

JOB No.: TCS00371/07

REVISION No.: 3

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 FEBRUARY 2009 (No. 20)

PREPARED FOR

CHIT CHEUNG CONSTRUCTION COMPANY LIMITED

Ouality Index

Date	Reference No.	Prepared By	Certified By
13 March 2009	TCS00371/07/600/R1193r3	-	Ken Wong

Environmental Team Leader

Rev. No.	Date	Remarks
1	02 Mar 2009	First Submission
2	12 Mar 2009	Response to IEC's comments received on 06 March 2009 via e-mail.
3	13 Mar 2009	Response to IEC's further comments received on 13 March 2009 via e-mail.

This report has been prepared by Action-United Environmental Services & Consulting with all reasonable skill, care and diligence within the terms of the Agreement with the client, incorporating our General Terms and Conditions of Business and taking account of the resources devoted to it by agreement with the client. We disclaim any responsibility to the client and others in respect of any matters outside the scope of the above. This report is confidential to the client and we accept no responsibility of whatsoever nature to third parties to whom this report, or any part thereof, is made known. Any such party relies upon the report at their own risk.



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 **February 2009** (No. 20) is present the environmental impact monitoring and audit (EM&A) results of the project EM&A program for the reporting month **February 2009** during the period from 26 January 2009 to 25 February 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	pН	-	-
Water	Suspended Solids (SS)	-	-
	Ammonia Nitrogen	-	-
	Zinc	-	-
Ecology	Number of species of wetland birds	-	24 Feb 09
	Total number of wetland birds	-	-

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

EM&A ACTIVITIES IN THE REPORTING PERIOD

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

•	1-Hour TSP Monitoring	18	Events
•	24-Hour TSP Monitoring	5	Events
•	Noise Monitoring	5	Events
•	Stream Water Quality	20	Events
•	Ecology (Fauna)	1	Event
•	Site Inspection Audit	5	Times

AIR QUALITY

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

CONSTRUCTION NOISE

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

STREAM WATER QUALITY

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

ECOLOGY (FAUNA)

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





SUMMARY OF MONITORING EXCEEDANCES

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

Monitoring	Parameters	Work-Related Exceedance %	Investigation & Corrective Actions
Air	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 number of species of wetland birds of conservation importance from baseline.	()	Not Required for 0% Project Related Exceedance
	Decrease in the total number of wetland birds of conservation importance from baseline.	0	Not Required for 0% Project Related Exceedance

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

SITE INSPECTION BY EXTERNAL PARTIES

ES16. Water sampling was performed by Environmental Protection Department at the outlet of the stream of Bay 1 on 27 February 2009 and no major comment was received site inspection was undertaken by external parties in this reporting period.



TABLE OF CONTENT

1.0	INTE	RODUCTION	1
2.0	PRO	JECT ORGANIZATION AND CONSTRUCTION PROGRESS	2
3.0	SUM	MARY OF IMPACT MONITORING REQUIREMENTS	3
4.0	IMPA	ACT MONITORING METHDOLOGY	5
5.0	IMP	ACT MONITORING RESULTS	12
		TE MANAGEMENT	
6.0			16
7.0	SITE	INSPECTION	17
8.0	ENV	IRONMENTAL COMPLAINT AND NON-COMPLIANCE	18
9.0	IMPI	LEMENTATION STATUS OF MITIGATION MEASURES	19
10.0	IMP	ACT FORECAST	20
11.0	CON	CLUSION	21
LIST	OF TA	ABLES	
TABL	E 2-1	STATUS OF ENVIRONMENTAL LICENSE AND PERMITS	
TABL	Е 3-1	SUMMARY OF EM&A REQUIREMENTS	
TABL	Е 3-2	ACTION AND LIMIT LEVELS FOR AIR QUALITY MONITORING	
TABL	Е 3-3	ACTION AND LIMIT LEVELS FOR CONSTRUCTION NOISE MONITORING	Ĵ
TABL	Е 3-4	ACTION AND LIMIT LEVELS FOR STREAM WATER QUALITY MONITOR	RING
TABL	Е 3-5	ACTION AND LIMIT LEVELS FOR CONSTRUCTION ECOLOGY MONITOR	RING
TABL	Е 4-1	LOCATIONS OF AIR QUALITY, CONSTRUCTION NOISE AND STREAM QUALITY MONITORING STATION/LOCATIONS	WATER
TABL	E 4-2	MONITORING EQUIPMENT USED IN EM&A PROGRAM	
TABL	E 4-3	ANALYTICAL METHOD APPLIED TO WATER QUALITY SAMPLES	
TABL	E 5-1	SUMMARY OF 1-HOUR TSP MONITORING RESULTS AT A10	
TABL	E 5-2	SUMMARY OF 24-HOUR TSP MONITORING RESULTS AT A10	
TABL	E 5-3	SUMMARY OF NOISE MONITORING RESULTS AT N10A	
TABL	E 5-4	SUMMARY OF STREAM WATER QUALITY RESULTS AT W9A & W9B	
TABL	E 5-5	SUMMARY OF KT15 ECOLOGY IMPACT MONITORING SURVEYS BIRD ST	URVEY
TABL	Е 6-1	SUMMARY OF QUANTITIES OF INERT C&D MATERIALS	
TABL	Е 6-2	SUMMARY OF QUANTITIES OF C&D WASTES	
TABL	Е 6-3	SUMMARY OF EXCAVATED SOIL FOR MARINE DISPOSAL	
TABL	E 8-1	STATISTICAL SUMMARY OF ENVIRONMENTAL COMPLAINTS	
TABL	E 8-2	STATISTICAL SUMMARY OF ENVIRONMENTAL SUMMONS	
TABL	E 8-3	STATISTICAL SUMMARY OF ENVIRONMENTAL PROSECUTION	
TABLI	E 11-1	SUMMARY OF THE EXCEEDANCES FOR IMPACT MONITORING	

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 February 2009 (No. 20)



LIST OF APPENDICES

APPENDIX A	PROJECT SITE LAYOUT
APPENDIX B	THREE-MONTH CONSTRUCTION PROGRAM
APPENDIX C	ENVIRONMENTAL ORGANISATION STRUCTURE
APPENDIX D	LOCATIONS OF DESIGNATED MONITORING STATION/LOCATIONS/AREA
APPENDIX E	EVENT/ACTION PLAN FOR AIR QUALITY, CONSTRUCTION NOISE, STREAM WATER QUALITY AND ECOLOGY
APPENDIX F	EQUIPMENT CALIBRATION CERTIFICATES
APPENDIX G	IMPACT MONITORING SCHEDULE
APPENDIX H	GRAPHICAL PLOTS OF AIR QUALITY, CONSTRUCTION NOISE AND STREAM WATER QUALITY MONITORING RESULTS
APPENDIX I	METEOROLOGICAL DATA IN THE REPORTING PERIOD
APPENDIX J	ENVIRONMENTAL TEAM SITE INSPECTION CHECKLISTS
APPENDIX K	RESPONSE TO COMMENT



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 **February 2009** during the period from **26 January 2008 to 25 February 2009**.

REPORT STRUCTURE

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

Section 1	INTRODUCTION
DCCHOIL I	INTRODUCTION

Section 2 PROJECT ORGANIZATION AND CONSTRUCTION PROGRESS

Section 3 SUMMARY OF MONITORING REQUIREMENTS

Section 4 IMPACT MONITORING METHODOLOGY

Section 5 IMPACT MONITORING RESULTS

Section 6 WASTE MANAGEMENT

Section 7 SITE INSPECTION

Section 8 Environmental Complaint and Non-Compliance

Section 9 IMPLEMENTATION STATUS OF MITIGATION MEASURES

Section 10 IMPACT FORECAST

Section 11 CONCLUSIONS

2.0 PROJECT ORGANIZATION AND CONSTRUCTION PROGRESS

PROJECT ORGANIZATION AND MANAGEMENT STRUCTURE

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

CONSTRUCTION PROGRESS

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

SUMMARY OF ENVIRONMENTAL SUBMISSIONS

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

Table 2-1 Status of Environmental Licenses and Permits

Items	Item Description	License/Permit Status
1	Environmental Permit (EP-231/2005/A)	-
		Notified EPD on 09 July 2007
	Chemical Waste Producer Registration WPN:5296-519-C3430-01 (Portion 8, Ma Fung Ling Road, Tong Yan San Tsuen, Yuen Long)	
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
1 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



3.0 SUMMARY OF IMPACT MONITORING REQUIREMENTS

- 3.01 Environmental monitoring and audit requirements are set out in the EM&A Manual. Air quality, construction noise, stream water quality and ecology have been identified to be the key environmental issues during the construction phase of the project.
- 3.02 A summary of the EM&A requirements for air quality, construction noise, stream water quality and ecology monitoring are shown in **Table 3-1**. The designated station of the air quality, construction noise, stream water quality locations and ecology monitoring area are shown in **Appendix D**.

Table 3-1 Summary of EM&A Requirements

Environmental Aspect	Monitoring Parameters		Monitoring Stations
Air Quality	1-Hour and 24-Hour TSP		A10
Construction Noise	Leq _(30min) during norma	l working hours	N10a*
	Supplementary data of	L ₁₀ and L ₉₀ for reference	
Stream Water Quality	In Situ Measurement		W9A & W9B
	Laboratory Analysis • Suspended Solids (mg/L); • Ammonia Nitrogen (mg/L); and • Zinc (μg/L).		
Ecology			

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

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

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

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

Monitoring Station	Action Level (μg/m³)		Limit Level (μg/m³)	
Withhit ing Station	1-Hour TSP	24-Hour TSP	1-Hour TSP	24-Hour TSP
A10	> 307	> 165	> 500	> 260

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

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

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

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

Dissolved Oxygen (mg/L)	W9A (Upstream) [#]	W9B (Downstream)
Action Level	NA	< 0.3
Limit Level	NA	< 0.2
Turbidity (NTU)		
Action Level	NA	> 73.5*
Limit Level	NA	> 78.2**
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**

Note:

Table 3-5 Action and Limit Levels for Ecology Monitoring

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

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**.

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



4.0 IMPACT MONITORING METHDOLOGY

MONITORING LOCATIONS

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

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

Air Quality Station	
A10	Village House in Tin Sam San Tsuen
Construction Noise Loc	eation
N10*	Village House in Tin Sam San Tsuen
N10a	Village House in Tin Sam San Tsuen
Water Quality Location	as
W9A [#]	Tin Sam San Tsuen
W9B	Tin Sam San Tsuen

te: * 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

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

MONITORING FREQUENCY AND PERIOD

1-HOUR TSP MONITORING

4.03 The 1-Hour TSP monitoring was conducted in designated station A10 in according to the EM&A Manual three times every 6 days. Total of 18 monitoring events were carried out in this reporting period.

24-HOUR TSP MONITORING

4.04 The 24-Hour TSP monitoring was conducted at station A10 once every six days. Total of 5 monitoring events were carried out in this reporting period.

NOISE MONITORING

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

STREAM WATER QUALITY MONITORING

4.06 The stream water quality monitoring was undertaken at two locations W9A & W9B twice per week. Total of 20 monitoring events were carried out in this reporting period.

[#] Act as control station in impact monitoring

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

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

24-HOUR TSP MONITORING

- 4.09 The 24-Hour TSP monitoring was carried out by a High Volume Sampler (HVS) in compliance with the USEPA Standards Title 40, Code of Federal Regulations Chapter 1 (Part 50) specifications. The HVS employed complied with the PS specifications including.
 - Power supply of 220v/50 hz for 24-Hour continuous operation;
 - 0.6-1.7 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 $\pm 2.5\%$ deviation over 24-Hour sampling period;
 - Provision of a flow recorder for continuous monitoring;
 - Provision of a peaked roof inlet;
 - Incorporation with a manometer; and
 - An 8"x10" stainless steel filter holder to hold, seal and easy to change the filter paper.



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

1-HOUR TSP MONITORING

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

WIND DATA MONITORING

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

NOISE MONITORING

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

STREAM WATER QUALITY MONITORING

Water Depth

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



Water Temperature

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

Dissolved Oxygen (DO)

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

<u>рН</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.

Salinity

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

Water Sampler

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

Sample Container

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



Sample Storage

- 4.27 A 'Willow' 33-litter plastic cool box packed with ice will be used to preserve the collected water samples prior to arrival at the laboratory for SS determination. The water temperature of the cool box will be maintained at a temperature as close to 4°C as possible without being frozen. Samples collected will be delivered to the laboratory upon collection.
- 4.28 DO, water temperature, turbidity (NTU), pH, salinity and water depth were measured in-situ whereas SS, Ammonia Nitrogen and Zinc were determined in a HOKLAS accredited laboratory (ALS).

ECOLOGY MONITORING

Study Area

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

Survey Method

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

Equipment

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

EQUIPMENT CALIBRATION

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



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

ANALYTICAL LABORATORY

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

Table 4-3 Analytical Method applied to Water Quality Samples

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

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

DATA MANAGEMENT AND DATA QA/QC CONTROL

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

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 February 2009 (No. 20)

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



5.0 IMPACT MONITORING RESULTS

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

AIR QUALITY

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

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

Monitoring Date	Start Time	1 st Result (μg/m ³)	2 nd Result (μg/m ³)	3 rd Result (μg/m ³)	Action Level (µg/m³)	Limit Level (µg/m³)
29-Jan-09	09:15	138	127	107	> 307	> 500
31-Jan-09	09:30	82	85	81	> 307	> 500
6-Feb-09	09:26	106	108	109	> 307	> 500
12-Feb-09	09:25	135	138	137	> 307	> 500
18-Feb-09	09:28	82	85	84	> 307	> 500
24-Feb-09	09:23	46	48	46	> 307	> 500

Note: Bold and italic is exceed the Action Level.

Bold and underline is exceed the Limit Level

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

Monitoring Date	Monitoring Results (μg/m³)	Action Level (µg/m³)	Limit Level (µg/m³)
30-Jan-09	15	> 165	> 260
5-Feb-09	58	> 165	> 260
11-Feb-09	108	> 165	> 260
17-Feb-09	34	> 165	> 260
23-Feb-09	32	> 165	> 260

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

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

CONSTRUCTION NOISE

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

Table 5-3 Summary of Noise Monitoring Results at N10a

Date	Start Time	1st Leq5	2nd Leq5	3 rd Leq5	4th Leq5	5th Leq5	6 th Leq5	Leq30
31-Jan-09	09:53	47.0	49.0	46.4	48.6	47.6	48.5	47.9
6-Feb-09	09:47	45.8	44.6	44.8	44.9	45.9	45.6	45.3
12-Feb-09	09:57	49.0	48.6	47.7	47.6	46.7	47.2	47.9
18-Feb-09	09:51	46.2	46.3	46.6	46.4	47.2	47.7	46.8
24-Feb-09	09:43	52.8	53.6	54.9	52.1	53.6	53.7	53.5
Limit L	Level - >					> 75 dB(A)		



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

STREAM WATER QUALITY

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

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

Monitoring	DO in	n mg/L	Turbidit	ty (NTU)	p	Н	SS in	mg/L	Ammoni	ia (mg/L)	Zinc ((μg/L)
Date	W9A#	W9B	W9A [#]	W9B	W9A#	W9B	W9A#	W9B	W9A [#]	W9B	W9A#	W9B
29-Jan-09	5.3	5.7	107.0	29.1	6.8	6.9	120	19	70.10	6.65	530	49
31-Jan-09	4.9	4.8	367.0	27.2	6.8	6.8	216	79	60.30	6.75	868	49
2-Feb-09	5.0	5.3	396.5	25.9	6.9	6.8	216	26	59.40	6.33	806	47
4-Feb-09	3.4	2.7	123.0	20.6	7.1	6.9	154	16	134.00	14.50	611	38
9-Feb-09	3.7	3.3	145.5	24.2	7.1	6.9	157	21	265.00	6.04	630	23
11-Feb-09	3.8	3.4	58.1	14.7	7.2	6.9	107	15	140.00	7.63	386	30
16-Feb-09	3.4	4.2	46.8	20.9	7.1	6.8	43	21	63.70	8.58	160	52
18-Feb-09	3.2	4.4	38.4	52.0	7.1	6.9	51	24	163.00	7.82	242	51
23-Feb-09	3.1	4.1	35.5	16.5	7.2	6.8	29	15	84.80	6.60	120	32
25-Feb-09	3.0	3.9	44.5	27.3	7.1	6.9	72	26	11.00	5.98	248	52
Action Level	-	< 0.3*	-	> 73.5*	-	> 7.0*	-	> 148*	-	> 30.91*	-	> 242*
Limit Level	-	< 0.2**	-	> 78.2**	-	> 7.1**	-	> 159**	-	> 32.20**	-	> 252**

Notes:

Act as Control Station for the Impact Water Quality Monitoring.

Bold and italic is exceed the Action Level.

Bold and underline is exceed the Limit Level

- * Alternative Action Level is 120% of upstream control station of same day.
- ** Alternative Limit Level is 130% of upstream control station of same day.

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 February 2009 (No. 20)

ECOLOGY

- 5.09 50 individuals of birds from 19 species were recorded during the survey for the present monthly monitoring on 24 February 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, the species number 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), while individual number of wetland dependent bird comply with the A/L level.
- 5.10 No intrusions of construction activities into the wetland areas nor adverse impact on the wetlands was found. Based on the findings in the pervious monthly monitoring, the non-compliance in wetland dependent bird species and individual number was not caused by the project.
- 5.11 From the EM&A Manual Section 7.5.1(b), fauna survey is required during wet season (i.e. April to July) and thus no fauna undertaken in this reporting period.
- 5.12 Photographic records are scheduled in six-month intervals, and the last photographic record was undertaken at **December 2008**. Thus no photographic records need undertaken in this report period. The next photographic record is schedule at **June 2009**.



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

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

Scientific Name	Common Name	Abundance reported in the project profile	Abundance recorded in the present survey (24 Feb 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	
Motacilla alba	White Wagtail	Recorded only	3
Pycnonotus jocosus	Red-whiskered Bulbul	Recorded only	4
Pycnonotus sinesis	Chinese Bulbul	Recorded only	3
Lanius schach	Long-tailed Shrike	Recorded only	1
Copsychus saularis	Oriental Magpie Robin	Recorded only	3
Orthotomus sutorius	Common Tailorbird	Recorded only	
Lonchura striata	White-rumped Munia	Recorded only	
Passer montanus	Eurasian Tree Sparrow	Recorded only	5
Sturnus nigricollis	Black-collared Starling	Recorded only	3
Acridotheres cristatellus	Crested Myna	Recorded only	4
Prinia flaviventris	Yellow-bellied Prinia	\	3
Eudynamis scolopacea	Common Koel	\	1
Halcyon smyrnensis	White-throated Kingfisher	\	
Garrulax perspicillatus	Masked Laughingthrush	\	5
Zosterops japonica	Japanese White Eye	\	
Lonchura punctulata	Scaly-breasted Munia	\	
Egretta garzetta	Little Egret	\	
Anthus hodgsoni	Olive-backed Pipit	\	2
Phylloscopus subaffinis	Dusky Warbler	\	2
Phylloscopus inornatus	Yellow-Browed Warbler	\	1
Parus major	Great Tit	\	1
Prinia inornata	Plain Prinia	\	1
Sturnus sericeus	Red-billied Starling		
Centropus bengalensis	Lesser Coucal	\	
Centropus sinensis	Greater Coucal	\	
Tringa glareola	Wood Sandpiper	1	
Motacilla citreola	Grey Wagtail	\	2
Species Number		15 spp. recorded, (only 2 species of wetland birds with abundance)	wetland birds with abundance in the baseline)
Individual Number		1.2 (from the 2 species of wetland birds with abundance)	50 (1 from the wetland birds with abundance in the baseline)

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



6.0 WASTE MANAGEMENT

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

RECORDS OF WASTE QUANTITIES

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

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

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

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

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

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

Table 6-3 Summary of Excavated Soil for Marine Disposal

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



7.0 SITE INSPECTION

- 7.01 According to the EM&A Manual Section 9.1.2, the environmental weekly site inspection should been formulation by ET Leader. ET had carried out the environmental weekly site inspection on 29 January, 04, 12, 18 and 24 February 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 18 February 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 The details of observation during the site inspections and monthly audit as follows:-
 - C&D material scattered on site was observed at CH-230, the Contractor was reminded to improve the housekeeping;
 - C&D waste was observed at CH-240, the Contractor was reminded to improve the housekeeping and dispose more frequency;
 - Housekeeping at Chainage 230 should be properly maintained and regular disposed of accumulated C&D wastes on site should be carried out;
 - C&D waste mix with the excavated soil without segregation and coverage by the tarpaulin sheet was observed at CH230, the Contractor was reminded to cover the dusty material with tarpaulin sheet and implement the waste sorting on-site accordingly; and
 - Stagnant water accumulated in the constructed channel was found at CH489. The Contractor was reminded to divert the stagnant water into the sedimentation tank prior to discharge.
- 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 Water sampling was performed by Environmental Protection Department at the outlet of the stream of Bay 1 on 27 February 2009 and no major comment was received.



8.0 ENVIRONMENTAL COMPLAINT AND NON-COMPLIANCE

ENVIRONMENTAL COMPLAINT, SUMMONS AND PROSECUTION

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

Table 8-1 Statistical Summary of Environmental Complaints

Reporting Period	Environmental Complaint Statistics						
Reporting 1 criou	Frequency	Cumulative	Complaint Nature				
July – December 2007	0	0	NA				
January – December 2008	0	0	NA				
January 2009	0	0	NA				
February 2009	0	0	NA				

Table 8-2 Statistical Summary of Environmental Summons

Reporting Period	Environmental Summons Statistics							
Reporting 1 criou	Frequency	Cumulative	Nature					
July – December 2007	0	0	NA					
January – December 2008	0	0	NA					
January 2009	0	0	NA					
February 2009	0	0	NA					

Table 8-3 Statistical Summary of Environmental Prosecution

Reporting Period	Environmental Prosecution Statistics							
Reporting 1 criou	Frequency	Cumulative	Nature					
July – December 2007	0	0	NA					
January – December 2008	0	0	NA					
January 2009	0	0	NA					
February 2009	0	0	NA					



9.0 IMPLEMENTATION STATUS OF MITIGATION MEASURES

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

Water Quality

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

Air Quality

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

Noise

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

Waste and Chemical Management

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

General

• The site was generally kept tidy and clean.



10.0 IMPACT FORECAST

KEY ISSUES FOR THE COMING MONTH

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

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

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



11.0 CONCLUSION

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

Table 11-1 Summary of the Exceedances for Impact Monitoring

Monitoring	Parameters	Work-Related Exceedance %	Investigation & Corrective Actions			
Air	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 number of species of wetland birds of conservation importance from baseline.	0	Not Required for 0% Project Related Exceedance			
	Decrease in the total number of wetland birds of conservation importance from baseline.	0	Not Required for 0% Project Related Exceedance			

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

- 11.02 No 1-Hour and 24-Hour TSP monitoring results trigger the Action or Limit Level was recorded in this reporting period.
- 11.03 No construction noise complaint (Action Level) was received and no monitoring noise level above the Limit Level was recorded in this reporting period.
- 11.04 No stream water quality monitoring result trigger the Action or Limit Level was recorded in this reporting period.
- 11.05 Non-compliance with the ecological criteria was found during the monitoring on 24 February 2009. No intrusions of construction activities into the wetland areas nor adverse impact was observed. Based on the findings in the pervious monthly monitoring, the non-compliance in wetland dependent bird or fauna was not caused by the project.
- 11.06 No environmental complaint, summons or prosecution was received in this reporting period.



RECOMMENDATIONS

- 11.07 Based on the ET environmental weekly site inspection and IEC monthly site audit records on 29 January, 04, 12, 18 and 24 February, no non-compliance and five observations were recorded. Details of the observations as follows:-
 - C&D material scattered on site was observed at CH-230, the Contractor was reminded to improve the housekeeping;
 - C&D waste was observed at CH-240, the Contractor was reminded to improve the housekeeping and dispose more frequency;
 - Housekeeping at Chainage 230 should be properly maintained and regular disposed of accumulated C&D wastes on site should be carried out;
 - C&D waste mix with the excavated soil without segregation and coverage by the tarpaulin sheet was observed at CH230, the Contractor was reminded to cover the dusty material with tarpaulin sheet and implement the waste sorting on-site accordingly; and
 - Stagnant water accumulated in the constructed channel was found at CH489. The Contractor was reminded to divert the stagnant water into the sedimentation tank prior to discharge.
- 11.08 Water sampling was performed by Environmental Protection Department at the outlet of the stream of Bay 1 on 27 February 2009 and no major comment was received.
- 11.09 The ET will continue to implement the EM&A program and audit the implementation of the environmental mitigation measures.

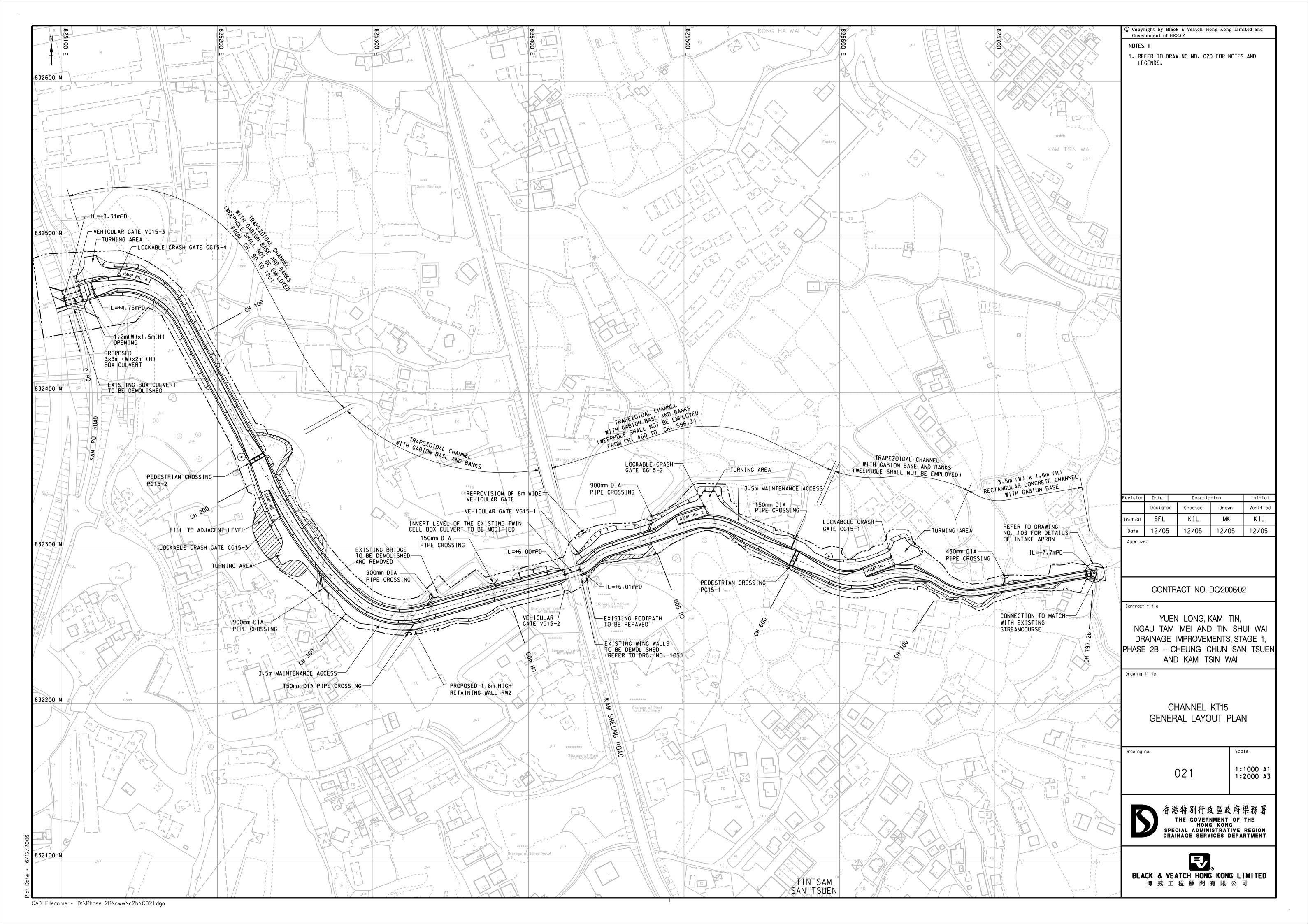
DSD Contract No. DC/2006/02 Yuen Long, Kam Tin, Ngau Tam Mei and Tin Shui Wai Drainage Improvements, Stage 1, Phase 2B – Cheung Chun San Tsuen and Kam Tsin Wai



KT15 – Monthly EM&A Report for February 2009 (No. 20)

APPENDIX A

PROJECT SITE LAYOUT





APPENDIX B

THREE-MONTH CONSTRUCTION PROGRAM

	Task Name	Duration	Start	Finish	Predecessors	2009 Jan	Feb	Mar	1	Apr
۲	Letter of Acceptance	1 day	Wed 21/3/07	Wed 21/3/07		Jan	FeD	ı mar		АРГ
\exists	Date for commencement of Works	1 day	Fri 30/3/07	Fri 30/3/07						
_	Execution of Article of Agreement	1 day	Tue 3/4/07	Tue 3/4/07						
4	Execution of Afficie of Agreement	i day	1 de 3/4/07	1 de 3/4/07						
5	Master Programme of the Works	902 days	Wed 21/3/07	Mon 7/9/09						
6	Completion Potes	903 days	E-: 20/2/07	Man 7/0/00						
8	Completion Dates Section I - portions 1, 2 and 3	893 days 893 days	Fri 30/3/07 Fri 30/3/07	Mon 7/9/09 Mon 7/9/09	2SS					
9	Section II - portions 4, 5 and 5C	893 days	Fri 30/3/07	Mon 7/9/09						
0	Section III - portions 5A1, 5A2 and 5B	740 days	Thu 28/6/07	Mon 6/7/09	20FS-1 day					
11	Section IV - temp vehicular access at portion 5A1	90 days	Thu 28/6/07		20FS-1 day					
12 13	Section V - preservation and protection of existing trees	893 days	Fri 30/3/07	Mon 7/9/09	2SS					
14	Possession of Site	200 days	Fri 30/3/07	Mon 15/10/07						
15	Portion 1 - channel KT2	1 day	Fri 30/3/07	Fri 30/3/07	2SS					
16	Portion 2 - channel KT2	61 days	Fri 30/3/07	Tue 29/5/07						
17	Portion 3 - channel KT2	91 days	Fri 30/3/07	Thu 28/6/07						
18 19	Portion 4 - channel KT15 Portion 5 - channel KT15	1 day 91 days	Fri 30/3/07 Fri 30/3/07	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 5A2 - channel KT15 Portion 5B - channel KT15	20 days	Wed 26/9/07	Mon 15/10/07						
23	Portion 5C - channel KT15	91 days	Fri 30/3/07	Thu 28/6/07						
24	Portion 6 - Temp Storage Area at Chi Ho Road	1 day	Fri 30/3/07	Fri 30/3/07						
25	Portion 7 - Berthing Area	1 day	Fri 30/3/07	Fri 30/3/07						
26	Portion 8 - Site Accommodation	1 day	Fri 30/3/07	Fri 30/3/07	255					
27 28	A. Davillaria and Waster	000 -1	M 04/0/07	M 7/0/00						
28	A. Preliminary Works 1. Setting out of Works	902 days 893 days	Wed 21/3/07 Fri 30/3/07	Mon 7/9/09 Mon 7/9/09	2SS		• • • • • • • • • • • • • • • • • • •			
	Environmental Monitoring and Audit	893 days	Fri 30/3/07	Mon 7/9/09	100					
╗	2.1 Establishment of Environmental Team	14 days	Fri 30/3/07	Thu 12/4/07	8SS					
2	2.2 approval by the Engineer	7 days	Fri 13/4/07	Thu 19/4/07						
3	2.3 Environmental baseline monitoring	77 days	Fri 20/4/07	Thu 5/7/07						
‡ 5	a. Technical proposal & methodology b. Approval by the Engineer	7 days 7 days	Fri 20/4/07 Fri 27/4/07	Thu 26/4/07 Thu 3/5/07						
36	c. Baseline monitoring	63 days	Fri 4/5/07	Thu 5/7/07						
37	2.4 Environmental impact monitoring and audit	777 days	Tue 24/7/07	Mon 7/9/09	36,8FF					
38	Environmental Management and Environmental Management Plan	73 days	Fri 30/3/07	Sun 10/6/07						
39	3.1 Submission of draft EMP	21 days	Fri 30/3/07	Thu 19/4/07	2SS					
10	3.2 Comment from the Engineer	7 days	Fri 20/4/07	Thu 26/4/07						
41 42	3.3 Submission of EMP 4. Engineer's Accommodation	45 days 51 days	Fri 27/4/07 Fri 30/3/07	Sun 10/6/07 Sat 19/5/07	40					
43	4.1 Renovation	30 days	Fri 30/3/07	Sat 19/3/07 Sat 28/4/07	26SS					
44	4.2 Equipment	51 days	Fri 30/3/07	Sat 19/5/07						
45	a. Contract telephone	21 days	Fri 30/3/07	Thu 19/4/07						
46	b. Survey equipment	45 days	Fri 30/3/07	Sun 13/5/07	26SS					
47 48	c. Contract computer facilities submission	51 days 14 days	Fri 30/3/07	Sat 19/5/07 Thu 12/4/07	26SS					
19	approval	7 days	Fri 13/4/07	Thu 12/4/07						
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 53	4.3 utilities servicing	33 days	Fri 30/3/07	Tue 1/5/07						
54	a. Water b. Electricity	1 day 1 day	Fri 30/3/07 Fri 30/3/07	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						
8	application	5 days	Fri 13/4/07		56SS+14 days					
59 60	installation d. Facsimile	14 days 33 days	Wed 18/4/07 Fri 30/3/07	Tue 1/5/07	00					
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 66	e. Internet broadband temporary service (56K)	33 days 32 days	Fri 30/3/07	Tue 1/5/07 Mon 30/4/07	26SS					
55	Composary Service (SOIN)	JZ uays	111 30/3/01	WOT 30/4/07						
	Task		Progre	ss	Sum	mary Rolled Up Critica	Task Rolled Up Prog	ress External Tasks	Group	b By Summary
piect	PROGRAMME OF WORKS					•				, · · · · · · · · · · · · · · ·

	new service application installation 5. Contractor's Accommodation 5.1 Provision a. Premises b. Toilet facilities c. Telephone service d. Fascimile service e. Internet broadband service f. Water g. electricity 6. Transport (land) for the Engineer 6.1 submission 6.2 comment & approval 6.3 delivery 6.4 temp service 7. Transport (land) for Public Works Regional Laboratory 7.1 submission 7.2 comment, approval & instruction 7.3 delivery 8. Signboard 8.1 Major	19 days Fri 13/4/07 5 days Fri 13/4/07 14 days Wed 18/4/07 45 days Fri 30/3/07 45 days Fri 30/3/07 45 days Fri 30/3/07 21 days Mon 23/4/07 30 days Sat 14/4/07 30 days Sat 14/4/07 1 day Fri 30/3/07 1 day Fri 30/3/07 1 day Fri 30/3/07 7 days Fri 30/3/07 14 days Fri 30/3/07 124 days Fri 30/3/07 124 days Fri 30/3/07 14 days Fri 30/3/07 124 days Fri 30/3/07 125 days Fri 30/3/07 126 days Fri 30/3/07 127 days Fri 30/3/07 14 days Fri 30/3/07 150 days Fri 6/4/07	Tue 1/5/07 Tue 1/5/07 Tue 1/5/07 Tue 1/5/07 68 Sun 13/5/07 Sun 13/5/07 Sun 13/5/07 Sun 13/5/07 Sun 13/5/07 T2FF Sun 13/5/07 Sun 13/5/07 T2FF Sun 13/5/07 Sun 13/5/07 T2FF Sun 13/5/07 T2FF Fri 30/3/07 Fri 30/3/07 T6SS Tue 31/7/07 Thu 5/4/07 Tue 31/7/07 Thu 5/4/07 Tue 31/7/07 Thu 5/4/07	Jan	Feb	Mar	Apr
	installation 5. Contractor's Accommodation 5.1 Provision a. Premises b. Toilet facilities c. Telephone service d. Fascimile service e. Internet broadband service f. Water g. electricity 6. Transport (land) for the Engineer 6.1 submission 6.2 comment & approval 6.3 delivery 6.4 temp service 7. Transport (land) for Public Works Regional Laboratory 7.1 submission 7.2 comment, approval & instruction 7.3 delivery 8. Signboard	14 days Wed 18/4/07 45 days Fri 30/3/07 45 days Fri 30/3/07 45 days Fri 30/3/07 21 days Mon 23/4/07 30 days Sat 14/4/07 30 days Sat 14/4/07 1 day Fri 30/3/07 1 day Fri 30/3/07 124 days Fri 30/3/07 14 days Fri 6/4/07 103 days Fri 30/3/07 124 days Fri 30/3/07 7 days Fri 30/3/07 7 days Fri 30/3/07 14 days Fri 6/4/07 103 days Fri 6/4/07 103 days Fri 6/4/07	Tue 1/5/07 68 Sun 13/5/07 ZFF Sun 13/5/07 ZFF Sun 13/5/07 ZFF Sun 13/5/07 ZFF Fri 30/3/07 ZFF Tue 31/7/07 Thu 5/4/07 ZSS Thu 19/4/07 Thu 5/4/07 ZSS Thu 19/4/07 ZSS ZSS ZSS ZSS ZSS ZSS ZSS Z				
	5. Contractor's Accommodation 5.1 Provision a. Premises b. Toilet facilities c. Telephone service d. Fascimile service e. Internet broadband service f. Water g. electricity 6. Transport (land) for the Engineer 6.1 submission 6.2 comment & approval 6.3 delivery 6.4 temp service 7. Transport (land) for Public Works Regional Laboratory 7.1 submission 7.2 comment, approval & instruction 7.3 delivery 8. Signboard	45 days Fri 30/3/07 45 days Fri 30/3/07 45 days Fri 30/3/07 21 days Mon 23/4/07 30 days Sat 14/4/07 30 days Sat 14/4/07 1 day Fri 30/3/07 1 day Fri 30/3/07 124 days Fri 30/3/07 14 days Fri 6/4/07 103 days Fri 30/3/07 14 days Fri 30/3/07 124 days Fri 30/3/07 14 days Fri 30/3/07 7 days Fri 30/3/07 7 days Fri 30/3/07 14 days Fri 6/4/07 103 days Fri 6/4/07	Sun 13/5/07 Sun 13/5/07 Sun 13/5/07 Sun 13/5/07 Sun 13/5/07 72FF Sun 13/5/07 Sun 13/5/07 72FF Sun 13/5/07 72FF Fri 30/3/07 Fri 30/3/07 Thu 5/4/07 Thu 5/4/07 Sun 13/7/07 Thu 5/4/07 Sun 13/5/07 Thu 5/4/07 Thu 5/4/07 Sun 13/5/07 Thu 5/4/07 Thu 5/4/07 Sun 13/5/07 Sun				
	5.1 Provision a. Premises b. Toilet facilities c. Telephone service d. Fascimile service e. Internet broadband service f. Water g. electricity 6. Transport (land) for the Engineer 6.1 submission 6.2 comment & approval 6.3 delivery 6.4 temp service 7. Transport (land) for Public Works Regional Laboratory 7.1 submission 7.2 comment, approval & instruction 7.3 delivery 8. Signboard	45 days Fri 30/3/07 45 days Fri 30/3/07 21 days Mon 23/4/07 30 days Sat 14/4/07 30 days Sat 14/4/07 1 day Fri 30/3/07 1 day Fri 30/3/07 1 days Fri 6/4/07 1 days Fri 6/4/07	Sun 13/5/07 Sun 13/5/07 Sun 13/5/07 Sun 13/5/07 72FF Sun 13/5/07 Sun 13/5/07 Sun 13/5/07 Sun 13/5/07 Sun 13/5/07 Fri 30/3/07 Fri 30/3/07 Sun 13/5/07 S				
	a. Premises b. Toilet facilities c. Telephone service d. Fascimile service e. Internet broadband service f. Water g. electricity 6. Transport (land) for the Engineer 6.1 submission 6.2 comment & approval 6.3 delivery 6.4 temp service 7. Transport (land) for Public Works Regional Laboratory 7.1 submission 7.2 comment, approval & instruction 7.3 delivery 8. Signboard	45 days Fri 30/3/07 21 days Mon 23/4/07 30 days Sat 14/4/07 30 days Sat 14/4/07 30 days Sat 14/4/07 1 day Fri 30/3/07 1 day Fri 30/3/07 124 days Fri 30/3/07 14 days Fri 6/4/07 103 days Fri 30/3/07 124 days Fri 30/3/07 124 days Fri 30/3/07 124 days Fri 30/3/07 14 days Fri 30/3/07 14 days Fri 30/3/07 7 days Fri 30/3/07 17 days Fri 6/4/07 103 days Fri 6/4/07 103 days Fri 6/4/07	Sun 13/5/07 26SS Sun 13/5/07 72FF Sun 13/5/07 72FF Sun 13/5/07 72FF Sun 13/5/07 72FF Fri 30/3/07 26SS Fri 30/3/07 26SS Tue 31/7/07 Thu 5/4/07 2SS Thu 19/4/07 80 Tue 31/7/07 81 Tue 31/7/07 Thu 5/4/07 2SS,82FF Tue 31/7/07 Thu 5/4/07 2SS Thu 19/4/07 85				
	b. Toilet facilities c. Telephone service d. Fascimile service e. Internet broadband service f. Water g. electricity 6. Transport (land) for the Engineer 6.1 submission 6.2 comment & approval 6.3 delivery 6.4 temp service 7. Transport (land) for Public Works Regional Laboratory 7.1 submission 7.2 comment, approval & instruction 7.3 delivery 8. Signboard	21 days Mon 23/4/07 30 days Sat 14/4/07 30 days Sat 14/4/07 30 days Sat 14/4/07 1 day Fri 30/3/07 1 day Fri 30/3/07 124 days Fri 30/3/07 14 days Fri 6/4/07 103 days Fri 30/3/07 124 days Fri 30/3/07 124 days Fri 30/3/07 124 days Fri 30/3/07 14 days Fri 30/3/07 17 days Fri 30/3/07 17 days Fri 30/3/07 18 Fri 30/3/07 19 Fri 30/3/07	Sun 13/5/07 72FF Sun 13/5/07 72FF Sun 13/5/07 72FF Sun 13/5/07 72FF Fri 30/3/07 26SS Fri 30/3/07 26SS Tue 31/7/07 Thu 5/4/07 2SS Thu 19/4/07 80 Tue 31/7/07 81 Tue 31/7/07 Thu 5/4/07 2SS,82FF Tue 31/7/07 Thu 5/4/07 2SS Thu 19/4/07 85				
	c. Telephone service d. Fascimile service e. Internet broadband service f. Water g. electricity 6. Transport (land) for the Engineer 6.1 submission 6.2 comment & approval 6.3 delivery 6.4 temp service 7. Transport (land) for Public Works Regional Laboratory 7.1 submission 7.2 comment, approval & instruction 7.3 delivery 8. Signboard	30 days Sat 14/4/07 30 days Sat 14/4/07 30 days Sat 14/4/07 1 day Fri 30/3/07 1 day Fri 30/3/07 124 days Fri 30/3/07 14 days Fri 6/4/07 103 days Fri 30/3/07 124 days Fri 30/3/07 124 days Fri 30/3/07 124 days Fri 30/3/07 14 days Fri 30/3/07 17 days Fri 30/3/07 17 days Fri 30/3/07 18 Fri 30/3/07 19 Fri 30/3/07	Sun 13/5/07 72FF Sun 13/5/07 72FF Sun 13/5/07 72FF Fri 30/3/07 26SS Fri 30/3/07 26SS Tue 31/7/07 Thu 5/4/07 2SS Thu 19/4/07 80 Tue 31/7/07 81 Tue 31/7/07 2SS,82FF Tue 31/7/07 Thu 5/4/07 2SS Thu 19/4/07 85				
	d. Fascimile service e. Internet broadband service f. Water g. electricity 6. Transport (land) for the Engineer 6.1 submission 6.2 comment & approval 6.3 delivery 6.4 temp service 7. Transport (land) for Public Works Regional Laboratory 7.1 submission 7.2 comment, approval & instruction 7.3 delivery 8. Signboard	30 days Sat 14/4/07 30 days Sat 14/4/07 1 day Fri 30/3/07 1 day Fri 30/3/07 124 days Fri 30/3/07 7 days Fri 30/3/07 14 days Fri 6/4/07 103 days Fri 30/3/07 124 days Fri 30/3/07 7 days Fri 30/3/07 124 days Fri 30/3/07 14 days Fri 6/4/07 103 days Fri 6/4/07 103 days Fri 6/4/07	Sun 13/5/07 72FF Sun 13/5/07 72FF Fri 30/3/07 26SS Fri 30/3/07 26SS Tue 31/7/07 Thu 5/4/07 2SS Thu 19/4/07 80 Tue 31/7/07 81 Tue 31/7/07 2SS,82FF Tue 31/7/07 Thu 5/4/07 2SS Thu 19/4/07 85				
	e. Internet broadband service f. Water g. electricity 6. Transport (land) for the Engineer 6.1 submission 6.2 comment & approval 6.3 delivery 6.4 temp service 7. Transport (land) for Public Works Regional Laboratory 7.1 submission 7.2 comment, approval & instruction 7.3 delivery 8. Signboard	30 days Sat 14/4/07 1 day Fri 30/3/07 1 day Fri 30/3/07 124 days Fri 30/3/07 7 days Fri 30/3/07 14 days Fri 6/4/07 103 days Fri 30/3/07 124 days Fri 30/3/07 7 days Fri 30/3/07 124 days Fri 30/3/07 14 days Fri 6/4/07 103 days Fri 6/4/07	Sun 13/5/07 72FF Fri 30/3/07 26SS Fri 30/3/07 26SS Tue 31/7/07 Thu 5/4/07 2SS Thu 19/4/07 80 Tue 31/7/07 81 Tue 31/7/07 2SS,82FF Tue 31/7/07 Thu 5/4/07 2SS Thu 19/4/07 85				
	f. Water g. electricity 6. Transport (land) for the Engineer 6.1 submission 6.2 comment & approval 6.3 delivery 6.4 temp service 7. Transport (land) for Public Works Regional Laboratory 7.1 submission 7.2 comment, approval & instruction 7.3 delivery 8. Signboard	1 day Fri 30/3/07 1 day Fri 30/3/07 1 124 days Fri 30/3/07 7 days Fri 30/3/07 1 4 days Fri 6/4/07 1 103 days Fri 30/3/07 1 24 days Fri 30/3/07 7 days Fri 30/3/07 1 4 days Fri 30/3/07 1 4 days Fri 6/4/07 1 103 days Fri 20/4/07	Fri 30/3/07 26SS Fri 30/3/07 26SS Tue 31/7/07 Thu 5/4/07 2SS Thu 19/4/07 80 Tue 31/7/07 81 Tue 31/7/07 2SS,82FF Tue 31/7/07 Thu 5/4/07 2SS Thu 19/4/07 85				
	g. electricity 6. Transport (land) for the Engineer 6.1 submission 6.2 comment & approval 6.3 delivery 6.4 temp service 7. Transport (land) for Public Works Regional Laboratory 7.1 submission 7.2 comment, approval & instruction 7.3 delivery 8. Signboard	1 day Fri 30/3/07 124 days Fri 30/3/07 7 days Fri 30/3/07 14 days Fri 6/4/07 103 days Fri 20/4/07 124 days Fri 30/3/07 7 days Fri 30/3/07 7 days Fri 30/3/07 14 days Fri 6/4/07 103 days Fri 20/4/07	Fri 30/3/07 26SS Tue 31/7/07 Thu 5/4/07 2SS Thu 19/4/07 80 Tue 31/7/07 81 Tue 31/7/07 2SS,82FF Tue 31/7/07 Thu 5/4/07 2SS Thu 19/4/07 85				
	6. Transport (land) for the Engineer 6.1 submission 6.2 comment & approval 6.3 delivery 6.4 temp service 7. Transport (land) for Public Works Regional Laboratory 7.1 submission 7.2 comment, approval & instruction 7.3 delivery 8. Signboard	124 days Fri 30/3/07 7 days Fri 30/3/07 14 days Fri 6/4/07 103 days Fri 20/4/07 124 days Fri 30/3/07 7 days Fri 30/3/07 14 days Fri 6/4/07 103 days Fri 20/4/07	Tue 31/7/07 Thu 5/4/07 2SS Thu 19/4/07 80 Tue 31/7/07 81 Tue 31/7/07 2SS,82FF Tue 31/7/07 Thu 5/4/07 2SS Thu 19/4/07 85				
	6.1 submission 6.2 comment & approval 6.3 delivery 6.4 temp service 7. Transport (land) for Public Works Regional Laboratory 7.1 submission 7.2 comment, approval & instruction 7.3 delivery 8. Signboard	7 days Fri 30/3/07 14 days Fri 6/4/07 103 days Fri 20/4/07 124 days Fri 30/3/07 7 days Fri 30/3/07 14 days Fri 6/4/07 103 days Fri 20/4/07	Thu 5/4/07 2SS Thu 19/4/07 80 Tue 31/7/07 81 Tue 31/7/07 2SS,82FF Tue 31/7/07 Thu 5/4/07 2SS Thu 19/4/07 85				
	6.3 delivery 6.4 temp service 7. Transport (land) for Public Works Regional Laboratory 7.1 submission 7.2 comment, approval & instruction 7.3 delivery 8. Signboard	103 days Fri 20/4/07 124 days Fri 30/3/07 124 days Fri 30/3/07 7 days Fri 30/3/07 14 days Fri 6/4/07 103 days Fri 20/4/07	Tue 31/7/07 81 Tue 31/7/07 2SS,82FF Tue 31/7/07 Thu 5/4/07 2SS Thu 19/4/07 85				
	7. Transport (land) for Public Works Regional Laboratory 7.1 submission 7.2 comment, approval & instruction 7.3 delivery 8. Signboard	124 days Fri 30/3/07 124 days Fri 30/3/07 7 days Fri 30/3/07 14 days Fri 6/4/07 103 days Fri 20/4/07	Tue 31/7/07 2SS,82FF Tue 31/7/07 Thu 5/4/07 2SS Thu 19/4/07 85				
	7. Transport (land) for Public Works Regional Laboratory 7.1 submission 7.2 comment, approval & instruction 7.3 delivery 8. Signboard	124 days Fri 30/3/07 7 days Fri 30/3/07 14 days Fri 6/4/07 103 days Fri 20/4/07	Tue 31/7/07 Thu 5/4/07 2SS Thu 19/4/07 85				
	7.1 submission 7.2 comment, approval & instruction 7.3 delivery 8. Signboard	7 days Fri 30/3/07 14 days Fri 6/4/07 103 days Fri 20/4/07	Thu 5/4/07 2SS Thu 19/4/07 85				
	7.2 comment, approval & instruction 7.3 delivery 8. Signboard	14 days Fri 6/4/07 103 days Fri 20/4/07	Thu 19/4/07 85				
	7.3 delivery 8. Signboard	103 days Fri 20/4/07			- I		
	8. Signboard		Tue 31/7/07 86				
		150 days Fri 30/3/07					
	8.1 Major	-	Sun 26/8/07				
	•	150 days Fri 30/3/07	Sun 26/8/07				
	submission	90 days Fri 30/3/07	Wed 27/6/07 2SS				
	comment & approval	90 days Sun 29/4/07	Fri 27/7/07 90SS+30 days				
	erection	90 days Tue 29/5/07	Sun 26/8/07 91SS+30 days				
	8.2 Minor	150 days Fri 30/3/07	Sun 26/8/07				
	submission	90 days Fri 30/3/07	Wed 27/6/07 2SS				
	comment & approval erection	90 days Sun 29/4/07 90 days Tue 29/5/07	Fri 27/7/07 94SS+30 days Sun 26/8/07 95SS+30 days				
	9. Telephone hotline	90 days Tue 29/5/07 15 days Sun 29/4/07	Sun 13/5/07 9555+30 days	_			
	9.1 Engineer's instruction	1 day Sun 29/4/07	Mon 30/4/07 99SF	_			
	9.2 installation	14 days Mon 30/4/07	Sun 13/5/07 74FF	-			
	10. Contractual general submissions	902 days Wed 21/3/07	Mon 7/9/09				
	10.1 programmes	28 days Wed 21/3/07	Tue 17/4/07				
	a. GCC Clause 16 programme	14 days Wed 21/3/07	Tue 3/4/07 1SS				
	b. Works programme & financial programme	14 days Wed 4/4/07	Tue 17/4/07 102				
	c. 3-month rolling programme	14 days Wed 4/4/07	Tue 17/4/07 102				
	10.2 contractor's superintendence	14 days Fri 30/3/07	Thu 12/4/07				
	a. Agent	7 days Fri 30/3/07	Thu 5/4/07 2SS				
	b. Surveyor	14 days Fri 30/3/07	Thu 12/4/07 2SS				
	c. Sub-agent	14 days Fri 30/3/07	Thu 12/4/07 2SS				
	d. Geotechnical Engineer	7 days Fri 30/3/07	Thu 5/4/07 2SS				
	e. Geotechnical Supervisor	14 days Fri 30/3/07	Thu 12/4/07 2SS				
	f. Foreman - concrete	14 days Fri 30/3/07	Thu 12/4/07 2SS				
	g. Foreman - drainage	14 days Fri 30/3/07	Thu 12/4/07 2SS				
	h. Staff Organization Plan	14 days Fri 30/3/07	Thu 12/4/07 2SS				
	10.3 Safety Organization	14 days Fri 30/3/07	Thu 12/4/07				
	a. Safety Officer	14 days Fri 30/3/07	Thu 12/4/07 2SS	_			
	h Cafata Com	14 days Fri 30/3/07	Thu 12/4/07 2SS				
	b. Safety Supervisor		Thu 40/4/07 000				
	c. Safety Representative	14 days Fri 30/3/07	Thu 12/4/07 2SS				
	c. Safety Representative 10.4 TTMS design	14 days Fri 30/3/07 7 days Fri 30/3/07	Thu 5/4/07				
	c. Safety Representative 10.4 TTMS design a. Independent Traffic Consultant	14 days Fri 30/3/07 7 days Fri 30/3/07 7 days Fri 30/3/07	Thu 5/4/07 2SS				
	c. Safety Representative 10.4 TTMS design a. Independent Traffic Consultant b. Traffic Engineer	14 days Fri 30/3/07 7 days Fri 30/3/07 7 days Fri 30/3/07 7 days Fri 30/3/07	Thu 5/4/07 Thu 5/4/07 2SS Thu 5/4/07 2SS				
	c. Safety Representative 10.4 TTMS design a. Independent Traffic Consultant b. Traffic Engineer 10.5 Assistant to Engineer	14 days Fri 30/3/07 7 days Fri 30/3/07 7 days Fri 30/3/07 7 days Fri 30/3/07 33 days Fri 30/3/07	Thu 5/4/07 Thu 5/4/07 2SS Thu 5/4/07 2SS Tue 1/5/07				
	c. Safety Representative 10.4 TTMS design a. Independent Traffic Consultant b. Traffic Engineer 10.5 Assistant to Engineer a. Chainmen (4)	14 days Fri 30/3/07 7 days Fri 30/3/07 7 days Fri 30/3/07 7 days Fri 30/3/07 7 days Fri 30/3/07 33 days Fri 30/3/07	Thu 5/4/07 Thu 5/4/07 ZSS Thu 5/4/07 ZSS Tue 1/5/07 Tue 1/5/07 ZSS				
-	c. Safety Representative 10.4 TTMS design a. Independent Traffic Consultant b. Traffic Engineer 10.5 Assistant to Engineer a. Chainmen (4) b. Watchmen (2)	14 days Fri 30/3/07 7 days Fri 30/3/07 7 days Fri 30/3/07 7 days Fri 30/3/07 3 days Fri 30/3/07 3 days Fri 30/3/07 3 days Fri 30/3/07	Thu 5/4/07 Thu 5/4/07 ZSS Thu 5/4/07 Tue 1/5/07 Tue 1/5/07 Tue 1/5/07 ZSS Tue 1/5/07 Tue 1/5/07 Tue 1/5/07				
1	c. Safety Representative 10.4 TTMS design a. Independent Traffic Consultant b. Traffic Engineer 10.5 Assistant to Engineer a. Chainmen (4)	14 days Fri 30/3/07 7 days Fri 30/3/07 7 days Fri 30/3/07 7 days Fri 30/3/07 3 days Fri 30/3/07	Thu 5/4/07 Thu 5/4/07 ZSS Thu 5/4/07 Tue 1/5/07 Tue 1/5/07 Tue 1/5/07 ZSS Tue 1/5/07 Tue 1/5/07 ZSS Tue 1/5/07 ZSS				
1	c. Safety Representative 10.4 TTMS design a. Independent Traffic Consultant b. Traffic Engineer 10.5 Assistant to Engineer a. Chainmen (4) b. Watchmen (2) c. Field assistant (1)	14 days Fri 30/3/07 7 days Fri 30/3/07 7 days Fri 30/3/07 7 days Fri 30/3/07 7 days Fri 30/3/07 33 days Fri 30/3/07	Thu 5/4/07 Thu 5/4/07 ZSS Thu 5/4/07 Tue 1/5/07 Tue 1/5/07 Tue 1/5/07 ZSS Tue 1/5/07 Tue 1/5/07 Tue 1/5/07				
1	c. Safety Representative 10.4 TTMS design a. Independent Traffic Consultant b. Traffic Engineer 10.5 Assistant to Engineer a. Chainmen (4) b. Watchmen (2) c. Field assistant (1) d. Technical assistant (1)	14 days Fri 30/3/07 7 days Fri 30/3/07 7 days Fri 30/3/07 7 days Fri 30/3/07 7 days Fri 30/3/07 33 days Fri 30/3/07	Thu 5/4/07 Thu 5/4/07 ZSS Thu 5/4/07 Tue 1/5/07 Tue 1/5/07 Tue 1/5/07 ZSS Tue 1/5/07 Tue 1/5/07 ZSS Tue 1/5/07 ZSS Tue 1/5/07 ZSS Tue 1/5/07 ZSS				
1	c. Safety Representative 10.4 TTMS design a. Independent Traffic Consultant b. Traffic Engineer 10.5 Assistant to Engineer a. Chainmen (4) b. Watchmen (2) c. Field assistant (1) d. Technical assistant (1) e. Clerical assistant (1)	14 days Fri 30/3/07 7 days Fri 30/3/07 7 days Fri 30/3/07 7 days Fri 30/3/07 7 days Fri 30/3/07 33 days Fri 30/3/07	Thu 5/4/07 Thu 5/4/07 ZSS Thu 5/4/07 Tue 1/5/07 Tue 1/5/07 Tue 1/5/07 ZSS Tue 1/5/07 Tue 1/5/07 ZSS				
	c. Safety Representative 10.4 TTMS design a. Independent Traffic Consultant b. Traffic Engineer 10.5 Assistant to Engineer a. Chainmen (4) b. Watchmen (2) c. Field assistant (1) d. Technical assistant (1) e. Clerical assistant (1) f. Office assistant (1)	14 days Fri 30/3/07 7 days Fri 30/3/07 7 days Fri 30/3/07 7 days Fri 30/3/07 7 days Fri 30/3/07 33 days Fri 30/3/07	Thu 5/4/07 Thu 5/4/07 ZSS Thu 5/4/07 Tue 1/5/07 Tue 1/5/07 Tue 1/5/07 ZSS Tue 1/5/07 Tue 1/5/07 ZSS				
1	c. Safety Representative 10.4 TTMS design a. Independent Traffic Consultant b. Traffic Engineer 10.5 Assistant to Engineer a. Chainmen (4) b. Watchmen (2) c. Field assistant (1) d. Technical assistant (1) e. Clerical assistant (1) f. Office assistant (1) 10.6 Underground service detection equipment	14 days Fri 30/3/07 7 days Fri 30/3/07 7 days Fri 30/3/07 7 days Fri 30/3/07 7 days Fri 30/3/07 33 days Fri 30/3/07 35 days Fri 30/3/07	Thu 5/4/07 Thu 5/4/07 ZSS Thu 5/4/07 ZSS Tue 1/5/07 Tue 1/5/07 ZSS Tue 1/5/07				
	c. Safety Representative 10.4 TTMS design a. Independent Traffic Consultant b. Traffic Engineer 10.5 Assistant to Engineer a. Chainmen (4) b. Watchmen (2) c. Field assistant (1) d. Technical assistant (1) e. Clerical assistant (1) f. Office assistant (1) 10.6 Underground service detection equipment a. Submission	14 days Fri 30/3/07 7 days Fri 30/3/07 7 days Fri 30/3/07 7 days Fri 30/3/07 7 days Fri 30/3/07 33 days Fri 30/3/07 35 days Fri 30/3/07 7 days Fri 30/3/07	Thu 5/4/07 Thu 5/4/07 Thu 5/4/07 ZSS Tue 1/5/07 Tue 1/5/07 Tue 1/5/07 ZSS Tue 1/5/07 Tue 1/5/07 ZSS Thu 3/5/07 Thu 5/4/07 ZSS Thu 19/4/07 Thu 5/4/07 Thu 5/5/07 Thu 3/5/07				
	c. Safety Representative 10.4 TTMS design a. Independent Traffic Consultant b. Traffic Engineer 10.5 Assistant to Engineer a. Chainmen (4) b. Watchmen (2) c. Field assistant (1) d. Technical assistant (1) e. Clerical assistant (1) f. Office assistant (1) 10.6 Underground service detection equipment a. Submission b. Comment & approval	14 days Fri 30/3/07 7 days Fri 30/3/07 7 days Fri 30/3/07 7 days Fri 30/3/07 7 days Fri 30/3/07 33 days Fri 30/3/07 35 days Fri 30/3/07 7 days Fri 30/3/07 14 days Fri 6/4/07	Thu 5/4/07 Thu 5/4/07 Thu 5/4/07 ZSS Thu 1/5/07 Tue 1/5/07 Tue 1/5/07 ZSS Tue 1/5/07 Tue 1/5/07 ZSS Thu 3/5/07 Thu 5/4/07 ZSS Thu 19/4/07 Thu 5/4/07 Thu 26/4/07				
	c. Safety Representative 10.4 TTMS design a. Independent Traffic Consultant b. Traffic Engineer 10.5 Assistant to Engineer a. Chainmen (4) b. Watchmen (2) c. Field assistant (1) d. Technical assistant (1) e. Clerical assistant (1) f. Office assistant (1) 10.6 Underground service detection equipment a. Submission b. Comment & approval c. Provision 10.7 Independent Checking of Temporary Works a. Submission of independent checking engineer	14 days Fri 30/3/07 7 days Fri 30/3/07 33 days Fri 30/3/07 34 days Fri 30/3/07 5 days Fri 30/3/07 7 days Fri 30/3/07 14 days Fri 6/4/07 14 days Fri 20/4/07 28 days Fri 30/3/07	Thu 5/4/07 Thu 5/4/07 Thu 5/4/07 ZSS Thu 1/5/07 Tue 1/5/07 Tue 1/5/07 ZSS Tue 1/5/07 Tue 1/5/07 ZSS Tue 1/5/07 Thu 3/5/07 Thu 5/4/07 ZSS Thu 19/4/07 Thu 3/5/07 Thu 26/4/07 Thu 12/4/07 ZSS				
	c. Safety Representative 10.4 TTMS design a. Independent Traffic Consultant b. Traffic Engineer 10.5 Assistant to Engineer a. Chainmen (4) b. Watchmen (2) c. Field assistant (1) d. Technical assistant (1) e. Clerical assistant (1) f. Office assistant (1) 10.6 Underground service detection equipment a. Submission b. Comment & approval c. Provision 10.7 Independent Checking of Temporary Works a. Submission of independent checking engineer b. Comment & approval	14 days Fri 30/3/07 7 days Fri 30/3/07 33 days Fri 30/3/07 34 days Fri 30/3/07 5 days Fri 30/3/07 7 days Fri 30/3/07 14 days Fri 6/4/07 14 days Fri 30/3/07	Thu 5/4/07 Thu 5/4/07 Thu 5/4/07 Thu 5/4/07 Tue 1/5/07 Thu 3/5/07 Thu 5/4/07 Thu 1/4/07 Tue 1/4/07				
+ DDCC5 :	c. Safety Representative 10.4 TTMS design a. Independent Traffic Consultant b. Traffic Engineer 10.5 Assistant to Engineer a. Chainmen (4) b. Watchmen (2) c. Field assistant (1) d. Technical assistant (1) e. Clerical assistant (1) f. Office assistant (1) 10.6 Underground service detection equipment a. Submission b. Comment & approval c. Provision 10.7 Independent Checking of Temporary Works a. Submission of independent checking engineer	14 days Fri 30/3/07 7 days Fri 30/3/07 33 days Fri 30/3/07 34 days Fri 30/3/07 5 days Fri 30/3/07 7 days Fri 30/3/07 14 days Fri 6/4/07 14 days Fri 20/4/07 28 days Fri 30/3/07	Thu 5/4/07 Thu 5/4/07 Thu 5/4/07 ZSS Thu 1/5/07 Tue 1/5/07 Tue 1/5/07 ZSS Tue 1/5/07 Tue 1/5/07 ZSS Tue 1/5/07 Thu 3/5/07 Thu 5/4/07 ZSS Thu 19/4/07 Thu 3/5/07 Thu 26/4/07 Thu 12/4/07 ZSS				
ct: PROGRA 2 of 16	c. Safety Representative 10.4 TTMS design a. Independent Traffic Consultant b. Traffic Engineer 10.5 Assistant to Engineer a. Chainmen (4) b. Watchmen (2) c. Field assistant (1) d. Technical assistant (1) e. Clerical assistant (1) f. Office assistant (1) 10.6 Underground service detection equipment a. Submission b. Comment & approval c. Provision 10.7 Independent Checking of Temporary Works a. Submission of independent checking engineer b. Comment & approval	14 days Fri 30/3/07 7 days Fri 30/3/07 33 days Fri 30/3/07 34 days Fri 30/3/07 5 days Fri 30/3/07 7 days Fri 30/3/07 14 days Fri 6/4/07 14 days Fri 30/3/07	Thu 5/4/07 Thu 5/4/07 Thu 5/4/07 ZSS Thu 1/5/07 Tue 1/5/07 Tue 1/5/07 ZSS Thu 3/5/07 Thu 3/5/07 Thu 5/4/07 ZSS Thu 19/4/07 Thu 12/4/07 Thu 12/4/07 Thu 12/4/07 Thu 12/4/07 Thu 26/4/07 Thu 26/4/07 Thu 26/4/07 Thu 26/4/07 Thu 26/4/07	Rolled Up Cri	tical Task Rolled Up Progres	ss External Tasks	Group By Summary

ID Tas	k Name	Duration	Start	Finish	Predecessors	2009						T	
36	a. Submission of site management plan	45 days	Fri 30/3/07	Sun 13/5/0	2SS	Jan		Feb			Mar		Apr
37	b. Comment & approval	14 days	Mon 14/5/07	Sun 27/5/0		-							
8	10.9. Condition survey and structral monitoring	893 days	Fri 30/3/07	Mon 7/9/0									
139	a. Submission of Independent Structural Engineer	14 days	Fri 30/3/07	Thu 12/4/0]							
140	b. Comment & approval	7 days	Fri 13/4/07	Thu 19/4/0									
141	c. Proposal for condition survey & structural monitoring	209 days	Fri 20/4/07	Wed 14/11/0									
142	Portion 1, 4, 6, 7, 8	30 days	Fri 20/4/07	Sat 19/5/0									
143 144	Portion 2	30 days	Wed 30/5/07	Thu 28/6/0		_							
144	Portion 3, 5 Portion 5A1, 5A2 and 5B	30 days 30 days	Fri 29/6/07 Tue 16/10/07	Sat 28/7/0 Wed 14/11/0	17,19,20,21	-							
146	d. Comment & approval	193 days	Sun 20/5/07	Wed 14/11/0		-							
147	Portion 1, 4, 6, 7, 8	14 days	Sun 20/5/07	Sat 2/6/0									
148	Portion 2	14 days	Fri 29/6/07	Thu 12/7/0	143	1							
149	Portion 3, 5	14 days	Sun 29/7/07	Sat 11/8/0	144								
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 7/9/0									
152	Portion 1, 4, 6, 7, 8	828 days	Sun 3/6/07	Mon 7/9/0									
153 154	Portion 2 Portion 3, 5	788 days 758 days	Fri 13/7/07 Sun 12/8/07	Mon 7/9/09 Mon 7/9/09									
155	Portion 5A1, 5A2 and 5B	586 days	Thu 29/11/07	Mon 6/7/0									
156	10.10 Handling & disposal of Type 1 & 2 contaminated materials		Sat 14/7/07	Tue 25/9/0									
157	a. Proposed type of dump truck	44 days	Sun 15/7/07	Mon 27/8/0		-							
158	a. Proposed type of dump truck Submission	30 days	Sun 15/7/07 Sun 15/7/07		832SS-44 days	-							
159	Comment & approval	14 days	Tue 14/8/07	Mon 27/8/0		+							
160	b. Proposal of berthing area arrangement	44 days	Mon 30/7/07	Tue 11/9/0		+							
161	Submission	30 days	Mon 30/7/07	Tue 28/8/0		1							
162	Comment & approval	14 days	Wed 29/8/07	Tue 11/9/0]							
163	c. Proposal of disposal arrangement	74 days	Sat 14/7/07	Tue 25/9/0									
164	Submission	60 days	Sat 14/7/07	Tue 11/9/0		1							
165	Comment & approval	14 days	Wed 12/9/07	Tue 25/9/0		-							
166 167	10.11 Type 3 contaminated material a. Decontamination specialist	290 days 134 days	Fri 30/3/07 Fri 30/3/07	Sun 13/1/0		-							
168	a. Decontamination specialist Submission	134 days	Fri 30/3/07	Fri 27/7/0		-							
169	Comment & approval	14 days	Sat 28/7/07	Fri 10/8/0		+							
170	b. Statement & treatment programme	42 days	Sat 11/8/07	Fri 21/9/0		+							
171	(1) Submission	28 days	Sat 11/8/07	Fri 7/9/0	169	1							
172	(2) Comment & approval	14 days	Sat 8/9/07	Fri 21/9/0]							
173	by the Engineer	14 days	Sat 8/9/07	Fri 21/9/0									
174	by the EPD	14 days	Sat 8/9/07	Fri 21/9/0		1							
175 176	c. Setting up of Treatment Plant 10.12 Safety Plan	60 days 35 days	Thu 15/11/07 Wed 21/3/07	Sun 13/1/08 Tue 24/4/0		-							
177	a. Submission of draft Safety Plan	14 days	Wed 21/3/07 Wed 21/3/07	Tue 3/4/0									
178	b. Comment by the Engineer	7 days	Wed 21/3/07 Wed 4/4/07	Tue 10/4/0									
179	c. Submission of Safety Plan	14 days	Wed 11/4/07	Tue 24/4/0		-							
180	10.13 Sub-contractor Management Plan	902 days	Wed 21/3/07	Mon 7/9/0									
181	a. Submission of SMP	30 days	Wed 21/3/07	Thu 19/4/0	1SS	1							
182	b. For information & Comments	14 days	Fri 20/4/07	Thu 3/5/0]							
183	c. Update SMP	858 days	Fri 4/5/07	Mon 7/9/0									
184	10.14 proof of plant ownership	893 days	Fri 30/3/07	Mon 7/9/0									
185 186	a. Submission of draft written undertaking b. Comment by the Engineer / Employer	14 days	Fri 30/3/07 Fri 13/4/07	Thu 12/4/0 Thu 26/4/0		-							
186	c. Engineer's request	14 days 865 days	Fri 27/4/07	Mon 7/9/0									
188	10.15 Contractor's Management Team	893 days	Fri 30/3/07	Mon 7/9/0									
189	a. Submission of staff member details	14 days	Fri 30/3/07	Thu 12/4/0		1							
190	b. Update management / site supervision team	879 days	Fri 13/4/07	Mon 7/9/0	189								
191	10.16 Water supply pipeworks material	651 days	Wed 21/3/07	Tue 30/12/0									
192	a. Supplier	28 days	Wed 21/3/07	Tue 17/4/0									
193	Submission	14 days	Wed 21/3/07	Tue 3/4/0									
194 195	comment & approval	14 days	Wed 4/4/07	Tue 17/4/0									
195	b. Manufacturer Submission	28 days	Wed 21/3/07 Wed 21/3/07	Tue 17/4/0		-							
196	comment & approval	14 days 14 days	Wed 21/3/07 Wed 4/4/07	Tue 17/4/0									
198	c. Independent Inspection Agent (IIA)	28 days	Wed 4/4/07 Wed 21/3/07	Tue 17/4/0									
199	Submission	14 days	Wed 21/3/07	Tue 3/4/0		-							
200	comment & approval	14 days	Wed 4/4/07	Tue 17/4/0	199	1							
201	d. Representative of the IIA	28 days	Wed 21/3/07	Tue 17/4/0									
202	Submission	14 days	Wed 21/3/07	Tue 3/4/0									
203	comment & approval	14 days	Wed 4/4/07	Tue 17/4/0	202								
Project: PR Page: 3 of	OGRAMME OF WORKS		Progre		Summary		Rolled Up Critical Task		d Up Progress		xternal Tasks		By Summary
	6 Critical Task	100000000000000000000000000000000000000	Milesto		Rolled Up		Rolled Up Milestone	Split		_	roject Summary	Deadlin	

ID Ta	sk Name	Duration	Start	Finish	Predecessors	2009 Jan	Feb	Mar	Apr
205	10.17 Landscape softworks and establishment works	28 days	Fri 30/3/07	Thu 26/4/07		Jan	reb	iviai	η Αμι
206	a. Submission of technical information	14 days	Fri 30/3/07	Thu 12/4/07	2SS				
207	b. Comment & approval	14 days	Fri 13/4/07	Thu 26/4/07	206				
208	10.18 Preservation and protection of existing trees	59 days	Wed 21/3/07	Fri 18/5/07					
209	Specialist contractor (landscaping Class I)	28 days	Fri 30/3/07	Thu 26/4/07					
210	Submission	14 days	Fri 30/3/07	Thu 12/4/07					
211	Comment & approval b. Site supervisory staff	14 days	Fri 13/4/07	Thu 26/4/07	210				
212	Site supervisory staπ Submission	59 days	Wed 21/3/07 Wed 21/3/07	Fri 18/5/07 Fri 4/5/07	100				
214	Comment & approval	45 days 14 days	Sat 5/5/07	Fri 18/5/07					
215	10.19 Concrete (ready mix)	28 days	Fri 30/3/07	Thu 26/4/07	213				
216	a. Submission of supplier & design mix	21 days	Fri 30/3/07	Thu 19/4/07	2SS				
217	b. Comment & approval	7 days	Fri 20/4/07	Thu 26/4/07					
218	10.20 Steel reinforcement	35 days	Fri 30/3/07	Thu 3/5/07					
219	a. Submission of supplier	28 days	Fri 30/3/07	Thu 26/4/07	2SS				
220	b. Comment & approval	7 days	Fri 27/4/07	Thu 3/5/07	219				
221	10.21 Submissions of method statement / materials	811 days	Tue 15/5/07	Sun 2/8/09					
222	a. Submission of materials	811 days	Tue 15/5/07		15FS+45 days				
223	b. Submission of method statement	811 days	Tue 15/5/07		15FS+45 days				
224	11. Provision of wheel washing facilities	180 days	Fri 30/3/07	Tue 25/9/07	200				
225 226	11.1 Channel KT2 11.2 Channel KT15	120 days	Fri 30/3/07 Thu 28/6/07	Fri 27/7/07					
226	11.2 Channel K115 11.3 Berthing area	90 days 90 days	Fri 30/3/07	Tue 25/9/07 Wed 27/6/07					
228	11.4 Portion 6	45 days	Fri 30/3/07	Sun 13/5/07					
229	12. Setting up of traffic management liaison group	30 days	Fri 30/3/07	Sat 28/4/07		1			
230	3 -F33								
231	B. Section I of the Works	893 days	Fri 30/3/07	Mon 7/9/09					
232	B1. Portion 1	893 days	Fri 30/3/07	Mon 7/9/09					
233	1. Site clearance	30 days	Sat 28/7/07	Sun 26/8/07		1			
234	1.1 General site clearance	30 days	Sat 28/7/07	Sun 26/8/07	36,225,1021,1019				
235	2. Temporary Traffic Management Scheme	59 days	Fri 30/3/07	Sun 27/5/07					
236	2.1 TTMS Proposal (trial pits in Chi Ho Road for utilities)	59 days	Fri 30/3/07	Sun 27/5/07					
237	a. Submission	45 days	Fri 30/3/07	Sun 13/5/07					
238	b. comments & approvals by Engineer & TMLG	14 days	Mon 14/5/07	Sun 27/5/07	237				
239	2.2 TTMS Proposal (for construction of box culvet)	59 days	Fri 30/3/07	Sun 27/5/07					
240 241	a. Submission b. comments & approvals by Engineer & TMLG	45 days	Fri 30/3/07 Mon 14/5/07	Sun 13/5/07 Sun 27/5/07	240				
242	3. Excavation Permits	14 days 507 days	Mon 28/5/07	Wed 15/10/08	240				
243	3.1 application and issue of permit (trial pits in Chi Ho Road	180 days	Mon 28/5/07	Fri 23/11/07	238				
244	3.2 application and issue of permits (for construction of	180 days	Sat 19/4/08	Wed 15/10/08					
245	box culvert) 4. Underground utilities detection		Fri 30/3/07	Fri 7/12/07					
246	4.1 utilities detection	253 days 28 days	Fri 30/3/07	Thu 26/4/07	255				
247	4.2 trial trench excavtion & identification	14 days	Sat 24/11/07	Fri 7/12/07					
248	5. Utilities temporary diversion / protection	579 days	Thu 27/9/07	Mon 27/4/09					
249	WSD watermain along village vehicular access	171 days	Sat 8/11/08	Mon 27/4/09	338				
250	b. Street lighting along village vehicular access	171 days	Sat 8/11/08	Mon 27/4/09	295SS	-			
251	c. PCCW along village vehicular access	171 days	Sat 8/11/08	Mon 27/4/09	295SS				
252	d. CLP overhead cable at Bay 4	160 days	Thu 7/2/08	Tue 15/7/08					
253	e. CH 816~CH841 underground cables (33kV)	42 days	Thu 27/9/07	Wed 7/11/07					
254	f. CH 816~CH841 underground cables (132kV)	56 days	Thu 8/11/07	Wed 2/1/08					
255 256	g. Street lighting at Chi Ho Road	86 days	Thu 23/10/08	Fri 16/1/09					
256 257	h. Irrigation pipe at Chi Ho Road Drainage Management Plan (Ch810 to Ch850)	86 days	Thu 23/10/08	Fri 16/1/09 Wed 26/9/07	20000	H			
258	6.1 Submission of DMPs	77 days 1 day	Thu 12/7/07 Thu 12/7/07	Wed 26/9/07 Thu 12/7/07					
259	6.2 Comments by the Engineer	14 days	Fri 13/7/07	Thu 26/7/07					
260	6.3 Implementation of DMP	3 days	Mon 24/9/07	Wed 26/9/07					
261	7. Box Culvert and Channel	636 days	Wed 1/8/07	Mon 27/4/09					
262	7.1 Box Culvert BC2-1	636 days	Wed 1/8/07	Mon 27/4/09	78				- J
263	a. Ch0-Ch15 (Bay 1 and Outlet)	167 days	Thu 16/10/08	Tue 31/3/09					•
264	Construction of cofferdam	7 days	Thu 16/10/08	Wed 22/10/08	244	1		`	
265	Remove road pavement and expose existing utiliti	7 days	Thu 16/10/08	Wed 22/10/08					
266	Excavation	9 days	Thu 23/10/08		265,348,264				
267	Granular Bedding	4 days	Sat 1/11/08	Tue 4/11/08					
268	Base Slab	21 days	Wed 5/11/08	Tue 25/11/08					
269	Wall and Deck	22 days	Wed 26/11/08	Wed 17/12/08					
270	Curing	10 days	Thu 18/12/08	Sat 27/12/08					
271 272	Trench Backfill Reinstatement of Chi Ho Road	7 days	Sun 28/12/08	Sat 3/1/09		ays			
212	Reinstatement of Uni H0 K0ad	13 days	Sun 4/1/09	FII 16/1/09	211,200FF,200FF	-			
	Task		Droces	200	Summary	17 days Rolled Up Critical Task	Rolled Up Progress	External Tasks	Group By Summary
	ROGRAMME OF WORKS		Progre	200	Summary		Notice of Frogress	LAIGHIAI LASKS	Group by Summary —————
	40						- W.	0.1.10	
oject: P ge: 4 of			Milest	one	Rolled Up 1	ask Rolled Up Milestone	Split	Project Summary	Deadline

10 10 10 10 10 10 10 10	Apr
Second Process Proce	
Comment of the Comment of APPC Section Comment of APPC Com	
Manipulation of Name	
A. Comment of Assembly December Decemb	
Secretary Secr	
See 289	
Wall and Pools 22 caps Ser February 14 caps 14	
Section 1	
Trans Tran	
Provision 1	
Granus Section Service Service	
Page	
Will and Death	
Clarge 14 style	
Second of CLP Puringround calab at Bay 4 1 day This Bloom This	
Secondary Seco	
Company Pecking Park P	
Base State (Bays S and Bay 7)	
Well and Deek (Buy 9) 29 days Tue 201/06 Tue 17/200 29/2	
Curing (Bay 5 and Bay 7)	
Trench Sachill Blay 7 and Bay 7 11 stays	
Modification of temporary support to watermain (0	
Description	
Wall and Deck (Bay 6)	
Curing (Bay 6)	
Backfill (Bay 6)	
Securation Sec	0 days
Season S	-
Base Slab	
Mail and Deck 16 days Wed 20/8/08 Thu 1/9/08 309	
State	
Trench Backfill 9 days Fri 12/908 Sat 20/908 311	
189 days Thu 3/1/08 Wed 9/7/08 Wed 9/7/08 Wed 2/4/08 Wed 3/1/08 Wed 3	
314 a. Ch840-Ch844 (Bay 56b) 91 days Thu 3/1/08 Wed 2/4/08 315 Excavation (including contamination materials) 25 days Thu 3/1/08 Sun 27/1/08 254 316 Granular Bedding 3 days Mon 28/1/08 Wed 30/1/08 315 317 Base Slab 22 days Thu 3/1/08 Thu 21/2/08 316 318 Wall and Deck 23 days Fri 22/2/08 Sat 15/3/08 317 319 Curing 14 days Sun 16/3/08 Sat 29/3/08 318 320 Trench Backfill 4 days Sun 30/3/08 Wed 2/4/08 319 321 b. Demolition of existing crossing 7 days Sun 30/3/08 Sat 54/08 319 322 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 3/4/08 Sun	
Excavation (including contamination materials) 25 days Thu 3/1/08 Sun 27/1/08 254	
316 Granular Bedding 3 days Mon 28/1/08 Wed 30/1/08 315 317 Base Slab 22 days Thu 31/1/08 Thu 21/2/08 316 318 Wall and Deck 23 days Fri 22/2/08 Sat 15/3/08 317 319 Curing 14 days Sun 16/3/08 Sat 29/3/08 318 320 Trench Backfill 4 days Sun 30/3/08 Wed 2/4/08 319 321 b. Demolition of existing crossing 7 days Sun 30/3/08 Sat 54/08 319 322 c. Ch800-840 (Bay 56a) 95 days Sun 6/4/08 Wed 9/7/08 323 Excavation (including contamination materials) 8 days Sun 6/4/08 Sun 13/4/08 321 324 Granular Bedding 7 days Mon 14/4/08 Sun 20/4/08 323 325 Base Slab 40 days Mon 21/4/08 Fri 30/5/08 324	
Base Slab 22 days Thu 31/1/08 Thu 21/2/08 316 Wall and Deck 23 days Fri 22/2/08 Sat 15/3/08 317 Curing 14 days Sun 16/3/08 Sat 29/3/08 318 Curing 14 days Sun 30/3/08 Wed 2/4/08 319 Trench Backfill 4 days Sun 30/3/08 Wed 2/4/08 319 b. Demolition of existing crossing 7 days Sun 30/3/08 Sat 5/4/08 319 c. Ch800-840 (Bay 56a) 95 days Sun 6/4/08 Wed 9/7/08 Excavation (including contamination materials) 8 days Sun 6/4/08 Sun 13/4/08 321 Granular Bedding 7 days Mon 14/4/08 Sun 20/4/08 323 Base Slab 40 days Mon 21/4/08 Fri 30/5/08 324	
318 Wall and Deck 23 days Fri 22/2/08 Sat 15/3/08 317 319 Curing 14 days Sun 16/3/08 Sat 29/3/08 318 320 Trench Backfill 4 days Sun 30/3/08 Wed 2/4/08 319 321 b. Demolition of existing crossing 7 days Sun 30/3/08 Sat 5/4/08 319 322 c. Ch800-840 (Bay 56a) 95 days Sun 6/4/08 Wed 9/7/08 Wed 9/7/08 323 Excavation (including contamination materials) 8 days Sun 6/4/08 Sun 13/4/08 321 324 Granular Bedding 7 days Mon 14/4/08 Sun 20/4/08 323 325 Base Slab 40 days Mon 21/4/08 Fri 30/5/08 324	
319 Curing 14 days Sun 16/3/08 Sat 29/3/08 318 320 Trench Backfill 4 days Sun 30/3/08 Wed 2/4/08 319 321 b. Demolition of existing crossing 7 days Sun 30/3/08 Sat 5/4/08 319 322 c. Ch800-840 (Bay 56a) 95 days Sun 6/4/08 Wed 9/7/08 Sun 5/4/08 323 Excavation (including contamination materials) 8 days Sun 6/4/08 Sun 13/4/08 321 324 Granular Bedding 7 days Mon 14/4/08 Sun 20/4/08 323 325 Base Slab 40 days Mon 21/4/08 Fri 30/5/08 324	
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 Sun 13/4/08 324 Granular Bedding 7 days Mon 14/4/08 Sun 20/4/08 323 325 Base Slab 40 days Mon 21/4/08 Fri 30/5/08 324	
322 c. Ch800-840 (Bay 56a) 95 days Sun 6/4/08 Wed 9/7/08 323 Excavation (including contamination materials) 8 days Sun 6/4/08 Sun 13/4/08 321 324 Granular Bedding 7 days Mon 14/4/08 Sun 20/4/08 323 325 Base Slab 40 days Mon 21/4/08 Fri 30/5/08 324	
323 Excavation (including contamination materials) 8 days Sun 6/4/08 Sun 13/4/08 321 324 Granular Bedding 7 days Mon 14/4/08 Sun 20/4/08 323 325 Base Slab 40 days Mon 21/4/08 Fri 30/5/08 324	
324 Granular Bedding 7 days Mon 14/4/08 Sun 20/4/08 323 325 Base Slab 40 days Mon 21/4/08 Fri 30/5/08 324	
325 Base Slab 40 days Mon 21/4/08 Fri 30/5/08 324	
326 Wall and Deck 31 days Sat 31/5/08 Mon 30/6/08 325 327 Curing 26 days Tue 10/6/08 Sat 5/7/08 326SS+10 days	
328 Trench Backfill 16 days Tue 24/6/08 Wed 9/7/08 327SS+14 days	
329 8. Filling in Platform 400 days Thu 3/4/08 Thu 7/5/09	
330 8.1 Box Culvert 124 days Sun 4/1/09 Thu 7/5/09	
331 a. Ch0-Ch15 (Bay 1 and Outlet) 3 days Sun 4/1/09 Tue 6/1/09 271 ays	
332 b. Ch15-Ch88 (Bay 2 to Bay 8) 10 days Tue 28/4/09 Thu 7/5/09 305,312,292,300	0 days
333 8.2 Channel 118 days Thu 3/4/08 Tue 29/7/08	
334 a. Ch840-Ch844 (Bay 56b) 5 days Thu 3/4/08 Mon 7/4/08 320	
335 b. Ch800-840 (Bay 56a) 20 days Thu 10/7/08 Tue 29/7/08 328	
9. Geotechnical Instrumentation for CLP Pylon 4 days Mon 24/9/07 Thu 27/9/07	
10. Trial pits for watermain under existing village access 4 days Fri 1/8/08 Mon 4/8/08	
338 11. Temporary support to existing watermain 21 days Sat 18/10/08 Fri 7/11/08 349	
339 12. Drainage works (except Bays 56a and 56b) 45 days Fri 8/5/09 Sun 21/6/09	
340 a. surface drain 45 days Fri 8/5/09 Sun 21/6/09 332	
341 13. Water supply pipeworks 60 days Sun 7/6/09 Wed 5/8/09 197,204,342	
342 14. Roads and paving (except Bays 56a and 56b) 30 days Fri 8/5/09 Sat 6/6/09 332	
TOJECL I NOONANINE OF WORK	
ge: 5 of 16 Critical Task Milestone Rolled Up Task Rolled Up Milestone Split Project Summary	roup By Summary

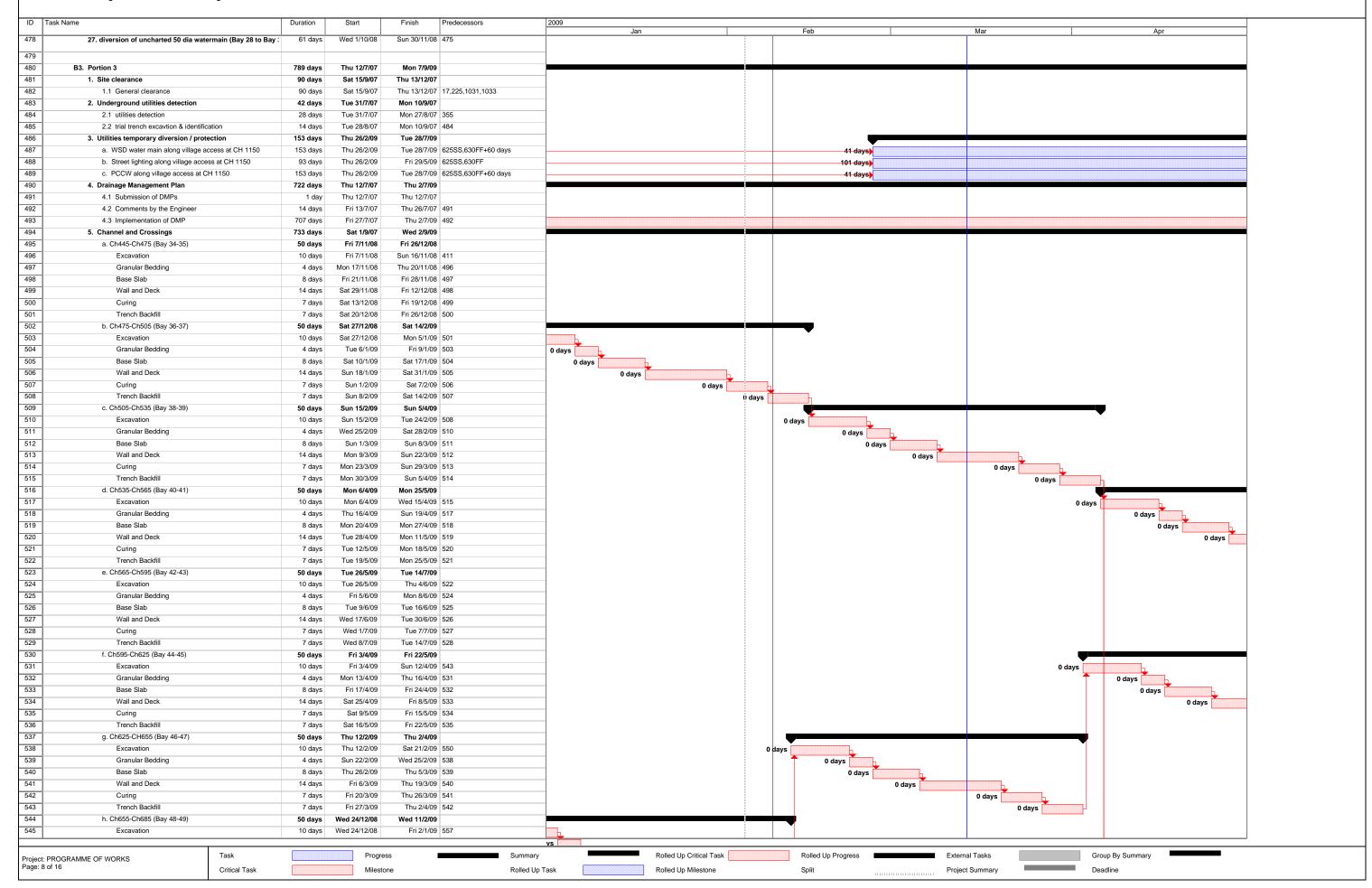
PROGRAMME OF WORKS - RP19
Contract No. : DC / 2006 / 02
Contract Title : Yuen Long, Kam Tin, Ngau Tam Mei and Tin Shui Wai Drainage Improvements,
Stage 1, Phase 2B - Cheung Chun San Tsuen and Kam Tsin Wai

D Task Name	Duration Start	Finish Predecessors	2009			
3 15. Diversion of traffic to permanent access from Bay 4 to B	1 day Sun 7/6/09	Sun 7/6/09 342	Jan	Feb	Mar	Apr
16. Street furnitures / traffic sign / road marking (except Ba)	16 days Thu 6/8/09	Fri 21/8/09 341				
17. Landscape softworks / hardworks (except Bays 56a and	63 days Sun 7/6/09	Sat 8/8/09 331,332,342				
18. Road Diversion in Chi Ho Road	5 days Thu 16/10/08	Mon 20/10/08				
a. Construction of temporary footpath above Box Culvert	4 days Thu 16/10/08	Sun 19/10/08 244				
b. Implementation of footpath diversion	1 day Mon 20/10/08	Mon 20/10/08 347				
19. Removal of Tree No. 501	2 days Thu 16/10/08	Fri 17/10/08				
20. Permanent footpath B2. Portion 2	33 days Thu 6/8/09 893 days Fri 30/3/07	Mon 7/9/09 341 Mon 7/9/09				
52 1. Site clearance	90 days Tue 14/8/07	Sun 11/11/07				
1.1 General clearance	90 days Tue 14/8/07	Sun 11/11/07 36,1025,225,1027				
2. Underground utilities detection	42 days Tue 3/7/07	Mon 13/8/07				
55 2.1 utilities detection 66 2.2 trial trench excavtion & identification	28 days Tue 3/7/07 14 days Tue 31/7/07	Mon 30/7/07 Mon 13/8/07 355				
3. Utilities temporary diversion / protection	463 days Fri 30/3/07	Fri 4/7/08				
a. WSD water main along village vehicular access	90 days Wed 10/10/07	Mon 7/1/08 374SS				
b. Street lighting along village vehicular access	269 days Wed 10/10/07	Fri 4/7/08 374SS				
c. PCCW along village vehicular access d. CLP overhead cables / street lighting at CH 290 ~ CH 33	245 days Wed 10/10/07	Tue 10/6/08 374SS Wed 27/6/07				
d. CLP overhead cables / street lighting at CH 290 ~ CH 39 4. Geotechnical Instrumentation for AFCD	90 days Fri 30/3/07 6 days Thu 27/9/07	Tue 2/10/07				
5. Discussion with Pond Owner	39 days Wed 1/8/07	Sat 8/9/07	-			
6. Box Culvert, Channel and Crossings	572 days Sun 9/9/07	Thu 2/4/09			•	
a. Ch88-Ch120 (Bays 9 - 11)	83 days Fri 29/2/08	Wed 21/5/08			·	
66 Excavation 67 Granular Bedding	21 days Fri 29/2/08 15 days Mon 10/3/08	Thu 20/3/08 336,362,379 Mon 24/3/08 366SS+10 days				
68 Base Slab	15 days Mon 10/3/08 15 days Sun 16/3/08	Sun 30/3/08 367SS+6 days				
Wall and Deck	22 days Sun 23/3/08	Sun 13/4/08 368SS+7 days	-			
70 Curing	25 days Thu 3/4/08	Sun 27/4/08 369SS+11 days				
71 Trench Backfill	35 days Thu 17/4/08	Wed 21/5/08 370SS+14 days				
72 b. Ch120-Ch205 (Bay 12 - Bay 17) 73 Haul access	159 days Sun 23/9/07 16 days Sun 23/9/07	Thu 28/2/08 Mon 8/10/07 381				
74 Excavation	46 days Wed 10/10/07	Sat 24/11/07 362,356,373				
75 Granular Bedding	43 days Sat 20/10/07	Sat 1/12/07 374SS+10 days				
76 Base Slab	50 days Fri 26/10/07	Fri 14/12/07 375SS+6 days				
77 Wall and Deck 78 Curing	53 days Tue 6/11/07 53 days Tue 13/11/07	Fri 28/12/07 376SS+11 days Fri 4/1/08 377SS+7 days				
79 Trench Backfill	46 days Mon 14/1/08	Thu 28/2/08 378SS+62 days,358FF				
c. Ch205-Ch310 (Bay 18 - Bay 24)	93 days Sun 9/9/07	Mon 10/12/07				
Haul access	14 days Sun 9/9/07	Sat 22/9/07 363				
Excavation Granular Bedding	27 days Sun 23/9/07	Fri 19/10/07 361,381				
Granular Bedding Base Slab	23 days Wed 3/10/07 39 days Tue 9/10/07	Thu 25/10/07 382SS+10 days,381 Fri 16/11/07 383SS+6 days				
Wall and Deck	42 days Sat 20/10/07	Fri 30/11/07 384SS+11 days				
Curing	42 days Sat 27/10/07	Fri 7/12/07 385SS+7 days				
Trench Backfill d. Ch310-Ch361 (Bay 25 - Bay 27)	31 days Sat 10/11/07	Mon 10/12/07 386SS+14 days				
38 d. Ch310-Ch361 (Bay 25 - Bay 27) 39 Haul access	273 days Sun 23/9/07 15 days Sun 23/9/07	Sat 21/6/08 Sun 7/10/07 381				
Excavation	52 days Tue 11/12/07	Thu 31/1/08 389,387				
Granular Bedding	85 days Fri 1/2/08	Fri 25/4/08 390				
Base Slab	78 days Sat 1/3/08	Sat 17/5/08 391SS+29 days				
Wall and Deck Curing	83 days Mon 10/3/08 90 days Mon 17/3/08	Sat 31/5/08 392SS+9 days Sat 14/6/08 393SS+7 days				
75 Trench Backfill	83 days Mon 31/3/08	Sat 21/6/08 394SS+14 days	-			
e. Ch361-Ch413 (Bays 28 to Bay 31)	543 days Mon 8/10/07	Thu 2/4/09			—	
Haul access	10 days Mon 8/10/07	Wed 17/10/07 389				
98 Excavation 99 Granular Bedding	68 days Mon 1/12/08 65 days Thu 11/12/08	Fri 6/2/09 472,397,395,478 Fri 13/2/09 398SS+10 days				
00 Base Slab	65 days Sun 21/12/08	Mon 23/2/09 399SS+10 days				
01 Wall and Deck	65 days Sun 4/1/09	Mon 9/3/09 400SS+14 days	ays	h		
OZ Curing	72 days Sun 11/1/09	Mon 23/3/09 401SS+7 days	21 days			
03 Trench Backfill 04 f. Ch413-Ch445 (Bay 32 and Bay 33)	68 days Sun 25/1/09 164 days Tue 27/5/08	Thu 2/4/09 402SS+14 days Thu 6/11/08	21 days)			
1. Cli413-Cli445 (bay 32 alid bay 33) Flow diversion	7 days Tue 27/5/08	Mon 2/6/08 406SS-7 days				
D6 Excavation	40 days Tue 3/6/08	Sat 12/7/08 471	-			
O7 Granular Bedding	5 days Sun 13/7/08	Thu 17/7/08 406				
DB Base Slab	35 days Fri 18/7/08	Thu 21/8/08 407				
9 Wall and Deck 10 Curing	43 days Fri 22/8/08 14 days Sat 4/10/08	Fri 3/10/08 408 Fri 17/10/08 409				
-						
oject: PROGRAMME OF WORKS	Progr	ess Summary	Rolled Up Critical Task	Rolled Up Progress		roup By Summary
ge: 6 of 16 Critical Task	Miles	one Rolled Up	Fask Rolled Up Milestone	Split P	roject Summary D	eadline
I I						

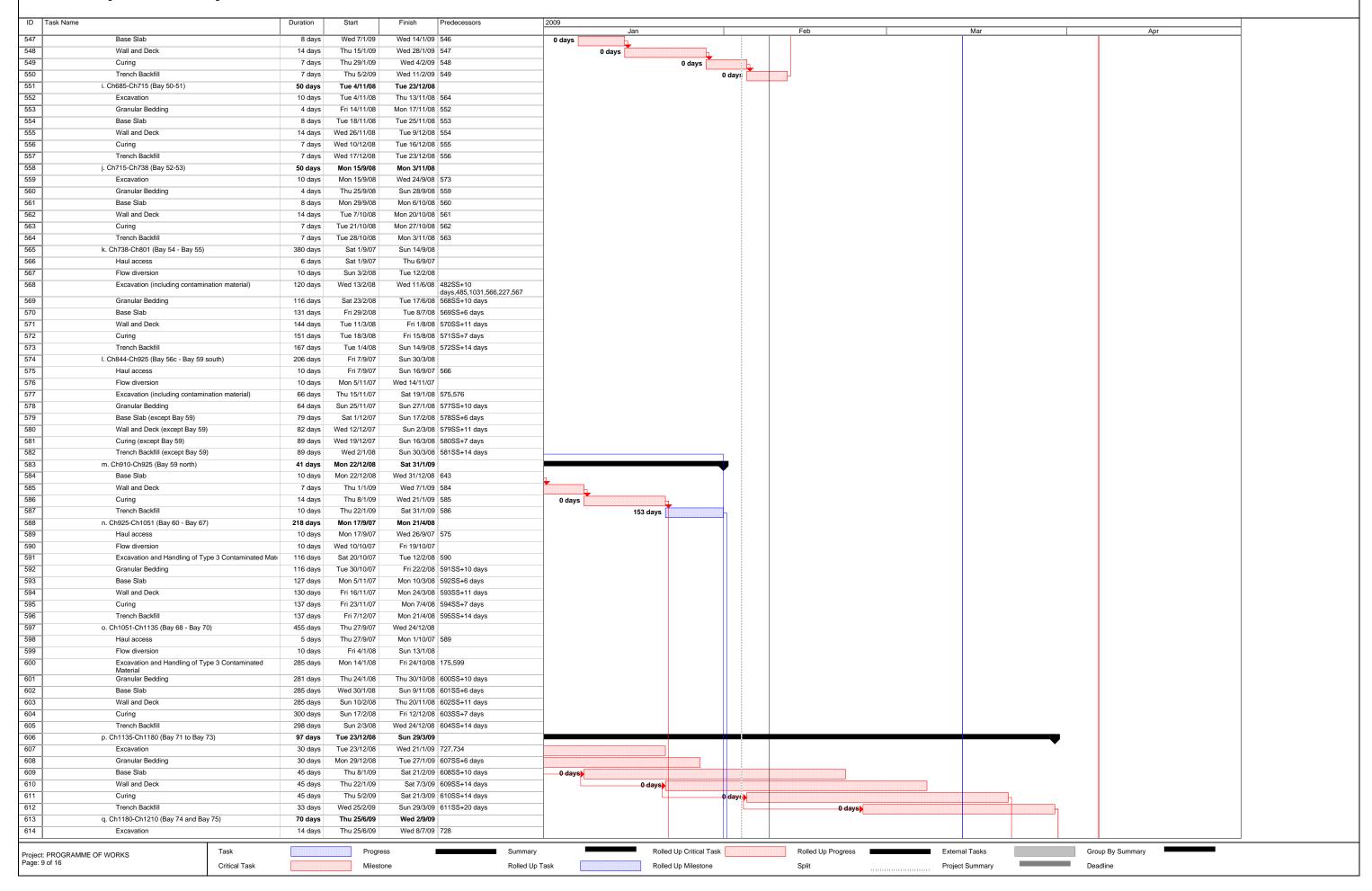
PROGRAMME OF WORKS - RP19
Contract No. : DC / 2006 / 02
Contract Title : Yuen Long, Kam Tin, Ngau Tam Mei and Tin Shui Wai Drainage Improvements,
Stage 1, Phase 2B - Cheung Chun San Tsuen and Kam Tsin Wai

7. Gabion Ch120-Ch148 (Bay 12 - Bay 13) Ch163 - Ch205 (Bay 15 - Bay 17) Ch205 - Ch325 (Bay 18 - Bay 25) Ch348 - CH413 (Bay27 - Bay31) 8. Granite Stone Facing Ch100 - Ch120 (Bay 10 - Bay 11) Ch325 - Ch348 (Bay 26a and Bay 26c) Ch120 - Ch163 (Bay 12 - Bay 14) Ch413 - Ch436 (Bay 32a and Bay 32c) 9. Ramp No. 3 (Ch356 - Ch405) General fill	321 days 287 days 34 days 248 days 39 days	Sun 1/6/08 Sat 5/7/08 Sun 1/6/08	Fri 17/4/09 Fri 17/4/09 414	Jan Feb Mar Apr
3 Ch120-Ch148 (Bay 12 - Bay 13) 4 Ch163 - Ch205 (Bay 15 - Bay 17) 5 Ch205 - Ch325 (Bay 18 - Bay 25) 6 Ch348 - CH413 (Bay27 - Bay31) 7 8. Granite Stone Facing 8 Ch100 - Ch120 (Bay 10 - Bay 11) 9 Ch325 - Ch348 (Bay 26a and Bay 26c) 10 Ch120 - Ch163 (Bay 12 - Bay 14) 11 Ch413 - Ch436 (Bay 32a and Bay 32c) 12 9. Ramp No. 3 (Ch356 - Ch405)	287 days 34 days 248 days	Sat 5/7/08		
4 Ch163 - Ch205 (Bay 15 - Bay 17) 5 Ch205 - Ch325 (Bay 18 - Bay 25) 6 Ch348 - CH413 (Bay27 - Bay31) 7 8. Granite Stone Facing 8 Ch100 - Ch120 (Bay 10 - Bay 11) 9 Ch325 - Ch348 (Bay 26a and Bay 26c) 10 Ch120 - Ch163 (Bay 12 - Bay 14) 11 Ch413 - Ch436 (Bay 32a and Bay 32c) 12 9. Ramp No. 3 (Ch356 - Ch405)	34 days 248 days			
5 Ch205 - Ch325 (Bay 18 - Bay 25) 6 Ch348 - CH413 (Bay27 - Bay31) 7 8. Granite Stone Facing 8 Ch100 - Ch120 (Bay 10 - Bay 11) 9 Ch325 - Ch348 (Bay 26a and Bay 26c) 10 Ch120 - Ch163 (Bay 12 - Bay 14) 11 Ch413 - Ch436 (Bay 32a and Bay 32c) 12 9. Ramp No. 3 (Ch356 - Ch405)	248 days		Fri 4/7/08 393	
7 8. Granite Stone Facing 8 Ch100 -Ch120 (Bay 10 - Bay 11) 9 Ch325 - Ch348 (Bay 26a and Bay 26c) 10 Ch120 - Ch163 (Bay 12 - Bay 14) 11 Ch413 - Ch436 (Bay 32a and Bay 32c) 12 9. Ramp No. 3 (Ch356 - Ch405)	30 days	Sat 5/7/08	Mon 9/3/09 414	
8 Ch100 -Ch120 (Bay 10 - Bay 11) 9 Ch325 - Ch348 (Bay 26a and Bay 26c) 10 Ch120 - Ch163 (Bay 12 - Bay 14) 11 Ch413 - Ch436 (Bay 32a and Bay 32c) 12 9. Ramp No. 3 (Ch356 - Ch405)	Jo days	Tue 10/3/09	Fri 17/4/09 415,401	0 days
9 Ch325 - Ch348 (Bay 26a and Bay 26c) 0 Ch120 - Ch163 (Bay 12 - Bay 14) 1 Ch413 - Ch436 (Bay 32a and Bay 32c) 2 9. Ramp No. 3 (Ch356 - Ch405)	178 days	Mon 28/4/08	Wed 22/10/08	
Ch120 - Ch163 (Bay 12 - Bay 14) Ch413 - Ch436 (Bay 32a and Bay 32c) 9. Ramp No. 3 (Ch356 - Ch405)	11 days	Mon 28/4/08	Thu 8/5/08 370	
Ch413 - Ch436 (Bay 32a and Bay 32c) 9. Ramp No. 3 (Ch356 - Ch405)	6 days	Sun 15/6/08	Fri 20/6/08 394	
9. Ramp No. 3 (Ch356 - Ch405)	16 days	Fri 9/5/08	Sat 24/5/08 378,418	
	5 days	Sat 18/10/08	Wed 22/10/08 410	
3 General fill	17 days	Fri 30/3/07	Sun 15/4/07	
1	5 days	Fri 30/3/07	Tue 3/4/07	
4 Granular fill and blinding	2 days	Wed 4/4/07	Thu 5/4/07 423	
5 Concrete pavement	10 days	Fri 6/4/07	Sun 15/4/07 424	
6 10. Filling in Platform	548 days	Tue 11/12/07	Wed 10/6/09	
7 10.1 Box Culvert BC2-1	10 days	Thu 22/5/08	Sat 31/5/08	
a. Ch88-Ch120 (South of Bay 9 - Bay 11)	10 days	Thu 22/5/08	Sat 31/5/08 371	
9 10.2 Channel and Crossing	548 days	Tue 11/12/07	Wed 10/6/09	
a. Ch120-Ch205 (Bay 12 - Bay 17)	90 days	Fri 29/2/08	Wed 28/5/08 379	
b. Ch205-Ch310 (Bay 18 - Bay 24)	118 days	Tue 11/12/07	Sun 6/4/08 387	
c. Ch310-Ch361 (Bay 25 - Bay 27)	31 days	Sun 22/6/08	Tue 22/7/08 395	
d. Ch361-Ch413 (Bay 28 - Bay 31)	48 days	Fri 24/4/09	Wed 10/6/09 403,477	0 days
4 11. Drainage works	451 days	Mon 7/4/08	Wed 1/7/09	
5 11.1 storm drain with manhole and headwall	451 days	Mon 7/4/08	Wed 1/7/09	
a. Ch88-Ch 120 (Bay 9 - Bay 11)	20 days	Sun 1/6/08	Fri 20/6/08 428	
b. Ch120-Ch205 (Bay 12 - Bay 17)	20 days	Thu 29/5/08	Tue 17/6/08 430	
c. Ch205-Ch310 (Bay 18 - Bay 24)	20 days	Mon 7/4/08	Sat 26/4/08 431	
d. Ch310-Ch361 (Bay 25 - Bay 27)	20 days	Wed 23/7/08	Mon 11/8/08 432	
e. Ch361-Ch436 (Bay 28 - Bay 32)	21 days	Thu 11/6/09	Wed 1/7/09 433	
1 11.2. surface drain	270 days	Wed 1/10/08	Sat 27/6/09	
a. Ch88-Ch 120 (Bay 9 - Bay 11)	10 days	Mon 25/5/09	Wed 3/6/09 428,450	
b. Ch120-Ch190 (Bay 12 - Bay 16)	10 days	Thu 18/6/09	Sat 27/6/09 430,451	
c. Ch190-Ch348 (Bay 17 - Bay 26)	15 days	Wed 1/10/08	Wed 15/10/08 431,452	
d. Ch348-Ch390 (Bay 27 - Bay 29)	10 days	Thu 11/6/09	Sat 20/6/09 433	
e. Ch390-Ch436 (Bay 30 - Bay 32)	10 days	Thu 11/6/09	Sat 20/6/09 433	
7 12.1. Water supply pipeworks (Bay 9 to Bay 26)	60 days	Thu 18/6/09	Sun 16/8/09 450,451,452,204	
8 12.2. Water supply pipeworks (Bay 27 to Bay 32)	14 days	Thu 2/7/09	Wed 15/7/09 439,440,204	
9 13. Roads and paving	369 days	Tue 12/8/08	Sat 15/8/09	
a. Ch88-Ch 148 (Bay 9 - Bay 13)	17 days	Fri 8/5/09	Sun 24/5/09 437,428,436,332	
b. Ch148-Ch190 (Bay 14 - Bay 16)	10 days	Mon 8/6/09	Wed 17/6/09 430,343	
2 c. Ch190-Ch348 (Bay 17 - Bay 26)	50 days	Tue 12/8/08	Tue 30/9/08 438,439,432	
d. Ch348-Ch390 (Bay 27 - Bay 29)	10 days	Thu 2/7/09 Thu 2/7/09	Sat 11/7/09 473,440 Sat 15/8/09 440,433	
e. Ch390-Ch436 (Bay 30 to Bay 32) 14. Road furnitures	45 days	Wed 1/10/08	Sun 30/8/09 440,433	
6 a. Ch88-Ch 120 (Bay 9 - Bay 11)	334 days 17 days	Mon 25/5/09	Wed 10/6/09 450	
7 b. Ch120-Ch205 (Bay 12 - Bay 17)	33 days	Thu 18/6/09	Mon 20/7/09 451	
B. C. Ch205-Ch348 (Bay 18 - Bay 26)	50 days	Wed 1/10/08	Wed 19/11/08 452	
9 d. Ch348-Ch390 (Bay 27 - Bay 29)	33 days	Sun 12/7/09	Thu 13/8/09 453	
60 e. Ch390-Ch436 (Bay 30 - Bay 32)	15 days	Sun 16/8/09	Sun 30/8/09 454	
11 15. Landscape softworks / hardworks	106 days	Mon 25/5/09	Mon 7/9/09	
2 a. Ch88-Ch 120 (Bay 9 - Bay 11)	30 days	Mon 25/5/09	Tue 23/6/09 442SS	
3 b. Ch120-Ch205 (Bay 12 - Bay 17)	70 days	Thu 18/6/09	Wed 26/8/09 443SS	
4 c. Ch205-Ch310 (Bay 18 - Bay 24)	62 days	Thu 18/6/09	Tue 18/8/09 463SS	
5 d. Ch310-Ch436 (Bay 25 - Bay 32) south	38 days	Thu 11/6/09	Sat 18/7/09 445SS,446SS	
6 e. Ch310-Ch436 (Bay 25 - Bay 32) north	8 days	Mon 31/8/09	Mon 7/9/09 467	
7 16. Final trimming of north platform from Bay 26 to Bay 32	15 days	Sun 16/8/09	Sun 30/8/09 454	
8 17. Construct temporary access (Bay 5 to Bay 14)	25 days	Thu 22/5/08	Sun 15/6/08 371,379	
9 18. Removal of existing public light controller near Bay 14	1 day	Wed 30/7/08	Wed 30/7/08	
0 19. Traffic diversion at north of Bay 5 to Bay 14	1 day	Thu 31/7/08	Thu 31/7/08 469,468	
20. Temporary Village Access on Bay 28 - Bay 30	2 days	Sun 1/6/08	Mon 2/6/08 393	
2 21. Temporary Village Access on Bay 32	3 days	Fri 7/11/08	Sun 9/11/08 411	
22. Diversion of traffice to permanent access between Bay 1		Fri 3/4/09	Fri 3/4/09 403,452	114 days
23. Temporary pipe crossing at south of Bay 30	4 days	Thu 28/8/08	Sun 31/8/08 475SS-4 days	
24. Diversion of traffic from Cheung Chun San Chuen to the	1 day	Mon 1/9/08	Mon 1/9/08	
6 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	0 days
7 26. Demolition of existing vehicular bridge	3 days	Tue 21/4/09	Thu 23/4/09 476	
20. Demontion of existing venicular bridge	3 uays	1 ue 2 1/4/09	1110 20/7/00 470	0 days
ject: PROGRAMME OF WORKS		Progre		
ge: 7 of 16 Critical Task		Milesto	ne Rolled Up	p Task Rolled Up Milestone Split Project Summary Deadline

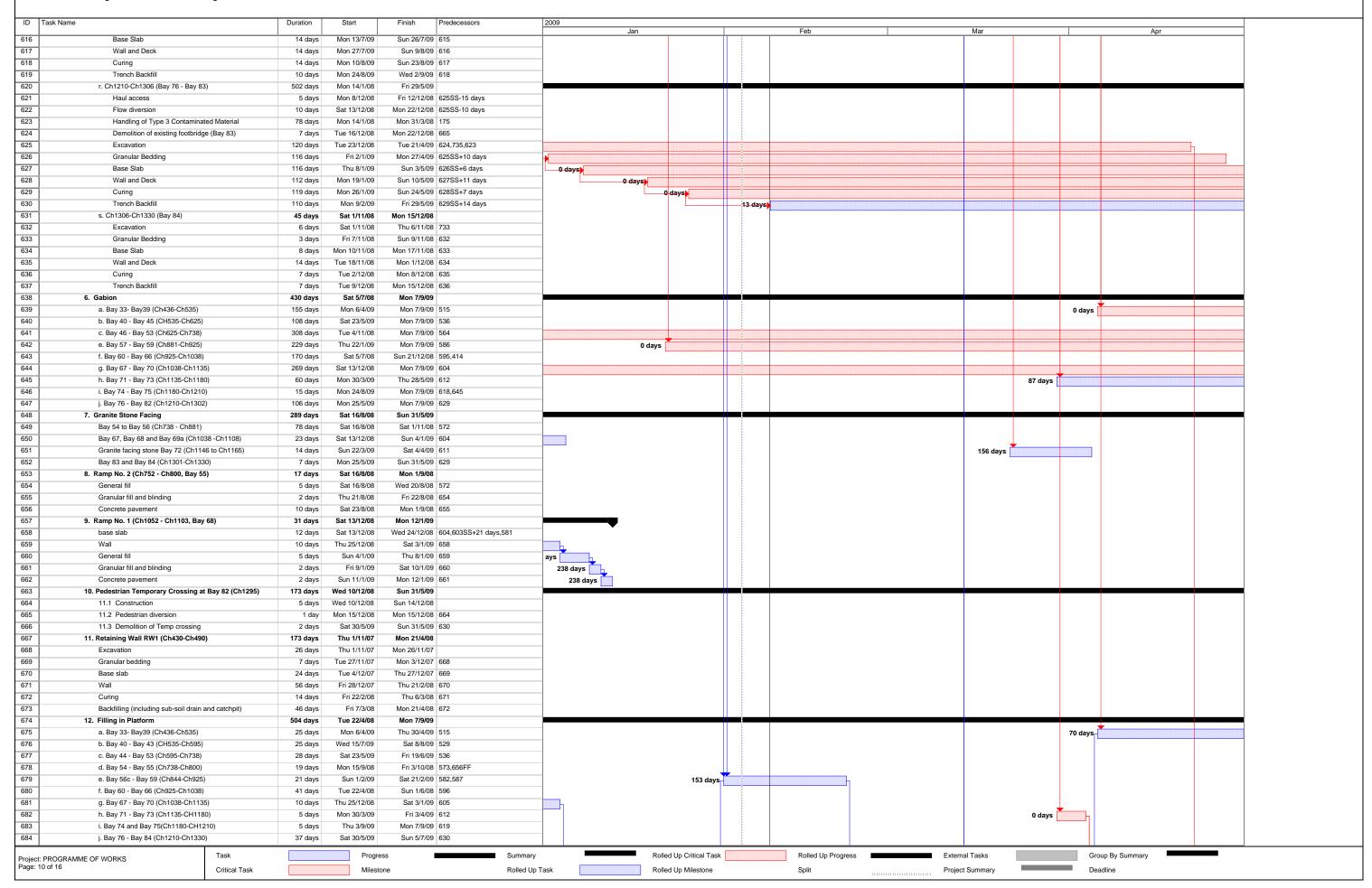
Contract Title: Yuen Long, Kam Tin, Ngau Tam Mei and Tin Shui Wai Drainage Improvements,



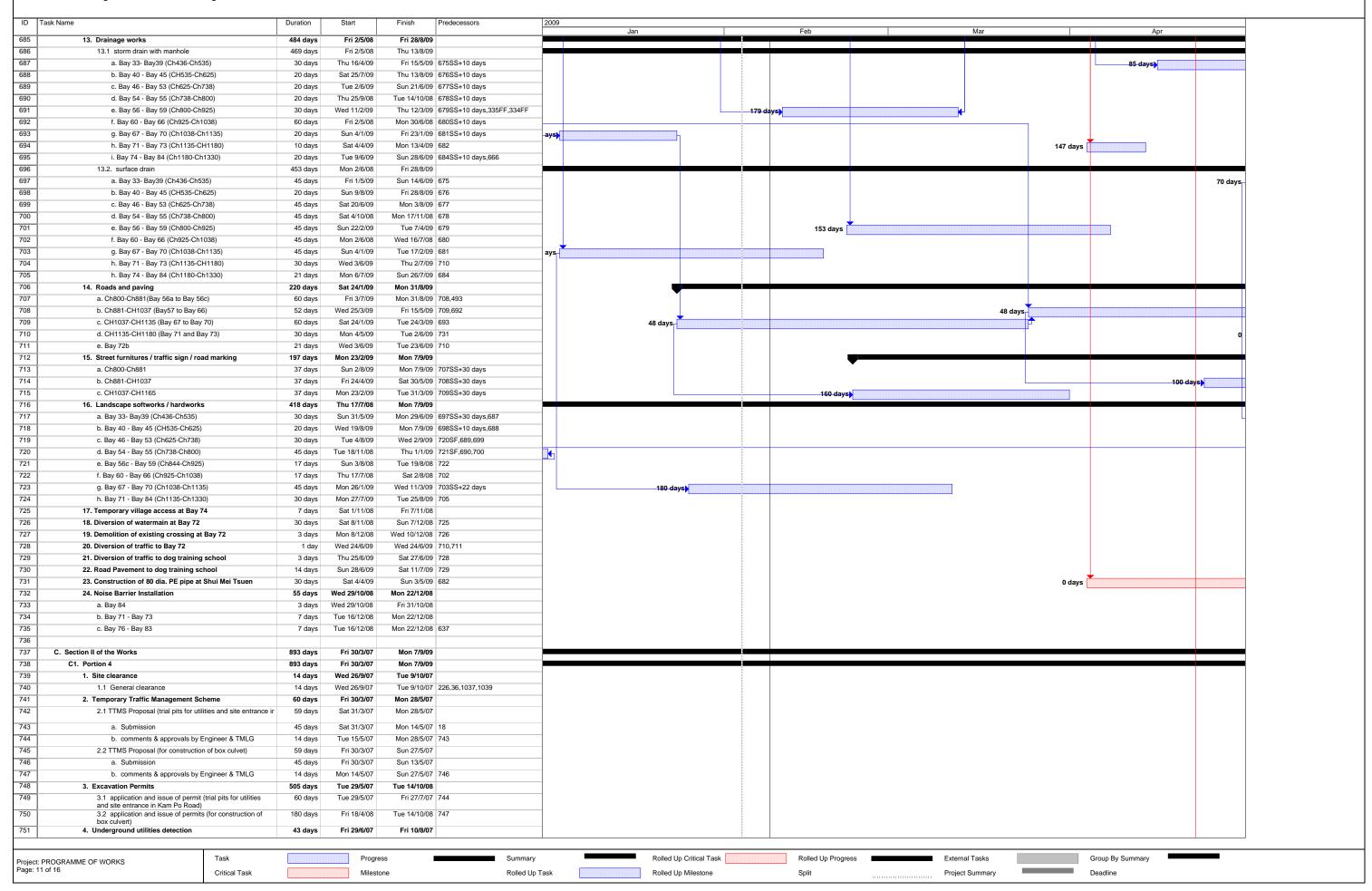
Contract Title: Yuen Long, Kam Tin, Ngau Tam Mei and Tin Shui Wai Drainage Improvements,



Contract Title: Yuen Long, Kam Tin, Ngau Tam Mei and Tin Shui Wai Drainage Improvements,



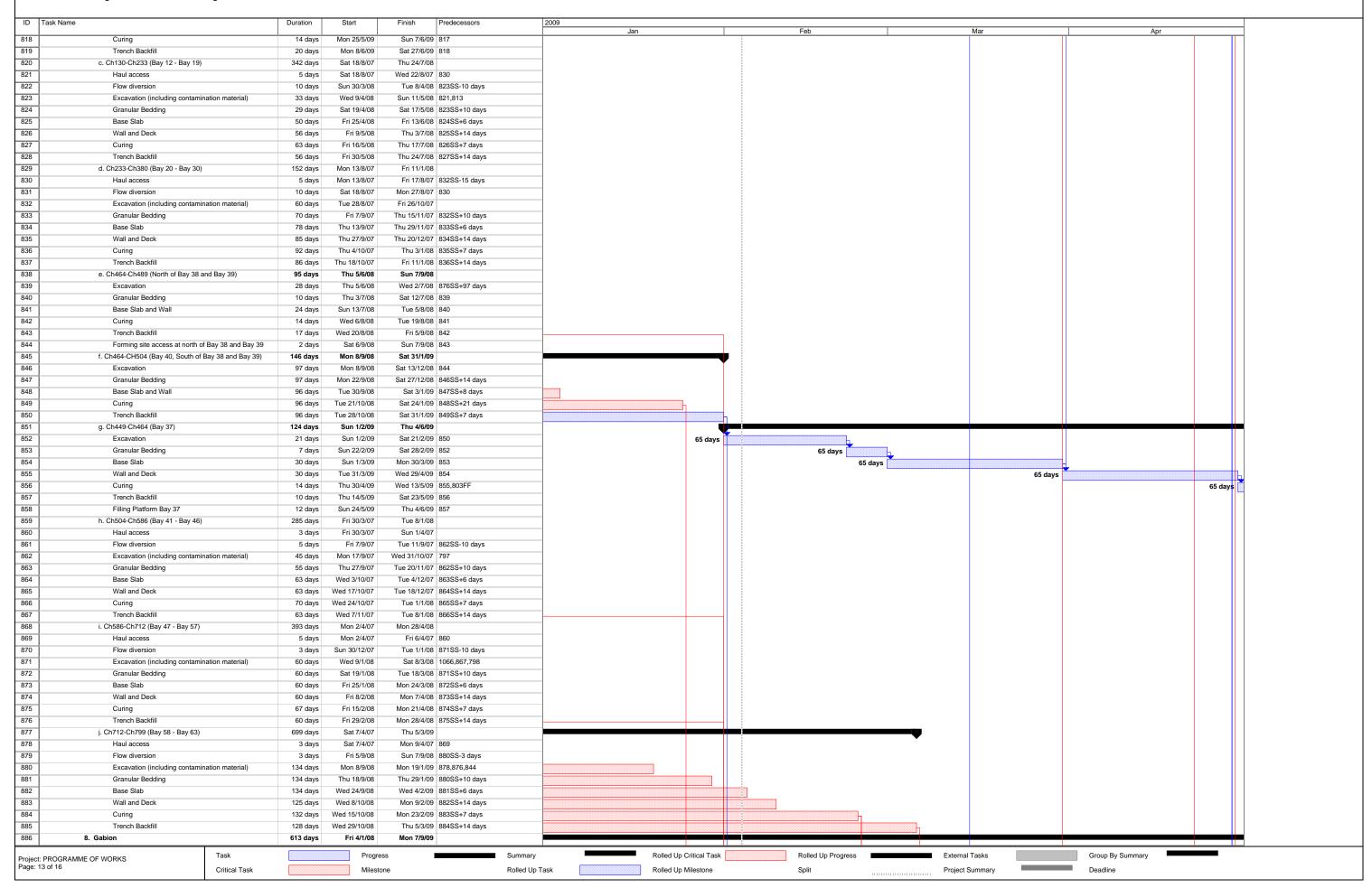
Contract Title: Yuen Long, Kam Tin, Ngau Tam Mei and Tin Shui Wai Drainage Improvements,



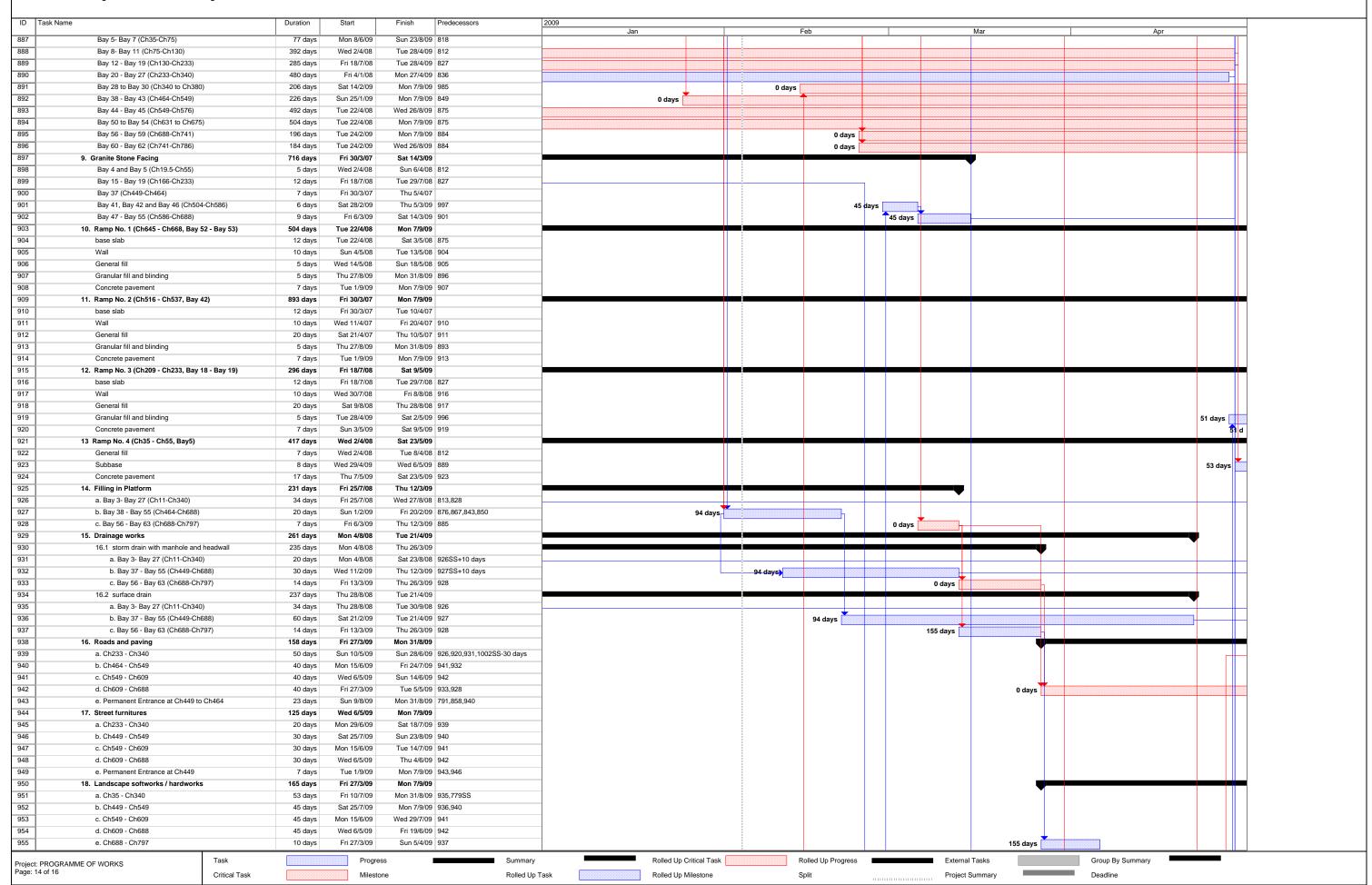
PROGRAMME OF WORKS - RP19
Contract No. : DC / 2006 / 02
Contract Title : Yuen Long, Kam Tin, Ngau Tam Mei and Tin Shui Wai Drainage Improvements,
Stage 1, Phase 2B - Cheung Chun San Tsuen and Kam Tsin Wai

ID T	ask Name	Duration	Start	Finish Predecessors	2009					
	4.1 utilities detection	28 days	Fri 29/6/07	Fri 27/7/07 753SF-1 day	Jan	Feb	b	Mar		Apr
2	4.1 dumines detection 4.2 trial trench excavtion & identification	14 days	Sat 28/7/07	Fri 10/8/07 749						
54	Utilities temporary diversion / protection	164 days	Sun 23/11/08	Tue 5/5/09						
755	a. WSD water main along Kam Po Road	164 days	Sun 23/11/08	Tue 5/5/09 764SS						
756	b. Street lighting along Kam Po Road	164 days	Sun 23/11/08	Tue 5/5/09 764SS						
757	c. DSD storm Drain	164 days	Sun 23/11/08	Tue 5/5/09 764SS						
758	6. Drainage Management Plan	715 days	Fri 30/3/07	Fri 13/3/09						
759	6.1 Submission of DMPs	1 day	Fri 30/3/07	Fri 30/3/07						
60	6.2 Comments by the Engineer	14 days	Sat 31/3/07	Fri 13/4/07 759						
761 762	6.3 Implementation of DMPs	57 days	Fri 16/1/09	Fri 13/3/09 765,760	46 days					
763	7. Box Culvert Ch0-Ch19.5 (Bay 1 to Bay 3) Remove road pavement and expose existing utilities	217 days 8 days	Thu 16/10/08 Thu 16/10/08	Wed 20/5/09 Thu 23/10/08 753,750,774						
764	Excavation	21 days	Sun 23/11/08	Sat 13/12/08 763,740,775,956						
765	Remove existing box culvert	28 days	Fri 19/12/08	Thu 15/1/09 766						
766	flow diversion	5 days	Sun 14/12/08	Thu 18/12/08 764						
767	Granular Bedding	9 days	Fri 16/1/09	Sat 24/1/09 765	0 days					
768	Base Slab	35 days	Sun 25/1/09	Sat 28/2/09 767	0 days		_			
769	Wall and Deck	45 days	Sun 1/3/09	Tue 14/4/09 768			0 days			
770	Curing	14 days	Wed 15/4/09	Tue 28/4/09 769					0 d	days
771	Trench Backfill	7 days	Wed 29/4/09	Tue 5/5/09 770,755FF,756FF,757FF,888,889						0 days
772	Reinstatement of Kam Po Road	15 days	Wed 6/5/09	Wed 20/5/09 771						
773	8. Construction of temporary access at Bay 4	21 days	Wed 24/9/08	Tue 14/10/08 813,750FF						
774	9. Diversion of traffic to Bay 4	1 day	Wed 15/10/08	Wed 15/10/08 773						
775 776	10. Temporary support to existing watermain at Kam Po Roa 11. Fill in Platform	30 days 50 days	Fri 24/10/08 Thu 21/5/09	Sat 22/11/08 763 Thu 9/7/09 771,772						
777	12. Roads and paving (Bay 3 and Bay 4)	40 days	Fri 10/7/09	Tue 18/8/09 776,924						
778	13. Street furnitures	14 days	Wed 19/8/09	Tue 1/9/09 777						
779	14. Landscape softworks / hardworks	60 days	Fri 10/7/09	Mon 7/9/09 776						
780	15. Modification to invert level of box culvert at Kam Sheun	45 days	Tue 31/3/09	Thu 14/5/09 854,990					116 days	
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	and temporary site entrance in Kam Sheung Road)	60 days	Mon 28/5/07	Thu 26/7/07 788						
791	3.2 application and issue of permits (for construction of	180 days	Tue 10/2/09	Sat 8/8/09 7FS-210 days		0 days				
792	permanent entrance) 4. Underground utilities detection	42 days	Fri 29/6/07	Thu 9/8/07						
793	a. utilities detection	28 days	Fri 29/6/07	Thu 26/7/07 19						
794	b. trial trench excavtion & identification	14 days	Fri 27/7/07	Thu 9/8/07 790,793						
795	5. Utilities temporary diversion / protection	223 days	Fri 30/3/07	Wed 7/11/07						
796	a. CLP overhead cables at CH 100 ~ CH 120	90 days	Fri 10/8/07	Wed 7/11/07 794						
797	b. CLP overhead cables at CH 530 ~ CH 550	38 days	Fri 10/8/07	Sun 16/9/07 794						
798	c. CLP overhead cables at CH 670 ~ CH 690	90 days	Fri 10/8/07	Wed 7/11/07 794						
799 800	d. Gas main at Kam Sheung Road 6. Drainage Management Plan	84 days	Fri 30/3/07 Fri 30/3/07	Thu 21/6/07 Wed 18/2/09						
800	Drainage Management Plan S.1 Submission of DMPs	692 days 1 day	Fri 30/3/07	Fri 30/3/07 759SS			─			
802	5.2 Comments by the Engineer	14 days	Sat 31/3/07	Fri 13/4/07 801						
803	5.3 Implementation of DMP	551 days	Sat 18/8/07	Wed 18/2/09 831SS,802						
804	7. Channel and Crossings	821 days	Fri 30/3/07	Sat 27/6/09						
305	a. Ch20-Ch130 (Bay 4 - Bay 11)	230 days	Thu 23/8/07	Tue 8/4/08						
306	Haul access	5 days	Thu 23/8/07	Mon 27/8/07 821						
307	Flow diversion	10 days	Wed 2/1/08	Fri 11/1/08 808SS-10 days						
308	Excavation (including contamination material)	44 days	Sat 12/1/08	Sun 24/2/08 796,806,837						
	Granular Bedding	40 days	Tue 22/1/08	Sat 1/3/08 808SS+10 days						
809	-	44 days	Mon 28/1/08	Tue 11/3/08 809SS+6 days						
809	Base Slab (except south of Bay 6 and north of Bay 7)			T 40/0/00 04000 .44 days						
809	-	37 days	Mon 11/2/08	Tue 18/3/08 810SS+14 days		±				
809 810 811	Base Slab (except south of Bay 6 and north of Bay 7) Wall and Deck (except south of Bay 6 and north of Bay	37 days								
809 810 811 812	Base Slab (except south of Bay 6 and north of Bay 7) Wall and Deck (except south of Bay 6 and north of Bay Curing	37 days 44 days	Mon 18/2/08	Tue 1/4/08 811SS+7 days						
809 810 811 812 813 814	Base Slab (except south of Bay 6 and north of Bay 7) Wall and Deck (except south of Bay 6 and north of Bay Curing Trench Backfill	37 days 44 days 37 days	Mon 18/2/08 Mon 3/3/08	Tue 1/4/08 811SS+7 days Tue 8/4/08 812SS+14 days						
809 810 811 812 813	Base Slab (except south of Bay 6 and north of Bay 7) Wall and Deck (except south of Bay 6 and north of Bay Curing	37 days 44 days	Mon 18/2/08	Tue 1/4/08 811SS+7 days						
809 810 811 812 813 814	Base Slab (except south of Bay 6 and north of Bay 7) Wall and Deck (except south of Bay 6 and north of Bay Curing Trench Backfill b. South of Bay 6 and north of Bay 7	37 days 44 days 37 days 53 days	Mon 18/2/08 Mon 3/3/08 Wed 6/5/09	Tue 1/4/08 811SS+7 days Tue 8/4/08 812SS+14 days Sat 27/6/09						

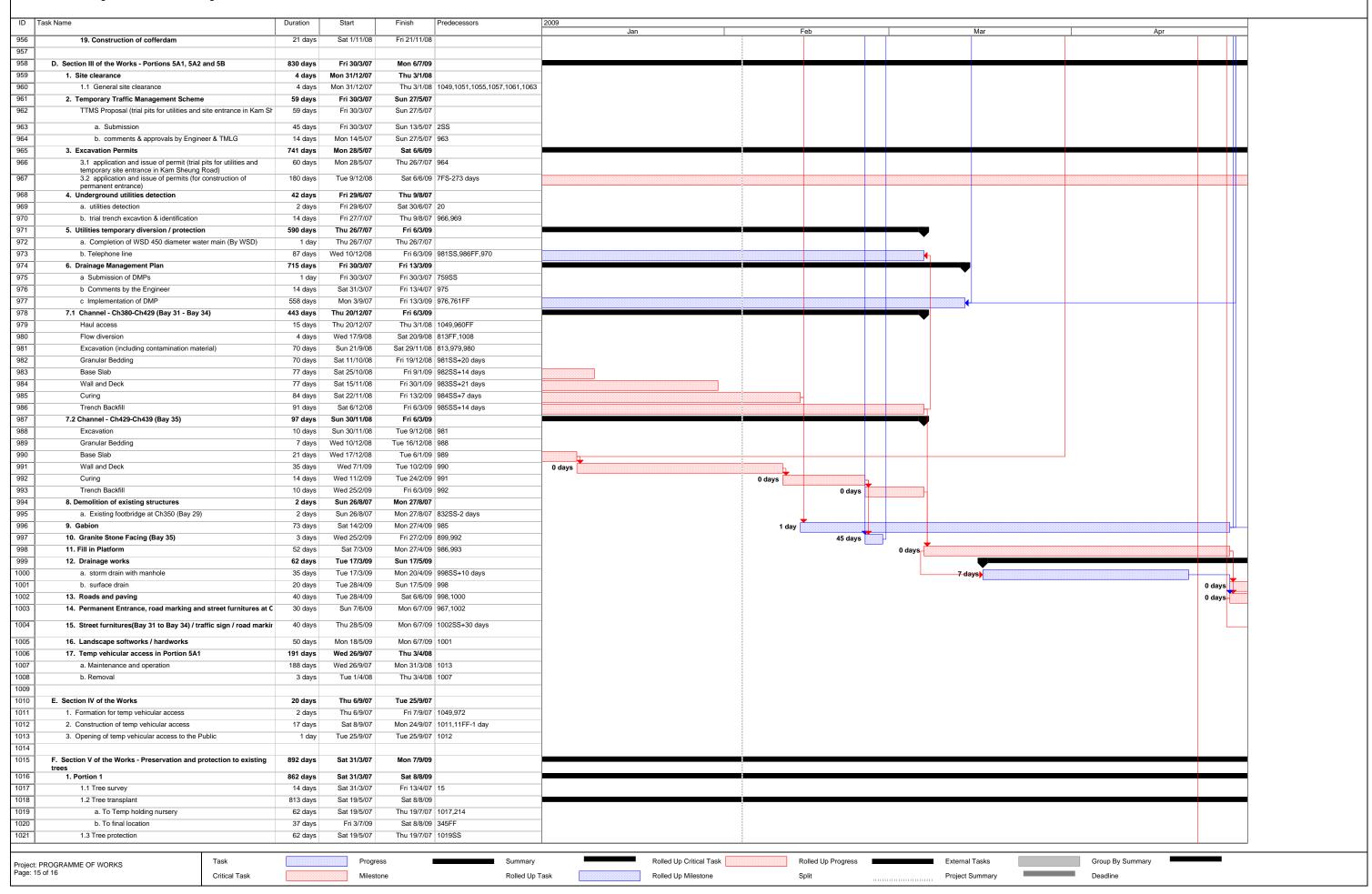
Contract Title: Yuen Long, Kam Tin, Ngau Tam Mei and Tin Shui Wai Drainage Improvements,



Contract Title: Yuen Long, Kam Tin, Ngau Tam Mei and Tin Shui Wai Drainage Improvements,



Contract Title: Yuen Long, Kam Tin, Ngau Tam Mei and Tin Shui Wai Drainage Improvements,



PROGRAMME OF WORKS - RP19
Contract No. : DC / 2006 / 02
Contract Title : Yuen Long, Kam Tin, Ngau Tam Mei and Tin Shui Wai Drainage Improvements,
Stage 1, Phase 2B - Cheung Chun San Tsuen and Kam Tsin Wai CHIT CHEUNG CONSTRUCTION CO., LTD. DATE: JAN 2009

ID	Task Name	Duration	Start	Finish	Predecessors	2009					
						Jan	Feb		Mar	Apr	
1022	2. Portion 2	832 days	Wed 30/5/07	Mon 7/9/09							
1023	2.1 Tree survey	14 days	Wed 30/5/07	Tue 12/6/07	16						
1024	2.2 Tree transplant	818 days	Wed 13/6/07	Mon 7/9/09							
1025	a. To Temp holding nursery	62 days	Wed 13/6/07		1023,214,228						
1026	b. To final location	132 days	Wed 29/4/09	Mon 7/9/09							0 days
1027	2.3 Tree protection	62 days	Wed 13/6/07	Mon 13/8/07	1025SS						
1028	3. Portion 3	802 days	Fri 29/6/07	Mon 7/9/09							
1029	3.1 Tree survey	14 days	Fri 29/6/07	Thu 12/7/07	17						
1030	3.2 Tree transplant	788 days	Fri 13/7/07	Mon 7/9/09							
1031	a. To Temp holding nursery	64 days	Fri 13/7/07	Fri 14/9/07							
1032	b. To final location	301 days	Tue 11/11/08	Mon 7/9/09							
1033	3.3 Tree protection	64 days	Fri 13/7/07	Fri 14/9/07	1031SS						
1034	4. Portion 4	892 days	Sat 31/3/07	Mon 7/9/09							
1035	4.1 Tree survey	14 days	Sat 31/3/07	Fri 13/4/07	18						
1036	4.2 Tree transplant	843 days	Sat 19/5/07	Mon 7/9/09							
1037	a. To Temp holding nursery	62 days	Sat 19/5/07	Thu 19/7/07	· ·						
1038	b. To final location	53 days	Fri 17/7/09	Mon 7/9/09							
1039	4.3 Tree protection	62 days	Sat 19/5/07	Thu 19/7/07	1037SS						
1040	5. Portion 5	802 days	Fri 29/6/07	Mon 7/9/09							
1041	5.1 Tree survey	14 days	Fri 29/6/07	Thu 12/7/07	19						
1042	5.2 Tree transplant	788 days	Fri 13/7/07	Mon 7/9/09							
1043	a. To Temp holding nursery	69 days	Fri 13/7/07	Wed 19/9/07	1041,214						
1044	b. To final location	195 days	Wed 25/2/09	Mon 7/9/09	950FF		0 da	ys			
1045	5.3 Tree protection	69 days	Fri 13/7/07	Wed 19/9/07	1043SS						
1046	6. Portion 5A1	739 days	Fri 29/6/07	Mon 6/7/09							
1047	6.1 Tree survey	7 days	Fri 29/6/07	Thu 5/7/07	20						
1048	6.2 Tree transplant	732 days	Fri 6/7/07	Mon 6/7/09							
1049	a. To Temp holding nursery	62 days	Fri 6/7/07	Wed 5/9/07	1047,214						
1050	b. To final location	61 days	Thu 7/5/09	Mon 6/7/09	1005FF						
1051	6.3 Tree protection	62 days	Fri 6/7/07	Wed 5/9/07	1049SS						
1052	7. Portion 5A2	739 days	Fri 29/6/07	Mon 6/7/09							
1053	7.1 Tree survey	14 days	Fri 29/6/07	Thu 12/7/07	21						
1054	7.2 Tree transplant	725 days	Fri 13/7/07	Mon 6/7/09							
1055	a. To Temp holding nursery	62 days	Fri 13/7/07	Wed 12/9/07	1053,214						
1056	b. To final location	61 days	Thu 7/5/09	Mon 6/7/09	1005FF						
1057	7.3 Tree protection	62 days	Fri 13/7/07	Wed 12/9/07	1055SS						
1058	8. Portion 5B	630 days	Tue 16/10/07	Mon 6/7/09							
1059	8.1 Tree survey	14 days	Tue 16/10/07	Mon 29/10/07	22						
1060	8.2 Tree transplant	616 days	Tue 30/10/07	Mon 6/7/09							
1061	a. To Temp holding nursery	62 days	Tue 30/10/07	Sun 30/12/07	1059,214						
1062	b. To final location	61 days	Thu 7/5/09	Mon 6/7/09	1005FF						
1063	8.3 Tree protection	62 days	Tue 30/10/07	Sun 30/12/07	1061SS						
1064											
1065	G. Berthing Area	597 days	Wed 12/9/07	Thu 30/4/09							
1066	1. Construction of Loading Facilities	27 days	Wed 12/9/07	Mon 8/10/07	162						
1067	2. Removal of Loading Facilities	2 days	Wed 22/4/09	Thu 23/4/09	625					1	130 days
1068	3. Reinstatement of Berthing Area	7 days	Fri 24/4/09	Thu 30/4/09	1067						130 days
							-				



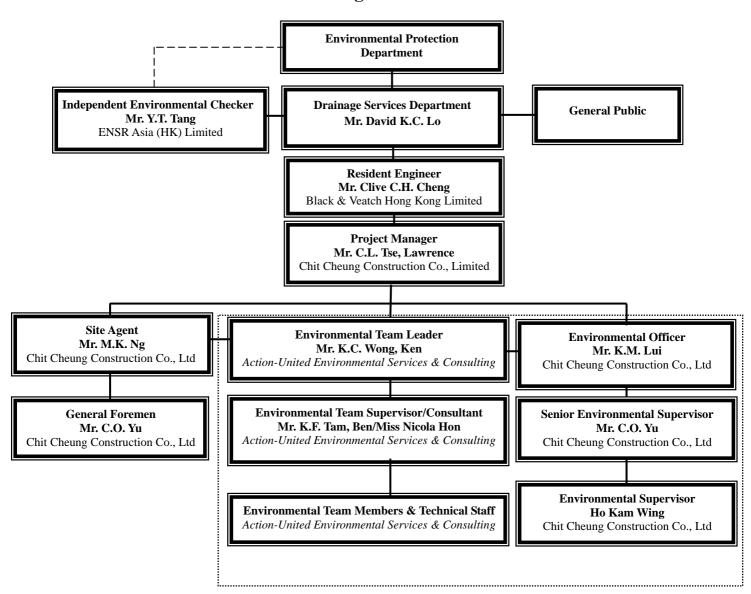


APPENDIX C

ENVIRONMENTAL ORGANIZATION STRUCTURE



Environmental Organization Structure



Contractor's Environmental Team (CET)





Contact Details of Key Personnel

Organization	Project Role	Project Role Name of Key Staff		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	Project Manager	Mr. Lawrence TSE	9752-0748	2479-1365
CCC	Site Agent	Mr. M.K. NG	6603-9711	2479-1365
CCC	Site Engineer	Mr. Jimmy CHAN	9234-8632	2479-1365
CCC	Environmental Officer	Mr. LUI Kam Man	9257-9111	2479-1365
CCC	Senior Environmental Supervisor	Mr. YU Chor-on	9026-9501	2479-1365
CCC	Environmental Supervisor	Ho Kam Wing	9016-0592	2479-1365
CCC	Safety Officer	Mr. SHEA Yan Keung	6086-4658	2479-1365
AUES	Environmental Team Leader	Ken Wong	2959-6059	2959-6079
AUES	Environmental Team Supervisor	Ben Tam	2959-6059	2959-6079
AUES	Environmental Consultant	Nicola Hon	2959-6059	2959-6079
AUES	Ecologist	Vincent Lai	9406-9784	2959-6079

Legend:

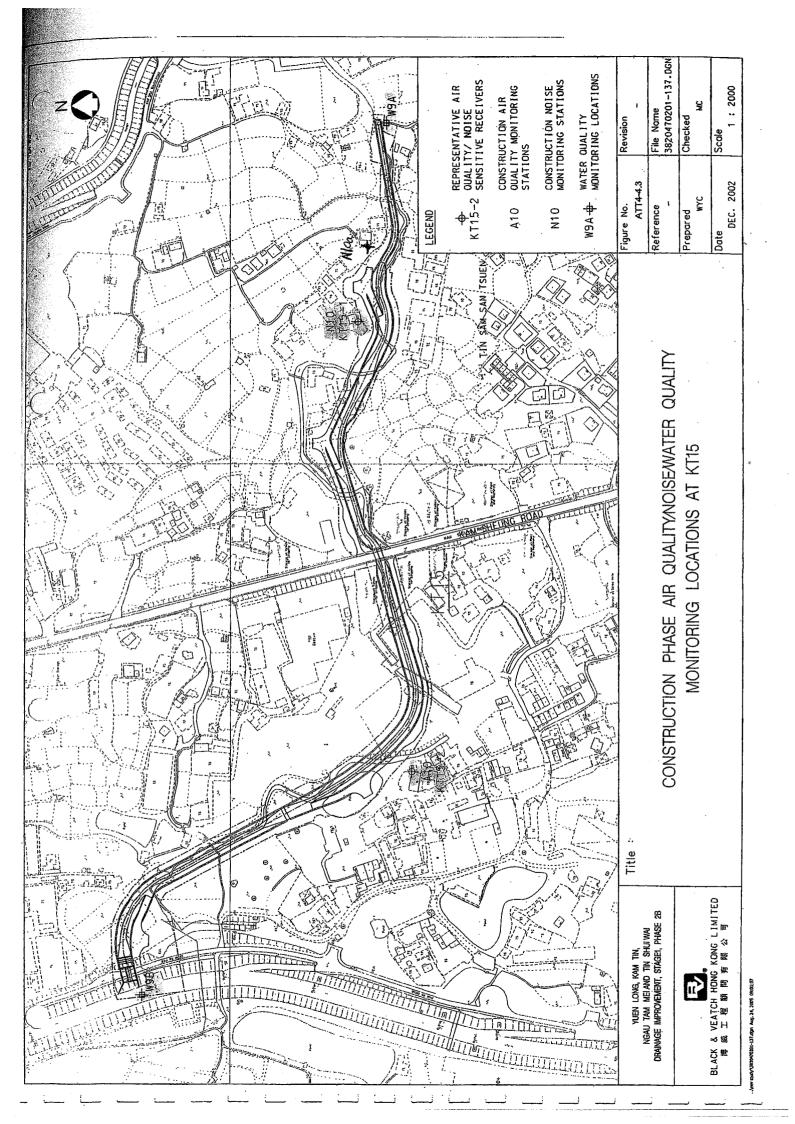
DSD (Employer) B&V (Engineer) Drainage Services Department Black & Veatch Hong Kong Limited Chit Cheung Construction Company Limited. ENSR Asia (HK) Ltd. CCC (Contractor) ENSR (IEC) AUES (ET)

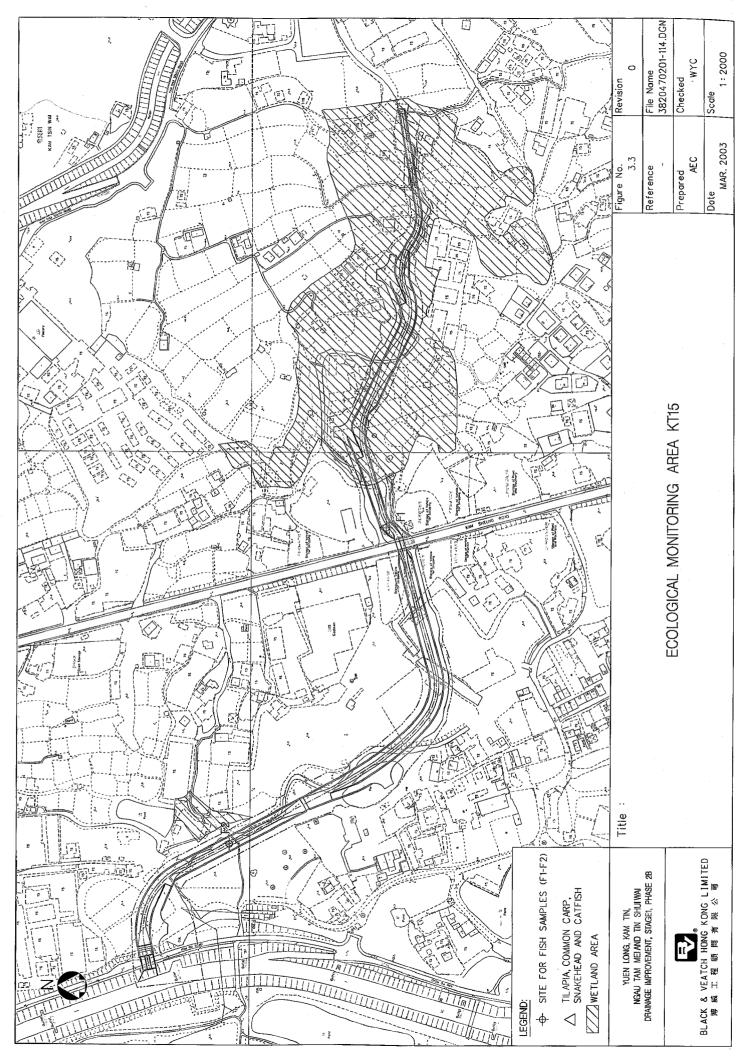
Action-United Environmental Services & Consulting



APPENDIX D

LOCATIONS OF DESIGNATED MONITORING STATION/LOCATIONS/AREA





..\env study3820470201-114.dgn Aug. 24, 2005 09:03:49



APPENDIX E

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





Event/Action Plan for Air Quality

EXTENTE.		ACTION		
EVENT	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
Excedance 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 7. 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				
Exeedance 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
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	1. Confirm receipt of notification of failure in writing 2. Notify Contractor 3. In consultation with the IEC, agree with the Contractor on the remedial measures to be implemented 4. Discuss amongst Environmental Team Leader and the Contractor potential remedial actions 5. Ensure remedial measures properly implemented 6. If exceedance continues, consider what portion of the work is responsible and instruct the Contractor to stop that portion of work until the exceedance is abated	1. Take immediate action to avoid further exceedance 2. Submit proposals for remedial actions to IEC within 3 working days of notification 3. Implement the agreed proposals 4. Resubmit proposals if problem still not under control 5. Stop the relevant portion of works as determined by the Engineer until the exceedance is abated

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





Event/Action Plan for Construction Noise

EVENT		ACTION		
EVENT	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

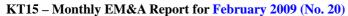




Event and Action Plan for Stream Water Quality

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 Ensur 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	1. Inform Engineer and confirm notification of the non-compliance in writing 2. Rectify unacceptable practice 3. Check all plant and equipment 4. Consider changes of working methods 5. Discuss with ET, IEC and Engineer and propose mitigation measures to IEC and Engineer within 3 working days Propose mitigation measures to Engineer within 3 working days 6. Implement the agreed mitigation measures; 7. As directed by Engineer, to slow down or to stop all or part of the construction activities

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





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

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 February 2009 (No. 20)

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 Jan 09	08 Mar 09
2		EQ094 - Sibata LD-3 Laser Dust Meter	20 Jun 08	19 Jun 09
3		EQ096 - Sibata LD-3 Laser Dust Meter	20 Jun 08	19 Jun 09
4	Noise	Bruel & Kjaer 4231 Acoustical Calibrator	22 Apr 08	22 Apr 09
5		Bruel & Kjaer 2238 Integrating Sound Level Meter	22 Apr 08	22 Apr 09
6	Water	YSI Multimeter YSI 550A (Serial No. 05F2063AZ)	19 Jan 09	19 Apr 09
7		Hanna pH Meter HI98128 (Serial No. S229924)	08 Dec 08	08 Mar 09
8		Turbidimeter HACH 2100p (Serial No. 950900008735)	01 Dec 08	01 Mar 09
9		Hand refractometer ATAGO (Serial No. 289468)	19 Jan 09	19 Apr 09

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



APPENDIX G

IMPACT MONITORING SCHEDULES

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 February 2009 (No. 20)

Impact Monitoring Schedules in this Reporting Period

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

✓	Monitoring Day
	Sunday or Public Holiday

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 February 2009 (No. 20)

Impact Monitoring Schedules in the Next Reporting Period

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

✓	Monitoring Day
	Sunday or Public Holiday

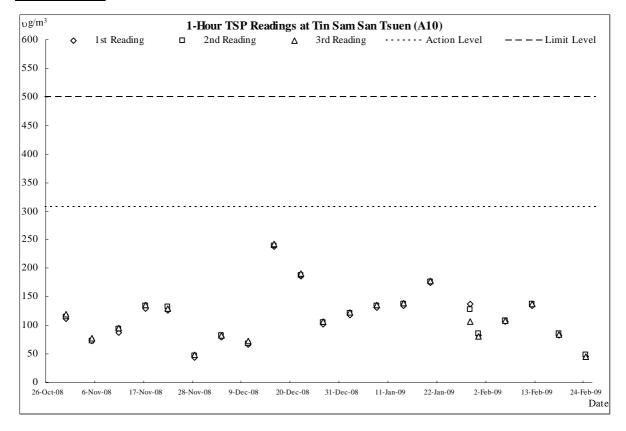


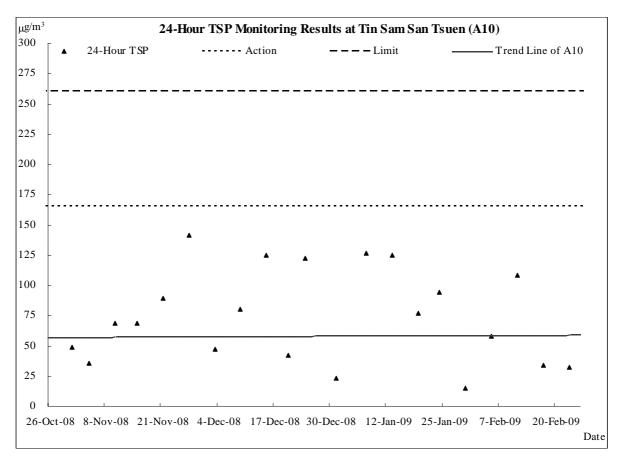
APPENDIX H

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



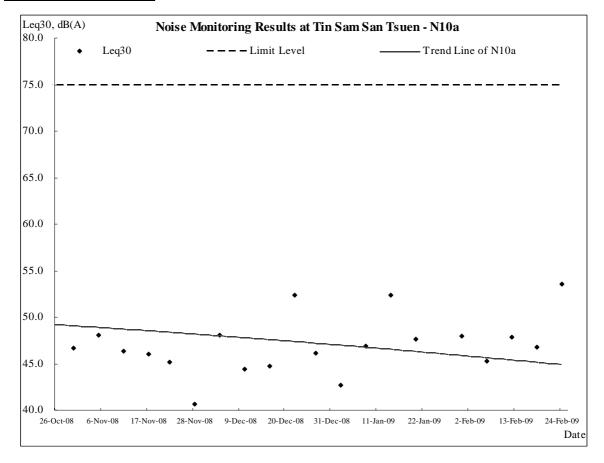
AIR QUALITY





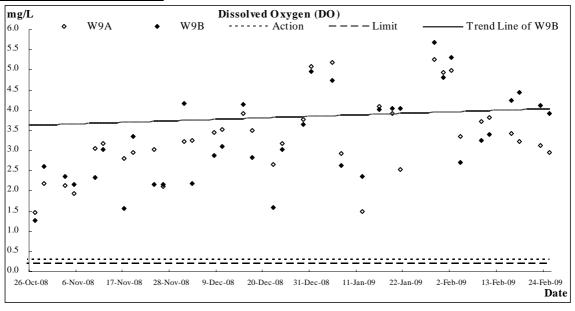


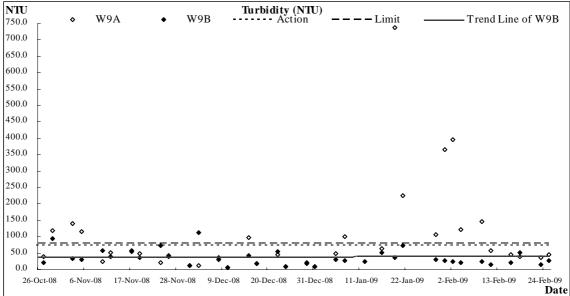
CONSTRUCTION NOISE

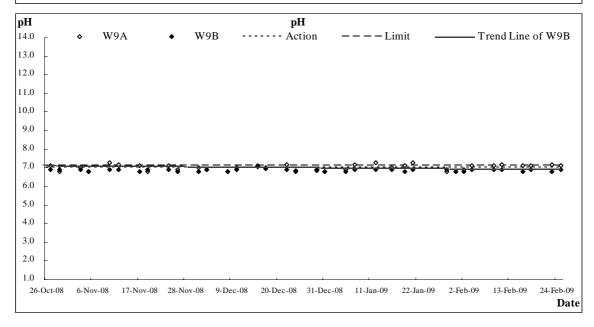




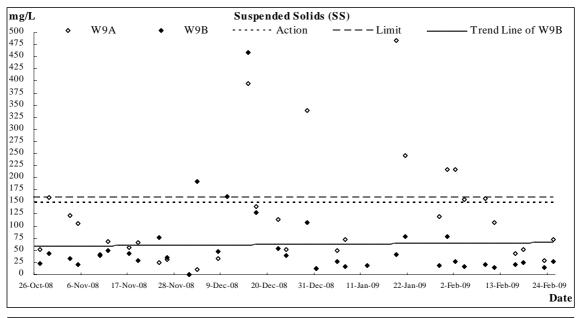
STREAM WATER QUALITY

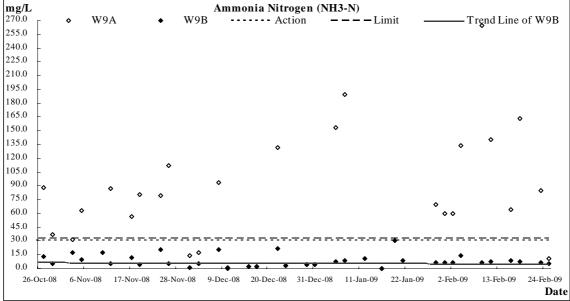


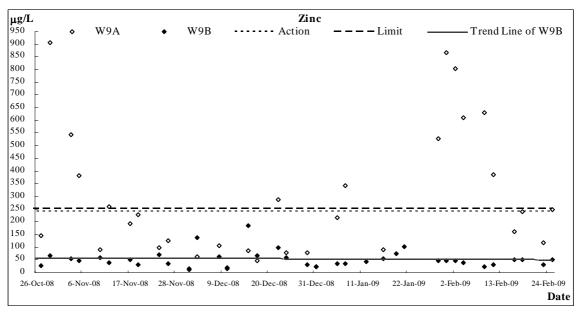












DSD Contract No. DC/2006/02 Yuen Long, Kam Tin, Ngau Tam Mei and Tin Shui Wai Drainage Improvements, Stage 1, Phase 2B – Cheung Chun San Tsuen and Kam Tsin Wai KT15 – Monthly EM&A Report for February 2009 (No. 20)



Date	25	9-Jan-09															
Location	Time	Depth (m)	Ten	np (oC)	DO	(mg/L)	DC	OS (%)	Turbidi	ity (NTU)	-	Salinity		pН	SS	NH3-N	Zinc
W9A	10:45	0.16	17.3	17.2	5.21	5.25	56.3	56.7	108.0	107.0	0	0.0	6.80	6.80	120.0	70.1	530.0
W9A	10:43	0.16	17.3	17.5	5.29	3.23	57.1	30.7	106.0	107.0	0	0.0	6.80	0.80	120.0	70.1	330.0
W9B	10:55	0.22	18.3	18.3	5.71	5.68	60.2	59.8	29.5	29.1	0	0.0	6.90	6.90	19.0	67	49.0
WAP	10:33	0.22	18.3	16.5	5.64	3.08	59.4	39.8	28.7	29.1	0	0.0	6.90	0.90	19.0	0.7	49.0

Date	31	l-Jan-09															
Location	Time	Depth (m)	Tem	ıp (oC)	DO	(mg/L)	DC	OS (%)	Turbidi	ty (NTU)	5	Salinity		pН	SS	NH3-N	Zinc
W9A	09:10	0.16	19.1	19.1	4.97	4.94	51.7	51.1	366.0	367.0	0	0.0	6.80	6.80	216.0	60.3	868.0
WAA	09.10	0.10	19.1	19.1	4.9	4.94	50.4	31.1	368.0	307.0	0	0.0	6.80	0.80	210.0	00.5	808.0
W9B	09:20	0.21	19.5	19.5	4.84	4.82	48.6	48.4	26.9	27.2	0	0.0	6.80	6.80	79.0	6.0	49.0
W9B	09:20	0.21	19.5	19.5	4.8	4.82	48.1	46.4	27.5	21.2	0	0.0	6.80	0.80	79.0	0.8	49.0

Date	2	-Feb-09															
Location	Time	Depth (m)	Ten	ıp (oC)	DO	(mg/L)	DC	OS (%)	Turbidi	ty (NTU)	:	Salinity		pН	SS	NH3-N	Zinc
W9A	09:45	0.14	19.6	19.6	5.02	4.99	52.1	51.6	398.0	396.5	0	0.0	6.90	6.90	216.0	59.4	806.0
W9A	09:43	0.14	19.6	19.0	4.95	4.99	51.1	31.0	395.0	390.3	0	0.0	6.90	0.90	210.0	39.4	800.0
W9B	00.55	0.22	20.0	20.0	5.26	5.30	54.9	55.2	25.1	25.9	0	0.0	6.80	6.80	26.0	(2	47.0
W9B	09:55	0.23	20.0	20.0	5.33	5.30	55.7	55.3	26.7	25.9	0	0.0	6.80	0.80	26.0	0.3	47.0

Date	4	-Feb-09															
Location	Time	Depth (m)	Ten	np (oC)	DO	(mg/L)	DC	OS (%)	Turbidi	ity (NTU)	,	Salinity		pН	SS	NH3-N	Zinc
W9A	10:15	0.17	18.1	18.1	3.37	3.36	36.3	36.1	124.0	123.0	0	0.0	7.10	7.10	154.0	134.0	611.0
W9A	10:13	0.17	18.1	16.1	3.34	3.30	35.8	30.1	122.0	123.0	0	0.0	7.10	7.10	134.0	134.0	611.0
W9B	10:00	0.26	18.3	18.3	2.68	2.71	28.5	28.8	20.2	20.6	0	0.0	6.90	6.90	16.0	14.5	38.0
WAD	10:00	0.20	18.3	16.5	2.73	2.71	29.1	20.0	20.9	20.0	0	0.0	6.90	0.90	10.0	14.3	38.0

Date	9	-Feb-09															
Location	Time	Depth (m)	Ten	np (oC)	DO	(mg/L)	DC	S (%)	Turbidi	ty (NTU)	:	Salinity		pН	SS	NH3-N	Zinc
W9A	11:40	0.16	20.0	20.0	3.7	3.73	40.5	40.9	146.0	145.5	0	0.0	7.10	7.10	157.0	265.0	630.0
WAA	11.40	0.10	20.0	20.0	3.76	3.73	41.3	40.9	145.0	143.3	0	0.0	7.10	7.10	137.0	203.0	030.0
WOD	11.20	0.22	22.0	22.0	3.26	2.25	37.4	37.3	24.0	24.2	0	0.0	6.90	6.90	21.0	6.0	22.0
W9B	11:30	0.23	22.0	22.0	3.24	3.25	37.1	37.3	24.3	24.2	0	0.0	6.90	0.90	21.0	6.0	23.0

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 February 2009 (No. 20)



Date	1	1-Feb-09															
Location	Time	Depth (m)	Ten	np (oC)	DO	(mg/L)	DC	OS (%)	Turbidi	ity (NTU)	:	Salinity		pН	SS	NH3-N	Zinc
W9A	14.20	0.16	20.6	20.6	3.86	3.83	43.4	43.1	58.3	58.1	0	0.0	7.20	7.20	107.0	140.0	386.0
W9A	14:30	0.16	20.6	20.6	3.8	3.83	42.7	43.1	57.8	36.1	0	0.0	7.20	7.20	107.0	140.0	360.0
W9B	14:40	0.20	21.2	21.2	3.37	3.39	38.8	39.2	14.8	14.7	0	0.0	6.90	6.90	15.0	7.6	30.0
WAP	14:40	0.20	21.2	21.2	3.41	3.39	39.5	39.2	14.6	14.7	0	0.0	6.90	0.90	13.0	7.6	30.0

Date	16	6-Feb-09															
Location	Time	Depth (m)	Tem	ıp (oC)	DO	(mg/L)	DC	OS (%)	Turbidi	ty (NTU)	S	Salinity		pН	SS	NH3-N	Zinc
W9A	10:00	0.10	21.7	21.7	3.45	3.43	37.4	37.1	47.1	46.8	0	0.0	7.10	7.10	43.0	63.7	160.0
WAA	10.00	0.10	21.7	21.7	3.41	3.43	36.8	37.1	46.4	40.6	0	0.0	7.10	7.10	43.0	03.7	100.0
W9B	10:10	0.22	22.1	22.1	4.26	4.23	46.7	16.2	21.1	20.9	0	0.0	6.80	6.80	21.0	0.6	52.0
W9B	10:10	0.22	22.1	22.1	4.2	4.23	45.9	46.3	20.6	20.9	0	0.0	6.80	0.80	21.0	8.6	52.0

Date	18	8-Feb-09															
Location	Time	Depth (m)	Ten	np (oC)	DO	(mg/L)	DC	S (%)	Turbidi	ty (NTU)	:	Salinity		pН	SS	NH3-N	Zinc
W9A	10:05	0.13	22.6	22.6	3.21	3.24	38.5	38.9	38.5	38.4	0	0.0	7.10	7.10	51.0	163.0	242.0
W9A	10:03	0.13	22.6	22.0	3.26	3.24	39.2	36.9	38.2	36.4	0	0.0	7.10	7.10	31.0	105.0	242.0
W9B	10.20	0.22	22.9	22.0	4.41	4.44	51.3	51.8	51.3	52.0	0	0.0	6.90	<i>c</i> 00	24.0	7.0	£ 1
W9B	10:20	0.23	22.9	22.9	4.47	4.44	52.2	51.8	52.6	52.0	0	0.0	6.90	6.90	24.0	7.8	51

Date	23	3-Feb-09															
Location	Time	Depth (m)	Ten	ıp (oC)	DO	(mg/L)	DO	S (%)	Turbidi	ty (NTU)	5	Salinity		pН	SS	NH3-N	Zinc
W9A	09:20	0.16	22.1	22.1	3.13	3.13	35.2	35.1	35.2	35.5	0	0.0	7.20	7.20	29.0	84.8	120.0
W9A	09:20	0.10	22.1	22.1	3.12	3.13	35.0	33.1	35.8	33.3	0	0.0	7.20	7.20	29.0	04.0	120.0
W9B	09:30	0.22	23.4	23.4	4.08	4.11	46.9	47.2	16.8	16.5	0	0.0	6.80	6.80	15.0	6.6	32.0
W9B	09:30	0.22	23.4	23.4	4.13	4.11	47.5	41.2	16.1	10.3	0	0.0	6.80	0.80	13.0	6.6	32.0

Date	25	5-Feb-09															
Location	Time	Depth (m)	Ten	np (oC)	DO	(mg/L)	DC	S (%)	Turbidi	ty (NTU)	9	Salinity		pН	SS	NH3-N	Zinc
W9A	09:45	0.13	22.9	22.9	2.98	2.95	33.7	33.3	43.9	44.5	0	0.0	7.10	7.10	72.0	11.0	248.0
W9A	09:43	0.13	22.9	22.9	2.91	2.93	32.9	33.3	45.0	44.3	0	0.0	7.10	7.10	72.0	11.0	246.0
W9B	00.55	0.24	23.8	23.8	3.89	2.01	42.6	42.9	27.5	27.2	0	0.0	6.90	6.00	26.0	6.0	52.0
W9B	09:55	0.24	23.8	23.8	3.93	3.91	43.2	42.9	27.1	21.3	0	0.0	6.90	6.90	20.0	0.0	52.0



APPENDIX I

METEOROLOGICAL DATA IN THE REPORTING PERIOD



Meteorological Data Extracted from HKO in the Reporting Period

Date		Weather	Lau Fau Shan Weather Station				
			Total Rainfall (mm)	Mean Air Temperature (°C)		Mean Relative Humidity (%)	Wind Direction
26-Jan-09	Mon	Holiday					
27-Jan-09	Tue	Holiday					
28-Jan-09	Wed	Holiday					
29-Jan-09	Thu	cloudy/haze/sunny intervals/moderate	0	14.9	12	72	W/SW
30-Jan-09	Fri	fine/dry/moderate/fresh	0	16.1	14.5	75.5	W/NW
31-Jan-09	Sat	fine/cloudy/moderate/fresh	0	17.4	18.5	58.5	E/NE
1-Feb-09	Sun	sunny periods/moderate/fresh	Trace	20.4	13.5	57.5	E
2-Feb-09	Mon	fine/moderate	0	20.5	10.5	58.7	E/NE
3-Feb-09	Tue	fine/haze/light winds	0	17.8	13	67.5	E/SE
4-Feb-09	Wed	sunny periods/cloudy/moderate/fresh	0	19.9	11.7	67.2	E/SE
5-Feb-09	Thu	fine/haze/moderate	0	18.3	13.2	68.7	E/NE
6-Feb-09	Fri	fine/moderate/fresh	0	19.5	11.2	73	E/SE
7-Feb-09	Sat	fine/haze/moderate	0	19.7	14.5	68	E/SE
8-Feb-09	Sun	fine/haze/moderate	0	22	10	61	E/SE
9-Feb-09	Mon	fine/moderate/haze	0	20.2	13.5	67.5	E/NE
10-Feb-09	Tue	fine/hazy/moderate/fresh	0	27.3	13.5	67	E/SE
11-Feb-09	Wed	fine/hazy/light winds	0	19.2	10.5	66	E/SE
12-Feb-09	Thu	fine/misty/moderate	0	22.2	15.5	70.5	S/SE
13-Feb-09	Fri	cloudy/warm/sunny intervals/moderate	0	23.9	15.5	68	S/SE
14-Feb-09	Sat	cloudy/rain/fog/moderate	Trace	24.5	16	79.5	S/SE
15-Feb-09	Sun	cloudy/rain/mist/strong	0.1	24.3	18	79	E/NE
16-Feb-09	Mon	Cloudy/rain/mist/fresh/strong	0.06	23.5	14.5	73.5	Е
17-Feb-09	Tue	sunny periods/fresh/strong	Trace	20.2	15	68.5	E/NE
18-Feb-09	Wed	sunny periods/cloudy/moderate	Trace	21.5	10.5	63.5	E/NE
19-Feb-09	Thu	cloudy/ain/moderate	0.3	23	13	74.5	E/NE
20-Feb-09	Fri	cloudy/bright/moderate/fresh	Trace	20.9	19	73.5	E/NE
21-Feb-09	Sat	sunny intervals/rain/fresh/strong	Trace	22.6	12	64.5	E/SE
22-Feb-09	Sun	fog/sunny periods/moderate	Trace	24.6	26.5	67	S/SE
23-Feb-09	Mon	cloudy/fog/sunny periods/moderate	0	26	15	72.5	S/SE
24-Feb-09	Tue	cloudy/sunny periods/mist/moderate	Trace	26.7	17	71	S/SE
25-Feb-09	Wed	sunny periods/cloudy/fog/moderate	Trace	12	13.5	69.2	S/SE

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 February 2009 (No. 20)

APPENDIX J

ENVIRONMENTAL TEAM SITE INSPECTION CHECKLISTS



Proje	ct:	Contract No.: DC/2006/02 Yuen Long, Kam Tin, Ngau Tam Mei and Tin Shui	Phase 2B –							
		Wai Drainage Improvements, Stage 1, Phase 2B – Cheung Chun San Tsuen and Kam Tsin Wai	RE/RE's re	ive:	Mr. A. F.	. Ng				
Inspe	ction		IEC/IEC's r	epresenta	tive:					
Date:		29 January 2009	ETL/ ET's r	epresenta	itive:	Ben Tam M. K. Ng / K. M. Lui				
Time:		14:30	Contractor	's represe	ntative:					
			Checklist N	lo.		KT15-29	0109			
PART	A:	GENERAL INFORMATION Environmental		EP-231/20	05/A					
Weath										
	erature:	14.9 °C								
Humio	•	High ✓ Moderate Low								
Wind:		Strong Breeze ✓ Light	Calm							
PART	В:	SITE AUDIT								
			Not Obs.	Yes	No	Follow up	N/A	Photo/ Remarks		
Section	on 1: Wa	ater Quality					_			
1.01	Is an e	offluent discharge license obtained for the Project?		\checkmark						
1.02	Is the	effluent discharged in accordance with the discharge e?		\checkmark						
1.03	Is the	discharge of turbid water avoided?		\checkmark						
1.04		ere proper desilting facilities in the drainage systems to SS levels in effluent?	· 🗆	\checkmark						
1.05		ere channels, sandbags or bunds to direct surface run-off to entation tanks?	· 🗆	\checkmark						
1.06		ere any perimeter channels provided at site boundaries to ept storm runoff from crossing the site?	· 🗆	\checkmark						
1.07	Is draii	nage system well maintained?		\checkmark						
1.08		cavation proceeds, are temporary access roads protected by ed stone or gravel?	′ 🔲	\checkmark						
1.09	Are ter	mporary exposed slopes properly covered?		\checkmark						
1.10	Are ea	orthworks final surfaces well compacted or protected?		\checkmark						
1.11	Are ma	anholes adequately covered or temporarily sealed?		\checkmark						
1.12	Are the	ere any procedures and equipment for rainstorm protection?		\checkmark						
1.13	Are wh	neel washing facilities well maintained?		\checkmark						
1.14	Is runc	off from wheel washing facilities avoided?		\checkmark						
1.15	Are the	ere toilets provided on site?		\checkmark						
1.16	Are toi	lets properly maintained?		\checkmark						
1.17		e vehicle and plant servicing areas paved and located within areas?								
1.18	Is the	oil leakage or spillage avoided?		\checkmark						
1.19		ere any measures to prevent leaked oil from entering the ge system?		\checkmark						
1.20		nere any measures to collect spilt cement and concrete ngs during concreting works?		\checkmark						
1.21		ere any oil interceptors/grease traps in the drainage systems	· 🗆				\overline{V}			



		Not Obs.	Yes	No	Follow	N/A	Photo/ Remarks
1.22	Are the oil interceptors/grease traps maintained properly?		П	П		\overline{V}	Remarks
1.23	Is used bentonite recycled where appropriate?	П	П	П	П	\overline{V}	
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.		$\overline{\checkmark}$				
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				
Section	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?		V				
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				
Section	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				
Section	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				
Section	on 7: Others						
7.01	Are relevant Environmental Permits posted at all vehicle site entrances/exits?		\checkmark				



Remarks

Follow-Up of Last Site Inspection (21 January 2009):

Nil

Finding of Site Inspection on 29 January 2009:

No environmental issue was observed during the site inspection.

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

Ben Tem



Projec	ct:	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	Inspec		y oresentat	ive:	Mr. A. F.					
Inspe	ction		IEC/IE	C's re	presenta	ative:						
Date:		04 February 2009	ETL/ E	T's re	epresenta	ative:	Ben Tam					
Time:	•	14:30	Contractor's representative:				M. K. Ng / K. M. Lui					
			Check				KT15-04	0209				
PART		GENERAL INFORMATION Environmental			P-231/20	005/A						
Weath		Sunny Fine Cloudy 22 °C	R	ainy								
Humid	erature: ditv:	High Moderate Low										
Wind: Strong Breeze ✓ Light Calm												
PART B: SITE AUDIT												
			No Ob		Yes	No	Follow up	N/A	Photo/ Remarks			
Section	on 1: Wa	ater Quality						-				
1.01	Is an e	ffluent discharge license obtained for the Project?			\checkmark							
1.02	Is the	effluent discharged in accordance with the discharge ??]	\checkmark							
1.03	Is the	discharge of turbid water avoided?			\checkmark							
1.04		ere proper desilting facilities in the drainage systems to SS levels in effluent?]	\checkmark							
1.05		ere channels, sandbags or bunds to direct surface run-off to entation tanks?			\checkmark							
1.06		ere any perimeter channels provided at site boundaries to pt storm runoff from crossing the site?]	\checkmark							
1.07	Is drair	nage system well maintained?]	\checkmark							
1.08		avation proceeds, are temporary access roads protected by d stone or gravel?]	\checkmark							
1.09	Are ter	mporary exposed slopes properly covered?]	\checkmark							
1.10	Are ea	rthworks final surfaces well compacted or protected?			\checkmark							
1.11	Are ma	anholes adequately covered or temporarily sealed?]	\checkmark							
1.12	Are the	ere any procedures and equipment for rainstorm protection?]	\checkmark							
1.13	Are wh	neel washing facilities well maintained?			\checkmark							
1.14	Is runo	ff from wheel washing facilities avoided?			\checkmark							
1.15	Are the	ere toilets provided on site?			\checkmark							
1.16	Are toi	lets properly maintained?			\checkmark							
1.17		e vehicle and plant servicing areas paved and located within areas?	V	1								
1.18	Is the	oil leakage or spillage avoided?]	\checkmark							
1.19		ere any measures to prevent leaked oil from entering the ge system?]	\checkmark							
1.20		ere any measures to collect spilt cement and concrete gs during concreting works?			\checkmark							
1.21		ere any oil interceptors/grease traps in the drainage systems icle and plant servicing areas, canteen kitchen, etc?]				$\overline{\checkmark}$				



		Not Obs.	Yes	No	Follow	N/A	Photo/ Remarks
1.22	Are the oil interceptors/grease traps maintained properly?		П	П		\overline{V}	Remarks
1.23	Is used bentonite recycled where appropriate?	П	П	П	П	\overline{V}	
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.		$\overline{\checkmark}$				
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				
Section	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				
Section	on 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?		$\overline{\checkmark}$				
4.03	Is general refuse sorting or recycling implemented?		$\overline{\checkmark}$				
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				
Section	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				
Section	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				
Section	on 7: Others						
7.01	Are relevant Environmental Permits posted at all vehicle site entrances/exits?		\checkmark				



Remarks

Follow-Up of Last Site Inspection (29 January 2009):

Nil.

Finding of Site Inspection on 04 February 2009:



1. C&D material scattered on site was observed at CH-230, the Contractor was reminded to improve the housekeeping.

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



Proje	Yuei Wai	tract No.: DC/2006/02 n Long, Kam Tin, Ngau Tam Mei and Tin Shui Drainage Improvements, Stage 1, Phase 2B –	_	nspected b	ру						
		ung Chun San Tsuen and Kam Tsin Wai		RE/RE's rep			Mr. A. F.	Ng			
Inspe Date:		ebruary 2009		EC/IEC's re	•		Ben Tam				
Time:		•	_	ETL/ ET's re Contractor'	-		M. K. Ng / K. M. Lui				
			_	Checklist N	-	indii voi	KT15-12				
PART	`A: G	ENERAL INFORMATION Environm	ental P	ermit No. I	EP-231/20	05/A					
Weather: ✓ Sunny Fine Cloudy Rainy											
Temp	erature: 24	°C									
Humic	dity:	High Moderate Low									
Wind:		Strong Breeze ✓ Light		Calm							
PART	B: SI	TE AUDIT									
				Not Obs.	Yes	No	Follow up	N/A	Photo/ Remarks		
Section	on 1: Water Q	uality						-			
1.01	Is an effluent	discharge license obtained for the Project?			$\overline{\checkmark}$						
1.02	Is the efflue licence?	ent discharged in accordance with the disc	harge		\checkmark						
1.03	Is the discha	rge of turbid water avoided?			\checkmark						
1.04		roper desilting facilities in the drainage system vels in effluent?	ms to		\checkmark						
1.05	sedimentatio				\checkmark						
1.06		y perimeter channels provided at site boundar m runoff from crossing the site?	ies to		\checkmark						
1.07	Is drainage s	ystem well maintained?			\checkmark						
1.08	As excavatio crushed ston	n proceeds, are temporary access roads protect e or gravel?	ed by		\checkmark						
1.09	Are temporar	ry exposed slopes properly covered?			V						
1.10	Are earthwor	ks final surfaces well compacted or protected?			\checkmark						
1.11	Are manhole	s adequately covered or temporarily sealed?			\checkmark						
1.12	Are there any	y procedures and equipment for rainstorm protec	tion?		\checkmark						
1.13	Are wheel wa	ashing facilities well maintained?			\checkmark						
1.14	Is runoff from	n wheel washing facilities avoided?			\checkmark						
1.15	Are there toil	ets provided on site?			\checkmark						
1.16	Are toilets pr	operly maintained?			\checkmark						
1.17	Are the vehicle roofed areas	cle and plant servicing areas paved and located?	within	\checkmark							
1.18	Is the oil leak	age or spillage avoided?			\checkmark						
1.19	Are there ar drainage sys	ny measures to prevent leaked oil from enterin tem?	g the		\checkmark						
1.20		ny measures to collect spilt cement and col ring concreting works?	ncrete		\checkmark						
1.21		y oil interceptors/grease traps in the drainage sy	stems					$\overline{\checkmark}$			



		Not Obs.	Yes	No	Follow	N/A	Photo/ Remarks
1.22	Are the oil interceptors/grease traps maintained properly?		П	П		\overline{V}	Remarks
1.23	Is used bentonite recycled where appropriate?	П	П	П	П	\overline{V}	
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.		$\overline{\checkmark}$				
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				
Section	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?		$\overline{\checkmark}$				
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.		$\overline{\checkmark}$				
4.02	Are receptacles available for general refuse collection?		$\overline{\checkmark}$				
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				
Section	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				
Section	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				
Section	on 7: Others						
7.01	Are relevant Environmental Permits posted at all vehicle site entrances/exits?		\checkmark				



Remarks

Follow-Up of Last Site Inspection (04 February 2009):

C&D material at CH230 had been tidy up.

Finding of Site Inspection on 12 February 2009:



1. C&D waste was observed at CH-240, the Contractor was reminded to improve the housekeeping and dispose more frequency.

RE's representative	/EC's	representative	ET's rep	resentative	Contractor's	
· M) () (Be	n Tem)	raprasantativo .)

Proje	et:	Contract No.: DC/2006/02 Yuen Long, Kam Tin, Ngau Tam Mel and Tin Shui Wai Drainage Improvements, Stage 1, Phase 2B – Cheung Chun San Tsuen and Kam Tsin Wai	inspected	l by esentative:		Too Chen		
Inspe	ection		IEC's rep	resentative:			is Lan	
Date:	-	18-2-2009	ET's repr	esentative:		'B,	en Tam	
Time		2:30ph		or's represent	ative:	<u>k</u>	.M. Low	
			Checklist	No.				
PART	ГA:	GENERAL INFORMATION Environmental	Permit No	. EP-231/2005	i/A			
Weatl		Sunny Fine Cloudy	Rainy	<i>(</i>				
Temp	erature:	2.2°C						
Wind:	•	High Moderate Low Strong Breeze Light	- Calm					
	В:	SITE AUDIT	vaiii			T. M.L.		
			Not			Falland		Pilessa
			Obs.	Yes	No	Follow up	N/A	Photo/ Remarks
		tter Quality		,,,,,,,,,	<u></u> ;			
1.01		ffluent discharge license obtained for the Project?		⊿	Щ			
1.02	is the	effluent discharged in accordance with the discharge ?			ф.			
1.03	Is the d	lischarge of turbid water avoided?			ф			
1.04	Are the reduce	ere proper desilting facilities in the drainage systems to SS levels in effluent?			ф'			
1.05	Are the sedime	re channels, sandbags or bunds to direct surface run-off to ntation tanks?		\square	ф			
1.06		ere any perimeter channels provided at site boundaries to of storm runoff from crossing the site?		Ø	Φ.	\Box .		
1.07	ls drain	age system well maintained?			Φ,			
1.08	As exca crushed	avation proceeds, are temporary access roads protected by if stone or gravel?			中			
1.09	Are tem	porary exposed slopes properly covered?			Ш'			
1.10	Are ear	thworks final surfaces well compacted or protected?			ф,			
1.11	Are ma	nholes adequately covered or temporarily sealed?		\square	中			
1.12	Are the	re any procedures and equipment for rainstorm protection?			ф			
1.13	Are whe	eel washing facilities well maintained?			ψ,			
1.14	ls runof	f from wheel washing facilities avoided?			ф			.,,,,
1.15	Are the	re toilets provided on site?			ф			
1.16	Are toile	ets properly maintained?			ф.			
1.17	Are the roofed a	vehicle and plant servicing areas paved and located within areas?			ф			
1.18	Is the oi	l leakage or spillage avoided?			ф.			
1,19	drainage	re any measures to prevent leaked oil from entering the esystem?			ф			
1.20	washing	re any measures to collect spilt cement and concrete is during concreting works?			ф;			
1.21	Are ther for vehic	e any oil interceptors/grease traps in the drainage systems cle and plant servicing areas, canteen kitchen, etc?			中.			
1.22	Are the	oil interceptors/grease traps maintained properly?			Ф:		7	
P:\6002	3871\Audi	l\Checklists\chklst template KT15.doc	Page 1 of	5			*********	

		Not Obs.	Yes	No	Follow up	N/A	Photo/ Remarks
1.23	Is used bentonite recycled where appropriate?						
1.24	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?						
1.25	Is excavation prohibited in the settlement area?						
1.26	Is concreting wastes water neutralized below the pH Action Levels before discharge?						,
1.27	Are mobile toilets provided on site and located away from the KT15 stream course?	. 🔲					
1.25	Is License collector employed for handling the sewage of mobile toilet?			Ь			
Section	on 2: Air Quality						- AGC COVA
2.01	Are there wheel washing facilities with high pressure jets provided at every vehicle exit point?		Ø	<u> </u>			
2.02	Are vehicles washed to remove any dusty materials from their bodies and wheels before leaving construction sites?			Image: Control of the			
2.03	Are the excavated materials sprayed with water during handling?						
2.04	Are stockpiles of dusty materials sprayed with water, covered or placed in sheltered areas?			<u></u>			
2.05	Is the exposed earth properly treated within six months after the last construction activities?			ф :			
2.06	Are the access roads sprayed with water to maintain the entire road surface wet or paved?			<u></u>			
2.07	Is the surface where any drilling, cutting, polishing or breaking operation continuously sprayed with water?			Щ,			
2.08	Is the load on vehicles covered entirely by clean impervious sheeting?			ф.			
2.09	Is the loading of materials to a level higher than the side and tail boards during transportation by vehicles avoided?			Φ.			
2.10	Is the road leading to the construction site within 30m of the vehicle entrance kept clear of dusty materials?			μ.			
2.11	Is dark smoke emission from plant/equipment avoided?			ф			
2.12	Are de-bagging, batching and mixing processes carried out in sheltered areas during the use of bagged cement?			ф <u>:</u>			
2.13	Are site vehicles travelling within the speed limit not more than 15km/hour?		Ø	ф			
2.14	Are hoardings of not less than 2.4m high provided along the site boundary, which adjoins areas accessible to the public?			ф			
2.15	Is open burning avoided?			ф'			
2.16	Are excavated materials from the stream removed form site on the same day and be stored in covered impermeable skips white awaiting removal from site?			Ь			
Sectio	n 3: Noise						
3,01	Are noisy equipment and activities positioned as far as practicable from the sensitive receivers?						
3.02	Is silenced equipment adopted?			Φ'			
3.03	Is idle equipment turned off or throttled down?			中			
3.04	Are all plant and equipment well maintained and in good condition?			ф.			
3.05	Are noise barriers or enclosures provided at areas where construction activities cause noise impact on sensitive receivers?						***************************************
3.06	Are hand held breakers fitted with valid noise emission labels during operation?						
3.07	Are air compressors fitted with valid noise emission labels during operation?						
3.08	Are flaps and panels of mechanical equipment closed during operation?						
3.09	Are Construction Noise Permit(s) applied for percussive piling works?						
P:\6002	3871\Audit\Checklists\chklst template KT15.doc P	age 2 of 5		'			

		Not Obs.	Yes	No	Fellow up	N/A	Photo/ Remarks
3.10	Are Construction Noise Permit(s) applied for general construction works during restricted hours?	П		ф.		Ø	
3.11	Are valid Construction Noise Permit(s) posted at site entrances?			ф.			
3.12	Is quiet plant used on site to minimise the construction noise impact to the surrounding residences/dwellings (Level 1 mitigation measures)?			ф.			1
3.13	Are temporary / moveable noise barrier or site hoarding provided or erected at the site boundary to minimise the noise impact of the closest NSRs or stationary equipments be shielded by the noise barrier which cannot be visible from NSRs (Level 2 mitigation measure)?		Ø				
3.14	Are temporary / moveable noise barrier equal to or more than 3m height with 10kg/m² provided for noise mitigation measures (Level 2 mitigation measures)?		⅓	ф			
Sect	ion 4: Waste/Chemical Management						
4.01	Is the Waste Management Plan submitted to Engineer for approval?			中			
4.02	Are receptacles available for general refuse collection?			中			
4.03	Is general refuse sorting or recycling implemented?			ψ.			
4.04	Is general refuse disposed of properly and regularly?			中			
4.05	Is the Contractor registered as a chemical waste producer?		\square	Ф.			
4.06	Are the chemical waste containers properly labelled?			ф			137.00.000
4.07	Are the chemical wastes stored in proper storage areas?			ф.			
4.08	Is the chemical waste storage area properly labelled?			ф			
4.09	Is the chemical waste storage area used for storage of chemical waste only?			ф			
4.10	Are incompatible chemical wastes stored in different areas?			ф:			
4.11	Are the chemical wastes disposed of by licensed collectors?			ф			
4.12	Are trip tickets for chemical wastes disposal available for inspection?			ф	. 🔲		
4.13	Are chemical/fuel storage areas bunded?			ф			
4,14	Are designated areas identified for storage and sorting of construction wastes?			ф.			
4.15	Are construction wastes sorted (inert and non-inert) on site?			ф			
4.16	Are construction wastes reused?			ф;			
4.17	Are construction wastes disposed of properly?						Remark (3)
4.18	Are site hoardings and signboards made of durable materials instead of timber?			ф:			/ -m () - ()
4.19	Is trip ticket system implemented for the disposal of construction wastes and records available for inspection?			ф.			
4.20	Are appropriate procedures followed if contaminated material exists?			ф:			
4.21	is relevant license/ permit for disposal of construction waste or excavated materials available for inspection?			ф:			
4.22	Is site cleanliness and appropriate waste management training provided for the site workers?			ф;			**************************************
4.23	Are contaminated sedfments managed according to WBTC No.12/2000 and EWTB TC(W) No. 34/2002?			ψ:			***************************************
Section	n 5: Landscape & Visual					•	
5.01	Are retained and transplanted trees in health condition?			ф			

Environmental Site Inspection Checklist for KT15 Follow Not Photo/ No Yes N/A Obs. Remarks up 7 П 5.02 Are retained and transplanted trees properly protected? \square 5.03 Are surgery works carried out for the damaged trees? is damage to trees outside site boundary due to construction 5.04 activities avoided? Is the night-time lighting controlled to minimize glare to sensitive M 5.05 receivers? Section 6: Ecology Are gabion banks and base provided for channel linings and banks 6.01 \square for typical sections of KT15? Is site effluent/runoff discharge to the seasonal wetlands at KT15 П 6.02 prevented? Are stockpiling or disposal of materials, and any dredging or construction activities at the seasonal wetlands at KT15 1 6.03 prohibited? Section 7: Others Are relevant Environmental Permits posted at all vehicle site 7.01 Ø Щ, П entrances/exits? LFollow up observation >:

① Sedimentation famles at W9B had been modified to inverse the retention time of effhout. The note quality is acceptable. Colored L @ Regular maker spraying by mater trucks on hand roads. had been implemented (dosed) < New observations? 3 House keeping at chamage 230 should be properly maintained A regular disposed of accumulated ... Cl D wastes on site. should be carried out

Remarks

P:\60023871\Audit\Checklists\chk/st template KT15.doc

Page 5 of 5



Proje	Yuen I	act No.: DC/2006/02 Long, Kam Tin, Ngau Tam rainage Improvements, Sta	Mei and Tin Shui	nspected b	ру							
		g Chun San Tsuen and Ka		RE/RE's re	presentati	ve:	Joe Cha	n				
Inspe	ction		I	EC/IEC's re	epresenta	tive:	Cyrus La	Cyrus Lau				
Date:	_18 Feb	ruary 2009		ETL/ ET's r	epresenta	tive:	Ben Tam	1				
Time:	09:30			Contractor	's represe	ntative:	M. K. Ng	/ K. M. Lui				
			(Checklist N	lo.		KT15-18	0209				
PART	A: GEN	IERAL INFORMATION	Environmental F	Permit No. I	EP-231/20	05/A						
Weath	ner:	Sunny ✓ Fine	Cloudy	Rainy								
Temp	erature: 21.7	°C										
Humio	dity:	High ✓ Moderat	te Low									
Wind:		Strong Breeze	✓ Light	Calm								
PART	B: SITI	AUDIT										
				Not Obs.	Yes	No	Follow up	N/A	Photo/ Remarks			
Section	on 1: Water Qua	lity						=				
1.01	Is an effluent d	ischarge license obtained fo	r the Project?		\checkmark							
1.02	Is the effluen licence?	t discharged in accordan	ce with the discharge		\checkmark							
1.03	Is the discharge	e of turbid water avoided?			\checkmark							
1.04	Are there propreduce SS leve	per desilting facilities in the els in effluent?	e drainage systems to		\checkmark							
1.05	Are there chan sedimentation	nels, sandbags or bunds to tanks?	direct surface run-off to		\checkmark							
1.06		perimeter channels provide runoff from crossing the site			\checkmark							
1.07	Is drainage sys	tem well maintained?			\checkmark							
1.08	As excavation crushed stone	proceeds, are temporary ac or gravel?	cess roads protected by		\checkmark							
1.09	Are temporary	exposed slopes properly co	vered?		\checkmark							
1.10	Are earthworks	final surfaces well compact	ed or protected?		\checkmark							
1.11	Are manholes	adequately covered or temperature	orarily sealed?		\checkmark							
1.12	Are there any p	procedures and equipment for	or rainstorm protection?		\checkmark							
1.13	Are wheel was	hing facilities well maintaine	d?		\checkmark							
1.14	Is runoff from v	wheel washing facilities avoid	ded?		\checkmark							
1.15	Are there toilet	s provided on site?			\checkmark							
1.16	Are toilets prop	erly maintained?			\checkmark							
1.17	Are the vehicle roofed areas?	and plant servicing areas p	paved and located within	\checkmark								
1.18	Is the oil leaka	ge or spillage avoided?			\checkmark							
1.19	Are there any drainage system	measures to prevent leakem?	ed oil from entering the		\checkmark							
1.20		measures to collect spilt g concreting works?	t cement and concrete		\checkmark							
1.21		oil interceptors/grease traps						\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?			$\overline{\checkmark}$			
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?		$\overline{\checkmark}$				
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.		$\overline{\checkmark}$				
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.		V				
Section	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				
Section	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				
Section	on 7: Others						
7.01	Are relevant Environmental Permits posted at all vehicle site entrances/exits?		\checkmark				



Remarks

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

C&D wastes accumulated at CH-240 had been clean up.

Finding of Site Inspection on 18 February 2009:



1. C&D waste mix with the excavated soil without segregation and coverage by the tarpaulin sheet was observed at CH230, the Contractor was reminded to cover the dusty material with tarpaulin sheet and implement the waste sorting on-site accordingly.

RE's representative	IEC's representative	ET's representative	Contractor's representative
0			· ·
(Joe Chan.)	(Kyns Lan)	Ben Tam	KMLUZ)



Proje	Contract No.: DC/2006/02 Yuen Long, Kam Tin, Ngau Tam Mei and Tin Shui Wai Drainage Improvements, Stage 1, Phase 2B –	In	spected b	ру					
	Cheung Chun San Tsuen and Kam Tsin Wai	R	E/RE's re _l	oresentat	ive:	Mr. A. F.	Ng	_	
Inspe			C/IEC's re	-					
Date:	24 February 2009		TL/ ET's r	•		Ken Wong			
Time:	09:45		ontractor' hecklist N	-	entative:		M. K. Ng / K. M. Lui KT15-240209		
						K115-24	0209		
PART		tal Pe	_	EP-231/20	05/A				
Weath	ner: Sunny ✓ Fine Cloudy erature: 25 °C		Rainy						
Humio									
Wind:			Calm						
PART	B: SITE AUDIT								
			Not Obs.	Yes	No	Follow up	N/A	Photo/ Remarks	
Section	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 discharlicence?	rge		\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	า?		\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 with roofed areas?	hin	\checkmark						
1.18	Is the oil leakage or spillage avoided?			\checkmark					
1.19	Are there any measures to prevent leaked oil from entering t 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 system for vehicle and plant servicing areas, canteen kitchen, etc?	ms					\checkmark		



		Not Obs.	Yes	No	Follow	N/A	Photo/ Remarks
1.22	Are the oil interceptors/grease traps maintained properly?					$\overline{\checkmark}$	
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				
Section	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				
Section 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				
Section 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				
Section 7: Others							
7.01	Are relevant Environmental Permits posted at all vehicle site entrances/exits?		\checkmark				



Remarks

Follow-Up of Last Site Inspection (18 February 2009):



C&D waste segregation was implemented and fence off the sorting area (CH230), captioned area (CH230) had been tidy up.





Stagnant water accumulated in the constructed channel was found at CH489. The Contractor was reminded to divert the stagnant water into the sedimentation tank prior to discharge.

RE's representative | EC's representative | ET's representative | Contractor's representative | Kerr Wong | ()

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 February 2009 (No. 20)



APPENDIX K

RESPONSE TO COMMENT

DSD Contract No. DC/2006/02 Yuen Long, Kam Tin, Ngau Tam Mei and Tin Shui Wai Drainage Improvements, Stage 1, Phase 2B – Cheung Chun San Tsuen and Kam Tsin Wai KT15 – Monthly EM&A Report for February 2009 (No. 20)



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 February 2009 (R1193 Revision 1) submit on 02 March 2009

Response to IEC's comments [Received from e-mail on 06 March 2009]

Items	Section / Paragraph	Comments	Response to Comments	
1	ES10./4.03	There should be 18 1-Hour TSP monitoring in total in the reporting period.	Amended	
2	Table 5.1/ Appendix	As per the monitoring schedule listed in Appendix G, the data set for 29-Jan-09 is missing. Please	Table 5-1 and Appendix G had been	
	G	revise and update the captioned table.	updated.	
3	Table 5.4/ Appendix	According to the data set listed in Appendix H,	Table 5.4 had been amended.	
	Н	1. Measured zinc level at W9A and W9B on 23-Feb-09 should be 1,450µg/L and 104µg/L.		
		2. The measured D.O. value at W9A on 25-Feb-09 should be rounded off as 3.0. Please revise and		
		update the captioned table.		
4	7.02/11.07	There are some typos at item no. 4. It is advised to rewrite the sentence as "C&D waste	Section 7.02 and 11.07 had been amended.	
		mixwithout segregation and coverage by the tarpaulin sheet, the Contractor was reminded to		
		cover the dusty material with tarpaulin sheet and implement the waste sorting on-site according;"		
5	Appendix G	The tentative monitoring schedule for 1-Hour and 24-Hour TSP on 17, 18, 24, 25 March 2009	Appendix G had been amended.	
	A di II	should be revised in order to keep in a 6-day monitoring schedule for the captioned parameter.	A 1' TT 1 11 1 1 1	
6	Appendix H	1. Measured value of 1-Hour TSP recorded on 29-Jan-09 is missing in the graph. Please revise and update the graph.	Appendix H had been updated.	
		2. Measured values of Dissolved Oxygen, Turbidity, and pH recorded on 25-Feb-09 are missing in	Appendix H had been updated.	
		the corresponding graphs. Please revise and update the graphs.	Appendix II had been updated.	
		3. Measured value of Ammonia-Nitrogen recorded on 29-Jan-09 is missing in the graph. Please	Appendix H had been updated.	
		revise and update the graph.		
		4. The "Note" under the graph of Zinc should be updated. Dissolved oxygen at W9B on 29-Jan-09	Note under the graph of Zinc had been	
		and Ammonia-Nitrogen at W9A on 4, 9, 11, 18 Jan 2009 are out of the reporting range.	deleted.	
		5. The recorded value of zinc on 21-Feb-09 in the graph is incorrect. Please revise and update the	Appendix H had been revised.	
		graph.		
7	Appendix J	1. All checklists should be recorded in Year 2009. Please revise the checklists accordingly.	Noted.	
		2. In site inspection checklist on 29-Jan-09, the temperature recorded is unreasonably high. Please	Checklist on 29-Jan-09 had been amended.	
		check and revise accordingly.	G1 111 12 F1 00 1 11	
		3. In site inspection checklist on 12-Feb-09, it is advised to add the exact location of C&D materials	Checklist on 12-Feb-09 had been amended.	
		cleared in the follow-up observation. 4. In site inspection checklist on 18-Feb-09, it is advised to revise the text in the finding as "C&D"	Checklist on 18-Feb-09 had been amended.	
		waste mixwithout segregation and coverage by the tarpaulin sheet, the Contractor was	Checklist on 10-red-09 had been amended.	
		reminded to cover the dusty material with tarpaulin sheet and implement the waste sorting on-site		
		according;".		

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 February 2009 (No. 20)



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 February 2009 (R1193 Revision 2) submit on 12 March 2009

Response to IEC's comments [Received from e-mail on 13 March 2009]

Items	Section / Paragraph	Comments	Response to Comments
1	Appendix H	1. Recorded values in 1-Hour TSP reading at Tin Sam San Tsuen (A10) graph in the reporting period (i.e. 26 Jan to 25 Feb 2009) are not correctly match with the axis value. Please check and	Amended
		update the graph. 2. It is advised to add back the "Note" to report the points which are out of the reporting range, e.g. dissolved oxygen at W9B on 29-Jan-09 and Ammonia-Nitrogen at W9A on 4, 9, 11, 18 Feb 2009 are out of the reporting range.	Graphical plot of DO and NH3-N had been revised.
2	Appendix J	The date of the checklists recorded on 4-Feb-2009 and 24-Feb-2009 should be recorded in Year 2009. Please revise the checklists accordingly.	Relevant checklists had been updated.
3	Appendix K	"Response to Comments" of Item 6 1st row should be wrote as "Appendix H had been updated". Please refer to the attached page as for reference.	Noted.