

Appendix A – Liverpool Hospital Multi Storey Car Park (SSD 10388) - Response to Agency and Public Submissions

Agency Submissions and Response

Issue Raised	Proponent's Response
Department of Planning, Industry and Environment	
Traffic Clarification is sought with regards to the performance of the Hume Highway/Bigge Street intersection during the AM peak. The impact on the degree of saturation at this intersection (from 0.68 to 0.93) must be addressed, noting this intersection would almost be at capacity and require mitigation measures as part of this development accordingly.	Refer to detailed response provided by GTA at Appendix E and Appendix H .
Construction parking Detail of the arrival times and the number of construction vehicles accessing the site is to be provided, including detail of where all construction vehicles will be accommodated and how impacts to the surrounding road network and community will be minimised. Cumulative impacts of the development of the adjoining integrated services building at the hospital campus are also to be considered.	Refer to detailed response provided by GTA at Appendix E and Appendix H .
Noise Detailed justification must be provided for the significant works proposed outside of recommended construction hours, including justification for noisy works occurring on Sundays. If works outside of recommended construction hours are proposed, a works plan must be included to detail how often works would occur outside the recommended times and the period of time these works would continue.	The proposed scope of work to be undertaken outside the recommended standard hours has been assessed by Acoustic Logic and is included at Appendix F .
Flooding Noting the hospital campus is subject to mainstream flooding and overland flows, detail of modifications to flows that will occur both during construction and once the development is complete is to be provided. This must include detail of how flows will be managed during construction, particularly during the demolition and excavation phases of works, and include detail of where flood levels will increase in the surrounding area (including offsite) as a result of the alteration to flows through the hospital campus.	Plans illustrating the existing, during construction and post construction overland flow directions have been prepared by TTW and are included at Appendix L . The plans illustrate that all overland flow from the construction site will be managed through siltation fences, sediment traps or filter pits. The plans illustrate that the proposed construction works will not impact any external overland flow paths. Further, the post development overland flows are consistent with the pre-development overland flows.

Issue Raised	Proponent's Response
<p>Consultation Provide detail of the feedback received during consultation (both prior to lodgement of the EIS and following exhibition of the EIS) and elaborate how this feedback has been used to inform and refine the design of the proposal.</p>	<p>Since the exhibition of the EIS, the project team has met with representatives from Liverpool City Council on 3 August 2020 and 13 August 2020 to discuss the feedback and issues raised. The additional consultation undertaken is detailed in the amended Consultation Report prepared by Johnstaff and included at Appendix N.</p>
<p>Mitigation Measures A table of detailed Mitigation Measures is to be provided. It is not considered sufficient to refer to the measures provided within technical reports. Mitigation Measures must be clearly consolidated and committed to by Health Infrastructure.</p>	<p>A table of detailed mitigation measures has been prepared by Ethos Urban and is included in the Response to Submissions and Additional Information Report which accompanies this submission.</p>
NSW Environment, Energy and Science	
<p>Conservation of biological diversity The EIS and BDAR include differing information in relation to vegetation that is proposed to be removed as part of this proposal, for example:</p> <ul style="list-style-type: none"> • The BDAR states "The subject land contains vegetation in the form of established native and exotic gardens, and mowed lawn areas. Such areas of vegetation within the Subject Land have been previously assessed for removal in the Review of Environmental Factors prepared by Ethos Urban for the Civil Infrastructure Works at Liverpool Hospital" (section 1.3, page 8). • The BDAR states "no vegetation is to be removed under this proposal" (Table 6, page 33). • The BDAR states "All native vegetation within the Subject Land has been approved for removal under the Review of Environmental Factors prepared by Ethos Urban for the Civil Infrastructure Works at Liverpool Hospital (NSW Health Infrastructure 2019)" (section 6.1.1, page 35). • The EIS notes existing vegetation primarily comprises scattered native and exotic trees, and low-lying gardens and lawn areas. It is noted that vegetation removal has occurred as part of separate Infrastructure works occurring across the Hospital (section 3.3.3, page 26). • The EIS notes the proposal does not require the removal of any trees (section 4.10, page 37). • The EIS states "the proposed development is expected to result in the removal of 0.26ha of planted native vegetation" (section 6.21, page 71). <p>The RTS needs to clarify if this SSD will result in the removal of 0.26ha of planted native vegetation.</p>	<p>The reference to removal of 0.26ha of vegetation is an error. It is confirmed that as outlined in the project description and BDAR that the proposal does not require removal of trees.</p>

Issue Raised	Proponent's Response
<p>The EIS indicates various mitigation measures are proposed to minimise any potential impacts of the SSD on local biodiversity values, including assigning a Project Ecologist during the clearing of any vegetation (page 71). The Mitigation Measures in Table 16 of the EIS, however do not include any biodiversity related mitigation measures (pages 76-77). If vegetation is to be cleared as part of this SSD, it is recommended:</p> <ul style="list-style-type: none"> • details are provided on the proposed mitigation measures that are referred to in the EIS on page 71 to minimise any potential impacts on local biodiversity values and Table 16 in the EIS is amended • the proposed mitigation measure to assign a Project Ecologist during the clearing of any vegetation is included as condition of consent and it requires • a pre-clearance survey to be undertaken by a suitably qualified ecologist for native fauna immediately prior to any clearing of vegetation commencing <p>any resident native fauna found during the pre-clearance survey should be appropriately captured by a licensed wildlife carer prior to any clearing commencing and relocated in a sensitive manner to appropriate habitat locations under the supervision of a qualified ecologist/licensed wildlife handler</p>	<p>As clarified above, the project will not require the removal of any trees and therefore the recommended mitigations are not required. The proposed mitigation measures at Table 16 do not require clarification.</p>
<p>Site Landscaping</p> <p>The SEARS for this SSD (dated 27 November 2019) state the EIS must include all relevant plans and architectural drawings, including landscape architectural drawings which include:</p> <ul style="list-style-type: none"> • details on the native vegetation community (or communities) and native plant species that once occurred in this location • specification that any landscaping will use a diversity of local native species (trees, shrubs and groundcovers) from the native vegetation community or communities that once occurred in this location to improve biodiversity. <p>The LDR notes it can be assumed that the Cumberland Shale Plains Woodland (CSPW) likely extended across the site (page 13 of LDR).</p> <p>EES notes the SSD application includes landscape works. The Indicative Planting Palette in the LDR states the planting palette incorporates native plant species from the CSPW and other Australian native species (page 15). To be consistent with the SEARs for this SSD, EES recommends:</p> <ul style="list-style-type: none"> • the landscaping of the site uses a diversity of appropriate local native species (grasses, trees, shrubs and groundcover) that have been propagated from locally sourced seeds from the relevant native vegetation community that once occurred in this locality (rather than plant non-local natives or exotic species) to ensure genetic integrity and the LDR/Planting Palette is amended to demonstrate this • the proponent commences sourcing local native provenance plant species particularly trees and/or growing local provenance trees as soon as possible, so the trees to be planted are advanced in size to assist improve the urban tree canopy and local biodiversity • a mitigation measure is included for post construction for ongoing maintenance (e.g. watering) of the landscape areas to ensure the recently planted native plants survive. 	<p>Amended Landscape Plans have been prepared by Clouston and are included at Appendix D. Native plants that are endemic to the Liverpool area will be used within the proposed landscape design where appropriate to microclimatic conditions.</p> <p>The appointed contractor and landscape contractor will be responsible for maintenance of all landscaped areas within the defects and maintenance period as outlined in the landscape specification. Following the completion of the defects and maintenance period, it is advised that a landscape maintenance contractor is appointed for ongoing upkeep of all landscape areas.</p>

Issue Raised	Proponent's Response
<p>The LDR indicates artificial synthetic turf is proposed to be used on site where shading is an issue with the car park (page 9). It is recommended the RTS considers whether there are any other more natural alternatives rather than use synthetic turf. The Planning and Assessment Group (PAG) should consider potential issues associated with using synthetic turf as opposed to using natural non-invasive grass including:</p> <ul style="list-style-type: none"> • natural grass provides a cooler surface than artificial turf surfaces which get much hotter and absorb radiant heat (sunlight) and potentially add to the urban heat island effect by radiating the heat back into the air • natural grass surfaces (as opposed to synthetic grass) provide some habitat value for certain native fauna. 	<p>Natural grass surfaces have been used where microclimatic conditions can support its healthy growth. Approximately two thirds of the site are proposed as natural grasses. Where areas are proposed to have synthetic turf, this is appropriate given the expected use and degree of shade in the area.</p>

Issue Raised	Proponent's Response
<p>Tree Protection</p> <p>The LDR notes there are several trees that will be retained and protected during construction including two <i>Gleditsia triacanthos</i> (page 14). The PAG's attention is drawn to the NSW Department of Primary Industries website (DPI NSW Weedwise) which indicates <i>Gleditsia triacanthos</i> is an invasive exotic tree species which spreads rapidly from seed. It is capable of out-competing and replacing native vegetation and it can form dense thickets particularly along waterways as it spreads by the seed being washed downstream and the sharp thorns can also injure wildlife - see DPI Weedwise link: https://weeds.dpi.nsw.gov.au/Weeds/HoneyLocust</p> <p>The Greater Sydney Regional Strategic Weed Management Plan 2017 – 2022 published by Greater Sydney Local Land Services and developed in partnership with the Greater Sydney Regional Weed Committee lists <i>Gleditsia triacanthos</i> under Appendix 2 (other weeds of regional concern) and it notes that one of the assets/values at risk with this species is the environment.</p> <p>The potential for seed from these trees to spread from the site is a concern, particularly as the George River is located approximately 200m from the subject land (section 6.3.3 of BDAR), and the BDAR indicates remnant Cumberland Riverflat Forest occurs along the River (see pages 19 - 21).</p> <p>The proponent needs to clarify if seed from <i>Gleditsia triacanthos</i> could potentially spread to the Georges River via the stormwater system. If this is likely, it has the potential to degrade remnant native vegetation along the River and EES recommends:</p> <ul style="list-style-type: none"> • <i>Gleditsia triacanthos</i> is removed from the site - unless it can be demonstrated that these trees are a non-invasive variety and are not capable of producing large thorns or seed pods which if they germinate have the potential to revert to the 'normal' parent physiology and be invasive. • any resident fauna potentially impacted by the removal of these trees should be relocated in a sensitive manner under the supervision of a qualified ecologist/licensed wildlife handler • the landscape documentation is amended to remove the invasive trees from the site and not retain them • <i>Gleditsia triacanthos</i> is replaced with local native provenance tree species. 	<p>The two <i>Gleditsia triacanthos</i> lie within the Cancer Courtyard which is outside of the scope of works under this application. Notwithstanding, it is noted that these trees provide a high level of amenity and it is recommended that any removal and replacement of these trees would be considered under the hospital's ongoing maintenance contract.</p>

Issue Raised	Proponent's Response
<p>Urban Heat Island Effect</p> <p>The EIS indicates no trees are proposed to be removed as part of this SSD, as the trees impacted by the construction of the new multi-storey car park (MSCP) have already been removed as part of separate infrastructure works occurring across the hospital site and that following these works, the MSCP site will not contain any trees (see sections 2.2.2 and 3.3.3). EES notes that where practical trees will be replaced in new locations on the site, which includes nine trees to be planted within the MSCP courtyard (page 14 of LDR). The EIS states the proposal will include the planting of 25 new trees (section 4.10). It is unclear how many trees were previously removed from the MSCP site as part of the separate Infrastructure works. It is recommended details are provided on this to ensure a net increase in the number of trees is achieved on site.</p>	<p>The previous application removed approximately 40 trees in the vicinity of the MSCP, related to separate works to improve Hospital infrastructure.</p> <p>The revised MSCP proposal will retain 5 trees and plant an additional 30 trees. While some trees have been removed to provide an additional 70,000m² of health services, new tree planting has been provided throughout the site, creating a more even and extensive long-term tree canopy cover across the campus. While it is not feasible to replace the canopy cover removed from site in its entirety from the immediate time of planting, proposed tree plantings will provide an increase of more than 140% coverage in 10 years, a significant improvement which will only increase over time; it is anticipated that canopy coverage will increase threefold from the current coverage in 30 years (353%).</p> <p>Due to the building footprint in relation to the site size, there is limited opportunity to increase the tree canopy without compromising solar access to necessary open space. The urban tree canopy has been maximised within these constraints and elsewhere on the site. As noted under the Response to Submissions and Additional Information Report for SSD 10389 relating to the Main Works, the proposed replanting and canopy cover is sufficient in the context of the overall campus redevelopment.</p>
<p>EES recommends that to assist mitigate the urban heat island effect, improve the urban tree canopy and local biodiversity the SSD should:</p> <ul style="list-style-type: none"> replace any removed trees at a ratio greater than 1:1 and details are provided on this in the RTS replace the removed trees with local native species from the vegetation community that once occurred in this locality rather than plant exotic species or non-local natives use advanced trees, preferably with a minimum plant container pot size of 75 litres, or greater to increase urban tree canopy cover the Indicative Planting Palette in the LDR is amended to include details on: <ul style="list-style-type: none"> the use of local tree species from the CSPW (rather than non-local native species) the pot size of trees to be planted the area/space required to allow the planted trees to grow to maturity. 	<p>Species that reflect the Cumberland Plain Woodland vegetation communities are included where these are known to perform in urban landscape while also providing amenity for open space users.</p> <p>The proposed tree pot sizes will be a minimum of 75L. An additional 8 trees will be planted at the on-grade car park.</p> <p>Amended Landscape Plans have been prepared by Clouston and are included at Appendix D. It is noted that the tree locations will maximise the root volume and canopy cover.</p>
<p>Flood</p> <p>The development site is outside the 1% AEP flood limit (i.e. low flood risk area), but within the PMF extent which covers most of the site except the western portion. The drainage improvement works proposed in the western portion of the site (i.e. along Goulburn and Campbell Streets) is expected to alleviate the overland flooding impacts along the road reserve for events larger than 1% AEP. The flooding due to climate change scenarios (represented by 0.5% AEP and 0.2% AEP as proxies to rainfall increase) is expected to be insignificant or nil.</p>	<p>Noted.</p>

Issue Raised	Proponent's Response
<p>The Flooding and Stormwater report confirms that the land use of the development site falls under the critical uses and facilities and the development should be considered under the concessional category provided the proposed development will reduce the flood risk to properties and people of the site. The report also confirms that the site will be redeveloped based on the requirements for concessional development categories including the evacuation requirements based on an effective warning time. The report indicates that factors relevant to the concessional development categories will be considered by the proponent (which includes evacuation requirements, car parking and driveways, flooding impacts, floor levels, building components, structural soundness, management and design, and fencing), if the SSD is approved.</p>	<p>Noted.</p>
<p>EES notes from the Flooding and Stormwater report (page 10, evacuation) that the critical duration of 48 hours for mainstream flooding has been considered as the time available for evacuation. The report indicates that, the time available for evacuation is to be based on flood warning from the emergency management agencies which is less than the critical duration for mainstream flooding in the Georges River Catchment. The current lead time for evacuation in the Georges River Catchment is approximately 9 hours which is based on the triggering water levels from nominated water level monitors.</p>	<p>The 9-hour lead time will be adopted for flood evacuation.</p>
<p>EES also notes from the Flooding and Stormwater report (page 10, evacuation) that the shelter-in-place options using the upper levels of the MSCP have been proposed as an alternative to evacuation from the site. The inundation duration is expected to be in the order of 48-72 hours or longer under the PMF event when the essential services are likely to be interrupted. The shelter-in-place options are likely to pose considerable risks to stranded people in the MSCP. The proponent will need to develop an evacuation plan in consultation with the NSW State Emergency Service (SES) and Liverpool City Council by considering the potential scenarios of the occupancy of the MSCP, lead time for evacuation, and the capacity and capability of the adjacent road networks.</p>	<p>As above a 9-hour lead time provides adequate time for evacuation from site, as opposed to shelter in place. Shelter in place will not form part of any evacuation strategy.</p>

Issue Raised	Proponent's Response
NSW Environment Protection Authority	
<p>Noise <i>Construction Noise</i> The EPA considers additional information must be provided regarding:</p> <ul style="list-style-type: none"> the application of a 5 dB penalty to the sound power level of some construction equipment; an assessment of the cumulative impact of plant and equipment for construction scenarios; more assessment of the application of mitigation measures for specific construction scenarios; and justification for out of standard hours work in accordance with the Interim Construction Noise Guideline (DEC, 2009) (ICNG). <p>The acoustic report lists in Table 27 the sound power levels for items of construction plant and equipment proposed to be used during construction activities for the project. It is noted that two of these items (a handheld jackhammer and powered hand tools) have been labelled as attracting a 5dB penalty due to their annoying noise characteristics. The EPA considers that other items in Table 27, such as the excavator with hydraulic hammer, vibratory roller and demolition saw, would also be likely to attract a 5 dB penalty due to annoying characteristics, however have not been marked as such in the table. The applicant should review the sound power levels in Table 27 and whether any additional penalties are applicable.</p> <p>The applicant should also provide an assessment of the predicted impacts from the proposed construction activity scenarios (e.g. demolition of existing structures, foundation excavation, piling, construction of new building, etc.) which will comprise the use of a number of the plant and equipment items concurrently, as well as predicted noise impacts for individual plant items.</p> <p>The EPA notes that significant noise impacts are predicted from the proposed construction activities both during standard construction hours and outside standard construction hours, in some cases approaching the 'highly noise affected' level in the ICNG. The acoustic report makes a range of general recommendations for mitigation measures that could be employed to reduce noise from construction activities. However, no specific assessment of how these measures could be applied to the equipment list of Table 27 and the resultant reductions in overall impacts at sensitive receivers for the various construction activity scenarios has been provided.</p>	<p>Further SoundPLAN modelling has been undertaken based on the construction methodology and activities likely to be undertaken at the site simultaneously resulting in the worst case scenario during both the standard construction hours and outside of the standard construction hours.</p> <p>The SoundPLAN noise modelling presents the cumulative predicted external noise levels to the nearest sensitive receivers.</p> <p>The predicted noise generation to the identified surrounding receivers during the construction phase has been documented by Acoustic Logic. Where the construction activities result in the predicted noise level being above the management levels, mitigation measures have been recommended. It is noted that the construction activities will only exceed the noise management levels at Receiver 5 – residents at 41 Forbes Street (external) and appropriate mitigation measures have been provided. Further discussion is provided in Appendix F.</p>

Issue Raised	Proponent's Response
<p>The acoustic report has put forward a very brief justification for adopting construction hours outside the standard hours in Sections 10.1 and 12.1. Proposed hours are:</p> <ul style="list-style-type: none"> • Friday – 6:00 pm to 10:00 pm period • Saturday – 1:00 pm to 3:00 pm • Saturday – 5:00 pm to 10:00 pm; • Sunday – 8:00 am to 5:00 pm; and • Sunday – 5:00 pm to 10:00 pm <p>Based on the information provided the EPA does not have sufficient information to support the out of hours construction activity, including the need for: 1) detailed justification (refer section 2.3 of the ICNG); 2) details of construction scenarios; and 3) appropriate mitigation measures being put forward to reduce noise impacts to an acceptable levels.</p>	<p>It is noted that the type of work proposed outside of the recommended standard hours has been revised and is now limited to the following activities:</p> <ul style="list-style-type: none"> • Concrete finishing works including the use of a Helicopter float. • Erection and installation of stationary crane. <p>An assessment has been undertaken by Acoustic Logic on the proposed construction hours outside of the standard hours and justification of the out of hours works in consideration of the ICGN is provided at Appendix F.</p>
<p><i>Operational Noise</i></p> <p>The acoustic report has set noise criteria for operational noise emissions from mechanical plant and equipment from the proposal in Sections 5.4. Section 6.3 discusses the generic operational mechanical noise sources likely to be installed on site, together with a broad description of whether they will be able to satisfy the operational noise criteria, and what mitigation measures may be required to address these noise emissions. However, detailed and specific assessment and discussion on these matters has not been included in the acoustic report and has been deferred to the post-consent detailed design stage.</p> <p>The EPA recognises the staged nature of the design process in significant projects such as these, and that limited detail may be available on which to base a comprehensive assessment of operational noise in the early stages of this process. However, the SEARs for the project clearly require that the applicant 'identify and provide a quantitative assessment of the potential noise and vibration impacts on the identified sensitive receivers due to the operations of the hospital'.</p> <p>A more detailed quantitative assessment of the potential operational noise impacts from the proposal – using representative items of plant and equipment referenced from similar projects or other suitable sources – should be provided to satisfy the SEARs requirement. This should include a quantitative assessment of the effectiveness of any feasible and reasonable noise mitigation and management measures, should they be required, to achieve the noise criteria put forward in the acoustic report. In lieu of this, specifying target operational noise design criteria is an appropriate alternative.</p>	<p>The major noise sources generated by the operation of the multi storey car park include external noise emissions from vehicle movements within the car park and from the plant servicing the development. The noise emissions have been assessed to the nearest sensitive receiver being Liverpool Girls High School during the day time period. The assessment confirms that the proposal complies with the relevant acoustic criteria to outdoor play areas and class rooms. It therefore confirms that if noise emissions are compliant to this receiving location, they will be satisfactory to other surrounding receivers.</p> <p>Further, while the mechanical plant is subject to detailed design, Acoustic Logic confirm that the plant equipment can be appropriately treated to prevent noise emissions from adversely impacting the surrounding properties in conjunction with the criteria detailed in their report at Appendix F. Experience with similar projects also indicates that it is possible to achieve appropriate treatments and generally requirement for various of the plant items that will be used on the site have been identified. Further discussion is provided in Appendix F.</p>
<p>EPA Recommended Conditions (see submission for detail).</p>	<p>HI will review the draft conditions issued by the Department of Planning, Industry and Environment at the appropriate time.</p>

Issue Raised	Proponent's Response
<p>Contaminated Lands</p> <p>The EPA recommends the following conditions of consent:</p> <ol style="list-style-type: none"> 1. The applicant must conduct a Detailed Site Investigation to determine the full nature and extent of the contamination at the project area after demolition works. The detailed site investigation(s) must be undertaken, and the subsequent report(s), must be prepared in accordance with relevant guidelines made or approved by the EPA under section 105 of the <i>Contaminated Land Management Act 1997</i>. The reports must be prepared, or reviewed and approved, by consultants certified under either the Environment Institute of Australia and New Zealand's Certified Environmental Practitioner (Site Contamination) scheme (CEnvP(SC)) or the Soil Science Australia Certified Professional Soil Scientist Contaminated Site Assessment and Management (CPSS CSAM) scheme. 2. The Unexpected Finds Procedure and the Remediation Action Plan (RAP) must be updated following results of further detailed site investigations and implemented throughout duration of project work. 3. Prior to commencement of operation, the applicant must submit a Validation Report for the development. The Validation Report must: <ol style="list-style-type: none"> a) be prepared, or reviewed and approved, by consultants certified under either the Environment Institute of Australia and New Zealand's Certified Environmental Practitioner (Site Contamination) scheme (CEnvP(SC)) or the Soil Science Australia Certified Professional Soil Scientist Contaminated Site Assessment and Management (CPSS CSAM) scheme. b) be prepared in accordance with the relevant guidelines made or approved by the EPA under section 105 of the Contaminated Land Management Act 1997. c) Include, but not be limited to: <ol style="list-style-type: none"> i. comment on the extent and nature of the remediation undertaken; ii. if material is to remain in-situ and capped, describe the location, nature and extent of any remaining contamination on site as well as any ongoing management requirements; iii. if treated material is to remain on the subject site, results of sampling of treated material, compared with the treatment criteria in the most updated RAP; iv. results of any validation sampling, compared to relevant guidelines/criteria; and v. comment on the suitability of the area for the intended land use. d) be submitted to the Planning Secretary for review one month after the completion of remediation works 4. Prior to commencement of operation, the applicant must obtain confirmation from the Certifying Authority in writing that the requirements of condition 3 have been met. 	<p>HI accepts the general intent of these conditions. HI will review the draft conditions issued by the Department of Planning, Industry and Environment at the appropriate time.</p>

Issue Raised	Proponent's Response
Civil Aviation Safety Authority	
According to the architectural drawing the height of the proposed carpark is RL 32.8m. CASA has no objections to the proposed development.	Noted.
Liverpool City Council	
<p>Adaptable Car Parking Council's Local Strategic Planning Statement (LSPS) notes Council's intention to investigate planning control changes to support connected and autonomous vehicles (CAVs) and adaptive reuse of parking infrastructure. There is a need to consider adaptive car parking design to ensure at grade car parking infrastructure can be adaptively reused when demand for parking decreases due to increased use of CAVs expected in the medium to long term.</p> <p>The site also falls within the Liverpool Collaboration Area. The Liverpool Collaboration Area Place Strategy Action 30 states: "Prioritise low-carbon initiatives in future developments such as adaptive building designs (for example, car park conversion opportunities), prioritisation of public transport investment, precinct-level car parking strategies and energy-efficient and energy generating precinct design".</p> <p>The proposal notes 2.8m expected floor-to-floor heights. Floor heights that would support adaptive reuse into habitable uses should be considered as part of a response to future-proofing.</p>	<p>The proposed development is a standalone building, purely for the purposes of a car park to support the expected future demand for parking at Liverpool Hospital. It appropriately replaces an existing at-grade car park and multi-story car park to better serve staff, patients, and visitors at Liverpool Hospital.</p> <p>Further, given that hospital buildings are designed to suit the functional and operational needs of a range of health departments, it is not appropriate nor conducive for the MSCP to be designed for habitable purposes on a hospital campus. Accordingly, the proposed floor to floor heights have been designed at 2.8m in accordance with the relevant Australian Standards for car parks. As well, the overall campus masterplan allows for future planned expansion which does not require the MSCP to be adapted.</p>
<p>Electric vehicle charging stations Action 20 of the Western City District Plan states to "incorporate facilities to encourage the use of car sharing, electric and hybrid vehicles including charging stations." Electric vehicle charge stations should be provided within the development to encourage use, rather than simply the ability for charge stations to be retrofitted. Detail on number of electric vehicle charging stations to be included should be provided.</p>	<p>The proposal includes the installation of electrical conduits to 25 parking bays on the Ground Level of the MSCP to allow the installation of electrical vehicle charging stations in the future. All physical infrastructure including conduits and electrical boards have been designed to ensure sufficient capacities for EV charging requirements. These works ensure that a charging station can be installed without the need for any physical retrofitting works.</p>
<p>Development Engineering Consideration Appendix A provides conditions of consent relating to development engineering so as to be imposed on any consent granted for the multi-storey carpark associated with Liverpool Hospital.</p>	<p>HI will review and comment on the Draft Conditions that are issued by the Department of Planning, Industry and Environment at the appropriate time</p>

Issue Raised	Proponent's Response
<p>Traffic Planning Consideration</p> <p>The 'Traffic Impact Assessment' (TIA) submitted with the application has estimated traffic generation potential based on the survey of the existing car park in CP2. The trip generation rates are 0.54 and 0.38 trips per space in the AM and PM peak hours respectively. Based on these traffic generation rates the proposed additional 500 car parking spaces will generate approximately 270 vehicular trips and 190 vehicular trips in AM and PM hours respectively. The forecast additional traffic movements (and the redevelopment of the hospital) will have noticeable traffic impact on the access road to/from the car park. To minimise traffic impact of the car park, a local traffic management plan is to be submitted to Council outlining traffic management scheme including signs and line marking, along the access road to/from the car park.</p>	<p>An additional traffic generation assessment has been undertaken by GTA as a result of the proposed additional level. The SIDRA modelling confirms that the additional traffic generated by the proposed development can be adequately accommodated on the surrounding road network.</p> <p>Further, it is noted that roadworks relating to signage and line markings are being prepared as part of a separation approval pathway, however the plan can be provided to Council upon request.</p>
<p>Hazardous and Offensive Development</p> <p>Demonstrate consideration of State Environmental Planning Policy (SEPP) No. 33 Hazardous and Offensive Development and provide a Preliminary Hazardous Analysis if deemed necessary under the SEPP, alternatively provide reasons as to why a SEPP 33 report has not been provided to Council. The submission must be made by a suitably qualified and experienced person/company.</p>	<p>The proposal is for a multi-story car park and the development will not hold or contain hazardous materials that would require consideration of SEP 33.</p>
<p>State Environmental Planning Policy No. 55- Remediation of Land</p> <p>In accordance with requirements imposed by the NSW EPA and Council, it is strongly recommended that the Department requires contaminated site reports to be prepared or reviewed and certified by a suitably qualified environmental consultant who is certified under either the Environment Institute of Australia and New Zealand's Certified Environmental Practitioner (Site Contamination) scheme (CEnvP(SC)) or the Soil Science Australia Certified Professional Soil Scientist Contaminated Site Assessment and Management (CPSS CSAM) scheme.</p> <p>It is the responsibility of the consent authority (i.e. Department of Planning and Environment) to consider the requirements of Clause 7 of SEPP 55 prior to granting consent to any development on the land. In particular, the Department must determine whether Clause 7(2) of State Environmental Planning Policy No. 55- Remediation of Land must be addressed.</p>	<p>SEPP 55 and a detailed assessment of contamination is provided at Section 6.16 and Appendix N of the EIS. JK Environments concludes that the potential for contamination constraints at the site with respect to the proposed development is considered to be low and the site can be made suitable for the proposed development from a contamination perspective. A Remediation Action Plan is provided at Appendix N of the EIS.</p>
<p>Underground Petroleum Storage Systems (UPSS)</p> <p>JK Environments Pty Ltd indicated that the hospital contains underground petroleum storage systems. On 1st September 2019, the Protection of the Environment Operations (Underground Petroleum Storage Systems) Regulation 2019 was implemented to minimise risk to human health and the environment by requiring best practice design, installation, maintenance, and monitoring of UPSS in New South Wales.</p> <p>A significant change resulting from the Protection of the Environment Operations (Underground Petroleum Storage Systems) Regulation 2019 included the transfer of regulatory responsibility for the majority of UPSS in NSW to Local Government. It is requested that the Applicant confirms whether Liverpool Hospital contains UPSS requiring regulation under the Protection of the Environment Operations (Underground Petroleum Storage Systems) Regulation 2019.</p>	<p>These comments are noted. There is no UPSS within the MSCP SSD application as confirmed by JK Environments. With regard to non-SSD DA considerations, HI will review UPSS more broadly across the campus separate to this SSD DA.</p>

Issue Raised	Proponent's Response
<p>Acoustic Assessment</p> <p>Mechanical plant shall be selected in consultation with a suitably qualified acoustic consultant to ensure compliance with the assessment criteria. In addition, a Construction Environmental Management Plan comprising a Noise and Vibration Management Plan (NMP) is required for the proposed development.</p> <p>In accordance with Council's requirements, it is strongly recommended that the Department requires acoustic reports to be prepared or reviewed and certified by a suitably qualified acoustic consultant who is a member of the Australian Acoustical Society or employed by an Association of Australasian Acoustical Consultants (AAAC) member firm. The report's cover or title page must confirm the consultant's membership with the Australian Acoustical Society or employment by an Association of Australasian Acoustical Consultants (AAAC) member firm.</p>	<p>Acoustic Logics accreditation is included at Appendix F.</p>
<p>Regulated Systems</p> <p>The Applicant is requested to confirm whether regulated systems such as warm-water and/or cooling water systems would be installed at the premises in accordance with the Public Health Act 2010, Public Health Regulation 2012 and AS 3666. If so, these systems must be notified to Council and will require regulation under the abovementioned legislation.</p>	<p>Council will be notified by the sub-contractor in accordance with the legislation.</p>
<p>Construction Environmental Management Plan</p> <p>A detailed Construction Environmental Management Plan (CEMP) must be prepared for the proposed development. The CEMP must address all environmental aspects of the development's construction phases, and include, where relevant, but not be limited to, the following:</p> <ol style="list-style-type: none"> 1. Asbestos Management Plan; 2. Project Contact Information; 3. Site Security Details; 4. Timing and Sequencing Information; 5. Site Soil and Water Management Plan; 6. Noise and Vibration Control Plan; 7. Dust Control Plan; 8. Health and Safety Plan; 9. Waste Management Plan; 10. Incident Management Contingency; and 11. Unexpected Finds Protocol. 	<p>A detailed CEMP will be prepared by the contractor prior to commencement of construction. A condition of approval reflecting this is expected.</p>

Issue Raised	Proponent's Response
<p>Sewage Management</p> <p>It is unclear whether a sewer rising main would be required for the proposal. Section 68 of the Local Government Act 1993 indicates that approval is required to install, construct or alter a waste treatment device and operate a system of sewage management at the premises.</p> <p>"Operate a system of sewage management" means hold or process, or re-use or discharge, sewage or by-products of sewage (whether or not the sewage is generated on the premises on which the system of sewage management is operated). Therefore, separate approval may be required under Section 68 of the Local Government Act 1993 if the proposal includes infrastructure to hold or process, or re-use or discharge, sewage or by-products of sewage. In these circumstances, the Applicant is required to demonstrate that the system's design and capacity are adequate for its intended purpose taking into consideration maximum load requirements, unforeseen incidents and shutdown contingencies</p>	<p>There will be a sewer holding pit in the main works building, which is discharged to the authorities sewer main. As per the definition of sewage management under 68A of the government act, this requirement of the Act does not apply to sewer holding pits that discharge to the sewer main.</p>
<p>Referral to NSW Health and the NSW EPA</p> <p>NSW Health (Public Health Unit) should be encouraged to provide comments in relation to the proposed development to ensure that it addresses all associated human health and environmental risks.</p>	<p>The SSD application has been prepared by Health Infrastructure in consultation with NSW Health. NSW EPA has provided comments.</p>
<p>Building Code of Australia</p> <p>It is considered that the proposed development can readily achieve compliance with the relevant provisions of the BCA.</p> <p>It is noted at this stage, development of this nature can be readily addressed at S6.28 Crown Certificate stage.</p> <p>Therefore, any amendments required to the design documentation in order to comply with the BCA can be addressed in the preparation and assessment of the detailed documentation for S6.28 Crown Certificate without giving rise to significant changes to the proposal as submitted for SSDA.</p> <p>Detailed assessment of the S6.28 Crown Certificate architectural plans should be undertaken by the Nominated Accredited Certifier prior to issue of the S6.28 Crown Certificate.</p>	<p>Noted. The Principal Certifying Authority will be issuing a Crown Certificate in accordance with the EP&A Act.</p>
<p>Disabled Access</p> <p>Access must be provided to the building for people with a disability in accordance with the relevant requirements of the Building Code of Australia, Disability (Access to Premises – Buildings) Standard 2010 and Australian Standard – AS1428.1 (2009), Design for Access and Mobility – General requirements for new building work, to the satisfaction of the Certifying Authority.</p>	<p>The proposal can comply with DDA accessibility requirements. See Appendix U of the EIS.</p>
<p>URBAN DESIGN</p> <p>Context</p> <ul style="list-style-type: none"> The proposed design of the multi-storey carpark must accommodate the capability of retrofitting the building for a different use in future. Consider increasing the floor to floor height to 3.5m minimum and ensure that the building is engineered to accommodate the flexibility/ease of retrofitting building elements for other uses in future. 	<p>A car park with 3.5m floor to floor heights would result in a taller non-height compliant building, with fewer car parking spaces. This is not a feasible outcome for the project.</p> <p>As discussed above, the proposed development is a standalone building, purely for the purposes of a car park to support the expected future demand for parking at</p>

Issue Raised	Proponent's Response
<ul style="list-style-type: none"> The use of sloping floors should be limited to the vehicular ramp areas only. This would ensure the capability/flexibility of retrofitting the building for other uses as required in future. 	<p>Liverpool Hospital. It appropriately replaces an existing multi-storey car park and at-grade car park to better serve staff, patients, and visitors at Liverpool Hospital.</p> <p>Further, given that hospital buildings are designed to suit the functional and operational needs of a range of health departments, it is not appropriate nor conducive for the MSCP to be designed for habitable purposes on a hospital campus. Accordingly, the proposed floor to floor heights have been designed at 2.8m in accordance with the relevant Australian Standards for car parks.</p>
<ul style="list-style-type: none"> Explore the potential of providing a landscape garden/amenity on the roof top level of the car park building. This would help increase the overall green cover within the city centre and help mitigate the adverse effects of urban heat island. 	<p>The top level of the car park is not suitable for open space. The hospital campus provides substantial areas of open space and appropriate landscaping species have been proposed as part of the Landscape Design Scheme under both the MSCP and Main Works SSDA (SSDA 10389) to reduce the urban heat island effect. Further, the placement of a rooftop garden on the car park would significantly reduce the number of car spaces required, which would need to be accommodated elsewhere within the campus, likely reducing at-grade open space, or the requirement of additional levels of parking, which may require the structure to breach the LEP height control.</p>
<p>Sustainability Incorporate sustainability measures including photovoltaic technology for lighting and incorporate the use of sustainable materials within the selected materials palette.</p>	<p>The MSCP will incorporate sustainable materials and ESD strategies where possible. In particular, the open nature of the façade will enable free air circulation which will reduce the need for mechanical ventilation, providing an overall more sustainable outcome.</p> <p>It is noted that the Main Works SSDA (SSDA 10389) is targeting an equivalent / self certified 5 Star Green Star rating utilising the Green Building Council of Australia's Design and As-built rating tool.</p> <p>Accordingly, photovoltaic technology may be considered under that application.</p>
<p>The design should include rainwater/stormwater capture zones to collect the stormwater from rooftops and areas around the building and re-use the collected water on site (e.g. provide outdoor stormwater detention tanks within the site).</p>	<p>The water re-use strategy for the multistorey carpark consists of directing run-off from the MSCP roof and redirecting stormwater to landscaping adjacent to the carpark. Down pipes to the north and south of the carpark direct run-off into landscaped areas. Landscaped areas also contain wicking beds for additional storage of run-off. This strategy is highly appropriate, considering run-off from the roof deck is simply directed to landscaping, as opposed to being stored, pumped and reused, adding additional infrastructure and embodied energy of materials and energy for pumps. Water being directed to landscape can also provide filtration and contributes to improving the water quality of stormwater run-off.</p>
<p>Electric vehicle re-charge stations must be provided throughout the building and include the opportunity to increase the number of re-charge stations as demand increases.</p>	<p>The proposal includes provisions for electrical vehicle charging stations. Refer to the Traffic Report prepared by GTA (see the swept path analysis diagrams at Appendix B)</p>
<p>Include mass bicycle storage facilities including electric charging stations for electric bicycles. Include the opportunity to increase storage and electric charging stations as demand increases.</p>	<p>Cycle storage and associated facilities are incorporated within the MSCP.</p>

Issue Raised	Proponent's Response
<p>Landscape</p> <ul style="list-style-type: none"> • Replace some of the parking bays (i.e. within the proposed at-grade carpark), with garden beds that include mature trees, to provide shade and mitigate the impacts of urban heat within the site. • The proposed southern courtyard will be shaded throughout the day, particularly during the winter months. Consider alternate tree species that will be suitable for these conditions and the microclimate within the courtyard. • The landscape plans show climbing plant species to be grown on trellises, on the building façade, under the building overhang. Ensure that the species selected will be suitable for the conditions and microclimate of this location. • Integrate climbing plant species in planters on each level of the car park. Include climbing trellis frame/mesh to the façade design to enable climbing plants to cover the façade and increase the visual amenity of the building. • Ensure that alternate water sources for irrigation (i.e. from storm/rainwater capture) is provided with timers and soil sensors to ensure longevity of planting areas during dry/drought weather conditions. 	<p>The proposed addition of Level 7 will allow for an additional 8 trees at the at-grade car park as shown on the amended Landscape Plans at Appendix D.</p> <p>The plant species selection has had regard to the microclimate of the MSCP courtyard so as to provide a suitable condition.</p> <p>The climbing plant species are proposed to be grown on trellises and have been selected based on microclimate considerations. It is considered that independent planters on each level are at risk of failure if irrigation fails at any time, even for short periods. The intention is to optimise plant coverage from in-ground planting.</p> <p>Top up irrigation will be provided by the future recycled water network. This will be managed by timers and soil sensors.</p>
<p>Safety</p> <p>The design needs to ensure that people feel safe around the hospital precinct especially at night. Include Crime Prevention Through Environmental Design (CPTED) principles in the design and detailing of the car park and associated areas. Lighting plays an important role in creating a safe and legible environment at night. Ensure adequate lighting is achieved within, and around the proposed car park.</p>	<p>The design accords with CPTED principles. An assessment of CPTED is provided at Section 6.1 and Appendix C of the EIS.</p> <p>The lighting strategy ensures that all lighting will be designed and documented in accordance with AS/NZ standards 1680 and 4282-1997 Control of the obtrusive effects of outdoor lighting.</p>
<p>Amenity</p> <p>The northern façade of the proposed carpark faces Liverpool Boys High School and Liverpool Girls High School. Explore opportunities to include Public Art within the building façade, to improve the visual amenity of the car park building. A public art consultant should be engaged to prepare a public art strategy for the site, which includes consideration to various</p>	<p>The Liverpool Hospital Health and Academic Precinct acknowledges the vital role of arts in health settings and established a robust governance team of community, Council and clinical representatives. Public art and visual amenity for the precinct, in the context of opportunities for improve clinical outcomes and engaging arts as a tool to connect Liverpool communities to the health service, is of a high priority to that Arts Working Group.</p> <p>Public art specifically for the façade of the carpark was addressed in the first three meetings and unanimously resolved that the carpark was not a priority for the campus overall and as such has not been developed further. Supported by the Project Team, the Arts Working Group also acknowledge the role of engaging Council's public Art Officer in the development of the campus wide public art strategy, currently in its earliest stages.</p>

Issue Raised	Proponent's Response
<p>Parking Rates</p> <p>The hospital will provide paid parking. As mentioned in the EIS, 'The proposed parking scheme includes the implementation of paid parking, in accordance with NSW Government policy'. During the community consultation sessions, 'paid parking' has been raised as a concern. The response mentioned in the proposal is 'Paid parking is part of the NSW Health policy, implemented state-wide with concessions available' (EIS, 44). However, being a Public Hospital, it is recommended to consider at least 1 (one) hour free parking and following subsidized arrangements for appropriate concession card holders and disadvantaged community members.</p>	<p>Paid parking is part of the NSW Health policy, implemented state-wide with concessions available. This includes 3 hours free parking and reduced rates as detailed online at the South Western Sydney Local Health District – Liverpool Hospital Parking Details page.</p>
<p>Residential Amenity</p> <p>During community consultations, 'Car parking proximity to residential areas' was addressed as a concern. The proposal has responded it through 'Light pollution controls will be provided, and the works will be undertaken to minimise disruption to residents'. The proposal 'is capable of addressing potential environmental impacts, such as sustainable design, overshadowing, visual and acoustic privacy and noise' (EIS, pg 44-50). It is noted that, adequate mitigation measures for protecting construction and operation level impacts on the surrounding community have been included in the proposal. However, an effective monitoring mechanism should be included in the operational plan of management to oversee the impacts in the later stages and update the controls if needed.</p>	<p>The proposed development is located at the rear of the hospital campus and has had regard to residential amenity in the nearby area. The proposed development is approximately 140m from the nearest residents (located at 41 Forbes Street) and therefore, it is not considered that the proposal will result in any adverse impacts. Notwithstanding, the hospital will continue to monitor the operation of all facilities including the MSCP and will take the required actions to mitigate any impacts based on observations.</p>
<p>Recreation and Open Space Planning</p> <ul style="list-style-type: none"> • Liverpool City Council is advocating for multi-storey parking stations to be topped with recreation and open space for the public and/or the appropriate user. It is recommended to include a recreation and open space on roof-top of the parking for employees and public. • It is recommended to use building façade materials that will help reduce heat generation from the building and reduced dependency on artificial ventilation. 	<p>While the proposed development is for a new multi storey car park, it complements the redevelopment of the overall hospital campus, where there will be the introduction of new pedestrian circulation routes, open space and substantial tree planting. These elements will allow for an improved public domain and urban form, making it more accessible for pedestrians and cyclists, while providing sufficient car parking for staff and visitors to respond to existing capacity constraints and population growth into the future. Therefore, the placement of a rooftop garden on the car park would significantly reduce the number of car spaces, which would otherwise need to be accommodated within the campus and may reduce limited open space opportunities within the relatively constrained campus.</p> <p>Further to this, the overall landscaping strategy has been implemented which includes the aim to reduce the urban heat island effect. As well, the proposed materiality will reduce the need for mechanical ventilation and provide a more sustainable outcome.</p>

Issue Raised	Proponent's Response
<p>Local Jobs</p> <p>...</p> <p>City Economy is therefore seeking an undertaking from construction companies involved in major projects like the Liverpool Hospital expansion, to adopt a socially responsible policy to local job creation. A "Local Jobs for Local People" job creation policy which would support, enhance and harness the skills and potential of the Liverpool workforce and allied workforce agencies in Western Sydney is suggested. Such a policy should reference already established regional initiatives including: Skillsroad, SW Connect, Busy at Work, and Productivity Bootcamp.</p>	<p>The construction contract will include the requirement for reporting the employment and training outcomes for people from the local region (Liverpool LGA).</p>
<p>City Activation Strategy</p> <p>The proponent is encouraged to make some reference to or at least consider the opportunity to activate the site and better integrate the precinct with the CBD. Council adopted its City Activation Strategy in 2018. The vision contained within this strategy is 'to foster an 18-hour walkable city with a lively and well-integrated mix of activities, in order to attract private investment and stimulate Liverpool's communities to make greater use of the City Centre and its attributes'.</p> <p>Activation opportunities around the Hospital development include:</p> <ul style="list-style-type: none"> • Aged care targeted activations due to proximity to Uniting Care • Student targeted activations and engagement opportunities due to proximity to different universities, All Saints Catholic College and Liverpool Boys and Girls High School. 	<p>A detailed response to this issue is provided by Fitzpatrick and Partners at Appendix G.</p>
<p>Liverpool City Council has also developed a draft Public Domain Master Plan for the Liverpool city centre.</p> <p>This is a 10-year plan that will guide the development of public space in the city centre, such as council-owned streets, laneways, entries to the city, car parks, parks and reserves, areas around rivers and creeks, and heritage items. It also includes proposals for the new infrastructure within public spaces such as trees, vegetation, paving, signage, public art and furniture.</p> <p>The hospital development should be sympathetic to this plan and consider the effects on the Public Domain during and after construction</p>	<p>The proposed development has been designed with regard to the existing surrounding public domain and includes indoor-outdoor connections to link the hospital campus with the wider public domain.</p> <p>It is noted that the project has managed to retain a number of trees including Palm Trees at the main entrance on Goulburn Street (part of the Main Works SSDA 10389).</p> <p>Further, given that the proposal is largely located within the hospital campus, it will not result in any adverse impacts on the public domain.</p>
<p>Hoarding Standards</p> <p>Liverpool City Council adopted an updated Hoarding Standard in December 2020. The hoarding standard encourages provisions of public art, graphics and images on hoarding. Good imagery is an opportunity for the proponent to show how their development is contributing to the vibrancy and growth of the city. Good graphics and/ or artworks beautify a site and minimise the likelihood of graffiti or vandalism. The proponent is encouraged to work with Council to ensure that the hoardings feature high quality imagery and artwork.</p>	<p>HI are happy to work with Council to ensure the hoardings feature high quality imagery and artwork. The final hoarding imagery will be subject to NSW Government branding guidelines.</p>
<p>Smoking</p> <p>Council recommends that Liverpool Hospital explore opportunities to provide for designated smoking areas (that are appropriately enforced), such as well-ventilated smoking rooms, to reduce the number of patients and visitors smoking in the no smoking area. This can be further supported by regulation and clearer wayfinding signage to smoking areas.</p>	<p>NSW Health Smoke-Free Health Care Policy (PD2015_003) mandates that all NSW Health Facilities and grounds are smoke free. Liverpool Hospital are committed to complying with this policy and does not plan to accommodate smoking areas.</p>

Issue Raised	Proponent's Response
<p>Medical Tourism Visitors to Liverpool due to medical reasons has grown over the last three years. We believe there are opportunities for Liverpool Hospital to support the development of the visitor economy through activations and being an important anchor in the CBD and Liverpool Innovation Precinct.</p>	<p>HI is happy to discuss any opportunities with Council in regard to medical tourism separate to the SSD application process.</p>
<p>Wayfinding There are numerous examples of wayfinding technology available that would enhance this development and provide the community and visitors with an interactive tool that connects the hospital precinct, transport and the wider CBD. As this precinct develops more and more people will be attending the site and be interfacing with the CBD. Wayfinding technology may also include digital options such as app developments. This could also be an opportunity to ensure the safety of patients, staff, students and visitors by implementing a CCTV network with an open data source to allow it to interact with Council's CCTV network. Also, there may be an opportunity to monitor and report on public health outcomes as a result of this development. e.g. air quality sensors and facilitation of active transport solutions for staff, patients and visitors.</p>	<p>Way-finding signage will be included throughout to assist pedestrians, vehicles and the general public to manoeuvre around the precinct in a safe and efficient manner. This will include major signage locations at vehicle entry & exit points from Goulburn Street, Campbell/ Forbes Street and Burnside Drive, as well as directory board signage at each entry lobbies and general wayfinding signage at all critical junctions and intersections. We note that a precinct-wide approach to way-finding signage is necessary to ensure the proper operation of the hospital and the seamless integration of the Education Research Hub with the Main Hospital and any other health related infrastructure. As such, finalisation of the way-finding strategy, graphic design and typeface will be subject to further review with the LHD Main Works Project Team, NSW Health Infrastructure and key stakeholders.</p>
<p>Flooding And Catchment Considerations i. The finished floor levels of the proposed multi-storey car park shall be in accordance with Flooding and Stormwater SSDA Report, LHAP-CI-TTW-RPT-CP-009009 B for Liverpool Hospital Multi-Storey Car Park, dated March 2020 and prepared by Taylor Thompson Whitting, drawing No A-SSDA_MSCP-06, A-SSDA_MSCP-14, A-SSDA_MSCP-15 and A-SSDA_MSCP-16 dated 24/04/2020 prepared by Fitzpatrick & Partners. ii. Water quality treatment trains shall be incorporated in the stormwater management plan. The water quality treatment system shall be in accordance with Flooding and Stormwater SSDA Report, LHAP-CI-TTW-RPT-CP-009009 B for Liverpool Hospital Multi-Storey Car Park, dated March 2020 prepared by Taylor Thompson Whitting. iii. A Flood evacuation plan prepared by appropriately qualified professional shall be maintained for the site. The flood evacuation plan shall include suitable warning systems, signage and exits to ensure the safe evacuation of people during floods up to and including the Probable Maximum Flood.</p>	<p>A Flood evacuation plan will be prepared for the project. It is expected this will form a condition of consent.</p>

Issue Raised	Proponent's Response
<p>Waste Management Consideration</p> <p>i. All waste collections for the new building and refurbished facilities must take place within the private property of Liverpool Hospital, no waste collections are to take place on a public road or kerbside. All drainage points within the waste bin storage area and within 15 metres of the point(s) where the bins will be collected should be fitted with fine grade drain covers, to prevent the entry of gross pollutants into the drainage system. It is recommended that the features provided in the bin storage areas should, as a minimum, align with section 25, 'Waste Disposal and Re-use Facilities', of the Liverpool DCP 2008. Bin area signage should be provided, which reflects the acceptable practices and materials for waste disposal and recycling under the relevant private waste agreements</p> <p>ii. All recyclable materials should be kept separate from general waste, from the point of disposal to the point of tipping into the recycling truck. Recycling bins provided within the new facilities should be clearly identified and accompanied by signage in graphic form that details what materials are considered recyclable. The operational management plan of the building should detail that recyclables must be kept separate, loose and unbagged throughout the waste aggregation and collection process.</p>	<p>All waste will be collected within the site. The Hospital operates under a comprehensive waste collection program that provides waste collection via the loading bay which is part of SSD10389. The waste room is capable of that application is capable of meeting the design requirements raised by Council.</p> <p>A detailed Waste Management Plan was submitted with the SSD and is provided at Appendix V and W of the EIS.</p>
<p>Liverpool Hospital must ensure that the building is serviced with the necessary waste services, including clinical/sharps wastes if such are being produced, at all times while the facilities are occupied, with licenced private waste contractors engaged to remove and legally dispose of all wastes. The waste arrangements must ensure that all waste is collected and tipped at facilities licensed to take that waste and to ensure that waste/litter does not make its way into the environment, waterways, or onto neighbouring properties or public land.</p>	<p>This application is for a multi-storey car park and these comments are not applicable. Waste management is explored as part of the separate application for the ISB (SSD10389).</p>
<p>iv. The demolition contractor must engage a consultant to conduct a Hazardous Materials Register for demolition purposes prior demolition works.</p>	<p>The Hospital maintains a Hazardous Materials Survey Report and Register, which was provided at Appendix O of the EIS.</p>
<p>v. Ozone Depleting Substances should also be included in the Hazardous Materials Register. This is to cover the areas not initially identified with the existent Hazardous Materials Register present in the SSD.</p>	<p>Given that the site is an existing car park and the future use will be for a MSCP, JK Environments are of the opinion that the potential for ozone depleting substances (ODS) is negligible. Notwithstanding, the potential for ODS will be included in the Hazardous Materials Register prior to demolition.</p>
<p>Heritage</p> <p><i>A Heritage Interpretation Plan (HIP) is to be prepared for the site. The interpretation plan should include, but not be limited to:</i></p> <ul style="list-style-type: none"> <i>• Evidence of the archaeological history of the site;</i> <i>• Previous buildings on the site; and</i> <i>• The history of the hospital.</i> <p><i>Evidence shall be submitted to the PCA that the HIP has been reviewed and endorsed by DPIE.</i></p>	<p>HI would accept this as a condition of consent, with the HIP to be prepared post approval.</p>

Issue Raised	Proponent's Response
Transport for NSW	
<p>Car Parking The 33 accessible car parking spaces in the traffic report is calculated based on the Liverpool DCP requirement and the capacity of the new car park. This does not cater for the overall demand of accessible parking spaces across the whole hospital.</p> <p>It is requested that the applicant review the needs for accessible parking across the whole site and if appropriate explore opportunities increase the number of accessible parking spaces in the new car park.</p>	<p>The proposal has been modified to include an additional level of car parking. This will result in the MSCP and adjacent at grade car park containing a total of 1,248 spaces. To meet the recommended BCA accessible parking provisions, the proposal will provide 23 accessible parking spaces. Further discussion is provided in Appendix E.</p>
<p>Construction Traffic and Pedestrian Management It is noted the applicant submitted a Preliminary Construction Management Plan as part of the supporting documentation. However, it is also noted that the new multi-storey car park is located on the existing CP2 with the provision of 597 spaces. These parking spaces will not be available during the construction of the new car park. The previous parking survey indicated peak occupancy of 98% in CP2. The impact of this parking demand has not been assessed in the CTPMP and no method is given how this parking demand will be managed. The cumulative increase in construction vehicle movements from these projects could have the potential to impact on general traffic and public transport operations, as well as the safety of pedestrians and cyclists particularly during commuter peak periods.</p> <p>It is requested that the applicant be conditioned to prepare a detailed Construction Traffic and Pedestrian Management Plan (CTPMP). The CTPMP is to assess how existing parking demand will be managed during construction, detailing construction vehicle routes, number of trucks, hours of operation, access arrangements and traffic control. The CTPMP should be submitted to the relevant consent authority for approval prior to the issue of a Construction Certificate.</p>	<p>A Construction Traffic and Pedestrian Management Plan will be prepared by the appointed contractor prior to the commencement of construction works on the site. This will detail management measures for the removal of parking spaces and the access arrangements for construction vehicles.</p> <p>Notwithstanding, it is anticipated that during construction a maximum of 230 parking spaces across the campus will be temporarily unavailable. This will be mitigated by providing additional parking at the Bigge Street / Campbell Street car parking and Liverpool Westfield. There will be no net loss in overall parking numbers during construction.</p>

Sydney Trains

Due to the proximity of development being immediately adjacent to and within 25m of the Rail Corridor, RailCorp assets and land, there is a potential impact on the safe and efficient operation of the Sydney Trains services and integrity of the assets. Sydney Trains has considered that the development impacts can be managed by imposing conditions of consent (should the development be approved) as outlined below.

NOTE: Where a condition states prior to the issue of Construction Certificate, if there is no CC required for these works, these conditions can be amended to "prior to commencement of works".

1. Prior to the issuing of a Construction Certificate or prior to any commencement of works, whichever occurs first, the Applicant/Developer shall prepare and provide to Sydney Trains for review, comment and written endorsement the following final version items in compliance with relevant ASA Standards (<https://www.transport.nsw.gov.au/industry/asset-standards-authority>):
 - a) Geotechnical and Structural report/drawings that meet Sydney Train requirements. The Geotechnical Report must be based on actual borehole testing conducted on the site closest to the rail corridor.
1. Construction methodology with construction details pertaining to structural support during excavation. The Applicant is to be aware that Sydney Trains will not permit any rock anchors/bolts (whether temporary or permanent) within its land or easements.
5. Cross sectional drawings showing the rail corridor, sub soil profile, proposed excavation and structural design of sub ground support adjacent to the rail corridor. All measurements are to be verified by a Registered Surveyor.
6. Detailed Survey Plan showing the relationship of the proposed development with respect to Sydney Trains easement and rail corridor.
2. No work is permitted within the rail corridor (including land and airspace), or any easements which benefit Sydney Trains/RailCorp, at any time, unless the prior approval of, or an Agreement with, Sydney Trains/RailCorp has been obtained by the Applicant/Developer.
3. No rock anchors, rock bolts, ground anchors or rock ties, piles, foundations, rock pillars, transfer structures, basement walls, slabs, columns, beams, cut rock faces, are to be installed into RailCorp/Sydney Trains property or easements.
4. The Applicant/Developer shall not at any stage block rail related use and rail corridor access gate, to ensure continuous provision for easy and ongoing 24/7 access by rail vehicles, plant and equipment to support maintenance and emergency activities. Prior to the commencement of works the Applicant/Developer shall consult with Sydney Trains to obtain written endorsement/agreement to ensure access is maintained.
5. The Applicant/Developer must submit to Sydney Trains a plan showing all craneage and other aerial operations for the development and must comply with all Sydney Trains requirements. If required by Sydney Trains, the Applicant must amend the plan showing all craneage and other aerial operations to comply with all Sydney Trains requirements.
6. There is a need to ensure that the roots and foliage of trees being planted beside the rail corridor do not have an impact on the rail corridor or rail operations. Prior to the

The proposed MSCP will be set back 23.9m from the centreline of the rail corridor track and approximately 12m from the common boundary with the rail corridor. JK Environments confirm that based on the nature of the proposed development and the setback of the work to the rail corridor, the construction of the MSCP will have no impact on the rail tracks or other structures (including overhead wire structures) within the rail corridor. Refer to **Appendix I** for further discussion.

- issue of a Construction Certificate, the Applicant/Developer shall provide to Sydney Trains for review, comment and written endorsement a final landscaping and planting plan demonstrating measures to ensure compliance with this condition must be prepared to the satisfaction of Sydney Trains.
7. Sydney Trains advises there is a 33kV High Voltage Aerial Transmission Line in near proximity to the proposed works. All works within 6 metres of the nearest transmission line conductor must comply with:
 - ISSC 20 – Guideline for the Management of Activities within Electricity Easements and Close to Electricity Infrastructure.
 - The Safe Approach Distances (SADs) in the Sydney Trains Document titled “SMS-06-GD-0268 – Working Around Electrical Equipment”.
 - “WorkCover Code of Practice – Work near Overhead Power Lines (The Code)”
 - All Landscaping shall be in accordance with the Sydney Trains High Voltage Powerline Tree Management Plan.
 8. If required, the Applicant/Developer shall undertake a Services Search / Dial Before You Dig search to establish the existence and location of any rail services. Persons performing the Services Search / Dial Before You Dig search shall use equipment that will not have any impact on rail services and signalling. Should rail services be identified within the subject development site, the Applicant/Developer must discuss with Sydney Trains as to whether these services are to be relocated or incorporated within the development site.
 9. The Applicant/Developer must ensure that all drainage from the development is adequately disposed of and managed and not allowed to be discharged into the railway corridor unless prior written approval has been obtained from Sydney Trains.
 10. During all stages of the development the Applicant/Developer must take extreme care to prevent any form of pollution entering the railway corridor. Any form of pollution that arises as a consequence of the development activities shall remain the full responsibility of the Applicant.
 11. Excess soil is not allowed to enter, be spread or stockpiled within the rail corridor (and its easements) and must be adequately managed/disposed of.
 12. The Applicant/Developer is to ensure that the development incorporates appropriate anti-graffiti measures, to the satisfaction of Sydney Trains.
 13. Appropriate fencing must be in place along the rail corridor to prevent unauthorised access to the rail corridor during construction works. Details of the type of fencing and the method of erection are to be to the satisfaction of Sydney Trains prior to the fencing work being undertaken.
- The development shall have appropriate fencing fit for the future usage of the development site to prevent unauthorised access to the rail corridor by future occupants of the development. Prior to the issuing of an Occupation Certificate the Applicant shall liaise with Sydney Trains regarding the adequacy of any existing fencing along the rail corridor boundary or design and construction of new fencing. Details of the type of new fencing to be

Issue Raised	Proponent's Response
installed and the method of erection are to be to the satisfaction of Sydney Trains prior to the fencing work being undertaken.	
Endeavour Energy	
Network Connections Branch are progressing the Load Increase application for the Liverpool Hospital Project (Endeavour Energy Ref. ULL2968) and is awaiting confirmation of the feeder route selection from NSW Health. Their originally selected route is the same as the other existing feeders from Liverpool Zone Substation, hence no physical redundancy would be provided. Once the feeder route is confirmed, a Design Brief will be issued.	This comment relates to the Integrated Services Building SSD application 10389 and is not applicable to the MSCP application.
Three new switching stations are proposed to be installed with two of them on Goulburn Street frontage and one on Campbell Street frontage.	
If NSW Health has included the load of the new carpark in their Load Increase application for the Liverpool Hospital Project, then there is no further consultation required in relation to SSD-10388.	Jacobs engineering confirm there are numerous loads being removed from the central energy plant and the project is removing some of the existing loads and replacing them with the MSCP. Therefore there is no increase in load required from Endeavour Energy.
Sydney Water	
Due to the proximity of the proposed development to Sydney Water assets, including a 450mm CONC branch wastewater main, we recommend that the Council impose the following conditions of consent: (See submission)	The condition is accepted.
Public Submissions	
The new Car park is required and will be an important asset. However, I make this submission as a bicycle rider. This is a personal submission but I am a member of the Liverpool Bicycle Users Group. The report indicates that 50 bicycle parking spaces will be provided. That number was based at the lowest limit of the quoted guide of 5% to 10%. Why not adopt the upper figure and provide 100 bicycle spaces? Bicycle spaces have to be well located in well lit areas easily accessible without traversing through car driveways. Locked cages are best for staff. Bicycle sales have boomed in the current COVID crisis. The demand for bicycle parking will increase.	Within the on-grade car park, the proposed development will provide 25 bicycle parking spaces for visitors to the hospital campus. Along with the Main Works SSDA (SSD 10389), the hospital campus will provide a total of 100 bicycle parking spaces.