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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 APRIL 2009 (No. 22)

PREPARED FOR

CHIT CHEUNG CONSTRUCTION COMPANY LIMITED

Quality Index Date 21 May 2009	Reference No. TCS00371/07/600/R1286v3	Prepared By Ben Tam	Certified By Andrew Lau
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Ver. No.	Date	Remarks
1	12 May 2009	First Submission
2	18 May 2009	Amended against IEC's comment that received on 15 May 2009
3	21 May 2009	Amended against IEC's comment that received on 19 May 2009

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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 **April 2009** (No. 22) is present the environmental impact monitoring and audit (EM&A) results of the project EM&A program for the reporting month **April 2009** during the period from 26 March 2009 to 25 April 2009.

BREACH OF ACTION AND LIMIT (A/L) LEVELS

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

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

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

COMPLAINTS LOG

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

NOTIFICATIONS OF ANY SUMMONS AND SUCCESSFUL PROSECUTIONS

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



REPORTING CHANGES

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

FUTURE KEY ISSUES

ES09. Construction activities to be undertaken in May 2009 included construction and excavation works, stream diversion, tree protection and tree transplanting works, carrying out joined survey, utilities companies liaison, dumping activities and gabion installation. Potential environmental impacts for this project generally include air quality, noise, ecology, surface runoff and construction waste. The contractor shall properly implement the required environmental mitigation measures as per the Implementation Schedule in the EM&A manual to ensure no significant adverse environmental impact arises from the construction works. The contractor was reminded to maintain good house-keeping throughout the construction phase.

EM&A ACTIVITIES IN THE REPORTING PERIOD

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

12 Events

4 Events

4 Events

1 Event

4 Times

- 1-hour TSP Monitoring
- 24-hour TSP Monitoring • • Noise Monitoring 18 Events
- Stream Water Quality
- Ecology (Fauna) •
- Site Inspection Audit
- **AIR QUALITY**
- ES11. No 1-hour and 24-hour TSP monitoring results trigger the Action or Limit Level was recorded in this reporting period.

CONSTRUCTION NOISE

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

STREAM WATER QUALITY

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

ECOLOGY (FAUNA)

ES14. Non-compliance with the ecological criteria was found during the monitoring month on 24 April 2009. No intrusions of construction activities into the wetland areas nor adverse impact was observed. Based on the findings in the pervious monthly monitoring, the non-compliance in wetland dependent bird 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	1-hour TSP	0	Not Required for 0% Project Related Exceedance
Quality	24-hour TSP	0	Not Required for 0% Project Related Exceedance
Noise	Leq (30min) Daytime	0	Not Required for 0% Project Related Exceedance
	Dissolve Oxygen (DO)	0	Not Required for 0% Project Related Exceedance
	Turbidity (NTU)	0	Not Required for 0% Project Related Exceedance
Stream	pH	0	Not Required for 0% Project Related Exceedance
Water	Suspended Solids (SS)	0	Not Required for 0% Project Related Exceedance
	Ammonia Nitrogen	0	Not Required for 0% Project Related Exceedance
	Zinc	0	Not Required for 0% Project Related Exceedance
Ecology	Decrease in the total number of species or individuals of wetland dependent bird from baseline	0	Not Required for 0% Exceedance
	Decrease in the total number of species or individuals of wetland faunal from baseline	0	Not Required for 0% Exceedance

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

SITE INSPECTION BY EXTERNAL PARTIES

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



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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 **April 2009** during the period from **26 March 2009 to 25 April 2009**.

REPORT STRUCTURE

- 1.05 The EM&A report is structured into the following sections:
 - Section 1 INTRODUCTION
 - Section 2 PROJECT ORGANIZATION AND CONSTRUCTION PROGRESS
 - Section 3 SUMMARY OF MONITORING REQUIREMENTS
 - Section 4 IMPACT MONITORING METHODOLOGY
 - Section 5 IMPACT MONITORING RESULTS
 - Section 6 WASTE MANAGEMENT
 - **Section 7 SITE INSPECTION**
 - Section 8 Environmental Complaint and Non-Compliance
 - Section 9 IMPLEMENTATION STATUS OF MITIGATION MEASURES
 - Section 10 IMPACT FORECAST
 - Section 11 CONCLUSIONS



2.0 PROJECT ORGANIZATION AND CONSTRUCTION PROGRESS

PROJECT ORGANIZATION AND MANAGEMENT STRUCTURE

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

CONSTRUCTION PROGRESS

- 2.02 The major construction activities undertaken in this reporting period are list below:-
 - Construction and excavation works;
 - Dumping activities;
 - Sheet pile driving;
 - Tree protection and tree transplanting works;
 - Utilities companies liaison;
 - Carrying out joined survey; and
 - Gabion Installation.

SUMMARY OF ENVIRONMENTAL SUBMISSIONS

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

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	(Portion 8, Ma Fung Ling Road, long Yan San Isuen, 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
	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
	Billing Account for Disposal of Construction Waste (Account Number : 7005311)	Valid on 07 May 2007

 Table 2-1
 Status of Environmental Licenses and Permits



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.

Environmental Aspect	Monitoring Parameters		Monitoring Stations
Air Quality	1-hour and 24-hour TS	Р	A10
Construction Noise	Leq _(30min) during norma	l 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 (°C);	
	Laboratory Analysis	• Suspended Solids (mg/L);	
		Ammonia Nitrogen (mg/L); and	
		• Zinc (μg/L).	
Ecology			

 Table 3-1
 Summary of EM&A Requirements

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

- 3.03 Air monitoring is carried out once every six days for 24-hour TSP and 3 times every six days for 1-hour TSP at one designated monitoring station A10.
- 3.04 Noise monitoring is conducted once per week at one designated monitoring location (N10a). Measurements of $Leq_{(30min)}$ shall be taken between 0700 and 1900 with supplementary L_{10} and L_{90} data will be collected for reference.
- 3.05 Stream water quality monitoring is conducted were undertaken at two locations (W9A and W9B) twice per week. Dissolved Oxygen (DO), pH and Turbidity (NTU) were measured in-situ, water depth, temperature and salinity will be collected for relevant data. Suspended Solids (SS), Ammonia Nitrogen and Zinc were determined in a HOKLAS accredited laboratory respectively.

Table 3.2



- Ecological monitoring is conducted in the seasonal wetland area as shown in Project 3.06 profile of KT15 Figure ATT 4-7.2). Bird survey should be conducted in monthly through the year and other faunal groups (reptiles, amphibians, dragonflies and butterflies) are conducted monthly in wet season (April to July inclusive) only. Photographic record should be made at six month intervals.
- 3.07 A summary of the Action/Limit (A/L) Levels for air quality, construction noise, stream water quality and ecology monitoring are shown in Tables 3-2, 3-3, 3-4 & 3-5.

Tuble 5-2	Action and Limit Levels for Am	Quanty Monitoring
Monitoring Station	Action Level (µg/m ³)	Limit Level (µg/m ³)

Action and Limit Levels for Air Quality Monitoring

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

Table 3-3	Action and 1	Limit Levels for	· Construction	Noise Monitoring
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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 $70 dB(A)$ for schools and $65 dB(A)$ during the school examination periods				

to 70dB(A) for schools and 65dB(A) during the school examination periods

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

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

Alternative Action Level is 120% of upstream control station of same day.

Alternative Limit Level is 130% of upstream control station of same day.

Table 3-5	Action and Limit Levels for Ecology Monitoring
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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	

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



4.0 IMPACT MONITORING METHDOLOGY

MONITORING LOCATIONS

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

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

Village House in Tin Sam San Tsuen
cation
Village House in Tin Sam San Tsuen
Village House in Tin Sam San Tsuen
18
Tin Sam San Tsuen
Tin Sam San Tsuen

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

Act as control station in impact monitoring

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

MONITORING FREQUENCY AND PERIOD

<u>1-HOUR TSP MONITORING</u>

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 12 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 4 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 4 monitoring events were carried out in this reporting period.

STREAM WATER QUALITY MONITORING

4.06 The stream water quality monitoring was undertaken at two locations W9A & W9B twice per week. Total of **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 Monitoring equipment used by the ET in EM&A program is presented in Table 4-2.

Parameters	Equipment	Monitoring Equipment
1-hour TSP	Portable dust meter	Sibata LD-3 Laser Dust Meter
24-hour TSP	High Volume Sampler	Grasby Anderson GMWS 2310 HVS / Tisch High Volume Sampler 515N
	Calibration Kit	TISCH Model TE-5028A
Leq30min	Integrating Sound Level Meter (Type1)	B&K Type 2238
	Calibrator	B&K Type 4231
	Portable Wind Speed Indicator	Testo Anemometer
Water Depth	Water Depth Detector	Eagle Sonar
Temperature	Thermometer & DO Meter	YSI 550A or YSI 85/10FT
DO	Thermometer & DO Meter	YSI 550A or YSI 85/10FT
pН	pH Meter	Hanna HI 98128 or 98107 or Extech Instruments, ExStik TM Model pH110
Turbidity	Turbidimeter	Hach 2100P
Salinity	Salinometer	ATAGO refractometer
-	Water Sampler	Teflon bailer / bucket
-	Sample Container	High density polythene bottles (provided by laboratory)
-	Storage Container	'Willow' 33-litter plastic cool box

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

<u>24-HOUR TSP MONITORING</u>

- 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 m³/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 in²;
 - Flow control accuracy of $\pm 2.5\%$ 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.

<u>1-HOUR TSP MONITORING</u>

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

WIND DATA MONITORING

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

NOISE MONITORING

- 4.13 Noise measurements were taken in terms of the A-weighted equivalent sound pressure level (L_{eq}) measured in decibels (dB). Supplementary statistical results such as L_{10} and L_{90} were also obtained for reference.
- 4.14 Hand-held sound level meters and associated acoustical calibrators in compliance with the International Electrotechnical Commission (IEC) Publication 651:1979 (Type 1) and 804:1985 (Type 1) specifications were used for taking the impact noise measurements.
- 4.15 Windshield was fitted in all measurements. All noise measurements were made with the meter set to FAST response and on the A-weighted equivalent continuous sound pressure level (L_{eq}).
- 4.16 No noise measurement was carried out in the presence of fog, rain, wind with a steady speed exceeding 5 m/s or wind with gusts exceeding 10m/s.

STREAM WATER QUALITY MONITORING

<u>Water Depth</u>

- 4.17 Water quality monitoring will be conducted at the middle of the water columns (Mid-Depth) if the depths of the water columns at the sampling locations are less than 3 meters during monitoring. Or else, monitoring will be performed at two depths, at 1 meter from surface and bottom respectively when the water depth is less than 6m.
- 4.18 Water depths will be determined prior to measurement and sampling at W9A and W9B, using a portable battery operated depth detector, brand named 'Eagle Sonar', if the depths exceed 3 meter. For the depths well below 1 meter, an appropriate steel ruler or rope with appropriate weight will be used for the depth estimation.



Water Temperature

4.19 Although the DO Meter automatically compensates ambient water temperature to a standard temperature of 20°C for ease of comparison of the data under the changing reality, the temperature readings of the DO Meter will be recorded in the field data sheets.

Dissolved Oxygen (DO)

- 4.20 A portable YSI 85/10FT DO Meter will be used for in-situ DO measurement. The DO meter is capable of measuring DO in the range of 0 20 mg/L and 0 200 % saturation and checked against water saturated ambient air on each monitoring day prior to monitoring.
- 4.21 Although the DO Meter automatically compensates ambient water temperature to a standard temperature of 20°C for ease of comparison of the data under the changing reality, the temperature readings of the DO Meter will be recorded in the field data sheets.

<u>pH</u>

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

Turbidity (NTU)

4.23 A portable Hach 2100p turbidity meter will be used for in-situ turbidity measurement. The turbidity meter is capable of measuring turbidity in the range of 0 - 1000 NTU.

<u>Salinity</u>

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

<u>Water Sampler</u>

4.25 Water samples will be collected by the ET using a water sampler and 'PE' (Poly-Ethylene) sampling bottles provided by the laboratory. The water sampler will be rinsed before collection with the sample to be taken. Kahlsico Water Sampler will be used for sampling. One liter or 1000mL water sample will be collected from each depth for SS determination. The samples collected are stored in a cool box maintained at 4°C and delivered to ALS upon completion of the sampling by end of each sampling day. Sampling in the stream with shallow water condition, plastic bucket will be used for sample collection.

Sample Container

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



<u>Sample Storage</u>

- 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°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

<u>Study Area</u>

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

Survey Method

- 4.30 Monthly monitoring was conducted by means of walk through survey, along the boundary and within the wetland areas in KT15. Any adverse impacts to the habitat, intrusions of construction activities into the wetland areas, and adverse changes in the wetlands were checked and reported if any.
- 4.31 Photographic records on the fixed photo record points selected during the baseline survey are made every six months. The photos from the construction phase ecological monitoring will be compared with those taken during the baseline which is used as the baseline conditions.
- 4.32 Bird monitoring was conducted in the study areas monthly for KT15. Survey areas in KT15 was the seasonal wetland area covered same as the Project Profile of KT15 Figures ATT 4-7.2.
- 4.33 Fauna monitoring is conducted only during the wet season (April to July inclusive for KT15) in the same survey areas for bird monitoring. For KT15, the survey frequency is monthly, and the surveys cover reptiles, amphibians, dragonflies and butterflies.

<u>Equipment</u>

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

EQUIPMENT CALIBRATION

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



- 4.36 The 1-hour TSP meter was calibrated by the supplier prior to purchase. Zero response of the equipment is checked before and after each monitoring event. A comparison test was carried out with a HVS. A conversion factor (K) of 4.0 was generated in accordance with the equipment manufacturer's instruction. The meter counts in minutes multiplied by the conversion factor will generate the equivalent dust concentration by HVS.
- 4.37 The sound level meters are calibrated using an acoustical calibrator prior to and after measurements. The meters are regularly calibrated in accordance with the manufacturer's instructions. Prior to and following each noise measurement, the accuracy of the sound level meter was checked using an acoustical calibrator generating a known sound pressure level at a known frequency. Measurements are considered valid only if the calibration levels before and after the noise measurement agree to within 1.0 dB.
- 4.38 All in-situ stream water quality monitoring instruments are calibrated and certified by a laboratory accredited under HOKLAS or any other international accreditation scheme at 3 monthly intervals throughout all monitoring stages.
- 4.39 The calibration certificates of the monitoring equipment used during the impact monitoring program are attached in **Appendix F**.

ANALYTICAL LABORATORY

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

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

Table 4-3Analytical Method applied to Water Quality Samples

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

DATA MANAGEMENT AND DATA QA/QC CONTROL

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



- 4.43 The monitoring data recorded in the equipment e.g. 1-hour TSP meters and noise meters are downloaded directly from the equipment at the end of each monitoring day. The downloaded monitoring data are input into a computerized database properly maintained by the ET. The laboratory results are input directly into the computerized database and QA/QC checked by personnel other than those who input the data.
- 4.44 For monitoring activities require laboratory analysis, the local laboratory follows the QA/QC requirements as set out under the HOKLAS scheme for all laboratory testing.



5.0 IMPACT MONITORING RESULTS

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

AIR QUALITY

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

Monitoring Date	Start Time	1 st Result (µg/m ³)	2 nd Result (µg/m ³)	3 rd Result (µg/m ³)	Action Level (µg/m ³)	Limit Level (µg/m ³)
31-Mar-09	09:26	101	105	107	> 307	> 500
07-Apr-09	09:24	67	72	69	> 307	> 500
16-Apr-09	09:28	56	61	58	> 307	> 500
22-Apr-09	09:20	82	92	85	> 307	> 500

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

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
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Monitoring Date	Monitoring Results (µg/m ³)	Action Level (µg/m ³)	Limit Level (µg/m ³)
30-Mar-09	25	> 165	> 260
6-Apr-09	30	> 165	> 260
15-Apr-09	71	> 165	> 260
21-Apr-09	37	> 165	> 260

Note: Bold and italic is exceed the Action Level.

Bold and underline is exceed the Limit Level

- 5.03 No 1-hour and 24-hour TSP monitoring results trigger the Action or Limit Level was recorded in this reporting period.
- 5.04 The meteorological data during the monitoring period are summarized in Appendix I.

CONSTRUCTION NOISE

5.05 The impact construction noise monitoring results are summarized in Table 5-3. Graphical plots of the past four month monitoring results are shown in Appendix H.

Table 5-5 Summary of Noise Monitoring Results at 110a								
Date	Start Time	1st Leq5						
31-Mar-09	09:50	49.9	50.2	47.8	48.8	49.0	49.7	49.3
07-Apr-09	09:48	46.8	44.5	44.6	48.6	47.0	48.1	46.9
16-Apr-09	09:53	50.9	51.5	52.3	50.3	49.6	51.0	51.0
22-Apr-09	09:45	52.0	51.6	50.4	51.8	50.5	52.4	51.5
Limit Le	evel		-					

 Table 5-3
 Summary of Noise Monitoring Results at N10a

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

STREAM WATER QUALITY

- 5.07 No stream water quality monitoring result trigger the Action or Limit Level was recorded in this reporting period. The impact monitoring schedules are shown in **Appendix G**.
- 5.08 The stream water quality monitoring results are summarized in Table 5-4 and graphical plots are presented in Appendix H.

Monitoring	DO in	n mg/L	Turbidi	ty (NTU)	р	H	SS in	mg/L	Ammon	ia (mg/L)	Zinc	(µg/L)
Date	W9A [#]	W9B	W9A [#]	W9B	W9A [#]	W9B	W9A [#]	W9B	W9A [#]	W9B	W9A [#]	W9B
26-Mar-09	3.9	4.3	12.5	9.5	6.9	6.8	25.0	6	44.8	1.60	67.0	18
30-Mar-09	3.8	4.4	46.9	32.5	7.0	6.8	48.0	23	103.0	17.40	168.0	51
1-Apr-09	3.5	4.2	49.2	35.4	7.1	6.9	17.0	65	78.3	0.62	50.0	35
6-Apr-09	4.4	4.1	64.3	54.1	7.2	6.8	68.0	63	6.6	20.60	388.0	166
8-Apr-09	3.9	3.9	20.3	64.1	7.1	6.8	22.0	51	35.9	9.66	70.0	54
14-Apr-09	3.8	4.2	95.1	56.0	7.0	6.9	94.0	43	30.6	12.00	140.0	55
16-Apr-09	4.0	4.3	66.7	68.2	6.9	6.7	51.0	43	65.9	20.20	217.0	96
20-Apr-09	3.6	4.4	24.2	23.4	6.9	6.8	16.0	24	15.6	9.93	53.0	43
22-Apr-09	3.9	4.3	48.0	14.8	6.8	6.8	15.0	10	34.8	6.94	41.0	15
Action Level	-	< 0.3*	-	>73.5*	-	> 7.0*	-	> 148*	-	> 30.91*	-	> 242*
Limit Level	-	< 0.2**	-	> 78.2**	-	> 7.1**	-	> 159**	-	> 32.20**	-	> 252**

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

Notes: # Act as Control Station for the Impact Water Quality Monitoring. Bold and italic is exceed the Action Level.

Bold and underline is exceed the Limit Level

* Alternative Action Level is 120% of upstream control station of same day.

** Alternative Limit Level is 130% of upstream control station of same day.



ECOLOGY

- 5.09 47 individuals of birds from 17 species were recorded during the survey for the present monthly monitoring on 24 April 2009. 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, though the individual number of wetland dependent bird recorded complied with the Action/Limit level, 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 19 individuals of fauna from 10 species were recorded during the survey for the present monthly monitoring on 24 April 2009. 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, both the species number and the individual number of fauna recorded fell within the Limit Level for the monitoring requirements for ecology (i.e. decrease in the number of species and 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, the last photographic records were taken in December 2009, and thus are NOT required in the present monthly monitoring.

5.13 Ecology Im	pact Monitoring	Results are	presented in the	Table 5-5 and Table 5-6	j.
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Scientific Name Common Name		Abundance reported in the project profile	Abundance recorded in the present survey (24 Apr 09)
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	5
Hirundo rustica	Barn Swallow	Recorded only	6
Motacilla alba	White Wagtail	Recorded only	2
Pycnonotus jocosus	Red-whiskered Bulbul	Recorded only	5
Pycnonotus sinesis	Chinese Bulbul	Recorded only	2
Lanius schach	Long-tailed Shrike	Recorded only	1
Copsychus saularis	Oriental Magpie Robin	Recorded only	3
Orthotomus sutorius	Common Tailorbird	Recorded only	1
Lonchura striata	White-rumped Munia	Recorded only	4
Passer montanus	Eurasian Tree Sparrow	Recorded only	7
Sturnus nigricollis	Black-collared Starling	Recorded only	1
Acridotheres cristatellus	Crested Myna	Recorded only	2
Prinia flaviventris	Yellow-bellied Prinia	\	1
Eudynamis scolopacea	Common Koel	\	2
Halcyon smyrnensis	White-throated Kingfisher	l l	
Garrulax perspicillatus	Masked Laughingthrush	l l	3
Zosterops japonica	Japanese White Eye	l l	
Lonchura punctulata	Scaly-breasted Munia		

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



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Scientific Name	Common Name	Abundance reported in the project profile	Abundance recorded in the present survey (24 Apr 09)
Egretta garzetta	Little Egret	\	
Anthus hodgsoni	Olive-backed Pipit	١	
Phylloscopus subaffinis	Dusky Warbler	١	
Phylloscopus inornatus	Yellow-Browed Warbler	\	
Parus major	Great Tit	\	1
Prinia inornata	Plain Prinia	\	
Sturnus sericeus	Red-billied Starling	\	
Centropus bengalensis	Lesser Coucal	\	
Centropus sinensis	Greater Coucal	\	
Tringa glareola	Wood Sandpiper	\	
Motacilla citreola	Grey Wagtail	\	
Species Number		15 spp. recorded, (only 2 species of wetland birds with abundance)	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)	47 (1 from the wetland birds with abundance in the baseline)

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 Apr 09)
Mammals	•		
		\	\
Herpetofauna	·		·
Bufo melanostictus	Asian Common Toad	2	
Rana guentheri	Gunther's Frog	2.33	
Polyedates megacephalus	· · · · · · · · · · · · · · · · · · ·		
Calotes versicolor Changeable Lizard		0.33	
Odonata	· · · · · · · · · · · · · · · · · · ·		•
Ischnura senegalensis	Common Bluetail	4.5	2
Ceriagrion auranticum	agrion auranticum Orange-tailed Sprite		1
Orthetrum pruinosum Common Red Skimmer		1.5	1
Trithemis aurora Crimson Dropwing		0.5	
Tramea virginia Saddlebag Glider		1	
Pantala flavescens	Wandering Glider	8.5	3
Orthetrum sabina	Green Skimmer	\	
Butterfly	·		•
Graphium sarpedon	Common Bluebottle	0.5	
Papilio polytes	Common Mormon	1.5	1
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	1
Eurema hecabe	Common Grass Yellow	1	
Zizeeria maha Pale Grass Blue		2.5	2
Astictopterus jama Forest Hopper		0.5	
Erionota torus Banana Skipper		3	
Hypolimnas bolina Great Egg-fly			
Pieris canidia Indian Cabbage White		\	3
Hebomoia glaucippe Great Orange Tip		\	
Danaus genutia Common Tiger			
Papilio memnon			
Elymnias hypermnestra	Common Palmfly		
Papilio helenus	Red Helen		
Total species number		21 species with abundance	10 spp.
Total individual number		44.99	19

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6.0 WASTE MANAGEMENT

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

RECORDS OF WASTE QUANTITIES

- 6.02 All types of waste arising from the construction work are classified into the following:
 - Construction & Demolition (C&D) Material;
 - Chemical Waste;
 - General Refuse; and
 - Excavated Soil.
- 6.03 The quantities of waste for disposal in this reporting period are summarized in **Tables** 6-1 and 6-2. Whenever possible, materials were reused on-site as far as practicable.

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

Type of Waste	Quantity	Disposal Location
Broken Concrete (Inert) (m ³)	0	Public Filling
Reused in this Contract (Inert) (m ³)	0	N/A
Reused in other Projects (Inert) (m ³)	0	N/A
Disposal as Public Fill (Inert) (m ³)	0	Tuen Mun Area 38

Type of Waste	Quantity	Disposal Location
Recycled Metal (kg)	0	NA
Recycled Paper / Cardboard Packing (kg)	0	NA
Recycled Plastic (kg)	0	NENT Landfill
Chemical Wastes (kg)	0	License Collector
General Refuses (m ³)	0.007	NENT Landfill

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

Table 0-5 Summary of Excavated Son for Marine Disposa	Table 6-3	Summary of Excavated Soil for Marine Disposal
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Type of Waste	Location	Date	Total	Disposal Location
Type 1 Materials (m ³)	-	-	-	East Sha Chau (Pitch 4a & 4b)
Type 2 Materials (m ³)	-	-	-	East Sha Chau (Pitch 4c)



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7.0 SITE INSPECTION

- 7.01 According to the EM&A Manual Section 9.1.2, the environmental weekly site inspection should been formulation by ET Leader. ET had carried out the environmental weekly site inspection on **31 March 2009**, **8**, **16 and 24 April 2009** with the Representatives of the Engineer and the Contractor to evaluate the site environmental performance in this reporting period. The IEC monthly site audit was conducted on **24 April 2009** 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 Findings of the site inspection and environmental audit are summarized below –

Date	Findings / Deficiencies	Follow-Up Status
31 Mar 09	Stagnant water was observed at the head of Channel (Ch.50) after heavy rainstorm, the contractor shall pump the water away and maintain cleanliness of the construction area.	During the site inspection on 8 April 2009, stagnant water at the head of Channel (Ch.50) was cleared
08 Apr 09	C&D waste was scattered at CH 450, the contractor was reminded to clean to prevent any blockage of the channel.	During the site inspection on 16 April 2009, C&D waste at CH 450 was disposed
16 Apr 09	Stagnant water was observed (Ch.20), the contractor shall pump the water out to prevent mosquito breeding especially in wet season.	During the site inspection on 24 April 2009, stagnant water at Ch 20 has been removed.
24 Apr 09	Scattered of C&D material (Ch.250) is observed, the contractor is reminded to maintain the site tidiness.	Will be reported next reporting month
24 Apr 09	Sedimentation tank at Ch. 200 should be clear regularly to prevent accumulation of silt & apply larvicide oil to prevent mosquito breeding.	Will be reported next reporting month

 Table 7-1
 Summary of Findings of Site Inspection and Environmental Audit

- 7.03 The ET weekly site inspection and IEC monthly site audit checklists are shown in **Appendix J**. In general, the construction area of KT15 was kept clean and tidy.
- 7.04 No site visit or inspection carried out by Environmental Protection Department in this reporting period.



8.0 ENVIRONMENTAL COMPLAINT AND NON-COMPLIANCE

ENVIRONMENTAL COMPLAINT, SUMMONS AND PROSECUTION

8.01 No environmental complaint, summons and prosecution was received in this reporting period. Statistical summaries environmental complaint, summon and prosecution are presented in Tables 8-1, 8-2 and 8-3.

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

Table 8-1 Statistical Summary of Environmental Complaints

Table 8-2 Statistical Summary of Environmental Summons

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

Table 8-3 Statistical Summary of Environmental Prosecution

Reporting Period	Environmental Prosecution Statistics							
Reporting r er lou	Frequency	Cumulative	Nature					
July – December 2007	0	0	NA					
January – December 2008	0	0	NA					
January – March 2009	0	0	NA					
April 2009	0	0	NA					



9.0 IMPLEMENTATION STATUS OF MITIGATION MEASURES

- 9.01 CCC has been implementing the required environmental mitigation measures according to the EM&A Manual of KT15 Mitigation Measures Implementation Schedule.
- 9.02 A summary of environmental mitigation measures generally implemented by CCC in this reporting period is presented as follows;

Water Quality

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

Air Quality

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

Noise

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

Waste and Chemical Management

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

General

• The site was generally kept tidy and clean.



10.0 IMPACT FORECAST

KEY ISSUES FOR THE COMING MONTH

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

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

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



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11.0 CONCLUSION

11.01 The EM&A program in **April 2009** was undertaken in compliance with the EM&A Manual for KT15. A summary of environmental compliance of air, noise, stream water quality and ecology in this reporting period are presented in **Table 11-1**.

Monitoring	Parameters	Work-Related Exceedance %	Invoctigation X. Corrective Actions				
Air	1-hour TSP	0	Not Required for 0% Project Related Exceedance				
Quality	24-hour TSP	0	Not Required for 0% Project Related Exceedance				
Noise	Leq (30min) Daytime	0	Not Required for 0% Project Related Exceedance				
	Dissolve Oxygen (DO)	0	Not Required for 0% Project Related Exceedance				
	Turbidity (NTU)	0	Not Required for 0% Project Related Exceedance				
Stream	pН	0	Not Required for 0% Project Related Exceedance				
Water	Suspended Solids (SS)	0	Not Required for 0% Project Related Exceedance				
	Ammonia Nitrogen	0	Not Required for 0% Project Related Exceedance				
	Zinc	0	Not Required for 0% Project Related Exceedance				
Ecology	Decrease in the total number of species or individuals of wetland dependent bird from baseline	0	Not Required for 0% Exceedance				
	Decrease in the total number of species or individuals of wetland faunal from baseline	0	Not Required for 0% Exceedance				

Table 11-1Summary of the Exceedances for Impact Monitoring

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

- 11.02 No 1-hour and 24-hour TSP monitoring results trigger the Action or Limit Level was recorded in this reporting period.
- 11.03 No construction noise complaint (Action Level) was received and no monitoring noise level above the Limit Level was recorded in this reporting period.
- 11.04 No stream water quality monitoring result trigger the Action or Limit Level was recorded in this reporting period.
- 11.05 Non-compliance with the ecological criteria was found during the monitoring month on 24 April 2009. No intrusions of construction activities into the wetland areas nor adverse impact was observed. Based on the findings in the pervious monthly monitoring, the non-compliance in wetland dependent bird or fauna was not caused by the project.
- 11.06 No environmental complaint, summons or prosecution was received in this reporting period.
- 11.07 The ET environmental weekly site inspection and IEC monthly site audit were conducted on **31 March**, **8**, **16 and 24 April 2009**. Although no non-compliance was found, however five observations were recorded. Contractor has been reminded to improve the observed deficiency at the site audit immediately. Details of the observations as follows:-
 - Stagnant water was observed at the head of Channel (Ch. 50) after heavy rainstorm during the site inspection on 31 March 2009;
 - C&D waste was scattered at CH 450 during the site inspection on 8 April 2009,

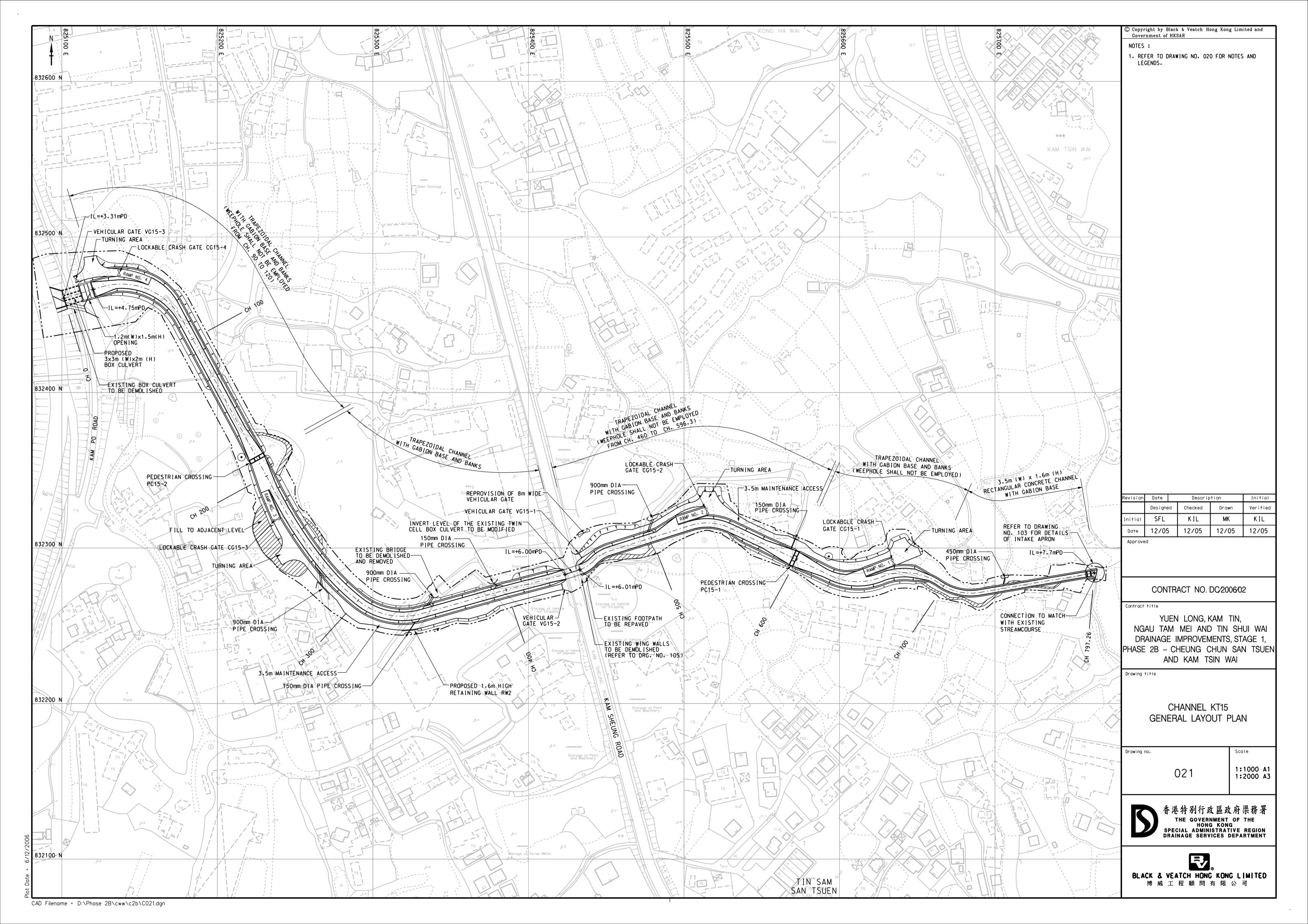


- Stagnant water was observed at Ch. 20 on 16 April 2009 during the site inspection
- Scattered of C&D material was observed at the Ch. 250 on 24 April 2009 during the IEC, ER, the Contractor and ET joint site audit; and
- Sedimentation tank at Ch. 200 should be clear regularly to prevent accumulation of silt & apply larvicide oil to prevent mosquito breeding.
- 11.08 No site visit or inspection carried out by Environmental Protection Department in this reporting period.
- 11.09 The ET will continue to implement the EM&A program and audit the implementation of the environmental mitigation measures.



APPENDIX A

PROJECT SITE LAYOUT





APPENDIX B

THREE-MONTH CONSTRUCTION PROGRAM

					1							
ID	Task Name	Duration	Start	Finish	Predecessors		May		Jun		Jul	
1	Letter of Acceptance	1 day	Wed 21/3/07	Wed 21/3/07			indy		oun	I		
2	Date for commencement of Works	1 day	Fri 30/3/07	Fri 30/3/07								
3	Execution of Article of Agreement	1 day	Tue 3/4/07	Tue 3/4/07								
4												
5	Master Programme of the Works	902 days	Wed 21/3/07	Mon 7/9/09								
6												
7	Completion Dates	893 days	Fri 30/3/07	Mon 7/9/09								
8	Section I - portions 1, 2 and 3	893 days	Fri 30/3/07	Mon 7/9/09								
9	Section II - portions 4, 5 and 5C	893 days	Fri 30/3/07	Mon 7/9/09								
10	Section III - portions 5A1, 5A2 and 5B	740 days	Thu 28/6/07		20FS-1 day					Ŷ	7	
11 12	Section IV - temp vehicular access at portion 5A1	90 days	Thu 28/6/07 Fri 30/3/07	Mon 7/9/09	20FS-1 day							
12	Section V - preservation and protection of existing trees	893 days	Fri 30/3/07	Won 7/9/09	255	_						
14	Possession of Site	200 days	Fri 30/3/07	Mon 15/10/07		_					Ŷ	
15	Portion 1 - channel KT2	1 day	Fri 30/3/07	Fri 30/3/07		_					~~	
16	Portion 2 - channel KT2	61 days	Fri 30/3/07	Tue 29/5/07		_						
17	Portion 3 - channel KT2	91 days	Fri 30/3/07	Thu 28/6/07								
18	Portion 4 - channel KT15	1 day	Fri 30/3/07	Fri 30/3/07		_						
19	Portion 5 - channel KT15	91 days	Fri 30/3/07	Thu 28/6/07		_						
20	Portion 5A1 - channel KT15	91 days	Fri 30/3/07	Thu 28/6/07								
						_						
21	Portion 5A2 - channel KT15	91 days	Fri 30/3/07	Thu 28/6/07		_						
22	Portion 5B - channel KT15	20 days	Wed 26/9/07	Mon 15/10/07								
23	Portion 5C - channel KT15 Portion 6 - Temp Storage Area at Chi Ho Road	91 days	Fri 30/3/07	Thu 28/6/07 Fri 30/3/07								
24 25	Portion 6 - Temp Storage Area at Chi Ho Road Portion 7 - Berthing Area	1 day 1 day	Fri 30/3/07 Fri 30/3/07	Fri 30/3/07								
25	Portion 8 - Site Accommodation	1 day	Fri 30/3/07	Fri 30/3/07								
	Fonion 8 - Site Accommodation	Tuay	FII 30/3/07	FII 30/3/07	200							
27												
28	A. Preliminary Works	902 days	Wed 21/3/07	Mon 7/9/09								
29	1. Setting out of Works	893 days	Fri 30/3/07	Mon 7/9/09	2SS							
30	2. Environmental Monitoring and Audit	893 days	Fri 30/3/07	Mon 7/9/09								
31	2.1 Establishment of Environmental Team	14 days	Fri 30/3/07	Thu 12/4/07		_						
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	20							
34 35	a. Technical proposal & methodology	7 days	Fri 20/4/07 Fri 27/4/07	Thu 26/4/07 Thu 3/5/07								
36	b. Approval by the Engineer c. Baseline monitoring	7 days 63 days	Fri 4/5/07	Thu 5/5/07 Thu 5/7/07								
30	2.4 Environmental impact monitoring and audit	777 days	Tue 24/7/07	Mon 7/9/09								
38	3. Environmental Management and Environmental	73 days	Fri 30/3/07	Sun 10/6/07	50,011	_						
	Management Plan											
39	3.1 Submission of draft EMP	21 days	Fri 30/3/07	Thu 19/4/07								
40	3.2 Comment from the Engineer	7 days	Fri 20/4/07	Thu 26/4/07		_						
41	3.3 Submission of EMP	45 days	Fri 27/4/07	Sun 10/6/07								
42	4. Engineer's Accommodation	51 days	Fri 30/3/07	Sat 19/5/07								
43 44	4.1 Renovation 4.2 Equipment	30 days 51 days	Fri 30/3/07 Fri 30/3/07	Sat 28/4/07 Sat 19/5/07	2055	_						
44	a. Contract telephone	21 days	Fri 30/3/07	Thu 19/4/07	2655	_						
46	b. Survey equipment	45 days	Fri 30/3/07	Sun 13/5/07		_						
47	c. Contract computer facilities	51 days	Fri 30/3/07	Sat 19/5/07	2000	_						
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		-						
50	installation	21 days	Sun 22/4/07		49,43FS-7 days							
51	testing & commissioning	7 days	Sun 13/5/07	Sat 19/5/07								
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								
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		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	0000							
66	temporary service (56K)	32 days	Fri 30/3/07	Mon 30/4/07	26SS							
	Task		D	000	0	n/ -	D-11-111	Critical Tack	Polled Up Deser		External Tasks	
Project Page: 1	PROGRAMINE OF WORKS		Progr		Summa		•	Critical Task	Rolled Up Progress			
i aye.	Critical Task	(Milest	lone	Rolled L	Jp Task	Rolled Up	Milestone 🚫	Split		Project Summary	

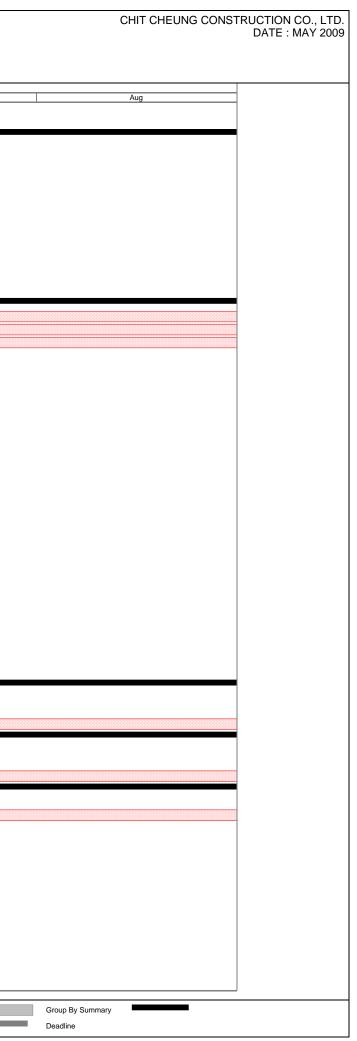


ID	Task Name	Duration	Start	Finish	Predecessors						
							May		Jun		Jul
67	new service	19 days	Fri 13/4/07	Tue 1/5/07							
68 69	application installation	5 days 14 days	Fri 13/4/07 Wed 18/4/07	Tue 17/4/07 Tue 1/5/07	7 66SS+14 days	_					
70	5. Contractor's Accommodation	45 days	Fri 30/3/07	Sun 13/5/07		_					
70	5.1 Provision	45 days 45 days	Fri 30/3/07	Sun 13/5/07		_					
72	a. Premises	45 days	Fri 30/3/07	Sun 13/5/07		_					
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							
78	g. electricity	1 day	Fri 30/3/07	Fri 30/3/07		_					
79	6. Transport (land) for the Engineer	124 days	Fri 30/3/07	Tue 31/7/07		_					
80 81	6.1 submission 6.2 comment & approval	7 days 14 days	Fri 30/3/07 Fri 6/4/07	Thu 5/4/07 Thu 19/4/07		_					
82	6.3 delivery	103 days	Fri 20/4/07	Tue 31/7/07		_					
83	6.4 temp service	124 days	Fri 30/3/07	Tue 31/7/07		_					
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							
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		_					
91 92	comment & approval erection	90 days 90 days	Sun 29/4/07 Tue 29/5/07		7 90SS+30 days 7 91SS+30 days	_					
92	8.2 Minor	150 days	Fri 30/3/07	Sun 26/8/07 Sun 26/8/07		-					
94	submission	90 days	Fri 30/3/07	Wed 27/6/07		_					
95	comment & approval	90 days	Sun 29/4/07		/ 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							
100	10. Contractual general submissions	902 days	Wed 21/3/07	Mon 7/9/09							
101	10.1 programmes	28 days	Wed 21/3/07	Tue 17/4/07		_					
102 103	a. GCC Clause 16 programme b. Works programme & financial programme	14 days 14 days	Wed 21/3/07 Wed 4/4/07	Tue 3/4/07 Tue 17/4/07		_					
103	c. 3-month rolling programme	14 days	Wed 4/4/07 Wed 4/4/07	Tue 17/4/07		_					
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							
110	e. Geotechnical Supervisor	14 days	Fri 30/3/07	Thu 12/4/07		_					
111	f. Foreman - concrete	14 days	Fri 30/3/07	Thu 12/4/07		_					
112 113	g. Foreman - drainage h. Staff Organization Plan	14 days 14 days	Fri 30/3/07 Fri 30/3/07	Thu 12/4/07 Thu 12/4/07		_					
113	10.3 Safety Organization	14 days 14 days	Fri 30/3/07	Thu 12/4/07 Thu 12/4/07		-					
115	a. Safety Officer	14 days	Fri 30/3/07	Thu 12/4/07		-					
116	b. Safety Supervisor	14 days	Fri 30/3/07	Thu 12/4/07		-					
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							
120	b. Traffic Engineer	7 days	Fri 30/3/07	Thu 5/4/07							
121	10.5 Assistant to Engineer	33 days	Fri 30/3/07	Tue 1/5/07		_					
122 123	a. Chainmen (4)	33 days	Fri 30/3/07	Tue 1/5/07		_					
123	b. Watchmen (2) c. Field assistant (1)	33 days 33 days	Fri 30/3/07 Fri 30/3/07	Tue 1/5/07 Tue 1/5/07		_					
124	d. Technical assistant (1)	33 days	Fri 30/3/07	Tue 1/5/07		-					
126	e. Clerical assistant (1)	33 days	Fri 30/3/07	Tue 1/5/07		-					
127	f. Office assistant (1)	33 days	Fri 30/3/07	Tue 1/5/07							
128	10.6 Underground service detection equipment	35 days	Fri 30/3/07	Thu 3/5/07	7						
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							
131	c. Provision	14 days	Fri 20/4/07	Thu 3/5/07							
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							
134 135	 b. Comment & approval 10.8 Trip ticket system for C & D material 	14 days 59 days	Fri 13/4/07 Fri 30/3/07	Thu 26/4/07 Sun 27/5/07		_					
100		09 days									
	PROGRAMME OF WORKS Task		Progres	ŝS	Summary	′ –	Rolled Up C	Critical Task	Rolled Up Progress	Exte	ernal Tasks
Page: 2	of 16 Critical Task		Milesto	ne	Rolled Up	o Task	Rolled Up N	filestone 🚫	Split	Proje	ect Summary
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CHIT CHEUNG CONSTRUCTION CO., LTD. DATE : MAY 2009 Aug



ID	Task Name	Duration	Start	Finish	Predecessors				
							Мау	Jun	Jul
136 137	a. Submission of site management plan	45 days	Fri 30/3/07	Sun 13/5/07		_			
137 138	 b. Comment & approval 10.9. Condition survey and structral monitoring 	14 days 893 days	Mon 14/5/07 Fri 30/3/07	Sun 27/5/07 Mon 7/9/09					
139	a. Submission of Independent Structural Engineer	14 days	Fri 30/3/07	Thu 12/4/07		_			
140	b. Comment & approval	7 days	Fri 13/4/07	Thu 19/4/07		-			
141	c. Proposal for condition survey & structural monitoring	209 days	Fri 20/4/07	Wed 14/11/07		-			
142	Portion 1, 4, 6, 7, 8	30 days	Fri 20/4/07	Sat 19/5/07	140	-			
143	Portion 2	30 days	Wed 30/5/07	Thu 28/6/07	16				
144	Portion 3, 5	30 days	Fri 29/6/07		17,19,20,21				
145	Portion 5A1, 5A2 and 5B	30 days	Tue 16/10/07	Wed 14/11/07					
146	d. Comment & approval	193 days	Sun 20/5/07	Wed 28/11/07		_			
147 148	Portion 1, 4, 6, 7, 8 Portion 2	14 days 14 days	Sun 20/5/07 Fri 29/6/07	Sat 2/6/07 Thu 12/7/07		_			
140	Portion 3, 5	14 days	Sun 29/7/07	Sat 11/8/07		_			
150	Portion 5A1, 5A2 and 5B	14 days	Thu 15/11/07	Wed 28/11/07		-			
151	e. Condition survey & structural monitoring	828 days	Sun 3/6/07	Mon 7/9/09					
152	Portion 1, 4, 6, 7, 8	828 days	Sun 3/6/07	Mon 7/9/09	147	_			
153	Portion 2	788 days	Fri 13/7/07	Mon 7/9/09	148				
154	Portion 3, 5	758 days	Sun 12/8/07	Mon 7/9/09	149				
155	Portion 5A1, 5A2 and 5B	586 days	Thu 29/11/07	Mon 6/7/09					
156	10.10 Handling & disposal of Type 1 & 2 contaminated material:	74 days	Sat 14/7/07	Tue 25/9/07					
157	a. Proposed type of dump truck	44 days	Sun 15/7/07	Mon 27/8/07					
158	Submission	30 days	Sun 15/7/07	Mon 13/8/07	832SS-44 days	1			
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	_			
163 164	c. Proposal of disposal arrangement Submission	74 days 60 days	Sat 14/7/07 Sat 14/7/07	Tue 25/9/07 Tue 11/9/07					
165	Comment & approval	14 days	Wed 12/9/07	Tue 11/9/07 Tue 25/9/07		_			
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		-			
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		_			
174	by the EPD	14 days	Sat 8/9/07	Fri 21/9/07 Sun 13/1/08					
175 176	c. Setting up of Treatment Plant 10.12 Safety Plan	60 days 35 days	Thu 15/11/07 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					
178	b. Comment by the Engineer	7 days	Wed 4/4/07	Tue 10/4/07					
179	c. Submission of Safety Plan	14 days	Wed 11/4/07	Tue 24/4/07	178	-			
180	10.13 Sub-contractor Management Plan	902 days	Wed 21/3/07	Mon 7/9/09					
181	a. Submission of SMP	30 days	Wed 21/3/07	Thu 19/4/07	1SS				
182	b. For information & Comments	14 days	Fri 20/4/07	Thu 3/5/07					
183	c. Update SMP	858 days	Fri 4/5/07	Mon 7/9/09					
184	10.14 proof of plant ownership	893 days	Fri 30/3/07	Mon 7/9/09					
185 186	 a. Submission of draft written undertaking b. Comment by the Engineer / Employer 	14 days 14 days	Fri 30/3/07 Fri 13/4/07	Thu 12/4/07 Thu 26/4/07		_			
187	c. Engineer's request	865 days	Fri 27/4/07	Mon 7/9/09		_			
188	10.15 Contractor's Management Team	893 days	Fri 30/3/07	Mon 7/9/09					
189	a. Submission of staff member details	14 days	Fri 30/3/07	Thu 12/4/07		-			
190	b. Update management / site supervision team	879 days	Fri 13/4/07	Mon 7/9/09	189				
191	10.16 Water supply pipeworks material	651 days	Wed 21/3/07	Tue 30/12/08		-			
192	a. Supplier	28 days	Wed 21/3/07	Tue 17/4/07		1			
193	Submission	14 days	Wed 21/3/07	Tue 3/4/07					
194	comment & approval	14 days	Wed 4/4/07	Tue 17/4/07					
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		_			
197 198	comment & approval c. Independent Inspection Agent (IIA)	14 days	Wed 4/4/07 Wed 21/3/07	Tue 17/4/07 Tue 17/4/07		_			
198	c. Independent Inspection Agent (IIA) Submission	28 days 14 days	Wed 21/3/07 Wed 21/3/07	Tue 17/4/07 Tue 3/4/07		-			
200	comment & approval	14 days 14 days	Wed 21/3/07 Wed 4/4/07	Tue 3/4/07		-			
200	d. Representative of the IIA	28 days	Wed 4/4/07 Wed 21/3/07	Tue 17/4/07		-			
202	Submission	14 days	Wed 21/3/07	Tue 3/4/07		-			
203	comment & approval	14 days	Wed 4/4/07	Tue 17/4/07		-			
					l.	1		1	
Project	PROGRAMME OF WORKS Task		Progre	SS	Summary		Rolled Up Critical Ta	sk Rolled Up Progress	External Tasks
Page: 3			Milesto	one	Rolled Up	Task	Rolled Up Milestone	Split	Project Summary
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tract No. tract Title	: DC / 2006 / 02 e : Yuen Long, Kam Tin, Ngau Tam N	Mei and Tin Shui W	/ai Drainage I	mprovements,					CHIT CHEUNG CONSTRUCTI DAT
	Stage 1, Phase 2B - Cheung Chu	In San Tsuen and	Kam Tsin Wa	i					
Task Name		Duration	Start	Finish Predecessors	Мау	Jun	Ju	1	Aug
05	10.17 Landscape softworks and establishment wor	-		Thu 26/4/07					Aug
06 07	a. Submission of technical information b. Comment & approval	14 days 14 days		Thu 12/4/07 2SS Thu 26/4/07 206					
08	10.18 Preservation and protection of existing trees	59 days		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		Thu 12/4/07 2SS					
211 212	Comment & approval b. Site supervisory staff	14 days 59 days		Thu 26/4/07 210 Fri 18/5/07					
212	Submission	45 days		Fri 4/5/07 1SS					
214	Comment & approval	14 days		Fri 18/5/07 213					
215	10.19 Concrete (ready mix)	28 days		Thu 26/4/07					
216	 a. Submission of supplier & design mix b. Comment & approval 	21 days 7 days		Thu 19/4/07 2SS Thu 26/4/07 216					
218	10.20 Steel reinforcement	35 days		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		Thu 3/5/07 219					
221 222	10.21 Submissions of method statement / materials a. Submission of materials	s 811 days 811 days		Sun 2/8/09 Sun 2/8/09 15FS+45 days					
223	b. Submission of method statement	811 days		Sun 2/8/09 15FS+45 days					
	. Provision of wheel washing facilities	180 days		Tue 25/9/07					
225	11.1 Channel KT2	120 days		Fri 27/7/07 2SS					
226 227	11.2 Channel KT15 11.3 Berthing area	90 days 90 days		Tue 25/9/07 19FS-1 day Wed 27/6/07 2SS					
228	11.4 Portion 6	45 days		Sun 13/5/07 2SS					
229 12	2. Setting up of traffic management liaison group	30 days		Sat 28/4/07 2SS					
230									
	ction I of the Works 1. Portion 1	893 days 893 days		Mon 7/9/09 Mon 7/9/09					
233	1. Site clearance	30 days		Sun 26/8/07					
234	1.1 General site clearance	30 days	Sat 28/7/07	Sun 26/8/07 36,225,1021,1019					
235	2. Temporary Traffic Management Scheme	59 days		Sun 27/5/07					
236 237	2.1 TTMS Proposal (trial pits in Chi Ho Road fo a. Submission	or utilities) 59 days 45 days		Sun 27/5/07 Sun 13/5/07 2SS					
238	b. comments & approvals by Engineer &			Sun 27/5/07 237					
239	2.2 TTMS Proposal (for construction of box cul	vet) 59 days	Fri 30/3/07	Sun 27/5/07					
240	a. Submission	45 days		Sun 13/5/07					
241 242	b. comments & approvals by Engineer & 3. Excavation Permits	TMLG 14 days 507 days		Sun 27/5/07 240 Wed 15/10/08					
243	3.1 application and issue of permit (trial pits in the	-		Fri 23/11/07 238					
244	 3.2 application and issue of permits (for constr box culvert) 	ruction of 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 utilities detection	28 days		Thu 26/4/07 2SS					
247 248	4.2 trial trench excavtion & identification5. Utilities temporary diversion / protection	14 days 579 days		Fri 7/12/07 246,243 Mon 27/4/09					
249	a. WSD watermain along village vehicular acc	-		Mon 27/4/09 338					
250	b. Street lighting along village vehicular access	s 171 days	Sat 8/11/08	Mon 27/4/09 295SS					
251	c. PCCW along village vehicular access	171 days		Mon 27/4/09 295SS					
252 253	 d. CLP overhead cable at Bay 4 e. CH 816~CH841 underground cables (33kV) 	160 days) 42 days		Tue 15/7/08 285 Wed 7/11/07 260					
253	f. CH 816~CH841 underground cables (33kV)			Wed 2/1/08 253					
255	g. Street lighting at Chi Ho Road	86 days		Fri 16/1/09 266SS,247					
256	h. Irrigation pipe at Chi Ho Road	86 days		Fri 16/1/09 266SS					
257 258	6. Drainage Management Plan (Ch810 to Ch850) 6.1 Submission of DMPs) 77 days 1 day		Wed 26/9/07 Thu 12/7/07					
259	6.2 Comments by the Engineer	14 days		Thu 26/7/07 258					
260	6.3 Implementation of DMP	3 days		Wed 26/9/07 259SF					
261	7. Box Culvert and Channel	636 days		Mon 27/4/09					
262 263	7.1 Box Culvert BC2-1 a. Ch0-Ch15 (Bay 1 and Outlet)	636 days 167 days		Mon 27/4/09 78 Tue 31/3/09					
263	Construction of cofferdam	7 days		Wed 22/10/08 244					
265	Remove road pavement and expose			Wed 22/10/08 244					
266	Excavation	9 days		Fri 31/10/08 265,348,264					
267 268	Granular Bedding Base Slab	4 days		Tue 4/11/08 266 Tue 25/11/08 267					
268	Wall and Deck	21 days 22 days		Tue 25/11/08 267 Wed 17/12/08 268					
270	Curing	10 days		Sat 27/12/08 269					
271	Trench Backfill	7 days		Sat 3/1/09 270					
272	Reinstatement of Chi Ho Road	13 days	Sun 4/1/09	Fri 16/1/09 271,255FF,256FF					
	Task		Dro	ace 0	mmary Rolled Up	Critical Task Rolled Up	Progress External Tasks	Group By Summary	
	IME OF WORKS		Progre	Sur Sur	Rolled Up	Kulled Up	External Lasks	Group By Summary	

ID T	ask Name	Duration	Start	Finish	Predecessors					
274	b. Temporary Bund in AFCD Pond	87 days	Wed 1/8/07	Fri 26/10/07	<u> </u>	8	Мау	Jun		Jul
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		_				
281	Granular Bedding	7 days	Wed 21/11/07	Tue 27/11/07		_				
282 283	Base Slab Wall and Deck	18 days	Wed 28/11/07 Sun 16/12/07	Sat 15/12/07 Wed 16/1/08		_				
283	VVall and Deck Curing	32 days 14 days	Thu 17/1/08	Wed 16/1/08 Wed 30/1/08		-				
285	Trench Backfill	7 days	Thu 31/1/08	Wed 50/1/08		-				
286	d. Ch32-Ch42 (Bay 4)	76 days	Thu 18/9/08	Tue 2/12/08		-				
287	Excavation	10 days	Fri 19/9/08	Sun 28/9/08	293	-				
288	Granular Bedding	9 days	Mon 29/9/08	Tue 7/10/08	287					
289	Base Slab	14 days	Wed 8/10/08	Tue 21/10/08	288					
290	Wall and Deck	16 days	Wed 22/10/08	Thu 6/11/08	289					
291	Curing	14 days	Fri 7/11/08	Thu 20/11/08	290					
292	Trench Backfill	12 days	Fri 21/11/08	Tue 2/12/08	291					
293	Removal of CLP underground cable at Bay 4	1 day	Thu 18/9/08	Thu 18/9/08						
294	e. Ch42-Ch76 (Bays 5 - 7)	171 days	Sat 8/11/08	Mon 27/4/09						
295	Excavation	45 days	Sat 8/11/08	Mon 22/12/08		_				
296	Granular Bedding	7 days	Tue 23/12/08	Mon 29/12/08		_				
297 298	Base Slab (Bay 5 and Bay 7) Wall and Deck (Bay 5 and Bay 7)	21 days 29 days	Tue 30/12/08 Tue 20/1/09	Mon 19/1/09 Tue 17/2/09		-				
298	Curing (Bay 5 and Bay 7)	29 days 14 days	Wed 18/2/09	Tue 17/2/09		-				
300	Trench Backfill (Bay 5 and Bay 7)	14 days 11 days	Wed 18/2/09 Wed 4/3/09	Sat 14/3/09		-				
301	Modification of temporary support to watermain fo	7 days	Wed 4/3/09 Wed 4/3/09	Tue 10/3/09		-				
302	base slab (Bay 6)	10 days	Wed 11/3/09	Fri 20/3/09		-				
303	Wall and Deck (Bay 6)	14 days	Sat 21/3/09	Fri 3/4/09		-				
304	Curing (Bay 6)	14 days	Sat 4/4/09	Fri 17/4/09		-				
305	Backfill (Bay 6)	10 days	Sat 18/4/09	Mon 27/4/09	304,249FF,250FF,251FF	-				
306	f. Ch76-Ch88 (Bay 8)	51 days	Fri 1/8/08	Sat 20/9/08		1				
307	Excavation	3 days	Fri 1/8/08	Sun 3/8/08	470					
308	Granular Bedding	2 days	Mon 4/8/08	Tue 5/8/08						
309	Base Slab	14 days	Wed 6/8/08	Tue 19/8/08						
310	Wall and Deck	16 days	Wed 20/8/08	Thu 4/9/08		_				
311	Curing	7 days	Fri 5/9/08	Thu 11/9/08		_				
312 313	Trench Backfill 7.2 Channel	9 days	Fri 12/9/08 Thu 3/1/08	Sat 20/9/08 Wed 9/7/08	311					
313	a. Ch840-Ch844 (Bay 56b)	189 days 91 days	Thu 3/1/08 Thu 3/1/08	Wed 9/7/08 Wed 2/4/08		-				
315	Excavation (including contamination materials)	25 days	Thu 3/1/08	Sun 27/1/08	254	-				
316	Granular Bedding	3 days	Mon 28/1/08	Wed 30/1/08		-				
317	Base Slab	22 days	Thu 31/1/08	Thu 21/2/08		-				
318	Wall and Deck	23 days	Fri 22/2/08	Sat 15/3/08	317	-				
319	Curing	14 days	Sun 16/3/08	Sat 29/3/08	318	1				
320	Trench Backfill	4 days	Sun 30/3/08	Wed 2/4/08	319					
321	b. Demolition of existing crossing	7 days	Sun 30/3/08	Sat 5/4/08	319					
322	c. Ch800-840 (Bay 56a)	95 days	Sun 6/4/08	Wed 9/7/08						
323	Excavation (including contamination materials)	8 days	Sun 6/4/08	Sun 13/4/08						
324	Granular Bedding	7 days	Mon 14/4/08	Sun 20/4/08		_				
325	Base Slab	40 days	Mon 21/4/08	Fri 30/5/08		_				
326 327	Wall and Deck Curing	31 days 26 days	Sat 31/5/08 Tue 10/6/08	Mon 30/6/08 Sat 5/7/08	325 326SS+10 days	_				
328	Trench Backfill	16 days	Tue 10/6/08		327SS+14 days	-				
329	8. Filling in Platform	400 days	Thu 3/4/08	Thu 7/5/09						
330	8.1 Box Culvert	124 days	Sun 4/1/09	Thu 7/5/09						
331	a. Ch0-Ch15 (Bay 1 and Outlet)	3 days	Sun 4/1/09	Tue 6/1/09	271	- Y				
332	b. Ch15-Ch88 (Bay 2 to Bay 8)	10 days	Tue 28/4/09		305,312,292,300					
333	8.2 Channel	118 days	Thu 3/4/08	Tue 29/7/08						
334	a. Ch840-Ch844 (Bay 56b)	5 days	Thu 3/4/08	Mon 7/4/08	320	1				
335	b. Ch800-840 (Bay 56a)	20 days	Thu 10/7/08	Tue 29/7/08	328					
336	9. Geotechnical Instrumentation for CLP Pylon	4 days	Mon 24/9/07	Thu 27/9/07						
337	10. Trial pits for watermain under existing village access	4 days	Fri 1/8/08	Mon 4/8/08						
338	11. Temporary support to existing watermain	21 days	Sat 18/10/08	Fri 7/11/08	349					
339	12. Drainage works (except Bays 56a and 56b)	45 days	Fri 8/5/09	Sun 21/6/09						
340	a. surface drain	45 days	Fri 8/5/09	Sun 21/6/09		78 days				
341	13. Water supply pipeworks	60 days	Sun 7/6/09		197,204,342	-		0 days		
342	14. Roads and paving (except Bays 56a and 56b)	30 days	Fri 8/5/09	Sat 6/6/09	332	0 days		H		
										Esternal Teals
'roject: F	PROGRAMME OF WORKS Task		Progres	s	Summary		Rolled Up Critical Task	Rolled	Up Progress	External Tasks

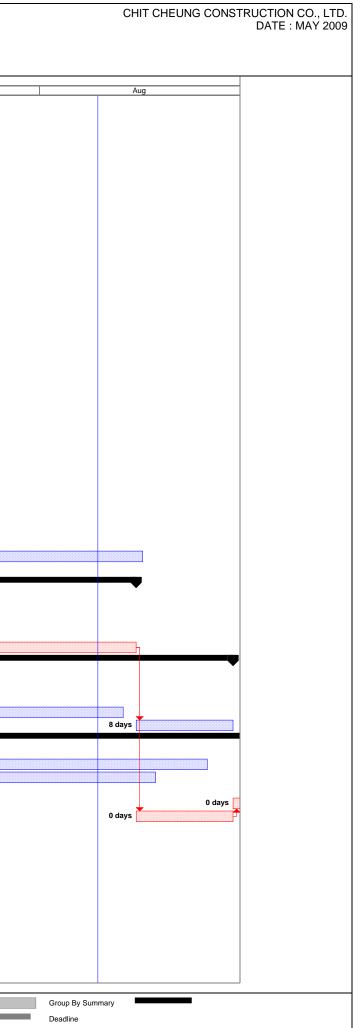
CHIT CHEUNG CONSTRUCTION CO., LTD. DATE : MAY 2009

Aug

343							May		Jun		
	15. Diversion of traffic to permanent access from Bay 4 to B	1 day	Sun 7/6/09	Sun 7/6/09				12 days			
1	16. Street furnitures / traffic sign / road marking (except Bay	16 days	Thu 6/8/09	Fri 21/8/09	341						
45	17. Landscape softworks / hardworks (except Bays 56a and	63 days	Sun 7/6/09	Sat 8/8/09	331,332,342			30 days			
46	18. Road Diversion in Chi Ho Road	5 days	Thu 16/10/08	Mon 20/10/08							
847	a. Construction of temporary footpath above Box Culvert	4 days	Thu 16/10/08	Sun 19/10/08	244						
348	b. Implementation of footpath diversion	1 day	Mon 20/10/08	Mon 20/10/08	347						
349	19. Removal of Tree No. 501	2 days	Thu 16/10/08	Fri 17/10/08							
350	20. Permanent footpath	33 days	Thu 6/8/09	Mon 7/9/09	341						
351	B2. Portion 2	893 days	Fri 30/3/07	Mon 7/9/09		_					
352	1. Site clearance	90 days	Tue 14/8/07	Sun 11/11/07							
353	1.1 General clearance	90 days	Tue 14/8/07	Sun 11/11/07	36,1025,225,1027						
354	2. Underground utilities detection	42 days	Tue 3/7/07	Mon 13/8/07							
355	2.1 utilities detection	28 days	Tue 3/7/07	Mon 30/7/07							
356	2.2 trial trench excavtion & identification	14 days	Tue 31/7/07	Mon 13/8/07	355						
357	3. Utilities temporary diversion / protection	463 days	Fri 30/3/07	Fri 4/7/08							
358	a. WSD water main along village vehicular access	90 days	Wed 10/10/07	Mon 7/1/08	374SS						
359	b. Street lighting along village vehicular access	269 days	Wed 10/10/07	Fri 4/7/08							
360	c. PCCW along village vehicular access	245 days	Wed 10/10/07	Tue 10/6/08	374SS						
361	d. CLP overhead cables / street lighting at CH 290 ~ CH 33	90 days	Fri 30/3/07	Wed 27/6/07							
362	4. Geotechnical Instrumentation for AFCD	6 days	Thu 27/9/07	Tue 2/10/07							
363	5. Discussion with Pond Owner	39 days	Wed 1/8/07	Sat 8/9/07							
364	6. Box Culvert, Channel and Crossings	572 days	Sun 9/9/07	Thu 2/4/09							
365	a. Ch88-Ch120 (Bays 9 - 11)	83 days	Fri 29/2/08	Wed 21/5/08							
366	Excavation	21 days	Fri 29/2/08		336,362,379						
367	Granular Bedding	15 days	Mon 10/3/08		366SS+10 days						
368	Base Slab	15 days	Sun 16/3/08		367SS+6 days						
369	Wall and Deck	22 days	Sun 23/3/08		368SS+7 days						
370	Curing	25 days	Thu 3/4/08		369SS+11 days						
371	Trench Backfill	35 days	Thu 17/4/08		370SS+14 days						
372	b. Ch120-Ch205 (Bay 12 - Bay 17)	159 days	Sun 23/9/07	Thu 28/2/08							
373	Haul access	16 days	Sun 23/9/07	Mon 8/10/07							
374	Excavation	46 days	Wed 10/10/07		362,356,373						
375	Granular Bedding	43 days	Sat 20/10/07		374SS+10 days						
376	Base Slab	50 days	Fri 26/10/07		375SS+6 days						
377	Wall and Deck	53 days	Tue 6/11/07		376SS+11 days						
378	Curing	53 days	Tue 13/11/07		377SS+7 days						
379	Trench Backfill	46 days	Mon 14/1/08		378SS+62 days,358FF						
380	c. Ch205-Ch310 (Bay 18 - Bay 24)	93 days	Sun 9/9/07	Mon 10/12/07							
381	Haul access	14 days	Sun 9/9/07	Sat 22/9/07							
382	Excavation	27 days	Sun 23/9/07	Fri 19/10/07							
383	Granular Bedding	23 days	Wed 3/10/07		382SS+10 days,381						
384	Base Slab	39 days	Tue 9/10/07		383SS+6 days						
385	Wall and Deck	42 days	Sat 20/10/07		384SS+11 days						
386	Curing	42 days	Sat 27/10/07		385SS+7 days						
387	Trench Backfill	31 days	Sat 10/11/07		386SS+14 days						
388	d. Ch310-Ch361 (Bay 25 - Bay 27)	273 days	Sun 23/9/07	Sat 21/6/08							
389	Haul access	15 days	Sun 23/9/07	Sun 7/10/07							
390	Excavation	52 days	Tue 11/12/07	Thu 31/1/08		_					
391	Granular Bedding	85 days	Fri 1/2/08	Fri 25/4/08		_					
392	Base Slab	78 days	Sat 1/3/08		391SS+29 days	_					
393	Wall and Deck	83 days	Mon 10/3/08		392SS+9 days	_					
394	Curing	90 days	Mon 17/3/08		393SS+7 days	_					
395	Trench Backfill	83 days	Mon 31/3/08		394SS+14 days	_					
396	e. Ch361-Ch413 (Bays 28 to Bay 31)	543 days	Mon 8/10/07	Thu 2/4/09		_					
397 398	Haul access	10 days	Mon 8/10/07	Wed 17/10/07		_					
398 399	Excavation Granular Bedding	68 days	Mon 1/12/08 Thu 11/12/08		472,397,395,478	_					
400	Base Slab	65 days	Sun 21/12/08		398SS+10 days 399SS+10 days	_					
400	Wall and Deck	65 days	Sun 21/12/08 Sun 4/1/09		-	_					
401		65 days			400SS+14 days	_					
402	Curing Trench Backfill	72 days	Sun 11/1/09 Sun 25/1/09		401SS+7 days	_					
403	f. Ch413-Ch445 (Bay 32 and Bay 33)	68 days	Sun 25/1/09 Tue 27/5/08	Thu 2/4/09	402SS+14 days	_					
		164 days				_					
405	Flow diversion	7 days	Tue 27/5/08		406SS-7 days	_					
406 407	Excavation	40 days	Tue 3/6/08	Sat 12/7/08		_					
407	Granular Bedding Base Slab	5 days 35 days	Sun 13/7/08 Fri 18/7/08	Thu 17/7/08 Thu 21/8/08		_					
408	Wall and Deck	43 days	Fri 18/7/08 Fri 22/8/08	Fri 3/10/08		_					
						_					
410	Curing	14 days	Sat 4/10/08	Fri 17/10/08	607				1	1	

CHIT CHEUNG CONSTRUCTION CO., LTD. DATE : MAY 2009 Aug 17 days 0 days Group By Summary Deadline

	le	Duration	Start	Finish	Predecessors		Мау		Jun		Jul
2	7. Gabion	321 days	Sun 1/6/08	Fri 17/4/09							
3	Ch120-Ch148 (Bay 12 - Bay 13)	287 days	Sat 5/7/08	Fri 17/4/09							
4	Ch163 - Ch205 (Bay 15 - Bay 17)	34 days	Sun 1/6/08	Fri 4/7/08							
5	Ch205 - Ch325 (Bay 18 - Bay 25)	248 days	Sat 5/7/08	Mon 9/3/09							
16	Ch348 - CH413 (Bay27 - Bay31)	39 days	Tue 10/3/09	Fri 17/4/09	415,401						
17 18	8. Granite Stone Facing Ch100 -Ch120 (Bay 10 - Bay 11)	178 days	Mon 28/4/08 Mon 28/4/08	Wed 22/10/08 Thu 8/5/08	270						
19	Ch325 - Ch348 (Bay 26a and Bay 26c)	11 days 6 days	Sun 15/6/08	Fri 20/6/08							
20	Ch120 - Ch134 (Bay 20 and Bay 200) Ch120 - Ch163 (Bay 12 - Bay 14)	16 days	Fri 9/5/08	Sat 24/5/08							
20	Ch413 - Ch436 (Bay 32a and Bay 32c)	5 days	Sat 18/10/08	Wed 22/10/08							
22	9. Ramp No. 3 (Ch356 - Ch405)	17 days	Fri 30/3/07	Sun 15/4/07							
123	General fill	5 days	Fri 30/3/07	Tue 3/4/07							
124	Granular fill and blinding	2 days	Wed 4/4/07	Thu 5/4/07	423						
125	Concrete pavement	10 days	Fri 6/4/07	Sun 15/4/07							
126	10. Filling in Platform	548 days	Tue 11/12/07	Wed 10/6/09							
127	10.1 Box Culvert BC2-1	10 days	Thu 22/5/08	Sat 31/5/08					•		
128	a. Ch88-Ch120 (South of Bay 9 - Bay 11)	10 days	Thu 22/5/08	Sat 31/5/08							
129	10.2 Channel and Crossing	548 days	Tue 11/12/07	Wed 10/6/09							
130	a. Ch120-Ch205 (Bay 12 - Bay 17)	90 days	Fri 29/2/08	Wed 28/5/08	379				•		
131	b. Ch205-Ch310 (Bay 18 - Bay 24)	118 days	Tue 11/12/07	Sun 6/4/08	387						
32	c. Ch310-Ch361 (Bay 25 - Bay 27)	31 days	Sun 22/6/08	Tue 22/7/08							
33	d. Ch361-Ch413 (Bay 28 - Bay 31)	48 days	Fri 24/4/09	Wed 10/6/09	403,477				─Ъ		
134	11. Drainage works	451 days	Mon 7/4/08	Wed 1/7/09							
135	11.1 storm drain with manhole and headwall	451 days	Mon 7/4/08	Wed 1/7/09						¥	
136	a. Ch88-Ch 120 (Bay 9 - Bay 11)	20 days	Sun 1/6/08	Fri 20/6/08	428					Ť	
137	b. Ch120-Ch205 (Bay 12 - Bay 17)	20 days	Thu 29/5/08	Tue 17/6/08	430	l					
138	c. Ch205-Ch310 (Bay 18 - Bay 24)	20 days	Mon 7/4/08	Sat 26/4/08	431						
139	d. Ch310-Ch361 (Bay 25 - Bay 27)	20 days	Wed 23/7/08	Mon 11/8/08	432						
140	e. Ch361-Ch436 (Bay 28 - Bay 32)	21 days	Thu 11/6/09	Wed 1/7/09	433			0 d	ays	h	
141	11.2. surface drain	270 days	Wed 1/10/08	Sat 27/6/09							
142	a. Ch88-Ch 120 (Bay 9 - Bay 11)	10 days	Mon 25/5/09	Wed 3/6/09	428,450		76 days			·	
143	b. Ch120-Ch190 (Bay 12 - Bay 16)	10 days	Thu 18/6/09	Sat 27/6/09	430,451				12 days		\mathcal{T}
144	c. Ch190-Ch348 (Bay 17 - Bay 26)	15 days	Wed 1/10/08	Wed 15/10/08	431,452						
145	d. Ch348-Ch390 (Bay 27 - Bay 29)	10 days	Thu 11/6/09	Sat 20/6/09				27 d	ays		\mathcal{T}
146	e. Ch390-Ch436 (Bay 30 - Bay 32)	10 days	Thu 11/6/09	Sat 20/6/09				51 d	ays-		
147	12.1. Water supply pipeworks (Bay 9 to Bay 26)	60 days	Thu 18/6/09		450,451,452,204				22 days		
148	12.2. Water supply pipeworks (Bay 27 to Bay 32)	14 days	Thu 2/7/09	Wed 15/7/09	439,440,204					54 days	
149	13. Roads and paving	369 days	Tue 12/8/08	Sat 15/8/09			-				
150	a. Ch88-Ch 148 (Bay 9 - Bay 13)	17 days	Fri 8/5/09		437,428,436,332	26 days			-		
151	b. Ch148-Ch190 (Bay 14 - Bay 16)	10 days	Mon 8/6/09	Wed 17/6/09				12 days	H		
152	c. Ch190-Ch348 (Bay 17 - Bay 26)	50 days	Tue 12/8/08		438,439,432						
453	d. Ch348-Ch390 (Bay 27 - Bay 29)	10 days	Thu 2/7/09	Sat 11/7/09						25 days	h
154 155	e. Ch390-Ch436 (Bay 30 to Bay 32)	45 days	Thu 2/7/09	Sat 15/8/09 Sun 30/8/09						0 days	
156	14. Road furnitures	334 days	Wed 1/10/08 Mon 25/5/09				a a 1	,			
157	a. Ch88-Ch 120 (Bay 9 - Bay 11)	17 days		Wed 10/6/09 Mon 20/7/09			26 days				Ŷ
158	b. Ch120-Ch205 (Bay 12 - Bay 17) c. Ch205-Ch348 (Bay 18 - Bay 26)	33 days 50 days	Thu 18/6/09 Wed 1/10/08	Wed 19/11/08		1			49 days		
159	d. Ch348-Ch390 (Bay 18 - Bay 26)	33 days	Sun 12/7/09	Thu 13/8/09							25 days
460	e. Ch390-Ch386 (Bay 30 - Bay 29)	15 days	Sun 12/7/09 Sun 16/8/09	Sun 30/8/09							23 udys
461	15. Landscape softworks / hardworks	106 days	Mon 25/5/09	Mon 7/9/09							
462	a. Ch88-Ch 120 (Bay 9 - Bay 11)	30 days	Mon 25/5/09	Tue 23/6/09	442SS		76 days				
163	b. Ch120-Ch205 (Bay 12 - Bay 17)	70 days	Thu 18/6/09	Wed 26/8/09			/o uays		12 days		
64	c. Ch205-Ch310 (Bay 18 - Bay 24)	62 days	Thu 18/6/09	Tue 18/8/09		1			20 days		
65	d. Ch310-Ch436 (Bay 25 - Bay 32) south	38 days	Thu 10/0/09		445SS,446SS			51 da			
166	e. Ch310-Ch436 (Bay 25 - Bay 32) north	8 days	Mon 31/8/09	Mon 7/9/09		1		51 4	-y -y		
467	16. Final trimming of north platform from Bay 26 to Bay 32	15 days	Sun 16/8/09	Sun 30/8/09							
168	17. Construct temporary access (Bay 5 to Bay 14)	25 days	Thu 22/5/08	Sun 15/6/08							
169	18. Removal of existing public light controller near Bay 14	1 day	Wed 30/7/08	Wed 30/7/08		1					
470	19. Traffic diversion at north of Bay 5 to Bay 14	1 day	Thu 31/7/08	Thu 31/7/08	469,468	1					
471	20. Temporary Village Access on Bay 28 - Bay 30	2 days	Sun 1/6/08	Mon 2/6/08							
72	21. Temporary Village Access on Bay 32	3 days	Fri 7/11/08	Sun 9/11/08							
473	22. Diversion of traffice to permanent access between Bay 1	1 day	Fri 3/4/09	Fri 3/4/09		L					
		,									
174	23. Temporary pipe crossing at south of Bay 30	4 days	Thu 28/8/08	Sun 31/8/08	475SS-4 days	1					
		-									
175	24. Diversion of traffic from Cheung Chun San Chuen to the	1 day	Mon 1/9/08	Mon 1/9/08							
176	25. Diversion of existing stream to constructed channel	3 days	Sat 18/4/09	Mon 20/4/09	416,273,413,414,415,418,419,420	1					
177	26. Demolition of existing vehicular bridge	3 days	Tue 21/4/09	Thu 23/4/09	476						
	20. Demontion of existing venicular bridge	5 days	100 21/4/09	111u 23/4/09	0	L					
									Rolled Up Progress		External Tasks
	Task		Progre		Summary		Rolled Up C				



	Task Name					May Jun Jul
78	27. diversion of uncharted 50 dia watermain (Bay 28 to Bay :	61 days	Wed 1/10/08	Sun 30/11/08	475	
79						
30	B3. Portion 3	789 days	Thu 12/7/07	Mon 7/9/09		
31	1. Site clearance	90 days	Sat 15/9/07	Thu 13/12/07		
32	1.1 General clearance	90 days	Sat 15/9/07		17,225,1031,1033	
33	2. Underground utilities detection	42 days	Tue 31/7/07	Mon 10/9/07	055	
34 35	2.1 utilities detection 2.2 trial trench excavtion & identification	28 days 14 days	Tue 31/7/07 Tue 28/8/07	Mon 27/8/07 Mon 10/9/07		
86	3. Utilities temporary diversion / protection	153 days	Thu 26/2/09	Tue 28/7/09		
87	a. WSD water main along village access at CH 1150	153 days	Thu 26/2/09		625SS,630FF+60 days	
188	b. Street lighting along village access at CH 1150	93 days	Thu 26/2/09		625SS,630FF	
89	c. PCCW along village access at CH 1150	153 days	Thu 26/2/09		625SS,630FF+60 days	
190	4. Drainage Management Plan	722 days	Thu 12/7/07	Thu 2/7/09		
491	4.1 Submission of DMPs	1 day	Thu 12/7/07	Thu 12/7/07		
192	4.2 Comments by the Engineer	14 days	Fri 13/7/07	Thu 26/7/07	491	
193	4.3 Implementation of DMP	707 days	Fri 27/7/07	Thu 2/7/09	492	
194	5. Channel and Crossings	733 days	Sat 1/9/07	Wed 2/9/09		
195	a. Ch445-Ch475 (Bay 34-35)	50 days	Fri 7/11/08	Fri 26/12/08		
96	Excavation	10 days	Fri 7/11/08	Sun 16/11/08		
197	Granular Bedding	4 days	Mon 17/11/08	Thu 20/11/08		
98	Base Slab	8 days	Fri 21/11/08	Fri 28/11/08		
199	Wall and Deck	14 days	Sat 29/11/08	Fri 12/12/08		
500	Curing	7 days	Sat 13/12/08	Fri 19/12/08		
501	Trench Backfill	7 days	Sat 20/12/08	Fri 26/12/08		
502 503	b. Ch475-Ch505 (Bay 36-37) Excavation	50 days	Sat 27/12/08 Sat 27/12/08	Sat 14/2/09 Mon 5/1/09		
503 504	Granular Bedding	10 days 4 days	Tue 6/1/09	Fri 9/1/09		
505	Base Slab	8 days	Sat 10/1/09	Sat 17/1/09		
506	Wall and Deck	14 days	Sun 18/1/09	Sat 17/1/09 Sat 31/1/09		
507	Curing	7 days	Sun 1/2/09	Sat 7/2/09		
508	Trench Backfill	7 days	Sun 8/2/09	Sat 14/2/09		
509	c. Ch505-Ch535 (Bay 38-39)	50 days	Sun 15/2/09	Sun 5/4/09		
510	Excavation	10 days	Sun 15/2/09	Tue 24/2/09		
511	Granular Bedding	4 days	Wed 25/2/09	Sat 28/2/09	510	
512	Base Slab	8 days	Sun 1/3/09	Sun 8/3/09	511	
513	Wall and Deck	14 days	Mon 9/3/09	Sun 22/3/09	512	
514	Curing	7 days	Mon 23/3/09	Sun 29/3/09		
515	Trench Backfill	7 days	Mon 30/3/09	Sun 5/4/09	514	
516	d. Ch535-Ch565 (Bay 40-41)	50 days	Mon 6/4/09	Mon 25/5/09		
517	Excavation	10 days	Mon 6/4/09	Wed 15/4/09		
518	Granular Bedding	4 days	Thu 16/4/09	Sun 19/4/09		
519	Base Slab	8 days	Mon 20/4/09	Mon 27/4/09		
520 521	Wall and Deck Curing	14 days 7 days	Tue 28/4/09 Tue 12/5/09	Mon 11/5/09 Mon 18/5/09		
522	Trench Backfill	7 days 7 days	Tue 12/5/09	Mon 25/5/09		H days
523	e. Ch565-Ch595 (Bay 42-43)	50 days	Tue 26/5/09	Tue 14/7/09		0 days
524	Excavation	10 days	Tue 26/5/09	Thu 4/6/09		0 days
525	Granular Bedding	4 days	Fri 5/6/09	Mon 8/6/09		
526	Base Slab	8 days	Tue 9/6/09	Tue 16/6/09		0 days
527	Wall and Deck	14 days	Wed 17/6/09	Tue 30/6/09	526	0 days
528	Curing	7 days	Wed 1/7/09	Tue 7/7/09	527	0 days
529	Trench Backfill	7 days	Wed 8/7/09	Tue 14/7/09	528	0 days
530	f. Ch595-Ch625 (Bay 44-45)	50 days	Fri 3/4/09	Fri 22/5/09		
531	Excavation	10 days	Fri 3/4/09	Sun 12/4/09	543	
532	Granular Bedding	4 days	Mon 13/4/09	Thu 16/4/09		
533	Base Slab	8 days	Fri 17/4/09	Fri 24/4/09		
534	Wall and Deck	14 days	Sat 25/4/09	Fri 8/5/09		
535	Curing	7 days	Sat 9/5/09	Fri 15/5/09		0 days
536	Trench Backfill	7 days	Sat 16/5/09	Fri 22/5/09		0 days
537	g. Ch625-CH655 (Bay 46-47)	50 days	Thu 12/2/09	Thu 2/4/09		
538	Excavation	10 days	Thu 12/2/09	Sat 21/2/09		
539 540	Granular Bedding Base Slab	4 days	Sun 22/2/09	Wed 25/2/09		
540 541	Wall and Deck	8 days 14 days	Thu 26/2/09 Fri 6/3/09	Thu 5/3/09 Thu 19/3/09		
541	Curing	7 days	Fri 20/3/09	Thu 19/3/09 Thu 26/3/09		
542 543	Trench Backfill	7 days 7 days	Fri 27/3/09	Thu 26/3/09		
544	h. Ch655-Ch685 (Bay 48-49)	50 days	Wed 24/12/08	Wed 11/2/09		
	Excavation	10 days	Wed 24/12/08	Fri 2/1/09		
545						

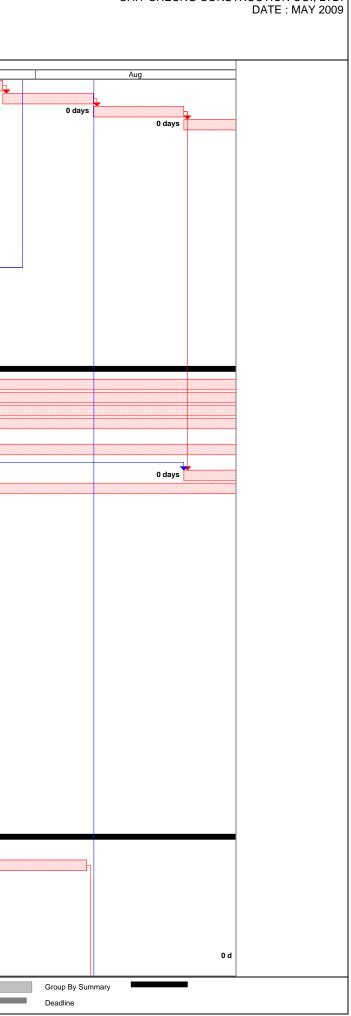
CHIT CHEUNG CONSTRUCTION CO., LTD. DATE : MAY 2009 Aug • Group By Summary

PROGRAMME OF WORKS - RP23

k Name		Duration	Start	Finish Predecessors
Bas	Slab	8 days	Wed 7/1/09	Wed 14/1/09 546
	and Deck	14 days	Thu 15/1/09	Wed 28/1/09 547
Curi	g ch Backfill	7 days 7 days	Thu 29/1/09 Thu 5/2/09	Wed 4/2/09 548 Wed 11/2/09 549
	Ch715 (Bay 50-51)	50 days	Tue 4/11/08	Tue 23/12/08
Exca	vation	10 days	Tue 4/11/08	Thu 13/11/08 564
	ular Bedding	4 days	Fri 14/11/08	Mon 17/11/08 552
	Slab and Deck	8 days 14 days	Tue 18/11/08 Wed 26/11/08	Tue 25/11/08 553 Tue 9/12/08 554
Curi		7 days	Wed 20/11/08 Wed 10/12/08	Tue 16/12/08 555
Trer	ch Backfill	7 days	Wed 17/12/08	Tue 23/12/08 556
	Ch738 (Bay 52-53)	50 days	Mon 15/9/08	Mon 3/11/08
	vation ular Bedding	10 days	Mon 15/9/08	Wed 24/9/08 573
	Slab	4 days 8 days	Thu 25/9/08 Mon 29/9/08	Sun 28/9/08 559 Mon 6/10/08 560
	and Deck	14 days	Tue 7/10/08	Mon 20/10/08 561
Curi		7 days	Tue 21/10/08	Mon 27/10/08 562
	ch Backfill	7 days	Tue 28/10/08	Mon 3/11/08 563
	Ch801 (Bay 54 - Bay 55) access	380 days 6 days	Sat 1/9/07 Sat 1/9/07	Sun 14/9/08 Thu 6/9/07
	diversion	10 days	Sun 3/2/08	Tue 12/2/08
Exca	vation (including contamination material)	120 days	Wed 13/2/08	Wed 11/6/08 482SS+10
Gra	ular Bedding	116 days	Sat 23/2/08	days,485,1031,566 Tue 17/6/08 568SS+10 days
	Slab	131 days	Fri 29/2/08	Tue 8/7/08 569SS+6 days
	and Deck	144 days	Tue 11/3/08	Fri 1/8/08 570SS+11 days
Curi Trer	g ch Backfill	151 days 167 days	Tue 18/3/08 Tue 1/4/08	Fri 15/8/08 571SS+7 days Sun 14/9/08 572SS+14 days
	Ch925 (Bay 56c - Bay 59 south)	206 days	Fri 7/9/07	Sun 30/3/08
Hau	access	10 days	Fri 7/9/07	Sun 16/9/07 566
	diversion	10 days	Mon 5/11/07	Wed 14/11/07
	vation (including contamination material) ular Bedding	66 days 64 days	Thu 15/11/07 Sun 25/11/07	Sat 19/1/08 575,576 Sun 27/1/08 577SS+10 days
	Slab (except Bay 59)	79 days	Sat 1/12/07	Sun 17/2/08 578SS+6 days
Wal	and Deck (except Bay 59)	82 days	Wed 12/12/07	Sun 2/3/08 579SS+11 days
	g (except Bay 59)	89 days	Wed 19/12/07	Sun 16/3/08 580SS+7 days
	ch Backfill (except Bay 59) -Ch925 (Bay 59 north)	89 days	Wed 2/1/08 Mon 22/12/08	Sun 30/3/08 581SS+14 days
	Slab	41 days 10 days	Mon 22/12/08	Sat 31/1/09 Wed 31/12/08 643
	and Deck	7 days	Thu 1/1/09	Wed 7/1/09 584
Curi		14 days		
	ch Backfill	10 days	Thu 22/1/09	Sat 31/1/09 586
	Ch1051 (Bay 60 - Bay 67) access	218 days 10 days	Mon 17/9/07 Mon 17/9/07	Mon 21/4/08 Wed 26/9/07 575
	diversion	10 days	Wed 10/10/07	Fri 19/10/07
Exca	vation and Handling of Type 3 Contaminated Mate	116 days	Sat 20/10/07	Tue 12/2/08 590
	ular Bedding	116 days	Tue 30/10/07	Fri 22/2/08 591SS+10 days
	Slab and Deck	127 days	Mon 5/11/07 Fri 16/11/07	Mon 10/3/08 592SS+6 days
Curi		130 days 137 days	Fri 16/11/07 Fri 23/11/07	Mon 24/3/08 593SS+11 days Mon 7/4/08 594SS+7 days
	ch Backfill	137 days	Fri 7/12/07	Mon 21/4/08 595SS+14 days
	-Ch1135 (Bay 68 - Bay 70)	455 days	Thu 27/9/07	Wed 24/12/08
	access	5 days	Thu 27/9/07	Mon 1/10/07 589
	diversion vation and Handling of Type 3 Contaminated	10 days 285 days	Fri 4/1/08 Mon 14/1/08	Sun 13/1/08 Fri 24/10/08 175,599
Mate	rial			
	ular Bedding Slab	281 days 285 days	Thu 24/1/08 Wed 30/1/08	Thu 30/10/08 600SS+10 days Sun 9/11/08 601SS+6 days
	and Deck	285 days 285 days	Sun 10/2/08	Thu 20/11/08 602SS+11 days
Curi		300 days	Sun 17/2/08	Fri 12/12/08 603SS+7 days
	ch Backfill	298 days	Sun 2/3/08	Wed 24/12/08 604SS+14 days
	i-Ch1180 (Bay 71 to Bay 73)	97 days	Tue 23/12/08	Sun 29/3/09
	vation ular Bedding	30 days 30 days	Tue 23/12/08 Mon 29/12/08	Wed 21/1/09 727,734 Tue 27/1/09 607SS+6 days
	Slab	45 days	Thu 8/1/09	Sat 21/2/09 608SS+10 days
	and Deck	45 days	Thu 22/1/09	Sat 7/3/09 609SS+14 days
Curi		45 days	Thu 5/2/09	Sat 21/3/09 610SS+14 days
	ch Backfill	33 days	Wed 25/2/09	Sun 29/3/09 611SS+20 days
)-Ch1210 (Bay 74 and Bay 75) vation	70 days 14 days	Thu 25/6/09 Thu 25/6/09	Wed 2/9/09

CHIT CHEUNG CONSTRUCTION CO., LTD.

ID	Task Name	Duration	Start	Finish	Predecessors							
							Мау		Jun			Jul
616	Base Slab	14 days	Mon 13/7/09	Sun 26/7/09							0 days	_
617	Wall and Deck	14 days	Mon 27/7/09	Sun 9/8/09								0 days
618	Curing	14 days	Mon 10/8/09	Sun 23/8/09	617							
619	Trench Backfill	10 days	Mon 24/8/09	Wed 2/9/09	618							
620	r. Ch1210-Ch1306 (Bay 76 - Bay 83)	502 days	Mon 14/1/08	Fri 29/5/09								
621	Haul access	5 days	Mon 8/12/08	Fri 12/12/08	625SS-15 days			•				
622	Flow diversion	10 days	Sat 13/12/08	Mon 22/12/08	625SS-10 days							
623	Handling of Type 3 Contaminated Material	78 days	Mon 14/1/08	Mon 31/3/08	175	1						
624	Demolition of existing footbridge (Bay 83)	7 days	Tue 16/12/08	Mon 22/12/08	665	-						
625	Excavation	120 days	Tue 23/12/08	Tue 21/4/09	624,735,623	-						
626	Granular Bedding	116 days	Fri 2/1/09		625SS+10 days	-						
627	Base Slab	116 days	Thu 8/1/09		626SS+6 days							
628	Wall and Deck	112 days	Mon 19/1/09		627SS+11 days							
629	Curing	112 days	Mon 19/1/09 Mon 26/1/09		628SS+7 days							
630	Trench Backfill		Mon 9/2/09		629SS+14 days							
	1	110 days				_						
631	s. Ch1306-Ch1330 (Bay 84)	45 days	Sat 1/11/08	Mon 15/12/08		_						
632	Excavation	6 days	Sat 1/11/08	Thu 6/11/08		_						
633	Granular Bedding	3 days	Fri 7/11/08	Sun 9/11/08								
634	Base Slab	8 days	Mon 10/11/08	Mon 17/11/08	633							
635	Wall and Deck	14 days	Tue 18/11/08	Mon 1/12/08	634							
636	Curing	7 days	Tue 2/12/08	Mon 8/12/08	635							
637	Trench Backfill	7 days	Tue 9/12/08	Mon 15/12/08	636							
638	6. Gabion	430 days	Sat 5/7/08	Mon 7/9/09								
639	a. Bay 33- Bay39 (Ch436-Ch535)	155 days	Mon 6/4/09	Mon 7/9/09	515							
640	b. Bay 40 - Bay 45 (CH535-Ch625)	108 days	Sat 23/5/09	Mon 7/9/09	536	-	0 days					
641	c. Bay 46 - Bay 53 (Ch625-Ch738)	308 days	Tue 4/11/08	Mon 7/9/09	564							
642	e. Bay 57 - Bay 59 (Ch881-Ch925)	229 days	Thu 22/1/09	Mon 7/9/09	586					+		
643	f. Bay 60 - Bay 66 (Ch925-Ch1038)	170 days	Sat 5/7/08	Sun 21/12/08	595,414	_				1		
644	g. Bay 67 - Bay 70 (Ch1038-Ch1135)	269 days	Sat 13/12/08	Mon 7/9/09		-						
645	h. Bay 71 - Bay 73 (Ch1135-Ch1180)	60 days	Mon 30/3/09	Thu 28/5/09								
646	i. Bay 74 - Bay 75 (Ch1180-Ch1210)	15 days	Mon 24/8/09	Mon 7/9/09								
647	j. Bay 76 - Bay 82 (Ch1210-Ch1302)	106 days	Mon 25/5/09	Mon 7/9/09		-	0 day	•				
648	7. Granite Stone Facing	289 days	Sat 16/8/08	Sun 31/5/09			• • • • •			++		
649	Bay 54 to Bay 56 (Ch738 - Ch881)	78 days	Sat 16/8/08	Sat 1/11/08		-						
650	Bay 67, Bay 68 and Bay 69a (Ch1038 -Ch1108)	23 days	Sat 13/12/08	Sun 4/1/09		-						
651	Granite facing stone Bay 72 (Ch1146 to Ch1165)	14 days	Sun 22/3/09	Sat 4/4/09		-						
652		-	Mon 25/5/09	Sun 31/5/09		-	00.1	_ 🔶				
653	Bay 83 and Bay 84 (Ch1301-Ch1330)	7 days				-	99 day	s				
	8. Ramp No. 2 (Ch752 - Ch800, Bay 55)	17 days	Sat 16/8/08	Mon 1/9/08		_						
654	General fill	5 days	Sat 16/8/08	Wed 20/8/08		_						
655	Granular fill and blinding	2 days	Thu 21/8/08	Fri 22/8/08								
656	Concrete pavement	10 days	Sat 23/8/08	Mon 1/9/08								
657	9. Ramp No. 1 (Ch1052 - Ch1103, Bay 68)	31 days	Sat 13/12/08	Mon 12/1/09								
658	base slab	12 days	Sat 13/12/08		604,603SS+21 days,581							
659	Wall	10 days	Thu 25/12/08	Sat 3/1/09	658							
660	General fill	5 days	Sun 4/1/09	Thu 8/1/09	659							
661	Granular fill and blinding	2 days	Fri 9/1/09	Sat 10/1/09	660							
662	Concrete pavement	2 days	Sun 11/1/09	Mon 12/1/09	661							
663	10. Pedestrian Temporary Crossing at Bay 82 (Ch1295)	173 days	Wed 10/12/08	Sun 31/5/09								
664	11.1 Construction	5 days	Wed 10/12/08	Sun 14/12/08					•			
665	11.2 Pedestrian diversion	1 day	Mon 15/12/08	Mon 15/12/08	664	-						
666	11.3 Demolition of Temp crossing	2 days	Sat 30/5/09	Sun 31/5/09	630	-		79 days				
667	11. Retaining Wall RW1 (Ch430-Ch490)	173 days	Thu 1/11/07	Mon 21/4/08		-		- 1				
668	Excavation	26 days	Thu 1/11/07	Mon 26/11/07		-						
669	Granular bedding	7 days	Tue 27/11/07	Mon 3/12/07		-						
670	Base slab	24 days	Tue 4/12/07	Thu 27/12/07		-						
671	Wall	56 days	Fri 28/12/07	Thu 21/2/08		-						
672	Curing	-	Fri 22/2/08			-						
	-	14 days		Thu 6/3/08		_						
673	Backfilling (including sub-soil drain and catchpit)	46 days	Fri 7/3/08	Mon 21/4/08		_					ļ	
674	12. Filling in Platform	504 days	Tue 22/4/08	Mon 7/9/09		_				-		
675	a. Bay 33- Bay39 (Ch436-Ch535)	25 days	Mon 6/4/09	Thu 30/4/09		h						-
676	b. Bay 40 - Bay 43 (CH535-Ch595)	25 days	Wed 15/7/09	Sat 8/8/09							0 days	
677	c. Bay 44 - Bay 53 (Ch595-Ch738)	28 days	Sat 23/5/09	Fri 19/6/09	536		5 days		η			
678	d. Bay 54 - Bay 55 (Ch738-Ch800)	19 days	Mon 15/9/08	Fri 3/10/08	573,656FF							
679	e. Bay 56c - Bay 59 (Ch844-Ch925)	21 days	Sun 1/2/09	Sat 21/2/09	582,587							
680	f. Bay 60 - Bay 66 (Ch925-Ch1038)	41 days	Tue 22/4/08	Sun 1/6/08	596	1						
681	g. Bay 67 - Bay 70 (Ch1038-Ch1135)	10 days	Thu 25/12/08	Sat 3/1/09	605	1						
682	h. Bay 71 - Bay 73 (Ch1135-CH1180)	5 days	Mon 30/3/09	Fri 3/4/09	612	1						
683	i. Bay 74 and Bay 75(Ch1180-CH1210)	5 days	Thu 3/9/09	Mon 7/9/09	619	1						
684	j. Bay 76 - Bay 84 (Ch1210-Ch1330)	37 days	Sat 30/5/09	Sun 5/7/09		1		13 days	×	+		
								- 1				
	t: PROGRAMME OF WORKS Task		Progre	SS	Summary		Rolled U	Jp Critical Ta	Rolled Up Progress		External Tasl	ks
Page:	10 of 16 Critical Task		Milesto	one	Rolled Up	Task	Rolled L	Jp Milestone	Split		Project Sumr	mary
						2			•			



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

PROGRAMME OF WORKS - RP23 Contract No. : DC / 2006 / 02

ID Ta	ik Name	Duration	Start	Finish	Predecessors							
685	13. Drainage works	484 days	Fri 2/5/08	Fri 28/8/09			May		Jun		Jul	Aug
686	13.1 storm drain with manhole	469 days	Fri 2/5/08	Thu 13/8/09								
37	a. Bay 33- Bay39 (Ch436-Ch535)	30 days	Thu 16/4/09	Fri 15/5/09	675SS+10 days							•
8	b. Bay 40 - Bay 45 (CH535-Ch625)	20 days	Sat 25/7/09	Thu 13/8/09	676SS+10 days	-					5-days	
39	c. Bay 46 - Bay 53 (Ch625-Ch738)	20 days	Tue 2/6/09		677SS+10 days			48 days				
90	d. Bay 54 - Bay 55 (Ch738-Ch800)	20 days	Thu 25/9/08		678SS+10 days							
91 92	e. Bay 56 - Bay 59 (Ch800-Ch925)	30 days	Wed 11/2/09		679SS+10 days,335FF,334FF	_						
92 93	f. Bay 60 - Bay 66 (Ch925-Ch1038) g. Bay 67 - Bay 70 (Ch1038-Ch1135)	60 days 20 days	Fri 2/5/08 Sun 4/1/09		680SS+10 days 681SS+10 days	_						
94	h. Bay 71 - Bay 73 (Ch1135-CH1180)	10 days	Sat 4/4/09	Mon 13/4/09		_						
95	i. Bay 74 - Bay 84 (Ch1180-Ch1330)	20 days	Tue 9/6/09		684SS+10 days,666	_		71 days				
96	13.2. surface drain	453 days	Mon 2/6/08	Fri 28/8/09		-						
697	a. Bay 33- Bay39 (Ch436-Ch535)	45 days	Fri 1/5/09	Sun 14/6/09	675	-						• • • • • • • • • • • • • • • • • • •
98	b. Bay 40 - Bay 45 (CH535-Ch625)	20 days	Sun 9/8/09	Fri 28/8/09								0 days
99	c. Bay 46 - Bay 53 (Ch625-Ch738)	45 days	Sat 20/6/09	Mon 3/8/09					5 days			
700	d. Bay 54 - Bay 55 (Ch738-Ch800)	45 days	Sat 4/10/08	Mon 17/11/08		_						
701 702	e. Bay 56 - Bay 59 (Ch800-Ch925) f. Bay 60 - Bay 66 (Ch925-Ch1038)	45 days	Sun 22/2/09	Tue 7/4/09 Wed 16/7/08		_						
702	g. Bay 67 - Bay 70 (Ch1038-Ch1038)	45 days 45 days	Mon 2/6/08 Sun 4/1/09	Tue 17/2/09		-						
703	h. Bay 71 - Bay 73 (Ch1135-CH1180)	30 days	Wed 3/6/09	Thu 2/7/09		-		67 days				
705	h. Bay 74 - Bay 84 (Ch1180-Ch1330)	21 days	Mon 6/7/09	Sun 26/7/09		-				13 da	ays	
06	14. Roads and paving	220 days	Sat 24/1/09	Mon 31/8/09		-						
07	a. Ch800-Ch881(Bay 56a to Bay 56c)	60 days	Fri 3/7/09	Mon 31/8/09		1				0 days	-	
'08	b. Ch881-CH1037 (Bay57 to Bay 66)	52 days	Wed 25/3/09	Fri 15/5/09						≮		
709	c. CH1037-CH1135 (Bay 67 to Bay 70)	60 days	Sat 24/1/09	Tue 24/3/09								
710	d. CH1135-CH1180 (Bay 71 and Bay 73)	30 days	Mon 4/5/09	Tue 2/6/09		ays						
11	e. Bay 72b 15. Street furnitures / traffic sign / road marking	21 days 197 days	Wed 3/6/09 Mon 23/2/09	Tue 23/6/09 Mon 7/9/09		_		0 days		1		
13	a. Ch800-Ch881	37 days	Sun 2/8/09		707SS+30 days	-					0-days	
14	b. Ch881-CH1037	37 days	Fri 24/4/09		708SS+30 days	_					t days	
15	c. CH1037-CH1165	37 days	Mon 23/2/09		709SS+30 days	-						
16	16. Landscape softworks / hardworks	418 days	Thu 17/7/08	Mon 7/9/09								
17	a. Bay 33- Bay39 (Ch436-Ch535)	30 days	Sun 31/5/09	Mon 29/6/09	697SS+30 days,687			70 days				
8	b. Bay 40 - Bay 45 (CH535-Ch625)	20 days	Wed 19/8/09		698SS+10 days,688							0 days
9	c. Bay 46 - Bay 53 (Ch625-Ch738)	30 days	Tue 4/8/09		720SF,689,699						5 da	lys
20	d. Bay 54 - Bay 55 (Ch738-Ch800)	45 days	Tue 18/11/08		721SF,690,700	_						
'21 '22	e. Bay 56c - Bay 59 (Ch844-Ch925) f. Bay 60 - Bay 66 (Ch925-Ch1038)	17 days 17 days	Sun 3/8/08 Thu 17/7/08	Tue 19/8/08 Sat 2/8/08		_						
22	g. Bay 67 - Bay 70 (Ch1038-Ch1135)	45 days	Mon 26/1/09		702 703SS+22 days	-						
24	h. Bay 71 - Bay 84 (Ch1135-Ch1330)	30 days	Mon 27/7/09	Tue 25/8/09		-					13 days	
725	17. Temporary village access at Bay 74	7 days	Sat 1/11/08	Fri 7/11/08		-						
26	18. Diversion of watermain at Bay 72	30 days	Sat 8/11/08	Sun 7/12/08	725	-						
27	19. Demolition of existing crossing at Bay 72	3 days	Mon 8/12/08	Wed 10/12/08								
728	20. Diversion of traffic to Bay 72	1 day	Wed 24/6/09	Wed 24/6/09					0 days			
29	21. Diversion of traffic to dog training school	3 days	Thu 25/6/09	Sat 27/6/09		_			58 days			
730 731	22. Road Pavement to dog training school 23. Construction of 80 dia. PE pipe at Shui Mei Tsuen	14 days 30 days	Sun 28/6/09 Sat 4/4/09	Sat 11/7/09 Sun 3/5/09					58	8 days		
32	23. Construction of so that. PE pipe at Shut wer i Suen	50 days	Wed 29/10/08	Mon 22/12/08								
33	a. Bay 84	3 days	Wed 29/10/08	Fri 31/10/08		-						
34	b. Bay 71 - Bay 73	7 days	Tue 16/12/08	Mon 22/12/08		-1						
35	c. Bay 76 - Bay 83	7 days	Tue 16/12/08	Mon 22/12/08	637							
36												
37 38	C. Section II of the Works	893 days	Fri 30/3/07	Mon 7/9/09								
38 39	C1. Portion 4 1. Site clearance	893 days 14 days	Fri 30/3/07 Wed 26/9/07	Mon 7/9/09 Tue 9/10/07		_						
,)	1.1 General clearance	14 days	Wed 26/9/07		226,36,1037,1039	-						
1	2. Temporary Traffic Management Scheme	60 days	Fri 30/3/07	Mon 28/5/07		-						
2	2.1 TTMS Proposal (trial pits for utilities and site entrance ir	59 days	Sat 31/3/07	Mon 28/5/07		-						
3	a. Submission	45 days	Sat 31/3/07	Mon 14/5/07		_						
3 4	b. comments & approvals by Engineer & TMLG	45 days 14 days	Tue 15/5/07	Mon 14/5/07 Mon 28/5/07		-						
15	2.2 TTMS Proposal (for construction of box culvet)	59 days	Fri 30/3/07	Sun 27/5/07		-						
46	a. Submission	45 days	Fri 30/3/07	Sun 13/5/07		-						
'47	b. comments & approvals by Engineer & TMLG	14 days	Mon 14/5/07	Sun 27/5/07	746	-1						
748	3. Excavation Permits	505 days	Tue 29/5/07	Tue 14/10/08		1						
749	3.1 application and issue of permit (trial pits for utilities and site entrance in Kam Po Road)	60 days	Tue 29/5/07	Fri 27/7/07	744	1						
750	3.2 application and issue of permits (for construction of	180 days	Fri 18/4/08	Tue 14/10/08	747	-						
	box culvert) 4. Underground utilities detection	43 days	Fri 29/6/07	Fri 10/8/07		-						
51		.c aayo				1						

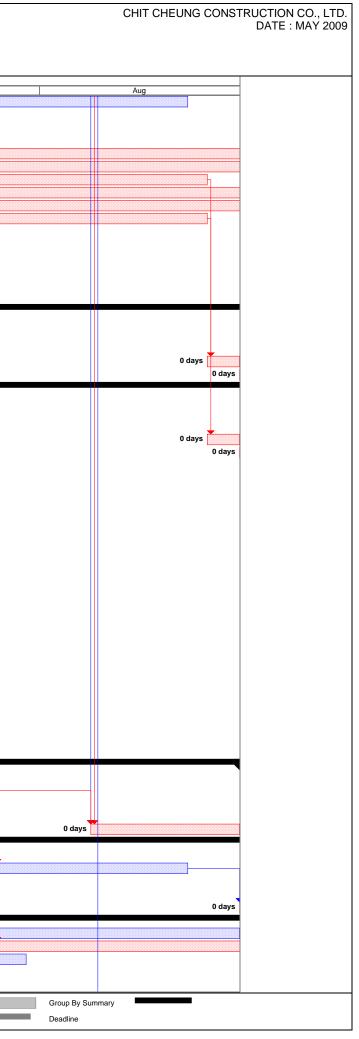
ID	Task Name	Duration	Start	Finish	Predecessors		May	T	 Jun			Jul
752	4.1 utilities detection	28 days	Fri 29/6/07		753SF-1 day		Iviay			I		
753	4.2 trial trench excavtion & identification	14 days	Sat 28/7/07	Fri 10/8/07	749							
754	5. Utilities temporary diversion / protection	164 days	Sun 23/11/08	Tue 5/5/09								
755	a. WSD water main along Kam Po Road	164 days	Sun 23/11/08	Tue 5/5/09								
756	b. Street lighting along Kam Po Road	164 days	Sun 23/11/08	Tue 5/5/09								
757	c. DSD storm Drain	164 days	Sun 23/11/08	Tue 5/5/09	764SS	H						
758	6. Drainage Management Plan	715 days	Fri 30/3/07	Fri 13/3/09								
759	6.1 Submission of DMPs	1 day	Fri 30/3/07	Fri 30/3/07								
760	6.2 Comments by the Engineer	14 days	Sat 31/3/07	Fri 13/4/07								
761	6.3 Implementation of DMPs	57 days	Fri 16/1/09	Fri 13/3/09	765,760	_						
762 763	7. Box Culvert Ch0-Ch19.5 (Bay 1 to Bay 3)	217 days	Thu 16/10/08	Wed 20/5/09	750 750 774	-						
763	Remove road pavement and expose existing utilities Excavation	8 days	Thu 16/10/08 Sun 23/11/08	Thu 23/10/08	763,740,775,956	-						
764	Remove existing box culvert	21 days 28 days	Fri 19/12/08	Thu 15/1/09		-						
765	flow diversion	26 days 5 days	Sun 14/12/08	Thu 18/12/08		-						
767	Granular Bedding	9 days	Fri 16/1/09	Sat 24/1/09		-						
768	Base Slab	35 days	Sun 25/1/09	Sat 24/1/03		-						
769	Wall and Deck	45 days	Sun 1/3/09	Tue 14/4/09		-						
770	Curing	14 days	Wed 15/4/09	Tue 28/4/09		-						
771	Trench Backfill	7 days	Wed 29/4/09		770,755FF,756FF,757FF,888,889							
772	Reinstatement of Kam Po Road	15 days	Wed 6/5/09	Wed 20/5/09		0 days		_h				
773	8. Construction of temporary access at Bay 4	21 days	Wed 24/9/08	Tue 14/10/08								
774	9. Diversion of traffic to Bay 4	1 day	Wed 15/10/08	Wed 15/10/08								
775	10. Temporary support to existing watermain at Kam Po Roa	-	Fri 24/10/08	Sat 22/11/08				₩				
776	11. Fill in Platform	50 days	Thu 21/5/09	Thu 9/7/09	•		0 da	/S	 		\	
777	12. Roads and paving (Bay 3 and Bay 4)	40 days	Fri 10/7/09	Tue 18/8/09						6	days	
778	13. Street furnitures	14 days	Wed 19/8/09	Tue 1/9/09		_						
779	14. Landscape softworks / hardworks	60 days	Fri 10/7/09	Mon 7/9/09						0	days	
780	15. Modification to invert level of box culvert at Kam Sheun	45 days	Tue 31/3/09	Thu 14/5/09	854,990							
781												
782	C2. Portion 5 and 5C	893 days	Fri 30/3/07	Mon 7/9/09								
783	1. Site clearance	90 days	Thu 20/9/07	Tue 18/12/07								
784	1.1 General clearance	90 days	Thu 20/9/07	Tue 18/12/07	36,226SS+75 days,1043,1045							
785	2. Temporary Traffic Management Scheme	59 days	Fri 30/3/07	Sun 27/5/07								
786	TTMS Proposal (trial pits for utilities and site entrance in Ka	59 days	Fri 30/3/07	Sun 27/5/07								
787	a. Submission	45 days	Fri 30/3/07	Sun 13/5/07	2SS							
788	b. comments & approvals by Engineer & TMLG	14 days	Mon 14/5/07	Sun 27/5/07	787							
789	3. Excavation Permits	804 days	Mon 28/5/07	Sat 8/8/09								
790	3.1 application and issue of permit (trial pits for utilities	60 days	Mon 28/5/07	Thu 26/7/07	788	-						
791	and temporary site entrance in Kam Sheung Road) 3.2 application and issue of permits (for construction of	180 days	Tue 10/2/09	Sat 8/8/09	7FS-210 days				 			
	permanent entrance)						1					
792	4. Underground utilities detection	42 days	Fri 29/6/07	Thu 9/8/07								
793	a. utilities detection	28 days	Fri 29/6/07	Thu 26/7/07								
794	 b. trial trench excavtion & identification 	14 days	Fri 27/7/07	Thu 9/8/07	790,793							
795	5. Utilities temporary diversion / protection	223 days	Fri 30/3/07	Wed 7/11/07								
796	a. CLP overhead cables at CH 100 ~ CH 120	90 days	Fri 10/8/07	Wed 7/11/07								
797	b. CLP overhead cables at CH 530 ~ CH 550	38 days	Fri 10/8/07	Sun 16/9/07								
798	c. CLP overhead cables at CH 670 ~ CH 690	90 days	Fri 10/8/07	Wed 7/11/07	/94							
799	d. Gas main at Kam Sheung Road	84 days	Fri 30/3/07	Thu 21/6/07								
800	6. Drainage Management Plan	692 days	Fri 30/3/07	Wed 18/2/09	75000	4						
801	5.1 Submission of DMPs	1 day	Fri 30/3/07	Fri 30/3/07		-						
802	5.2 Comments by the Engineer	14 days	Sat 31/3/07	Fri 13/4/07		4						
803	5.3 Implementation of DMP	551 days	Sat 18/8/07	Wed 18/2/09	83155,802				 			
804	7. Channel and Crossings	821 days	Fri 30/3/07	Sat 27/6/09								
805	a. Ch20-Ch130 (Bay 4 - Bay 11)	230 days	Thu 23/8/07	Tue 8/4/08	004	4						
806	Haul access	5 days	Thu 23/8/07	Mon 27/8/07								
807	Flow diversion	10 days	Wed 2/1/08		808SS-10 days	4						
808	Excavation (including contamination material)	44 days	Sat 12/1/08		796,806,837	-						
809	Granular Bedding	40 days	Tue 22/1/08		808SS+10 days	-						
810	Base Slab (except south of Bay 6 and north of Bay 7)	44 days	Mon 28/1/08	i ue 11/3/08	809SS+6 days							
811	Wall and Deck (except south of Bay 6 and north of Bay	37 days	Mon 11/2/08	Tue 18/3/08	810SS+14 days							
812	Curing	44 days	Mon 18/2/08	Tue 1/4/08	811SS+7 days	-						
813	Trench Backfill	37 days	Mon 3/3/08		812SS+14 days	-						
814	b. South of Bay 6 and north of Bay 7	53 days	Wed 6/5/09	Sat 27/6/09					 			
815	Excavation	4 days	Wed 6/5/09	Sat 27/6/09 Sat 9/5/09	771 996	15 days				—		
816	Granular Bedding	5 days	Sun 10/5/09	Thu 14/5/09		15 days 15 da						
816	Base Slab and Wall	5 days 10 days	Fri 15/5/09	Sun 24/5/09		15 da						
017		io uays	11113/3/08	Jun 24/3/09	0.0		15 days	Ŋ	 			
	Task		Progre	ss	Summary			Rolled Up Critical Task	Rolled Up Progress		Externa	Tasks
									 		d	
	t: PROGRAMME OF WORKS 12 of 16 Critical Task		Milesto		Rolled Up			Rolled Up Milestone	Split		F .	Summary

CHIT CHEUNG CONSTRUCTION CO., LTD. DATE : MAY 2009 Aug 6 days Group By Summary Deadline

PROGRAMME OF WORKS - RP23 Contract No. : DC / 2006 / 02

) T'	Nama	Durotion	Stort	Finish Bradaaaas	1							1
D Task		Duration	Start	Finish Predecessors			May	Jun	I	Jul	Aug	
18	Curing Trench Backfill	14 days	Mon 25/5/09 Mon 8/6/09	Sun 7/6/09 817 Sat 27/6/09 818			15 days					
319	c. Ch130-Ch233 (Bay 12 - Bay 19)	20 days 342 days	Sat 18/8/07	Thu 24/7/08			72 days					
320	Haul access	5 days	Sat 18/8/07	Wed 22/8/07 830								
322	Flow diversion	10 days	Sun 30/3/08	Tue 8/4/08 823SS-10 days								
323	Excavation (including contamination material)	33 days	Wed 9/4/08	Sun 11/5/08 821,813								
324	Granular Bedding	29 days	Sat 19/4/08	Sat 17/5/08 823SS+10 days								
325	Base Slab	50 days	Fri 25/4/08	Fri 13/6/08 824SS+6 days								
326	Wall and Deck	56 days	Fri 9/5/08	Thu 3/7/08 825SS+14 days								
327	Curing	63 days	Fri 16/5/08	Thu 17/7/08 826SS+7 days								
328	Trench Backfill	56 days	Fri 30/5/08	Thu 24/7/08 827SS+14 days								
329	d. Ch233-Ch380 (Bay 20 - Bay 30)	152 days	Mon 13/8/07	Fri 11/1/08								
330	Haul access	5 days	Mon 13/8/07	Fri 17/8/07 832SS-15 days								
331 332	Flow diversion	10 days	Sat 18/8/07	Mon 27/8/07 830								
332	Excavation (including contamination material) Granular Bedding	60 days 70 days	Tue 28/8/07 Fri 7/9/07	Fri 26/10/07 Thu 15/11/07 832SS+10 days								
334	Base Slab	78 days	Thu 13/9/07	Thu 29/11/07 833SS+6 days								
335	Wall and Deck	85 days	Thu 27/9/07	Thu 20/12/07 834SS+14 days								
336	Curing	92 days	Thu 4/10/07	Thu 3/1/08 835SS+7 days								
337	Trench Backfill	86 days	Thu 18/10/07	Fri 11/1/08 836SS+14 days								
338	e. Ch464-Ch489 (North of Bay 38 and Bay 39)	95 days	Thu 5/6/08	Sun 7/9/08								
339	Excavation	28 days	Thu 5/6/08	Wed 2/7/08 876SS+97 days								
340	Granular Bedding	10 days	Thu 3/7/08	Sat 12/7/08 839								
341 342	Base Slab and Wall Curing	24 days	Sun 13/7/08	Tue 5/8/08 840								
342	Trench Backfill	14 days 17 days	Wed 6/8/08 Wed 20/8/08	Tue 19/8/08 841 Fri 5/9/08 842								
344	Forming site access at north of Bay 38 and Bay 39	2 days	Sat 6/9/08	Sun 7/9/08 843								
345	f. Ch464-CH504 (Bay 40, South of Bay 38 and Bay 39)	146 days	Mon 8/9/08	Sat 31/1/09								
346	Excavation	97 days	Mon 8/9/08	Sat 13/12/08 844								
347	Granular Bedding	97 days	Mon 22/9/08	Sat 27/12/08 846SS+14 days								
348	Base Slab and Wall	96 days	Tue 30/9/08	Sat 3/1/09 847SS+8 days								
349	Curing	96 days	Tue 21/10/08	Sat 24/1/09 848SS+21 days								
350	Trench Backfill	96 days	Tue 28/10/08	Sat 31/1/09 849SS+7 days								
351	g. Ch449-Ch464 (Bay 37)	124 days	Sun 1/2/09	Thu 4/6/09								
352 353	Excavation	21 days	Sun 1/2/09	Sat 21/2/09 850								
353	Granular Bedding Base Slab	7 days 30 days	Sun 22/2/09 Sun 1/3/09	Sat 28/2/09 852 Mon 30/3/09 853								
355	Wall and Deck	30 days	Tue 31/3/09	Wed 29/4/09 854								
356	Curing	14 days	Thu 30/4/09	Wed 13/5/09 855,803FF								
357	Trench Backfill	10 days	Thu 14/5/09	Sat 23/5/09 856		65 days						
358	Filling Platform Bay 37	12 days	Sun 24/5/09	Thu 4/6/09 857			65 days					
359	h. Ch504-Ch586 (Bay 41 - Bay 46)	285 days	Fri 30/3/07	Tue 8/1/08								
360	Haul access	3 days	Fri 30/3/07	Sun 1/4/07								
361	Flow diversion	5 days	Fri 7/9/07	Tue 11/9/07 862SS-10 days								
362 363	Excavation (including contamination material)	45 days	Mon 17/9/07	Wed 31/10/07 797								
364	Granular Bedding Base Slab	55 days 63 days	Thu 27/9/07 Wed 3/10/07	Tue 20/11/07 862SS+10 days Tue 4/12/07 863SS+6 days								
365	Wall and Deck	63 days	Wed 3/10/07 Wed 17/10/07	Tue 18/12/07 864SS+14 days								
366	Curing	70 days	Wed 24/10/07	Tue 1/1/08 865SS+7 days								
367	Trench Backfill	63 days	Wed 7/11/07	Tue 8/1/08 866SS+14 days								
368	i. Ch586-Ch712 (Bay 47 - Bay 57)	393 days	Mon 2/4/07	Mon 28/4/08								
369	Haul access	5 days	Mon 2/4/07	Fri 6/4/07 860								
370	Flow diversion	3 days	Sun 30/12/07	Tue 1/1/08 871SS-10 days								
371	Excavation (including contamination material)	60 days	Wed 9/1/08	Sat 8/3/08 1066,867,798								
372 373	Granular Bedding Base Slab	60 days	Sat 19/1/08 Fri 25/1/08	Tue 18/3/08 871SS+10 days								
373	Wall and Deck	60 days 60 days	Fri 25/1/08	Mon 24/3/08 872SS+6 days Mon 7/4/08 873SS+14 days								
375	Curing	67 days	Fri 15/2/08	Mon 21/4/08 874SS+7 days								
376	Trench Backfill	60 days	Fri 29/2/08	Mon 28/4/08 875SS+14 days								
377	j. Ch712-Ch799 (Bay 58 - Bay 63)	699 days	Sat 7/4/07	Thu 5/3/09								
378	Haul access	3 days	Sat 7/4/07	Mon 9/4/07 869								
379	Flow diversion	3 days	Fri 5/9/08	Sun 7/9/08 880SS-3 days								
380	Excavation (including contamination material)	134 days	Mon 8/9/08	Mon 19/1/09 878,876,844								
381	Granular Bedding	134 days	Thu 18/9/08	Thu 29/1/09 880SS+10 days								
382	Base Slab	134 days	Wed 24/9/08	Wed 4/2/09 881SS+6 days								
383 384	Wall and Deck	125 days	Wed 8/10/08	Mon 9/2/09 882SS+14 days								
384 385	Curing Trench Backfill	132 days 128 days	Wed 15/10/08 Wed 29/10/08	Mon 23/2/09 883SS+7 days Thu 5/3/09 884SS+14 days								
385	8. Gabion	128 days 613 days	Fri 4/1/08	Mon 7/9/09								

ID	Task Name	Duration	Start	Finish	Predecessors			Мау	Jun		lul	_
887	Bay 5- Bay 7 (Ch35-Ch75)	77 days	Mon 8/6/09	Sun 23/8/09	818			15 days				
888	Bay 8- Bay 11 (Ch75-Ch130)	392 days	Wed 2/4/08	Tue 28/4/09	812	_						
889	Bay 12 - Bay 19 (Ch130-Ch233)	285 days	Fri 18/7/08	Tue 28/4/09								
890	Bay 20 - Bay 27 (Ch233-Ch340)	480 days	Fri 4/1/08	Mon 27/4/09								
891	Bay 28 to Bay 30 (Ch340 to Ch380)	206 days	Sat 14/2/09	Mon 7/9/09								
892	Bay 38 - Bay 43 (Ch464-Ch549)	226 days	Sun 25/1/09	Mon 7/9/09		_						
893 894	Bay 44 - Bay 45 (Ch549-Ch576)	492 days	Tue 22/4/08 Tue 22/4/08	Wed 26/8/09 Mon 7/9/09		_						_
894 895	Bay 50 to Bay 54 (Ch631 to Ch675) Bay 56 - Bay 59 (Ch688-Ch741)	504 days 196 days	Tue 22/4/08 Tue 24/2/09	Mon 7/9/09		_						
896	Bay 60 - Bay 62 (Ch741-Ch786)	184 days	Tue 24/2/09	Wed 26/8/09		_						
897	9. Granite Stone Facing	716 days	Fri 30/3/07	Sat 14/3/09		_						
898	Bay 4 and Bay 5 (Ch19.5-Ch55)	5 days	Wed 2/4/08	Sun 6/4/08	812	_						
899	Bay 15 - Bay 19 (Ch166-Ch233)	12 days	Fri 18/7/08	Tue 29/7/08		-						
900	Bay 37 (Ch449-Ch464)	7 days	Fri 30/3/07	Thu 5/4/07		-						
901	Bay 41, Bay 42 and Bay 46 (Ch504-Ch586)	6 days	Sat 28/2/09	Thu 5/3/09	997	_						
902	Bay 47 - Bay 55 (Ch586-Ch688)	9 days	Fri 6/3/09	Sat 14/3/09	901							
903	10. Ramp No. 1 (Ch645 - Ch668, Bay 52 - Bay 53)	504 days	Tue 22/4/08	Mon 7/9/09								_
904	base slab	12 days	Tue 22/4/08	Sat 3/5/08			l					
905	Wall	10 days	Sun 4/5/08	Tue 13/5/08		_						
906	General fill	5 days	Wed 14/5/08	Sun 18/5/08		_						
907 908	Granular fill and blinding	5 days 7 days	Thu 27/8/09 Tue 1/9/09	Mon 31/8/09 Mon 7/9/09		_	l					
909	Concrete pavement 11. Ramp No. 2 (Ch516 - Ch537, Bay 42)	893 days	Fri 30/3/07	Mon 7/9/09	907	_						
909	base slab	12 days	Fri 30/3/07	Tue 10/4/07		_						
911	Wall	10 days	Wed 11/4/07	Fri 20/4/07	910	-						
912	General fill	20 days	Sat 21/4/07	Thu 10/5/07		_						
913	Granular fill and blinding	5 days	Thu 27/8/09	Mon 31/8/09		_						
914	Concrete pavement	7 days	Tue 1/9/09	Mon 7/9/09	913	-						
915	12. Ramp No. 3 (Ch209 - Ch233, Bay 18 - Bay 19)	296 days	Fri 18/7/08	Sat 9/5/09			_	7				
916	base slab	12 days	Fri 18/7/08	Tue 29/7/08	827			•				
917	Wall	10 days	Wed 30/7/08	Fri 8/8/08			l					
918	General fill	20 days	Sat 9/8/08	Thu 28/8/08								
919	Granular fill and blinding	5 days	Tue 28/4/09	Sat 2/5/09								
920 921	Concrete pavement	7 days	Sun 3/5/09	Sat 9/5/09	919	ys						
921	13 Ramp No. 4 (Ch35 - Ch55, Bay5) General fill	417 days	Wed 2/4/08 Wed 2/4/08	Sat 23/5/09 Tue 8/4/08	010	_						
922	Subbase	7 days 8 days	Wed 2/4/08 Wed 29/4/09	Wed 6/5/09								
924	Concrete pavement	17 days	Thu 7/5/09	Sat 23/5/09		53 days	P					
925	14. Filling in Platform	231 days	Fri 25/7/08	Thu 12/3/09								
926	a. Bay 3- Bay 27 (Ch11-Ch340)	34 days	Fri 25/7/08	Wed 27/8/08	813,828			1				
927	b. Bay 38 - Bay 55 (Ch464-Ch688)	20 days	Sun 1/2/09	Fri 20/2/09	876,867,843,850	-						
928	c. Bay 56 - Bay 63 (Ch688-Ch797)	7 days	Fri 6/3/09	Thu 12/3/09	885							
929	15. Drainage works	261 days	Mon 4/8/08	Tue 21/4/09			l					
930	16.1 storm drain with manhole and headwall	235 days	Mon 4/8/08	Thu 26/3/09		_						
931	a. Bay 3- Bay 27 (Ch11-Ch340)	20 days	Mon 4/8/08		926SS+10 days	_						
932 933	b. Bay 37 - Bay 55 (Ch449-Ch688) c. Bay 56 - Bay 63 (Ch688-Ch797)	30 days	Wed 11/2/09		927SS+10 days	_						
933	C. Bay 56 - Bay 53 (Ch688-Ch797) 16.2 surface drain	14 days 237 days	Fri 13/3/09 Thu 28/8/08	Thu 26/3/09 Tue 21/4/09	020	_						
935	a. Bay 3- Bay 27 (Ch11-Ch340)	34 days	Thu 28/8/08	Tue 30/9/08	926							
936	b. Bay 37 - Bay 55 (Ch449-Ch688)	60 days	Sat 21/2/09	Tue 21/4/09		-						
937	c. Bay 56 - Bay 63 (Ch688-Ch797)	14 days	Fri 13/3/09	Thu 26/3/09		-						
938	16. Roads and paving	158 days	Fri 27/3/09	Mon 31/8/09			_					_
939	a. Ch233 - Ch340	50 days	Sun 10/5/09	Sun 28/6/09	926,920,931,1002SS-30 days	5	days		h			
940	b. Ch464 - Ch549	40 days	Mon 15/6/09	Fri 24/7/09				0 days			T	—
941	c. Ch549 - Ch609	40 days	Wed 6/5/09	Sun 14/6/09		0 days						
942	d. Ch609 - Ch688	40 days	Fri 27/3/09	Tue 5/5/09			T.					
943	e. Permanent Entrance at Ch449 to Ch464	23 days	Sun 9/8/09	Mon 31/8/09	791,858,940							
944	17. Street furnitures	125 days	Wed 6/5/09	Mon 7/9/09	030	_ ¶						
945 946	a. Ch233 - Ch340 b. Ch449 - Ch549	20 days 30 days	Mon 29/6/09 Sat 25/7/09	Sat 18/7/09 Sun 23/8/09		_			51 days		k o	
946	c. Ch549 - Ch549 c. Ch549 - Ch609	30 days 30 days	Mon 15/6/09	Tue 14/7/09		_		55 days			8 days	
948	d. Ch609 - Ch688	30 days	Wed 6/5/09	Thu 4/6/09		95 days		oo days				
949	e. Permanent Entrance at Ch449	7 days	Tue 1/9/09	Mon 7/9/09		ays						
950	18. Landscape softworks / hardworks	165 days	Fri 27/3/09	Mon 7/9/09		_						_
951	a. Ch35 - Ch340	53 days	Fri 10/7/09	Mon 31/8/09	935,779SS				7	days		
952	b. Ch449 - Ch549	45 days	Sat 25/7/09	Mon 7/9/09	936,940					· · ·	0 days	
953	c. Ch549 - Ch609	45 days	Mon 15/6/09	Wed 29/7/09	941			40 days	•			
954	d. Ch609 - Ch688	45 days	Wed 6/5/09	Fri 19/6/09	942	80 days						
955	e. Ch688 - Ch797	10 days	Fri 27/3/09	Sun 5/4/09	937							
Droise	Task		Progre	ess	Summary	/		Rolled Up Critical Task	lled Up Progress	External Tasks		
	tt: PROGRAMME OF WORKS 14 of 16 Critical Task	k	Milest		Rolled Up			Rolled Up Milestone Sp	it .	Project Summ		
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PROGRAMME OF WORKS - RP23

ID II	isk Name	Duration	Start	Finish	Predecessors							
10 1	19. Construction of cofferdam	21 days	Start Sat 1/11/08	Finish Fri 21/11/08	1 10400030013		May		Jun		Jul	Aug
57	19. Construction of conferdam	21 days	Sat 1/11/00	FII 2 1/ 1 1/06		-						
958	D. Section III of the Works - Portions 5A1, 5A2 and 5B	830 days	Fri 30/3/07	Mon 6/7/09		_						
959	1. Site clearance	-	Mon 31/12/07	Thu 3/1/08						·		
60 61	1.1 General site clearance 2. Temporary Traffic Management Scheme		Mon 31/12/07		1049,1051,1055,1057,1061,1063							
62	2. Temporary Traffic Management Scheme TTMS Proposal (trial pits for utilities and site entrance in Kam St	59 days 59 days	Fri 30/3/07 Fri 30/3/07	Sun 27/5/07 Sun 27/5/07		-						
	a. Submission			Sun 13/5/07	266							
63 64	a. Submission b. comments & approvals by Engineer & TMLG	45 days 14 days	Fri 30/3/07 Mon 14/5/07	Sun 13/5/07 Sun 27/5/07		-						
965	3. Excavation Permits	741 days	Mon 28/5/07	Sat 6/6/09								
966	3.1 application and issue of permit (trial pits for utilities and	60 days	Mon 28/5/07	Thu 26/7/07	964			•				
967	temporary site entrance in Kam Sheung Road) 3.2 application and issue of permits (for construction of	180 days	Tue 9/12/08	Sat 6/6/09	7FS-273 days			h				
68	permanent entrance) 4. Underground utilities detection	42 days	Fri 29/6/07	Thu 9/8/07		-						
69	a. utilities detection	2 days	Fri 29/6/07	Sat 30/6/07	20	-						
70	b. trial trench excavtion & identification	14 days	Fri 27/7/07	Thu 9/8/07								
1	5. Utilities temporary diversion / protection	590 days	Thu 26/7/07	Fri 6/3/09								
72 73	a. Completion of WSD 450 diameter water main (By WSD)	1 day	Thu 26/7/07	Thu 26/7/07								
	b. Telephone line		Wed 10/12/08	Fri 6/3/09 Fri 13/3/09	981SS,986FF,970	-						
4	6. Drainage Management Plan a Submission of DMPs	715 days 1 day	Fri 30/3/07 Fri 30/3/07	Fri 13/3/09 Fri 30/3/07	759SS	-						
3	b Comments by the Engineer	14 days	Sat 31/3/07	Fri 13/4/07		-						
7	c Implementation of DMP	558 days	Mon 3/9/07	Fri 13/3/09								
8	7.1 Channel - Ch380-Ch429 (Bay 31 - Bay 34)	443 days	Thu 20/12/07	Fri 6/3/09								
'9	Haul access	15 days	Thu 20/12/07		1049,960FF							
30 31	Flow diversion	4 days	Wed 17/9/08	Sat 20/9/08		-						
31 32	Excavation (including contamination material) Granular Bedding	70 days 70 days	Sun 21/9/08 Sat 11/10/08	Sat 29/11/08 Fri 19/12/08	813,979,980 981SS+20 days	-						
83	Base Slab	70 days 77 days	Sat 11/10/08 Sat 25/10/08		982SS+14 days	-						
34	Wall and Deck	77 days	Sat 15/11/08		983SS+21 days	1						
5	Curing	84 days	Sat 22/11/08		984SS+7 days							
6	Trench Backfill	91 days	Sat 6/12/08		985SS+14 days							
7	7.2 Channel - Ch429-Ch439 (Bay 35)	-	Sun 30/11/08	Fri 6/3/09	091	-						
38 39	Excavation Granular Bedding		Sun 30/11/08 Wed 10/12/08	Tue 9/12/08 Tue 16/12/08		-						
9 90	Base Slab	-	Wed 10/12/08 Wed 17/12/08	Tue 16/12/08 Tue 6/1/09		-						
1	Wall and Deck	35 days	Wed 7/1/09	Tue 10/2/09								
92	Curing	14 days	Wed 11/2/09	Tue 24/2/09								
3	Trench Backfill	10 days	Wed 25/2/09	Fri 6/3/09	992							
94 95	8. Demolition of existing structures a. Existing footbridge at Ch350 (Bay 29)	2 days	Sun 26/8/07	Mon 27/8/07	92255 2 days	-						
95 96	a. Existing footbridge at Ch350 (Bay 29) 9. Gabion	2 days 73 days	Sun 26/8/07 Sat 14/2/09	Mon 27/8/07 Mon 27/4/09	832SS-2 days 985							
97	10. Granite Stone Facing (Bay 35)	3 days	Wed 25/2/09	Fri 27/2/09		-						
98	11. Fill in Platform	52 days	Sat 7/3/09	Mon 27/4/09	986,993	1						
99	12. Drainage works	62 days	Tue 17/3/09	Sun 17/5/09		_						
00	a. storm drain with manhole	35 days	Tue 17/3/09		998SS+10 days							
001	b. surface drain 13. Roads and paving	20 days	Tue 28/4/09	Sun 17/5/09 Sat 6/6/09			h					
002	13. Roads and paving 14. Permanent Entrance, road marking and street furnitures at C	40 days 30 days	Tue 28/4/09 Sun 7/6/09	Sat 6/6/09 Mon 6/7/09				0 days		Π		
003	-					-		• • • • • •				
	15. Street furnitures(Bay 31 to Bay 34) / traffic sign / road markir	40 days	Thu 28/5/09		1002SS+30 days		0 days			<u></u>		
005	16. Landscape softworks / hardworks	50 days	Mon 18/5/09	Mon 6/7/09	1001		0 days			Ç		
06 07	17. Temp vehicular access in Portion 5A1 a. Maintenance and operation	191 days 188 days	Wed 26/9/07 Wed 26/9/07	Thu 3/4/08 Mon 31/3/08	1013	-						
007	b. Removal	3 days	Tue 1/4/08	Thu 3/4/08		-						
09												
0	E. Section IV of the Works	20 days	Thu 6/9/07	Tue 25/9/07								
11	1. Formation for temp vehicular access	2 days	Thu 6/9/07	Fri 7/9/07								
12 13	Construction of temp vehicular access Opening of temp vehicular access Depring of temp vehicular access to the Public	17 days	Sat 8/9/07		1011,11FF-1 day	-						
3	3. Opening of temp vehicular access to the Public	1 day	Tue 25/9/07	Tue 25/9/07	1012	-						
15	F. Section V of the Works - Preservation and protection to existing	892 days	Sat 31/3/07	Mon 7/9/09								
16	trees 1. Portion 1	862 days	Sat 31/3/07	Sat 8/8/09								
017	1. Portion 1 1.1 Tree survey	14 days	Sat 31/3/07 Sat 31/3/07	Sat 8/8/09 Fri 13/4/07	15	-						
018	1.2 Tree transplant	813 days	Sat 19/5/07	Sat 8/8/09								
019	a. To Temp holding nursery	62 days	Sat 19/5/07	Thu 19/7/07		1						•
020	b. To final location	37 days	Fri 3/7/09	Sat 8/8/09		1				30 days		
021	1.3 Tree protection	62 days	Sat 19/5/07	Thu 19/7/07	1019SS	1						

CHIT CHEUNG CONSTRUCTION CO., LTD.

ransplant	Duration832 days14 days818 days62 days132 days62 days802 days802 days14 days788 days64 days301 days64 days	Start Wed 30/5/07 Wed 30/5/07 Wed 13/6/07 Wed 13/6/07 Wed 13/6/07 Wed 13/6/07 Fri 29/6/07 Fri 29/6/07 Fri 13/7/07 Fri 13/7/07	Finish Mon 7/9/09 Tue 12/6/07 Mon 7/9/09 Mon 13/8/07 Mon 7/9/09 Mon 13/8/07 Mon 7/9/09	1023,214,228 461FF		May Jun Jul Aug
survey analysis of the second	14 days 818 days 62 days 132 days 62 days 802 days 14 days 788 days 64 days 301 days 64 days	Wed 30/5/07 Wed 13/6/07 Wed 13/6/07 Wed 29/4/09 Wed 13/6/07 Fri 29/6/07 Fri 29/6/07 Fri 13/7/07	Tue 12/6/07 Mon 7/9/09 Mon 13/8/07 Mon 7/9/09 Mon 13/8/07	1023,214,228 461FF		May Jun Jul Aug
ransplant framp holding nursery final location framp holding nursery final location framework fr	818 days 62 days 132 days 62 days 802 days 14 days 788 days 64 days 301 days 64 days	Wed 13/6/07 Wed 13/6/07 Wed 29/4/09 Wed 13/6/07 Fri 29/6/07 Fri 29/6/07 Fri 13/7/07	Mon 7/9/09 Mon 13/8/07 Mon 7/9/09 Mon 13/8/07	1023,214,228 461FF		
Temp holding nursery Image: Second	62 days 132 days 62 days 802 days 14 days 788 days 64 days 301 days 64 days	Wed 13/6/07 Wed 29/4/09 Wed 13/6/07 Fri 29/6/07 Fri 29/6/07 Fri 13/7/07	Mon 13/8/07 Mon 7/9/09 Mon 13/8/07	461FF		
final location Image: Second	132 days 62 days 802 days 14 days 788 days 64 days 301 days 64 days	Wed 29/4/09 Wed 13/6/07 Fri 29/6/07 Fri 29/6/07 Fri 13/7/07	Mon 7/9/09 Mon 13/8/07	461FF		
vordection	62 days 802 days 14 days 788 days 64 days 301 days 64 days	Wed 13/6/07 Fri 29/6/07 Fri 29/6/07 Fri 13/7/07	Mon 13/8/07			
survey ransplant Temp holding nursery final location rotection urvey	802 days 14 days 788 days 64 days 301 days 64 days	Fri 29/6/07 Fri 29/6/07 Fri 13/7/07				
ransplant Temp holding nursery final location protection urvey	14 days 788 days 64 days 301 days 64 days	Fri 29/6/07 Fri 13/7/07		102355		
Temp holding nursery final location protection survey surv	64 days 301 days 64 days		Thu 12/7/07	17		
final location rotection survey	301 days 64 days	Fri 13/7/07	Mon 7/9/09			
survey	64 days		Fri 14/9/07			
survey		Tue 11/11/08	Mon 7/9/09			
survey	000 10 0	Fri 13/7/07	Fri 14/9/07	1031SS		
	892 days 14 days	Sat 31/3/07 Sat 31/3/07	Mon 7/9/09 Fri 13/4/07	18		
ransplant	843 days	Sat 31/5/07 Sat 19/5/07	Mon 7/9/09			
Temp holding nursery	62 days	Sat 19/5/07	Thu 19/7/07	1035,214		
final location	53 days	Fri 17/7/09	Mon 7/9/09	779FF		0 days
	62 days	Sat 19/5/07		1037SS		
	802 days	Fri 29/6/07				
				19		
				1041.214		
	195 days	Wed 25/2/09				
	69 days	Fri 13/7/07				
	739 days	Fri 29/6/07				
-	7 days	Fri 29/6/07		20		
-				4047 044		
					0 400	
	61 days 62 days	Fri 6/7/07			U day	
	739 days	Fri 29/6/07				
-	14 days	Fri 29/6/07		21		
-	725 days	Fri 13/7/07				
	-				0 day	s
		Tue 16/10/07				
	14 days	Tue 16/10/07		22		\mathbf{V}
ransplant	616 days	Tue 30/10/07	Mon 6/7/09			
	62 days	Tue 30/10/07				
					0 day	s
protection	62 days	Tue 30/10/07	Sun 30/12/07	106188		
	597 days	Wed 12/9/07	Thu 30/4/09			
	27 days	Wed 12/9/07	Mon 8/10/07	162		
Loading Facilities	2 days	Wed 22/4/09	Thu 23/4/09	625		
ent of Berthing Area	7 days	E-: 04/4/00	Thu 00/1/07	1067		
	Temp holding nursery Image: Second	Sorrection62 days802 days802 dayssurvey14 daysransplant788 daysof Temp holding nursery69 daysof final location195 daysprotection69 daysorotection69 daysu739 dayssurvey7 daysgransplant732 daysorotection61 daysor Temp holding nursery62 daysof final location61 daysorotection62 daysfinal location61 dayssurvey14 daysransplant616 daysorotection62 daysorotection62 daysorotection62 daysorotection61 daysorotection62 daysorotection61 daysorotection62 daysorotection62 daysorotection61 daysorotection62 daysorotection62 daysorotection62 daysorotection62 daysorotection62 days	Sat 19/5/07 Sat 19/5/07 S02 days Fri 29/6/07 survey 14 days Fri 29/6/07 ransplant 788 days Fri 13/7/07 o Temp holding nursery 69 days Fri 13/7/07 o Temp holding nursery 69 days Fri 13/7/07 o Temp holding nursery 69 days Fri 13/7/07 o Temp holding nursery 739 days Fri 29/6/07 o Temp holding nursery 7 days Fri 29/6/07 o Temp holding nursery 7 days Fri 67/07 o Temp holding nursery 62 days Fri 67/07 o Temp holding nursery 62 days Fri 67/07 o Temp holding nursery 62 days Fri 13/7/07 o Temp holding nursery 62 days Tu 16/10/07 o final location 616 days Tuu 7/5/09	Satt 19/5/07 Thu 19/7/07 802 days Fri 29/6/07 Mon 7/9/09 survey 14 days Fri 29/6/07 Thu 12/7/07 ransplant 788 days Fri 13/7/07 Won 7/9/09 Temp holding nursery 69 days Fri 13/7/07 Wed 19/9/07 final location 195 days Wed 25/2/09 Mon 7/9/09 pordection 69 days Fri 13/7/07 Wed 19/9/07 final location 195 days Wed 25/2/09 Mon 67/09 pordection 69 days Fri 13/7/07 Wed 19/9/07 final location 739 days Fri 29/6/07 Mon 67/09 survey 7 days Fri 67/07 Wed 5/9/07 final location 61 days Thu 7/5/09 Mon 67/09 pordection 62 days Fri 67/07 Wed 5/9/07 survey 739 days Fri 29/6/07 Mon 67/09 pordection 62 days Fri 13/7/07 Wed 12/9/07 survey 14 days Fri 13/7/07 Wed 12/9/07 final location	brotection 62 days Sat 19/5/07 Thu 19/7/07 1037SS 802 days Fri 29/6/07 Mon 7/9/09 Image: Second S	brotection 62 days Sat 19/5/07 Thu 19/7/07 1037SS bauvey 14 days Fri 29/6/07 Mon 7/9/09 Image: Sat 19/5/07 Mon 7/9/09 survey 14 days Fri 13/7/07 Thu 19/7/07 19 Image: Sat 19/5/07 Mon 7/9/09 ianasplant 788 days Fri 13/7/07 Wod 19/9/07 1041.214 Image: Sat 19/5/07 Image: Sat 19/5/07

Project: PROGRAMME OF WORKS	Task	Progress	Summary	Rolled Up Critical Task	Rolled Up Progress	External Tasks	
Project: PROGRAMME OF WORKS Page: 16 of 16	Critical Task	Milestone	Rolled Up Task	Rolled Up Milestone	Split	 Project Summary	

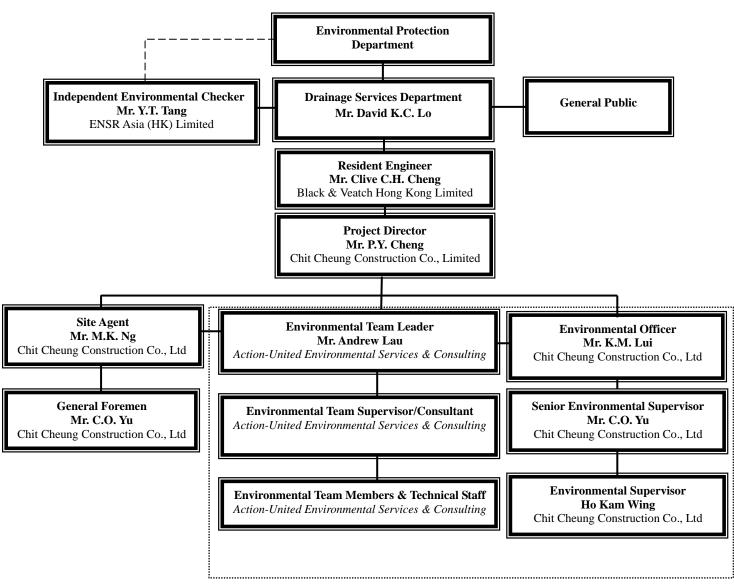


APPENDIX C

ENVIRONMENTAL ORGANIZATION STRUCTURE



Environmental Organization Structure



Contractor's Environmental Team (CET)



Organization	Project Role	Name of Key Staff	Tel No.	Fax No.
DSD	Employer	Mr. David K.C. LO	2594-7254	2827-8526
B&V	Engineer	Mr. Kelvin N.F. LAU	2601-1000	2601-3988
B&V	Engineer's Representative	Mr. Clive C.H. CHENG	2478-9161	2478-9396
ENSR	Independent Environmental Checker	Mr. Y.T. Tang	3105-8537	2891-0305
CCC	Project Director	Mr. P.Y. CHENG	9023-4821	2403-1162
CCC	Site Agent	Mr. M.K. NG	6603-9711	2479-1365
CCC	Site Engineer	Mr. Jimmy CHAN	9234-8632	2479-1365
CCC	Environmental Officer	Mr. Brian Tam	6103-7404	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	Andrew Lau	2959-6059	2959-6079
AUES	Ecologist	Vincent Lai	9406-9784	2959-6079

Contact Details of Key Personnel

Legend: DSD (Employer) B&V (Engineer)

Drainage Services Department Black & Veatch Hong Kong Limited

Chit Cheung Construction Company Limited.

CCC (Contractor) -ENSR (IEC) AUES (ET) _

-

ENSR Asia (HK) Ltd. -

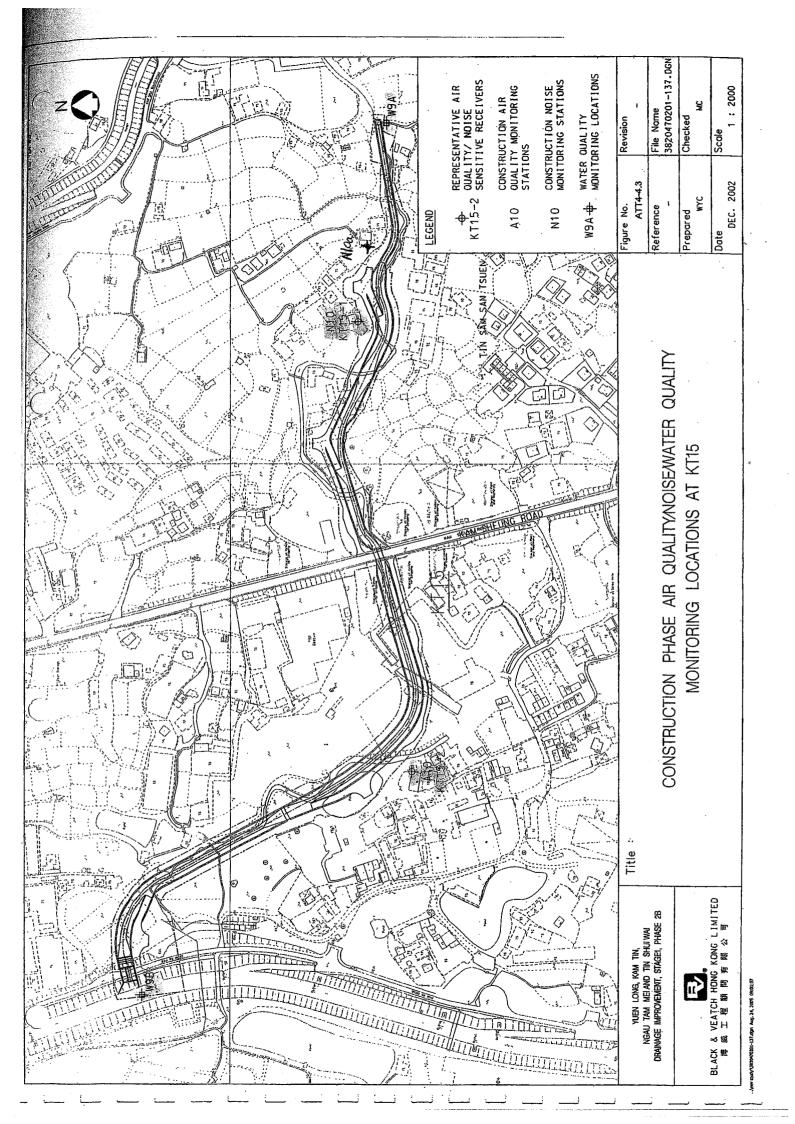
Action-United Environmental Services & Consulting

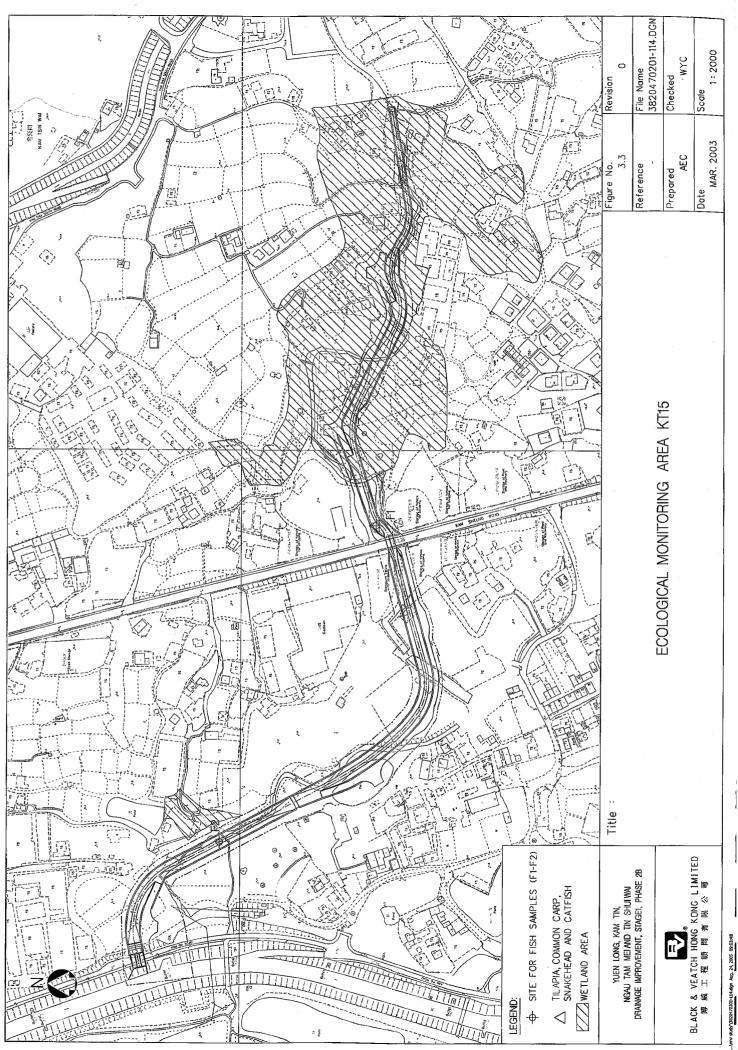
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APPENDIX D

LOCATIONS OF DESIGNATED MONITORING STATION/LOCATIONS/AREA







APPENDIX E

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



KT15 – Monthly EM&A Report for April 2009 (No. 22)

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

Event/Action Plan for Air Quality



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

Event/Action Plan for Construction Noise



Event and Action Plan for Stream Water Quality

Event	ET Leader	IEC	Engineer	Contractor
ACTION LEVEL (being exceeded by one sampling day)	 Repeat in-situ measurement to confirm findings Identify source(s) of impact Inform IEC and Contractor Check monitoring data, all plant, equipment and Contractor's working methods Discuss mitigation measures IEC and Contractor Repeat measurement on next day of exceedance 	 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 Make agreement on the mitigation measures to be implemented 	 Inform Engineer and confirm notification of the non-compliance in writing Rectify unacceptable practice Check all plant and equipment Consider changes of working methods Discuss with ET and Contractor and propose mitigation measures to IEC and Engineer Implement the agreed mitigation measures
ACTION LEVEL (being exceeded by more than one sampling day)	 Repeat in-situ measurement to confirm findings Identify source(s) of impact Inform IEC, Contractor and EPD Check monitoring data, all plant, equipment and Contractor's working methods Discuss mitigation measures IEC, Engineer and Contractor Repeat measurement on next day of exceedance Ensure mitigation measures are implemented Prepare to increase the monitoring frequency to daily Repeat measurement on next day of exceedance 	 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 Make agreement on the mitigation measures to be implemented Assess the effectiveness of the implemented mitigation measures 	 Inform Engineer and confirm notification of the non-compliance in writing Rectify unacceptable practice Check all plant and equipment Consider changes of working methods Discuss with ET and IEC and propose mitigation measures to IEC and Engineer within 3 working days Implement the agreed mitigation measures
LIMIT LEVEL (being exceeded by one sampling days)	 Repeat in-situ measurement to confirm findings Identify source(s) of impact Inform IEC, Contractor and EPD Check monitoring data, all plant, equipment and Contractor's working methods Discuss mitigation measures IEC, Engineer and Contractor Ensure mitigation measures are implemented Increase the monitoring frequency to daily until no exceedance of Limit level 	 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, ET and Contractor on the proposed mitigation measures Request Contractor to critically review the working methods Make agreement on the mitigation measures to be implemented Assess the effectiveness of the implemented mitigation measures 	 Inform Engineer and confirm notification of the non-compliance in writing Rectify unacceptable practice Check all plant and equipment Consider changes of working methods Discuss with ET, IEC and Engineer and propose mitigation measures to IEC and Engineer within 3 working days Implement the agreed mitigation measures
LIMIT LEVEL (being exceeded by more than one sampling days)	 Repeat in-situ measurement to confirm findings; Identify source(s) of impact; Inform Contractor, Engineer, IEC and EPD; Check monitoring data, all plant, equipment and Contractor's working methods; Discuss mitigation measures with IEC, Engineer and Contractor; Ensure mitigation measures are implemented; Increase the monitoring frequency to daily until no exceedance of Limit level 	 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, ET and Contractor on the proposed mitigation measures Request Contractor to critically review the working methods Make agreement on the mitigation measures to be implemented Assess the effectiveness of the implemented mitigation measures 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 	 Inform Engineer and confirm notification of the non-compliance in writing Rectify unacceptable practice Check all plant and equipment Consider changes of working methods 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 Implement the agreed mitigation measures; As directed by Engineer, to slow down or to stop all or part of the construction activities

 $\label{eq:loos} $$2007$ TCS00371 (DC-2006-02)$ for $$00$ Monthly $$Pt(KT15)$ 2009$ Apr 09$ R1286v3.doc Action-United Environmental Services and Consulting $$1000 Prior $$ and $$Consulting $$ 1000 Prior $$ and $$ 1000 Prior $$



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



KT15 – Monthly EM&A Report for April 2009 (No. 22)

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

Items	Aspect	Description of Equipment	Date of Calibration	Date of Next Calibration
1*	Air	Greasby Anderson GMWS2310 High Volume Sampler	08 Mar 09	08 May 09
2		EQ094 - Sibata LD-3 Laser Dust Meter	20 Jun 08	19 Jun 09
3		EQ096 - Sibata LD-3 Laser Dust Meter	20 Jun 08	19 Jun 09
4	Noise	Bruel & Kjaer 4231 Acoustical Calibrator	22 Apr 08	22 Apr 09
5		Bruel & Kjaer 2238 Integrating Sound Level Meter	22 Apr 08	22 Apr 09
6	Water	YSI 55/12FT (Serial No. 97F0837)	18 Mar 09	19 Jun 09
7*		Extech Instruments, ExStik TM Model pH110 (Serial No. 49702)	09 Feb 09	09 May 09
8*		Hanna pH Meter HI98107 (Serial No. S411364)	17 Mar 09	17 Jun 09
9*		Turbidimeter HACH 2100p (Serial No. 08070C031408)	09 Feb 09	09 May 09
10		Hand reference ATACO (Carial Na. 2004(2)	19 Jan 09	19 Apr 09
10		Hand refractometer ATAGO (Serial No. 289468)	21 Apr 09	21 Jul 09

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

TSP SAMPLER CALIBRATION CALCULATION SPREADSHEET

Location : Tin Sam San Tsuen Location ID : A10						Next Calibr	Calibration: 8-Mar-09 ation Date: 8-May-09 Fechnician: Mr. Ben Tam
					CONDIT	IONS	
	S	Sea Level Tem	Pressure perature	· ,	1050.32 13.7		Corrected Pressure (mm Hg) 787.74 Temperature (K) 287
				C	ALIBRATIO	N ORIFICE	
				Make-> Model-> Serial # ->	515N		Qstd Slope -> 1.94872 Qstd Intercept -> 0.00202
					CALIBR	ATION	
Plate	H20 (L)	H2O (R)	H20	Qstd	 (ab = "*)	IC active stored	
<u>No.</u> 18 13 10 7 5	184.64.69.21.6155153.97Slope = 51.0725 133.23.26.41.3464244.44Intercept = -27.0081 102.62.65.21.2143334.92Corr. coeff. = 0.9945 72241.0642526.46				Slope = 51.0725 Intercept = -27.0081		
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((1)[Sqrt(298/Tav)(Pav/760)]-b) m = sampler slope b = sampler intercept				b] n (deg K) (mm Hg)	60.00 50.00 40000 (C) 90.00 90.00 90.00 90.00		FLOW RATE CHART
I = chart response Tav = daily average temperature Pav = daily average pressure						.000	0.500 1.000 1.500 2.000 Standard Flow Rate (m3/min)



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

Calibration of pH System

Item :	pH Meter
Model No. :	Hanna HI98107
Serial No. :	s411364
Equipment No. :	
Calibration Method :	This meter was calibrated in accordance with standard method APHA (19th Ed.) 4500-H $^{+}$ B
Date of Calibration :	17 March, 2009
Testing Results :	

Expected Reading	Recording Reading		
4.00	3.9		
7.00	7.0		
10.0	9.9		
Allowing Deviation	<u>±</u> 0.2		

Ms Wong Wai Man, Alice

Laboratory Manager - Hong Kong

ALS Environmental



Batch:HK0902047Date of Issue:09/02/2009Client:ACTION UNITED ENVIRO SERVICESClient Reference:DC_2007_08 - DRAINAGE IMPROVEMENT WORKS AT
TAI PO TIN PING CHE MAN UK PIN AND LIN MA HANG

Calibration of Turbidity System

Item :	Portable Turbidimeter
Model No. :	HACH 2100P
Serial No. :	08070C031408
Equipment No. :	3054010
Calibration Method :	This meter was calibrated in accordance with standard method APHA (19th Ed.) 2130B
Date of Calibration :	09 February, 2009

Testing Results :

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

Ms-Wong Wai Man, Alice Laboratory Manager - Hong Kong

ALS Environmental



Batch: Date of Issue: Client: Client Reference: HK0905005 18/03/2009 ACTION UNITED ENVIRO SERVICES

Calibration of DO System

Item :	YSI incorporqated. Yellow Springs, Ohio 45387 USA
Model No. :	YSI 55/12FT
Serial No. :	97F0837 AM
Equipment No. :	
Calibration Method :	This meter was calibrated in accordance with standard method APHA (18th Ed.) 4500-O C & G $$
Date of Calibration :	18 March, 2009

Testing Results :

Expected Reading	Recording Reading		
4.34 mg/L 6.96 mg/L 8.40 mg/L	4.34 mg/L 7.04 mg/L 8.49 mg/L		
Allowing Deviation	±0.2 mg/L		

Ms Wong Wal Man Alice Laboratory Manager - Hong Kong

ALS Environmental



Batch: Date of Issue: Client: Client Reference: HK0905005 18/03/2009 ACTION UNITED ENVIRO SERVICES

Calibration of Thermometer

Item :	YSI SONDE Environmental Monitoring System
Model No. :	YSI 55/12FT
Serial No. :	97F0837 AM
Equipment No. :	
Calibration Method :	In-house Method
Date of Calibration :	18 March, 2009

Testing Results :

Reference Temperature (^o C)	Recorded Temperature (⁰ C)		
23.5 °C 35.5 °C	23.2 °C 34.6 °C		
Allowing Deviation	±2.0°C		

Ms Wong Wai Man, Alice Laboratory Manager - Hong Kong

ALS Environmental



Batch:HK0907266Date of Issue:21/04/2009Client:ACTION UNITED ENVIRO SERVICESClient Reference: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 :	21 April, 2009
Testing Results :	

Expected Reading	Recording Reading		
10 g/L 20 g/L 30 g/L 40 g/L	9 g/L 18 g/L 27 g/L 36 g/L		
Allowing Deviation	±10%		

Ms Wong Wai Man, Alice Laboratory Manager - Hong Kong

ALS Environmental



APPENDIX G

IMPACT MONITORING SCHEDULES



KT15 – Monthly EM&A Report for April 2009 (No. 22)

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

Impact Monitoring Schedules in this Reporting Period

✓	Monitoring Day
	Sunday or Public Holiday



KT15 – Monthly EM&A Report for April 2009 (No. 22)

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

✓	Monitoring Day
	Sunday or Public Holiday

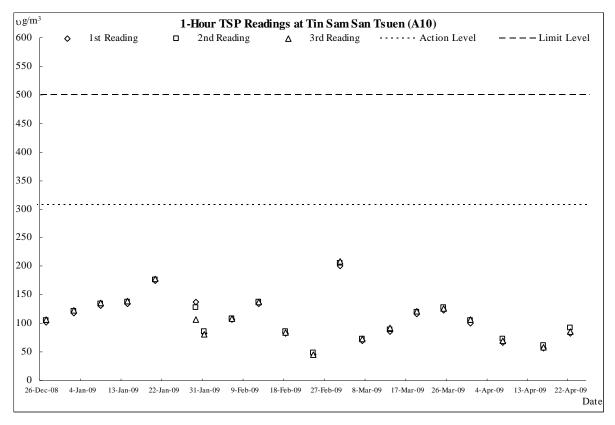


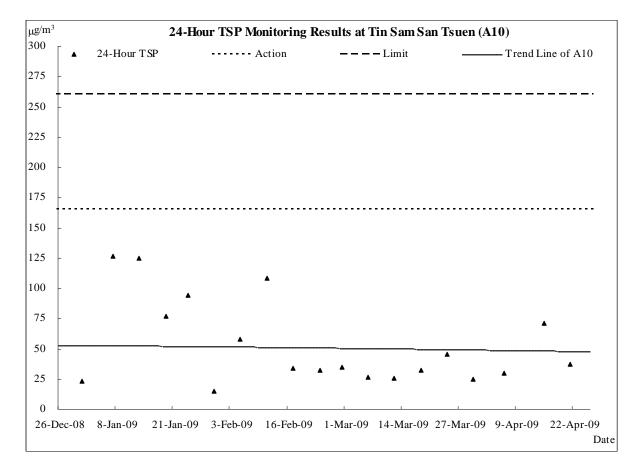
APPENDIX H

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



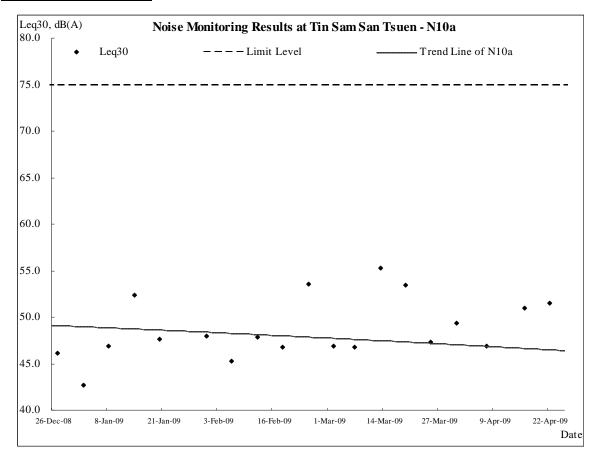
AIR QUALITY





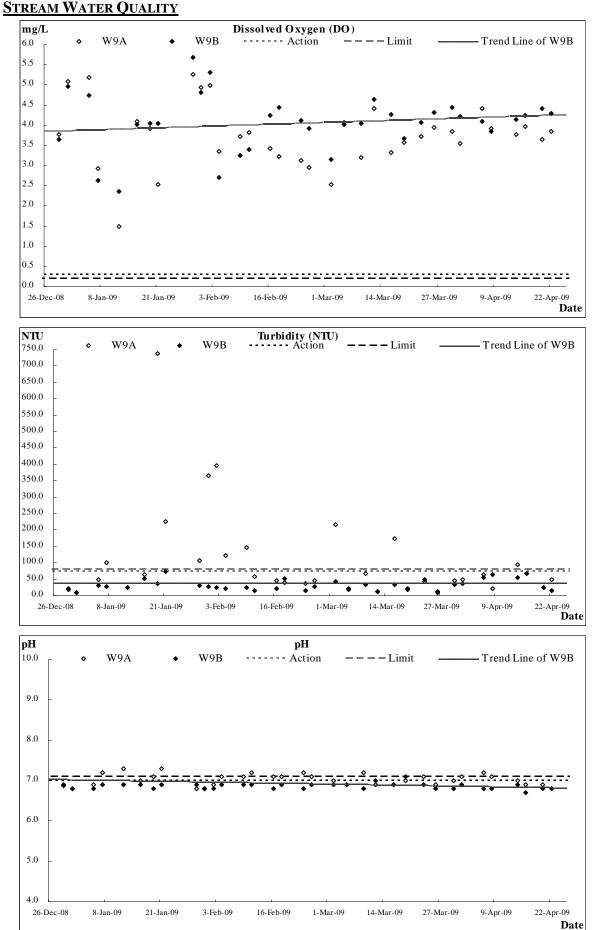


CONSTRUCTION NOISE





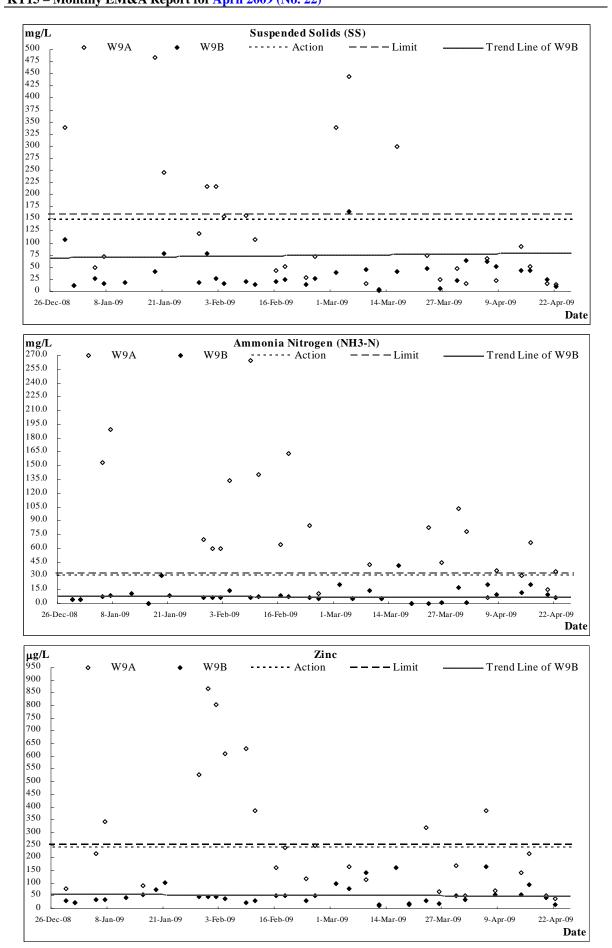
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DSD Contract No. DC/2006/02 Yuen Long, Kam Tin, Ngau Tam Mei and Tin Shui Wai Drainage Improvements, Stage 1, Phase 2B – Cheung Chun San Tsuen and Kam Tsin Wai KT15 – Monthly EM&A Report for April 2009 (No. 22)





Date	26	6-Mar-09															
Location	Time	Depth (m)	Ten	np (oC)	DO	(mg/L)	DC	S (%)	Turbid	ity (NTU)	S	Salinity		pН	SS	NH3-N	Zinc
W9A	08:30	0.16	20.8	20.8	3.97	3.93	41.8	41.2	12.9	12.5	0	0.0	6.90	6.90	25.0	44.8	67.0
W 7A	08.50	0.10	20.8	20.8	3.89	5.75	40.6	41.2	12.1	12.3	0	0.0	6.90	0.90	23.0	44.0	07.0
W9B	08:40	0.27	21.6	21.6	4.35	4.33	45.3	45.0	9.2	9.5	0	0.0	6.80	6.80	6.0	1.6	18.0
W 9D	06.40	0.27	21.6	21.0	4.3	4.55	44.7	45.0	9.8	9.5	0	0.0	6.80	0.80	0.0	1.0	16.0
Date	30)-Mar-09															
Date Location	30 Time	-Mar-09 Depth (m)	Ten	np (oC)	DO	(mg/L)	DC	PS (%)	Turbid	ity (NTU)	S	Salinity		pH	SS	NH3-N	Zinc
Location	Time	Depth (m)	Tem 20.9	-	DO 3.87		D C 40.6	, ,	Turbid 47.3	Ĩ	0 0	v	7.00				
				пр (оС) 20.9		(mg/L) 3.84		S (%) 40.3		ity (NTU) 46.9	-	Salinity 0.0		рН 7.00	SS 48.0	NH3-N 103.0	Zinc 168.0
Location	Time	Depth (m)	20.9	-	3.87		40.6	, ,	47.3	Ĩ	-	v	7.00				

Date	1-	April-09															
Location	Time	Depth (m)	Ten	ър (oC)	DO	(mg/L)	DO	S (%)	Turbidi	ty (NTU)	S	Salinity		pН	SS	NH3-N	Zinc
W9A	14:40	0.11	21.3	21.3	3.58	3.54	37.4	37.1	49.6	49.2	0	0.0	7.10	7.10	17.0	78.3	50.0
W 9A	14.40	0.11	21.3	21.5	3.5	5.54	36.7	57.1	48.7	49.2	0	0.0	7.10	7.10	17.0	/0.5	50.0
W9B	14.50	0.20	22.6	22.6	4.26	4.22	43.8	43.5	35.8	25 4	0	0.0	6.90	6.90	65.0	0.6	35.0
W9D	14:50	0.20	22.6	22.0	4.18	4.22	43.1	45.5	35.0	35.4	0	0.0	6.90	0.90	03.0	0.0	55.0

Date	6-	April-09															
Location	Time	Depth (m)	Ten	ıp (oC)	DO	(mg/L)	DO	S (%)	Turbidi	ity (NTU)	S	Salinity		pН	SS	NH3-N	Zinc
W9A	09:45	0.12	21.8	21.8	4.42	4.41	47.5	47.2	64.5	64.3	0	0.0	7.20	7.20	68.0	6.6	388.0
W9A	09.43	0.12	21.8	21.0	4.39	4.41	46.8	47.2	64.1	04.5	0	0.0	7.20	7.20	08.0	0.0	300.0
W9B	09:55	0.20	22.5	22.5	4.14	4 10	43.7	43.1	54.3	541	0	0.0	6.80	6.80	63.0	20.6	166.0
W9D	09:55	0.20	22.5	22.3	4.05	4.10	42.5	45.1	53.8	54.1	0	0.0	6.80	0.80	05.0	20.0	166.0

Date	8	April-09															
Location	Time	Depth (m)	Tem	ър (oC)	DO	(mg/L)	DO	S (%)	Turbidi	ty (NTU)	S	Salinity		pН	SS	NH3-N	Zinc
W9A	09:15	0.14	23.1	23.1	3.95	3.93	42.6	42.2	20.4	20.3	0	0.0	7.10	7.10	22.0	35.9	70.0
W 7A	09.15	0.14	23.1	23.1	3.9	5.95	41.8	42.2	20.1	20.5	0	0.0	7.10	7.10	22.0	55.9	70.0
W9B	09:25	0.23	23.8	23.8	3.88	3.85	41.2	40.8	64.3	64.1	0	0.0	6.80	6.80	51.0	07	54.0
VV 9D	09:23	0.25	23.8	23.8	3.82	5.85	40.4	40.8	63.8	64.1	0	0.0	6.80	0.80	51.0	9.7	54.0

Date	14	-April09															
Location	Time	Depth (m)	Tem	ıp (oC)	DO	(mg/L)	DO	S (%)	Turbidi	ity (NTU)	S	alinity		pН	SS	NH3-N	Zinc
W9A	09:30	0.15	21.7 21.7	21.7	3.77 3.79	3.78	39.4 39.8	39.6	95.3 94.8	95.1	0	0.0	7.00	7.00	94.0	30.6	140.0
W9B	09:40	0.22	22.4 22.4	22.4	4.12 4.18	4.15	43.7 44.3	44.0	56.2 55.7	56.0	0	0.0	6.90 6.90	6.90	43.0	12.0	55.0
Date		-April-09	1														
Location	Time	Depth (m)	Tem	ıp (oC)	DO	(mg/L)	DO	S (%)	Turbidi	ity (NTU)	S	alinity		pН	SS	NH3-N	Zinc

Location	1 me	Depth (m)	1 en	ip (oC)	00	(IIIg/L)	DO	5 (70)	I urbiai	$(\mathbf{N} \mathbf{I} \mathbf{U})$	2	Sammey		рп	22	INTJ-IN	LIIIC
W9A	09:30	0.13	24.1	24.1	3.92	3.98	41.2	41.9	66.9	66.7	0	0.0	6.90	6.90	51.0	65.9	217.0
W9A	09.30	0.15	24.1	24.1	4.03	3.90	42.5	41.9	66.4	00.7	0	0.0	6.90	0.90	51.0	03.9	217.0
W9B	09:45	0.18	24.8	24.8	4.28	4.25	45.3	44.9	68.3	68.2	0	0.0	6.70	6.70	43.0	20.2	96.0
W 9D	09.45	0.18	24.8	24.0	4.22	4.23	44.4	44.9	68.0	08.2	0	0.0	6.70	0.70	45.0	20.2	90.0

Date	20-	-April-09															
Location	Time	Depth (m)	Tem	ър (oC)	DO	(mg/L)	DO	S (%)	Turbidi	ty (NTU)	5	Salinity		pН	SS	NH3-N	Zinc
W9A	09:05	0.15	24.3	24.3	3.66	3.64	38.8	38.6	24.3	24.2	0	0.0	6.90	6.90	16.0	15.6	53.0
W 7A	09.05	0.15	24.3	24.3	3.62	5.04	38.3	56.0	24.0	24.2	0	(invalid)	6.90	0.90	10.0	15.0	55.0
W9B	09:15	0.23	25.0	25.0	4.44	4.43	46.0	45.7	23.6	22.4	0	0.0	6.80	6.80	24.0	9.9	43.0
W9D	09:15	0.25	25.0	23.0	4.41	4.45	45.4	43.7	23.2	23.4	0	(invalid)	6.80	0.80	24.0	9.9	45.0

Date	22-	-April-09															
Location	Time	Depth (m)	Ten	ıp (oC)	DO	(mg/L)	DO	S (%)	Turbidi	ty (NTU)	S	Salinity		pН	SS	NH3-N	Zinc
W9A	14:20	0.12	22.8	22.8	3.86	3.85	40.7	40.5	48.3	48.0	0	0.0	6.80	6.80	15.0	34.8	41.0
W 9A	14.20	0.12	22.8	22.0	3.83	5.65	40.3	40.5	47.7	40.0	0	0.0	6.80	0.80	15.0	54.0	41.0
W9B	14:30	0.28	23.3	23.3	4.24	4.30	45.7	16.2	14.6	14.0	0	0.0	6.80	6.80	10.0	6.9	15.0
W 9D	14:50	0.28	23.3	23.5	4.36	4.50	46.6	46.2	15.0	14.8	0	0.0	6.80	0.80	10.0	0.9	15.0



APPENDIX I

METEOROLOGICAL DATA IN THE REPORTING PERIOD



Meteorological Data Extracted from HKO in the Reporting Period

				Lau	Fau Sha	n Weather Sta	ation
Date		Weather	Total Rainfall (mm)	Mean Air Temperature (°C)	Wind Speed (km/h)	Mean Relative Humidity (%)	Wind Direction
26-Mar-09	Thu	cloudy/rain/moderate/fresh	Trace	18.1	11.5	76.5	E/NE
27-Mar-09	Fri	cloudy/rain/mist/moderate/fresh	10.4	20.6	14	84.5	E
28-Mar-09	Sat	cloudy/fog/rain/thunderstorm/moderate	0.6	24.4	10	86.2	E/NE
29-Mar-09	Sun	cloudy/rain/fresh/strong	2.6	19.1	11.5	84.5	E/NE
30-Mar-09	Mon	sunny intervals/cloudy/fresh/strong	Trace	18.7	12.5	78.5	E/NE
31-Mar-09	Tue	sunny periods/cloudy/intervals/fresh	Trace	20	12	75	E/NE
1-Apr-09	Wed	sunny periods/dry/cloudy/moderate/fresh	0	21.8	11.2	68.5	E/NE
2-Apr-09	Thu	cloudy/dry/rain/fresh/strong	Trace	19.7	17.2	58.5	E
3-Apr-09	Fri	cloudy/sunny intervals/fresh/strong	Trace	20.4	16.5	62.5	E
4-Apr-09	Sat	Holiday					
5-Apr-09	Sun	cloudy/moderate/fresh	0	23.7	14	68.5	W/NW
6-Apr-09	Mon	cloudy/rain/moderate	8.1	18.2	13	76	E/NE
7-Apr-09	Tue	cloudy/dry/moderate	0.6	17.7	9.2	78.5	E/NE
8-Apr-09	Wed	cloudy/sunny periods/moderate/fresh	0	21.6	8.5	72.2	E/NE
9-Apr-09	Thu	dry/sunny periods/fresh/strong	0	22.7	14	57	E
10-Apr-09	Fri	Holiday					
11-Apr-09	Sat	Holiday					
12-Apr-09	Sun	Holiday					
13-Apr-09	Mon	Holiday					
14-Apr-09	Tue	fine/hazy/isolated showers/light winds	0	25.4	10.5	82	W/SW
15-Apr-09	Wed	sunny periods/cloudy/a few showers/moderate/fresh	4.3	25	10	74.5	E/NE
16-Apr-09	Thu	sunny periods/showers/moderate	2.9	23	23.5	76.2	E/NE
17-Apr-09	Fri	haze/sunny intervals/cloudy/moderate/fresh	0	24.5	7.5	78	E/NE
18-Apr-09	Sat	cloudy/a few showers/fresh/strong	34.1	22.2	17.5	71	E/SE
19-Apr-09	Sun	cloudy/rain/strong	4.5	25.3	21	86	S/SW
20-Apr-09	Mon	sunny periods/cloudy/moderate	0	27.3	13.7	76	W/SW
21-Apr-09	Tue	cloudy/moderate	1.5	26.7	11.5	55.5	E/NE
22-Apr-09	Wed	cloudy/rain/fresh/strong	Trace	24.1	16.5	63	E
23-Apr-09	Thu	cloudy/rain/fresh/strong	0.2	25.1	20.5	70	E
24-Apr-09	Fri	cloudy/mist/moderate	Trace	25.3	11.7	78	E/SE
25-Apr-09	Sat	overcast/rain/squally thunderstarn/moderate.fresh	43	21.4	15	81.5	E/NE



APPENDIX J

ENVIRONMENTAL TEAM SITE INSPECTION CHECKLISTS



Projec	t: Contract No.: DC/2006/02 Yuen Long, Kam Tin, Ngau Tam Mei and Tin Shui	Ir	nspected b	ру				
	Wai Drainage Improvements, Stage 1, Phase 2B – Cheung Chun San Tsuen and Kam Tsin Wai	R	RE/RE's re	oresentati	ive:	KP Cheu	ina	
Inspec			EC/IEC's r			-	ing	
Date:	31 March 2009	E	TL/ ET's r	epresenta	ative:	Nicola H	on	
Time:	14:00	С	Contractor	s represe	entative:	M. K. Ng	/ K. M. Lu	i
		С	Checklist N	lo.		KT15-31	0309	
PART		tal Po		EP-231/20	05/A			
Weath			Rainy					
Tempe Humidi	erature: 24 ℃ lity: High ✓ Moderate Low							
Wind:	Strong Breeze V Light	Г	Calm					
PART	B: SITE AUDIT							
			Not Obs.	Yes	No	Follow up	N/A	Photo/ Remarks
Sectio	on 1: Water Quality		_		_	_	_	
1.01	Is an effluent discharge license obtained for the Project?			\checkmark				_
1.02	Is the effluent discharged in accordance with the discharge licence	e?						
1.03	Is the discharge of turbid water avoided?			\checkmark				
1.04	Are there proper desilting facilities in the drainage systems reduce SS levels in effluent?	to		\checkmark				
1.05	Are there channels, sandbags or bunds to direct surface run-off sedimentation tanks?			\checkmark				
1.06	Are there any perimeter channels provided at site boundaries intercept storm runoff from crossing the site?	to		\checkmark				
1.07	Is drainage system well maintained?			\checkmark				
1.08	As excavation proceeds, are temporary access roads protected crushed stone or gravel?	by		\checkmark				
1.09	Are temporary exposed slopes properly covered?			\checkmark				
1.10	Are earthworks final surfaces well compacted or protected?			\checkmark				
1.11	Are manholes adequately covered or temporarily sealed?			\checkmark				
1.12	Are there any procedures and equipment for rainstorm protection	י?						
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?			$\overline{\mathbf{A}}$				
1.16	Are toilets properly maintained?			\checkmark				
1.17	Are the vehicle and plant servicing areas paved and located with roofed areas?	nin	\checkmark					
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 concrewashings during concreting works?			\checkmark				
1.21	Are there any oil interceptors/grease traps in the drainage system for vehicle and plant servicing areas, canteen kitchen, etc?	ms					\checkmark	

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

		Not Obs.	Yes	No	Follow up	N/A	Photo/ Remarks
3.07	Are air compressors fitted with valid noise emission labels during operation?		\checkmark				
3.08	Are flaps and panels of mechanical equipment closed during operation?		\checkmark				
3.09	Are Construction Noise Permit(s) applied for percussive piling works?					\checkmark	
3.10	Are Construction Noise Permit(s) applied for general construction works during restricted hours?					\checkmark	
3.11	Are valid Construction Noise Permit(s) posted at site entrances?					\checkmark	
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).		\checkmark				
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)		\checkmark				
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).		\checkmark				
Sectio	n 4: Waste/Chemical Management						
4.01	Waste Management Plan had been submit to Engineer for approval.		\checkmark				
4.02	Are receptacles available for general refuse collection?		\checkmark				
4.03	Is general refuse sorting or recycling implemented?		\checkmark				
4.04	Is general refuse disposed of properly and regularly?		\checkmark				
4.05	Is the Contractor registered as a chemical waste producer?		\checkmark				
4.06	Are the chemical waste containers properly labelled?		\checkmark				
4.07	Are the chemical wastes stored in proper storage areas?		\checkmark				
4.08	Is the chemical waste storage area properly labelled?		\checkmark				
4.09	Is the chemical waste storage area used for storage of chemical waste only?		\checkmark				
4.10	Are incompatible chemical wastes stored in different areas?		\checkmark				
4.11	Are the chemical wastes disposed of by licensed collectors?		\checkmark				
4.12	Are trip tickets for chemical wastes disposal available for inspection?		\checkmark				
4.13	Are chemical/fuel storage areas bunded?		\checkmark				
4.14	Are designated areas identified for storage and sorting of construction wastes?		\checkmark				
4.15	Are construction wastes sorted (inert and non-inert) on site?		\checkmark				
4.16	Are construction wastes reused?		\checkmark				
4.17	Are construction wastes disposed of properly?		\checkmark				
4.18	Are site hoardings and signboards made of durable materials instead of timber?		\checkmark				
4.19	Is trip ticket system implemented for the disposal of construction wastes and records available for inspection?		\checkmark				
4.20	Are appropriate procedures followed if contaminated material exists?		\checkmark				
4.21	Is relevant license/ permit for disposal of construction waste or excavated materials available for inspection?		\checkmark				
4.22	Site cleanliness and appropriate waste management training had provided for the site workers.		\checkmark				

		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.		\checkmark				
Sectio	on 5: Landscape & Visual						
5.01	Are retained and transplanted trees in health condition?		\checkmark				
5.02	Are retained and transplanted trees properly protected?		\checkmark				
5.03	Are surgery works carried out for the damaged trees?	\checkmark					
5.04	Is damage to trees outside site boundary due to construction activities avoided?		\checkmark				
5.05	Is the night-time lighting controlled to minimize glare to sensitive receivers?		\checkmark				
Sectio	on 6: Ecology						
6.01	Gabion banks and base had been provide for channel linings and banks for typical sections of KT15?		\checkmark				
6.02	Prevent site effluent/runoff discharge to the seasonal wetlands at KT15?		\checkmark				
6.03	Stockpiling or disposal of materials, and any dredging or construction activities at the seasonal wetlands at KT15 are prohibited?		\checkmark				
Sectio	on 7: Others						
7.01	Are relevant Environmental Permits posted at all vehicle site entrances/exits?		\checkmark				

Remarks

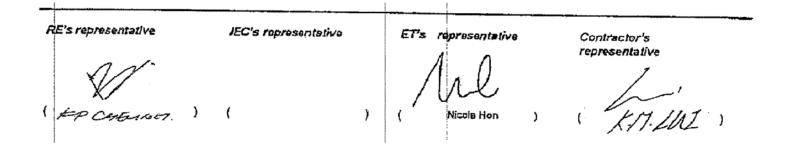
Follow-Up of Last Site Inspection (24 March 2009):

No new environmental issue was observed during the site inspection.

Finding of Site Inspection on 31 March 2009:

1. Stagnant water was observed at the head of Channel (Ch.50) after heavy rainstorm, the contractor shall pump the water away and maintain cleanliness of the construction area.







Projec	ct: Contract No.: DC/2006/02 Yuen Long, Kam Tin, Ngau Tam Mei and Tin Shui	Inspected by								
	Wai Drainage Improvements, Stage 1, Phase 2B – Cheung Chun San Tsuen and Kam Tsin Wai	RE	E/RE's rei	oresentati	ve:	KP Cheung				
Inspe			-			-	ing			
Date:	08 April 2009	IEC/IEC's representative: ETL/ ET's representative:				Ben Tam				
Time:	14:00	Co	ontractor	s represe	ntative:	M. K. Ng / K. M. Lui				
		Ch	necklist N	lo.		KT15-080409				
PART		tal Pe	_	EP-231/20	05/A					
Weath			Rainy							
Humid										
Wind:			Calm							
PART	B: SITE AUDIT									
.,			Not			Follow		Photo/		
Castie	an A. Watan Quality		Obs.	Yes	No	ир	N/A	Remarks		
1.01	on 1: Water Quality Is an effluent discharge license obtained for the Project?			\checkmark						
1.02	Is the effluent discharged in accordance with the discharge licence	ce?		$\overline{\checkmark}$						
1.03	Is the discharge of turbid water avoided?			\checkmark						
1.04	Are there proper desilting facilities in the drainage systems reduce SS levels in effluent?	to		\checkmark						
1.05	Are there channels, sandbags or bunds to direct surface run-off sedimentation tanks?	f to		\checkmark						
1.06	Are there any perimeter channels provided at site boundaries intercept storm runoff from crossing the site?	to		\checkmark						
1.07	Is drainage system well maintained?			\checkmark						
1.08	As excavation proceeds, are temporary access roads protected crushed stone or gravel?	by		\checkmark						
1.09	Are temporary exposed slopes properly covered?			\checkmark						
1.10	Are earthworks final surfaces well compacted or protected?			\checkmark						
1.11	Are manholes adequately covered or temporarily sealed?			\checkmark						
1.12	Are there any procedures and equipment for rainstorm protection	n?								
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?			\checkmark						
1.17	Are the vehicle and plant servicing areas paved and located wit roofed areas?	hin	\checkmark							
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 concre washings during concreting works?			\checkmark						
1.21	Are there any oil interceptors/grease traps in the drainage syste for vehicle and plant servicing areas, canteen kitchen, etc?	ms					\checkmark			

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

		Not Obs.	Yes	No	Follow up	N/A	Photo/ Remarks
3.07	Are air compressors fitted with valid noise emission labels during operation?		\checkmark				
3.08	Are flaps and panels of mechanical equipment closed during operation?		\checkmark				
3.09	Are Construction Noise Permit(s) applied for percussive piling works?					\checkmark	
3.10	Are Construction Noise Permit(s) applied for general construction works during restricted hours?					\checkmark	
3.11	Are valid Construction Noise Permit(s) posted at site entrances?					\checkmark	
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). Temporary/Moveable noise barrier or site hoarding are provide or		\checkmark				
3.13	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)		\checkmark				
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).		\checkmark				
Sectio	n 4: Waste/Chemical Management						
4.01	Waste Management Plan had been submit to Engineer for approval.		\checkmark				
4.02	Are receptacles available for general refuse collection?		\checkmark				
4.03	Is general refuse sorting or recycling implemented?		\checkmark				
4.04	Is general refuse disposed of properly and regularly?		\checkmark				
4.05	Is the Contractor registered as a chemical waste producer?		\checkmark				
4.06	Are the chemical waste containers properly labelled?		\checkmark				
4.07	Are the chemical wastes stored in proper storage areas?		\checkmark				
4.08	Is the chemical waste storage area properly labelled?		\checkmark				
4.09	Is the chemical waste storage area used for storage of chemical waste only?		\checkmark				
4.10	Are incompatible chemical wastes stored in different areas?		\checkmark				
4.11	Are the chemical wastes disposed of by licensed collectors?		\checkmark				
4.12	Are trip tickets for chemical wastes disposal available for inspection?		\checkmark				
4.13	Are chemical/fuel storage areas bunded?		\checkmark				
4.14	Are designated areas identified for storage and sorting of construction wastes?		\checkmark				
4.15	Are construction wastes sorted (inert and non-inert) on site?		\checkmark				
4.16	Are construction wastes reused?		\checkmark				
4.17	Are construction wastes disposed of properly?			\checkmark			Remarks 1
4.18	Are site hoardings and signboards made of durable materials instead of timber?		\checkmark				
4.19	Is trip ticket system implemented for the disposal of construction wastes and records available for inspection?		\checkmark				
4.20	Are appropriate procedures followed if contaminated material exists?		\checkmark				
4.21	Is relevant license/ permit for disposal of construction waste or excavated materials available for inspection?		\checkmark				
4.22	Site cleanliness and appropriate waste management training had provided for the site workers.		\checkmark				

		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.		\checkmark				
Sectio	on 5: Landscape & Visual						
5.01	Are retained and transplanted trees in health condition?		\checkmark				
5.02	Are retained and transplanted trees properly protected?		\checkmark				
5.03	Are surgery works carried out for the damaged trees?	\checkmark					
5.04	Is damage to trees outside site boundary due to construction activities avoided?		\checkmark				
5.05	Is the night-time lighting controlled to minimize glare to sensitive receivers?		\checkmark				
Sectio	on 6: Ecology						
6.01	Gabion banks and base had been provide for channel linings and banks for typical sections of KT15?		\checkmark				
6.02	Prevent site effluent/runoff discharge to the seasonal wetlands at KT15?		\checkmark				
6.03	Stockpiling or disposal of materials, and any dredging or construction activities at the seasonal wetlands at KT15 are prohibited?		\checkmark				
Sectio	on 7: Others						
7.01	Are relevant Environmental Permits posted at all vehicle site entrances/exits?		\checkmark				

Remarks

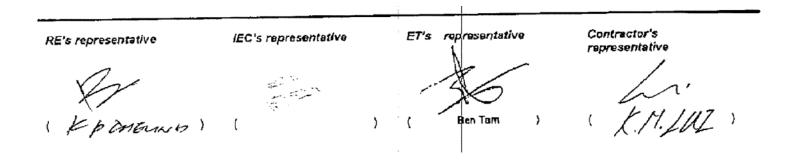
Follow-Up of Last Site Inspection (31 March 2009):

Stagnant water at the head of Channel (Ch.50) was cleared.

Finding of Site Inspection on 08 April 2009:



1. C&D waste was scattered at CH 450, the contractor was reminded to clean to prevent any blockage of the channel.





Projec	:t:	Contract No.: DC/2006/02		Inspected by							
		Yuen Long, Kam Tin, Ngau Ta Wai Drainage Improvements,	Stage 1, Phase 2B –								
		Cheung Chun San Tsuen and		RE/RE's re	-		KP Cheu	ing			
Inspec	tion	16 April 2000		IEC/IEC's r	-		-	00			
Date: Time:		16 April 2009 14:00		ETL/ ET's r Contractor	-		Nicola Hon M. K. Ng / K. M. Lui				
Time.		14.00		Checklist No.					ı		
PART	٨٠	GENERAL INFORMATION		Checklist No. KT15-160409 tal Permit No. EP-231/2005/A							
	Veather: ✓ Sunny Fine Cloudy Rainy										
	erature:	22 °C									
Humidi		High 🗸 Mode	erate Low								
Wind:	Wind: Strong Breeze V Light Calm										
PART	PART B: SITE AUDIT										
				Not Obs.	Yes	No	Follow up	N/A	Photo/ Remarks		
Sectio	on 1: Wa	ater Quality									
1.01	ls an e	ffluent discharge license obtained	d for the Project?		\checkmark						
1.02	Is the e	effluent discharged in accordance	with the discharge licence?		\checkmark						
1.03	Is the o	discharge of turbid water avoided	?		\checkmark						
1.04		ere proper desilting facilities in SS levels in effluent?	the drainage systems to		\checkmark						
1.05	Are there channels, sandbags or bunds to direct surface run-off sedimentation tanks?				\checkmark						
1.06		ere any perimeter channels provert storm runoff from crossing the			\checkmark						
1.07	Is draii	nage system well maintained?			\checkmark						
1.08		cavation proceeds, are temporary ed stone or gravel?	access roads protected by		\checkmark						
1.09	Are ter	mporary exposed slopes properly	covered?		\checkmark						
1.10	Are ea	rthworks final surfaces well comp	acted or protected?		\checkmark						
1.11	Are ma	anholes adequately covered or ter	mporarily sealed?		\checkmark						
1.12	Are the	ere any procedures and equipmer	nt for rainstorm protection?		\checkmark						
1.13	Are wh	neel washing facilities well mainta	ined?								
1.14	ls runc	off from wheel washing facilities av	voided?								
1.15	Are the	ere toilets provided on site?									
1.16		lets properly maintained?			\checkmark						
1.17		e vehicle and plant servicing area areas?	as paved and located within	\checkmark							
1.18		oil leakage or spillage avoided?									
1.19	draina	ere any measures to prevent le ge system?	-								
1.20	washir	nere any measures to collect stags during concreting works?			\checkmark						
1.21		ere any oil interceptors/grease tra nicle and plant servicing areas, ca						\checkmark			

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

		Not Obs.	Yes	No	Follow up	N/A	Photo/ Remarks
3.07	Are air compressors fitted with valid noise emission labels during operation?		\checkmark				
3.08	Are flaps and panels of mechanical equipment closed during operation?		\checkmark				
3.09	Are Construction Noise Permit(s) applied for percussive piling works?					\checkmark	
3.10	Are Construction Noise Permit(s) applied for general construction works during restricted hours?					\checkmark	
3.11	Are valid Construction Noise Permit(s) posted at site entrances?					\checkmark	
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).		\checkmark				
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)		\checkmark				
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).		\checkmark				
Sectio	n 4: Waste/Chemical Management						
4.01	Waste Management Plan had been submit to Engineer for approval.		\checkmark				
4.02	Are receptacles available for general refuse collection?		\checkmark				
4.03	Is general refuse sorting or recycling implemented?		\checkmark				
4.04	Is general refuse disposed of properly and regularly?		\checkmark				
4.05	Is the Contractor registered as a chemical waste producer?		\checkmark				
4.06	Are the chemical waste containers properly labelled?		\checkmark				
4.07	Are the chemical wastes stored in proper storage areas?		\checkmark				
4.08	Is the chemical waste storage area properly labelled?		\checkmark				
4.09	Is the chemical waste storage area used for storage of chemical waste only?		\checkmark				
4.10	Are incompatible chemical wastes stored in different areas?		\checkmark				
4.11	Are the chemical wastes disposed of by licensed collectors?		\checkmark				
4.12	Are trip tickets for chemical wastes disposal available for inspection?		\checkmark				
4.13	Are chemical/fuel storage areas bunded?		\checkmark				
4.14	Are designated areas identified for storage and sorting of construction wastes?		\checkmark				
4.15	Are construction wastes sorted (inert and non-inert) on site?		\checkmark				
4.16	Are construction wastes reused?		\checkmark				
4.17	Are construction wastes disposed of properly?		\checkmark				
4.18	Are site hoardings and signboards made of durable materials instead of timber?		\checkmark				
4.19	Is trip ticket system implemented for the disposal of construction wastes and records available for inspection?		\checkmark				
4.20	Are appropriate procedures followed if contaminated material exists?		\checkmark				
4.21	Is relevant license/ permit for disposal of construction waste or excavated materials available for inspection?		\checkmark				
4.22	Site cleanliness and appropriate waste management training had provided for the site workers.		\checkmark				

		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.		\checkmark				
Sectio	on 5: Landscape & Visual						
5.01	Are retained and transplanted trees in health condition?		\checkmark				
5.02	Are retained and transplanted trees properly protected?		\checkmark				
5.03	Are surgery works carried out for the damaged trees?	\checkmark					
5.04	Is damage to trees outside site boundary due to construction activities avoided?		\checkmark				
5.05	Is the night-time lighting controlled to minimize glare to sensitive receivers?		\checkmark				
Sectio	n 6: Ecology						
6.01	Gabion banks and base had been provide for channel linings and banks for typical sections of KT15?		\checkmark				
6.02	Prevent site effluent/runoff discharge to the seasonal wetlands at KT15?		\checkmark				
6.03	Stockpiling or disposal of materials, and any dredging or construction activities at the seasonal wetlands at KT15 are prohibited?		\checkmark				
Sectio	on 7: Others						
7.01	Are relevant Environmental Permits posted at all vehicle site entrances/exits?		\checkmark				

Remarks

Follow-Up of Last Site Inspection (08 April 2009):

C&D waste CH 450 was cleaned.

Finding of Site Inspection on 16 April 2009:



Stagnant water was observed (Ch.20), the contractor shall pump the water out to prevent mosquito breeding especially in wet season.

RE's representative	IEC's representative	ET's representative Contractor's representative	
V		Aut D	
(Eponemos)	() (Nicola Hon) (MKDU)

-



Project Inspect Date: Time: PART Weath Tempo Humid Wind:	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 ction 24 April 2009 09:30 A: GENERAL INFORMATION Environment her: ✓ Sunny Fine Cloudy erature: 24	 ⊑ ()	RE/RE's representative: IEC/IEC's representative: ETL/ ET's representative: Contractor's representative: Checklist No. al Permit No. EP-231/2005/A			A.F. Ng Cyrus La Nicola H M.K. Ng KT15-24		
PART	B: SITE AUDIT							
			Not Obs.	Yes	No	Follow up	N/A	Photo/ Remarks
Sectio	on 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	ce?		\checkmark				
1.03	Is the discharge of turbid water avoided?			\checkmark				
1.04	Are there proper desilting facilities in the drainage systems reduce SS levels in effluent?	to		\checkmark				
1.05	Are there channels, sandbags or bunds to direct surface run-off sedimentation tanks?	f to		\checkmark				
1.06	Are there any perimeter channels provided at site boundaries intercept storm runoff from crossing the site?	s to		\checkmark				
1.07	Is drainage system well maintained?			\checkmark				
1.08	As excavation proceeds, are temporary access roads protected crushed stone or gravel?	by		\checkmark				
1.09	Are temporary exposed slopes properly covered?			\checkmark				
1.10	Are earthworks final surfaces well compacted or protected?			\checkmark				
1.11	Are manholes adequately covered or temporarily sealed?			\checkmark				
1.12	Are there any procedures and equipment for rainstorm protection	n?		\checkmark				
1.13	Are wheel washing facilities well maintained?			\checkmark				
1.14	Is runoff from wheel washing facilities avoided?			\checkmark				
1.15	Are there toilets provided on site?			\checkmark				
1.16	Are toilets properly maintained?			\checkmark				
1.17	Are the vehicle and plant servicing areas paved and located wit roofed areas?	thin	\checkmark					
1.18	Is the oil leakage or spillage avoided?			\checkmark				
1.19	Are there any measures to prevent leaked oil from entering drainage system?	the		\checkmark				
1.20	Are there any measures to collect spilt cement and concrewashings during concreting works?	ete		\checkmark				
1.21	Are there any oil interceptors/grease traps in the drainage syste for vehicle and plant servicing areas, canteen kitchen, etc?	ems					\checkmark	

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

		Not Obs.	Yes	No	Follow up	N/A	Photo/ Remarks
3.07	Are air compressors fitted with valid noise emission labels during operation?		\checkmark				
3.08	Are flaps and panels of mechanical equipment closed during operation?		\checkmark				
3.09	Are Construction Noise Permit(s) applied for percussive piling works?					\checkmark	
3.10	Are Construction Noise Permit(s) applied for general construction works during restricted hours?					\checkmark	
3.11	Are valid Construction Noise Permit(s) posted at site entrances?					\checkmark	
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). Temporary/Moveable noise barrier or site hoarding are provide or		\checkmark				
3.13	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)		\checkmark				
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).		\checkmark				
Sectio	n 4: Waste/Chemical Management						
4.01	Waste Management Plan had been submit to Engineer for approval.		\checkmark				
4.02	Are receptacles available for general refuse collection?		\checkmark				
4.03	Is general refuse sorting or recycling implemented?		\checkmark				
4.04	Is general refuse disposed of properly and regularly?		\checkmark				
4.05	Is the Contractor registered as a chemical waste producer?		\checkmark				
4.06	Are the chemical waste containers properly labelled?		\checkmark				
4.07	Are the chemical wastes stored in proper storage areas?		\checkmark				
4.08	Is the chemical waste storage area properly labelled?		\checkmark				
4.09	Is the chemical waste storage area used for storage of chemical waste only?		\checkmark				
4.10	Are incompatible chemical wastes stored in different areas?		\checkmark				
4.11	Are the chemical wastes disposed of by licensed collectors?		\checkmark				
4.12	Are trip tickets for chemical wastes disposal available for inspection?		\checkmark				
4.13	Are chemical/fuel storage areas bunded?		\checkmark				
4.14	Are designated areas identified for storage and sorting of construction wastes?		\checkmark				
4.15	Are construction wastes sorted (inert and non-inert) on site?		\checkmark				
4.16	Are construction wastes reused?		\checkmark				
4.17	Are construction wastes disposed of properly?			\checkmark			Remark 1
4.18	Are site hoardings and signboards made of durable materials instead of timber?		\checkmark				
4.19	Is trip ticket system implemented for the disposal of construction wastes and records available for inspection?		\checkmark				
4.20	Are appropriate procedures followed if contaminated material exists?		\checkmark				
4.21	Is relevant license/ permit for disposal of construction waste or excavated materials available for inspection?		\checkmark				
4.22	Site cleanliness and appropriate waste management training had provided for the site workers.		\checkmark				

		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.		\checkmark				
Sectio	on 5: Landscape & Visual						
5.01	Are retained and transplanted trees in health condition?		\checkmark				
5.02	Are retained and transplanted trees properly protected?		\checkmark				
5.03	Are surgery works carried out for the damaged trees?	\checkmark					
5.04	Is damage to trees outside site boundary due to construction activities avoided?		\checkmark				
5.05	Is the night-time lighting controlled to minimize glare to sensitive receivers?		\checkmark				
Sectio	on 6: Ecology						
6.01	Gabion banks and base had been provide for channel linings and banks for typical sections of KT15?		\checkmark				
6.02	Prevent site effluent/runoff discharge to the seasonal wetlands at KT15?		\checkmark				
6.03	Stockpiling or disposal of materials, and any dredging or construction activities at the seasonal wetlands at KT15 are prohibited?		\checkmark				
Sectio	on 7: Others						
7.01	Are relevant Environmental Permits posted at all vehicle site entrances/exits?		\checkmark				



Remarks

Follow-Up of Last Site Inspection (16 April 2009):

Stagnant water at Ch. 20 has been removed.

Finding of Site Inspection on 24 April 2009:



Scattered of C&D material (Ch.250) is observed, the contractor is reminded to maintain the site tidiness.

Contractor's Et's representative IEC's representative RE's representative representative NG) Nicola Hon) 1)) (an A.F.Ng

NO. 547 P. 7/11 MAUNSELL MARKA

Environmental Site Inspection Checklist for KT15
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Inspection Date: <u>24 - 4 - 2081</u>		Yuen Long, Kam Tin, Ngau Tam Mei and Tin S Wai Drainage Improvements, Stage 1, Phase 2 Cheung Chun San Tsuen and Kam Tsin Wai	hui 28 –	lEC's rep	ed by presentation presentation resentation	ve:	_Cyc		a	
		10 a-				sentative;		K.M. Ng		
W Te Hu	ART A: eather: mperature: imidity: nd:	Sunny Fine Clo 23 °C High Moderate Lov	vudy v	Checklis Permit No	р. ЕР-231/ У	2005/A				
	RT B:	SITE AUDIT	ot	Calm	i 					
							_			
Sa	ction 1; Wat	er Quality		Not Obs.	Yes	No	Follow up	N/A	Photo/ Remarks	
1.0		uent discharge license obtained for the Project?				F -1				
1.0		effluent discharged in accordance with the di	scharge							
1.03		charge of turbid water avoided?			е П					
1.04	Are then	e proper desilting facilities in the drainage sys S levels in effluent?	têms to							
1.05	Are there	e channels, sandbags or bunds to direct surface n ation tanks?	in-off to						Renach (5)	
1.06	Are there	any perimeter channels provided at site bound; storm runoff from crossing the site?	aries to							
1.07		je system well maintained?								
1.08	As excave crushed s	ation proceeds, are temporary access roads prote none or gravel?	cted by							
1.09		prary exposed slopes properly covered?								
1.10	Are earth	works final surfaces well compacted or protected?								
1.11	Are manh	oles adequately covered or temporarily sealed?			2				······	
1.12	Are there a	any procedures and equipment for rainstorm protect	tion?						-	
1.13	Are wheel	washing facilities well maintained?								
1.14	ls runoff fri	om wheel washing facilities evoided?								
1.15	Are there t	oilets provided on site?			\square					
1.16		properly maintained?			\square					
1.17			within							
1.18		akage or spillage avoided?			\square					
1.19					\square					
1.20		any measures to collect split cement and con uring concreting works?								
1.21	• • • •	ny oil interceptors/grease traps in the drainage sys and plant servicing areas, canteen kitchen, etc?	tems		\square					
1.22		nterceptors/grease traps maintained properly?			\square					
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NO. 547 P. 8/11 MAUNSELL FATCOM

Environmental Site Inspection Checklist for KT15

	_	Not Obs.		No	Follow	N/A	Photo/
1.	23 Is used bentonite recycled where appropriate?			Π	<u>4</u> ~	2	Remarks
1.	Is designated settlement area for runoff / wheel wash water provided and located at the streambed with 1-2m deep, 12m long and around 50m ³ capacities for sedimentation?						
1.:							
1.:	Is concreting wastes water neutralized below the pH Action Levels before discharge?		-				B
1.2	stream course?						
1.2	5 Is License collector employed for handling the sewage of mobile toilet?		Ø				
Se	ction 2: Air Quality						
2.0	at every vehicle exit point?		Ø				
2.0	Are vehicles washed to remove any dusty materials from their bodies and wheels before leaving construction sites?						
2.0	strayed with water during handling?						
2.0	placed in sheltered areas?						
2.0	last construction activities?						
2.06	road surface wet or paved?						
2.07	operation continuously sprayed with water?						
2.08	sheeting?						
2.09	boards during transportation by vehicles avoided?						
2.10	lo the second law of						
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?		R	[]			·····
2.16	Are excavated materials from the stream removed form site on the same day and be stored in covered impermeable skips while awaiting removal from site?					Ш _ П	
Secti	on 3: Noise						
3.01	Are noisy equipment and activities positioned as far as practicable from the sensitive receivers?		\square				
3.02	ls 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?		2			<u> </u>	
3.06	during operation?						
3.07	Are air compressors fitted with valid noise emission labels during operation?						<u> </u>
	Are flaps and panels of mechanical equipment closed during operation?						
	Are Construction Noise Permit(s) applied for percussive piling works?					- 17	
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-	Are Construction Nation	Not Obs.	Yes	No	Follow Up	N/A	Photo/
	Are Construction Noise Permit(s) applied for general construction works during restricted hours?				 	2	Remarks
3.1	sho raile consulction Noise Permit(s) posted at site entrances?					g	
3.1	measures)?		Ø				
3.1	barrier which cannot be visible from NSRs (Level 2 mitigation measure)?		0				
3.1	Are temporary / moveable noise barrier equal to or more than 3m height with 10kg/m ² provided for noise mitigation measures (Level 2 mitigation measures)?						
Sec	tion 4; Waste/Chemical Management						Particular and a second s
4.0	ls the Waste Management Plan submitted to Engineer for approval?						
4.02	general refuse collection?		\square				<u></u>
4.03	Is general refuse sorting or recycling implemented?		\square				
4.04	Is general refuse disposed of properly and regularly?						
4.05	a se chemical waste producer?						······
4.06	Are the chemical waste containers properly labelled?	\square					·······
4.07	Are the chemical wastes stored in proper storage areas?					-	
4.08	Is the chemical waste storage area properly labelled?	\square				-	
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?		\square				
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?						<u> </u>
4.16	Are construction wastes reused?						·····•••••••••••••••••••••••••••••••••
4.17	Are construction wastes disposed of properly?			Π	П		
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?						
	Is site cleanliness and appropriate waste management training provided for the site workers?						
	Are contaminated sediments managed according to WBTC No.12/2000 and EWTB TC(W) No. 34/2002?		\square				
Section	7 5: Landscape & Visual						·····
5.01	Are retained and transplanted trees in health condition?						

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Entrana	Site Inspection		
cilvironmental	Site Inspection	Checklist for	KT4C
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5.02		Not Obs.	Yes	No	Follow	N/A	Photo/ Remarks
0.02	Are retained and transplanted trees property protected?					—— <u>—</u>	
5.03	Are surgery works carried out for the damaged trees?	7					
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?						
Sectic	n 6: Ecology						
6.01	Are gabion banks and base provided for channel linings and banks for typical sections of KT15?						ĸ
6.02	Is site effluent/runoff discharge to the seasonal wetlands at KT15 prevented?						••••••••••••••••••••••••••••••••••••••
6.03	Are stockpiling or disposal of materials, and any dredging or construction activities at the seasonal wetlands at KT15 prohibited?						
Sectio	n 7: Others						
7.01	Are relevant Environmental Permits posted at all vehicle site entrances/exits?		3				-
< Fo	llaw up observations?:			-			
ο.	to use liceping of chanage: 230 mas improved						
эH	ouse beeping at Bay 1-7 & Bay 30-32.	Mas !		ייע ער ע	CAP may	ifes	
			-prosed		n congo	" in the	- note 4 sec
(ŋ	eneral refuce at note-course at Bay 30		· 105	0680	ned.	C (350	-4).
7 G	regnant mater at site boundary at be	um 52	eing	Road,	ines a	lear	(closed).
) (.	a ladre tide the site boundar	~ n	as not	t ob 54	and	(Jac	od)
) br	eneral refuse outside the site boundar	7 w	ns not	t ob54	eved	Colos	ied).
) br	eneral refue antide the site boundar	7 n	as not	t ob54	er ed	Calos	ied 7.
) br.	eneral refuse antiste the site boundar	7 n	nas not	t ob54	ered	(dos	ied I.
		~~ n	ns not	t 0654	aved	(olo s	ied).
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Remarks

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RE's representative	IEC's representative	ET's representative	Contractor's representative



APPENDIX K

RESPONSE TO COMMENT

DSD Contract No.: DC/2006/02

Yuen Long, Kam Tin, Ngau Tam Mei and Tin Shui Wai Drainage Improvements, Stage 1, Phase 2B – Cheung Chun San Tsuen and Kam Tsin Wai KT15 – Monthly EM&A Summary Report for April 2009 (R1286 Version 2) submit on

Response to IEC's comments [Received from e-mail on 19 May 2009]

Items	Section / Paragraph	Comments	Response to Comments
1.	Cover	The IEC comments on Revision no. 1 shall be provided on 15-May-2009.	Done.
	Page/Appendix K	Please check and revise accordingly.	
2.	List of Tables	"Table 7-1 Summary of Findings of Site Inspection and Environmental Audit" is missing from the list.	Revised.
3.	Section 4.06	There should 18 stream water quality monitoring events. Please check and revise accordingly.	Revised.
4.	Section 7.01/11.07	According to the Table 7-1, there are 5 observations recorded.	Revised.
5.	Section 11.07	Please insert the observation listed in the IEC's site audit checklist recorded on 24 April 2009 in order to keep consistency with other sections. Please add the locations of the observation items listed for bulletin no. 1, 3 and 4.	Done.
6.	Appendix H	Invalidity of the salinity data recorded on 20 April 2009 should be applied to results of both W9A and W9B.	Done.
7.	Appendix J	 In site inspection checklist on 24-Apr-09, Please double-check the persons participate in the site audit conducted. The name of RE's representative in the 1st page and signature section is missing. Please arrange the checklist in correct order and incorporate the IEC's site audit checklist together with the ET's checklist for easy reference. 	Done.

DSD Contract No.: DC/2006/02

Yuen Long, Kam Tin, Ngau Tam Mei and Tin Shui Wai Drainage Improvements, Stage 1, Phase 2B – Cheung Chun San Tsuen and Kam Tsin Wai KT15 – Monthly EM&A Summary Report for April 2009 (R1286 Version 1) submit on

Response to IEC's comments [Received from e-mail on 15 May 2009]

Items	Section / Paragraph	Comments	Response to Comments
1.	ES05./Section5.09/	According to the data set listed in Table 5-5/text in Section 5.09, there should be no Action/Limit Level	There should be no A/L Level exceedance
	Table 5-5	exceedance for number of species of wetland dependent birds.	for the Total number of wetland birds.
		Moreover, please provide the exceedance record for the ecology monitoring survey on Fauna.	Done.
		Please revise and update the captioned table.	
2.	ES10./ Section 4.06	There should 18 stream water quality monitoring events. Please check and revise accordingly.	Revised.
3.	Table of Content	The page number for "Section 6.0 Waste management" should be Page 16.	Revised.
4.	List of Tables	"Table 5-6 Summary of Fauna Impact Monitoring Surveys" is missing from the list.	Revised.
5.	Table 5.4/ Appendix H	According to the data set listed in Appendix H, the measured D.O. value at W9A on 22- Apr-09 should be rounded off as 3.9	Done.
		Please revise and update the captioned table.	
6.	Section 5.10	There is a typo in the last 2nd row. It should be "decrease in the number of species and individuals".	Done.
7.	Section 5.12	Please add the month for last photographic records were taken for easy reference.	Done.
8.	Table7-1"Follow-up Status"	Please add the locations of the observations mentioned for easy reference.	Done.
9.	Section 7.03/ Table 7-1	The IEC Monthly site audit checklist was not attached in Appendix J. Please add it back to Appendix J. Please also add the finding recorded in the IEC site audit checklist into the Table 7-1.	The IEC monthly site audit checklist has been provided. Done.
10.	Section 11.07	Please clarify the meaning of the sentence "The related following was reminded and overall the reminders were also undertaken immediately by the Contractor" stated. It is advised to add the locations of the observation items for easy reference.	Amended.
11.	Appendix F	Please clarify which hand refractometer is utilized for the stream water quality monitoring conducted on 20-April-2009.	The certificate did not cover the date of 20-April 2009 due to calibration was in progress.
12.	Appendix I	Please update the data set for the whole reporting period.	Done.



Items	Section / Paragraph	Comments	Response to Comments
13.	Appendix J	1. Pease keep all checklist completely signed.	Done.
13.	Appendix J	 Pease keep all checklist completely signed. In site inspection checklist on 31-Mar-09, According to the site inspection finding, item no. 1.29 should not be marked as "Yes". In site inspection checklist on 08-Apr-09, Please clarify the date of the site audit was carried out. Please add the location of the follow-up items mentioned. In site inspection checklist on 16-Apr-09, Please add the location of the follow-up items mentioned. In site inspection checklist on 24-Mar-09, Please add the location of the follow-up items mentioned. In site inspection checklist on 24-Mar-09, Please add the location of the follow-up items mentioned. Please add the location of the follow-up items mentioned. Please add the location of the follow-up items mentioned. Please add the location of the follow-up items mentioned. Please add the location of the follow-up items mentioned. Please also attach the IEC site audit checklist. Please check and revise all the items accordingly. 	Done.