

**SSD 8636: ENGINEERING & TECHNOLOGY PRECINCT DEVELOPMENT  
UNIVERSITY OF SYDNEY, DARLINGTON CAMPUS**

**UNIVERSITY OF SYDNEY RESPONSE TO SUBMISSIONS 2**

**9 DECEMBER 2018**

The University of Sydney has reviewed the comments received following our issue of the SSDA Response to Submissions documentation lodged on 21 and 28 September 2018 for the State Significant Application *SSD 8636 – Engineering & Technology Precinct Development*, located in the heart of the Engineering Precinct of the University’s Darlington campus.

The following clarifications have been made to the proposal:

- Updated Landscape Plans
- Updated Arborist Impact Assessment
- Swept Path Conflict Resolutions
- Architectural Treatment of Gas Storage Enclosure
- Updated Noise Impact of Loading Dock and Gas Storage Enclosure
- Dangerous/Hazardous Goods storage and quantities
- Flood Plain Management

The amendments to the proposal are minor in nature, respond to issues raised in submissions, and do not result in any consequential environmental impacts. The changes reflect the University’s proactive engagement with various user groups and consultation with the agencies listed below.

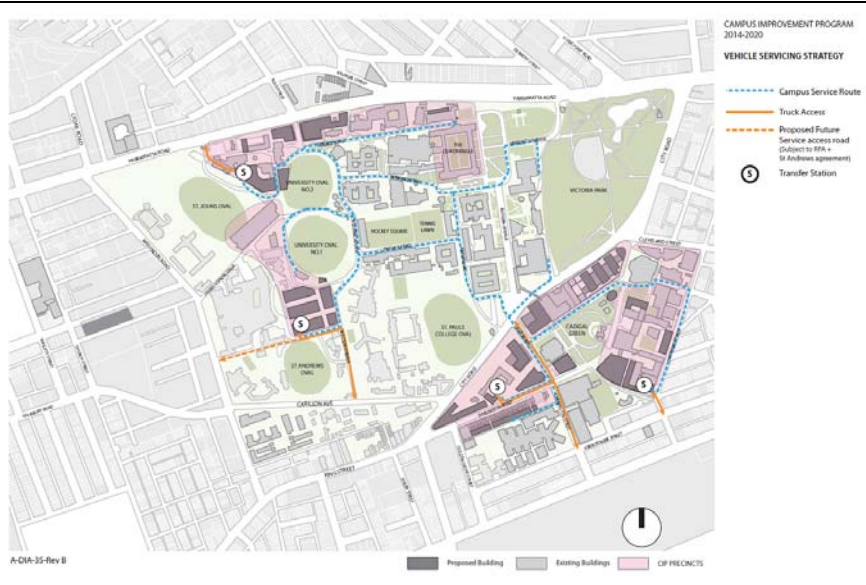
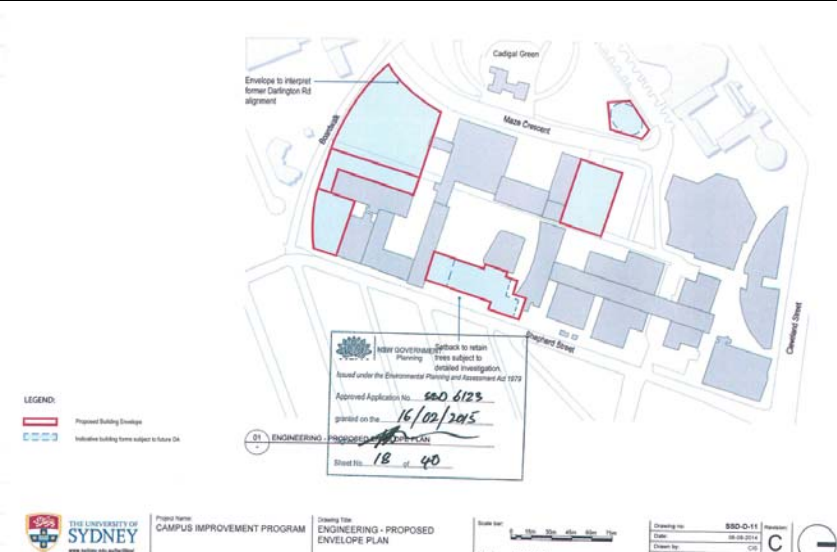
The University of Sydney’s *Response to the comments* has been structured into the following categories to differentiate between sources of submissions, relevant disciplines, relevant issues, and changes to design.

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## 1. UNIVERSITY OF SYDNEY RESPONSE TO DEPARTMENT OF PLANNING & ENVIRONMENT

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<p><b>Loading Dock</b></p> <p>1. Provide clarification on how provision of the new loading dock is consistent with approved CIP access strategy, which states “deliveries will be rationalised on site through Service Distribution Centres situated close to the boundaries, to limit service vehicle movements through the site.”</p> <ul style="list-style-type: none"> <li>The approved access strategy provides that these centres will take responsibility for all waste management and for unloading deliveries to the university from service vehicles and then delivery throughout the university, with distribution of goods from the Service Centre to individual buildings by electric vehicles. The only exceptions in the Access Plan for service vehicles that may need to be given access to and through the university is for construction vehicles, emergency services, and delivery of sensitive materials that require climate control vehicles or other specialties which cannot be accommodated at the Service Vehicle Centres. Please provide details of any special requirements of this loading dock facility that necessitates a separate loading dock in this case.</li> </ul>	<p><b>Response:</b> The University's Campus Improvement Program (SSD 13-6123, approved on 16 February 2015), does include an Access Strategy prepared by Arup and which addresses a (un-stamped) proposed Service Access Plan depicting future centralised Service Transfer stations as shown below.</p>  <p>However, the future Transfer Station within the Darlington Engineering Precinct relies upon the redevelopment of the J01 Chemical Engineering and the J05 &amp; J06 Civil &amp; Mining Engineering Buildings, as reflected by SSD stamped plans <i>Engineering 18, 19 20 and 23 of 40</i> (Plan 20 shown below) and SSD stamped plan for <i>Demolition 2 of 40</i>.</p> 

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	<p>The upgrade of this section of the Engineering campus has not yet commenced and a centralised Transfer Station is therefore not yet designed or incorporated into any redevelopment of this precinct.</p> <p>Furthermore, the proposed Loading Bay within the Engineering &amp; Technology Precinct (SSD 17_8636) is a bespoke facility predominantly for the direct transport and safe loading/unloading of dangerous and hazardous materials into the new proposed (SSD) J03 Stage One Engineering Research Facility. This utilises the established campus servicing access routes to the East (parallel to Shepherd Street) and to the South (Blackwattle Creek) of J03.</p> <p>The University wishes to avoid any doubling up of dangerous and hazardous material deliveries, and therefore concludes that a direct delivery into the new building and loading dock is warranted in this instance on grounds of OH&amp;S.</p>
<ul style="list-style-type: none"> <li>The provision of the new loading dock would result in significant vehicle movements thorough-out the site, noting that RtS indicates that HRVs and MRVs would need to travel extensively through the university to access the loading dock, and the majority of SRVs would also travel extensively throughout the university before reaching the loading dock. Please advise how the proposal is consistent with the intention of the approved access plan to reduce conflicts with pedestrians and cyclists and the plans to upgrade and improve pedestrian access and amenity on Blackwattle Lane. To reduce traffic movements, please advise if any of the deliveries could instead be made through the Service Vehicle Centre.</li> </ul>	<p>The proposal of the new J03 Micro-Engineering loading dock is primarily for the direct transport and safe loading/unloading of dangerous and hazardous materials in line with the proposed Campus Service Routes.</p> <p>As mentioned in the above section (Item 1a), the purpose of the Service Vehicle Centres is to centralise the campus' waste management and the loading/unloading of goods, alleviating vehicle traffic movements throughout the campus. In this proposal, the upgrades of this section of the Engineering campus has not yet commenced and therefore has not been designed or incorporated into any redevelopment of this area.</p> <p>The University wishes to avoid any doubling up of dangerous and hazardous material deliveries, and therefore concludes that a direct delivery into the new building and loading dock is warranted in this instance on grounds of OH&amp;S.</p> <p>The frequency of loading activities was identified in Table 2.1 of the Transport and Accessibility Assessment report prepared by GTA Consultants, being:</p> <ul style="list-style-type: none"> <li>- 3 – 4 deliveries by Heavy Rigid Vehicles per week</li> <li>- 10 – 15 deliveries by Medium Rigid Vehicles per week</li> <li>- 10 deliveries by light vehicles (cars and vans) per day, equating to 50 deliveries per week.</li> </ul> <p>This equates to a weekly total of 64 deliveries per week over a typical 5-day working week, with an average of 13 deliveries per day.</p> <p>On the basis that peak deliveries are expected to occur between 7 am to 4pm, it is considered that a loading facility booking arrangement can be used to ensure that vehicles arrivals are managed, with designated arrival timeslots assigned to vehicles.</p> <p>The concerns of the DPE is understood, and whilst it is proposed Blackwattle Lane will serve a section of the new loading dock access/egress route, it should be noted that traffic control points (refer to <b>Appendix A</b> – Traffic Control Points for MRV/HRV) in conjunction with a managed facility booking system will adequately mitigate vehicle/pedestrian interface concerns.</p>

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	It is understood that there are existing suppliers and established university operating procedures that are in place to reinforce any access management arrangement requirements set by the University.
2. Swept Paths for HRVs and MRVs show a number of conflicts with existing structures, including the hazardous material storage building. The assessment does not advise how these will be resolved. Please also confirm if the swept paths would impact on the proposed new landscape works for Blackwattle Lane.	<p>Swept Paths undertaken by GTA Consultants have identified 4 areas of potential conflict with Heavy Rigid vehicles (standard 12.5m length) and existing asset interface through the proposed loading dock access route. These conflicts are identified as minor in nature and will require minimal site remedial works to ensure relevant access routes are free from obstacles.</p> <p>A resolution of conflict assessment has been prepared by GTA Consultants (contained in <b>Appendix B</b> - GTA Traffic Swept Path Mitigation Letter) providing clarity on mitigation/management arrangements that can be implemented to manage identified potential conflicts between trucks and existing structures. It is in the University's interest that the conflicts are adequately resolved prior to the operation of the new development and as a minimum implement the recommendations of GTA Consultants.</p> <p>The proposed new landscape works for Blackwattle lane to improve permeability and pedestrian flow will be coordinated with the current vehicle swept path to avoid any adverse impacts.</p>
<b>Gas storage on Shepherd Street frontage</b> 3. Plans show new gas storage on both sides of the stairwell element of J13, but the elevation only shows screening on one side? If necessary, please correct the plans. Please also provide a detailed elevation of J13 showing plant and screening details, including materials. These parts of the site also include some landscaping that will be removed. Ideally replacement landscaping should be provided in front of the screening to assist with offsetting the visual impacts to Shepherd Street.	<p>The intent is to provide two similarly screened enclosures for various gas storage types on either side of the stairwell. Refer to <b>Appendix C</b> - Gas Storage Enclosure, drawing 2101B(E) &amp; VIE Tank Perspective from Shepherd St.</p> <p>The Liquid Nitrogen enclosure to the southern side of the stair will have taller elements than the Cryogenic gas store to the northern side. This enclosure is located in front of a glass-block window with relatively opaque outlook and no opening sections.</p> <p>Egress from the existing fire stair will be diverted with a solid wall behind the southern Liquid Nitrogen enclosure. Refer to <b>Appendix C</b> – Gas Storage Enclosure, Proposed alterations to existing building</p>
4. Please also advise how the proposed gas storage will impact on the proposed new chemical engineering building in this location and existing access doors and windows, particularly if provided on both sides of the stairwell.	The current intention of the proposed gas storage has been coordinated with existing assets in the immediate vicinity. Minor remedial works is proposed to enable the Nitrogen tank location. Refer to <b>Appendix C</b> – Gas Storage Enclosure, Proposed alterations to existing building.
<b>Trees</b> 5. Amended plans show 39 trees for removal, but the arborist report only assesses 6 trees. The Arborist report must be updated to provide an assessment of all trees for removal. In addition, the plans and the arborist report should both be updated to include trees required for removal as a result of the access to the proposed loading dock and new gas storage as these have been omitted from the assessment.	The proposed Landscape design includes the removal of 43 existing trees on the J03 Electrical Engineering premises. It should be noted that 33 existing trees were removed under the J03 North Wing demolition REF. A total of 10 trees are proposed for removal under this SSDA (refer to <b>Appendix D</b> - updated AIA, section 4.3). With the removal of 43 existing trees, the proposed landscape design introduces 44 new replacement trees which comprise of species local to the Sydney region (refer to <b>Appendix E</b> – Updated Landscape Plans, drawing number 400, 401 & 402).



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	The updated AIA has taken into consideration trees required for removal as a result of the access to the proposed loading dock and new gas storage. As a result 4 trees have been identified, currently located within a garden bed between the Mechanical Engineering Building and the Engineering Link Building. They have been allocated a low Landscape significance and a retention value of Consider for Removal. Refer to <b>Appendix D</b> – updated AIA, section 3.1.2
6. Replacement Planting – please confirm how many replacement trees will be provided and indicate the location of each species on the plans. Please update the planting schedule to advise the expected mature height and width of the trees.	There are 44 new trees proposed. The current Landscape documentation nominates the list of species under consideration and nominal plant sizes at installation. We note all species (with the exception of the special replacement Jacaranda tree) are species local to the Sydney region as stated previously. The expected mature height and width has now been updated in the revised planting schedule. Refer to <b>Appendix E</b> – Updated Landscape Plans, drawing number 400, 401, 402.
7. Sections indicate soil depths do not meet the minimum requirements as identified by the City of Sydney. Evidence is to be provided by an arborist to identify the species and indicate if it will thrive at the proposed depths.	We disagree with this statement (that we assume was based on early versions of the documentation set). The only area with limited soil volume (typically 900-1000mm) is the eastern courtyard roof garden (Refer to <b>Appendix E</b> – Updated Landscape Plans, drawing 500). In this location, we have chosen to use palms due to their smaller rootballs in which an arborist assessment has been completed. Refer to section 3.3.2 of <b>Appendix D</b> – Updated AIA.
8. Retained trees – please confirm the existing and proposed ground levels at the base of the trees proposed for retention (current plans seem to indicate there is a difference between existing and proposed levels). Where levels differ please provide an assessment of the impacts from the Arborist.	The proposed ground levels around existing trees remain largely unchanged. Refer to section 3.2.3 & 3.2.6 of <b>Appendix D</b> – Updated AIA
<b>Noise</b> 9. The updated noise assessment does not consider the operational noise impacts of vehicles accessing the loading dock, including the noise of reversing movement alarms. The impacts to the most affected residence should be assessed, noting the RtS confirms all vehicles must reverse for distances of 20 metres to access the dock.	An updated assessment of the loading dock confirms the proposed vehicle traffic noise assessment is within the limits of the INP noise emissions criteria. Refer to section 6.2.1 Loading dock in <b>Appendix F</b> – Updated SEARs Noise and Vibration Assessment.
10. Confirm that the gas storage at the boundary does not involve plant with associated noise, or if noise is associated with the storage, confirm it has been considered in the noise impact assessment.	An updated assessment confirms that transient noises associated with the operational requirements of the gas storage area is within the limits of the INP noise emissions criteria. Refer to section 6.2.2. Gas storage areas in <b>Appendix F</b> – Updated SEARs Noise and Vibration Assessment
<b>Hazards and Radiation</b> 11. Please provide a specific response to each of the matters raised by the Department's Hazards Specialist in their email dated 8 May 2018 (copy attached for your reference) (i) Provide clarification on the unit of measure (kg or L) for all DGs stored within the development. a. PHA Section 2.3.1 stated the quantity of DG Classes 2.1 and 2.3 gases in L. However, it is not certain if the quantities in Section 3.3.1 are in kg or L.	(i) Clarification on the units of measure for all DGs stored within the development has been updated in <b>Appendix L</b> – Updated Preliminary Hazard Analysis SEPP 33, section 3.3.1

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<p>(ii) Provide a site layout diagram(s) showing the storage location of DGs by Class in Level 01, and verify that the storage and handling of DG in accordance with this site layout diagram can comply with all relevant Australian Standards, including and not limited to standards on DG and fire safety.</p> <p>a. It is noted that the site layout diagrams considered in the PHA is different compared to the diagrams shown in the 'Architectural Design Package' (in particular, drawings A-DA-2101A and A-DA-2101B).</p> <p>b. It is also noted that the EIS Attachment 7 – Fire Engineering Statement did not consider DG storage.</p>	<p>a. Refer to drawing excerpt in Appendix M – Dangerous Goods at Level 1</p> <p>b. The Dangerous Goods store will be DTS with class 7b NCC requirements for fire rating. Special Hazards has been addressed in accordance with AS1940 for class 3 flammable goods.</p> <p>Refer to section 5.3 Bulk Storage of Flammable Liquids in <b>Appendix G</b> - Updated Preliminary Dangerous Goods Report.</p>
<p>(iii) Provide clarification if DGs will be stored outdoors. If so, provide the storage location within the site layout diagram(s) in item 2 above, along with the arrangements (cages?) to ensure safe storage of these DGs.</p>	<p>Outdoor storage of cryogenics will be provided. Refer to Cox drawing for location and general layout and the Preliminary Dangerous Goods Report. Details around specific arrangements will be provided upon confirmation of relevant Gas supplier by the University.</p>
<p>(iv) PHA Section 2.2.4 states that "[Level 10] of the proposed building will house plant rooms [and a] Gas Store". Provide further information on the storage of DGs within this gas store in the site layout diagram(s) in item 2 above, along with the arrangements to ensure safe storage of these DGs.</p>	<p>There is no Gas store proposed for Level 10 plant room.</p>
<p>(v) Provide confirmation if DG Class 6.2 and 7 will be stored within the development. If so, provide the maximum storage quantity, maximum package sizes and storage locations within the site layout diagram(s) in item 2 above.</p> <p>a. PHA Section 5.2, and Tables 4 and 7 identified hazards for these materials, but Section 3.3.1 did not specify the storage of these materials.</p> <p>b. PHA Table 7 also identified "radiochemistry laboratory and associated storage areas" with regards to storage and handling of DG Class 7.</p>	<p>a. No class 6.2 to be stored. Class 7 will potentially be stored, quantities have not been provided by USyd. Class 7 will potentially be stored and general advise is provided in the updated Preliminary Dangerous Goods Report.</p> <p>b. No dedicated radiochemistry labs are currently understood to be included in the range of potential laboratories. Only minor isotopes with low decay rates are likely to be used. Requirements of low-level radiochemistry labs have been outlined in the updated Preliminary Dangerous Goods report prepared by Lucid.</p>
<p>(vi) PHA Section 3.3.1 tabulates the proposed storage quantities for each DG Class within the development. However, the identification of specific chemicals under each DG Class, maximum package/cylinder sizes and maximum number of packages/cylinders are not stated in this section. As such, provide this information in an updated section/table and clarify if the quantities in this section/table refers to maximum storage quantities for the development, or in Level 01 only.</p>	<p>Refer to <b>Appendix A, Appendix B and Appendix D</b> of the Updated Preliminary Dangerous goods report.</p>
<p>(vii) PHA Section 3.3.1 states that 2,650 kg or L of DG Class 2.1 flammable gases (pressurised) is proposed to be stored. Provide the specific chemicals under DG Class 2.1 which will be stored and handled, along with the relevant safeguards to address the specific hazards of these chemicals (for example, the storage and</p>	<p>Refer to <b>Appendix G</b> - Updated Preliminary Dangerous Goods Report</p>



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handling of silane [or other gases with low auto-ignition temperature] may require additional safeguards as per Safety Data Sheets, manufacturer requirements and best practice, on top of the requirements under the relevant Australian Standards).	
(viii) PHA Section 3.3.1 states that 500 kg or L of DG Class 2.3 toxic gases is proposed to be stored. Provide the specific chemicals under DG Class 2.3 which will be stored and handled, along with the relevant safeguards to address the specific hazards of these chemicals (for example, the storage and handling of highly toxic gases may require additional safeguards as per Safety Data Sheets, manufacturer requirements and best practice, on top of the requirements under the relevant Australian Standards).	Refer to <b>Appendix G</b> - Updated Preliminary Dangerous Goods Report
(ix) PHA Section 3.3.1 states that 1,200 kg or L of DG Class 5 is proposed to be stored. Provide: <ul style="list-style-type: none"> <li>a. further information on hazards relevant to 'DG Class 5, Division 5.3';</li> <li>b. clarification if Division 5.2 organic peroxides requiring temperature control (i.e. refrigeration) will be stored within the development. If so, provide further information on the arrangements and safeguards to ensure safe storage and handling of these chemicals; and</li> <li>c. the quantity of liquid oxygen (LOX) proposed to be stored (as indicated in PHA Table 5, page 30 of 71), given that LOX is classified with sub-risk 5.1 under the ADG code (update PHA Section 3.3.1, as necessary) .</li> </ul>	<ul style="list-style-type: none"> <li>a. There is no class 5.3 Dangerous Good proposed for this facility.</li> <li>b. It is understood that Division 5.2 organic peroxides may be stored in small quantities, subject to the requirements of particular research groups. If so, then these are to be stored within refrigerated enclosures. Currently a fire-rated, enclosed and ventilated room is provided for Class 5 substances within the Dangerous Goods enclosure at Level 1.</li> <li>c. There is no LOX proposed for this facility.</li> </ul>
(x) PHA Table 5 (page 28 of 71) stated that “there’s no suggestion that highly toxic gases will be used in these laboratories”. Provide the criteria to distinguish ‘highly toxic gases’ from ‘toxic gases’, along with additional safeguards for the storage and handling of ‘highly toxic gases’ compared with ‘toxic gases’ (designated storage location, specialised fume-hoods with sufficient venting requirements for ‘highly toxic gases’?).	<p>The data used to determine if a gas/chemical is toxic is based on the information provided on the Safety Data Sheet for the product, which in turn is classified according to the requirements for <i>Classifying hazardous chemicals – national guide</i> from WorkSafe Australia (<a href="https://www.safeworkaustralia.gov.au/doc/classifying-hazardous-chemicals-national-guide">https://www.safeworkaustralia.gov.au/doc/classifying-hazardous-chemicals-national-guide</a>).</p> <p>Examples of highly toxic gases such as Arsine, Phosphine, Chlorine, Fluorine, etc. have not been proposed for use within the development and as such the statement “there’s no suggestion that highly toxic gasses will be used in these laboratories” remains. Refer to <b>Appendix L</b> - Updated Preliminary Hazard Analysis SEPP 33, table 5 pg 28</p> <p>However, should highly toxic gases be introduced in the future, additional safeguards for storage and handling of ‘highly toxic gases’ have been identified in table 7: Risk Assessment Outcome. Refer to <b>Appendix L</b> - Updated Preliminary Hazard Analysis SEPP 33, table 7 pg 36-37</p>
(xi) PHA Section 2.2.1 identified “Research NMR rooms” in Level 1. Provide confirmation if these rooms refer to both Nuclear Magnetic Resonance (NMR) laboratories Level 01, as shown in drawing A-DA-2101A.	The NMR laboratories are briefed to be capable of supporting NMR (Nuclear Magnetic Resonance) or similar research activity. The specific activities and apparatus within each room will be confirmed by the University when “research-ready” design definition is completed.
(xii) It is generally understood that NMR equipment uses cryogenic fluids, and the release/venting of these fluids are due to planned scenarios (maintenance, change of magnets, etc.) or unplanned scenarios (excessive heating of fluids while cooling magnets). Given that NMR equipment is located below ground and appears to be	The NMR laboratories are briefed to be capable to support NMR or similar low-EMR research activity. The rooms are designed to provide mechanical air supply and ventilation. More specific design will be dependent on “research-ready” design definition and advice from the University on cryogenic supply to apparatus and acceptable capture/ exhaust methods.

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in a generally confined area, provide additional information on the safeguards (oxygen monitors with alarms?) to prevent asphyxiation-related hazards, specific to the operation of NMR equipment, including and not limited to the venting/ventilation design (equipment and lab room) and connection to DG storage cylinders/vessels (“gas bottles” adjacent to both NMR labs, as shown in drawing A-DA-2101A?).	
12. Please update the Preliminary Hazard Analysis / Preliminary Dangerous Goods Report to include consideration of Class 7 Dangerous Goods and statutory requirements pursuant to the Radiation Control Act, Regulations and guidance materials as advised in the EPA submission	The Preliminary Dangerous Goods Report has been updated to include consideration of Class 7 Dangerous Goods and statutory requirements pursuant to the Radiation Control Act, Regulations and guidance materials as advised in the EPA Submission (refer to <b>Appendix G</b> – Updated Preliminary Dangerous Goods Report)
13. Please correct discrepancies in quantities in Section 3.3.1 of the Preliminary Hazard Analysis and the Dangerous Goods Report Appendix D (For example, DG Report Appendix D indicates 2,500 kg of DG Class 2.3 toxic gases stored in “0 cylinders” with stated preliminary quantity of 50 kg (or L), while PHA Section 3.3.1 indicates 500 kg (or L) as proposed storage quantity. Similar discrepancies are also noted for other DG classes. Please provide clarifications on the discrepancies, especially if DG quantities in the DG Report will exceed DG quantities in the PHA, given that limits on DG storage quantities will be conditioned in the consent. Please also take into consideration the queries outlined in the email of 8 May in providing these clarifications.	<p>The SEPP 33 report presents the storage quantities proposed for the precinct. Further commentary and reference to CETEC SEPP 33 report has been provided within the Updated Preliminary Dangerous Goods report.</p> <p>The quantities proposed in the Lucid Dangerous Goods reporting are dedicated to the J03 building with consideration to the engineering precinct requirements only.</p>

## 2. UNIVERSITY OF SYDNEY RESPONSE TO CITY OF SYDNEY (COS)

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<p><b>Development Contributions</b></p> <p>1. <b>Redfern Waterloo Authority Contributions Plan 2006</b></p> <p>If the Department considers that the Redfern Waterloo Authority Contributions Plan 2006 (“the RWA CP”) applies, then the City requests that development contributions be levied in accordance with this plan. Based on a development cost of approximately \$105 million, a development contribution of around \$2.1 million could be used to fund infrastructure works already identified in the RWA CP.</p> <p>While the applicant envisages only a small population increase (around 14 additional staff and 94 additional students), the proposed works involve almost a doubling of the existing GFA (from around 7,500m<sup>2</sup> to around 13,500m<sup>2</sup>). There is no way of requiring the University to limit the population increase to these numbers, which could easily increase over time. It remains that such a significant uplift of GFA will provide opportunities for a significantly greater population than that estimated by the University.</p> <p>This development will result in an increased demand for local services and infrastructure. While students and staff use on-campus facilities, evidence indicates that University development also generates significant demand on local services and infrastructure. Contributions should go towards addressing this additional burden on local infrastructure.</p> <p>The University have advised that they are willing to commit around \$6.3 million to the provision of stormwater infrastructure and public domain works as an offset to paying a development contribution. The proposed stormwater infrastructure works are works within the site itself and a normal consequence of the development, while the proposed public domain improvements are for streets and lanes within the University campus or near its boundaries. These stormwater and public domain works are not identified in the works schedule of the RWA CP. Furthermore, these works will largely be for the benefit of University staff and students. It is not considered that these works provide a material public benefit beyond the University campus which could be justified in lieu of a development contribution.</p> <p>The City notes that “universities” are not specifically identified as a type of Crown development excluded from contributions under Section 6 of the RWA CP (a “university” is not a “public school”), and therefore should not be excluded from the payment of a development contribution on that basis.</p>	<p>Refer to USYD letter to DPE Executive Director Priority Project Assessments, dated 5 December 2018, in which the University declares its’ intention to pay in full all relevant and appropriate development contributions as deemed applicable.</p> <p><b>Noted:</b> This is a matter for the determination of DPE. Please refer to USYD’s past case for exemption from Development Contributions.</p> <p><b>Disagree:</b> The University reconfirms the staff and student population targets provided in our SSD application. The City’s argument fails to recognise the GFA take-up for new modern research, laboratory and storage facilities and which does not equate to GFA for increased population.</p> <p><b>Disagree:</b> The University provides for all local infrastructure and public facilities on campus (which is accessible to and used by the general public), and some on the surrounding public domain, and receives no development contribution monies in kind from the City of Sydney.</p> <p>The Department’s Circular D6 policy informs that development contributions for <i>educational services</i> should be exempt except for local stormwater infrastructure facilities and local traffic management facilities at the street address to the proposed development where relevant and necessary.</p> <p>The University refers to its original submission and all reasons qualified therein.</p>

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<p><b>2. Redfern Waterloo Authority Affordable Housing Contribution Plan</b></p> <p>If the Department considers that the Redfern Waterloo Authority Affordable Housing Contribution Plan has been drafted in the same terms as the RWA CP and applies, then the City expects affordable housing contributions to be levied. Like with the RWA CP, the City notes that “universities” are not specifically identified as a type of Crown development excluded from contributions under Section 6 of the Redfern Waterloo Authority Affordable Housing Contributions Plan (a “university” is not a “public school”), and therefore should not be excluded from affordable housing contributions on that basis.</p> <p>In light of the above, if a condition of consent is not imposed requiring the full payment of development contributions under both the Redfern Waterloo Authority Contributions Plan 2006 and the Redfern Waterloo Authority Affordable Housing Contribution Plan, the City maintains its objection to the proposal.</p> <p>Furthermore, with respect to the Redfern Waterloo Authority Contributions Plan 2006, the City objects to the existence of a legacy development contributions plan that does not acknowledge or meet the reality of local infrastructure demands in 2018.</p>	<p>Refer to USYD letter to DPE Executive Director Priority Project Assessments, dated 5 December 2018, in which the University declares its’ intention to pay in full all relevant and appropriate development contributions as deemed applicable.</p> <p><b>Disagree:</b> The University has committed to, and commenced for, the provision of up to 4,000 affordable student accommodation beds on the same property lot being the Darlington campus site. Any development contribution levied at the university for “affordable housing” will significantly impact and reduce the university’s commitment to affordable student accommodation. This argument has been supported by Urban Growth in past University SSD applications.</p>
<p><b>Trees and Landscaping</b></p> <p>3. A revised landscape plan and corresponding Arboricultural Impact Statement (AIA) detailing all existing trees to be retained, removed, replanted and any new trees proposed. All trees should be clearly numbered. The AIA has not been updated to respond to the City’s previous concerns in this regard.</p>	<p>Refer to <b>Appendix D</b> - Updated AIA.</p> <p>Refer to <b>Appendix E</b> – Updated Landscape Plans</p>
<p>4. Provide diagrams demonstrating how the proposed tree coverage will achieve 15% urban canopy cover in 10 years and compliance with the SDCP 2012 in this regard.</p>	<p>Refer to <b>Appendix H</b> - Tree coverage plan, confirming we achieve 25% coverage of total landscape area.</p>
<p>5. Plans showing works on slab and at grade, set out and levels, surface finishes, lighting details including for the courtyard areas and the detention basin.</p>	<p>Refer to <b>Appendix E</b> - Updated Landscape Plans, drawing number 200, 201, 202, 300, 301 &amp; 302.</p> <p>Refer to <b>Appendix I</b> – External Lighting Design.</p>
<p>6. Plant schedule with mature height and spread that is local to the Sydney region and details pot sizes and quantities and any landscape technical and performance specifications with respect to irrigation.</p>	<p>The current Landscape documentation nominates the list of species under consideration and nominal plant sizes at installation. We note all species (with the exception of the special replacement Jacaranda tree) are species local to the Sydney region as stated previously. All species selected in the planting schedule do not require irrigation to survive. The expected mature height and width has now been updated in the revised planting schedule (refer to <b>Appendix E</b> - Updated Landscape Plans, drawing number 400, 401 &amp; 402).</p> <p>Refer to <b>Appendix J</b> - Minimum Design Install Maintenance Standards – Irrigation (002).</p>

## SSD 8636 – ENGINEERING & TECHNOLOGY PRECINCT DEVELOPMENT

### CoS KEY ISSUE

#### Transport

7. With respect to bicycle parking, the proponent's response states that bicycle parking provision has been calculated and provided in accordance with Sydney DCP 2012, which is demonstrated on the Level 2 floor plan of the revised architectural drawings. The referenced plan provides no evidence in this regard. The Department are requested to include a condition that specifically requires bicycle parking provision and end of trip facilities to be provided by the development that comply with Section 3.11 of Sydney Development Control Plan 2012.

### UNIVERSITY PROJECT RESPONSE

The ETP project is an alteration and addition to an existing building. The net population uplift has been calculated by subtracting the existing building population from the new building population. It is noted that the proposed new building is not designed to accommodate a significant increase of staff/student population to the Engineering precinct or Darlington campus. A small increase is envisaged by the proposed development as referred to below.

	Staff	Student	Total
Refurbished J03 Population	138	966	1104
Existing J03 Population	124	872	996
<b>Net Population Uplift</b>	<b>14</b>	<b>94</b>	<b>108</b>

Refer to **Appendix D1** – Exemption from Development Contributions\_14 Sept 2018 A to justify the University of Sydney's position on population uplift to the proposed Engineering and Technology Precinct Project.

The minimum End of trip facilities has been calculated in accordance with the Sydney DCP 2012 as referred to below.

Nett Population Uplift	Bike Spaces	Showers	Lockers
108	11	2	11

Notwithstanding this, the end of trip facilities currently planned for this development provide for 48 Bike spaces, 5 showers and 48 lockers (subject to design development) which is in excess of the minimum required by Section 3.11 of *Sydney Development Control Plan 2012*.

#### Flooding

8. Unresolved issues remain with respect to stormwater and flooding on the site. The Department are strongly encouraged to impose the recommended conditions in Attachment A to ensure those matters are appropriately addressed at Construction Certificate stage.

Accesses and entry points into the building will be protected at minimum to the **1% AEP event flood level**. The proposed development is categorised under educational precinct and can be closely related to *"Schools and Child Care facilities" development category (Refer to excerpt from CoS Interim Floodplain Management policy page 13 of 17)*. Given there are no child care facilities and the building population is made up of mature aged staff and students, our design considers a merits based approach.



SSD 8636 – ENGINEERING & TECHNOLOGY PRECINCT DEVELOPMENT	
CoS KEY ISSUE	UNIVERSITY PROJECT RESPONSE
<b>Transport</b> 9. With respect to bicycle parking, the proponent's response states that bicycle parking provision has been calculated and provided in accordance with Sydney DCP 2012, which is demonstrated on the Level 2 floor plan of the revised architectural drawings. The referenced plan provides no evidence in this regard. The Department are requested to include a condition that specifically requires bicycle parking provision and end of trip facilities to be provided by the development that comply with Section 3.11 of Sydney Development Control Plan 2012.	Duplicate refer to item 7. Refer to above comment

SSD 8636 – ENGINEERING & TECHNOLOGY PRECINCT DEVELOPMENT	
CoS KEY ISSUE	UNIVERSITY PROJECT RESPONSE
<p><b>CoS ATTACHMENT A – Recommended Consent Conditions</b></p> <p><b>(1) PHOTOGRAPHIC RECORD / DILAPIDATION REPORT - PUBLIC DOMAIN</b></p> <p>Prior to an approval for demolition being granted or a Construction Certificate being issued, whichever is earlier, a photographic recording of the public domain site frontages is to be prepared and submitted to Council's satisfaction.</p> <p>The recording must include clear images of the building facade adjoining the footpath, the footpath, nature strip, kerb and gutter, driveway crossovers and laybacks, kerb ramps, road carriageway, street trees and plantings, parking restriction and traffic signs, and all other existing infrastructure along the street.</p> <p>The form of the recording is to be as follows: -</p> <ul style="list-style-type: none"> <li>(a) A PDF format report containing all images at a scale that clearly demonstrates the existing site conditions;</li> <li>(b) Each image is to be labelled to identify the elements depicted, the direction that the image is viewed towards, and include the name of the relevant street frontage;</li> <li>(c) Each image is to be numbered and cross referenced to a site location plan;</li> <li>(d) A summary report, prepared by a suitable qualified professional, must be submitted in conjunction with the images detailing the project description, identifying any apparent existing defects, detailing the date and authorship of the photographic record, the method of documentation and limitations of the photographic record;</li> <li>(e) Include written confirmation, issued with the authority of both the applicant and the photographer that the City of Sydney is granted a perpetual non-exclusive license to make use of the copyright in all images supplied, including the right to make copies available to third parties as though they were Council images. The signatures of both the applicant and the photographer must be included.</li> </ul> <p>Any damage to the public way including trees, footpaths, kerbs, gutters, road carriageway and the like must immediately be made safe and functional by the applicant. Damage must be fully rectified by the applicant in accordance with the City's standards prior to a Certificate of Completion being issued for Public Domain Works or before an Occupation Certificate is issued for the development, whichever is earlier.</p>	<p>Agreed</p>
<p><b>(2) STORMWATER AND DRAINAGE - MAJOR DEVELOPMENT</b></p> <ul style="list-style-type: none"> <li>(a) Prior to an approval or Construction Certificate being issued for excavation, civil construction, drainage or building work (whichever is earlier), excluding approved preparatory or demolition work a detailed drainage engineering design, calculations and design for the stormwater overland flow path for the development must be: <ul style="list-style-type: none"> <li>(i) prepared by a suitably qualified hydraulic or civil engineer to show the proposed method of collection and disposal of stormwater; and</li> <li>(ii) prepared in accordance with the City of Sydney's <i>Stormwater Drainage Manual</i>, technical specifications, standards and policies, as amended from</li> </ul> </li> </ul>	<p>Refer to <b>Appendix K</b> – 70% Detailed Design Civil Report</p>

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<p>time to time; and</p> <p>(iii) submitted to and be approved by the City of Sydney and a copy of the City's letter of approval must be provided to the Principal Certifying Authority.</p> <hr/> <p>(b) For approval of a connection into the City of Sydney's drainage system an "Application for Approval of Stormwater Drainage Connections" must be submitted to the City, together with an application fee in accordance with the City of Sydney's adopted Schedule of Fees and Charges.</p> <p>(i) The application must be approved by the City of Sydney prior to an approval or Construction Certificate being issued for excavation, civil construction, drainage or building work (whichever is earlier), excluding approved preparatory or demolition work.</p> <p>All proposed connections to the City's underground drainage system require the owner to enter into a Deed of Agreement with the City of Sydney and obtain registration on Title of a Positive Covenant prior to an Occupation Certificate being issued, including an Interim Occupation Certificate.</p>	<p><b>Agreed:</b> The University of Sydney has engaged a water services coordinator for the purpose of this development –Warren Smith &amp; Partners.</p>

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CoS KEY ISSUE	UNIVERSITY PROJECT RESPONSE
<b>On-site Detention</b> (c) The requirements of Sydney Water with regard to the on-site detention of stormwater must be ascertained and complied with. (i) Evidence of the approval by Sydney Water of the detailed design of the on-site detention must be submitted to and be accepted by the City of Sydney and a copy of the City's letter of acceptance must be provided to the Principal Certifying Authority prior to a Construction Certificate being issued, excluding for any approved preparatory, demolition or excavation works. (ii) Prior to the issue of an Occupation Certificate, including an Interim Occupation Certificate, a Positive Covenant must be registered on the property title for all drainage systems involving On-Site Detention (OSD) to ensure maintenance of the approved OSD system regardless of the method of connection.	<b>Noted</b>  <b>Noted</b> - University to comment upon receipt of Draft Conditions
<b>On-site Detention</b> (d) The requirements of Sydney Water with regard to the on-site detention of stormwater must be ascertained and complied with. (i) Evidence of the approval by Sydney Water of the detailed design of the on-site detention must be submitted to and be accepted by the City of Sydney and a copy of the City's letter of acceptance must be provided to the Principal Certifying Authority prior to a Construction Certificate being issued, excluding for any approved preparatory, demolition or excavation works. (ii) Prior to the issue of an Occupation Certificate, including an Interim Occupation Certificate, a Positive Covenant must be registered on the property title for all drainage systems involving On-Site Detention (OSD) to ensure maintenance of the approved OSD system regardless of the method of connection.	<b>Noted</b>  <b>Noted</b> - University to comment upon receipt of Draft Conditions
<b>Stormwater Quality Assessment</b> (e) Prior to a Construction Certificate being issued for any excavation, civil construction, drainage or building work (whichever is earlier), but excluding approved preparatory or demolition work, a stormwater quality assessment must be undertaken and must be approved by City of Sydney and a copy of the City's letter of approval must be provided to the Principal Certifying Authority. The stormwater quality assessment must: (i) be prepared by a suitably qualified hydraulic engineer with experience in Water Sensitive Urban Design; (ii) use modelling from an industry-standard water quality model (e.g. MUSIC Model or equivalent); and (iii) demonstrate through reports, design plans and calculations, what water sensitive urban design and other drainage measures will be used to ensure that the development will achieve the following post-development pollutant loads:	<b>Agreed</b> – Refer to <b>Appendix K</b> – 70% Detailed Design Civil Report, section 3.5 Water Quality, page 21-24

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CoS KEY ISSUE	UNIVERSITY PROJECT RESPONSE
<p>a. reduce the baseline annual pollutant load for litter and vegetation larger than 5mm by 90%;</p> <p>b. reduce the baseline annual pollutant load for total suspended solids by 85%;</p> <p>c. reduce the baseline annual pollutant load for total phosphorous by 65%;</p> <p>d. reduce the baseline annual pollutant load for total nitrogen by 45%.</p> <p>(iv) include certification from a suitably qualified practicing professional that the requirements of parts d) (i), (ii) and (iii) of this condition have been met.</p> <p>Prior to the issue of an Occupation Certificate, maintenance schedules of the proposed water sensitive urban design and drainage measures must be submitted to and be approved by the Principal Certifying Authority and a copy provided to the City of Sydney.</p>	
<p><b>Completion / Works-as-Executed Documentation</b></p> <p>(f) Prior to a Certificate of Completion being issued by the City of Sydney for stormwater drainage works:</p> <p>(i) All works for the disposal of stormwater and drainage are to be implemented in accordance with the approved plans, City of Sydney technical specifications. Standards and policies, approval letters and the requirements of this consent.</p> <p>(ii) a Works-As-Executed survey, prepared, signed and dated by a Registered Surveyor, must be submitted to and be accepted by the City of Sydney. The plan must be overlaid on a copy of the approved stormwater drainage plans issued with the Construction Certificate, with variations to locations, dimensions, levels and storage volumes clearly marked.</p> <p>(iii) Electronic works-as-executed (as-built) details, certifications, warranties, inspection reports (including Closed Circuit Television reports) and associated documentation for the completed work must be prepared and certified by a suitably qualified hydraulic engineer, in accordance with the requirements of the City of Sydney's technical specifications, the Public Domain Manual, the Stormwater Drainage Manual, the conditions of this consent and all letters of approval issued by the City of Sydney for works in the public domain, and must be submitted to and be accepted by the City.</p>	Agreed
<p>(g) Prior to the issue of the first Occupation Certificate, including an Interim Occupation Certificate, or before the use commences (whichever is earlier):</p> <p>(i) A copy of the City's Certificate of Completion for all stormwater and drainage work undertaken in the public domain must be provided to the Principal Certifying Authority;</p> <p>(ii) a Works-As-Executed survey, must be prepared, signed, dated and certified by a Registered Surveyor and must be submitted to and be accepted by the Principal Certifying Authority. The Works-as-Executed plan</p>	Agreed



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CoS KEY ISSUE	UNIVERSITY PROJECT RESPONSE
<p>must be overlaid on a copy of the approved stormwater drainage plans issued with the Construction Certificate, with variations to locations, dimensions, levels and storage volumes clearly marked;</p> <p>(iii) a Hydraulic Compliance Certificate and Calculation Sheet must be prepared by a suitably qualified hydraulic engineer (minimum NER), showing approved versus installed hydraulic calculations, and must be submitted to and be accepted by the Principal Certifying Authority;</p> <p>(iv) evidence of Sydney Water's acceptance of the Works-As-Executed documentation, certification and Hydraulic Compliance Certificate and Calculation Sheet must be provided to the Principal Certifying Authority;</p> <p>(v) The principal Certifying Authority must submit a copy of the Works-As-Executed plans, certifications, Hydraulic Compliance and Calculation Sheet to the City of Sydney.</p>	

## SSD 8636 – ENGINEERING & TECHNOLOGY PRECINCT DEVELOPMENT

CoS KEY ISSUE	UNIVERSITY PROJECT RESPONSE																																
<p><b>(3) PLANNING FINISHED FLOOR LEVELS</b></p> <p>(a) All accesses and entry point to the habitable building shall be protected from the relevant 1% AEP flood level plus 0.5m. Flood Barriers will not be supported as a protection method.</p>	<p>(a) Accesses and entry points into the building will be protected at minimum to the <b>1% AEP event flood level</b>. The proposed development is categorised under educational precinct and can be closely related to “<i>Schools and Child Care facilities</i>” development category (Refer to excerpt from CoS Interim Floodplain Management policy page 13 of 17). Given there are no child care facilities and the building population is made up of mature aged staff and students, our design considers a merits based approach.</p> <table><tr><th colspan="2">Development</th><th>Type of flooding</th><th>Flood Planning Level</th></tr><tr><td rowspan="3">Residential</td><td rowspan="3">Habitable rooms</td><td>Mainstream flooding</td><td>1% AEP flood level + 0.5 m</td></tr><tr><td>Local drainage flooding (Refer to Note 2)</td><td>1% AEP flood level + 0.5 m or Two times the depth of flow with a minimum of 0.3 m above the surrounding surface if the depth of flow in the 1% AEP flood is less than 0.25 m</td></tr><tr><td>Outside floodplain</td><td>0.3 m above surrounding ground</td></tr><tr><td></td><td>Non-habitable rooms such as a laundry or garage (excluding below-ground car parks)</td><td>Mainstream or local drainage flooding</td><td>1% AEP flood level</td></tr><tr><td rowspan="5">Industrial or Commercial</td><td>Business</td><td>Mainstream or local drainage flooding</td><td>Merits approach presented by the applicant with a minimum of the 1% AEP flood level</td></tr><tr><td>Schools and child care facilities</td><td>Mainstream or local drainage flooding</td><td>Merits approach presented by the applicant with a minimum of the 1% AEP flood level + 0.5m</td></tr><tr><td>Residential floors within tourist establishments</td><td>Mainstream or local drainage flooding</td><td>1% AEP flood level + 0.5 m</td></tr><tr><td>Housing for older people or people with disabilities</td><td>Mainstream or local drainage flooding</td><td>1% AEP flood level + 0.5 m or a the PMF, whichever is the higher</td></tr><tr><td>On-site sewer management (sewer mining)</td><td>Mainstream or local drainage flooding</td><td>1% AEP flood level</td></tr></table>	Development		Type of flooding	Flood Planning Level	Residential	Habitable rooms	Mainstream flooding	1% AEP flood level + 0.5 m	Local drainage flooding (Refer to Note 2)	1% AEP flood level + 0.5 m or Two times the depth of flow with a minimum of 0.3 m above the surrounding surface if the depth of flow in the 1% AEP flood is less than 0.25 m	Outside floodplain	0.3 m above surrounding ground		Non-habitable rooms such as a laundry or garage (excluding below-ground car parks)	Mainstream or local drainage flooding	1% AEP flood level	Industrial or Commercial	Business	Mainstream or local drainage flooding	Merits approach presented by the applicant with a minimum of the 1% AEP flood level	Schools and child care facilities	Mainstream or local drainage flooding	Merits approach presented by the applicant with a minimum of the 1% AEP flood level + 0.5m	Residential floors within tourist establishments	Mainstream or local drainage flooding	1% AEP flood level + 0.5 m	Housing for older people or people with disabilities	Mainstream or local drainage flooding	1% AEP flood level + 0.5 m or a the PMF, whichever is the higher	On-site sewer management (sewer mining)	Mainstream or local drainage flooding	1% AEP flood level
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CoS KEY ISSUE	UNIVERSITY PROJECT RESPONSE
<p>(b) All openings and accesses points to the proposed car basement/delivery area shall be protected up to the 1% AEP flood level plus 0.5 meter or Probable Maximum flood level, whichever is greatest.</p> <p>(c) Any material used for the habitable/non- habitable floor level below the flood planning levels for each respective flood level shall be comply with the flood compatible materials under section 6 – flood compatible materials of the Council's Interim floodplain Management Policy dated May 2014.</p> <p>(d) A design certification report is to be prepared by a suitably qualified practicing engineer (NPER), certifying that all accesses and entry points to the building and structures comply with the above requirements under parts (a) to (c). The report shall be submitted to and approved by the Principal Certifying Authority prior to the issue of a Construction Certificate. A copy of the report/certification shall be submitted to Council for record keeping purposes prior to the issue of any Construction Certificate.</p>	<p>(b) Refer to the above comment.</p> <p>(c) <b>Noted</b></p> <p>(d) Agreed based on the above statements</p>

SSD 8636 – ENGINEERING & TECHNOLOGY PRECINCT DEVELOPMENT	
CoS KEY ISSUE	UNIVERSITY PROJECT RESPONSE
<b>(4) FLOOD RISK MANAGEMENT</b> (a) All electrical features including power points and other mechanical equipment is to be set above the relevant 1% AEP flood level. This shall be shown on the detailed plans prior to the issue of the Construction Certificate. (b) All building structures relating to this development are to have their structural integrity certified for immersion and impact from hydraulic forces of floodwaters and debris confirmed up to the relevant Probable Maximum Flood level. A copy of the certification is to be submitted to the Certifying Authority prior to the issue of any Construction Certificate. (c) The structural integrity for the proposed wall around Basin D shall be designed to withstand the impact of hydraulic forces of floodwaters and debris up to the 1% AEP flood event. A copy of the certification is to be submitted to the Certifying Authority prior to the issue of any Construction Certificate. (d) A fence shall be designed and constructed around Basin D to restrict access. The fence shall have a gate for access for maintenance purposes only. This requirement shall be reflected on the construction plans and shall be submitted to and approved by the Certifying Authority prior to the issue of any Construction Certificate.  (e) No toxic or other hazardous materials are to be stored below the respective Probable Maximum Flood. (f) Appropriate warning signage shall be placed along walkways to warn pedestrians of possible flooding. (g) All flood protection measures are to be maintained for the life of the development. (h) The design of the flood mitigation measures are to be certified by a qualified structural engineer with experience in flood proofing and is to be compatible with the urban design requirements for the development set out in this development consent. All flood proofing features are to be listed on the positive covenant on the title of the property required under condition 5 (c).	<b>Agreed</b>  <b>Noted</b>  <b>Noted</b>  The basin is not regarded as a high risk infrastructure to restrict access as it is not designed to permanently store and retain water. Drainage systems are in place to ensure the basin is dry and drained at all times post storm events. Risk of falls from height due to basin depth is reduced by providing a stepped/tiered wall system (Refer to <b>Appendix E</b> – Updated Landscape Plans, drawing 502). This is similarly done for other landscape type basins. Please refer to <b>Appendix N</b> – Flood Basin Case Study Photos, depicting flood basins without restricted gate access <ul style="list-style-type: none"> <li>• Joynton Park Zetland (City of Sydney)</li> <li>• Sarah Redfern park (Campbelltown City Council)</li> </ul> <b>Noted</b>  <b>Agreed</b>  <b>Agreed</b> <b>Agreed</b>
<b>(5) FLOOD EMERGENCY RESPONSE PLAN</b> (a) An effective flood emergency response plan and procedure shall be prepared by a suitably qualified and experienced consulting engineer. The plan shall be submitted to the Certifying Authority prior to the commencement of use. A copy of the plan shall be provided to Council for record keeping purposes.	<b>Noted</b>

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CoS KEY ISSUE	UNIVERSITY PROJECT RESPONSE
<p>(b) The plan shall include the following:</p> <ul style="list-style-type: none"> <li>(i) Describe the flood conditions in the vicinity of the site;</li> <li>(ii) Describe where people are directed to seek refuge above the Probable Maximum Flood level in a flooding event;</li> <li>(iii) Include a map directing residents and visitors to a refuge via a flood free pathway within the building; and</li> <li>(iv) Provide details (as an appendix) of all proposed flood sensors, their purpose, operation and maintenance (including the frequency of maintenance). A design certification report prepared by a suitably qualified practicing engineer (NPER), demonstrating compliance with the above requirements in part (a) above, shall be submitted to and be approved by the Certifying Authority prior to the commencement of use. A copy of the report shall be provided to Council for record keeping purposes.</li> <li>(vi) Prior to the issue of an Occupation Certificate, the approved Flood Emergency Response Plan shall be implemented as a Positive Covenant on the title of the property (and annexed to the positive covenant).</li> </ul>	



### 3. UNIVERSITY OF SYDNEY RESPONSE TO NSW OFFICE OF ENVIRONMENT & HERITAGE

SSD 8636 – ENGINEERING & TECHNOLOGY PRECINCT DEVELOPMENT	
OEH ISSUE	UNIVERSITY OF SYDNEY PROJECT RESPONSE
<p><b>Biodiversity:</b></p> <p>1. OEH in its submission on the EIS supported the Arboriculture Impact Assessment(AIA) recommendation to consider relocating the six Bangalow Palms to be removed as part of the proposed landscape treatment. In response, the RTS indicates this is not an option as the machinery required for transplanting cannot access the site (page 23). It is unclear if advice was sought from the Arborist who prepared the AIA and recommended the palms be relocated. If the Arborist has not been consulted it is suggested this occurs.</p>	<p>The Arborist has been consulted and the updated AIA confirms the 6 bangalow palms will be removed. Refer to <b>Appendix D</b> – Updated AIA, section 3.1.1</p>
<p>2. OEH notes the university's Landscape and Ground's Manager does not consider the palms have any significance in the University's tree Masterplan. The AIA also acknowledges this. OEH supported the relocation of the Bangalow Palms as the fleshy fruits of these palms provide a food resource for the threatened Grey-headed Flying Fox(GHFF) and GHFF are known to occur in the vicinity of Sydney University.</p>	<p>The proposed landscape design removes the 6 bangalow palms currently located in the Eastern Courtyard and replace it with 8 new bangalow palms upon project completion retaining natural food resources for the threatened Grey-headed Flying Fox. Refer to <b>Appendix E</b> – Updated Landscape Plans, drawing number 402.</p>
<p><b>Aboriginal Cultural Heritage:</b></p> <p>3. OEH previously recommended the development consider Aboriginal Cultural heritage for construction of the new flood storage basin. It is noted an Aboriginal Cultural Heritage Management Plan has been prepared but clarification is required as to whether this includes and Aboriginal Cultural Heritage survey assessment (including a desk top evaluation).</p>	<p>Refer to <b>Appendix O</b> for the Aboriginal Heritage Impact Assessment (AHIA) and Aboriginal Cultural Heritage Management Plan for the proposed development of six precincts across the Camperdown and Darlington Campuses, NSW as part of the Campus Improvement Program (CIP). This includes a desktop assessment of the potential for there being Aboriginal relics on the subject site. The subject site is within the Engineering Precinct indicated by the blue boundary on Figure 2. <i>'Location of the Camperdown and Darlington campusus within the subject area. Those coloured area form the focus of this AHIA'. Page 15.</i></p> <p>The City Road (B) and Engineering (C) precincts are concluded to have Low-Nil potential for Aboriginal objects to be present (Figure 2, p.16). As such, no further archaeological mitigation measures are proposed for these areas. These areas would be managed through unexpected finds procedures and human remains protocols. (Appendix 3 and Appendix 4) (ACHMP, p.24)</p>