

UTS Central Project
Construction Management Plan

A VISION FOR OUR
FUTURE CAMPUS



Contents

Section 1	Introduction	3
Section 2	Objectives	5
Section 3	Building Description	6
Section 4	Description of Works	7
Section 4.1	Demolition and Construction Scope	7
Section 4.2	Site establishment and Security	8
Section 4.3	Environmental and Safety Controls	10
Section 4.4	Adjacent Building Works	10
Section 4.5	Construction	10
Section 4.6	Materials Handling	11
Section 4.7	Work Program and Working Hours	11
Section 5	Environmental Management Plans	12
Section 5.1	Noise and Vibration Management Plan	12
Section 5.2	Air Quality Management Plan	13
Section 5.3	Soil and Water Management Plan	14
Section 5.4	Waste Management Plan	15
Section 5.5	Chemical Management Plan	15
Section 5.6	Construction Traffic Management Plan	16
Section 5.7	Health and Safety Management Plan	17
Section 5.8	Environmental Complaints	18

Section 1 Introduction

UTS Central Project – State Significant Development

This report supports a State Significant Development Application (SSDA) submitted to the Department of Planning and Environment pursuant to Part 4 of the *Environmental Planning and Assessment Act 1979* (EP&A Act).

The SSD Application relates to the Concept Plan Approval for the University of Technology Sydney (UTS) City Campus Broadway Precinct, which was approved in December 2009 (MP08_0116).

The proposed works relate specifically to the UTS Central Project, more specifically the extension of Building 1 (podium) and redevelopment of Building 2 at the City Campus, Broadway Precinct.

As the development has a capital investment value of more than \$30 million as an educational establishment, it is identified as State Significant Development under the *State Environmental Planning Policy (State and Regional Development) 2011*, with the Minister for Planning the consent authority for the project.

This report has been prepared having regard to the Secretary's Environmental Assessment Requirements issued for the project.

Background

UTS recognised the need to upgrade the City Campus back in 2000, and undertook a number of visioning and master planning projects culminating in the *City Campus Masterplan 2020* (BVN, 2008) which provides a framework for refurbishments and new building works across the campus (comprising the Broadway Precinct and other sites in the Sydney CBD) in order to provide improved facilities and to accommodate future expected student and staff growth.

The long term strategic vision for UTS is 'to be one of the world's leading Universities of Technology'.

On 23 December 2009 a critical step in realising UTS's vision and identity for the Broadway Precinct was realised, with approval of the UTS City Campus Broadway Precinct Concept Plan (BPCP) – approved under the former Part 3A of the EP&A Act (MP 08_0116). The approved Concept Plan supports the significant redevelopment of the Broadway Precinct providing for new buildings, alternations and additions to existing buildings, along with associated landscaping and public domain works.

Since approval of the Concept Plan in 2009 UTS has secured the necessary detailed planning approvals and delivered a number of state of the art and iconic learning, research and social facilities across the Broadway Precinct, including:

- Faculty of Engineering and IT Building, designed by Denton Corker Marshall Architects.
- Multi-Purpose Sports Hall.
- Alumni Green, designed by ASPECT Studios Landscape Architects.
- Faculty of Science and Graduate School of Health Building, designed by Durbach Block Jagers in association with BVN Architecture.
- Library Retrieval System.

- Great Hall and Balcony Room Upgrade, Designed by DRAW Architects in association with Kann Finch Architects.

As part of the staged delivery of the Concept Plan and as expected in its natural evolution, there have been a number of modifications to the Concept Plan. Of note, Modification No 5 to the Concept Plan provides for the complete redevelopment of Building 2, including additional floors above a new podium building.

OVERVIEW OF PROPOSED DEVELOPMENT

This SSD Application seeks approval for the following components of the development:

- Site preparation works, including demolition and clearance of existing Building 2 down to approximately ground level and associated tree removal;
- Retention and re-use of existing basement Level 1 and Level 2;
- Construction and use of a new podium building fronting Broadway (Building 1 extension and new Building 2);
- Construction and use of new floors above new Building 2 podium;
- Public domain improvements surrounding the site;
- Landscaping works to roof levels;
- Retention of existing vehicle access and parking arrangements; and
- Extension and augmentation of physical infrastructure / utilities as required.

The new floor space will accommodate a range of educational and ancillary educational uses, such as:

- Library
- Research
- Teaching Space
- Informal Learning Space
- Student Centre
- Student Union Spaces
- Food and Beverage Outlets
- Academic (including Faculty space)

A more detailed and comprehensive description of the proposal is contained in the Environmental Impact Statement (EIS) prepared by JBA

Section 2 Objectives

The objective of the CEMP is to:

- Ensure that the works are carried out in accordance with appropriate environmental statutory requirements
- Ensure that works are carried out in such a way as to minimize impact to the neighboring areas
- Ensure that works are carried out in such a way as to minimize potential environmental degradation by the implementation of best environmental practice;
- Ensure that all personnel engaged in the works comply with the terms and conditions of the CEMP;
- Ensure that no change is made to the CEMP without written permission of the Superintendent
- Respond to changes in environmental and physical conditions during the proposed works through review and monitoring and control programs in consultation with the Superintendent or their nominated representative(s);
- Ensure that corrective actions are completed in a timely manner.

Section 3 Building Description

The project involves the Demolition and construction of 8 podium levels and the construction of a 17 story mixed use building containing a range of University facilities including;

- Library
- Research
- Teaching Space
- Informal Learning Space
- Student Centre
- Student Union Spaces
- Food and Beverage Outlets
- Academic (including Faculty space)

The details are further described in the EIS of this SSDA.

As the site is surrounded by public areas, the appointed contractor will need to put in place strict controls to ensure public safety.

Section 4 Description of Works

4.1 Construction Scope

The proposed Demolition and construction works associated with the UTS Central Project are summarized as follows:

1. The CB02 Building -39,636sqm, 17 level tower on the current area occupied by the existing CB02 Building
2. The CB01 Building Extension – 6,917sqm extension of the existing CB01 Podium Levels

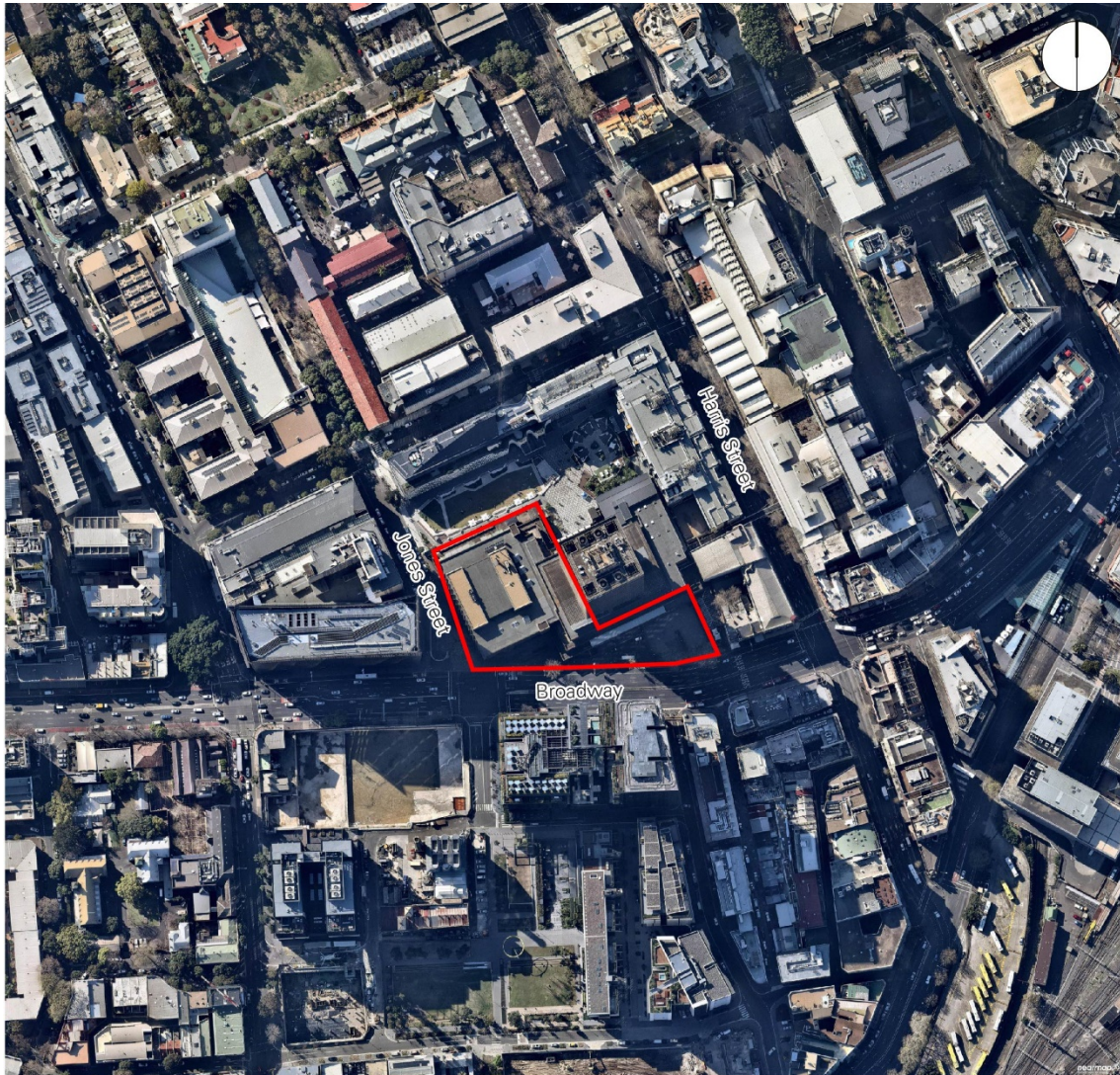
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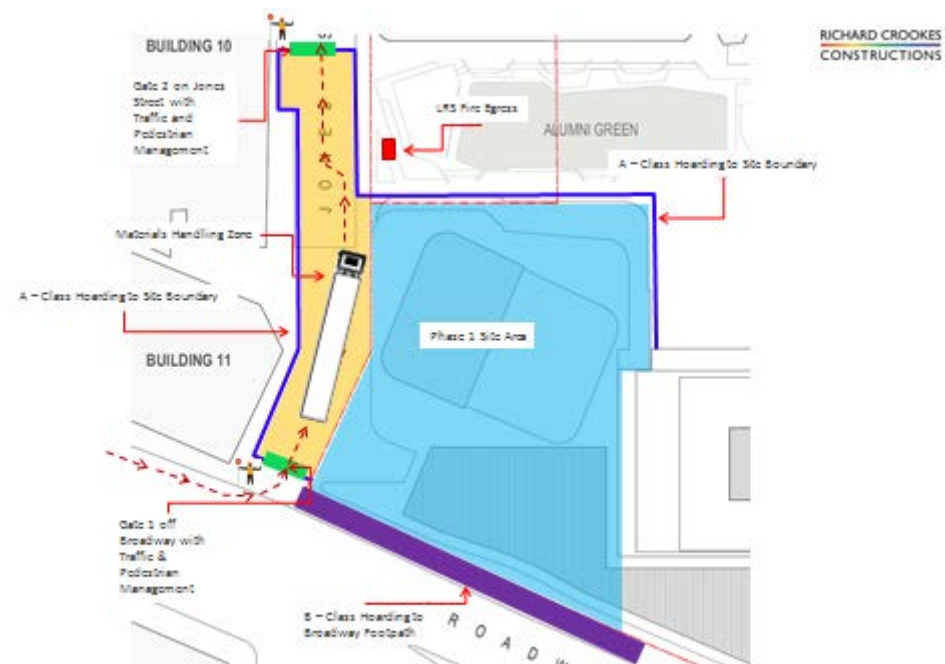
 The Site

4.2 Site Establishment and Security

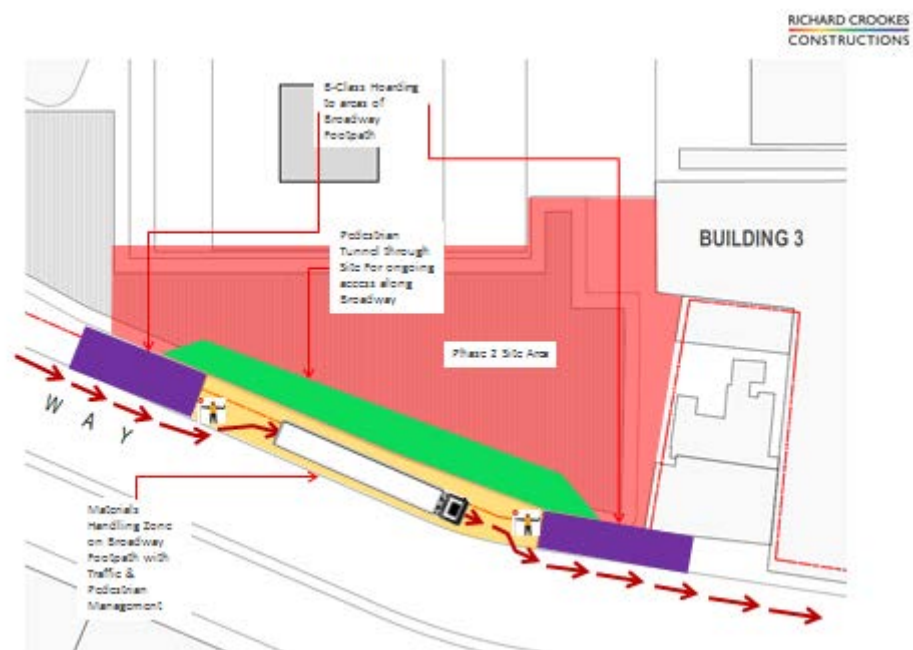
Site establishment will include the establishment of site contractor's offices, mess and toilet facilities, vehicle access, vehicle loading and unloading, lay down areas, establishment and maintenance of on-site work areas.

RCC will supply and install a "B" Class hoarding to the Broadway frontage and along the site boundary to the Alumni Green. An A-Class hoarding will be provided to the Jones street Site Boundary and materials handling area. The Project will have clearly identified gates for both pedestrians and vehicles, gates will be manned at all times by appropriate traffic management personnel.

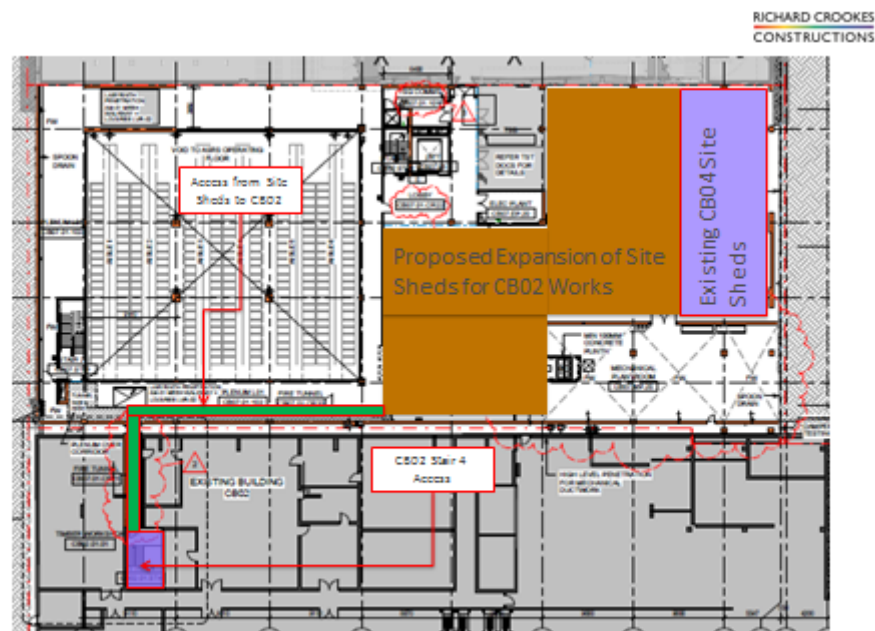
The Contractor will ensure the security of all active work areas to ensure the safety of the public and protection of the works.



UTS Central – Phase 1 Site Establishment



UTS Central – Phase 2 Materials Handling



UTS Central – Site Accommodation

4.3 Environmental and Safety Controls

Environmental and safety controls shall be installed RCC prior to the commencement of the construction works.

These will include but not be limited to:

- Security measures (fencing and gate access)
- Occupation health and safety measures (personal protective equipment, first aid supplies, signage and barriers if needed); and
- Environmental management measures (spill kits, booms, storm water control, dust control)

4.4 Adjacent Building Works

It is not expected that there will be any other works directly adjacent to the construction works of the UTS Central project. However, RCC note that there will other Projects located in the general area such as at the Central park precinct.

4.6 Construction

The contractor will secure the site with a combination of class A and class B hoardings and establish the site loading and construction zones. Once the site is secured a fully designed demolition perimeter scaffold will be installed around the existing building to be demolished.

On the completion of the demolition works the contractor will set up the materials handling machinery/equipment including tower cranes, hoists and perimeter scaffold system for the building. At all times it is expected that the tower cranes and mobile cranes will be used to load up materials into the building.

The construction of the new building will utilize a perimeter scaffold and or screen system to

provide a safe working environment. This perimeter edge protection will be dismantled / removed to facilitate the safe installation of the façade system.

4.7 Materials Handling

Approval for a materials handling zone to Jones Street for phase 1 and a construction slip way for phase 2 as shown on the previous site establishment drawings will be sought by RCC from the relevant Authorities.

RCC will seek approval from the relevant Authorities for any other loading zones on existing roads.

4.8 Work Programme and Working Hours

The working hours will be in accordance with the conditions of the consent.

Section 5 Environmental Management Plans

The following EMPs are provided separately by other Consultants in conjunction with the Building Works Contractor:

- Stormwater and Sediment Control Plan – RCC
- Traffic Management Plan – GTA Consultants

Prior to the commencement of construction works, a site specific Health and Safety Plan will be prepared by the Contractor and implemented for the site

This document and the associated reports provide the generic conditions which will be augmented in more detail by the Contractor.

5.1 Noise and Vibration Management Plan

The contractor shall provide a Noise and Vibration Management Plan prior to the commencement of the works.

The following noise management measures will be implemented during the construction works:

- The Contractor shall set up noise and vibration monitors around the site at locations identified by the Acoustic Consultant as sensitive areas and high risk areas.
- Works on site will only be carried out during approved hours
- The Contractor will be responsible for scheduling activities that generate high noise to short term duration wherever possible and practical
- Establishment of site practices and strategic positioning of processes on site
- Establishment of direct communication with affected Parties

Activities that have the potential to produce significant vibration include:

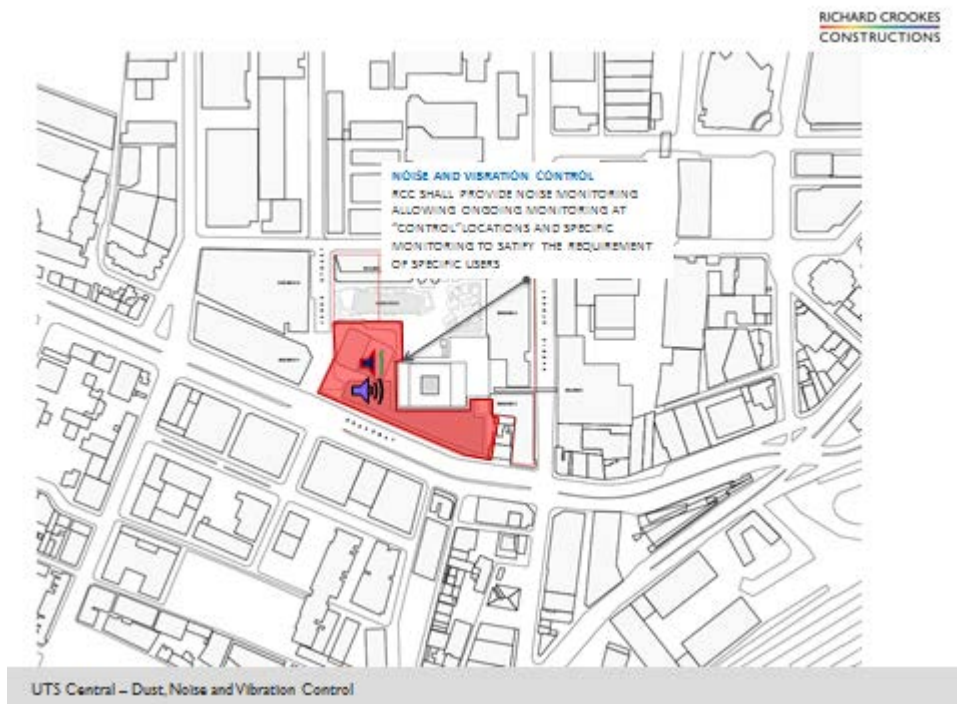
- Demolition
- Jack hammering during detailed excavation works

Vibration monitoring will be used:

- At the commencement of a new activity near a sensitive structure, establish and confirm safe working distances from the sensitive structure
- When activity identified as producing significant ground vibration is occurring within the safe working distance established, continuously record vibration levels at sensitive structures using unattended vibration loggers. These will also provide a visual/audible alarm when vibration limits are approached
- When operating very close to sensitive structures, attended monitoring is to ensure that any preventative action is taken immediately to prevent the targets from being exceeded.

Where a monitor alarm is activated, the following actions shall be undertaken:

- All vibration producing works in the vicinity of the alarm shall cease immediately
- Cause of the exceedance shall be investigated immediately
- If the cause of the event is likely to be caused again, or if another alarm is triggered, then the acoustic specialist should be advised and further action taken place before works recommence.
- One of two courses of action can then follow:
 1. If attended monitoring is established the activity can continue with the attended monitoring confirming that even if the alarm level is exceeded the works can proceed provided the vibration limits are not exceeded
 2. Work practices are modified and attended monitoring used to confirm the vibration limits are being achieved, before returning to unattended monitoring



5.2 Air Quality Management Plan

A detailed Air Quality Management Plan shall be prepared by RCC prior to the commencement of works.

The following air quality management measures will be adopted during the construction works:

- Dust emissions will be controlled by the use of water spraying when required;
- Concrete decks to be kept clean to reduce dust emissions
- Perimeter Scaffold with shade cloth during demolition
- Retain existing windows in façade during strip out works for demolition
- All motorized equipment used on the site will be selected on the basis of its noise performance and will comply with regulatory standards for noise generation;
- High efficiency mufflers are to be installed for major plant items particularly those that would be used for long periods on the project to reduce construction noise;
- Equipment will be operated in a proper, efficient and correct manner which includes proper maintenance in order to control noise and associated exhaust emissions;
- Odour emissions from the site which could adversely affect air quality or the amenity of

the local area to be monitored

5.3 Soil and Water Management Plan

The Stormwater and Sediment Control plan is to be prepared by RCC as part of the Construction management plan prior to the commencement of the works and shall include measures to ensure compliance with the Protection of the Environment Operations Act (2000), as amended, and other relevant legislation. The SSC shall include a plan showing the location of the sediment controls to be implemented by RCC with the following measures to be adopted:

- Provide temporary drainage channels and detention pondage to appropriately manage storm water
- Storm water drain grates will be wrapped in filtration medium. The filtration medium will be periodically cleaned and changed as and when required;
- Diversion drains will be constructed to minimize runoff from rainfall flowing into the works area. Storm water diversion drains are to be constructed in the vicinity of areas to be excavated to minimize water flow into excavations;
- Regular visual inspection of the site drainage system will be undertaken by the Contractor



RCC however note the following;

- There are no earthworks or excavation works proposed
- The lower levels of the existing building are to be retained and the building works are above ground
- The existing connections to the building hydraulics within L01 to L03 and stormwater connections will be retained and the works don't impact these connections
- During the works, the builder will need to manage stormwater within the site and prevent sediment inflows into the system existing building hydraulic system. However, this is not relevant to, and would not be detailed in a Site Sediment and Erosion Control Plan - this would need to be addressed in the Builder's Construction Management Plan (CMP)

- Proposed truck movement entrance and exist points will likely require some localised Sediment and Erosion Control measures, but this would need to be addressed as part of the Builder's Construction Traffic Management Plan (CTMP)

5.4 Waste Management Plan

In recent years the waste management industry has responded positively to industry pressure and government legislation. As a result RCC is able to ensure accurate reporting is available and efficient management of waste separation for recycling is assured.

RCC shall prepare a Waste Management Plan (WMP) prior to the commencement of works.

RCC shall retain waste records and submit quarterly reports to the Superintendent. As a minimum, RCC shall reuse or recycle 80% (by mass) of the construction waste.

5.5 Chemical Management Plan

RCC shall prepare the Chemical Management Plan prior to the commencement of works.

Before a product or substance is used for construction activity, RCC shall review the Material Safety Data Sheet (MSDS) to determine if the product or substance is classified as hazardous. All workers involved in the use of products classified as hazardous are to be provided with information and training to allow safe completion of the required tasks. As a minimum standard, all safety and environmental precautions for use listed on the MSDS are followed when using the substance and included in their Safe Work Method Statements. No products or substances, including chemicals or fibrous materials, are brought to the workplace without a current MSDS. All products and substances to be brought to the workplace are to be documented.

All storage and use of hazardous substances and dangerous goods is to be in accordance with the MSDS and legislative requirements. Hazardous substances and dangerous goods are not to be stored in amenities, containers (unless properly constructed for the purpose) sheds or offices.

Disposal of chemical substances shall be in accordance with WHS Regulations and legislative requirements.

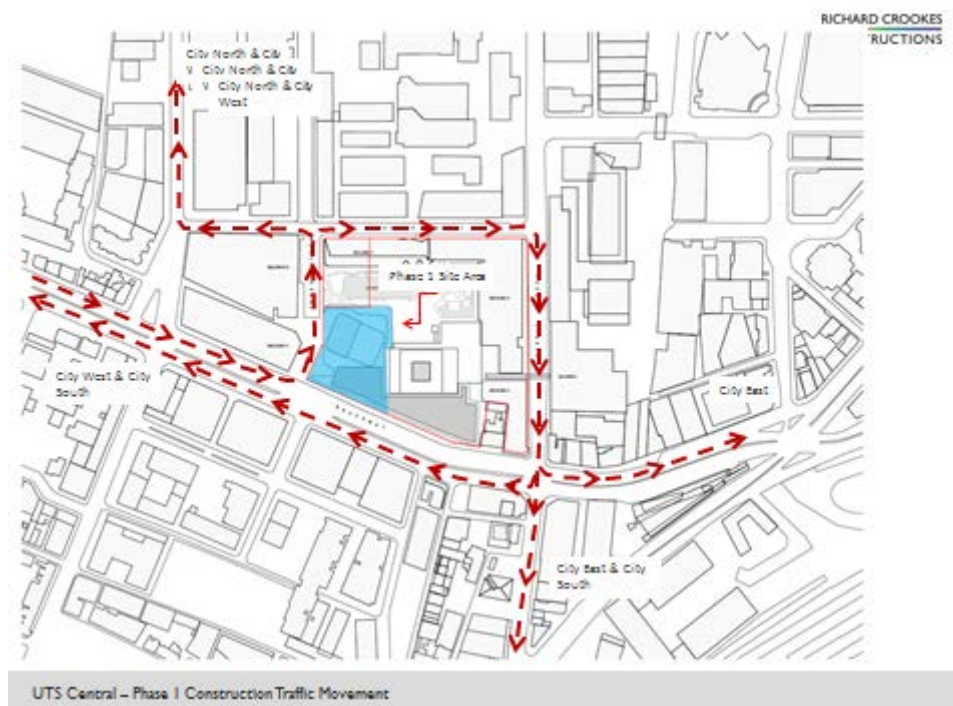
5.6 Construction Traffic Management Plan

The Contractor shall prepare a Construction Traffic Management Plan (CTMP) prior to the commencement of works. A Construction Traffic Management Plan has been developed by GTA Consultants as part of this SSDA submission.

Phase 1

Traffic will generally be managed at the site in the following way:

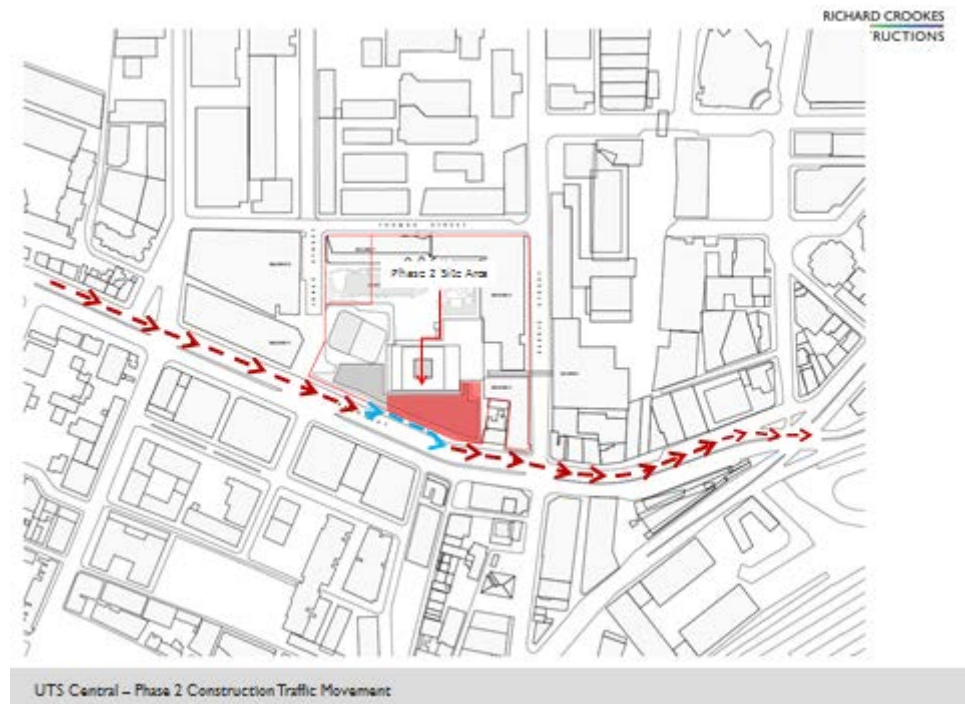
- The Main Building Works construction traffic entry onto Jones street Via Broadway. Traffic will then exit the site north along Jones Street and then either east or west onto Thomas Street.
- Designated transport routes shall be communicated to all personnel
- Strict scheduling of vehicle movements is to occur to minimize vehicles waiting off the site
- Site workers are to utilize local public transport and car sharing wherever possible



Phase 2

Traffic will generally be managed at the site in the following way:

- The Main Building Works construction traffic proceed east along Broadway and enter a construction slipway on the Broadway footpath. Construction traffic will then exist the slipway continuing east under traffic management.
- Designated transport routes shall be communicated to all personnel
- Strict scheduling of vehicle movements is to occur to minimize vehicles waiting off the site
- Site workers are to utilize local public transport and car sharing wherever possible



5.7 Health and Safety Management Plan

A detailed Health and Safety Management Plan (HASP), which will include a health and safety risk assessment for the planned construction works shall be prepared by RCC prior to commencement of the works. The HASP shall include, but not be limited to:

- Name key personnel responsible for site safety;
- Emergency contact details and procedures;
- Identify and describe the risks associated with each operation conducted;
- Describe actions to be taken to mitigate risks and hazards;
- Confirm that on-site personnel are adequately trained to perform their job responsibilities;
- Describe personal protective clothing and equipment that will be worn by personnel

5.8 Environmental Complaints

RCC shall maintain a register of complaints received during the works. The register shall contain details of the nature of the complaint, the course of action taken by RCC, and the response to the complainant.

RCC shall provide their contact number for community enquiries and complaints specific to this project and is to be displayed on the Site Project Signage Board located at the entry to the site.

RICHARD CROOKES
CONSTRUCTIONS



UTS Central – Site Signage