



NeW Space – Part of the Hunter Education Precinct

The University of Newcastle

Construction Management Plan

APP Corporation Pty Limited

APP Project Number 8476

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DISTRIBUTION & AUTHORISATION RECORD

Amendment Record

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Authorisation Record

Review by
Project Director

Name

Signature

Date

Approval by
Branch Manager

Name

Signature

Date

Only the APP **Branch Manager** is authorised to approve amendments to this plan. The APP **Project Manager** is responsible for control, maintenance and issue of this plan, for disposal of any superseded documentation, and for informing other project participants of changes to the project plan in accordance with the APP procedure for **Project Planning**

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A. Strategic Construction Planning

1. Client Requirements

1.1. Introduction

The University of Newcastle (**University**) is a research intensive institution, consistently ranking in the top ten in Australia. In addition to research excellence, the University is focused on teaching innovation and performance and access to higher education for the local community, which includes many disadvantaged groups.

The University has five faculties: Business and Law, Education and Arts, Engineering and Built Environment, Health, and Science and Information Technology.

The University has three campuses in Australia – Callaghan, Ourimbah, and Port Macquarie. Callaghan, twelve kilometres from the Newcastle city centre, is its largest campus covering one hundred and forty hectares of bushland. The nature of the site and its location makes formal and informal engagement with the community a much more difficult task than if it were located in a more urban environment. The University now wishes to augment its existing facilities by developing a new campus in the Newcastle CBD.

This plan will be further developed by the appointed Contractor and integrated into their Construction Management Plan for the NeW Space project.

1.2. The Project and Tender Process

Project Overview

The University intends to construct a multi-level, technology-rich education building that will house the University's Business and Law faculty within the Newcastle CBD, to be known as "NeW Space" (**Project**).

The Project consists of two main components:

- A new building of approximately 14,000 m² gross floor area (**GFA**) of new teaching and learning facilities on the corner of Hunter and Auckland Streets Newcastle; and
- Refurbishment of 1,400 m² GFA of space in the existing University House.

The new build will consist of a library and information common, collaborative learning spaces and zones for professional and community engagement. Student experience will be supported by state of the art technology accessible 24 hours, seven days a week. Throughout the building, multipurpose technology enhanced active learning (**TEAL**) spaces, ranging from 30-125 seats, will transform the

learning experience and student environment. Amenities for executive development and corporate programs, a Business Incubator and community engagement facilities will complement the TEAL spaces.

Design Development and the Project Team

Design documentation is currently at the design development stage, and is scheduled for completion in November 2014. The project team has not changed from the team set out in the Request for Expressions of Interest previously issued by the University.

The State Significant Development (**SSD**) application in respect of the Project will be submitted to the Department of Planning and Infrastructure in July 2014.

Overview of the Tender Process

The procurement of the Project will comprise a three stage tender process, as follows:

- Stage 1: Expressions of Interest (**EOI**):

The Request for Expressions of Interest closed on 25 June 2014. As a result of this stage, four contractors were selected to submit a proposal in response to this Request for Proposals (**RFP Applicant(s)**).

- Stage 2: Request for Proposals (**RFP**) - Tender Pre-Qualification Process:

The RFP Applicants are now being requested to submit proposals for the Project. Each applicant submitting an RFP will be assessed against the evaluation criteria below. As a part of this stage, each RFP Applicant will be required to attend a briefing (joint) and workshop (individual) prior to submitting their response to this RFP.

- Stage 3: Request for Tenders (**RFT**):

Following assessment of each RFP Applicant's proposal in response to this RFP (**Proposal**), up to three contractors will be selected to participate in an RFT stage. The RFT will be followed by final negotiations and the prospective award of the main building contract for the Project (**Building Contract**).

2. Project Delivery Methodology

2.1. Procurement Model

The University is procuring the Project using a design and construct procurement model under a modified GC21 Contract (Edition 2). The Building Contract includes the University as the principal for the Project (**Principal**).

The contractor selected to undertake the Project (**Contractor**) will accept full design responsibility for the whole of the works, including the adoption of any pre-contract design.

To facilitate this, the Contractor will be required to accept a novation of Lyons Architects (**Principal Design Consultant**) upon the signing of the Building Contract.

The project is being delivered in a staged manner with “grouting” works to stabilise mine workings beneath Auckland Street and its surrounds being completed by the University under a separate contract before the Building Contract is signed. These works will commence in June 2014 and are programmed for completion in September 2014.

2.2. Scope of Work

The main building works for the proposed Project feature eight above ground levels plus a plant room on the roof. There is no basement.

The design of the Project is being undertaken by the Principal Design Consultant who will complete the design to a design development stage which will form the basis of the RFT documents.

The scope of work under the Building Contract will include, but is not limited to:

Scope Item 1 – Design

- Adoption of the pre-contract design and the management of design finalisation noting that, in preparing any documentation for the Project (**Contractor’s Documents**), the Contractor must not alter the accepted tender design without the Principal’s agreement in accordance with the Building Contract;
- Manage the novated design team;
- Preparation of the Contractor’s Documents;
- The Contractor’s Documents must include provision of all construction documentation for the works. Construction documentation includes but is not limited to the production of the construction drawings, the verification of the developed sketch plans, the coordination of the design including the structure and the services, and a specification;
- The Principal will refer the Contractor’s Documents for review to a number of stakeholders/experts for comment as deemed appropriate by the Principal, including:
 - Principal’s consultants engaged on a “watching brief” for quality and adherence with the contracted design intent detailed within the Contract; and

- Peer reviews, by Principal engaged experts with knowledge in particular aspects or elements of the works for the quality of documentation and detailing.
- Any obligations required for Green Star 5-star design certification;
- During the delivery phase, the Contractor must submit Contractor's Documents to the Principal at least 21 days before the date the Contractor proposes to use them for procurement, manufacture, fabrication, or construction. The Contractor's Documents must be submitted progressively with sufficient detail to demonstrate what is proposed;
- Development of the design for provisional sum items, including:
 - Furniture, Fixtures and Equipment (FF&E), including minor internal walls related to office fit-out. Note that layouts and schedules will be provided with tender documents in Stage 3 (RFT) for scoping purposes;
 - Audio Visual equipment (location / schedule to be developed for tender);
 - Signage / Wayfinding – internal & external;
 - Joinery (inbuilt joinery to key 'gathering' spaces to be completed for tender);
 - Door Hardware / Security (door schedule to be completed for tender);
 - Internal Blinds;
 - Internal Glazing Film;
 - Special fit-out items (e.g. whiteboards / pin-boards);
 - Special equipment (e.g. waste compactor); and
 - Access Cleaning Infrastructure (strategy document to be provided at tender).

Scope Item 2 – Construction

Construction of the NeW Space building is to be staged in order to allow for the relocation of relevant University personnel and functions from University House. The refurbishment works to University House will then be completed by the Contractor.

The Contractor shall allow for all preliminaries associated with the management of the construction works. The Principal will make available to the Contractor the vacant space currently occupied by Watt Space galleries for use as site accommodation.

The Contractor's scope of works will include:

- Temporary works;
- Excavation and foundation preparation;
- Piling;
- Reinforced concrete foundations;
- Post tensioned and reinforced concrete structure;
- Structural steel fabrication, protection and erection;
- Façade – including glazing, concrete, sandstone and aluminium panelling;
- Fit-out – including public areas, teaching, office, library and moot court;
- Landscaping and public domain works;
- Green Star accreditation;
- Building services including mechanical, electrical, hydraulic and vertical transport;
- Security;
- Technology;

- Coordination with Separate Contractors for the completion of the retail tenancies;
- FF&E; and
- Commissioning.

The following items will be supplied by the Principal to the Contractor for installation and commissioning:

- Audio Visual equipment; and
- Nominated Plants.

Scope Item 3 – Consultation

The Contractor shall comply with the following requirements for consultation:

- Community – it is expected that throughout the project the Contractor will proactively engage with the Newcastle community in accordance with the SSD requirements;
- Executive User Group (**EUG**) – during the design finalisation period the Contractor shall allow for a minimum of two sessions with the EUG and the final session to obtain approval of completion of the design; and
- University – it is expected that, throughout the Project, the Contractor will be available for briefings, meetings and presentations with University staff to provide updates on the Project.
- Defects Liability Period - as defined in the Building Contract; and
- All requirements of Green Star 5 star design accreditation.

2.3. Project Programme

Key Milestones	
Site acquisition - exchange	27/09/2013
Concept Brief for PDC RFP	18/10/2013
MSB Approval (EW)	30/01/2014
Appointment of PDC	04/02/2014
Development Approval (EW)	18/02/2014
Concept Design Completion	18/03/2014
Award EW Contract	02/06/2014
Schematic Design Completion	19/06/2014
Early Works Completion	15/09/2014
SSD Approval (MW)	28/11/2014
Design Development Completion	14/11/2014
Award MW Building Contract	16/04/2015
Design Finalisation Completion	28/05/2015
MW Construction Completed	31/10/2016

Key Milestones

Completion of Fitout and Commissioning (UoN)	30/12/2016
Relocation Completed (UoN)	30/01/2017

3. Pre Contract Stakeholder Involvement

The University has developed a Community Engagement Strategy in order to build greater awareness of the NeW Space project and to engage with the community through:

- Establishing standard processes for community engagement
- Ensuring those processes are implemented by university/project staff and, where relevant, by external consultants and firms associated with the project
- Ensuring the community and stakeholders are kept informed of decisions emanating from the community engagement processes

For the duration of the project, the University will regularly engage with the wider community and all stakeholders who have a direct or indirect interest to ensure they are kept informed and have an opportunity to participate in the realisation of the NeW Space precinct. A broad range of stakeholders have been identified, including but not limited to:

- Individuals and groups within the community
- External stakeholders – such as government agencies, members of Parliament, local government and businesses
- Internal stakeholders – such as university staff, present and future
- students and alumni
- Media

4. Environmental and Planning Requirements

The following documents will be issued to the Contractor to define the NeW Space projects environmental requirements;

- Environmental Impact Statement
- Preliminary Contamination Assessment
- WHS Management Plan

The Contractor will be required to prepare and submit the following;

- WHS Management Plan
- Quality Management Plan
- Environmental Management Plan
- Workplace Relations Management Plan

- Training Management Plan
- Aboriginal Participation Plan
- Traffic Management Plan

The Traffic Management Plan will be developed by the Contractor and will propose mitigation measures for the impact on traffic, parking and potential road closures.

5. Strategic Risk Management

The top 5 strategic risks and their mitigation are as follows;

Risk	Mitigation
Approval times cause delays to the project program	awareness of significant approvals, approval timeframes and impact of any delays
Changes in teaching and learning pedagogy. Changing internal stakeholder expectations.	Robust consultation strategy which links design and change management
Documented scope exceeds project budget	Cost control and advice through design process.
Onerous DA conditions are imposed by consenting authority	Continue consultation with NCC and DPE and early discussions with assessment team
SSD process delays commencement of main works	Submit SSD application as per programme.

B. Construction Management Planning

1. Site Establishment

The contractor will be responsible to all approvals and coordination required to obtain the approvals. The contractor is to submit all management plans for review and approval before commencing works.

All services connections will be the responsibility of the contractor.

2. Design Management

The Contractor is responsible for the following design management;

- Adoption of the pre-contract design and the management of design finalisation noting that, in preparing any documentation for the Project (**Contractor's Documents**), the Contractor must not alter the accepted tender design without the Principal's agreement in accordance with the Building Contract;
- Manage the novated design team;
- Preparation of the Contractor's Documents;
- The Contractor's Documents must include provision of all construction documentation for the works. Construction documentation includes but is not limited to the production of the construction drawings, the verification of the developed sketch plans, the coordination of the design including the structure and the services, and a specification;
- The Principal will refer the Contractor's Documents for review to a number of stakeholders/experts for comment as deemed appropriate by the Principal, including:
 - Principal's consultants engaged on a "watching brief" for quality and adherence with the contracted design intent detailed within the Contract; and
 - Peer reviews, by Principal engaged experts with knowledge in particular aspects or elements of the works for the quality of documentation and detailing.
- Any obligations required for Green Star 5-star design certification;
- During the delivery phase, the Contractor must submit Contractor's Documents to the Principal at least 21 days before the date the Contractor proposes to use them for procurement, manufacture, fabrication, or construction. The Contractor's Documents must be submitted progressively with sufficient detail to demonstrate what is proposed;
- Development of the design for provisional sum items, including:
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- Door Hardware / Security (door schedule to be completed for tender);
- Internal Blinds;
- Internal Glazing Film;
- Special fit-out items (e.g. whiteboards / pin-boards);
- Special equipment (e.g. waste compactor); and
- Access Cleaning Infrastructure (strategy document to be provided at tender).

3. Stakeholder Involvement

The Contractor shall comply with the following requirements for consultation and stakeholder involvement;

- Community – it is expected that throughout the project the Contractor will proactively engage with the Newcastle community in accordance with the SSD requirements;
- Executive User Group (**EUG**) – during the design finalisation period the Contractor shall allow for a minimum of two sessions with the EUG and the final session to obtain approval of completion of the design; and
- University – it is expected that, throughout the Project, the Contractor will be available for briefings, meetings and presentations with University staff to provide updates on the Project.
- Defects Liability Period - as defined in the Building Contract; and
- All requirements of Green Star 5 star design accreditation.

4. Construction Co-ordination

These following meetings are the primary means for management of work at site and the various trades.

- Site Coordination Meetings (Subcontractor groups)
Meetings of relevant groups of building or infrastructure subcontractors to coordinate the work across the site, chaired by the Construction Manager.
- Individual Subcontractor Meetings
Meeting between the Contractor and an individual Subcontractor to deal with issues relating to that subcontract, chaired by the Construction Manager.
- Toolbox Meetings
Meetings between employers and their employees on site to deal with issues either specific to that employer or site-wide issues, chaired by the employer.
- Site Safety Meetings
Meetings of the elected safety committee chaired by the Contractor Safety Coordinator.

5. Environmental and Conservation Management

The Contractor will develop a Construction Environmental Management Plan which outlines the projects approach to meeting its environmental obligations as well as detailing specific control measures of known risks through specific environmental control plans

The most likely environmental issues for the NeW Space Project works are:

- Sediment, erosion and run-off control.
- Waste management, including construction and demolition material.
- Contaminated soils and hazardous materials.
- Flora and fauna conservation.

6. WH& S Management

The Contractor and sub-contractors are responsible to;

- i. Comply with the WH&S policies, procedures, programs, and the Health and Safety Management System of the University, and take reasonable care of themselves and others in the workplace;
- ii. Comply with directions on health and safety from designated officers of the university;
- iii. Not bypass or misuse systems or equipment provided for WHS purposes, and ensure that their acts or omissions do not adversely affect the health and safety of others in the workplace;
- iv. Report any unsafe conditions or incidents that come to their attention to the University contact person;
- v. Implement their Work Health Safety and Rehabilitation procedures;
- vi. Ensure that for works on the site all significant risks associated with hazards are identified, controlled, registered and reviewed in consultation with workers;
- vii. Prepare a site specific WHS Management plans and safe work method statements as required, for activities identified as having a significant risk onsite;
- viii. Ensure current OHS and other relevant legislative requirements are identified and met in the workplace;
- ix. Ensure all workers under their control have completed appropriate training, including WHS induction and task specific training;
- x. Implement appropriate consultation arrangements in the workplace;
- xi. Facilitate the preparation of Work Method Statements and Safe Work Method Statements for the trade
- xii. Insist on and ensure safe work practices at all times;
- xiii. Carry out workplace inspections and action safety issues identified;
- xiv. Investigate hazard reports and ensure that corrective actions are taken;
- xv. Ensure all incidents within their area of control are reported to the University (and to the Regulator, as required) and investigated, basic causes identified, and control strategies implemented.

7. Construction Traffic Management Plan

7.1. Introduction

The project consists of construction works for the NeW Space project wholly within the site, with footpath works to Hunter and Auckland streets and landscape works extending into Christie Place. The works will be accessed from Hunter and Auckland Streets. Works will also include the Laman Street car park.

Hunter Street is the main access road into the Newcastle CBD and provides two lanes of travel in each direction with additional lanes to maintain capacity at key intersections which are controlled by traffic signals. The additional lane on both sides is utilised for parking, bus stops etc.

Running parallel to Hunter Street, King Street also provides a secondary main access road into the Newcastle CBD, and provides two lanes of travel in each direction which drops to one lane in each direction approaching the site. Both Hunter and King Streets carry significant traffic volumes during peak periods.

The NeW Space site located at the corner of Hunter and Auckland Streets along with the University House building fronting King and Auckland Streets. The Laman Street car park site is adjacent the Conservatorium of Music fronting Laman Streets and Gibson Streets.

7.2. Methodology

The main works construction will require the use of a tower crane that will be utilised to load and unload materials from semi-trailers on Hunter Street. During peak periods of construction such as concrete pours; concrete pumps will need to be set up on Hunter or Auckland Streets with concrete trucks delivering concrete on Hunter or Auckland Streets.

The Laman Street car park construction will require the use mobile cranes that will be utilised to load and unload materials from trucks on Gibson Street. During concrete pours; concrete pumps will need to be set up on Gibson Street with concrete trucks delivering concrete on Gibson Street.

Peak periods of construction will also require a large number of sub-contract staff on site with local parking stations to be utilised.

7.3. Traffic Control Considerations

The factors to be considered in preparing the Construction Traffic Management Plan are as follows;

- All deliveries will approach the site from the west along King Street, turning left into Darby Street and then left on to Hunter Street to access the site. The exit movement will involve continuing along Hunter Street;
- All deliveries will approach the Laman Street car park site from the west along King Street, turning right into Auckland Street and then right into Gibson Street to access the site. The exit movement will involve continuing along Gibson Street and turning into King Street;

- All parking associated with construction workers will be located off site, either at the King Street Car park, or Civic Station Car park;
- All delivery of loadings will be completed within a construction zone to be required on Hunter Street. The TMP will also consider any required road closures;
- Pedestrian and cyclist considerations;
- Location of machines/personnel on-site relative to roadway;
- Access to/from Work Site;
- Timing of works; and,
- Safety of road users and site personnel.

8. Construction Risk Management

8.1. Impact on Neighbouring Operations

Construction and administrative activities need to be planned and managed so that any impact on the ongoing Neighbouring business operations are avoided or minimised. Maintenance and appearance of the site and its boundaries will be paramount to keeping relationships with these businesses open and healthy.

8.2. Environmental Impact

There are a number of environmental issues related to the works and site management that will require control measures. All site staff and the workforce will have a responsibility to ensure that there is no adverse environmental impact on the Neighbouring Business's or Newcastle CBD. The key areas of focus will be:

- Dust
- Noise Pollution
- Water/runoff management

The Contractor will develop specific Environmental control Plans to address each issue.

8.3. Industrial Relations

The Commonwealth Government requires broad and comprehensive application of the National Code of Practice for the Construction Industry (NCOP) and all current industrial relations (IR) legislation. All Subcontractors will also need to comply with the National Code and the Guidelines.

9. APP Project Procedures

The following APP Procedures and Forms will be applied for the construction of this project.

	Yes	No
01 Submissions		
02 Project Initiation		
03 Project Planning		
04 PCG Meetings and Reporting		
05 Change Management		
06 Project Filing System		
07 Project Correspondence		
08 Document Control		
09 Project Procurement		
10 Managing Requests for Information		
11 Variations		
12 Management of Time		
13 Cost Management		
14 Contract Finalisation		
15 Project Closure		
16 Project Review & Reporting		
17 Recruitment, Induction and Separation		
18 Learning and Development		
19 Injury Management		
20 Internal Audits		
21 Continual Improvements		
22 Records Management		
23 BMS Document Production		

