

APPENDIX D: MITIGATION MEASURES

Appendix D – Mitigation Measures

Ref.	Mitigation Measures	Stage in development
1	Detailed design	
A	The building is to be designed and constructed in accordance with the relevant requirements of the National Construction Code 2022 and relevant Australian Standards. In reference to AS4299 – 1995 an assessment of the adaptable and liveable housing has been provided within the Accessibility Report prepared by Credwell.	Detailed design phase
B	The building is to be designed and constructed in accordance with the relevant requirements of the Building Code of Australia.	Detailed design phase
3	Ecological Sustainable Design	
A	The development shall demonstrate compliance with the requirements of the ESD Report prepared by JHA. In particular this includes Section 4 which provides recommendations for a sustainable approach. The ESD consultant shall sign off to ensure each of the measures proposed have been achieved or a similar outcome based on other reasonable alternatives has been provided.	Detailed design phase/On-going operations of the development
4	Noise and Vibration	
A	According to AS 2436 – 2010 “Guide to noise and vibration control on construction, demolition and maintenance sites” the following techniques could be applied to minimize the spread of noise and vibrations to the potential receivers.	Construction phase
B	Water pumps, fans and other plant equipment that operate on a 24-hour basis may not be an irritating source of noise during the day but may be problematic at night. They should therefore be effectively screened by either situating them behind a noise barrier or by being positioned in a trench or a hollow in the ground provided this does not generate reverberant noise.	Construction phase
C	An appropriate silencer on the muffler and acoustic screen around a crane engine bay are recommended to attenuate the noise from it.	Construction phase
D	Monitoring may be in the form of regular checks by the builder or indirectly by an acoustic consultant engaged by the builder and in response to any noise or vibration complaints. Where noise and vibration criteria are being exceeded or in response to valid complaints, noise and / or vibration monitoring should be undertaken. This would be performed inside the premises of the affected property and on site adjacent to the affected receivers.	Construction phase
E	Per the acoustic assessment by JHA and requirements for Class 2 buildings within the National Construction Code the development could be applied to meet the requirements for acoustic performance to mitigate acoustic impacts from road and rail noise onto the development: - Category 1 Building Elements: - Openable windows and doors to have minimum 4mm monolithic glass and standard weather seals	Detailed design/ongoing operation

Ref.	Mitigation Measures	Stage in development
	- Frontage façade and roof construction shall include acoustic insulation in the cavity - Entry doors to be 35mm solid core timber door fitted with full perimeter acoustic seals - Floors to be concrete slab floor on ground - Category 2 Building Elements: - Openable windows and doors to have minimum 6mm monolithic glass and full perimeter acoustic seals - Frontage façade and roof construction shall include acoustic insulation in the cavity - Entry doors to be 40mm solid core timber door fitted with full perimeter acoustic seals - Floors to be concrete slab floor on ground	
F	Per the acoustic assessment by JHA, the following mitigation measures should be applied to mechanical plant equipment to ensure noise impacts are minimised on the nearest sensitive receivers: - Strategic location and selection of mechanical plant equipment - In-duct attenuation - Noise enclosures - Sound absorptive panels or noise barriers - Acoustic louvres	Detailed design/operation phase
G	A detailed Construction Noise Vibration Management Plan (CNVMP) shall be prepared prior to works commencing to detail the required mitigation measures for the specific construction stage proposed and equipment required to minimise noise impacts to the nearby affected receivers. The measures may include fixed and/or mobile acoustic screens, scheduling of works including any respite periods and identifying noisy works that can be further managed.	Detailed design
H	A noise and vibration survey is recommended to be prepared for any noisy and/or vibration intensive works as determined by the Acoustic Consultant in relation to the proposed works for each relevant stage of construction.	Detailed design
5	Geotechnical (Ground and Water)	
A	A soil management plan shall be prepared to minimise potential impacts from erosion and salinity on surrounding infrastructure and riparian corridors.	Detailed design
B	Soil salinity varies from non-saline to slightly saline with localised areas of moderately saline soils. Where the proposed site comprises imported fill, it is recommended that the fill is non-saline in nature.	Detailed design and construction phase
C	Long term groundwater assessment is recommended within the site to assess the subsurface conditions at the proposed excavation/construction levels. This will allow for assessment of potential ground water impacts prior to, during and post construction.	Detailed design, construction phase

Ref.	Mitigation Measures	Stage in development
D	During excavation, it will be necessary to use appropriate methods and equipment to keep ground vibrations at any nearby buildings and within the service pipes and pits constructed near the road pavements, within acceptable limits.	Construction phase
E	Dilapidation (building condition) reports should be undertaken on any nearby buildings, the geotechnical consultant considers may be affected by the excavations prior to commencing work on the site to document any existing defects so that any claims for damage due to construction related activities can be accurately assessed.	Detailed design phase
6	Waste	
A	Garbage shall be placed within tied plastic bags prior to transferring into the collection bins. Cardboard shall be flattened, and recycling containers un-capped, drained and rinsed prior to disposal into the appropriate bin. Bagged recycling is not permitted.	On-going management of the development
B	The Operator shall ensure that maintenance and upgrades are carried-out, on the facility and components of the waste system. When required, the Operator shall engage an appropriate contractor to conduct services, replacements or upgrades.	On-going management of the development
C	It shall be the responsibility of the Operator to protect the equipment from theft and vandalism. This shall include the following initiatives: - Secure the waste areas. - Label the bins according to property address. - Waste shall be collected within the onsite Service Bay (waste shall not be placed for collection outside the site boundary).	On-going management of the development
D	For any future appropriate Council request, changes in legal requirements, changes in the development's needs and/or waste patterns (waste composition, volume or distribution), or to address unforeseen operational issues, the Operator shall be responsible for coordinating the necessary Waste Management Plan revisions, including (if required): - A waste audit and new waste strategy. - Revision of the waste system (bin size/quantity/streams/collection frequency). - Re-education of users/staff. - Revision of the services provided by the waste collector(s). - Any necessary statutory approval(s).	On-going management of the development
E	Waste Management Systems to be designed in accordance with the Waste Management Plan by MRA (see Section 5 of MRA report)	Detailed design/operation
7	Social Impact	
A	Provide nearby residential receivers and education uses with information about the upcoming development and construction timeline.	Prior to construction / Construction phase/ On-going operation of the development.

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B	Consider improving emergency evacuation and safety by: - implementing strategies and procedures for tenants with complex needs to mitigate risk for people with limited mobility challenges in the event of an emergency evacuation - designing wide entrances and allocating units on lower levels to tenants with limited mobility. - providing information to all new tenants about evacuation processes.	On-going operation of the development.
C	Provide tenants with information packs (translated into community languages as required) on arrival that provide information about local facilities and services, including parks, shops, medical services, and other community facilities. This could also include tours of local facilities and open space.	On-going operation of the development
D	To mitigate potential conflict between tenants: - provide quality and adequate communal spaces. This includes indoor and open space communal areas, and spaces that cater to people with disability and their carers, families, older persons, and for meetings - clearly communicate CHP policies, guidelines and expectations to tenants. To mitigate potential conflict with neighbouring residents: - ensure policies and processes are in place to respond to grievances and handle complaints sensitively and effectively.	On-going operation of the development
8	Building Code of Australia	
A	Further regulatory assessments will need to be progressively undertaken during the subsequent design development phase and prior to the issue of the detailed design drawings to ensure compliance is achieved.	Detailed design phase
9	Accessibility	
A	Compliance with the relevant NCC and BCA provisions under <i>The Disability (Access to Premises – Buildings) Standards 2010</i> . Refer to Sections 4 to 6 of the Accessibility Report by Credwell	Detailed design phase
10	Biodiversity	
A	Development shall be consistent with the Biodiversity Management Plan (BMP) prepared as a condition of consent under the Concept Approval.	Construction phase
11	Bushfire	
A	The north building is to be designed and constructed to comply with BAL-12.5 of Australian Standard AS 3959-2018 Constructions of buildings in bushfire-prone areas (AS 3959). The NSW variation to AS 3959 listed at Section 7.5.2 of Planning for Bush Fire Protection 2019 is also to apply in addition to the BAL-12.5 specifications.	Detailed design phase

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12	Traffic	
A	A Construction Traffic Management Plan (CTMP) shall be prepared prior to the commencement of construction. The CTMP shall at a minimum identify: - Proposed construction vehicle routes - Expected construction vehicle types and volumes - Car parking arrangements for staff (including contractors) and site access during construction - Review of access arrangements and safety measures to minimise impacts to the nearby schools along Roy Watts Road. - Safety measures to minimise impacts to pedestrians and cyclists - The Contractor will also be responsible for monitoring and coordinating all vehicles entering and exiting the site	Detailed design phase
13	Contamination	
A	A Site Validation Certificate shall be issued prior to any Occupation Certificate at the Site.	Prior to occupation of the Site.
B	An unexpected finds protocol that provides clear instruction on actions to be taken if suspected contamination is uncovered shall be provided within the CEMP.	Detailed design phase and During Construction
14	Aboriginal Heritage	
A	Prior to construction or any ground impacting works, an unexpected finds procedure shall be prepared that provides clear instruction on actions to be taken if suspected Aboriginal objects, relics or human remains are uncovered. The unexpected finds procedure should be prepared as part of the CEMP and include actions and steps to follow in the event that unexpected finds are unearthed. In particular this is to include: - All on-site personnel are to be made aware of their obligations under the National Parks and Wildlife Act 1974, this includes protection of Aboriginal sites and the reporting of any new Aboriginal, or suspected Aboriginal, heritage sites. This may be done through an onsite induction or other suitable format. - No Aboriginal objects may be harmed without an approval from Heritage NSW under the National Parks and Wildlife Act 1974. - If any Aboriginal object(s) are discovered and/or harmed in, or under the land, while undertaking the proposed development activities, the proponent must: - Not further harm the object(s) - Immediately cease all work at the particular location Secure the area so as to avoid further harm to the Aboriginal object(s) - Notify NSW Environment Line as soon as practical by calling 131 555 or emailing: info@environment.nsw.gov.au, providing any details of the Aboriginal object(s) and its location	Detailed design phase and During Construction

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	○ Not recommence any work at the particular location unless authorised in writing by Heritage NSW. d) If harm to Aboriginal objects cannot be avoided, an application for an Aboriginal Heritage Impact Permit must be prepared and submitted to Heritage NSW before work may continue. e) In the event that skeletal remains are unexpectedly encountered during the activity, work must stop immediately, the area secured to prevent unauthorised access and NSW Police and Heritage NSW contacted.	