Civil Engineering and Development Department

Contract No. ED/2018/04

Trunk Road T2 and Infrastructure Works for Developments at the Former South Apron

Quarterly Environmental Monitoring and Audit Report

(under EP-458/2013/C)

November 2021 - January 2022 (Version 1)

Approved By

(Environmental Team Leader:

Mr. KS Lee)

REMARKS:

The information supplied and contained within this report is, to the best of our knowledge, correct at the time of printing.

CINOTECH accepts no responsibility for changes made to this report by third parties

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Ref.: CEDKTDT2EM00_0_0329L.22

16 February 2022

By Post and Email

Hyder-Meinhardt Joint Venture 17/F, Two Harbour Square 180 Wai Yip Street, Kwun Tong Kowloon, Hong Kong

Attention: Mr. Edwin Ching

Dear Mr. Ching,

Re: Agreement No. EDO 01/2019 **Independent Environmental Checker for** Contract No. ED/2018/04 - Trunk Road T2 and Infrastructure Works for **Developments at the Former South Apron** (Environmental Permit: EP-458/2013/C)

Quarterly EM&A Summary Report (November 2021 to January 2022)

Reference is made to the Environmental Team's submission of the Quarterly EM&A Summary Report for November 2021 to January 2022 (Version 1) certified by the ET Leader and provided to us via email on 16 February 2022.

We are pleased to inform you that we have no adverse comment on the captioned submission.

Thank you for your attention. Please do not hesitate to contact the undersigned should you have any queries.

Yours sincerely, For and on behalf of Ramboll Hong Kong Limited

Y H Hui

Independent Environmental Checker

C.C.

CEDD

Attn.: Mr. Tommy Wong

Fax: 2739 0076

BTP

Attn.: Mr. Ivan Chau

By email

Cinotech

Attn.: Mr. K. S. Lee

Fax: 3107 1388

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EXECUTIVE SUMMARY

Introduction

1. This is the 7th Quarterly Environmental Monitoring and Audit (EM&A) Report prepared by the Environmental Team (ET), Cinotech Consultants Ltd., for "Trunk Road T2 and Infrastructure Works at the Former South Apron". This report summarized the monitoring results and audits findings of the EM&A programme under the issued Environmental Permit (EP) No. EP-458/2013/C and in accordance with the EM&A Manual (AEIAR-173/2013) during the reporting period from November 2021 to January 2022.

Summary of Main Works Undertaken and Key Measures Implemented

2. The construction activities undertaken in the reporting quarter were as follows:

November 2021

- West bound Drill & Blast Tunnel, Service Gallery Drill & Blast, Service Gallery A Installation, RC Structure Construction, Blast Door Installation
- East bound type C Bench Drill & Blast, Drill & Break Tunnel, Service Gallery Drill & Blast
- East bound Enlargement Drill & Blast
- CKL Junction Reinstatement works
- East Ventilation Building excavation

December 2021

- West bound Drill & Blast Tunnel, Service Gallery Drill & Blast, Service Gallery A Installation
- East bound type C Bench Drill & Blast, Drill & Break Tunnel, Service Gallery Drill & Blast, Enlargement Drill & Blast
- Barch Tunnel Drill & Blast
- CKL Junction Reinstatement works
- East Ventilation Building excavation

January 2022

- West bound Drill & Blast Tunnel, Service Gallery Drill & Blast, Service Gallery A Installation, RC Structure Construction
- East bound Service Gallery Drill & Blast, Enlargement Drill & Blast, Type C Bench Drill & Blast, RC Structure Construction
- CKL Junction Reinstatement works
- East Ventilation Building WB Excavation, Excavation
- 3. Implementation of the key mitigation measures during the reporting period are as follows:

Construction Noise

- Construction activities were scheduled to minimize noise nuisance to the nearby sensitive receiver.
- Use of Quality Powered Mechanical Equipment (QPME) on site.
- Erected the noise barrier on site.

Air Quality

• Regularly watering on site to avoid dust generation.

Landscape and Visual

• Tree protection zones were fenced off to protect the existing trees on site.

Environmental Monitoring Works

- 4. Environmental monitoring for the Project was performed in accordance with the EM&A Manual and the monitoring results were checked and reviewed. Site Inspections/Audits were conducted once per week. The implementation of the environmental mitigation measures, Event Action Plans and environmental complaint handling procedures were also checked.
- 5. Summary of the non-compliance in the reporting quarter for the Project is tabulated in **Table** I. Details of the environmental monitoring results is presented in **Section 3**.

 Table I
 Non-compliance (Exceedance) Record for the Project in the Reporting Quarter

Parameter	No. of Exceedance No. of Exceedance Construction Actinis Proje		Activities of	Action Taken	
	Action Level	Limit Level	Action Level	Limit Level	
November 2021					
Air Quality	1	2	0	0	N/A
Noise	0	0	0	0	N/A
Marine Water Quality	N/A	N/A	N/A	N/A	N/A
Groundwater Level Monitoring (Piezometer Monitoring)	N/A	N/A	N/A	N/A	N/A
Ecological	N/A	N/A	N/A	N/A	N/A
Cultural Heritage	N/A	N/A	N/A	N/A	N/A
Landfill Gas	N/A	N/A	N/A	0	N/A
December 2021					
Air Quality	0	0	0	0	N/A
Noise	0	0	0	0	N/A
Marine Water Quality	N/A	N/A	N/A	N/A	N/A
Groundwater Level Monitoring (Piezometer Monitoring)	N/A	N/A	N/A	N/A	N/A
Ecological	N/A	N/A	N/A	N/A	N/A
Cultural Heritage	N/A	N/A	N/A	N/A	N/A
Landfill Gas	N/A	N/A	N/A	0	N/A
January 2022					
Air Quality	0	0	0	0	N/A
Noise	0	0	0	0	N/A
Marine Water Quality	N/A	N/A	N/A	N/A	N/A
Groundwater Level Monitoring (Piezometer Monitoring)	N/A	N/A	N/A	N/A	N/A
Ecological	N/A	N/A	N/A	N/A	N/A
Cultural Heritage	N/A	N/A	N/A	N/A	N/A
Landfill Gas	N/A	N/A	N/A	0	N/A

Note:

N/A - Not Applicable.

Summary of Complaint, Warning, Notification of Summons and Successful Prosecution

6. Summary of key information in the reporting quarter is tabulated in **Table II**.

Table II Summary Table for Key Information in the Reporting Quarter

E4	Event Details		A -42 TI-1	Gt. 4
Event	Number	Nature	Action Taken	Status
Complaints Received	1	Noise	Detail refer to App J	Closed
Notifications of any summons & prosecutions received	0		N/A	N/A

N/A - Not Applicable

7. Environmental monitoring works for the Project are considered effective and is generating data to categorically identify the environmental impacts from the works and influencing factors in the vicinity of monitoring stations.

Reporting Changes in the Reporting Quarter

8. No reporting change in the reporting quarter.

1. INTRODUCTION

Background

- 1.1 In 2009, Civil Engineering and Development Department (CEDD) commissioned a Kai Tak Development (KTD) Trunk Road T2 and Infrastructure at South Apron Investigation. The assignment covers the provision of the Trunk Road T2 and its connections with the Central Kowloon Route (CKR) at the north apron area and the Tseung Kwan O Lam Tin Tunnel (TKOLTT) to the south in the Cha Kwo Ling area.
- 1.2 The Trunk Road T2 Project is one of the designated Projects under Schedule 2 of the EIAO proposed in the KTD. CEDD submitted the Project Profile (No. PP-379/2009) on 24 March 2009 for application for an EIA study brief for the Trunk Road T2 Project under the EIAO. Accordingly, an EIA Study Brief (ESB-203/2009) for the Trunk Road T2 Project was issued on 30 April 2009. The Environmental Impact Assessment (EIA) Report for the Trunk Road T2 Project was approved under the Environmental Impact Assessment Ordinance (EIAO) on 19 September 2013. The corresponding Environmental Permit (EP) was issued on 19 September 2013 (EP no.: EP-451/2013).
- 1.3 The Contract No. ED/2018/04 is the main contract of Trunk Road T2 ("T2 Main Works") which comprises mainly the design and construction of a dual two-lane trunk road of approximately 3.0km long with about 2.7km of the trunk road in form of tunnel; ventilation and administration buildings, environmental protection and mitigation works and etc. The EM&A programme under this Contract is governed by the two EPs (EP-451/2013 and EP-458/2013/C) and two EM&A Manuals (AEIAR-174/2013 and AEIAR-173/2013). The work areas of the T2 Main Works are shown in **Figure 1** and the works to be executed under this Contract and corresponding EPs are summarized as follows:

Environmental Permit	Works Description	
EP-451/2013 – Trunk Road T2	<u>Trunk Road T2</u>	
	• Construction of highway and sub-sea tunnel connecting between	
	Central Kowloon Route and Cha Kwo Ling Tunnel	
	Western & Eastern Ventilation Buildings	
EP-458/2013/C – Tseung Kwan O –	Cha Kwo Ling Tunnel	
Lam Tin Tunnel (TKOLTT) and	Construction of Cha Kwo Ling Tunnel from the end of Trunk Road	
Associated Works T2 to the TKOLTT at the Eastern Ventilation Building		

Monitoring Works in Lam Tin under EP-458/2013/C

- 1.4 Under Agreement No. CE 59/2015 (EP) Tseung Kwan O Lam Tin Tunnel (TKOLLT) and Associated Works, the baseline monitoring works in Lam Tin under the EM&A Manual (AEIAR-173/2013) were conducted by the Environmental Team (ET) for the Agreement No. CE 59/2015 (EP) at the approved monitoring locations, namely AM1, AM2, AM3, AM4, AM4 (A) CM1, CM2, CM3, CM4 and CM5. Impact monitoring within the Lam Tin area shall be conducted by the ET of Contract No. ED/2018/04 upon cessation of Agreement No. CE 59/2015 (EP). The data obtained from the impact monitoring works completed by the ET of Agreement No. CE 59/2015 (EP) will be adopted in this report
- 1.5 Cinotech Consultants Ltd. was designated as the Environmental Team (ET) to undertake the EM&A works for "Trunk Road T2 and Infrastructure Works for Developments at the Former South Apron" (hereinafter called the "Project").

Purpose of the Report

1.6 This is the 7th Quarterly EM&A Summary Report summarizing the EM&A works for the Project in between November 2021 and January 2022

Project Organizations

- 1.7 Different parties with different levels of involvement in the project organization include:
 - Permit Holder Civil Engineering and Development Department (CEDD)
 - Supervisor Representative Hyder-Meinhardt Joint Venture (HMJV)
 - Environmental Team (ET) Cinotech Consultants Limited (Cinotech)
 - Independent Environmental Checker (IEC) Ramboll Hong Kong Limited (Ramboll)
 - Contractor Bouygues Travaux Publics (BTP)
- 1.8 The key contacts of the Project are shown in **Table 1.1**.

Table 1.1 Key Project Contacts

Tubic 1.1	nej i i ojeci e o	110000	
Party	Role	Contact Person	Phone No.
CEDD	Permit Holder	Mr. Wong Chi Wai, Tommy	3842 7111
HMJV	Supervisor Representative	Ms. Hazel Tang	2149 8524
Cinotech	Environmental Teem	Mr. KS Lee (ETL)	2151 2091
Cinotecn	Environmental Team	Ms. Karina Chan	2157 3880
Ramboll	Independent Environmental Checker	Mr. YH Hui	3465 2850
BTP	Contractor	Ms. Ality Chan	5185 4462

1.9 The Organizational Structure for Environmental Management is shown in **Figure 1.2**.

Construction Activities undertaken during the Report Quarter

1.10 The major site activities undertaken in the reporting quarter are shown as follow:

November 2021

- West bound Drill & Blast Tunnel, Service Gallery Drill & Blast, Service Gallery A Installation, RC Structure Construction, Blast Door Installation
- East bound type C Bench Drill & Blast, Drill & Break Tunnel, Service Gallery Drill & Blast
- East bound Enlargement Drill & Blast
- CKL Junction Reinstatement works
- East Ventilation Building excavation

December 2021

- West bound Drill & Blast Tunnel, Service Gallery Drill & Blast, Service Gallery A Installation
- East bound type C Bench Drill & Blast, Drill & Break Tunnel, Service Gallery Drill & Blast, Enlargement Drill & Blast
- Barch Tunnel Drill & Blast
- CKL Junction Reinstatement works
- East Ventilation Building excavation

January 2022

- West bound Drill & Blast Tunnel, Service Gallery Drill & Blast, Service Gallery A Installation, RC Structure Construction
- East bound Service Gallery Drill & Blast, Enlargement Drill & Blast, Type C Bench Drill & Blast, RC Structure Construction
- CKL Junction Reinstatement works
- East Ventilation Building WB Excavation, Excavation

2. ENVIRONMENTAL MONITORING AND AUDIT REQUIREMENTS

Monitoring Parameters and Monitoring Locations

2.1 The EM&A Manual designates locations for environmental monitoring in terms of air quality, noise, and landfill gas due to the Project. The Project area and monitoring locations are depicted in **Figures 2**. **Appendix A** gives details of monitoring requirements.

Monitoring Methodology and Calibration Details

2.2 Monitoring works/equipment were conducted/calibrated regularly in accordance with the EM&A Manual. Copies of calibration certificates are attached in the appendices of the corresponding Monthly EM&A Reports.

Environmental Quality Performance Limits (Action and Limit Levels)

- 2.3 The environmental quality performance limits, i.e. Action and Limit Levels were derived from the baseline monitoring results. Should the measured environmental quality parameters exceed the Action/Limit Levels, the respective action plans would be implemented. The Action/Limit Levels for each environmental parameter are given in **Appendix B**.
- 2.4 Should the monitoring results of the environmental monitoring parameters at any designated monitoring stations indicate that the Action / Limit Levels are exceeded, the actions in accordance with the Event and Action Plans in **Appendix K** was carried out.

Implementation Status of Environmental Mitigation Measures

2.5 Relevant mitigation measures as recommended in the project EIA report have been stipulated in the EM&A Manual for implementation by the Contractor. The implementation status of environmental mitigation measures (EMIS) is given in **Appendix G**.

Site Audit Summary

2.6 During site inspections in the reporting period, no non-compliances was recorded. The observations and recommendations made during the reporting period are summarized in **Appendix F**.

Status of Waste Management

2.7 The amount of wastes generated by the construction activities during the reporting period is shown in **Appendix H**.

3. MONITORING RESULTS

Weather Conditions

3.1 The weather during monitoring sessions was summarized in **Table 3.1**.

Table 3.1 Summary of Weather Conditions in the Reporting Period

Reporting Month	General Weather Conditions	
November 2021	Sunny, Cloudy	
December 2021	Sunny, Cloudy, Rainy	
January 2022	Sunny, Cloudy	

3.2 The detail of weather conditions for each individual monitoring session was presented in the corresponding monthly EM&A report.

Air Quality

- 3.3 All 1-hour TSP monitoring was conducted as scheduled in the reporting quarter. No Action/Limit Level exceedance was recorded.
- 3.4 All 24-hour TSP monitoring was conducted as scheduled in the reporting quarter. One (1) Action Level and two (2) Limit Level exceedance were recorded.
- 3.5 The graphical presentations of the air quality monitoring results are shown in **Appendix** C.

Construction Noise

3.6 All noise monitoring was conducted as scheduled in the reporting month. No Action Level exceedance was recorded due to the documented complaints received in this reporting quarter. No Limit Level exceedance for day time was recorded in the reporting quarter. The graphical presentations of the noise monitoring results are shown in **Appendix D**.

Water Quality

Groundwater Quality

3.7 The existing groundwater quality monitoring programme has been suspended as the monitoring results had been deemed non-representative of the impact from the project justified by two major factors: (1) influence on the monitoring results from non-project related factors, such as anthropogenic activities and natural phenomenon; and (2) large separation between the monitoring stations and works area. In addition, as no alternative locations for the groundwater quality monitoring were available, the groundwater quality monitoring has been suspended since October 2019 upon the agreement by EPD

Marine Water Quality

3.8 According to Section 4.4.3 of EM&A Manual (AEIAR-173/2013), marine water quality impact monitoring stations is carried out during marine construction for TKOLTT reclamation. Since the construction of Cha Kwo Ling Tunnel from the end of Trunk Road T2 to the TKOLTT at the Eastern Ventilation Building does not involve reclamation, the marine water quality monitoring programme stated in Section 4.4 of the EM&A Manual (AEIAR-173/2013) is therefore not applicable to Contract No. ED/2018/04.

Groundwater Level Monitoring (Piezometer Monitoring)

3.9 According to Section 4.1.2 of EM&A Manual (AEIAR-173/2013), daily piezometer monitoring will be carried out on a daily basis when any tunnel construction activities are carried out within +/- 50m of the piezometer gate in plan. As the construction works of Cha Kwo Ling Tunnel from the end of Trunk Road T2 to the TKOLTT at the Eastern Ventilation Building is approximately 120m away from the piezometer gate in plan, the piezometer monitoring programme stated in Section 4.2 of the EM&A Manual (AEIAR-173/2013) is therefore not applicable to Contract No. ED/2018/04

Ecological Monitoring

3.10 Post-translocation monitoring survey is recommended in Section 6.2.5 of the EM&A Manual (AEIAR-173/2013), to audit the success of coral translocation. Since the construction of Cha Kwo Ling Tunnel from the end of Trunk Road T2 to the TKOLTT at the Eastern Ventilation Building does not involve any marine works in the concerned area mentioned in Section 6.1.2 of the EM&A Manual (AEIAR-173/2013), the post-translocation monitoring survey stated in Section 6.2.5 of the EM&A Manual (AEIAR-173/2013) is therefore not applicable to Contract No. ED/2018/04...

Monitoring on Cultural Heritage

3.11 As the construction works of Cha Kwo Ling Tunnel from the end of Trunk Road T2 to the TKOLTT at the Eastern Ventilation Building are located more than 100m away from the Cha Kwo Ling Tin Hau temple, the vibration impact monitoring stated in Section 8.3.1 of the EM&A Manual (AEIAR-173/2013) is not applicable to Contract No. ED/2018/04.

Landscape and Visual Monitoring and Audit

3.12 The implementation of landscape and visual mitigation measures was checked during the environmental site inspections. Recommended follow-up actions have been discharged by the Contractor. Details of the audit findings and implementation status are presented in **Appendix F**.

Landfill Gas Monitoring

3.13 Since no excavation activity for this Project was carried out within the Sai Tso Wan Landfill Consultation Zone in this reporting quarter, therefore, no landfill gas monitoring was required.

Waste Management

3.14 Site audits were carried out on a weekly basis to monitor and ensures that proper storage, transportation and disposal practices of wastes generated from this Project include inert construction and demolition (C&D) materials, non-inert C&D materials. Details of waste management data is presented in **Appendix H**.

Fisheries

3.15 According to Section 7.1.3 of EM&A Manual (AEIAR-173/2013), no specific fisheries monitoring programme is required during the construction phase.

Influencing Factors on the Monitoring Results

3.16 During the reporting period, the major dust and noise source identified at the designated monitoring stations are as follows:

Table 3.2 Major Dust Sources during the Monitoring in the Reporting Period

Station	Major Dust Source
AM1 – Tin Hau Temple	Road Traffic at Cha Kwo Ling Road
AM2 – Sai Tso Wan Recreation Ground	Road Traffic along Sin Fat Road
AM3 – Yau Lai Estate Bik Lai House	Road Traffic near Eastern Cross Harbour Tunnel Toll Plaza
AM4 - Sitting-out Area at Cha Kwo Ling Village	Road Traffic at Cha Kwo Ling Road
AM4(A) - Cha Kwo Ling Public Cargo Working Area Administrative Office	Road Traffic at Cha Kwo Ling Road

Table 3.3 Major Noise Sources during the Monitoring in the Reporting Period

Monitoring Stations	Locations	Major Noise Source	
CM1	Nga Lai House, Yau Lai Estate Phase 1, Yau Tong	Road Traffic near Eastern Cross Harbour Tunnel Toll Plaza	
CM2	Bik Lai House, Yau Lai Estate Phase 1, Yau Tong	Road Traffic near Eastern Cross Harbour Tunnel Toll Plaza	
СМЗ	Block S, Yau Lai Estate Phase 5, Yau Tong	Road Traffic near Eastern Cross Harbour Tunnel Toll Plaza	
CM4	Tin Hau Temple, Cha Kwo Ling	Road Traffic at Cha Kwo Ling Road	
CM5	CCC Kei Faat Primary School, Yau Tong	Road Traffic near Eastern Cross Harbour Tunnel Toll Plaza	

4. NON-COMPLIANCE (EXCEEDANCES) OF THE ENVIRONMENTAL QUALITY PERFORMANCE LIMITS (ACTION AND LIMIT LEVELS)

Summary of Exceedances

4.1 Environmental monitoring works were performed in the reporting period and all monitoring results were checked and reviewed. A summary of exceedances is attached in **Appendix I**.

Air Quality

4.2 One (1) Action Level and two (2) Limit Level exceedance were recorded in the reporting quarter.

Construction Noise

4.3 No Action Level exceedances was recorded due to the documented complaints received in the reporting quarter. No Limit Level exceedance was recorded for day time construction noise in the reporting quarter.

Landfill Gas

4.4 No Limit Level exceedance was recorded in the reporting quarter.

Review of the Reasons for and the Implications of Non-compliance

4.10 During site audits in the reporting quarter, no non-compliance was recorded. Recommendations made in each individual site audit session were attached in the **Appendix F**.

Landscape and Visual

4.11 No non-compliance of the landscape and visual impact was recorded in the reporting quarter.

Summary of Environmental Complaints and Prosecutions

- 4.12 One (1) environmental complaint on this Project was received in the reporting quarter.
- 4.13 No environmental warning, prosecution and notification of summons were received in the reporting quarter.

5. COMMENTS, CONCLUSIONS AND RECOMMENDATIONS

Review of Monitoring Methodology and the Practicality and Effectiveness of EM&A Programme

5.1 The EM&A methodology has been effective in monitoring the environmental impacts of the Project and the effectiveness of the mitigation measures. The data collected were useful in determining whether the Project had caused unacceptable impacts on the sensitive receivers. Analysis of all EM&A data collected throughout the baseline and the impact periods demonstrated the environmental acceptability of the Project

Effectiveness of Mitigation Measures

- 5.2 The mitigation measures recommended in the EIA report are considered effective in minimizing environmental impacts.
- 5.3 The Contractor has implemented the recommended mitigation measures except those mitigation measures not applicable at this stage.
- 5.4 Environmental monitoring works were performed in the reporting quarter and all monitoring results were checked and reviewed.
- 5.5 The summary record of non-compliance (exceedances) of Action/Limit Level for environmental monitoring in the reporting quarter has been presented in **Table I** above and in **Appendix I**.
- 5.6 One (1) environmental complaint was received in the reporting quarter. The details were attached in the **Appendix J.**
- 5.7 No warning, notification of summon and environmental prosecution was received in the reporting quarter. The details were attached in the **Appendix J**.

Recommendations

5.8 Joint weekly site audits by the representatives of the Engineer, Contractor and the ET were conducted in the reporting quarter. The following recommendations was made to the Contractor for the coming reporting month:

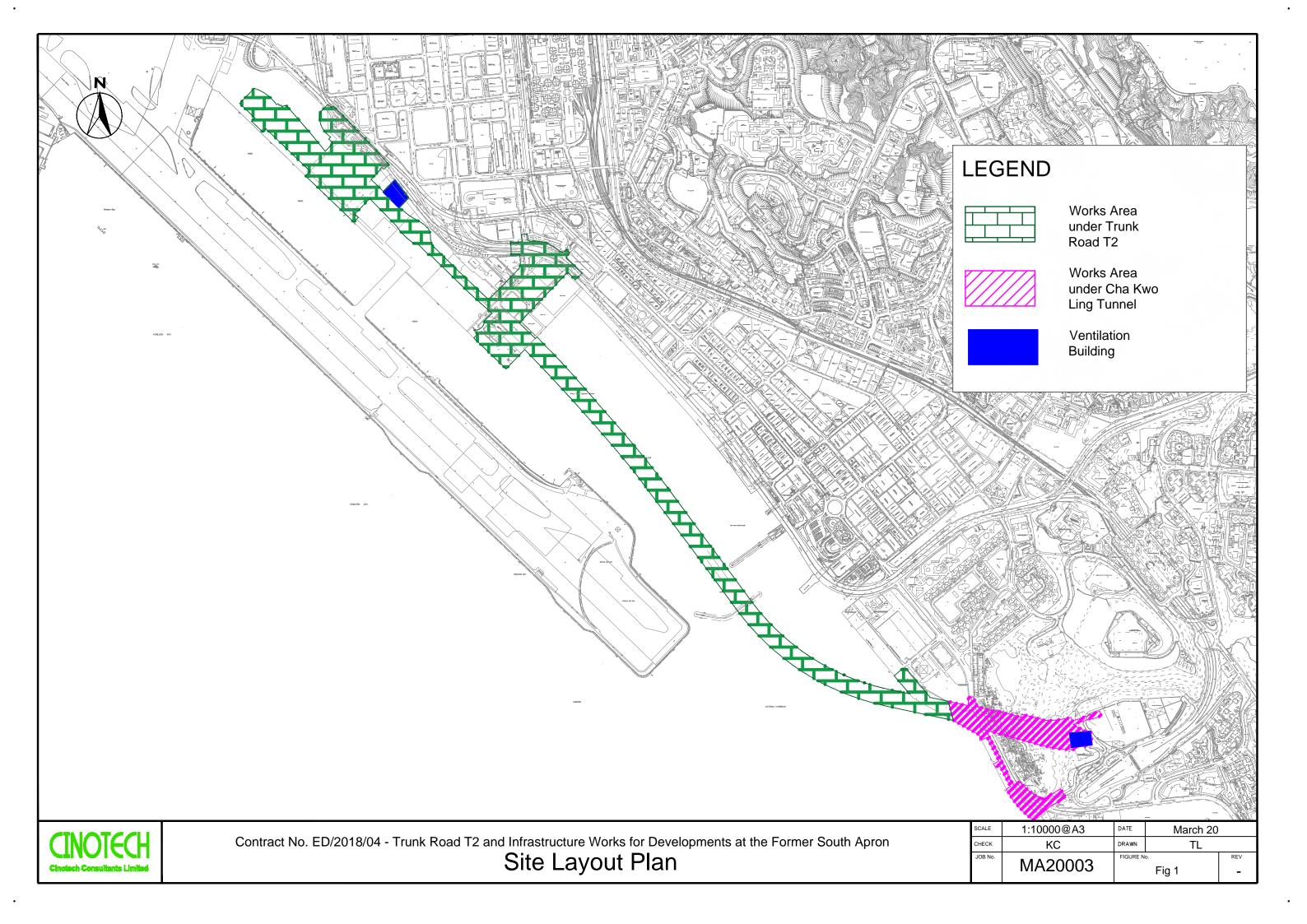
Waste / Chemical Management

• Drip tray with adequate bund capacity should be provided for refuelling works to contain any potential leakage of fuel.

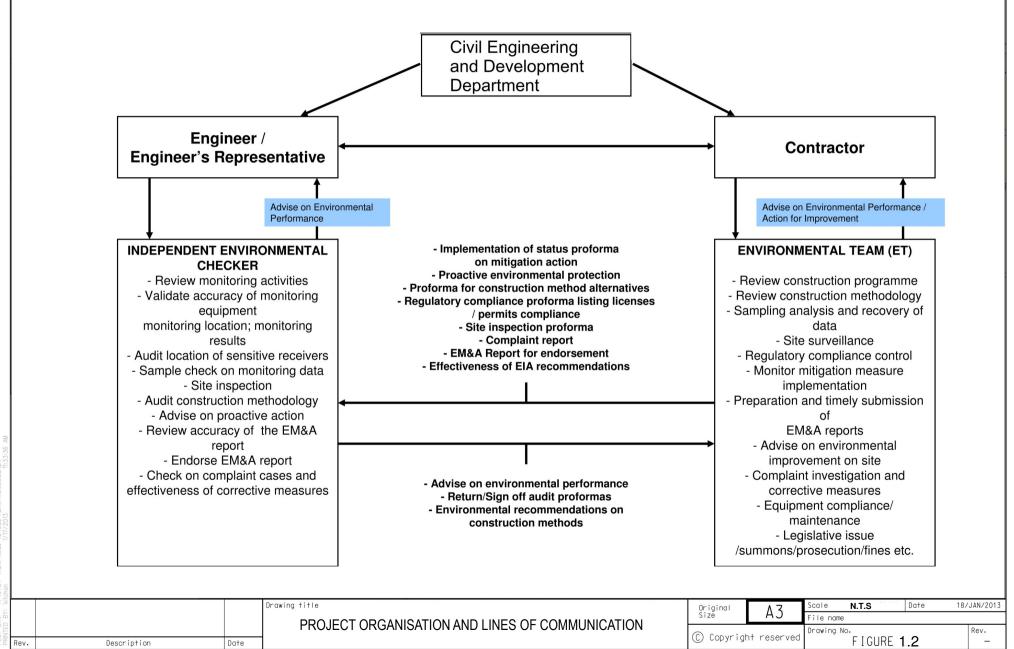
Construction Noise Impact

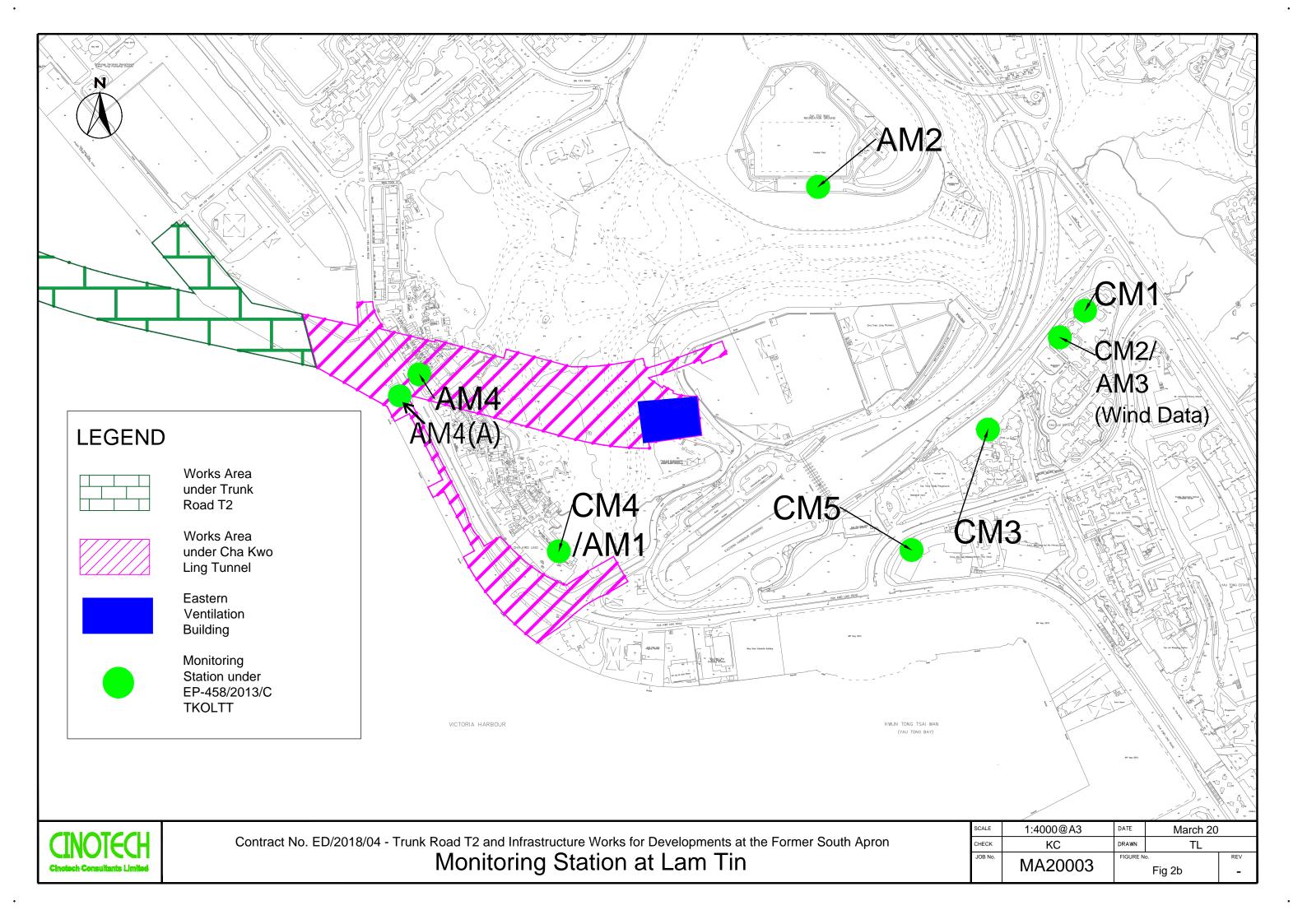
- Noise mitigation measure shall always implemented on site to minimize noise nuisance generated from construction activities.
- Noise barriers were erected and located as close as possible to the noise source on site for the construction noise reduction.

FIGURES









APPENDIX A MONITORING REQUIREMENTS

Appendix A - Environmental Impact Monitoring Requirements

Table I – Air Quality Monitoring

Type of Monitoring	Parameter	Frequency	Location	Measurement Conditions
Air Quality	1 hour TSP	Three times / 6 days	 AM1 – Tin Hau Temple AM2 – Sai Tso Wan Recreation Ground AM3 – Yau Lai Estate Bik Lai House 	 AM1 – Ground Level AM2 – Ground Level AM3 – Rooftop (41/F)
	24 hour TSP	Once / 6 days	 AM4⁽¹⁾ – Sitting-out Area at Cha Kwo Ling Village AM4(A)^{(2)(*)} – Cha Kwo Ling Public Cargo Working Area Administrative Office 	 AM4⁽¹⁾ – Ground Level AM4(A)^{(2)(*)} – Rooftop (3/F)

Remarks: (1) For 1-hour TSP monitoring; (2) For 24-hour TSP monitoring

Table II – Noise Monitoring

Type of Monitoring	Parameter	Frequency	Location	Measurement Conditions
Construction Noise	L _{eq} , L ₉₀ & L ₁₀ at 30 minute intervals during 0700 to 1900 on normal weekdays	Once per week	 CM1 – Nga Lai House, Yau Lai Estate Phase 1, Yau Tong CM2 – Bik Lai House, Yau Lai Estate Phase 1, Yau Tong CM3 – Block S, Yau Lai Estate Phase 5, Yau Tong CM4 – Tin Hau Temple, Cha Kwo Ling CM5 – CCC Kei Faat Primary School, Yau Tong 	 CM1 – Rooftop (41/F) CM2 – Rooftop (41/F) CM3 – Rooftop (40/F) CM4 – Ground Level CM5 – Rooftop (6/F)

^(*) Air quality monitoring at designated station AM4(24-hr TSP) was rejected by the premise owners. Therefore, baseline and impact air quality monitoring works were carried out at alternative air quality monitoring stations AM4(A) (24-hr TSP only).

Table III -Landfill Gas Monitoring

Type of Monitoring	Parameter	Frequency	Location
Landfill Gas	Methane, Carbon dioxide and Oxygen	at least daily before starting the work of the day	 Excavation Locations Manholes and Chambers Relocation of monitoring wells Any other Confined Spaces

APPENDIX B ACTION AND LIMIT LEVELS

APPENDIX B – Action and Limit Levels

Air Quality

1-hr TSP

Monitoring Stations	Location	Action Level, μg/m ³	Limit Level, μg/m³	
AM1	Tin Hau Temple	275		
AM2	Sai Tso Wan Recreation Ground	273	500	
AM3	Yau Lai Estate Bik Lai House	271	271 500	
AM4	Sitting-out Area at Cha Kwo Ling Village	278		

24-hr TSP

Monitoring Stations	Location	Action Level, μg/m ³	Limit Level, μg/m³
AM1	Tin Hau Temple	173	
AM2	Sai Tso Wan Recreation Ground	192	
AM3	Yau Lai Estate Bik Lai House	167	260
AM4(A)	Cha Kwo Ling Public Cargo Working Area Administrative Office	210	

Noise

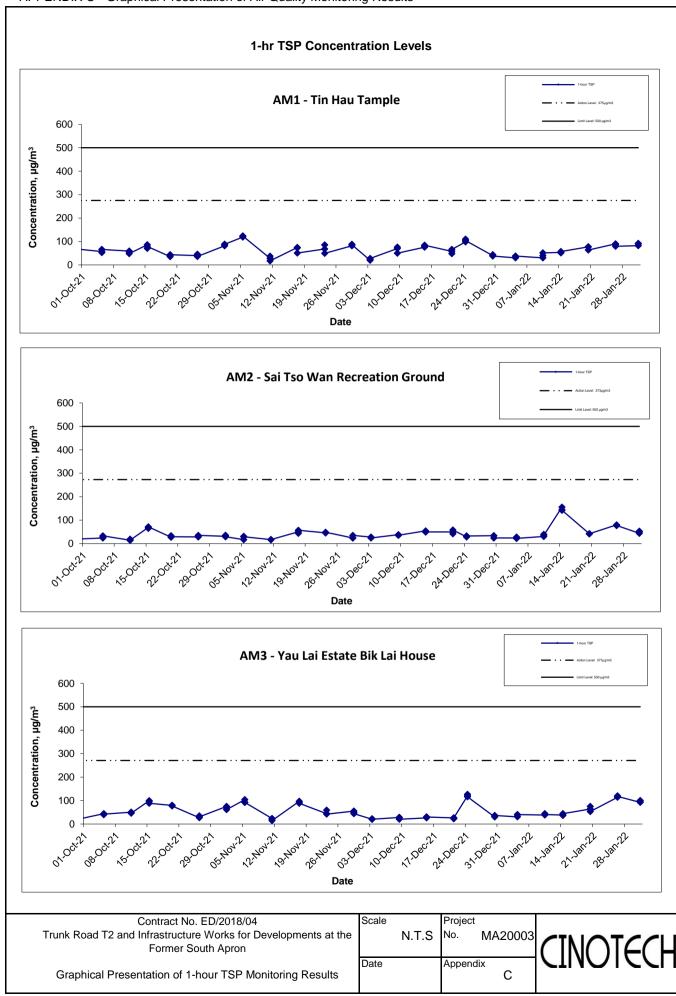
Time Period	Action Level	Limit Level
0700-1900 hrs on normal weekdays	When one documented complaint is received from any one of the monitoring stations	75 dB(A) ⁽¹⁾

¹70 dB(A) for schools and 65 dB(A) for schools during examination period.

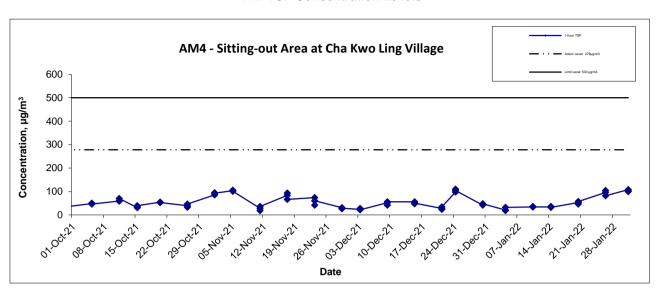
Landfill Gas Monitoring

Parameter	Limit Level
Oxygen	<19%
	<18%
Methane	>10% LEL (i.e. > 0.5% by volume)
	>20% LEL (i.e. > 1% by volume)
Carbon	>0.5%
Dioxide	>1.5%

APPENDIX C GRAPHICAL PRESENTATION OF AIR QUALITY MONITORING RESULTS



1-hr TSP Concentration Levels



Notes

- 1. The major activitie(s) being carried out on site during the reporting period is/are presented in Section 1.10
- 2. The weather conditions during the reporting month are presented in Section 3.1.
- 3. Other factors which might affect the monitoring results are presented in Section 3.16.

Contract No. ED/2018/04

Trunk Road T2 and Infrastructure Works for Developments at the Former South Apron

Graphical Presentation of 1-hour TSP Monitoring Results

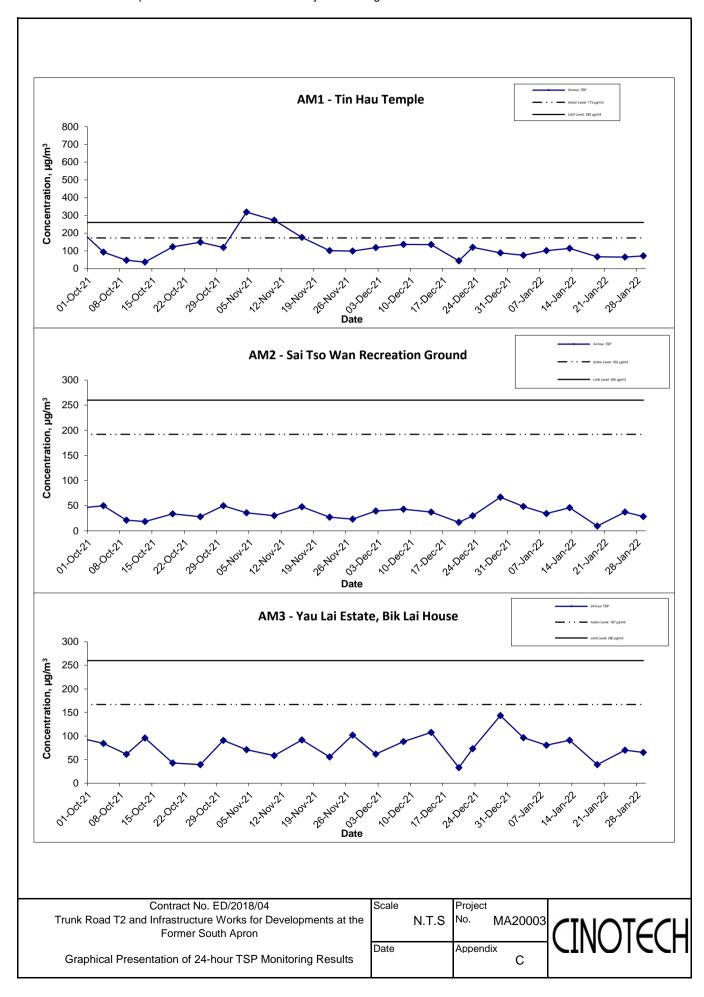
Scale

N.T.S

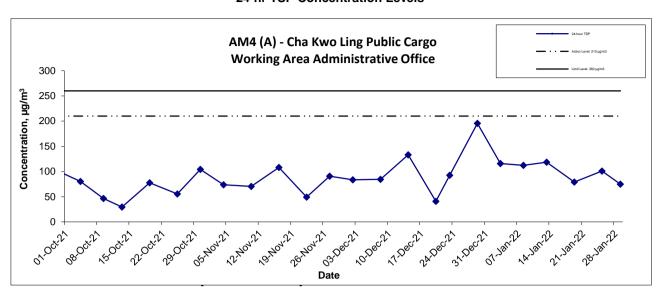
No. MA20003

Appendix

C



24-hr TSP Concentration Levels



Notes:

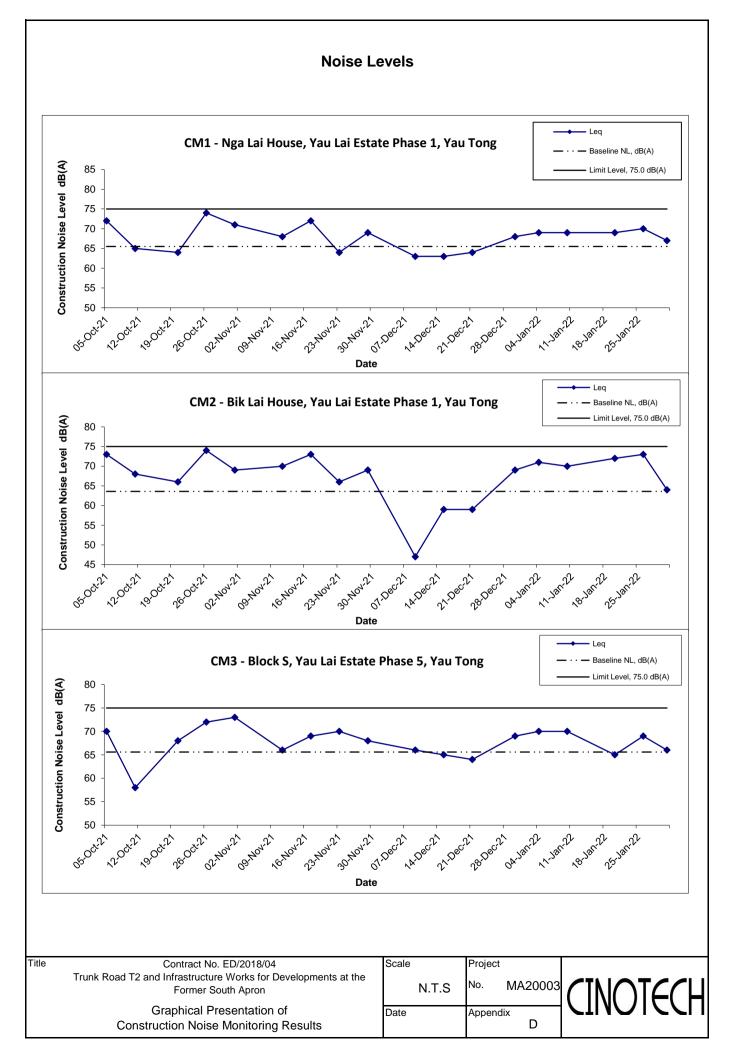
- 1) The major activitie(s) being carried out on site during the reporting period is/are presented in Section 1.10
- 2) The weather conditions during the reporting month are presented in Section 3.1.
- 3) Other factors which might affect the monitoring results are presented in Section 3.16.

Contract No. ED/2018/04
Trunk Road T2 and Infrastructure Works for Developments at the Former South Apron
Graphical Presentation of 24-hour TSP Monitoring Results

Scale
N.T.S
Project
No. MA20003

Date
Appendix
C

APPENDIX D GRAPHICAL PRESENTATION OF NOISE MONITORING RESULTS



Noise Levels



Notes:

- 1. The major activitie(s) being carried out on site during the reporting period is/are presented in Section 1.10
- 2. The weather conditions during the reporting month are presented in Section 3.1.
- 3. Other factors which might affect the monitoring results are presented in Section 3.16.

Title Contract No. ED/2018/04

Trunk Road T2 and Infrastructure Works for Developments at the Former South Apron

Graphical Presentation of Construction Noise Monitoring Results

Scale Project

N.T.S No. MA20003

Date Appendix D

APPENDIX F SITE AUDIT SUMMARY

Contract No. ED/2018/04 Trunk Road T2 and Infrastructure Works for Developments at the Former South Apron Quarterly EM&A Report

Appendix F - Site Audit Summary

November 2021

Items	Date	Status*	Follow up Action		
Water Quality					
Ecology					
Noise					
Landscape and Visual	Landscape and Visual				
Air Quality					
Waste / Chemical Management					
Impact on Cultural Heritage					
Permits / Licenses					

- ✔ Observation/reminder was made during site audit but improved/rectified by the contractor in the next site audit
- * Observation/reminder was made during site audit but not yet improved/rectified by the contractor in the next site audit
- # Follow up action will be reported in next reporting month
- * Non-compliance of mitigation measure
- Non-compliance but improved by the contractor

MA20003/App F CINOTECH

Contract No. ED/2018/04 Trunk Road T2 and Infrastructure Works for Developments at the Former South Apron Quarterly EM&A Report

Appendix F - Site Audit Summary

December 2021

Items	Date	Status*	Follow up Action			
Water Quality						
Noise						
Landscape and Visual						
Air Quality						
Waste / Chemical Management						
Oil stain was observed at the end of drilling area of east bound tunnel. Contractor is reminded to prevent oil leakage from equipment or during handling of fuel.	02 December 2021	~	Item was rectified on 09 December 2021			
Impact on Cultural Heritage						
Permits / Licenses						

- ✓ Observation/reminder was made during site audit but improved/rectified by the contractor in the next site audit
- * Observation/reminder was made during site audit but not yet improved/rectified by the contractor in the next site audit
- # Follow up action will be reported in next reporting month
- * Non-compliance of mitigation measure
- Non-compliance but rectified by the contractor

MA20003/App F CINOTECH

Contract No. ED/2018/04 Trunk Road T2 and Infrastructure Works for Developments at the Former South Apron Quarterly EM&A Report

Appendix F - Site Audit Summary

January 2022

Items	Date	Status*	Follow up Action
Water Quality			
Noise			
-			
Landscape and Visual			
Air Quality			
Waste / Chemical Management			
1		-	
Impact on Cultural Heritage			
1			
Permits / Licenses			·

- ✓ Observation/reminder was made during site audit but improved/rectified by the contractor in the next site audit
- * Observation/reminder was made during site audit but not yet improved/rectified by the contractor in the next site audit
- # Follow up action will be reported in next reporting month
- * Non-compliance of mitigation measure
- Non-compliance but rectified by the contractor

MA20003/App F CINOTECH

APPENDIX G ENVIRONMENTAL MITIGATION IMPLEMENTATION SCHEDULE (EMIS)

Table I - Recommended Mitigation Measures stipulated in EM&A Manual for the Project

EIA Ref. / EP Submission	Recommended Mitigation Measures	Objectives of the recommended Measures & Main Concerns to address	Who to implement the measures?	Location of the measures	When to Implement the measures?	What requirements or standards for the measures to achieve?
Air Quality						
S3.8.1	Watering eight times a day on active works areas, exposed areas and paved haul roads	To minimize the dust impact	Contractor	All Active Work Sites	Construction phase	APCO
S3.8.1	Enclosing the unloading process at barging point by a 3-sided screen with top tipping hall / mixing area in Work Area A, provision of water spraying and flexible dust curtains	To minimize the dust impact	Contractor	Barging Points	Construction phase	APCO
S3.8.7	Every stock of more than 20 bags of cement or dry pulverised fuel ash (PFA) should be covered entirely by impervious sheeting or placed in an area sheltered on the top and the 3 sides. • Use of frequent watering for particularly dusty construction areas and areas close to ASRs • Side enclosure and covering of any aggregate or dusty material storage piles to reduce emissions. Where this is not practicable owing to frequent usage, watering shall be applied to aggregate fines. • Open stockpiles shall be avoided or covered. Where possible, prevent placing dusty material storage piles near ASRs. • Tarpaulin covering of all dusty vehicle loads transported to, from and between site locations. • Establishment and use of vehicle wheel and body washing facilities at the exit points of the site. • Provision of wind shield and dust extraction units or similar dust mitigation measures at the loading area of barging point, and use of water sprinklers at the loading area where dust generation is likely during the loading process of loose material, particularly in dry seasons/ periods. • Provision of not less than 2.4m high hoarding from ground level along site boundary where adjoins a road, streets or other accessible to the public except for a site entrance or exit. • Imposition of speed controls for vehicles on site haul roads. • Where possible, routing of vehicles and positioning of construction plant should be at the maximum possible distance from ASRs • Every stock of more than 20 bags of cement or dry pulverised fuel ash (PFA) should be covered entirely by impervious sheeting or placed in an area sheltered on the top and the 3 sides. • Instigation of an environmental monitoring and auditing program to monitor the construction process in order to enforce controls and modify method of work if dusty conditions arise.	To minimize the dust impact	Contractor	All Construction Work Sites	Construction phase	APCO and Air Pollution Control (Construction Dust) Regulation
/	Emission from Vehicles and Plants • All vehicles shall be shut down in intermittent use. • Only well-maintained plant should be operated on-site and plant should be serviced regularly to avoid emission of black smoke. • All diesel fuelled construction plant within the works areas shall be powered by ultra low sulphur diesel fuel (ULSD)	Reduce air pollution emission from construction vehicles and plants	Contractor	All construction sites	Construction stage	APCO

EIA Ref. / EP Submission	Recommended Mitigation Measures	Objectives of the recommended Measures & Main Concerns to address	Who to implement the measures?	Location of the measures	When to Implement the measures?	What requirements or standards for the measures to achieve?		
1	Valid No-road Mobile Machinery (NRMM) labels should be provided to regulated machines	Reduce air pollution emission from construction vehicles and plants	Contractor	All construction sites	Construction stage	APCO		
Noise Impact (Consti	sise Impact (Construction Phase)							
S4.8	 Use of quiet PME. Use of movable noise barriers for Excavator, Lorry, Dump Truck, Mobile Crane, Compactor, Concrete Mixer Truck, Concrete Lorry Mixer, Breaker, Mobile Crusher, Backhoe, Vibratory Poker, Saw, Asphalt Paver, Vibratory Roller, Vibrolance, Hydraulic Vibratory Lance and Piling (Vibration Hammer). Use of full enclosure for Air Compressor, Compressor, Bar Bender, Generator, Drilling Rig, Chisel, Large Diameter Bore Piling, Grout Mixer & Pump and Concrete Pump. 	To minimize construction noise impact arising from the Project at the affected NSRs	Contractor	Work Sites	Construction phase	EIAO-TM, NCO		
Noise Mitigation Plan	Use of Temporary Noise Barriers (i.e Acoustic box, SilentUp and etc.) or Full Enclosure for PME according to the approved Noise Mitigation Plan	To minimize construction noise impact arising from the Project at the affected NSRs	Contractor	Work Sites	Construction phase	EIAO-TM, NCO		
S4.9	Only well-maintained plant should be operated on-site and plant should be serviced regularly during the construction program Silencers or mufflers on construction equipment should be utilized and should be properly maintained during the construction program. Mobile plant, if any, should be sited as far away from NSRs as possible. Machines and plant (such as trucks) that may be in intermittent use should be shut down between works periods or should be throttled down to a minimum. Plant known to emit noise strongly in one direction should, wherever possible, be orientated so that the noise is directed away from the nearby NSRs. Material stockpiles and other structures should be effectively utilized, wherever practicable, in screening noise from on-site construction activities.	To minimize construction noise impact arising from the Project at the affected NSRs	Project Proponent	Work sites	Construction Period	EIAO-TM, NCO		
S4.9	Scheduling of Construction Works during School Examination Period	To minimize construction noise impact arising from the Project at the affected NSRs	Contractor	Work site near school	Construction phase	EIAO-TM, NCO		
Water Quality Impac	et (Construction Phase)							
S5.6.24	The dry density of filling material for the TKO-LT Tunnel reclamation should be $1,900 \text{kg/m}^3$, with fine content of 25% or less	Control potential impacts from filling activities	CEDD's Contractors	Work site	Construction Phase	EIAO-TM, WPCO		
\$5.8.1	Non-dredged method by constructing steel cellular caisson structure with stone column shall be adopted for construction of seawall foundation. During the stone column installation (also including the installation of steel cellular caisson), silt curtain shall be employed around the active stone column installation points.	Control potential impacts from filling activities	CEDD's Contractors	Work site	Construction Phase	EIAO-TM, WPCO		
\$5.8.2	Formation of seawall enclosing the reclamation for Road P2 (notwithstanding an opening of about 50m for marine access) shall be completed prior to the filling activities. The seawall opening of about 50m wide for marine access shall be selected at a location as indicatively shown in Appendix 5.10. No more than 3 filling barge trips per day shall be made with a maximum daily rate of 3,000m ³ (i.e. 1,000 m ³ per trip) for the filling operation at the reclamation area for Road P2. All filling works shall be carried out behind the seawall with the use of single silt curtain at the marine access.	Control potential impacts from filling activities	CEDD's Contractors	Work site	Construction Phase	EIAO-TM, WPCO		
Silt Curtain Deployment Plan	 Silt curtains should be deployed properly to surround the works area. Maintenance of silt curtain should be provided. Sufficient stock of silt curtain should be provided on site. 	Control potential impacts from marine woroks	Contractor	NE/2015/01	Construction stage	EIAO		

EIA Ref. / EP Submission	Recommended Mitigation Measures	Objectives of the recommended Measures & Main Concerns to address	Who to implement the measures?	Location of the measures	When to Implement the measures?	What requirements or standards for the measures to achieve?
\$5.8.3	Other good site practices should be undertaken during filling operations include: • all marine works should adopt the environmental friendly construction methods as far as practically possible including the use of cofferdams to cover the construction area to separate the construction works from the sea; • floating single silt curtain shall be employed for all marine works; • all vessels should be sized so that adequate clearance is maintained between vessels and the seabed in all tide conditions, to ensure that undue turbidity is not generated by turbulence from vessel movement or propeller wash; • all hopper barges should be fitted with tight fitting seals to their bottom openings to prevent leakage of material; • excess material shall be cleaned from the decks and exposed fittings of barges before the vessel is moved; • adequate freeboard shall be maintained on barges to reduce the likelihood of decks being washed by wave action; • loading of barges and hoppers should be controlled to prevent splashing of filling material into the surrounding water. Barges or hoppers should not be filled to a level that will cause the overflow of materials or polluted water during loading or transportation; • any pipe leakages shall be repaired quickly. Plant should not be operated with leaking pipes; • construction activities should not cause foam, oil, grease, scum, litter or other objectionable matter to be present on the water within the site or dumping grounds; and • before commencement of the reclamation works, the holder of Environmental Permit has to submit plans showing the phased construction of the reclamation, design and operation of the silt curtain.	Control potential impacts from filling activities and marine-based construction	CEDD's Contractors	Work site	Construction Phase	EIAO-TM, WPCO, Waste Disposal Ordinance (WDO)
S5.8.4	Site specific mitigation plan for reclamation areas using public fill materials should be submitted for EPD agreement before commencement of construction phase with due consideration of good site practices.	Control potential impacts from filling activities and marine based construction	CEDD's Contractors	Work site	Construction Phase	ProPECC PN 1/94, EIAOTM, WPCO
ERR S5.6.1	To minimize water quality impact arising from the dredging and filling works for Reclamation for Road P2, the following mitigation measures shall be implemented: - Before carrying out any dredging and underwater filling works, a temporary barrier shall first be constructed to a height above the high water mark to completely enclose the works site (without any opening at the barrier wall) - The temporary barrier fully enclosing the dredging and underwater filling works site shall not be removed before completion of all dredging and underwater filling works. - Water quality sampling and testing shall be carried out to demonstrate that the water quality inside the enclosed barrier is comparable to the ambient or baseline levels prior to the removal of the fully enclosed barrier. - Silt curtains shall be deployed for the installation and removal of the temporary barrier and at the double water gates marine access opening during its operation.	Control potential impacts from dredging and filling works for Reclamation for Road P2	CEDD's Contractors	Work site	Construction Phase	ProPECC PN 1/94, EIAOTM, WPCO
S5.8.5	It is important that appropriate measures are implemented to control runoff and drainage and prevent high loading of SS from entering the marine environment. Proper site management is essential to minimise surface water runoff, soil erosion and sewage effluents.	Control potential impacts from construction site runoff and land-based construction	CEDD's Contractors	Work site	Construction Phase	ProPECC PN 1/94, EIAOTM, WPCO
S5.8.6	Any practical options for the diversion and realignment of drainage should comply with both engineering and environmental requirements in order to ensure adequate hydraulic capacity of all drains.	Control potential impacts from construction site runoff and land-based construction	CEDD's Contractors	Work site	Design Stage and Construction Phase	ProPECC PN 1/94, EIAOTM, WPCO, TM- DSS

EIA Ref. / EP Submission	Recommended Mitigation Measures	Objectives of the recommended Measures & Main Concerns to address	Who to implement the measures?	Location of the measures	When to Implement the measures?	What requirements or standards for the measures to achieve?
S5.8.7	Construction site runoff and drainage should be prevented or minimised in accordance with the guidelines stipulated in the EPD's Practice Note for Professional Persons, Construction Site Drainage (ProPECC PN 1/94). Good housekeeping and stormwater best management practices, as detailed in below, should be implemented to ensure that all construction runoff complies with WPCO standards and no unacceptable impact on the WSRs arises due to construction of the TKO-LT Tunnel. All discharges from the construction site should be controlled to comply with the standards for effluents discharged into the corresponding WCZ under the TM-DSS.	Control potential impacts from construction site runoff and land-based construction	CEDD's Contractors	Work site	Construction Phase	ProPECC PN 1/94, EIAOTM, WPCO, TM- DSS
\$5.8.8 \$5.8.8 \$5.8.8	Exposed soil areas should be minimised to reduce the potential for increased siltation, contamination of runoff, and erosion. Construction runoff related impacts associated with the above ground construction activities can be readily controlled through the use of appropriate mitigation measures which include: • use of sediment traps; and • adequate maintenance of drainage systems to prevent flooding and overflow.	Control potential impacts from construction site runoff and land-based construction	CEDD's Contractors	Work site	Construction Phase	ProPECC PN 1/94, EIAOTM, WPCO
S5.8.9	Construction site should be provided with adequately designed perimeter channel and pretreatment facilities and proper maintenance. The boundaries of critical areas of earthworks should be marked and surrounded by dykes or embankments for flood protection. Temporary ditches should be provided to facilitate runoff discharge into the appropriate watercourses, via a silt retention pond. Permanent drainage channels should incorporate sediment basins or traps and baffles to enhance deposition rates. The design of efficient silt removal facilities should be based on the guidelines in Appendix A1 of ProPECC PN 1/94.	Control potential impacts from construction site runoff and land-based construction	CEDD's Contractors	Work site	Construction Phase	ProPECC PN 1/94, EIAOTM, WPCO
\$5.8.10	Ideally, construction works should be programmed to minimise surface excavation works during the rainy season (April to September). All exposed earth areas should be completed as soon as possible after earthworks have been completed, or alternatively, within 14 days of the cessation of earthworks where practicable. If excavation of soil cannot be avoided during the rainy season, or at any time of year when rainstorms are likely, exposed slope surfaces should be covered by tarpaulin or other means.	Control potential impacts from construction site runoff and land-based construction	CEDD's Contractors	Work site	Construction Phase	ProPECC PN 1/94, EIAOTM, WPCO
S5.8.11	Sedimentation tanks of sufficient capacity, constructed from pre-formed individual cells of approximately 6 to 8m ³ capacity, are recommended as a general mitigation measure which can be used for settling surface runoff prior to disposal. The system capacity is flexible and able to handle multiple inputs from a variety of sources and particularly suited to applications where the influent is pumped.	Control potential impacts from construction site runoff and land-based construction	CEDD's Contractors	Work site	Construction Phase	ProPECC PN 1/94, EIAOTM, WPCO
S5.8.12	Earthworks final surfaces should be well compacted and the subsequent permanent work or surface protection should be carried out immediately after the final surfaces are formed to prevent erosion caused by rainstorms. Appropriate drainage like intercepting channels should be provided where necessary.	Control potential impacts from construction site runoff and land-based construction	CEDD's Contractors	Work site	Construction Phase	ProPECC PN 1/94, EIAOTM, WPCO
\$5.8.13	Measures should be taken to minimize the ingress of rainwater into trenches. If excavation of trenches in wet seasons is necessary, they should be dug and backfilled in short sections. Rainwater pumped out from trenches or foundation excavations should be discharged into storm drains via silt removal facilities.	Control potential impacts from construction site runoff and land-based construction	CEDD's Contractors	Work site	Construction Phase	ProPECC PN 1/94, EIAOTM, WPCO
	Open stockpiles of construction materials (for examples, aggregates, sand and fill material) of more than 50m ³ should be covered with tarpaulin or similar fabric during rainstorms. Measures should be taken to prevent the washing away of construction materials, soil, silt or debris into any drainage system.	Control potential impacts from construction site runoff and land-based construction	CEDD's Contractors	Work site	Construction Phase	ProPECC PN 1/94, EIAOTM, WPCO

EIA Ref. / EP Submission	Recommended Mitigation Measures	Objectives of the recommended Measures & Main Concerns to address	Who to implement the measures?	Location of the measures	When to Implement the measures?	What requirements or standards for the measures to achieve?
S5.8.15	Manholes (including newly constructed ones) should always be adequately covered and temporarily sealed so as to prevent silt, construction materials or debris being washed into the drainage system and storm runoff being directed into foul sewers. Discharge of surface run-off into foul sewers must always be prevented in order not to unduly overload the foul sewerage system.	Control potential impacts from construction site runoff and land-based construction	CEDD's Contractors	Work site	Construction Phase	ProPECC PN 1/94, EIAOTM, WPCO
S5.8.16	Precautions to be taken at any time of year when rainstorms are likely, actions to be taken when a rainstorm is imminent or forecast, and actions to be taken during or after rainstorms are summarised in Appendix A2 of ProPECC PN 1/94. Particular attention should be paid to the control of silty surface runoff during storm events, especially for areas located near steep slopes.	Control potential impacts from construction site runoff and land-based construction	CEDD's Contractors	Work site	Construction Phase	ProPECC PN 1/94, EIAOTM, WPCO
S5.8.17	Oil interceptors should be provided in the drainage system and regularly cleaned to prevent the release of oils and grease into the storm water drainage system after accidental spillages. The interceptor should have a bypass to prevent flushing during periods of heavy rain.	Control potential impacts from construction site runoff and land-based construction	CEDD's Contractors	Work site	Construction Phase	ProPECC PN 1/94, EIAOTM, WPCO
S5.8.18	All vehicles and plant should be cleaned before leaving a construction site to ensure no earth, mud, debris and the like is deposited by them on roads. An adequately designed and located wheel washing bay should be provided at every site exit, and washwater should have sand and silt settled out and removed at least on a weekly basis to ensure the continued efficiency of the process. The section of access road leading to, and exiting from, the wheelwash bay to the public road should be paved with sufficient backfall toward the wheel-wash bay to prevent vehicle tracking of soil and silty water to public roads and drains.	Control potential impacts from construction site runoff and land-based construction	CEDD's Contractors	Work site	Construction Phase	ProPECC PN 1/94, EIAOTM, WPCO
S5.8.19	Silt removal facilities, channels and manholes should be maintained and the deposited silt and grit should be removed regularly, at the onset of and after each rainstorm to ensure that these facilities are functioning properly at all times.	Control potential impacts from construction site runoff and land-based construction	CEDD's Contractors	Work site	Construction Phase	ProPECC PN 1/94, EIAOTM, WPCO
\$5.8.20	It is recommended that on-site drainage system should be installed prior to the commencement of other construction activities. Sediment traps should be installed in order to minimise the sediment loading of the effluent prior to discharge into foul sewers. There shall be no direct discharge of effluent from the site into the sea.	Control potential impacts from construction site runoff and land-based construction	CEDD's Contractors	Work site	Construction Phase	ProPECC PN 1/94, EIAOTM, WPCO
\$5.8.21	All temporary and permanent drainage pipes and culverts provided to facilitate runoff discharge should be adequately designed for the controlled release of storm flows. All sediment control measures should be regularly inspected and maintained to ensure proper and efficient operation at all times and particularly following rain storms. The temporarily diverted drainage should be reinstated to its original condition when the construction work has finished or the temporary diversion is no longer required.	Control potential impacts from construction site runoff and land-based construction	CEDD's Contractors	Work site	Construction Phase	ProPECC PN 1/94, EIAOTM, WPCO
S5.8.22	All fuel tanks and storage areas should be provided with locks and be located on sealed areas, within bunds of a capacity equal to 110% of the storage capacity of the largest tank, to prevent spilled fuel oils from reaching the coastal waters.	Control potential impacts from construction site runoff and land-based construction	CEDD's Contractors	Work site	Construction Phase	ProPECC PN 1/94, EIAOTM, WPCO
S5.8.23	Minimum distances of 100m shall be maintained between the existing or planned stormwater discharges and the existing or planned seawater intakes during construction and operational phases	Control potential impacts from construction site runoff and land-based construction	CEDD's Contractors	Work site	Construction Phase	EIAO-TM, WPCO, TMDSS
S5.8.24	Under normal circumstances, groundwater pumped out of wells, etc. for the lowering of ground water level in basement or foundation construction, and groundwater seepage pumped out of tunnels or caverns under construction should be discharged into storm drains after the removal of silt in silt removal facilities.	Control potential impacts from construction site runoff and land-based construction	CEDD's Contractors	Work site	Construction Phase	ProPECC PN 1/94, EIAOTM, WPCO

EIA Ref. / EP Submission	Recommended Mitigation Measures	Objectives of the recommended Measures & Main Concerns to address	Who to implement the measures?	Location of the measures	When to Implement the measures?	What requirements or standards for the measures to achieve?
S5.8.25 - S5.8.27 & Table 5.18	Grouting would be adopted as measure to reduce the groundwater inflow into the tunnel. During the tunnel excavation, the inflow rate of groundwater into the tunnel will be measured during the excavation. The groundwater levels above the tunnel will also be monitored by piezometers. If the inflow rate exceeds the pre-determined groundwater control criteria or the groundwater drawdown exceeds the required limit, pre-excavation grouting will be required to reduce the groundwater inflow. No significant change of groundwater levels would therefore be expected. Any chemicals/ foaming agents which would be entrained to the groundwater should be biodegradable and non-toxic throughout the tunnel construction. Potential groundwater quality impact would be minimal as the used material is non-toxic and biodegradable. No adverse groundwater quality would therefore be expected. Prescriptive measures in the form of an Action Plan with pre-emptive and re-active to preserve the groundwater levels at all times during the tunnel construction are set out in Table 5.18.	Control potential impacts from construction site runoff and land-based construction	CEDD's Contractors	Work site	Construction Phase	ProPECC PN 1/94, EIAOTM, WPCO, Buildings Ordinance
S5.8.28	Water used in ground boring and drilling for site investigation or rock / soil anchoring should as far as practicable be recirculated after sedimentation. When there is a need for final disposal, the wastewater should be discharged into storm drains via silt removal facilities.	Control potential impacts from construction site runoff and land-based construction	CEDD's Contractors	Work site	Design Stage and Construction Phas	ProPECC PN 1/94, EIAOTM, WPCO
S5.8.29 - S5.8.31	Wastewater generated from the washing down of mixing trucks and drum mixers and similar equipment should whenever practicable be recycled. The discharge of wastewater should be kept to a minimum. To prevent pollution from wastewater overflow, the pump sump of any water recycling system should be provided with an online standby pump of adequate capacity and with automatic alternating devices. Under normal circumstances, surplus wastewater may be discharged into foul sewers after treatment in silt removal and pH adjustment facilities (to within the pH range of 6 to 10). Disposal of wastewater into storm drains will require more elaborate treatment.	Control potential impacts from construction site runoff and land-based construction	CEDD's Contractors	Work site	Construction Phase	ProPECC PN 1/94, EIAOTM, WPCO
S5.8.32	All vehicles and plant should be cleaned before they leave a construction site to ensure no earth, mud, debris and the like is deposited by them on roads. A wheel washing bay should be provided at every site exit if practicable and wash-water should have sand and silt settled out or removed before discharging into storm drains. The section of construction road between the wheel washing bay and the public road should be paved with backfall to reduce vehicle tracking of soil and to prevent site run-off from entering public road drains.	Control potential impacts from construction site runoff and land-based construction	CEDD's Contractors	Work site	Construction Phase	ProPECC PN 1/94, EIAOTM, WPCO
\$5.8.33	Bentonite slurries used in diaphragm wall and borepile construction should be reconditioned and reused wherever practicable. If the disposal of a certain residual quantity cannot be avoided, the used slurry may be disposed of at the marine spoil grounds subject to obtaining a marine dumping licence from EPD on a case-by-case basis.	Control potential impacts from construction site runoff and land-based construction	CEDD's Contractors	Work site	Construction Phase	ProPECC PN 1/94, EIAOTM, WPCO
S5.8.34	If the used bentonite slurry is intended to be disposed of through the public drainage system, it should be treated to the respective effluent standards applicable to foul sewer, storm drains or the receiving waters as set out in the WPCO Technical Memorandum on Effluent Standards.	Control potential impacts from construction site runoff and land-based construction	CEDD's Contractors	Work site	Construction Phase	ProPECC PN 1/94, EIAOTM, WPCO
S5.8.35	Water used in water testing to check leakage of structures and pipes should be reused for other purposes as far as practicable. Surplus unpolluted water could be discharged into storm drains.	Control potential impacts from construction site runoff and land-based construction	CEDD's Contractors	Work site	Construction Phase	ProPECC PN 1/94, EIAOTM, WPCO
S5.8.36	Sterilization is commonly accomplished by chlorination. Specific advice from EPD should be sought during the design stage of the works with regard to the disposal of the sterilizing water. The sterilizing water should be reused wherever practicable.	Control potential impacts from construction site runoff and land-based construction	CEDD's Contractors	Work site	Design Stage and Construction Phase	ProPECC PN 1/94, EIAOTM, WPCO
S5.8.37	Before commencing any demolition works, all sewer and drainage connections should be sealed to prevent building debris, soil, sand etc. from entering public sewers/drains.	Control potential impacts from construction site runoff and land-based construction	CEDD's Contractors	Work site	Construction Phase	ProPECC PN 1/94, EIAOTM, WPCO

EIA Ref. / EP Submission	Recommended Mitigation Measures	Objectives of the recommended Measures & Main Concerns to address	Who to implement the measures?	Location of the measures	When to Implement the measures?	What requirements or standards for the measures to achieve?
S5.8.38	Wastewater generated from building construction activities including concreting, plastering, internal decoration, cleaning of works and similar activities should not be discharged into the stormwater drainage system. If the wastewater is to be discharged into foul sewers, it should undergo the removal of settleable solids in a silt removal facility, and pH adjustment as necessary	Control potential impacts from construction site runoff and land-based construction	CEDD's Contractors	Work site	Construction Phase	ProPECC PN 1/94, EIAOTM, WPCO
\$5.8.39	Acidic wastewater generated from acid cleaning, etching, pickling and similar activities should be neutralized to within the pH range of 6 to 10 before discharging into foul sewers. If there is no public foul sewer in the vicinity, the neutralized wastewater should be tinkered off site for disposal into foul sewers or treated to a standard acceptable to storm drains and the receiving waters	Control potential impacts from construction site runoff and land-based construction	CEDD's Contractors	Work site	Construction Phase	ProPECC PN 1/94, EIAOTM, WPCO
S5.8.40	Wastewater collected from canteen kitchens, including that from basins, sinks and floor drains, should be discharged into foul sewer via grease traps capable of providing at least 20 minutes retention during peak flow.	Control potential impacts from construction site runoff and land-based construction	CEDD's Contractors	Work site	Construction Phase	ProPECC PN 1/94, EIAOTM, WPCO
S5.8.41	Drainage serving an open oil filling point should be connected to storm drains via a petrol interceptor with peak storm bypass.	Control potential impacts from construction site runoff and land-based construction	CEDD's Contractors	Work site	Construction Phase	ProPECC PN 1/94, EIAOTM, WPCO
S5.8.42	Vehicle and plant servicing areas, vehicle wash bays and lubrication bays should as far as possible be located within roofed areas. The drainage in these covered areas should be connected to foul sewers via a petrol interceptor. Oil leakage or spillage should be contained and cleaned up immediately. Waste oil should be collected and stored for recycling or disposal in accordance with the Waste Disposal Ordinance.	Control potential impacts from construction site runoff and land-based construction	CEDD's Contractors	Work site	Construction Phase	ProPECC PN 1/94, EIAOTM, WPCO
\$5.8.43	Construction work force sewage discharges on site are expected to be connected to the existing trunk sewer or sewage treatment facilities. The construction sewage may need to be handled by portable chemical toilets prior to the commission of the on-site sewer system. Appropriate numbers of portable toilets shall be provided by a licensed contractor to serve the large number of construction workers over the construction site. The Contractor shall also be responsible for waste disposal and maintenance practices.	Control potential impacts from construction site runoff and land-based construction	CEDD's Contractors	Work site	Construction Phase	ProPECC PN 1/94, EIAOTM, WPCO
S5.8.44	Contractor must register as a chemical waste producer if chemical wastes would be produced from the construction activities. The Waste Disposal Ordinance (Cap 354) and its subsidiary regulations in particular the Waste Disposal (Chemical Waste) (General) Regulation should be observed and complied with for control of chemical wastes.	Control potential impacts from accidental spillage of chemicals	CEDD's Contractors	Work site	Construction Phase	EIAO-TM, WPCO, WDO
S5.8.45	Any service shop and maintenance facilities should be located on hard standings within a bunded area, and sumps and oil interceptors should be provided. Maintenance of vehicles and equipment involving activities with potential for leakage and spillage should only be undertaken within the areas appropriately equipped to control these discharges.	Control potential impacts from accidental spillage of chemicals	CEDD's Contractors	Work site	Construction Phase	EIAO-TM, WPCO
S5.8.46	Disposal of chemical wastes should be carried out in compliance with the Waste Disposal Ordinance. The "Code of Practice on the Packaging, Labelling and Storage of Chemical Wastes" published under the Waste Disposal Ordinance details the requirements to deal with chemical wastes. General requirements are given as follows: • suitable containers should be used to hold the chemical wastes to avoid leakage or spillage during storage, handling and transport; • chemical waste containers should be suitably labelled, to notify and warn the personnel who are handling the wastes, to avoid accidents; and • storage area should be selected at a safe location on site and adequate space should be allocated to the storage area.	Control potential impacts from accidental spillage of chemicals	CEDD's Contractors	Work site	Construction Phase	EIAO-TM, WPCO, WDO
S5.8.47	Collection and removal of floating refuse should be performed at regular intervals on a daily basis. The contractor should be responsible for keeping the water within the site boundary and the neighbouring water free from rubbish.	Control potential impacts from floating refuse and debris	CEDD's Contractors	Work site	Construction Phase	EIAO-TM, WPCO,

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Ecological Impact						
S6.8.4	Measures to Minimize Disturbance Use of Quiet Mechanical Plant during the construction phase should be adopted wherever possible. Hoarding or fencing should be erected around the works area boundaries during the construction phase. The hoarding would screen adjacent habitats from construction phase activities, reduce noise disturbance to these habitats and also to restrict access to habitats adjacent to works areas by site workers; Regular spraying of haul roads to minimize impacts of dust deposition on adjacent vegetation and habitats during the construction activities	Minimize noise, human and traffic disturbance to terrestrial habitat and wildlife; and reduce dust generation	Design Team / Contractor	Land-based works are	Construction Phase	N/A
S6.8.5	Standard Good Site Practice Placement of equipment or stockpile in designated works areas and access routes selected on existing disturbed land to minimise disturbance to natural habitats. Construction activities should be restricted to works areas that should be clearly demarcated. The works areas should be reinstated after completion of the works. Waste skips should be provided to collect general refuse and construction wastes. The wastes should be properly disposed off-site in a timely manner. General drainage arrangements should include sediment and oil traps to collect and control construction site run-off. Open burning on works sites is illegal, and should be strictly prohibited. Measures should also be put into place so that litter, fuel and solvents do not enter the nearby watercourses.	Reduce disturbance to surrounding habitats	Contractor	Land-based works are	Construction Phase	N/A
\$6.8.6	Measure to Minimize Groundwater Inflow The drained tunnel construction method with groundwater inflow control measures would generally be adopted. During the tunnel excavation, pre-excavation grouting could be adopted to reduce the groundwater inflow and ensure that the tunnel would meet the long term water tightness requirements.	Minimize groundwater inflow	Contractor	Tunnel	Construction Phase	N/A
	Measure to Minimize Impact on Corals					
	Coral translocation It is recommended to translocate the affected coral colonies, except the locally common Oulastrea crispata, within the reclamation area and bridge footprint to the other suitable locations as far as practicable. The coral translocation should be conducted during the winter months (November-March) in order to avoid disturbance during their spawning period (i.e. July to October). A detailed coral translocation plan with a description on the methodology for pretranslocation coral survey, translocation methodology, identification/proposal of coral recipient site, monitoring methodology for posttranslocation should be prepared during the detailed design stage.					
\$6.8.8	 The coral translocation plan should be subject to approval by relevant authorities (e.g. EPD and AFCD) before commencement of the coral translocation. All the translocation exercises should be conducted by experienced marine ecologist(s) who is/are approved by AFCD prior to commencement of coral translocation. 	Minimize loss of coral	Design team, contractor, project operator	Within reclamation areas and pier footprint	Prior construction	N/A

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	A coral monitoring A coral monitoring programme is recommended to assess any adverse and unacceptable impacts to the translocated coral communities Information gathered during each posttranslocation monitoring survey should include observations on the presence, survival, health condition and growth of the translocated coral colonies. These parameters should then be compared with the baseline results collected from the pre-translocation survey.					
S6.8.9 S6.8.10	Measure to Control Water Quality Impact Deployment of silt curtains around the active stone column installation points, opening of newly installed seawall and marine works area. Diverting of the site runoff to silt trap facilities before discharging into storm drain; Proper waste and dumping management; and Standard good-site practice for land-based construction.	Control water quality impact, especially on suspended solid level; minimize the contamination of wastewater discharge, accidental chemical spillage and construction site runoff to the receiving water bodies	Design Team, contractor	Marine and landbased works area	Construction phase	WQO
S6.8.11	Felling of mature trees should be compensated by planting of standard or heavy standard trees within or in vicinity of the affected area as far as practicable. Such compensatory planting for trees should be provided with at least a 1:1 ratio. In addition, vegetation at the temporarily affected area should be reinstated with species similar to the existing condition.	Compensate for the vegetation loss	Design Team, contractor	Land-based works area	Construction phase	N/A
Fisheries Impact						
S7.7.3	Measure to Control Water Quality Impact • Deployment of silt curtains around the active stone column installation points, opening of newly installed seawall and marine works area.	Control water quality impact, especially on suspended solid level	Design Team / Contractor	Marine work area	Construction phase	WQO

EIA Ref. / EP Submission	Recommended Mitigation Measures	Objectives of the recommended Measures & Main Concerns to address	Who to implement the measures?	Location of the measures	When to Implement the measures?	What requirements or standards for the measures to achieve?
Waste Management	Construction Phase)					
	Good Site Practices and Waste Reduction Measures Nomination of an approved person, such as a site manager, to be responsible for good site practices, arrangements for collection and effective disposal to an appropriate facility, of all wastes generated at the site; Training of site personnel in site cleanliness, proper waste management and chemical					Waste Disposal Ordinance (Cap. 354)
S8.6.3	handling procedures; Provision of sufficient waste disposal points and regular collection of waste; Appropriate measures to minimize windblown litter and dust during transportation of waste by either covering trucks or by transporting wastes in enclosed containers; and Regular cleaning and maintenance programme for drainage systems, sumps and oil interceptors.	To reduce waste management impacts	Contractor	All work sites	Construction Phase	Land (Miscellaneous Provisions) Ordinance (Cap. 28)
S8.6.4	Segregation and storage of different types of waste in different containers, skips or stockpiles to enhance reuse or recycling of materials and their proper disposal; Encourage collection of aluminium cans by providing separate labelled bins to enable this waste to be segregated from other general refuse generated by the workforce; Proper storage and site practices to minimize the potential for damage or contamination of construction materials; and Plan and stock construction materials carefully to minimize amount of waste generated and avoid unnecessary generation of waste.	To achieve waste reduction	Contractor	All work sites	Construction Phase	Waste Disposal Ordinance (Cap. 354) Land (Miscellaneous Provisions) Ordinance (Cap. 28)
S8.6.5	Good Site Practices and Waste Reduction Measures (con't) The Contractor shall prepare and implement a WMP as part of the EMP in accordance with ETWB TCW No. 19/2005 which describes the arrangements for avoidance, reuse, recovery, recycling, storage, collection, treatment and disposal of different categories of waste to be generated from the construction activities. Such a management plan should incorporate site specific factors, such as the designation of areas for segregation and temporary storage of reusable and recyclable materials. The EMP should be submitted to the Engineer for approval. The Contractor should implement the waste management practices in the EMP throughout the construction stage of the Project. The EMP should be reviewed regularly and updated by the Contractor.	To achieve waste reduction	Contractor	All work sites	Construction Phase	ETWB TCW No. 19/2005

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S8.6.6	Good Site Practices and Waste Reduction Measures (con't) C&D materials would be reused in the project and other local concurrent projects as far as possible.	To achieve waste reduction	Contractor	All work sites	Construction Phase	ETWB TCW No. 19/2005
S8.6.7	Storage, Collection and Transportation of Waste Should any temporary storage or stockpiling of waste is required, recommendations to minimize the impacts include: • Waste, such as soil, should be handled and stored well to ensure secure containment, thus minimizing the potential of pollution; • Maintain and clean storage areas routinely; • Stockpiling area should be provided with covers and water spraying system to prevent materials from wind-blown or being washed away; and • Different locations should be designated to stockpile each material to enhance reuse.	To minimize potential adverse environmental impacts arising from waste storage	Contractor	All work sites	Construction Phase	ETWB TCW No. 19/2005
S8.6.8/ Waste Management Plan	Storage, Collection and Transportation of Waste (con't) Remove waste in timely manner; Waste collectors should only collect wastes prescribed by their permits; Impacts during transportation, such as dust and odour, should be mitigated by the use of covered trucks or in enclosed containers; Obtain relevant waste disposal permits from the appropriate authorities, in accordance with the Waste Disposal Ordinance (Cap. 354), Waste Disposal (Charges for Disposal of Construction Waste) Regulation (Cap. 345) and the Land (Miscellaneous Provisions) Ordinance (Cap. 28); Waste should be disposed of at licensed waste disposal facilities/ alternative disposal ground approved by RE and DEP; and Maintain records of quantities of waste generated, recycled and disposed.	To minimize potential adverse environmental impacts arising from waste collection and disposal	Contractor	All work sites	Construction Phase	ETWB TCW No. 19/2005
S8.6.9/ Waste Management Plan	Storage, Collection and Transportation of Waste (con't) Implementation of trip ticket system with reference to DEVB TC(W) No. 6/2010, Trip Ticket System for Disposal of Construction & Demolition Materials, to monitor disposal of waste and to control fly-tipping at PFRFs or landfills. A recording system for the amount of waste generated, recycled and disposed (including disposal sites) should be proposed.	To minimize potential adverse environmental impacts arising from waste collection and disposal	Contractor	All work sites	Construction Phase	DEVB TCW No. 6/2010
S8.6.11 - S8.6.13/ Waste Management Plan	Sorting of C&D Materials Sorting to be performed to recover the inert materials, reusable and recyclable materials before disposal off-site. Specific areas shall be provided by the Contractors for sorting and to provide temporary storage areas for the sorted materials. The C&D materials should at least be segregated into inert and non-inert materials, in which the inert portion could be reused and recycled in the reclamation as far as practicable before delivery to PFRFs. While opportunities for reusing the non-inert portion should be investigated before disposal of at designated landfills	To minimize potential adverse environmental	Contractor	All work sites	Construction Phase	DEVB TCW No. 6/2010 ETWB TCW No. 33/2002 ETWB TCW No. 19/2005

EIA Ref. / EP Submission	Recommended Mitigation Measures	Objectives of the recommended Measures & Main Concerns to address	Who to implement the measures?	Location of the measures	When to Implement the measures?	What requirements or standards for the measures to achieve?	
S8.6.17 – S8.6.20	Requirements of the Air Pollution Control (Construction Dust) Regulation, where relevant, shall be adhered to during boring, excavation, transportation and disposal of sediments or cement stabilization of sediment. A treatment area should be confined for carrying out the cement stabilization mixing and temporary stockpile. The area should be designed to prevent leachate from entering the ground. Leachate, if any, should be collected and discharged according to the Water Pollution Control Ordinance (WPCO). In order to minimise the potential odour / dust emissions during boring, excavation and transportation of the sediment, the excavated sediments should be kept wet during excavation/boring and should be properly covered when placed on barges/trucks. Loading of the excavated sediment slurry to the surrounding water. In order to minimise the exposure to contaminated materials, workers should, when necessary, wear appropriate personal protective equipments (PPE) when handling contaminated sediments. Adequate washing and cleaning facilities should also be provided on	To determine the best handling and treatment of sediment	Contractor	All works areas with sediments concern	Construction Phase	ETWB TCW No. 19/2005	
	site.						
	The excavated sediments is expected to be loaded onto the barge and transported to the designated disposal sites allocated by the MFC. The excaveted sediment would be disposed of according to its determined disposal options and ETWB TC(W) No. 34/2002. Stockpiling of contaminated sediments should be avoided as far as possible. If temporary stockpiling of contaminated sediments is necessary, the excavated sediment should be covered by tarpaulin and the area should be placed within earth bunds or sand bags to prevent leachate from entering the ground, nearby drains and surrounding water bodies. The						
	stockpiling areas should be completely paved or covered by linings in order to avoid contamination to underlying soil or groundwater. Separate and clearly defined areas should be provided for stockpiling of contaminated and uncontaminated materials. Leachate, if any, should be collected and discharged according to the Water Pollution Control Ordinance (WPCO).						
S8.6.24 - S8.6.28/ Waste Management Plan	 In order to minimise the potential odour / dust emissions during boring and transportation of the sediment, the excavated sediments should be kept wet during excavation/boring and should be properly covered when placed on barges. Loading of the excavated sediment to the barge should be controlled to avoid splashing and overflowing of the sediment slurry to the surrounding water. 	To ensure handling of sediments are in accordance to statutory requirements	Contractor	All works areas with sediments concern	Construction Phase	ETWB TC(W) No. 34/2002 & Dumping at Sea Ordinance	

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	 The barge transporting the sediments to the designated disposal sites should be equipped with tight fitting seals to prevent leakage and should not be filled to a level that would cause overflow of materials or laden water during loading or transportation. In addition, monitoring of the barge loading shall be conducted to ensure that loss of material does not take place during transportation. Transport barges or vessels shall be equipped with automatic self-monitoring devices as specified by the DEP. In order to minimise the exposure to contaminated materials, workers should, when necessary, wear appropriate personal protective equipments (PPE) when handling contaminated sediments. Adequate washing and cleaning facilities should also be provided on site. Another possible arrangement for Type 3 disposal is by geosynthetic containment. A geosynthetic containment method is a method whereby the sediments are sealed in geosynthetic containers and, at the disposal site, the containers would be dropped into the designated contaminated mud pit where they would be covered by further mud disposal and later by the mud pit capping, thereby meeting the requirements for fully confined mud disposal. 					
S8.6.26/ Waste Management Plan	• If chemical wastes are produced at the construction site, the Contractor would be required to register with the EPD as a Chemical Waste Producer and to follow the guidelines stated in the Code of Practice on the Packaging, Labelling and Storage of Chemical Wastes. Good quality containers compatible with the chemical wastes should be used, and incompatible chemicals should be stored separately. Appropriate labels should be securely attached on each chemical waste container indicating the corresponding chemical characteristics of the chemical waste, such as explosive, flammable, oxidizing, irritant, toxic, harmful, corrosive, etc. The Contractor shall use a licensed collector to transport and dispose of the chemical wastes, to either the Chemical Waste Treatment Centre at Tsing Yi, or other licensed facility, in accordance with the Waste Disposal (Chemical Waste) (General) Regulation.	To ensure proper management of chemical waste	Contractor	All works sites	Construction Phase	Code of Practice on the Packaging, Labelling and Storage of Chemical Wastes Waste Disposal (Chemical Waste) (General) Regulation

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S8.6.27/ Waste Management Plan	General Refuse General refuse should be stored in enclosed bins or compaction units separate from C&D material. A reputable waste collector should be employed by the contractor to remove general refuse from the site, separately from C&D material. Preferably an enclosed and covered area should be provided to reduce the occurrence of 'wind blown' light material.	To ensure proper management of general refuse	Contractor	All works sites	Construction Phase	Public Health and Municipal Services Ordinance (Cap. 132)	
Impact on Cultural H	eritage (Construction Phase)						
\$9.6.4	Dust and visual impacts Temporarily fenced off buffer zone with allowance for public access (minimum 1 m) should be provided; The open yard in front of the temple should be kept as usual for annual Tin Hau festival; Monitoring of vibration impacts should be conducted when the construction works are less than 100m from the temple.	 Temporarily fenced off buffer zone with allowance for public access (minimum 1 m) should be provided; The open yard in front of the temple should be kept as usual for annual Tin Hau festival; Monitoring of vibration impacts should be conducted when the construction works are 		Work areas	Construction Phase	EIAO; GCHIA; AMO	
\$9.6.4	Indirect vibration impact Vibration level is suggest to be controlled within a peak particle velocity (ppv) limit of 5mm/s measured inside the historical buildings; Monitoring of vibration should be carried out during construction phase. Tilting and settlement monitoring should will be applied on the Cha Kwo Ling Tin Hau Temple as well. A proposal with details for the mitigation measures and monitoring of impacts on built heritage shall be submitted to AMO for comments before commencement of work.	To prevent indirect vibration impact	Contractors	Work areas	Construction Phase	Vibration Limits on Heritage Buildings by CEDD; GCHIA; AMO.	
Built Heritage Mitigation Plan	 Established Alert, Alarm and Action Level for the monitoring parameters. To increase the instrumentation monitoring and reporting frequency. To propose detailed action plan or contingency plan for the Engineer's approval when AAA Level is reached or exceeded. 	To increase the instrumentation monitoring and reporting frequency. To propose detailed action plan or contingency plan for the Engineer's approval when		Tin Hau Temple	Construction Phase	Vibration Limits on Heritage Buildings by CEDD; GCHIA; AMO.	
Landscape and Visua	al Impact (Construction Phase)						
Table 10.8.1/ Landscape Mitigation Plan	CM1 - Construction area and contractor's temporary works areas to be minimised to avoid impacts on adjacent landscape.	to avoid impacts Avoid impact on adjacent landscape areas CEDD (via Contractor) General		General	Construction planning and during construction period	N/A	
Table 10.8.1/ Landscape Mitigation Plan	CM2 - Reduction of construction period to practical minimum.	Minimise duration of impact	CEDD (via Contractor)	N/A	Construction planning	N/A	

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Table 10.8.1/ Landscape Mitigation Plan	CM3 - Topsoil, where the soil material meets acceptable criteria and where practical, to be stripped and stored for re-use in the construction of the soft landscape works. The Contract Specification shall include storage and reuse of topsoil as appropriate.	To allow re-use of topsoil	CEDD (via Contractor)	General	Site clearance	As per the Particular Specification	
Table 10.8.1/ Landscape Mitigation Plan	CM4 - Existing trees at boundary of site and retained trees within site boundary to be carefully protected during construction. Detailed Tree Protection Specification shall be provided in the Contract Specification, under which the Contractor shall be required to submit, for approval, a detailed working method statement for the protection of trees prior to undertaking any works adjacent to all retained trees, including trees in contractor's works areas. (Tree protection measures will be detailed at Tree Removal Application stage).	To minimize tree loss CEDD (via Contrac		As per approved Tree Removal Application(s)	Site clearance and throughout construction period	ETWB TC 3/2006 and as per tree protection measures in Particular Specification	
Table 10.8.1/ Landscape Mitigation Plan	CM5 - Trees unavoidably affected by the works shall be transplanted where practicable. Where possible, trees should be transplanted direct to permanent locations rather than temporary holding nurseries. A detailed tree transplanting specification shall be provided in the Contract Specification and sufficient time for preparation shall be allowed in the construction programme.	To maximize preservation of existing trees	CEDD (via Contractor)	As per approved Tree Removal Application(s)	Site clearance	ETWB TC 3/2006 and as per tree protection measures in Particular Specification	
Table 10.8.1/ Landscape Mitigation Plan	CM6 - Advance screen planting of fast growing tree and shrub species to noise barriers and hoardings. Trees shall be capable of reaching a height >10m within 10 years.	To maximize screening of the works	CEDD (via Contractor)	At Lam Tin Interchange and edge of Road P2 landscape deck, TKO	Beginning of construction period	N/A	
Table 10.8.1/ Landscape Mitigation Plan	CM7 - Hydroseeding or sheeting of soil stockpiles with visually unobtrusive material	To reduce visual intrusion	CEDD (via Contractor)	General	Throughout construction period	As per Particular Specification	
Table 10.8.1/ Landscape Mitigation Plan	CM8 - Control of night-time lighting by hooding all lights and through minimisation of night working periods.	To reduce visual intrusion	CEDD (via Contractor)	General	Throughout construction period	N/A	
Table 10.8.1/ Landscape Mitigation Plan	CM9 - Screening of works areas with hoardings with appropriate colours compatible with the surrounding area	Reduction of visual intrusion	CEDD (via Contractor)	Project site Boundary	Excretion of site hoarding	N/A	
Table 10.8.1/ Landscape Mitigation Plan	CM10 - Avoidance of excessive height and bulk of site buildings and structure	Reduction of visual intrusion and integration with environment	CEDD (via Contractor)	Built structures	Design and construction stage	N/A	
Table 10.8.1/ Landscape Mitigation Plan	CM11 - Limitation of run-off into freshwater streams, ponds and sea areas	Avoidance of contamination of water courses and water bodie	CEDD (via Contractor)	TKO reclamation, TKO tunnel portal, Cha Kwo Ling roadworks	Throughout construction period	N/A	
Table 10.8.1	CM12 - Minimise area of reclamation and design the edges sensitively to tie in with adjacent coastline characte	Minimise loss of Junk Bay and integration with existing coastlin	CEDD (via Contractor)	Temporary reclamation for barging points at TKO and Lam Tin and permanent reclamation for TKO Interchange slip roads and Road P2	Construction planning and reclamation stages	N/A	
Landfill Gas Hazard	(Design and Construction Phase)						
\$11.5.9	A Safety Officer, trained in the use of gas detection equipment and landfill gas-related hazards, should be present on site throughout the groundworks phase. The Safety Officer should be provided with an intrinsically safe portable instrument, which is appropriately calibrated and able to measure the following gases in the ranges indicated below: Methane 0-100% LEL and 0100% v/v Carbon dioxide 0-100% Oxygen 0-21%	Protect the workers from landfill gas hazards	Contractor	Project sites within the Sai Tso Wan Landfill Consultation Zone	Construction phase	EPD's Landfill Gas Hazard Assessment Guidance Note	

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S11.5.10 S11.5.25	 For staff who work in, or have responsibility for "at risk" area, such as all excavation workers, supervisors and engineers working within the Consultation Zone, should receive appropriate training on working in areas susceptible to landfill gas, fire and explosion hazards. An excavation procedure or code of practice to minimize landfill gas related risk should be devised and carried out. No worker should be allowed to work alone at any time in or near to any excavation. At least one other worker should be available to assist with a rescue if needed. Smoking, naked flames and all other sources of ignition should be prohibited within 15m of any excavation or ground-level confined space. "No smoking" and "No naked flame" notices should be posted prominently on the construction site and, if necessary, special areas should be designed for smoking. Welding, flame-cutting or other hot works should be confined to open areas at least 15m from any trench or excavation. Welding, flame-cutting or other hot works may only be carried out in trenches or confined spaces when controlled by a "permit to work" procedure, properly authorized by the Safety Officer (or, in the case of small developments, other appropriately qualified person). The permit to work procedure should set down clearly the requirements for continuous monitoring for methane, carbon dioxide and oxygen throughout the period during which the hot works are in progress. The procedure should also require the presence of an appropriately qualified person, in attendance outside the 'confined area', who should he responsible for reviewing the gas measurements as they are made, and who should have executive responsibility for suspending the work in the event of unacceptable or hazardous conditions which may arise should be permitted to carry out hot works in confined areas. Where there are any temporary site offices, or any other buildings located within the Sai Tso Wan Landfill Consultation Zone	Protect the workers from landfill gas hazards	Contractor	Project sites within the Sai Tso Wan Landfill Consultation Zone	Construction phase	EPD's Landfill Gas Hazard Assessment Guidance Note Labour Department's Code of Practice for Safety and Health at Work in Confined Space

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	 Service runs within the Consultation Zone should be designated as "special routes"; utilities companies should be informed of this and precautionary measures should be implemented. Precautionary measures should include ensuring that staff members are aware of the potential hazards of working in confined spaces such as manholes and service chambers, and that appropriate monitoring procedures are in place to prevent hazards due to asphyxiating atmospheres in confined spaces. Detailed guidance on entry into confined spaces is given in Code of Practice on Safety and Health at Work in Confined Spaces (Labour Department, Hong Kong). Periodically during ground-works construction within the 250m Consultation Zone, the works area should be monitored for methane, carbon dioxide and oxygen using appropriately calibrated portable gas detection equipment. The monitoring frequency and areas to be monitored should be set down prior to commencement of ground-works either by the Safety Officer or an approved and appropriately qualified person. 						
	Monitoring ■ Routine monitoring should be carried out in all excavations, manholes, chambers,						
S11.5.26 - S11.5.31	relocation of monitoring wells and any other confined spaces that may have been created. All measurements in excavations should be made with the extended monitoring tube located not more than 10 mm from the exposed ground surface. Monitoring should be performed properly to make sure that the area is free of landfill gas before any man enters into the area. • For excavations deeper than 1m, measurements should be carried out: • at the ground surface before excavation commences;- • immediately before any worker enters the excavation; • at the beginning of each working day for the entire period the excavation remains open; and • periodically throughout the working day whilst workers are in the excavation. • For excavations between 300mm and 1m deep, measurements should be carried out: • directly after the excavation has been completed; and • periodically whilst the excavation remains open. • For excavations less than 300mm deep, monitoring may be omitted, at the discretion of the Safety Officer or other appropriately qualified person. • Depending on the results of the measurements, actions required will vary and should be set down by the Safety Officer or other appropriately qualified person. • The exact frequency of monitoring should be determined prior to the commencement of works, but should be at least once per day, and be carried out by a suitably qualified or qualified person before starting the work of the day. Measurements shall be recorded and kept as a record of safe working conditions with copies of the site diary and submitted to the Engineer for approval. The Contractor may elect to carry out monitoring via an automated monitoring system.	Protect the workers from landfill gas hazards	Contractor	Project sites within the Sai Tso Wan Landfill Consultation Zone	Construction phase	EPD's Landfill Gas Hazard Assessment Guidance Note	
S11.5.32	The hazards from landfill gas during the construction stage within the Sai Tso Wan Landfill	construction stage within the Sai Tso Wan	Contractor	Project sites within the Sai Tso Wan Landfill	Construction phase	EPD's Landfill Gas Hazard Assessment Guidance Note	
511.3.32	Consultation Zone should be minimized by suitable precautionary measures recommended in Chapter 8 of the Landfill Gas Hazard Assessment Guidance Note.	Protect the workers from landfill gas hazards	Conductor	Consultation Zone	Construction phase		

Table II - Observation / Reminder / Non-compliance made during Site Audit (November 2021)

Key: ✓ Observation/reminder was made during site audit but improved/rectified by the contractor in the next site audit

X Observation/reminder was made during site audit but not yet improved/rectified by the contractor in the next site audit

Follow up action will be reported in next reporting month

* Non-compliance of mitigation measure

· Non-compliance but improved by the contractor

EIA Ref	Recommended Mitigation Measures	Details of Reminder/Observation	Recorded Date	Status						
Air Quality										
Construction Noise Impact										
Water Quality	Water Quality Impact									
Ecological Imp	pact									
Fisheries Impa	act			•						
Waste Manage	ement									
Landscape and	d Visual Impact									
Landfill Gas H	Hazards									

Table II - Observation / Reminder / Non-compliance made during Site Audit (December 2021)

Key:

- ✓ Observation/reminder was made during site audit but improved/rectified by the contractor in the next site audit
- X Observation/reminder was made during site audit but not yet improved/rectified by the contractor in the next site audit
- # Follow up action will be reported in next reporting month
- * Non-compliance of mitigation measure
- · Non-compliance but improved by the contractor

EIA Ref	Recommended Mitigation Measures	Details of Reminder/Observation	Recorded Date	Status
Air Quality				
Construction I	Noise Impact			
Water Quality	Impact			•
Ecological Imp	pact			
Fisheries Impa	act			
Waste Manage	ement			
	Emergency oil spill kits, such as oil absorbent pads, should be provided on site and allow fast action to prevent storm water system from accidentally contaminating.	Oil stain was observed at the end of drilling area of east bound tunnel. Contractor is reminded to prevent oil leakage from equipment or during handling of fuel	2 Dec 2021	✓
Landscape and	d Visual Impact			
Landfill Gas H	lazards			

Table II - Observation / Reminder / Non-compliance made during Site Audit (January 2022)

Key: ✓ Observation/reminder was made during site audit but improved/rectified by the contractor in the next site audit

X Observation/reminder was made during site audit but not yet improved/rectified by the contractor in the next site audit

Follow up action will be reported in next reporting month

* Non-compliance of mitigation measure

· Non-compliance but improved by the contractor

EIA Ref	Recommended Mitigation Measures	Details of Reminder/Observation	Recorded Date	Status							
Air Quality											
Construction I	Noise Impact										
Water Quality	Water Quality Impact										
Ecological Imp	pact										
Fisheries Impa	nct										
Waste Manage	ement										
Landscape and	l Visual Impact			_							
Landfill Gas H	lazards										

APPENDIX H WASTE GENERATED QUANTITY



Name of Department: CEDD

Monthly Summary Waste Flow Table for 2021 (CKL)

Trunk Road T2 and Infrastructure Works for Developments at the Former South Apron Contract No. ED/2018/04

	Actua	al Quantities	of Inert C&D	Materials G	enerated Mo	nthly	Actual C	Quantities of	C&D Wastes	s Generated	Monthly
Month	a.Total Quantity Generated (a=c+d+e)	b. Hard Rock and Large Broken Concrete	c. Reused in the Contract	d. Reused in Other Projects	e. Disposed as Public Fill	f. Imported Fill	g. Metals	h. Paper / Cardboard Packaging		j. Chemical Waste	k. Others, e.g. general refuse
	(in '000m³)	(in '000m³)	(in '000m³)	(in '000m³)	(in '000m³)	(in '000m³)	(in '000kg)	(in '000kg)	(in '000kg)	(in '000kg)	(in '000m³)
January	4.858	4.842	0.000	4.842	0.016	0.000	0.000	0.000	0.000	0.400	0.005
February	5.450	5.428	0.000	5.428	0.022	0.000	0.000	0.000	0.000	0.000	0.008
March	5.710	5.679	0.000	5.679	0.031	0.000	0.000	0.000	0.000	2.400	0.007
April	7.352	7.339	0.000	7.339	0.013	0.000	0.000	0.000	0.000	3.000	0.006
May	8.713	8.669	0.000	8.669	0.044	0.000	0.000	0.000	0.000	0.000	0.008
June	5.834	5.817	0.000	5.817	0.017	0.000	0.000	0.000	0.000	0.000	0.014
Sub-total	37.918	37.775	0.000	37.774	0.144	0.000	0.000	0.000	0.000	5.800	0.049
July	4.812	4.624	0.000	4.624	0.188	0.000	0.000	0.000	0.000	0.000	0.013
August	3.784	3.784	0.000	3.784	0.000	0.000	0.000	0.000	0.000	0.000	0.007
September	0.400	0.400	0.000	0.400	0.000	0.000	0.000	0.000	0.000	0.000	0.011
October	0.026	0.000	0.000	0.000	0.026	0.000	0.000	0.000	0.000	0.000	0.016
November	2.748	2.744	0.000	2.744	0.004	0.000	0.000	0.000	0.000	0.000	0.020
December	3.200	3.200	0.000	3.200	0.000	0.000	0.000	0.000	0.000	0.000	0.030
Total	52.888	52.527	0.000	52.526	0.362	0.000	0.000	0.000	0.000	5.800	0.146

Monthly Summary Waste Flow Table

Notes:

- (1)The performance targets are given in ER Appendix 8I Clause 14 and the EM&A Manual(s).
- (2)The waste flow table shall also include C&D materials to be imported for use at the Site.
- (3)Plastics refer to plastic bottles/containers, plastic sheets/foam from packaging material.
- (4)The Contractor shall also submit the latest forecast of the total amount of C&D materials expected to be generated from the Works, together with a breakdown of the nature where the total amount of C&D materials expected to be generated from the Works is equal to or exceeding 50,000 m3. (ER Part 8 Clause 8.8.5 (d) (ii) refers).



Name of Department: CEDD

Monthly Summary Waste Flow Table for 2022 (CKL)

Trunk Road T2 and Infrastructure Works for Developments at the Former South Apron Contract No. ED/2018/04

	Actu	al Quantities	of Inert C&D	Materials G	enerated Mo	nthly	Actual (Quantities of	C&D Wastes	s Generated	Monthly
Month	a.Total Quantity Generated (a=c+d+e)	b. Hard Rock and Large Broken Concrete	c. Reused in the Contract	d. Reused in Other Projects	e. Disposed as Public Fill	f. Imported Fill	g. Metals	h. Paper / Cardboard Packaging		j. Chemical Waste	k. Others, e.g. general refuse
	(in '000m ³)	(in '000m ³)	(in '000m ³)	(in '000m ³)	(in '000m ³)	(in '000m ³)	(in '000kg)	(in '000kg)	(in '000kg)	(in '000kg)	(in '000m ³)
January	3.699	3.699	0.000	3.699	0.000	0.000	0.000	0.000	0.000	0.000	0.010
February											
March											
April											
May											
June											
Sub-total	3.699	3.699	0.000	3.699	0.000	0.000	0.000	0.000	0.000	0.000	0.010
July											
August											
September											
October											
November											
December											
Total	3.699	3.699	0.000	3.699	0.000	0.000	0.000	0.000	0.000	0.000	0.010

Monthly Summary Waste Flow Table

Notes:

- (1) The performance targets are given in ER Appendix 8I Clause 14 and the EM&A Manual(s).
- (2)The waste flow table shall also include C&D materials to be imported for use at the Site.
- (3) Plastics refer to plastic bottles/containers, plastic sheets/foam from packaging material.
- (4)The Contractor shall also submit the latest forecast of the total amount of C&D materials expected to be generated from the Works, together with a breakdown of the nature where the total amount of C&D materials expected to be generated from the Works is equal to or exceeding 50,000 m3. (ER Part 8 Clause 8.8.5 (d) (ii) refers).

APPENDIX I SUMMARY OF EXCEEDANCES

Contract No. ED/2018/04

Trunk Road T2 and Infrastructure Works for Developments at the Former South Apron

Appendix I – Summary of Exceedance

Reporting Quarter: November 2021 – January 2022

(A) Exceedance Report for Air Quality

One (1) Action Level and two (2) Limit Level exceedance of 24hr TSP monitoring were recorded in this reporting quarter.

Monitoring Station	Start Date	Conc. (µg/m³)	Level exceeded
	04 November 2021	<i>318.4</i>	Limit laval
AM1	10 November 2021	<i>273.0</i>	Limit level
	16 November 2021	175.6	Action level

The investigation results for the exceedance are attached as below.

No Action/ Limit Level exceedance of 1hr TSP monitoring was recorded in this reporting quarter.

(B) Exceedance Report for Construction Noise

No Action/ Limit Level exceedance for construction noise monitoring was recorded in the reporting quarter.

(C) Exceedance Report for Landfill Gas

(NIL in the reporting quarter)

- Notification of Exceedances

NOE No. 211104_24hrTSP (AM1)

NOE No. 211110_24hrTSP (AM1)

NOE No. 211116_24hrTSP (AM1)

Exceedance Level: Limit

Exceedance Level: Action

Date of Air Quality Monitoring: 04, 10 &16 November 2021

Part A – Exceedance Summary Tables

Table I: Parameter(s) – 24-hour TSP

Station	Location	Time	Filter Weight (g) Initial	Filter Weight (g) Final	_	Particulate Concentration g/m3)	Action Level: (μg/m3)	Limit Level:	Level
AM1 Tin Hau Temple	0900 (04 Nov 2021) – 0900 (05 Nov 2021)	3.6632	4.2245	0.5613	<u>318.4</u>			Limit	
	0900 (10 Nov 2021) – 0900 (11 Nov 2021)	3.7202	4.2060	0.4858	<u>273.0</u>	173	260	Limit	
		0900 (16 Nov 2021) – 0900 (17 Nov 2021)	3.6956	4.0068	0.3112	175.6			Action

Note: **Bold Italic** means Action Level exceedance

Bold Italic with underline means Limit Level exceedance

Part B – Major Source of Parameter Monitored

Field Observation(s) and Finding(s)

(a) Statement of exceedance(s)

24-hour TSP monitoring measured at AM1 on 04 and 10 November 2021 exceeded the limit level and 16 November 2021 exceeded the action level.

MA20003\NOE 1 CINOTECH

- <u>Notification of Exceedances</u>

(b) Cause of exceedance(s)

According to the observation of our field staff, the major dust source(s) and/or reason(s) for exceedance identified at AM1 is/are as follow:

- 1. Renovation of Tin Hau Temple began in mid-May 2021.
- 2. According to our field observation, piles of renovation material were scattered around Tin Hau Temple during the monitoring period (see the photo record). Frequent material transportation may cause dust nuisance to the surrounding
- 3. Dust generating activities (cement mixing) by renovation staff was observed on-site
- 4. Joss paper furnace was found right next to the HVS, which may affect the result if incense burning was conducted.
- 5. Non-project related construction works (TKOLTT project)
- 6. Road traffic along Cha Kwo Ling Road
- 7. RE and Contractor have confirmed that no construction activity was carried out in the vicinity of the Tin Hau Temple on 04 05, 10 11 and 16 17 November 2021 under this contract.

MA20003\NOE 2 CINOTECH

- <u>Notification of Exceedances</u>

Photo Record (Photo Taken by ET)



Photo 1 – Recent condition of the High Volume Sampler (HVS) at AM1, Tin Hau Temple. (Taken on 24 Nov 2021)



Photo 2 – Dust generating activities (cement mixing) by renovation staff at AM1, Tin Hau Temple. (Taken on 24 Nov 2021)

- Notification of Exceedances

Part C – Conclusion

Based on the finding(s) and observation(s) above, we deduce the Limit Level and Action Level exceedance of 24-hour TSP recorded at station AM1 on 04&10 and 16 November 2021 respectively are due to the non-project related influence. Therefore, the exceedance is considered as **non-project related**.

Part D – Recommendation

Although the exceedance is consider as non-project related, it is recommended that the following construction dust mitigation measures shall always to be implemented on site to reduce/ minimize the generation of dust due to the construction activities.

- 1. Watering of the construction areas 12 times per day to reduce dust emissions.
- 2. Side enclosure and covering of any aggregate or dusty material storage piles to reduce emissions.
- 3. Open stockpiles shall be avoided or covered.
- 4. Tarpaulin covering of all dusty vehicle loads transported to, from and between site locations.
- 5. Establishment and use of vehicle wheel and body washing facilities at the exit points of the site.
- 6. Imposition of speed controls for vehicles on unpaved site roads, 8 km per hour is the recommended limit.
- 7. Use of regular watering to reduce dust emissions from exposed site surfaces and unpaved roads, particularly during dry weather.

MA20003\NOE 4 CINOTECH

APPENDIX J SUMMARIES OF ENVIRONMENTAL COMPLAINT, WARNING, SUMMON AND NOTIFICATION OF SUCCESSFUL PROSECUTION

Contract No. ED/2018/04

Trunk Road T2 and Infrastructure Works for Developments at the Former South Apron

$\label{eq:linear_sum} \boldsymbol{Appendix}\;\boldsymbol{J} - \boldsymbol{Summary}\;of\;environmental\;complaint,\;warning,\;summon\;and\;notification\;of\;successful\;prosecution$

Reporting Quarter: November 2021 – January 2022

Log Ref.	Location	Received Date	Details of Complaint/warning /summon and prosecution	Investigation/Mitigation Action	Status
Complaint #N06	Portion T1	03-Nov- 2021	Complainant informed that underground breaking noise was heard at his/her residence (near Cha Kwo Ling Main Road) at about 10 p.m. on 03 Nov 2021. Also, the complainant further informed that recently they continued to hear underground breaking noise which had caused serious noise nuisance to the residents.	 No major construction noise related environmental deficiency was identified during ad-hoc inspection carried out by ET, RE and the Contractor representative on 12 November 2021. The construction activities of Trunk Road T2 conducted inside the tunnel area and the construction activities of TKO-LT Tunnel conducted inside the tunnel section at Kwun Tong Side on the evening time and night-time of the date of complaint are considered as one of the potential noise source of the ground borne noise nuisance. A valid CNP was hold and the construction activities being taken were complied with the relevant CNP. Blast door was fully enclosed when construction activities were carried out within tunnel area to prevent, reduce or minimize the emission of airborne noise In addition, the Contractor should still maintain good site practices, such as schedule noisy work to the less sensitive hours and provide regularly maintenance for PMEs. Contractor is recommended to continue to strictly follow the requirements in the relevant CNP. According to the condition 3.d point 5 of the CNP (GW-RE1035-21), the immediate remedial action shall be implemented in case adverse ground-borne noise impact on any noise sensitive receiver is received. 	Closed
		25-Nov- 2021	Follow up complaint from the same complainant which informed that there was still ground bound noise nuisance after 10 p.m occasionally. The complainant further requested if the relevant works that may contribute to ground bound noise nuisance could be stopped after 10 p.m.		

Remarks: No environmental warning/summon and prosecution were received in the reporting quarter.

APPENDIX K EVENT AND ACTION PLAN

Event and Action Plan for Air Quality (Dust)

EXTENTE	ACTION							
EVENT	ET	IEC	ER	CONTRACTOR				
Action level being exceeded by one sampling	 Identify source, investigate the causes of complaint and propose remedial measures; Inform IEC and ER; Repeat measurement to confirm finding; Increase monitoring frequency to daily. 	 Check monitoring data submitted by ET; Check Contractor's working method. 	1. Notify Contractor.	 Rectify any unacceptable practice; Amend working methods if appropriate. 				
Action level being exceeded by two or more consecutive sampling	 Identify source; Inform IEC and ER; Advise the ER on the effectiveness of the proposed remedial measures; Repeat measurements to confirm findings; Increase monitoring frequency to daily; Discuss with IEC and Contractor on remedial actions required; 	 Check monitoring data submitted by ET; Check Contractor's working method; Discuss with ET and Contractor on possible remedial measures; Advise the ET on the effectiveness of the proposed remedial measures; Supervise Implementation of remedial measures. 	 Confirm receipt of notification of exceedance in writing; Notify Contractor; Ensure remedial measures properly implemented. 	 Submit proposals for remedial actions to IEC within three working days of notification; Implement the agreed proposals; Amend proposal if appropriate. 				

EVENT		ACT	TION	
EVENI	ET	IEC	ER	CONTRACTOR
Limit level being exceeded by one sampling	 If exceedance continues, arrange meeting with IEC and ER; If exceedance stops, cease additional monitoring. Identify source, investigate the causes of exceedance and propose remedial measures; Inform Contractor ,IEC, ER, and EPD; Repeat measurement to confirm finding; Increase monitoring frequency to daily; Assess effectiveness of Contractor's remedial actions and keep IEC, EPD and ER informed of the results. 	 Check monitoring data submitted by ET; Check Contractor's working method; Discuss with ET and Contractor on possible remedial measures; Advise the ER on the effectiveness of the proposed remedial measures; Supervise implementation of remedial measures. 	 Confirm receipt of notification of exceedance in writing; Notify Contractor; Ensure remedial measures properly implemented. 	 Take immediate action to avoid further exceedance; Submit proposals for remedial actions to IEC within three working days of notification; Implement the agreed proposals; Amend proposal if appropriate.
Limit level being exceeded by two	Notify IEC, ER, Contractor and EPD;	Discuss amongst ER, ET, and Contractor on the potential	Confirm receipt of notification of exceedance in writing;	Take immediate action to avoid further exceedance;
or more consecutive sampling	2. Identify source;	remedial actions; 2. Review Contractor's remedial actions whenever necessary to	2. Notify Contractor;3. In consolidation with the IEC, agree with the Contractor on the	Submit proposals for remedial actions to IEC within three working days of notification;

EN IEDA III				ACT	ION			
EVENT		ET		IEC		ER	CO	ONTRACTOR
	3.	Repeat measurement to confirm		assure their effectiveness and		remedial measures to be	3.	Implement the agreed proposals;
		findings;		advise the ER accordingly;		implemented;	4.	Resubmit proposals if problem still
	4.	Increase monitoring frequency to	3.	Supervise the implementation of	4.	Ensure remedial measures		not under control;
		daily;		remedial measures.		properly implemented;	5.	Stop the relevant portion of works
	5.	Carry out analysis of Contractor's			5.	If exceedance continues, consider		as determined by the ER until the
		working procedures to determine				what portion of the work is		exceedance is abated.
		possible mitigation to be				responsible and instruct the		
		implemented;				Contractor to stop that portion of		
	6.	Arrange meeting with IEC and				work until the exceedance is		
		ER to discuss the remedial actions				abated.		
		to be taken;						
	7.	Assess effectiveness of						
		Contractor's remedial actions and						
		keep IEC, EPD and ER informed						
		of the results;						
	8.	If exceedance stops, cease						
		additional monitoring.						

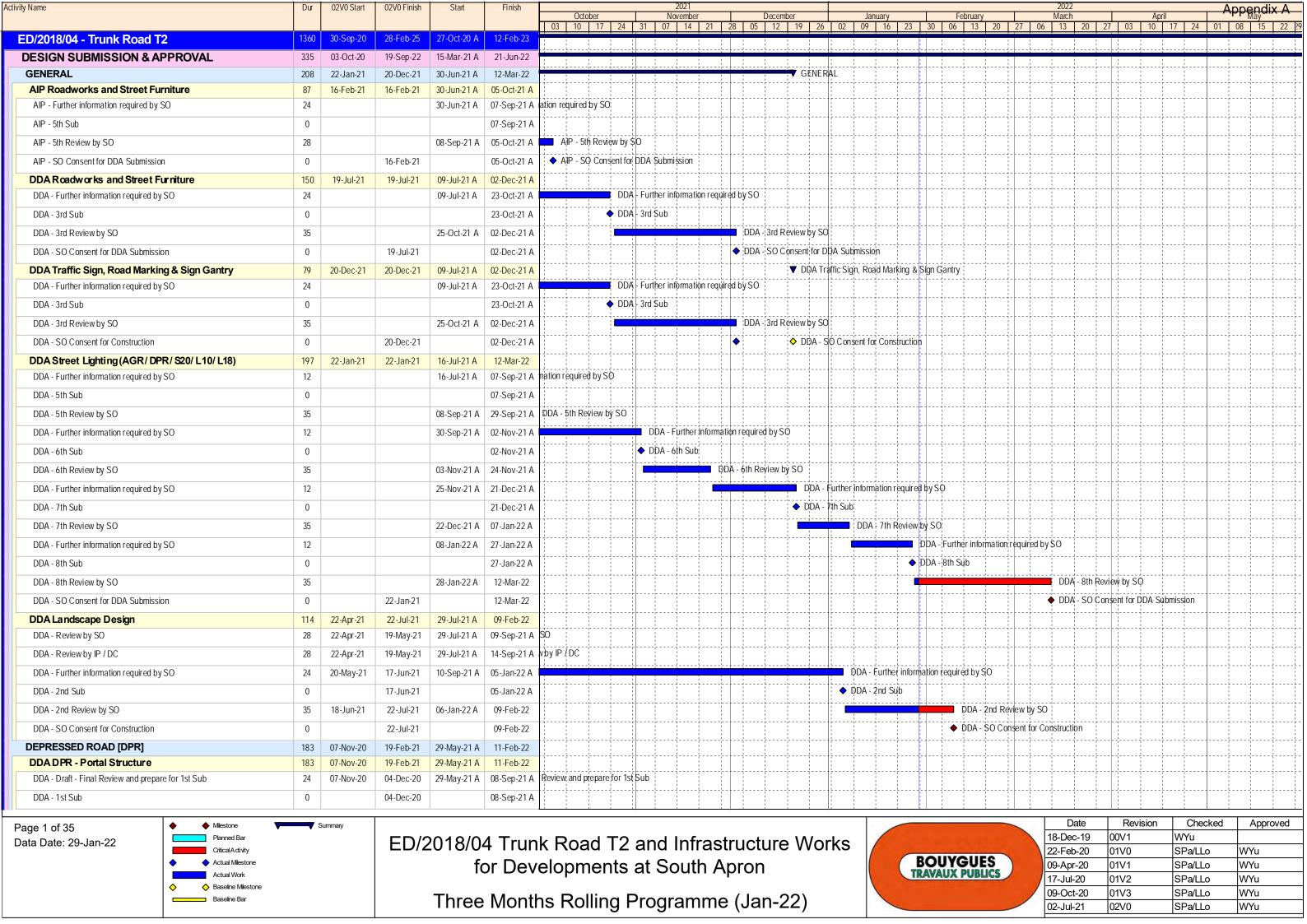
Event and Action Plan for Construction Noise

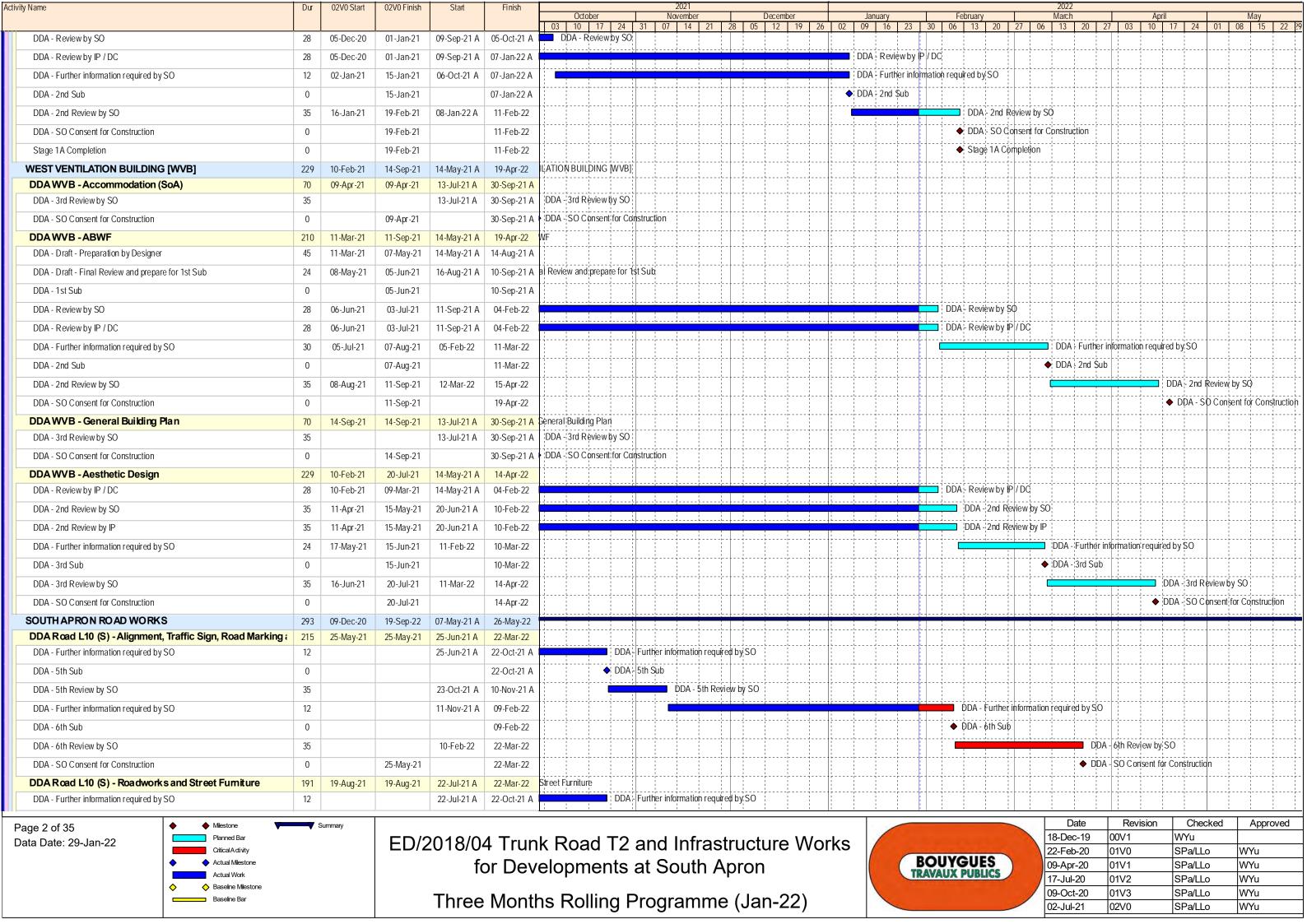
EVENT				ACT	ION			
		ET		IEC		ER		CONTRACTOR
Action Level	1.	Notify IEC and Contractor;	1.	Review the analysed results submitted by the ET;	1.	Confirm receipt of notification of failure in	1.	Submit noise mitigation proposals to IEC;
	2.	Carry out investigation;	2.	Review the proposed remedial measures by the		writing;	2.]	Implement noise mitigation proposals.
	3.	Report the results of investigation to the IEC, ER		Contractor and advise the ER accordingly;	2.	Notify Contractor;		
		and Contractor;	3.	Supervise the implementation of remedial	3.	Require Contractor to propose remedial measures		
	4.	Discuss with the Contractor and formulate		measures.		for the analysed noise problem;		
		remedial measures;			4.	Ensure remedial measures are properly		
	5.	Increase monitoring frequency to check mitigation				implemented.		
		effectiveness.						
Limit Level	1.	Identify source;	1.	Discuss amongst ER, ET, and Contractor on the	1.	Confirm receipt of notification of failure in	1.	Take immediate action to avoid further
	2.	Inform IEC, ER, EPD and Contractor;		potential remedial actions;		writing;		exceedance;
	3.	Repeat measurements to confirm findings;	2.	Review Contractors remedial actions whenever	2.	Notify Contractor;	2.	Submit proposals for remedial actions
	4.	Increase monitoring frequency;		necessary to assure their effectiveness and advise	3.	Require Contractor to propose remedial measures		to IEC within 3 working days of notification;
	5.	Carry out analysis of Contractor's working		the ER accordingly;		for the analysed noise problem;	3.	Implement the agreed proposals;
		procedures to determine possible mitigation to be	3.	Supervise the implementation of remedial	4.	Ensure remedial measures properly implemented;	4.	Resubmit proposals if problem still not under
		implemented;		measures.	5.	If exceedance continues, consider what portion of		control;
	6.	Inform IEC, ER and EPD the causes and actions				the work is responsible and instruct the Contractor	5.	Stop the relevant portion of works as determined
		taken for the exceedances;				to stop that portion of work until the exceedance is		by the ER until the exceedance is abated.
	7.	Assess effectiveness of Contractor's remedial				abated.		
		actions and keep IEC, EPD and ER informed of						
		the results;						
	8.	If exceedance stops, cease additional monitoring.						

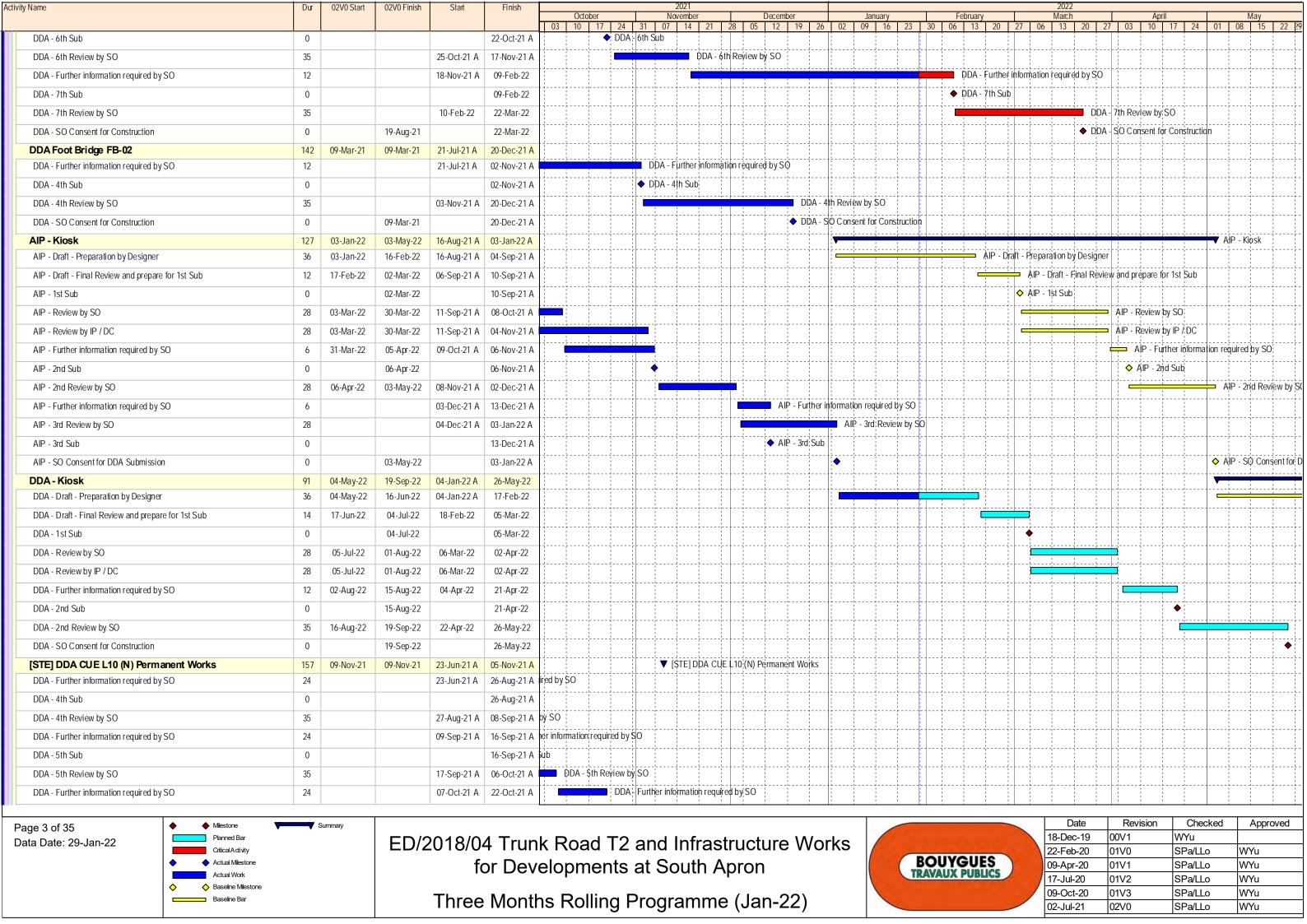
Limit Levels and Action Plan for Landfill Gas

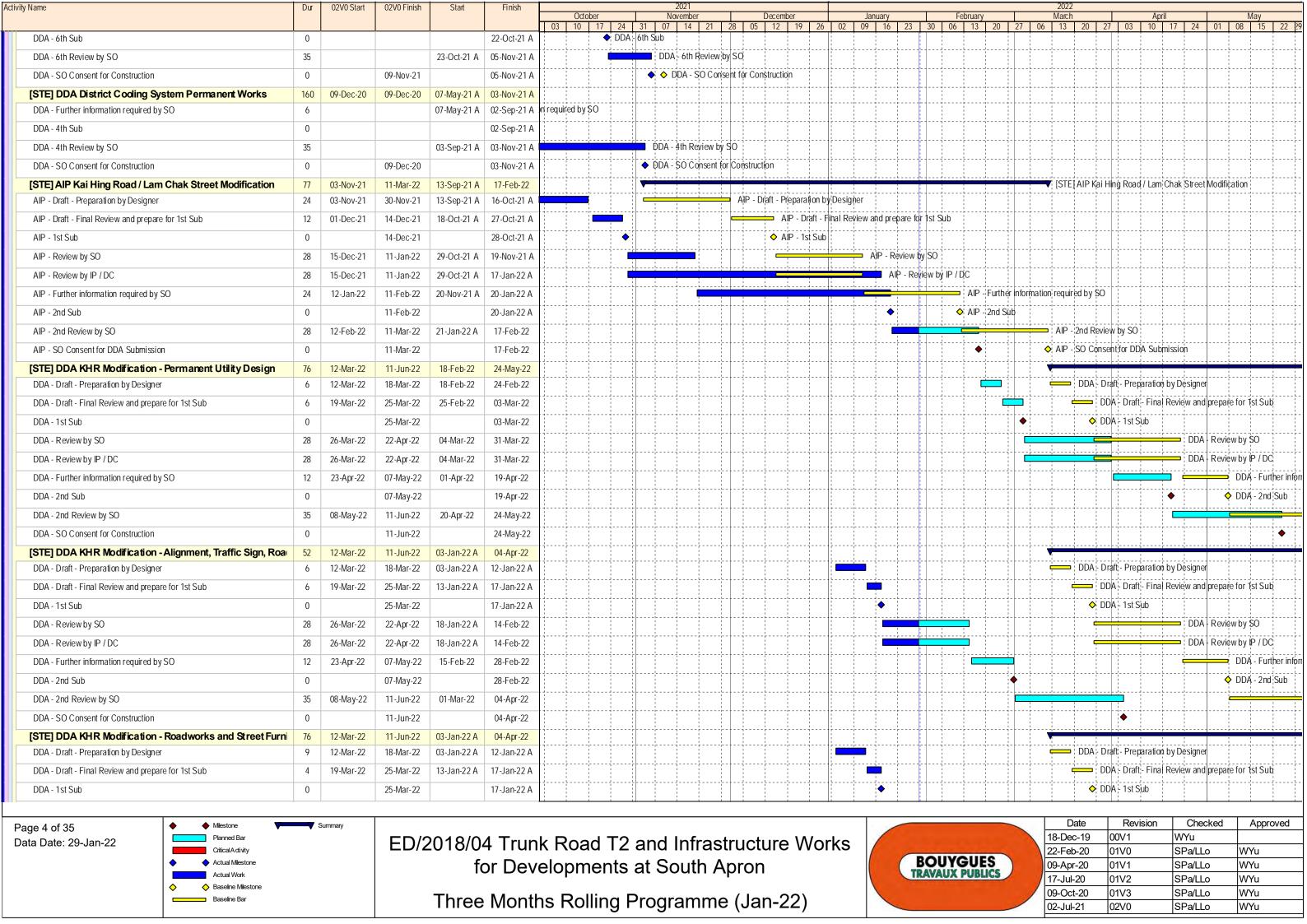
Parameter	Limit Level	Action					
	<19%	• Ventilate to restore oxygen to >19%					
Ovygon		• Stop works					
Oxygen	<18%	Evacuate personnel/prohibit entry					
		• Increase ventilation to restore oxygen to >19%					
	>100/ LEI (i.e. > 0.50/ hv. volume)	Prohibit hot works					
	>10% LEL (i.e. > 0.5% by volume)	• Ventilate to restore methane to <10% LEL					
Methane		• Stop works					
	>20% LEL (i.e. > 1% by volume)	Evacuate personnel / prohibit entry					
		• Increase ventilation to restore methane to <10% LEL					
	>0.5%	• Ventilate to restore carbon dioxide to < 0.5%					
Carbon		• Stop works					
Dioxide	>1.5%	• Evacuate personnel / prohibit entry					
		• Increase ventilation to restore carbon dioxide to <0.5%					

APPENDIX L CONSTRUCTION PROGRAMME



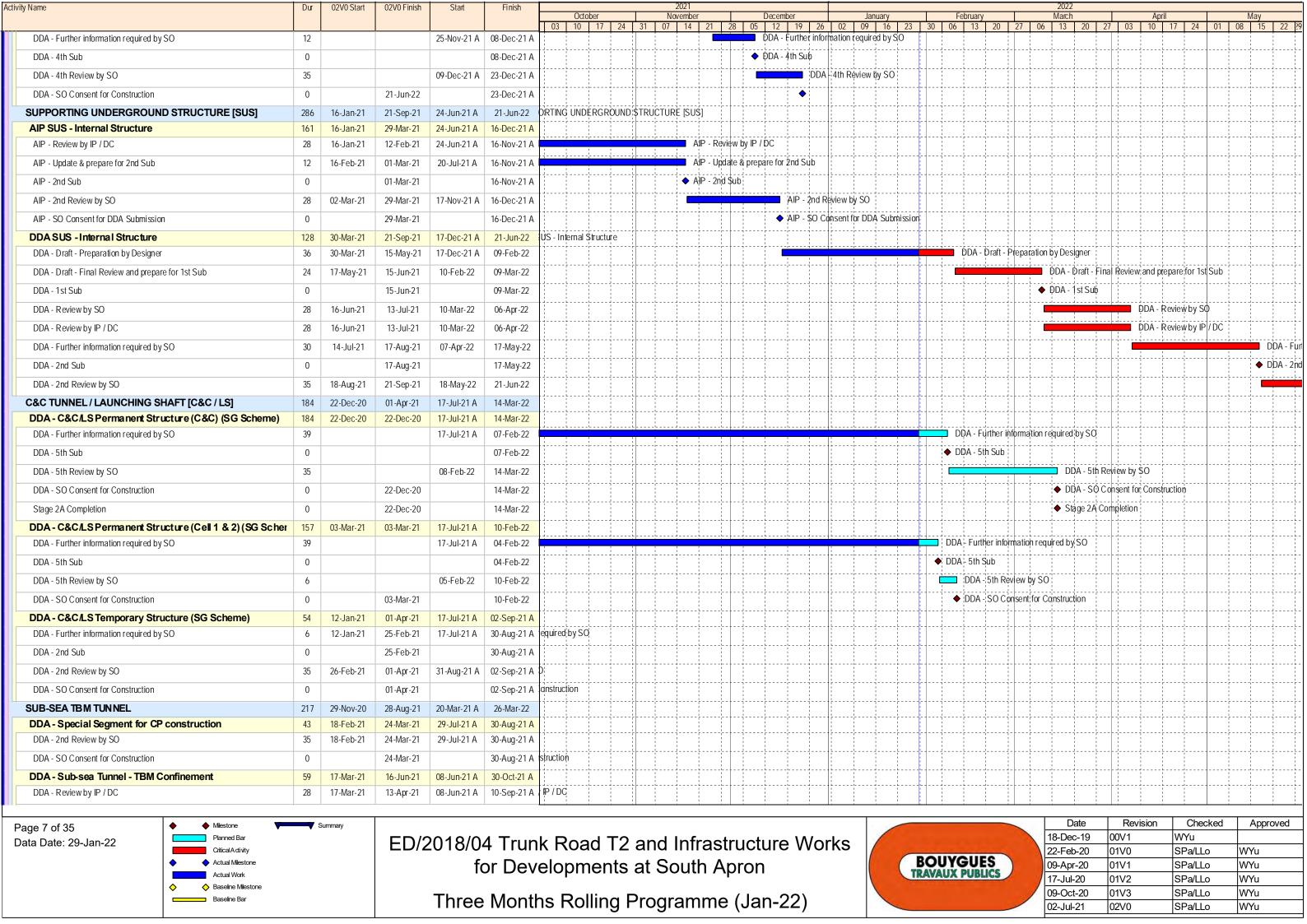


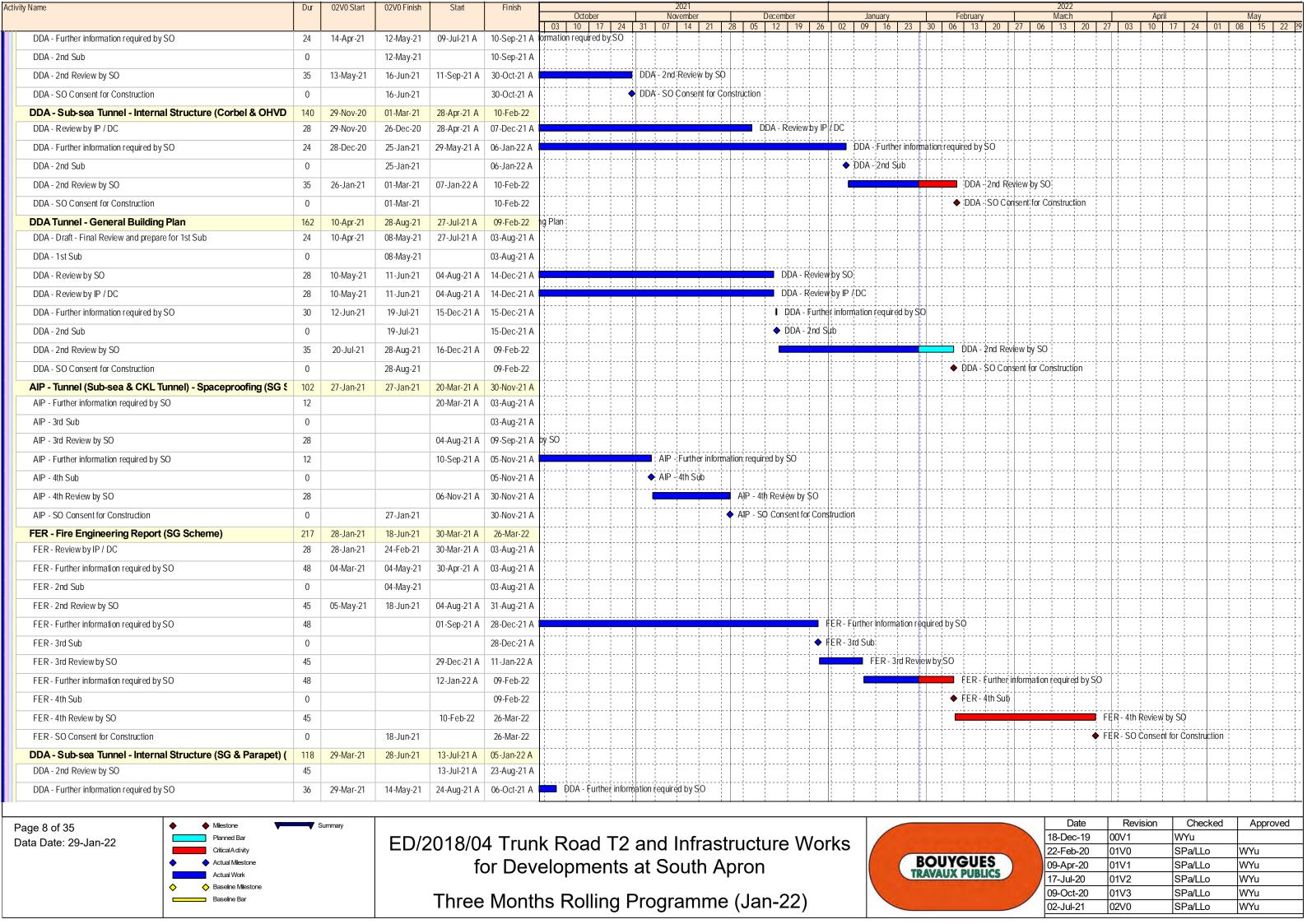


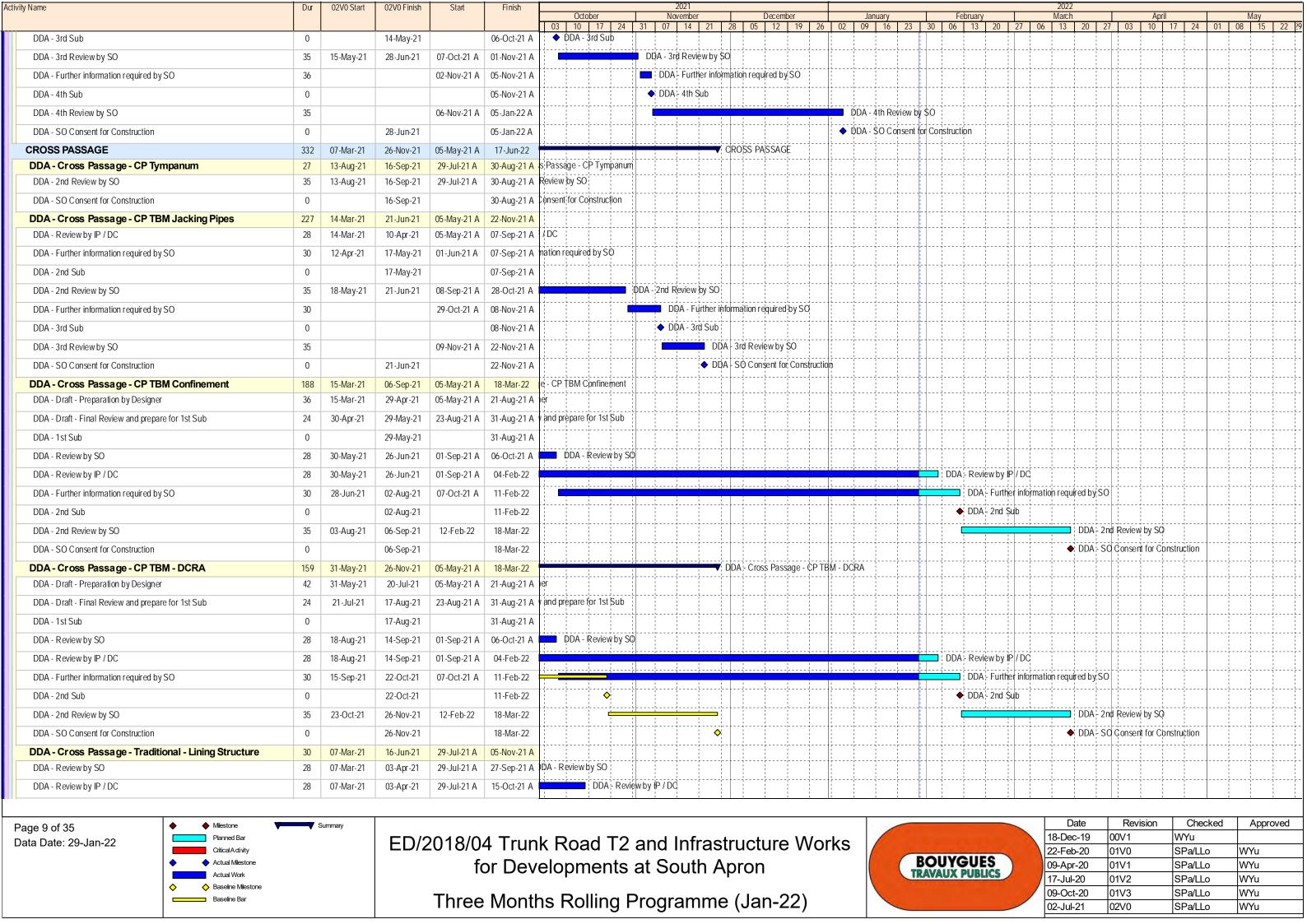


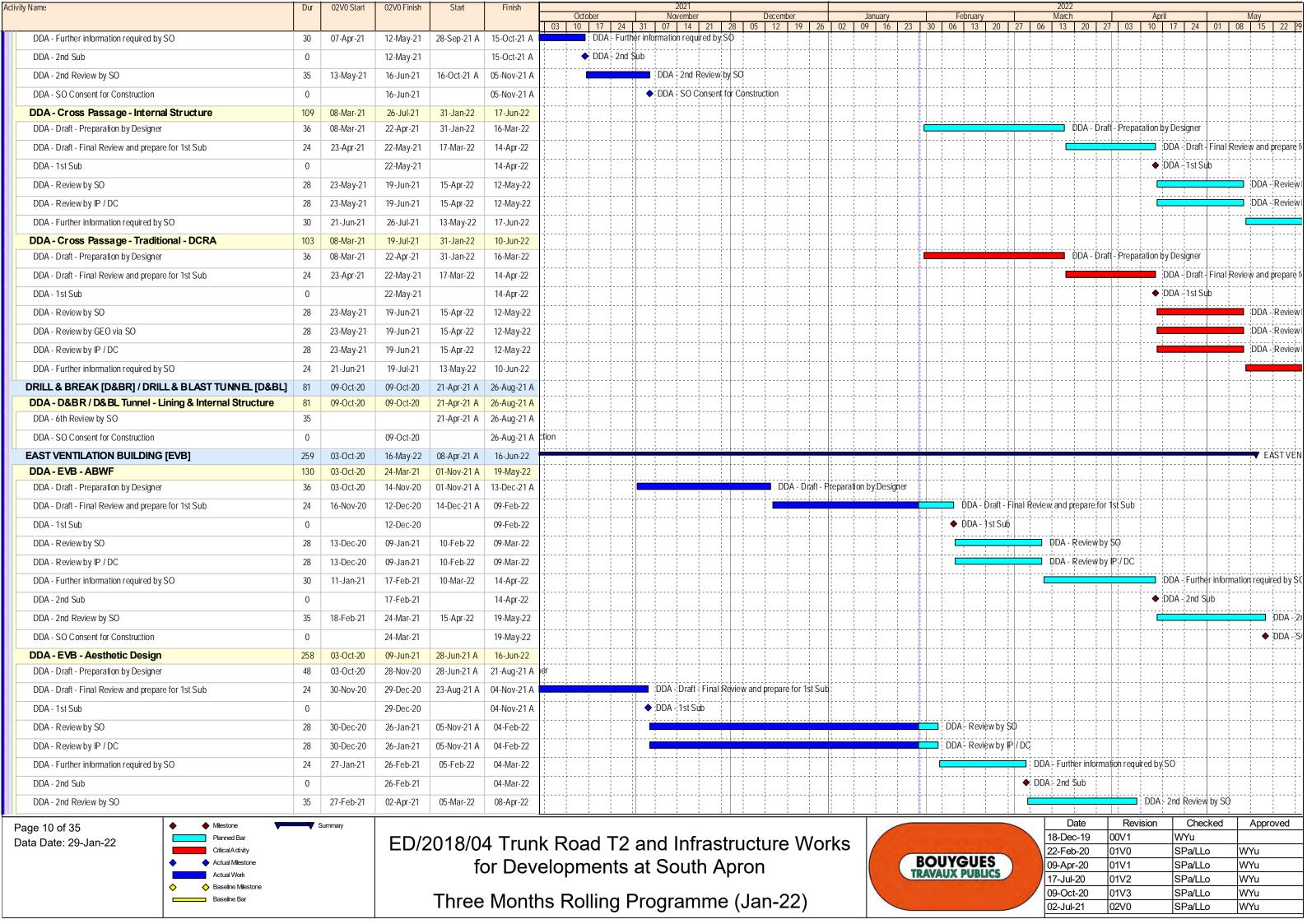
Activity Name	Dur	02V0 Start	02V0 Finish	Start	Finish	October	2021 November	December		January		Fohru	on		2022 March			April		Mav
						03 10 17 24	 		02	09 16	23 30	Febru 0 06 1		27 06	13 2	20 27	03	10 17		08 15 22 29
DDA - Review by SO	28	26-Mar-22	22-Apr-22	18-Jan-22 A	14-Feb-22		}										ļ <u></u>			view by SO
DDA - Review by IP / DC	28	26-Mar-22	22-Apr-22	18-Jan-22 A	14-Feb-22												1		DDA Re	view by IP / DC
DDA - Further information required by SO	12	23-Apr-22	07-May-22	15-Feb-22	28-Feb-22															DDA - Further inform
DDA - 2nd Sub	0		07-May-22		28-Feb-22															ODA - 2nd Sub
DDA - 2nd Review by SO	35	08-May-22	11-Jun-22	01-Mar-22	04-Apr-22													į		
DDA - SO Consent for Construction	0		11-Jun-22		04-Apr-22												•			
[STE] DDA KHR Modification - Street Lighting	76	12-Mar-22	11-Jun-22	18-Feb-22	24-May-22		ļ													
DDA - Draft - Preparation by Designer	6	12-Mar-22	18-Mar-22	18-Feb-22	24-Feb-22										D	DA - Draft	t - Prepa	ration by	Désigner 	
DDA - Draft - Final Review and prepare for 1st Sub	6	19-Mar-22	25-Mar-22	25-Feb-22	03-Mar-22								<u></u>				<u>.</u>	;	view and prep	are for 1st Sub
DDA - 1st Sub	0		25-Mar-22		03-Mar-22									•		♦ DDA	- 1st Su	b		
DDA - Review by SO	28	26-Mar-22	22-Apr-22	04-Mar-22	31-Mar-22										1				DDA Re	view by SO
DDA - Review by IP / DC	28	26-Mar-22	22-Apr-22	04-Mar-22	31-Mar-22															view by IP / DC
DDA - Further information required by SO	12	23-Apr-22	07-May-22	01-Apr-22	19-Apr-22															DDA - Further inform
DDA - 2nd Sub	0		07-May-22		19-Apr-22													•		DDA - 2nd Sub
DDA - 2nd Review by SO	35	08-May-22	11-Jun-22	20-Apr-22	24-May-22							1 1								
DDA - SO Consent for Construction	0		11-Jun-22		24-May-22]	:		•
[STE] DDA Hoi Bun Road Junction - Alignment, Traffic Sign	71	22-Dec-20	22-Dec-20	27-Jul-21 A	27-Aug-21 A	+	;;;;;													
DDA - Further information required by SO	12			27-Jul-21 A	05-Aug-21 A															
DDA - 5th Sub	0				05-Aug-21 A															
DDA - 5th Review by SO	35			06-Aug-21 A	27-Aug-21 A															
DDA - SO Consent for Construction	0		22-Dec-20		27-Aug-21 A	uction														
[STE] AIP Road L10 (N)	59	21-Jan-22	21-Mar-22	22-Jul-21 A	17-Sep-21 A							1 1	 -		· · · · · ·	[STE] AI	P Road I	_10 (N)		
AIP - Further information required by SO	24	21-Jan-22	21-Feb-22	22-Jul-21 A	10-Aug-21 A					_			AIP	- Further in	formation	required I	by SO			
AIP - 3rd Sub	0		21-Feb-22		10-Aug-21 A								1 1	- 3rd Sub						
AIP - 3rd Review by SO	28	22-Feb-22	21-Mar-22	11-Aug-21 A	24-Aug-21 A											AIP - 3rd	Review	by SO		
AIP - Further information required by SO	24			25-Aug-21 A	07-Sep-21 A	ation required by SO								1 1						
AIP - 4th Sub	0				07-Sep-21 A															
AIP - 4th Review by SO	28			08-Sep-21 A	17-Sep-21 A	Review by SO														
AIP - SO Consent for DDA Submission	0		21-Mar-22		17-Sep-21 A	+									♦	AIP - SO	Conser	t for DDA	Submission	
[STE] DDA Road L10 (N) - Permanent Utility Design	163	05-Apr-22	21-Jun-22	29-Jul-21 A	25-Feb-22		<u> </u>										V			
DDA - Review by SO	28	05-Apr-22	02-May-22	29-Jul-21 A	28-Aug-21 A															DDA - Review by SO
DDA - Review by IP / DC	28	05-Apr-22	02-May-22	29-Jul-21 A	19-Oct-21 A													!		DDA - Review by IP / DC
DDA - Further information required by SO	12	03-May-22	17-May-22	30-Aug-21 A	19-Oct-21 A															DDA - Furl
DDA - 2nd Sub	0		17-May-22		19-Oct-21 A	•						1 1								DDA - 2nd
DDA - 2nd Review by SO	35	18-May-22	21-Jun-22	20-Oct-21 A	02-Nov-21 A	†	<u> </u>		1											
DDA - Further information required by SO	12			03-Nov-21 A	17-Dec-21 A	1		DDA - Fui	rther infor	nation requ	red by SO)					† <u>†</u> -			
DDA - 3rd Sub	0				17-Dec-21 A	1		◆ DDA - 3rd	Sub											
DDA - 3rd Review by SO	35			18-Dec-21 A	05-Jan-22 A	† 			- - DΙ	DA - 3rd Re	; view by \$0	0								
DDA - Further information required by SO	12			06-Jan-22 A	21-Jan-22 A	1						urther informa								
DDA - 4th Sub	0				21-Jan-22 A					•	DDA - 4tl	h Sub					{ 			
DDA - 4th Review by SO	35			22-Jan-22 A	25-Feb-22	 								DDA - 4th R	eview by	SO				
DDA - SO Consent for Construction	0		21-Jun-22		25-Feb-22	 							•							
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Page 5 of 35	S	Summary													Date		Revis		Checked	Approved
Data Date: 29-Jan-22 Planned Bar Critical Addivity			ED/2	2018/0	4 Trun	k Road T2	and Infrast	ructure Wo	rks			C. 18			8-Dec-1 2-Feb-2		0V1 1V0		NYu SPa/LLo	WYu
◆ Actual Milestone				fa	or Dev	elopments	at South A	pron			BC	OUYGU VAUX PU	JES		9-Apr-2		1V1		SPa/LLo	WYu
Actual Work Baseline Milestone				'`	DUV		3. 00dii / (F. 0.1			TRAN	VAUX PU	BLICS	/	7-Jul-20		1V2		SPa/LLo	WYu
Baseline Bar				Three	Montl	hs Rollina F	Programme	(Jan-22)							9-Oct-2 2-Jul-21		1V3 2V0		SPa/LLo SPa/LLo	WYu WYu
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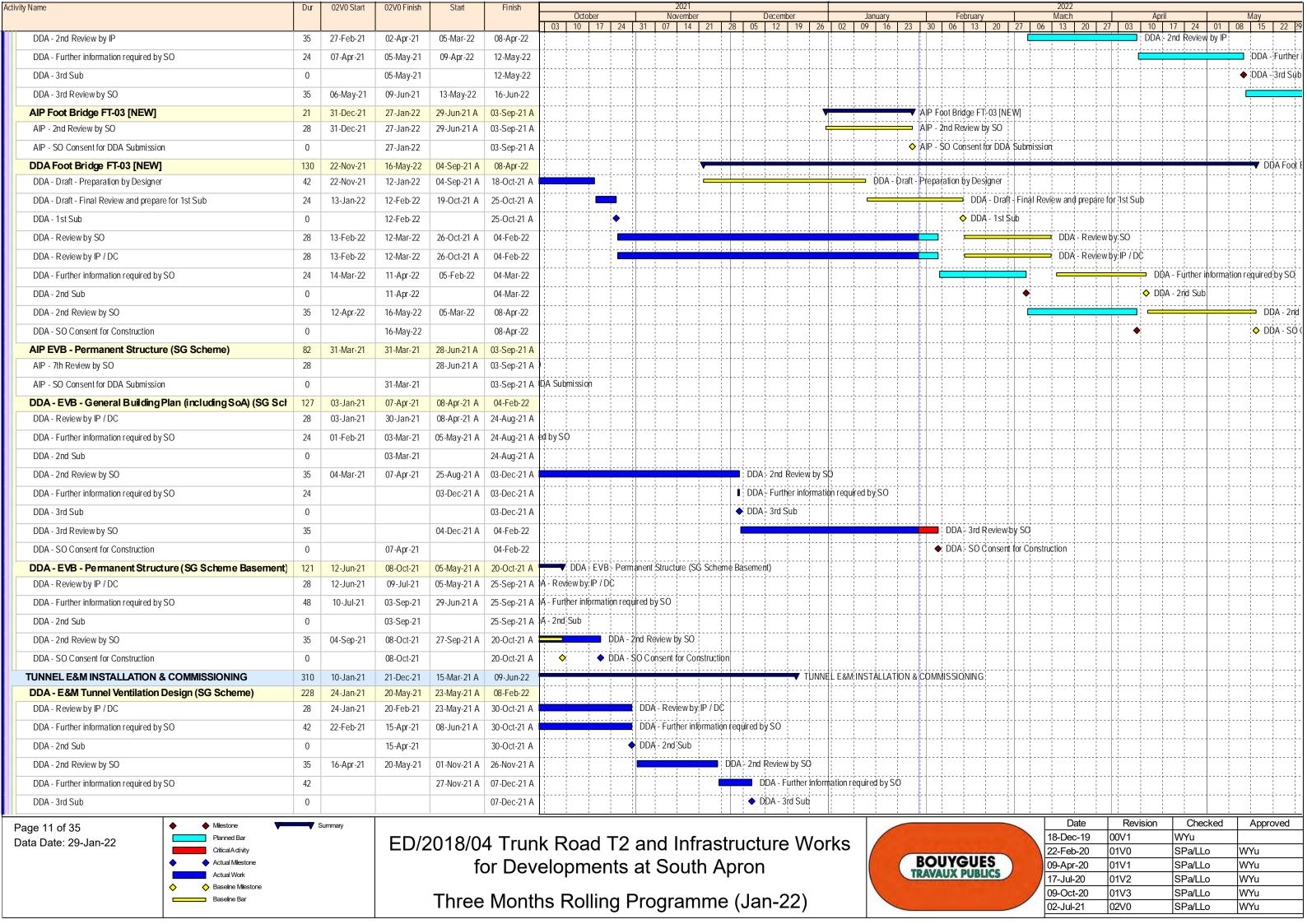
Activity Name	Dur	02V0 Start	02V0 Finish	Start	Finish	2021 2022 October November December January February March April May
						03 10 17 24 31 07 14 21 28 05 12 19 26 02 09 16 23 30 06 13 20 27 06 13 20 27 03 10 17 24 01 08 15
[STE] DDA Road L10 (N) - Alignment, Traffic Sign, Road Ma	157	,	21-Jun-22	27-Jul-21 A	16-Mar-22	
DDA - 2nd Review by SO	35	18-May-22	21-Jun-22		05-Aug-21 A	
DDA - Further information required by SO	12			06-Aug-21 A		A mation required by SO
DDA - 3rd Sub	0				07-Sep-21 A	
DDA - 3rd Review by SO	35					A 3rd Review by SO
DDA - Further information required by SO	12			21-Sep-21 A	08-Oct-21 A	
DDA - 4th Sub	0				08-Oct-21 A	
DDA - 4th Review by SO	35				26-Oct-21 A	
DDA - Further information required by SO	12			27-Oct-21 A	10-Nov-21 A	
DDA - 5th Sub	0				10-Nov-21 A	
DDA - 5th Review by SO	35			11-Nov-21 A	01-Dec-21 A	
DDA - Further information required by SO	12			02-Dec-21 A	09-Feb-22	
DDA - 6th Sub	0				09-Feb-22	◆ ĎDA - 6th Suβ
DDA - 6th Review by SO	35			10-Feb-22	16-Mar-22	DDA - 6th Review by SO
DDA - SO Consent for Construction	0		21-Jun-22		16-Mar-22	
[STE] DDA Road L10 (N) - Roadworks and Street Furniture	157	,	21-Jun-22	22-Jul-21 A	16-Mar-22	
DDA - 2nd Review by SO	35	18-May-22	21-Jun-22	22-Jul-21 A		
DDA - Further information required by SO	12			19-Aug-21 A	25-Aug-21 A	A red by SO
DDA - 3rd Sub	0				25-Aug-21 A	
DDA - 3rd Review by SO	35				07-Sep-21 A	
DDA - Further information required by SO	12			08-Sep-21 A	14-Sep-21 A	A ranformation required by SC
DDA - 4th Sub	0				14-Sep-21 A	
DDA - 4th Review by SO	35			15-Sep-21 A	23-Sep-21 A	A -:4th Review by SO
DDA - Further information required by SO	12			24-Sep-21 A	08-Oct-21 A	A DDA - Further information required by SO
DDA - 5th Sub	0				08-Oct-21 A	
DDA - 5th Review by SO	35			09-Oct-21 A	26-Oct-21 A	
DDA - Further information required by SO	12			27-Oct-21 A	23-Nov-21 A	DDA - Further information required by SO
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DDA - 6th Review by SO	35			24-Nov-21 A	06-Dec-21 A	A DDA - 6th Review by \$0
DDA - Further information required by SO	12			07-Dec-21 A	09-Feb-22	DDA - Further information required by SO
DDA - 7th Sub	0				09-Feb-22	◆ DDA - 7th Sub
DDA - 7th Review by SO	35			10-Feb-22	16-Mar-22	DDA - 7th Review by SO
DDA - SO Consent for Construction	0		21-Jun-22		16-Mar-22	
[STE] DDA Road L10 (N) - Street Lighting	125	05-Apr-22	21-Jun-22	21-Jul-21 A	23-Dec-21 A	A
DDA - Review by SO	28	05-Apr-22	02-May-22	21-Jul-21 A	16-Aug-21 A	A DĎA - Ręview by
DDA - Review by IP / DC	28	05-Apr-22	02-May-22	21-Jul-21 A	16-Sep-21 A	A DDA - Réview by
DDA - Further information required by SO	12	03-May-22	17-May-22	17-Aug-21 A	16-Sep-21 A	A DD,
DDA - 2nd Sub	0		17-May-22		16-Sep-21 A	
DDA - 2nd Review by SO	35	18-May-22	21-Jun-22	17-Sep-21 A	29-Sep-21 A	
DDA - Further information required by SO	12			30-Sep-21 A	02-Nov-21 A	DDA - Further information required by SO
DDA - 3rd Sub	0				02-Nov-21 A	A DDA - 3fd Sub
DDA - 3rd Review by SO	35			03-Nov-21 A	24-Nov-21 A	DDA - 3rd Review bý SO
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Page 6 of 35	S	Summary		04070	/ T	40 D 40 00 14 140 1
Data Date: 29-Jan-22			⊏ ∪/2			nk Road 12 and initastructure works
♦ Actual Milestone Actual Work				fo	or Dev	velopments at South Apron BOUYGUES 17- lul-20 01V1 SPa/LLo WYU 17- lul-20 01V2 SPa/L o WYU
♦ Baseline Milestone				- .	N.A	100 of 20 101 10 101 101 101 101 101 101 101 1
Baseline Bar				Ihree	Mont	ths Rolling Programme (Jan-22)

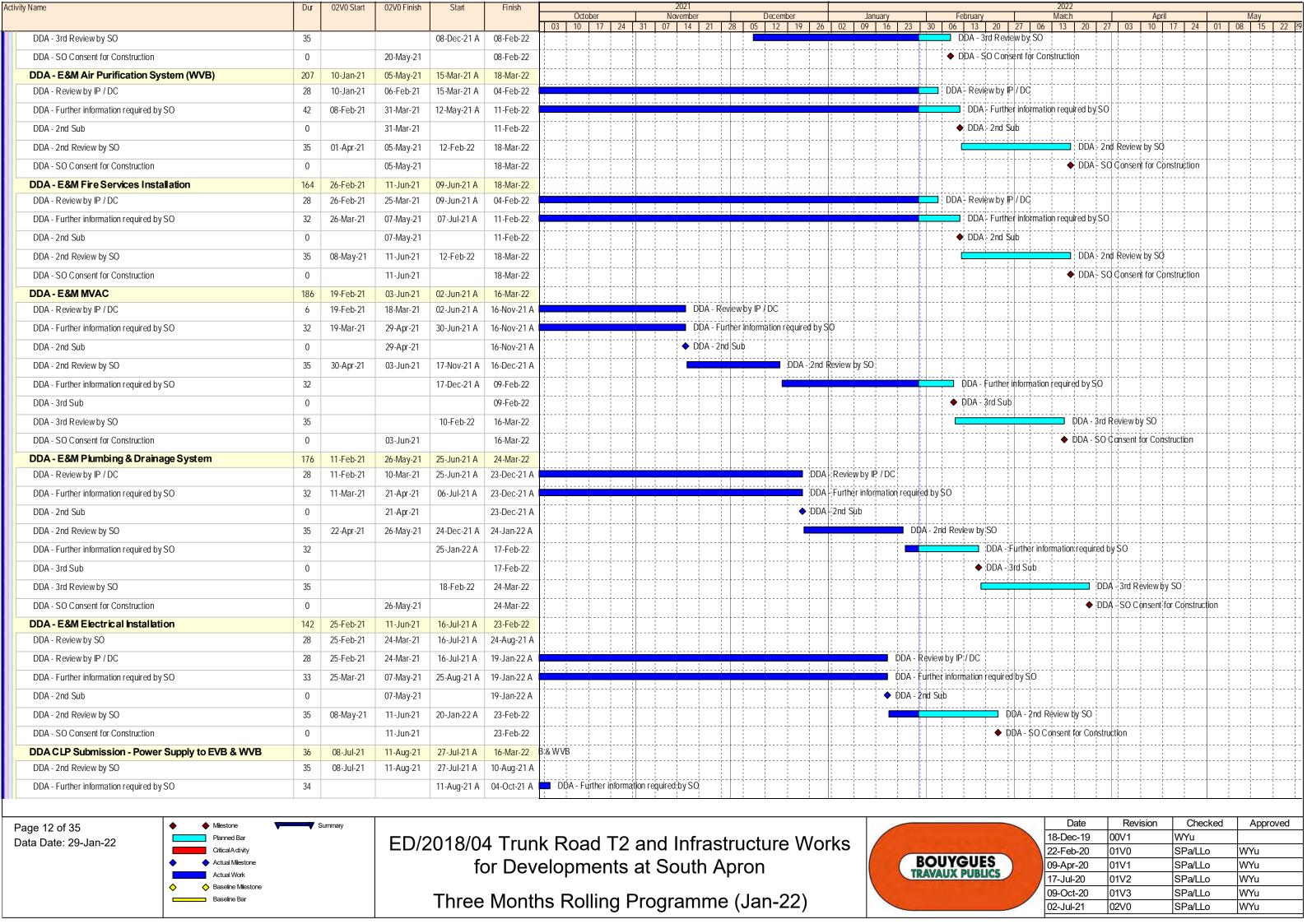


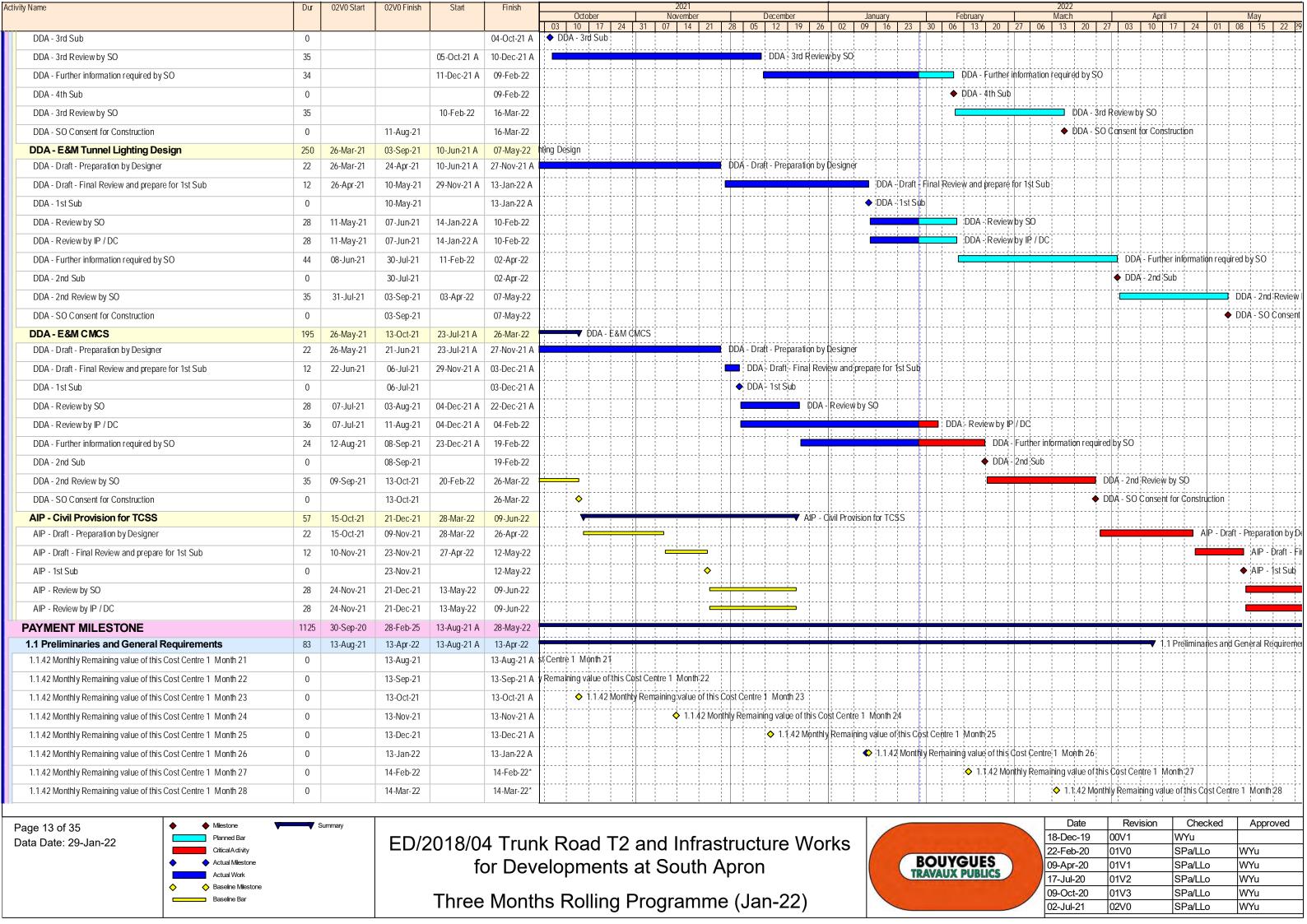










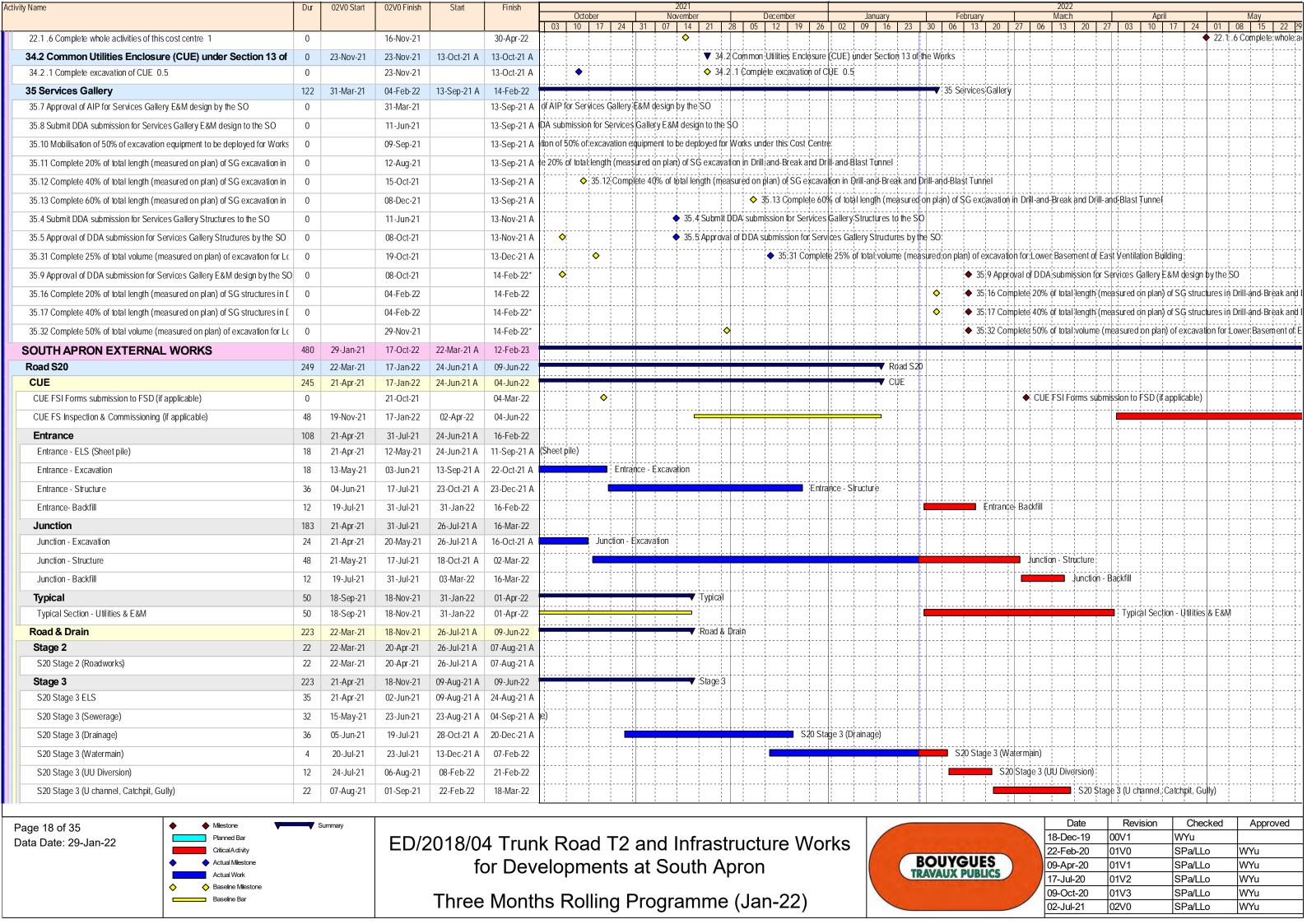


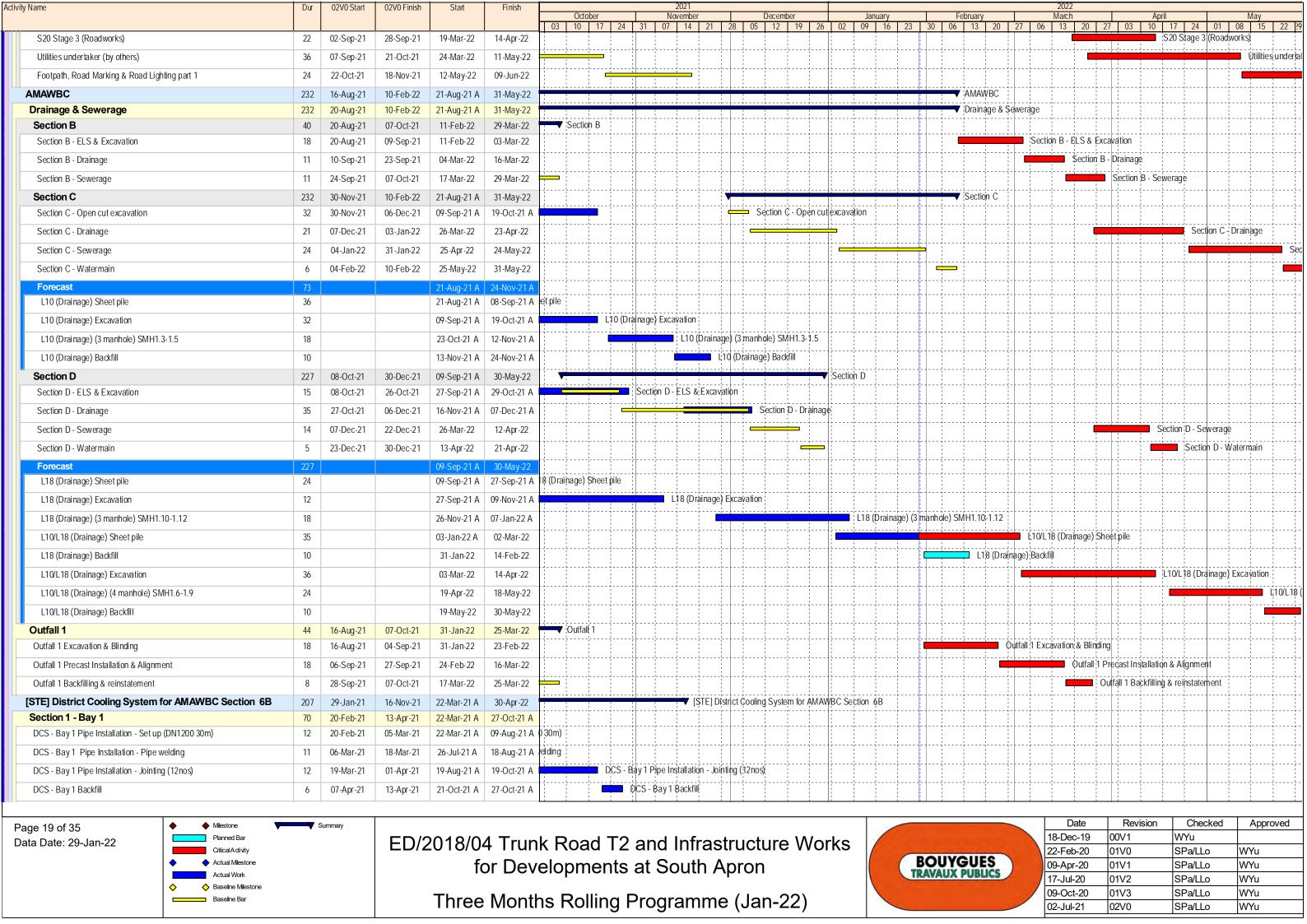
Activity Name	Dur	02V0 Start	02V0 Finish	Start	Finish	2021 2022 October November December January February March April May
						October November December January February March April May May March May M
1.1.42 Monthly Remaining value of this Cost Centre 1 Month 29	0		13-Apr-22		13-Apr-22*	♦ 1.1.42 Monthly Remaining value of thi
3.1 for Trunk Road T2	24	30-Sep-20	17-Jun-21	13-Aug-21 A		
3.1 .44 Approval DDA for WVB	0		17-Jun-21		13-Aug-21 A	
3.1 .20 Approval DDA for cut-and-cover tunnel	0		30-Sep-20		13-Sep-21 A	val DDA; for cut and-cover tunnel
3.1 .46 Approval AIP for EVB	0		30-Sep-20		13-Oct-21 A	◆ 3.1 .46 Approval AIP for EVB
3.1.40 Approval DDA for Drill-and-blast Tunnel	0		09-Oct-20		13-Nov-21 A	♦ 3.1 :40 Approval DDA for Drill-and-blast Tunnel
3.1 .48 Approval DDA for EVB	0		30-Sep-20		13-Nov-21 A	♦ 3.1.48 Approval DDA for EVB
3.1 .50 Approval AIP for completion of SUS	0		29-Mar-21		13-Jan-22 A	♦ 3.1.50 Approval AIP for completion of \$US
3.2 for Road S20 and Associated Infrastructure Works for C	0	30-Sep-20	30-Sep-20	13-Sep-21 A	13-Dec-21 A	
3.2 .24 Approval DDA for landscape works	0		30-Sep-20		13-Sep-21 A	val DDA:for landscape works
3.2 .27 Complete whole activities of this cost centre	0		30-Sep-20		13-Dec-21 A	◆ 3.2 .27 Complete whole activities of this cost centre
3.3 for the Remaining Stage 5 Infrastructure Works - Road I	24	26-Feb-21	03-Jun-21	13-Dec-21 A	13-Jan-22 A	
3.3 .23 Submit DDA for landscape works	0		03-Jun-21		13-Dec-21 A	♦ 3.3 .23 Submit DDA for landscape works
3.3.16 Approval DDA for waterworks	0		26-Feb-21		13-Jan-22 A	◆ 3.3.16 Approval DDA for waterworks
3.4 for the Remaining Stage 5 Infrastructure Works - FT02	24	30-Sep-20	09-Mar-21	13-Sep-21 A	29-Jan-22	▋ ┆╌╌┆╌╌┆╌╌┆╌╌┆╌╌┆╌╌┆╌╌┆╌╎╌┆╌┈┆╌┈┆╌┈┆╌┈┆╌┈┆╌┈┆╌┈┆┼┈┆╌┈┆╌┈┆╌┆╌┈┆┄┈┆┄┈┆╌┈┆╌┈┆╌┈┆╌┈┆╌┈┆╌┈┆╌┈┆╌┈
3.4.9 Submit AIP for modification of existing footbridge	0		30-Sep-20			A P for modification of existing footbridge
3.4.8 Approval DDA for Landscaped elevated walkway	0		09-Mar-21		13-Oct-21 A	♦ 3.4.8 Approval DDA for Landscaped elevated walkway
3.4.11 Submit Demolition plan for existing footbridge	0		22-Dec-20		13-Nov-21 A	◆ 3.4.11 Submit Démolition plan for existing footbridge
3.4.10 Approval DDA for modification of existing footbridge	0		09-Mar-21		13-Jan-22 A	
3.4 .12 Approval Demolition plan for existing footbridge	0		09-Mar-21		29-Jan-22*	♦ 3.4.12 Approval Demolition plan for existing footbridge
3.4 .13 Complete whole activities of this cost centre	0		09-Mar-21		29-Jan-22*	
	112	14 Dan 21		12 D 21 A		5.4.13 Complete whole activities of this cost centre
3.5 for Lam Chak Street and Kai Hing Road 3.5 .5 Submit AIP for roadworks	113	14-Dec-21	11-Jun-22 14-Dec-21	13-Dec-21 A	24-May-22 13-Dec-21 A	◆ 3,5.5 Submit AIP for roadworks
3.5 .9 Submit AIP for stormwater drainage works	0		14-Dec-21		13-Dec-21 A	
	0					
3.5 .13 Submit AIP for waterworks	0		14-Dec-21		13-Dec-21 A	
3.5 .17 Submit AIP for sewage works	0		14-Dec-21		13-Dec-21 A	
3.5 .21 Submit AIP for landscape works	0		14-Dec-21		13-Dec-21 A	♦ 3,5 .21 \$ubm t AIP for landscape works
3.5 .8 Approval DDA for roadworks	0		11-Jun-22		04-Apr-22	
3.5 .24 Approval DDA for landscape works	0		11-Jun-22		04-Apr-22	
3.5 .25 Complete whole activities of this cost centre	0		11-Jun-22		04-Apr-22	
3.5.12 Approval DDA for stormwater drainage works	0		11-Jun-22		24-May-22	
3.5 .16 Approval DDA for waterworks	0		11-Jun-22		24-May-22	
3.5 .20 Approval DDA for sewage works	0		11-Jun-22		24-May-22	
3.6 for Road L10 (Northern Section)	33	21-Mar-22	21-Jun-22	13-Oct-21 A	14-Feb-22	
3.6.6 Approval AIP for Road L10 (northern section)	0		21-Mar-22		13-Oct-21 A	◆ 3.6 .6 Approval AIP for Road L10 (northern section)
3.6 .8 Approval DDA for Road L10 (northern section)	0		21-Jun-22		14-Feb-22*	
3.6 .9 Complete whole activities of this cost centre	0		21-Jun-22		14-Feb-22*	
3.8 for Improvement Works at the Junction of Hoi Bun Road	0	03-Dec-20	03-Dec-20	13-Nov-21 A	13-Nov-21 A	
3.8.9 Complete whole activities of this cost centre	0		03-Dec-20		13-Nov-21 A	♦ 3.8.9 Complete whole activities of this cost centre
3.9 for the Pipelines for District Cooling System for Commis	24	30-Sep-20	30-Sep-20	13-Nov-21 A	29-Jan-22	
3.9.5 Submit GI report for pipelines of DCS for AMAWBC	0		30-Sep-20		13-Nov-21 A	
3.9.6 Approval G1 report for pipelines of DCS for AMAWBC	0		30-Sep-20		13-Nov-21 A	♦ 3.9.6 Approval GTreport for pipelines of DCS for AMAWBC
3.9.10 Approval DDA for pipelines of DCS	0		30-Sep-20		13-Nov-21 A	◆ 3.9.10 Approval DDA for pipelines of DCS
Page 14 of 25		Summary		,		Date Revision Checked Approved
Page 14 of 35 Data Date: 29-Jan-22 → Milestone Planned Bar	— ⊸ s	энтпату	ED/2	019/0	1 Trus	nk Road T2 and Infrastructure Works
CriticalActivity			ニ リ/2			22-Peb-20 01V0 SPALLO WYU
Actual Milestone Actual Work				fo	or Dev	relopments at South Apron BOUYGUES 17-Jul-20 01V1 SPa/LLo WYu 17-Jul-20 01V2 SPa/LLo WYu
♦ Baseline Milestone						17-Jul-20 01V2 SPALLO WYU
Baseline Bar				Ihree	Month	hs Rolling Programme (Jan-22)

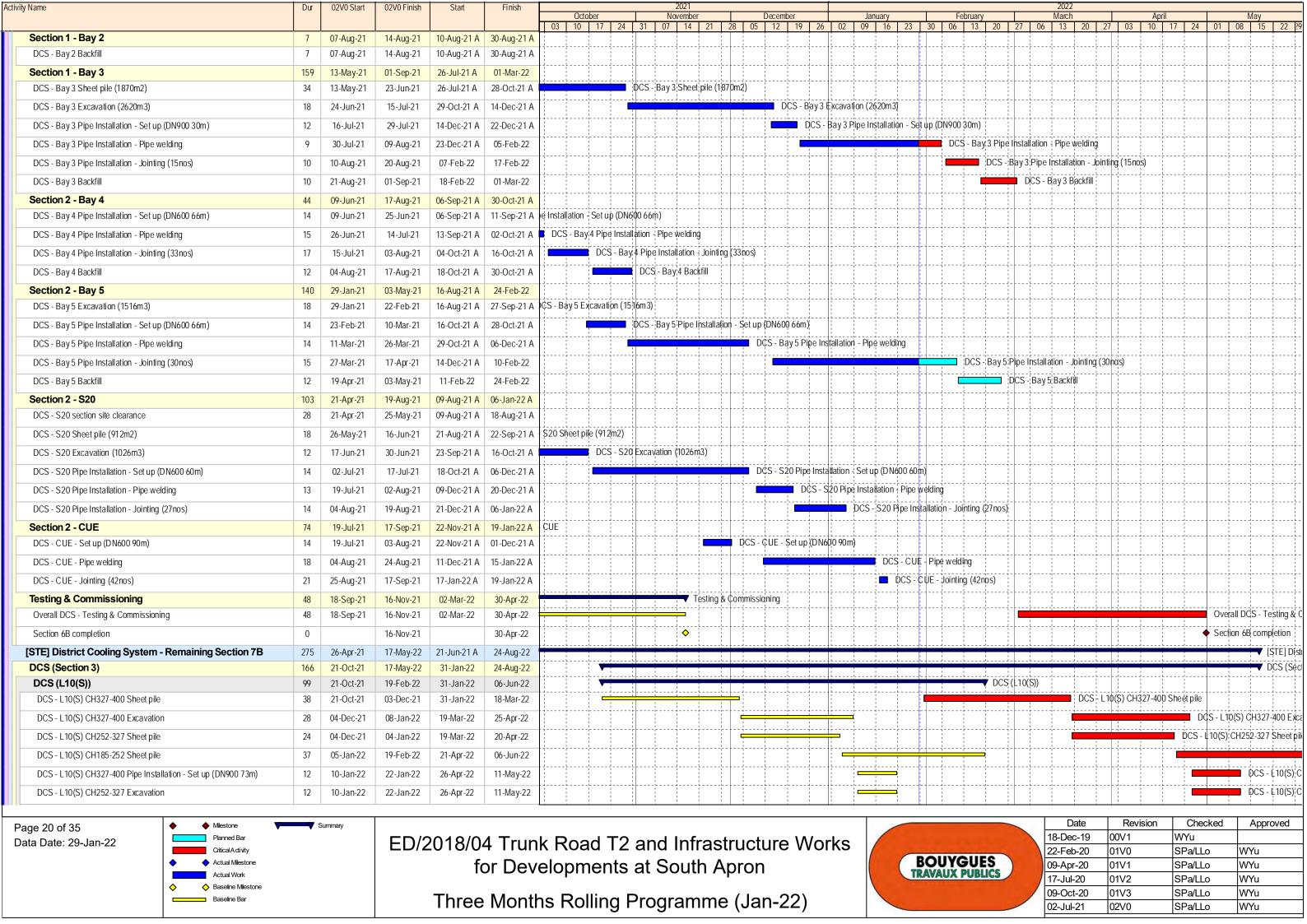
Activity Name	Dur	02V0 Start	02V0 Finish	Start	Finish	2021 2022 October November December January February March April May
00440 10044 14 000 15			00.0		00 1 00	03 10 17 24 31 07 14 21 28 05 12 19 26 02 09 16 23 30 06 13 20 27 06 13 20 27 03 10 17 24 01 08 15 22 29
3.9.11 Submit O&M manual for DCS pipelines	0		30-Sep-20		29-Jan-22	♦ 3.9.11 Submit O&M manual for DCS pipelines
3.10 for the Remaining Pipelines for District Cooling Systen 3.10.5 Submit GI report for remaining pipelines of DCS for AMAWBC	0	30-Sep-20	09-Dec-20 30-Sep-20	13-Nov-21 A	13-Nov-21 A 13-Nov-21 A	♦ 3.10,5 Submit GI report for remaining pipelines of DCS for AMAWBC
	-					
3.10.6 Approval GI report for remaining pipelines of DCS for AMAWBC	0		30-Sep-20		13-Nov-21 A	♦ 3.10.6 Approval GI report for remaining pinelines of DCS for AMAWBC
3.10.10 Approval DDA for remaining pipelines of DCS	0		09-Dec-20		13-Nov-21 A	♦ 3.10.10 Approval DDA for remaining pipelines of DCS
3.12 for Improvement Works at Junctions of Cha Kwo Ling	0	30-Sep-20	30-Sep-20	13-Oct-21 A	13-Oct-21 A	♦ 3.12.9 Complete whole activities of this cost centre
3.12.9 Complete whole activities of this cost centre	24	20 4 21	30-Sep-20	12 4 21 4	13-Oct-21 A	
4.2 Depressed Road and Remaining Ventilation Adits at the 4.2 .12 Complete excavation of South Apron Adist 1	0	20-Apr-21	14-Sep-21 16-Jun-21	13-Aug-21 A	29-Jan-22 13-Aug-21 A	d Road and Remaining Ventilation Adits at the South Apron
4.2 .13 Complete South Apron Adist permanent structure 0.2	0		28-May-21		•	injent strjucture 0.2
	0		,		•	
4.2 .14 Complete South Apron Adist permanent structure 0.4	0		22-Jun-21		·	ete South Apron Adist permanent structure 0.4
4.2 .15 Complete South Apron Adist permanent structure 0.6	0		16-Jul-21		13-Oct-21 A	♦ 4.2 .15 Complete South Apron Adist permanent structure 0.6
4.2 .24 Complete foundation of Depressed Road by length 0.9	0		20-Apr-21		13-Nov-21 A	♦ 4.2.24 Complete foundation of Depressed Road by length 0.9
4.2 .25 Complete permanent structure of Depressed Road by length 0.4	0		15-Jun-21		13-Nov-21 A	◆ 4.2.25 Complete permanent structure of Depressed Road by length 0.4
4.2 .26 Complete permanent structure of Depressed Road by length 0.5	0		29-Jun-21		13-Nov-21 A	♦ 4.2 :26 Complete permanent structure of Depressed Road by length 0.5
4.2 .27 Complete permanent structure of Depressed Road by length 0.6	0		29-Jun-21		13-Nov-21 A	♦ 4.2 :27 Complete permanent structure of Depressed Road by length 0.6
4.2 .28 Complete permanent structure of Depressed Road by length 0.7	0		19-Jul-21		13-Nov-21 A	♦ 4.2.28 Complete permanent structure of Depressed Road by length 0.7
4.2 .29 Complete permanent structure of Depressed Road by length 0.8	0		16-Aug-21		13-Nov-21 A	♦ 4.2 .29 Complete permanent structure of Depressed Road by length 0.8
4.2 .30 Complete permanent structure of Depressed Road by length 0.9	0		14-Sep-21		13-Nov-21 A	♦ 4.2 .30 Complete permanent structure of Depressed Road by length 0.9
4.2 .16 Complete South Apron Adist permanent structure 0.8	0		09-Aug-21		13-Dec-21 A	♦ 4.2.16 Complete South Apron Adist permanent structure 0.8
4.2 .17 Complete South Apron Adist permanent structure 1	0		31-Aug-21		29-Jan-22*	♦ 4.2 .17 Complete South Apron Adist permanent structure 1
4.2 .23 Complete foundation of Depressed Road by length 1	0		20-Apr-21		29-Jan-22*	◆ 4.2 .23 Complete foundation of Depressed Road by length 1
4.2 .31 Complete permanent structure of Depressed Road by length 1	0		14-Sep-21		29-Jan-22*	◆ 4.2 .31 Complete permanent structure of Depressed Road by length 1
5.1 Cut-and-Cover Tunnel at South Apron	96	07-Sep-21	07-Sep-21	13-Oct-21 A		Tunnel at South Apron
5.1 .18 Complete base slab of Cut-and-cover Tunnel by length 0.1	0	07 0 0 P 2 1	07-Sep-21	10 000 21 71	13-Oct-21 A	◆ 5.1 .18;Complete base slab of Cut-and-cover Tunnel;by length 0.1
5.1.19 Complete base slab of Cut-and-cover Tunnel by length 0.2	0		07-Sep-21		13-Oct-21 A	♦ 5.1 .19 Complete base slab of Cut-and-cover Tunnel; by Length 0.2
5.1 .20 Complete base slab of Cut-and-cover Tunnel by length 0.3	0		07-Sep-21		13-Oct-21 A	♦ 5.1 .20 Complete base slab of Cult-and-cover Tunnel by length 0.3
5.1 .21 Complete base slab of Cut-and-cover Tunnel by length 0.4	0		07-Sep-21		13-Oct-21 A	◆ 5.1 .21 Complete base slab of Cut-and-cover Tunnel by length 0.4
5.1 .22 Complete base slab of Cut-and-cover Tunnel by length 0.5	0		07-Sep-21		13-Oct-21 A	♦ 5.1.22 Complete base slab of Cut-and-cover Tunnel by length 0.5
5.1 .23 Complete base slab of Cut-and-cover Tunnel by length 0.6	0		07-Sep-21		13-Oct-21 A	◆ 5.1.23;Complete base slab of Cut-and-cover Tunnel; by length 0.6
	0					◆ 5.1.24 Complete base slab of Cult-and-cover Tunnel by length 0.7
5.1 .24 Complete base slab of Cut-and-cover Tunnel by length 0.7	-		07-Sep-21		13-Oct-21 A	
5.1 .25 Complete base slab of Cut-and-cover Tunnel by length 0.8	0		07-Sep-21		13-Oct-21 A	♦ 5.1 .25 Complète ba'se slab of Cult-and-cover Tunnel by length 0.8
5.1 .26 Complete base slab of Cut-and-cover Tunnel by length 0.9	0		07-Sep-21		13-Oct-21 A	◆ 5.1.26 Complete base slab of Cut-and-cover Tunnel by length 0.9
5.2 Completion of SUS	0	17-Nov-21	17-Nov-21	18-May-22	18-May-22	▼ 5.2 Completion of SUS
5.2 .29 Complete remaining works in SUS by length 0.5	0	20.14	17-Nov-21	10 4 01 4	18-May-22	◆ 5.2 .29 Cd
6.1 Tunnel Boring Machine and Back-up Equipment 6.1.14 Complete establishment on site of Slurry Treatment Plant	0	29-Mar-21	26-May-21 26-May-21	13-Aug-21 A		Slurry Treatment Plant
6.1 .6 Approval design of hyperbaric intervention facilities	0		,			al design of hyperbaric intervention facilities
	0		26-May-21		·	
6.1 .11 Complete establishment on site of TBMs 0.5	U		29-Mar-21		·	ete establishment on site of TBMs 0.5
6.1 .15 Complete establishment on Site of hyperbaric intervention facilities 0			29-Mar-21			ete establishment on Site of hyperbaric intervention facilities 0.5
6.1 .12 Complete establishment on site of TBMs 1	0		26-May-21		13-Dec-21 A	♦ 6.1.12 Complete establishment on site of: TBMs; 1
6.1 .16 Complete establishment on Site of hyperbaric intervention facilities 1	0		26-May-21		13-Dec-21 A	♦ 6.1.16 Complete establishment on Site of hyperbaric intervention facilities 1
Page 15 of 35	Su	ummary		_		Date Revision Checked Approved
Data Date: 29-Jan-22			ED/2	018/0	4 Trun	k Road T2 and Infrastructure Works
◆ Actual Milestone				f	or Dev	PAIONMENTS at South Anron BOUYGUES 09-Apr-20 01V1 SPa/Lo WYu
Actual Work Baseline Miestone				10		17-Jul-20 01V2 SPa/LLo WYu
Baseline Bar				Three	Month	hs Rolling Programme (Jan-22)
				- 111 50		ris Rolling Programme (Jan-22)

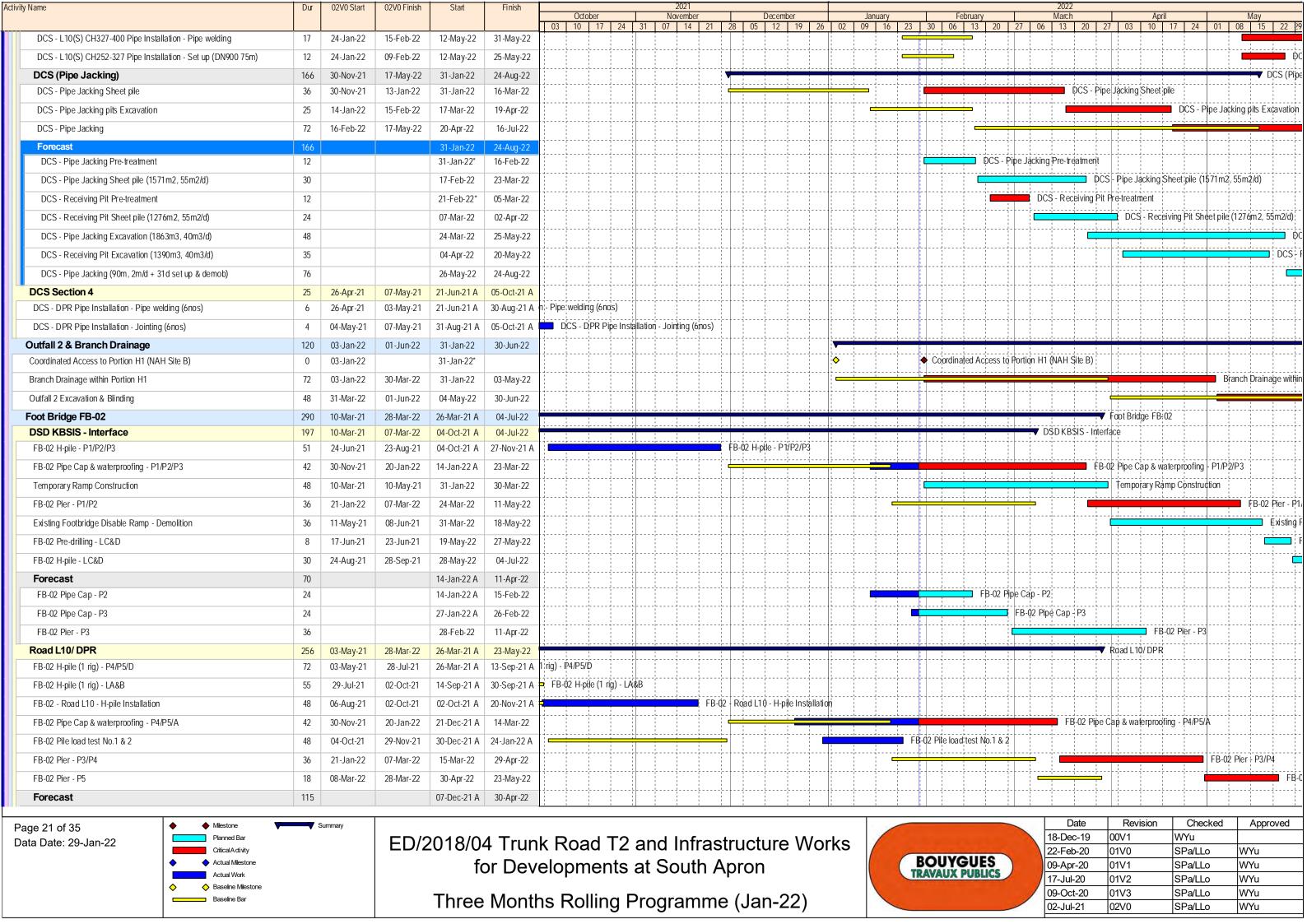
Activity Name	Dur	02V0 Start	02V0 Finish	Start	Finish	2021 2022 October November December January February March April May
						03 10 17 24 31 07 14 21 28 05 12 19 26 02 09 16 23 30 06 13 20 27 06 13 20 27 03 10 17 24 01 08 15
6.1 .17 Complete whole activities of this cost centre	0		26-May-21		13-Dec-21 A	A : : :
7.1 Western Ventilation Building	0	21-Jul-21		13-Aug-21 A		A liation Building
7.1 .1 Complete mobilization of excavation equipment 0.5	0		21-Jul-21			A lequipment 0.5
7.1 .3 Complete excavation for WVB 0.5	0		09-Sep-21		13-Dec-21 A	
9.1 Launching Shaft	65	14-Jul-21	J	13-Sep-21 A	13-Oct-21 A	
9.1.13 Complete bottomslab for Launching Shaft by area 0.2	0		14-Jul-21		13-Sep-21 A	
9.1.14 Complete bottom slab for Launching Shaft by area 0.4	0		14-Jul-21		13-Oct-21 A	
9.1.15 Complete bottomslab for Launching Shaft by area 0.6	0		26-Jul-21		13-Oct-21 A	
9.1 .16 Complete bottom slab for Launching Shaft by area 0.8	0		04-Aug-21		13-Oct-21 A	
9.1 .17 Complete bottom slab for Launching Shaft by area 1	0		13-Aug-21		13-Oct-21 A	
11.1 Drill and Break Tunnel	33	13-Jul-21	21-Dec-21	13-Dec-21 A	14-Feb-22	▼ 11.1 Drll and Break Tunnel
11.1.2 Complete tunnel excavation 0.2 by length	0		13-Jul-21		13-Dec-21 A	
11.1.2 Complete tunnel excavation 0.5 by length	0		19-Oct-21		29-Jan-22*	♦ 11.1:2 Complete tunnel excavation 0:5 by length
11.1.2 Complete tunnel excavation 0.3 by length	0		13-Aug-21		29-Jan-22*	11.1;2 Complete funnel excavation 0;3 by length
11.1.2 Complete tunnel excavation 0.4 by length	0		14-Sep-21		29-Jan-22*	11.1 2 Complete tunnel excavation 0,4 by length
11.1.3 Complete tunnel excavation 0.6 by length	0		19-Nov-21		14-Feb-22*	*
11.1.5 Complete tunnel excavation 0.7 by length	0		21-Dec-21		14-Feb-22*	*
12.1 Drill and Blast Tunnel	80	16-Sep-21	14-Feb-22	13-Oct-21 A	29-Jan-22	▼ 12:1 Drill:and Blast Tunnel
12.1.7 Complete tunnel excavation 0.6 by length	0		16-Sep-21		13-Oct-21 A	A ♦ 12.1.7 Complete turinel excavation 0.6 by length
12.1.8 Complete tunnel excavation 0.7 by length	0		05-Nov-21		13-Oct-21 A	A
12.1.9 Complete tunnel excavation 0.8 by length	0		22-Dec-21		13-Dec-21 A	A
12.1.10 Complete tunnel excavation 0.9 by length	0		14-Feb-22		29-Jan-22*	
12.2 Cross Passages for Drill and Blast Tunnel	0	12-Apr-22	12-Apr-22	24-May-22	24-May-22	
12.2 .4 Complete cross passages structure by length 0.4	0	12 /\pi 22	12-Apr-22	21 May 22	24-May-22	
15.0 E&M Design Works	215	02-Jan-21	03-Sep-21	13-Aug-21 A	07-May-22	
15.0.9 Submit DDA for electrical system (power supply)	0		28-Apr-21			A lawer supply)
15.0.12 Approval AIP for Tunnel extra low voltage system	0		02-Jan-21		13-Aug-21 A	A voltage;system
15.0 .21 Submit DDA for Tunnel plumbing & drainage	0		10-Feb-21		13-Aug-21 A	A & drainage
15.0 .29 Submit DDA for remaining tunnel and at-grade E&M systems	0		06-Jul-21			A and at-grade E&M systems
15.0 .33 Submit DDA for E&M in WVB	0		24-Feb-21		13-Aug-21 A	
15.0 .37 Submit DDA for E&M in EVB	0		11-Jun-21		13 Aug-21 A	
	0		10-May-21		14-Feb-22*	
15.0.25 Submit DDA for Tunnel lighting system	0					
15.0 .26 Approval DDA for Tunnel lighting system	0		03-Sep-21		07-May-22	
17.1 Works under Sections 6A, 6C and 12 and Associated L	33	23-Dec-20	04-Oct-21	13-Aug-21 A		iiiiiiiiiiiii
17.1.4/ Complete watermain installation 0.25	0		23-Dec-20		13-Aug-21 A	
17.1.46 Complete anchor blocks, thrust block etc for waterworks 0.25	0		23-Dec-20			A pick etc for waterworks 0.25
17.1.3 Complete excavation and disposal of material works 0.8	0		23-Jun-21		13-Oct-21 A	
17.1 .13 Complete footpath 0.25	0		21-Sep-21		14-Feb-22*	
17.1 .17 Complete street furnitures of at-grade roads 0.25	0		04-Oct-21		14-Feb-22*	
17.4 Remaining Stage 5 Infrastructure Works - Road L10 (S	9	02-Aug-22	04-Mar-23	29-Jan-22	14-Feb-22	<u>i</u>
17.4.1 Complete excavation and disposal of material works 0.25	0		17-Feb-23		29-Jan-22	
17.4.2 Complete excavation and disposal of material works 0.5	0		04-Mar-23		14-Feb-22*	
17.4.21 Complete drainage installation 0.2	0		18-Oct-22		14-Feb-22*	
Page 16 of 35 ♦ Milestone	S	ummary				Date Revision Checked Approx
Data Date: 29-Jan-22	•		FD/2	<u>018/0</u> 2	4 Trun	nk Road T2 and Infrastructure Works
CiticalAdivity ♦ Actual Milestone						22-reb-20 0100 SPALLO WYU
Actual Work				TC	ט עev	velopments at South Apron BOUYGUES 09-Apr-20 01V1 SPa/LLo WYu 17-Jul-20 01V2 SPa/Llo WYu 17-Jul-20
♦ Baseline Milestone Baseline Bar				Throc	Mast	00.0+00 00.00 00-01- 0000
Daseille Dal			iniee	IVION	ths Rolling Programme (Jan-22)	
Baseline Bar		Three	Montl	the Palling Programma Light III		

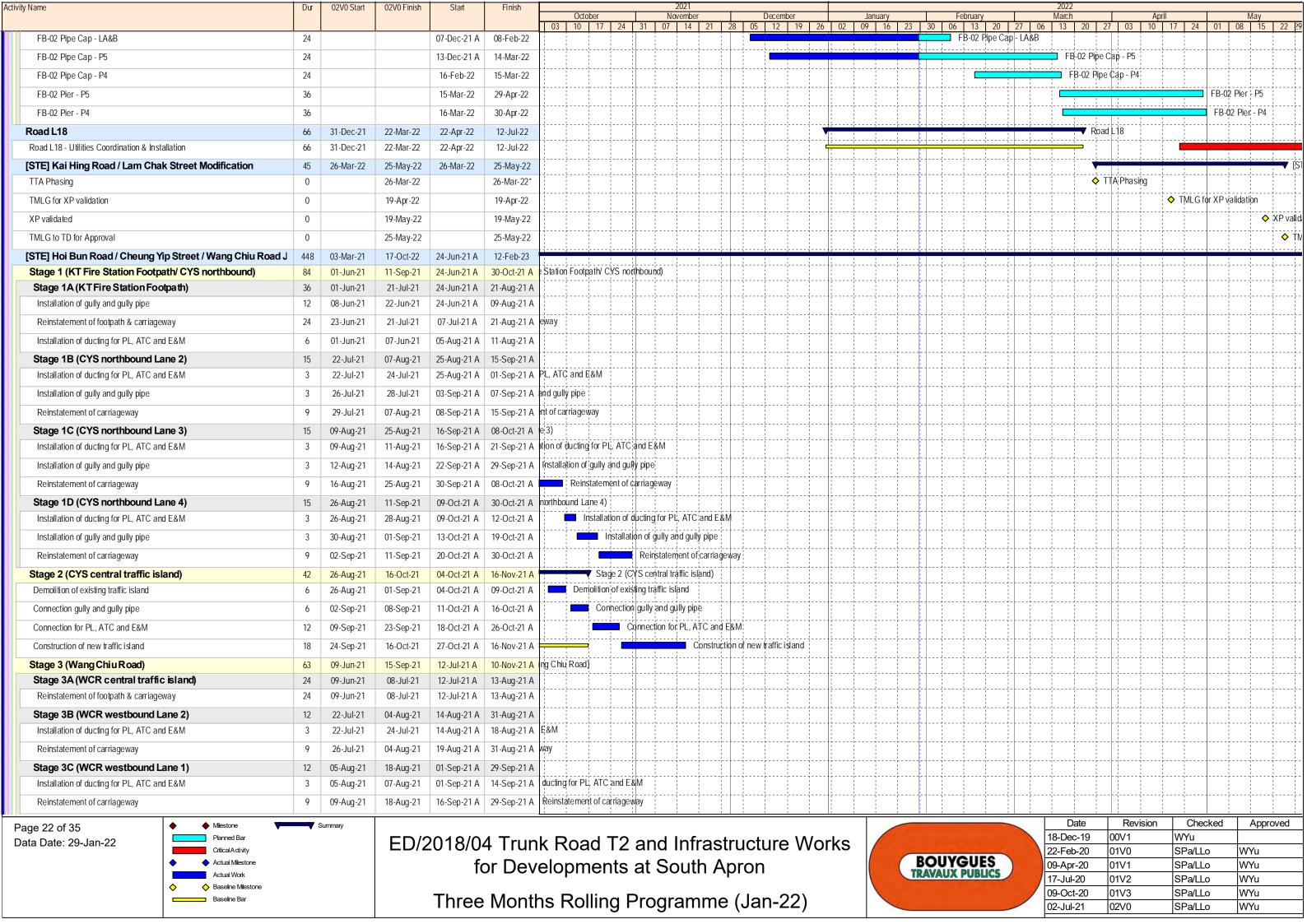
Activity Name	Dur	02V0 Start	02V0 Finish	Start	Finish	2021 2022 October November December January February March April May
47.4.05.0			40.0 :		44 = 1 ==:	03 10 17 24 31 07 14 21 28 05 12 19 26 02 09 16 23 30 06 13 20 27 06 13 20 27 03 10 17 24 01 08 15 22 29
17.4.25 Complete manhole for drainage 0.25	0		18-Oct-22		14-Feb-22*	<u> </u>
17.4 .31 Complete sewerage installation 0.25	0		02-Aug-22		14-Feb-22*	
17.4 .35 Complete manhole for sewerage 0.25	0		02-Aug-22		14-Feb-22*	
17.5 Remaining Stage 5 Infrastructure Works - Landscaped	112	05-Jun-21	28-Mar-22	13-Sep-21 A	23-May-22	▼ 17.5 Remaining Stage 5 Infrastructure Works - L'andscap
17.5.5 Complete piled foundations of FB02 0.25	0		05-Jun-21		·	ete piled foundations of FB02 0.25
17.5 .6 Complete piled foundations of FB02 0.5	0		15-Jul-21		13-Oct-21 A	◆ 17.5.6; Complete pilled foundations of FB02 0:5
17.5 .16 Complete concrete works of piers 0.25	0		07-Mar-22		14-Feb-22*	♦ 17,5.16 Complete concrete works of piers 0.25
17.5 .11 Complete concrete works of pile caps 0.5	0		23-Dec-21		17-Feb-22	♦ 17.5.11 Complete concrete works of pile caps 0.5
17.5.12 Complete concrete works of pile caps 0.8	0		08-Jan-22		02-Mar-22	◆ 17.5.12 Complete concreté works of pile caps 0.8
17.5.13 Complete concrete works of pile caps 1	0		20-Jan-22		14-Mar-22	♦ 17:5.13 Complete concrete works of pile caps 1
17.5.18 Complete concrete works of piers 0.8	0		07-Mar-22		29-Apr-22	◆ 17.5:18 Complete concrete
17.5 .17 Complete concrete works of piers 0.5	0		07-Mar-22		11-May-22	◆ 17.5.17 Compk
17.5 .19 Complete concrete works of piers 1	0		28-Mar-22		23-May-22	17;5
21.1 Improvement Works at the Junction of Hoi Bun Road/C	0	08-Jun-21	15-Sep-21	13-Aug-21 A	13-Dec-21 A	ement Works at the Junction of Hoi Bun Road/Cheung Yip Street
21.1 .4 Complete sub-base and roadbase works 0.25	0		23-Jun-21		13-Aug-21 A	vorks 0.25
21.1 .2 Complete drainage installation 0.5	0		14-Aug-21		13-Nov-21 A	◆ 21.1 .2 Complete drainage installation 0.5
21.1.3 Complete drainage installation 1	0		08-Sep-21		13-Nov-21 A	♦ 21.1.3 Complete drainage installation 1
21.1 .5 Complete sub-base and roadbase works 0.5	0		22-Jul-21		13-Nov-21 A	♦ 21.1 .5 Complete: sub-base and roadbase works 0.5
21.1 .6 Complete sub-base and roadbase works 0.8	0		19-Aug-21		13-Nov-21 A	♦ 21.1 .6 Complete sub-base and roadbase works 0.8
21.1.7 Complete sub-base and roadbase works 1	0		15-Sep-21		13-Nov-21 A	◆ 21.1.7 Complete sub-base and roadbase works 1
21.1.8 Complete kerb line modification and pavement 0.25	0		08-Jun-21		13-Dec-21 A	◆ 21.1.8 Complete kerb line modification and pavement 0.25
21.2 Irrigation System for Improvement Works at the Juncti	1049	31-Dec-24	28-Feb-25	13-Nov-21 A		
21.2 .1 Complete irrigation system 0.3	0	0. 500 2.	31-Dec-24	10 1107 2 1 11	13-Nov-21 A	
21.2.2 Complete irrigation system 0.6	0		01-Feb-25		13-Nov-21 A	
21.2 .3 Complete irrigation system 1	0		28-Feb-25		13-Nov-21 A	
21.2 .4 Complete whole activities of this cost centre 1	0		28-Feb-25		13-Nov-21 A	
21.4 Improvement Works at the Junctions of Cha Kwo Ling	12	12-Jan-21	31-May-21	13-Aug-21 A	13-Nov-21 A	
21.4 .11 Complete kerb line modification and pavement 1	0	12 341121	22-Apr-21	13 / tug 2 1 / t		nd pavement 1
21.4.14 Complete light posts, lamps, lanterns, ducting and cabling	0		23-Apr-21			plete light posts, lamps, lanterns, ducting and cabling
21.4.1 Complete temporary traffic diversion 1	0		12-Jan-21		13-Nov-21 A	◆ 21.4.1 Complete; temporary traffic diversion 1
21.4.12 Complete road marking, traffic sign and traffic signal installation	0		23-Apr-21		13-Nov-21 A	♦ 21.4.12 Complete road marking, traffic sign and traffic ségnal installation
21.4 .13 Complete roadside planter	0		23-Apr-21		13-Nov-21 A	♦ 21.4.13 Complete roadside planter
21.4.15 Complete T&C of drainage and waterworks system	0		31-May-21		13-Nov-21 A	◆ 21.4 .15 Complete T&C of drainage and waterworks system
21.4 .16 Complete whole activities of this cost centre	0		31-May-21		13-Nov-21 A	◆ 21.4.16 Complete whole activities of this dost centre
21.4.16 Complete whole activities of this cost centre 21.5 Establishment Works for Improvement Works at the Ju	_	31-May-21	20-Nov-21	13-Nov-21 A	28-May-22	21.5 Establishment Works for Improvement:Works at the Junctions of:Cha Kwo Ling Road
21.5 .1 Complete establishment works for 3 mths completion of softworks	105	31-IVIdY-21	31-May-21	13-11UV-Z I A	28-May-22 13-Nov-21 A	
21.5 .3 Complete establishment works for 9 mths completion of softworks	0		20-Nov-21		28-May-22	
21.5 .4 Complete whole activities of this cost centre	0		20-Nov-21		28-May-22	
22.1 Pipelines for District Cooling System for Commissionii	7/1	17-Apr-21	16-Nov-21	13-Aug-21 A	30-Apr-22	▼ 22.1 Pipelines for District Cooling System for Commissioning of AMAWBC
22.1.1 Complete DCS installation length 0.2	0	17-Apr-21	17-Apr-21	13-Aug-21 A	13-Aug-21 A	4
22.1 .3 Complete DCS installation length 0.8	0		17 Apr 21		13-Jan-22 A	◆ 22.1.3 Complete DCS installation length 0.8
22.1 .5 Complete T&C of DCS system 1	0		16-Nov-21		30-Apr-22	◆ 22.1, 5 Complete; T&C of I
22.1.3 complete 1 ac of Des system 1	U		10-110V-Z I		3υ-π μ ι -22	▼ 22.1,3 Complete, Tace Q1
						Date Revision Checked Approved
Page 17 of 35	S	ummary		040/0	/ T	10 D 10 10014
Data Date: 29-Jan-22			 			IK ROAD 12 and initiastructure vvorks
♦ Actual Milestone Actual Work				fo	or Dev	relopments at South Apron BOUYGUES 109-Apr-20 01V1 SPa/LLo WYU 17 Jul 20 01V2 SPa/L o WYU
♦ ♦ Baseline Milestone						17-JUI-20 01V2 SPA/LLO WYU
Baseline Bar				Three	Month	hs Rolling Programme (Jan-22)

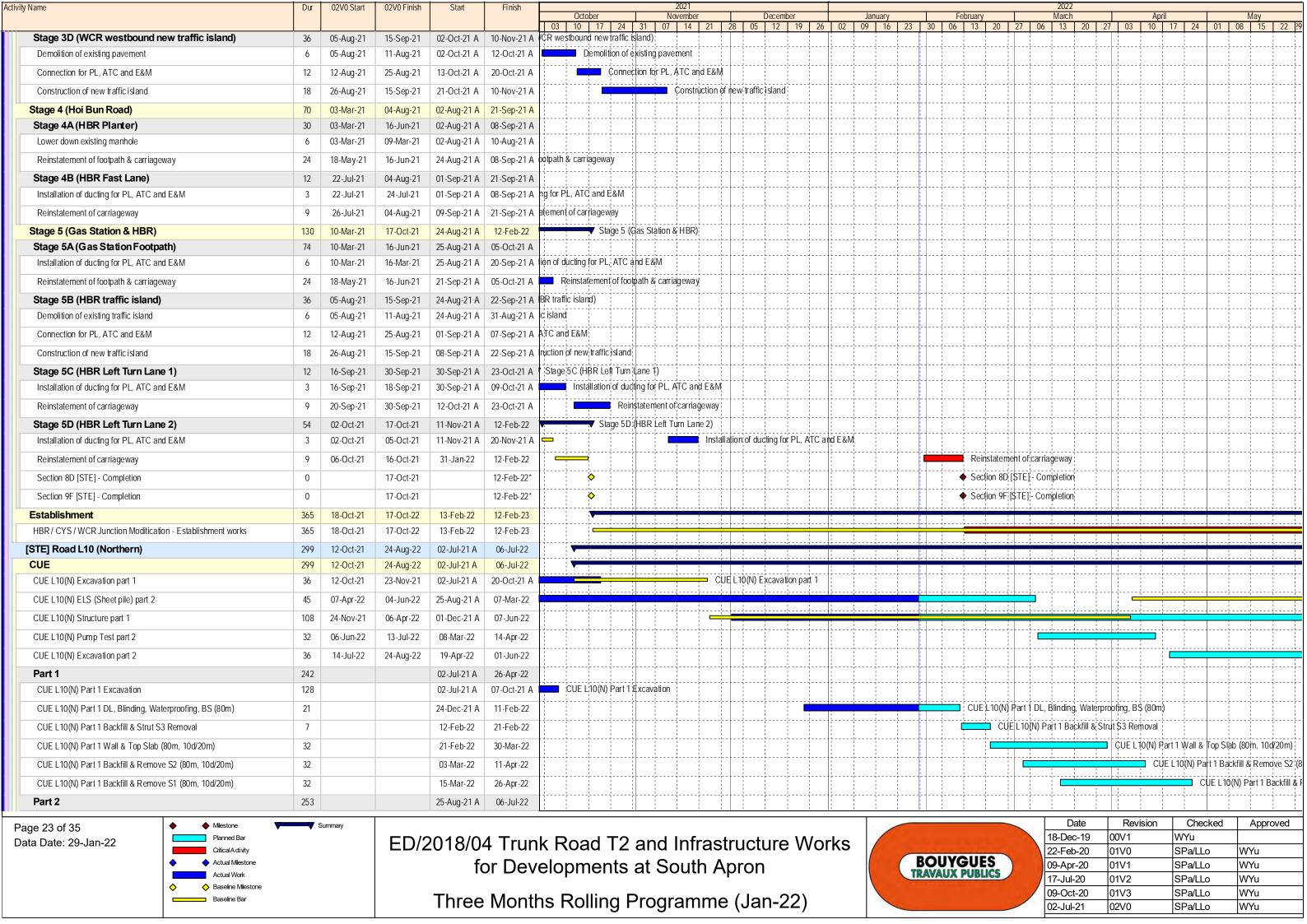


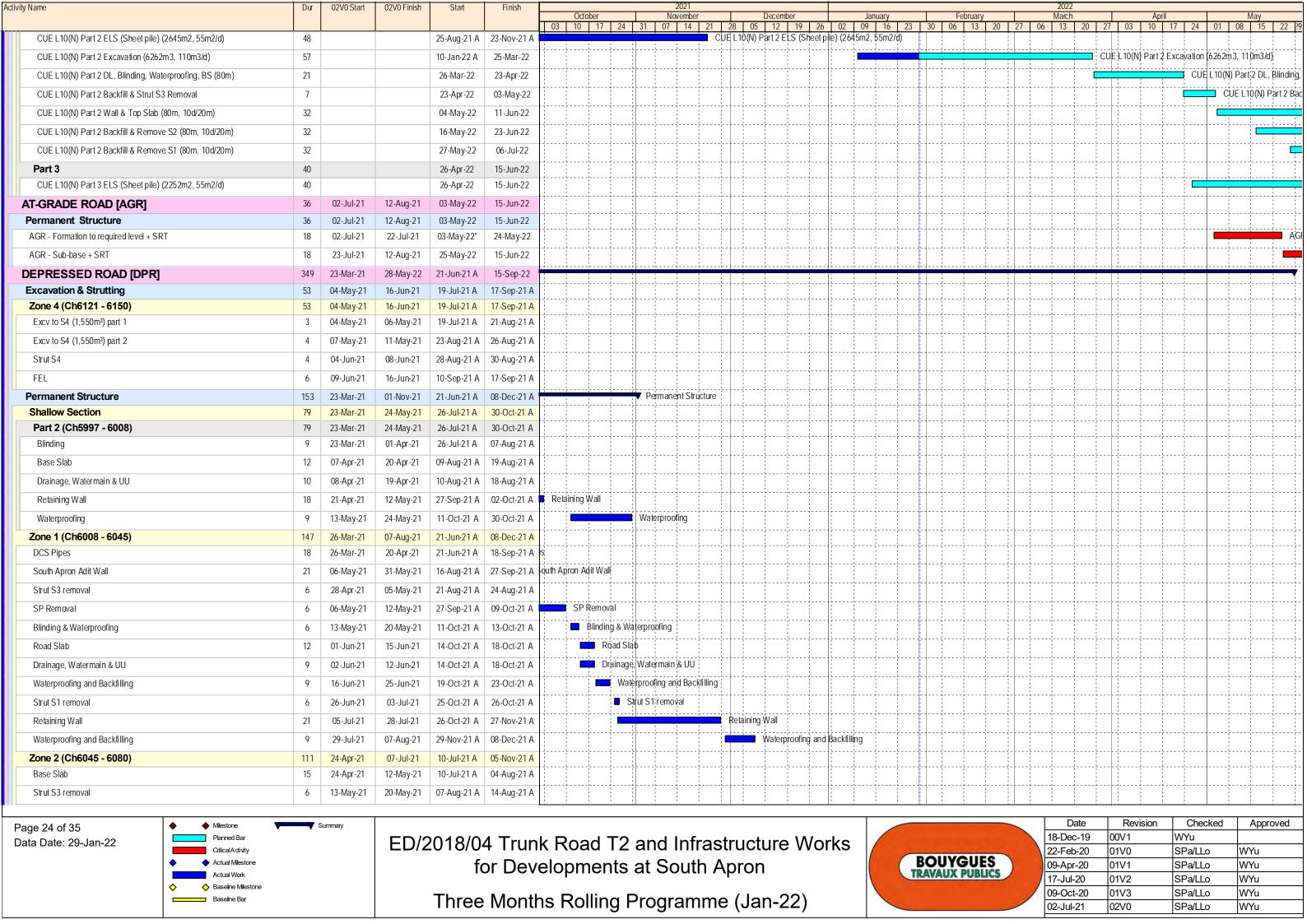


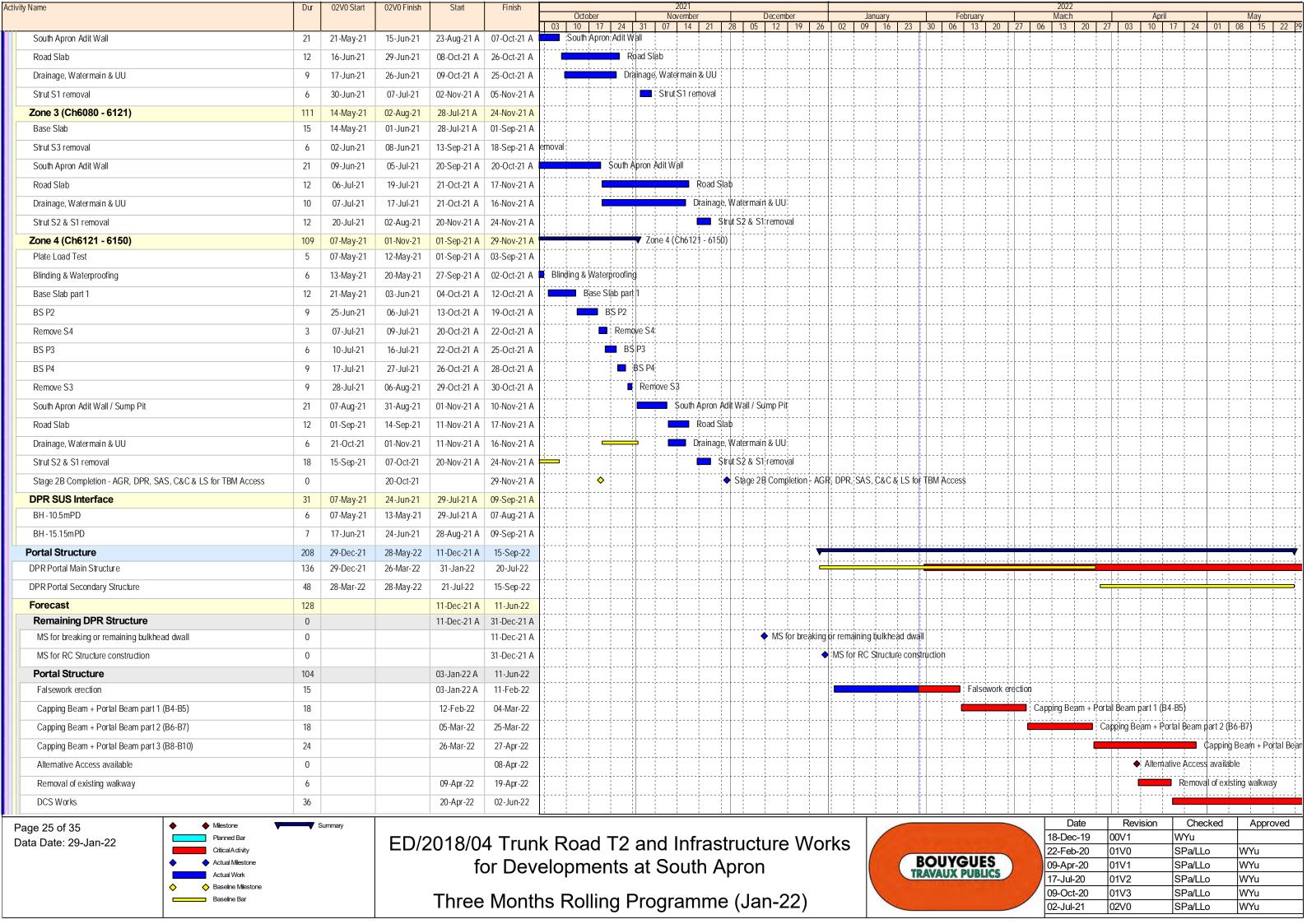






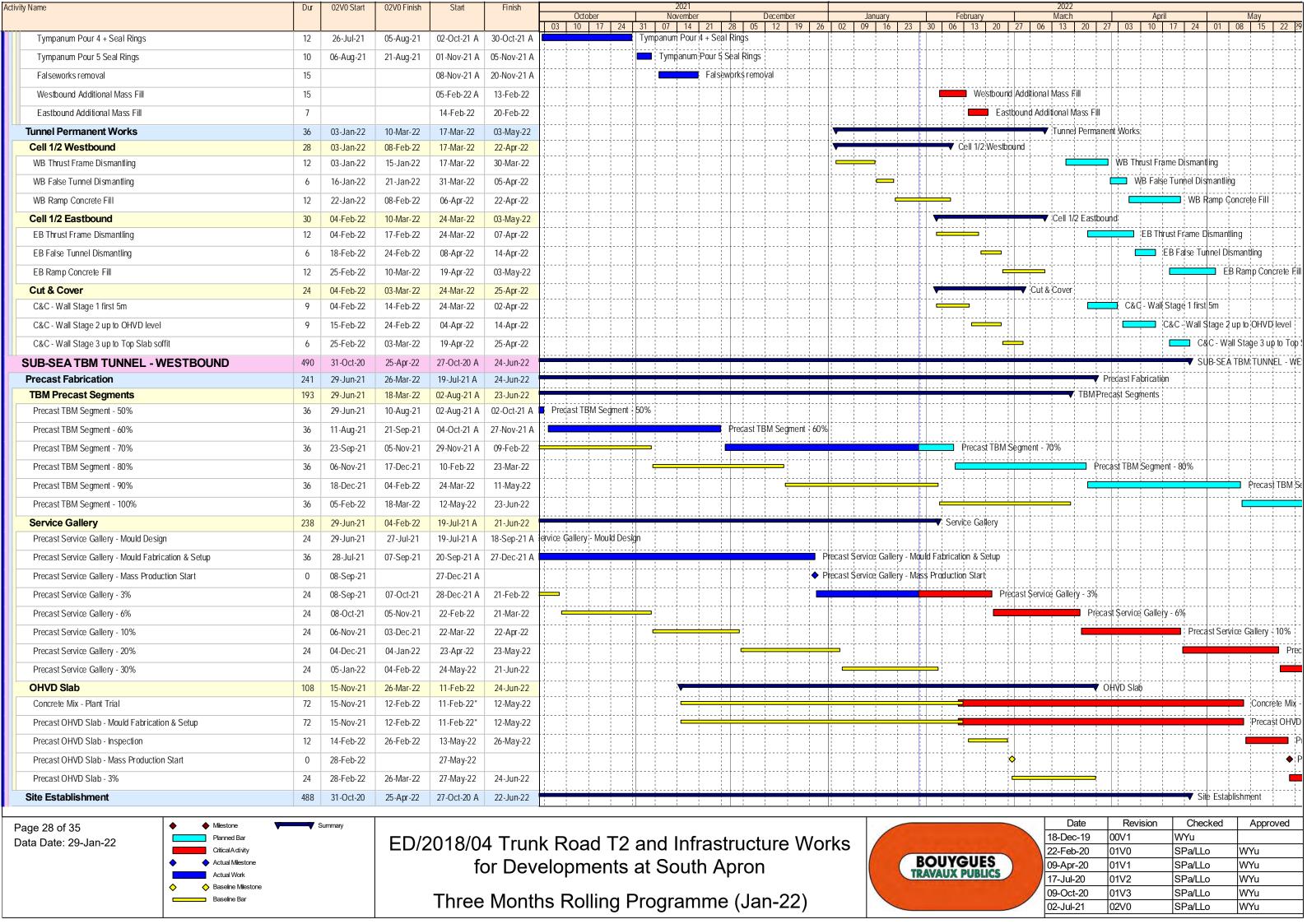




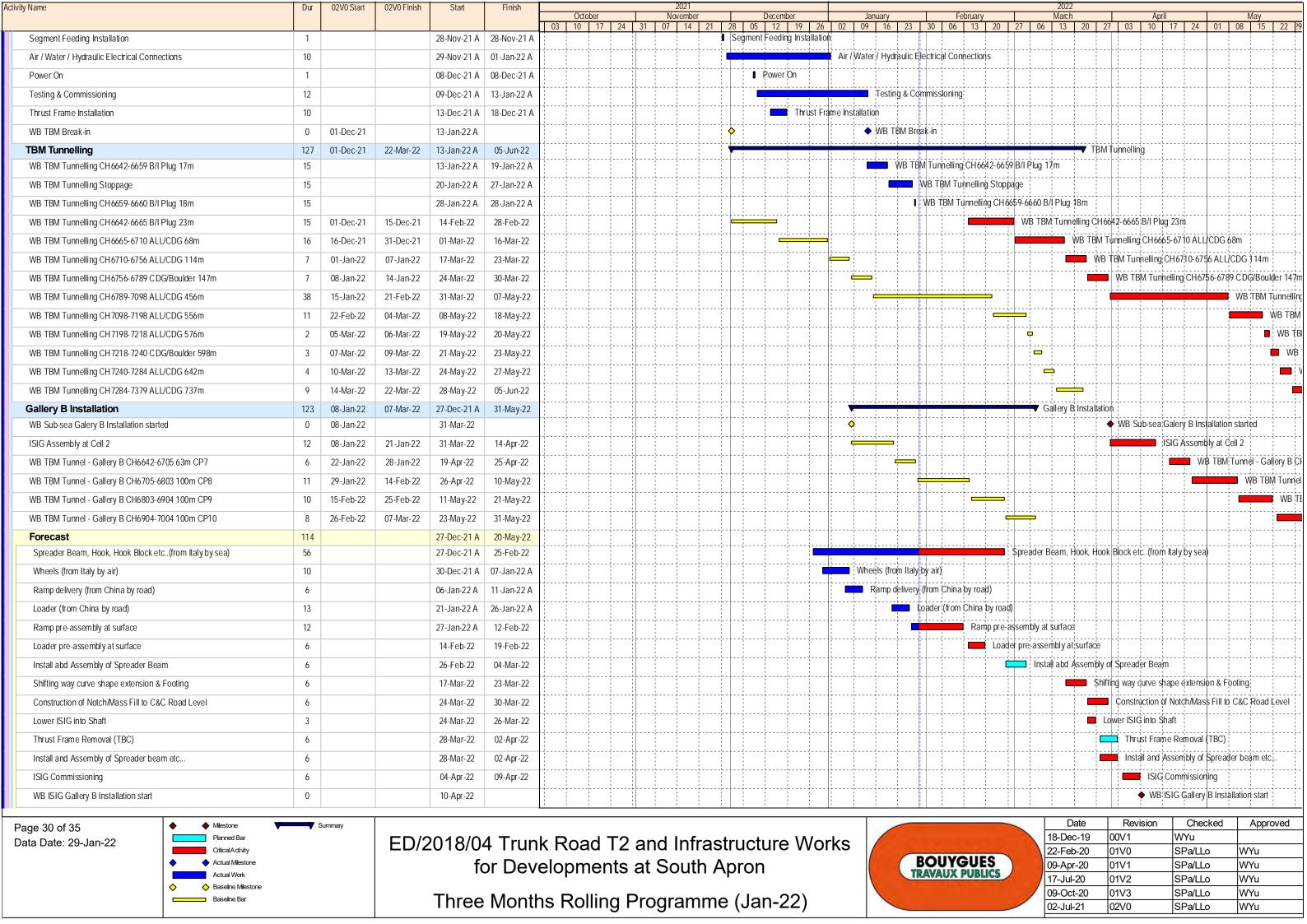


Activity Name	Dur	02V0 Start	02V0 Finish								Mov								
						October 03 10 17 24 31 0	November 7 14 21	December 28 05 12 19	26 0	January 2 09 16	23	30 06 13	20 2	27 06 13		03	April 10	17 24	May 01 08 15 22 29
Capping Beam + Portal Beam part (B11-12)	18			28-Apr-22	20-May-22													_	Cappin
Portal secondary structure - Wall part 1 (B4-B10)	9			28-Apr-22	10-May-22													+	Portal secondary
Portal secondary structure - Slab part 1 (B4-B10)	15			11-May-22	27-May-22														F
Portal secondary structure - Wall part 2 (B11-B12)	12			21-May-22	04-Jun-22														
Steel Portal Beam installation (B1-B3)	12			28-May-22	11-Jun-22														
WEST VENTILATION BUILDING [WVB]	285	21-May-21	26-Feb-22	21-Jun-21 A	20-Jun-22			1 1 1	: :	 	·		<u> </u>	WEST VENTIL	ATION BUILI	DING [M	/VB]		
ELS system & Foundation	117	21-May-21	19-Jul-21	21-Jun-21 A	20-Oct-21 A														
King Post	117	02-Jun-21	19-Jul-21	21-Jun-21 A	20-Oct-21 A		1 1 1												
Steel Platform Location	117	02-Jun-21			20-Oct-21 A														
KP Drilling (DP1 - DP6) 6 nos @ 3d/no	18	02-Jun-21		21-Jun-21 A															
KP Installation (DP1 - DP6) 6 nos @ 2d/no	18	05-Jun-21	26-Jun-21	05-Jul-21 A	14-Aug-21 A	D:													
Steel Deck Erection	18	28-Jun-21	19-Jul-21		20-Oct-21 A	\$teel Deck Erecti	on		.]							lj			
Wells Installation	15	21-May-21	08-Jul-21	26-Jul-21 A															
North Dispuise Well hestelleten (pee v 2 dec (7epe 2)	7	21-May-21	16-Jun-21	26-Jul-21 A	·	10.2)											ļļ.		
Pumping Well Installation - 6 nos x 2 rigs (Zone 3)	6	21-May-21	27-May-21														ļļ.		
Pumping Well Installation - 6 nos x 2 rigs (Zone 1)	6	01-Jun-21	07-Jun-21	-		nos x 2 rigs (Zone 1)											ļļ.		
Pumping Well Installation - 7 nos x 2 rigs (Zone 2)	7	08-Jun-21	16-Jun-21	30-Aug-21 A		h!- 7 nos x 2 rigs (Zone 2)										<u> </u>	įį.		
South	15	28-May-21	08-Jul-21	12-Aug-21 A															
Pumping Well Installation - 3 nos x 2 rigs (Zone 6)	3	28-May-21	31-May-21			Idn - 3 rlos x 2 rigs (Zone 6)													
Pumping Well Installation - 2 nos x 2 rigs (Zone 5)	2	07-Jul-21	08-Jul-21			s x 2 rigs (Zone 5)			.]										
Steel Platform Location	8	24-Jun-21		11-Aug-21 A				.											
Pumping Well Installation - 11 nos x 3 rigs (Zone 4)	8	24-Jun-21	03-Jul-21	-	18-Aug-21 A	rigs (Zone 4)													
Excavation & Strutting	140	09-Jul-21	11-Dec-21	06-Sep-21 A	23-Mar-22			Excavation	n & Struttir	ng									
Pumping Test	12	09-Jul-21	20-Jul-21	06-Sep-21 A		lest													
Excavation to below Strut S1 10,010m³	17	21-Jul-21	09-Aug-21	20-Sep-21 A			Excavation to	below Strut S1 10,010	m³										
Bulk Excavation Start	0	21-Jul-21		20-Sep-21 A		cavation Start													
Strut S1 Installation	20	26-Jul-21	17-Aug-21	30-Sep-21 A	16-Nov-21 A		Strut S1 I	nstallation								Li			
Strut S1 Pre-loading	2	18-Aug-21	19-Aug-21	17-Nov-21 A	18-Nov-21 A		■ Strut \$1	Pre-loading											
Excavation to below Strut S2 11,076m ³	18	20-Aug-21	09-Sep-21	19-Nov-21 A	07-Dec-21 A			Excavation to	below	ut \$2 11,076m	3								
Strut S2 Installation	20	26-Aug-21	17-Sep-21	29-Nov-21 A	16-Dec-21 A			Strut	S2 Installa	tion									
Strut S2 Pre-loading	2	18-Sep-21	20-Sep-21	17-Dec-21 A	18-Dec-21 A			■ Str	ut S2 Pre-l	oading									
Excavation to below Strut S3 11,905m ³	20	21-Sep-21	16-Oct-21	20-Dec-21 A	12-Jan-22 A	 				Excav		below Strut \$3 11,9	05m³			1			
Strut S3 Installation	24	28-Sep-21	22-Oct-21	03-Jan-22 A	19-Jan-22 A	 					\$trut S	3 Installation							
Strut S3 Pre-loading	2	23-Oct-21	25-Oct-21	20-Jan-22 A	21-Jan-22 A						Strut	S3 Pre-loading				1	i		
Excavation to below Strut S4 8,930m³	15	26-Oct-21	11-Nov-21	22-Jan-22 A	19-Feb-22		-							ation to below S	Strut S4 8,93	0 m ³			
Strut S4 Installation	20	30-Oct-21	22-Nov-21	31-Jan-22	25-Feb-22								\$	Strut S4 Installat	ion				
Strut S4 Pre-loading	2	23-Nov-21	24-Nov-21	26-Feb-22	28-Feb-22	 								Strut S4 Pre-l	oading				
Excavation to FEL 9,230m³	20	25-Nov-21	11-Dec-21	01-Mar-22	23-Mar-22			<u> </u>									o FEL 9,2	30m ³	
Building Structure	69	13-Dec-21	26-Feb-22	24-Mar-22	20-Jun-22									Building Structu			7/2		
WVB - Earth Mat Installation	24	13-Dec-21	31-Dec-21	24-Mar-22	25-Apr-22				<u> </u>						- Y		4	WVE	3 - Earth Mat Installation
WVB - Base Slab	45	03-Jan-22	26-Feb-22	26-Apr-22	20-Jun-22												-		
Forecast	64	541122		24-Mar-22	14-Jun-22												ļļ.		
WVB - Earth Mat Installation	24			24-Mar-22	25-Apr-22				· 							ļ.i	.i		3 - Earth Mat Installation
							<u> </u>		1 1	1 1	!		i	1 1	1 1	-	1 1		
Page 26 of 35 ♦ Milestone	Sı	ummary								10.00					Date	Rev	/ision	Check	ed Approved
Data Date: 29-Jan-22	•		FD/2	018/0 ₄	4 Trun	k Road T2 and	Infract	ructure V	V∩rk	S						00V1		WYu	
Critical A divity ◆ Actual Milestone			_0/2						4 OI IV			BOUVGUE	S	22-Fe		01V0		SPa/LLo	WYu
Actual Work				TC	or Dev	elopments at S	outh A	pron		V	T	BOUYGUE RAVAUX PUBL	CS	09-A 17-Ju		01V1 01V2		SPa/LLo SPa/LLo	WYu WYu
♦ Baseline Milestone Baseline Bar				These	112:21	aa Dalling Dras	ro 60 100 -	/ lan 00'						09-0		01V3		SPa/LLo	WYu
Daseirie Dari				rnree	ivionti	ns Rolling Prog	ramme	: (Jan-22 ₎)					02-Jı		02V0		SPa/LLo	WYu
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Activity Name	Dur	02V0 Start	02V0 Finish	Start	Finish	2021 2022
						October November December January February March April May 03 10 17 24 31 07 14 21 28 05 12 19 26 02 09 16 23 30 06 13 20 27 03 10 17 24 01 08 15 22 29
Base Slab Construction pour 1 + Strength gain (TC Location)	20			26-Apr-22	20-May-22	Base S
Tower Crane Erection	7			21-May-22	28-May-22	
Base Slab remaining construction	20			21-May-22	14-Jun-22	
Tower Crane Operation	0				28-May-22	│
SUPPORTING UNDERGROUND STRUCTURE [SUS	30	20-Oct-21	07-Dec-21	03-May-22	08-Jun-22	▼ SUPPORTING UNDERGROUND STRUCTURE [SUS]
Permanent Structure	30	20-Oct-21	07-Dec-21	03-May-22	08-Jun-22	▼ Permanent Structure
SUS - WB Partition Wall CH6150-6237	24	20-Oct-21	16-Nov-21	03-May-22*	31-May-22	
SUS - EB Partition Wall CH6150-6260	30	03-Nov-21	07-Dec-21	03-May-22*	08-Jun-22	
C&C TUNNEL / LAUNCHING SHAFT [C&C / LS]	246	20-May-21	10-Mar-22	08-Jun-21 A	03-May-22	▼:C&C T;UNNEL / LAUNCHING SHAFT [C&C / LS]
Delay Events	18	,			27-Aug-21 A	
C1-15 Zone 4 Pour 2 Remedial works	18				05-Aug-21 A	i====i===i===i===i===i===i===i===i===
C1-15 Zone 4 Pour 3 Remedial works	18			06-Aug-21 A	11-Aug-21 A	
C1-15 Strengthening Wall Strength Gain	18				15-Aug-21 A	
Cross Wall X1 Breaking	18			·	27-Aug-21 A	
	10	20 May 21	20 May 21			
Shaft Excavation & Strutting Cell 1	9	20-May-21 20-May-21	29-May-21 29-May-21	08-Jun-21 A	07-Aug-21 A 07-Aug-21 A	<u> </u>
Excavation (6,809 m³) to FEL -33.75mPD	9	20-May-21 20-May-21	29-May-21		07-Aug-21 A	<u> </u>
Civil Works for TBM Assembly	165	02-Jun-21	15-Oct-21	03-Jul-21 A	20-Feb-22	Civil Works for TBM Assembly
Cut & Cover	88	24-Jul-21	15-Oct-21		26-Oct-21 A	
Blinding & Waterproofing Pour 15	9	24-Jul-21	03-Aug-21	22-Jul-21 A		<u></u>
Base Slab Pour 5 [1,740m³)	30	04-Aug-21	07-Sep-21			→ Pour 5 [1,740m³)
C&C S5 & S6 Strut Removal	12	08-Sep-21	21-Sep-21		12-Oct-21 A	
	12		·	·		
WB SUS BH removal (145m² / 8.4m²/shift x 2 shift)	9	23-Sep-21	04-Oct-21		21-Oct-21 A	
EB SUS BH removal (145m² / 8.4m²/shift x 2 shift)	9	05-Oct-21	15-Oct-21		26-Oct-21 A	EB SUS BH removal (145m² / 8.4m²/shiff x 2 shiff)
Cell 1 & 2	165	02-Jun-21	09-Sep-21	03-Jul-21 A	20-Feb-22	
VSL Gantry Crane Setup	12	30-Jun-21	14-Jul-21	03-Jul-21 A	24-Aug-21 A	
Cell 1 & 2 Excavation completion	0		02-Jun-21		07-Aug-21 A	
VSL Gantry Crane Load Test	3	15-Jul-21	17-Jul-21	25-Aug-21 A	28-Aug-21 A	
Base Slab	118	03-Jun-21	09-Sep-21	29-Jul-21 A		
Base Slab Pour 1 [1,292m³)	22	18-Jun-21	14-Jul-21		21-Aug-21 A	
Plate Load Test	6	03-Jun-21	09-Jun-21	16-Aug-21 A	21-Aug-21 A	
Blinding & Waterproofing Pour 2	9	18-Jun-21	28-Jun-21	28-Aug-21 A	07-Sep-21 A	ofing Pour 2
Blinding & Waterproofing Pour 3 & 4	9	29-Jun-21	09-Jul-21	30-Aug-21 A	20-Sep-21 A) & Waterproofing Pour 3 & 4
Base Slab Pour 2 [883m³)	16	15-Jul-21	26-Jul-21	13-Sep-21 A	07-Oct-21 A	Base \$lab Pour 2 [883m³);
Base Slab Pour 3 & 4 [910m³)	17	27-Jul-21	04-Aug-21	27-Sep-21 A	16-Oct-21 A	Base Slab Pour 3 & 4 [910m³)
Temp. & Perm. Side Wall part 1	12	14-Aug-21	24-Aug-21	13-Oct-21 A	23-Oct-21 A	
Temp. & Perm. Side Wall part 2	6	03-Sep-21	09-Sep-21		13-Nov-21 A	
Tympanum	159	03-Jun-21	21-Aug-21	26-Jul-21 A	20-Feb-22	▋ ┊╌╌┊╌╌┊╌╌┊╌╌┊╌╌┊╌╌┊╌╌┊┤╌┊╌╌┊╌┊╌╴┊╌╌┆╌╌┆╌╌┆┼╌┆┼╌┆╌╌┆╌╌┆╌╌┆╌┈┆╌╌┆╌╌┆╌╌┆╌╌┆╌╌┆╌╌┆╌╌┆╌╌┆╌╌
Blinding & Waterproofing	9	03-Jun-21	12-Aug-21	26-Jul-21 A		
Tympanum Pour 1 + Seal Rings (353m³)	12	15-Jun-21	28-Jun-21		-	Rings [353m³)
Tympanum Pour 2 + Seal Rings	6	07-Jul-21	13-Jul-21	-		2 + Seal Rings
	2	01-Jul-∠ I	19-Jul-7 I	'	· .	
TYmpanum Mass Fill	3	44.1.6.	04.1.5		14-Sep-21 A	
Tympanum Pour 3 + Seal Rings	12	14-Jul-21	24-Jul-21	15-Sep-21 A	30-Sep-21 A	Tympanum Pour 3 + Seal Rings
D 07 605		Nummer:				Date Revision Checked Approved
Page 27 of 35 Page 27 of 35 Planed Bar	- S	Summary		004070	/ T	40 D 40 00044 1404
Data Date: 29-Jan-22						IK ROAD 12 and initiastructure vvorks
♦ Actual Milestone Actual Work				fo	or Dev	relopments at South Apron BOUYGUES 109-Apr-20 01V1 SPa/LLo WYu 17 Iul 20 04V2 SPa/L D WYU
Actual Work Baseline Miestone						17-Jul-20 01V2 SPa/LLO WYU
Baseline Bar				Three	Mont	hs Rolling Programme (Jan-22)
						, or our in the contract of th

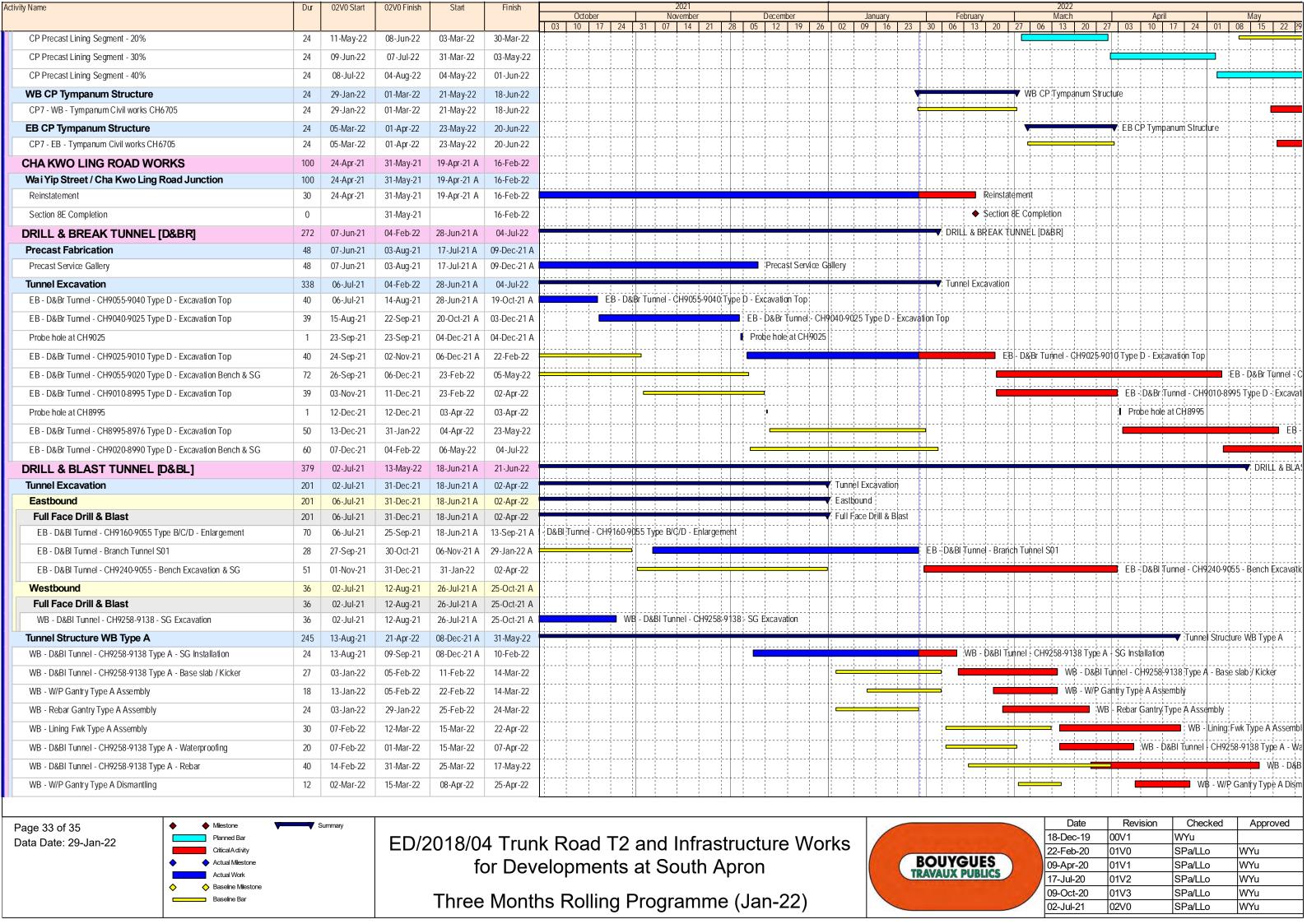


Activity Name	Dur	02V0 Start	02V0 Finish	Start	Finish	2021 2022 October November December January February March April May
Towns and OLD 42012/ Outpetetion	070	04.0.1.00	04 1 1 04	07.0.1.00.4	04.4.04.4	03 10 17 24 31 07 14 21 28 05 12 19 26 02 09 16 23 30 06 13 20 27 06 13 20 27 03 10 17 24 01 08 15 2
Temporary CLP 132kV Substation Temp CLP 132kV Substation - CLP Transformer Setup & Final Fix	278 192	31-Oct-20 31-Oct-20	31-Jul-21 26-Jun-21	27-Oct-20 A	-	up & Final Fix
Temp CLP 132kV Substation - FSD / WSD Inspection	24	28-Jun-21	26-Jul-21	03-Aug-21 A		lión - FSD / WSD Inspection
Temp CLP 132kV Substation - Power On	0		31-Jul-21			lión - Polwer Ori
Precast Elements Storage Yard	94	30-Nov-20	20-Jan-21	02-Aug-21 A		<u> </u>
Precast Storage - Delivery & Assembly	36	30-Nov-20	13-Jan-21	02-Aug-21 A		
Precast Storage - Commissioning & Load Test	6	14-Jan-21	20-Jan-21	08-Nov-21 A		
Gantry Crane Setup for TBM Assembly	239	01-Apr-21	25-Apr-22	28-Jun-21 A	22-Jun-22	▼ Gantry Crane Setup for T
Gantry Crane - Delivery & Assembly	36	01-Apr-21	18-May-21	28-Jun-21 A		
Gantry Crane - Commissioning & Load Test	6	20-May-21	26-May-21	-		, hg & Loạd Test
Gantry Crane - Dismantling	48	24-Feb-22	25-Apr-22	25-Apr-22	22-Jun-22	
Slurry Treatment Plant	159	04-Mar-21	10-Sep-21		30-Nov-21 A	
Slurry Treatment Plant - Civil works	36	04-Mar-21	19-Apr-21		04-Sep-21 A	
Slurry Treatment Plant - Delivery & Assembly	24	20-Apr-21	18-May-21			reatment Plant - Delivery & Assembly
Slurry Treatment Plant - Installation	48	20-May-21	16-Jul-21	20-May-21 A	25-Oct-21 A	
Slurry Treatment Plant - Commissioning	24	17-Jul-21	13-Aug-21	11-Oct-21 A	30-Nov-21 A	Slurry Treatment Plant - Commissioning
Slurry Treatment Plant - CNP Application	24	14-Aug-21	10-Sep-21	15-Nov-21 A	30-Nov-21 A	Slurry Treatment Plant - CNP Application
Mortar Plant	106	18-Jan-21	02-Jun-21	15-Jul-21 A	12-Jan-22 A	
Mortar Plant - Civil works	36	18-Jan-21	04-Mar-21	15-Jul-21 A	18-Sep-21 A	. ant - Civil works
Mortar Plant - Installation	48	04-Mar-21	04-May-21	02-Aug-21 A	25-Sep-21 A	rtar Plant - Installation
Mortar Plant - Commissioning	24	05-May-21	02-Jun-21	27-Sep-21 A	12-Jan-22 A	
DG Store / Medical Lock	156	01-Dec-20	27-Oct-21	01-Dec-20 A	23-Dec-21 A	DG Store / Medical Lock
Hyperbaric Intervention - LD consultation & Approval	144	01-Dec-20	31-May-21	01-Dec-20 A	06-Sep-21 A	on - LD consultation & Approval
DG Store / Medical Lock Installation	48	02-Aug-21	27-Sep-21	07-Sep-21 A	23-Dec-21 A	
DG Store / Medical Lock - FSD Approval	24	28-Sep-21	27-Oct-21	15-Nov-21 A	29-Nov-21 A	DG Store / Medical Lock - F\$D Approval
TBMAssembly	130	01-Dec-21	01-Dec-21	30-Aug-21 A	13-Jan-22 A	▼ TBM Assembly
Lifting S5/S6/S4/Cross Beam	3			30-Aug-21 A	01-Sep-21 A	, eam
Main Drive with displacement Cylinder	4			02-Sep-21 A	04-Sep-21 A	ement Cylinder
Lifting S3/S7/S2/S8 & S1 Installation	5			05-Sep-21 A	11-Sep-21 A	S8 & S I Insta(lation
Shield Bolts torquing & Interior Shiled Joint Welding	8			12-Sep-21 A	01-Oct-21 A	Shield Bolts forquing & Inferior Shiled Joint Welding
Cutterhead Installation	1				02-Oct-21 A	
Cutterhead Connection to Shield	12				12-Oct-21 A	
Shield Shifting	2				14-Oct-21 A	
1st Shifting of TBM	2			14-Oct-21 A		
	2				17-Oct-21 A	
Erector Preparation & Installation						
Final Shield Joint Welding	5				21-Oct-21 A	
Installation Welding Plate on Top S1	2			22-Oct-21 A		
Lifting & Welding of Tailskin to Shield	26			22-Oct-21 A		
Gantry Rail Wall Installation	9			01-Nov-21 A		Gantry Rail Wall Installation
Gantry 4 Assembly	3			18-Nov-21 A		
Gantry 3 Assembly	3			20-Nov-21 A	21-Nov-21 A	■ Gantry 3 Assembly
Gantry 2 Assembly	3			22-Nov-21 A	23-Nov-21 A	■ Gantry 2 Assembly
Gantry 1 Assembly	3			26-Nov-21 A	27-Nov-21 A	■ Gantry 1 Assembly
Page 29 of 35 ♦ Milestone ▼	s	Summary		!		Date Revision Checked Approve
Data Date: 29-Jan-22	•	-	FD/2	018/n	4 Trun	ok Road T2 and Infrastructure Works
Critical A ctivity ◆ Actual Milestone						1/2-FEU-20 101VU 13F8/110 1VVIU
Actual Work				10	or Dev	/elopments at South Apron BOUYGUES 17-Jul-20 01V1 SPa/LLo WYu 17-Jul-20 01V2 SPa/LLo WYu
♦ Baseline Milestone				TL	N / a	17-3d-20 01/2 01-2d-2
Baseline Bar				ınree	ivionti	ths Rolling Programme (Jan-22)
l						

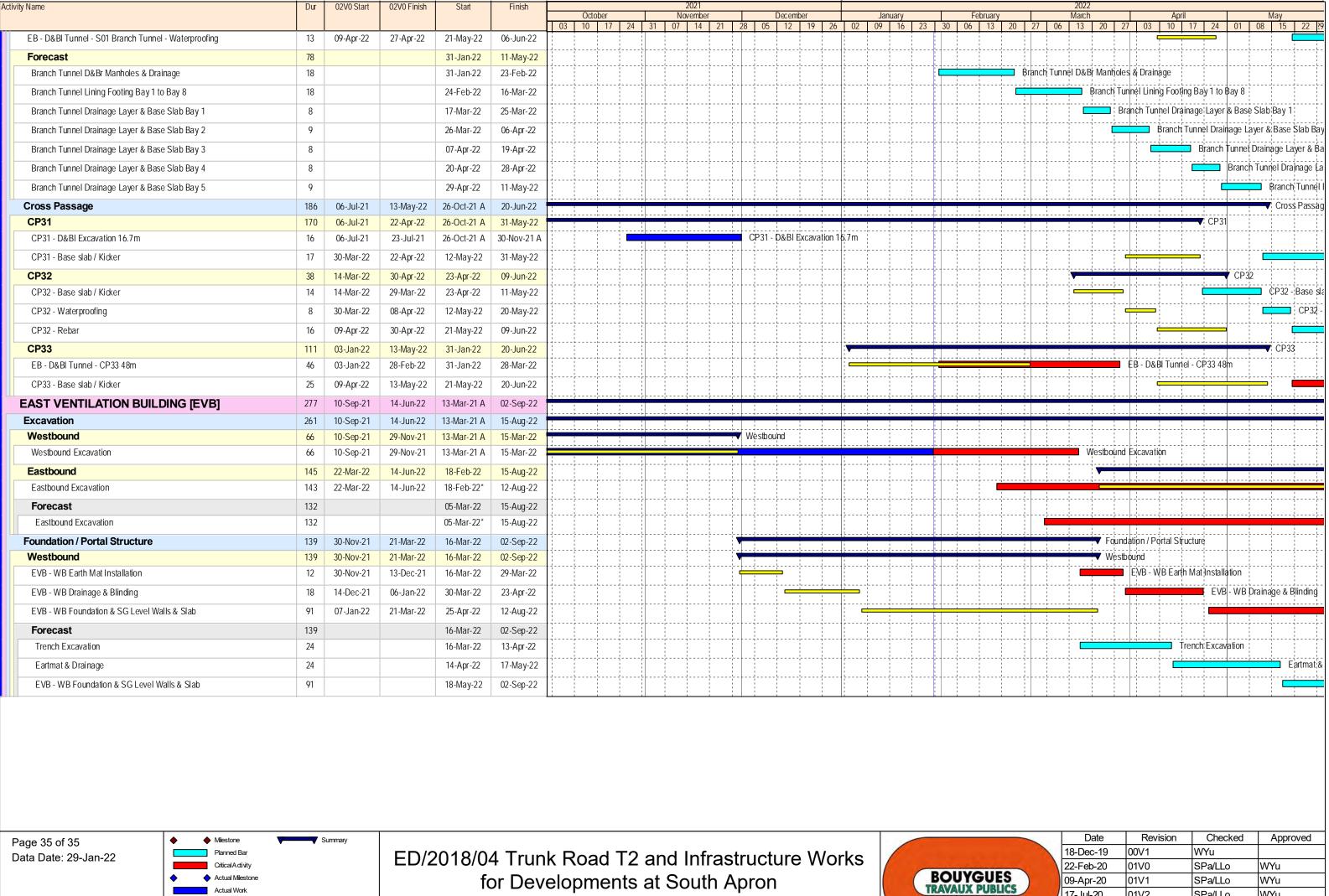


Activity Name	Dur	02V0 Start	02V0 Finish	Start	Finish	2021 2022 October November December January February March April May
						03 10 17 24 31 07 14 21 28 05 12 19 26 02 09 16 23 30 06 13 20 27 06 13 20 27 03 10 17 24 01 08 15 22
Gallery G-W1 to W5 by crawler crane @ 1 no/d	2			11-Apr-22	12-Apr-22	
Gallery EMVD installation by crawler crane	1			13-Apr-22	13-Apr-22	
Gallery G-W6 to G-W12 installation by ISIG @ 3nos/d	2			14-Apr-22	19-Apr-22	Gallery G-W6 to G-W12 installation
Gallery B installation inside FT @ 6nos/d	1			20-Apr-22	20-Apr-22	■ Gallery B installation inside FT @
Steel Bridge Installation	1			21-Apr-22	21-Apr-22	I Steel Bridge Installation
WB Sub-sea Galery B Installation started	0			22-Apr-22		◆ WB Sub-sea Galery B Installatio
WB Gallery B CH6642-6742 100m @4nos/day	13			22-Apr-22	07-May-22	WB Gallery B CH
WB Gallery B CH6742-6855 113m @6nos/day	10			10-May-22	20-May-22	WB Ç
SUB-SEA TBM TUNNEL - EASTBOUND	197	19-Aug-21	08-Apr-22	06-Sep-21 A	06-Jun-22	SUB-SEA TBM TUNNEL - EASTBOUND
TBMAssembly	113	19-Aug-21	19-Aug-21	06-Sep-21 A	20-Feb-22	
EB TBM 2nd Delivery	0		19-Aug-21		06-Sep-21 A	A V :
Lifting S5/S6/S4/Cross Beam	3			15-Sep-21 A	18-Sep-21 A	A S6/S4/Cross Beam
Main Drive with displacement Cylinder	4			22-Sep-21 A	25-Sep-21 A	A In Drive with displacement Cylinder
Lifting S3/S7/S2/S8 & S1 Installation	6			27-Sep-21 A	12-Oct-21 A	A Lifting S3/S7/S2/S8 & S1 Installation
Shield Bolts torquing & Interior Shiled Joint Welding	8			13-Oct-21 A	21-Oct-21 A	A Shield Bolts forquing & Interior Shiled Joint Welding
Cutterhead Installation	1			26-Oct-21 A	26-Oct-21 A	A Cutterhead Installation
Cutterhead Connection to Shield	12			27-Oct-21 A	28-Oct-21 A	A Cutterhead Connection to Shield
Shield Shifting	2			29-Oct-21 A	29-Oct-21 A	A Shield Shifting
Erector Preparation & Installation	4			30-Oct-21 A	01-Nov-21 A	A Erector Preparation & Installation
Final Shield Joint Welding	5				04-Nov-21 A	
Installation Welding Plate on Top S1	2				06-Nov-21 A	
Lifting & Welding of Tailskin to Shield	28				18-Nov-21 A	
Gantry Rail Wall Installation C&C/SUS	10				29-Nov-21 A	
Lifting & Welding of Tailskin to Shield						
	28				13-Dec-21 A	
Gantry Rail Wall Installation Cell 2	5				13-Dec-21 A	<u> </u>
Shifting of TBM to B/I Location	2				15-Dec-21 A	
Lifting & Welding of Tailskin to Shield	28				06-Jan-22 A	
Gantry 4 Assembly	2				16-Dec-21 A	
Gantry 3 Assembly	2				17-Dec-21 A	
Gantry 2 Assembly	2				20-Dec-21 A	
Air / Water / Hydraulic Electrical Connections	10			20-Dec-21 A	06-Jan-22 A	Air / Water / Hydraulic Electrical Connections Testing & Commissioning
Testing & Commissioning	12			26-Dec-21 A	20-Feb-22	Testing & Commissioning
Segment Feeding Installation	1			27-Dec-21 A	28-Dec-21 A	
Gantry 1 Assembly	3			29-Dec-21 A	29-Dec-21 A	
Thrust Frame Installation	10			30-Dec-21 A	06-Jan-22 A	Thrust Frame Installation
Power On	1			07-Jan-22 A	07-Jan-22 A	
S1282 EB TBM Break-in	0				20-Feb-22	♦ S1282 EB TBM Break-in
TBM Tunnelling	100	03-Jan-22	08-Apr-22	21-Feb-22	31-May-22	2 ▼ TBM:Tunnelling
EB TBM Tunnelling CH6640-6665 B/I Plug 25m	16	03-Jan-22	18-Jan-22	21-Feb-22	08-Mar-22	EB TBM Tunnelling CH6640-6665 B/I Plug 25m
EB TBM Tunnelling CH6665-6710 ALL/CDG 70m	15	19-Jan-22	02-Feb-22	09-Mar-22	23-Mar-22	EB TBM Tunnelling CH6665-6710 ALL/CDG 70m
EB TBM Tunnelling CH6710-6756 ALL/CDG 116m	7	03-Feb-22	09-Feb-22	24-Mar-22	30-Mar-22	
EB TBM Tunnelling CH6756-6789 CDG/Boulder 149m	7	10-Feb-22	16-Feb-22	31-Mar-22	06-Apr-22	EB TBM Tunnelling CH6756-6789 CDG/Bould
Page 31 of 35 ♦ Milestone ▼		Summary				Date Revision Checked Approved
Data Date: 29-Jan-22	•	,	ED/2	n18/0	1 Trun	nk Road T2 and Infrastructure Works
CriticalA divity ♦ Actual Milestone						1/2-Fe0-20 101VU 13F8/110 1VVIII
Actual Work				10	or Dev	velopments at South Apron BOUYGUES 17-Jul-20 01V1 SPa/LLo WYu 17-Jul-20 01V2 SPa/LLo WYu
♦ Baseline Milestone Baseline Bar				These	1/2:-1	00.0 + 00 00.0
Baseine Bar				ınree	IVIONT	ths Rolling Programme (Jan-22)
<u> </u>						

Activity Name	Dur 02V0 St		02V0 Finish	Start	Finish	2021	December	lanuaru	January February March April May							
						October November 03 10 17 24 31 07 14 21	December 28 05 12 19 26	January 02 09 16	February 23 30 06 13 20 27 06	13 20 27	7 03 10 17 24 01	May 08 15 22 29				
EB TBM Tunnelling CH6789-7098 ALL/CDG 458m	38	17-Feb-22	26-Mar-22	07-Apr-22	14-May-22			i i i ! ! ! ! ! ! ! !				EB TBM Tun				
EB TBM Tunnelling CH7098-7198 ALL/CDG 558m	11	27-Mar-22	06-Apr-22	19-May-22	29-May-22											
EB TBM Tunnelling CH7198-7218 ALL/CDG 578m	2	07-Apr-22	08-Apr-22	30-May-22	31-May-22							•				
Gallery B Installation	127	10-Feb-22	04-Apr-22	28-Jan-22 A	06-Jun-22				V		Gallery B Installation					
EB Sub-sea Galery B Installation started	0	10-Feb-22		07-Apr-22					♦		◆ EB Sub-sea Galery B Inst	allation started				
ISIG Assembly at Cell 2	12	10-Feb-22	23-Feb-22	07-Apr-22	23-Apr-22			<u> </u>			ISIG Asse	mbly at Cell 2:				
EB TBM Tunnel - Gallery B CH6642-6705 63m CP7	8	24-Feb-22	04-Mar-22	25-Apr-22	04-May-22					<u> </u>		EB TBM Tunnel - Gall				
EB TBM Tunnel - Gallery B CH6705-6803 100m CP8	10	05-Mar-22	16-Mar-22	05-May-22	17-May-22					_	_	EB TBM T				
EB TBM Tunnel - Gallery B CH6803-6904 100m CP9	9	17-Mar-22	26-Mar-22	18-May-22	27-May-22							E				
EB TBM Tunnel - Gallery B CH6904-7004 100m CP10	7	28-Mar-22	04-Apr-22	28-May-22	06-Jun-22											
Forecast	147			28-Jan-22 A	22-May-22											
Spreader Beam, Hook, Hook Block etc(from Italy by sea)	56			28-Jan-22 A	01-Mar-22				Spread	er Beam, Hook, H	ook Block etc. (from Italy by sea)					
Front Ramp (from China by road)	9			11-Feb-22*	19-Feb-22				Front Ramp (fro	n China by road)						
Mild and Rear Ramp + Loader (from China by road)	9			14-Feb-22*	22-Feb-22				Mild and Rea	r Ramp + Loader (from China by road)					
Ramp pre-assembly at surface	10			27-Mar-22	05-Apr-22						Ramp pre-assembly at surf	ace				
Shifting way curve shape extension & Footing	6			05-Apr-22	10-Apr-22						Shifting way curve sha	pe extension & Footin				
Loader pre-asembly	5			06-Apr-22	10-Apr-22					ii	Loader pre-asembly					
Construction of Notch/Mass Fill to C&C Road Level	6			11-Apr-22	16-Apr-22			; ;			Construction of N	Notch/Mass Fill to C&C				
Lower ISIG into Shaft	2			11-Apr-22	12-Apr-22					†	Lower I\$IG into Sha	it				
Thrust Frame Removal (TBC)	6			11-Apr-22	16-Apr-22						Thrust Frame Re	moval (TBC)				
Install and Assembly of Spreader beam etc	6			13-Apr-22	18-Apr-22						Install and Ass	embly of Spreader bea				
ISIG Commissioning	6			19-Apr-22	24-Apr-22						ISIG Com	nmissioning				
EB ISIG Gallery B Installation start	0			25-Apr-22	'			}		 		Gallery B Installation s				
Gallery G-E1 to E5 by crawler crane @ 1 no/d	2			25-Apr-22	26-Apr-22						[3]	G-E1 to E5 by crawler				
Gallery EMVD installation by crawler	1			27-Apr-22	27-Apr-22							EMVD installation by				
Gallery G-E6 to G-E12 installation by ISIG @ 3nos/d	3			28-Apr-22	30-Apr-22							lery G-E6 to G-E12 ins				
Gallery B installation inside FT @ 6nos/d	2			01-May-22	03-May-22			; 			Liiiiiii	Gallery B installation in:				
	1			04-May-22	03-May-22							Steel Bridge Installation				
Steel Bridge Installation	11			·	,											
EB Gallery B CH6642-6742 100m @4nos/day	11			05-May-22	15-May-22					ļļļ		EB Gallery E				
EB Gallery B CH6742-6855 113m @6nos/day	/			16-May-22	22-May-22							EB G				
SUB-SEA TUNNEL CROSS PASSAGE (CP7-CP27a	144	31-Jul-21	04-Aug-22	10-May-21 A	20-Jun-22						NA Design / Febrication / FAT / De	Brong				
CP TBM Design / Fabrication / FAT / Delivery Fabrication / Refurbishment	144	31-Jul-21 31-Jul-21	22-Mar-22 21-Jan-22	10-May-21 A 10-May-21 A	31-Mar-22 31-Jan-22				Fabrication / Refurbishment		M Design / Fabrication / FAT / De	hvery				
FAT	24		22-Feb-22	_	03-Mar-22				- Land Carlotty Try Crarbis, Inch.							
	24	22-Jan-22		04-Feb-22					TAI		Delivery of TBM components to	the Sith				
Delivery of TBM components to the Site	120	23-Feb-22	22-Mar-22	04-Mar-22	31-Mar-22	<u> </u>				1 1 1		uic Jiic				
CP Precast Lining Fabrication Concrete Mix - Plant Trial	120	26-Nov-21 26-Nov-21	04-Aug-22 14-Jan-22	26-Oct-21 A	01-Jun-22 29-Nov-21 A			: Co	ncrete Mix - Plant Trial							
CP Precast Lining Segment - Mould Fabrication & Setup	24	15-Jan-22	15-Feb-22	30-Nov-21 A		·		the state of the state of	CP Precast Lining S	egment - Mould Fa	abrication & Setup	. -				
CP Precast Lining Segment - Mound Fabrication & Setup CP Precast Lining Segment - Master Ring Erection & Inspection	۷4	16-Feb-22	22-Feb-22		16-Dec-21 A					1 1 1	aster Ring Erection & Inspection					
	10								CF Fletdst L	4 4						
CP Precast Lining Segment - 3%	18	23-Feb-22	15-Mar-22		15-Jan-22 A			 			Lining Segment - 3%	At 40/				
CP Precast Lining Segment - 6%	18	16-Mar-22	06-Apr-22	17-Jan-22 A	29-Jan-22 A						CP Precast Lining Segme					
CP Precast Lining Segment - 10%	24	07-Apr-22	10-May-22	31-Jan-22	02-Mar-22					<u> </u>		CP Precast Linin				
D 00 105		Summary						<u> </u>		Date	Revision Checked	Approved				
Page 32 of 35 Data Date: 29-Jan-22		0040/0	1 Truc	k Dood TO and Infra-	truotura \^/a=	lko 🛮			00V1 WYu	, ipproved						
CriticalActivity						k Road T2 and Infras		KS /	PALIVALIES	22-Feb-20 (01V0 SPa/LLo	WYu				
♦ Actual Milestone Actual Work				fo	or Dev	elopments at South <i>A</i>	pron				01V1 SPa/LLo 01V2 SPa/LLo	WYu WYu				
♦ Baseline Milestone				-		D III	()				01V2 SPa/LL0 01V3 SPa/LL0	WYu				
Baseline Bar				Three	Month	ns Rolling Programme	e (Jan-22)		02-Jul-21 02V0 SPa/LLo WYu							
								<u> </u>								



Activity Name	Dur 02V0 Start		02V0 Finish	Start	Finish	2021 October November December			lar	2022 January February March April May						
WD DRDI Turnel CHOSE 0430 Turn A Lining Charles						03 10 17 24					3 30 06 13 20 27		27 03 10 17	24 01	08 15 22 29	
WB - D&BI Tunnel - CH9258-9138 Type A - Lining Structure	30	14-Mar-22	21-Apr-22	23-Apr-22	30-May-22				<u> </u>					<u></u>		
WB - OHVD Slab Fwk Type A Assembly	30	14-Mar-22	21-Apr-22	23-Apr-22	30-May-22					ļļ						
WB - Rebar Gantry Type A Dismantling	12	01-Apr-22	19-Apr-22	18-May-22	31-May-22											
Forecast	185			21-Jan-22 A	15-Mar-22					ļ <u>i</u>						
WB - Rock Plug Excavation	36			21-Jan-22 A	21-Feb-22							Plug Excavation				
WB Access available	0			22-Feb-22							◆ WB Acces	1 1				
WB - CP side Lining Footing	9			22-Feb-22	03-Mar-22				<u> </u>	<u> </u>		/B - CP side Lining F		<u></u>		
WB - CP side Drainage Layer & Pavement Slabs	10			04-Mar-22	15-Mar-22						-	WB - CP s	de Drainage Layer & F	Pavement Slat	S	
Tunnel Structure EB Type A	222	06-Dec-21	06-Apr-22	05-Jan-22 A	02-Jun-22					j			▼ Tunnel Struc	1 1 7 1	i i i i	
EB - D&Bl Tunnel - CH9240-9170 Type A - SG Installation	24	06-Dec-21	05-Jan-22	11-Feb-22	10-Mar-22							EB - D&Bl Tunr	iel - CH9240-9170 Typ	pę A - SG Insta	llation	
EB - D&Bl Tunnel - CH9170-9110 Type A - SG Installation	24	06-Jan-22	05-Feb-22	11-Mar-22	08-Apr-22								EB - D&Bl	Tunnel - CH91	70-9110 Type A - \$C	
EB - D&Bl Tunnel - CH9240-9139 Type A - Base slab / Kicker	30	07-Feb-22	12-Mar-22	15-Mar-22	22-Apr-22							_	1 1	EB - D&BIT	unnel - CH9240-9139	
EB - W/P Gantry Type A Assembly	18	16-Mar-22	06-Apr-22	13-May-22	02-Jun-22											
Forecast	218			05-Jan-22 A	08-Apr-22					j						
Blast Door	218			05-Jan-22 A	31-Mar-22											
East Bound New Blast Door Installation	12			05-Jan-22 A	15-Feb-22					1		Blast Door Installati				
East Bound New Blast Door CNP Application	16			16-Feb-22	05-Mar-22							East Bound New Bla	nst Door CNP Applicati	on		
Removal of old Blast Door	22			07-Mar-22	31-Mar-22								Removal of old Bla	ast Door		
Earth Mat	214			24-Jan-22 A	01-Mar-22]						
EB - Earth Mat drilling	12			24-Jan-22 A	19-Feb-22						EB - Earth N	at drilling				
EB - Earth Mat Installation & Testing	8			21-Feb-22	01-Mar-22						EB	- Earth Mat Installati	on & Testing			
Vertical Blinding	20			02-Mar-22	24-Mar-22											
EB - Type A vertical blinding Bay 1 Ch9140-9155	5			02-Mar-22	07-Mar-22							EB - Type A vertic	al blinding Bay 1 Ch91	40-9155		
EB - Type A vertical blinding Bay 2 Ch9155-9170	3			08-Mar-22	10-Mar-22							EB - Type A ver	tical blinding Bay 2 Ch	19155-9170		
EB - Type A vertical blinding Bay 3 Ch9170-9185	3			11-Mar-22	14-Mar-22								vertical blinding Bay 3			
EB - Type A vertical blinding Bay 4 Ch9185-9200	3			15-Mar-22	17-Mar-22				; :			EB - Typ	e A vertical blinding Ba	ay 4 Ch 9185-9	200	
EB - Type A vertical blinding Bay 5 Ch9200-9215	3			18-Mar-22	21-Mar-22				}			EB-	Type A vertical blinding	Bay 5 Ch920	0-9215	
EB - Type A vertical blinding Bay 6 Ch9215-9233	3			22-Mar-22	24-Mar-22							□ EE	3 - Type A vertical blind	ding Bay 6 Ch	215-9233	
SG Installation	27			08-Mar-22	08-Apr-22											
EB - Type A SG Installation Bay 1 Ch9140-9155	4			08-Mar-22	11-Mar-22							EB - Type A So	G Installation Bay 1 Ch	9140-9155		
EB - Type A SG Installation Bay 2 Ch9155-9170	4			12-Mar-22	16-Mar-22							EB - Type	A \$G Installation Bay	2 Ch9155-917	0	
EB - Type A SG Installation Bay 3 Ch9170-9185	4			17-Mar-22	21-Mar-22							EB-	Type A SG Installation	Bay 3 Ch9170	J-9185	
EB - Type A SG Installation Bay 4 Ch9185-9200	4			22-Mar-22	25-Mar-22				ļ	ļ			B - Type A SG Installa	tion Bay 4 Ch	185-9200	
EB - Type A SG Installation Bay 5 Ch9200-9215	4			26-Mar-22	30-Mar-22				<u> </u>				1	stallation Bay 5	Ch9200-9215	
EB - Type A SG Installation Bay 6 Ch9215-9233	7			31-Mar-22	08-Apr-22			ļ	ļ <u>i</u>	ļ				1	on Bay 6 Ch9215-923	
Tunnel Structure EB Type C	57	07-Feb-22	14-Apr-22	09-Apr-22	21-Jun-22									el Structure E		
EB - D&Bl Tunnel - CH9110-9055 Type C - SG Installation	24	07-Feb-22	05-Mar-22	09-Apr-22	12-May-22					ļ			▼ Tullin	- Caractaro E	EB - D&Bl Tun	
EB - D&Bl Tunnel - CH9139-9088 Type C - Base slab / Kicker	33	07-Mar-22	14-Apr-22	13-May-22	21-Jun-22								+			
EB - W/P Gantry Type C Assembly	30	07-Mar-22	11-Apr-22	13-May-22	17-Jun-22			ļ	ļ	ļ						
Tunnel Structure S01 Branch Tunnel	106	14-Mar-22	06-May-22	31-Jan-22	17-Jun-22				<u> </u>	ļ				<u> </u>	Tunnel Structure \$0	
EB - D&Bl Tunnel - S01 Branch Tunnel - Base Slab & Kicker	22	14-Mar-22	08-Apr-22	23-Apr-22	20-May-22									<u></u>	EB - D8	
EB - W/P Gantry S01 Branch Tunnel Assembly	18	14-Mar-22	02-Apr-22	23-Apr-22	16-May-22					ļļ					EB-W/PG	
EB - Rebar Gantry S01 Branch Tunnel Assembly	24	04-Apr-22	06-May-22	17-May-22	14-Jun-22											
LD - Nevai Gainty So i Bianth Funite Assembly	24	υ 4- Αμι -22	00-1VIA Y-22	11-IVIay-22	14-Juil-22											
Page 34 of 35 ♦ Milestone ▼	-	Summary										Date	Revision	Checked	Approved	
Data Date: 29-Jan-22			FD/2	018/04	4 Trun	k Road T2	and Infrast	ructure Woi	ks					/Yu	1407	
Critical A di vity ♦ Actual Milestone						k Road T2 and Infrastructure Works elopments at South Apron					BOUYGUES			Pa/LLo Pa/LLo	WYu WYu	
Actual Work		10	ט וע וע	eiopinenis a	at South A	ριστι		17-Jul-20 01V2 SPa/LLo WYu								
♦ Baseline Milestone Baseline Bar			Throo	Manti	ne Pallina D	rogramma	(lan 22)		09-Oct-20 01V3 SPa/LLo WYu							
5400 10 541			111166	IVIUITU	is Ruilling P	iograffiffe	(Jaii-22)		02-Jul-21 02V0 SPa/LLo WYu							
		Three Months Rolling Programme (Jan-22)							02-Jul-21 02V0 SPA/LLO WYU							



Three Months Rolling Programme (Jan-22)

| BOUYGUES | 10-Dec-19 | 00V1 | W1U | 22-Feb-20 | 01V0 | SPa/LLo | WYu | 09-Apr-20 | 01V1 | SPa/LLo | WYu | 17-Jul-20 | 01V2 | SPa/LLo | WYu | 09-Oct-20 | 01V3 | SPa/LLo | WYu | 02-Jul-21 | 02V0 | 02-Jul-21 | 02