ETHOS URBAN

22 September 2021

Karen Harragon
Director, Social and Infrastructure Assessments
School & Infrastructure Assessments
NSW Department of Planning, Industry and Environment
4 Parramatta Square, 12 Darcy Street Parramatta 2150

Dear Karen

RESPONSE TO SUBMISSIONS
UNSW HEALTH TRANSLATION HUB (SSD-10822510)

The Environmental Impact Statement (EIS) for the UNSW Health Translation Hub (HTH) was publicly exhibited for a period of 28 days, from 19 May 2021 to 15 June 2021. During the exhibition period, nine (9) submissions were received from public authorities, one (1) submission was received from an organisation and one (1) public submission was received. One (1) additional public authority submission was received after the close of the exhibition period.

All public authority submissions commented on the proposal. The organisation and public submissions were written in support of the proposal.

The Department of Planning, Industry and Environment (DPIE) has also prepared a letter setting out additional information and clarifications required prior to final assessment of the project. The proponent, NSW Health Infrastructure (HI), together with UNSW and its specialist consultant team have reviewed and considered all issues raised in the submissions and DPIE's letter.

This letter sets out the responses to the issues raised in accordance with Clause 85A of the *Environmental Planning and Assessment Regulation 2000* (EP&A Reg). It provides clarification of certain elements of the proposal and provides additional technical assessment to address the issues raised.

As detailed in this response, some minor changes are proposed to address the comments raised by the agencies, including amendments to the landscape design to provide an outdoor terrace and increased tree plantings, amendments to the design of the airbridge between the UNSW HTH and the SCH Stage 1 and CCCC, and removal of the Botany Street pick-up and drop-off bay. These minor changes to the design are shown in the attached documents. Despite the proposed changes, the description of the development remains the same as originally sought.

A detailed response to each submission is provided in the response table provided at **Attachment A**. This covering letter and the response table should be read in conjunction with the following attached documentation:

- Detailed Response to Submissions Table prepared by Ethos Urban (**Attachment A**);
- Integrated Architectural and Public Domain Urban Design Response to Submissions Report (**Attachment B**);
- Revised Architectural Drawings prepared by Architectus (**Attachment C**);
- Revised Landscape Drawings prepared by Aspect Studios (**Attachment D**);
- Traffic and Transport Response to Submissions Report prepared by JMT Consulting (**Attachment E**);
- Response to Engineering Comments prepared by Arup (**Attachment F**);
- Controlled Activity Approval (**Attachment G**);
- UNSW Environmental Sustainability Plan (**Appendix H**); and

- Response to flooding comments prepared by Warren Smith Consulting Engineers (**Attachment I**).

This covering letter provides a response to the following key issues raised in the submissions:

- The provision of outdoor terraces;
- Tree canopy cover and revisions to the landscape plans;
- The airbridge connection between the UNSW HTH and SCH Stage 1 and CCCC;
- The Botany Street pick-up and drop-off zone; and
- Shadow impacts on the IASB.

1.0 Provision of Outdoor Terraces

1.1 Issue

DPIE and Council have suggested that consideration be given to the provision of outdoor roof terraces to provide amenity for occupants, as well as opportunities for outdoor learning and breakout spaces.

1.2 Response

The project team has considered these comments, and in response, has provided a north facing outdoor terrace at Level 8 of the UNSW HTH. The northern roof top that is accessible from Level 8 has been selected as the most appropriate location due to its northern aspect, expansive views and favourable weather/wind conditions.

As the building is not yet tenanted, the use of Level 8 is unknown. As a result, the terrace has been designed as a flexible space that can be adapted depending on the future tenant's needs. On this basis, the landscape treatment comprises a simple combination of accessible outdoor amenity to the north and non-accessible maintenance and access zones to the east and west.

The terrace and landscape zone are shown in the revised Architectural Drawings at **Attachment C**.

2.0 Tree Canopy Cover and Landscape Plans

2.1 Issue

DPIE and Council have suggested that consideration be given to improving canopy cover, noting that the proposed 14% coverage is less than the minimum 25% recommended by the NSW Government Architect's Draft Greener Places Design Guide.

DPIE and Council have also made the following recommendations and requests:

- Consideration to the provision of larger trees and more trees at the ground plane, particularly in the deep soil zones, but also through improved soil depth and volumes for on-structure plantings and through more detailed consideration of opportunities and limitations of plantings above and around the stormwater culvert.
- Consideration to providing plantings to upper-level terraces and utilisation of podium roof areas for landscaping to provide high quality outdoor spaces for occupants of the building and to assist with offsetting any shortfall in tree canopy cover.
- The landscape plans are to be updated to provide additional detail including: the species of each tree, a planting schedule that identifies species, pot size and the mature height and width of trees, soil depth over the stormwater culvert, and the provision and specifications of any permeable paving.

2.2 Response

2.2.1 Tree Canopy Cover and Tree Plantings

In response to the submissions, further consideration has been given to tree plantings and tree canopy coverage on the site. The proposed tree canopy coverage has been increased to 18.83%, which is more consistent with the recommendations of the Draft Greener Places Design Guide.

The revised proposal represents an increase of 4.83% when compared to what was originally proposed, and an increase of 8.63% when compared to the previous residential tree canopy cover (now removed). This has been achieved through planting of additional trees and greater consideration to species selection which has resulted in larger tree canopies. A comparison between the previous residential tree canopy (now removed) and proposed tree canopy cover is provided at **Figure 1**. **Figure 2** provides further detail around tree canopy plantings both within the site, and on the surrounding footpath. Additional trees have been located where soil depth is appropriate, particularly within the northern landscape embankment and the plaza planters. Tree planting within the stormwater culvert has been restricted to areas which allow for substantial mounding, resulting in greater soil volume. Sections through the stormwater culvert, demonstrating that the soil depth is capable of accommodating significant tree plantings, are provided at **Attachment D**.

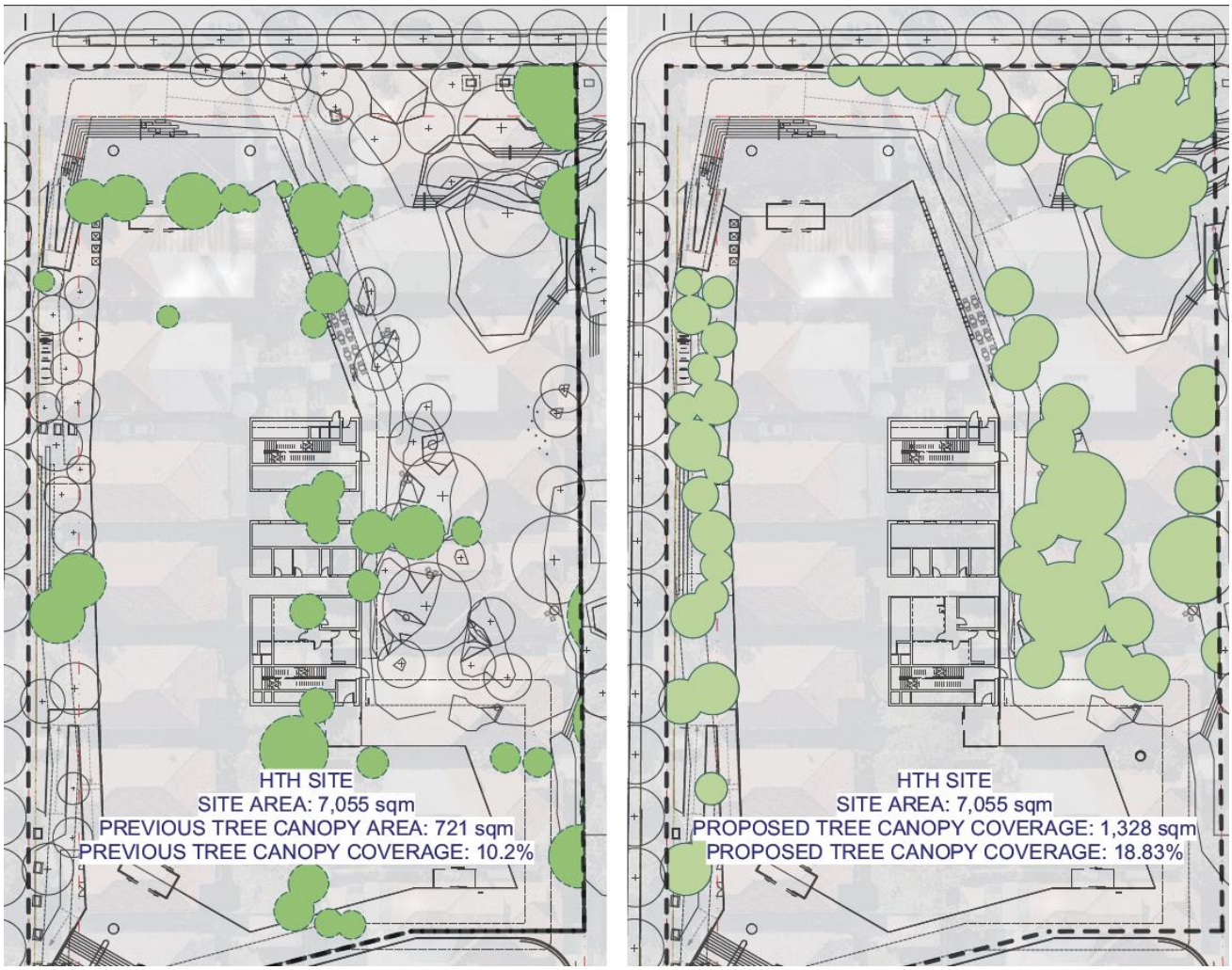

Figure 1 Previous Residential (now removed) tree canopy (left) and proposed tree canopy (right)

Source: Aspect

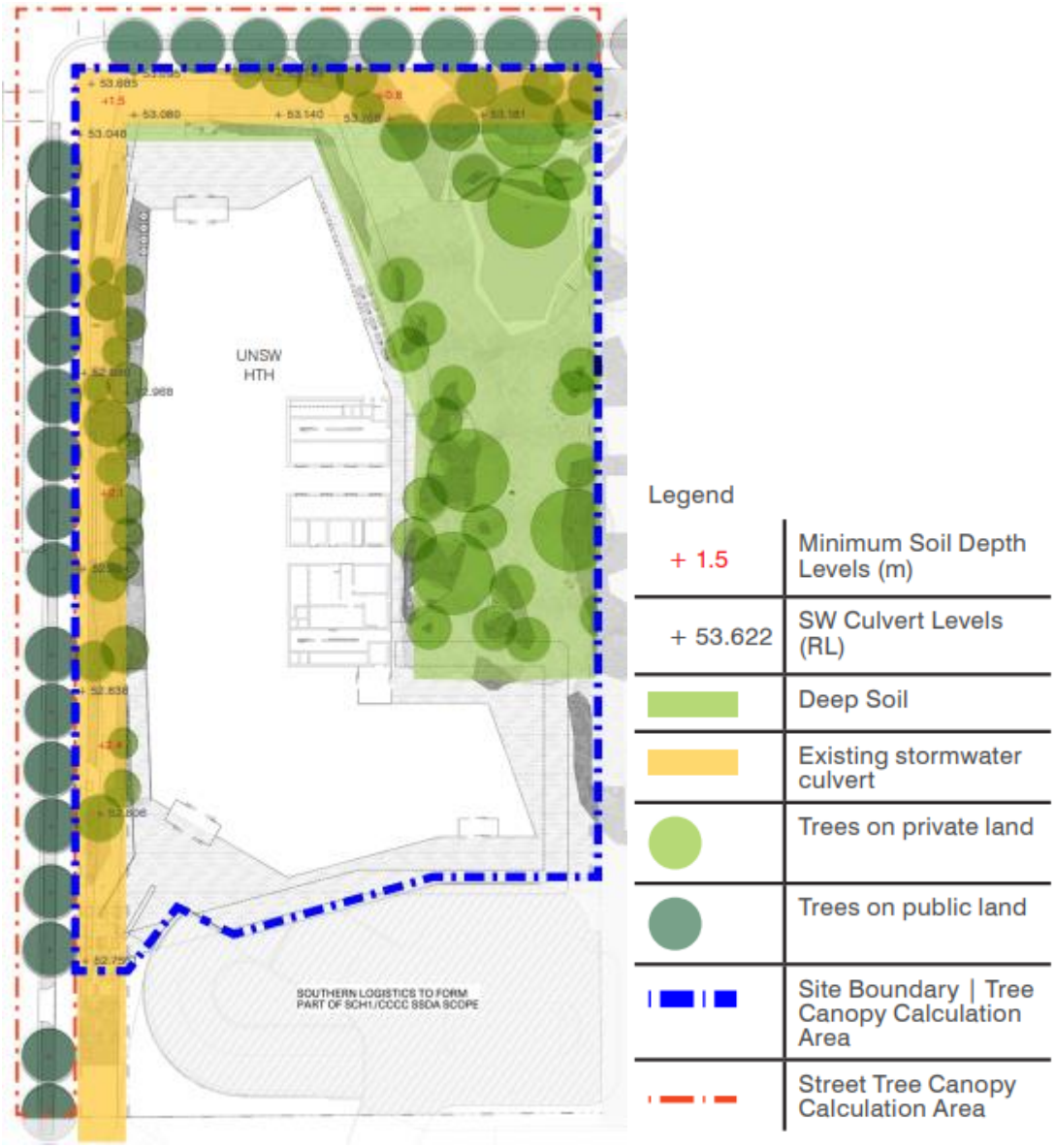

Figure 2 Proposed tree canopy coverage

Source: Aspect

2.2.2 Upper-Level Terrace Plantings

As noted above, it is proposed to make the north-facing terrace at Level 8 accessible. As the building is not yet tenanted, the terrace has been designed as an indicative simple and flexible space that can be adapted depending on the future tenant's needs. On this basis, the landscape treatment comprises a simple combination of accessible outdoor amenity to the north and non-accessible maintenance and access zone to the east and west.

As tree canopy coverage is now increased at ground level, there is no need to supplement ground level tree planting at the upper levels. Noting also that there is not sufficient soil volume due to the space constraints to allow for trees within this area at this upper level.

2.2.3 Additional Details and Plans

The revised Integrated Architectural and Public Domain Response to Submission Report (**Attachment B**) and the revised Architectural and Landscape Plans (**Attachment C** and **Attachment D**) provide the requested details. It is noted that details have not been provided with regard to permeable paving, as this treatment is not considered suitable given the high traffic nature of the UNSW Plaza. This is because are very few permeable pavers that are appropriate for a high traffic, urban plaza environment such as the UNSW Plaza.

Proprietary interlocking pavers create issues for DDA compliance and risks of trips and falls with the gaps between them, and bonded aggregate types are more appropriate around tree pits and in low traffic movement zones due to longevity of the product.

The intent is to also use planting between sandstone paving and timber decks adjacent to seating within the breakout zone as permeable paving solutions. Ongoing work is also underway with the project's civil engineers to resolve the design intent of a WSUD and biofiltration system within the landscape embankment to High Street.

The use of a soil-vault system will also be implemented underneath non-permeable paving areas to allow for oxygen and water to enter compacted soil. This ensures trees are able to reach maturity and good health. This also contributes to the overarching WSUD strategy in which water is captured within landscaped areas.

3.0 Airbridge Connection to SCH Stage 1 and CCCC

3.1 Issue

DPIE has requested that additional consideration be given to the design of the airbridge connection between the UNSW HTH and the SCH Stage 1 and CCCC building, with regard to the previous advice from the State Design Review Panel.

3.2 Response

The design team has given further consideration to the design of the airbridge connection to the SCH Stage 1 and CCCC, having regard to previous advice from the State Design Review Panel on both projects.

With reference to the most up-to-date façade design for the SCH Stage 1 and CCCC, the UNSW HTH design team proposes to remove the solar hoods that previously extended along the airbridge connection. This will provide an un-adorned elevation to the airbridge that is characterised by the transparency of its glazing. To reinforce the neutrality of the airbridge, the northern facade has been recessed to further separate the building facades and to give emphasis to the airbridge's legibility and purpose as a linking element in the composition of building forms.

Architectus considers that the proposed refinement is consistent with the design intent for the precinct, whereby each building expresses its unique identity with the airbridge having a more neutral character that allows this identity to be best represented.

The design refinements have been illustrated in **Figure 3** and on the updated elevations at **Attachment C**.

Figure 3 Revision to the UNSW HTH and SCH1 and CCCC airbridge

Source: Architectus

4.0 Botany Street Pick-Up and Drop-Off Zone

4.1 Issue

DPIE, TfNSW and Council have requested that the indented drop-off spaces on Botany Street be removed, and have suggested that consideration be given to providing kerb ramp access for bicycles from the roadway in the vicinity of the ramped access to the end-of-trip facilities.

4.2 Response

The Botany Street design has been modified to remove the indented drop-off spaces and to provide a continuous kerbline. However, it is proposed that a dedicated 20 metre pick-up and drop-off area, to be used by people accessing the UNSW HTH, be provided along the Botany Street kerb, with this area to be signposted as '5 Minute Parking' to allow for the efficient drop off and pick up of passengers.

The project team has considered the suggestion to provide a kerb ramp on Botany Street adjacent to the entrance to the end of trip facilities, however it is not recommended for safety reasons. Key reasons why this measure is not supported are as follows:

- A shared pedestrian / cycling pathway is to be provided on the eastern side of Botany Street, adjacent to the entry to the end of trip facilities. Cyclists should be encouraged to use this pathway rather than the Botany Street roadway which does not have any dedicated cycling facilities;
- A kerb ramp on Botany Street may provide people with the false impression that a pedestrian crossing point exists at this location. This would in turn create safety concerns with pedestrians attempting to cross Botany Street mid-block rather than utilise the formal crossing points at High Street or the future UNSW Gate 11 traffic lights; and

- Cyclists riding at high speeds on Botany Street utilising the kerb ramp would then travel quickly across the shared path into the vicinity of the end of trip facilities – in doing so conflicting with pedestrians walking along the footpath in the perpendicular direction.

Based on these safety concerns, a kerb ramp has not been included in the revised design for Botany Street.

5.0 Shadow Impacts

5.1 Issue

Council has requested hourly shadow diagrams at June 21 to demonstrate the overshadowing impact of the UNSW HTH on the IASB forecourt and main hospital vehicular drop-off / pick-up, which Council has identified as providing an important new green space along Botany Street for the enjoyment of Randwick Hospital, the UNSW campuses and the broader Randwick community. Council has noted that it appears as though the southern leg of the UNSW HTH will overshadow the Children's Hospital emergency vehicular drop off loop and pedestrian waiting area for most of the winter months.

5.2 Response

In response, Architectus has prepared hourly shadow diagrams at June 21 (refer to **Attachment A** and **Figure 4**). The shadow diagrams distinguish between shadows cast by the UNSW HTH, SCH Stage 1 and CCCC and the IASB. They also show the location of the internal road network and vehicular drop-off / pick-up. The summary below demonstrates the, on balance, the shadow cast by the UNSW HTH on the green space along Botany Street is acceptable as it does not cast significant shadow on this space between 12:00pm and 3:00pm on the Winter Solstice.

It is noted that the spaces Council has identified are primarily transitionary / access spaces - they are not necessarily spaces where visitors or the public will dwell. It is expected that the publicly accessible UNSW Plaza will become a key space within the precinct for passive recreation. The UNSW plaza will receive partial solar access at all times of the day on the Winter Solstice, and almost full sun between the critical 11am – 1pm lunchtime period.

Overall, the shadow diagrams demonstrate that:

- At all times of the day on the Winter Solstice, the IASB will overshadow all or part of the U-shaped space at the entry to the IASB (the IASB entry forecourt);
- Between 10am and 3pm on the Winter Solstice, parts of the hospital access area and vehicular drop-off / pick-up will receive some solar access. There are significant areas of solar access available between 12pm – 2pm; and
- From 2pm onwards, existing buildings on the UNSW Kensington Campus will overshadow all or part of the IASB forecourt and hospital access area and vehicular drop-off / pick-up.

With respect to the impact of the UNSW HTH, the shadow diagrams demonstrate that:

- The UNSW HTH will have a minimal impact on the IASB entry forecourt;
- The UNSW HTH will overshadow parts of the hospital access area and vehicular drop-off / pick-up between 9am and 12pm on the Winter Solstice, however shadows are largely limited to the access roads and circulation spaces; and
- From 1pm onwards, the UNSW HTH will have a limited impact on the hospital access area and vehicular drop-off / pick-up.

Based on the above, it is considered that the overshadowing impacts associated with the UNSW HTH are acceptable. Despite the UNSW HTH, parts of the hospital access area and vehicular drop-off / pick-up will receive solar access between 10am and 3pm on the Winter Solstice, providing opportunity for visitors to find areas of sunlight, if desired. Further, as part of the UNSW HTH, a large, north-facing publicly accessible plaza will be provided which will receive ample solar access on June 21.

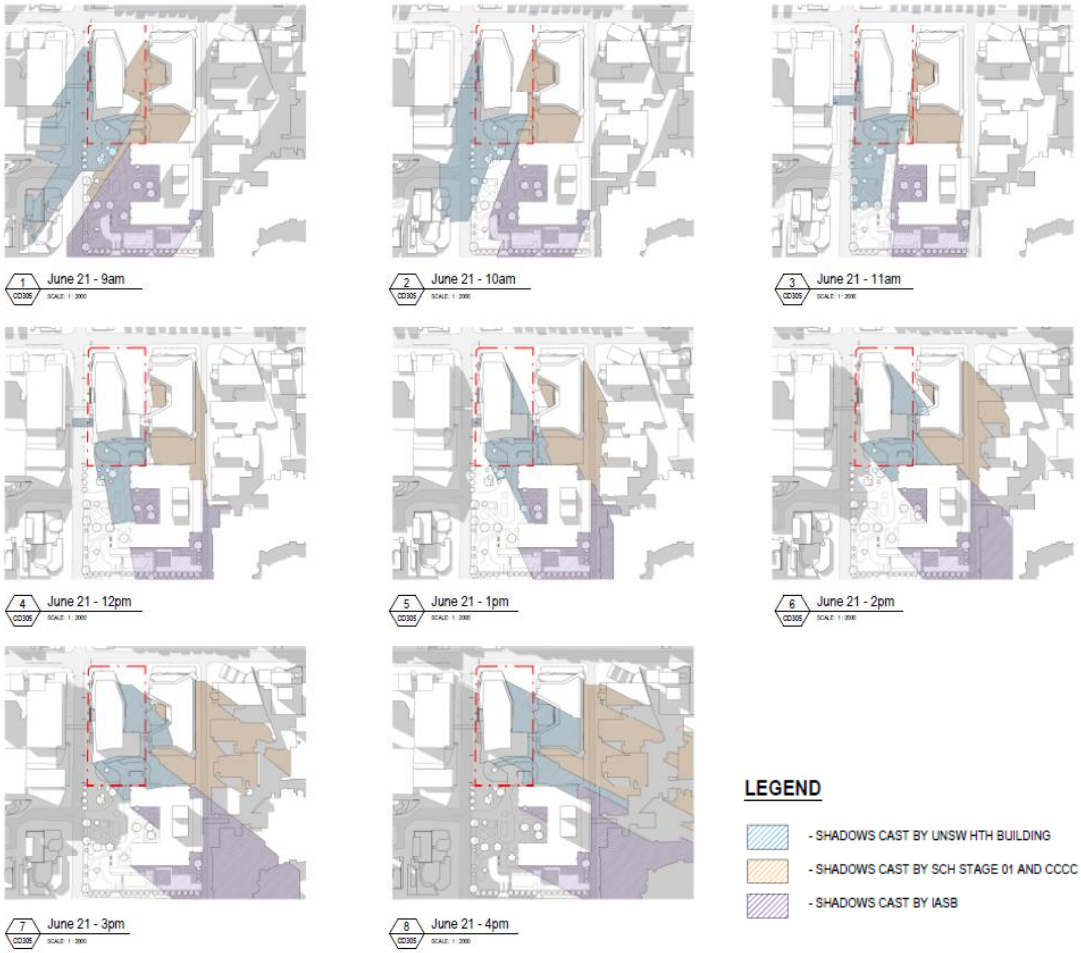

Figure 4 Revised shadow diagrams

Source: Architectus

We trust that this information is sufficient to assist DPIE's assessment of the proposed development. Should you have any queries about this matter, please do not hesitate to contact the undersigned.

Yours sincerely,

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