APPENDIX E – MITIGATION MEASURES SUMMARY

The following section provides recommendation for mitigation measures in response to potential impacts identified in Section 6 of the EIS. The structure of mitigation measures is based on the DPE's hierarchy of approaches for managing impacts identified in the *State Significant Development Guidelines* released by DPE in October 2022, as:

- **Performance based measure** – identify performance criteria that must be complied with to achieve an appropriate environmental outcome but do not specify how the outcome is to be achieved.
- **Prescriptive measure** – require action to be taken or specify something that must not be done.
- **Management based measure** – identify one or more management objectives that must be achieved through the implementation of a management plan.

Following the implementation of appropriate mitigation measures as recommended, it is determined that the proposal will not result in any significant adverse impacts on the surrounding environment. The following table illustrates how the matters raised within the SEARs will be addressed.

This analysis comprises a qualitative assessment consistent with AS/NZS ISO 31000:2009 *Risk Management–Principles and Guidelines* (Standards Australia 2009). The level of risk was assessed by considering the potential impacts of the proposed development prior to application of any mitigation or management measures. In accordance with the SEARs, the Environmental Risk Assessment (ERA) addresses the following significant risk issues:

- The adequacy of baseline data;
- The potential cumulative impacts arising from other developments in the vicinity of the site; and
- Measures to avoid, minimise, offset the predicted impacts where necessary involving the preparation of detailed contingency plans for managing any significant risk to the environment.

Risk comprises the likelihood of an event occurring and the consequences of that event. For the proposal, the following descriptors were adopted for 'likelihood' and 'consequence'.

Likelihood		**Consequence**	
A	Almost certain	1	Widespread and/or irreversible impact
B	Likely	2	Extensive but reversible (within 2 years) impact or irreversible local impact
C	Possible	3	Local, acceptable or reversible impact
D	Unlikely	4	Local, reversible, short term (<3 months) impact
E	Rare	5	Local, reversible, short term (<1 month) impact

The risk levels for likely and potential impacts were derived using the following risk matrix.

		LIKELIHOOD				
		A	**B**	**C**	**D**	**E**
CONSEQUENCE	**1**	High	High	Medium	Low	Very low
	2	High	High	Medium	Low	Very low
	3	Medium	Medium	Medium	Low	Very low
	4	Low	Low	Low	Low	Very low
	5	Very low	Very low	Very low	Very low	Very low

The results of the environmental risk assessment for the proposed development are presented in the below table and are based upon the range of technical and specialist consultant reports appended to the EIS. The table has directly related mitigation measures responding to each impact also based upon the range of technical and specialist consultant reports appended to the EIS.

N.B. **'O' – Operational; 'C' – Construction**

'Pe' – Performance based mitigation measure; 'Pr' – Prescriptive based mitigation measure 'Ma' – Management based mitigation measure

SEAR	Potential Impact	Stage of Project	Likelihood	Consequence	Risk Level	Approach	Mitigation Measure (Pe/Pr/Ma)	Residual Impact
Traffic and Transport	Potential traffic impacts from increased density on the site Construction traffic impacts on car parking and local streets	C and O	D	3	Low	A detailed Construction Traffic Management Plan is to be developed by the Principal Contractor and include the following information: ▪ Description of construction activities, duration and work hours ▪ Detailed assessment of construction traffic impacts including any cumulative impacts from surrounding developments. A Green Travel Plan is to be further developed and implemented during the operational phase of the development, and includes provisions such as: ▪ Public transport maps provided on noticeboards, newsletters, websites, social media to alert visitors and staff of the alternative transport options. ▪ Appointment of a Travel Plan Coordinator to implement and monitor the progress of the Green Travel Plan.	Pr Ma	Low
Noise and Vibration	Potential noise of the development during operation (including plant noise) Noise and vibration impacts from the existing train line. Traffic noise from Bourke Road Noise and vibration impacts during the construction phase.	C and O	D	4	Low	Construction Noise and Vibration ▪ Installation of a 2.4m high temporary noise barrier / hoarding along the perimeters of the site. ▪ Preparation of a construction management plan that includes: - Affected neighbours to the construction works would be advised in advance of the proposed construction period at least 1 week prior to the commencement of works. - High noise generating activities such as jack hammering should only be carried out in continuous blocks, not exceeding 3 hours each, with a minimum respite period of one hour between each block. - Noise and vibration monitoring should be undertaken if a complaint is received to minimise future impacts. ▪ Vibration monitoring is conducted during construction phase during rock breaking activities, excavation, and drilling of the ground, piling process, construction of the basement and ground levels or other related construction activity that may affect adjacent structures. <u>Operational Noise</u> ACOR have provided the following noise control measures for the mechanical plant and equipment: ▪ Selection of quieter mechanical plant and equipment. ▪ Installing the plant and equipment on appropriate vibration isolation to achieve 95% to 98% Isolation efficiency, depending on the sensitive location to the floor level below. ▪ Installing acoustic screen or noise barrier around the mechanical plant equipment. ▪ Installation of acoustic louvre where ventilation is required for the equipment.	Pr Ma	Low

SEAR	Potential Impact	Stage of Project	Likelihood	Consequence	Risk Level	Approach	Mitigation Measure (Pe/Pr/Ma)	Residual Impact
						▪ Acoustic lining of the HVAC ducts/ risers for control of airborne noise. ▪ Noise from mechanical plant and equipment should be reviewed once mechanical design is available for this project.		
Stormwater and wastewater	Potential impacts of proposed development on existing stormwater flow and quality.	C and O	D	4	Low	▪ Prior to any earthworks commencing on site, sediment and erosion control measure shall be implemented generally in accordance with the engineering drawings, Council requirements, and the Blue Book. These measures may include: - A temporary site security/safety fence is to be constructed around the site and the site office area. - Sediment fencing provided downstream of disturbed areas, including any topsoil stockpiles. - Dust control measures including covering stockpiles, installing fence hessian, and watering exposed areas. - Placement of hay bales or mesh and gravel inlet filters around and along proposed catch drains and around stormwater inlets pits - Any stockpiled material, including topsoil, shall be located as far away as possible from any associated natural watercourses or temporary overland flow paths. All stockpiles and embankment formations shall be stabilised by hydroseeding or hydro mulching on formation.	Ma	Low
Contamination and Remediation	Contaminated soils impact workers during construction or future occupants of the site in operation. Concentrations of lead in soil are shown to be the most significant contaminants of potential concern analysed within the site.	C and O	C	3	Medium	EP Risk provide the following mitigation measures: ▪ Preparation of a construction environment management plan by the site contractor. ▪ Development of an unexpected finds protocol to provide clear guidance on the safe and appropriate actions in the event of encountering potential chemical or ordnance contamination during development works. ▪ A site validation report is to be prepared documenting the remediation and validation completed and reviewed by the appointed NSW EPA accredited Site Auditor. ▪ A Site Audit Statement and Site Audit Report are to be prepared by a NSW EPA accredited site auditor assessing the suitability of the site for the proposed use, as well as any long-term management requirements.	Ma	Low
Flooding	The site is located near a sag point on Bourke Road and is located in a high flood risk zone with major overland flow expected at or near the site.	C and O	C	4	Low	Enstruct provide the following flood management measures in the Operational Flood Emergency Management Plan for the proposed development: ▪ When any flood warnings are issued, medical procedures involving anaesthesia should be rescheduled where possible. Admissions should also be rescheduled where possible. ▪ Evacuation drills are designed to increase flood awareness within the building. ▪ Once a Flood Warning for the City of Sydney Council LGA has been issued, the chief flood warden is to evacuate the site in accordance with the OFEMP. ▪ The Emergency Planning Committee is to review the OFEMP annually and updated as required. ▪ The Emergency Planning Committee shall contact Council annually to confirm if any new street drainage upgrades are planned or have been constructed.	Pr Ma	Low

SEAR	Potential Impact	Stage of Project	Likelihood	Consequence	Risk Level	Approach	Mitigation Measure (Pe/Pr/Ma)	Residual Impact
Waste management	Potential impacts from waste generated during construction and operational phases	C and O	C	4	Low	▪ Waste contractors will be required to comply with the OWMP requirements to achieve and maintain best practice. ▪ The laboratory and clinical operations special waste streams are to be managed in accordance with relevant hazardous waste disposal guidelines and legislative requirements. ▪ All waste and recycling streams should be differentiated with clear signage on all bins and on walls within the waste storage room. ▪ Bin hubs are to be implemented throughout common areas, admin areas, workspaces, and the like. ▪ All sharps are to be collected in a rigid and puncture-proof contained that meets the Australian Standard Requirements (AS 4031). ▪ Spill kids are to be made available in all areas where chemical waste is generated. ▪ An E-Waste collection service will be set up either quarterly or biannually depending on the volumes generated.	Pe Ma	Low
Ecologically sustainable development	Potential increase in energy consumption associated with demolition, construction and operational phases	C and O	D	4	Low	The development is to target a 'Credit Achievement' of Credit 22 resulting in at least 20% less energy use compared to a reference building.	Pr	Low
Aboriginal cultural heritage	Aboriginal objects are unlikely to be present in remnant natural soil deposits below the existing development.	C and O	D	4	Low	Urbis Heritage recommends the following: ▪ A staged subsurface archaeological excavation program is to be undertaken in accordance with the Archaeological Research Design and Excavation Methodology (ARD & EM). ▪ The subsurface archaeological investigation program should be undertaken with the participation of nominated Aboriginal RAPs and appropriately qualified archaeologists. ▪ A protocol for the handling of any Aboriginal objects and archaeological resources that might be uncovered during the monitoring and archaeological investigations should be developed in consultation with RAPs as part of the ARD & EM. ▪ An Aboriginal Archaeological Post Excavation Report is to be prepared following completion of the archaeological investigation program, with further recommendations based on the findings of the excavation, including in relation to any Aboriginal objects identified. ▪ An unexpected archaeological finds and human remains procedure should be implemented and followed after the investigation program is complete and the construction program is underway.	Ma	Low
Environmental heritage and archaeology	Potential impacts to surrounding heritage items and potential archaeological elements.	C and O	D	4	Low	▪ Prior to the commencement of any works on the site, the existing buildings at the site are to be archivally recorded in accordance with the relevant guidelines published by the Heritage Council of NSW. The archival recordings should capture the existing buildings, externally and internally, and include images of their current setting. ▪ Archaeological monitoring should be undertaken for areas where potential archaeological resources are anticipated within the site.	Ma Pr	Low

SEAR	Potential Impact	Stage of Project	Likelihood	Consequence	Risk Level	Approach	Mitigation Measure (Pe/Pr/Ma)	Residual Impact
						▪ An Archaeological Research Design & Monitoring Methodology (ARD & MM) should be prepared prior to any works being undertaken. The ARD & MM should detail procedures for mitigating impacts to historical relics within the subject site. The ARD & MM is to include the following: - A methodology of archaeological monitoring of the proposed works. - Procedures to be followed in the event that State significant relics are unexpectedly encountered. - Procedures for handling and storage of any relics encountered within the site. - A requirement for post-monitoring reporting upon completion of the archaeological monitoring program, should significant archaeological relics be uncovered. - Procedures to be followed in the event that unexpected archaeological finds or human remains are encountered during the works.		
Construction management	Potential negative impacts to community during construction	C	D	4	Low	▪ Prior to construction works commencing, the Principal Contractor will develop a Construction Pedestrian and Traffic and Management Plan which will detail how traffic, pedestrian and cyclist access will be managed during the construction works. ▪ Prior to commencing the works onsite and at completion, the appointed Principal Contractor will generate a Pre and Post Dilapidation Report which is to include: - existing roads and access roads; - infrastructure; - adjacent buildings; - adjoining properties; - existing landscape, including trees to be retained; - services mains; - stormwater systems; and - existing utilities and authority services.	Ma	Low