



TAFE NSW

TAFE Meadowbank Multi-Trades and Digital Technology Hub

Preliminary Construction Management Plan for EIS

October 2019

Abbreviations

Abbreviation	Definition
AIA	<i>Arboricultural Impact Assessment</i> provided by Tree Survey September 2019
ACM	Asbestos containing materials
AS	Australian Standards
CMP	Construction Management Plan [<i>prepared by Principal Contractor</i>]
CP	Communications Plan
DMP	Demolition Management Plan
Early Works	Package of works seeking approval as Development Without Consent via an REF which are excluded from this State Significant Development pathway and subsequently not included in this PCMP.
EIS	Environmental Impact Statement
EIS Report	<i>Proposed TAFE Meadowbank, Environmental Impact Statement, dated October 2019 (or subsequent revisions) as prepared by Keylan Consulting PTY Ltd</i>
EmMP	Emergency Management Plan
EMP	Environmental Management Plan
EPA	Environmental Protection Authority
HAZMAT	Hazardous Materials
HMAMP	Hazardous Materials and Asbestos Management Plan
HSP	Hazardous Substances Management Plan
IRMP	Industrial Relations Management Plan
LEP	Local Environmental Plan
Main Works	Package of works seeking approval via State Significant Development in accordance with SEARs as issued for TAFE Meadowbank Project.
PCMP	Preliminary Construction Management Plan
QMP	Quality Management Plan
PAH	Polycyclic Aromatic Hydrocarbon
PPE	Personal Protective Equipment

REF	Review of Environmental Factors
RMP	Risk Management Plan
RMS	Roads and Maritime Services
REF	Review of Environmental Factors
SEARs	Secretary's Environmental Assessment Requirements (SEARs) application as reissued 28 August 2019
SINSW	School Infrastructure NSW
SSD	State Significant Development
SMP	Site Management Plan
SWMS	Safe Work Method Statement
TAFE NSW	Technical and Further Education Commission NSW
TCP	Traffic Control Plans
TMP	Traffic Management Plan
WHS	Workplace Health and Safety
WHSMP	Workplace Health and Safety Management Plan
WMP	Waste Management Plan

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1. Introduction

1.1 Purpose of this report

This Construction Management Plan for project management services has been prepared by GHD on behalf of the Technical and Further Education Commission (TAFE NSW) for a proposed Multi-Trades and Digital Technology Hub at Meadowbank TAFE (the Site) located on See Street, Meadowbank.

The scope of works for the TAFE Meadowbank Phase 2.1 has been divided into three packages, namely:

- An Early Works package to be assessed as a Development Without Consent in accordance with a Review of Environmental Factors (REF);
- A package of Main Works to construct the proposed new Multi-Trades and Digital Technology Hub to be assessed via the State Significant Development (SSD) pathway in accordance with Secretary's Environmental Assessment Requirements (SEARs) application SSD 10349; and
- A package of additional works, predominantly landscaping and refurbishment (subject to funding approval) to be assessed as a Development without Consent in accordance with a REF.

Keylan Consulting Pty Ltd (Keylan) has been engaged by TAFE NSW to prepare the SSD application and accompanying Environmental Impact Statement (EIS) for the above development (SSD10349).

The purpose of this report is to outline proposed preliminary construction management strategies for the TAFE Meadowbank main works. This report forms part of TAFE's response to the SEARs application as reissued 28 August 2019 (Application number SSD 10349).

This report is known as the Preliminary Construction Management Plan (PCMP) and provides information sufficient to development approval prior to engagement of a suitably qualified Principal Contractor. The final Construction Management Plan (CMP) to be implemented is the responsibility of TAFE's Principal Contractor once engaged. The CMP will outline the methodologies for carrying out the work so as to minimise the impacts of construction activities on project stakeholders, particularly nearby residents and the broader public who may interface with the project in the local vicinity, such as pedestrians or local traffic.

1.2 Scope and limitations

This report: has been prepared by GHD for TAFE and may only be used and relied on by TAFE for the purpose agreed between GHD and TAFE as set out in section 1.1 of this report.

GHD otherwise disclaims responsibility to any person other than TAFE arising in connection with this report. GHD also excludes implied warranties and conditions, to the extent legally permissible.

The services undertaken by GHD in connection with preparing this report were limited to those specifically detailed in the report and are subject to the scope limitations set out in the report.

The opinions, conclusions and any recommendations in this report are based on conditions encountered and information reviewed at the date of preparation of the report. GHD has no responsibility or obligation to update this report to account for events or changes occurring subsequent to the date that the report was prepared.

The opinions, conclusions and any recommendations in this report are based on assumptions made by GHD described in this report. GHD disclaims liability arising from any of the assumptions being incorrect.

GHD has prepared this report on the basis of information provided by TAFE and others who provided information to GHD (including Government authorities), which GHD has not independently verified or checked beyond the agreed scope of work. GHD does not accept liability in connection with such unverified information, including errors and omissions in the report which were caused by errors or omissions in that information.

GHD has not been involved in the preparation of the Proposed TAFE Meadowbank, Environmental Impact Statement, Dated October 2019 as prepared by Keylan (or subsequent revisions issued) and has had no contribution to, or review of the Proposed TAFE Meadowbank, Environmental Impact Statement, dated October 2019 as prepared by Keylan (or subsequent revisions issued). GHD shall not be liable to any person for any error in, omission from, or false or misleading statement in, any other part of the Proposed TAFE Meadowbank, Environmental Impact Statement, dated October 2019 as prepared by Keylan (or subsequent revisions issued).

1.3 Relevant documents

This PCMP incorporates information from the *Proposed TAFE Meadowbank, Environmental Impact Statement* prepared by Keylan (EIS Report) including all appendices and must be read in conjunction with the EIS Report including all appendices.

2. Project Details

2.1 The project

On 26 June 2018, the NSW Government announced it would create a new Meadowbank Education and Employment Precinct on the existing TAFE NSW site at See Street, Meadowbank. This Precinct will co-locate TAFE Meadowbank with the relocated and expanded Meadowbank Public and Marsden High Schools, becoming a new place of lifelong learning with education at its heart and links to industry, the surrounding community and the future of the regions.

As a core component of the Meadowbank Education and Employment Precinct, proposed plans will see TAFE Meadowbank transformed into a technology-focused campus with state-of-the-art facilities including **A New Multi-Trades and Digital Technology Hub**, with modern and active learning spaces for trade disciplines, industry engagement and a digital technologies and cybersecurity focus. The new hub involves a gross floor area (GFA) of approximately 15,000m² over 6 storeys to accommodate various learning spaces, workshop areas and digitally enabled spaces, as well as basement car parking spaces accessed from See Street.

The new Multi-Trades and Digital Technology Hub is subject to an EIS and SSDA.

It is noted that site preparation activities and demolition works are part of the Early Works package assessed outside of this report. Existing through site access will be improved by minor upgrade works, subject to separate approval process.

2.2 The site

The existing TAFE Meadowbank address is See Street, Meadowbank (site) and is located within the Local Government Area of City of Ryde Council (CRC). The surrounding area is a mixture of light industrial, low density residential and newly developed high-density residential zoning. The Parramatta River flows approximately 600m south of the campus at Shepherds Bay and the Northern line of Sydney trains runs to the west, both with existing passenger stations. The site is shown in Figure 1. A simplistic breakdown of the original site shows the 3.33 Hectares of land divested to the School Infrastructure and 6.17 hectares remaining for TAFE NSW use (GP Architecture Statement, Sept 2019).

The proposed Multi-Trades and Digital Technology Hub site is located with the boundaries of the Meadowbank TAFE and is a trapezoidal shaped area with plan shown in Figure 1 and Figure 2. The site is bounded to the south east by See Street, the north east by an electricity substation, the south west and North West by existing single and multistorey TAFE buildings.



Figure 1 – TAFE Meadowbank Site (Sourced from Nearmap August 2019)

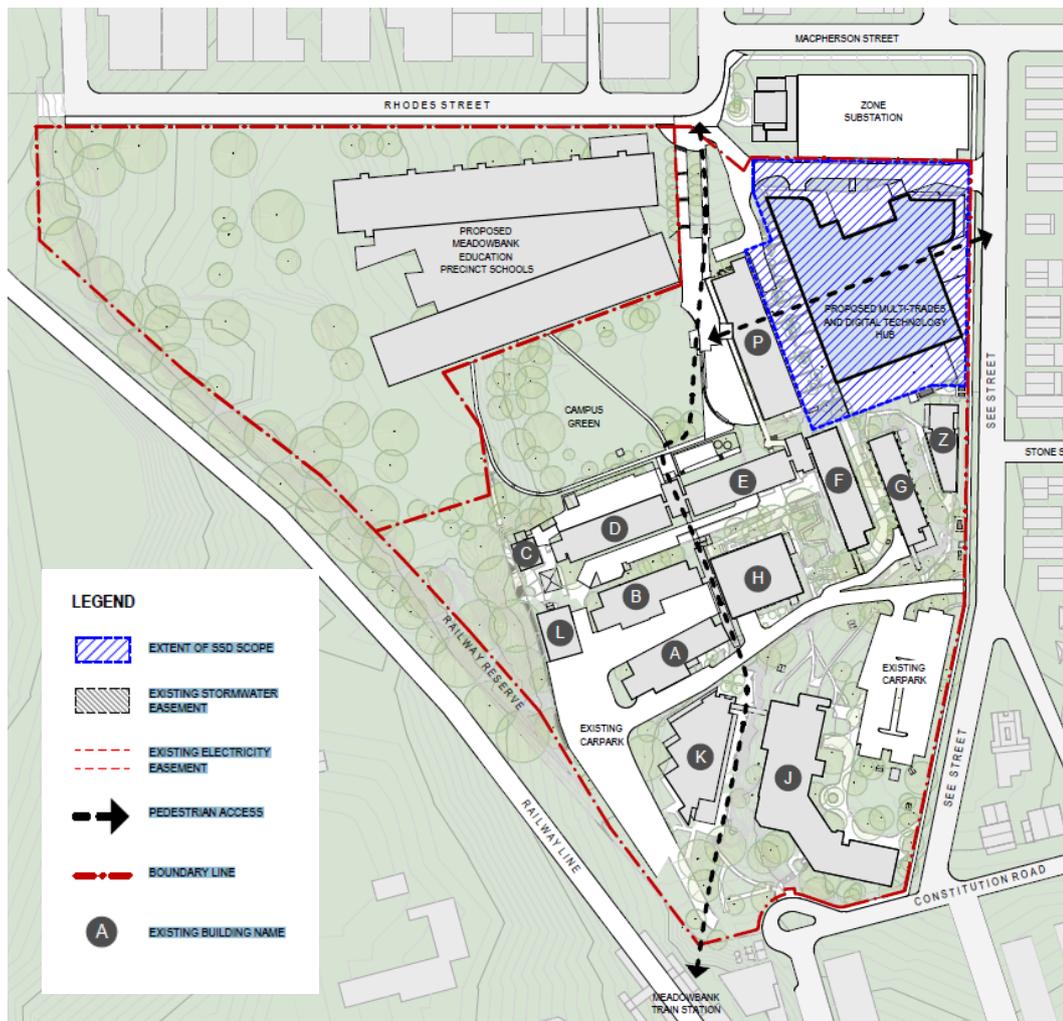


Figure 2 – Plan of the new Meadowbank Education Precinct site, including TAFE Meadowbank proposed works (Source from GP Architecture Drawings -October 2019)

2.3 The works

The proposed development main works package comprises the following works (GP Architecture drawings, September 2019):

- *Construction of Basement Carpark*
- *Construction of a new 6 storey building comprising:*
 - *Level 1 – Learning Spaces, Gas Lab, TMV Room, plumbing Workshops and sandpits*
 - *Level 2 – Welding Workshops and Learning Spaces*
 - *Level 3 – Indoor and Outdoor Workshops (Carpentry, Electro Technology, Multi-Trades Workshop and Storage Area) and Learning Spaces*
 - *Level 4 – (See St level Entrance), Learning Spaces, Breakout Areas, Industry Engagement Spaces and café*
 - *Level 5 – Applied Research Spaces, Seminar rooms, Learning Spaces ad Industry Engagement area, and*
 - *Level 6 – Digital Technology Space including but not limited to cyber security rooms, workshops, Learning Space, Industry.*

- *Landscaping works the See Street frontage and building perimeter, and*
- *Installation of new supporting infrastructure, including power and communications infrastructure.*

2.4 Program

A tentative construction program for the works is provided below. A detailed program will be prepared by the Principal Contractor.

Construction Activity	Anticipated timing
Contractor Procurement (ECI)	October to Late December 2019
Early Works Package	Early to Mid-2020
Commence construction of new buildings	Mid- 2020
Commissioning commences	Late 2021 and is ongoing until completion
Multi-Trades and Digital Technology Hub completed and operational	Early 2022
Demobilization from site	Early 2022

3. Site management

3.1 General

The Principal Contractor will be responsible for the overall management of the site and will be required to produce a Site Specific Construction Management Plan (CMP) prior to commencing works. This CMP will be the master plan for the works and may include the following:

- Site Management Plan (SMP)
- Work health & Safety Management Plan (WHSMP)
- Environmental Management Plan (EMP)
- Quality Management Plan (QMP)
- Risk Management Plan (RMP)
- Traffic Management Plan (TMP)
- Industrial Relations Plan (IRMP)
- Communications Plan (CP)
- Hazardous Materials and Asbestos Management Plan (HMAMP)
- Emergency Management Plan (EmMP)
- Hazardous Substances Management Plan (HSMP)
- Waste Management Plan (WMP)
- Construction Program
- A copy of the Development Approval

Several of the above plans will require ongoing updating during the course of the project to remain relevant.

A copy of the CMP will be kept on site and accessible throughout the entire construction phase.

3.2 Site Establishment

Prior to commencing any construction works, the Principal Contractor will need to complete establishment activities which will likely include the following activities:

- Obtain all necessary permits, approvals, pay all associated fees and insurances,
- Erecting suitable signage clearly communicating and displaying the name of the Principal and Principal Contractor, including the name and details of a contact person,
- Establishing secure access to the site,
- Setting up suitable facilities and amenities for its workers and to administer the project,
- Establish vehicle entry / exit paths, emergency vehicle access and other requirements of their TMP,
- Setting up and implementing all required safety and environmental controls as per their CMP (and sub-plans),
- Mobilise suitable plant, equipment and personnel to site,
- Set up suitable secure storage areas,

- Complete all pre-work activities such as dilapidation reports, hazard / risk workshops, site inductions and the like,
- Set up all contract administration, WHS and environmental processes, and
- Provide suitable notifications as required, such as providing notice to Council of the intended time for commencement of the works.

3.3 General Working Hours

The works will be undertaken in accordance with the Development Consent.

The proposed hours of Construction are generally:

- Monday to Friday: 7:00 am – 7:00 pm
- Saturday: 8:00 am – 4:00 pm
- Sunday/Public Holidays – No construction work

Minor exception to the EPA construction noise guidelines are proposed in order to achieve alignment with the proposed neighbouring school development delivery construction hours and also to achieve more timely completion of the Education Precinct. Higher noise generating activities would be kept within the EPA construction noise guideline periods.

If required, after hour permits should be sought from the relevant authorities. This may be due to the following reasons:

- To reduce impact on public or nearby residents
- Emergency event / incident
- Authority shutdowns or disconnections
- Other reasons as required.

3.4 Workplace Health and Safety

The Principal Contractor will hold the responsibility of Principal Contractor for the site during the works in accordance with the Workplace Health and Safety (WHS) Act 2011. The Principal Contractor will be required to take all reasonable care and actions to meet its obligations under the WHS Act as contractually and legislatively required. In its role as an employer and site manager, the Principal Contractor will need to maintain a working environment, which minimises all risks to the health and safety of its employees, sub-contractors, visitors to site and the community.

The Principal Contractor will be required to fulfil this responsibility by complying with or exceeding all relevant industry and or Authority requirements, whilst attending to the following items:

- Identifying any risk related activities and ensuring procedures are followed to eliminate these risks.
- Where risk elimination is not possible, controlling foreseeable hazards or risks.
- Complying with relevant Work Health and Safety, workplace industry management and workers compensation legislation and regulations.
- Providing appropriate instruction, inductions and training for employees, sub-contractors and visitors to site.
- Compiling a site specific Work Health Safety Management Plan prior to commencing works on site.

- Providing adequate facilities for employees at work sites.

Employee and Sub-Contractor responsibilities under the WHS Act include:

- Avoiding unsafe work practices including putting themselves or others in an unsafe position.
- Adhering to the Principal Contractor's Induction and WHS Plan, including all Personal Protective Equipment (PPE) site requirements to enter and work on site.
- Reporting unsafe behaviour and/or potentially unsafe site conditions while on site immediately to the WHS representative.

The Principal Contractor will be required to provide adequate training of its employees, subcontractors and site visitors including mandatory site inductions. The site induction should make all parties aware of their site responsibilities and may include the following:

- Implementation of safe work method statements (SWMS) for all activities prior to commencing these activities.
- Implement pre-start checks for all plant.
- Encourage all personnel to report possible hazards and near misses to promote a safe work culture.
- Emergency evacuation, mustering and response plans shall be prepared and implemented, including site inductions for all site personnel and visitors.
- Hoarding or fencing should be erected between the work site and the public place if the work involved is likely to obstruct or inconvenience pedestrian or vehicular traffic – in accordance with Council requirements.
- All work practices are to comply with SafeWork NSW requirements and the WHS Act.
- Description of the site works and layout.
- Nominating restricted access areas.
- Locating toilet and break facilities.
- Location of site and safety signage.
- Document and induct site operatives of first aid arrangements, accident and emergency procedures and emergency evacuation routes.
- Identify the Site WHS Representative.
- Explain requirements for PPE.

3.5 Personal Protective Equipment

It will be the responsibility of the Principal Contractor that all site personnel are aware of and adhere to all personal protective equipment (PPE) requirements as per their SWMS and WHSMP. This could include the following:

- High visibility safety garments (AS4602.1)
- Safety helmets (AS1800 and AS1801)
- Safety footwear (AS2210.1/.2)
- Eye Protection (AS1336 and AS1337)
- Ear Protection (AS1270)
- Other PPE as required to undertake tasks to complete the works

3.6 Site Security

The Principal Contractor will be required to ensure adequate signage and temporary fencing is installed and maintained to restrict access and prevent unauthorised public access to the site at all stages throughout construction. Other site security such as CCTV or security patrols may also be implemented if deemed warranted at times during the project. The Principal Contractor may also restrict access to potentially hazardous areas within the site, such as stairwells to upper levels etc. as an additional precaution in the event that external fencing is breached.

4. Demolition management

4.1 General Demolition

Demolition of the existing buildings within the SSDA scope will be undertaken as part of the Early Works package to be assessed as a Development Without Consent in accordance with a Review of Environmental Factors (REF). The site clearance and removal of any unexpected finds for hazardous material including asbestos would be addressed in the REF, if required.

5. Environmental impact

The Principal Contractor will be requested to include management of the following environmental items in their Environmental Management Plan (EMP), as part of their overall CMP. The Principal Contractor will be required to include all relevant recommendations as provided in current reports prepared as part of the EIS.

5.1 Heritage

Despite appropriate and adequate investigation, unexpected heritage items may still be discovered during maintenance and construction works. The Principal Contractor will include strategies pertaining to unexpected finds for both European and aboriginal cultural heritage.

At a minimum an unexpected finds procedure to include the following:

1. Stop work, protect item and inform project managers and TAFE NSW
2. Contact and engage an Archaeologist and Aboriginal Site Officer where required
3. Complete a preliminary assessment and recording of the item
4. Formulate an archaeological or heritage management plan
5. Formally notify the regulator by letter, if required
6. Implement archaeological or heritage management plan
7. Review CMP/EMPs and approval conditions
8. Resume Work.

5.2 Erosion and sediment control

Controls pertaining to the restriction and prevention of erosion and sediment run off will be required throughout the construction process.

As per preliminary Soil and Water Management Plan advice prepared by Taylor Thomson Whitting (TTW) and included in the EIS, an Erosion and Sediment Control Plan (ESCP) is to be provided by the Principal Contractor as part of their CEMP prior to the commencement of works. These plans are to be in accordance with required standards and codes, including the 'Blue Book', and illustrate the requirements of the contractor to effectively establish, regulate and maintain all control measures. In particular, the Principal Contractor is to implement the necessary protective measures required to prevent sediment runoff to downstream locations of the site.

Measures for consideration by the Principal Contractor may include but are not limited to items below:

- Approved runoff and erosion controls installed before site vegetation is cleared (other than that associated with the construction of the controls).
- Topsoil to be stripped only from approved areas and stockpiled for re-use during site rehabilitation and landscaping.
- Stockpiles of topsoil, sand, aggregate, spoil or other material to be stored clear of any drainage line, easement, waters, footpath, kerb or road surface and shall have measures in place to prevent the movement of such materials onto the areas mentioned. All stockpiled materials to be retained within the property boundaries.

- Runoff detention and sediment interception measures applied to the land. These measures will reduce flow velocities and prevent topsoil, sand, aggregate, or other sediment escaping from the site or entering any downstream drainage easements or waters.
- The capacity and effectiveness of runoff and erosion control measures shall be maintained at all times to conform to the specifications and standards quoted and to any conditions of approval of those measures.
- Provide a wash down area behind sediment control measures for washing and cleaning activities, brick cutting, etc.

Methods could also include:

- Maintaining all erosion control measures for the duration of works until the land is effectively stabilised.
- Demarcating / controlling areas for construction activities and traffic movements – to minimise disturbance on-site.
- Locating stockpiles / material storage areas away from flood-prone land, drainage paths, water bodies and stormwater systems.
- Regular street-sweeping (or similar) of roadways adjacent to, and within, the site during the course of construction - to ensure they are kept free and clear of mud and sediment.

5.3 Flooding

Further to section 5.2, there is the potential for nuisance ponding on the site. Areas with minimal grades around the site may result in stormwater ponding in low lying areas which is unable to escape due to insufficient stormwater infrastructure. The Principal Contractor will need to include stormwater measures to account for potential floor levels on the site.

5.4 Vegetation protection

Vegetation protection plans are to be prepared as part of the EMP and provided by the Principal Contractor prior to the commencement of works. The plan must outline the methodology to be implemented for the protection of trees retained throughout the project works.

The vegetation protection is to be undertaken on trees identified in the Tree Assessment Report which are at risk of being damaged during construction are to have tree protection installed and all fencing must comply with AS 4970 2009.

Common methods of vegetation protection include, but are not limited to:

- All trees and vegetation that are to be retained should be clearly marked and protected prior to works commencing on site and protection measures are to be approved by a qualified arborist.
- Trees to be removed are to be inspected by a suitably qualified person prior to removal.
- Any spread of introduced weeds etc. controlled quickly and effectively.

5.5 Noise and vibration

The Principal Contractor will be required to produce a Noise and Vibration Management Plan as part of the EMP prior to the commencement of works in order to minimise the impact to immediate social infrastructure and nearby residents. The Principal Contractor is to manage noise and vibration in accordance with the noise and vibration reports in the EIS, and undertake any other necessary works (reports or monitoring) to meet their obligations.

The main parties to be considered by the Principal Contractor are the low density residential housing situated along the Northern & Eastern site boundaries, particularly the eastern boundary along See St, who are the closest proximity to the works. The Contractor will also be required to consider the operational TAFE site to the south & western boundaries of the proposed development. A vegetation buffer to the south, the Ausgrid zone substation to the north provide some additional distance to the neighbouring properties.

The Principal Contractor will also need to coordinate noisy works. Particular attention should be given to the following activities:

- Demolition activities
- Excavation in rock
- Loading of trucks
- Truck operating noise
- The use of heavy construction equipment
- Construction activities that generate high levels of noise, likely to affect neighbouring residents/facilities

Minimisation techniques may include but are not limited to:

- Use of equipment which produces less noise.
- Equipment silencers and other equipment noise abatement treatments where possible.
- Adherence to site working hours.
- Completing some works off site as part of prefabrication where practical.
- Conducting particularly noisy activities for short durations, where practical.

Geotechnical surveys indicate that much of the bulk excavation for the project will be in sandstone rock. Whilst carrying out this excavation phase of the project, steps should be taken to minimise the impact of vibrations.

5.6 Dust control

The Principal Contractor will be required to adhere to all air quality measures as depicted in their EMP.

Specific items to address include, but are not limited to, the mitigation of dust off the site through the management of stockpiles and excavation areas. Common techniques used are:

- The employment of water trucks, sprinklers or spray cannons to spray exposed areas.
- Covering stockpiles with geofabric or similar material.
- Covering truckloads of soil or other dusty material prior to leaving site.

These measures are to be used as a minimum whenever wind-blown dust is observed.

5.7 Air quality and odour control

The Principal contractor will be required to implement odour control that may arise from:

- Truck or plant equipment,
- Stockpiles,
- Onsite staff amenity facilities, and
- Other odour producing work activities.

Management may include:

- Air quality monitoring regime where necessary, and
- Odour identification and resolution procedures.

5.8 Soil Contamination and unexpected finds

The Principal Contractor will need to have procedures in place for unexpected finds of soil contamination, including asbestos or Polycyclic Aromatic Hydrocarbon (PAH). Other unexpected hazardous materials may be encountered, particularly in areas of previous site fill:

In addition, the Principal Contractor will be required to manage the works so as not to contaminate the site. Principal Contractor will need to confirm:

- Any imported material used for earthworks filling having been tested to validate the suitability of the material for use on-site.
- High risk activities such as re-fuelling and machine servicing are performed in designated / bunded areas, and not in the vicinity of any waterways or other environmentally sensitive areas.
- All construction materials are correctly stored in appropriate locations to prevent any leachate or hazardous materials migrating into adjacent waterways.
- All machinery is being inspected daily with any leaks having been repaired prior to continued use of said machinery.

5.9 Waste management and disposal

The Principal Contractor will be required to provide a site specific Waste Management Plan (WMP). This will indicate measures that will encourage the management and minimisation of waste during construction.

The following measures may be considered, where possible or practical:

- Removal of contaminated waste in accordance with all applicable standards and legislation,
- Recycling and reuse of all materials,
- Separation of vegetation from general construction waste to be mulched for reuse,
- Disposing general waste that is not recyclable to an approved waste management facility; and
- Ensuring that material transported to or from the site is secure.

All material disposal should be undertaken in accordance with the relevant regulatory requirements. Asbestos removal and disposal should only be undertaken by contractors with appropriate licences to do so for the materials encountered and disposed of correctly to licenced receiving disposal facilities with suitable transportation precautions implemented. Any soil to be disposed of must be assessed in accordance with the NSW EPA Waste Classification Guidelines Part 1: Classifying Waste.

6. Construction Traffic Management

6.1 Traffic Management Plan

The Principal Contractor will be required to provide a site specific Traffic Management Plan (TMP) prior to commencing works and in accordance with the preliminary Construction Traffic Management Plan prepared by GTA. The plan is to demonstrate how the Principal Contractor will maintain safe and adequate pedestrian, cycle way and road traffic access within the surrounding road network and public domain.

The TMP is to help explain how traffic related risks will be managed at the construction workplace. This may include details of:

- Designated travel paths for vehicles including entry and exit points, haul routes for debris or plant and materials, or traffic crossing other streams of traffic.
- Protocols for trucks entering and leaving the site, including ensuring all loads are covered appropriately.
- Strategies for minimising impact on neighbours such as:
 - Trucks to arrive and depart during the designated construction hours with consideration given to peak hour conditions.
 - Sizes of truck to be commensurate to delivery / waste.
 - Number of truck movements should be minimised as much as possible by maximizing loads to trucks.
 - Trucks should not queue on residential roads but are to enter onto site where possible.
- Pedestrian, cyclist and traffic routes.
- Designated delivery and loading and unloading areas and procedures.
- Travel paths on routes remote from the workplace including places to turn around, dump material, access ramps and side roads.
- How often and where vehicles and pedestrians interact.
- Traffic control measures for each expected interaction including Traffic Control Plans (TCPs) which include drawings of the layout of barriers, walkways, signs and general arrangements to warn and guide traffic around, past or through the workplace or temporary hazard.
- Requirements for special vehicles like large vehicles and mobile cranes.
- Requirements for loading from the side of road onto the site.
- Procedures for other impacts such as workforce parking (on site / offsite, and site pedestrian movements).
- Internal site vehicle routes, site road rules and other safety information.
- The responsibilities of people managing traffic at the workplace.
- The responsibilities of people expected to interact with traffic at the workplace.
- Instructions or procedures for controlling traffic including in an emergency.
- How to implement and monitor the effectiveness of a TMP.

The TMP should be monitored and reviewed regularly including after an incident to ensure it is effective and takes into account changes at the workplace.

Workers and transportation companies should be aware of and understand the TMP and receive information instruction, training and supervision. The site induction should cover the TMP.

6.2 Plant and equipment

All vehicles used in traffic control operations will be equipped with the appropriate vehicle mounted warning devices in accordance with the RMS Traffic Control at Work Sites Manual ver5 (TCAWS). Plant required to be managed on site could include:

- Excavators, rollers and other heavy construction machinery
- Cranes (pad mounted and mobile)
- Large Trucks
- Delivery trucks
- Site personnel vehicles (cars, utes etc.)

The Principal Contractor should minimise incoming and outgoing site traffic during local peak traffic periods.

6.3 Traffic control

Where required, the Principal Contractor will be required to engage suitably qualified and approved traffic controllers to undertake works in a safe and responsible manner. Traffic controllers are to carry licence tickets at all times.

Site specific instances where traffic controllers could be required include:

- Providing safe passageway to pedestrians at the site entrance.
- Ensuring the safety of community traffic near the site entrance, particularly in regards to site traffic entering and exiting the site.
- Erect and maintain traffic warning signs for community cars/trucks, cyclists and pedestrians.

Requirements for traffic controllers are to be outlined in the TMP supplied by the Principal Contractor.

6.4 Construction vehicles and truck movements

Construction traffic will generally have origins and destinations to/ from the north and west of the TAFE campus. The proposed construction vehicle routes have been selected to minimise the use of local roads and use arterial roads where possible (illustrated in Figure 3- Construction vehicle routes (Sourced from GTA Preliminary Traffic and Accessibility Assessment Report - September 2019)

The proposed routes are as follows:

Approach

- From north:
 - Pennant Hills Road, Silverwater Road, Victoria Road, Bowden Street, Stone Street, See Street
 - Lane Cove Road, Victoria Road, Bowden Street, Stone Street, See Street.
- From west:

- M4 Western Motorway, James Ruse Drive, Victoria Road, Bowden Street, Stone Street, See Street
- Old Windsor Road, Cumberland Highway, James Ruse Drive, Victoria Road, Bowden Street, Stone Street, See Street.

Departure

- Towards north:
 - See Street, Macpherson Street, Mellor Street, Victoria Road, Silverwater Road, Pennant Hills Road
 - See Street, Macpherson Street, Bowden Street, Victoria Road, Lane Cove Road.
- Towards west:
 - See Street, Macpherson Street, Mellor Street, Victoria Road, James Ruse Drive, M4 Western Motorway
 - See Street, Macpherson Street, Mellor Street, Victoria Road, James Ruse Drive, Cumberland Highway, Old Windsor Road.

It is noted that this construction vehicle entry / exit may be amended by the Principal Contractor to suit their intended construction methodologies.

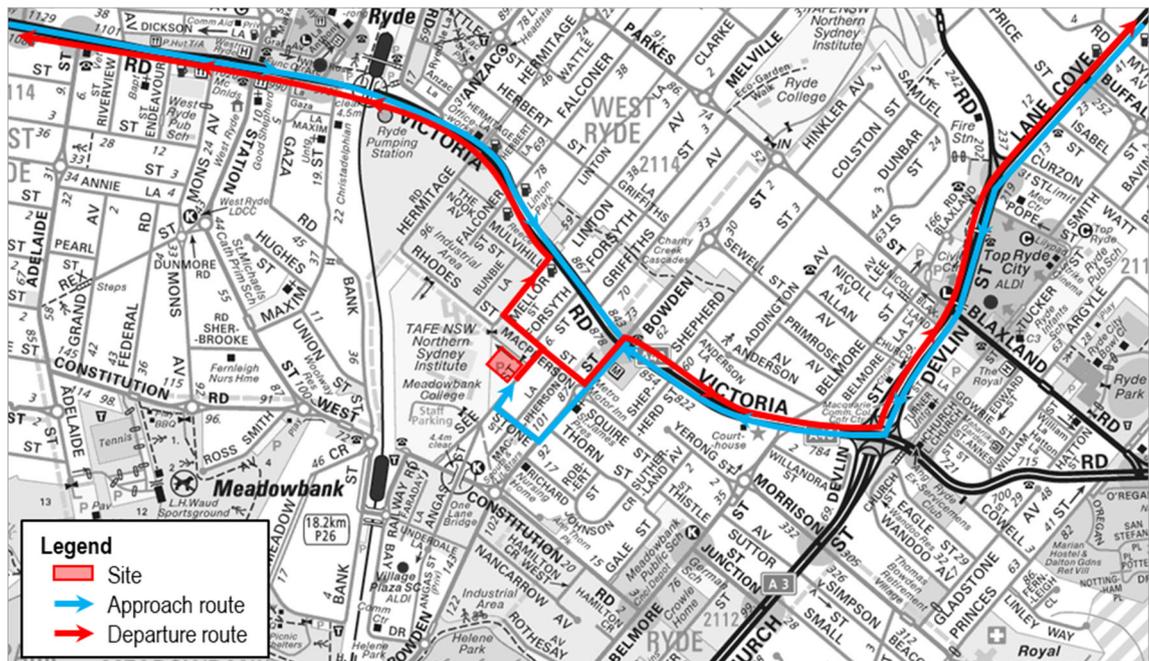


Figure 3- Construction vehicle routes (Sourced from GTA Preliminary Traffic and Accessibility Assessment Report -September 2019)

Figure 4 presents the proposed site plan and the location of the potential construction site access. It is not yet clear whether construction site access will be feasible during the excavation stage. If site access is confirmed feasible, a through site link will likely be created where the future proposed access road will be located between the proposed new Multi-Trades and Digital Technology Hub building and the existing substation, with vehicles entering via See Street and exiting via Rhodes Street. A pedestrian access will also be provided on See Street for construction worker access.

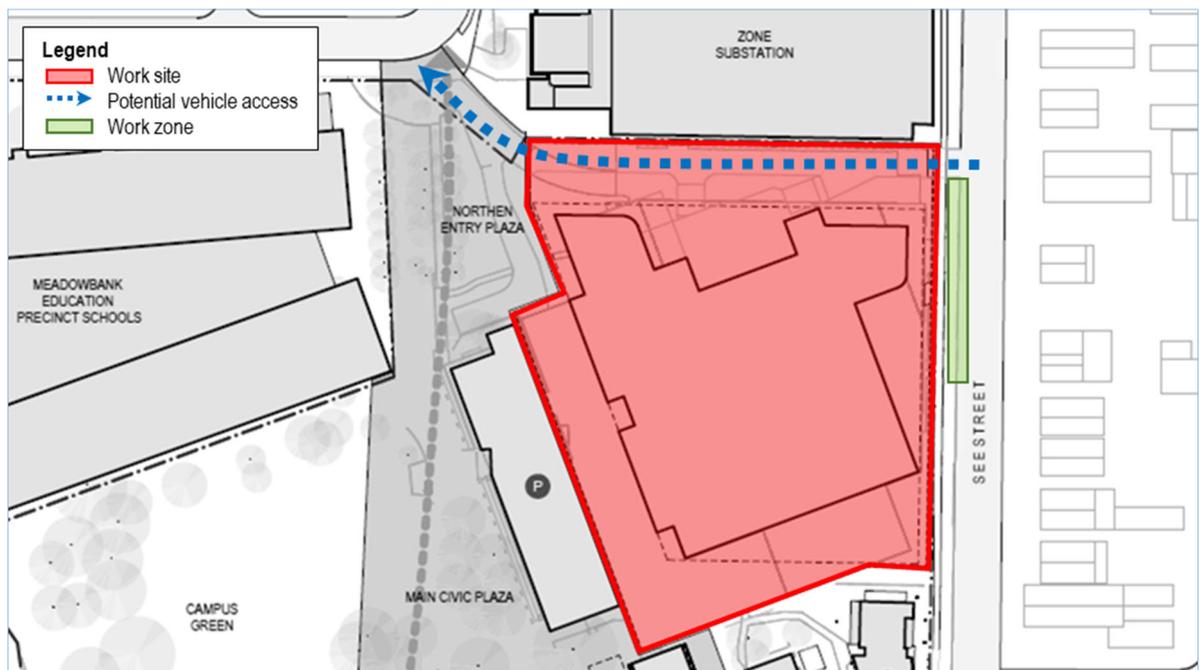


Figure 4- Proposed Construction Work Site Access (Source: GTA Traffic and Accessibility Assessment Report- September 2019)

6.5 Pedestrian and traffic safety

Pedestrian and cyclist movements will be maintained around the work site. Traffic controllers will be positioned at site accesses throughout the construction works to temporarily hold pedestrians in the event of vehicles entering and exiting the site. Class A hoarding will be installed around the perimeter of the site to prevent pedestrian access. Where overhead works are occurring over pedestrian areas, Class B hoarding will be installed to maintain pedestrian movement.

The anticipated heavy vehicle volumes are not expected to have any notable impact on the surrounding road network. As part of any site induction, drivers should be specifically alerted to the pedestrian activity associated with the NSW TAFE campus, with appropriate care and safety at this location.

6.6 Traffic impacts from workforce

Impacts from workforce traffic will be managed in the detailed TMP. It is estimated that there will be approximately 200 car parking spaces available to construction workers related to the concurrent SINSW Meadowbank Schools and TAFE NSW Multi-Trades and Digital Technology Hub up until July 2020, however travel arrangements for construction workers will be refined once a contractor is appointed. The site is adequately large to accommodate onsite parking and if required the TMP by GTA demonstrates high availability of street parking (section 2.5 and section 2.6).

Notwithstanding this, given the site's proximity to high frequency public transport services, including Meadowbank Railway Station, all workers will be encouraged to use public transport to access the site, with appropriate tool/ equipment drop-off arrangements made. This will be incorporated into the site induction program.

The use of on-street parking on the surrounding local road network by construction personnel will not be permitted. This restriction will be communicated during the induction of personnel and reinforced in toolbox talks. The appointed contractor would be required to propose an appropriate approach for reducing construction worker travel by private car (including but not limited to use of public transport as noted above, carpooling, group transport and/or shuttle services from subcontractor premises or key transport nodes), as well as an on-street parking monitoring program with corrective actions as required.

7. Services disconnections and shutdowns

In general, the following principles will be adopted for services shutdowns or when disconnecting services:

- All relevant Statutory Authorities, client and stakeholders will be consulted as necessary with full coordination completed prior to any service disconnections and shutdowns.

All terminations will be undertaken in accordance with DoE and Statutory Authority requirements.

- Any services disconnections and termination works are to be undertaken by suitably licensed contractors.
- Shutdown to disconnection plans may be prepared as required.
- A minimum notice is to be provided as per statutory authority notification periods to any party that will be impacted by the service disconnections or shutdowns.
- For locating and dealing with existing services, the Principal Contractor is to comply with the requirements of GC21 Edition 2 Preliminaries (Existing Services).

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