**APPENDIX A**
**Response to Submissions; Department's Key Issues letter; and Preferred Development.**

**SSD 17_8766 - SSD DA**
**Nepean Hospital and Integrated Ambulatory Services Redevelopment (Stage 1)**

## 1.0 Response to Agency Submissions

| Submittor / Issues Raised | Response |
|---|---|
| **Penrith City Council** | |
| **Design Excellence – State Design Panel Review** | |
| It is not clear from the documentation submitted if the proposal following lodgement has been considered by the State Design Panel, established through the NSW Office of the Government Architect.<br><br>The scale of development and the design of the development will be an important element within the skyline of Penrith noting that surrounding height restrictions are significantly less than that currently proposed.<br><br>The Architectural Design Statement notes that the Government Architect of NSW "panel questioned the appropriateness of the terracotta cladding in response to the 'Blue Mountains' colour reference. Further consideration should be given to alternative material strategies". The Blue Mountains theme overall is questioned given the urban setting in which the hospital sits and whilst the terracotta cladding may provide some visual connection with the existing Oral Care building, it doesn't seem to provide a visual connection with the varied green tones of the new parking building and may exaggerate the experience of the Urban Heat Island effect that occurs local.<br><br>As a result, the architectural design of the development, the materials selected and the finishes as viewed from key vantage points necessitates demonstration of design excellence and It is requested that the State Design Panel be re-engaged to review the lodged development proposal (if this has not already occurred). | In accordance with the SEARs, the design development has taken into consideration the GANSW policy document – Better Placed.<br><br>BVN presented to the SDRP in May 2018 and all issues have been addressed.<br><br>The existing (and now refined) design has broadly satisfied the SDRP commentary at the pre-lodgement stage as set out in the EIS (for the original scheme), and below and in Section 3.0 of this document with respect to the refined design.<br><br>The GANSW comments are also further addressed in this document.<br><br>BVN has considered Council's comments and has revised its Architectural Design Statement (see **Appendix B** to the Response to Submissions). |
| **Landscape Design and Landscape Character** | |
| The proposed landscape vision for the site is predicated on a Blue Mountains character theme which is inappropriate given the availability of limited landscaped space and the urbanised nature of the development.<br><br>The site is not within the Blue Mountains and is located within a health and education precinct which will be surrounded by multi storey residential, commercial and medical developments rather than an expansive bushland setting.<br><br>This same concern was raised with the Hospital in the design of the landscape treatment surrounding the Car Park Structure, recently approved through the Sydney Western City Planning Panel.<br><br>The landscape theme and planting design should be revised to reflect the urban landscape setting in which the site sits, with | Arcadia, the project's landscape architect, has provided a written response to this matter – see **Appendix C**.<br><br>In the response, Arcadia advises, amongst other things that, the design is not predicated on a Blue Mountains character theme. Rather, the design acknowledges the site's proximity to the Blue Mountains, the Nepean River and the lakes system, which from the elevated vantage points (that the new towers will provide) will be visually prominent and inherently contextual. The acknowledgement of the contextual connection to the Blue Mountains is just |



_planning Pty Ltd
Oliver Klein BA MURP MPIA CPP (Registered Planner)
ABN 25 620 516 583
ACN 620 516 583
Phone: 0437 259 581
Email: oliverklein1968@gmail.com

| | |
|---|---|
| suitable spatial separation between large canopy trees and plant species and densities suitable for this space. | one part of the design strategy. The landscape condition that the proposed built forms create closely replicates some of the microclimatic growing conditions of the Blue Mountains.<br><br>The existing site cannot be considered to be an urban landscape setting from which to start afresh. Unlike many other hospital sites across Sydney, the Nepean Hospital Campus has an existing landscape character that reflects its unique location through both landform and tree planting.<br><br>The retention of locally indigenous mature trees has been a key principle throughout design development. This helps to maintain some of the local Cumberland Plain Woodland landscape character while mitigating the physical and visual bulk and scale of the substantial built form elements proposed.<br><br>The species and their locations have been considered and are aligned with the soil landscape and past vegetation patterns. There are also a variety of planting styles that will be employed across the site that are more directly related to the new growing conditions around introduced building elements.<br><br>The planting strategy will reduce maintenance of landscape areas – a major consideration of the hospital operations staff during workshops / engagement in the design phases. Endemic / indigenous plants are well suited to site conditions with lower water requirements. They also provide better habitat for local fauna.<br><br>Arcadia also acknowledges previous comments from Council regarding the Hospital Car Park site and will consider the plant spacings and species selection when developing the more detailed schematic plans for the softworks. |
| **Car Parking** | |
| The Traffic Impact Assessment (TIA) tables existing parking spaces at page 17 indicating that there is a total of 1509 on-site parking spaces, including staff allocated 370, public 237 and shared public/staff 902. 658 of these spaces are within the multi deck car park on the corner of Derby and Somerset Streets. The multi deck car park when completed will accommodate 627 spaces to cater for the redevelopment of the hospital. Once the subject Stage 1 building is completed, the helipad from the roof of the multi deck car park will be relocated to the subject building, and | ptc and Cattell Cooper have separately provided responses to a range of traffic and transport matters raised throughout. These are attached as **Appendix D**.<br><br>The overall final parking provision takes into consideration the displacement of parking as a result of the Stage 1 redevelopment site, which occupies part |



_planning Pty Ltd
Oliver Klein BA MURP MPIA CPP (Registered Planner)
ABN 25 620 516 583
ACN 620 516 583
Phone: 0437 259 581
Email: oliverklein1968@gmail.com

| | |
|---|---|
| free up an additional 108 spaces, providing total parking of 735 spaces. The TIA indicates that total on-site parking on completion of Stage 1 will be 2009 spaces, being 500 spaces over current provision. However it is questioned if this figure should be 2244 spaces given the detail above. It is therefore requested that this potential discrepancy be clarified with the applicant.<br><br>A study of the parking demand at the hospital is detailed in the TIA (pp 22-23). The total demand was assessed as currently 2,248 spaces, and post development was projected to be 2,585 spaces. The study also included an assessment of the "available" on-street parking spaces via surveys undertaken at a 500m radius of the hospital grounds. The future demand of 2,585 spaces is not reflected within the parking provided on the site which is indicated to be 2,009 spaces which necessitates an understanding of future works which may provide further onsite parking to cater for this shortfall.<br><br>The local road network provides limited parking opportunities due to existing on street parking reliance, with existing constraints for Council's waste collection service to navigate the narrow road network. It is also noted that the locality has been zoned for uplift in development scale and density for residential flat building and mixed use developments. Any redevelopment of the hospital must ensure that all car parking demands generated by the proposed works and existing hospital operations can be contained on the hospital grounds. This includes details on any pay parking scheme to ensure that the costs associated are not a deterrent for on site parking.<br><br>The proposed development must accommodate all parking demands generated by the development on the site. In addition, on-street parking should not be included in the hospital demand, as they are public spaces and not for the exclusive use of hospital patrons.<br><br>It is therefore requested that the Department ensure that the modelling, the parking projections and the proposed car parking provision demonstrate compliant on site provisions without offsite reliance within the local road network. | of the existing at-grade car park to the north of the hospital building. Additional parking is also to be located in the south-west corner, meaning that following the net increase in parking, the provision will be 2,009, not 2,244. ptc has provided plans in its response document illustrating the staging of the parking provision and how the final number of parking spaces was determined. It should be noted that the car park staging was planned in 2017 when the application for the multi-deck car park was submitted. The multi-deck car park is now under construction and is expected to be completed by early 2019.<br><br>As noted, the parking provision for the Stage 1 redevelopment is provided within the multi-deck car park, which is currently under construction, which will also accommodate the displacement of parking as a result of the development (i.e. the removal of part of the at-grade parking where the redevelopment is to be located).<br><br>The parking demand assessment concluded that, based on travel mode surveys of staff, patients and visitors the peak demand for parking is approximately 2,248 spaces, whereas 1,509 spaces are provided within the campus. The proposal is calculated to increase the parking demand by 337 vehicles, while the net increase in parking spaces will be 500, reducing the shortfall in parking by 163 spaces. While this does not address the total demand, the project will reduce the demand for on-street parking. Further, A Green Travel Plan will be developed to enhance opportunities to reduced car dependency to the site, where this is possible in the context of a hospital-focussed use. |
| **Water Quality Management** | |
| A review of the information provided in the Stormwater Plans includes a commitment to install 2 x 35 cartridge Stormfilter devices, 25 x enviropod pit inserts (on all external pits) and a vegetated swale. A SPEL Puraceptor is also proposed for the helipad area runoff and should be assessed by the Environment Team regarding managing fuel and oil spills. The information however is inadequate for the following reasons:-<br>- No electronic MUSIC modelling (i.e. *.sqz file) has been provided to enable adequate assessment. This is critical to review the effectiveness of the proposed treatment. The MUSIC model should be provided for assessment.<br>- In relation to the screen shot of the MUSIC modelling, 2 x 40 cartridge Stormfilter devices are proposed. This is | We note that OEH in making its submission has assessed the MUSIC model provided and that it finds (based on its submission) that the model *confirms that the water quality targets are met*.<br><br>Rainwater harvesting commentary is as per the lodged and exhibited EIS. Rainwater harvesting cannot be undertaken within the hospital building itself due to cross-infection and health quality and standards reasons. |



_planning Pty Ltd
Oliver Klein BA MURP MPIA CPP (Registered Planner)
ABN 25 620 516 583
ACN 620 516 583
Phone: 0437 259 581
Email: oliverklein1968@gmail.com

| | |
|---|---|
| not consistent with what is shown on the Stormwater Plans. All information, plans and models should correspond in their detail.<br>- The ESD report states that low flow water efficient fixtures and fittings will be used where possible. However, no rainwater tanks are proposed to be installed. Rainwater harvesting should be considered for irrigation and toilet flushing to meet 80% non-potable demand in accordance with Council's WSUD Policy requirements.<br>- Cross section details for the proposed vegetated swale as well as the Stormfilter chamber and cartridges should be provided on the Stormwater Drainage Plans.<br>- No draft Operation and Maintenance Plan has been provided for the proposed stormwater treatment measures. This should be provided prior to DA approval and should include details on the cleaning/maintenance requirements of the proposed treatment measures as well as detail on how this will be managed (nominate who will be responsible). | Accordingly, rainwater harvesting in this sense does not form part of HI's standard design guidelines.<br><br>However, external usage is possible as identified in the response by Bonacci (see **Appendix E** to this Response to Submissions). Bonacci advises that *a 20kL rainwater tank is proposed to drain the western half of the new building roof. This rainwater is to be reused for irrigation purposes only to reduce potential risk of contaminated water within the hospital building (in accordance with Health Infrastructure practice). This has been modelled in MUSIC to ensure that Council Water Quality requirements are met. The results are attached to the updated SSDA Report (Rev 6).* |
| **Stormwater Management and Flooding Considerations** | |
| The hospital site is affected by flooding from local overland flows as identified in Council's adopted College, Orth and Werrington Creeks Overland Flow Flood Study. The development site is clear of the overland flood flows and an existing overland flow path from Barber Avenue will be maintained and accommodated through the site. This has been addressed within the drainage plans provided.<br><br>The proposed stormwater drainage system is also satisfactory. The development is not increasing any hardstand area therefore no additional runoff from the site will be generated.<br><br>The existing stormwater drainage system that drains the eastern end of Barber Avenue runs in an easterly direction through the site. This system drains a Council road however this infrastructure is not protected by a drainage easement. It is therefore requested that a condition of consent be imposed if the application is approved, that requires the creation and dedication of a drainage easement over the existing drainage system that drains the public road of Barber Avenue through the site to Somerset Street. | In-principle HI has no objection on the creation and dedication of a drainage easement over the existing drainage system that drains the public road of Barber Avenue through the site to Somerset Street, however, it would seek to defer this to the Stage 2 DA and its completion.<br><br>The reason for this timing is to ensure that no aspect of the Stage 2 redevelopment is hampered or affected by a new constraint that may inadvertently constrain development of the hospital in this part of the campus. This provides greater certainty for HI and NBMLHD at this time and into the near future.<br><br>A suitable condition could be imposed at that time under the Stage 2 Redevelopment DA. |
| **Traffic Management** | |
| Based on the modelling outlined in the TIA, intersection upgrades will be required in the future (2021) at Parker/Derby St and GWH/Somerset St intersections. These intersections are part of the WSIP projects currently with RMS. The TIA does not appear to consider intersections of local roads in the locality which is a critical consideration in the assessment of the application and should be assessed in revised modelling.<br><br>Please also note that any proposed new or altered bus routes and/or bus zones/bus stops and bus lay-by areas or pedestrian crossings proposed in local roads as part of the hospital redevelopment requires endorsement of Council's Local Traffic Committee. | The TIA for the hospital expansion project referred to the TIA that was prepared in relation to the multi-deck car park, as that project contains all of the new parking provision associated with the hospital expansion.<br><br>The key intersections surrounding the campus, including the local roads, were surveyed and modelled under that TIA and represented in the current DA/EIS.<br><br>The parking provision within the campus will increase on the western side of the site, due to the completion of the multi-deck car park and decrease on the |



_planning Pty Ltd
Oliver Klein BA MURP MPIA CPP (Registered Planner)
ABN 25 620 516 583
ACN 620 516 583
Phone: 0437 259 581
Email: oliverklein1968@gmail.com

| | |
|---|---|
| | eastern side due to the displacement of around 200 parking spaces, to be removed as part of the Nepean Hospital Redevelopment Stage 1 project.<br><br>In this regard, the increase in traffic is distributed to the west via the intersections along Parker Street, while the local roads to the east of the campus will see a corresponding reduction in traffic volumes. |
| **Acoustic Management** | |
| A Noise Impact Assessment prepared by Acoustic Logic (20170106.5/1208A/R7/MF Dated: 23/7/18) was submitted in support of this application. This report provides a quantitative assessment of the main noise generating sources/activities associated with the construction and operational phases of the proposed hospital development.<br><br>This report has been reviewed by Council's Environmental Management Officers and the following additional information is requested:-<br>- Logger data from long term unattended noise logging and attended noise measurements have not been provided for review. A copy of this data should be made available for review so as to validate the conclusions of the acoustic report.<br>- It is noted that a child care centre is located to the east of the site. It is stated in contamination documentation that this facility is to be demolished, however, no comment to this effect, or any consideration to this premises has been provided in the acoustic assessment. Should this facility continue to be operational during any stage of works, detailed assessment of potential impacts to this receiver should be undertaken.<br>- Noise and Vibration impacts on existing buildings within the Nepean Hospital Precinct, which include adjacent general hospital wards, a cancer services centre and Tresillian, have not been duly considered as part of this acoustic assessment. Section 6.5.2 includes the statement "vibration impacts on other buildings within Nepean Hospital will be "addressed through internal hospital management". This is not considered appropriate given the internal noise and vibration criteria specific to each of these sensitive uses under AS2107: 2016 'Recommended design sound levels and reverberation times for building interiors'. To ensure that potential impacts are identified and managed appropriately, it is recommended that further assessment of construction and operational noise be undertaken to demonstrate that the relevant internal criteria can be achieved. | Acoustic Logic has prepared a response to issues raised by both Council and the EPA. This found at **Appendix F**, along with a revised Acoustic Assessment, addressing, where relevant, new data or refined actions concerning acoustic and vibration impacts. A Construction Noise Management Plan is included as part of **Appendix H**<br><br>- The revised Acoustic Assessment includes the graphed results of the background noise monitoring for both logger locations A and B. In addition, meteorological data has been included in the graphs in accordance with the NSW EPA NPfI 2017 (during rainfall and wind speeds that exceed 5 metres per second).<br>- See comments below regarding construction noise and vibration impacts more generally.<br>- Acoustic Logic has provided a detailed response in its letter at **Appendix F** and as part of **Appendix H**. In short, Acoustic Logic advises:<br>Construction noise and vibration impacts should be assessed with reference to the following:<br>- Construction noise from the site should be addressed in accordance with the NSW EPA Interim Construction Noise Guideline (ICNG) 2009, not Australian Standard AS2107:2016.<br>- Construction vibration from the site should be addressed in accordance with the NSW EPA Assessing Vibration: A technical guideline, not Australian Standard AS2107:2016.<br><br>Both of these documents (NSW EPA ICNG and Assessing Vibration) have been presented and established in section 5.5 of the Acoustic Assessment. |



_planning Pty Ltd
Oliver Klein BA MURP MPIA CPP (Registered Planner)
ABN 25 620 516 583
ACN 620 516 583
Phone: 0437 259 581
Email: oliverklein1968@gmail.com

| | |
|---|---|
| | AS2107 is not used in the assessment of construction noise.<br><br>The intention of presenting the applicable construction noise and vibration criteria is to ensure neighbouring receivers (i.e. adjacent houses and or commercial developments, Private Hospital outside of the hospital grounds) are appropriately managed.<br><br>For existing hospital buildings within the Nepean Hospital Precinct it will be open for NSW Health, the construction contractor and relevant affected parties to negotiate appropriate construction noise mitigation.<br><br>Any construction noise mitigation program is a balance of:<br>- Noise/vibration impact.<br>- Time (less noise/vibration intensive activities typically take longer).<br>- Cost (cost of noise screens, façade upgrades or other acoustic treatments).<br>How this balance is struck is a decision for NSW Health and the other relevant stakeholders.<br><br>The key construction noise and vibration considerations include:<br>- Noise impacts upon and mitigation measures for the child care centre; the Drug and Alcohol Services Building; Tresillian, Hope Cottage and doctors' accommodation, and North and East Blocks.<br><br>Impacts will be addressed through the detailed construction noise and vibration management plan presently being devised as part of the Construction Management Plan process. See also **Appendix H** for more details. |
| In addition to the above additional modelling and information, the following recommendations should be incorporated as conditions of consent if the proposal is supported:-<br>- All recommended acoustic treatments outlined in Section 6.4 and Section 7 of the acoustic assessment are to be implemented in full. Any physical acoustic treatments, including the proposed acoustic fencing, should be shown on architectural plans for the proposed development.<br>- A detailed acoustic review of plant items is to be undertaken following final plant selection, and acoustic design is undertaken in accordance with the | HI will further review the inclusion and imposition of these matters when furnished with draft conditions of consent. |



_planning Pty Ltd
Oliver Klein BA MURP MPIA CPP (Registered Planner)
ABN 25 620 516 583
ACN 620 516 583
Phone: 0437 259 581
Email: oliverklein1968@gmail.com

| | |
|---|---|
| recommendations outlined in Section 6.4 of the of the report.<br>- A condition be imposed prohibiting the level 4 plant room from being open to atmosphere on the eastern façade, in accordance with the recommendations of the acoustic report.<br>- That the applicant commits to the preparation and implementation of a comprehensive Noise/Vibration Management to manage potential impacts to nearby sensitive receivers (residential and Nepean Private and Nepean Hospital Precinct).<br>- That the applicant commits to undertaking vibration monitoring, at a minimum during the initial phases of site excavation, to ensure excessive levels of vibration are not achieved. Monitoring at residential properties, Nepean Private Hospital and existing buildings of the Nepean Hospital Precinct should be considered through this assessment.<br>- That the applicant commits to undertaking the detailed acoustic review of all plant items following equipment selection and duct layout design to ensure that noise emission requirements can be achieved. | |
| **Site Contamination** | |
| As part of detailed site investigations, a total of 24 sampling points were used for contamination characterisation. It is acknowledged that this limited number of sampling points does not meet the recommended sampling points recommended by the NSW EPA in their sampling Design Guidelines, however, given site constraints and the report recommendation that further intrusive investigation be undertaken, this sampling density is considered acceptable. The investigation concludes that the site can be made suitable for the proposed development, "provided this RAP prepared for the proposed development is implemented accordingly." In this regard, site suitability is dependent upon the recommendations stated in Section 9.5 of the DSI and Section 4 of the Remediation Action Plan being satisfactorily completed and implemented prior to any works commencing on this site. It is imperative that a copy of this the results of this assessment and subsequent addendum to the submitted RAP are provided to the consent authority for assessment prior to any site disturbance. | Since lodgement of the SSD DA, a new assessment has since been carried out / completed with adequate and requisite number of sampling points. Data gaps have been assessed and reported upon by JBS&G. See **Appendix G** and commentary from JBS&G below.<br><br>*JBS&G has recently completed a Data Gap Assessment (DGA, JBS&G 2018a) comprising soil sampling and asbestos quantification at 78 locations and resampling of 4 existing groundwater monitoring well locations. The DGA has addressed the following data gaps:*<br>• *characterisation of the vertical and lateral extent of fill material;*<br>• *assessment of areas added to the original development footprint; and*<br>• *characterisation of the existing on-grade asphaltic car park.*<br><br>*Data gaps below existing site buildings are proposed to be managed via the remedial process documented within the updated RAP (JBS&G 2018b, refer Section 6.3, Table 8.1).* |
| In addition, the following issues are raised for the applicant to address:-<br>- Section 1.2 of the RAP states that the "the primary aim of the remediation is to remove the source(s) of contamination in order to reduce any risks posed to the identified receptors by the contaminants to an acceptable level." The RAP does not make explicit the remediation goals for the site, based on NEPC criteria. It is | The RAP has been updated and included in this Response to Submissions at **Appendix G**. The updated RAP identifies appropriate remedial goals for the site. Suitable site validation criteria for asbestos and other contaminants have been adopted within the RAP (refer Section 8.5). |



_planning Pty Ltd
Oliver Klein BA MURP MPIA CPP (Registered Planner)
ABN 25 620 516 583
ACN 620 516 583
Phone: 0437 259 581
Email: oliverklein1968@gmail.com

| | |
|---|---|
| recommended that the RAP be updated to state the remediation goals for the site.<br>- Section 10.1 of the RAP includes the statement that 'The project manager and/or planner should assess whether the remediation is considered to be Category 1 or Category 2 under the SSD assessment'. It shall be noted that all remediation works within the Penrith Local Government Area are still currently considered category 1 works and as such, requires approval from the relevant consent authority. The RAP should be updated to reflect this requirement.<br>- Section 6.2.1 'Rationale for Selection of Remedial Strategy' identifies off-site disposal as the most viable option for remediation of known and potential ACM contaminated fill material. However, the RAP also stated "Alternatively, the ACM contaminated fill material can be capped and contained and an EMP prepared for the long term management of the containment area." It is recommended that further clarification/confirmation of the final remedial methodology is provided by the applicant. Should the remediation methodology include 'cap and containment' works, detail regarding the quantity of material proposed for containment, survey detail/diagrams and justification for the proposed material containment locations should be provided for review.<br>- It is noted that, based on cut and fill plans, the groundwater RLs indicate that excavation for the proposed development may intercept groundwater. Accordingly, it is recommended that the applicant submit a dewatering plan that details groundwater control methodologies, pollution prevention methods, disposal methodology, and an assessment of potential groundwater impacts through the duration of site works. | HI and its consultant team has reviewed the effect of the combined and co-related operation of relevant provisions of each of SREP20 Hawkesbury-Nepean River; SEPP 55; and Schedule 3 of the EP&A Regulation. Given the provisions of SREP20, remediation works on the site despite their likely low volume will be Category 1 remediation works and require DA consent.<br><br>Accordingly, consent is sought for the remediation works as described by the EIS and the RtS documentation within this package.<br><br>JBS&G has also further reviewed this matters and also considers *the remedial works at the site to be Category 1 Remedial Works and this is identified in the updated RAP (refer Sections 6.1 and 10) based on the following:*<br>• *Under Clause 9 (d) of SEPP 55, remediation work is considered Category 1 remediation work (i.e., requiring development consent) when the development for which another State environmental planning policy or a regional environmental plan requires development consent.*<br>• *The site is located within the boundary of Sydney Regional Environmental Plan No. 20 – Hawkesbury-Nepean River (No .2 – 1997) and this plan requires that development consent be obtained for all remediation works on land the subject of this plan*.<br><br>The updated RAP still includes either off-site disposal or on-site containment of asbestos contaminated materials as suitable remedial methodologies. Both of these strategies are consistent with national and state guidance for remediation of asbestos contaminated materials, and therefore implementation of one of, or a combination of both strategies is considered to be appropriate. JBS&G understand that both options are still being considered with respect to cost benefit analyses and redevelopment staging. Appropriate details are provided on requirements for management of site conditions and documentation necessary should |



_planning Pty Ltd
Oliver Klein BA MURP MPIA CPP (Registered Planner)
ABN 25 620 516 583
ACN 620 516 583
Phone: 0437 259 581
Email: oliverklein1968@gmail.com

| | |
|---|---|
| | material be retained onsite under management.<br><br>The design for the project is still being finalised and therefore no definitive plans are available. If impacted material is retained on the site, it will be placed in a suitable location in order to prevent future access to the impacted material. |
| Upon resolution of the above issues, the following recommendations are provided for consideration in the preparation of conditions of consent:-<br>- It is recommended that further assessment of all identified 'data gaps', including beneath existing building footprints, asphalted car parking areas and concrete paths is undertaken in accordance with the recommendations outlined in Section 9.5 of the Stage 2 Environmental Assessment and Section 4 of the Remediation Action Plan.<br>- It is recommended that a further detailed assessment for Asbestos Containing Materials (ACM) is undertaken to delineate the vertical and lateral extent of asbestos impacted fill material, prior to any work commencing on the site. The results of this assessment and subsequent addendum to the submitted RAP shall be provided to the consent authority for review and comment prior to any site disturbance.<br>- It is noted that the proposed development area has been significantly increased to the south and south-east. Further intrusive investigation of development areas not previously assessed by EIS as part of the Preliminary Stage ESA investigation shall be undertaken. It shall be ensured that all assessment is undertaken following demolition of existing site buildings and prior to excavation works.<br>- It is recommended that an Asbestos Management Plan is prepared detailed management measures and controls to be implemented throughout site excavation and associated works.<br>- It is requested that a copy of all reports, including any addendum to the existing DSI and RAP, are provided to Penrith City Council. Furthermore, a copy of the site validation report and Environmental management plan shall be provided to Penrith City Council for notation on the relevant properties s149 certificate. | The DGA has addressed all data gaps identified in the former ESA and former RAP, except for below existing building footprints which are currently inaccessible. Building footprints are proposed to be assessed/validated subsequent to demolition of the buildings, with the required process outlined in the RAP such that appropriate conclusions can be drawn for the whole site at the completion of the validation program.<br><br>The DGA included asbestos (in soil) quantification assessment at 78 sampling locations across the SSDA footprint. The asbestos quantification works were conducted in general accordance with the requirements of the Guidelines for the Assessment, Remediation and Management of Asbestos-Contaminated Sites in Western Australia, WA Department of Health, 2009 (WA DoH 2009). The findings of the DGA were then considered in preparation of the updated RAP. The vertical and lateral extent of unacceptable asbestos contamination has been characterised (refer Sections 4 and 8.2.4 of the RAP) as well as the extent of asbestos present below the adopted site criteria.<br><br>The proposed SSDA site area has been suitably assessed as part of the DGA except for directly below building footprints. As noted above, the remaining inaccessible areas have been identified and procedures nominated in the RAP.<br><br>Noted. The matter of an Asbestos Management Plan is discussed within the DGA and RAP.<br><br>Noted. It is anticipated that this will occur in due course as a result of the Category 1 designation requirements. |
| **Social Planning and CPTED Considerations** | |
| The EIS outlines that "The recommendations of the CPTED Strategy by Southern Cross Protection are to be implemented in the detailed design and ongoing operation of the hospital". | Penrith City Council's Cooling the City Strategy has been considered as part of the proposal particularly: |



_planning Pty Ltd
Oliver Klein BA MURP MPIA CPP (Registered Planner)
ABN 25 620 516 583
ACN 620 516 583
Phone: 0437 259 581
Email: oliverklein1968@gmail.com

| | |
|---|---|
| Implementation of the full list of strategy recommendations is supported to minimise safety concerns and this should be included as conditions of consent if the proposal is supported.<br><br>Whilst an Environmentally Sustainable Design Report is provided to address how the building's design incorporates sustainability features, it does not consider the proposal's contribution to environmental conditions. Given the Urban Heat Island effect experienced locally, consideration of Council's Cooling the City Strategy is encouraged, including solar reflectance, water permeability of hard surfaces and green infrastructure. Incorporation of the Cooling the City Strategy principles would ensure the proposal contributes positively to local environmental conditions. | Green Infrastructure – multiple landscape areas have been nominated consistent with the overall master plan. Large central courtyard between the East Block and Stage 1 tower and the central courtyard within the Stage 1 Tower will provide access to natural light, and provide a positive public amenity for both staff visitors and patients.<br><br>Water Sensitive Urban Design – As noted in Bonacci's Civil Report, the WSUD measures proposed for the Stage 1 Tower are designed to satisfy the requirements set out in the Penrith City Council's WSUD Policy and best practices. These measures are noted in 3.26, 3.27 and 3.2.8 in Bonacci's Civil Report<br><br>Increased Albedo (reflectivity) –<br>- Façade materiality & Roof Finishes – UHI mitigation strategies relating to the building envelope include the proposal to use high-colour, matt finish surfaces. Along with the use of appropriate insulation systems, the roof and facade systems seek to minimise the potential to store heat.<br><br>- Hard Surfaces – The extent of hard landscape surfaces has been minimised where possible, and these are reflective and light in colour. Along with the following landscape design strategies, the design seeks to mitigate the potential for "urban heat" as well as promoting health and welling for patients, staff and visitors.<br><br>Other measures include:<br>- Use of permeable paving materials where possible<br><br>- Open turfed areas with respite spaces surrounded by native planting<br><br>- Use of WSUD planting and native vegetation<br><br>- Courtyard spaces bordered by native trees and planting |



_planning Pty Ltd
Oliver Klein BA MURP MPIA CPP (Registered Planner)
ABN 25 620 516 583
ACN 620 516 583
Phone: 0437 259 581
Email: oliverklein1968@gmail.com

| | |
|---|---|
| | - Creating resilient landscape by introducing varied compositions of planting. |
| **Accessibility Considerations** | |
| The development application is accompanied by an Access Report dated 27 July 2018, prepared by Blackett Maguire + Goldsmith which forms Appendix 224b of the Environmental Impact Statement. The following is noted from a review of the report:<br>- The report outlines requirements concerning accessibility that the proposal is required to satisfy, however the report is limited in detail on whether the proposal does in fact comply with all listed requirements based on what is proposed on the accompanying drawings.<br>- The report does outline that the multi storey car parking structure currently being constructed will provide for a number of accessible parking spaces with an emergency drop off area providing an accessible car parking space. Specifics on that number of accessible parking spaces however is not outlined within the report and this structure is approximately 180m away from the proposed development. Suitable accessible parking must be provided in close proximity to this development.<br>- The report also indicates that the 'schematic architectural design' of the development is capable of achieving compliance with accessible sanitary facility requirements.<br>- Blackett Maguire + Goldsmith has concluded that the project design will be able to satisfy the requirements of BCA2016 and the Access to Premises Standard 2010 if the works are designed and constructed in accordance with the requirements of the BCA and AS1428.01 – 2009 and AS2890.6 – 2006 and subsequent Access Reports and Performance Solutions.<br><br>It is therefore recommended that a more specific accessibility assessment be undertaken of the development as proposed, to ascertain its current level of compliance with the above requirements. | BM+G has separately advised as follows in response:<br>- The drawings submitted for the DA relate to the project's Schematic Design for a planning purpose and which are relevantly still high level in terms of detail, especially with regards to access for a person with a disability. As the design develops through post-approval Design Development and Construction Documentation, all design elements relating to a person with a disability will be refined.<br>- The BCA only regulates the requirement for accessible car parking spaces where car parking spaces are provided and the fact that access is required from any accessible car parking space to the main entrance of the building. The BCA does not regulate the location of a car parking area in association with a building. The proposed design as confirmed by BVN allows for compliant access from the multi-storey car park to the new tower.<br>- As above, based on the Schematic Design, details of all sanitary facilities were not provided. Compliance will be achieved in terms of the provision of accessible sanitary facilities for a person with a disability with Design Development and Construction Issue documentation.<br>- Again, as detailed above, the BCA / Accessibility information reported on relates to the Schematic Design for the project. It confirms that the development is capable of complying. As the design develops through Detailed Design and Construction Issue documentation all issues in relation to access for a person with a disability will be reviewed in detail amongst the |



_planning Pty Ltd
Oliver Klein BA MURP MPIA CPP (Registered Planner)
ABN 25 620 516 583
ACN 620 516 583
Phone: 0437 259 581
Email: oliverklein1968@gmail.com

| | |
|---|---|
| | consultant team with compliance demonstrated prior to the issue of the Crown Certificate.<br><br>BM+G notes that compliance with the BCA is not a head of consideration for the assessment of a DA and in this instance there is no requirement for DA submitted drawings to detail full compliance with the BCA, but rather ensure that they are at a level that will ensure that any changes required to comply with the BCA would not require a Section 4.55 Application to be submitted to the Consent Authority. In this instance, no design modifications required to comply with Part D3 and AS 1428 would generate the need for a Section 4.55 Application. |
| **Heritage Considerations** | |
| While no objection is raised to the demolition works proposed, it is requested that an archival photographic recording be made of the heritage items to be demolished / altered and that a copy of that archival recording is provided to Penrith City Council prior to works commencing. | No heritage items are affected by this DA and accordingly none are proposed to be demolished.<br><br>In the event DPE seeks to include a condition requiring archival recording, we suggest that this not require the recording to be to any Heritage Office standard, noting the superfluous nature of being required to do so. |
| **Transport for NSW** | |
| **General** | |
| TfNSW has no objections to the proposed development, subject to the following comments. | Noted. |
| **Bicycle parking and end-of-trip facilities** | |
| Comment<br>The assessment of cycling infrastructure indicates that "the only designated bicycle route known of within the immediate vicinity of the hospital is the recently upgraded shared pedestrian and bicycle path along (for the section opposite PHC [Penrith Health Campus]) the northern side of the Great Western Highway" (Cattell Cooper 2018 p.62).<br><br>It is recognised that addressing the lack of dedicated bicycle routes would be outside the scope of this proposal. Nonetheless, the proposed development could contribute to encouraging cycling to work through the implementation of secure bicycle parking and end-of-trip facilities. There is no indication within the application for the provision of bicycle parking and the transport assessment states that "secure and/or weather-protected bicycle parking facilities are not visibly available within PHC, although there appear to be available informal parking opportunities" (Cattell Cooper 2018 p.63), inferring an existing lack of formal bicycle parking infrastructure. | As per Cattell Cooper's responses at **Appendix D**, cycle parking and end of trip facilities will be provided in three locations on a temporary basis until the front of house for Stages 1 and 2 is completed. The three locations are:<br>- East Block and the multi storey carpark for the public; and<br>- West Block refurbishment space with changing facilities for staff.<br><br>Suggested draft condition wording that would be accepted by HI would be along the lines of the following:<br>"Visitor cycle parking is to be provided close to the building entry consistent with the site master plan."<br>"Secure staff cycle parking (sufficient to accommodate 3% of staff present on the health campus at any one time) is to be |



_planning Pty Ltd
Oliver Klein BA MURP MPIA CPP (Registered Planner)
ABN 25 620 516 583
ACN 620 516 583
Phone: 0437 259 581
Email: oliverklein1968@gmail.com

| | |
|---|---|
| Recommendation<br>The proposal should include provisions for secure bicycle parking and end-of-trip facilities to encourage the uptake of cycling to work (for staff). | provided in a convenient campus location."<br>"An end of trip facility is to be conveniently located to the staff cycle parking. The end of trip facility is to provide sufficient showers, lockers and change rooms to accommodate staff walking and cycling to work with sufficient provision to accommodate growth over time." |
| **Travel demand management: Green Travel Plan** | |
| Comment<br>The transport task to efficiently and sustainably move staff, patients and visitors to/from the site will require collaboration between hospital management, Councils and NSW government agencies. The Green Travel Plan (GTP) should be developed in close collaboration with all known existing and proposed occupants/users with all stakeholders given the opportunity to provide input to the development of objectives, goals, targets, measures, strategies and initiatives within the GTP.<br><br>Recommendation<br>A Travel Plan Working Group and nominated Travel Plan Coordinator should be established at this stage of the proposal. This Group/individual(s) will be a crucial component in the ongoing development and management of the GTP.<br>The GTP, which could be further developed post approval, should include the following:<br>- a detailed audit of active and public transport infrastructure, and parking provision<br>- an Action Plan, informed by existing travel patterns, which clearly highlights the timeline for implementation of initiatives and responsible persons/agencies<br>- actions for ongoing communications with Council and NSW Government agencies is recommended throughout the development, implementation and maintenance of the GTP<br>- a comparison of modal shift targets achieved at similar developments elsewhere | A Green Travel Plan was prepared and submitted as part of the SSD DA by ptc and it will be further developed prior to occupation of the development. A suitable condition would be as imposed as Condition D9 of the Lismore Hospital SSD Stage 3C:<br><br>Prior to occupation of the building, a Green Travel Plan that would be implemented must be finalised and submitted to the Department and Certifier. The Green Travel Plan must:<br>(a) be prepared in consultation with TfNSW and Council;<br>(b) outline facilities and measures to promote public transport usage, such as car share schemes and employee incentives; and<br>(c) describe pedestrian and bicycle linkages and end of trip facilities available on-site. |
| **Hospital shuttle bus operations** | |
| Comment<br>The transport assessment identifies a number of issues impacting the usability of the hospital shuttle service, including inconvenient access from the Derby Street bus stops as the service cannot use external roads (Cattell Cooper 2018 p.70). A potential solution exists whereby the service could utilise space within the existing carpark adjacent Derby Street as a pick-up/drop-off point with improved access to the bus stops. It is anticipated that improvements in accessibility of the shuttle bus to the bus stop would increase the attractiveness of using regular bus services to access the hospital.<br><br>Recommendation<br>The campus should consider the above measures to potentially increase the attractiveness of regular bus services as a transport choice. | The existing hospital shuttle service operation, including pick up and drop off points will be further examined to optimise operations for patients and visitors. The NBMLHD will consider demand-based review of the service.<br><br>As noted by Cattell Cooper, a possible condition could be as follows:<br>"A short report and revised service schedule, including pick up and drop off points is to be submitted to the DPE prior to issue of the occupation certificate." |
| **Bus Services** | |
| Comment<br>It is anticipated that current bus service levels will accommodate the future increased staff, patient and visitor numbers. Frequent | Noted. |



_planning Pty Ltd
Oliver Klein BA MURP MPIA CPP (Registered Planner)
ABN 25 620 516 583
ACN 620 516 583
Phone: 0437 259 581
Email: oliverklein1968@gmail.com

| | |
|---|---|
| services to/from the hospital operate at 5 trips/hr during the off-peak and 6 trips/hr during the peak with connections to Mount Druitt and Penrith, respectively.<br><br>TfNSW will continue to monitor services and travel patterns and subject to demand and funding will investigate enhancements to services in the area.<br><br><u>Recommendation</u><br>That DP&E and the applicant note the above. | |
| **Construction traffic management** | |
| <u>Comment</u><br>The construction methodology for the proposed development should ensure that construction impacts are mitigated and do not impinge on pedestrians, cyclists and the operations of the bus network.<br><br><u>Recommendation</u><br>The Construction Traffic Management Plan, which would be prepared prior to construction, should ensure construction vehicles and construction activities minimises and mitigates impacts on pedestrians, cyclists and the operation of the bus network. | A Construction Traffic Management Plan has been prepared and submitted with the SSD DA. This will be refined and finalised once the contractor has been formally appointed. The Construction Traffic Management Plan addresses (and will further address) impacts upon pedestrians, cyclists and the operation of the bus network. A further version of the Construction Traffic Management Plan has been prepared by CPB – see sections 7.6.3 and 7.6.4 of **Appendix H**. |
| **RMS** | |
| Roads and Maritime raises no objection to the development proposal subject to the following conditions being incorporated in any consent issued by the department: | - |
| Roads and Maritime has previously resumed & dedicated lands as road along the Great Western Highway and Parker Street frontage of the subject property, as shown by grey colour on the attached Aerial –"X"<br><br>(See below).<br><br>  <br><br>Therefore all buildings and structures, together with any improvements integral to the future use of the site are to be wholly within the freehold property unlimited in height or depth, along the Great Western Highway and Parker Street boundary. | Noted. All works subject of this SSD DA are wholly within the freehold property and are located well removed from the grey-colour areas on the figure provided by the RMS.<br><br>The updated / revised development is still well-clear of impacting the RMS resumed and dedicated lands near and peripheral to the hospital campus. |



_planning Pty Ltd
Oliver Klein BA MURP MPIA CPP (Registered Planner)
ABN 25 620 516 583
ACN 620 516 583
Phone: 0437 259 581
Email: oliverklein1968@gmail.com

| | |
|---|---|
| The proponent should be advised that the subject property is within an area under investigation for intersection upgrade. | |
| A Construction Traffic Management Plan detailing construction vehicle routes, number of trucks, hours of operation, access arrangements and traffic control should be submitted to Council for approval prior to the issue of a Construction Certificate. | Noted. A Construction Traffic Management Plan has been prepared and submitted with the SSD DA. A refined version is found at **Appendix H**. |
| All demolition and construction vehicles are to be contained wholly within the site and vehicles must enter the site before stopping. A construction zone will not be permitted on Great Western Highway and Parker Street. | Noted. The CTMP acknowledges that all works are to be contained within the campus, and within the site compound and does not seek a Works Zone on the Highway. See also Section 7.9 of the CTMP. |
| A Road Occupancy Licence should be obtained from Transport Management Centre for any works that may impact on Great Western Highway and Parker Street traffic flows during construction activities. | Noted. |
| **EPA** | |
| **General** | |
| The EPA considers that the project comprises distinct phases of construction and operation and has set out its comments on that basis.<br><br>The EPA notes the proximity of surrounding residences which may be adversely affected by noise impacts during demolition, site preparation, construction and operation phases of the project. | Noted – see further below. |
| **Construction Phase - General** | |
| The EPA anticipates that site establishment, demolition, bulk earthworks, construction and construction-related activities will be undertaken in an environmentally responsible manner with particular emphasis on –<br>- the site contamination remediation action plan accompanying the EIS,<br>- compliance with recommended standard construction hours,<br>- intra-day respite periods from high noise generating construction activities (including jack hammering, rock breaking, pile boring or driving, saw cutting),<br>- feasible and reasonable noise and vibration minimisation and mitigation,<br>- effective dust control and management,<br>- erosion and sediment control, and<br>- waste handling and management, particularly concrete waste and rinse water. | Noted – see specific commentary further below for each matter. |
| **Construction Phase – Site contamination** | |
| Table 9-1 to EIS Appendix 6a 'Preliminary Stage 2 Environmental Site Assessment' confirms the presence of asbestos containing material "... within the fill material and on the surface of the site."<br>EIS Appendix 6b 'Remediation Action Plan' (RAP) appears to indicate a mixed approach with some removal and some capping of contaminated soil/fill.<br>EIS Appendices 6a and 6b further identified data gaps, including:<br>- the vertical and horizontal extent of fill material at the site has not been fully assessed; and<br>- the proposed development area has been moved to the east, increased in area to the south east; and<br>- the areas of the development site were occupied by existing buildings in the central and north west sections and have not been assessed; and<br>- the central/east section of the development site was occupied by an at grade asphaltic car park. | Noted.<br><br>JBS&G has recently completed a Data Gap Assessment comprising soil sampling and asbestos quantification at 78 locations and resampling of 4 existing groundwater monitoring well locations. The DGA has addressed the following data gaps:<br>• characterisation of the vertical and lateral extent of fill material;<br>• assessment of areas added to the original development footprint; and |



_planning Pty Ltd
Oliver Klein BA MURP MPIA CPP (Registered Planner)
ABN 25 620 516 583
ACN 620 516 583
Phone: 0437 259 581
Email: oliverklein1968@gmail.com

| | |
|---|---|
| The EPA understands that the development site has a revised development area of 25,300 square metres (see RAP Table 2-1) and notes that whilst the Sampling Design Guidelines recommend a minimum of 35 sampling points, however soil samples were obtained from only 24 boreholes.<br><br>The EPA understands that disused Underground Petroleum Storage System (UPSS) infrastructure is located on the hospital campus but the shift of the development site indicates that infrastructure would be 100 metres away. Nevertheless, the EPA considers that the disused UPSS should be removed from the hospital campus and the site remediated and validated in conjunction with remediation of the development site.<br>The EPA considers that –<br>- the unexpected finds procedure outlined in section 8.1 the RAP (i.e. Appendix 6b) is not site specific and sufficiently detailed, and<br>- the RAP should be revised having regard to the results of additional site investigation.<br><br>Therefore, the EPA having regard to foregoing and the nature of the proposed use, considers that the proponent should engage an accredited site auditor. | • characterisation of the existing on-grade asphaltic car park.<br><br>Data gaps below existing site buildings are proposed to be managed via the remedial process as documented in the updated RAP.<br><br>The DGA included soil sampling at an additional 78 locations, which exceeds the Sampling Design Guidelines, as well as being consistent with guidance provided in Guidelines for the Assessment, Remediation and Management of Asbestos-Contaminated Sites in Western Australia, WA Department of Health, 2009 (WA DoH 2009). The data gap assessment in addition to the existing previous reports have appropriately characterised site conditions such that defensible conclusions may be drawn with regard to site suitability and remedial / management requirements.<br><br>The UPSS infrastructure has been demonstrated to not pose an unacceptable risk to the proposed redevelopment via previous groundwater investigations. Furthermore, the UPSS is well outside the boundary of the proposed SSDA and therefore not considered appropriate to be included as part of the remedial works for the SSDA. The UPSS is documented on the Local Health District risk register and being managed by the LHD.<br><br>The updated RAP includes a new comprehensive unexpected finds protocol (refer Section 7 of the RAP) that is site specific and sufficiently detailed in order to enable assessment and management of unexpected finds during remediation of the site. The updated RAP considers the findings of the DGA and therefore adequately addresses the former data gaps identified by EIS. |
| <u>Recommendation</u><br>The proponent be required to ensure that prior to commencing any work on the development site, an appropriate procedure:<br>(a) is prepared and implemented to identify and deal with unexpected finds of site contamination, including –<br>(i) asbestos containing materials,<br>(ii) incinerator and boiler ash,<br>(iii) clinical waste, and<br>(iv) hydrocarbon contamination associated with any underground petroleum storage system. | Noted.<br><br>A detailed unexpected finds procedure is documented within Section 7 of the current RAP for the site. The unexpected finds procedure has been accepted by consent authorities and site auditors on hundreds of remedial projects in NSW. |



_planning Pty Ltd
Oliver Klein BA MURP MPIA CPP (Registered Planner)
ABN 25 620 516 583
ACN 620 516 583
Phone: 0437 259 581
Email: oliverklein1968@gmail.com

| | |
|---|---|
| (b) includes details of who will be responsible for implementing the unexpected finds procedure and the roles and responsibilities of all parties involved. | |
| Recommendation<br>The proponent be required to satisfy the requirements of the Protection of the Environment Operations (Waste) Regulation 2014 with particular reference to Part 7 'asbestos wastes'. | Noted.<br><br>Procedures outlined in the RAP have been prepared with consideration to the requirements of the POEO (Waste) Regulation. |
| Recommendation<br>The proponent be required to consult with Safework NSW concerning the handling of any asbestos waste that may be encountered during the course of the project. | Noted.<br><br>Procedures outlined in the RAP have been prepared with consideration to the requirements of WorkSafe NSW regulations and codes of practice as currently in force. |
| Recommendation<br>The proponent be required to ensure that (following demolition of any existing structures, parking infrastructure, and underground utilities) further detailed investigation be undertaken of soil and groundwater contamination within the footprint of those structures, that infrastructure and those utilities prior to undertaking any site preparation, bulk earthworks or construction. | Noted.<br><br>The DGA has addressed all data gaps identified in the former ESA and former RAP except for below existing building footprints which are currently inaccessible. Building footprints are proposed to be assessed/validated subsequent to demolition of the buildings, with the required process outlined in the RAP such that appropriate conclusions can be drawn for the whole site at the completion of the validation program.<br><br>See the revised RAP included as part of this RtS package at **Appendix G**. |
| Recommendation<br>The proponent be required to undertake a detailed site assessment of the entire development site having due regard to identified data gaps including uncertainties about historic fill and waste management practices across the development site and its immediate surrounds. | Noted. As above.<br><br>JBS&G has recently completed a Data Gap Assessment (DGA) comprising soil sampling and asbestos quantification at 78 locations and resampling of 4 existing groundwater monitoring which has addressed the previously identified data gaps. The DGA footprint is inclusive of the SSDA development footprint, and also includes some additional areas of the hospital campus. |
| Recommendation<br>The proponent be required consider the guidance material provided in The National Environment Protection (assessment of contamination) Measures, 2013 as amended as well as the following EPA documents when undertaking further site assessment and validation –<br>- Technical Note: Investigation of Service Station Sites, 2014,<br>- NSW EPA Sampling Design Guidelines,<br>- Guidelines for the NSW Site Auditor Scheme (3rd edition) 2017, and<br>- Guidelines for Consultants Reporting on Contaminated Sites, 2011. | Noted. JBS&G has considered these guidance documents throughout implementation of the DGA and preparation of the DGA and RAP documents. |



_planning Pty Ltd
Oliver Klein BA MURP MPIA CPP (Registered Planner)
ABN 25 620 516 583
ACN 620 516 583
Phone: 0437 259 581
Email: oliverklein1968@gmail.com

| | |
|---|---|
| Recommendation<br>The proponent be required to ensure that the processes outlined in State Environmental Planning Policy 55 - Remediation of Land (SEPP55) are followed in assessing the suitability of the land and any remediation required in relation to the proposed use. | Noted. Consideration and implementation of the requirements of SEPP55 is ongoing. JBS&G note that the remedial works are considered to be Category 1 Remedial Works in accordance with Clause 9 (d) of SEPP55 (refer Sections 6.1 and 10 of the RAP). |
| Recommendation<br>The proponent be required to ensure that the proposed development does not result in a change of risk in relation to any pre-existing contamination on the site so as to result in significant contamination. | Based on the findings of the DGA, JBS&G do not consider that the proposed redevelopment will result in a change of risk resulting in a greater risk from existing known/suspected contamination and therefore will not result in significant contamination. The identified contamination issues that require remediation at the site have not been identified to be widespread or significant. |
| Recommendation<br>The proponent be required to notify the EPA should any contamination of the development site be identified which meets the triggers in the Guidelines for the Duty to Report Contamination. | Noted. Based on the findings of the DGA, JBS&G do not consider there is a current requirement to notify the site to the EPA under the CLM Act. |
| Recommendation<br>The proponent be required to engage a site auditor (accredited under the Contaminated Land Management Act 1997) to:<br>(a) review the adequacy of contamination assessment reports, any remediation action plan and<br>unexpected finds procedure, and<br>(b) provide a Section A Site Audit Statement (SAS) and accompanying Site Audit Report (SAR) certifying the suitability of the development site for the proposed use. | Contamination at the site has been identified to be localised in nature, of minor extent and able to be readily managed via routine implementation of common remedial strategies. Further, as identified in the RAP, consent is required for the remedial works which will provide another layer of rigour to ensure the works are completed appropriately. To this extent, it is unclear as to what benefit engagement of a site auditor for the project would be given the minor and straightforward nature of the remediation and engagement of a site auditor is a significant expense particularly on a publicly funded project. |
| Recommendation<br>That the proponent be required to implement the recommendations of the Remedial Action Plan as conditioned by the accredited site auditor. | Noted, having regard to the above comment. |
| Recommendation<br>The proponent be required to ensure:<br>(a) further details of the proposed remediation and validation strategy are provided to the site auditor in a Works Plan and a Validation Sampling and Analysis Quality Plan (VSAQP) for review by the site auditor prior to remediation commencing;<br>(b) an Asbestos Works Management Plan (AWMP), including stringent controls on dust emissions, is prepared and submitted to the site auditor for review; and<br>(c) a long term Environmental Management Plan (LTEMP) is prepared following remediation of the development site to document -<br>(i) the expected limitations on the development site use,<br>(ii) relevant environmental and health and safety processes and procedures,<br>(iii) management processes, procedures and responsibilities to be adopted by future site users within the development site, and | Noted. JBS&G consider that a long term asbestos management plan (LTAMP) would be a more appropriate name for the long term management document (replacing LTEMP) and align with SafeWork NSW regulations. |



_planning Pty Ltd
Oliver Klein BA MURP MPIA CPP (Registered Planner)
ABN 25 620 516 583
ACN 620 516 583
Phone: 0437 259 581
Email: oliverklein1968@gmail.com

| | |
|---|---|
| (iv) details on the location and extent of placed or residual asbestos contaminated fill materials, capping layers and marker barriers within the development site. | |
| Recommendation<br>The proponent be required to ensure all disused Underground Petroleum Storage System (UPSS) infrastructure is decommissioned, the site validated, and the process documented and reported in accordance with the Protection of the Environment Operations (Underground Petroleum Storage Systems) Regulation 2014 | As discussed, the UPSS is located outside of the SSDA site boundary. This area of the hospital campus is not proposed to be disturbed by the current works.<br><br>The UPSS infrastructure has been demonstrated to not pose an unacceptable risk to the proposed redevelopment via previous groundwater investigations. The UPSS is documented on the Local Health District risk register and is being managed by the LHD. To this extent, the UPSS is not located within the site and as such it is not appropriate to require the applicant to remove or remediate the UPSS as part of this current remedial works package. |
| **Construction Phase – Noise and Vibration** | |
| The EPA anticipates that demolition, site preparation (including tree clearing), bulk earthworks, construction and construction-related activities are likely to have significant noise and vibration impacts on surrounding residences, especially surrounding residences and the adjoining Nepean Private Hospital.<br><br>EIS Table 14 'mitigation measures' indicates proposed construction hours on Saturdays (i.e. 7.00 am to 5.00 pm) that are inconsistent with the standard construction hours of 8.00 am to 1.00 pm on Saturdays recommended in Table 1 to Interim Construction Noise Guidelines. It is noted that table 14 states that "No work will be carried outside of standard construction hours, due to the nature of the Hospital services and the surrounding residential properties, ..." | Noted. HI's position on Saturday work will be to maximise opportunities to work where these have no material impact upon the neighbours or sensitive uses. DPE has previously recently accepted work on Saturdays after 1pm that are inaudible to sensitive receivers as set out below. HI would seek the same, as well as opportunity to work from 7am to 8am Saturdays.<br><br>This is outside of EPA's standard hours, and as such a more stringent construction noise emission goal applies (Background+5dB(A)). Activities that can be conducted in this "outside of standard hours" period (ie – those complying with the "Background+5dB(A) requirement) have been identified in the document Construction Noise Management Plan by Acoustic Logic (dated 16.11.2018).<br><br>C2. Construction, including the delivery of materials to and from the site, may only be carried out between the following hours:<br>a) between 7 am and 6 pm, Mondays to Fridays inclusive;<br>b) between 8 am and 1 pm, Saturdays; and<br>c) no work may be carried out on Sundays or public holidays.<br><br>C3. Activities may be undertaken outside of these hours:<br>a) if required by the Police or a public authority for the delivery of vehicles, plant or materials; or |



_planning Pty Ltd
Oliver Klein BA MURP MPIA CPP (Registered Planner)
ABN 25 620 516 583
ACN 620 516 583
Phone: 0437 259 581
Email: oliverklein1968@gmail.com

| | |
|---|---|
| | b) if required in an emergency to avoid the loss of life, damage to property or to prevent environmental harm; or<br>c) works are inaudible at the nearest sensitive receivers; or<br>d) if a variation is approved in advance in writing by the Planning Secretary or her nominee; and<br>e) notification of such activities must be given to affected residents before undertaking the activities or as soon as is practical afterwards.<br><br>In addition to operation of subclause c), approval is sought for d) for the approach identified by Acoustic Logic. |
| <u>general construction hours</u><br>The EPA emphasises that demolition, site preparation, bulk earthworks, construction and construction-related activities should be undertaken during the recommended standard construction hours. | Noted – with reference to the above. |
| <u>Recommendation</u><br>The proponent be required to ensure that as far as practicable all demolition, site preparation, bulk earthworks, construction and construction-related activities likely to be audible at any noise sensitive receivers such as surrounding residences are only undertaken during the standard construction hours,<br>being -<br>(a) 7.00 am to 6.00 pm Monday to Friday,<br>(b) 8.00 am to 1.00 pm Saturday, and<br>(c) no work on Sundays or gazetted public holidays. | As above. A DPE standard condition is sought which provides added and meaningful flexibility, as well as enabling identified works to be carried out from 7am to 8am and from 1pm to 5pm Saturdays. |
| <u>intra-day respite periods</u><br>The EPA anticipates that those demolition, site preparation, bulk earthworks, construction and construction-related activities generating noise with particularly annoying or intrusive characteristics (such as those identified as particularly annoying in section 4.5 of the Interim Construction Noise Guideline) would be subject to a regime of intra-day respite periods where –<br>(a) they are only undertaken after 8.00 am,<br>(b) they are only undertaken over continuous periods not exceeding 3 hours with at least a 1 hour respite every three hours, and.<br>(c) 'continuous' means any period during which there is less than an uninterrupted 60 minute respite between temporarily halting and recommencing any of the intrusive and annoying work referred to in Interim Construction Noise Guideline section 4.5<br><br>The EPA emphasises that intra-day respite periods are not proposed to apply to those demolition, site preparation, bulk earthworks, construction and construction-related activities that do not generate noise with particularly annoying or intrusive characteristics. | Noted. Acoustic Logic advises that respite periods are recommended in the EPA Interim Construction Noise Guidelines when the Highly Noise Affected trigger level of 75dB(A) is reached.<br>Accordingly, respite periods should only be adopted for activities that are expected to reach the Highly Noise Affected trigger level. There should be no blanket adoption of respite periods based on the equipment used, it should be based on the noise level.<br><br>It is not anticipated that noise levels exceeding 75dB(A) will be achieved at residences outside of the hospital precinct. As such respite periods are unlikely to be warranted.<br><br>Any condition of consent addressing construction noise and respite periods should require respite periods for activities exceeding the 75dB(A) Highly Noise Affected trigger level. To do otherwise is contrary to the Interim Construction Noise Guidelines and will result in unnecessary delay to the project. |



_planning Pty Ltd
Oliver Klein BA MURP MPIA CPP (Registered Planner)
ABN 25 620 516 583
ACN 620 516 583
Phone: 0437 259 581
Email: oliverklein1968@gmail.com

| | |
|---|---|
| Recommendation<br>The proponent be required to schedule intra-day 'respite periods' for construction activities identified in section 4.5 of the Interim Construction Noise Guideline as being particularly annoying to noise sensitive receivers, including surrounding residents. | As above. |
| idling and queuing construction vehicles<br>The EPA is aware from previous major infrastructure projects that community concerns are likely to arise from noise impacts associated with the early arrival and idling of construction vehicles (including concrete agitator trucks) at the development site and in the residential precincts surrounding that site. | Noted. |
| Recommendation<br>The proponent be required to ensure construction vehicles (including concrete agitator trucks) involved in demolition, site preparation, bulk earthworks, construction and construction-related activities do not arrive at the project site or in surrounding residential precincts outside approved construction hours. | Noted. |
| reversing and movement alarms<br>The EPA has identified the noise from 'beeper' type plant movement alarms to be particularly intrusive and is aware of feasible and reasonable alternatives. Transport for NSW, Barangaroo Delivery Authority/Lend Lease and Leighton Contractors (M2 Upgrade project) have undertaken safety risk assessments of alternatives to the traditional 'beeper' alarms. Each determined that adoption of 'quacker' type movement/reversing alarms instead of traditional beepers on all plant and vehicles would not only maintain a safe workplace but also deliver improved outcomes of reduced noise impacts on surrounding residents.<br><br>Interim Construction Noise Guideline Appendix C provides additional background material on this issue. | Noted. |
| Recommendation<br>The proponent be required to consider undertaking a safety risk assessment of site preparation, bulk earth works, construction and construction-related activities to determine whether it is practicable to use audible movement alarms of a type that would minimise the noise impact on surrounding noise sensitive receivers, without compromising safety. | Noted. |
| **Construction Phase – Dust control and management** | |
| Dust control and management<br>The EPA considers dust control and management to be an important air quality issue during demolition, site preparation, bulk earthworks and subsequent construction. | Noted. |
| Recommendation<br>The proponent be required to:<br>(a) minimise dust emissions on the site, and<br>(b) prevent dust emissions from the site. | Noted. |
| **Construction Phase – Sediment Control** | |
| Sediment control<br>Managing Urban Stormwater Soils and Construction, 4th Edition published by Landcom (the so-called 'Blue Book') provides guidance material for achieving effective sediment control on construction sites.<br><br>The proponent should implement all such feasible and reasonable measures as may be necessary to prevent water pollution in the course of developing the site.<br>The EPA emphasises the importance of – | Noted. |



_planning Pty Ltd
Oliver Klein BA MURP MPIA CPP (Registered Planner)
ABN 25 620 516 583
ACN 620 516 583
Phone: 0437 259 581
Email: oliverklein1968@gmail.com

| | |
|---|---|
| (a) not commencing demolition, site preparation, bulk earthworks, construction and construction-related activities until appropriate and effective sediment controls are in place, and<br>(b) daily inspection of sediment controls which is fundamental to ensuring timely maintenance and repair of those controls. | |
| **Construction Phase – Waste control and management (general)** | |
| Waste control and management (general)<br>The proponent should manage waste in accordance with the waste management hierarchy. The waste hierarchy, established under the Waste Avoidance and Resource Recovery Act 2001, is one that ensures that resource management options are considered against the following priorities:<br>**Avoidance** including action to reduce the amount of waste generated by households, industry and all levels of government<br>**Resource recovery** including reuse, recycling, reprocessing and energy recovery, consistent with the most efficient use of the recovered resources<br>**Disposal** including management of all disposal options in the most environmentally responsible manner.<br><br>All wastes generated during the project must be properly assessed, classified and managed in accordance with the EPA's guidelines to ensure proper treatment, transport and disposal at a landfill legally able to accept those wastes.<br><br>The EPA further anticipates that, without proper site controls and management, mud and waste may be tracked off the site during the course of the project. | Noted. |
| Recommendation<br>The proponent be required to ensure that :<br>(1) all waste generated during the project is assessed, classified and managed in accordance with the EPA "Waste Classification Guidelines Part 1: Classifying Waste", November 2014 and the 2016 Addendum thereto;<br>(2) the body of any vehicle or trailer, used to transport waste or excavation spoil from the premises, is covered before leaving the premises to prevent any spill or escape of any dust, waste, or spoil from the vehicle or trailer; and<br>(3) mud, splatter, dust and other material likely to fall from or be cast off the wheels, underside or body of any vehicle, trailer or motorised plant leaving the site, is removed before the vehicle, trailer or motorised plant leaves the premises. | Noted. |
| **Construction Phase – Waste control and management (concrete and concrete rinse water)** | |
| Waste control and management (concrete and concrete rinse water)<br>The EPA anticipates that during the course of the project concrete deliveries and pumping are likely to generate significant volumes of concrete waste and rinse water. The proponent should ensure that concrete waste and rinse water is not disposed of on the project site and instead that –<br>(a) waste concrete is either returned in the agitator trucks to the supplier or directed to a dedicated watertight skip protected from the entry of precipitation, and<br>(b) concrete rinse water is directed to a dedicated watertight skip protected from the entry of precipitation or a suitable water treatment plant. | Noted. |
| Recommendation<br>The proponent be required to ensure that concrete waste and rinse water are<br>(a) not disposed of on the development site, and | Noted. |



_planning Pty Ltd
Oliver Klein BA MURP MPIA CPP (Registered Planner)
ABN 25 620 516 583
ACN 620 516 583
Phone: 0437 259 581
Email: oliverklein1968@gmail.com

| | |
|---|---|
| (b) prevented from entering waters, including any natural or artificial watercourse. | |
| **Operational Phase - General** | |
| The EPA considers that environmental impacts that arise once the development is operational should be able to be largely averted by responsible environmental management practices, particularly with regard to:<br>(a) feasible and reasonable noise mitigation measures;<br>(b) radiation control;<br>(c) clinical and related waste management<br>(d) waste management in accordance with the waste management hierarchy;<br>(e) design, installation and operation of any underground petroleum storage system;<br>(c) water sensitive urban design; and<br>(d) energy conservation and efficiency. | Noted – see specific commentary further below for each matter. |
| **Operational Phase – Noise and Vibration** | |
| <u>Noise and vibration impacts</u><br>The EPA anticipates the proposed development may have significant operational noise impacts on nearby sensitive receivers, especially surrounding residences in Parker, Somerset and Derby Streets as well as the adjoining Nepean Private Hospital.<br><br>The EPA notes that the shading on Figures 1 and 2 to EIS Appendix 15 'Acoustic Assessment' gives the impression that the Nepean Private Hospital is located on the hospital campus, which is not the EPA's understanding. | Noted. Correct, Nepean Private Hospital does not form part of the Nepean Hospital Campus and sits immediately adjacent to it. |
| <u>background noise measurement</u><br>The EPA emphasises that properly establishing background noise levels in accordance with guidance material in the New South Wales Noise Policy for Industry (NPfI) is fundamental to a consistent approach to the quantitative assessment of noise impacts of development.<br><br>The NPfI specifies that at least a 'week's worth' of monitoring data is required to establish background noise levels and that noise levels measured during rainfall and when wind speeds exceed 5 metres per second (i.e. 18 kilometres per hour) should be excluded when deriving those background levels.<br><br>The NPfI guidance material also specifies that noise from an existing development should be excluded from background noise measurements. However, Figure 2 to EIS Appendix 15 indicates that 2 noise loggers were deployed for the purposes of background noise monitoring.<br><br>Logger A was deployed at a residence in Barber Street over 11 days between 31 January 2017 and 10 February 2017 but no meteorological data is reported. However, Logger B was deployed –<br>(a) between 25 May 2018 and 1 June 2018 during which period background noise measurements were likely to be affected by rain on 28 and 30 May as well as wind speeds in excess of 5 metres per second on several days, and<br>(b) on the hospital campus instead of at the most affected or potentially most affected residence in Somerset Street.<br><br>The EIS is not supported by a graphical representation of the daily background noise monitoring data and observed meteorological conditions. | A revised report has been provided (Revision 9 – Dated 15/11/2018 – see **Appendix F**) which includes the graphed results of the background noise monitoring for both logger locations A (Barber Street) and B (Somerset Street). Meteorological data has been included in the graphs in accordance with the NSW EPA NPfI 2017 to highlight times when logging data was excluding from analysis (during rainfall and wind speeds that exceed 5 metres per second).<br><br>In regard to Logger Location B (Somerset Street), Acoustic Logic makes the following comments.<br>- Comments have been provided by the EPA in relation to logger location B and the fact that it was not undertaken at the most affected or potentially most affected residence in Somerset Street.<br>- As explained in section 4 table 2 of the Acoustic Assessment, during our site attendances (in particular, the 6/6/2018 measurement at 12am-2am) it was observed that existing mechanical plant from the Hospital is affecting the background noise levels along |



_planning Pty Ltd
Oliver Klein BA MURP MPIA CPP (Registered Planner)
ABN 25 620 516 583
ACN 620 516 583
Phone: 0437 259 581
Email: oliverklein1968@gmail.com

| | |
|---|---|
| Accordingly, the EPA is unable to provide an informed assessment of the suitability of the rating background levels and applicable noise criteria. | most of the Somerset Street residences.<br>- In accordance with the NPfI, noise from an existing development should be excluded from background noise measurements.<br>- All residences on Somerset Street are impacted to some degree by pre-existing plant noise (as detailed table 2). Most critically, the residences at the northern end of Somerset Street are impacted by plant noise from the existing Cancer Centre. This applies to both the residences directly opposite (the nearest potentially impacted) as well as residences further to the east (see attended measurement locations 3, 4 and 5, page 9).<br>- Further, it is likely that the existing plant noise will change following the development of the hospital, meaning that a measurement of ambient noise levels at a location not impacted by existing plant noise is desirable.<br>- The Somerset Street noise logging location (Location B) that was used is the location on Somerset Street that is not impacted by existing plant noise (as it is shielded by the child care centre) and best represents the ambient environment excluding noise from the Hospital itself.<br>- The location selected was appropriate for use when setting noise emission limits. In fact, it was the best location on Somerset Street for this purpose. |
| <u>Recommendation</u><br>The proponent be required to undertake background noise monitoring in accordance with the guidance material provided in Chapter 3 and Appendix B of the NPfI. | As above. |
| <u>Recommendation</u><br>The proponent be required to determine project specific noise levels in accordance with the NPfI with those levels being unaffected by noise from the existing hospital. | As above. |
| <u>ambulance bay</u><br>Section 6.1.1 and Table 15 to EIS appendix 15 assess noise level exceedance by reference to the Environmental Criteria for Road Traffic Noise, 1999 which has been superseded by Road Noise Policy 2011. | As outlined in the Acoustic Assessment, in the assessment of sleep disturbance from the operation of the ambulance bay Acoustic Logic has assessed the operation against the requirements of |



_planning Pty Ltd
Oliver Klein BA MURP MPIA CPP (Registered Planner)
ABN 25 620 516 583
ACN 620 516 583
Phone: 0437 259 581
Email: oliverklein1968@gmail.com

| | |
|---|---|
| | the NSW EPA Noise Policy for Industry (NPfI) 2017 (refer to section 5.3).<br><br>The Noise Policy for Industry recommends an initial "Background+15dB(A)" test when assessing intermittent noise events for sleep disturbance. In the event that this test is failed, the NPfI recommends a more detailed assessment of intermittent noise events, and refers to the EPA Road Noise Policy as a suitable document to provide guidance.<br><br>Acoustic Logic is aware that the Road Noise Policy has superseded the Environmental Criteria for Road Traffic Noise. The Acoustic Logic Report had referred to the ECRTN as the sleep disturbance analysis in that document is the more comprehensive.<br>However, both the ECRTN and the RNP draw the same conclusion:<br>Maximum internal levels below 50-55dB(A) are unlikely to awaken people from sleep.<br><br>This is the justification that was used in the analysis of the Ambulance Bay.<br>For completeness, Revision 8 of the Acoustic Assessment (see **Appendix F**) now replaces any reference to the ECRTN with the RNP. |
| <u>Recommendation</u><br>The proponent be required to revise the ambulance bay noise impact assessment having regard to the Road Noise Policy 2011. | Noted as above. |
| <u>mechanical plant and equipment</u><br>Section 6.4 to EIS Appendix 15 includes a qualitative assessment of the "... initial design of primary plant items ..", proposes acoustic treatments, and indicates the need to undertake a detailed quantitative assessment "... once plant is selected ...". | Section 5.2 of the submitted acoustic report outlines the noise emission objectives in accordance of the NSW EPA Noise Policy for Industry (NPFI).<br><br>Section 6.4 of the Acoustic Assessment addressed plant noise. The assessment is quantitative in that:<br>- Typical major plant items (and their locations) have been identified.<br>- Typical sound power levels of primary plant items are identified (cooling tower, chiller, generator, major fans).<br>- Acoustic treatment (including positioning, attenuators sizes and blanking off of plant room louvres on critical facades) have been nominated.<br><br>The level of quantitative assessment provided has identified key areas where acoustic treatment are required that |



_planning Pty Ltd
Oliver Klein BA MURP MPIA CPP (Registered Planner)
ABN 25 620 516 583
ACN 620 516 583
Phone: 0437 259 581
Email: oliverklein1968@gmail.com

| | |
|---|---|
| | could ultimately impact equipment location and building appearance.<br><br>The level of detail provided is as high as can be provided for this stage of design. It is also consistent with what is typically provided at project approval stage for a State Significant Development in Acoustic Logic's experience.<br><br>A higher level of detail would simply result in consultants making estimates of plant selections/noise levels before proper design is undertaken, and an acoustic assessment conducted on this information would be of little benefit. |
| Recommendation<br>The proponent be required to:<br>(a) provide a comprehensive quantitative assessment of operational noise impacts of mechanical plant and equipment on surrounding noise sensitive receivers, especially surrounding residences and the adjoining Nepean Private Hospital;<br>(b) ensure mechanical plant and equipment installed on the development site does not generate noise that –<br>(i) exceeds 5 dBA above the rating background noise level (day, evening and night)<br>measured at the boundary of the development site, and<br>(ii) exhibits tonal or other annoying characteristics. | Noted and as otherwise addressed herein. |
| waste collection services<br>The EPA notes numerous reports of community concern arising from waste collection services undertaken at public facilities and especially during evening and night times. | Noted. |
| Recommendation<br>The proponent be required ensure waste collection services are not undertaken outside the hours of 7.30 am to 6.00 pm Monday to Saturday. | Noted. |
| grounds maintenance using powered equipment<br>The EPA notes numerous reports of community concern arising from grounds maintenance involving the use of powered equipment (example: leaf blowers, lawn mowers, brush cutters) during early morning and evening periods as well as on weekends and public holidays. | Noted. |
| Recommendation<br>The proponent be required ensure grounds maintenance involving the use of powered equipment is not undertaken outside the hours of 7.30 am to 6.00 pm Monday to Friday. | Noted. |
| helicopter operations<br>EIS architectural drawings indicate that a rooftop helipad is proposed.<br><br>The EPA understands that use of the helipad would be restricted to only critical care flights which are directed to Nepean Hospital on a patient care basis by the Ambulance Service Aeromedical Operations Centre in consultation with a senior trauma care doctor. The transport of critical care patients is an operational matter for NSW Health with the focus of saving human life and the decision on where patients are sent is based of the best chance of survival for the patient. | Noted and agreed. |



_planning Pty Ltd
Oliver Klein BA MURP MPIA CPP (Registered Planner)
ABN 25 620 516 583
ACN 620 516 583
Phone: 0437 259 581
Email: oliverklein1968@gmail.com

| | |
|---|---|
| The EPA further understands NSW Health has implemented a range of reasonable and feasible measures to minimise impacts on surrounding residents, including shutting down aircraft engines as soon as practicable after landing and providing aircraft pilots with remote control of helipad landing lights to minimise periods of potential glare nuisance.<br><br>The EPA notes that the New South Wales government has no jurisdiction in regard to aircraft in the air which instead is a matter the subject of Commonwealth Government legislation. And in that regard, the EPA understands that any noise complaint about aircraft in the air should be lodged with Air Services Australia. | |
| **Operational Phase – Emergency back-up generators and underground petroleum storage system** | |
| The EPA is unclear whether operation of the building during an emergency will be secured by an existing or proposed back-up generation system. The EPA anticipates that any back-up emergency generator system would be served by an Underground Petroleum Storage System (UPSS).<br><br>The proponent may only use a UPSS in accordance with the requirements of the Protection of the Environment Operations (Underground Petroleum Storage System) Regulation 2014. And, any such UPSS must be designed, installed and operated with regard to Guidelines issued by the EPA. | Noted. |
| Recommendation<br>The proponent be required to design, install and operate any underground petroleum storage system in accordance with the requirements of the Protection of the Environment Operations (Underground Petroleum Storage System) Regulation 2014. | Noted. |
| **Operational Phase – Radiation control** | |
| The EPA is unclear whether diagnostic imaging or nuclear medicine are proposed to be provided in the new tower building. The EPA administers the Radiation Control Act 1990 (and Radiation Control Regulation 2013) and anticipates that 'regulated material' will be stored and possessed on the hospital campus. 'Regulated material' means -<br>(a) radioactive substances,<br>(b) ionising radiation apparatus,<br>(c) non-ionising radiation apparatus of a kind prescribed by the regulations, and<br>(d) sealed source devices.<br><br>A 'person responsible' within the meaning of section 6 of the Radiation Control Act 1990 is obliged to hold an appropriate 'radiation management licence' in respect of regulated material at the hospital campus.<br><br>A natural person who uses regulated material at the hospital campus must hold a 'radiation user licence' and must comply with any conditions to which the licence is subject.<br><br>The EPA notes that the EIS does not appear to acknowledge any implications for the radiation management licence held by the Nepean Blue Mountains Local Health District.<br><br>The EPA's "Radiation Guideline 7 - Radiation shielding design assessment and verification requirements" provides guidance concerning shielding assessment and calculations. The EPA | HI confirms that no nuclear medicine is proposed in the Stage 1 Redevelopment building. Diagnostic imaging is proposed within surgery spaces in the building and these have already been designed with appropriate shielding in design development. |



_planning Pty Ltd
Oliver Klein BA MURP MPIA CPP (Registered Planner)
ABN 25 620 516 583
ACN 620 516 583
Phone: 0437 259 581
Email: oliverklein1968@gmail.com

| | |
|---|---|
| encourages the proponent to engage a specialist consultant to undertake shielding calculations. | |
| Recommendation<br>The proponent be required to ensure shielding of 'regulated material', including diagnostic imaging equipment is assessed and calculated in accordance with the EPA's guidance material provided in "Radiation Guideline 7 - Radiation shielding design assessment and verification requirements". | Noted. |
| Recommendation<br>The proponent be required to apply for and obtain any necessary amendment to the 'radiation management licence' currently held under the name of the Nepean Blue Mountains Local Health District in respect of 'regulated material' at the new facilities and the management and handling of any waste containing radioactive material. | Noted. |
| **Operational Phase – Waste management (general)** | |
| The proponent should manage waste in accordance with the waste management hierarchy. The waste hierarchy, established under the Waste Avoidance and Resource Recovery Act 2001, is one that ensures that resource management options are considered against the following priorities:<br>**Avoidance** including action to reduce the amount of waste generated by households, industry and all levels of government<br>**Resource recovery** including reuse, recycling, reprocessing and energy recovery, consistent with the most efficient use of the recovered resources<br>**Disposal** including management of all disposal options in the most environmentally responsible manner. | Noted. |
| Recommendation<br>The proponent be required to identify and implement feasible and reasonable opportunities for the reuse and recycling of waste, including food waste. | Noted. |
| **Operational Phase – Waste management (clinical and related waste)** | |
| The EPA anticipates that the development will generate 'clinical and related waste' which are defined under the Protection of the Environment Operations Act 1997, as follows -<br>*'Clinical and related waste' includes clinical waste; cytotoxic waste; pharmaceutical, drug or medicine waste; and sharps waste.*<br>*"Clinical waste means any waste resulting from medical, nursing, dental, pharmaceutical, skin penetration or other related clinical activity, being waste that has the potential to cause injury, infection or offence, and includes waste containing any of the following:*<br>*(a) human tissue (other than hair, teeth and nails),*<br>*(b) bulk body fluids or blood,*<br>*(c) visibly blood-stained body fluids, materials or equipment,*<br>*(d) laboratory specimens or cultures,*<br>*(e) animal tissue, carcasses or other waste from animals used for medical research,*<br>*but does not include any such waste that has been treated by a method approved in writing by the Director- General of the Department of Health."*<br><br>The occupier of any premises comprising a hospital, day procedure centre, pathology laboratory, mortuary or medical research facility where clinical and related waste is generated, must ensure that there is a waste management plan, in respect of that waste, for the premises. And, should prepare that plan with due regard to the relevant provisions of clause 113 of the | Noted. |



_planning Pty Ltd
Oliver Klein BA MURP MPIA CPP (Registered Planner)
ABN 25 620 516 583
ACN 620 516 583
Phone: 0437 259 581
Email: oliverklein1968@gmail.com

| | |
|---|---|
| Protection of the Environment Operations (Waste) Regulation 2014. | |
| Recommendation<br>The proponent be required to properly classify and manage clinical and related waste in accordance with the EPA's Waste Classification Guidelines. | Noted. |
| Recommendation<br>The proponent be required to ensure that the occupier of the hospital prepares and implements a revised waste management plan, in respect of clinical and related waste generated at the development site in accordance with NSW Health policy directive 2017_026 titled "Clinical and Related Waste Management for Health Services", dated August 2017. | Noted. |
| **Operational Phase – WSUD and energy conservation and efficiency** | |
| The EPA notes that hospitals are typically heavy users of potable water and electricity.<br><br>EIS section 9.5.3 indicates that implementation of ESD principles is to be measured in accordance Engineering Services Guidelines (August 2016) to achieve Green Star 4 rating.<br><br>EIS section 9.5.4 indicates that the proponent would adopt a range of passive and active measures to maximise energy efficiency and minimise energy consumption as well as adopting water sensitive urban design encompassing stormwater treatment and rainwater harvesting for irrigation purposes.<br><br>However, both section 5.3 to EIS Appendix 9 (Utilities) and section 2.2 to EIS Appendix 21 (ESD) indicate that rainwater harvesting has not been considered on the basis of cost and infection control considerations. | Noted.<br><br>As noted above in a response to a similar comment by Council, rainwater harvesting cannot be undertaken within the hospital building itself due to cross-infection and health quality and standards reasons. Accordingly, rainwater harvesting in this sense does not form part of HI's standard design guidelines.<br><br>However, external usage is possible as identified in the response by Bonacci (see **Appendix E** to this Response to Submissions). Bonacci advises that *a 20kL rainwater tank is proposed to drain the western half of the new building roof. This rainwater is to be reused for irrigation purposes only to reduce potential risk of contaminated water within the hospital building (in accordance with Health Infrastructure practice). This has been modelled in MUSIC to ensure that Council Water Quality requirements are met. The results are attached to the updated SSDA Report (Rev 6).* |
| Recommendation<br>The proponent be required to clarify whether rainwater is to be harvested, treated, stored and used for irrigation and other non-potable water uses. | As above. |
| **OEH** | |
| **Biodiversity** | |
| The Biodiversity Development Assessment Report (BDAR) needs to be updated to address the following matters, and all details must be consistent between the plans and supporting technical studies. The following additional information must be submitted for OEH to undertake a thorough assessment of the proposal. | See below. |
| Clarification is required on which trees are to be retained and removed and this is to be shown on one map, as the proposal is currently unclear in this regard.<br><br>The Biodiversity Development Assessment Report (BDAR) needs to be consistent with the Arboricultural Development Assessment | Abel Ecology's revised BDAR and response to ecology comments is found at **Appendix I** to this RtS. In support, Moore Trees has also provided a revised arboricultural assessment – see **Appendix J**. |



_planning Pty Ltd
Oliver Klein BA MURP MPIA CPP (Registered Planner)
ABN 25 620 516 583
ACN 620 516 583
Phone: 0437 259 581
Email: oliverklein1968@gmail.com

| | |
|---|---|
| Report. The information in the BDAR is confusing, for example it includes the following<br>"The locations of trees in Figure 8 do not align with the location of trees in Figure 11. It is assumed that Figure 8 in general provides a more accurate location of trees on part of the site. These two figures (Figure 11 and Figure 8) are an attempt to try to reconcile the two different tree plans" (page 76). | Any ambiguities or lack of clarity between tree retention and tree removal is now resolved via new Figures 8 and 9 of the BDAR. Remnant tree locations have been accurately confirmed via a survey, which in turn has assisted in the production of Figures 8, 9, 10 and 12 of the BDAR. |
| The measures to mitigate and manage impacts on the retained trees need to be made clear from the outset and needs to be consistent between the BDAR and Arboricultural Development Assessment Report.<br>a. The BDAR states "Use appropriate fencing and arboricultural practice consistent with the Australian Standard Protection of trees on development sites (AS 4970-2009) to minimise the likelihood of damage to any of the retained trees within the proposal area. Liaison between the arborist and the engineer will be required to ensure that on-ground methods of tree protection will be suitably installed. This will include documenting the accurate location of the trees on a plan and their tree protection fencing." (page 9). As previously stated, point 1 above needs to be addressed.<br>b. The Arboricultural Development Assessment Report states "5.2 Implementation of Tree Protection Zone: All tree protection works should be carried out before the start of demolition or building work" (page 16). However, all tree protection zones and structural root zones need to be set up on-site before any construction work starts. These zones need to be fenced off to prohibit the entry of people, vehicles and machinery, and to prohibit the use of the area for storing plant and vehicles, building supplies, building wastes etc.<br>c. Sedimentation fences also need to be used around the tree protection zones and structural root zones. This is to help prevent the ingress of soil and sediment, to protect the native ground species of Cumberland Plain Woodland.<br>d. Soil stockpiles should not be located near the tree protection zones and structural root zones.<br>e. The Arboricultural Development Assessment Report states "The following activities shall be avoided within the TPZ of any tree to be retained; Erecting site sheds or portable toilets; Trenching, ripping or cultivation of soil (with the exception of approved foundations and underground services); Soil level changes or fill material (pier and beam or suspended slab construction are acceptable); Storage of building materials; Disposal of waste materials, solid or liquid" (page 17). However, pier and beam, and suspended slab construction methods, have the potential to impact biodiversity values, for example through changes to hydrology and the removal of native plants. Therefore, if these methods are proposed they need to be appropriately assessed prior to approval. Furthermore, the impacts on biodiversity values from foundations and underground services will also need to be appropriately assessed.<br>f. The Arboricultural Development Assessment Report states "4.5 Further assessment will be required to assess impacts from service trenching once new service locations have been confirmed. This report should be updated for this purpose" (page 15). However, all impacts associated with this development should be assessed and considered at the same time. | 2a. Surveys have been used to generate Figures 8, 9 and 10 in the BDAR. The survey and figures accurately locate remnant Cumberland Plain Woodland trees within the proposed development area.<br><br>2b. The Arboricultural Development Assessment Report – updated 26th November 2018 (Moore Trees) – see **Appendix J** - states:<br>"All tree protection works must be carried out before the start of demolition or building work. It is recommended that chain mesh fencing with a minimum height of 1.8 metres be erected as shown in the Tree Protection Plan (Appendix 1)" (Section 5.2, page 16).<br><br>Section 5.5 in the same report states:<br>"The following activities must be avoided within the TPZ of any tree to be retained;<br>•Erecting site sheds or portable toilets.<br>•Trenching, ripping or cultivation of soil (with the exception of approved foundations and underground services).<br>•Soil level changes or fill material.<br>•Storage of building materials.<br>•Disposal of waste materials, solid or liquid."<br><br>2c. Section 5.2 of the Arborist Report includes the following statement:<br>"Sediment fencing must be attached to the lower part of the Tree Protection Fencing."<br><br>2d. Appendix 11 to the BDAR displays the proposed locations of soil stockpiles. These are well removed from the location of trees proposed for retention.<br><br>2e. As above, Section 5.5 in the same report states:<br>"The following activities must be avoided within the TPZ of any tree to be retained;<br>•Erecting site sheds or portable toilets.<br>•Trenching, ripping or cultivation of soil (with the exception of approved foundations and underground services). |



_planning Pty Ltd
Oliver Klein BA MURP MPIA CPP (Registered Planner)
ABN 25 620 516 583
ACN 620 516 583
Phone: 0437 259 581
Email: oliverklein1968@gmail.com

| | |
|---|---|
| | •Soil level changes or fill material.<br>•Storage of building materials.<br>•Disposal of waste materials, solid or liquid."<br><br>2f. The engineer and arborist have jointly reviewed tree protection requirements. The 26 November 2018 Arborist Report has been prepared based upon these discussions. |
| A map showing the development's construction footprint and operational footprint needs to be submitted. | A revised development site boundary and footprint is included in the revised plan set at **Appendix B**. The BDAR further includes this information at Figure 3. |
| Landscape features need to be shown on the site and location maps, as per section 4.2.1.3 of the BAM, this includes any applicable soil hazard features for the Luddenham soil landscape. Also, the colours used for map keys need to match the contents of the maps. | Landscape features are now shown in Figure 11 and as described in Section 2 of the BDAR. Soil landscapes are discussed in Figure 11 and applicable soil hazard features are described in Section 2.2.1 of the BDAR at **Appendix I**. |
| The justifications for excluding the Swift Parrot and Southern Myotis from the assessment i.e. "No breeding habitat observed" and "Does not breed in NSW" (pages 36-37) are inadequate because they are dual credit species due to other (non-breeding) constraints. There is also an Atlas record of the Swift Parrot being present on the site. | Additional information is now provided in Appendices 8 and 9 of the BDAR – see **Appendix I** of this Response to Submissions. |
| It appears that no targeted flora surveys were carried out so the justifications for excluding the cryptic species Pimelea spicata and Sydney Plains Greenhood, for which there are nearby BioNet records, are inadequate | Additional information is now provided in Appendices 8 and 9 of the BDAR – see **Appendix I** of this Response to Submissions. |
| **Aboriginal Cultural Heritage** | |
| OEH notes that the SEARs did not require the preparation of an Aboriginal Cultural Heritage Assessment (ACHAR) or consultation as required by OEH guidelines. A Preliminary Aboriginal Heritage Assessment has been prepared (Extent 2018). Based on the geographic location of the site, the limited survey which has occurred in the area, limited consultation and surface investigation only, the consultant concluded that there is a low likelihood of Aboriginal objects being present within the study area and therefore low risk of harm to Aboriginal cultural heritage material through the proposed works.<br><br>However, without any archaeological testing it is not possible to exclude the presence of sub-surface artefacts across the site, including under existing buildings where no basement exists. OEH notes that the proposal requires extensive excavation with an approximate volume of cut of 32,315m3. Given this significant site works there may be impacts on sub-surface Aboriginal objects if present.<br><br>As such OEH recommends the following conditions of consent:<br>- Prepare an Unexpected Finds Procedure. The procedure is to detail the actions to be taken when potential Aboriginal objects or human remains are found during construction activities.<br>- Prior to onsite ground disturbance commencing, the project team including all contractors on site undergo cultural awareness training including details of possible | HI would accept the standard conditions in relation to unexpected finds and cultural awareness, as imposed in other recent SSD DA's by HI, such as:<br><br>If any item or object of Aboriginal heritage significance or archaeological relics are uncovered during the course of the work, then all works must cease immediately in that area. Unexpected finds must be evaluated and recorded in accordance with any excavation permit issued by OEH NSW Heritage Division<br><br>In the event that surface disturbance identifies a new Aboriginal object, all works must halt in the immediate area to prevent any further impacts to the object(s). A suitably qualified archaeologist and the registered Aboriginal representatives must be contacted to determine the significance of the objects. The site is to be registered in the Aboriginal Heritage Information Management System (AHIMS) which is managed by OEH and the management outcome for the site included in the information provided to |



_planning Pty Ltd
Oliver Klein BA MURP MPIA CPP (Registered Planner)
ABN 25 620 516 583
ACN 620 516 583
Phone: 0437 259 581
Email: oliverklein1968@gmail.com

| | |
|---|---|
| objects and the contents of the Unexpected Finds Procedure. | AHIMS. The Applicant must consult with the Aboriginal community representatives, the archaeologists and OEH to develop and implement management strategies for all projects/sites. Works may only recommence with the written approval of OEH.<br><br>All construction contractors, subcontractors and personnel involved in excavation and civil works are to be inducted and informed by the approved excavation director prior to commencing works at the Site, as to their obligations and requirements under the Aboriginal Archaeological Management Plan and Heritage Impact Statement and Archaeological Assessment in relation to historical archaeological sites and 'relics'. |
| **Water Sensitive Urban Design (WSUD)** | |
| The proposal accommodates 2,009 car spaces comprising the additional spaces on the multi-deck car park roof level and some at-grade areas around the Stage 1 Building and a helipad.<br><br>OEH has reviewed the Integrated Water Management Plan (WMP Appendix 1) that states "Water quality treatment measures are proposed to ensure that site runoff complies with Penrith City Council's water quality requirements. These treatment measures include proprietary systems such as Enviropods and Stormfilter cartridges. Vegetated swales and bio-retention may also be used to ensure that the stormwater discharge from the proposed site meets the water quality targets. MUSIC modelling has been undertaken to confirm that the water quality targets are met." OEH notes that the Stormfilter cartridges are shown on the WMP.<br><br>Similarly, the Civil Design Report and Drawings (Appendix 12) states the "water quality strategy for the site incorporates a swale, enviropods and stormfilters. The eastern roof including the helipad drains towards a Puraceptor (SPEL) model P050 (located between the new Ambulance Bays and the new cul-de-sac servicing the Emergency Department) to treat stormwater runoff (potentially from a fuel/oil spill) before entering the stormfilter chamber for further treatment. The western roof area drains to a stormfilter chamber for treatment. The runoff from Barber Avenue road extension and the new cul-de-sac servicing the proposed Emergency Department is captured and filtered by Enviropods in each stormwater inlet pit before passing through a Stormfilter chamber to meet Council's water quality targets".<br><br>OEH supports these WSUD measures and notes the landscape plans also shows the vegetated swales and raingardens to filter and overland flow. OEH recommends the use of local native plant species in these vegetated swales. | Noted. |
| **Sustainability and Building Design** | |
| OEH recommends the development incorporate green walls, green roofs and/or a cool roof into the design. The benefits of Green Roofs and Cool Roofs are outlined in the OEH (2015) Urban Green Cover in NSW Technical Guidelines which can be found at the following link: | The rooftop areas of the building are devoted to plant and helipad structures and the like. Capacity and availability to provide for a meaningful green roof will be limited. |



_planning Pty Ltd
Oliver Klein BA MURP MPIA CPP (Registered Planner)
ABN 25 620 516 583
ACN 620 516 583
Phone: 0437 259 581
Email: oliverklein1968@gmail.com

| | |
|---|---|
| http://climatechange.environment.nsw.gov.au//Adapting-to-climate-change/Green-Cover.<br><br>While, the rooftop landscape plan shows a 'sedum green roof' on Level 9, local natives should be used preferably, and the uppermost roof level presents a good opportunity for an additional green roof.<br><br>Green roofs can increase habitat and biodiversity at the site, particularly if local native plant species are used from the relevant native vegetation community. OEH notes that there are ATLAS records of several species such as the Swift Parrot on site and nearby that would benefit from these initiatives. Further, the SSD should detail the extent of the proposed green cover that will assist with reducing the urban heat island effect, local temperatures and contribute to meeting Greater Sydney's urban tree canopy target of 40 per cent consistent with the District Plan's Planning Priority.<br><br>OEH also recommends that the NSW and ACT Governments' Regional Climate Modelling (NARCliM) climate change projections developed for the Sydney Metropolitan area are used to inform the building design and asset life of the project. These include over 100 climate variables, including temperature, rainfall, hot days and cold nights, severe Forest Fire Danger Index (FFDI) and are publicly available online and at fine resolution (10km and hourly intervals) for 20-year time periods: 2020-2039 near future and long- term 2060-2079. | Only Level 9 will have suitable capacity and this area will be landscaped. Other ESD-related cooling measures are employed within the development.<br><br>The ability to provide for additional green rooves and cooling measures must be considered in the context of this building operating as a hospital building and with budget and ongoing maintenance costs to the fore. |
| **Floodplain Risk Assessment** | |
| The College, Orth and Werrington Creeks Flood Study (CSS June 2017) shows that the hospital site is impacted by shallow flooding at the north eastern part of the site where the depth of flood reaches 0.5m in the PMF event. However, the proposed facility is not impacted by flood.<br><br>Regarding access to the facility, Figure 48.7 'emergency management response' classifies the hospital site as a rising road access area. However, it is prudent to consider that the access through the Great Western Highway at the north eastern corner at the hospital will be cut off in major events for a short duration that may reach 0.5 hour (30 minites) in the PMF. As such, OEH requires safety signs to guide the community and health services to avoid this route in major flood events. | Noted.<br><br>The proposed new building is located in an area that is within the College, Orth and Werrington Creeks Catchment Overland Flow Flood Study (Revision 3, dated 9 November 2016). The identified flood levels adjacent to the north-east of the proposed building are RL 47.5m AHD (1% AEP event) and RL 49.0m AHD (PMF event). The proposed building floor level is RL 49.02m AHD. The building is protected to the PMF level in accordance with the New South Wales Floodplain Development Manual (which states that "consideration should also be given to using the Probable Maximum Flood (PMF) as the Flood Planning Level when siting and developing emergency response facilities"). The building satisfies the Penrith City Council requirement to "adopt design storm events larger than the 1% AEP design storm event".<br><br>The Great Western Highway provides one of several access routes to the site, and is flooded in the PMF event at the north-eastern corner of the site – signage is to be provided to guide the |



_planning Pty Ltd
Oliver Klein BA MURP MPIA CPP (Registered Planner)
ABN 25 620 516 583
ACN 620 516 583
Phone: 0437 259 581
Email: oliverklein1968@gmail.com

| | |
|---|---|
| | community and health services to avoid this route in major flood events. |
| **Sydney Airport Corporation** | |
| (The development) is outside of Sydney Airport's prescribed airspace and we have no issue with it.<br><br>However, (the application) has been forwarded to Bankstown Airport and Air Ambulance services to assess any impacts to their operations. | Noted. No further action is required.<br><br>AviPro has further separately advised that is does not foresee any concerns arising from, or likely impacts upon, Bankstown Airport operations. NSW Ambulance has been a stakeholder negotiated with throughout the project. AviPro's report will be forwarded to NSW Ambulance for its information and consideration. See also further below. |
| **Civil Aviation Safety Authority (CASA)** | |
| CASA has reviewed the 'Aviation Report: Nepean Hospital and Integrated Ambulatory Services Redevelopment' (Appendix 22 to the Environmental Impact Statement) and has no issues with the report and no additional recommendations.<br><br>CASA does not oversight or regulate helicopter landing sites (HLS) and is unable to provide approval or consent for the development of the HLS. However, Civil Aviation Advisory Publication (CAAP) 92-2(2) provides guidelines for the establishment and operation of an onshore HLS.<br><br>Civil Aviation Regulations 1988 Regulation 92 emphasises that the pilot in command of a helicopter is responsible for ensuring that a site used for taking off and landing is suitable for the purpose. | Noted. No further action is required in relation to the planning process. Appropriate and separate actions will be undertaken and separate required approvals will be secured for the HLS in relation to this development. |
| **Airservices Australia** | |
| **Airspace Procedures** | |
| With respect to procedures designed by Airservices in accordance with ICAO PANS-OPS and Document 9905, at a maximum height of 116.82m (384ft) AHD, the property development will not affect any sector or circling altitude, nor any instrument approach or departure procedure at RAAF Richmond, Camden, and Bankstown Airport and Westmead Hospital helicopter landing site.<br><br>The property development will not affect the Sydney RTCC.<br><br>Note that procedures not designed by Airservices at RAAF Richmond, Camden, and Bankstown Airport and Westmead Hospital helicopter landing site were not considered in this assessment. | Noted. No further action is required.<br><br>As above, AviPro has advised that airservices at RAAF Richmond, Camden, and Bankstown Airports and the Westmead Hospital helicopter landing site are all unlikely to be affected. With respect to Westmead Hospital, NSW Ambulance has been a stakeholder negotiated with throughout the project. AviPro's report will be forwarded to NSW Ambulance for its information and consideration. |
| **Communications/Navigation/Surveillance (CNS) Facilities** | |
| This property development, to a maximum height of 116.82m (384ft) AHD, will not adversely impact the performance of Precision/Non-Precision Navigational Aids, HF/VHF Comms, ASMGCS, Radar, PRM, ADS-B, WAM or Satellite/Links. | Noted. No further action is required. |
| **Government Architect NSW** | |
| GANSW generally supports the proposal, however further detail is required to demonstrate the scheme delivers good amenity and user experience. We recommend the following issues be addressed. | Noted. See further commentary and responses below. |
| **Site Strategy and Master planning** | |
| A pedestrian spine running from the north-east to the south-west of the site features prominently in the Zonal Master Plan and the Hospital Site Master Plan but appears absent from the Stage 1 Landscape Plan. Details of how the landscape design | The pedestrian spine serves as a fundamental aspect of the Zonal Masterplan framework and to support the growth of the campus to meet the aspirations of the NBMLHD. The focus of |



_planning Pty Ltd
Oliver Klein BA MURP MPIA CPP (Registered Planner)
ABN 25 620 516 583
ACN 620 516 583
Phone: 0437 259 581
Email: oliverklein1968@gmail.com

| | |
|---|---|
| accommodates and reinforces this primary pedestrian travel path should be provided.<br><br>It should be made clear why the main hospital vehicular access road from Barber Street does not connect with the emergency department access road off Somerset Street, given their proximity. It is conceivable that unplanned visits to the emergency department may mistakenly be attempted via the main hospital access road. In these instances, provision for easily navigated step-free pedestrian access from one drop off zone to the other would be critical if a road link is impractical or inappropriate. | the Zonal Masterplan is on improving services across acute health care, ambulatory health care, research and education, mental health and community care services to 2032.<br><br>The Stage 1 Redevelopment is the catalyst of initiating the early components of the pedestrian spine through the connection of the Emergency Department drop-off to the North Block building, however, it is envisaged that the pedestrian spine will be developed, expanded and delivered over time as part of future (medium and long term) stages of redevelopment.<br><br>As addressed earlier in this response, the pedestrian spine has therefore accordingly been addressed at a master plan scale with detail excluded from this stage of works. The pedestrian experience has however been considered in detail across the site, including the future link to the Great Western Highway and Kingswood Station. The Stage One landscape design facilitates an equitable connection to this future travel path. The path is scaled to accommodate both pedestrians and cycles.<br><br>Conceptually, Barber Ave could potentially connect with the Emergency Department drop-off access road to allow vehicle movement. However, this will be subject to further detailed design development and delivery as part any future (medium or long term) stages of development and relationship with the pedestrian spine noted in the Zonal Master Plan.<br><br>It should be noted that there is a dedicated Emergency access off Somerset Street for emergency vehicles (ambulance / police), which is separate to the Emergency Department drop-off which is for public vehicles.<br><br>Accessible paths of travel for pedestrians between the Barber Ave threshold and the Emergency Department drop-off zone is achievable and is subject to detailed design development and delivery as part of a future development stage.<br><br>Following the recent NSW Government announcement in March 2018 for |



_planning Pty Ltd
Oliver Klein BA MURP MPIA CPP (Registered Planner)
ABN 25 620 516 583
ACN 620 516 583
Phone: 0437 259 581
Email: oliverklein1968@gmail.com

| | |
|---|---|
| | funding commitment of additional $450m for the Stage 2 Nepean Hospital Redevelopment, the future expansion of the pedestrian spine and connection between Barber Ave & Emergency Department drop-off will be further considered.<br><br>In general, HI and the NBMLHD seek to avoid a scenario where through-access has the effect of bisecting the campus and limiting other cross-campus accessibility, which will otherwise be developed to be clear and legible travel paths. |
| **Landscape** | |
| The Stage 1 Landscape Plans appear generous, incorporating significant numbers of new trees, ground cover and places for people to sit, which is supported. Landscape plans should address the pedestrian spine and reinforce critical external access routes. Ramp access should be direct and easily navigated. Landscaping immediately adjacent to hospital entries should offer good amenity, places to sit and attractive views from internal waiting areas to promote calm. Landscaped buffer zones to parking and drop-off areas are encouraged.<br><br>The concept of 'landscapes that heal' is supported. Strategies for enhancing the patient experience through landscape design should be detailed, particularly those for optimising views to the landscape from within habitable rooms. Courtyards and terraces have the potential to improve amenity and are supported in principle. Landscape terraces on Level 6 should be assessed to ensure wind effects and helicopter downdraft have been considered. The Level 00 courtyard is surrounded by tall built form and is likely to be continuously overshadowed and receive little skylight. The amenity offered by courtyard spaces in constant shadow and the viability of their gardens should carefully be considered. | The pedestrian spine has been addressed at master plan scale but detail has been excluded from this stage of works. The pedestrian experience has however been considered in detail across the site, including the future link to the Great Western Highway and Kingswood Station.<br><br>Given the landform and proposed floor levels around the front entry, the proposed pathways provide efficient and equitable access and circulation while maintaining the existing levels and established planting wherever possible. The paths and paved areas lead users to a variety of seating zones with tree canopy cover and attractive outlooks.<br><br>Rooftop terrace spaces are integral in the proposal to allow patients and visitors to attain a positive connection to the outdoors. In addition to physically accessing these spaces for fresh air, views and exercise, these spaces also provide a scenic outlook from adjacent rooms and corridors. Wind effects will be mitigated by planting at the building edges and, where necessary, balustrade screens.<br><br>The landscape spaces internally work with the architecture to introduce greenery from many of the rooms and corridors. The fern and understorey approach through the central courtyard on Level 00 responds to the microclimatic conditions created by the built form. Shade-loving species are intended and should thrive in this space. Taller valley floor tree species are proposed for this space to promote leafy views from many of the levels as the trees grow. |



_planning Pty Ltd
Oliver Klein BA MURP MPIA CPP (Registered Planner)
ABN 25 620 516 583
ACN 620 516 583
Phone: 0437 259 581
Email: oliverklein1968@gmail.com

| | |
|---|---|
| | The impact of the helicopter prop wash and exhaust upon the Level 6 landscaped terrace will be investigated as part of Windtech's Helicopter Propeller downwash study utilising flow visualisation within the wind tunnel. This study will also review the impact upon the various fresh air intakes and whether the helicopter exhaust is expected to directly impact these intakes.<br><br>From an initial review of the drawings, Windtech expects that the relatively large distance (8 levels) between the helipad and the Level 6 landscaped terrace will result in reduced impacts from the helicopter prop downwash at the Level 6 terrace. This separation and exposed location of the helipad will also allow the exhaust gases to disperse and dilute with the free stream winds. AviPro the project's aviation / helicopter consultant supports this view.<br><br>Should any significant impacts be noted at the Level 6 terrace, Windtech can investigate / recommend treatment options in the form of awnings / canopies, landscaping, architectural features and screens to reduce the impact upon the Level 6 terrace areas. Furthermore, the frequency of use of the helipad will also be taken into account when assessing the impact upon the Level 6 terrace, if any.<br><br>The overall frequency on anticipated movements is about 2-3 movements per week, many at night, and then only for short durations at a time. On this basis the likely level of impact would be marginal in the overall context of an operating hospital location. |
| **Internal Amenity** | |
| The Architectural Design Statement makes general reference to human-centered design objectives for 'harmonious, stress-free user experience', but provides insufficient detail to demonstrate strategies to achieve these. The ability of the proposal to provide high levels of amenity to patients, staff and visitors should be verified. Architectural plans submitted are at a scale of 1:500 which do not provide sufficient detail for the internal planning to be fully understood. These drawings should be re-issued at a suitable scale and with adequate detail.<br><br>The main hospital entry and emergency department front of house areas should provide generous waiting areas and have direct access to external landscaping. Particular attention | Amended Stage 1 Redevelopment 1:200 clinical schematic design plans for general arrangement of the Stage 1 clinical departments have been included as part of this Response to Submissions. Refer to the attached document which describes the interior architecture strategy and design intent for patient, staff and visitor amenity.<br><br>The Main Entry component will not be delivered as part of the Stage 1 work, but rather will be included as part of the Stage 2 Redevelopment for which NSW |



_planning Pty Ltd
Oliver Klein BA MURP MPIA CPP (Registered Planner)
ABN 25 620 516 583
ACN 620 516 583
Phone: 0437 259 581
Email: oliverklein1968@gmail.com

| | |
|---|---|
| should be given to amenity provided within the Psychiatric Emergency Care Centre. An internal public access link between the main entry and the emergency department may be helpful to those who have arrived in the wrong place. A café would be a welcome addition.<br><br>The location and size of windows should be reviewed in detail to ensure optimum provision of natural daylighting and access to views. Windows within the light well should provide privacy but admit daylight. Internal amenity would be significantly enhanced by the addition of sitting places on each floor for people to gather or retreat to. The southern lift lobby could be expanded for this purpose. | Government commitment has been announced, as set out above.<br><br>The existing Main Entry located in South Block will continue to function as the main entry to the acute hospital core at the completion of Stage 1. The Emergency Department has provision for waiting areas as per the requirements of the functional brief following stakeholder / consumer consultation.<br><br>The intent is to provide privacy measures to windows in rooms that have a clinical function which are located along the lightwell facades.<br><br>A dedicated courtyard to the Psychiatric Emergency Care Centre (PECC) provides a level of amenity for the patients which meets the briefed requirements. The proposed courtyard is secured off for PECC use and is accessible. Refer to the attached document at **Appendix B** describing the design intent of the schematic design for the PECC courtyard.<br><br>The provision of a new cafe is not included as part of the Stage 1 scope. Future stages of development propose new retail spaces integral with the future Main Entry component and associated public spaces. Predominantly located on Levels 1 and 2, the retail spaces will seek to align with the framework and strategy nominated (and described) in the campus wide retail strategy requirements. Existing cafes are in close proximity to the existing Main Entry and will be maintained providing cafe amenity to the public.<br><br>Further consideration for Front of House, respite and rental facilities will be undertaken through the design development phase as temporary solutions. As noted above, the Main Entry and Retail components will be considered as part of the planning for the Stage 2 Redevelopment.<br><br>The location and size of windows is coordinated with the clinical planning and briefing requirements. These meet the minimum requirements under the BCA in respect to access to daylight in habitable rooms. It is noted that potential existing vistas available to the tower component of the building include: |



_planning Pty Ltd
Oliver Klein BA MURP MPIA CPP (Registered Planner)
ABN 25 620 516 583
ACN 620 516 583
Phone: 0437 259 581
Email: oliverklein1968@gmail.com

| | |
|---|---|
| | - Western Sydney Parklands to the south/east; and<br>- Nepean River and the Blue Mountains National Park towards the west and the south.<br><br>The location and the orientation of the Nepean Hospital Stage 1 Building provides the opportunity to create outlook and views for staff, patients and visitors accommodated in or visiting the Nepean Hospital Tower.<br><br>Sitting/respite spaces for the public around the main lift cores is provided as part of the schematic design. These areas are predominately located on the public levels such as the Inpatient Unit departments, and within the waiting spaces within each department. Refer to the attached document which describes the interior design intent of these spaces as part of the schematic design. |
| **Built form and façade expression** | |
| It is accepted that the building form is largely a function of the clinical requirements of the hospital. The orientation provides good solar access and is supported. The entries to the building on the northern and western façades appear to be inadequate in scale and design for such a significant civic building. These entries should be enhanced.<br><br>The metal cladding system should be shown in detail and the performance of the projecting solar screens verified. The proposed façade offers the flexibility to locate windows to best suit internal planning requirements. Fixing the façade composition into 1, 2 and 4 storey bands may limit this flexibility and should be reconsidered. While providing relief to an otherwise uniform façade, the large, square windows on the eastern and western elevations do not appear to correspond with any internal programme requiring large windows. The scheme would be greatly improved if these windows served internal gathering areas or winter gardens. | The Main Entry component will not be delivered as part of the Stage 1 Redevelopment, but as noted above, will form part of the planning for Stage 2.<br><br>It is envisaged that a large north-facing public plaza sited between the Stage 1 building and any future development towards the west will seek to establish a new public entry and focal point for the Hospital Campus. This space provides a framework for the main public vehicular drop-off and pedestrian entrance to the Hospital's clinical core, whilst reinforcing the east-west link from Parker and Somerset Streets into the existing campus. Links are established to future development along the Great Western Highway frontage promoting pedestrian links across the campus.<br><br>The northern entry to the Emergency Department has been developed during schematic design. The current design provides a focal point for users wishing to access the Emergency Department. The stepped awning arrangement, along with large full height glazed areas and wayfinding is highly visible providing easy navigation to the building from the respective drop off zones. Refer to the attached document which describes the design intent for the Emergency Department entry point. |



_planning Pty Ltd
Oliver Klein BA MURP MPIA CPP (Registered Planner)
ABN 25 620 516 583
ACN 620 516 583
Phone: 0437 259 581
Email: oliverklein1968@gmail.com

| | |
|---|---|
| | Refer to the attached document (at **Appendix B**) which describes in detail the general arrangement of the metal cladding system. The projecting solar screens have been subject to a value management process and have been removed from the scope – it is envisaged that the performance of the glass will need to be enhanced as a result. The performance of the glass will be determined by the JV3 analysis.<br><br>The "banding" of the façade has been reconsidered during schematic design. The façade composition is now grouped in three and five levels and crown with the plant room level. This new assembly enhances the level of flexibility and is a direct response to the clinical planning and arrangement.<br><br>The large square windows on the eastern and western facades have been removed as a result of clinical planning development undertaken during the course of schematic design. The current façade design and arrangement corresponds to the briefed and approved clinical schematic design. |
| **ESD Strategy** | |
| Sustainability should be a fundamental aspect of every new public building. While an aspirational 4-star green star rating is commended a commitment to ESD performance standards should be made. Solar power generation, solar water heating, external solar shading and rainwater systems should be incorporated in the proposal. | The ESD measures noted will be further reviewed during the detailed design phase, in addition to the ESD incentives included in the ESD Report. The ESD principles will be considered based on lifecycle analysis, cost effectiveness, maintenance and suitability of the systems. |
| **Public art, cultural heritage, and community consultation** | |
| The proposal should support the specific needs and reflect the cultural heritage of the diverse community which includes indigenous and refugee populations. Consultation and engagement is crucial to identify specific cultural needs and to verify the proposal is welcoming, accommodating and supportive. The early development of a public art strategy is encouraged. Public art should be developed with community to celebrate cultural heritage and be integral to the architecture and landscape to mitigate the risk of omission. | Creative Road Art Projects (the development's public art consultant) advises as follows:<br><br>Nepean Hospital Redevelopment Stage 1 Art Strategy was developed in close collaboration with the project team to reflect the specific needs of Nepean Hospital and the cultural heritage of its catchment community. A draft of the strategy was presented to the project's consumer committee and specific feedback was sought from the hospital's Aboriginal and Multicultural Health units.<br><br>Additionally, broader community consultation on the art program was sought via the redevelopment consultation activities including a questionnaire with specific questions on the redevelopment's art program. The |



_planning Pty Ltd
Oliver Klein BA MURP MPIA CPP (Registered Planner)
ABN 25 620 516 583
ACN 620 516 583
Phone: 0437 259 581
Email: oliverklein1968@gmail.com

| | |
|---|---|
| | community response from these activities was considered in the finalisation of the art strategy.<br><br>The final strategy outlines multiple art projects, designed specifically to contribute to cultural, social and environmental sustainability. This includes local artist professional development, capacity building, mentorships and staff creative educational opportunities. The aim is to deliver a diverse range of contemporary art experiences, applied in strategic locations, to soothe, relax and delight and focus on the needs of patients, staff and visitors within the catchment area.<br><br>A copy of Creative Road Art Projects letter addressing this matter is attached at **Appendix K**. |
| **Summary of Recommendations** | |
| Our recommendations are as follows:<br>• ensure central pedestrian spine is reinforced in the landscape design<br>• clarify the vehicular access strategy and justify general and emergency access roads not connecting<br>• verify good external ramp access from main entry to emergency entry and consider additional internal public connection between the two<br>• clarify strategies to achieve 'landscapes that heal'<br>• consider wind effect and helicopter down draft in upper level landscaping<br>• consider amenity and planting viability in deep courtyards<br>• detail the application of human centred design strategies for healing internal environments<br>• provide drawings at a larger scale and with greater detail<br>• detail public entry and waiting spaces demonstrating high levels of amenity<br>• provide sitting spaces throughout the hospital<br>• provide details demonstrating optimum window placement for offering landscape views and effective solar shading<br>• reconsider square windows and ensure fenestration optimises internal amenity for patients<br>• commit to ESD targets<br>• detail public art and cultural heritage strategies. | As noted individually above. |



_planning Pty Ltd
Oliver Klein BA MURP MPIA CPP (Registered Planner)
ABN 25 620 516 583
ACN 620 516 583
Phone: 0437 259 581
Email: oliverklein1968@gmail.com

## 2.0 Response to Department's Key Issues Letter

The Department issued its Key Issues letter on 18 October 2018. The following is the sole issue raised and required to be addressed.

***Issue***
It is noted that the Environment Protection Authority (EPA) and Council provided a number of comments in relation to site contamination and the submitted Remediation Action Plan (RAP). The issues raised and recommendations made (particularly by the EPA) are to be addressed in an amended site assessment and RAP to be submitted with the Response to Submissions.

***Response***
The Council and EPA-related site contamination matters are addressed in Section 1.0 of this Response to Submissions. In this section individual issues are responded to in detail in relation to each of the Council's and EPA's submissions. Additional documentation provided by JBS&G addressing each of the Council's and EPA's submissions is attached at **Appendix G** to this Response to Submissions.

An amended site assessment and revised RAP also accompanies this Response to Submissions at **Appendix G.**



_planning Pty Ltd
Oliver Klein BA MURP MPIA CPP (Registered Planner)
ABN 25 620 516 583
ACN 620 516 583
Phone: 0437 259 581
Email: oliverklein1968@gmail.com

## 3.0 Preferred Development

The development has been refined principally by the project teams' own volition. The changes better provide for a development meeting the requirements of Health Infrastructure (HI) and the Nepean Blue Mountains Local Health District (NBMLHD) and community expectations for a hospital development in a rapidly growing region of NSW.

The changes are justified as they:

- Respond to the clinical functionality of the building and its capacity and spatial requirements in providing for a contemporary health services development;
- Respond to the hospital user group process and a preferred model of care;
- Enable improved access, legibility and accessibility as well as In Patient Unit handling;
- Relate to conversion of the schematic design towards a final detailed design for construction; and
- Enable the delivery of the most efficient design and internal layout.

**Summary of Design Changes**
The minor design changes can be summarised as follows with reference to the drawings on which the changes occur:

Site Plans

- Minor amendment to the site boundary access off Somerset Street, consistent with the revised site access associated with the campus-wide infrastructure works approved via the separate REF planning process. This is represented on the revised Site Analysis Plan, the revised Staging Plan, and the revised Proposed Site Plan.
- Update to the Campus Plan to illustrate the proposed (indicative) road widening as noted by RMS in its submission.
- Revision to the MGA co-ordinates associated with the Stage 1 Redevelopment tower element on the Proposed Site Plan.

Floor Plans

- Level 00 - Minor amendments to the clinical planning following the finalisation of the design as well as changes to the position of the Fire Egress Stairs in the northern section of the Stage 1 Redevelopment Building. Note: the egress from the building does not change as a result.
- Level 01 - Level 1 originally consisted of a cold shell provision for Cardiac Cath Labs and a new integrated Main Entry / Front of House. The revised SSD DA Architectural drawings show the relocation of the Birthing Department from Level 7 to Level 1 to provide opportunity for a drop off with on-grade access to enable direct access to Birthing Department. See Level 7 commentary below.
- Level 02 - Minor amendments to the clinical planning following the finalisation of the design. Further, the Main Entry / Front of House design is to be considered as part of the new external Main Entry / Front of House as part of the Stage 2 Redevelopment project.
- Levels 03 - 06 - Minor amendments to the clinical planning following the finalisation of the design.
- Level 07 - Consolidation of space on this floor. This floor in the previous SSD DA submission included the Birthing Department. This floor will now contain a cold shell provision of Inpatient Unit Wards to provide future capacity of 56 additional beds for the Nepean Hospital Campus.
- Levels 08 – 15 - Minor amendments to the clinical planning following the finalisation of the design.
- Level B1 - Deletion of the dedicated egress paths of travel (tunnels) from the southern fire stairs not required subject to fire engineering solution being finalised.



_planning Pty Ltd
Oliver Klein BA MURP MPIA CPP (Registered Planner)
ABN 25 620 516 583
ACN 620 516 583
Phone: 0437 259 581
Email: oliverklein1968@gmail.com

New Floor Plans (1:200)

- At the request of GANSW, new 1:200 scale plans (reflective of the above changes) have been included from basement level 1 to level 15, inclusive.

Elevations

- Each of the elevations include amendments of the height of the building (reduction) due to the change in Floor to Floor heights on levels 7 & 8 consistent with the clinical planning requirements. The FFL heights have changed from 4500mm to 4200 mm for these two floors only - a reduction of 800mm, with the overall building height reduced from RL 116.820 to RL 116.020.

Sections

- Updated to reflect the abovementioned changes to Level 1 and Level 7, addressing relocated Birthing Department and proposed cold shell space, respectively.

Photomontages / 3D Massing Views

- Updated to reflect changes articulated above.

Note: no changes have been made to, or necessitated on, the Demolition Plan or the Shadow Diagrams (due to the minor reduction in building height).

**Impact Assessment of Design Changes**

As noted through the above summary, the design and development scope changes are principally related to internal planning and accommodation refinements, rather than any significant re-planning or revision of the project. Any façade or external impacts are purely consequential and themselves minor in scope and degree of change.

The main change relates to the Birthing Department being relocated from Level 7 to Level 1 and former Level 1 cold shell space being correspondingly transferred to Level 7. This enables an enhanced service delivery model for the Birthing Department by proving easy and immediate on-grade access from the drop-off area.

The deferral of a detailed design resolution of the Front of House / Main Entry to the Stage 2 Redevelopment project enables enhanced integration between Stages 1 and 2 and an overall improved outcome tied to delivery of the hospital's Zonal Masterplan.

The impacts of these internal changes are largely insignificant from an environmental impacts perspective.

A minor height reduction is proposed, marginally reducing shadowing impacts already identified as being insignificant.

The Stage 2 Redevelopment has been announced and has funding commitment. The ultimate delivery of the new Front of House / Main Entry will be resolved within a reasonable timespan in the context of the overall redevelopment of the campus. Interim arrangements will be suitably managed to ensure optimal and efficient operation of the hospital until such time as Stages 1 and 2 are fully completed and operational.

The impacts of the revised site boundary access off Somerset Street will be assessed as part of the separate REF process, and in consultation with Council, as the relevant roads authority.



_planning Pty Ltd
Oliver Klein BA MURP MPIA CPP (Registered Planner)
ABN 25 620 516 583
ACN 620 516 583
Phone: 0437 259 581
Email: oliverklein1968@gmail.com