



# **ATLASSIAN BUILDING CENTRAL TOWER EASTERN ELEVATION MANAGEMENT PLAN**

**REVISION 2**

**FEBRUARY 2022**

### EXECUTIVE SUMMARY

The purpose of the Tower Eastern Elevation Management Plan is to outline the BOJV construction methodology for the completion the Tower structure works specific to the Eastern boundary adjacent to Central Station Platform 1. The Eastern elevation of the Atlassian Central Tower is a key interface between BOJV construction activities and the operational TfNSW rail corridor. The methodology detailed below considers the proximity of the tower structure to the Eastern boundary and provides mitigation strategies for construction activities in this zone.

This Management Plan will demonstrate how BOJV will carry out the below construction activities on the Eastern interface while minimising the impacts on TfNSW operations:

- Platform 1 awning modifications
- Temporary A-Class hoarding installation
- Existing YHA Heritage Parcel Shed demolition
- Piling and earthworks
- Tower Crane installation, operation and dismantle
- Platform 1 Overhead Protection System
- North-East Oversail structure – vacation of SRA offices required
- Edge protection systems – scaffolds, fans, and screens
- Typical tower construction
- Façade installation
- Podium works and finishes
- Building Maintenance Unit (BMU) installation & commissioning



The below management plans have been referenced throughout this document as they relate specifically to the Tower Eastern Elevation construction activities. Further detail can be found in these plans:

- Site Investigation Management Plan
- Health, Safety & Environmental Management Plan
- Devonshire Street Tunnel Demolition Management Plan
- Construction Management Plan
- Rail Safety Management Plan
- Rail Corridor Access Paper
- Possession Management Plan
- Noise, Vibration & Dust Management Plan
- Railway Colonnade Drive Management Plan
- Monitoring Alert & Response Plan

## DOCUMENT REVIEW AND AUTHORISATION

This Tower Eastern Elevation Management Plan has been reviewed and authorised for issue by the Construction & Project Managers.

Future documentation and changes to previously issued documents shall also be approved by Senior Management.

Revision Details		Approval	
Revision:	Rev 2	Position: Construction Manager Name: Jahaan Rowdah	Position: Project Manager Name: Whitney Force
Date Issued:	25 <sup>th</sup> February 2022	Signature: 	Signature: 

Controlled Copy Details	
Revision 1	For Review
Revision 2	Updates to address TfNSW/GHD comments

Revision - Key Changes Summary	
Revision 2	Updates to address TfNSW/GHD comments

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# 1 Project Description

## 1.1 Overview

The project, referred to as 'Atlassian Building Central', is a development being undertaken at 8-10 Lee Street Haymarket.

On 7<sup>th</sup> August 2018, the NSW Government announced that it is seeking to create a world-class technology hub along the corridor in and around Central Station. Following the announcement, the NSW Government entered into an agreement with Atlassian to progress discussions on Atlassian's proposal to develop the YHA Site at Central Station and to anchor the technology hub that will form the first phase of the new tech precinct. The design of the building is bespoke in all aspects with State Work integration across the link zone, heritage retention within the Parcels Shed, new YHA facility in podium floors & the high-rise office tower for Atlassian. The tower itself is comprised of eight major divisions, each of which contains its own distinct habitat, rendered in mass timber, and wrapped in glass with a steel and cross-laminated timber sub-structure.

In December 2020 the SSDA was submitted for approval to the Department of Planning Industry & Environment

Since the last revision of the CMP Dexus became a development partner with Vertical First. For the purposes of this plan the development partners will be referred to as "Atlassian".

The proposed development is comprised of:

- Two basement levels (B1 & B2), which includes service spaces, loading docks, and EOT facilities which will be accessed from Lee St following the completion of works to convert the existing Upper Carriage Lane into a shared ramp from Lee Street which will service both the Adina hotel and Atlassian development:
- Delivery of Transport for NSW assets (State Works) comprising Lower Ground and Upper Ground Floor through site link which is key pedestrian infrastructure for Central Station to connect the future metro Central Walk West. Refer to the figure below highlighting the delineation between Developer and State Works:
- Retention of the existing Heritage Parcel Shed and adaptive reuse to form part of a new public realm strategy incorporating it into the new building's lobby
- Construction of a new high-rise tower of approx. 68,500m<sup>2</sup> including:
  - New YHA accommodation (lower levels)
- Commercial office levels (upper levels)

## 1.2 The Construction Site

The Former Inward Parcels Shed is located at 8a/10 Lee Street, Haymarket NSW 2000, within the Railway Square of the Central Railway Precinct, surrounded by the following:

- Eastern boundary - Platform 1 of Central Station (TfNSW)
- Western boundary - The Adina Hotel on Lee Street (TOGA)
- Southern boundary - Henry Deane Plaza, Devonshire pedestrian tunnel, and Office building (DEXUS)
- Northern boundary - Ambulance Avenue, TfNSW Central station maintenance offices, Railway Colonnade Dr, and Western Forecourt (TfNSW)

The Former Inwards Parcels Shed site is subject to several statutory heritage listings from various government agencies. The listings are outlined below:

## Atlassian Building Central

- The site is included in the heritage listing for the whole Sydney Terminal and Central Railway Station Group as listed on the State Heritage Register (SHR No. 01255) under the auspices of the NSW Heritage Act 1977
- The site is included in the heritage listing for the Central Railway Station and Sydney Terminal Group on TfNSW S.170 Register under the auspices of the NSW Heritage Act 1977
- The site is listed as part of the Central Railway Station listing
- This management plan only addresses BOJV works relating to the Atlassian project, and any future coordination with adjoining developments will be addressed in subsequent management plans.

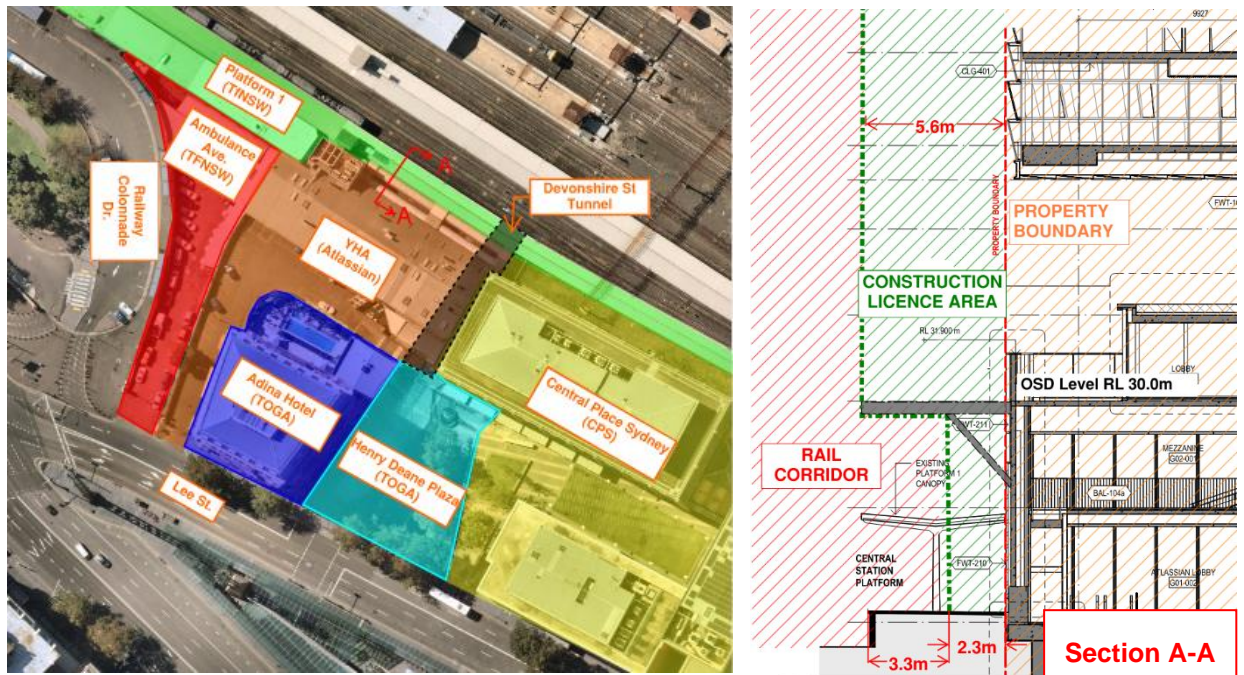


Figure 1-1: Site location plan & section illustrating proposed development & surrounding properties

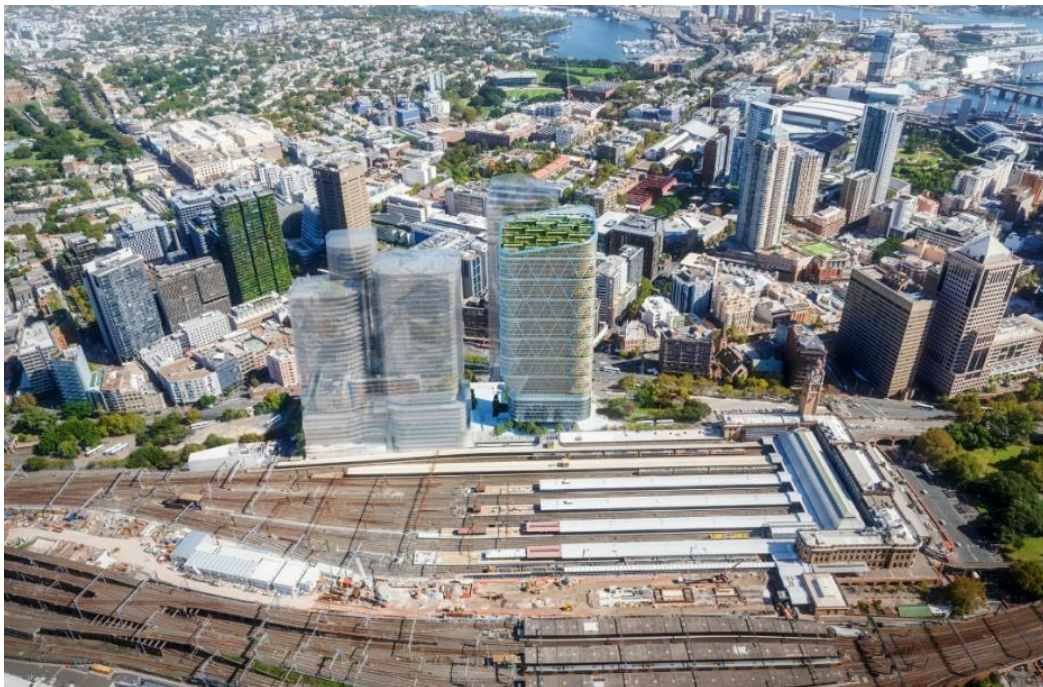


Figure 1-2: 3D Project Overview indicating proximity to Central Station rail corridor



### 1.3 Eastern Site Boundary Existing Conditions

The elements to consider along the Eastern boundary between the future Atlassian Central development and Central Station include:

- Platform 1 and associated awning structure
- Existing Railway Square YHA Lodging
- SRA office in the North
- Dexus Frasers adjoining property in the South & future CPS construction site
- Devonshire Street Tunnel
- South-West baggage tunnel
- Goods lift access to Platform 1 including maintenance access to lift motor room
- Platform 0

Site investigations are being undertaken to verify the existing conditions of the surrounding structure to ensure the appropriate risk mitigation measures can be put in place during the design process. Refer to the Site Investigation Management Plan for further details on the structures and procedures that BOJV will implement when conducting site investigation works when interfacing with TfNSW assets.

### 1.4 Tower Eastern Elevation Works

The works associated with the Tower construction on the Eastern elevation include the following:

1. Platform 1 awning modifications
2. Platform 1 hoarding installation
3. Dismantle of YHA Parcel Shed and existing structures
4. Piling, anchoring, and excavation works
5. Tower Crane installation and operation
6. Platform 1 Overhead Protection System
7. North-East Oversail
8. Installation and climbing of perimeter screens
9. Installation and relocation of edge protection fans
10. Level T01 soffit cladding and high-level services install
11. Typical tower steelwork installation
12. Façade installation
13. Perimeter screen removal and demobilisation from site
14. Demobilisation of the construction site – tower cranes, hoists, hoardings
15. Podium works following removal of Overhead Protection System
16. BMU commissioning and testing

A snapshot of these activities throughout construction and their locations on the project is provided in Figure 1-3 below.

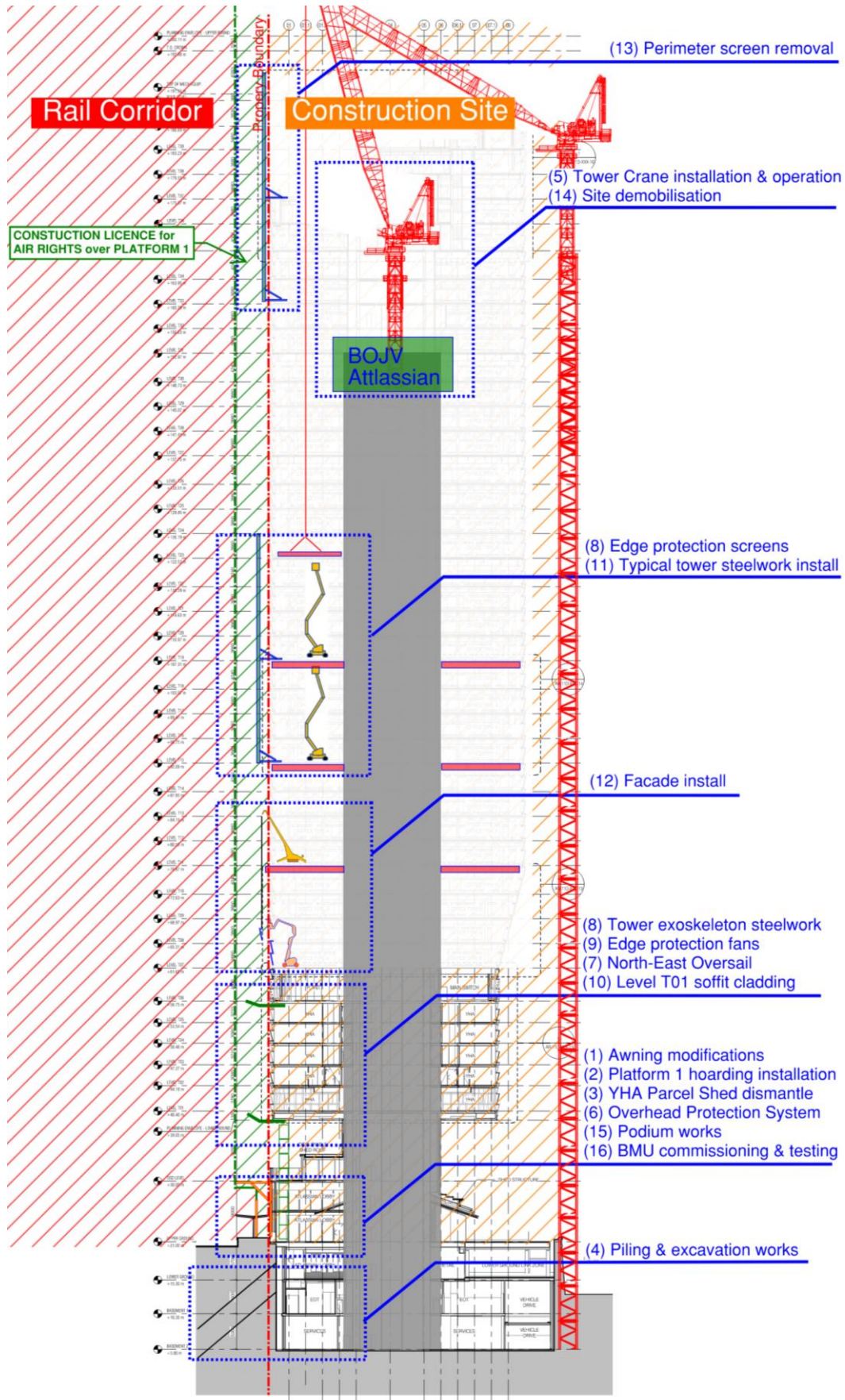


Figure 1-3: Location of Tower Eastern Elevation Works

## 1.5 Construction Licenses

All required construction licenses to complete these works and address the above interfaces are being obtained prior to these specific works commencing.

A list of the requested TfNSW & TAHE construction licenses is provided below:

Lot	Construction License Number	Description
118	118.1A	Use of Ambulance Avenue
	118.1B	Ambulance Avenue Reconfiguration Works
	118.1C	Ambulance Avenue Reconfigured Compound Area
	118.2	Installation, Maintenance and Removal of Monitoring Equipment
	118.3A	Central Station Platforms 0, 1, & 2 Shared Access for Survey Monitoring
	118.3B	Platform 0 & Platform 1 Exclusive Use for Public Protection Systems
	118.4	Platform 0 & Platform 1 Installation & Removal of Overhead Protection System
	118.5	Platform 0 & Platform 1 Installation & Removal of Overhead Protection System
	118.6	Air Rights over Platform 0, Platform 1, and TfNSW Office (SRA Office
	118.7A	Shared Access to Baggage Tunnels, & SRA House for Installation and Removal of Monitoring Equipment and Hoardings
	118.7B	Shared Access to Baggage Tunnels, & SRA House for Ongoing Survey Monitoring (Corridor Access Agreement)
	118.7C	Shared Access to Baggage Tunnels & Service Rooms for Services Isolations, Distribution Board & Cupboard Relocations and installation of new Sub-main Cables
	118.8	Exclusive Access to Baggage Tunnels & Goods Lift for Installation of Temporary Support Elements
	118.9	Shared Access for DST Demolition and Construction Works
	118.10	Exclusive Access for DST Demolition and Construction Works at agreed times
	118.11	Installation of Temporary Ground Anchors, Rock bolts & Underpinning
	118.12	Intermittent use of Railway Colonnade Drive
	118.13	Use of SRA Offices on LGF

## 2 Key Construction Activities

The below activities have been identified as the key items that will impact upon the adjacent rail corridor during the construction phase of the project. The methodology as demonstrated in this plan has been produced based on the current documentation whilst targeting to minimise the effects that the works will have on the operational railway.

### 2.1 Awning Modifications & Installation of A-Class Hoarding

The installation of an A-Class hoarding on Platform 1 will be required to separate construction activities from the public and TfNSW staff. The hoarding will provide the following functions:

1. Delineation between construction works and publicly accessible areas
2. Protection to public for works occurring adjacent to Platform 1
3. Maintain ASA compliance on the platform
4. Temporary directional signage and lighting to maintain the customer experience

Prior to the establishment of hoardings on Platform 1, there will be an element of investigation work required to confirm the location of service runs within the awning structure. Any services that will restrict the awning modification works and the A-Class hoarding installation will need to be isolated or rediverted. At present the only service identified for isolation or relocation is the lighting to the Western half of the awning. No critical rail operational services have been identified for relocation (signals, communications, speakers etc) and will not be impacted by these works. All works will be conducted outside of the Safe Approach Distances to the overhead wires on Platform 1 (greater than 3m).

Prior to removal of the awning roof sheets, the maintenance access static line will be relocated to the retained portion of the awning. The pre-work required to install the A-Class hoarding will be conducted from behind ATF fencing as shown in Figures 2-1 below. The relocation of the static line is shown in Figure 2-2.

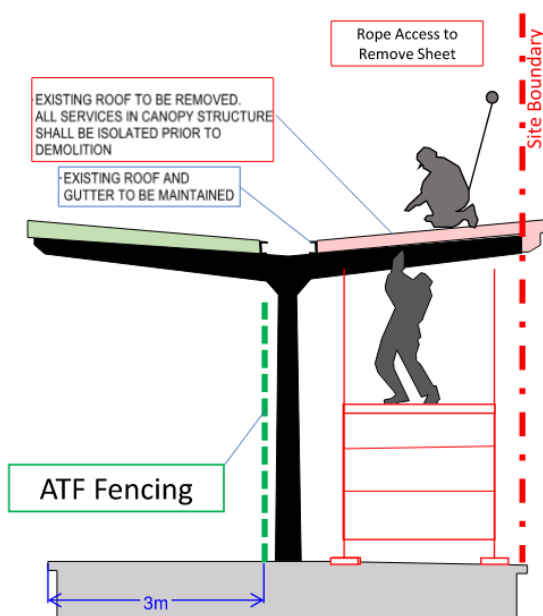


Figure 2-1: Awning Modification Works



Figure 2-2: Static line relocation



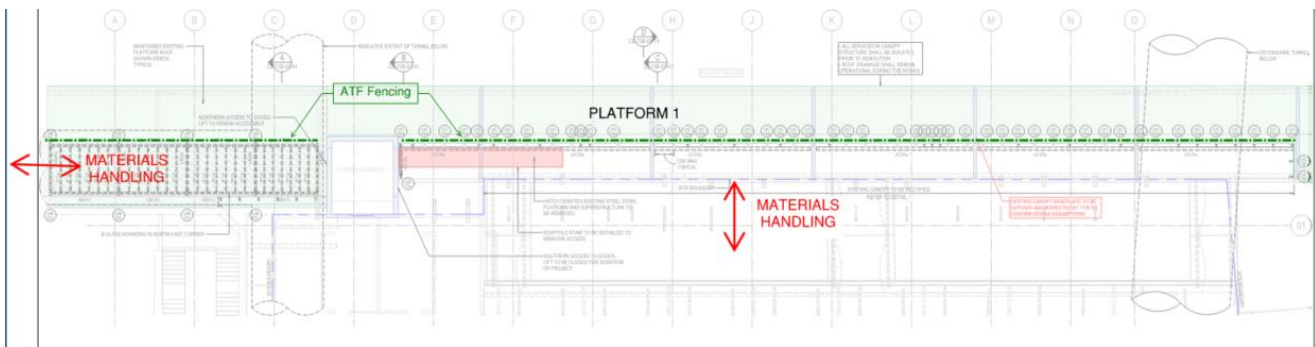


Figure 2-2: ATF fencing required for awning modification works

Once the roof sheets have been removed and services isolated or rediverted, the installation of the A-Class hoarding will commence. The assembly of the hoarding will occur within the BOJV construction zone behind ATF fencing, ensuring ASA compliance is maintained on the platform at all times. This will be achieved with progressive installation of the hoarding behind the ATF fencing, followed by the removal of the ATF fencing. BOJV will ensure compliant lighting levels are maintained throughout the Platform 1 hoardings.

Once installed, the A-Class hoarding will include additional face mounted lighting to supplement the remaining awning lighting above the platform. All existing TfNSW operational infrastructure such as speakers, signals, indicators, CCTV cameras, fire hose reels and drainage will be maintained throughout. The installation of the A-Class hoarding will not impact signal sighting on the platform.

The access stair from Platform 1 up to the goods lift motor rooms is to be dismantled as part of the establishment works. This will free up access for the A-Class hoarding to be installed. BOJV will dismantle the stair, along with the awning lighting and roof sheeting and store off-site for reinstallation at a future date.

A temporary scaffold stair will be constructed on the platform to provide TfNSW access to the goods lift motor room. This stair will be accessible through the hoarding via a code entry system. The stair will provide a direct entry up to the motor room to ensure TfNSW staff will not be required to pass through the BOJV construction zone. BOJV request a booking system is set up to ensure construction works can be coordinated with TfNSW maintenance access requirements.

It is also noted that coordination will be required with the future Dexu Frasers development to the South of the Atlassian site to ensure any hoarding and pedestrian management strategies are considering holistically. Upon review of the current CPS Construction Management Plan, there is no indication of any construction works required on Platform 1 at this stage.

Refer to Figures 2-3a, b, c & d below for further information on the proposed construction activities on Platform 1.



# Atlassian Building Central



Figure 2-3a: Platform 1 awning modifications



Figure 2-3b: Platform 1 awning modifications

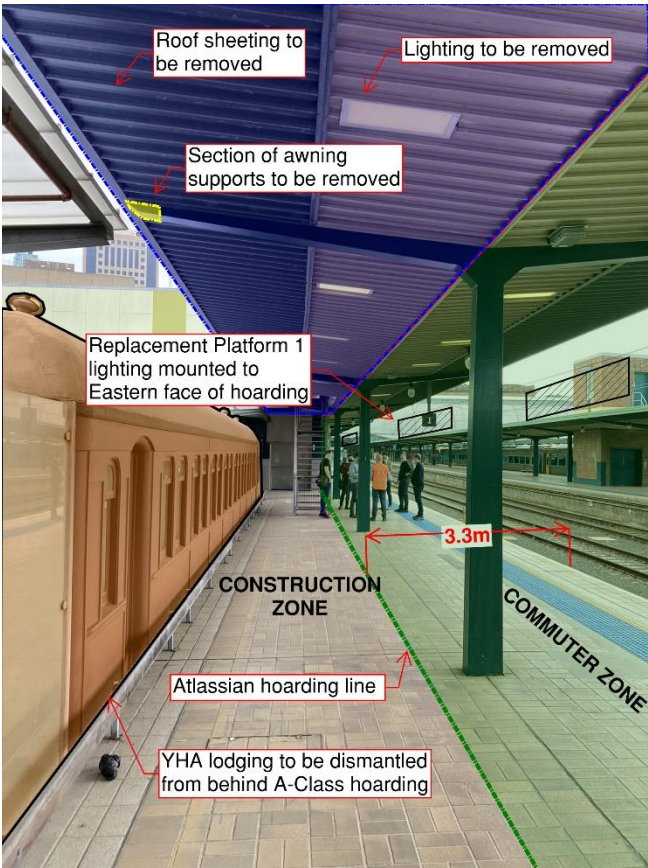


Figure 2-3c: Platform 1 awning modifications



Figure 2-3d: Indicative Scaffold Stairs to be Installed

In order for BOJV construction works to be completed up to the boundary, a section of the Platform 1 awning structure will need to be removed and modified. These works will occur from behind the A-Class hoarding to minimise disturbance to the public. The extent of the existing awning structure to be removed is shown in the TTW sections in Figure 2-4 below. A new cap plate will be installed to each awning member and the roof sheeting reinstated to match the current visual appearance.

The design ensures there will be no adverse impacts on the remaining awning structure, and will also allow the current stormwater gutter and downpipe system to remain operational for the duration of the works. Any rainwater runoff from Platform 1 into the BOJV construction site due to the removal of awning roof sheets will be managed as per the Environmental Management Plan.

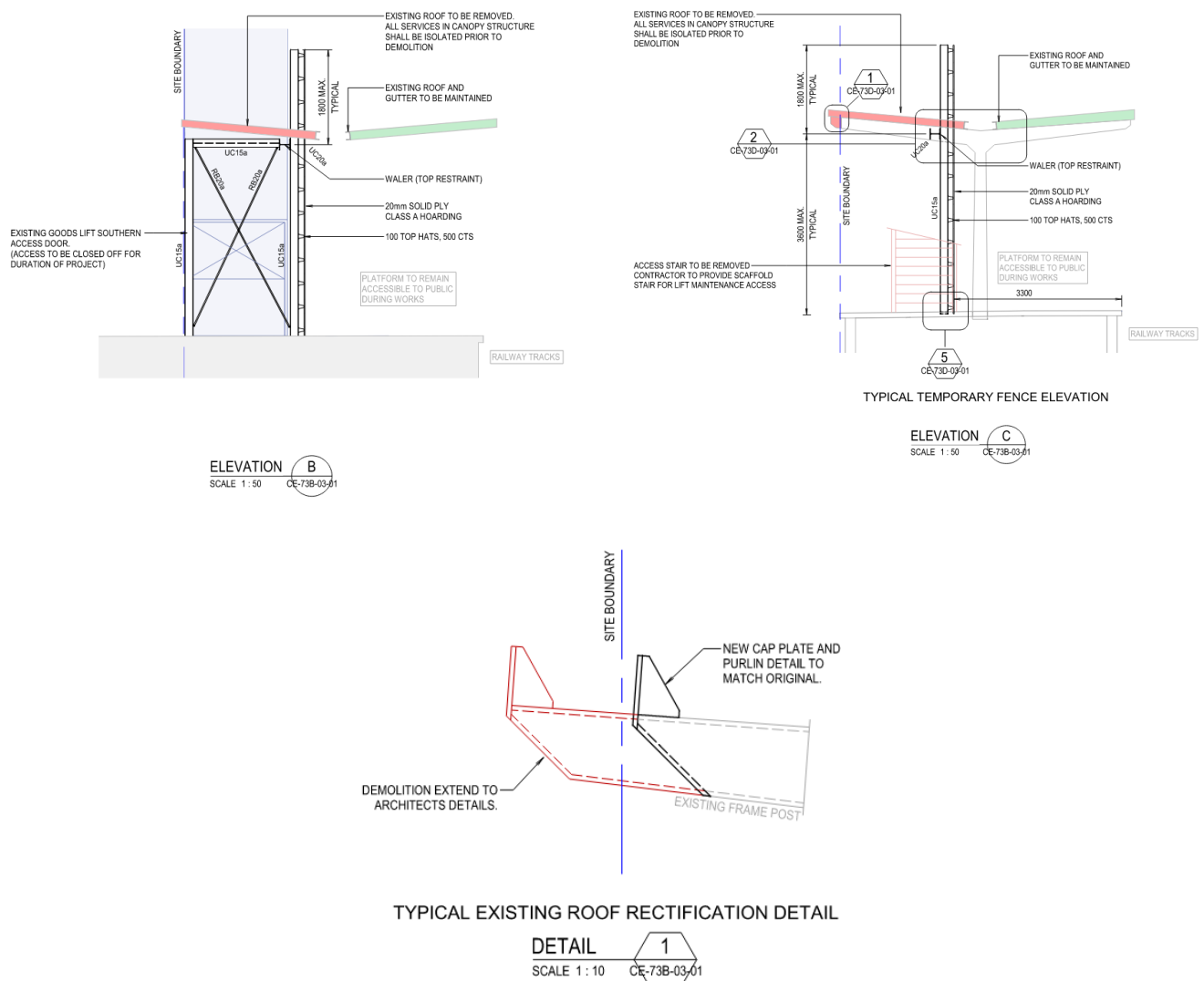


Figure 2-4: A-Class Hoarding Sections & Details – Platform 1 Central Station

## Atlassian Building Central

The A-Class hoarding has been designed to be constructed around the existing Platform 1 awning structure to minimise demolition and modification works required to TfNSW assets. BOJV in coordination with TfNSW will ensure the appropriate temporary directional signage is in place to assist commuters. In addition, the contact details of a dedicated BOJV Site Supervisor will be signposted on the hoarding. Should any issues arise that require immediate resolution, TfNSW staff will be able to contact the relevant supervisor.

In addition to the A-Class hoarding, a B-Class hoarding the North of the goods lift is required to be installed adjacent to the SRA offices. This hoarding will provide overhead protection to commuters and TfNSW staff from construction activities in the North-Eastern corner of the tower. The hoarding design and layout is to be coordinated around existing access and egress paths, and in accordance with ASA Assurance requirements.

A hoarding plan showing the extent of hoardings on Platform 1 is provided below in Figures 2-5 & 2-6.

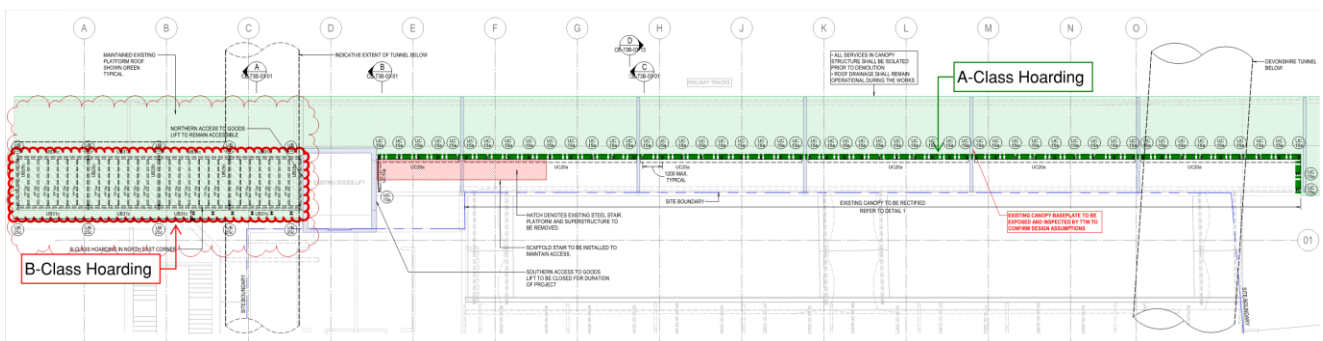


Figure 2-5: Hoarding Plan – Platform 1 Central Station

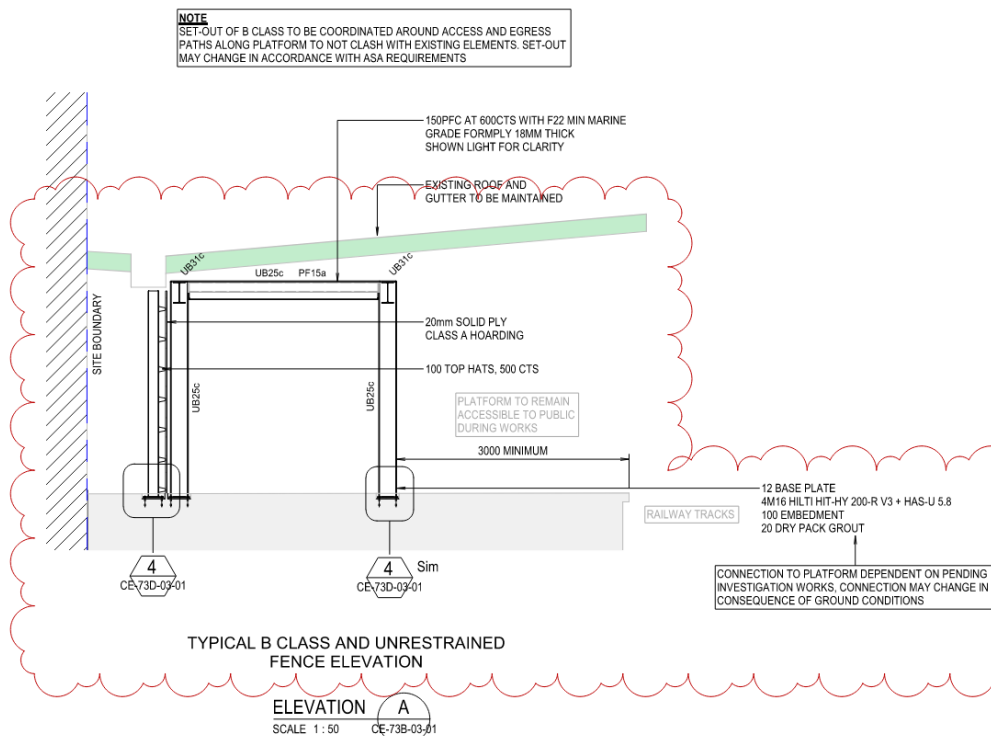


Figure 2-6: B-Class Hoarding Section – Platform 1 Central Station



## Atlassian Building Central

Any changes to existing access and egress pathways on Platform 1 are being assessed by specialist fire life safety and BCA consultants. TTW as the AEO certified temporary works engineer have designed all temporary structures on and around Platform 1 in line with the relevant standards to ensure all clearances both horizontally and vertically are compliant. An ASA Structural Assurance Document has been developed in order to demonstrate and confirm compliance with these standards. Extracts from the document are shown below in Figures 2-7 to 2-10 below.

BOJV has considered the overhead electrical services, and installation methodology will be developed to restrict equipment within area above live high voltage.

Additionally, the temporary works designs are managed through the design package review and approval process. The awning modification and A-Class hoarding design is provided in Design Package 1 and a AEO structural certificate has been provided.

Furthermore, the clearances for temporary works on Platform 1 - Construction License ASA Structural Assurance memo has been submitted.

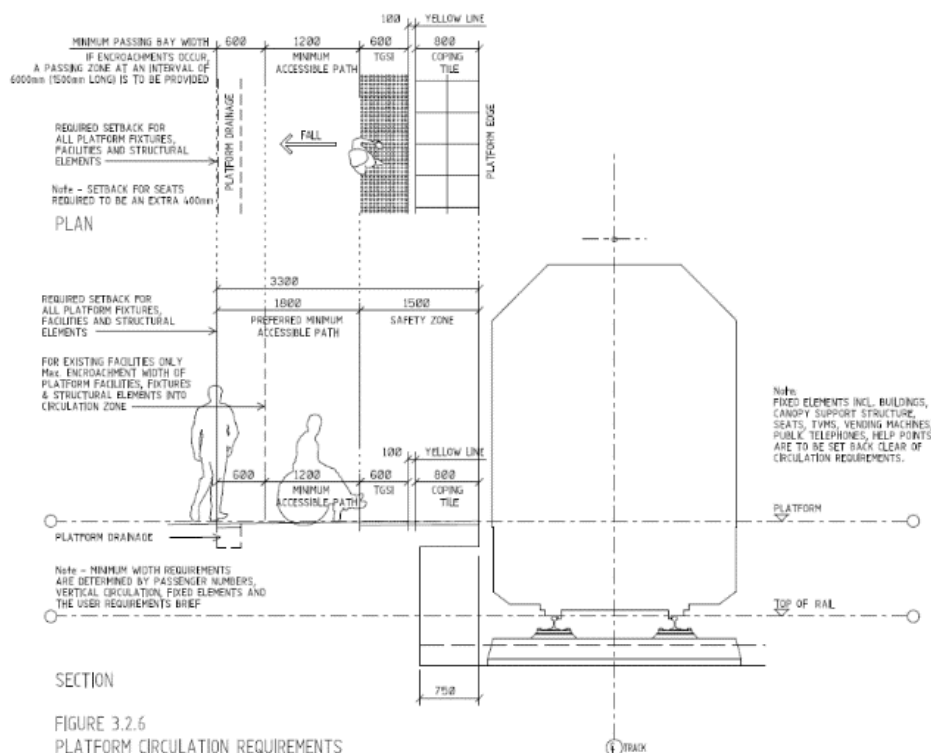


Figure 2-7: ASA Platform Circulation Requirements

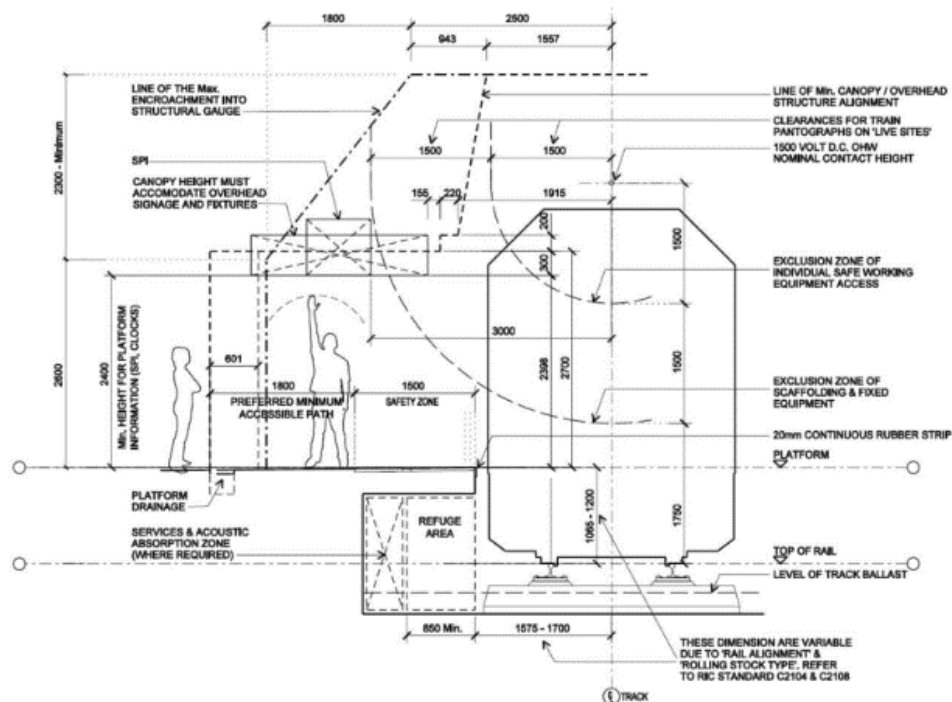


Figure 2-8: Structure Gauge & Overhead Set Out Restrictions

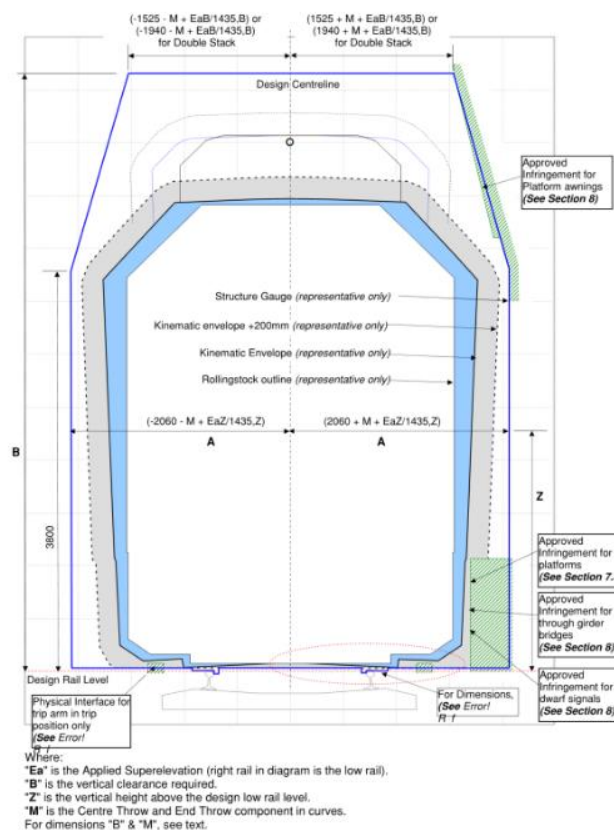


Figure 2-9: Structure Gauge Tolerances for Overhead Structures

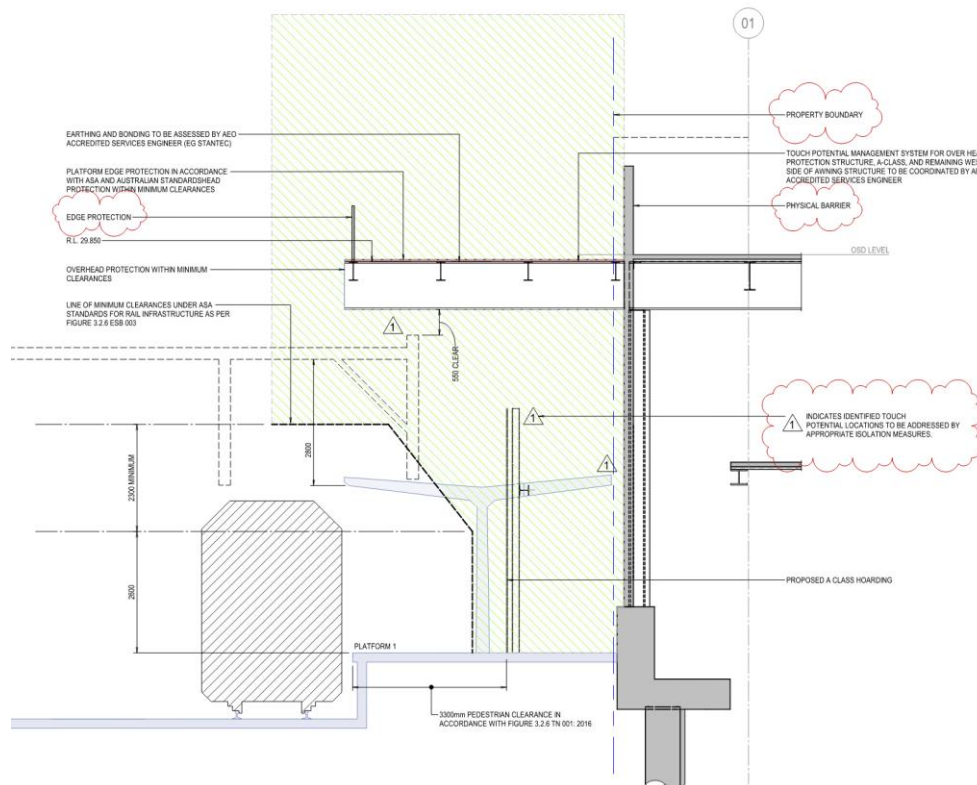


Figure 2-10: TTW drawing extract demonstrating compliance with ASA requirements

## 2.2 Railway Square YHA Parcel Shed Dismantle

The construction of the Atlassian Central project will require the existing Railway Square YHA Parcel Shed and associated lodging to be deconstructed and removed from site. Following the installation of appropriate hoardings, this will involve dismantling the replica train carriages directly adjacent to Platform 1. The intent is for all dismantle and demolition works to be conducted from behind the A-Class hoarding, however no demolition works are required to be carried out at a height or proximity to the hoarding that would pose a falling object risk to commuters and staff on the platform.

An overview of the demolition works is shown in Figure 2-11 below:

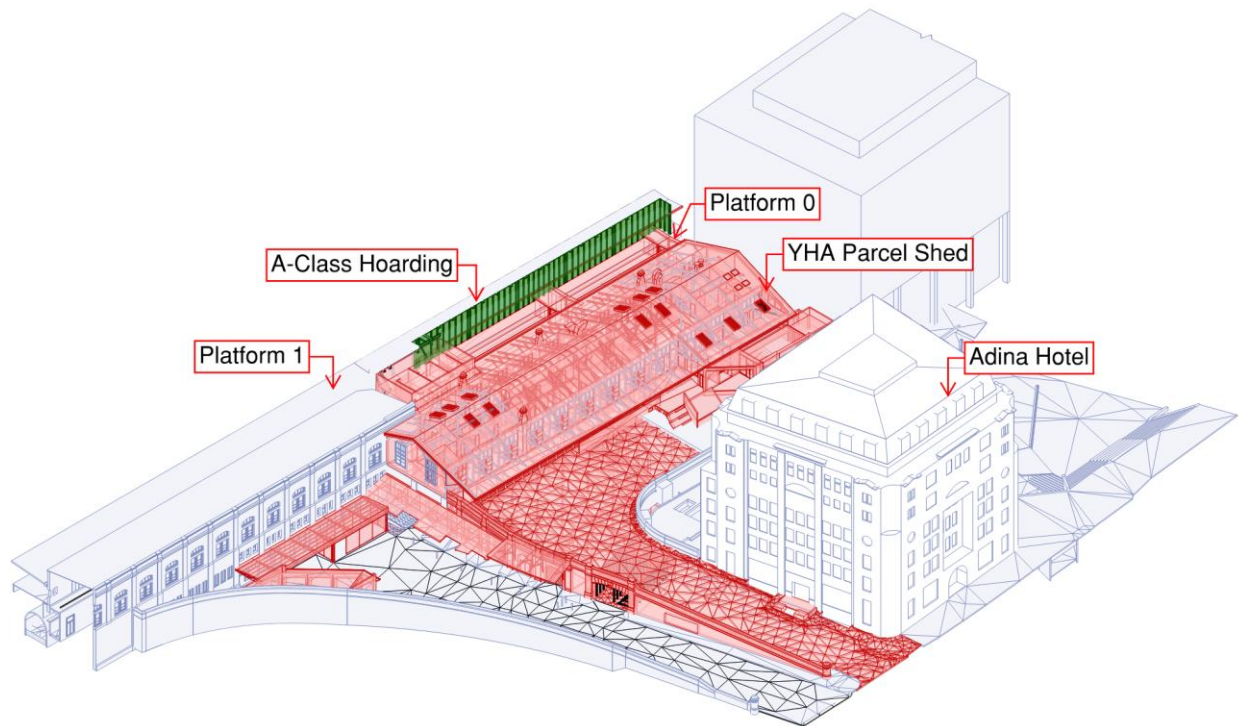


Figure 2-11: Overview of BOJV demolition works

As part of the demolition works, the replica train carriages and awning structure over the YHA lodging will also be dismantled and removed from site. A section of the Devonshire Street Tunnel (DST) roof structure will also be removed as part of the demolition works. A risk assessment process will be required in the event that dismantle and demolition works within the Atlassian site boundary are to occur prior to the A-Class hoarding on Platform 1 being installed. Provided the correct control measures are put in place, BOJV suggests that this would be an appropriate option.

Construction details on this element of demolition are further detailed in the Devonshire Street Tunnel Demolition Management Plan. An overview of these works including dimensions in relation to Platform 1 is shown in Figure 2-12 below.

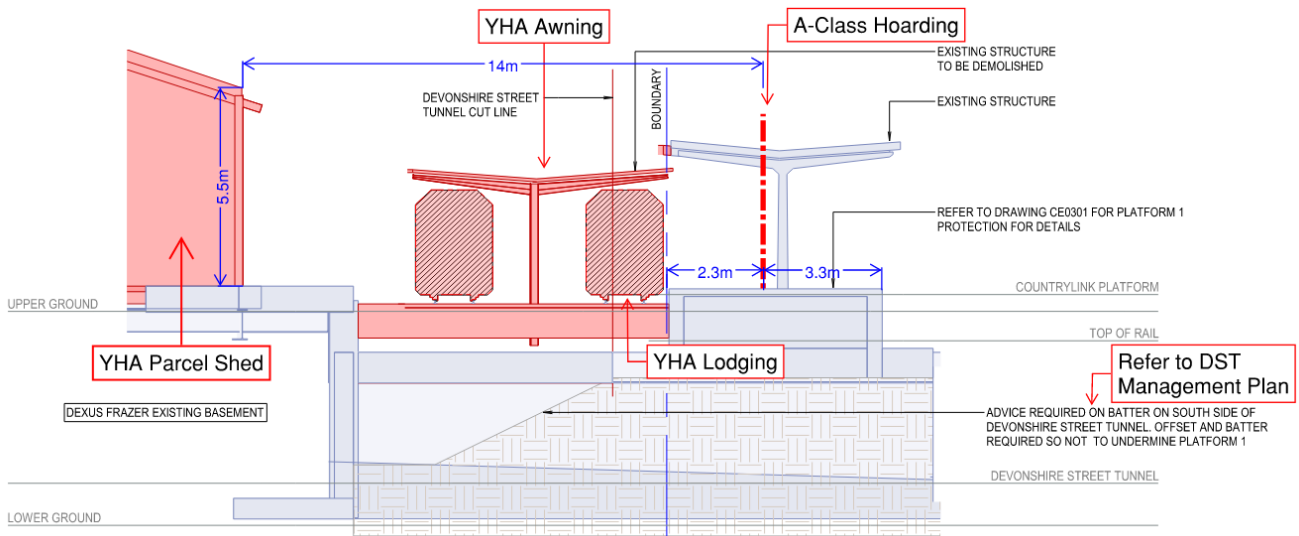


Figure 2-12: Railway Square YHA Awnings & Parcel Shed Dismantle

The YHA Parcel Shed will be dismantled to allow for earthworks machinery to be mobilised for the piling, retention and excavation works adjacent to Platform 1. As shown in Figure 2-13 below, the height and proximity of the Parcel Shed structure in relation to the publicly accessible areas of Platform 1 will not pose a falling object risk.

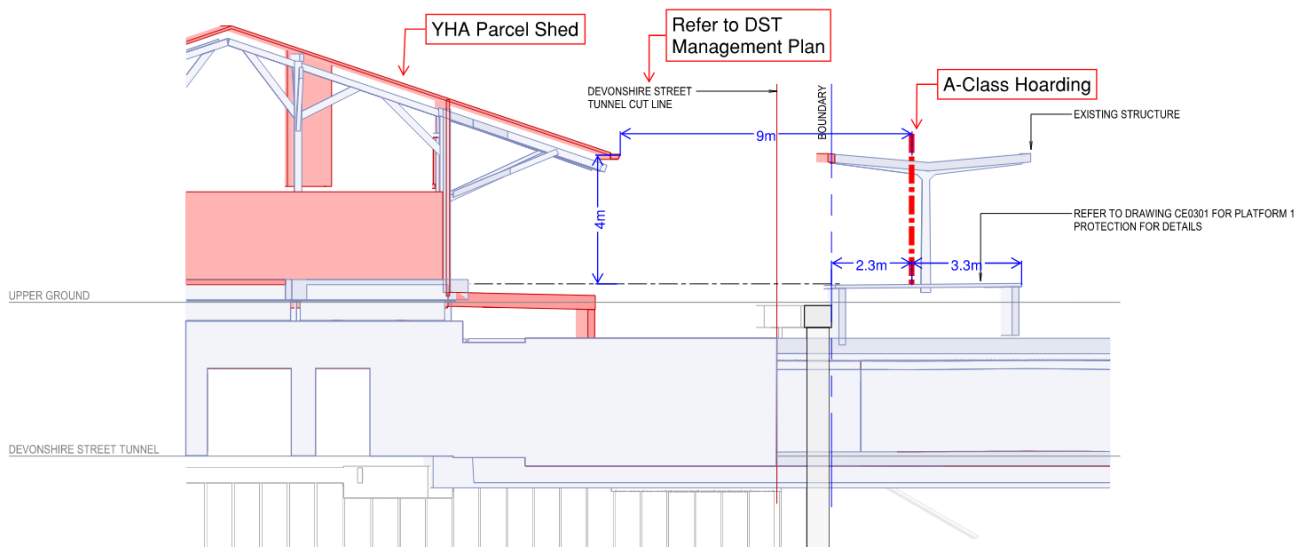


Figure 2-13: Railway Square YHA Parcel Shed Dismantle

## 2.3 Piling & Excavation Works

Following the demolition of the existing Railway Square YHA structure, the mobilisation of heavy earthworks equipment will be necessary to construct the Eastern pile retention wall adjacent to Platform 1. A piling rig will be situated directly on the Western side of platform 1 behind the A-Class hoarding. Details of the piling works are provided in Figures 2-14 and 2-15 below.





Figure 2-14: Example of piling rig in relation to Platform 1 A-Class Hoarding

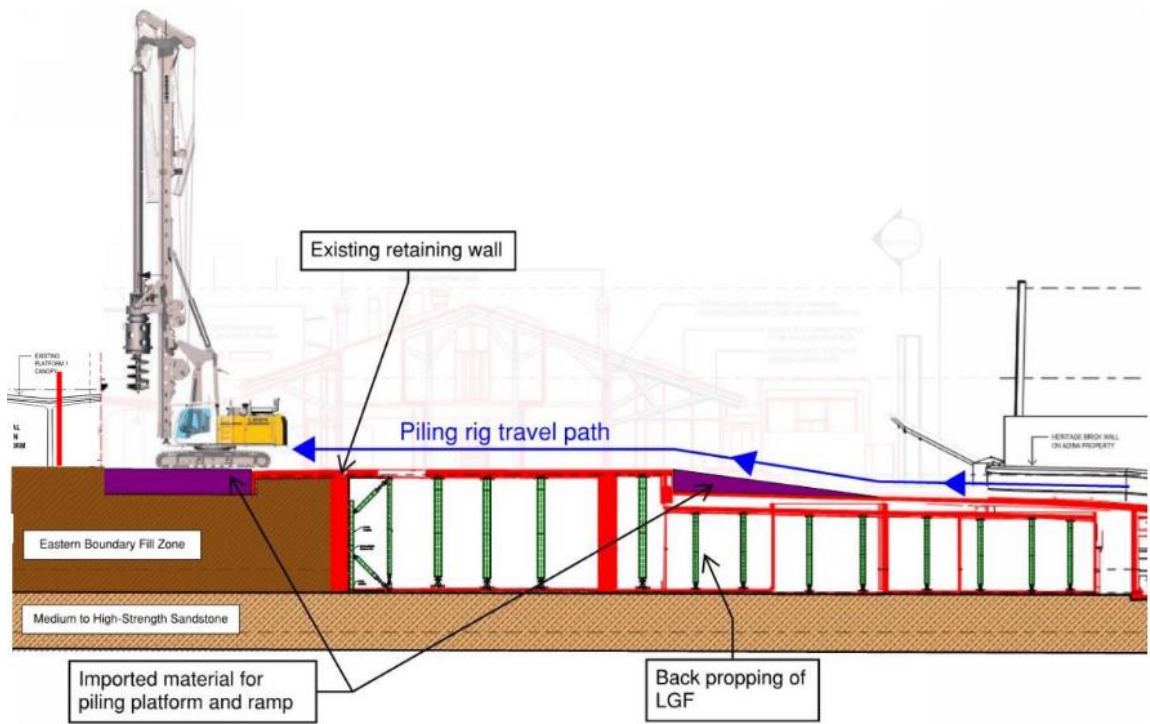


Figure 2-15: Sectional view of piling operations on Eastern boundary

In order to safely complete the piling works, BOJV will put in place the following risk mitigation measures:

### 1. Pre-construction

- a. Services scanning and mapping
- b. AEO certified Geotechnical investigation and reporting
- c. AEO certified Structural design of piling and retention systems
- d. Input from services co-ordination consultants
- e. Identification of key risk items and mitigation measures. Such items include:
  - i. In-ground services
  - ii. TfNSW infrastructure on and below Platform 1
  - iii. Sub-terranean structures (Devonshire Street Tunnel, North-Eastern Baggage Tunnel)
  - iv. Voids and rock seams
- f. Development of appropriate monitoring strategies – vibration, noise, movement, dust
- g. Development of relevant management plans in consultation with TfNSW, including:
  - i. Health, Safety & Environmental Management Plan
  - ii. Construction Management Plan
  - iii. Rail Safety Management Plan
  - iv. Devonshire Street Tunnel Demolition Management Plan
  - v. Rail Corridor Access Paper
  - vi. Possession Management Plan
  - vii. Noise, Vibration & Dust Management Plan
  - viii. Monitoring Alert & Response Plan
- h. Consultation with TfNSW to understand specific risks not identified during investigation works above. This includes consultation with the Station Working Group

### 2. During construction

- a. Daily toolbox talks outlining to the site team any key work areas and risks
- b. Spotters and supervisors to be present at all times during piling operations, situated within Atlassian construction site
- c. AEO certified Geotechnical advice covering:
  - i. Construction of piling platforms
  - ii. Offsets and exclusion zones from underground services and structures for piling rig surcharge loads
  - iii. Staged inspection of works and holding points
- d. On-site AEO certified Structural advice covering:
  - i. Site inspections and compliance with design
  - ii. Periodic review of monitoring data to ensure the retention structure is performing as expected. Monitoring to be in line with the Structural Monitoring Alert & Response Plan

### 3. Post construction of pile wall (i.e., during excavation)

- a. Continued monitoring as per the Structural Monitoring Alert & Response Plan

## 2.4 Bulk Excavation

Upon completion of the piling works, the earthworks contractor will commence bulk excavation of ballast material and fill around Platform 1 and the Devonshire Street Tunnel. The main bulk excavation works will require the removal of approximately 25,000m<sup>3</sup> of fill, clay, and sandstone. The removal of material will be managed with staged drops and installation of shotcrete and rock anchors to the piling retention system as per the approved retention system drawings and sequence.

The interface of these works with Platform 1 is shown in Figures 2-16 to 2-19 below.

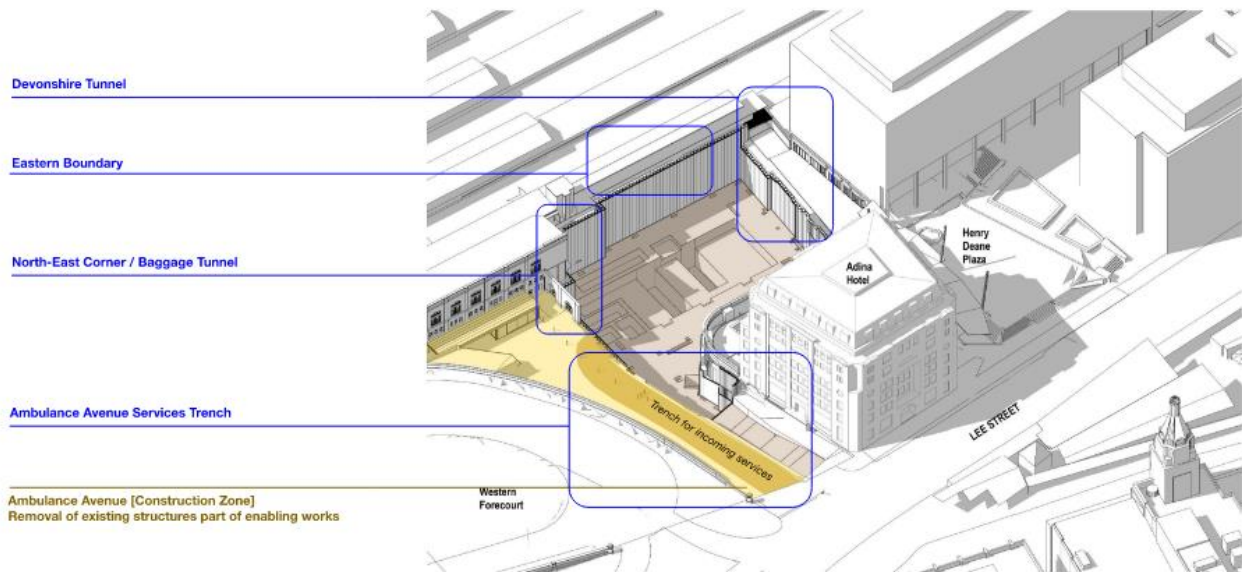


Figure 2-16: Bulk Excavation Overview

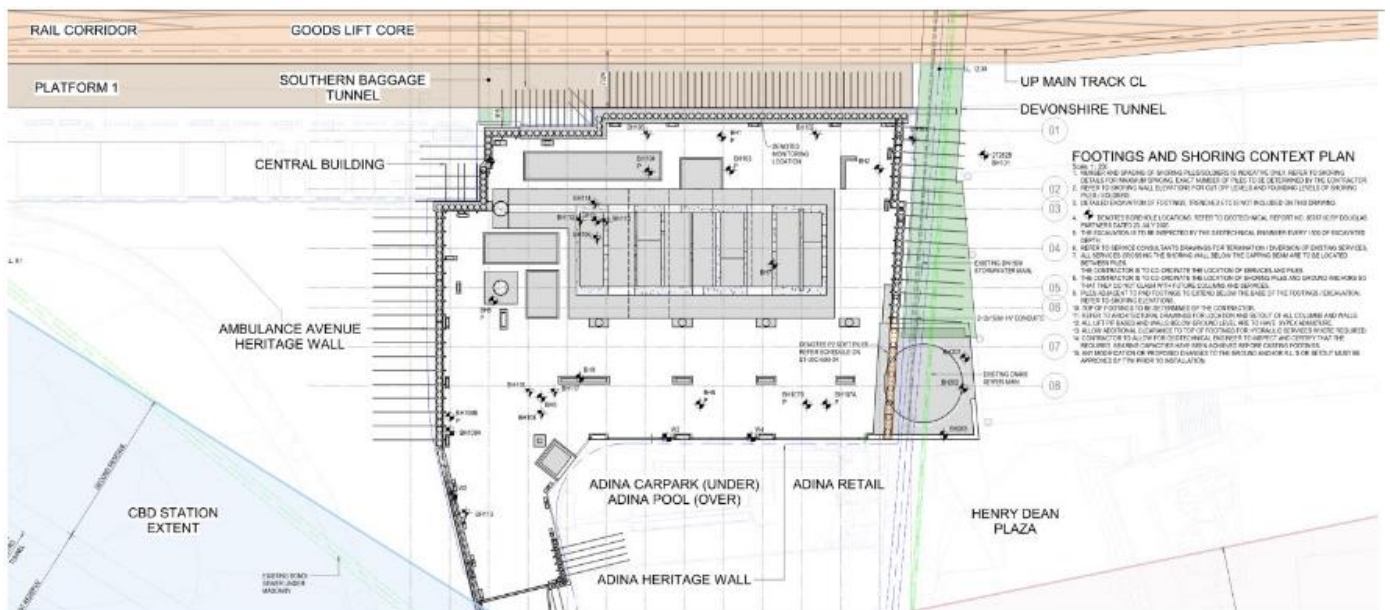


Figure 2-17: Structural Shoring Context Plan



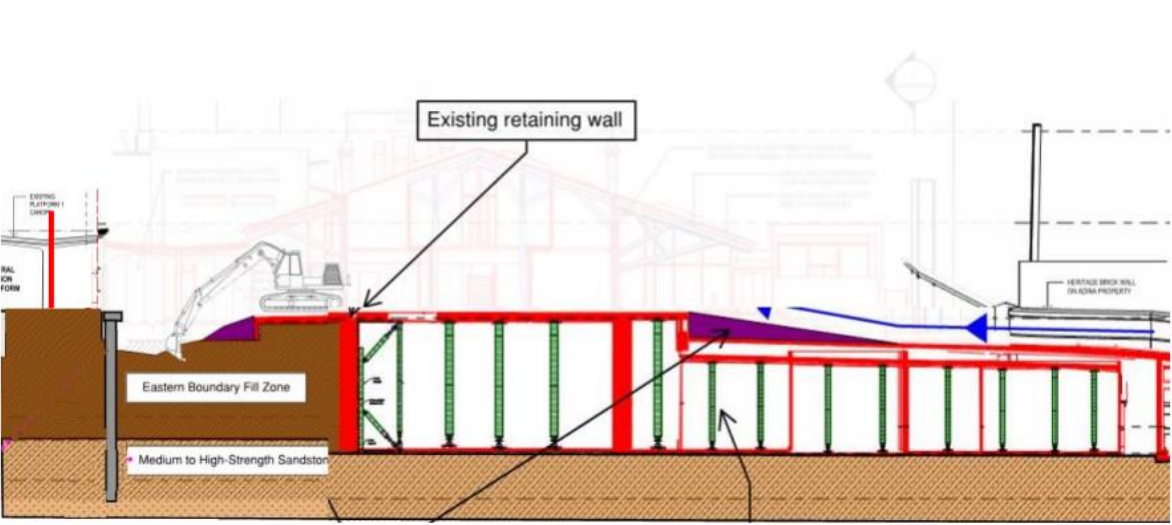


Figure 2-18: Sectional view of excavation operations on Eastern boundary

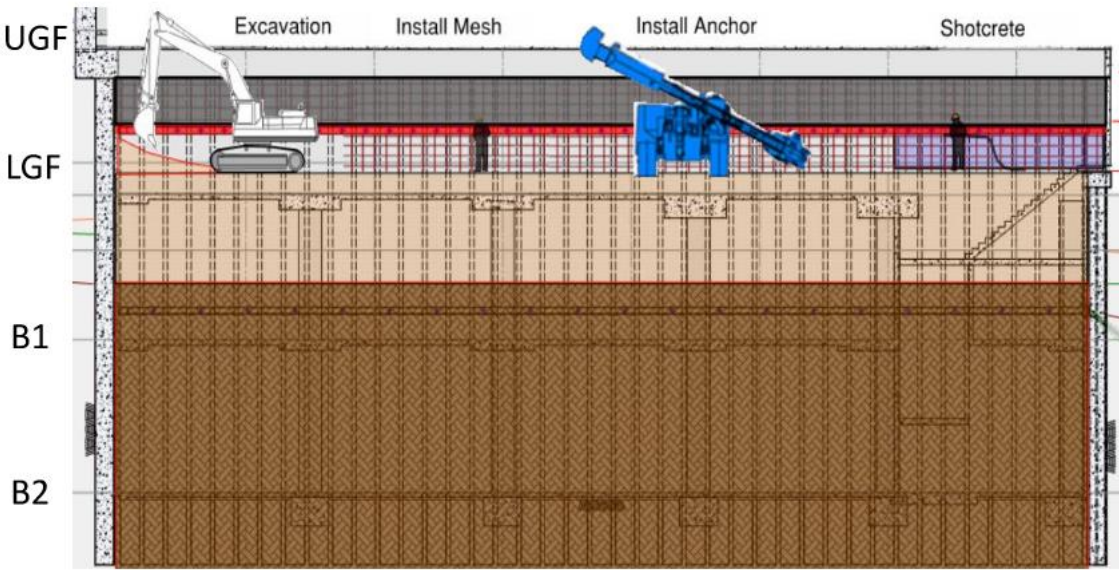


Figure 2-19: Elevation of excavation operations on Eastern boundary

### 2.4.1 Noise, Vibration & Dust Monitoring

BOJV will ensure appropriate dust monitoring and suppression procedures put in place during enabling works will continue to be tracked and implemented to minimise airborne dust during bulk excavation. In addition to dust monitoring, BOJV will implement a noise & vibration monitoring strategy for the project. Vibration monitors will be installed during enabling works and prior to main works construction commencing.

This will allow BOJV to establish a baseline of noise and vibration due to the existing conditions surrounding Central Station. The baseline along with other factors specific to the Atlassian project location will be considered in developing the overall strategy. Further information on how this will be achieved can be found in the Noise, Vibration & Dust Management Plan.

### 2.4.2 Monitoring, Alert & Response

Similar to piling operations, the bulk excavation will require TTW to periodically review monitoring data to ensure the retention structure is performing as expected. The monitoring will be undertaken in conjunction with a detailed inspection regime during bulk excavation to ensure the construction of the retention system is in line with the design intent.

Monitoring is to be conducted in line with the Structural Monitoring Alert & Response Plan developed by TTW. An extract from the plan indicating the deflection trigger limits for Platform 1 are detailed in Figure 2-20 below.

**Recommended Movement Monitoring Limits**

Asset ID	Asset	Asset Type	Movement Type	Monitoring Method	Movement Limit (mm)	Suggested Trigger Levels (mm)		
						GREEN	AMBER	RED
A05a	Platform 1	Buildings/ structures	Vertical	Movement Monitor	8*	<4*	≥4*	≥6.5*
			Horizontal	Movement Monitor	3	<1.0	≥1.0	≥3.0
			Inclination	Not required	NA	-	-	-

\*Based on previous Mott MacDonald report, pending geotechnical input, which will require updates

**Figure 2-20: Platform 1 Recommended Movement Monitoring Limits**

The action plan relating to the above trigger levels is shown in Figure 2-21 below. The magnitude of the measured deflection in relation to the documented limit will determine the course of action to be taken. Further information on the monitoring regime and other identified assets requiring monitoring are detailed further in the Structural Monitoring Alert & Response Plan.

**Table 4: Alert level response and actions**

Alert Level	Description	Response and action
GREEN	Movements and values are less than 50% of the maximum predicted value	<ul style="list-style-type: none"> <li>• If steady/constant trend of recorded movements/values is observed; no further response/action required</li> </ul>
		<ul style="list-style-type: none"> <li>• Progress of Works and monitoring to continue as planned</li> </ul>
		<ul style="list-style-type: none"> <li>• If a noticeable increase in recorded movements/values is observed:                             <ul style="list-style-type: none"> <li>– Monitoring data reviewed; consideration given to increasing monitoring frequency. Reassessment of predicted movements may be required.</li> <li>– Increase vigilance during Works</li> </ul> </li> </ul>
		<ul style="list-style-type: none"> <li>• If construction works are complete and a steady/constant trend is observed, consideration can be given to reducing/ceasing monitoring</li> </ul>
		<ul style="list-style-type: none"> <li>• Monitoring data to be reviewed and interpreted</li> </ul>
AMBER	Movements and values are greater than 50% but less than 80% of the maximum predicted value	<ul style="list-style-type: none"> <li>• Works process to be reviewed</li> </ul>
		<ul style="list-style-type: none"> <li>• Monitoring to continue as planned</li> </ul>
		<ul style="list-style-type: none"> <li>• Designer's Representative to be informed. Reassessment of predicted movement required to be undertaken based on latest recorded data</li> </ul>
		<ul style="list-style-type: none"> <li>• Construction works may continue subject to process review findings. Process may include                             <ul style="list-style-type: none"> <li>– Review of construction methodology and consideration to adjusting methodology where and as necessary</li> <li>– Based on review and interpretation of monitoring data, monitoring frequency to be increased where and as necessary</li> </ul> </li> </ul>
		<ul style="list-style-type: none"> <li>• If a noticeable increase in recorded movements and values is observed then remedial and mitigation measures will need to be developed, documented and implemented where and as necessary</li> </ul>
RED	Movements and values are greater than 80% of the maximum predicted value	<ul style="list-style-type: none"> <li>• Comprehensive risk assessment/re-evaluation review with appropriate contingency planning to be undertaken</li> </ul>
		<ul style="list-style-type: none"> <li>• Construction Manager notified of exceedance and consideration given to immediately and temporarily ceasing construction works</li> </ul>
		<ul style="list-style-type: none"> <li>• Designer's Representative and all relevant parties to be notified of trigger level exceedance as per Table 5</li> </ul>
		<ul style="list-style-type: none"> <li>• Monitoring data to be reviewed and interpreted</li> </ul>
		<ul style="list-style-type: none"> <li>• State Transit Duty Managers and Customer Area Managers to be alerted for transport assets.</li> </ul>
		<ul style="list-style-type: none"> <li>• Works process to be reviewed. Review to define if construction works can proceed and what other actions are required, including:                             <ul style="list-style-type: none"> <li>– Risk assessment/contingency plan to be implemented as appropriate</li> <li>– Monitoring frequency to be increased where and as necessary</li> <li>– Remedial and mitigation measures developed, documented and implemented where and as necessary</li> </ul> </li> </ul>
		<ul style="list-style-type: none"> <li>• Reassessment of predicted ground movements to be undertaken by Design Team using latest monitoring data</li> </ul>

Figure 2-21: Alert Level Response & Actions

### 2.4.3 Rock Anchoring

Rock anchors are required to be installed under the rail corridor during the retention and earthworks phase of the project. The retention system inclusive of rock anchoring has been designed by the following AEO accredited design teams:

- Structural – TTW
- Geotechnical – Douglas Partners

TfNSW has approved the rock anchor concession (SW 0108:2021, approved by Joe Muscat 18/05/2021) to allow the installation of these anchors with the following controls applied during the works:

- The design life of temporary anchors shall not be less than 10 years
- Anchors are design for wind & earthquake loads in addition to earth pressure and surcharge loads
- Temporary anchors will be destressed immediately after they are no longer required
- Anchor heads will be removed, and protruding tendons or bars cut flush
- Evidence of de-stressing will be provided to TfNSW
- As-built drawings with anchor locations and details will be provided to TfNSW
- A Technical Maintenance Plan (TMP) in accordance with TfNSW standards will be prepared for the examination of the temporary anchors during service
- A monitoring regime shall be prepared, and results provided to TfNSW

### 2.4.4 North-East Corner Excavation Works

The North-East corner of the excavation contains a section of the Central Station Platform 1 baggage tunnel. During bulk excavation works, existing fill over the tunnel will be removed and the section of the tunnel within the Atlassian site boundary will be demolished and removed from site. A temporary retention system for the remaining baggage tunnel structure will be installed prior to demolition works commencing. Details and staging of the retention and demolition works are detailed in Figure 2-22 below.

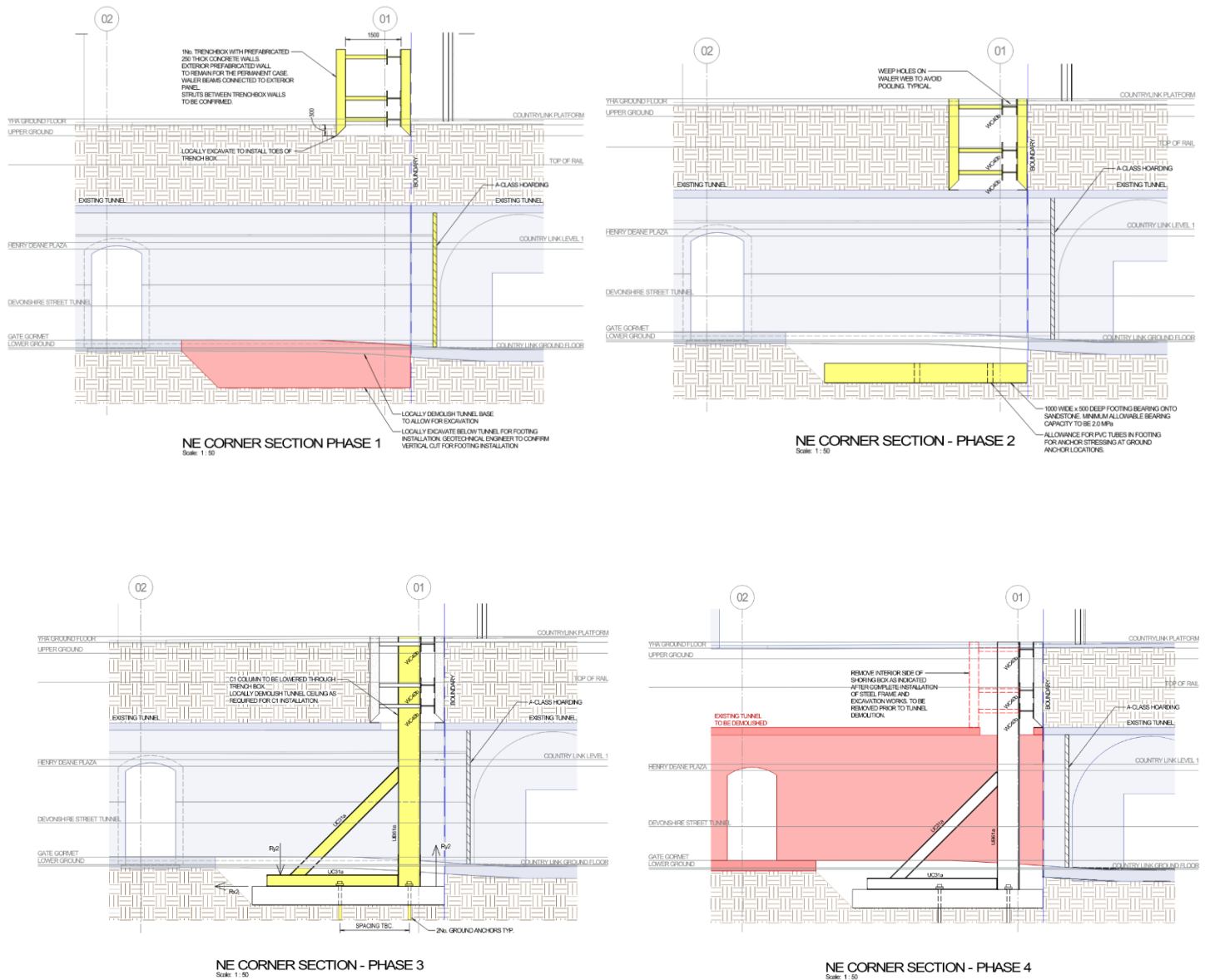


Figure 2-22: North-East Baggage Tunnel Temporary Retention & Demolition

The baggage tunnel retention strategy has been developed to ensure platform stability and minimal impact to adjacent heritage structures and the goods lift. As noted in the Construction Management Plan, the assumptions made regarding existing conditions have resulted in the development of this system as the most appropriate option. Further site investigation is required to confirm BOJV & AEO Engineer assumptions to verify the design and methodology.

## 2.4.5 Devonshire Street Tunnel Excavation & Demolition

The South-East corner of the excavation will be completed directly adjacent to the Devonshire Street Tunnel. The tunnel will remain operational during piling and excavation works, however the partial demolition of the tunnel structure will need to occur at predetermined times agreed with TfNSW. Further details on the staging of demolition works and the BOJV overhead protection and pedestrian management strategy are available in the Devonshire Street Tunnel Demolition Management Plan. Details on the excavation and demolition of the DST are shown in Figures 2-23 – 2-26 below.



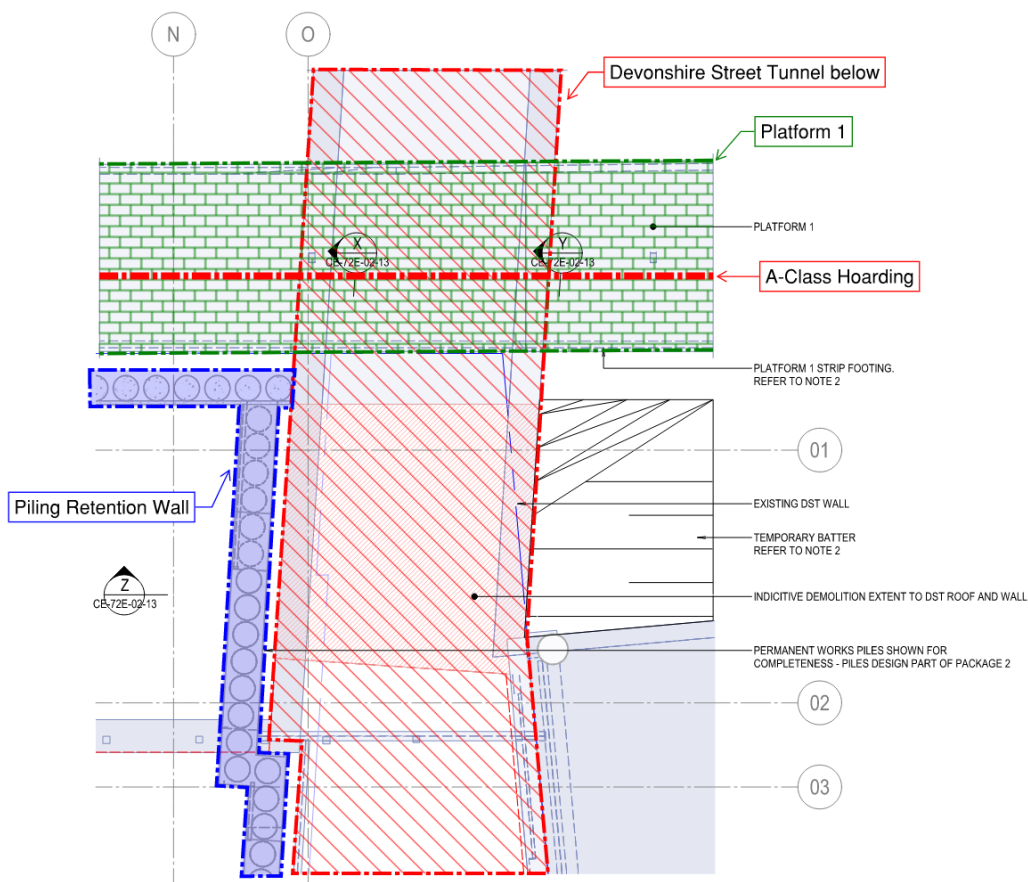


Figure 2-23: Platform 1, DST & Piling Wall Interface

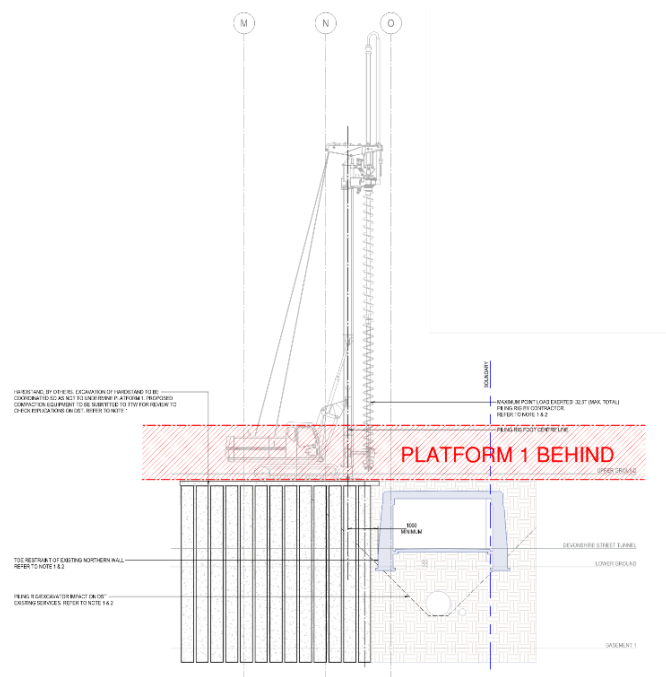


Figure 2-24: Completion of piling wall adjacent to DST

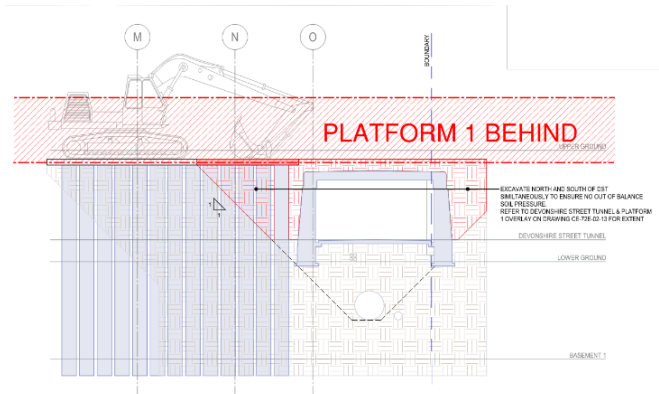


Figure 2-25: Excavation of fill over DST

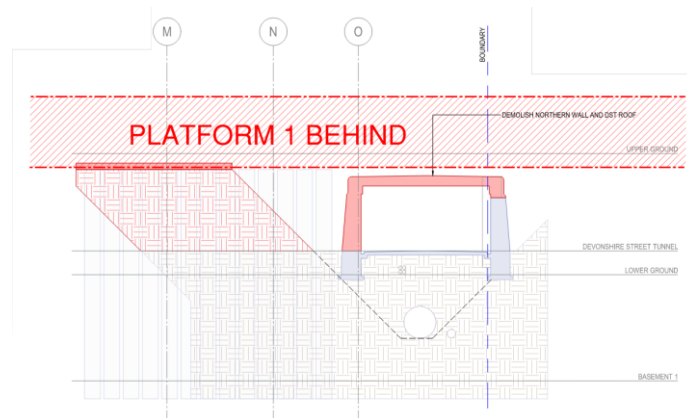


Figure 2-26: Partial Demolition of DST

## 2.5 Tower Crane Installation & Operation

BOJV propose to use two tower cranes to service the main works of the Atlassian project, with an additional four cranes required as part of the demobilisation strategy. Further details on the demobilisation works can be found in the Construction Management Plan.

The tower cranes servicing the main works consist of the following:

- Tower Crane 1 (TC1) – installed on a pad footing within existing Upper Carriageway Lane zone
- Tower Crane 2 (TC2) – installed in the tower core structure
- Tower Crane 3 (TC3) – additional crane installed at the crown structure level following TC2 removal

An overview of the tower cranes is provided in Figures 2-27 and 2-28 below:

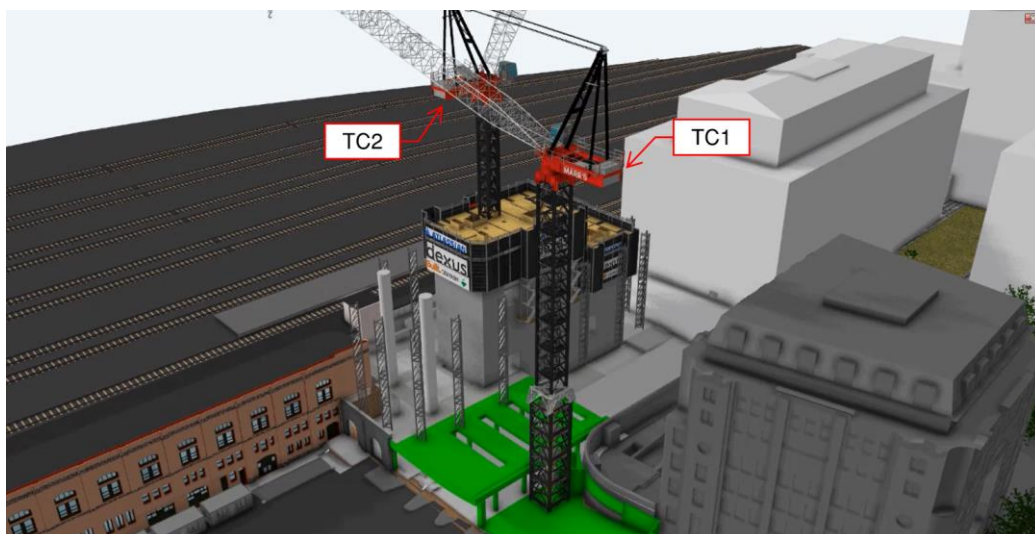


Figure 2-27: Atlassian Tower Crane Overview

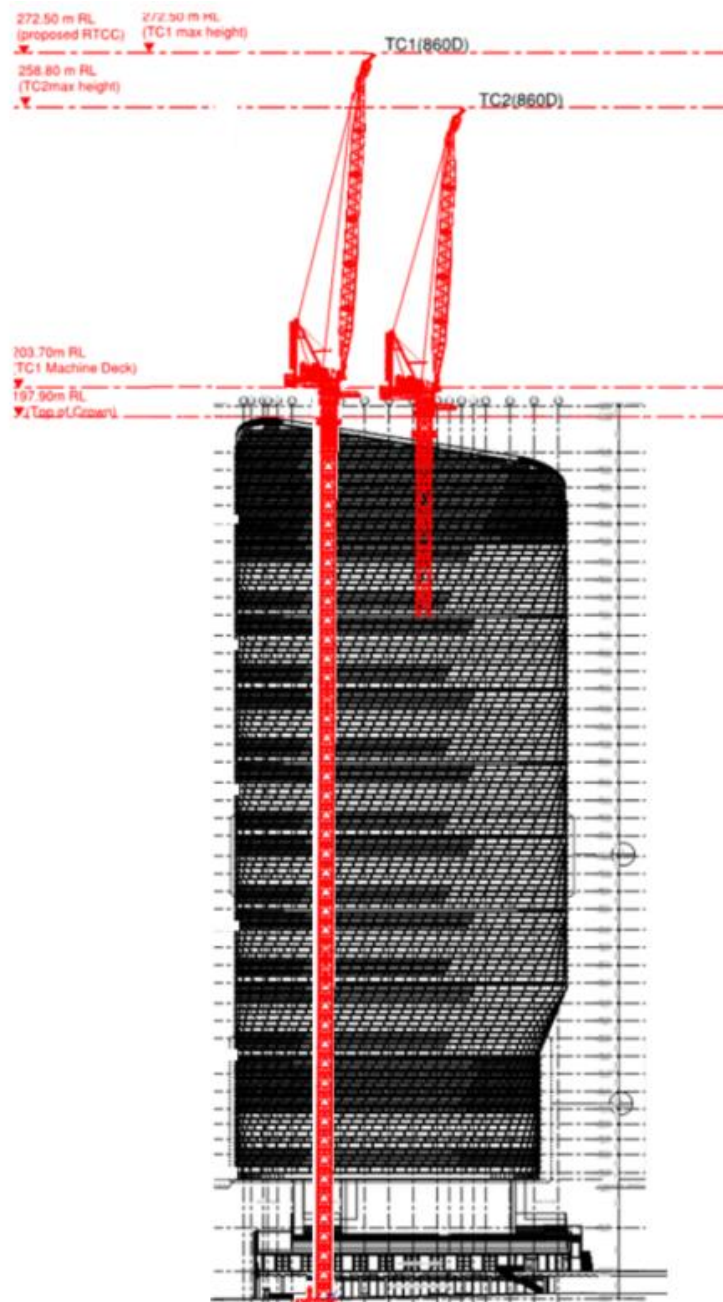


Figure 2-28: Preliminary Elevation of TC positioning at maximum heights

## 2.5.1 Tower Crane Installation Methodology

Tower Crane 1, being the first crane installed on the project will be erected with a mobile crane established in Ambulance Avenue. BOJV's intention is to use a section of Railway Colonnade Drive as a loading zone for the installation. This will ensure adequate space is provided for the crane contractor to complete a safe installation.



Note the assembled crane jib is to be lifted from Ambulance Avenue onto the tower crane in a Northerly direction to ensure no overhead works are carried out over the rail corridor. Adequate areas of Railway Colonnade Drive will need to be excluded to the public to safely complete this lift. The timing and extent of exclusion zones is to be determined through further consultation between BOJV and TfNSW. Details on the agreed strategy and impacts on the public will be documented in the Railway Colonnade Drive Management Plan. An overview of TC1 installation is shown in Figure 2-29 below.

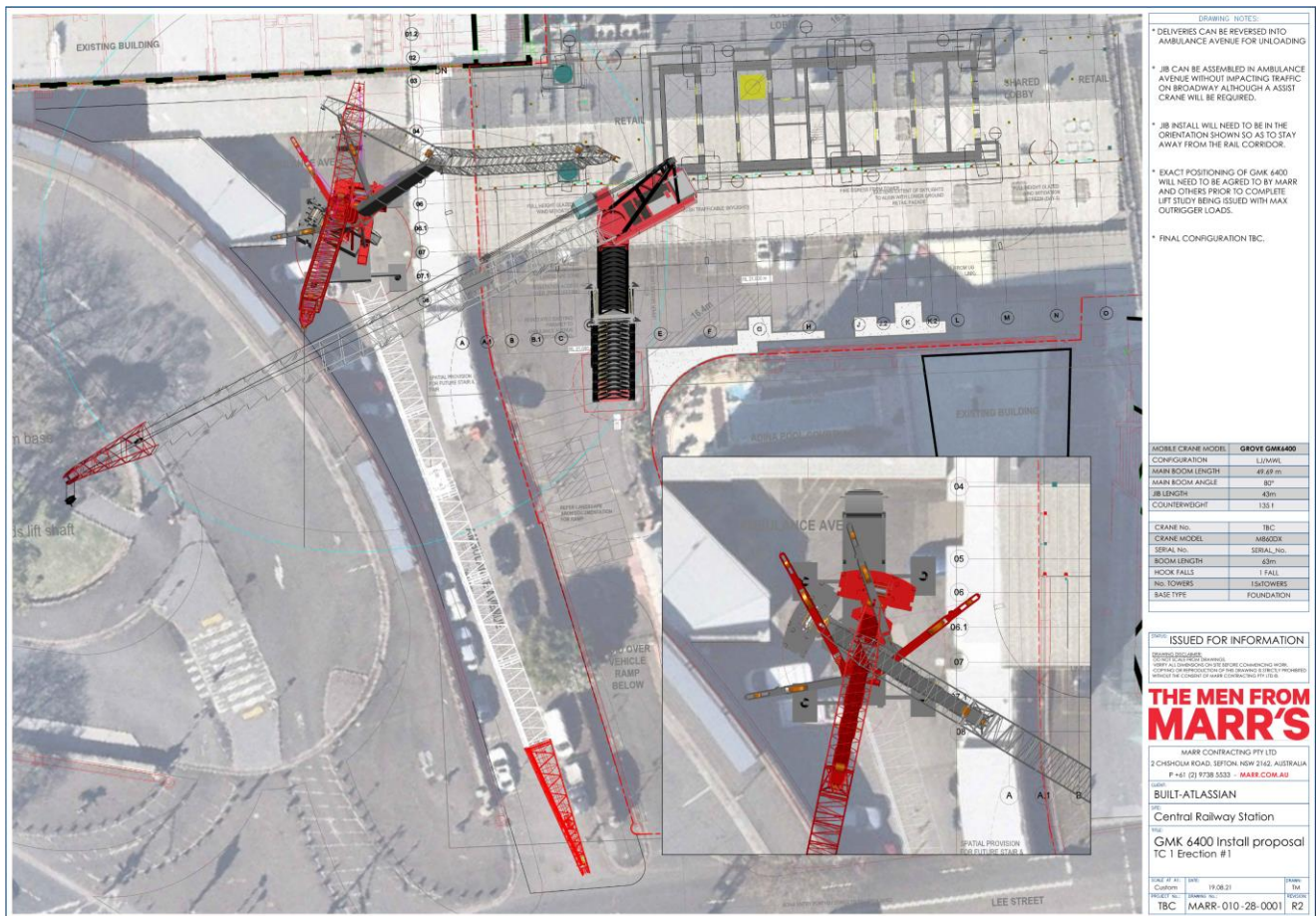


Figure 2-29: TC1 installation with Mobile Crane from Ambulance Avenue

Following installation of TC1 and after the core raft slab is completed, TC2 will be installed with TC1. The installation procedure will be similar to that of TC1, with major crane components delivered to Railway Colonnade Drive, assembled in Ambulance Avenue, and installed onto the crane towers. A mobile crane will also be established in Ambulance Avenue to assist with a safe installation and to minimise disruption to the public and Railway Colonnade Drive operations.

Similar to TC1, the jib for TC2 will be installed in a Northerly direction to avoid any works over the rail corridor. Appropriate exclusion zones are to be established in Railway Colonnade Drive in consultation with TfNSW and as per the Railway Colonnade Drive Management Plan. The location of TC2 and a preliminary climbing sequence is shown in Figures 2-30 and 2-31.

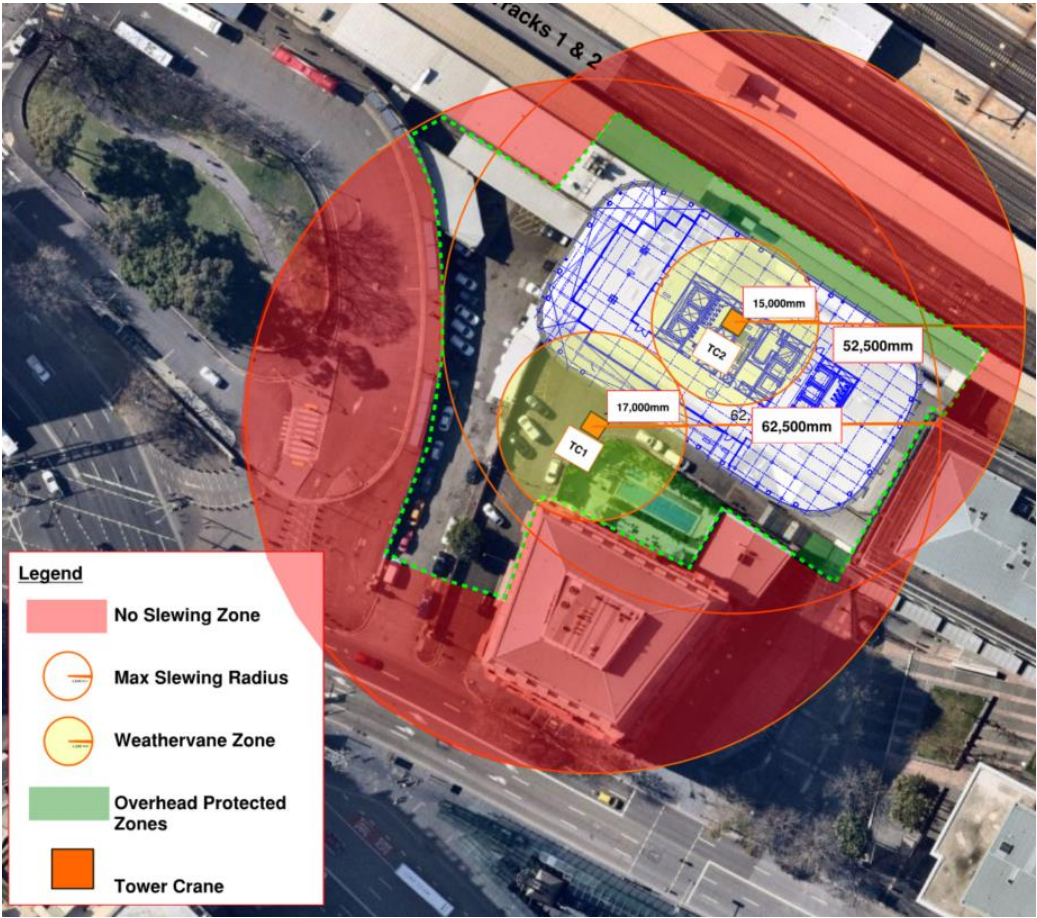


Figure 2-30: TC1 installation with Mobile Crane from Ambulance Avenue

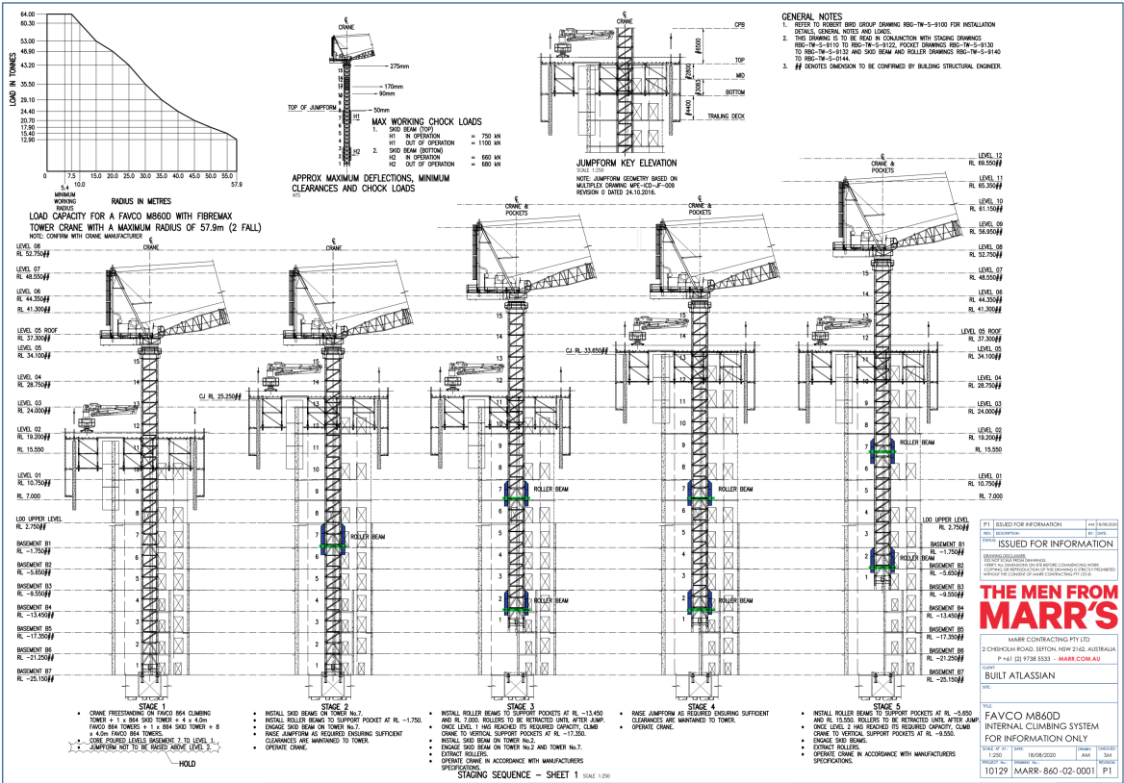


Figure 2-31: TC2 Preliminary Climbing Sequence



BOJV note that TC2 is the closest crane to the rail corridor, at approximately 16m from the crane towers to the centreline of Platform 1. Further detail on the procedures put in place to ensure tower crane operations are monitored and restricted is included below.

### 2.5.2 Certification Process

Prior to installation each tower crane on the project, BOJV will develop an installation strategy with the crane contractor covering the below key areas:

1. Design
  - a. Design registration details
  - b. Plant registration certificate
  - c. Crane design including base and ties
  - d. Boom signage
2. Crane base construction
  - a. Geotechnical assessments
  - b. Engineer inspections of crane base
  - c. Anchor installation
  - d. Concrete test results
  - e. Site survey
3. Traffic Management
  - a. Traffic Control Plans
  - b. Traffic Management SWMS
  - c. Permits
  - d. CASA approval
4. Pre-Erection
  - a. Safety Management Plans – Mobile & Tower Crane
  - b. Insurances – Mobile & Tower Crane
  - c. Inspection Test Reports and third-party assessments
  - d. Geotechnical reports for mobile crane establishment
  - e. Crane Erection SWMS
  - f. Risk Assessments
  - g. Erection Methodology
5. Training
  - a. Verification of Competency
  - b. High Risk Work Licenses
6. Inspection & Maintenance - detailed by the manufacturer and State legislation
7. Lifting gear certification documents

Following the installation of each tower crane, an independent CraneSafe inspector is required to commission the crane by conducting performance tests in line with State Occupational Health & Safety Act. Once all commissioning tests have been completed, a CraneSafe commissioning document will be issued permitting BOJV to operate the crane. This document will come with a strict set of guidelines relating to operation, maintenance, and ongoing inspection requirements. An example of a CraneSafe sticker which will be visible in the cab of each crane is shown in Figure 2-32 below.



Figure 2-32: Sample CraneSafe Sticker

### 2.5.3 Tower Crane Operations

BOJV has illustrated in Figure 2-30 above the maximum slewing radius of each crane overlaid on a satellite plan (red ring). The image also identifies within each radius the non-slewing (red) vs slewing zones which will be implemented on the project. The tower cranes will be fitted with slew restriction systems to electronically restrict the operation of the tower cranes to a predetermined zone.

When the tower cranes are out of service, weathervane mode allows the jib arm of the crane to rotate in the direction of the wind like a weathervane, reducing pressure on the crane structure and associated footing system. As a safety priority, the cranes must be allowed to weathervane 360 degrees around the crane towers. The cranes will be installed at different heights to mitigate any risk of jib collision during weathervaning. The yellow zone within the orange ring illustrates the weathervane of each crane in its proposed position. BOJV notes that the weathervane radius of TC2 will encroach over Platform 1, however the Overhead Protection System (green) will be installed at this stage. Further detail on this system, and other construction activities occurring over the Eastern boundary are further detailed in this Management Plan.

Anti-collision systems will also be fitted to the cranes, which monitor the movements of cranes and other plant & equipment within the vicinity of the tower cranes jib and machine deck. These systems can prevent collisions from occurring due to poor visibility and other factors.

The above systems are an important safety feature to be installed on any tower crane, however due to the proximity of the project to the rail corridor these systems will be a critical safety addition. An example of how a collision avoidance system manages these risks is shown in Figure 2-33 below:

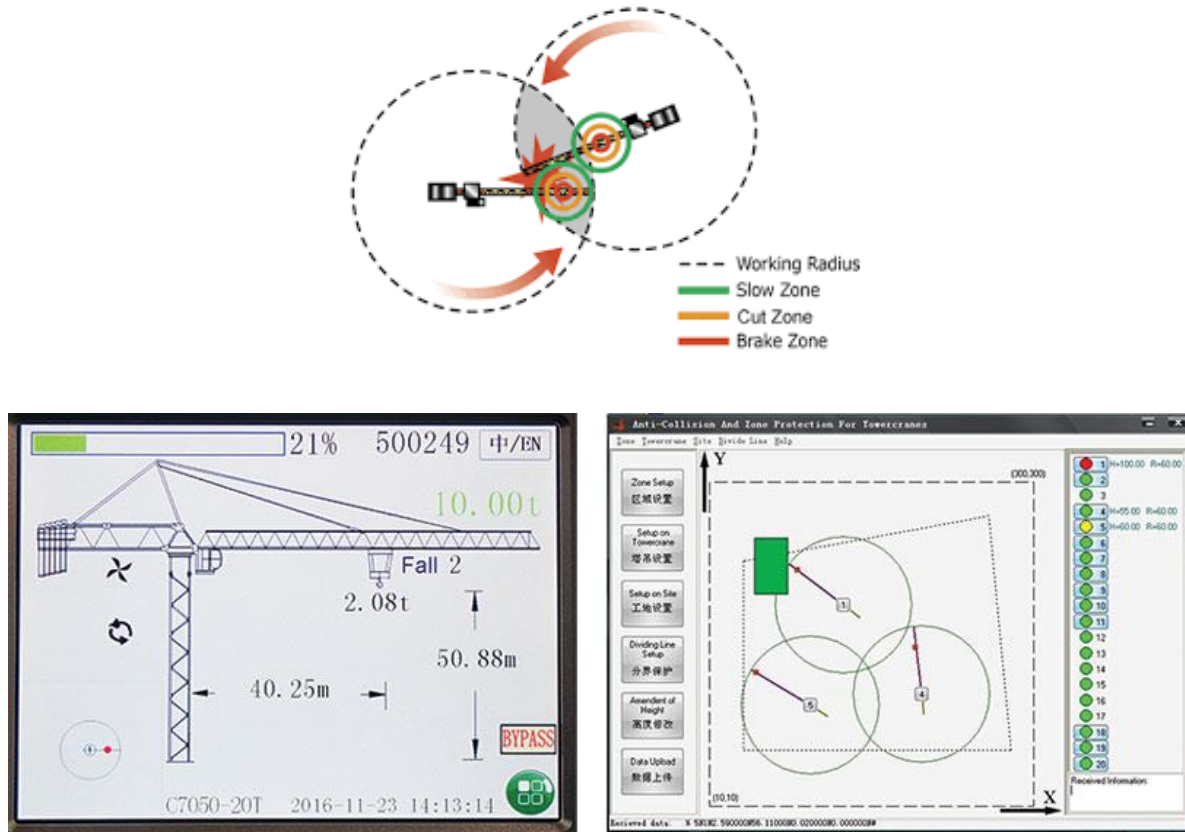


Figure 2-33: Example of Tower Crane Anti-Collision System

## 2.6 Basement Structure

The completion of the basement structure will involve the following activities relating to the Eastern elevation:

- Construction of the core raft slab and jumpform establishment
- Two basement levels, Lower Ground Floor and Upper Ground Floor slabs

All basement works will be completed from behind the A-Class hoarding, with no risk of falling objects to commuters and TfNSW staff on the platform. The noise, vibration and dust monitoring procedures mentioned above will continue to be implemented during this stage of the works to confirm compliance with the Noise, Vibration & Dust Management Plan. Tower crane operations will continue to be monitored as per Section 2.5.3 to ensure no unauthorised lifting over TfNSW assets occurs.

Figures 2-34 and 2-35 below illustrate the basement structure activities and their proximity to Platform 1.



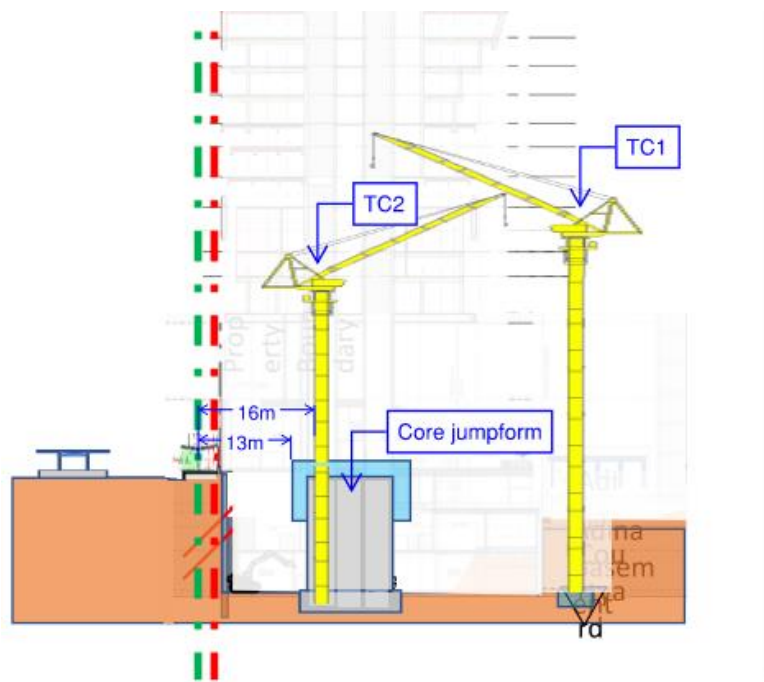


Figure 2-34: Atlassian Basement Structure Works

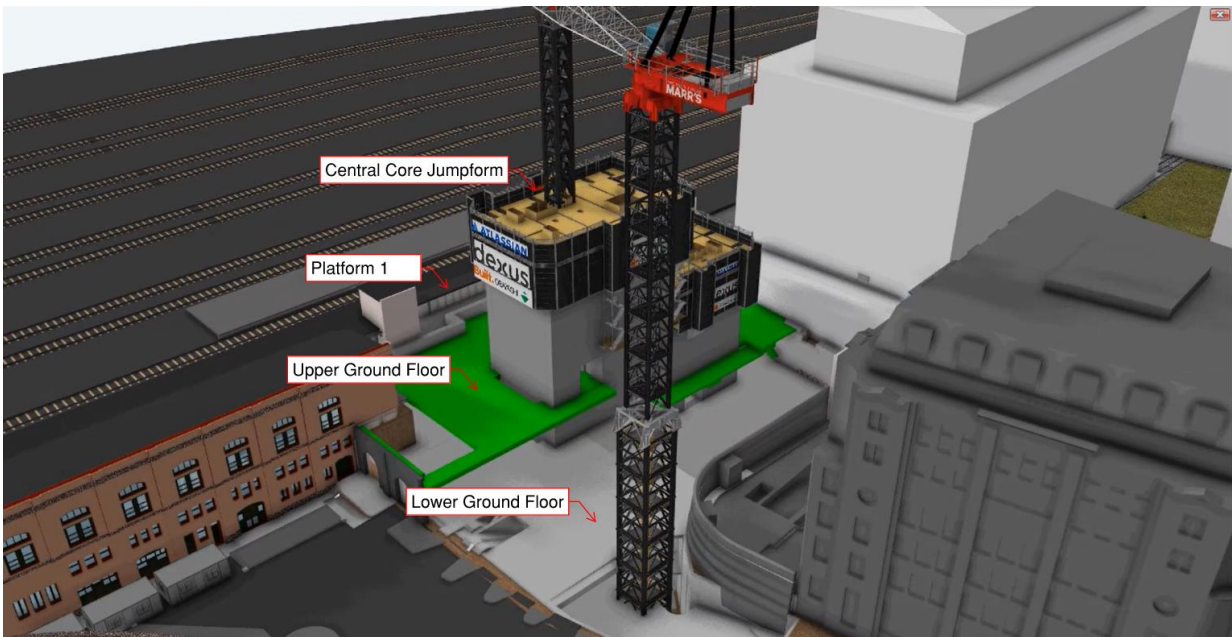


Figure 2-35: Atlassian Basement Structure Works

## 2.7 Platform 1 Overhead Protection System

A significant interface with TfNSW operations will be the installation of the Platform 1 Overhead Protection System (OPS). As the Atlassian tower will be constructed on the Eastern boundary, there will be an element of overhead protection works required on Platform 1 to protect commuters, TfNSW and rail assets from the construction activities occurring above. Once installed, the OPS will provide a physical barrier between TfNSW operations on Platform 1 and BOJV construction activities above.

### 2.7.1 Overview

The Platform 1 Overhead Protection System (OPS) is a temporary steel gantry that will be fixed to permanent structure within the site boundary to provide the required protection for commuters on the platform. As the system will have a direct interface with rail assets, the system has been designed by the following AEO accredited consultants:

- TTW – Structural design
- Stantec – Earthing & Bonding

Structural plans and sections indicating the location of the Overhead Protection Structure in relation to Platform 1 is shown in Figures 2-36 to 2-37 below.

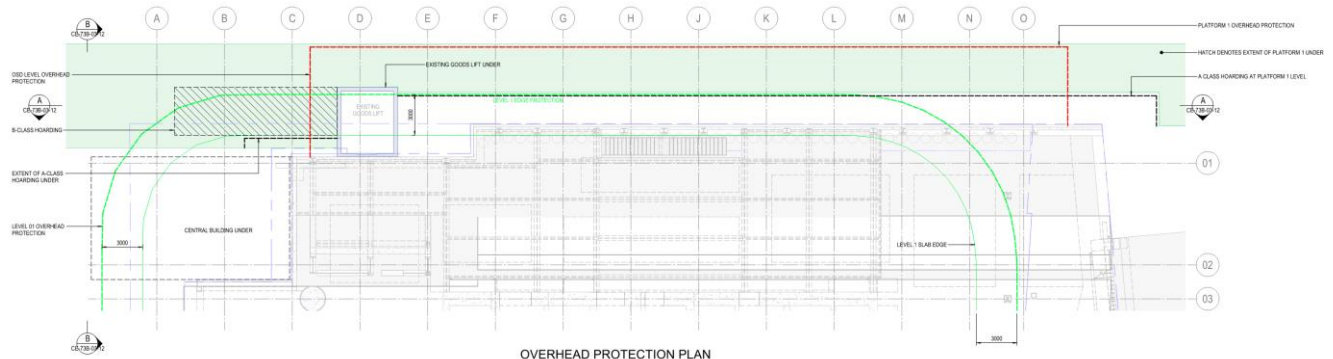


Figure 2-36: Platform 1 Overhead Protection Plan

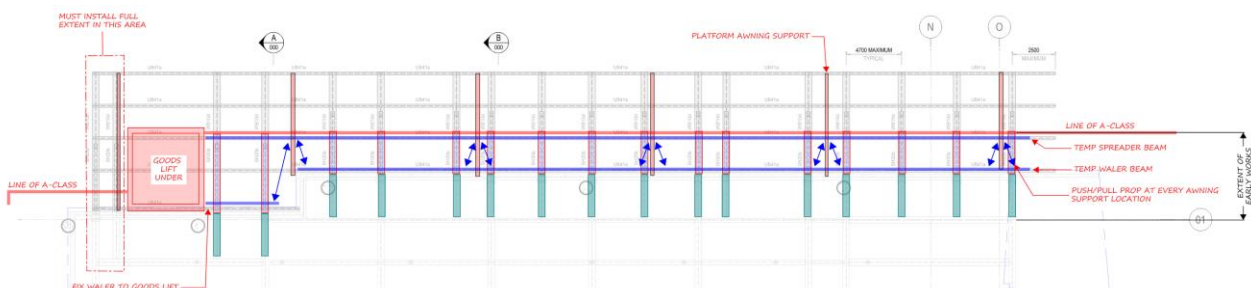


Figure 2-37: Platform 1 Overhead Protection Structure – Plan View

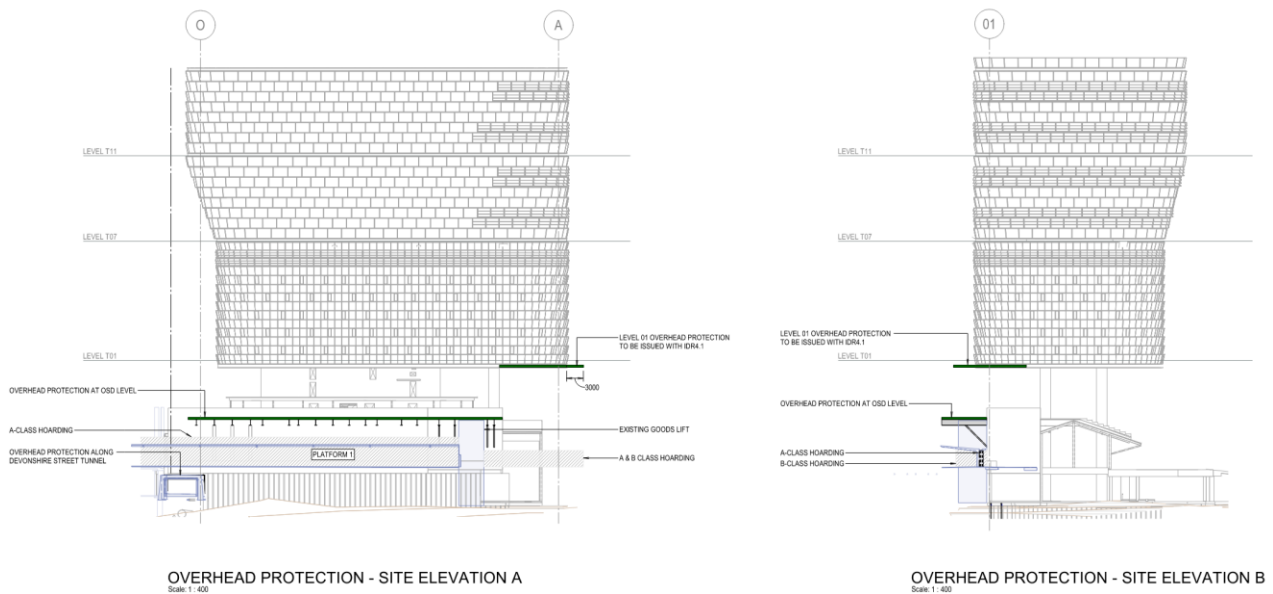


Figure 2-38: Platform 1 Overhead Protection Structure - Sections

## 2.7.2 Installation Methodology

The installation of the OPS will be staged with the operations of the rail corridor in mind. The design of the deck allows for the majority of the gantry structure to be built within the Atlassian site boundary and without significant impacts on Platform 1. The remaining structure to be built over publicly accessible areas is to be completed during predetermined shutdown periods agreed with TfNSW. In addition to allowances for staging, the design will include prefabrication of crane liftable elements which are to be completed away from TfNSW interfaces in order to reduce the amount of overhead construction work required. This install methodology is further described in Figure 2-39 below.

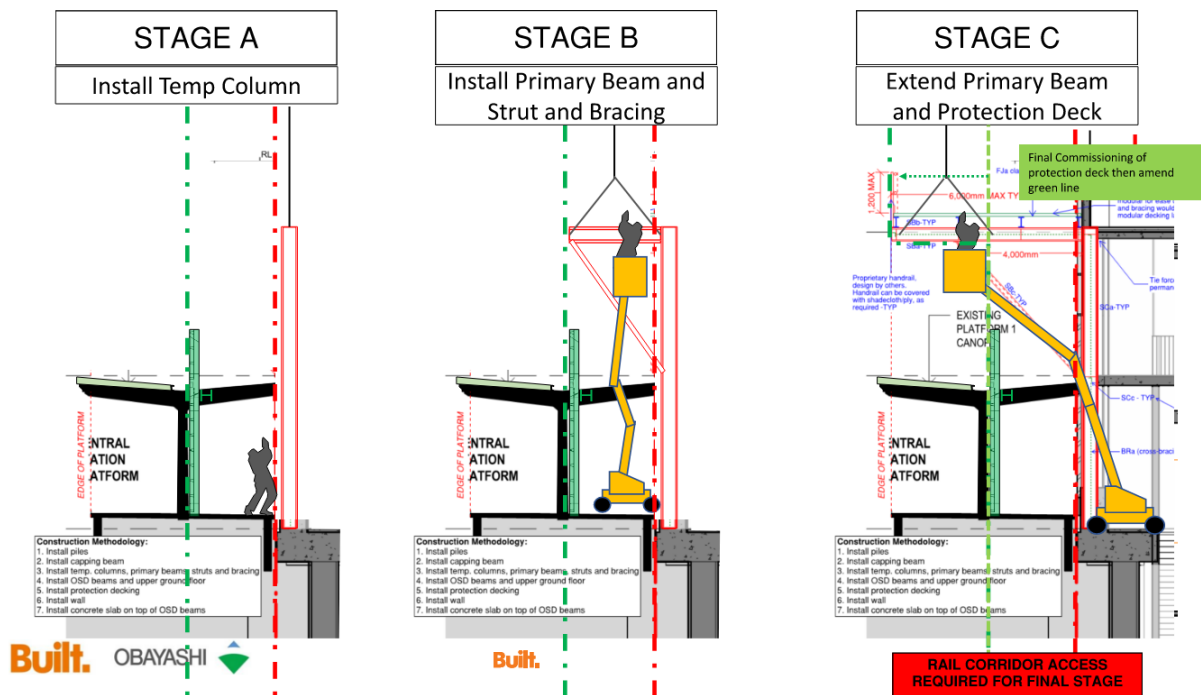


Figure 2-39: Platform 1 Overhead Protection System Installation Sequence

Access to install the OPS structure will be from Elevated Working Platform's (EWP's) which in the initial phases of construction will be required to access Platform 1. During the final stage of install the EWP's will operate from within the Atlassian site boundary while installing steelwork over Platform 1.

### 2.7.3 ASA Assurances

The ASA Structural Assurance document previously referred to in this report has been developed by TTW in order to assess the construction activities in proximity to rail assets and confirm compliance with ASA standards. The document assesses the location of the OPS in relation to Platform 1 overhead wires, train carriages and other platform infrastructure to verify that no encroachments within the ASA exclusion zone will occur. BOJV understand that TfNSW intend to install a new overhead wire structure between Platforms 1 & 2 in May 2022. This has been accounted for in the design and planning of the OPS installation.

This assessment also takes this structure into consideration, noting that the overhead wire structure will pre-date the Atlassian OPS. Due to the relative height of the OPS, signal sighting on Platform 1 will be unaffected. The location of the OPS in relation to ASA exclusion zones is shown in Figure 2-40 below.



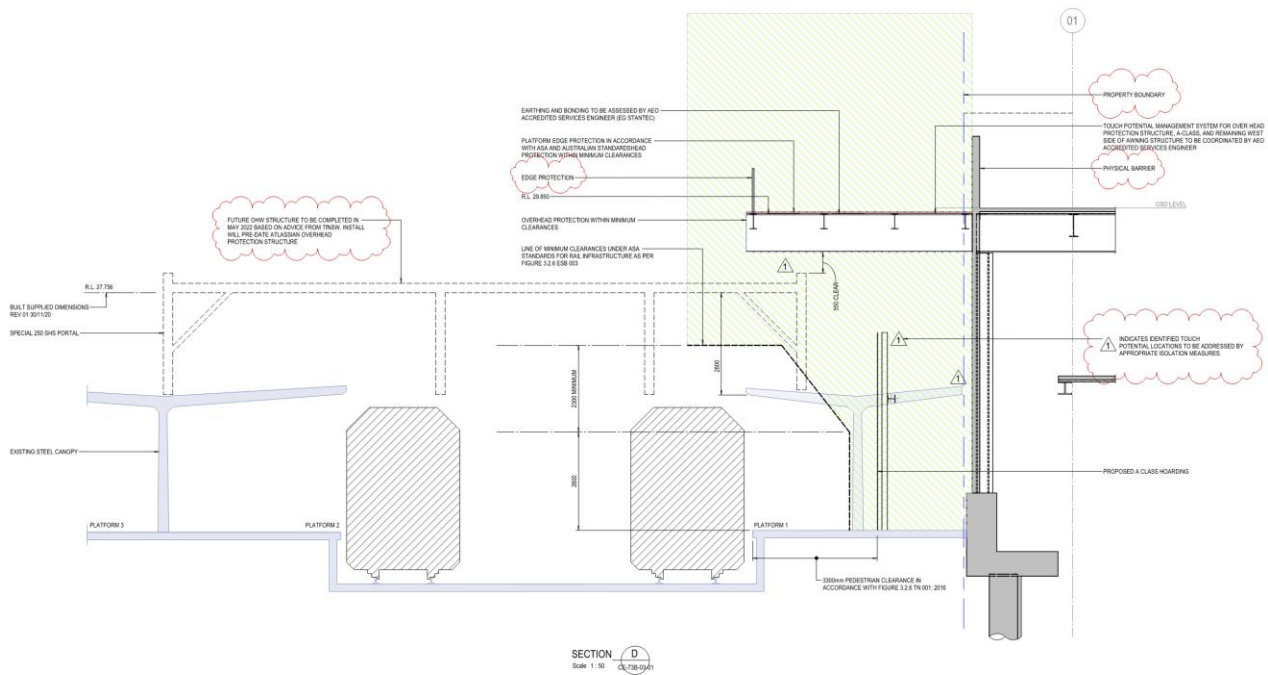


Figure 2-40: ASA Assurance Document confirming OHW clearance

## 2.7.4 Rail Safety Management Plan

The Rail Safety Management Plan (RSMP) has been developed to specifically deal with phases of the Atlassian project that have a direct or indirect impact on the safety of rail operations. It is an additional control to ensure the aspects of rail safety have been documented. The plan outlines how BOJV will ensure the safety of personnel and rail assets during the site investigation and construction phase of the project.

Prior to commencing any work over the rail corridor, BOJV will ensure the following:

- All work undertaken will comply with the Rail Corridor Access Agreements and Construction Licenses between TfNSW and Vertical First.
- TfNSW Trackside Safety Procedures and BOJV documents will be reviewed to ensure there is no conflict between requirements. This will ensure the safety of the public, rail assets and workers is maintained.

## 2.7.5 Health, Safety & Environmental Management Plan

An important aspect of any works in close proximity to the rail corridor is the early identification, and elimination where possible, of inherent construction risks. The Health, Safety & Environmental (HSE) Management Plan has been developed to ensure the adequate measures are put in place not only during the investigation & construction phase of the project, but in the design phase. One of the key aims of the plan is to eliminate construction risks by encouraging safety in design. Further information on the processes BOJV has put in place to identify and eliminate risks is detailed in the HSE Management Plan.

### 2.7.6 Rail Corridor Access Strategy Paper

In order to complete the installation of the OPS, rail corridor access will be required. BOJV have developed a Rail Corridor Access Strategy Paper which details this activity and the process taken to obtain access. The below extract from Section 2.4 of the paper details what stages of the OPS installation will require access to the rail corridor. Further information specific to rail corridor access for the installation of overhead protection structures above Platform 1 can be found within the paper.

Scope Activity	Description	Rail Corridor Access Required
Installation of the Overhead Protection System on Platform 1	<p>Largely installed from construction site:</p> <ul style="list-style-type: none"> <li>• Stage A – installation of the vertical section</li> <li>• Stage B – initial installation of the horizontal section</li> <li>• Stage C – portion of work remaining that has the potential to enter the Safe Approach Distances of the overhead wires</li> </ul>	<p>Stage A &amp; B – No</p> <p>Access only required to Platform 1 behind BOJV hoarding</p> <p>Stage C – Yes</p>

### 2.7.7 Possession Management Plan

The Possession Management Plan (PMP) documents the management processes that BOJV will implement for the management of possession works associated with the Atlassian project. Specifically, the management plan focuses on the works that are within the operational environment at Central Station and require access during possessions. The Possession Management Plan will outline the process and associated timeframes required to complete works during Sydney Trains Possessions.

As mentioned in above, the Stage C installation works will require a possession on Platform 1 to be obtained. This possession will be planned and programmed in accordance with the possession planning process outlined in the PMP.

### 2.7.8 Commissioning & Signoff

BOJV in conjunction with TTW will develop an inspection regime for the Overhead Protection Structure both during and post installation. The inspection regime will include:

- A list of site inspections during installation as required by the erection methodology
- Hold points:
  - o Stability of the structure at end of shift
  - o Sections of work required to be completed and signed off prior to progressing with the installation
- Temporary propping details if required
- Review of subcontractor Inspection Test Plans (ITP's), tensioning & welding records, material certificates and other associated Quality Assurance documentation to confirm compliance with the design
- Installation of timber decking as per design requirements

As the AEO certifier, TTW will provide a structural certification confirming the design intent of the OPS has been met and the installation has been completed as per the design documentation. The commissioning and certification process of the OPS may be staged as required by BOJV construction requirements.

### 2.7.9 Regular Inspections & Maintenance

As part of the OPS design process, BOJV in conjunction with TTW will develop an Inspection & Maintenance Plan which will detail the following:

- Inspection frequency and details of inspections required
- Maintenance of signage and exclusion zones to ensure the structure is not loaded with construction material throughout the project
- Details of cleaning procedures to ensure any debris is periodically cleared from the deck

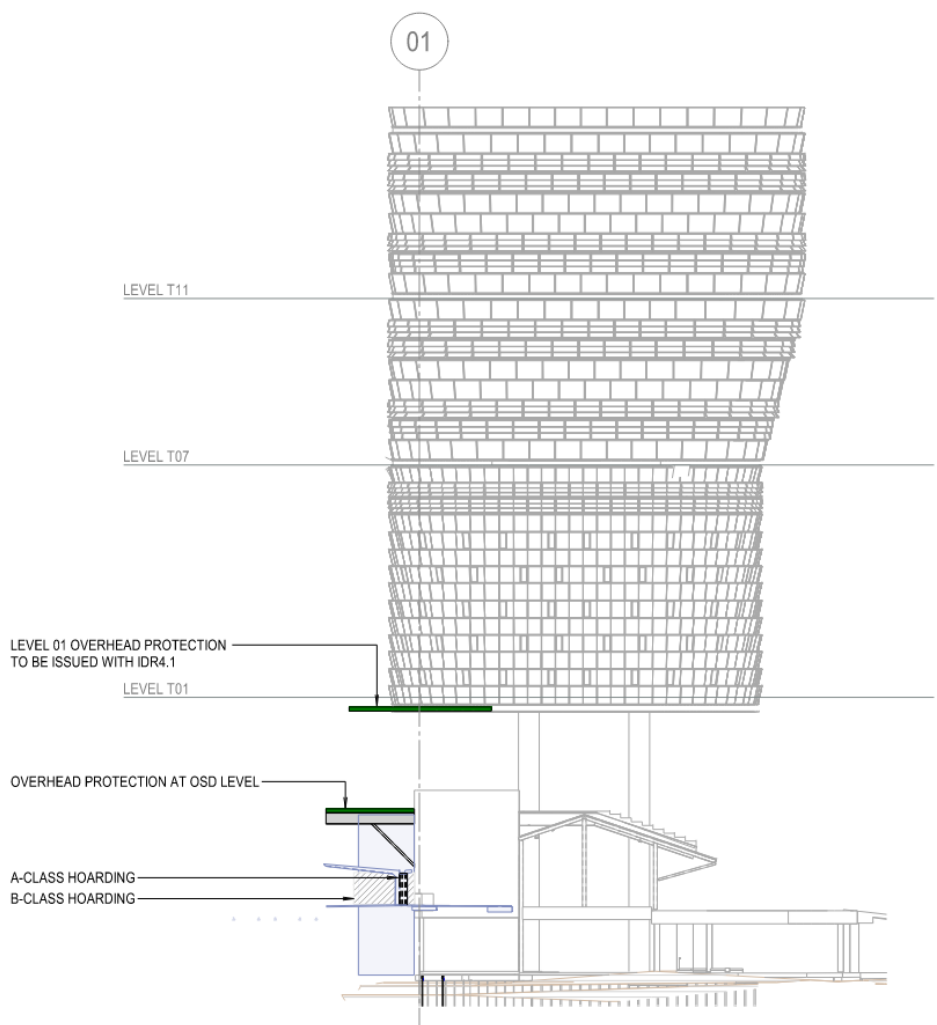
## 2.8 North-East Oversail

The North-East corner of the Atlassian tower sails over the existing SRA office which form part of Central Station. In order to safely complete the overhead construction works, BOJV and the AEO structural engineers (TTW) are developing a design for a temporary structure which will be supported off the tower core structure.

This design will reduce the impact of these works on the SRA office by allowing large components to be prefabricated off-site and installed during appropriate periods predetermined with TfNSW. There will be a need to vacate the SRA office building for certain periods of time to ensure the system can be installed and removed safely. BOJV acknowledges that this will require planning and detailed consultation with TfNSW to which BOJV will consult regularly through the approval process.

BOJV notes that Gate Gourmet operations are likely to be impacted during the North-East Oversail works. Potential mitigation strategies have been discussed with Gate Gourmet whereby the packing of food to transport on trollies up to the platform would occur off-site. The pre-packed trollies are proposed to be delivered directly to Platform 1 instead of being packed in Gate Gourmet. Further development of this proposal between BOJV, Gate Gourmet and TfNSW will be required to ensure the best outcome.

A temporary protection fan extending 3 metres past the structure will be installed to the underside of the North-East Oversail to provide protection to the SRA offices during perimeter screen establishment. This structure will remain in place until the North-Eastern perimeter screens have been removed and the corner façade panels are installed. An elevation showing the different levels of protection provided to Platform 1 and the SRA offices is shown in Figure 2-41 below.



OVERHEAD PROTECTION - SITE ELEVATION B  
Scale: 1 : 400

Figure 2-41: North-East Oversail Additional Protection Fan Structure

Additional context information on the North-East Oversail is provided in Figures 2-42 to 2-44 below.



## Atlassian Building Central

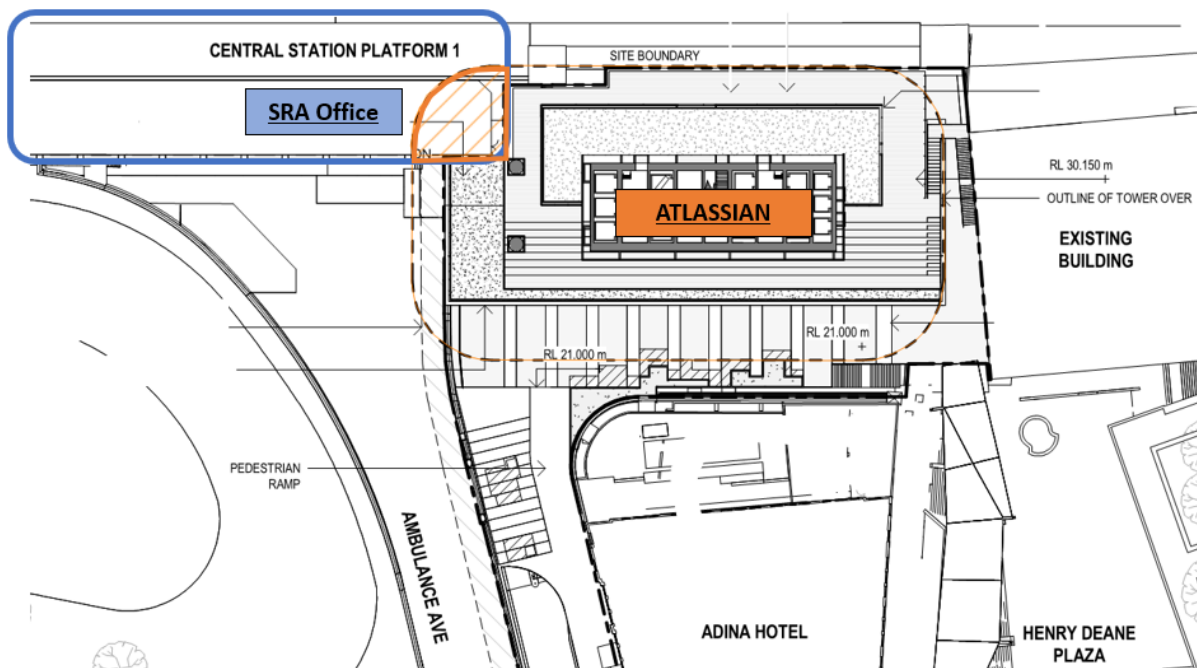


Figure 2-42: North-East Oversail Plan (SRA Office Below, Atlassian Level T1 Above)

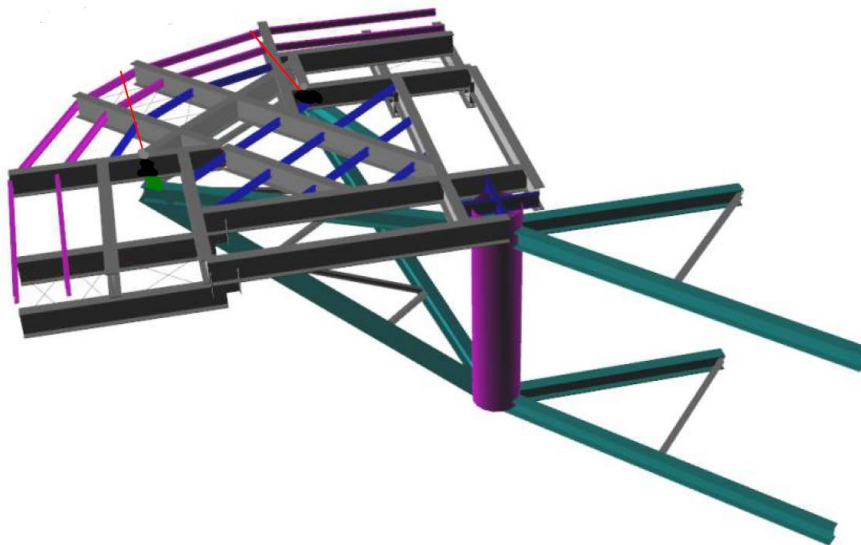


Figure 2-43: North-East Oversail Temporary Engineering Concept

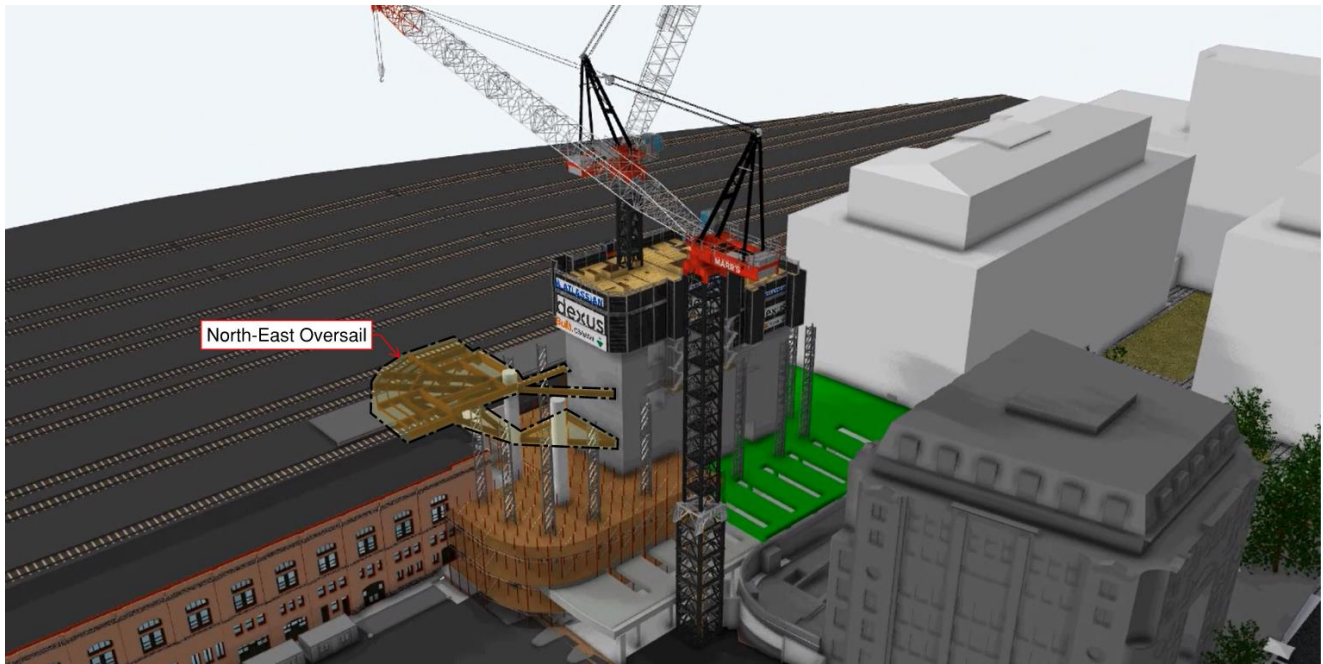


Figure 2-44: Level T01 North-East Oversail Structure

The below table provides an indication of the required SRA office vacation periods, subject to further planning with TfNSW and construction progress on-site. The installation of the North-East Oversail structure is a complex body of work, with significant interfacing considerations and detailed engineering requirements. BOJV will look to minimise SRA vacation periods where possible.

Activity	Vacation Required	Anticipated Duration of Works
Install North-East Oversail structure including 3m protection fan & edge protection screens	Q1 2024	4 weeks
Remove edge protection screens following structural top out	Q4 2025	1 week
Removal of 3m protection fan at Level T01 and completion of soffit cladding	Q4 2025	3 weeks

## 2.9 Perimeter Screens & Other Edge Protection Systems

### 2.9.1 Perimeter Screens

In addition to the Overhead Protection Structure above Platform 1, BOJV will be utilising a perimeter screen system on the project as part of the overall overhead protection strategy. In order to encapsulate the structure works and reduce the risk of falling objects, perimeter screens will be installed to external elements of the tower structure. The screens proposed for the main tower works will provide full coverage over two habitats (36m in length). This will allow the following activities to be conducted from behind the screens:

- Tower exoskeleton steelwork installation
- Concrete placement to mega-floor structures
- Installation of tower crane ties
- Stripping of edgeboards and post-tensioning
- Perimeter backpropping as required
- Installation of perimeter ring beams required for façade panels including associated brackets
- Welding of critical exoskeleton connections

On overview of the screen system proposed on the Atlassian project is shown in Figures 2-45 to 2-47 below.



Figure 2-45: Atlassian Perimeter Screen Overview

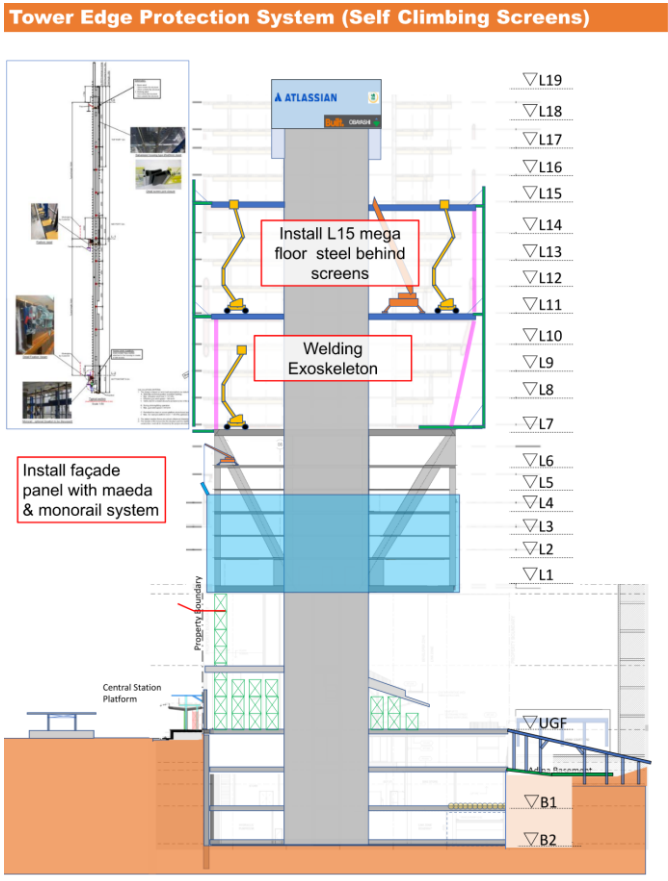


Figure 2-46: Atlassian Perimeter Screen Section

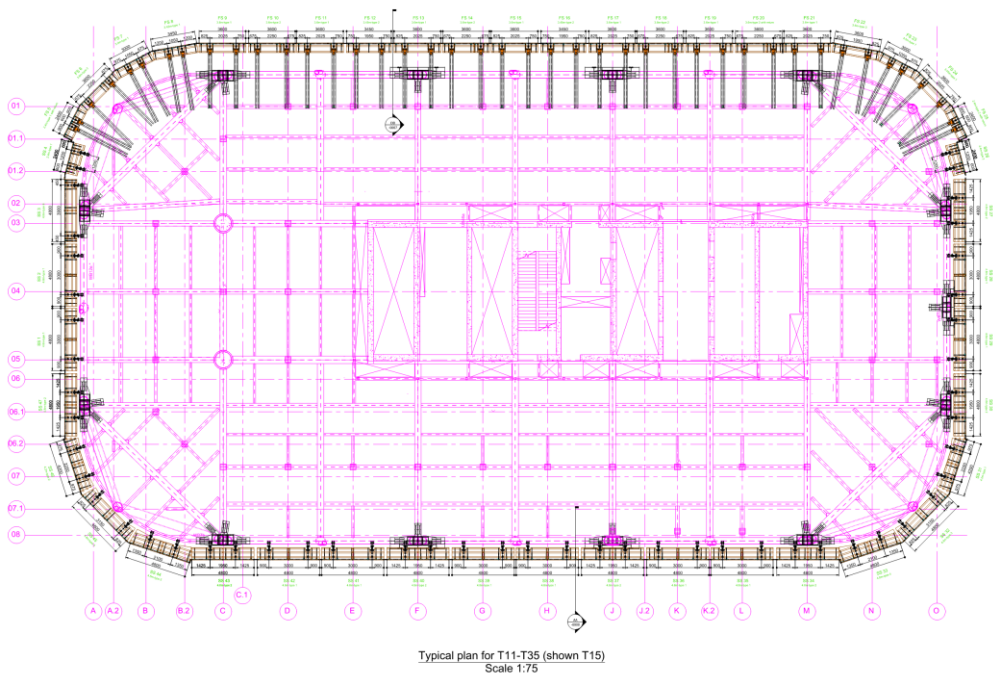


Figure 2-47: Atlassian Typical Perimeter Screen Plan



## Atlassian Building Central

The external screen fabric consists of a 25 x 25mm steel mesh integrated into the steel frame structure, which reduces the risk of falling objects significantly. The mesh is required in lieu of a solid panel to avoid excessive deflection in the screens and wind loads on the structure during weather events.

The screens will be pre-assembled on the ground, lifted in to place via tower crane and mechanically fixed to the permanent structural edge beam via gusset plates. The system will also incorporate folding flaps and working platforms to capture any small debris during the works, which will be cleaned prior to climbing of the screens. The vertical joints between each screen section are closed with overlapping rubber flaps. Refer to Figures 2-48 to 2-51 below for further information of the perimeter screen system.

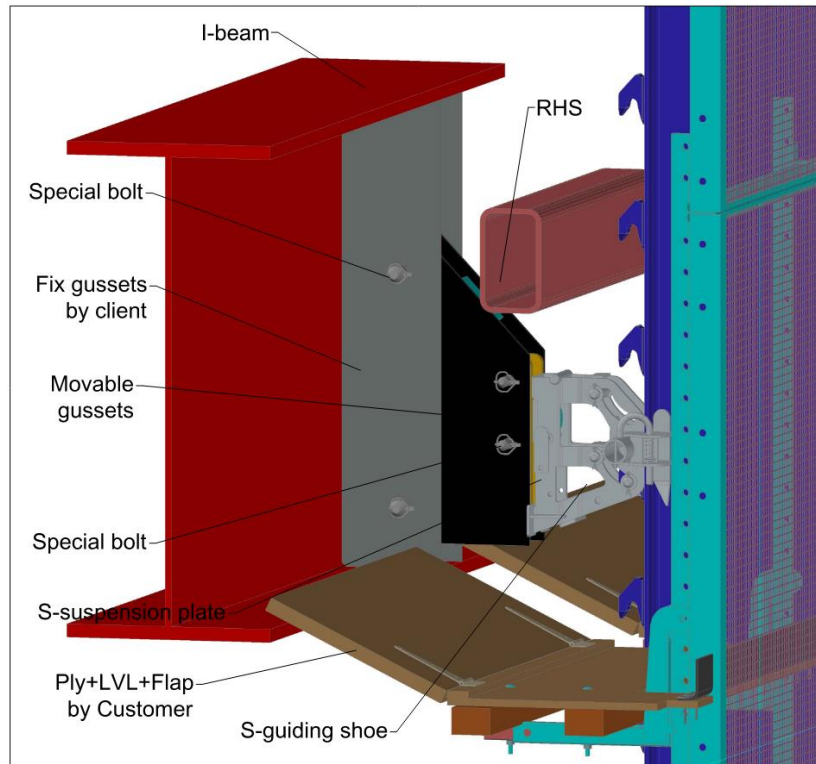
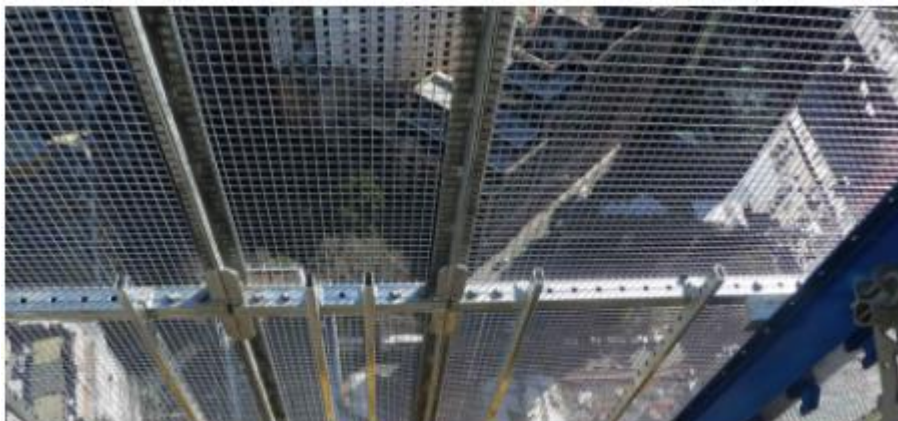


Figure 2-48: Perimeter Screen Connection Detail

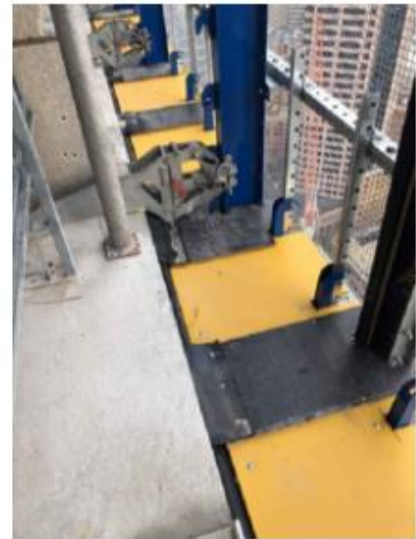


Galvanized housing type 25x25mm mesh

Figure 2-49: Perimeter Screen Mesh



Detail screen joint closure



Platform detail

Figure 2-50: Perimeter Screen Joint Closure Detail

Figure 2-51: Perimeter Screen Platform Detail

The climbing of the screens typically will be via use of hydraulic jacks which are supplied by the manufacturer as part of the proprietary system. The screens will be climbed as the structure progresses until they are required to be removed once the crown structure is complete. The removal of the screens will be completed in the reverse process as they are installed, with the tower crane removing the screen assemblies from the building and disassembling on the ground.

The use of Railway Colonnade Drive will be required for perimeter screen installation and removal to assist with a safe pre-assembly & disassembly strategy. Further details on the use of Railway Colonnade Drive can found in the Railway Colonnade Drive Management Plan. As with other major construction activities affecting the rail corridor, BOJV will maintain appropriate communication with TfNSW leading up to the perimeter screen installation and removal.

The screen installation, climbing and removal process will be managed by BOJV via a checklist system. These checklists ensure that all structural and safety requirements have been accounted for prior to conducting any screen operations.

### 2.9.2 Additional Edge Protection Systems

Below are examples of additional edge protection systems to be implemented, typically used across the industry when undertaking high-rise construction works. A number of these elements will be considered when developing BOJV's proposal.

The WorkRight EXPANDA fence system is a proprietary product this is fixed to the concrete structure in order to prevent fall risks and maintain a safe distance of personnel, plant, and material from the slab edge. Wheel stops and kickboards are additional measures typically put in place to reduce the risk of falling debris. BOJV will ensure appropriate measures are put in place to keep material a safe distance away from the edges and that all loose material is stacked and strapped to reduce the risk of wind uplift.



Figure 2-52: Example of WorkRight Edge Protection System

A perimeter catch fan system will also be installed to the Eastern elevation at Level T01. The intent of the catch fan is to provide an additional barrier in the event of a falling object from above. The Overhead Protection System down at Platform 1 level will provide the ultimate 10kPa protection required to commuters and TfNSW staff. The catchfans do not impede the operations and effectiveness of the overhead protection system and these are complementary protection measures. Refer to Figures 2-53 and 2-54 below for more detail of the Level T01 catch fan system.

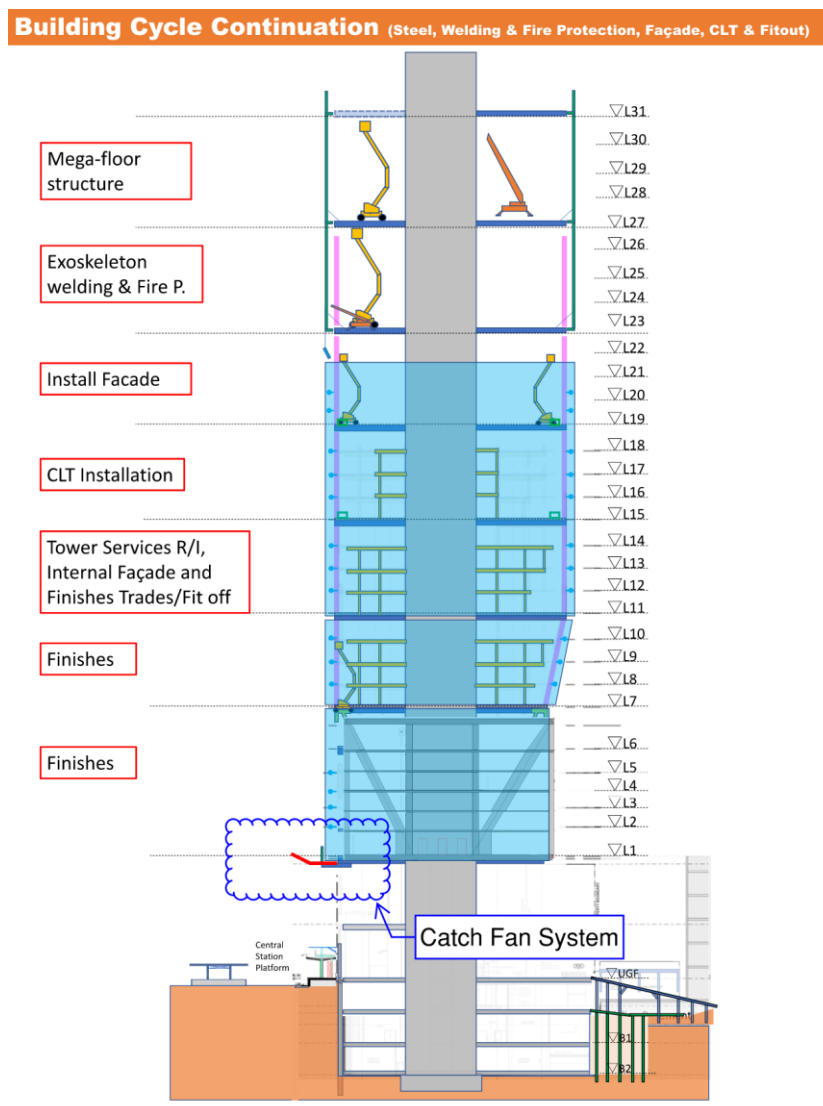


Figure 2-53: Proposed Catch Fan Location





Figure 2-54: Photographic Example of Perimeter Catch Fan Systems

## 2.10 Tower Steelwork Installation

The Atlassian tower consists of a concrete core with a steel mega-frame structure. Every fourth floor of the tower is constructed of steel and concrete, referred to as a 'mega-floor'. The mega-floors provide lateral support for the exoskeleton structure and are also used to support the timber infill floors to create a 'habitat'. The tower construction is further described in Figure 2-55 below.

### STACKED HABITATS DESIGN

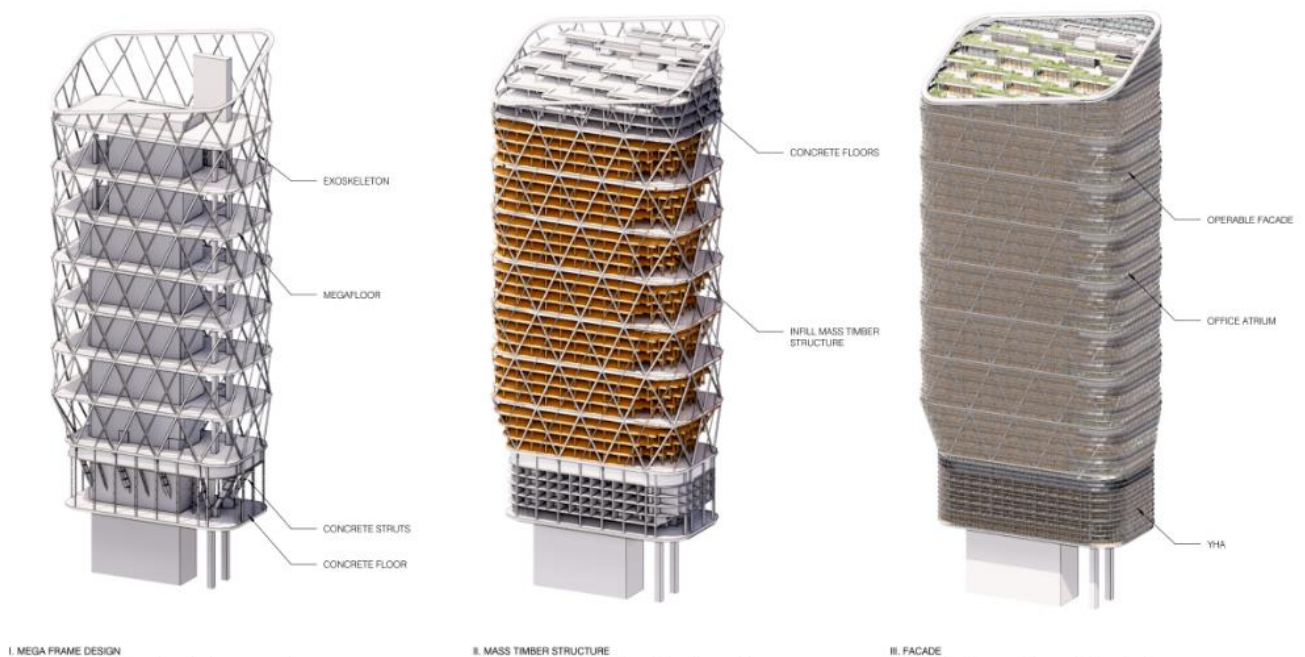
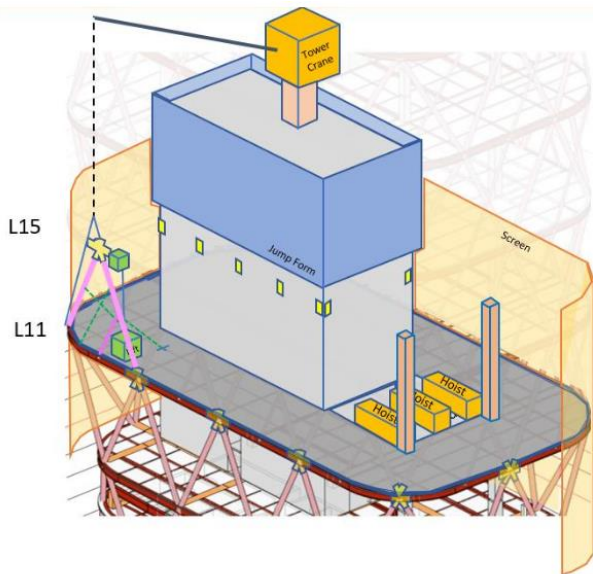


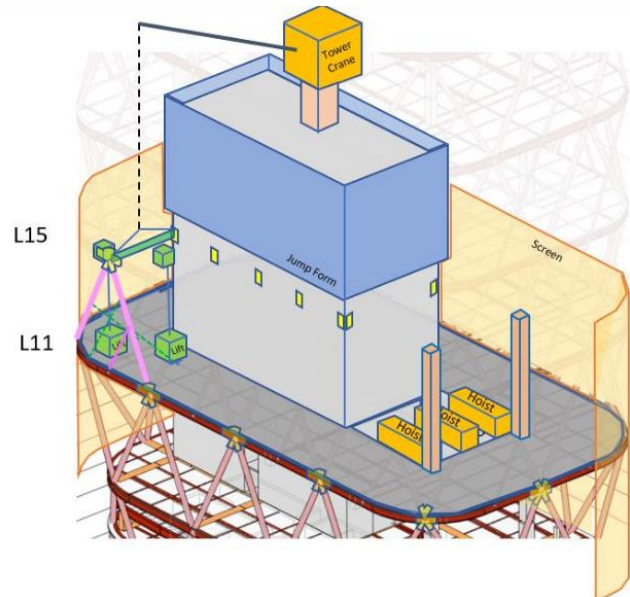
Figure 2-55: Atlassian Tower Construction



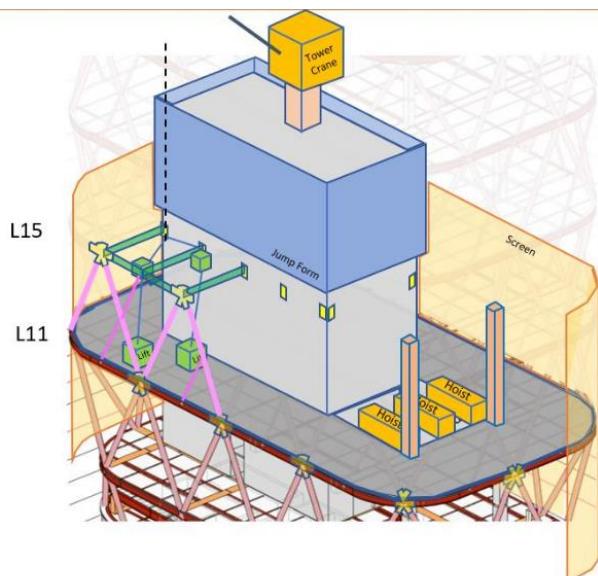
The mega-frame structure is constructed prior to installing the façade, with the timber infill floors installed after the façade is installed. A staging markup of a typical mega-floor installation sequence is shown in Figure 2-56 below. All steelwork is erected from behind the edge protection screens detailed in Section 2.9.1. A minimum of 2m of screen coverage is provided at all times above any construction activities occurring on the lead deck. This ensures adequate fall protection is provided for workers, tools, and material during construction.



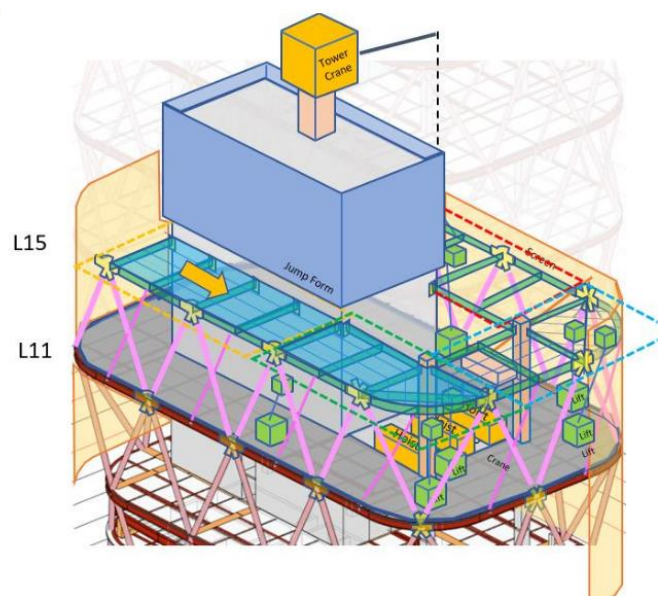
**Typical mega-floor install sequence - A**



**Typical mega-floor install sequence - B**



**Typical mega-floor install sequence - C**



**Typical mega-floor install sequence - D**

Figure 2-56: Typical mega-floor construction sequence

## 3 Next Steps

### 3.1 TfNSW Inspection and Acceptance

Following the installation of the Platform 1 hoardings and protection systems, TfNSW will be given the opportunity to inspect Platform 1 protection systems and sign off the completed works prior to the platform area being reopened to pedestrians.

Consultation with TfNSW will be ongoing throughout the works being undertaken on the Eastern Elevation including follow works which are in development with specialist subcontractors and suppliers. As the design of the main tower façade, podium structures, external works, and building maintenance units are in a preliminary stage, the detailed planning of these activities will be further developed with the input of specialist D&C subcontractors as these packages are progressed.

### 3.2 Level T01 Soffit Cladding and High-Level Services Install

The Level T01 soffit works will include installation of hydraulic and electrical services, cladding framing, insulation, and cladding panels. These works are currently planned to be completed from elevated work platforms (EWP's) and with specialist trades competent in working at heights.

The HSE Plan details how BOJV and our Subcontractors manage works of this nature through the safety in design and risk assessment processes, high-risk workshops, detailed methodologies & SWMS, engineering controls, and supervision. These measures will be further developed in detail with the specialist Subcontractors throughout the next phases of the project planning and can be provided to TfNSW and stakeholders once available.

Additionally, these works will be completed from within the Atlassian site boundary maintaining the Safe Approach Distance (SAD) from Transport Infrastructure, and with the overhead protection systems in place providing additional protection measures to TfNSW assets and commuters. Refer to Figure 3-1 below for an overview of the Level T01 soffit cladding works.

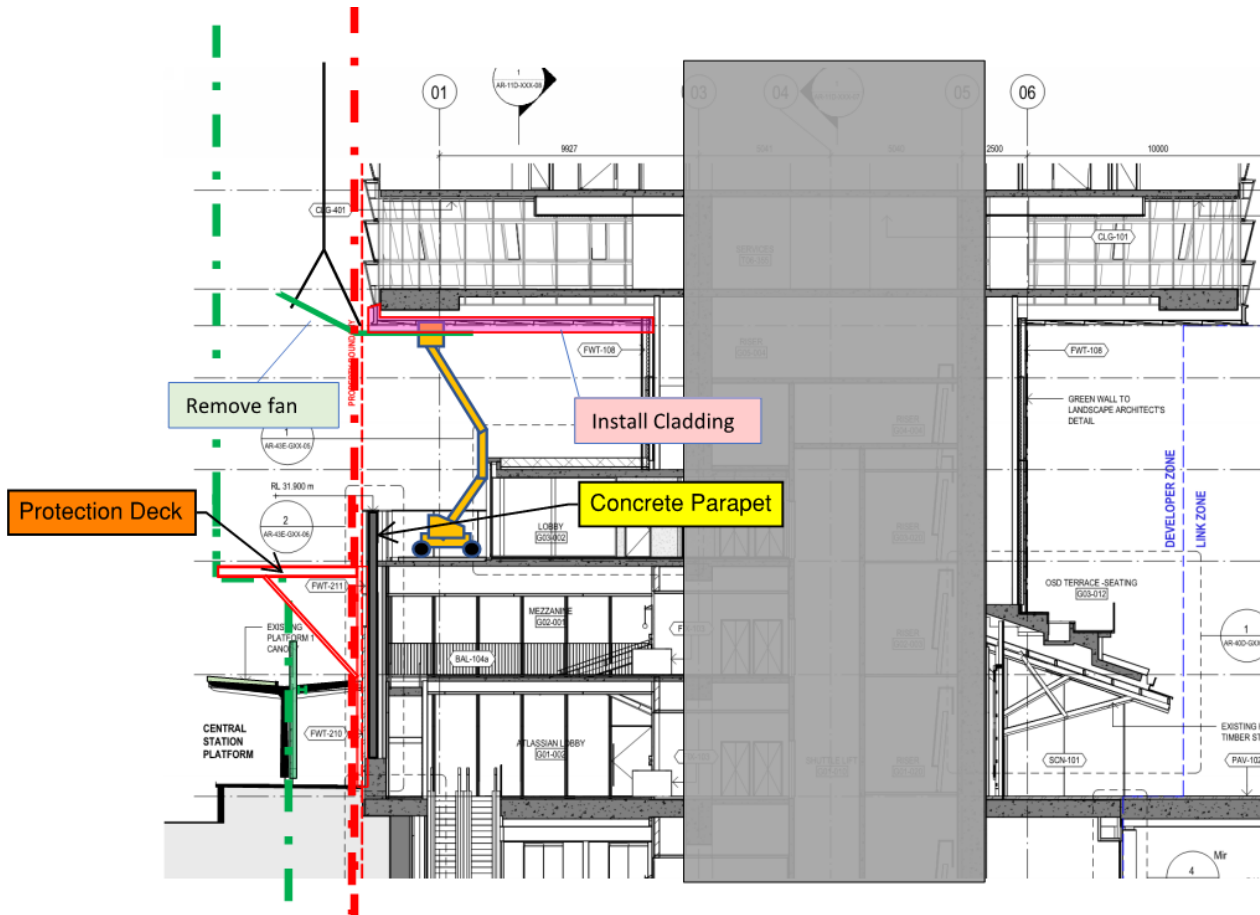


Figure 3-1: Indicative T01 Soffit Installation

### 3.3 Façade installation

The External Tower Façade works will include installation of prefabricated façade panels with mobile cranes (Maeda or similar) from within the tower mega-structure. These works will involve these delivery of façade panels packed in stillages and lifted to the working floor with the use of tower cranes, loading platforms, and material hoists on the North and Western elevations, away from critical transport infrastructure such as Platform 1, SRA Office, and DST. During the installation process the panels will be decanted from the stillages within the Atlassian site and lifted into place with all rigging process completed by a competent person and any temporary works third party reviewed by the AEO Engineer.

The HSE Plan details how BOJV and our Subcontractors manage works of this nature through the safety in design and risk assessment processes, high-risk workshops, detailed methodologies & SWMS, engineering controls, and supervision. These measures will be further developed in detail with the specialist Subcontractors throughout the next phases of the project planning and can be provided to TfNSW and stakeholders once available.

Additionally, these works will be completed from within the Atlassian site boundary maintaining the Safe Approach Distance (SAD) from Transport Infrastructure, and with the overhead protection systems in place providing additional protection measures to TfNSW assets and commuters.

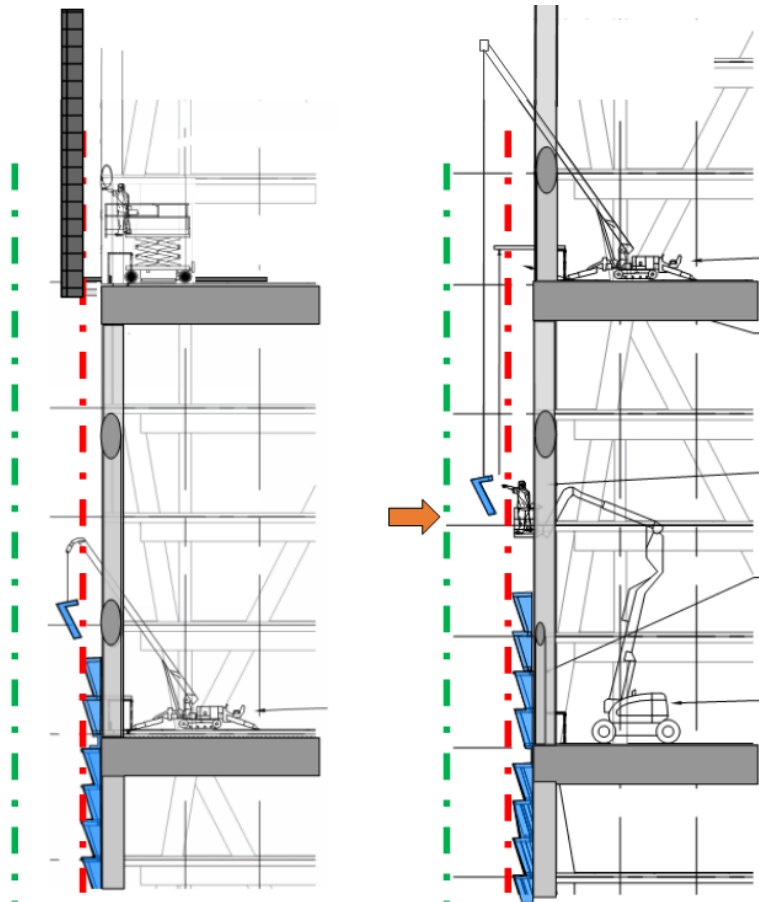


Figure 3-2: Indicative Façade Installation Procedure on Eastern Elevation

## 3.4 Demobilisation of Tower Cranes & Hoists

The tower crane & hoist dismantle works will be largely completed from within the Atlassian site in a similar process as described in tower crane erection section above and Railway Colonnade Drive Management Plan (RCDMP). During the dismantle process the tower crane & hoists will be managed by the specialist suppliers with all rigging process completed by competent persons and any temporary works third party reviewed by the AEO Engineer.

Any exclusion zones will be managed from within the Atlassian site boundary and Railway Colonnade Drive as described in the RCDMP.

The HSE Plan details how BOJV and our Subcontractors manage works of this nature through the safety in design and risk assessment processes, high-risk workshops, detailed methodologies & SWMS, engineering controls, and supervision. These measures will be further developed in detail with the specialist Subcontractors throughout the next phases of the project planning and can be provided to TfNSW and stakeholders once available.

Additionally, these works will be completed from within the Atlassian site boundary maintaining the Safe Approach Distance (SAD) from Transport Infrastructure providing additional protection measures to TfNSW assets and commuters.



### 3.5 BMU Commissioning & Testing

The Building Maintenance Unit (BMU) works will include installation and commissioning of the Building Maintenance Unit and used for façade inspections. Currently there is limited design information for the BMU however these works typically involve the staged delivery of a specially design motorised maintenance unit which will be assembled on the tower roof with testing completed on each elevation. During the installation process the BMU will be delivered in sections and assembled on the tower roof away from the Eastern elevation, however there will be a requirement to test the BMU on the Eastern elevation as part of the commissioning process. During this all rigging will be completed by a competent person and any temporary works third party reviewed by the AEO Engineer.

Additionally, these works will be completed from within the Atlassian site boundary maintaining the Safe Approach Distance (SAD) from Transport Infrastructure and in line with the easements required for the use of the BMU during completed building operations.

The HSE Plan details how BOJV and our Subcontractors manage works of this nature through the safety in design and risk assessment processes, high-risk workshops, detailed methodologies & SWMS, engineering controls, and supervision. These measures will be further developed in detail with the specialist Subcontractors throughout the next phases of the project planning and can be provided to TfNSW and stakeholders once available.

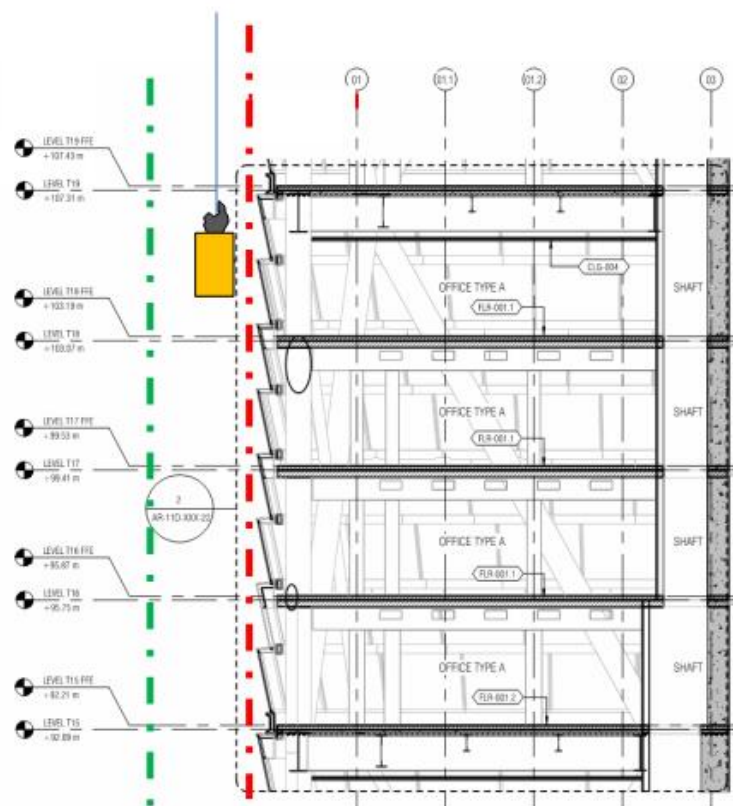


Figure 3-3: Indicative use of BMU on Eastern Elevation

## 3.6 Podium works following removal of Overhead Protection System

The podium and finishes works post OPS removal will include the derailment wall façade and finishes, services, retail shopfronts and cladding panels, and landscaping works. These works are currently planned to be completed from the OSD level with edge protection in place and a scaffold on the Western side of platform 1 providing safe access.

The HSE Plan details how BOJV and our Subcontractors manage works of this nature through the safety in design and risk assessment processes, high-risk workshops, detailed methodologies & SWMS, engineering controls, and supervision. These measures will be further developed in detail with the specialist Subcontractors throughout the next phases of the project planning and can be provided to TfNSW and stakeholders once available.

Additionally, these works will be completed from within the Atlassian site boundary maintaining the Safe Approach Distance (SAD) from Transport Infrastructure, and with the with the Platform 1 A-Class hoarding in place providing additional protection measures to TfNSW assets and commuters.

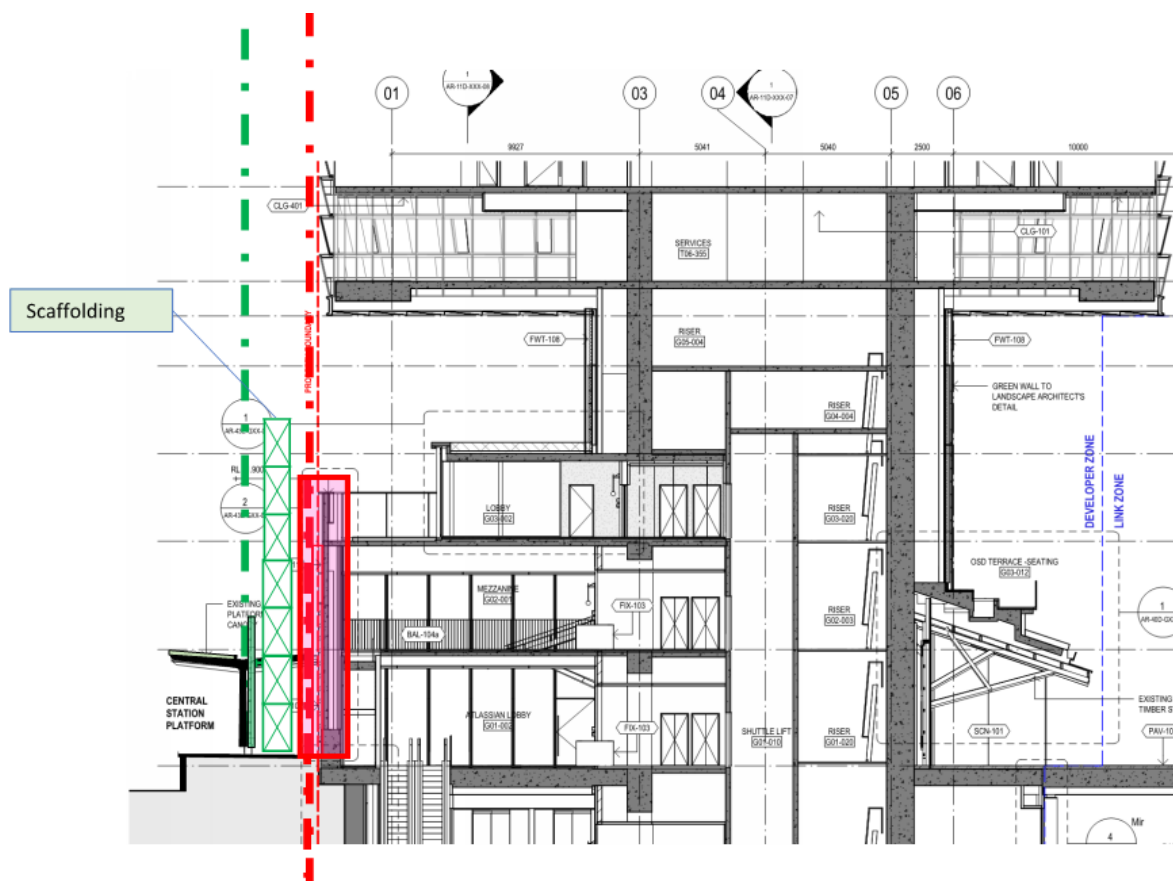


Figure 3-4: Indicative arrangement of Platform 1 protection after OPS removal

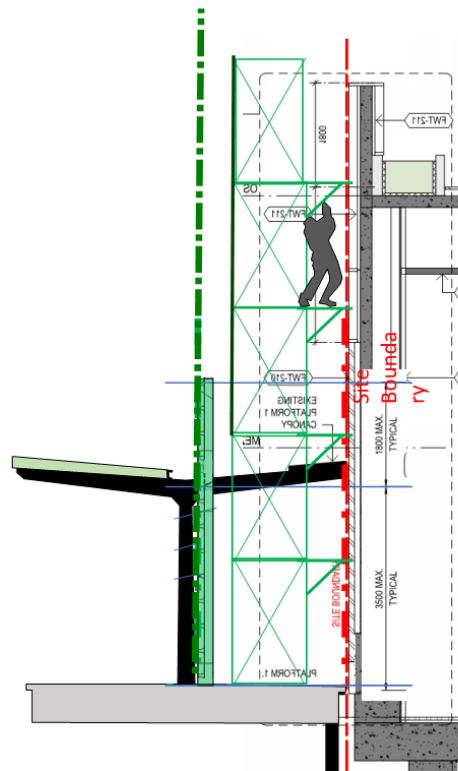


Figure 3-5: Indicative position of scaffold on Platform 1