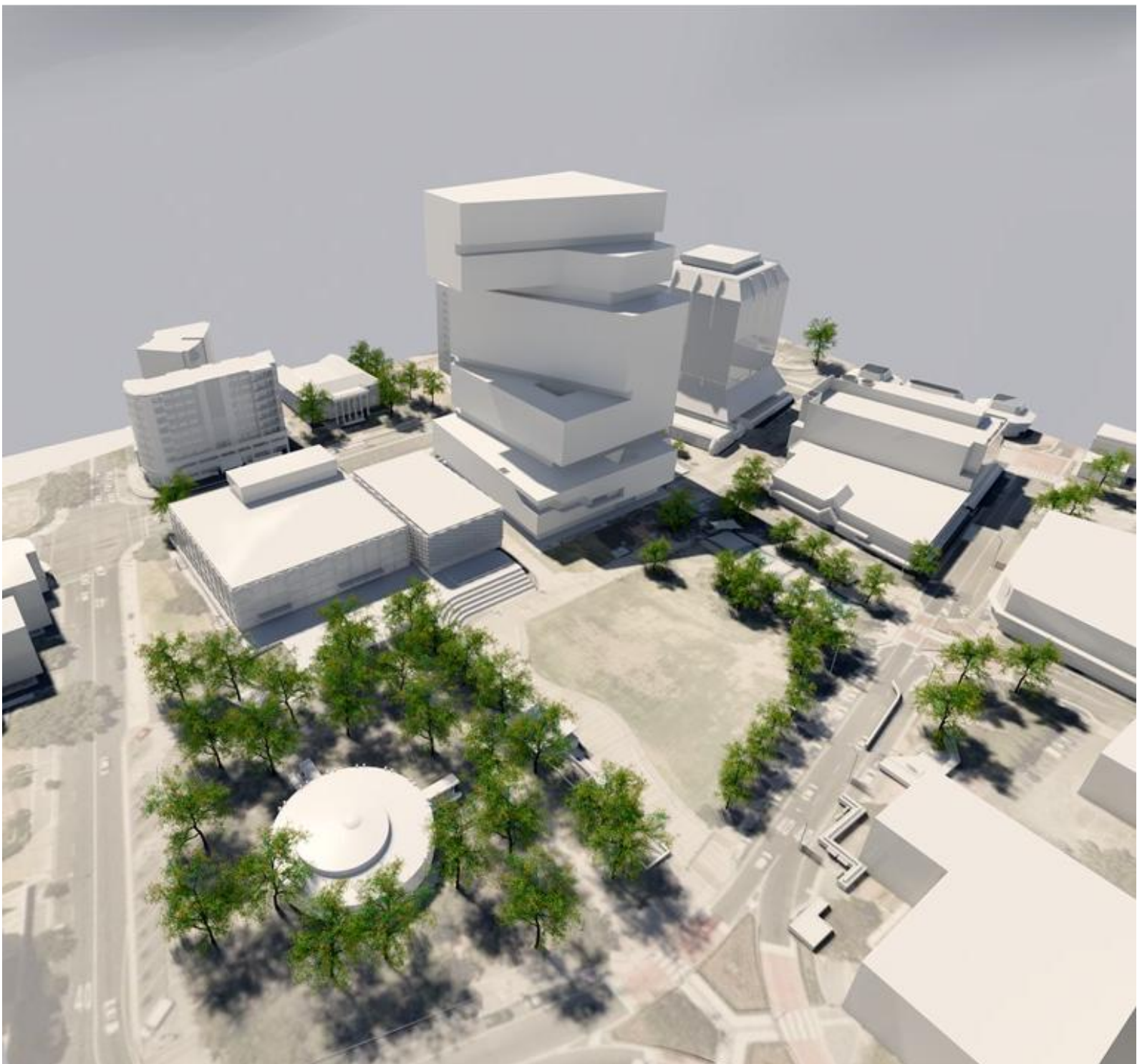


*Western Sydney University*

# Bankstown City Campus

## Supplementary Planning Information Package

12 August 2019, Issue for Review



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## 1. Introduction

The redevelopment of 74 Rickard Road (including Lot 5 DP 777510 and a portion of 375 Chapel Street -part Lot 6 DP 777510) is subject to a concurrent Planning Proposal, to amend the LEP development standards for FSR and Height of Buildings to Canterbury-Bankstown Council, and Development Application for State Significant Development (SSDA) to the Minister for Planning.

This report provides further information to Council to assist the Planning Proposal assessment, reflecting the progression of the Bankstown City Campus (BCC) development proposal since the original application was made. This includes progression of the Academic Plan and Fitout Brief by the University, consultation with GANSW through the State Design Review Panel process, and consultation with Council around technical and strategic design issues. In progressing the design for the BCC the design consultant team has:

- Visited the site and its immediate and broader context;
- Considered the current planning controls and strategic urban planning for Bankstown CBD and the site, including planning proposals near the site, the Draft Complete Streets Strategy, and Draft Economic Development Strategic Plan 2020-2025;
- Reviewed 'Better Placed' guidelines for Good Urban Design, published by the NSW Government Architect;
- Considered the key vantage points and urban context of the site, including surrounding property use and physical access to the site by car and public transport;
- Considered international and national examples of best practice for the design of vertical campus and educational facilities in city centre locations;
- Met with NSW Government Architect and Canterbury Bankstown Council's staff and consultants for pre-lodgement meetings to understand views, issues and opinions, revising and developing the design in response to their input;
- Collaborated across design disciplines including Architecture and Landscape Architecture, Façade, Structural, Civil and Building Services Engineers, and specialist consultants including Environmentally Sustainable Design, Vertical Transport, DDA, Wind, Acoustic, Facade Access and Maintenance and Quantity Surveyor, to fully consider all functional and performance aspects of the design proposal;
- Undertaken consultation with the University staff and students, including identifying lessons learned from previous projects and users functional requirements, to inform the base building design parameters and fitout design brief;
- Explored and tested a range of design options encompassing the building form and massing, façade treatments, and ground level interfaces, to ensure the proposal entails a well-considered and high-quality design outcome.

The detailed architectural design for the BCC will be subject to a separate SSDA to the Minister for Planning, which will run concurrently with the Planning Proposal process.

## 2. Vertical Campus Design

### 2.1. Vertical Campus precedents

The development proposal will create a new University Campus as a stand alone facility. As such, it needs to provide the full scope of facilities and amenities, that a University Campus offers its staff, students and visitors, in a multistorey building. The design parameters of a multistorey building to support a Vertical Campus are therefore necessarily different to those of Commercial or Residential multistorey buildings.

An overview of design parameters of several precedent Vertical Campuses are provided in Appendix A. Typical Floor Plate diagrams (Net Lettable Area shaded yellow) for the most relevant precedents are shown below, with table summarising key parameters and BCC. Benchmarking against relevant precedents will ensure that the facility is capable of meeting both the immediate and future needs of the Campus users:



1. SAB – RMIT, Swanston Academic Building. Completed in 2012, accommodating general purpose and specialist teaching, and staff workspaces for the College of Business, adjacent to the main City campus.

2. AHMS – University of Adelaide, Adelaide Health and Medical Schools. Completed 2017, a satellite campus facility accommodating specialist teaching and research for the Faculty of Health Sciences, with the South Australian Dental Hospital occupying the top three floors of the building.

3. NewSpace - University of Newcastle, The NewSpace building was completed in 2017, providing a satellite campus facility in the centre of Newcastle, with teaching and staff accommodation.

4. 1PSQ – Western Sydney University, Peter Shergold Building. Located off campus in Paramatta Square, accommodating teaching, staff workspaces, conference facility and Industry partnership tenants occupying upper floors.



	SAB	AMNS	NewSpace	1PSQ	BCC
Number of floors (incl basement & plant)	11	13	9	17	21
Floor to Floor height m	4.005 (Typical) 4.800 (Ground)	4.200 (Typical) 4.750 (Ground)	4.200 (Typical)	3.650 (Typical) 4.850 (Ground)	3.960 (Typical) 4.860 (Ground)
Gross Floor Area m <sup>2</sup>	35,000	30,500	14,200	30,500	29,160
Typical Floor Net Lettable Area m <sup>2</sup>	2,860	1,775	1,150	2,360 (Typical Teaching floor)	1,370 (Average)
Number of lifts	8	7	5	7	8
Escalators	6 levels	4 levels	3 levels	4 levels	8 levels

## 2.2. Vertical Campus objectives (Extract from SSDA Arch Design Report)

The creation of a stand-alone Vertical Campus necessitates a distinct set of objectives to be addressed in the design of a multistorey building. Unlike a multistorey commercial or residential building, the facility needs to be capable of accommodating a diverse and heterogeneous mix of spaces. The activities that need to be accommodated are incredibly varied, from individual focussed academic work through to large dynamic group events, in order to create a supportive workplace that facilitates student centred education. The internal planning needs provide room for the highly active and mobile occupants, addressing a complex mix of movement paths between destinations, and offering opportunities for serendipitous meetings, informal learning and social engagement.

To ensure the creation of a successful Vertical Campus, the Architectural consultant team has applied learning from previous projects across Australia and international benchmarking research to the project. Key objectives that reflect best practice and design excellence in Vertical Campus include the following:

- The diversity of a traditional ground based campus needs to be organised in a vertical configuration. This requires a variety of internal, external and concealed service spaces, as well as spatial, material and social diversity.
- Vertical Campuses will create an instant critical mass of occupants. The ground level needs to be highly permeable, connecting to broader urban access routes and providing appropriate space for high volumes of movement from entry points to the vertical circulation infrastructure.
- Vertical Campuses can act as a catalyst for urban regeneration, particularly when located in a site that was previously underutilised. Key issues to be considered include how the development may provide new ways of accessing, identifying and inhabiting both the site and it's surroundings.
- Vertical Campuses, being located in the midst of dissimilar land uses also needs to be civic minded, understanding how it may effect existing forms of access, identity and space use.
- The building will host an academic community with a diversity of occupants. The working and learning cohorts need to be arranged across the levels with consideration to proximities needed between groups, including the need for communal spaces that are shared between groups.

- Student centred design needs to provide a diversity of spaces to meet the desired pedagogical modes and the necessary informal and social learning modes. The relationship between staff and students, and exposure of students to a variety of research and learning fields are key considerations.
- The inclusion of outdoor spaces within the multi-storey building are critical amenities, providing breathing space for campus users. They should provide social spaces with a variety of environments, scales and orientations to provide diversity of choice, that are readily visible and accessible destinations.
- Internal layouts should enhance the opportunities for serendipitous encounters, including consideration of how vertical and horizontal circulation networks link key facilities, provide visual connections and opportunities to pause.
- Vertical Circulation needs to be triaged, formulating a strategy that prioritises and promotes the use of open stairs and escalators ahead of lifts. Considerations include presentation and visibility from the point of entry as well as operating systems to moderate lift use.
- Future proof the campus by planning for change and identifying key capacities and infrastructure features that consider needs beyond the immediate accommodation brief. Issues may include maximum occupancy population, fire engineering strategy, structural grids, and services access.
- The briefing should be forward thinking to address the needs of a new generation students, including consideration of appropriate teaching pedagogies, providing enough space, amenities, power access and wifi networking to support student learning experiences on campus.

### *3. Proposed Building Height*

The proposed height of the building is 83m above the site. The proposed height of the building has been derived from several design constraints and objectives. These are addressed in the BCC design proposal for the SSDA as outlined below:

- Ground Floor levels and entry points address the predicted 100year flood levels at the site. The existing ground plane and potential flood levels vary across the site, and freeboard above the flood levels have been incorporated based on consultation with the Council;
- Floor to floor heights developed to suit the proposed spaces and accommodation types at each level, incorporating coordinated services and structural height allowances. The proposal includes design flexibility to meet future changes to the internal layout. Refer Section 2.1 above for precedent benchmark floor to floor heights, highlighting that the typical floor to floor height is at the bottom of the range appropriate for Vertical Campus facilities.;
- Integration of building services plant rooms, roof top services and lift over-run within the overall building envelope, including setdown of outdoor BMU and Cooling Tower enclosures at Level 18.
- Design of the overall form with consideration to Urban Design objectives, including horizontal alignment of the open terrace at Level 3 with the Bankstown Knowledge Hub, and ensuring appropriate solar access to Paul Keating Park throughout the year (Refer Section 5).

Refer to the Appendices for revised drawings which show how these height objectives have been incorporated into the design proposal, within the proposed maximum height envelope.

## 4. Appian Way Analysis

### 4.1. Appian Way Alignment

Maintaining an open space at The Appian Way is one of the core Urban Design principles that have informed the BCC design. It is noted that the alignment of The Appian Way varies along its length, as shown in the diagrams included in Appendix B -Appian Way Boundary Alignment Diagrams.

The orientation and position of the east face of the building has been developed with consideration to the internal planning and wholistic design of the building and is proposed to be aligned at a right angle to the Rickard Road boundary.

The design team has reviewed the potential impacts to the project of realigning this façade to match the boundary line of Paul Keating Park, although it is noted that this boundary is not visually or physically evident at the site. A markup of the realignment impacts on the floor plans is provided in Appendix C. The markup assumes that the design changes include the repositioning of the east wall only, with minimisation of changes to other facades and external envelope of the building. The realignment would require full review of the structure, including grid setout to correspond with the new building core position, and reconfiguration of the basements to provide a new location for the basement entry ramp.

The key impacts to the proposed design include the following:

- Loss of built space including external terraces and internal floor areas over 18 levels = 4,020m<sup>2</sup>
- Reconfiguration of Ground level:
  - Ramp relocated close to the park to accommodate ramp and MRV turn around space head height, clear of Escalator pits.
  - Tiered multipurpose space relocated to accommodate basement ramp– no longer providing interface with park.
  - Retail space frontage to Appian Way reduced in area. Potential for narrow retail interface to Pak between site boundary and basement access ramp.
- Parking Spaces lost: nominally 10 spaces.

### 4.2. Appian Way Views

The progression of the design has included review of key views to the site, including the view up The Appian Way, and several views that have been identified in the SEARs for the SSDA application. Further to these views additional photographic montages have been prepared to illustrate how the BCC presents to pedestrians at the Appian Way and North Terrace corner, including views up the footpath on both sides of the street. These are included in Appendix E Updated Building Views package. This includes an illustrative mock-up of the view from the east side of the North Terrace junction (190809\_21\_G\_Appian Way RHS\_1.png to 3.png) which demonstrates how the visibility of the BCC from this location is largely associated with the open space and absence of building edge at Paul Keating Park. (Note, It is not proposed that there should be built form on the Park).

#### 4.3. Ground Level Awnings

The CBC's Draft Complete Streets Project addresses the future form and use of The Appian Way, including how the development on this site will integrate with this street. The Draft Complete Streets proposal identifies that the future character of Appian Way is as a key 'activity spine', linking the Civic Precinct and University to the Rail and Bus Interchange, with a shared zone environment prioritising pedestrian movement and encouraging street life and retail activity.

The BCC project aligns with the intent and principles of this proposal, including:

- upgrading the pedestrian environment on this portion of the Appian Way;
- providing a Key Active Frontage to the Appian Way (through Retail shopfronts and University entries, plus infrastructure for street events)
- undercover pedestrian access provided by the proposed awning;
- incorporation of street tree plantings for shade and amenity;

The proposal also provides an enhancement of the pedestrian prioritisation of the Appian Way through modified organisation of the landscape zones and features shown in the Complete Streets draft document. This consolidates a pedestrian only zone as a linear park, and provides clear views through the elevated entrances into the University. The entries have been carefully negotiated to ensure equality of access to all users, and opportunities for pedestrians and retail patrons to occupy the edges and open space, whilst meeting the conflicting need to elevate the entry points 500mm above the 100 year flood level.

The incorporation of the glazed awning ensures that the BCC will provide compliant undercover access to building entries for all users, as well as undercover access for pedestrians walking between Rickard Road and Paul Keating park, and enable occupation of the new linear park, in a broad range of weather conditions. The awning extent, in conjunction with the screening offered by new street trees, also serves to mitigate potential wind impacts and ensure pedestrian comfort conditions along The Appian Way.

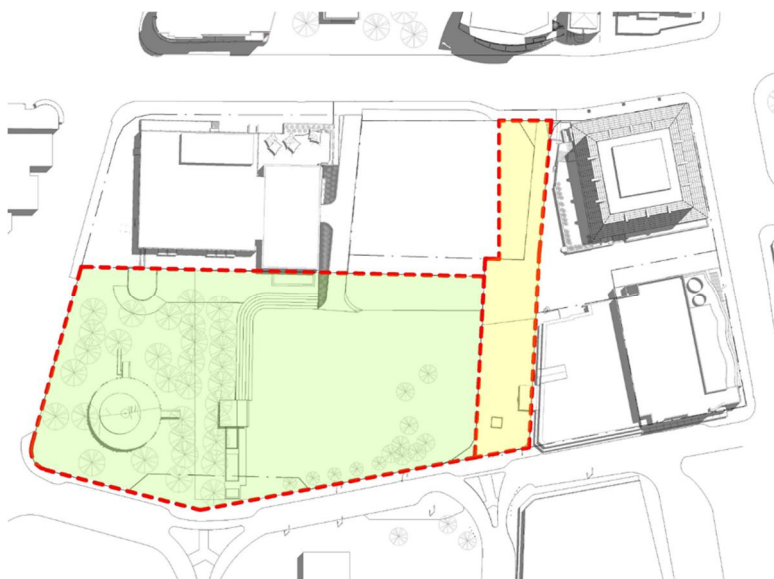
Views of the Appian Way pedestrian environment and building entries are included in Appendix E.

#### 5. Solar Access

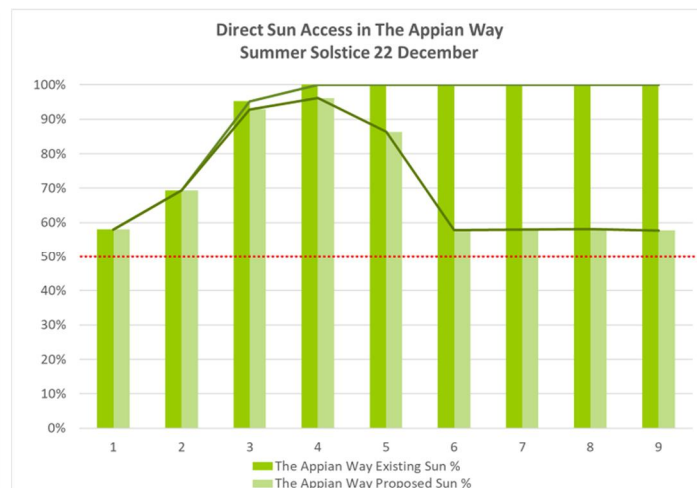
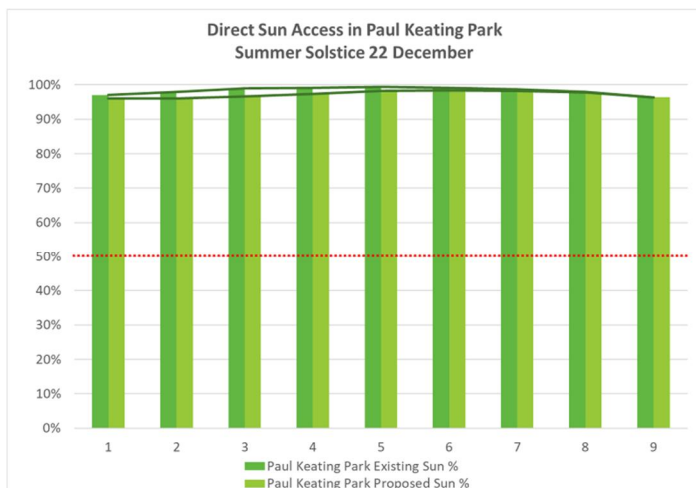
Sun studies identifying the percentage of the Park and The Appian Way that have direct sun access currently, and with the proposed development, have been prepared. These demonstrate that the percentage of park space with direct sun access is comparable to the planning precedent of The Drying Green, maintaining direct sun access to at least 50% of the park for at least 4 hours throughout the year.

Sun Shadow diagrams for the Summer Equinox, Spring and Autumn Solstices, and Winter Equinox, are provided in Appendix D, together with the analysis graphs below. These identify the existing and proposed access for Paul Keating Park (shaded green) and The Appian Way (and shaded yellow).

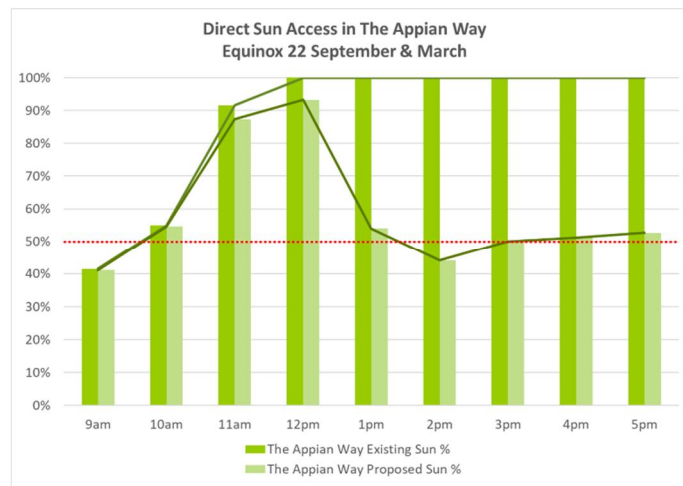
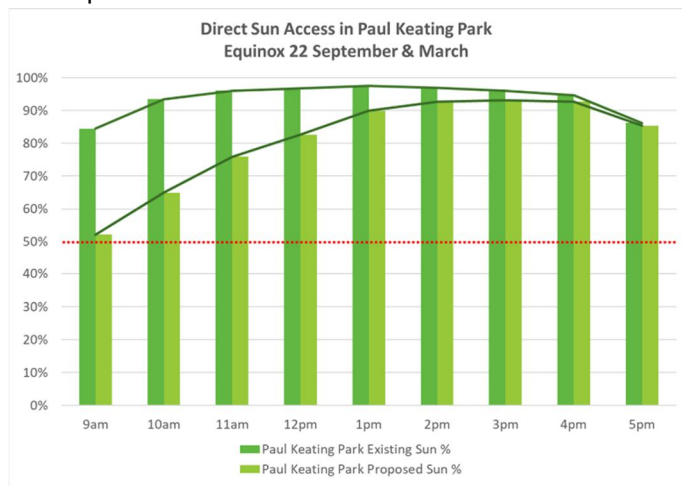




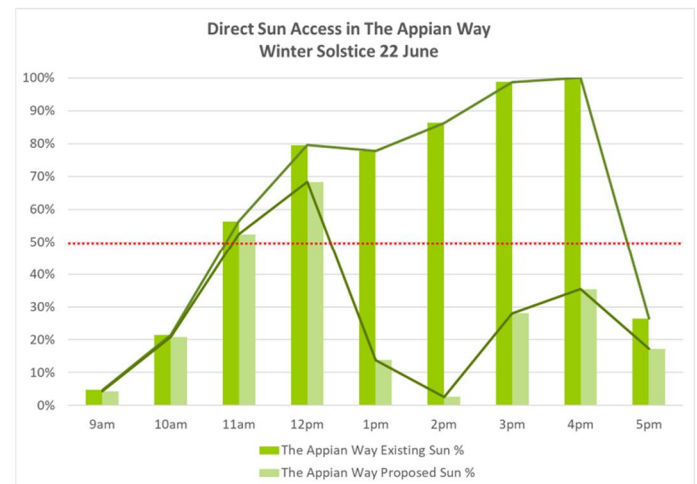
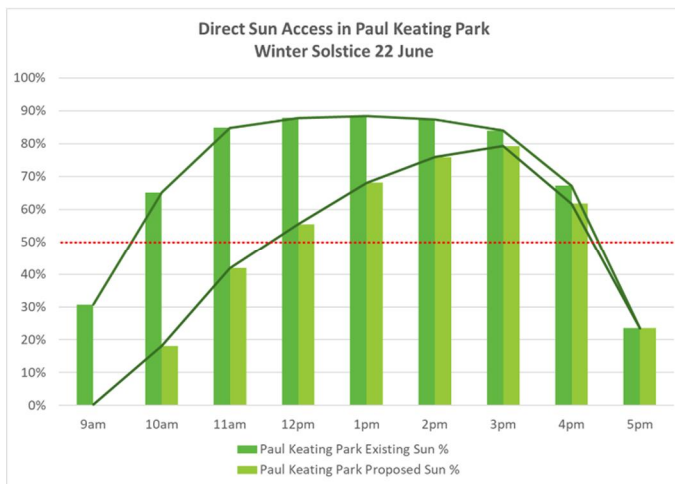
### Summer Solstice:



### Equinox:



## Winter Equinox:



## 6. Proposed Facades

The proposed building façade treatments have been developed since the original Planning Proposal application, addressing the aesthetic expression and presentation of the Campus together with technical performance needs, materiality and buildability investigations and maintenance access requirements. The proposed design is shown in the updated Elevation drawings (Appendix F) and updated Building Views package (Appendix E).

Key features of the design include:

- Incorporation of a curtain wall system to all façade orientations providing full height glazing from skirting to ceiling, with ceiling to floor zone incorporating spandrel and louvre zones. The curtain walling incorporates colours sun shading elements that address the different orientations and sun exposure of the different facades.
- The sun shading together with the incorporation of solid panels on east and west facades, incorporate a dynamic colour treatment to aluminium elements, enhancing the visual legibility of the building, breaking down the overall form into clear components.
- The volumes of the building envelope are further articulated by the neutral GRC edging, echoed at night by LED strip lighting.
- Facades at the main terrace levels, including Level 3, 7, 13 and 16, are also set back with planter enclosures along these edges to provide clear delineation of the forms.
- The incorporation of Green Wall treatment on the East Façade extends the expression of the terraces and planters along this façade. This camouflages the core wall and provides a substantial visual green space connection from Paul Keating Park through to Rickard Road.

## *Appendix*

- A. Vertical Campus Precedents***
- B. Appian Way Boundary Alignment Diagrams***
- C. Appian Way Realignment Building Impact Review***
- D. Solar Access diagrams*** (9am to 5pm, Summer Solstice, Equinox, Winter Solstice)
- E. Updated Building Views package***
- F. Updated Drawings*** (updated Plans and Elevations)

DA00-01 Rev 1	Proposed Site Plan	1:500
DA02-01 Rev 1	Area Plans GFA (Bankstown LEP 2015)	1:750
DA30-01 to DA30-22 Rev 1	Floor Plans	1:200
DA40-01 to DA40-04 Rev 1	Building Elevations	1:200
DA45-01 Rev 1	Building Section A	1:200
DA45-02 Rev 1	Building Section B	1:200