

Appendix C: Staging, Demolition and Construction Management Plan

Byford Rail Extension

Construction Management Plan - Enabling Works Armadale Station Precinct

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Document details	
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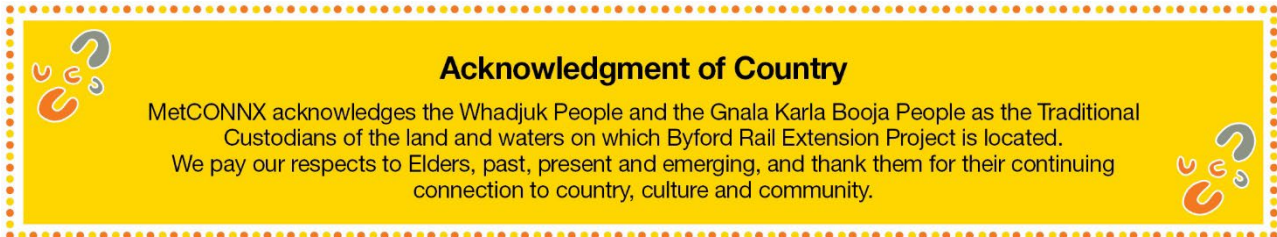
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A	21-Sep-2022	Issued for review	Naji Minhaj		
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1. Armadale Station Precinct

1.1 Introduction

The purpose of the Construction Management Plan is to describe the construction methodology to be adopted by MetCONNX to facilitate the safe and effective delivery of all Works for following enabling works:

1. Site Setup (Office and compound)
2. Temporary Bus Facilities
3. Temporary Bus Interchange

The site compound will be located on the corner of Green Ave and Tudor Rd whilst the new Temporary Bus interchange will be located west of Commerce Avenue with the intersection of Fourth Rd.

1.2 Site Security and Pedestrian Traffic

All current shared pathways will remain unhindered and open to the public. The red outlines in Figure 1 indicate the proposed perimeter fencing for the initial phase of works, these will then be extended north and south along the Armadale Line as per the extent of works. The site plan also has indicated pedestrian walkways which will be used by the construction team during construction.

The fence will be a 1.8m high chain-link fence with a specified project banner along all road/public facing sides. The temporary fence assembly consists of welded steel wire mesh infill and stabilised with 'IMPACTOR' ground anchors and interconnection posts. All the panels will be clamped at the top and bottom.

Pedestrian Traffic along commerce Ave will be diverted during works, on a as required basis. The diversions will be signed in accordance with the approved Traffic Management Plan.

1.3 Waste

Waste collection services will be set up with bins for recyclables, steel, and general construction waste. Recycling will be actively promoted to ensure the project achieves the recycling targets of 90%. MetCONNX will set up a crew to maintain and manager waste recycling areas, silt fences and other general environmental initiatives and controls during all construction works.



Figure 1 1: Example Temporary Fencing

1.4 Traffic Management

The Traffic Management Plan shall detail requirements including but not limited to, roles and responsibilities, emergency details, approvals, traffic assessments, implementation, access points, material delivery routes, pedestrian and public vehicle management, legislation, and monitoring and feedback.

The Traffic Management Staging shall be read in conjunction with the Traffic Management Plan and Diversion Drawings within Appendix G: Traffic Management Plan. The Traffic Management Plan will be developed in greater detail at the next phase.

There are no expected road closures expected with the temporary bus interchange works and all construction vehicles will utilise the left in/left out approach to mitigate any impact on the local community.

1.5 Carparking

During the enabling works MetCONNx understands that:

- Vehicles associated with the Project Activities must not park in public bays or Transperth car parks available to the public

- All parked Alliance vehicles are to be contained within, and provided with parking within, the fenced area of the Site (Figure 1 for blue highlighted areas).

Accordingly, the MetCONNX project will endeavour to maximise use of alternative transport including:

- Providing incentives to use public transport, where possible.
- Facilitate tool drop off arrangements during peak workforce numbers
- Provide end of trip facilities to encourage riding to work for all workers.

1.6 Logistics and Access

Welfare facilities and offices will be located on the corner of Green Ave and Tudor Rd, the offices will be established in line with those described in Section 1.7 and these will be utilised to support the Works a left in and left out approach will be utilised for the site compound. All overflow carparking will be located at the laydown area located north of the site compound. The existing footpaths will be used to get from the compound to the overflow carparking area.

The main access to the temporary bus port and its associated facilities will be from Commerce Ave, a left in and left out approach will be utilised for all construction vehicles to minimise any impact on the local traffic. These details will be further developed in the Traffic Management Plan.

The work fronts will be fenced off utilising 1.8m high chain-link fencing with banner mesh in the approved project design.

1.7 Working Hours

Construction works shall generally be between 0700 hours and 1900 hours Monday to Friday and between 0700 and 1700 hours on Saturday (excluding public holidays). All deliveries will only occur during the construction site hours of:

Monday to Friday – 7am to 7pm
Saturday – 7am to 5pm

Emergency construction activities required to ensure/maintain the safe use of rail infrastructure and public roads, no loss of life, no damage to property, and no environmental harm may have to be undertaken outside of the approved working hours without prior approval from the PTA. Emergency out-of-hours works must be notified to the PTA as soon as practicable, with evidence of LGA notification.

1.8 Construction Noise and Vibration

Construction noise and vibration limits controls and mitigation will be dealt with in the CEMP (R30-MET-PLN-EN-000-00001) and Noise Management Plan. All construction activities will comply with this document. MetCONNX shall select methods of construction and plant to minimise adverse noise and vibration impacts.

MetCONNX shall undertake condition surveys to establish the condition of adjoining properties, existing car park and bridge structures, existing site, existing signage, pedestrian paths, roads,

services, existing station structures and other built items on sites and properties within 100 metres of the Works or Temporary Works before commencing any work. The surveys shall be carried out, where possible, in the presence of the owners or representatives of the owners of the items being surveyed and evidence of contact with such owners shall be retained and demonstrated.

MetCONNX will carry out a detailed vibration impact assessment based on the methods of construction, plant selected and prevailing site conditions. Based on the vibration impact assessment, controls and vibration monitoring will be implemented where required.

Following the vibration impact assessment, MetCONNX shall assess the adequacy of any existing condition surveys and carry out additional condition surveys to ensure that all property that may be impacted by vibration from the Works or Temporary Works has had a condition survey undertaken to establish the existing condition of such property.

Vibration monitoring equipment will meet the requirements of BS 5228-2:2009+A1:2014 Code of Practice for Noise and Vibration Control on Construction and Open Sites - Vibration; BS 7385-2:1993 Evaluation and Measurement for Vibration in Buildings - to Damage Levels for Groundborne Vibration; and DIN 45669-1:2010 Measurement of Vibration Emission Part 1 Vibration Meters requirements and Tests, as applicable.

Where required MetCONNX will submit to the relevant authority for approval, a Noise Management Plan for out of hours work in accordance with the Environmental Protection (Noise) Regulations 1997 (WA) at least seven days before the work starts.

1.9 Dust Control

MetCONNX will carry out the following dust controlling methods during construction of the temporary facilities

- Truck mounted sprays will water regularly trafficked areas such as access tracks, work areas and as conditions require.
- Areas involving materials handling will be sprayed with water as conditions require.
- A periodic monitoring programme will be implemented to quantify dust levels, identify dust generating sources and to determine ambient dust levels.
- Routine maintenance of machinery will be carried out to ensure efficient operation (to minimise exhaust particulate emissions)

If dust levels exceed acceptable limits, dust suppression measures will be immediately reviewed, and more stringent measures implemented as appropriate. Such measures could include the cessation of activities in the event of extreme adverse weather conditions

1.10 Site Facilities and Office Locations

To support the Works, several site offices and welfare facilities will be provided, these will be located on the corner of Green Ave and Tudor Rd (see Figure 1 for locations). The MetCONNX office will comply with the Laing O'Rourke's Primary Standard Site Establishment and as a minimum will provide:

- Toilets and showers
- Secure change rooms
- Cooking, eating, and seating facilities
- Induction and training room
- First aid room
- Security gate houses on main site locations

- Sign on point
- Construction Parking bays
- Laydown areas for construction material

Proposed

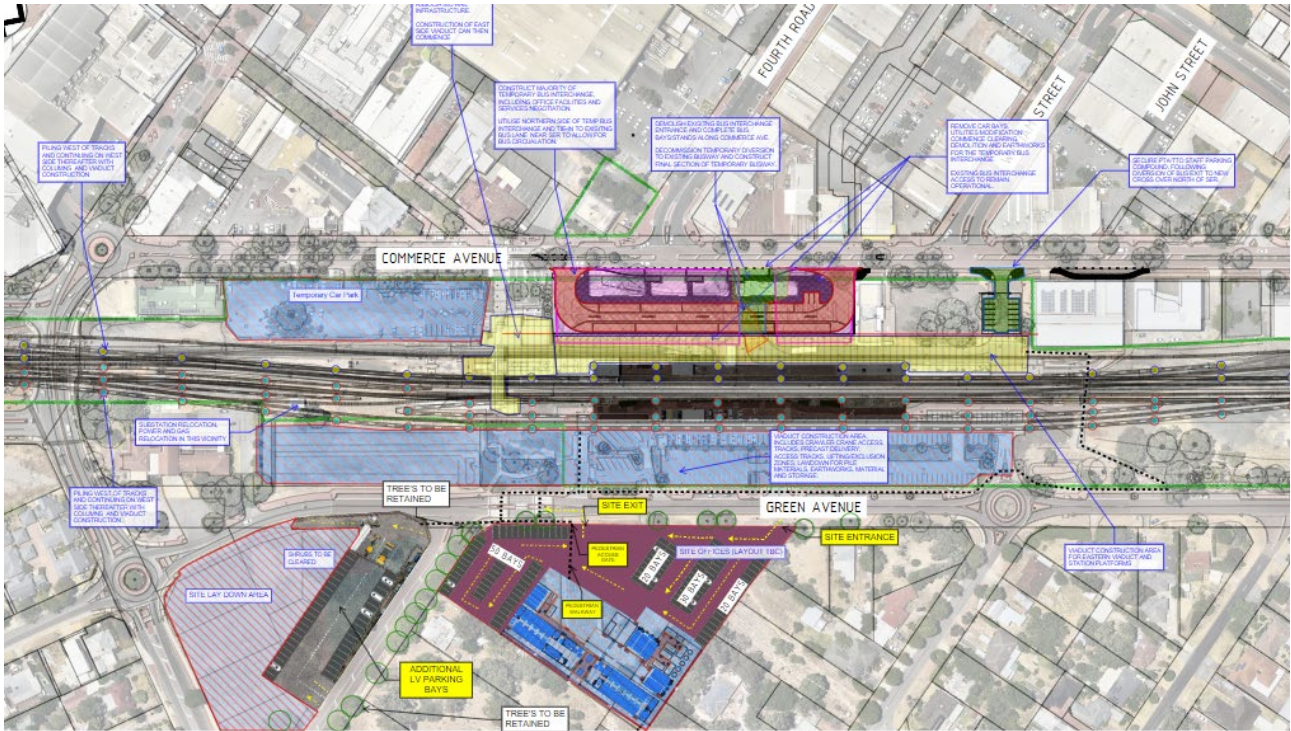


Figure 2: Proposed Staging of the enabling Works

Existing

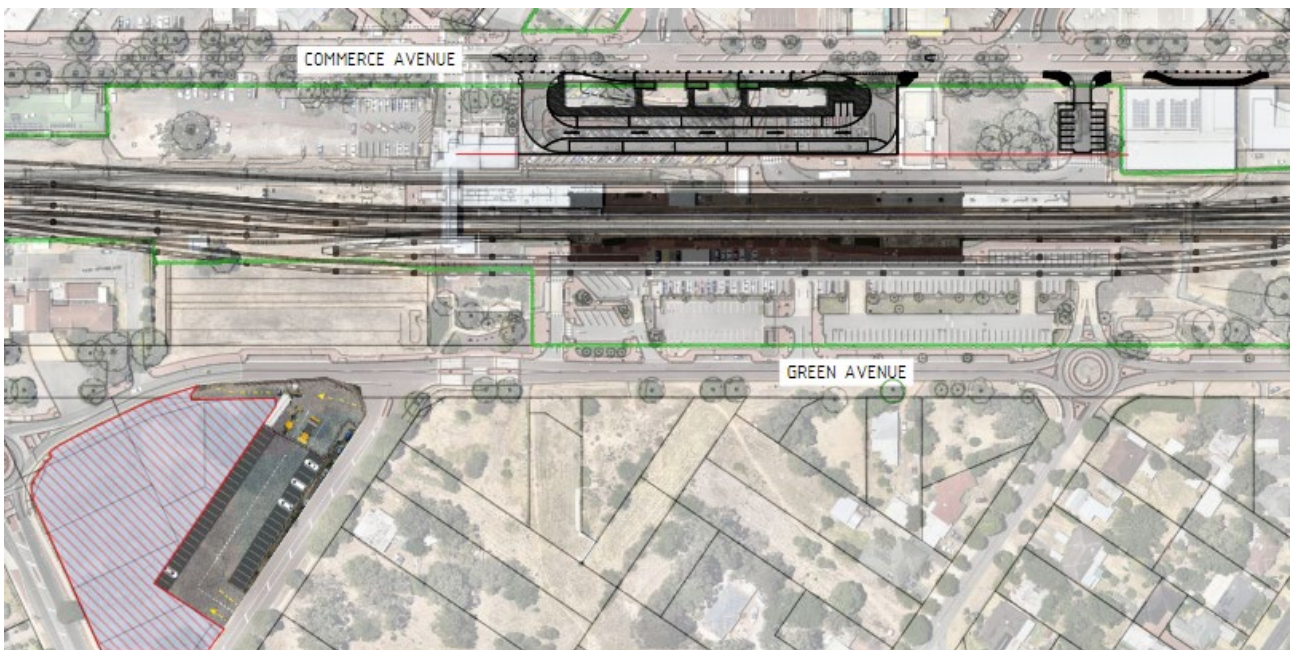


Figure 3: Existing Site Conditions

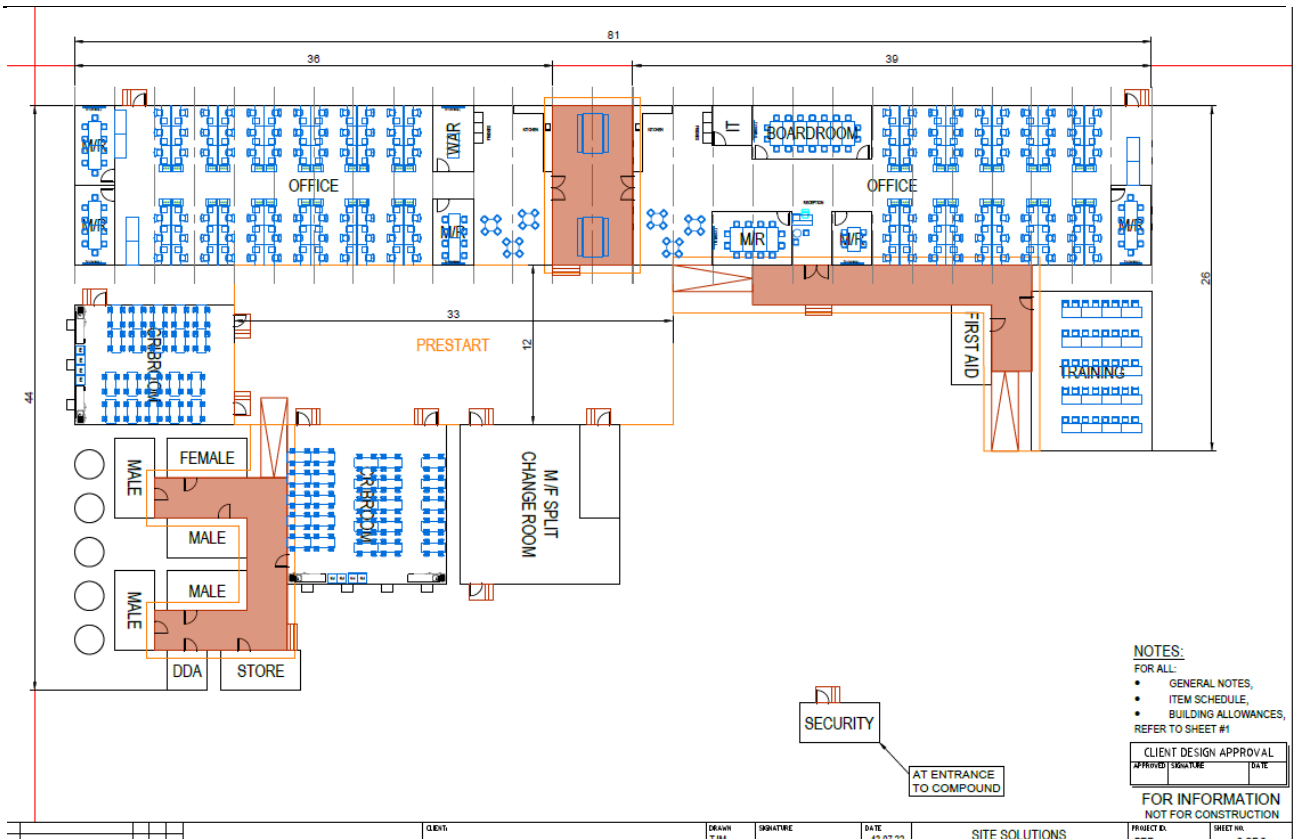


Figure 44: Proposed Office Layout (Corner of Green and Tudor Rd).

1.11 Temporary Bus port Facilities

1.11.1 Transportable Structures

Crib rooms and staff facilities for PTA staff have been developed in accordance with PTA’s direction received on 11th July 2022 and the Schedule of Accommodation and includes:

- Transit Guards/Officer sign-on facility.
 - Office for Transit Officer to do their reporting.
 - Space for 2 No. computers/workstations.
- Transit Guards/Officer Supervisor office.
 - Desk, access to PTA control, 2 No. staff, Access control, (located near bus station).
 - Separate to Transit Guards/Officer sign-on facility for Transit Officer for Admin & Security functions.
- Staff toilets and change facilities.
 - Separate Male and Female facilities
 - 1 No. Male & 1 No. Female toilets (pans) for Transit Officers and 2 No. Male & 2 No. Female toilets (pans) for Bus Drivers.

- Showers for Transit Officers separate to Bus Driver facilities. Minimum 1 No. Male & 1 No. Female showers.
- Public Toilets
- A Security Office (approx..10m²)
- Secure Storage area adjacent to Security Office
- Driver crib facility
 - Seating for 10-12 people
 - Space for amenities such as: small fridge, hot water, sink, microwave, seating for meals, access control
- Trans WA booking office

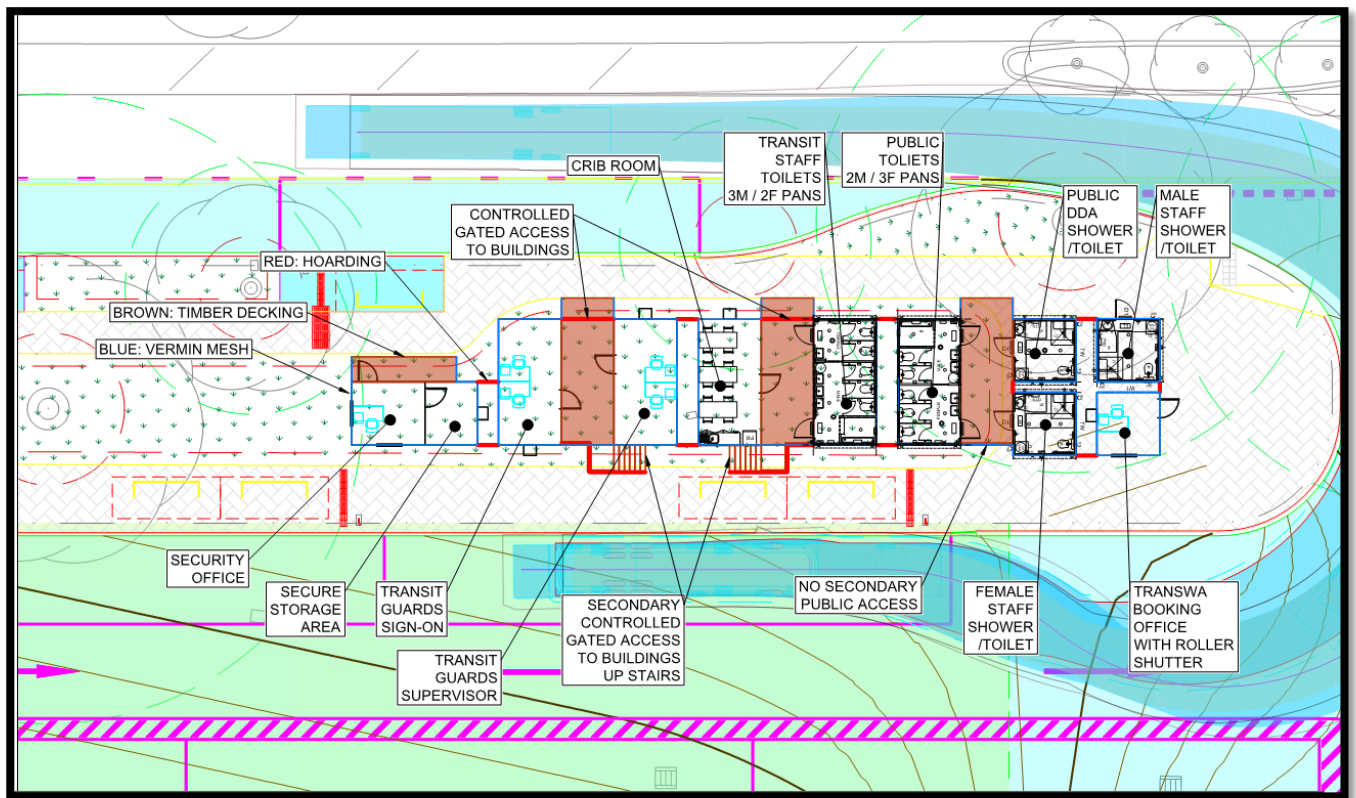


Figure 5: Temporary Staff Facilities and Public Toilets

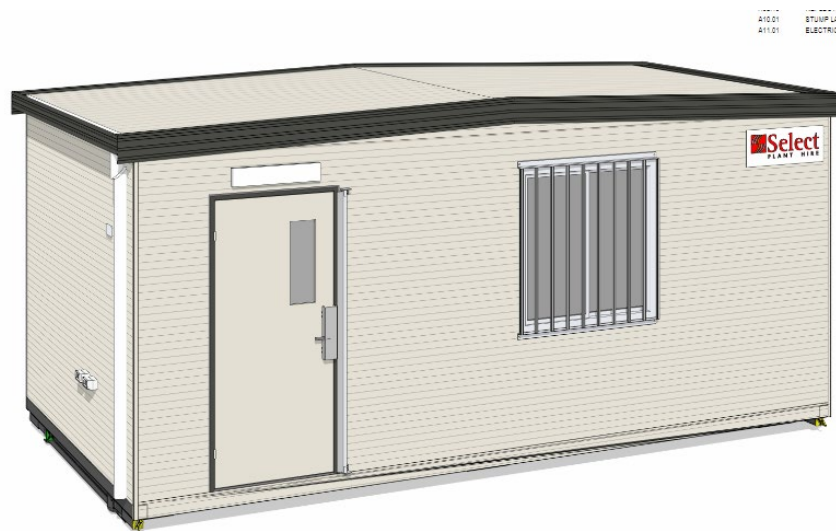


Figure 6: Actual Temporary Bus port Demountable

The modules will be installed using a 100t crane from the piling/crane platform installed by the structures team. Once installed and when available, the building services will be connected, and final commissioning can be completed. The bus port finishes will also be installed up to the building post installation.

1.11.2 Canopies

The bus port canopies will be the last modularised component installed after the demountable buildings have been installed. They will be installed utilising the 100t crane from the concourse level. They will be installed working in a north to south direction.

1.12 Temporary Bus Interchange

1.12.1 Construction Methods

The Enabling Works Temporary Bus interchange will predominantly involve typical civil development construction methodologies with affiliated plant and equipment. This will include demolition works, tree removal, earthworks, excavation, drainage, retaining walls, pavement construction, footings, ground slabs, shelter installation, transportable building assembly and building services installation. To achieve construction, relevant work safety management plans, traffic management plans and construction management plans will need to be developed, approved, and adhered to. Any service and infrastructure protection requirements would need to be developed and implemented to the satisfaction of relevant authorities.

1.12.2 Operational Staging

Preliminary construction staging for the Temporary Bus interchange has been considered and is presented below for information. This will also require further coordination with broader aspects of the station precinct area, including piling and viaduct construction, parking removal, demolition of station and rail infrastructure. Construction and operational staging will need to be closely coordinated with Transperth and the City of Armadale. Consideration would be necessary for the transition from the existing bus interchange to the proposed temporary interchange. Transperth

has indicated that the revised temporary facility will need to be complete and ready for operation two weeks prior to the rail shut down.

- Stage 1: Closure of existing parking area and construction of Temporary Facilities; existing bus station remains in use and existing bus entry route maintained

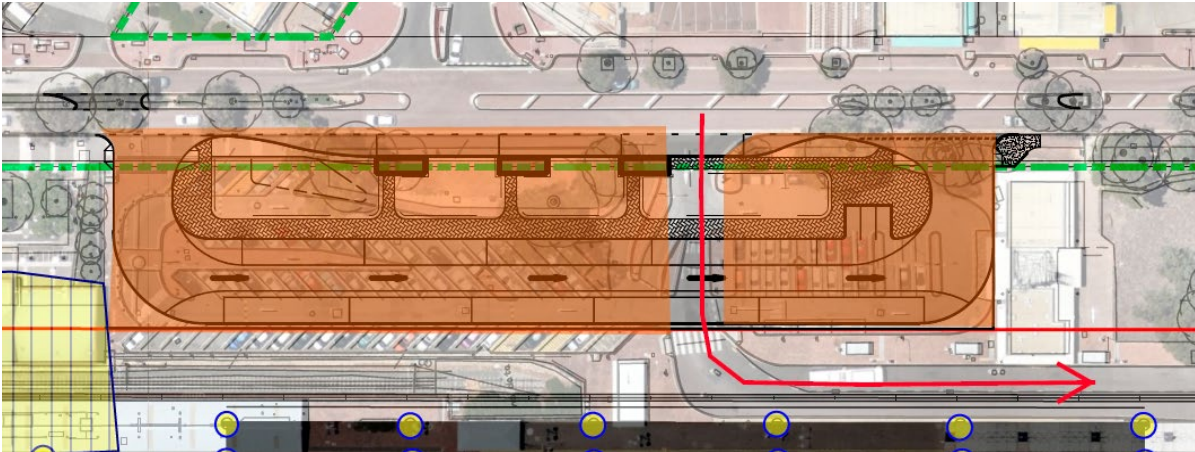


Figure 7: Enabling Works bus interchange stage 1 construction

- Stage 2: New entry route completed and utilised; existing bus station remains in use

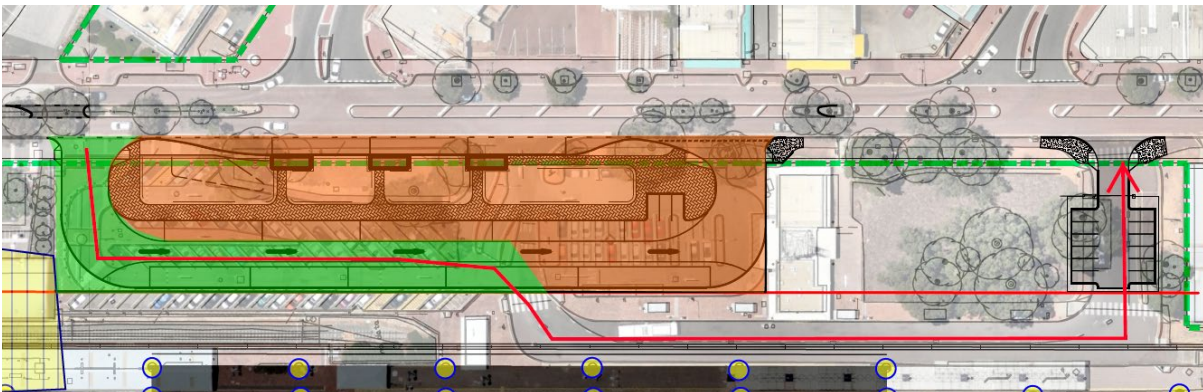


Figure 8: Enabling Works bus interchange Stage 2 Construction

- Stage 3: Temporary bus facility and parking areas in use

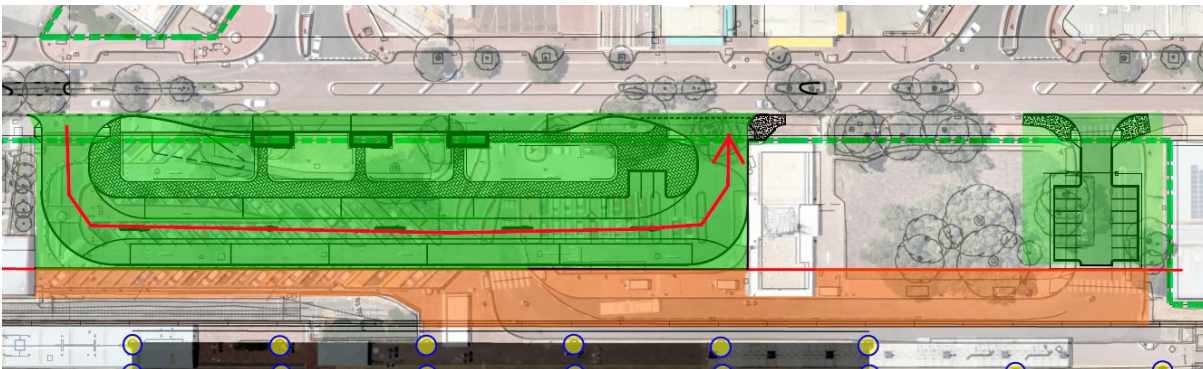
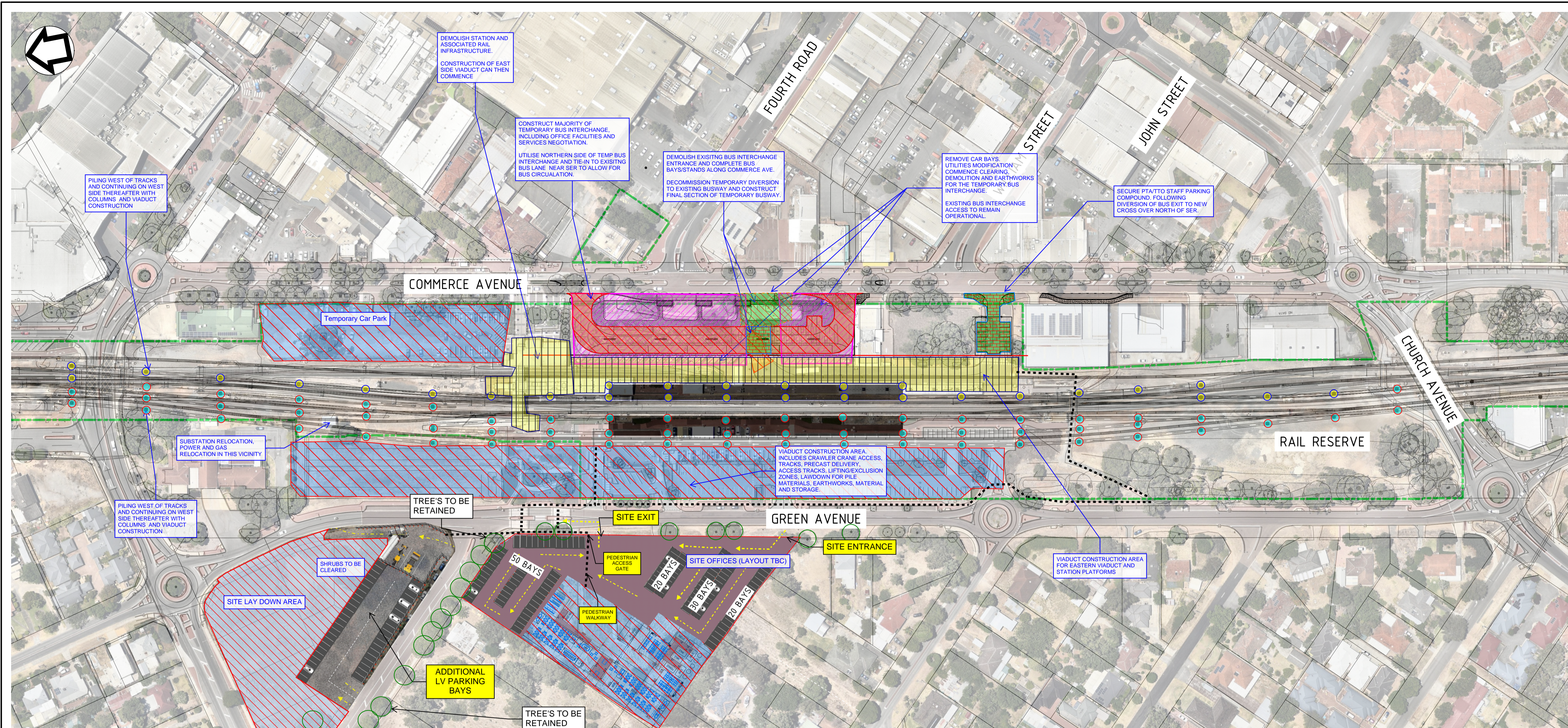




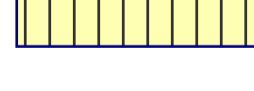

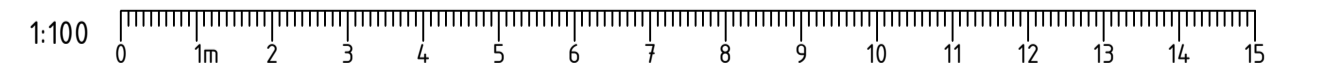


Figure 9: Enabling Works bus interchange stage 3 construction



LEGEND

-  DEVELOPMENT APPROVAL 1.5
-  DEVELOPMENT APPROVAL 1.5
-  DEVELOPMENT APPROVAL 1.5
-  PEDESTRIAN WALKWAY
-  FENCE PERIMETER
-  LV ACCESS



ISSUED FOR INFORMATION

Government of Western Australia
Public Transport Authority

**ENABLING WORKS
ARMADALE PRECINCT
CONSTRUCTION STAGING**

ENABLING WORKS AND
ARMADALE STATION PRECINCT

PTA Drawing No: _____ Rev: **A**

REV	DATE	DESCRIPTION	DSN	DRN	CHK	APP
A	16/5/22	ARMADALE PRECINCT TEMPORARY BUS INTERCHANGE AMENDMENT	TM	TM	FO	FO

ORIG SIZE: 0 10 20 30 40 50 100mm

AT ORIGINAL PLOT SIZE

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 BYFORD RAIL EXTENSION

Contractor No: R30-MET-SKT-CI-001-00004 | Rev: A.00.01

SCALE	DESIGNED
1:1000	TM
DATUM	DRAWN
HORIZONTAL: PCG2020	TM
VERTICAL: AHD	FO
REFERENCES	CHECKED
	FO
	APPROVED
	FO
	DATE