TWEED VALLEY HOSPITAL PROJECT
PRELIMINARY CONSTRUCTION ENVIRONMENTAL MANAGEMENT PLAN

ENVIRONMENTAL IMPACT STATEMENT (ENVIRONMENTAL IMPACT STATEMENT) FOR THE STATE SIGNIFICANT DEVELOPMENT (SSD) APPLICATION

OCTOBER 2018 | 03

NSW GOVERNMENT Health Infrastructure

TSA MANAGEMENT

DOCUMENT ADMINISTRATION

Revision History

Version	Date	Issued To	Remarks
01 Draft	10 August 2018	Geolink	Draft for Review
02 Final Draft	10 September 2018	HI	Final Draft for review
03 Final	18 October 2018	Geolink	Final for EIS Lodgement

Document Control

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1.0 Introduction

This Preliminary Construction Environmental Management Plan (CEMP) has been prepared for the proposed State Significant Development Application for a Concept Proposal and Stage 1 Early and Enabling Works associated with the Tweed Valley Hospital Project.

This Preliminary CEMP includes a summary of potential impacts that may result during construction of the Stage 1 Early and enabling Works and management and mitigation measures of these impacts. It is intended to provide the basis for a further developed Detailed Construction Environmental Management Plan by the Contractor when appointed to deliver the Stage 1 Early and Enabling Works.

The Stage 1 Early and Enabling Works will be undertaken on site in parallel to the development of the Main Works detailed design to support a Stage 2 SSD application.

1.1 Overview

This Environmental Impact Statement has been prepared to accompany a State Significant Development Application for the Tweed Valley Hospital which will be assessed under the Environmental Planning and Assessment Act. The project has been established based on the following supporting documentation:

- Tweed Valley Hospital Business Case
- Tweed Valley Hospital Master Plan
- Tweed Valley Hospital Concept Proposal and design.

The Tweed Valley Hospital Project for which a staged approval is sought consists of:

- Delivery of a new Level 5 major referral hospital to provide the health services required to meet the needs of the growing population of the Tweed-Byron region, in conjunction with the other hospitals and community health centres across the region;
- Master planning for additional health, education, training and research facilities to support these health services, which will be developed with service partners over time. These areas will be used initially for construction site/ compound and at-grade car parking;
- Delivery of the supporting infrastructure required for the new hospital, including green space and other amenities, campus roads and car parking, external road upgrades and connections, utilities connections, and other supporting infrastructure.

The development application pathway for the Project consists of a staged Significant Development Application under section 4.22 of the Environmental Planning and Assessment Act 1979 (EP&A Act) which will consist of:

- A concept development application and detailed proposal for Stage 1 (early and enabling works); and
- A second development application for Stage 2 works which will include detailed design, construction and operation of the Tweed Valley Hospital (Project Application)

A detailed description of the proposed staging of the development is provided in the following sections.

1.1.1 Concept Proposal and Stage 1 Early and Enabling Works

This component (and Environmental Impact Statement) seeks approval for a Concept Proposal for the Tweed Valley Hospital and Stage 1 Early and Enabling works.

The Concept Proposal is informed by service planning to 2031/32 and has an expected gross floor area in the range 55,000m2 to 65,000m2.

The hospital is expected to include (with more detail to be confirmed/provided at Stage 2) the following components/ services:

- A main entry and retail area
- Administration Services
- Ambulatory Services
- Acute and Sub-Acute in-patient units
- Paediatrics
- Intensive Care Unit
- Close Observation Unit
- Mental Health Services
- Maternity Unit
- Renal Dialysis
- Pathology
- Pharmacy
- Cancer Services including Day Oncology and Radiation Oncology
- Emergency Department
- Integrated Interventional Services
- Interventional Cardiology
- Medical Imaging
- Mortuary
- Back of house Services
- Car parking
- Future expansion areas;

Stage 1 includes:

Early and enabling works (for site clearance and preparation), generally comprising:

- Construction Compound for Stage 1 works
- Augmentation and connection of permanent services for the new facility (water, sewer, electricity, telecommunications)
- General clearance of vegetation within the footprint of construction works, including tree stumps
- Chipping of cleared vegetation (excluding weed species) to use on site for ground stabilisation/ erosion control, or off-site disposal as required
- Bulk earthworks and recycling of material to establish the required site levels and create a stable landform in preparation for hospital construction
- Stormwater and drainage infrastructure for the new facility
- Piling and associated works
- Rehabilitation and revegetation of part of the wetland area
- Construction of internal road ways for use during construction and in preparation for final road formations in Stage 2
- Retaining walls.

1.1.2 Stage 2: Hospital Delivery - Main Works and Operation

Stage 2 (which will be subject to a separate application) would include the detailed design, construction and operation of the Tweed Valley Hospital. Stage 2 will be subject to a separate application following Stage 1.

1.1.3 Subsequent Stages: Potential Future Expansion

Any subsequent stages would be subject to a separate application(s) as required and would be related to works for potential future expansion of the facility. Details of this are unknown at this stage and would be developed as required.

2.0 Site Operations

Following appointment, the Principal Contractor will be obliged to develop and provide for use a detailed Construction Environmental Management Plan/s that will incorporate WHS, Environmental and Quality management as well as all relevant sub-plans including:

- Biodiversity Management Plan
- Soil and Water Management plan
- Construction Waste Management Plan
- Traffic Control Plan
- Construction Noise and Vibration Management plan (CNVMP)
- Dust/ Air Quality Management Plan
- Access and Movement Plan (for construction staff).

Preliminary sub-plans and assessments to inform the above have been provided to support the Environmental Impact Statement and are referred to in this CEMP.

This plan will be developed specifically for the subject site and contract works. The plans will take into consideration site specific risks that have been identified and document the implementation of control measures to effectively mitigate those risks.

2.1 Legislative Requirements

The Works will be undertaken in accordance with, but not limited to, the following legislative requirements:

- Protection of the Environment Operations Act and Regulations;
- Approved Methods for the Modelling and Assessment of Air Pollutants in NSW (EPA)
- Environmentally Hazardous Chemicals Act 1985;
- Protection of the Environment Administration Act and Regulations;
- Work Health & Safety Act 2012 and relevant codes of practice and Standards
- WHS Regulation 2012 and relevant codes of practice and Standards;
- Australian Standard AS 2601-2001: Demolition of Structures;
- Australian Standard AS 4970-2009: Protection of Tress on Development Sites;
- Australian Standard AS 4373-2007: Pruning of Amenity Trees;
- Code of Practice for the Safe Removal of Asbestos (NOHSC:2002 (1998));
- Guide to the Control of Asbestos Hazards in Buildings and Structures (NOHSC:3002 (1988));
- Resource and Recovery Act 2001;
- Environmental Planning and Assessment Act 1979, including clause 109R for the compliance of the current Building Code of Australia;
- Heritage Act 1997;
- Local Government Act 1993;
- Disability Discrimination Act 1992 (DDA);
- Disability (Access to Premises – Buildings) Standards 2010 (Premises Standard);

- Applicable aviation standards e.g. CASA requirements; and
- Soil Conservation Act 1938.

2.2 Hours of Construction

The hours of demolition or construction including delivery of materials to and from the site shall be restricted to between:

- Monday to Friday inclusive 7.00am to 6.00pm.
- Saturday 8am – 4pm
- No work on Sundays and Public Holidays

Extended construction hours are needed in order to meet the critical project delivery timeframe which is driven by:

- The significant forecast population growth in the Tweed-Byron region;
- The constraints of current infrastructure at TTH, which is at capacity - a program of interim upgrade works has commenced to assist in meeting the needs of the community until the new hospital opens, and services are transferred; and,
- The physical limitations of the existing TTH site, which has inadequate space to develop new buildings and access is impacted by flooding.

These drivers strongly support the requirement for extended construction hours.

Out of hours Works may be required from time to time and will be coordinated with Tweed Valley Hospital requirements and BCA for Crown Certification. The requirement for out of hours Works may include:

- As a result of an emergency to avoid loss of life, damage to property and/ or to prevent environmental harm;
- If a variation is approved in advance by the Secretary or her nominee.

Deliveries of heavy machinery may be required out of the proposed hours of operation to conform to the overriding requirements of the Roads & Maritime Services (RMS).

2.3 Security & Safety

2.3.1 Safety

A site-specific WH&S management plan will be developed by the Contractor to demonstrate the commitment of the Project to Workplace Health & Safety (WH&S). The plan will identify the scope of work to be undertaken, the hazards associated with the work and the risk assessment processes and risk control measures to be used in the execution of the plan.

The Contractor must include procedures for identifying and managing risk and how this will be monitored and managed to ensure employer and employee compliance with these systems.

The objectives of the Site Safety Plan (SSP) include the following:

- Maintain lost time injury reporting and review positive performance indicators;
- Report all incidents and near misses and develop corrective action plans;
- Conduct Senior Management and WH&S Group reviews;
- Develop required WH&S resources;
- Formalise regular senior management reviews of WH&S systems and implement relevant improvements;
- Continually develop WH&S systems, policies, procedures and WH&S Plans to comply with statutory requirements and industry best practice;

- Maintain an Audit Program to comply with system's requirements;
- Ensure all corrective actions and non-conformances are closed out;
- Meet or exceed the requirements of AS4801 certification and Federal Safety commission accreditation;
- Adopt a zero-tolerance safety philosophy;
- Provide Safety Awareness and other appropriate WH&S training;
- Continue to implement ongoing induction procedures on all Projects;
- Hold regular Consultative Committee meetings, maintain minutes and record actions;
- Issue Safety Alerts to all staff and other stakeholders according to requirements;
- Conduct weekly toolbox talks on site and maintain a register of attendees;
- Maintain a data base of all toolbox talks.

The SSP will also address the following:

- WH&S training – identification of WH&S training needs of all personnel, induction training, refresher training, attendance of WH&S committee personnel at consultation training etc.;
- Incident management – identifies who will be available during and outside normal working hours to prevent, prepare for, respond to and recover from illness/ injury and incidents;
- Site safety rules – As a minimum will include induction and safety training, PPE, Site access and security, procedures for emergency situations, illness and injury, protection of personnel and the public, work at elevated areas, safe working, hazardous materials and dangerous goods etc.;
- Safe Work Method Statements – All activities assessed as having WH&S risks require a SWMS to be prepared and implemented.

The Principal Contractor will need to comply with their duty under WHS management in accordance with the legislative requirements listed but not limited to, in Section 2.1 of this document.

2.3.2 Security

Security measures must be provided to prevent unauthorised access to adjoining land and the construction work site including the safeguarding of site materials, plant and equipment.

Security measures will be in place at all times when the site is not in operation. This may include perimeter barriers, locks, surveillance systems, security lighting and motion detectors.

In the event where a construction site cannot be fully secured, consideration will be given to the use of a security service to prevent unauthorised access.

2.4 Public & Property Protection

Appropriate hoarding / fencing (as specified by Health Infrastructure and the Australian Standards and Workcover requirements) will be installed to prevent public access and to maintain security for the various areas of the works.

These measures may be staged during the works. At various times, different portions of the site may be fenced.

Public and property protection measures will be reviewed at the time of contract award for the Works to ensure alignment with proposed preferred methodologies and sequencing developments and to ensure that the safety of the general public is maintained at all times during the Works.

2.5 Complaints & Neighbour Management

From the commencement of construction until completion, the Principal Contractor will be required to maintain a community liaison officer on the project. This officer will be contactable by both a mobile phone

and email and the contact details will be clearly advertised on site hoardings, community updates and the like. The Principal Contractor will be required to maintain a register of complaints and to report to the Project Manager and Health Infrastructure the status of complaints on a monthly basis. Complaints that cannot be addressed by the Principal Contractor will be presented to the relevant representative for resolution of the issue.

3.0 Construction Methodology for Stage 1 SSD Early Works

The environmental performance of the contractor will be monitored throughout the Works. A high level overview of potential impacts and mitigation measures in accordance with legislative requirements are provided below followed by a summary in Section 4.0 of Project specific environmental mitigation measures and safeguards to be incorporated into the detailed CEMP.

3.1 Site Establishment

Site establishment activities are detailed in Section 3.3 of this document. A Preliminary Site Plan is attached at Appendix B of the Environmental Impact Statement which will be further developed by the Principal Contractor once engaged.

3.2 Remediation / Validation

Following acquisition of the Project Site, Health Infrastructure will undertake works to secure the Project Site, establish access, and ensure appropriate environmental control measures are in place. These preliminary works do not form past of the SSD application for the Project.

The Contractor will be provided background reports from all consultants for the site prior to commencing Stage 1 Early and Enabling works. These reports will provide sufficient background to inform the Contractor of the ground conditions and previous preliminary works to assist in determining whether further testing and specific materials handling/waste disposal is required.

3.3 Staging

The Contractor will prepare a staging strategy for the works, they will generally follow the sequencing outlined below:

- Site establishment including access, site compound, temporary services and fencing
- Vegetation clearance and ERSED controls
- Bulk earthworks
- In-ground drainage and utility services
- Construction of roadways and carpark/s
- Connection of permanent services for the new facility where possible (water, sewer, power, gas)
- In-ground infrastructure and works (where possible) such as formation of building foundations and excavation of sub-level structures
- Site stabilisation in preparation for Stage 2

3.4 Environment & Amenity

The contractor undertaking the Works will be required to submit for approval a comprehensive Environmental Management Plan (CEMP) to ensure that all elements of the plan meet all statutory requirements, Conditions of Approval as well as the Ministry of Health's requirements.

As a minimum, any further erosion and sediment controls required for the Stage 1 Early and enabling Works (following completion of preliminary works outside of this application) shall be designed, installed and maintained in accordance with the requirements of Managing Urban Stormwater: Soils and Construction 'The Blue Book' 2004 (4th edition) and/or details provided by project engineering consultants.

3.5 Noise & Vibration

Noise from the site shall not exceed the limits set out in the Noise and Vibration Impact Asessment provided by AcousticStudio as part of the Environmental Impact Statement.

No machine work will occur outside the normal working hours set unless prior approval has been given by the consent authority.

The noise and vibration from the use of any plant equipment and/or building services associated with the premises shall not give rise to an offensive noise as defined under the Noise and Vibration Impact Assessment

As part of the noise mitigation treatment for the project, the contractor will be responsible for the management, checking of compliant maintenance regimes and statutory supervision of all equipment, such as making sure all trucks and machinery involved in the Works will be checked for defective exhaust systems and general servicing.

A Preliminary Construction Noise and Vibration Management plan has been provided as part of the Noise and Vibration Impact Assessment by Acoustic Studio

3.6 Dust

It is expected that the air quality (airborne dust and pollutants) in and around a construction site will be maintained at acceptable levels throughout the construction period.

To control dust generation where necessary, water will be sprayed at the source of origin and surrounding areas to prevent airborne dust particles migrating into the surrounding environment. Management of dust prevention is to be developed by the contractor and agreed by the project stakeholders.

Additional precautions that will be implemented during the Works include the covering of all haulage trucks with tarpaulins and monitoring of weather conditions.

Management and contingency plans will be developed to prevent any foreseeable impacts from dust.

3.7 Odour Control

All plant and machinery involved in the Works will be of competent working order and will be regularly serviced and checked for exhaust emissions and catalytic converters.

3.8 Protection of Trees

The retention and protection of vegetation on the site will be met as per the conditions of approval.

The Contractor will be required to prepare a detailed site-specific Construction Management Plan. This Plan will need to demonstrate the measures that will protect trees and vegetation being retained under the development works.

3.9 Vegetation Removal

All vegetation clearance is to be identified and agreed prior to work commencing and if trees/vegetation/habitat is required to be removed outside the approved areas then a qualified and suitably

skilled arborist and ecologist will need to be engaged by the Contractor prior to further vegetation clearance proceeding.

Vegetation clearance works will broadly include:

- Identification of which areas are to be cleared and where protection measures are required to retain vegetation, including undertaking pre-clearance surveys as required by any related conditions of consent
- Establishment of tree and vegetation protection measures as required
- Clearance of low laying vegetation
- Clearance of larger vegetation such as bushes and trees
- Establishment of additional retention, sedimentation and erosion controls as required

3.10 Stormwater Run-Off

The Principal Contractor will be required to prepare a detailed Stormwater Management Plan prior to commencement of the works. The plan will cover all aspects of stormwater and sediment management and control during construction.

Refer to Bonacci Civil and Structural Report and Water Sources Report for further detail of proposed stormwater, erosion and sediment controls.

3.11 Traffic, Access & Parking

As part of its Construction Management Plan, the Contractor appointed to undertake the Stage 1 works will be required to submit a Traffic and Pedestrian Management Plan for approval prior to commencement of works. This would include consultation with Tweed Shire Council and Roads and Maritime as appropriate.

The TVH Traffic consultant Bitzios has developed a Preliminary Construction Traffic Management Plan in line with the SEARs requirements. Refer to Environmental Impact Statement for details.

3.11.1 Parking Of Worker & Construction Vehicles

Parking of all construction vehicles is proposed to remain entirely within Tweed Valley Hospital Site. No parking will be permitted in adjacent streets or properties.

3.11.2 Construction Entry / Exit

Construction site access will be from Cudgen Road via a new internal road access being constructed as part of Health Infrastructure's Preliminary Works. Traffic controllers will be in place during working hours to ensure safe construction traffic movements.

The Stage 1 Early and Enabling works package includes internal roadways which will facilitate a secondary access and egress point.

3.11.3 Pedestrian Protection

Traffic controllers will be in place during working hours to ensure safe pedestrian movements. The work site will need to remain in a safe condition at the end of each shift and adequate signage in place directing pedestrians appropriately.

3.12 Waste Management

3.12.1 Waste Management / Recycling Principles

The site has been designed to create a balanced cut and fill. This avoids the need for large quantities of material to be imported or exported from the site.

Where possible any material generated from the Works will be recycled apart from selected hazardous materials such as asbestos, SMF, PCBs and the like and general waste from the site office. The contractor will be committed to achieving compliance with the EPA guidelines.

A Preliminary and Detailed Site Investigation has been undertaken by Octief as part of the Environmental Impact Statement. If necessary, further detailed sampling and reporting will be carried out prior to any works occurring on site.

This report will be used as the basis for identifying and managing the removal of any contaminated materials identified during the Works. The Preliminary and Detailed Site Investigation Report can be found attached to the Environmental Impact Statement.

'Unexpected finds' protocols will be implemented to manage any materials identified during works.

A preliminary Waste Management Plan can be found attached to this Environmental Impact Statement. This will be further developed by The Contractor and will include detail on different types of waste expected, how the differing types of waste will be separated for recycling, quantities of each type expected to be generated and conditions of disposal including where material will be sent, how it will be delivered, licencing conditions and record keeping for up to 7 years.

3.12.2 Storage Of Dangerous Goods

Dangerous goods (such as petrol, diesel, oxy-acetylene, oils etc.) will be stored in a lockable compound with sufficient ventilation, bunding, hard surface and located away from waterways and drains in accordance with relevant codes of practice and standards. Material safety data sheets on all of these flammable and potentially harmful liquids will be provided by the contractor undertaking the Works.

4.0 Mitigation Measures and Safeguards

This EIS has identified a number of management and mitigation measures that are designed to minimise adverse environmental, social and economic impacts that could potentially arise from the Project. Mitigation measures have been identified to manage the Stage 1 Early and Enabling Works construction impacts. These are provided in the table below.

The measures provided would manage construction risks associated with Stage 1 Early and Enabling Works of this SSD application. Successful implementation would reduce the risks of impact. The identified measures would be incorporated into the detailed CEMP.

In addition, various recommendations have been identified in the EIS and the specialist reports that are not applicable to and/or cannot be addressed during Stage 1 Works. These typically relate to the Concept Proposal, demonstrating that is appropriate, and would be considered further and implemented in Stage 2 (detailed design, main works and operation) of the Tweed Valley Hospital.

The environmental management measures for Stage 1 Works have been derived from the assessment presented in **Section 7** of the EIS and those (as relevant) detailed in appended consultants' reports.

Stage 1 Early and Enabling Works - Mitigation Measures and Safeguards Summary

Matter	Action/Measure
General	• A detailed CEMP would be prepared by the contractor prior to any works/ activities commencing, and would include all relevant sub plans, such as: – Biodiversity Management Plan – Soil and Water Management Plan – Construction Waste Management Plan – Traffic Control Plan

Matter	Action/Measure
	– Construction Noise and Vibration Management Plan – Dust/ Air Quality Management Plan – Access and Movement Plan (for construction staff). • All employees, contractors and subcontractors to receive a project induction. The environmental component may be covered in toolbox talks and should include: – Environmental mitigation measures – Vegetation clearing operations and controls to prevent unauthorised clearing – Unexpected Finds Protocols and responsibilities (historic heritage, Aboriginal heritage, contamination and waste) – Waste management strategies and measures. • Implement community consultation measures to keep the community informed of the construction program and potential impacts, including relevant contact details. • A complaint handling procedure and register will be implemented to assist in recording and managing complaints during construction.
Biodiversity	• Implement recommendations and measures of the BDAR prepared by Greencap, including: – The proposed development will monitor and manage potential impacts which shall be outlined in a Biodiversity Management Plan and its sub plans: - Vegetation Management Plan; Water Quality Management Plan; and Fauna Management Plan. The Biodiversity Management Plan will include adaptive management for impacts on biodiversity and will include details of measures to monitor predicted impacts, guidelines and thresholds which will trigger adaptive management actions and other measures proposed to mitigate potential impacts • All works to be undertaken in accordance with a Soil and Water Management Plan (including sediment and erosion control) • Alternative commercially available flocculants (for sediment basins) that work effectively as a gypsum replacement that do not create the large increases in pH should be used • Should wildlife enter the construction footprint, a suitable qualified fauna handler should be notified and actions taken in accordance with the CEMP. • To ensure the safety of any native fauna occupying trees and vegetation proposed for removal, during vegetation clearing works, a suitably qualified and experienced person shall be present as a fauna spotter-catcher to supervise the tree removal. • On the day of clearing and prior to any clearing taking place, all trees within 30 metres of those trees to be cleared are to be inspected for the presence of native fauna by an experienced fauna spotter-catcher. • During tree removal and major earth works a fauna spotter-catcher needs to be used at a minimum of one operator per machine. • The fauna spotter-catcher must not be involved in the vegetation clearing works whilst responsible for identifying fauna present on the site and will remain on site during any vegetation clearing works to ensure that any tree occupied by a fauna is not accidentally cleared or interfered with. • Any uninjured native fauna detected during the tree removal shall be rescued and relocated into an area of appropriate habitat that is nearby, but outside of

Matter	Action/Measure
	the development footprint. • Any injured native fauna detected shall be rescued and transferred to a local veterinarian for treatment and/or WIRES for rehabilitation. • Should koalas be found on the Site during vegetation clearing works and/or earthworks, tree clearing works and/or earthworks must be temporarily suspended within a range of 30 metres from any tree which is occupied by a koala. • Works are to be avoided in any area between the koala and the nearest areas of habitat to allow the animal to move to adjacent undisturbed areas. • Works must not resume until the koala has moved from the tree of its own volition. • In order to minimise direct impacts on ground dwelling and arboreal fauna, any earthworks conducted to clear rocks and trees along the windrows (zone 4) shall have a suitably qualified fauna spotter-catcher as outlined above. • Removal and management of weeds. • Avoid light spill to remnant vegetation, through restricting work to project footprint and daily timing of construction activities such as avoiding night works as much as possible and directing lights away from remnant vegetation. • Dust managed in accordance with the CEMP, including: – Daily monitoring of dust generated by construction activities. – Dust suppression measures (setting maximum speed limits and application of dust suppressants) – Commence revegetation as soon as practicable. • Existing trees and areas of native vegetation not identified for removal shall be protected from damage during works, including – Establishing a Tree Protection Zone in accordance with AS 4970-2009 around native trees and vegetation adjacent to the construction footprint that are to be retained – Erect temporary 1800mm high protective fencing, securely installed beneath the outer canopy of any tree to be retained – Trees and vegetation may be fenced off in clusters where it is not practical to fence off individual trees – There shall be no stockpiling, storing materials, parking machinery, washing machinery or changes to existing soil levels within the fenced areas. – Retention of the main fig tree onsite (*Ficus benjamima)* (refer tree removal/preservation plans).
Traffic and Transport	• Implement recommendations of Traffic Impact Assessment prepared by Bitzios, including a Construction Traffic Management Plan (CTMP) to be developed by the contractor and incorporated into the CEMP.
Aboriginal Heritage	The works would be in accordance with the recommendations of the Aboriginal Cultural Heritage and Archaeological Report prepared by Niche, including: • A cultural heritage induction should be provided to all contractors and staff who will be involved in works that involve ground surface disturbance/earthworks. • In the event that suspected Aboriginal objects are encountered during construction, all work in the area that may cause further impact must cease and the Office of Environment and Heritage (OEH) should be contacted • In the event that suspected human remains are encountered during construction, all work in the area that may cause further impact, must cease

Matter	Action/Measure
	immediately. – The location, including a 20 m curtilage, should be secured using barrier fencing to avoid further harm. – The NSW Police must be contacted immediately. – No further action is to be undertaken until the NSW Police provide written notification to the NSW Health Infrastructure. • If the skeletal remains are identified as Aboriginal, NSW Health Infrastructure or their agent must contact: – the OEH's Enviroline on 131 555; and, – representatives of the Registered Aboriginal Parties. No works are to continue until the OEH provides written notification to NSW Health Infrastructure or their Agent. • In the event that works causing ground disturbance are planned within the vegetated section of the Project Site (i.e. the section along the water and in the north), consultation with the RAPs and a further cultural heritage survey with representatives of the RAPs will be required.
Historical (Non-Aboriginal) Heritage	• If any unexpected item of historical heritage is discovered during works, work in the vicinity shall cease immediately, and the project heritage consultant or Office of Environment and Heritage be notified. Works would not recommence until clearance provided. The works would be in accordance with the recommendations of the Historical Heritage Report prepared by Niche (applicable to the Stage 1 works), including: • Wall 2 and 5. Although these features sit outside the impact zone, future vegetation management might have a detrimental impact. Therefore it is recommended that heritage considerations be incorporated into a vegetation management plan. Avoid removing trees and vegetation which may be supporting the walls. • Wall 3. If possible, impact should be avoided through a redesign of the road that shifts it further north to avoid the wall. The wall should be temporarily barricaded during construction works and considered in future management policies. If impacts are unavoidable, the features should have an archival recorded prepared prior to commencement of works, and consideration be given to representing the demolished section within the new surfacing of the road. • Wall 4. This feature currently sits within a proposed car park and therefore is likely to be demolished. Consideration should be given to retaining it and incorporating it into the design of the car park to avoid impacts. If this is not possible, an archival recording of the feature should be prepared before demolition (include photographs, scale drawings, and surveying). • Archaeological deposits. These are principally the rubbish areas and house area where there is potential for materials relating to the early occupation and use of the Project Site. Such relics may be of local heritage significance. The house area will be directly impacted by the development while the rubbish deposits, although outside of the current footprint, may need to be removed during general site improvement works. Given the project's status as a SSD, permits to excavate or remove such relics would not be required under Section 139[1] of the Heritage Act 1977 as such approvals are exempted under SSD. However, it

Matter	Action/Measure
	is recommended that should such relics be located during ground disturbance works, that they be managed appropriately and in accordance with best practice. A process for managing the discovery of any relics should be included in any environmental or other plans for the Project works. • Hedgerows. These are not of heritage significance but remain items of interest reflecting the later development of the Project Site. An archival recording of the hedgerows should be prepared prior to impacting works. • Interpretation. The presence of stone walls likely associated with the sugar industry and South Sea Islander labourers in that industry presents an opportunity for these aspects of the region's history to be interpreted. Those walls that will be retained in the development area should be included in an interpretation plan and/or strategy for the hospital precinct as part of any future development of the site.
Noise and Vibration	The works would be accordance with the recommendations of the Noise and Vibration Assessment prepared by Acoustic Studio, including preparation of a Construction Noise and Vibration Management Plan (CNVMP) for Stage 1 Works and consideration of the following measures. If, during construction works, an item of equipment exceeds either the noise criteria at any location or the equipment noise level limits, the following noise control measures, together with construction best practices shall be considered to minimise the noise impacts on the neighbourhood: • Schedule noisy activities to occur outside of the most sensitive times of the day for each nominated receiver. For example, avoiding works during "outside standard hours" at nearby residential receivers. • Consider implementing equipment-specific temporary screening for noisy equipment, or other noise control measures recommended in Appendix E of AS2436. This is most likely to apply to noisier items such as jackhammers. • For large work areas, solid screening or hoarding as part of the worksite perimeters would be beneficial. • Locate specific activities such as carpentry areas (use of circular saws etc) to internal spaces or where shielding is provided by existing structures or temporary screening. • Limit the number of trucks and heavy vehicles on site at any given time (through scheduling deliveries at different times). • Unnecessary idling of vehicles and equipment is to be avoided. • Traffic routes are to be prepared to minimise the noise impact on the community. • When loading and unloading trucks, adopt best practice noise management strategies to avoid materials being dropped from a height. • Adopt quieter methodologies. For example, where possible, use concrete sawing and removal of sections as opposed to jackhammering. • Ensure that any miscellaneous equipment (extraction fans, hand tools, etc), not specifically identified in this assessment, incorporates silencing/shielding equipment as required to meet the noise criteria. Best practice construction noise management strategies would include: • Plant and equipment: – Use quieter methods

Matter	Action/Measure
	– Use quieter equipment – Operate plant in a quiet and effective manner – Where appropriate, limit the operating noise of equipment – Maintain equipment regularly – Where appropriate, obtain acoustic test certificates for equipment. • On-site noise management: – Strategically locate equipment and plant – Avoid the use of reversing alarms or provide for alternative systems – Maximise shielding in the form of existing structures or temporary barriers – Schedule the construction of barriers and structures so they can be used as early as possible – Brief Project staff and workers on the noise sensitivity of the neighbours to the site, particularly the residents nearby. The staff and workers need to be mindful of the noise from their discussions and colour of the language, particularly in sensitive periods, for example, during the pre-start times or "toolbox talk" as they gather to commence for work in the morning. • Consultation, notification and complaints handling: – Provide information to neighbours before and during construction – Maintain good communication between the community and Project staff Have a documented complaints process and keep register of any complaints – Give complaints a fair hearing and provide for a quick response – Implement all feasible and reasonable measures to address the source of complaint. • Work scheduling: – Schedule activities to minimise noise impacts – Ensure periods of respite are provided in the case of unavoidable maximum noise levels events – Keep truck drivers informed of designated routes, parking locations and delivery hours. • The contractor is to consider implementing environmental noise monitoring as recommended by the Noise and Vibration Assessment. The details of the vibration management controls required for the Stage 1 Works would be determined when the applicable CNVMP is prepared by the contractor, including the following considerations: • The contractor shall carry out a vibration assessment at the commencement of operations for each vibration-generating-activity / equipment to determine whether the existence of significant vibration levels justifies a more detailed investigation. • A more detailed investigation will involve methods of constraining activities generating high vibration levels. A method of monitoring vibration levels will then need to be put in place. An additional review of vibration mitigation measures and vibration criteria may then be necessary. • All practical means are to be used to minimise impacts on the affected buildings and occupants from activities generating significant levels of vibration on-site. • The following considerations shall be taken into account: – Modifications to excavation and construction equipment used.

Matter	Action/Measure
	– Modifications to methods of excavation and construction. – Rescheduling of activities to less sensitive times. • If the measures given above cannot be implemented or have no effect on vibration levels or impact generated, a review of the vibration criteria is to be undertaken and the vibration management strategy amended. • Undertake vibration surveys and monitoring as required and recommended by the Noise and Vibration Assessment.
Soils and Geotechnical	• The works would be in accordance with the recommendations of the Geotechnical Report prepared by Morrison Geotechnics and any required further geotechnical investigations. • The remediation works identified in the Contamination Assessment prepared by OCTIEF would be undertaken separately and in advance of Stage 1 Works, as Preliminary Works. • The CEMP will detail contingency measures to address unexpected finds of contaminated material.
Services and Utilities	• The Project will be adequately serviced and relevant service and utility works would be undertaken in accordance with the relevant infrastructure management plans prepared by ACOR and ARUP. • The development will comply with the requirements of the relevant public authorities in regard to the connection to, relocation and/or adjustment of services affected by the construction.
Drainage, Stormwater and Water Resources	• The works would be undertaken in accordance with the stormwater assessment and Soil and Water Management Plan prepared by Bonnaci as part of the Civil and Structural Design Report and Water Sources Assessment. • The CEMP prepared by the contractor would include: – Fuel and chemical storage requirements – Safety Data Sheet (SDS) register and requirements – Refuelling protocols – Spill management and response procedures. • All fuels, chemicals, and liquids will be stored at least 50 metres away from any drainage line or waterways as far as is practicable and will be stored in an impervious bunded and covered area within the compound site. • Visual monitoring of local water quality (i.e. turbidity, sheen, oil and grease) will be undertaken regularly to identify any potential water quality issues.
Air Quality and Dust	Dust management of Stage 1 works will form part of the detailed CEMP prepared by the contractor. The following mitigation measures would be considered for the construction activities as relevant: • Construction activities will be modified, reduced or controlled during high or unfavourable wind conditions if they have a potential to increase dust generation. • Control measures including water carts, sprinklers, sprays, dust screens or the application of geo-binding agents will be utilised where applicable to control dust emissions. The frequency of use will be modified to accommodate prevailing conditions. Dust control equipment will be maintained to ensure its operability. • Erosion control structures will be checked regularly for build-up of silt and other materials to ensure deposits do not become a dust source. • Waste will be segregated and collected on a regular basis to ensure odours associated with waste do not become an issue.

Matter	Action/Measure
	• No waste will be burnt on-site. • Stormwater, recycled water or other water sources shall be used, where feasible and reasonable, in preference to potable water for construction activities, including concrete mixing and dust control. • Areas of disturbed material and access roads will be stabilised where possible using appropriate methods. • Measures implemented to minimise dust, soil or mud from being deposited from vehicles on public roads, such as rumble grids and large aggregate at entry/ exit points. Manual cleaning will also be carried out where appropriate. In the event of any spillage or tracking, the material will be removed within 24 hours. • Hardstand areas and surrounding public roads will be cleaned, as required. • All loaded haulage trucks will be covered where there is a risk of release of dust or other materials and at all times on public roads. • Engines of plant parked near to residents will be switched off when not in operation. • Exhaust systems of construction plant, vehicles and machinery will be maintained in accordance with manufacturer's specifications to ensure that emissions do not exceed EPA regulations. Periodic visual checks will be undertaken to ensure ongoing compliance. • Any plant, equipment or machinery will be immediately switched off should there be visible signs of smoke emissions emitting from equipment/ machinery. • Dust suppression systems will be installed and used on crushing and screening plants to minimise generation of dust.
Social and economic	• Implementation of other relevant measures to avoid, minimise or mitigate construction related impacts.
Waste	• Waste will be in accordance with the recommendations of the preliminary Construction Waste Management Plan prepared by TSA Management and a detailed Construction Waste Management Plan will be prepared by the Contractor prior to the commencement of works. The Waste Management Plan will be prepared in accordance with the EPA's "Waste Classification Guidelines (2008)" and the *Protection of the Environment Operations Act 1997*. • Resource management hierarchy principles would be followed. • Working areas would be maintained, kept free of rubbish and cleaned up at the end of each working day.
Cumulative Construction Impacts	• The CEMP developed by the Contractor will incorporate measures to manage potential cumulative construction impacts. The CEMP and relevant sub-plans will be reviewed and updated as required (such as when new work begins or if complaints are received) to incorporate potential cumulative impacts from surrounding development activities as they become known.