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

UNIVERSITY OF SYDNEY RESPONSE TO SUBMISSIONS

21 SEPTEMBER 2018

The University of Sydney has reviewed all submissions received during the statutory public exhibition period of State Significant Application *SSD 8636 – Engineering & Technology Precinct Development*, located in the heart of the Engineering Precinct of the University's Darlington campus.

In response to the issues and concerns raised by the DP&E, other government agencies, third party commercial stakeholders and residents, a number of changes have been made to the proposed development in response to these concerns and these changes are listed in the Table 1 below and shown on the revised Architectural Plans prepared by COX Architecture (Appendix A)

DRAWING NUMBER	DRAWING NAME	REVISION	DETAILED DESIGN CHANGES	RELEVANT TO RESPONSE TO SUBMISSION
A-DA-0101	COVER SHEET / DRAWING INDEX	D	• Drawing list updated • 3D view updated	
A-DA-1111	SITE ANALYSIS PLAN	D	• Landscaping updated • Scope of work boundary updated • V.I.E. enclosure relocated	• 3.16 VIE • 3.16 VIE
A-DA-1121	SITE PLAN - EXISTING	D	• Scope of work boundary updated • V.I.E. enclosure relocated	• 3.16 VIE • 3.16 VIE
A-DA-1122	SITE PLAN - PROPOSED	D	• Landscaping updated • Scope of work boundary updated • V.I.E. enclosure relocated	• 3.16 VIE • 3.16 VIE
A-DA-2101B	FLOOR PLAN - LEVEL 01 (SHEET 02 OF 02)	D	• Relocation of V.I.E. enclosure	• 3.16 VIE
A-DA-2102	FLOOR PLAN - LEVEL 02	D	• End of trip facilities (2 showers) added • Updated bike rack count • Deletion of engineering walk awning • Addition of risers along grid 06	• 3.14 - End of trip facilities • 1.06 - End of trip facilities
A-DA-2103	FLOOR PLAN - LEVEL 03	D	• Updated stair at western end • Deletion of the portals and engineering walk awning • Landscaping updated • Risers added along grid 06	
A-DA-2104	FLOOR PLAN - LEVEL 04	D	• "Interconnecting accommodation stair" annotation added •"& School hub" added to the name of room name 448 • Department filled region extent amended to suit floor plate • Landscaping updated	
A-DA-2105	FLOOR PLAN - LEVEL 05	D	• Department filled region extent amended to suit floor plate • Riser along grid 06 added • Landscaping updated	
A-DA-2110	FLOOR PLAN - LEVEL 10	D	• Stair along grid NG relocated	
A-DA-2111	FLOOR PLAN - LEVEL 11,12,13	D	• Roof geometry amended • Solar panel array added • Hot water panel array added	• 3.10 ESD
A-DA-3001	NORTH ELEVATION	D	• Landscaping updated • Engineering walk awning deleted • In the legend, "polycarbonate panel" replace by "glass plank"	
A-DA-3001A	3D VIEW - NORTH	B	• 3D view replaced	
A-DA-3002	SOUTH ELEVATION	D	• Feature screen amended and added • Glass plank deleted and replaced by full height curtain wall	
A-DA-3002A	3D VIEW - SOUTH WEST	B	• 3D view replaced	
A-DA-3003	EAST ELEVATION	D	• Engineering walk awning deleted • Part of glass plank replaced by curtain wall running full height	
A-DA-3004	WEST ELEVATION	D	• Part of glass plank replaced by curtain wall running full height • Feature screen amended • Sliding door slightly relocated	

DRAWING NUMBER	DRAWING NAME	REVISION	DETAILED DESIGN CHANGES	RELEVANT TO RESPONSE TO SUBMISSION
A-DA-3004A	3D VIEW - NORTH WEST	B	• 3D view replaced	
A-DA-3005	SHEPHERD STREET ELEVATION	C	• Scope of work boundary updated • V.I.E. enclosure relocated	• 3.16 VIE
A-DA-4001	SECTIONS - EAST TO WEST	D	• Part of floor between grid NH and NG added at level 4	
A-DA-4002	SECTIONS - NORTH TO SOUTH	D	• Portals deleted and replaced by columns at level 2	
A-DA-8003	EQUINOX	E	• This sheet now showing equinox only - Refer to other 8000 sheets for the remaining	• 11.03 - Overshadowing
A-DA-8004	SUMMER SOLSTICE	B	• Sheet added - Summer solstice	• 11.03 - Overshadowing
A-DA-8005	WINTER SOLSTICE	B	• Sheet added - Winter solstice	• 11.03 - Overshadowing
A-DA-8006	WINTER SOLSTICE COMPARISON	B	• Sheet added - Winter solstice comparison	• 11.03 - Overshadowing
A-DA-9001	MATERIALS LEGEND - EXTERIOR	C	• "Polycarbonate panel" replaced by "glass plank" • "Perforated feature screen" replaced by "feature screen"	

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 Submissions* (RtS) has been structured into the following categories to differentiate between sources of submissions, relevant disciplines, relevant issues, and changes to design.

APPENDICES – SUPPORTING DOCUMENTS	
• Appendix A	Summary of Design Changes with revised Architectural Plans
• Appendix B	DERC Summary report – meeting of 31 August 2018
• Appendix C	Amended Plans – connection between old and new buildings across the Atrium
• Appendix D	USYD Request for exemption from Development Contributions
• Appendix E	SEARs NOISE and Vibration Assessment Rev C 23082018_0001
• Appendix F	14119-014 Dangerous Goods Quantities Acceptance & 14119-015 Preliminary Dangerous Goods Report
• Appendix G	K33-TCL-LAS-DRG_230818
• Appendix H	180914 – Civil Design Report for SSDA RtS_r
• Appendix I	GTA Swept Path Analysis
• Appendix J	Hazardous Material and Asbestos Management Plan Rev B
• Appendix K	Archival Heritage Photos

1. University of Sydney Response to Department of Planning & Environment

SSD 8636 – Engineering & Technology Precinct Development	
DPE Key Issue	**University Project Response**
Noise Impacts **1.** Provide further background noise monitoring undertaken in accordance with the guidance material provided in the NSW Industrial Noise Policy.	To obtain more data in surrounding residential areas, additional unattended noise monitoring was conducted during the period 10 to 17 August 2018. This noise logging was conducted at the following three locations, with positions shown on Figure 1; • Location U3: at western façade of residence at 130 Shepherd Street with direct line-of-sight to University. • Location U4: backyard of 32 Calder Road residence. • Location U5: front yard of 41 Calder Road residence. The existing environment in the area immediately around the site is typical of an urban University campus, with a level of steady background noise from distant traffic and mechanical plant, with short-term noise from pedestrians and occasional vehicles on and around the campus. At the nearest residential uses, noise from traffic on Shepherd Street, Cleveland Street and the City Road contributes to the ambient environment. **3.1 Unattended noise monitoring** Unattended noise monitoring conducted in accordance with the NSW Industrial Noise Policy (INP) has been used to establish existing conditions at the following locations around the site: • U1: Urbanest Darlington – nearest residential-type land uses to the west of the site. Monitoring conducted from 12 to 19 March 2018. • U2: Blackwattle Creek Lane entry – monitoring undertaken on University of Sydney land on western side of Shepherd Street. Monitoring conducted from 12 to 19 March 2018. • U3: Residence at 130 Shepherd Street – residence to the east of the site. Monitoring was conducted from 10 to 17 August 2018, but due to battery failure of the noise logger data was only available from 10 to 13 August. • U4: Residence at 32 Calder Street – residence to southeast of the site. Monitoring was conducted from 10 to 17 August 2018. • U5: Residence at 41 Calder Street – residence to southeast of the site. Monitoring was conducted from 10 to 17 August 2018. The unattended measured noise levels are presented in Table 4 below. Details on the monitoring conducted by Resonate at each site are included.

SSD 8636 – ENGINEERING & TECHNOLOGY PRECINCT DEVELOPMENT	
DPE KEY ISSUE	**UNIVERSITY PROJECT RESPONSE**

Table 4 Unattended monitoring results

Location[1]	Rating Background Level, dB(A) L90[2]			Ambient noise level, dB(A) Leq		
	Day 7 am–6 pm	Evening 6 pm–10 pm	Night 10 pm–7 am	Day 7 am–6 pm	Evening 6 pm–10 pm	Night 10 pm–7 am
U1: Urbanest Darlington	54	50	46	60	58	55
U2: Blackwattle Creek Lane	51	48	43	59	57	52
U3: 130 Shepherd Street	48	45	40	59	59	53
U4: 32 Calder Street	43	42	37	56	50	45
U5: 41 Calder Street	43	42	38	51	49	45

(1) Refer to Figure 1 in recommendation 18 (EPA response) for the location of the monitoring.

(2) The Rating Background Level is a measure of the typical minimum steady background noise level for each time of day.

The measured noise levels show quieter noise levels at night time, particularly in the Calder Road area to the southeast of the site where background noise levels are below 40 dB(A) at night. Noise levels were higher around the Urbanest Darlington site, with background noise levels of 46 dB(A) at night due to the relatively proximity of this site to the Princes Highway / City Road.

The background noise levels were 3 dB lower at 130 Shepherd Street for all time periods, but this was attributed to the fact that the monitoring at 130 Shepherd Street occurred across the weekend rather than during the week. However, as a conservative approach, the ambient and background noise levels measured at 130 Shepherd Street have been adopted for residences in this area.

No unattended noise monitoring was able to be conducted to the north of the site (northern side of Cleveland Street) as no permission was obtained from landowners in

SSD 8636 – ENGINEERING & TECHNOLOGY PRECINCT DEVELOPMENT	
DPE KEY ISSUE	**UNIVERSITY PROJECT RESPONSE**

this area. Supplementary attended monitoring was carried out in this area, as detailed in Section 3.2, and it has been assumed that the background noise levels in this area are equivalent to those measured at 130 Shepherd Street. This is considered a conservative approach as the northern residential areas is much closer to Cleveland Street and City Road.

Construction phase

A preliminary construction noise and vibration assessment has been conducted against noise and vibration criteria determined from:

- existing noise monitoring data for the site
- the *Interim Construction Noise Guideline* (ICNG)
- *Assessing Vibration – a technical guideline* (the Vibration Guideline).

Based on the preliminary assessment, it is likely that construction works may have some noise impact on University student accommodation land uses at Urbanest Darlington and International House, and residential land uses to the east of the site on Shepherd Street during major external works. The University will also manage the noise and vibration impacts of works on adjoining University teaching and office uses.

The construction noise and vibration impacts are considered to be manageable through:

- the development and implementation of a Construction Noise and Vibration Management Plan
- carrying out noisier works during daytime Standard Working Hours wherever possible
- appropriate stakeholder consultation and complaint handling procedures for noise and vibration
- the implementation of all feasible and reasonable work practices to minimise noise and vibration from the site in accordance with the ICNG and Vibration Guideline.

Operational phase

Operational noise emission criteria for the development have been established in accordance with the NSW *Industrial Noise Policy* (INP). The noise emission criteria for the nearest noise-sensitive land uses are shown in Table 1.

Table 1 INP noise emission criteria for residential land uses and Colleges

Location	INP noise emission criteria, dB(A) Leq,15min		
	Day 7 am–6 pm	Evening 6 pm–10 pm	Night 10 pm–7 am
Residential land uses on Shepherd Street (north of Ivy Street) and Cleveland Street	53	40	40

SSD 8636 – ENGINEERING & TECHNOLOGY PRECINCT DEVELOPMENT	
DPE KEY ISSUE	**UNIVERSITY PROJECT RESPONSE**

Residential land uses on Shepherd Street (south of Ivy Street) including Calder Road	48	37	35
Urbanest Darlington and International House student accommodation	52	42	42

Noise emissions from the development will predominantly be a result of rooftop mechanical plant including a rooftop plant room, water-cooled chiller and cooling towers, and emergency generator. A preliminary rooftop plant layout and selection has been assessed and the following recommendations provided such that noise emissions can achieve the INP criteria for both normal and emergency operations:

- The Chillers should be located in an enclosed plant room on Level 10. The plant room should be constructed with a solid roof achieving no less than an RW 35 rating and solid walls achieving no less than RW 40.
- The CAT C13 generator should be installed in an acoustic enclosure that achieves a rating of 80 dB(A) at 1 m.
- Outlet attenuators are required for the Stair Pressurisation fans and Toilet Exhaust fans, acoustically equivalent to Fantech RS07C. Alternatively, the outlet ductwork from the fans is required be at least 3 m in length, 50 mm thick internally lined, incorporate at least one 90-degree bend, with the outlets facing north or south.

Noise mitigation measures will be continually monitored to ensure that noise from rooftop plant (in particular) complies with the INP noise emission criteria at neighbouring noise-sensitive land uses.

Refer to Appendix E – "SEARs NOISE and Vibration Assessment Rev C 23082018_0001"

2. Provide further details regarding methodology used for predicting noise levels during demolition, site preparation, bulk earthworks, construction and construction-related activities.

Agreed and updated: Section 5.1.2 of the SSDA Acoustic Report identifies that a computer noise model was developed in SoundPlan software and the ISO 9613-2 algorithm was used to predict construction noise levels for each phase based on the typical overall sound power levels summarised in Table 13 of the Acoustic Report (copy attached below).

SSD 8636 – Engineering & Technology Precinct Development

DPE Key Issue	University Project Response

Table 13 Construction noise source sound power levels

Stage	Typical plant items	Assumed sound power level, dB(A)
Site establishment and enabling works	Large excavator	111
	Vibratory roller	107
	Concrete truck	109
	Concrete pump	107
	Large truck	108
	Chainsaw	114
	Typical overall sound power level	**112**
Demolition	Large excavator	111
	Rockbreaker	121
	Crane	106
	Pneumatic jackhammer	109
	Large truck	108
	Typical overall sound power level	**118**
Retaining piles and excavation	Bored piling rig	111
	Large excavator	111
	Crane	106
	Large truck	108
	Typical overall sound power level	**112**
Substructure	Crane	106
	Large excavator	111
	Pneumatic jackhammer	109
	Concrete truck	109
	Concrete pump	107
	Large truck	108

SSD 8636 – ENGINEERING & TECHNOLOGY PRECINCT DEVELOPMENT

DPE KEY ISSUE	UNIVERSITY PROJECT RESPONSE

Stage	Typical plant items	Assumed sound power level, dB(A)
	Typical overall sound power level	**114**
Frame	Concrete truck	109
	Concrete pump	107
	Crane	106
	General hand tools	98
	Large truck	108
	Typical overall sound power level	**111**
Facade works	Crane	106
	General hand tools	98
	Large truck	108
	Typical overall sound power level	**107**
Internal works and fitout	General hand tools	98
	Compressor	94
	Portable generator	95
	Typical overall sound power level	**84[1]**

(1) Includes a 15 dB(A) indoor-to-outdoor reduction in noise levels for internal works.

3. Provide a revised acoustic assessment that includes a quantitative assessment of the construction and operational noise and vibration impacts against revised project specific noise levels identified in accordance with the NSW Industrial Noise Policy and further background noise monitoring. Outline measures to minimise and mitigate the potential noise impacts on surrounding occupiers of land.	**Agreed:** The revised Acoustic report has been prepared in accordance with the NSW Industrial Noise Policy. ***Refer to Appendix E – "SEARs NOISE and Vibration Assessment Rev C 23082018_0001"***
Hazards & Risks **4.** Provide detailed information on the dangerous goods proposed to be stored or handled on the site, including clear indication of their class, quantity and location.	**Agreed:** The classes of dangerous goods proposed for storage and handling at the new ETP Stage and forming part of this assessment comprise:- • Class 2 Gases - 2.1 Flammable - 2.2 Non-Flammable, Non-Toxic - 2.3 Toxic • Class 3 Flammable Liquids (including PG I, PG II, PG III) • Class 4 Flammable Solids - 4.1 Flammable Solids (including PG I, PG II, PG III) - 4.2 Liable to spontaneous combustion (PG II) - 4.3 Emits flammable gasses when in contact with water (PG I)

<table>
<tr><th colspan="2">SSD 8636 – ENGINEERING & TECHNOLOGY PRECINCT DEVELOPMENT</th></tr>
<tr><th>DPE KEY ISSUE</th><th>UNIVERSITY PROJECT RESPONSE</th></tr>
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Class 5 Oxidising and Organic Substances

5.1 Oxidising Substances (including PG I, PG II, PG III)
5.2 Organic Peroxides (PG II)

Class 6.1 Toxic Substances (including PG I, PG II, PG III)
Class 7 Radioactive Material
Class 8 Corrosive substances (including PG I, PG II, PG III)
Class 9 Miscellaneous Dangerous Substances (including PG I, PG II, PG III)

For complete table of dangerous goods stored, refer to Appendix F – “14119-014 Dangerous Goods Quantities Acceptance”
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<tr><td>Other
5. Provide a breakdown of staff and students to be accommodated in the building.</td><td>
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.
<table>
<tr><th></th><th>Staff</th><th>Student</th><th>Total</th></tr>
<tr><td>Refurbished J03 Population</td><td>138</td><td>966</td><td>1104</td></tr>
<tr><td>Existing J03 Population</td><td>124</td><td>872</td><td>996</td></tr>
<tr><td>Net Population Uplift</td><td>14</td><td>94</td><td>108</td></tr>
</table>
The population uplift is also attributed by the relocation of existing staff and students from other adjoining Engineering buildings as illustrated in the Map of relocation overleaf.
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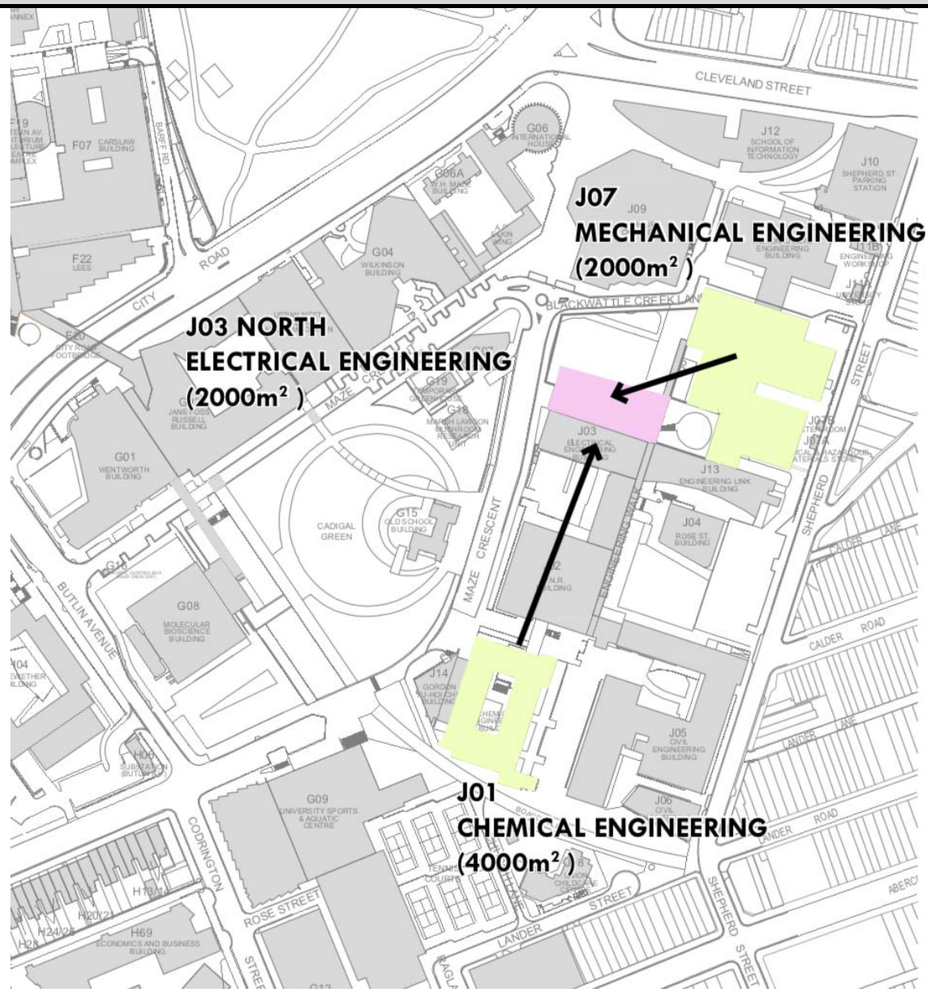
SSD 8636 – ENGINEERING & TECHNOLOGY PRECINCT DEVELOPMENT	
DPE KEY ISSUE	**UNIVERSITY PROJECT RESPONSE**
	 ***Please refer to Appendix D1 – Exemption from Development Contributions_14 Sept 2018 A to justify the University of Sydney's position on population uplift to the proposed Engineering and Technology Precinct Project.***
6. In accordance with condition B18 of the approved Campus Improvement Program (CIP), all bicycle parking and associated end-of-trip facilities are to be provided in accordance with the City of Sydney's policies and controls.	End of trip facilities have been calculated and provided in accordance with the **Sydney DCP 2012**

2. University of Sydney Response to Government Architect NSW

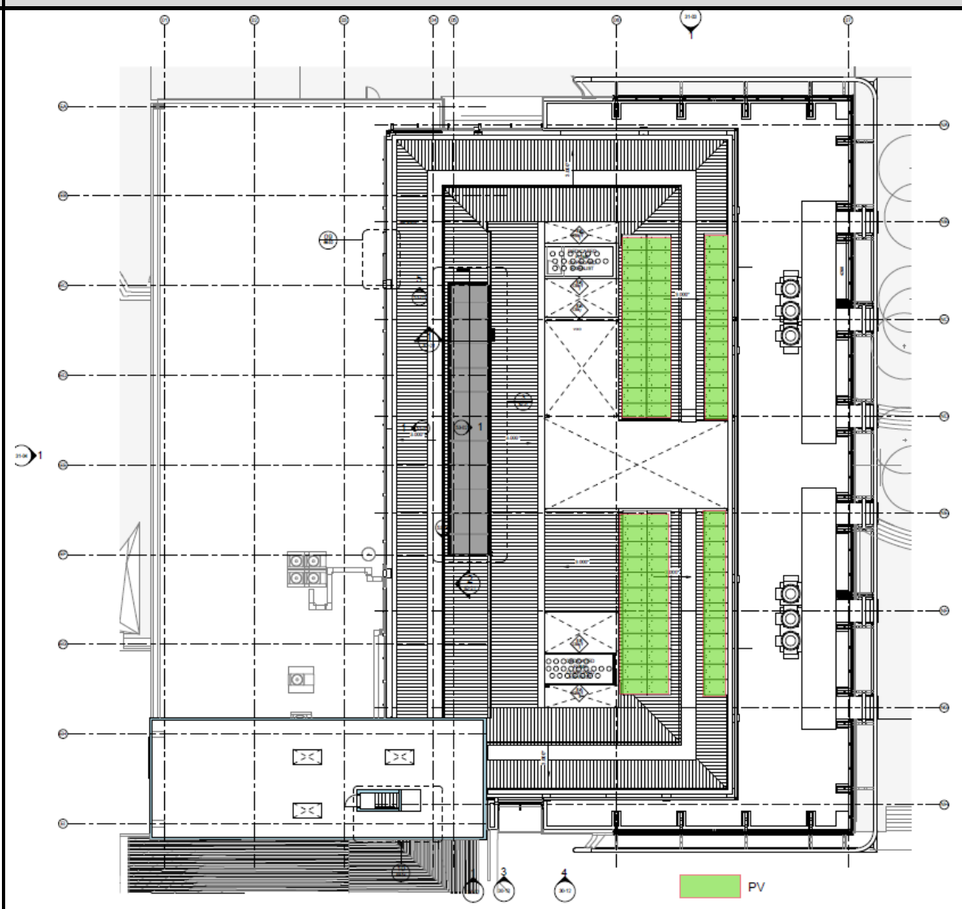
SSD 8636 – Engineering & Technology Precinct Development	
GANSW Key Issue	**University Project Response**
GANSW **support** for the proposal subject to the following: **Design Excellence Review Panel** **1.** Continuing role of DERC in (the project) addressing its' Summary Report comments of September and November 2017.	**Agreed.** The University confirms the continuing role of DERC, and provides a summary of its latest meeting of 31 August 2018 and its Summary report at Appendix B.
2. Any significant design changes be referred to DERC for endorsement	Design changes have been identified and summarised below: • ***Refer to Appendix A – Summary of Design Changes with revised Architectural Plans*** Subsequent endorsement from DERC has been received, ***refer to appendix B – DERC Summary report – meeting of 31 August 2018, page 1 to 4***
3. The RtS provide evidence of DERC signed statement endorsing the design and incorporation of DERC recommendations	Subsequent endorsement from DERC has been received (Post 31/08/2018 DERC presentation), ***refer to appendix B – DERC Summary report – meeting of 31 August 2018, page 1 to 4***
Additional Information: **4.** Plans confirmation of accessibility strategy linking old and new building floors across the atrium.	Accessibility strategy linking old and new building floors across the atrium can be found in: • ***Appendix C – Amended Plans – connection between old and new buildings across the Atrium***
5. Confirmation the design will allow for future use of the existing building roof as open space.	It is confirmed that the current design reflects access to Level 09 existing J03 roof for future use as open space: • ***Refer to Appendix B – DERC Summary report – meeting of 31 August 2018*** • ***Page 78: DERC Presentation slides***
6. Confirmation that the Competition winning architects will be retained for duration of the project through to construction.	**Agreed** and support this requirement as a consent condition.
7. A physical materials sample board be provided, illustrating where materials are shown in the proportion they are intended to be used.	The physical materials sample board shown below was presented to DERC on the 31st of August 2018 with no objections. Further DERC presentation material can be referred to in ***Appendix B – DERC Summary report – meeting of 31 August 2018, Façade presentation slide, page 45 to 52 & Atrium finishes section, page 59 to 61.*** Given the on-going role of DERC during the design, further development on materials finishes samples boards will be presented to DERC as part of the Design Excellence Review process.

SSD 8636 – ENGINEERING & TECHNOLOGY PRECINCT DEVELOPMENT	
GANSW KEY ISSUE	**UNIVERSITY PROJECT RESPONSE**
	
8. Detail on sections and elevations which clearly show materials and detailing. Typical details of cladding and windows to be provided at 1:20.	Detail on façade sections and elevations can be found in: • ***Appendix B – DERC Summary report – meeting of 31 August 2018*** • ***Page 41 to 53: DERC Presentation slides***
9. Further detail on Wingara Mura strategy and the relationship of the strategy to the broader public arts strategy for the precinct.	Further detail on Wingara Mura strategy can be found in: • ***Appendix B – DERC Summary report – meeting of 31 August 2018*** • ***Page 10 to 19: DERC Presentation slides***
10. Details on any proposed signage for the building.	The university confirms there is no major signage intent for the building façade. Standard University of Sydney signage will be located external to the building at ground level similar to that contained in the appendix below: • ***Refer to Appendix B – DERC Summary report – meeting of 31 August 2018*** ▪ ***Page 53: DERC Presentation slides***

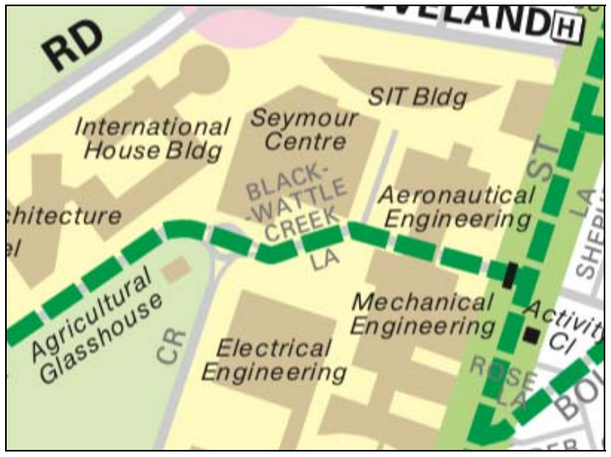
3. University of Sydney Response to City of Sydney (CoS)

SSD 8636 – Engineering & Technology Precinct Development	
CoS Issue	**University of Sydney Project Response**
1. Section 94 Contributions: The CoS does not agree that the Redfern-Waterloo Contribution Plans apply to this site/development. The CoS does not agree to the university's request for exemption from Development Contributions as the proposal seeks t double the site GFA and therefore will result in additional staff/students as well as an increase in demand upon local services and infrastructure. CoS therefore seeks an appropriate Section 94 Contribution. If a condition applying a Section 94 Contribution is not imposed, then the CoS objects to this proposal.	**DPE advice received:** DPE had advised the University that the Redfern-Waterloo Contributions are the relevant plans for the Darlington Campus, and that the EIS for the Engineering Technology Precinct has therefore referenced and addressed the correct contributions plans. Notwithstanding, the University argues that Development Contributions should not be applied to this proposal, and submits its case for exemption from Development Contributions and which is detailed in ***Appendix D1.***
2. Trees and Landscaping • The Arboricultural Impact Assessment (AIA) and corresponding landscape plan should clearly identify and assess all of the trees that are proposed for removal and retention. Where suitable, consideration should be given to transplanting significant trees on site.	***Refer to Appendix G – "K33-TCL-LAS-DRG_230818"*** for the Landscape Plan identifying trees proposed for removal. No trees are proposed to be transplanted.
• CoS requests that the Department request from the University to prepare a more detailed landscape package of information including: ➢ With reference to existing trees to be retained and trees located in raised planters, it is not clear what the height of planter walls is and whether there is adequate soil depth and volume to support the mature trees. The design must achieve a minimum 1000mm soil depth (excluding draining and mulch layers) for all trees on slab or podium;	***Refer to Appendix G – "K33-TCL-LAS-DRG_230818"*** for details on planter walls and soil depths.
➢ The focus of the design appears to be patterning the ground plane rather than resolving the detail and how changes in levels, stairs, ramps, and structures are dealt with in the public domain. These spaces need to be appropriately illuminated.	***Refer to Appendix G – "K33-TCL-LAS-DRG_230818"*** for details
➢ It is not clear if permeable pavement is proposed, which would help mitigate	Permeable pavements are not proposed in the current design. However areas of hard paving have been reduced and replaced with areas of lawn to assist with site drainage.

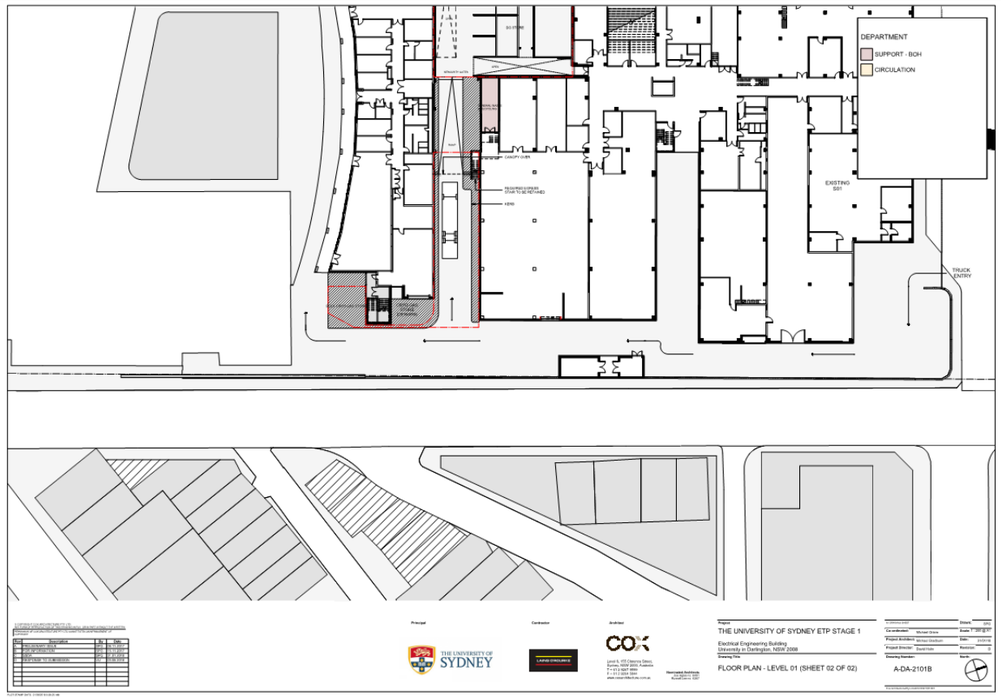
SSD 8636 – ENGINEERING & TECHNOLOGY PRECINCT DEVELOPMENT	
COS ISSUE	**UNIVERSITY OF SYDNEY PROJECT RESPONSE**
overland flow issues and increase areas of deep soil provision on the site;	***Refer to Appendix G – "K33-TCL-LAS-DRG_230818"***
➢ There is no clear indication of what furniture and fixtures including lighting, water features, seating, benches, tables, bins, bike racks etc. are to be provided within the landscaped public domain areas, and any impact they may have on accessibility;	***Refer to Appendix G – "K33-TCL-LAS-DRG_230818"*** for details on furniture and fixtures.
➢ Methods of irrigation and drainage are not clear from the package; and	Irrigation design will be completed under a design and construct engagement by a suitably qualified contractor during the construction phase. TCL will provide a 'performance specification' for tendering of a fully automated irrigation system noting requirement for the design to be fully integrated into the USYD's campus-wide irrigation network and preferred product supplier. Contractors shop drawings will be provided to the USYD for endorsement prior to installation commencing on site
➢ The drawn information shows the building per level. There is no overall site plan that shows thresholds and entrances relative to the public domain. Updated sections should	***Refer to Appendix G – "K33-TCL-LAS-DRG_230818"*** which illustrates site and building levels.
3. Flooding • The City request more detailed information about the new flood 3 storage basin including but not limited to a cross-section, capacity, provide the design and existing RL's, weir/overflow, outlet and permissible discharge rate, location and details, ponding depth of floodwater inside the basin, and any fencing requirement around the basin. • The proponent is requested to demonstrate compliance with the City's Interim Floodplain Management Policy (2014).	The construction of basin D as part of Stage 1 Engineering Precinct complies with "City of Sydney Interim Floodplain Management Policy", protection of commercial property on merit-based approach to a minimum of 1% AEP level. Flood protection to the entrances is achieved providing wall/landscaping to RL20.00 on the east edge of basin D and RL20.70 on the north east edge of the basin (refer to drawing 00031-33). To protect entrances further south, grated drain and pit to collect the 1% AEP event (approx., 150L/s) is proposed. Refer to drawing 00033 ***Refer to Appendix H – "180914 – Civil Design Report for SSDA RtS_r", page 7 to 10 – Section 3. Proposed Development***
4. ESD • The proposal indicates a clear intent to install renewable energy systems on the roof such as photovoltaic arrays and solar water heating panels, which is supported by the City. • The Department are advised to request that the plans show clearly where these systems will be accommodated.	PV panels will be installed on the roof as per the roof plan below.

SSD 8636 – ENGINEERING & TECHNOLOGY PRECINCT DEVELOPMENT	
COS ISSUE	**UNIVERSITY OF SYDNEY PROJECT RESPONSE**
	
5. Environmental reports Certification • DPE is encouraged to impose conditions requiring confirmation that the recommendations of the Noise and Vibration Assessment, Ref. S16785RP1, Revision A, prepared by Resonate Acoustics, dated 28 November 2017, and the Preliminary Hazard Analysis, ref. CN171057, prepared by CETEC Pty Ltd, dated 30 November 2017, are adopted by the development.	**Noted and Agreed**
6. Transport • CoS concern that the loading dock leads to poor pedestrian amenity and safety. At a minimum, vehicles should enter and exit the dock in a forward direction, especially if there are 12.5m HRVs using the dock.	Key pedestrian linkages between Shepherd Street / Cadigal Green are via the existing footpath network that runs in an east – west direction between Gate 3 and Gate 2 along Shepherd Street to Cadigal Green and the rest of the campus. Main pedestrian entry to the building is orientated towards Maze Crescent where there are existing footpaths along both sides of Maze Crescent.

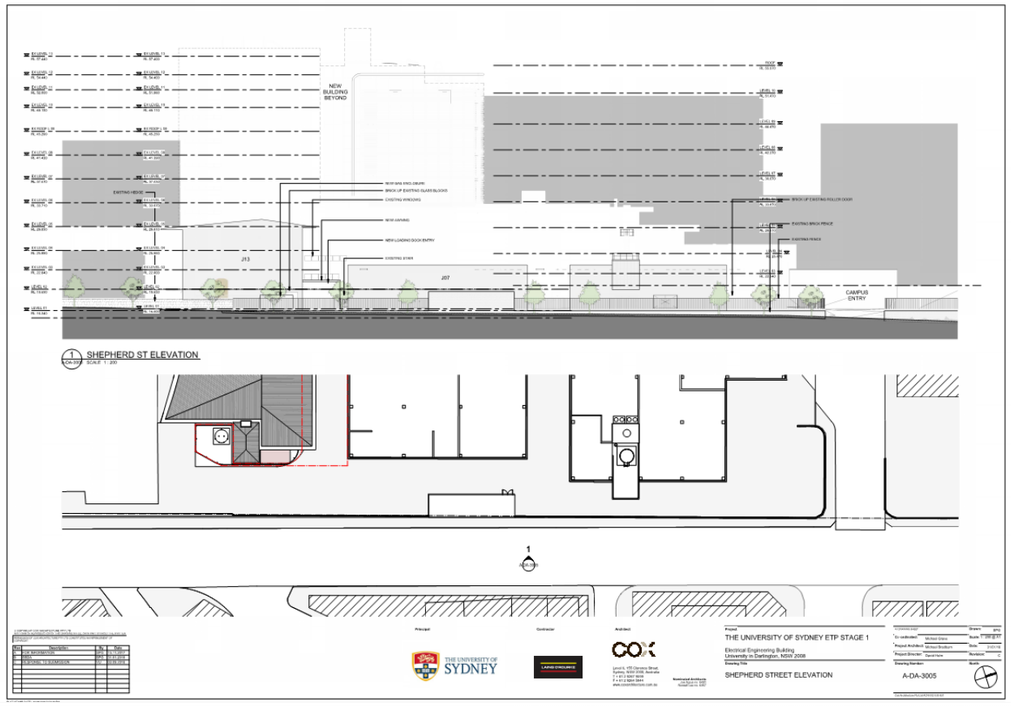
SSD 8636 – ENGINEERING & TECHNOLOGY PRECINCT DEVELOPMENT	
COS ISSUE	**UNIVERSITY OF SYDNEY PROJECT RESPONSE**
	The access to / from the loading dock is going to be via the existing rear service access route that runs within the Engineering & Technology Precinct and parallel (north-south) with Shepherd Street. The service access route is fenced to the east. Vehicles accessing the dock area will be required to go past a number of control points and will be managed by qualified loading dock personnel as shown in the Draft Traffic Management Plan attached ***(Refer to Appendix I – GTA Swept Path Analysis,TCP MRV/HRV).*** It is noted that forwards in access to the dock area cannot be achieved due to existing buildings abutting the dock entry and it is proposed that trucks reverse into the dock and exit in a forwards motion. It is considered that implementation of traffic management treatments proposed in ***appendix I*** and via the implementation of Traffic Management Arrangements will adequately mitigate safety concerns and will not lead to poor pedestrian amenity. In response to local resident and CoS submissions, the University is proposing a pedestrian connection between Shepherd Street and Cadigal Green (Darlington campus) via the upgraded Blackwattle Creek Lane as a public benefit. This is addressed under the University's response to the City of Sydney's comments on Development Contributions (see response to CoS item 1, alternatively refer to ***Appendix D1 – Exemption from Development Contributions 14 Sept 2018 A, section 3B) Blackwattle Creek Lane and Shepherd Street traffic/pedestrian upgrades, page 3-4).***
• Coordination between existing and proposed pedestrian links have not been demonstrated by the application.	Pedestrian links coordination forms part of the University of Sydney Campus Improvement Program (2014 – 2020) Access Strategy, coordinated and delivered by the University of Sydney. The Strategy reinforces the pedestrian priority routes within the campus being along Maze Crescent and Blackwattle Creek Lane. It is considered that implementation of traffic management treatments proposed in appendix I and via the implementation of Traffic Management Arrangements will adequately mitigate safety concerns and will not lead to poor pedestrian amenity. ***Reference to Appendix D1, section 3B) Blackwattle Creek Lane and Shepherd Street traffic/pedestrian upgrades, page 3-4 and Appendix D2*** for further clarification
• End of Trip facilities including separate staff and student bicycle parking in an accessible on grade location are not clearly identified in the proposal.	End of trip facilities have been calculated and provided in accordance with the ***Sydney DCP 2012. Refer to Appendix A, page 7, drawing number A-DA-2102***
• No information is provided on how bicycle paths will be provided within the development site.	Bicycle links coordination forms part of the University of Sydney Campus Improvement Program (2014 – 2020) Access Strategy, coordinated and delivered by the University of Sydney. Existing cycle access is along Maze Crescent, Blackwattle Creek Lane connecting through to

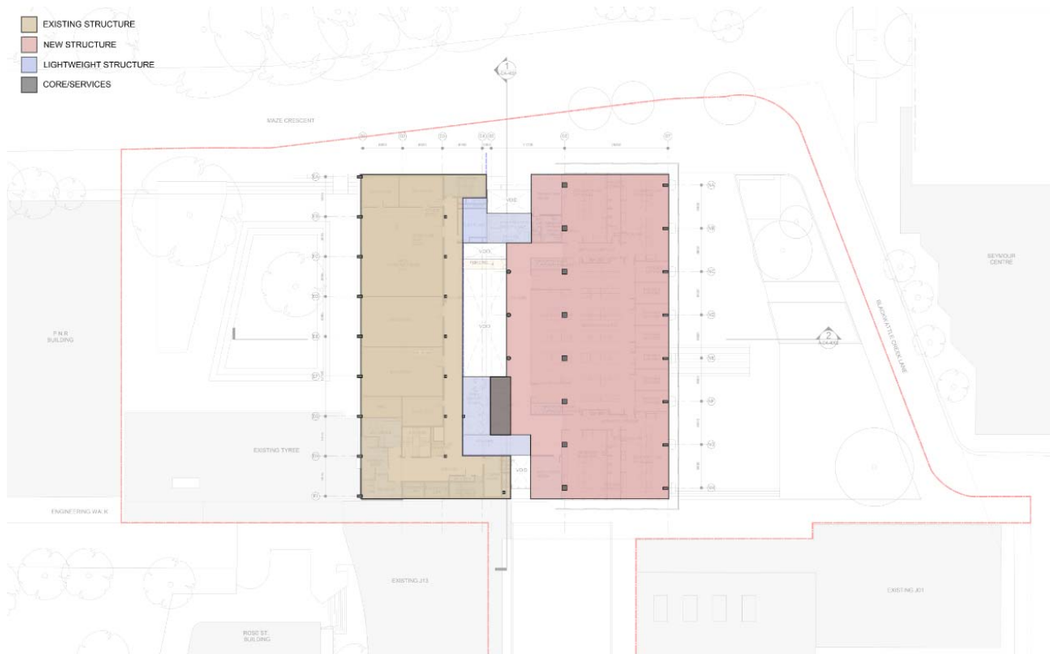
SSD 8636 – ENGINEERING & TECHNOLOGY PRECINCT DEVELOPMENT	
COS ISSUE	**UNIVERSITY OF SYDNEY PROJECT RESPONSE**
	Shepherd Street (in accordance with the City of Sydney 's bicycle access plan – see below). The University does not assign specific "cycle only" lanes within the campus and therefore no specific bicycle path is considered necessary within the development site area. 
7. Heritage & Urban Design • Two gas stores and a 'vie tank', which is two storeys in height and screened only by a security fence are proposed along the Shepard Street frontage. Concerns are raised that these structures give a poor 'back of house' presentation and will detrimentally impact the appearance of the building from the street and residences opposite. It is recommended that these structures are relocated so as not to be visible from the public domain.	Please refer to the drawing ***A-DA-2101B & A-DA-3005 (page 6 & 20)*** in ***Appendix A - Revised Architectural Plans*** for proposed VIE tank location. A more consolidated location and improved screening has been added to address the resident concern regarding appearance.

SSD 8636 – Engineering & Technology Precinct Development

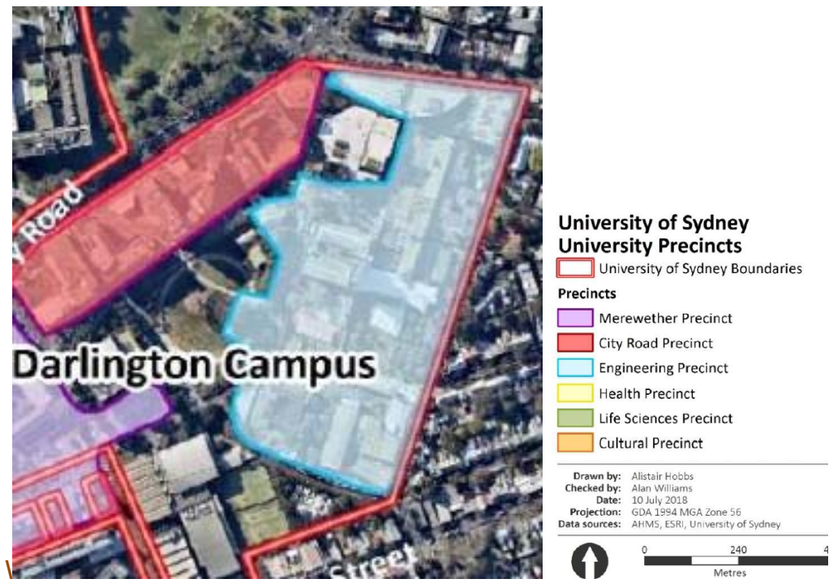
CoS Issue	University of Sydney Project Response
	

SSD 8636 – ENGINEERING & TECHNOLOGY PRECINCT DEVELOPMENT

CoS Issue	University of Sydney Project Response
	
• Department are encouraged to impose a condition requiring submission of a photographic archival record of the existing building to be carried out in accordance with NSW Heritage Division guidelines prior to the commencement of works and a copy of the record lodged with the University Archives.	**Agreed:** The University has already prepared an archival record prepared by *Archival Heritage Photos* [David Liddle]. The report is entitled "*Archival photographic heritage recording. Electrical Engineering Building J03 University of Sydney*", dated August 2018. ***Refer to Appendix K – Archival Heritage Photos***
• In addition, it is recommended that any original features that are part of the stylistic character of the late 20th century Brutalist Style building should be retained as part of the upgrade works.	The typical characteristics of brutalist architecture that are exemplified in the exiting J03 electrical engineering building include: • Repeated modular elements expressing functional zones • Unpretentious, Raw, timber shutter concrete • Brick infills The design retains and reveals the existing elements that exemplify the brutalist style. The design employs the philosophy of expressing raw material in repeated modules on the new structure, whilst still acknowledging the heritage design of the existing building.

SSD 8636 – ENGINEERING & TECHNOLOGY PRECINCT DEVELOPMENT	
COS ISSUE	**UNIVERSITY OF SYDNEY PROJECT RESPONSE**
	Specifically, the proposal: • Expose the existing shuttered concrete & face brick surfaces where ever possible • Creates a new, modular, repeated structure that references the philosophy of the original structure; and • Uses a palette of raw self finished raw materials  *Fig 2 - Modular repeated structure*

4. University of Sydney Response to NSW Office of Environment & Heritage

SSD 8636 – Engineering & Technology Precinct Development	
OEH Issue	**University of Sydney Project Response**
Biodiversity: 1. OEH supports proposal for the proposed removal of six Bangalow Palms and their relocation as part of the proposed landscape treatment.	**Noted:** The University proposal is for the six Bangalow Palms on site to be removed. Transplanting the palms to another location on campus is not an option because the machinery required for transplanting cannot access the site. The university's Landscape & Grounds Manager confirms that these palms do not have any significance in the University's tree Masterplan.
2. OEH recommends the proposed landscaped areas are planted with a diversity of local provenance species (trees, shrubs and groundcovers) from the native vegetation community (or communities) that once occurred at the site to improve biodiversity. It is noted this is consistent with Condition B8 for Stage 1 Consent SSD 13 6123 which requires the landscape plans to preferably use indigenous species to the area.	**Agreed:** The proposed plant species list is overwhelmingly made up of naturally occurring indigenous species of the local area. The species proposed were nominated in a schedule in the SSDA Sketch Design report (refer pages 18-20). All species are also selected from the USYD CIS preferred plant lists.
Aboriginal Cultural Heritage: 3. As the proposed works, include the removal of the existing carpark to construct a new flood storage basin, OEH recommends the development considers Aboriginal cultural heritage for the storage basin.	**Agreed:** The University has completed an *Aboriginal Cultural Heritage Management Plan, prepared* by *Exempt* (heritage advisors) and dated August 2018. The report concludes: *"**Areas of Low-Nil Archaeological Potential*** *The City Road (B) and Engineering (C) Precincts are considered to have low-nil potential for Aboriginal object to be present (Figure 2). As such, no further archaeological mitigation measures are proposed for these areas. These areas would be managed through unexpected finds procedures and human remains protocol."* **Figure 2** 

SSD 8636 – ENGINEERING & TECHNOLOGY PRECINCT DEVELOPMENT	
OEH ISSUE	**UNIVERSITY OF SYDNEY PROJECT RESPONSE**
Building Design: 4. OEH recommends that if possible the new Engineering Buildings incorporate a Green Roof or Cool Roof into the design. The provision of an Intensive Green roof would increase habitat and biodiversity at the site, particularly if local native plant species are used from the relevant native vegetation community.	At this stage no green roof is provided however habitat and bio diversity have been significantly improved at the ground level through the removal of a carpark and replacement with landscape.
Flood: 5. All relevant drainage/flood management issues have been appropriately addressed in all Reports reviewed. It is further noted that the flood management scheme has been endorsed by Sydney Water, who along with City of Sydney Council is a Consent Authority. There are no further requirements from OEH regarding flood risk management.	**Noted and agreed**

5. University of Sydney Response to Transport for NSW

SSD 8636 – Engineering & Technology Precinct Development	
TfNSW Issue	**University of Sydney Project Response**
Proposed Loading Dock Arrangement: TfNSW requests the applicant prepares a loading dock management plan that includes the following: • Further details on how conflicts with reversing vehicles and pedestrians will be managed. If this conflict can't be adequately managed, the design should be modified to eliminate the need for reversing vehicles;	The proposed loading facility is located to the west of the existing service vehicle access route that is located to the east of the existing Mechanical Engineering building. The access route is fenced along its Shepherd Street frontage, with gates provided at the service road / Blackwattle Creek Lane intersection. To the south, the service vehicle access route connects to the existing at grade car park located between Building J13 and the Civil Engineering Building, which is clearly defined by the existing kerb extension and concrete speed hump. Access to the loading facility is located in between existing buildings, whereby forward movements in access cannot be achieved. The service vehicle access route is an existing back of house service vehicle area that is used for deliveries to / from the existing J07 and J13 buildings, where trucks also reverses in. There is no authorised pedestrian access to adjacent buildings provided along the service vehicle access route. It is proposed that pedestrian prohibition signs be provided at both the northern and southern ends of the service access route, reinforced by control points and qualified loading dock personnel to minimise unauthorised pedestrian access along the service vehicle access route. Furthermore, the length of reverse manoeuvre is approximately 20 metres and will be managed by qualified loading dock personnel. ***Refer to Appendix I – "GTA Swept Path Analysis"***
• Swept path analysis for servicing and loading vehicles accessing the proposed development from Shepherd Street. If access from Shepherd Street is to be restricted, details on how vehicles will be prevented from accessing the proposed development from Shepherd Street should be provided; and	**Provided:** Refer to the attached swept path analysis for details ***(Appendix I – "GTA Swept Path Analysis").*** No MRV/HRV access is permitted onto Shepherd St. Access to / from the loading dock is proposed to be primarily via Butlin Avenue / Maze Crescent intersection, connecting to Blackwattle Creek Lane to access the service vehicle access route that is located to the east of the Mechanical Engineering Building.
• Loading bay management details including the adequacy of loading dock and servicing arrangements to accommodate the future demand and service vehicle movements during peak periods.	The frequency of loading activities was identified in Table 2.1 of the Transport and Accessibility Assessment report prepared by GTA Consultants, being: - 3 – 4 deliveries by Heavy Rigid Vehicles per week - 10 – 15 deliveries by Medium Rigid Vehicles per week - 10 deliveries by light vehicles (cars and vans) per day, equating to 50 deliveries per week. 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. 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,

SSD 8636 – ENGINEERING & TECHNOLOGY PRECINCT DEVELOPMENT	
TFNSW ISSUE	**UNIVERSITY OF SYDNEY PROJECT RESPONSE**
	with designated arrival timeslots assigned to vehicles. It is understood that there are existing suppliers and tendering procedures that are in place to reinforce any access management arrangement requirements set by the University.
Construction Pedestrian and Traffic Management Plan – Recommendations: TfNSW requests that the applicant be conditioned to prepare a Construction Pedestrian and Traffic Management Plan (CPTMP) in consultation with Sydney Coordination Office within TfNSW and Roads and Maritime Services, and specifying: o Location of the proposed work zone; o Haulage routes; o Construction vehicle access arrangements; o Construction vehicle access arrangements; o Proposed construction hours; o Estimated number of construction vehicle movements; o Construction program; o Any potential impacts to general traffic, cyclists, pedestrians and bus services within the vicinity of the site from construction vehicles during the construction of the proposed works; o Cumulative construction impacts of projects including projects within the University of Sydney precinct. Existing CPTMPs for developments within or around the development site should be referenced in the CPTMP to ensure that coordination of work activities are managed to minimise impacts on the road network; and o Proposed mitigation measures, should any impacts be identified, the duration of the impacts and measures proposed to mitigate any associated general traffic, public transport, pedestrian and cyclist impacts should be clearly identified and included in the CPTMP.	**Agreed:** The University agrees to the TfNSW request and that this be applied as a consent condition to the satisfaction of the Certifying Authority.
• Submit a copy of the final plan to the City of Sydney, prior to the issue of CC.	**Noted and agreed** – subject to being issued as part of above ground CC.

6. University of Sydney Response to EPA Submission

<table>
<tr><th colspan="2">SSD 8636 – Engineering & Technology Precinct Development</th></tr>
<tr><th>EPA Issue</th><th>University of Sydney Project Response</th></tr>
<tr><td>The EPA has identified the following site specific recommendations submitted for the DPEs consideration:</td><td></td></tr>
<tr><td><u>Construction phase</u>

<u>Site Contamination (including asbestos containing material)</u>

Recommendation 1
The proponent be required prior to commencing work to prepare and implement an appropriate procedure for identifying and dealing with unexpected finds of site contamination (including asbestos containing materials and lead based paint). And, that that procedure includes details of who will be responsible for implementing the unexpected finds procedure and the roles and responsibilities of all parties involved.</td><td>N/A: Works to, or the demolition of, the J03 Electrical Engineering building are not included in this SSD application. Demolition of the J03 building, including removal of in ground services, has been approved under REF 7-2018 approved on 25 May 2018 via Part 5 of the Environmental Planning & Assessment Act 1979, and via clause 46 Universities – development permitted without consent subclause (1)(d) of the SEPP (Educational Establishments & Child Care Facilities) 2017). The REF included an unexpected finds protocol as a Mitigation Measure concluded that the relevant Object of the Environmental Planning & Assessment Act 1979 and the matters prescribed by Division 3, clauses 112 and 113 of that Act had been satisfied.
If any contaminated materials or hazardous substances are encountered during demolition and construction, works must immediately cease and not recommence until such time that safe work method statements and appropriate documented practices are implemented, which may include any plans or approvals as explained below.

The following is an excerpt from the Hazardous Material and Asbestos Management Plan:

<table>
<tr><th>Role</th><th>Company/Organisation</th><th>Responsibility</th></tr>
<tr><td>Premises/Land Owner</td><td>University of Sydney</td><td>Identify any foreseeable hazards arising from the premises/site that has the potential to harm the health and safety of any persons accessing, using or egressing the premises including the presence of materials containing asbestos.
Communicate such hazards and required controls.
Communicate hazards and implement required controls, Risk assess and control, review of HMAMP and SWMS.</td></tr>
<tr><td>Principal Contractor</td><td>Laing O’Rourke acting on behalf of University of Sydney</td><td>Develop, review and implement Asbestos Management Plan in consultation with all stakeholders (AMP), Provision of access to worksite, Provision of site supervision, Provision of emergency evacuation and response requirements, Notification of any unexpected findings to licensed asbestos assessor.
Activation of emergency incident response plan,
Enforcement of safety rules, Site induction and communication of known site hazards and controls,
Management of the AMP in line with duties outlined within. Where indication is given by premises owner, undertake reasonable identification and surveying activities to indicate whether hazardous materials are present at the worksite and in a condition that could, during the course of the works, affect the health and safety of site visitors or others,
Review licensed asbestos removalist SWMS,</td></tr>
</table>
</td></tr>
</table>

SSD 8636 – ENGINEERING & TECHNOLOGY PRECINCT DEVELOPMENT			
EPA ISSUE	**UNIVERSITY OF SYDNEY PROJECT RESPONSE**		
			Ensure that the waste generated onsite is correctly classified in accordance with OEH guidelines and disposed of at a facility licensed to accept that waste class Notification of any unexpected finds to site hygienist, Engage licensed asbestos contractor, Review licensed asbestos contractor SWMS, Review and ensure current appropriate licenses and competencies are held by asbestos contractor, Ensure that the waste generated onsite is correctly classified in accordance with NSW EPA guidelines and disposed of at a facility licensed to accept that waste class, Provide assistance and advice regarding asbestos management onsite and arranging for waste classification and transportation offsite.
	Nominated Laing O'Rourke Project Environment Manager and Safety Manager	Laing O'Rourke (LOR)	Provide assistance and advice regarding asbestos management onsite and arranging for waste classification and transportation offsite, Ensure Construction Environment Management Plan is being appropriately implemented in relation to waste disposal, Assist in emergency incidents.
	Environmental Consultant Contractor/ Licensed Asbestos Assessor	Laing O'Rourke (LOR)	Development and management of asbestos management plan, Designated site supervisor for hygienist work, Asbestos air monitoring and clearance inspections, consulting hygiene supervisions, Supervise Licensed Asbestos Removal contractor, Certify/verify that soil is free from asbestos fragments/fibres as per the removal/remediation scope, Review licensed asbestos removal contractor SWMS, Guidance on methodology for the control of hazardous materials, Provide advice to the Project on Work Cover Notifications, permit to works, insurances and license requirements. Onsite environmental remediation sub-contractors or licensed environmental hygienists are to provide supervision for activities involving hazardous materials to ensure all works are carried out in an appropriate manner. Upon completion of the works, a report detailing the works and clearance of the area is to be submitted to Laing O'Rourke.
	Licensed asbestos removalist and EPA licensed waste transport company	Laing O'Rourke (LOR)	Submit appropriate Work Cover notifications for the scope of work Establishment and Control of asbestos working zones, Ensure required PPE is been worn correctly, Control of potentially contaminated dust on site at all times, Asbestos removal and encapsulation, Transport asbestos waste material to a licensed waste facility, Decontaminating all plant and materials appropriately,

SSD 8636 – ENGINEERING & TECHNOLOGY PRECINCT DEVELOPMENT	
EPA ISSUE	**UNIVERSITY OF SYDNEY PROJECT RESPONSE**

		Provision of waste tracking receipts. Maintain personnel decontamination units. Where known or suspected Hazardous or Asbestos Affected Material is to be disturbed, works are to be conducted only by appropriately licensed and inducted contractors. All works are to be undertaken in accordance with the work method statements approved by Laing O'Rourke
Governing regulatory authority for asbestos removal in NSW	WorkCover Authority of NSW and NSW Environment Protection Authority (EPA)	Regulates all asbestos disturbance works under its asbestos licensing system. All works undertaken onsite are subject to regulatory inspections. Regulates that the Waste is appropriately classified and transported to a lawful place by the transporter and generator.
Persons Conducting a Business or Undertaking (PCBUs)	All Subcontractors	Supervisor to implement each shift: -Unexpected finds process -Hazardous Material Management Process Flowchart R1 -Mandate the Hazardous Materials awareness Briefing to all workers

Unexpected Finds (Hazardous Materials) Protocol

Person conducting a business or undertaking (PCBU) must ensure:

- that exposure of persons to airborne asbestos is eliminated, except in an area that is enclosed to prevent the release of respirable asbestos fibres and negative pressure is used. If this is not reasonably practicable, the exposure must be minimised,
- that the exposure standard for asbestos is not exceeded at the workplace,

All asbestos and asbestos containing material (ACM) at a workplace is identified by a competent person,

Health monitoring is provided for workers carrying out licensed asbestos removal work or other asbestos related work,

Workers carrying out or involved in asbestos removal work are trained in the identification and safe handling of asbestos and ACM, and suitable control measures,

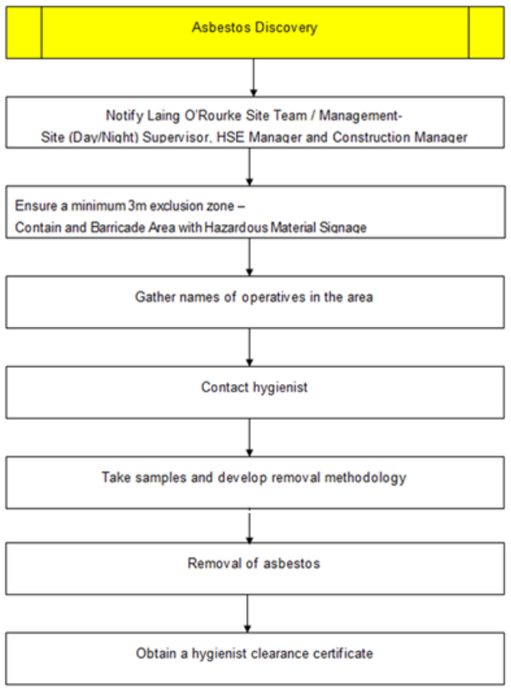
Tools and equipment that generate dust are not used (refer to Prohibited Tools and Equipment section),

A register must record all asbestos and ACM, or state that there is no asbestos and ACM, and be available to workers, health and safety representatives and other interested persons.

The register must be reviewed if:

- the asbestos management plan is reviewed,
- further asbestos and ACM is identified at the workplace,
- asbestos is removed from or disturbed, sealed or enclosed at the workplace.

SSD 8636 – ENGINEERING & TECHNOLOGY PRECINCT DEVELOPMENT	
EPA ISSUE	**UNIVERSITY OF SYDNEY PROJECT RESPONSE**
	The register must be transferred to any person assuming management control of the workplace where this control changes. If asbestos or ACM is identified- An Asbestos Management Plan as defined in Work Health & Safety Regulation 429 must be developed and regularly reviewed as required by Work Health & Safety Regulation 430. (Refer also to relevant State or Territory Code of Practice How to Manage and Control Asbestos in the Workplace for the content of an Asbestos Management Plan), PS 11 Asbestos (Rev 3 14.08.18) (https://nextgearsms-4f77.kxcdn.com/wp-content/uploads/Primary-Standard-Asbestos.pdf) PS Contaminated Land (Rev 0 18.06.18) (https://nextgearsms-4f77.kxcdn.com/wp-content/uploads/PS-Contaminated-Land-Rev-0-18.06.18.pdf) The Asbestos Management Plan must be readily available to: • Workers at the workplace, • Health and Safety representatives at the workplace, • PCBUs working or requiring work to be carried out at the workplace. The presence and location of asbestos or ACM identified at the workplace is clearly indicated (by a label if reasonably practicable), The asbestos-related work area is separated from other work areas at the workplace, signs are used to indicate where the asbestos-related work is being carried out and barricades are used to delineate the asbestos related work area, A competent person carries out air monitoring of the work area if there is uncertainty as to whether the exposure standard is likely to be exceeded, Asbestos waste is contained and labelled in accordance with the GHS (Globally Harmonised System of Classification and Labelling of Chemicals) before it is removed, and is disposed of as soon as practicable, A licensed asbestos removalist must give written notice to the regulator at least 5 days before commencing licensed asbestos removal work. In the ACT, all asbestos removal work must be notified to the regulator, Asbestos removal work must be notified to other persons: • Workers and other persons at the workplace, • The person who commissioned the work, • A PCBU at the workplace, • The occupier and owner of the residential premises, • Anyone occupying premises or conducting a business or undertaking in the immediate

SSD 8636 – ENGINEERING & TECHNOLOGY PRECINCT DEVELOPMENT	
EPA ISSUE	**UNIVERSITY OF SYDNEY PROJECT RESPONSE**
	vicinity. **Emergency Procedure** If an emergency occurs, a structure or plant is structurally unsound, or collapse of the structure or plant is imminent: -The PCBU must ensure, as far as reasonably practicable, a procedure is developed that will, so far as is reasonably practicable, reduce the risk of exposure of workers and persons in the vicinity of the demolition site to asbestos to below the exposure standard, The person must ensure that the regulator is given written notice about the emergency: • -immediately after the person becomes aware of the emergency, • -before the demolition is commenced. 
Recommendation 2 The proponent be required to satisfy the requirements of the Protection of the	**Agreed**

SSD 8636 – ENGINEERING & TECHNOLOGY PRECINCT DEVELOPMENT	
EPA ISSUE	**UNIVERSITY OF SYDNEY PROJECT RESPONSE**
Environment Operations (Waste) Regulation 2014 with particular reference to Part 7 'asbestos wastes'.	
Recommendation 3 The proponent be required to consult with Safework NSW concerning the handling of any asbestos waste that may be encountered during the course of the project.	**Agreed**
Recommendation 4 The proponent be required, prior to undertaking any construction, to ensure that following demolition of any existing structures, infrastructure and underground utilities, further investigation of soil and groundwater contamination would be undertaken – (a) across the development site, particularly within the footprint of those structures, infrastructure and utilities, and (b) within the footprint and immediate environs of the hazardous goods store.	**Refer to point 1 above.** The contractor will engage a suitably qualified consultant (such as Douglas Partners) to conduct a post J03 demolition, soil and groundwater investigation to satisfy this recommendation
Recommendation 5 The proponent be required to ensure that following the additional site investigation, an updated remedial action plan is prepared to address any identified soil or groundwater contamination.	The contractor will engage a suitably qualified consultant (such as Douglas Partners) to conduct a post J03 demolition, soil and groundwater investigation, and following any positive contamination, an updated Remedial Action Plan will be prepared.
Recommendation 6 The proponent be required to ensure that additional site investigation and updating of the remedial action plan to address the contamination is undertaken consistent with the guidance provided in the – • NSW EPA Sampling Design Guidelines, • Guidelines for the NSW Site Auditor Scheme (3rd edition) 2017, • Guidelines for Consultants Reporting on Contaminated Sites, 2011, and • The National Environment Protection (assessment of contamination) Measures 2013 as amended.	**Agreed**
Recommendation 7 The proponent be required to engage a site auditor accredited under the Contaminated Land Management Act 1997 (CLM Act) to review the adequacy of the site investigations, unexpected finds protocol, and any remedial action plan.	**Agreed:** A Site Auditor will be engaged as a requirement of the excavation subcontract package.
Recommendation 8 The proponent be required to ensure that the recommendations of the Remedial Action Plan (as reviewed by the accredited site auditor) are implemented.	**Agreed:** A Site Auditor recommendations will be implemented in the Remedial Action Plan.
Recommendation 9 The proponent be required to: (a) prepare an Asbestos Works Management Plan (AWMP) that includes stringent	**Agreed:** Recommended as a consent condition.

SSD 8636 – ENGINEERING & TECHNOLOGY PRECINCT DEVELOPMENT	
EPA ISSUE	**UNIVERSITY OF SYDNEY PROJECT RESPONSE**
requirements for controlling dust emissions in the development site so as not to affect the adjoining land; (b) ensure the AWMP is reviewed by and considered appropriate by the accredited site auditor; (c) provide a site audit statement (SAS) and accompanying site audit report (SAR) prepared following completion of remediation and validation, certifying suitability of the development site for the proposed use prior to undertaking any construction; (d) ensure that any contamination identified as meeting the trigger in the EPA 'Guidelines for the Duty to Report Contamination') is notified in accordance with requirements of section 60 of the Contaminated Land Management Act'; (e) ensure the proposed development does not result in a change of risk in relation to any pre-existing contamination on the site so as to result in significant contamination; and (f) the processes outlined in State Environmental Planning Policy 55 - Remediation of Land (SEPP55) be followed, to assess the suitability of the land and any remediation required in relation to the proposed use.	
Noise and Vibration **Recommendation 10:** The proponent be required to ensure that as far as practicable all demolition, site preparation, construction and construction-related work likely to be audible at any noise sensitive receivers, including residences and residential colleges, is undertaken only during the standard construction hours, being - (a) 7.00 am to 6.00 pm Monday to Friday, (b) 8.00 am to 1.00 pm Saturday, and (c) No work on Sundays or gazetted public holidays.	Conditional agreement: The University requests that the same hours of works be applied as those that were approved for other recently approved university SSD projects including FASS F23 and LEES1 projects fronting City Road, and comprising (proposed changes highlighted in red): a) 7.00 am to 6.00 pm Monday to Friday, b) 7:30 am and 3:30 pm Saturday, and c) No work on Sundays or gazetted public holidays.
Recommendation 11: The proponent be required to schedule intra-day 'respite periods' for construction activities identified in section 4.5 of the Interim Construction Noise Guideline as being particularly annoying to noise sensitive receivers (i.e. surrounding residents).	**Agreed:** The University, with support from the Acoustic consultant, proposes that respite periods be developed as part of the detailed construction noise and vibration management plan to ensure that works are not unnecessarily restricted and the construction period protracted.
Recommendation 12: The proponent be required to ensure construction vehicles (including concrete agitator trucks) involved in demolition, site preparation, bulk earthworks, construction and construction-related activities do not arrive at the project site or in surrounding residential precincts outside approved construction hours.	**Agreed:** Recommended as a consent condition.
Recommendation 13: The proponent be required to consider undertaking a safety risk assessment of site preparation, bulk earth works, construction and construction-related activities to determine whether it is practicable to use audible movement alarms of a type that would minimise the noise impact on surrounding noise sensitive receivers, without compromising safety.	**Agreed:** Recommended as a consent condition.

<table>
<tr><th colspan="2">SSD 8636 – ENGINEERING & TECHNOLOGY PRECINCT DEVELOPMENT</th></tr>
<tr><th>EPA ISSUE</th><th>UNIVERSITY OF SYDNEY PROJECT RESPONSE</th></tr>
<tr><td><u>Dust control & Management</u>
Recommendation 14: The proponent be required to:
(a) minimise dust emissions on the site, and
(b) Prevent dust emissions from the site.</td><td>Agreed: Recommended as a consent condition.</td></tr>
<tr><td><u>Waste Control & Management</u>
Recommendation 15: The proponent be required to ensure that:
(1) all waste generated during the project is assessed, classified and managed in accordance with the “Waste Classification Guidelines Part 1: Classifying Waste” (Department of Environment Climate Change and Water, December 2009);
(2) the body of any vehicle or trailer, used to transport waste or excavation spoil from the premises, is covered before leaving the premises to prevent any spill or escape of any dust, waste, or spoil from the vehicle or trailer; and
(3) mud, splatter, dust and other material likely to fall from or be cast off the wheels, underside or body of any vehicle, trailer or motorised plant leaving the site, is removed before the vehicle, trailer or motorised plant leaves the premises.</td><td>Agreed: Recommended as a consent condition.</td></tr>
<tr><td>Recommendation 16: The proponent be required to ensure that concrete waste and rinse water are:
(a) not disposed of on the development site, and
(b) Prevented from entering waters, including any natural or artificial watercourse.</td><td>Agreed: Recommended as a consent condition.</td></tr>
<tr><td><u>Operational Phase</u>

Recommendation 17:
The proponent be required to undertake background noise monitoring consistent with the guidance material provided in the New South Wales Industrial Noise Policy, including at least a week’s worth of valid monitoring data measured at the most affected and likely most affected residences, especially residences in Cleveland, Shepherd and Boundary Streets, and Calder Road.</td><td>Agreed: Recommended as a consent condition.</td></tr>
<tr><td>Recommendation 18:
The proponent be required to:
(a) provide a comprehensive quantitative assessment of operational noise impacts on surrounding noise sensitive receivers, especially surrounding residences; and
(b) ensure mechanical plant and equipment, including the rooftop emergency back-up generator, does not –
(i) emit noise that exceeds 5 dBA above the rating background noise level (day, evening and night) measured at the most affected or likely most</td><td>Operational noise emission criteria for the development have been established in accordance with the NSW Industrial Noise Policy (INP) and will comply the noise emission requirements by criteria (b)(i) and (ii). The noise emission criteria for the nearest noise-sensitive land uses are shown in Table 1.
Table 1 INP noise emission criteria for residential land uses and Colleges
<table><tr><th>Location</th><th colspan="3">INP noise emission criteria, dB(A) Leq,15min</th></tr><tr><td></td><th>Day 7 am–6 pm</th><th>Evening 6 pm–10</th><th>Night 10 pm–7 am</th></tr></table></td></tr>
</table>

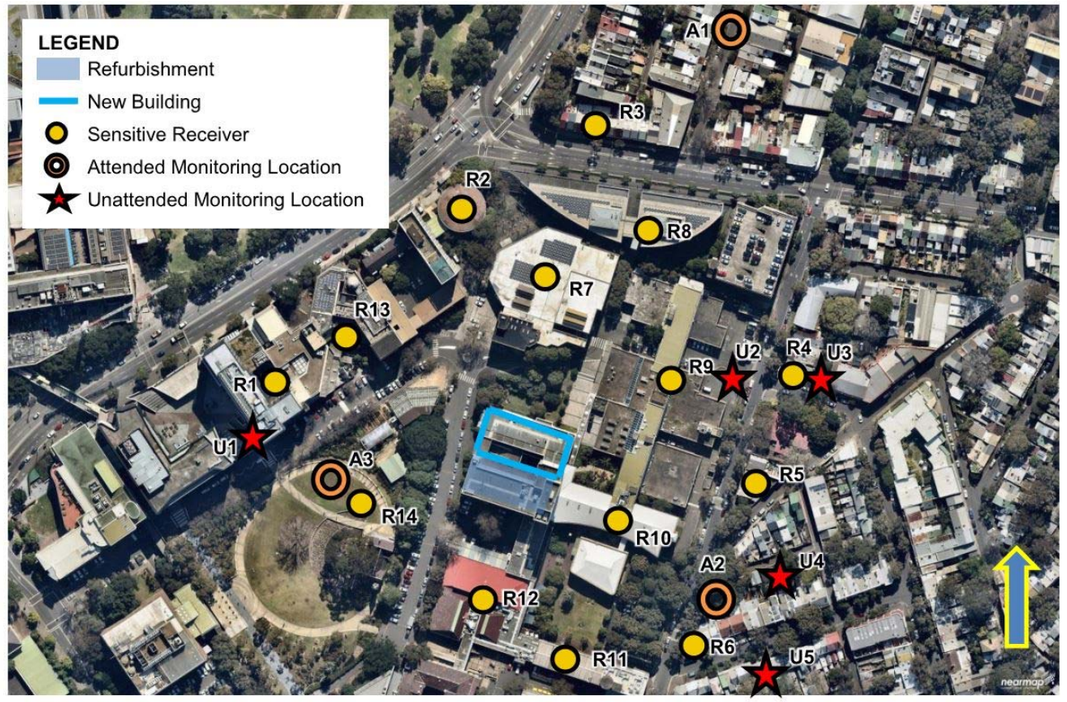
SSD 8636 – ENGINEERING & TECHNOLOGY PRECINCT DEVELOPMENT	
EPA ISSUE	**UNIVERSITY OF SYDNEY PROJECT RESPONSE**
affected surrounding residences, and (i) that exhibits tonal or other annoying characteristics.	

Residential land uses on Shepherd Street (north of Ivy Street)	53	40	40
Residential land uses on Shepherd Street (south of Ivy Street)	48	37	35
Urbanest Darlington and International House student accommodation	52	42	42

Noise emissions from the development will predominantly be a result of rooftop mechanical plant including a rooftop plant room, water-cooled chiller and cooling towers, and emergency generator. A preliminary rooftop plant layout and selection has been assessed and the following recommendations provided such that noise emissions can achieve the INP criteria for both normal and emergency operations:

- The Chillers should be located in an enclosed plant room on Level 10. The plant room should be constructed with a solid roof achieving no less than an RW 35 rating and solid walls achieving no less than RW 40.
- The CAT C13 generator should be installed in an acoustic enclosure that achieves a rating of 80 dB(A) at 1 m.
- Outlet attenuators are required for the Stair Pressurisation fans and Toilet Exhaust fans, acoustically equivalent to Fantech RS07C. Alternatively, the outlet ductwork from the fans is required be at least 3 m in length, 50 mm thick internally lined, incorporate at least one 90-degree bend, with the outlets facing north or south.

Noise mitigation measures should be reviewed to ensure that noise from rooftop plant in particular can comply with the INP noise emission criteria at neighbouring noise-sensitive land uses.

SSD 8636 – Engineering & Technology Precinct Development	
EPA Issue	**University of Sydney Project Response**
	 **Figure 1 ETP site location** A number of noise and vibration-sensitive land uses are located in the immediate vicinity of the Stage 1 site as shown in Figure 1, with the most significant being existing University buildings. The nearest residential land uses are the Urbanest Darlington Student Accommodation to the west (represented by R1), the residences on the eastern side of Shepherd Street (represented by R4, R5 and R6) and the residences on the northern side of Cleveland Street (represented by R3). The sensitive land uses are summarised in Table 2 alongside a description of the land use.

SSD 8636 – ENGINEERING & TECHNOLOGY PRECINCT DEVELOPMENT	
EPA ISSUE	**UNIVERSITY OF SYDNEY PROJECT RESPONSE**

Table 2 Noise and vibration sensitive land uses

Reference (see Figure 1) and	Description
Residential buildings	
R1 – Urbanest Darlington	Residential land uses 80 m away or more from new building. Cleveland Street and Shepherd Street residences shielded by intervening buildings.
R2 – International House	
R3 – Cleveland Street	
R4 – Shepherd Street	
R5 – Shepherd Street	
R6 – Calder Road residences	
University of Sydney buildings	
R7 – Seymour Centre	Performing Arts Centre within the University of Sydney, approximately 45 m north of the new
R8 – Warren Centre	Various University buildings associated with Engineering Faculty that surround the project site.
R9 – Mechanical Engineering	
R10 – Engineering Link	
R11 – Civil Engineering	
R12 – PNR Building	
R13 – Wentworth Building	Faculty of Architecture, Design and Planning
Recreational land uses	
R14 – Cadigal Green	Public recreation area. Includes heritage-listed Old School building on Maze Crescent.

Major rooftop plant as part of the ETP would be expected to include:

Level 10 plant within plant rooms and enclosures

- 3 x BAC CPSC-0716-07M Cooling Towers – sound power level of 99 dB(A)
- 1 x Low Load Chiller – sound pressure level of 80 dB(A) at 1 m
- 2 x High Load Chiller – sound pressure level of 85 dB(A) at 1 m

Assorted rooftop fans

- 33 x Fume Cupboard fans – sound power level of 77 dB(A)
- 2 x Stair Pressurisation fans – sound power level of 106 dB(A)
- 2 x Toilet Exhaust fans – sound power level of 109 dB(A)

Emergency equipment

- 1 x CAT C13 generator in proprietary acoustic enclosure
- 3 x smoke spill fans with sound power level of 102 dB(A).

As the equipment will be located on the rooftop there will be little or no direct line-of-sight between the rooftop plant and most neighbouring noise-sensitive land uses. The exception to

SSD 8636 – ENGINEERING & TECHNOLOGY PRECINCT DEVELOPMENT	
EPA ISSUE	**UNIVERSITY OF SYDNEY PROJECT RESPONSE**
	this is the upper levels of Urbanest Darlington. Based on the mechanical plant information above, noise levels have been predicted at the various noise sensitive locations around the site using a three-dimensional environmental noise model developed in SoundPlan version 7.4 environmental noise modelling software implementing the ISO 9613-2:1996 prediction algorithms. The model also takes into account: • distance attenuation • ground absorption (ground assumed to be 50% absorptive and 50% reflective) • air absorption • the topography and relative height of the noise sources and receivers • shielding provided by buildings and intervening structures where relevant. Operation of the plant may commence at 6 am and therefore compliance would be required with the most stringent night time noise criteria. Compliance with the night time criteria would result in compliance being achieved with the less stringent day and evening INP criteria. Based on an assessment of the proposed rooftop plant layout, it is expected that the following measures would be required based on the current design: • The Chillers should be located in an enclosed plant room on Level 10. The plant room should be constructed with a solid roof achieving no less than an RW 35 rating and solid walls achieving no less than RW 40. • The CAT C13 generator should be installed in an acoustic enclosure that achieves a rating of 80 dB(A) at 1 m. • Outlet attenuators are required for the Stair Pressurisation fans and Toilet Exhaust fans, acoustically equivalent to Fantech RS07C. Alternatively, the outlet ductwork from the fans is required be at least 3 m in length, 50 mm thick internally lined, incorporate at least one 90-degree bend, with the outlets facing north or south. With the incorporation of the above measures, predicted noise levels from the rooftop plant is predicted to achieve the INP criteria for both normal and emergency operation (with 5 dB relaxation). ***Refer to Appendix E – "SEARs Noise and Vibration Assessment Rev C 23082018_0001"***
Waste Collection Services **Recommendation 19:** The proponent be required to ensure waste collection services are not undertaken outside the hours of 7.30 am to 6.00 pm Monday to Friday.	**Agreed**
Shepherd Street loading dock **Recommendation 20:** The proponent be required ensure delivery vehicle movements are not undertaken outside the hours of 7.30 am to 6.00 pm Monday to Friday.	**Agreed**
Waste Management **Recommendation 21:**	**Agreed**

SSD 8636 – ENGINEERING & TECHNOLOGY PRECINCT DEVELOPMENT	
EPA ISSUE	**UNIVERSITY OF SYDNEY PROJECT RESPONSE**
The proponent be required to identify and implement feasible and reasonable opportunities for the re- use and recycling of waste, including food waste.	
<u>Radiation Control Act</u> **Recommendation 22:** The proponent be required to amend its radiation management plan and source security plan, based on the sum activity of the material being stored or used.	***Refer to Appendix F – "14119-015 Preliminary Dangerous Goods Report"***, an excerpt of which is inserted below 5.4.1 GENERAL The storage of radioactive substances is to be in accordance with AS 2243 Part 4 Ionising Radiations. This standard is intended to be used when operating with radioactive substances in amounts less than licensable quantities as required by the NSW Government. This standard stipulates that radioactive substances are to be used and stored such that they do not present a hazard to persons in the vicinity, stored separately to non-radioactive substances where practicable. Radioactive substances including waste should be labelled adequately. It is assumed that only minor quantities of stable isotopes, or substances with long half-lives such as deuterium or Carbon-13 are to be stored in the J03 loading dock. Radioactive substances are to be stored in a locked store with the following criteria to be met: 5.4.2 FLOOD MITIGATION The store shall be situated to minimize the risk of flooding and other natural or man-made hazards. If there is any possibility of accidental flooding then provision shall be made for all substances to be stored above floor level, and for water to be drained. If approved by the sewerage authority Sydney Water and Fair Trade NSW, low specific activity liquid waste that is miscible with water may be discharged via sinks connected to the sewerage system. Aqueous radioactive shall be diluted by quantities of water so that the regulatory authority requirements are met, this will be assisted using a flushing sink. Drains used for the disposal of aqueous radioactive waste shall be clearly and permanently labelled. 5.4.3 FIRE RESISTANCE & DECONTAMINATION The store shall be constructed of durable, fire-resistant materials. The store's interior surfaces shall be constructed of materials which can be decontaminated easily. 5.4.4 SHIELDING The store shall be adequately shielded to ensure that radiation levels outside the store, at locations that are (i) accessible to occupationally exposed persons, shall not exceed 200 μSv in one hour; and (ii) (ii) accessible to non-occupationally exposed persons, and members of the public, shall not exceed 20 μSv per hour when averaged over one week. 5.4.5 SIGNAGE

SSD 8636 – ENGINEERING & TECHNOLOGY PRECINCT DEVELOPMENT	
EPA ISSUE	**UNIVERSITY OF SYDNEY PROJECT RESPONSE**
	A radiation warning sign shall be displayed at the entrance to the store 5.4.6 BUNDING The store shall be provided with spillage trays on which the containers of liquid radioactive substances shall be placed. Each tray shall have sufficient volume to retain the whole of the contents of the containers on the tray with 10% additional capacity and to enable their recovery. 5.4.7 VENTIILATION The store shall be provided with an air extraction system if any radioactive gases or vapours are emitted from the substances held in the store. The extraction system shall be actuated before any person enters the store. If radium, thorium or uranium compounds are stored, the air shall be extracted close to floor level. The discharge point for the air extraction system shall be sited away from any occupied area and shall comply with the requirement of AS 1668.2 for obnoxious discharges. 5.4.8 SECURITY The store shall be kept locked except when radioactive substances are being transferred into or out of the store. 5.4.9 DISPOSAL Australian Standard AS 2243.4 Section 8 provides guidance for disposal of radioactive waste. Disposal shall be completed by suitably licensed contractors. Where more than tracer quantities of unsealed radioactive substances are in constant use in laboratories,, discharge authorizations for solid, airborne and liquid effluents shall be those agreed by the appropriate regulatory authorities.
<u>Underground Petroleum Storage System</u> **Recommendation 23:** The proponent be required to design, install and operate any underground petroleum storage system in accordance with the requirements of the Guidelines issued by the EPA.	**N/A:** There is no underground Petroleum Storage on site.

7. University of Sydney Response to Ausgrid

SSD 8636 – Engineering & Technology Precinct Development	
Ausgrid Issue	**University of Sydney Project Response**
No objections are raised subject to the following recommended conditions: **Prior to commencement of works** within the development site, the proponent: i. must ensure that relevant connection applications have been made to Ausgrid for any electricity supply requirements ii. must ensure Ausgrid's capacity to design, construct and operate existing and future infrastructure is not impeded, including works affecting easements, duct corridors, cable routes or works that require the removal or relocation of existing infrastructure; iii. must confirm with Ausgrid the location and status (e.g. live, de-energised, isolated, abandoned) of existing Ausgrid infrastructure; iv. must liaise with Ausgrid in relation to any aspects of the development that may impact or potentially impact Ausgrid's infrastructure or ability to safely operate and maintain its infrastructure. This includes but is not limited to minimum clearances, maintaining access, impacts on structural integrity and ventilation, as well as effects of vibration, excavation and construction works; v. must liaise with Ausgrid to determine the relocation of any existing Ausgrid infrastructure to the satisfaction of Ausgrid in its absolute discretion; and vi. must liaise with Ausgrid to agree appropriate work methodologies in the vicinity of Ausgrid's infrastructure. **During works** within the development site, the proponent: vii. must ensure that works impacting on, or in the vicinity of Ausgrid's electrical infrastructure, is undertaken in accordance with Ausgrid's standards and procedures.	**Noted and agreed:** The University has no objection to the issuance of a consent condition to this effect.

8. University of Sydney Response to NSW Heritage Council

SSD 8636 – Engineering & Technology Precinct Development	
HC Issue	**University of Sydney Project Response**
Heritage Status The site is not listed on the State Heritage Register (SHR) or in the vicinity of a SHR listed item, but is listed on the S170 NSW State Agency Heritage Register. The site is not listed as a heritage item on the Sydney Local Environmental Plan 2012 (Sydney LEP) or within a Heritage Conservation Area. It is, therefore, recommended that no additional information is required by the Heritage Council of NSW prior to the determination of the application.	**Noted and Agreed**

9. University of Sydney Response to Road & Maritime Services

SSD 8636 – Engineering & Technology Precinct Development	
RMS Issue	**University of Sydney Project Response**
Roads and Maritime reviewed the submitted application and raises no objection to the proposed Engineering & Technology Precinct Development at the University of Sydney at Darlington Campus.	**Noted**

10. University of Sydney Response to Sydney Airport

SSD 8636 – Engineering & Technology Precinct Development	
SA Issue	**University of Sydney Project Response**
Application for approval pursuant to s.183 Airports Act The Sydney Airport Airfield Design Manager, being an authorised person of the Civil Aviation Safety Authority (CASA) under Instrument Number: CASA 229/11, in this instance has no objection to the erection of this development to a maximum height of 66.2 metres AHD. The approved height is inclusive of all lift over-runs, vents, chimneys, aerials, TV antennae, construction cranes etc.	**Noted**
Sydney Airport advises that approval to operate construction equipment (i.e. cranes) should be obtained prior to any commitment to construct.	**Noted and Agreed:** The University has no objection to the issuance of a consent condition to this effect.

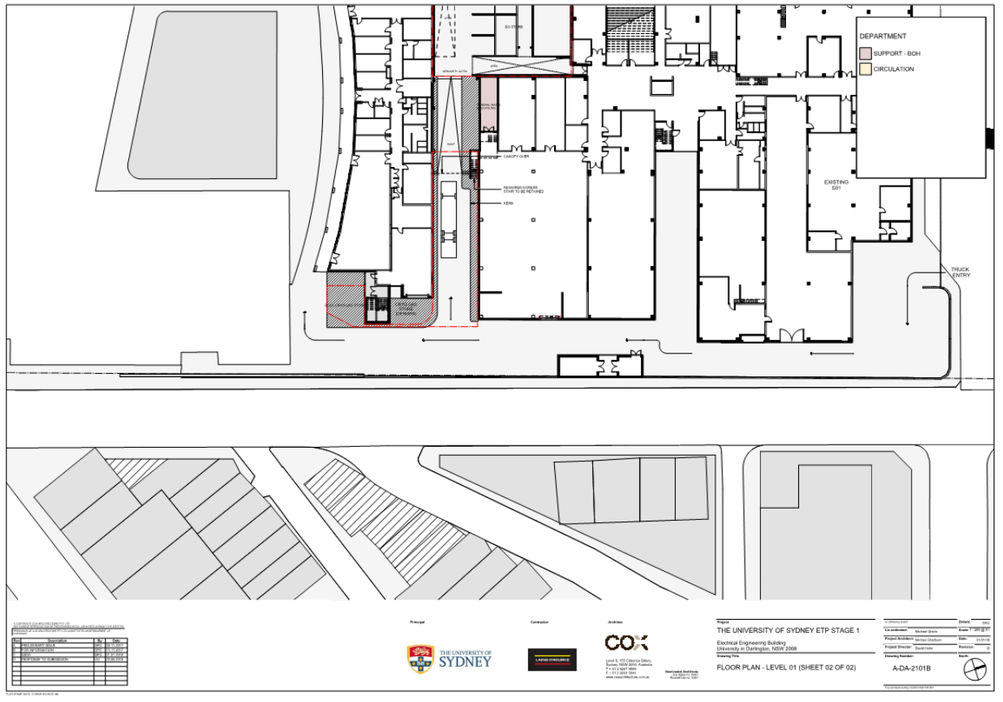
11. RESPONSE TO PUBLIC SUBMISSIONS (CONSOLIDATED)

SSD 8636 – ENGINEERING & TECHNOLOGY PRECINCT DEVELOPMENT	
ISSUE	**USYD PROJECT RESPONSE**
DPE has received a total of **10 public submissions** in response to the public exhibition process – 1 in support of the SSD proposal and 9 submissions citing objections. Three (3) of the objections are from anonymous sources. The University's RtS has sought to list the issues of objection in order of frequency rather than listing each submission in turn. This has assisted the University in identifying common and individual issues as well as avoiding repetition in this RtS report.	
1. Noise and vibration impacts from construction upon Shepherd Street residents. (5 submissions)	**Noted:** The University relies upon, and will comply with, the relevant standard SSD consent conditions applied to the SSD consent addressing construction hours, noise and vibration.
2. Will not support service vehicle traffic from the loading dock for over 2 tonne vehicles on to Shepherd Street. Shepherd Street is too narrow (4 metres wide) for large trucks. (4 submissions)	**Disagree:** Based on research undertaken by GTA Consultants, it is understood that many SUV / larger size passenger vehicles are over 2 tonnes. A selection of such vehicles includes: - Nissan Murano – 2.3 tonnes - Toyota LandCruiser – between 2.1 to 2.6 tonnes - Porsche Cayenne S Hybrid - 2.3 tonnes - Ford Territory – between 1.9 to 2.1 tonnes - BMW X5 – 2.1 tonnes The above mentioned vehicles are within the dimensions of an 85th percentile vehicle, as per Appendix B of AS/NZS2890.1:2004 Part 1: Parking facilities: Off-street car parking. If access to Shepherd Street is to be restricted to vehicles over 2 tonnes, effectively, access to Shepherd Street will be restricted to a range of common light vehicles. Notwithstanding, the University intends that access to / from the loading dock is proposed to be primarily via Butlin Avenue / Maze Crescent intersection, connecting to Blackwattle Creek Lane to access the service vehicle access route that is located to the east of the Mechanical Engineering Building.
3. Overshadowing of Shepherd Street properties. (3 submissions)	**Disagree:** The new Engineering & Technology building will be located 100 metres due west of the nearest Shepherd Street residential property. The Shadow Diagrams by Cox Richardson demonstrate that: **a)** no Equinox of Summer additional shadows will impact any of the Shepherd Street dwellings; **b)** no mid Winter shadows at 9am and 12 Noon will impact any of the Shepherd Street dwellings; and **c)** minor mid-winter shadows at 3pm will result in some additional shadows to the lower levels of windows to property 146 Shepherd St (Refer to overshadow diagram below)

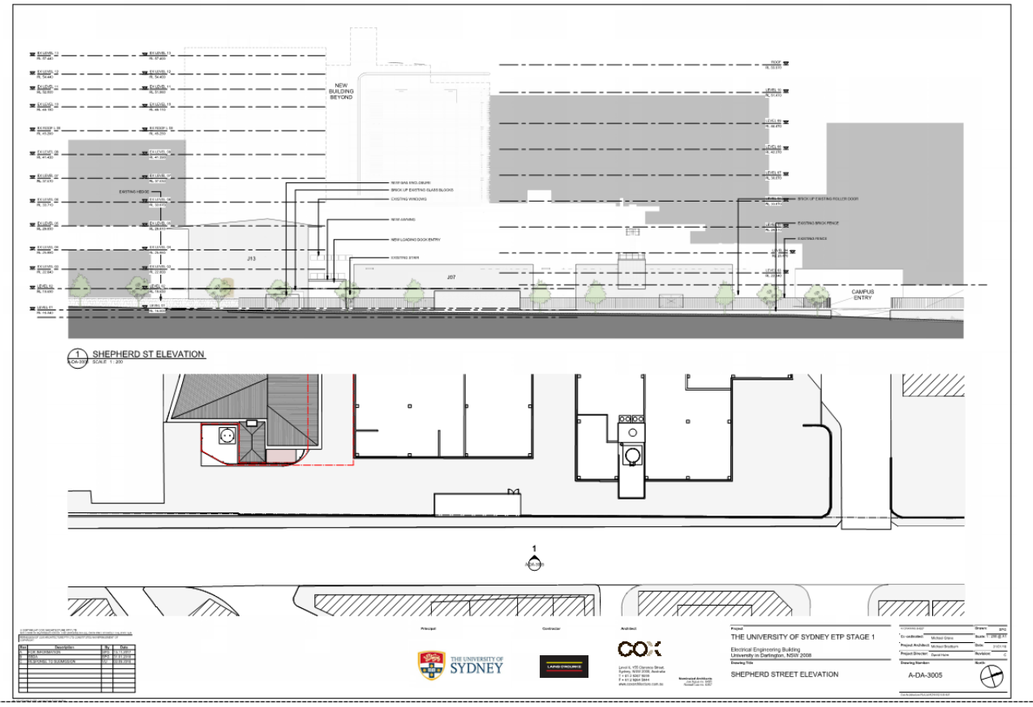
SSD 8636 – ENGINEERING & TECHNOLOGY PRECINCT DEVELOPMENT	
ISSUE	USYD PROJECT RESPONSE
	 2 WINTER SOLSTICE - 3PM Existing Building SCALE 1 : 750

SSD 8636 – ENGINEERING & TECHNOLOGY PRECINCT DEVELOPMENT	
ISSUE	**USYD PROJECT RESPONSE**
	 02 WINTER SOLSTICE - 3PM Proposed Building SCALE 1 : 750
4. Protection sought for Tallowwood Grove trees on the Engineering car park (Rose Car Park) from passing trucks. (2 submissions)	MRV/HRV vehicles entering and exiting the loading dock are to travel via Maze Crescent, and consequently there will be no impact on Tallowwood Grove trees on the Engineering Car Park. Only SRV vehicles will exit via Shepherd Street. The swept path assessment undertaken for SRV confirms that no trees will need to be removed or modifications required to be made to the footpaths that run along the Civil Engineering Building frontage. ***Refer to Appendix I – "GTA Swept Path Analysis"***

SSD 8636 – ENGINEERING & TECHNOLOGY PRECINCT DEVELOPMENT	
ISSUE	**USYD PROJECT RESPONSE**
5. Will not support construction hours outside City of Sydney Council standard hours of construction. (2 submissions)	The University requests that the same hours of works be applied as those that were approved for other recently approved university SSD projects including FASS F23 and LEES1 projects fronting City Road, and comprising (proposed changes highlighted in red): a) 7.00 am to 6.00 pm Monday to Friday, b) 7:30 am and 3:30 pm Saturday, and c) No work on Sundays or gazetted public holidays.
6. Lighting impacts upon Shepherd Street residents – University should act on complaints. (2 submissions)	The University will review and act upon complaints from Darlington residents arising from any lighting impacts that become apparent when the development is completed or nearing completion
7. Objects to USYD exemption from Development Contributions, as the public receives limited access to the campus. (2 submissions)	**Disagree:** Refer to USYD's response to City of Sydney submission (RtS page 14) on Development Contributions and which clarifies the significant public benefits provided by the university, as well as University financing of transport and stormwater infrastructure for which Development Contributions are usually levied.
8. Lack of community consultation on the SSD Project. (1 submission)	**Disagree:** The public exhibition process was conducted by the Department of Planning. Notwithstanding, the University also convened a local information session on Tuesday 14 November 2017 at 6pm to provide local community members and organisations with the opportunity to find out about the University's vision for the redevelopment of the Regiment site. The University issued two hundred (200) invitations to attend the meeting which were letterbox dropped to residences in Shepherd Street and surrounding streets to the community groups including Residents Acting in Defence of Darlington (RAIDD), REDWatch and the Chippendale Residents Interest Group with a request for them to extend the invitation to their networks. Four community members attended the Community Information Session. No major issues were raised in relation to the proposed building. The University has pursued, to its best endeavours, to consult with the community on the Engineering & Technology proposal prior to SSD lodgement and to incorporate early community comments into the final project design and development program.
9. The proposed loading dock should be replaced by that which was approved by the CIP (SSD 6123) located by the Civil Engineering building (J01). Alternatively create a loading dock that links to Maze Crescent. (1 submission)	**Disagree:** The CIP approved principal loading dock is located 400 metres south of this proposed site. The ETP development requires its own smaller loading dock, and one is already provided within the existing building. **Agree:** The majority of service deliveries to the site are planned to be accessed via Maze Crescent.
10. Upgrade and treatment sought for the Blackwattle Creek Lane driveway from Shepherd Street including enforcement of one-way vehicle thoroughfare and separation for pedestrians. (1 submission)	**Agree:** The University proposes, as a 'public benefit', the upgrade of Blackwattle Creek Lane to facilitate safe and easy pedestrian access between Shepherds Street and Cadigal Lane / Maze Crescent as referred to in ***Appendix D2 – Public & Campus Domain Works_Shepherd Street & Blackwattle Creek Lane***
11. Increased vehicles causing safety concerns for cyclists. (1 submission)	**Disagree:** The proposed development is expected to result in a decrease in vehicle movements associated with vehicles parking in the vicinity of the site, given the proposed

SSD 8636 – ENGINEERING & TECHNOLOGY PRECINCT DEVELOPMENT	
ISSUE	**USYD PROJECT RESPONSE**
	removal of 30 car parking spaces. Whilst a new loading dock is proposed, the level of traffic movement associated with the loading dock is less than the level of traffic movement associated with the 30 car parking spaces which will be removed.
12. Landscape Plan does not, and should, address the adjoining Engineering car park (Rose Car Park) Tallowwood Grove of trees. (1 submission)	**Disagree:** The Rose Car Park does not form part of this SSDA site or proposal.
13. Objection to appearance of ugly sheds and plant rooms fronting Shepherd Street. (1 submission)	Please refer to the drawing ***A-DA-2101B & A-DA-3005 (page 6 & 20)*** in ***Appendix A - Revised Architectural Plans*** for proposed VIE tank location. A more consolidated location and improved screening has been added to address the resident concern regarding appearance. 

SSD 8636 – ENGINEERING & TECHNOLOGY PRECINCT DEVELOPMENT

ISSUE	USYD PROJECT RESPONSE
	
14. Objection to increased foot traffic in Darlington and damage to nature strips. (1 submission)	**Disagree:** The University has significantly collaborated with, and contributed towards, the City of Sydney's upgrade of footpaths and nature strips along Abercrombie Street, Shepherd Street and Codrington Street. Furthermore, the University proposes, as a 'public benefit', the upgrade of this section of the Shepherd Street footpath, and the upgrade of Blackwattle Creek Lane to facilitate safe and easy pedestrian access between Shepherds Street and Cadigal Lane / Maze Crescent.
15. Privacy invasion of the new building into Shepherd Street dwellings. (1 submission)	**Disagree:** The new Engineering & Technology building will be located 100 metres due west of the nearest Shepherd Street residential property and will not give cause to any privacy invasion.
16. New building size and materials do not respect the heritage significance of the precinct. (1 submission)	**Disagree:** The site, Engineering Precinct and Shepherd Street are not heritage listed and are not contained in any Conservation Area.