

Newcastle Inner City Bypass Rankin Park to Jesmond

John Hunter Hospital electrical adjustment
work (stage 1) - low impact work
submission

Transport for NSW | April 2022

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1. Introduction

1.1 Background

The Newcastle Inner City Bypass Rankin Park to Jesmond (RP2J) Project (the project) is the fifth and final section of the Newcastle Inner City Bypass (NICB), which forms part of the Transport for NSW (formally Roads and Maritime Service) long term strategy to connect the Pacific Highway between Bennetts Green and Sandgate.

The project involves the construction of 3.4 kilometres of new four lane divided road between Lookout Road, New Lambton and Newcastle Road, Jesmond. The RP2J Project, in its current form, includes interchanges at each end (both south and north) as well as an additional full interchange giving access to the John Hunter Hospital. Approval by the NSW Minister for Planning was granted on 15 February 2019.

The Conditions of Approval (CoA) for the project include an allowance for construction and operation of the project to be carried out in stages. The development of a staging report to describe the proposed staging was accepted by the NSW Planning Secretary in October 2019.

Table 1 of the instrument of approval includes a definition of construction applicable to the project. The definition specifically excludes low impact work (where it is either listed or determined by the Environmental Representative or Planning Secretary to be low impact work) from requiring approval of a CEMP prior to the activity being carried out.

In the project staging report the project stages were identified and defined as construction or low impact work as shown in Table 1-1. The John Hunter Hospital electrical adjustment work would occur as Stage 1 early work and is the subject of this low impact work submission.

The activity would involve installing overhead and underground electrical utilities within an existing easement described in detail in section 2 and shown in Figure 2-1. This work is required to facilitate construction of the main bypass work (Stage 4).

Table 1-1: Project stages as described in the Stage Report

Stage	Work scope	Definition
1	General early works	Low impact
2	Shared path bridge of Newcastle Road	Construction
3	Southern utilities package	Low impact
4	Main bypass work	Construction

1.2 Purpose

The purpose of this submission is to:

- Provide an overview of the proposed work including location, scope, methodology and program
- Summarise the potential environmental impacts of the activity and outline mitigation strategies that would be implemented during the work
- Assist the Environmental Representative with a determination of the work as low impact work or otherwise as defined in Table 1 of the project approval and to demonstrate compliance with relevant CoAs.

2. Activity description

2.1 Location

The location of the John Hunter Hospital electrical adjustment work is within an existing overhead electrical easement immediately south of the John Hunter Hospital interchange (refer Figure 2-1).

The John Hunter Hospital electrical adjustment work would take place on John Hunter Hospital land to the east of the project. The site has been subject to routine vegetation maintenance including overhanging tree trimming and groundcover slashing within the defined electricity easement.

2.2 Scope of activity

The general scope and sequence of the John Hunter Hospital electrical adjustment work is described below. Further detail on each activity and associated potential impacts is provided in section 3. Design drawings for the work are provided in Appendix A. The sequence of work will generally include:

- Pre-construction, administrative and survey activities including dial-before-your-dig (DBYD)
- Establishing traffic control management (hospital car park access)
- Drilling and installing new power poles, private pillar, switchboard and overhead wires for a distance of about 125 metres
- Excavating a trench between 600 millimetres and 3.3 metres deep, about 600 millimetres wide and about 200 metres long for installing underground high voltage wire/conduit. Backfilling trench progressively
- Trimming of overhanging vegetation as required
- Cutover and commissioning work of both underground and above ground lines
- Removing redundant poles and lines
- Restoring and demobilising from site.

2.3 Activity description

The aspects of the work and how they would be managed have been considered with reference to the Newcastle Inner City Bypass – Rankin Park to Jesmond Environmental Impact Statement and Submission and Preferred Infrastructure Report (SPIR) and are outlined in further detail in section 3.

The work would be completed using a truck or excavator mounted auger, excavator, pole truck (to transport and stand power poles), cable truck (to transport and relay electrical wiring), utility vehicles and hand tools. It is anticipated that about 6 to 10 personnel would be required to complete the work.

The work would predominantly occur during standard working hours which are:

- Monday to Friday, 7am to 6pm
- Saturday 8am to 5pm
- No work on Sundays or Public holidays.

However, activities such as cut-overs would typically occur as out of hours work when demand on the network is low.

The work is expected to take up to four weeks to complete and would be carried out in the second quarter of 2022. The works are proposed to be delivered as part of the Southern Utility works.

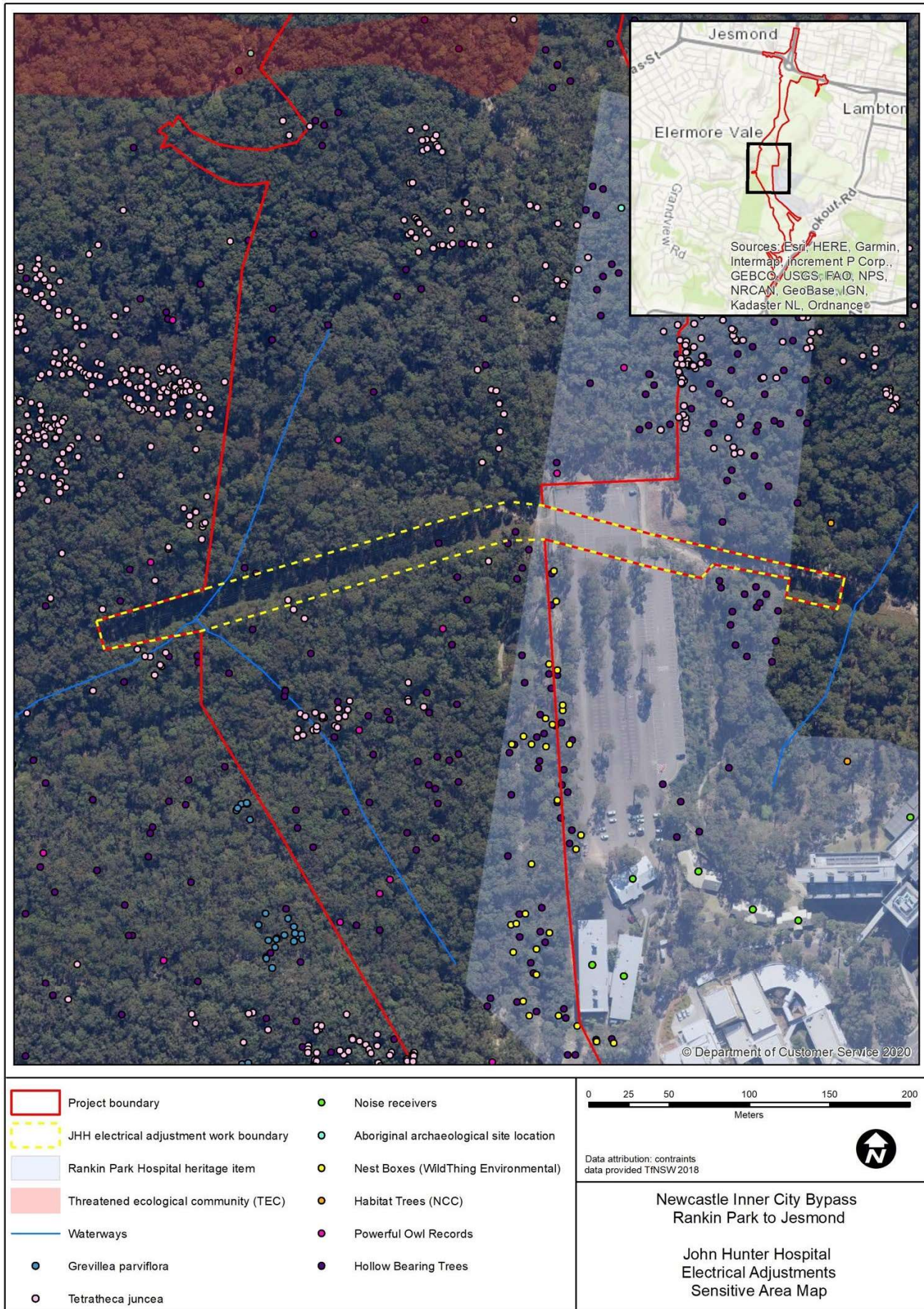


Figure 2-1: Location of work

3. Overview of impacts

3.1 Impact review

The environmental and community impacts of the electrical adjustment works are reviewed in Table 4-1.

Table 4-1: Review of environmental and community impacts

Environmental issue	Potential impacts
Biodiversity	<p>The work will result in minor impacts on vegetation located within the previously cleared utilities easement. The impacts would include disturbance of ground cover, trimming and removal of trees where required to provide access for excavations, appropriate clearance from overhead powerlines, and where a trees structural stability is compromised.</p> <p>No threatened species or threatened ecological communities (EEC) would be impacted and no vegetation previously identified as providing habitat to threatened species would be removed. The potential for biodiversity impacts are considered minor subject to implementation of management measures.</p>
Traffic and transport	<p>Impacts on traffic flow in and around the hospital are not expected. A small number of plant, equipment and vehicles would enter the site via an existing access gate on the northern side of the hospital staff car park.</p> <p>The potential for traffic impacts are considered negligible subject to implementation of management measures.</p>
Noise and vibration	<p>The work will be conducted in the existing cleared easement located on the northern border of the John Hunter Hospital precinct. The closest noise receiver is located within this John Hunter Hospital precinct, approximately 200 metres from the work. The closest residential address is located approximately 160 metres away. These locations may register some noise, however it is predicted to be minor and short-term.</p> <p>The John Hunter Hospital and the closest residential receiver are both outside of the human comfort and structural damage radius.</p> <p>The work will involve noise generating activities during standard working hours and some OOHW, where required for activities such as cut-overs. All OOHW would be undertaken in accordance with the approved OOHW Protocol and the suite of mitigation and management measure prescribed. Among other things, this would include a detailed site and activity specific noise assessment. It is noted that any work predicted to generate noise greater than 75 dBA at any noise sensitive receiver would not be permitted outside of limited day time hours in line with CoA E30.</p>

Environmental issue	Potential impacts
Landscape character and visual impact	<p>While the site is generally remote, the work will result in minor temporary visual impacts as a result of construction plant and equipment. There will be no long-term visual changes with aboveground elements associated with powerlines as they are consistent with existing infrastructure and remain within the existing overhead electricity easement.</p> <p>The potential for visual impacts are considered negligible subject to implementation of management measures.</p>
Socio-economic, land-use and property	<p>The work will occur wholly within an existing electricity easement and will not result in a long-term impact on land-use or property. Any disruptions to services will be managed by carrying out connections and cut-overs during low use periods. The community will be kept informed on an ongoing basis through tools in the project community communications strategy.</p> <p>The potential for socio-economic, land-use and property impacts are considered negligible subject to implementation of management measures.</p>
Flooding and drainage	<p>The work will not impact on flooding regimes or drainage. Disturbed surfaces will be restored at completion of work.</p> <p>The potential for flooding and drainage impacts are considered negligible subject to implementation of management measures.</p>
Soils, contamination and water quality	<p>The work will result in minor ground disturbance from trenching, installation of power poles and boring. The disturbance areas will be contained with no constraints on the implementation of adequate erosion and sedimentation controls.</p> <p>There will be minimal potential for impacts on water quality as a result of release of sediment or pollutants. One unnamed ephemeral drainage line is located within the western extent of the project boundary and another proximate to the project boundary in the east. Work would not take place within or proximate to the drainage line during wet weather, or if wet weather is predicted and the disturbed area is not able to be restored prior to rainfall resulting in runoff.</p> <p>The potential for soils, contamination and water quality impacts are considered minor subject to implementation of management measures.</p>
Groundwater	<p>The work will involve minor shallow excavations. Impacts on groundwater are not expected.</p>
Aboriginal heritage	<p>Constraints from Aboriginal heritage have not been identified in the area of the work. Impacts on Aboriginal heritage are not expected.</p>

Environmental issue	Potential impacts
Non-Aboriginal heritage	A portion of the work will take place within the curtilage of a locally listed heritage item (i.e. the Rankin Park Hospital). Heritage assessments completed as part of the EIS and subsequent detailed design consistency assessment concluded that the work will not have an impact on heritage values associated with the heritage item.
Air quality	<p>The work will have potential for localised dust generation during earthworks. Given the minor nature of the work impacts on air quality from vehicle exhaust will be negligible. There will be no long-term impacts on air quality.</p> <p>The potential for air quality impacts are considered minor subject to implementation of management measures.</p>
Resource use and waste management	The work will result in the generation of small amounts of waste including green waste, spoil and redundant infrastructure. Waste will be removed from site and disposed of appropriately. There would be no demand for resources with limited availability.
Hazards and risk	Hazards and risk from spills or other incidents are considered minor. Incident and emergency response procedures will be implemented to respond and manage identified hazards and risk.
Greenhouse gas and climate change	The small scale of Stage 1 John Hunter Hospital electrical adjustment work is such that greenhouse gas emissions would be minor. Impacts from climate change are not expected, however infrastructure design has taken climate related matters into consideration e.g. high temperature etc.
Cumulative impacts	The Stage 1 John Hunter Hospital electrical adjustment work is expected to take place in advance of the main project and other significant development in the area. Concurrent cumulative impacts are not expected. However, it is recognised that successive cumulative impacts will be experience by the broader community. Undertaking the Stage 1 work in advance of the main Stage 4 construction will assist with the reducing the intensity and magnitude of impacts around the John Hunter Hospital were Stage 1 and Stage 4 to occur concurrently.

4. Environmental management

A number of mitigation measures, safeguards and management strategies have been identified in the project SPIR and conditions of approval in order to avoid or minimise adverse environmental impacts that could potentially arise as a result of the project. Those relevant to the John Hunter Hospital electrical adjustment work are detailed in Table 5-1.

The Construction Environmental Management Plan (CEMP) prepared for the southern utility works would be adopted for the Stage 1 John Hunter Hospital electrical adjustment work.

In the event the works are not delivered as part of the Southern Utilities package of works, a separate CEMP will be prepared prior to the Stage 1 John Hunter Hospital electrical adjustment work and must be reviewed and approved by the Transport for NSW Environmental Officer prior to the commencement of any on-site work. The CEMP will be a working document, subject to ongoing change and updated as necessary to respond to specific requirements.

4.1 Summary of relevant SPIR safeguards and project approval conditions

Environmental safeguards and management measures outlined in project EIS, SPIR and conditions of approval will be incorporated into a utilities relocation CEMP. These safeguards and management measures will minimise any potential adverse impacts arising from the work on the surrounding environment and community. The safeguards and management measures are summarised in Table 5-1.

Table 5-1: Summary of mitigation measures, safeguards and management strategies

Potential impact	Environmental controls	Approval document reference	Responsibility
General			
Non-compliance with approval	<p>A contractor's Construction Environmental Management Plan (CEMP) for the Stage 3 southern utilities relocation work will be prepared in accordance with the DIPNR Guidelines (Guide for the Preparation of Environmental Management Plans) and submitted for review and endorsement by the Transport for NSW RP2J environmental officer - Newcastle. As a minimum, the CEMP will contain and/or address the following:</p> <ul style="list-style-type: none"> • Detail of environmental policies, guidelines, principles and approvals to be complied with and followed during the work • Objectives and targets for the work that are consistent with Transport for NSW Environment Policy Statement • Include a program for ongoing analysis of key environmental risks • Detailed constraints mapping in the form of sensitive area maps or site plans with constraints identified eg flora and fauna, sensitive receivers • Include a list of all specified CEMP sub-plans and how they apply to the work • Detail of training and induction for employees including contractors and sub-contractors • An outline of the sequence of tasks for the work and a description of the roles and environmental responsibilities for relevant employees for those tasks and their relationship with the Principal and ER • Detail of communication requirements • An inspection program detailing the activities to be inspected and frequency of inspections • Details of managing and reporting any incidents or non-compliances • A process for rectifying non-conformances • Procedures for emergency and incident management including "stop work" processes and reporting to Transport for NSW • A process for periodic review and update of the CEMP in response to changes to site conditions or work methodology • Details of how the southern utility relocation work will implement the identified safeguards • Environmental work methods statements for high risk activities eg vegetation clearing. 	SPIR BD04	Contractor

Potential impact	Environmental controls	Approval document reference	Responsibility
	<p>All personnel working on site will receive training to ensure awareness of environment protection requirements to be implemented during the house demolition work. This will include up-front site induction and regular "toolbox" style briefings. Aspects covered will include, but not be limited to:</p> <ul style="list-style-type: none"> • Approval requirements • Working hours • The management of noise and vibration • Waste streams and management requirements • Environmental values of the area e.g. biodiversity constraints, clearing and work boundaries • Stop work procedures for unexpected finds including contamination and heritage • Incident response and reporting. 	SPIR BD02, HH02	Contractor
Community exposed to impacts without prior notice	<p>Implement an approved Community Communications Strategy and notify the potentially affected community e.g. residents, businesses, road users of the work. Apply methods detailed in the strategy including, but not limited to:</p> <ul style="list-style-type: none"> • Letterbox / email notifications • One on one meetings • Direct phone calls, as required • Information updates on the project website • Responding to enquiries or complaints in accordance with the complaints management system 	MCoA B1 / B2	TfNSW / Contractor
Unresolved complaints	<p>All enquires and complaints will be managed in accordance with the project Complaints Management System (CMS) outlined in the Community Communication Strategy. Key project details established in response to SSI CoA B9 include:</p> <ul style="list-style-type: none"> • Phone number – 1800 818 433 • Email address – rp2j.community@aurecongroup.com • Postal address – RP2J Project, Transport for NSW, Locked Bag 2030 Newcastle NSW 2300 <p>The project phone number will be attended at all times while southern utility relocation work is in progress so as to receive and response to complaints eg noise, traffic and transport.</p>	CoA B6 – B9	TfNSW / Contractor
Work undertaken outside of approved times	<p>Schedule work to be performed during standard working hours which are:</p> <ul style="list-style-type: none"> • 7:00am to 6pm Monday to Friday • 8:00am to 5:00pm Saturday • At no time on Sunday or public holidays. <p>Where work is required outside of these times, implement the approved Out of Hours Work Protocol.</p> <p>On becoming aware of the need for emergency work, Notify the ER and the EPA of the reasons for such work. Best endeavours are made to notify all noise and/or vibration affected sensitive receivers of the likely impact and duration of those works.</p>	CoA E26 / E27 / E29	Contractor / TfNSW

Potential impact	Environmental controls	Approval document reference	Responsibility
Pollution of the environmental / non-compliance with approval	If an incident (e.g. spill) occurs, the Roads and Maritime Services Environmental Incident Classification and Reporting Procedure is to be followed and the Transport for NSW Project Manager (or delegate) notified immediately. In circumstances where an incident causes or threatens to cause material harm and which may or may not be or cause a non-compliance, the Planning Secretary must be notified.	CoA A37 / A38	Contractor / TfNSW
Biodiversity			
Biodiversity impacts and/or non-compliance with approval	Prior to work that impacts native vegetation, the local community, Landcare groups and relevant public authorities will be consulted to determine if there is an interest for the reuse of suitable timber and root balls in habitat enhancement and rehabilitation work. Timber and root balls must be retained from the project where there is a demonstrated demand for their reuse.	CoA E8	TfNSW
	The clearing of native vegetation will be limited to the greatest extent possible to facilitate the Southern Utilities Package. Impacts to plant community types will not exceed those identified in the SPIR and subsequent Package 1 Detailed Design Consistency Assessment.	CoA E2, E3 / SPIR GH02, DD-CA	Contractor / TfNSW
	Pre-clearance surveys will be carried out in accordance with the Roads and Maritime <i>Biodiversity Guidelines: Protecting and managing biodiversity on RTA projects (Guide 1: Pre-clearing process)</i> (RTA 2011a)	CoA E10 / SPIR BD05, BD06, BD07	Contractor
	Vegetation clearing will be carried out in accordance with the Roads and Maritime <i>Biodiversity Guidelines: Protecting and managing biodiversity on RTA projects (Guide 4: Clearing of vegetation and removal of bushrock)</i> (RTA 2011a)	SPIR BD04	Contractor
	Any unexpected threatened species finds will be dealt with in accordance with the Roads and Maritime <i>Biodiversity Guidelines: Protecting and managing biodiversity on RTA projects</i> (RTA 2011a)	SPIR BD06	Contractor
	Exclusion zones will be identified and demarcated in accordance with the Roads and Maritime <i>Biodiversity Guidelines: Protecting and managing biodiversity on RTA projects (Guide 2: Exclusion zones)</i> (RTA 2011a)	SPIR BD07	Contractor
	Protocols for preventing or minimising the spread of noxious and environmental weeds will be developed and implemented in accordance with the Roads and Maritime <i>Biodiversity Guidelines: Protecting and managing biodiversity on RTA projects (Guide 6: Weed Management)</i> (RTA 2011a)	CoA E9 / SPIR BD12	Contractor
	Protocols for preventing the introduction and/or spread of disease causing agents such as bacteria and fungi will be developed and implemented in accordance with the Roads and Maritime <i>Biodiversity Guidelines: Protecting and managing biodiversity on RTA projects (Guide 7: Pathogen Management)</i> (RTA 2011a)	CoA E9 / SPIR BD13	Contractor
	Fauna handling, rescue and release will be conducted in accordance with the Roads and Maritime <i>Biodiversity Guidelines: Protecting and managing biodiversity on RTA projects (Guide 9: Fauna handling)</i> (RTA 2011a)	SPIR BD14	

Potential impact	Environmental controls	Approval document reference	Responsibility
	Down-lights and motion sensor lighting will be used where possible during construction in order to reduce light spill to surrounding habitat.	SPIR BD18	
Traffic and transport			
Traffic and transport impacts and/or non-compliance with approval	<p>A traffic management plan (TMP), including a vehicle movement plan, will be prepared in accordance with:</p> <ul style="list-style-type: none"> Roads and Maritime QA Specification G10 (Roads and Maritime 2015c) Roads and Maritime's Traffic Control at Work Sites (Roads and Traffic Authority 2010) Relevant Australian Standards such as Australian Standard (AS) 1742 – Manual of Uniform Traffic Control Devices (Standards Australia 2014a) <p>The plan will include as a minimum (where relevant):</p> <ul style="list-style-type: none"> Parking arrangements for workers Site access and egress requirements Notification requirements for changes to the existing road network Notification requirements for changes to property access, bus stops and pedestrian/cyclist facilities The identification of roads within 1 kilometre proposed to be used by heavy vehicles. 	SPIR TT07 / TT08 CoA E62	Contractor
	Obtain relevant licences and permits, such as road occupancy licences, which would be required for any work or traffic controls in a public road.	SPIR TT09	Contractor
	Pedestrian and cyclist access on existing formal paths will be maintained where possible. Where closure of a formal path is required alternative access and appropriate signage will be provided.	SPIR SL13 / CoA E70	Contractor
	Emergency vehicle access to the bushland areas surrounding the project will be provided at all times.	SPIR SL14	Contractor
	<p>Consultation with emergency services, including the Rural Fire Service and Fire and Rescue NSW to:</p> <ul style="list-style-type: none"> Ensure access is maintained during and after the work To identify hazard reduction burns in the locality of the project. 	SPIR HR02	TfNSW
	All reasonably practicable measures will be implemented to maintain pedestrian and vehicular access to, and parking in the vicinity of, businesses and affected properties. Disruptions will be avoided, and where avoidance is not possible, minimised. Where disruption cannot be minimised, alternative pedestrian and vehicular access, and parking arrangements will be developed in consultation with the affected businesses and properties and implemented before the disruption occurs. Signage and directions to businesses must be provided before, and for the duration of, any disruption.	CoA E70	Contacto / TfNSW

Noise and vibration			
Noise and vibration impacts and/or non-compliance with approval	<p>A construction noise and vibration management plan (CNVMP) will be prepared as part of the construction environmental management plan (CEMP). The plan will include, but not be limited to:</p> <ul style="list-style-type: none"> • A map indicating the locations of receivers • A risk assessment to determine potential risk for activities likely to affect receivers (for activities carried out during standard construction hours, during the proposed extended construction hours and outside of the proposed extended construction hours) • Management measures to avoid noise and vibration impacts during the work including identification of appropriate work practices and equipment selection and use • A process for community notifications regarding construction activities • A process for scheduling of high noise and/or vibration generating activities during less sensitive noise periods as far as is possible • A process for implementation of respite periods, where required, in accordance with Interim Construction Noise Guideline (DECC 2009) for noise and vibration generating activities with impulsive, tonal or low frequency characteristics • A process for assessing the performance of the implemented management measures • A process for documenting and resolving issues and complaints • A program of noise and vibration monitoring for sensitive receivers • A process for updating the plan when activities affecting construction noise and vibration change. <p>Identify in inductions and where required toolbox talks where noise and vibration management is required.</p>	SPIR NV06	Contractor
	<p>Where practical, equipment will be selected to minimise noise emissions. Equipment will be fitted with appropriate silencers and be in good working order. Machines found to produce excessive noise compared to normal industry expectations will be removed from the site or stood down until repairs or modifications can be made.</p>	SPIR NV13	Contractor
	<p>Where reasonable and feasible, measures will be taken to shield sensitive receivers from noise such as:</p> <ul style="list-style-type: none"> • The layout of the ancillary facilities so that primary noise sources are at a maximum distance from residences, with solid structures (sheds, containers, etc.) placed between residences and noise sources (and as close to the noise sources as is practical). • Enclosures to shield fixed noise sources such as pumps, compressors, fans, screens (where practicable). • Taking advantage of site topography when situating plant. 	SPIR NV14	Contractor
	<p>Mitigation measures must be implemented with the aim of achieving the following construction noise management levels and vibration criteria:</p> <p>(a) construction 'Noise affected' noise management levels established using the Interim Construction Noise Guideline (DECC, 2009);</p> <p>(b) vibration criteria established using the Assessing vibration: a technical guideline (DEC, 2006) (for human exposure);</p> <p>(c) Australian Standard AS 2187.2 - 2006 "Explosives - Storage and Use - Use of Explosives";</p>	CoA E34	Contractor

	(d) BS 7385 Part 2-1993 "Evaluation and measurement for vibration in buildings Part 2" as they are "applicable to Australian conditions"; and (e) The vibration limits set out in the German Standard DIN 4150-3: Structural Vibration- effects of vibration on structures (for structural damage).		
	Reasonable work practices to minimise noise and vibration to be implemented during the electrical adjustment works will include: <ul style="list-style-type: none"> • Avoiding shouting and slamming doors • Where practical, operating machines at low speed / power and switching them off when not in use rather than leaving them idling for prolonged periods • Minimising the reversing of machines • Avoiding dropping materials from height • Limiting deliveries outside normal working hours as far as practicable • Avoiding metal to metal contact on materials as far as practical • Avoiding the use of horns for communication between plant and trucks (the use of two-way radios / phones would be prioritised). 		Contractor
	In the event of a valid noise complaint, monitoring will be carried out and reported as soon as possible. If exceedances are detected, the situation will be reviewed to attempt to identify reduce the impact to acceptable levels, where practicable.	SPIR NV15	Contractor
Landscape character and visual amenity			
Landscape character and visual amenity impacts and/or non-compliance with approval	Disturbed areas would be progressively stabilised during the work.	SPIR LC05	Contractor
Socio-economic, land use and property			
Socio-economic, land use and property impacts and/or non-compliance with approval	Transport for NSW will coordinate work with respective utility providers before any changes occur to the utility services infrastructure.	SPIR SL09	Contractor
Soil, contamination and water quality			
Soil, contamination and water quality impacts and/or non-compliance with approval	An emergency spill response procedure will be prepared to minimise the impact of spills including details on the requirements for managing, cleaning up and reporting.	SPIR SW07	Contractor
	Spill kits and adequate quantities of suitable material to counteract spillage would be kept readily available.	SPIR SW08	Contractor

	The refuelling of plant and maintenance of machinery will be carried out in designated refuelling areas. Refuelling would be attended at all times.	SPIR SW09	Contractor
	Vehicle wash-downs and/or concrete truck washouts will be located in a designated bunded area or located off-site.	SPIR SW10	Contractor
	Machinery will be checked daily to ensure that there are no oil, fuel, or other liquid leaks.	SPIR SW11	Contractor
	In the event that indicators of contamination are encountered during work (such as odours or visually contaminated materials), work in the area will cease until advice on the need for remediation or other action is obtained from the Roads and Maritime project manager.	SPIR SW12	Contractor
	A soil conservation specialist will be engaged during construction to advise on the planning and implementation of erosion and sedimentation controls.	SPIR SW13	
	An Erosion and Sediment Control Plan (ESCP) will be prepared for the work and form part of the CEMP. All reasonably practicable erosion and sediment controls must be installed and appropriately maintained to prevent water pollution. When implementing such controls, any relevant guidance in the Managing Urban Stormwater series must be considered. Measures will include, but not be limited to: <ul style="list-style-type: none"> • Diverting upstream water around or through disturbed areas so it is not polluted by the work • Scour protection measures for access tracks when these are an erosion hazard due to either their steepness, soil erodibility or potential for concentrating runoff flow • Stabilising temporary drains • Measures to minimise erosion and control sedimentation from stockpiles • Methods of constructing batters to assist the retention of material / topsoil on the batter slopes • Controls in runoff flow paths to reduce flow velocities and minimise the potential for erosion • Controls to be put in place during an extended shut-down of the Site or when rainfall above a certain trigger level is predicted. 	CoA E57 / DPE 1	Contractor
	Erosion and sediment control measures will be inspected at a minimum of weekly intervals and within 24 hours of rainfall events exceeding 10mm in a 24 hour period. All identified problems must be rectified without delay. Regular routine maintenance (and records to illustrate this maintenance) will be undertaken to ensure appropriate operation of controls, replacement of damaged sediment control structures and improvement or implementation of other temporary measures as required. In the event of forecast storm events, heavy rainfall (over 10mm in a 24 hour period) inspect the site to ensure that all erosion/sedimentation and stabilisation controls are in place and in effective working order.		Contractor
	The project Unexpected Contaminated Land and Asbestos Finds Procedure must be followed should unexpected contaminated land or asbestos (or suspected contaminated land or asbestos) be excavated or otherwise discovered during works. The Unexpected Contaminated Land and Asbestos Finds Procedure must be implemented for the duration of work.	CoA E59, E60 / SPIR SW12	Contractor

Aboriginal heritage			
Aboriginal heritage impacts and/or non-compliance with approval	The project Unexpected Heritage Finds and Human Remains Procedure will be implemented. <i>Note: Human remains that are found unexpectedly during works are under the jurisdiction of the NSW State Coroner and must be reported to the NSW Police immediately.</i>	CoA E14, E15, E16 / SPIR AH02	Contractor / TfNSW
Non-Aboriginal heritage			
Non-Aboriginal heritage impacts and/or non-compliance with approval	The project Unexpected Heritage Finds and Human Remains Procedure will be implemented. <i>Note: Human remains that are found unexpectedly during works are under the jurisdiction of the NSW State Coroner and must be reported to the NSW Police immediately.</i>	CoA E16 / SPIR HH03	Contractor / TfNSW
Air quality			
Air quality impacts and/or non-compliance with approval	<p>During electrical adjustment works the following controls will be implemented, where relevant:</p> <ul style="list-style-type: none"> Scheduling of work and/or avoiding / modifying activities that would generate dust during strong winds and rainfall Temporary barriers or dust screens, as appropriate, to suppress the effect of dust movement to uncontrolled sites Minimising areas of exposed surfaces Locating stockpiled material as far as possible from sensitive receivers and designing, establishing, operating and decommissioning them in accordance with the "RMS Stockpile Site Management Guideline" and the requirements of RMS G38 The use of dust suppression measures, such as the use of water carts or soil binders on any unsealed surfaces and other exposed areas, accesses and site compound/storage areas Securing tailgates and covering loads that are to be carried on public roads (prior to transportation) to prevent spillage and loss of construction materials or waste and to prevent dust and the emission of odours Maintaining and operating all equipment in accordance with manufacturer specifications. Implementing controls at entry and exit points to remove of mud and debris from the wheels and bodies of haulage equipment before it enters public roads or other sealed pavements Road sweeping of travel lanes adjacent to the works at the end of each working day to remove any material transported onto the pavement where required Progressive stabilisation of areas disturbed by activities and treating areas stripped of topsoil to prevent dust generation; Maintaining dust control equipment so that this equipment is available when required, including during periods of dust generating activities or high wind speed Switching off engines of plant and vehicles when not in use Locating worker amenities in a suitable location that would not expose local residential properties or commercial premises to bad odour, minimising omission of smoke and odours from worker amenities No burning off of waste materials. 	CoA E1 / SPIR SW16, AQ02	Contractor

	The use of alternative fuels and power sources for construction plant and equipment will be investigated and implemented, where appropriate.	SPIR GH03	Contractor
	The energy efficiency and related carbon emissions will be considered in the selection of vehicle and plant equipment.	SPIR GH05	Contractor
Waste management			
Waste management impacts and/or non-compliance with approval	Waste generated during works will be dealt with in accordance with the following priorities: (a) waste generation must be avoided and where avoidance is not reasonably practicable, waste generation must be reduced;	MCoA E81	Contractor / TfNSW
	Surplus material that is not able to be used on-site as part of the project would be reused or disposed of in the following order of priority: <ul style="list-style-type: none"> • Transfer to other nearby Roads and Maritime projects for immediate use • Transfer to an approved Roads and Maritime temporary stockpile site for future use during projects or routine maintenance • Transfer to a Roads and Maritime approved site for reuse on concurrent private/local government project (with appropriate approvals as required) • Disposal at an approved materials recycling or licensed waste disposal facility. Any reuse would be in accordance with a Resource Recovery Exemption or Order issued under the Protection of the Environment Operations (Waste) Regulation 2014.	MCOA E83 / SPIR RW02	Contractor / TfNSW
	The importation of waste and the storage, treatment, processing, reprocessing or disposal of such waste must comply with a Resource Recovery Exemption or Order issued under the Protection of the Environment Operations (Waste) Regulation 2014, as the case may be.	MCoA E82	Contractor
	All waste must be classified in accordance with the EPA's Waste Classification Guidelines, with appropriate records and disposal dockets retained for audit purposes.	MCoA E84	Contractor
	A waste register detailing types of waste collected, amounts, date, time, transportation method and details of disposal will be maintained.	SPIR RW01	Contractor
Hazards and risk			
Bushfire risk	Measures to be implemented to manage bushfire risk include: <ul style="list-style-type: none"> • Consultation requirements for community notifications in the event of a bushfire • Maintaining equipment in good working order • Ensuring plant and equipment are fitted with appropriate spark arrestors, where practicable • Ensuring site workers are informed of the site rules including designated smoking areas and putting rubbish in designated bins • Obtaining hot work permits and implementing total fire bans as required • Implementing adequate storage and handling requirements for potentially flammable substances in accordance with the relevant guidelines. 	SPIR HR01	Contractor
Greenhouse gas and climate change			

Greenhouse gas emissions	Vegetation removal will be minimised where practicable.	SPiR GH02	Contractor
	The use of alternative fuels and power sources for construction plant and equipment will be investigated and implemented, where appropriate.	SPiR GH03	Contractor
	The energy efficiency and related carbon emissions will be considered in the selection of vehicle and plant equipment.	SPiR GH05	Contractor

5. Conclusion and approval





5.1 Conclusion

The low impact work submission has considered the various stages of activity, potential impacts on the environment and community for the respective stages, and outlined mitigation measures and safeguards to avoid or minimise those potential impacts. The work would result in some localised noise impacts, minor traffic disruptions, native and exotic vegetation impacts, waste generation and ground disturbance.

Through the application of appropriate mitigation measures as outlined in Section 5, it is considered that the work would be consistent with the definition of low impact work as per Table 1 of the project Infrastructure Approval (SSI 6888).



5.2 Certification

This document provides a true and fair consideration of the scope and potential impacts of the work as outlined in the EIS / SPIR and aligns with the stages defined in the Staging Report.

Signed		Signed	
Name		Name	
Position	Senior Environment & Sustainability Officer	Position	RP2J Senior Project Manager
Date	27 April 2022	Date	27 April 2022

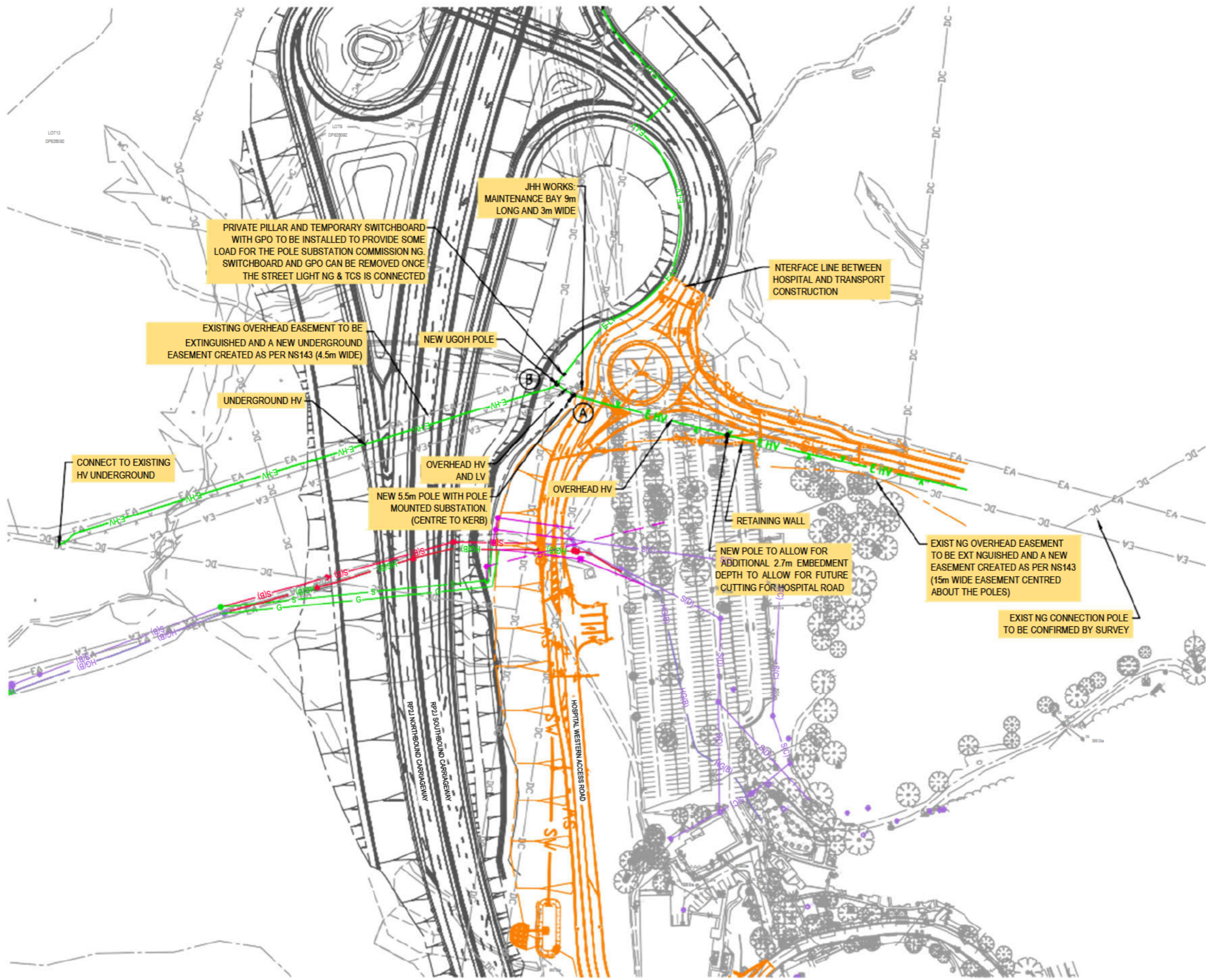
5.3 Environmental representative approval

I have examined the submission for Stage 3 southern utility relocations and have determined it can be appropriately categorised as low impact work in accordance with the definition contained in Table 1 of the approval instrument for the Newcastle Inner City Bypass Rankin Park to Jesmond (RP2J) Project.

Signed		
Name		
Position	RP2J Project Environment Representative	
Date	4 April 2022	

Appendix A - Design drawing

THIS DRAWING MAY BE PREPARED IN COLOUR AND MAY BE INCOMPLETE. IF COPIED, IT MAY BE DIFFERENT TO THE ORIGINAL.



LEGEND	
	RP2J ROAD DESIGN
	HOSPITAL ACCESS ROAD DESIGN
	GROUND SURVEY
	CADASTRAL BOUNDARY
	GAS MAIN - EXIST NG
	GAS MAIN - REMOVE
	GAS MAIN - PROPOSED JHH WORKS
	GAS MAIN - PROPOSED TNSW WORKS
	SEWER MAIN - EXIST NG
	SEWER MAIN - REMOVE
	SEWER MAIN - PROPOSED JHH WORKS
	SEWER MAIN - PROPOSED TNSW WORKS
	ELECTRICAL - EXISTING
	ELECTRICAL - PROPOSED JHH WORKS
	ELECTRICAL - PROPOSED TNSW WORKS
	EIS BOUNDARY

AUSGRID ELECTRICAL WORKS

- HOSPITAL WORKS**
INDICATIVE SCOPE OF WORKS INCLUDE:
1. MAINTENANCE BAY AS PER AUSGRID REQUIREMENTS
 2. LOCALISED EARTHWORKS SURROUNDING THE PROPOSED POLE LOCATIONS.

- ALL OTHER WORKS BY TNSW
- TRANSPORT WORKS**
INDICATIVE SCOPE OF WORKS INCLUDE:
1. INSTALL NEW POLE AT POINT A AND RELOCATE EXISTING OVERHEAD ELECTRICAL TO THE EAST
 2. INSTALL NEW UGOH POLE AT POINT B AND RELOCATE EXISTING OVERHEAD ELECTRICAL TO THE WEST UNDERGROUND
 3. INSTALL LV SUPPLY FROM POINT B TO THE NORTH

NOT FOR CONSTRUCTION

DRAWING FILE LOCATION / NAME C:\pwwork\jane.nicolle\audc1_01\0223162\SK-0539.dwg		DESIGN LOT CODE P2-RD	DESIGN MODEL FILE(S) USED FOR DOCUMENTATION OF THIS DRAWING SK-0539.dwg		PLOT DATE / TIME 12/11/2021 12:13:51 PM	PLOT BY Jane Nicolle		CITY OF NEWCASTLE HW23 NEWCASTLE INNER CITY BYPASS RANKIN PARK TO JESMOND - PACKAGE 2 AUSGRID ELECTRICAL RELOCATION PLAN	A3
EXTERNAL REFERENCE FILES		WVR No.	APPROVAL	DRAWINGS / DESIGN PREPARED BY	TITLE	NAME			DATE
REV	DATE	AMENDMENT / REVISION DESCRIPTION						ISSUE STATUS	ISSUE
0	02/11/2021	ISSUED FOR INFORMATION		CO-ORDINATE SYSTEM		HEIGHT DATUM		100% DETAIL DESIGN	2
1	09/11/2021	ISSUED FOR INFORMATION		MGA ZONE 56 (GDA94)		AHD		SF2012/052175	SK-0539
2	12/11/2021	ISSUED FOR INFORMATION		www.aurecongroup.com		PROJECT MNGR		JANE MORAN	12/11/2021