

Appendix C – Updated Mitigation Measures (SSD-98363228)

The following table provides updated recommendations for mitigation measures in response to potential impacts identified in Section 6 of the EIS.

Matter / SEAR	Potential Impact	Stage of Project	Mitigation Measure/s
Transport, Parking and Access	Two-way traffic on College Crescent unable to pass each other given the narrow road width.	Operation	Two, short no Stopping zones are proposed to provide passing opportunities for traffic on College Crescent and facilitate site egress.
	Construction traffic during school pick-up/ drop-off times, and construction workers parking in local streets.	Construction	A detailed Construction Traffic Management Plan will be prepared prior to commencement of work.
Noise and Vibration	Construction noise and vibration impacts	Construction	Implement measures specified in the Acoustic Assessment including: - Erect solid hoarding/ noise screens around the perimeter of the construction site. - Undertake noise compliance monitoring for all major equipment and activities on the site prior to the commencement of work. - Where potential noise impacts are predicted to be within 10 to 15dB(A) of the noise management level, noise monitoring should be carried out to confirm predicted noise impacts within two weeks of commencement of construction.

Matter / SEAR	Potential Impact	Stage of Project	Mitigation Measure/s
			- Where potential noise impacts are predicted to be more than 15dB(A) above the noise management levels, all reasonable and feasible noise control measures should be implemented prior to the commencement of construction works. - Acoustic enclosures such as engine casing lagged with acoustic insulation and plywood should be utilised. - Engine silencing and muffling of heavy vehicles should be implemented. - Plant and equipment should be properly maintained. - Provide special attention to the use and maintenance of 'noise control' or 'silencing' kits fitted to machines to ensure they perform as intended. - Strategically position plant on site to reduce the emission of noise to the surrounding neighbourhood and to site personnel. - Any equipment not in use for extended periods during construction work should be switched off. - Implement a management procedure to deal with noise and/or vibration complaints that may arise from construction activities. - Where noise level exceedances cannot be avoided, then consideration may be given to implementing time restrictions and/or providing periods of repose for residents, where feasible and reasonable.

Matter / SEAR	Potential Impact	Stage of Project	Mitigation Measure/s
			- Where vibration is found to be excessive, management measures should be implemented to ensure vibration compliance is achieved. - Where construction activity occurs in close proximity to sensitive receivers, vibration testing of actual equipment on site would be carried out prior to their commencement of site operation to determine acceptable buffer distances to the nearest affected receiver locations. Where construction activity occurs in close proximity to sensitive receivers, minimum buffer distances for building damage should be determined by site measurements and maintained. - Dilapidation surveys should be conducted at all residential and other sensitive receivers within 50 metres of the construction site. - Notification by letterbox drop should be carried out for all occupied buildings within 100m of the construction site.
	Operational noise and vibration impacts	Operation	Implement measures specified in the Acoustic Assessment including: - Indicative Rw values for façade elements as outlined in the Acoustic Assessment should be implemented. - Undertake acoustic assessment of mechanical services equipment during the detail design phase to ensure that they do not exceed noise limits. - Implement appropriate mechanical system design and common engineering methods, as outlined in the Acoustic Assessment, as required to control mechanical plant noise emission. For example:

Matter / SEAR	Potential Impact	Stage of Project	Mitigation Measure/s
			– Locate mechanical plant to minimise its acoustic impact, as well as provide appropriate screening, insulation and/or enclosures for plant. – Procure 'quiet' plant. – Utilise commercially available silencers or acoustic attenuators for air discharge and air intakes of plant. – Acoustically lined and lagged ductwork. – Fans shall be mounted on vibration isolators and balanced in accordance with AS 2625.
Trees and Landscaping	Impacts to high value trees during construction works	Construction	Implement recommendations as per the Arborist Report including: ▪ Establishment of Tree Protection Zones (TPZs) and temporary protective fencing for the trees noted in the Tree Protection Plan. ▪ No stockpiling, excavation, trenching, re-fuelling or material storage is to occur within TPZs. Any demolition required within a TPZ must be done with small, tracked equipment or by hand. ▪ Installation of trunk and ground protection where the movement and/or operation of any machinery may result in an unacceptable impact to the value of a retained tree. ▪ A temporary irrigation system is proposed during construction for some trees in order to maintain adequate water to them and compensate for the incursion into their TPZ.

Matter / SEAR	Potential Impact	Stage of Project	Mitigation Measure/s
Biodiversity	Impacts to biodiversity values.	Construction / Operation	▪ Install tree protection measures as recommended in the Aboricultural Impact Assessment. ▪ Implement erosion and sediment control measures. ▪ Carry out pre-clearing surveys by a suitably qualified ecologist. ▪ Implement hygiene measures for construction vehicles and plant, including wash down facilities, to prevent the introduction and / or spread of introduced flora and fauna species, pathogens and / or disease. ▪ Design lighting to minimise light spill impacts to nocturnal fauna.
Ground and Water Conditions	Impacts of the excavation and construction of the development on surrounding ground and groundwater conditions.	Construction	▪ Preparation and implementation of a Construction and Environmental Management Plan which includes details of stormwater control and discharge, erosion and sediment control measures, and the relevant Terms of Approval/mitigation measures detailed in any conditions of consent. ▪ Preparation of a Dewatering Management Plan to address WaterNSW approval requirements and assess if the development requires a Water Supply Works (WSW) and/or a Water Access Licence (WAL). ▪ Preparation of a site-specific treatment plan for the treatment of groundwater prior to off-site disposal into stormwater. ▪ Preparation of detailed dilapidation surveys to provide a record of the existing conditions of surrounding buildings prior to demolition/construction and vibration intensive excavation.

Matter / SEAR	Potential Impact	Stage of Project	Mitigation Measure/s
			▪ Ongoing vibration monitoring should be undertaken during excavation for the proposed development for structures within 20m of the works. ▪ Implement measures to reduce vibrations associated with the use of rock hammers during excavation including: – Maintain rock hammers orientated towards the face and enlarge excavation by breaking small wedges off the face. – Use rock hammers in short bursts only to reduce amplification of vibrations. – Maintain a sharpmoil on the hammer. ▪ Groundwater seepage monitoring should be carried out during bulk excavation works and prior to finalising the design of a treatment and pump out system. ▪ Structural engineering design of shoring system, retaining walls, footing and floor slabs in accordance with the recommendations in the geotechnical report. ▪ Incorporate further geotechnical input into the design and construction of the development including: – Geotechnical analysis of shoring walls – Proof testing of anchors – Geotechnical inspection of all piles/footings.

Matter / SEAR	Potential Impact	Stage of Project	Mitigation Measure/s
Contamination	Management of potential contaminated soils onsite	Construction	- Implement an Unexpected Finds Procedure which includes a contingency to prepare a Remediation Action Plan if contaminated soils are discovered. - A confirmatory waste classification assessment must occur prior to the off-site disposal of any surplus soils/excavated materials.
	Impacts of construction waste on the environment	Construction	- All recyclable material will be separated and stored on site in skip bins or via an appropriate waste container. - The removal of any asbestos and other hazardous waste that may be found on the site will be in accordance with the requirements of EPA Guidelines and Ku-ring-gai Council requirements.
Waste Management	Impacts from waste generated by the operation of the building	Operation	- Clinical waste must be handled and managed in accordance with the <i>NSW Health Clinical and Related Waste Management for Health Services</i> and the <i>NSW EPA Waste Classification Guidelines</i>. This includes ensuring that clinical waste is only handled by staff trained in clinical waste procedures and provided with appropriate Personal Protective Equipment. Collection of clinical waste will be performed by a licensed clinical waste collection contractor on an as-required basis. - A bin tug is to be used to safely transport bins from the Building C and D waste rooms to the allocated collection point, reducing manual handling risks for building staff.

Matter / SEAR	Potential Impact	Stage of Project	Mitigation Measure/s
Social Impacts		Construction / Operation	- Preparation and implementation of a Construction Environmental Management Plan (CEMP) to manage noise, dust, vibration and traffic. - Implementation of CPTED principles, secure site design, controlled access, active frontages and passive surveillance.
Water Management	Impacts of erosion and silt-laden runoff as a result of construction works	Construction	Implement appropriate erosion and sediment management controls, such as sediment traps at pit inlets and sediment control fencing, in accordance with the Erosion and Sediment Control Plan.
	Impacts of the development on stormwater water quantity or quality	Operation	- Stormwater is to be collected and treated on site through an on-site pit and pipe network, rainwater reuse tank and OSD tank, before being discharged to the existing Council stormwater drainage network. - The following stormwater quality management measures are proposed: 15kL rainwater reuse tank. - ATLAN Stormsack pit inserts. 50 x Atlan Filters located within a chamber in the OSD tank.
Ecologically Sustainable Development	Adverse ESD impacts from the operation of the proposal	Operation	Implement ESD mitigation measures as detailed in the ESD report including: - Full electrification of buildings. - Rooftop solar PV system.

Matter / SEAR	Potential Impact	Stage of Project	Mitigation Measure/s
			- High-efficiency appliances, lighting and centralised systems. - Installation of high-performance glazing and operable facades. - Water-efficient fixtures, fittings and irrigation system. - Favour low-embodied-carbon and responsibly sourced materials during construction. - Provision of rainwater reuse tank. - Provide shading and utilise light-coloured materials to reduce urban heat island effect.
Archaeology	Impacts of the demolition and construction of the proposed development on any heritage items below ground level	Construction	- Prepare and implement a Historical Archaeological Research Design and Excavation Methodology (HARDEM) prior to the issue of a construction certificate. - As the proposed development will likely impact on potential locally significant remains if they survive, it is recommended that a program of archaeological investigation takes place during demolition and bulk excavation guided by the HARDEM.
Aboriginal Cultural Heritage	Impacts related to unexpected finds.	Construction	Implement an Archaeological Unexpected Finds Procedure and Human Remains Procedure during construction.