

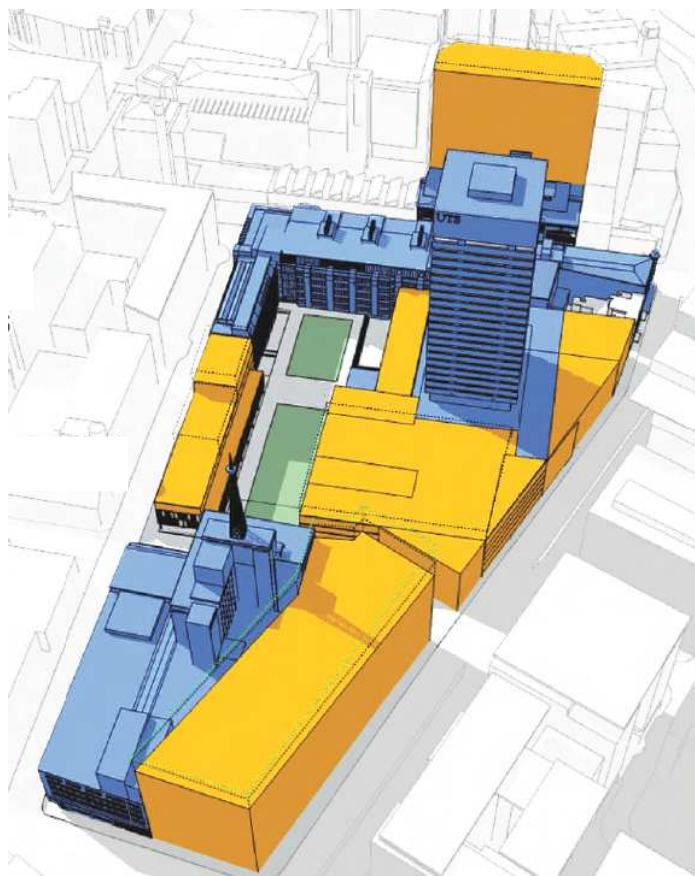


Planning

**MAJOR PROJECT ASSESSMENT:  
University of Technology Sydney (UTS)  
Concept Plan  
Major Project Application MP 08\_0116**

Director-General's  
Environmental Assessment Report  
Section 75I of the *Environmental Planning and  
Assessment Act, 1979*

December 2009



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NSW Department of Planning  
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# 1 EXECUTIVE SUMMARY

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This is a report on an application seeking approval for a Concept Plan for the redevelopment and expansion of the University of Technology Sydney (UTS) Broadway precinct. The proponent is UTS.

The application proposes an additional 83,750m<sup>2</sup> Gross Floor Area (GFA) for educational, social and sporting facilities, and student housing at the UTS Broadway campus for the following:

- New Broadway Building and Thomas Street Building, with a combined GFA of 44,650m<sup>2</sup>;
- Expansion of Buildings 1 and 2, with a combined additional GFA of 10,800m<sup>2</sup>;
- Expansion of Building 6 for the provision of student housing, with an additional 25,250m<sup>2</sup> 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 estimated Capital Investment Value (CIV) of the proposed development is approximately \$427 million.

The proposal seeks to deliver high quality facilities for up to 15,000 equivalent full time students by 2015, an increase from 12,200 in 2008.

The proposed development is a Part 3A project under the *Environmental Planning and Assessment Act 1979* ("the Act") as the CIV is greater than the threshold for Part 3A projects under Schedule 1, Group 7, clause 20 of the Major Projects SEPP.

The project was placed on public exhibition for a period of 31 days from 27 May 2009 until 26 June 2009. The Department received 6 submissions from agencies and 2 submissions from the public.

## Key Issues

Key issues raised in the submissions related to:

- Height, bulk and scale of building envelopes fronting Broadway;
- Design standards for future development on the site;
- Overshadowing and wind impacts in surrounding streets;
- Demolition of the heritage listed Bradshaw Building;
- Economic and social impacts from increased student numbers and retail activity on the site.

## Preferred Project Report

On 26 October 2009, the proponent amended the application via the Preferred Project Report to address issues raised by the Department and in the submissions. The report provided:

- Broadway Building height increased by 670mm to 46.91, with up to an additional 17.9m to accommodate a sloping architectural screen to accommodate the design excellence competition winner;
- Detailed design of the Multi Purpose Sports Hall to be constructed underground, beneath Alumni Green, and that no further application or assessment is required for the construction of this facility;
- Revised indicative staging program in relation to the Broadway Building and Building 6;
- Response to submissions received for the proposal.

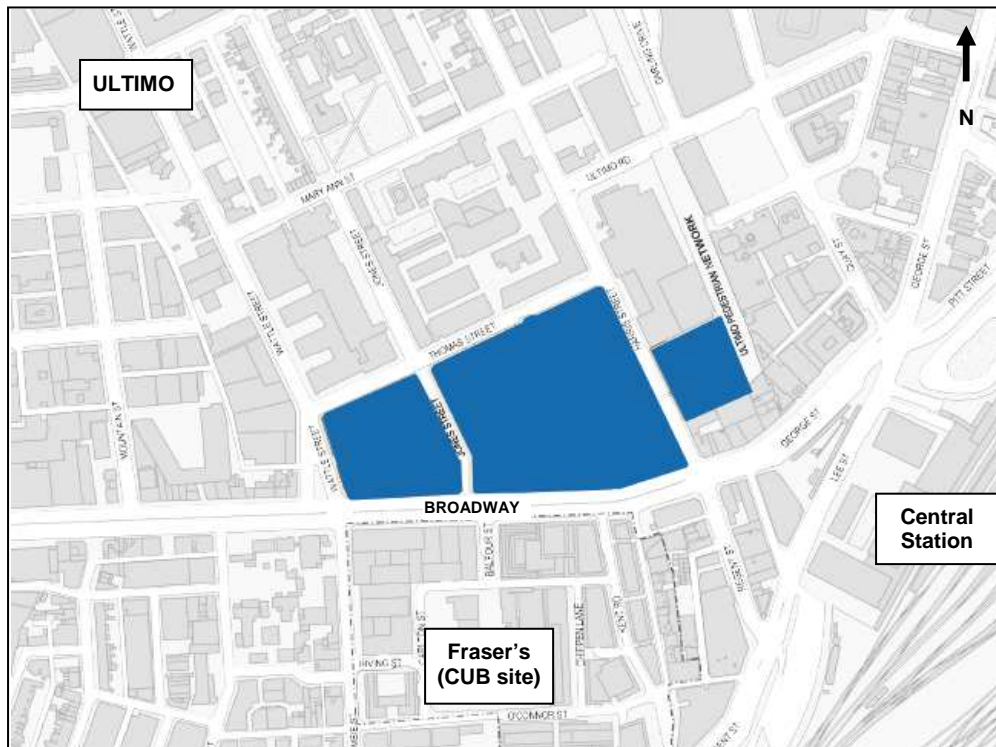
## Assessment

The Department has assessed the merits of the proposal and is satisfied that the impacts of the proposed development have been addressed via the proponent's Preferred Project Report, the Statement of Commitments and the Department's recommended terms of approval. Furthermore the proposal adequately addresses the Director General's requirements for the proposal. On these grounds, the Department is satisfied that the site is suitable for the proposed development and that the project will provide environmental, social and economic benefits to the region. All statutory requirements have been met.

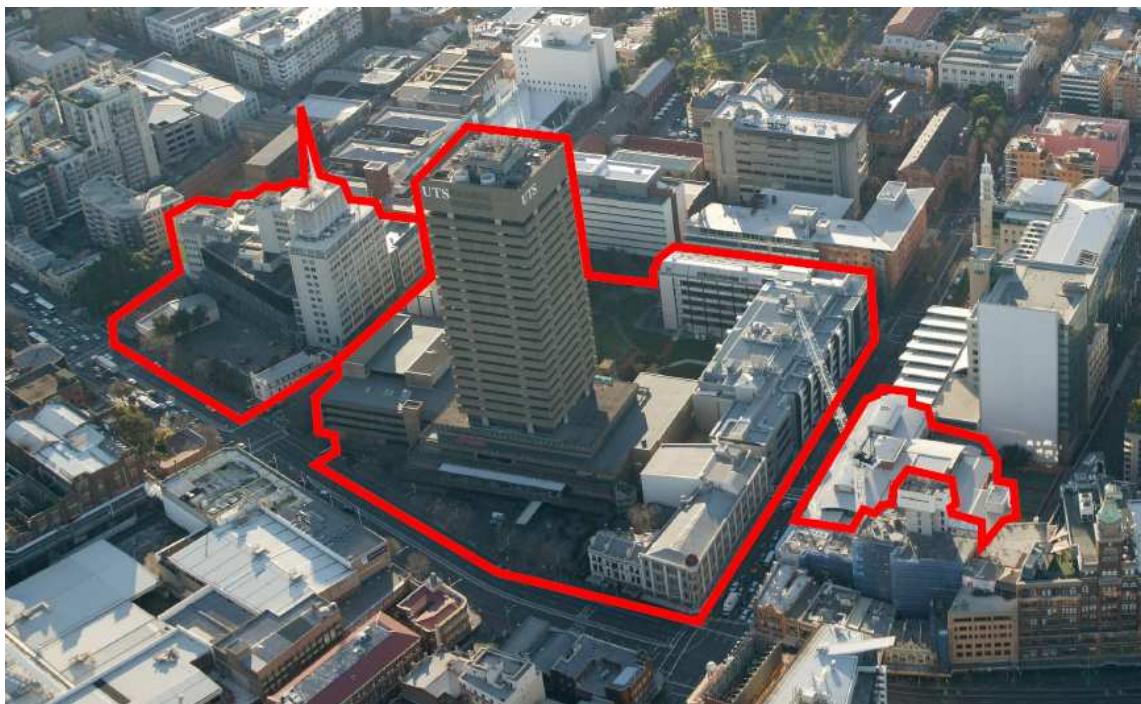
## 2 BACKGROUND

### 2.1 INTRODUCTION

The site of the proposed development is known as the University of Technology Sydney (UTS) Broadway precinct. The site is owned by UTS, and has an area of approximately 42,000m<sup>2</sup>. It is located within the City of Sydney LGA.



*Figure 1. Locality Map*



*Figure 2. Aerial photograph of the site, bounded in red.*



## 2.2 THE SITE AND EXISTING LAND USE



*Figure 3. Existing buildings within the UTS Broadway precinct.*

The site contains 11 buildings with a combined Gross Floor Area (GFA) of 150,000m<sup>2</sup>. Descriptions of the buildings are as follows:

### **Building 1**

The building consists of a 5-6 level podium and 32 storey, 116m high tower building constructed in 1969. The principle pedestrian entry to the site is through Building 1 via an expansive forecourt from Broadway

### **Building 2**

This building adjoins the western side of Building 1. It contains a total of 7 levels and is a similar height to the Building 1 podium.

### **Building 3**

This building is also known as the Bon Marche Building and is located on the corner of Broadway and Harris Street. It is a heritage item of local significance and contains 5 storeys above street level. It is used for educational purposes, with some retail functions at ground level.

### **Building 4**

This is an L-shaped building fronting Harris and Thomas streets, known as the Science Building and has a total of 7 levels.

### **Building 6**

This building is located between Harris Street and the Ultimo Pedestrian Network, and contains a total of 7 levels. It has an existing approval from the City of Sydney for a further 12 levels on top of the existing podium. A separate project application for this building for 720 student housing beds is being considered under Major Project Application MP 09-0021 by the Department of Planning.

### **Buildings 8 and 9**

These are a pair of buildings which are a heritage item of local significance. They range from 2 to 4 levels and used for administration and recreational uses.

### **Building 10**

This is the former Fairfax Building located on Thomas Street, with frontages also to Wattle and Jones Streets. It contains 15 levels with a spire on top, and contains some retailing functions at ground level.

### **Building 11 Bradshaw Building**

This building is located on the corner of Broadway and Jones Street and contains 3 levels. It is a heritage item of local significance.

### **Buildings 12 and 13**

These are adjoining buildings at the intersection of Broadway and Wattle Street, and are 2 storeys in height. They are not currently used for educational purposes.

Off street parking is provided for approximately 420 cars across the site for staff and students, including 120 spaces at the at-grade Broadway car park, and within Buildings 1, 2, 6 and 10.

Access to the site is provided by bus services along Broadway, Harris and Thomas Street, and from CityRail services from Central Station, 500m away. Pedestrian networks to the site include the connection to Central Station by the Devonshire Street Tunnel via the Ultimo Pedestrian Network at the rear of Building 6. The Harris Street pedestrian bridge links Building 6 to the ground floor of Building 1 and the remainder of the campus.

## **2.3 SURROUNDING LAND USES**

Located on the opposite side of Broadway is the former Carlton and United Breweries/Fraser's Broadway site currently undergoing redevelopment. The modified Concept Plan for that site was approved on 5 February 2009.

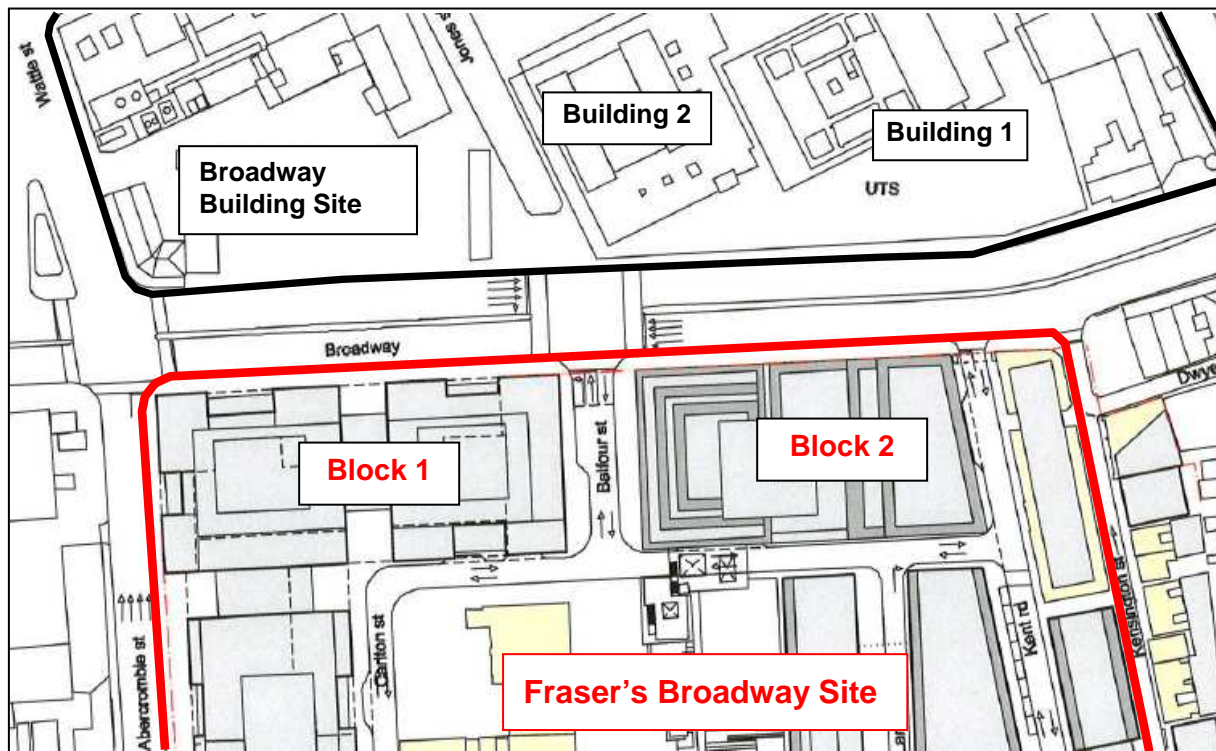
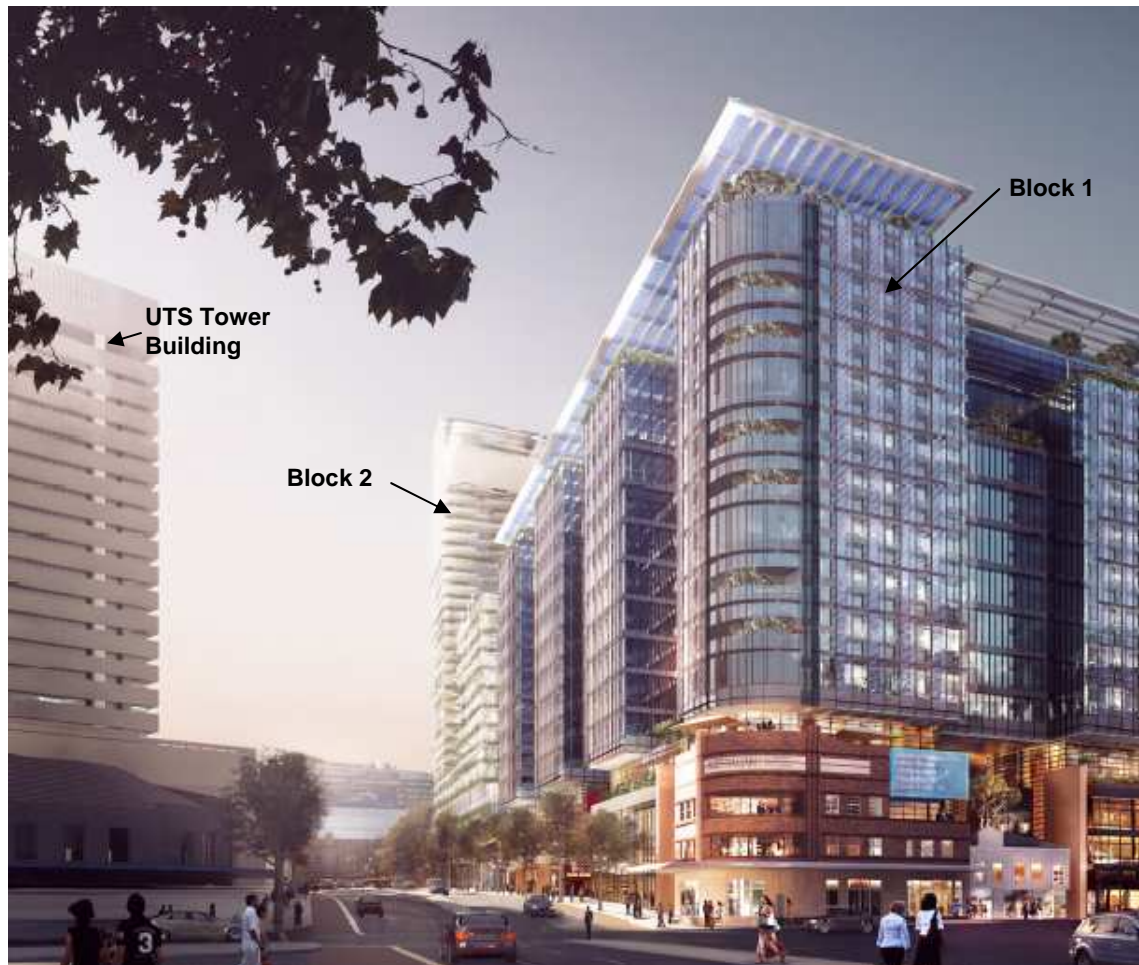


Figure 4. The Fraser's Broadway site in relation to the UTS Broadway site.



*Figure 5. Photomontages of proposed Block 1 and 2 of the Fraser's Broadway site.*

The Fraser's Broadway Concept Plan permits a maximum building height of 60m (RL 74.00) for Block 1 and 116m (RL 133) for Block 2.

The UTS Blackfriars precinct and University of Notre Dame are located to the west of the Fraser's site.

To the north of the site is the Sydney Institute of TAFE, at least 3 storeys in height, as well as industrial uses further north.

The ABC Ultimo Centre is located north of Building 6 (also known as the Peter Johnson Building). The ABC building has a varied height, including approximately 64m immediately adjoining the Building 6. A residential flat building known as the Taragon Building adjoins the southern side Building 6. It has a height of approximately 51m.

To the west of the site, across from Wattle Street, are 3 storey, older style commercial premises along Broadway, with modern residential towers at least 8 storeys in height behind.



### 3 PROPOSED DEVELOPMENT

#### 3.1 CONCEPT PLAN APPLICATION

The Concept Plan application seeks an additional 83,750m<sup>2</sup> Gross Floor Area (GFA) on the site for educational, social and sporting facilities, and student housing at the UTS Broadway campus comprising:

- New Broadway Building and Thomas Street Building, with a combined GFA of 44,650m<sup>2</sup>;
- Expansion of Buildings 1 and 2, with a combined additional GFA of 10,800m<sup>2</sup>;
- Expansion of Building 6 for the provision of student housing, with an additional 25,250m<sup>2</sup> GFA;
- Modifications to Buildings 3, 4 and 10;
- Redevelopment of Alumni Green, with a Multi Purpose Sports Hall and book vault beneath;
- Public domain improvements to Broadway and Thomas, Harris, Wattle and Jones Streets;
- Demolition of Buildings 11, 12 and 13.

The application also requests that the proposed Multi Purpose Sports Hall does not require further environmental assessment in order to be constructed.

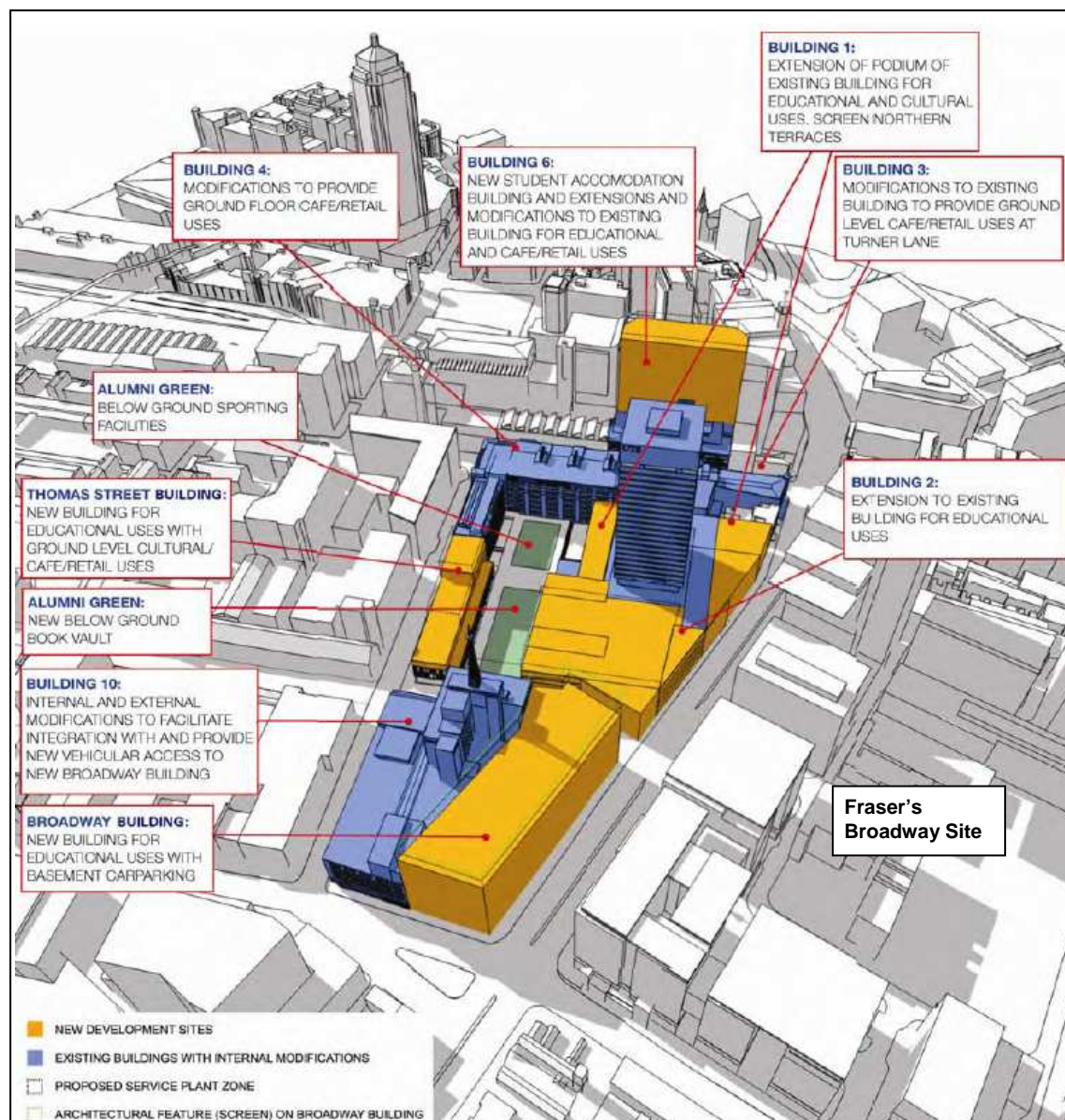


Figure 6. Components of the Concept Plan for the site



### 3.2 DESCRIPTION OF PROPOSED NEW BUILDING ENVELOPES

Table 1: Development Data

| Building                   | Proposed height (m) | Council control (m) | Total new GFA (m <sup>2</sup> ) |
|----------------------------|---------------------|---------------------|---------------------------------|
| <b>Building 1 (podium)</b> | 22.47               | 42                  | 4,050                           |
| <b>Building 2</b>          | 24.24               | 42                  | 6,750                           |
| <b>Building 6</b>          | 69.20               | 42                  | 25,250                          |
| <b>Broadway Building</b>   | 46.91               | 42                  | 34,650                          |
| <b>Thomas St Building</b>  | 27.10               | 42                  | 10,000                          |

Note: The Sydney LEP 2005 measures height from the ground level to the ceiling of the topmost habitable floor. It does not include plant or architectural elements.

#### **Building 1**

Refurbish and extend the existing podium (excluding the 32 storey Tower Building) to the Broadway boundary and further north on the campus to create an extra 4,050m<sup>2</sup> GFA, to a height of 22.47m (RL 38.89), plus a 6m plant level. The building will feature the main entrance to the campus from Broadway.

#### **Building 2**

Refurbish and extend the existing building to the Broadway and Jones Street boundaries, to create an extra 6,750m<sup>2</sup> GFA, to a height of 24.24m (RL 45.90), plus a 6m plant level. It is proposed to include the University Library.

#### **Building 3 (Bon Marche building)**

Alterations to the existing building including the creation of new ground level retail uses.

#### **Building 4 (Science building)**

Alterations to the existing building including the creation of new ground level retail uses.

#### **Building 6 (Peter Johnson building)**

Extend the existing 7 level podium, plus a new 13 storey tower with a GFA of 25,250m<sup>2</sup> and height of approximately 67m, plus 4.8m plant zone, for expanded teaching facilities and student housing. This building is being considered under Major Project Application MP 09-0021 by the Department of Planning.

#### **Building 10 (old Fairfax building)**

Alterations to the existing building to provide vehicular access to the new Broadway Building basement, and pedestrian access to upper levels.

#### **Broadway Building**

Construct a new building to a ceiling height of up 46.91m, plus a 7.2m high plant level, and angled architectural screen extending up to 17.9m above the ceiling height (refer to figure 7). The building will result in an extra 34,650m<sup>2</sup> of educational and retail uses. Basement car parking is to be provided for approximately 160 spaces (relocation of existing campus spaces only). Buildings 11 (Bradshaw Building), 12 and 13 are currently in the footprint of this building and would require demolition. A design excellence competition was held for this building, with the building envelope amended in the PPR to accommodate the winning design, which will be subject to a future application.

#### **Buildings 11 (Bradshaw Building), 12 and 13**

These buildings are within the footprint of the Broadway Building and are therefore proposed to be demolished.

### Thomas Street Building

Construction of a new building up to 31.5m in height (RL 40.1), plus 6m plant zone, to create an extra 9,000m<sup>2</sup> GFA for educational, retail and cultural uses including space for a public gallery and café.

### Alumni Green

The principal open space on the campus is to be extensively redesigned and landscaped including new lawn, paving and trees, and paths linking buildings on the campus. A new Multi Purpose Sports Hall (1,800m<sup>2</sup> GFA) and Book Storage Vault (2,250m<sup>2</sup> GFA) over 5 levels will be located beneath Alumni Green.

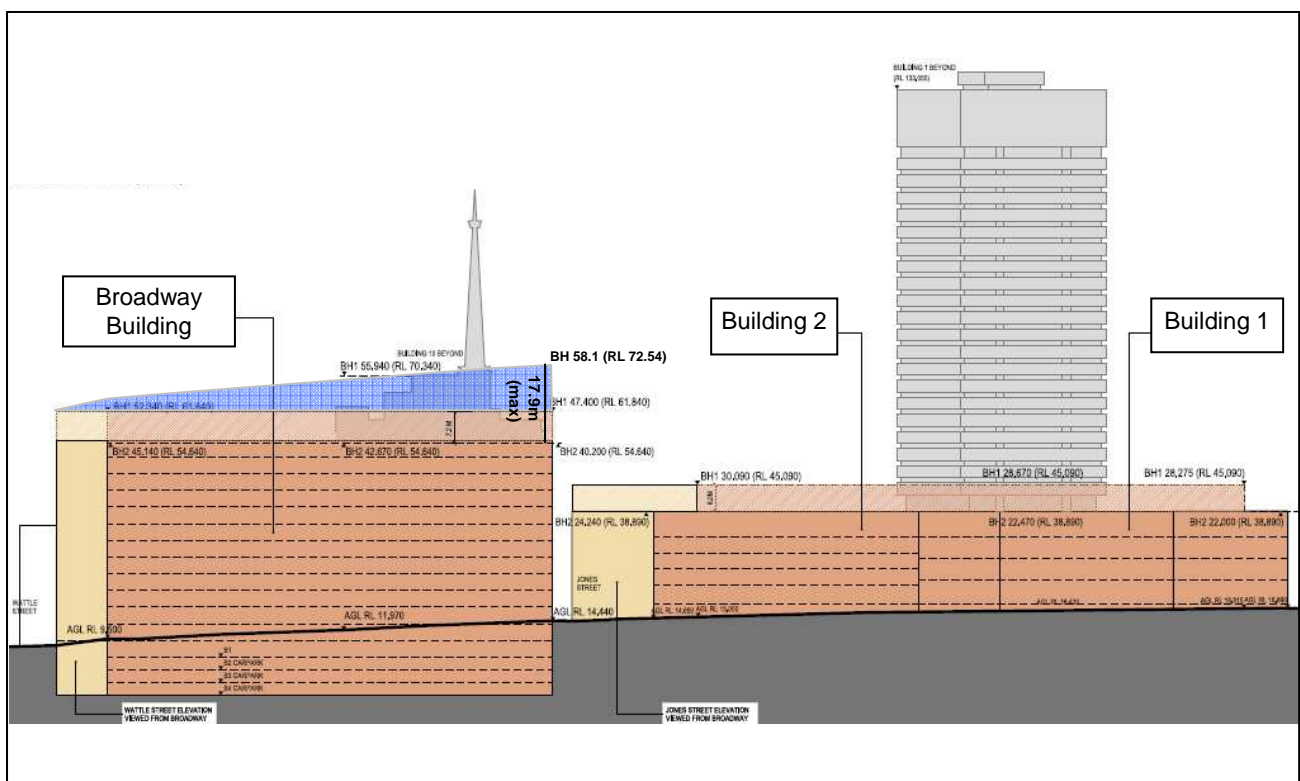
### Multi Purpose Sports Hall

Construct the MPSH under Alumni Green and Building 4 to provide a hall, gym, teaching and office facilities for students. Supplementary information was provided in the PPR, as the proponent is requesting that no further application or environmental assessment is required for the construction of this facility.

### Public Domain works

Public domain improvements are proposed to Broadway, and Thomas, Harris, Wattle and Jones Streets. It is also envisaged that Jones Street will be closed in the future to link the 2 main parts of the site, and expand the usable public open space on the campus.

No works are proposed to Buildings 8 (Terraces) and 9 (The Loft).



*Figure 7. Elevation of proposed building envelopes of Buildings 1, 2, and the Broadway Building, showing the elevation fronting Broadway (orange), elevations fronting Wattle and Jones Streets (yellow), plant zones (pink), architectural feature extension (blue) and existing buildings (grey)*



Figure 8. Photomontage of building envelopes (with plant levels dashed) from Broadway, looking west. Fraser's Broadway envelopes shown in dark grey, to the left of the photo.

### 3.2 PREFERRED PROJECT REPORT

On 26 October 2009, the proponent submitted a Preferred Project Report (PPR). The PPR included details of design changes summarised as follows:

- Broadway Building envelope increased by 670mm, and up to an additional 17.9m for a permeable architectural screen extending above the building to accommodate the outcome of the Design Excellence competition (refer to Figure 7);
- Detailed design of the Multi Purpose Sports Hall, for approval of the construction of this facility granted with the Concept Plan approval;
- Revised indicative staging program in relation to the Broadway Building and Building 6;
- Response to submissions received for the proposal.

The City of Sydney was notified of the PPR for their comments, in particular the changes to the Broadway Building envelope and inclusion of the Multi Purpose Sports Hall development into the Concept Plan approval. The Council advised the Department that it was supportive of the winning design for the Broadway Building, including the departure in the height control. The Council did not raise any objection to the approval of the construction of the Multi Purpose Sports Hall as part of the amended Concept Plan.



## 4 STATUTORY CONTEXT

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### 4.1 MAJOR PROJECT DECLARATION

The proposal is a Major Project under Part 3A of the Act as it meets the criteria in Schedule 1, Group 7, clause 20 as it is development for the purpose of teaching or research (including universities and has a CIV more than \$30 million

On 4 September 2008, the Minister formed the opinion that a proposal to redevelopment the UTS Broadway campus is a project to which Part 3A applies and authorised a Concept Plan.

### 4.2 ZONING

The site is zoned Residential-Business under Sydney Local Environmental Plan 2005 (SLEP 2005). The proposed development is not prohibited by the LEP.

### 4.3 DIRECTOR GENERAL'S ENVIRONMENTAL ASSESSMENT REQUIREMENTS (DGRS)

On 11 September 2008, the Director General issued environmental assessment requirements (DGRs) pursuant to Section 75F of the EP & A Act. Issues to be addressed included urban design and built form, public domain and streetscape, traffic and transport, heritage, landscaping, and ecologically sustainable development.

### 4.4 ENVIRONMENTAL PLANNING INSTRUMENTS

#### State Environmental Planning Policy No. 55 (Remediation of Land) (SEPP 55)

SEPP 55 aims to promote the remediation of contaminated land for the purpose of reducing the risk of harm to human health or any other aspect of the environment by specifying that certain considerations be made by the consent authority when determining development applications in general, and where relevant, land has been appropriately remediated.

A Stage 1 Environmental Site Assessment was prepared for the Concept Plan due to previous industrial uses on the site. Potential contamination risks were identified, including underground storage tanks, use of backfill which may not have been clean. The proponent has committed to Stage 2 Environmental Assessment for further development of the site.

#### State Environmental Planning Policy (Infrastructure) (SEPP Infrastructure)

SEPP (Infrastructure) 2007 became operational on 1<sup>st</sup> January 2008. Due to the size of the development, the proposal was referred to the RTA on 5 May 2009 for comment in accordance with the Infrastructure SEPP. The RTA made a submission with a number of recommendations including design of works and noise standards. These issues will be addressed in future applications for detailed design of buildings on the site.

### 4.5 OBJECTS OF THE ENVIRONMENTAL PLANNING & ASSESSMENT ACT 1979

The objects of any statute provide an overarching framework that informs the purpose and intent of the legislation and gives guidance to its operation. The Minister's consideration and determination of a project application under Part 3A must be informed by the relevant provisions of the Act, consistent with the backdrops of the objects of the Act.

The Department has considered the Objects of the Act in the assessment of this application. The balancing of the project in relation to the Objects is provided in Section 5.

## 4.6 ESD PRINCIPLES

The Protection of the Environment Administration Act 1991 provides five accepted ESD principles:

- (a) decision-making processes should effectively integrate both long-term and short-term economic, environmental, social and equitable considerations (the integration principle);
- (b) if there are threats of serious or irreversible environmental damage, lack of full scientific certainty should not be used as a reason for postponing measures to prevent environmental degradation (the precautionary principle);
- (c) the principle of inter-generational equity - that the present generation should ensure that the health, diversity and productivity of the environment is maintained or enhanced for the benefit of future generations (the inter-generational principle);
- (d) the conservation of biological diversity and ecological integrity should be a fundamental consideration in decision-making (the biodiversity principle); and
- (e) improved valuation, pricing and incentive mechanisms should be promoted (the valuation principle).

The Department has considered the project application for subdivision in relation to the ESD principles and has made the following conclusions:

**1. Integration Principle** - The proposed development will provide additional and improved teaching space and student facilities and accommodation for the university which is seeking to become a world leading university of technology, for both research and technology jobs, and producing graduates with important skills for the future.

**2. Precautionary Principle** – The proposed development will not impact on threatened or vulnerable species, populations, communities or significant habitats as the site has a low level of environmental sensitivity.

**3. Climate Change** – The proposed development is not likely to be impacted by potential rises in river or sea levels due to the height of the site above sea level and is not classified as being within a flood prone area.

**4. Inter-Generational Principle** – The development will facilitate the growth and development of the university, which provides both teaching and research, and will provide accommodation for students close to the campus. Minimal parking is proposed, and the proponent commits to construction that will achieve a high level of environmental sustainability.

**5. Biodiversity Principle** – There is little natural vegetation on the site and the site does not contain any threatened or vulnerable species, populations, communities or significant habitats. Therefore the proposal will not impact upon the conservation of biological diversity or ecological integrity.

**6. Valuation Principle** – The development will facilitate the expansion and improvement of UTS which is an internationally recognised institution and a large employer in the region. The provision of additional teaching facilities and student facilities will provide additional research and technology jobs, produce graduates with important skills for the future, while also adding significant social and economic benefits to the region.

The proponent is committed to ESD principles which are detailed in the Preferred Project Report including:

- Achieving minimum 5 star Green Star Education rating for new buildings
- Achieving a minimum 4 star Green Star Education rating for expanded Buildings 1 and 2
- Reduction in overall water campus consumption by 20% by 2010
- Adopt practise to minimise construction and operational waste including reuse of 80% of demolition waste.

## 4.7 SECTION 75I(2) OF THE ACT & CLAUSE 8B OF THE ENVIRONMENTAL PLANNING AND ASSESSMENT REGULATION 2000

Section 75I(2) of the Act and Clause 8B of the Environmental Planning and Assessment Regulation 2000 provides that the Director-General's report is to address a number of requirements in the Director General Report. These matters and the Department's response are set out as follows:

| Section 75I(2) criteria  | Response   |
|--|--|
| Copy of the proponent's environmental assessment and any preferred project report  | The Proponent's EA and Preferred Project Report are located on the assessment file.  |
| Any advice provided by public authorities on the project   | Submissions provided by public authorities on the project for the Minister's consideration are discussed in Section 6 and Appendix C of this report.   |
| Copy of any report of the Planning Assessment Commission in respect of the project   | This project was not referred to the Planning Assessment Commission.   |
| Copy of or reference to the provisions of any State Environmental Planning Policy that substantially govern the carrying out of the project  | A brief assessment of each relevant State Environmental Planning Policies that substantially governs the carrying out of the project. Is provided in Section 4.7 of this report.   |
| Except in the case of a critical infrastructure project – a copy of or reference to the provisions of any environmental planning instrument that would (but for this Part) substantially govern the carrying out of the project and that have been taken into consideration in the environmental assessment of the project under this Division | The application is not a critical infrastructure project. The assessment of any relevant environmental planning instruments is detailed in Section 4.4 of this report.   |
| Any environmental assessment undertaken by the Director General or other matter the Director General considers appropriate.  | The environmental assessment of the project is this report in its entirety. All environmental impacts associated with this proposal have been assessed within this report.   |
| A statement relating to compliance with the environmental assessment requirements under this Division with respect to the project.   | The EA and subsequent submissions by the proponent forms the basis for consideration of the environmental impacts associated with the development. The Department is satisfied that the project complies with the environmental assessment requirements issued on 11 September 2008. |
| Clause 8B criteria   | Response   |
| An assessment of the environmental impact of the project   | An assessment of the environmental impact of the proposal is discussed in section 5 of this report.  |
| Any aspect of the public interest that the Director-General considers relevant to the project  | The public interest is discussed in section 5 of this report.  |
| The suitability of the site for the project  | The site is considered suitable for the proposed development.  |
| Copies of submissions received by the Director-General in connection with public consultation under section 75H or a summary of the issues raised in those submissions.  | A summary of the issues raised in the submissions is provided in section 5 and Appendix C of this report.  |

Clause 8B of the Regulation sets out the matters which the Director General must present in his report for environmental assessment and Ministerial consideration. It states that the Director General's report is to include an assessment of the environmental impact of the project, any aspect of the public interest that the Director General considers relevant to the project, the suitability of the site for the project and copies of public submissions received by the Director General. These issues are discussed in this report.



## 5. ASSESSMENT OF ENVIRONMENTAL IMPACTS

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Key issues considered in the Department's assessment of the Environmental Assessment include:

- Bulk, scale and height of building envelopes
- Design and environmental standards for future development on site
- Amenity impacts on the public domain
- Open space provision
- Transport and accessibility
- Impact on Heritage items on the site
- Social and economic impacts
- Excavation impacts on infrastructure
- Multi Purpose Sports Hall assessment
- Statement of Commitments
- Public interest

### 5.1 DESIGN, HEIGHT AND BULK OF BUILDING ENVELOPES

Concerns were raised by the City of Sydney and the public submissions about the height, bulk and scale of the proposed development on the site, especially where building envelopes exceed the numerical standards in the Sydney Local Environmental Plan 2005 (SLEP) of 42m and an FSR of 5.0:1 respectively.

#### Building 1

Building 1 is proposed to have a height of 22.47m with an additional 6m to accommodate plant. This height will match the roof of the existing podium and be lower than the heritage listed Bon Marche Building on the corner of Broadway and Harris Street.

The building envelope extends to the street edge, which is consistent with the general built form of buildings in the area, including the Bon Marche Building and proposed buildings on the Fraser's site. The existing forecourt adjoining Broadway, which has poor amenity, will be replaced by a new forecourt and entry into the building. This will result in a more legible entry into the campus, and improve the activation of the street frontage.

As the buildings are below the maximum height that would be permitted under SLEP, amenity impacts such as overshadowing and wind impacts are reduced. Mitigation measures to minimise amenity impacts have been committed to, such as planting and building design, and these are addressed in more detail in section 5.2 below.

Therefore the Department considers that the proposed height, bulk and scale of the building envelope is consistent with the built form of the surrounding area and is satisfactory in this regard.

#### Building 2

Building 2 is proposed to be enlarged, to reach a maximum height of 24.24m, with an additional 6m to accommodate plant. It will front both Broadway and Jones Street. Although the building is slightly higher measured from ground level than Building 1, the two buildings will have a similar roof height to Building 1.

Like Building 1, the building envelope extends to the street edge, which is consistent with the general built form of buildings in the area. This setback will result in an improved definition of the street edge along Broadway, as well as Jones Street. The design quality controls proposed for this building, as detailed in the EA, seek to provide for the provision of new active frontages such as retail and student union shopfronts, as well as the provision of pedestrian protection along the Broadway frontage. The impacts on overshadowing and wind impacts on the street will benefit from the lower height proposed (as opposed to permitted under the SLEP), and the commitments to incorporate measures to reduce adverse wind impacts. Further assessment of the potential amenity impacts are addressed in Section 5.2 below.

Therefore the Department considers that the proposed height, bulk and scale of this building is consistent with the built form within the area and is satisfactory in this regard.

## Broadway Building

The Broadway Building, up to 46.91m in height, is generally consistent with the maximum height in the SLEP of 42m. The building envelope also includes the provision for an architectural feature up to an additional 17.9m, which formed part of the winning entry in the design competition held for this building. The additional height is supported by the City of Sydney, although concerns were still raised about potential overshadowing impacts.

The building will be a similar height to existing Building 10 to the north, and comparable to the 60m height of the proposed Block 2 at Fraser's Broadway site opposite. Therefore the height is not considered to be out of character with the surrounding development.

The resultant building height and scale on the Wattle Street frontage will provide a transition from the building heights on the Fraser's site on the opposite side of Broadway, to the lower building height and scale on the northern side of Thomas Street. The Broadway Building is also physically separated from the lower scale buildings on Broadway further west of Wattle Street by the large traffic island and mature tree within the island.



*Figure 9. Photomontage of Broadway Building envelope with plant zone (excluding the architectural screen)*

The overshadowing impacts of the additional height above 42m during mid-winter will generally affect the elevations of Block 1 on the Fraser's site opposite, which are to be for commercial use. Overshadowing in Wattle Street from the additional height is also not significant during mid winter, and does not affect residential properties. Overshadowing during the spring and autumn equinoxes and mid-summer is significantly less, and the impact from the additional height above 42m is almost negligible. Amenity impacts are discussed in more detail in Section 5.2 below.

The City of Sydney raised concerns that the height of the Broadway Building may reduce views to the spire on Building 10, which is considered by the City to be a landmark building. UTS acknowledges the significance of the spire, and states that distant views of the tower are maintained, as it has a similar parapet height to Building 10. It is noted that the Broadway Building will not affect views of the spire from the east and north of Building 10, which are identified in the Heritage Impact Statement as being the most important facades of this building.

The design quality controls for this building include activating the ground floor street frontage through shop fronts and public facilities, pedestrian connections through the building to Jones and Wattle Streets, and articulation of the building façade along Broadway and Jones Street through openings and pedestrian connection, modulation and material quality.

Therefore the Department considers that the proposed height, bulk and scale of this building is consistent with the built form of the surrounding area and is satisfactory in this regard.

### **Thomas Street Building**

The Thomas Street Building will range in height from 27.1m to 18.5m with a 6m plant level above. The highest part of the building will match the height of Building 4, which it will adjoin. It will then drop down by nearly 10m for most of its length. The intention of the design is to maximise solar access to Alumni Green during the winter solstice. The change in height adds to the visual interest of the building, and will also be sympathetic to the lower heights of the portion of Building 10 closest to the Thomas Street Building, and the TAFE Building 8, a heritage item, on the opposite side of Thomas Street.

The design quality controls for this building also include a requirement that the top most floor be designed to maximise solar access to Alumni Green, and to maximise the activation of the ground floor level through the inclusion of shop fronts, and student and public facilities.

### **Building 6**

Building 6, also known as the Peter Johnson Building, has been subject to a separate project application (MP 09-0021). It is to be similar in height to the top of the adjoining ABC building, and less than the height of the UTS tower building opposite, and Building 2 on the Fraser's Broadway site.

The height of Building 6 are therefore considered to be consistent with the character and built environment of the immediate area. Amenity impacts are also considered to be satisfactory, which are discussed in more detail in Section 5.2 below.

### **Site Density**

The application proposes a total Floor Space Ratio (FSR) of 5.2:1 on the core of the campus, which is marginally over the 5.0:1 FSR in the SLEP. The LEP allows for a 10% variation of FSR where a number of criteria are met, including benefits to the public domain and Design Excellence. The Department considers that the Concept Plan incorporates these criteria through improvements to amenity and built form, and therefore the proposed FSR of 5.2:1 is satisfactory. Building 6, which has an FSR of 8:1, is considered to be separate from the core of the campus and has been subject to a separate project application (MP 09\_0021), where the FSR was considered to be similar to surrounding buildings.

The additional floor space on the core of the campus has been concentrated on the Broadway frontage, consistent with this being a major arterial road and reflecting the height and bulk approved for the buildings on the Fraser's property opposite. The lower height and bulk on the northern side of the site reflects the lower scale of buildings on Thomas Street and buildings further north in Ultimo, and also maximises solar access within the site, especially Alumni Green. The Department supports the distribution of floor space across the site, and results in improved built form and amenity within the site.

## **5.2 AMENITY IMPACTS ON THE PUBLIC DOMAIN**

The City of Sydney was generally supportive of the proposed public domain treatments, including the landscaping of Alumni Green, improvements to Jones Street and Building 1 entry from Broadway. However, concerns were raised about overshadowing that is likely to be created in adjoining streets, especially Broadway. Public concerns related to the wind impacts and solar access in the adjoining streets.

### **Wind Impacts**

The revised Wind Impact Assessment provided in the PPR states that uncomfortable wind conditions are currently experienced around the site especially on Broadway, although existing built form and road layouts around the site mitigate some of the impacts. The report states that there will be a decrease in wind intensity in parts of the site including Alumni Green, the north of Building 10, and the proposed new entrance to Building 1. The intensity of winds in Broadway is likely to increase compared to existing conditions, however the extent will be dependant on the detailed design of each new building. The report concludes that the use of local planting and awning configurations may be sufficient to ameliorate these impacts. The report also recommends that internal streets and pedestrian connections be designed to be protected from strong wind flows.



The proponent has committed to incorporate a number of measures into the detailed design of buildings including planting of mature trees and shrubs, and articulation of facades of buildings along Broadway to ameliorate impacts of westerly winds at ground levels. These measures are considered by the Department to be satisfactory.

### Overshadowing

Solar access within Broadway currently benefits from the setbacks of Buildings 1 and 2, which have much greater setbacks from Broadway compared to other buildings in the vicinity. Although the quantity of overshadowing in Broadway will increase, it is considered that the proposed built form will result in an overall improved outcome for pedestrians through more active building frontages, better defined street edges, and improved planting and other public domain works in Broadway.

The site of the Broadway Building is currently underdeveloped. As this site is on the northern side of Broadway, any building consistent with the Council height limit of 42m, with a street setback consistent with buildings in the vicinity, is likely to overshadow Broadway. The additional height of the proposed building above 42m results in overshadowing of the elevation of Block 1 on the Fraser's site fronting Broadway and Abercrombie Street, which is proposed for commercial use. Daylight will still be available for the windows of these building facades. Impacts in Wattle Street are also greater than at present, but this is also considered to be reasonable due to the existing low height of Buildings 12 and 13, and that residential properties will not be affected. During the summer solstice, very little overshadowing of Broadway will occur, with some additional overshadowing in Wattle Street in the morning only. The overall impact of the overshadowing resulting from the Broadway Building is therefore not considered to be significant.

The Thomas Street Building has been designed to maximise solar access to Alumni Green, while still providing a large enough building for teaching and research functions. Pedestrian linkages through the site, including through Alumni green, will be available to the public, providing an alternative route to Broadway to provide access to other locations further east of the UTS site.

The impacts on solar access will be considered in more detail in future applications for the new building work on the site.

The Department considers that any adverse overshadowing impacts on the public domain will be offset by the proposed improvements to the built form and public domain, creating a net benefit for pedestrians.



*Figure 10. Overshadowing by the Broadway building during mid winter*

### 5.3 DESIGN GUIDELINES FOR FUTURE DEVELOPMENT

The City of Sydney supports the redevelopment of the campus in principle, however (as also raised in the public submissions), prefers that future development on the site is subject to design excellence to ensure a high standard of development, in particular to ensure a well defined entry from Broadway is provided for Building 1.

The proponent has committed to adopting the design excellence process and to incorporate the design quality controls contained in the EA and PPR. The design guidelines are in the form of Design Quality Controls for each building and include the following:

- maximising retail, student union and other activities at ground level increasing the activation of the street frontage;
- maximising pedestrian access into and through the site;
- incorporation of design solutions to address any wind conditions resulting from the design of buildings fronting Broadway; and
- consideration of elements of transparency in the building to express the functions being performed within.

With regards to the City of Sydney's concerns about Building 1, the Urban Design Principles detailed in the EA include a new multi storey 'front door' to the campus for this building, and excellence in architectural design through a design competition. The detailed design of the entry will be subject to a future application for the Building 1.

The City also requested that the plant zones be setback at least 6m from all street facades, to reduce the appearance of these elements from the street. The proponent notes this request, however states that the design excellence process will address the detailed design of these buildings. To ensure the visual impact of the plant is minimised, the Department recommends Concept Plan be modified to ensure the plant is either setback greater than the façade of the building, or is integrated into the architectural design of the building.

The design guidelines proposed for future development on the site are considered to be satisfactory.

### 5.4 ENVIRONMENTALLY SUSTAINABLE DEVELOPMENT

The City of Sydney requested that Environmental Sustainable Design (ESD) initiatives to be incorporated at the project application stage to achieve world's best practice, including investigating into tri-generation technology. The public submissions requested that buildings should achieve at least a 5 star rating.

The proponent commits to a 6 star Green Star Education target for the new Thomas Street Building, and 5 star Green Star Education target for the new Broadway Building. The expanded and refurbished Buildings 1 and 2 are to achieve 4 star Green Star Education targets. The proponent also commits to reducing overall water consumption on the campus by 20% by 2010 and meet or exceed the requirements of Section J of the BCA.

The ESD targets committed to are still considered to make a significant positive contribution. Along with the measures to encourage public transport use to the site, the ESD commitments for future design application are considered to be satisfactory.

### 5.5 PROVISION OF OPEN SPACE

Concerns were raised in the public submissions regarding the quantity of open space provided on the site, given the number of students to attend the university and existing poor provision of open space in the surrounding area. Alumni Green is the only existing landscaped open space on the site. It is predominantly grassed, with uneven surface levels, few trees and furniture.

The Concept Plan proposes that Alumni Green be redeveloped with significant tree planting, street furniture and wide paths linking buildings on the campus. The details will be subject to a future application. The intended result is that although it will be smaller in size than at present due to the construction of the Thomas Street Building, it will still provide 7,000m<sup>2</sup> of open space which will be more attractive and functional than present. There will also be several other areas on the campus for recreational activities, including food court and bar with verandas on the northern side of Buildings 1 and 2 adjoining Alumni Green, the Multi Purpose Sports Hall, and cinema.



*Figure 11. Indicative outcome for Alumni Green, as seen from Jones Street.*

It is noted that no concerns were raised by the Council regarding the amount of open space proposed.

The provision of open and recreational space provided on the site is considered by the Department to be satisfactory.

## 5.6 TRANSPORT AND ACCESSIBILITY

### Transport

There are currently 420 car parking spaces provided on the campus for the use by students and staff. The Concept Plan proposes to maintain the existing number of spaces on the campus, but redistribute the spaces with the majority to be provided in the basement of the proposed Broadway Building.

The Ministry of Transport (MoT) is supportive of the decision not to increase the supply of car parking spaces, but wants to ensure that more is done to facilitate a mode shift to non-car transport, such as paid parking to discourage all day usage and use of 'car share' schemes. Sydney Metro also requested that the Transport Management and Accessibility Plan be updated to include reference to the predicted usage of the CBD and West Metro.



The proponent responded to these concerns in the PPR, committing to prepare a Transport Access Guide to promote the use of public transport to staff and students, as well as investigating opportunities for improved bus shelters along Broadway.

Concerns about bicycle facilities and design of internal roadways and parking was also raised by several agencies. The proponent states the bicycle facilities are to be provided across the site, and this is committed to in the Statement of Commitments. The details of these facilities, and internal roadways will be considered in the future applications for the detailed design of buildings on the site.

The Department is of the opinion that given the extensive public transport provision in the vicinity of the site and limited car parking spaces provided on site, non-car transport to the site will be the predominant mode of travel.

### **Pedestrian Connectivity**

The City of Sydney stated that pedestrian networks within the campus should be clear, and further details should be provided in future applications for the detailed designs of buildings to demonstrate this. It was also suggested that improved connections to Bijou Lane off the UPN, and that Crime Prevention Through Environmental Design principles are applied.

The proponent responded to these concerns in the PPR, stating that the Concept Plan is seeking to create a more permeable campus, with improved pedestrian linkages throughout the site, opening the campus to adjoining streets, and improved pedestrian environment such as wide crossing of Jones Street, amenity of footpaths and bus shelters. The proponent states in the PPR that the CPTED principles have been adopted into the design guidelines for new buildings.

Bijou Lane is outside the scope of the application, however the proponent states in the PPR that it does intend to create a more connected campus to improve links with the greater locality.

### **UPN Pedestrian Bridge**

Both the Department and the City of Sydney requested that the proponent consider the removal of the concrete pedestrian bridge and escalator/stair over the UPN, which links the Devonshire Street Tunnel with Level 4 of Building 6, to improve the appearance and amenity of the southern part of the UPN, provide more direct pedestrian entry into Building 6 and to encourage uses that would activate the area.

The proponent has committed to upgrading the UPN adjoining Building 6, including consulting with relevant stakeholders to investigate options to activate the area and improve its aesthetic appeal, and to develop a strategy to implement the preferred outcome.

The Department is generally supportive of the approach taken by the proponent, however recommends the Concept Plan be modified to ensure the removal of the pedestrian bridge is considered in the strategy, and that the strategy be submitted to the Department for approval.

## **5.7 HERITAGE**

Concerns were raised by the City of Sydney and in the public submissions about the demolition of the Bradshaw Building (Building 11), a heritage item of local significance.

The Concept Plan proposes that the Bradshaw Building be demolished, and the site become part of the building footprint of the Broadway Building. It was the Council's and public's opinion that the building should be retained and adapted by the University.

The Heritage Impact Statement provided in the EA states the building is a good example of the Federation Free style, and a good example of early twentieth century commercial development along Broadway. However it also states that it is a remnant of the streetscape that has changed and does not state that it is a rare example of its type. The report concludes that the approval authority needs to balance the requirements of UTS and the limitations posed by the building against the heritage significance of the building.

UTS state that due to the building's small size and irregular floor plates, it has had difficulty incorporating the building into the site, as it restricts the ability for the university to design a functional building on the site.

The Department considers that even if it could incorporate the building, the outcome is that it is likely to overwhelm the building and diminish its significance, whilst also compromising the facilities that the university can provide and architectural outcome of the new building.

Buildings 12 and 13 are also within the footprint of the Broadway Building. The potential heritage significance of these two buildings were considered in the Heritage Impact Statement, however the report found that neither building satisfies any of the heritage criteria for listing as an item of Local significance and their retention would also impede the design and function of any new building on the site. Therefore the Department does not raise any objections to the demolition of these buildings.

The Broadway Building was subject to a design excellence competition to ensure that the new building achieves a high architectural standard to compensate for the loss of heritage item. This is also the only heritage item on the site to be demolished, with the other heritage items being retained. The proponent has committed to an interpretation plan, and to undertake photographic archival recording prior to demolition.

The needs of the university, functionality of the building and heritage significant has been considered and that on balance, the Department does not raise objections to the demolition of this building and recommends no further assessment requirements for the demolition under Section 75P of the Act.

## **5.8 SOCIAL AND ECONOMIC IMPACTS**

Concerns were raised in the public submissions about the impact of additional student numbers on the local communities, and the impact of additional retailing space on local businesses.

The proposal is seeking to provide additional teaching and research space, on-campus student housing and extra student facilities (which will also be available to the public). The result will be an increase in campus life after standard business hours, which will also increase safety and security through increased activity and illumination across the site. The Department considers that these will facilitate greater activity in the campus area, which is likely to invigorate the wider area.

## **5.9 EXCAVATION IMPACTS ON INFRASTRUCTURE**

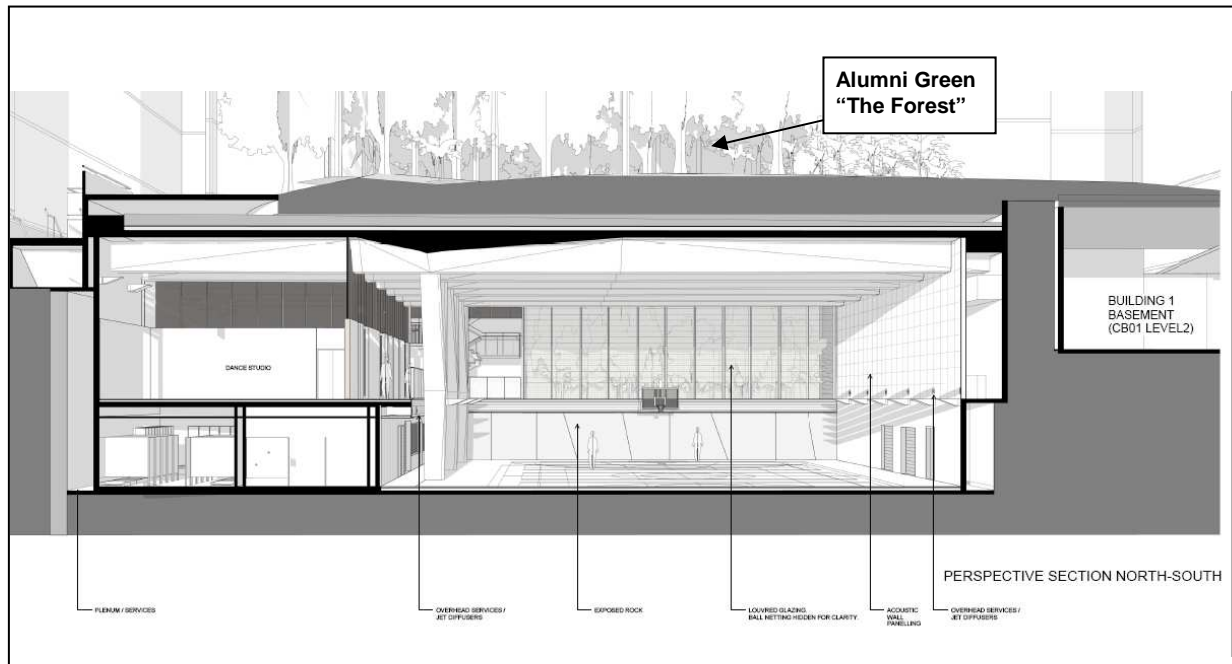
Concerns were raised by Sydney Metro about potential impacts on tunnels from exaction and construction on the site. The Department recommends that the conditions recommended by the Sydney Metro be included as further assessment requirements in the terms of the approval so that future developments will be designed to ensure that there will be no adverse impacts on these tunnels. Sydney Metro raised no objection to the proposed conditions of approval.

TransGrid requested they be consulted during design stages for works which could affect a cable tunnel near the site. This issue will be considered in more detail when the future applications for buildings on this site are made.

## **5.10 MULTI PURPOSE SPORTS HALL**

The PPR included additional details of the Multi Purpose Sports Hall (MPSH) so that the structure can be considered as part of the Concept Plan application, so that no further application or environmental assessment is required and give approval to these works under Section 75J.

The MPSH will be located wholly underground, beneath the Alumni Green. It has a GFA of approximately 1,733m<sup>2</sup>, within the 1800m<sup>2</sup> envelope proposed in the Concept Plan. It will comprise a dance studio and gymnasium, above office, tutorial and amenities, as well as a multi purpose hall over two levels. It will be used for course work and UTS sports clubs.



*Figure 12. Cross section of Multi Purposes Sports Hall with dance hall/gym and offices on the left, and light shaft on the right.*

Sustainability measures include a naturally ventilated shaft and sunken garden adjoining Building 4, utilising natural ventilation and to achieve an equivalent of a 4 star rating. The proponent states that natural materials will be used in the construction of the facility, including exposed excavated bedrock, to minimise waste and environmental impacts. The bedrock wall and landscaped roof will also assist in reducing the need for air conditioning. Details of excavation, hydrology and geotechnical conditions, contamination, noise, access, traffic and sustainability were addressed in the PPR and are considered to be acceptable.

Noise and vibration impacts from the construction of the facility, including excavation, will be mostly experienced by the university buildings surrounding the MPSH site (Buildings 1, 4 and 10). The proponent states that teaching activities are to be organised around this work.

Access to the construction site will be from Thomas Street, and trucks will enter and exit the site in a forward direction. Delivery of large equipment will occur at night to minimise traffic disruption. Given the low levels of residential accommodation in the area, the construction impacts are considered to be satisfactory.

The City of Sydney raised no objection to the MPSH being included in the Concept Plan approval. The Department considers that the details provided for the MPSH are sufficient for the assessment of this facility, and recommends that the proposal can be approved without further environmental assessment, subject to recommended conditions of approval.

### 5.11 STATEMENT OF COMMITMENTS

A copy of the Statement of Commitments submitted with the application is located at **Appendix B**. The key issues include

- Commitment to adopting the design excellence process;
- Interpretation plan and photographic archival recording for the Bradshaw Building;
- Preparation of a Transport Access Guide to promote the use of public transport;
- Adopt sustainability targets for the site including a 6 Green Star Education Target for the Thomas Street Building and work with Fraser's Broadway to investigate opportunities to incorporate sustainability projects on both sites.
- Investigate options to improve the appearance and amenity of the Ultimo Pedestrian Network adjoining Building 6.

The Statement of Commitments is generally considered to be reasonable for this application.

### 5.12 PUBLIC INTEREST

The public interest can be satisfied on the basis that the proposed Concept Plan will facilitate the redevelopment of the existing UTS Broadway precinct to provide a modern and expanded university campus, and the social and economic benefits that delivery of the university redevelopment will secure.

The proposed development will also increase educational and employment opportunities close to public transport, reducing the need for car travel, and provide for improved public domain, especially the Alumni Green and Broadway.

It is therefore considered that the public interest is best served by the approval of the Concept Plan as modified by the Preferred Project Report.



## 6 CONSULTATION AND ISSUES RAISED

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### 6.1 PUBLIC EXHIBITION DETAILS

The EA was publically exhibited from **27 May 2009** until **26 June 2009** for a period of 31 days and was published in the Central Courier and Sydney Morning Herald, and were made available on the Department of Planning's website. Copies of the EA were also available for inspection at City of Sydney offices and the Department of Planning's offices in Sydney during the exhibition period.

### 6.2 AGENCY SUBMISSIONS

The Department received 6 submissions from the following agencies:

- City of Sydney
- Ministry of transport
- RTA
- Sydney Metro
- Department of Water and Energy
- TransGrid

A summary of the response to these issues is located at **Appendix C**, as well as a discussion of the major issues in sections 5 and 6 of this report. It was concluded that the relevant issues could be adequately addressed by the Statement of Commitments and conditions of approval.

### 6.2 PUBLIC SUBMISSIONS

The Department received 2 submissions from the public. Concerns included:

- Bulk and scale of the development
- Impacts on pedestrian amenity including wind, solar and views
- Impact on local communities and business from increased student numbers and retailing
- More open space should be provided, either on site or via developer contributions
- Impacts on traffic and transport as a result of increased student numbers
- Adaptive reuse of heritage listed Bradshaw Building should be considered
- Inadequate community consultation
- Contamination on site from previous uses
- ESD of new buildings
- Impact on the Blackfriars site (outside the scope of this application).

These issues have been addressed in Appendix C of this report.

## 7 CONCLUSION

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The Department has assessed the EA and considered the submissions in response to the proposal. The key issues relating to the proposed Concept Plan are height, bulk and scale of building envelopes, amenity impacts in the public domain, development standards for future application, and heritage. Modifications to the Concept Plan, to ensure the potential visual impact of plant is minimised, and that the Ultimo Pedestrian Network adjoining Building 6 is improved, have been recommended.

It is recommended that no further environmental assessment is required for the construction of the Multipurpose Sports Hall or demolition of Buildings 11,12 and 13, and that the Minister give approval under Section 75J to carry out these works subject to conditions as recommended.

It is recommended that the future applications for Buildings 1 and 2, the Broadway Building and the Thomas Street Building be subject to Part 3A as they will exceed \$30 million criteria in MD SEPP. It is recommended that further assessment requirements (s75P(1)(a)) be included to require detailed design and specifications and assessment of amenity impacts to be considered for these buildings.

All other buildings and works within the Concept Plan are recommended to be subject to Part 4 of the Act.

On these grounds, the Department considers the site to be suitable for the proposed development and that the proposal is in the public interest as the Concept Plan will provide for expanded and improved teaching and support facilities at the University of Technology Sydney. Consequently, the Department recommends that the proposed Concept Plan be approved, subject to amendments.

## 8 RECOMMENDATION

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It is recommended that the Minister:

- (A) **consider** all relevant matters prescribed under Section 75J(2) of the Environmental Planning and Assessment Act, 1979, including those relevant matters prescribed by 75I(2) as contained in the findings and recommendations of the Director General's report and appended documentation;
- (B) **approve** the application, subject to conditions, under section 75J(1) of the Environmental Planning and Assessment Act, 1979, having considered all relevant matters in accordance with (A) above;
- (C) **sign** the attached instrument of approval.

Michelle Cramsie  
**Senior Planner**  
**Strategic Assessment**

Simon Bennett  
**Team Leader**  
**Strategic Assessment**

Michael File  
**Director**  
**Strategic Assessment**

Giovanni Cirillo  
**Executive Director**  
**Urban Renewal and Major Sites**

Tom Gellibrand  
**Deputy Director General**  
**Plan Making and Urban Renewal**

## APPENDIX A. RECOMMENDED INSTRUMENT OF APPROVAL

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## APPENDIX B. STATEMENT OF COMMITMENTS

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## APPENDIX C. RESPONSE TO SUBMISSIONS

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## APPENDIX D. ENVIRONMENTAL ASSESSMENT AND PPR

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## **APPENDIX E. PUBLIC DISCLOSURE DOCUMENTS RELATING TO CONTACT WITH LOBBYISTS**

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