

UNSW Science and Engineering Building

Schedule of Further Submissions & Responses

Item No.	Further Submission Element	Proponent's Further Response
Environment P	rotection Authority	
EPA.1	I am writing to you in reply to your invitation to the EPA to provide a submission in respect of the project Response to Submissions (RtS) report.	Noted.
	The EPA requests that the following advice be considered together with its letter dated 7 March 2016 concerning the draft SEARs and 5 December 2016 concerning the project EIS.	
	The EPA understands that the proposal involves site preparation, bulk earthworks, and subsequent construction of a 9 storey high building (including rooftop plant rooms). And, notes the proximity of residences in Doncaster Avenue, Day Avenue and High Street.	
	The EPA notes the advice from the proponent indicating that there would be no activities warranting changes to the University's radiation management licence.	
	The EPA has reviewed the RtS and provides the following comments:	
EPA.2	Noise screening effects	Refer to responses below.
	The EPA's advice in respect of the EIS emphasised that because the intervening buildings do not form a continuous barrier, screening effects are likely to reduce noise levels by less than the predicted 15 dBA.	
	However, the RtS report does not explain why the assumed 15 dBA barrier effect from intervening buildings is appropriate. And instead, states "The proposed site is surrounded by multi-storey buildings in almost every direction. The northern part of the site will likely have reduced shielding to the east, however the receivers on Botany Street will be shielded by the large buildings on the other side of the road, while the hospital will gain a large reduction due	

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	to distance attenuation. On this basis, it is considered that the nominated reduction is justified."	
	Accordingly, the EPA confirms its previous advice concerning operational noise impacts.	
EPA.3	Recommendation The proponent be required to undertake appropriate modelling to justify the nominated 15dBA reduction due to acoustic shielding offered by intervening buildings.	As part of the detailed design assessment being undertaken by SLR Consulting, a more accurate noise modeling procedure is being implemented to account for the shielding of intervening buildings. Outcomes from this modelling procedure will be considered in defining acoustic treatment (if required) and documented in detailed design report.
EPA.4	Recommendation The proponent be required to ensure that any noise emitted by mechanical plant or equipment installed and operated at the building – (a) does not exceed the night time criteria of Leq(night) 37 dBA measured at the most affected residence or hospital, and (b) does not exhibit tonal characteristics of the type defined in Chapter 4 of the Industrial Noise Policy.	This is currently being considered as assessment criteria for noise sensitive receivers previously mentioned by the EPA (Day Avenue, Doncaster Avenue, High Street, Sydney Children's Hospital and Royal Hospital for Women). Notwithstanding this, the University manages the noise environment within campus, including the impacts on its accommodation buildings. We do not believe that a stringent criteria applied to the University's accommodation buildings will result in any benefit to the overall noise levels.
EPA.5	Recommendation The proponent be required to undertake a quantitative assessment of noise impacts associated with operation of the building together with design for feasible and reasonable noise impact avoidance and mitigation, including but not limited to: (a) potential sleep disturbance impacts on surrounding residences and nearby hospitals; (b) potential sleep disturbance impacts on surrounding residences and nearby hospitals from the use of amplified sound systems other than during 'day-time' hours, which are 7.00 am to 6.00 pm Monday to Saturday, and 8.00 am to 6.00 pm Sundays and public holidays); (c) adequate design, selection and maintenance of amplified sound systems and noise generating mechanical services (especially air handling plant and equipment) and	The applicant would accept these requirements as conditions of consent, noting that a quantitative assessment is being undertaken by SLR Consulting as part of the detailed design noise model. If there is a need for acoustic treatment, this will be addressed in the 100% detailed design acoustic report. This assessment will be undertaken at the receivers mentioned above.

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	 associated rooms and enclosures; (d) noise compliance monitoring of mechanical services noise and amplified sound systems during commissioning so as to avoid unintended noise impacts; (e) design of loading docks and waste collection areas to – (i) avoid or minimise the activation of vehicle reversing alarms during use of those facilities, or (ii) adequate noise shielding of surrounding noise sensitive receivers, especially residences from noise generated during activities associated with those facilities; and (f) limiting the hours of operation of loading dock and waste collection activities to 'day-time' hours, being 7.00 am to 6.00 pm Monday to Saturday and 8.00 am to 6.00 pm Sundays and public holidays). 	
EPA.6	Construction hours The RtS report does not provide adequate justification for undertaking construction outside the standard construction hours recommended in the Interim Construction Nosie Guideline (ICNG). The EPA does not consider convenience or productivity as adequate justification for a departure from the standard construction hours. And accordingly, the EPA does not support the proposed departure from those standard hours. Instead, the EPA confirms its advice that demolition, site preparation, bulk excavation, and construction-related activities should be undertaken between the hours of: (a) 7.00 am to 6.00 pm Monday to Friday, and (b) 8.00 am to 1.00 pm Saturday. Limited exceptions to this requirement could apply for the following circumstances (consistent with the ICNG):	 The construction hours proposed within the EIS have been informed by the most recent redevelopment works undertaken on campus, including: SSD 5373: Materials Science and Engineering Building – adjoining building recently completed. SSD 6674: Biological Sciences – presently under construction. SSD 7370: Electrical Engineering Building. SSD 5572: Mechanical and Manufacturing Engineering Precinct Development. The working hours outlined in the development consent conditions for these projects are consistent with those proposed for this development. The conditions from SSD 5373 were as follows:

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 construction that causes LAeq(15min) noise levels that are: no more than 5 dB above Rating Background Level at any residence; and no more than the Noise Management Levels specified in Table 3 of the ICNG at other sensitive land uses; for the delivery of materials required by the police or other authorities for safety reasons; or required in an emergency to avoid the loss of lives, property and/or to prevent environmental harm; or when approved by the Secretary of DPE. Any request to alter the standard hours of construction should be: considered on a case-by-case or activity-specific basis; accompanied by details of the nature and justification for activities to be conducted during the varied construction hours; accompanied by written evidence to the Secretary that appropriate consultation with potentially affected sensitive receivers and notification of relevant Council(s) and other relevant agencies has been and will be undertaken; all reasonable and feasible noise mitigation measures have been put in place; and, accompanied by a noise impact assessment consistent with the requirements of the Interim Construction Noise Guideline. 	C DURING CONSTRUCTION Hours of Work C1 C1 The hours of construction, including the delivery of materials to and from the Subject Site, shall be restricted as follows: a) between 7:00 am and 6:00 pm, Mondays to Fridays inclusive; b) between 7:00 am and 6:00 pm, Saturdays; c) n owrk on Sundays and public holidays. d) works may be undertaken outside these hours where: i) the delivery of materials is required outside these hours by the Police or other authorities; ii) it is required in an emergency to avoid the loss of life, damage to property and/or to prevent environmental harm; iii) variation is approved in advance in writing by the Director General or his nominee. The applicant's construction partner (Multiplex) delivered the above project and is presently deliver significant issue. The construction partner also maintains an ongoing dialogue with the University's stakeholders to mar noise for study, research, exams other matters, as well as with surrounding stakeholders. Given the history of appropriate construction noise management, we do not believe the restriction of his justified. Further, SLR Consulting argues that given the considerable shielding between the site and the near residences, the construction noise levels are likely to be no higher than 5 dB above the Rating Backgroulevel.

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tem No. PA.7	 Further Submission Element Intra-day respite periods The proponent is likely to be undertaking a number of concurrent demolition and construction projects on its premises. The EPA's advice to the Department concerning intra-day respite periods – highlights the types of construction (and demolition) activities that have been identified in the Interim Construction Noise Guideline as being particularly annoying to surrounding noise sensitive receivers, especially residences, is based on patterns of community concern referred to the EPA as complaints about 'offensive noise' emitted from construction (and demolition) activities, and takes into account proven approaches over many years to the effective mitigation and management of noise and vibration impacts from public infrastructure projects. The EPA emphasises that: (a) whilst the level of noise experienced at a residence (or other noise sensitive receiver) is an important consideration in determining whether noise is 'offensive noise', the nature, character, and quality of the noise as well as the time at which the noise is made are equally relevant in determining whether noise constitutes 'offensive noise'; and (b) intra-day respite periods are not proposed to apply to those demolition, site preparation, bulk excavation, construction and construction-related activities that do not generate noise with particularly annoying or intrusive characteristics. Accordingly, the EPA confirms its recommendation that intra-day respite periods should be adopted in respect of the types of demolition, site preparation, bulk excavation activities that have been identified in section 4.5 of the Interim Construction Noise Guideline as being particularly annoying to surrounding noise sensitive receivers, especially residences. 	 Proponent's Further Response The applicant would accept a condition of consent similar to that imposed on the MSEB developmet 5373) as outlined below. Construction Noise Management C7 The development shall be constructed with the aim of achieving the construction noise management levels detailed in the Interim Construction Noise Guideline (Department of Environment and Climate Change, 2009), including the noise management level for residential premises for the university buildings surrounding the works site and the noise management level for residential premises for the university building surrounding the works site and the noise management level for residential premises for the subtern noise management levels shall be identified and managed in accordance with the Construction Noise and Vibration Management Plan. C8 If the noise from a construction activity is substantially tonal or impulsive in nature (as described in Chapter 4 of the NSW Industrial Noise Policy), 5dB(A) must be added to the measured construction noise level when comparing the measured noise with the construction noise and Vibration Management Plan. C9 The applicant shall schedule rock breaking, rock hammering, sheet piling, pile driving and any similar activity only between the following hours unless otherwise approved in the Construction Noise and Vibration Management Plan. a) 9.00 am to 12.00 pm, Monday to Friday; b) 2.00 pm to 5.00 pm Monday to Friday; and c) 9.00 am to 12.00 pm, Saturday C10 Wherever practical, and where sensitive receivers may be affected, piling activities are completed using bored piles. If driven piles are required they must not be offensive noise within the meaning of the <i>Protection of the Environment Operations Act, 1997</i> or exceed approved noise limits for the Subject Site.

Further Submission Element Item No. **Proponent's Further Response** Randwick City Council **RC.1** Exemption from payment of Section 94A contributions The University maintains that a full exemption from Section 94A contributions would be appropriate for the reasons outlined in the submitted EIS and Response to Submissions. However, in the interest of The Applicant has made the following comments in their response to Council's submission: progressing the project, the University is willing to pay a contribution of \$670,928 towards tangible The Applicant argues that while the Department has imposed conditions in previous major improvements in the public domain around the campus. project determinations requiring UNSW to pay a Section 94A contribution, the Department has This equates to 0.38% of the project's Capital Investment Value (CIV). This is the same rate that was paid not imposed a contribution levy in determinations on the adjoining Randwick Hospitals for the neighbouring MSEB project (SSD 5373). In the absence of any consistency in the application of Campus. Further, the Applicant claims that Council has not sought a contribution for Section 94 contributions at the University, adopting the same proportional rate is considered appropriate in determinations relating to the Hospital Campus, which in their view is considered to be this instance. However, the University is only willing to make the contribution if the funds are put towards "unreasonable and inequitable". public domain works adjacent to the site, including along Barker Street between Anzac Parade and Gate Response: The Randwick City Council Section 94A (s94A) Development Contributions Plan 14 i.e. the same wording as was the Development Contributions condition for the neighbouring MSEB 2015 ('the Plan') provides an exemption for public hospitals from the s94A levy as per Section project (SSD 5373). 13.2.1 of the Plan. Despite UNSW being recognised as a charity registered with the Australian Taxation Office (ATO), the proposed works do not meet the 'charitable purposes' exemption criteria identified in the Plan, as the proposal is not "of a small scale", and will result in "an MSEB CIV = \$125,911,038 increase in the demand for public works or infrastructure as a result of the development" (refer Contribution paid = \$480,000 to Section 13.2.2 of the Plan). Council considers that the position adopted by the University to % of CIV = 0.38seek an exemption to a standardised development levy, that applies to all development in the LGA (bar minor exemptions) to be similarly unreasonable and inequitable to the other SEB CIV = \$176,560,000 residents and businesses of Randwick City, and sees no reason why the Department should not require the University to pay the required contribution, being 1.0 per cent of the proposed 0.38% of CIV = \$670.928 the Capital Investment Value (CIV) project cost of \$176,560,000, i.e. \$1,765,600 The Applicant states that "nearly \$4 million in development contributions has been paid by UNSW since 2007, whereas the Randwick Hospitals have paid nothing" and "The University considers that there is no valid justification for UNSW to continue to pay contributions towards the provision of services and infrastructure within its primary area of influence". The Applicant cites Item 3.5 of the Works Schedule in the Plan to argue that the University has overpaid nearly \$3 million in development contributions. Response: As has been previously and consistently stated, CouncWs s94A Plan is not nexus based, and therefore there is no requirement for monies raised through the imposition of a development contribution to be allocated to works within a given development's "primary area of influence". The argument put forward by the Applicant ignores the purpose and rationale for Council levying a development contribution, and misrepresents the purpose of identifying

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	specific works such as Item 3.5 in the Works Schedule of the Plan, which is made clear in the preamble to the Schedule itself (refer to page 14 of Council's s94A Plan). As such Council does not believe that the statement made by the Applicant is correct or valid, and should not be a matter of consideration for the Department when determining whether or not to apply a 1 per cent levy on the capital investment value of the proposed works.	
RC.2	Also, the claim made by the Applicant that "there is little evidence of any public domain improvements around either the UNSW or Hospitals campuses" is disappointing given the collaborative nature of Council's relationship with the University. Council has been in discussions with the University about the allocation of \$2 million of S94A contributions that have been collected towards public domain works within the University precinct. Council was specifically requested by the University to defer the works subject to an agreed public domain masterplan for the precinct that also addresses issues arising from the construction of the Light Rail project. As such, the intimation that Council has been remiss in its duty in delivering public domain improvements through its S94A Plan is without foundation.	Noted. Refer to response above.
	The Applicant has erroneously interpreted the statements Council listed as "merit based considerations" in its original submission to be Council's actual position, when in fact these were a summation of the issues raised by the Applicant in the EIS to argue against paying a development contribution. The effect of this error is to represent Council's submission as supporting the Applicants' argument that the proposed works should be exempt from the levy.	
	Response: As outlined in the previous submission, Council strongly objects to the meritbased arguments made by the Applicant to request an exemption from paying the s94A development contribution. Should the Department recommend that the S94A Contributions be waived then Council's submission should be considered as an objection to the proposal and the matter referred to the Planning Assessment Commission for determination.	
RC.3	Environmental Sustainable Development In response to Council's request that the application of a Green Star or similar tool and target rating be used to ensure excellence in sustainability, the Applicant identifies a number of building features that it "endeavours to deliver", including "a general design aspiration to improve on the requirements of the NCC's Section J by 15% or more", upgrades to the facade specification that reduce thermal gain and loss, and stormwater management to return stormwater from the building to the campus' underground aquifer.	As part of the SEARs, the applicant was requested to "Demonstrate that the development has been assessed against a suitably accredited rating scheme to meet industry best practice". This has been addressed in Appendix J of the submitted EIS. The Response to Submission has outlined further opportunities beyond this report. The University's position on ESD is considered appropriate.

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	Response: Council remains concerned that the Applicant has not committed to having the proposed works assessed by an external sustainability certification process, as is the practice of other universities and similar organisations, and instead opting to self-assess the sustainability performance of the future building. While Council acknowledges the Applicant "endeavours" to deliver a range of sustainability features, unless these features are actually built and properly scrutinised through an independent sustainability framework, Council is not of the view that the Applicant is satisfactorily meeting the expectations of the community.	
RC.4	Built form and urban design The Applicant's response to the issues of size, scale and spatial relationship are predicated on the basis that "neither a reduction in depth or physical articulation can be achieved due to the building's internal functional floor space, the design has not adequately responded to the constraints of the site and its context having regard to maintaining an appropriate alignment along College Rd. The Applicant has identified the importance of the College Walk in the spatial structure of the Campus, given its direct link to the future light rail stop. The proposed encroachment onto College Rd, will somewhat compromise this visual connection and the clarity of the pedestrian link. In terms of the facade composition and form of the building, it does not contain sufficient relief or modulation in its elevations and as such does little to reduce the apparent scale and mass of the building.	As College Walk / Road is not linear, visual continuity is not possible. The use of the colonnade and external walkway serves to transition between the misaligned elements of College Walk, as per the diagram on Page 15 of Appendix A of the EIS (see below). As noted previously, neither a reduction in depth or physical articulation can be achieved due to the building's internal functional floorplate requirements. However like the MSEB, the façade design seeks to reduce the perceived mass of the building by introducing distinct segments or sections in the form, via façade treatments.

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RC.5	Parking	Noted. The University maintains that no additional parking is required to support the proposal.
	The Applicant claims that "Council's concerns regarding the pressure on local streets are not supported by the UNSW travel survey results and the continuing trends to public transport". Putting aside the travel survey data from 2007, there has only been a 7% reduction in overall private vehicle usage since 2008 and since 2011 it has remained fairly stable (Source: UNSW 2015 Travel Survey). Overall, there has not been a significant decrease in private vehicle usage and given the increase in campus population (approx. 15,000 Source: UNSW 2015 Travel Survey) over the survey period, there is still quite a significant demand for parking in the local street network.	
	In relation to the management of parking in the surrounding street network, Council has recently imposed timed parking on a number of streets around the University to better manage the competing demands for car parking in the locality. The University was consulted about these changes and has a representative that attends the local traffic committee meetings. It is also incumbent on the University to manage its supply of car parking on campus to achieve an appropriate balance between the additional demand generated by particular development proposals and the longer term goal of achieving a greater shift to public transport use. In this context, Council reiterates its concern that there has been an overall reduction of 43 car parking spaces in the vicinity of the site. A failure to provide staff and visitor parking for the new building transfers additional parking demand onto the street network and based on the 33 additional permanent staff that this development will generate, there will be a demand for 12 additional spaces, with an overall shortfall of 27 spaces following the completion of the project.	
RC.6	Conditions	Noted.
	The following comments are provided in relation to the Applicant's response to conditions.	
RC.7	Condition 2	Noted.
	Council is prepared to meet with the Applicant and the EPA to discuss the terms of the condition prior to the determination of the application.	
RC.8	Conditions 10 - 13	Noted.
	As Council is the Appropriate Regulatory Authority (ARA) for the site the conditions should	

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	remain unchanged.	
RC.9	Condition 14	Noted.
	No objection to required acoustic report being submitted to the Department of Planning & Environment.	
RC.10	Condition 16	Noted.
	Agree to be deleted.	
RC.11	Condition 17 Council generally requires a damage deposit because truck movements to and from the site can cause damage to civil infrastructure under the care and control of Council. Whilst the subject development site is located within the campus the Applicant may require a Works Zone within High Street. This security deposit should remain to deal with any damage to infrastructure in High Street.	The applicant would accept the bond, covering High Street and any associated Works Zone (on High Street)
RC.12	Condition 18 - Council is not aware of the electricity network within the University Campus. The University should provide confirmation from Ausgrid that this condition is not required.	Noted.
RC.13	Condition 19 - No objection to using Sydney Water's recommended conditions.	Noted.
RC.14	Condition 20 -	Noted.
	No objection to deletion of Conditions 20 d) or 20 e).	
RC.15	Condition 21-	Noted.
	No objection to the proposed changes.	

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RC.16	Condition 24	Noted.
	This condition was specifically referring to establishing the 1 %AEP level for the subject site and immediate surrounds. The condition must be retained.	
RC.17	Condition 25 -	The applicant has sought to consult with Council, however it is considered appropriate to have one agency,
	Council needs to be involved in the approvals process for the CTMP. High Street is a Council controlled road and the applicant is possibly seeking installation of a Works Zone in High Street.	being the CBD Coordination Office, approve the CTMP. Without a centralised approval body, there is a risk of conflicting views between RMS, TfNSW and Council. The applicant understands that this is the specific role of the CBD Coordination Office.
RC.18	Conditions 26 and 27 -	Noted.
	Council does not have any information on what is meant by "Campus private networks and infrastructure". If public utilities have no services within the campus then no objections are raised to deletion of the conditions.	
RC.19	Condition 28 -	Noted.
	Based on the very limited landscape works proposed Condition 28 could be modified to provide sufficient detail to be submitted to the relevant certifying body for the landscape works to be carried out generally in accordance with the Landscape Plan and Report provided in Appendix R of the EIS.	
RC.20	Condition 30	Noted.
	The Applicant's proposed amendments are not supported. There is no specific requirement for monitoring of the dewatering and no requirement for ongoing assessment of the dewatering operations and any assumptions made in preparing the dewatering plan.	
RC.21	Condition 34	Noted.
	Delete this condition as it replicates Condition 30.	
RC.22	Condition 36	Refer to response above regarding Condition 17.

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	There may be damage to Council infrastructure if a Works Zone is installed within High Street. If no Works Zone is to be installed then the condition could be deleted.	
RC.23	Condition 37	Clarification required from Council.
	See comments for Condition 37.	
RC.24	Condition 38	Noted.
	No objection to using Sydney Water's recommended conditions.	
Transport for I	NSW	
TfNSW.1	Sydney Light Rail Project	Noted.
	The light rail alignment will run along Anzac Parade and High Street in proximity to the UNSW.	
	The closest part of the alignment to the Proposed Development will be along Anzac Parade where a light rail stop will be constructed to facilitate travel to and from the University Campus.	
	TfNSW requests that the applicant be conditioned to:	
	 Assess the impacts of the operation of the Sydney Light Rail on the future locations of sensitive equipment, particularly in regards to Electromagnetic Interference and vibration and 	
	 Develop urban design and landscaping plans to the satisfaction of TfNSW to integrate with the new light rail infrastructure and the local pedestrian and cyclist network. 	
TfNSW.2	Construction Traffic Management Plan	Noted.
	The Response to Submissions states that the applicant would accept the suggested condition by TfNSW, and it is agreed that the CBD Coordination Office and Sydney Light Rail Team within TfNSW is more appropriately placed to review and approve the CPTMP than Council or the Roads and Maritime Services.	
	TfNSW requests that the applicant be conditioned to prepare a detailed Construction Pedestrian and Traffic Management Plan (CPTMP) in consultation with the CBD Coordination	

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	Office and Sydney Light Rail Team within TfNSW.	
TfNSW.3	Work Zone on High Street	Noted.
	The Response to Submissions states that:	
	 The applicant understands that there will be alterations to the bus and traffic arrangements within the vicinity of the site during the construction of the Sydney Light Rail Project; and 	
	 The applicant is willing to develop a CTMP in consultation with Transport for NSW's CBD Coordination Office and the Sydney Light Rail team to reach a resolution about the Work Zone arrangement. 	
	TfNSW requests that the applicant be conditioned to consult and agree with CBD Coordination Office within TfNSW in relation to the proposed Work Zone arrangement.	