MAEDA

Expansion of Shek Wu Hui Sewage Treatment Works

Monthly EM&A Report No. 10

for September 2006

October 2006

Report no: 01284R0261

Hyder Consulting Ltd
Incorporated in Hong Kong with limited liability—COI Number 126012
47th Floor, Hopewell Centre, 183 Queens Road East, Wanchai, Hong Kong
Tel: +852 2911 2233 Fax: +852 2805 5028
www.hyderconsulting.com

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Author: Gigi Ho

Checker: Sharifah Or

Approver: Guiyi Li

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Certified by Environmental Team Leader
Sharifah Or

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1 Executive Summary

The expansion of Shek Wu Hui Sewage Treatment Works (SWHSTW) aims to increase the treatment capacity of the existing SWHSTW to cope with the increasing wastewater flows and loads as a result of the population growth in the catchment area of Fanling/Sheung Shui and the committed extension of sewerage system to unsewered areas. It is considered as a project constituting a material change to an exempted designated project under Schedule 2 of EIAO. Thus, the procedures under the EIAO have been followed and an Environmental Monitoring and Audit (EM&A) Programme has to be carried out. The present report documents the outcomes of the EM&A Works undertaken during September 2006.

Breaches of Action and Limit Levels

Noise

No non-compliance of action/limit level was recorded at all monitoring stations for noise during the reporting month.

1-hr TSP

No non-compliance of action/limit level was recorded at all monitoring stations for noise during the reporting month.

24-hr TSP

No non-compliance of action/limit level was recorded at all monitoring stations for noise during the reporting month.

Complaints Log

During this reporting month, no environmental complaint was received.

Notifications of Any Summons and Successful Prosecutions

During the reporting month, no notification of summons or successful prosecution was recorded.

Reporting Changes

There was no reporting change during the reporting month.

Future Key Issues

The construction activities for the coming three months will include the construction of mini piles, excavation, pile head / cap construction, temporary work including piling work, installation of wailings and struts, sub-structure and superstructure construction, pipe works and internal/ external finishing.

2 Introduction

2.1 Basic Information

Shek Wu Hui Sewage Treatment Works (SWHSTW) provides treatment to the wastewater generated from Fanling/Sheung Shui areas before discharge it into Mai Po Inner Deep Bay Ramsar Site through River Indus and Shenzhen River, thus helps protecting the water quality of River Indus, Shenzhen River and Mai Po Inner Deep Bay Ramsar Site. The expansion of SWHSTW aims to expand the treatment capacity of the existing SWHSTW to cope with the increasing wastewater flows and loads as a result of the population growth in the catchment area of Fanling/Sheung Shui and the committed extension of sewerage system to unsewered areas.

In accordance with Section 9(2)(g) of the Environmental Impact Assessment Ordinance (EIAO), the SWHSTW is an exempted designated project as the existing SWHSTW has been in operation before the EIAO came into effect on 1 April 1998. However, since the proposed works involve physical expansion and alternation to the existing SWHSTW (hereafter called "the Project") and may cause adverse environmental impacts if mitigation measures are not in place, it shall be considered as a project constituting a material change to an exempted designated project under Schedule 2 of EIAO. Hence the procedures under the EIAO have been followed. A Project Profile (PP) for direct application of the EP (Application No.DIR-121/2005) was approved by Environmental Protection Department (EPD) in May 2005 and an environmental permit (EP-218/2005) was obtained prior to the commencement of the expansion works.

Drainage Services Department (DSD) awarded the civil contract of the expansion of SWHSTW to Maeda Corporation (Maeda) in September 2005. Maeda appointed Hyder Consulting Limited (HCL) as the Contractor's Environmental Team (ET) during the construction period. CH2M HILL Hong Kong Limited (formerly known as CH2M-IDC Hong Kong Limited) is the independent environmental checker (IEC). The construction contract commenced in September 2005 and the total construction period is approximately 36 months. The notified commencement date of work to the Director of EPD is 14 December 2005.

2.2 Management Structure and Project Organisation

The Engineer (DSD) is responsible for overseeing the construction works and ensuring that they are undertaken by the Contractor (Maeda) in accordance with the specifications and contractual requirements. The Contractor shall report to the Engineer. The ET is employed by the Contractor and is responsible for conducting the EM&A programme. The IEC shall advise the Engineer on the environmental issues related to the Project.

The key personnel contact names and telephone number are summarised in Table 2-1. The project organisation is shown in Appendix 1.

Party	Position	Name	Telephone number
Project Proponent - DSD	Project Manager	Raymond Lee	2594 7457
	Engineer's Representative	Tim Tsoi	2594 7460
Contractor - Maeda	Site Agent	George Cheung	9268 1918
ET - Hyder	ET Leader	Sharifah Or	2911 2730
IEC – CH2M HILL	IEC	David Yeung	2872 2934

Table 2-1 Key Personnel Contact Names and Telephone Number for the Project

2.3 Construction Programme

Construction programme of the Project is attached in Appendix 2.

2.4 Works Undertaken during the Reporting Month

Works undertaken during the reporting month included:

- excavation
- cable / utilities diversion
- installation of wailings and struts
- substructure and superstructure construction

2.5 Status of Environmental Permit/ Licence

The status of the Environmental Permit/Licence for the Project is shown below.

Permit/Licence	Application Date	Date of issue	Ref. No.	Valid Until
Environmental Permit	21 May 2005	16 June 2005	EP-218/2005	N/A
Notification was made to EPD pursuant to Section 3(1) of the Air Pollution Control (Construction Dust) Regulation (Form NA was submitted)	22 Sep 2005	N/A	N/A	N/A
Registration as a chemical waste producer	26 Sep 2005	4 Nov 2005	WPN: 5213-624-M2446-06	N/A
Effluent Discharge Licence	11 Nov 2005	20 Dec 2005	Licence No.: W5/1I287/1	19 Dec 2010
Application for Exemption Account for Disposal of Construction Waste	12 Dec 2005	Approved by EPD on 31 Dec 2005	Application No.: RN/00134	25 Sep 2008
Construction Noise Permit	15 May 2006	26 May 2006	Permit No.: GW-RN0272-06	From 1 Jun 2006 to 30 Nov 2006

Permit/Licence	Application Date	Date of issue	Ref. No.	Valid Until
Construction Noise Permit	4 September 2006	18 September 2006	Permit No.: GW-RN0469-06	From 18 Sep 2006 to 10 Oct 2006

Table 2-2 Status of Permit/Licence for the Project

3 Environmental Status

3.1 Works Undertaken during the Month with Illustrations

The site has been subdivided into different Works Areas/Portions as illustrated in Appendix 3. Excavation was undertaken in Portions 1, 2 and 3. Cable/ utilities diversion was undertaken in Portions 1 and 2. Installation of wailings and struts and substructure construction were undertaken at Portion 2. Superstructure construction was undertaken in Portions 2 and 3.

3.2 Project Area, Environmental Sensitive Receivers and Monitoring Locations

The site is located at the existing Shek Wu Hui Sewage Treatment Plant, next to Chuk Wan Street. The project area, environmental sensitive receivers and monitoring locations are shown in Appendix 4.

4 Brief Summary of EM&A Requirements

4.1 Monitoring Parameters

4.1.1 Air Quality

During the construction phase impact monitoring, 1-hour and 24-hour Total Suspended Particulates (TSP) levels should be measured at the selected air monitoring locations in accordance with the EM&A Manual. These two parameters are aimed to indicate the impacts of construction dust on air quality.

4.1.2 Noise

The construction noise level should be measured in terms of the A-weighted equivalent continuous sound pressure level (L_{eq}) for 30 minutes. $L_{eq(30\ min)}$ is used as the monitoring parameter for the period between 0700 and 1900 hours on normal weekdays. For all other time periods, three consecutive $L_{eq(5min)}$ are employed for comparison with the Noise Control Ordinance (NCO) criteria.

Other noise parameters such as L10 and L90 should also be obtained for reference.

4.2 Action and Limit Levels

4.2.1 Air Quality

The baseline monitoring results documented in the Baseline Monitoring Report for the Project (our report ref.: EA01284R0012) form the basis for derivation of the Action and Limit Levels for air quality impact monitoring. Appendix 5 shows the derived Action and Limit Levels for the Project. If the air quality criteria are exceeded due to the Project, the Event/Action Plan summarised in Table 4-3 should be triggered immediately.

4.2.2 Noise

The Action and Limit Levels for construction noise are defined in Appendix 5. If valid non-compliance of the criteria occurs, actions in accordance with the Event and Action Plan in Table 4-4 should be implemented. If construction works are undertaken during the restricted hours, a construction noise permit under NCO shall be obtained by the Contractor.

4.3 Event and Action Plans

The Event and Action Plans for air quality and noise monitoring are shown in Tables 4-3 and 4-4, respectively.

EVENT	ACTION			
	ET	IEC	ER	CONTRACTOR
ACTION LEVEL				
Exceedance for one sample	• Identify source, investigate the causes of exceedance and propose remedial measures; • Inform IEC and ER; • Repeat measurement to confirm finding.	• Check monitoring data submitted by ET; • Check Contractor's working method.	• Notify Contractor.	• Rectify any unacceptable practice; • Amend working methods if appropriate.
Exceedance for two or more consecutive samples	• Identify source, investigate the cause of exceedance and propose remedial measures ; • Inform IEC and ER; • Advise ER on the effectiveness of the proposed remedial measures;	• Check monitoring data submitted by ET; • Check Contractor's working method; • Discuss with ET and Contractor on possible remedial measures; • Advise the ET on the	• Confirm receipt of notification of exceedance in writing; • Notify Contractor; • Ensure remedial measures properly implemented.	• Submit proposals for remedial to ER within 3 working days of notification; • Implement the agreed proposals; • Amend proposal if appropriate.

EVENT	ACTION			
	ET	IEC	ER	CONTRACTOR
	• 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 ER; • If exceedance stops, cease additional monitoring.	effectiveness of the proposed remedial measures; • Supervise Implementation of remedial measures.		
LIMIT LEVEL				
Exceedance for one sample	• Identify source, investigate the causes of exceedance and propose remedial measures; • Inform IEC, ER, Contractor and EPD; • Repeat measurement to confirm finding; • Increase monitoring frequency to daily; • Assess effectiveness of Contractor's remedial actions and keep IEC, EPD and ER informed of the results. • 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; • Advise ER on the effectiveness of the proposed remedial measures; • Supervise implementation of remedial measures.	• Confirm receipt of notification of exceedance 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, ER, Contractor and EPD; • Identify source, investigate the cause of exceedance and propose remedial measures; • Repeat measurement to confirm findings; • Increase monitoring frequency to daily; • Carry out analysis of Contractor's working procedures to determine possible mitigation to be	• Discuss amongst ER, ET, and Contractor on the potential remedial actions; • Review Contractor's remedial actions whenever necessary to assure their effectiveness and advise ER accordingly; • Supervise the implementation of remedial measures.	• Confirm receipt of notification of exceedance in writing; • Notify Contractor; • In consultation with the IEC, agree with the Contractor on the remedial measures to be implemented; • Ensure remedial measures properly implemented; • If exceedance continues, consider what portion of the work is responsible	• 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 ER until the exceedance is abated.

EVENT	ACTION			
	ET	IEC	ER	CONTRACTOR
	implemented; • Arrange meeting with IEC and ER to discuss the remedial actions to be taken; • Assess effectiveness of Contractor's remedial actions and keep IEC, EPD and ER informed of the results; • If exceedance stops, cease additional monitoring.		and instruct the Contractor to stop that portion of work until the exceedance is abated.	

Table 4-3 Event/ Action Plan for Air Quality Monitoring

EVENT	Action			
	ET	IEC	ER	CONTRACTOR
Action Level	• Notify IEC and ER; • Carry out investigation; • Report the results of investigation to the IEC, ER and Contractors; • Discuss with the Contractor and formulate remedial measures; • Increase monitoring frequency to check mitigation effectiveness.	• Review the analysed results submitted by the ET; • Review the proposed remedial measures by the Contractor and advise the ER accordingly; • Supervise the implementation of remedial measure.	• Confirm receipt of notification of failure in writing; • Notify Contractor; • Require Contractor to propose remedial measures for the analysed noise problem; • Ensure remedial measures are properly implemented.	• Submit noise mitigation proposal to IEC; • Implement noise mitigation proposals.
Limit Level	• Identify source; • Inform IEC, ER, EPD and Contractor; • Repeat measurements to confirm findings; • Increase monitoring frequency to check mitigation effectiveness; • Carry out analysis of Contractor's working procedures to determine possible mitigation to be implemented; • Inform IEC, ER and EPD the causes and actions taken for the exceedances;	• Discuss amongst ER, ET, and Contractor on the potential remedial actions; • Review Contractors remedial actions whenever necessary to assure their effectiveness and advise the ER accordingly; • Supervise the 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	• 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 ER until the exceedance is abated.

EVENT	Action			
	ET	IEC	ER	CONTRACTOR
	• Assess effectiveness of Contractor's remedial actions and keep IEC, EPD and ER informed of the results; • If exceedance stops, cease additional monitoring.		abated.	

Table 4-4 Event/ Action Plan for Noise Monitoring

4.4 Environmental Mitigation Measures and Requirements

The recommended measures for mitigating air quality, water quality, noise, waste and all other possible environmental impacts due to the construction works have been stated clearly in the EM&A Manual. The details of the measures implemented by the Contractor are shown in Appendix 6.

5 Implementation Status of Environmental Protection and Pollution Control/ Mitigation Measures

The status of the mitigation measures implemented by the Contractor is listed in Appendix 6.

6 Monitoring Results

6.1 Monitoring Methodology

6.1.1 Air Quality

1-hr and 24-hr TSP monitoring works were undertaken by the ET using high volume samplers (HVS). The sampling procedures followed the standard sampling method as set out in High Volume Method for Total Suspended Particulates, Part 50 Chapter 1 Appendix B, Title 40 of the Code of Federal Regulations of the USEPA.

During the sampling, dust laden air was drawn through a HVS fitted with a conditioned, pre-weighted filter paper, at a controlled rate. After sampling for 1 hour and 24 hours, the filter paper with retained particles was collected and returned to the laboratory for drying in a desiccator followed by accurate weighing. Respective 1-hour and 24-hour TSP levels were calculated from the ratio of the mass of particulates retained on the filter paper to the total volume of air sampled.

The HVSs were equipped with an electronic mass flow controller and calibrated against a traceable standard at regular intervals. All equipment, calibration kit and filter papers were clearly labelled.

The sampling procedures and specifications were the same for 1-hour and 24-hour baseline air quality monitoring except the sampling duration. The specifications were as follows:

- 0.6-1.7 m^3/min (20-60SCFM);
- Equipped with a timing/control device with +/- 5 minutes accuracy for 24 hours operation;
- Installed with elapsed time meter with +/- 2 minutes accuracy for 24 hours operation;
- Capable of providing a minimum exposed area of 406 cm^2 (63in^2);
- Flow control accuracy: +/- 2.5% deviation over 24-hr sampling period;
- Equipped with a shelter to protect the filter and sampler;
- Incorporated with an electronic mass flow rate controller or other equivalent devices;
- Equipped with a flow recorder for continuous monitoring;
- Provided with a peaked roof inlet;
- Incorporated with a manometer;
- Able to hold and seal the filter paper to the sampler housing at horizontal position;
- Easy to change the filter; and
- Capable of operating continuously for a 24-hour period.

Relevant environmental data including temperature, pressure, weather conditions, elapsed-time meter reading for the start and stop of the sampler, identification and weight of the filter paper, and other special phenomena observed and work progress of the concerned site were also recorded.

Filter papers of size 8"x10" were labelled before sampling. They were inspected clean with no pin holes and conditioned in a humidity-controlled chamber for over 24-hr and be pre-weighed before use for the sampling.

After sampling, the filter papers loaded with dust were kept in a clean and tightly sealed plastic bag, and then returned for reconditioning in the humidity controlled chamber followed by accurate weighing by an electronic balance with a readout down to 0.1 mg. All the collected samples would be kept in a good condition for 6 months before disposal.

The weight of filter paper was measured by a HOKLAS accredited laboratory.

6.1.2 Noise

Weatherproof logging sound level meters which comply with the International Electrotechnical Commission Publication 651: 1979 (Type 1) and 804: 1985 (Type 1) specifications were used to measure the construction noise at the designated

monitoring locations. Noise parameters of the A-weighted levels L_{eq}, L_{10} and L_{90} were measured with a sampling period of 5 minutes throughout the monitoring. The average of six consecutive 5-minute readings was used to provide $L_{eq(30\ minutes)}$ for non-restricted hours. A facade correction of 3dB(A) would be applied to all free field measurements.

During the impact monitoring, information such as date, weather condition, equipment used, measurement results and major noise sources were recorded on the field data record sheet. Noise measurements would not be made in fog, rain, wind with a steady speed exceeding 5 m/s or wind with gusts exceeding 10 m/s. The wind speed would be checked with a portable wind speed meter capable of measuring wind speed in m/s. All measurements were recorded to the nearest 0.1dB(A).

6.2 Name of Laboratory, Types of Equipment Used and Calibration Details

6.2.1 Name of Laboratory

Filter papers used for air quality monitoring were sent to ALS Environmental, a HOKLAS accredited laboratory, for weighing. Other sampling and analytical works were conducted by Hyder Consulting Limited, the ET.

6.2.2 Types of Equipment Used and Calibration Details

HVS - Model GBM2000H1, manufactured by Anderson Instruments Inc., was used for TSP monitoring. It complies with the USEPA specifications in Appendix B Part 50 - Reference Method for the Determination of Suspended Particulate matter in the Atmosphere (High-Volume Method) of the Code of Federal Regulation dated July 1, 1991. Initial calibration of dust monitoring equipment was conducted upon installation and prior to commissioning. One point flow rate calibration would be carried out every two months. Five-point calibration would be carried out every six months. All the calibration data were converted into standard temperature and pressure condition.

Orific HVS Calibration Kit model G2523 was used for the calibration of HVSs. Calibration of calibration kit would be carried out annually. Appendix 7 presents the monitoring equipment calibration records.

For noise monitoring, Bruel & Kjaer (B&K) Precision Integrating Sound Level Meters of Type 2238 in compliance with the International Electrotechnical Commission Publication 651: 1979 (Type 1) and 804: 1985 (Type 1) Specifications were used.

Prior to and following each noise measurement, the accuracy of the sound level meter was checked using an acoustic calibrator (B&K Type 4230) generating a known sound pressure level at a known frequency. Measurements were considered as valid only if the calibration level from before and after the noise measurement agree to within 1dB. All sound level meters and calibrators would be calibrated annually. Appendix 7 presents the monitoring equipment calibration records.

Table 6-5 summarises the types of monitoring and calibration equipment.

Equipment Type	Manufacturer	Model	Serial Number/I.D.
Sound Level Meter	B&K	Type 2236	1785701
Sound Level Meter	B&K	Type 2238	2285726
Sound Level Calibrator	B&K	Type 4231	1770806
High Volume Sampler	Anderson	GBM 2000 H1	1097
High Volume Sampler	Anderson	GBM 2000 H1	1101
Orific HVS Calibration Kit	Tisch Environmental	G2523	517N

Table 6-5 Monitoring Equipment

6.3 Parameters Monitored

Parameters monitored are described in Sections 4.1.1 and 4.1.2.

6.4 Monitoring Locations

There are two designated air quality monitoring locations identified in the EM&A Manual. Due to the access constraint, alternative monitoring locations were selected and approved by ER, IEC and EPD prior the commencement of monitoring. These alternative locations for air quality monitoring are summarised in Table 6-6 and shown in Appendix 4.

Monitoring Station ID	Name of Premises	Monitoring Location
CAM1a	San Po Street Pumping Station	Ground floor level
CAM2a	Sheung Shui Heung Floodwater Pumping Station	Ground floor level

Table 6-6 Air Quality Monitoring Locations

There are two designated noise monitoring locations identified in the EM&A Manual and their locations are described below and shown in Appendix 4.

Monitoring Station ID	Name of Premises	Monitoring Location
NM1	Wai Loi Tsuen	1.2m above ground
NM2	Temporary Domestic Structure	1.2m above ground

Table 6-7 Noise Monitoring Locations

6.5 Monitoring Date, Time, Frequency and Duration, Weather Condition and Other Factors

Monitoring frequency for 1-hr TSP and 24-hr TSP is 3 times every 6 days and once every 6 days, respectively. One set of noise measurements will be conducted between 0700 and 1900 on normal weekdays at each monitoring station on a weekly basis, when noise-generating activities are underway. Monitoring date, time and duration for noise and air quality monitoring and all other factors related to the monitoring result, such as weather condition, are listed in the following tables.

Station	Date	Time	Duration	Weather Condition
1-hr TSP				
CAM1a	2 September 2006	0943-1246	3 X 1 hour	Fine
	8 September 2006	1000-1301	3 X 1 hour	Cloudy
	14 September 2006	0941-1245	3 X 1 hour	Cloudy
	20 September 2006	1018-1320	3 X 1 hour	Sunny
	26 September 2006	0941-1245	3 X 1 hour	Sunny
	30 September 2006	0945-1248	3 X 1 hour	Sunny
CAM2a	2 September 2006	0951-1254	3 X 1 hour	Fine
	8 September 2006	1007-1308	3 X 1 hour	Cloudy
	14 September 2006	0950-1255	3 X 1 hour	Cloudy
	20 September 2006	1011-1309	3 X 1 hour	Sunny
	26 September 2006	0949-1252	3 X 1 hour	Sunny
	30 September 2006	0955-1255	3 X 1 hour	Sunny
24-hr TSP				
CAM1a	2 September 2006	1324-1324	24 hours	Fine
	8 September 2006	1325-1325	24 hours	Cloudy
	14 September 2006	1235-1235	24 hours	Cloudy
	20 September 2006	1320-1320	24 hours	Sunny
	26 September 2006	1340-1340	24 hours	Sunny
	30 September 2006	1315-1315	24 hours	Sunny
CAM2a	2 September 2006	1318-1318	24 hours	Fine
	8 September 2006	1310-1310	24 hours	Cloudy
	14 September 2006	1215-1215	24 hours	Cloudy
	20 September 2006	1309-1309	24 hours	Sunny
	26 September 2006	1330-1330	24 hours	Sunny
	30 September 2006	1325-1325	24 hours	Sunny

Table 6-8 Sampling Schedule of Air Quality Monitoring

Station	Date	Time	Duration	Weather Condition
NM1	8 September 2006	1130-1200	30 minutes	Cloudy
	14 September 2006	0945-1015	30 minutes	Cloudy
	20 September 2006	1000-1030	30 minutes	Sunny
	26 September 2006	0955-1025	30 minutes	Sunny
NM2	8 September 2006	1025-1055	30 minutes	Cloudy
	14 September 2006	1050-1120	30 minutes	Cloudy
	20 September 2006	1110-1130	30 minutes	Sunny
	26 September 2006	1100-1130	30 minutes	Sunny

Table 6-9 Sampling Schedule of Noise Monitoring

6.6 Results and Graphical Plots of Monitoring Parameters

Air quality monitoring results of 1-hour and 24-hour TSP levels are summarised in Table 6-10 and detailed in Appendix 8. Graphical plots of the monitoring results are also provided in Appendix 8.

Station	Date	Measured Level (μg/m³)		Action/Limit Level (μg/m³)	
		1-hr TSP	24-hr TSP	1-hr TSP	24-hr TSP
CAM1a	2 September 2006	120.2	110.7	342.7/500	203.3/260
		128.4			
		146.9			
	8 September 2006	154.9	86.7		
		135.0			
		116.2			
	14 September 2006	73.1	66.4		
		70.4			
		62.7			
	20 September 2006	176.8	135.8		
		152.7			
		155.9			
	26 September 2006	162.2	84.5		
		123.0			
		81.1			
	30 September 2006	122.1	202.0		

Station	Date	Measured Level (μg/m³)		Action/Limit Level (μg/m³)	
		1-hr TSP	24-hr TSP	1-hr TSP	24-hr TSP
		126.2			
		171.6			
CAM2a	2 September 2006	129.0	87.4	340.2/500	201.6/260
		126.2			
		171.6			
	8 September 2006	73.8	55.1		
		91.8			
		52.7			
	14 September 2006	41.9	42.9		
		35.0			
		38.9			
	20 September 2006	104.2	88.6		
		117.7			
		116.0			
	26 September 2006	49.1	56.7		
		67.6			
		53.0			
	30 September 2006	80.8	81.1		
		73.9			
		58.3			

Note:
* Shaded area indicates an exceedance of Limit Level.

Table 6-10 Air Quality Monitoring Results

Noise monitoring results are summarised in Table 6-11 and detailed in Appendix 8. Graphical plots of the monitoring results are also provided in Appendix 8. As all monitoring was conducted at free field condition, a facade correction of 3dB(A) was applied to each of the noise measurements.

Station	Date	Measured Noise Level, dB(A)			Limit Level for $L_{eq(30\ min)}$, dB(A)
		$L_{90(30min)}$	$L_{10(30min)}$	$L_{eq\ (30min)}$	
NM1	8 September 2006	53.8	60.5	58.1	75
	14 September 2006	56.1	61.3	59.4	
	20 September 2006	55.7	61.0	58.7	

Station	Date	Measured Noise Level, dB(A)			Limit Level for $L_{eq(30\ min)}$, dB(A)
		$L_{90(30min)}$	$L_{10(30min)}$	$L_{eq\ (30min)}$	
	26 September 2006	52.2	58.8	56.0	
NM2	8 September 2006	51.0	54.1	53.2	
	14 September 2006	52.2	55.5	54.2	
	20 September 2006	50.8	54.5	52.9	
	26 September 2006	48.2	52.9	50.8	

Note :

(1) Shaded area indicates an exceedance of Limit Level.

(2) A facade correction of 3dB(A) was applied to each of noise measurements.

Table 6-11 Noise Monitoring Results

6.7 Factors Which Might Affect the Monitoring Results

Dust from other sources such as roads with the movement of heavy vehicles in the vicinity of the monitoring stations would affect the air quality monitoring results.

6.8 QA/QC Results and Detection Limit

The quality assurance (QA) / quality control (QC) results and detection limit are shown in Appendix 9.

7 Non-compliance, Complaints, Notifications of Summons and Successful Prosecutions

7.1 Non-compliance of Action and Limit Levels

No non-compliance of Action or Limit Level was recorded for air quality and noise monitoring.

7.2 Complaints Received

In case of an environmental complaint received, all related parties should follow the complaints response procedures specified in the EM&A Manual.

During this reporting month, no environmental complaint was received. Cumulative number of environmental complaint is shown in Appendix 10.

7.3 Notifications of Summons and Successful Prosecutions

No notification of summons or successful prosecution was recorded during the reporting month. The cumulative number of notifications of summons and successful prosecutions are shown in Appendix 10.

7.4 Review of the Reasons and Implications of Non-compliance, Complaints, Summons and Prosecutions

7.4.1 Non-compliance of Acton/Limit Level

No non-compliance was recorded during the reporting period.

7.4.2 Complaints, Summons and Prosecutions

No complaints, summons and prosecutions were recorded during the reporting period.

7.5 Site Inspection

Weekly site inspections were carried out on 6, 13, 21 and 27 September 2006. The findings of the site inspections and appropriate mitigation measures were recorded in the site inspection checklists.

The observations raised during the site inspections, corresponding recommendations and rectification status are summarised in Table 7-12.

Inspection Date	Deficiencies	Recommendation	Status	Note / Reminder
6 September 2006	1. No deficiency was observed.	N.A.	N.A.	N.A.
13 September 2006	1. No deficiency was observed.	N.A.	N.A.	1. Ponding water was observed at site exit and switch room area. The Contractor was reminded to drain away the ponding water after rainstorm.
21 September 2006	1. Sand and gravel were observed on bare ground near switch room and cleaning up action was in progress during the inspection.	1. The Contractor was reminded to keep the road clean and free from dust to prevent dust generation.	1. Sand and gravel on bare ground has been removed as observed on 27 September 2006.	N.A.

Inspection Date	Deficiencies	Recommendation	Status	Note / Reminder
27 September 2006	1. No deficiency was observed.	N.A.	N.A.	1. Wastewater discharging at Portion 2 was observed clean. The Contractor was reminded that silt removal facilities should be well maintained and clear of silt.

Table 7-12 Summaries of Site Inspections and Recommendations

The site audit conducted by IEC was carried out on 21 September 2006 and the Contractor has undertaken appropriate actions in response to the IEC's findings.

EPD inspection was undertaken on 25 September 2006 in the reporting month. EPD checked the effluent discharge at all areas, chemical waste storage area and checked whether Environmental permit, CNP displayed at site entrance. EPD has no adverse comment.

There was no outstanding issue or deficiency for the observations arising during the weekly site inspections. However, the Contractor was reminded to inspect and maintain the surface channels and mosquito control measures after rainstorm.

8 Waste Management Status

According to the information provided by the Contractor, the following waste materials were generated during the reporting month:

- Inert C&D materials – 3,495 m^3; and
- General Refuse – 65 m^3.

C&D materials were disposed of at Tuen Mun Area 38 Public Fill. General refuse was collected and disposed of at NENT Landfill properly. No chemical waste was produced during the reporting month. Trip ticket system was implemented and disposal records were in order on site. The Waste Management Plan was followed.

9 Future Key Issues

The construction activities for the coming three months are summarized below:

- construction of mini piles
- excavation
- pile head / cap construction
- sheet piling work, installation of walings and struts

- sub-structure and superstructure construction
- pipe works
- internal / external finishing

The upcoming EM&A schedule for the future three months is shown in Appendix 11.

10 Comments, Recommendations and Conclusions

EM&A works have been undertaken during September 2006 for the Project based on the requirements set in the EM&A Manual.

All monitoring equipments have been calibrated and all monitoring protocols have been carried out properly according to the EM&A Manual.

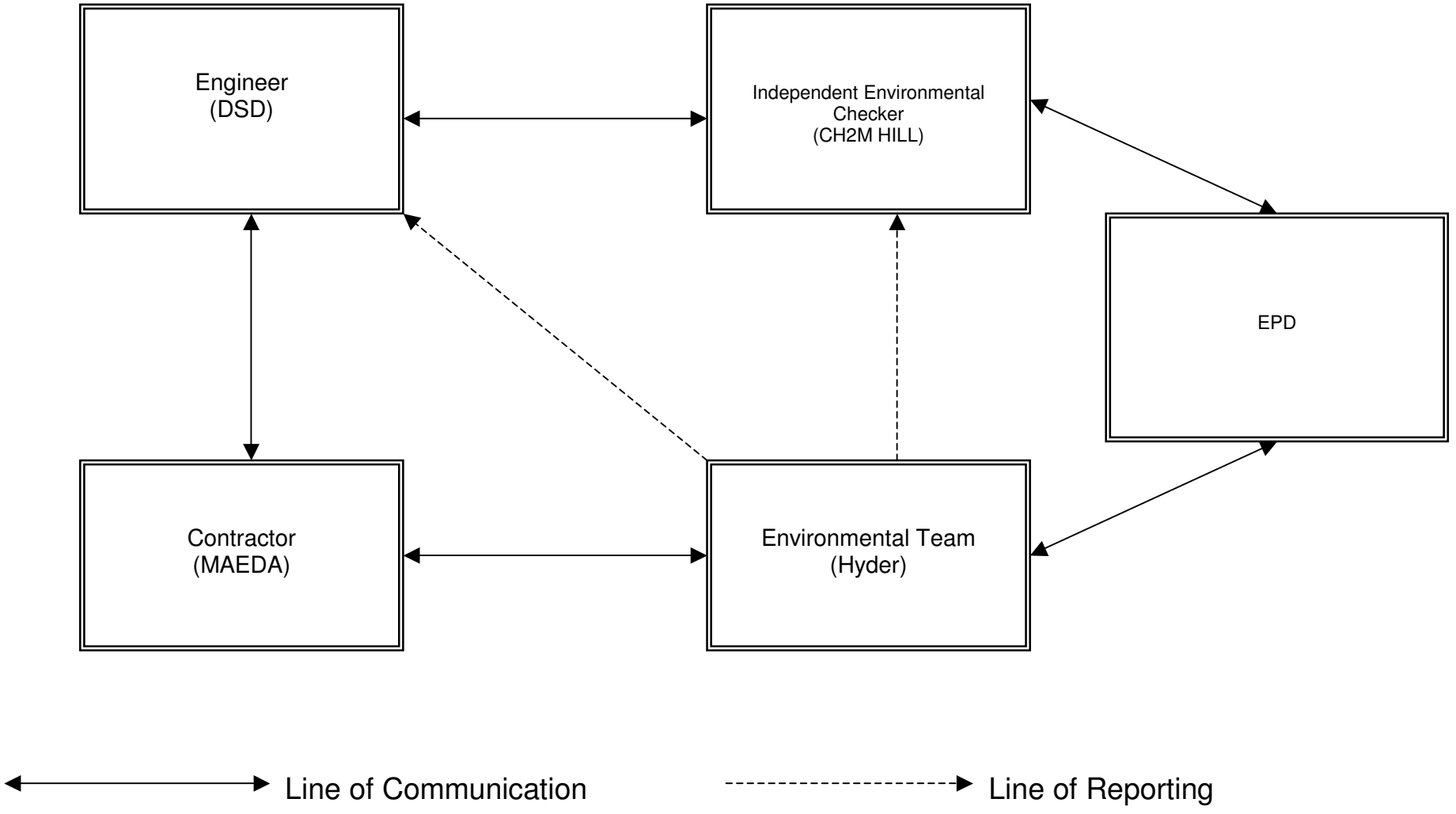
No valid exceedance of Action/Limit Level was recorded during the reporting month.

No compliant, notification of summons or successful prosecution was recorded during the reporting month.

Four weekly site inspections were carried out during the reporting month. In response to the observations raised by ET, the Contractor has undertaken follow-up actions to rectify the condition.

Appendix 1

Project Organization



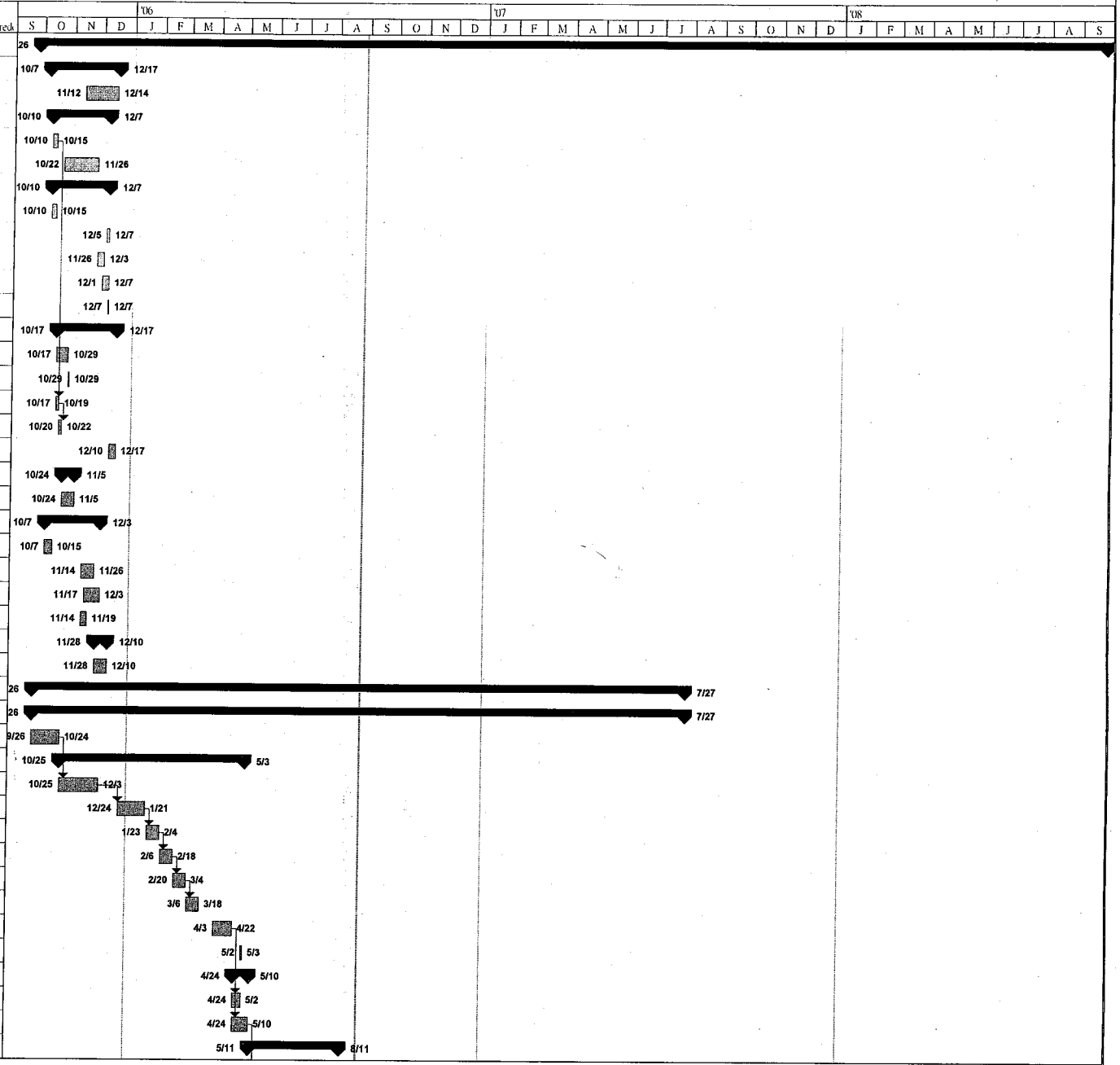
Hyder Consulting	MAEDA	Title: Expansion of Shek Wu Hui Sewage Treatment Works – Project Organization	Date: Dec 2005 Figure: N.A. Scale: NTS

Appendix 2

Construction Programme

Maeda Corporation
Contract No. DC/2005/01
Expansion of Shek Wu Hui Sewage Treatment Works and
Upgrading of Ting Kok Road Pumping Station No.5
Master Programme (Rev. 4)

ID	Task Name	Duration	Start	Finish	Pred
1	Shek Wu Hui	939 days	Mon 05/9/26	Wed 08/9/24	
2	Preliminary works	61 days	Fri 05/10/7	Sat 05/12/17	
3	EM&A Baseline Monitoring	28 days	Sat 05/11/12	Wed 05/12/14	
4	Area A (ER office)	51 days	Mon 05/10/10	Wed 05/12/7	
5	Sub-base (150mm thk)	5 days	Mon 05/10/10	Sat 05/10/15	
6	ER office erection	30 days	Sat 05/10/22	Sat 05/11/26	
7	External works	51 days	Mon 05/10/10	Wed 05/12/7	
8	Sub-base (150mm thk)	5 days	Mon 05/10/10	Sat 05/10/15	
9	concrete slab (150mm thk)	3 days	Mon 05/12/5	Wed 05/12/7	
10	U-channel	6 days	Sat 05/11/26	Sat 05/12/3	
11	water pipe connection	6 days	Thu 05/12/1	Wed 05/12/7	
12	temp. power supply (generator)	1 day	Wed 05/12/7	Wed 05/12/7	
13	Area B	53 days	Mon 05/10/17	Sat 05/12/17	
14	Contractor's office erection	11 days	Mon 05/10/17	Sat 05/10/29	
15	Staff move in	1 day	Sat 05/10/29	Sat 05/10/29	
16	Holding tank installation	3 days	Mon 05/10/17	Wed 05/10/19	5
17	Temporary access	3 days	Thu 05/10/20	Sat 05/10/22	16
18	Project signboard	6 days	Sat 05/12/10	Sat 05/12/17	
19	Area A, B & C	12 days	Mon 05/10/24	Sat 05/11/5	
20	Hoarding erection	12 days	Mon 05/10/24	Sat 05/11/5	
21	Portion 2	49 days	Fri 05/10/7	Sat 05/12/3	
22	Site clearance	7 days	Fri 05/10/7	Sat 05/10/15	
23	Hoarding erection	12 days	Mon 05/11/14	Sat 05/11/26	
24	Fencing erection	14 days	Thu 05/11/17	Sat 05/12/3	
25	Wheel washing bay installation	6 days	Mon 05/11/14	Sat 05/11/19	
26	Portion 3	12 days	Mon 05/11/28	Sat 05/12/10	
27	Fencing erection	12 days	Mon 05/11/28	Sat 05/12/10	
28	Section 1 of works	575 days	Mon 05/9/26	Fri 07/7/27	
29	Air Blower House No.2	575 days	Mon 05/9/26	Fri 07/7/27	
30	Preparation Works	25 days	Mon 05/9/26	Mon 05/10/24	
31	Foundation	164 days	Tue 05/10/25	Wed 06/5/3	
32	GI works (pre-drilling & reporting)	35 days	Tue 05/10/25	Sat 05/12/3	30
33	Preliminary H-pile (1nos.)	24 days	Sat 05/12/24	Sat 06/1/21	32
34	Permanent H-pile (5nos.)	12 days	Mon 06/1/23	Sat 06/2/4	33
35	Permanent H-pile (5nos.)	12 days	Mon 06/2/6	Sat 06/2/18	34
36	Permanent H-pile (5nos.)	12 days	Mon 06/2/20	Sat 06/3/4	35
37	Permanent H-pile (6nos.)	12 days	Mon 06/3/6	Sat 06/3/18	36
38	Proof Load Test (1nos.)	18 days	Mon 06/4/3	Sat 06/4/22	
39	Proof Drilling	2 days	Tue 06/5/2	Wed 06/5/3	
40	Earthworks	15 days	Mon 06/4/24	Wed 06/5/10	
41	Area 1	8 days	Mon 06/4/24	Tue 06/5/2	38
42	Area 2	15 days	Mon 06/4/24	Wed 06/5/10	38
43	Substructure	80 days	Thu 06/5/11	Fri 06/8/11	

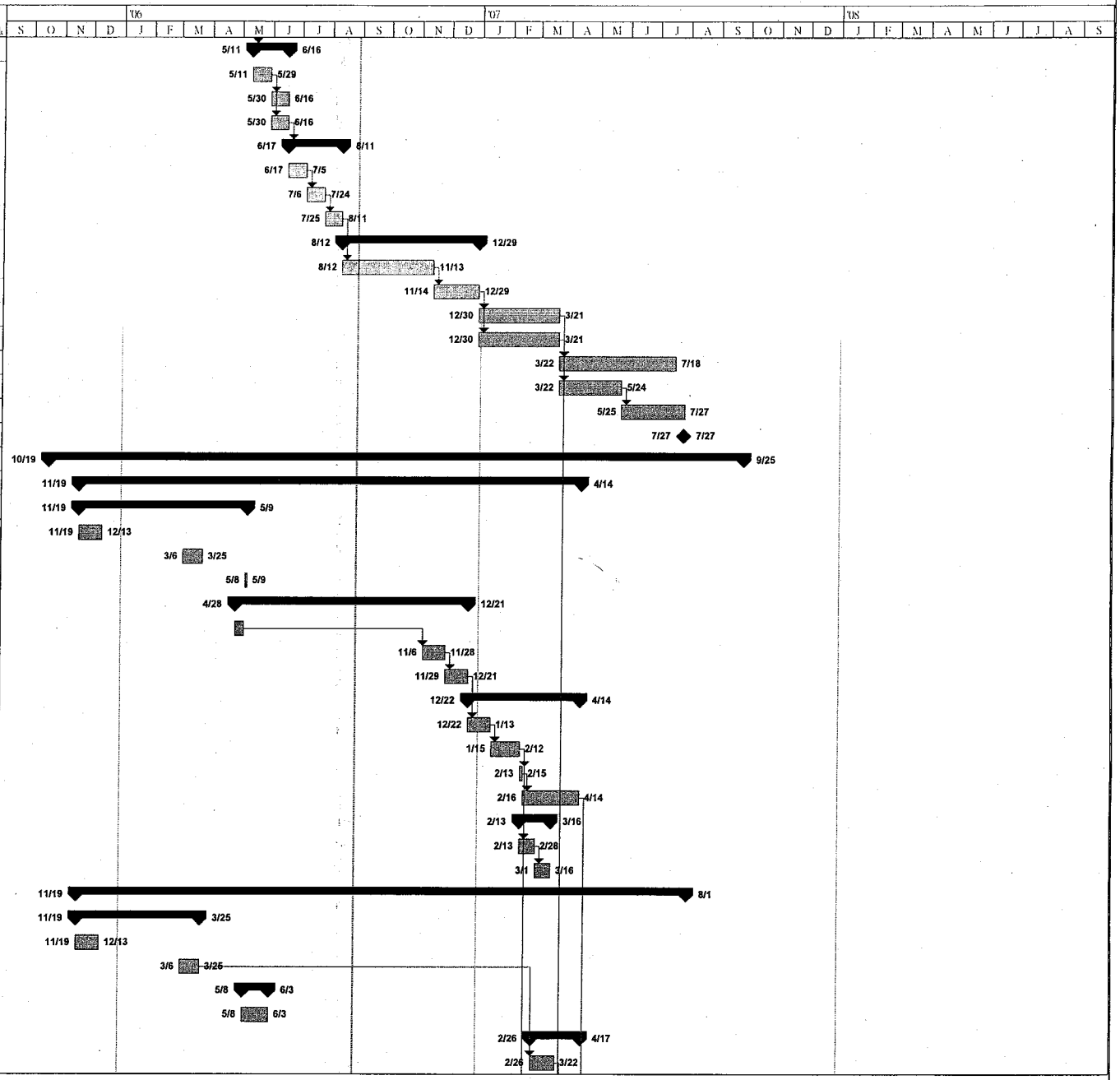


Date: Mon 06/8/28

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

Maeda Corporation
Contract No. DC/2005/01
Expansion of Shek Wu Hui Sewage Treatment Works and
Upgrading of Ting Kok Road Pumping Station No 5
Master Programme (Rev. 4)

ID	Task Name	Duration	Start	Finish	Preds
44	Area 1	32 days	Thu 06/5/11	Fri 06/6/16	42
45	Ground Beams	16 days	Thu 06/5/11	Mon 06/5/29	
46	Ground Slabs	16 days	Tue 06/5/30	Fri 06/6/16	45
47	Substructure Walls	16 days	Tue 06/5/30	Fri 06/6/16	45
48	Area 1	48 days	Sat 06/6/17	Fri 06/8/11	47
49	Ground Beams	16 days	Sat 06/6/17	Wed 06/7/5	
50	Ground Slabs	16 days	Thu 06/7/6	Mon 06/7/24	49
51	Substructure Walls	16 days	Tue 06/7/25	Fri 06/8/11	50
52	**Superstructure**	120 days	Sat 06/8/12	Fri 06/12/29	
53	Structural framing & slab at level 11.80mPD	80 days	Sat 06/8/12	Mon 06/11/13	51
54	Concrete Structure up to roof	40 days	Tue 06/11/14	Fri 06/12/29	53
55	**Internal Finishes**	70 days	Sat 06/12/30	Wed 07/3/21	54
56	**External Finishes**	70 days	Sat 06/12/30	Wed 07/3/21	54
57	**E&M Works**	102 days	Thu 07/3/22	Wed 07/7/18	55
58	**External Works**	55 days	Thu 07/3/22	Thu 07/5/24	56
59	**Covered Walkway**	55 days	Fri 07/5/25	Fri 07/7/27	58
60	**Key Date of the Section 1 Works**	1 day	Fri 07/7/27	Fri 07/7/27	
61	**Section 2 of works**	606 days	Wed 05/10/19	Tue 07/9/25	
62	**Flow Division Pump Pits No.1**	439 days	Sat 05/11/19	Sat 07/4/14	
63	**Foundation**	147 days	Sat 05/11/19	Tue 06/5/9	
64	GI works (pre-drilling & reporting)	20 days	Sat 05/11/19	Tue 05/12/13	
65	Permanent Mini-pile (4nos.)	18 days	Mon 06/3/6	Sat 06/3/25	
66	Proof Drilling	2 days	Mon 06/5/8	Tue 06/5/9	
67	**Earthworks**	204 days	Fri 06/4/28	Thu 06/12/21	
68	Approval of Temporary Works	8 days	Fri 06/4/28	Sat 06/5/6	
69	Install temporary retaining wall (steel pile)	20 days	Mon 06/11/6	Tue 06/11/28	68
70	Excavation & temp.supporting	20 days	Wed 06/11/29	Thu 06/12/21	69
71	**Structure**	98 days	Fri 06/12/22	Sat 07/4/14	
72	Pilecaps	20 days	Fri 06/12/22	Sat 07/1/13	70
73	Concrete work	25 days	Mon 07/1/15	Mon 07/2/12	72
74	Temporary Suspension and Demolition of Existing Pipe	3 days	Tue 07/2/13	Thu 07/2/15	73
75	Pumps & Pipe installation (by others)	50 days	Fri 07/2/16	Sat 07/4/14	74
76	**External Works**	28 days	Tue 07/2/13	Fri 07/3/16	
77	Backfilling, remove temp. retaining wall	14 days	Tue 07/2/13	Wed 07/2/28	73
78	Installation, handrail/plate/ladder	14 days	Thu 07/3/1	Fri 07/3/16	77
79	**Flow Division Pump Pits No.2**	532 days	Sat 05/11/19	Wed 07/8/1	
80	**Foundation**	109 days	Sat 05/11/19	Sat 06/3/25	
81	GI works (pre-drilling & reporting)	20 days	Sat 05/11/19	Tue 05/12/13	
82	Permanent Mini-pile (4nos.)	18 days	Mon 06/3/6	Sat 06/3/25	
83	**Utility Diversion**	24 days	Mon 06/5/8	Sat 06/6/3	
84	Compressed Air pipe (by MAEDA)	24 days	Mon 06/5/8	Sat 06/6/3	
85	**Earthworks**	44 days	Mon 07/2/26	Tue 07/4/17	
86	Install temporary retaining wall (sheetpile)	22 days	Mon 07/2/26	Thu 07/3/22	82

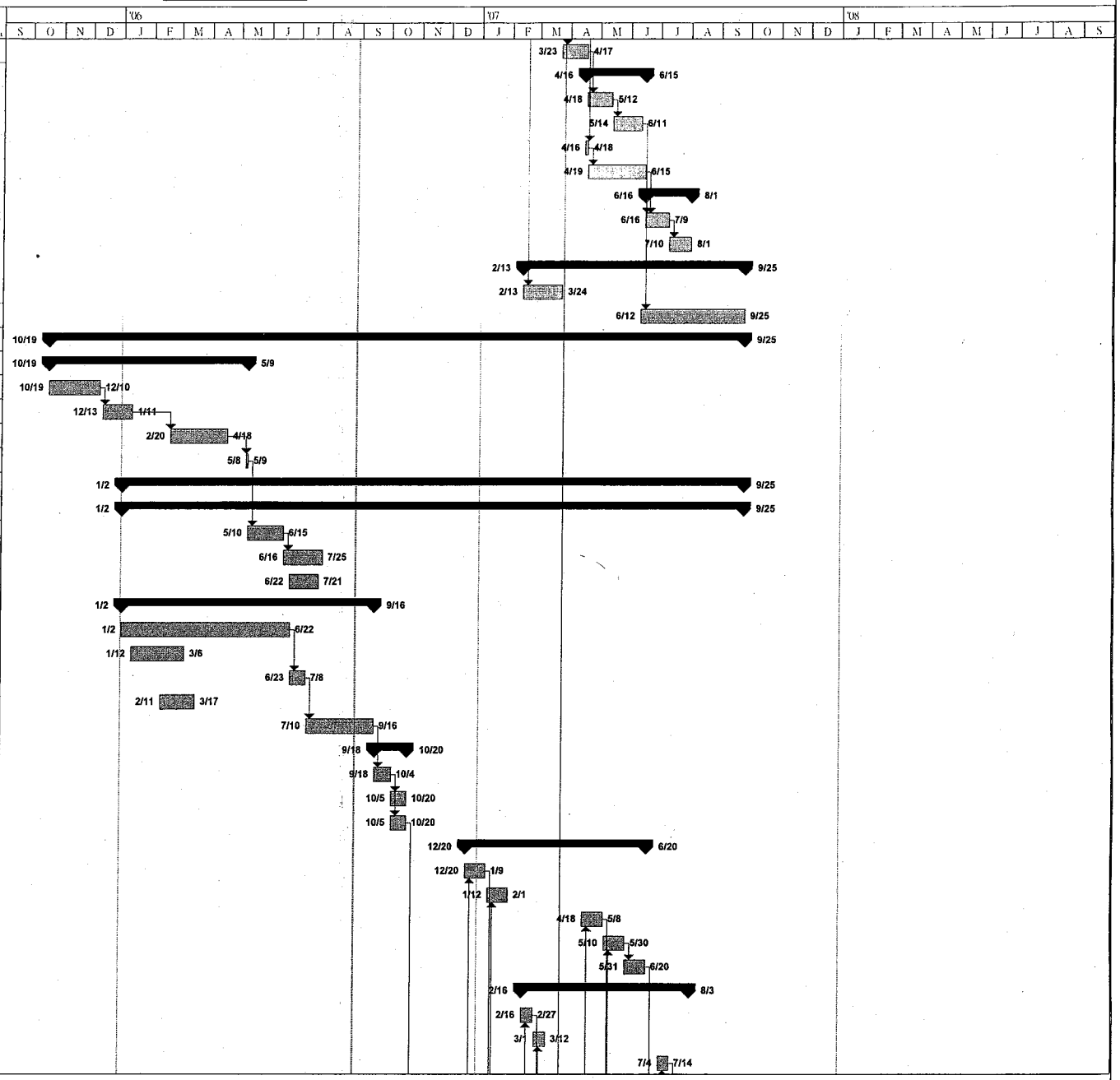


Date: Mon 06/8/28

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

Maeda Corporation
Contract No. DC/2005/01
Expansion of Shek Wu Hui Sewage Treatment Works and
Upgrading of Ting Kok Road Pumping Station No.5
Master Programme (Rev. 4)

ID	Task Name	Duration	Start	Finish	Preds
87	Excavation & temp.supporting	22 days	Fri 07/3/23	Tue 07/4/17	86
88	**Structure**	53 days	Mon 07/4/16	Fri 07/6/15	
89	Pilecaps	22 days	Wed 07/4/18	Sat 07/5/12	87
90	Concrete work	25 days	Mon 07/5/14	Mon 07/6/11	89
91	Temporary Suspension and Demolition of Existing Pipe	3 days	Mon 07/4/16	Wed 07/4/18	75
92	Pumps & Pipe installation (by others)	50 days	Thu 07/4/19	Fri 07/6/15	91
93	**External Works**	40 days	Sat 07/6/16	Wed 07/8/1	
94	Backfilling, remove temp. retaining wall	20 days	Sat 07/6/16	Mon 07/7/9	90,9
95	Installation, handrail/plate/ladder	20 days	Tue 07/7/10	Wed 07/8/1	94
96	**Pipeworks**	193 days	Tue 07/2/13	Tue 07/9/25	
97	Pipe laying Pit 1 to Pit 2	35 days	Tue 07/2/13	Sat 07/3/24	73
98	Pipe laying Pit 2 to Bioreactor No.5	91 days	Tue 07/6/12	Tue 07/9/25	90
99	**Bioreactor No.5**	606 days	Wed 05/10/19	Tue 07/9/25	
100	Foundation	174 days	Wed 05/10/19	Tue 06/5/9	
101	GI works (pre-drilling & reporting)	45 days	Wed 05/10/19	Sat 05/12/10	
102	Preliminary H-pile (1nos.)	26 days	Tue 05/12/13	Wed 06/1/11	101
103	Permanent H-pile (55nos.)	50 days	Mon 06/2/20	Tue 06/4/18	102
104	Proof Load Test (1nos.)	2 days	Mon 06/5/8	Tue 06/5/9	103
105	Temporary Works	542 days	Mon 06/1/2	Tue 07/9/25	
106	Erection - Phase 1	542 days	Mon 06/1/2	Tue 07/9/25	
107	Sheetpiling works (Portion A to C)	32 days	Wed 06/5/10	Thu 06/6/15	104
108	General excavation to +5.3mPD	34 days	Fri 06/6/16	Tue 06/7/25	107
109	Installation of wailngs and struts	26 days	Thu 06/6/22	Fri 06/7/21	
110	Utility Diversion	222 days	Mon 06/1/2	Sat 06/9/16	
111	Approval of Specialist Subcontractor	148 days	Mon 06/1/2	Thu 06/6/22	
112	Material Ordering and Delivery	46 days	Thu 06/1/12	Mon 06/3/6	
113	Cable Identification	14 days	Fri 06/6/23	Sat 06/7/8	111
114	Trench Excavation	30 days	Sat 06/2/11	Fri 06/3/17	
115	Cable Diversion	60 days	Mon 06/7/10	Sat 06/9/16	113
116	**Erection - Phase 2**	**29 days**	**Mon 06/9/18**	**Fri 06/10/20**	
117	Sheetpiling works (Portion D to E)	15 days	Mon 06/9/18	Wed 06/10/4	115
118	General excavation to +5.3mPD	14 days	Thu 06/10/5	Fri 06/10/20	117
119	Installation of wailngs and struts	14 days	Thu 06/10/5	Fri 06/10/20	117
120	Removal - waling and strut	157 days	Wed 06/12/20	Wed 07/6/20	
121	Portion A	18 days	Wed 06/12/20	Tue 07/1/9	144
122	Portion B	18 days	Fri 07/1/12	Thu 07/2/1	145
123	Portion C	18 days	Wed 07/4/18	Tue 07/5/8	146
124	Portion D	18 days	Thu 07/5/10	Wed 07/5/30	147
125	Portion E	18 days	Thu 07/5/31	Wed 07/6/20	124
126	Removal - sheet pile	145 days	Fri 07/2/16	Fri 07/8/3	
127	Portion A to B	10 days	Fri 07/2/16	Tue 07/2/27	149
128	Portion B to C	10 days	Thu 07/3/1	Mon 07/3/12	150
129	Portion C to D	10 days	Wed 07/7/4	Sat 07/7/14	151

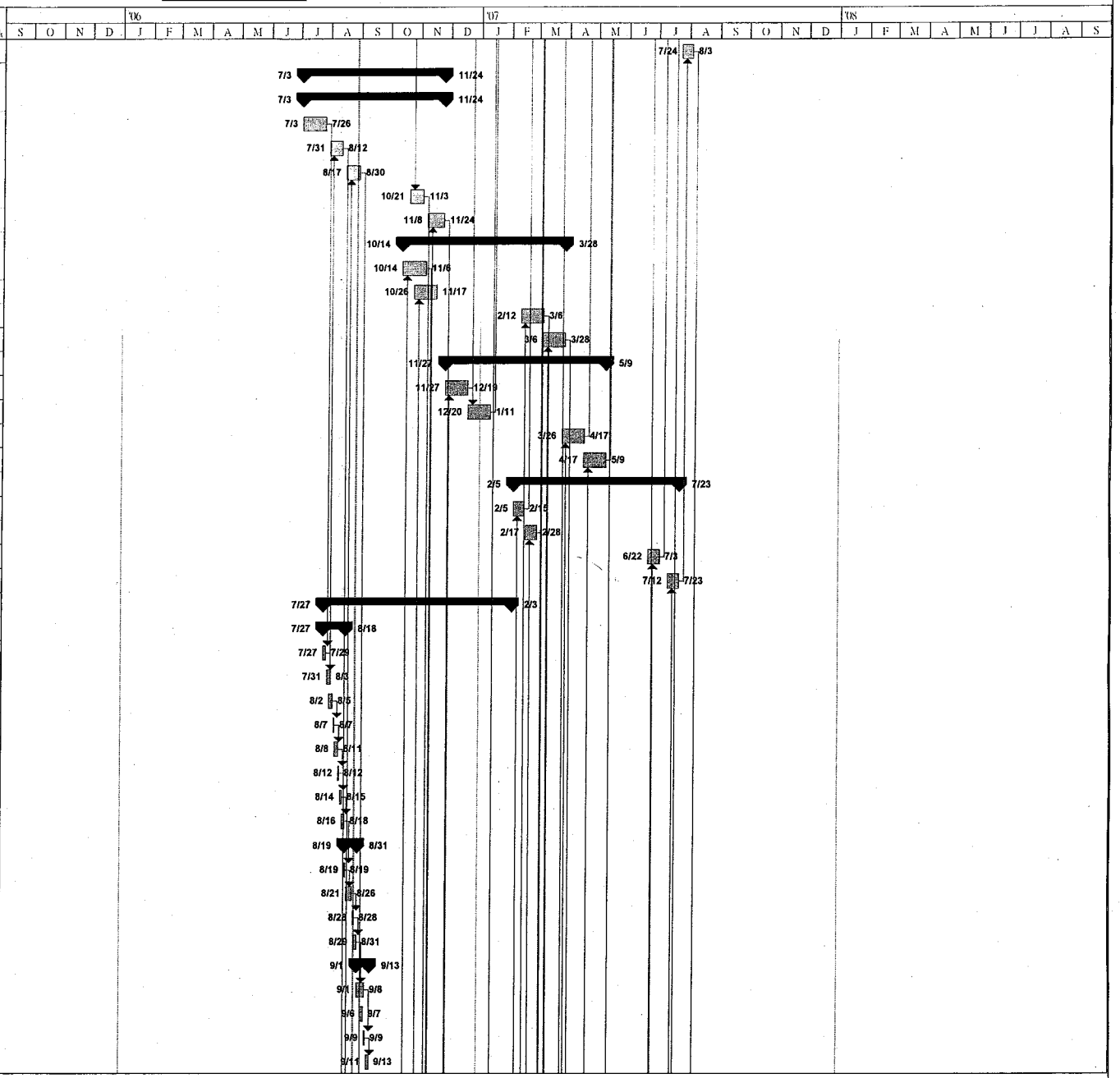


Date: Mon 06/8/28

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

Maeda Corporation
Contract No. DC/2005/01
Expansion of Shek Wu Hui Sewage Treatment Works and
Upgrading of Ting Kok Road Pumping Station No 5
Master Programme (Rev. 4)

ID	Task Name	Duration	Start	Finish	Preds
130	Portion D to E	10 days	Tue 07/7/24	Fri 07/8/3	152
131	Earthworks	125 days	Mon 06/7/3	Fri 06/11/24	
132	Excavation to formation	125 days	Mon 06/7/3	Fri 06/11/24	
133	Portion A	21 days	Mon 06/7/3	Wed 06/7/26	
134	Portion B	12 days	Mon 06/7/31	Sat 06/8/12	155
135	Portion C	12 days	Thu 06/8/17	Wed 06/8/30	180
136	Portion D	12 days	Sat 06/10/21	Fri 06/11/3	119
137	Portion E	15 days	Wed 06/11/8	Fri 06/11/24	247
138	Backfilling to +2.92mPD	142 days	Sat 06/10/14	Wed 07/3/28	
139	Portion A to B	20 days	Sat 06/10/14	Mon 06/11/6	198
140	Portion B to C	20 days	Thu 06/10/26	Fri 06/11/17	227
141	Portion C to D	20 days	Mon 07/2/12	Tue 07/3/6	296
142	Portion D to E	20 days	Tue 07/3/6	Wed 07/3/28	301
143	Backfilling to +5.30mPD	141 days	Mon 06/11/27	Wed 07/5/9	
144	Portion A to B	20 days	Mon 06/11/27	Tue 06/12/19	317
145	Portion B to C	20 days	Wed 06/12/20	Thu 07/1/11	144
146	Portion C to D	20 days	Mon 07/3/26	Tue 07/4/17	327
147	Portion D to E	20 days	Tue 07/4/17	Wed 07/5/9	329
148	Backfilling to FGL	145 days	Mon 07/2/5	Mon 07/7/23	
149	Portion A to B	10 days	Mon 07/2/5	Thu 07/2/15	177
150	Portion B to C	10 days	Sat 07/2/17	Wed 07/2/28	203
151	Portion C to D	10 days	Fri 07/6/22	Tue 07/7/3	268
152	Portion D to E	10 days	Thu 07/7/12	Mon 07/7/23	306
153	Portion A	165 days	Thu 06/7/27	Sat 07/2/3	
154	Pile heads	20 days	Thu 06/7/27	Fri 06/8/18	
155	excavation for pile head	3 days	Thu 06/7/27	Sat 06/7/29	133
156	break cement grout	4 days	Mon 06/7/31	Thu 06/8/3	155
157	cut pile and weld for pile head plate	4 days	Wed 06/8/2	Sat 06/8/5	
158	blinding for pile head	1 day	Mon 06/8/7	Mon 06/8/7	157
159	rebar fixing and formwork erection	4 days	Tue 06/8/8	Fri 06/8/11	158
160	concreting	1 day	Sat 06/8/12	Sat 06/8/12	159
161	dismantle formwork and form CJ	2 days	Mon 06/8/14	Tue 06/8/15	160
162	backfilling	3 days	Wed 06/8/16	Fri 06/8/18	161
163	Base slab	11 days	Sat 06/8/19	Thu 06/8/31	
164	blinding concrete	1 day	Sat 06/8/19	Sat 06/8/19	162
165	rebar fixing and formwork erection	6 days	Mon 06/8/21	Sat 06/8/26	164
166	concreting	1 day	Mon 06/8/28	Mon 06/8/28	165
167	dismantle formwork and form CJ	3 days	Tue 06/8/29	Thu 06/8/31	166
168	Wall up to +5.50mPD	11 days	Fri 06/9/1	Wed 06/9/13	
169	rebar fixing and formwork erection	7 days	Fri 06/9/1	Fri 06/9/8	167
170	Install puddle flanges at wall	2 days	Wed 06/9/6	Thu 06/9/7	
171	concreting	1 day	Sat 06/9/9	Sat 06/9/9	169
172	dismantle formwork and form CJ	3 days	Mon 06/9/11	Wed 06/9/13	171



Date: Mon 06/8/28

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

Maeda Corporation
Contract No. DC/2005/01
Expansion of Shek Wu Hui Sewage Treatment Works and
Upgrading of Ting Kok Road Pumping Station No 5
Master Programme (Rev. 4)

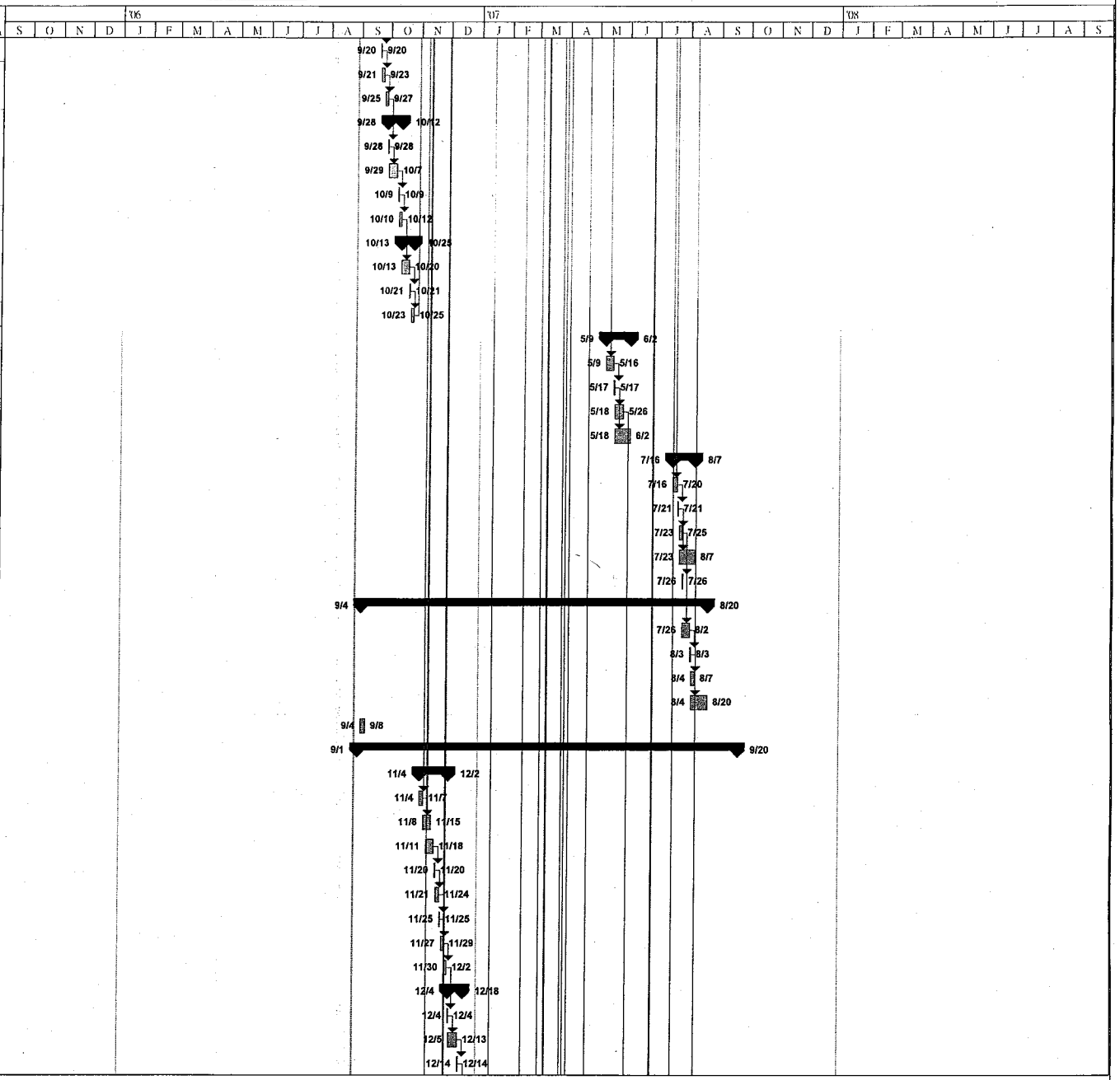
ID	Task Name	Duration	Start	Finish	Preds
173	Wall up to +8.50mPD	22 days	Wed 07/1/10	Sat 07/2/3	
174	rebar fixing, fwk and falseworks erection	7 days	Wed 07/1/10	Wed 07/1/17	121
175	concreting	1 day	Thu 07/1/18	Thu 07/1/18	174
176	dismantle formwork	3 days	Fri 07/1/19	Mon 07/1/22	175
177	remove falsework	14 days	Fri 07/1/19	Sat 07/2/3	175
178	**Portion B**	**191 days**	**Mon 06/8/14**	**Fri 07/3/23**	
179	Pile head	24 days	Mon 06/8/14	Sat 06/9/9	
180	excavation for pile head	3 days	Mon 06/8/14	Wed 06/8/16	134
181	break cement grout	7 days	Thu 06/8/17	Thu 06/8/24	180
182	cut pile and weld pile head plate	7 days	Sat 06/8/19	Sat 06/8/26	
183	blinding for pile head	1 day	Mon 06/8/28	Mon 06/8/28	182
184	rebar fixing and formwork erection	4 days	Tue 06/8/29	Fri 06/9/1	183
185	concreting	1 day	Sat 06/9/2	Sat 06/9/2	184
186	dismantle formwork and form CJ	3 days	Mon 06/9/4	Wed 06/9/6	185
187	backfilling	3 days	Thu 06/9/7	Sat 06/9/9	186
188	Base slab	13 days	Mon 06/9/11	Mon 06/9/25	
189	blinding concrete	1 day	Mon 06/9/11	Mon 06/9/11	187
190	rebar fixing and formwork erection	8 days	Tue 06/9/12	Wed 06/9/20	189
191	concreting	1 day	Thu 06/9/21	Thu 06/9/21	190
192	dismantle formwork and form CJ	3 days	Fri 06/9/22	Mon 06/9/25	191
193	Wall up to +5.50mPD	16 days	Tue 06/9/26	Fri 06/10/13	
194	rebar fixing and formwork erection	7 days	Tue 06/9/26	Tue 06/10/3	192
195	Install puddle flanges at wall	8 days	Fri 06/9/29	Sat 06/10/7	
196	Install MLR pump couplings	8 days	Sat 06/9/30	Mon 06/10/9	
197	concreting	1 day	Wed 06/10/4	Wed 06/10/4	194
198	dismantle formwork and form CJ	8 days	Thu 06/10/5	Fri 06/10/13	197
199	Wall up to +8.50mPD and +8.3mPD(CJ)	22 days	Tue 07/1/23	Fri 07/2/16	
200	rebar fixing, fwk and falseworks erection	7 days	Tue 07/1/23	Tue 07/1/30	176
201	concreting	1 day	Wed 07/1/31	Wed 07/1/31	200
202	dismantle formwork	3 days	Thu 07/2/1	Sat 07/2/3	201
203	remove falsework	14 days	Thu 07/2/1	Fri 07/2/16	201
204	Footway at hoarding side	20 days	Thu 07/3/1	Fri 07/3/23	
205	rebar fixing, fwk and falseworks erection	5 days	Thu 07/3/1	Tue 07/3/6	150
206	concreting	1 day	Wed 07/3/7	Wed 07/3/7	205
207	dismantle formwork	3 days	Thu 07/3/8	Sat 07/3/10	206
208	remove falsework	14 days	Thu 07/3/8	Fri 07/3/23	206
209	Portion C	304 days	Thu 06/8/31	Mon 07/8/20	
210	Pile head	24 days	Thu 06/8/31	Wed 06/9/27	
211	excavation for pile head	3 days	Thu 06/8/31	Sat 06/9/2	135
212	break cement grout	7 days	Mon 06/9/4	Mon 06/9/11	211
213	cut pile and weld pile head plate	7 days	Wed 06/9/6	Wed 06/9/13	
214	blinding for pile head	1 day	Thu 06/9/14	Thu 06/9/14	213
215	rebar fixing and formwork erection	4 days	Fri 06/9/15	Tue 06/9/19	214

Date: Mon 06/8/28

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

Maeda Corporation
Contract No. DC/2005/01
Expansion of Shek Wu Hui Sewage Treatment Works and
Upgrading of Ting Kok Road Pumping Station No 5
Master Programme (Rev. 4)

ID	Task Name	Duration	Start	Finish	Preds
216	concreting	1 day	Wed 06/9/20	Wed 06/9/20	215
217	dismantle formwork and form CJ	3 days	Thu 06/9/21	Sat 06/9/23	216
218	backfilling	3 days	Mon 06/9/25	Wed 06/9/27	217
219	Base slab	13 days	Thu 06/9/28	Thu 06/10/12	
220	blinding concrete	1 day	Thu 06/9/28	Thu 06/9/28	218
221	rebar fixing and formwork erection	8 days	Fri 06/9/29	Sat 06/10/7	220
222	concreting	1 day	Mon 06/10/9	Mon 06/10/9	221
223	dismantle formwork and form CJ	3 days	Tue 06/10/10	Thu 06/10/12	222
224	Wall up to +5.50mPD	11 days	Fri 06/10/13	Wed 06/10/25	
225	rebar fixing and formwork erection	7 days	Fri 06/10/13	Fri 06/10/20	223
226	concreting	1 day	Sat 06/10/21	Sat 06/10/21	225
227	dismantle formwork and form CJ	3 days	Mon 06/10/23	Wed 06/10/25	226
228	Side wall up to +8.50mPD and +8.3mPD(CJ)	22 days	Wed 07/5/9	Sat 07/6/2	
229	rebar fixing, fwk and falseworks erection	7 days	Wed 07/5/9	Wed 07/5/16	123
230	concreting	1 day	Thu 07/5/17	Thu 07/5/17	229
231	dismantle formwork	8 days	Fri 07/5/18	Sat 07/5/26	230
232	remove falsework	14 days	Fri 07/5/18	Sat 07/6/2	230
233	Footway at hoarding side	20 days	Mon 07/7/16	Tue 07/8/7	
234	rebar fixing, fwk and falseworks erection	5 days	Mon 07/7/16	Fri 07/7/20	129
235	concreting	1 day	Sat 07/7/21	Sat 07/7/21	234
236	dismantle formwork	3 days	Mon 07/7/23	Wed 07/7/25	235
237	remove falsework	14 days	Mon 07/7/23	Tue 07/8/7	235
238	install sliding bearing strip	1 day	Thu 07/7/26	Thu 07/7/26	236
239	Central wall and top slab	301 days	Mon 06/9/4	Mon 07/8/20	
240	rebar fixing, fwk and falseworks erection	7 days	Thu 07/7/26	Thu 07/8/2	236
241	concreting	1 day	Fri 07/8/3	Fri 07/8/3	240
242	dismantle formwork	3 days	Sat 07/8/4	Tue 07/8/7	241
243	remove falsework	14 days	Sat 07/8/4	Mon 07/8/20	241
244	Construct stairs Type A	5 days	Mon 06/9/4	Fri 06/9/8	
245	Portion D	330 days	Fri 06/9/1	Thu 07/9/20	
246	Pile head	25 days	Sat 06/11/4	Sat 06/12/2	
247	excavation for pile head	3 days	Sat 06/11/4	Tue 06/11/7	136
248	break cement grout	7 days	Wed 06/11/8	Wed 06/11/15	247
249	cut pile and weld pile head plate	7 days	Sat 06/11/11	Sat 06/11/18	
250	blinding for pile head	1 day	Mon 06/11/20	Mon 06/11/20	249
251	rebar fixing and formwork erection	4 days	Tue 06/11/21	Fri 06/11/24	250
252	concreting	1 day	Sat 06/11/25	Sat 06/11/25	251
253	dismantle formwork and form CJ	3 days	Mon 06/11/27	Wed 06/11/29	252
254	backfilling	3 days	Thu 06/11/30	Sat 06/12/2	253
255	Base slab	13 days	Mon 06/12/4	Mon 06/12/18	
256	blinding concrete	1 day	Mon 06/12/4	Mon 06/12/4	254
257	rebar fixing and formwork erection	8 days	Tue 06/12/5	Wed 06/12/13	256
258	concreting	1 day	Thu 06/12/14	Thu 06/12/14	257



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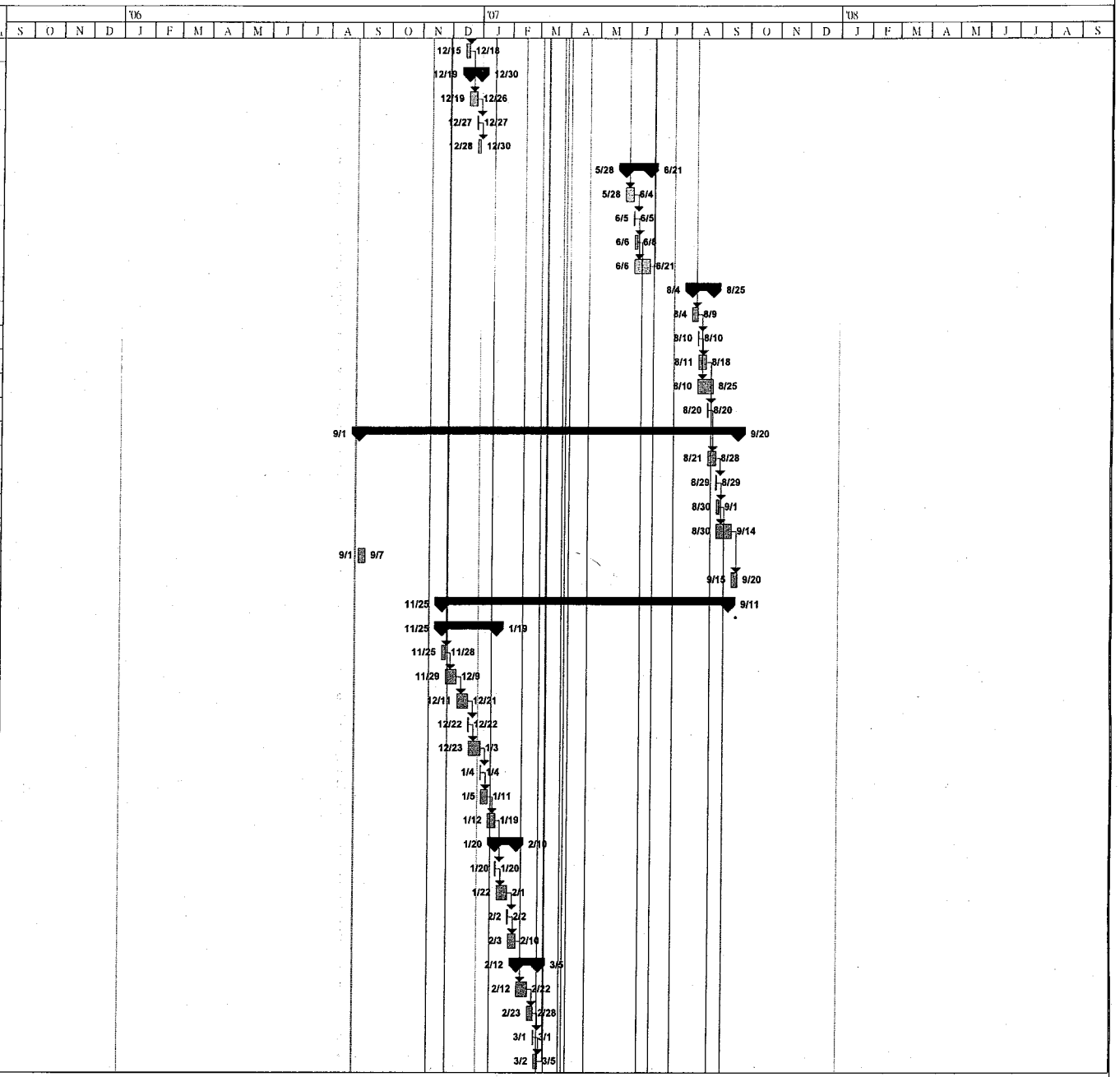
Task | Progress | Summary | Rolled Up Critical Task | Rolled Up Progress | External Tasks
Critical Task | Milestone | Rolled Up Task | Rolled Up Milestone | Split | Project Summary

Maeda Corporation
Contract No. DC/2005/01
Expansion of Shek Wu Hui Sewage Treatment Works and
Upgrading of Ting Kok Road Pumping Station No 5
Master Programme (Rev. 4)

ID	Task Name	Duration	Start	Finish	Preds
259	dismantle formwork and form CJ	3 days	Fri 06/12/15	Mon 06/12/18	258
260	Wall up to +5.50mPD	11 days	Tue 06/12/19	Sat 06/12/30	
261	rebar fixing and formwork erection	7 days	Tue 06/12/19	Tue 06/12/26	259
262	concreting	1 day	Wed 06/12/27	Wed 06/12/27	261
263	dismantle formwork and form CJ	3 days	Thu 06/12/28	Sat 06/12/30	262
264	Side wall up to +8.50mPD and +8.3mPD(CJ)	22 days	Mon 07/5/28	Thu 07/6/21	
265	rebar fixing, fwk and falseworks erection	7 days	Mon 07/5/28	Mon 07/6/4	231
266	concreting	1 day	Tue 07/6/5	Tue 07/6/5	265
267	dismantle formwork	3 days	Wed 07/6/6	Fri 07/6/8	266
268	remove falsework	14 days	Wed 07/6/6	Thu 07/6/21	266
269	Footway at hoarding side	19 days	Sat 07/8/4	Sat 07/8/25	
270	rebar fixing, fwk and falseworks erection	5 days	Sat 07/8/4	Thu 07/8/9	130
271	concreting	1 day	Fri 07/8/10	Fri 07/8/10	270
272	dismantle formwork	7 days	Sat 07/8/11	Sat 07/8/18	271
273	remove falsework	14 days	Fri 07/8/10	Sat 07/8/25	270
274	install sliding bearing strip	1 day	Mon 07/8/20	Mon 07/8/20	272
275	Central wall and top slab	330 days	Fri 06/9/1	Thu 07/9/20	
276	rebar fixing, fwk and falseworks erection	7 days	Tue 07/8/21	Tue 07/8/28	274
277	concreting	1 day	Wed 07/8/29	Wed 07/8/29	276
278	dismantle formwork	3 days	Thu 07/8/30	Sat 07/9/1	277
279	remove falsework	14 days	Thu 07/8/30	Fri 07/9/14	277
280	Construct stairs Type A	6 days	Fri 06/9/1	Thu 06/9/7	
281	Install FRP Baffle Wall Type II	5 days	Sat 07/9/15	Thu 07/9/20	279
282	Portion E	249 days	Sat 06/11/25	Tue 07/9/11	
283	Pile head	48 days	Sat 06/11/25	Fri 07/1/19	
284	excavation for pile head	3 days	Sat 06/11/25	Tue 06/11/28	137
285	break cement grout	10 days	Wed 06/11/29	Sat 06/12/9	284
286	cut pile and weld pile head plate	10 days	Mon 06/12/11	Thu 06/12/21	285
287	blinding for pile head	1 day	Fri 06/12/22	Fri 06/12/22	286
288	rebar fixing, fwk and falseworks erection	10 days	Sat 06/12/23	Wed 07/1/3	287
289	concreting	1 day	Thu 07/1/4	Thu 07/1/4	288
290	dismantle formwork and form CJ	6 days	Fri 07/1/5	Thu 07/1/11	289
291	backfilling	7 days	Fri 07/1/12	Fri 07/1/19	290
292	Base slab	19 days	Sat 07/1/20	Sat 07/2/10	
293	blinding concrete	1 day	Sat 07/1/20	Sat 07/1/20	291
294	rebar fixing, fwk and falseworks erection	10 days	Mon 07/1/22	Thu 07/2/1	293
295	concreting	1 day	Fri 07/2/2	Fri 07/2/2	294
296	dismantle formwork and form CJ	7 days	Sat 07/2/3	Sat 07/2/10	295
297	Wall up to +5.50mPD	19 days	Mon 07/2/12	Mon 07/3/5	
298	rebar fixing, fwk and falseworks erection	10 days	Mon 07/2/12	Thu 07/2/22	296
299	Install puddle flanges at wall	5 days	Fri 07/2/23	Wed 07/2/28	298
300	concreting	1 day	Thu 07/3/1	Thu 07/3/1	299
301	dismantle formwork and form CJ	3 days	Fri 07/3/2	Mon 07/3/5	300



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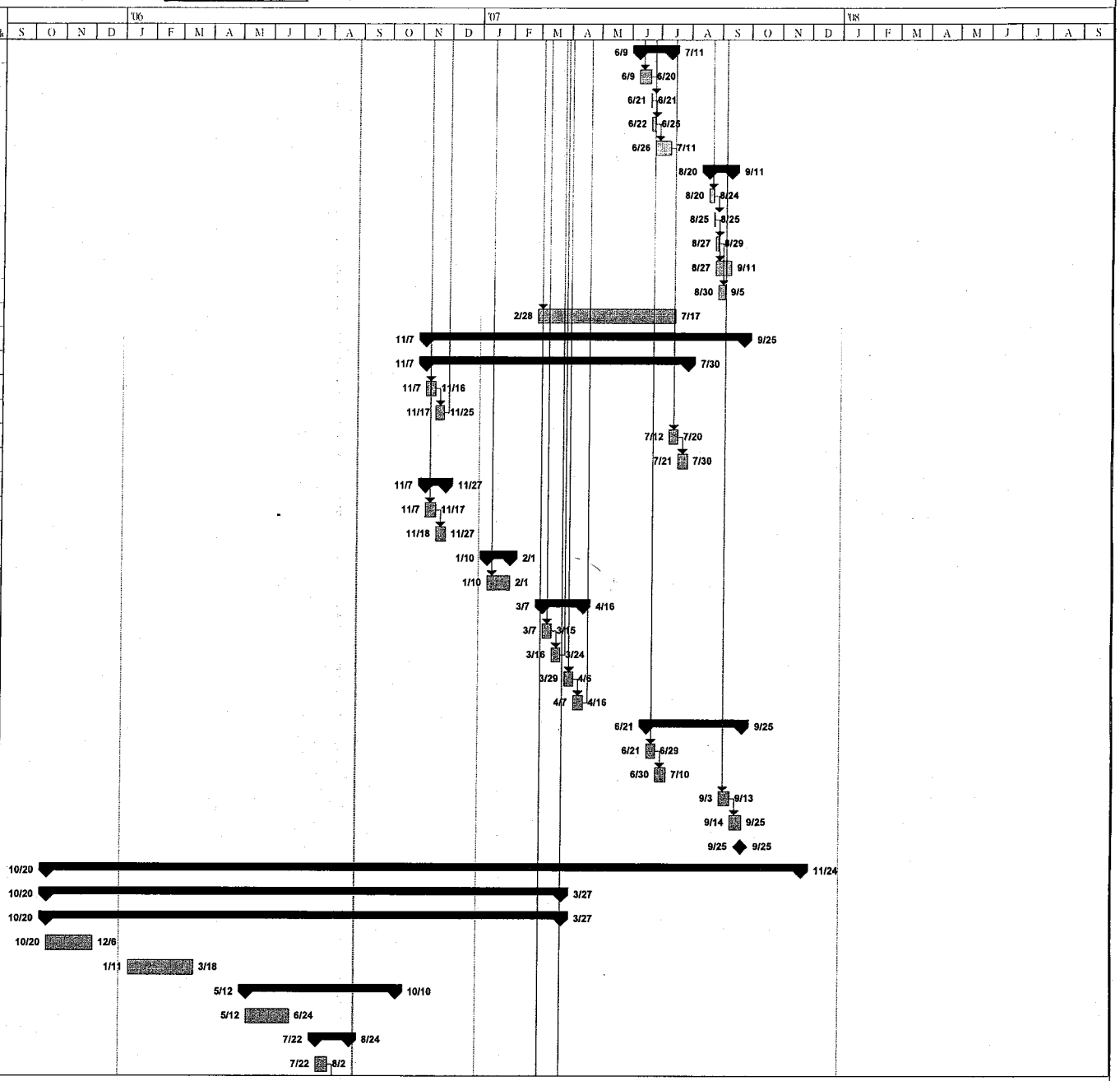
Task | Progress | Summary | Rolled Up Critical Task | Rolled Up Progress | External Tasks
Critical Task | Milestone | Rolled Up Task | Rolled Up Milestone | Split | Project Summary

Maeda Corporation
Contract No DC/2005/01
Expansion of Shek Wu Hui Sewage Treatment Works and
Upgrading of Ting Kok Road Pumping Station No 5
Master Programme (Rev. 4)

ID	Task Name	Duration	Start	Finish	Preds
302	Walls up to +8.50mPD and +8.3mPD(CJ)	28 days	Sat 07/6/9	Wed 07/7/11	
303	rebar fixing, fwk and falseworks erection	10 days	Sat 07/6/9	Wed 07/6/20	267
304	concreting	1 day	Thu 07/6/21	Thu 07/6/21	303
305	dismantle formwork	3 days	Fri 07/6/22	Mon 07/6/25	304
306	remove falsework	14 days	Tue 07/6/26	Wed 07/7/11	305
307	Footway	20 days	Mon 07/8/20	Tue 07/9/11	
308	rebar fixing, fwk and falseworks erection	5 days	Mon 07/8/20	Fri 07/8/24	272
309	concreting	1 day	Sat 07/8/25	Sat 07/8/25	308
310	dismantle formwork	3 days	Mon 07/8/27	Wed 07/8/29	309
311	remove falsework	14 days	Mon 07/8/27	Tue 07/9/11	309
312	Construct concrete stair	6 days	Thu 07/8/30	Wed 07/9/5	310
313	Portion F	120 days	Wed 07/2/28	Tue 07/7/17	127
314	PIPEWORKS	277 days	Tue 06/11/7	Tue 07/9/25	
315	Pipelines 1, 2 and 4 (Partly)	228 days	Tue 06/11/7	Mon 07/7/30	
316	Install DN400 and DN500 DI pipes (Port	9 days	Tue 06/11/7	Thu 06/11/16	139
317	Construction of thrust blocks	8 days	Fri 06/11/17	Sat 06/11/25	316
318	Install DN400 DI pipes (Portions E)	8 days	Thu 07/7/12	Fri 07/7/20	306
319	Construction of thrust blocks	8 days	Sat 07/7/21	Mon 07/7/30	318
320	Pipeline No. 5 (Partly)	18 days	Tue 06/11/7	Mon 06/11/27	
321	Install DN500 pipes (5m)	10 days	Tue 06/11/7	Fri 06/11/17	139
322	Construction of thrust block	8 days	Sat 06/11/18	Mon 06/11/27	321
323	Flowmeter Chamber No. 6	20 days	Wed 07/1/10	Thu 07/2/1	
324	Construct Flowmeter Chamber No. 6	20 days	Wed 07/1/10	Thu 07/2/1	121
325	Pipeline 3	35 days	Wed 07/3/7	Mon 07/4/16	
326	Install DN600 pipeline (Portions C and D	8 days	Wed 07/3/7	Thu 07/3/15	141
327	Construction of thrust blocks	8 days	Fri 07/3/16	Sat 07/3/24	326
328	Install DN600 pipeline (Portions E)	8 days	Thu 07/3/29	Fri 07/4/6	142
329	Construction of thrust blocks	8 days	Sat 07/4/7	Mon 07/4/16	328
330	Pipeline 9	83 days	Thu 07/6/21	Tue 07/9/25	
331	Install DN600 airmain at +5mPD	8 days	Thu 07/6/21	Fri 07/6/29	125
332	Construction of thrust blocks	9 days	Sat 07/6/30	Tue 07/7/10	331
333	Install DN600 airmain on top slab	10 days	Mon 07/9/3	Thu 07/9/13	278
334	Construction of thrust blocks	10 days	Fri 07/9/14	Tue 07/9/25	333
335	**Key Date of the Section 2 of the Works**	1 day	Tue 07/9/25	Tue 07/9/25	
336	**Section 3 of works**	657 days	Thu 05/10/20	Sat 07/11/24	
337	**Final Sedimentation Tank No.9**	449 days	Thu 05/10/20	Tue 07/3/27	
338	**Foundation**	449 days	Thu 05/10/20	Tue 07/3/27	
339	GI works (pre-drilling & reporting)	40 days	Thu 05/10/20	Tue 05/12/6	
340	Permanent H-pile (21nos.)	58 days	Wed 06/1/11	Sat 06/3/18	
341	TEMPORARY WORKS	130 days	Fri 06/5/12	Tue 06/10/10	
342	Sheetpiling works	38 days	Fri 06/5/12	Sat 06/6/24	
343	Construction of first ring beam	29 days	Sat 06/7/22	Thu 06/8/24	
344	Excavation for Row 1 Ring Beam	10 days	Sat 06/7/22	Wed 06/8/2	



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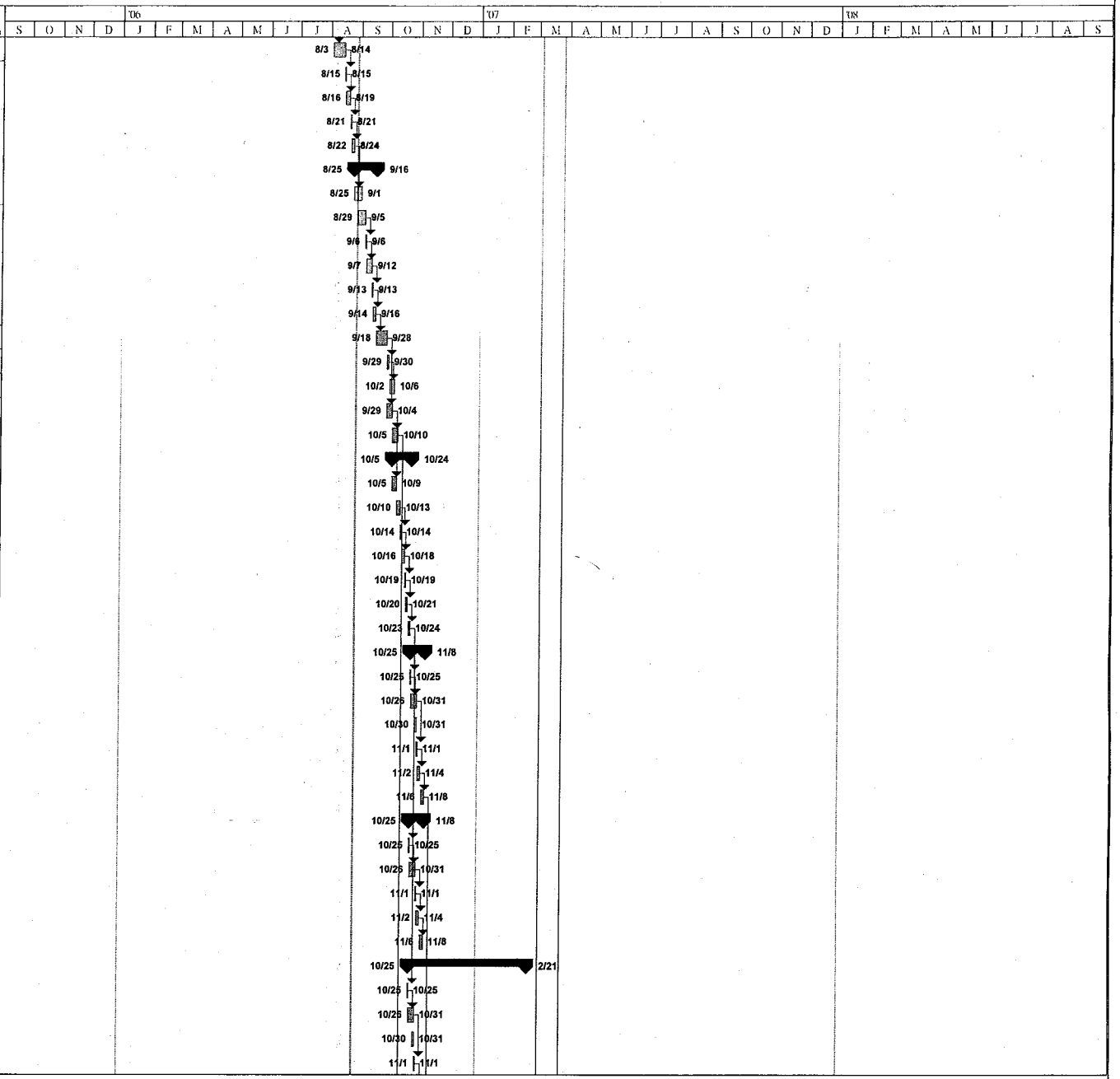
Task | Progress | Summary | Rolled Up Critical Task | Rolled Up Progress | External Tasks
Critical Task | Milestone | Rolled Up Task | Rolled Up Milestone | Split | Project Summary

Maeda Corporation
Contract No. DC/2005/01
Expansion of Shek Wu Hui Sewage Treatment Works and
Upgrading of Ting Kok Road Pumping Station No.5
Master Programme (Rev. 4)

ID	Task Name	Duration	Start	Finish	Preds
345	weld brackets + backfilling	10 days	Thu 06/8/3	Mon 06/8/14	344
346	Install precast ring beam unit	1 day	Tue 06/8/15	Tue 06/8/15	345
347	erect formwork for insitu ring beam	4 days	Wed 06/8/16	Sat 06/8/19	346
348	concreting	1 day	Mon 06/8/21	Mon 06/8/21	347
349	dismantle formworks	3 days	Tue 06/8/22	Thu 06/8/24	348
350	Construction of second ring beam	20 days	Fri 06/8/25	Sat 06/9/16	
351	Excavation for Row 2 Ring Beam	7 days	Fri 06/8/25	Fri 06/9/1	349
352	weld brackets + backfilling	7 days	Tue 06/8/29	Tue 06/9/5	
353	Install precast ring beam unit	1 day	Wed 06/9/6	Wed 06/9/6	352
354	erect formwork for insitu ring beam	5 days	Thu 06/9/7	Tue 06/9/12	353
355	concreting	1 day	Wed 06/9/13	Wed 06/9/13	354
356	dismantle formworks	3 days	Thu 06/9/14	Sat 06/9/16	355
357	Excavation to +1.1mPD	10 days	Mon 06/9/18	Thu 06/9/28	356
358	Excavation for Row 3 Waling and Strut	2 days	Fri 06/9/29	Sat 06/9/30	357
359	install Row 3 waling and strut	5 days	Mon 06/10/2	Fri 06/10/6	358
360	30 degree open cut for 5m x 5m substructure, grou	5 days	Fri 06/9/29	Wed 06/10/4	357
361	30 degree open cut for outer ring beam and pile hea	5 days	Thu 06/10/5	Tue 06/10/10	360
362	Pile head (inner ground beam) (6 nos)	17 days	Thu 06/10/5	Tue 06/10/24	
363	break cement grout	4 days	Thu 06/10/5	Mon 06/10/9	360
364	cut pile and weld pile head plate	4 days	Tue 06/10/10	Fri 06/10/13	
365	blinding for pile head	1 day	Sat 06/10/14	Sat 06/10/14	364
366	rebar fixing and formwork erection	3 days	Mon 06/10/16	Wed 06/10/18	365
367	concreting	1 day	Thu 06/10/19	Thu 06/10/19	366
368	dismantle formwork and form CJ	2 days	Fri 06/10/20	Sat 06/10/21	367
369	backfilling	2 days	Mon 06/10/23	Tue 06/10/24	368
370	5m x 5m Substructure	13 days	Wed 06/10/25	Wed 06/11/8	
371	blinding concrete	1 day	Wed 06/10/25	Wed 06/10/25	369
372	rebar fixing and formwork erection	5 days	Thu 06/10/26	Tue 06/10/31	371
373	install 800 DI pipe	2 days	Mon 06/10/30	Tue 06/10/31	
374	concreting	1 day	Wed 06/11/1	Wed 06/11/1	372
375	dismantle formwork and form CJ	3 days	Thu 06/11/2	Sat 06/11/4	374
376	backfilling	3 days	Mon 06/11/6	Wed 06/11/8	375
377	Inner Ground Beam	13 days	Wed 06/10/25	Wed 06/11/8	
378	blinding concrete	1 day	Wed 06/10/25	Wed 06/10/25	369
379	rebar fixing and formwork erection	5 days	Thu 06/10/26	Tue 06/10/31	378
380	concreting	1 day	Wed 06/11/1	Wed 06/11/1	379
381	dismantle formwork and form CJ	3 days	Thu 06/11/2	Sat 06/11/4	380
382	backfilling	3 days	Mon 06/11/6	Wed 06/11/8	381
383	DN800 DI pipe	103 days	Wed 06/10/25	Wed 07/2/21	
384	blinding concrete	1 day	Wed 06/10/25	Wed 06/10/25	369
385	rebar fixing and formwork erection	5 days	Thu 06/10/26	Tue 06/10/31	384
386	install 800 DI pipe	2 days	Mon 06/10/30	Tue 06/10/31	
387	concreting (blinding to +0.1)	1 day	Wed 06/11/1	Wed 06/11/1	385



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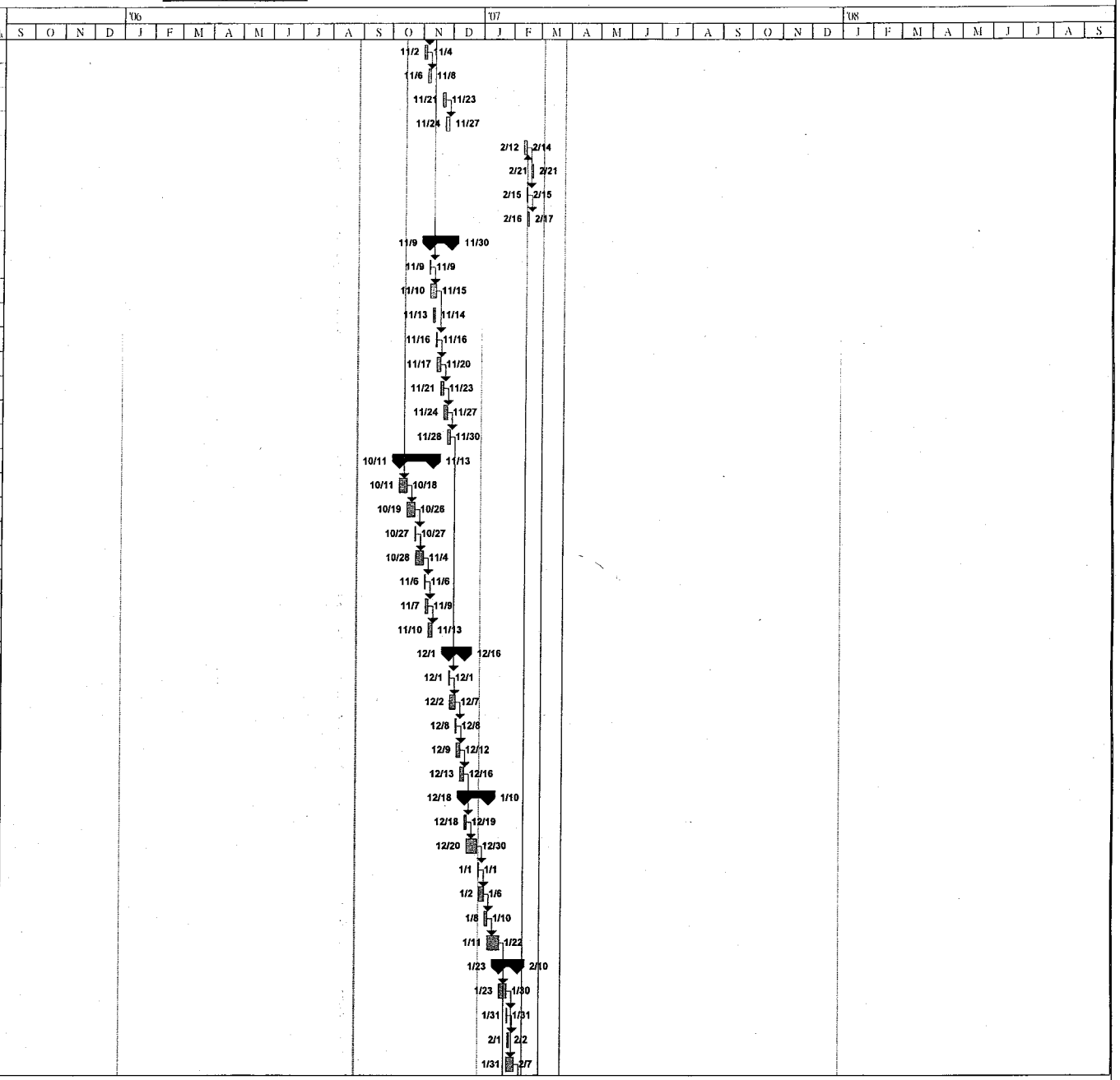
Task | Progress | Summary | Rolled Up Critical Task | Rolled Up Progress | External Tasks
Critical Task | Milestone | Rolled Up Task | Rolled Up Milestone | Split | Project Summary

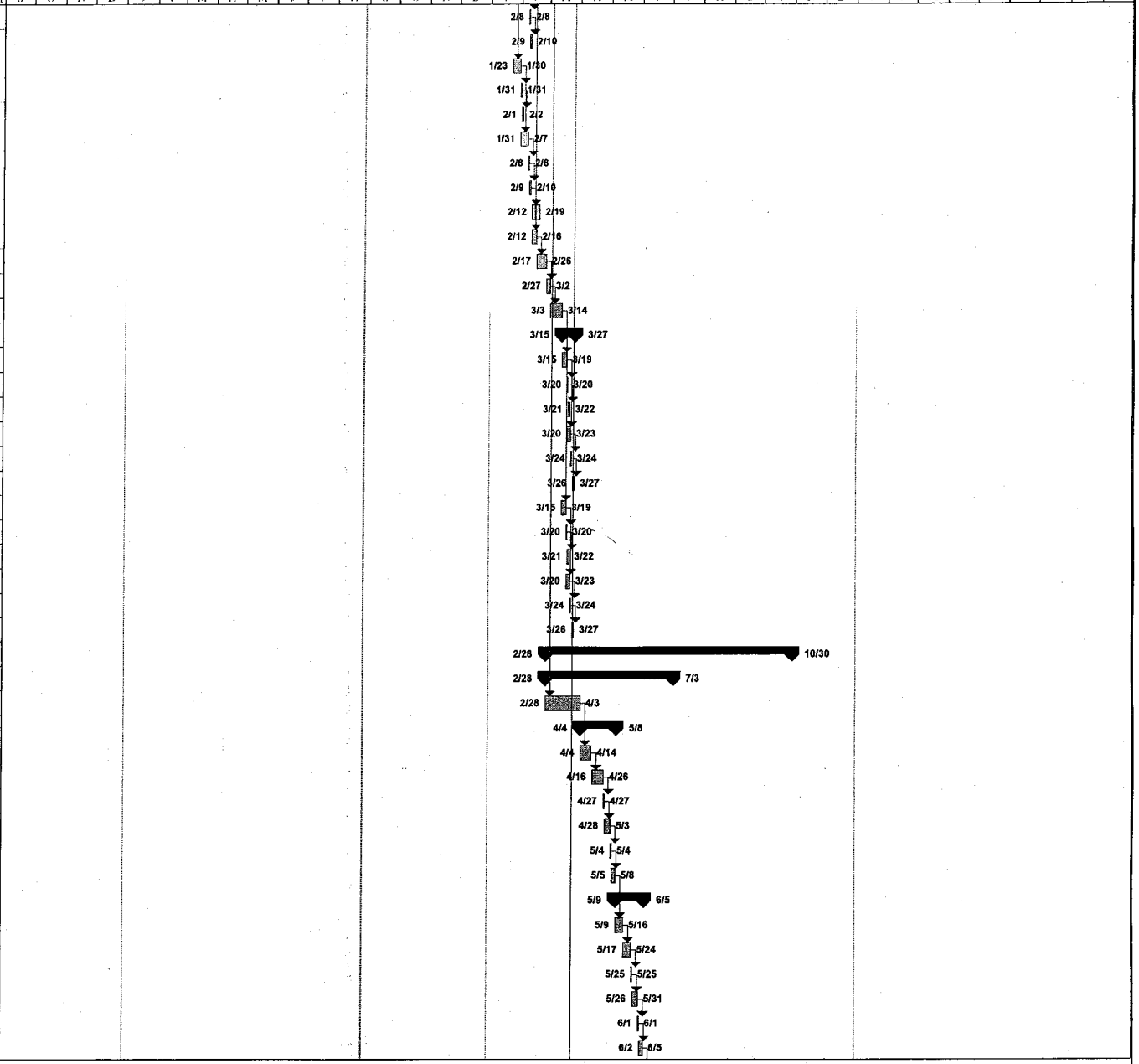
ID	Task Name	Duration	Start	Finish	Preds
388	dismantle formwork and form CJ	3 days	Thu 06/11/2	Sat 06/11/4	387
389	backfilling	3 days	Mon 06/11/6	Wed 06/11/8	388
390	remove Row 3 waling and strut	3 days	Tue 06/11/21	Thu 06/11/23	
391	extract sheetpile Type 3A	3 days	Fri 06/11/24	Mon 06/11/27	390
392	rebar fixing and formwork erection	3 days	Mon 07/2/12	Wed 07/2/14	438
393	Install DN800 DI pipe	1 day	Wed 07/2/21	Wed 07/2/21	
394	concreting	1 day	Thu 07/2/15	Thu 07/2/15	392
395	dismantle formwork and form CJ at +2.6mPD	2 days	Fri 07/2/16	Sat 07/2/17	394
396	DN450 DI pipe	19 days	Thu 06/11/9	Thu 06/11/30	
397	blinding concrete	1 day	Thu 06/11/9	Thu 06/11/9	376
398	rebar fixing and formwork erection	5 days	Fri 06/11/10	Wed 06/11/15	397
399	install DN450 DI pipe	2 days	Mon 06/11/13	Tue 06/11/14	
400	concreting (blinding to +0.3)	1 day	Thu 06/11/16	Thu 06/11/16	398
401	dismantle formwork and form CJ	3 days	Fri 06/11/17	Mon 06/11/20	400
402	backfilling	3 days	Tue 06/11/21	Thu 06/11/23	401
403	remove Row 3 waling and strut	3 days	Fri 06/11/24	Mon 06/11/27	402
404	extract sheetpile Type 3B	3 days	Tue 06/11/28	Thu 06/11/30	403
405	Pile head (outer ground beam) (15 nos)	29 days	Wed 06/10/11	Mon 06/11/13	
406	break cement grout	7 days	Wed 06/10/11	Wed 06/10/18	361
407	cut pile and welder pile head plate	7 days	Thu 06/10/19	Thu 06/10/26	406
408	blinding for pile head	1 day	Fri 06/10/27	Fri 06/10/27	407
409	rebar fixing and formwork erection	7 days	Sat 06/10/28	Sat 06/11/4	408
410	concreting	1 day	Mon 06/11/6	Mon 06/11/6	409
411	dismantle formwork	3 days	Tue 06/11/7	Thu 06/11/9	410
412	backfilling	3 days	Fri 06/11/10	Mon 06/11/13	411
413	Outer ground beam	14 days	Fri 06/12/1	Sat 06/12/16	
414	blinding concrete	1 day	Fri 06/12/1	Fri 06/12/1	404
415	rebar fixing and formwork erection	5 days	Sat 06/12/2	Thu 06/12/7	414
416	concreting	1 day	Fri 06/12/8	Fri 06/12/8	415
417	dismantle formwork and form CJ	3 days	Sat 06/12/9	Tue 06/12/12	416
418	backfilling to formation of base slab	4 days	Wed 06/12/13	Sat 06/12/16	417
419	Base slab	21 days	Mon 06/12/18	Wed 07/1/10	
420	blinding concrete	2 days	Mon 06/12/18	Tue 06/12/19	418
421	rebar fixing and formwork erection	10 days	Wed 06/12/20	Sat 06/12/30	420
422	concreting	1 day	Mon 07/1/1	Mon 07/1/1	421
423	dismantle formwork and form CJ	5 days	Tue 07/1/2	Sat 07/1/6	422
424	backfilling to +2.2mPD	3 days	Mon 07/1/8	Wed 07/1/10	423
425	Break and remove Row 2 ring beam	10 days	Thu 07/1/11	Mon 07/1/22	424
426	Wall slab to +5.51mPD (4 panels)	17 days	Tue 07/1/23	Sat 07/2/10	
427	rebar fixing and formwork erection (1st)	7 days	Tue 07/1/23	Tue 07/1/30	425
428	concreting	1 day	Wed 07/1/31	Wed 07/1/31	427
429	dismantle formwork and form CJ	2 days	Thu 07/2/1	Fri 07/2/2	428
430	rebar fixing and formwork erection (3rd)	7 days	Wed 07/1/31	Wed 07/2/7	427



Date: Mon 06/8/28

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

ID	Task Name	Duration	Start	Finish	Pred
431	concreting	1 day	Thu 07/2/8	Thu 07/2/8	430
432	dismantle formwork and form CJ	2 days	Fri 07/2/9	Sat 07/2/10	431
433	rebar fixing and formwork erection (2nd)	7 days	Tue 07/1/23	Tue 07/1/30	425
434	concreting	1 day	Wed 07/1/31	Wed 07/1/31	433
435	dismantle formwork and form CJ	2 days	Thu 07/2/1	Fri 07/2/2	434
436	rebar fixing and formwork erection (4th)	7 days	Wed 07/1/31	Wed 07/2/7	433
437	concreting	1 day	Thu 07/2/8	Thu 07/2/8	436
438	dismantle formwork	2 days	Fri 07/2/9	Sat 07/2/10	437
439	water test	7 days	Mon 07/2/12	Mon 07/2/19	438
440	backfilling to +4.20mPD	5 days	Mon 07/2/12	Fri 07/2/16	438
441	Break and remove Row 1 ring beam	8 days	Sat 07/2/17	Mon 07/2/26	440
442	backfilling to +5.51mPD	4 days	Tue 07/2/27	Fri 07/3/2	441
443	Extract sheetpiles	10 days	Sat 07/3/3	Wed 07/3/14	442
444	Remaining Wall	11 days	Thu 07/3/15	Tue 07/3/27	
445	rebar fixing and formwork erection (1st)	4 days	Thu 07/3/15	Mon 07/3/19	443
446	concreting	1 day	Tue 07/3/20	Tue 07/3/20	445
447	dismantle formwork and form CJ	2 days	Wed 07/3/21	Thu 07/3/22	446
448	rebar fixing and formwork erection (3rd)	4 days	Tue 07/3/20	Fri 07/3/23	445
449	concreting	1 day	Sat 07/3/24	Sat 07/3/24	448
450	dismantle formwork and form CJ	2 days	Mon 07/3/26	Tue 07/3/27	449
451	rebar fixing and formwork erection (2nd)	4 days	Thu 07/3/15	Mon 07/3/19	443
452	concreting	1 day	Tue 07/3/20	Tue 07/3/20	451
453	dismantle formwork and form CJ	2 days	Wed 07/3/21	Thu 07/3/22	452
454	rebar fixing and formwork erection (4th)	4 days	Tue 07/3/20	Fri 07/3/23	451
455	concreting	1 day	Sat 07/3/24	Sat 07/3/24	454
456	dismantle formwork	2 days	Mon 07/3/26	Tue 07/3/27	455
457	**FINAL SEDIMENTION TANK NO. 10**	210 days	Wed 07/2/28	Tue 07/10/30	
458	**TEMPORARY WORKS**	108 days	Wed 07/2/28	Tue 07/7/3	
459	**Sheetpiling works**	30 days	Wed 07/2/28	Tue 07/4/3	127
460	**Construction of first ring beam**	30 days	Wed 07/4/4	Tue 07/5/8	
461	Excavation for Row 1 Ring Beam	10 days	Wed 07/4/4	Sat 07/4/14	459
462	weld brackets + backfilling	10 days	Mon 07/4/16	Thu 07/4/26	461
463	Install precast ring beam unit	1 day	Fri 07/4/27	Fri 07/4/27	462
464	erect formwork for insitu ring beam	5 days	Sat 07/4/28	Thu 07/5/3	463
465	concreting	1 day	Fri 07/5/4	Fri 07/5/4	464
466	dismantle formworks	3 days	Sat 07/5/5	Tue 07/5/8	465
467	**Construction of second ring beam**	24 days	Wed 07/5/9	Tue 07/6/5	
468	Excavation for Row 2 Ring Beam	7 days	Wed 07/5/9	Wed 07/5/16	466
469	weld brackets + backfilling	7 days	Thu 07/5/17	Thu 07/5/24	468
470	Install precast ring beam unit	1 day	Fri 07/5/25	Fri 07/5/25	469
471	erect formwork for insitu ring beam	5 days	Sat 07/5/26	Thu 07/5/31	470
472	concreting	1 day	Fri 07/6/1	Fri 07/6/1	471
473	dismantle formworks	3 days	Sat 07/6/2	Tue 07/6/5	472

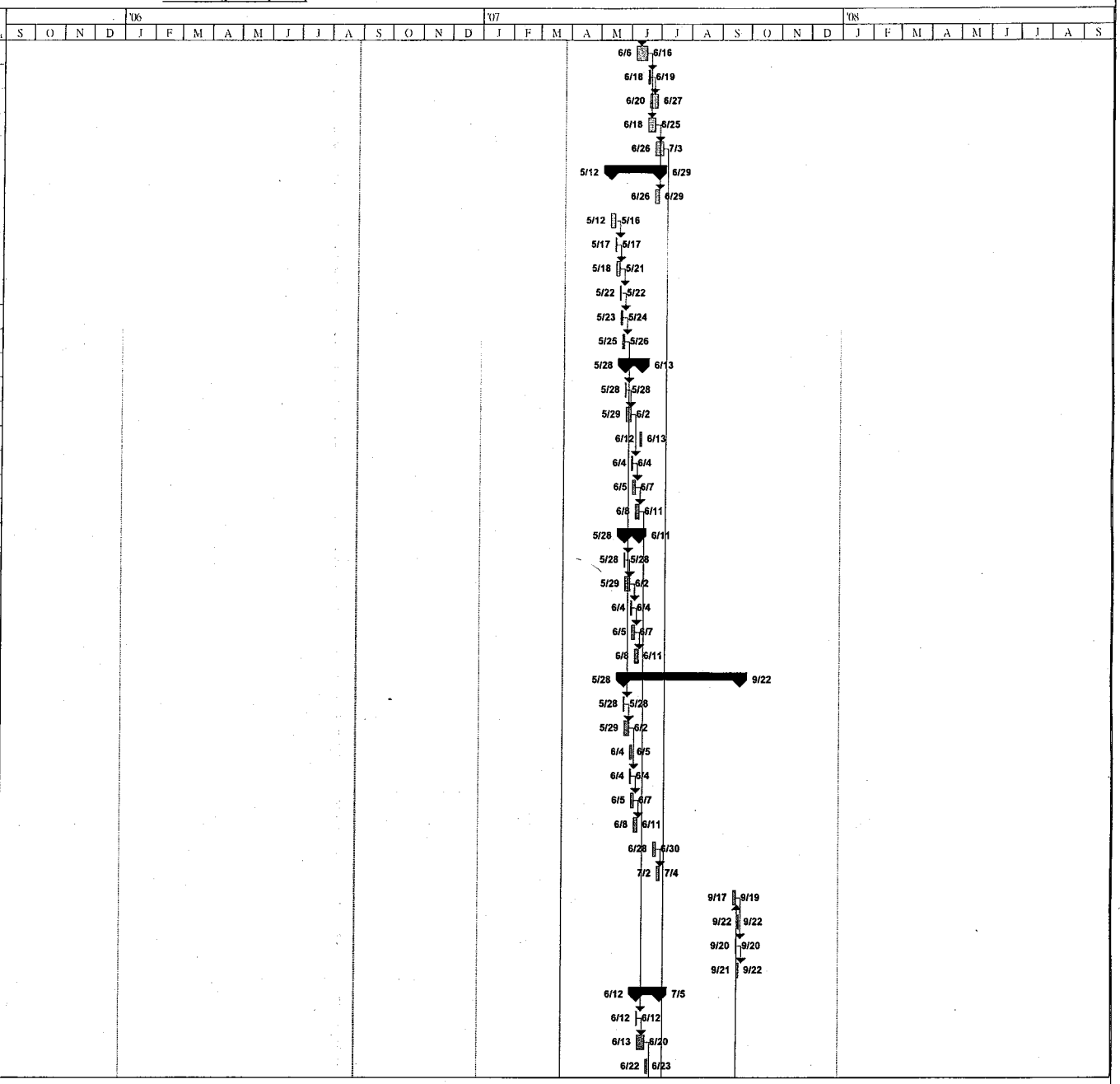


Date: Mon 06/8/28

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

Maeda Corporation
Contract No. DC/2005/01
Expansion of Shek Wu Hui Sewage Treatment Works and
Upgrading of Ting Kok Road Pumping Station No 5
Master Programme (Rev. 4)

ID	Task Name	Duration	Start	Finish	Preds
474	Excavation to +1.1mPD	10 days	Wed 07/6/6	Sat 07/6/16	473
475	Excavation for Row 3 Waling and Strut	2 days	Mon 07/6/18	Tue 07/6/19	474
476	install Row 3 waling and strut	7 days	Wed 07/6/20	Wed 07/6/27	475
477	30 degree open cut for 5m x 5m substructure, ground	7 days	Mon 07/6/18	Mon 07/6/25	474
478	30 degree open cut for outer ring beam and pile heads	7 days	Tue 07/6/26	Tue 07/7/3	477
479	Pile head (inner ground beam) (6 nos)	42 days	Sat 07/5/12	Fri 07/6/29	
480	break cement grout	4 days	Tue 07/6/26	Fri 07/6/29	477
481	cut pile and weld pile head plate	4 days	Sat 07/5/12	Wed 07/5/16	
482	blinding for pile head	1 day	Thu 07/5/17	Thu 07/5/17	481
483	rebar fixing and formwork erection	3 days	Fri 07/5/18	Mon 07/5/21	482
484	concreting	1 day	Tue 07/5/22	Tue 07/5/22	483
485	dismantle formwork and form CJ	2 days	Wed 07/5/23	Thu 07/5/24	484
486	backfilling	2 days	Fri 07/5/25	Sat 07/5/26	485
487	5m x 5m Substructure	15 days	Mon 07/5/28	Wed 07/6/13	
488	blinding concrete	1 day	Mon 07/5/28	Mon 07/5/28	486
489	rebar fixing and formwork erection	5 days	Tue 07/5/29	Sat 07/6/2	488
490	install 800 DI pipe	2 days	Tue 07/6/12	Wed 07/6/13	
491	concreting	1 day	Mon 07/6/4	Mon 07/6/4	489
492	dismantle formwork and form CJ	3 days	Tue 07/6/5	Thu 07/6/7	491
493	backfilling	3 days	Fri 07/6/8	Mon 07/6/11	492
494	Inner Ground Beam	13 days	Mon 07/5/28	Mon 07/6/11	
495	blinding concrete	1 day	Mon 07/5/28	Mon 07/5/28	486
496	rebar fixing and formwork erection	5 days	Tue 07/5/29	Sat 07/6/2	495
497	concreting	1 day	Mon 07/6/4	Mon 07/6/4	496
498	dismantle formwork and form CJ	3 days	Tue 07/6/5	Thu 07/6/7	497
499	backfilling	3 days	Fri 07/6/8	Mon 07/6/11	498
500	DN800 DI pipe	102 days	Mon 07/5/28	Sat 07/9/22	
501	blinding concrete	1 day	Mon 07/5/28	Mon 07/5/28	486
502	rebar fixing and formwork erection	5 days	Tue 07/5/29	Sat 07/6/2	501
503	install 800 DI pipe	2 days	Mon 07/6/4	Tue 07/6/5	
504	concreting (blinding to +0.1)	1 day	Mon 07/6/4	Mon 07/6/4	502
505	dismantle formwork and form CJ	3 days	Tue 07/6/5	Thu 07/6/7	504
506	backfilling	3 days	Fri 07/6/8	Mon 07/6/11	505
507	remove Row 3 waling and strut	3 days	Thu 07/6/28	Sat 07/6/30	
508	extract sheetpile Type 3A	3 days	Mon 07/7/2	Wed 07/7/4	507
509	rebar fixing and formwork erection	3 days	Mon 07/9/17	Wed 07/9/19	555
510	Install DN800 DI pipe	1 day	Sat 07/9/22	Sat 07/9/22	
511	concreting	1 day	Thu 07/9/20	Thu 07/9/20	509
512	dismantle formwork and form CJ at +2.6mPD	2 days	Fri 07/9/21	Sat 07/9/22	511
513	DN450 DI pipe	21 days	Tue 07/6/12	Thu 07/7/5	
514	blinding concrete	1 day	Tue 07/6/12	Tue 07/6/12	493
515	rebar fixing and formwork erection	7 days	Wed 07/6/13	Wed 07/6/20	514
516	install DN450 DI pipe	2 days	Fri 07/6/22	Sat 07/6/23	



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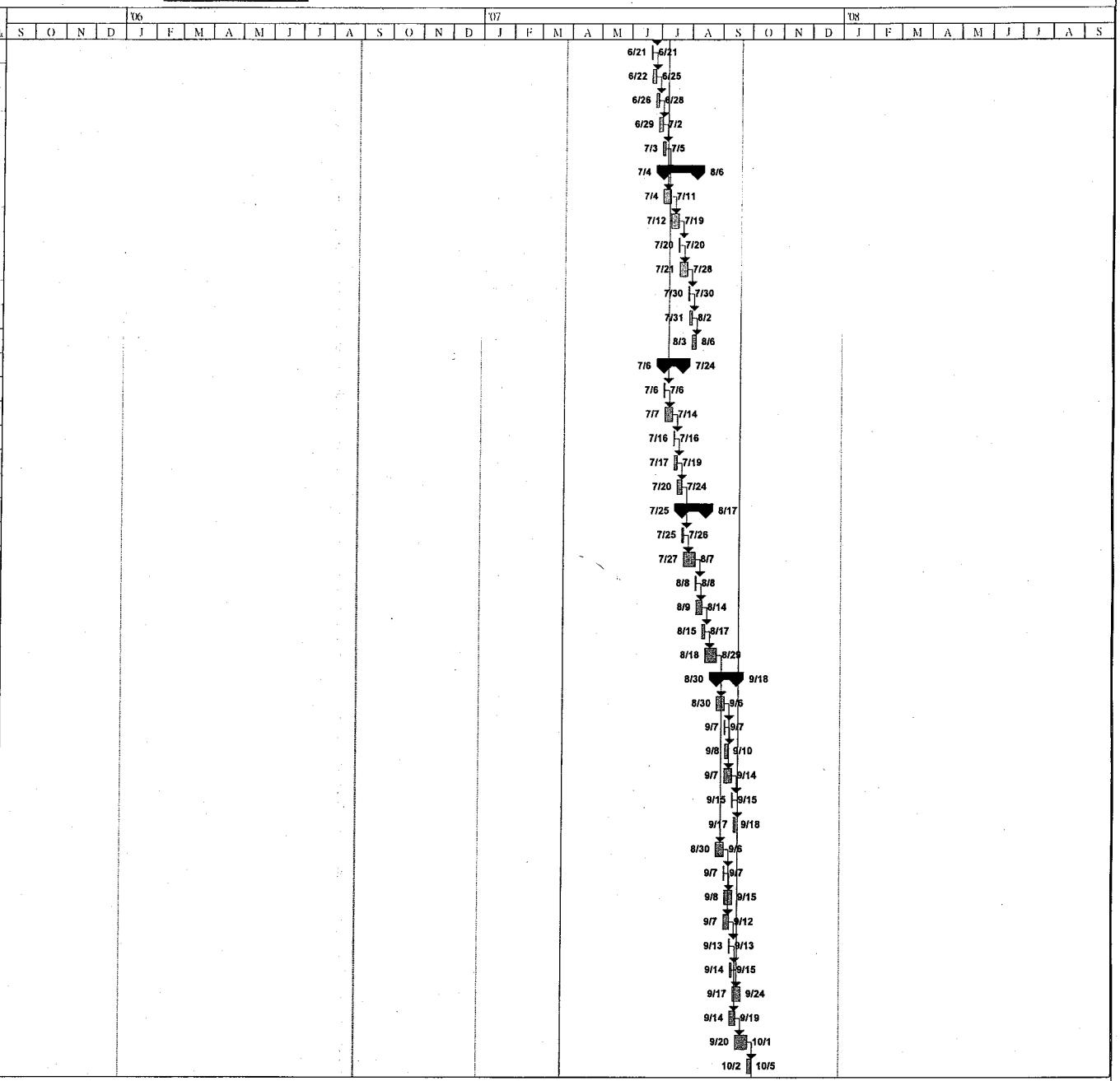
Task | Progress | Summary | Rolled Up Critical Task | Rolled Up Progress | External Tasks
Critical Task | Milestone | Rolled Up Task | Rolled Up Milestone | Split | Project Summary

ID	Task Name	Duration	Start	Finish	Preds
517	concreting (blinding to +0.3)	1 day	Thu 07/6/21	Thu 07/6/21	515
518	dismantle formwork and form CJ	3 days	Fri 07/6/22	Mon 07/6/25	517
519	backfilling	3 days	Tue 07/6/26	Thu 07/6/28	518
520	remove Row 3 waling and strut	3 days	Fri 07/6/29	Mon 07/7/2	519
521	extract sheetpile Type 3B	3 days	Tue 07/7/3	Thu 07/7/5	520
522	**Pile head (outer ground beam) (15 nos)**	29 days	Wed 07/7/4	Mon 07/8/6	
523	break cement grout	7 days	Wed 07/7/4	Wed 07/7/11	478
524	cut pile and weld pile head plate	7 days	Thu 07/7/12	Thu 07/7/19	523
525	blinding for pile head	1 day	Fri 07/7/20	Fri 07/7/20	524
526	rebar fixing and formwork erection	7 days	Sat 07/7/21	Sat 07/7/28	525
527	concreting	1 day	Mon 07/7/30	Mon 07/7/30	526
528	dismantle formwork	3 days	Tue 07/7/31	Thu 07/8/2	527
529	backfilling	3 days	Fri 07/8/3	Mon 07/8/6	528
530	**Outer ground beam**	16 days	Fri 07/7/6	Tue 07/7/24	
531	blinding concrete	1 day	Fri 07/7/6	Fri 07/7/6	521
532	rebar fixing and formwork erection	7 days	Sat 07/7/7	Sat 07/7/14	531
533	concreting	1 day	Mon 07/7/16	Mon 07/7/16	532
534	dismantle formwork and form CJ	3 days	Tue 07/7/17	Thu 07/7/19	533
535	backfilling to formation of base slab	4 days	Fri 07/7/20	Tue 07/7/24	534
536	**Base slab**	21 days	Wed 07/7/25	Fri 07/8/17	
537	blinding concrete	2 days	Wed 07/7/25	Thu 07/7/26	535
538	rebar fixing and formwork erection	10 days	Fri 07/7/27	Tue 07/8/7	537
539	concreting	1 day	Wed 07/8/8	Wed 07/8/8	538
540	dismantle formwork and form CJ	5 days	Thu 07/8/9	Tue 07/8/14	539
541	backfilling to +2.2mPD	3 days	Wed 07/8/15	Fri 07/8/17	540
542	**Break and remove Row 2 ring beam**	10 days	Sat 07/8/18	Wed 07/8/29	541
543	**Wall slab to +5.51mPD (4 panels)**	17 days	Thu 07/8/30	Tue 07/9/18	
544	rebar fixing and formwork erection (1st)	7 days	Thu 07/8/30	Thu 07/9/6	542
545	concreting	1 day	Fri 07/9/7	Fri 07/9/7	544
546	dismantle formwork and form CJ	2 days	Sat 07/9/8	Mon 07/9/10	545
547	rebar fixing and formwork erection (2nd)	7 days	Fri 07/9/7	Fri 07/9/14	544
548	concreting	1 day	Sat 07/9/15	Sat 07/9/15	547
549	dismantle formwork and form CJ	2 days	Mon 07/9/17	Tue 07/9/18	548
550	rebar fixing and formwork erection (3rd)	7 days	Thu 07/8/30	Thu 07/9/6	542
551	concreting	1 day	Fri 07/9/7	Fri 07/9/7	550
552	dismantle formwork and form CJ	7 days	Sat 07/9/8	Sat 07/9/15	551
553	rebar fixing and formwork erection (4th)	5 days	Fri 07/9/7	Wed 07/9/12	550
554	concreting	1 day	Thu 07/9/13	Thu 07/9/13	553
555	dismantle formwork	2 days	Fri 07/9/14	Sat 07/9/15	554
556	**water test**	7 days	Mon 07/9/17	Mon 07/9/24	555
557	**backfilling to +4.20mPD**	5 days	Fri 07/9/14	Wed 07/9/19	554
558	**Break and remove Row 1 ring beam**	10 days	Thu 07/9/20	Mon 07/10/1	557
559	**backfilling to +5.51mPD**	4 days	Tue 07/10/2	Fri 07/10/5	558



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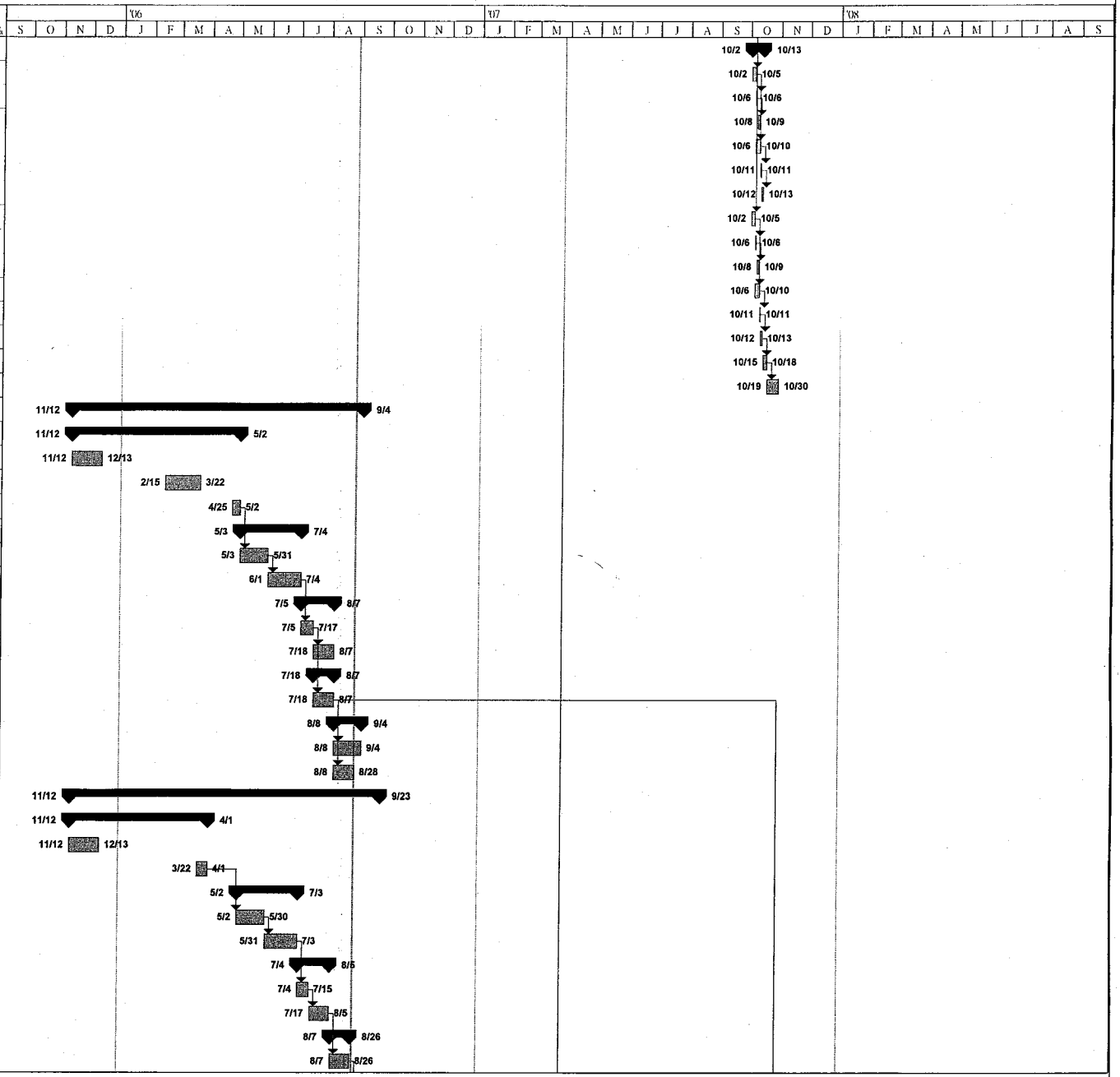
Task | Progress | Summary | Rolled Up Critical Task | Rolled Up Progress | External Tasks
Critical Task | Milestone | Rolled Up Task | Rolled Up Milestone | Split | Project Summary

Maeda Corporation
Contract No. DC/2005/01
Expansion of Shek Wu Hui Sewage Treatment Works and
Upgrading of Ting Kok Road Pumping Station No.5
Master Programme (Rev. 4)

ID	Task Name	Duration	Start	Finish	Preds
560	Remaining Wall	11 days	Tue 07/10/2	Sat 07/10/13	
561	rebar fixing and formwork erection (1st)	4 days	Tue 07/10/2	Fri 07/10/5	558
562	concreting	1 day	Sat 07/10/6	Sat 07/10/6	561
563	dismantle formwork and form CJ	2 days	Mon 07/10/8	Tue 07/10/9	562
564	rebar fixing and formwork erection (3rd)	4 days	Sat 07/10/6	Wed 07/10/10	561
565	concreting	1 day	Thu 07/10/11	Thu 07/10/11	564
566	dismantle formwork and form CJ	2 days	Fri 07/10/12	Sat 07/10/13	565
567	rebar fixing and formwork erection (2nd)	4 days	Tue 07/10/2	Fri 07/10/5	558
568	concreting	1 day	Sat 07/10/6	Sat 07/10/6	567
569	dismantle formwork and form CJ	2 days	Mon 07/10/8	Tue 07/10/9	568
570	rebar fixing and formwork erection (4th)	4 days	Sat 07/10/6	Wed 07/10/10	567
571	concreting	1 day	Thu 07/10/11	Thu 07/10/11	570
572	dismantle formwork	2 days	Fri 07/10/12	Sat 07/10/13	571
573	backfilling to FGL	4 days	Mon 07/10/15	Thu 07/10/18	572
574	Extract sheetpiles	10 days	Fri 07/10/19	Tue 07/10/30	573
575	RAS/SAS Switch Room	254 days	Sat 05/11/12	Mon 06/9/4	
576	Foundation	147 days	Sat 05/11/12	Tue 06/5/2	
577	GI works (pre-drilling & reporting)	26 days	Sat 05/11/12	Tue 05/12/13	
578	Permanent H-pile (6nos.)	31 days	Wed 06/2/15	Wed 06/3/22	
579	Proof Load Test	7 days	Tue 06/4/25	Tue 06/5/2	
580	Earthworks	54 days	Wed 06/5/3	Tue 06/7/4	
581	Install temporary retaining wall (sheetpile)	25 days	Wed 06/5/3	Wed 06/5/31	579
582	Excavation	29 days	Thu 06/6/1	Tue 06/7/4	581
583	Substructure	29 days	Wed 06/7/5	Mon 06/8/7	
584	Pilecaps/tie beams	11 days	Wed 06/7/5	Mon 06/7/17	582
585	Concrete structure up to 7.40mPD	18 days	Tue 06/7/18	Mon 06/8/7	584
586	Superstructure	18 days	Tue 06/7/18	Mon 06/8/7	
587	Concrete structure up to roof	18 days	Tue 06/7/18	Mon 06/8/7	584
588	E&M Installation	24 days	Tue 06/8/8	Mon 06/9/4	
589	Pipeworks/plumbing& opening	24 days	Tue 06/8/8	Mon 06/9/4	587
590	Internal/External finishing	18 days	Tue 06/8/8	Mon 06/8/28	587
591	RAS/SAS Main Station	271 days	Sat 05/11/12	Sat 06/9/23	
592	Foundation	121 days	Sat 05/11/12	Sat 06/4/1	
593	GI works (pre-drilling & reporting)	26 days	Sat 05/11/12	Tue 05/12/13	
594	Permanent H-pile (6nos.)	10 days	Wed 06/3/22	Sat 06/4/1	
595	Earthworks	54 days	Tue 06/5/2	Mon 06/7/3	
596	Install temporary retaining wall (sheetpile)	25 days	Tue 06/5/2	Tue 06/5/30	594
597	Excavation	29 days	Wed 06/5/31	Mon 06/7/3	596
598	Substructure	29 days	Tue 06/7/4	Sat 06/8/5	
599	Pilecaps/tie beams	11 days	Tue 06/7/4	Sat 06/7/15	597
600	Concrete structure up to 7.40mPD	18 days	Mon 06/7/17	Sat 06/8/5	599
601	Superstructure	18 days	Mon 06/8/7	Sat 06/8/26	
602	Concrete structure up to roof	18 days	Mon 06/8/7	Sat 06/8/26	600



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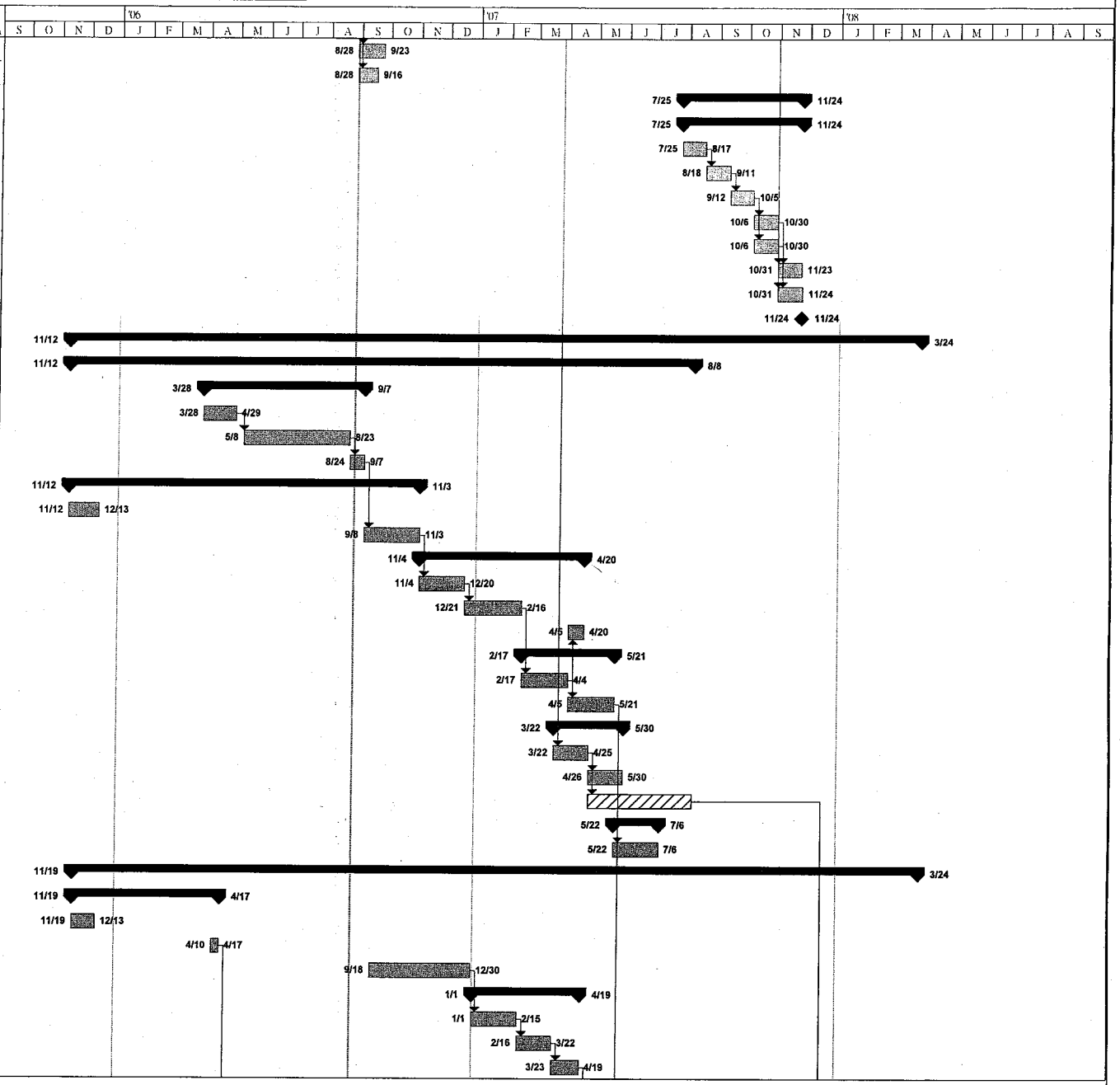
Task | Progress | Summary | Rolled Up Critical Task | Rolled Up Progress | External Tasks
Critical Task | Milestone | Rolled Up Task | Rolled Up Milestone | Split | Project Summary

Maeda Corporation
Contract No. DC/2005/01
Expansion of Shek Wu Hui Sewage Treatment Works and
Upgrading of Ting Kok Road Pumping Station No.5
Master Programme (Rev. 4)

ID	Task Name	Duration	Start	Finish	Pred
603	Pipeworks/plumbing& opening	24 days	Mon 06/8/28	Sat 06/9/23	602
604	Internal/External finishing	18 days	Mon 06/8/28	Sat 06/9/16	602
605	External Works	106 days	Wed 07/7/25	Sat 07/11/24	
606	External manholes/pits construction	106 days	Wed 07/7/25	Sat 07/11/24	
607	E2A-E6A	21 days	Wed 07/7/25	Fri 07/8/17	
608	E6A-E7	21 days	Sat 07/8/18	Tue 07/9/11	607
609	E7-E8	21 days	Wed 07/9/12	Fri 07/10/5	608
610	E8-E9	21 days	Sat 07/10/6	Tue 07/10/30	609
611	E8-E10	21 days	Sat 07/10/6	Tue 07/10/30	609
612	E9-E11	21 days	Wed 07/10/31	Fri 07/11/23	587.(
613	E10-E12	22 days	Wed 07/10/31	Sat 07/11/24	587.(
614	Key Date of the Section 3 of the Works	1 day	Sat 07/11/24	Sat 07/11/24	
615	Section 4 of works	740 days	Sat 05/11/12	Mon 08/3/24	
616	Sludge Press House Extension	544 days	Sat 05/11/12	Wed 07/8/8	
617	Relocation of FeCl3 Tank	141 days	Tue 06/3/28	Thu 06/9/7	
618	Construction of Bund Wall	29 days	Tue 06/3/28	Sat 06/4/29	
619	Relocation of Tank	93 days	Mon 06/5/8	Wed 06/8/23	618
620	Demolish the Existing Wall	13 days	Thu 06/8/24	Thu 06/9/7	619
621	Foundation	306 days	Sat 05/11/12	Fri 06/11/3	
622	GI works (pre-drilling & reporting)	26 days	Sat 05/11/12	Tue 05/12/13	
623	Permanent Mini-pile (18 nos.)	49 days	Fri 06/9/8	Fri 06/11/3	620
624	Earthworks	144 days	Sat 06/11/4	Fri 07/4/20	
625	Excavation	40 days	Sat 06/11/4	Wed 06/12/20	623
626	Pilecaps, 10nos.	50 days	Thu 06/12/21	Fri 07/2/16	625
627	Backfill & compaction	14 days	Thu 07/4/5	Fri 07/4/20	629
628	Superstructure	80 days	Sat 07/2/17	Mon 07/5/21	
629	Structure up to 1st floor	40 days	Sat 07/2/17	Wed 07/4/4	626
630	Structure up to roof	40 days	Thu 07/4/5	Mon 07/5/21	629
631	Internal Finishes	60 days	Thu 07/3/22	Wed 07/5/30	
632	Internal finishes works & opening	30 days	Thu 07/3/22	Wed 07/4/25	55
633	Fitting out : doors, railings etc.	30 days	Thu 07/4/26	Wed 07/5/30	632
634	pipeworks & ducting	90 days	Thu 07/4/26	Wed 07/8/8	632
635	External Finishes	40 days	Tue 07/5/22	Fri 07/7/6	
636	External finishes works	40 days	Tue 07/5/22	Fri 07/7/6	630
637	Sludge Conditioning Tank No.3	734 days	Sat 05/11/19	Mon 08/3/24	
638	Foundation	128 days	Sat 05/11/19	Mon 06/4/17	
639	GI works (pre-drilling & reporting)	20 days	Sat 05/11/19	Tue 05/12/13	
640	Permanent Mini-pile (6nos.)	7 days	Mon 06/4/10	Mon 06/4/17	
641	Pipe Diversion	90 days	Mon 06/9/18	Sat 06/12/30	
642	Earthworks	94 days	Mon 07/1/1	Thu 07/4/19	
643	Temporary Works (sheetpile for SCT3 & SCT4)	40 days	Mon 07/1/1	Thu 07/2/15	641
644	Excavation	30 days	Fri 07/2/16	Thu 07/3/22	643
645	Backfill & rockfill underneath pit	24 days	Fri 07/3/23	Thu 07/4/19	644



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Task | Progress | Summary | Rolled Up Critical Task | Rolled Up Progress | External Tasks
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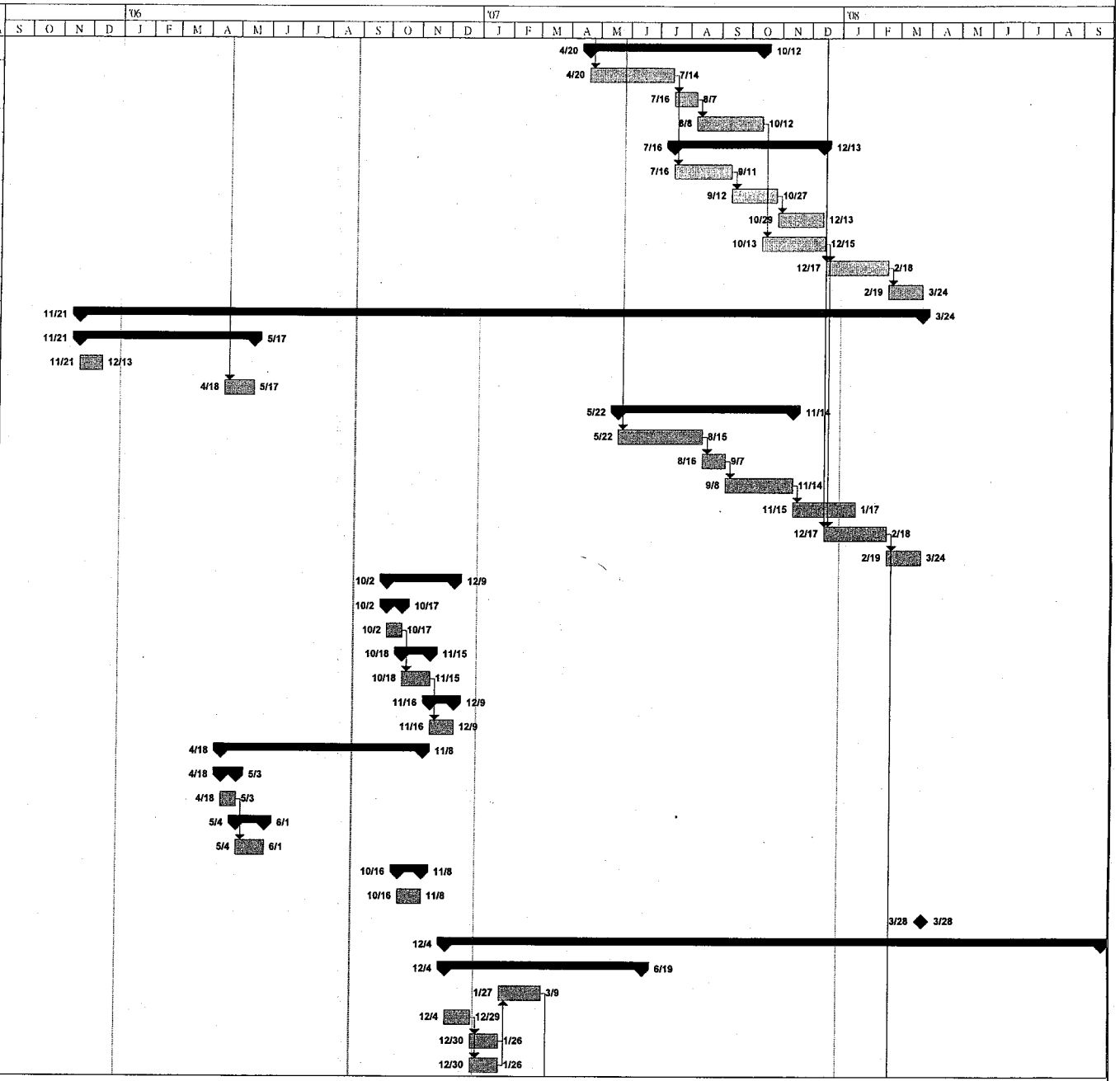
Maeda Corporation
Contract No. DC/2005/01
Expansion of Shek Wu Hui Sewage Treatment Works and
Upgrading of Ting Kok Road Pumping Station No.5
Master Programme (Rev. 4)

ID	Task Name	Duration	Start	Finish	Pred
646	Structure	151 days	Fri 07/4/20	Fri 07/10/12	
647	Concrete works	74 days	Fri 07/4/20	Sat 07/7/14	645
648	Backfilling	20 days	Mon 07/7/16	Tue 07/8/7	647
649	Install handrailing/ladders/mesh etc.	57 days	Wed 07/8/8	Fri 07/10/12	648
650	External Works	130 days	Mon 07/7/16	Thu 07/12/13	
651	Pipelaying of pipeline No.11&12	50 days	Mon 07/7/16	Tue 07/9/11	647
652	Connection to existing system	40 days	Wed 07/9/12	Sat 07/10/27	651
653	Sump pit construction	40 days	Mon 07/10/29	Thu 07/12/13	652
654	Miscellaneous Works	55 days	Sat 07/10/13	Sat 07/12/15	649
655	Pipe Works inside the Tank	55 days	Mon 07/12/17	Mon 08/2/18	634,(
656	Watertightness Test	30 days	Tue 08/2/19	Mon 08/3/24	655
657	Sludge Conditioning Tank No.4	733 days	Mon 05/11/21	Mon 08/3/24	
658	Foundation	153 days	Mon 05/11/21	Wed 06/5/17	
659	GI works (pre-drilling & reporting)	20 days	Mon 05/11/21	Tue 05/12/13	
660	Permanent Mini-pile (6nos.)	26 days	Tue 06/4/18	Wed 06/5/17	640
661	Structure	152 days	Tue 07/5/22	Wed 07/11/14	
662	Concrete works	74 days	Tue 07/5/22	Wed 07/8/15	630
663	Backfilling	20 days	Thu 07/8/16	Fri 07/9/7	662
664	Install handrailing/ladders/mesh etc.	58 days	Sat 07/9/8	Wed 07/11/14	663
665	Miscellaneous Works	55 days	Thu 07/11/15	Thu 08/1/17	664
666	Pipe Works inside the Tank	55 days	Mon 07/12/17	Mon 08/2/18	634,(
667	Watertightness Test	30 days	Tue 08/2/19	Mon 08/3/24	666
668	Dangerous Goods (cat.5) Storeroom	60 days	Mon 06/10/2	Sat 06/12/9	
669	Earthworks	14 days	Mon 06/10/2	Tue 06/10/17	
670	Excavation, rockfill & Blinding	14 days	Mon 06/10/2	Tue 06/10/17	
671	Superstructure	25 days	Wed 06/10/18	Wed 06/11/15	
672	Structure	25 days	Wed 06/10/18	Wed 06/11/15	670
673	Finishing	21 days	Thu 06/11/16	Sat 06/12/9	
674	Internal & external finishing	21 days	Thu 06/11/16	Sat 06/12/9	672
675	Chemical Waste storeroom No.1 & 2	176 days	Tue 06/4/18	Wed 06/11/8	
676	Earthworks	14 days	Tue 06/4/18	Wed 06/5/3	
677	Excavation, rockfill & Blinding	14 days	Tue 06/4/18	Wed 06/5/3	
678	Superstructure	25 days	Thu 06/5/4	Thu 06/6/1	
679	Structure	25 days	Thu 06/5/4	Thu 06/6/1	677
680	Finishing	21 days	Mon 06/10/16	Wed 06/11/8	
681	Internal & external finishing	21 days	Mon 06/10/16	Wed 06/11/8	
682	Key Date of the Section 4 of the Works	1 day	Fri 08/3/28	Fri 08/3/28	
683	Section 5 of works	567 days	Mon 06/12/4	Wed 08/9/24	
684	Cover & Shelter to Existing Structure	170 days	Mon 06/12/4	Tue 07/6/19	
685	Shelter for UV channel	36 days	Sat 07/1/27	Fri 07/3/9	687,(
686	Cover for Inlet Pumping Station	23 days	Mon 06/12/4	Fri 06/12/29	
687	Cover for Flume channels	24 days	Sat 06/12/30	Fri 07/1/26	686
688	Cover for Grit channels	24 days	Sat 06/12/30	Fri 07/1/26	686

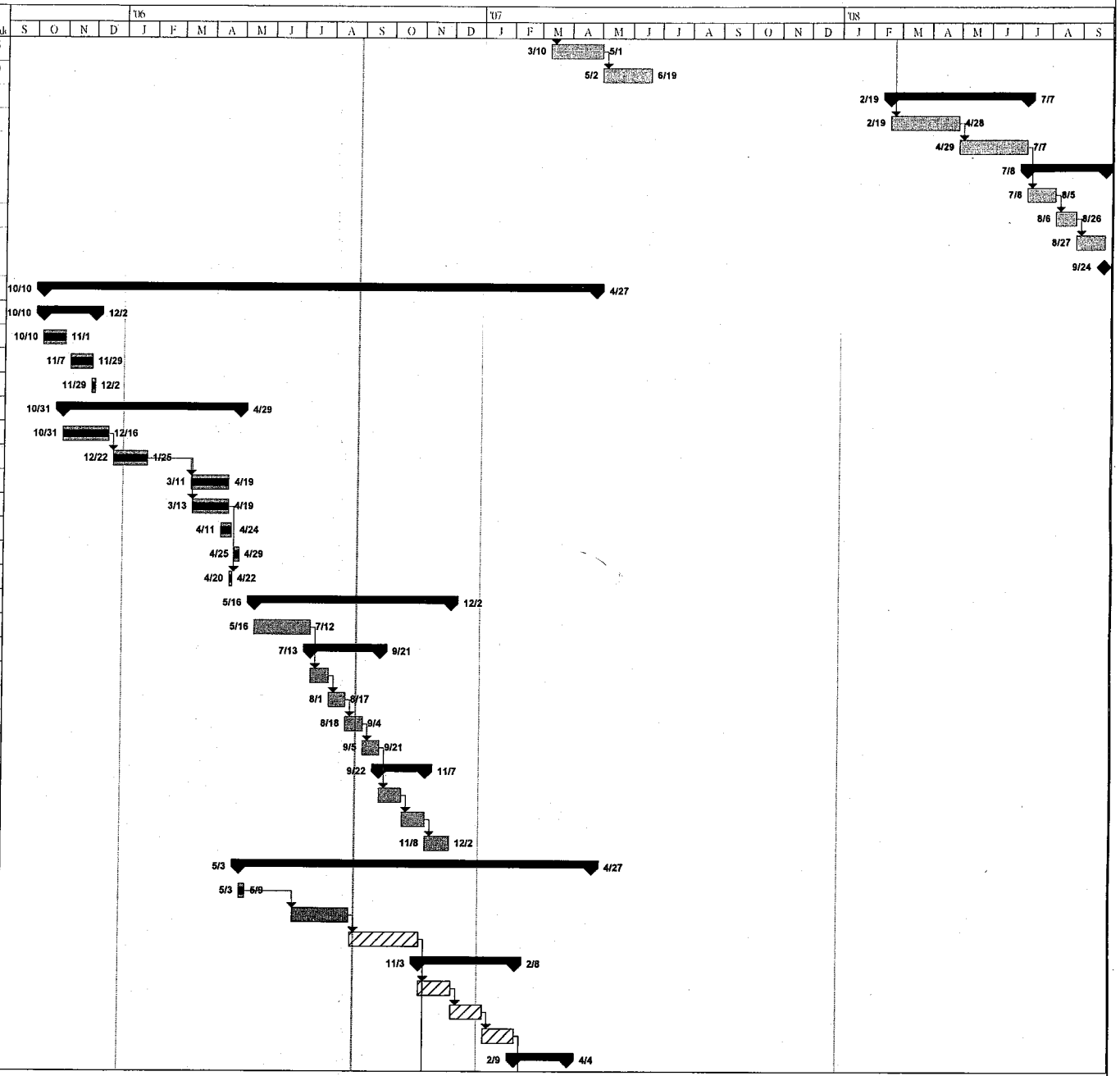


Date: Mon 06/8/28

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

Maeda Corporation
Contract No. DC/2005/01
Expansion of Shek Wu Hui Sewage Treatment Works and
Upgrading of Ting Kok Road Pumping Station No.5
Master Programme (Rev. 4)

ID	Task Name	Duration	Start	Finish	Predecessors
689	Cover for Sedimentation tank No.1-8	45 days	Sat 07/3/10	Tue 07/5/1	685
690	Cover for Sludge Hoarding Tank No.1-4	42 days	Wed 07/5/2	Tue 07/6/19	689
691	**Roadworks**	120 days	Tue 08/2/19	Mon 08/7/7	
692	Portion 1	60 days	Tue 08/2/19	Mon 08/4/28	666
693	Portion 2&3	60 days	Tue 08/4/29	Mon 08/7/7	692
694	**Landscaping Softworks**	68 days	Tue 08/7/8	Wed 08/9/24	
695	Planting works (Portion 2)	25 days	Tue 08/7/8	Tue 08/8/5	693
696	Hydroseeding	18 days	Wed 08/8/6	Tue 08/8/26	695
697	General Establishment Works	25 days	Wed 08/8/27	Wed 08/9/24	696
698	**Key Date of the Section 5 of the Works**	1 day	Wed 08/9/24	Wed 08/9/24	
699	**Section 6 of the Works**	485 days	Mon 05/10/10	Fri 07/4/27	
700	✓ **General Site Clearance and Setting Up**	47 days	Mon 05/10/10	Fri 05/12/2	
701	✓ Site Clearance (Tree Felling)	20 days	Mon 05/10/10	Tue 05/11/1	
702	✓ Hoarding, Chainlink Fence & Gate Erection	20 days	Mon 05/11/7	Tue 05/11/29	
703	✓ Demolition of Existing Boundary Wall (Stage 1)	4 days	Tue 05/11/29	Fri 05/12/2	
704	✓ **Mini Piles**	156 days	Mon 05/10/31	Sat 06/4/29	
705	✓ G.I. - Pre-Drilling	41 days	Mon 05/10/31	Fri 05/12/16	
706	✓ Preliminary Pile	30 days	Thu 05/12/22	Wed 06/1/25	705
707	✓ Installation of Re-bars	32 days	Sat 06/3/11	Wed 06/4/19	706
708	✓ Grouting	32 days	Mon 06/3/13	Wed 06/4/19	706
709	✓ Post Drilling	10 days	Tue 06/4/11	Mon 06/4/24	
710	✓ Loading Test	5 days	Tue 06/4/25	Sat 06/4/29	
711	✓ Site Clearance	3 days	Thu 06/4/20	Sat 06/4/22	708
712	**Transformer House**	173 days	Tue 06/5/16	Sat 06/12/2	
713	Diversion of Existing Sewer	50 days	Tue 06/5/16	Wed 06/7/12	
714	Construction of Substructure	61 days	Thu 06/7/13	Thu 06/9/21	
715	Temporary Works (Sheet Pile + Open Cut)	16 days	Thu 06/7/13	Mon 06/7/31	713
716	Lift 1 (from +3.95 mPD to +4.95 mPD)	15 days	Tue 06/8/1	Thu 06/8/17	715
717	Lift 2 (from +4.95 mPD to +5.95 mPD)	15 days	Fri 06/8/18	Mon 06/9/4	716
718	Lift 3 (from +5.15 mPD to +6.15 mPD)	15 days	Tue 06/9/5	Thu 06/9/21	717
719	Construction of Superstructure	40 days	Fri 06/9/22	Tue 06/11/7	
720	Lift 4 (from +6.15 mPD to +11.20 mPD)	20 days	Fri 06/9/22	Sat 06/10/14	718
721	Lift 5 (from +11.20 mPD to +12.30 mPD)	20 days	Mon 06/10/16	Tue 06/11/7	720
722	Internal Finishes (incl. Plumbing, cat ladder, etc.)	22 days	Wed 06/11/8	Sat 06/12/2	721
723	**Ting Kok Road Pumping Station No.5**	309 days	Wed 06/5/3	Fri 07/4/27	
724	✓ General Excavation & Trial Trench	5 days	Wed 06/5/3	Tue 06/5/9	
725	Sheet Piling	50 days	Tue 06/6/27	Wed 06/8/23	724
726	ELS Works for Pumping Station No. 5	60 days	Fri 06/8/25	Thu 06/11/2	725
727	Sub-structure works for Pumping Station No. 5	84 days	Fri 06/11/3	Thu 07/2/8	
728	Lift 1 (from -4.155 mPD to -1.5 mPD)	28 days	Fri 06/11/3	Tue 06/12/5	726
729	Lift 2 (from -1.5mPD to +2.8 mPD)	28 days	Wed 06/12/6	Sat 07/1/6	728
730	Lift 3 (from +2.8 mPD to +5.5mPD)	28 days	Mon 07/1/8	Thu 07/2/8	729
731	Superstructure works for Pumping Station No. 5	47 days	Fri 07/2/9	Wed 07/4/4	

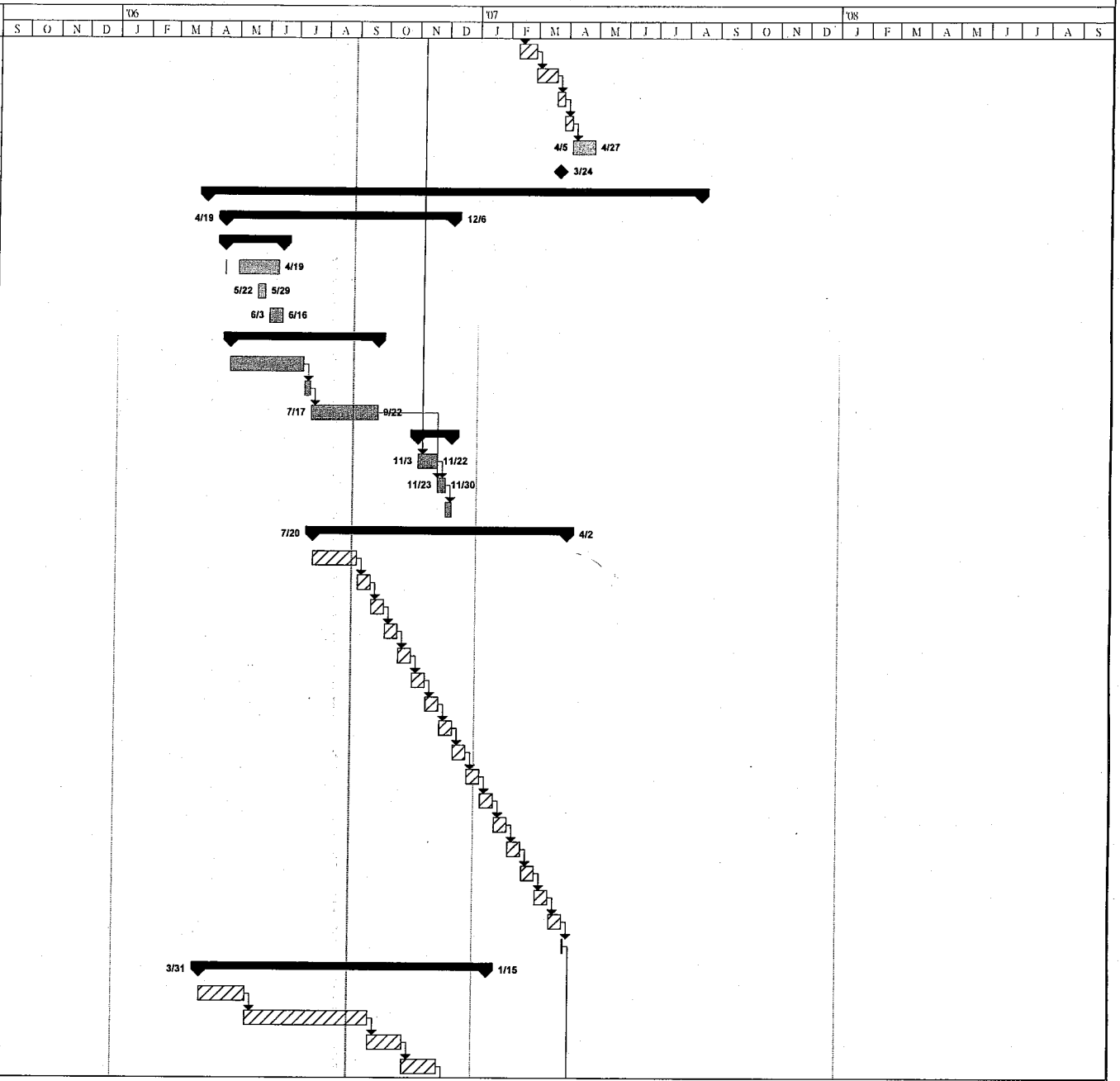


Date: Mon 06/8/28

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

Maeda Corporation
Contract No. DC/2005/01
Expansion of Shek Wu Hui Sewage Treatment Works and
Upgrading of Ting Kok Road Pumping Station No.5
Master Programme (Rev. 4)

ID	Task Name	Duration	Start	Finish	Preds
732	Lift 4 (from +5.5mPD to +6.5mPD)	15 days	Fri 07/2/9	Mon 07/2/26	730
733	Lift 5 (from +6.5mPD to +10.0mPD)	18 days	Tue 07/2/27	Mon 07/3/19	732
734	Lift 6 (from +10.0mPD to +11.4mPD)	7 days	Tue 07/3/20	Tue 07/3/27	733
735	Lift 7 (from +11.4mPD to +13.4mPD)	7 days	Wed 07/3/28	Wed 07/4/4	734
736	Internal Finishes (incl. Plumbing, cat ladder, etc.)	20 days	Thu 07/4/5	Fri 07/4/27	735
737	**Key date of Section 6 of the Works**	1 day	Sat 07/3/24	Sat 07/3/24	
738	**Section 7 of the Works**	429 days	Fri 06/3/31	Mon 07/8/13	
739	**Pipe Jacking**	199 days	Wed 06/4/19	Wed 06/12/6	
740	**TL2**	51 days	Wed 06/4/19	Fri 06/6/16	
741	Jacking pits construction for TL2	36 days	Wed 06/4/19	Mon 06/6/12	
742	Setting Up for Jacking Machine	7 days	Mon 06/5/22	Mon 06/5/29	
743	Pipe Jacking at TL2	12 days	Sat 06/6/3	Fri 06/6/16	
744	**TL3**	130 days	Tue 06/4/25	Fri 06/9/22	
745	Jacking pits construction for TL3	65 days	Tue 06/4/25	Sat 06/7/8	
746	Setting Up for Jacking Machine	6 days	Mon 06/7/10	Sat 06/7/15	745
747	Pipe Jacking at TL3	59 days	Mon 06/7/17	Fri 06/9/22	746
748	**TL1**	29 days	Fri 06/11/3	Wed 06/12/6	
749	Jacking pits construction for TL1	17 days	Fri 06/11/3	Wed 06/11/22	726
750	Setting Up for Jacking Machine	7 days	Thu 06/11/23	Thu 06/11/30	747
751	Pipe Jacking at TL1	5 days	Fri 06/12/1	Wed 06/12/6	750
752	**Twin 450mm Rising Mains**	220 days	Thu 06/7/20	Mon 07/4/2	
753	Portion 1 (12m)	39 days	Thu 06/7/20	Sat 06/9/2	
754	Portion 2 (24m)	12 days	Mon 06/9/4	Sat 06/9/16	753
755	Portion 3 (24m)	12 days	Mon 06/9/18	Sat 06/9/30	754
756	Portion 4 (24m)	12 days	Mon 06/10/2	Sat 06/10/14	755
757	Portion 5 (24m)	12 days	Mon 06/10/16	Sat 06/10/28	756
758	Portion 6 (24m)	12 days	Mon 06/10/30	Sat 06/11/11	757
759	Portion 7 (24m)	12 days	Mon 06/11/13	Sat 06/11/25	758
760	Portion 8 (24m)	12 days	Mon 06/11/27	Sat 06/12/9	759
761	Portion 9 (24m)	12 days	Mon 06/12/11	Sat 06/12/23	760
762	Portion 10 (24m)	12 days	Mon 06/12/25	Sat 07/1/6	761
763	Portion 11 (24m)	12 days	Mon 07/1/8	Sat 07/1/20	762
764	Portion 12 (24m)	12 days	Mon 07/1/22	Sat 07/2/3	763
765	Portion 13 (24m)	12 days	Mon 07/2/5	Sat 07/2/17	764
766	Portion 14 (24m)	12 days	Mon 07/2/19	Sat 07/3/3	765
767	Portion 15 (24m)	12 days	Mon 07/3/5	Sat 07/3/17	766
768	Portion 16 (12m)	12 days	Mon 07/3/19	Sat 07/3/31	767
769	Testing of pipeline	1 day	Mon 07/4/2	Mon 07/4/2	768
770	**Gravity Sewers and Manholes**	249 days	Fri 06/3/31	Mon 07/1/15	
771	Excavation of Trial Pits	40 days	Fri 06/3/31	Tue 06/5/16	
772	Stage 2 (MH8 - MH9)	107 days	Wed 06/5/17	Mon 06/9/18	771
773	Stage 1 and 1A(V.O. MH8 - MH7A - MH7)	30 days	Tue 06/9/19	Mon 06/10/23	772
774	Stage 3 (MH9 - MH10)	30 days	Tue 06/10/24	Mon 06/11/27	773

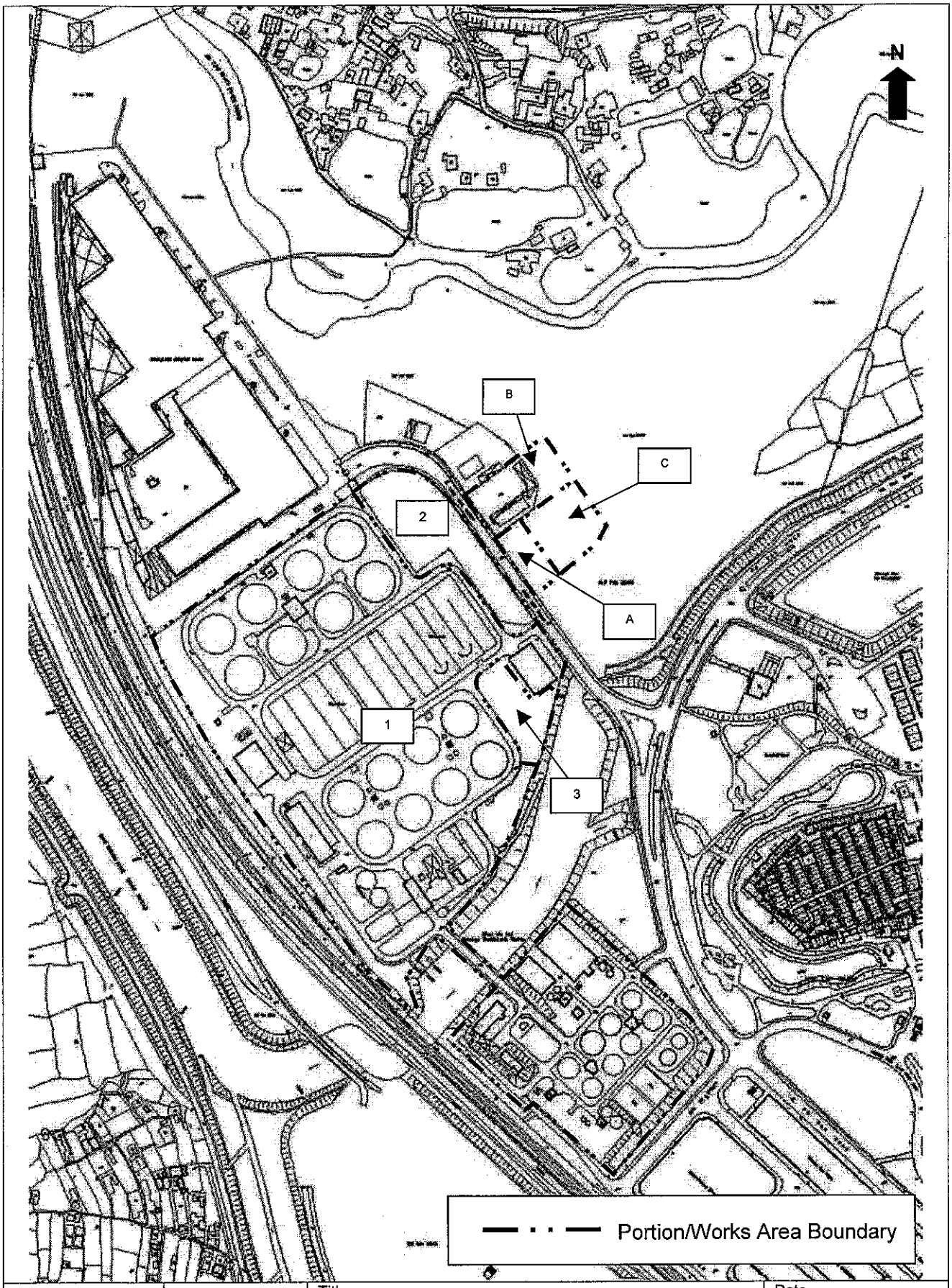


Date: Mon 06/8/28

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

Appendix 3

Location of Works



Hyder Consulting

MAEDA

Title

Expansion of Shek Wu Hui Sewage Treatment Works – Location of Portion/Works Area

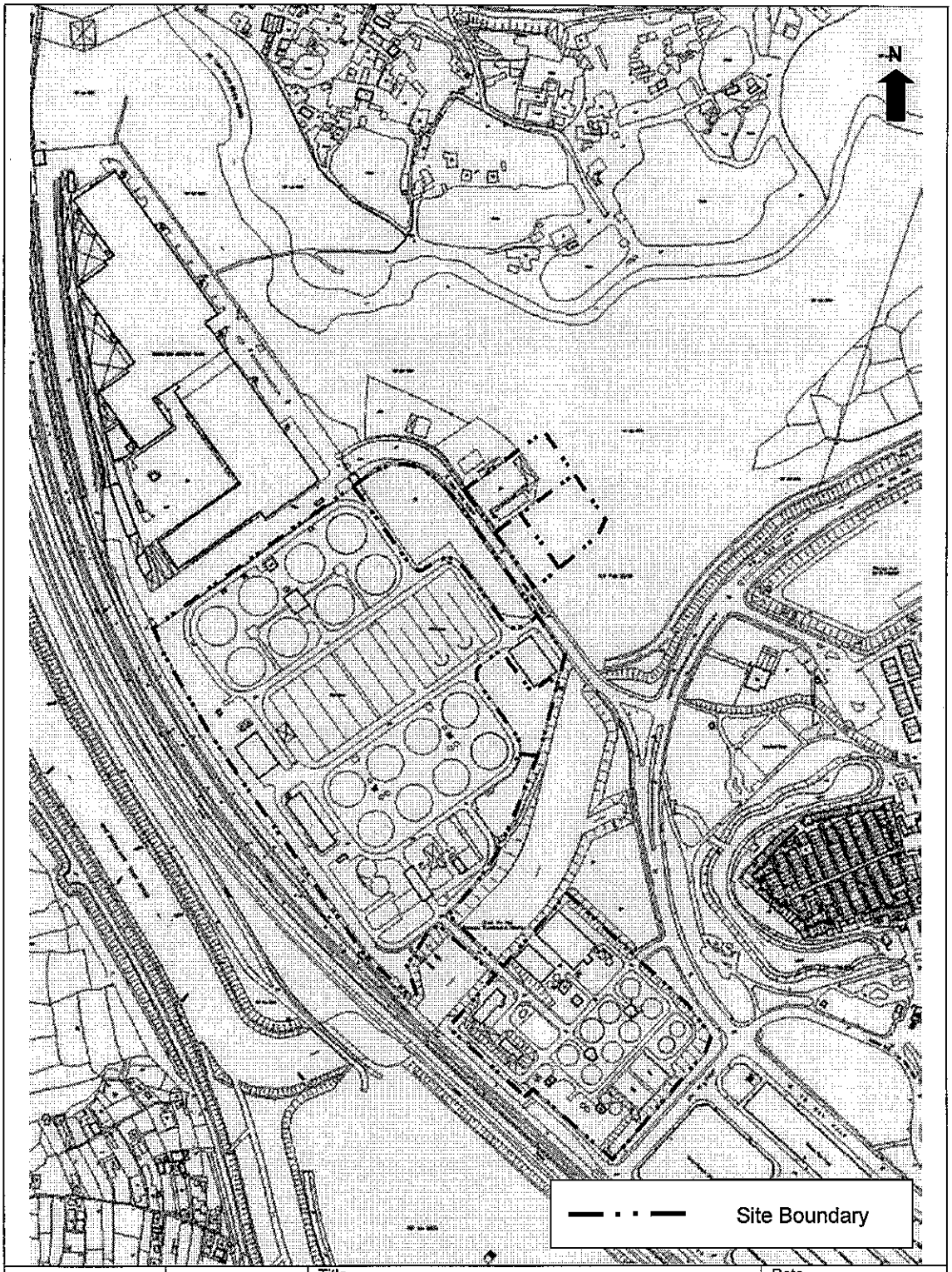
Date
Dec 2005

Figure
N.A.

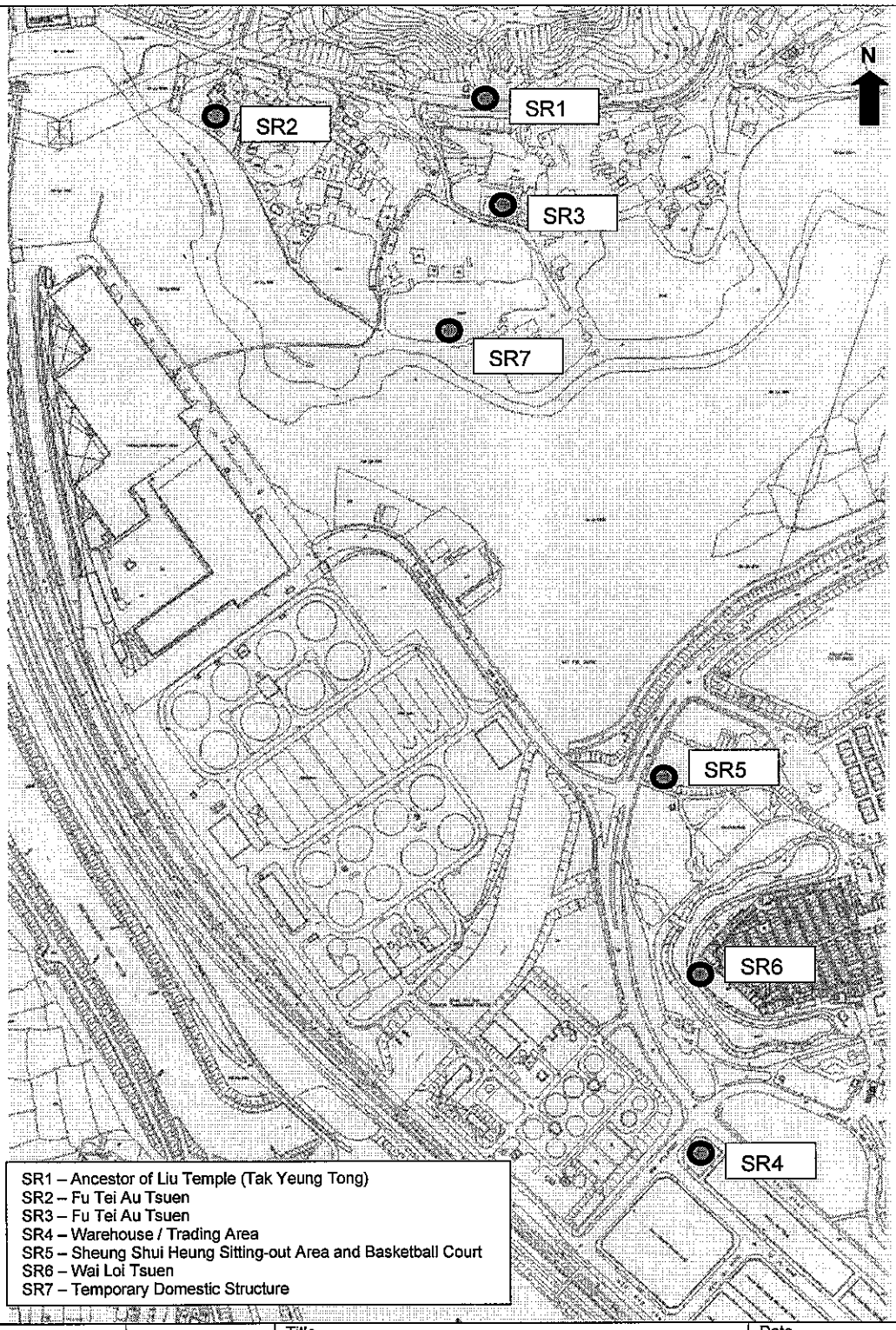
Scale
NTS

Appendix 4

Project Area, Environmental Sensitive Receiver and Monitoring Location



Hyder Consulting	MAEDA	Title: Expansion of Shek Wu Hui Sewage Treatment Works – Project Area	Date: Dec 2005 Figure: N.A. Scale: NTS



Hyder Consulting

MAEDA

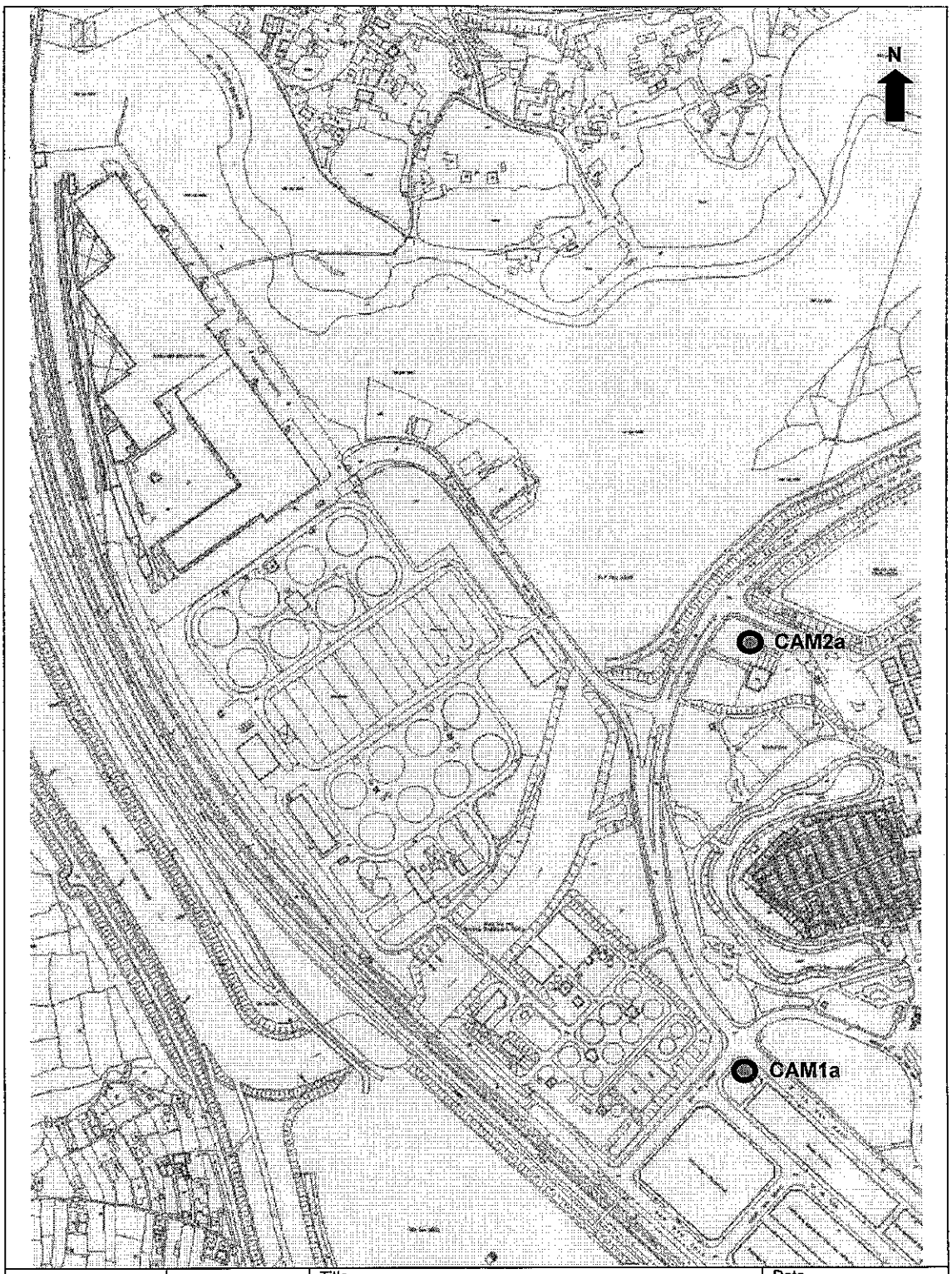
Title

Expansion of Shek Wu Hui Sewage Treatment Works – Environmental Sensitive Receiver

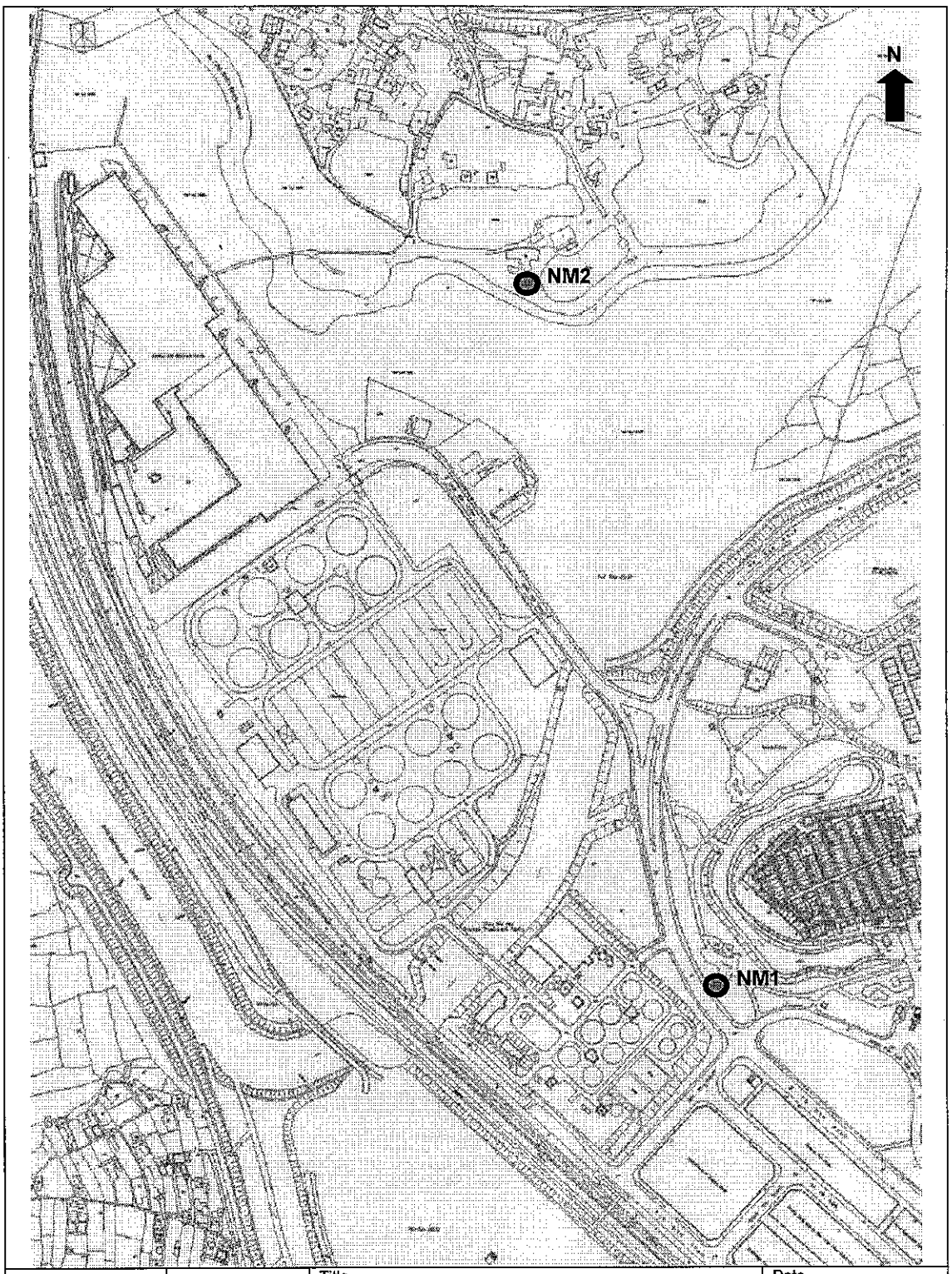
Date: Dec 2005

Figure: N.A.

Scale: NTS



Hyder Consulting	MAEDA	Title: Expansion of Shek Wu Hui Sewage Treatment Works – Location of Air Quality Monitoring Station	Date: Dec 2005 Figure: N.A. Scale: NTS



Hyder Consulting	MAEDA	Title: Expansion of Shek Wu Hui Sewage Treatment Works – Location of Noise Monitoring Station	Date: Dec 2005 Figure: N.A. Scale: NTS

Appendix 5

Action and Limit Levels

Monitoring Station ID	1-hour TSP Level in (μg/m³)		24-hour TSP Level in (μg/m³)	
	Action Level	Limit Level	Action Level	Limit Level
CAM1a	342. 7	500	203.3	260
CAM2a	340.2		201.6	

Action and Limit Levels for Air Quality

Time Period	Action Level	Limit Level
0700 – 1900 hours on normal weekdays	When one documented complaint is received	75 dB(A)

Action and Limit Levels for Noise

Appendix 6

Environmental Requirements and Implementation Status

IMPLEMENTATIONS STATUS OF MITIGATION MEASURES

Implementation Status for Air Quality Control

PP Ref#	Environmental Protection Measures	Location / Timing	Implementation Agent	Implementation Status	Follow-up Action and Final Outcome
Annex I S1.7.1	Dust mitigation measures stipulated in the *Air Pollution Control (construction Dust)* Regulation shall be incorporated to control dust emission from the Site. Notice shall be given to the authority prior to commencement of works.	Works sites / during construction period	Contractor	• Sand and gravel on bare ground near switch room were observed on 21 September 2006	• Cleaning up action was in progress during the inspection.

The section number in the Project Profile for Expansion of Shek Wu Hui Sewage Treatment works (Application No. DIR-121/2005)

Implementation Status for Water Quality Control

PP Ref#	Environmental Protection Measures	Location / Timing	Implementation Agent	Implementation Status	Follow-up Action and Final Outcome
Annex 2 S2.4.4	The practice outlined in Practice Note for Professional Persons on Construction Site Drainage, Professional Person Environmental Protection Department, 1994 (ProPECC PN 1/94) including the use of sediment traps, wheel washing facilities for vehicles leaving the site, adequate maintenance of drainage systems to prevent flooding and overflow, sewage collection and treatment, and comprehensive waste management (collection, handling, transportation, disposal) procedures should be adopted to minimize the potential water quality impact from construction site runoff and various construction activities.	Works sites / During the construction period	Contractor	Properly implemented as appropriate	N/A
Annex 2 S2.4.4	*Construction Runoff and Drainage* • At the start of site establishment, perimeter cut-off drains to direct off-site water around the site should be constructed and internal drainage works and erosion and sedimentation control facilities implemented. Channels, earth bunds or sand bag barriers should be provided on site to direct stormwater to silt removal facilitates. The design of the temporary on-site drainage system will be undertaken by the contractor prior to the commencement of construction. • The design of efficient silt removal facilities should be based on the guidelines in Appendix A1 of ProPECC PN 1/94, which states that the retention time for silt/sand traps should be 5 minutes under maximum flow conditions. Sizes may vary depending upon the flow rate, but for a flow rate of $0.1m^3s^{-1}$ a sedimentation basin of $30m^3$ would be required and for a flow rate of $0.5m^3s^{-1}$ the basin would be $150m^3$. The detailed design of the sand/silt traps will be undertaken by the contractor prior to the commencement of construction. • Ideally, construction works should be programmed to minimize surface excavation works during the rainy season (April to September). All exposed earth areas should be compacted and vegetated as soon as possible after earthworks have been completed, or alternatively, within 14 days of cessation of earthworks where practicable. If excavation of soil cannot be avoided during the rainy season, or at any time of year when rainstorms are likely, exposed slope surfaces should be covered by tarpaulin or other means.	Works sites / During the construction period	Contractor	Properly implemented as appropriate	N/A

PP Ref#	Environmental Protection Measures	Location / Timing	Implementation Agent	Implementation Status	Follow-up Action and Final Outcome
Annex 2 S2.4.4	*Construction Runoff and Drainage (Cont'd)* • The overall slope of the site should be kept to a minimum to reduce the erosive potential of surface water flows, and all trafficked areas and access roads protected by coarse stone ballast. An additional advantage accruing from the use of crushed stone is the positive traction gained during prolonged periods of inclement weather and the reduction of surface sheet flows. • All drainage facilities and erosion and sediment control structures should be regularly inspected and maintained to ensure proper and efficient operation at all times and particularly following rainstorms. Deposited silt and grit should be removed regularly and disposed of by spreading evenly over stable, vegetated areas. • Measures should be taken to minimize the ingress of site drainage into excavations. If the excavation of trenches in wet periods is necessary, they should be dug and backfilled in short sections wherever practicable. Water pumped out from trenches or foundation excavations should be discharged into storm drains via silt removal facilities. • Open stockpiles of construction materials (for example, aggregates, sand and fill material) of more than $50m^3$ should be covered with tarpaulin or similar fabric during rainstorms. Measures should be taken to prevent the washing away of construction materials, soil, silt or debris into any drainage system. • Manholes (including newly constructed ones) should always be adequately covered and temporarily sealed so as to prevent silt, construction materials or debris being washed into the drainage system and storm runoff being directed into foul sewers. • Precautions to be taken at any time of year when rainstorms are likely, actions to be taken when a rainstorm is imminent or forecasted, and actions to be taken during or after rainstorms are summarized in Appendix A2 of ProPECC PN 1/94. Particular attention should be paid to the control of silty surface runoff during storms events, especially for areas located near steep slopes.	Works sites / During the construction period	Contractor	Properly implemented as appropriate	N/A

PP Ref#	Environmental Protection Measures	Location / Timing	Implementation Agent	Implementation Status	Follow-up Action and Final Outcome
Annex 2 S2.4.4	*Construction Runoff and Drainage* • All vehicles and plant should be cleaned before leaving a construction site to ensure no earth, mud, debris and the like is deposited by them on roads. An adequately designed and sited wheel washing bay should be provided at every site exits and wash-water should have sand and silt settled out and removed at least on a weekly basis to ensure the continued efficiency of the process. The section of access road leading to, and exiting from, the wheel-wash bay to the public road should be paved with sufficient backfill toward the wheel-wash bay to prevent vehicle tracking of soil and silty water to public roads and drains. • On-site drainage system should be equipped with oil interceptors to separate oil/fuel from contaminated storm water.	Works site / During the construction period	Contractor	Properly implemented as appropriate	N/A
Annex 2 S2.4.4	*General Construction Activities* • Construction solid waste, debris and rubbish on site should be collected, handled and disposed of properly to avoid water quality impacts. • All fuel tanks and storage areas should be provided with locks and sited on sealed areas, within bunds of a capacity equal to 100% of the storage capacity of the largest tank to prevent spilled fuel oils from reaching water sensitive receivers nearly.	Works site / During the construction period	Contractor	Properly implemented as appropriate	N/A
Annex 2 S2.4.4	*Sewage from Construction Workforce* • Sewage from construction workforce should be handled by portable chemical toilets or sewage holding tanks with the sewage regularly collected by a reputable sewage collector for disposal at, for example, SWHSTW. Sewage from on-site toilets should be diverted to and stored within sewage holding tanks for later disposal.	Works site / During the construction period	Contractor	Properly implemented as appropriate	N/A

The section number in the Project Profile for Expansion of Shek Wu Hui Sewage Treatment works (Application No. DIR-121/2005)

Implementation Status for Waste Management

PP Ref#	Environmental Protection Measures	Location / Timing	Implementation Agent	Implementation Status	Follow-up Action and Final Outcome
Annex 3 S3.5.1	*Waste Reduction Measures of Construction Stage* • Measures recommended in the ETWB TCW No. 15/2003 should be followed to require the contractor to prepare and implement an enhanced Waste Management Plan (WMP) to encourage on-site sorting of C&D materials and to minimize their generation during the course of construction. • For the demolition works, the contractor shall submit a method statement for the works as part of the WMP. The Contractor shall include in the method statement the sequence of demolition and the work programme to facilitate effective recovery of reusable and/or recyclable portions of the C&D materials at the earliest stage, so as to minimise the need for subsequent sorting. • Segregation and storage of different types of waste in different containers, skips or stockpiles to enhance reuse or recycling of materials and their proper disposal. • Separate labelled bins shall be provided to segregate aluminium cans from other general refuse generated by the work force, and to encourage collection of by individual collectors. • Any unused chemicals or those with remaining functional capacity shall be recycled. • Maximising the use of reusable steel formwork to reduce the amount of C&D material. • Prior to disposal of C&D waste, it is recommended that wood, steel and other metals shall be separated for re-use and / or recycling to minimise the quality of waste to be disposed of to landfill. • Proper storage and site practices to minimise the potential for damage or contamination of construction materials. • Plan and stock construction materials carefully to minimise amount of waste generated and avoid unnecessary generation of waste. • Minimize over ordering of concrete, mortars and cement grout by doing careful check before ordering.	Work site / During the construction period	Contractor	Properly implemented as appropriate	N/A

PP Ref#	Environmental Protection Measures	Location / Timing	Implementation Agent	Implementation Status	Follow-up Action and Final Outcome
Annex 3 S3.5.2 – S3.5.5	*Good Site Practices* • Nomination of approved personnel, such as a site manager, to be responsible for good site practices, and making arrangements for collection of all wastes generated at the site and effective disposal to an appropriate facility. • Training of site personnel in proper waste management and chemical wast handling procedures; • Provision of sufficient waste disposal points and regular collection for disposal; • Appropriate measures to minimise windblown litter and dust during transportation of waste by either covering trucks or by transporting wastes in enclosed containers; • Regular cleaning and maintenance programme for drainage systems, sumps and oil interceptors; • A Waste Management Plan should be prepare and should be submitted to the engineer for approval; and • A recording system for the amount of wastes generated, recycled and disposed (including the disposal sites) should be proposed. • In order to monitor the disposal of C&D material at landfills and public filling facilities, as appropriate, and to control fly tipping, a trip-ticket system should be included as one of the contractual requirements to be implemented by an Environmental Team undertaking the Environmental Monitoring and Audit work. The measures recommended in ETWB TCW No. 31/2004 should be followed.	Work site / During the construction period	Contractor	Properly implemented as appropriate	N/A
Annex 3 S3.5.6	*General Refuse* • General refuse should be stored in enclosed bins or compaction units separate from C&D material. A reputable waste collector should be employed by the contractor to remove general refuse from the site, separately from C&D material. An enclosed and covered area is preferred to reduce the occurrence of 'wind blown' light material;	Work site / During the construction period	Contractor	Properly implemented as appropriate	N/A

PP Ref#	Environmental Protection Measures	Location / Timing	Implementation Agent	Implementation Status	Follow-up Action and Final Outcome
Annex 3 S3.5.7	*Construction and Demolition Material* • The C&D material generated from the site formation and demolition works should be sorted on-site into inert C&D material (that is, public fill) and C&D waste. In order to minimise the impact resulting from collection and transportation of C&D material for off-site disposal, the excavated material comprising fill material should be reused on-site as backfilling material as far as practicable. C&D waste, such as wood, plastic, steel and other metals should be reused or recycled and, as a last resort, disposed of to landfill. A suitable area should be designated within the site for temporary stockpiling of C&D material and to facilitate the sorting process.	Work site / During the construction period	Contractor	Properly implemented as appropriate	N/A
Annex 3 S3.5.8	*Chemical Wastes* • When chemical wastes are produced at the construction site, the Contractor would be required to register with the EPD as a Chemical Waste Producer and to follow the requirements stated in the Code of Practice on the Packaging, Labelling and Storage of Chemical Wastes. Good quality containers computable with the chemical wastes should be used. Appropriate labels should be securely attached on each chemical waste container indicating the chemical characteristics of the chemical waste, such as explosives, flammable, oxidizing, irritant, toxic, harmful, corrosive, etc. The Contractor shall use a license wast collector to transport and dispose of the chemical wastes in accordance with the Waste Disposal (Chemical Waste) (General) Regulation.	Work site / During the construction period	Contractor	Properly implemented as appropriate	N/A

The section number in the Project Profile for Expansion of Shek Wu Hui Sewage Treatment works (Application No. DIR-121/2005)

Implementation Status for Noise Control

PP Ref#	Environmental Protection Measures	Location / Timing	Implementation Agent	Implementation Status	Follow-up Action and Final Outcome
Annex 4 S4.7.1	Use of quiet PME	Work sites / During the construction period	Contractor	Properly implemented as appropriate	N/A
Annex 4 S4.7.3	*Good Site Practice* • Only well-maintained plant should be operated on-site and plant should be services regularly during the construction phase; • Silencers or mufflers on construction equipment should be utilised, if found necessary, to further reduce noise, and should be properly maintained during the construction phase; • Mobile plant should be sited as far away from NSRs as possible; • Machines and plant (such as trucks) that may be in intermittent use should be shut down between work periods or should be throttled down to a minimum; • Plant known to emit noise strongly in one direction, should, where possible, be orientated so that the noise is directed away from nearby NSRs; and • Material stockpiles and other structures should be effectively utilised, wherever practicable, in screening noise from on-site construction activities.	Work sites / During the construction period	Contractor	Properly implemented as appropriate	N/A

The section number in the Project Profile for Expansion of Shek Wu Hui Sewage Treatment works (Application No. DIR-121/2005)

Appendix 7

Calibration Records

Annex 2 High Volume Air Sampler Calibration Worksheet

Project Title: Expansion of Shek Wu Hui Sewage Treatment Works
Monitoring Location: Sewage Pumping Station at j/o San Po Street and Po Wan Road (CAM1a)
Date: 12-Jul-06
Time: 09:56

Sampler Model:	GBM2000H1
Calibrator Orifice no.:	517N
Slope (m):	2.01069
Intercept (b):	-0.00482
Correction coeff. (r)	0.9999
Serial No.:	1101

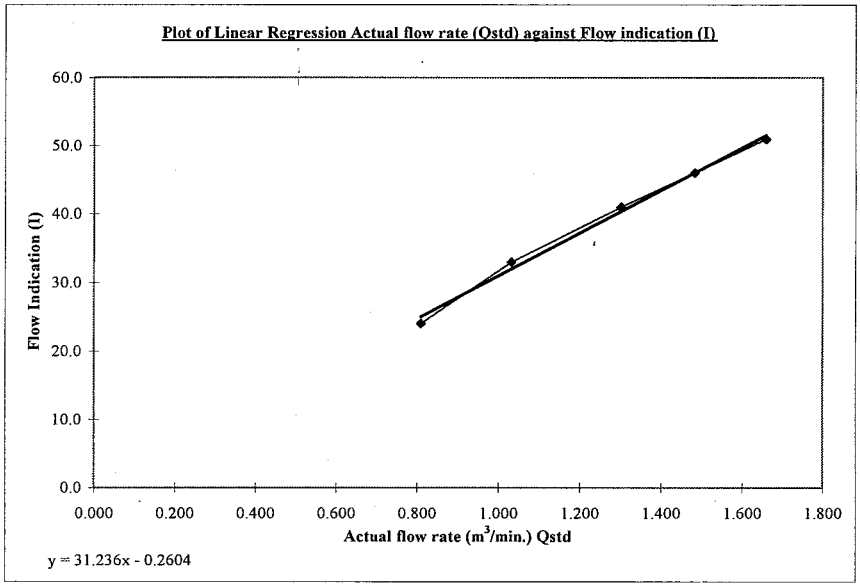
$$Flow(corrected) = \sqrt{H \times \frac{Pa}{Pstd} \times \frac{Tstd}{Ta}}$$

Standard pressure (mmHg) Pstd:	760.0
Standard temp. (K) Tstd:	297.18
Calibration pressure (mmHg) Pa:	760.1
Calibration temp. (K) Ta:	306.0

$$Qstd = \frac{1}{m} \times (\sqrt{H \times \frac{Pa}{Pstd} \times \frac{Tstd}{Ta}} - b)$$

Sample no.	Pressure Drop (H), inch	Flow (corrcted), m^3/min	Actual flow rate (Qstd), m^3/min	Flow indication (I), arbitrary
1	11.4	3.332	1.660	51.0
2	9.1	2.977	1.483	46.0
3	7.0	2.611	1.301	41.0
4	4.4	2.070	1.032	33.0
5	2.7	1.622	0.809	24.0

Correlation Coefficient : 0.9969



Remark
Qstd Range 0.6 - 1.7
1HPa = 0.750062 mmHg

Calibrated by: Kenneth H.C. Choi ( ) **Date:** 12/07/06.

Checked by: Adi Lee ( ) **Date:** 12/7/06

Annex 2 High Volume Air Sampler Calibration Worksheet

Project Title: Expansion of Shek Wu Hui Sewage Treatment Works
Monitoring Location: Flood Balancing Pumping Station at Po Wan Road near Wai Loi Tsuen (CAM2a))
Date: 12-Jul-06
Time: 13:20

Sampler Model:	GBM2000H1
Calibrator Orifice no.:	517N
Slope (m):	2.01069
Intercept (b):	-0.00482
Correction coeff. (r)	0.9999
Serial No.:	1097

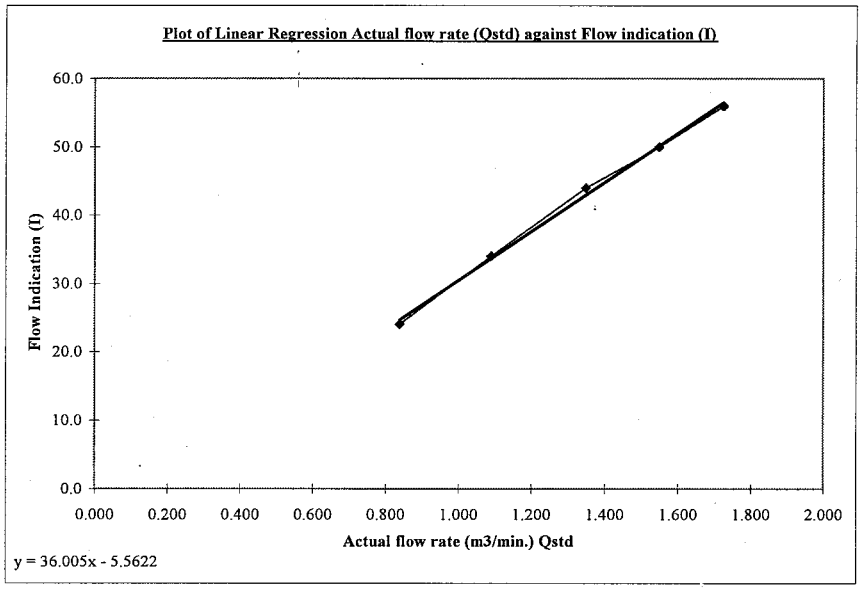
$$Flow(corrected) = \sqrt{H \times \frac{Pa}{Pstd} \times \frac{Tstd}{Ta}}$$

Standard pressure (mmHg) Pstd:	760.0
Standard temp. (K) Tstd:	297.18
Calibration pressure (mmHg) Pa:	761.3
Calibration temp. (K) Ta:	306.0

$$Qstd = \frac{1}{m} \times (\sqrt{H \times \frac{Pa}{Pstd} \times \frac{Tstd}{Ta}} - b)$$

Sample no.	Pressure Drop (H), inch	Flow (corrcted), m^3/min	Actual flow rate (Qstd), m^3/min	Flow indication (I), arbitrary
1	12.3	3.464	1.725	56.0
2	9.9	3.108	1.548	50.0
3	7.5	2.705	1.348	44.0
4	4.9	2.186	1.090	34.0
5	2.9	1.682	0.839	24.0

Correlation Coefficient : 0.9985



Remark
Qstd Range 0.6 - 1.7
1HPa = 0.750062 mmHg

Calibrated by: Kenneth H.C. Choi ( ) **Date:** 12/07/06

Checked by: Adi Lee ( ) **Date:** 13/7/06

Annex 2 High Volume Air Sampler Calibration Worksheet

Project Title: Expansion of Shek Wu Hui Sewage Treatment Works
Monitoring Location: Sewage Pumping Station at j/o San Po Street and Po Wan Road (CAM1a)
Date: 14-Sep-06
Time: 09:45

Sampler Model:	GBM2000H1
Calibrator Orifice no.:	517N
Slope (m):	2.01069
Intercept (b):	-0.00482
Correction coeff. (r)	0.9999
Serial No.:	1101

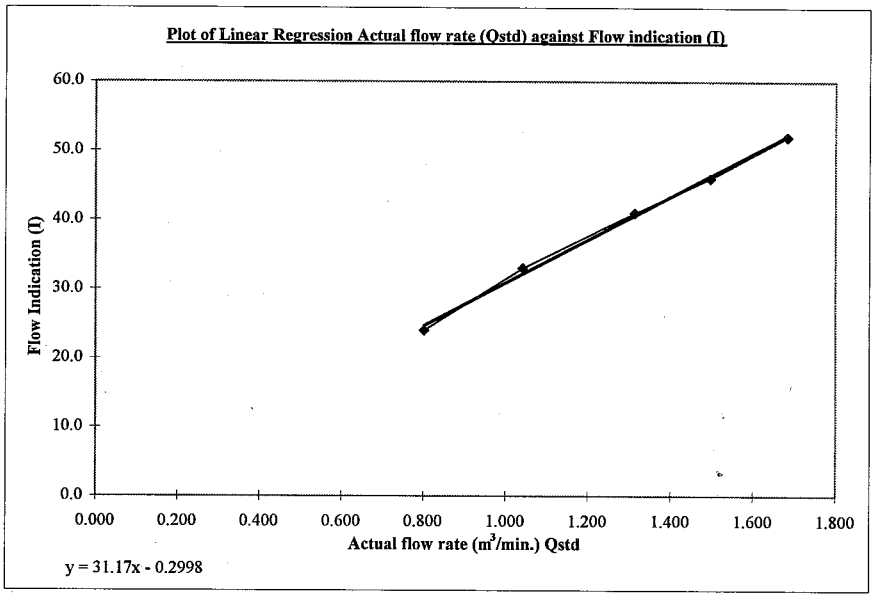
$$Flow(corrected) = \sqrt{H \times \frac{Pa}{Pstd} \times \frac{Tstd}{Ta}}$$

Standard pressure (mmHg) Pstd:	760.0
Standard temp. (K) Tstd:	297.18
Calibration pressure (mmHg) Pa:	759.4
Calibration temp. (K) Ta:	300.0

$$Qstd = \frac{1}{m} \times (\sqrt{H \times \frac{Pa}{Pstd} \times \frac{Tstd}{Ta}} - b)$$

Sample no.	Pressure Drop (H), inch	Flow (corrcted), m^3/min	Actual flow rate (Qstd), m^3/min	Flow indication (I), arbitrary
1	11.5	3.379	1.683	52.0
2	9.1	3.005	1.497	46.0
3	7.0	2.636	1.313	41.0
4	4.4	2.090	1.042	33.0
5	2.6	1.606	0.801	24.0

Correlation Coefficient : 0.9985



Remark
Qstd Range 0.6 - 1.7
1HPa = 0.750062 mmHg

Calibrated by: Kenneth H.C. Choi ( ) **Date:** 14/09/06

Checked by: Hiu Yeung Tang ( ) **Date:** 19/9/06

Annex 2 High Volume Air Sampler Calibration Worksheet

Project Title: Expansion of Shek Wu Hui Sewage Treatment Works
Monitoring Location: Flood Balancing Pumping Station at Po Wan Road near Wai Loi Tsuen (CAM2a))
Date: 14-Sep-06
Time: 13:20

Sampler Model:	GBM2000H1
Calibrator Orifice no.:	517N
Slope (m):	2.01069
Intercept (b):	-0.00482
Correction coeff. (r)	0.9999
Serial No.:	1097

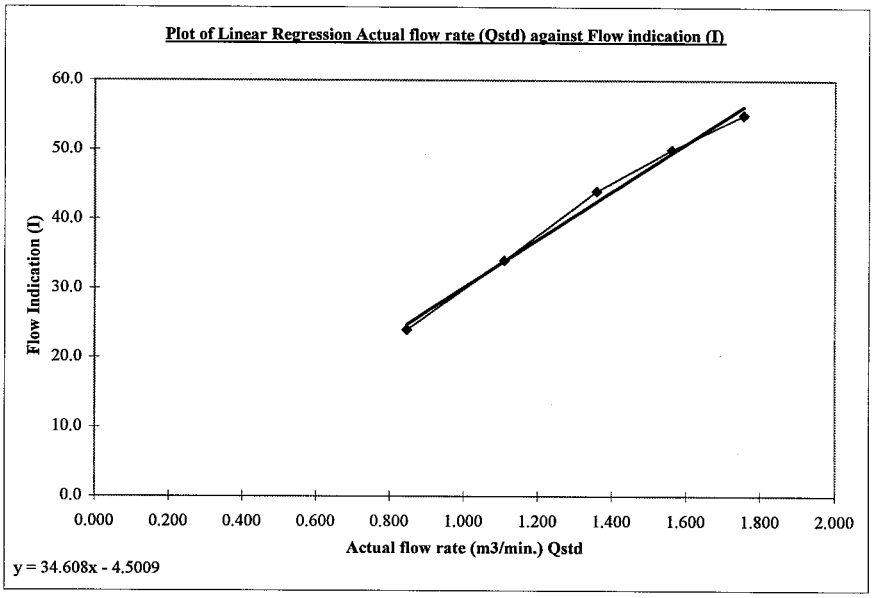
$$Flow(corrected) = \sqrt{H \times \frac{Pa}{Pstd} \times \frac{Tstd}{Ta}}$$

Standard pressure (mmHg) Pstd:	760.0
Standard temp. (K) Tstd:	297.18
Calibration pressure (mmHg) Pa:	759.4
Calibration temp. (K) Ta:	300.0

$$Qstd = \frac{1}{m} \times \left(\sqrt{H \times \frac{Pa}{Pstd} \times \frac{Tstd}{Ta}} - b\right)$$

Sample no.	Pressure Drop (H), inch	Flow (corrcted), m^3/min	Actual flow rate (Qstd), m^3/min	Flow indication (I), arbitrary
1	12.5	3.522	1.754	55.0
2	9.9	3.135	1.561	50.0
3	7.5	2.728	1.359	44.0
4	5.0	2.228	1.110	34.0
5	2.9	1.697	0.846	24.0

Correlation Coefficient : 0.9964



Remark
Qstd Range 0.6 - 1.7
1HPa = 0.750062 mmHg

Calibrated by: Kenneth H.C. Choi ( ) **Date:** 14/09/06

Checked by: Hiu Yeung Tang ( ) **Date:** 19/9/06

TISCH ENVIROMENTAL, INC.
145 SOUTH MIAMI AVE.
VILLAGE OF CLEVES, OH 45002
513.467.9000
877.263.7610 TOLL FREE
513.467.9009 FAX
WWW.TISCH-ENV.COM

AIR POLLUTION MONITORING EQUIPMENT

ORIFICE TRANSFER STANDARD CERTIFICATION WORKSHEET TE-5025A

Date - Apr 26, 2006 Rootsmeter S/N 9833620 Ta (K) - 294
Operator Tisch Orifice I.D. - 517N Pa (mm) - 750.57

PLATE OR Run #	VOLUME START (m3)	VOLUME STOP (m3)	DIFF VOLUME (m3)	DIFF TIME (min)	METER DIFF Hg (mm)	ORFICE DIFF H2O (in.)
1	NA	NA	1.00	1.4140	3.2	2.00
2	NA	NA	1.00	0.9910	6.3	4.00
3	NA	NA	1.00	0.8890	7.8	5.00
4	NA	NA	1.00	0.8480	8.7	5.50
5	NA	NA	1.00	0.6980	12.5	8.00

DATA TABULATION

Vstd	(x axis) Qstd	(y axis)		Va	(x axis) Qa	(y axis)
0.9967	0.7049	1.4149		0.9957	0.7042	0.8851
0.9926	1.0016	2.0010		0.9916	1.0006	1.2517
0.9905	1.1142	2.2372		0.9895	1.1131	1.3995
0.9894	1.1667	2.3464		0.9884	1.1656	1.4678
0.9843	1.4102	2.8299		0.9833	1.4087	1.7702
Qstd slope (m) =		2.01069		Qa slope (m) =		1.25906
intercept (b) =		-0.00482		intercept (b) =		-0.00301
coefficient (r) =		0.99990		coefficient (r) =		0.99990
y axis = SQRT[H2O(Pa/760)(298/Ta)]				y axis = SQRT[H2O(Ta/Pa)]		

CALCULATIONS

Vstd = Diff. Vol[(Pa-Diff. Hg)/760](298/Ta)
Qstd = Vstd/Time

Va = Diff Vol [(Pa-Diff Hg)/Pa]
Qa = Va/Time

For subsequent flow rate calculations:

Qstd = 1/m{[SQRT(H2O(Pa/760)(298/Ta))]- b}
Qa = 1/m{[SQRT H2O(Ta/Pa)]- b}

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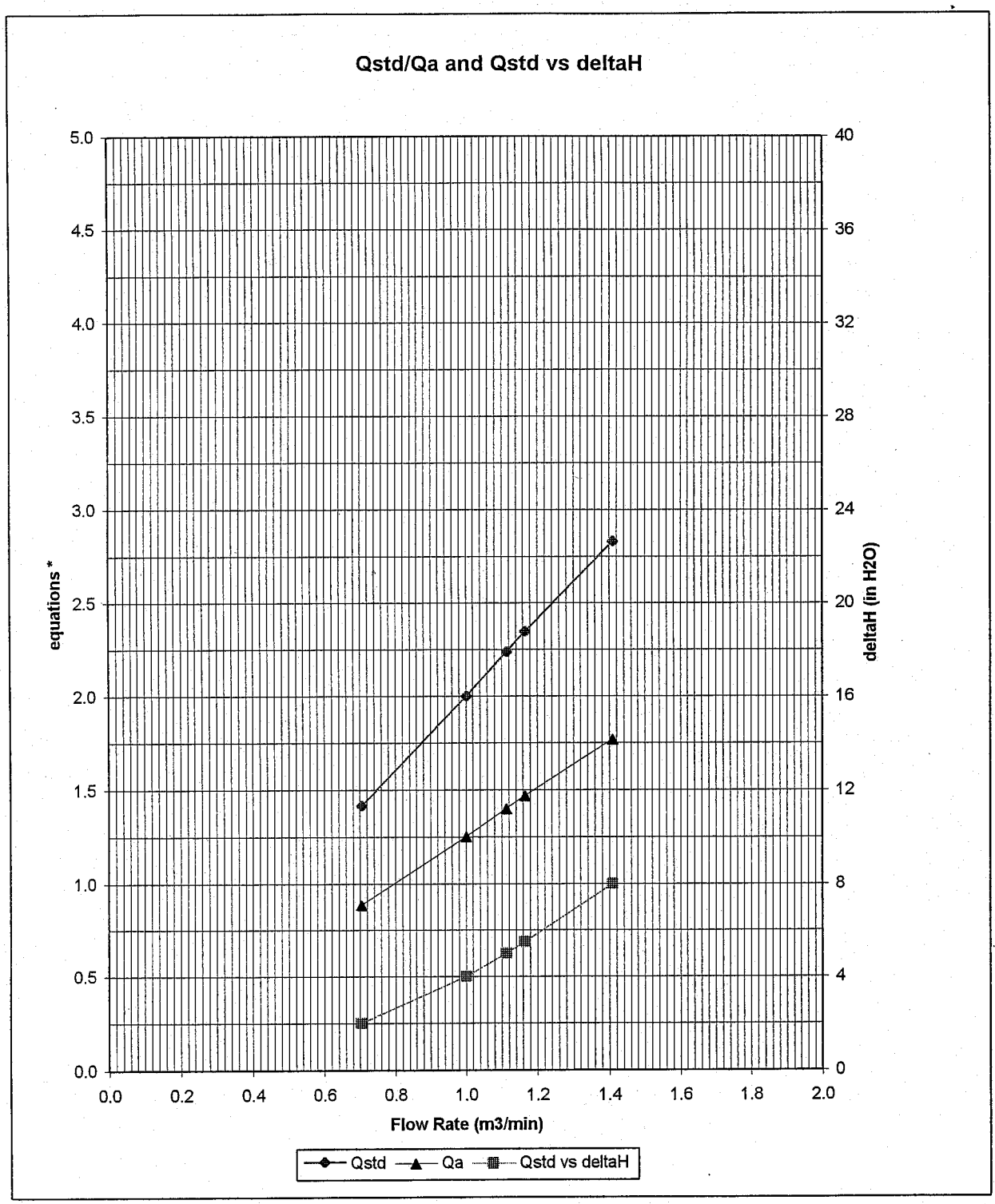
AIR POLLUTION MONITORING EQUIPMENT



*** y-axis equations:**

Qstd series: $\sqrt{\Delta H \left(\frac{Pa}{Pstd}\right)\left(\frac{Tstd}{Ta}\right)}$

Qa series: $\sqrt{(\Delta H\ (Ta\ /\ Pa))}$

#517N

Hong Kong Calibration Ltd.
香 港 校 正 有限公司

Calibration Certificate

Certificate No. **55747** Page 1 of 2 Pages

Customer : Hyder Consulting Limited

Address : 47/F., Hopewell Centre, 183 Queen's Road East, Wan Chai, Hong Kong

Order No. : Q52108 **Date of receipt :** 7-Dec-05

Item Tested

Description : Sound Level Calibrator

Manufacturer : B&K

Model : Type 4231 **Serial No. :** 1770806

Test Conditions

Date of Test : 15-Dec-05 **Supply Voltage :** --

Ambient Temperature : (23 ± 3)°C **Relative Humidity :** (50 ± 25) %

Test Specifications

Calibration check according to customer's requirement.

Calibration procedure : F21, Z02.

Test Results

All results were within the manufacturer's, IEC 942 Class 1 specification.

The results are shown in the attached page(s).

Test equipment used:

Equipment No.	Cert. No.	Due Date	Traceable to
S014	53024	7-Jul-06	PRC-NIM
S024	S41431	22-May-06	PRC-NIM
S041	53972	26-Aug-06	HKGSCL

The values given in this Calibration Certificate only relate to the values measured at the time of the test and any uncertainties quoted will not include allowance for the equipment long term drift, variations with environmental changes, vibration and shock during transportation, overloading, mis-handling, or the capability of any other laboratory to repeat the measurement. Hong Kong Calibration Ltd. shall not be liable for any loss or damage resulting from the use of the equipment.

The test equipment used for calibration are traceable to International System of Units (SI).
The test results apply to the above Unit-Under-Test only

Calibrated by : _____ **Approved by :** _____
Dorothy Cheuk

Date: 15-Dec-05

This Certificate is issued by:
Hong Kong Calibration Ltd.
Unit 8B, 24/F., Well Fung Industrial Centre, No. 58-76, Ta Chuen Ping Street,Kwai Chung, NT,Hong Kong.
Tel: 2425 8801 Fax: 2425 8646

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Calibration Certificate

Results :

1. Level Accuracy

UUT Nominal Value (dB)	Measured Value (dB)	IEC 942 Class 1 Spec.
94	94.0	± 0.3 dB
114	114.0	

Uncertainty : ± 0.2 dB

2. Frequency

UUT Nominal Value	Measured Value	IEC 942 Class 1 Spec.
1 kHz	1.005 kHz	± 2 %

Uncertainty : $\pm 3.6 \times 10^{-6}$

3. Level Stability : 0.0 dB
IEC 942 Class 1 Spec. : ± 0.1 dB
Uncertainty : ± 0.01 dB

4. Total Harmonic Distortion : < 0.4 %
IEC 942 Class 1 Spec. : < 3 %
Uncertainty : ± 2.3 % of reading

Remark : 1. UUT : Unit-Under-Test
2. The above measured values are the mean of 3 measurements.
3. The uncertainty claimed is for a confidence probability of not less than 95%.
4. Atmospheric Pressure : 1 004 hPa.

---------- END ----------

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Brüel & Kjær

SPECTRIS CHINA LIMITED
思百吉中國有限公司

CERTIFICATE OF CALIBRATION

Certificate No. : 2KS051204-1

Calibration of :

Description	:	Sound Level Meter	,	Microphone
Manufacture	:	Brüel & Kjær		
Type No.	:	2238	,	4188
Serial No.	:	2285726	,	2462195

Client :

Hyder Consulting Limited
47/F, Hopewell Centre,
183 Queen's Road East,
Wanchai, Hong Kong.

Calibration Conditions :

Air Temperature	:	23.0	**°C**
Air Pressure	:	101.1	**kPa**
Relative Humidity	:	61	**%**

Test Specifications :

The Sound Level Meter has been calibrated in accordance with the requirements as specified in IEC 60651 and IEC 60804 type 1, and vendor specific procedures.

The measurements has been performed with the assistance of :
Brüel & Kjær's Sound Level Meter Calibration System B&K 9600 CAL2238A, Ver.25.10.1999
The standard(s) and instrument(s) used in the calibration are traceable to international standard and are calibrated on a schedule which is adjusted to maintain the required accuracy level.

Test Result :

A list of the performed (sub) tests is stated on page 2 of this certificate. Actual Measurement are documented on worksheet.

Date of Calibration : 08 December, 2005
Calibrated By :

Dai Bin

Certificate issued : 09 December, 2005
Approved signatory :

Jacky Leung

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Unit 706 7/F, Miramar Tower, 132 Nathan Road, Tsim Sha Tsui, Kowloon, Hong Kong
香港九龍尖沙咀彌敦道132號美麗華大廈7樓706室

Tel : (852) 2548 7486
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Technical Centres in China : Guangzhou • Wuhan • Xian
Web Site: www.bksv.com

spectris

CERTIFICATE OF CALIBRATION

Certificate No. : 2KS051204-1

Results :

List of performed (sub) test with test status:
"OK" Means the result of the (sub)test is Inside the tolerances stated in the test specifications.
" - " Means the result of the (sub)test is Outside these tolerances.

Test :	Subtest :	Status :
Noise	A	OK
Noise	C	OK
Noise	Lin	OK
Frequency Weighting	A	OK
Frequency Weighting	C	OK
Frequency Weighting	Lin	OK
Level Range Control	1000 Hz	OK
Linearity Range	SPL 10dB 4000 Hz	OK
Linearity Range	SPL 1dB 1000 Hz	OK
Linearity Range	Leq	OK
Linearity Range	SEL	OK
RMS Detector	CF 3	OK
RMS Detector	CF 5	OK
RMS Detector	CF 10	OK
RMS Detector	Symmetry	OK
Time Weighting	Difference Indication	OK
Time Weighting	Single Burst FAST	OK
Time Weighting	Single Burst SLOW	OK
Time Weighting	Single Burst IMPULSE	OK
Time Weighting	Repetitive Burst	OK
Time Weighting	Peak	OK
Time Averaging		OK
Pulse Range		OK
Overload	SPL	OK
Overload	SEL	OK
Acoustic Response	A	OK
Acoustic Response	Lin	OK

Calibration Equipment :

Brüel & Kjær's Sound Level Meter Calibration System B&K 9600 CAL2238A, Ver.25.10.1999

Description :	Make & Model :	Serial No. :	Last Cal. Date :	Traceable to:
Digital Multi-meter	Datron 1281	27361	05 Oct, 2005	HKSCL (HOKLAS)
Sine/Noise Generator	B&K 1049	1314978	Test	B&K Conformance
Test Waveform Generator	B&K 5918	1482949	Test	B&K Conformance
Acoustical Calibrator	B&K 4226	1551627	11 Jul, 2005	NPL via B&K (UKAS)

Calibrated By : Date : 08 December, 2005

Checked By : Date : 09 December, 2005

Hong Kong Calibration Ltd.
香 港 校 正 有限公司

Calibration Certificate

Certificate No. **55892**

Customer : Hyder Consulting Limited

Address : 47/F., Hopewell Centre, 183 Queen's Road East, Wan Chai, Hong Kong

Order No. : Q52108 **Date of receipt :** 19-Dec-05

Item Tested

Description : Digital Sound Level Meter
Manufacturer : B & K
Model : Type 2236 **Serial No. :** 1785701

Test Conditions

Date of Test : 23-Dec-05 **Supply Voltage :** --
Ambient Temperature : (23 ± 3)°C **Relative Humidity :** (50 ± 25) %

Test Specifications

Calibration check.
Calibration procedure : Z01.

Test Results

All results were within the IEC 651 Type 1& IEC 804 Type 1 specification.
The results are shown in the attached page(s).

Test equipment used:

Equipment No.	Cert. No.	Due Date	Traceable to
S017	C051022	21-Mar-06	HKGSCL
S024	S41431	22-May-06	PRC-NIM
S031	45853	30-Dec-05	PRC-NIM

The values given in this Calibration Certificate only relate to the values measured at the time of the test and any uncertainties quoted will not include allowance for the equipment long term drift, variations with environmental changes, vibration and shock during transportation, overloading, mis-handling, or the capability of any other laboratory to repeat the measurement. Hong Kong Calibration Ltd. shall not be liable for any loss or damage resulting from the use of the equipment.

The test equipment used for calibration are traceable to International System of Units (SI).
The test results apply to the above Unit-Under-Test only

Calibrated by : _____ **Approved by :** _____
Dorothy Cheuk

Date: 23-Dec-05

This Certificate is issued by:
Hong Kong Calibration Ltd.
Unit 8B, 24/F., Well Fung Industrial Centre, No. 58-76, Ta Chuen Ping Street,Kwai Chung, NT,Hong Kong.
Tel: 2425 8801 Fax: 2425 8646

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Calibration Certificate

Results :

1. SPL Accuracy

UUT Setting				Applied Value (dB)	UUT Reading (dB)
Range	Parameter	Frequency Wt.	Freq. Response		
20 - 100	SPL	dBA	F	94.0	94.1
			S		94.1
		dBC	F		94.1
		dBL	F		94.1
40 - 120	SPL	dBA	F	94.0	94.1
	SPL	dBA	F	113.9	114.0
			S		114.0
		dBC	F		114.0
		dBL	F		114.0

IEC 651 Type 1 Spec. : ± 0.7 dB
Uncertainty : ± 0.2 dB

2. Level Stability : 0.0 dB
IEC 651 Type 1 Spec. : ± 0.3 dB
Uncertainty : ± 0.01 dB

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Calibration Certificate

3. Frequency Weighting

A weighting

Frequency	Attenuation (dB)	IEC 651 Type 1 Spec.
31.5 Hz	- 39.6	- 39.4 dB, ± 1.5 dB
63 Hz	- 26.3	- 26.2 dB, ± 1.5 dB
125 Hz	- 16.2	- 16.1 dB, ± 1 dB
250 Hz	- 8.7	- 8.6 dB, ± 1 dB
500 Hz	- 3.3	- 3.2 dB, ± 1 dB
1 kHz	0.0 (Ref)	0 dB, ± 1 dB
2 kHz	+ 1.2	+ 1.2 dB, ± 1 dB
4 kHz	+ 0.9	+ 1.0 dB, ± 1 dB
8 kHz	- 1.3	- 1.1 dB, + 1.5 dB ~ -3 dB
16 kHz	- 7.1	- 6.6 dB, + 3 dB ~ - ∞

Uncertainty : ± 0.1 dB

4. Time Averaging

Applied Burst duty Factor	Applied Leq Value (dB)	UUT Reading (dB)	IEC 804 Type 1 Spec.
continuous	40.0	40.0	--
1/10	40.0	39.9	± 0.5 dB
$1/10^2$	40.0	39.8	
$1/10^3$	40.0	39.5	± 1.0 dB
$1/10^4$	40.0	39.1	

Uncertainty : ± 0.1 dB

Remark : 1. UUT : Unit-Under-Test
2. The uncertainty claimed is for a confidence probability of not less than 95%.
3. Atmospheric Pressure : 1 004 hPa

---------- END ----------

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Appendix 8

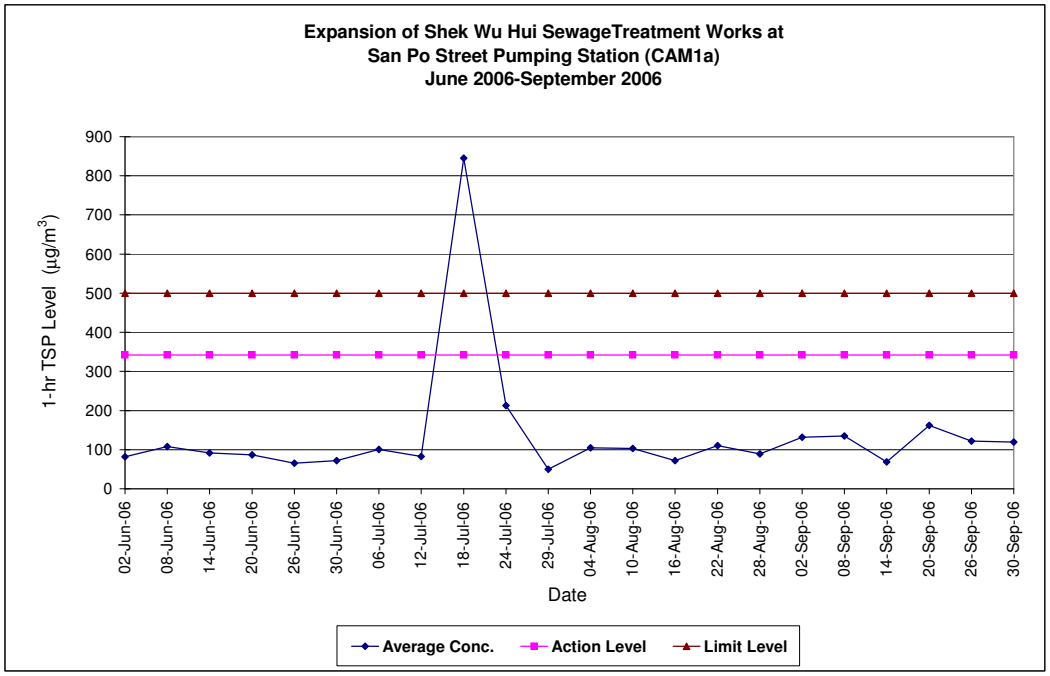
Monitoring Results and Graphical Plots

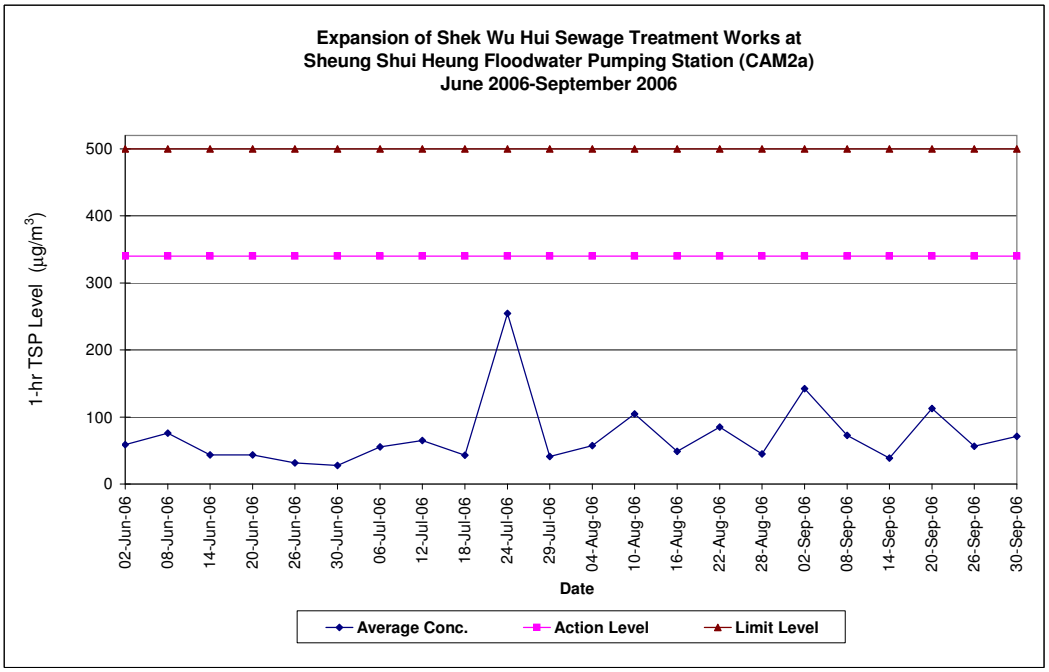
Expansion of Shek Wu Hui Sewage Treatment Works

Air Quality Impact Monitoring Results (1-Hour TSP)

Location	Monitoring Date	Weather Conditions	Wind Speed with Direction (m/s)	Temp (oC)	Timer-I	Timer-F	Time (mins)	Flow-I (CFM/ Inches)	Flow-F (CFM/ Inches)	Flow-I (m^3/min)	Flow-F (m^3/min)	Flow-avg (m^3/min)	Volume (m^3)	Weight-I (g)	Weight-f (g)	Weight-diff. (g)	1-hr TSP (ug/m^3)	Average 1-Hr TSP (ug/m^3)	Action/Limit Levels (ug/m^3)	Remark
San Po Street Pumping Station CAM1a	02-Sep-06	Fine	0.6E	30	523873	523971	58.8	32	32	1.03	1.03	1.03	60.73	2.8850	2.8923	0.0073	120.2	131.8	342.7/500	
		Fine	0.6E	30	523971	524069	58.8	32	32	1.03	1.03	1.03	60.73	2.8757	2.8835	0.0078	128.4			
		Fine	0.6E	30	524069	524169	60.0	32	32	1.03	1.03	1.03	61.97	2.8722	2.8813	0.0091	146.9			
	08-Sep-06	Cloudy	0.2E	25	526565	526665	60.0	32	32	1.03	1.03	1.03	61.97	2.8748	2.8844	0.0096	154.9	135.4		
		Cloudy	0.2E	25	526665	526763	58.8	32	32	1.03	1.03	1.03	60.73	2.8867	2.8949	0.0082	135.0			
		Cloudy	0.2E	25	526763	526863	60.0	32	32	1.03	1.03	1.03	61.97	2.8896	2.8968	0.0072	116.2			
	14-Sep-06	Fine	0.3NE	27	529256	529355	59.4	32	32	1.04	1.04	1.04	61.55	2.8853	2.8898	0.0045	73.1	68.7		
		Fine	0.3NE	27	529355	529451	57.6	32	32	1.04	1.04	1.04	59.69	2.8828	2.8870	0.0042	70.4			
		Fine	0.3NE	27	529451	529551	60.0	32	32	1.04	1.04	1.04	62.17	2.8728	2.8767	0.0039	62.7			
	20-Sep-06	Sunny	0.9NE	30	541379	541480	60.6	32	32	1.04	1.04	1.04	62.80	2.9032	2.9143	0.0111	176.8	161.8		
		Sunny	0.9NE	30	541480	541579	59.4	32	32	1.04	1.04	1.04	61.55	2.9073	2.9167	0.0094	152.7			
		Sunny	0.9NE	30	541579	541676	58.2	32	32	1.04	1.04	1.04	60.31	2.8734	2.8828	0.0094	155.9			
	26-Sep-06	Sunny	1.7SE	30	544067	544167	60.0	33	33	1.07	1.07	1.07	64.10	2.8632	2.8736	0.0104	162.2	122.1		
		Sunny	1.7SE	30	544167	544271	62.4	33	33	1.07	1.07	1.07	66.66	2.8837	2.8919	0.0082	123.0			
		Sunny	1.7SE	30	544271	544371	60.0	33	33	1.07	1.07	1.07	64.10	2.8857	2.8909	0.0052	81.1			
	30-Sep-06	Sunny	0.8E	31	546767	546861	56.4	35	35	1.13	1.13	1.13	63.87	2.8675	2.8753	0.0078	122.1	119.2		
		Sunny	0.8E	31	546861	546961	60.0	35	35	1.13	1.13	1.13	67.95	2.8838	2.8938	0.0100	147.2			
		Sunny	0.8E	31	546961	547061	60.0	35	35	1.13	1.13	1.13	67.95	2.8787	2.8847	0.0060	88.3			
Sheung Shui Heung Floodwater Pumping Station CAM2a	02-Sep-06	Fine	0.6E	30	409237	409336	59.4	40	40	1.27	1.27	1.27	75.17	2.8873	2.8970	0.0097	129.0	142.3	340/500	
		Fine	0.6E	30	409336	409431	57.0	40	40	1.27	1.27	1.27	72.13	2.8989	2.9080	0.0091	126.2			
		Fine	0.6E	30	409431	409530	59.4	40	40	1.27	1.27	1.27	75.17	2.9018	2.9147	0.0129	171.6			
	08-Sep-06	Cloudy	0.2E	25	411927	412027	60.0	40	40	1.27	1.27	1.27	75.93	2.8696	2.8752	0.0056	73.8	72.7		
		Cloudy	0.2E	25	412027	412126	59.4	40	40	1.27	1.27	1.27	75.17	2.8758	2.8827	0.0069	91.8			
		Cloudy	0.2E	25	412126	412226	60.0	40	40	1.27	1.27	1.27	75.93	2.8444	2.8484	0.0040	52.7			
	14-Sep-06	Fine	0.3NE	27	419043	419142	59.4	40	40	1.29	1.29	1.29	76.38	2.8779	2.8811	0.0032	41.9	38.6		
		Fine	0.3NE	27	419142	419242	60.0	40	40	1.29	1.29	1.29	77.15	2.8672	2.8699	0.0027	35.0			
		Fine	0.3NE	27	419242	419342	60.0	40	40	1.29	1.29	1.29	77.15	2.8538	2.8568	0.0030	38.9			
	20-Sep-06	Sunny	0.9NE	30	421740	421837	58.2	40	40	1.29	1.29	1.29	74.84	2.8820	2.8898	0.0078	104.2	112.6		
		Sunny	0.9NE	30	421837	421935	58.8	40	40	1.29	1.29	1.29	75.61	2.8865	2.8954	0.0089	117.7			
		Sunny	0.9NE	30	421935	422030	57.0	40	40	1.29	1.29	1.29	73.29	2.8761	2.8846	0.0085	116.0			
	26-Sep-06	Sunny	0.5SE	30	424429	424529	60.0	39	39	1.26	1.26	1.26	75.42	2.8917	2.8954	0.0037	49.1	56.6		
		Sunny	0.5SE	30	424529	424631	61.2	39	39	1.26	1.26	1.26	76.93	2.8787	2.8839	0.0052	67.6			
		Sunny	0.5SE	30	424631	424731	60.0	39	39	1.26	1.26	1.26	75.42	2.8734	2.8774	0.0040	53.0			
	30-Sep-06	Sunny	1.2E	31	431540	431633	55.8	40	40	1.29	1.29	1.29	71.75	2.857	2.8628	0.0058	80.8	71.0		
		Sunny	1.2E	31	431633	431733	60.0	40	40	1.29	1.29	1.29	77.15	2.9027	2.9084	0.0057	73.9			
		Sunny	1.2E	31	431733	431833	60.0	40	40	1.29	1.29	1.29	77.15	2.8583	2.8628	0.0045	58.3			

"Shading" indicates an exceedance of Action Level. "Bold and shading" indicates an exceedance of Limit Level.


Expansion of Shek Wu Hui SewageTreatment Works at
San Po Street Pumping Station (CAM1a)
June 2006-September 2006
1-hr TSP Level (µg/m3)
900
800
700
600
500
400
300
200
100
0
02-Jun-06
08-Jun-06
14-Jun-06
20-Jun-06
26-Jun-06
30-Jun-06
06-Jul-06
12-Jul-06
18-Jul-06
24-Jul-06
29-Jul-06
04-Aug-06
10-Aug-06
16-Aug-06
22-Aug-06
28-Aug-06
02-Sep-06
08-Sep-06
14-Sep-06
20-Sep-06
26-Sep-06
30-Sep-06
Date
Average Conc.
Action Level
Limit Level

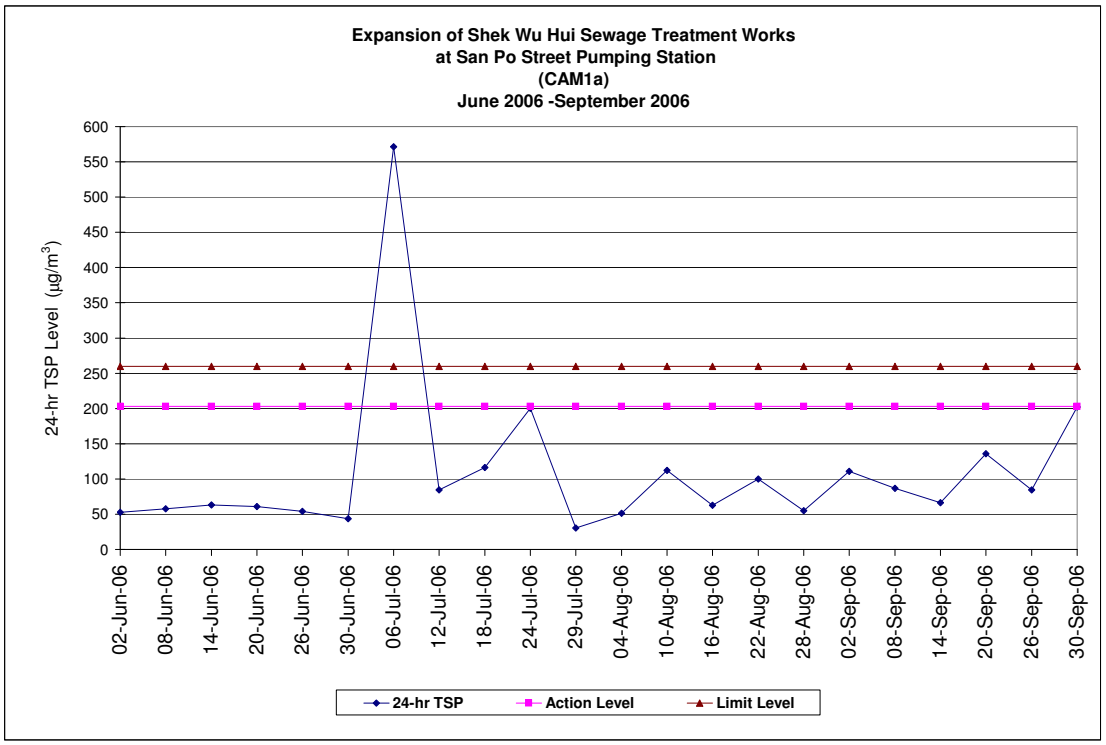

Expansion of Shek Wu Hui Sewage Treatment Works at
Sheung Shui Heung Floodwater Pumping Station (CAM2a)
June 2006-September 2006
1-hr TSP Level (µg/m3)
500
400
300
200
100
0
02-Jun-06
08-Jun-06
14-Jun-06
20-Jun-06
26-Jun-06
30-Jun-06
06-Jul-06
12-Jul-06
18-Jul-06
24-Jul-06
29-Jul-06
04-Aug-06
10-Aug-06
16-Aug-06
22-Aug-06
28-Aug-06
02-Sep-06
08-Sep-06
14-Sep-06
20-Sep-06
26-Sep-06
30-Sep-06
Date
Average Conc.
Action Level
Limit Level

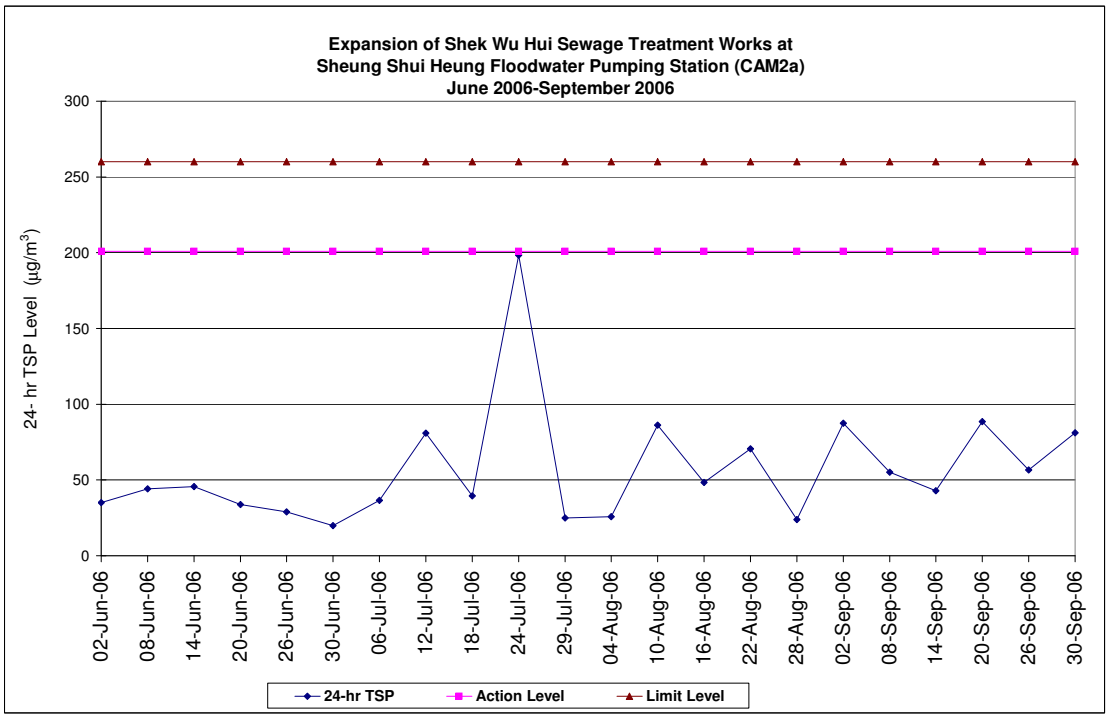
Expansion of Shek Wu Hui Sewage Treatment Works

Air Quality Impact Monitoring Results (24-Hour TSP)

Location	Monitoring Date	Weather Conditions	Wind Speed with Direction (m/s)	Temp (oC)	Pressure (mmHg)	Timer-I	Timer-F	Time (mins)	Flow-I (CFM/ Inches)	Flow-F (CFM/ Inches)	Flow-I (m^3/min)	Flow-F (m^3/min)	Flow-avg (m^3/min)	Volume (m^3)	Weight-I (g)	Weight-f (g)	Weight-diff. (g)	24-hr TSP (ug/m^3)	Action/Limit Levels (ug/m^3)	Remark
San Po Street	02-Sep-06	Fine	0.6E	30	754.8	524169	526565	1437.6	32	32	1.03	1.03	1.03	1484.75	2.8697	3.0341	0.1644	110.7		
Pumping Station	08-Sep-06	Cloudy	0.2E	25	756.4	526863	529256	1435.8	32	32	1.03	1.03	1.03	1482.89	2.8749	3.0035	0.1286	86.7		
CAM1a	14-Sep-06	Cloudy	0.3NE	27	757.9	529551	531948	1438.2	32	32	1.04	1.04	1.04	1490.33	2.8721	2.9711	0.099	66.4	203/260	
	20-Sep-06	Sunny	0.9NE	30	757.4	541676	544067	1434.6	32	32	1.04	1.04	1.04	1486.60	2.8847	3.0866	0.2019	135.8		
	26-Sep-06	Sunny	1.7SE	30	757.8	544371	546767	1437.6	33	32	1.07	1.04	1.05	1512.77	2.8701	2.9979	0.1278	84.5		
	30-Sep-06	Sunny	0.8E	31	758.2	547061	549434	1423.8	35	34	1.13	1.10	1.12	1589.60	2.8825	3.2036	0.3211	202.0		
Sheung Shui Heung	02-Sep-06	Fine	0.6E	30	754.8	409530	411927	1438.2	40	40	1.27	1.27	1.27	1819.96	2.8882	3.0473	0.1591	87.4		
Floodwater	08-Sep-06	Cloudy	0.2E	25	756.4	412226	414624	1438.8	40	40	1.27	1.27	1.27	1820.72	2.8704	2.9708	0.1004	55.1		
Pumping Station	14-Sep-06	Cloudy	0.3NE	27	757.9	419342	421740	1438.8	40	40	1.29	1.29	1.29	1850.09	2.8517	2.9310	0.0793	42.9	201/260	
CAM2a	20-Sep-06	Sunny	0.9NE	30	757.4	422030	424429	1439.4	40	40	1.29	1.29	1.29	1850.86	2.8788	3.0427	0.1639	88.6		
	26-Sep-06	Sunny	0.5SE	30	757.8	424731	427127	1437.6	39	39	1.26	1.26	1.26	1807.01	2.8772	2.9797	0.1025	56.7		
	30-Sep-06	Sunny	1.2E	31	758.2	431860	434228	1420.8	40	40	1.29	1.29	1.29	1826.94	2.875	3.0231	0.1481	81.1		

"Shading" indicates an exceedance of Action Level. "Bold and shading" indicates an exceedance of Limit Level.


Expansion of Shek Wu Hui Sewage Treatment Works
at San Po Street Pumping Station
(CAM1a)
June 2006 -September 2006
24-hr TSP Level (µg/m3)
600
550
500
450
400
350
300
250
200
150
100
50
0
02-Jun-06
08-Jun-06
14-Jun-06
20-Jun-06
26-Jun-06
30-Jun-06
06-Jul-06
12-Jul-06
18-Jul-06
24-Jul-06
29-Jul-06
04-Aug-06
10-Aug-06
16-Aug-06
22-Aug-06
28-Aug-06
02-Sep-06
08-Sep-06
14-Sep-06
20-Sep-06
26-Sep-06
30-Sep-06
24-hr TSP
Action Level
Limit Level

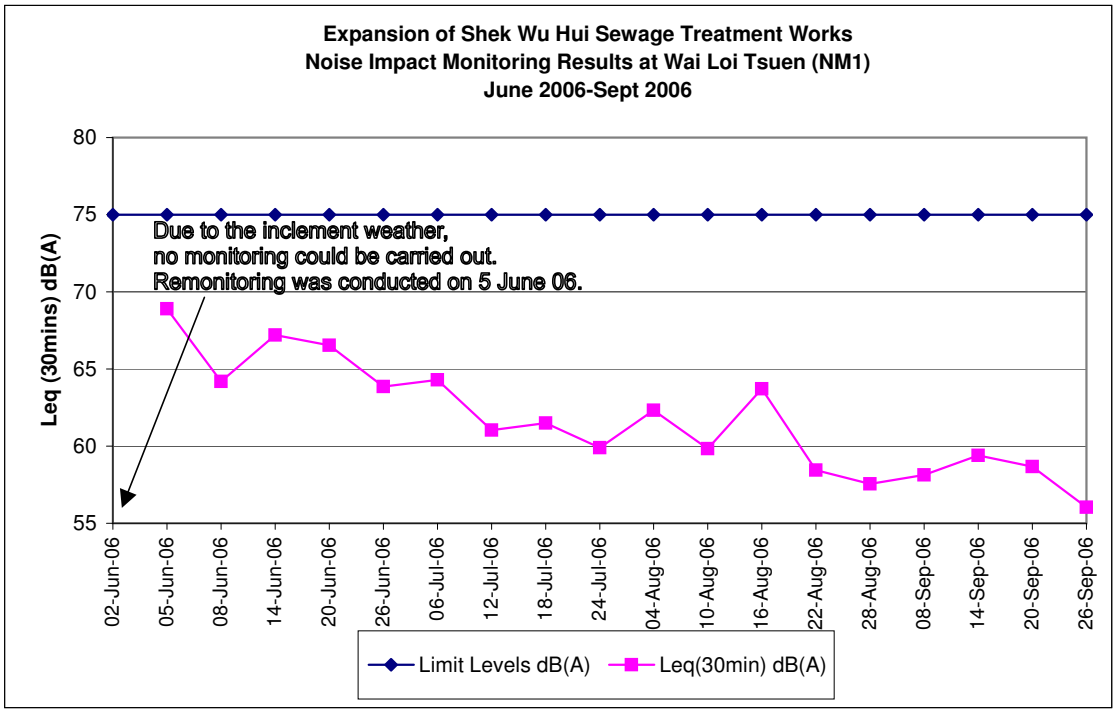

Expansion of Shek Wu Hui Sewage Treatment Works at
Sheung Shui Heung Floodwater Pumping Station (CAM2a)
June 2006-September 2006
24- hr TSP Level (µg/m3)
300
250
200
150
100
50
0
02-Jun-06
08-Jun-06
14-Jun-06
20-Jun-06
26-Jun-06
30-Jun-06
06-Jul-06
12-Jul-06
18-Jul-06
24-Jul-06
29-Jul-06
04-Aug-06
10-Aug-06
16-Aug-06
22-Aug-06
28-Aug-06
02-Sep-06
08-Sep-06
14-Sep-06
20-Sep-06
26-Sep-06
30-Sep-06
24-hr TSP
Action Level
Limit Level

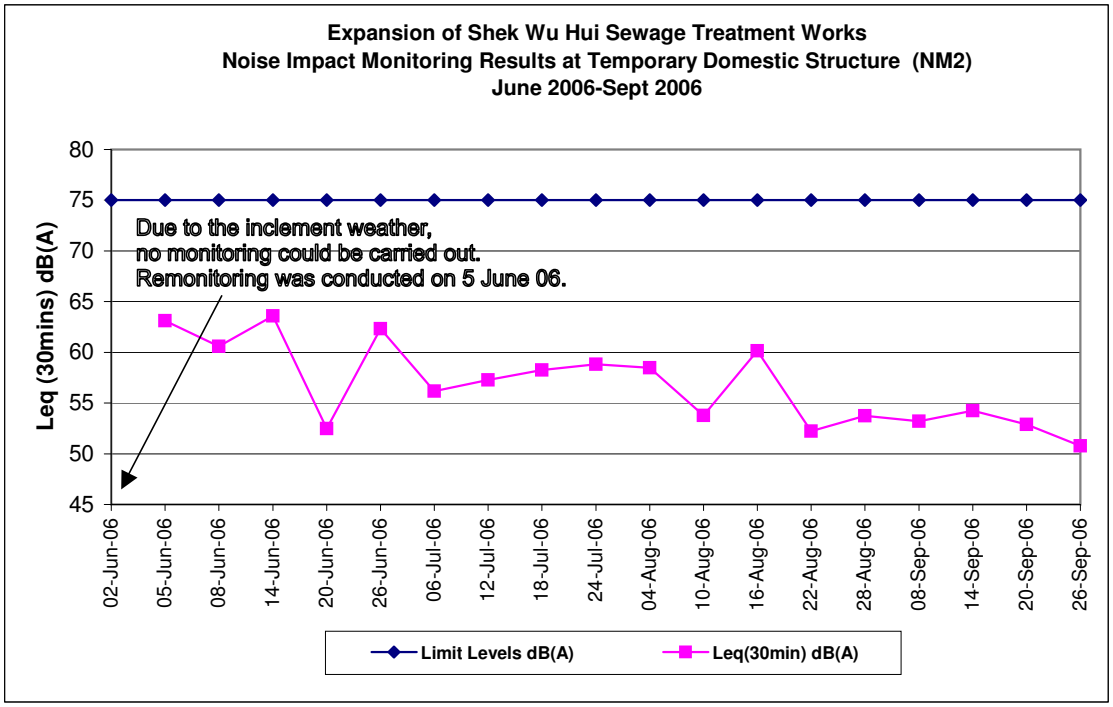
Expansion of Shek Wu Hui Sewage Treatment Works

Noise Impact Monitoring Results

Monitoring Locations	Date	Weather Conditions	Temperature (°C)	Wind Speed (m/s)	Wind Direction	Start Time	End Time	Limit Levels dB(A)	$L_{eq(30min)}$ dB(A)	$L_{10(30min)}$ dB(A)	$L_{90(30min)}$ dB(A)	Remark
Wai Loi Tsuen	08-Sep-06	Cloudy	25	0.2	E	10:10	10:40	75	58.1	60.5	53.8	
NM1	14-Sep-06	Cloudy	27	0.3	NE	09:55	10:25	75	59.4	61.3	56.1	
	20-Sep-06	Sunny	30	0.9	NE	10:25	10:55	75	58.7	61.0	55.7	
	26-Sep-06	Sunny	30	1.7	SE	09:55	10:25	75	56.0	58.5	52.2	
Temporary Domestic	08-Sep-06	Cloudy	25	0.2	E	11:20	11:50	75	53.2	54.1	51.0	
Structure	14-Sep-06	Cloudy	27	0.3	NE	11:00	11:30	75	54.2	55.5	52.2	
NM2	20-Sep-06	Sunny	30	0.9	NE	11:30	12:00	75	52.9	54.5	50.8	
	26-Sep-06	Sunny	30	0.5	SE	09:55	10:25	75	50.8	52.9	48.2	

A façade correction of 3 dB(A) was applied to each measurement result. "Shading" indicates an Limit Level exceedance.


Expansion of Shek Wu Hui Sewage Treatment Works
Noise Impact Monitoring Results at Wai Loi Tsuen (NM1)
June 2006-Sept 2006
Leq (30mins) dB(A)
80
75
70
65
60
55
Due to the inclement weather,
no monitoring could be carried out.
Remonitoring was conducted on 5 June 06.
02-Jun-06
05-Jun-06
08-Jun-06
14-Jun-06
20-Jun-06
26-Jun-06
06-Jul-06
12-Jul-06
18-Jul-06
24-Jul-06
04-Aug-06
10-Aug-06
16-Aug-06
22-Aug-06
28-Aug-06
08-Sep-06
14-Sep-06
20-Sep-06
26-Sep-06
Limit Levels dB(A)
Leq(30min) dB(A)


Expansion of Shek Wu Hui Sewage Treatment Works
Noise Impact Monitoring Results at Temporary Domestic Structure (NM2)
June 2006-Sept 2006
Leq (30mins) dB(A)
80
75
70
65
60
55
50
45
Due to the inclement weather,
no monitoring could be carried out.
Remonitoring was conducted on 5 June 06.
02-Jun-06
05-Jun-06
08-Jun-06
14-Jun-06
20-Jun-06
26-Jun-06
06-Jul-06
12-Jul-06
18-Jul-06
24-Jul-06
04-Aug-06
10-Aug-06
16-Aug-06
22-Aug-06
28-Aug-06
08-Sep-06
14-Sep-06
20-Sep-06
26-Sep-06
Limit Levels dB(A)
Leq(30min) dB(A)

Appendix 9

QA/QC Results and Detection Limit

Date received : 4 Sep 2006
Client : HYDER CONSULTING LTD
Work Order HK0603191

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

Matrix Type: AIR

		Method Blank (MB) Results			Single Control Spike (SCS) and Duplicate Control Spike (DCS) Results						
					Spike	Spike Recovery (%)		Recovery Limits (%)		RPDs (%)	
Method: Analysis Description	CAS number	LOR	Units	Result	Concentration	SCS	DCS	Low	High	Value	Control Limit
EA/ED: Physical and Aggregate Properties (QCLot: 268834)											
HK-TSP: Total Suspended Particulates	----	0.0010	g	<0.0010	----	----	----	----	----	----	----
HK-TSP: Initial Weight	----	0.0010	g	3.5355	----	----	----	----	----	----	----
HK-TSP: Final Weight	----	0.0010	g	3.5364	----	----	----	----	----	----	----

Date received : 11 Sep 2006
Client : HYDER CONSULTING LTD
Work Order HK0603483

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

Matrix Type: AIR

		Method Blank (MB) Results			Single Control Spike (SCS) and Duplicate Control Spike (DCS) Results						
					Spike	Spike Recovery (%)		Recovery Limits (%)		RPDs (%)	
Method: Analysis Description	CAS number	LOR	Units	Result	Concentration	SCS	DCS	Low	High	Value	Control Limit
EA/ED: Physical and Aggregate Properties (QCLot: 272486)											
HK-TSP: Total Suspended Particu	----	0.0010	g	<0.0010	----	----	----	----	----	----	----
HK-TSP: Initial Weight	----	0.0010	g	3.5323	----	----	----	----	----	----	----
HK-TSP: Final Weight	----	0.0010	g	3.5314	----	----	----	----	----	----	----

Date received : 15 Sep 2006
Client : HYDER CONSULTING LTD
Work Order HK0603728

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

Matrix Type: AIR

		Method Blank (MB) Results			Single Control Spike (SCS) and Duplicate Control Spike (DCS) Results						
					Spike	Spike Recovery (%)		Recovery Limits (%)		RPDs (%)	
Method: Analysis Description	CAS number	LOR	Units	Result	Concentration	SCS	DCS	Low	High	Value	Control Limit
EA/ED: Physical and Aggregate Properties (QCLot: 276001)											
HK-TSP: Total Suspended Particu	----	0.0010	g	<0.0010	----	----	----	----	----	----	----
HK-TSP: Initial Weight	----	0.0010	g	3.5314	----	----	----	----	----	----	----
HK-TSP: Final Weight	----	0.0010	g	3.5313	----	----	----	----	----	----	----

Date received : 21 Sep 2006
Client : HYDER CONSULTING LTD
Work Order HK0603946

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

Matrix Type: AIR

		Method Blank (MB) Results			Single Control Spike (SCS) and Duplicate Control Spike (DCS) Results						
					Spike	Spike Recovery (%)		Recovery Limits (%)		RPDs (%)	
Method: Analysis Description	CAS number	LOR	Units	Result	Concentration	SCS	DCS	Low	High	Value	Control Limit
EA/ED: Physical and Aggregate Properties (QCLot: 279712)											
HK-TSP: Total Suspended Particu	----	0.0010	g	<0.0010	----	----	----	----	----	----	----
HK-TSP: Initial Weight	----	0.0010	g	3.5353	----	----	----	----	----	----	----
HK-TSP: Final Weight	----	0.0010	g	3.5352	----	----	----	----	----	----	----

Date received : 3 Oct 2006
Client : HYDER CONSULTING LTD
Work Order : HK0604410

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

Matrix Type: AIR

		Method Blank (MB) Results			Single Control Spike (SCS) and Duplicate Control Spike (DCS) Results						
					Spike	Spike Recovery (%)		Recovery Limits (%)		RPDs (%)	
Method: Analysis Description	CAS number	LOR	Units	Result	Concentration	SCS	DCS	Low	High	Value	Control Limit
EA/ED: Physical and Aggregate Properties (QCLot: 285212)											
HK-TSP: Total Suspended Particu	----	0.0010	g	<0.0010	----	----	----	----	----	----	----
HK-TSP: Initial Weight	----	0.0010	g	3.5351	----	----	----	----	----	----	----
HK-TSP: Final Weight	----	0.0010	g	3.5349	----	----	----	----	----	----	----

Appendix 10

Cumulative Statistics of Complaint, Notification of Summons and Successful Prosecution

Reporting Month	Number Received in the Reporting Month				Cumulative Number			
	Complaint	Notification of Summon	Successful Prosecution	EPD Site Inspection Record	Complaint	Notification of Summon	Successful Prosecution	EPD Site Inspection Record
September 2006	0	0	0	0	0	0	0	1 (Yellow Ticket)

Cumulative Number of Environmental Complaint

Appendix 11

Upcoming EM&A Schedule

Expansion of Shek Wu Hui Sewage Treatment Works

Impact Monitoring Programme – October 2006 (Tentative)

Date		Air	Noise	Site Inspection
01-Oct-06	Sun			
02-Oct-06	Mon			
03-Oct-06	Tue			
04-Oct-06	Wed			✓
05-Oct-06	Thu			
06-Oct-06	Fri	✓	✓	
07-Oct-06	Sat			
08-Oct-06	Sun			
09-Oct-06	Mon			
10-Oct-06	Tue			
11-Oct-06	Wed			✓
12-Oct-06	Thu	✓	✓	
13-Oct-06	Fri			
14-Oct-06	Sat			
15-Oct-06	Sun			
16-Oct-06	Mon			
17-Oct-06	Tue			
18-Oct-06	Wed	✓	✓	✓
19-Oct-06	Thu			
20-Oct-06	Fri			
21-Oct-06	Sat			
22-Oct-06	Sun			
23-Oct-06	Mon			
24-Oct-06	Tue	✓	✓	
25-Oct-06	Wed			✓
26-Oct-06	Thu			
27-Oct-06	Fri			
28-Oct-06	Sat	✓		
29-Oct-06	Sun			
30-Oct-06	Mon			
31-Oct-06	Tue			

Note:

Shaded area indicates public holiday.

Air – Monitoring of three 1-hour TSP and 24-hour TSP at both CAM1a and CAM2a

Noise – Noise measurements at both CNM1 and CNM2 between 0700 and 1900 on normal weekdays

Expansion of Shek Wu Hui Sewage Treatment Works

Impact Monitoring Programme – November 2006 (Tentative)

Date		Air	Noise	Site Inspection
01-Nov-06	Wed			✓
02-Nov-06	Thu			
03-Nov-06	Fri	✓	✓	
04-Nov-06	Sat			
05-Nov-06	Sun			
06-Nov-06	Mon			
07-Nov-06	Tue			
08-Nov-06	Wed			✓
09-Nov-06	Thu	✓	✓	
10-Nov-06	Fri			
11-Nov-06	Sat			
12-Nov-06	Sun			
13-Nov-06	Mon			
14-Nov-06	Tue			
15-Nov-06	Wed	✓	✓	✓
16-Nov-06	Thu			
17-Nov-06	Fri			
18-Nov-06	Sat			
19-Nov-06	Sun			
20-Nov-06	Mon			
21-Nov-06	Tue	✓	✓	
22-Nov-06	Wed			✓
23-Nov-06	Thu			
24-Nov-06	Fri			
25-Nov-06	Sat			
26-Nov-06	Sun			
27-Nov-06	Mon	✓	✓	
28-Nov-06	Tue			
29-Nov-06	Wed			✓
30-Nov-06	Thu			

Note:

Shaded area indicates public holiday.

Air – Monitoring of three 1-hour TSP and 24-hour TSP at both CAM1a and CAM2a

Noise – Noise measurements at both CNM1 and CNM2 between 0700 and 1900 on normal weekdays

Expansion of Shek Wu Hui Sewage Treatment Works

Impact Monitoring Programme – December 2006 (Tentative)

Date		Air	Noise	Site Inspection
01-Dec-06	Fri			
02-Dec-06	Sat	✓		
03-Dec-06	Sun			
04-Dec-06	Mon			
05-Dec-06	Tue			
06-Dec-06	Wed			✓
07-Dec-06	Thu			
08-Dec-06	Fri	✓	✓	
09-Dec-06	Sat			
10-Dec-06	Sun			
11-Dec-06	Mon			
12-Dec-06	Tue			
13-Dec-06	Wed			✓
14-Dec-06	Thu	✓	✓	
15-Dec-06	Fri			
16-Dec-06	Sat			
17-Dec-06	Sun			
18-Dec-06	Mon			
19-Dec-06	Tue			
20-Dec-06	Wed	✓	✓	✓
21-Dec-06	Thu			
22-Dec-06	Fri			
23-Dec-06	Sat			
24-Dec-06	Sun			
25-Dec-06	Mon			
26-Dec-06	Tue			
27-Dec-06	Wed	✓	✓	✓
28-Dec-06	Thu			
29-Dec-06	Fri			
30-Dec-06	Sat			
31-Dec-06	Sun			

Note:

Shaded area indicates public holiday.

Air – Monitoring of three 1-hour TSP and 24-hour TSP at both CAM1a and CAM2a

Noise – Noise measurements at both CNM1 and CNM2 between 0700 and 1900 on normal weekdays