CONTRACT NO: CV/2004/02

RECONSTRUCTION OF WONG SHEK AND KO LAU WAN PUBLIC PIERS

ENVIRONMENTAL MONITORING & AUDIT MONTHLY REPORT (WONG SHEK)

- JUL 2006 -

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Subject	Contract No. CV/2004/02 Reconstruction of Wong Shek and Ko L Monthly EM&A Summary Report	au Wan Public	Piers	

We refer to the July Monthly EM&A reports for Wong Shek Pier and Ko Lau Wan Pier that we received through email on 18 August 2006 and are pleased to confirm we have no further comment on the reports.

Should you require further information, please feel free to contact us.

Best regards,

Joseph Poon

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Independent Environmental Checker

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EXECUTIVE SUMMARY

This is the Monthly Environmental Monitoring and Audit (EM&A) report for Jul 2006 under Contract No. CV/2004/02 – Reconstruction of Wong Shek and Ko Lau Wan Public Piers. This report presents the environmental monitoring and auditing (EM&A) findings based on data and information recorded from the period 1st to 31st Jul 2006 for the construction of Wong Shek Public Pier.

Construction Activities for the Reported Period

During this reporting period, the principal work activities at Wong Shek Pier include:

- Application of protective coating to those damaged area at the steel casings;
- Application of the epoxy resin on the holes fo rholding down bolts and the gaps beneath the precast concrete beam-slab;
- Installation of the precast beam-slab and precast step units;
- Installation of the conduits for the electrical system and lightning protective system;
- Installation of the holding down bolt on precast beam slab units;
- Fixing of reinforcement, erection of the formwork and casting the insitu brackets, columns, pile bents and slab.

Water Quality Monitoring

5 water quality monitoring events in terms of turbidity, dissolved oxygen, suspended solids, temperature, and salinity was carried out at MW1, MW2, CW1 and CW2 at Wong Shek.

Fluctuations for dissolved oxygen, turbidity and suspended solids resembled those fluctuations at the control stations which indicated that all the exceedances in water quality monitoring were due to natural phenomena and agreed with the changes in the control stations. Causation due to construction activities is unlikely and there were no valid exceedance for this reporting period.

Waste Management

5m³ inert C&D materials was disposed of at Tseung Kwan O Area 137 public filling area while 0m³ general refuse was disposed of at SENT landfill. No chemical waste was transported off site in this reported period.

Complaints, Notifications of Summons and Successful Prosecutions

There was no complaints, notification of prosecutions or summons in this reporting period.

Site Inspections and Audit

5 site inspections were conducted by the Environmental Team (ET) in this reported period. An audit by the Independent Environmental Checker (IEC) was conducted on 11 Jul 2006 with the Engineers' Representative and the Environmental Team. Major observations are summarised in the following table. Major observations by the ET, actions by the Contractor and outcome are summarized in the following table.

Item	Date	Observations	Action taken by Contractor	Outcome
-	6-Jul	No particular finding	-	-
-	11-Jul	No particular finding	-	-
-	17-Jul	No particular finding	-	-
-	24-Jul	No particular finding	-	-
-	31-Jul	No particular finding		

Future Key Issues

The tentative works activities, predicted impacts and areas of environmental concern for the coming reporting month are summarized in the following table.

Construction Works	Predict Impacts	Proposed Mitigation Measures
Installation of roof cover system Installation of the electrical system and lighting system	Noise, Waste	Avoid concurrent noisy operation during timber and steel preparation Material and waste to be stored properly
		No littering in land or sea
Fixing of reinforcement, erection of formwork and casting of in-situ slab	Water, Noise, Waste	Avoid concurrent noisy operation during timber and steel preparation
		Prohibit on-site concrete truck washing
		Avoid chemical spill and provide spill control if necessary

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1 INTRODUCTION

1.1 SCOPE OF THE REPORT

Lam Environmental Services (LAM) has been appointed to work as the Environmental Team (ET) for Kin Shing Construction Company Limited to implement the Environmental Monitoring and Audit (EM&A) programme for the Contract No. CV/2004/02 – Reconstruction of Wong Shek and Ko Lau Wan Public Piers.

This report presents the environmental monitoring and auditing work carried out from the period 1st to 31st Jul 2006 for the construction of Wong Shek Public Pier in accordance to Section 26 of the Particular Specification, Project Profile (PP-191/2003) and Environmental Permit (EP-186/2004) for this Project.

The following information relating to this project is documented in the EM&A Manual and, to avoid duplication, it is not presented in detail within the monthly report.

- Event-Action Plans;
- Full set of environmental mitigation measures and;
- · Contracted environmental requirements.

1.2 STRUCTURE OF THE REPORT

Section 1 *Introduction* – details the scope and structure of the report.

Section 2 Project Background – summarizes background and scope of the project, site description, project organization and contact details of key personnel, construction programme and works undertaken during the reporting period.

Section 3 Implementation Status – summarizes the status of Environmental Permits / Licenses, implementation of environmental protection and pollution control / mitigation measures in an updated schedule for the reporting period.

Section 4 Monitoring Requirements — summarizes all monitoring parameters, monitoring methodology and equipment, monitoring locations, monitoring frequency and programmes.



Section 5 *Monitoring Results* – summarizes the monitoring results obtained in the reporting period.

Section 6 Compliance Audit – summarizes the auditing of monitoring results, all exceedances environmental parameters.

Section 7 Site Inspection and Audit – summarizes the findings of weekly site inspections and independent audit undertaken within the reporting period, with a review of any relevant follow-up actions within the reporting period.

Section 8 Complaints, Notification of Summons and Prosecution – summarizes the complaints, notification of summons and successful prosecution for breaches of environmental legislation and the actions taken within the reporting period.

Section 9 Future Key Issues – summarizes the upcoming works and a forecast of the environmental impact and monitoring schedule for the next reporting period.

Section 10 Conclusion

2 PROJECT BACKGROUND

2.1 SCOPE OF THE PROJECT AND SITE DESCRIPTION

The works mainly comprise demolition of the existing piers and construction of reinforced concrete piers with roof covers at Wong Shek. The construction of the Project is scheduled to commence in November 2004 for completion in September 2006. The construction period is 630 days for the entire construction.

The site layout plan is shown in **Figure 2.1**.

2.2 PROJECT ORGANIZATION AND CONTACT PERSONNEL

Civil Engineering Office of Civil Engineering and Development Department is the project proponent. The organization chart for the EM&A programme is attached in *Appendix A*.

Under the organization chart, Resident Engineer, Contractor, Independent Environmental Checker, Environmental Team are appointed to manage and control environmental issues for the construction phase of CV/2004/02. Overall responsibilities and duties of the team are found in the corresponding EM&A Manual. Key personnel and contact particulars are summarized in *Table 2.2*:

Table 2.2 Contact Details of Key Personnel

Post	Name	Contact No.	Contact Fax	Mobile No.
Resident Engineer	David C S Leung	2760 5737	2714 2054	9630 1235
Site Agent	Simon Fok	2729 6779	2729 7858	6010 8730
Independent Environmental Checker (IEC)	Joseph T L Poon	2452 7140	2450 6138	9450 1968
Environmental Team Leader (ETL)	Raymond Dai	2975 3300	2897 5509	9738 0738

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2.3 CONSTRUCTION PROGRAMME AND WORKS

Construction works carried out at Wong Shek Pier during this reporting period are:

- Application of protective coating to those damaged area at the steel casings;
- Application of the epoxy resin on the holes fo rholding down bolts and the gaps beneath the precast concrete beam-slab;
- Installation of the precast beam-slab and precast step units;
- Installation of the conduits for the electrical system and lightning protective system;
- Installation of the holding down bolt on precast beam slab units;
- Fixing of reinforcement, erection of the formwork and casting the insitu brackets, columns, pile bents and slab.

The master construction programme is given in <u>Figure 2.3</u>.

3 IMPLEMENTATION STATUS

3.1 STATUS OF REGULATORY COMPLIANCE

A summary of the current status on licences and/or permits on environmental protection pertinent to the Project is shown in *Table 3.1*.

Table 3.1 Cumulative Summary of Valid Licences and Permits

Permits and/or Licences	Reference No.	Issued Date	Expiry Date	Status
Environmental Permit	EP-186/2004/A	28-04-2005	-	Issued on receipt of VEP-171/2005 dated 14-04-2005
Waste Producer Registration	WPN5213-742- K1081-05	12-05-2005	-	Notified
Construction Noise Permit	-	-	-	No valid CNP granted to the Contractor

3.2 IMPLEMENTATION OF POLLUTION CONTROL / MITIGATION MEASURES

The contractor implemented various environmental mitigation measures as recommended in the Particular Specification and the Environmental Permit. The implementation schedule is presented in *Appendix B*.

4 MONITORING REQUIREMENTS

Locations of environmental monitoring stations are referred in *Figure 4.1*.

4.1 WATER QUALITY MONITORING

The brief for EM&A works details 4 designated stations to be monitored during the construction period comprising 2 monitoring stations and 2 control stations. These stations have been coded as MW1, MW2, CW1 and CW2 respectively.

Table 4.1a Water Quality Monitoring Stations

Station	Station HK Metric Grid (Easting / Northing) Description	
MW1	852 789.231E / 832 978.476N	Impact Monitoring
MW2	852 844.187E / 832 878.676N	Impact Monitoring
CW1	852 922.540E / 833 067.718N	Control during mid-flood
CW2	852 992.314E / 832 853.794N	Control during mid-ebb

Monitoring Methodology

Measurements were be taken under two tidal conditions (mid-flood and mid-ebb) at 3 water depths, namely 1m below the water surface, mid-depth and 1m above the seabed, except where the water depth is less than 6m, the mid-depth sample may be omitted. If the water depth is less than 3m, only the mid-depth will be monitored.

Replicate in-situ measurements and samples were collected from each independent sampling event are required for all parameters to ensure a robust statistical interpretable dataset.

Water quality parameter in terms of: dissolved oxygen (mg/L and % saturation), salinity (ppt), turbidity (NTU), and suspended solids (mg/L) were measured in-situ with portable instruments. Other relevant data was also recorded, including the following:

- · monitoring station and position;
- time;
- · depth of water;
- tidal status;
- · water temperature;
- · weather conditions including ambient temperature;
- any special phenomena or activities at the construction site.

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For the measurement of dissolved oxygen the probe shall be removed from the water column between each duplicate measurement. If the difference between each duplicate measurement is greater than a 25% then the two sets of data shall be rejected and the measurements re-taken.

Suspended solids (SS) were determined in the laboratory at Chai Wan managed by Lam Laboratories Ltd.

Monitoring Equipment

- Sample Bottles: Samples were kept in high density polythene bottles, packed in ice and cooled to 4°C or below, without being frozen, for delivery to the laboratory as soon as possible after collection.
- Thermometer: A standard certified laboratory mercury thermometer with an accuracy of at least 0.5°C was employed, calibrated against a certified thermometer of 0.1°C scale. This thermometer was employed for measuring both ambient and water temperatures.
- Depth Detector: As the depth of water being sampled was generally shallow, too shallow to allow for the use of an echosounder, a marked depth gSepe was employed to determine water depth at all designated monitoring stations.

All in-situ monitoring equipment shall be checked, verified and calibrated by Lam laboratory at Chai Wan, a HOKLAS accredited laboratory, prior to use on the Works and subsequently thereafter every three months throughout all stages of the water quality monitoring. Responses of the sensors and electrodes shall be checked with certified standard solutions before each use. Wet bulb calibration for a DO meter shall be carried out before measurement.

For in-situ calibration of field equipment, the BS 1427: 1993 "Guide to Field and on-site test methods for the analysis of waters" shall be observed.

A set of backup monitoring instruments and equipment shall be made available so that the monitoring can proceed uninterrupted in case of apparatus malfunction or if equipment has been returned to the laboratory for calibration.

Current calibration certificates are presented in *Appendix C*.

Laboratory Analysis

All samples are returned to the laboratory at Chai Wan for the determination of SS under a QA / QC scheme inclusive of blank, duplicate and spike recovery analysis under the requirement of HOKLAS. The laboratory test procedures conform to "Standard Methods for the Examination of Water and Wastewater" published by American Public Health Association (APHA) and United State Environmental Protection Agency (USEPA) test methods are summarized in *Table 4.3b*.

Table 4.1b Laboratory Test Procedures

Parameter	Methodology	Method Ref.	Detection Limit
SS	Determination of Total Suspended Solids Dried at 103-105°C	APHA 19 th Ed. 2540D	2.0 mg/L

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4.2 MONITORING PARAMETERS AND FREQUENCY

Water quality monitoring programme has been scheduled according to the requirements stipulated in the EM&A Manual produced for the Project summarized in *Tables 4.2*.

Table 4.2 Water Quality Monitoring Parameters and Frequencies

Stat	tion(s)	Parameter	Frequency
	71, MW2 1, CW2	DO, Temperature, Salinity, Turbidity, Suspended Solids, Water Depth	For piling or demolition works 3 days per week at mid-flood and mid-ebb For marine works other than piling or demolition works 1 day per week at mid-flood and mid-ebb

4.3 WATER QUALITY CRITERIA

Water quality criteria were determined prior to the commencement of the construction of the project for the purpose of impact monitoring. Various levels established based on the results of baseline monitoring and the Event Action Plan stipulated in the EM&A Manual are summarized in *Tables 4.3*.

Table 4.3 Action and Limit Levels for Water Quality Monitoring

Parameter	Action Level	Target Level
Dissolved Oxygen (Surface, Middle & Bottom)	Surface & Middle For Wong Shek – 6.96	Surface & Middle For Wong Shek – 6.69
	Bottom For Wong Shek – 6.93	Bottom For Wong Shek – 6.71
Turbidity (depth- averaged)	For Wong Shek – 1.47 or 120% of upstream control station's Tby at the same tide of same day, whichever is lower	For Wong Shek – 4.05 or 130% of upstream control station's Tby at the same tide of same day, whichever is lower
Suspended Solids (depth-averaged)	For Wong Shek – 6.85 or 120% of upstream control station's SS at the same tide of same day, whichever is lower	For Wong Shek – 8.85 or 130% of upstream control station's SS at the same tide of same day, whichever is lower

Note:

- 1. "Depth-averaged" is calculated by taking the arithmetic means of reading all three depths.
- For Dissolved Oxygen, non-compliance of the water quality limits occurs when monitoring result is lower than the limits.
- 3. For Turbidity and Suspended Solid, non-compliance of the water quality limits occurs when monitoring result is higher than the limits.
- 4. All the figures given in the table are used for reference only and the Engineer may amend the figures whenever it is considered as necessary.

4.4 MONITORING PROGRAMME

Environmental monitoring programme for this reporting period was carried out in accordance with the required monitoring frequency. The actual completion of monitoring work during the reporting period is presented in *Tables 4.4*.

Table 4.4 Environmental Monitoring Programme – Jul 06

Jul 2	2006	Water Quality (DO, Turbidity, SS)	Site Inspection
1	Sat	MW1, MW2, CW1, CW2	
2	Sun		
3	Mon		
4	Tue		
5	Wed		
6	Thu	X	X
7	Fri	Α	
8	Sat		
9	Sun		
10	Mon	X	
11	Tue		X (w/ IEC)
12	Wed		,
13	Thu		
14	Fri		
15	Sat		
16	Sun		
17	Mon	X	Х
18	Tue		
19	Wed		
20	Thu		
21	Fri		
22	Sat		
23	Sun		
24	Mon	X	Х
25	Tue		
26	Wed		
27	Thu		
28	Fri		
29	Sat		
30	Sun		
31	Mon	X	X

Note:

- X: Monitoring conducted
- Schedule is formulated and with consideration of statutory holidays (shaded in the table).

5 MONITORING RESULTS

5.1 WATER QUALITY MONITORING RESULTS

Water quality monitoring was carried out on 5 occasions at stations MW1, MW2, CW1 and CW2. Calculated water quality monitoring results in this reporting period are reviewed and summarized in **Tables 5.1a and 5.1b**. Details of measured and tested results can be referred in **Appendix D**. Graphical trend is presented in **Figure 5.1a – 5.1h**.

Table 5.1a Water Quality Monitoring Results (mid-flood tide) – Jul 06

Station	Averaged DO Surface & Middle (mg/L)	Averaged DO Bottom (mg/L)	Averaged Turbidity (NTU)	Averaged Suspended Solids (mg/L)
MW1	6.09	5.41	1.20	7.4
MW2	5.64	4.64	1.18	7.3
CW1	5.83	Water depth < 3m	1.22	5.6
CW2	5.63	4.65	1.18	7.7

Table 5.1b Water Quality Monitoring Results (mid-ebb tide) – Jul 06

Station	Averaged DO Surface & Middle (mg/L)	Averaged DO Bottom (mg/L)	Averaged Turbidity (NTU)	Averaged Suspended Solids (mg/L)
MW1	5.88	5.22	1.16	8.5
MW2	5.63	4.73	1.15	8.7
CW1	5.77	Water depth < 3m	1.19	9.7
CW2	5.53	4.64	1.19	9.3

5.2 WASTE MONITORING RESULTS

5m³ inert C&D materials was disposed of at Tseung Kwan O Area 137 public filling area while 0m³ general refuse was disposed of at SENT landfill. No chemical waste was transported off site in this reported period.

6 COMPLIANCE AUDIT

Results of the calculated water quality results for various are audited against the water quality levels and the number of exceedances are summarized *Tables 6.1a* and 6.1b. Exceedances caused by natural phenomena namely fluctuation of overall water quality by comparing the graphical trends of monitoring and control stations are eliminated in order to identify the valid exceedance due to construction activities.

Table 6.1a Summary of Water Quality Exceedance (mid-flood tide) – Jul 06

Station	Averaged DO Surface & Middle	Averaged DO Bottom	Averaged Turbidity	Averaged Suspended Solids
MW1	0 (AL); 0 (LL)	0 (AL); 0 (LL)	0 (AL); 0 (LL)	0 (AL); 0 (LL)
MW2	0 (AL); 0 (LL)	0 (AL); 0 (LL)	0 (AL); 0 (LL)	0 (AL); 0 (LL)

Table 6.1b Summary of Water Quality Exceedance (mid-ebb tide) – Jul 06

Station	Averaged DO Surface & Middle	Averaged DO Bottom	Averaged Turbidity	Averaged Suspended Solids
MW1	0 (AL); 0 (LL)	0 (AL); 0 (LL)	0 (AL); 0 (LL)	0 (AL); 0 (LL)
MW2	0 (AL); 0 (LL)	0 (AL); 0 (LL)	0 (AL); 0 (LL)	0 (AL); 0 (LL)

As shown in the graphical trend, the observed trends and exceedances in dissolved oxygen, turbidity and suspended solids at MW1 and MW2 resemble the fluctuations to the respective control stations, possibly due to variation in water current or tidal effect.

The observed exceedances for turbidity and suspended solids are respectively within 0.05 NTU and 6.5 mg/L, indicating the fluctuation could possibility due to the natural variation around the small values of suspended solids.

To conclude, the fluctuations for dissolved oxygen, turbidity and suspended solids resembled those fluctuations at the control stations which indicated that all the exceedances in water quality monitoring were due to natural phenomena and agreed with the changes in the control stations. Therefore, causation due to CV/2004/02 construction activities is unlikely and there were no valid exceedance for this reporting period.

7 SITE INSPECTION AND AUDIT

The ET undertook site inspection at least once a week. Monthly joint audit was undertaken by the IEC, the ETL, the Engineer and the Contractor.

The ET carried out 5 inspections during this reporting period. An audit was undertaken by the IEC on 11 Jul 2006. The results of these inspections and outcomes are summarized in *Table 7*.

Table 7 Summary of Environmental Inspection and Audit – Jul 06

Item	Date	Observations	Action taken by Contractor	Outcome
-	6-Jul	No particular finding	-	-
-	11-Jul	No particular finding	-	-
-	17-Jul	No particular finding	-	-
-	24-Jul	No particular finding	-	-
-	31-Jul	No particular finding	-	-

8 COMPLAINTS, NOTIFICATION OF SUMMONS AND PROSECUTION

No complaint, inspection notice, notification of summons or prosecution was received in this reporting period. Complaint log, summaries of cumulative complaints and successful prosecutions are presented in *Table 8a*, *Table 8b*, *Table 8c* and *Table 8d* respectively.

Table 8a Environmental Complaints Log

Complaint Log No.	Date of Receipt	Received From and By	Nature of Complaint	Date investigated	Outcome	Date of Reply and to Whom
-	-	-	-	-	-	-

Table 8b Cumulative Statistics on Complaints

Environmental Parameters	Cumulative No. Brought Forward	No. of Complaints This Month	Cumulative No. Project-to-Date
Air	-	-	-
Noise	-	-	-
Water	-	-	-
Waste	-	-	-
Total	-	-	-

Table 8c Cumulative Statistics on Successful Prosecutions

Environmental Parameters	Cumulative No. Brought Forward	No. of Successful Prosecutions this month (Offence Date)	Cumulative Number to Date
Air	-	-	-
Noise	-	-	-
Water	-	-	-
Waste	-	-	-
Total	-	-	-

Table 8c Cumulative Statistics on Notification of Summons

Environmental Parameters	Cumulative No. Brought Forward	No. of Successful Summons	Cumulative Number to Date
Air	-	-	-
Noise	-	-	-
Water	-	-	-
Waste	-	-	-
Total	-	-	-

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9 FUTURE KEY ISSUES

The scheduled construction activities and the recommended mitigation measures for the coming month are listed below. The proposed monitoring schedule for the coming reporting period is detailed in <u>Appendix E</u>.

Table 9 Construction Activities and Recommended Mitigation Measures – Aug 2006

Construction Works	Predict Impacts	Proposed Mitigation Measures
Installation of roof cover system Installation of the electrical system and lighting system	Noise, Waste	Avoid concurrent noisy operation during timber and steel preparation Material and waste to be stored properly
		No littering in land or sea
Fixing of reinforcement, erection of formwork and casting of in-situ slab	Water, Noise, Waste	Avoid concurrent noisy operation during timber and steel preparation
		Prohibit on-site concrete truck washing
		Avoid chemical spill and provide spill control if necessary

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10 CONCLUSION

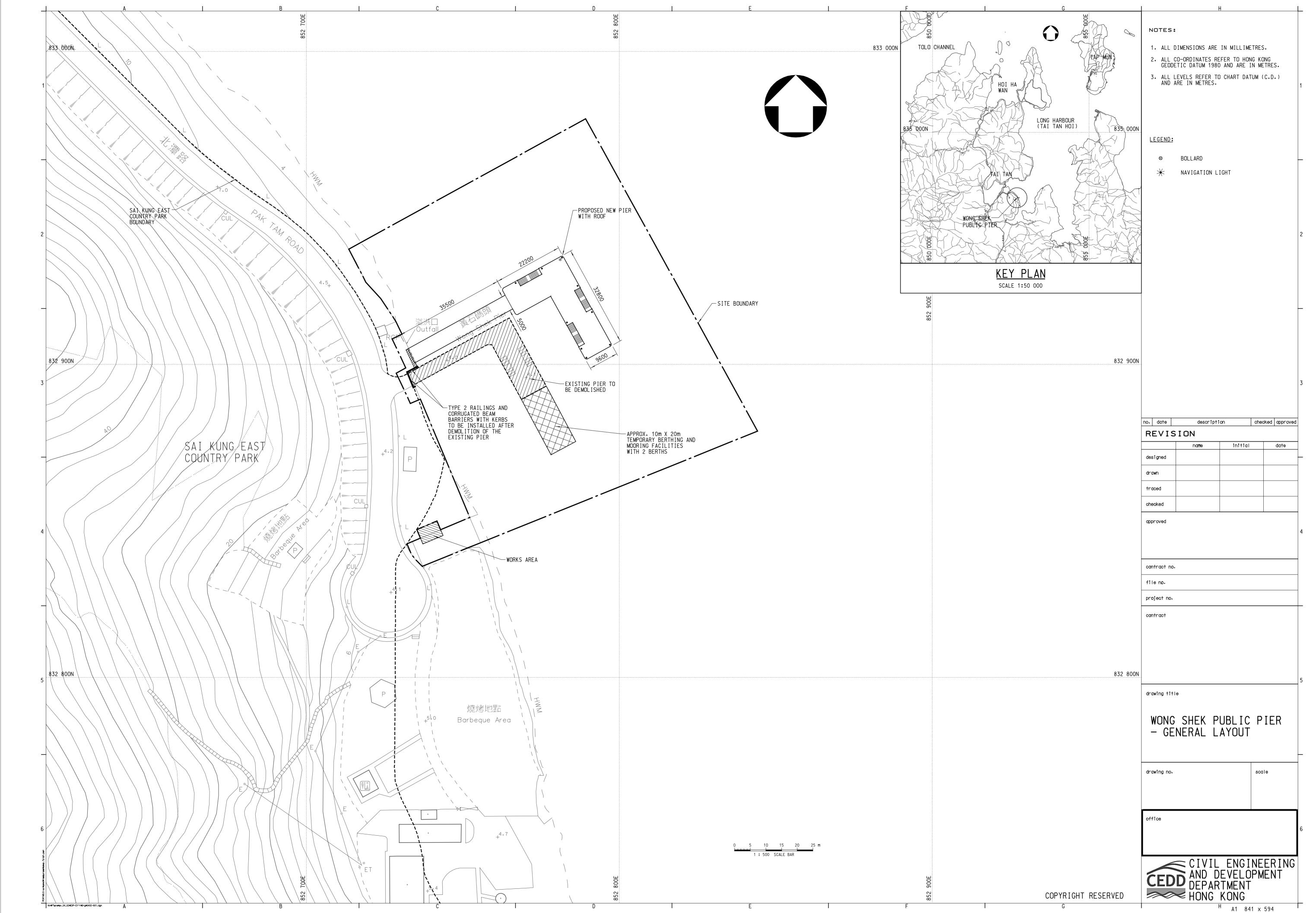
The EM&A programme was carried out in accordance with the EM&A Manual requirements, minor alterations to the programme proposed in the previous EM&A Report were made in response to changing circumstances.

No exceedance due to construction activities was reported in routine environmental monitoring. Such results indicate that the construction operation generally performed reasonably acceptable against environmental auditing criteria.

In summary, environmental mitigation measures are being satisfactorily implemented within the CV/2004/02 project along with the on-going construction activities.

Figure 2.1

Location Plan





Master Construction Programme

Contract No.: CV/2004/02 Reconstruction of Wong Shek and Ko Lan Wan Public Piers

Master Programme

Contractor: Kin Shing Construction Co. Ltd.

Commencement Date: 15th Nov 2004

Completion Date: 6th Aug 2006

Programme Date: 21st Feb 2005

Too Nac	Diction Start	Finn: Neuloosses	12 Mes 23 Dec 15 Sec 16 Sec 16 Sec 17 Sec 16 Sec 17 Sec 16 Sec 17 Sec 16 Sec 17 Sec
Commencement of the Works	I tlay Mon 04/11/1	15 Mon 64/11/25	1
Completion of Section 1 (Wong Shell Public Pier)	I day Sun 96/8/6	Sun 06/8/6	
Completion of Section 2 (Ko Lan Was Public Pier)	1 day Sun 96/8/6	Sun 06/8/6	
Preliminary		1	
Establishment of Englacer's Principal Sile Office	994 days Tue 04/11/1	6 Mou 67/8/6	S TO THE REPORT OF THE PROPERTY OF THE PROPERT
Submission and approval	21 days Tue 04/11/1	6 Mon 04/12/6	6 3718111119.
Provision	8 days Tue 04/12/7	7 Tue 64/[2/14 0	7 110
Servicing during construction period	600 days Wed 04/12/1	5 Sun 06/8/6 2	
Survicing during maintenance period	364 days Most 06/8/7	Sun 02/3/3	**************************************
Décomulissioning	I day Mos 07/8/6	Mon 107/8/5	
Secondary Office	582 days Maia 05/1/3	Mon 06/8/7	11 (V) DEMONSTRATING DATES OF THE PROPERTY OF
Sultimasida and approval	15 days Moa 05/1/3	Mon 03/1/17	13 [XXXXXX]
Provision	28 days Tuc 05/L/18	Mon 03/2/14 13.19	13 ACCOUNTING
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Decommissioning	1 day Most 06/8/7	Mon 06/8-7 H	(** (2.22.12.13.07.07.07.13.12.13.13.13.13.13.13.13.13.13.13.13.13.13.
Provision of Contractor's accommudation	602 days Man 04/12/1	3 Sun 96/8/6	se minimization and the control of t
Initial servey	20 days Wed 04/12/1	5 Man 05/1/3	17 005870-553
Erection of tourding and project signboard at Por. A	34 days - 31on 85/1/3	I 8at 65/3/5 17	18 121232222221717140
Exection of hearding and project signboard at For. B	13 days Mon 05/2/2	1 Sat 65/3/S ()	10 (174130)
Application and Installation of dectrical system	75 days (rrl 04/12/3)	Tine 05/3/15	20 PAREDALL GOLDEN OF ENGINEEN CONTRACTOR
Application and installation of water supply system	75 days Son 05/1/16	Thu 95/3/31	21 CORREMANDATION TO THE PROPERTY OF THE PROPE
Application and installation of Elephone firex	75 days . Sun 05/1/16	Thu 95/3/31	22 (1/1/25/100010000000000000000000000000000
Notification of parties in concern	31 days Wed 04/12/	Fri 04/12/31	23 (00.000(100)333)
Application for promulgation of Marine Department N for Wong Shek	lotics 71 days Fri 04/12/17	7 Fri (15/2/25	24 health and William Property and American American
Application for promulgation of Marine Department N Bir Ku Lin Wan	latice 65 days Fri 04/12/17	7 Snt 05/2/19	3 .uuzuunanananan -
Environmental Atomitoring	658 thrys Mon 04/11/1	5 Sun (lfi/9/3	26 ()
Submission and approval of US and IC (Pav)	44 days - Mon 04/11/1	5 Two 04/12/28	n managananya
Endotsement of EMACA prognoul	12 days Wed 0451 22	9 Sun 65/1/9 #7	28 819510)
Baseline water quality monitoring	26 days Mon 05/1/t0	5 fri 05/2/4 #s	29 (\$125,730,827,9423)
Preparation and approval of baseline report	21 days Sai GS/2/5	Fri 05/2/25 #V	30 (1700) (170)
I Impact monitoring	527 days Snt 05/2/26	Sinte (96/8/6 %	I CHEST STREET S
2 Post-construction municoring	28 days - Mon 06/8/7	Siui 06/9/3 9,00,20	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
Sertian I (Wong Shek Public Pier)		100740-00-00-00-00-00-00-00-00-00-00-00-00-0	
Temporary cover to existing pie:	121 days 61nn 04/11/1	5 Tec 05/3/15	M () Marian Man
Design and ICE elecking	66 days Men 04/11/1	5 Wed/05/(/]9	NSHAHARARARARARA
errante, rychology Nound Tak 23333333	HHH Eagest	Summery (V)	Creital Tak (Soc 1 & 75 SECCESSISSES Letter) Task (Soc 2)
de nerr from the control of the cont	Compression Milesons	Chargorian Milestone	Crisia Trik (Sec. 1)

Contract No.: CV/2004/02 Reconstruction of Wong Shek and Ko Lau Wan Public Piers

(232723)2232233 Pages

Commencement Milestone

Keen Tak

Part act No. (1992014012) Alcaler Proposition 2 Version 21

Master Programme

Contractor: Kin Shing Construction Co. Ltd.
Commencement Date: 15th Nov 2004
Completion Date: 6th Aug 2006
Programme Date: 21st Feb 2005

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Task None	Countries: Steel	Finish Palocesses	water with a factor of the control o
Submission for Engineer's comment	36 days 73w 05/1/20	Fri 05/2/18 35	16 2000000000
Fostion	20 days Sat 05/2/19	Thu \$5/3/10 34	27 (27,777.5)
Centilled by ICE and commissioning	5 days Pri 05/3/11	Tue 05/3/15 112	*&
Provision of temperary berth	192 days Man 04/11/1	5 Wed 05/5/25	3) (V) THE PROPERTY OF THE PRO
V Design and ICE checking of temporary berth	80 days Mun 04/11/1	S Wed 95/2/2	40 000000000000000000000000000000000000
Submission for Engineer's comment	41 days Thu 05/2/3	Tue 05/3/15 in	41 (500000001)
2 Piling	40 days Wod 05/3/14	S101 05/4/24 24,39,23,41,18	12 \$000000000000000000000000000000000000
Deck construction and installution of fenders	25 days -Mon 05/4/2	Thu 05/5/19 0	o unumn
i Relocation of navigation light by Marine Dept.	66 days Wod 05/371) Pri 05/5/20	H (V) DESCRIPTION AND ADDRESS OF THE PARTY O
Application to Maxine Department	65 days Wed 05/3/16	Thu 05/5/19	45 DELUNGOUS DESCRIPTION
Relocation works	L day Pri 05/5/20	Pri 05/5/20 13,45	44.7
Conditied by ICE, testing and contributioning of be	offi 5 days S≥ 05/5/21	Wed 05/5/25 16	の花
Cround Investigation	110 days Wed 04/12/2	9 Sun 05/4/17	** TENNARA PERENTANA PARAMETER PERENTANA PARAMETER PERENTANA PARAMETER PERENTANA PEREN
Submission for Engineer's comment	59 days Wed 04:12/2	9 Pri 05/2/25	40 [4] 4 (4)
Ground investigation works on site	20 days Sat 05/2/26	Thu 05/3/17 49,34.34	io Emiliano
Preparation and approval of reports	10 days - Fri 05/3/18	Sun 05/3/27 54	31 \$\)
Submission of reports and determine pile founding	g tevels 21 days Moii 05/3/2	8 Sun 95/4/17 31	52 ENTORON
(Filing for permanent pier	282 days Sut 05/1/1	Sum 05/10/9	53 (MANGANAN MANGAN MANGAN MANGAN MANGANAN MANGAN MANGAN MANGANAN MANGAN MANGAN MANGAN MANGAN MANGAN MANGAN MANGAN MANGAN MANGAN
Compilation of method statement for pring	33 days Sat 05/1/1	Wed 05/2/2	M FOREMERED;
Submission by Engineer's comment	112 days The 05/2/3	Wed 05/5/25 14	of diagrams, performance properties and performance of the performance
Vertical preliminary pile and testing	5 days Thu 05/5/20	Thu 05/6/9 17,82,88,327	
 Vertical usain piles using land plant (E1, H4, E2, 	H2) 30 days Toe 05/6/23	Wed 05:7/27	
 Vertical main piles (A11, B8, B11, C8, C11, D8, 	D11) 18 days Sun 05:5/19	Wisd 05/7/6 128	
Temporary platform for raising pile	21 days Thu 05/3/2	Wed 05/7/27 18	
Vertical main piles (remaining 14 uos.)	35 days This 05/7/7	Wed 05/8/10 14	
Rassing poolinning piles and testing (B10)	15 days Tini 05/7/2	Tini 05/8/11 55.39	
Ralang main piles (15 nos)	44 days Fri 05/8/12	Sat 05/9/24 %	
Pale teat for main piles	15 days Sun 05/9/2	5 Sun 95 /10/9 62	
Construction of pile cap and deck	212 days Fri 65/6/10	Sat 06/L/7	
Submission and approval of precast yord	61 days Fri OSaG IC	Tue 05/8/9	
Custing of preced units at precess yard	61 days Wed 05/8/1	0 Sun 05/10/9 65	
 Design and ICE checking of followork for pile of construction 	p and deck 62 days Sun 05/7/1	0 Fri 05/3/9	
Submission of calculation and method statement fragment's approval	Sur 30 days Sat 05/9/10) Sen 05/10/9 (0)	
Exection of talsework for installation of precast in	nits. 20 days Mon 05/10/	10 Sat 05/10:29 08,65	

Security

Completion Millionous

Page 2

(** BRANAMAN *** Children's Track (Sec. 1) (SEC. 25) (SEC. 25) (Cristical Track (Sec. 25)

Ortical Took (See 1) 22/12/22/22 Maintenance Percod

Contract No.: CV/2004/02 Reconstruction of Wong Shek and Ko Lau Wan Public Plers

Master Programme

Contractor: Kin Shing Construction Co. Ltd.
Commencement Date: 15th Nov 2004
Completion Date: 6th Aug 2006
Programme Date: 21st Feb 2005

Ti i	Task Venn.	Diction	3º m	Fines	Predecessors	W 1 W 2 W 2 W 3 W 3 W 3 W 3 W 4 W 5 W 6 W 6 W 6 W 7 W 6 W 7	lciw asways
:	Installation of precast must with ir-situ pile caps.	60 days	Mon 05/10/10	Thu 05/12/8	56,68,63	ACTIVITY OF THE PARTY OF THE PA	1
1	Cashing of in-aitu pier deck	30 days	Fri 05/112/9	Sut 06/1/7	76,78	1 1 1 1 1	
2	Construction of hollards	30 days	Fri 05/12/9	Sat 06/1/7	W		
18	Installation of corresion moultoning system	91 days	Sun 05/10/9	Sat 06/1/7	K-01-1		100
14	Approval of specialist contractor and method statement	61 days	Sun 05/10/9	The 05/12/8			
: 1	Installation of corresion monitoring system	30 days	Fri 05/12/9	Sal 06/177	70,74		
+	Roof cover system	272 days	Tue 05/8/9	Sun 06/5/7			
-	Approval of specialist contractor	61 days	Tue 05/8/9	Sat 05/10/8			3 .
¥	Submission of weekshop drawings for connection details with deck	61 days	See 05/10/9	Thu 05/12/8	t)		
	Material subminators	91 days	Sun. 05/10/9	Sat 06/1/7	73		iii .
er	Submission of workshop drawing for remaining roof system	91 days	Sun 05/10/9	Sat 06/1/7	. 10		Š.
1 1	Construction of steel works	60 days	Sun 06/1/8	Wed 06/3/8	71,80,79		1
3	Execution of roof covers	fill days	Thu 05/3/9	Sun 06/5/7	à1'-'		
1	Marrying-in to bandside	121 days	Wed 06/3/8	Thu 86/7/5			1
11	Application of Excavation Permit	90 days	Wed 06/3/8	Mon 06/6/5	1		
1	Site works	31 days	Tue 06/6/6	Thu 06/7/6	91,31		
-	Electrical system, CLP meter box and lighting system	220 daşs	Mon 05/19/10	Wed 06/5/17			1
ŅĒ.	Approval of specialist contractor	30 days	Mon 05/10/10	Toe 05/11/8	SEG IL CHES		
4	Liason with CLP and EMSD	60 days	Wed 05/11/9	Sat 06/1/7	87		š (s)
470	Installation	120 duys	Sun 06/1/2	Sun 06/5/7	77.8K	1	÷ 8
Ėŧ	Testing	10 days	Mon 06/5/8	Wed 96/5/17	39		
i i	Construction of floor finish	121 days	Wed 06/3/8	Thu 06/7/6			
9.	Material automissions	61 days	Wed 06/3/8	Sun 06/5/7			1
ij÷.	Site works	60 days	Mon 06/5/8	Thu 06/7/6	82.92		
**	Construction of hand ralling seating beaches and notice boards	150 days	Tue 06/2/7	Thu 66/7/6			
	Material submission	60 days	Tae: 06/2/7	Pri 06/4/7			1
G.	Construction	90 days	Sal 05/4/8	Tini 05/7/6	91.56		4 E
47	Installation of fender system	190 days	Thu 05/12/29	Thu 06/7/6			1
68.	Material submission	31 days	Thu 05/12/29	Sat 06/1/28	7		11
367	Ordering of meterial	59 days	Sun 06/1/29	Tue 06/3/28	99		
BC.	Sine works	LCG days	Wed 06/3/29	Thu 06/7/6	71,99		11
ju!	Relocation of navigation light by Marine Dept.	92 days	Fri 06/4/7	Pri 86/7/7			# 1
105	Application to Marine Department	91 daya	Fri 06447	Thu 06/7/6		H B B H	11 1

Count. No. 1, V2005000 Value Weighting (V2000) 21

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Completion Mileston

Cinical Trak (See 1)

Critical Task (Sec 1 A 2) 5500000000000 Critical Task (Sec 2)

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/013

Contract No.: CV/2004/02 Reconstruction of Wong Shek and Ko Lau Wan Public Piers

Master Programme

Contractor: Kin Shing Construction Co. Ltd.
Commencement Date: 15th Nov 2004
Completion Date: 6th Aug 2006
Programme Date: 21st Feb 2005

-	Task Man:	Distinu	Start	Pins'-	Palmaion	Marker M
	Relocation	l day	Fyi 06/7/7	Fri 06/7/7	(105,93,91,34,302,96	PST WST WST TWO TAST THE TANTEST TWEET WAS WESTERN WITH THE WITH THE WITH THE WASTERN STANT STANT STANT WAS IN THE WASTERN TO
	Commissioning of the pier	1 day	Sat 96/7/8	Sat 96/7/8	iny	
	Demodition of the temporary berth and the existing pier	151 days	Thu 06/3/9	Sun 06/8/6		
	Survey of existing almetores	31 days	Thu 06/3/9	Sac 06/4/8	T	
	Design and ICH checking of demolition plan	63 days	Sun 06/4/9	Thu 06/6/8	106	
	Submission for Engineer's comments	30 days	Fri 06/6/9	Sat 06/7/8	103	
	Obtain consent from Country and Marine Park Arthority	30 days	Fri 06/6/9	Sat 06/7/8	107	
	Domohinau	29 days	Sun 06/7/9	Sun 06/8/6	(84,109,168	
	Maintenance Period for the Works	365 days	Mea 06/8/7	Mon 07/8/6	110	
S	iection 2 (Ko Lun Wan Public Pier)		*********			
	Curul Survey	626 days	Mon 04/11/15	Wed 86/8/2		113 (A MANAGEMENT PROPERTY AND A STATE OF THE STATE OF TH
	Sale rission and approval of specialist and method statement	73 days	Mon Q4/11/15	Wed 05/1/26		D4 [RUMEVOORSKURTED D0113284418119]
	Initial coesi survey and approval by AFCD	18 days	Sun 05/2/20	Wed 05/3/9	111,25	estable an
	Corol translocation	व देशहरू	Thu 05/3/10	Sun 05/3/13	115	110 (2)
	Post regustocration survey	4 days	Mon 05/3/14	Thu 05/3/17	116	
	Post pice construction survey	15 days	Wed 06/7/19	Wed 06/8/2	397	
	Temporary cover to existing pier	123 days	Mon 04/11/15	Thu 05/3/17		119 (V MONTHANDESCRIPTIONS AND A LIGHT LABORATION OF THE PROPERTY OF THE PROPE
	Design and iCE checking	66 days	Mon 04/11/15	Wed 05/1/19		120 6/2/12/2/2/2/2/2/2/2/2/2/2/2/2/2/2/2/2/2
	Suberissian for Engineer's comment	30 days	Thu 05/1/20	Fci 05/2/18	126	121 \$21252111233
	Lirection	23 days	Sat 05/2/19	Sat 05/3/12	121	121 2507777777
	Certified by ICE and commissioning	5 days	Sun 05/3/13	Thu 05/3/17	122	129 (53)
	Proxision of temporary berth	247 days	Maa 64'11/15	Tue 05/7/19		124 (V) AMEMANAAAAAAAAAAA
	Design and ICTs electing of temporary berth	BO days	Mon 04/11/15	Wed 05/2/2		12 GERTERGEL Z-TERROROGOUNDHURBER.
	Sulumination for Engineer's commont	81 days	Tho 05/2/3	Sun 05/4/24	125	125 (1891) 1911 (1891) (
	Piling (pluse 1)	31 days	Mon 03:4/25	Wed 05/5/25	123.136,117,23,10.25,42	127 200953456632386
	Filing (Phase 2)	9 days	Fri 05.6/10	Sat 05/6/16		
	Deck construction and installation of fenders	25 daya	Sun 05/6/19	Wed 05/7/13	138	
	Relocation of ravigation light by Marine Dept.	81 days	Man Q\$/4/25	Thin 05/7/14		130 🐨
	Application to Maritie Department	Bil days	Mon 05/4/25	Wed 05/7/13		191 AND ASSESSMENT OF THE PROPERTY OF THE PROP
	Relocation works	1 day	Thu 05/7/14	Thu 05/7/14	139,331	
	Certified by ICE, texting and commissioning of benth	5 days	Fri 05/7/15	Tue 05/7/19	112	
	Demolition of part of the existing pier	115 days	Man 05/4/18	Wed 85/8/10		134 (V) DALLA I SAMI ESPI UTO VICE
	Survey of existing structures	31 days	Mon 05/4/18	Wed 05/5/18		177 (801)(6)(191)(191)
	Design and ICF cheeking of demolition plus	32 days	The 95/5/19	San 05/6/19	100	pe finn

Cart Control (Section 180) State Congramme (Version 1)

Normal Task

DESCRIPTION PAGE

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Critical Task (Sec. 1) 272217227722 Ministrance Recoil

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Page 4

/013

Contract No.: CV/2004/02 Reconstruction of Wong Shek and Ko Lan Wan Public Piers

Master Programme

Contractor: Kin Shing Construction Co. Ltd.
Commencement Date: 15th Nov 2004
Completion Date: 6th Aug 2006
Programme Date: 21st Feb 2005

	Tast Have	Direction	Stat	Finish	Andressan	Wiled wil wil wil wil wil wil wil wil wiles with minimal wiles with with wiles with with wiles with with wiles with with wiles with with wiles with with with with with with with with
	Submission for Engineer's comments	30 days	Mout 05/6/20	Tue 0.5/7/19	136	
1	Ciarison with local residents	30 days	Moit 05/6/240	Ting (15/7/19	135	
	Demoligions	22 days	Wed 05/7/20	Wed 05/8/10	**************************************	
6	Grand investigation	129 dаув	West 04/12/29	Frt 05/5/6	GF ST SQLEEN STREET	1-10 V MODESTANGEMAAAAGAAM MARKET BEFORE MODESCHAAAAAAAAA V
£2	Submission for Engineer's comment	68 days	Wed 04/12/29	Sun 05/3/6		in international desiration
ż	Circuid investigation works on sile	20 days	Fri 05/3/18	Wed 05/4/6	141,26,117	142 (1888) 1889)
¥.	Preparation and approval of reports	(Ø days	Thu 05/4/7	Sut 05:4/16	HG	1.43 182223
	Submission of reports to determine pile founding levels	20 days	Sun 05/4/17	Pri 05/5/6	Н3	IN TELESCOST
0	PBling for permanent pier	342 days	Sat 05/1/1	The 05/12/8	ATTION (1988)	145 X MARINER POR SANTANA AND THE PROPERTY OF
B-	Compilation of method statement for piling	33 days.	Sat 05/1/1	Wed 05/2/2	Walker Hills Control	не (23220130341000)
œ	Submission for Engineer's commont	189 days	71m 05/2/3	Wed 05/8/10	146	144 (CANADADADADADADADADADADADADADADADADADADA
ús.	Vertical preliminary pite and testing	15 days	Thu 05/8/11	Thu 05/8/25	147,139,65,144	
pt	Vertical main piles (EL,E4,D1,D4,C1,C4)	20 days	Fri 05/8/26	Wed 05/9/14	(43)	
ů.	Temporary platform for roking pile	21 days	The 05/9/15	Wed 05/10/5	(19	
1	Vertical mais pile (remaining 15 nos)	45 days	Thu 05/9/15	Set 05/10/29	18	
Ų.	Raking preliminary piles and losting	Ł6 duys	The 05/10/6	Pyi 05/10/21	190,62	
4 1	Raking main piles (remaining 9 nos)	33 days	Sat 05/10/22	Wed 05/11/23	, 162	
91	Pile tests for main piles	15 days	Thu 05/11/24	Thu 05/12/8	151,135	
5.6	Construction of pile cap and deck	201 days	Wed 05/8/10	Sun 06/2/26		
4	Subtrassion and approval of precist yard	60 days	Wed 05/8/10	Sat 05/10/8	100107	
55	Custing of precest units at precest yard	60 days	Mon 05/10/10	Thu 05/12/8	186	
4	Design and ICE checking of falsework for pile cap and deck	60 days	Sat 05/9/10	Tue 05/11/8	1	
5.1	construction Submissort of calculation and anothed statement for	30 days	Wed 05/11/9	Thu 05/12/8	188	
p)n	Engineer's approval Frection of firls work for installation of precast units	20 days	Ri 05:12/9	Wed 05/12/28	8 159,884	
-1	linstallation of precast units with moditupile caps	55 days	Fri 05/12/9	Wcd 06/2/1	157,054	
F.	Casting of media pier dock	25 days	Thu 06/2/2	Sun 06/2/26	161,144	
13	Construction of hollands	25 days	Thu 06/2/2	Sun 06/2/26	761	
M	Installation of corresion monitoring system	85 tlays	Sun 05/12/4	Sam. 06/2/26	Acception	
MS.	Approval of specialist contractor and method shalement	60 dnys	Sun 05/12/4	Wed 06/2/L	Allerday 1214	
14.	Justal ztion of concessor monitoring system	25 days	Thu 06/2/2	Sun 06/2/26	141/163	
100	Construction of villa	110 days	Pri 86/2/17	Tue 16/6/6	<i>j</i> anienienienienienienienienienienienienien	
the l	Concrete structure	50 days	Mon 06/2/27	Mon 06/4/17	162	
Pie	Генния	110 days	Fri 06/2/17	Tue 06/6/6		
130	Material submission	60 days	Fri. 06/2/17	Man 06/4/17		
	Construction	50 days	Tue 06/4/18	Tue 06/6/6	(58,376	484 N 200 N

Contract No.: CV/2004/02 Reconstruction of Wong Shek and Ko Lau Wan Public Piers

Master Programme

Contractor: Kin Shing Construction Co. Ltd.

Commencement Date: 15th Nov 2004

Completion Date: 6th Aug 2006

Programme Date: 21st Feb 2005

Tart Hone:	Durtou	Stan	Finish	Preile; essors	19 Nov
Construction of walking cover 1 & 2	245 days	Wed 05/10/5	Tue 06/6/6		THE PROPERTY OF THE PROPERTY O
Approval of specialist contractor	60 days	Wed 05/10/5	Sat 05/12/3		
Summission of workshop drawings for connection details with the k	60 days	Sun 05/12/4	Wed 06/2/1	in	
Material submissions	85 days	Sun 05/12/4	Sun 06/2/26	171	
Submission of workshop drawing for remnining roof system	85 days	Sun 05/12/4	Sun 06/2/26	173	
Construction of sicel works	50 days	Moii 06/2/27	Mon 06/4/17	274,162,175	
Prection of roof covers	50 days	Tue 06/4/18	Tue 06/6/6	177	
Electrical system, CLP meter box and lighting system	200 clays	Tue 05/11/29	Frt 06/6/16		
Approval of specialist contractor	30 days	The 05/11/29	Wed 05/12/28		
Linison with CLP and EMSD	60 days	The 05/12/29	San 06/2/26	100	
Jestaflation	100 days	Мон 06/2/27	Tue 06/6/6	(62,181	
Testing	10 days	Wed 06/6/7	Fri 06/6/16	182	
Construction of floor finish	130 days	Thu 06/3/9	Sun #6/7/16		
Material submissions	90 days	Thu 06/3/9	Tac 06-6/6	1	
Site sourks	40 days	Wed 06/6/7	Sun 06/7/16	L24_105,171	
Construction of hand railing, senting benches and notice boards	150 days	141 06/2/LT	Sun 86/7/16		
Material submission	60 days	Firi 06/2/17	Mon 06/4/17		
Censucation	90 days	Tue 06/4/16	Son 06/7/16	185	
Installation of feuder system	190 days	Sun 06/1/8	Sun 66/7/16		
Material submission	31 days	Sun 06/1/R	Tue 06/2/7	Personal or or	
Ordering of moterial	59 days	Wed 06/2/8	171 06/4/7	19[
Site works	10/1 days	Sat 06/4/8	Sun 06/7/16	192	
Relocation of navigation light by Marine Dept.	92 days	Mon 06/4/17	Mon 06/7/17		
Application to Marine Department	9t days	Mon 06/4/17	Sunt 06/7/16		
Relocation	1 day	Mon 06/7/17	Mon 06/7/17	150,192,195,386,169	
Commissioning of the pier	1 day	Tue 06/7/18	Tue 66/7/18	156	
Demoiltion of the temporary berth and the existing pier	141 days	Sun 06/3/19	Sun 06/8/6		
Survey to existing structure	3t days	Son 06/3/19	The 06/4/18		
Design and ICE checking of demolition plan	61 days	Wed 064/19	Son 06/6/18	195	
Suburission for Engineer's comments	30 days	Men 06/6/19	Tite 06/7/18	2010	
Liaiaon with local residents	30 days	Mon 06/6/19	Tue 06/7/18	560	
Demolition	19 days	Wed 06/7/19	Shor 05/8/6	197,340,201	
Maintenance Period for the Works	365 days	Mon 06/8/7	Mon #7/8/6	203	

Chimago New Programmes (Mession 2)

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Page 6

Contractor: Kin Shing Construction Co. Ltd. Contract No.: CV/2004/02 Master Programme Commencement Date: 15th Nov 2004 Reconstruction of Wong Shek and Completion Date: 6th Aug 2006 Ko Lau Wan Public Piers Programme Date: 21st Feb 2005 Section (1997) 1997 (1997) 199 o interesserate establishment de la contraction TO SECURISE SECURITION OF THE PRODUCTION OF THE PRODUCT OF THE PRO 32 CHRITICHES Chical Tata (See 1 & 2) 100000000000000 Critical Task (See 2) CHETTETTO PROPERTY PARKS Summary

Completion Milestone

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Commercement Miloston:

autori Na CV 2050-02 Place Department Version 24

Contractor: Kin Shing Construction Co. Ltd. Commencement Date: 15th Nov 2004 Master Programme Centract No.: CV/2004/02 Reconstruction of Wong Shek and Completion Date: 6th Aug 2006 Ko Lau Wan Public Piers Programme Date: 21st Feb 2005 THE SAME AS A SAME WERE AREA THE ROOM WOMEN AND ARRANG AND ANALYSIS WHICH AND AREA TO A SAME A S 57 (\$247) 549 (1417) a Carrentenine to CHILLETTO CONTO Y XE-FEERSELESKAANGAUVENENNUENNUENNUEN SSR OF STREET, * ETHINETHER HELLER HITCHER #2663 es Millimitin Critical Task (Sire) & 2) B000000000000 Critical Task (Sire 2) STATE STATE GREETHER PROPERTY Summery Namel Took

Completion Molestone

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Children Task (Sec 1)

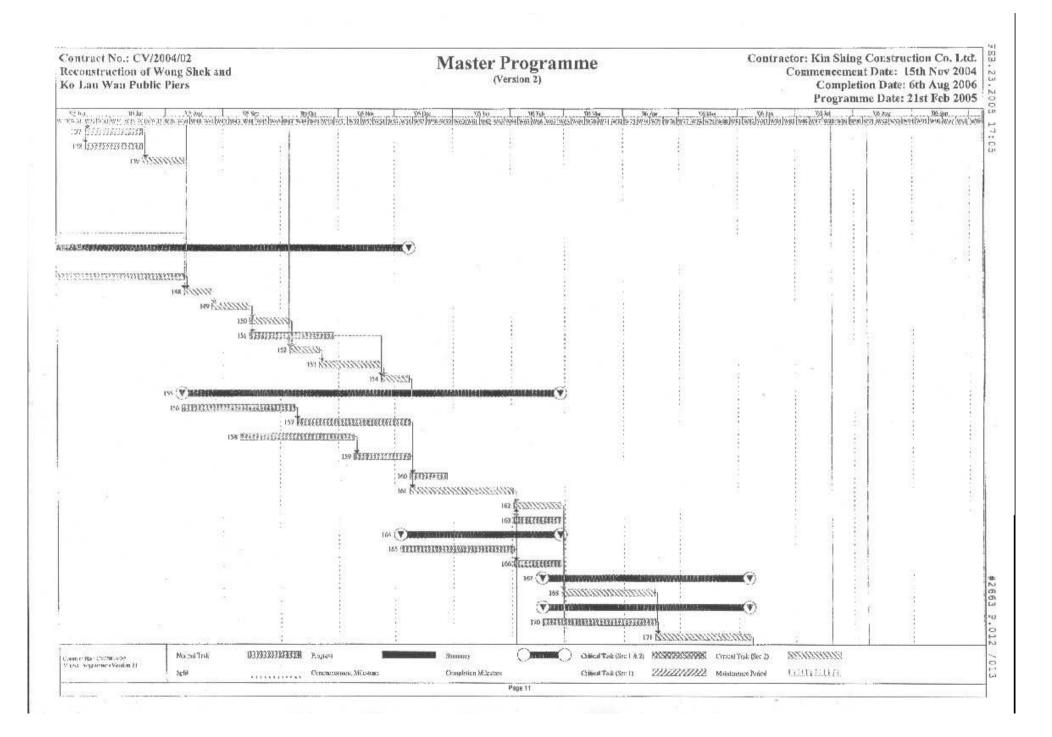
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Christin Nac CV2904M2 Mester Programmy (Victor) 25

Сонтаностан Индехона

Contractor: Kin Shing Construction Co. Ltd. Contract No.: CV/2004/02 Master Programme Commencement Date: 15th Nov 2004 Reconstruction of Wong Shek and (Version 2) Completion Date: 6th Aug 2006 Ko Lau Wan Public Piers Programme Date: 21st Feb 2005 To Company the property of the contract of the 72 THE STREET OVERABBORE Y eltektisterferentettististen 75 ETRORYSBURYSBURYS TO UNDERSTREET PROPERTY OF THE PROPERTY OF THE PARTY OF T is decreases and account and alternation a TODINORUT KINDONINIA ss Therepresently PRESENTATION OF 88 Personapparisententententententen no Crigoriom con considerante de la constantión dos dos constantes de la constantión or attendentellengengereterreteren OS (TA PERFERENCES EN LA PROPERTIE DE LA PROPE 98 FEFFERMANNIA S CHIMALIPLE STREET, S 102 TELLEGISTES STATES QBlog Two (Ser 1 & 2) 8229256825968 Croint Tolk (Ser 2) TETHETTE [5325322322323] Frigate Nerval link Centure, No. 425 (CHAO) DHILL CHANG VZZZZZZZZZA Maintennice Repol. Combittion Milliances Commencer and Miledone

Contractor: Kin Shing Construction Co. Ltd. Commencement Date: 15th Nov 2004 Contract No.: CV/2004/02 Master Programme Reconstruction of Wong Shek and Completion Date: 6th Aug 2006 Ko Lau Wan Public Plers Programme Date: 21st Feb 2005 105 (FEFETTOLITEER) 10) TREETERNALISMENTER STREET TREETS TO 10) ico francisco in the case are managed TIR [25225823] TO CHEST CHEST CONTRACT Y 28 282 119 - 52575 5575 V MERSHAMENANA V .wathathani #2663 \$250 COOKERSON CHESTON SHARES 'n. 112702 No.mal Task (BILLIANIA) Progress STEEDERS ! Sumper Construction Sec. (19 2004-02) Moster Programmy - Version 25 Сомпаседан Мібаков VIII VIII Minimum Period Completion Militatens Crisk# Took (Sec. 9) ELECTIVE III. Page 10



Contract No.: CV/2004/02 Reconstruction of Wong Shek and Ko Lau Wan Public Piers

Master Programme

Contractor: Kin Shing Construction Co. Ltd. | 122 Commencement Date: 15th Nov 2004

Completion Date: 6th Aug 2006

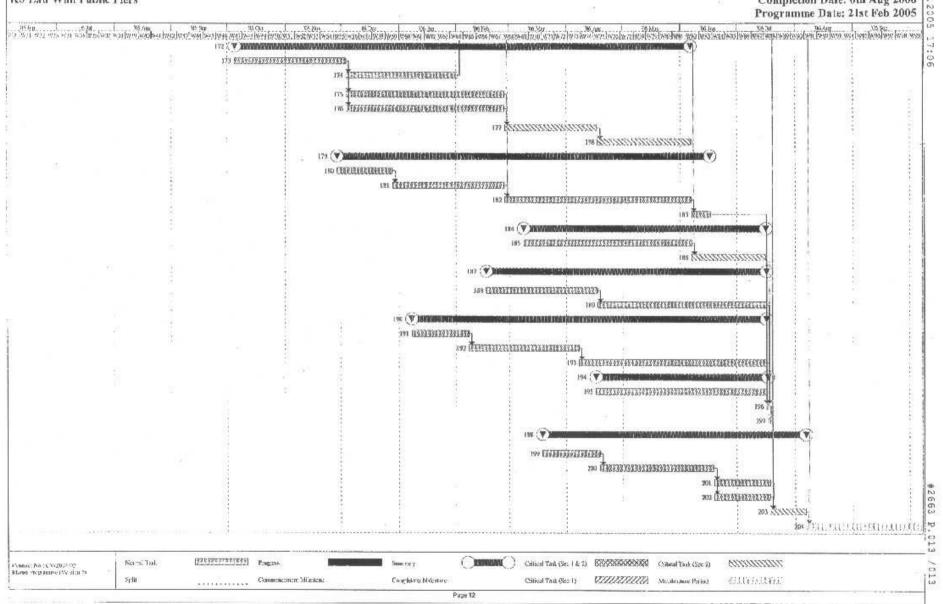
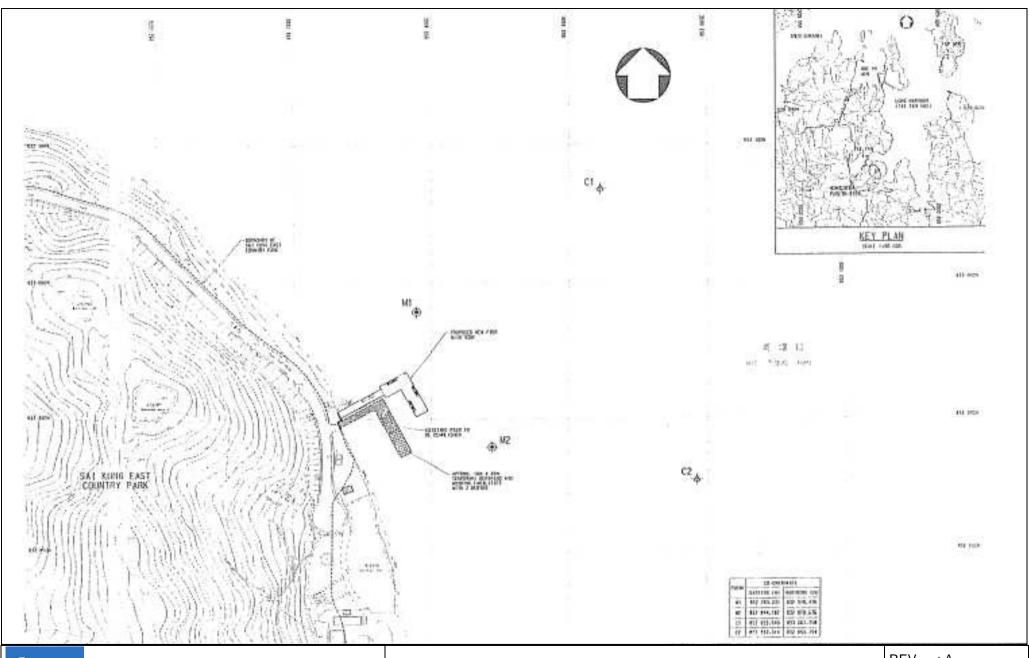




Figure 4.1

Layout of Environmental Monitoring Stations



Lam Environmental Services
Test Specialists and Environmental Analysts

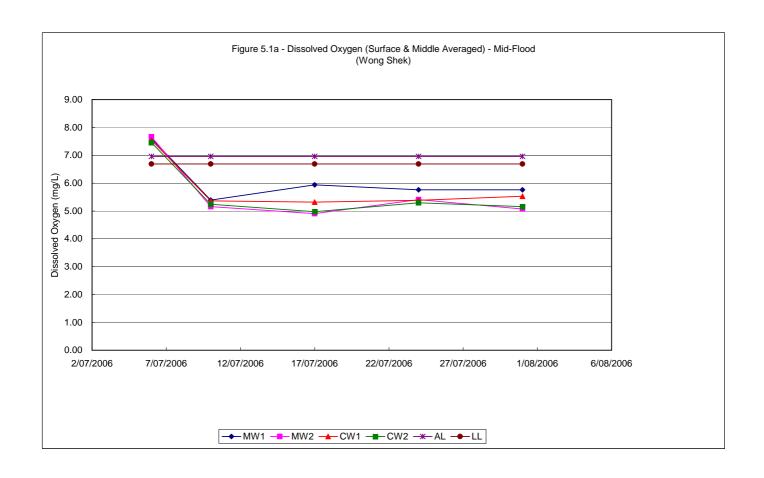
FIGURE 4.1 LAYOUT OF ENVIRONMENTAL MONITORING STATIONS (WONG SHEK)

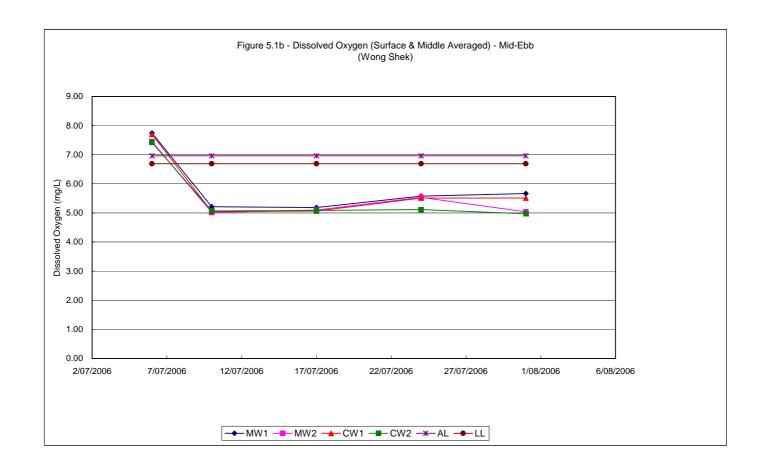
REV. : A DATE : 30 JUL 05 SCALE : N.T.S.

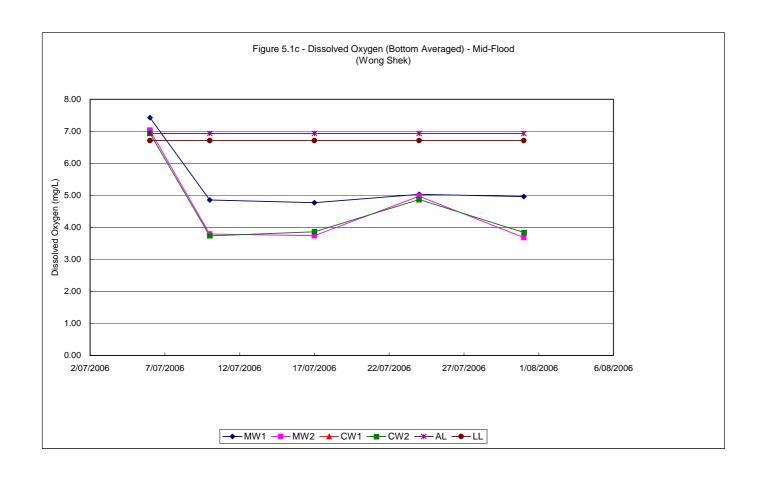


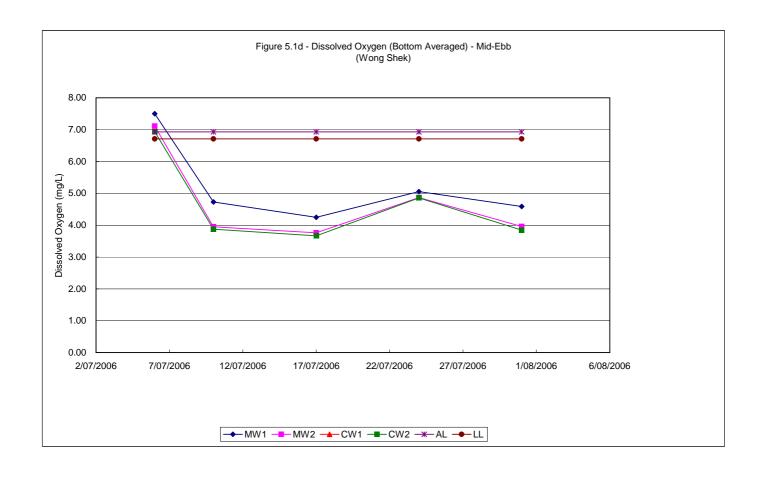
Figure 5.1a-h

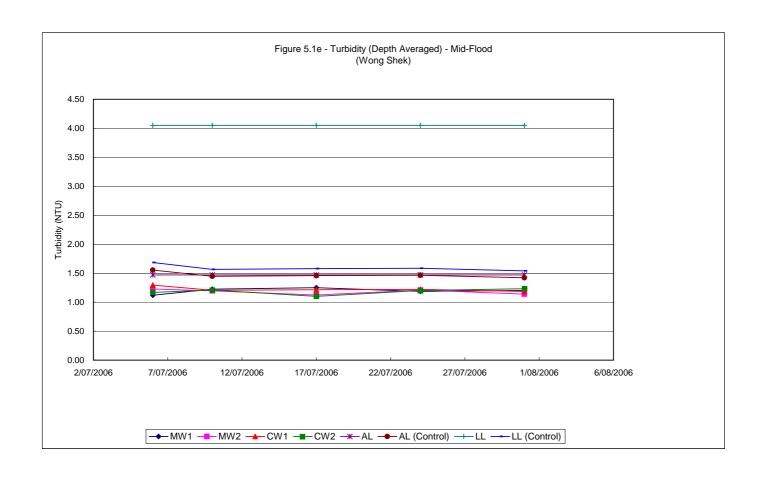
Graphical Plots of Water Quality Monitoring Results

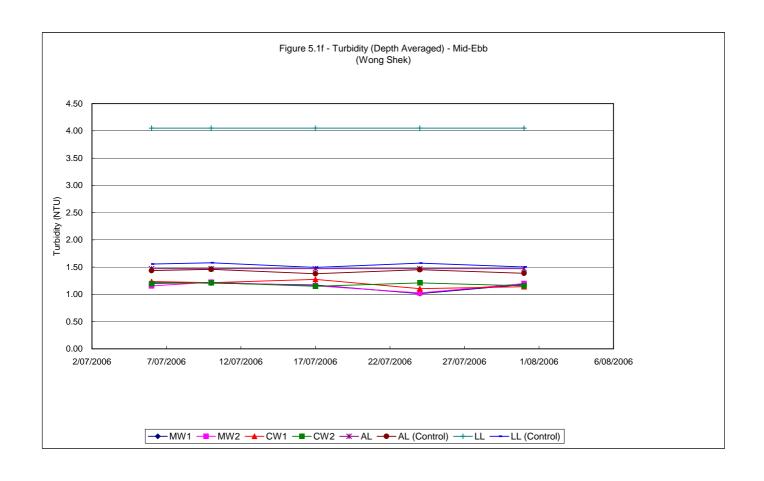


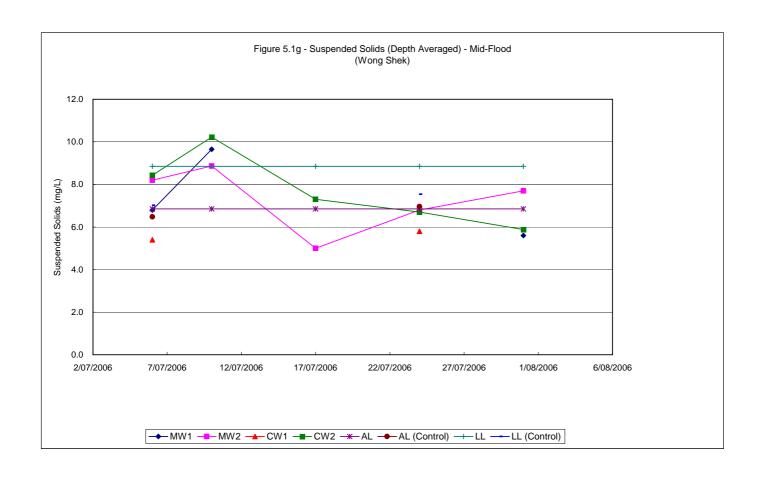


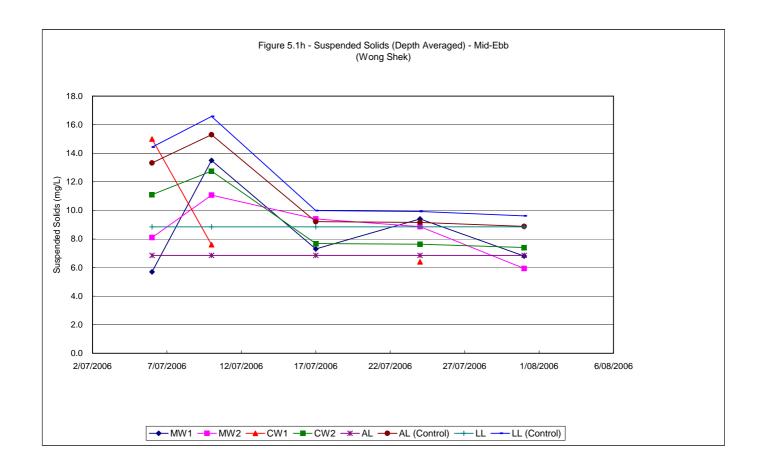












Appendix A

Organization Chart



Project Proponent

Civil Engineering and Development Civil Engineering Office Mr. David C. S. Leung

(Tel: 2760 5737; Fax: 2714 2054; Mobile: 96301235)

Environmental Team

Lam Environmental Services Mr. Raymond Dai Senior Environmental Scientist (Tel: 2975 3300; Fax: 2897 5509; Mobile: 9738 0738)

Independent Environmental Checker

MateriaLab Consultants Limited
Mr. Jason T. L. Poon
Manager

(Tel: 2452 7140; Fax: 2450 6138; Mobile: 9450 1968)

Main Contractor

Kin Shing Construction Co. Ltd.
Mr. Simon Fok
Site Agent

(Tel: 27296779; Fax: 2729 7858; Mobile: 60108730)

Appendix B

Implementation Schedule of Mitigation Measures

Implementation Schedule of Mitigation Measures - Wong Shek

Environmental Aspect	No.	Mitigation Measures	Implementation Status	Follow Up action(s)
Air Quality	AQ01	Provide a wash-pit or a wheel washing and/or vehicle cleaning facility at the exits.	Not applicable at this stage	-
	AQ02	Provide a hard surfaced road between the wheel washing facilities and any finished road.	Not applicable at this stage	-
	AQ03	No burning of construction wastes or vegetation shall be allowed on the Site.	Implemented	-
	AQ04	In the process of material handling, any material which has the potential to create dust shall be treated with water or sprayed with wetting agent.	Not applicable at this stage	-
	AQ05	Any vehicle with an open load carrying area used for moving materials which has the potential to create dust shall have properly fitting side and tail boards.	Not applicable at this stage	-
	AQ06	Materials having the potential to create dust shall not be loaded to a level higher than the side and tail boards, and shall be covered by a clean tarpaulin.	Implemented	-
	AQ07	Stockpiles of sand, aggregate and construction and demolition material greater than 20m³ shall be enclosed on three sides, with walls extending above the pile and 2 meters beyond the front of the pile.	Not applicable at this stage	-
	AQ08	Water sprays shall be provided and used both to dampen stored materials and when receiving raw materials.	Not applicable at this stage	-
	AQ09	Clean and water the Site to minimize the fugitive dust emissions.	Implemented	-
	AQ10	Furnace, boiler or other plant or equipment or use any fuel that might in any circumstances produce smoke or any other air pollution should not be installed.	Implemented	-
Noise	N01	All plant and equipment to be used on Site are properly maintained in good operating condition and noisy construction activities shall be effectively sound-reduced by means of silencers, mufflers, acoustic linings or shields, acoustic sheds or screens or other means to avoid disturbance to any nearby noise sensitive receivers.	Implemented	-
	N02	No excavator mounted breaker shall be used within 125m from any nearby noise sensitive receivers. Use hydraulic concrete crusher whenever applicable.	Implemented	-
	N03	All construction works should stop on Sundays and General Holidays.	Implemented	-
Water Quality	WQ01	Water in wheel washing facilities shall be changed at frequent intervals and sediments shall be removed regularly.	Not applicable	-
	WQ02	The polluted water from the wheel washing facilities would not be discharged into all existing stream courses/drains and nearby waterbodies.	Not applicable	-
	WQ03	All existing stream courses and drains within, and adjacent to the Site should be kept free from any debris and any excavated materials arising from the Works	Implemented	-
	WQ04	Chemicals and concrete agitator washings should not be deposited in watercourses.	Implemented	-
	WQ05	The effluent shall comply with the standards stated in the "Technical Memorandum on Standards and Effluent discharges into Drainage and Sewerage Systems, Inland and Coastal Waters" for the appropriate Water Control Zone.	Implemented	-
	WQ06	No spoil or debris of any kind is allowed to be pushed, washed down, fall or be deposited on land or on the seabed adjacent to the Site.	Implemented	-
	WQ07	Maintain any existing site drainage system at all times including removal of solids in sand traps, manholes and stream beds.	Implemented	-
	WQ08	Material from any earthworks should not be washed into the drainage system.	Implemented	-
	WQ09	Silt curtain shall be provided during all demolition works and piling works with the Site.	Implemented	-

CEDD Contract No.: CV/2004/02 Reconstruction of Wong Shek and Ko Lau Wan Public Piers

Implementation Schedule of Mitigation Measures - Wong Shek

Environmental Aspect	No.	Mitigation Measures	Implementation Status	Follow Up action(s)
	WQ10	Silt curtain shall be formed from tough, abrasion-resistant permeable membranes suitable for the purpose, supported on floating booms in such a way as to ensure that the passage of turbid water to the surrounding water shall be restricted.	Implemented	-
	WQ11	No dredging and spoil dumping shall be conducted.	Not applicable at this stage	-
Ecology	E01	Marker buoys shall be set up to indicate the location of the "Coral Exclusion Zone". All working vessels shall be restricted to encroach the "Coral Exclusion Zone"	Implemented	-
	E02	No overloading of the working barges during operation and no movement of the working barges, particularly close to the pier and shallow areas, during low tide should be allowed.	Not applicable at this stage	-
	E03	No coral shall be enclosed by the silt curtain.	Not applicable at this stage	-
Waste	W01	All excavated materials should be sorted to recover the inert portions for reuse on site or disposal to designated outlets.	Not applicable at this stage	-
	W02	All metals should be recovered on site for collection by recycling contractors.	Implemented	-
	W03	All cardboard and paper packaging should be recovered on site, properly stockpiled in dry condition and covered to prevent cross contamination by other C&D materials.	Implemented	-
	W04	All demolition debris from demolition works should be sorted to recover on site broken concrete, reinforcement bars, mechanical and electrical fittings as well as other building services fittings/materials that have established recycling outlets.	Implemented	-

Appendix C

Calibration Certificates for Monitoring Equipment

Record sheet for calibration of Water Sonde

Item Stock No:Date of Calibration:D Procedure Used: IC 34
Temp.: V Operator: Darak Signature:
A Temperature Check
Reference Equipment Used: Mercury-in-Glass thermometer Stock No.: C51
Reference Equipment reading: 28.7 °C Sonde reading 28.26 °C
Reference Equipment reading: 28.7 °C Sonde reading 28.26 °C Reference Equipment reading: 28.4 °C Sonde reading: 28.27 °C
(Note: Difference between the two readings to be <0.5°C.)
B DO (% Saturation) Calibration
To be performed in aerated clean sea water before use and checked after use. Difference should be less than 10%.
Laboratory Check
Zero DO check (prepared in clean sea water according to APHA 4500-O G, section 3a.)
probe reading %
C Conductivity (Salinity Calibration)
Standards Used: 25 ppt ,,
Check Standard: 3 / ppt Readout Value: 3 / 9 7 ppt
Difference between readout value and actual value should be less than 3%.
D <u>Conductivity Calibration</u>
Standards Used:,, (mS/cm)
Check Standard: Readout Value:(mS/cm)
Difference between readout value and actual value should be less than 2%.

E <u>Turbidity Calibration</u>		
Standards Used:,,	, , , , , , , , , , , , , , , , , , , ,	(NTU)
Check Standard:	Readout Value :	(NTU)
Difference between readout valu	ue and actual value should b	be less than 10%.
F pH check		
Standard Used : pH	, pH/ ²	·
Buffer standard : pH 9.00	_	
QC Check Standard: pH 9.182	. Readout Value : pH _	9.17
Certified by: Section Manager		April it



1412 Honour Ind. Centre 6 Sun Yip St. Chal Wan Hong Kong

CERTIFICATE OF CALIBRATION IN - HOUSE

Date Of Issue: 9-2-06

Serial No : IC 42a / / EL 47 |

Item Being Calibrated : <u>Turbidity Standards (Gelex)</u>	Date Of Calibration:	9-2-06
Item Stock No: EL 47	Operator :	K.F. Wang
Environment Temp. °C :	Procedure No Used:	IC 42 (Version 3)
Primary Standards user 20, 100 and 800 NTU Formazin	standards prepared fresh.	
Ref. Equip.used/ Stock No:		

Gelex Standards	Last assigned value Date: (NTU)	New measured value (NTU)	Agreement %	Requirement %
0 - 10 NTU	4.8	4.78	0.42	± 5
10 - 100 NTU	45.0	45.2	0.44	± 5
100 - 1000 NTU	482	477	1.04	± 5

Comments:

The equipment and Gelex Standards complies / does not comply with the Manufacturer's recommendation.

Innut data checked by :

Certified by Section Manager



1412 Honour Ind. Centre 6 Sun Yip St. Chai Wan Hong Kong

CERTIFICATE OF CALIBRATION IN-HOUSE

Date Of Issue: 9-2-06

Serial No: IC 42b / /EL47 \

Item Being Calibrated : Turbidity Standards (Gelex)	Date Of Calibration:	9-2-06
Item Stock No : <u>EL 4</u> 子	Operator:	K.F. Wong
Environment Temp. °C : 24.()	Procedure No Used:	IC 42 (Version 3)
Primary Standards user 20, 100 and 800 NTU Formazin sta	andards prepared fresh.	
Ref. Equip.used/ Stock No:		
医食性 化硫酸 医乳腺	* * * * * * * * * * *	• * * * * * * * * * * * * * * * * * * *

Gelex Standards	Turbidity of standard solution úsed (NTU)	Measured Value (NTU)	R ²	Requirement R ²
	1	1.50		
0 - 10 NTU	5	5.45	D. 8992.	> 0.996
	10	10-9		
	20	20.8		
10 - 100 NTU	50	53.2	0.9975	> 0.996
	80	<i>\$</i> 0.4		
	· 100	102		
100 - 1000 NTU	400	. 391.	0.8887	> 0.996
	800	801		

Comments:

The equipment and Gelex Standards complies / does not comply with the Menufacturer's recommendation.

nput data checked by : MM MOM NO

Certified by. I I'll I'll

Appendix D

Water Quality Monitoring Results

Project: Contract No. CV/2004/02 Reconstruction of Wong Shek and Ko Lau Wan Public Piers Client: Kin Shing Construction Co., Ltd. Job No.: J429

Date of Sampling: 6/7/2006 Weather Condition: sunny Ambient Temperature, °C: 31 Tide State: Mid-Flood

Station	Time	Sea	Overall	Sampling	Tempera	ature °C	Dissolve	d Oyvae	n ma/l	Dissolve	ed Oxyge	n %	Salinity,	nnt	Turbidity	NTII		Suspend	ded Solid	ls ma/l	Remarks
Ctation			Depth, m		а	b	а	b	Average	а		Average	а	ь	а	b	Average	Ouspend		Depth Average	remano
MW1 S	9:20			1	26.0	26.0	7.60	7.60	7.60	126.3	126.3	126.3	31.3	31.3	1.12	1.19		<5			
MW1 M	9:23	small wave	4						7.00			120.3					1.12			6.8	
MW1 B	9:26			3	25.7	25.7	7.43	7.42	7.43	123.7	123.8	123.8	31.6	31.6	1.11	1.06		6.8			
MW2 S	9:00			1	26.1	25.9	7.82	7.80	7.67	128.5	128.2	126.2	31.2	31.2	1.38	1.25		7.8			
MW2 M	9:03	small wave	11	5.5	25.5	25.5	7.53	7.51	7.07	124.0	124.1	120.2	31.7	31.7	1.17	1.10	1.23	<5		8.2	
MW2 B	9:06			10	25.2	25.2	7.03	7.04	7.04	119.4	119.4	119.4	32.1	32.1	1.24	1.22		8.6			
CW1 S	9:30								7.55			125.8									
CW1 M	9:33	small wave	3	1.5	25.8	25.8	7.55	7.54	7.55	125.7	125.8	125.6	31.4	31.4	1.30	1.29	1.30	5.4		5.4	
CW1 B	9:36								#DIV/0!			#DIV/0!									
CW2 S	9:10			1	26.3	26.3	7.60	7.62	7.46	126.8	126.9	124.7	31.2	31.2	1.19	1.31		<5	6.5		
CW2 M	9:13	small wave	12	6	25.6	25.6	7.31	7.31	7.46	122.7	122.5	124.7	31.6	31.6	1.12	1.10	1.17	13	<5	8.4	
CW2 B	9:16			11	25.1	25.1	6.93	6.94	6.94	118.7	118.7	118.7	32.1	32.0	1.24	1.05		5.8	<5		

EM 6167 100 100%: Equipment used: Dissolved Oxygen Meter: Calibration Check: Sampled By: Cheng Yi EM 10.6 NTU Turbidity Meter: 2365 Calibration Check: Checked By: Raymond Dai Salinity Meter: EM 6167 35.3 ppt 13/7/2006 Calibration Check: Date: Thermometer: EM 6167

Project: Contract No. CV/2004/02 Reconstruction of Wong Shek and Ko Lau Wan Public Piers Client: Kin Shing Construction Co., Ltd. Job No.: 1429

 Date of Sampling:
 6/7/2006
 Weather Condition: sunny
 Ambient Temperature, °C:
 31
 Tide State: Mid-Ebb

Station	Time	Sea	Overall	Sampling	Tempera	ature, °C	Dissolve	d Oxyge	n, mg/L	Dissolve	ed Oxyge	n, %	Salinity,	ppt	Turbidity	, NTU		Suspend	ded Solid	ls, mg/L	Remarks
		Condition	Depth, m	Depth,m	а	b	а	b	Average	а	b	Average	а	b	а	b	Average			Depth Average	
MW1 S	15:40			1	25.9	25.9	7.74	7.75	7.75	127.80	127.8	127.8	31.3	31.3	1.18	1.15		<5			
MW1 M	15:43	small wave	4						7.75			127.0					1.21			5.7	
MW1 B	15:46			3	25.7	25.7	7.50	7.50	7.50	124.20	124.2	124.2	31.5	31.6	1.24	1.28		5.7			
MW2 S	15:20			1	26.2	26.2	7.58	7.62	7.45	125.30	125.4	123.8	31.2	31.2	1.26	1.13		7.7			
MW2 M	15:23	small wave	9	4.5	25.7	25.7	7.31	7.30	7.45	122.20	122.1	123.6	31.5	31.5	1.05	1.18	1.16	8.3		8.1	
MW2 B	15:26			8	25.2	25.2	7.12	7.10	7.11	120.30	120.4	120.4	31.8	31.8	1.09	1.22		8.3			
CW1 S	15:50								7.71			127.4									
CW1 M	15:53	small wave	3	1.5	25.9	25.8	7.71	7.70	7.71	127.3	127.4	127.4	31.3	31.3	1.26	1.21	1.24	15		15.0	
CW1 B	15:56								#DIV/0!			#DIV/0!									
CW2 S	15:30			1	26.0	26.0	7.62	7.63	7.42	125.9	126.1	123.6	31.3	31.3	1.12	1.20		10	<5		
CW2 M	15:33	small wave	11	5.5	25.6	25.6	7.21	7.22	1.42	121.1	121.1	123.0	31.7	31.6	1.28	1.25	1.20	17	10	11.1	
CW2 B	15:36			10	25.1	25.1	6.93	6.94	6.94	117.4	117.5	117.5	31.9	31.9	1.08	1.25		7.4	<5		

EM 6167 Equipment used: Dissolved Oxygen Meter: Calibration Check: 100 100%: Sampled By: Cheng Yi 10.6 NTU Turbidity Meter: Calibration Check: EM 2365 Checked By: Raymond Dai 13/7/2006 Salinity Meter: EM 6167 Calibration Check: 35.3 ppt EM 6167 Thermometer:

Project: Contract No. CV/2004/02 Reconstruction of Wong Shek and Ko Lau Wan Public Piers Client: Kin Shing Construction Co., Ltd. Job No.: J429

Date of Sampling: 10/7/2006 Weather Condition: sunny Ambient Temperature, °C: 30 Tide State: Mid-Flood

Station	Time	Sea	Overall	Sampling						Dissolve	ed Oxyge	n, %	Salinity,	ppt	Turbidity	, NTU		Suspended Solids, mg/L			Remarks
		Condition	Depth, m	Depth,m	а	b	а	b	Average	а	b	Average	а	b	а	b	Average			Depth Average	
MW1 S	18:20			1	24.3	24.3	5.40	5.38	5.39	75.4	75.3	75.4	34.0	34.0	1.41	1.30		10			
MW1 M	18:23	small wave	5						5.39			75.4					1.23			9.7	
MW1 B	18:26			4	23.9	23.9	4.85	4.86	4.86	70.4	70.4	70.4	34.3	34.3	1.14	1.05		9.3			
MW2 S	18:00			1	24.5	24.5	5.61	5.57	5.16	76.8	76.5	72.6	34.1	34.1	1.12	1.14		11			
MW2 M	18:03	small wave	9	4.5	24.1	24.1	4.72	4.73	5.16	68.4	68.6	72.0	34.4	34.4	1.25	1.20	1.20	5.6		8.9	
MW2 B	18:06			8	23.8	23.8	3.80	3.78	3.79	54.3	54.2	54.3	34.6	34.6	1.18	1.29		10			
CW1 S	18:30								5.37			74.7									
CW1 M	18:33	small wave	3	1.5	24.3	24.3	5.37	5.36	5.37	74.7	74.7	74.7	34.2	34.1	1.24	1.17	1.21	<5		#DIV/0!	
CW1 B	18:36								#DIV/0!			#DIV/0!									
CW2 S	18:10	_	-	1	24.4	24.4	5.58	5.57	5.24	77.3	77.2	73.9	34.0	34.0	1.15	1.24		12	7.8		
CW2 M	18:13	small wave	11	5.5	24.0	24.0	4.91	4.91	5.24	70.4	70.5	73.9	34.3	34.4	1.08	1.13	1.21	<5	9.1	10.2	
CW2 B	18:16			10	23.8	23.8	3.74	3.73	3.74	52.7	52.6	52.7	34.7	34.7	1.36	1.30	1	<5	12		

6167 Equipment used: Dissolved Oxygen Meter: EM Calibration Check: ____100 100%: Sampled By: Cheng Yi EM 2365 10.6 NTU Turbidity Meter: Calibration Check: Raymond Dai Checked By: Salinity Meter: EM 6167 Calibration Check: 35.1 ppt 17/7/2006 Date: Thermometer: EM 6167

Project: Contract No. CV/2004/02 Reconstruction of Wong Shek and Ko Lau Wan Public Piers

Weather Condition: Sunny

Date of Sampling: 10/7/2006

CW2 B

11:16

Client: Kin Shing Construction Co., Ltd.

34.6

34.5

1.28

1.14

Ambient Temperature, °C: 30

Job No.: <u>J429</u>
Tide State: Mid-Ebb

7.5

14

Suspended Solids, mg/L Remarks Sampling Temperature, °C Dissolved Oxygen, mg/L Dissolved Oxygen, % Salinity, ppt Turbidity, NTU Condition Depth, m Depth,m Average MW1 S 11:20 24.5 24.5 5.21 5.21 34.2 34.2 1.28 1.01 5.21 72.6 MW1 M 11:23 small wave 1.21 13.5 MW1 B 13 11:26 24.1 24.1 4.73 4.73 4.73 69.5 69.5 69.5 34.5 34.5 1.19 1.34 3 MW2 S 11:00 1 24.4 24.4 5.34 5.37 73.4 73.5 34.1 34.1 1.19 1.25 11

70.0 5.02 MW2 M 11:03 small wave 9 24.0 4.67 34.3 11.1 MW2 B 7.2 11:06 23.6 23.6 3.95 3.95 3.95 55.6 55.7 55.7 34.6 34.6 1.04 1.10 CW1 S 11:30 5.05 69.6 CW1 M 11:33 small wave 24.4 24.4 5.05 5.04 69.6 34.2 1.17 1.22 7.6 1.5 69.5 34.3 1.26 CW2 S 11:10 24.3 24.3 5.38 5.37 34.0 34.0 1.06 1.28 14 5.07 70.4 CW2 M 11:13 24.0 24.0 4.76 67.3 67.4 34.3 34.3 1.18 11 small wave 5 4.76 1.35 14 12.8 10 1.22

EM 6167 100 100%: Equipment used: Dissolved Oxygen Meter: Calibration Check: Sampled By: Cheng Yi 10.6 NTU Turbidity Meter: EM 2365 Calibration Check: Checked By: Raymond Dai 17/7/2006 Salinity Meter: EM 6167 Calibration Check: 35.1 ppt

55.1

54.9

55.0

3.88

Thermometer: EM 6167

23.7

23.5

3.88

3.87

Project: Contract No. CV/2004/02 Reconstruction of Wong Shek and Ko Lau Wan Public Piers Client: Kin Shing Construction Co., Ltd. Job No.: J429

Date of Sampling: 17/7/2006 Weather Condition: sunny Ambient Temperature, °C: 31 Tide State: Mid-Flood

Station	Time	Sea	Overall	Sampling	Tempera	ature, °C	70 . 0			Dissolve	ed Oxyge	n, %	Salinity,	ppt	Turbidity	, NTU		Suspended Solids, mg/L			Remarks
		Condition	Depth, m	Depth,m	а	b	а	b	Average	а	b	Average	а	b	а	b	Average			Depth Average	
MW1 S	11:25			1	23.1	23.1	5.94	5.94	5.94	89.5	89.3	89.4	35.2	35.2	1.34	1.37		<5			
MW1 M	11:28	small wave	5						5.94			09.4					1.25			#DIV/0!	
MW1 B	11:31			4	22.5	22.5	4.77	4.77	4.77	70.0	69.2	69.6	35.4	35.4	1.06	1.23		<5			
MW2 S	11:00			1	23.2	23.2	5.41	5.35	4.91	75.9	76.1	69.2	35.3	35.3	1.22	1.25		<5			
MW2 M	11:03	small wave	11	5.5	22.6	22.6	4.43	4.43	4.91	62.3	62.3	09.2	35.4	35.4	1.13	0.94	1.12	5.0		5.0	
MW2 B	11:06			10	22.3	22.3	3.74	3.74	3.74	53.2	53.4	53.3	35.6	35.6	1.17	1.03		<5			
CW1 S	11:40								5.32			73.8									
CW1 M	11:43	small wave	3	1.5	23.0	23.0	5.34	5.30	5.32	73.6	73.9	73.0	35.3	35.2	1.26	1.17	1.22	<5		#DIV/0!	
CW1 B	11:46								#DIV/0!			#DIV/0!									
CW2 S	11:15			1	23.0	23.0	5.26	5.27	4.97	73.8	73.8	69.1	35.3	35.3	0.83	1.04		6.6	8.0		
CW2 M	11:18	small wave	12	6	22.7	22.7	4.68	4.68	4.97	64.5	64.3	09.1	35.5	35.4	0.97	0.92	1.10	<5	<5	7.3	
CW2 B	11:21			11	22.3	22.3	3.85	3.87	3.86	55.6	55.7	55.7	35.7	35.7	1.36	1.48		<5	<5		

EM 6167 100 100%: Equipment used: Dissolved Oxygen Meter: Calibration Check: Sampled By: Cheng Yi EM 10.9 NTU Raymond Dai Turbidity Meter: 2365 Calibration Check: Checked By: Salinity Meter: EM 6167 35.7 ppt 24/7/2006 Calibration Check: Date:

Thermometer: EM 6167

Project: Contract No. CV/2004/02 Reconstruction of Wong Shek and Ko Lau Wan Public Piers Client: Kin Shing Construction Co., Ltd. Job No.: J429

 Date of Sampling:
 17/7/2006
 Weather Condition: sunny
 Ambient Temperature, °C:
 31
 Tide State: Mid-Ebb

Station	Time	Sea	Overall	Sampling	Tempera	ature, °C	Dissolve	d Oxyge	n, mg/L	Dissolve	ed Oxyge	n, %	Salinity,	ppt	Turbidity	, NTU		Suspend	ded Solid	s, mg/L	Remarks
		Condition	Depth, m	Depth,m	а	b	а	b	Average	а	b	Average	а	b	а	b	Average			Depth Average	
MW1 S	17:30			1	23.4	23.4	5.19	5.18	5.19	70.8	70.8	70.8	35.3	35.4	1.16	1.16		8.6			
MW1 M	17:33	small wave	4						5.19			70.8					1.17			7.3	
MW1 B	17:36			3	22.9	22.9	4.24	4.25	4.25	61.3	61.4	61.4	35.7	35.7	1.04	1.32		6.0			
MW2 S	17:00			1	23.2	23.2	5.48	5.46	5.10	76.3	76.3	70.4	35.1	35.1	1.37	1.31		13			
MW2 M	17:03	small wave	10	5	22.4	22.4	4.73	4.72	5.10	64.5	64.6	70.4	35.5	35.4	1.14	1.02	1.16	9.2		9.4	
MW2 B	17:06			9	22.2	22.2	3.76	3.76	3.76	54.1	54.1	54.1	35.8	35.8	0.98	1.12		6.0			
CW1 S	17:40								5.07			73.4									
CW1 M	17:43	small wave	3	1.5	23.2	23.2	5.02	5.11	3.07	73.1	73.6	73.4	35.4	35.4	1.24	1.31	1.28	<5		#DIV/0!	
CW1 B	17:46								#DIV/0!												
CW2 S	17:15			1	23.2	23.2	5.37	5.35	5.09	75.9	75.8	70.3	35.2	35.1	1.11	1.23		<5	9.8		
CW2 M	17:18	small wave	11	5.5	22.7	22.7	4.82	4.80	3.09	64.6	64.7	70.3	35.5	35.5	0.82	1.02	1.15	6.4	8.8	7.7	
CW2 B	17:21			10	22.1	22.1	3.66	3.67	3.67	53.4	53.5	53.5	35.7	35.7	1.31	1.40		7.0	6.4		

6167 Equipment used: Dissolved Oxygen Meter: EM Calibration Check: 100 100%: Sampled By: Cheng Yi 10.9 NTU Turbidity Meter: Calibration Check: EM 2365 Checked By: Raymond Dai 24/7/2006 Salinity Meter: EM 6167 Calibration Check: 35.7 ppt EM 6167 Thermometer:

Project: Contract No. CV/2004/02 Reconstruction of Wong Shek and Ko Lau Wan Public Piers Client: Kin Shing Construction Co., Ltd. Job No.: J429

Date of Sampling: 24/7/2006 Weather Condition: sunny Ambient Temperature, °C: 32 Tide State: Mid-Flood

Station	Time	Sea	Overall	Sampling	Tempera	ature, °C	Dissolve	d Oxyge	n, mg/L	Dissolve	ed Oxyge	n, %	Salinity,	ppt	Turbidity	, NTU		Suspend	ded Solic	ls, mg/L	Remarks
		Condition	Depth, m	Depth,m	а	b	а	b	Average	а	b	Average	а	b	а	b	Average			Depth Average	
MW1 S	18:20			1	26.8	26.8	5.76	5.76	5.76	77.4	77.4	77.4	34.1	34.1	1.34	1.08		<5			
MW1 M	18:23	small wave	5						5.76			77.4					1.19			#DIV/0!	
MW1 B	18:26			4	26.5	26.5	5.03	5.03	5.03	71.2	71.3	71.3	34.5	34.5	1.15	1.17		<5			
MW2 S	18:00			1	26.6	26.7	5.65	5.66	5.41	75.6	75.6	73.8	33.8	33.8	1.15	1.20		<5			
MW2 M	18:03	small wave	9	4.5	26.3	26.3	5.16	5.16	5.41	72.0	72.0	73.0	34.2	34.2	1.45	1.14	1.21	8.6		6.8	
MW2 B	18:06			8	26.0	26.0	26.0 4.97 4.97 4.97	68.3	68.3	68.3	34.6	34.6	1.24	1.08		5.0					
CW1 S	18:30								5.39			73.5									
CW1 M	18:33	small wave	3	1.5	26.3	26.4	5.38	5.39	5.39	73.4	73.5	73.5	33.9	33.9	1.29	1.15	1.22	5.8		5.8	
CW1 B	18:36								#DIV/0!			#DIV/0!									
CW2 S	18:10		_	1	26.7	26.7	5.58	5.54	5.30	74.6	74.5	72.0	33.7	33.7	1.23	1.29		<5	9.3		
CW2 M	18:13	small wave	11	5.5	26.3	26.3	5.03	5.03	5.30	69.4	69.4	72.0	34.3	34.2	1.08	1.17	1.20	<5	5.0	6.7	
CW2 B	18:16			10	25.9	25.9	4.87	4.87	4.87	66.4	66.4	1 66.4	34.5	34.5	1.26	1.18		<5	5.8		

EM 6167 100 100%: Equipment used: Dissolved Oxygen Meter: Calibration Check: Sampled By: Cheng Yi EM 9.5 NTU Turbidity Meter: 2365 Calibration Check: Checked By: Raymond Dai Salinity Meter: EM 6167 35 ppt 31/7/2006 Calibration Check: Date: Thermometer: EM 6167

Project: Contract No. CV/2004/02 Reconstruction of Wong Shek and Ko Lau Wan Public Piers Client: Kin Shing Construction Co., Ltd. Job No.: J429

Date of Sampling: 24/7/2006 Weather Condition: sunny Ambient Temperature, °C: 32 Tide State: Mid-Ebb

Station	Time	Sea	Overall	Sampling	Tempera	ature, °C	Dissolve	d Oxyge	n, mg/L	Dissolve	d Oxyge	n, %	Salinity,	ppt	Turbidity	, NTU		Suspend	ded Solid	ls, mg/L	Remarks
		Condition	Depth, m	Depth,m	а	b	а	b	Average	а	b	Average	а	b	а	b	Average			Depth Average	
MW1 S	12:10			1	26.9	26.8	5.58	5.57	5.58	74.2	74.3	74.3	34.0	33.8	1.05	0.88		11			
MW1 M	12:13	small wave	4						3.30			74.5					1.01			9.4	
MW1 B	12:16			3	26.5	26.5	5.04	5.07	5.06	68.4	68.4	68.4	34.2	34.2	1.15	0.97		7.8			
MW2 S	11:52			1	26.8	26.8	5.74	5.73	5.54	77.6	77.5	75.1	33.6	33.6	1.24	1.15		7.6			
MW2 M	11:55	small wave	9	4.5	26.4	26.4	5.34	5.33	3.34	72.6	72.5	75.1	33.9	33.9	1.06	0.91	1.03	9.2		8.9	
MW2 B	11:58			8	25.9	25.9	4.86	4.87	4.87	67.4	67.4	67.4	34.2	34.1	0.82	0.97		10			
CW1 S	12:20								5.51			75.2									
CW1 M	12:23	small wave	3	1.5	26.7	26.6	5.51	5.51	3.31	75.1	75.2	75.2	33.8	33.8	1.15	1.06	1.11	6.4		6.4	
CW1 B	12:26											#DIV/0!									
CW2 S	12:00			1	26.7	26.7	5.62	4.62	5.12	75.3	75.3	35.0	33.6	33.6	1.38	1.25		9.0	5.4		
CW2 M	12:03	small wave	10	5	26.3	26.3	5.11	5.11	5.12	70.2	70.2	55.0	34.0	34.0	1.09	0.90	1.21	9.2	8.6	7.6	
CW2 B	12:06			9	25.9	25.9	4.85	4.86	4.86	67.3	67.3	67.3	34.3	34.3	1.20	1.44		7.2	6.4		

EM 6167 Equipment used: Dissolved Oxygen Meter: Calibration Check: 100 100%: Sampled By: Cheng Yi 9.5 NTU Turbidity Meter: Calibration Check: EM 2365 Checked By: Raymond Dai 31/7/2006 35 ppt Salinity Meter: EM 6167 Calibration Check: EM 6167 Thermometer:

Project: Contract No. CV/2004/02 Reconstruction of Wong Shek and Ko Lau Wan Public Piers Client: Kin Shing Construction Co., Ltd. Job No.: J429

Date of Sampling: 31/7/2006 Weather Condition: sunny Ambient Temperature, °C: 31 Tide State: Mid-Flood

Station	Time	Sea				ature, °C	Dissolve	d Oxyge	n, mg/L	Dissolve	d Oxyge	n, %	Salinity,	ppt	Turbidity	, NTU		Suspended Solids, mg/L		s, mg/L	Remarks
		Condition	Depth, m	Depth,m	а	b	а	b	Average	а	b	Average	а	b	а	b	Average			Depth Average	
MW1 S	8:50			1	25.6	25.6	5.76	5.76	5.76	86.9	86.9	86.9	34.6	34.6	1.46	1.25		5.2			
MW1 M	8:53	samll wave	5						5.76			80.9					1.20			5.6	
MW1 B	8:56			4	25.2	25.2	4.96	4.96	4.96	71.4	71.4	71.4	34.8	34.8	0.97	1.13		6.0			
MW2 S	8:30			1	25.5	25.5	5.52	5.52	5.07	83.9	83.8	76.3	34.5	34.5	1.19	1.07		<5			
MW2 M	8:33	samll wave	10	5	25.2	25.2	4.62	4.62	5.07	68.8	68.8	70.3	34.8	34.8	1.27	1.24	1.14	9.0		7.7	
MW2 B	8:36			9	24.8	24.8	3.68	3.68	3.68	53.4	53.4	53.4	35.0	35.0	0.97	1.10		6.4			
CW1 S	9:00								5.53			84.1									
CW1 M	9:03	samll wave	3	1.5	25.5	25.5	5.53	5.53	5.53	84.1	84.1	04.1	34.6	34.6	1.17	1.20	1.19	<5		#DIV/0!	
CW1 B	9:06								#DIV/0!			#DIV/0!									
CW2 S	8:40			1	25.4	25.4	5.58	5.58	5.16	82.8	82.8	76.1	34.4	34.4	1.26	1.34		6.0	5.2		
CW2 M	8:43	samll wave	11	5.5	25.1	25.1	4.73	4.73	5.10	69.4	69.4	70.1	34.7	34.7	1.18	1.04	1.23	5.8	6.8	5.9	
CW2 B	8:46			10	25.6	25.6	3.84	3.84	3.84	55.8	55.9	55.9	35.1	35.1	1.32	1.25		5.6	<5		

EM 6167 100 100%: Equipment used: Dissolved Oxygen Meter: Calibration Check: Sampled By: Cheng Yi EM 9.7 NTU Turbidity Meter: 2365 Calibration Check: Checked By: Raymond Dai Salinity Meter: EM 6167 35.5 ppt 7/8/2006 Calibration Check: Date: Thermometer: EM 6167

Project: Contract No. CV/2004/02 Reconstruction of Wong Shek and Ko Lau Wan Public Piers Client: Kin Shing Construction Co., Ltd. Job No.: 2429

Date of Sampling: 31/7/2006 Weather Condition: sunny Ambient Temperature, °C: 31 Tide State: Mid-Ebb

Station	Time	Sea	Overall	Sampling	Tempera	ature, °C	Dissolve	d Oxyge	n, mg/L	Dissolve	d Oxyge	n, %	Salinity,	ppt	Turbidity	, NTU		Suspend	ded Solid	ls, mg/L	Remarks
		Condition	Depth, m	Depth,m	а	b	а	b	Average	а	b	Average	а	b	а	b	Average			Depth Average	
MW1 S	14:42			1	25.8	25.8	5.67	5.66	5.67	86.1	86.1	86.1	34.5	34.5	1.22	1.28		<5			
MW1 M	14:45	small wave	4						3.07			00.1					1.18			6.8	
MW1 B	14:48			3	25.4	25.4	4.58	4.59	4.59	72.3	72.4	72.4	34.7	34.6	1.08	1.14		6.8			
MW2 S	14:20			1	25.6	25.6	5.65	5.65	5.04	86.4	86.4	79.5	34.4	34.4	1.10	1.09		6.8			
MW2 M	14:23	small wave	9	4.5	25.4	25.4	4.43	4.42	5.04	72.6	72.5	79.5	34.6	34.6	1.36	1.29	1.20	5.6		5.9	
MW2 B	14:26			8	25.3	25.3	3.95	3.97	3.96	69.5	69.6	69.6	34.9	34.9	1.21	1.14		5.4			
CW1 S	14:50								5.51			83.7									
CW1 M	14:53	small wave	3	1.5	25.6	25.6	5.52	5.50	3.51	83.6	83.7	65.7	34.6	34.6	1.11	1.17	1.14	<5		#DIV/0!	
CW1 B	14:56											#DIV/0!									
CW2 S	14:30			1	25.7	25.7	5.38	5.40	4.97	85.2	85.3	35.0	34.5	34.5	1.31	1.12		5.6	7.6		
CW2 M	14:33	small wave	12	6	25.4	25.4	4.54	4.56	4.97	73.0	73.0	33.0	34.8	34.8	1.09	1.20	1.16	12	7.6	7.4	
CW2 B	14:36			11	25.2	25.2	3.84	3.85	3.85	69.1	68.8	69.0	35.1	35.1	1.08	1.13		5.6	6.0		

EM 6167 Equipment used: Dissolved Oxygen Meter: Calibration Check: 100 100%: Sampled By: Cheng Yi 9.7 NTU Turbidity Meter: Calibration Check: EM 2365 Checked By: Raymond Dai 7/8/2006 Salinity Meter: EM 6167 Calibration Check: 35.5 ppt EM 6167 Thermometer:

Appendix E

Monitoring Schedule - Upcoming month

CEDD Construction No. CV/2004/02 Reconstruction of Wong Shek and Ko Lau Wan Public Piers Water Quality Monitoring Schedule Environmental Monitoring Schedule Revised August 2006

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
		1	2	3	4	5
6		7 8	9	10	WQM ³ (Ebb: 13:53) (Flood: 7:01)	12
13	WQM ³ (Ebb: 15:58) (Flood: 9:46)	15	16	17	18	19
20	WQM ³ (Ebb: 11:04) (Flood: 18:06)	22		24		26
27	WQM ³ (Ebb: 15:05) (Flood: 8:46)	8 29	30	31		

Notes:

- 1. WQM water quality monitoring on mid-flood and mid-ebb tides at Wong Shek (CW1, CW2, MW1 & MW2)
- 2. WQM water quality monitoring on mid-flood and mid-ebb tides at Ko Lau Wan (CK1, CK2, MK1, MK2, MK3 & MK4)
- 3. WQM water quality monitoring on mid-flood and mid-ebb tides at Ko Lau (CK1, CK2, MK1, MK2, MK3 & MK4) and Wong Shek (CW1, CW2, MW1 & MW2))
- 4. All monitoring shall be carried out once a week from mid-Mar 06 onwards due to completion of piling and demolition works.