

MITIGATION MEASURES

This table identifies the updated mitigation measures that have resulted from the response to the submissions. For clarification purposes, any new mitigation measures are marked as '**bold**' and any mitigation measures no longer relevant have been struck through. Appendix references are to those submitted with the EIS.

Table 1 Mitigation Measures

Aspect	Potential Impact	Mitigation Measures
Wind Impacts	Adverse pedestrian wind environment on and surrounding the site.	 Further liaison with the design team will be undertaken during the next phase of the development to incorporate further mitigation strategies as appropriate in the northwest colonnade when only the SCH1/CCCC building is constructed. This could be ameliorated by partially blocking the colonnade along the north and west facade with the inclusion of a facia or balustrade, the inclusion of landscaping to the north and/or hanging artwork under the colonnade.
Transport and Accessibility	Increased construction traffic on local roads.	 The Principal Contractor will prepare a comprehensive CTPMP with Traffic Control Plans prior to commencement of works, detailing specific methods of safely managing construction vehicle traffic within the surrounding area. and any required road closures for mobile crane days if required. The recommendations included in the preliminary CTPMP prepared by Arup (Appendix H) are to be considered and incorporated where appropriate in the final
		CTPMP.
	Increased operational traffic on local roads.	 SCH1/CCCC to actively promote the take up of sustainable travel modes and initiatives set out in the RHC GTP and the traffic and transport assessment prepared by Arup.



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	Impacts to pedestrians and cyclists during construction	 The Principal Contractor will prepare a comprehensive CTPMP with Traffic Control Plans prior to commencement of works, detailing specific methods of safely managing construction vehicle traffic within the surrounding area and any required road closures for mobile crane days if required. The recommendations included in the preliminary CTPMP prepared by Arup (Appendix H) are to be considered and incorporated where appropriate in the final CTPMP.
	Insufficient parking availability	 SCH1/CCCC to actively promote the take up of sustainable travel modes and initiatives set out in the preliminary GTP prepared by Arup to support the EIS.
	Impacts to the operation of the light rail network	 Restrict-Limit vehicle access to the site from High Street during construction and operation.
Aboriginal Heritage	Impact on Aboriginal places of significance during construction.	 Excavations of the northern portion of Eurimbla Avenue are to be jointly monitored by MDCA and the LPLALC under a stop work provision and Unexpected Finds Protocol in the event of an unexpected find.
Biodiversity	Impact on biodiversity on or surrounding the site.	 Appropriate controls are to be utilised to manage exposed soil surfaces and stockpiles to prevent sediment discharge into waterways. Soil and erosion measures such as sediment fencing and clean water diversion must be in place prior the commencement of construction work.
		 Construction lights or development lights should be positioned to prevent shine into proposed new landscaped vegetation. Noise should be limited to approved construction hours only. Dust should be managed through appropriate dust control management plan.
		 Waste bins to be present on site. Covers to be used to prevent blown litter and the



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		 entry of pest animals or rain. Vehicles, machinery and building refuse should remain only within the development site. Washdown protocols for vehicles should be observed to prevent the entry of soil borne pathogens such as Phytophthora. Weed management to be undertaken where required. Weeds should be removed and handled in accordance with relevant Biosecurity Act protocols if high threat weeds are present. Construction staff to be briefed prior to work commencing to be made aware of any sensitive biodiversity values present and environmental procedures such as: Site environmental procedures (sediment and erosion control, exclusion fencing and weeds) What to do in case of environmental emergency (chemical spills, fire, injured fauna) Key contacts in case of environmental emergency. It is recommended that landscaping in the development site considers the use of locally derived native species and those found within PCT 1793.
Social Impacts	General disruption to the community associated with large scale construction.	 Continue to communicate with the community, especially harder to reach lower socio-economic communities, during operation on the services provided at the SCH. Opportunities in the public and industry CCCC laboratories for patients, families, and the broader community to attend information and/or activity sessions to learn and interact with research. Implement the SCHN existing Indigenous Employment and Workforce Development Strategy which aims to increase the representation of Aboriginal employees to 2.6% across NSW Health. Prepare a workforce plan which outlines proposed staffing changes across SCH, and



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		 new roles. Develop relationships with local high schools to enhance knowledge of career opportunities in the health sector. Work with the local Aboriginal community in the final stages of design for the Indigenous gathering space. Continue to engage children, families and staff in the detailed design of open spaces associated with the proposal. Implement a landscape maintenance schedule in the Hospital's Operational Plan or Plan of Management. Use Council's community hub locations to distribute construction and project updates and reach communities across the LGA. Actively promote the take up of sustainable travel modes and initiatives set out in the traffic and transport assessment prepared by Arup to support the EIS. Ongoing monitoring of car park activity.
Environmental Performance/ESD	Irreversible increase in resource consumption	Implement the recommendations of the ESD Report (Appendix O).
Noise and Vibration	Adverse external noise and vibration impacts associated with construction	 General Management Measures – Introduce best-practice general mitigation measures in the workplace which are aimed at reducing the acoustic impact onto the nearest affected receivers.
	Adverse external noise and vibration impacts associated with operation	 Project Notification – Issue project updates to stakeholders, discussing overviews of current and upcoming works. Advanced warning of potential disruptions can be included.



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		Verification Monitoring – Monitoring to comprise attended or unattended acoustic surveys. The purpose of the monitoring is to confirm measured levels are consistent with the predictions in the acoustic assessment, and to verify that the mitigation procedures are appropriate for the affected receivers.
		If the measured levels are higher than those predicted, then the measures will need to be reviewed and the management plan will need to be amended.
		 Complaints Management System – Implement a management system which includes procedures for receiving and addressing complaints from affected stakeholders.
		 Specific Notification – Individual letters or phone calls to notify stakeholders that noise levels are likely to exceed noise objectives.
		 Alternatively, the Contractor could visit stakeholders individually in order to brief them in regard to the noise impact and the mitigation measures that will be implemented.
		 Respite Offer – Offer provided to stakeholders subjected to an ongoing impact. The offer could include movie tickets, meal vouchers, gift cards or equivalent measures.
		• Alternative Construction Methodology – Contractor to consider alternative construction options that achieve compliance with relevant criteria. Alternative option to be determined on a case-by-case basis. It is recommended that the selection of the alternative option should also be determined by considering the assessment of on-site measurements.
	Adverse internal noise ar vibration impacts from external sources (light rai traffic, helicopter)	Acoustic Assessment to satisfy internal noise level criteria.



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	Stormwater	Inadequate drainage on site	 The ground level suspended podium is to be constructed with suitable drainage and falls to ensure that freeboard is provided to entrances of the proposed development so that any overflow is discharged away from the proposed building and does not impact any downstream properties. Sediment and control measures are to be implemented during construction in accordance with the Landcom 'Blue Book'.
	Flooding	Site flooding and risk to life	Prior to occupation of the IASB building, a sufficient barrier should be in place along the full frontage of High Street. This barrier needs to be at or above the PMF plus freeboard level. The flood barrier needs to be in place prior to the opening of the IASB and remain in place while the IASB is operational. The flood barrier in front of SCH1/CCCC and HTH may be a temporary or permanent wall design based on the staging times of both projects.
			This barrier needs to be watertight and able to resist the hydrostatic pressures imposed by the flood water. Options could include a wall of suitable construction or an engineered soil berm. A flood barrier will also need to be constructed along the Botany St boundary to provide the required freeboard to the floodwaters flowing down the road reserve.
			 During construction of the SCH1/CCCC building a sufficient temporary or permanent flood barrier needs to be maintained along the High St frontage of both the HTH and SCH1/CCCC sites. This barrier needs to be at or above the PMF plus freeboard level. The adopted construction methodology for the barrier will be developed by the SCH1/CCCC builder.
			 On completion of the SCH1/CCCC development, an interim flood protection wall still need to be provided along the High Street and Botany Street boundaries of the HTH site until that building is completed. This temporary barrier will be connected to the permanent SCH1/CCCC barrier to ensure the two work in



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		conjunction with each to provide a complete barrier to the northern site boundary. Please refer to the diagram in Appendix C for details. The basement entry off Botany Street is permanently protected by a crest entrance level in the forecourt set at the 1% AEP plus freeboard level. Additionally, the adjacent structural walls of the entry ramp to the basement are to be set at a height above the 1% AEP plus freeboard level to also provide a permanent solution to protect the basement of the building as well as the HTH basement.
		In order to provide flood protection to the RCR site and RHC, the SCH1/CCCC and HTH should construct an impermeable barrier to RL56.25 along the full length of the High Street frontage.
		It is recommended that this flood barrier be constructed prior to occupation of the IASB to provide it with flood protection in a PMF event.
		 On completion of the SCH1/CCC and HTH developments, the building structures can form the flood barrier along High Street.
Soil and Water	Impact on surface and groundwater conditions	 Implement sediment and erosion control measures provided in the Stormwater Management Plan (Appendix T).
		Additional rock-cored boreholes to confirm the depth and strength of rock for foundation design, together with additional groundwater monitoring wells are recommended to fill in data-gaps from the Desktop Assessment.
		 Dilapidation (building condition) reports should be prepared for adjacent structures and infrastructure located within at least about 15m from the site boundaries, prior to commencing excavation work on the site.
		All excavated materials will need to be disposed of in accordance with the provisions



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		of the current legislation and guidelines including "Waste Classification Guidelines" – 2014, New South Wales Environment Protection Authority (NSW EPA). This includes fill and natural materials that may be removed from the site.
		 Vibration trials should occur at the commencement of excavation in rock to determine minimum setbacks from existing buildings or sensitive areas for specific plant, whether the use of other plant or continuous vibration monitoring is required.
		During construction of the basement and any deep lift cores/stairs and service trenches, any exposed excavation faces should be inspected at regular 1.5m depth intervals by an experienced geotechnical engineer to assess the need for any further stabilisation requirements, such as reducing the steepness of a batter, installation of ground anchors or shotcrete protection.
		 Temporary ground anchors may be required to restrict wall movements during the construction phase, with permanent support of retaining walls anticipated to be provided by the final structure.
		It is recommended that all building footings are founded on at least medium strength sandstone to reduce the risk of differential settlement.
Waste	Construction waste production	The Principal Contractor will prepare a comprehensive CWMP prior to commencement of works and take into consideration the recommendations of the preliminary CWMP prepared by WSP (Appendix W).
	Operational waste production	 Extended waste stream separation, including streams such as paper / cardboard, pallets, metals and electronics.
		 The use of large waste compactors where appropriate, minimising frequency of waste collection.
		Separate waste stores for common and clinical waste volumes, as to minimise risk of



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		 inappropriate material handling. Separate clinical waste stores for SCH1/CCCC, as to provide for ease of individual operations. Separate "clean" (incoming deliveries, food, clean linen, etc.) and "dirty" (waste, dirty linen, etc.) loading bays, as to minimise risk of cross contamination.
Contamination	Exposure of contamination or hazardous materials during construction and operation	Implement the remediation procedures, unexpected finds protocols and completion of the validation assessment detailed in the RAP.
Access	Inadequate access for people with a disability.	 Ensure compliance with the matters identified in the BCA and DDA Compliance Assessment (Appendix DD) at Crown Certificate stage.
Airspace	Adverse impacts on protected airspace	Maintain proposed maximum building height.
Cumulative Impact	Cumulative impacts (traffic, noise, dust etc.) associated with the concurrent construction and operation of the site and other development in the area (construction and operation).	 Prepare and implement a comprehensive CMP that addresses construction traffic, waste and noise matters. Actively promote the take up of sustainable travel modes and initiatives set out in the traffic and transport assessment prepared by Arup to support the EIS.