Preliminary Construction Management Plan

(including Preliminary Waste Management Plan)

New Western Sydney University, Bankstown City Campus

August 2019

Table of Contents

1. INTRODUCTION

Archerfield Partners Pty Limited (***Archerfield***) has been engaged by Western Sydney University (***WSU***) to prepare a Preliminary Construction Management Plan (***CMP***), including a Preliminary Waste Management Plan, in relation to its proposed Bankstown City Campus development project (***Project***).

The requirement to prepare this CMP is set out in the City of Canterbury Bankstown Council's letter to the NSW Department of Planning & Environment dated 21 February 2019, under the heading Plans & Documentation Requests. The CMP will accompany a State Significant Development Application (***SSDA***) submission for the Project.

The site on which the Project is to be developed is located in the City of Canterbury Bankstown on the southern side of Rickard Road between Jacobs Street and Chapel Road. It includes 74 Rickard Road (being Lot 5 DP 777510) and a portion of 375 Chapel Street (being part Lot 6 DP 777510). In addition, public domain works are proposed to Rickard Road, 70 Rickard Road (being part Lot 7 DP 777510) and access is proposed via 80 Rickard Road (Lot 12 DP 566924).

Source: Near Maps

The site is rectangular in shape and has an area of approx. 0.37 hectares, being relatively flat with a fall of approx. 1.0 metre from north-west to south-east. It is subject to stormwater flooding and is categorised as being Medium to High Risk with overland flow paths.

The site's immediate surrounds include Paul Keating Park to the south, Bankstown Civic Tower to the east and Bankstown Library and Knowledge Centre to the west.

Existing improvements to be demolished comprise an asphalt paved car park area, with a limited grassed region in the site's western and southern portion, together with a portion of Appian Way.

An Early Works Development Application will be submitted to Canterbury Bankstown Council for the following works, which are not subject to the SSDA:

- Erection of site hoardings;
- Demolition, including tree removal;
- Bulk excavation;
- Shoring, including temporary anchors to engineers' specifications;
- Disconnection and/or diversion of services; and
- New lay-back along Rickard Road leading into Appian Way, constructed to take heavy construction traffic.

The Project then involves the construction of a new high rise campus with a total net lettable area approx. 26,270m^2 that consists of university education facilities, academic and professional staff workspaces, ground floor university uses, retail and industry partner space, as follows:

- Two levels of basement parking.
- Ground floor containing university multi-use tiered space, maker spaces and retail.
- Levels 1-12 containing university learning/teaching spaces, library and literacy centre, student services and hub as well as academic and professional staff workspaces.
- Level 13 containing a conference/meeting/function centre.
- Levels 14-18 for future University/Education space.
- 3,000m^2 of external terrace space (additional to the net lettable area) in the building.

2. PURPOSE OF THE PLAN

This CMP has been written with the purpose of communicating to project stakeholders the high level objectives, strategies, methodologies and actions that will be employed during construction of the Project.

It outlines the general requirements for a project of similar scale and complexity and has been formulated from a conceptual design. As such, it and may change in response to further design development and the conditions of any future development consent. Upon appointment, the Principal Contractor will provide a further, detailed CMP that takes account of any such changes and meets all legislative, client and stakeholder requirements.

WSU and the appointed Principal Contractor will comply with all legislative obligations including the Work Health & Safety Act 2011, relevant codes of practice and the conditions of any future development consent.

3. AUTHORITY APPROVALS

3.1 Licenses & Permits

Once appointed, the Principal Contractor will prepare and submit applications as necessary for Work Zones, Road Closures and Hoardings to the relevant consent authority.

3.2 Pre-establishment Planning

Early planning activities will be conducted by the appointed Principal Contractor prior to establishment on site, including but not limited to:

- Dial before you dig.
- TfNSW (including RMS) traffic management measures.
- Stakeholder notices.
- Dilapidation surveys.
- Services connections, disconnections and/or capping.
- Management plans (WHS, EMP, PMP, CMP, TMP, SSMP, QMP).

3.3 Working Hours

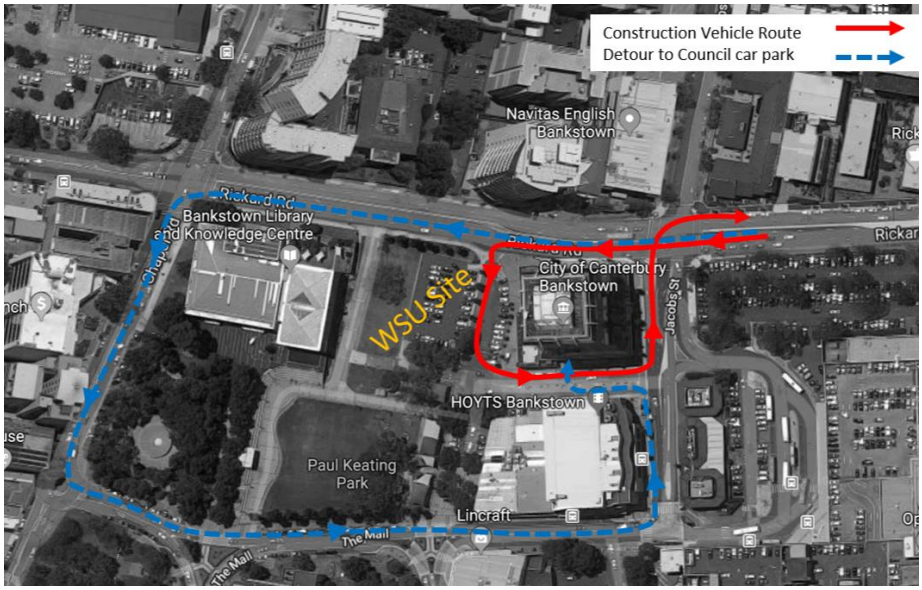
Working days/hours will be as agreed with Canterbury Bankstown City Council or other Consent Authority as appropriate, and as set-out in any future consent conditions.

4. PRE-CONSTRUCTION PLANNING

4.1 Site Establishment, Entry, Exit & Wayfinding

The Principal Contractor will make arrangements for the connection of temporary services, the delivery and installation of the site compound, vehicle access points and emergency evacuation points and the installation of hoardings, fences, gates, site security and environmental protection devices.

ARUP has been engaged to prepare a preliminary Construction Pedestrian and Traffic Management Plan (***CPTMP***), which recommends construction vehicle use a one-way route for site access and exit purposes, as follows:



Source: ARUP Preliminary Construction Pedestrian and Traffic Management Plan

ARUP note that;

- access via Appian Way (left turn from Rickard Road); and,
- exit on Jacobs Street (left turn exit);

provides for the most efficient access to the wider regional road network via Stacey Street, whilst minimising the use of local streets (e.g. The Mall).

4.2 Traffic Management

The CPTMP prepared by ARUP makes the following preliminary recommendations:

- That Appian Way be closed to the public between the site and Canterbury Bankstown Council building during the construction stage (construction access only).

- Vehicles currently accessing the existing Canterbury Bankstown Council building basement car park via Appian Way be redirected. The proposed detour would be via Rickard Road, Chapel Road, The Mall and Jacobs Street (approx. 700m). This is anticipated to impact approximately 30 vehicles in the AM peak hour. There is no impact to vehicles egressing the car park as Appian Way is one-way southbound.

- It is expected that the western access road to the Bankstown Library Knowledge Centre will continue to be operational as per the existing situation (subject to the appointed Principal Contractors' staging and methodology).

- TfNSW (including RMS) certified traffic controllers will be in place where required to ensure the safe interaction of pedestrians and construction traffic.

- Construction vehicle traffic generation is expected to be approximately 75 trucks per day during the busier construction stages.

A final Construction Pedestrian and Traffic Management Plan will be developed by the appointed Principal Contractor prior to the commencement of construction works and submitted to Council for approval following liaison with relevant stakeholders, including Council and TfNSW (including RMS). It is expected that this will include, but not be limited to:

- Ensuring safe vehicular and pedestrian access.
- Maintaining safe access to all adjacent roads and pedestrian thoroughfares.
- Fire and other emergency vehicle egress.
- Existing traffic flow and potential impacts on surrounding road networks.
- Truck routes.
- TfNSW (including RMS) traffic management requirements.
- Authority permits and approvals.
- Existing services infrastructure.

4.3 Pedestrian Management

To allow for continuous public access, materials handling and management of pedestrian safety, some diversions from existing pedestrian routes will be required for large periods of the work. This includes along the site boundary with Rickard Road and that portion of Appian Way that is to be demolished and realigned.

The installation of way-finding signage and lighting will be professionally managed to ensure clear pedestrian understanding and preservation of safety and amenity.

4.4 Deliveries & Parking

Deliveries to site will follow the access and exit routes prescribed for construction vehicles.

Initially, no on-site parking will be provided for construction staff. Construction staff will be encouraged to use public transport. Any staff driving will need to avail of public parking in the surrounding area.

Following the construction of the basement levels of the Project, this could potentially be used for deliveries and/or parking during later construction stages (subject to the appointed Contractors' staging and methodology).

4.5 Construction Staging & Methodology

An Early Works Development Application will be submitted to Canterbury Bankstown Council for the demolition of existing structures on the site, bulk excavation, shoring and the disconnection or diversion of services. These works are not subject to the SSDA. The Project then involves:

- Construction – Base Build / Structure.
- Fit-out.

Douglas Partners was engaged to undertake a Hazardous Buildings Materials Survey of the site to assess the location, extent and condition of any hazardous building materials (***HBM***) including asbestos. No HBM were identified through this process.

Prior to the commencement of works, a Hazardous Materials Management Plan will be developed by the Principal Contractor to aid compliance with the requirements of the WHS

Act and Regulation including those that relate to the identification of hazards and control of associated risks.

A Detailed Site Investigation was undertaken by Douglas Partners. Those investigations identified sub-surface materials primarily comprising soil underlain by shale. No significant contaminants were identified and the risk of Acid Sulphate Soils was determined to be low.

Groundwater investigations identified that the lowest basement slab may be close to elevated groundwater levels, but that a drainage system can be installed to relieve any hydrostatic pressure build-ups.

Accordingly, based on these investigations, it is anticipated that conventional basement shoring and excavation techniques can be employed subject to approval of the Early Works Development Application by Canterbury Bankstown Council.

It is expected that excavation and basement works will necessitate the removal of most of the existing trees on and immediately surrounding the site. However, WSU's arborist, Eco Logical, has identified two trees to the immediate south of the site that may be retained (refer Arborist Report; tree numbers 22 & 23). Four additional trees that will be impacted by the works (numbers 1, 2, 18 & 20) and are identified as being of low/medium retention value are also to be removed and replaced as part of the Project's broader landscape design.

The Principal Contractor will develop mitigation measures for the retention of identified trees (eg. tree protection fencing and root protection zones).

The structural elements of the building will largely consist of conventional reinforced concrete, post-tensioned concrete and reinforced vertical concrete columns and core. The façade will primarily be of a glazed design. Services are designed to ensure high energy efficiency and flexible operation.

Fit-out has been designed by HDR architects. A decision on whether this will be integrated with the base building construction works or undertaken separately will be made by WSU in due course.

A detailed Construction Staging and Methodology Plan will be prepared by the Principal Contractor, once appointed, including a specific construction methodology for the cantilevered section of the building above level 13.

4.6 Materials Handling

Materials loading, unloading and storage will be undertaken in designated areas to be identified by the Principal Contractor and specified in its CMP.

It is expected that cranes and hoists located on-site will provide the most efficient form of vertical transport during construction works, supplemented by mobile cranes as may be necessary. The exact types and locations of tower cranes will be determined by the Principal Contractor, once appointed.

An Aeronautical Impact Assessment Report prepared by Landrum & Brown Worldwide (Aust) identified that proposed crane activity to a maximum height of 125m AHD will temporarily infringe the OLS and PAN OPS for Bankstown Airport, and that approval from Bankstown Airport, CASA and DIRDC will be required.

4.7 Noise & Vibration

Norman Disney Young (***NDY***) has completed an Acoustic & Vibration Assessment covering the main noise and vibration generating sources during construction.

Prior to the commencement of works on-site, a Noise and Vibration Management Plan will be prepared by the Principal Contractor that will include strategies to mitigate noise and vibration generated by the works, to comply with the recommendations of NDY's report, regulatory requirements and any future consent conditions, including but not limited to:

- Restricting activities that generate noise and/or vibration to agreed construction hours and providing respite periods if deemed necessary.
- Siting fixed plant & machinery away from sensitive receivers.
- Turning off plant & machinery when not in use.
- Minimising truck idling periods and the use of tonal reverse alarms.
- Scheduling the use of vibrating causing equipment at least sensitive times of day.
- Sequencing operations so that high noise/vibration causing activities do not occur simultaneously.

4.8 Dust, Erosion & Sediment Management Plan

Bonacci Group has prepared a Sediment & Erosion Control Plan. Using this document as a base, the Principal Contractor will prepare an Environmental Management Plan prior to the commencement of any on-site works that meets the requirements of the Protection of the Environment Operations Act and any future consent conditions.

Dust control measures will be implemented in all areas of active works, within the construction zone more generally and as required for the health and safety of workers and the public. Works will be monitored and any stockpiled material will be covered in conditions of high wind to mitigate high levels of dust being created. Areas subject to dust creation will be watered down as required.

Soil erosion and sediment control measures will be implemented prior to the commencement of works and inspected on a regular basis, in accordance with the Principal Contractors' CMP.

A truck wash-down area will be established to prevent vehicles leaving the site contaminating the surrounding road network. All loads leaving the site will be covered.
A Water Quality Management Plan will be implemented to ensure any water discharged from the site complies with the Healthy Waters State Planning Policy and does not release contaminants into waterways and drainage systems.

4.9 Demolition Plan

Approval of an Early Works Development Application will result in the removal of existing structures on the site including a portion of Appian Way. Minor demolition will be required to facilitate the realignment of the Rickard Road pedestrian footpath and other public domain works. A detailed Demolition Plan will be prepared by the appointed Principal Contractor prior to commencement of works in accordance with relevant legislative requirements and any future consent conditions.

4.10 Notification

Project stakeholders will receive written notification of the commencement of construction works and regular up-dates on progress throughout the construction period.

4.11 Community Communication & Engagement

WSU will engage a Community Communication and Engagement Consultant. That consultant will develop a community and stakeholder engagement programme to proactively engage with and provide information to neighbours and other key stakeholders. Community engagement meetings will take place to ensure all parties are kept well informed throughout planning, demolition and construction.

WSU is presently engaged with Canterbury Bankstown City Council in co-ordinating the communication and engagement strategy.

Points of contact between the Principal Contractor's project team and stakeholders will be agreed, with stakeholders provided 24 hour contact details. Key personnel from the Principal Contractor's team will be made available to attend stakeholder briefings.

4.12 Complaint Handling Procedures

A complaints response process will be outlined in the Communication Plan developed by WSU and the Principal Contractor. This Plan will describe the Principal Contractor's approach and procedures for communication with internal and external stakeholders, necessary authorities and the public.

4.13 Principal Contractor Construction Management Plan

A detailed CMP will be prepared by the Principal Contractor upon its appointment. An indicative contents list for this Plan is attached as Annexure A for information purposes.

5. WASTE MANAGEMENT PLAN

A Waste Management Plan will be prepared by the appointed Principal Contractor and submitted to Canterbury Bankstown City Council prior to the commencement of construction works. This Plan will address all legislative and stakeholder requirements as well as any future consent conditions.

The following Preliminary Waste Management Plan has been prepared for the purpose of outlining the general requirements for a project of similar scale and complexity.

5.1 Statutory Requirements for Waste Management

WSU and the appointed Principal Contractor will ensure that the generation, storage, treatment and disposal of waste associated with the Project are dealt with in accordance with all relevant legislation and health & safety requirements, including:

- Waste Avoidance & Recovery Act 2001.
- Protection of the Environment Operations Act 1997.
- Canterbury Bankstown Council Development Control Plan.
- Work Health & Safety Act 2011.
- Any future Development Consent Conditions.

5.2 Potential Waste Sources

An Environmental Engineer will provide advice throughout the Project to ensure any waste material is classified in accordance with Part 1 of the Waste Classification Guidelines 2014 by the EPA (NSW) and removed from site in accordance with relevant sections of the Protection of the Environment Operations Act.

There are several sources of potential waste during the demolition, excavation and construction phases, including:

- Resource Recovery Material (excavated natural/virgin material);
- General Solid waste (Non-Putrescible);
- General Solid waste (Putrescibles); and
- Special, Restricted or Hazardous Waste Material

5.3 Potential Impacts and Methodologies

Excavated natural & virgin material such as soil and rock maybe stored on-site for re-use and recycling or disposed of off-site at a licensed facility.
The majority of non-putrescible waste such as plastic, glass, plasterboard and concrete will be generated during the construction phase of the Project. These items will be re-used or recycled where possible, or disposed of off-site at a licensed facility.

Putrescible waste such as food waste and other organic matter will collected and stored separately from other waste and disposed of off-site to either a green waste facility or landfill.

Special, restricted and hazardous waste such as HBM, fuel and machinery oil will be subject to removal or containment processes as advised by an accredited hygienist or environmental engineer to ensure no spread of contamination or risk to human health. Waste tracking requirements will apply to these waste sources in accordance with the Protection of the Environment Operations Act and EPA Environmental Guidelines.

5.4 Waste Management Plan

A specific Waste Management Plan (***WMP***) will be developed in accordance with the Principal Contractor's Environmental Management System to ensure optimum waste management initiatives are implemented, including recycling programmes. The aim of the plan will be to work at best practice in minimising the amount of waste produced during construction and manage that waste in order to reduce the amount going to landfill.

The WMP will be developed by the Principal Contractor, once appointed, and will include:

- Designated areas for stockpiling and recycling waste according to specific streams.
- Waste handling, management and storage procedures.
- Disposal procedures.
- Staff training on the contents and requirements of the WMP.
- Emergency and contingency plans.

6. CONCLUSION

This Preliminary CMP has been prepared for the purpose of accompanying a State Significant Development Application submission for WSU's proposed Bankstown City Campus Development. It indicatively outlines a number of key construction matters and methodologies that will apply during the course of development and acts to demonstrate that WSU's approach to the Project has been well considered and will be undertaken in a manner that seeks to minimise disturbance to the surrounding environment.

APPENDIX A
PRINCIPAL CONTRACTOR CMP INDICATIVE TABLE OF CONTENTS