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1 March 2023

Our Ref: 2023/105859
File No: R/2023/5
Your Ref: SSD 47662959

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Department of Planning and Environment

Via Major Projects Portal

Dear Nathan

Royal Prince Alfred Hospital Redevelopment – SSD 47662959 – Advice on EIS

Thank you for your correspondence dated 1 February 2023 inviting the City of Sydney Council (the City) to comment on the proposed redevelopment of Royal Prince Alfred Hospital (RPA).

The proposal seeks to expand the existing surgical and medical facilities of RPA Hospital East Campus including the construction of a new 15-storey eastern wing, a three-storey eastern expansion, a two-storey northern expansion, internal refurbishment and associated landscaping, public domain and traffic works. The proposal also includes ancillary works to RPA Hospital West Campus including the provision of a temporary helicopter landing site, works to services and associated landscaping works.

The City is not objecting to the project.

The City has reviewed the submitted EIS and supporting documentation and provide the following comments for your consideration.

1 Built Form, Urban Design and Design Quality

The City notes the project has undertaken a competitive design process previously with the preferred design from architects Bates Smart et al being selected as winner by majority vote. The Architectural Design Competition report notes the Bates Smart et al scheme was selected due to the success in planning for navigation and wayfinding, integration of landscaping, maximising views while retaining significant trees and quality of façade design and materiality of the new wing, northern extension, and Forest Spine.

The report then highlights matters within the winning scheme that require resolution during the design development phase of the project to respond to technical aspects of the brief, maintain key design intent and principles and ensure the scheme can achieve design excellence. Matters included the following:

- Consideration of providing interpretation of the heritage-listed Pathology Building rather than a partial retention
- Rationalisation of the Forest Spine to align with the project budget

- Internal planning refinements to address clinical planning and project budget requirements
- Design amendments to the Missenden Road frontage to address heritage impacts
- Removal of the Southern Place design
- Reduction in scale of the northern entry form to achieve a suitable scale adjacent to the Nurses Courtyard
- Careful consideration of visual privacy conflicts between the Eastern Wing and Clinical Services Building
- Internal planning refinements to increase 20-bed shortfall, promote natural daylight in the ICU and NICU wards and other functional requirements.

The City is generally supportive of the design direction of the project and that it can achieve Design Excellence.

The City, however, does not agree with the direction of heritage interpretation in response to the competition jury's recommendation and is further discussed in Section 2 below.

The following recommendations are made in relation to built form, urban design, and design quality:

- Maximise the use of biophilic design features to the building façade, layout and finishes wherever possible.
- Reduce the overall appearance of building bulk by providing more articulation through fine grain modulation to the façade.
- Soften the building interface by incorporating further facade planting, particularly in areas where there are window openings proposed. This could be done by having the building façade reflect the building's internal program and for the building facade to respond to sunlight.
- In the respiratory rooms on Level 6, consider prioritising the internal planning for the patient bed to be located closer to external windows, to increase proximity to natural daylight and views, subject to compliance with clinical requirements. Consider flipping the plan such that the amenities/wet areas further away from the external building facade, particularly if no daylight/fenestration is to be provided to these areas (as provided in antenatal – Level 12).

2 Environmental Heritage

Although the City acknowledges the redevelopment of RPA is essential in addressing the public health needs of the community, it is disappointing that the proposed works will result in a negative heritage impact, particularly with the removal of heritage landscaped areas, the removal of the Pathology building and the removal of the RPA Chapel. The submitted Statement of Heritage Impact describes the removal of significant heritage elements as causing "an irreversible and permanent loss of heritage value to the subject site".

During the first round of the Architectural Design Competition, the Bates Smart et al scheme included the majority retention of the Pathology building however, the Jury was not convinced of the proposed solution which encased the heritage item and disrupted

its setting, diminishing the benefits of retention. In the second round, the Architectural Design Competition report notes “the heritage retention of the portico of the Pathology Building was not supported by the Jury and was identified as an element required further amendment”. Retention was not supported “as it compromises the heritage items and setting”.

The City would have preferred that an alternate solution to the heritage building’s conservation, adaptation and integration with the project would have been found within the competition framework.

Nevertheless, it is recommended that the mitigation measures outlined in Section 8.2 of the Statement of Heritage Impact be imposed as a condition of consent, should the proposal be recommended for approval. The measures include preparation of the following:

- Photographic archival recording
- Measured drawings of Buildings 94 (Tissues Pathology and Diagnostic Pathology) and Building 95 (RPA Chapel)
- Salvage methodology
- Heritage Interpretation Plan
- Updated Conservation Management Plan for the RPA site
- Replantation strategy
- Temporary Protection Measures
- Engagement of a suitably qualified and experience heritage consultant
- Use of skilled tradespeople in relation to works to heritage fabric
- Archaeological monitoring

Additionally, it is recommended that a condition be imposed requiring the submission for approval of a detailed design of the addition to the ambulance canopy in front of the Albert Pavilion, at a scale of 1:20 which is to include details of external materials, finishes, colours and roof drainage. The design should be prepared with input from the consulting heritage specialist and is to relate sympathetically to the context and setting with minimal interruption to primary view lines.

3 Trees and Landscaping

The tree numbering has been adopted from the Arboricultural Impact Assessment (AIA) – Stage 1 prepared by Martin Peacock dated 14 November 2022. The arborist report states that as detailed plans of the development are yet to be submitted, a comprehensive assessment of the impacts to the existing trees cannot be undertaken at this stage. An AIA report (Stage 2) will be required based on further detailed plans.

Overall, 105 trees have been assessed within the RPA Hospital Grounds and Sydney University regarding the impacts with the proposed developments. As part of the redevelopment works a total of 71 trees are proposed to be removed and 34 are indicated for retention. A number of trees located on the eastern boundary, adjacent to Sydney University campus within the Rear Garden group, have also been proposed for removal. Many of these species in this location are listed on the City’s Significant Tree Register. This area is also considered to be of moderate heritage significance as per the Statement of Heritage Impact report written by Heritage 21 dated November 2022.

See detailed comments on proposed tree removal below.

3.1 Tree Removal – Supported

A total of 41 trees are supported for removal. A list of trees below have been assessed as having low retention value and thus the City raises no objection to their removal.

RPA Hospital East Campus

Tree No	Species	Comments
RPA Hospital East Campus		
17	Syagrus romanzoffianum (Cocos Palm)	exempt species
22	Corymbia maculata/citriodora (Spotted Gum)	early mature planted trees, group of 8
23	Corymbia citriodora (Lemon Scented Gum)	early mature planted species, group of 3
24	Corymbia citriodora (Lemon Scented Gum)	early mature planted species, group of 10
25	Pyrus sp. (Ornamental Pear)	semi mature, group of 2
32	Livistona australis (Cabbage Tree Palm)	Section 5.14 Tree Succession Strategy
33	Plumeria acutifolia (Frangipani)	low retention value, within building footprint
35	Celtis sinensis (Chinese Nettle Tree)	environmental weed
36	Acmena smithii 'Minor' (Dwarf Lilly Pilly)	crown density 50-75%, poor condition
38	Persea americana (Avocado)	semi mature
43	Melia azedarach (White Cedar)	early mature – exempt species
RPA Hospital West Campus		
2000	Populus simonii (Simons Poplar)	Early mature, trees are in fair condition. Group of 7.
Sydney University Campus		
126	Polyscias elegans (Celery Wood)	Semi mature. Section 5.14 Tree Succession Strategy
594	Cinnamomum camphora (Camphor Laurel)	Tree in fair condition, heavily suppressed. Section 5.14 Tree Succession Strategy
596	Ficus microcarpa var. Hillii (Hills Fig)	High retention value. Pathology testing confirms tree infected by Armillaria

Trees 22-24 (21 x Corymbia citriodora and Corymbia maculata/citriodora) although have good health and structural rating and contribute to substantial amount of canopy coverage, have varying degrees of suppressed growth due to the close proximity of the plantings. All trees are of a semi mature age and have been planted as part of previous landscape works. The Landscape Plan by Turf Design Studio indicates that these trees are proposed to be replaced in the same vicinity with the same species. However, fewer numbers are proposed to be planted with increased planting spacings – which is supported. The increased spacings will provide increased solar access which will promote establishment and improved development of the new trees.

Trees 17, 43, 130 and 131 are considered exempt species in accordance with Section 3.5.3 Tree Management Sydney DCP 2012.

Tree 32 Livistona australis (Cabbage Tree Palm) and 126 Polyscias elegans (Celery Wood) form part of the removals regarding the Tree Succession Strategy. Being that the retention of these trees is considered low, the removals will provide additional space and solar access for the development of new tree plantings in the area and the proposed new species selection will provide greater long term amenity and landscape value.

Tree 596 Ficus microcarpa var. Hillii (Hills Fig) has been given a retention value of high. However, the arborist report contains pathology test results which has confirmed that the presence of Armillaria sp. within the tree. Armillaria is a serious fungal pathogen causing decay in the root system and lower trunk of infected trees. Because of this, the useful life

expectancy (ULE) of the tree has been diminished to 5-15yrs. The arborist report notes that the tree will highly likely be required for removal in the short to medium term regardless of development.

The remaining trees have been assessed as having low significance to the area due to being of fair health and/or structure, provide limited canopy coverage and conservation benefits and are of either semi mature or small tree species which are easily replaceable.

3.2 Tree Removal – Not Supported

The City does not support the removal of the 22 trees listed below. The trees assessed below have been evaluated to have moderate to high retention values. These trees are considered significant; providing important historical, amenity and canopy value to the site. Any trees from this group that can be retailed as a result of further investigation, or change in construction clearance considerations, should be retained.

The City considers tree removal as a last resort option, so any trees of significance, high or medium retention value need to be retained, protected, and factored into the design.

Tree No	Species	Retention rating
RPA Hospital East Campus		
18	*Lophostemon confertus* (Brush Box)	*Moderate*
19	*Magnolia grandiflora* (Bull Bay Magnolia)	*High*
31	*Cinnamomum camphora* (Camphor Laurel)	*Moderate*
34	*Cinnamomum camphora* (Camphor Laurel)	*High*
37	*Cinnamomum camphora* (Camphor Laurel)	*High*
39	*Cinnamomum camphora* (Camphor Laurel)	*High*
40	*Cinnamomum camphora* (Camphor Laurel)	*High*
41	*Ficus microcarpa* var. 'Hillii' (Hills Weeping Fig)	*High*
42	*Jacaranda mimosifolia* (Jacaranda)	*High*
47	*Jacaranda mimosifolia* (Jacaranda)	*Moderate*
48	*Jacaranda mimosifolia* (Jacaranda)	*Moderate*
49	*Platanus x acerifolia* (London Plane Tree)	*High*
50	*Corymbia citriodora* (Lemon Scented Gum)	*High*
51	*Corymbia citriodora* (Lemon Scented Gum)	*Moderate*
52	*Cinnamomum camphora* (Camphor Laurel)	*High*
53	*Cedrus sp*. (Cedar species)	*High*
591	*Cinnamomum camphora* (Camphor Laurel)	*High*
Sydney University Campus		
585-587	*Cupressus* sp.(Cypress species)	*Moderate*
588	*Cinnamomum camphora* (Camphor Laurel)	*Moderate*
593	*Ficus microcarpa* var. Hillii (Hills Fig)	*Moderate*
595	*Ficus microcarpa* var. Hillii (Hills Fig)	*High*

Trees 31, 37, 39, 40, 41, 49, 50, 52, 53, 591 and 595 have been indicated as 'Priority for Retention' according to the arborist report and has been given a retention rating of High. These trees hold great significance to the area due to their historical, amenity and landscape value.

Additionally, Trees 31, 37, 39, 40, 41, 42, 47, 49, 50, 51, 52, 53, 591, 593 and 595 are located within the Rear Garden precinct and are listed as significant within the City of Sydney Significant Trees register.

The Statement of Heritage Impact report by Heritage 21 states "the extent of mature trees, which contribute to the significance of this precinct, and which are scoped for removal is considerable and disappointing". Furthermore, the report states "the large-scale removal of mature trees from this area would result in the irreversible loss of heritage value to the subject site. It would fragment and ultimately result in the loss of

the Rear Gardens precinct, which is considered to possess moderate significance in the context of the RPA Hospital".

Although a Tree Succession Replanting Strategy has been proposed to mitigate for the loss of the significant trees in this area, the large-scale removal of trees will have a significant negative impact to the botanical heritage value, existing canopy cover and greatly diminish the contribution the trees provide to the amenity of the locality. These trees should be instead incorporated into the design and form part of the essential design elements.

The remaining 22 trees assessed have been indicated for retention as per the submitted Landscape Plan. The City supports the retention of these trees. Tree protections and tree sensitive construction methods are to be applied. Further details are to be provided within the AIA report (stage 2) as stated in further recommendations below.

Overall, the following recommendations are made regarding tree retention and protection:

- Amendments to the design are required to indicate the retention of the high and moderate value trees 18, 19, 31, 34, 37, 39, 40, 41, 42, 47, 48, 49, 50, 51, 52, 53, 585-587, 588, 591, 593 and 595 as listed within the table under Tree Removal – Not supported above.
- An Arboricultural Impact Assessment report (stage 2) is required and is to be based on further detailed plans regarding the redevelopment. The report will also need to include a Tree Protection Specification detailing specific, tree protection measures and tree sensitive construction methods which will be utilised to minimise the impact of the works upon existing trees. The report should adhere to the recommendations outlined in Section 5.2 – 5.6 of the AIA report by Martin Peacock dated 14/11/2022.

3.3 Tree Pruning

There is a proposal for the pruning of Tree 2001, 2002 and 2003 - *Ficus microcarpa* var. hillii (Hills Fig). The arborist report has indicated that the pruning requirements are minor as shown by the images provided within Appendix B and C - Pruning Specification. Pruning requirements should adhere to Section 5.8 and Appendix B and C - Pruning Specification of the report.

3.4 Canopy cover and Sydney Development Control Plan 2012

Whilst acknowledging the provisions of the Sydney Development Control Plan 2012 (DCP) are a required matter for consideration in the assessment of State Significant Developments, they provide significant guidance for development reflective of Council Policy, particularly in relation to urban greening and canopy cover targets.

Section 3.5.2 of the DCP states an objective for urban vegetation is to ensure that tree canopy cover is considered in all development and provided appropriate in each development. Further, provision (2) requires development to provide at least 15% canopy coverage of a site within 10 years from the completion of development.

The landscape plan indicates that the total existing canopy cover for the site is 17.2% The total proposed canopy for the site is 13.4%. Due to the proposed reduction of the existing canopy, this falls below the minimum. Additionally, the submitted plant palettes for each area do not include tree and palm pot sizes, noting palms have a much smaller

canopy than a tree. It is questioned how canopy coverage (dwg L-DA-39) has been calculated.

Research has demonstrated that trees have a considerable positive impact on patient recovery rates, reducing the extent of time and medication required when patients are in hospital. Research has also demonstrated that 30% canopy cover reduces the likelihood of illness, including reductions in heart disease and diabetes.

It is therefore essential that as many trees as possible are retained and protected. Ideally the proposed development should aim to increase the canopy target to 30%. The increased planting of canopy tree species should be considered as part of the design and execution.

- *It is recommended that plant schedules include all tree and palm pot sizes at installation and that further information to confirm how tree canopy coverage has been calculated be submitted.*

According to the proposed landscaping for the site there is a total of 88 new trees to be planted. Nine of these trees are proposed to be planted within the University of Sydney campus grounds around the western edge of Oval No 1 as part of the Tree Replantation Strategy.

Considering the City notes the removal of 15 significant trees within the Rear Garden precinct that should be retained and protected, the planting of the nine trees as part the Tree Replantation Strategy as replacements within the grounds of the University is not supported. These nine trees should be relocated within the RPA hospital grounds to provide increased canopy coverage to the design and increased screening of the proposed East Wing Building.

3.5 Deep soil

There has been no reference made to soil volumes or deep soil calculations within the EIS, landscape plan of architectural drawings.

To ensure the successful establishment and longevity of the new trees, in particular with on-structure planting, minimum soil depths and soil volumes must be provided as outlined within City of Sydney Landscape Code Volume 2 (pg 37).

3.6 Landscape design issues

The following comments are based on the Landscape design report hierarchy of spaces.

3.6.1 Northern arrival plaza and lobby entry

There is a conflict between the pedestrians using ramped pathways and location of parking and disabled parking spaces on the entry drop off road. This will be a heavily trafficked pedestrian space and the ramps vary between 23m wide and opening car doors may obstruct the pathways resulting in inequitable access and potential safety issues.

The design does not provide a “clear and concise public, patient and staff circulation pathways that minimise/eliminate any cross over of pathways” required of the Clinical Design Objectives. Further the parking locations do not demonstrate that, “vehicle access does not dominate the public realm, particularly on Johns Hopkins Drive” required by the Place Making and Design Objectives.

- *A review of the layout to mitigate conflicts between vehicle and pedestrian access, ensure all palm trees and seating areas minimise obstructions on the pathways is recommended.*

The proposed mix 1 planting that extends from the plaza into the entry is covered by the building awning and elsewhere the awning projects into proposed large tree planting.

- *A review of the proposed mix 1 species is recommended, and confirmation is required that confirms the species will survive in the light conditions. It is also recommended that awning details are submitted to confirm no impact on future tree canopies.*

The entry lobby includes planters entirely internal to the building with limited light levels. Landscape sections indicate low planters with integrated seating and palms with no levels (RL, TW, SSL) to confirm the design suitability.

- *The landscape design must ensure planter design makes allowance for minimum 1 metre soil depth and adequate soil volume to support the palms to maturity. Planter seating must be wall mounted with armrests in a hospital environment and all plant species are selected to thrive in the available light levels and microclimate to provide biophilic benefits to patients and workers.*

There is absent clarity for the proposed vertical greening to the existing facade to determine design feasibility. Details on whether the design will be irrigated and access for maintenance has not been provided.

- *Submit details for the proposed climbing frame and fixing details, or proprietary green wall system, plant schedule and outline ongoing maintenance strategy.*

3.6.2 Substations in deep soil

The strategy of locating the substation in deep soil near the corner of John Hopkins Drive and Lambie Dew Drive is not supported.

- *All new substations are recommended to be integrated within the building as a chamber substation.*

3.6.3 Level 6 northern terrace

The accessible green roof with small sized trees includes a perimeter path to the edge for usability.

The green roof design includes a low seating wall 500mm high with mounding up to 400mm to achieve 900mm. This is not a supported design outcome for a new development and planting is unlikely to thrive or meet the required canopy targets. Soil is organic and subsides over time, which can result in bare root balls and plant failure. Mounding up to maximum 200mm is acceptable at installation.

- *The accessible green roof can be supported subject to amendments. Revise the design to increase the green roof planter to minimum 800mm depth to support the healthy growth of trees to maturity on slab. Further, it is recommended that an amended section detail to reflect these changes and indicate allowance for drainage is submitted.*

Landscape plans and architect photomontages indicate an opening in the facade for views to the north, however there are no details relating to balustrade heights or materials.

3.6.4 Level 3 'Sunken Garden'

The low planter to the north is supported subject confirmation of planter drainage design

- *Submit amended section detail that indicate allowance for planter drainage.*

There is absent clarity for the proposed vertical greening to the existing facade to determine design feasibility. Details on whether the design will be irrigated and access for maintenance has not been provided.

- *Submit details for the proposed climbing frame and fixing details, or proprietary green wall system, plant schedule and outline ongoing maintenance strategy.*

There is absent clarity for the feature pot plants design, size and integrated drainage system.

- *Submit a pot schedule to confirm the design and if there is an integrated drainage/watering system.*

3.6.5 Level 4 'Central Courtyard'

The central planter with palms and northern planter with shrubs will be clear to the sky. The courtyard design is supported subject confirmation of structural beams within planters do not impact on proposed palms and planting, planter drainage design and design of balustrade near voids.

- *The following is recommended to be submitted:*
- *Amended plans confirming extent of structural beams in courtyard planter, and palms located clear of structure.*
- *Amended section details that indicate allowance for planter drainage.*
- *Detail and elevation drawings for proposed open balustrade on western edge of courtyard.*

3.6.6 East extension Level 6 inaccessible green roof

A plant schedule and plan with no levels has been provided. There is absent clarity to confirm the green roof design, overall profile depth, drainage access arrangements (access gate or hatch) or safety discussion for ongoing landscape maintenance working at heights and arrangements for green waste removal. Further, there is no discussion as to whether the design allows for rainwater harvesting or irrigation use.

- *Submit updated design report, plans with levels, details, and outline maintenance strategy to resolve these issues.*

3.6.7 Appendices L Landscape Report and K Landscape Plans

- *It is recommended that all changes and additional information as requested in the discussion above are reflected in an amended design report and landscape plans.*

4 Traffic, Transport and Accessibility

4.1 Alignment with relevant strategic documents

The Tech Central Place-based Transport Strategy shows a freight hub located in or near the eastern half of RPA campus, however the EIS and Transport and Accessibility Impact Assessment are silent on this. Regardless of the strategic direction of the redevelopment project, the Assessment needs to address this issue.

Additionally, the Inner West Council is currently in the process of developing a structure plan for the Camperdown area which includes the RPA campus in which the City is involved in the working group. The proponent should note this emerging document in Section 2.2 and engage with Inner West (or provide commentary on any previous consultation) on what it means for the campus. For example, the draft structure plan identifies a 'pedestrian spine' through the university and hospital that uses John Hopkins Drive.

4.2 Parking

The proposed development will result in a net reduction of 18 off-street parking spaces across the campus. This is supported by the City. The total off-street parking quantity reported is not consistent across the Transport and Accessibility Impact Assessment, however. Section 3.9 refers to 2,595 spaces currently available whereas Section 4.10.1 refers to 2,610 spaces once the development is complete, which should be 18 spaces less than existing quantity. The main EIS document states 2,583 spaces in the long-term. Clarification is requested around the existing and proposed total off-street car parking volumes as well as net reduction.

Further, Table 4-3 of the assessment report should clarify the time period that the demand relates to and whether this is per day or otherwise.

4.3 Servicing

The proposal includes 7 additional spaces within the main loading dock (3 B99, 4 SRV) easing pressure on the dock which currently exceeds capacity by up to 3 bays at any one time. This increase is supported by the City.

The swept paths in Figure 4-8 of the Transport and Accessibility Impact Assessment, however, are difficult to interpret. It is recommended that swept path diagrams be separated into one page per loading space in an appendix for legibility.

Further, the main dock is currently unmanaged. The proponent should provide commentary on whether introducing a loading dock management system has been considered.

4.4 Mode share targets and Green Travel Plan

The City strongly supports the mode share targets proposed with the redevelopment of RPA. The approach of applying targets only to workers working typical hours is sound, and the long-term aim of these workers meeting Sustainable Sydney targets of 66% non-car mode share is applauded.

The table of mode share targets (Table 4-1) should be amended to show targets for typical-hours workers in all columns to allow easier comparison.

Future monitoring of a Green Travel Plan should also collect data on departure time to better inform how many staff are working typical hours and hence how RPA is tracking on mode share targets for workers on typical schedules.

The actions set out in the Green Travel Plan are well thought through and comprehensive. A governance structure that includes regular evaluation and monitoring will be critical to making sure these initiatives are implemented and the City is particularly supportive of differentiated time-of-day parking fees, upgrading existing bike facilities (as well as increasing number), and salary sacrifice for public transport costs.

The accompanying Transport Study acknowledges there is a greater ability for staff working regular hours to use non-car modes than they do currently, while patients and visitors typically have more of a need to drive. Also, that there is currently more pressure on the visitor parking than staff parking (visitor parking was at 96% during the 2021 survey, compared to 68% for staff only car parking). Considering these facts, a potential solution for consideration would be to gradually phase staff parking over to visitor parking while keeping the total number of spaces constant. Done incrementally as contracts for the car park operation are renewed could help drive non-car mode share for staff in line with the adopted targets timeline and also ease pressure on visitor parking as the number of beds in the hospital grows over time.

4.5 Bicycle parking

The first-principles approach for determining bike parking quantity is appropriate given the Sydney DCP does not include rates for hospitals. However, the calculations were based on the 2028 mode share target of 7% cycling. They should instead be based on the long-term target of 12% cycling, as without an appropriate quantity of end of trip facilities this growth won't be possible.

The existing conditions section of the Transport Study notes that the quality of bike parking facilities is a barrier to people cycling to work, describing them as "not well lit and relatively unattractive". The proposal should include upgrade of existing facilities, not just increase in quantity.

The proposal notes that bike parking is often difficult to locate within buildings due to competing clinical uses and suggests repurposing parking spaces in car parks instead. While this is acceptable as a last resort, every effort should be made to co-locate bike parking and facilities within buildings staff are working in to help achieve the 12% mode share target.

Staff should have the option of being allocated permanent lockers located close to showers and change rooms to help make the logistics of cycling with uniforms and equipment easier.

4.6 Impacts on surrounding road network

The City notes that SIDRA modelling shows nearby intersections not adversely affected by the additional trips generated by the proposal (209 trips in AM peak hour and 176 in PM). No further comments are required.

4.7 Construction impacts

A Construction Traffic Management Plan (CTMP) must be submitted to and endorsed by Council prior to the commencement of any work on site. Council’s standard CTMP requirements should apply, in particular:

- No articulated vehicles
- No reversing
- No use of local roads for haulage unless there is no other option

4.8 Temporary helicopter landing site

The two additional pedestrian zebra crossings proposed are supported by the City, noting these will need to be approved by Council's Traffic Committee.

The temporary reduction in parking and the relocation of fleet parking spaces from Grose Street is also supported. The change from one-way to two-way midway along Grose Street could be confusing to users, however. Consideration should be given to making the whole street two-way, or measures to reduce confusion through tactical treatments, such as building the kerb out and adding a turning circle (noting that changes to circulation on Grose Street will also need to be approved by Council's Traffic Committee).

4.9 Vehicle/ambulance access

The City is supportive of the intention to separate public drop-off, ambulances and pedestrians however, further detail is required.

Access arrangements for the Emergency Department are unclear - an annotated diagram showing allowed vehicles and directions would assist in understanding access to the Emergency Department.

Further, clarification is requested regarding access arrangement to the public drop-off area and whether it is a one-way loop or an alternative arrangement.

4.10 Lambie Dew Drive realignment

The realignment of Lambie Dew Drive is supported as it will improve two-way flow and allow more space for manoeuvring which will increase efficiency of the loading dock. It is requested that Figure 4-6 of the Transport and Accessibility Impact Assessment be annotated to show where the ramp removal is, and the staff car park it will impact.

4.11 Northern drop-off area

The upgrade to this area includes a new footpath on the west side, and separation of the drop-off and through-traffic lanes. Both changes are supported despite the loss of 3 drop off spaces as a result. However, further clarification is requested as to why 2 of the 5 remaining spaces are allocated as accessible parking spaces. Generally, 1 accessible space and 4 regular spaces would be an appropriate allocation.

5 Public Domain and Flooding

The eastern edge of the site was once Orphans Creek and is subject to flooding, with parts of the rear gardens now 2.0m below the Probable Maximum Flood (PMF) level.

The site's loading dock is at Level 2 on the eastern side of Building 89, facing the University of Sydney and sits just above the PMF.

The City is generally supportive of the proposal from a public domain and flooding perspective; however, additional information is required for consideration. See below for further discussion.

5.1 Stormwater concept design

The proposed development will require an OSD system to offset stormwater runoff. The proponent must provide a copy from Sydney Water with indicated requirements for minimum Site Storage Requirement (SSR) and Permissible Site Discharge (PSD).

A stormwater concept plan must also be prepared and is to include OSD as per Sydney Water's requirement. The Sydney Water drainage system must be clearly separated from the Council's stormwater system on the concept design plan.

5.2 Stormwater quality assessment

The Stormwater Quality assessment included within the Infrastructure Delivery, Management and Staging Plan-Flooding & Stormwater, prepared by TTW is to be supported by MUSIC Link report and catchment plan. A certificate and/or report from MUSIC Link and the electronic copy of the MUSIC Model must be submitted for review and approval with the stormwater quality assessment report at the assessment stage.

The City has adopted MUSIC Link for assessing Water Sensitive Urban Design (WSUD) compliance for developments. Therefore, a stormwater quality assessment for the proposed development must comply with the City's specific modelling parameters as adopted in MUSIC Link, and the catchment plan shall be in line with the proposed Landscape plan.

5.3 Flooding assessment

An updated Council flood model for Johnstons Creek Catchment Flood Study (completed in 2015) was included in the submitted Infrastructure Delivery, Management and Staging Plan-Flooding & Stormwater RPAH Redevelopment Stage 1 (201957), dated 18 January 2023. Flood planning level is determined based on the existing Council flood model that was updated to include the new developments, while the latest lidar data available was used to represent changes in the digital elevation model. The 1% AEP and PMF results of the updated flood model, along with the location of recent developments are included within the above document.

This flood study identifies an overland flow path to the east of RPAH and within the University of Sydney's Camperdown campus. The study also confirms that the ovals and sporting grounds within the campus provide informal detention for flood events from the 20% AEP (5-year ARI) up to the 1% AEP (100-year ARI) and PMF.

The proposed RPA redevelopment development includes new facilities at Level 2 and above with some on grade parking at ground level. It is proposed that all access points into the proposed East campus building will occur on Level 2 which has a proposed FFL of 24.28m.

The architectural drawings must include the existing and proposed levels at every entry to the buildings for GA Level 1 (DA0301) and parking at ground level. Any open on-grade car parking presented as part of the design development should be above the 5% AEP Flood Level or above the 1% AEP if enclosed.

It appears that Clinical Space on GA Level 2 has been proposed to be at RL 24.24, which is below FFL 24.28 as stated above (Infrastructure Delivery, Management and Staging Plan-Flooding & Stormwater RPAH Redevelopment Stage 1).

In addition, further information requested by SES and DPE to help assess risk due to significant flooding is recommended to be provided to the City as well.

Further updates to the flood model may be required to incorporate any stormwater upgrades or amendments that may have been associated with the completed developments, together with a detailed review and analysis of the existing RPA stormwater system.

5.4 Public domain levels

The proposed drop-off area and the Main Lobby for public-level access from John Hopkins Drive must be supported with cross sections to demonstrate compliance with the BCA, City's standards, and relevant Australian Standards. A minimum of 2.0m within the property is to be included in cross sections through each driveway and entrance to new building/additions, including Fire Exits.

Further, it is requested that sections are provided through the connection of the existing public domain (within the intersection of Missenden Road & Johns Hopkins Drive), including four (4) new drop-off spaces fronting the proposed clinical emergency entrance (as indicated in the Architectural design report Vehicle Movement and Parking - page 44). The design shall note that the existing drainage trench grate is to be upgraded to class D and bike safe.

The submission must also demonstrate that existing public domain levels and gradients are considered for the design following the requirements of the AS/NZS2890.1.

6 Contamination

A detailed site investigation and RAP was carried out and prepared and a site auditor engaged. A letter of interim advice has been provided which has stated that the RAP is satisfactory, and the site would be considered suitable once implemented. It has been recommended that a Long Term Environmental Management Plan be implemented due to the contamination found. This approach is supported by the City.

7 Acoustic Impacts

The City raises concern in relation to the level of noise during the construction stage of the project and strict conditions to protect the surrounding residents are recommended. The acoustic report has detailed management plans to mitigate the noise issues associated with the construction of the project. Conditions of consent relating to noise mitigation measures can be provided later.

8 Food Service

It is understood that there will be cafes and canteens on site however no mention of this has been provided in the EIS or supporting documentation. All food services must be constructed in accordance with relevant Australian Standards and, if required, approved in a separate Development Application.

7 Waste Management

The submitted preliminary waste management plan is not accompanied by plans and lacks detail. It is recommended that the Construction and Demolition Waste Management Plan be reviewed and updated prior to the commencement of any construction on site. The operational phase of the Waste Management Plan also required additional detail in relation to storage and collection arrangements. Recommendations are as follows:

7.1 Waste storage areas

- The architectural plans are to have adequate waste storage space marked up on the plans for the indicated number and size of bins
- An adequately sized clear holding area should be marked up on plans to the loading dock for the collection and unloading of bins

7.2 Waste collection

- Waste collection and loading is to be in accordance with the City of Sydney's Guidelines for Waste Management in New Developments 2018 (the Guidelines) and accommodated wholly within the new development.
- The waste collection and loading point is to be designed to allow waste collection and loading operations to occur on a level surface away from vehicle ramps; and provide sufficient side and vertical clearance to allow the lifting arc for automated bin lifters to remain clear of any walls or ceilings and all ducts, pipes and other services.

7.3 Access

- Vehicle access for collection and loading will provide for minimum vertical clearance of 4.0 metres clear of all ducts, pipes, and other services, depending on the gradient of the access and the type of collection vehicle.
- Provide allowance for the large collection vehicles to be able to enter and exit the premises in a forward direction. Where a vehicle turntable is necessary to meet this requirement, it is to have a capacity of 30 tonnes;
- Maximum grades of 1:20 for the first 6m from the street, then a maximum of 1:8 with a transition of 1:12 for 4m at the lower end; a minimum driveway width of 3.6m; and a minimum turning circle radius of 10.5m.
- Where vehicle access is via a ramp, design requirements for the gradient, surface treatment and curved sections are critical and must be analysed at an early stage in the design process.

Should you wish to speak with a Council officer about the above, please contact Marie Burge, Senior Planner on 9288 5850, or at mburge@cityofsydney.nsw.gov.au

Yours sincerely,

Graham Jahn AM LFRAIA Hon FPIA
Director
City Planning I Development I Transport