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#### By Email and Post

MTR Corporation Limited Fo Tan Railway House No. 9, Lok King Street, Fo Tan Shatin, N.T., Hong Kong

Attn.: Mr. Alfa Liu

18 December 2018

Dear Sirs

Consultancy Agreement A130-13
Independent Environmental Checker for CRS and LTS
CRS - Verification for 19<sup>th</sup> Quarterly Environmental Monitoring and Audit (EM&A) Report (September 2018 to November 2018) (Report No.: EB001340R0781)

We refer to the 19<sup>th</sup> Quarterly EM&A Report (September 2018 to November 2018) received under cover of the email from the Environmental Team, Arcadis Design & Engineering Limited, dated on 18 December 2018.

Further to our comments provided on 18 December 2018 and subsequent revision of the Report by Arcadis Design & Engineering Limited on 18 December 2018, we have no further comment and have verified the captioned report (Report No.: EB001340R0781).

Should you have any queries, please feel free to contact the undersigned at 3922 9366.

Yours faithfully

**AECOM Consulting Services Ltd** 

Y. W. Fung

Independent Environmental Checker

LLMC/wwsc

cc Arcadis Design & Engineering Limited Maeda Corporation

(Attn.: Mr. F. N. Wong) via email (Attn.: Mr. Calvin Chan) via email



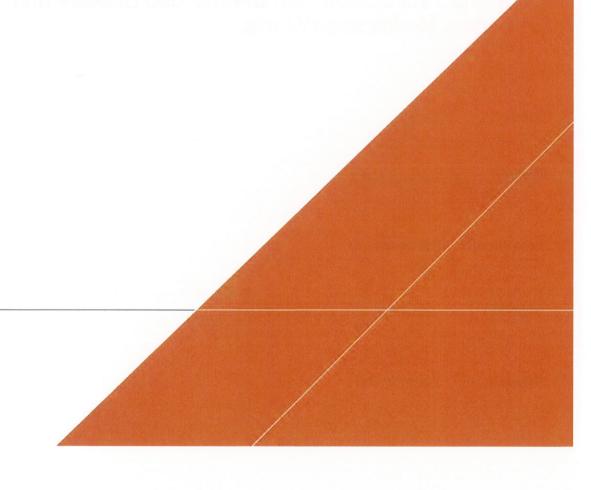


Maeda Corporation

# QUARTERLY EM&A REPORT (SEPTEMBER TO NOVEMBER 2018)

MTRCL Contract C3840-13C

Tsim Sha Tsui Station Carnarvon Road Subway and Entrances Modification Works







Report No

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Tsim Sha Tsui Station Carnarvon Road Subway and Entrances Modification Works

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### **EXECUTIVE SUMMARY**

### Breaches of Action and Limit Levels

- ES01 No Notice of Exceedance (NOE) and the associated investigation and follow-up actions were required as the environmental monitoring results registered no exceedances of Action/ Limit Levels of air quality and construction noise during the Reporting Period.
- ES02 No corrective actions were required as the site inspection and environmental audit during the Reporting Period recorded no deficiencies, non-compliance or adverse environmental impacts within the site of the project and on the sensitive receivers environed with the site;

# **Environmental Complaints**

ES03 No environmental complaints were recorded during the Report Period.

### Notification of Summons & Successful Prosecutions

ES04 No notification of summons and successful prosecutions were recorded during the Reporting Period.

# Reporting Changes

- ES05 Project Organization Chart in Environmental Management was updated during the Reporting Period. See **Appendix B**.
- ES06 Since 21 September 2018, due to outage of the HVS and damage of the HVS during the super typhoon who smashed into Hong Kong on 16 September 2018, the 24-Hr TSP monitoring has been replaced by 3 x 1-Hr TSP monitoring by hand-help dust meter when the highest dust impact occurs upon agreement with the IEC, MTRCL and Contractor.

# Future Key Issues

#### General

- ES07 At-grade concrete super-structure works, backfilling and asphalt paving (road reinstatement) are anticipated to be completed within December 2018, and only minor works including pedestrian footpath reinstatement and defective works will be outstanding.
- ES08 Although the construction under the Project is approaching its final stage, the environmental mitigation measures recommended in the EM&A Plan and summarized in the implementation Schedule should be maintained in order to alleviate potential adverse environmental impacts generated from construction activities to acceptable levels.

#### Construction Noise

ES09 Particular attention should be paid to construction noise mitigation measures to ensure full compliance with statutory and non-statutory requirements and guidelines. Proactive review of working methods, careful selection and arrangement of the noisy equipment as well as effective noise mitigation measures are strongly recommended.

### Water Quality

ES10 In addition, compliance with water quality mitigation measures remains one of the key environmental issues within the construction period, especially when water usage is high. Waste water treatment plant was replaced by sedimentation tank and no quarterly water sampling test due to no water discharge during the Reporting Period.



# Air quality

- ES11 Furthermore, implying of construction dust suppression measures are recommended during dusty activities under dry and windy conditions.
- ES12 Construction dust suppression measures including decking over the excavation areas, watering of exposed site surface and covering of all excavated and stockpiles of dusty material by impervious sheeting or similar materials are reminded.



### 1 INTRODUCTION

# 1.1 Project Background

- 1.1.1 In order to improve the appearance of Carnarvon Road Entrance D1 and D2 of Tsim Sha Tsui (hereafter referred as 'TST') Station and to provide a more comfortable walking environment nearby, MTR Corporation Limited (hereafter referred as 'MTRC' or 'the Corporation') has commissioned Maeda Corporation (hereinafter referred as 'MC') the contract MTR Tsim Sha Tsui Station Carnarvon Road Subway and Entrances Modification Works (hereafter referred as 'the Project'). The Project is proposed to rebuild the existing Entrance D1 and D2 and construct a new Entrance D3 at the basement B2 level of the K11 Art Mall to connect to the TST station by a subway, which extends from the Entrance D1 and D2 and runs approximately 80m along Carnarvon Road and across the Bristol Avenue to the Entrance D3. The project was commenced in March 2014 and is anticipated to be completed by end of 2018.
- 1.1.2 The existing TST Station had been in operation before the Environmental Impact Assessment Ordinance (hereafter referred as 'EIAO') came into effect on 1 April 1998. It constitutes an exempted Designated Project (hereinafter referred as 'DP') according to Section 9(2) (g) of the EIAO (Cap. 499). As the Project involves a material change to an exempted DP which may have potential environmental impacts, an environmental permit is required prior to the commencement of the modification works. The Project Profile has been developed to provide information for direct application of an environmental permit. The EP has been granted since 18 July 2012, where the Project Profile and the associated EM&A Plan are registered.
- 1.1.3 Site map works area and locations of the environmental monitoring under the Project are illustrated in Figure 1.1 Site Location Plan of *Appendix A*.
- 1.1.4 Management structure of the Project, including organization chart, lines of communication and contact names and telephone numbers of key personnel, is demonstrated in *Appendix B*.
- 1.1.5 Construction programme is shown in *Appendix C*, whereas implementation schedule for the recommended environmental mitigation measures (hereinafter referred as 'the Implementation Schedule') is summarized in *Appendix D*, which fine tunes construction activities and shows inter-relationship with environmental protection / mitigation measures for the construction period.
- 1.1.6 This is the 19<sup>th</sup> quarterly EM&A report (hereinafter referred as 'This Report') covering construction period from 1<sup>st</sup> September 2018 to 30<sup>th</sup> November 2018 (hereinafter referred as 'the Reporting Period').
- 1.1.7 This Report has been written in accordance with the Environmental Monitoring and Audit Plan (hereinafter referred as 'the EM&A Plan') enclosed in the Project Profile MTR Tsim Sha Tsui Station Carnarvon Road Subway and Entrances Modification Works, which is registered in the Environmental Permit No. EP-440/2012 (hereinafter referred as 'the EP') (Register No.: PP-462/2012).

# 1.2 Environmental Status

- 1.2.1 As required in the EP, AECOM Consulting Services Limited (formerly known as "URS Hong Kong Limited") has been appointed as the Independent Environmental Checker under the Project (hereinafter referred as 'the IEC'), whereas Arcadis Design & Engineering Limited (hereinafter referred as 'Arcadis') (formerly known as 'Hyder Consulting Limited') has been appointed as the Environmental Team under the Project (hereinafter referred as 'the ET').
- 1.2.2 According to the EP Condition 3.2 (a) under Environmental Monitoring and Audit (EM&A) during the Construction Period, baseline monitoring has been completed and the required Baseline Monitoring Report has been submitted to EPD on 14 February 2014 prior to commencement of the works under the Project.



1.2.3 Status of relevant environmental permits, licences, and/or notifications on environmental protection for the Project is summarized in *Table 1-3-1*. They are detailed in *Appendix E*.

Table 1-3-1 Summary of Status of Environmental Licenses and Permits

Item	Description	License/Permit Status
1	Air Pollution Control	Notification Ref. 403252 & 421293 & 433242
	(Construction Dust)	acknowledged on 02 Jun 2016, 18 Sep 2017 & 07 May
		2018 respectively.
2	Water Pollution Control	The discharge license (Ref No. WT0019722-2014)
	Ordinance (Discharge License)	was granted on 01 Sep 2014 superseding the
		previous license (Ref No. WT00018229-2014)
3	Billing Account for Disposal of Construction Waste	A/C Ref. 7018523 granted on 25 Oct 2013
4	Chemical Waste Producer Registration	Registration Ref. 5213-2214-M2446-16 granted on 4 Mar 2014
5	Construction Noise Permit	GW-RE0635-18 approved on 19 September 2018 for operation of 4 submersible water pump (electric) or 1 drill for 24-hr; 4 drill & 4 grinders for 07:00-23:00 from 1 October 2018 to 30 March 2019.

# 1.3 Construction Activities

1.3.1 Construction activities undertaken during the Reporting Period are summarized in *Table 1-4-1*:

Table 1-4-1 Construction Activities Undertaken during the Reporting Period

Item	Description
1	Construction of RC Structure and superstructure for Entrance D1
2	Construction of the ABWF works
3	BS and ABWF for Entrance D1
4	Installation of the BS related works
5	Asphalt paving and Backfilling for road reinstatement
6	Reinstatement of the DSD drainage and underground Utility
7	Removal of steel decking and backfilling for road reinstatement



# 2 EM&A REQUIREMENTS

# 2.1 Air Quality

- 2.1.1 According to the EM&A Plan, 24-Hour Total Suspended Particulates (hereinafter referred as '24-Hr TSP') is required to be monitored once a week during construction period of the Project.
  1-Hour Total Suspended Particulates (hereinafter referred as '1-Hr TSP') is required to be monitored when exceedances of 24-Hr TSP occur, following the Event and Action Plan presented in *Appendix F*.
- 2.1.2 On 4<sup>th</sup> September 2018, when collecting filter paper from the HVS, the HVS was found out of service due to continuing wet weather as indicated by zero-hour elapsed time in the elapsed time recorder. Before the HVS was inspected and repaired by the HVS specialist, the HVS was blown down and seriously damaged by the super typhoon Mangkhut who smashed into Hong Kong on 16 September 2018. The two (2) rounds of the TSP monitoring for the weeks 2<sup>nd</sup> to 8<sup>th</sup> and 9<sup>th</sup> to 15<sup>th</sup> September 2018 were hence interrupted due to outage of the HVS, resulted missing of the associated 24-Hour TSP data.
- 2.1.3 Due to uncertainty of time for the HVS inspection and repair, the 24-Hr TSP monitoring has been replaced by 3 x 1-Hr TSP monitoring at K11 by hand-help dust meter when the highest dust impact occurs since 21 September 2018 upon agreement with the IEC and MTRC and MC.

#### Action and Limit Levels

2.1.4 The Action and Limit levels (hereinafter referred as 'the A/L Levels) at K11 have been established in the Baseline Monitoring Report in accordance with the derivation criteria specified in Section 3.7 of the EM&A Plan, which are summarized in **Table 2-1-1** as follows:

Table 2-1-1 Derivation of Action and Limit Levels for Air Quality at K11, μg/m<sup>3</sup>

Parameter	Action Level	<b>Limit Level</b>
24-Hr TSP	For baseline level ≤200 µg/m³, Action level = (130% of baseline level + Limit level)/2	260
1-Hr TSP	For baseline level ≤384 µg/m³, Action level = (130% of baseline level + Limit level)/2 For baseline level >384 µg/m³, Action level = Limit level	500

- 2.1.5 The Action and Limit Levels for 24-Hr TSP established in the Baseline Monitoring Report were 221.6 and 260 respectively.
- 2.1.6 As the updated 1-Hr TSP baseline levels at the monitoring location are not available, the Action Level for 1-Hr TSP is calculated by adoption of the worst-case approach as follows:

According to 1-Hr TSP:

Limit Level = 500. In adopting the worst-case approach, let the 1-Hr TSP baseline levels be 0 (and of course  $\leq 384!$ ):

1-Hr TSP Action Level =  $(130\% \text{ of Baseline Level} + \text{Limit Level}) \div 2 = (0 + 500) \div 2 = 250$ 



2.1.7 The established A/L Levels for 24-Hr and 1-Hr TSP are summarized in *Table 2-1-2* as follows:

#### Table 2-1-2 Action & Limit Levels for Air Quality at K11, µg/m<sup>3</sup>

Parameter	Action Level	Limit Level
24-Hr TSP	221.6	260
1-Hr TSP	250	500

#### Event and Action Plan

2.1.8 In case exceedances of Action and/or Limit levels for air quality occur, Event and Action Plan for Air Quality enclosed in *Appendix F* will be implemented.

### Environmental Mitigation Measures for Air Quality

- 2.1.9 Although most of the construction works would be carried out underground, appropriate dust mitigation measures as stipulated in the EP, Project Profile, related environmental regulation including Air Pollution Control (Construction Dust) Regulation as well as those recommended in the Implementation Schedule should be implemented to control fugitive dust emission. The following key dust suppression measures are recommended:
  - a) Decking over the excavation areas;
  - b) Regular watering to reduce dust emissions from all exposed site surface, particularly during dry weather;
  - c) Frequent watering for particularly dusty construction areas and areas close to air sensitive receivers:
  - d) Cover all excavated or stockpiles of dusty material by impervious sheeting or spraying with water to maintain the entire surface wet;
  - e) Provision of vehicle washing facilities at the exit points of the site; and
- 2.1.10 Provision of tarpaulin covering for any dusty materials on a vehicle leaving the site. details of the implementation schedule for the required environmental mitigation measures are presented in *Appendix D*.

# 2.2 Construction Noise

### Monitoring Parameters and Frequency

2.2.1 *Table 2-2-1* summarizes the monitoring parameters and frequency for construction noise.

#### Table 2-2-1 Noise Monitoring Parameters and Frequency

Parameters	Frequency
Leq in 30 minutes	Once a week

#### Action and Limit Levels

2.2.2 The Action and Limit levels (hereinafter referred as 'the A/L Levels) at K11 have been established in the Baseline Monitoring Report. They are summarized in Table 2-2-2 as follows:

#### Table 2-2-2 Action and Limit Levels for Construction Noise

Time Period	Action Level	Limit Level
0700-1900 hours on normal weekdays	When one valid documented complaint is received.	75



#### Event and Action Plan

2.2.3 In case exceedances of Action and/or Limit levels for construction noise occur, the Event and Action Plan enclosed in *Appendix F* will be implemented.

### Mitigation Measures for Construction Noise

- 2.2.4 Although no residual noise impact would be generated after the proposed mitigation measures are in place, the general construction noise control measures stipulated in the EP, Project Profile as well as those recommended in the Implementation Schedule should be fully implemented to minimize noise impacts during the construction phase. They are summarized as follows:
  - a) The Code of Practice on Good Management Practice to Prevent Violation of the Noise Control Ordinance (Chapter 400) (for Construction Industry) published by EPD shall be adopted;
  - b) The statutory and non-statutory requirements and guidelines shall be complied with;
  - Approval for the method of working, equipment and noise mitigation measures intended to be used at the site shall be granted from the Project Engineer before commencing any work;
  - d) Working methods to minimize the noise impact on the surrounding NSRs shall be formulated and executed, and the implementation of these methods shall be monitored by experienced personnel with suitable training;
  - e) Noisy equipment and noisy activities shall be located as far away from the NSRs as is practical;
  - f) Unused equipment shall be turned off;
  - g) PME should be kept to a minimum and the parallel use of noisy equipment / machinery should be avoided:
  - h) All plant and equipment shall be maintained regularly; and
  - Material stockpiles and other structures shall be effectively utilized as noise barriers, whenever practicable.
- 2.2.5 Details of the implementation schedule for the mitigation measures are presented in *Appendix*D.

# 2.3 Monitoring Schedules

2.3.1 Monitoring schedules for 24-Hr TSP and construction noise for the Reporting Period and the next Reporting Period are prepared and submitted to MTRC, IEC and MC prior to implementation via e-mail and/ or facsimile for ease of necessary inspection. Where amendment is necessary under ad hoc conditions, including actual and broadcast adverse weather, accidental instrument failures, etc., advanced notification is given at least 24 hours prior to implementation or as practical as possible.



# 3 MONITORING RESULTS

# 3.1 Air Quality

### Monitoring Results

- 3.1.1 1-Hr TSP monitoring during the Reporting Period was conducted following the agreed monitoring schedule.
- 3.1.2 1-Hr TSP results of the Reporting Period are summarized in the following *Table 3-1-1*. Graphical plots of the parameter are illustrated in *Appendix H*.

Table 3-1-1 Summary of 1-Hr TSP Monitoring Results, µg/m<sup>3</sup>

Monitoring Date	1-Hr TSP	A/L Le	vels
21 September 2018	28		
21 September 2018	31		
21 September 2018	31		
27 September 2018	79		
27 September 2018	71		
27 September 2018	76		
02 October 2018	84		
02 October 2018	91		
02 October 2018	97		
09 October 2018	91		
09 October 2018	102		
09 October 2018	112		
16 October 2018	101	]	
16 October 2018	96	1	
16 October 2018	91	1	
23 October 2018	83		
23 October 2018	77	Action Level:	Limit Level:
23 October 2018	72	250	500
23 October 2018	72	1	
23 October 2018	71	]	
23 October 2018	70	1	
06 November 2018	69	1	
06 November 2018	70	1	
06 November 2018	60		
13 November 2018	61	1	
13 November 2018	70	1	
13 November 2018	68	1	
20 November 2018	70	1	
20 November 2018	70	1	
20 November 2018	62	1	
27 November 2018	65	1	
27 November 2018	70	1	
27 November 2018	73	1	
Mean (Min – Max)	74 (28 – 112)		



#### Discussion

- 3.1.3 Table 3-1-1 demonstrates that all 1-Hr TSP results of the Reporting Period were fluctuated below the A/L Level, there were no Action Level or Limit Level exceedances recorded during the Reporting Period.
- 3.1.4 No Notice of Exceedances (thereinafter referred as 'NOE') and the associated NOE Investigation and remedial actions were required during the Reporting Period.

### 3.2 Construction Noise

### Monitoring Results

- 3.2.1 Construction noise monitoring during the Reporting Period was conducted following the agreed monitoring schedule.
- 3.2.2 Construction noise monitoring results of the Reporting Period are summarized in the following *Table 3-2-1*. Graphical plots of the parameter are illustrated in *Appendix H*.
- 3.2.3 Weather condition, including wind speeds and directions, during the monitoring period are recorded and shown in *Appendix G*.

Table 3-2-1 Summary of Construction Noise Monitoring Results at K11, dB(A)

Monitoring Date	Leq (30 min)	A/L Levels
04 September 2018	64.2	
11 September 2018	65.9	
21 September 2018	63.7	
27 September 2018	65.1	Action Level:
02 October 2018	66.5	Any documented complaint
09 October 2018	66.1	Against construction noise.
16 October 2018	66.3	
23 October 2018	65.2	
30 October 2018	65.6	
06 November 2018	65.1	
13 November 2018	66.5	
20 November 2018	65.4	Limit Level: 75 dB(A)
27 November 2018	68.6	
Mean (Min – Max)	65.9 (63.7 – 68.6)	

#### Discussion

3.2.4 No environmental complaint against construction noise was registered during the Reporting Period, whereas Table 3-2-1 demonstrates that all construction noise results of the Reporting Period fell below the Limit Level of the parameter.



- 3.2.5 Neither NOE nor NOE investigation and the associated remedial actions were required during the Reporting Period.
- 3.2.6 The Contractor was reminded to pay extra attention to noisy construction activities within the Reporting Month and the coming month. The ET will liaise closely with the Contractor on any unusual level of noise recorded in the upcoming month.
- 3.2.7 It is re-instated that adequate mitigation measures should be implemented during the noisy construction activities to alleviate noise nuisance generated from the Project related construction activities.

#### Weather Conditions

- 3.2.8 No weather conditions and any other factors were identified to have significant effects on the monitoring results of air quality and construction noise during the Reporting Period.
- 3.2.9 Weather information during the Reporting Period which is extracted from Hong Kong Observatory King's Park Weather Station is enclosed for reference in *Appendix G*.

### 3.3 Conclusions and Recommendations

#### **Conclusions**

- 3.3.1 No exceedances of A/L Levels of air quality and construction noise were registered during the Reporting Period.
- 3.3.2 No NOE and the associated NOE Investigation and corrected actions were required during the Reporting Period.

#### Recommendations

- 3.3.3 Full implementation of the environmental mitigation measures, which are required in the EM&A Plan and summarized in Implementation Schedule of **Appendix D**, is recommended. Where necessary, proper maintenance and improvement of the implemented mitigation measures are reminded.
- 3.3.4 Construction dust shall be suppressed during dusty construction activities under dry and windy conditions.
- 3.3.5 Construction noise shall be eliminated to avoid adverse impacts on the nearby sensitive receivers.



### 4 ENVIRONMENTAL AUDIT

# 4.1 Site Inspection

- 4.1.1 Weekly site inspections during the Reporting Period are conducted by MTRC, MC and ET, whereas monthly site inspections of the Reporting Period were jointly conducted by the IEC, MTRC, MC and ET. The site inspection follows strictly the agreed Site Inspection Checklist, which covers all the site audit requirements stipulated in the EM&A Plan, PS and all relevant environmental laws.
- 4.1.2 The completed Site Inspection Checklists are distributed to all relevant parties upon completion of the site inspection for agreement and signature of the relevant parties and, where appropriate, for implementation of the recommended corrected actions to promptly rectify the situation.
- 4.1.3 There were 13 site inspections conducted within the Reporting Period. Deficiencies or findings of the site audits and the associated follow up actions are summarized in *Table 4-1-1*:
- 4.1.4 As shown in *Table 4-1-1*, no deficiencies or non-compliance of environmental mitigation measures or adverse environmental impacts were observed during the Reporting Period.

Table 4-1-1 Summary of Findings and Follow-Up Actions of the Site Inspection

Date	<b>Deficiencies or findings</b>	Follow-Up Action
	Follow-up item(s)	
04 September 2018	No follow-up items.	Not required.
04 Ocpterriber 2010	Observation(s) on the day of inspection	
	No deficiency was observed on site.	Not required.
	Follow-up item(s)	
11 September 2018	No follow-up items.	Not required.
·	Observation(s) on the day of inspection	
	No deficiency was observed on site.	Not required.
	Follow-up item(s)	
18 September 2018	No follow-up items.	Not required.
	Observation(s) on the day of inspection	
	No deficiency was observed on site.	Not required.
	Follow-up item(s)	
26 September 2018	No follow-up items.	Not required.
	Observation(s) on the day of inspection	
	No deficiency was observed on site.	Not required.
	Follow-up item(s)	
02 October 2018	No follow-up items.	Not required.
02 00(000) 2010	Observation(s) on the day of inspection	
	No deficiency was observed on site.	Not required.
	Follow-up item(s)	
09 October 2018	No follow-up items.	Not required.
00 00.0001 2010	Observation(s) on the day of inspection	
	No deficiency was observed on site.	Not required.



### Table 4-1-1 (Continued)

Date	Deficiencies or findings	Follow-Up Action
	Follow-up item(s)	
16 October 2018	No follow-up items.	Not required.
10 0010001 2010	Observation(s) on the day of inspection	
	No deficiency was observed on site.	Not required.
	Follow-up item(s)	
23 October 2018	No follow-up items.	Not required.
	Observation(s) on the day of inspection	
	No deficiency was observed on site.	Not required.
	Follow-up item(s)	
30 October 2018	No follow-up items.	Not required.
30 October 2010	Observation(s) on the day of inspection	
	No deficiency was observed on site.	Not required.
	Follow-up item(s)	
06 November 2018  No follow-up i  Observation  No deficiency	No follow-up items.	Not required.
	Observation(s) on the day of inspection	
	No deficiency was observed on site.	Not required.
	Follow-up item(s)	
13 November 2018	No follow-up items.	Not required.
13 November 2016	Observation(s) on the day of inspection	
	No deficiency was observed on site.	Not required.
	Follow-up item(s)	
00 November 2040	No follow-up items.	Not required.
20 November 2018	Observation(s) on the day of inspection	
	No deficiency was observed on site.	Not required.
	Follow-up item(s)	
27 November 2018	No follow-up items.	Not required.
	Observation(s) on the day of inspection	
	No deficiency was observed on site.	Not required.



# 4.2 Compliance with Legal/ Contractual Requirements

4.2.1 Construction activities under the Project must comply with all environmental protection and pollution control laws in Hong Kong, as well as the contractual requirements of the Project. *Table 4-2-1* summarizes breaches of legal and contractual requirements.

Table 4-2-1 Summary of Breaches of Legal and Contractual Requirements

Month	No. of Breaches	Cumulative no. of Breaches
Sep 2018	0	0
Oct 2018	0	0
Nov 2018	0	0

# 4.3 Environmental Complaints

- 4.3.1 Environmental complaints are handled following closely the flow chart of complaint response procedure which is enclosed in *Appendix I*.
- 4.3.2 No complaint was received during the Reporting Period.
- 4.3.3 Environmental complaints registered during the Reporting Period and cumulative statistics of environmental complaints are summarized in *Table 4-3-1* below:

**Table 4-3-1 Summary of Complaint** 

Month	No. of Complaint	Cumulative no. from March 2014 to the Reporting Period
Sep 2018	0	6
Oct 2018	0	6
Nov 2018	0	6

# 4.4 Notification of Summons/Successful Prosecutions

4.4.1 Notification of summons and successful prosecutions registered during the Reporting Period are summarized in *Table 4-4-1* below:

Table 4-4-1 Summary of Summon and Successful Prosecutions

Month	Number of Issue	Cumulative no. from March 2014 to the Reporting Period
Sep 2018	0	0
Oct 2018	0	0
Nov 2018	0	0



### 5 WASTE MANAGEMENT

# 5.1 Waste Management

5.1.1 Waste management under the Project is performed in accordance with the Waste Management Plan, which has been prepared for implementation of the construction waste mitigation measures in compliance with the requirements stipulated in the EM&A Plan, PS, Waste Disposal Ordinance and the associated subsidiary regulations.

# 5.2 Waste Management Record

- 5.2.1 Updated waste management status is detailed in *Appendix J*, where the 3-R status of the construction waste generated from construction of the Project during the Reporting Period is presented.
- 5.2.2 Despite small scale of the Project and the amount of C&D material that needs to be hauled off site and disposed of is anticipated not to be significant, 3-R waste management i.e. Reduce, Reuse and Recycle, is adopted to minimize adverse environmental impacts to be generated from construction of the Project.

# **6 FUTURE ENVIRONMENTAL ISSUES**

# 6.1 Key Environmental Issues

- 6.1.1 Future key environmental issues include:
  - 1) Air quality, construction dust during dusty construction activities, e.g. handling of dusty materials under dry and windy conditions;
  - 2) Construction noise during noisy activities; and
  - 3) Site surface water run-off and construction wastewater discharge.

# 6.2 Mitigation Measures

- 6.2.1 To avoid potential adverse environmental impacts to be generated from future key environmental issues stated above, full implementation of the mitigation measures as stipulated in the Implementation Schedule shown in *Appendix D* is required.
- 6.2.2 Mitigation measures for air quality, construction noise and water quality implemented to date shall be properly maintained.
- 6.2.3 Where appropriate, improvement of the implemented mitigation measures is reminded to ensure effectiveness of the mitigation measures.



### 7 COMMENTS AND RECOMMENDATIONS

# 7.1 Conclusion

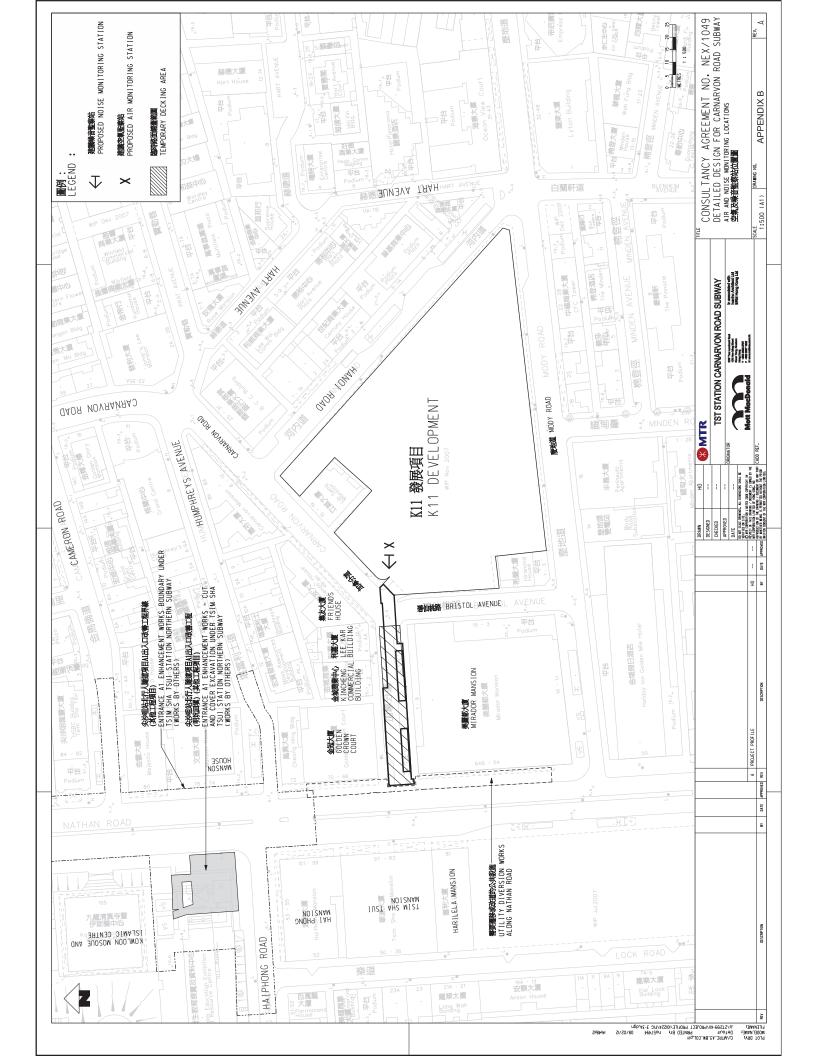
- 7.1.1 EM&A results during the Reporting Period showed that adverse environmental impacts generated from construction activities under the Project was alleviated to acceptable levels via implementation of the environmental mitigation measures recommended in the EM&A Plan and summarized in the Implementation Schedule.
- 7.1.2 Neither NOE & the associated NOE investigation nor follow-up actions were required as the environmental monitoring results registered no exceedances of A/L Levels of air quality and construction noise during the Reporting Period.
- 7.1.3 No corrective actions were required as the environmental audit during the Reporting Period observed:
  - 1) No deficiencies with major environmental significance of the required environmental mitigation measures;
  - 2) No non-compliance with the required waste management; and
  - 3) No adverse environmental impacts on the sensitive receivers environed with the site of the Project.
- 7.1.4 In addition, no remedial actions were required as no notification of summons and successful prosecutions were reported during the Reporting Period.

### 7.2 Recommendations

- 7.2.1 The existing environmental mitigation measures have been proven effective. They should be properly maintained.
- 7.2.2 Where appropriate, additional or improvement of the environmental mitigation measures should be implemented.
- 7.2.3 Attention should be paid to construction noise mitigation measures to ensure full compliance with statutory and non-statutory requirements and guidelines. Proactive review of working methods, careful selection and arrangement of the noisy equipment as well as effective noise mitigation measures are strongly recommended.
- 7.2.4 In addition, suppression of construction dust is reminded during dusty construction activities under dry and windy conditions.
- 7.2.5 Furthermore, monitoring of site water runoff is reminded to prevent any direct water discharge off site, especially when water usage is high during the construction period. When necessary, the Contractor is reminded to apply additional precautionary measures to prevent any possible environmental deficiency.

# **APPENDIX A**

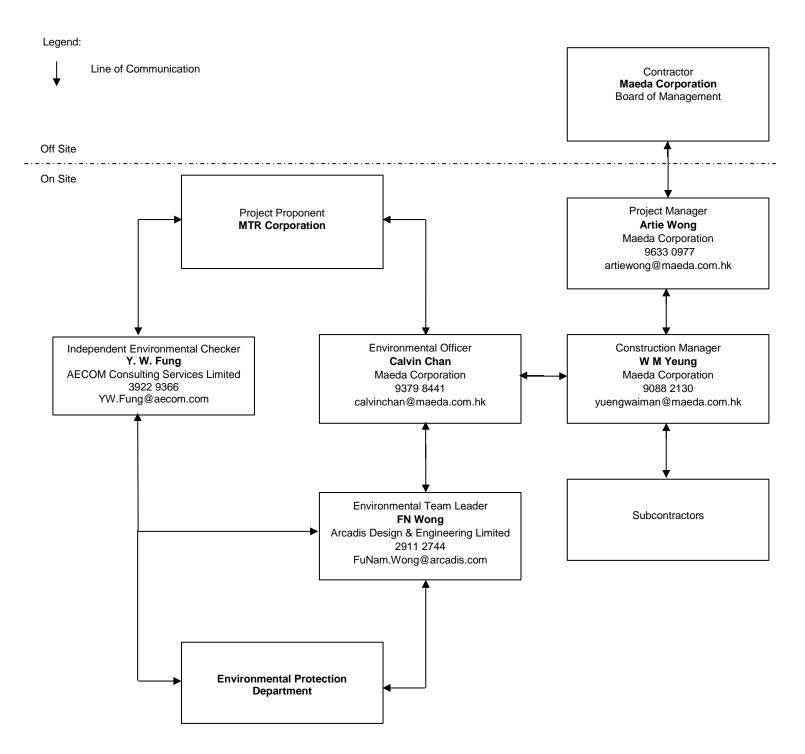
**SITE LOCATION PLAN** 



# **APPENDIX B**

**MANAGEMENT STRUCTURE** 

### **Project Organization Chart in Environmental Management (Rev.05)**



Note: In Compliance with

i) Clause.1.3 of Environmental Monitoring and Audit Manual (Appendix VII of Project Profile PP462/2012)

# **APPENDIX C**

**CONSTRUCTION PROGRAMME** 



#### Tsim Sha Tsui Station, Carnarvon Road Subway

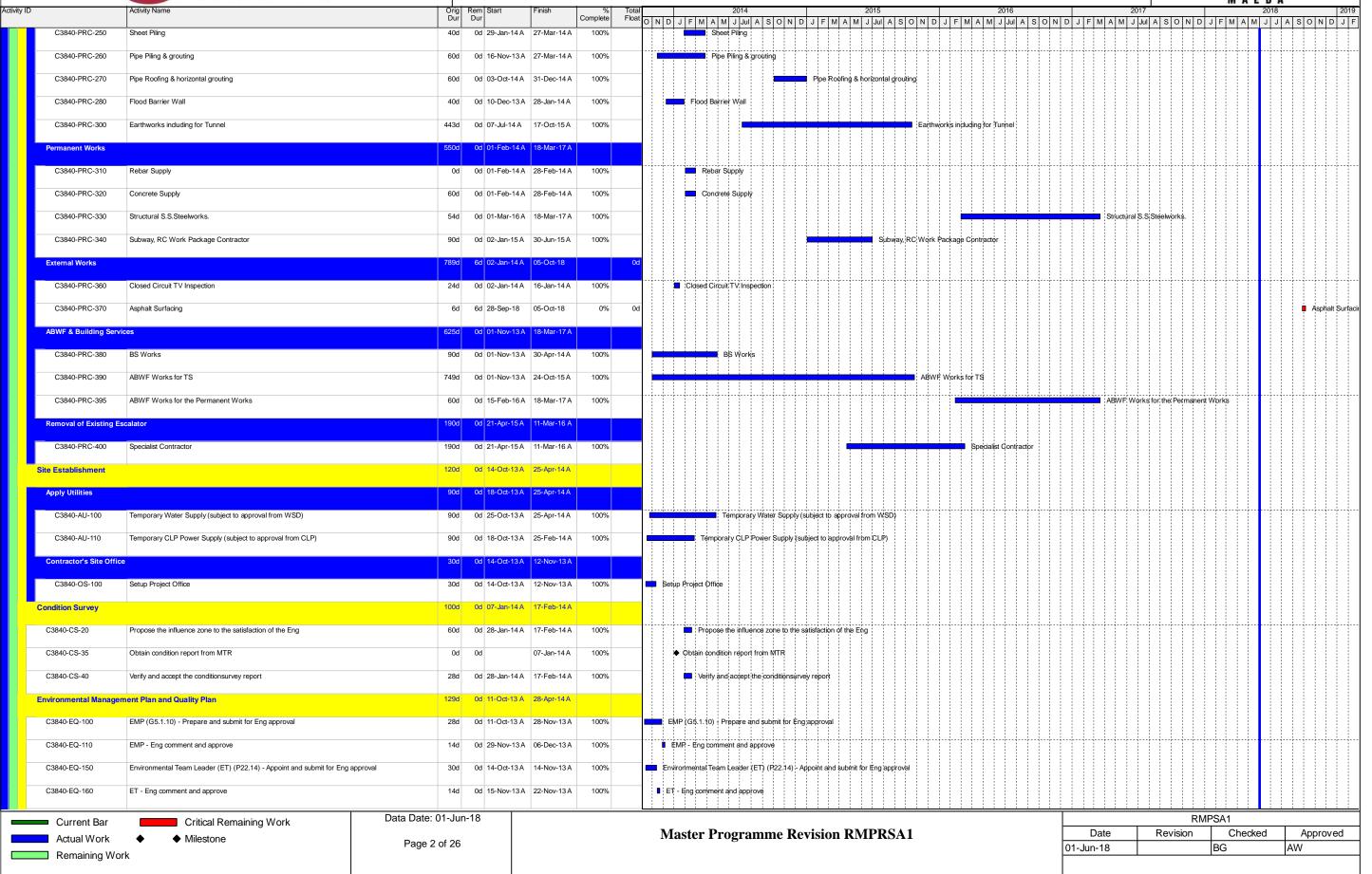


Activity ID	Activity Name	Orig Dur	Rem Start Dur	Finish	% Complete	Total Float	2014 2015 2016 2017 2018 2019
Master Drawnson D	Audaine An Ban CA4		175d 11-Oct-13 A		Complete	Od	ONDJFMAMJJJJASONDJFMAMJJJJASONDJFMAMJJJJFMAMJJJJASONDJFMAMJJJJFMAMJJJJASONDJFMAMJJJASONDJF
Master Programme R	REVISIONAS PER SAT		71 Oct 15 A	70 200 10		- 00	
Preliminaries		1633d	175d 11-Oct-13 A	30-Dec-18		0d	3
Contract Key Dates		1670d	0d 11-Oct-13 A	26-Oct-18		0d	
C3840-CD-10	Date of Contract Award	0d	0d 11-Oct-13 A		100%	•	▶ Date of Contract Award
C3840-CD-20	Date of Commencement	0d	0d 14-Oct-13 A		100%	•	◆ Date of Commencement
C3840-CD-30	Date for completion of the whole of the Works	0d	0d	26-Oct-18*	0%	0d	j Date for cor
Specified Degrees of C	Completion	107d	0d 08-Feb-18 A	13-Jun-18		200d	
C3840-CD-2A	Complete to Deg. 1 status for all civil engineering works and ABWF in Subway outside K11 Lot Boundary	0d	Od	26-Feb-18 A	100%		♦ Complete to Deg. 1 status for all civil eng
C3840-CD-2B	Comp. Deg. 1 for all civil & BS in Subw. inside K11, incl. works ass. with breakthro & make good K11 D. wall	0d	0d	08-Feb-18 A	100%		◆ Comp. Deg. 1 for all civil & BS in Subw. ins
C3840-CD-2C	Complete energisation of the power isolator in the Telephone Equipment Rm	0d	Od	18-Apr-18 A	100%		◆ Complete energisation of the power
C3840-CD-2D	Complete energisation of MCCBs CRS1 and CRS2 in the Electrical Rm	0d	Od	08-May-18 A	100%		◆ Complete energisation of MCCB
C3840-CD-2E	Complete all Works in the Subway and New Entrances D2 and D3	0d	Od	13-Jun-18	0%	16d	d Complete all Works in the S
Possession of Works A	Area As PS Clause P8 & PS Appendix G	0d	0d 31-Oct-13 A	31-Oct-13 A			
C3840-AD-20	Access Date for Works Area 3840.W1 (subject to SLG/TMLG Approval)	0d	0d 31-Oct-13 A		100%		◆ Access Date for Works/Area 3840/W1 (subject to SLG/TMLG Approval)
C3840-AD-30	Access Date for Works Areas 3840.W2 (subject to SLG/TMLG Approval)	0d	0d 31-Oct-13 A		100%		◆ Access Date for Works/Areas \$840.W2 (subject to SLG/TMLG Approval)
Initial Site Survey		35d	0d 31-Oct-13 A	10-Dec-13 A		-	
C3840-SS-20	Validate the survey record and carry out any necessary additional survey at Works Areas 3840.W1 & W2	35d	0d 31-Oct-13 A	10-Dec-13 A	100%		Validatet the survey record and carry but any necessary additional survey at Works Ateas 38#0.W1 & W2
Vacation of Works Area	as as PS Clause P8 and PS Appendix G	Od	0d 26-Oct-18	26-Oct-18		65d	3
C3840-VD-20	Vacate Date for Works Area 3840.W1 (subject to SLG/TMLG Approval)	0d	0d	26-Oct-18	0%	65d	d ◆ Vajcate Dat
C3840-VD-30	Vacate Date for Works Area 3840.W2 (subject to SLG/TMLG Approval)	0d	Od	26-Oct-18	0%	65d	d • Vajcatje Dajat
Procurement of Subco	ntract Packages	1335d	6d 11-Oct-13 A	05-Oct-18		70d	
Preliminaries and Utili	ities Diversion	60d	0d 11-Oct-13 A	13-Jan-14 A			
C3840-PRC-100	Hoardings, Fencing and Associated Metalwork	40d	0d 15-Oct-13 A	13-Jan-14 A	100%		Hoardings, Fencing and Associated Metalwork
C3840-PRC-110	Land Survey/Setting Out	5d	0d 15-Oct-13 A	19-Oct-13 A	100%		■ Land \$urvey/\$etting Out
C3840-PRC-120	Instrumentation and Monitoring	53d	0d 15-Oct-13 A	14-Dec-13 A	100%	•	Instrumentation and Monitoring
C3840-PRC-130	Advance Ground Works	28d	0d 15-Oct-13 A	15-Nov-13 A	100%	•	Advance Ground Works:
C3840-PRC-140	Temporary Traffic Diversion (Consultant)	4d	0d 11-Oct-13 A	18-Oct-13 A	100%	•	■ Tempdrary Traffid Diversion (Consultant)
C3840-PRC-150	Obtain Eng's Approval for Temporary Traffic Diversion (Consultant)	6d	0d 19-Oct-13 A	31-Oct-13 A	100%	ı	Obtain Eng's Approval for Temporary Traffic Diversion (Consultant).
C3840-PRC-160	Site Security	48d	0d 15-Oct-13 A	24-Dec-13 A	100%	•	Site Security
C3840-PRC-200	Independent Checking Engineer (ICE)	6d	0d 18-Nov-13 A	27-Nov-13 A	100%		■ Independent Checking Engineer (ICE)
C3840-PRC-210	Obtain Eng's Approval for ICE	6d	0d 27-Nov-13 A	13-Dec-13 A	100%		Dobain Eng's Approval for ICE
C3840-PRC-220	Ground Investigation (Pre-drilling work)	60d	0d 15-Oct-13 A	28-Dec-13 A	100%		Ground Investigation (Pre-drilling work)
Temporary Works, ELS	S & Earthworks	512d	0d 16-Nov-13 A	17-Oct-15 A			
C3840-PRC-240	Specialist Demolition Contractor	40d	0d 16-Dec-13 A	20-Feb-14 A	100%		Specialist Demolifion Contractor
Current Bar	Critical Remaining Work Data Date: 0	01-Jun	1-18				RMPSA1
Actual Work	◆ ♦ Milestone Page 1	of 26					Master Programme Revision RMPRSA1  Date Revision Checked Approved
Remaining Wo	ork	01 20					01-Jun-18 BG AW



#### Tsim Sha Tsui Station, Carnarvon Road Subway









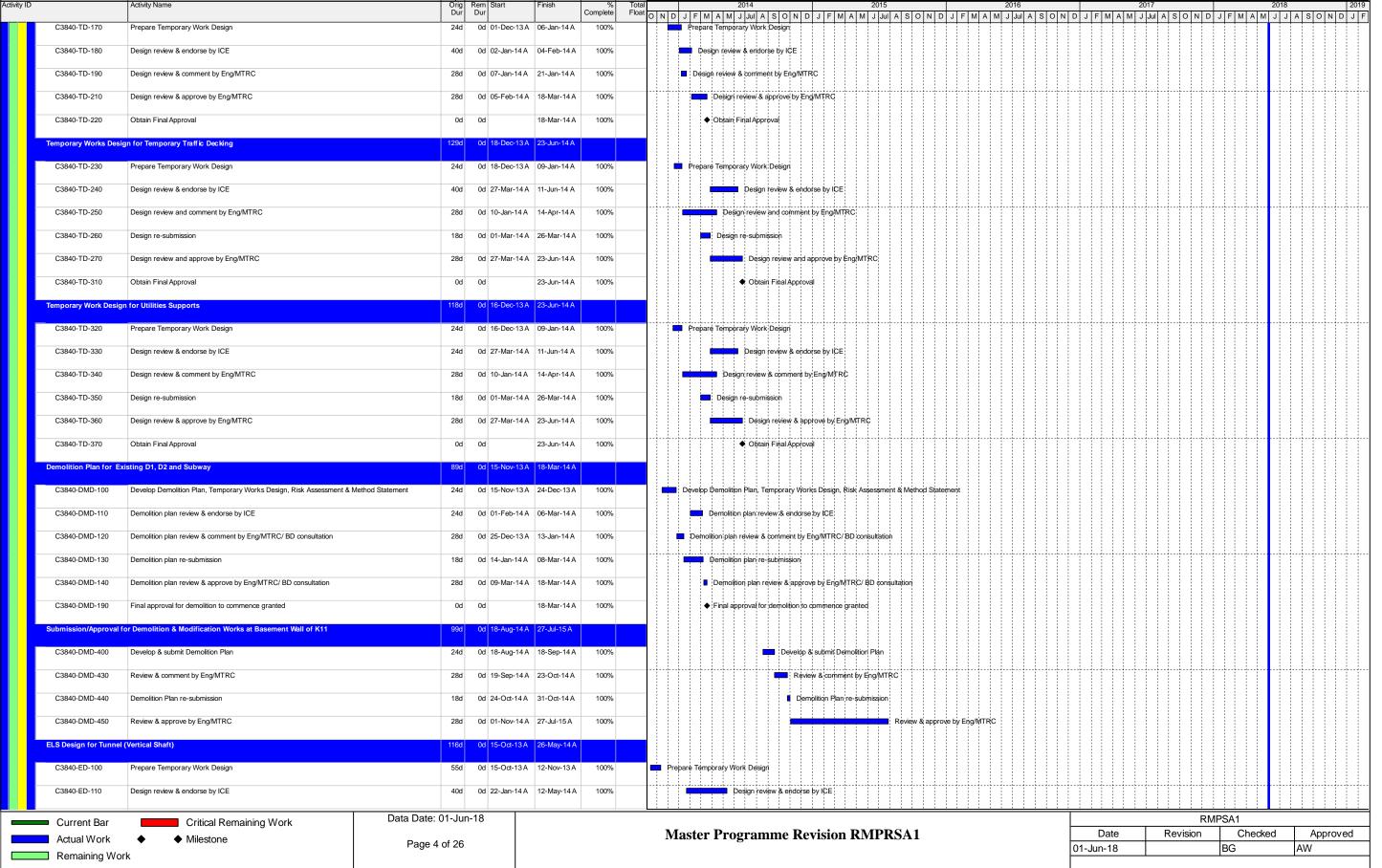


													IVI A	EDA	
)	Activity Name	Orig Rem Start Dur Dur	Finish	% Total lete Float O N	D J F M A M J Jul	ASONDJ	2015 F M A M J Jul	A S O N D J F M	2016 A M J Jul A S	ONDJF	201 M A M J J	7  u    A   S   O   N   E	JFMA	2018 M J J A	SONI
C3840-EQ-170	Confirm monitiroing location & setup noise monitoring deivices	30d 0d 17-Dec-13	A 09-Jan-14 A 10	10%	Confirm monitiroing loc	ation & setup noise mo	nitoring deivices								
C3840-EQ-180	Baseline noise monitoring	14d 0d 10-Jan-14	A 24-Jan-14 A 10	10%	Baseline hoise monito	oring									
C3840-EQ-190	Prepare baseline noise monitoring report & submit to Eng, ICE and EPD	7d 0d 25-Jan-14	A 11-Feb-14 A 10	10%	Prepare baseline n	oise monitoring report	& submit to Eng, ICE	and EPD							
C3840-EQ-200	Baseline noise monitoring report review and approved by Eng, ICE and EPD	14d 0d 14-Feb-14	A 01-Apr-14 A 10	00%	Baseline nois	e monitoring report rev	iew and approved by	Eng, ICE and EPD							
C3840-EQ-210	Confirm monitoring location & setup air monitoring deivices	30d 0d 17-Dec-13	A 09-Jan-14 A 10	10%	Confirm monitoring log	ation & setup air monito	oring deivices								
C3840-EQ-220	Baseline air monitoring	14d 0d 10-Jan-14		10%	■ Baseline air monitorir										
	<u> </u>							4.500							
C3840-EQ-230	Prepare baseline air monitoring report & submit to Eng, ICE and EPD	7d 0d 27-Jan-14		10%	Prepare baseline a										
C3840-EQ-240	Baseline air monitoring report review and approved by Eng, ICE and EPD	14d 0d 14-Feb-14		10%		nonitoring report review		ig, ICE and EPD							
C3840-EQ-320	Quality Plan (G9.2.1) - Prepare and submit for Eng approval	28d 0d 14-Oct-13	A 30-Dec-13 A 10	10%	Quality Plan (G9.2.1) -	Prepare and submit for	Eng approval								
C3840-EQ-330	Quality Plan - Eng comment and approve	14d 0d 31-Dec-13	A 28-Apr-14 A 10	00%	Quality P	an Eng comment and	approve								
Health & Safety Plan		74d 0d 11-Oct-13	A 22-Jan-14 A												
C3840-HS-100	Health and Safety Plan (G3.6.1) - Prepare and submit for Eng approval	60d 0d 11-Oct-13	A 13-Dec-13 A 10	00%	Health and Safety Plan (G	3.6.1) - Prepare and s	ubmit for Eng approv	al							
C3840-HS-110	Health and Safety Plan - Eng comment and approve	14d 0d 14-Dec-13	A 22-Jan-14 A 10	00%	Health and Safety Pla	n - Eng comment and	approve								
C3840-HS-130	System Assurance Plan as per App. K of PS - Prepare and submit for Eng appro	oval 28d 0d 11-Oct-13	A 20-Dec-13 A 10	00%	System Assurance Plan a	s per App. K of P\$ - P	epare and submit for	Eng approval							
C3840-HS-140	System Assurance Plan - Eng comment and approve	14d 0d 21-Dec-13	A 09-Jan-14 A 10	00%	System Assurance Plar	n - Eng comment and a	pprove								
Programme Manageme	ent	116d 0d 11-Oct-13	A 30-Mar-14 A												
C3840-PM-100	Initial Three Month Rolling Programme (G4.8.1) - Prepare and submit for Eng re	eview 14d 0d 11-Oct-13	A 28-Oct-13 A 10	0% <b>I</b> n	itial Three Month Rolling Prog	ramme (G4.8.1) - Pre	pare and submit for E	ng revlew							
C3840-PM-110	Preliminary Master Programme (G4.6.1) - Prepare and submit for Eng approval	I 60d 0d 11-Oct-13	A 12-Dec-13 A 10	10%	■ Preliminary Master Progra	mme (G4.6.1) - Prepa	re and submit for En	approval							
C3840-PM-120	Preliminary Master Programme (G4.6.1) - Eng comment	28d 0d 13-Dec-13	A 13-Jan-14 A 10	10%	Preliminary Master Pr	ogramme (G4,6.1) - Er	ng comment								
C3840-PM-130	Preliminary Master Programme (G4.6.1) - Re-submit for Eng approval	14d 0d 14-Jan-14	A 11-Feb-14 A 10	10%	Preliminary Master			pproval							
C3840-PM-135	Preliminary Master Programme (G4.6.1) - Eng's further comment	14d 0d 12-Feb-14	A 22-Feb-14 A 10	10%	Preliminary Maste										
C3840-PM-136	Preliminary Master Programme (G4.6.1) - Further re-submission	14d 0d 23-Feb-14		10%		er Programme (G4.6.1									
C3840-PM-140		14d 0d 28-Feb-14		10%							<del> </del>				
	Preliminary Master Programme (G4.6.1) - Eng approval					ter Programme (G4.6.									
C3840-PM-170	Submission Schedule (G12.11.1) - Prepare and submit for Eng approval		A 12-Nov-13 A 10		Submission Schedule (G12.1										
C3840-PM-180	Submission Schedule - Eng comment and approve	28d 0d 13-Nov-13	A 30-Mar-14 A 10	10%	Submission S	chedule - Eng comme	nt and approve								
Temporary Works Des	ign & Approval Process (Incl. Demolition)	1581d 175d 15-Oα-13	A 30-Dec-18	0d											
Hoarding Plan		84d 0d 15-Oct-13	A 18-Mar-14 A												
C3840-TD-100	Prepare Hoarding Plan	27d 0d 15-Oct-13	A 11-Jan-14 A 10	0%	Prepare Hoarding Plat										
C3840-TD-110	Hoarding plan review & endorse by ICE	40d 0d 01-Feb-14	A 08-Mar-14 A 10	10%	Hoarding plan r	eview & endorse by IC									
C3840-TD-120	Hoarding plan review & comment by Eng/MTRC	28d 0d 12-Jan-14	A 23-Jan-14 A 10	0%	■ Hoarding plan review	& comment by Eng/M	TRC								
C3840-TD-140	Hoarding plan re-submission	11d 0d 24-Jan-14	A 28-Feb-14 A 10	00%	Hoarding plan re	-submission									
C3840-TD-150	Hoarding plan review & approve by Eng/MTRC	28d 0d 01-Mar-14	A 18-Mar-14 A 10	10%	■ Hoarding plan	review & approve by E	ng/MTRC								
C3840-TD-160	Obtain Final Approval	Od Od	18-Mar-14 A 10	10%	◆ Obtain Final A	pproval									
Flood Protection Wall		89d 0d 01-Dec-13	A 18-Mar-14 A												
0	O Wind Provided March	Data Date: 01-Jun-18			<u> </u>	<u> </u>	<u> </u>				<u> </u>	DI	MPSA1		<u> </u>
Current Bar	Critical Remaining Work	24ta 24to. 07 04ti 10		ו	Master Progra	mme Revis	ion RMPR	CA1			Date	Revision		cked	Approv
Actual Work	♦ Milestone	Page 3 of 26		1	masici i i ugi a	1111111 146 119	1011 171411 14	SAI							





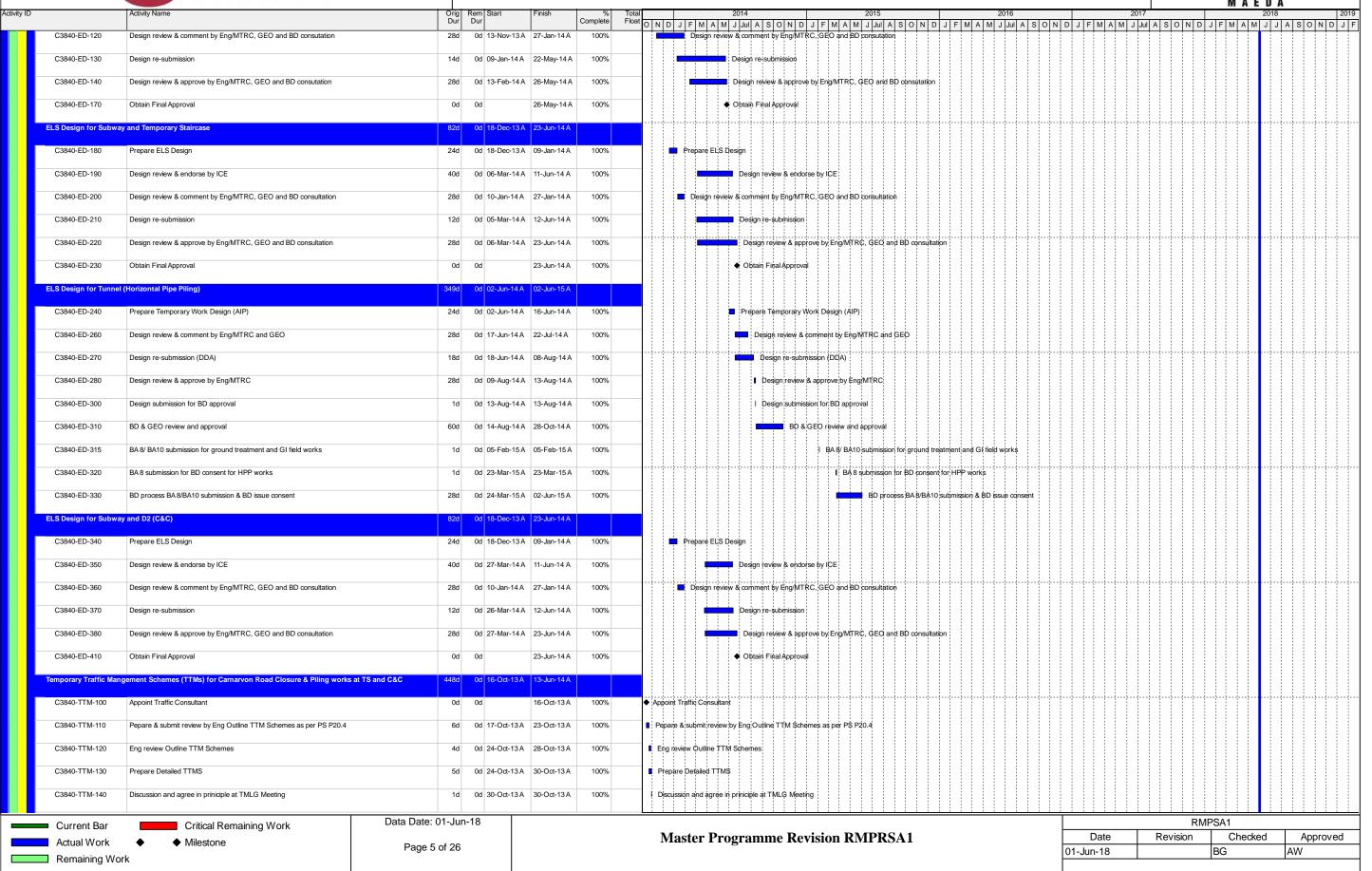






#### Tsim Sha Tsui Station, Carnarvon Road Subway









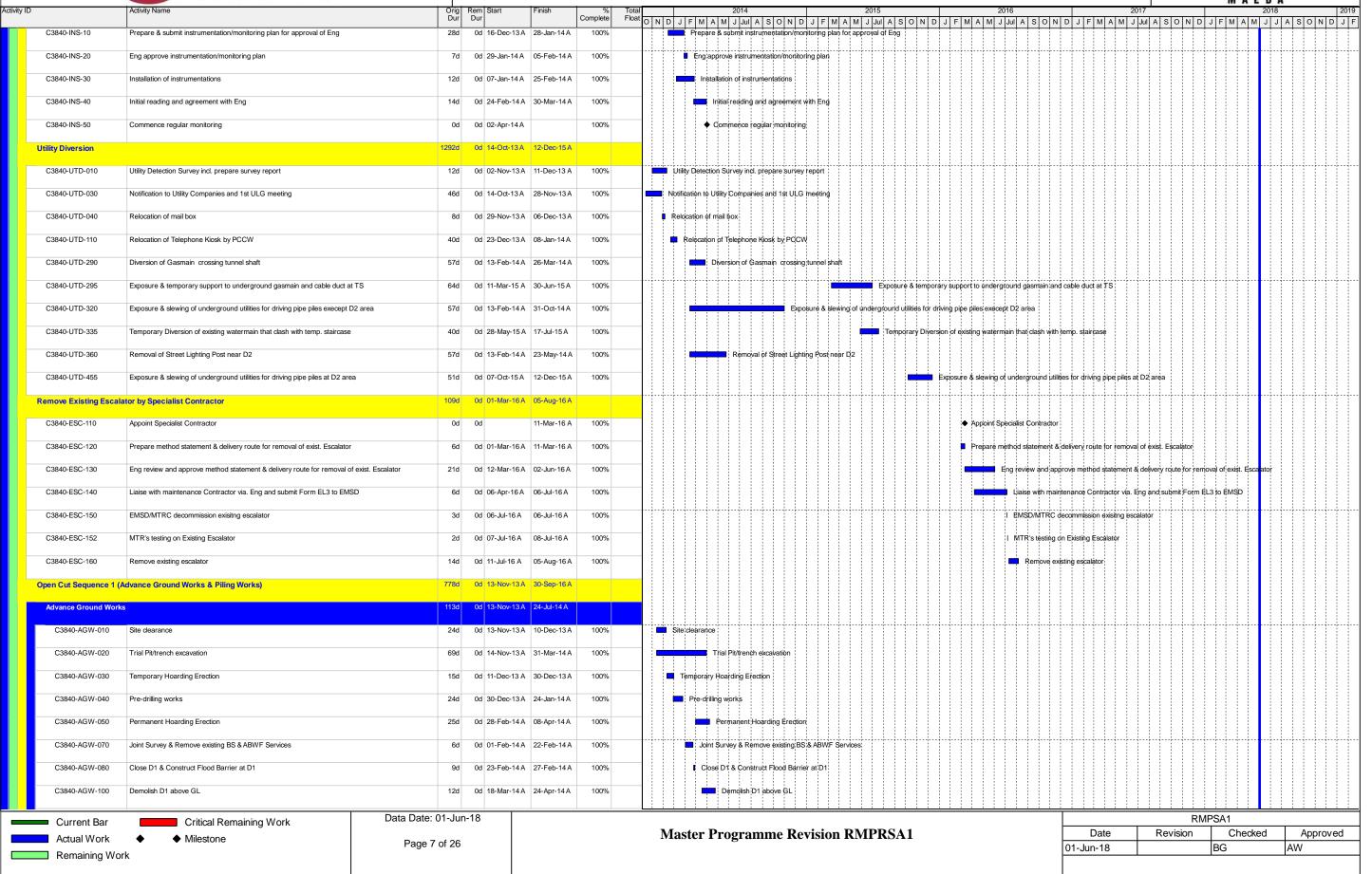


	Activity Name	Orial	Dom Ctort	Finish	0/ T	2014 2015 2016 2017
ID	Activity Name	Orig Dur	Rem Start Dur	Finish	Complete Fl	ntal 2014 2015 2016 2017 2018  ONDUSTRIAN SONDUSTRIAN
C3840-TTM-150	Final TTMS Drawings	4d	0d 31-Oct-13 A	04-Nov-13 A	100%	ii Final TTMS Drawings:
C3840-TTM-160	Eng endorse TTMS Drawings	2d	0d 05-Nov-13 A	06-Nov-13 A	100%	1 Englendorse TTMS Dtawings
C3840-TTM-170	TTMs endorse by HKP & TD and obtain road work addvice from RMO	18d	0d 07-Nov-13 A	24-Nov-13 A	100%	TTMs endorse by HKP & TD and obtain road work addwice from RMO
C3840-TTM-180	Obtain Gazette Notice	18d	0d 07-Nov-13 A	14-Nov-13 A	100%	■ Obtain Gažettė Noticė
C3840-TTM-190	Notification to Bus Company	28d	0d 07-Nov-13 A	04-Dec-13 A	100%	Notification to Bus Company
C3840-TTM-210	Relocate bus stop, trial run & TTMs implementation (road closure)	5d	0d 05-Dec-13 A	10-Dec-13 A	100%	. ■ Relocate bus stop, trial run & TTMs implementation (road closure);
C3840-TTM-220	Application & Approval of TTM Schemes for Piling work for TS and C&C	42d	0d 24-Jan-14 A	13-Jun-14 A	100%	:Application: & Approval of TTM Schemes for:Piling work for:TS and C&C
Excavation Permit (XF			175d 15-Oct-13 A			
C3840-XP-100	XP in hand of MTR		0d	15-Oct-13 A	100%	◆ XP in hiand of MTR
C3840-XP-110	Transfer XP permit holder from MTR to Maeda & XP payment arrangement	15d	0d 15-Oct-13 A	31-Oct-13 A	100%	Tranşfer XP;permit holder from MTR to Maeda & XP;payment arrangement
C3840-XP-130	Implement 1st XP	0d	0d 01-Nov-13 A		100%	♦ Implement 1st XP
C3840-XP-140	Implement Period 1st XP	1422d	0d 01-Nov-13 A	22-Sep-17 A	100%	Implement Period 1st XP
C3840-XP-150	Re-application and issue 2nd XP	180d	0d 20-Apr-17 A	09-Aug-17 A	100%	Re-application and issue 2nd XP
C3840-XP-160	Implement 2nd XP	0d	0d 23-Sep-17 A		100%	◆ Implement 2nd XP
C3840-XP-170	Implement Period for 2nd XP	464d	213d 23-Sep-17 A	30-Dec-18	40.95%	od
Milestones for Cost C	entre A - Preliminaries	1525d	45d 29-Aug-14 A	03-Oct-18	8	<u>sa</u>
C3840-MS-A01	A1-Approval of PMP, S. P., ICE, ELS design for Cofferdam & temp decking	0d	0d	29-Aug-14 A	100%	♦ A1-Approval;of RMR, S.P., ICE, ELS design for Cofferdam & temp decking:
C3840-MS-A02	A2-Approval of ELS design of mined tunnel & Eng's confirmation of satisfactory implem.of P. M.Syt.	0d	0d	28-Oct-14 A	100%	◆ A2-Approval of ELS design of mined tunnel & Eng's confirmation of satisfactory implem of P. M. Syt.
C3840-MS-A03	A3-Approval for mehod for demolition of K11 Diag. Wall & Eng's confirmation of satisf. implem. of S.	0d	0d	13-Nov-14 A	100%	◆ A3-Approval för mehod för demolition of K11 Diag. Wall & Eng's confirmation of satisf. implem. of S. P.
C3840-MS-A04	P.  A4- Eng's confirmation of satisfactory implementation of Programming Management System	0d	0d	30-Nov-14 A	100%	♦ A4- Eng's confirmation of satisfactory implementation of Programming Management System
C3840-MS-A05	A5- Eng's confirmation of satisfactory implementation of Specified Plans	0d	0d	16-Mar-15 A	100%	◆ A5; Erg's ponfirmation of satisfactory implementation of Specified Plans
C3840-MS-A06	A6- Eng's confirmation of satisfactory implementation of Programming Management System		0d	19-May-15 A	100%	♦ A6- Erig's confirmation of satisfactory implementation of Programming Management System
C3840-MS-A07	A7- Eng's confirmation of satisfactory implementation of Specified Plans		0d		100%	◆ A7-iEngl's donfirmation of satisfactory implementation of Specified Plans
				12-Aug-15 A		
C3840-MS-A08	A8- Eng's confirmation of satisfactory implementation of Programming Management System		0d	04-Jan-16 A	100%	◆ A8- Eng's confirmation of satistactory implementation of Programming Management System
C3840-MS-A09	A9- Eng's confirmation of satisfactory implementation of Specified Plans		0d	15-Mar-16 A	100%	◆ A9- Eng's confirmation of satisfactory implementation of Specified Plans
C3840-MS-A10	A10- Eng's confirmation of satisfactory implementation of Programming Management System	0d	0d	29-May-16 A	100%	◆ A10- Eng's opnfirmation of satisfactory implementation of Programming Management System:
C3840-MS-A11	A11- Eng's conf. of satisf. implem. of S. P. and approval of all procedures for T&C of BS & ABWF works	0d	0d	26-May-17 A	100%	◆ A11- Engls conf. of satisf. implem. of S. P. and approval of all:proced
C3840-MS-A12	A12- Eng's confirmation of satisfactory implementation of Programming Management System	0d	0d	27-Nov-16 A	100%	♦ A12- End's confirmation of satisfactory implementation of Programming Mahagement Syst
C3840-MS-A13	A13- Eng's confirmation of satisfactory implementation of Specified Plans	0d	0d	26-Feb-17 A	100%	◆ A13- Eng's confirmation of satisfactory implementation of Specified Plans
C3840-MS-A14	A14- Eng's confirmation of satisfactory implementation of Programming Management System	0d	0d	28-May-17 A	100%	◆ A14- Eng's confirmation of şatişfactory,implementation of Programm
C3840-MS-A15	A15- Approval in principle of draft O&M Manuals and draft As-built Drwgs. for Whole of the Works	0d	0d	19-Aug-18	0% 13	3d ◆ A15-Apprpva
C3840-MS-A16	A16- Approval in principle of O&M Manuals and As-built Drwgs, for Whole of the Works	0d	0d	03-Oct-18	0% 8	8d ♦ A16-Api
Carnarvon Road Sub	oway and Entrances	1352d	122d 14-Oct-13 A	26-Oct-18	5	3d
Instrumentation		52d	0d 16-Dec-13 A	02-Apr-14 A		
-	Critical Remaining Work Data Date:	011.0	n-18			RMPSA1
Current Bar	Childa Remaining Work	Ji-Jul				Master Programme Revision RMPRSA1  Date Revision Checked Approve
Actual Work	♦ Milestone Page 6					Master Fred Landing Revision River Rolls



#### Tsim Sha Tsui Station, Carnarvon Road Subway







Remaining Work

#### Contract C3840-13C

#### Tsim Sha Tsui Station, Carnarvon Road Subway



01-Jun-18

AW

	Activity Name	Orig Rem Start	Finish	%	Total			2014		2015			2016			2017			11 A E	018	—
		Orig Rem Start Dur Dur		Complete	Float	ONDJF	M A M	J Jul A S O N D	J F M A M	J Jul A S O N	D J F	M A M	1 J Jul A S	O N D	J F M A	A M J Jul A	SONE	JFN	A M .	JAS	O N
C3840-AGW-120	Install temporary steel deck platform in D1 opening	9d 0d 25-Apr-14	A 22-May-14 A	100%				Install temporary steel de	ck platform in D1	opening											
C3840-AGW-130	Relocate hoarding along south footpath	4d 0d 08-May-14	A 13-May-14 A	100%			I R	elbcate hoarding along s	outh fdotpath												
C3840-AGW-140	Implement TTA stg 1 to expose utilities/left-in piles & slewing cables as necessary along south footpath	1d 0d 23-May-14	A 23-May-14 A	100%				Implement TTA stg 1 to 6	xpose utilities/left-	in piles & slewing cabl	es as neces	sary along	g south footpath				+	++++			
C3840-AGW-150	Complete expose utilities/left-in piles & cable slewing as necessary	Od Od	21-Jul-14 A	100%				◆ Complete expose	utilities/left-in piles	& cable slewing as ne	cessary										
C3840-AGW-160		1d 0d 22-Jul-14 A	22 hil 144	100%																	
		10 00 22-Jul-14 F	22-Jul-14 A	100%				I Implement TTAst													
C3840-AGW-170	Relocate hoarding to suit pipe piling	4d 0d 23-Jul-14 A	A 24-Jul-14 A	100%				Relocate hoardin	g to suit pipe piling												
Piles & Grouting fo	or Vertical Shaft	113d 0d 08-Apr-14.	A 18-Oct-14 A																		
C3840-EVS-010	Mobilization for Piling Rig and Setup	4d 0d 08-Apr-14	A 28-Apr-14 A	100%			Mol	bilization for Piling Rig ar	d Setup								1-1-1-1-				
C3840-EVS-015	1 no. test pile & 3 nos. performance piles	6d 0d 08-May-14	A 22-May-14 A	100%				1 no. test pile & 3 nos. pe	erformance piles												
C3840-EVS-020	39 nos. pipe piles	35d 0d 23-May-14	Δ 00 Δμα 14 Δ	100%				39 nos. pipe pil													
							T														
C3840-EVS-040	Curtain Grouting at vertical shaft	18d 0d 25-Aug-14	A 18-Oct-14 A	100%				Curtair	Grouting at vertic	al shaft											
Piles & Grouting fo	or Temporary Staricase & C&C Subway	685d 0d 14-Jun-14	A 24-Sep-16 A																		
C3840-ETS-020	79 nos. pipe piles along Grid Line A	47d 0d 15-Jul-14 A	05-Feb-15 A	100%					79 nos. pipe	piles along Grid Line	A						+-+-+-				
C3840-ETS-028	Curtain Grouting for C&C, stage 1	24d 0d 23-Dec-14	A 13-Mar-15 A	100%					Curtain	Grouting for C&C, sta	ige 1										
C3840-ETS-029	Curtain Grouting for C&C, stage 2	30d 0d 09-Aug-16	A 24 Son 16 A	100%										Curton G	routing for C	%C atago 2					
														Cuitajii G	roughly for C	xo, stage 2					
C3840-ETS-032	3 nos. pipe piles between Grids 1 & 2	6d 0d 13-Oct-14	A 05-Nov-14 A	100%				3 no	s. pipe piles betwe	en Grids 1 & 2											
C3840-ETS-042	Drill for H4 & H5 (exclude drilling for rock socket)	6d 0d 21-Oct-14	A 24-Oct-14 A	100%				<b>I</b> Drill fo	r H4 & H5 (exclud	e drilling for rock sock	et)										
C3840-ETS-044	Drill for H5 (rock socket), H6, H7 & H8 and Install/grout for H4 to H8	17d 0d 02-Feb-15	A 25-Feb-15 A	100%					Drill for H	5 (rock socket), H6, H	17 & H8 an	d Install/gr	out for H4 to H8	8				1111			
C3840-ETS-052	Implement TTM 803	6d 0d 21-Oct-14	A 22-Oct-14 A	100%				I Impler	nent TTM 803												
C3840-ETS-053	Relocation of hoarding & Implement TTM 804	6d 0d 20-Nov-14	A 28-Nov-14 A	100%				■ R	elocation of hoardi	ng & Implement TTM	804										
C3840-ETS-054	Trial trench excavation for driving sheet pile along Nathan Road	12d 0d 23-Oct-14	A 04-Nov-14 A	100%				l rial	trench excavation	for driving sheet pile a	long Natha	n Road									
C3840-ETS-060	Type III Sheet Pile, 102m along Nathan Road	6d 0d 05-Nov-14	A 21-Nov-14 A	100%				■ Typ	oe III Sheet Pile, 10	02m along Nathan Ro	ad										
C3840-ETS-070	Type III Sheet Plle along Carnarvon Road	12d 0d 14-Jun-14	A 25-Jun-14 A	100%				Type III Sheet Pile al	ong Carnarvon Ro	pad											
C3840-ETS-075	Toe Grouting (only install grout pipe) along Carnarvon Road	8d 0d 27-Jun-14	A 07-Jul-14 A	100%				Toe Grouting (only	install grout pipe) a	along Carnarvon Road	i										
C3840-ETS-080	Toe Grouting for sheet piles along Nathan Road & Carnarvon Road	8d 0d 20-Nov-14	A 03-Dec-14 A	100%				п т	oe Grouting for sh	eet piles along Nathar	n Road & C	arnarvon	Road								
C3840-ETS-090	Mobilization: 2nd Diling Dig and Satur	4d 0d 05-Jul-14 A	14 bil 14 A	100%				■ Mobilization; 2nd F													
C3640-E13-090	Mobilization; 2nd Piling Rig and Setup			100%																	
C3840-ETS-091	Demobilization; 2nd Piling Rig	1d 0d 20-Sep-14	A 20-Sep-14 A	100%				I Demobiliza	ation; 2nd Piling Ri	g											
C3840-ETS-092	Mobilization; Drilling Rig for Curtain Grouting for TM800	1d 0d 26-Sep-14	A 26-Sep-14 A	100%				Mobilization	on; Drilling Rig for	Curtain Grouting for T	M800										
C3840-ETS-093	Demobilization; Drilling Rig for Curtain Grouting	1d 0d 16-Oct-14	A 16-Oct-14 A	100%				I Demot	ilization; Drilling Ri	g for Curtain Grouting											
C3840-ETS-094	Mobilization; Drilling Rig for Curtain Grouting for TM803	1d 0d 22-Oct-14.	A 22-Oct-14 A	100%				l Mobiliz	ation; Drilling Rig f	or Curtain Grouting fo	or TM803										
C3840-ETS-095	Demobilization for Drilling Rig & Mobilization for Curtain Grouting Rig	1d 0d 12-Nov-14	A 12-Nov-14 A	100%						ing Rig & Mobilization		Grouting	Rig								
											or ourtain	Journa	wg.								
C3840-ETS-096	Demobilization: Curtain Grouting Rig	1d 0d 28-Nov-14	A 28-Nov-14 A	100%				I D	emobilization: Curt	ain Grouting Rig											
C3840-ETS-097	Mobilization: Drilling Rig	1d 0d 29-Nov-14	A 29-Nov-14 A	100%				<b>I</b> M	obilization: Drilling	Rig											
C3840-ETS-098	Demobilization: Drilling Rig	1d 0d 12-Dec-14	A 12-Dec-14 A	100%					Demobilization: Dri	lling Rig											
	Poto Poto:	01 lup 19 T				<u> </u>	<u> </u>	<u> </u>				<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>		MDCA4	<u> </u>	<u> </u>	<u> </u>
Current Bar	Critical Remaining Work Data Date:	U I-JUII- I Ø				Mosto	r Dra	gramme Rev	ricion DN	IDDC A 1				-	Date	.——	Revision	MPSA1	Checked		ppro
Actual Work		of 26				iviasie	1 110	gramme Kev	151011 KIV	II NSA I					1lun-18		NO VIOIDIT	BG	- ICCKEU		ppic

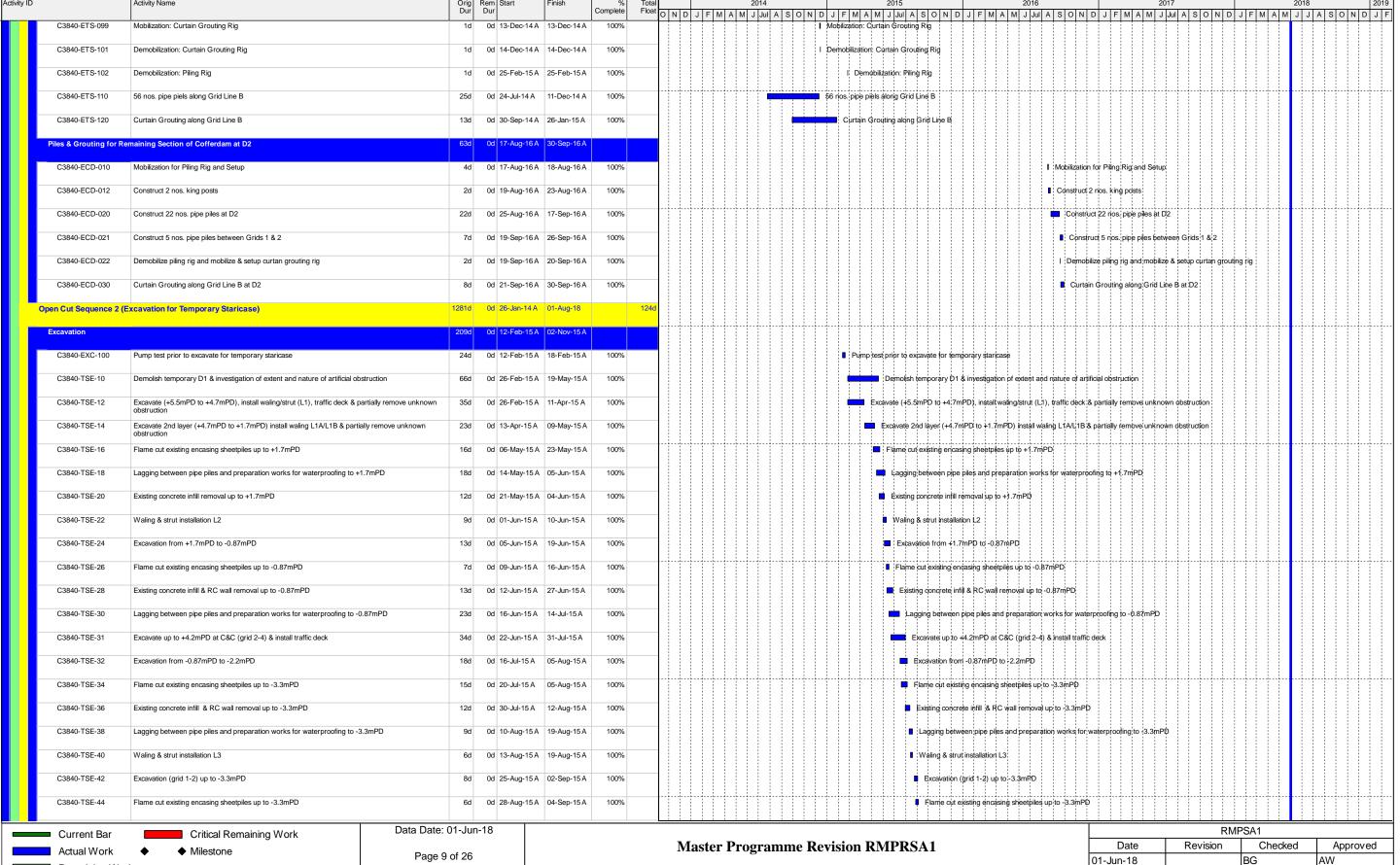


Remaining Work

#### Contract C3840-13C









Remaining Work

#### Contract C3840-13C





01-Jun-18

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D	Activity Name	Origi	Pam	Start	Finish	0/_	Total	$\overline{}$	2014 201	15 2016	20	17	IN A E D	118
	Activity Name	Dur	Rem Dur	Start	I II II II	Complete	Float O N	ı D J	F M A M J Jul A S O N D J F M A M J .				D J F M A M J	JASON
C3840-TSE-48	Lagging between pipe piles and preparation works for waterproofing to -3.3mPD	3d	0d	05-Sep-15 A	08-Sep-15 A	100%				Lagging between pipe piles and preparation				
C3840-TSE-50	Waling & strut installation L4	6d	0d	09-Sep-15 A	15-Sep-15 A	100%				■ Waling & strut installation L4				
C3840-TSE-52	Excavation up to formation at grid 1-2 & up to +3.75mPD at grid 2-4	18d	0d	09-Sep-15 A	30-Sep-15 A	100%				Excavation up to formation at grid 1-2 & up	to +3.75mPD at grid 2-4			
C3840-TSE-58	Lagging between pipe piles and preparation works for waterproofing to formation level	4d	0d	26-Oct-15 A	02-Nov-15 A	100%				Lagging between pipe piles and prepar	ation works for waterproofing to	formation level		
C3840-TSE-60		0.4	0-1	04.0 45.4	00 0 45 4	4.000/			<del> </del>					ļļļļ
C3640-13E-60	Formation & place mass concrete foundation stage 1	Zu	ou	24-3ep-15 A	26-Sep-15 A	100%				Formation & place mass concrete foundation	ii stage i			
C3840-TSE-62	Place mass concrete formation (remaining)	3d	0d	28-Oct-15 A	02-Nov-15 A	100%				Place mass concrete formation (remain	ing)			
Additional Unforseen	n Obstruction	66d	0d	03-Jul-15 A	27-Oct-15 A									
C3840-AOB-100	Prepare MS and carryout trial for trimming bulged section of existing TST Stn wall	1d	0d	03-Jul-15 A	07-Jul-15 A	100%				Prepare MS and carryout trial for trimming bulged se	ction of existing TST Stn wall			
C3840-AOB-102	Investigation, prepare MS and trimming to expose rebar at exising TST Stn wall	21d	0d	11-Jul-15 A	04-Aug-15 A	100%				Investigation, prepare MS and trimming to expose	rebar at exising TST Stn wall			
														ļļļļ
C3840-AOB-104	Remove overpour section of TST Stn wall from +1.0mPD to -1.0mPD	4d	0d	07-Aug-15 A	11-Aug-15 A	100%				Remove overpour section of †ST Stri wall from	1.0mPD to -1.0mPD			
C3840-AOB-106	Prepare MS and trimming to expose rebar at existing subway wall	5d	0d	07-Aug-15 A	12-Aug-15 A	100%				Prepare MS and trimming to expose rebar at ex	sting subway wall			
C3840-AOB-108	Remove overpour section of wall at existing subway from -1.0mPD to -2.0mPD	24	04	14 Aug 15 A	15-Aug-15 A	100%				I Remove overpour section of wall at existing sub	volv from 1 0mPD to 2 0mPD			
C3040-ACB-100	Nemove overpour section of wair at existing subway from 1.0011 b to -2.0011 b	Zu	ou	14-Aug-13A	13-Aug-13A	10078				The shows over pour section of wait at existing subs	vay irdin - ii.oini b to - 2.oini b			
C3840-AOB-110	Remove overpour section of wall at existing subway from -2.0mPD to -3.5mPD	30d	0d	15-Aug-15 A	19-Sep-15 A	100%				Remove overpour section of wall at existing	subway from -2.0mPD to -3.5m	סי		
C3840-AOB-112	Remove overpour section of RC structure at TST Station from -3.5mPD to formation level	29d	0d	21-Sep-15 A	27-Oct-15 A	100%				Remove overpour section of RC structu	re at TST Station from -3.5mPD	to formation level		
				·										
Removal of ACM by Oth	her	31d	0d	08-Oct-14 A	16-Nov-14 A									
C3840-ACM-100	Diversion of existing BS & MCB at the breakthrogh location	6d	0d	08-Oct-14 A	18-Oct-14 A	100%			☐ Diversion of existing BS & MC	CB at the breakthrogh location				
C3840-ACM-105	Relocation of existing EIB at Entrance D, Concourse Level (additional work)	90	Ua	08-Oct-14 A	24-Oct-14 A	100%			■ Relocation of existing EIB at I	Entrance D, Concourse Level (additional work):				
C3840-ACM-110	Removal of ACM by other	6d	0d	16-Nov-14 A	16-Nov-14 A	100%			I Removal of ACM by other	r				
RC Structure (Temporar	ury Staricase)	160d	0d	19-Aug-15 A	12-Mar-16 A									
								][_'						
Section between Grid	id 2 and 4	94d	0d	19-Aug-15 A	20-Nov-15 A									
Bay 1 (Base Slab a	at +0.18mPD)	15d	0d	19-Aug-15 A	31-Aug-15 A									
C2040 TCD 400	Followership on the field	4-1	0-1	40 4 45 4	00 4 45 4	4,000/								
C3840-15R-100	D Falsework & soffit fwk	40	Ud	19-Aug-15 A	22-Aug-15 A	100%				II Falsework & soffit fwk				
C3840-TSR-105	Rebar fixing	4d	0d	25-Aug-15 A	28-Aug-15 A	100%				Rebair fixing				
C3840-TSR-110	Water proofing system, erect fwk & concreting (13.5m3)	10d	0d	20-Aug-15 A	31-Aug-15 A	100%				■ Water proofing system, erect fwk & concreting	(13.5m3)			
								J						
Bay 2 (Walls from	-0.36mPD to +2.2mPD)	6d	0d	01-Sep-15 A	08-Sep-15 A									
C3840-TSR-120	Rebar fixing for sidewall and end wall	2d	0d	01-Sep-15 A	02-Sep-15 A	100%				Rebar fixing for sidewall and end wall				
0														
C3840-TSR-125	5 Install water proofing membrane, fwk erection & concreting (5.0m3)	4d	0d	03-Sep-15 A	08-Sep-15 A	100%				Install water proofing membrane, fwk erection	a & concretting (5.0m3)			
Bay 3 (Staircase at	nt from +2.2 to +4.2mPD)	7d	0d	09-Sep-15 A	16-Sep-15 A									
C2040 TCD 405	Falsework & soffit fwk	0,4	04	00-Son 45 A	10-Sep-15 A	100%				I Falsework & soffit twk				
C304U-13K-135	7 I GIGGWOIN & SUIIR IWN	20	ou	09-0ep-15 A	10-3ер-15 А	100%				. Paisework & Sould WK				
C3840-TSR-140	D Rebar fixing	3d	0d	11-Sep-15 A	14-Sep-15 A	100%				I Rebar fixing				/
C3840-TSR-145	Water proofing, fwk and concreting (6.0m3)	3d	0d	14-Sep-15 A	16-Sep-15 A	100%				l Water proofing, fwk and concreting (6.0m3)				
Bay 4 (Staircase fr	rom +4.2 to +6.1mPD)	6d	0d	17-Sep-15 A	23-Sep-15 A									
C3840-TSR-185	Rebar fixing	4d	0d	17-Sep-15 A	21-Sep-15 A	100%				■ Rebar fixing				
	·													
C3840-TSR-190	Fwk & concreting (14.5m3)	3d	0d	21-Sep-15 A	23-Sep-15 A	100%				I Fwk & concreting (14.5m3)				
<u> </u>	O :: 15 ··· ·· · Data D	ate: 01-Jur	n-18	I					<u> </u>		<u> </u>		RMPSA1	
<ul><li>Current Bar</li></ul>	Chilical Nemalining Work	a.o. 0 1-041	10				,	1/1~	stan Duagnamma Davisian DMD	DDCA1	Date	Revision	Checked	Appre
Actual Work	♦ Milestone Page	ge 10 of 26	6					wias	ster Programme Revision RMP	INSAI	01lun-18	170,1910[]	BG	Appro



Actual Work

Remaining Work

#### Contract C3840-13C

#### Tsim Sha Tsui Station, Carnarvon Road Subway

**Master Programme Revision RMPRSA1** 



Approved

Date

01-Jun-18

Revision

Checked

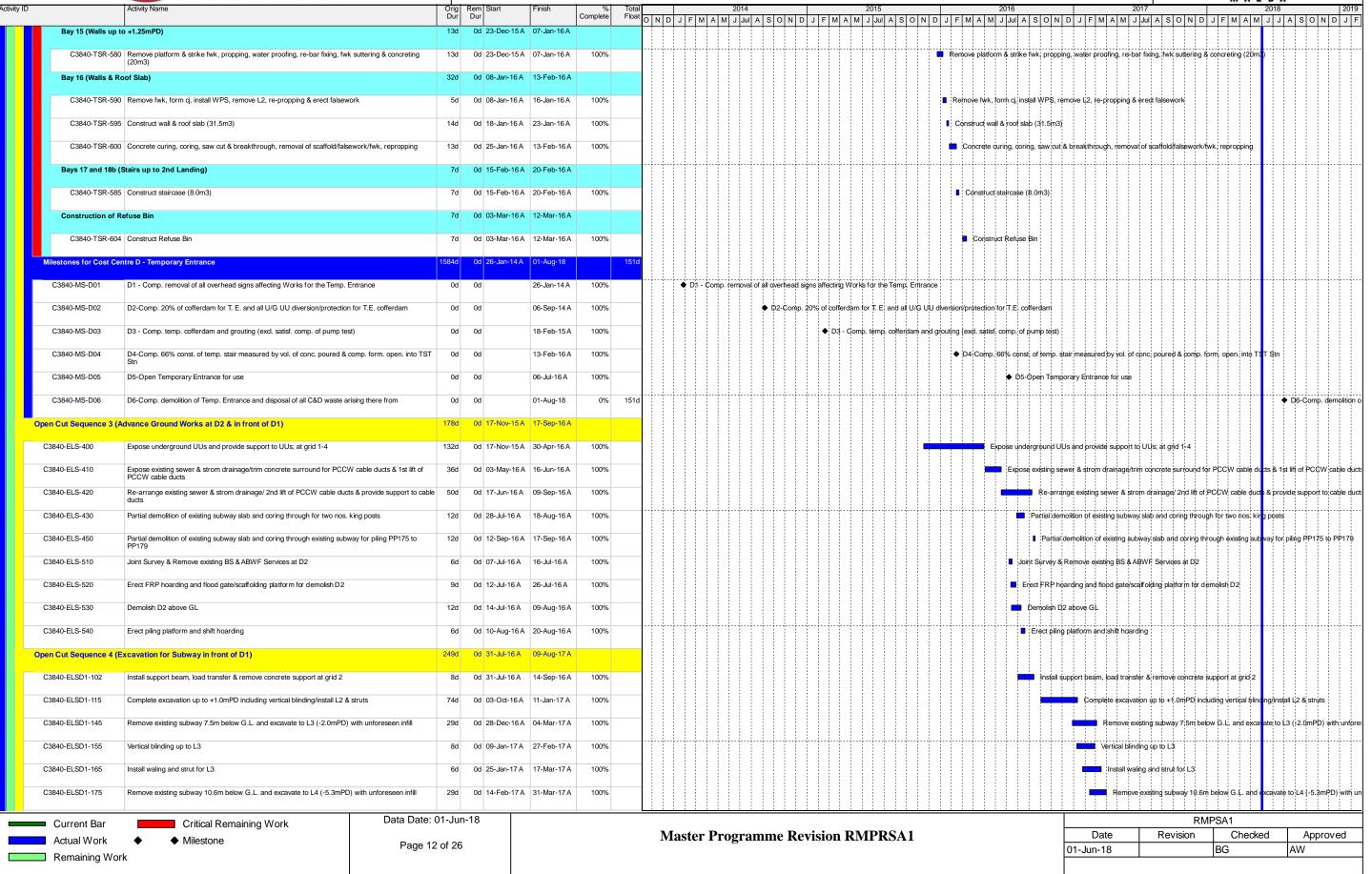
Bay 6 (walls & roof fr	Soffit fwk	10d	Od 24-Sep-15 A	29-Sep-15 A	Complete	Float	I D J	F M A M J Jul A S O N D J	F M A M J Jul A	A S O N D J F M	A M J Jul A S O N	D J F M A M J Jul A S O N D	J F M A M J J	ASOND
C3840-TSR-200 S  C3840-TSR-210 F  Bay 6 (walls & roof fr	Soffit fwk			A 29-Sep-15 A										1 1 1 1 1 1
C3840-TSR-210 F		2d	0d 24 Cop 45 A											
C3840-TSR-210 F			00 24-3ep-13 A	25-Sep-15 A	100%					I Soffit fwk				
Bay 6 (walls & roof fr				,										
	Rebar fixing, fwk for risers & concreting (2.0m3)	2d	0d 26-Sep-15 A	29-Sep-15 A	100%					Rebar fixing, fwk for	isers & concreting (2.0m3)			
C3840-TSR-150 S	rom 2.2mPD to 4mPD)	12d	0d 02-Oct-15 A	12-Oct-15 A										.
03040-1310-130	Strike fwk, form cj, install waterproofing membrane & rebar fixing	44	0d 02-Oct-15 A	06-Oct-15 A	100%					Strike full form civil	nstall waterproofing membra	ne & rehan fiving		
	on the twe, form of motion water probling membrane a robal hang	144	04 02 001 1071	00 00 1071	10070					D Game TWK, Torris Gy,	istaii waterprooning membre	no a rosal imig		
C3840-TSR-165 F	Erect fwk/working platform & concreting (16.0m3)	5d	0d 07-Oct-15 A	12-Oct-15 A	100%		† <u>†</u>			■ Erect fwk/working;	latform & concreting (16.0m	3)		
Bay 7 (walls & roof fr	rom +4mPD to +5.7mPD)	6d	0d 13-Oct-15 A	19-Oct-15 A										
COOMO TOD OME (	Sheller field annual consider a slatform from al 0 solver fining	0.4	04 40 04 45 4	44.0-4.45.4	4000/					0.3.4.1				
C3840-15R-215 S	Strike fwk, remove working platform, form cj & rebar fixing	20	0d 13-Oct-15 A	14-Oct-15 A	100%					Strike twk, remove	working platform, form dj &	ebar ixing		
C3840-TSR-225 F	Falsework, fwk, working platform & concreting (13.5m3)	4d	0d 15-Oct-15 A	19-Oct-15 A	100%					Falsework, fwk, w	orking platform & concreting	(13.5m3)		
Bay 8 (walls & roof a	bove +5.7mPD)	45d	0d 20-Oct-15 A	20-Nov-15 A										
C3840-TSR-230 S	Strike fwk, remove working platform, form cj, erect fwk & rebar fixing	10d	0d 20-Oct-15 A	31-Oct-15 A	100%					Strike fwk, remov	e working platform, form cj	erect fwk & rebar fixing		
C3840-TSR-235 I	Falsework, fwk, working platform & concreting (33.5m3)	104	0d 20-Oct-15 A	02-Nov-15 A	100%					■ Falsework fulk	working platform & concreting	g (33.5m3)		
55040-15IX-255	account,, working piction in a controlling (co.onto)	100	50 20 OUF 13 A	02 140V-10 A	10078					- Idisawork, iwk,	g place in a concletii	9 (30.5.10)		
C3840-TSR-236 F	Frect fwk and concreting (2m3) for upstand wall	2d	0d 03-Nov-15 A	05-Nov-15 A	100%					■ Erect fwk and co	ncreting (2m3) for upstand	vall		
C3840-TSR-237 C	Concrete curing and remove fwk/falsework	15d	0d 03-Nov-15 A	20-Nov-15 A	100%					Concrete curin	g and remove fwk/falsework			
Section between Grid 1	Land 2	111.4	0d 29 Oct 15 A	12 Mar 16 A										
Section between Grid	anu z	1110	0d 28-Oct-15 A	12-Wai-10 A										.
Bay 9 (Collar Frame o	up to -4.3mPD)	35d	0d 28-Oct-15 A	16-Nov-15 A		·								
														. ! ! ! ! .
C3840-TSR-500 C	Coring dowel bars holes & form groove/cj	12d	0d 28-Oct-15 A	11-Nov-15 A	100%					Coring dowel ba	rs holes & form groove/cj			
C2040 TCD 505 (			04 04 Nov. 45 A	00 Nov. 45 A	4000/						6			
C3840-1 SR-505 II	nstall waterproofing membrane/dowel bars	50	0d 04-Nov-15 A	09-Nov-15 A	100%					Install waterprod	fing membrahe/dowel bars			
C3840-TSR-510 F	Rebar fixing	2d	0d 11-Nov-15 A	12-Nov-15 A	100%					I Rebar fixing				
	•													
C3840-TSR-515 F	End fwk shuttering & concreting collar to slab (2.5m3)	3d	0d 13-Nov-15 A	16-Nov-15 A	100%					■ End fwk shutte	ing & concreting collar to sla	b (2.5m3)		
Bay 12 (Base Slab at	-4.32mPD)	13d	0d 04-Nov-15 A	19-Nov-15 A										. ! ! ! ! !
C3840-TSR-540 (	Construct base slab (20.0m3)	13d	0d 04-Nov-15 A	19-Nov-15 A	100%					Construct base	slah (20 0m3)			
050 10 1 010 10	Solida Saco Sac (Estatio)	100	04 01 1107 1071		10070						525 (25.5.1.5)			. ! ! ! ! !
Bay 10 (Collar Frame	e up to -2mPD)	9d	0d 20-Nov-15 A	27-Nov-15 A										
C3840-TSR-520 F	Frect working platform, install waterproofing membrane & rebar fixing	3d	0d 20-Nov-15 A	24-Nov-15 A	100%					■ Erect working	platform, install waterproofin	g membrane & rebar fixing		
COMO TOD FOR	Fwk & concreting to -2.2mPD (1.5m3)	1.4	0d 25-Nov-15 A	27-Nov 45 A	100%					I Evel o access	ting to -2.2mPD (1.5m3)			
C304U-13K-525 F	WA & WINDERING TO -2.2HTD (1.0HD)	40	JU 25-110V-15 A	A CT-VUVI-12	100%					I FWK & CONCRE	η ιυ;-∠.,‡ΠΙΕυ (1.5M3)			
Bay 13 (Walls up to -	3.2mPD)	7d	0d 27-Nov-15 A	07-Dec-15 A			† <u></u>							
C3840-TSR-550 I	nstall water proofing system, rebar fixing for W1, W2, W3 & 250 mm partition wall	3d	0d 27-Nov-15 A	30-Nov-15 A	100%					I Install water p	roofing system, rebar fixing	or W1, W2, W3 & 250 mm partition wall		
000 10 700 500			01045 (-:	07.0	4.555									
C3840-TSR-555 E	Erect working platform, fwk shuttering & concreting (9.0m3)	4d	0d 01-Dec-15 A	07-Dec-15 A	100%					■ Erect workin	g platform, fwk shuttering &	concreting (9.0m3)		
Bay 11 (Collar Frame	up to +1.2mPD)	12d	0d 30-Nov-15 A	07-Dec-15 A										
Lay II (Ooliai I laille		120	34 30 110V-13A											
C3840-TSR-530 F	Frect working platform, Install waterproofing membranne & rebar fixing	5d	0d 30-Nov-15 A	03-Dec-15 A	100%					Frect working	platform, Install waterproof	ing membranne & rebar fixing		
C3840-TSR-535 F	Fwk & concreting to collar (4.0m3)	7d	0d 01-Dec-15 A	07-Dec-15 A	100%			1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		Fwk & concr	eting to collar (4.0m3)			
Dougle Off II	0.00mPD) and Day 40m (Chair)		04 00 5 45 1	00 D. 45 f										
Bay 14 (Walls up to -	-0.96mPD) and Bay 18a (Stair)	6d	0d 08-Dec-15 A	28-Dec-15 A										
C3840-TSR-560 (	Construct bay 14 (18.5m3)	6d	0d 08-Dec-15 A	15-Dec-15 A	100%					Construct b	ay 14 (18.5m3)			
222.2 10.0 000	, , , , , ,		2 2 2 3 3 7 7											
C3840-TSR-602 (	Construct bay 18a (3.5m3)	5d	0d 19-Dec-15 A	28-Dec-15 A	100%					■ Construct	bay 18a (3.5m3)			
								<u> </u>		<u>                                     </u>		<u> </u>		<u> </u>
Current Bar	Critical Remaining Work Data Da	ite: 01-Jun-	18 I									RM	PSA1	

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	Activity Name	Orig Ren Dur Du	n Start	Finish	% Complete	Total Float O	ND	JIFIN	MIAIMI	2014 J Jul	Alslolnic	JF	MIAIMI,	2015 J  Jul  A	Islol	ND JF	МАМ	2016 J Jul	Islol	N D J F M	2 A M J	017  Jul A S O N	D J F	мІАІм	2018	AISIC	OINI
C3840-ELSD1-177	Breaking existing bottom slab to -6.0mPD at grid 1-2	1d 0d	d 20-Mar-17 A	13-Apr-17 A	100%															1	Breaki	ng existing botton	slab to -6.0m	PD at gr	d 1-2		
C3840-ELSD1-179	Mass concrete infill, install waling/strut L4 & vertical blinding at grid 1-2	1d 0d	d 18-Apr-17 A	28-Apr-17 A	100%																■ Mass	concrete infill, In	tall waling/str	ut L4 & ve	artical blir	nding at ç	grld 1
C3840-ELSD1-185	Vertical blinding up to L4 at grid 2-4	8d 0d	d 29-Apr-17 A	10-May-17 A	100%														++++		■ Ver	ical blinding up to	L4 at grid 2-	4			
C3840-ELSD1-195	Install waling and strut for L4 at grid 2-3.5	6d 0d	d 23-Mar-17 A	22-Apr-17 A	100%																Instal	waling and strut	or L4 at grid	2-3.5			
C3840-ELSD1-205	Excavate up to L5, from -5.3 to -7.0mPD at grid 2-3.5	27d 00	d 10-Apr-17 A	17-May-17 A	100%																Ex	cavate up to L5, f	om -5.3 to -7	.0mPD a	at arid 2-P	3.5	
	Install waling and strut for L5		d 15-May-17 A		100%																	stall wating and s			9		
	·																										
	Excavation to formation level including for sump pit	48d 0d	d 18-May-17 A	02-Aug-17 A	100%																	Excavation				sump pit	
C3840-ELSD1-245	Vertical blinding from L4 to bottom	8d 0d	d 26-Jun-17 A	09-Aug-17 A	100%																	Vertical bl	nding from L4	to bottor			
C3840-ELSD1-255	Install waling and strut for L6	6d 0d	d 13-Jun-17 A	30-Jun-17 A	100%																•	Install waling a	nd strut for L6	5			
C3840-ELSD1-330	Make formation and Blinding	4d 0d	d 26-Jun-17 A	05-Aug-17 A	100%																	Make form	ation and Blir	nding			
Open Cut Sequence 4 (Ex	cavation for D2 & Subway in front of D2)	201d 0d	d 26-Sep-16 A	18-May-17 A																							
C3840-ELSD2-100	Pump test at C&C Cofferdam	24d 0d	d 26-Sep-16 A	11-Oct-16 A	100%														- F	ump test at C&C	Cofferdar						
C3840-ELSD2-115	Demolish D2 below GL with unforeseen infill & modification to traffic steel deck with L1 installation	40d 0d	d 04-Oct-16 A	25-Nov-16 A	100%															Demolish D2	below GL	with unforeseeh	nfill & modifica	ation to tr	affic steel	deck wit	ith L1
C3840-ELSD2-122	Temporary supports for relocated UUs at grid 4-5	15d 0d	d 05-Oct-16 A	09-Nov-16 A	100%															Temporary su	ports for r	located UUs at o	rid 4-5				
C3840-ELSD2-145	Excavate up to L2, from +4.0 to +1.0mPD	13d 0d	d 29-Oct-16 A	28-Nov-16 A	100%															Excavate up	to L2, fro	n +4.0 to +1.0mP					
C3840-ELSD2-155	Vertical blinding up to L2	8d 0d	d 01-Dec-16 A	15-Dec-16 A	100%															■ Vertical bli	nding up to	L2					
	Install waling and strut for L2		d 22-Nov-16 A		100%															■ Install walir							
					100%		ļļ	ļ															2.0%00 (22	m2 robb	40Em2	00  \	
	Excavate up to L3, from +1.0 to -2.0mPD (23m3 rock + 485m3 soil)		d 13-Dec-16 A																			L3, from +1.0 to	-2.0IIIPD (23	III3 TOCK	4001113	SOII)	
	Vertical blinding up to L3	8d 0d	d 22-Dec-16 A	04-Jan-17 A	100%															■ Vertical							
C3840-ELSD2-195	Install waling and strut for L3	6d 0d	d 19-Dec-16 A	10-Feb-17 A	100%															ns	all waling a	nd strut for L3					
C3840-ELSD2-205	Excavate up to L4, inspection for formation by MTRC (RGE) at grid 4.0-5.5	40d 0d	d 11-Feb-17 A	27-Mar-17 A	100%															-	Excavate	up to L4, inspec	on for format	ion by M	RC (RG	E) at grid	id 4.0
C3840-ELSD2-207	El/005, replacement of CDG with mass concrete infill at grid 4.0-5.5	4d 00	d 28-Mar-17 A	31-Mar-17 A	100%																El/005,	eplacement of C	G with mass	concrete	infill at gr	rid 4.0-5.	i.5
C3840-ELSD2-215	Vertical blinding up to L4 at grid 4.0-5.5	10d 0d	d 03-Apr-17 A	22-Apr-17 A	100%																Vertic	al blinding up to L	1 at grid 4.0-5	5.5			
C3840-ELSD2-225	Install waling for L4 at grid 3.5-4.0	6d 0d	d 23-Mar-17 A	22-Apr-17 A	100%																Instal	waling for L4 at	rid 3.5-4.0				
C3840-ELSD2-235	Excavate up to formation & inspection by MTRC (RGE) at grid 3.5-4.0	12d 0d	d 29-Mar-17 A	13-Apr-17 A	100%																Excava	te up to formation	& inspection	by MTRO	(RGE)	at grid 3	3.5-4.0
C3840-ELSD2-237	El/005, replacement of CDG with mass concrete infill at grid 3.5-4.0	5d 0d	d 06-Apr-17 A	18-Apr-17 A	100%																■ EI/005	replacement of	DG with ma	ss concre	te infill at	grid 3.5	5-4.0
C3840-ELSD2-240	Vertical blinding up to formation at grid 3.5-4.0	8d 0d	d 11-May-17 A	18-May-17 A	100%																■ Ve	tical blinding up t	formation at	grid 3.5-	4.0		
Open Cut Sequence 5 (Co	onstruction of Subway & D2)	366d 12d	d 21-Mar-17 A	14-Jun-18		163d																					
RC Structure at D1 Side (	Between Grids 1 and 1.8)	162d <u>0</u> 0	d 21-Mar-17 A	26-Sep-17 A																							
	Coring and preparation works for TST Station wall		d 21-Mar-17 A		100%																Corina	and preparation	vorks for TS1	Station	wal		
	Construct Bay 1 (collar base)		d 12-Apr-17 A		100%																	onstruct Bay 1 (co					
	Construct Bay 2 (collar beam and C1 column)		d 31-May-17 A		100%																	Construct Bay 2					
C3840-STR-D1-112	Dismantle falsework & formwork including curing for bay 2	8d 0d	d 10-Jun-17 A	17-Jun-17 A	100%																•	Dismantle falsev	ork & formwo	ork includ	ng during	j for bay	/2
C3840-STR-D1-120	Construct Bay 3 (base slab for escalator pit)	13d 0d	d 10-May-17 A	22-May-17 A	100%																■ C	nstruct Bay 3 (b	se slab for es	scalator p	•		
Current Bar	Critical Remaining Work Data Date:	01-Jun-18	3					1 1 1	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	1 1	<u> </u>	<u> </u>		<u> </u>	<u> </u>		1 1 1		RMPSA1				<u>=</u>
Actual Work	♦ Milestone	3 of 26					M	[aster	r Pro	grai	nme Re	evisio	n RM	PRS	SA1					Da	te	Revisio	า   เ	Check	ed	Ar	ppro







		1 2 1 2 1 2 1 2	1								
	Activity Name	Orig Rem Start Dur Dur	Finish	Complete %	Float	2014 O N D J F M A M J Jul A S O N [	2015 D J F M A M J Jul A S O N	D J F M A	2016 M J Jul A S O N		2017 2018 J Juli A S O N D J F M A M J J A S O N
C3840-STR-D1-130	Construct Bay 4 (concourse base slab)	12d 0d 23-May-	7 A 29-May-17 A	100%						D.	Construct Bay 4 (concourse base slab)
C3840-STR-D1-132	Construct Bay 5a (TER room North Wall)	10d 0d 12-Jun-1	'A 23-Jun-17 A	100%							Construct Bay 5a (TER room North Wall)
C3840-STR-D1-132b	Construct Bay 5b (TER room bottom slab)	10d 0d 24-Jun-1	'A 13-Jul-17 A	100%							Construct Bay 5b (TER room bottom slab)
C3840-STR-D1-133	Dismantle falsework for bay 5	2d 0d 25-Sep-	7 A 26-Sep-17 A	100%							I Dismantle falsework for bay 5
C2940 STD D4 424	Construct Bay 6a (TER room North & West Wall)	12d 0d 14-Jul-17	Δ 11 Δυα 17 Δ	100%							Construct Bay 6a (TER room North & West Wall)
C3840-STR-D1-135	Construct Bay 6b (TER room top slab)	17d 0d 12-Aug-	7 A 31-Aug-17 A	100%							Construct Bay 6b (TER room top slab)
C3840-STR-D1-136	Dismantle falsework including curing time for bay 6	16d 0d 01-Sep-	7 A 25-Sep-17 A	100%							Dismantle falsework including curing time for bay
Additional Remedial Wo	rks for Permanent Structures	30d 4d 09-Jan-1	A 05-Jun-18		171d						
C3840-RMD-100	Issue Instruction (email) by MTRC for Additional Remedial Works for Permane	ent Structures 0d 0d	09-Jan-18 A	100%							♦ [ssue Instruction (émail) by MTR¢ fo
C3840-RMD-110	Construct RC Cross Beam underneath ST-01	30d 0d 10-Jan-1	A 12-Feb-18 A	100%							Construct RC Cross Beam unde
	Construct RC Collar Beam above +3.6mPD	30d 4d 10-Jan-1			171d						Çonştruçt RC Qolla
C3640-RMD-120	Construct RC Collab Bearth above +3.6ftirD	300 40 10-Jan-1	05-Juli-16	63.3%	1710						
C3840-RMD-130	Construct Steel Beam for Plant Room	30d 0d 10-Jan-1	12-Feb-18 A	100%							Construct Steel Beam for Plant F
Reinstament Works in F	ront of Entrance D2	84d 12d 15-Mar-	3 A 14-Jun-18		12d						
C3840-STR-300	Backfilling up to +2.70mPD	76d 0d 15-Mar-	3 A 24-Mar-18 A	100%							■ Backfilling up to +2.70mPD
C3840-STR-302	Reinstament of gasmain by HKG	8d 0d 26-Mar-	3 A 10-Apr-18 A	100%							Reinstament of gasmain b
C3840-STR-304	Backfilling & modification of traffic deck	12d 0d 11-Apr-1	A 30-Apr-18 A	100%							■ Backfilling & modificatio
C3840-STR-306	Reinstatement of DSD sewer and storm pipe & U/U reinstatement	12d 0d 02-May-	R Δ 16-May-18 Δ	100%							■ Reinstatement of DSI
C3840-STR-308	Reinstatement of road kerbs and paving block	24d 12d 17-May-	8 A 14-Jun-18	50%	12d						Reinstatement of
RC Structure at D1 Side	(Between Grids 1.8 and 3.3)	209d 0d 22-Jul-17	A 07-Mar-18 A								
C3840-STR-290	Concrete curing (concrete strength reach 40mPa) & removal of falsework/fwk	for bay 30 9d 0d 25-Nov-	7 A 27-Dec-17 A	100%							Concrete curing (concrete strength rea
C3840-STR-310	Remove underpinning (load transfer) at Plant Room	25d 0d 13-Feb-	3 A 07-Mar-18 A	100%							Remove underpinning (load tr
	Remove underpinning (load transfer) at Plant Room  Construct Bay 21 (base slab of plant room except for pump pit)	25d 0d 13-Feb- 7d 0d 07-Aug-									Remove underpinning (load tr
C3840-STR-D1-140	Construct Bay 21 (base slab of plant room except for pump pit)	7d 0d 07-Aug-	7 A 22-Aug-17 A	100%							Construct Bay 21 (base stats of plant room except for
C3840-STR-D1-140	Construct Bay 21 (base slab of plant room except for pump pit)  Construct Bay 22a (side walls of plant room )	7d 0d 07-Aug- 21d 0d 23-Aug-	7A 22-Aug-17A 7A 18-Sep-17A	100%							Construct Bay 21 (base slab of plant room except for Construct Bay 22a (side walls of plant room)
C3840-STR-D1-140 C3840-STR-D1-150 C3840-STR-D1-155	Construct Bay 21 (base slab of plant room except for pump pit)  Construct Bay 22a (side walls of plant room )  Construct Bay 22b (base slab of subway)	7d 0d 07-Aug-	7A 22-Aug-17A 7A 18-Sep-17A	100%							Construct Bay 21 (base slati of plant room except for Construct Bay 22a (side walls of plant room)  Construct Bay 22b (base slab of subway)
C3840-STR-D1-140 C3840-STR-D1-150 C3840-STR-D1-155	Construct Bay 21 (base slab of plant room except for pump pit)  Construct Bay 22a (side walls of plant room )	7d 0d 07-Aug- 21d 0d 23-Aug-	7A 22-Aug-17A 7A 18-Sep-17A 7A 22-Sep-17A	100%							Construct Bay 21 (base slab of plant room except for Construct Bay 22a (side walls of plant room)
C3840-STR-D1-140  C3840-STR-D1-150  C3840-STR-D1-155  C3840-STR-D1-170	Construct Bay 21 (base slab of plant room except for pump pit)  Construct Bay 22a (side walls of plant room )  Construct Bay 22b (base slab of subway)	7d 0d 07-Aug- 21d 0d 23-Aug- 10d 0d 28-Aug-	7 A 22-Aug-17 A 7 A 18-Sep-17 A 7 A 22-Sep-17 A 7 A 07-Oct-17 A	100% 100% 100%							Construct Bay 21 (base slati of plant room except for Construct Bay 22a (side walls of plant room)  Construct Bay 22b (base slab of subway)
C3840-STR-D1-140 C3840-STR-D1-150 C3840-STR-D1-155 C3840-STR-D1-170 C3840-STR-D1-180	Construct Bay 21 (base slab of plant room except for pump pit)  Construct Bay 22a (side walls of plant room )  Construct Bay 22b (base slab of subway)  Curing & strike formwork/falsework	7d 0d 07-Aug- 21d 0d 23-Aug- 10d 0d 28-Aug- 14d 0d 23-Sep-	7A 22-Aug-17A 7A 18-Sep-17A 7A 22-Sep-17A 7A 07-Oct-17A 7A 30-Sep-17A	100% 100% 100%							Construct:Bay 21; (base slati of plant room except for Construct Bay 22a (side walls of plant room)  Construct:Bay 22b (base slab of subway)  Curing & strike formwork/alsework
C3840-STR-D1-140 C3840-STR-D1-150 C3840-STR-D1-155 C3840-STR-D1-170 C3840-STR-D1-180 C3840-STR-D1-200	Construct Bay 21 (base slab of plant room except for pump pit)  Construct Bay 22a (side walls of plant room )  Construct Bay 22b (base slab of subway)  Curing & strike formwork/falsework  Construct staircase ST05 & Air Vent Wall & Slab	7d 0d 07-Aug- 21d 0d 23-Aug- 10d 0d 28-Aug- 14d 0d 23-Sep- 13d 0d 23-Sep-	7A 22-Aug-17A 7A 18-Sep-17A 7A 22-Sep-17A 7A 07-Oct-17A 7A 30-Sep-17A A 28-Jul-17A	100% 100% 100% 100%							Construct Bay 21 (base slab of plant room except for Construct Bay 22a (side walls of plant room)  Construct Bay 22b (base slab of subway)  Curing & strike formwork/alsework  Construct staircase ST05 & Air; Vent Wal & Slab
C3840-STR-D1-140 C3840-STR-D1-150 C3840-STR-D1-155 C3840-STR-D1-170 C3840-STR-D1-180 C3840-STR-D1-200 C3840-STR-D1-210	Construct Bay 21 (base slab of plant room except for pump pit)  Construct Bay 22a (side walls of plant room )  Construct Bay 22b (base slab of subway)  Curing & strike formwork/falsework  Construct staircase ST05 & Air Vent Wall & Slab  Construct Bay 23A (base slab for sump pit)  Construct Bay 23B (remaining base slab for plant room)	7d 0d 07-Aug- 21d 0d 23-Aug- 10d 0d 28-Aug- 14d 0d 23-Sep- 13d 0d 23-Sep- 3d 0d 22-Jul-17	7A 22-Aug-17A 7A 18-Sep-17A 7A 22-Sep-17A 7A 07-Oct-17A 7A 30-Sep-17A A 28-Jul-17A 7A 22-Aug-17A	100% 100% 100% 100%							Construct Bay 21 (base slab of plant room except for Construct Bay 22a (side walls of plant room)  Construct Bay 22b (base slab of subway)  Curing & strike formwork/alsework  Construct staircase ST05 & Air Vent Wall & Slab  Construct Bay 23A (base slab for sump pit)  Construct Bay 23B (femaining base slab for plant room
C3840-STR-D1-140  C3840-STR-D1-150  C3840-STR-D1-155  C3840-STR-D1-170  C3840-STR-D1-180  C3840-STR-D1-200  C3840-STR-D1-210  C3840-STR-D1-212	Construct Bay 21 (base slab of plant room except for pump pit)  Construct Bay 22a (side walls of plant room )  Construct Bay 22b (base slab of subway)  Curing & strike formwork/falsework  Construct staircase ST05 & Air Vent Wall & Slab  Construct Bay 23A (base slab for sump pit)  Construct Bay 23B (remaining base slab for plant room)  Construct Bay 24 (side walls of plant room up to L5)	7d 0d 07-Aug- 21d 0d 23-Aug- 10d 0d 28-Aug- 11d 0d 23-Sep- 13d 0d 23-Sep- 3d 0d 22-Jul-17 6d 0d 14-Aug- 10d 0d 04-Sep-	7A 22-Aug-17A 7A 18-Sep-17A 7A 22-Sep-17A 7A 07-Oct-17A 7A 30-Sep-17A A 28-Jul-17A 7A 22-Aug-17A 7A 18-Sep-17A	100%  100%  100%  100%  100%  100%  100%							Construct Bay 21 (base slab of plant room except for Construct Bay 22a (side walls of plant room)  Construct Bay 22b (base slab of subway)  Curing & strike formwork/alsework  Construct staircase ST 05 & Air Vent Wall & Slab  Construct Bay 23A (base slab for sump pit)  Construct Bay 23B (femaining base slab for plant room up to L6
C3840-STR-D1-140  C3840-STR-D1-150  C3840-STR-D1-155  C3840-STR-D1-170  C3840-STR-D1-180  C3840-STR-D1-200  C3840-STR-D1-212  C3840-STR-D1-212	Construct Bay 21 (base slab of plant room except for pump pit)  Construct Bay 22a (side walls of plant room )  Construct Bay 22b (base slab of subway)  Curing & strike formwork/falsework  Construct staircase ST05 & Air Vent Wa1 & Slab  Construct Bay 23A (base slab for sump pit)  Construct Bay 23B (remaining base slab for plant room)  Construct Bay 24 (side walls of plant room up to L5)  Construct Bay 25 (side walls of plant room & subway base slab)	7d 0d 07-Aug- 21d 0d 23-Aug- 10d 0d 28-Aug- 11d 0d 23-Sep- 13d 0d 23-Sep- 3d 0d 22-Jul-1; 6d 0d 14-Aug- 10d 0d 04-Sep- 9d 0d 04-Sep-	7A 22-Aug-17A 7A 18-Sep-17A 7A 22-Sep-17A 7A 07-Oct-17A 7A 30-Sep-17A A 28-Jul-17A 7A 22-Aug-17A 7A 18-Sep-17A 7A 18-Sep-17A	100% 100% 100% 100% 100% 100% 100%							Construct Bay 21 (base slab of plant room except for Construct Bay 22a (side walls of plant room)  Construct Bay 22b (base slab of subway)  Curing & strike formwork/alsework  Construct staircase ST05 & Air Vent Wal & Slab  Construct Bay 23A (base slab for sump pit)  Construct Bay 23B (femaining base slab for plant room up to L6  Construct Bay 24 (side walls of plant room & subw
C3840-STR-D1-140  C3840-STR-D1-150  C3840-STR-D1-155  C3840-STR-D1-170  C3840-STR-D1-180  C3840-STR-D1-200  C3840-STR-D1-212  C3840-STR-D1-212	Construct Bay 21 (base slab of plant room except for pump pit)  Construct Bay 22a (side walls of plant room )  Construct Bay 22b (base slab of subway)  Curing & strike formwork/falsework  Construct staircase ST05 & Air Vent Wall & Slab  Construct Bay 23A (base slab for sump pit)  Construct Bay 23B (remaining base slab for plant room)  Construct Bay 24 (side walls of plant room up to L5)	7d 0d 07-Aug- 21d 0d 23-Aug- 10d 0d 28-Aug- 11d 0d 23-Sep- 13d 0d 23-Sep- 3d 0d 22-Jul-17 6d 0d 14-Aug- 10d 0d 04-Sep-	7A 22-Aug-17A 7A 18-Sep-17A 7A 22-Sep-17A 7A 07-Oct-17A 7A 30-Sep-17A A 28-Jul-17A 7A 22-Aug-17A 7A 18-Sep-17A 7A 18-Sep-17A	100%  100%  100%  100%  100%  100%  100%							Construct Bay 21 (base slab of plant room except for Construct Bay 22a (side walls of plant room)  Construct Bay 22b (base slab of subway)  Curing & strike formwork/alsework  Construct staircase ST 05 & Air Vent Wall & Slab  Construct Bay 23A (base slab for sump pit)  Construct Bay 23B (femaining base slab for plant room up to L6
C3840-STR-D1-140  C3840-STR-D1-150  C3840-STR-D1-155  C3840-STR-D1-170  C3840-STR-D1-180  C3840-STR-D1-200  C3840-STR-D1-212  C3840-STR-D1-212  C3840-STR-D1-214  C3840-STR-D1-215	Construct Bay 21 (base slab of plant room except for pump pit)  Construct Bay 22a (side walls of plant room )  Construct Bay 22b (base slab of subway)  Curing & strike formwork/falsework  Construct staircase ST05 & Air Vent Wa1 & Slab  Construct Bay 23A (base slab for sump pit)  Construct Bay 23B (remaining base slab for plant room)  Construct Bay 24 (side walls of plant room up to L5)  Construct Bay 25 (side walls of plant room & subway base slab)	7d 0d 07-Aug- 21d 0d 23-Aug- 10d 0d 28-Aug- 11d 0d 23-Sep- 13d 0d 23-Sep- 3d 0d 22-Jul-1; 6d 0d 14-Aug- 10d 0d 04-Sep- 9d 0d 04-Sep-	7A 22-Aug-17A 7A 18-Sep-17A 7A 22-Sep-17A 7A 07-Oct-17A 7A 30-Sep-17A A 28-Jul-17A 7A 22-Aug-17A 7A 18-Sep-17A 7A 18-Sep-17A 7A 18-Or-Oct-17A	100% 100% 100% 100% 100% 100% 100%							Construct Bay 21 (base slab of plant room except for Construct Bay 22a (side walls of plant room)  Construct Bay 22b (base slab of subway)  Curing & strike formwork/alsework  Construct staircase ST05 & Air Vent Wal & Slab  Construct Bay 23A (base slab for sump pit)  Construct Bay 23B (femaining base slab for plant room up to L6  Construct Bay 24 (side walls of plant room & subw
C3840-STR-D1-140 C3840-STR-D1-150 C3840-STR-D1-155 C3840-STR-D1-170 C3840-STR-D1-180 C3840-STR-D1-200 C3840-STR-D1-212 C3840-STR-D1-212 C3840-STR-D1-214 C3840-STR-D1-215 C3840-STR-D1-216	Construct Bay 21 (base slab of plant room except for pump pit)  Construct Bay 22a (side walls of plant room )  Construct Bay 22b (base slab of subway)  Curing & strike formwork/falsework  Construct staircase ST05 & Air Vent Wa1 & Slab  Construct Bay 23A (base slab for sump pit)  Construct Bay 23B (remaining base slab for plant room)  Construct Bay 24 (side walls of plant room up to L5)  Construct Bay 25 (side walls of plant room & subway base slab)  Curing & dismantle falsework for Bay 25	7d 0d 07-Aug- 21d 0d 23-Aug- 10d 0d 28-Aug- 11d 0d 23-Sep- 13d 0d 23-Sep- 3d 0d 22-Jul-17 6d 0d 14-Aug- 10d 0d 04-Sep- 9d 0d 04-Sep- 14d 0d 19-Sep-	7A 22-Aug-17A 7A 18-Sep-17A 7A 22-Sep-17A 7A 07-Oct-17A 7A 30-Sep-17A A 28-Jul-17A 7A 22-Aug-17A 7A 18-Sep-17A 7A 18-Sep-17A 7A 18-Oct-17A 7A 10-Oct-17A	100% 100% 100% 100% 100% 100% 100% 100%							Construct Bay 21 (base slab of plant room except for Construct Bay 22a (side walls of plant room)  Construct Bay 22b (base slab of subway)  Curing & strike formwork/alsework  Construct staircase ST05 & Air Vent Wal & Slab  Construct Bay 23A (base slab for sump pit)  Construct Bay 23B (femaining base slab for plant room  Construct Bay 24 (side walls of plant room up to L8  Construct Bay 25 (side walls of plant room & subw  Curing & dismantle falsework for Bay 25
C3840-STR-D1-140  C3840-STR-D1-150  C3840-STR-D1-155  C3840-STR-D1-170  C3840-STR-D1-180  C3840-STR-D1-210  C3840-STR-D1-212  C3840-STR-D1-214  C3840-STR-D1-215  C3840-STR-D1-216  C3840-STR-D1-216	Construct Bay 21 (base slab of plant room except for pump pit)  Construct Bay 22a (side walls of plant room )  Construct Bay 22b (base slab of subway)  Curing & strike formwork/falsework  Construct staircase ST05 & Air Vent Wall & Slab  Construct Bay 23A (base slab for sump pit)  Construct Bay 23B (remaining base slab for plant room)  Construct Bay 24 (side walls of plant room up to L5)  Construct Bay 25 (side walls of plant room & subway base slab)  Curing & dismantle falsework for Bay 25  Construct Bay 26 (side walls of subway up to escalator pit base slab)	7d 0d 07-Aug- 21d 0d 23-Aug- 10d 0d 28-Aug- 11d 0d 23-Sep- 13d 0d 23-Sep- 13d 0d 22-Jul-17 6d 0d 14-Aug- 10d 0d 04-Sep- 9d 0d 04-Sep- 14d 0d 19-Sep- 9d 0d 019-Sep-	7A 22-Aug-17A 7A 18-Sep-17A 7A 22-Sep-17A 7A 07-Oct-17A 7A 30-Sep-17A A 28-Jul-17A 7A 18-Sep-17A 7A 18-Sep-17A 7A 10-Oct-17A A 28-Oct-17A A 28-Oct-17A	100% 100% 100% 100% 100% 100% 100% 100%							Construct Bay 21 (base slab of plant room except for Construct Bay 22a (side walls of plant room)  Construct Bay 22b (base slab of subway)  Curing & strike formwork/alsework  Construct staircase ST05 & Air Vent Wal & Slab  Construct Bay 23A (base slab for sump pit)  Construct Bay 23B (femaining base slab for plant room up to L5  Construct Bay 24 (side walls of plant room & subway)  Curing & dismantle falsework for Bay 25  Construct Bay 26 (side walls of subway up to es
C3840-STR-D1-140 C3840-STR-D1-150 C3840-STR-D1-155 C3840-STR-D1-170 C3840-STR-D1-180 C3840-STR-D1-200 C3840-STR-D1-210 C3840-STR-D1-212 C3840-STR-D1-212 C3840-STR-D1-215 C3840-STR-D1-216 C3840-STR-D1-217 C3840-STR-D1-217	Construct Bay 21 (base slab of plant room except for pump pit)  Construct Bay 22a (side walls of plant room )  Construct Bay 22b (base slab of subway)  Curing & strike formwork/falsework  Construct staircase ST05 & Air Vent Wal & Slab  Construct Bay 23A (base slab for sump pit)  Construct Bay 23B (remaining base slab for plant room)  Construct Bay 24 (side walls of plant room up to L5)  Construct Bay 25 (side walls of plant room & subway base slab)  Curing & dismantle falsework for Bay 25  Construct Bay 26 (side walls of subway up to escalator pit base slab)  Curing & dismantle falsework for Bay 26  Construct Bay 27 (side walls of subway and mid level slab @0.18mPD)	7d 0d 07-Aug- 21d 0d 23-Aug- 10d 0d 28-Aug- 11d 0d 23-Sep- 13d 0d 23-Sep- 3d 0d 22-Jul-17 6d 0d 14-Aug- 10d 0d 04-Sep- 10d 0d 04-Sep- 14d 0d 19-Sep- 14d 0d 19-Sep- 14d 0d 11-Oct-1 9d 0d 05-Oct-1	7A 22-Aug-17A 7A 18-Sep-17A 7A 22-Sep-17A 7A 07-Oct-17A 7A 30-Sep-17A A 28-Jul-17A 7A 18-Sep-17A 7A 18-Sep-17A 7A 10-Oct-17A A 28-Oct-17A A 28-Oct-17A	100%  100%  100%  100%  100%  100%  100%  100%  100%  100%							Construct Bay 21 (base slab of plant room except for Construct Bay 22a (side walls of plant room)  Construct Bay 22b (base slab of subway)  Curing & strike formwork/alsework  Construct staircase ST 05 & Air Vent Wal & Slab  Construct Bay 23A (base slab for sump pit)  Construct Bay 23B (femaining base slab for plant room up to L6  Construct Bay 25 (side walls of plant room up to L6  Construct Bay 25 (side walls of plant room & subw  Curing & dismantle falsework for Bay 25  Construct Bay 26 (side walls of subway up to es  Curing & dismantle falsework for Bay 26
C3840-STR-D1-140  C3840-STR-D1-150  C3840-STR-D1-155  C3840-STR-D1-170  C3840-STR-D1-180  C3840-STR-D1-210  C3840-STR-D1-212  C3840-STR-D1-214  C3840-STR-D1-215  C3840-STR-D1-216  C3840-STR-D1-216	Construct Bay 21 (base slab of plant room except for pump pit)  Construct Bay 22a (side walls of plant room )  Construct Bay 22b (base slab of subway)  Curing & strike formwork/falsework  Construct staircase ST05 & Air Vent Wall & Slab  Construct Bay 23A (base slab for sump pit)  Construct Bay 23B (remaining base slab for plant room)  Construct Bay 24 (side walls of plant room up to L5)  Construct Bay 25 (side walls of plant room & subway base slab)  Curing & dismantle falsework for Bay 25  Construct Bay 26 (side walls of subway up to escalator pit base slab)  Curing & dismantle falsework for Bay 26	7d 0d 07-Aug- 21d 0d 23-Aug- 10d 0d 28-Aug- 11d 0d 23-Sep- 13d 0d 23-Sep- 3d 0d 22-Jul-17 6d 0d 14-Aug- 10d 0d 04-Sep- 14d 0d 19-Sep- 14d 0d 19-Sep- 14d 0d 11-Oct-1	7A 22-Aug-17A 7A 18-Sep-17A 7A 22-Sep-17A 7A 07-Oct-17A 7A 30-Sep-17A A 28-Jul-17A 7A 18-Sep-17A 7A 18-Sep-17A 7A 10-Oct-17A A 28-Oct-17A A 28-Oct-17A	100%  100%  100%  100%  100%  100%  100%  100%  100%  100%		Master Programme Re	vision RMPRSA1			Date	Construct Bay 21 (base slab of plant room except for Construct Bay 22a (side walls of plant room)  Construct Bay 22b (base slab of subway)  Curing & strike formwork/alsework  Construct staircase ST05 & Air Vent Wal & Slab  Construct Bay 23A (base slab for sump pit)  Construct Bay 23B (femaining base slab for plant room up to L6  Construct Bay 24 (side walls of plant room & subway)  Curing & dismantle falsework for Bay 25  Construct Bay 26 (side walls of subway up to es

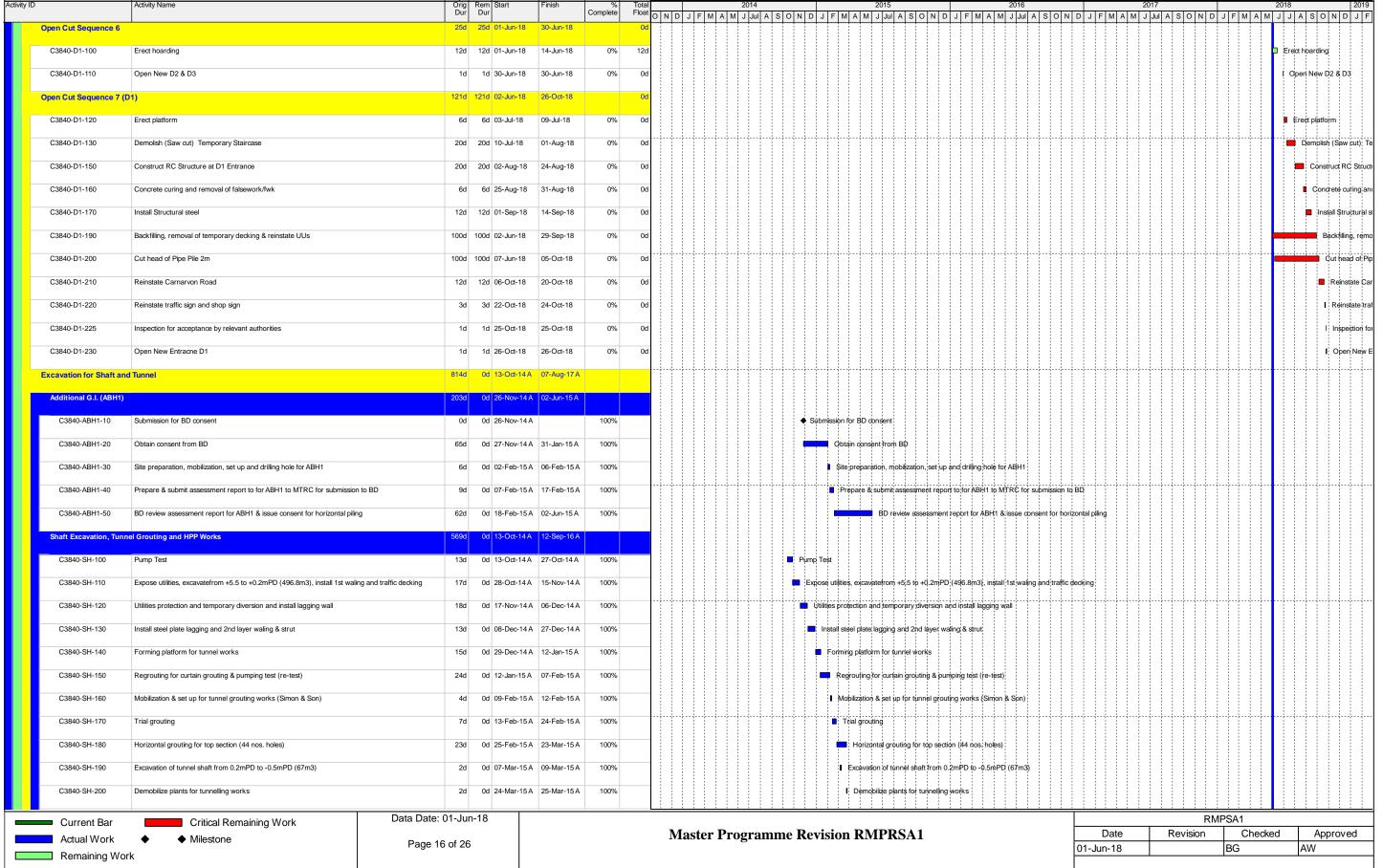




							MAEDA
ctivity ID	Activity Name	Orig Rem Start Dur Dur	Finish % Complete	Total Float	2014 2015 2016 O N D J F M A M J Jul A S O N D J F M A M J Jul A S O N D J F M A M J Jul A S O		017 2018 2019
C3840-STR-	D1-223 Curing & dismantle falsework for Bay 27	14d 0d 17-Oct	-17 A 31-Oct-17 A 100%			JN D J F M A M S	Curing & dismantle falsework for Bay 27
C2940 STB	D1-230 Construct Bay 28 (side walls of subway up to -2.0mPD)	94 04 05 04	-17 A 16-Oct-17 A 100%				■ Construct Bay, 28 (side walls of subway up to -2.0mPD)
C3640-31K-	Constitute Bay 20 (side walls of Subway up to -2.011FD)	80 00 05-500	-17 A 10-OCI-17 A 100%				Constitut Bay 20 (slub walls of subway up to *2.011FD)
C3840-STR-	D1-240 Construct Bay 29 (subway side walls above -2.0mPD & mid level lab)	4d 0d 09-Oct	-17 A 19-Oct-17 A 100%				Construct Bay 29 (subway side walls above -2.0mPD & m
C3840-STR-	D1-242 Delivery & installation of Escalator	11d 0d 01-Nov	/-17 A 13-Nov-17 A 100%				Delivery & installation of Escalator
C3840-STR-	D1-245 Curing & dismantle formwork for Bay 29	14d 0d 20-Oct	-17 A 31-Oct-17 A 100%				☐ Curing & dismantle formwork for Bay 29
00040 0110	51 245 Summing a distribution of the bay 25	144 00 20 00	1771 01 001 1771 10070				Gang Galling Galling to Gay 25
C3840-STR-	D1-255 Construct Bay 30 (top slab & north wall)	10d 0d 14-Nov	7-17 A 24-Nov-17 A 100%				Construct Bay 30 (top slab & north wall)
RC Structure a	nt D2 Side (Between Grids 3.3 and 4.5)	179d 0d 25-May	/-17 A 30-Dec-17 A				
C3840-STR-	D2-100 Construct Bay 7 (concourse base slab & drainage)	6d 0d 25-May	y-17 A 01-Jun-17 A 100%				Construct Báy 7 (concoursé base slab & grainagé)
C3840-STR-	D2-110 Construct Bay 8a (ventilation duct base slab)	10d 0d 02-Jun	-17 A 08-Jun-17 A 100%			· · · · · · · · · · · · · · · · · · ·	Construct Bay &a (ventilation duct base sab)
C3840-STR-	D2-110b Construct Bay 8b (ventilation duct base slab)	10d 0d 09-Jun	-17 A 23-Jun-17 A 100%			****** <b>*</b>	Construct Bay 8b (ventilation duct base slab)
C3840-STR-	D2-120 Construct Bay 9a (side wall (W19) of ventilation duct)	10d 0d 19-Jun	-17 A 27-Jun-17 A 100%				Construct Bay 9a (side wall (W19) of ventilation duct);
C3840-STR-	D2-120b Construct Bay 9b (base slab & wall W6 of ventilation duct)	10d 0d 28-Jun	-17 A 05-Jul-17 A 100%				Construct Bay 9b (base slab & wall W6 of vehitlation duct)
C3840-STR-	D2-122 Curing and dismantle falsework for bay 9	14d 0d 07-Jul-	17 A 22-Jul-17 A 100%				Curing and dismantle falsework for pay 9
C3840-STR-	D2-125 Preparation works (construct end walls) for backfilling behid bay 8b	1d 0d 27-Jun	-17 A 17-Jul-17 A 100%				Preparation works (construct end walls) for backfilling behid bay 8b
C3840-STR-	D2-126 Backfilling behind bay 8b	11d 0d 18-Jul-	17 A 31-Jul-17 A 100%				■ Backfilling behind bay 8b
C3840-STR-	D2-130 Construct Bay 10 (mid level slab)	5d 0d 01-Aug	j-17 A 05-Aug-17 A 100%				II Construct Bay 1₀0 (mid level slab)
C3840-STR-	D2-132 Curing and dismantle falsework for bay 10	16d 0d 06-Aug	j-17 A 19-Aug-17 A 100%				Curing and dismantle falsework for bay 10
C3840-STR-	D2-140 Construct Bay 11 (side walls up to vent duct soffit)	20d 0d 21-Aug	j-17 A   22-Sep-17 A   100%				Construct Bay 11 (side walls up to vent duct soffit)
C3840-STR-	D2-142 Curing and dismantle falsework for bay 11	16d 0d 23-Sep	0-17 A 13-Oct-17 A 100%				Curing and dismantle falsework for pay 11
C3840-STR-	D2-150 Construct Bay 12 (mid level top slab)	16d 0d 25-Sep	o-17 A 13-Oct-17 A 100%				Construct Bay 12 (mid level top slab)
C3840-STR-	D2-152 Curing and dismantle falsework for bay 12	15d 0d 14-Oct	-17 A 30-Oct-17 A 100%				Curing and dismantle falsework for bay 12
C3840-STR-	D2-160 Backfilling works including modification of temporary traffic deck	23d 0d 16-Oct	-17 A 29-Nov-17 A 100%				Backfilling works including modification of temporary
C3840-STR-	D2-165 Construct Bay 35 (Entrance D2 & Vent Room); up to +4.3mPD	12d 0d 16-Oct	-17 A 24-Nov-17 A 100%				Construct Baly 35 (Entrance D2 & Vent Room); up to
C2040 CTD	DO 470. Construct Dougle (Esterano DO 8 Vest Doors), shows at 200DD	044 04 05 No.	. 47 A 40 D 47 A 4000/				Construct Bay 35 (Entrance D2 & Vent Room); abl
C3840-STR-	D2-170 Construct Bay 35 (Entrance D2 & Vent Room); above +4.3mPD	21d Ud 25-NOV	/-17 A 19-Dec-17 A 100%				Construct Bay 35 (Entrance D2 & Vent Room); abi
C3840-STR-	D2-180 Concrete curing (concrete strength reaching 40mPa) and removal of fall	lsework/fwk 9d 0d 20-Dec	:-17A 30-Dec-17A 100%				Concrete curing (concrete strength reaching 40m
RC Structure a	nt D2 Side (Between Grids 4.5 and 5.9)	95d 0d 25-Jul-	17 A 31-Oct-17 A				
C3840-STR-	D2-200 Construct Bay 13 (subway base slab, by-pass corridor & drainage)	9d 0d 25- lul-	17 A 28-Jul-17 A 100%				Construct Bay 13 (subway base slab, by-pass corridor & drainage)
C3840-STR-	D2-210 Construct Bay 14a (subway North wall)	14d 0d 29-Jul-	17 A 24-Aug-17 A 100%				Construct Bay 14a (subway North wall)
C3840-STR-	D2-211 Construct Bay 14b (subway South wall & 300mm wall)	14d 0d 29-Jul-	17 A 01-Sep-17 A 100%				Gonstruct Bay 14b (subway South wall & 300mm wall)
C3840-STR-	D2-212 Construct Bay 14c (subway top slab)	13d 0d 02-Sen	p-17 A 20-Sep-17 A 100%			+	Construct Bay 14c (subway top slab)
			·				
C3840-STR-	D2-213 Construct Staircase ST04	7d 0d 11-Sep	-17 A 22-Sep-17 A 100%				■ Construct Staircase ST04
C3840-STR-	D2-215 Curing and dismantle falsework for bay 14	17d 0d 23-Sep	o-17 A 14-Oct-17 A 100%				Curing and dismantle falsework for bay 14
C3840-STR-	D2-220 Construct Bay 15 (top slab for by-pass corridor)	16d 0d 25-Sep	o-17 A 13-Oct-17 A 100%				Construct Bay 15 (top slap for by-pass corridor)
C3840-STR-	D2-222 Curing and dismantle falsework for bay 15	15d 0d 14-Oct	-17 A 31-Oct-17 A 100%				Curing and dismantle falsework for bay 15
Current	Bar Critical Remaining Work	Data Date: 01-Jun-18					RMPSA1
Actual W	_				Master Programme Revision RMPRSA1	Date	Revision Checked Approved
Remainir		Page 15 of 26				01-Jun-18	BG AW
Remaini	.9						









Remaining Work

### Contract C3840-13C

### Tsim Sha Tsui Station, Carnarvon Road Subway



01-Jun-18

Acti	ivity Name	Orig Dur	Rem Start Dur	Finish	% Complete	Total Float	2014		2015	2016	2017	M A E	2018
C3840-SH-210 Exc	eavate tunnel shaft from -0.5mPD to -1.7mPD (soil 79m3, rock 34m3)		0d 25-Mar-15 A	28-Apr-15 A	100%	- nout	O N D J F M A M J Jul A S O N C			D J F M A M J Jul A S O N D m +0.5mPD to -1.7mPD (soil 79m3, rock 34m3		N D J F M A M	JJJASO
C3840-SH-220 Inst	tall waling/strut/lagging	8d	0d 20-Apr-15 A	28-Apr-15 A	100%				Install waling/strut/lagging				
C3840-SH-230 Mob	bilize & set up tunnel plants/erect platform at -0.5mPD	3d	0d 29-Apr-15 A	02-May-15 A	100%				Mobilize & set up tunnel	plants/erect platform at -0.5mPD			
C3840-SH-240 Obt	tain consent from MTR/BD for test boring	28d	0d 24-Mar-15 A	02-May-15 A	100%				Obtain consent from MT	R/BD for test boring			
	·												
C3840-SH-250 Tes	t boring for horizontal pipe piling (HPP53 incl. BD inspection)	3d	0d 04-May-15 A	06-May-15 A	100%				Test boring for horizonta	al pipe piling (HPP53 incl. BD inspection)			
C3840-SH-260 Inst	tall HPP16	7d	0d 03-Jun-15 A	10-Jun-15 A	100%				🛭 Install HPP16				
C3840-SH-270 Extr	ract misaligned HPP53	2d	0d 11-Jun-15 A	12-Jun-15 A	100%				Extract misaligned	HPP53			
00040 011 000			01 10 1 15 1	00 1 45 4	4000/								
C3840-SH-280 Mak	ke good extracted casing,reinstall HPP53 & check alignment	80	0d 13-Jun-15 A	23-Jun-15 A	100%				Make good extrac	ted casing reinstall HPP53 & check alignment			
	paration work for drilling HPP54, drill HPP54 & drilling aborted due to problem detected with procking	6d	0d 24-Jun-15 A	30-Jun-15 A	100%				Preparation work	for drilling HPP54, drill HPP54 & drilling abort	ed due to problem detected with inter	locking	
	mobilization HPP rig off site & remove platform at -0.5mPD	3d	0d 02-Jul-15 A	04-Jul-15 A	100%				Demobilization H	PP rig off site & remove platform at -0.5mPD			
C0040 CI L040 M-h	Window for a constitution of the state of th	204	04 00 1445 4	20 Aug 45 A	4,000/						4 7-00 4 00-00 (440 4-0)		
C3840-SH-310 Mot	bilization for excavation plant & excavate tunnel shaft from -1.7mPD to -2.8mPD (113.1m3)	390	0d 06-Jul-15 A	20-Aug-15 A	100%				Modilization	for excavation plant & excavate tunnel shaft for	pm -1.,/mPD to -2,8mPD (113.1m3)		
C3840-SH-320 Der	mobilization of excavation plants and setting up for drilling platform	2d	0d 21-Aug-15 A	22-Aug-15 A	100%				l Demobilzat	ion of excavation plants and setting up for drill	ng platform		
C3840-SH-330 Mob	bilization for drilling rig & site set up	2d	0d 24-Aug-15 A	25-Aug-15 A	100%				I Mobilizatio	n for drilling rig & site set up			
C3840-SH-340 Extr	racction of HPP16	14	0d 26-Aug-15 A	26 Aug 15 A	100%				l Extraection	of UDD16			
03040-311-340 EXI	radion of the Fig.	Id	00 20-Aug-13A	20-Aug-13 A	10070				Lattagolidi				
C3840-SH-350 Site	preparation for drilling works	4d	0d 27-Aug-15 A	31-Aug-15 A	100%				Site prepa	ration for drilling works			
C3840-SH-360 Hor	rizontal pipe piling; 3 nos. (HPP16 to HPP18)	7d	0d 31-Aug-15 A	08-Sep-15 A	100%				■ Horizonta	al pipe piling; 3 nos. (HPP16 to HPP18)			
C3840-SH-370 Extr	raction of HPP53 & HPP54	2d	0d 09-Sep-15 A	10-Sep-15 A	100%				I Extractio	n of HPP53 & HPP54			
C3840-SH-380 Hor	rizontal pipe piling; 4 nos. (HPP19, HPP53 to HPP55)	8d	0d 11-Sep-15 A	19-Sep-15 A	100%				■ Horizon	tal pipe piling, 4 nos. (HPP19, HPP53 to HPP5	5)		
C3840-SH-390 Den	mobilization for drilling rig & setting up for horizontal grouting	3d	0d 21-Sep-15 A	23-Sep-15 A	100%				I Demob	ilization for drilling rig & setting up for horizonta	l grouting		
C3840-SH-400 Drill	ling and horizontal grouting (19 nos.)	17d	0d 24-Sep-15 A	15-Oct-15 A	100%				<b>□</b> Dri≬i	ng and horizontal grouting (19 nos.)			
C3840-SH-410 Der	mobilize grouting plants remove rock fill 8 mobilize 8 cet up for rock evenuation	174	0d 16-Oct-15 A	22 Oct 15 A	100%				■ Day	nobilize grouting plants, remove rook fill 8 ma	ailiza & sot up for rock propustion		
C3040-311-410 Del	mobilize grouting plants, remove rock fill, & mobilize & set up for rock excavation	170	00 10-00-13A	25-00F15A	100%				Dei	nobilize grouting plants, remove rock fill, & mo	Sinze & Set up ibi Tock excavation		
C3840-SH-420 Instr piles	tallation of waling L2A, installation of steel plate and prepartion works for removal of vertical pipe s	8d	0d 24-Oct-15 A	28-Oct-15 A	100%				i ins	tallation of waling L2A, installation of steel plate	and prepartion works for removal of	vertical pipe piles	
C3840-SH-430 Ren	moval of vertical pipe pile PP84 ~ PP89a (7 numbers) & grouting for the gaps	9d	0d 29-Oct-15 A	07-Nov-15 A	100%				■ R	emoval of vertical pipe pile PP84 ~ PP89a (7 n	umbers) & grouting for the gaps		
C3840-SH-440 Ren	moval of temporary platform	1d	0d 09-Nov-15 A	09-Nov-15 A	100%				I R	emoval of temporary platform			
C3840-SH-450 Sha	aft excavation;-2.8mPD ~ -3.5mPD (65.6m³)	31d	0d 24-Oct-15 A	28-Nov-15 A	100%					Shaft excavation; -2.8mPD3.5mPD (65.6m	) 		
C3840-SH-460 Sha	aft excavation;-3.5mPD ~ -4.8mPD (122m³)	46d	0d 30-Nov-15 A	25-Jan-16 A	100%				•	Shaft excavation -3.5mPD ~ -4.8mPD	(122m³)		
C3840-SH-470 Inst	tallation of additional waling L3A	2d	0d 23-Jan-16 A	27-Jan-16 A	100%			+		II: Installation of additional waling L3A			
					40001						No. 4 9th DD		
C3840-SH-490 Sha	aft excavation;-4.8mPD ~ -6.0mPD (115m³)	360	0d 18-Jul-16 A	11-Aug-16 A	100%					Snart excavation	on;-4.8mPD ~ -6.0mPD (115m³)		
C3840-SH-500 Rei	install drilling platform	2d	0d 28-Jan-16 A	28-Jan-16 A	100%					l Reinstall drilling platform			
C3840-SH-510 Mob	bilization & setup for drilling rig	4d	0d 29-Jan-16 A	02-Feb-16 A	100%					Mobilization & setup for drilling rig			
C3840-SH-520 Inst	tallation of HPP roof (31 nos.)	30d	0d 03-Feb-16 A	22-Mar-16 ∆	100%					Installation of HPP roof (31 nos			
C3840-SH-530 Mod	dification of working platform for drilling rig	1d	0d 23-Mar-16 A	24-Mar-16 A	100%					I Modification of working platforn	t for (drilling)rig		
C3840-SH-540 Disr	mantling of waling L2B	1d	0d 29-Mar-16 A	30-Mar-16 A	100%					Dismantling of waling L2B			
C3840-SH-550 Inst	tallation of HPP wall (10 nos.)	10d	0d 30-Mar-16 A	18-Apr-16 A	100%					Installation of HPP wall (10 i	ios.)		
	,	, , ,	11 00 Mai 10A		. 5070								
Current Bar	Critical Remaining Work Data Date	e: 01-Jur	n-18									RMPSA1	
Actual Work	A Milantona	17 of 26					Master Programme Re	evision	RMPRSA1		Date Revisi	on Checke	ed App







	Activity Name	Orig Dur	Rem Start Dur	Finish	% Complete	Total Float	II.B.	2014	ON BUT	2015	2016	201		201/	18
C3840-SH-560	Modification of drilling platform		0d 19-Apr-16 A	A 21-Apr-16 A	100%		N D J	J F M A M J Jul A S	ONDJF	- M A M J Jul A S O N	N D J F M A M J Jul A S O N	Igtform	ul A S O N D J	- M A M J	JAS
	· ·														
C3840-SH-570	Installation of HPP wall (3 numbers)	8d	0d 18-Apr-16 A	25-Apr-16 A	100%						■ Installation of HPP wal	(3 numbers)			
C3840-SH-572	Drilling for HPP64 & HPP25, cease drilling due to obstruction & extract HPP64	8d	0d 26-Apr-16 A	04-May-16 A	100%						☐ Drilling for HPP64 & F	HPP25, cease drilling due to	obstruction & extract HPP	64	
C3840-SH-620	Demobilize HPP rig, dismantle drilling platform, mobilization & setup for Horizontal Grouting work	s 2d	0d 05-May-16	A 16-May-16 A	100%						■ Demobilize HPP rig,	dismantle drilling platform, m	nobilization & setup for Hc	rizontal Grouting v	works
C3840-SH-630	Drilling for horizontal grout hoels (13 nos.)	5d	0d 16-May-16	A 26-May-16 A	. 100%						■ Drilling for horizont	al grout hoels (13 nos.)			
		- 1	0.1.05.14.40.40												
C3840-SH-632	Grouting for horizontal grout holes (13 nos.)	4d	0d 25-May-16	A 14-Jul-16 A	100%						Grouting for	horizontal grout holes (13 no	S.)		
C3840-SH-640	Modification of drilling rig for HPP works & mobilization and set up HPP works	1d	0d 27-May-16	A 30-May-16 A	100%						Modification of drill	ing rig for HPP works & mab	ilization and set up HPP w	orks	
C3840-SH-642	Extract HPP25	2d	0d 30-May-16	A 31-May-16 A	100%						Extract HPP25				
C3840-SH-644	Drilling for HPP wall (5 nos.) including extraction of casing for HPP64	5d	0d 01-Jun-16 A	A 10-Jun-16 A	100%						☐ Drilling for HPP v	vall (5 nos.) ihcluding extracti	on of casing for HPP64		
C3840-SH-646	Demolize drilling rig	34	0d 13-Jun-16 A	λ 13-Jun-16 Δ	100%						I Demolize drilling	ria			
C3840-SH-648	Modification of waling L3 & L3A/setting up drilling rig platform/mobilize & set up drilling rig	2d	0d 14-Jun-16 A	A 16-Jun-16 A	100%						I Modification of w	aling L3 & L3A/setting up dri	ling rig platform/mobilize 8	set up drilling rig	
C3840-SH-650	Drilling for HPP wall (8 nos.)	23d	0d 17-Jun-16 A	14-Jul-16 A	100%						Drilling for HI	²P wall (8 nds.)			
C3840-SH-660	Demobilize drilling rig/Dismantle drilling platform	2d	0d 15-Jul-16 A	16-Jul-16 A	100%						I Demobilize d	Irilling rig/Dismantle drilling þե	atform		
C3840-SH-665	Removal of vertical pipe piles PP89b	2d	0d 12-Aug-16 A	A 13-Aug-16 A	100%	-					I Removal	of vertical pipe piles PP89b			
C3840-SH-668	Assembly of drilling platform for HPP rig	24	0d 12-Aug-16 A	A 13-Aug-16 A	100%						I Assamble	of drilling platform for HPP r	rig		
			_												
C3840-SH-670	Drilling and horizontal grouting (13 nos.)	18d	0d 13-Aug-16 A	A 24-Aug-16 A	100%						■ Drilling a	and horizontal grouting (13 n	)S;)		
C3840-SH-680	Modification of drilling rig	2d	0d 24-Aug-16 A	A 25-Aug-16 A	100%						I Modifica	ation of drilling rig			
C3840-SH-690	Drilling for HPP wall (8 nos.)	8d	0d 25-Aug-16 A	A 10-Sep-16 A	100%						■ Drillin	g for HPP wall (8 nos.)			
C3840-SH-740	Modification of drilling rig	2d	0d 10-Sep-16 A	A 12-Sep-16 A	100%	-					I Modifi	cation of drilling rig			
Re-fabrication and Deli	ivery of Remaining Interlocking HPP Casing	87d	0d 07-Sep-15 A	A 12-Jan-16-A											
C3840-CF-100	Fabrication for remaining casing (Roof); 1st batch	20d	0d 07-Sep-15 A	A 30-Sep-15 A	100%					Fabi	prication for remaining casing (Roof); 1st bat	2)			
C3840-CF-102	Delivery of casing (Roof); 1st batch	7d	0d 02-Oct-15 A	15-Oct-15 A	100%					<b>□</b> De	elivery of casing (Rdof); 1st batch				
C3840-CF-104	Fabrication for remaining casing (Roof); 2nd batch	20d	0d 05-Oct-15 A	31-Oct-15 A	100%					· · · · · · · · · · · · · · · · · · ·	Fabrication for remaining casing (Roof); 2nd	batch			
C3840-CF-106	Delivery of casing ( roof); 2nd batch	7d	0d 02-Nov-15 A	A 09-Nov-15 A	100%						Delivery of casing (roof); 2nd batch				
C3840-CF-108	Fabrication for remaining casing; 3rd batch	20d	0d 21-Nov-15 A	A 17-Dec-15 A	100%						Fabrication for remaining casing; 3rd b	patch			
	· · ·														
C3840-CF-110	Delivery of casing (Wall); 3rd batch	7d	0d 18-Dec-15 A	A 24-Dec-15 A	100%						Delivery of casing (Wall), 3rd batch				
C3840-CF-112	Fabrication for remaining casing (wall); 4th batch	12d	0d 18-Dec-15 A	A 02-Jan-16 A	100%						■ Fabrication for remaining casing (wa	II); 4th batch			
C3840-CF-114	Delivery of casing (Wall); 4th batch	7d	0d 04-Jan-16 A	A 12-Jan-16 A	100%						Delivery of casing (Wall); 4th batch				
BD Submissions Prior t	to Tunnel Excavation	403d	0d 23-Nov-15 A	A 20-Jan-17 A											
C3840-BD-100	Submit piling record for phase 1 HPP	14d	0d 02-Jul-16 A	14-Jul-16 A	100%						Submit piling	record for phase 1 HPP			
C3840-BD-102	Submit grouting record for pahse 1 grouting work	5d	0d 23-Nov-15 A	A 28-Nov-15 A	100%						Submit grouting record for palise 1 grou	ıng work			
	BA8 for phase 1 tunnel excavation	28d	0d 18-Jul-16 A	27-Sep-16 A	100%						BAS	for phase 1 tunnel excavation	n		
C3840-BD-106							1 1		1 1 1 1						1 1 1
C3840-BD-106	BA10 for pahse 1 tunnel excavation	7d	0d 19-Sep-16 A	A 27-Sep-16 A	100%		- T F				■ BA1	0 for palise 1 tunnel excavat	tion		
			0d 19-Sep-16 A	A 27-Sep-16 A 28-Sep-16 A								0 for parise 1 tunnel excavat ain consent from BD for com		xçavation	

Actual Work Remaining Work Milestone

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**Master Programme Revision RMPRSA1** 

RMPSA1												
Date	Revision	Checked	Approved									
01-Jun-18		BG	AW									







	Activity Name	Orig Rem Start	Finish % Total	2014 2015 2016	2017 2018
		Dur Dur	Complete Float	O N D J F M A M J Jul A S O N D J F M A M J Jul A S O N D J F M A M J Jul A	A
C3840-BD-110	Submit piling record for pahse 2 HPP	3d 0d 30-Nov-16 A	A 30-Nov-16 A 100%		Submit piling record for pahse 2 HPP
C3840-BD-112	Submit grouting record for pahse 2 grouting work	5d 0d 30-Nov-16 A	A 30-Nov-16 A 100%		Submit grouting record for panse 2 grouting work
C3840-BD-114	BA14 for HPP works	1d 0d 15-Nov-16 A	A 15-Nov-16 A 100%		I BA14 for HPP works:
C3840-BD-118	BA10 for pahse 2 tunnel excavation	7d 0d 20-Jan-17 A	20-Jan-17 A 100%		I BA10 for pahse 2 tunnel excavation
Stage 1, Tunnel Excava	ation	205d 0d 11-Jun-16 A	28-Feb-17 A		
C3840-SE-640	Additional grouting for Probe Hole	3d 0d 11-Jun-16 A	11-Jun-16 A 100%		onal grouting for Probe Hole
C3840-SE-650	Horizontal Probe Hole for Water Inflow Determination	1d 0d 11-Jun-16 A	11-Jun-16 A 100%	I Horizo	ontal Probe Hole for Water Inflow Determination
C3840-SE-651	Demobilize HPP plants, remove HPP spoils	1d 0d 14-Sep-16 A	A 19-Sep-16 A 100%		■ Demobilize HPP plants, remove HPP spoils
C3840-SE-652	Install working platform for tunnel excavation at -2.15mPD & additional poratal	Il frame 4d 0d 20-Sep-16 A	A 28-Sep-16 A 100%		Install working platform/for tunnel excavation et -2.15mPD & additional poretal frame
C3840-SE-660	Removal of vertical pipe pile PP84 - PP89a (7 nos.)	9d 0d 29-Sep-16 A	A 05-Oct-16 A 100%		■ Removal of vertical pipe pile PP84 - PP89a († nos.)
C3840-TE1-100	Bay 1; excavation, muckout, steel rib installation	9d 0d 29-Sep-16 A			Bay 1; excavation; muckqut, steel rib installation
C3840-TE1-102	Bay 2; excavation, muckout, steel rib installation	4d 0d 17-Oct-16 A	22-Oct-16 A 100%		Bay 2; excavation, muckbut, steel rib installation
C3840-TE1-104	Bay 3; excavation, muckout, steel rib installation	4d 0d 24-Oct-16 A	28-Oct-16 A 100%		II. Bay 3; excavatioh, muckout, steel rib installation
C3840-TE1-106	Bay 4; excavation, muckout, steel rib installation	5d 0d 29-Oct-16 A	04-Nov-16 A 100%		■ Bay 4; excavatión, muckout, steel rib installation
C3840-TE1-108	Bay 5; excavation, muckout, steel rib installation	5d 0d 05-Nov-16 A	A 09-Nov-16 A 100%		Bay;5; excavation, muckout, steet rib installation
C3840-TE1-110	Bay 6; excavation, muckout, steel rib installation	5d 0d 10-Nov-16 A	A 14-Nov-16 A 100%		■ Bay 6; excavation; muckqut, steel rib installation
C3840-TE1-112	Bay 7; excavation, muckout, steel rib installation	5d 0d 15-Nov-16 A	A 18-Nov-16 A 100%		I Bay 7; excavation, mückout, isteel rib installation
C3840-TE1-114	Bay 8; excavation, muckout, steel rib installation	6d 0d 19-Nov-16 A	A 24-Nov-16 A 100%		■ Bay 8; excavation, muckout; steel rlb installation
C3840-TE1-116	Bay 9; excavation, muckout, steel rib installation	6d 0d 25-Nov-16 A	A 30-Nov-16 A 100%		<b>I</b> Bay 9; excavation, muckout, steel rib installation
C3840-TE1-118	Bay 10; excavation, muckout, steel rib installation	6d 0d 01-Dec-16 A	A 08-Dec-16 A 100%		Bay 10; excavation, muckout, steel rib installation
C3840-TE1-120	Bay 11; excavation, muckout, steel rib installation	6d 0d 09-Dec-16 A	A 13-Dec-16 A 100%		■ Bay 11; excavation, muckput, steel rib installation
C3840-TE1-122	Bay 12; excavation, muckout, steel rib installation	6d 0d 12-Dec-16 A	A 17-Dec-16 A 100%		■ Bay 12; excavation, muckout, stéel rib installation
C3840-TE1-124	Bay 13; excavation, muckout, steel rib installation	6d 0d 19-Dec-16 A	A 23-Dec-16 A 100%		■ Bay 13; ekcavatión, muckout, steel rib installation
C3840-TE1-126	Bay 14; excavation, muckout, steel rib installation	6d 0d 24-Dec-16 A	A 30-Dec-16 A 100%		Bay 14; excavatíon, muckout, steef rib installation
C3840-TE1-128	Bay 15; excavation, muckout, steel rib installation	4d 0d 31-Dec-16 A	A 05-Jan-17 A 100%		Bay 15; excavation; muckqut, steel rib installation
C3840-TE1-130	Bay 16; excavation, muckout, steel rib installation	4d 0d 05-Jan-17 A	09-Jan-17 A 100%		Bay 16; excavation, muckout, steel rib installation
C3840-TE1-132	Bay 17; excavation, muckout, steel rib installation	4d 0d 09-Jan-17 A	12-Jan-17 A 100%		■ Bay 17; excavation, muckbut, stelet rib installation
C3840-TE1-133	Removal of unforeseen concrete pile	1d 0d 04-Jan-17 A	12-Jan-17 A 100%		■ Removal of unforéseen concrete pile
C3840-TE1-134	Remove excavated material & working platform	10d 0d 09-Jan-17 A			Remove excavaled material & working platform
C3840-TE1-136	Mass concrete infill in between steel ribs (roof) & back grouting	10d 0d 13-Jan-17 A	15-Feb-17 A 100%		Majss concreté infill in between steel ribs (roof) & back grouting
Stage 2, Tunnel Excava	ation	245d 0d 13-Sep-16 A	07-Aug-17 A		
C3840-SE-800	Probe hole for phase 2, tunnel excavation	1d 0d 13-Sep-16 A	A 13-Sep-16 A 100%		I Probe hole for phase 2, tunnel excalvation
C3840-SE-802	Removal of vertical pipe piles PP84 ~PP89a (7 nos.)	5d 0d 24-Feb-17 A	A 27-Feb-17 A 100%		Removal of vertical pipe piles PP84 ~PP89a (7 nds.)
C3840-TE2-100	Bay 1; excavation, muckout, steel rib installation	5d 0d 28-Feb-17 A	A 07-Mar-17 A 100%		■ Bay'1; excavation, mudkout, steel rib installation
300.0 122 100		50 00 20-1 eb-17 A	10070		+
Current Bar	Critical Remaining Work	Data Date: 01-Jun-18		M. A. D.	RMPSA1
Actual Work	♦ Milestone	Page 19 of 26		Master Programme Revision RMPRSA1	Date         Revision         Checked         Al           01-Jun-18         BG         AW





Tsim Sha Tsui Station, Carnarvon Road Subway Orig Rem Start Dur Dur Complete C3840-TE2-110 Bay 2: excavation, muckout, steel rib installation 5d 0d 06-Mar-17 A 09-Mar-17 A C3840-TE2-120 Bay 3; excavation, muckout, steel rib installation 6d 0d 09-Mar-17 A 13-Mar-17 A Bay 3; excavation, muckout, steel rib installation 6d 0d 13-Mar-17 A 17-Mar-17 A Bay 4; excavation, muckout, steel rib installation C3840-TE2-130 Bay 4; excavation, muckout, steel rib installation 100% C3840-TE2-140 Bay 5; excavation, muckout, steel rib installation 6d 0d 17-Mar-17 A 22-Mar-17 A Bay 5, excavation, muckout, steel rib installation C3840-TE2-150 6d 0d 23-Mar-17 A 28-Mar-17 A Bay 6: excavation, muckout, steel rib installation Bay 6: excavation, muckout, steel rib installation 100% C3840-TE2-160 Bay 7; excavation, muckout, steel rib installation 6d 0d 28-Mar-17 A 03-Apr-17 A 5d 0d 05-Apr-17 A 19-Apr-17 A C3840-TE2-170 Bay 8; excavation, muckout, steel rib installation 100% Bay 8: excavation, muckout, steel rib installar C3840-TE2-180 Bay 9; excavation, muckout, steel rib installation 5d Od 20-Apr-17 A 25-Apr-17 A 100% C3840-TE2-190 Bay 10; excavation, muckout, steel rib installation 6d 0d 26-Apr-17 A 06-May-17 A 100% Bay 10; excavation, muckout, steel rib installation C3840-TE2-200 Bay 11; excavation, muckout, steel rib installation 6d 0d 08-May-17 A 12-May-17 A 100% Bay 11; excavation, muckout, steel rib install C3840-TE2-210 6d 0d 13-May-17 A 18-May-17 A Bay 12; excavation, muckout, steel rib inst Bay 12; excavation, muckout, steel rib installation 100% C3840-TE2-220 Bay 13; excavation, muckout, steel rib installation 6d 0d 19-May-17 A 24-May-17 A 100% Bay 13; excavation, muckout, steel rib insta C3840-TE2-230 6d 0d 25-May-17 A 27-May-17 A Bay 14; excavation, muckout, steel rib installation 100% Bay 14; excavation, muckout, steel rib Insta C3840-TE2-240 Bay 15; excavation, muckout, steel rib installation 6d 0d 29-May-17 A 31-May-17 A 100% Bay 15; excavation, muckout, steel rib installa C3840-TE2-250 Bay 16; excavation, muckout, steel rib installation 2d 0d 01-Jun-17 A 02-Jun-17 A Bay 16; excavation, muckout, steel rib installation Void filling @ K11 underpinning wall C3840-TE2-251 Void filling @ K11 underpinning wall 1d 0d 02-Jun-17 A 05-Jun-17 A 100% C3840-TE2-252 Bay 17; excavation, muckout, steel rib installation 6d 0d 06-Jun-17 A 08-Jun-17 A Bay 17; excavation, muckout, steel rib install C3840-TE2-254 Mucking out for tunnel excavated material & blinding 4d 0d 09-Jun-17 A 28-Jun-17 A 100% Mucking out for tunnel excavated material & blinding Mass concrete infill between HPP and tunnel permanent works Mass concrete infill between HPP and tunnel permanent works 15d Od 10-Jul-17 A 07-Aug-17 A 224d 0d 17-May-17 A 01-Feb-18 A Funnel RC Works including Breakthrough to K11 Diaphragm Wall C3840-TU-260 0d 08-Jan-18 A 13-Jan-18 A Install permanent flood gate including T&C C3840-TU-262 6d 0d 11-Jan-18 A 29-Jan-18 A 100% Install permanent flood gate including T&C RC Works Between Grids 5.9 and 6.2 Modification of ELS at interface between CnC and Shaft incl. vertical blinding at shaft 11d 0d 12-Jul-17 A 19-Jul-17 A Modification of ELS at interface between ChC and Shaft incl. vertical C3840-TU-165 100% C3840-TU-170 Cleaning & Blinding for shaft 2d 0d 03-Jul-17 A 11-Jul-17 A 100% Cleaning & Blinding for shaft C3840-TU-180 Construct Bay 16 (subway base slab & drainage) 9d 0d 25-Jul-17 A 28-Jul-17 A 100% (Subway base slab & drainage) C3840-TU-185 Construct Bay 17 (subway side walls) 21d 0d 16-Aug-17 A 08-Sep-17 A 100% Construct Bay 17 (subway sid C3840-TU-248 Construct Bay 17A (subway stop slab) 6d 0d 24-Jan-18 A 27-Jan-18 A Construct Bay 17A (subway stop slab) C3840-TU-250 Curing (concrete strength reach 40mPa) and remove falsework for bay 17A 5d 0d 28-Jan-18 A 01-Feb-18 A 100% Curing (concrete strength reach 40mPa) ar Construct Bay 18 (subway bae slab & drainage) 9d 0d 07-Aug-17 A 15-Aug-17 A C3840-TU-282 Construct Bay 18 (subway bae slab & drainage Construct Bay 19 (subway side walls) 15d 0d 16-Aug-17 A 08-Sep-17 A Construct Bay 19 (subway side C3840-TU-285 Dismantle formwork for bay 19 3d 0d 09-Sep-17 A 16-Sep-17 A 100% ■ Dismantle formwork for bay 19 C3840-TU-286 Construct Bay 20a (subway top slab) 26d 0d 06-Nov-17 A 05-Dec-17 A Construct Bay 20a (subway top slab) Data Date: 01-Jun-18 Current Bar

 Current bar
Actual Work
Remaining Work

Critical Remaining Work

Milestone

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RMPSA1												
Date	Revision	Checked	Approved									
01-Jun-18		BG	AW									

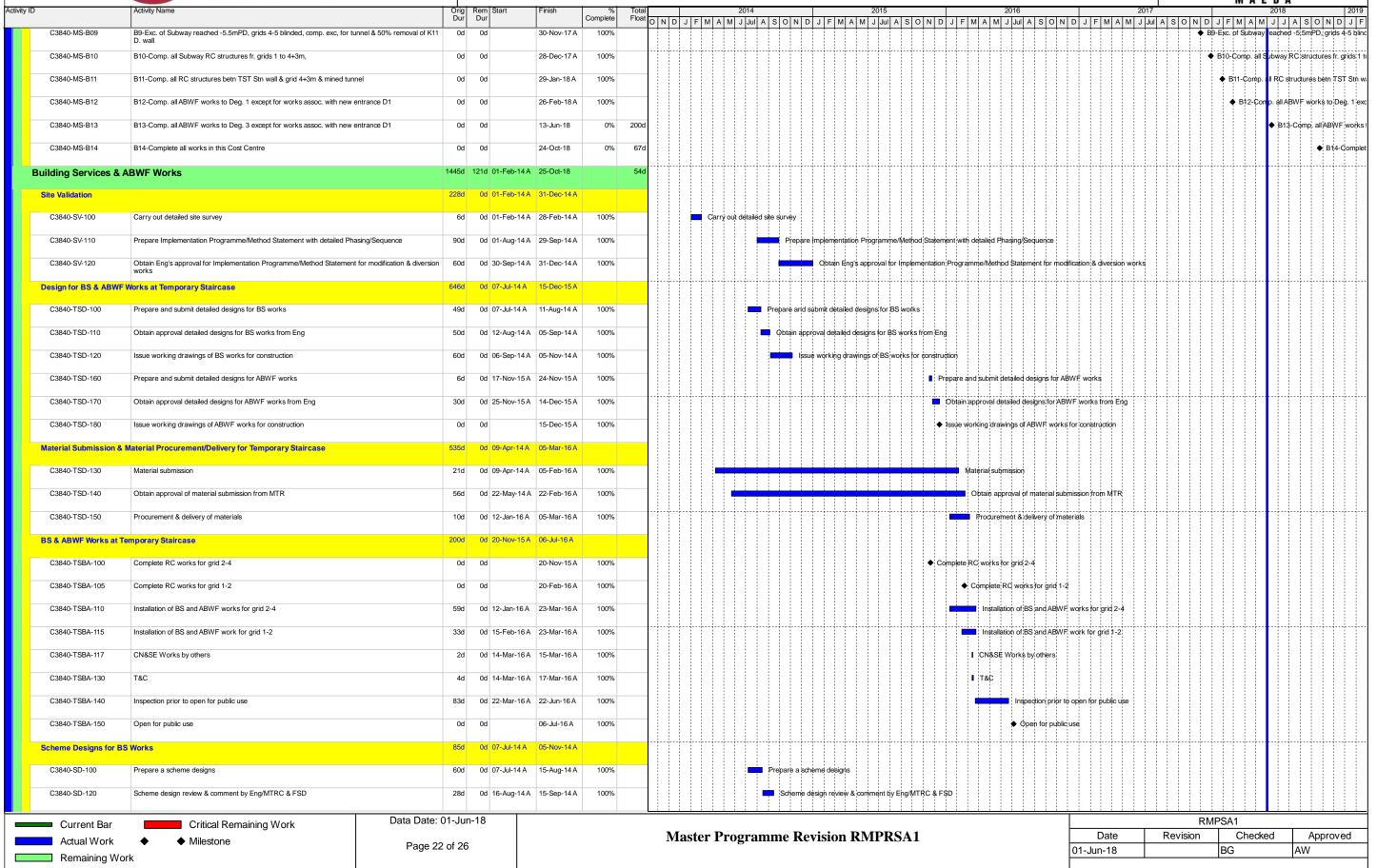




										MAEDA	
	Activity Name		Dur	Rem Start Dur	Finish	Complete	e Floa	2014 2015 2016 O N D J F M A M J Jul A S O N D J F M A M J Jul A S O N D J F M A M J Jul A S	2017 S O N D J F M A M J Jul A	A SOND JFM AM JJA	SOND
C3840-TU-287	Construct Bay 20b (subway top slab)		9d	0d 06-Dec-17 A	15-Dec-17 A	100%				Construct Bay 20th (subway to	op slab)
C3840-TU-288	Curing (concrete strength reach 40mPa) & remove falsework for bay 20		94	0d 16-Dec-17 A	28-Dec-17 A	100%	4			□ Curing (concrete strength re	bach 40mPa)
03040-10-200	Curing (condete strength react 40th a) & remove talsework for bay 20		Ju	00 10-Dec-17 A	20-060-17 A	10070				Curing (contracte strength re	each +oillia)
RC Works Between G	Grids 8.5 and 9 (BD Full Approval Zone)		133d	0d 14-Jun-17 A	21-Nov-17 A						
C3840-TU-290	Mobilization & set up for SI rig for coring CR1 proof core		2d	0d 14-Jun-17 A	14-Jun-17 A	100%	ó		I Mobil	ization & set up for \$I rig for coring CR1 proof	core
C3840-TU-292	CR1 proof coring by specialist sub-contractor		4d	0d 15-Jun-17 A	16-Jun-17 A	100%	6		I CR1	proof coring by specialist sub-contractor	
C3840-TU-294	Demoblization of SI rig off site		1d	0d 17-Jun-17 A	17-Jun-17 A	100%	ó		I Dem	oblization of \$I rig off site	h
C3840-TU-296	Preparation of SI report by specialist sub-contractor		6d	0d 17-Jun-17 A	19-Jun-17 A	100%	6		<b>I</b> Prép	aration of SI report by specialist sub-contracto	ir .
C3840-TU-298	Inspection of formation (Stratum) by RGE		1d	0d 04-Jul-17 A	04-Jul-17 A	100%	6		Ins	pection of formation (Stratum) by RGE	
C3840-TU-300	Submit BA8 for tunnel permanent works		0d	0d	04-Jul-17 A	100%	ó		<b>♦</b> Su	ornit BA8 for tunnel permanent works	
C3840-TU-302	BD assess and approves BA8		28d	0d 05-Jul-17 A	14-Sep-17 A	100%	4			BD assess and approves BA8	
000.0.002	and approved an approved and		200	54 55 54 17 7 C	11 Cop 1171	10070					
C3840-TU-304	BA10 for tunnel permanent works		0d	0d	15-Sep-17 A	100%	6			◆ BA10 for tunnel permanent works	
C3840-TU-306	BD acknowledge BA10		7d	0d 16-Sep-17 A	23-Sep-17 A	100%	6			BD acknowledge BA10	
C3840-TU-308	Erect falsework/workking platform, prepare cj, dowel bars, rebar fixing and fv	wk for lintel beam	114	0d 15-Jul-17 A	28-Sen-17 A	100%	6		<u> </u>	Erect falsework/workking platform, pre	enate of down
	2. 55. Idiochio in mornaring piatrorini, prepare 9, dower bars, rebar inding and iv	ioi mila bealil	iiu	04 10-34F17 A	20.06p-17 A	100%				Liconalson with work thing platful III, pla	paro oj, dowe
C3840-TU-310	Concreting for lintel beam (bay 31)		1d	0d 29-Sep-17 A	29-Sep-17 A	100%	ó			Concreting for lintel beam (bay 31)	
C3840-TU-312	Curing and dismantle formwork for bay 31		11d	0d 30-Sep-17 A	10-Oct-17 A	100%	6			Curing and dismantle formwork for be	ay 31
C3840-TU-316	Condense Pay 22 /hoop glob)		44	0d 11 Oct 17 A	16 Oct 17 A	100%	,			Construct Pour 22 /hone deby	
C3640-10-316	Construct Bay 32 (base slab)		40	0d 11-Oct-17 A	16-Oct-17 A	100%	0			Construct Bay 32 (base slab)	
C3840-TU-318	Construct Bay 33 (side walls)		8d	0d 17-Oct-17 A	24-Oct-17 A	100%	ó			Construct Bay 33 (side walls)	
C3840-TU-319	Dismantle formwork for bay 33		1d	0d 25-Oct-17 A	25-Oct-17 A	100%	6			I Dismantle formwork for pay 33	
C3840-TU-320	Construct Bay 34 (top slab)		80	0d 26-Oct-17 A	04-Nov-17 A	. 100%	6			Construct Bay 34 (top slab)	
C3840-TU-330	Curing & modification of falsework to suit the breakthrough work		5d	0d 05-Nov-17 A	12-Nov-17 A	100%	ó			<ul><li>Curing &amp; modification of falsework</li></ul>	k to suit the br
C3840-TU-340	Remaining curing and dismanle falsework for bay 34		8d	0d 13-Nov-17 A	21-Nov-17 A	100%	, o			Remaining curing and dismanle	falsework for
K11 Breakthroug			203d	0d 17-May-17 A	09-Jan-18 A						
C3840-TU-190	Erect temporary hoarding within K11 Lot (00.00-07:00)		1d	0d 17-May-17 A	17-May-17 A	100%	ó		I Erect ter	nporary hoarding within K11 Lot (0 <mark>0</mark> .00-07:00)	)
C3840-TU-200	Erect flood protection wall within K11 Lot		6d	0d 06-Sep-17 A	04-Oct-17 A	100%	, 0			Erect flood protection wall within K11 L	ot
C3840-TU-210	Breakthrough (core & saw cut) into K11 Lot & associated works		40d	0d 13-Nov-17 A	09-Jan-18 A	100%	6			Breakthrough (core & saw	y cut) into K11
Milestones for Cost Co	entre B - Carnarvon Road Subway and Entrances		1668d	133d 30-Apr-14 A	24-Oct-18		670				
C3840-MS-B01	B1-Complete all U/G UU identif. & cables in north & south foot paths in Carn.	. Rd. exposed	0d	0d	30-Apr-14 A	100%	ó	♦ Bil-Complete all/U/G UU identif. & cables in north & south foot paths in Carn. Rd. exposed			
C3840-MS-B02	B2-Close CR, hoarding erected, all pipes & UU diverted and all O/H signs ren	moved	0d	0d	01-Jun-14 A	100%	6	◆ B2-Close CR, hoarding erected, all pipes & UU diverted and all D/H signs removed			
C3840-MS-B03	B3-All underground utilities affecting the Works satisfactorily removed or prote	ected	0d	0d	31-Aug-14 A	100%	6	◆ B3-All underground utilities affecting the Works satisfactorily removed or protected			
C3840-MS-B04	B4-Comp. inst. of 75% of cofferdam wall for mined tunnel shaft installed, mea	asure as a % of wall	0d	0d	30-Nov-14 A	100%	6	◆ B4-Comp. inst. of 75% of cofferdam wall for mined tunnel shaft installed, mea	asure as a % of wall perimet.		
	perimet.										ļļļļ
C3840-MS-B05	B5-Exc. of mined tunnel shaft reached -3.0mPD level & comp. inst. 50% of co Subway cofferdam	offerdam wall for	0d	0d	28-Nov-15 A	100%	6	♦ B5-Exc. of mined tunnel shaft rea	ached -3.0mPD level & comp. inst. 50% o	cofferdam wall for Subway cofferdam	
C3840-MS-B06	B6-Comp. exc./strut. works in mined tunnel shaft, formation blinded & tunnel mining exc.	portal prepared for	0d	0d	30-Sep-16 A	100%	6		♦ B6-Comp. exc./strut. works in mined	tunnel shaft, formation blinded & tunnel portal	prepared for
C3840-MS-B07	mining exc.  B7-Satisf. passed pump. test for subway cofferdam & comp. inst. of mined tur	nnel canopy tubes &	Ud	0d	14-Nov-16 A	100%	6		◆ B7-Satisf bassed numb teet for	or sublway cofferdam & comp. inst. of mined tur	hnel cahonly tu
303.0 MO DO/	grouted		Ju			. 100/6			- Salar passarpump testile	Jones same a comp. mot. or meneu tu	scalopy to
C3840-MS-B08	B8-Comp. Subway cofferdam 1st level strutting & all utilities satisf. supported to	from it	0d	0d	16-Jan-17 A	100%	6		◆ B8-Comp. Subway coff	erdam 1st level strutting & all utilities satisf sup	ported from it
									<u> </u>	<u> </u>	1 1 1
	Official Provides March	Data Date: 0	1-, lur	n-18						RMPSA1	
Current Bar Actual Work	Critical Remaining Work  Milestone	Data Date: 0	1-Jur	n-18				Master Programme Revision RMPRSA1	Date	RMPSA1 Revision Checked	Approve

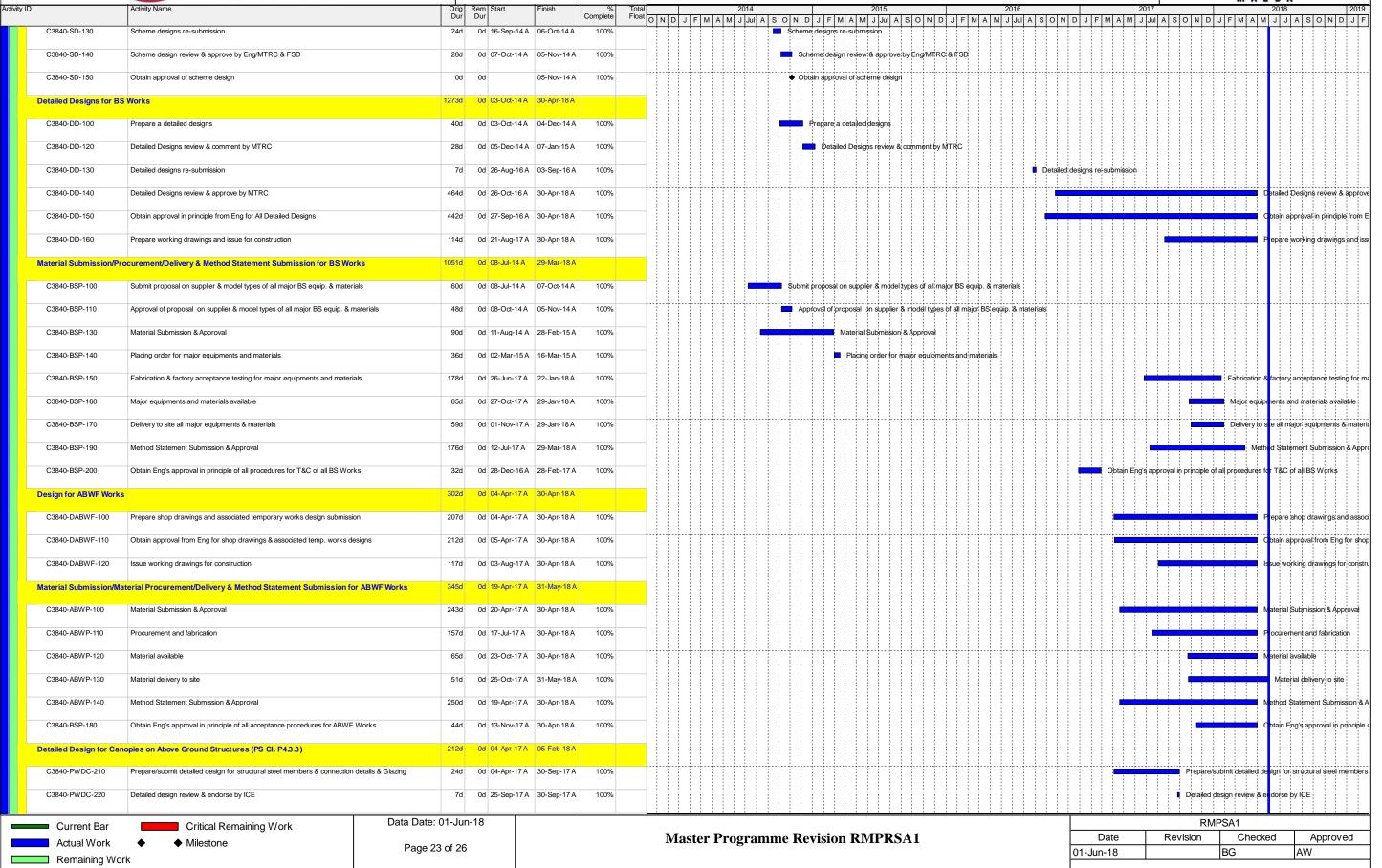






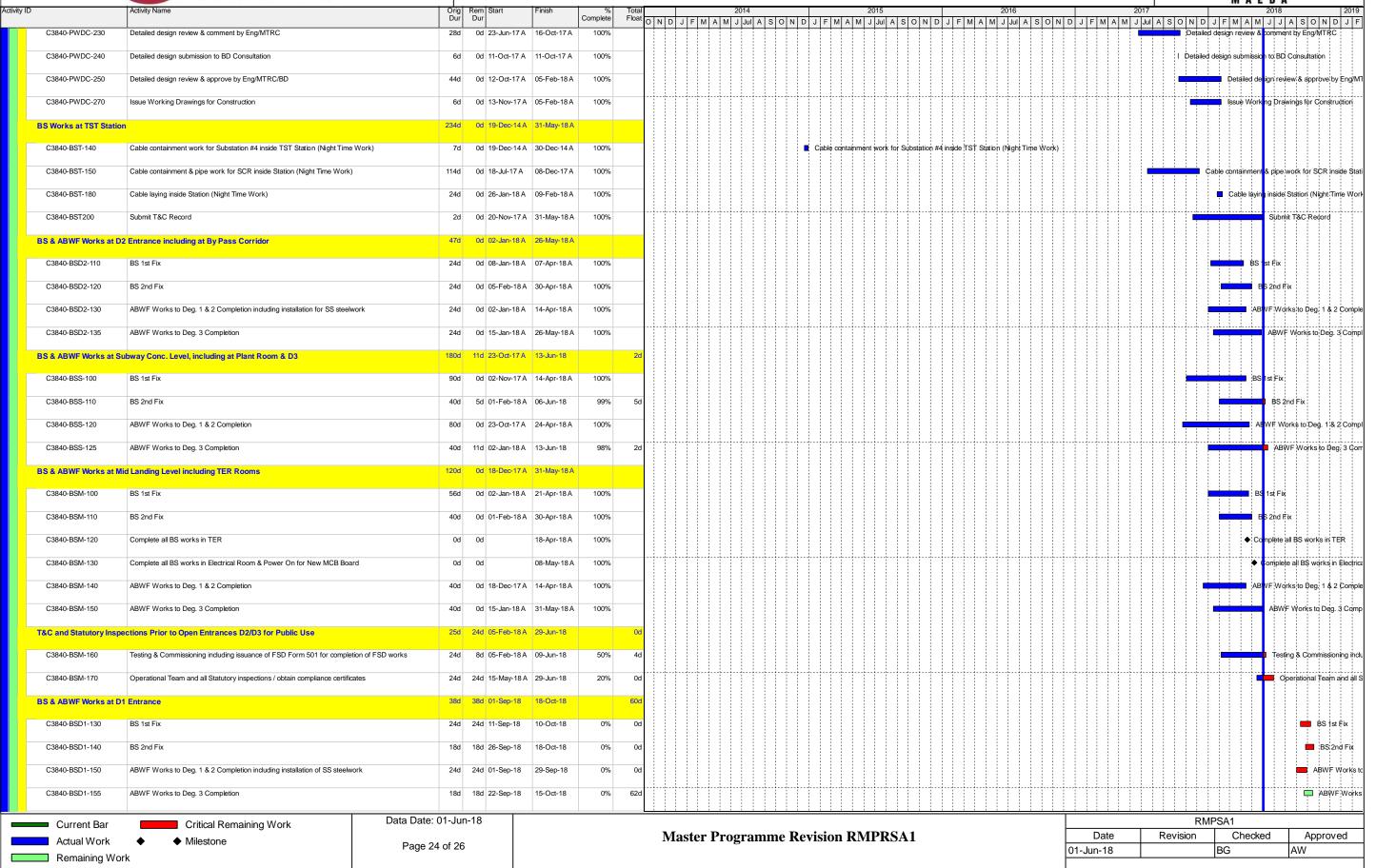






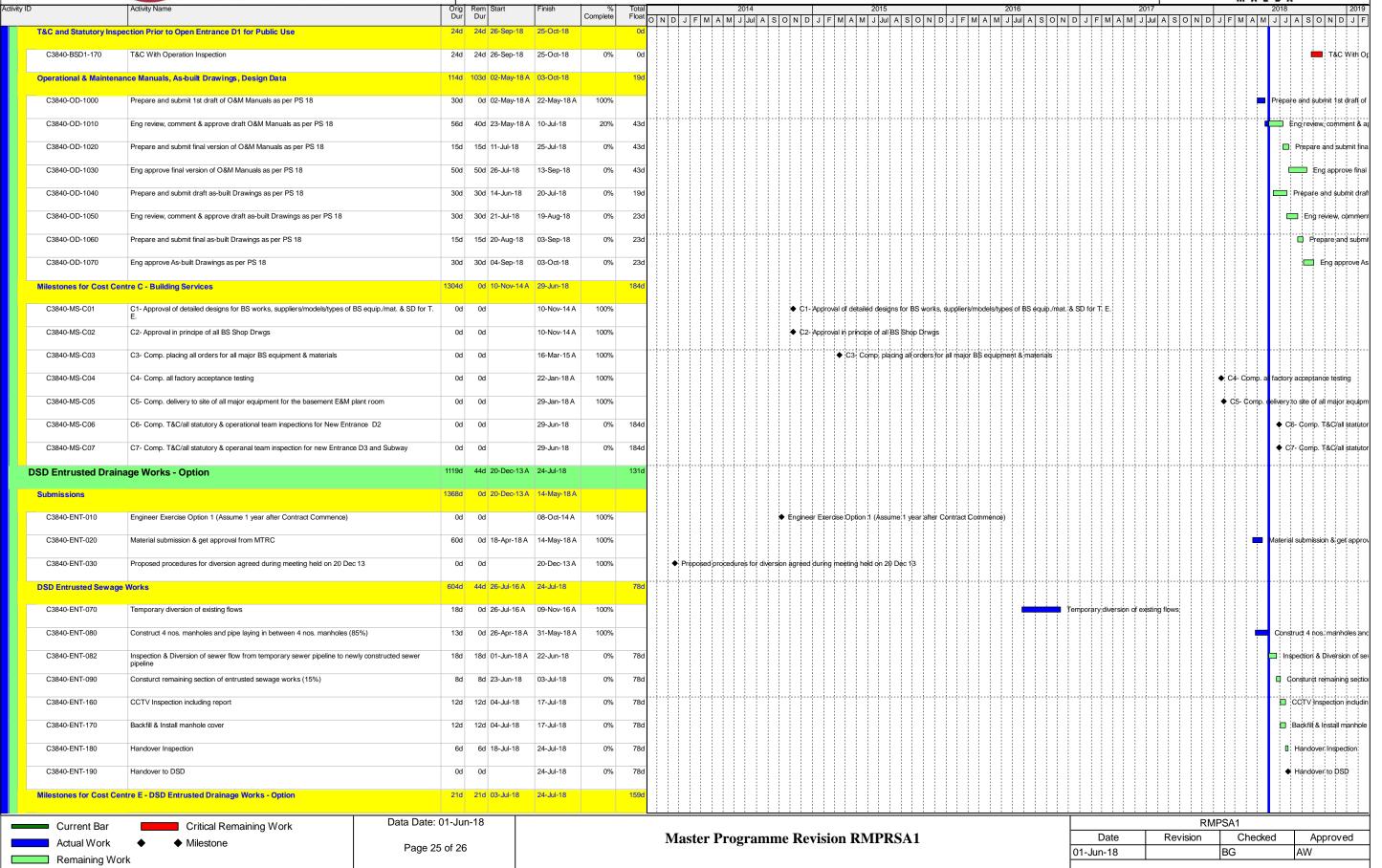












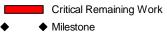


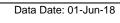
### Tsim Sha Tsui Station, Carnarvon Road Subway



ivity ID	Activity Name		Rem Start	Finish	%	Total	2014	2015	2016	2017	2018 2019
		Dur	Dur		Complete	Float	O N D J F M A M J Jul A S O N D	J F M A M J Jul A S O N	D J F M A M J Jul A S O N	D J F M A M J Jul A S O N D	J F M A M J J A S O N D J F
C3840-MS-E01	E1 - Comp. all drainage works incl. pipes, manholes, bedding and etc.	0d	0d	03-Jul-18	0%	180d					♦ E1 - Comp. all drainage
C3840-MS-E02	E2 - Comp. all inspection works and handed over to DSD	0d	0d	24-Jul-18	0%	159d					♦ E2 - Comp. all inspect
Interface Requirem	nents Associated with Designated Contracts	893d	0d 14-Mar-16	A 11-Oct-18		81d					
Access Dates for De	esignated Contractors As PS Appendix B	893d	0d 14-Mar-167	11-Oct-18		81d					
C3840-DC-10	CN&SE- Temp. stairs, temp. Entrance D and cable routing connecting to exist. TST Stn. at Temp Ent. D	0d	0d 14-Mar-167	4	100%				◆ CN&SE- Temp. stairs, temp. E	ntrance D and cable routing connecting to exis	st. T\$T \$tn.;at †emp Ent. D
C3840-DC-20	CN&SE- All public areas, back of house areas and cable routings at New Entrance D1	0d	0d 11-Oct-18		0%	81d					♦ CN&SE-Altı
C3840-DC-30	CN&SE- New Telc. E. Rm, all pub. areas, back of house areas and cab. rout. at B. P. Rm, m.l., Subw& N.E. D2	0d	0d 02-May-18	A	100%						♦ CN&SE- New Telc. E. Rm, all p
C3840-DC-40	CN&SE- All public areas, back of house areas & cable routings at Subway & new Ent. D3	0d	0d 02-May-18	A	100%						♦ CN&SE-All public areas, back o
C3840-DC-50	Security Access Management- Doors requiring security protection or door contacts at Basement P. Rm.	0d	0d 02-May-18	A	100%						Security Access Management- D
C3840-DC-60	Escalators- Excalator zones, pits, machine rms and cable routes at Subway IvI to mid-landing	0d	0d 01-Nov-17	4	100%					♦ Esca	lators- Excalator zones, pits, machine rms and cal
C3840-DC-70	K11 ABWF & BS-Subway & new Entrance D3 within K11 Lot Boundary at Subway within K11 Lot B.	0d	0d 08-Feb-187	4	100%						♦ K11;ABWF & BS-Subway;& new Entrance







Page 26 of 26

RMPSA1													
Date	Revision	Checked	Approved										
01-Jun-18		BG	AW										

# **APPENDIX D**

**IMPLEMENTATION SCHEDULE** 

# Appendix VIII

# Implementation Schedule

Project Profile Ref.	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concerns to address	Implementation Parties	Location of the measure	When to implement the measure	Relevant requirements or standards for the measure to achieve
8.3.1	Use of quieter plant	To minimise construction noise emissions	Contractor	Work site	Construction Stage	ProPECC PN2/93 and Noise Control Ordinance
0. 	Use of noise enclosure and movable barrier  • movable barrier can achieve a 5 dB(A) reduction for movable PME and 10 dB(A) reduction for stationary PME;  • noise enclosure can achieve 15dB(A) reduction for PME;  • A typical design barrier with a steel frame of vertical / cantilever type would be adopted and located close to the noise generating part of PME;  • Barrier material of surface mass in excess of 7kg/m² shall be required to achieve the maximum screening effect (and minimum 10kg/m² for noise enclosure);  • The length of barrier should generally be at least five times greater than its height and the minimum height of a barrier should be such that no part of the noise source will be visible from the noise sensitive receiver being protected.	To minimize construction noise emissions	Contractor	Work site	Stage Stage	ProPECC PN2/93, Noise Control Ordinance and EIAO Guidance Note NO. 9/2010
S.3.1	General Construction Noise Control Measures  The Code of Practice on Good Management Practice	To minimize construction noise	Contractor	Work site	Construction Stage	ProPECC PN2/93 and Noise Control

Project	Recommended Mitigation Measures	Objectives of the	Implementation	Location	When to	Relevant
Profile Ref.		Recommended Measures & Main	Parties	of the measure	implement the measure	requirements or standards for
		Concerns to address				the measure to achieve
	to Prevent Violation of the Noise Control Ordinance (Chapter 400) (for Construction Industry) published	emissions				Ordinance
	by EPD shall be adopted;					
	The statutory and non-statutory requirements and considerings shall be complied with:					
	Approval for the method of working, equipment and					
	noise mitigation measures intended to be used at the					
	site shall be granted from the Project Engineer before commencing any work:					
	<ul> <li>Working methods to minimize the noise impact on the</li> </ul>					
	surrounding NSRs shall be formulated and executed,					
	and the implementation of these methods shall be					
	monitored by experienced personnel with suitable					
	training;					
	<ul> <li>Noisy equipment and noisy activities shall be located</li> </ul>					
	as far away from the NSRs as is practical;					
	<ul> <li>Unused equipment shall be turned off;</li> </ul>					
	<ul> <li>PME should be kept to a minimum and the parallel</li> </ul>					
	use of noisy equipment / machinery should be					
	avolueu,					
	<ul> <li>All plant and equipment shall be maintained regularly; and</li> </ul>					
	and other structu					
	effectively utilized as noise barriers, whenever					
	practicable.					
	Air Quality Impact					
S.3.2	Construction Dust Control Measures	To minimise the	Contractor	Work site	Construction	Air Pollution
	Decking will be provided subsequent to the completion of surface oxygnation works. The duration	dust impacts			Stage	Control
	competion of sunace excavation works. The duration	anding non and				Collection

Parties of the implement Concerns to address a Main Concerns to address excavation works:  - Requent watering to reduce dust emissions from all exposed site surface, particularly during dry weather: - Frequent watering for particularly during dry waterial by impervious sheeting or spraying with water to points of the site; and maintain the entire surface wer; - Provision of vehicle washing facilities at the exit points of the site; and or vehicle leaving the site Provision of vehicle washing facilities at the exit points of the site; and or vehicle leaving the site Provision of vehicle washing facilities at the exit points of the site; and or vehicle leaving the site Provision of vehicle washing facilities at the exit points of the site; and or vehicle leaving the site Provision of vehicle washing facilities at the exit points of the site; and or vehicle leaving the site Provision of vehicle washing facilities at the exit points of the site; and or vehicle leaving the site Provision of vehicle washing facilities and properfice or properfice and properfice and the site of the site o	Project	Recommended Mitigation Measures	Objectives of the	Implementation	Location	When to	Relevant
of decking is around 13 months after surface construction works.  • Regular watering to reduce dust emissions from all excavation works;  • Frequent watering to reduce dust emissions from all exposed site surface, particularly during dry weather;  • Frequent watering to reduce dust emissions from all exposed site surface, particularly during dry weather;  • Frequent watering to reparticularly during dry weather;  • Frequent watering to reduce dust emissions from a treas and areas do are frequent water of the provision of vehicle washing facilities at the exit provision of vehicle washing from the assures and practices specified in the ProPECC PN 1/94 "Construction Site Drainage" and readed to ensure the discharge standards as stipulated in WPCO are met. Silt trap and oil interceptor should be provided to remove the oil Lubricants, grease, sit, grif and debris from the wastewater before being pumped to the public stormwater drainage system. The silt traps and oil interceptors should be cleaned and maintained regularly.	Profile Ref.		Recommended Measures & Main Concerns to address	Parties	of the measure	implement the measure	requirements or standards for the measure to achieve
Water Quality Impact Construction Water Quality Impact Construction Water Quality Impact Construction Water Quality Impact Measures  • The Contractor should design and implement all the mitigation measures and practices specified in the ProPECC PN 1/94 "Construction Site Drainage" and "Recommended Pollution Control Clauses for Construction Contracts" issued by EPD.  • All runoffs arising from the construction site should be provided to remove the oil, lubricants, grease, silt, grit and debris from the wastewater before being pumped to the public stormwater drainage system. The silt traps and oil interceptors should be cleaned and maintained regularly.		of decking is around 13 months after excavation works; Regular watering to reduce dust emissions exposed site surface, particularly during dry w Frequent watering for particularly during dry wareas and areas close to air sensitive receiver Cover all excavated or stockpile of dusty ma impervious sheeting or spraying with w maintain the entire surface wet; Provision of vehicle washing facilities at points of the site; and Provision of tarpaulin covering of any dusty m on a vehicle leaving the site.	construction works				Dust) Regulation
Construction Water Quality Impact Measures  • The Contractor should design and implement all the mitigation measures and practices specified in the ProPECC PN 1/94 "Construction Site Drainage" and "Recommended Pollution Control Clauses for Construction Contracts" issued by EPD.  • All runoffs arising from the construction site should be properly collected and treated to ensure the discharge standards as stipulated in WPCO are met. Silt trap and oil interceptor should be cleaned to remove the oil, lubricants, grease, silt, grit and debris from the wastewater before being pumped to the public stormwater drainage system. The silt traps and oil interceptors should be cleaned and maintained regularly.		Water Quality Impact					
	S.3.3	ient al ied in nage" auses seboul sure oed to oed to sed to	To reduce water quality impact induced by the construction work	Contractor	Work Site	Construction Stage	ProPECC PN1/94; Water Pollution Control Ordinance

Project	Recommended Mitigation Measures	Objectives of the	Implementation	Location	When to	Relevant
Profile Ref.		Recommended Measures & Main Concerns to address	Parties	of the measure	implement the measure	requirements or standards for the measure to achieve
	Any foul effluent should not be discharged into any public sewer and stormwater drain, unless an effluent discharge permit is obtained under the WPCO by the Contractor.					
	<ul> <li>Site toilet facilities, if needed, should be chemical toilets or should have the foul water effluent directed to a foul sewer.</li> </ul>					
	Waste Management					
8.3.4	Construction Waste Management Measures	To adopt waste	Contractor	Work Site	Construction	Waste Disposal
	site	management			Stage	Ordinance (Cap.
	as possible to minimise off-site disposal. Scrap	measures in the				54); Waste
	metals or abandoned equipment should be recycled if	way of avoiding,				Disposal (Chemical Waste)
	<ul> <li>Waste arising should be kept to a minimum and be</li> </ul>	and recycling so as				(General)
	handled, transported and disposed of in a suitable	to reduce waste				Regulation;
	manner.	generation				ETWB TCW No.
	The Contractor should adopt a trip ticket system for					31/2004; ETWB
	Ξ					TCW No.
	public filling facility and/or landfill. Independent					19/2005.
	audits of the Contractor and resident site staff will be					
	undertaken to ensure that the correct procedures are					
	being followed.					
	Chemical waste shall be handled in accordance with					
	Storage of Chemical Wastes.					
	All general refuse should be segregated and stored in					
	enclosed bins or compaction units and waste					
	separation facilities for paper, aluminium cans, plastic					
	bottles etc. should be provided to facilitate reuse or					

Project Profile Ref.	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concerns to	Implementation Parties	Location of the measure	When to implement the measure	Relevant requirements or standards for the measure to
	recycling of materials and their proper disposal.	address				achieve
	Landscape and Visual Impact					
8.3.5	Landscape and Visual Measures	To reduce visual	Contractor	Temporary	Construction	EIAO
	Screening of construction works by hoardings/noise	impact by		Storage	Stage	
	partiers around works area with visually unobtrusive colours	constituction works.		Area at Salisbury		
				Road		
8.3.5	<ul> <li>Reinstating the affected amenity planting area at</li> </ul>	To prevent loss of	Contractor	Temporary	Operation	ETWB TCW No.
	Salisbury Road after the completion of works	planter after		Storage	Stage	2/2004
		construction		Area at		
				Salisbury		
				Road		

# **APPENDIX E**

STATUS OF ENVIRONMENTAL LICENSES AND PERMITS



# **Maeda Corporation**

Contract No. C3840-13C
Tsim Sha Tsui Station Carnarvon Road Subway

Last Update: 01-December-2018

# **Licence Summary**

Item No.	Our Ref.	Govt. Ord.	Type? (License / Permit / Account / Notification / Registration & etc.)	Description	Submission	Ref. No	Date of Submission (to EPD) (DD-MM-YYYY)	Date of Approval / Receipt (from EPD) (DD-MM-YYYY)	Date of Activation (DD-MM-YYYY)	Date of Expiry (DD-MM-YYYY) Green = expire next mth; Yellow = expire this wk; Red = Expired	Description	Remarks
000	000	EIAO	Permit	Environmental Permit	N/A	AEP-440/2012	N/A	N/A	18 - 07 - 2012	N/A	Baseline, Air & Noise Impact Monitoring	
001	APCO #004	APCO	Notification	Construction Dust Notification	Form NB – Notification S3(3) of APCO (Construction Dust)	433242	04 - 05 - 2018	07 - 05 - 2018	01 - 01 - 2016	31 - 12 - 2018	Construction of the Superstructure of a Building	Change of anticipated date of completion is notified
001	APCO #002	APCO	Notification	Construction Dust Notification	Form NB – Notification S3(3) of APCO (Construction Dust)	403252	27 - 05 - 2016	02 - 06 - 2016	01 - 11 - 2016	28 - 02 - 2019	Road Construction Work	Change of anticipated date of completion is notified
002	APCO #002	WDO	Account	Construction Waste Billing Account	EPD-211 (Form 1) Application for a Billing Account for Disposal of Construction Waste	7018523	18 - 10 - 2013	25 - 10 - 2013	25 - 10 - 2013	N/A	Disposal of C&D Waste	Application No. WFG12765
003	WPCO #002	WPCO	Licence	Water Discharge Licence	EPD-117 (Form A) Application for a Licence of Water Discharge	WT00019722-2014	24 - 07 - 2014	01 - 09 - 2014	01 - 09 - 2014	31 - 03 - 2019	Quarterly Report FlowRate 25m3/d, pH 6-9, SS 30mg/L, COD 80mg/L	
004	CWP #001	WDO	Registration	Chemical Waste Producer	EPD-129 Application for Registration as a Chemical Waste Producer	5213-2214-M2446-16	15 - 01 - 2014	04 - 03 - 2014	04 - 03 - 2014	N/A	Surplus paint, spent lubrucating oil, spent battery	
006	CNP#011	NCO	Permit	Construction Noise Permit	(-)	OSS Ref: 002069312 Permit: GW-RE0635-18	05 - 09 - 2018	19 - 09 - 2018	01 - 10 - 2018	30 - 03 - 2019	4nos Submersible Water pump (Electric) or 1 drill for 24-hr; 4 drill & 4 grinder for 07:00-23:00	Working Area includes the underground area

# **APPENDIX F**

**EVENT AND ACTION PLAN** 

# Event and Action Plan for Air Quality

In case the Action and Limit Levels are not complied during construction stage, the Event and Action Plan shown below should be followed.

Event / Action	ET	IEC	ER	Contractor
Exceedance for one sample	<ol> <li>Identify source;</li> <li>If valid, inform IEC and ER;</li> <li>Repeat measurement to confirm finding;</li> <li>Increase monitoring frequency to daily.</li> </ol>	1. Check monitoring data submitted by ET;  2. Check Contractor's working method.	1. Notify Contractor	Rectify any unacceptable practice;      Amend working methods if appropriate
Exceedance for two or more consecutive samples	<ol> <li>Identify source;</li> <li>Inform IEC and EPD;</li> <li>Repeat measurements to confirm findings;</li> <li>Increase monitoring frequency to daily;</li> <li>Discuss with IEC and Contractor on remedial action required;</li> <li>If exceedance continues, arrange meeting with IEC and ER;</li> <li>If exceedance stops, cease additional monitoring.</li> </ol>	<ol> <li>Check monitoring data submitted by ET;</li> <li>Check Contractor's working method;</li> <li>Discuss with ET and Contractor on possible remedial measures;</li> <li>Advise the ER on the effectiveness of the proposed remedial measures;</li> <li>Supervise implementation of remedial measures.</li> </ol>	<ol> <li>Confirm receipt of notification of failure in writing;</li> <li>Notify Contractor;</li> <li>Ensure remedial measure properly implemented.</li> </ol>	<ol> <li>Submit proposals for remedial action to IEC within 3 working days of notification;</li> <li>Implement the agreed proposals;</li> <li>Amend proposal if appropriate.</li> </ol>
Limit Level Exceedance for one sample	1. Identify source; 2. Inform ER and EPD; 3. Repeat measurement to confirm finding; 4. Increase	1. Check monitoring 2. data submitted by ET; 3. Check Contractor's working	1. Confirm receipt of notification of failure in writing; 2. Notify Contractor; 3. Ensure remedial	1. Take immediate action to avoid further exceedance;  2. Submit proposals for remedial actions to IEC

Event / Action	ET	IEC	ER	Contractor
	monitoring frequency to daily;  5. Assess effectiveness of Contractor's remedial actions and keep IEC, EPD and ER informed of the results.	method; 4. Discuss with ET and the Contractor on possible remedial measures; 5. Advise the ER on the effectiveness of the proposed remedial measures; 6. Supervise implementation of remedial measures.	measures properly implemented.	within 3 working days of notification;  3. Implement the agreed proposals;  4. Amend proposal if appropriate.
Exceedance for two or more consecutive samples	1. Notify IEC, ER, Contractor and EPD; 2. Identify sources; 3. Repeat measurement to confirm findings; 4. Increase monitoring frequency to daily; 5. Carry out analysis of Contractor's working procedures to determine possible mitigation to be implemented; 6. Arrange meeting with IEC and ER to discuss the remedial actions to be taken; 7. Assess the effectiveness of Contractor's remedial actions and keep IEC, EPD and ER informed of the	1. Discuss amongst ER, ET and Contractor on the potential remedial actions;  2. Review Contractor's remedial actions whenever necessary to assure their effectiveness and advise the ET accordingly.  3. Supervise the implementation of remedial measures.	<ol> <li>Confirm receipt of notification of failure in writing;</li> <li>Notify Contractor;</li> <li>In consultation with IEC, agree with the Contractor on the remedial measures to be implemented;</li> <li>Ensure remedial measures properly implemented;</li> <li>If exceedance continues, consider what portion of the work is responsible and instruct the Contractor to stop that portion of work until the exceedance is abated.</li> </ol>	1. Take immediate action to avoid further exceedance;  2. Submit proposals for remedial actions to IEC within 3 working days of notification;  3. Implement the agreed proposals;  4. Resubmit proposals if problem still not under control;  5. Stop the relevant portion of works as determined by the ER until the exceedance is abated.

Event / Action	ET	IEC	ER	Contractor
	results;			
	8. If exceed stops, ce additiona monitorin	ase I		

# Event and Action Plan for Construction Noise

In case the Action and Limit Levels are not complied during the construction stage, the Event and Action Plan shown below should be followed.

Event / Action	ET	IEC	ER	Contractor
Action Level	<ol> <li>Notify IEC and Contractor.</li> <li>Carry out investigation.</li> <li>Report the results of investigation to the IEC and Contractor.</li> <li>Discuss with the Contractor and formulate remedial measures</li> <li>Increase monitoring frequency to check mitigation effectiveness.</li> </ol>	<ol> <li>Review the analyzed result submitted by ET.</li> <li>Review the proposed remedial measures by the Contractor and advise the ER accordingly.</li> <li>Supervise the implementation of remedial measures.</li> </ol>	<ol> <li>Confirm receipt of notification of exceedance</li> <li>Notify Contractor</li> <li>Require Contractor to propose remedial measures for the analysed noise problem</li> <li>Ensure remedial measures are properly implemented.</li> </ol>	Submit noise mitigation proposals to IEC     Implement noise mitigation proposals
Limit Level	1. Notify IEC, ER, EPD and Contractor, and follow other actions  2. Identify source  3. Repeat measurement to confirm findings  4. Increase monitoring frequency  5. Check Contractor's working procedures to determine possible mitigation to be implemented  6. Inform IEC, ER and EPD the causes and actions taken for the exceedances  7. Assess effectiveness of Contractor's	1. Discuss amongst ER, ET and Contractor on the potential remedial actions  2. Review Contractor's remedial actions whenever necessary to assure their effectiveness and advise the ET accordingly  3. Supervise the implementation of remedial measures	1. Confirm receipt of notification of exceedances  2. Notify Contractor  3. Require Contractor to propose remedial measures  4. Ensure remedial measures are properly implemented  5. If exceedance continues, consider what portion of the work is responsible and instruct the Contractor to stop that portion of work until the exceedance is abated.	1. Take immediate action to avoid further exceedance 2. Submit proposals for remedial actions to IEC within 3 working days of notifications 3. Implement the agreed proposals 4. Revise and resubmit proposals if problem still not under control 5. Stop the relevant portion of works as determined by the ER until the exceedance is abated

Event / Action	ET	IEC	ER	Contractor	
	remedial actions and keep IEC, EPD, ER informed of the results				
	If exceedance stops, cease additional monitoring				

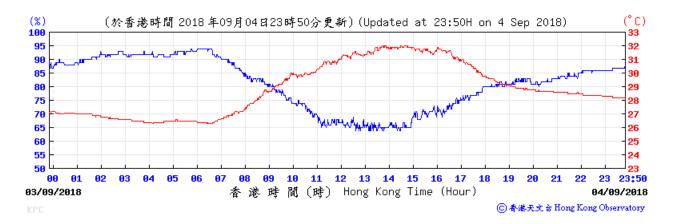
# **APPENDIX G**

WEATHER INFORMATION EXTRACTED FROM HK OBSERVATORY

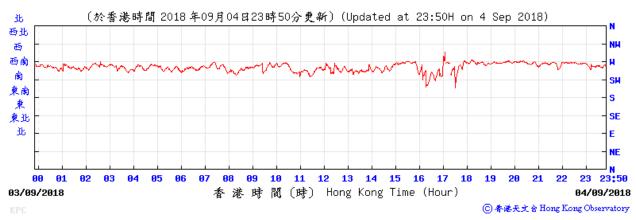
Daily	Total Rainfall at	King's Parl	k HKO W	/eather Monitoring Station - September 2018
Day	Total Rainfall, mm	1-hr TSP	Noise	Remarks
1	32			
2	9.8			
3	0.3			
4	0		✓	No significant rainfall during noise measurement
5	0.1			
6	0			
7	Trace			
8	24.6			
9	16.7			
10	0.2			
11	0		✓	No significant rainfall during noise measurement
12	Trace			
13	2.5			
14	0			
15	Trace			
16	167.5			
17	12			
18	1.2			
19	0			
20	0			
21	0	✓	✓	No significant rainfall during noise measurement
22	0			
23	Trace			
24	72.2			
25	34.5			
26	9.7			
27	Trace	✓	✓	No significant rainfall during noise measurement
28	0			
29	0			
30	0			
Mean/Total	383.3			
Normal	327.6			

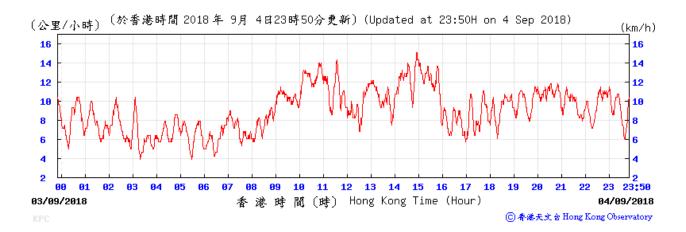
### King's Park Weather Station - 04 September 2018

Temperature/Humidity:



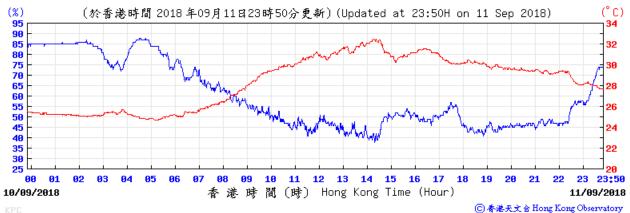
### Wind Direction:



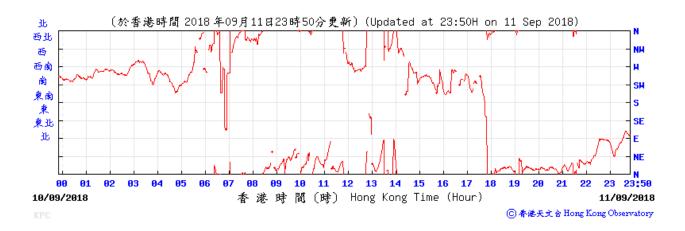


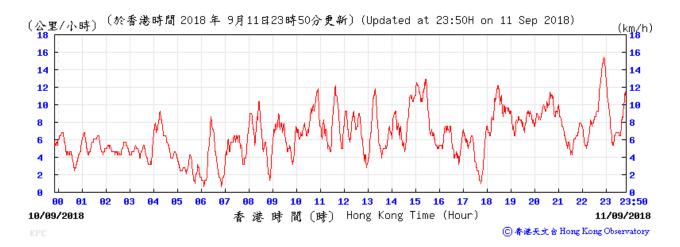
### King's Park Weather Station - 11 September 2018

### Temperature/Humidity:



#### Wind Direction:



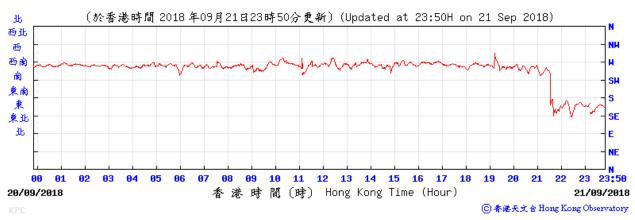


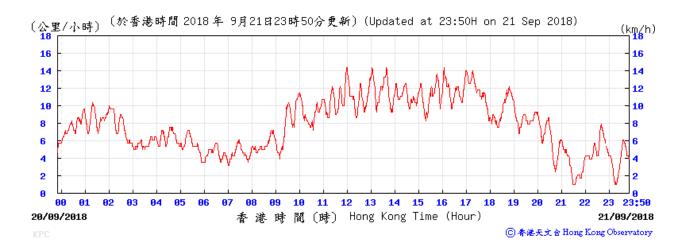
### King's Park Weather Station - 21 September 2018

Temperature/Humidity:



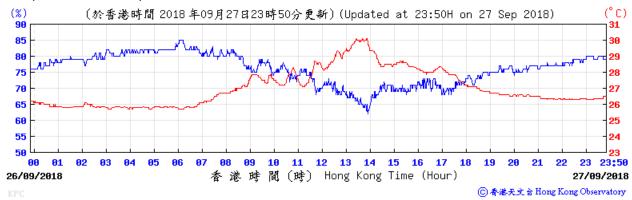
Wind Direction:





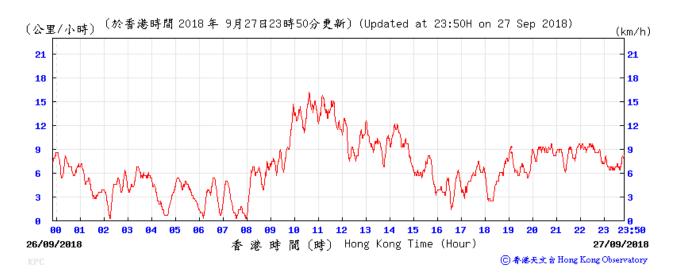
### King's Park Weather Station - 27 September 2018

### Temperature/Humidity:



### Wind Direction:

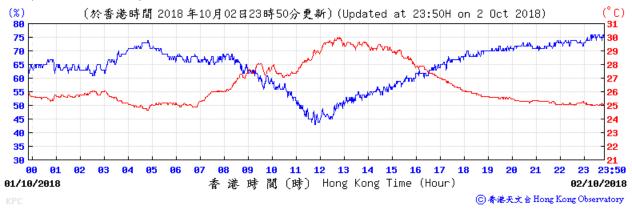




2.9 0.0 0.0 0.0 0.0 0.0 0.0 0.0 2.0 0.6 42.8 0.0 0.3 0.4	✓	✓ ✓	No significant rainfall during noise measurement  No significant rainfall during noise measurement
0.0 0.0 0.0 0.0 0.0 2.0 0.6 42.8 0.0 0.3			
0.0 0.0 0.0 0.0 2.0 0.6 42.8 0.0 0.3	✓	4	No significant rainfall during noise measurement
0.0 0.0 0.0 2.0 0.6 42.8 0.0 0.3	<b>√</b>	· ·	No significant rainfall during noise measurement
0.0 0.0 2.0 0.6 42.8 0.0 0.3	<b>*</b>	<b>✓</b>	No significant rainfall during noise measurement
0.0 2.0 0.6 42.8 0.0 0.3	<b>V</b>	<b>✓</b>	No significant rainfall during noise measurement
2.0 0.6 42.8 0.0 0.3	<b>√</b>	<b>✓</b>	No significant rainfall during noise measurement
0.6 42.8 0.0 0.3	<b>*</b>	<b>√</b>	No significant rainfall during noise measurement
42.8 0.0 0.3	✓	<b>√</b>	No significant rainfall during noise measurement
0.0 0.3			
0.3			
0.4			
0.6			
31.4			
8.9	✓	✓	No significant rainfall during noise measurement
1.5			
12.6			
0.2			
Trace			
Trace			
Trace			
0.1	✓	✓	No significant rainfall during noise measurement
Trace			
0.0			
0.0			
0.0			
0.0			
0.0			
0.0	✓	✓	No significant rainfall during noise measurement
	0.0 0.0	0.0 0.0 0.0	0.0 0.0 0.0

#### King's Park Weather Station - 02 October 2018

#### Temperature/Humidity:



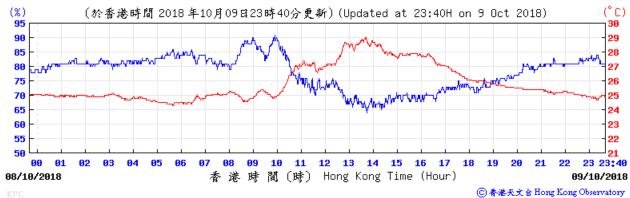
#### Wind Direction:





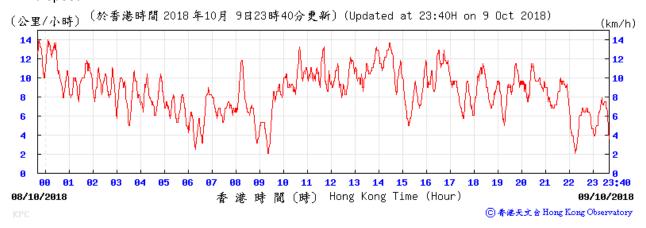
#### King's Park Weather Station - 09 October 2018

#### Temperature/Humidity:



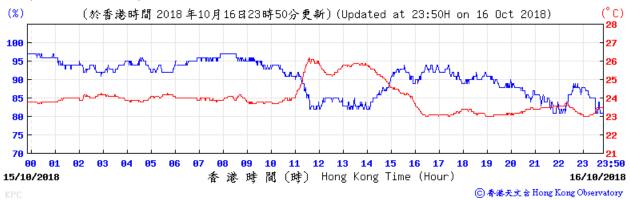
#### Wind Direction:





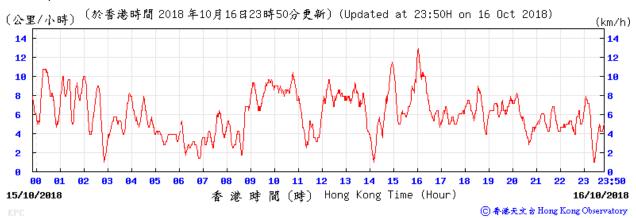
#### King's Park Weather Station - 16 October 2018

### Temperature/Humidity:



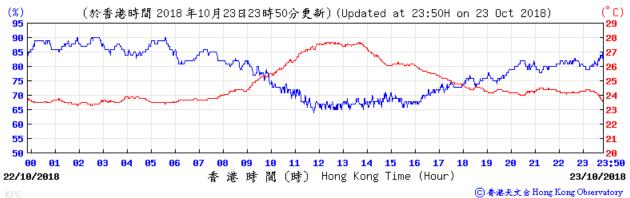
#### Wind Direction:



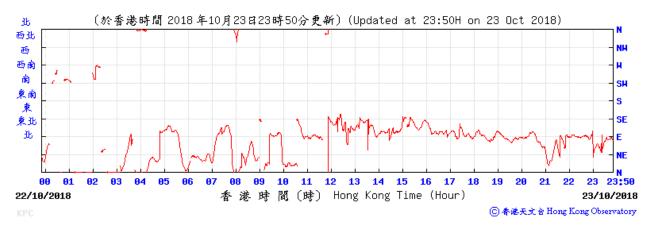


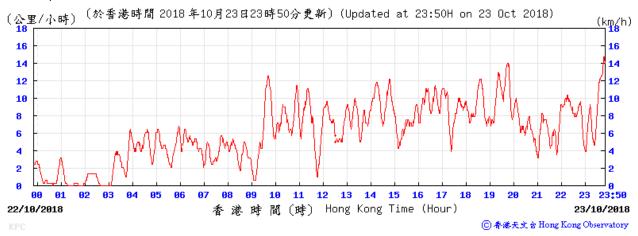
#### King's Park Weather Station - 23 October 2018

#### Temperature/Humidity:



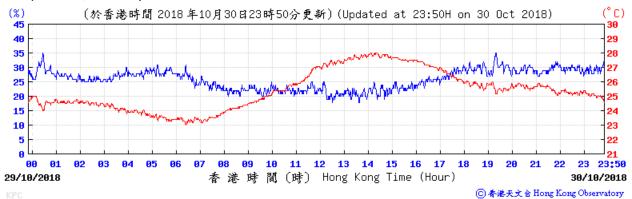
#### Wind Direction:



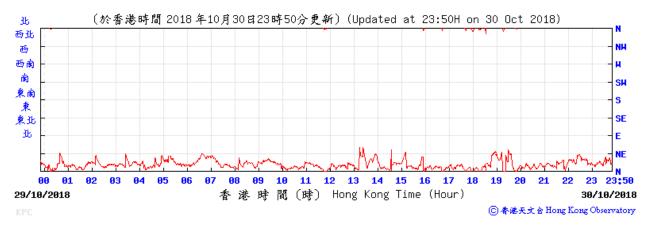


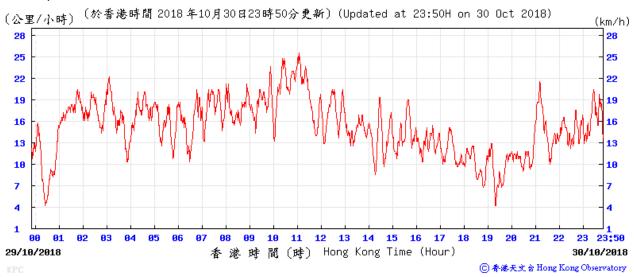
#### King's Park Weather Station - 30 October 2018

#### Temperature/Humidity:



#### Wind Direction:

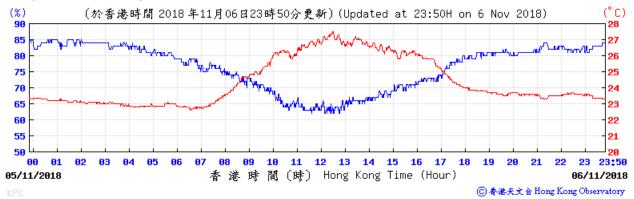




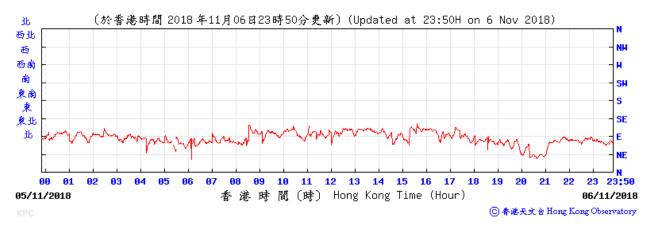
Day	Total Rainfall, mm	1-hr TSP	Noise	Remarks
1	0.0			
2	0.1			
3	8.3			
4	Trace			
5	Trace			
6	0.0	✓	✓	No significant rainfall during noise measurement
7	0.0			
8	Trace			
9	0.0			
10	Trace			
11	0.0			
12	Trace			
13	Trace	✓	✓	No significant rainfall during noise measurement
14	Trace			
15	Trace			
16	1.1			
17	0.5			
18	0.0			
19	0.0			
20	0.1	✓	✓	No significant rainfall during noise measurement
21	2.4			
22	0.2			
23	Trace			
24	Trace			
25	21.0			
26	15.7			
27	16.3	✓	✓	No significant rainfall during noise measurement
28	7.7			
29	Trace			
30	0.0			
ean/Total	73.4			

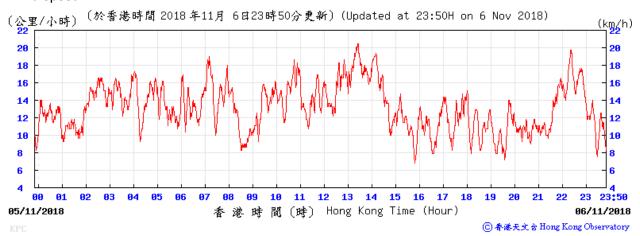
#### King's Park Weather Station - 06 November 2018

#### Temperature/Humidity:



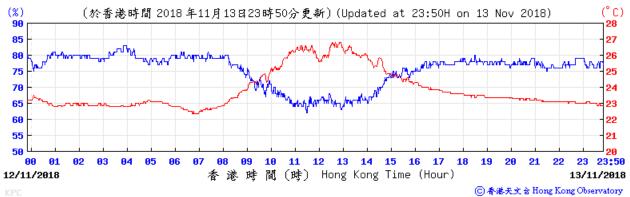
#### Wind Direction:





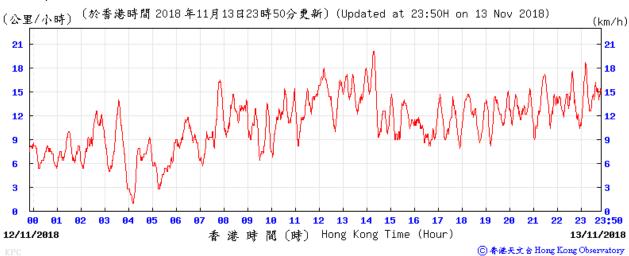
#### King's Park Weather Station - 13 November 2018

#### Temperature/Humidity:



#### Wind Direction:





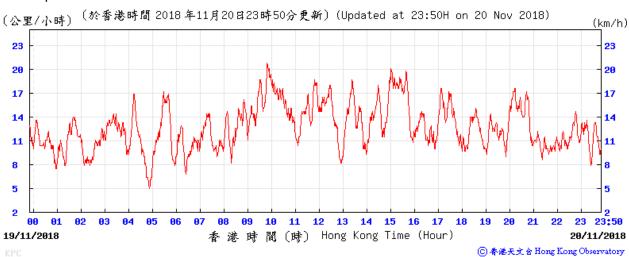
#### King's Park Weather Station - 20 November 2018

#### Temperature/Humidity:



#### Wind Direction:





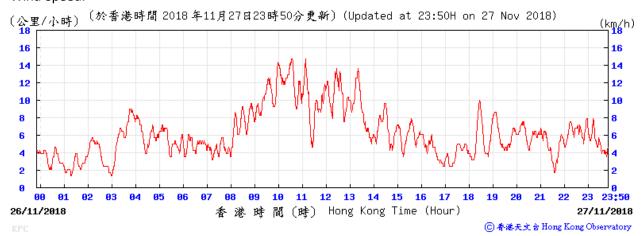
#### King's Park Weather Station - 27 November 2018

#### Temperature/Humidity:



#### Wind Direction:

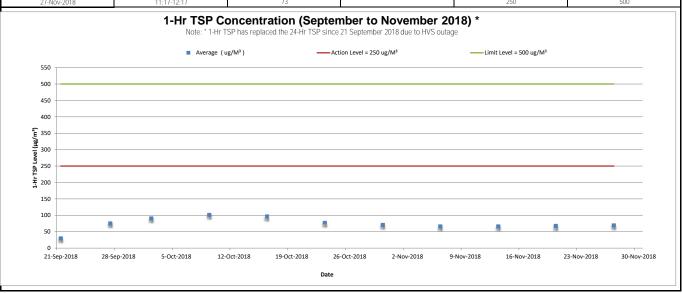




# **APPENDIX H**

**MONITORING RESULTS AND PLOTS** 

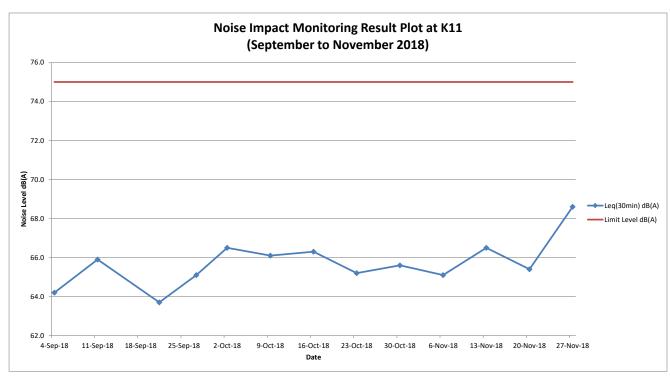
	1-Hr TSP Results and Plot									
Date	Time	Result (ug/M³)	Average (ug/M³)	Action Level = 250 ug/M³	Limit Level = 500 ug/M³					
21-Sep-2018	09:00-10:00	28		250	500					
21-Sep-2018	10:00-11:00	31	30	250	500					
21-Sep-2018	11:00-12:01	31	Ī	250	500					
27-Sep-2018	09:00-10:00	79		250	500					
27-Sep-2018	10:00-11:00	71	75	250	500					
27-Sep-2018	11:00-12:01	76	Ī	250	500					
2-Oct-2018	09:53-10:53	84		250	500					
2-Oct-2018	10:53-11:53	91	91	250	500					
2-Oct-2018	11:53-12:53	97	Ī	250	500					
9-Oct-2018	09:43-10:43	91		250	500					
9-Oct-2018	10:43-11:43	102	102	250	500					
9-Oct-2018	11:43-12:43	112		250	500					
16-Oct-2018	09:31-10:31	101		250	500					
16-Oct-2018	10:31-11:31	96	96	250	500					
16-Oct-2018	11:31-12:31	91	Ī	250	500					
23-Oct-2018	09:47-10:47	83		250	500					
23-Oct-2018	10:47-11:47	77	77	250	500					
23-Oct-2018	11:47-12:47	72		250	500					
30-Oct-2018	09:07-10:07	72		250	500					
30-Oct-2018	10:07-11:07	71	71	250	500					
30-Oct-2018	11:07-12:07	70	Ī	250	500					
6-Nov-2018	09:11-10:11	69		250	500					
6-Nov-2018	10:11-11:11	70	66	250	500					
6-Nov-2018	11:11-12:11	60	Ī	250	500					
13-Nov-2018	09:13-10:13	61		250	500					
13-Nov-2018	10:13-11:13	70	66	250	500					
13-Nov-2018	11:13-12:13	68	Ī	250	500					
20-Nov-2018	09:17-10:17	70		250	500					
20-Nov-2018	10:17-11:17	70	67	250	500					
20-Nov-2018	11:17-12:17	62		250	500					
27-Nov-2018	09:17-10:17	65		250	500					
27-Nov-2018	10:17-11:17	70	69	250	500					
27-Nov-2018	11:17-12:17	73	1	250	500					



Monitoring Locations	Date	Weather Conditions	Wind Speed (m/s)	Start Time	End Time	Background Level dB(A)	Limit Level dB(A)	Leq(30min) dB(A)	L10(30min) dB(A)	L90(30min) dB(A)
	4-Sep-18	Sunny	8.0	10:12	10:42	65.3	75	64.2	58.0	58.5
	11-Sep-18	Sunny	1.6	8:39	9:09	65.3	75	65.9	67.5	63.0
	21-Sep-18	Sunny	1.6	10:00	10:30	65.3	75	63.7	64.5	62.5
	27-Sep-18	Overcast	2.1	10:21	10:51	65.3	75	65.1	65.0	62.5
	2-Oct-18	Overcast	8.0	9:53	10:23	65.3	75	66.5	67.0	64.5
	9-Oct-18	Overcast	1.6	9:43	10:13	65.3	75	66.1	65.5	63.5
K11 Art Mall	16-Oct-18	Overcast	1.4	9:31	10:01	65.3	75	66.3	67.5	64.0
	23-Oct-18	Overcast	0.9	8:41	9:11	65.3	75	65.2	66.5	62.5
	30-Oct-18	Overcast	0.9	9:07	9:37	65.3	75	65.6	67.0	63.5
	6-Nov-18	Overcast	1.6	9:11	9:41	65.3	75	65.1	65.0	62.5
	13-Nov-18	Overcast	0.8	9:13	9:43	65.3	75	66.5	67.5	64.0
	20-Nov-18	Overcast	1.5	9:17	9:47	65.3	75	65.4	67.0	63.0
	27-Nov-18	Overcast	1.7	9:17	9:47	65.3	75	68.6	71.0	65.0

<sup>\*</sup> Not collected

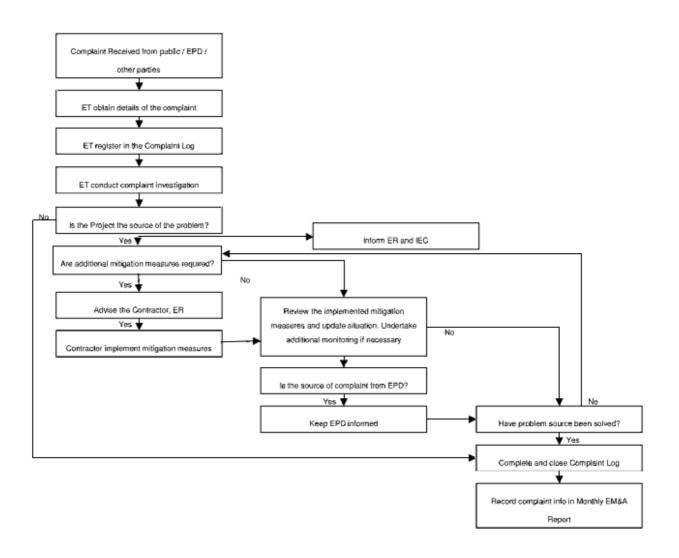
#### Red Bold indicates an exceedance of Limit Level



## **APPENDIX I**

FLOW CHAT FOR HANDLING ENVIRONMENTAL COMPLAINTS

## **Complaint Response Procedure**



# APPENDIX J WASTE MANAGEMENT RECORDS

#### Monthly Summary Waste Flow Table for 2018 (year)

Contract No: C3840-13C Tsim Sha Tsui Station Carnarvon Road Subway

Date Reported: 1-December-2018

	Actual Quantities of Inert C&D Materials Generated Monthly							Actual Quantities of Non-inert C&D Wastes Generated Monthly					
Month	Total Quantity Generated	Hard Rocks and Large Broken Concrete	Reused in the	Reused in other Projects	Disposed as Public	Imported Fill	Metals	Paper/ cardboard packaging	Plastics	Chemical Waste	Others, e.g. general refuse		
		(See Note 3)		-					(see Note 2)				
	(in '000m³)	(in '000m³)	(in '000m³)	(in '000m³)	(in '000m³)	(in '000m³)	(in '000kg)	(in '000kg)	(in '000kg)	(in'000kg)	(in '000m³/tonne)		
Carried from Project Start	9.6228		-	-	9.6228	-	-	-	-	-	0.1930		
Jan	0.0212	-	-	-	0.0212	-	-	-	-	-	0.0198		
Feb	0.0033	-	-	-	0.0033	-	-	-	-	-	0.0090		
Mar	0.0072	-	-	-	0.0072	-	-	-	-	-	0.0089		
Apr	0.0024	-	-	-	0.0024	-	-	-	-	-	0.0048		
May	0.0022	-	-	-	0.0022	-	-	-	-	-	0.0065		
June	0.0000	-	-	-	0.0000	-	-	-	-	-	0.0192		
Sub-total	0.0363	-	-	-	0.0363	-	-	-	-	-	0.0682		
July	0.0540	-	-	-	0.0540	-	-	-	-	-	0.0081		
Aug	0.0410	-	-	-	0.0410	-	-	-	-	-	0.0092		
Sept	0.0057	-	-	-	0.0057	-	225.1300	-	-	-	0.0077		
Oct	0.0235	-	-	-	0.0235	-	41.6400	-	-	-	0.0084		
Nov	0.0216	-	-	-	0.0216	-	-	-	-	-	0.0069		
Dec	-	-	1	-	-	-	-	-	-	-	-		
Total	0.1821	-	•	-	0.1821	-	266.7700	-	-	-	0.1085		
Acc. Total	9.8049 (accumulated quantity of the project = carried amount + this year amount)										0.3015		

#### Notes:

- The performance targets are given below:
  - All excavated materials to be sorted for recovering the inert portion of C&D materials, e.g. hard rocks, soil and broken concrete, for reuse on the Site or disposal to designated outlets;
  - All metallic waste to be recovered for collection by recycling contractors;
  - All cardboard and paper packaging (for plant, equipment and materials) to be recovered, properly stockpiled in dry and covered condition to prevent cross contamination;
  - All chemical wastes to be collected and properly disposed of by specialist contractors; and
  - All demolition debris to be stored to recover broken concrete, reinforcement bars, mechanical and electrical fittings, hardware as well as other fitting / materials that have established recycling outlets.
- (2) Plastics refer to plastic bottles/containers, plastic sheets/foam from packaging material.
- (3) Broken concrete for recycling into aggregates.
- (4) The waste flow table shall also include C&D materials that are specified in the Contract to be imported for use at the Site.