ARCHITECTURAL DESIGN EXCELLENCE REPORT

DARLINGTON ROAD TERRACES - NEW MIXED USE BUILDINGS AND ADDITIONS + ALTERATIONS TO THE EXISTING TERRACES AND PUBLIC DOMAIN

FOR: STATE SIGNIFICANT DEVELOPMENT APPLICATION

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This report has been prepared by Allen Jack+Cottier and the University of Sydney. It addresses the proposed additions and alterations to the existing University owned Darlington Road Terraces and H66 Darlington House for mixed uses, integrating affordable student accommodation and other educational facilities. The report will outline the key aspirations that the project seeks to fulfill, and how they will be achieved through a design led approach.

CONTENTS

01 PREFACE

EXECUTIVE SUMMARY

This report provides an analysis of the proposed new mixed use buildings, and additions and alterations to the existing Darlington Road terraces and public domain. The development site is located along Darlington Road, Darlington NSW, within a key part of the greater University of Sydney campus.

The development will include the adaptive reuse of the existing terraces and the construction of four separate mixed use buildings within their rear yards, for use by residents and the wider University community.

The new three to four storey buildings add 145 dormitory style beds, associated common living facilities, and a mixed use of teaching and learning spaces. They supplement the existing terrace houses, which will be adapted to accommodate a further 192 residents in affordable accommodation. The development supports the increasing demand for student accommodation combined with in-house educational establishment facilities on or close to the University of Sydney campus.

Once completed the mixed use development will provide:

- 337 mixed single and twin dormitory style beds
- Lounge and Reading rooms
- Communal breakout spaces
- Communal cooking and dining facilities
- Education spaces, both for formal tutorials and private study
- A Lecture Theatre for general University use
- Meeting rooms and informal learning spaces
- A ‘Makerspace’ creative hub
- Music rooms
- Laundry facilities
- Waste and storage rooms
- Secure bicycle parking located in the neighbouring H66 Darlington House building
- An operator administration office and residential life office
- Central courtyards with soft and hard landscaping features
- Rooftop terrace with courtyard views
- 2 terraces dedicated as academic residences

This report will outline the key design principles adopted in the development of the scheme, and how the principles and objectives of existing government design guidelines are reflected in the proposal. Through this, the report will demonstrate how the development will achieve design excellence, and will contribute positively to its wider context.

The University of Sydney envisages the project as a unique opportunity to provide sustainable, equitable, enjoyable and affordable student accommodation and educational facilities in a way that will respond to the context and history of its place. The design seeks to create a comprehensive living and study environment, engaging residents directly with the University campus, and promoting a culture of creativity and respect.

GOVERNMENT ARCHITECT BETTER PLACED POLICY

The Government Architect of NSW has in 2016 published a draft policy outlining its objectives for achieving good design, titled Better Placed; A Design Led Approach: Developing an Architecture & Design Policy for New South Wales. With the Darlington Terraces project having initiated in 2014, prior to the release of the policy, much of the design process had occured prior to its taking effect. In light of this, the Design Report has been updated to best demonstrate how the principles of the policy are achieved.

The following summary lists the seven key principles of Better Placed, and demonstrates how the proposal achieves them. These principles will also be elaborated further within the Design Report.

1. Contextual, local and of its place

The proposal responds to its social, cultural and historic context primarily through the retention and amelioration of the existing terrace houses along Darlington Road.

Better Placed cites remembering the unique history of our built environment as an objective of future development. Retaining the terraces protects this important physical manifestation of Darlington, and Sydney's, history, and retains the integrity of the terraced streetscape that the houses contribute so strongly to achieving. The terraces' ongoing function as affordable student accommodation is sympathetic with their original residential function, thus also retaining the houses' historic purpose.

The building additions proposed on the site will provide a point of architectural contrast with the heritage aspect of the terraces, responding more directly to their own time and place. The mixed use additions will negotiate between the small scale terrace houses, and larger institutional scale buildings surrounding the site, and provide contemporary design contributing to the character of its surrounds.

2. Sustainable, efficient & durable

The proposal establishes a number of environmentally sustainable methods for providing electricity, reducing water use, and passively regulating its thermal environments. These include extensive photovoltaic cells for power generation, on site water retention for recirculation into the site, orientation and massing to maximise natural dalyight and promote air circulation, and extensive landscaping to provide more desirable outdoor spaces.

The refurbishment of the existing terraces, bringing new life to old building stock, contributes to the objectives of sustainable design and minimising material waste. The new mixed use buildings have been planned to promote easy circulation and flexibility of use. New building additions will be constructed of durable materials to reduce ongoing maintenance requirements.

3. Equitable, inclusive & diverse

The residential capacity of the terraces has been complemented with the educational facilities provided in the new mixed use buildings, to achieve a variety of purposes and functions across the site. This balance allows for a more diverse usage of the precinct, ultimately improving the spaces provided within and surrounding it.

Equitable access has been carefully incorporated into the challenging site, especially given the complexity of the terraces. The provision of affordable student accommodation contributes to the community by looking to relieve the pressure on students of the demanding financial burden often associated with this facet of tertiary education.

4. Enjoyable, safe & comfortable

The proposal provides a safe, pedestrian friendly social environment, and has been designed to create a sense of community amongst its residents. Generous interconnected communal spaces, both indoor and outdoor, have been provided to encourage social interaction and facilitate natural pastoral care. These spaces are supplemented by the more private student bedrooms, to allow students the comfort of their own personal space. The vertical planning of the proposal ensures the more public zones are located along the more accessible ground plane, with better connection to the wider University context, while dormitory zones are located typically on the buildings' upper levels.

5. Functional, responsive & fit for purpose

Better Placed identifies the importance of infill projects in providing new housing in urban settings. This infill development provides a sustaianable increase of the site's capacity using the existing scale and spatial arrangement to inform the new built form. The proposal provides a mixed use development, integrating accommodation, recreation and educational facilities, as set out in the initial brief. It will offer a convenient and enjoyable student living experience for its residents, reflecting the usage patterns of student life, while also contributing to the operation of the wider University campus.

6. Value-creating & cost effective

The investment in a rigourous design process will help to ensure that the proposal will offer elegant, functional and ultimately desirable spaces that reflect and provide for the lifestyle of students on campus. The proposed scale and density of the development successfully mediates between the high demand for student housing in proximity to the University campus, and how it can be achieved in a manner that is sustainable and compatible with the existing infrastructure of its surrounds. This is important in achieving a successful development to the benefit of all parties.

The scheme provides a level of compactness sympathetic to its urban context, provides flexible spaces capitalising on a strong connection between indoor and outdoor, offers a diversity of program to add depth to its use, and uses robust durable materials to ensure an investment in good construction and reduce ongoing maintenance.

The development proposes to implement ESD initiatives which will reduce ongoing operational costs and in turn pass on cost savings to students. This all contributes to ensuring the Darlington Terraces are a value-creating and cost effective proposal.

7. Distinctive, visually interesting & appealing

The design seeks to achieve a balance between the expression of the heritage listed terraces and the new mixed use buildings. By setting up a language of difference between the two, each element is read as a separate entity and thus appreciated for its inherent value. The terraces offer a point of difference both visually and functionally, and provide an historic and domestic-scale identity to the scheme. Conversely, the new buildings express a refined simplicity in form, and offer a permeable interface with both the public domain on Darlington Lane, and the generous linear courtyard separating the two building masses.

SYDNEY LEP 2012 DESIGN EXCELLENCE CRITERIA

The University of Sydney is committed to enhancing its campus precinct identity and the quality of the built environment within its context. Given this, the University conducted an architectural design competition at the project's inception in 2014, to satisfy its own and the City of Sydney's LEP 2012 Design Excellence Criteria. Further to this, the proposed design achieves Design Excellence in accordance with the criteria of the Sydney Local Environmental Plan 2012 - Reg 6.21 as follows:

a). whether a high standard of architectural design, materials and detailing appropriate to the building type and location will be achieved.

The design proposal successfully provides a positive living and study environment for a large number of students on a challenging site. From the outset of the design process, precedence has been given to the existing terrace buildings, with the houses being retained as student accommodation - a use sympathetic with their original residential purpose - and their street elevations remaining largely unchanged.

Scale and Massing - New construction is continuously informed by the established scale and language of the existing heritage houses. A continuous setback between the existing and new builds maintains the significance of the terrace houses, while providing solar amenity and ventilation to the buildings and a central linear courtyard running the length of the development.

Materials and Articulation - The structural rhythm of the new buildings is also established from the scale and patterns of the terrace facades, but interpreted using different materials to clearly identify them as new work. Expressed concrete framing forms a grid within which a high quality material palette including brickwork and glazing, set on varying planes, creates a contemporary and expressive facade articulation. This contrast in built expression between the Victorian-era terraces and new mixed use buildings celebrates the difference of the two styles and forms a lively dialogue played out in the courtyards running between them.

Connectivity - The design relies upon a series of gateway terraces; communal spaces that provide access to all pedestrians from Darlington Road. These entrances are complemented by access points in the new mixed use buildings from Darlington Lane. Internal connectivity is maintained by the central courtyard space, providing private outdoor recreation areas for occupants and mediating between the change in levels across the site. These internal and external communal zones encourage a sense of community throughout the development by activating the ground plane along the buildings' edges; offering areas for socialising and pastoral care.

b) whether the form and external appearance of the proposed development will improve the quality and amenity of the public domain.

The Darlington Road Terraces will undergo restorative works to bring them closer to their original condition. Entrance verandahs will be cleaned and new measures for accessible entry will be provided. The communal terraces along the street will encourage socialising and create a community environment along the length of the street. Apart from these minor changes, the street will remain unchanged as an exemplar of the Victorian terrace style.

To Darlington Lane, the new building works will vastly improve on the existing clutter of ad hoc fencing and shed structures that are presented to the Lane. The new mixed use buildings will complement the scale of University buildings to the south, while providing through-points from these campus buildings into the subject site. The proposal to create a shared zone of Darlington Lane will improve the safety of and access to the Lane.

An upgraded public park will be located on the Codrington Street edge of the site. The location of this park is sympathetic with the more public and highly trafficked nature of this part of the site as it nears the main University Campus. It provides open green space for all passers by to enjoy.

Through these above interventions, the development will improve the quality and amenity of the public domain.

c). whether the proposed development detrimentally impacts on view corridors.

The height of new buildings sits within the approved building envelope set out in the SSD6123Campus Improvement Program Consent (CIPC). This ensures that the new buildings remain below the ridge line of adjacent existing terrace houses and are thus not visible from Darlington Road.

d). how the proposed development addresses the:

i). suitability of the land for the development and,

ii). the existing and proposed uses and use mix

The site has been identified in the University's Campus Improvement Program, and remains consistent with the uses and scale set out in that consent. Located in close proximity to the University and Newtown town centre, the proposal is perfectly placed to provide an affordable and convenient student living experience. The consolidated site enables an infill development that successfully maximises density in this key location, with a total of 337 beds proposed between the terrace houses and new buildings.

With its proximity to the University, the new buildings will also provide a range of other uses, including meeting and tutorial rooms, a lecture theatre, learning spaces, music rooms and other creative spaces. These mixed uses will better embed the proposed development within the University, to contribute to the campus beyond the duty of providing accommodation; and thus better integrating its residents within the University community as a whole.

iii). any heritage issues and streetscape constraints

The Darlington Road terraces are heritage listed under the City of Sydney LEP 2012. In addition to this, they are listed as of moderate significance in the University's Campus Improvement Program, and recognised in the Precinct A - Merewether, Darlington Road Terrace Housing Assessment of Heritage Impact (HIS) as lasting examples of Victorian era terrace building. Through the retention and amelioration of the existing terraces, the proposal champions this significance, ensuring the longevity of the historic streetscape of Darlington Road. To the rear of the terraces, non original portions will be removed to provide a curtilage zone between the significant terrace buildings and the new mixed use construction to the rear.

The proposed new work is sympathetic to the existing terraces in accordance with the HIS:

The interpretation of the original subdivision pattern should be delineated in the new building at the detailed design stage.

This is achieved through the structural and material expression of the facades of the new mixed use buildings, as described under point a). Similarly, the proposed lower building heights of the new work give precedence to the existing terrace houses and ensure the Darlington Road streetscape remains in tact.

v). the bulk, massing and modulation of buildings and,

vi). street frontage heights

As previously described, the bulk and massing of new work is informed by and compliant with the CIP. This ensures the existing terrace houses are given precedence as the significant elements of the Darlington Road streetscape.

The linear courtyards running between the new and old buildings provide a separation clearly delineating the two, while offering a generous secure external space for the use of residents. This separation goes beyond the requirements of the CIP, and vastly improves both the aesthetic expression and environmental qualities of the development, providing better spaces to live in.

To Darlington Lane, the scale and massing of the new works provides a stepping stone between the Abercrombie Business School and the residential scale of the terraces.

vii). environmental impacts, such as sustainable design, overshadowing and solar access, visual and acoustic privacy, noise, wind and reflectivity

viii). the achievement of the principles of ecologically sustainable development

The predominantly northern aspect of the Darlington Road terraces enables any additions to the rear (southern side) of the lots to have minimal impact on adjoining properties, while there is also minimal impact to the educational buildings located further south. Side setbacks to adjacent privately owned terraces have also been provided to further minimise visual and overshadowing impacts. Material palettes and positioning has been designed to reduce excessive building reflectivity to the surrounding environment.

The linear courtyards running through the heart of the development ensure that campus open space and green zones are always in immediate proximity to the ground floor areas of the proposal. This building separation also ensures solar access to the northern facade of the new works, and a zone to promote natural cross ventilation through both the mixed use and terrace buildings. Integrated facade shading structures will assist in regulating internal environments, meaning bedrooms and communal spaces won't require air conditioning.

The introspective nature of these courtyard spaces provides sheltered outdoor spacs, and a level of acoustic privacy, with planting and landscape elements diffusing noise emanating from the development.

The development proposes to employ a range of environmentally sustainable measures. Rainwater will be collected from the roof of the new mixed use building and stored for on-site irrigation purposes. Solar water heating as well as photovoltaic cells for power generation are also proposed.

ix). pedestrian, cycle, vehicular and service access and circulation requirements, including the permeability of any pedestrian network

The proposal, with its proximity to the University and Newtown precinct, as well as its student demographic, will seek to promote walking and cycling over motor vehicle transport. The site itself will provide a level of permeability for residents via the three 'through site links' along Darlington Road; connecting well with the main campus to the north and Business School to the south. These entrance points open through communal terraces and onto the internal courtyard and mixed use buildings. Cycling will be encouraged through the provision of secure on-site bike storage at a ratio of 1:4 in the adjoining Building H66.

The development proposes to change Darlington Lane to a one-way shared zone, creating a safer pedestrian-friendly environment connecting the Abercrombie Business School with the subject site. This laneway will also serve as the primary service access to the site, with all of the proposal's significant service zones oriented to the Lane. In this way, the development has been designed to coordinate services in a manner which least impacts on the fabric of the terrace houses.

x). the impact on, and any proposed improvements to, the public domain, and

xi). the impact on any special character area

As outlined in point b), the proposed development will improve both the campus and public domain of its surrounding context by creating a connected, secure community environment linking into the greater context of the overall University campus, while simultaneously providing more private areas for residents. With the addition of publicly accessible courtyards and parks, as well as the proposed transformation of Darlington Lane to a shared way zone, the development will increase the amount of public space available to the wider community.

The development maintains the special character of the terrace streetscape through its retention and amelioration of the terrace buildings.

xii). achieving appropriate interfaces at ground level between the building and public domain, and

xiii). excellence and integration of landscape design

The interface of existing terraces with the public domain remains largely unchanged in the attempt to preserve their collective terraced streetscape. Their traditional front gardens and verandahs are thus retained. Within the site, the linear courtyards are an integral part of the design, forming continuous outdoor recreational spaces, and a connecting spine across its length.

Darlington Lane will offer entry points to the development along its length, expressed through building setbacks with landscaped buffer zones. The retention of a significant tree to the eastern end of the development will provide a large external landscaped courtyard that will act as a gathering space. At the Codrington Street end, a public park is incorporated into the development to seamlessly blend the proposal into the more highly trafficked zone of the locale.

The landscape design will also seek to incorporate a series of design principles as part of the University of Sydney's Wingara Mura Strategy, in an attempt to recognise and include Aboriginal culture and story within design. The gathering spaces, planting choices and graphics incorporated throughout the development will evoke Aboriginal values and art. These elements will provide a counterpoint to the Colonial heritage represented by the terrace houses.

UNIVERSITY OF SYDNEY CAMPUS IMPROVEMENT PROGRAM

The Campus Improvement Program (CIP) is a a strategic concept plan established by the University to ensure thats its future growth is of the highest quality, and will contribute to its position as a world-class tertiary education institution.

Along with the Sydney LEP and Government Architect's Better Placed, the principles set out in the CIP were integral to the design development of the Darlington Terraces project. They have been summarised below, and will be developed further in the later sections of this report.

Connectivity, outdoor space and campus legibility

The site presents an extensive perimeter establishing various relationships between itself and the public domain. Retaining the terrace houses maintains the heritage significant streetscape to Darlington Road, which will be residential in scale and activated by the lifestyle patterns of its residents. To the south, the new mixed use buildings will create a grander, more public interface that connects the site into the campus, providing auxilliary education spaces and clearly identifying the proposal as part of the University precinct. The eastern edge will offer a park for public use, enhancing the existing pedestrian thoroughfare along Codrington Street.

Within the development itself, the provision of large communal spaces on the ground plane creates a fluid connection between indoor and outdoor space. This permeable ground floor plane creates opportunities for social interaction, and establishes a pragmmatic heirarchy of space where the more private dormitories are located above them; creating a vertical filtering of public to private zones.

Axes and Vistas

The proposal conforms to the specified height limits for new buildings on the site as prescribed in the CIP, in order to maintain the visual curtilage to and character of the terrace houses as viewed from Darlington Road. The new buildings located along Darlington Lane will greatly enhance the public domain. Currently a forgotten services access point, the lane will be upgraded to become a safe, pedestrian friendly extension of the University campus.

Precinct Identity

The site will consolidate its existing function as a key student accommodation facility within the Mereweather Precinct, while its additional mixed use functions, mainly on its southern facade, provide an increased permeability further integrating the development as a contributory part of the campus.

External Micro Climate, Natural Daylight

The proposal has been designed to minimise overshadowing of neighbouring properties by locating new buildings as far to the south of the site as possible. The proposal's predominant northern orientation, and the establishment of a central linear courtyard between the old and new, alloe natural daylight and solar access to both communal outdoor space, and the communal indoor spaces which connect to them. The building massing and landscape design promote a secure and comfortable external climate within the courtyard spaces.

Built Form

The HIS notes the importance that "the new buildings at the rear are subservient in height and bulk to the original terrace houses," and the proposed scheme has been designed in line with this recommendation. The orthogonal new mixed use buildings provide a stepped transition between the terraces and the larger bulk of the Abercrombie Business School further south. The building separation between the terraces and new buildings creates a linear, sunlit courtyard which will act as a socialising space and mediating pedestrian link; and in many ways defines the character of the proposal.

Social Impact

The proposal's mixed use functions will promote an integration of University facilities, mixing student accommodation with more traditional educational functions, and encouraging a broader human engagement with the site. The integration of recreation, education and residential zones will promote a positive community environment of openness, and create a safer place to live and study.

Sense of Place

The character of the Mereweather Precinct is enhanced by the retention and renovation of the terrace houses. They become the iconic aspect of the proposal , while the southern facade establishes a strong connection with the Abercrombie Business School adjacent.

Building Typology

The development proposes a mixed use of building functions as prescribed by the CIP, to create a vibrant and varied campus experience. The new buildings will be of robust construction and employ durable, low maintenance materials, like off form concrete, to ensure efficient ongoing maintenance.

Functional Planning and Zoning

Generally, the most public spaces have been located on the ground plane of the development, to provide easily accessible communal spaces with fluid connections between indoor and outdoor. Above these, the dormitory zones are reached via prominently placed stairways, clad in expansive glazing, encouraging their use over lifts. The more private zones of the development are thus located on the upper levels, in a vertically escalating heirarchy of public to private.

The Darlington Lane address will house the majority of service rooms and access points, to minimse their impact on the terraces and north-facing communal spaces of the proposal.

Security

The linear courtyard and permeable ground plane provide a point of visual access throughout the proposal, facilitating effective passive surveillance and encouraging social behaviour. Similarly, this secure, introspective communal space seeks to contain noise pollution and visual glare, with soft planting acting as a buffer diffusing emanating sounds.

Design for crime prevention has been further described later in this report.

Building Fabric

The building fabric has been considered for its 'whole of life' implications. Durable, low maintenance materials have been selected, and the retention of the terraces can be interpreted as an act of 'recycling'. Buildings present a permeable ground floor plane to activate an indoor/outdoor relationship.

Heritage Assets

A Conservation Management Plan has been prepared and referred to consistently throughout the design process. The heritage fabric on site will be retained and restored, while new works will be set back from the existing building fabric to preserve their significance.

Internal Space Planning

Additions have been planned to promote cross ventilation and intuitive

pedestrian movement through the site. Public spaces are located on the ground plane while the more private zones are typically located on the upper levels.

Building Services Planning

Building services have been designed as an integral part of the proposal. The majority of services have been located on the site's southern boundary, accessed via Darlington Lane. Roof plant zones on the new buildings have been designed to have a minimal visual impact on the surrounding area.

Landscaping

Landscape design has been integrated into the scheme and, as in the case of the central linear courtyard, often form the most significant aspects of the proposal. The Landscape Design Report, prepared by Oculus Landscape Architecture and Urban Design, outlines a strategic vision for the implemenatation of landscaping throughout the development. Design principles considered in the landscape design include:

- Sustainability
- Identity
- Maintenance
- The University's established Landscape Design Elements
- Planting Principles

Heritage Principles

The CIP has identified areas of the subject site appropriate for development, and the proposal has contained additions to the site within these envelopes. The existing heritage terraces are retained and conserved as an integral part of the proposal.

Flooding Controls

A flood assessment has been undertaken and the design has been carefully considered to mitigate any negative flooding impact according to the recommendations of the study.

02 CONTEXT

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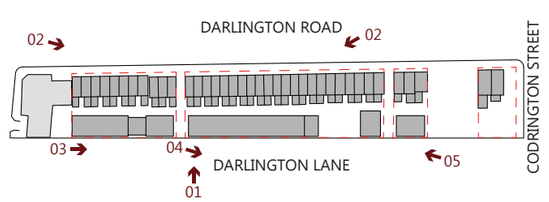
01 - View from Business School looking north towards site and Darlington Lane

02 - Views from Darlington Road looking south-east and south-west to existing terraces

03 - View of Darlington Lane looking east to site from H66

04 - View east down Darlington Lane. Right: the improved public amenity provided by the University's Abercrombie Business School streetscape. Left: the ad hoc fence to the rear of the terrace properties

05 - View west up Darlington Lane from Codrington Street



LOCATION AND CONTEXT

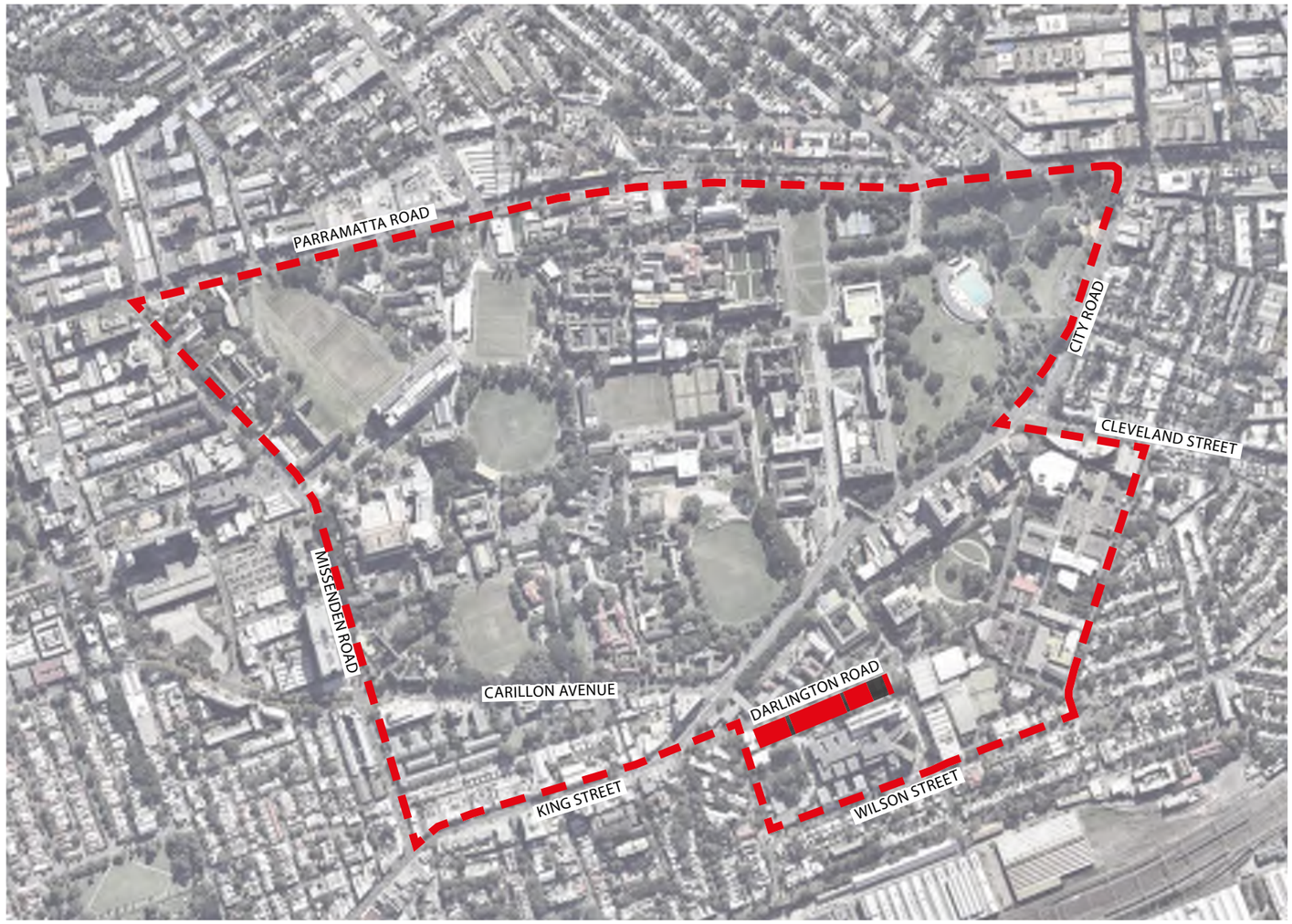
The site consists of a row of 38 University owned late-Victorian heritage terraces, with rear gardens backing onto Darlington Lane. The site is separated by seven privately owned terraces dividing it into 4 separate parts. The privately owned terraces include 88-93, 97 and 120 Darlington Road.

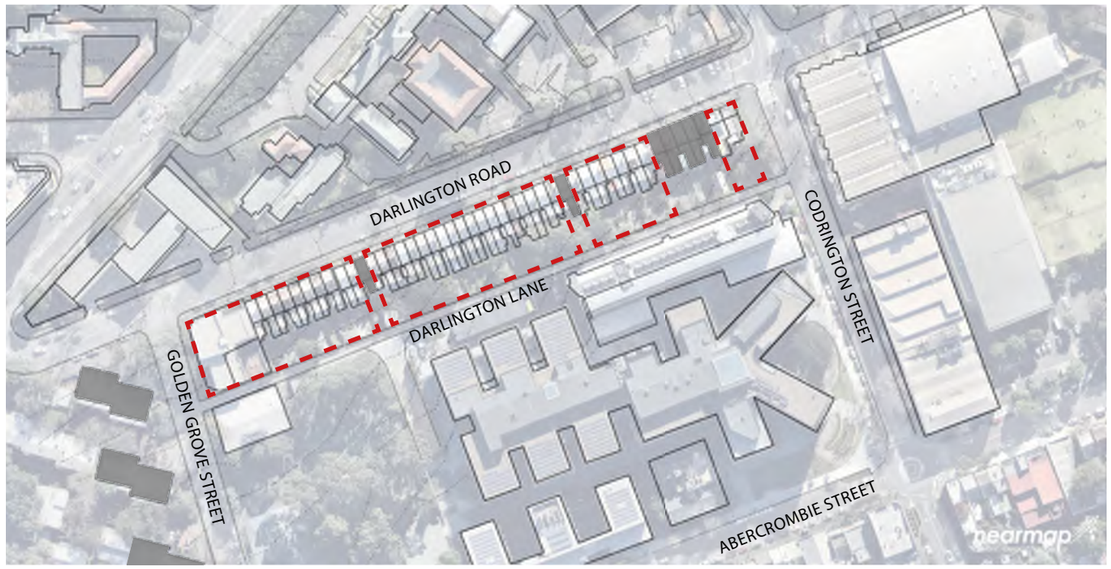
Located in the Merewether Precinct of the Darlington Campus, the site is bound:

- To the north by Darlington Road, an important and well preserved Late-Victorian urban streetscape;
- To the south by Darlington Lane and the new Abercrombie Business School;
- To the west it is book ended by Darlington House, and;
- To the east by the intersection of Codrington and Butlin Avenue.

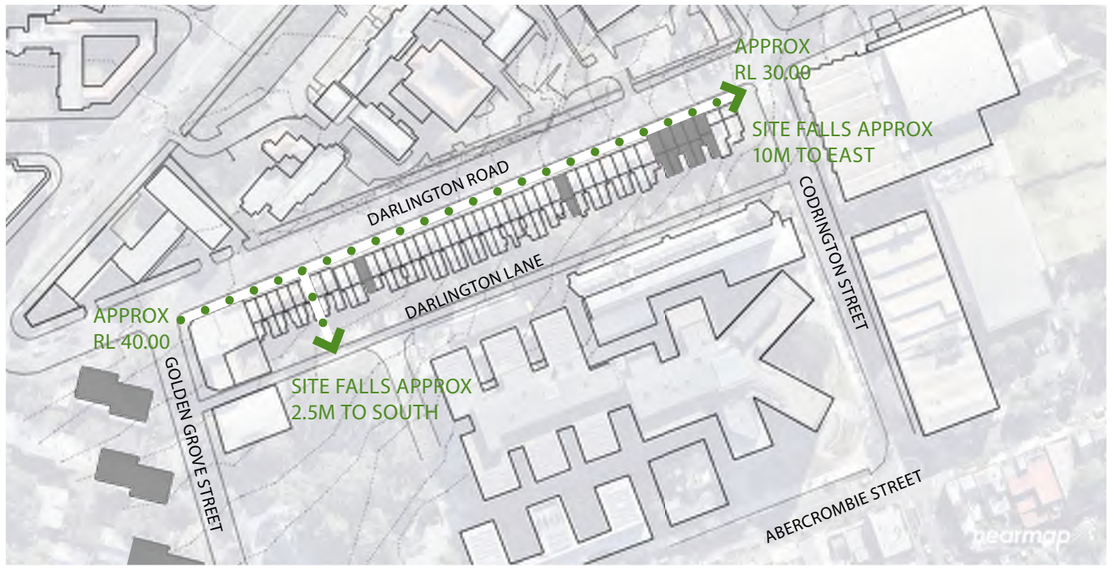
Due to its containment within the main campus and King Street, Newtown, the location of the proposed development will be supported by nearby retail, food and beverage outlets. Its realisation will in turn support economic activity in the area. As well as this, the location offers direct access and connectivity to teaching and learning, study and meeting facilities with the adjoining new Abercrombie Business School, as well as proximity to the Darlington and Camperdown campuses.

The site today presents as a consolidated row of terrace houses with a northerly aspect facing onto Darlington Road, which falls approximately 10m from west to east. The terrace houses, formerly individual properties, repeat in mirrored pairs along the street. There are various ad hoc additions to the rear of the terraces. The rear yards are composed of hard-stand paving, gardens and shed structures.





01 EXISTING CONDITIONS



02 TOPOGRAPHY

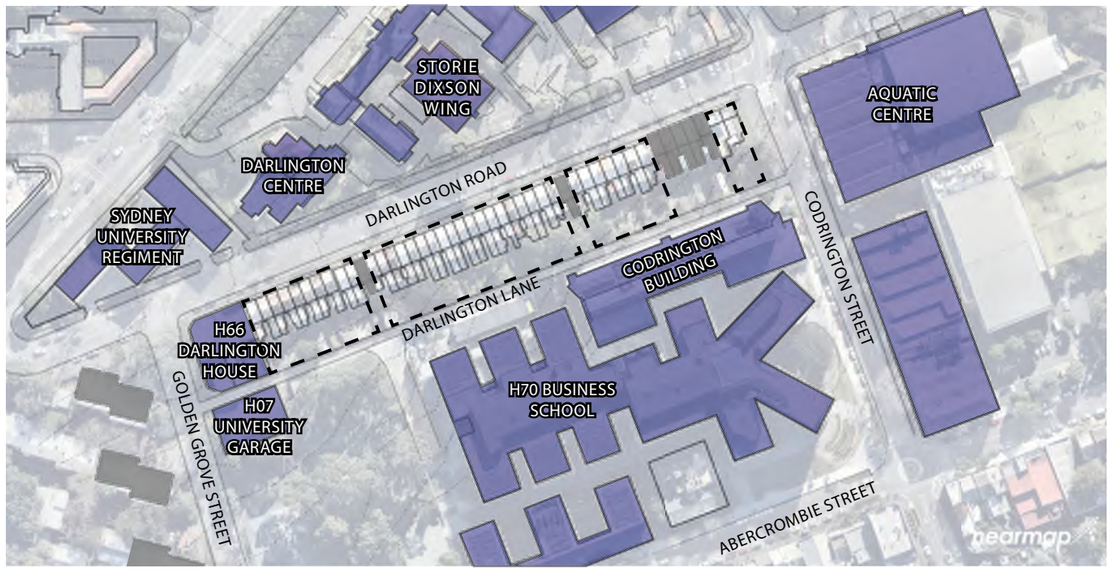
HERITAGE

The subject site is located within Eora Country, the Aboriginal nation located on the coastal regions of present-day Sydney. More specifically, the Cadigal band of the Eora nation are the traditional owners of the area today known as Darlington and the surrounding University of Sydney campus.

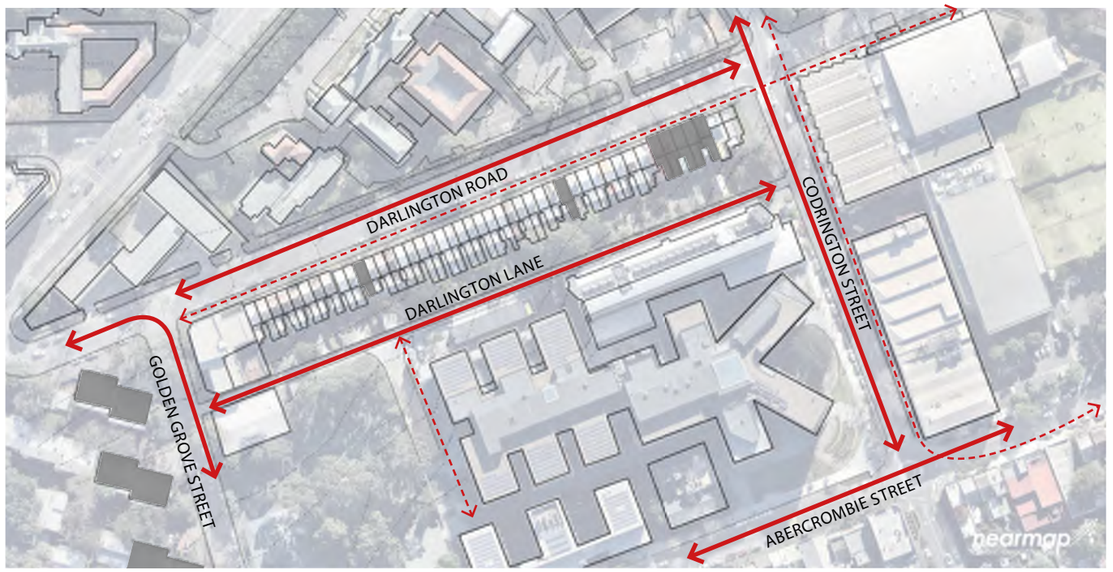
The terrace properties making up the subject site are listed as local heritage items in the City of Sydney LEP 2012. Both their aesthetic harmony and consistency, and ability to represent the working class expansion of the late Victorian period have been classified as significant. The listing requires that that a Heritage Impact Statement or Conservation Management Plan be prepared prior to any major works being undertaken. As per this requirement, both a Heritage Impact Statement (HIS) prepared by Ian Kelly Heritage Consultant, and a Conservation Management Plan (CMP) prepared by Tanner Architects, have been commissioned and consulted to better inform the design process.

The Darlington Road precinct offers a surviving example of the Victorian era terraces originally associated with the Golden Grove estate and nearby Eveleigh Railway Workshops. Once the predominant housing type in the area, over time the terraces have made way for newer developments of differing scale and purpose. In line with the recommendations of the LEP and HIS, the terrace houses will be retained and preserved, with no vertical additions and only minimal alterations to the rear of the houses; areas of lesser heritage significance.

The University views reflecting and remembering the unique history and heritage of our built environment as a vital part of future development. The retention and readaptation of the terraces in this proposal champions the architectural and cultural significance of these built forms.



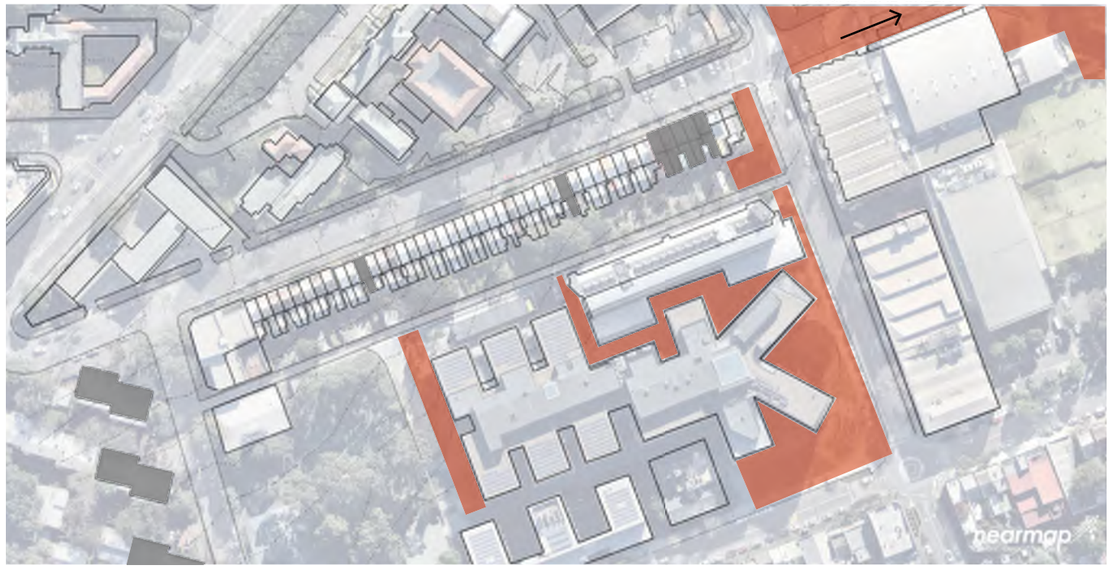
03 PRECINCT IDENTITY - Terraces located amongst predominantly institutional buildings



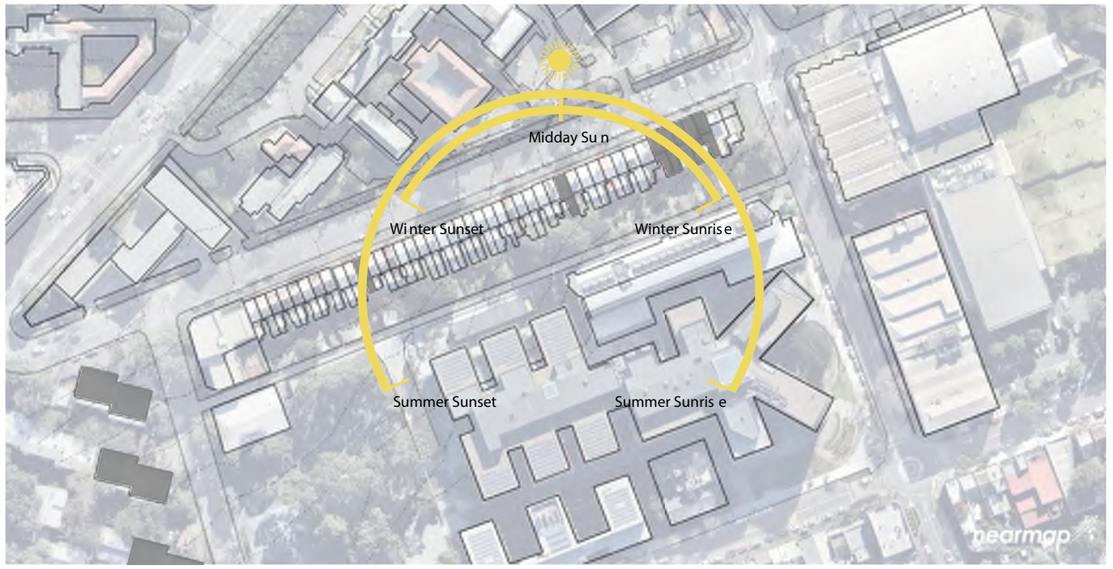
04 CONNECTIVITY / CIRCULATION

Vehicular

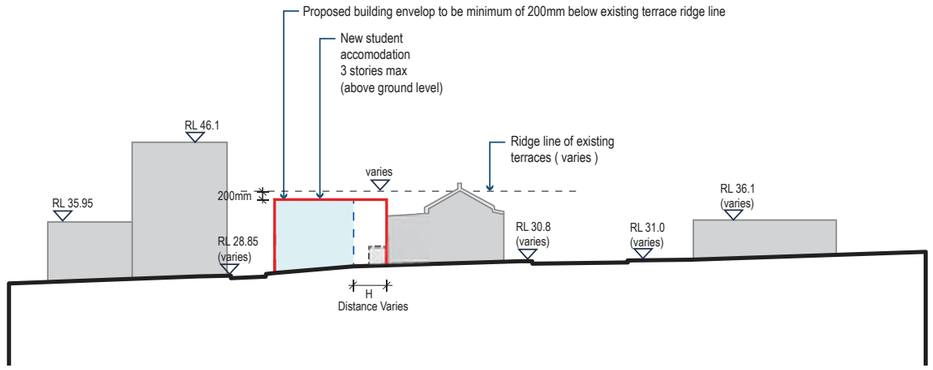
Pedestrian



05 EXISTING UNIVERSITY PUBLIC DOMAIN - The site anchors an existing public domain link to the east



06 SOLAR ORIENTATION - The site benefits from generous northern exposure



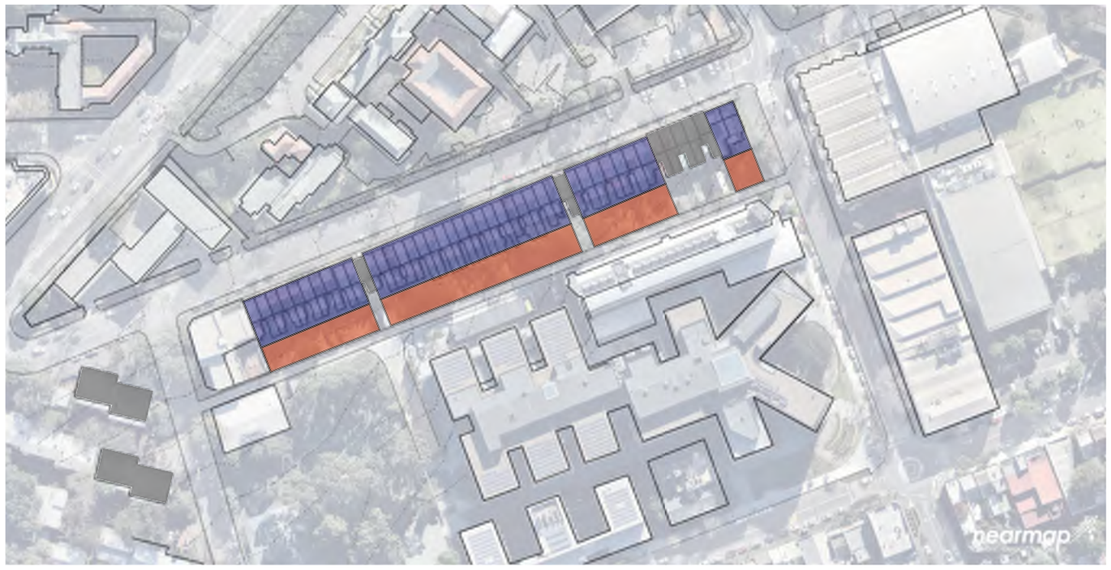
CAMPUS IMPROVEMENT PROGRAM: SSD-H-12

DARLINGTON TERRACES ELEVATION FROM CODRINGTON STREET PROPOSED

CIP ENVELOPE AND HEIGHT

The Campus Improvement Program (CIP) consent (SSD 13-6123) establishes urban design principles which have informed precinct building envelopes, their inter-connections with surrounding streets and public domain, and the environmental impacts they generate on the surrounding context.

The heights of the proposed new buildings remain within the envelope set out by the CIP. As per the consent, any proposed buildings will lie 200mm below the ridgeline of the existing terraces immediately in front. This ensures that all new buildings will not be visible from Darlington Road; preserving the existing visual presentation of the terraces and the overall streetscape of Darlington Road.



07 BUILDING HEIGHTS

CIP BUILDING ENVELOPES

EXISTING TERRACES

03 DESIGN PRINCIPLES

BRIEF

The design brief includes:

- The adaptive reuse of the existing Darlington Road terrace houses, including the demolition of the later ad hoc skillion roof additions to the rear.
- The construction of a new suite of mixed use infill buildings at the rear of the terrace houses, backing onto Darlngton Lane. These will consist of affordable student accommodation combined with a range of educational facilities and recreation spaces.
- Extensive landscaping improvements within the site, and to the surrounding public domain.

DESIGN EXCELLENCE

In providing this much needed student accommodation project, the goal is to achieve a design that responds to both the brief, the character of its location and environment, and the development's impact on neighbouring properties. Within this, we wish to create social and interactive spaces for living, employ sustainable development initiatives, and positively contribute to the greater University campus.

From the outset, the retention of the terraces has been a vital component of the design, and the proposal seeks to champion their presence as the anchor point of the whole scheme. The terraces are seen to enhance the overall quality of the development, offering a point of difference both visually and functionally, and providing an historic and domestic-scale identity to the scheme.

The significant design challenge in this project was successfully incorporating the new mixed use buildings into the site in a manner complementary to the existing terrace houses and neighbourhood. The primary solution was to create communal courtyards that provide a buffer and direct outdoor connection between the old and new buildings, which flank either of their long edges. These courtyards also provide:

- a central base for way-finding and orientation;
- a direct link to the gateway terrace entrances;
- outdoor recreational and educational spaces, meeting places and a hub for the exchange of ideas and study;
- a visual link to the internal communal spaces in the old and new building works, such as kitchen, dining and study spaces;
- a place to mediate the significant level changes between old and new, and longitudinally across the site.

There are three linear courtyards, running across the site and separated by non-University owned terraces. The courtyards directly connect to an equal number of gateway terraces; communal entry points and gathering hubs. The mixed use buildings are designed to open seamlessly out onto the courtyard spaces.

MASSING AND BUILDING ENVELOPE

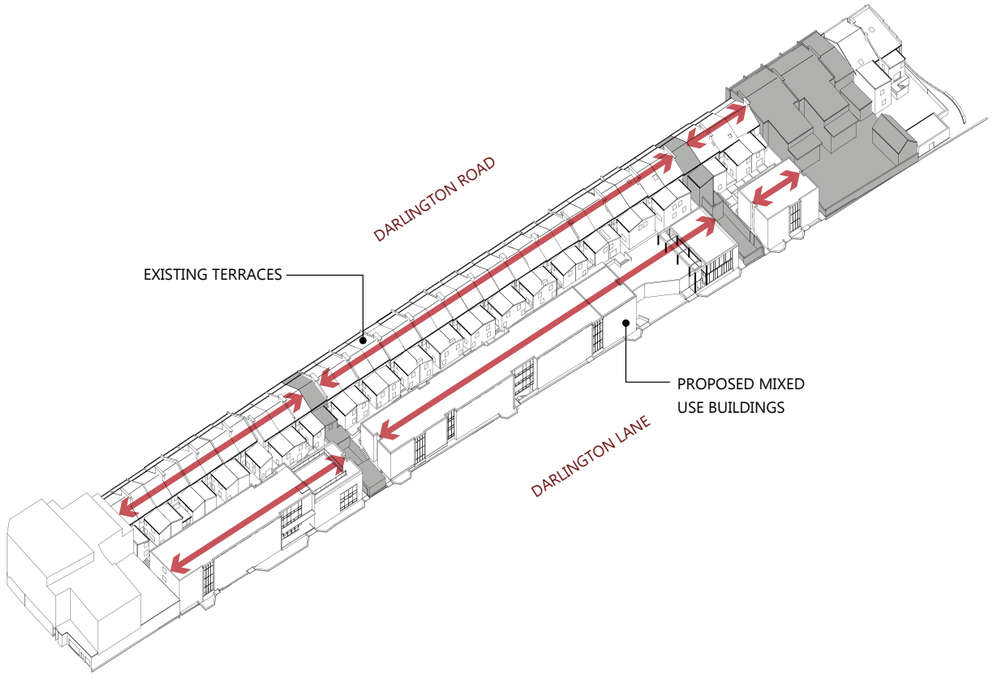
The Darlington terraces are retained, thereby keeping the existing fine scale and character to the Darlington precinct. The overall scale and massing of the terraces sets a precedent for the rest of the development. Predominantly internal interventions to the terraces link the houses into consolidated living zones, grouping new services to minimise any impact on the houses' street fronts. To the rear, non-original additions are removed from the terraces to formalise their rear aspect and provide an increased separation to the proposed new buildings.

The HIS notes the importance that any new buildings at the rear are 'subservient' to the original terrace houses, and the proposed scheme has been designed in line with this recommendation, their ridge heights never higher than the terraces immediately in front. The new mixed use buildings provide a transition between the terraces' finer scale and the larger bulk of the Abercrombie Business School further south.

The new, orthogonal forms of the mixed use buildings are broken into four blocks. Breaks occur at the private terraces along Darlington Road, and the location of a significant tree. The curtilage around this significant tree widens the central courtyard space into a gathering area. The visual length of blocks A and B are further reduced by recessed glazed breaks in their facades.

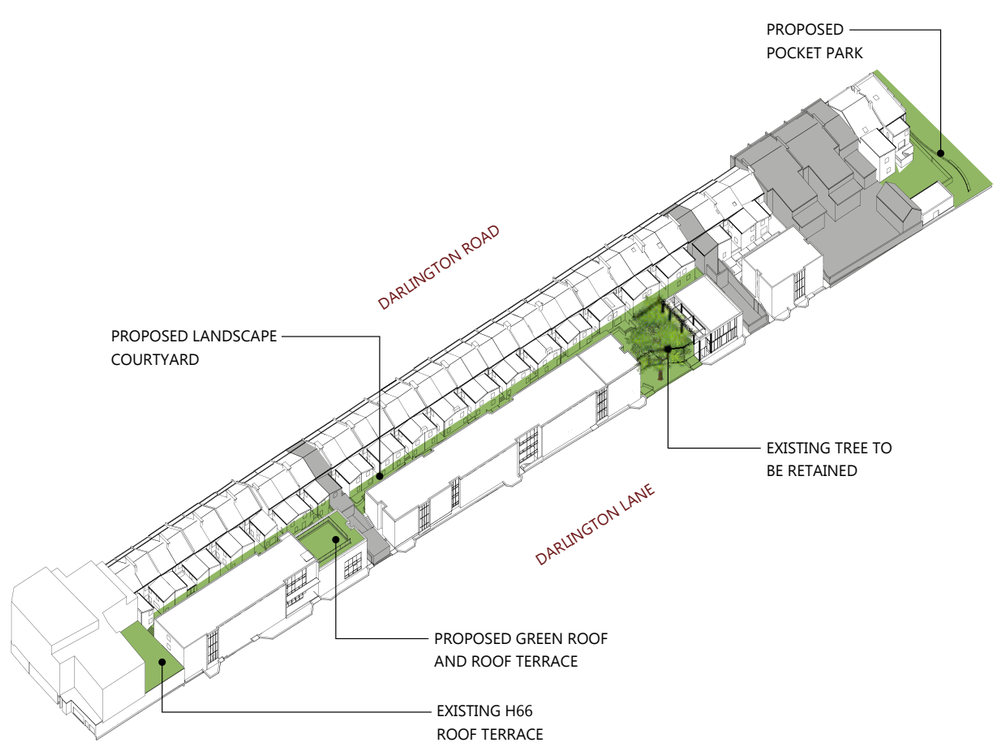
A linear courtyard zone located between the new and old buildings provides communal, secure outdoor space and building separation to increase visual amenity, natural ventilation and privacy between the buildings. The landscaping of these spaces has been designed to incorporate seating areas, open courtyards spilling out from internal spaces, planting and a ramped spine providing equitable access to key communal spaces along its length.

The entire development lies within the prescribed building envelope established in the SSD6123 Campus Improvement Program Building Envelopes. While the CIP permits construction right up to the rear of the terraces, a conscious design decision was taken to pull the new buildings away from the terraces, setting up a curtilage zone which has been consolidated into the central courtyard spaces. This move, while having functional benefits to the quality of living within the development through visual and spatial amenity, also places the significance and enjoyment of the existing terraces at the forefront of the design.



BUILT FORM - ALIGNMENT

New building alignment is informed by the existing terrace houses, respecting the existing form and fabric of these heritage items.



COURTYARDS

Provide a spine of outdoor common space for residents, connecting between old and new and across the site. Landscaping throughout these areas enhances the University precinct and within the site itself.

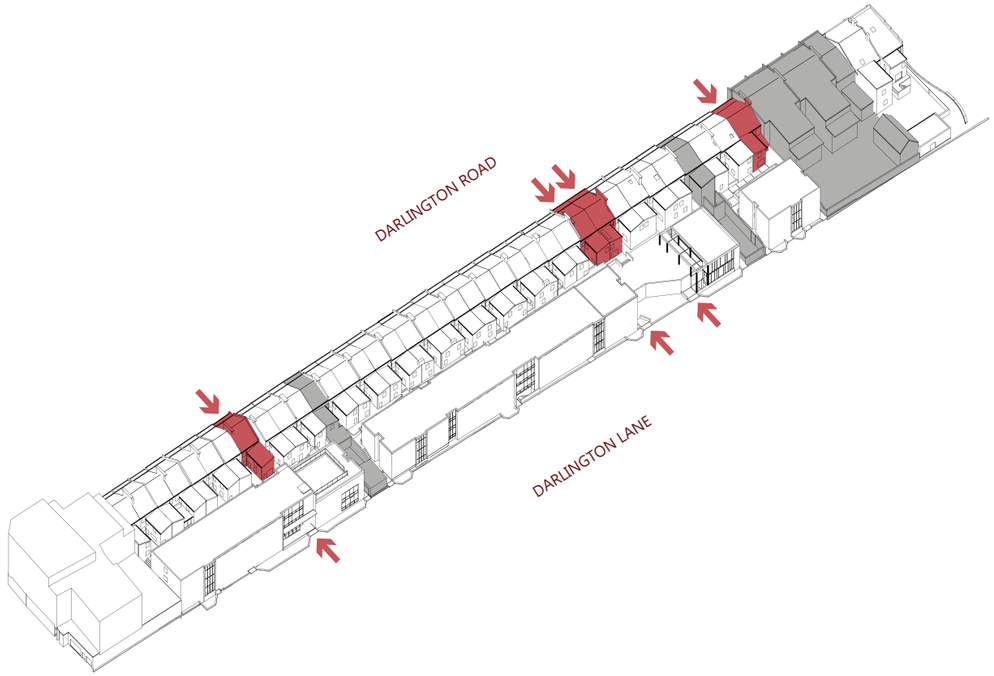
ACCESS AND THROUGH SITE LINKS

The proposal establishes a balanced approach to site access, from the north and south. The Darlington Road address ensures that its street frontage will remain vital and active. It will offer a point of difference by providing domestic-scale access points to the site for all students via the gateway terraces, through to the communal outdoor areas and the new mixed use buildings.

Darlington Lane will offer direct entry into the new mixed use buildings, and separate access into the educational facilities proposed on the site. To ensure safer access to pedestrians, it is proposed to change the lane to a one way 10km/h shared zone, which would provide a safer connection to the Business School and Abercrombie Street Student Housing.

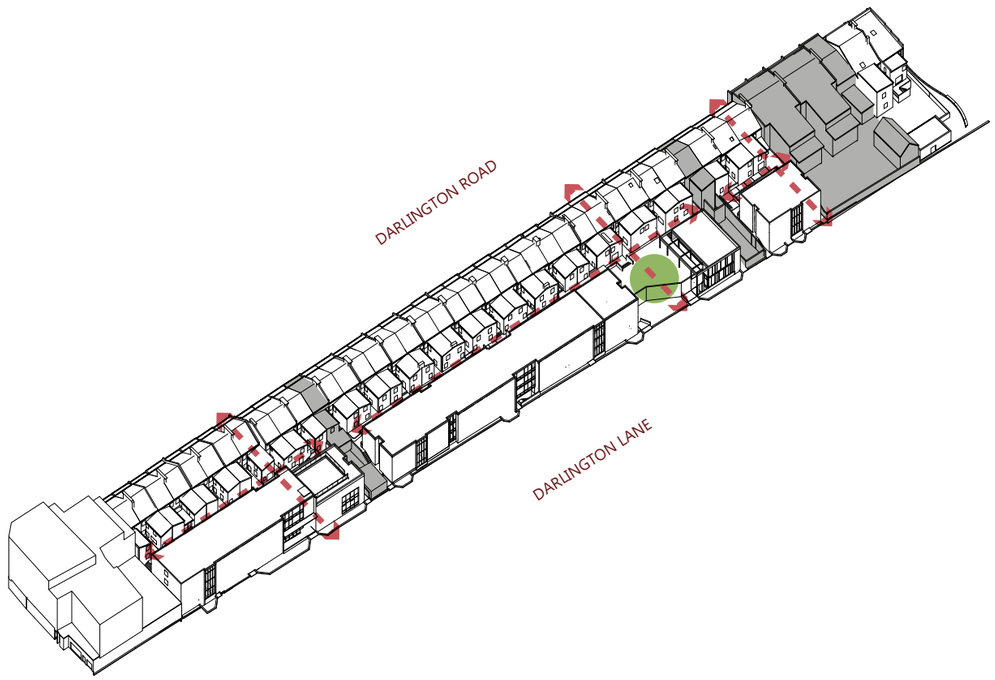
The precinct has been designed to provide a high level of connectivity to its surrounds, with various access points along each street facade. Pedestrian movement to and from the site is thereby encouraged, and facilitated by the site's ideal location. Bicycle parking has also been provided to facilitate access to and from the site. 88 bicycle parking spaces have been provided in the adjacent Darlington House, as well as a number of publicly available spaces along the development's edges and throughout the Darlington Campus.

The site's location, in conjunction with its proposed uses and high level of accessibility, will provide a compact, accessible development promoting environmentally sustainable and efficient living to its residents in line with the objectives of the Better Placed document (3.3.4).



COMMUNAL 'GATEWAYS'

These terraces form three gateways into the site from Darlington Road, mirroring principal entries from Darlington Lane



CONNECTIVITY

Internal and external spaces are connected through 'gateway' terraces and courtyards that create a transparency and porosity to the ground level. A significant tree to be retained will provide a central courtyard to the development, which will become its social heart.

IDENTITY, SETBACKS AND PRIVACY

The identity of the precinct will be defined by the relationship between the existing terraces and the new mixed use buildings to the rear, as well as the interactions of its student population with their living environment and each other. The project will offer a familiar, domestic presence to its Darlington Road, in contrast to the new, modern identity presented by its rear boundary. The design rigorously responds to its context, most significantly the history of the terraces, through a juxtaposition of built forms. This positive difference played out in the architecture seeks to evoke and encourage a diversity amongst its inhabitants, in a comfortable and safe context.

The proposed design provides a clear break between the old and new through the use of setbacks. The setbacks between the new building and the terraces step in accordance with the terraces' southern edge; with the average being around 5 metres. This continuous separation provides a variety of secure outdoor spaces, and the primary cross site circulation link. Landscaping is utilised to activate this space, provide privacy screening to lower bedrooms and create separation to adjacent neighbours.

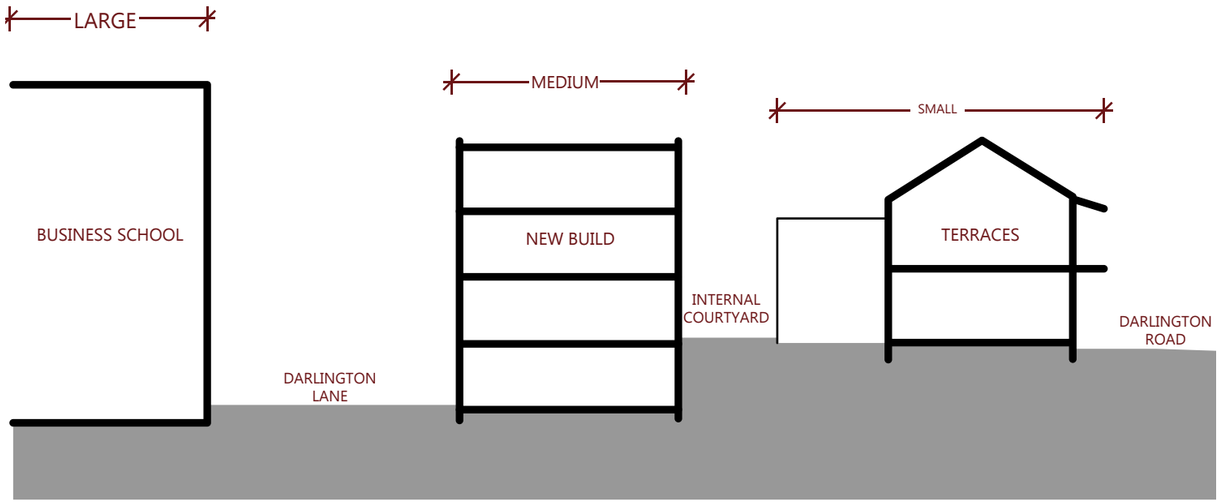
At either end of this interstitial space, the project presents contrasting faces to the public domain. The existing terraces, by their nature, do not provide any boundary setbacks from their neighbours. The mixed use buildings however, do not run to the limits of their side boundaries, providing on average a 1.5m separation to adjacent properties. This gesture decreases the visual impact of the new buildings, while increasing sunlight access, to these neighbours. To avoid overlooking to the non-University owned terraces, bounding walls are predominantly solid.

AXES AND VISTAS

The primary design response of aligning the proposed new buildings with the existing terrace houses maintains the longitudinal street axis to Darlington Road and Lane. Views to the terraces are undisturbed by the proposed new works thanks to the continuous curtilage provided, and the lower ridgelines of the mixed use buildings.

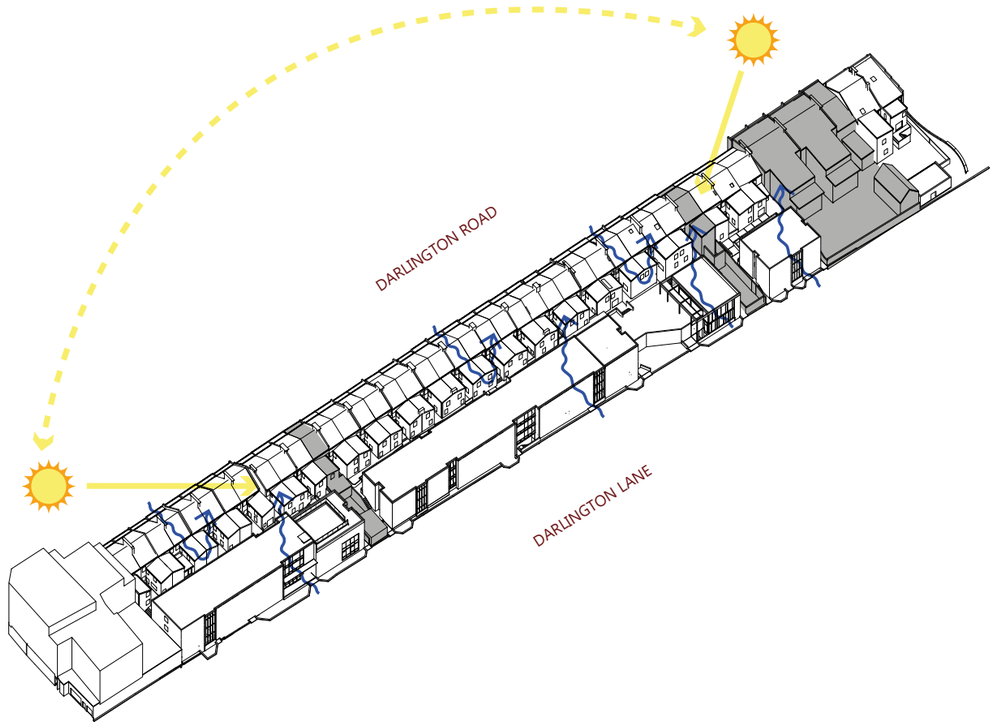
AMENITY

The building setbacks proposed in the design capitalise on the site's northern orientation to provide a double northern exposure. Both the terraces and new buildings have primary elevations facing north. The courtyard too will benefit from generous sunlight access, while encouraging natural cross ventilation from both building masses.



IDENTITY

The terrace streetscape to Darlington Road will be retained and rejuvenated. The scale and articulation of built form to Darlington Lane will mediate between the domestic scale terraces and larger institutional buildings to the south.



AMENITY

Internal linear courtyard provides a building separation to allow daylight to permeate deep within the development, while promoting natural cross ventilation through both building masses.

PUBLIC DOMAIN

With the efficiency and social advantages that compact development brings, there is a duty to provide public space which contributes positively to its surrounds. Better Placed cites great open space as a necessary requirement with significant new developments (4.3.5), and encourages innovative new ways of providing these spaces. The most significant changes to the public domain proposed by the Darlington Terraces development occur on its southern boundary. The future for Darlington Lane aspires to provide:

- a safe and friendly roadway with ;
- a pedestrian priority;
- deterrents to vehicular through traffic; and
- a connection to the Abercrombie Business School

Better Placed specifically refers to the street as public space (4.3.4), and Darlington Lane provides an excellent opportunity to improve the public domain through such design. Changing Darlington Lane to a one-way 10km/h shared zone has been proposed to achieve this. Limiting the speed and capacity for vehicular traffic with street calming furniture and planting will improve the visual amenity to the laneway, activating this previously neglected service zone into a new useable social space. It will connect the subject site to the Abercrombie Business School to the south with a safe and visually enhanced pedestrian link.

Retention of a significant eucalyptus tree between Buildings B and C provides a natural courtyard space directly off Darlington Lane, offering a gathering space for students about to attend classes in the Building C Lecture Theatre.

To the site's eastern end, on it's Codrington Street address, a pocket park has been designed for public use. This park will read as an extension of the existing campus environment, activating this edge of the precinct and anchoring the project into its greater campus context.

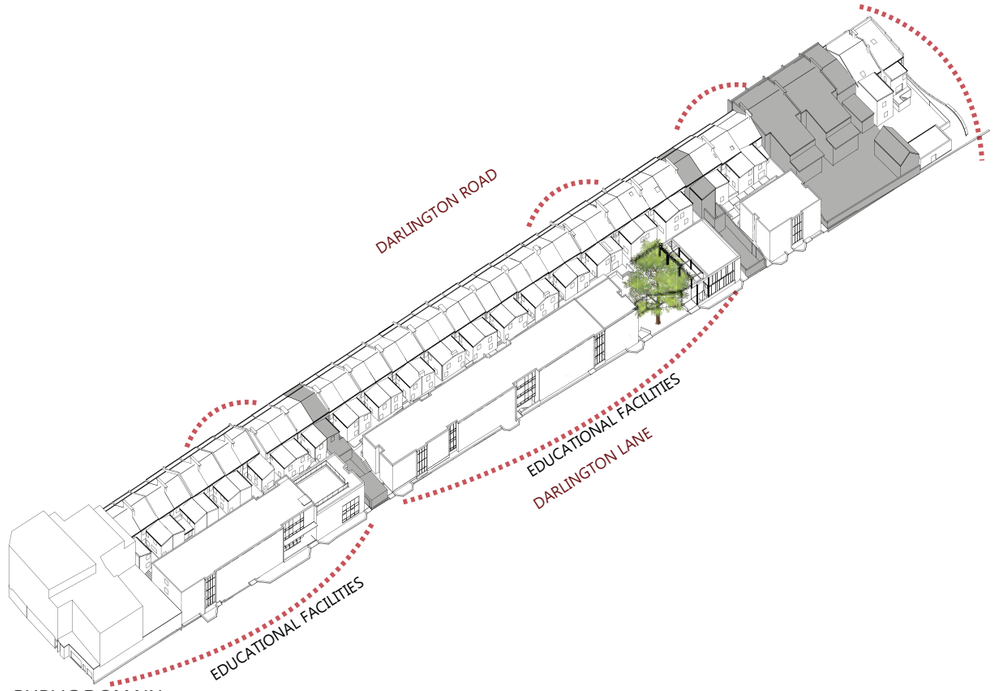
SERVICES

Services will be coordinated in a manner which least impacts on the fabric of the terrace houses and neighbourhood. In the terraces, wet areas have been consolidated into clusters to minimise the need for extensive plumbing and mechanical interventions. Where possible, significant new plantroom facilities have been located within the new building works.

A waste management solution has been established with the advice of a waste consultant. Waste rooms have been located within the new buildings to provide off street storage for garbage bins, out of sight from the street. All general waste and recycling will be collected directly from the respective storage rooms on Darlington Lane on designated collection days, which will be based around 7 days per week collection of general waste and 4 days per week for recyclables.

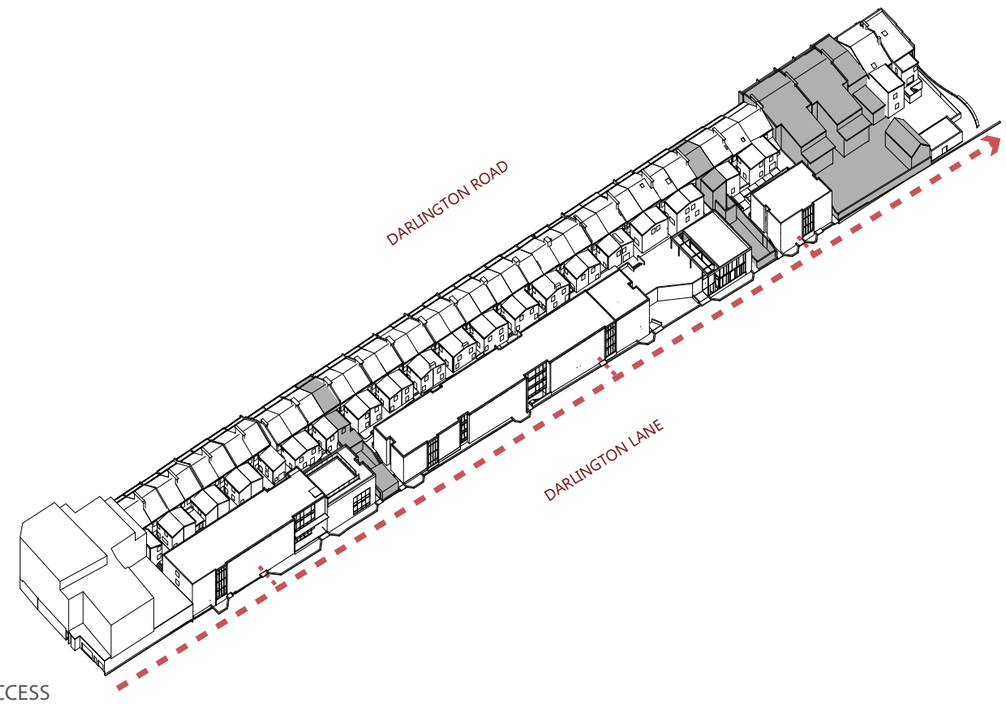
This process will be aligned with the University's collection timetable so that bins are brought back to each building as soon as practicable after collection, and returned to their respective storage rooms.

While the scheme proposes significant improvements to the quality of Darlington Lane, it will remain the primary access point for loading and services to the site. This strategy will mirror the Lane's use in relation to the Abercrombie Business School. As such its use will be dual purpose; as an important and pleasant link between the various parts of the campus, and as a functional artery for the proposal's ongoing maintenance.



ACTIVATION - PUBLIC DOMAIN

Darlington Lane will become a pedestrian friendly public space activated by residents and other University students. To the east a park will connect into the existing Codrington Street thoroughfare.



SERVICE ACCESS

Darlington Lane will become the point of access for all services. Locating these zones to the rear of the develop minimises both the aesthetic impact on the terrace houses and the traffic impact to Darlington Road.

FACADE AND BUILDING ARTICULATION – EXISTING TERRACES

The existing terraces will undergo careful restoration to both rejuvenate the streetscape and emphasize their heritage significance. Terraces will be repainted respectfully in line with traditional colour schemes recommended in the CMP, with groups of terraces adopting the same scheme to express the development pattern of the street. This expression of groups is overlaid upon the natural pairing of terraces through primary party walls and individual subdivision of terraces at the façade level.

Gateway Terraces are subtly distinguished using the richest palette available from the CMP. Essential works to provide equitable access are carefully integrated within their heritage context.

The rear of the terraces have a more utilitarian feel with simpler detailing and a different rhythm compared to Darlington Street. Rear additions are removed to restore original built forms, with paired projecting wings standing out strongly and deep slots running between. Major works are limited to create appropriate connections from the courtyard to gateway terraces and to groups of terraces. In order to draw a sense of unity between front and rear colour schemes are logically extended through.

FACADE AND BUILDING ARTICULATION – NEW BUILDINGS

A significant recommendation of the HIS and the CIP (Part B2 of the Conditions of Consent) was that "future built form within the Darlington Terrace building envelopes shall ensure that the original terrace row subdivision pattern is satisfactorily interpreted within its Darlington Lane elevation and does not appear as a single large built form mass".

The elevational treatment of the new buildings fronting Darlington Lane does not directly mimic lot separation lines but rather responds to the language of varied visual rhythm and scale found in the terraces - between front and rear, group and pair through to individual terrace detail like the rhythm of the window placements along Darlington Road.

The interpretation in the new buildings creates a deferential link between old and new, whilst establishing a framework that can express and celebrate the material and structural differences of the contemporary building with its crisp brick detailing and structural expression.

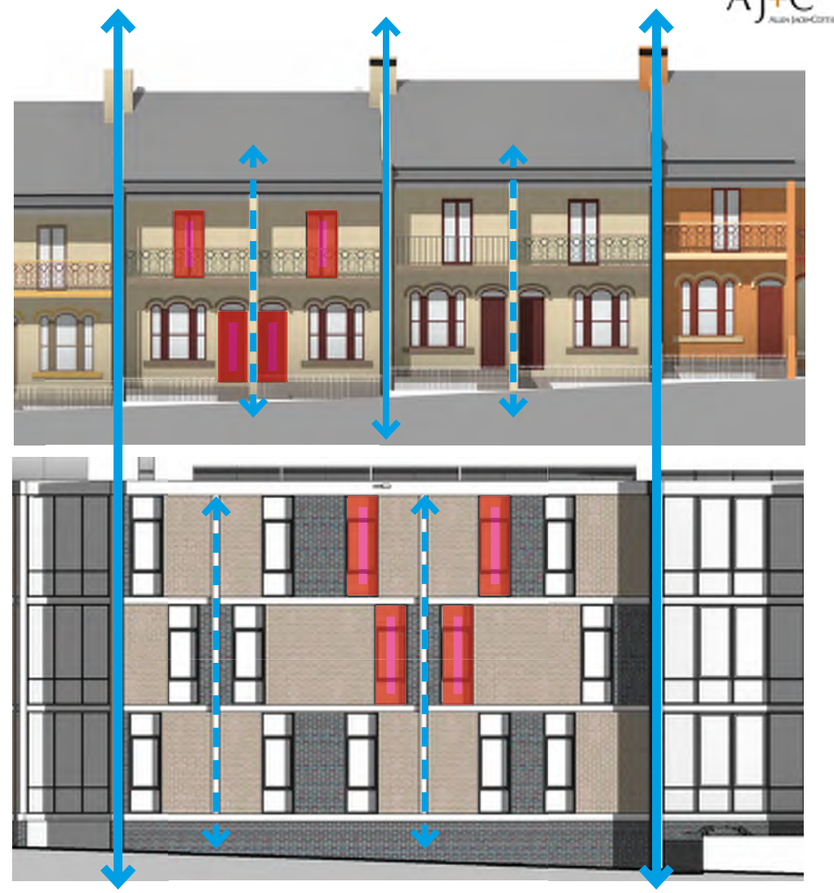
A rich interplay of scale, rhythm and material is interpreted through:

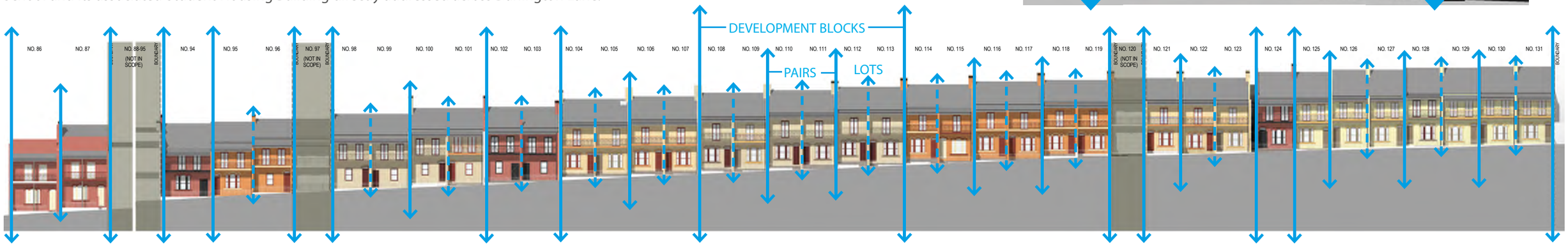
- individual room modules driven by functional requirements defining a grid - as with the terraces
- contrasting expression of primary and secondary glazed circulation slots breaking down block forms to a scale that mirrors the gathering of terrace groups
- an expressed structural grid that evokes terrace party walls,
- composition of individual room modules with mirroring and repeating vertical window apertures and infill panels to establish a dialogue with the terrace elevations. A simplicity of applied elements and form is respectful to the higher level of craftsmanship found on terrace facades.

This overlay of scales enables the building to effectively bridge between the finer grain terraces and the larger scale of the buildings to the south.

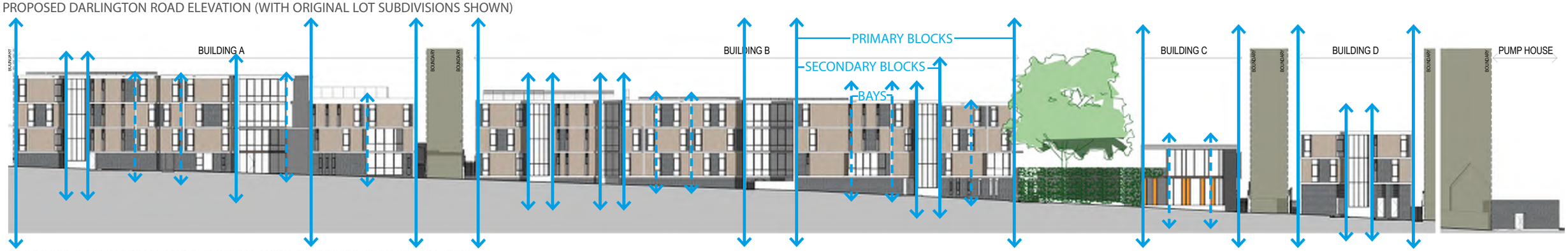
Building C presents a break from the rigorous grid composition established by the other new buildings. This smaller building will read as an open, lightweight element reflecting its dedicated role as a communal space.

The flat roof design of the new buildings, will contrast with the pitched roofs of the terraces, establishing a visual link to the University of Sydney's Business School and its associated Student Housing Building directly addressed across Darlington Lane.





PROPOSED DARLINGTON ROAD ELEVATION (WITH ORIGINAL LOT SUBDIVISIONS SHOWN)



PROPOSED DARLINGTON LANE ELEVATION (WITH EXPRESSED STRUCTURAL GRID)

VIEW WEST FROM PROPOSED CENTRAL COURTYARD OUTSIDE BUILDING C

PROGRAM

The vision for the precinct is to create a lively and safe student living and educational environment by providing a wide variety of spaces that set the stage for the rhythms of student life; places to socialise, study, meet or retreat.

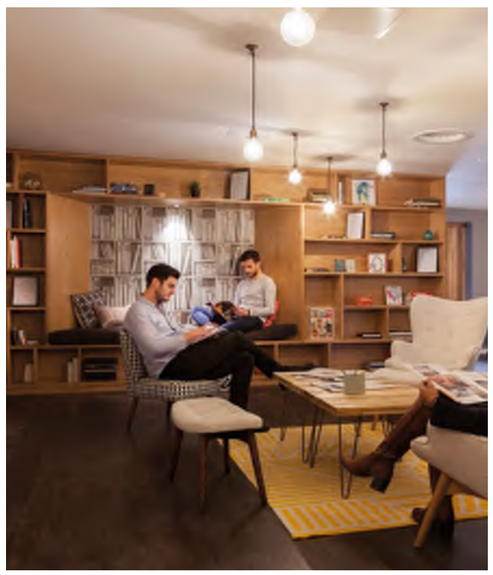
This project provides spaces for a gradation of interaction between students and staff, from the 'activation street' formed by the central courtyards, to the contained retreats of individual student bedrooms.

The new mixed use portion of the development will accommodate the following spaces:

- Communal 'gateway' terraces located along the street front will act as group study and recreation zones, meeting and learning spaces, and entries to accommodation.
- Large kitchen/dining rooms will be provided in the new building and create a communal environment for meal preparation and dining.
- The central courtyard zone utilises landscaped interventions such as planter boxes, seating and shaded environments to encourage informal interaction.
- Smaller, external spaces adjacent to terraces allow for smaller more private gatherings outside for intimate study groups.
- A lecture space with separate access, designed as a flexible space for both teaching and entertainment.
- Meeting Study rooms to create formal learning environment for staff and students.
- Games rooms to provide areas for student entertainment and social gatherings.
- A 'Maker Space': a flexible space providing students with room for a variety of creative activities encouraging collaboration and innovation.
- Music Rooms for students and staff to learn and practise instruments.
- Staircases located and designed to encourage their use and provide an opportunity for people to quickly 'catch up' as they move around the site.
- 88 bicycle parking spaces located in the adjacent Darlington House







PRECEDENT IMAGES OF NEW BUILDING INTERNAL SPACES

PROGRAM (CONT.)

The existing terraces will be internally adapted to provide dormitory-style living around clustered living, kitchen and sanitary pods. Across each terrace block, an east-west connection spine will provide continuous access.

- Front porches of the existing terraces can be used for unplanned ‘house gatherings’ and discussions with neighbours.
- Each terrace block will contain a terrace configuration dedicated to living and dining.
- Break-out spaces at various intervals on each floor or in each terrace can encourage interaction between ‘neighbours’ or allow a space to read/study outside the bedroom.
- Finally, each resident either in the terraces or new build will have their own haven; a bedroom with bed, desk and chair for quiet study or more intimate gatherings between friends.

The diversity of program and its dissemination throughout the precinct enable a multi-layered pattern of use encouraging social interaction, a holistic living experience to residents and an even distribution of activation across the site. This environment will also promote responsible pastoral care, enabling resident assistants to monitor activity and ensure that students do not become isolated.

PRECEDENT IMAGES OF TERRACE INTERNAL SPACES

FUNCTIONAL PLANNING - OVERVIEW

The overall planning of the development seeks to focus on the living patterns of future occupants. A logical hierarchy of space has been established in the vertical plane, locating the most public and communal programs on the ground floor to facilitate their ease of access across the site, and encourage a more direct connection to external spaces. The more private spaces, culminating with the individual bedrooms, are more heavily designated to the upper levels.

The southern boundary of the site presents a more institutional plan arrangement, with larger education and recreational spaces located here within the new buildings. It is envisaged that this location will permit some of the spaces, such as the lecture room which occupies the entire lower floor level of Building C, to be accessed as auxiliary education spaces for the Abercrombie Business School.

Planning of the terraces will more specifically provide accommodation, in line with the existing scale and layout of its internal spaces. This functional arrangement maintains the residential character to Darlington Road. Communal terraces align with the communal zones of the new mixed use buildings, creating points of permeability along the north-south axis of the development, perpendicular to the linear courtyard.

The linear courtyard zone, located on the major ground plane of the development, has been established to provide an important outdoor social space, and creates in this way a cohesive 'heart' for the scheme.

FUNCTIONAL PLAN - TYPICAL COURTYARD LEVEL

FUNCTIONAL PLAN - TYPICAL UPPER FLOOR

- Terrace Bedroom
- Communal and Study Spaces
- Administration
- Bedroom in new mixed use buildings
- Services

VIEW TO NORTHERN FACADE OF PROPOSED MIXED USE BUILDINGS FROM TERRACES

The entry, lounge and dining halls within the new buildings use extensive shaded glazed facades to create permeable and social environments.

FUNCTIONAL PLANNING - MIXED USE BUILDINGS

In the new mixed use buildings, amenity facilities are anchored off the communal zones to create consolidated social spaces for residents to gather, prepare food and dine together, or study. Vertical circulation is also located adjacent to these entry ways to facilitate easy wayfinding within the buildings themselves. The ease of access, visual prominence and high quality design of the staircases - their extensive glazed curtain walls maximizing natural light through them and into the building - seeks to encourage their use over lifts.

Buildings A, B and D will be primarily dedicated to student accommodation arrangements, with the exception of their lower ground levels. Building C, in contrast, will be wholly dedicated to additional functions; the ground level to Darlington Lane as a Lecture Room and the upper level as an Informal Learning Hub and Study space opening out onto a raised deck.

Connecting the communal spaces across the site between old and new buildings creates a consolidated, secure and diverse social space encouraging a sense of community and facilitating pastoral care initiatives. It is envisaged that this arrangement will contribute positively to the holistic educational experience offered by student living.

The proposed provision of a variety of facilities and spaces to serve not only the future residents of the project, but also the greater University, is part of the goal to successfully integrate the development into the Sydney University campus. Within the mixed use buildings new meeting / study rooms, a lecture room and 'Makerspace' room are all proposed to be accessible not just to residents, but for classes associated with other educational faculties of the University. The location of these spaces is predominantly on the Darlington Lane frontage. It is envisaged that with the proposed shared zone transformation to the Lane, this side of the development will read as an extension of the Abercrombie Business School pedestrian precinct.

The upper floors of the mixed use buildings will be devoted primarily to individual student dorm rooms. In Buildings A and B though, common lounge spaces, informal intimate study rooms and break out spaces will break up the program and provide areas for private study, small groups and larger recreational and educational gatherings. The lounge spaces stack vertically over the common spaces below.

Offering this diversity of program dispersed throughout the development will cater for the different ways people live and ensure that spaces are well utilised. It is hoped that this will encourage a sense of ownership for these spaces.

FUNCTIONAL PLANNING - THE TERRACES

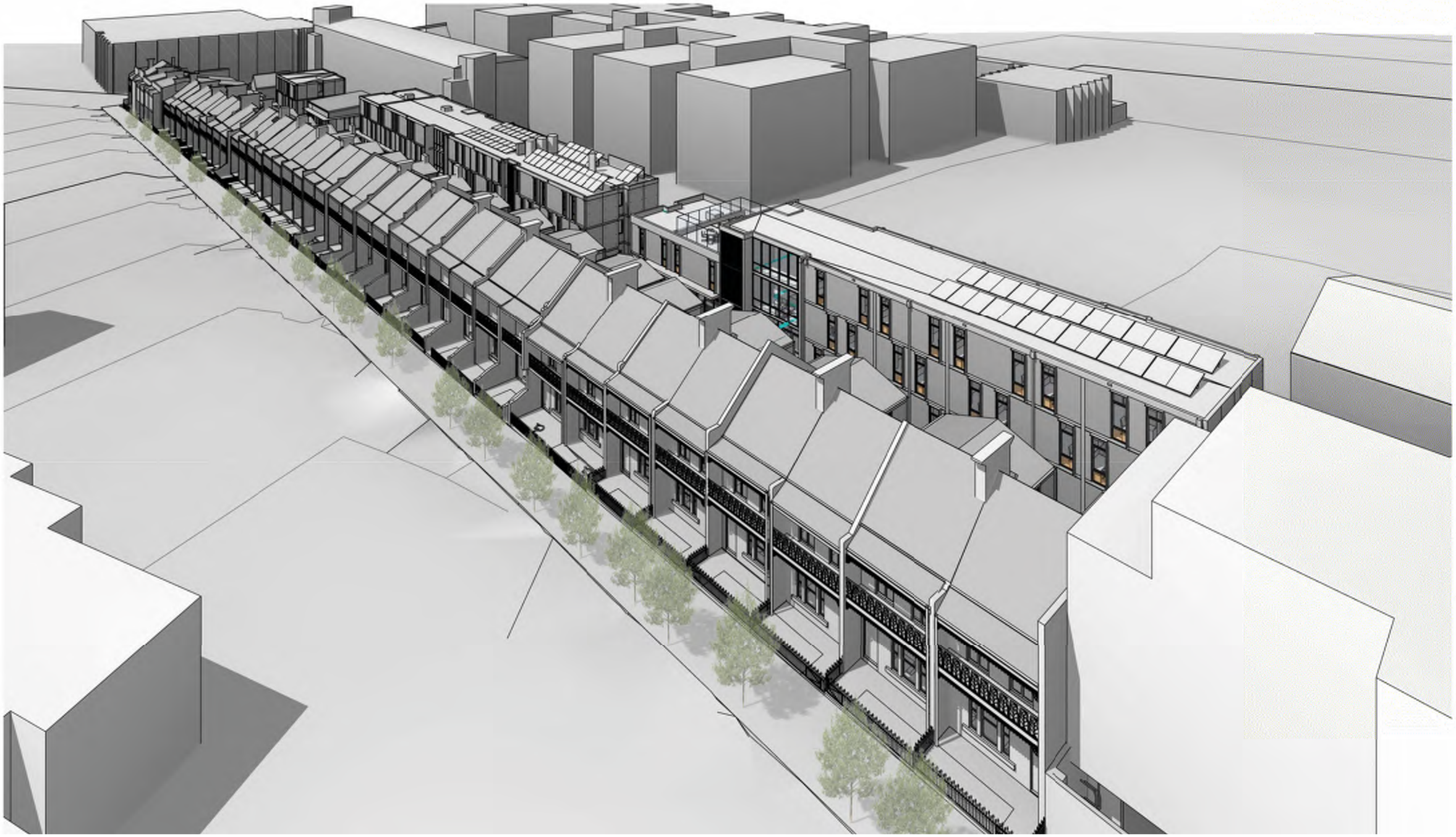
The terraces will be adapted to create efficient dormitory living without significantly compromising the heritage significance of the buildings. Internal alterations will be made, linking the terraces together via a central connection spine. This link way will allow each consolidated block of terraces to share a communal 'heart', where eating, living and dining facilities will be shared. Sanitary facilities will also be clustered at points along each terrace block to minimise the impact of service requirements to the fabric of the heritage houses. The resulting spaces created across the terraces will invite exploration and movement, and encourage a stronger sense of community connection.

Bedrooms have been designed to limit the alterations to the existing structural fabric of the terraces as far as possible. Designing to the existing internal layouts of the terraces has at times resulted in rooms slightly smaller than the typically prescribed recommendations in the City of Sydney DCP. This design solution is based on the terraces' existing success as student accommodation; being highly sought after by prospective tenants.

Continuing the play of difference between the exteriors of the terraces and new buildings, the internal living arrangements offered in the terraces will also provide a diversity of living arrangement to the newer facilities. While a larger scale, more communal living style is offered by the logical planning of the mixed use buildings, the terraces will offer a slightly more private living environment by virtue of their existing, domestic scale layout. This diversity of accommodation is seen as another benefit brought about by the adaptive reuse of the heritage buildings, adding to the richness of the overall proposal.

The communal gateway terraces, as an exception to the above rule, provide the primary access points into the development from Darlington Road. There is one of these gateway terraces located within each 'block' of the development, providing equitable access to communal lounge spaces, meeting and study rooms.

Terraces 86 and 87, separated from the rest of the development by non-University owned properties, are proposed as academic residences. These terraces are reserved for visiting academics, and will provide on campus accommodation for themselves and their families. Their separation from the student occupied portions of the proposal will allow them the independence required for their work, while being ideally located on campus. They will retain a small, secure shared yard, while the remaining area will be converted into a public park with soft landscaping along Codrington Street; tying into the thoroughfare connecting the Darlington and Camperdown campuses.



AERIAL VIEW OF DARLINGTON ROAD TERRACES WITH PROPOSED MIXED USE BUILDINGS BEHIND

MATERIALITY

Finishes for the new buildings have been selected to maintain an aesthetic which juxtaposes the rendered finish of the terraces, while complementing its context. A lively palette of materials, particularly significant to the southern elevation on Darlington Lane, will bring brightness to the surrounding public space. The following is a description of materials used in the facade compositions:

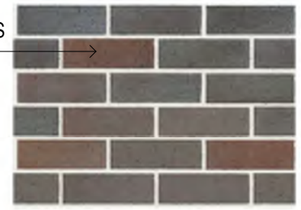
- Brickwork infill panels will be the predominant facade material, most significant to the Darlington Lane elevation. The small unit composition of traditional brickwork has a direct and clear relationship to the existing terraces and the surrounding context.
- Off-form concrete will be used as an expressed framework for the facade construction, providing an articulation of depth and, in particular, a visual expression evoking the traditional terrace subdivision pattern within the new building.
- Obscure glass panels under the bedroom awning windows to assist in further breaking down the facade plane.
- Aluminum framed windows will have a sympathetic proportion to those within the terraces and surrounding historical context, but will have a crisp contemporary aesthetic as a point of contrast from the older buildings.
- Full height glazing to the common breakout spaces provides the opportunity to install large scale graphics etched onto the glass. As part of the University of Sydney's Wingara Mura Strategy, these glass portions provide a canvas to illustrate and recognise the site's history and significance to the local Aboriginal community of the Eora nation.
- Stairwells are projected forward from the building line with full height glazing to the facade, providing relief to the rhythm of solid materials. These glazed zones act as visual connections through the building, as well as clearly identifying these circulation areas to facilitate navigation and way-finding.
- Exposed structural steel, extensive glazing and lightweight cladding will form the predominant material composition of Building C. This is to reflect its differing function to the other new buildings on site; providing a Common Room and Lecture Theatre, without an accommodation portion.

Durability and maintenance requirements have also contributed to the material palette adopted for the mixed use building. The primarily masonry structure and infill have been selected to ensure the project maintains longevity and minimses ongoing maintenance costs.

The terraces will be repainted using the heritage colour schemes proposed in the CMP. The distribution of the various colour palettes will follow the consolidated blocks of terraces, with brighter colour schemes distinguishing the communal gateway terraces, and detail variations to the schemes highlighting entrances to residential terraces. This painting concept largely aligns with the original block subdivision, in keeping with their era of construction.

1A - AUSTRAL BRICKS
BOWRAL SIMMENTAL
SILVER

1B - AUSTRAL BRICKS
BOWRAL BLUE



1 FACE BRICKWORK WALLS AND INFILLS

2 GLASS CURTAIN WALL WITH FROSTED IMAGERY

3 DARK ANODISED ALUMINIUM WINDOW FRAMES WITH FROSTED LOWER PANELS

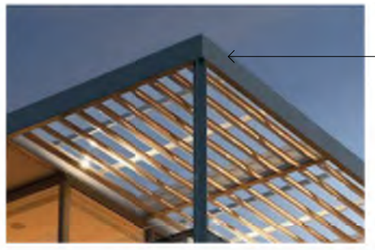
4 EXTERNAL LOUVRES BLINDS TO NORTHERN FACADE OF STAIR WELLS

5 OFF-FORM CONCRETE BLADES AND SLAB EDGES WITH INFILL PANELS TO SIDE BOUNDARY FACADES

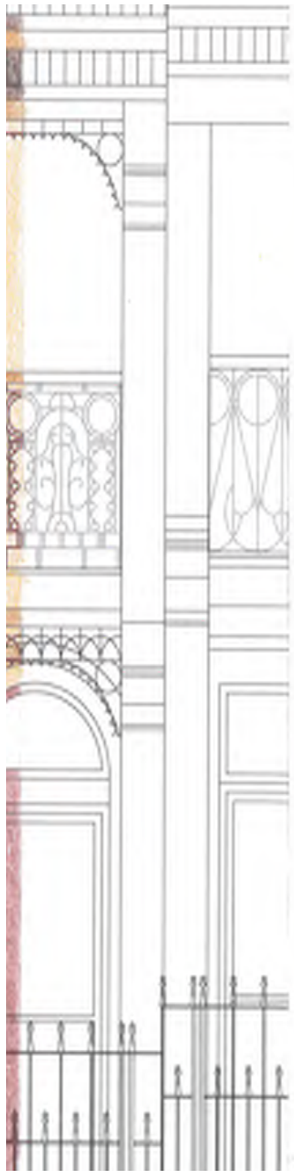
6 STEEL FRAME WINDOW SURROUND TO KITCHEN DINING AREAS

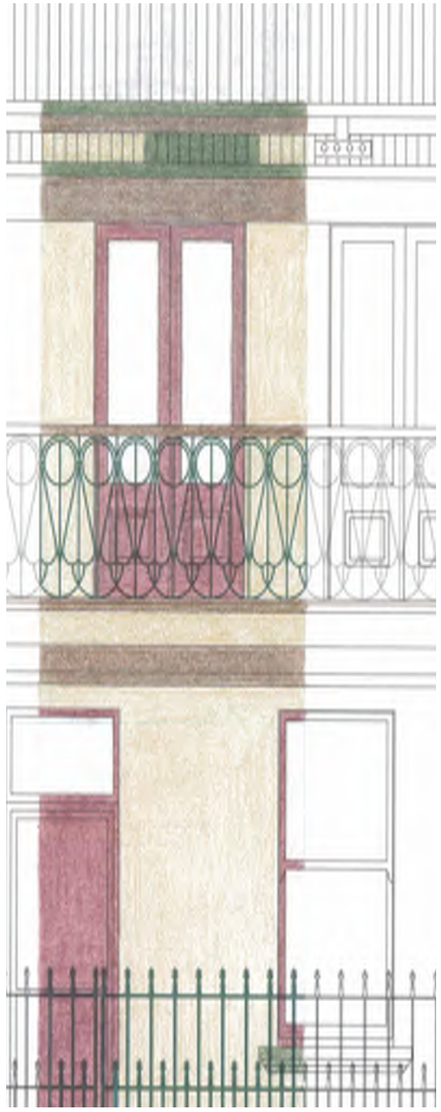
7 GREEN WALL TO DARLINGTON LANE BELOW BETWEEN BUILDINGS B & C

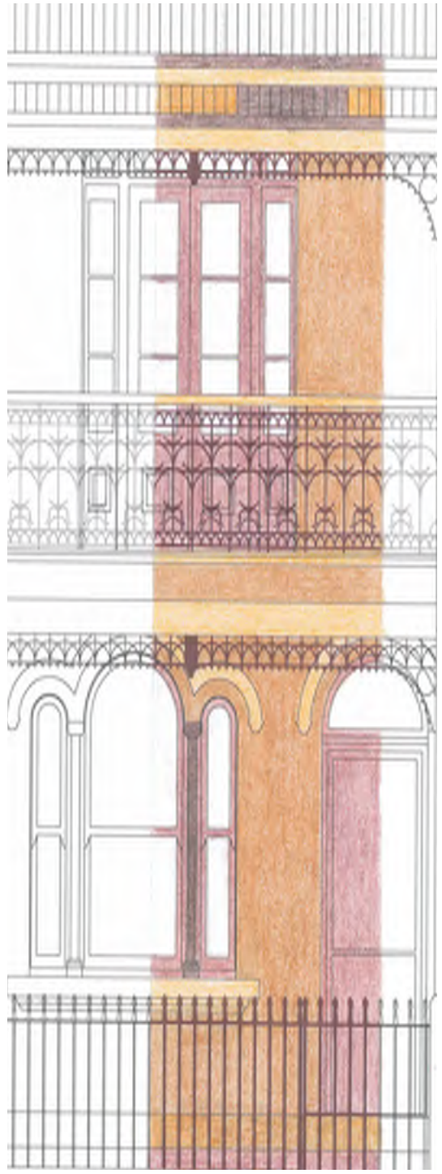
8 BUILDING C

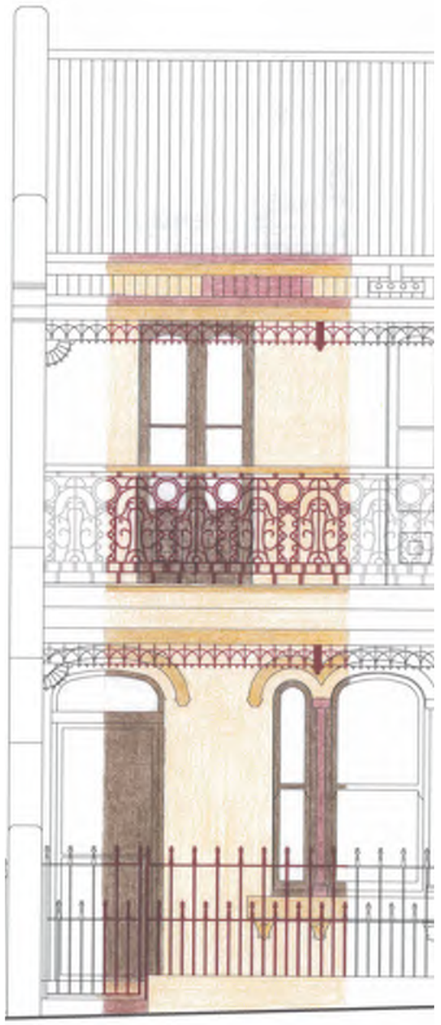


PROPOSED MATERIALS BOARD FOR THE MIXED USE BUILDINGS









PROPOSED HERITAGE COLOUR SCHEMES TO THE DARLINGTON ROAD TERRACES AS SET OUT IN THE CMP, PREPARED BY TANNER ARCHITECTS

04 SUSTAINABILITY

A CAR FREE ENVIRONMENT

The proposal establishes a number of environmentally sustainable initiatives in line with the University's commitment to sustainable development, and providing lower carbon footprint living is one of these. The proposal to change Darlington Lane to a one way shared zone will aid in reducing car numbers in the area, increasing the opportunity for pedestrian travel and cycling. The site's close proximity to education, working and commercial precincts means residents will have no need to rely on personal vehicular travel for the majority of their needs. The Darlington Centre, located at the western extremity of the proposal, will incorporate a new bicycle parking area to provide convenient and secure bicycle storage for residents.

SOLAR ACCESS

The northerly aspect of the development, informed by the address of the existing terraces, provides a precedent to maximizing the advantages of good environmental design to the site. The new build offers a significant northern elevation, with its setback from the rear of the terraces encouraging solar access, natural light and natural airflow. The new public spaces of the development have been located towards this northern facade to connect to the north facing courtyard areas. Extensive glazed facades to the common spaces of the mixed use buildings ensure maximum natural daylight penetration deep into the building section. Setbacks and integrated shading structures have been designed to minimise direct sunlight into the buildings during the hotter months. The setback created by the linear courtyard has also created a narrower building cross section, encouraging natural airflow.

SOLAR POWER

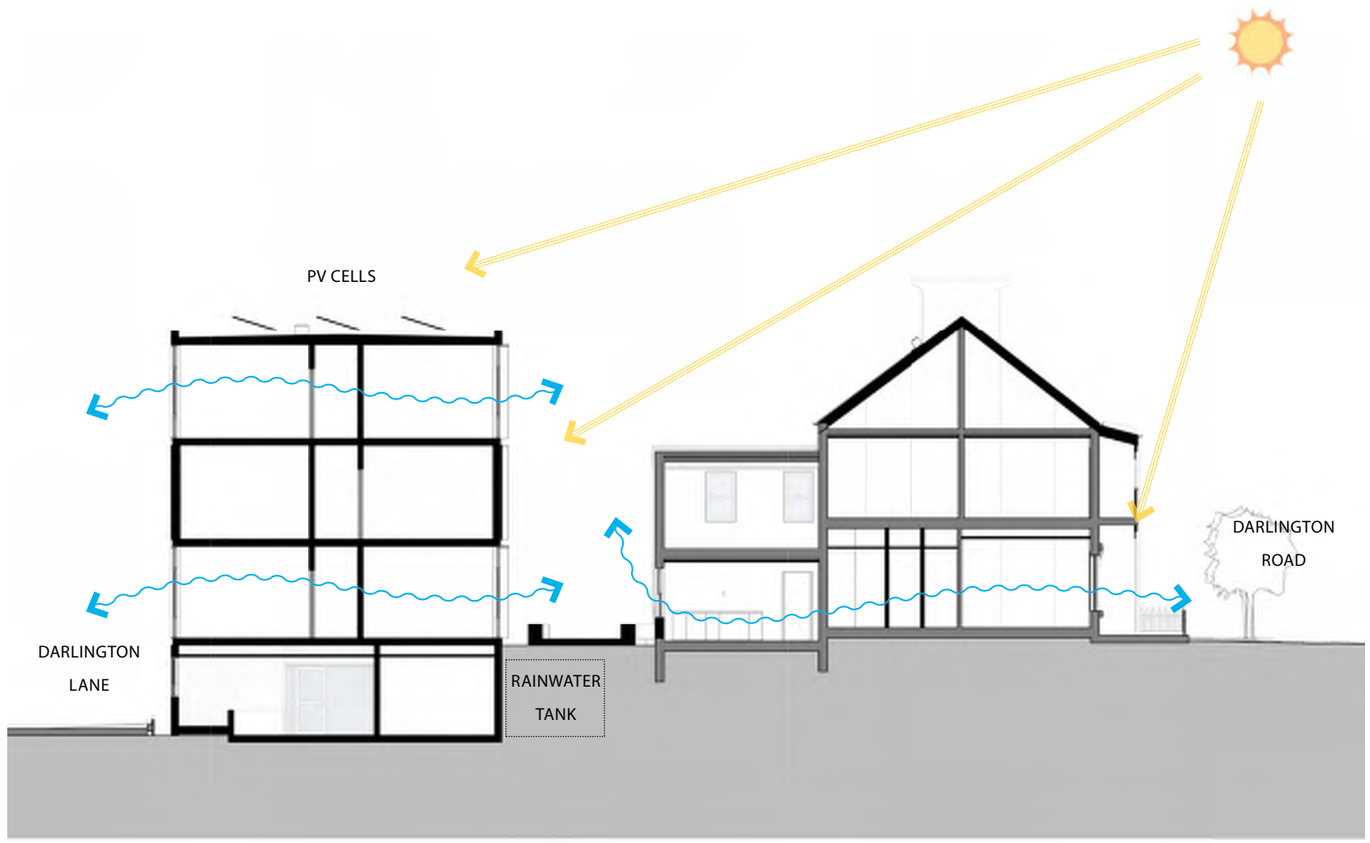
The parapet roof construction of the new mixed use buildings has allowed a generous platform to provide photovoltaic cells for power and hot water generation.

NATURAL VENTILATION

The buildings have been designed to encourage natural cross ventilation by minimising building depths to promote air movement paths. The linear courtyard ensures the terraces and new buildings both have extensive north and south facades, with operable windows to encourage air movement through each. The separation created by the courtyard allows air to be naturally drawn out of each building.

RAINWATER REUSE

Rainwater will be collected from the new mixed use buildings and stored in underground collection tanks to be recycled for on site irrigation.



TYPICAL CROSS SECTION THROUGH TERRACES AND MIXED USE BUILDINGS

PRIVACY

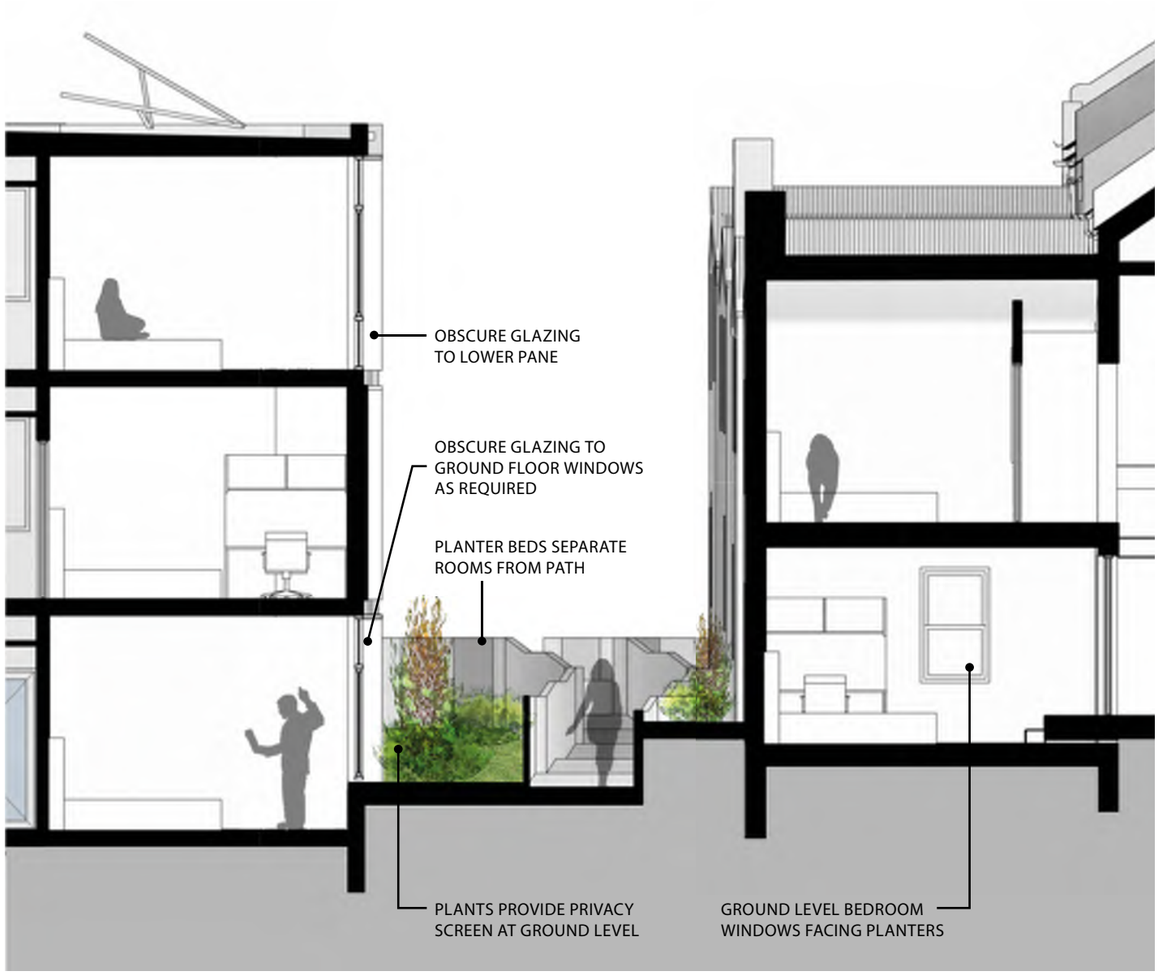
In an inner city urban residential environment like Darlington, privacy both between residents and neighbours is a vital consideration in the design process. The HIS identified maintaining privacy to the privately owned terraces as one of its key recommendations for approval. The proposal achieves this by providing side setbacks between the new mixed use buildings and the neighbouring terrace properties. The facades at these side edges will be predominantly opaque, typically elegant off form conrete panelling, to prevent overlooking into adjacent yards. Landscaping elements bookend the linear courtyard where it abuts adjacent properties to provide further physical and acoustic separation between neighbours. Similarly, planting zones set the rooftop terrace of Building A back to limit overlooking. The linear courtyard space provides direct access to private outdoor green space at all points along the site. It also acts as a visual and acoustic filter to buffer noise emanating from the buildings.

Privacy between tenants within the development has been achieved by an integrated landscaping scheme, employed most significantly along the extent of the project's linear courtyards. Raised planters provide physical separation between the courtyard pathway and ground level bedrooms. Plants will be used as visual screens to prevent overlooking both from external spaces and from within the building opposite. The awning elements along the new building facades regulate views in, while on the ground terraces will have side facing windows rather than onto the courtyard space. All bedrooms in both the new and old builds will be fitted with internal blinds as an adjustable daylight / privacy screen.

OVERSHADOWING

Locating the new buildings to the southern edge of the site has also ensured minimal overshadowing impact to neighbouring properties. The majority of additional overshadowing falls over Darlington Lane to the rear, and the service frontage of the Abercrombie Business School. Side setbacks to the separately owned terraces along Darlington Road have attempted to maximise the available sunlight into these properties.

The Sydney DCP 2012 specifies that a minimum of 2 hrs of direct sunlight is achieved to 50% of neighbouring open space, between 9am-3pm on the winter solstice. On neighbouring properties 97 and 120 Darlington Road, this period of sunlight access is not currently met, and the additional impact of the proposed development is negligible. The remaining neighbours meet this sunlight requirement.



SECTION BETWEEN NEW AND OLD BUILDINGS THROUGH LINEAR COURTYARD

VIEW FROM DARLINGTON LANE TO THE CENTRAL COURTYARD AND BUILDING C TO ITS RIGHT

SOCIALLY SUSTAINABLE DESIGN

The high demand for affordable student accommodation in close proximity to the University of Sydney has been the key driver in the precinct's density, and the development seeks to contribute to meeting this demand in the most efficient and sustainable way. The project provides a total of 337 beds within walking distance to educational facilities and the nearby shopping and entertainment precinct of King Street. This convenient location means the surrounding services and infrastructure have the capacity to cater for, and benefit from, its residents without a detrimental impact.

To achieve this demand, the proposal has taken precedence from the existing terrace houses in determining bedroom sizes; providing a generally consistent provision of private space for each resident. This efficiency of planning has allowed the design to provide the supplementary recreational and institutional spaces that seek to successfully integrate the project within its University environment, and provide a contributory element to its surrounds.

The cost benefits of retaining the terraces as an integral part of the scheme, along with the supplementary accommodation in the mixed use buildings, can be passed on to the future residents in the form of affordable student housing solutions. This step will contribute to relieving the financial burdens of students and their families, particularly those not originally from Sydney, in their tertiary education.

CRIME PREVENTION

Fundamentally, by providing well designed and inviting spaces, the activation of these spaces will promote safe and crime free areas which both residents and the public will respect. This becomes most significant along the site's edges. Darlington Road will provide a residential street front where residents can sit on their outward facing verandah spaces and interact with the public domain. To the south, Darlington Lane will be ameliorated to become a desirable pedestrian connection.

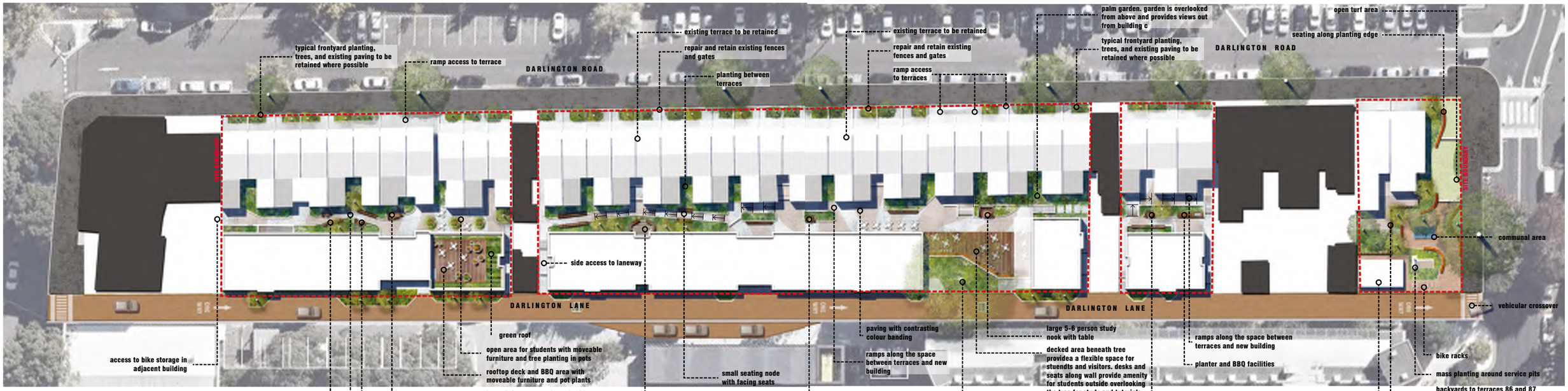
The project will incorporate lighting design as another tool for crime prevention. External lighting will illuminate the areas of the site available for public use. It will also be used to emphasise entry points into the site, continuing through to the internal foyer spaces.

The University of Sydney has undertaken a project risk assessment to identify potential risks to the development both in the present and long term. This includes crime risk analysis. The proposal seeks to utilise a number of environmental design features in an effort to reduce the likelihood of criminal activity taking place on the site and the surrounding area.

- Access Control - The design proposal creates a clear delineation between private and public space through the built form edge conditions to the main north and south facades. Access points into the site will be regulated through clearly defined entries - either the gateway terraces to Darlington Road or entrances within the mixed use buildings. Providing a clear boundary with secure and regulated entrance points to the site will dissuade potential offenders accessing the private areas of the development.
- Surveillance - The development will provide effective opportunities for both natural and technical surveillance. Primarily, this will be achieved through the secure linear courtyards running across the length of the site. The courtyards will be public, well lit spaces maintaining clear sight lines to major entry points, unobstructed visual connections between the new and old buildings, and also across the length of the blocks.
- Territorial Reinforcement - The quality of spaces within the development will also encourage use and a sense of community ownership, which should promote the maintenance of its various parts. The courtyard will be a secure, well-lit and landscaped communal space offering a shared zone for residents to gather and enjoy. Materials to the additional building works are durable and easily maintained, and the outdoor spaces will feature robust landscaping, minimizing maintenance.

  Internally, lounges, meeting rooms and breakout / study spaces, evenly distributed throughout both the terraces and mixed use buildings, will provide areas for use and occupation throughout. It is envisaged that by providing a high quality living environment, residents will adopt a sense of ownership for the development and positively contribute to its ongoing maintenance.
- Space Management - In addition to the secure outdoor space formed by the linear courtyards, the proposal provides public outdoor space to contribute to the site's surrounding context. The open park at the Codrington Street edge adds to the public domain corridor running along Codrington Street, encouraging people to gather and linking into the already secure environment established by the University campus. This will be consolidated by the presence of campus maintenance to monitor the ongoing operation of the site.

LANDSCAPE MASTERPLAN



NORTH
SCALE 1:350

LANDSCAPE MASTERPLAN PREPARED BY OCULUS

LANDSCAPE

A Landscape Design Report, prepared by Oculus Landscape Architecture and Urban Design, outlines a strategic vision for the associated landscape design of the Darlington Road Terraces and Mixed Use Buildings. Landscaping has been given special significance in the design development of this project. Firstly, it has been employed as a tool to enhance the amenity of communal outdoor recreational and study spaces within the site, but also as a key measure in the integration of the site within its greater context. Secondly, the landscaping design for the proposal will see the primary expression of the University of Sydney's Wingara Mura - Bunga Barrabugu Strategy.

Proposed landscaping addresses the heritage character of Darlington Road, provides connections through and along the shared space in between the new and old buildings, implements an appropriate scale to the laneway and activates the campus public domain with seating elements adjacent to Codrington Street. The retention of a significant eucalyptus tree between Building B and C has been proposed, and will provide a focal point to the outdoor communal deck and Informal Learning Hub on the building upper floor, as well as a shaded forecourt to the Lecture Theatre accessed via Darlington Lane.

Another significant tree on the site, identified as tree 25 in ArboSafe's Arborist Report, is proposed to be removed. Despite efforts to retain this tree, its removal was deemed necessary due to its volume and location within the building footprint of the mixed use building zone., impacting on the project's economic feasibility.

WINGARA MURA - BUNGA BARRABAGU

The Wingara Mura Integrated Strategy is a University of Sydney initiative to recognise and include Aboriginal values, art and culture in all developments it undertakes. The significant goals of this strategy are to instil a deeper knowledge of the physical and ancestral history of the local area in all students, and to ensure Aboriginal perspectives are referred to and respected in the future planning of the campus.

In this proposal, a dialogue of 'now and then' is played out conceptually through the overall massing and building alignment. While the terraces represent Australia's European heritage, the new building and landscape design will seek to reflect on our indigenous heritage, with the courtyard street acting as a mediator. The landscape design, running along the spine of the development, will consist of planting and ground treatment evoking the pre-colonial environment of the area. Communal social spaces will be integrated into the hard landscaping, and Eora language and art will be acknowledged and celebrated through artistic installation, graphic interpretation and signage.

05 AREA SCHEDULES

DARLINGTON TERRACES (TERRACES) - AREA AND ACCOMMODATION SCHEDULE - Issue 22.11.16

		GROUND FLOOR AREAS										FIRST FLOOR AREAS						BED NUMBERS				GENERAL			BATHROOM NUMBERS		
		Bed1	Comply with 10% natural light	Bed2	Comply with 10% natural light	Bed3	Comply with 10% natural light	Kitchen / Breakfast	Admin. / Resi. Life Office	Common Lounge / Dining	Learning Hubs	Bed1	Comply with 10% natural light	Bed2	Comply with 10% natural light	Bed3	Comply with 10% natural light	Single Rooms (beds) Including RA	Twin Rooms (beds)	Double Bed Rooms (beds)	**Total Bed No.**	GFA - Ground Floor	GFA - First Floor	**GFA - TOTAL**	Bathroom WCs	Bathroom Basins	Bathroom Showers
SINGLE	**Terrace 86**	0.0	-	0.0	-	0.0	-	0.0	0.0	0.0	0.0	0.0	-	0.0	-	0.0	-	3.0	0.0	2.0	**5.0**	66	64	**130**	2.0	2.0	2.0
SINGLE	**Terrace 87**	0.0	-	0.0	-	0.0	-	0.0	0.0	0.0	0.0	0.0	-	0.0	-	0.0	-	1.0	0.0	4.0	**5.0**	73	72	**145**	2.0	2.0	2.0
88-93	**not owned**																										
BLOCK G (3)	**Terrace 94**	-	-	-	-	-	-	19.0	-	40.8	-	19.9	✓	11.5	×	13.4	✓	2.0	2.0		**4.0**	62	55	**117**	1.0	1.0	1.0
	Terrace 95	13.2	✓	-	-	13.8	✓	-	-	-	-	17.2	✓	15.5	×	11.8	✓	3.0	2.0	1.0	**6.0**	52	49	**101**	2.0	2.0	2.0
	Terrace 96	12.5	✓	-	-	11.9	✓	-	-	-	-	16.2	✓	14.9	×	10.4	×	3.0	2.0	1.0	**6.0**	47	44	**91**	1.0	1.0	1.0
195	**not owned**																										
BLOCK F (6)	**Terrace 98**	12.1	✓	-	-	13.9	×	-	-	-	-	16.2	✓	10.5	×	13.6	×	4.0	2.0		**6.0**	49	49	**98**	4.0	4.0	4.0
	Terrace 99	11.9	✓	-	-	12.0	✓	-	-	-	-	16.2	✓	10.4	×	10.7	×	4.0	2.0		**6.0**	46	44	**90**	2.0	2.0	2.0
	Terrace 100	11.3	✓	-	-	-	-	24.5	-	15.0	-	16.0	✓	9.8	✓	9.7	✓	3.0	2.0		**5.0**	45	43	**88**	1.0	1.0	1.0
	Terrace 101	11.4	✓	-	-	-	-		-	13.6	-	15.9	✓	9.5	✓	10.6	×	3.0	2.0		**5.0**	45	43	**88**	0.0	0.0	0.0
	Terrace 102	-	-	-	-	-	-	-	9.9	17.6	10.9	15.9	✓	12.8	×	-	-	1.0	2.0		**3.0**	44	35	**79**	0.0	0.0	0.0
	Terrace 103	-	-	-	-	-	-	4.6	32.7		-	15.4	✓	8.8	✓	11.1	✓	2.0	2.0		**4.0**	46	45	91	2.0	2.0	1.0
BLOCK E (4)	**Terrace 104**	11.9	✓	-	-	11.4	✓	-	-	-	-	13.6	×	9.8	✓	10.0	✓	4.0		1.0	**5.0**	43	43	**86**	2.0	2.0	2.0
	Terrace 105	10.6	✓	-	-	-	-	11.3	-	10.4	-	13.0	×	14.5	×	11.3	✓	4.0			**4.0**	41	39	**80**	0.0	0.0	0.0
	Terrace 106	10.3	✓	-	-	-	-	11.3	-	10.9	-	14.5	×	9.3	×	11.9	✓	3.0		1.0	**4.0**	43	43	**86**	1.0	1.0	1.0
	Terrace 107	10.9	✓	-	-	12.1	✓	-	-	-	-	14.6	×	9.2	✓	11.1	✓	4.0		1.0	**5.0**	42	40	**82**	2.0	2.0	2.0
BLOCK D (6)	**Terrace 108**	10.8	✓	10.0	✓	12.0	✓	-	-	-	-	15.3	✓	9.0	✓	11.0	×	4.0	2.0		**6.0**	43	40	**83**	2.0	2.0	2.0
	Terrace 109	10.8	✓	-	-	-	-	11.2	-	10.8	-	15.4	×	8.6	✓	11.9	✓	3.0	2.0		**5.0**	43	44	**87**	1.0	1.0	1.0
	Terrace 110	10.7	✓	-	-	-	-	11.7	-	10.5	-	14.8	×	8.0	✓	10.7	✓	3.0	2.0		**5.0**	42	42	**84**	0.0	0.0	0.0
	Terrace 111	10.7	✓	-	-	12.4	✓	-	-	-	-	15.4	×	9.2	✓	12.4	✓	4.0	2.0		**6.0**	42	41	**83**	3.0	3.0	3.0
	Terrace 112	10.2	✓	-	-	11.0	✓	-	-	-	-	13.9	×	7.6	✓	9.8	✓	4.0		1.0	**5.0**	40	40	**80**	1.0	1.0	1.0
	Terrace 113	12.5	✓	10.7	×	12.7	✓	-	-	-	-	16.5	×	9.9	✓	12.7	×	5.0	2.0		**7.0**	44	42	**86**	1.0	1.0	1.0
BLOCK C (6)	**Terrace 114**	11.9	✓	9.7	✓	12.1	✓	-	-	-	-	15.2	×	9.0	✓	12.1	✓	5.0	2.0		**7.0**	44	44	**88**	1.0	1.0	1.0
	Terrace 115	11.7	✓	-	-	-	-	12.1	-	10.7	-	15.3	×	9.2	✓	10.9	✓	3.0	2.0		**5.0**	43	41	**84**	0.0	0.0	0.0
	Terrace 116	11.5	✓	-	-	-	-	11.9	-	10.7	-	14.8	×	8.7	✓	10.8	✓	3.0	2.0		**5.0**	41	40	**81**	0.0	0.0	0.0
	Terrace 117	11.8	✓	-	-	12.1	✓	-	-	-	-	15.0	×	8.9	✓	12.1	✓	4.0	2.0		**6.0**	43	43	**86**	3.0	3.0	3.0
	Terrace 118	11.4	✓	-	-	12.0	✓	-	-	-	-	15.3	×	9.0	✓	12.3	×	4.0	2.0		**6.0**	44	44	**88**	3.0	3.0	3.0
	Terrace 119	10.8	✓	-	-	12.0	×	-	-	-	-	14.4	×	8.4	✓	10.7	✓	4.0	2.0		**6.0**	41	39	**80**	2.0	2.0	2.0
120	**not owned**																										
BLOCK B (3)	**Terrace 121**	11.5	✓	-	-	11.8	✓	-	-	-	-	16.0	×	7.8	✓	11.8	✓	4.0	2.0		**6.0**	42	40	**82**	1.0	1.0	1.0
	Terrace 122	11.1	✓	-	-	-	-	17.8	-	10.0	-	16.0	×	8.3	✓	11.2	✓	3.0	2.0		**5.0**	43	41	**84**	0.0	0.0	0.0
	Terrace 123	11.3	✓	-	-	12.0	✓	-	-	-	-	15.7	×	8.6	✓	12.0	✓	4.0	2.0		**6.0**	42	40	**82**	3.0	3.0	3.0
BLOCK A (8)	**Terrace 124**	-	-	-	-	-	-	-	-	33.4	13.1	16.4	✓	10.7	×	-	-	1.0	2.0		**3.0**	42	35	**77**	1.0	1.0	1.0
	Terrace 125	11.2	✓	-	-	12.9	✓	-	-			15.6	✓	11.0	×	12.8	✓	4.0	2.0		**6.0**	46	46	**92**	1.0	1.0	1.0
	Terrace 126	11.3	✓	-	-	12.4	✓	-	-	-	-	15.9	✓	9.4	✓	11.6	✓	4.0	2.0		**6.0**	44	43	**87**	2.0	2.0	2.0
	Terrace 127	11.1	✓	-	-	11.8	✓	-	-	-	-	15.5	✓	10.8	×	12.3	✓	4.0	2.0		**6.0**	45	46	**91**	2.0	2.0	2.0
	Terrace 128	11.0	✓	-	-	-	-	37.1	-	12.3	-	15.6	✓	9.8	✓	11.8	✓	3.0	2.0		**5.0**	51	43	**94**	0.0	0.0	0.0
	Terrace 129	11.1	✓	-	-	-	-		-	12.6	-	15.3	✓	10.1	×	12.9	✓	3.0	2.0		**5.0**	52	47	**99**	1.0	1.0	1.0
	Terrace 130	11.2	✓	-	-	12.1	✓	-	-	-	-	15.1	✓	10.0	×	11.6	✓	4.0	2.0		**6.0**	44	43	**87**	2.0	2.0	2.0
	Terrace 131	11.1	✓	-	-	13.2	✓	-	-	-	-	15.8	✓	10.4	×	13.2	✓	4.0	2.0		**6.0**	46	44	**90**	2.0	2.0	2.0
								172.5										**124.0**	**62.0**	**6.0**	**192.0**			**3427.0**	**54.0**	**54.0**	**53.0**

Number of Twin Beds over 16sqm = 10 rooms
Number of Twin Beds under 16sqm = 21 rooms
Number of Single Beds over 12sqm = 41 rooms
Number of Single Beds between 10.5sqm and 12sqm = 55 rooms
Number of Single Beds under 10.5sqm = 35 rooms

Note: Total number of Bed ROOMS to Terraces = 162

DARLINGTON TERRACES (NEW BUILD) - AREA AND ACCOMMODATION SCHEDULE - Issue 25.08.17

													BED NUMBERS AND SQM.										BATHROOM NUMBERS		
	Foyer Seating + Foyer Entry	Makerspace	Lecture Theatre	Kitchen / Dining / Living	Music Room	Learning Study Hub (Computer Room)	Study Room / Tutorial Room	Games Rooms	Informal Study Area	Reading Library Lounge	Laundry	Roof Terrace (L4)	Single Rooms (10.3sqm)	Compliance with 10% Natural Light	Single Rooms (11.2sqm)	Compliance with 10% Natural Light	Accessible Single Rooms (11.5sqm)	Compliance with 10% Natural Light	Accessible Single Rooms (RA over 12sqm)	Compliance with 10% Natural Light	Total Bed No.	**GFA - TOTAL**	Bathroom WCs	Bathroom Basins	Bathroom Showers
Building A																									
Level 1	53.1	-	-	2.0	21.2	112.0	7.5	-	21.0	-	12.4	-	-	-	-	-	-	-	-	-	0.0	**263**	1.0	1.0	0.0
Level 2	-	-	-	108.7	-	-	-	-	32.0	-	-	-	12.0	✓	1.0	✓	2.0	✓	-	-	15.0	**394**	4.0	4.0	3.0
Level 3	-	-	-	1.3	-	-	-	-	21.0	18.0	-	-	18.0	✓	1.0	✓	2.0	✓	1.0	✓	22.0	**410**	6.0	6.0	6.0
Level 4	-	-	-	1.3	-	-	-	48.7	-	-	-	64.1	12.0	✓	1.0	✓	2.0	✓	-	-	15.0	**297**	3.0	3.0	3.0
Total	53.1	0.0	0.0	113.3	21.2	112.0	7.5	48.7	74.0	18.0	12.4	64.1									52.0	1364.0	14.0	14.0	12.0
Building B																									
Level 1	14.6	32.0	-	1.6	-	45.0	-	-	-	-	15.5	-	-	-	-	-	-	-	-	-	0.0	**167**	1.0	1.0	1.0
Level 2	-	-	-	220.0	-	-	16.0	-	48.6	-	-	-	13.0	✓	-	✓	3.0	✓	1.0	-	17.0	**563**	4.0	4.0	3.0
Level 3	-	-	-	1.6	-	-	16.1	-	21.0	19.0	-	-	26.0	✓	2.0	✓	3.0	✓	-	-	31.0	**561**	8.0	8.0	8.0
Level 4	-	-	-	1.6	-	-	16.1	-	48.5	-	-	-	26.0	✓	2.0	✓	3.0	✓	-	-	31.0	**561**	8.0	8.0	8.0
Total	14.6	32.0	0.0	224.8	0.0	45.0	48.2	0.0	118.1	19.0	15.5	0.0									79.0	1852.0	21.0	21.0	20.0
Building C																									
Level 1	-	-	97.7	3.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0	**125**	1.0	1.0	0.0
Level 2	-	-	-	4.7	-	76.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0	**109**	1.0	1.0	0.0
Total	0.0	0.0	97.7	7.7	0.0	76.5	0.0	0.0	0.0	0.0	0.0	0.0									0.0	234.0	2.0	2.0	0.0
Building D																									
Level 1	-	-	-	44.7	-	-	-	-	-	-	6.0	-	-	-	-	-	-	-	-	-	0.0	**78**	1.0	1.0	1.0
Level 2	-	-	-	1.3	-	-	-	-	-	-	-	-	7.0	✓	-	-	-	-	-	-	7.0	**110**	2.0	2.0	2.0
Level 3	-	-	-	1.3	-	-	-	-	-	-	-	-	7.0	✓	-	-	-	-	-	-	7.0	**110**	2.0	2.0	2.0
Total	0.0	0.0	0.0	47.3	0.0	0.0	0.0	0.0	0.0	0.0	6.0	0.0									14.0	298.0	5.0	5.0	5.0
OVERALL TOTAL	**67.7**	**32.0**	**97.7**	**393.1**	**21.2**	**233.5**	**55.7**	**48.7**	**192.1**	**37.0**	**33.9**	**64.1**	**121.0**	**0.0**	**7.0**	**0.0**	**15.0**	**0.0**	**2.0**	**0.0**	**145.0**	**3748.0**	**42.0**	**42.0**	**37.0**

Number of Twin Beds over 16sqm = 0
Number of Twin Beds under 16sqm = 0
Number of Single Beds over 12sqm = 2
Number of Single Beds between 10.5sqm and 12sqm = 22
Number of Single Beds under 10.5sqm = 121

Total Study Spaces (learning hubs, study / tutorial rooms, informal stusy and reading library) = 518.3sqm (43%)
Total Others (foyers, makerspace, lecture theatre, kitchen / dining, music, games and laundry) = 694.3sqm (57%)

VIEW TO PROPOSED DEVELOPMENT FROM ABERCROMBIE BUSINESS SCHOOL