

# **CONSTRUCTION MANAGEMENT PLAN FRAMEWORK**

## **UTS BROADWAY BUILDING (BB) SYDNEY**

FOR THE UNIVERSITY OF TECHNOLOGY, SYDNEY

PREPARED BY  
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ARCHITECTURE URBAN DESIGN

# CONTENTS

INTRODUCTION	1
SITE ESTABLISHMENT	2
TRAFFIC MANAGEMENT PLAN	4
NOISE AND VIBRATION MANAGEMENT PLAN	6
WASTE MANAGEMENT PLAN	7
EROSION AND SEDIMENT CONTROL	8
AIR AND DUST MANAGEMENT	9
FLORA AND FAUNA MANAGEMENT	10

## **Introduction**

This Construction Management Plan (CMP) summarised the strategies proposed to conduct the excavation works required for the new building for the Faculty of Engineering and Information Technology for the University of Technology, Sydney (UTS). It is to support the Application to modify the approved Concept Plan, MP 08-0116. The CMP addresses all items as outlined in the Director General Requirements, Key Assessment Requirements, Section 12, Excavation and Construction Management. This report is to be understood as a set of general management principles that will be further defined once an Early Works Contractor is appointed.

In the following, construction management areas such as site management, health and safety, traffic management, noise and vibration, waste management as well as dust mitigation measure and flora and fauna management are discussed.

## **Background to the Project**

The proposed 'Broadway Building' will house the Faculty of Engineering and Information Technology. The site, of an approximately size of 3540 m<sup>2</sup>, is located within Sydney's University precinct Ultimo, bounded to the South by Broadway, to the West by Wattle Street and by Jones Street to the East. A laneway defines the site to the North.

The Early Works volume comprises excavation of approximately 58,900m<sup>3</sup> of spoil.

## **Dilapidation Report**

Prior to commencement of any works on site a dilapidation report will be prepared that will give an exact record of the conditions of adjoining buildings, infrastructure and roads.

This report will form the basis for comparison with the dilapidation report that is to be prepared after the excavation works are complete.

## **Site Working Hours**

All works shall be restricted to within the hours of 7.00am to 7.00pm Monday to Friday, and within the hours of 7.00am to 5.00pm Saturday, with no work on Sundays and Public Holidays.

Any alterations to these times must be approved by the Director, Strategic Assessment of the Department of Planning.

## **Contact Details**

Site Superintendent – Denton Corker Marshall Pty Ltd, phone +61 3 90123600.

## **Parking**

No on-site parking will be available for tradesmen or site personnel.

## **Security**

Site security measures will be in place at all times when the site is not in operation. Measures may include but not be limited to perimeter hoarding, locked gates, surveillance cameras, security lighting and motion detectors.

Security measures will be provided to safeguard site materials and equipment.

Unauthorised access to the site and adjoining buildings will be prevented by providing adequate security measures.

All visitors and personnel must be inducted prior to accessing the site. Also refer to *Safety and Protection* below.

## **Site Amenities**

A site office, toilet and hand washing facilities, lunch room, first aid room and change room facilities will be provided for use by all site personnel.

## **Hoardings**

Approval to erect perimeter hoardings will be sought through Sydney City Council.

The site will be appropriately secured by fences, hoardings and gates during the entire duration of the excavation work. Class B hoarding will be provided to all three street frontages. Gates will be installed to control access to the site. Egress paths from CB10 will be secured by fences and overhead protection. Hoardings, gates and fences will be suitably lined in order to limit public viewing and ensure safe pedestrian flow. Attention will be paid to the effects of hoarding on pedestrian travel paths. If required, ramps or tactile indicators may need to be installed. Relevant approvals will be provided.

Architectural, construction and structural details of the design will be in accordance with relevant policies and guidelines as specified by The City of Sydney's – Policy for the Design of Construction Hoardings.

Structural certification will be prepared and signed by an appropriately qualified practicing Structural Engineer.

## **Safety and Protection**

Safety signage, lighting and traffic controls will be provided during the duration of the construction.

Any temporary or permanent changes to street lighting will first need to be approved by the relevant authorities.

All personnel, sub contractors and visitors must undertake the UTS Occupational Health and Safety (OH&S) 'ELMO' online induction training. 'ELMO' is a UTS wide construction worker site safety induction process that is conducted online to cover UTS specific issues.

All sub contractors must induct their employees into their safe work procedures and submit a copy of their induction register to the Superintendent.

An OH&S meeting will be held weekly to deal with issues that may arise on site. This meeting will be attended by a representative of each sub contractor and chaired by the Superintendent.

An OH&S information board will be erected and a copy of the UTS OH&S policy will be prominently displayed on the board.

Sub contractors will be required to submit an OH&S Plan to the Superintendent for review prior to commencement of work on site. The sub contractor is to incorporate any feedback from the superintendent into the OH&S Plan.

### **First Aid Facilities**

First aid facilities are to be provided as per OH&S legislative requirements.

All sub contractors shall provide the name of a designated First Aid Officer to the Superintendent.

### **Approved Plans to be on Site**

A copy of the approved and certified plans, specifications and documents incorporating conditions of approval and certification shall be kept on site at all times.

### **Signage and Site Notice**

A site notice is to be prominently displayed at the boundary to each frontage of the site for the purpose of informing the public of appropriate project details and relevant approvals.

A sign that displays key contact names and phone numbers as well as security measures will be provided.

Signs, road markings, street furniture parking meters etc, that might be affected by the construction works will either be relocated or suitably protected during the duration of the construction.

### **Public Domain**

Footbaths and bicycle paths adjacent to the site will be kept unobstructed from tripping hazards from hoarding or fences. All services extending over footpaths will be covered and fitted with a ramp to facilitate safe pedestrian and disability access.

### **Archaeological Investigation**

Archaeological Excavation works will be finalised prior to the commencement of Bulk Excavation Works.

## **Ingress & Egress of Vehicles to the Site**

All ingress and egress of vehicles on site to adhere to those outlined in the Construction Traffic Management Plan.

All building contractors shall be notified of the truck routes and required to adhere to the nominated routes as outlined in the Construction Traffic Management Plan.

## **Loading and Unloading**

All loading and unloading of materials is to take place on site. All construction vehicles will stand on site to load and unload materials.

Driveway access will be controlled by qualified personnel and pedestrian warning signs and flashing lights will be installed.

All Vehicles involved in the Bulk Excavation Works exiting the site with spoil and loose matter must have their loads fully covered before entering the public road network.

All spoil is to be loaded by mechanical means.

All hazardous materials are to be transported and stored as per relevant codes and regulations.

A delivery/removal register will be located on site for completion by sub contractors and will be reviewed by the Superintendent.

Only construction vehicles will be allowed on site.

## **Marshalling of Trucks**

The nominated marshalling area for trucks will adhere to the location specified in the Construction Traffic Management Plan.

## **Traffic Management Methods**

All vehicles are to be directed by the appropriate contractor to a nominated work area.

All vehicles prior to leaving the site must be checked by a contractor's representative for cleanliness and must be washed down if required.

Construction vehicles are not permitted on site without approval from the contractor's site manager.

All vehicles involved in the Bulk Excavation Works exiting the site with spoil and loose matter must have their loads fully covered before entering the public road network.

All hazardous materials are to be transported and stored in accordance with local authority requirements and associated Safety Plans.

The maintenance and cleaning of vehicles and construction plant will not be undertaken in areas where oil or runoff may be discharged into a watercourse, street gutter or stormwater drainage system. Waste from these activities will be stored, collected and then disposed of in a manner that is approved by the Environmental Protection Authority (EPA).

A truck wheel washing facility will be maintained for the effective cleaning of wheels prior to trucks leaving the site.

Fuel for vehicles, earthmoving plants and mobile equipment will not be carried out without an operator or driver being in attendance at all times.

To reduce traffic and noise impacts, trucks transporting materials from site will be confined to the main road network to avoid local roads as much as practicable.

## **Pedestrian Management Methods**

Pedestrian thoroughfares around the site are to be maintained and clearly marked. The pedestrian crossing between CB10 and the Alumni Green is to be controlled by a traffic supervisor.

Egress paths from CB10 are to remain clear and unobstructed at all times.

All visitors will report to the Site Office to sign the Visitor's Register.

All visitors must sign out when leaving site.

All visitors must wear suitable attire before entering the site. This includes helmets, steel capped boots and high visibility vest/jacket.

An inducted person must accompany visitors on site at all times.

No private parking will be available within the site. Visitors must find parking in surrounding streets or public car parks.

The construction area will be suitably cordoned off from public and adjoining building pedestrian areas.

Pedestrian access to, from and around the site is to be via designated access routes to be clearly identified as part of the induction process.

## **Construction Noise Objectives**

Reasonable measures will be undertaken to manage noise from construction activities.

For noise levels and appropriate mitigation measures refer to the Construction Noise and Vibration Management Plan for Bulk Excavation.

Working hours will be in accordance with the conditions of consent. All works will take place within these allotted times and follow the conditions in which works may be undertaken outside these hours.

## **Proposed Mitigation Treatments, Managed Methods and Procedures**

The following mitigation treatments, management methods and procedures are proposed:

Construction work will only be given permission to commence once the sub contractor has submitted and received approval for a schedule of equipment which describes the equipment types to be used, noise levels, expected time and duration of use, and any measures required to ensure the noise levels are acceptable.

Loading and unloading of construction vehicles will only take place on site.

Personal safety measures, such as ear muffs and ear plugs shall be enforced wherever noise exceeds 85db.

Operating noise limits are to be implemented to achieve the construction noise objectives.

All sub contractors will be requested to use silenced equipment where applicable.

All sub contractors, as part of their site safety plan are to ensure ear and eye protection is available for all site personnel and visitors and should be enforced on a daily basis.

Bored piles should be used in lieu of driven piles.

Construction work that exceeds agreed noise limits, but cannot be avoided, will be proposed to be scheduled during times such as semester breaks or exam-free times.

Windows in CB10 facing the site will be specifically treated in order to protect occupants from noise impacts.

The relocation of occupants in buildings adjacent to the site will be considered.

Vibration emission levels for equipment used on site will be established prior to the commencement of works. Site specific buffer distances will be determined on the basis of this.

## **Notification Period**

Occupants of adjoining buildings will be notified of activities that are likely to cause disturbance through noise and vibration prior to commencement of works.



## **Waste Management Plan**

Construction activities are to be carried out in a way that minimises landfill and supports the reuse and recycling of materials.

All construction waste and packaging is to be removed in accordance with the requirements of relevant legislation, codes, standards and guidelines.

For disposal of special waste and contaminated soil refer to the Hazardous Material Report, the Environmental Site Assessment as well as to the Geotechnical Report.

A Waste Management Plan will be further developed during the design development stage of the project.

### **Preventive Measures**

All adequate measures are to be taken to prevent erosion affecting the neighboring buildings, sites or the public domain during construction. These measures are further explained in the Geotechnical Investigation and Hydrogeological Assessment.

Drainage of the site will occur to a legal point of discharge. Stormwater will be captured and filtered before entering the point of discharge.

Measures will be applied to prevent stormwater from entering adjoining properties or the sewage system.

Grated drains at stormwater exit points from the site will be provided to prevent uncontrolled runoff.

Existing on-site storm water drainage pits will be cleaned of rubbish and silt. All drainage grates shall then be covered with suitable geotextile fabric securely fixed in position.

Natural rainwater run-off will be controlled to prevent sediment draining into the stormwater system.

Waste material, including liquid wastes will be prevented from discharge into the stormwater system.

Sediment barriers to storage areas of loose materials such as soil, sand or gravel will be provided.

Potential groundwater inflows and seepage into the site, if occurring, will be monitored. Pump facilities will be designed and installed as required.

Silt fencing will be installed at the base of the site hoarding in order to catch any silt laden runoff and prevent it from leaving the site. The silt fencing is to be anchored at the base by either embedment or weighed down with sand bags.

### **Preventive Measures**

Air quality in and around the site will be maintained at an acceptable level throughout the duration of the construction site.

Dumping of loose materials on the site will be minimised. If dumping of loose materials is unavoidable, detailed measures for preventing dust and other airborne matter impacting on the surrounding area will be applied.

Dust arising from construction vehicles entering and leaving the site will be controlled by watering down driveways and vehicles in a considered and efficient manner.

The provision of vehicle entry/exit points including truck cleaning facilities will be allowed for. These points will be managed by a gate controller. Gates shall be closed between vehicle movements and shall be fitted with geotextile fabric.

Cleaning of footpaths and driveways shall be carried out periodically.

Perimeter hoarding and fencing will minimise dust impacting on the public domain.

Materials will be stored on site so that exposure to the weather elements is minimised.

Exhausts and ductwork from equipment used on site will be located away from air intakes of surrounding buildings, and public areas.

Construction materials will only be cut in designated areas away from the site boundary and the public domain. Dust and noise suppression measures will be utilised.

Air intake vents on adjacent campus buildings that might be exposed to excessive dust or otherwise affected air quality will be fitted with filters. Documentation of these preventive measures by the consultant team will ensue.

### **Protection of Existing Street Trees**

Consent to remove all trees on site has been granted by City of Sydney.

An Aboricultural Implications Plan has been prepared to evaluate the impact of existing trees around the site on the surrounding landscape.

All street trees shall be protected as required at all times during construction. Any tree on the footpath which is damaged or removed during construction shall be replaced.

Street trees are required to be protected by means of tree guards, barriers and other measures as necessary in order to protect the canopy, roots, trunk and branches during construction.

An Arborist Report has been prepared in order recommend detailed measures that need to be applied in order to protect the trees around the site from potential damage. In particular those trees that are listed in the city of Sydney's Register of Significant Trees will require careful assessment of implications during the construction works.

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