

UTS BROADWAY BUILDING, SYDNEY
LANDSCAPE DESIGN REPORT - REVISION K



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1.0 INTRODUCTION: THE SITE: THE BUILDING: THE LANDSCAPE

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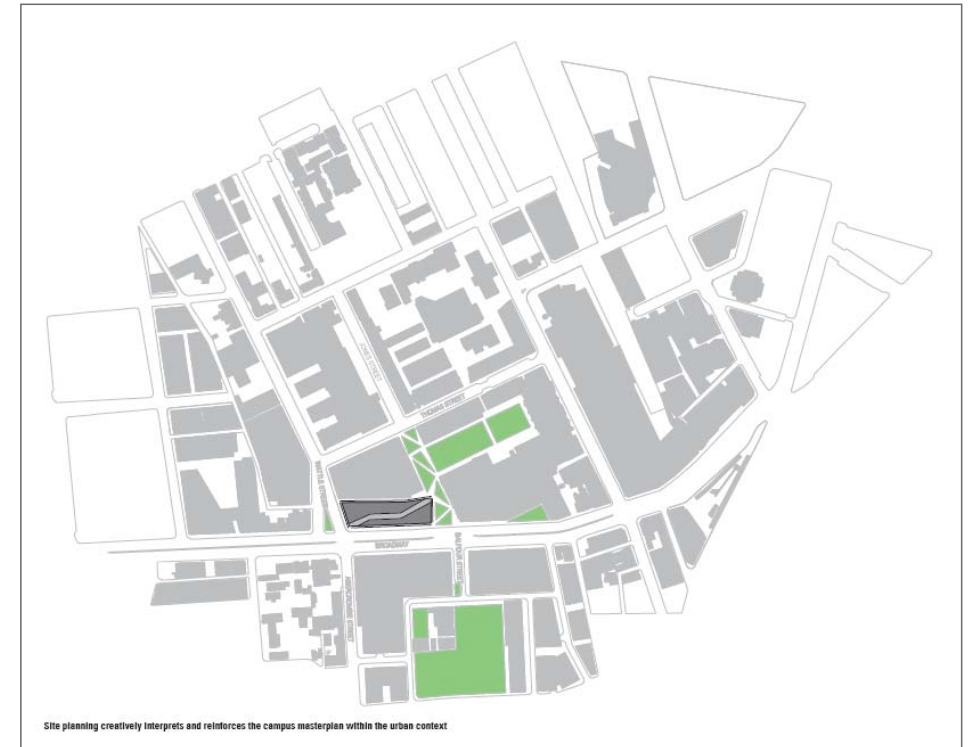
The overall philosophy of the site that seeks to provide a world class facility and support UTS's vision of a place where technology and creativity intersect.

The role of the landscape as a complementary amenity to the built form is well known and is an integral element to sophisticated cities around the world. The boulevards of Paris, the parks of London and Orchard Road in Singapore are well known examples of the vital role that vegetation plays in the development and celebration of habitable urban spaces.

The prominent location of the UTS Broadway building on one of Sydney's major thoroughfares leading to the CBD is an opportunity that has been taken up by the client and design team in espousing the values of the UTS as the premier urban campus in inner Sydney.

The landscape design approach is to integrate and display into the building form and surrounds complementary environmental functions that improve and facilitate the faculty in its inner urban location.

To facilitate this approach, and complement features of the building such as natural and assisted airflow, the inner and outer "skin" of the building to aid in modulation of the air temperature, the reuse of water and other bio engineering examples of the building as a functioning icon for the 21st century urban environment, the design of the landscape incorporates significant functional attributes that complement these systems.



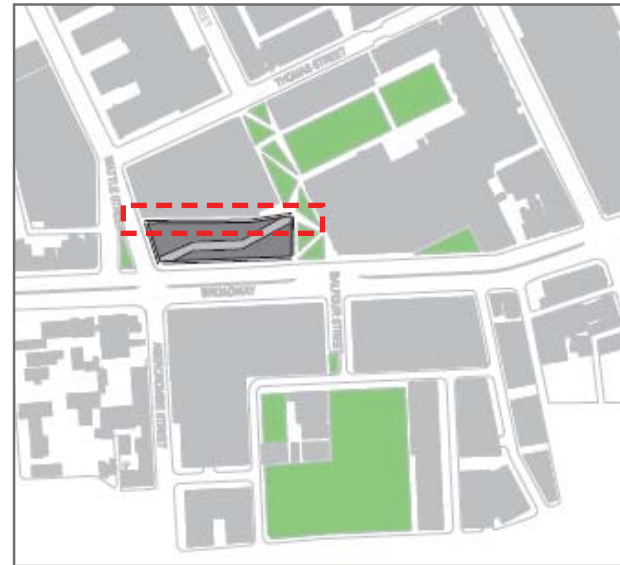
2.0 PLACES

The landscape philosophy for the building has been developed in response to the guidelines of the Master Plan. The building incorporates and develops these guidelines in relation to opportunities identified within the building and to the immediate public domain. The landscape is proposed to be a proactive element providing holistic benefits in relation to aesthetics, air quality and amenity. It is important that the landscape is consistent with the overall philosophy of the building in demonstrating the benefits of landscape in the busy and confined urban environment in which the building is located. This approach is consistent with the proposed usage of the building as the Faculty of Engineering and Information Technology Facility being an education hub and venue for display of technology, located in a prominent urban location on Broadway in the inner city of Sydney.

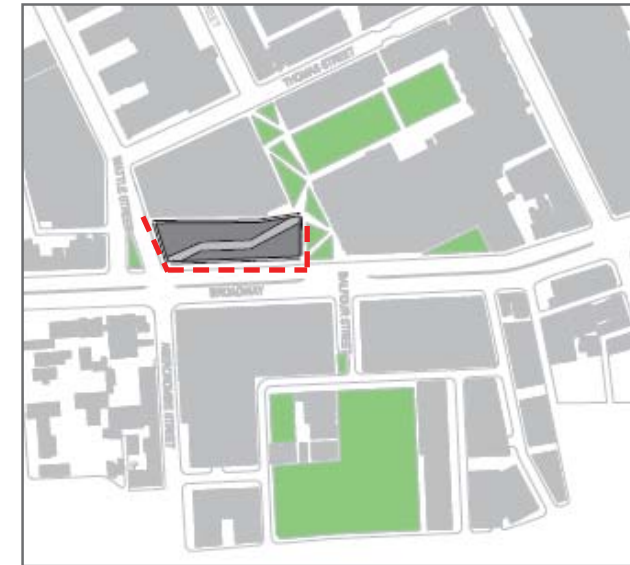
The criteria to be addressed include:

- Support the University's vision of a place where technology and creativity intersect
- Incorporate the University's masterplan objectives
- Demonstrate the role of planting in the facilitation of the maintenance of a clean indoor and surrounding environment.
- Provide innovative solutions using planting principles incorporating both the aesthetic and functional criteria of plants as a holistic design approach.
- Support air quality systems incorporated through the building, particularly the atrium space of the Crevasse
- Accommodation of the functional requirements of pedestrian circulation and space through the building
- Planting to be low maintenance and capable of absorbing high pollution levels generated from the surrounding urban environment.
- Endure high volumes of pedestrian movement
- Upgrade streetscape and public domain consistent with current planning documents

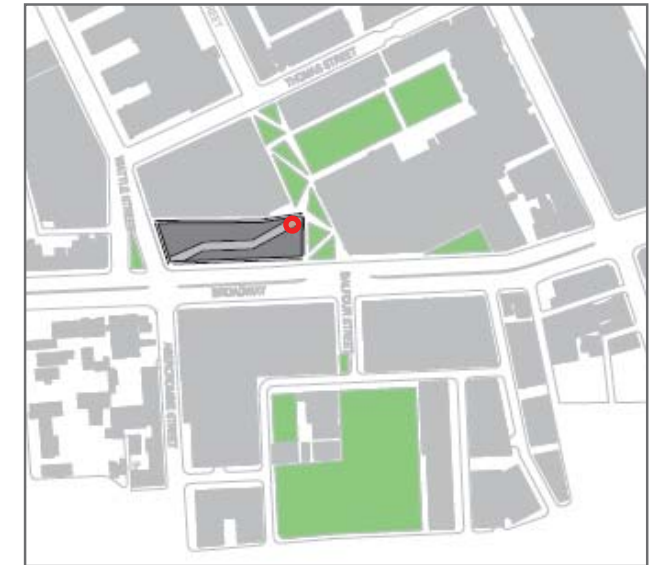
The areas identified for landscape treatment are the Arcade and Public Domain on street level and the Green Wall to CB10.



Arcade



Public Domain



Green Wall

2.1 ARCADE

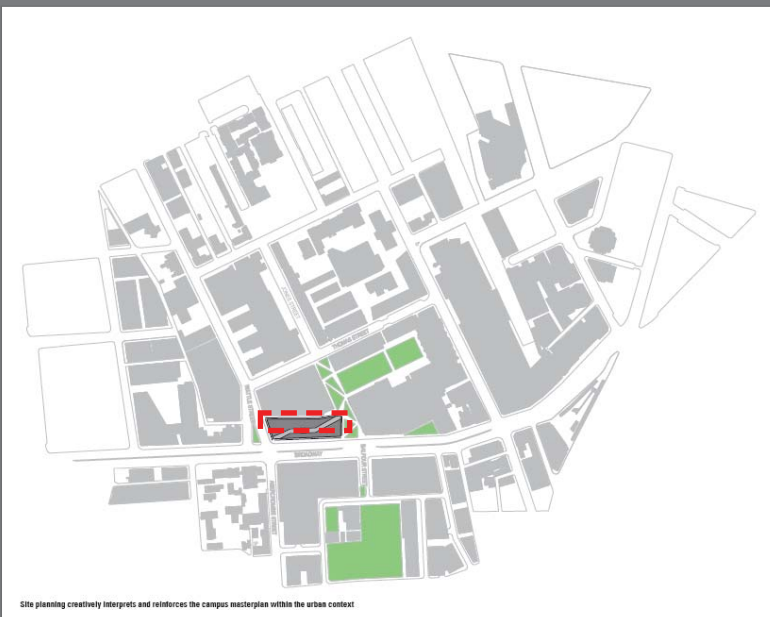
The Arcade lies between Building 10 and the proposed building that serves as a pedestrian link between Wattle Street and Jones Street. It has a number of active frontages to both Building 10 and the proposed building that will encourage the use and enjoyment of the space.

Central to the space are located 10 semi mature trees, of a suitable species that will tolerate the environmental conditions of the arcade. These trees will form the main landscape component of this Arcade with opportunities for vines to be located on stainless steel wires around the windows of CB10 towards the Jones St end of the Arcade.

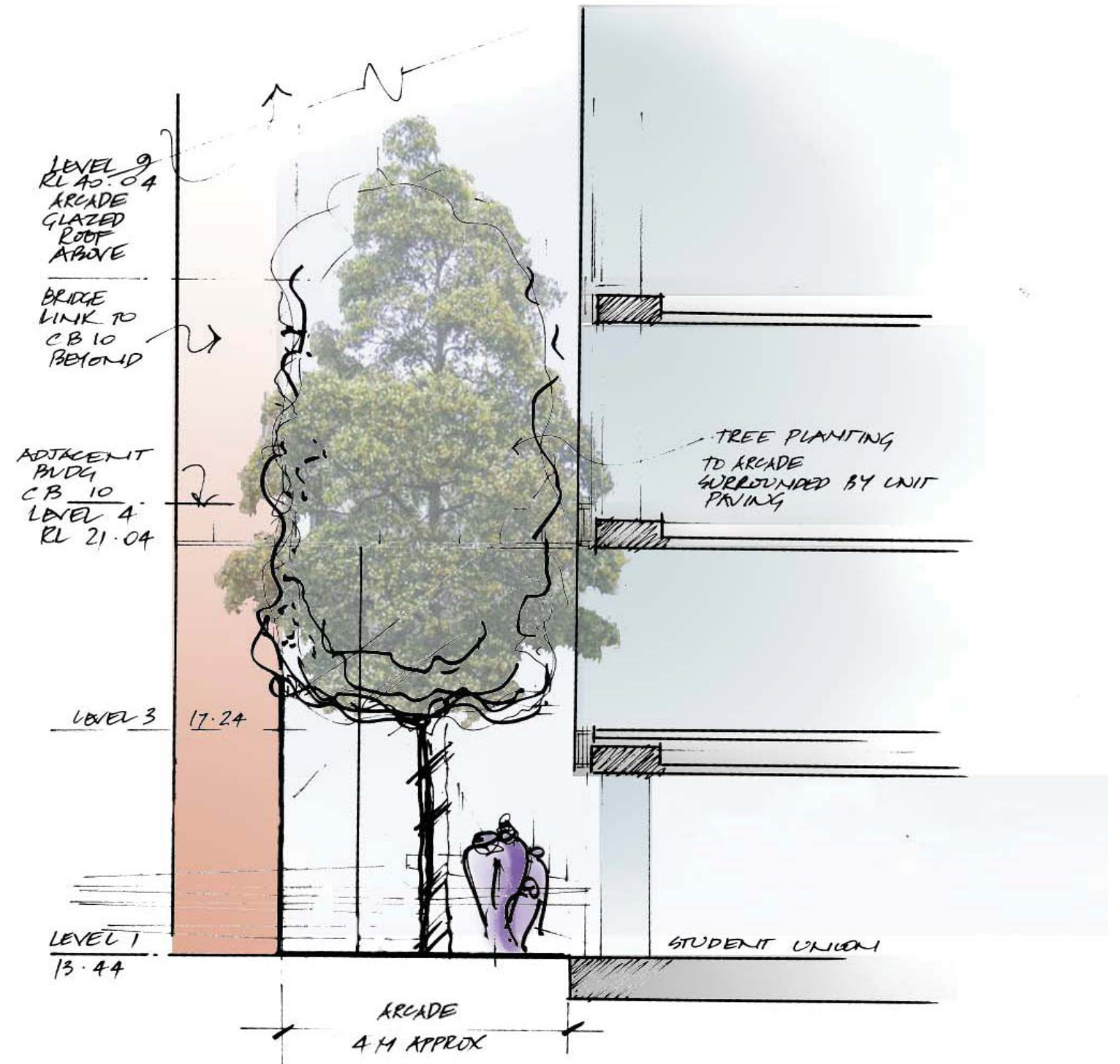
Options for Arcade Trees, such as *Hymenosporum flavescens* (Native Frangipani), *Cupaniopsis anacardioides* (Tuckeroo), *Ficus benjamina* (Weeping Fig), are under review and a final selection will be part of the further development of the landscape design.

The trees' mature form is expected to be in the order of 8 -12 metres in height with a high and open canopy. The trees have the positive effect in filtering airborne particulates, reducing the effect of wind through the space by introducing a physical element that creates friction through the space, absorb CO2, provide shade during the middle of the day in the summer months (the Arcade is in relatively deep shade in the winter months) and creating an important aesthetic element in creating a form that leads the user through the space from the respective public domains on the east and west of the site.

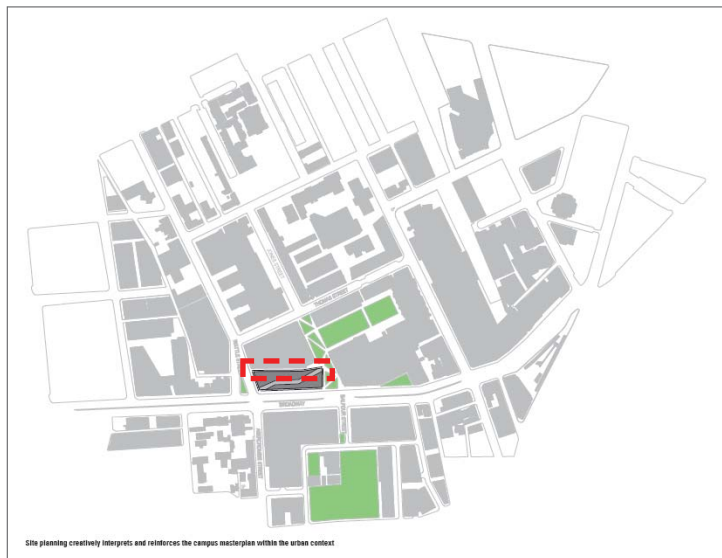
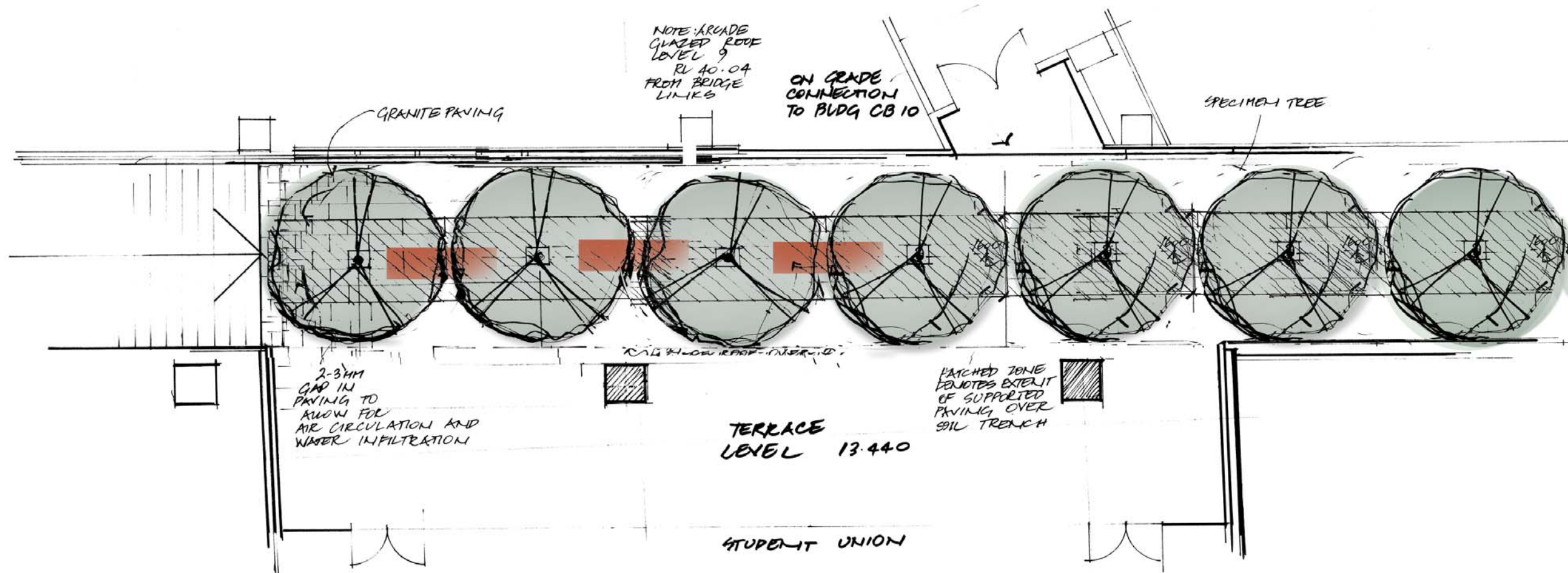
Soil volume for the trees to establish into will be by means of a planter that is 1600mm wide, 1000mm deep and extends the length of the tree avenue. Soil volumes are critical for the longevity of the trees to avoid drying out of the soil and nutrient exhaustion. Drainage and air exchange of the soil are also critical for good plant development and health. The 1600mm wide planter will have a porous surface that will allow oxygen exchange.



Site planning creatively interprets and reinforces the campus masterplan within the urban context



2.1 ARCADE



2.2 PUBLIC DOMAIN

The public domain for the site is extensive and wraps around the building on the eastern side (Jones Street) the southern side (Broadway) and the west (Wattle Street).

The footpath paving material to Broadway will be Granite (Austral Black) in accordance with the interim Sydney Streets Design Code - Draft November 2010.

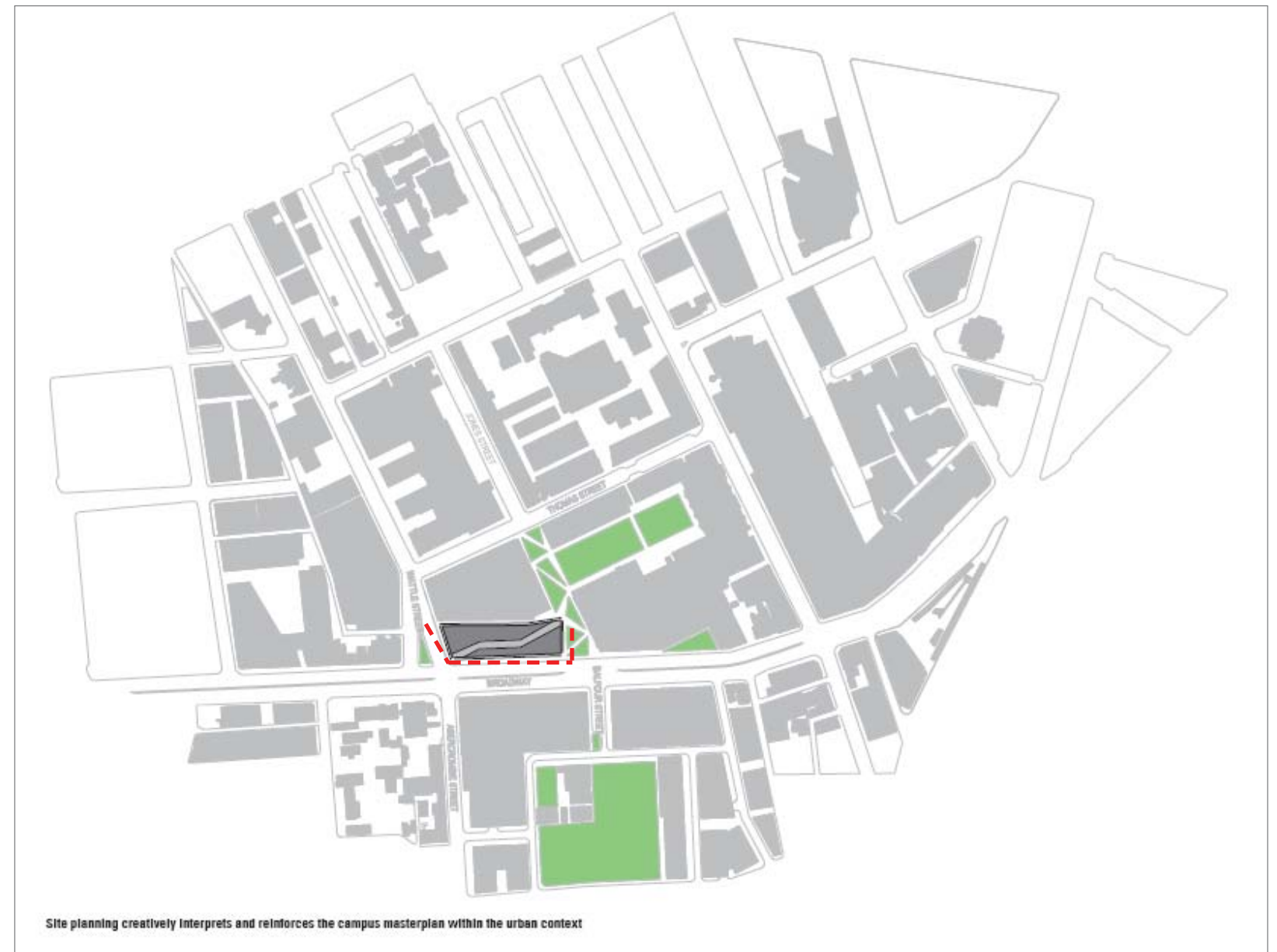
Asphalt surfaces along Jones Street and Wattle Street will be retained. The majority of the Arcade will be paved in Granite. Permeable surfaces around the vegetation will be provided.

The existing trees along Broadway are London Plane Trees, *Platanus X hybrida* a tried and tested urban tree that originated from present day Iran. These trees are known as London Plane Trees as they were one of a small number of types of trees that survived high pollution levels when London experienced high pollution levels in the 1950s.

The existing trees represent a substantial mass and therefore make a significant contribution in filtering airborne particulates, reducing the effect of wind along the street by introducing a physical element that creates friction through the space, absorb CO₂, provide shade during the middle of the day in the summer months while allowing for further light in winter through their deciduous framework and creating an important aesthetic element in creating a vegetated form to the highly urbanized area.

It is therefore suggested to retain the existing street trees along Broadway and extend this number with new trees in accordance with the City of Sydney Street Tree Masterplan Draft 2011 and the UTS City Campus Broadway Precinct EAR (2009) - The "Deverson Associates Landscape Report".

In accordance with these documents, additional street trees are also proposed for Wattle Street and Jones Street. While Jones Street remains a public street, the integration of this street into the overall layout of the UTS masterplan creates opportunities for the development of the landscape through maximising the vegetative cover and form in concept with the aims and objectives of the UTS masterplan.



2.3 EXTERNAL GREEN WALL

To the Jones Street end of the Arcade a Green Wall is proposed to the existing facade of CB10. The Green Wall provides both amenity and a test bed for the concept of Green Walls as biofilters. It would be understood that this installation could be adjustable to different types of plants, a range of quantities of plants, and other variables to measure and explore the role of plants in the reduction of toxins entering or accumulating in the atmosphere.

