PARTICULAR SPECIFICATION

APPENDIX B

SCHEDULE OF KEY DATES

1.0 PROGRAMMING AND PLANNING

1.1 KEY DATES

The Contractor shall ensure that the key dates in Schedule B1 are adhered to strictly so as not to impede the works of the Interfacing Contractors and all other parties affected by the Works.

The key dates in Schedule B1 and B4 shall be incorporated in the preparation of the Co-ordinated Installation Programme (CIP).

1.2 MILESTONES FOR MOCK UPS

The Contractor shall provide milestone dates for mock ups, procurement, delivery, installation and inspections of all necessary items for the timely completion of the Works and to be accepted by the Engineer.

1.3 BASIC STRUCTURE COMPLETION – TUNNELS

Basic Structure Completion shall constitute the following:

1.3.1 All reinforced concrete structures completed and area is clean, dry and watertight. This includes backfilling above cut & cover tunnels.

1.3.2 Falsework and Temporary Works removed.

1.3.3 Temporary sump pumps and all pipe works including discharge pipe connections to surface in place.

1.3.4 Temporary lighting and power in place.

1.3.5 Temporary power for temporary tunnel ventilation fans in place.

1.3.6 All cable brackets and first stage concrete completed.

1.3.7 Finalisation of alignment and wriggle survey completed and ready for SWC to access.

1.3.8 Cross passages completed including installation of doors.

1.3.9 Escape shafts completed to threshold level and made safe against flooding including installation of doors.

1.3.10 Ventilation shafts are to be completed to threshold level and made safe against flooding.

1.4 BASIC STRUCTURE COMPLETION – Station

Basic Structure Completion shall constitute the following:

1.4.1 All reinforced concrete structures completed to threshold level and made safe against flooding; and area is clean, dry and weatherproof. Roof openings where required for equipment delivery including ventilation shafts and the likes are to be similarly completed to threshold level and made safe against flooding.

1.4.2 Underplatform level, utility ducts, cable shafts and basements completed and watertight. The area clear of all obstructions, debris and water.

1.4.3 Earthmats installed and tested.

1.4.4 Waterproofing and screeding to plant rooms (where required) completed.

1.4.5 Partition walls completed except those to be constructed after SWC plant delivery.

1.4.6 Trenches, plinths, penetrations, access openings, grooves for concealed conduits, holding down anchors as per SWC requirement completed.

1.4.7 All cast-in items installed including items required for SWC plant.

1.4.8 All cast-in lifting facilities installed and tested.

1.4.9 Falsework and Temporary Works removed.

1.4.10 Temporary sump pumps and all pipe works including discharge pipe connections to surface in place.

1.4.11 Temporary lighting, power and ventilation in place.

1.4.12 Areas accessible for SWC installation and all routes to station/rooms available and free from obstructions.

1.4.13 The trainway is clean, dry and watertight. There is a direct and safe man-access through the station to the trainway. All trainway cable brackets and first stage concrete completed.

1.5 BASIC STRUCTURE COMPLETION – Entrance

Basic Structure Completion shall constitute the following:

1.5.1 All reinforced concrete structures completed to threshold level and made safe against flooding; and area is clean, dry and weatherproof.

1.5.2 All cast-in items installed including items required for SWC plant.

1.5.3 All cast-in lifting facilities installed and tested.

1.5.4 Falsework and Temporary Works removed.

1.5.5 Temporary sump pumps and all pipe works including discharge pipe connections to surface in place.

1.5.6 Temporary lighting, power and ventilation in place.

1.5.7 Areas accessible for SWC installation and all routes to station/rooms available and free from obstructions.

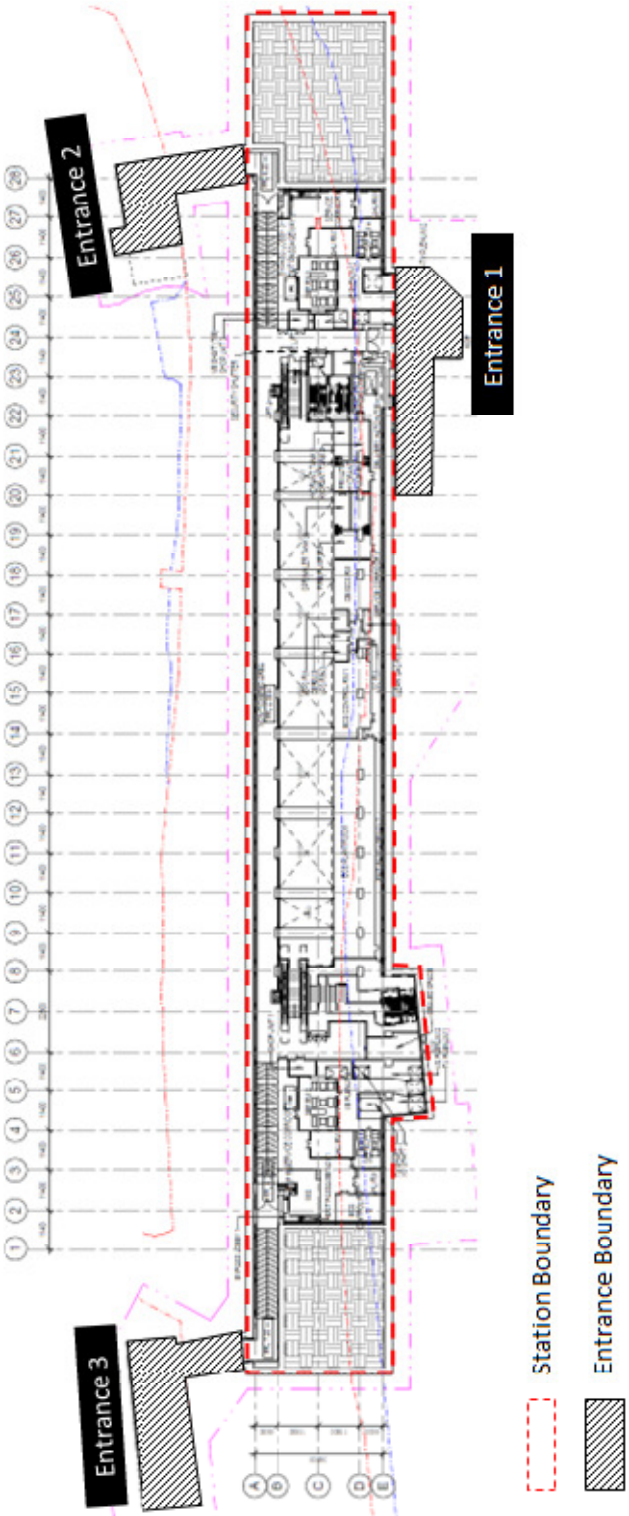
SCHEDULE B1 – KEY DATES

Description	Date
SITE POSSESSION	
1) Worksite Area A	1 March 2024
2) Worksite Area C	15 June 2026
DESIGN SUBMISSION	
1) Preliminary Design Submission	30 April 2024
2) Pre-Final Design Submission	30 September 2024
3) Pre-Final Design CCSM Submission	28 February 2025
4) Final Design Submission	30 April 2025
5) Final Design CCSM/SEM Submission	30 September 2025
6) Updated Final Design CCSM/SEM Submission	31 August 2026
7) Contract Drawings and Specification Delivery	30 October 2026
SECTIONAL COMPLETION	
1) Basic Structure Completion – Tunnel	1 October 2029
2) Basic Structure Completion – Station	30 October 2029
3) Basic Structure Completion – Entrances	
A. Entrance 1	30 October 2029
B. Entrance 2	30 March 2030
C. Entrance 3	30 October 2029
4) Category A Rooms Degree 1 Finishes	30 November 2029

SCHEDULE B1 – KEY DATES (Cont'd)

Description	Date
INTERFACE KEY DATES	
Interface with CR205	
1) Work site access arrangement signed-off of ground improvement works for CR206 TBMs	30 November 2024
2) CR205 allow access to CR206 at CR205/CR206 interface area for tunnel breakthrough	30 October 2028
Interface with CR207	
1) Work site access arrangement signed-off of ground improvement works for CR207 TBMs	30 December 2024
2) CR206 allow access to CR207 at CR206/CR207 interface area for tunnel breakthrough	30 October 2028
Water-On	30 March 2031
Completion of the whole of the Works	30 June 2032

DEMARCATION OF STATION AND ENTRANCES BOUNDARY



SCHEDULE B2 – CUT-OFF DATES FOR EXCHANGE OF INFORMATION DURING DESIGN INTERFACE

			Cut-off Dates for Civil Contracts								
Civil Contracts / A&A			CR211	CR210	CR209	CR208	CR207	CR206	CR205	CR203	CR202
			CR19	Intake Sub-station	CR18	CR17		CR16	CR15	CR14	FB04
			Cut-off Dates for Design Submission Dates for Stations and Tunnels								
		Preliminary Design	30/10/24 (Wed)	30/9/24 (Mon)	28/2/24 (Wed)	30/1/24 (Tue)	30/10/24 (Wed)	30/3/24 (Sat)	30/1/24 (Tue)	30/9/24 (Mon)	30/6/23 (Fri)
		Pre-final Design	31/3/25 (Mon)	28/2/25 (Fri)	30/7/24 (Tue)	1/7/24 (Mon)	31/3/25 (Mon)	30/8/24 (Fri)	1/7/24 (Mon)	28/2/25 (Fri)	30/11/23 (Thu)
		Final Design	30/10/25 (Thu)	30/9/25 (Tue)	28/2/25 (Fri)	30/1/25 (Thu)	30/10/25 (Thu)	31/3/25 (Mon)	30/1/25 (Thu)	30/9/25 (Tue)	1/7/24 (Mon)
			Cut-off Dates for CCSM & CCSM/SEM Submission Dates for Stations and Tunnels								
		Pre-Final Design	30/7/25 (Wed)	30/6/25 (Mon)	30/11/24 (Sat)	30/10/24 (Wed)	30/7/25 (Wed)	30/12/24 (Mon)	30/10/24 (Wed)	30/6/25 (Mon)	30/3/24 (Sat)
		Final Design	28/2/26 (Sat)	30/1/26 (Fri)	30/6/25 (Mon)	30/5/25 (Fri)	28/2/26 (Sat)	30/7/25 (Wed)	30/5/25 (Fri)	30/1/26 (Fri)	30/10/24 (Wed)
		Updated Final Design	30/10/26 (Fri)	30/9/26 (Wed)	30/5/26 (Sat)	30/4/26 (Thu)	30/10/26 (Fri)	30/6/26 (Tue)	30/4/26 (Thu)	30/9/26 (Wed)	30/6/25 (Mon)
TBA	**Design and Construction of PSC and SMR**		**Cut-off Dates for CCSM/SEM Submission Dates for Stations**								
		Updated Final Design	1/10/29 (Mon)	NA	30/5/29 (Wed)	30/6/29 (Sat)	NA	30/6/29 (Sat)	30/6/29 (Sat)	30/4/29 (Mon)	NA

Note:

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1 Where a date falls on a Public Holiday, it shall be taken to mean the next working day.

2 The above diagram is to identify design dates for the respective stations and tunnels. It shall not be taken to represent the Civil Contracts' boundary.

3 Illustration of the above chart

Pre-final Design Cut-off Date under CR17 station and associated tunnels (i.e. CR17) is on 01/07/24.

4 For interfacing System-Wide Contractors (SWC) that comes on board later, the Contractor shall follow their respective system design dates and interface with consultants or LTA for the development of their Interface Documents submissions. These submissions shall be re-coordinated and updated upon the award of the respective contractors with accordance to the dates indicated for the relevant SWC.

5 Not Used

SCHEDULE B3 – KEY DATES FOR DESIGN SUBMISSION

			Submission Dates for Civil Contracts								
Civil Contracts / A&A			CR211	CR210	CR209	CR208	CR207	CR206	CR205	CR203	CR202
				CR19	Intake Sub-station	CR18	CR17		CR16	CR15	CR14	FB04
			Design Submission Dates for Design Submission Dates for Stations and Tunnels								
		Preliminary Design	30/11/24 (Sat)	30/10/24 (Wed)	30/3/24 (Sat)	28/2/24 (Wed)	30/11/24 (Sat)	30/4/24 (Tue)	28/2/24 (Wed)	30/10/24 (Wed)	31/7/23 (Mon)
		Pre-final Design	30/4/25 (Wed)	31/3/25 (Mon)	30/8/24 (Fri)	30/7/24 (Tue)	30/4/25 (Wed)	30/9/24 (Mon)	30/7/24 (Tue)	31/3/25 (Mon)	30/12/23 (Sat)
		Final Design	1/12/25 (Mon)	30/10/25 (Thu)	31/3/25 (Mon)	28/2/25 (Fri)	1/12/25 (Mon)	30/4/25 (Wed)	28/2/25 (Fri)	30/10/25 (Thu)	30/7/24 (Tue)
			Submission Dates for CCSM & CCSM/SEM Submission Dates for Stations and Tunnels								
		Pre-Final Design	30/9/25 (Tue)	30/8/25 (Sat)	30/1/25 (Thu)	30/12/24 (Mon)	30/9/25 (Tue)	28/2/25 (Fri)	30/12/24 (Mon)	30/8/25 (Sat)	30/5/24 (Thu)
		Final Design	30/4/26 (Thu)	30/3/26 (Mon)	30/8/25 (Sat)	30/7/25 (Wed)	30/4/26 (Thu)	30/9/25 (Tue)	30/7/25 (Wed)	30/3/26 (Mon)	30/12/24 (Mon)
		Updated Final Design	30/12/26 (Wed)	30/11/26 (Mon)	30/7/26 (Thu)	30/6/26 (Tue)	30/12/26 (Wed)	31/8/26 (Mon)	30/6/26 (Tue)	30/11/26 (Mon)	30/8/25 (Sat)
TBA	**Design and Construction of PSC and SMR**		**CCSM/SEM Submission Dates for Stations**								
		Updated Final Design	30/11/29 (Fri)	NA	30/7/29 (Mon)	30/8/29 (Thu)	NA	30/8/29 (Thu)	30/8/29 (Thu)	30/6/29 (Sat)	NA

Note:

1 Where a date falls on a Public Holiday, it shall be taken to mean the next working day.

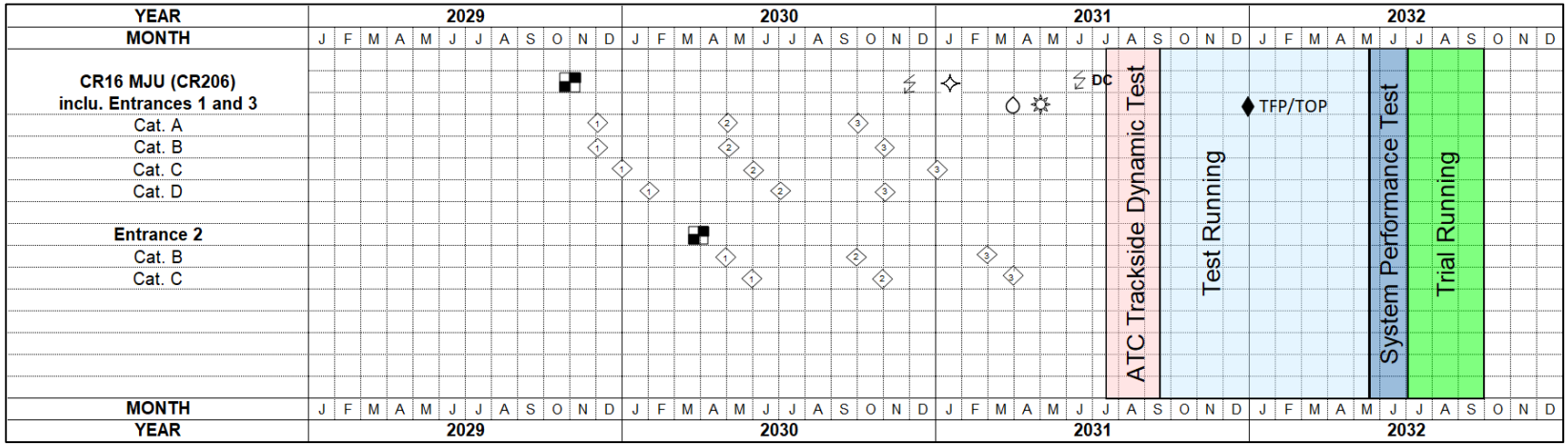
2 The above diagram is to identify design dates for the respective stations and tunnels. It shall not be taken to represent the Civil Contracts' boundary.

3 Illustration of the above chart
Pre-final Design Submission under CR17 station and associated tunnels (i.e. CR17) is on 30/07/24.

4 For interfacing System-Wide Contractors (SWC) that comes on board later, the Contractor shall follow their respective system design dates and interface with consultants or LTA for the development of their Interface Documents submissions. These submissions shall be re-coordinated and updated upon the award of the respective contractors with accordance to the dates indicated for the relevant SWC.

5 Not Used

SCHEDULE B4 – DEGREE FINISH DATES
CROSS ISLAND LINE PHASE 2



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Legends:

- Basic Structure Completion
- 22kV & Main LV Power On
  (LV Power to SWC's MCC/Isolator is approximately 1 month after this date)
- Completion of Communications Backbone Network & Telephone System (CBN)
- Water On
- DC DC Power On
- Completion of Radio System
- Degree 1 Finish
- Degree 2 Finish
- Degree 3 Finish
- Commencement of TFP/TOP inspection

Note:

1. All dates shall be read either as 15/Month/Year or 30/Month/Year (except for February which shall be read as 28/Feb/Year) as indicated by symbols. Where a date falls on a Sunday or a Public Holiday, it shall be taken to mean the next working day.
2. SWC access to the respective facility building/station is at the earliest Degree 1 Finish date.
3. The CBN indicates ability of OCC / BOCC to communicate with the stations.
4. SWC's major equipment that are delivered through the delivery shaft in the facility building/station shall be delivered within 3 months of Cat A Degree 1 Finish Date. After which, Civil Contractor shall commence closure of the access shaft.
5. The detailed boundaries between Station and Entrances/Exits shall be co-ordinated and agreed with the interfacing contractors.

SCHEDULE B4 – DEGREE FINISHES

Type of Room	Designated SWC	Degree 1 Finish	Degree 2 Finish	Degree 3 Finish
Category A 22kV Switch Room Traction Transformer Room Traction Power Sub-station Service Transformer Room Tie Breaker Room LV Switch Room Includes cable chambers, passageways and corridors adjacent to these rooms and the associated battery rooms should the batteries be housed in separate rooms.	 CR153 CR153 CR153 CR153 CR153 TBA	**Completion of the following:** **Civil** 1. Floor finishes 2. Installation of permanent doors with lock 3. 1st coat of paint	**Completion of the following:** **Civil** 1. 2nd coat of paint **SWC except for the designated SWC** 2. Installation of all first and second fix items	**Completion of the following:** **Civil** 1. Final coat of painting **SWC** 2. All works including site testing* **All** 3. Final cleaning and sealing of all openings

* denotes inclusion of testing with temporary power and, to the extent available, with permanent power.

SCHEDULE B4 – DEGREE FINISHES

Type of Room	Designated SWC	Degree 1 Finish	Degree 2 Finish	Degree 3 Finish
Category B Communication Equipment Room/ Integrated Supervisory Control System Room Signal Equipment Room Environmental Control System Control Room Local Sequential Control Room Tunnel Ventilation Fan Room Fan Room Uninterruptible Power Supplies Room Distribution Board Room Emergency Switchboard Room Includes passageways and corridors adjacent to these rooms and the associated battery rooms should the batteries be housed in separate rooms	 CR160 CR152 TBA TBA TBA TBA TBA TBA TBA	**Completion of the following:** **Civil** 1. Floor finishes except raised floor 2. Installation of temporary doors with lock 3. 1st coat of paint	**Completion of the following:** **Civil** 1. 2nd coat of paint 2. Raised floor **SWC except for the designated SWC** 3. Installation of all first fix items	**Completion of the following:** **Civil** 1. Installation of permanent doors with lock 2. Final coat of paint **SWC** 3. All works including site testing* **All** 4. Final cleaning and sealing of all openings

* denotes inclusion of testing with temporary power and, to the extent available, with permanent power.

SCHEDULE B4 – DEGREE FINISHES

Type of Room	Degree 1 Finish	Degree 2 Finish	Degree 3 Finish
Category C Air Handling Unit Room Clean Gas Room Cooling Tower Enclosure Cooling Tower Pump Room Drainage Pump / Sump Pump Room Ejector Pump Room Emergency Power Supply Room Environmental Control System Plant Room Escalator Machine Room / Control Panel Closet Fare Equipment Room Fire Hydrant Pump Room Fire Pump / Sprinkler Pump Room Fuel Tank Room Fuel Pump Room Generator Room Lift Motor Room / Lift Shaft Main Distribution Frame Room Seepage Water Holding Tank Sprinkler Water Tank Smoke Extract Fan Room Telecommunication Equipment Room Under Platform Exhaust Fan Room Includes passageways and corridors adjacent to these rooms and the associated battery rooms should the batteries be housed in separate rooms	**Completion of the following:** **Civil** 1. Floor finishes 2. Installation of temporary doors with lock 3. 1st coat of paint 4. Steel / Concrete structure	**Completion of the following:** **Civil** 1. 2nd coat of paint 2. Installation of glass panels for glass lift shaft **SWC** 3. Installation of all first fix items	**Completion of the following:** **Civil** 1. Installation of permanent doors with lock 2. Final coat of paint **SWC** 3. All works including site testing* **All** 4. Final cleaning and sealing of all openings

* denotes inclusion of testing with temporary power and, to the extent available, with permanent power.

SCHEDULE B4 – DEGREE FINISHES

Type of Room	Degree 1 Finish	Degree 2 Finish	Degree 3 Finish
Category D Passenger Service Centre Station Master Room	**Completion of the following:** 1. Structure	**Completion of the following:** 1. Installation of all first fix items except table top equipment 2. Floor finishes 3. Wall finishes 4. Installation of glass panels 5. Installation of permanent doors with lock 6. Installation of furniture	**Completion of the following:** 1. Ceiling finishes 2. Installation of all second fix items including table top equipment

Notes:

1. If rooms of different categories are combined into one, the combined room shall be re-categorised according to the earlier category. For example, if Category A and Category B rooms were combined, the combined room shall be re-categorised as Category A room.

2. First fix items include all equipment, grilles, louvres, conduits, cable trays, trunking, junction boxes, knockout boxes, pipework, ducting, insulation, wiring, cabling and the like.

3. Second fix items include socket outlets, switches, sprinkler heads, detectors, light fittings, speakers, diffusers and the like.

4. Temporary door shall be 45mm thick hollow core flush door without painting and mounted on permanent door frame grouted in.

5. The order for completion of the work specified within each Degree shall be co-ordinated among the System-wide Contractors (SWC) in the development of the Co-ordinated Installation Programme (CIP).

6. Installation of removable panels shall be carried out immediately after the respective major equipment delivery.

7. For the purpose of CIP co-ordination and development, underplatform level shall be classified as Category A. Cabling work and equipment installation shall be identified in the CIP and Baseline Programme.

SCHEDULE B5 – TRACK RELATED INSTALLATION PROGRAMME CROSS ISLAND LINE PHASE 2

The schedule B5 indicates the access that is allocated to the respective SWC for tunnel related installation. The schedule shall be read in accordance with the following:

1. Access to tunnel for installation of temporary tunnel ventilation system and communications system is 1 month prior to the access for trackwork installation. The work shall be completed within this period.

2. CR155 and CR168 shall utilise 2 days and 1 day respectively for each week of access allocated to CR161, CR155 and CR168. Details shall be co-ordinated among the three parties.

3. Access for the delivery of PSD through the tunnels (up to 6 nights per bound, at each station) will be at the discretion of the Engineer.

4. The Environmental Control Services (ECS) Contractor will be provided with 1 works train with 2 flat wagons (1 week per bound) for the removal of temporary tunnel ventilation system.

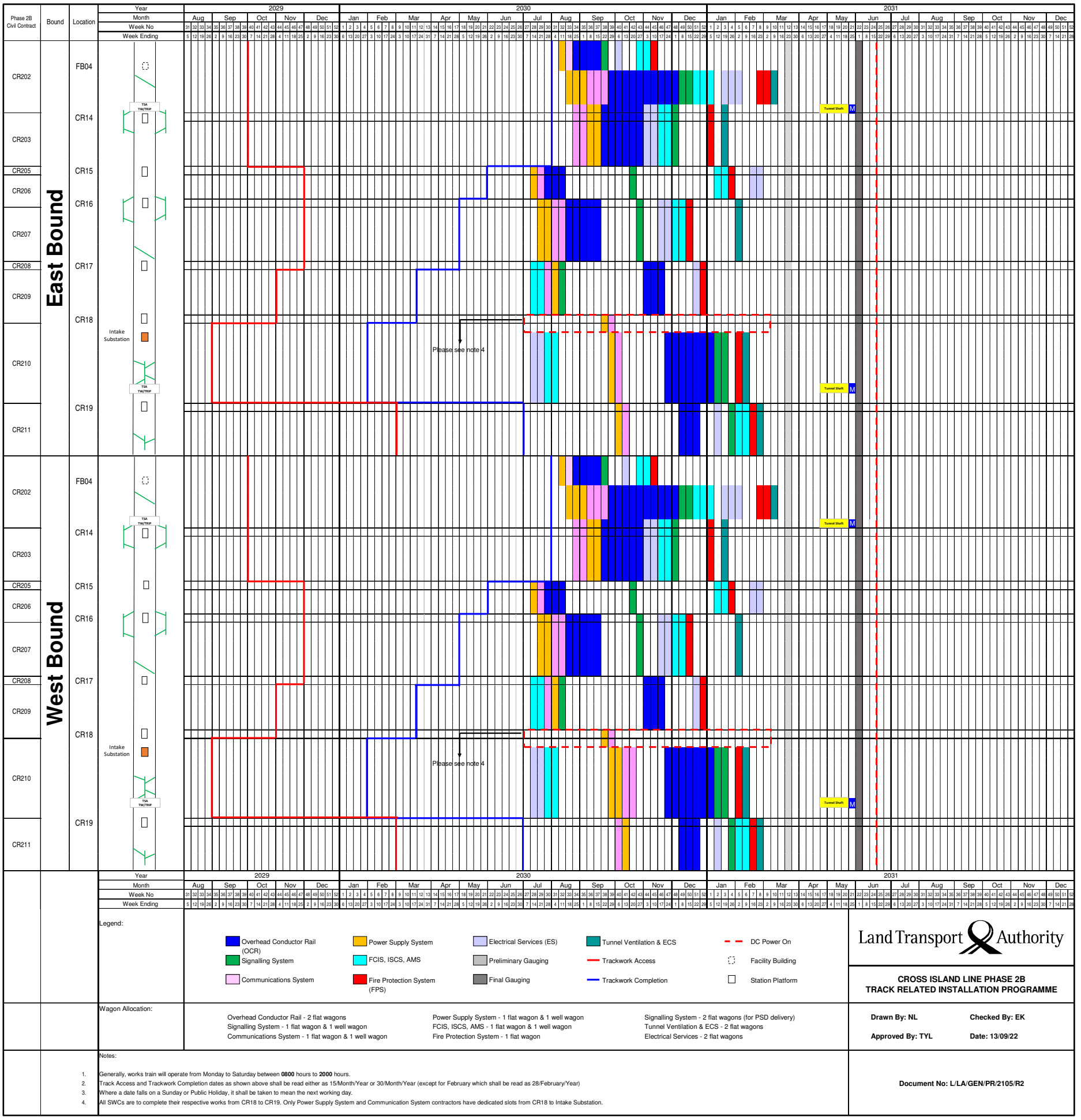
5.  denotes OCR installation at the shaft areas. CR159 shall coordinate with works train office for the movement of works trains launching from Depot for the installation of OCR at the shaft areas.

6. More wagons may be allocated, subject to availability, at the discretion of the Engineer.

7. Any modifications to wagons shall be authorised and supervised by relevant Qualified Person. SWC shall reinstate the wagons to their original condition or otherwise as agreed by the Engineer.

8. SWC shall comply with the rules and regulations specified in the works trains manual.

SCHEDULE B5 – TRACK RELATED INSTALLATION PROGRAMME
CROSS ISLAND LINE PHASE 2



Land Transport Authority

CROSS ISLAND LINE PHASE 2B
TRACK RELATED INSTALLATION PROGRAMME

Wagon Allocation:

Overhead Conductor Rail - 2 flat wagons
Signalling System - 1 flat wagon & 1 well wagon
Communications System - 1 flat wagon & 1 well wagon
Power Supply System - 1 flat wagon & 1 well wagon
FCIS, ISCS, AMS - 1 flat wagon & 1 well wagon
Fire Protection System - 1 flat wagon
Signalling System - 2 flat wagons (for PSD delivery)
Tunnel Ventilation & ECS - 2 flat wagons
Electrical Services - 2 flat wagons

Drawn By: NL **Checked By: EK**
Approved By: TYL **Date: 13/09/22**

Notes:

1. Generally, works train will operate from Monday to Saturday between **0800** hours to **2000** hours.
2. Track Access and Trackwork Completion dates as shown above shall be read either as 15/Month/Year or 30/Month/Year (except for February which shall be read as 28/February/Year)
3. Where a date falls on a Sunday or Public Holiday, it shall be taken to mean the next working day.
4. All SWCs are to complete their respective works from CR18 to CR19. Only Power Supply System and Communication System contractors have dedicated slots from CR18 to Intake Substation.

Document No: L/LA/GEN/PR/2105/R2