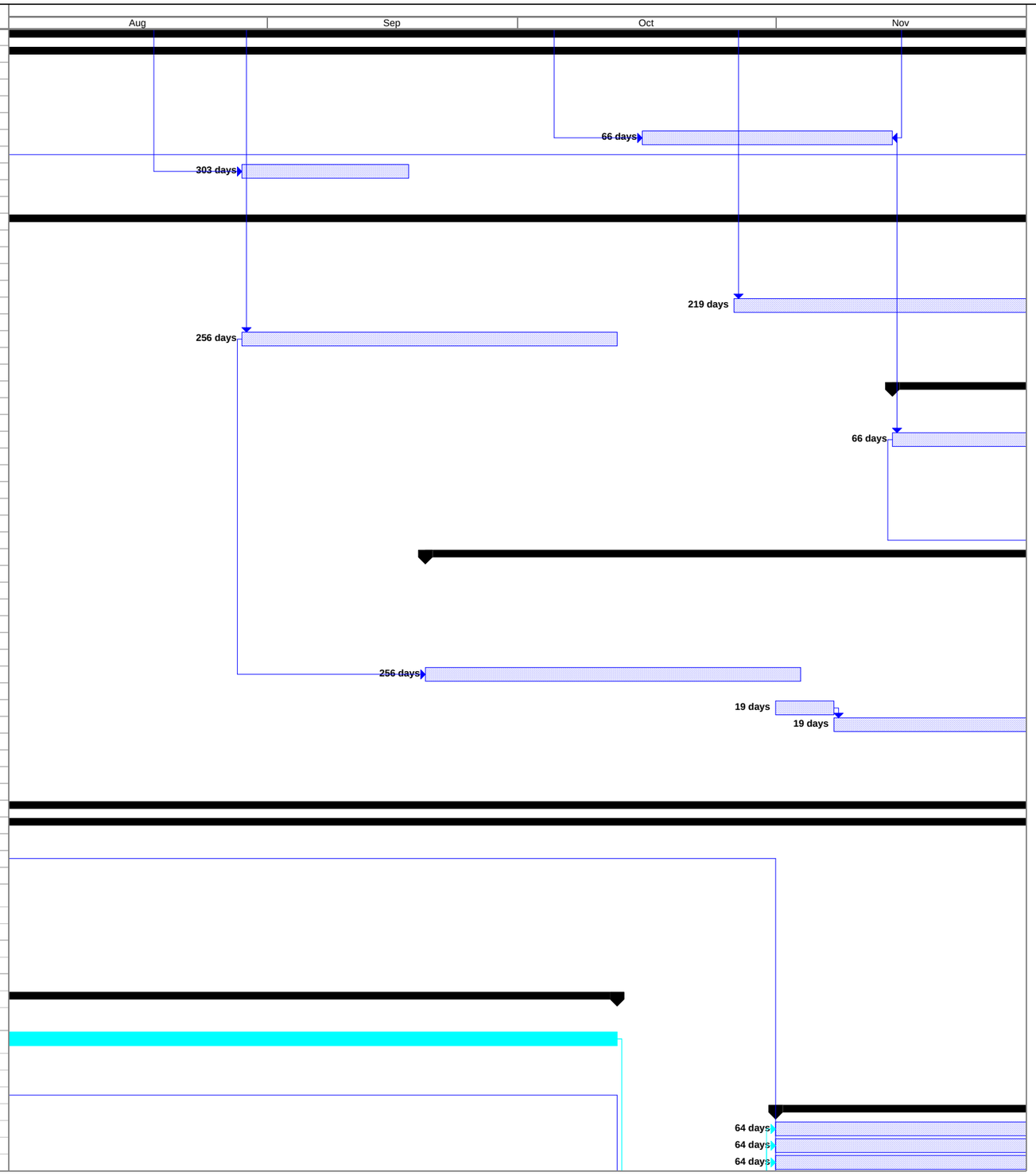
ID	Task Name	Duration	Start	Finish	Predecessors
616	**13. Drainage works**	**420 days**	**Fri 2/5/08**	**Thu 25/6/09**	
617	13.1 storm drain with manhole	377 days	Fri 2/5/08	Wed 13/5/09	
618	a. Bay 33- Bay39 (Ch436-Ch535)	30 days	Mon 5/1/09	Tue 3/2/09	606SS+10 days
619	b. Bay 40 - Bay 45 (CH535-Ch625)	20 days	Fri 24/4/09	Wed 13/5/09	607SS+10 days
620	c. Bay 46 - Bay 53 (Ch625-Ch738)	20 days	Sun 4/1/09	Fri 23/1/09	608SS+10 days
621	d. Bay 54 - Bay 55 (Ch738-Ch800)	20 days	Mon 30/3/09	Sat 18/4/09	609SS+10 days
622	e. Bay 56c - Bay 59 (Ch844-Ch925)	30 days	Thu 16/10/08	Fri 14/11/08	610SS+10 days,320FF
623	f. Bay 60 - Bay 66 (Ch925-Ch1038)	60 days	Fri 2/5/08	Mon 30/6/08	611SS+10 days
624	g. Bay 67 - Bay 71 (Ch1038-Ch1146)	20 days	Fri 29/8/08	Wed 17/9/08	612SS+10 days
625	h. Bay 72 - Bay 73 (Ch1146-CH1180)	10 days	Fri 20/3/09	Sun 29/3/09	613
626	i. Bay 74 - Bay 84 (Ch1180-Ch1330)	20 days	Sat 18/4/09	Thu 7/5/09	615SS+10 days,597
627	13.2. surface drain	389 days	Mon 2/6/08	Thu 25/6/09	
628	a. Bay 33- Bay39 (Ch436-Ch535)	45 days	Tue 20/1/09	Thu 5/3/09	606
629	b. Bay 40 - Bay 45 (CH535-Ch625)	45 days	Tue 12/5/09	Thu 25/6/09	607
630	c. Bay 46 - Bay 53 (Ch625-Ch738)	45 days	Thu 22/1/09	Sat 7/3/09	608
631	d. Bay 54 - Bay 55 (Ch738-Ch800)	45 days	Wed 8/4/09	Fri 22/5/09	609
632	e. Bay 56c - Bay 59 (Ch844-Ch925)	45 days	Mon 27/10/08	Wed 10/12/08	610
633	f. Bay 60 - Bay 66 (Ch925-Ch1038)	45 days	Mon 2/6/08	Wed 16/7/08	611
634	g. Bay 67 - Bay 71 (Ch1038-Ch1146)	45 days	Fri 29/8/08	Sun 12/10/08	612
635	h. Bay 72 - Bay 73 (Ch1146-CH1180)	30 days	Wed 29/4/09	Thu 28/5/09	641
636	h. Bay 74 - Bay 84 (Ch1180-Ch1330)	21 days	Wed 15/4/09	Tue 5/5/09	615
637	**14. Roads and paving**	**190 days**	**Sat 15/11/08**	**Sat 23/5/09**	
638	a. Ch800-Ch881(Bay 56a to Bay 56c)	60 days	Sat 7/3/09	Tue 5/5/09	639
639	b. Ch881-CH1037 (Bay57 to Bay 66)	52 days	Wed 14/1/09	Fri 6/3/09	640,623
640	c. CH1037-CH1146 (Bay 67 to Bay 71)	60 days	Sat 15/11/08	Tue 13/1/09	622
641	d. CH1146-CH1180 (Bay 72 and Bay 73)	30 days	Mon 30/3/09	Tue 28/4/09	625
642	e. Bay 72c	21 days	Sun 3/5/09	Sat 23/5/09	660
643	**15. Street furnitures / traffic sign / road marking**	**149 days**	**Mon 15/12/08**	**Tue 12/5/09**	
644	a. Ch800-Ch881	37 days	Mon 6/4/09	Tue 12/5/09	638SS+30 days
645	b. Ch881-CH1037	37 days	Fri 13/2/09	Sat 21/3/09	639SS+30 days
646	c. CH1037-CH1165	37 days	Mon 15/12/08	Tue 20/1/09	640SS+30 days
647	**16. Landscape softworks / hardworks**	**301 days**	**Sat 20/9/08**	**Fri 17/7/09**	
648	a. Bay 33- Bay39 (Ch436-Ch535)	30 days	Thu 19/2/09	Fri 20/3/09	628SS+30 days,618
649	b. Bay 40 - Bay 45 (CH535-Ch625)	37 days	Thu 11/6/09	Fri 17/7/09	629SS+30 days,619
650	c. Bay 46 - Bay 53 (Ch625-Ch738)	45 days	Wed 8/4/09	Sat 23/5/09	651SF,620,630
651	d. Bay 54 - Bay 55 (Ch738-Ch800)	45 days	Sat 23/5/09	Mon 6/7/09	652SF,621,631
652	e. Bay 56c - Bay 59 (Ch844-Ch925)	17 days	Wed 1/7/09	Fri 17/7/09	653
653	f. Bay 60 - Bay 66 (Ch925-Ch1038)	17 days	Sun 14/6/09	Tue 30/6/09	655
654	g. Bay 67 - Bay 71 (Ch1038-Ch1146)	45 days	Sat 20/9/08	Mon 3/11/08	634SS+22 days
655	h. Bay 72 - Bay 84 (Ch1146-Ch1330)	30 days	Fri 15/5/09	Sat 13/6/09	636SS+30 days
656	**17. Temporary village access at Bay 74**	7 days	Sat 1/11/08	Fri 7/11/08	
657	**18. Diversion of watermain at Bay 72**	30 days	Sat 8/11/08	Sun 7/12/08	656
658	**19. Demolition of existing crossing at Bay 72**	3 days	Mon 8/12/08	Wed 10/12/08	657
659	**20. Diversion of traffic to Bay 72**	1 day	Wed 29/4/09	Wed 29/4/09	641
660	**21. Diversion of traffic to dog training school**	3 days	Thu 30/4/09	Sat 2/5/09	659
661					
662	**C. Section II of the Works**	**841 days**	**Fri 30/3/07**	**Fri 17/7/09**	
663	**C1. Portion 4**	**841 days**	**Fri 30/3/07**	**Fri 17/7/09**	
664	**1. Site clearance**	**14 days**	**Wed 26/9/07**	**Tue 9/10/07**	
665	1.1 General clearance	14 days	Wed 26/9/07	Tue 9/10/07	226,36,963,965
666	**2. Temporary Traffic Management Scheme**	**60 days**	**Fri 30/3/07**	**Mon 28/5/07**	
667	2.1 TTMS Proposal (trial pits for utilities and site entrance ir	59 days	Sat 31/3/07	Mon 28/5/07	
668	a. Submission	45 days	Sat 31/3/07	Mon 14/5/07	18
669	b. comments & approvals by Engineer & TMLG	14 days	Tue 15/5/07	Mon 28/5/07	668
670	2.2 TTMS Proposal (for construction of box culvet)	59 days	Fri 30/3/07	Sun 27/5/07	
671	a. Submission	45 days	Fri 30/3/07	Sun 13/5/07	
672	b. comments & approvals by Engineer & TMLG	14 days	Mon 14/5/07	Sun 27/5/07	671
673	**3. Excavation Permits**	**503 days**	**Tue 29/5/07**	**Sun 12/10/08**	
674	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	669
675	3.2 application and issue of permits (for construction of box culvert)	180 days	Wed 16/4/08	Sun 12/10/08	672
676	**4. Underground utilities detection**	**43 days**	**Fri 29/6/07**	**Fri 10/8/07**	
677	4.1 utilities detection	28 days	Fri 29/6/07	Fri 27/7/07	678SF-1 day
678	4.2 trial trench excavtion & identification	14 days	Sat 28/7/07	Fri 10/8/07	674
679	**5. Utilities temporary diversion / protection**	**85 days**	**Sat 1/11/08**	**Sat 24/1/09**	
680	a. WSD water main along Kam Po Road	85 days	Sat 1/11/08	Sat 24/1/09	689SS
681	b. Street lighting along Kam Po Road	85 days	Sat 1/11/08	Sat 24/1/09	689SS
682	c. DSD storm Drain	85 days	Sat 1/11/08	Sat 24/1/09	689SS



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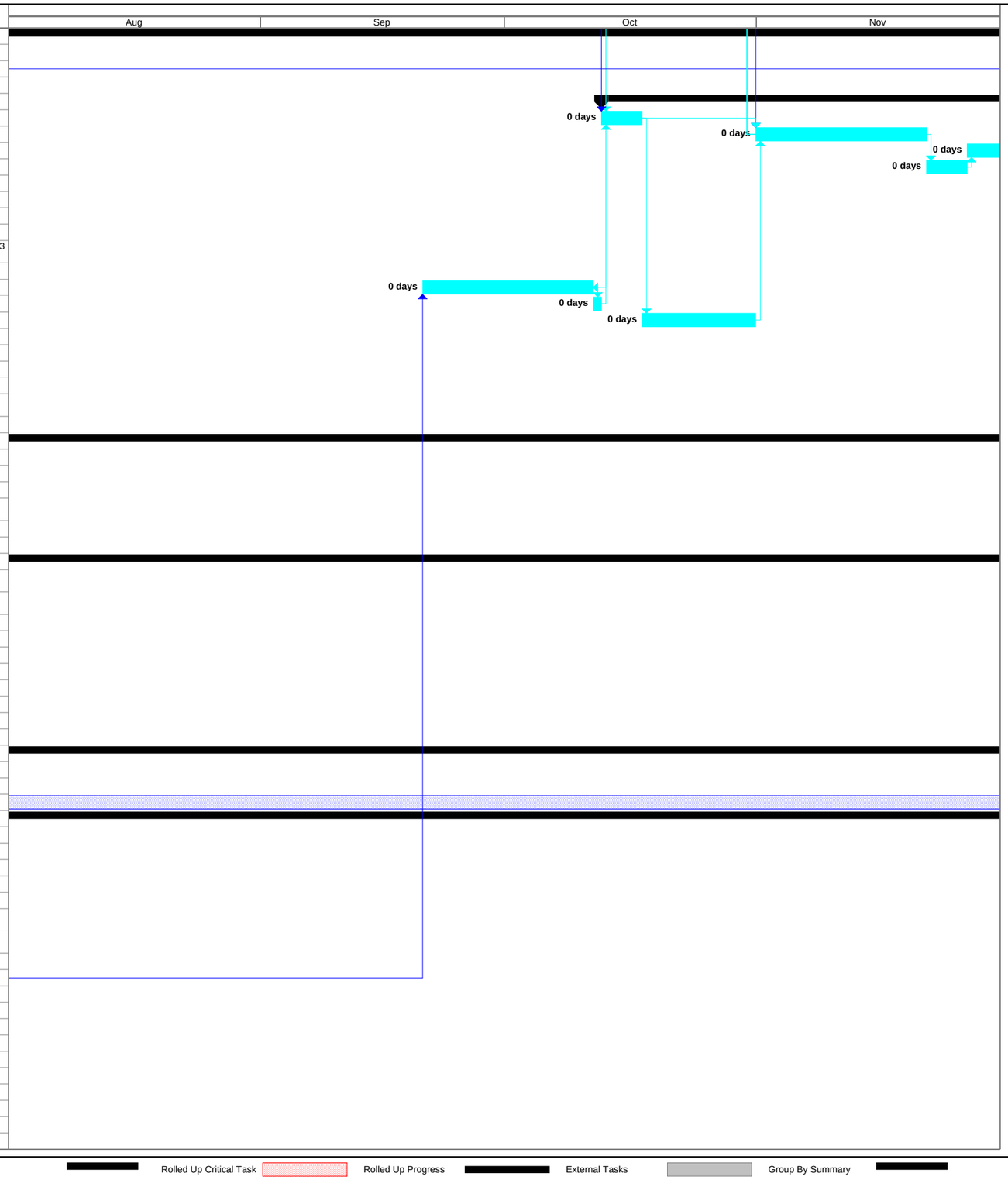
683	**6. Drainage Management Plan**	**679 days**	**Fri 30/3/07**	**Thu 5/2/09**	
684	6.1 Submission of DMPs	1 day	Fri 30/3/07	Fri 30/3/07	
685	6.2 Comments by the Engineer	14 days	Sat 31/3/07	Fri 13/4/07	684
686	6.3 Implementation of DMPs	57 days	Thu 11/12/08	Thu 5/2/09	690,685
687	**7. Box Culvert Ch0-Ch19.5 (Bay 1 to Bay 3)**	**175 days**	**Mon 13/10/08**	**Sun 5/4/09**	
688	Remove road pavement and expose existing utilities	5 days	Mon 13/10/08	Fri 17/10/08	678,675,699
689	Excavation	21 days	Sat 1/11/08	Fri 21/11/08	688,665,700
690	Remove existing box culvert	14 days	Thu 27/11/08	Wed 10/12/08	691
691	flow diversion	5 days	Sat 22/11/08	Wed 26/11/08	689
692	Granular Bedding	9 days	Thu 11/12/08	Fri 19/12/08	690
693	Base Slab	35 days	Sat 20/12/08	Fri 23/1/09	692
694	Wall and Deck	36 days	Sat 24/1/09	Sat 28/2/09	693
695	Curing	14 days	Sun 1/3/09	Sat 14/3/09	694
696	Trench Backfill	15 days	Sun 15/3/09	Sun 29/3/09	695,680FF,681FF,682FF,690,813
697	Reinstatement of Kam Po Road	7 days	Mon 30/3/09	Sun 5/4/09	696
698	**8. Construction of temporary access at Bay 4**	21 days	Sun 21/9/08	Sat 11/10/08	738,675FF-1 day
699	**9. Diversion of traffic to Bay 4**	1 day	Sun 12/10/08	Sun 12/10/08	698
700	**10. Temporary support to existing watermain at Kam Po Roa**	14 days	Sat 18/10/08	Fri 31/10/08	688
701	**11. Fill in Platform**	**50 days**	**Mon 6/4/09**	**Mon 25/5/09**	**696,697**
702	**12. Roads and paving (Bay 3 and Bay 4)**	**40 days**	**Tue 26/5/09**	**Sat 4/7/09**	**701,849**
703	**13. Street furnitures**	**13 days**	**Sun 5/7/09**	**Fri 17/7/09**	**702**
704	**14. Landscape softworks / hardworks**	**53 days**	**Tue 26/5/09**	**Fri 17/7/09**	**701**
705	**15. Modification to invert level of box culvert at Kam Sheun**	**45 days**	**Wed 21/1/09**	**Fri 6/3/09**	**779**
706					
707	**C2. Portion 5 and 5C**	**841 days**	**Fri 30/3/07**	**Fri 17/7/09**	
708	**1. Site clearance**	**90 days**	**Thu 20/9/07**	**Tue 18/12/07**	
709	1.1 General clearance	90 days	Thu 20/9/07	Tue 18/12/07	36,226SS+75 days,969,971
710	**2. Temporary Traffic Management Scheme**	**59 days**	**Fri 30/3/07**	**Sun 27/5/07**	
711	TTMS Proposal (trial pits for utilities and site entrance in Ka	59 days	Fri 30/3/07	Sun 27/5/07	
712	a. Submission	45 days	Fri 30/3/07	Sun 13/5/07	2SS
713	b. comments & approvals by Engineer & TMLG	14 days	Mon 14/5/07	Sun 27/5/07	712
714	**3. Excavation Permits**	**752 days**	**Mon 28/5/07**	**Wed 17/6/09**	
715	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	713
716	3.2 application and issue of permits (for construction of permanent entrance)	180 days	Sat 20/12/08	Wed 17/6/09	7FS-210 days
717	**4. Underground utilities detection**	**42 days**	**Fri 29/6/07**	**Thu 9/8/07**	
718	a. utilities detection	28 days	Fri 29/6/07	Thu 26/7/07	19
719	b. trial trench excavtion & identification	14 days	Fri 27/7/07	Thu 9/8/07	715,718
720	**5. Utilities temporary diversion / protection**	**223 days**	**Fri 30/3/07**	**Wed 7/11/07**	
721	a. CLP overhead cables at CH 100 ~ CH 120	90 days	Fri 10/8/07	Wed 7/11/07	719
722	b. CLP overhead cables at CH 530 ~ CH 550	90 days	Fri 10/8/07	Wed 7/11/07	719
723	c. CLP overhead cables at CH 670 ~ CH 690	90 days	Fri 10/8/07	Wed 7/11/07	719
724	d. Gas main at Kam Sheung Road	84 days	Fri 30/3/07	Thu 21/6/07	
725	**6. Drainage Management Plan**	**692 days**	**Fri 30/3/07**	**Wed 18/2/09**	
726	5.1 Submission of DMPs	1 day	Fri 30/3/07	Fri 30/3/07	684SS
727	5.2 Comments by the Engineer	14 days	Sat 31/3/07	Fri 13/4/07	726
728	5.3 Implementation of DMP	551 days	Sat 18/8/07	Wed 18/2/09	756SS,727
729	**7. Channel and Crossings**	**768 days**	**Fri 30/3/07**	**Tue 5/5/09**	
730	a. Ch11-Ch130 (Bay 4 - Bay 11)	229 days	Thu 23/8/07	Mon 7/4/08	
731	Haul access	5 days	Thu 23/8/07	Mon 27/8/07	746
732	Flow diversion	10 days	Tue 1/1/08	Thu 10/1/08	733SS-10 days
733	Excavation (including contamination material)	44 days	Fri 11/1/08	Sat 23/2/08	721,731,762
734	Granular Bedding	40 days	Mon 21/1/08	Fri 29/2/08	733SS+10 days
735	Base Slab (except south of Bay 6 and north of Bay 7)	44 days	Sun 27/1/08	Mon 10/3/08	734SS+6 days
736	Wall and Deck (except south of Bay 6 and north of Bay	37 days	Sun 10/2/08	Mon 17/3/08	735SS+14 days
737	Curing	44 days	Sun 17/2/08	Mon 31/3/08	736SS+7 days
738	Trench Backfill	37 days	Sun 2/3/08	Mon 7/4/08	737SS+14 days
739	b. South of Bay 6 and north of Bay 7	**37 days**	**Mon 30/3/09**	**Tue 5/5/09**	
740	Excavation	1 day	Mon 30/3/09	Mon 30/3/09	696,922
741	Granular Bedding	5 days	Tue 31/3/09	Sat 4/4/09	740
742	Base Slab and Wall	10 days	Sun 5/4/09	Tue 14/4/09	741
743	Curing	14 days	Wed 15/4/09	Tue 28/4/09	742
744	Trench Backfill	7 days	Wed 29/4/09	Tue 5/5/09	743
745	c. Ch130-Ch233 (Bay 12 - Bay 19)	341 days	Sat 18/8/07	Wed 23/7/08	
746	Haul access	5 days	Sat 18/8/07	Wed 22/8/07	755
747	Flow diversion	10 days	Sat 29/3/08	Mon 7/4/08	748SS-10 days
748	Excavation (including contamination material)	33 days	Tue 8/4/08	Sat 10/5/08	746,738

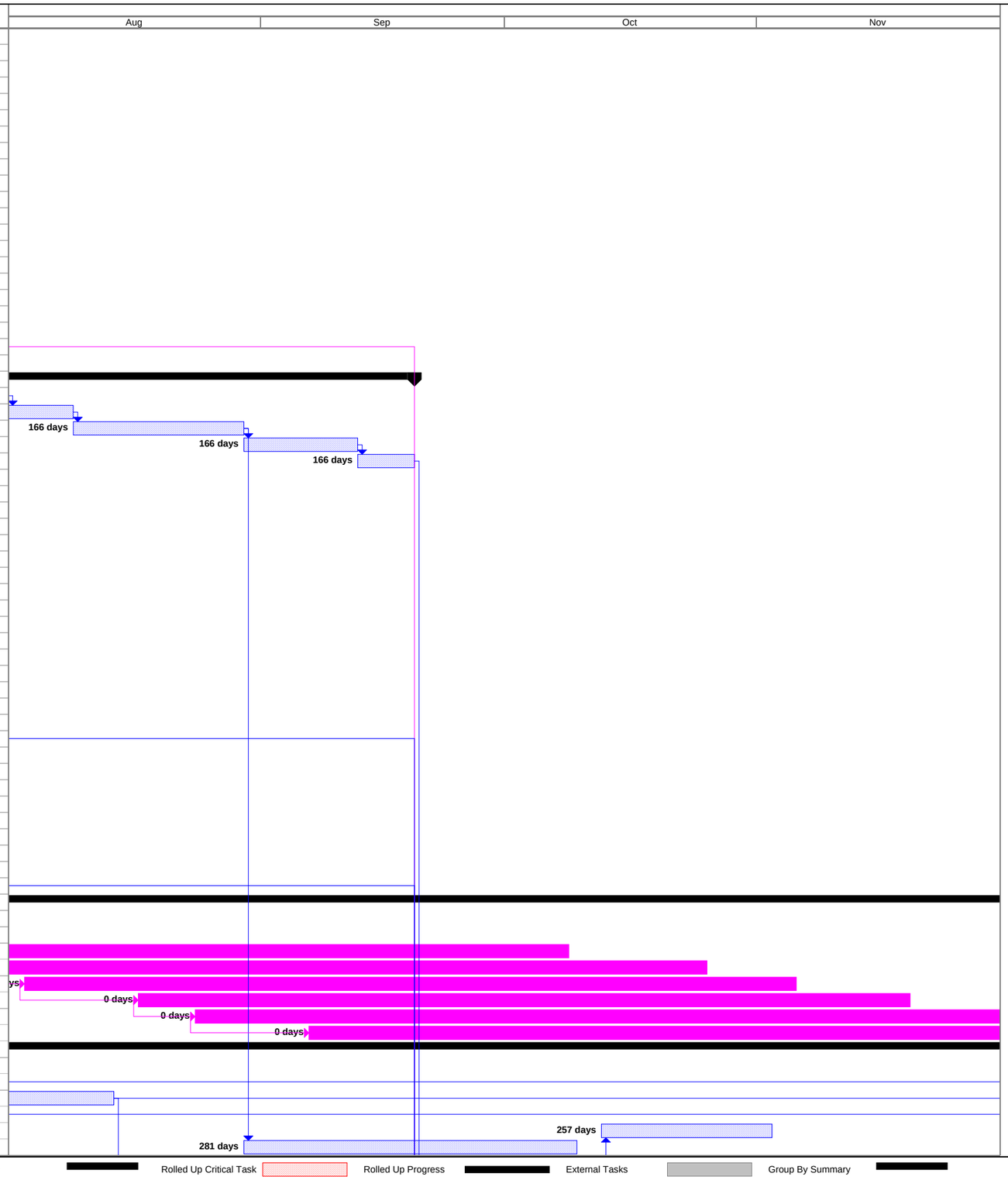


Task | Progress | Summary | Rolled Up Critical Task | Rolled Up Progress | External Tasks | Group By Summary
Critical Task | Milestone | Rolled Up Task | Rolled Up Milestone | Split | Project Summary | Deadline

PROGRAMME OF WORKS - RP13
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 : MAY 2008

ID	Task Name	Duration	Start	Finish	Predecessors
749	Granular Bedding	29 days	Fri 18/4/08	Fri 16/5/08	748SS+10 days
750	Base Slab	50 days	Thu 24/4/08	Thu 12/6/08	749SS+6 days
751	Wall and Deck	56 days	Thu 8/5/08	Wed 2/7/08	750SS+14 days
752	Curing	63 days	Thu 15/5/08	Wed 16/7/08	751SS+7 days
753	Trench Backfill	56 days	Thu 29/5/08	Wed 23/7/08	752SS+14 days
754	d. Ch233-Ch340 (Bay 20 - Bay 30)	151 days	Mon 13/8/07	Thu 10/1/08	
755	Haul access	5 days	Mon 13/8/07	Fri 17/8/07	757SS-15 days
756	Flow diversion	10 days	Sat 18/8/07	Mon 27/8/07	755
757	Excavation (including contamination material)	60 days	Tue 28/8/07	Fri 26/10/07	
758	Granular Bedding	70 days	Fri 7/9/07	Thu 15/11/07	757SS+10 days
759	Base Slab	78 days	Thu 13/9/07	Thu 29/11/07	758SS+6 days
760	Wall and Deck	85 days	Thu 27/9/07	Thu 20/12/07	759SS+14 days
761	Curing	92 days	Thu 4/10/07	Thu 3/1/08	760SS+7 days
762	Trench Backfill	85 days	Thu 18/10/07	Thu 10/1/08	761SS+14 days
763	e. North of Bay 38 and Bay 39	**43 days**	**Thu 5/6/08**	**Thu 17/7/08**	
764	Excavation	7 days	Thu 5/6/08	Wed 11/6/08	
765	Granular Bedding	6 days	Thu 12/6/08	Tue 17/6/08	764
766	Base Slab and Wall	14 days	Wed 18/6/08	Tue 1/7/08	765
767	Curing	14 days	Wed 2/7/08	Tue 15/7/08	766
768	Trench Backfill	7 days	Wed 9/7/08	Tue 15/7/08	767FF
769	Forming site access at north of Bay 38 and Bay 39	2 days	Wed 16/7/08	Thu 17/7/08	768
770	f. South of Bay 38 and Bay 39, and Bay 40	**64 days**	**Fri 18/7/08**	**Fri 19/9/08**	
771	Excavation	14 days	Fri 18/7/08	Thu 31/7/08	769
772	Granular Bedding	8 days	Fri 1/8/08	Fri 8/8/08	771
773	Base Slab and Wall	21 days	Sat 9/8/08	Fri 29/8/08	772
774	Curing	14 days	Sat 30/8/08	Fri 12/9/08	773
775	Trench Backfill	7 days	Sat 13/9/08	Fri 19/9/08	774
776	g. Bay 37	**89 days**	**Sun 14/12/08**	**Thu 12/3/09**	
777	Excavation	21 days	Sun 14/12/08	Sat 3/1/09	850,820
778	Granular Bedding	7 days	Sun 4/1/09	Sat 10/1/09	777
779	Base Slab	10 days	Sun 11/1/09	Tue 20/1/09	778
780	Wall and Deck	15 days	Wed 21/1/09	Wed 4/2/09	779
781	Curing	14 days	Thu 5/2/09	Wed 18/2/09	780,728FF
782	Trench Backfill	10 days	Thu 19/2/09	Sat 28/2/09	781
783	Filling Platform Bay 37	12 days	Sun 1/3/09	Thu 12/3/09	782
784	h. Ch504-Ch586 (Bay 41 - Bay 46)	285 days	Fri 30/3/07	Tue 8/1/08	
785	Haul access	3 days	Fri 30/3/07	Sun 1/4/07	
786	Flow diversion	5 days	Fri 7/9/07	Tue 11/9/07	787SS-10 days
787	Excavation (including contamination material)	45 days	Mon 17/9/07	Wed 31/10/07	
788	Granular Bedding	55 days	Thu 27/9/07	Tue 20/11/07	787SS+10 days
789	Base Slab	63 days	Wed 3/10/07	Tue 4/12/07	788SS+6 days
790	Wall and Deck	63 days	Wed 17/10/07	Tue 18/12/07	789SS+14 days
791	Curing	70 days	Wed 24/10/07	Tue 1/1/08	790SS+7 days
792	Trench Backfill	63 days	Wed 7/11/07	Tue 8/1/08	791SS+14 days
793	i. Ch586-Ch675 (Bay 47 - Bay 56)	301 days	Mon 2/4/07	Sun 27/1/08	
794	Haul access	5 days	Mon 2/4/07	Fri 6/4/07	785
795	Flow diversion	3 days	Sat 29/9/07	Mon 1/10/07	796SS-10 days
796	Excavation (including contamination material)	60 days	Tue 9/10/07	Fri 7/12/07	794,992
797	Granular Bedding	60 days	Fri 19/10/07	Mon 17/12/07	796SS+10 days
798	Base Slab	60 days	Thu 25/10/07	Sun 23/12/07	797SS+6 days
799	Wall and Deck	60 days	Thu 8/11/07	Sun 6/1/08	798SS+14 days
800	Curing	67 days	Thu 15/11/07	Sun 20/1/08	799SS+7 days
801	Trench Backfill	60 days	Thu 29/11/07	Sun 27/1/08	800SS+14 days
802	j. Ch675-Ch797 (Bay 57 - Bay 63)	617 days	Sat 7/4/07	Sat 13/12/08	
803	Haul access	3 days	Sat 7/4/07	Mon 9/4/07	794
804	Flow diversion	3 days	Tue 15/7/08	Thu 17/7/08	805SS-3 days
805	Excavation (including contamination material)	83 days	Fri 18/7/08	Wed 8/10/08	803,769
806	Granular Bedding	90 days	Mon 28/7/08	Sat 25/10/08	805SS+10 days
807	Base Slab	95 days	Sun 3/8/08	Wed 5/11/08	806SS+6 days
808	Wall and Deck	95 days	Sun 17/8/08	Wed 19/11/08	807SS+14 days
809	Curing	102 days	Sun 24/8/08	Wed 3/12/08	808SS+7 days
810	Trench Backfill	98 days	Sun 7/9/08	Sat 13/12/08	809SS+14 days
811	**8. Gabion**	**499 days**	**Fri 4/1/08**	**Sat 16/5/09**	
812	Bay 5- Bay 7 (Ch35-Ch75)	18 days	Wed 29/4/09	Sat 16/5/09	743
813	Bay 8- Bay 11 (Ch75-Ch130)	28 days	Tue 1/4/08	Mon 28/4/08	737
814	Bay 12 - Bay 19 (Ch130-Ch233)	28 days	Thu 17/7/08	Wed 13/8/08	752
815	Bay 20 - Bay 27 (Ch233-Ch340)	57 days	Fri 4/1/08	Fri 29/2/08	761
816	Gabion Bay 28 to Bay 30 (Ch340 to Ch380)	21 days	Mon 13/10/08	Sun 2/11/08	910
817	Bay 38 - Bay 43 (Ch464-Ch549)	41 days	Sat 30/8/08	Thu 9/10/08	773

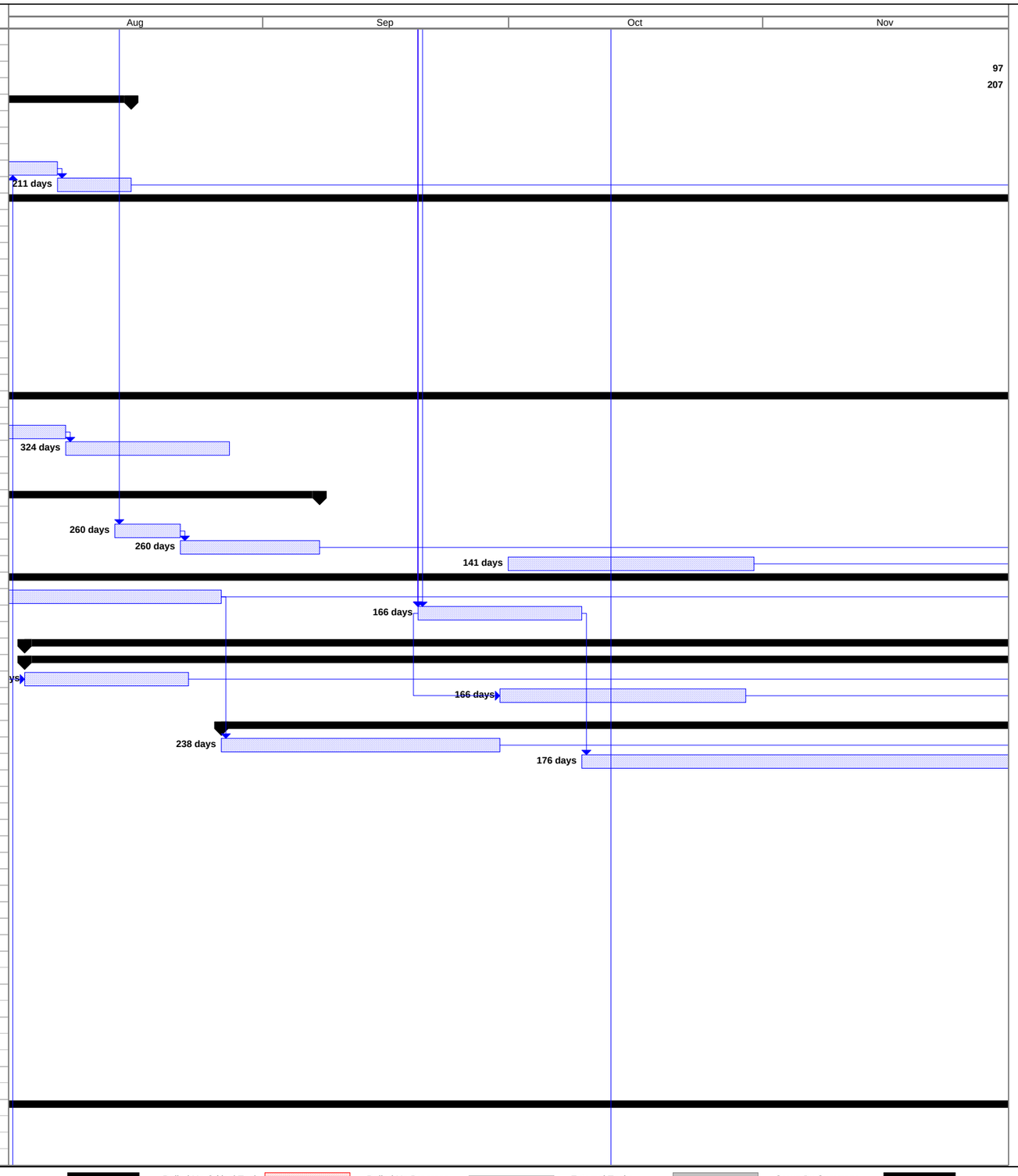


Task | Progress | Summary | Rolled Up Critical Task | Rolled Up Progress | External Tasks | Group By Summary
Critical Task | Milestone | Rolled Up Task | Rolled Up Milestone | Split | Project Summary | Deadline

PROGRAMME OF WORKS - RP13
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 : MAY 2008

ID	Task Name	Duration	Start	Finish	Predecessors
818	Bay 44 - Bay 45 (Ch549-Ch576)	15 days	Mon 21/1/08	Mon 4/2/08	800
819	Gabion Bay 50 to Bay 54 (Ch631 to Ch675)	28 days	Mon 21/1/08	Sun 17/2/08	800
820	Bay 56 - Bay 59 (Ch688-Ch741)	10 days	Thu 4/12/08	Sat 13/12/08	809
821	Bay 60 - Bay 62 (Ch741-Ch786)	7 days	Thu 4/12/08	Wed 10/12/08	809
822	**9. Granite Stone Facing**	**505 days**	**Fri 30/3/07**	**Fri 15/8/08**	
823	Bay 4 and Bay 5 (Ch19.5-Ch55)	5 days	Tue 1/4/08	Sat 5/4/08	737
824	Bay 15 - Bay 19 (Ch166-Ch233)	12 days	Thu 17/7/08	Mon 28/7/08	752
825	Bay 37 (Ch449-Ch464)	7 days	Fri 30/3/07	Thu 5/4/07	
826	Bay 41, Bay 42 and Bay 46 (Ch504-Ch586)	6 days	Fri 1/8/08	Wed 6/8/08	923
827	Bay 47 - Bay 55 (Ch586-Ch688)	9 days	Thu 7/8/08	Fri 15/8/08	826
828	**10. Ramp No. 1 (Ch645 - Ch668, Bay 52 - Bay 53)**	**337 days**	**Mon 21/1/08**	**Mon 22/12/08**	
829	base slab	12 days	Mon 21/1/08	Fri 1/2/08	800
830	Wall	10 days	Sat 2/2/08	Mon 11/2/08	829
831	General fill	5 days	Tue 12/2/08	Sat 16/2/08	830
832	Granular fill and blinding	5 days	Thu 11/12/08	Mon 15/12/08	821
833	Concrete pavement	7 days	Tue 16/12/08	Mon 22/12/08	832
834	**11. Ramp No. 2 (Ch516 - Ch537, Bay 42)**	**324 days**	**Fri 30/3/07**	**Sat 16/2/08**	
835	base slab	12 days	Fri 30/3/07	Tue 10/4/07	
836	Wall	10 days	Wed 11/4/07	Fri 20/4/07	835
837	General fill	20 days	Sat 21/4/07	Thu 10/5/07	836
838	Granular fill and blinding	5 days	Tue 5/2/08	Sat 9/2/08	818
839	Concrete pavement	7 days	Sun 10/2/08	Sat 16/2/08	838
840	**12. Ramp No. 3 (Ch209 - Ch233, Bay 18 - Bay 19)**	**224 days**	**Thu 17/7/08**	**Wed 25/2/09**	
841	base slab	12 days	Thu 17/7/08	Mon 28/7/08	752
842	Wall	10 days	Tue 29/7/08	Thu 7/8/08	841
843	General fill	20 days	Fri 8/8/08	Wed 27/8/08	842
844	Granular fill and blinding	5 days	Sat 14/2/09	Wed 18/2/09	922
845	Concrete pavement	7 days	Thu 19/2/09	Wed 25/2/09	844
846	**13 Ramp No. 4 (Ch35 - Ch55, Bay5)**	**160 days**	**Tue 1/4/08**	**Sun 7/9/08**	
847	General fill	7 days	Tue 1/4/08	Mon 7/4/08	737
848	Subbase	8 days	Thu 14/8/08	Thu 21/8/08	814
849	Concrete pavement	17 days	Fri 22/8/08	Sun 7/9/08	848
850	**14. Demolition of existing wing walls Ch449**	30 days	Wed 1/10/08	Thu 30/10/08	
851	**15. Filling in Platform**	**150 days**	**Thu 24/7/08**	**Sat 20/12/08**	
852	a. Bay 3- Bay 27 (Ch11-Ch340)	34 days	Thu 24/7/08	Tue 26/8/08	738,753
853	b. Bay 38 - Bay 55 (Ch464-Ch688)	20 days	Sat 20/9/08	Thu 9/10/08	801,792,768,775
854	c. Bay 56 - Bay 63 (Ch688-Ch797)	7 days	Sun 14/12/08	Sat 20/12/08	810
855	**16. Drainage works**	**154 days**	**Sun 3/8/08**	**Sat 3/1/09**	
856	16.1 storm drain with manhole and headwall	154 days	Sun 3/8/08	Sat 3/1/09	
857	a. Bay 3- Bay 27 (Ch11-Ch340)	20 days	Sun 3/8/08	Fri 22/8/08	852SS+10 days
858	b. Bay 37 - Bay 55 (Ch449-Ch688)	30 days	Tue 30/9/08	Wed 29/10/08	853SS+10 days
859	c. Bay 56 - Bay 63 (Ch688-Ch797)	14 days	Sun 21/12/08	Sat 3/1/09	854
860	16.2 surface drain	130 days	Wed 27/8/08	Sat 3/1/09	
861	a. Bay 3- Bay 27 (Ch11-Ch340)	34 days	Wed 27/8/08	Mon 29/9/08	852
862	b. Bay 37 - Bay 55 (Ch449-Ch688)	60 days	Fri 10/10/08	Mon 8/12/08	853
863	c. Bay 56 - Bay 63 (Ch688-Ch797)	14 days	Sun 21/12/08	Sat 3/1/09	854
864	**17. Roads and paving**	**188 days**	**Sun 4/1/09**	**Fri 10/7/09**	
865	a. Ch233 - Ch340	50 days	Sun 29/3/09	Sun 17/5/09	852,845,857,928SS-30 days
866	b. Ch464 - Ch549	50 days	Tue 14/4/09	Tue 2/6/09	867,858
867	c. Ch549 - Ch609	50 days	Mon 23/2/09	Mon 13/4/09	868
868	d. Ch609 - Ch688	50 days	Sun 4/1/09	Sun 22/2/09	859
869	e. Permanent Entrance at Ch449 to Ch464	23 days	Thu 18/6/09	Fri 10/7/09	716,783,866
870	**18. Street furnitures**	**145 days**	**Mon 23/2/09**	**Fri 17/7/09**	
871	a. Ch233 - Ch340	30 days	Mon 18/5/09	Tue 16/6/09	865
872	b. Ch449 - Ch549	30 days	Wed 3/6/09	Thu 2/7/09	866
873	c. Ch549 - Ch609	30 days	Tue 14/4/09	Wed 13/5/09	867
874	d. Ch609 - Ch688	30 days	Mon 23/2/09	Tue 24/3/09	868
875	e. Permanent Entrance at Ch449	7 days	Sat 11/7/09	Fri 17/7/09	869,872
876	**19. Landscape softworks / hardworks**	**195 days**	**Sun 4/1/09**	**Fri 17/7/09**	
877	a. Ch35 - Ch340	53 days	Tue 26/5/09	Fri 17/7/09	861,704SS
878	b. Ch449 - Ch549	45 days	Wed 3/6/09	Fri 17/7/09	862,866
879	c. Ch549 - Ch609	45 days	Tue 14/4/09	Thu 28/5/09	867
880	d. Ch609 - Ch688	45 days	Mon 23/2/09	Wed 8/4/09	868
881	e. Ch688 - Ch797	10 days	Sun 4/1/09	Tue 13/1/09	863
882					
883	**D. Section III of the Works - Portions 5A1, 5A2 and 5B**	**830 days**	**Fri 30/3/07**	**Mon 6/7/09**	
884	**1. Site clearance**	**4 days**	**Mon 31/12/07**	**Thu 3/1/08**	
885	1.1 General site clearance	4 days	Mon 31/12/07	Thu 3/1/08	975,977,981,983,987,989
886	**2. Temporary Traffic Management Scheme**	**59 days**	**Fri 30/3/07**	**Sun 27/5/07**	



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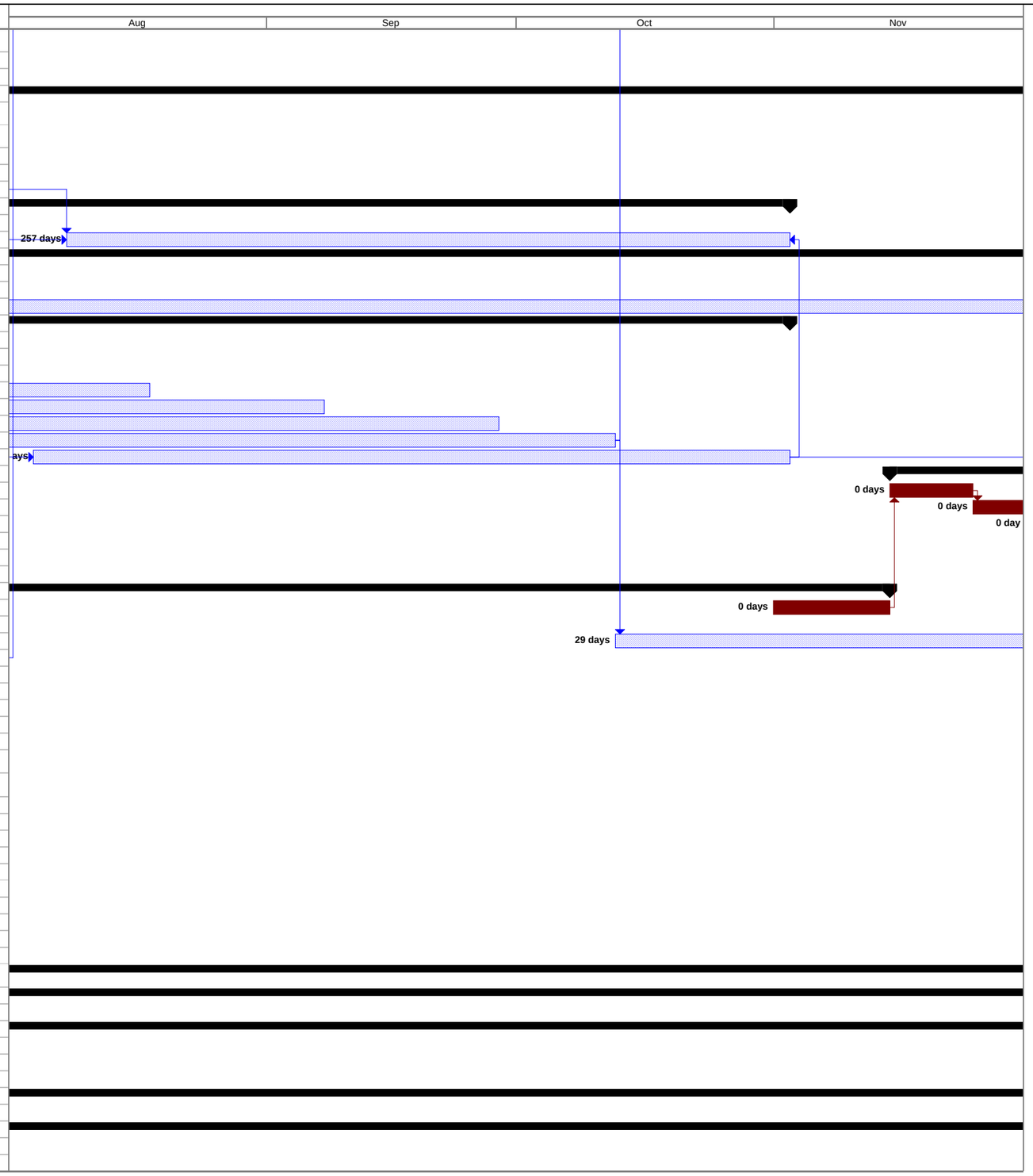
Stage 1, Phase 2B - Cheung Chun San Tsuen and Kam Tsin Wai

CHIT CHEUNG CONSTRUCTION CO., LTD.
DATE : MAY 2008

ID	Task Name	Duration	Start	Finish	Predecessors
887	TTMS Proposal (trial pits for utilities and site entrance in Kam Sh	59 days	Fri 30/3/07	Sun 27/5/07	
888	a. Submission	45 days	Fri 30/3/07	Sun 13/5/07	2SS
889	b. comments & approvals by Engineer & TMLG	14 days	Mon 14/5/07	Sun 27/5/07	888
890	**3. Excavation Permits**	**741 days**	**Mon 28/5/07**	**Sat 6/6/09**	
891	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	889
892	3.2 application and issue of permits (for construction of permanent entrance)	180 days	Tue 9/12/08	Sat 6/6/09	7FS-221 days
893	**4. Underground utilities detection**	**42 days**	**Fri 29/6/07**	**Thu 9/8/07**	
894	a. utilities detection	2 days	Fri 29/6/07	Sat 30/6/07	20
895	b. trial trench excavtion & identification	14 days	Fri 27/7/07	Thu 9/8/07	891,894
896	**5. Utilities temporary diversion / protection**	**466 days**	**Thu 26/7/07**	**Sun 2/11/08**	
897	a. Completion of WSD 450 diameter water main (By WSD)	1 day	Thu 26/7/07	Thu 26/7/07	
898	b. Telephone line	87 days	Fri 8/8/08	Sun 2/11/08	906SS,911FF,895
899	**6. Drainage Management Plan**	**679 days**	**Fri 30/3/07**	**Thu 5/2/09**	
900	a Submission of DMPs	1 day	Fri 30/3/07	Fri 30/3/07	684SS
901	b Comments by the Engineer	14 days	Sat 31/3/07	Fri 13/4/07	900
902	c Implementation of DMP	558 days	Sun 29/7/07	Thu 5/2/09	901,686FF
903	**7.1 Channel - Ch340-Ch429 (Bay 31 - Bay 34)**	**319 days**	**Thu 20/12/07**	**Sun 2/11/08**	
904	Haul access	15 days	Thu 20/12/07	Thu 3/1/08	975,885FF
905	Flow diversion	46 days	Fri 4/4/08	Mon 19/5/08	738FF,934
906	Excavation (including contamination material)	70 days	Tue 20/5/08	Mon 28/7/08	738,904,905
907	Granular Bedding	70 days	Mon 9/6/08	Sun 17/8/08	906SS+20 days
908	Base Slab	77 days	Mon 23/6/08	Sun 7/9/08	907SS+14 days
909	Wall and Deck	77 days	Mon 14/7/08	Sun 28/9/08	908SS+21 days
910	Curing	84 days	Mon 21/7/08	Sun 12/10/08	909SS+7 days
911	Trench Backfill	91 days	Mon 4/8/08	Sun 2/11/08	910SS+14 days
912	**7.2 Channel Bay 35**	**76 days**	**Sat 15/11/08**	**Thu 29/1/09**	
913	Excavation	10 days	Sat 15/11/08	Mon 24/11/08	920
914	Granular Bedding	7 days	Tue 25/11/08	Mon 1/12/08	913
915	Base Slab	14 days	Tue 2/12/08	Mon 15/12/08	914
916	Wall and Deck	21 days	Tue 16/12/08	Mon 5/1/09	915
917	Curing	14 days	Tue 6/1/09	Mon 19/1/09	916
918	Trench Backfill	10 days	Tue 20/1/09	Thu 29/1/09	917
919	**8. Demolition of existing structures**	**447 days**	**Sun 26/8/07**	**Fri 14/11/08**	
920	a. Existing wing walls Ch439 (Bay35)	14 days	Sat 1/11/08	Fri 14/11/08	
921	b. Existing footbridge at Ch350 (Bay 29)	2 days	Sun 26/8/07	Mon 27/8/07	757SS-2 days
922	**9. Gabion**	124 days	Mon 13/10/08	Fri 13/2/09	910
923	**10. Granite Stone Facing (Bay 35)**	3 days	Tue 29/7/08	Thu 31/7/08	824
924	**11. Fill in Platform**	88 days	Fri 30/1/09	Mon 27/4/09	911,918
925	**12. Drainage works**	**98 days**	**Mon 9/2/09**	**Sun 17/5/09**	
926	a. storm drain with manhole	35 days	Mon 9/2/09	Sun 15/3/09	924SS+10 days
927	b. surface drain	20 days	Tue 28/4/09	Sun 17/5/09	924
928	**13. Roads and paving**	40 days	Tue 28/4/09	Sat 6/6/09	924,926
929	**14. Permanent Entrance, road marking and street furnitures at C**	30 days	Sun 7/6/09	Mon 6/7/09	892,928
930	**15. Street furnitures(Bay 31 to Bay 34) / traffic sign / road markir**	40 days	Thu 28/5/09	Mon 6/7/09	928SS+30 days
931	**16. Landscape softworks / hardworks**	50 days	Mon 18/5/09	Mon 6/7/09	927
932	**17. Temp vehicular access in Portion 5A1**	**191 days**	**Wed 26/9/07**	**Thu 3/4/08**	
933	a. Maintenance and operation	188 days	Wed 26/9/07	Mon 31/3/08	939
934	b. Removal	3 days	Tue 1/4/08	Thu 3/4/08	933
935					
936	**E. Section IV of the Works**	**20 days**	**Thu 6/9/07**	**Tue 25/9/07**	
937	1. Formation for temp vehicular access	2 days	Thu 6/9/07	Fri 7/9/07	975,897
938	2. Construction of temp vehicular access	17 days	Sat 8/9/07	Mon 24/9/07	937,11FF-1 day
939	3. Opening of temp vehicular access to the Public	1 day	Tue 25/9/07	Tue 25/9/07	938
940					
941	**F. Section V of the Works - Preservation and protection to existing trees**	**840 days**	**Sat 31/3/07**	**Fri 17/7/09**	
942	**1. Portion 1**	**840 days**	**Sat 31/3/07**	**Fri 17/7/09**	
943	1.1 Tree survey	14 days	Sat 31/3/07	Fri 13/4/07	15
944	1.2 Tree transplant	791 days	Sat 19/5/07	Fri 17/7/09	
945	a. To Temp holding nursery	62 days	Sat 19/5/07	Thu 19/7/07	943,214
946	b. To final location	37 days	Thu 11/6/09	Fri 17/7/09	331FF
947	1.3 Tree protection	62 days	Sat 19/5/07	Thu 19/7/07	945SS
948	**2. Portion 2**	**780 days**	**Wed 30/5/07**	**Fri 17/7/09**	
949	2.1 Tree survey	14 days	Wed 30/5/07	Tue 12/6/07	16
950	2.2 Tree transplant	766 days	Wed 13/6/07	Fri 17/7/09	
951	a. To Temp holding nursery	62 days	Wed 13/6/07	Mon 13/8/07	949,214,228
952	b. To final location	132 days	Sun 8/3/09	Fri 17/7/09	446FF

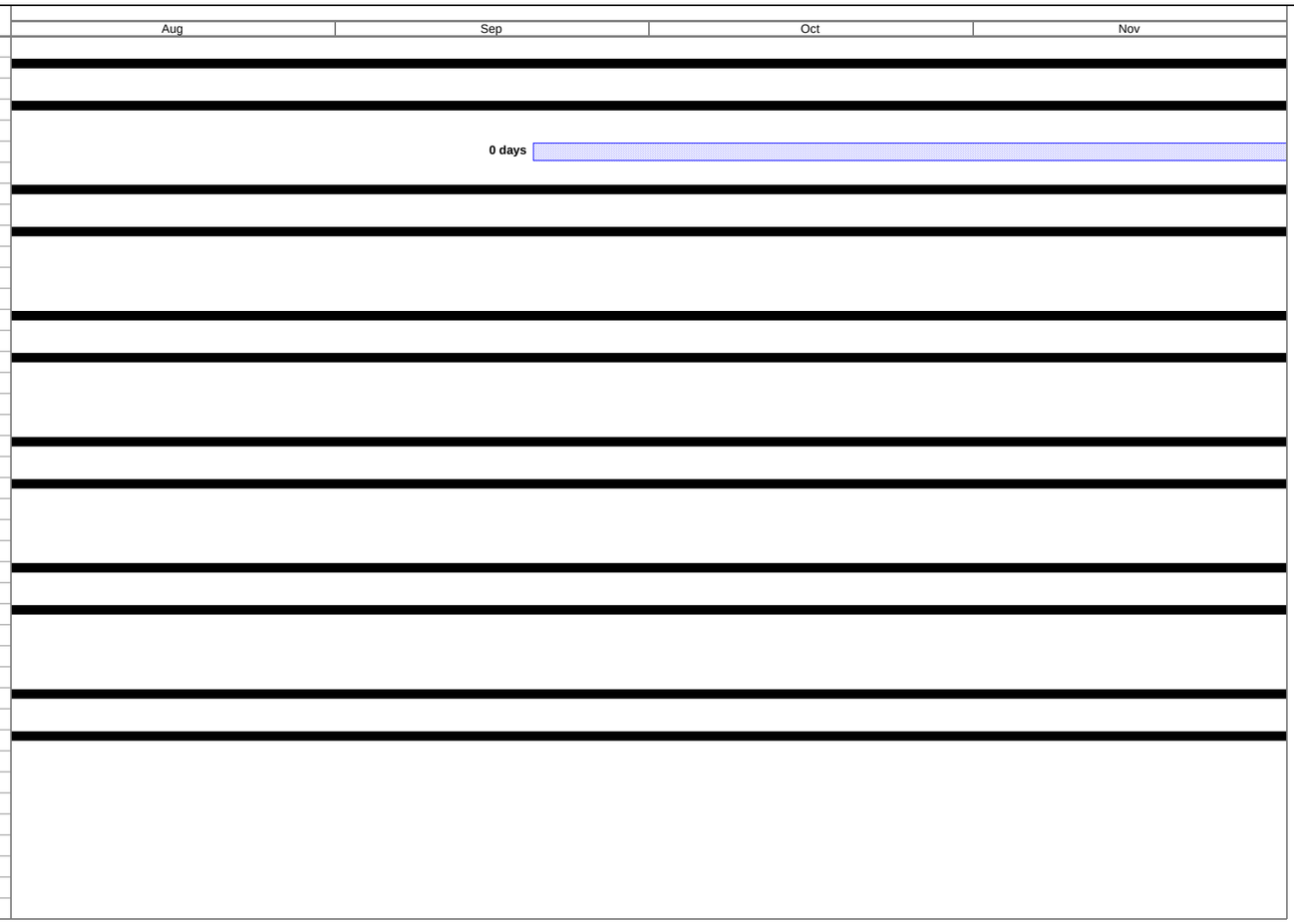


Task | Progress | Summary | Rolled Up Critical Task | Rolled Up Progress | External Tasks | Group By Summary
Critical Task | Milestone | Rolled Up Task | Rolled Up Milestone | Split | Project Summary | Deadline

PROGRAMME OF WORKS - RP13
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 : MAY 2008

ID	Task Name	Duration	Start	Finish	Predecessors
953	2.3 Tree protection	62 days	Wed 13/6/07	Mon 13/8/07	951SS
954	**3. Portion 3**	**750 days**	**Fri 29/6/07**	**Fri 17/7/09**	
955	3.1 Tree survey	14 days	Fri 29/6/07	Thu 12/7/07	17
956	3.2 Tree transplant	736 days	Fri 13/7/07	Fri 17/7/09	
957	a. To Temp holding nursery	64 days	Fri 13/7/07	Fri 14/9/07	955,214
958	b. To final location	301 days	Sat 20/9/08	Fri 17/7/09	647FF
959	3.3 Tree protection	64 days	Fri 13/7/07	Fri 14/9/07	957SS
960	**4. Portion 4**	**840 days**	**Sat 31/3/07**	**Fri 17/7/09**	
961	4.1 Tree survey	14 days	Sat 31/3/07	Fri 13/4/07	18
962	4.2 Tree transplant	791 days	Sat 19/5/07	Fri 17/7/09	
963	a. To Temp holding nursery	62 days	Sat 19/5/07	Thu 19/7/07	961,214
964	b. To final location	53 days	Tue 26/5/09	Fri 17/7/09	704FF
965	4.3 Tree protection	62 days	Sat 19/5/07	Thu 19/7/07	963SS
966	**5. Portion 5**	**750 days**	**Fri 29/6/07**	**Fri 17/7/09**	
967	5.1 Tree survey	14 days	Fri 29/6/07	Thu 12/7/07	19
968	5.2 Tree transplant	**736 days**	**Fri 13/7/07**	**Fri 17/7/09**	
969	a. To Temp holding nursery	69 days	Fri 13/7/07	Wed 19/9/07	967,214
970	b. To final location	195 days	Sun 4/1/09	Fri 17/7/09	876FF
971	5.3 Tree protection	69 days	Fri 13/7/07	Wed 19/9/07	969SS
972	**6. Portion 5A1**	**739 days**	**Fri 29/6/07**	**Mon 6/7/09**	
973	6.1 Tree survey	7 days	Fri 29/6/07	Thu 5/7/07	20
974	6.2 Tree transplant	732 days	Fri 6/7/07	Mon 6/7/09	
975	a. To Temp holding nursery	62 days	Fri 6/7/07	Wed 5/9/07	973,214
976	b. To final location	61 days	Thu 7/5/09	Mon 6/7/09	931FF
977	6.3 Tree protection	62 days	Fri 6/7/07	Wed 5/9/07	975SS
978	**7. Portion 5A2**	**739 days**	**Fri 29/6/07**	**Mon 6/7/09**	
979	7.1 Tree survey	14 days	Fri 29/6/07	Thu 12/7/07	21
980	7.2 Tree transplant	725 days	Fri 13/7/07	Mon 6/7/09	
981	a. To Temp holding nursery	62 days	Fri 13/7/07	Wed 12/9/07	979,214
982	b. To final location	61 days	Thu 7/5/09	Mon 6/7/09	931FF
983	7.3 Tree protection	62 days	Fri 13/7/07	Wed 12/9/07	981SS
984	**8. Portion 5B**	**630 days**	**Tue 16/10/07**	**Mon 6/7/09**	
985	8.1 Tree survey	14 days	Tue 16/10/07	Mon 29/10/07	22
986	8.2 Tree transplant	616 days	Tue 30/10/07	Mon 6/7/09	
987	a. To Temp holding nursery	62 days	Tue 30/10/07	Sun 30/12/07	985,214
988	b. To final location	61 days	Thu 7/5/09	Mon 6/7/09	931FF
989	8.3 Tree protection	62 days	Tue 30/10/07	Sun 30/12/07	987SS
990					
991	**G. Berthing Area**	**148 days**	**Mon 14/5/07**	**Mon 8/10/07**	
992	**1. Construction of Loading Facilities**	**27 days**	**Wed 12/9/07**	**Mon 8/10/07**	**162**
993	**2. Removal of Loading Facilities**	**2 days**	**Mon 14/5/07**	**Tue 15/5/07**	**73**
994	**3. Reinstatement of Berthing Area**	**7 days**	**Wed 16/5/07**	**Tue 22/5/07**	**993**

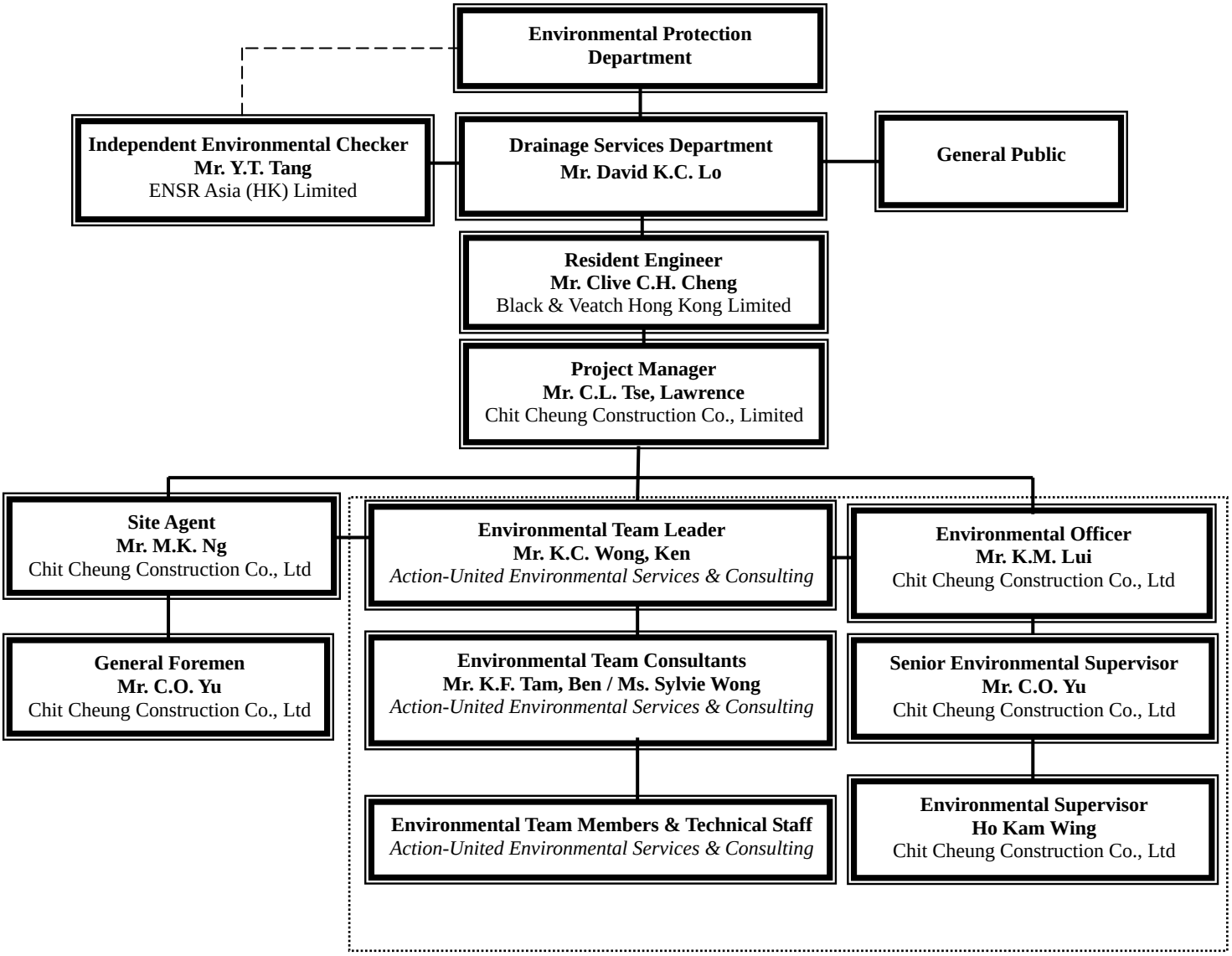


Task | Progress | Summary | Rolled Up Critical Task | Rolled Up Progress | External Tasks | Group By Summary
Critical Task | Milestone | Rolled Up Task | Rolled Up Milestone | Split | Project Summary | Deadline

APPENDIX C

ENVIRONMENTAL ORGANIZATION STRUCTURE

Environmental Organization Structure



Contractor's Environmental Team (CET)

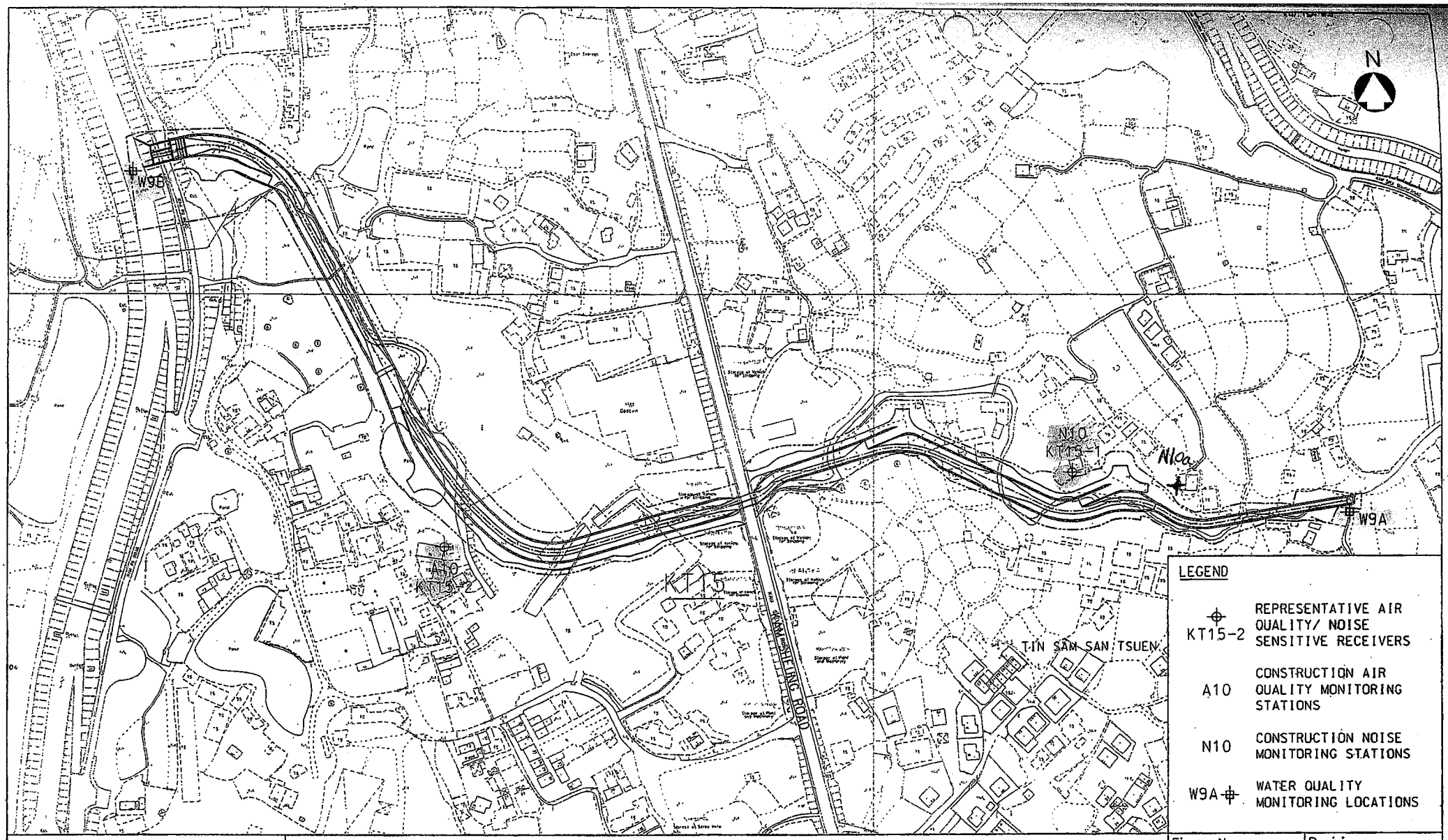
Contact Details of Key Personnel

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	2443-1442	2443-7307
ENSR	Independent Environmental Checker	Mr. Y.T. Tang	3105-8537	2891-0305
CCC	Project Director	Mr. P.Y. CHENG	9023-4821	2403-1162
CCC	Project Manager	Mr. Lawrence TSE	9752-0748	2479-1365
CCC	Site Agent	Mr. M.K. NG	6603-9711	2479-1365
CCC	Site Engineer	Mr. Jimmy CHAN	9234-8632	2479-1365
CCC	Environmental Officer	Mr. LUI Kam Man	9257-9111	2479-1365
CCC	Senior Environmental Supervisor	Mr. YU Chor-on	9026-9501	2479-1365
CCC	Environmental Supervisor	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	Environmental Team Supervisor	Ben Tam	2959-6059	2959-6079
AUES	Environmental Consultant	Ben Tam/Sylvie Wong	2959-6059	2959-6079
AUES	Ecologist	Vincent Lai	9406-9784	2959-6079
AUES	Decontamination Specialist	FN Wong	2959-6059	2959-6079

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

APPENDIX D

LOCATIONS OF DESIGNATED MONITORING STATION/LOCATIONS/AREA



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

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

Title :

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

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

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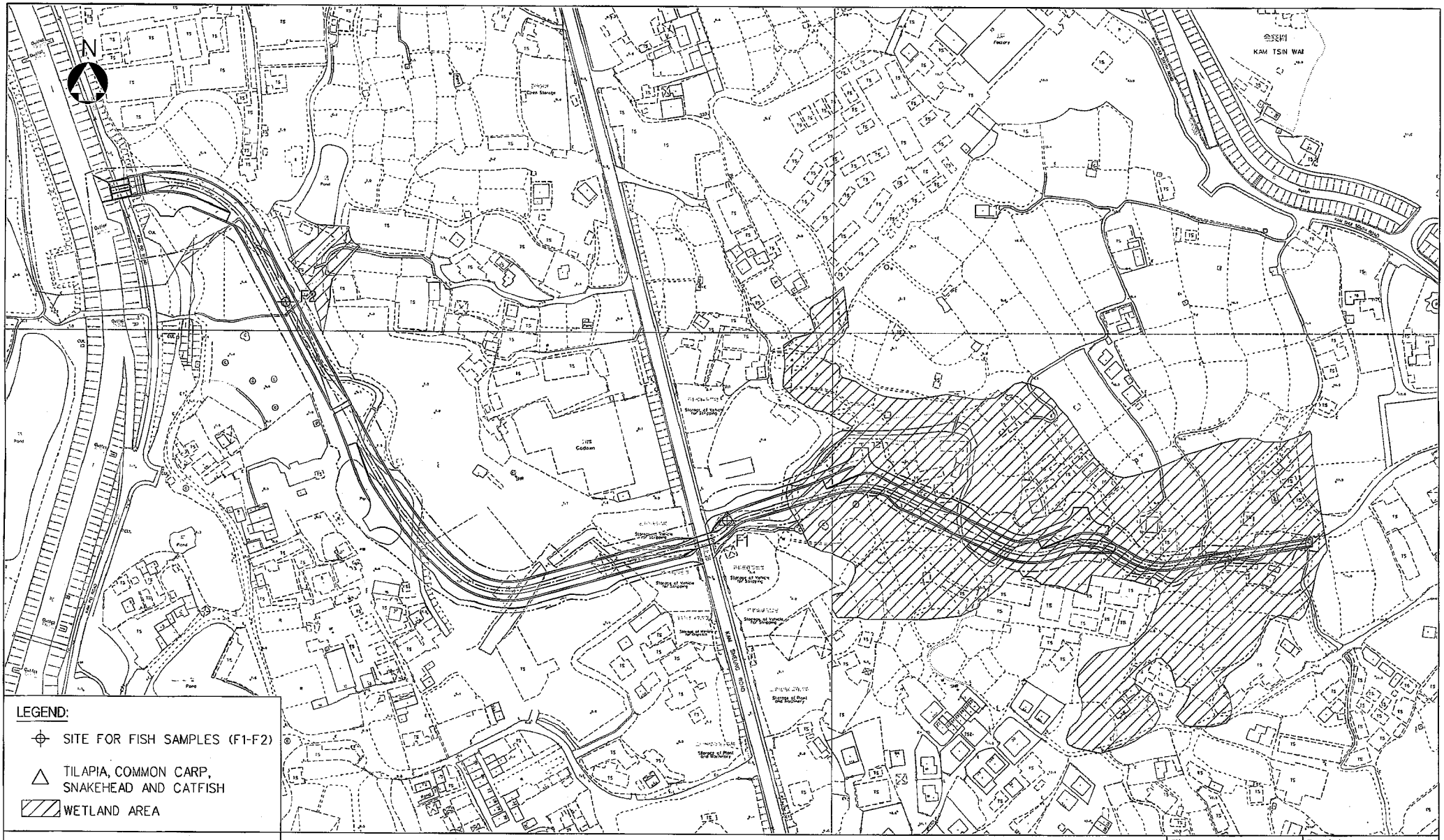

LEGEND:

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

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

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

Title :

ECOLOGICAL MONITORING AREA KT15

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

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APPENDIX E

EVENT/ACTION PLAN FOR AIR QUALITY, CONSTRUCTION NOISE, STREAM WATER QUALITY AND ECOLOGY

Event/Action Plan for Air Quality

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

Event/Action Plan for Construction Noise

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

Event and Action Plan for Stream Water Quality

Event	ET Leader	IEC	Engineer	Contractor
ACTION LEVEL (being exceeded by one sampling day)	1. Repeat in-situ measurement to confirm findings 2. Identify source(s) of impact 3. Inform IEC and Contractor 4. Check monitoring data, all plant, equipment and Contractor's working methods 5. Discuss mitigation measures IEC and Contractor 6. Repeat measurement on next day of exceedance	1. Discuss with ET and Contractor on the mitigation measures 2. Review proposals on mitigation measures submitted by Contractor and advice Engineer accordingly 3. Assess the effectiveness of the implemented mitigation measures	1. Discuss with IEC on the proposed mitigation measures 2. Make agreement on the mitigation measures to be implemented	1. Inform Engineer and confirm notification of the non-compliance in writing 2. Rectify unacceptable practice 3. Check all plant and equipment 4. Consider changes of working methods 5. Discuss with ET and Contractor and propose mitigation measures to IEC and Engineer 6. Implement the agreed mitigation measures
ACTION LEVEL (being exceeded by more than one sampling day)	1. Repeat in-situ measurement to confirm findings 2. Identify source(s) of impact 3. Inform IEC, Contractor and EPD 4. Check monitoring data, all plant, equipment and Contractor's working methods 5. Discuss mitigation measures IEC, Engineer and Contractor 6. Repeat measurement on next day of exceedance 7. Ensure mitigation measures are implemented 8. Prepare to increase the monitoring frequency to daily 9. Repeat measurement on next day of exceedance	1. Discuss with ET and Contractor on the mitigation measures 2. Review proposals on mitigation measures submitted by Contractor and advice Engineer accordingly 3. Assess the effectiveness of the implemented mitigation measures	1. Discuss with IEC on the proposed mitigation measures 2. Make agreement on the mitigation measures to be implemented 3. Assess the effectiveness of the implemented mitigation measures	1. Inform Engineer and confirm notification of the non-compliance in writing 2. Rectify unacceptable practice 3. Check all plant and equipment 4. Consider changes of working methods 5. Discuss with ET and IEC and propose mitigation measures to IEC and Engineer within 3 working days 6. Implement the agreed mitigation measures
LIMIT LEVEL (being exceeded by one sampling days)	1. Repeat in-situ measurement to confirm findings 2. Identify source(s) of impact 3. Inform IEC, Contractor and EPD 4. Check monitoring data, all plant, equipment and Contractor's working methods 5. Discuss mitigation measures IEC, Engineer and Contractor 6. Ensure mitigation measures are implemented 7. Increase the monitoring frequency to daily until no exceedance of Limit level	1. Discuss with ET and Contractor on the mitigation measures 2. Review proposals on mitigation measures submitted by Contractor and advice Engineer accordingly 3. Assess the effectiveness of the implemented mitigation measures	1. Discuss with IEC, ET and Contractor on the proposed mitigation measures 2. Request Contractor to critically review the working methods 3. Make agreement on the mitigation measures to be implemented 4. Assess the effectiveness of the implemented mitigation measures	1. Inform Engineer and confirm notification of the non-compliance in writing 2. Rectify unacceptable practice 3. Check all plant and equipment 4. Consider changes of working methods 5. Discuss with ET, IEC and Engineer and propose mitigation measures to IEC and Engineer within 3 working days 6. Implement the agreed mitigation measures
LIMIT LEVEL (being exceeded by more than one sampling days)	1. Repeat in-situ measurement to confirm findings; 2. Identify source(s) of impact; 3. Inform Contractor, Engineer, IEC and EPD; 4. Check monitoring data, all plant, equipment and Contractor's working methods; 5. Discuss mitigation measures with IEC, Engineer and Contractor; 6. Ensure mitigation measures are implemented; 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	07 Jul 08	07 Sep 08
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)	16 Jul 08	16 Oct 08
7*		Hanna pH Meter HI98107 (Serial No. 388220)	27 Jun 08	27 Sep 08
8*		Turbidimeter HACH 2100p (Serial No. 911100342)	05 Jun 08	05 Sep 08
9*		Hand refractometer ATAGO (Serial No. 289468)	17 Jul 08	17 Oct 08

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: 7-Jul-08
Next Calibration Date: 7-Sep-08
Technician: Mr. Ben Tam

CONDITIONS

Sea Level Pressure (hPa)	1001.7	Corrected Pressure (mm Hg)	751.275
Temperature (^{o}C)	25.4	Temperature (K)	298

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	1.545	52	51.63	Slope = 48.7060
13	3.4	3.4	6.8	1.329	43	42.70	Intercept = -22.7659
10	2.6	2.6	5.2	1.162	35	34.75	Corr. coeff. = 0.9984
7	1.8	1.8	3.6	0.966	24	23.83	
5	1.3	1.3	2.6	0.821	17	16.88	

Calculations :

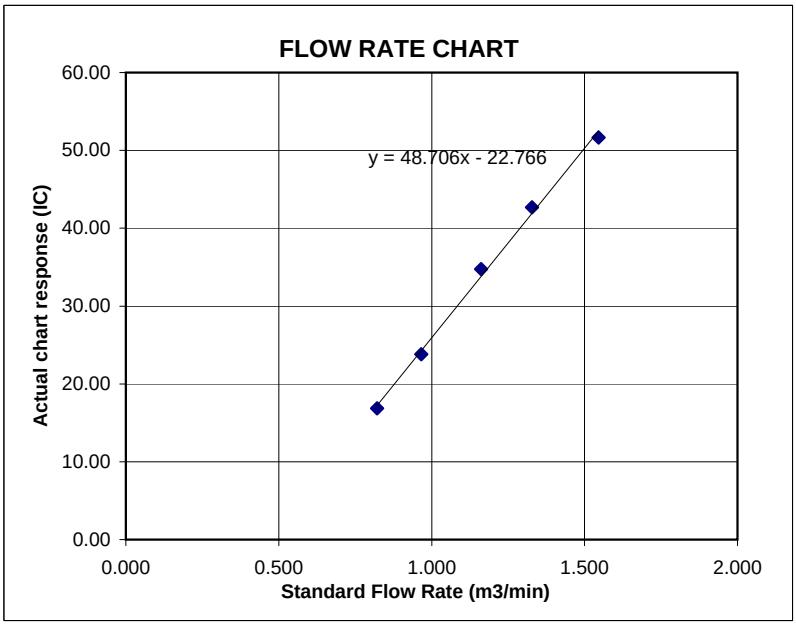
Qstd = 1/m[Sqrt(H20(Pa/Pstd)(Tstd/Ta))-b]
IC = I[Sqrt(Pa/Pstd)(Tstd/Ta)]

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

For subsequent calculation of sampler flow:

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

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



Equipment Calibration Record

AUES

Equipment Calibrated:

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

Standard Equipment:

Standard Equipment:	Higher Volume Sampler
Location & Location ID:	Village House in Tin Sam San Tsuen
Equipment Ref:	A10
Last Calibration Date:	07 May 2008

Equipment Calibration Results:

Calibration Date: 20 June 2008

Hour	Time	Temp °C	RH %	Concentration in mg/m^3 (Standard Equipment)	Total Count (Calibrated Equipment)	Count/Minute (Total Count/60min)
1	11:30 ~ 12:30	31.2	82	0.133	3818	63.6
1	14:30 ~ 15:30	32.1	77	0.056	1430	23.8
1	16:30 ~ 17:30	29.2	81	0.058	1468	24.5

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

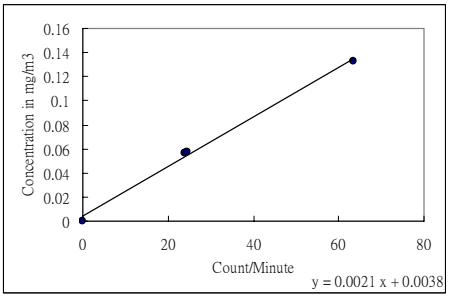
Sensitivity Adjustment Scale Setting (After Calibration) 722 (CPM)

Linear Regression of Y or X

Slope (K-factor): 0.0021

Correlation Coefficient 0.9977

Validity of Calibration Record 24 June 2008



Operator : Ben Tam Signature : Date : 24 June 2008

QC Reviewer : Ken Wong Signature : Date : 24 June 2008

AUES

Equipment Calibration Record

Equipment Calibrated:

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

Standard Equipment:

Standard Equipment:	Higher Volume Sampler
Location & Location ID:	Village House in Cheung Chun San Tsuen
Equipment Ref:	A1
Last Calibration Date:	07 May 2008

Equipment Calibration Results:

Calibration Date: 20 June 2008

Hour	Time	Temp °C	RH %	Concentration in mg/m^3 (Standard Equipment)	Total Count (Calibrated Equipment)	Count/Minute (Total Count/60min)
1	11:30 ~ 12:30	31.2	82	0.133	4240	70.7
1	14:30 ~ 15:30	32.1	77	0.056	1602	26.7
1	16:30 ~ 17:30	29.2	81	0.058	1764	29.4

Sensitivity Adjustment Scale Setting (Before Calibration) 769 (CPM)

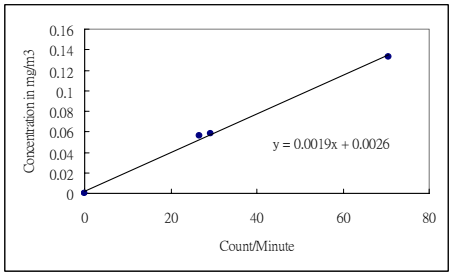
Sensitivity Adjustment Scale Setting (After Calibration) 769 (CPM)

Linear Regression of Y or X

Slope (K-factor): 0.0019

Correlation Coefficient 0.9988

Validity of Calibration Record 24 June 2008



Operator : Ben Tam Signature : Date : 24 June 2008

QC Reviewer : Ken Wong Signature : Date : 24 June 2008

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

Certificate No. : C082026

Certificate of Calibration

This is to certify that the equipment

Description : Acoustical Calibrator (EQ016)

Manufacturer : Bruel & Kjaer

Model No. : 4231

Serial No. : 2292167

has been calibrated for the specific items and ranges.
The results are shown in the Calibration Report No. C082026.

The equipment is supplied by

Co. Name : Action-United Environmental Services and Consulting

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

Date of Issue : 22 April 2008

Certified by : K C Lee

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

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

Certificate No. : C082037

Certificate of Calibration

This is to certify that the equipment

Description : Integrating Sound Level Meter (EQ010)

Manufacturer : Bruel & Kjaer

Model No. : 2238

Serial No. : 2285721

has been calibrated for the specific items and ranges.
The results are shown in the Calibration Report No. C082037.

The equipment is supplied by

Co. Name : Action-United Environmental Services and Consulting

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

Date of Issue : 22 April 2008

Certified by : K C Lee

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

CERTIFICATE OF ANALYSIS

Batch: HK0811158
Date of Issue: 17/07/2008
Client: ACTION UNITED ENVIRO SERVICES
Client Reference:

Calibration of DO System

Item : YSI Multimeter

Model No. : YSI 550A

Serial No. : 05F2063AZ

Equipment No.: - -

Calibration Method : This meter was calibrated in accordance with standard method APHA (18th Ed.) 4500-O C & G

Date of Calibration : 16 July, 2008

Testing Results :

Expected Reading	Recording Reading
4.93 mg/L 6.22 mg/L 8.14 mg/L	4.93 mg/L 6.31 mg/L 8.25 mg/L
Allowing Deviation	±0.2 mg/L

Ms Wong Wai Man, Alice
Laboratory Manager - Hong Kong

CERTIFICATE OF ANALYSIS

Batch: HK0810119
Date of Issue: 09/07/2008
Client: ACTION UNITED ENVIRO SERVICES
Client Reference:

Calibration of pH System

Item : HANNA pH Meter

Model No. : HI98107

Serial No. : S388220

Equipment No. : 0800542

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

Date of Calibration : 27 June, 2008

Testing Results :

Expected Reading	Recording Reading
4.00	3.8
7.00	6.9
10.0	10.0
Allowing Deviation	± 0.2

Ms Wong Wai Man, Alice
Laboratory Manager - Hong Kong

CERTIFICATE OF ANALYSIS

Batch: HK0808781
Date of Issue: 05/06/2008
Client: ACTION UNITED ENVIRO SERVICES
Client Reference:

Calibration of Turbidity System

Item : HACH Turbidimeter

Model No. : HACH 2100P

Serial No. : 911100342

Equipment No. : EQ039

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

Date of Calibration : 05 June, 2008

Testing Results :

Expected Reading	Recording Reading
0.00	0.03
1.00	1.10
2.00	2.01
4.00	3.84
16.0	17.4
40.0	38.6
80.0	72.1
160	152
Allowing Deviation	± 0.2

Ms Wong Wai Man, Alice
Laboratory Manager - Hong Kong

CERTIFICATE OF ANALYSIS

Batch: HK0811159
Date of Issue: 17/07/2008
Client: ACTION UNITED ENVIRO SERVICES
Client Reference:

Calibration of Salinity System

Item : HAND REFRACTOMETER

Model No. : ATAGO

Serial No. : 289468

Equipment No. : EQ114

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

Date of Calibration : 17 July, 2008

Testing Results :

Expected Reading	Recording Reading
10 g/L	10 g/L
20 g/L	19 g/L
30 g/L	28 g/L
40 g/L	40 g/L
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-June-08	Thu					
27-June-08	Fri		✓		✓	
28-June-08	Sat					
29-June-08	Sun					
30-June-08	Mon					
1-July-08	Tue					
2-July-08	Wed	✓		✓	✓	
3-July-08	Thu					
4-July-08	Fri		✓		✓	
5-July-08	Sat					
6-July-08	Sun					
7-July-08	Mon					
8-July-08	Tue	✓		✓	✓	
9-July-08	Wed		✓			
10-July-08	Thu					
11-July-08	Fri					
12-July-08	Sat				✓	
13-July-08	Sun					
14-July-08	Mon	✓		✓	✓	
15-July-08	Tue		✓			
16-July-08	Wed					
17-July-08	Thu					
18-July-08	Fri					
19-July-08	Sat	✓		✓	✓	
20-July-08	Sun					
21-July-08	Mon		✓			
22-July-08	Tue				✓	
23-July-08	Wed					
24-July-08	Thu					✓
25-July-08	Fri	✓		✓	✓	

	Monitoring Day
	Sunday or Public Holiday

Impact Monitoring Schedules in the Next Reporting Period

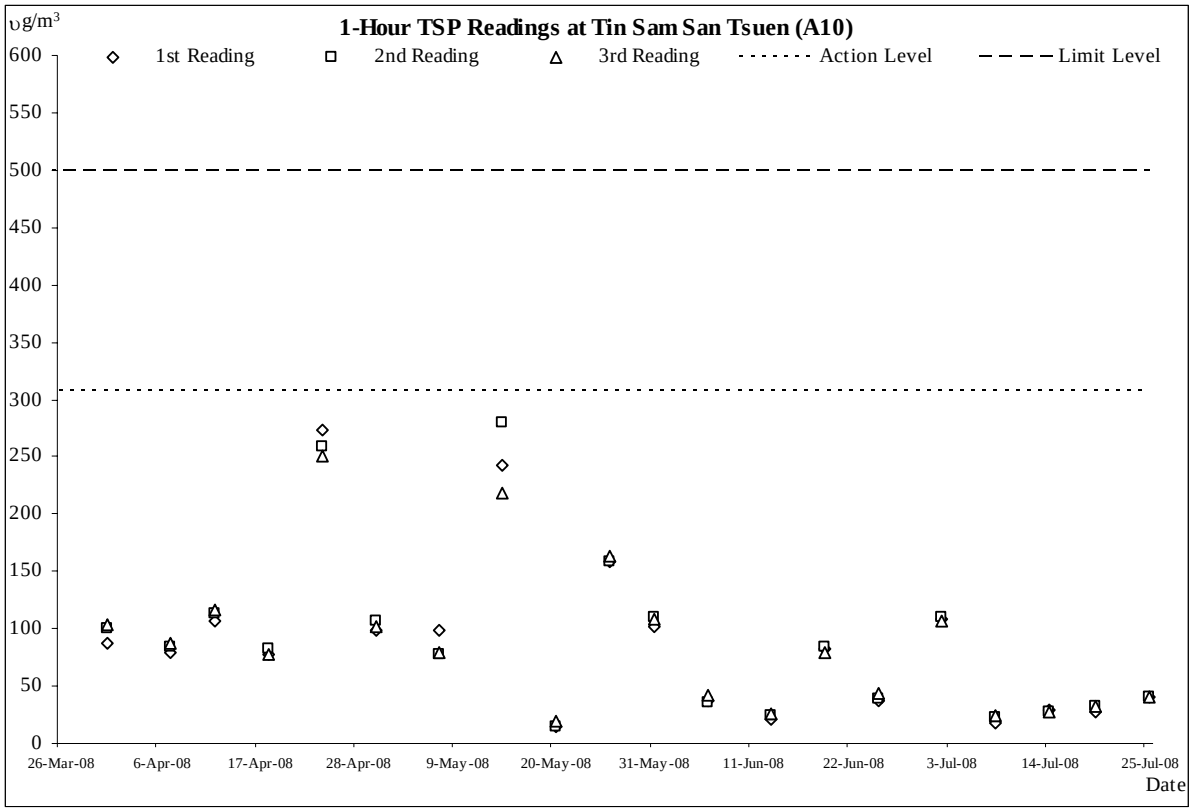
Date		Air Quality		Noise Leq 30min	Stream Water Quality	Ecology Surveys
		1-Hour TSP	24-Hour TSP			
26-July-08	Sat		✓			
27-July-08	Sun					
28-July-08	Mon				✓	
29-July-08	Tue					
30-July-08	Wed					
31-July-08	Thu	✓		✓	✓	
1-Aug-08	Fri		✓			
2-Aug-08	Sat					
3-Aug-08	Sun					
4-Aug-08	Mon					
5-Aug-08	Tue					
6-Aug-08	Wed	✓		✓	✓	
7-Aug-08	Thu		✓			
8-Aug-08	Fri				✓	
9-Aug-08	Sat					✓
10-Aug-08	Sun					
11-Aug-08	Mon					
12-Aug-08	Tue	✓		✓	✓	
13-Aug-08	Wed		✓			
14-Aug-08	Thu				✓	
15-Aug-08	Fri					
16-Aug-08	Sat					
17-Aug-08	Sun					
18-Aug-08	Mon	✓		✓	✓	
19-Aug-08	Tue		✓			
20-Aug-08	Wed					
21-Aug-08	Thu					
22-Aug-08	Fri					
23-Aug-08	Sat	✓		✓	✓	
24-Aug-08	Sun					
25-Aug-08	Mon		✓			

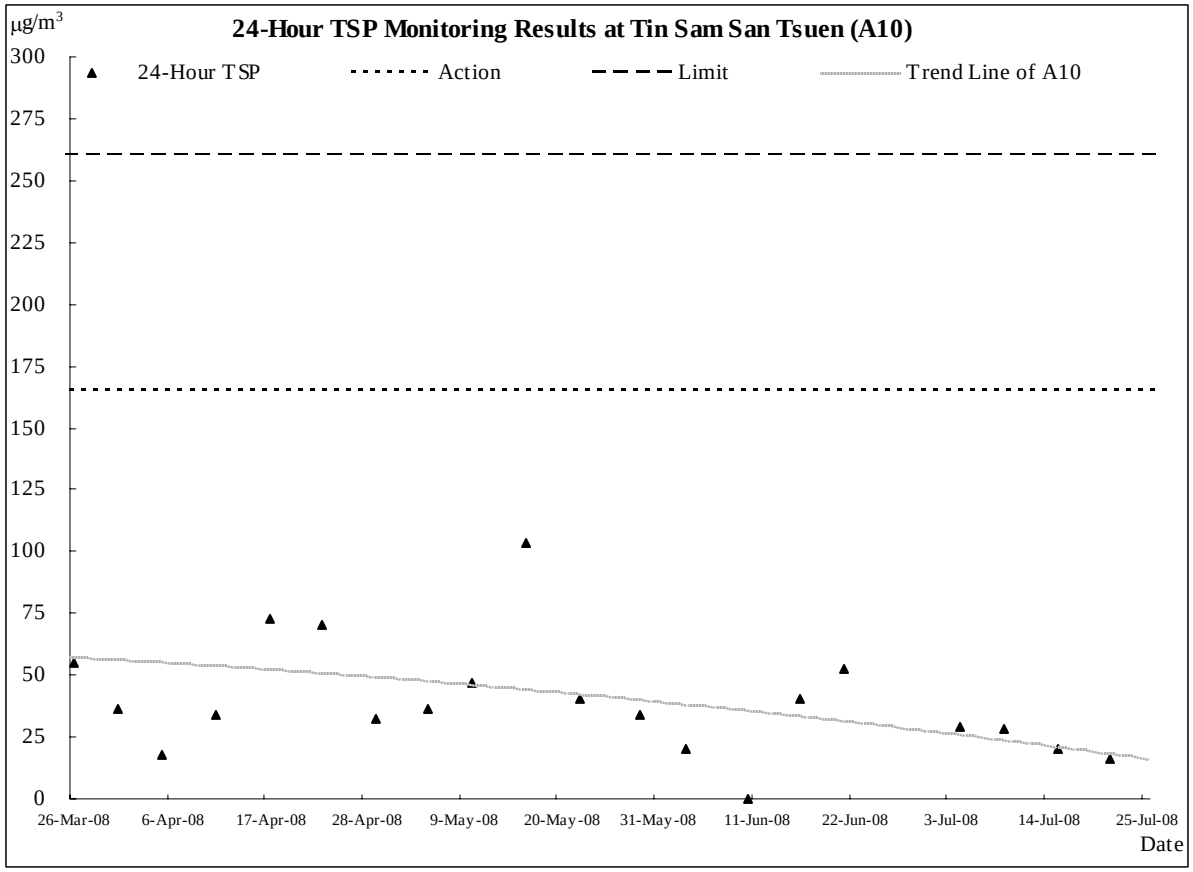
✓	Monitoring Day
	Sunday or Public Holiday

APPENDIX H

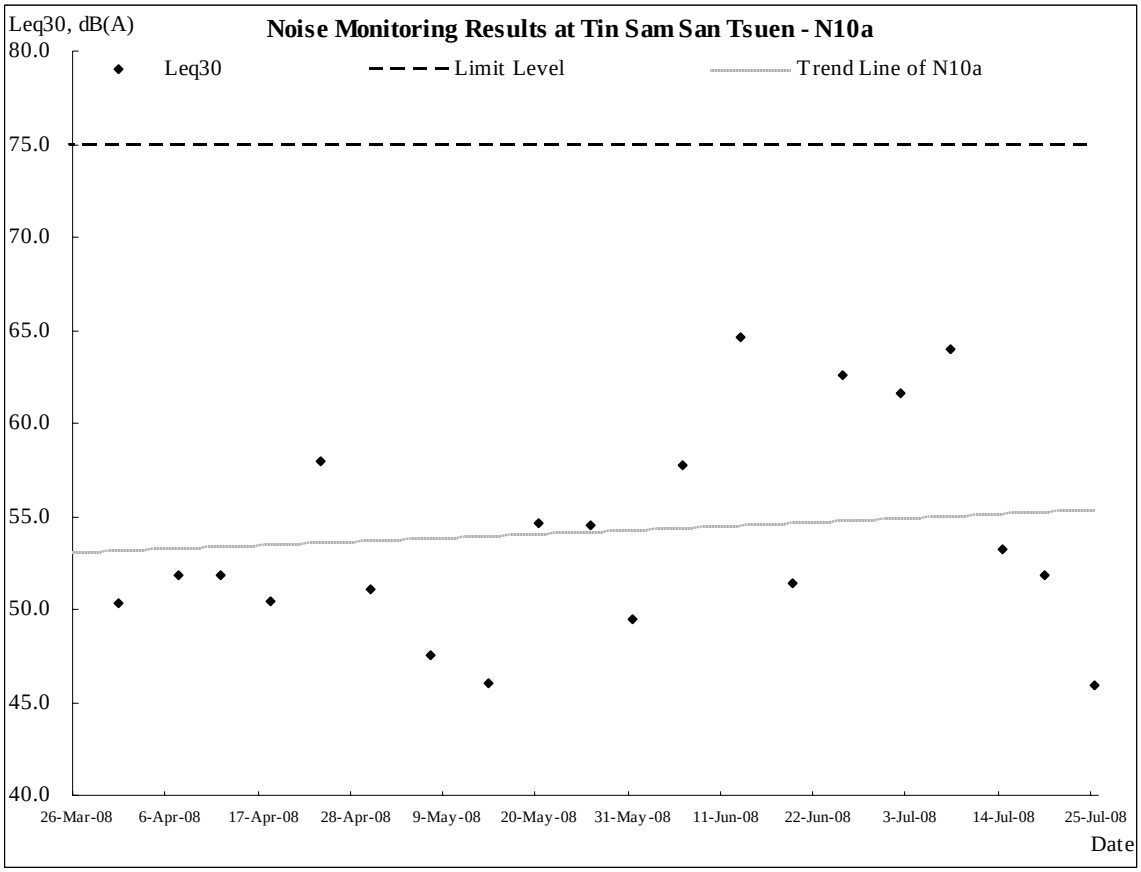
GRAPHICAL PLOTS OF AIR QUALITY, CONSTRUCTION NOISE AND STREAM WATER QUALITY MONITORING RESULTS

AIR QUALITY

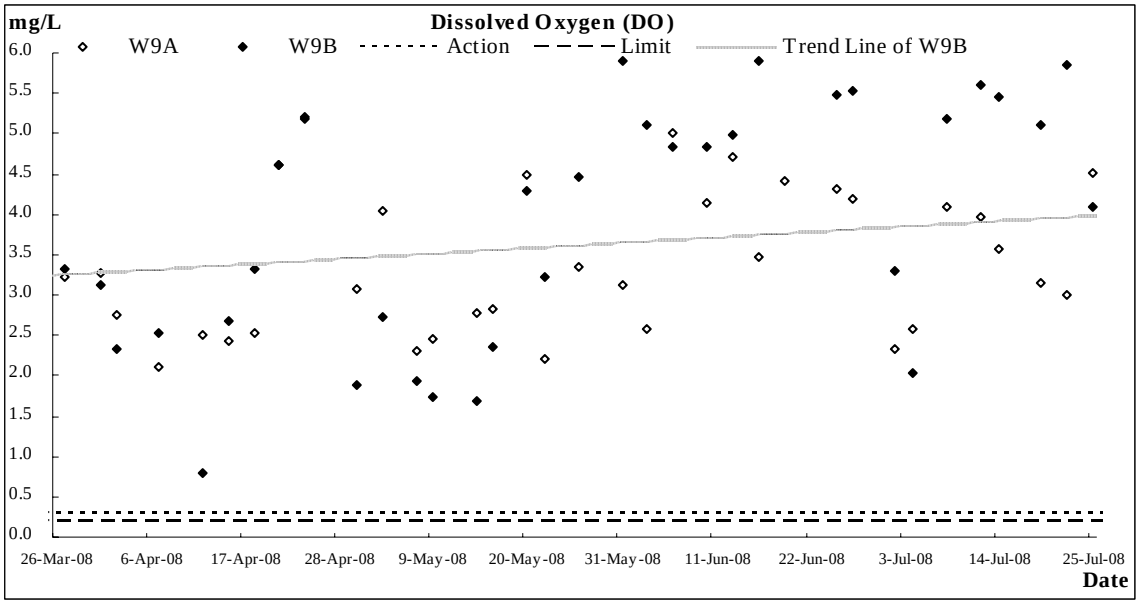

υg/m3
1-Hour TSP Readings at Tin Sam San Tsuen (A10)
1st Reading
2nd Reading
3rd Reading
Action Level
Limit Level
600
550
500
450
400
350
300
250
200
150
100
50
0
26-Mar-08
6-Apr-08
17-Apr-08
28-Apr-08
9-May-08
20-May-08
31-May-08
11-Jun-08
22-Jun-08
3-Jul-08
14-Jul-08
25-Jul-08
Date

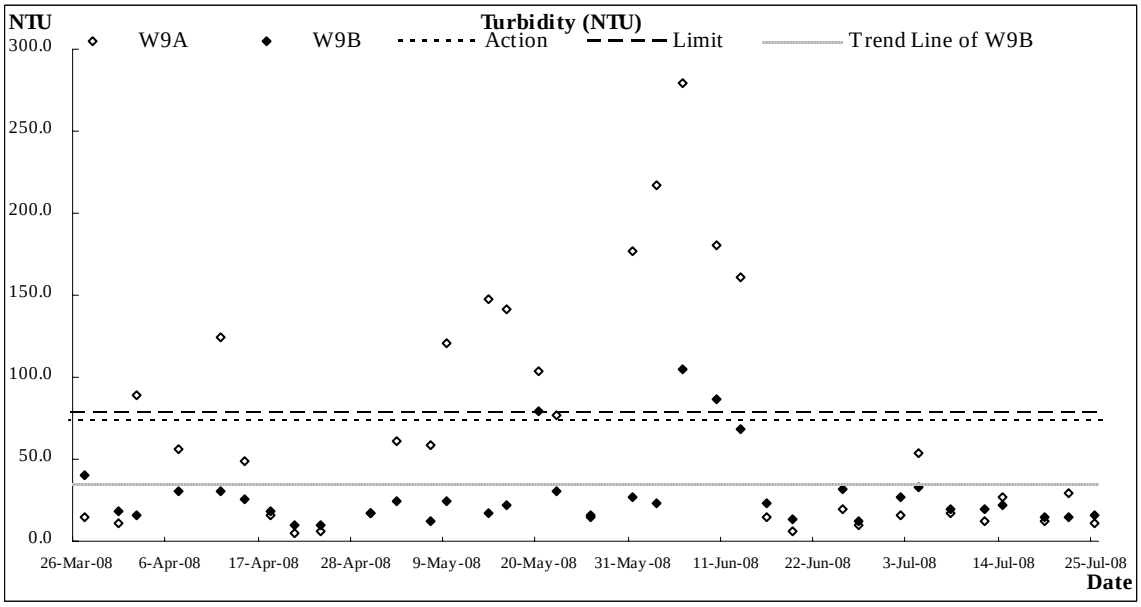

µg/m3
24-Hour TSP Monitoring Results at Tin Sam San Tsuen (A10)
24-Hour TSP
Action
Limit
Trend Line of A10
300
275
250
225
200
175
150
125
100
75
50
25
0
26-Mar-08
6-Apr-08
17-Apr-08
28-Apr-08
9-May-08
20-May-08
31-May-08
11-Jun-08
22-Jun-08
3-Jul-08
14-Jul-08
25-Jul-08
Date

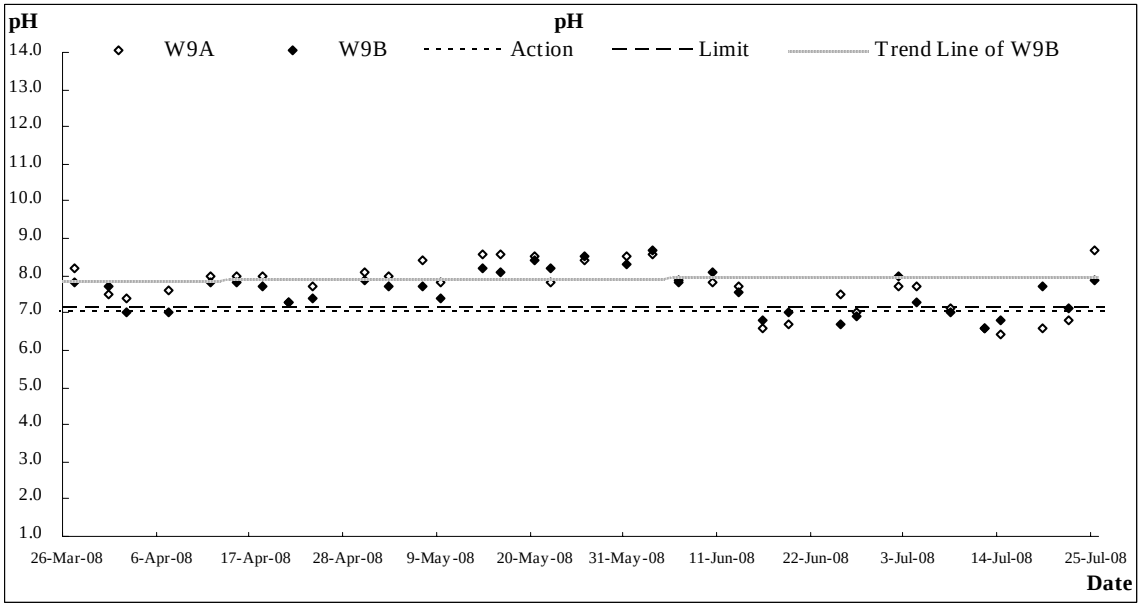
CONSTRUCTION NOISE

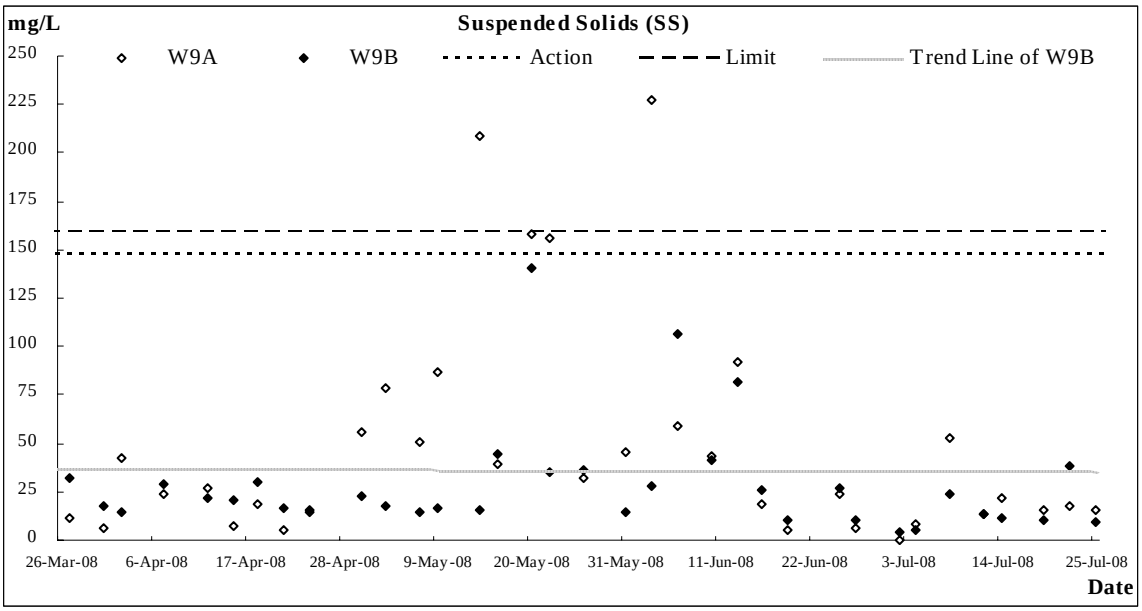


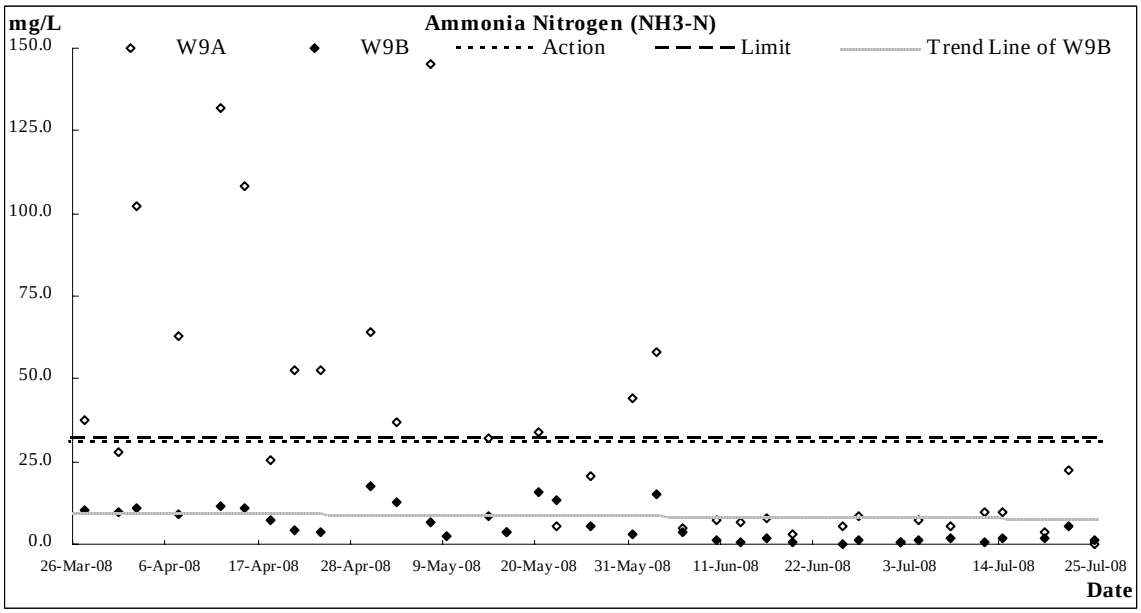
STREAM WATER QUALITY

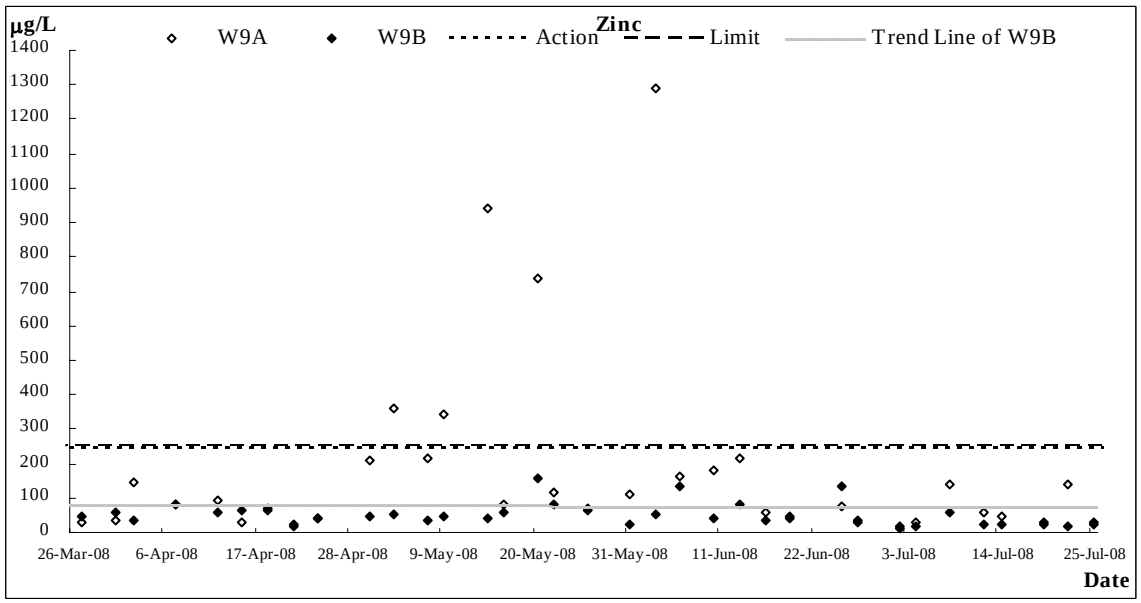







mg/L
Suspended Solids (SS)
W9A
W9B
Action
Limit
Trend Line of W9B
250
225
200
175
150
125
100
75
50
25
0
26-Mar-08
6-Apr-08
17-Apr-08
28-Apr-08
9-May-08
20-May-08
31-May-08
11-Jun-08
22-Jun-08
3-Jul-08
14-Jul-08
25-Jul-08
Date


mg/L
Ammonia Nitrogen (NH3-N)
W9A
W9B
Action
Limit
Trend Line of W9B
150.0
125.0
100.0
75.0
50.0
25.0
0.0
26-Mar-08
6-Apr-08
17-Apr-08
28-Apr-08
9-May-08
20-May-08
31-May-08
11-Jun-08
22-Jun-08
3-Jul-08
14-Jul-08
25-Jul-08
Date


µg/L
Zinc
W9A
W9B
Action
Limit
Trend Line of W9B
1400
1300
1200
1100
1000
900
800
700
600
500
400
300
200
100
0
26-Mar-08
6-Apr-08
17-Apr-08
28-Apr-08
9-May-08
20-May-08
31-May-08
11-Jun-08
22-Jun-08
3-Jul-08
14-Jul-08
25-Jul-08
Date

Date	27-Jun-08																			
Location	**Time**	**Depth (m)**	**Temp (oC)**		**DO (mg/L)**		**DOS (%)**		**Turbidity (NTU)**		**Salinity**		**pH**		**SS**	**NH3-N**	**Zinc**
W9A	12:15	0.21	28.9	28.9	4.17	4.18	50.1	50.6	10.1	10.3	0	0.0	7.00	7.00	6.0	8.7	30.0
			28.9		4.19		51.0		10.4		0		7.00				
W9B	12:30	0.33	28.1	28.1	5.52	5.54	68.3	68.5	12.8	12.6	0	0.0	6.90	6.90	10.0	1.0	36.0
			28.1		5.56		68.7		12.3		0		6.90				

Date	2-Jul-08																			
Location	**Time**	**Depth (m)**	**Temp (oC)**		**DO (mg/L)**		**DOS (%)**		**Turbidity (NTU)**		**Salinity**		**pH**		**SS**	**NH3-N**	**Zinc**
W9A	13:15	0.13	28.5	28.5	2.36	2.34	30.3	29.8	16.0	15.9	0	0.0	7.70	7.70	<2	0.6	10.0
			28.5		2.31		29.2		15.8		0		7.70				
W9B	13:28	0.24	29.6	29.6	3.33	3.30	47.5	47.0	26.9	26.7	0	0.0	8.00	8.00	4.0	0.9	16.0
			29.6		3.27		46.4		26.4		0		8.00				

Date	4-Jul-08																			
Location	**Time**	**Depth (m)**	**Temp (oC)**		**DO (mg/L)**		**DOS (%)**		**Turbidity (NTU)**		**Salinity**		**pH**		**SS**	**NH3-N**	**Zinc**
W9A	11:06	0.15	28.4	28.4	2.59	2.57	34.1	33.7	54.0	53.6	0	0.0	7.70	7.70	8.0	7.4	28.0
			28.4		2.55		33.2		53.2		0		7.70				
W9B	11:18	0.47	29.3	29.3	2.08	2.05	25.7	25.0	32.9	32.7	0	0.0	7.30	7.30	5.0	1.2	20.0
			29.3		2.01		24.2		32.5		0		7.30				

Date	8-Jul-08																			
Location	**Time**	**Depth (m)**	**Temp (oC)**		**DO (mg/L)**		**DOS (%)**		**Turbidity (NTU)**		**Salinity**		**pH**		**SS**	**NH3-N**	**Zinc**
W9A	12:00	0.24	26.1	26.1	4.1	4.09	50.2	50.1	16.4	17.3	0	0.0	7.10	7.10	53.0	5.3	138.0
			26.1		4.08		49.9		18.1		0		7.10				
W9B	12:20	0.31	26.0	26.0	5.17	5.18	63.9	64.0	19.6	19.5	0	0.0	7.00	7.00	24.0	2.0	56.0
			26.0		5.18		64.0		19.4		0		7.00				

Date	12-Jul-08	2008/7/10 cancel															
Location	**Time**	**Depth (m)**	**Temp (oC)**		**DO (mg/L)**		**DOS (%)**		**Turbidity (NTU)**		**Salinity**		**pH**		**SS**	**NH3-N**	**Zinc**
W9A	10:10	0.19	26.7	26.7	3.97	3.96	49.5	49.3	12.3	12.5	0	0.0	6.60	6.60	13.0	9.7	60.0
			26.7		3.95		49.0		12.7		0		6.60				
W9B	10:30	0.31	26.9	26.9	5.61	5.60	70.4	70.2	20.5	20.1	0	0.0	6.60	6.60	13.0	0.6	26.0
			26.9		5.58		70.0		19.6		0		6.60				

Date	14-Jul-08																					
Location	**Time**	**Depth (m)**	**Temp (oC)**		**DO (mg/L)**		**DOS (%)**		**Turbidity (NTU)**		**Salinity**		**pH**		**SS**	**NH3-N**	**Zinc**					
W9A	10:15	0.11	26.8	26.8	3.56	3.57	38.4	38.5	25.9	26.6	0	0.0	6.40	6.40	22.0	9.9	44.0					
			26.8		3.57		38.5		27.3		0		6.40									
W9B	10:25	0.30	27.2	27.2	5.46	5.45	68.9	68.6	22.6	22.5	0	0.0	6.80	6.80	11.0	1.9	25.0					
			27.2		5.43		68.2		22.4		0		6.80									

Date	19-Jul-08																					
Location	**Time**	**Depth (m)**	**Temp (oC)**		**DO (mg/L)**		**DOS (%)**		**Turbidity (NTU)**		**Salinity**		**pH**		**SS**	**NH3-N**	**Zinc**					
W9A	10:45	0.11	27.7	27.7	3.13	3.15	35.9	36.3	11.7	12.5	0	0.0	6.60	6.60	15.0	3.8	30.0					
			27.7		3.17		36.7		13.3		0		6.60									
W9B	11:03	0.18	28.3	28.3	5.12	5.11	62.5	62.3	16.1	15.1	0	0.0	7.70	7.70	10.0	1.6	24.0					
			28.3		5.1		62.1		14.1		0		7.70									

Date	22-Jul-08																					
Location	**Time**	**Depth (m)**	**Temp (oC)**		**DO (mg/L)**		**DOS (%)**		**Turbidity (NTU)**		**Salinity**		**pH**		**SS**	**NH3-N**	**Zinc**					
W9A	13:10	0.23	30.4	30.4	3.01	3.00	40.3	40.0	29.1	28.7	0	0.0	6.80	6.80	18.0	22.1	141.0					
			30.4		2.98		39.7		28.3		0		6.80									
W9B	13:30	0.19	31.4	31.4	5.87	5.86	79.6	79.3	15.8	14.6	0	0.0	7.10	7.10	38.0	5.4	17.0					
			31.4		5.84		78.9		13.4		0		7.10									

Date	25-Jul-08																					
Location	**Time**	**Depth (m)**	**Temp (oC)**		**DO (mg/L)**		**DOS (%)**		**Turbidity (NTU)**		**Salinity**		**pH**		**SS**	**NH3-N**	**Zinc**					
W9A	16:20	0.13	31.6	31.6	4.53	4.52	61.8	61.5	10.7	10.6	0	0.0	8.70	8.70	16.0	0.1	29.0					
			31.6		4.5		61.2		10.5		0		8.70									
W9B	16:50	0.29	32.3	32.3	4.11	4.10	57.4	57.2	16.2	16.1	0	0.0	7.90	7.90	9.0	1.3	21.0					
			32.3		4.09		56.9		15.9		0		7.90									

Quality Control - Laboratory Duplicate (DUP) Results

Matrix Type: WATER				Duplicate (DUP) Results				
Laboratory Sample ID	Client Sample ID	Method: Analysis Description	CAS number	LOR	Units	Original Result	Duplicate Result	RPD (%)
EA/ED: Physical and Aggregate Properties (QC Lot: 695850)								
HK0810201-002	Anonymous	EA025: Suspended Solids (SS)	----	2	mg/L	2	3	0.0
HK0810235-001	Anonymous	EA025: Suspended Solids (SS)	----	2	mg/L	<2	<2	0.0
ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 696246)								
HK0810091-030	Anonymous	EK055K: Ammonia as N	7664-41-7	0.01	mg/L	0.03	0.03	0.0
ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 696247)								
HK0810273-002	Anonymous	EK055K: Ammonia as N	7664-41-7	0.1	mg/L	<0.1	<0.1	0.0
EG: Metals and Major Cations (QC Lot: 695976)								
HK0810228-002	W1B - 1 & 2 MIX	EG020: Zinc	7440-66-6	10	µg/L	64	65	0.0

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

Matrix Type: WATER		Method Blank (MB) Results			Single Control Spike (SCS) and Duplicate Control Spike (DCS) Results						
					Spike	Spike Recovery (%)		Recovery Limits (%)		RPDs (%)	
Method: Analysis Description	CAS number	LOR	Units	Result	Concentration	SCS	DCS	Low	High	Value	Control Limit
EA/ED: Physical and Aggregate Properties (QCLot: 695850)											
EA025: Suspended Solids (SS)	----	2	mg/L	<2	20 mg/L	90.0	----	85	115	----	----
ED/EK: Inorganic Nonmetallic Parameters (QCLot: 696246)											
EK055K: Ammonia as N	7664-41-7	0.01	mg/L	<0.01	0.5 mg/L	96.6	----	85	115	----	----
ED/EK: Inorganic Nonmetallic Parameters (QCLot: 696247)											
EK055K: Ammonia as N	7664-41-7	0.01	mg/L	<0.01	0.5 mg/L	95.0	----	85	115	----	----
EG: Metals and Major Cations (QCLot: 695976)											
EG020: Zinc	7440-66-6	10	µg/L	<10	100 µg/L	98.8	----	85	115	----	----

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

Matrix Type: WATER				Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Results						
				Spike	Spike Recovery (%)		Recovery Limits (%)		RPDs (%)	
Laboratory Sample ID	Client Sample ID	Method: Analysis Description	CAS number	Concentration	MS	MSD	Low	High	Value	Control Limit
ED/EK: Inorganic Nonmetallic Parameters (QCLot: 696246)										
HK0810091-021	Anonymous	EK055K: Ammonia as N	7664-41-7	0.5 mg/L	96.0	----	75	125	----	----
ED/EK: Inorganic Nonmetallic Parameters (QCLot: 696247)										
HK0810091-031	Anonymous	EK055K: Ammonia as N	7664-41-7	0.5 mg/L	84.0	----	75	125	----	----
EG: Metals and Major Cations (QCLot: 695976)										
HK0810228-001	W1A - 1 & 2 MIX	EG020: Zinc	7440-66-6	100 µg/L	89.6	----	75	125	----	----

Laboratory Duplicate (DUP) Report

Sub-Matrix: **WATER**

Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report				
				LOR	Unit	Original Result	Duplicate Result	RPD (%)
EA/ED: Physical and Aggregate Properties (QC Lot: 698579)								
HK0810477-002	Anonymous	EA025: Suspended Solids (SS)	----	3	mg/L	6	4	23.4
HK0810481-002	W1B - 1 & 2 MIX	EA025: Suspended Solids (SS)	----	2	mg/L	10	9	0.0
ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 698654)								
HK0810387-003	Anonymous	EK055K: Ammonia as N	7664-41-7	0.1	mg/L	10.9	10.8	1.4
ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 698656)								
HK0810482-003	Anonymous	EK055K: Ammonia as N	7664-41-7	0.1	mg/L	0.3	0.3	0.0
EG: Metals and Major Cations (QC Lot: 699114)								
HK0810481-002	W1B - 1 & 2 MIX	EG020: Zinc	7440-66-6	10	µg/L	39	39	0.0

Method Blank (MB), Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report

Sub-Matrix: **WATER**

Method: Compound	CAS Number	Method Blank (MB) Report			Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report						
					Spike	Spike Recovery (%)		Recovery Limits (%)		RPDs (%)	
		LOR	Unit	Result	Concentration	LCS	DCS	Low	High	Value	Control Limit
EA/ED: Physical and Aggregate Properties (QCLot: 698579)											
EA025: Suspended Solids (SS)	----	2	mg/L	<2	20 mg/L	97.0	----	85	115	----	----
ED/EK: Inorganic Nonmetallic Parameters (QCLot: 698654)											
EK055K: Ammonia as N	7664-41-7	0.01	mg/L	<0.01	0.5 mg/L	106	----	85	115	----	----
ED/EK: Inorganic Nonmetallic Parameters (QCLot: 698656)											
EK055K: Ammonia as N	7664-41-7	0.01	mg/L	<0.01	0.5 mg/L	97.1	----	85	115	----	----
EG: Metals and Major Cations (QCLot: 699114)											
EG020: Zinc	7440-66-6	10	µg/L	<10	100 µg/L	92.6	----	85	115	----	----

Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Report

Sub-Matrix: **WATER**

Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Report						
				Spike	Spike Recovery (%)		Recovery Limits (%)		RPDs (%)	
				Concentration	MS	MSD	Low	High	Value	Control Limit
ED/EK: Inorganic Nonmetallic Parameters (QCLot: 698654)										
HK0810384-001	Anonymous	EK055K: Ammonia as N	7664-41-7	50 mg/L	# Not Determined	----	75	125	----	----
ED/EK: Inorganic Nonmetallic Parameters (QCLot: 698656)										
HK0810482-001	Anonymous	EK055K: Ammonia as N	7664-41-7	0.5 mg/L	# Not Determined	----	75	125	----	----
EG: Metals and Major Cations (QCLot: 699114)										
HK0810481-001	W1A - 1 & 2 MIX	EG020: Zinc	7440-66-6	100 µg/L	91.3	----	75	125	----	----

Laboratory Duplicate (DUP) Report

Sub-Matrix: **WATER**

Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report				
				LOR	Unit	Original Result	Duplicate Result	RPD (%)
EA/ED: Physical and Aggregate Properties (QC Lot: 701369)								
HK0810595-003	Anonymous	EA025: Suspended Solids (SS)	----	2	mg/L	6	7	0.0
HK0810602-004	Anonymous	EA025: Suspended Solids (SS)	----	1	mg/L	181	191	5.3
ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 701861)								
HK0810616-001	Anonymous	EK055K: Ammonia as N	7664-41-7	0.10	mg/L	19.9	19.6	1.5
EG: Metals and Major Cations (QC Lot: 701198)								
HK0810591-001	Anonymous	EG020: Zinc	7440-66-6	10	µg/L	16	14	15.7

Method Blank (MB), Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report

Sub-Matrix: **WATER**

Method: Compound	CAS Number	Method Blank (MB) Report			Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report						
					Spike	Spike Recovery (%)		Recovery Limits (%)		RPDs (%)	
		LOR	Unit	Result	Concentration	LCS	DCS	Low	High	Value	Control Limit
EA/ED: Physical and Aggregate Properties (QCLot: 701369)											
EA025: Suspended Solids (SS)	----	2	mg/L	<2	20 mg/L	96.5	----	85	115	----	----
ED/EK: Inorganic Nonmetallic Parameters (QCLot: 701861)											
EK055K: Ammonia as N	7664-41-7	0.01	mg/L	<0.01	0.5 mg/L	91.4	----	85	115	----	----
EG: Metals and Major Cations (QCLot: 701198)											
EG020: Zinc	7440-66-6	10	µg/L	<10	100 µg/L	90.4	----	85	115	----	----

Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Report

Sub-Matrix: **WATER**

Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Report						
				Spike	Spike Recovery (%)		Recovery Limits (%)		RPDs (%)	
				Concentration	MS	MSD	Low	High	Value	Control Limit
ED/EK: Inorganic Nonmetallic Parameters (QCLot: 701861)										
HK0810616-003	Anonymous	EK055K: Ammonia as N	7664-41-7	0.5 mg/L	# Not Determined	----	75	125	----	----
EG: Metals and Major Cations (QCLot: 701198)										
HK0810591-001	Anonymous	EG020: Zinc	7440-66-6	100 µg/L	86.3	----	75	125	----	----

Laboratory Duplicate (DUP) Report

Sub-Matrix: **WATER**

Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report				
				LOR	Unit	Original Result	Duplicate Result	RPD (%)
EA/ED: Physical and Aggregate Properties (QC Lot: 703498)								
HK0810703-012	Anonymous	EA025: Suspended Solids (SS)	----	1	mg/L	4670	4930	5.5
HK0810703-014	Anonymous	EA025: Suspended Solids (SS)	----	1	mg/L	124	121	2.0
ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 703763)								
HK0810808-010	Anonymous	EK055K: Ammonia as N	7664-41-7	0.01	mg/L	0.02	0.02	0.0
EG: Metals and Major Cations (QC Lot: 703539)								
HK0810791-002	W1B - 1 & 2 MIX	EG020: Zinc	7440-66-6	10	µg/L	81	82	0.0

Method Blank (MB), Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report

Sub-Matrix: **WATER**

Method: Compound	CAS Number	Method Blank (MB) Report			Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report						
					Spike	Spike Recovery (%)		Recovery Limits (%)		RPDs (%)	
		LOR	Unit	Result	Concentration	LCS	DCS	Low	High	Value	Control Limit
EA/ED: Physical and Aggregate Properties (QCLot: 703498)											
EA025: Suspended Solids (SS)	----	2	mg/L	<2	20 mg/L	102	----	85	115	----	----
ED/EK: Inorganic Nonmetallic Parameters (QCLot: 703763)											
EK055K: Ammonia as N	7664-41-7	0.01	mg/L	<0.01	0.5 mg/L	96.9	----	85	115	----	----
EG: Metals and Major Cations (QCLot: 703539)											
EG020: Zinc	7440-66-6	10	µg/L	<10	100 µg/L	93.0	----	85	115	----	----

Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Report

Sub-Matrix: **WATER**

Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Report						
				Spike	Spike Recovery (%)		Recovery Limits (%)		RPDs (%)	
				Concentration	MS	MSD	Low	High	Value	Control Limit
ED/EK: Inorganic Nonmetallic Parameters (QCLot: 703763)										
HK0810808-001	Anonymous	EK055K: Ammonia as N	7664-41-7	0.5 mg/L	108	----	75	125	----	----
EG: Metals and Major Cations (QCLot: 703539)										
HK0810791-001	W1A - 1 & 2 MIX	EG020: Zinc	7440-66-6	100 µg/L	95.4	----	75	125	----	----

Laboratory Duplicate (DUP) Report

Sub-Matrix: **WATER**

Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report				
				LOR	Unit	Original Result	Duplicate Result	RPD (%)
EA/ED: Physical and Aggregate Properties (QC Lot: 707920)								
HK0811042-001	Anonymous	EA025: Suspended Solids (SS)	----	2	mg/L	19	18	0.0
HK0811088-001	Anonymous	EA025: Suspended Solids (SS)	----	2	mg/L	33	32	3.7
ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 707462)								
HK0811037-008	Anonymous	EK055K: Ammonia as N	7664-41-7	0.1	mg/L	0.1	0.1	0.0
EG: Metals and Major Cations (QC Lot: 707890)								
HK0811081-002	Anonymous	EG020: Zinc	7440-66-6	10	µg/L	15	15	0.0
HK0811088-003	Anonymous	EG020: Zinc	7440-66-6	10	µg/L	20	19	6.5

Method Blank (MB), Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report

Sub-Matrix: **WATER**

Method: Compound	CAS Number	Method Blank (MB) Report			Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report						
					Spike	Spike Recovery (%)		Recovery Limits (%)		RPDs (%)	
		LOR	Unit	Result	Concentration	LCS	DCS	Low	High	Value	Control Limit
EA/ED: Physical and Aggregate Properties (QCLot: 707920)											
EA025: Suspended Solids (SS)	----	2	mg/L	<2	20 mg/L	96.0	----	85	115	----	----
ED/EK: Inorganic Nonmetallic Parameters (QCLot: 707462)											
EK055K: Ammonia as N	7664-41-7	0.01	mg/L	<0.01	0.5 mg/L	102	----	85	115	----	----
EG: Metals and Major Cations (QCLot: 707890)											
EG020: Zinc	7440-66-6	10	µg/L	<10	100 µg/L	89.0	----	85	115	----	----

Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Report

Sub-Matrix: **WATER**

Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Report						
				Spike	Spike Recovery (%)		Recovery Limits (%)		RPDs (%)	
				Concentration	MS	MSD	Low	High	Value	Control Limit
ED/EK: Inorganic Nonmetallic Parameters (QCLot: 707462)										
HK0811037-001	Anonymous	EK055K: Ammonia as N	7664-41-7	0.5 mg/L	82.0	----	75	125	----	----
EG: Metals and Major Cations (QCLot: 707890)										
HK0811081-001	Anonymous	EG020: Zinc	7440-66-6	100 µg/L	89.8	----	75	125	----	----

Laboratory Duplicate (DUP) Report

Sub-Matrix: **WATER**

Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report				
				LOR	Unit	Original Result	Duplicate Result	RPD (%)
EA/ED: Physical and Aggregate Properties (QC Lot: 707920)								
HK0811042-001	Anonymous	EA025: Suspended Solids (SS)	----	2	mg/L	19	18	0.0
HK0811088-001	Anonymous	EA025: Suspended Solids (SS)	----	2	mg/L	33	32	3.7
ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 707462)								
HK0811037-008	Anonymous	EK055K: Ammonia as N	7664-41-7	0.1	mg/L	0.1	0.1	0.0
ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 707463)								
HK0811090-005	W9B - 1 & 2 MIX	EK055K: Ammonia as N	7664-41-7	0.01	mg/L	1.89	1.85	2.1
EG: Metals and Major Cations (QC Lot: 707890)								
HK0811081-002	Anonymous	EG020: Zinc	7440-66-6	10	µg/L	15	15	0.0
HK0811088-003	Anonymous	EG020: Zinc	7440-66-6	10	µg/L	20	19	6.5

Method Blank (MB), Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report

Sub-Matrix: **WATER**

Method: Compound	CAS Number	Method Blank (MB) Report			Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report						
					Spike	Spike Recovery (%)		Recovery Limits (%)		RPDs (%)	
		LOR	Unit	Result	Concentration	LCS	DCS	Low	High	Value	Control Limit
EA/ED: Physical and Aggregate Properties (QCLot: 707920)											
EA025: Suspended Solids (SS)	----	2	mg/L	<2	20 mg/L	96.0	----	85	115	----	----
ED/EK: Inorganic Nonmetallic Parameters (QCLot: 707462)											
EK055K: Ammonia as N	7664-41-7	0.01	mg/L	<0.01	0.5 mg/L	102	----	85	115	----	----
ED/EK: Inorganic Nonmetallic Parameters (QCLot: 707463)											
EK055K: Ammonia as N	7664-41-7	0.01	mg/L	<0.01	0.5 mg/L	109	----	85	115	----	----
EG: Metals and Major Cations (QCLot: 707890)											
EG020: Zinc	7440-66-6	10	µg/L	<10	100 µg/L	89.0	----	85	115	----	----

Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Report

Sub-Matrix: **WATER**

Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Report						
				Spike	Spike Recovery (%)		Recovery Limits (%)		RPDs (%)	
				Concentration	MS	MSD	Low	High	Value	Control Limit
ED/EK: Inorganic Nonmetallic Parameters (QCLot: 707462)										
HK0811037-001	Anonymous	EK055K: Ammonia as N	7664-41-7	0.5 mg/L	82.0	----	75	125	----	----
ED/EK: Inorganic Nonmetallic Parameters (QCLot: 707463)										
HK0811090-001	W1A - 1 & 2 MIX	EK055K: Ammonia as N	7664-41-7	0.5 mg/L	98.0	----	75	125	----	----
EG: Metals and Major Cations (QCLot: 707890)										
HK0811081-001	Anonymous	EG020: Zinc	7440-66-6	100 µg/L	89.8	----	75	125	----	----

Laboratory Duplicate (DUP) Report

Matrix: **WATER**

Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report				
				LOR	Unit	Original Result	Duplicate Result	RPD (%)
EA/ED: Physical and Aggregate Properties (QC Lot: 712827)								
HK0811428-002	Anonymous	EA025: Suspended Solids (SS)	----	2	mg/L	<2	<2	0.0
HK0811445-001	Anonymous	EA025: Suspended Solids (SS)	----	3	mg/L	86	90	4.1
EA/ED: Physical and Aggregate Properties (QC Lot: 712828)								
HK0811452-003	W1C - 1 & 2 MIX	EA025: Suspended Solids (SS)	----	2	mg/L	23	24	0.0
HK0811454-008	Anonymous	EA025: Suspended Solids (SS)	----	1	mg/L	<1	<1	0.0
ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 712324)								
HK0811376-002	Anonymous	EK055K: Ammonia as N	7664-41-7	0.01	mg/L	0.06	0.07	15.4
EG: Metals and Major Cations (QC Lot: 712759)								
HK0811452-002	W1B - 1 & 2 MIX	EG020: Zinc	7440-66-6	10	µg/L	25	25	0.0

Method Blank (MB), Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report

Matrix: **WATER**

Method: Compound	CAS Number	Method Blank (MB) Report			Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report						
					Spike	Spike Recovery (%)		Recovery Limits (%)		RPDs (%)	
		LOR	Unit	Result	Concentration	LCS	DCS	Low	High	Value	Control Limit
EA/ED: Physical and Aggregate Properties (QCLot: 712827)											
EA025: Suspended Solids (SS)	----	2	mg/L	<2	20 mg/L	97.0	----	85	115	----	----
EA/ED: Physical and Aggregate Properties (QCLot: 712828)											
EA025: Suspended Solids (SS)	----	2	mg/L	<2	20 mg/L	92.0	----	85	115	----	----
ED/EK: Inorganic Nonmetallic Parameters (QCLot: 712324)											
EK055K: Ammonia as N	7664-41-7	0.01	mg/L	<0.01	0.5 mg/L	97.9	----	85	115	----	----
EG: Metals and Major Cations (QCLot: 712759)											
EG020: Zinc	7440-66-6	10	µg/L	<10	100 µg/L	90.2	----	85	115	----	----

Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Report

Matrix: **WATER**

Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Report						
				Spike	Spike Recovery (%)		Recovery Limits (%)		RPDs (%)	
				Concentration	MS	MSD	Low	High	Value	Control Limit
ED/EK: Inorganic Nonmetallic Parameters (QCLot: 712324)										
HK0811376-001	Anonymous	EK055K: Ammonia as N	7664-41-7	0.5 mg/L	92.0	----	75	125	----	----
EG: Metals and Major Cations (QCLot: 712759)										
HK0811452-001	W1A - 1 & 2 MIX	EG020: Zinc	7440-66-6	100 µg/L	84.0	----	75	125	----	----

Laboratory Duplicate (DUP) Report

Matrix: **WATER**

Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report				
				LOR	Unit	Original Result	Duplicate Result	RPD (%)
EA/ED: Physical and Aggregate Properties (QC Lot: 714991)								
HK0811530-001	Anonymous	EA025: Suspended Solids (SS)	----	2	mg/L	6	4	30.2
HK0811535-001	Anonymous	EA025: Suspended Solids (SS)	----	2	mg/L	24	24	0.0
ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 714442)								
HK0811516-020	Anonymous	EK055K: Ammonia as N	7664-41-7	0.01	mg/L	0.13	0.14	7.4
ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 714443)								
HK0811516-030	Anonymous	EK055K: Ammonia as N	7664-41-7	0.01	mg/L	0.13	0.13	0.0
EG: Metals and Major Cations (QC Lot: 715015)								
HK0811530-002	Anonymous	EG020: Zinc	7440-66-6	10	µg/L	<10	<10	0.0
HK0811533-005	W9B - 1 & 2 MIX	EG020: Zinc	7440-66-6	10	µg/L	17	18	0.0

Method Blank (MB), Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report

Matrix: **WATER**

Method: Compound	CAS Number	Method Blank (MB) Report			Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report						
					Spike	Spike Recovery (%)		Recovery Limits (%)		RPDs (%)	
		LOR	Unit	Result	Concentration	LCS	DCS	Low	High	Value	Control Limit
EA/ED: Physical and Aggregate Properties (QCLot: 714991)											
EA025: Suspended Solids (SS)	----	2	mg/L	<2	20 mg/L	111	----	85	115	----	----
ED/EK: Inorganic Nonmetallic Parameters (QCLot: 714442)											
EK055K: Ammonia as N	7664-41-7	0.01	mg/L	<0.01	0.5 mg/L	95.1	----	85	115	----	----
ED/EK: Inorganic Nonmetallic Parameters (QCLot: 714443)											
EK055K: Ammonia as N	7664-41-7	0.01	mg/L	<0.01	0.5 mg/L	98.3	----	85	115	----	----
EG: Metals and Major Cations (QCLot: 715015)											
EG020: Zinc	7440-66-6	10	µg/L	<10	100 µg/L	89.9	----	85	115	----	----

Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Report

Matrix: **WATER**

Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Report						
				Spike	Spike Recovery (%)		Recovery Limits (%)		RPDs (%)	
				Concentration	MS	MSD	Low	High	Value	Control Limit
ED/EK: Inorganic Nonmetallic Parameters (QCLot: 714442)										
HK0811533-003	W1C - 1 & 2 MIX	EK055K: Ammonia as N	7664-41-7	0.5 mg/L	# Not Determined	----	75	125	----	----
ED/EK: Inorganic Nonmetallic Parameters (QCLot: 714443)										
HK0811506-001	Anonymous	EK055K: Ammonia as N	7664-41-7	0.5 mg/L	110	----	75	125	----	----
EG: Metals and Major Cations (QCLot: 715015)										
HK0811530-001	Anonymous	EG020: Zinc	7440-66-6	100 µg/L	92.0	----	75	125	----	----

Laboratory Duplicate (DUP) Report

Matrix: **WATER**

Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report				
				LOR	Unit	Original Result	Duplicate Result	RPD (%)
EA/ED: Physical and Aggregate Properties (QC Lot: 717731)								
HK0811886-008	Anonymous	EA025: Suspended Solids (SS)	----	2	mg/L	151	151	0.0
ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 718611)								
HK0811827-001	Anonymous	EK055K: Ammonia as N	7664-41-7	0.1	mg/L	535	537	0.5

Method Blank (MB), Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report

Matrix: **WATER**

Method: Compound	CAS Number	Method Blank (MB) Report			Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report						
					Spike	Spike Recovery (%)		Recovery Limits (%)		RPDs (%)	
		LOR	Unit	Result	Concentration	LCS	DCS	Low	High	Value	Control Limit
EA/ED: Physical and Aggregate Properties (QCLot: 717731)											
EA025: Suspended Solids (SS)	----	2	mg/L	<2	20 mg/L	90.5	----	85	115	----	----
ED/EK: Inorganic Nonmetallic Parameters (QCLot: 718611)											
EK055K: Ammonia as N	7664-41-7	0.01	mg/L	<0.01	0.5 mg/L	113	----	85	115	----	----
EG: Metals and Major Cations (QCLot: 718500)											
EG020: Zinc	7440-66-6	10	µg/L	<10	100 µg/L	91.2	----	85	115	----	----

Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Report

Matrix: **WATER**

Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Report						
				Spike	Spike Recovery (%)		Recovery Limits (%)		RPDs (%)	
				Concentration	MS	MSD	Low	High	Value	Control Limit
ED/EK: Inorganic Nonmetallic Parameters (QCLot: 718611)										
HK0811825-002	Anonymous	EK055K: Ammonia as N	7664-41-7	5.0 mg/L	# Not Determined	----	75	125	----	----
EG: Metals and Major Cations (QCLot: 718500)										
HK0811705-001	Anonymous	EG020: Zinc	7440-66-6	10000 µg/L	89.0	----	75	125	----	----

APPENDIX I

METEOROLOGICAL DATA IN THE REPORTING PERIOD

Meteorological Data Extracted from HKO in the Reporting Period

Date		Weather		Lau Fau Shan Weather Station			
			Total Rainfall (mm)	Mean Air Temperature (°C)	Wind Speed (km/h)	Mean Relative Humidity (%)	Wind Direction
26-Jun-08	Thu	cloudy/rain/squally thunderstorm/moderate	100.4	25.8	28.5	87.5	S/SW
27-Jun-08	Fri	cloudy/rain/squally thunderstorm/moderate/fresh	60	26	15	90.5	S/SW
28-Jun-08	Sat	cloudy/rain/squally thunderstorm/moderate	35.5	24.4	18.7	86.7	S/SE
29-Jun-08	Sun	cloudy/rain/squally thunderstorm/moderate	44.5	26.3	24	87.5	S
30-Jun-08	Mon	cloudy/rain/squally thunderstorm/moderate	48.5	26.3	12	89.5	E/SE
1-Jul-08	Tue			Holiday			
2-Jul-08	Wed	fine/hot/moderate	Trace	29.4	12	74	S/SE
3-Jul-08	Thu	fine/hot/moderate	0	29	18	77	S/SE
4-Jul-08	Fri	sunny/hot/fine/moderate	0	28.9	15	74.2	S/SE
5-Jul-08	Sat	fine/hot/showers/moderate	11.6	28.9	14.2	77	E/SE
6-Jul-08	Sun	cloudy/rain/squally thunderstorm/moderate/fresh	54.4	27.6	13.5	92.5	E
7-Jul-08	Mon	cloudy/rain/squally thunderstorm/moderate/fresh	39.4	25.3	11	95.5	E/NE
8-Jul-08	Tue	cloudy/rain/squally thunderstorm/moderate/fresh	51.3	27.3	12	88.5	SW
9-Jul-08	Wed	cloudy/rain/squally thunderstorm/moderate	43.3	26	18.5	87.5	SE
10-Jul-08	Thu	cloudy/rain/squally thunderstorm/moderate	59.9	26	13	90.5	SE
11-Jul-08	Fri	cloudy/a few showers/moderate	12.8	26.5	11.5	88.5	S/SE
12-Jul-08	Sat	cloudy/rain/squally thunderstorm/light winds	114.3	25.6	10	86.5	S/SE
13-Jul-08	Sun	sunny intervals/showers/light winds	11.7	26.3	17.5	91	SE
14-Jul-08	Mon	sunny periods/isolated shower/light wind	30.7	27.9	9	86	E/SE
15-Jul-08	Tue	sunny periods, a few showers/thunderstorm/light winds	33.8	28.4	18.5	84	E/NE
16-Jul-08	Wed	sunny periods/a few showers/light winds	Trace	28.5	13	79.5	E/SE
17-Jul-08	Thu	fine/not/isolated showers/moderate	0	28.8	11	83.5	S/SW
18-Jul-08	Fri	hot/sunny periods/cloudy/isolated showers/moderate	Trace	29.4	14.5	79	W/SW
19-Jul-08	Sat	hot/sunny intervals/moderate/fresh	3.9	30	22	77.5	SW
20-Jul-08	Sun	fine/hot/isolated showers/moderate	0	29.9	16	73	S/SE
21-Jul-08	Mon	fine/hot/isolated showers/moderate	Trace	29.3	14.5	82.5	W/SW
22-Jul-08	Tue	fine/very hot/moderate	Trace	29.8	16	70.5	S/SW
23-Jul-08	Wed	fine/hot/moderate	0	29.5	19	72	S/SE
24-Jul-08	Thu	fine/very hot/moderate	0	29.4	13.5	75.5	S
25-Jul-08	Fri	fine/very hot/moderate	0	30.9	13.5	71.5	W/SW

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:	Mr. A.F.Ng
Inspection		**IEC/IEC's representative:**	-
Date:	27 June 2008	**ETL/ ET's representative:**	F.N.Wong
Time:	11:00	**Contractor's representative:**	M.K.Ng/Man
		Checklist No.	KT15-270608

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

Weather: ☐ Sunny ☐ Fine ☐ Cloudy ☑ Rainy

Temperature: 26 ^{0}C

Humidity: ☑ High ☐ Moderate ☐ Low

Wind: ☐ Strong ☐ Breeze ☐ Light ☑ Calm

PART B: SITE AUDIT

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

		Not Obs.	Yes	No	Follow up	N/A	Photo/ Remarks
1.22	Are the oil interceptors/grease traps maintained properly?	☐	☐	☐	☐	☑	
1.23	Is used bentonite recycled where appropriate?	☑	☐	☐	☐	☐	
1.24	Designated settlement area for runoff/wheel wash waste is provide and located at the streambed with 1-2m deep, 12m long and around 50m3 capacities for sedimentation.	☑	☐	☐	☐	☐	
1.25	No excavation is undertaken in the settlement area.	☑	☐	☐	☐	☐	
1.26	Concreting wastes water should be neutralized below the pH Action Levels before discharge.	☐	☐	☐	☐	☑	
1.27	Mobile toilets should provide on site and located away the KT15 stream course.	☐	☑	☐	☐	☐	
1.25	License collector should be employed for handling the sewage of mobile toilet.	☐	☑	☐	☐	☐	
1.26	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 remove 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?	☐	☐	☐	☐	☑	

		Not Obs.	Yes	No	Follow up	N/A	Photo/ Remarks
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?	☐	☐	☐	☐	☑	
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?	☐	☑	☐	☐	☐	Remark 1
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.	☐	☑	☐	☐	☐	

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

Last Site Inspection (20 June 2008):
Stagnated water was observed during site inspection. Mosquito control measures are reminded.

Finding of Site Inspection on 27 June 2008:
No construction activities were observed during the site inspection. No adverse environmental impacts were observed during site inspection.
However, stagnant water was found within the site due to persisting heavy rain. Mosquito control measures are reminded.

RE's representative	***IEC's representative***	***ET's representative***	***Contractor's representative***
			
( )	( )	(F. N. Wong))	( )

Environmental Site Inspection Checklist for KT15

AUES

Project:	**Contract No.: DC/2006/02 Yuen Long, Kam Tin, Ngau Tam Mei and Tin Shui Wai Drainage Improvements, Stage 1, Phase 2B – Cheung Chun San Tsuen and Kam Tsin Wai**	**Inspected by**	
		RE/RE's representative:	Mr. A.F.Ng
Inspection		**IEC/IEC's representative:**	-
Date:	03 July 2008	**ETL/ ET's representative:**	Ben Tam
Time:	11:00	**Contractor's representative:**	M.K.Ng/Man
		Checklist No.	KT15-030708

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

Weather: ☑ Sunny ☐ Fine ☐ Cloudy ☐ Rainy

Temperature: 26 ^{0}C

Humidity: ☐ High ☑ Moderate ☐ Low

Wind: ☐ Strong ☐ Breeze ☐ Light ☑ Calm

PART B: SITE AUDIT

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

		Not Obs.	Yes	No	Follow up	N/A	Photo/ Remarks
1.22	Are the oil interceptors/grease traps maintained properly?	☐	☐	☐	☐	☑	
1.23	Is used bentonite recycled where appropriate?	☑	☐	☐	☐	☐	
1.24	Designated settlement area for runoff/wheel wash waste is provide and located at the streambed with 1-2m deep, 12m long and around 50m3 capacities for sedimentation.	☑	☐	☐	☐	☐	
1.25	No excavation is undertaken in the settlement area.	☑	☐	☐	☐	☐	
1.26	Concreting wastes water should be neutralized below the pH Action Levels before discharge.	☐	☐	☐	☐	☑	
1.27	Mobile toilets should provide on site and located away the KT15 stream course.	☐	☑	☐	☐	☐	
1.25	License collector should be employed for handling the sewage of mobile toilet.	☐	☑	☐	☐	☐	
1.26	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 remove 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?	☐	☐	☐	☐	☑	

		Not Obs.	Yes	No	Follow up	N/A	Photo/ Remarks
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?	☐	☐	☐	☐	☑	
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?	☐	☑	☐	☐	☐	Remark 1
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.	☐	☑	☐	☐	☐	

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

Last Site Inspection (27 June 2008):
Nil

Finding of Site Inspection on 27 June 2008:
Site inspection was covered the site area from CH000-800 and Portion 8 (Site office).

1. Back smoke was emitted from the back hoe was observed during the site inspection, the contractor was reminded to provide maintenance to prevent any back smoke emitted.

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

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. A.F.Ng
Inspection		**IEC/IEC's representative:**	-
Date:	10 July 2008	**ETL/ ET's representative:**	Sylvie Wong
Time:	15:00	**Contractor's representative:**	M.K.Ng/Man
		Checklist No.	KT15-100708

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

Weather:	☐ Sunny	☑ Fine	☐ Cloudy	☐ Rainy
Temperature:	26 ^{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?	☐	☐	☐	☑	☐	Remark 1
1.10	Are earthworks final surfaces well compacted or protected?	☐	☐	☐	☐	☑	
1.11	Are manholes adequately covered or temporarily sealed?	☐	☑	☐	☐	☐	
1.12	Are there any procedures and equipment for rainstorm protection?	☐	☑	☐	☐	☐	
1.13	Are wheel washing facilities well maintained?	☐	☑	☐	☐	☐	
1.14	Is runoff from wheel washing facilities avoided?	☐	☑	☐	☐	☐	
1.15	Are there toilets provided on site?	☐	☑	☐	☐	☐	
1.16	Are toilets properly maintained?	☐	☑	☐	☐	☐	
1.17	Are the vehicle and plant servicing areas paved and located within roofed areas?	☐	☐	☐	☐	☑	
1.18	Is the oil leakage or spillage avoided?	☐	☑	☐	☐	☐	
1.19	Are there any measures to prevent leaked oil from entering the drainage system?	☐	☑	☐	☐	☐	
1.20	Are there any measures to collect spilt cement and concrete washings during concreting works?	☐	☐	☐	☐	☑	
1.21	Are there any oil interceptors/grease traps in the drainage systems for vehicle and plant servicing areas, canteen kitchen, etc?	☐	☐	☐	☐	☑	

		Not Obs.	Yes	No	Follow up	N/A	Photo/ Remarks
1.22	Are the oil interceptors/grease traps maintained properly?	☐	☐	☐	☐	☑	
1.23	Is used bentonite recycled where appropriate?	☑	☐	☐	☐	☐	
1.24	Designated settlement area for runoff/wheel wash waste is provide and located at the streambed with 1-2m deep, 12m long and around 50m3 capacities for sedimentation.	☑	☐	☐	☐	☐	
1.25	No excavation is undertaken in the settlement area.	☑	☐	☐	☐	☐	
1.26	Concreting wastes water should be neutralized below the pH Action Levels before discharge.	☐	☐	☐	☐	☑	
1.27	Mobile toilets should provide on site and located away the KT15 stream course.	☐	☑	☐	☐	☐	
1.25	License collector should be employed for handling the sewage of mobile toilet.	☐	☑	☐	☐	☐	
1.26	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 remove 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?	☐	☐	☐	☐	☑	

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

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

Last Site Inspection (03 July 2008):
Back hoe with black smoke emission was not observed on site.

Finding of Site Inspection on 10 July 2008:
Site inspection was covered the site area from CH000-800 and Portion 8 (Site office).

1. Exposed soil surface was observed at KT15. Contractor was reminded to protect exposed soil surface and prevent soil runoff from entering the stream.

RE's representative	IEC's representative	ET's representative	Contractor's representative
		Sylvie Wong	

Environmental Site Inspection Checklist for KT15

AUES

Project:	**Contract No.: DC/2006/02 Yuen Long, Kam Tin, Ngau Tam Mei and Tin Shui Wai Drainage Improvements, Stage 1, Phase 2B – Cheung Chun San Tsuen and Kam Tsin Wai**	**Inspected by**	
		RE/RE's representative:	Mr. A.F.Ng
Inspection		**IEC/IEC's representative:**	-
Date:	17 July 2008	**ETL/ ET's representative:**	F. N. Wong
Time:	14:00	**Contractor's representative:**	M.K.Ng/Man
		Checklist No.	KT15-170708

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

Weather:	☐ Sunny	☑ Fine	☐ Cloudy	☐ Rainy
Temperature:	26 ^{0}C			
Humidity:	☐ High	☑ Moderate	☐ Low	
Wind:	☐ Strong	☐ Breeze	☐ Light	☑ Calm

PART B: SITE AUDIT

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

		Not Obs.	Yes	No	Follow up	N/A	Photo/ Remarks
1.22	Are the oil interceptors/grease traps maintained properly?	☐	☐	☐	☐	☑	
1.23	Is used bentonite recycled where appropriate?	☐	☐	☐	☐	☑	
1.24	Designated settlement area for runoff/wheel wash waste is provide and located at the streambed with 1-2m deep, 12m long and around 50m3 capacities for sedimentation.	☐	☐	☐	☐	☑	
1.25	No excavation is undertaken in the settlement area.	☐	☐	☐	☐	☑	
1.26	Concreting wastes water should be neutralized below the pH Action Levels before discharge.	☐	☐	☐	☐	☑	
1.27	Mobile toilets should provide on site and located away the KT15 stream course.	☐	☑	☐	☐	☐	
1.25	License collector should be employed for handling the sewage of mobile toilet.	☐	☑	☐	☐	☐	
1.26	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?	☐	☐	☐	☐	☑	

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

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

Last Site Inspection (10 July 2008):

1. Covering of the exposed surface was observed at KT15 to prevent soil ingression from the site to the stream. Case closed.

Finding of Site Inspection on 17 July 2008:

RE's representative	*IEC's representative*	*ET's representative*	*Contractor's representative*
			
( )	( )	(F. N. Wong)	(M.K.Ng/Man)

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. A.F.Ng
Inspection		**IEC/IEC's representative:**	-
Date:	25 July 2008	**ETL/ ET's representative:**	F. N. Wong
Time:	09:30	**Contractor's representative:**	M.K.Ng/Man
		Checklist No.	KT15-250708

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

Weather:	☑ Sunny	☐ Fine	☐ Cloudy	☐ Rainy
Temperature:	29 ^{0}C			
Humidity:	☐ High	☑ Moderate	☐ Low	
Wind:	☐ Strong	☐ Breeze	☐ Light	☑ Calm

PART B: SITE AUDIT

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

		Not Obs.	Yes	No	Follow up	N/A	Photo/ Remarks
1.22	Are the oil interceptors/grease traps maintained properly?	☐	☐	☐	☐	☑	
1.23	Is used bentonite recycled where appropriate?	☐	☐	☐	☐	☑	
1.24	Designated settlement area for runoff/wheel wash waste is provide and located at the streambed with 1-2m deep, 12m long and around 50m3 capacities for sedimentation.	☐	☐	☐	☐	☑	
1.25	No excavation is undertaken in the settlement area.	☐	☐	☐	☐	☑	
1.26	Concreting wastes water should be neutralized below the pH Action Levels before discharge.	☐	☐	☐	☐	☑	
1.27	Mobile toilets should provide on site and located away the KT15 stream course.	☐	☑	☐	☐	☐	
1.25	License collector should be employed for handling the sewage of mobile toilet.	☐	☑	☐	☐	☐	
1.26	Prevent any stagnant water accumulated within the excavation trench or site working area.	☐	☐	☑	☐	☐	Remarks 1
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?	☐	☑	☐	☐	☐	
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		Not Obs.	Yes	No	Follow up	N/A	Photo/ Remarks
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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?	☐	☐	☑	☐	☐	Remarks 2
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.	☐	☑	☐	☐	☐	

		Not Obs.	Yes	No	Follow up	N/A	Photo/ Remarks
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?	☐	☑	☐	☐	☐	
5.02	Are retained and transplanted trees properly protected?	☐	☑	☐	☐	☐	
5.03	Are surgery works carried out for the damaged trees?	☐	☐	☐	☐	☑	
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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

Last Site Inspection (17 July 2008):

Nil

Finding of Site Inspection on 25 July 2008:

Site inspection was covered the site area from CH000-800 and Portion 8 (Site office).

1. Stagnant waster was cumulated on site, the contractor was reminded to clean to prevent mosquito breeding

2. General and C&D waste was cumulated on site, the contractor was reminded to clean more frequency.

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

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 Report for July 2008 (R0849 Revision 1) submitted on 01 August 08 (11:52)
Response to IEC's comments [Received from e-mail on 11 August 2008 09:19]

No.	Section / Paragraph	Comments	Ref.	Response to Comments
1	Table 5-4 / Appendix G	The dates of the water quality monitoring in Table 5-4 are not consistent with the schedule in Appendix G. Please check and revise accordingly.	-	Noted
2	7.02 2nd bullet / Appendix J	Please amend "Back smoke" to "Black smoke".	-	Noted
3	7.02, 11.07 4th bullet / Appendix J	The observation does not appear anywhere in the site inspection checklists/summaries. Please check when this observation was made.		Noted
4	Appendix F	Please attach the updated calibration certificates for reviewing.		Noted.