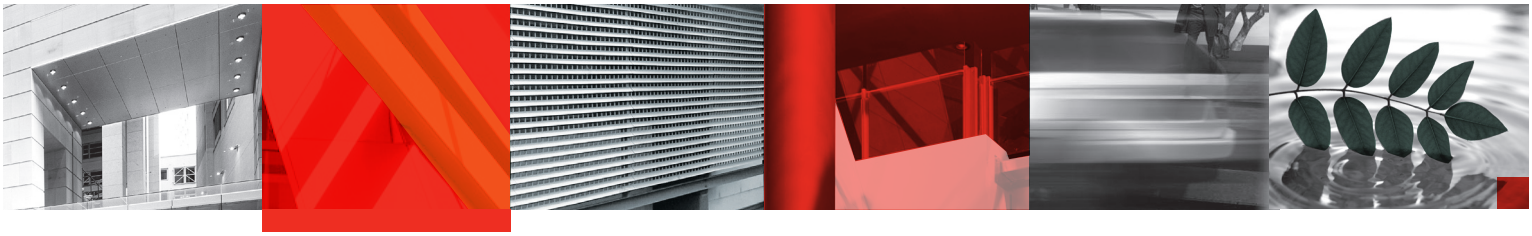
Environmental Assessment Report



Thomas Street Building, University of Technology Sydney
Project Application No. 09_0213

Submitted to NSW Department of Planning & Infrastructure
On Behalf of the University of Technology Sydney

January 2012 ▪ 11597

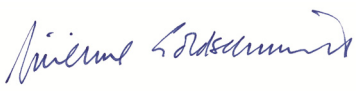
JBA Planning Pty Ltd ABN 84 060 735 104 ACN 060 735 104 w jbaplanning.com.au
Level 7, 77 Berry Street North Sydney NSW 2060 t +61 2 9956 6962 ▪ 29 Beach Street Wollongong NSW 2500 t +612 4225 7680

JBA Urban Planning Consultants Pty Ltd operates under a Quality Management System. This report has been prepared and reviewed in accordance with that system. If the report is not signed below, it is a preliminary draft.

This report has been prepared by: Alexis Cella

Signature  Date 31/01/12

This report has been reviewed by: Vivienne Goldschmidt

Signature  Date 31/01/12

Contents

Contents

Figures

Tables

Appendices

Contents

Statement of Validity

Prepared under Part 3A of the Environmental Planning and Assessment Act, 1979 (as amended)

Environmental Assessment prepared by	
Name	Vivienne Goldschmidt
Qualifications	BA (Hons) MPIA CPP
Address	Level 7, 77 Berry Street, North Sydney
In respect of	Project Application

Concept Plan	
Applicant name	University of Technology Sydney
Applicant address	PO Box 123 Broadway NSW 2007
Land to be developed	81-121 Broadway, Ultimo. Lot 1 DP 554602; Lot 1 DP 89492; Lot 1 DP 218673
Proposed development	Construction of new education building

Declaration	I certify that this Environmental Assessment has been prepared in accordance with the *Environmental Planning and Assessment Act 1979* and Regulation, and that to the best of my knowledge, is true in all material particulars and does not, by its presentation or omission of information, materially mislead.
Signature	
Name	Vivienne Goldschmidt
Date	31 January 2012

Executive Summary

This Environmental Assessment Report in relation to the development of the Thomas Street Building is submitted to the Minister for Planning and Infrastructure pursuant to clause 3(1) of Schedule 6A to the *Environmental Planning and Assessment Act 1979* (EP&A Act) that provides for the continued application of the provisions of the now repealed Part 3A of the EP&A Act. The proponent is the University of Technology Sydney (UTS).

The Thomas Street Building is located on the corner of Thomas Street and Jones Street in the Broadway Precinct of the UTS City Campus at Ultimo on the southern edge of the Sydney CBD. The area of the site being developed is approximately 2,120 square metres.

Project Application

Approval is sought for the construction of a new building consisting of:

- A part four and part six storey building (plus three level basement), to a maximum height of 29.00 metres (RL 43.10);
- 11,295 square metres of gross floor area for education and associated ancillary uses;
- Associated landscaping works including provision of a green roof; and
- Extension/augmentation of services/utilities to the development.

The development includes modifications to existing Building 4 associated with providing access between the two buildings at upper levels (levels 1 to 5 of both buildings) together with modifications at basement levels to accommodate access and services between basement levels of the Thomas Street Building and surrounding buildings.

Project Outline

The project involves construction of a new part four and part six storey building to accommodate the Faculty of Science. The Thomas Street Building will connect at upper floor levels with UTS Building 4, providing an integrated teaching and research environment and creating a Science Precinct.

The proposal will provide a new building achieving design excellence that responds to its context and important relationship with the future Alumni Green. A stepped, undulating and canting built form response to Alumni Green ensures that good year-round solar access is provided to Alumni Green.

Provision is made for both north-south and east-west connections through the site, ensuring that the building engages with the surrounding street network. This is achieved through a covered through-site link from Thomas Street that connects through to Alumni Green together with a colonnade along the southern edge of the building connecting through to Jones Street.

The Thomas Street Building is to achieve a high standard of environmental performance and the University is targeting a 5 star Green Star Education v1 design rating certified by the Green Building Council of Australia. To this end, the design incorporates numerous energy efficiency/ESD measures including a green roof, water sensitive urban design principles, mixed mode ventilation, and on-site renewable energy generation (via roof-mounted photovoltaics).

Statutory Planning Considerations

The development forms part of the Broadway Precinct of the UTS City Campus to which consent for a Concept Plan under Part 3A of the EP&A Act applies. The approved Concept Plan comprises a number of new development sites and extensions to existing buildings on the campus and establishes building envelopes for all new and to be extended buildings. The Thomas Street Building is a key element of the Concept Plan.

The then Minister for Planning approved the Concept Plan in December 2009. Subsequently, the University sought a series of Modifications to the Concept Plan, in accordance with section 75W of the EP&A Act, to enable (amongst other things) the bulk earthworks component of the Thomas Street Building to be undertaken ahead of the Project Application for the building. The Modification was approved on 29 July 2011(MP 08_0116 Mod 3).

Environmental Assessment

The assessment of the proposal has demonstrated that the development is consistent with the approved Concept Plan and that it will not generate any adverse environmental impacts. The design of the building and the range of sustainability measures included enable UTS to demonstrate its commitment to reducing its environmental footprint and to achieving a targeted 5 Star Green Star rating.

The Environmental Assessment concluded that:

- The site is suitable for the proposed development in that it is an underutilised University asset; was subject to extensive analysis through the development of the Concept Plan; is in the immediate vicinity of multiple public transport modes; adjoins other education uses and buildings; and makes economic use of existing infrastructure and space including in the adjacent buildings for carparking and cyclist facilities.
- The proposal achieves design excellence, creating a distinct and identifiable street presence for the Science Precinct, while complementing surrounding existing and future academic buildings.
- The design meets all the Design Quality Controls set by the Concept Plan, and the building envelope, height, and gross floor area are all consistent with the Concept Plan.
- Good year round solar access will be provided to Alumni Green, with a minimum 10m wide strip of sun along the southern edge of Alumni Green provided at 12 noon at the winter solstice.
- There are no impacts on traffic or the road network beyond those contemplated by the Concept Plan.
- The proposal supports a network of external and internal circulation routes, engaging with the surrounding street network and providing new gateways to the University Campus.
- Roof plant will be incorporated into the fabric of the building and will accordingly not be visible.
- Wind conditions at pedestrian level around the development are expected to be similar to those currently experienced and are suitable for intended use.
- Landscaping is provided on the Level 4 rooftop enhancing the future green space character of Alumni Green.
- The building incorporates a raft of sustainability measures to conserve energy, water and waste, and some can be used for demonstration and education purposes.

- A construction management plan will be prepared in conjunction with the builder prior to works commencing to manage the potential impacts of construction activities in accordance with relevant standards and best practice including site security and safety, pedestrian management, noise and vibration, construction traffic, soil and water management, and dust and construction waste.
- The development is capable of complying with the Building Code of Australia, with an alternative solution approach proposed in instances where compliance with deemed to satisfy provisions cannot be achieved.
- The proposal includes a draft Statement of Commitments on future actions by the proponent.

The proposed development is considered to be in the public interest as State, regional and local needs will be met by effectively boosting the capacity of an existing, high quality tertiary institution. Given the planning merits above, the proposed development is justified and warrants the approval of the Minister for Planning and Infrastructure.

1.0 Introduction

This Project Application and Environmental Assessment Report (EAR) is submitted to the Minister for Planning and Infrastructure pursuant to clause 3(1) of Schedule 6A to the *Environmental Planning and Assessment Act 1979* (EP&A Act) which provides for the continued application of the provisions of the now repealed Part 3A of the EP&A Act.

The Project Application seeks approval for the development of the Thomas Street Building located in the Broadway Precinct of the University of Technology, Sydney (UTS) City Campus at Ultimo (corner of Thomas Street and Jones Street, Ultimo) as described at Section 3.0 of this EAR.

The report has been prepared by JBA Urban Planning Consultants Pty Ltd, for the proponent, the University of Technology Sydney (UTS), based on design information provided by Durbach Block Jaggers and BVN Architecture (the architects) and supporting technical documents provided by the expert consultant team (see Table of Contents).

The EAR describes the site, its environs, and the proposed development, and includes an assessment of the proposal in accordance with the Director-General's Environmental Assessment Requirements issued on 19 January 2010. It should be read in conjunction with the supporting information appended to this report. A physical model and a materials and finishes sample board are submitted separately.

1.1 Project Overview

The project consists of the construction of a new part four and part six storey single envelope building providing 11,295 square metres of gross floor area for the Faculty of Science including a series of laboratories across three basement levels. The Thomas Street Building extends faculty space and connects at all levels above the ground floor with the existing Faculty of Science building (UTS Building 4) and below ground with the new Library Retrieval System (the Book Vault) and the basement of UTS Building 1.

In addition to the above, the Thomas Street Building includes the following features:

- a gently undulating and canting façade to Alumni Green;
- connecting spaces between the old and new buildings containing meeting areas, informal learning spaces and circulation areas;
- provision of a rooftop garden;
- a substantial colonnade at the ground level along the length of the building adjacent to Alumni Green and along Jones Street providing covered pedestrian circulation; and
- provision for active uses accessible to the public at the corner of Jones and Thomas Streets.

Design Excellence

In accordance with its commitment to design excellence, UTS conducted a Design Excellence Competition in early 2011 for the Thomas Street Building. The Design Competition jury comprised eminent professionals including nominees of the City of Sydney Council and UTS.

A total of 44 submissions were received by UTS from the Design Competition expression of interest issued. Of these 44 submissions, there were seven (7) shortlisted participants in the design competition, including:

- Durbach Block Jaggers with BVN Architecture (DBJ/BVN);
- Grimshaw Architects;
- Hassell;

- Johnson Pilton Walker;
- Kerry Hill Architects + Arina Consulting;
- Lyons Architects with Terroir; and,
- Tonkin Zulaikha Greer.

After presentations from each participant, the jury decided on a short-list of three schemes, being:

- Durbach Block Jaggers with BVN Architecture (DBJ/BVN);
- Grimshaw Architects; and
- Lyons Architects with Terroir.

After further consideration the jury selected the joint entry from DBJ and BVN as the winner of the design excellence competition for the Thomas Street Building and their design is the subject of this Project Application.

1.2 Project Background and Chronology

1.2.1 Approved Concept Plan

The Concept Plan for the UTS City Campus Broadway Precinct (as illustrated in **Figure 1**) was approved by the then Minister for Planning on 23 December 2009 (MP08_0116). The Concept Plan includes:

- New Broadway Building and Thomas Street Building with a combined gross floor area (GFA) of 44,650m^2;
- Expansion of Buildings 1 and 2 with a combined additional GFA of 10,800m^2;
- Expansion of Building 6 for the provisions of student housing with an additional 25,250m^2 GFA;
- Modifications to Buildings 3, 4 and 10;
- Modifications to Alumni Green with a new Multi Purpose Sports Hall and book vault beneath;
- Public domain improvements to Broadway and Thomas, Harris, Wattle and Jones Streets.

The Minister also granted Project Approval for the following works:

- Construction of a new underground Multi Purpose Sports Hall; and
- Demolition of Buildings 11, 12 and 13.

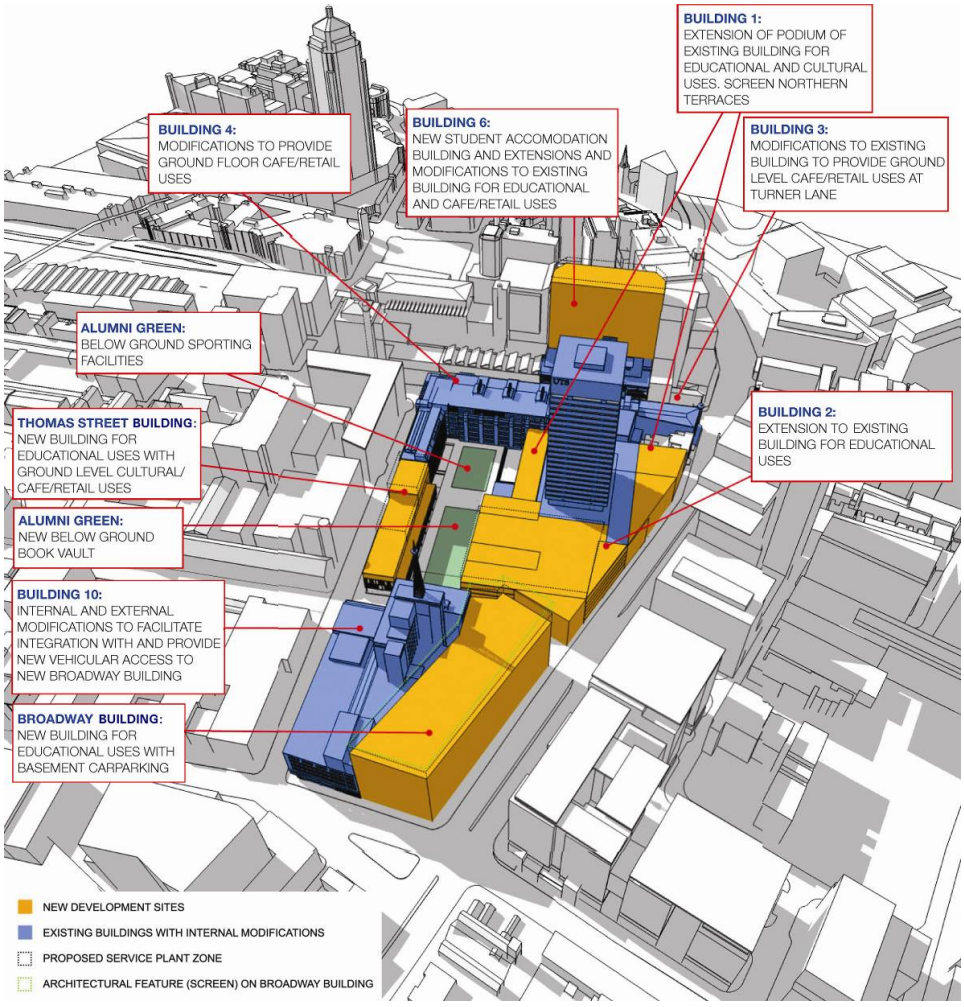


Figure 1 – 3D Model of approved concept plan (Source: BVN, DCM and JBA)

1.2.2 Approved Modifications to Concept Plan

Since the Concept Plan was approved, three (3) subsequent modifications (pursuant to Section 75W of the EP&A Act) have been approved.

Modification No 1

Modification No 1 (MP 08_0116 Mod 1), approved by a delegate of the Minister on 15 March 2011, sought to include bulk excavation works for the Broadway Building as part of the Project Approval works granted under the Concept Plan approval (enabling these works to be undertaken ahead of the Project Application for the building).

Modification No 2

Modification No 2 (MP 08_0116 Mod 2), which was approved on 23 March 2011, related to an administration amendment to Concept Plan condition B2 where an extension to submitting the pedestrian connectivity 'strategy' was requested (until 16 December 2011) together with removing the timing requirement for works to be completed prior to occupation of student housing development.

Modification No 3

Modification No 3 (MP 08_0116 Mod 3), approved under delegation on 29 July 2011, sought to include the excavation, construction and operation of the Library Retrieval System (LRS) and Storage Building together with bulk excavation works for the Thomas Street Building as part of the Project Approval works granted under the Concept Plan approval (enabling these works to be undertaken without any further environmental assessment).

The modification also included a revised breakdown of GFA across the UTS Broadway site, with the Environmental Assessment submitted in support of the S75W identifying an increased GFA for the Thomas Street building of 12,150 square metres (corresponding with a decreased GFA for the Broadway Building of 34,650 square metres).

It should be noted that as a consequence of this third modification to the Concept Plan, the excavation of the site and associated stabilisation works for the Thomas Street Building and the LRS do not form part of this Project Application.

1.2.3 Other Relevant Approvals

Development consent (D/2010/2203) was granted by the City of Sydney on 7 March 2011 under Part 4 of the EP&A Act for works associated with:

- demolishing the existing western car park ramp along Thomas Street in order to accommodate the proposed construction of the Library Retrieval System and Storage Building (approved as part of the Concept Plan for UTS Broadway); and
- widening the eastern ramp along Thomas Street which provides access from Thomas Street into the main basement carpark of UTS under Building 1 and 2.

These works are proposed to be carried out prior to the construction of the LRS and Storage Building and the bulk excavation works for the basement levels of the Thomas Street Building.

1.2.4 Part 3A Repeal

On 1 October 2011 Part 3A of the EP&A Act was repealed. Despite this, Part 3A continues to apply to certain projects subject to the transitional provisions identified in Schedule 6A of the Act.

Clause 3 of Schedule 6A of the EP&A Act provides that Part 3A continues to apply to "transitional Part 3A projects", relevantly including undetermined projects in respect of which the DGRs were issued before 1 October 2011 and a current major project declaration remains in force.

Clause 3 of Schedule 6A to the EP&A Act also provides that any State environmental planning policy or other instrument made under or for the purposes of Part 3A, as in force on the repeal of that Part and as amended after that repeal, continues to apply, to and in respect of, a transitional Part 3A project (as defined). These arrangements apply to the Thomas Street Building.

1.3 Environmental Assessment and Approvals Process

In approving the Concept Plan for UTS Broadway, the then Minister for Planning determined that (in accordance with Section 75P(1)(a) of the EP&A Act) the Thomas Street Building will be considered under Part 3A of the EP&A Act.

On 19 January 2010, in accordance with section 75F of the EP&A Act, the Director -General of the then Department of Planning issued his environmental assessment requirements for the Project Application for the development of the Thomas Street Building (Major Project No. MP 09_0213). A copy of the Director-General's Requirements (DGRs) is included at **Appendix A**. It should be noted that a number of the requirements in the DGRs have been addressed as part of the modifications to the Concept Plan approval and other Part 4 development consents as identified in Section 5 of this report.

As the DGRs for MP 09_0213 were issued on 19 January 2010 and therefore prior to 1 October 2011 and a current major project declaration remains in force, the Thomas Street Building is a transitional Part 3A project.

1.4 Project Objectives, Strategic Justification and Alternatives

The Thomas Street Building forms part of UTS's growth strategy and on completion will deliver around 15% of the new gross floor area envisaged in the UTS Broadway Precinct Concept Plan. Development of the site is also intended to create an engaging new edge to Alumni Green and Thomas Street through a sensitively scaled new building. With active ground floor uses proposed on the corner of Thomas Street and Jones Street, the Thomas Street Building will act as a new gateway to the campus and reinforce the location as a university and public facility.

The Concept Plan, referred to above, provided the objectives and strategic justification for the redevelopment of the Broadway Precinct and canvassed alternatives to development. The Thomas Street Building, as an important element of the Precinct, formed part of that analysis. In short, the objectives and justification for the project and the alternatives considered were as follows.

UTS recognised the need to upgrade the City Campus in 2000 in the 10 year strategic vision - *Setting the Pace: A Vision for the next Decade.* Amongst other things, the vision provided for significant upgrading of physical infrastructure, including new buildings with major new student spaces and state of the art technology. Subsequently, the *UTS Physical Concept Plan 2007* (FJMT Pty Ltd) proposed development envelopes for five sites across the UTS City Campus, including the Thomas Street Building site, and the *UTS City Campus Masterplan 2020* (BVN, 2008) provided a framework for refurbishments and new building works across the campus.

UTS has a limited number of options to accommodate growth on its land in the Broadway Precinct where approximately 85,000m^2 of additional floor area is required to accommodate growth in student and staff numbers, teaching, cultural, recreational and research areas. The *UTS City Campus Masterplan 2020* investigated a number of alternative strategies for locating the major components of this floor area, including maximising floor area in other locations such as Alumni Green.

Not progressing with the Thomas Street Building would constrain UTS's ability to address space shortfalls – currently and in the future, not only restricting and limiting student services and capacity to accommodate projected growth in student numbers (in particular Science Faculty student numbers which are expected to grow significantly), but also innovation and research into new areas of Science.

1.5 Capital Investment Value

The capital investment value of the project is approximately $92 Million (see the Quantity Surveyor's report at **Appendix B**).

1.6 Project Team

The following consultants contributed to this environmental assessment report:

Urban Planning	JBA Planning
Architecture	Durbach Block Jaggers and BVN Architecture
Landscape Design	Deverson + Associates Pty Ltd
Traffic and Transport	Halcrow Pacific Pty Ltd
ESD and Energy	Steensen Varming
Acoustics	Renzo Tonin & Associates Pty Ltd
Visual Impact	Durbach Block Jaggers and BVN Architecture
Wind Impacts	Cermak Peterka Petersen Pty Ltd
Reflectivity	Cermak Peterka Petersen Pty Ltd
Access and Mobility	Access Australia
Hydraulics and Drainage	Warren Smith & Partners
Mechanical and Electrical Services	Steensen Varming
Quantity Surveying	Davis Langdon, An AECOM Company
Community Consultation	Kathy Jones and Associates
Building Code of Australia	Steve Watson and Partners

2.0 The Site

2.1 Location and Context

The Thomas Street Building site (hereafter referred to as 'the site'), at the corner of Thomas Street and Jones Street, Ultimo, forms part of the Broadway Precinct of the UTS City Campus (see **Figure 2**) located on the southern edge of the Sydney Central Business District (CBD).

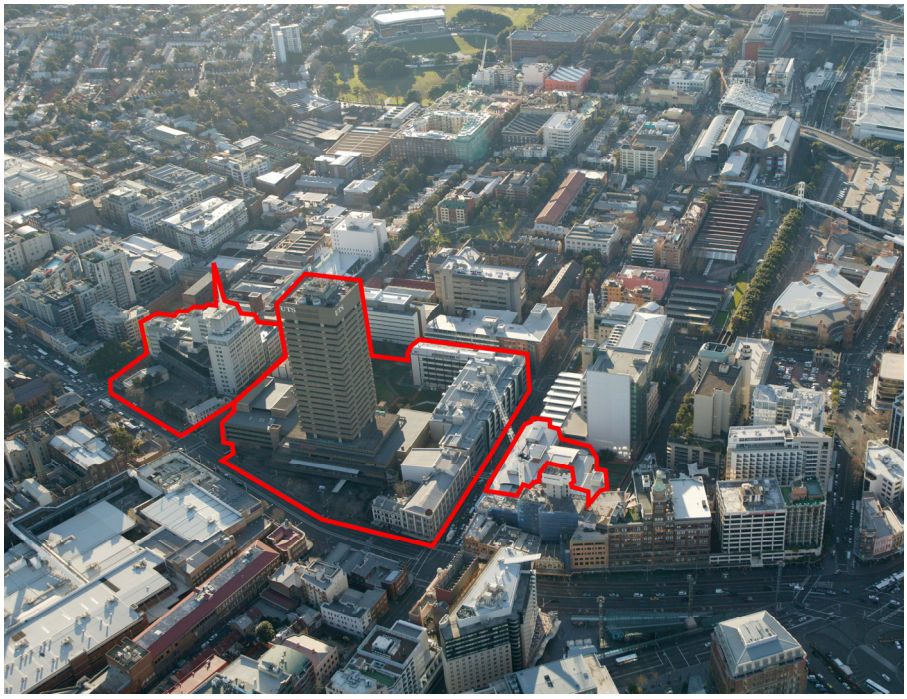


Figure 2 – The Concept Plan site (Source: BVN)

As shown in **Figures 3** and **4**, the site is rectangular in shape and has frontages to Thomas Street to the north and Jones Street to the west. It is immediately surrounded by a mix of medium to high rise institutional buildings of no consistent scale or design - principally associated with the Sydney Institute of TAFE and UTS.

Neighbouring the site to the immediate east is UTS Building 4 (the Faculty of Science Building), and beyond on the northern side of Thomas Street various Sydney Institute of TAFE buildings and the light industrial and commercial precinct of Ultimo. UTS Building 10 is located on the opposite side of Jones Street to the west, with Buildings 1 and 2 to the south of the site across Alumni Green. Buildings 1 and 2 and Alumni Green are to be redeveloped in the future in accordance with the Concept Plan approval. The Broadway Building at the corner of Jones Street and Broadway is currently under construction (bulk excavation works only).

Figure 3 – Aerial image of the site and surrounds

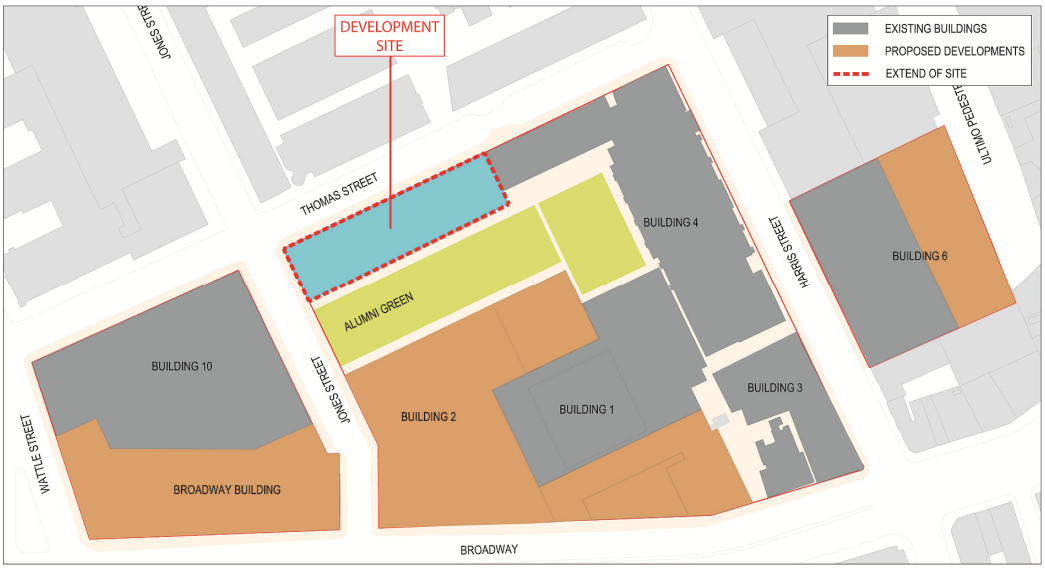


Figure 4 – UTS Broadway Precinct and the Thomas Street Building site