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APPENDIX E

Mitigation Measures

SSD-26876801

Relocation of The Forest High School

Allambie Road, Allambie Heights

Prepared for: School Infrastructure NSW
November 2022

Mitigation Measures		
Environmental Impact	Mitigation Measure	EIS Section or Appendix
Architecture	No mitigation measures required.	Section 6.1 Appendix G
Tree Protection	<ul style="list-style-type: none"> All tree pruning and removal is to be carried out by an arborist with a minimum AQF Level 3 qualification in Arboriculture. All tree work must be in accordance with Australian Standard AS 4373-2007, Pruning of Amenity Trees and the NSW WorkCover Code of Practice for the Amenity Tree Industry (1998). Permission must be granted from the relevant consent authority prior to removing or pruning of any of the subject trees. Approved tree works should not be carried out before the installation of tree protection measures. Any additional construction activities within the TPZ of the subject trees must be assessed and approved by the project arborist and must comply with AS 4970-2009 – Protection of trees on development sites. Tree protection guidelines as outlined in Appendix E of the Arboricultural Impact Assessment prepared by Eco Logical Australia (February 2021) must be implemented during the construction period if no tree-specific recommendations are detailed. 	Section 6.7 Appendix J
Landscaping	No mitigation measures required.	Section 6.8 Appendix L
Ecologically Sustainable Development	<ul style="list-style-type: none"> The new school will exceed the National Construction Code (NCC) Section-J Energy efficiency requirements by at least 10%. The new school will meet the sustainability requirements outlined in the School Infrastructure New South Wales (SINSW) Educational Facilities Standards and Guidelines. The new school will be registered with the Green Building Council of Australia (GBCA) for a formal 5 Star Green Star certification, under the Green Star Design and As Built v1.3 tool. Soft landscaping will be used to reduce the heat island effect and improve outdoor thermal comfort. Where possible include cool paving with high albedo surface and hardscaping and roofing materials with high Solar Reflectance Index (SRI) being mindful of glare. The new school will implement planting around parking and other areas adjacent to hardscaped areas to improve shading and to reduce the heat island effect. For landscaping, native species with low water requirements will be selected. The new school will include Water Sustainable Urban Design features such as permeable paving, to contribute towards natural absorption and water detention against potential increased storm events. The new school will collect and reuse rainwater from roofs to be used for landscape irrigation. The new school will reduce Water consumption through efficient irrigation systems and efficient water fixtures. Hardscape levels will be designed to allow for passive irrigation. The new school will include shading around external plant areas for improved cooling performance. The new school will include 99kW photovoltaic array, as an onsite energy generation system. 	Section 6.10 Appendix M
Operational Traffic	<ul style="list-style-type: none"> The following infrastructure upgrades and public transport service changes are to occur prior to the occupancy of the new school: <ul style="list-style-type: none"> Signalisation of Allambie Rd / Aquatic Dr. Zebra crossing and pedestrian fencing west approach to Rodborough Rd. Widening of the shared path to 3m (where feasible) on Allambie Road along the perimeter of the school site Footpath along the northern side of Aquatic Drive. 	Section 6.6 Appendix N

Mitigation Measures		
Environmental Impact	Mitigation Measure	EIS Section or Appendix
	<ul style="list-style-type: none"> ○ 121 bicycle and 61 scooter parking spaces. ○ Addition of a new bus zone on Aquatic Drive frontage of the school. ○ Removal of the bus stop on Allambie Road (TSN 2100177) per request from TfNSW due to road safety issues. ○ Relocation of Allambie Rd bus stop on school frontage further south to allow for two stands (TSN 210096). ● The following transport encouragement initiatives are to occur in the first year post occupation: <ul style="list-style-type: none"> ○ Staggered bell times ○ School Transport Committee ○ Funded Travel Coordinator ○ Governance arrangement as per School Transport Plan ○ Ridescore (if available) ○ Transport Access Guide ○ NSW Police road safety training ○ Tap on every time program ○ Bike repair quarterly on school grounds ○ Cycle to school competition with paid prizes (e.g. win a bike) ○ Bicycle skills training ○ Inquire into Bicycle NSW Spring Cycle Event ○ Bicycle network decals on paths ● The relocation of school special routes to new school location is to align with the first date of occupancy. 	
Construction Traffic	<ul style="list-style-type: none"> ● Upon completion of the shell of the on-site basement carpark, it will be made available for use by construction workers to provide on-site car parking. ● Prior to construction works commencing, the Principal Contractor will develop a Construction Pedestrian and Traffic Management Plan which will detail how traffic, pedestrian and cyclist access will be managed during the construction works. ● Traffic flows and vehicle/pedestrian separation are a major consideration and pedestrian routes are to be maintained throughout construction. Traffic control personnel will be provided by the Principal Contractor during operating hours, or as advised by the Principal Contractor within their Construction Pedestrian and Traffic Management Plan. ● Key issues for traffic, pedestrian and cyclist management during construction is to be considered in the Construction Pedestrian and Traffic and Management Plan include, but is not limited to: <ul style="list-style-type: none"> ○ Provide safe and uninterrupted access for pedestrians and vehicles accessing the construction site, surrounding roads and neighbour's driveways; ○ Ensure maximum safety of site personnel, pedestrians, cyclists, commuters, and drivers; ○ Minimise environmental nuisance and impact as a result of construction traffic; ○ Ensure construction traffic does not unduly interrupt existing traffic flows on the local road network; ○ Safe operation of buses and other transport services during construction in adjacent roads; ○ Have no vehicles arrive at the site, without prior arrangement, outside the approved working hours; ○ Encourage site workers to utilise local public transport system and car sharing wherever possible; ○ Timely and effective implementation of traffic management measures; ○ Fulfilling the Council and the Roads and Maritime Services requirements, where applicable. ● Pedestrian and vehicular movements into and around the site will be maintained, or alternate routes determined where necessary, and be defined by clear signage. If necessary, physical traffic management personnel will be used to guide pedestrians and vehicles safely. 	Section 6.6 Appendix N Appendix X

Mitigation Measures		
Environmental Impact	Mitigation Measure	EIS Section or Appendix
	<ul style="list-style-type: none"> • Temporary hoarding appropriate to the interaction between pedestrians and construction works (as per Workcover requirements and Australian Standards) will be constructed to prevent unauthorized access to the construction site. These hoardings and fences may be staged to allow for appropriate construction methodologies to be planned. • Deliveries to within the site will be managed through dedicated site entrances and exits. These will be outlined by the Principal Contractor. • Materials will be staged and stored in such a way to promote a clear and safe work site. At all times, materials are to be stored within the confines of the site. While loading and unloading vehicles, it will be clearly stated that vehicles must not obstruct roads, driveways and escape routes from the building or fire protection equipment. 	
Biodiversity	<ul style="list-style-type: none"> • No clearing should occur during the early evening or at night, when nocturnal fauna species are most likely to be active. • The direction of clearing should ensure that fauna species are directed away from threats such as roads, developed areas or disturbed areas. • Trained ecologist or licensed wildlife handler is on-call during all native vegetation clearance in the case that native fauna is injured and requires capture. • Areas of vegetation outside the development footprint are to be clearly demarcated with temporary chain mesh fencing to prevent accidental clearing during the construction phase. • Areas of disturbance are to be rehabilitated as soon as practicable. • Areas of vegetation outside the development footprint are to be clearly demarcated with temporary chain mesh fencing to prevent accidental clearing during the construction phase. • All vehicles, equipment, footwear and clothing should be clean and free of weed propagules prior to entering the subject land. • Any weeds that are removed during the construction phase should be disposed of appropriately. • Sensitive environmental areas are to be identified and communicated in all onsite briefings, for all staff prior to conducting work on the site. • A Vegetation Management Plan (VMP) is to be prepared prior to construction. • The VMP is to ensure that the persons undertaking the development undertakes initial weed removal and planting works over a minimum of three (3) years. 	Section 6.7 Appendix O
Operational Noise and Vibration	<ul style="list-style-type: none"> • Construct a 2.1 metre high lapped and capped timber fence noise barrier along the southern and western side of the Games Courts in accordance with the Fencing Strategy prepared by Architectus, dated October 2022. • The external doors to the Movement Studio / Lecture Theatre are to be closed when events are being carried out in these spaces. 	Section 6.11 Appendix P
Construction Noise and Vibration	<ul style="list-style-type: none"> • Construction hours for the project will be limited to: Monday to Friday = 7am to 6pm, Saturday = 8am to 1pm, Sunday and Public Holidays = No work unless otherwise approved by Council and the Consent Authority. • Site access and delivery points shall be located as far away from residences as possible. • Truck movements shall use arterial roads and be diverted away from residential streets where feasible. • Deliveries to/from site shall not occur during the night time period where possible. • Site management procedures will include the following: <ul style="list-style-type: none"> ○ Regularly train workers and contractors (such as at toolbox talks) to use equipment in ways to minimise noise. ○ Site managers to periodically check the site and nearby residences for noise problems so that solutions can be quickly applied. 	Section 6.11 Appendix P

Mitigation Measures		
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	<ul style="list-style-type: none"> ○ Processes that generate lower noise levels should be selected where feasible. ○ Noisy plant should be located as far away from residences as is practical to allow efficient and safe completion of the task. ○ The potential shielding provided by site topography and intervening buildings should be taken into account in locating equipment. ○ Site compounds should be located as far away as possible from residences. ○ Equipment that is used intermittently should be shut down or throttled down to a minimum during periods where it is not in use. ○ Works should be planned to minimise the reduce the noise from reversing signals. ○ Warning horns should not be used as signalling devices. ○ Two way radios should be set to the minimum effective volume. ○ Noise associated with packing up plant and equipment at the end of works should be minimised. ○ Avoid the use of radios or stereos outdoors. ○ Avoid the overuse of public address systems. ○ Avoid shouting, and minimise talking loudly and slamming vehicle doors. ○ Turn off all plant and equipment when not in use. ● Equipment management will include the following: <ul style="list-style-type: none"> ○ Selection of low-noise plant and equipment where possible ○ Equipment should be well maintained ○ Equipment should have quality mufflers and silencers installed where relevant ○ Equipment not in use on site should be shut down ○ Tasks should be completed using the minimum feasible power and equipment. 	
Geotechnical Investigations	No specific mitigation measures required.	Section 6.16 Appendix Q
Civil Engineering, Stormwater and Flooding	<ul style="list-style-type: none"> ● The erosion and sediment control plan contained in Appendix C of the Civil Engineering report prepared by Enstruct, dated 28 September 2022 is to be implemented. 	Section 6.4 Section 6.5 Appendix R
Bushfire	<ul style="list-style-type: none"> ● Asset Protection Zones are to be provided and maintained in accordance with the Bushfire Protection Assessment Report prepared by Australian Bushfire Protection planners, dated August 2022. ● The management of the Asset Protection Zones to the west and north of the buildings and the landscape gardens across the remainder of the school site shall comply with the standards contained in Appendix 4 of Planning for Bushfire Protection 2019 and the NSW Rural Fire Services' Publication – 'Standards for Asset Protection Zones'. ● Asset Protection Zones shall comply with the standards provided by Appendix A4.1.1 – Inner Protection Area (IPA) of Planning for Bushfire Protection 2019. ● The remainder of the school site (except for the retained Duffys Forest vegetation) shall comply with the standards provided by Appendix A4.1.2 – Outer Protection Area (OPA) of Planning for Bushfire Protection 2019. ● A construction standard of BAL 12.5 applies to all buildings within buildings within 100 metres of the hazard on the Ausgrid land to the north of Allambie Road and 100 metres to the east of the Duffys Forest vegetation within the western portion of the school site. ● To protect against ember attack, all buildings shall be constructed to comply with Section 3 and Section 5 (BAL 12.5) of A.S. 3959-2018 – 'Construction of Buildings in Bushfire Prone Areas'. 	Section 6.3 Appendix V

Mitigation Measures		
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	<ul style="list-style-type: none"> • The walls of the Carpark shall be constructed of non-combustible materials with a one-hour fire-rated roller shutter provided to the entry to the carpark. • The roller shutter door shall be fitted with a Vesta activation sensor to close the door in the event of a bushfire occurring in the vegetation on the western side of the driveway to the Arranounbai School. • The fire-fighting water supply to the proposed school shall comply with the Building Code of Australia [BCA] and A.S. 2419.1 – 2022 with a hydrant supply installed to provide coverage to all buildings. • An additional hydrant shall be provided at the western end of Block G and in the Carpark. A Booster Valve Assembly shall also be provided, located on Allambie Road between the Entry and Exit points to the Loading Area. • The fire-fighting water supply to the proposed school shall comply with the Building Code of Australia [BCA] and A.S. 2419.1 – 2022 with a hydrant supply installed to provide coverage to all buildings. An additional hydrant shall be provided at the western end of Block G and in the Carpark. • A Booster Valve Assembly shall also be provided, located on Allambie Road between the Entry and Exit points to the Loading Area. • Electricity and gas supplies shall be laid underground. • A Bushfire Emergency and Evacuation Plan (PEEP) shall be prepared for the school. • The BEEP shall establish protocols for the relocation of students and staff initially to the on-site safe refuge (Block F – GYM) and protocols for the evacuation of the school, from the on-site safe refuge via buses using Allambie Road, travelling north to Warringah Road, if advised by the Emergency Services. 	
Site Remediation	<ul style="list-style-type: none"> • Any asbestos or contaminant impacted fill will be stockpiled separately to clean natural soils excavated to minimise cross contamination and subsequent potential for higher volumes of cut materials needing removal from the site. • No asbestos or contaminant impacted fill will be reused on the site at the final surface for capping, garden beds, landscaping, playing fields, courts or within remnant vegetation areas in the western portion of the site. • After completion of remediation / development, an EMP must be prepared that summarises the 'as built' site status and requirements for the operational phase of the site to minimise risks of exposure to capped and contained contaminant impacted fill and any other areas of the site that may require long term environmental management. • Implementation responsibility of the EMP for capped and contained materials will be the NSW Department of Education. • A minimum of five days' notice to Safe Work NSW for asbestos management works (associated with asbestos in soil excavation) is required. This must be undertaken by the contractor and a copy of correspondence submitted to NSW Department of Education or the Principal and the appointed environmental consultant. Asbestos licensed contractors in NSW can lodge the notification electronically using Safe Work NSW Asbestos and demolition online notification system or complete the notification form available on the Safe Work NSW website. • In accordance with the requirements of State Environmental Planning Policy No 55 – Remediation of Land (SEPP55, 1998), the soil remediation works are considered Category 2 remediation works. Therefore, a development application is not required to be submitted to Northern Beaches Council. In accordance with clause 16 (2a) of SEPP 55, 30 days notification must be provided to City of Sydney Council before the commencement of remediation works at the site. The notification document must be in accordance with the provisions of SEPP 55. • Confirmation of the Northern Beaches Council permitting requirements must be completed by the chosen remediation contractor and a copy of correspondence submitted to NSW Department of Education or the Principal and the appointed environmental consultant. • Air monitoring set up and reporting to be undertaken by a licensed asbestos assessor (LAA). 	Section 4.7 Section 6.16 Appendix W

Mitigation Measures		
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	<ul style="list-style-type: none"> • A minimum of eight sampling pumps with cowls should be set up and air quality sampled over an eight (8) hour period (1 day) concurrently with construction hours. The pump locations should be nominated by the LAA. An additional asbestos air monitoring cowl should be placed near one of the pumps to act as a 'control'. The cowls shall be analysed by a NATA accredited laboratory in accordance with the membrane filtration method and the National Institute for Occupational Safety and Health (NIOSH), 2005. Guidance Notes on Membrane Filter Method on estimating air borne asbestos fibres- Second Edition – NOHSC – 3003. • A surface inspection by an appropriately qualified person should be completed to assess for ACM following building and structure demolition in the north-east of the site and prior to removal of topsoil and vegetation to mitigate the potential for stockpiles of ACM impacted soils to be generated. • The handling of asbestos contaminated fill as part of the civil earthworks will be undertaken by an asbestos removal contractor who holds the appropriate class of Asbestos Licence, issued by the Safe Work NSW. There are two types of licenses: Class A (can remove any amount of FA, ACM, non-friable asbestos and asbestos contaminated dust or debris) and Class B (can remove any amount of non-friable asbestos, ACM, asbestos contaminated dust or debris associated with the removal of non-friable asbestos or ACM). Due to the presence of bonded ACM and some AF/FA, a Class A licensed asbestos removalist must be engaged for the remediation work that deals with asbestos contaminated fill. • The engaged contractor will ensure that risk assessments and control measures are implemented in accordance with the Work Health Safety Act 2011 Code of Practice titled: How to Safely Remove Asbestos and any other guidance notes required for work within NSW. Prior to the commencement of the remediation works, the contractor must notify the regulator in writing at least five days before the licensed asbestos removal work commences and develop an asbestos removal control plan. • All asbestos containing materials will be disposed off-site at a suitably licensed landfill (unless they can be capped and contained as per the Remediation Action Plan provided at Appendix W. • Excavation is to occur in areas proposed for inground services trenching, lower ground levels, plant rooms or any other works expected to intercept the contaminant impacted fill. • Stockpiles of asbestos contaminated fill will be managed in accordance with Section 6.7.7 of the Remediation Action Plan provided at Appendix W. • A water spray bowser must be available on the site to suppress any potential airborne dusts released during the excavation and during the loading of trucks. • Where groundwater is required to be pumped from excavations or minor dewatering, the groundwater should • be managed in the following ways depending on the water quality, site aspects and construction requirements: <ul style="list-style-type: none"> ○ Minimise contact with groundwater across the site. ○ Do not use for dust suppression unless water quality sampling has been undertaken and confirmed that groundwater quality is suitable for application to surface soils on the site. ○ Excavate a soak away pit for groundwater into the same shallow unconfined sandy aquifer that will dissipate down gradient of the excavation, ensuring that no significant contamination is present in the groundwater via sampling to characterise. ○ If groundwater requires discharge off the site to sewer (Sydney Water trade waste agreement) or Council stormwater systems, the appropriate permission from the authority for that discharge must be granted prior to discharge occurring. This will likely require sampling of groundwater to determine quality parameters. ○ Discharging to sewer or stormwater would likely require a treatment system to be established that removes suspended solids and potentially contaminants. 	

Mitigation Measures		
Environmental Impact	Mitigation Measure	EIS Section or Appendix
	<ul style="list-style-type: none"> ○ Engage a licensed liquid waste contractor to dispose of groundwater to an appropriate facility. • Remediation validation criteria and recording of Information is to be undertaken in accordance with Section 6.7 of the Remediation Action Plan provided at Appendix W. • A remediation validation report will be prepared at the completion of the remediation works concurrently with an updated EMP document with 'as built' information. The validation report will be prepared in general accordance with NSW EPA Guidelines for Consultants reporting on Contaminated Land (2020), specifically Table 2.6 of the guideline. All field information, recorded information and data will be presented in the report. • Environmental controls are to be implemented in accordance with Section 9.3 of the Remediation Action Plan provided at Appendix W. • Site inspection will be undertaken during remediation in the following areas: <ul style="list-style-type: none"> ○ Inspection of trucks used for transporting materials from the site to ensure that soil adhering to the wheels or undercarriage is minimised. Any accumulation of soil will be removed prior to departure from the site ○ Sedimentation control measures will be inspected weekly or after heavy rain. This will involve checking the sedimentation control structures are operating effectively, with no silt being discharged to stormwater. Corrective action will be instituted where necessary and a follow up inspection will be undertaken to verify the outcome of the corrective action. ○ Observation of site activities to assess the extent of dust generation from the work site. ○ Should routine site inspections and/or external parties identify a potential issue relating to the remediation works, potential issues will be logged, validated and where required, rectified. • An emergency response plan will be prepared prior to the commencement of the remediation works. The purpose of the plan will be to identify possible emergency situations and to define procedures that would be used to ensure the safety of both on- and off-site personnel in the event of an emergency. • The remedial contractor must prepare a stormwater management plan during remedial works and as part of the project CEMP. The stormwater management plan must indicate site specific background information, compliance requirements, regulatory requirements, incident management, monitoring, review, responsibilities and document control. • The remedial contractor must prepare a noise control plan during remedial works and as part of the project CEMP. The odour control plan must indicate site specific background information, compliance requirements, regulatory requirements, noise types and sources, incident management, monitoring, review, responsibilities and document control. • The remedial contractor must prepare an odour control plan when excavating fill materials and as part of the project CEMP. The odour control plan must indicate site specific background information, compliance requirements, regulatory requirements, odour types and sources, incident management, monitoring, review, responsibilities and document control. • The remedial contractor must prepare a remediation program that outlines key milestones and timelines for remedial activity. The schedule must consider detailed designs at the time and earthworks programming. 	
Construction Management	<ul style="list-style-type: none"> • Appropriate hoarding/fencing (as specified in Australian Standards and SafeWork NSW requirements) will be installed to prevent public and staff access and to maintain security for the various areas of the works. • Site Notices will be erected at the boundary of the site. The site notices will include details of; Principal Contractor details, name of Site Manager and 24-hour contact number, approved hours of work, and details of the Principal and other appropriate stakeholders. Safety related statutory signage will also be erected on the boundary of the site in accordance with WorkCover requirements. 	Section 4.7 Appendix X

Mitigation Measures		
Environmental Impact	Mitigation Measure	EIS Section or Appendix
	<ul style="list-style-type: none"> • Site, precinct information and traffic signage and any temporary traffic measures required will be installed and maintained for the duration of the Works. • The Contractor is responsible for maintaining safe access to the Site and the safe Movement of vehicles and pedestrians within and throughout the Site. This safe access must be documented by the Contractor as part of its Contractor’s Construction Management Plan. The Contractor is responsible for maintaining clear access to roadways, laneways or easements throughout the duration of the works. • The Contractor is to include an onsite parking solution for as many vehicles as possible for the duration of the works within their Site Establishment and Construction Methodology submission. Construction workers will be discouraged from parking in residential areas. • These public and property protection measures will be reviewed at the time of contract award and during monthly PCG meetings, to ensure alignment with proposed preferred methodologies and to ensure that the safety of the public and staff is maintained at all times during the works. • The site amenities and compounds erected will accommodate lunch, bathroom and change facilities for the duration of the project. Contractor and sub-contractors will be advised during their site inductions that there is no parking within the adjacent streets to the site or on the neighbours property. To minimise impact on street parking, contractors and sub-contractors will be encouraged to use public transport or car share. • Construction hours for the project are as follows: Monday to Friday = 7am to 6pm, Saturday = 8am to 1pm, Sunday and Public Holidays = No work. Some work may need to be completed outside of the above hours. These activities will be planned in consultation with the neighbours to the site. Should works have impacts outside the site consultation with local authorities will be undertaken. Any disruptions will be documented and communicated to ensure all aspects of the works are clearly understood by all parties and to minimise disruption. • Deliveries will be scheduled and distributed to ensure avoidance of congestion to surrounding roads networks. Materials handling will be conducted within the construction site perimeter reducing any impacts on traffic flows. • An Environmental Management Plan (EMP) that complies with environmental legislation will be developed by the Principal Contractor. The EMP will describe the environmental strategy, methods, controls, and requirements for the execution of the Works. It will stand alone as the master document for site environmental activities. • The primary aim and objective of the EMP will be to provide a framework of procedures to minimise the impacts of the construction of the project on the environment. The environmental performance of the contractor will be monitored throughout the Works. • Odours associated with demolition for the site will be assessed and minimised. All plant and machinery involved in the Works will be regularly serviced and checked for exhaust emissions and catalytic converters are to be utilised. • A comprehensive stormwater management plan will be developed by the Principal Contractor undertaking the Works. • The appointed Principal Contractor will develop a strategy in accordance to the statutory regulations for dust control, and a comprehensive Soil and Water Management Plan, both of which will be included in the EMP. This strategy will include control measures and document how these measures are to be implemented and monitored. • Prior to commencing the works onsite and at completion, the appointed Principal Contractor will generate a Pre and Post Dilapidation Report. The full extent of the Dilapidation reports will be agreed with the Principal prior to investigations proceeding. The report shall cover as a minimum the following areas: <ul style="list-style-type: none"> ○ Existing roads and access roads; ○ Infrastructure; ○ Adjoining properties; ○ Existing landscape, including trees to be retained; ○ Services mains; 	

Mitigation Measures		
Environmental Impact	Mitigation Measure	EIS Section or Appendix
	<ul style="list-style-type: none"> ○ Stormwater systems; and ○ Existing utilities and authority services. 	
Operational Waste	<ul style="list-style-type: none"> ● General learning spaces, staff areas and library - Onsite cleaning staff to collect bin liners from all bins as required throughout day and transfer materials to main waste room for disposal. Cleaners to use segregated trolley to keep streams separate. ● Canteen (back of house) - Onsite cleaning staff to collect bin liner from general waste bins as required throughout day and transfer materials to main waste room for disposal. Cardboard and organic MGB's collected as required transferred daily to the waste collection area. ● Staff kitchenettes and food tech learning spaces - Onsite cleaning staff to collect bin liners from all bins as required throughout day and transfer materials to main waste room for disposal. Cleaners to use segregated trolley to keep streams separate. ● Wood tech learning spaces - Onsite cleaning staff to collect bin liners from all bins as required throughout day and transfer materials to main waste room for disposal. Cleaners to use segregated trolley to keep streams separate. Off cuts will be reused where possible. Sawdust and non-reusable wood can be segregated in a designated bin/cage – collection to be arranged as required. ● Science labs – Onsite cleaning staff to collect bin liners from all bins as required throughout day and transfer materials to main waste room for disposal. Cleaners to use segregated trolley to keep streams separate. Hazardous Material - Filter paper, gloves, tissues, paper towel, benchcote, spent silica, and sample vials that have been contaminated with hazardous chemicals should be placed directly into the designated bin or bag for chemically contaminated. Liquid chemicals to be stored as directed within a bunded chemical storage cabinet stored within lab storeroom. Collection of waste chemicals to be conducted by specialty contractor directly from lab storeroom upon request by school lab staff. Broken glass or sharps to be placed in a sharp's container. When full containers to be placed in lab storeroom. collection by specialty contractor directly from lab storeroom upon request by school lab staff. ● Gym - Onsite cleaning staff to collect bin liners from all bins as required throughout day and transfer materials to main waste room for disposal. Cleaners to use segregated trolley to keep streams separate. ● Outdoor areas - Bin enclosures throughout outdoor areas will provide 1x120L bin for general waste and 1x120L bin for mixed recycling (bins should always be located together and not separated). Bins will be lined, and facilities staff will collect bin liners when full in a 1100L bin for transfer back to the waste storage area – this avoids the need to swap full bins for empty bins and is thus a far more efficient way to empty all bins and reduces storage space for spare 120L bins. ● Student bathrooms - Hand dryers will be implemented throughout all bathrooms to reduce paper handtowel waste. Sanitary bins will also be provided in bathrooms – these will be serviced directly by the specialty contractor. 	Section 6.12 Appendix Y
Construction Waste	<ul style="list-style-type: none"> ● All waste generated during the project is assessed, classified and managed in accordance with the “Waste Classification Guidelines Part 1: Classifying Waste” (NSW EPA 2009). ● 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. ● Mud, splatter, dust and other material likely to fall from or be cast off the wheels, underside or body of any vehicle, trailer or motorized plant leaving the site, is removed before the vehicle, trailer or motorized plant leaves the premises. ● Appropriate control measures to eliminate/minimise the airborne emission of dust and fibres, such as: <ul style="list-style-type: none"> ○ Dust screening barrier around site and relevant areas within site. ○ Cover stockpiles. 	Section 6.12 Appendix Z

Mitigation Measures		
Environmental Impact	Mitigation Measure	EIS Section or Appendix
Heritage	<ul style="list-style-type: none"> ○ Water suppression. • Identify all asbestos and asbestos containing material and record in an asbestos register for the project. • Assess the risk of exposure to airborne asbestos. • Eliminate or minimise the risks associated with asbestos by implementing control measures. • Continually review control measures to ensure they are effective. <p>Each subcontractor working on the site will be required to adhere to this Waste Management Plan (WMP). The Head Contractor will ensure each subcontractor:</p> <ul style="list-style-type: none"> • Takes practical measures to prevent waste being generated from their work. • Implements procedures to ensure waste resulting from their work will be actively managed and where possible recycled, as part of the overall site recycling strategy. • Implements source separation of off cuts to facilitate reuse, resale or recycling. <p>The Site Manager will be responsible for:</p> <ul style="list-style-type: none"> • Ensuring there is a secure location for on-site storage of materials to be reused on site, and for separated materials for recycling off site. • Ensuring all skips/bins/stockpiles are clearly labelled identifying which material is suitable for each receptacle. • Engaging appropriate waste and recycling contractors to remove waste and recycling materials from the site. • Co-coordinating between subcontractors, to maximise on site reuse of materials. • Monitoring of bins on a regular basis by site supervisors to detect any contamination or leakage. • Ensuring the site has clear signs directing staff to the appropriate location for recycling and stockpiling station/s. And that each bin/skip/stockpile is clearly sign posted. • Providing training to all site employees and subcontractors in regard to the WMP. • Should a subcontractor cause a bin to be significantly contaminated, the Site Manager will be advised by a non-conformance report procedure. The offending subcontractor will then be required to take corrective action, at their own cost. The non-conformance process would be managed by the Head Contractors' Quality Management Systems. • Retaining demolition and construction waste dockets to confirm and verify which facility received the material for recycling or disposal. • All site employees and sub-contractors will be required to attend a site specific induction that will outline the components of the WMP and explain the site specific practicalities of the waste reduction and recycling strategies outlined in the WMP. • All employees are to have a clear understanding of which products are being reused/recycled on site and where they are stockpiled. They are also to be made aware of waste reduction efforts in regard to packaging. • The site manager will post educational signage in relation the recycling activities on site in breakout areas, lunchrooms etc. 	<p>Section 6.2 Appendix AA Appendix BB Appendix CC</p>

Mitigation Measures		
Environmental Impact	Mitigation Measure	EIS Section or Appendix
	<ul style="list-style-type: none"> • An open space area, or courtyard, at the archaeologically sensitive zone should be retained. This will avoid major excavation and disturbance of the area. A low impact walking path through the sensitive zone should be included to reflect the connection between the subject site and the nearby AHIMS site and the landscape to the north. The schematic design is consistent with this recommendation. • The proposal should retain the cultural plantings where possible and incorporate them into the design of the school. • New plantings could include native species or Hills Figs, Ficus and Schinus specimens similar to those at the entrance to the site. • If First Nations objects are identified during demolition or excavation works, an AHIP will be required before any action which involves harm can occur. • In the event that future demolition and/or construction works uncover or disturb any unexpected historical archaeological features or deposits on site, all works in this area should cease and Heritage NSW must be notified immediately, in accordance with Section 146 of the Heritage Act. • An unexpected find procedure should be developed and implemented prior to the commencement of on-site work to explain the process of stop-work provisions should these be required. 	
Social Impacts	<ul style="list-style-type: none"> • A detailed Construction Management Plan is to be prepared to address local amenity, vibration, noise, dust traffic and site management and delivery scheduling. The Construction Management Plan must include a detailed Communication Strategy (specifically including a detailed complaints handling procedure with timeframes and accountability for resolution) that also includes regular communication with affected receivers and stakeholders, specifically: <ul style="list-style-type: none"> ○ The Cerebral Palsy Alliance; ○ The Arranounbai School; ○ Residential receivers on Allambie Road, Arnhem Road and Sunlea Place; ○ Residential receivers on Madison Way; and ○ Additional stakeholders identified as a result of public exhibition of the proposed development. • The Construction Management Plan and Communication Strategy is to demonstrate how the proponent will adaptively manage social impacts and respond to unanticipated events, breaches, grievances, and non-compliances. • The Communication Strategy is to be proactive and facilitate ongoing communication and engagement with the school community to build awareness and preparedness for the construction program and relocation of students through the transition phase. Both the Construction Management Plan and the Communications Strategy should detail the approach to the following matters: <ul style="list-style-type: none"> ○ Construction amenity impacts for residents and the local community; ○ Access and traffic management, parking, and road network impacts; and ○ Site safety and management including dust, noise and vibration management and other potential health triggers. • Develop and implement a Transition Action Plan including a detailed Communications Strategy which focuses on: <ul style="list-style-type: none"> ○ All staff, students, parents and the local community to ensure that concerns can be raised and addressed in a timely manner and that counselling or other support is provided as required; ○ Local residents to build awareness and preparedness for the construction and relocation of the school community; ○ Students and parents to build awareness of the transition program, School travel Plan and individual Travel Plans for vulnerable students who need support to undertake changed travel and learning arrangements; ○ Staff to build awareness and ownership of the new School and ensure concerns and issues are able to be raised and addressed in a timely manner. • The Transition Action Plan and Communication Strategy will address the following matters: 	Section 6.13 Appendix DD

Mitigation Measures		
Environmental Impact	Mitigation Measure	EIS Section or Appendix
	<ul style="list-style-type: none"> ○ Active promotion of the School Transport Plan to increase active and public transport journeys to school and ensure all students (and parents) are clear about how the relocation will affect their travel routes; ○ Staff traffic management and parking arrangements; ○ Induction and orientation (O-week/Open Days) arrangements including induction to allow students to become familiar with the site prior to relocation and including targeted specific approaches for key or vulnerable groups and individuals; ○ Counselling and support services for people experiencing anxiety, loss, or other adverse effects as a result of the relocation; ○ Host a welcome event for residents to come and see the new school facilities, build cohesion and goodwill; ○ Survey local residents to establish a baseline for community sentiment and determine how effective management and mitigation measures are; and ○ Survey staff, teacher and student to establish baseline satisfaction and wellbeing. ● Continued implementation of the Communication Strategy will be undertaken to ensure ongoing engagement with relevant stakeholders, to identify emerging social issues and trends and issues relevant to the school's operation. ● Monitoring of staff, teacher and student satisfaction and wellbeing and survey local resident sentiment, specifically including actual or potential anti-social behaviour will be undertaken. ● Consultation with the Aboriginal community throughout the detailed design process to ensure cultural heritage values are recognised, protected and embedded into the proposal. ● Preparation of an Aboriginal Cultural Heritage Assessment and Aboriginal Due Diligence Report to ensure the proposed works do not negatively impact existing Aboriginal cultural heritage values on site. ● Consultation with the broader community about the findings of the ACHA which found that there was no indication of an Aboriginal gravesite on site. ● Implement the recommendations provided by the State Design Review Panel, as outlined in the Architectural Design Report by incorporating design of communal spaces and materiality in consultation with Traditional Custodians. ● Engage with Traditional Custodians to name the school buildings after bird species significant to the area to promote cultural connection and awareness of local fauna. ● Seek expertise on local plant species throughout the development of the landscape design and planting selection. – ● Holding a smoking ceremony prior to the construction of the school. ● Encourage opportunities to share school facilities with the community as a means of fostering social connections and inclusivity within the community. ● Maintain consultation with Aboriginal and Torres Strait Islander communities to keep them informed of the final design and to allow for further opportunities for input as the proposal progresses. ● Support for any individuals feeling anxiety or loss associated with the transition to the new campus should be made available. ● Undertake ongoing consultation with the community to allow feedback on the proposed access arrangements and to keep people informed. ● Promote the School travel Plan included targeted support for vulnerable or other key users including Journey to School" survey to collect travel data for planning and monitoring purposes. ● Develop an Operational Plan of Management if required due to ongoing or severe conflict which outlines the access requirements and safety procedures for both school users and non-school users. ● Consideration should be given to the implementation of resident parking zones in accordance with standard Northern Beaches Council procedures for consideration of such matters. 	

Mitigation Measures		
Environmental Impact	Mitigation Measure	EIS Section or Appendix
	<ul style="list-style-type: none"> Continue to collaborate with Council and other stakeholders to address concerns regarding student and visitor parking in local streets. 	
Electrical Services	No specific mitigation measures required.	Section 6.14 Appendix EE
Hydraulic Services	<ul style="list-style-type: none"> Portable fire extinguishers and fire blankets shall be provided throughout in accordance with AS2444-2001 and NCC 2019 E1.6. Classrooms are required to have extinguishers and fire blankets in to AS2444 and Education Facilities Standards and Guidelines (EFSG – 573). 	Section 6.14 Appendix FF
Mechanical Services	No specific mitigation measures required.	Section 6.14 Appendix GG
Communications Services	<ul style="list-style-type: none"> Telecommunication connections that provide links to Arranounbai School will be maintained. Augmentation of the NBNSCo as required to support the new school will be funded by SINSW. 	Section 6.14 Appendix HH
Consultation	<ul style="list-style-type: none"> Additional consultation to be undertaken in accordance with the Consultation Report prepared by NSW Department of Education, dated October 2022. 	Section 5 Appendix II