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Shoalhaven Hospital Redevelopment – Aboriginal Cultural Heritage Assessment

Health Infrastructure NSW

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Abbreviations

Abbreviation	Description
ACHA	Aboriginal Cultural Heritage Assessment
AHIP	Aboriginal Heritage Impact Permit
AHIMS	Aboriginal Heritage Information Management System
ARD	Archaeological Research Design
ATR	Archaeological Technical Report
DECCW	(Former) Department of Environment Climate Change and Water
DPIE	Department of Planning, Industry and Environment
ELA	Eco Logical Australia Pty Ltd
LEP	Local Environmental Plan
OEH	(Former) NSW Office of Environment and Heritage
PAD	Potential Archaeological Deposit
SHI	State Heritage Inventory
SHR	State Heritage Register

Executive Summary

Eco Logical Australia (ELA) has been engaged by the Health Infrastructure NSW to prepare an Aboriginal Cultural Heritage Assessment (ACHA) support the proposed Shoalhaven Hospital Redevelopment, which includes the refurbishment of existing buildings and construction of additional buildings. This ACHA has been undertaken in accordance with the Secretary's Environmental Assessment Requirements (SEARs) (SSD-359994868) received 23 February 2022. This report supports a State Significant Development Application (SSDA) submitted to the Minister for Planning and Public Spaces, pursuant to clause 14(a) of Schedule 1 of the *State Environmental Planning Policy (Planning Systems) 2021* as it involves development for the purposes of a hospital with a capital investment value in excess of \$30 million. This SSDA seeks consent for the development and expansion Shoalhaven Hospital located at Scenic Drive, Nowra (Figure 1).

The project is subject to assessment by the Department of Planning, Industry and Environment (DPIE) as a State Significant Development (SSD-359994868). The relevant assessment requirement as specified in the issued SEARs is as follows:

Provide an Aboriginal Cultural Heritage Assessment Report prepared in accordance with relevant guidelines, identifying, describing and assessing any impacts for any Aboriginal cultural heritage values on the site.

This Aboriginal Cultural Heritage Assessment has been undertaken to identify and describe the cultural heritage values and significance across the study area. This has been undertaken in accordance with the *Guide to investigating, assessing and reporting on Aboriginal Cultural Heritage in NSW* (OEH 2011).

To be able to assess the environmental context and identify potential Aboriginal objects or places located within the study area, an archaeological survey was undertaken by ELA Archaeologists. Trudy Trindall of Nowra Local Aboriginal Land Council (LALC) was in attendance and provided cultural information and recommendations for the proposal. The archaeological survey was undertaken in accordance with the *Code of Practice for Archaeological Investigations of Aboriginal Objects in NSW* (DECCW 2010a).

As part of the Aboriginal Cultural Heritage Assessment (ACHA) for the proposed works, Aboriginal consultation has been undertaken and is ongoing in accordance with the *Aboriginal Cultural Heritage Consultation Requirements for Proponents 2010* (DECCW 2010b). Consultation is undertaken to engage the local Aboriginal community in order to assess the Aboriginal Cultural significance of the study area. By undertaking this Aboriginal Cultural Heritage Assessment, the proponent is demonstrating an attempt to avoid or mitigate potential impacts of the proposal on cultural heritage values.

It was found that:

- No Aboriginal sites are located within the study area.
- All sections of the study area have been subjected to moderate to high levels of ground disturbance.
- All sections of the study area were found to have a low archaeological potential.
- No direct impacts from the project on Aboriginal cultural heritage have been identified.

Based on the findings of this ACHA and the archaeological investigation the following is recommended:

Recommendation 1 – No further assessments are required

No further archaeological assessment is required for the study area. Although general measures will need to be undertaken. These general measures include:

- This assessment has been undertaken to assess the proposed impacts within the study areas shown in Figure 1. If proposed excavated areas are located beyond the defined assessment boundary, further investigations will be required and an addendum ACHA undertaken. An addendum ACHA will require further consultation with RAPs.
- It would be recommended to include a heritage induction for early demolition and construction workers before works commence.
- Unexpected Finds:
 - Aboriginal objects are protected under the NPW Act, regardless if they are registered on AHIMS or not. If suspected Aboriginal objects, such as stone artefacts are located during future works, works must cease, and an archaeologist called in to assess the finds.
 - If the finds are found to be Aboriginal objects, Heritage NSW must be notified under section 89A of the NPW Act. Appropriate management and avoidance or must then be sought if Aboriginal objects are to be moved or harmed.
 - In the extremely unlikely event that human remains are found, works should immediately cease, and the NSW Police should be contacted. If the remains are suspected to be Aboriginal, Heritage NSW may also be contacted at this time to assist in determining appropriate management

Recommendation 2 – Submit ACHA to AHIMS

- In accordance with Chapter 3 of the *Guide to investigating, assessing and reporting on Aboriginal cultural heritage in NSW* (OEH 2011) the ACHA should be submitted for registration on the AHIMS register within three months of completion.

1. Introduction

1.1 Background

Eco Logical Australia (ELA) has been engaged by the Health Infrastructure NSW to prepare an Aboriginal Cultural Heritage Assessment (ACHA) to support the refurbishment of existing buildings and construction of additional buildings within the Shoalhaven District Memorial Hospital ('Shoalhaven Hospital'). This ACHA has been undertaken in accordance with the Secretary's Environmental Assessment Requirements (SEARs) (SSD-359994868) received 23 February 2022. This report supports a State Significant Development Application (SSDA) submitted to the Minister for Planning and Public Spaces, clause 14(a) of Schedule 1 of the *State Environmental Planning Policy (Planning Systems) 2021* as it involves development for the purposes of a hospital with a capital investment value in excess of \$30 million. This SSDA seeks consent for the development and expansion Shoalhaven Hospital located at Scenic Drive, Nowra (Figure 1).

Plans of the proposed works have been provided by Conrad Gargett (Figure 2).

1.2 Location of the proposed works

The study area is located between Scenic Drive and Shoalhaven Street, north of North Street. It is comprised of the following lots:

Table 1: The study area's Lots and DPs

Lot	DP
7034	1031852
373	755952
1	1043088
102	1165533
104	1165533
1031	1208730
1032	1208730

The study area is located in the suburb of Nowra, in the Parish of Nowra within the County of St. Vincent. It is located within the Shoalhaven Local Government Area (LGA) and falls within the Nowra Local Aboriginal Land Council (LALC).

1.3 Purpose and aims

According to Heritage NSW, the investigation and assessment of Aboriginal cultural heritage is undertaken to explore the harm of a proposed activity on Aboriginal objects and declared Aboriginal places and to clearly set out which impacts are avoidable, and which are not.

Harm to significant Aboriginal objects and declared Aboriginal places should always be avoided wherever possible. Where such harm cannot be avoided, proposals that reduce the extent and severity of this harm should be developed.

This ACHA has been carried out in accordance with the guidelines outlined in *Guide to investigating, assessing and reporting on Aboriginal cultural heritage in NSW* (OEH 2011). This ACHA presents the results of the assessment and recommendations for actions to be taken before, during and after an activity to manage and protect Aboriginal objects and declared Aboriginal places identified by the investigation and assessment.

The project is subject to assessment by the Department of Planning and Environment as a State Significant Development (SSD-359994868). An Environmental Impact Statement (EIS) must be prepared to identify the potential environmental impacts associated with the proposed development. The relevant assessment requirement as specified in the issued SEARs is as follows:

Provide an Aboriginal Cultural Heritage Assessment Report prepared in accordance with relevant guidelines, identifying, describing and assessing any impacts for any Aboriginal cultural heritage values on the site.

This ACHA has been prepared in accordance with the following requirements and guidelines:

- Secretary's Environmental Assessment Requirements (SEARs SSD-359994868)
- *Code of Practice for Archaeological Investigation of Aboriginal Objects in New South Wales* (Code of Practice) (Department of Environment, Climate Change & Water [DECCW] 2010)
- *The Burra Charter* (ICOMOS 2013)
- *Guide to Investigating, Assessing and Reporting on Aboriginal Cultural Heritage in NSW* (Office of Environment & Heritage [OEH] 2011)
- *Aboriginal Cultural Heritage Consultation Requirements for Proponents 2010* (DECCW 2010) (OEH consultation requirements).

1.4 Authorship

This ACHA has been prepared by ELA Archaeologist Charlotte Bradshaw with review by ELA Principal Archaeologist, Karyn McLeod.

Charlotte Bradshaw has a BA (Archaeology) from the University of Sydney. Karyn McLeod has a BA Honours (Archaeology) from the University of Sydney, and a MA (Cultural Heritage) from Deakin University.



Figure 1: The study area



Figure 2: Plan of the proposed works (source: Conrad Gargett 2022)

2. Legislative Context

2.1 State legislation

National Parks and Wildlife Act 1974 (NSW)

Aboriginal cultural heritage in NSW is afforded protection under the provisions of the *National Parks and Wildlife Act 1974* (NSW) [NPW Act]. The Act is administered by Heritage NSW which has responsibilities under the legislation for the proper care, preservation and protection of 'Aboriginal objects' and 'Aboriginal place'.

Under the provisions of the NPW Act, all Aboriginal objects are protected irrespective of their level of significance or issues of land tenure. Aboriginal objects are defined by the Act as 'any deposit, object or material evidence (that is not a handicraft made for sale) relating to Aboriginal habitation of NSW, before or during the occupation of that area by persons of non-Aboriginal extraction (and includes Aboriginal remains)'. Aboriginal objects are limited to physical evidence and may be referred to as 'Aboriginal sites', 'relics' or 'cultural material'. Aboriginal objects can include scarred trees, artefact scatters, middens, rock art and engravings, as well as post-contact sites and activities such as fringe camps and stockyards. Heritage NSW must be notified on the discovery of Aboriginal objects under section 89A of the NPW Act.

Part 5 of the NPW Act provides specific protection for Aboriginal objects and places by making it an offence to destroy, deface, damage, or move them from the land. The *Due Diligence Code of Practice for the Protection of Aboriginal Objects in New South Wales* (DECCW 2010c) as adopted by the National Parks and Wildlife Regulation 2019 (NPW Regulation) made under the NPW Act, provides guidance to individuals and organisations to exercise due diligence when carrying out activities that may harm Aboriginal objects. This Code also determines whether proponents should apply for consent in the form of an AHIP under section 90 of the Act. This code of practice can be used for all activities across all environments. The NPW Act provides that a person who exercises due diligence in determining that their actions will not harm Aboriginal objects has a defence against prosecution for the strict liability offence if they later unknowingly harm an object without an Aboriginal Heritage Impact Permit (AHIP). However, if an Aboriginal object is encountered in the course of an activity work must cease and an application should be made for an AHIP.

The *Code of Practice for Archaeological Investigation of Aboriginal Objects in NSW* (DECCW 2010a) assists in establishing the requirements for undertaking test excavation as a part of archaeological investigation without an AHIP or establishing the requirements that must be followed when carrying out archaeological investigation in NSW where an application for an AHIP is likely to be made.

This project is SSD therefore an AHIP is not required.

AHIMS DATABASE

The Aboriginal Heritage Information Management System (AHIMS) is a database maintained by Heritage NSW and regulated under Section 90Q of the *National Parks and Wildlife Act 1974*. AHIMS holds information and records regarding the registered Aboriginal archaeological sites (Aboriginal objects, as defined under the Act) and declared Aboriginal places that exist in NSW.

Heritage Act 1977 (NSW)

The *Heritage Act 1977* (NSW) is a statutory tool designed to conserve the environmental heritage of NSW and is used to regulate development impacts on the state's heritage places, buildings, works, relics, moveable objects or precincts that are important to the people of NSW. These include items of Aboriginal and non-Aboriginal heritage significance. Where these items have particular importance to the state of NSW, they are listed on the State Heritage Register (SHR).

Identified heritage items may be protected by means of either Interim Heritage Orders (IHO) or by listing on the SHR. Proposals to alter, damage, move or destroy places, buildings, works, relics; moveable objects or precincts protected by an IHO or listed on the SHR require an approval under section 60.

Archaeological features and deposits are afforded statutory protection by the 'relics provision section 139' of the Act (as amended in 1999). Under this section it is illegal to disturb or excavate any land knowing or suspecting that the disturbance or excavation will or is likely to result in a relic being discovered, exposed, moved, damaged or destroyed. In such cases, an excavation permit under section 140 is required. Note that no formal listing is required for archaeological relics; they are automatically protected if they are of local significance or higher.

HERITAGE REGISTERS

The Heritage Division of the Department of Premier and Cabinet maintains registers of heritage sites that are of State or local significance to NSW. The SHR is the statutory register under Part 3A of the *Heritage Act 1977* (NSW). The State Heritage Inventory (SHI) is an amalgamated register of items on the SHR, items listed on LEPs and/or on a State Government Agency's Section 170 register and may include items that have been identified as having state or local level significance. If a particular site does not appear on either the SHR or SHI this does not mean that the site does not have heritage significance as many sites within NSW have not been assessed to determine their heritage significance. Sites that appear on either the SHR or SHI have a defined level of statutory protection.

Key Aboriginal sites, including post contact sites, can be protected by inclusion on the SHR. The Heritage Council nominates sites for consideration by the Minister for Environment and Heritage.

Searches of the Australian Heritage Database, the State Heritage Register (SHR) and Shoalhaven Local Environmental Plan (LEP) 2014 utilising the term "Nowra" was conducted on the 30 June 2021 in order to determine if any places of archaeological significance are located within the study area.

The search identified that no Aboriginal archaeological sites or heritage items were recorded on these databases within the study area. The study area is adjacent to one heritage item – the Nowra Showground and Sportsground Complex (LEP item no. 405).

Native Title Act 1994

The *Native Title (New South Wales) Act 1994* was introduced to work in conjunction with the Commonwealth *Native Title Act 1993*. Native Title claims, registers and Indigenous Land Use Agreements are administered under the Act.

The study area lies within the South Coast People Native Title claim area, which spans from Port Hacking in north, Towamba River in the south and as far west as the eastern edge of the Southern Highlands. No Native Title determinations have been granted within the study area.

Aboriginal Land Rights Acts 1983

The *Aboriginal Land Rights Act 1983* (ALR Act) established Aboriginal Land Councils (at State and Local levels). Division 1A outlines the functions of Local Aboriginal Land Councils and their statutory obligation under the ALR Act to:

- (a) take action to protect the culture and heritage of Aboriginal persons in the council's area, subject to any other law, and
- (b) promote awareness in the community of the culture and heritage of Aboriginal persons in the council's area.

The study area is within the boundary of the Nowra Local Aboriginal Land Council (LALC).

Environmental Planning and Assessment Act 1979 (NSW)

The *Environmental Planning and Assessment Act 1979* (NSW) [EP&A Act] requires that consideration is given to environmental impacts as part of the land use planning process. In NSW, environmental impacts are interpreted as including cultural heritage impact. Proposed activities and development are considered under different parts of the EP&A Act, including:

- Major projects (State Significant Development under Part 4.1 and State Significant Infrastructure under Part 5.1), requiring the approval of the Minister for Planning and Public Spaces.
- Minor or routine developments, requiring local council consent, are usually undertaken under Part 4. In limited circumstances, projects may require the Minister's consent.
- Part 5 activities which do not require development consent. These are often infrastructure projects approved by local councils or the State agency undertaking the project.

The EP&A Act also controls the making of environmental planning instruments (EPIs) such as *Local Environmental Plans* (LEPs) and *State Environmental Planning Policies* (SEPPs). LEPs commonly identify and have provisions for the protection of local heritage items and heritage conservation areas.

The proposed hospital redevelopment is SSD pursuant to clause 14(a) of Schedule 1 of the *State Environmental Planning Policy (Planning Systems) 2021* as it involves development for the purposes of a hospital with a capital investment value in excess of \$30 million

The Planning Secretary provided the Secretary's Environmental Assessment Requirements (SEARs) to the applicant for the preparation of an Environmental Impact Statement (EIS) for the proposed development on 23 February 2022. This report has been prepared having regard to the SEARs as relevant.

2.2 Commonwealth Legislation

Environment Protection and Biodiversity Conservation Act 1999

The *Environment and Heritage Legislation Amendment Act (No.1) 2003* amends the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) to include 'national heritage' as a matter of National Environmental Significance and protects listed places to the fullest extent under the Constitution. It also establishes the National Heritage List (NHL) and the Commonwealth Heritage List (CHL).

The *Australian Heritage Council Act 2003* (AHC Act) establishes a new heritage advisory body - the Australian Heritage Council (AHC), to the Minister for the Environment and Heritage and retains the Register of the National Estate (RNE).

The *Australian Heritage Council (Consequential and Transitional Provisions) Act 2003* repeals the *Australian Heritage Commission Act 1975*, amends various Acts as a consequence of this repeal and allows the transition to the current heritage system.

Together the above three Acts provide protection for Australia's natural, Aboriginal, and historical heritage. The new features include:

- A new NHL of places of national heritage significance.
- A new CHL of heritage places owned or managed by the Commonwealth.
- The creation of the AHC, an independent expert body to advise the Minister on the listing and protection of heritage places.
- Continued management of the Register of the National Estate (RNE)

Aboriginal and Torres Strait Islander Heritage Protection Act 1984

The Commonwealth Act, *Aboriginal and Torres Strait Islander Heritage Protection Act 1984* deals with Aboriginal cultural property in a wider sense, encompassing the protection of any areas and objects that 'are of particular significance to Aboriginals [Aboriginal people] in accordance with Aboriginal tradition'. In most cases, archaeological sites and objects registered under the State Act will also be Aboriginal places subject to the provisions of the Commonwealth Act. The Commonwealth Act takes precedence over State cultural heritage legislation where there is conflict. The responsible Minister may make a declaration under Section 10 of the Commonwealth Act in situations where state or territory laws do not provide adequate protection of heritage places.

3. Description of the area

3.1 Environmental context

The study area is situated within the Ettrema subregion of the Sydney Basin bioregion.

Table 2: Ettrema subregion summary (source: NSW Department of Planning, Industry and Environment 2021)

Ettrema Bioregion	
Geology	Permian horizontal quartz sandstone alternating with shales. Deep gorges expose Silurian volcanics and Carboniferous granite in underlying Lachlan Fold Belt. Limited Tertiary basalt with river gravels.
Characteristic Landforms	Low stepped hills on plateau with deeply incised streams off plateau edge below waterfalls on the escarpment.
Typical Soils	Alternating sandstone and shale create bare rock benches and soil benches with shallow, often saturated sand. Structured red brown clay loams on basalt.
Vegetation	Very prominent “contour” vegetation pattern. Lichens, mosses and low heath patches on rock, woodlands with dwarfed red bloodwood, black ash, tall heath and sedgeland on soil benches. Better soils have messmate and brown barrel. Gullies support rainforest elements with turpentine, plumwood, coachwood, lilly pilly and mountain pepper.

The study area is located within the Nowra Soil Landscape (*no*) which is located on the moderate to gently undulating low hills on the Coastal Plain. The Nowra soil landscape consists of broad ridges and crests with long, gently inclined slopes, broad drainage areas with deeply incised channels and benched sandstone outcrops adjacent to drainage lines. Typical relief is <40m and slopes <5%. Soils consist of moderately deep (50-100cm) Brown Podzolic Soils on crests and upper slopes. Soloths and Yellow Earths occur midslope and Yellow Podzolic soils occur on lower slopes and drainage lines. Topsoils are generally hard setting with low erodibility and subsoils are moderately deep and moderately acidic with high erodibility (Figure 8). The geology is dominated by Nowra quartz sandstones of the Shoalhaven Group Megalong Conglomerates of the early Permian period (Geological Survey of NSW 1966). Elevation ranges between 20m and 30m.

Vegetation in the region is characterised by extensively to moderately cleared with stands of tall open-forest. Common species include turpentine (*Syncarpia glomulifera*), grey gum (*Eucalyptus punctata*), scribbly gum (*Eucalyptus sclerophylla*), sydney peppermint (*Eucalyptus piperita*), thinleaved stringybark (*Eucalyptus eugenioides*), red bloodwood (*Eucalyptus gummiifera*), forest oak (*Allocasuarina torulosa*) and blackbutt (*Eucalyptus pilularis*) with an understorey of flaky-barked tea-tree (*Leptospermum attenuatum*). Mountain devil (*Lambertia formosa*), hairpin banksia (*Banksia spinulosa*), pine-leaf geebung (*Persoonia pinifolia*) and burrawang (*Macrozamia communis*) grow on sandier soils. Spotted gum (*Eucalyptus maculata*) and grey ironbark (*Eucalyptus paniculata*) grow on heavy soils.

The study area is located 45 m south of the Shoalhaven River, and 560 m north-east of Nowra Creek, a fourth order stream. The proximity of these sources of water, as well as nearby raised areas from which to access the streams, indicates that resources were present within the study area as well as suitable landforms from which to exploit them.

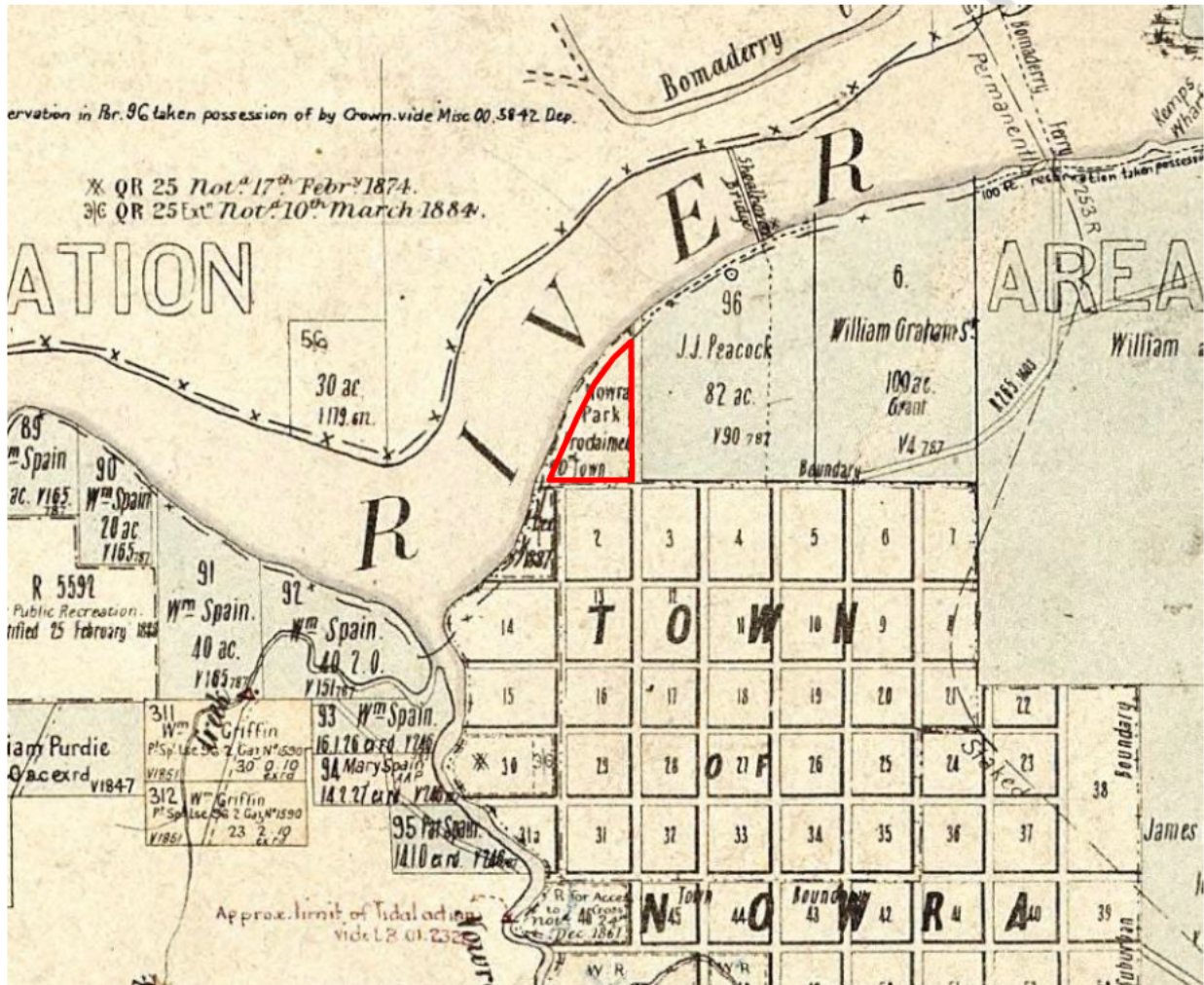


Figure 3: Parish map from 1904 with the study area outlined in red (source: NSW Land Registry Services)



Figure 4: 1969 aerial imagery (source: The Historical Imagery Viewer)



Figure 5: 1979 aerial imagery (source: The Historical Imagery Viewer)



Figure 6: 1993 aerial imagery (source: The Historical Imagery Viewer)



Figure 7: 2002 aerial imagery (source: The Historical Imagery Viewer)



Figure 8: Soil landscapes and hydrology

3.2 Ethnohistoric Context

3.2.1 Regional History

Aboriginal people have occupied Australia for at least 40,000 years (Attenbrow, 2010). The occupation of the NSW South Coast dates to at least 20,000 years ago, indicated by sites at Burrill Lake, though there are not many known Pleistocene sites within the South Coast region (Lampert, 1971). Whilst ethnographic records and oral histories can inform our understanding of the traditional Aboriginal groups that occupied various regions in Australia, this knowledge is often hindered by the ethnocentric bias of early settlers and therefore may not always be entirely accurate.

The Nowra region is traditionally located on the approximate boundary between the Wodi Wodi and Wandanian people (Tindale, 1974). According to Tindale (1974), Wodi Wodi territory extends from north of the Shoalhaven River in Nowra to Wollongong and inland to Campbelltown/Camden. The Wandanian territory is described as extending from the Lower Shoalhaven to Ulladulla, and inland towards Braidwood. The Wodi Wodi spoke the Tharawal language (Eades, 1976), whilst the Wandanian spoke the Dhurga language and occupied the Lower Shoalhaven region, extending towards Ulladulla and inland towards Braidwood (Eades, 1976).

Traditional stories tell of the Dreamtime arrival of the Dharawal people at the mouth of Lake Illawarra. The Dharawal people defined themselves as being either fresh or salt-water people, occupying the coastal regions or plateaus (Wesson, 2005). As Nowra borders both a coastal region and a plateau, it is possible that the area served as a traditional meeting place for these tribes (Wesson, 2005).

The wider Illawarra region was opened to European settlers following the arrival of Governor Macquarie in 1810 and as a result local Aboriginal groups were often subjected to violence and displaced from their traditional lands (Navin, 1991). Early colonial accounts indicated that the Aboriginal people of Illawarra lived in a society divided by gender and age, where men hunted large species and women gathered vegetables (Navin, 1991).

Ethno-historical observations along the coast indicate items related to the traditional subsistence, cultural and social activities of local Aboriginal groups included canoes, spears, fishing spears, possum skin cloaks, shellfish hooks and grass tree resin (Boot, 1994). Tools made of wood and shell are often absent from the archaeological record, and the most commonly represented tool types across sites in Australia are made of stone, bone and shell (Boot, 1994).

3.2.2 Local History

The first European to venture into Shoalhaven region was as early as 1797 by George Bass when he and other six seamen were onboard a whaleboat and identified the mouth of a river Bass named 'Shoalhaven'. This was the mouth of what is now known as Crookhaven River which is located just south of Shoalhaven River. The region wasn't explored by Europeans until 1805 by James Meehan and Lieutenant King who noted the abundance of cedar along the river. Cedar-getting was conducted in the region from 1811 and was the primary industry for many years providing timber to the Sydney district and a supply of sleepers during the days of the early railways. The first settlement was established by Alexander Berry in Coolangatta who held, along with his partner Edward Wollstonecraft, 10 000 acres in land grants across the Shoalhaven District. The settlements in the Shoalhaven District shipped fresh produce, wool and wheat up to Sydney. The goldrush saw many settlers leave Shoalhaven in the 1850s. Berry

responded by offering far more liberal tenancies to entice more newcomers into the area. He also entered into contracts with Chinese and German labourers across the estate. This period saw a rapid increase in the local population (Freeman 2003).

Land clearance and colonial farming practices rapidly decimated traditional food sources for the Aboriginal people of the area. Native grasses were replaced with crops or exotic pasture for livestock. Aboriginal people were driven from their waterside campsites to make room for stock raising. In 1908, the Bomaderry Aboriginal Children's Home was established by United Aborigines Mission (UAM) when seven Aboriginal orphans came in the care of two missionaries after their mother's death. This home predates the *Aborigines Protection Act 1909* and is known as the "first children's home". Under the Act, children who were deemed 'neglected' were stolen from families and housed at the Mission. Babies and children from as far away as Eden were brought into the Mission. Children aged 14 years or older were often sent off for training at either Cootamundra Girl's Training Home or Kinchela Boy's Training Home. The Mission was operational until the 1980s.

4. Consultation

Consultation with registered Aboriginal parties for this Aboriginal cultural heritage assessment has been conducted in line with Heritage NSW *Aboriginal Cultural Heritage Consultation Requirements for Proponents 2010* (DECCW 2010b). This has ensured that Aboriginal stakeholders have been able to register and therefore be fully engaged on all aspects relating to cultural heritage for this project.

Heritage NSW consultation requirements follow four clear consultation stages. The following chapter outlines the process ELA used to fully consult with Aboriginal people on this development proposal.

4.1 Stage 1 – Notification of project proposal and registration of interest

4.1.1 Placement of advertisement in local newspaper

An advertisement was placed in the Shoalhaven Nowra News on 16 July 2021 by ELA, inviting interested Aboriginal stakeholders to register to be consulted in relation to the proposed works (Appendix A).

4.1.2 Written request for information about Aboriginal organisations

ELA on behalf of the proponent undertook a registration process for Aboriginal people with knowledge of the area. ELA wrote to the following organisations (as per 4.1.2 *Consultation Requirements*) on 24 June 2021, in order to identify Aboriginal people who may hold cultural knowledge relevant to determining the significance of Aboriginal objects:

- Heritage NSW
- Nowra Local Aboriginal Land Council
- The Registrar, Aboriginal Land Rights Act 1983
- The National Native Title Tribunal
- Native Title Services Corporation Limited (NTS Corp Limited)
- Shoalhaven City Council
- South East Local Land Services.

Details of the advertisement, letters and organisational responses are included in Appendix A.

4.1.3 Letters to Aboriginal organisations

As per 4.1.3 of the *Consultation Requirements*, ELA wrote to the Aboriginal organisations identified through the above process on 8 July 2021, inviting them to register an interest in the project. The registration closing date was set as 30 July 2021. Due to limited responses to the original invitation, a follow up email was sent to Aboriginal organisations on 5 August 2021, extending the registration closing date to 12 August 2021.

Section 4.1.4 of the *Consultation Requirements* only requires a minimum of 14 days for Aboriginal stakeholders to register their interest to be consulted for an ACHA, however, it has always and will continue to be ELA's policy to register all individuals/groups regardless of the mandatory closing date of registration.

Details of the letters to Aboriginal organisations and responses are included in Appendix A.

Registrants became the Registered Aboriginal Parties (RAPs) for the project. Table 3 below details the RAPs for the project.

Table 3: Registered Aboriginal Parties

Organisation Identified by Heritage NSW	Contact Name
[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]

4.2 Stage 2 and Stage 3 - Presentation of information about the proposed project and gathering information about cultural significance

4.2.1 Project information and methodology

Following the registration of Aboriginal parties, ELA presented the proposed project information and archaeological survey results. This information was sent to the RAPs for the project on 9 February 2022 with a closing date for review set for 9 March 2022 (Table 4).

Table 4: RAP responses to draft methodology

Aboriginal organisation	Contact Name	Draft Methodology Responses
[REDACTED]	[REDACTED]	<i>Thank you for the map and report. I have read through it all and understand the impacts.</i>

4.2.2 Archaeological Survey

An archaeological field survey was undertaken by ELA Archaeologist Charlotte Bradshaw and Nowra LALC heritage officer Trudy Trindall on 17 October 2021. The full Archaeological Assessment outlining the findings and results of the archaeological survey has been included in Appendix C of this report.

4.3 Stage 4 – Review of draft cultural heritage report

A copy of the draft ACHA was provided to Aboriginal stakeholders on 29 March 2022 for a 28-day review and comment period. Summary comments and cultural information received from stakeholders will be incorporated into the final assessment and included in full in the final version of the report. One response to the draft ACHA was received from the registered Aboriginal parties.

Table 5: Draft ACHA responses

Aboriginal Organisation	Contact Name	Draft ACHA Responses
[REDACTED]	[REDACTED]	Agrees with the recommendations. Stated the area has been heavily disturbed, and doubts there is any archaeological potential.

5. Summary and analysis of background information

5.1 AHIMS sites

A search of the AHIMS database was conducted on 30 June 2021 to identify if any registered Aboriginal sites were present within, or adjacent to, the study area (Appendix B). This represents 8 km surrounding the study area.

The result of the search was 108 Aboriginal sites, of the 108 Aboriginal sites, four (4) are 'Not a site' and one (1) site is a duplicate. Therefore, the total number of AHIMS sites within the search parameters are 103. The distribution of recorded Aboriginal sites within the vicinity of the study area is shown in Figure 9. The frequencies of site types and contexts recorded within the AHIMS database search area are listed in Table 6:

Table 6: Frequencies of site types and contexts

Site Features	Number	Percentage of sites
Art (Pigment or Engraved)	8	7.7
Artefact	64	62.1
Artefact; Art (Pigment or Engraved)	3	2.9
Artefact; Art (Pigment or Engraved); Grinding Groove	1	1.0
Artefact; Art (Pigment or Engraved); Potential Archaeological Deposit (PAD)	2	1.9
Artefact; Grinding Groove	1	1.0
Artefact; Habitation Structure	1	1.0
Artefact; Habitation Structure; Grinding Groove	1	1.0
Artefact; Potential Archaeological Deposit (PAD)	1	1.0
Burial	1	1.0
Grinding Groove	6	5.8
Habitation Structure	3	2.9
Modified Tree (Carved or Scarred)	5	4.9
Potential Archaeological Deposit (PAD)	6	5.8
Total	103	100

The most common site features are artefacts in both open and closed contexts (62.5% collectively), followed by art (pigment or engraved) in both open and closed contexts (7.7% collectively). Most sites are located in open contexts (64.4%). There are no AHIMS sites located within the study area.

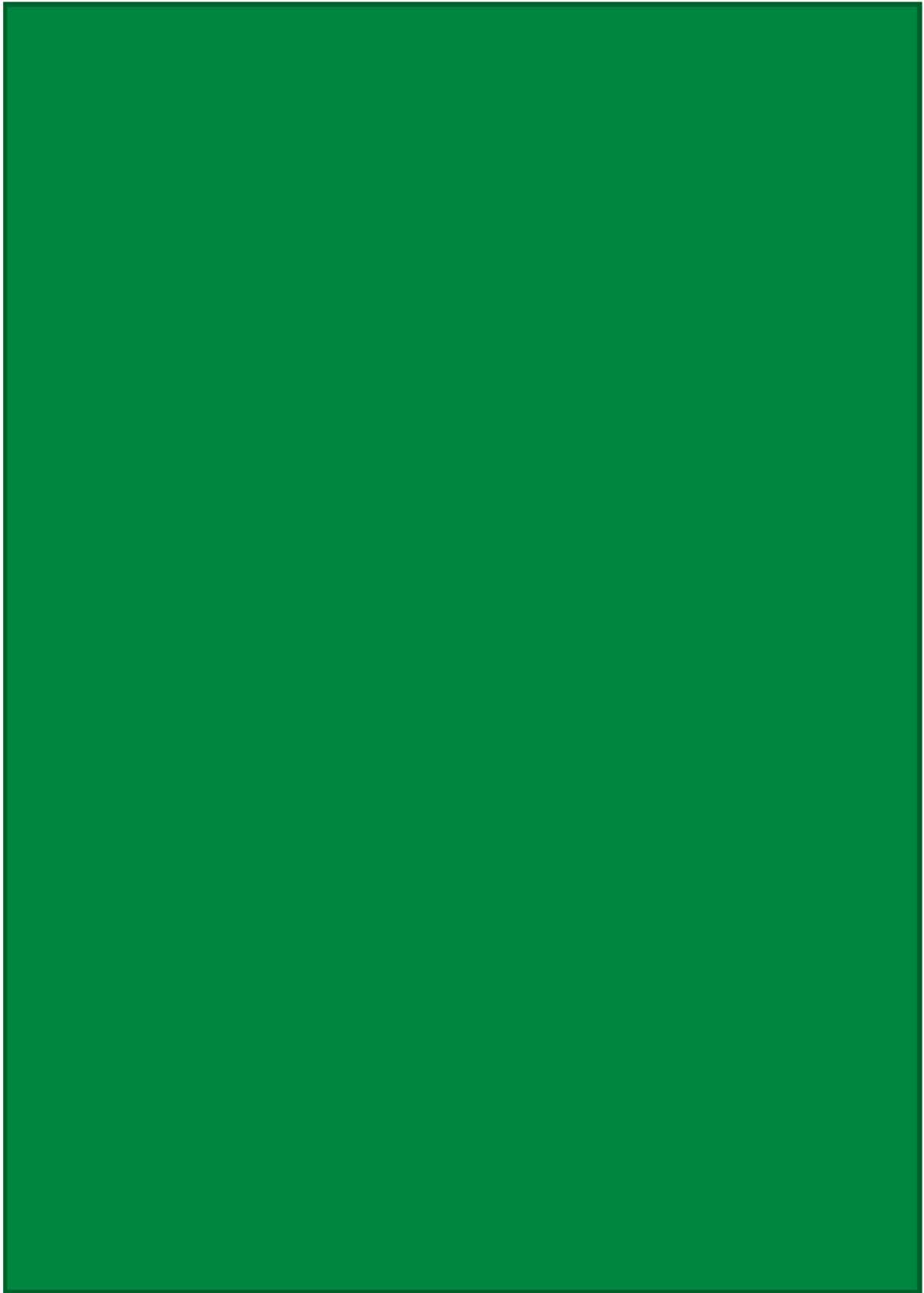


Figure 9: AHIMS sites within the region

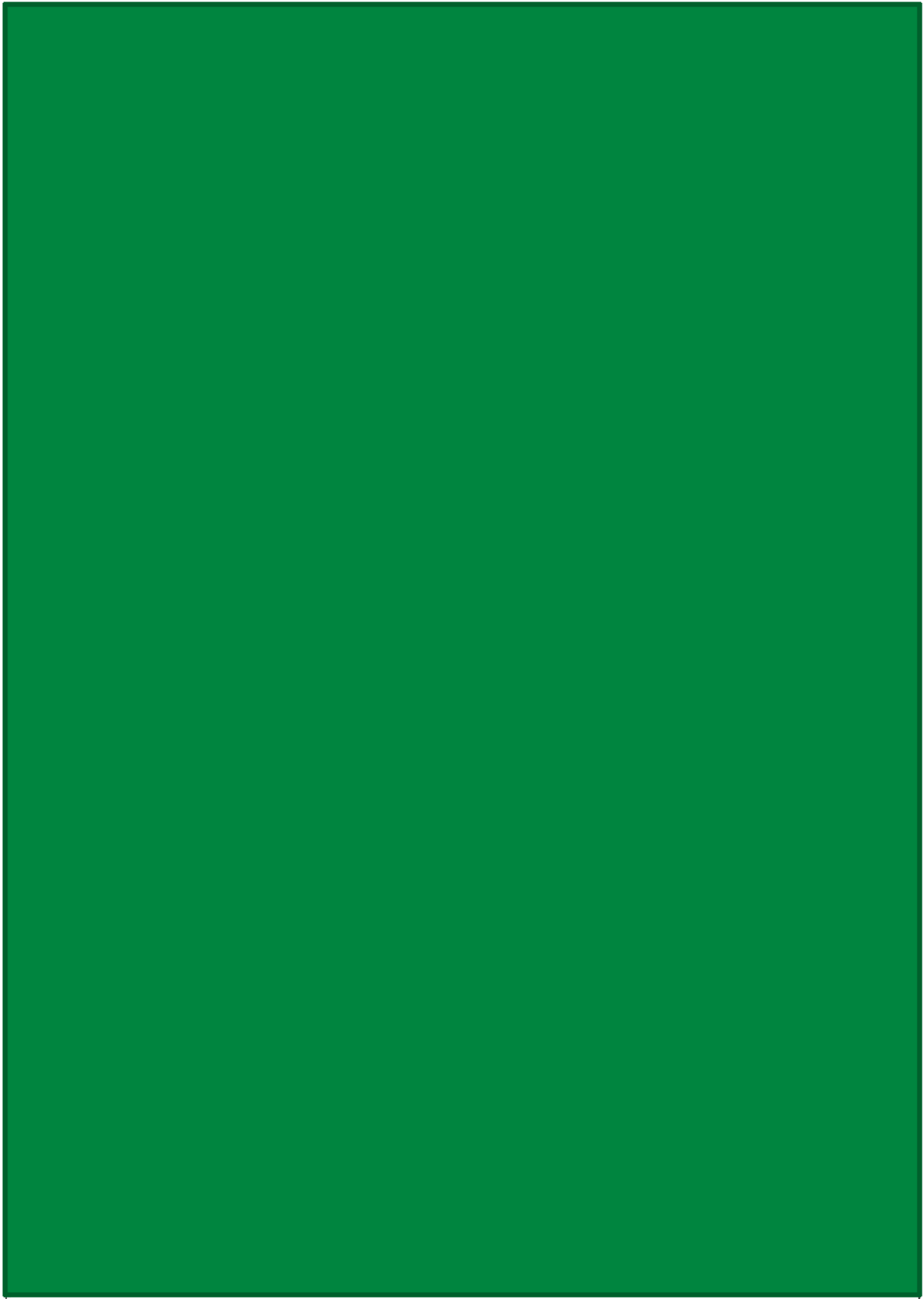


Figure 10: AHIMS sites within proximity to the study area

5.1.1 Previous archaeological studies – Within the study area

GODDEN MACKEY LOGAN, 2011. SHOALHAVEN CANCER CENTRE ABORIGINAL HERITAGE STAGE 1 REPORT. PREPARED FOR JOHNSTAFF PROJECTS.

Godden Mackey Logan (GML) was engaged by Johnstaff Projects on behalf of Health Infrastructure to prepare a preliminary Aboriginal archaeological assessment for the proposed Shoalhaven Cancer Centre in the Shoalhaven District Memorial Hospital. GML's project area is located within the current study area where the existing cancer centre is located (Lot 1032 DP 1208730).

The desktop assessment did not identify any known Aboriginal sites within the study area but found sites occurred within a 5 km radius, mostly artefact sites, grinding grooves, rockshelters and PADs. Given the soil landscape and topography, GML predicted a low likelihood for subsurface sites or objects within the study area. A visual inspection was conducted, and all areas of surface visibility was inspected, and all mature trees were investigated for any signs of cultural scarring. It was noted that the playing field located south (within Nowra Park) appears to have been graded to create a relatively flat surface for sports activities. No Aboriginal sites were identified within the study area and GML maintained there was a low likelihood for sites within the development area.

GML did not recommend any further archaeological investigations but recommended consultation with the LALC at a minimum to determine any cultural values the site may possess.

ECO LOGICAL AUSTRALIA, 2018. ABORIGINAL DUE DILIGENCE ASSESSMENT – PROPOSED CARPARKS AT SHOALHAVEN DISTRICT MEMORIAL HOSPITAL. PREPARED FOR HEALTH INFRASTRUCTURE

ELA was previously engaged by Health Infrastructure to prepare an Aboriginal Due Diligence Assessment for the proposed restructuring and development of staff and visitor carparking at the Shoalhaven District Memorial Hospital in Nowra NSW (comprising part of the current study area).

An initial desktop assessment, including an extensive search of the AHIMS database, did not identify any previously recorded Aboriginal sites within the study area. The majority of sites within the vicinity of the study area were isolated artefacts and artefact scatters (47%) and rock shelters (24%). Three Aboriginal sites had previously been recorded within 500m to the east of the study area, two PADs and an isolated artefact (AHIMS ID 52-5-0852, AHIMS ID 52-5-0859 and AHIMS ID 52-2-0860). An additional seven sites, including isolated artefacts, a culturally modified tree and a PAD had previously been recorded 700m to the north of the study area, on the banks of the Shoalhaven River. One item of Aboriginal heritage significance was identified within the vicinity of the hospital, 'Ben's Walk, including Suspension Bridge and Aboriginal Art Sites'.

A visual inspection of the study area was undertaken which did not identify any sensitive landforms, Aboriginal sites or areas of potential. The study area had undergone prior ground disturbance associated with historic land use, including the clearing of the landscape, the construction of buildings, roads and carparks and no intact natural landforms were identified. As a result of this ground disturbance, the study area was considered to have a low potential for intact archaeological deposits. As such, no further archaeological investigation was recommended.

ECO LOGICAL AUSTRALIA, 2019. ABORIGINAL DUE DILIGENCE ASSESSMENT – SHOALHAVEN HOSPITAL CONSTRAINTS ASSESSMENT. PREPARED FOR HEALTH INFRASTRUCTURE NSW.

Eco Logical Australia (ELA) was previously engaged by Health Infrastructure NSW, on behalf of the NSW Department of Health, to prepare an Aboriginal Heritage Due Diligence Assessment at the Shoalhaven Memorial Hospital, comprising of the current study area. The assessment was to support the proposed redevelopment of the Shoalhaven Memorial Hospital and Nowra Recreation Park in Nowra, NSW.

A desktop assessment, including an extensive search of the AHIMS database, did not identify any previously recorded sites within the study area. Within the search area 20% of the previously recorded sites were listed as flaked stone artefacts, including artefact scatters and isolated finds, 14% of recorded sites were PADs and 46% of sites were listed as rock shelters. Searches of databases, including the SHR and Shoalhaven LEP did not identify any Aboriginal archaeological sites or heritage items within the study area, though a locally listed heritage item with Aboriginal significance is located near the study area and is listed on the Shoalhaven LEP as item 406 'Bens' walk including suspension bridge and Aboriginal art sites'. It was noted that although this item did not occur within the study area assessed in the report and was not included as part of the visual inspection, it occurred within the wider study area and as such consideration was given to any potential impacts redevelopment of the hospital might have on the significance of the item.

A visual inspection of the study area was undertaken which found that the area had been subject to prior disturbance and no Aboriginal objects were found. A visual inspection of the surrounding area, including the bushland to the north was also undertaken, with no Aboriginal objects found. A second visual inspection of the study area was undertaken which identified low archaeological potential across the Nowra Park due to past disturbances in the area related to the installation of underground services and facilities associated with the park and hospital, including a helipad and basketball court. There was minor soil exposure across the site, including disturbed natural soils and fill material and the study area had largely been cleared of mature growth vegetation.

As a result of the desktop assessment and visual inspection, the area was assessed as having low archaeological potential and no impacts upon Aboriginal objects were anticipated.

5.1.2 Previous archaeological studies – Regional

ARTEFACT HERITAGE, 2018. NOWRA BRIDGE PROJECT – ABORIGINAL TECHNICAL REPORT (PACHCI STAGE 3). PREPARED FOR SMEC.

Artefact Heritage was previously engaged by SMEC to conduct an Aboriginal archaeological test excavation to support the proposed Roads and Maritime Services upgrade of the Shoalhaven River Crossing and the proposed construction of a new northbound bridge over the Shoalhaven River and upgrades to the intersection. In relation to the current study area, this assessment was undertaken approximately 1.7km to the east.

Five new subsurface sites were identified during subsurface testing, two previously recorded surface sites were updated to include a subsurface component, one previously recorded site was deregistered, one previously recorded surface site was updated during the additional survey, the extent of three previously registered PADs was updated and two previously identified PADs were deregistered.

Five Aboriginal sites identified during an initial survey, four artefact scatters and one scarred tree, were assessed as having low-moderate to high archaeological significance, with the scarred tree presenting a high scientific significance. The five areas of PAD were relatively undisturbed landforms, and one PAD (AHIMS ID 52-5-0861) encompassed a cliff line with rockshelters adjacent to the Shoalhaven River. As a result of the survey, it was anticipated that all identified Aboriginal sites and PADs, excluding the scarred tree, would be at least partially impacted by the proposed works and as such, further archaeological investigation in the form of a test excavation was recommended.

Test excavation involved hand excavation of 60 test pits (50 x 50 cm) across seven (7) testing areas. A total of five (5) PADs were excavated as a result of the test excavation program and Aboriginal objects were identified in all five PADs. Six (6) new artefact scatters, one (1) habitation site/artefact scatter was identified within the study area and two (2) previously recorded surface artefact sites were redefined from isolated artefacts to artefact scatters. The newly identified sites included Nowra Bridge 6, which recovered two (2) subsurface artefacts over four (4) test pits and was situated on a disturbed bank on the edge of Scenic Drive and slopes down towards a drainage line. Nowra Bridge 8 was situated on a raised alluvial flat to the north of Bombaderry Creek, 40 subsurface artefacts were retrieved over 8 test pits, comprising of silcrete, chalcedony, basalt, mudstone and quartz. Nowra Bridge 7 was situated within a rock shelter which faces south over the Shoalhaven River, 12 subsurface artefacts were retrieved from one test pit, comprising of silcrete, chalcedony, quartz and chert retrieved between 0-300mm. There as minimal surface disturbance at this location. Nowra Bridge 9 was situated on a raised alluvial flat on the south side of Bombaderry Creek adjacent to the sandstone rock shelf, 25 subsurface artefacts were retrieved over five (5) test pits between 200-600mm depth. Nowra Bridge 10 was situated on a raised alluvial floodplain and 11 subsurface artefacts were retrieved from one (1) test pit between 0-200mm.

Nowra Bridge 1 resulted in the recovery of 110 artefacts from 11 out of 14 test pits, and soil disturbance was noted in upper layers related to historical fill. Nowra Bridge 2 contained 162 artefacts from 14 out of 19 test pits and also noted historical soil disturbances across the test pits.

As a result of the investigation, it was recommended that an AHIP application be lodged and surface collection of all AHIMS surface artefact sites be conducted as a condition of the AHIP prior to the proposed works.

MARY DALLAS CONSULTING ARCHAEOLOGISTS, 2018. *ABORIGINAL CULTURAL HERITAGE ASSESSMENT REPORT – 2541 WARRAH ROAD AND 12A-C WARRAH ROAD, NORTH NOWRA NSW. PREPARED FOR SOUTHBANK LAND PTY LTD AND HUNTINGDALE PTY LTD.*

Mary Dallas Consulting Archaeologists (MDCA) were previously engaged by Southbank Land Pty Ltd and Huntingdale Pty Ltd to prepare an Aboriginal Cultural Heritage Assessment (ACHA) to support the proposed rezoning of a 75 hectare of land known as 2541 Warrah Road (Lot 24 DP714096) and 12A-C Warrah Road (Lots 21-23 DP14096) in North Nowra NSW. In relation to the current study area, this is located approximately 6km to the north-west.

A desktop assessment and field survey indicated that the study area had been subjected to historical land use that resulted in significant impacts that were likely to have disturbed an intact evidence of past Aboriginal land use in the area. Two artefact scatters, AHIMS ID 52-5-0307 and AHIMS ID 52-5-0372 are

located within the study area, but both were identified in disturbed contexts and have no subsurface potential and no further areas of archaeological potential have been located across the study area.

An extensive search of the AHIMS database was undertaken which identified two sites within the search area but only one within the proposed future development area, another two sites were recorded 800m to the north-east of the study area. The majority of Aboriginal sites within the vicinity of the study area were shelters (36%), isolated finds (26%) and artefact scatters (22%).

A site survey was undertaken which divided the survey into four units. There was low visibility across the study area due to vegetation cover. In survey unit 1, vehicular and bike tracks extended across the area. In survey unit 2 the area had been highly disturbed, appeared to have been used as a former quarry, dumping ground for cars, concrete and other rubble and the construction of trail bike tracks. Survey unit 3 had some signs of disturbance and had three (3) deposits of mixed sandstone and sand and gravel. Both registered AHIMS sites were unable to be relocated during the site inspection. Survey unit 4 had been cleared of original vegetation, though regrowth was present, and the northern portion had been landscaped and levelled. The greenhouse area had also been largely disturbed and there was a long access driveway.

As a result of the survey, the study area has been assessed as having a low archaeological significance due to the disturbed context, inability to relocate the AHIMS sites. Recommendations included that the plans for the rezoning could go ahead, and if a future subdivision of the study area went ahead, an AHIP should be sought for the proposed impacts to AHIMS ID 52-2-0307 and if impacts were proposed to AHIMS ID 52-5-0372 an AHIP should be sought for that site as well.

5.2 Summary of background information

According to the AHIMS database, no Aboriginal sites or places are located within the study area. Previous investigations conducted within the study area have unanimously identified a low potential for Aboriginal sites or objects. The landscape features and proximity to the Shoalhaven River indicate the study area was likely utilised by Aboriginal people in the past, however past disturbances and the nature of the soil landscape has likely destroyed any archaeological evidence of this. Test excavations in the same soil landscape note the deposits are moderately shallow (>600mm) and the presence of historical fill and subsurface disturbance (Artefact 2018).

5.3 Summary of archaeological survey

The archaeological survey identified that a majority of the study area has undergone significant disturbance and landform modifications associated with the development of the hospital and associated infrastructure. Nowra Park has undergone moderate to high levels of disturbance, through installation of services, vegetation clearance and vehicular activity. No new Aboriginal objects were identified through the survey. One scarred mature tree was identified; however, the scars are not indicative of cultural modification. Overall, it was concluded that the study area possesses a low likelihood for intact deposits or *in situ* archaeology.

6. Cultural heritage values and statement of significance

The *Australia ICOMOS Burra Charter 1999* provides guidance for the assessment, conservation and management of places of cultural significance. Cultural significance is defined in the Burra Charter as ‘a concept which helps in estimating the value of places’. The places that are likely to be of significance are those which help an understanding of the past or enrich the present, and which will be of value to future generations” (ICOMOS Burra Charter 1988:12). The Burra Charter provides a definition of cultural significance as “aesthetic, historic, scientific, social or spiritual value for past, present or future generations”. Aboriginal cultural heritage sites can be assessed through the application of these five principle values.

- Social or cultural value (assessed only by Aboriginal people);
- Historical value;
- Scientific/archaeological value (assessed mostly by archaeologists/heritage consultants);
- Aesthetic value;
- Spiritual value.
- This section presents an assessment of Aboriginal cultural heritage values based on these principles.

6.1 Description of cultural heritage values

The review of background information and information gained through consultation with Aboriginal people should provide insight into past events. These include how the landscape was used and why the identified Aboriginal objects are in this location, along with contemporary uses of the land. The following descriptions of cultural heritage values are drawn from the *Guide to investigating, assessing and reporting on Aboriginal cultural heritage in NSW* (OEH 2011).

Social or cultural value refers to the spiritual, traditional, historical or contemporary associations and attachments the place or area has for Aboriginal people. Social or cultural value is how people express their connection with a place and the meaning that place has for them.

Historic value refers to the associations of a place with a historically important person, event, phase or activity in an Aboriginal community. Historic places do not always have physical evidence of their historical importance (such as structures, planted vegetation or landscape modifications). They may have ‘shared’ historic values with other (non-Aboriginal) communities and include places of post-contact Aboriginal history.

Scientific (archaeological) value refers to the importance of a landscape, area, place or object because of its rarity, representativeness and the extent to which it may contribute to further understanding and information (Australian ICOMOS 1988).

Aesthetic value refers to the sensory, scenic, architectural and creative aspects of the place. It is often closely linked with the social values. It may consider form, scale, colour, texture and material of the fabric or landscape, and the smell and sounds associated with the place and its use (Australian ICOMOS 1988).

Spiritual value is a more recent inclusion in the Burra Charter, dating from 1999. Australia ICOMOS has not defined this value.

6.2 Aboriginal Cultural Values Assessment

6.2.1 Social significance

Aboriginal cultural values can only be determined through consultation with the Aboriginal community. All Aboriginal sites are considered to have cultural significance to the Aboriginal community as they provide physical evidence of past Aboriginal use and occupation of the area. Aboriginal cultural significance may include social, spiritual, historic and archaeological values, and is determined by the Aboriginal community.

The study area and surrounds would have possessed important floral and faunal resources for Aboriginal people in the past. Rockshelters along the Shoalhaven were utilised for habitation, resource gathering and art sites.

Through the desktop assessment, archaeological investigation and consultation, no notions of significance of any social significance have been linked to the study area.

6.2.2 Aesthetic significance

As noted above aesthetic significance is often closely linked to social and cultural significance. Generally aesthetic significance is considered to mean the visual beauty of a place. Examples of archaeological sites that may have high aesthetic values include rock art sites or sites located in visually pleasing environments (NSW NPWS 1997: 11).

Through the desktop assessment, archaeological investigation and consultation, no notions of significance of any aesthetic significance have been linked to the study area.

6.2.3 Historic significance

Through the desktop assessment, archaeological investigation and consultation, no notions of significance of any particular historic person, event or phase have been linked to the study area.

6.2.4 Scientific significance

As with cultural, historic, and aesthetic significance; scientific significance can be difficult to establish. Certain criteria must therefore be addressed in order to assess the scientific significance of archaeological sites. Scientific significance contains four subsets: research potential, representativeness, rarity and educational potential. These are outlined below.

Research Potential: is the ability of a site to contribute to our understanding of Aboriginal occupation locally and on a regional scale. The potential for the site to build a chronology, the level of disturbance within a site, and the relationship between the site and other sites in the archaeological landscape are factors which are considered when determining the research potential of a site.

The study area does not meet this criterion.

Representativeness: is defined as the level of how well or how accurately something reflects upon a sample. The objective of this criterion is to determine if the class of site being assessed should be

conserved in order to ensure that a representative sample of the archaeological record be retained. The conservation objective which underwrites the 'representativeness' criteria is that such a sample should be conserved (NSW NPWS 1997: 7-9).

The study area does not meet this criterion.

Rarity: This criterion is similar to that of representativeness, it is defined as something rare, unusual, or uncommon. If a site is uncommon or rare it will fulfil the criterion of representativeness. The criterion of rarity may be assessed at a range of levels including local, regional, state, national and global (NSW NPWS 1997: 10).

The study area does not meet this criterion.

Educational Potential: This criterion relates to the ability of the cultural heritage item or place to inform and/or educate people about one or other aspects of the past. It incorporates notions of intactness, relevance, interpretative value and accessibility. Where archaeologists or others carrying out cultural heritage assessments are promoting/advocating the educational value of a cultural heritage item or place it is imperative that public input and support for this value is achieved and sought. Without public input and support the educative value of the items/places is likely to not ever be fully realised (NSW NPWS 1997: 10).

The study area does not meet this criterion.

6.2.5 Spiritual significance

The study area does not meet this criterion.

6.3 Statement of significance

The study area contains zero Aboriginal archaeological sites as defined under the *National Parks and Wildlife Act 1974*.

The archaeological survey revealed a moderate to high degree of disturbance across the study area associated with the existing hospital and associated infrastructure and services. Additionally, the land use as a public park has comprised filling and levelling, disturbing subsurface deposits.

Further investigations of the area would not contribute to our understanding of Aboriginal landscape use in the area. Based on the intactness, representativeness, and research potential, the site is determined to have nil to low archaeological significance.

7. Development proposal activity

7.1 The scope of the project is as follows

The proposed Shoalhaven Hospital Redevelopment under SSD-35999468 relates solely to the development of a new hospital building. The scope includes a new 9-level structure:

- Level 00 – Back of House (BOH), loading dock, kitchen, plant, pharmacy, staff amenities, mortuary, and plant.
- Level 01 – Front of House (FOH), Emergency Department (ED), Medical Imaging, and Cafe
- Level 02 – Operating Suites & Endoscopy, Central Sterile Supply Department (CSSD), and linkway to Block B
- Level 03 – Coronary Care Unit (CCU), Close Observation Unit (COU), Intensive Care Unit (ICU), cultural centre, and plant
- Level 04 – In-Patient Unit (IPU), Mental Health, and plant
- Level 05 – In-Patient Unit (IPU)
- Level 06 – In-Patient Unit (IPU)
- Level 07 – Rooftop plant
- Level 08 – Helipad

A range of infrastructure and civil engineering works are proposed as well as demolition of existing structures within the footprint of the new building and/or on the existing hospital campus where the linkway connection is proposed. Earthworks will be necessitated within the building's footprint and immediate environs. A number of selected trees will require removal. Other significant trees will be retained and protected. Replacement planting at a minimum rate of 1:1 is proposed.

It has been assessed that the proposed development will not impact any Aboriginal heritage sites.

7.2 Consideration of Ecologically Sustainable Development

7.2.1 Principles of ESD

Ecological Sustainable Development (ESD) is defined by the Australian Government as 'using, conserving and enhancing the community's resources so that ecological processes, on which life depends, are maintained, and the total quality of life, now and in the future, can be increased' (Australian Government, Department of the Environment and Energy website).

ESD is contained in both Commonwealth (EPBC Act 1999) and NSW statutes. Section 6 (2) of the *Protection of the Environment Administration Act 1991* (NSW) lists the principals of ESD as:

- a. the precautionary principle—namely, that if there are threats of serious or irreversible environmental damage, lack of full scientific certainty should not be used as a reason for postponing measures to prevent environmental degradation.

In the application of the precautionary principle, public and private decisions should be guided by:

- i careful evaluation to avoid, wherever practicable, serious or irreversible damage to the environment, and

- ii an assessment of the risk-weighted consequences of various options,
- b. inter-generational equity—namely, that the present generation should ensure that the health, diversity and productivity of the environment are maintained or enhanced for the benefit of future generations,
- c. conservation of biological diversity and ecological integrity—namely, that conservation of biological diversity and ecological integrity should be a fundamental consideration,
- d. improved valuation, pricing and incentive mechanisms—namely, that environmental factors should be included in the valuation of assets and services, such as:
 - i polluter pays—that is, those who generate pollution and waste should bear the cost of containment, avoidance or abatement,
 - ii the users of goods and services should pay prices based on the full life cycle of costs of providing goods and services, including the use of natural resources and assets and the ultimate disposal of any waste,
 - iii environmental goals, having been established, should be pursued in the most cost-effective way, by establishing incentive structures, including market mechanisms, that enable those best placed to maximise benefits or minimise costs to develop their own solutions and responses to environmental problems.

7.3 Cumulative Impact Assessment

Cumulative impact of any development on Aboriginal sites assesses the extent of the proposed impact on the site and how this will affect both the proportion of this type of Aboriginal site in the area and the impact this destruction will have on Aboriginal cultural heritage values generally in the area. For example, if an artefact scatter is destroyed in the course of a proposed development, how many site artefact scatters are likely to remain in that area and how will the destruction of that site affect the overall archaeological evidence remaining in that area. If a site type that was once common in an area becomes rare, the loss of that site (and site type) will affect our ability to understand past Aboriginal land uses, will result in an incomplete archaeological record and will negatively affect intergenerational equity.

7.3.1 Effect on the proportion of this type of Aboriginal site in the area

One method of calculating the proportion of a given site type remaining in the area is to use the results of an AHIMS search.

The proposed works to be completed within the study area has no potential to impact known Aboriginal sites.

8. Avoiding and or mitigating harm

The ACHA has identified that no Aboriginal heritage sites places, or cultural values will be impacted by the proposed development.

8.1.1 Changes to the proposed works

This ACHA is based upon the most recent information made available to Eco Logical Australia as of the date of preparation of this report. Any changes made to the proposal should be assessed by an archaeologist in consultation with the registered Aboriginal stakeholder groups. Any changes that may impact areas not assessed during the current study may warrant further investigation and result in changes to the recommended management and mitigation measures.

8.1.2 Unexpected finds

Unexpected Aboriginal objects remain protected by the *National Parks and Wildlife Act 1974*. If any such objects, or potential objects, are uncovered during works, all work in the vicinity should cease immediately. A qualified archaeologist should be contacted to assess the find and Heritage NSW and Nowra LALC must be notified.

8.1.3 Heritage interpretation

The key aim of heritage interpretation would be to connect to contemporary experience of hospital staff, patients and visitors with the Aboriginal cultural values associated with the Shoalhaven/ Nowra area (see Section 6). Heritage interpretation elements at the site may include:

- Engaging Aboriginal artists to develop designs/artworks that could be incorporated into the built form through design features such as:
 - Paving
 - Murals
 - Artwork
- Incorporating local Tharawal/ Dhurga words and language into naming conventions within the building (room names, floor names), in consultation with RAPs.
- Any landscaping or plantings surrounding the hospital buildings could incorporate traditional Tharawal bush medicine that are native to the bioregion (Rankmore, n.d.), such as:
 - Pig Face (Tharawal name: 'Kupburil')
 - Coastal tea tree ('Ban-ban')
 - Bracken fern ('Gunggai')
 - Blueberry ash ('Tdjeunen')
 - Ivy-leaved violet ('Warrabira')
 - Kangaroo apple ('Goo-nee-gang')
- Providing interpretive information regarding the Aboriginal history of the site within common areas, developed in consultation with RAPs

9. Basis for cultural heritage management

Places of cultural significance enrich people's lives, often providing a deep and inspirational sense of connection to community and landscape, to the past, and to lived experiences ... they are irreplaceable and precious (Australia ICOMOS Burra Charter 2013:1).

Traditionally, heritage and archaeological assessments have focused on the significance of the tangible elements of cultural heritage (Brown 2008). Items such as structures and archaeological artefacts have been considered predominantly in terms of their scientific/research potential and representativeness (New South Wales Heritage Office 2015:20-24). By focusing on the scientific qualities of heritage, many of the intangible qualities of heritage were not considered. This is especially crucial when participating in the management and protection of Aboriginal cultural heritage. By nature, Aboriginal cultural heritage is multi-faceted: it consists not only of tangible structures and objects of value for scientific investigations, but also of a deeply complex array of intangible expressions, such as stories, memories, and traditions. Many of the rights and interests of Aboriginal communities in their own heritage is formed on the basis of this intangibility. It stems from their spirituality, customary law, original ownership, and continuing custodianship (Australian Heritage Commission 2002:5). These intangible expressions often share a strong link with the landscape. Byrne *et al.* (2003:3) describe this connection in the form of a map, where individuals:

Carry around in [their] heads a map of the landscape which has all these places and their meanings detailed on it. When we walk through our landscapes the sight of a place will often trigger the memories and the feelings [that] go with them ... it is the landscape talking to us.

Crucially, those who are not connected to the landscape in question will not be able to discern these intangible meanings embedded in the landscape; they can only come to recognise the significance by consulting with local knowledge holders (Byrne *et al.* 2003:3). And, even so, they may vary between individuals, reflecting unique experiences.

By recognising the rights and interests of Aboriginal knowledge holders and community members in their cultural heritage, all parties involved in the identification, conservation, and management of this cultural heritage must acknowledge that Aboriginal people (Australian Heritage Commission 2002:6):

- Are the primary source of information on the value of their heritage and how this is best conserved;
- Must have an active role in any heritage planning processes;
- Must have input into primary decision-making in relation to their heritage so that they can continue to fulfil their obligations towards this heritage; and
- Must control the intellectual property and other information relating specifically to their heritage, as this may be an integral aspect of its heritage value.

As such, cultural heritage sites and objects are fundamental elements of Aboriginal peoples' identities, connections, and belonging to their communities. The careful protection and management of this heritage is essential for the preservation of connection between past, present, and future.

10. Management recommendations

The following recommendations are based on consideration of:

- Statutory requirements under the *National Parks and Wildlife Act 1974*.
- *State Environmental Planning Policy (Planning Systems) 2021*.
- The results of the background research, archaeological survey and assessment.
- The likely impacts of the proposed development.

It was found that:

- No Aboriginal sites were identified within the study area.
- All sections of the study area have been subjected to high levels of ground disturbance.
- All sections of the study area were found to have a low archaeological potential.
- No direct impacts from the project on Aboriginal cultural heritage have been identified.

Based on the findings of this Aboriginal Cultural Heritage Assessment the following is recommended:

Recommendation 1 – No further assessments are required

No further archaeological assessment is required for the study area. Although general measures will need to be undertaken. These general measures include:

- This assessment has been undertaken to assess the proposed impacts within the study areas shown in Figure 1. If the following changes are made to the proposed works further investigations will be required and an addendum ACHA undertaken which will require further consultation with RAPs.
- It would be recommended to include a heritage induction for early demolition and construction workers before works commence.

Unexpected Finds:

- Aboriginal objects are protected under the NPW Act regardless if they are registered on AHIMS or not. If suspected Aboriginal objects, such as stone artefacts are located during future works, works must cease, and an archaeologist called in to assess the finds.
- If the finds are found to be Aboriginal objects, Heritage NSW must be notified under section 89A of the NPW Act. Appropriate management and avoidance or must then be sought if Aboriginal objects are to be moved or harmed.
- In the extremely unlikely event that human remains are found, works should immediately cease, and the NSW Police should be contacted. If the remains are suspected to be Aboriginal, Heritage NSW may also be contacted at this time to assist in determining appropriate management

Recommendation 2 – Submit ACHA to AHIMS

- In accordance with Chapter 3 of the *Guide to investigating, assessing and reporting on Aboriginal cultural heritage in NSW* (OEH 2011) the ACHA should be submitted for registration on the AHIMS register within three months of completion..

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Appendix A Consultation Log

Contact	Organisation	Contacted by	Organisation	Method	Date	Comment/ response
AGENCY LETTERS 4.1.2 NOTIFICATION						
	National Native Title Tribunal	K Storan	ELA	Email	24/06/2021	Section 4.1.2 Letter requesting list of potentially interested stakeholders, information, response by 8 July 2021
	NTS Corp	K Storan	ELA	Email	24/06/2021	Section 4.1.2 Letter requesting list of potentially interested stakeholders, information, response by 8 July 2021
	Heritage NSW	K Storan	ELA	Email	24/06/2021	Section 4.1.2 Letter requesting list of potentially interested stakeholders, information, response by 8 July 2021
	Office of the Registrar	K Storan	ELA	Email	24/06/2021	Section 4.1.2 Letter requesting list of potentially interested stakeholders, information, response by 8 July 2021
	South West Local Land Services	K Storan	ELA	Email	24/06/2021	Section 4.1.2 Letter requesting list of potentially interested stakeholders, information, response by 8 July 2021
	Nowra Local Aboriginal Land Council	K Storan	ELA	Email	24/06/2021	Section 4.1.2 Letter requesting list of potentially interested stakeholders, information, response by 8 July 2021
	Shoalhaven City Council	K Storan	ELA	Email	24/06/2021	Section 4.1.2 Letter requesting list of potentially interested stakeholders, information, response by 8 July 2021
Shoalhaven Nowra News		C Bradshaw	ELA	Newspaper	16/07/2021	Published Ad 16 July 2021 with a response date of 30th July 2021
Agency Responses						
K Storan	ELA	Geospatial Searches	National Native Title Tribunal	Email	25/06/2021	Thank you for your search request received on 23 June 2021 in relation to the above area.
K Storan	ELA	Barry Gunther	Heritage NSW	Email	25/06/2021	RAP List Sent
K Storan	ELA	Laura Melrose	NTS Corp	Email	28/06/2021	Please register the South Coast People as an Aboriginal Stakeholder Group with interests and knowledge of the project area.
K Storan	ELA	Gordon Clark	Shoalhaven City Council	Email	29/06/2021	Recommended contacting Nowra Local Aboriginal Land Council.
Invitation to Register 4.1.3						
[REDACTED]	[REDACTED]	K Storan	ELA	Email	8/07/2021	Section 4.1.3 Letter regarding invitation to register for project, response requested by 30/07/2021.
[REDACTED]	[REDACTED]	K Storan	ELA	Email	8/07/2021	Section 4.1.3 Letter regarding invitation to register for project, response requested by 30/07/2021.
[REDACTED]	[REDACTED]	K Storan	ELA	Email	8/07/2021	Section 4.1.3 Letter regarding invitation to register for project, response requested by 30/07/2021.
[REDACTED]	[REDACTED]	K Storan	ELA	Email	8/07/2021	Section 4.1.3 Letter regarding invitation to register for project, response requested by 30/07/2021.
[REDACTED]	[REDACTED]	K Storan	ELA	Email	8/07/2021	Section 4.1.3 Letter regarding invitation to register for project, response requested by 30/07/2021.
[REDACTED]	[REDACTED]	K Storan	ELA	Email	8/07/2021	Section 4.1.3 Letter regarding invitation to register for project, response requested by 30/07/2021.
[REDACTED]	[REDACTED]	K Storan	ELA	Email	8/07/2021	Section 4.1.3 Letter regarding invitation to register for project, response requested by 30/07/2021.
[REDACTED]	[REDACTED]	K Storan	ELA	Email	8/07/2021	Section 4.1.3 Letter regarding invitation to register for project, response requested by 30/07/2021.
[REDACTED]	[REDACTED]	K Storan	ELA	Email	8/07/2021	Section 4.1.3 Letter regarding invitation to register for project, response requested by 30/07/2021.

[illegible]

		K Storan	ELA	Email	8/07/2021	Section 4.1.3 Letter regarding invitation to register for project, response requested by 30/07/2021.
		K Storan	ELA	Email	8/07/2021	Section 4.1.3 Letter regarding invitation to register for project, response requested by 30/07/2021.
		K Storan	ELA	Email	8/07/2021	Section 4.1.3 Letter regarding invitation to register for project, response requested by 30/07/2021.
		K Storan	ELA	Email	8/07/2021	Section 4.1.3 Letter regarding invitation to register for project, response requested by 30/07/2021.
		K Storan	ELA	Email	8/07/2021	Section 4.1.3 Letter regarding invitation to register for project, response requested by 30/07/2021.
		K Storan	ELA	Email	8/07/2021	Section 4.1.3 Letter regarding invitation to register for project, response requested by 30/07/2021.
		K Storan	ELA	Email	8/07/2021	Section 4.1.3 Letter regarding invitation to register for project, response requested by 30/07/2021.
		K Storan	ELA	Email	8/07/2021	Section 4.1.3 Letter regarding invitation to register for project, response requested by 30/07/2021.
		K Storan	ELA	Email	8/07/2021	Section 4.1.3 Letter regarding invitation to register for project, response requested by 30/07/2021.
		K Storan	ELA	Email	8/07/2021	Section 4.1.3 Letter regarding invitation to register for project, response requested by 30/07/2021.
		K Storan	ELA	Email	8/07/2021	Section 4.1.3 Letter regarding invitation to register for project, response requested by 30/07/2021.
		K Storan	ELA	Letter	9/07/2021	Section 4.1.3 Letter regarding invitation to register for project, response requested by 30/07/2021.
		K Storan	ELA	Letter	9/07/2021	Section 4.1.3 Letter regarding invitation to register for project, response requested by 30/07/2021.
		K Storan	ELA	Letter	9/07/2021	Section 4.1.3 Letter regarding invitation to register for project, response requested by 30/07/2021.
		K Storan	ELA	Letter	9/07/2021	Section 4.1.3 Letter regarding invitation to register for project, response requested by 30/07/2021.
		K Storan	ELA	Letter	9/07/2021	Section 4.1.3 Letter regarding invitation to register for project, response requested by 30/07/2021.
		K Storan	ELA	Letter	9/07/2021	Section 4.1.3 Letter regarding invitation to register for project, response requested by 30/07/2021.
		K Storan	ELA	Email	5/08/2021	Section 4.1.3 Letter regarding invitation to register for project, response requested by 12/08/2021. As there were only 3 responses to the original email, an email was resent extending the invitation deadline to 12 August.
Registration of Interest						
K Storan	ELA			Email	8/07/2021	Registered interest in the project
K Storan	ELA			Email	20/7/2021	Registered interest in the project
K Storan	ELA			Email	2/08/2021	Registered interest in the project
K Storan	ELA			Email	5/08/2021	Registered interest in the project
K Storan	ELA			Email	5/08/2021	Registered interest in the project
K Storan	ELA			Email	28/06/2021	Registered interest in the project
K Storan	ELA			Email	28/06/2021	Registered interest in the project
4.1.6 Letter to LALC and Heritage NSW						
Heritage NSW		K Storan	ELA	Email	20/08/2021	Notification of RAPs for project

Nowra LALC		K Storan	ELA	Email	20/08/2021	Notification of RAPs for project
Jerrinja LALC		K Storan	ELA	Email	20/08/2021	Notification of RAPs for project
ACHAR Methodology						
[REDACTED]	[REDACTED]	C Bradshaw	ELA	Email	09/03/2022	Sent ACHA methodology for RAP review with a response date of 06 April 2022
[REDACTED]	[REDACTED]	C Bradshaw	ELA	Email	09/03/2022	Sent ACHA methodology for RAP review with a response date of 06 April 2022
[REDACTED]	[REDACTED]	C Bradshaw	ELA	Email	09/03/2022	Sent ACHA methodology for RAP review with a response date of 06 April 2022
[REDACTED]	[REDACTED]	C Bradshaw	ELA	Email	09/03/2022	Sent ACHA methodology for RAP review with a response date of 06 April 2022
[REDACTED]	[REDACTED]	C Bradshaw	ELA	Email	09/03/2022	Sent ACHA methodology for RAP review with a response date of 06 April 2022
[REDACTED]	[REDACTED]	C Bradshaw	ELA	Email	09/03/2022	Sent ACHA methodology for RAP review with a response date of 06 April 2022
[REDACTED]	[REDACTED]	C Bradshaw	ELA	Email	09/03/2022	Sent ACHA methodology for RAP review with a response date of 06 April 2022
ACHAR Methodology RAP responses						
C Bradshaw	ELA	[REDACTED]	[REDACTED]	Email	14/03/2022	Thank you for the map and report. I have read through it all and understand the impacts.
ACHA RAP review						
[REDACTED]	[REDACTED]	C Bradshaw	ELA	Email	31/03/2022	Sent ACHA for RAP review with a response date of 11 May 2022
[REDACTED]	[REDACTED]	C Bradshaw	ELA	Email	31/03/2022	Sent ACHA for RAP review with a response date of 11 May 2022
[REDACTED]	[REDACTED]	C Bradshaw	ELA	Email	31/03/2022	Sent ACHA for RAP review with a response date of 11 May 2022
[REDACTED]	[REDACTED]	C Bradshaw	ELA	Email	31/03/2022	Sent ACHA for RAP review with a response date of 11 May 2022
[REDACTED]	[REDACTED]	C Bradshaw	ELA	Email	31/03/2022	Sent ACHA for RAP review with a response date of 11 May 2022
[REDACTED]	[REDACTED]	C Bradshaw	ELA	Email	31/03/2022	Sent ACHA for RAP review with a response date of 11 May 2022
[REDACTED]	[REDACTED]	C Bradshaw	ELA	Email	31/03/2022	Sent ACHA for RAP review with a response date of 11 May 2022
ACHA RAP response and comments						
C Bradshaw	ELA	[REDACTED]	[REDACTED]	Phone	05/05/2022	Phone conversation: Agrees with the recommendations. Stated the area has been heavily disturbed, and doubts there is any archaeological potential.

Consultation Stage 1

SECTION 4.1.2 – ABORIGINAL CULTURAL HERITAGE CONSULTATION REQUIREMENTS FOR PROPONENTS' (DECCW 2010); EXAMPLE LETTER

PUBLIC VERSION

SECTION 4.1.2 – RESPONSES

PUBLIC VERSION

SECTION 4.1.3 – ADVERTISEMENT PUBLISHED IN SHOALHAVEN NOWRA NEWS ON 16 JULY 2021

PUBLIC VERSION

SECTION 4.1.3 – EXAMPLE LETTER SENT TO ABORIGINAL PEOPLE LISTED AS HAVING AN INTEREST IN THE SHOALHAVEN LGA AS IDENTIFIED THROUGH SECTION 4.1.2 OF THE ABORIGINAL CULTURAL HERITAGE CONSULTATION REQUIREMENTS FOR PROPONENTS' (DECCW 2010) AND RESPONSES

PUBLIC VERSION

4.1.6 HERITAGE NSW AND LALC NOTIFICATION

PUBLIC VERSION

Consultation Stage 2 and 3 Detail

RESPONSES TO PROJECT BACKGROUND AND METHODOLOGY SENT TO RAPS

PUBLIC VERSION

DRAFT ACHA TO RAPS

PUBLIC VERSION

RAP COMMENTS ON DRAFT ACHA

PUBLIC VERSION

Appendix B AHIMS search

PUBLIC VERSION

Appendix C Archaeological Assessment

Appendix C attached on following page

PUBLIC VERSION

A stylized topographic map with green contour lines is positioned on the left side of the page, extending from the top left towards the bottom left.

Shoalhaven District Memorial Hospital Archaeological Assessment

Health Infrastructure NSW

DOCUMENT TRACKING

Project Name	Shoalhaven District Memorial Hospital Archaeological Assessment
Project Number	CAN21 - 19077
Project Manager	Karyn McLeod
Prepared by	Charlotte Bradshaw
Reviewed by	Karyn McLeod
Approved by	Karyn McLeod
Status	Final
Version Number	V2
Last saved on	26 August 2022

This report should be cited as 'Eco Logical Australia, 2021 *Shoalhaven District Memorial Hospital Archaeological Assessment*. Prepared for Department of Health Infrastructure.'

ACKNOWLEDGEMENTS

This document has been prepared by Eco Logical Australia Pty Ltd with support from Rowan Joyce of Johnstaff Projects.

Disclaimer

This document may only be used for the purpose for which it was commissioned and in accordance with the contract between Eco Logical Australia Pty Ltd and Department of Health Infrastructure. The scope of services was defined in consultation with Department of Health Infrastructure, by time and budgetary constraints imposed by the client, and the availability of reports and other data on the study area. Changes to available information, legislation and schedules are made on an ongoing basis and readers should obtain up to date information. Eco Logical Australia Pty Ltd accepts no liability or responsibility whatsoever for or in respect of any use of or reliance upon this report and its supporting material by any third party. Information provided is not intended to be a substitute for site specific assessment or legal advice in relation to any matter. Unauthorised use of this report in any form is prohibited.

Template 2.8.1

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1. Introduction

1.1 Project background

Johnstaff Projects, on behalf of the Department of Health Infrastructure, has engaged Eco Logical Australia Pty Ltd (ELA) to undertake an Aboriginal Cultural Heritage Assessment (ACHA) for the proposed redevelopment of the Shoalhaven District Memorial Hospital (hereafter referred to as the 'study area'; Figure 1). This Archaeological Assessment outlines the findings of the field survey conducted on 13 October 2021 as part of the ACHA.

The purpose of this report is to establish whether known or additional unrecorded Aboriginal objects are present within the study area and assess the likelihood of archaeological deposits within the study area and determine whether further archaeological investigation is required and inform the next stage.

If harm cannot be avoided, further technical studies and approvals will be required (see section 9).

The Draft Masterplan for has been provided by Conrad Gargett (Figure 2).

This assessment outlines the findings of the field survey in accordance with the *Code of Practice for Archaeological Investigation of Aboriginal Objects in NSW* (DECCW 2010b).

1.2 Study area

The study area is located between Scenic Drive and Shoalhaven Street, north of North Street. It is comprised of the following lots:

Lot	DP
7034	1031852
373	755952
1	1043088
102	1165533
104	1165533
1031	1208730
1032	1208730

The study area is located in the suburb of Nowra, in the Parish of Nowra and within the County of St. Vincent. It is located within the Shoalhaven Local Government Area (LGA) and falls within the Nowra Local Aboriginal Land Council (LALC).

1.3 Proposed activity and future development

The Department of Health Infrastructure is proposing redevelopment and expansion to the existing Shoalhaven District Memorial Hospital. The redevelopment will deliver state-of-the-art medical care for residents, including a new emergency department, medical wards, dedicated Mental Health ward, cardiology wards and double the number of surgical services and operating theatres. The proposed works include the development of a new acute and non-acute Mental Health Ward to be located on the existing Nowra Park.

The aim of this report is to establish whether known or additional unrecorded Aboriginal objects are present within the study area, to identify areas of sensitivity, and determine whether further archaeological investigation is required.

If harm cannot be avoided, further technical studies and approvals will be required (see section 9).

1.4 Consultation

The field survey was undertaken with Trudy Trindall of Nowra Local Aboriginal Land Council (LALC) in attendance.

1.5 Authorship

This Archaeological Assessment has been prepared by ELA Archaeologist Charlotte Bradshaw, with review by ELA Principal Heritage Consultant, Karyn McLeod.

Charlotte Bradshaw has a BA (Archaeology) from the University of Sydney. Karyn McLeod has a BA Honours (Archaeology) from the University of Sydney, and a MA (Cultural Heritage) from Deakin University.



Figure 1: The study area

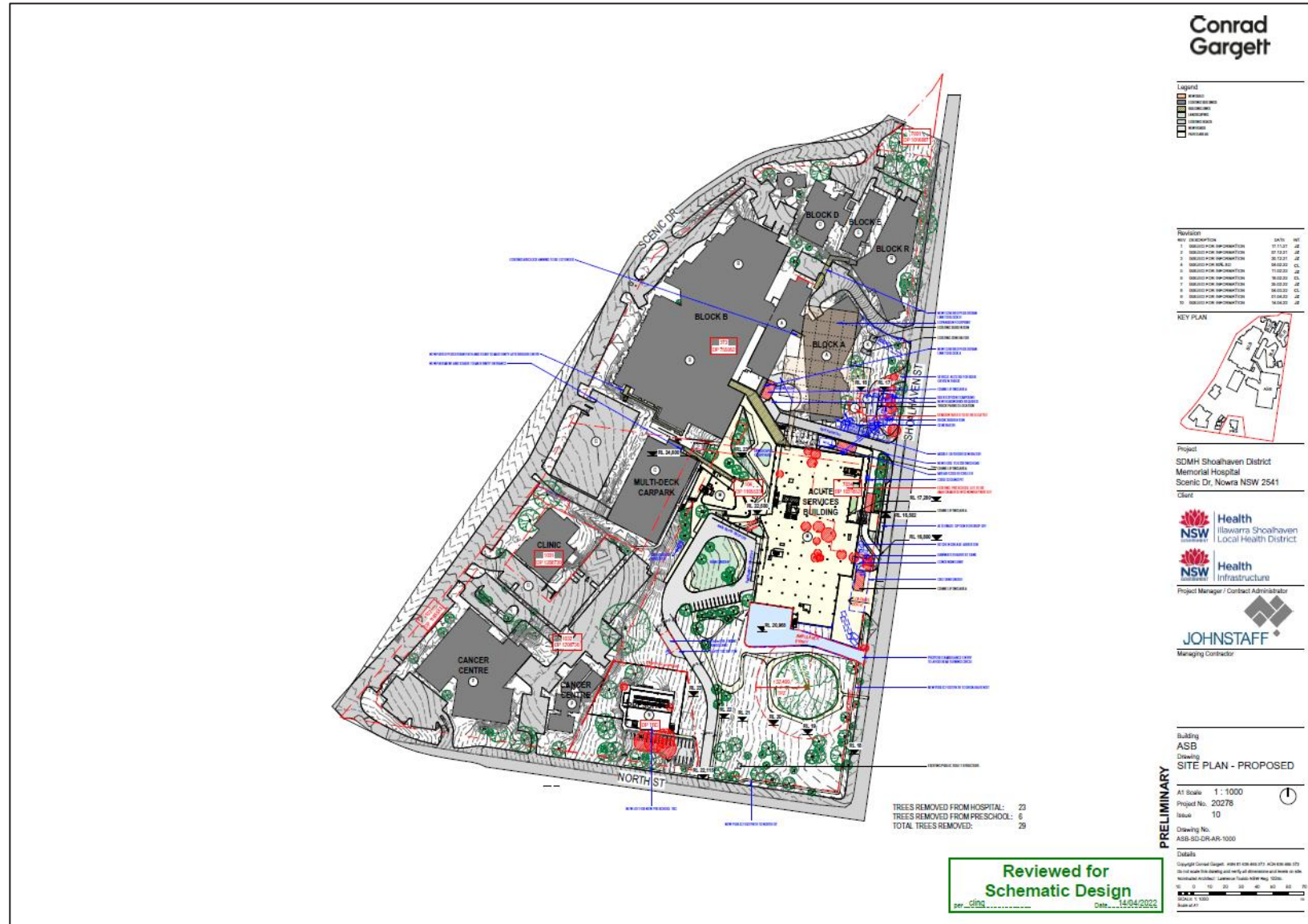


Figure 2: Draft Masterplan for the Shoalhaven District Memorial Hospital Redevelopment (source: Conrad Gargett 2021)

2. Basis for cultural heritage management

Places of cultural significance enrich people's lives, often providing a deep and inspirational sense of connection to community and landscape, to the past, and to lived experiences ... they are irreplaceable and precious (Australia ICOMOS Burra Charter 2013:1).

Traditionally, heritage and archaeological assessments have focused on the significance of the tangible elements of cultural heritage (Brown 2008). Items such as structures and archaeological artefacts have been considered predominantly in terms of their scientific/research potential and representativeness (New South Wales Heritage Office 2015:20-24). By focusing on the scientific qualities of heritage, many of the intangible qualities of heritage were not considered. This is especially crucial when participating in the management and protection of Aboriginal cultural heritage. By nature, Aboriginal cultural heritage is multi-faceted: it consists not only of tangible structures and objects of value for scientific investigations, but also of a deeply complex array of intangible expressions, such as stories, memories, and traditions. Many of the rights and interests of Aboriginal communities in their own heritage is formed on the basis of this intangibility. It stems from their spirituality, customary law, original ownership, and continuing custodianship (Australian Heritage Commission 2002:5). These intangible expressions often share a strong link with the landscape. Byrne *et al.* (2003:3) describe this connection in the form of a map, where individuals:

Carry around in [their] heads a map of the landscape which has all these places and their meanings detailed on it. When we walk through our landscapes the sight of a place will often trigger the memories and the feelings [that] go with them ... it is the landscape talking to us.

Crucially, those who are not connected to the landscape in question will not be able to discern these intangible meanings embedded in the landscape; they can only come to recognise the significance by consulting with local knowledge holders (Byrne *et al.* 2003:3). And, even so, they may vary between individuals, reflecting unique experiences.

By recognising the rights and interests of Aboriginal knowledge holders and community members in their cultural heritage, all parties involved in the identification, conservation, and management of this cultural heritage must acknowledge that Aboriginal people (Australian Heritage Commission 2002:6):

- Are the primary source of information on the value of their heritage and how this is best conserved; and
- Must have an active role in any heritage planning processes; and
- Must have input into primary decision-making in relation to their heritage so that they can continue to fulfil their obligations towards this heritage; and
- Must control the intellectual property and other information relating specifically to their heritage, as this may be an integral aspect of its heritage value.

As such, cultural heritage sites and objects are fundamental elements of Aboriginal peoples' identities, connections, and belonging to their communities. The careful protection and management of this heritage is essential for the preservation of connection between past, present, and future.

3. Legislative context

3.1 State legislation

National Parks and Wildlife Act 1974

Aboriginal cultural heritage in NSW is afforded protection under the provisions of the *National Parks and Wildlife Act 1974* (NSW) [NPW Act]. The Act is administered by Heritage NSW, which has responsibilities under the legislation for the proper care, preservation, and protection of 'Aboriginal objects' and 'Aboriginal places'.

Under the provisions of the NPW Act, all Aboriginal objects are protected irrespective of their level of significance or issues of land tenure. Aboriginal objects are defined by the Act as, *any deposit, object or material evidence (that is not a handicraft made for sale) relating to Aboriginal habitation of NSW, before or during the occupation of that area by persons of non-Aboriginal extraction (and includes Aboriginal remains)*. Aboriginal objects are limited to physical evidence and may be referred to as 'Aboriginal sites', 'relics' or 'cultural material'. Aboriginal objects can include scarred trees, artefact scatters, middens, rock art and engravings, as well as post-contact sites and activities such as fringe camps and stockyards. Heritage NSW must be notified about the discovery of Aboriginal objects under section 89A of the NPW Act.

Part 5 of the NPW Act provides specific protection for Aboriginal objects and places by making it an offence to destroy, deface, damage, or move them from the land. The *Due Diligence Code of Practice for the Protection of Aboriginal Objects in New South Wales* (CoP) (DECCW 2010b) as adopted by the and Wildlife Regulation 2019 (NPW Regulation) made under the NPW Act, provides guidance to individuals and organisations to exercise due diligence when carrying out activities that may harm Aboriginal objects. The CoP also determines whether proponents should apply for consent in the form of an Aboriginal Heritage Impact Permit (AHIP) under section 90 of the Act. The CoP can be used for all activities across all environments. The NPW Act provides that a person who exercises due diligence in determining that their actions will not harm Aboriginal objects has a defence against prosecution for the strict liability offence if they later unknowingly harm an object without an AHIP. However, if an Aboriginal object is encountered in the course of an activity work must cease and an application should be made for an AHIP, unless the project is a State Significant Development (SSD) under the *Environmental Planning and Assessment Act 1979*.

The Code of Practice for Archaeological Investigation of Aboriginal Objects in NSW (DECCW 2010a) assists in establishing the requirements for undertaking test excavation as a part of archaeological investigation without an AHIP or establishing the requirements that must be followed when carrying out archaeological investigation in NSW where an application for an AHIP is likely to be made. Heritage NSW recommends that the requirements of this Code also be followed where a proponent may be uncertain about whether or not their proposed activity may have the potential to harm Aboriginal objects or declared Aboriginal places.

This project is SSD therefore an AHIP is not required.

AHIMS DATABASE

The Aboriginal Heritage Information Management System (AHIMS) is a database maintained by Heritage NSW and regulated under Section 90Q of the *National Parks and Wildlife Act 1974*. AHIMS holds information and records regarding the registered Aboriginal archaeological sites (Aboriginal objects, as defined under the Act) and declared Aboriginal places that exist in NSW.

Heritage Act 1977 (NSW)

The *Heritage Act 1977* (NSW) is a statutory tool designed to conserve the environmental heritage of NSW and is used to regulate development impacts on the state's heritage places, buildings, works, relics, moveable objects or precincts that are important to the people of NSW. These include items of Aboriginal and non-Aboriginal heritage significance. Where these items have particular importance to the state of NSW, they are listed on the State Heritage Register (SHR).

Identified heritage items may be protected by means of either Interim Heritage Orders (IHO) or by listing on the SHR. Proposals to alter, damage, move or destroy places, buildings, works, relics; moveable objects or precincts protected by an IHO or listed on the SHR require an approval under section 60.

Archaeological features and deposits are afforded statutory protection by the 'relics provision section 139' of the Act (as amended in 1999). Under this section it is illegal to disturb or excavate any land knowing or suspecting that the disturbance or excavation will or is likely to result in a relic being discovered, exposed, moved, damaged or destroyed. In such cases, an excavation permit under section 140 is required. Note that no formal listing is required for archaeological relics; they are automatically protected if they are of local significance or higher.

HERITAGE REGISTERS

The Heritage Division of the Department of Premier and Cabinet maintains registers of heritage sites that are of State or local significance to NSW. The SHR is the statutory register under Part 3A of the *Heritage Act 1977* (NSW). The State Heritage Inventory (SHI) is an amalgamated register of items on the SHR, items listed on LEPs and/or on a State Government Agency's Section 170 register and may include items that have been identified as having state or local level significance. If a particular site does not appear on either the SHR or SHI this does not mean that the site does not have heritage significance as many sites within NSW have not been assessed to determine their heritage significance. Sites that appear on either the SHR or SHI have a defined level of statutory protection.

Key Aboriginal sites, including post contact sites, can be protected by inclusion on the SHR. The Heritage Council nominates sites for consideration by the Minister for Environment and Heritage.

Searches of the Australian Heritage Database, the State Heritage Register (SHR) and Shoalhaven Local Environmental Plan (LEP) 2014 utilising the term "Nowra" was conducted on the 30 June 2021 in order to determine if any places of archaeological significance are located within the study area.

The search identified that no Aboriginal archaeological sites or heritage items were recorded on these databases within the study area. The study area is adjacent to two heritage items; the Nowra Showground and Sportsground Complex (LEP item no. 405) and Ben's Walk Including Suspension Bridge and Aboriginal Art Sites (LEP item no. 406).

Native Title Act 1994

The *Native Title (New South Wales) Act 1994* was introduced to work in conjunction with the Commonwealth *Native Title Act 1993*. Native Title claims, registers and Indigenous Land Use Agreements are administered under the Act.

The study area lies within the South Coast People Native Title claim area, which spans from Port Hacking in north, Towamba River in the south and as far west as the eastern edge of the Southern Highlands. No Native Title determinations have been granted within the study area.

Aboriginal Land Rights Acts 1983

The *Aboriginal Land Rights Act 1983* (ALR Act) established Aboriginal Land Councils (at State and Local levels). Division 1A outlines the functions of Local Aboriginal Land Councils and their statutory obligation under the ALR Act to:

- (a) take action to protect the culture and heritage of Aboriginal persons in the council's area, subject to any other law, and
- (b) promote awareness in the community of the culture and heritage of Aboriginal persons in the council's area.

The study area is within the boundary of the Nowra Local Aboriginal Land Council (LALC).

Environmental Planning & Assessment Act 1979

The *Environmental Planning and Assessment Act 1979* (NSW) [EP&A Act] requires that consideration is given to environmental impacts as part of the land use planning process. In NSW, environmental impacts are interpreted as including cultural heritage impact. Proposed activities and development are considered under different parts of the EP&A Act, including:

- Major projects (State Significant Development under Part 4.1 and State Significant Infrastructure under Part 5.2), requiring the approval of the Minister for Planning;
- Minor or routine developments, requiring local council consent, are usually undertaken under Part 4. In limited circumstances, projects may require the Minister's consent; and
- Part 5 activities which do not require development consent. These are often infrastructure projects approved by local councils or the State agency undertaking the project.

The EP&A Act also controls the making of environmental planning instruments (EPIs) such as Local Environment Plans (LEPs) and State Environmental Planning Policies (SEPPs). The study area is within the Shoalhaven LGA and activities undertaken on this land are controlled by the Shoalhaven Local Environment Plan (LEP) 2014. LEPs commonly identify and have provisions for the protection of local heritage items, heritage conservation areas and archaeological sites. LEPs are prepared by the local council to guide planning and management decisions in the LGAs and establish the requirements for the use and development of land. Part 5.10 of the Shoalhaven LEP states that the consent authority must, before granting consent under this clause to the carrying out of development in an Aboriginal place of heritage significance—

- (a) consider the effect of the proposed development on the heritage significance of the place and any Aboriginal object known or reasonably likely to be located at the place by means of an adequate investigation and assessment (which may involve consideration of a heritage impact statement), and

(b) notify the local Aboriginal communities, in writing or in such other manner as may be appropriate, about the application and take into consideration any response received within 28 days after the notice is sent.

The proposed hospital redevelopment is a SSD pursuant to clause 14(a) of Schedule 1 of the *State Environmental Planning Policy (Planning Systems) 2021* as it involves development for the purposes of a hospital with a capital investment value in excess of \$30 million.

3.2 Commonwealth Legislation

Environment Protection and Biodiversity Conservation Act 1999

The *Environment and Heritage Legislation Amendment Act (No.1) 2003* amends the *Environment Protection and Diversity Conservation Act 1999* (EPBC Act) to include 'national heritage' as a matter of National Environmental Significance and protects listed places to the fullest extent under the Constitution. It also establishes the National Heritage List (NHL) and the Commonwealth Heritage List (CHL).

The *Australian Heritage Council Act 2003* (AHC Act) establishes a new heritage advisory body - the Australian Heritage Council (AHC), to the Minister for the Environment and Heritage and retains the Register of the National Estate (RNE).

The *Australian Heritage Council (Consequential and Transitional Provisions) Act 2003* repeals the *Australian Heritage Commission Act 1975*, amends various Acts as a consequence of this repeal and allows the transition to the current heritage system.

Together the above three Acts provide protection for Australia's natural, Aboriginal, and historical heritage. The new features include:

- A new NHL of places of national heritage significance.
- A new CHL of heritage places owned or managed by the Commonwealth.
- The creation of the AHC, an independent expert body to advise the Minister on the listing and protection of heritage places.
- Continued management of the Register of the National Estate (RNE)

Aboriginal and Torres Strait Islander Heritage Protection Act 1984

The Commonwealth Act, *Aboriginal and Torres Strait Islander Heritage Protection Act 1984* deals with Aboriginal cultural property in a wider sense, encompassing the protection of any areas and objects that 'are of particular significance to Aboriginals [Aboriginal people] in accordance with Aboriginal tradition'. In most cases, archaeological sites and objects registered under the State Act will also be Aboriginal places subject to the provisions of the Commonwealth Act. The Commonwealth Act takes precedence over State cultural heritage legislation where there is conflict. The responsible Minister may make a declaration under Section 10 of the Commonwealth Act in situations where state or territory laws do not provide adequate protection of heritage places.

4. Environmental context

4.1 Bioregion

The study area is situated within the Ettrema subregion of the NSW Sydney Basin bioregion of NSW. A summary of the geology, landforms, soils, and vegetation typical within this subregion is provided in Table 1 below:

Table 1: Ettrema subregion summary (source: NSW Department of Planning, Industry and Environment)

Ettrema Subregion	
Geology	Permian horizontal quartz sandstone, alternating with shales. Deep gorges expose Silurian volcanics and Carboniferous granite in underlying Lachlan Fold Belt. Limited Tertiary basalt with river gravels.
Characteristic Landforms	Low stepped hills on plateau with deeply incised streams off plateau edge below waterfalls on the escarpment.
Typical Soils	Alternating sandstone and shale create bare rock benches and soil benches with shallow, often saturated sand. Structured red brown clay loams on basalt.
Vegetation	Very prominent “contour” vegetation pattern. Lichens, mosses and low heath patches on rock, woodlands with dwarfed red bloodwood, black ash, tall heath and sedgeland on soil benches. Better soils have messmate and brown barrel. Gullies support rainforest elements with turpentine plumwood, coachwood, lilly pilly and mountain pepper.

4.2 Soil Landscapes

The study area is located within the Nowra Soil Landscape (*no*), on the moderate gently undulating, to undulating, low hills of the Coastal Plain. The Nowra soil landscape consists of broad ridges and crests with long, gently inclined slopes, broad drainage areas with deeply incised channels and benched sandstone outcrops adjacent to drainage lines. Typical relief is <40m and slopes <5%. Soils consist of moderately deep (50-100cm) Brown Podzolic Soils, on crests and upper slopes. Soloths and Yellow Earths occur mid-slope, and Yellow Podzolic soils occur on lower slopes and drainage lines. Topsoils are generally hard setting with low erodibility and subsoils are moderately deep and moderately acidic with high erodibility.

4.3 Geology

The geology is dominated by Nowra quartz sandstones of the Shoalhaven Group Megalong Conglomerates of the early Permian period. Elevation ranges between 20m and 30m.

4.4 Hydrology

The study area is located 45 m south from the Shoalhaven River, and 560 m north-east from Nowra Creek, a fourth order stream. The proximity of these sources of water, as well as nearby raised areas from which to access streams, indicates that resources were present within the study area, as well as suitable landforms from which could be exploited.

4.5 Vegetation

The study area comprises extensively, to moderately cleared, with stands of tall open forest. Common species include turpentine (*Syncarpia glomulifera*), grey gum (*Eucalyptus punctata*), scribbly gum (*Eucalyptus sclerophylla*), sydney peppermint (*Eucalyptus piperita*), thin-leaved stringybark (*Eucalyptus eugenioides*), red bloodwood (*Eucalyptus gummifera*), forest oak (*Allocasuarina torulosa*) and blackbutt (*Eucalyptus pilularis*) with an understorey of flaky-barked tea-tree (*Leptospermum attenuatum*). Mountain devil (*Lambertia formosa*), hairpin banksia (*Banksia spinulosa*), pine-leaf geebung (*Persoonia pinifolia*) and burrawang (*Macrozamia communis*) grow on sandier soils.

Spotted gum (*Eucalyptus maculata*) and grey ironbark (*Eucalyptus paniculata*) are known to grow on heavy soils. Whilst decorative paperbark (*Melaleuca decora*) grows in drainage lines.

4.6 Land use history

Traditional land use within the wider Shoalhaven region has largely comprised cattle grazing on improved pastures. The town of Nowra was established to the south of the Shoalhaven River to support the flourishing dairy and agricultural industries. Little development has occurred to the north of the Shoalhaven River. Historic imagery of the study area from 1969, 1979, 1993, and 2002 indicates that the study area itself has undergone minor changes, though the area surrounding it appears to have been increasingly developed over time. The hospital has had new buildings added from 1969 to 1979, whilst the main building was redeveloped in 2002.

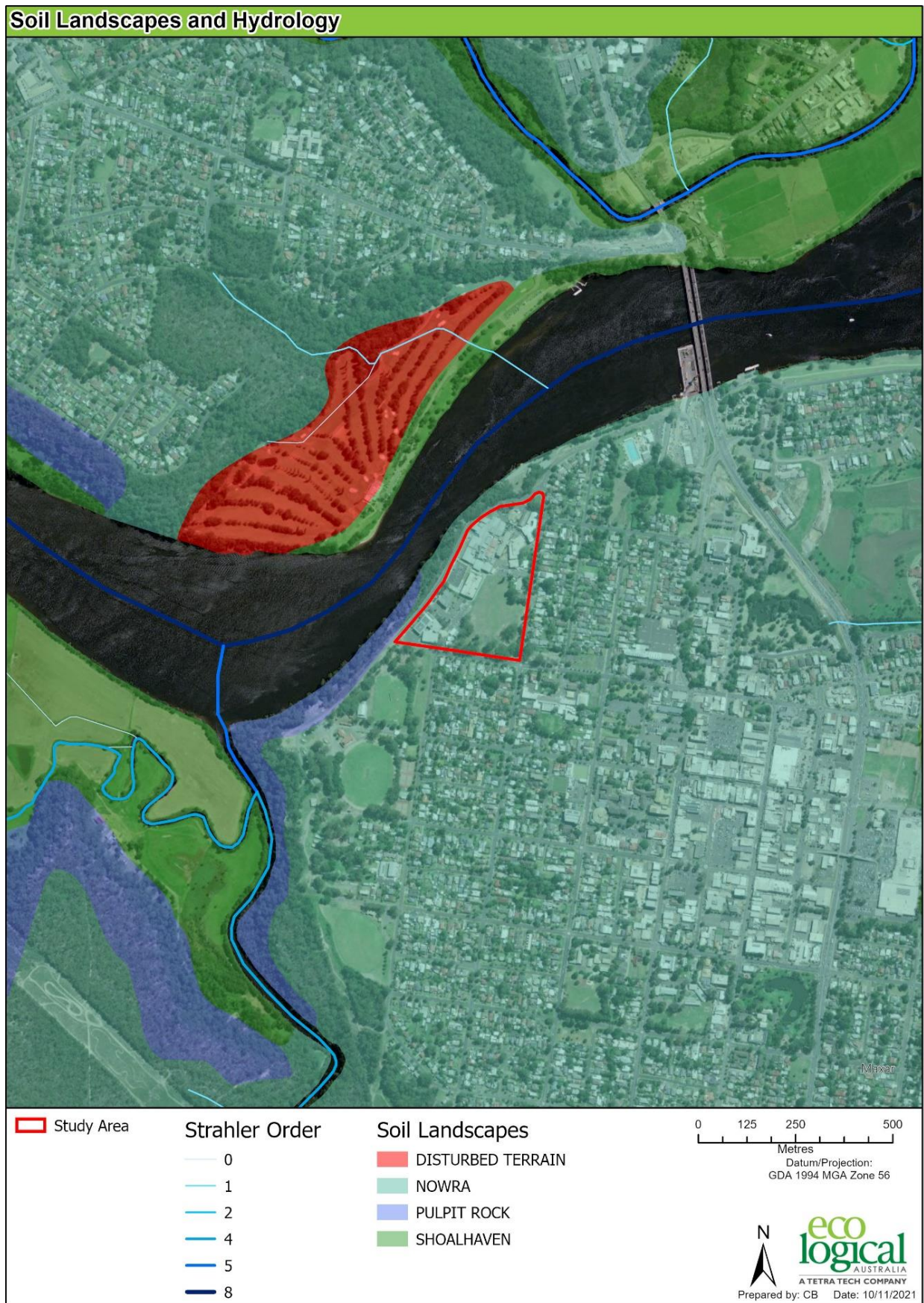


Figure 3: Soil landscapes and hydrology within the study area



Figure 4: 1969 aerial imagery (Source: NSW Spatial Imagery 2021)



Figure 5: 1979 aerial imagery (Source: NSW Spatial Imagery 2021)



Figure 6: 1998 aerial imagery (Source: NSW Spatial Imagery 2021)



Figure 7: 2002 aerial imagery (source: NSW Spatial Imagery 2021)

5. Aboriginal context

5.1 Ethnohistory

An accurate reconstruction of past lifeways, technologies, and land-use patterns of the Aboriginal people who inhabited the Camden region is often hindered by a lack of written records and an ethnocentric bias of European settlers. Oral histories by Aboriginal people provide valuable insights into the past, though these are not always available.

Aboriginal people have occupied Australia for at least 40,000 years (Attenbrow, 2002). The occupation of the NSW South Coast dates to at least 20,000 years ago, indicated by sites at Burrill Lake, though there are not many known Pleistocene sites within the South Coast region (Lampert, 1971). Whilst ethnographic records and oral histories can inform our understanding of the traditional Aboriginal groups that occupied various regions in Australia, this knowledge is often hindered by the ethnocentric bias of early settlers and therefore may not always be entirely accurate.

The Nowra region was traditionally occupied by the Wodi Wodi and Wandandian people who utilised the surrounding land, and its natural resources (Tindale, 1974). The Wodi Wodi spoke the Dharawal language whilst their traditional lands comprised the region to the north of the Shoalhaven River, extending towards Wollongong and inland towards Mossvale (Eades, 1976). The Wandandian spoke the Dhurga language and occupied the Lower Shoalhaven region, extending towards Ulladulla and inland towards Braidwood (Eades, 1976). The tribal boundary between these two tribes is thought to have been near Jervis Bay.

Traditional stories tell of the Dreamtime arrival of the Dharawal people at the mouth of Lake Illawarra. The Dharawal people defined themselves as being either fresh or salt-water people, occupying the coastal regions or plateaus (Wesson, 2005). As Nowra borders both a coastal region and a plateau, it is possible that the area served as a traditional meeting place for these tribes.

The wider Illawarra region was opened to European settlers following the arrival of Governor Macquarie in 1810 and as a result local Aboriginal groups were often subjected to violence and displaced from their traditional lands. Early colonial accounts indicate that the Aboriginal people of Illawarra lived in a society divided by gender and age, where men hunted large species and women gathered vegetables.

Ethno-historical observations along the coast indicate items related to the traditional subsistence, cultural and social activities of local Aboriginal groups including canoes, spears, fishing spears, possum skin cloaks, shellfish hooks and grass tree resin (Boot, 1994). Tools made of wood and shell are often absent from the archaeological record, with the most commonly represented tool types across sites in Australia made of stone, bone and shell.

5.1.1 Previous archaeological investigations

Several archaeological assessments have been carried out in the Shoalhaven region in recent years as there has been an increasing number of residential developments in the area. The most relevant investigations to this project will be summarised below.

Artefact Heritage, 2018. Nowra Bridge Project – Aboriginal Technical Report (PACHCI Stage 3). Prepared for SMEC.

Artefact Heritage was previously engaged by SMEC to conduct an Aboriginal archaeological test excavation to support the proposed Roads and Maritime Services upgrade of the Shoalhaven River Crossing and the proposed construction of a new northbound bridge over the Shoalhaven River and upgrades to the intersection. In relation to the current study area, this assessment was undertaken approximately 1.7km to the east.

Five new subsurface sites were identified during subsurface testing, two previously recorded surface sites were updated to include a subsurface component, one previously recorded site was deregistered, one previously recorded surface site was updated during the additional survey, the extent of three previously registered PADs were updated, and two previously identified PADs were deregistered.

Five Aboriginal sites identified during an initial survey, four artefact scatters, and one scarred tree, were assessed as having low-moderate to high archaeological significance, with the scarred tree presenting a high archaeological significance. The five areas of PAD were relatively undisturbed landforms and one PAD (AHIMS ID 52-5-0861) encompassed a cliff line with rockshelters adjacent to the Shoalhaven River. As a result of the survey, it was anticipated that all identified Aboriginal sites and PADs, excluding the scarred tree, would be at least partially impacted by the proposed works and as such, further archaeological investigation in the form of a test excavation was recommended.

Test excavation involved hand excavation of 60 0.5 x 0.5 test pits in seven different testing areas. A total of five PADs were excavated as a result of the test excavation program, and Aboriginal objects were identified in all five PADs. Six new artefact scatters, one habitation site/artefact scatter was identified within the study area, and two previously recorded surface artefact sites were redefined from isolated artefacts to artefact scatters. The newly identified sites included Nowra Bridge 6, which recovered 2 subsurface artefacts over 4 test pits and was situated on a disturbed bank on the edge of Scenic Drive and slopes down towards a drainage line. Nowra Bridge 8 was situated on a raised alluvial flat to the north of Bombaderry Creek, 40 subsurface artefacts were retrieved across eight test pits, comprising of silcrete, chalcedony, basalt, mudstone and quartz. Nowra Bridge 7 was situated within a rock shelter which faces south over the Shoalhaven River, 12 subsurface artefacts were retrieved from one test pit, comprising of silcrete, chalcedony, quartz and chert retrieved between 0-300 mm. There as minimal surface disturbance at this location. Nowra Bridge 9 was situated on a raised alluvial flat on the south side of Bombaderry Creek adjacent to the sandstone rock shelf, 25 subsurface artefacts were retrieved across five test pits between 200-600 mm depth. Nowra Bridge 10 was situated on a raised alluvial floodplain and 11 subsurface artefacts were retrieved from one test pit between 0-200 mm.

Nowra Bridge 1 resulted in the recovery of 110 artefacts from 11 out of 14 test pits, and soil disturbance was noted in upper layers related to historical fill. Nowra Bridge 2 had 162 artefacts from 14 out of 19 test pits, and also noted historical soil disturbances across the test pits.

As a result of the investigation, it was recommended that an AHIP application be lodged and surface collection of all AHIMS surface artefact sites be conducted as a condition of the AHIP prior to the proposed works.

Mary Dallas Consulting Archaeologists, 2018. *Aboriginal Cultural Heritage Assessment Report – 2541 Warrah Road and 12A-C Warrah Road, North Nowra NSW*. Prepared for Southbank Land Pty Ltd and Huntingdale Pty Ltd.

Mary Dallas Consulting Archaeologists (MDCA) were previously engaged by Southbank Land Pty Ltd and Huntingdale Pty Ltd to prepare an Aboriginal Cultural Heritage Assessment (ACHA) to support the proposed rezoning of 75 hectares of land known as 2541 Warrah Road (Lot 24 DP714096) and 12A-C Warrah Road (Lots 21-23 DP14096) in North Nowra NSW. In relation to the current study area, this is located approximately 6 km to the north-west.

A desktop assessment and field survey indicated that their study area had been previously subjected to historical land use that resulted in significant impacts and were likely to have disturbed any intact evidence of past Aboriginal land use in the area. Two artefact scatters, AHIMS ID 52-5-0307 and AHIMS ID 52-5-0372 are located within their study area. However, both were identified in disturbed contexts and have no subsurface potential, whilst no further areas of archaeological potential have been located across their study area.

An extensive search of the AHIMS database was undertaken which identified two sites within the search area but only one within the proposed future development area. Another two sites were recorded 800 m to the north-east of their study area. The majority of Aboriginal sites within the vicinity of their study area were shelters (36%), isolated finds (26%) and artefact scatters (22%).

A site survey was undertaken which divided the survey into four units. There was low visibility across the study area due to vegetative cover. In survey unit 1, vehicular and bike tracks extended across the area. In survey unit 2 the area had been highly disturbed, appeared to have been used as a former quarry, dumping ground for cars, concrete and other rubble and the construction of trail bike tracks. Survey unit 3 showed signs of disturbance, maintaining three deposits of mixed sandstone and sand, and gravel. Both registered AHIMS sites were unable to be relocated during the site inspection. Survey unit 4 had been cleared of original vegetation, though regrowth was present, and the northern portion had been landscaped and levelled. The greenhouse area had also been largely disturbed and there was a long access driveway.

As a result of the survey, the study area was assessed as maintaining low archaeological significance due to the disturbed context and inability to relocate the AHIMS sites. Recommendations included that the plans for the rezoning could proceed, and if a future subdivision occurred, an AHIP should be sought for the proposed impacts to AHIMS ID 52-2-0307. In addition, if impacts were proposed to AHIMS ID 52-5-0372 an AHIP should be sought for the site.

Eco Logical Australia, 2018. *Aboriginal Due Diligence Assessment – Proposed Carparks at Shoalhaven District Memorial Hospital*. Prepared for Health Infrastructure.

ELA was previously engaged by Health Infrastructure to prepare an Aboriginal Due Diligence Assessment for the proposed restructuring and development of staff and visitor carparking at the Shoalhaven District Memorial Hospital in Nowra NSW (comprising part of the current study area).

An initial desktop assessment, including an extensive search of the AHIMS database, did not identify any previously recorded Aboriginal sites within their study area. The majority of sites within the vicinity of

the study area were isolated artefacts and artefact scatters (47%) and rock shelters (24%). Three Aboriginal sites had previously been recorded within 500 m to the east of the study area, two PADs and an isolated artefact (AHIMS ID 52-5-0852, AHIMS ID 52-5-0859 and AHIMS ID 52-2-0860). An additional seven sites, including isolated artefacts, a culturally modified tree and a PAD had previously been recorded 700 m to the north of the study area, on the banks of the Shoalhaven River. One item of Aboriginal heritage significance was identified within the vicinity of the hospital, 'Ben's Walk, including Suspension Bridge and Aboriginal Art Sites'.

A visual inspection was undertaken which did not identify any sensitive landforms, Aboriginal sites or areas of potential. The study area had undergone prior ground disturbance associated with historic land use, including the clearing of the landscape, the construction of buildings, roads and carparks and no intact natural landforms were identified. As a result of this ground disturbance, the study area was considered to have a low potential for intact archaeological deposits. As such, no further archaeological investigation was recommended.

5.1.2 Database searches

AHIMS SEARCH

The AHIMS database is maintained by Heritage NSW and regulated under Section 90Q of the *National Parks and Wildlife Act 1974*. The AHIMS database holds information and records regarding registered Aboriginal archaeological sites (Aboriginal objects, as defined under the Act) and declared Aboriginal places that exist in NSW.

A search of the AHIMS database was conducted on 30 June 2021 to identify if any registered Aboriginal sites were present within the study area (Appendix A). The search covered 8 km surrounding the study area to understand the known archaeological resource and provide an understanding of the types of features that might be present in the current landscape.

Table 2: Parameters for the AHIMS database search

Search Parameters	
GDA Zone	56
Eastings	276213 - 284213
Northings	6135691 - 6142691
Buffer	0m

The AHIMS search result showed that:

Table 3: AHIMS search result

Search Results	
Aboriginal sites recorded	108
Aboriginal places declared	0

The extensive search identified a total of 108 Aboriginal sites within the search parameters. Of the 108 sites, four (4) have a site status of 'Not a site' and one (1) site is listed as a duplicate. Therefore, the total

number of AHIMS sites within the search parameters are 103. The distribution of recorded Aboriginal sites adjacent to the study area is shown in Figure 9. The frequencies of site types and contexts recorded within the AHIMS database search area are listed below.

Table 4: Frequencies of site types

Site Context	Site Features	Number	%
Open site	Art (Pigment or Engraved)	5	4.8
	Artefact	42	40.8
	Artefact; Habitation Structure; Grinding Groove	1	1.0
	Artefact; Potential Archaeological Deposit (PAD)	1	1.0
	Burial	1	1.0
	Grinding Groove	5	4.8
	Grinding Groove; Habitation Structure	1	1.0
	Habitation Structure	3	2.9
	Modified Tree (Carved or Scarred)	5	4.8
	Potential Archaeological Deposit (PAD)	3	2.9
Closed site	Art (Pigment or Engraved)	3	2.9
	Artefact	22	21.3
	Artefact; Art (Pigment or Engraved)	3	2.9
	Artefact; Art (Pigment or Engraved); Grinding Groove	1	1.0
	Artefact; Art (Pigment or Engraved); Potential Archaeological Deposit (PAD)	2	1.9
	Artefact; Grinding Groove	1	1.0
	Artefact; Habitation Structure	1	1.0
	Potential Archaeological Deposit (PAD)	3	2.9
Total		103	100

The most common site features are artefacts in both open and closed contexts (62.5% collectively), followed by art (pigment or engraved) in both open and closed contexts (7.7% collectively). Most sites are located in open contexts (64.4%).

LOCAL, STATE AND NATIONAL HERITAGE REGISTERS

Searches of the Australian Heritage Database, the State Heritage Register (SHR) and the *Shoalhaven LEP 2014* were conducted on 1 October 2021 in order to determine if any places of Aboriginal significance are located within the study area.

The study area is located directly north of LEP item 405 ('Nowra Showground & Sportsground Complex'). A Statement of Heritage Impact (SoHI) has previously been conducted (ELA, 2019) to address any heritage impacts pertaining to European heritage within and surrounding the study area.

LEP Item 406 ('Ben's Walk including Suspension Bridge and Aboriginal Art Sites') is located to the west of Scenic Drive less than 20 m west of the study area. The SHI historical notes are as follows:

This walking track retraces part of a walk which was established during the depression years by Ben Walsh. It has been planned and constructed by the Crown Lands Office in co-operation with Shoalhaven City Council and other interested persons and organisations. Ben Walsh appreciated the beauty of the Australian Bush and encouraged others to enjoy it as well.

The son of a botanist and son of the founder of the Terara Hardware Store of P Walsh & Sons in 1877, Ben Walsh was a trustee of the Nowra Showground in the 1920's. During the depression years there were many itinerants living in the shelter of sandstone caves below the showground. Ben arranged a grant and employed these men in the construction of a walking track below Hanging Rock.

Hanging rock has been a prominent landmark of Nowra since the town was established. It is 46.25m above the river and is a superb lookout. The original suspension bridge over Nowra Creek was built in the 1890's and provided access to river farms west of Nowra. A second suspension bridge built in the 1930's remained in use until the mid 1950's. The Department of Lands together with Shoalhaven City Council and the South Nowra Rotary Club have rebuilt this bridge on the same spot to give access to Depot Farm Reserve. It is 49m long and 7m above the creek.

The area on the far side of Nowra Creek, over the suspension bridge, was called "The Depot" as early as the 1850's, when it was occupied by William Spain. The Depot Farm was Nowra's first rifle range before it was purchased by John and Pam Walsh (John, a nephew of Ben Walsh). In 1976 Council acquired 15.7 hectares of the property for a public reserve. Nowra Apex Club assisted in the development of picnic facilities on the Reserve.

The heritage listing provides no detailed information pertaining to Aboriginal sites, however additional sources indicate the presence of Aboriginal rock art on the banks of Nowra Creek.

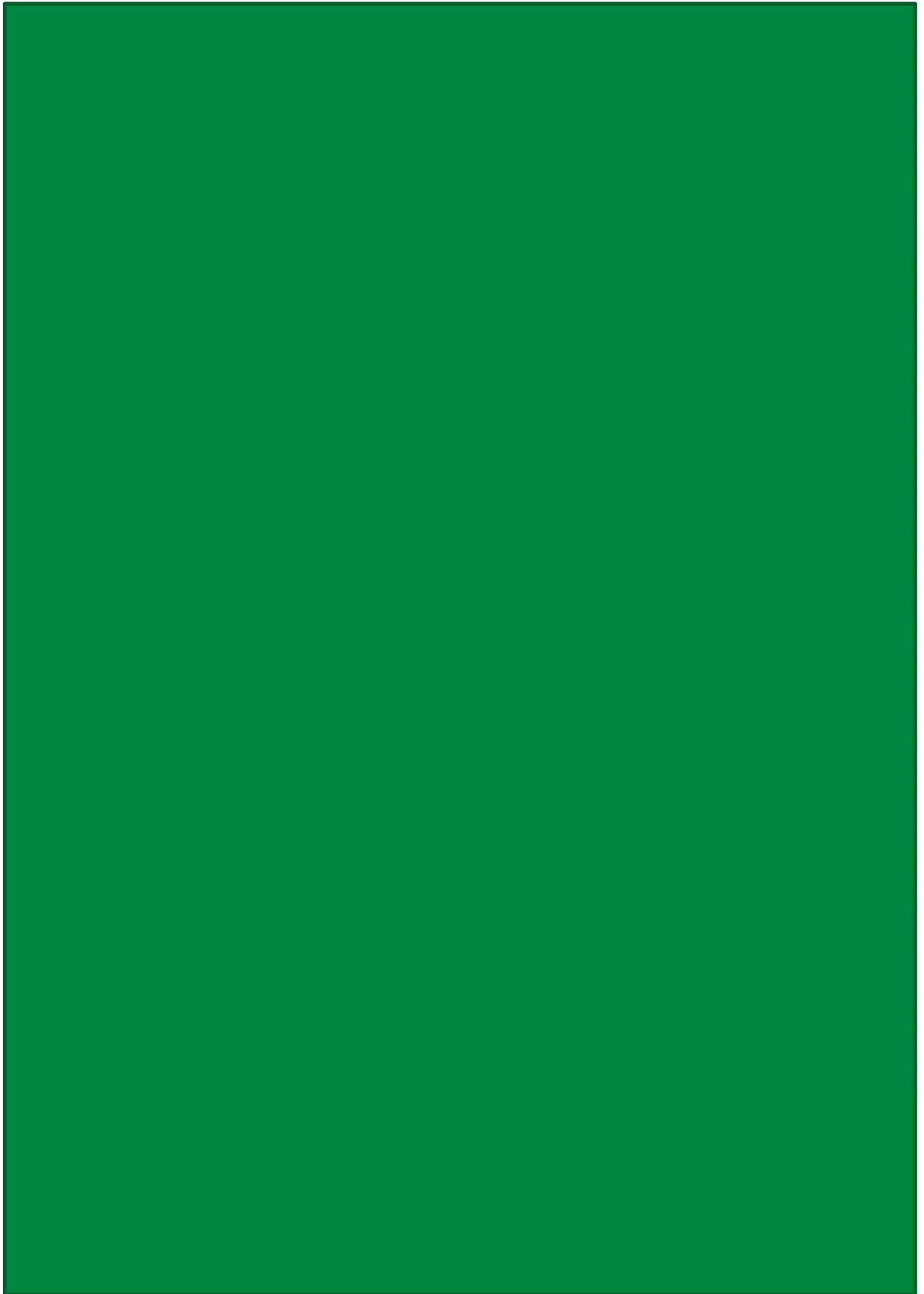


Figure 8: Regional overview of AHIMS sites surrounding the study area

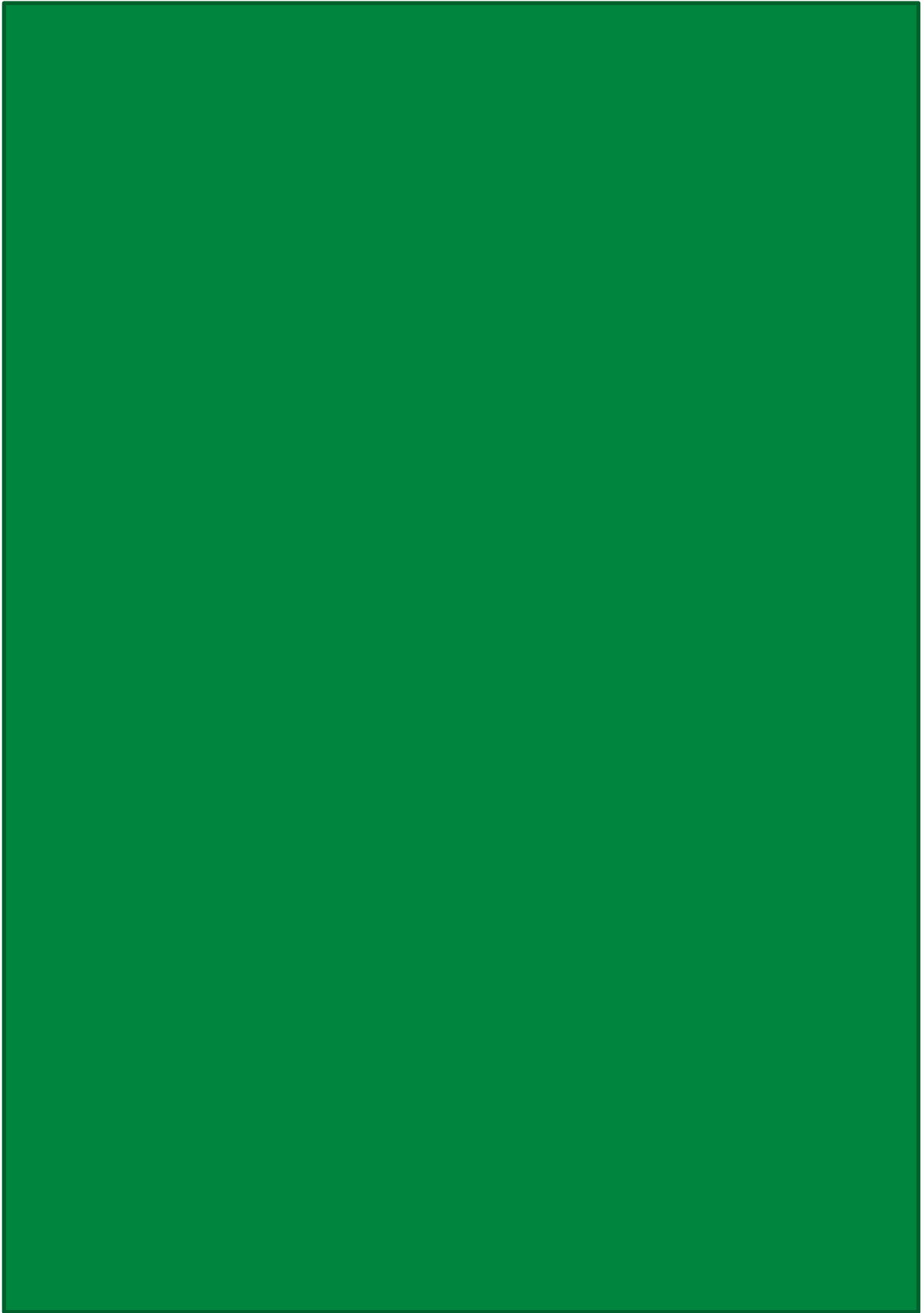


Figure 9: AHIMS sites within and proximity to the study area

5.2 Landscape sensitivity

A sensitive landscape is an area that has the potential for Aboriginal sites and potential archaeological material to be present. According to the *Due Diligence Code of Practice* (DECCW 2010a), sensitive landscapes can include areas:

- Within 200 m of waters
- Located within a sand dune system
- Located on a ridge top, ridge line, headland
- Located within 200 m below or above a cliff face
- Within 20 m of or in a cave, rock shelter, or a cave mouth; and is on land that is not disturbed land

The *Due Diligence Code of Practice* (DECCW 2010a:18) defines disturbed land as areas that have any land that:

“Has been the subject of a human activity that has changed the land’s surface, being changes that remain clear and observable. Examples include ploughing, construction of rural infrastructure (such as dams and fences), construction of roads, trails and tracks (including fire trails and tracks and walking tracks), clearing vegetation, construction of buildings and the erection of other structures, construction or installation of utilities and other similar services (such as above or below ground electrical infrastructure, water or sewerage pipelines, stormwater drainage and other similar infrastructure) and construction of earthworks.”

5.3 Predictive model

Based on the material evidence and range of Aboriginal sites across the region, it is clear that Aboriginal people have been utilising the land and resources within the South West Sydney region for thousands of years. The predictive model outlined in Table 5 below has been developed for the study area based on the AHIMS search results, landscape assessment and regional and local Aboriginal archaeological context outlined above.

Table 5: Predictive model

Site Type	Description	Likelihood to occur
Open camp sites/stone artefact scatters/isolated finds	Open camp sites represent past Aboriginal subsistence and stone knapping activities and include archaeological remains such as stone artefacts and hearths. This site type usually appears as surface scatters of stone artefacts in areas where vegetation is limited, and ground surface visibility increases. Isolated finds may represent a single item discard event or be the result of limited stone knapping activity. The presence of such isolated artefacts may indicate the presence of a more extensive, in situ buried archaeological deposit, or a larger deposit obscured by low ground visibility.	High. The proximity to the Shoalhaven River and Nowra Creek, combined with minimal historic disturbance, would indicate that there is sensitivity for Aboriginal objects.
Potential Archaeological Deposit	Potential Archaeological Deposits (or PADs) are areas where there is no surface expression of stone artefacts, however, due to a landscape feature there is a strong likelihood that the area will contain buried deposits of stone artefacts.	High. The proximity to the Shoalhaven River and the presence of AHIMS sites in the close vicinity suggests a high potential for archaeological

Site Type	Description	Likelihood to occur
		deposits. Previous investigations and geotechnical studies suggest areas of in situ deposits within Nowra Park.
Scarred or carved trees	Tree bark was utilised by Aboriginal people for various purposes, including the construction of shelters (huts), canoes, paddles, shields, baskets and bowls, fishing lines, cloaks, torches, and bedding, as well as being beaten into fibre for string bags or ornaments (sources cited in Attenbrow 2002: 113). Trees may also have been scarred in order to gain access to food resources (e.g., cutting toe-holds so as to climb the tree and catch possums or birds), or to mark locations such as tribal territories. Such scars, when they occur, are typically described as scarred trees.	Low. Across a majority of the study area, native vegetation has been cleared, with few mature trees present in the study area.
Axe grinding grooves	Grinding grooves are the physical evidence of tool making or food processing activities undertaken by Aboriginal people. The manual rubbing of stones against other stones creates grooves in the rock; these are usually found on flat areas of abrasive rock such as sandstone.	Low. While grinding grooves are present in nearby areas, aerial imagery indicates there are no sandstone exposures within the study area.
Bora/ceremonial	Aboriginal ceremonial sites are locations that have spiritual or ceremonial values to Aboriginal people. Aboriginal ceremonial sites may comprise natural landforms and, in some cases, will also have archaeological material. Bora grounds are a ceremonial site type, usually consisting of a cleared area around one or more raised earth circles, and often comprised of two circles of different sizes, connected by a pathway, and accompanied by ground drawings or mouldings of people, animals or deities, and geometrically carved designs on the surrounding trees.	Low to moderate. Whilst the AHIMS search and land formation does not suggest the study area is a bora/ceremonial site, these sites can often be intangible and informed only by oral history and cultural knowledge.
Burial	Mortuary practices often took place in proximity to camp sites, as most people tended to die in or close to camp and it is difficult to move a body over a long distance. Soft, sandy soils on or close to rivers and creeks allowed for easier removal of earth for burial. Similarly, rock shelters or middens also provided accessible burial places. Burial sites may be marked by stone cairns, modified trees, or a natural landmark. They may also be identified through historic records or oral histories.	Low. While the study area is in close proximity to the Shoalhaven River and within a landscape of sandy soils, prior subsurface testing has documented a moderately shallow soil depth within the study area.
Contact/historical sites	Artefacts located at such sites may involve the use of introduced materials such as glass or ceramics by Aboriginal people or be sites of Aboriginal occupation in the historical period.	Low. No AHIMS sites in proximity to the study area record contact/historical sites.

6. Archaeological survey

6.1 Purpose

The purpose of the survey was to assess the current condition of the site and to identify any unrecorded Aboriginal sites or objects. Areas of subsurface archaeological potential identified in the desktop assessment were also inspected and potential areas for archaeological testing were considered.

6.2 Survey strategy

Archaeological survey of the study area was conducted on foot, in accordance with the *Code of Practice*. The overall strategy was to employ a full coverage survey, with a primary focus on Nowra Park. A handheld Global Positioning System (GPS) was used to track the survey area covered and record the location of key features (disturbances, areas of archaeological sensitivity/potential). The coordinate system projection used for all site recording was GDA94 MGA 56.

The field survey methodology was as follows:

- Record the landform, general soil information, surface conditions and vegetation conditions encountered during the survey and how these impact on the visibility of objects;
- Define the boundaries of any Aboriginal sites and areas of PAD based on landmarks and historical maps;
- Re-inspect previously identified Aboriginal sites and areas of archaeological potential within the study area;
- Identify areas of disturbance which may have impacted the presence of intact soils and archaeological features ;
- Consultation with Aboriginal representatives to discuss the proposal and the intangible cultural heritage values of the study area; and
- Collect information to ascertain whether further archaeological investigation is required.

All ground exposures were examined for Aboriginal objects (stone artefacts, imported shell, or other traces of Aboriginal occupation) and old growth trees were examined for signs of cultural scarring and marking.

A photographic record was kept during the survey. Photographs were taken to record aspects of survey units including vegetation and disturbance. Scales were used for photographs where appropriate.

6.2.1 Site definition and recording

An Aboriginal site is generally defined as an Aboriginal object or place. An Aboriginal object is the material evidence of Aboriginal land use, such as stone tools, scarred trees, or rock art. Some sites, or Aboriginal places can also be intangible and although they might not be visible, these places have cultural significance to Aboriginal people.

The Heritage NSW guidelines state, in regard to site definition, that one or more of the following criteria must be used when recording material traces of Aboriginal land use:

- The spatial extent of the visible objects, or direct evidence of their location.

- Obvious physical boundaries where present, e.g., mound site and middens (if visibility is good), a ceremonial ground.
- Identification by the Aboriginal community on the basis of cultural information.

For the purposes of this study, an Aboriginal site would be defined by recording the spatial extent of visible traces or the direct evidence of their location.

6.2.2 Protocol for recording Potential Archaeological Deposits

Where areas of PAD are identified towards the margins of each survey unit, efforts must be made by the survey team to delineate each area of potential beyond the survey unit. Where the extent of the PAD extends beyond the survey unit, efforts must be made to map the extent of that feature up to approximately 70 m outside the survey unit. If it is likely that these PADs continue beyond that point, the survey team must justify that the distance is adequate to provide an accurate representation of the PAD with regard to future planning and design for the project.

6.3 Timing and personnel

The field survey was conducted on 17 October 2021 by ELA Archaeologist Charlotte Bradshaw and field officer Trudy Trindall from Nowra LALC.



Figure 10: Study area divided into survey units

6.4 Survey results

6.4.1 Survey Unit 1

Survey Unit 1 (SU1) is located on a crest within the escarpment above the Shoalhaven River. SU1 slopes gently northwest to southeast and is the point of highest elevation within the study area. The landscape has been significantly modified and disturbed by developments associated with the hospital. At the southern-most point there is the Shoalhaven Cancer Care Centre, which is comprised of two buildings of two storey height, a heavy reinforced undercover parking and four single storey residential buildings in the south-eastern portion of the site. Further north, there are more carpark areas and another two-storey buildings (the Grand Pacific Health Centre).

Throughout SU1, multiple subsurface services have been installed, including gas, electrical, sewerage, water and Optus (Figure 12; Figure 15). The eastern end of SU1 has been built up with fill and levelled on the western end (Figure 16). Overall, there was poor surface visibility (5%) due to asphalt and grass coverage. The majority of visible ground surface is deposited fill from landscaping. No soil exposures were identified. No Aboriginal objects or areas with potential for archaeological deposits were identified during the survey. No mature growth trees were identified within SU1.



Figure 11: View north, showing the parking facilities associated with the Shoalhaven Cancer Care Centre



Figure 12: View west, showing the undercover parking, various services and landscaping to the north of the Shoalhaven Cancer Care Centre



Figure 13: View south-east from Scenic Drive, showing the Shoalhaven Cancer Care Centre and the gentle west-east slope



Figure 14: View south, showing the modified landform



Figure 15: View north, showing an in-ground service and the built-up landform



Figure 16: View south, showing the modified slope from re-deposited soil

6.4.2 Survey Unit 2

Survey Unit 2 (SU2) is located on a gently sloping landform which slopes south-west to north-east. The majority of SU2 is populated by buildings and facilities associated with the hospital, including the main hospital building, emergency department, dialysis centre, multi-storey underground car garage and other facilities. There are several subsurface services associated with the hospital buildings and stormwater drains (Figure 18).

Approximately half of SU2 is comprised of undeveloped open space (Nowra Park) which includes two public restrooms, a playground, drinking fountain, cricket pitch, helicopter pad and an asphalt driveway. North-east of Nowra Park there is the Shoalhaven Community Pre-School. Overall, the park has undergone moderate to high disturbance from the installation of services, levelling, vehicular activity, and geotechnical investigations (Figure 27). SU2 has undergone minor levelling in the centre of the park for use as a cricket pitch.

A mature tree was identified in the south-east portion of the park which has three prominent scars. Consultation from the Nowra LALC field officer in attendance, Trudy Trindall, indicated that the tree was culturally scarred. The species is *Eucalyptus Pilularis* (Blackbutt or Yerrawarra/Yarr-warrah) with a girth of 950 cm, indicating the tree may be in excess of 150 years in age. However, upon inspection of the scar shapes and positions, they do not possess the characteristics of cultural scarring. The north-west facing scar is consistent with trauma damage, potentially from a branch falling event or limb infection (Figure 21). The west facing scar is rectangular in shape and indicative of infection (Figure 23). The east-facing scar is also indicative of trauma damage (Figure 24).

In SU2, surface visibility was mainly concentrated along the lower slope parallel to Shoalhaven Street (Figure 19; Figure 20). The only inclusions identified on the ground surface were gravels and broken glass. No soil exposures were present within SU2. No Aboriginal objects were identified in SU2 during the field survey. No areas with potential for archaeological deposits were identified.



Figure 17: View east, showing the multi-storey car garage and uncovered carpark associated with the hospital



Figure 18: View east, showing stormwater drains between walkway and main hospital building



Figure 19: View west, showing surface visibility on the lower slope



Figure 20: View north, showing the gently sloping landform, surface visibility, the Shoalhaven Community Pre-School in the distance and Shoalhaven Street to the east



Figure 21: View south, showing the playground and mature tree in foreground



Figure 22: View south-east, showing one of the scars on the face of the tree



Figure 23: View west, showing one of the scars on the face of the tree



Figure 24: View east, showing one of the scars on the face of the tree



Figure 25: View south, showing the asphalt driveway and the landform built up for levelling



Figure 26: View north-west, showing the gentling sloping landform



Figure 27: Disturbance and surface visibility from geotechnical pit



Figure 28: View south, showing the west-east slope from the cancer centre



Figure 29: Survey coverage

6.5 Survey coverage

In accordance with Heritage NSW *Code of Practice* the study area was surveyed in relation to survey units, landforms, and landscapes.

Table 6: Survey coverage

Survey Unit	Landform	Survey Unit Area (m ²)	Visibility (%)	Exposure (%)	Effective coverage (ECA)	Effective coverage %
SU1	Crest	18,439	5	0	0	0
SU2	Slope	69,421	10%	0	0	0

Table 7: Landform summary

Landform	Landform area	Area effectively surveyed	% landform effectively surveyed	Number of sites	Number of artefacts or features
Crest	18,439	0	0	0	0
Slope	69,421	0	0	0	0

The field survey identified that a majority of the study area has undergone significant disturbance and landform modifications as a result of the development of the hospital and associated infrastructure. Nowra Park has undergone moderate to high levels of disturbance, through installation of services, vegetation clearance and vehicular activity. No new Aboriginal objects were identified through the survey. One scarred mature tree was identified; however, the scars are not indicative of cultural modification. Overall, there is a low likelihood for *in situ* archaeological deposits.

6.6 Discussion

The field survey identified that a majority of the study area has undergone significant disturbance and landform modifications as a result of the development of the hospital and associated infrastructure (**Appendix A**). Nowra Park has undergone moderate to high levels of disturbance, through installation of services, vegetation clearance, vehicular activity and levelling. No new Aboriginal objects were identified through the survey. One scarred mature tree was identified; however, the scars are not indicative of cultural modification.

7. Recommendations

The following recommendations were based on consideration of the *Statutory requirements under the National Parks and Wildlife Act 1974, Aboriginal cultural heritage in NSW* (OEH 2011), *Code of Practice* (DECCW 2010) and *Aboriginal cultural heritage consultation requirements for proponents* (DECCW 2010b):

- Any changes to the nature and extent of the impact footprint may require further assessment.
- As the project is classified as a State Significant Development (SSD) to be assessed in accordance with the Secretary's Environmental Assessment Requirements (SEARs), an Aboriginal Cultural Heritage Assessment (ACHA) is currently being undertaken.

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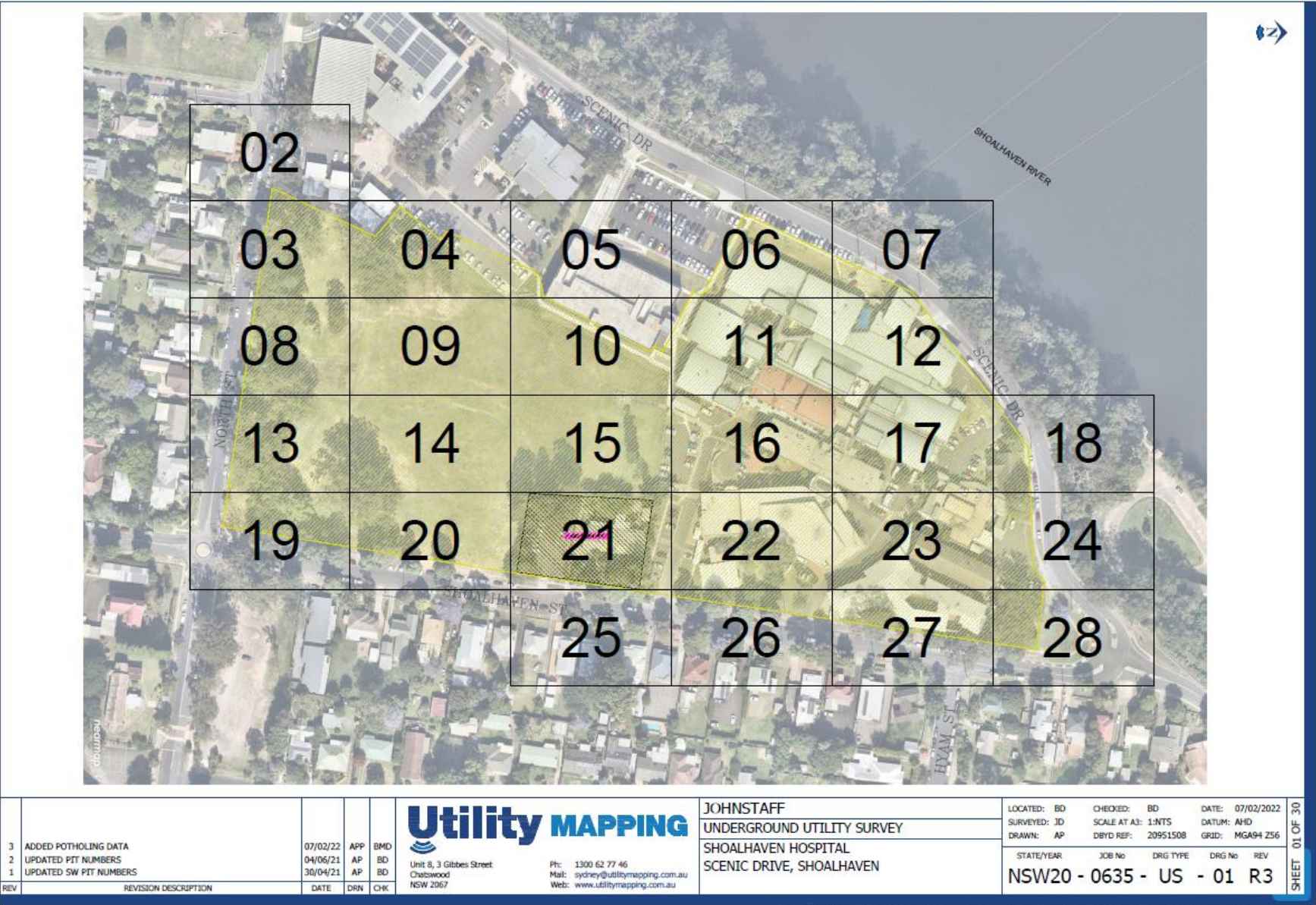
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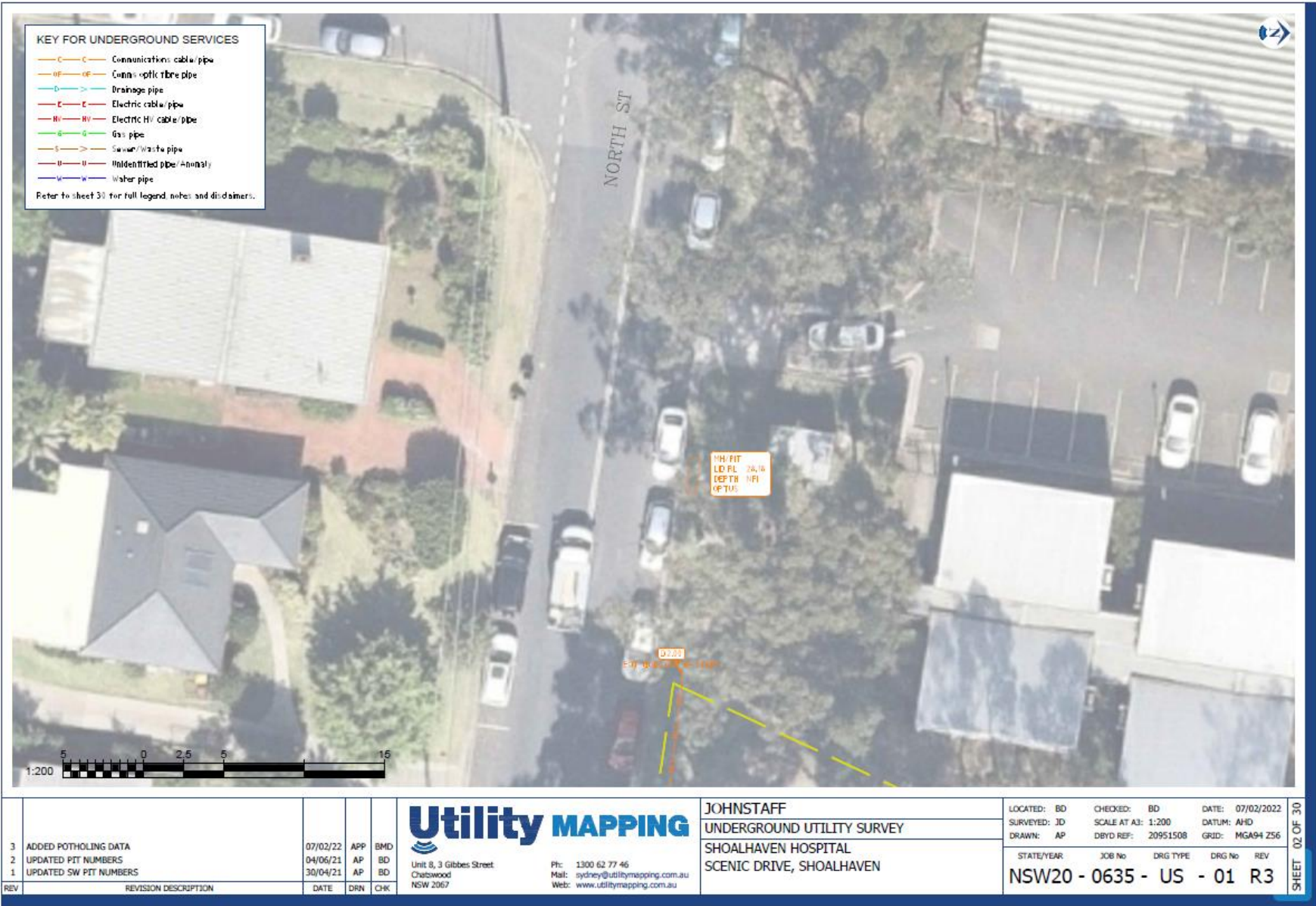
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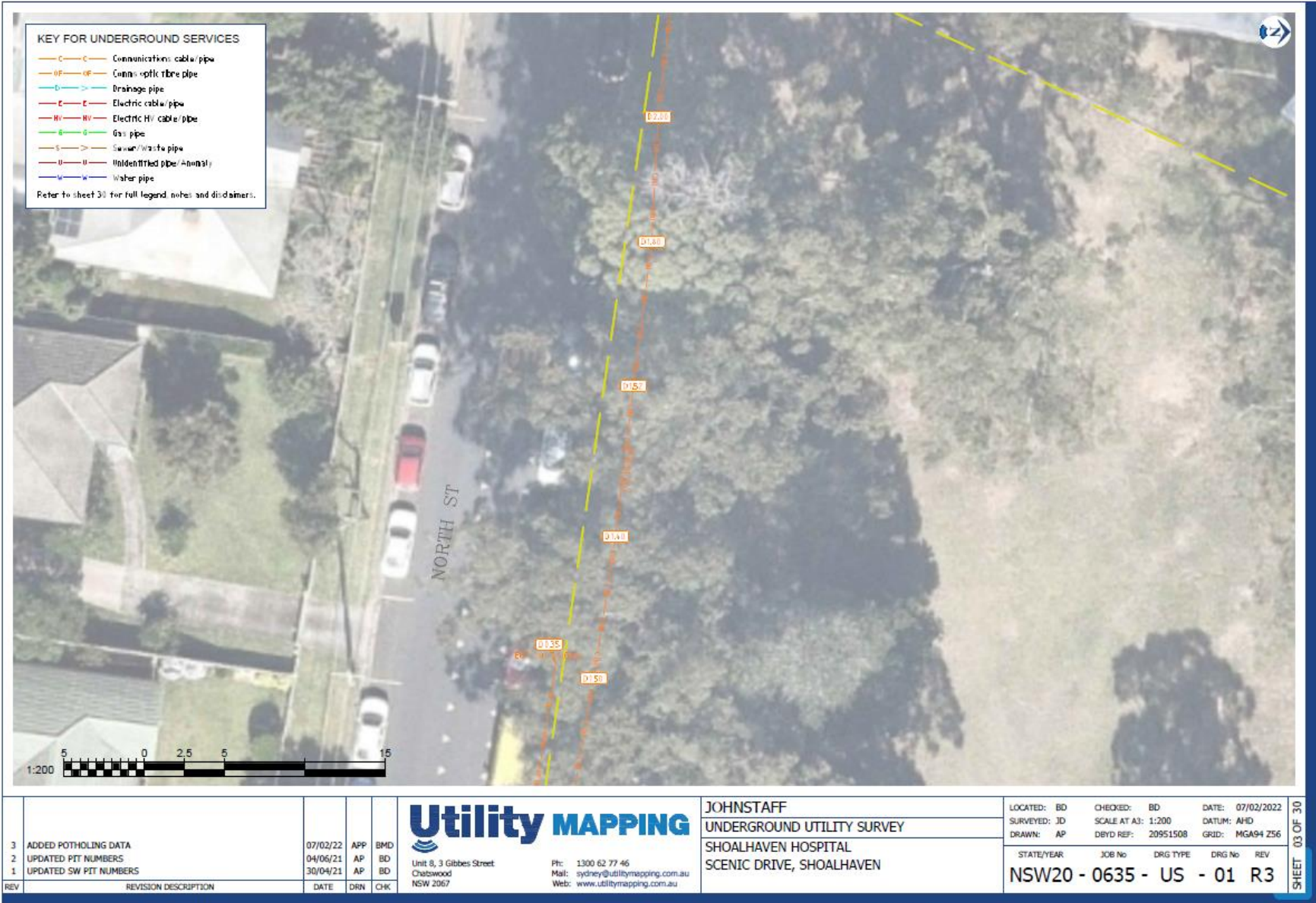
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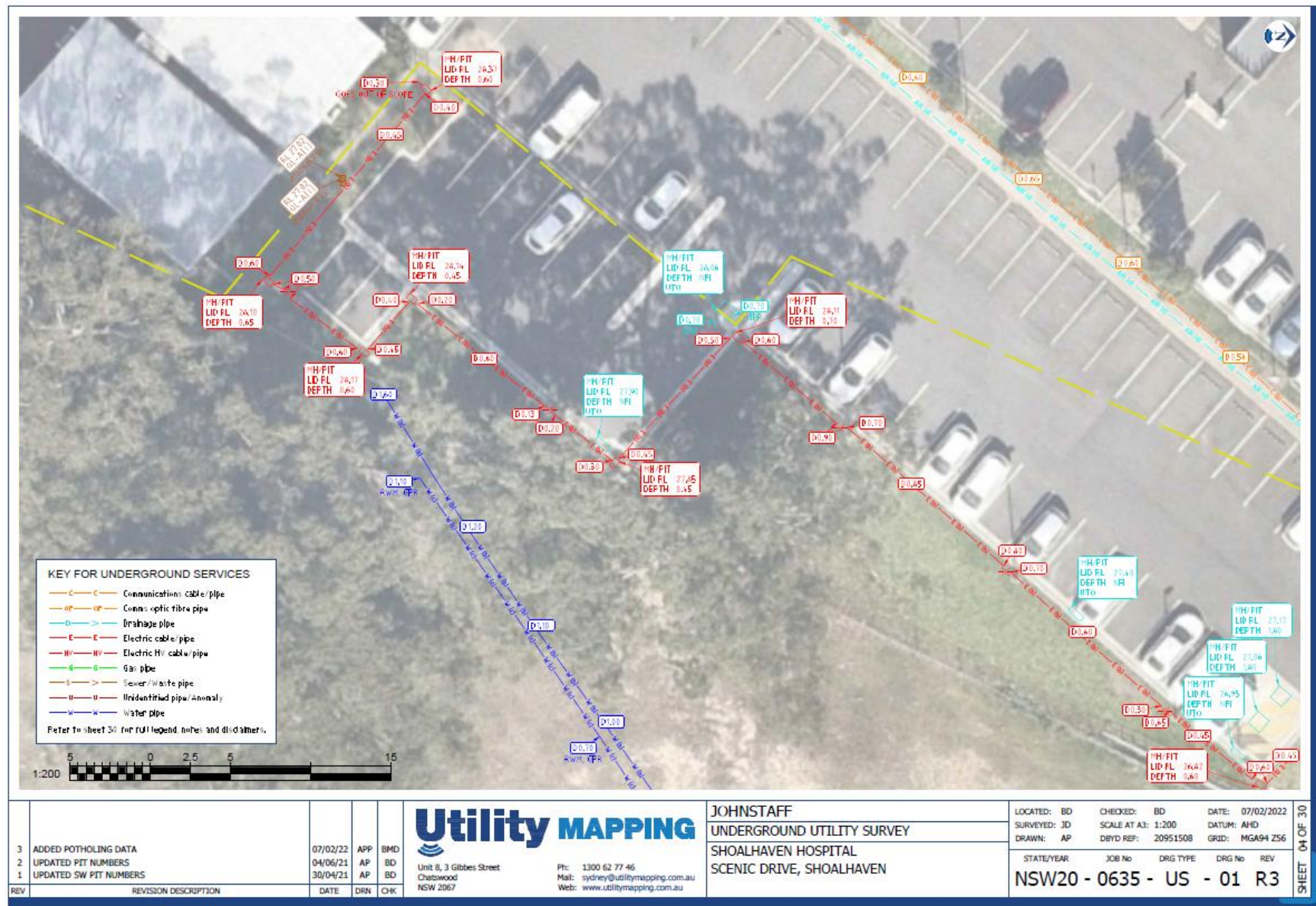
Appendix A – Services within the study area



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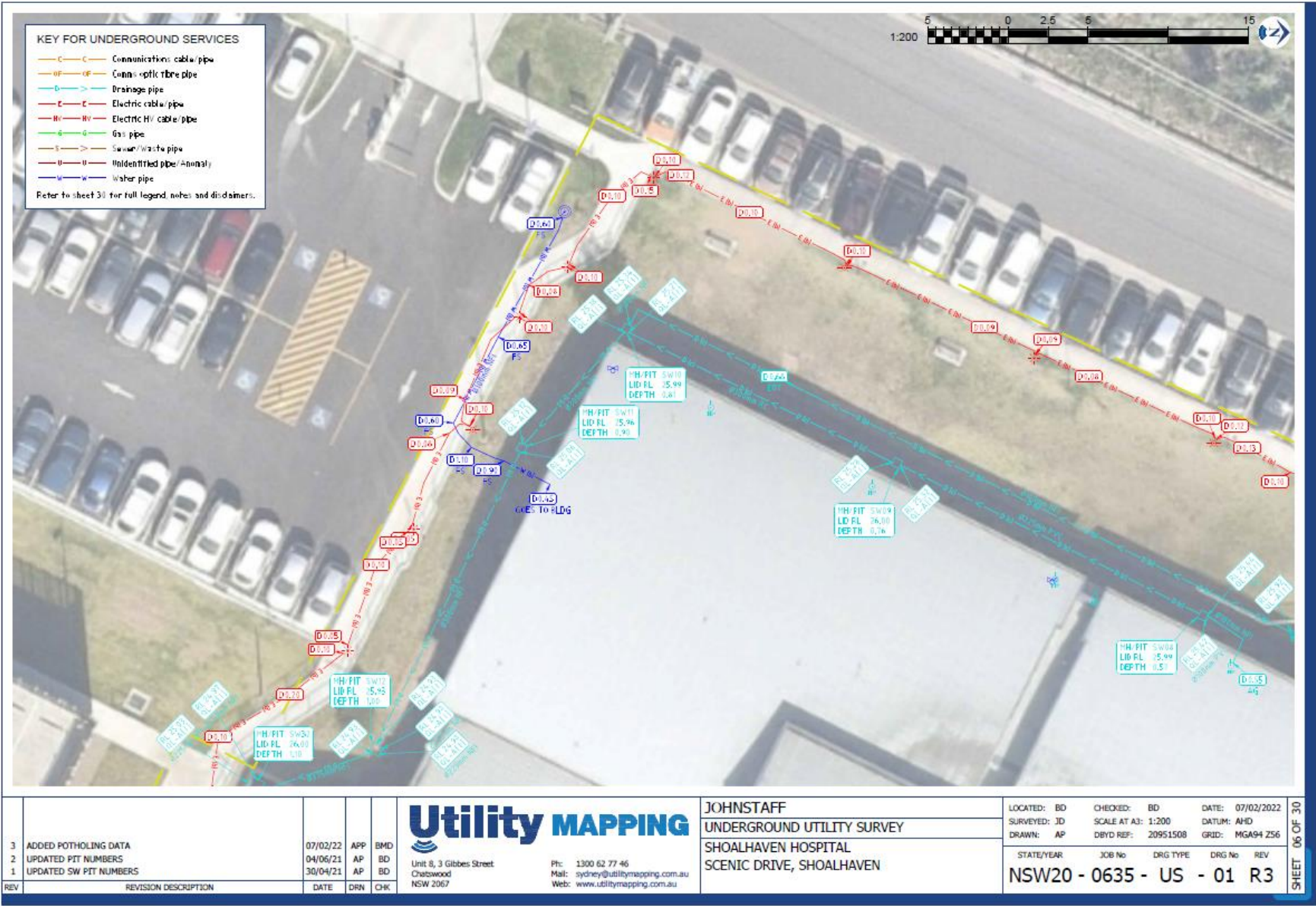




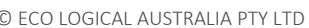


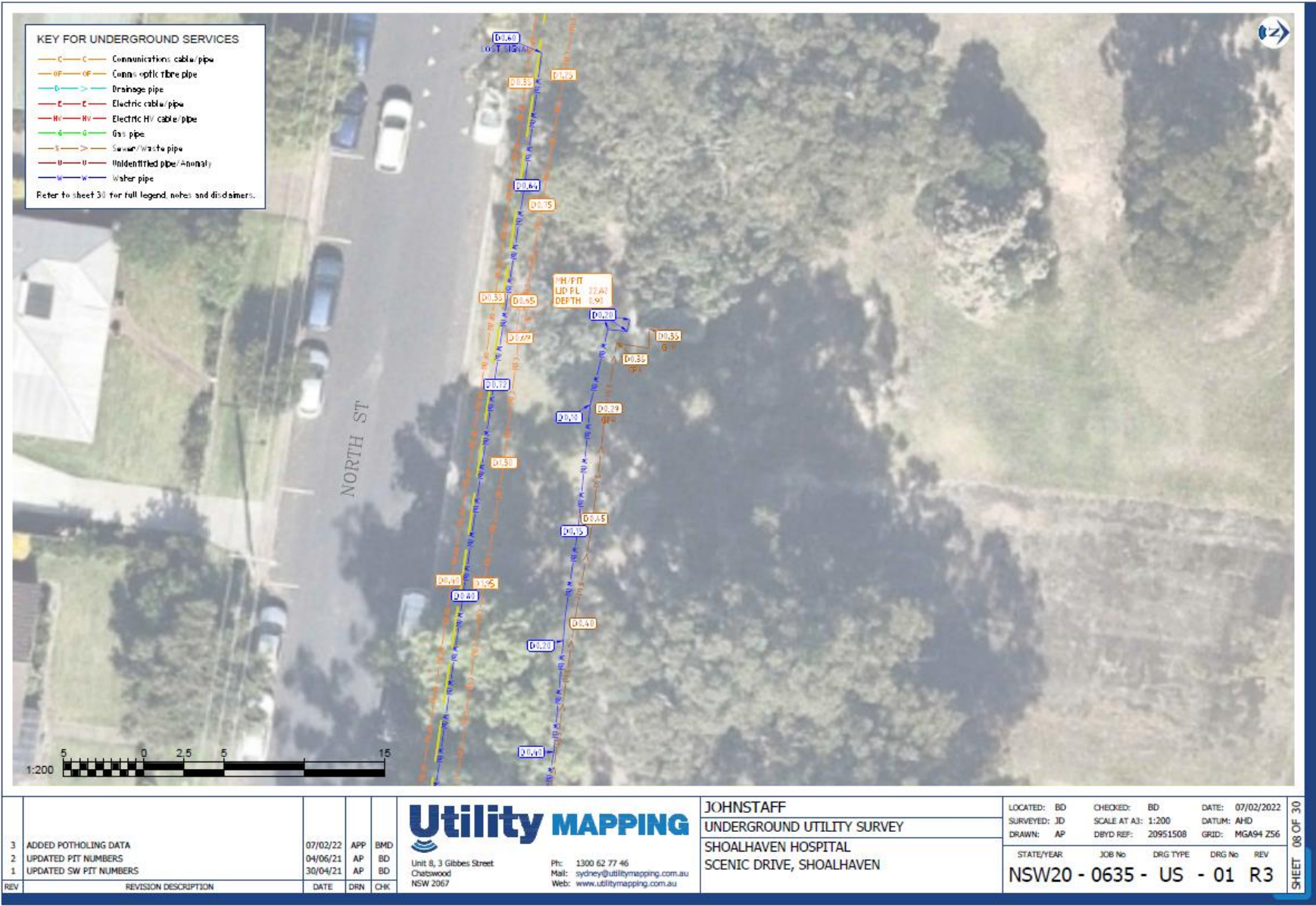
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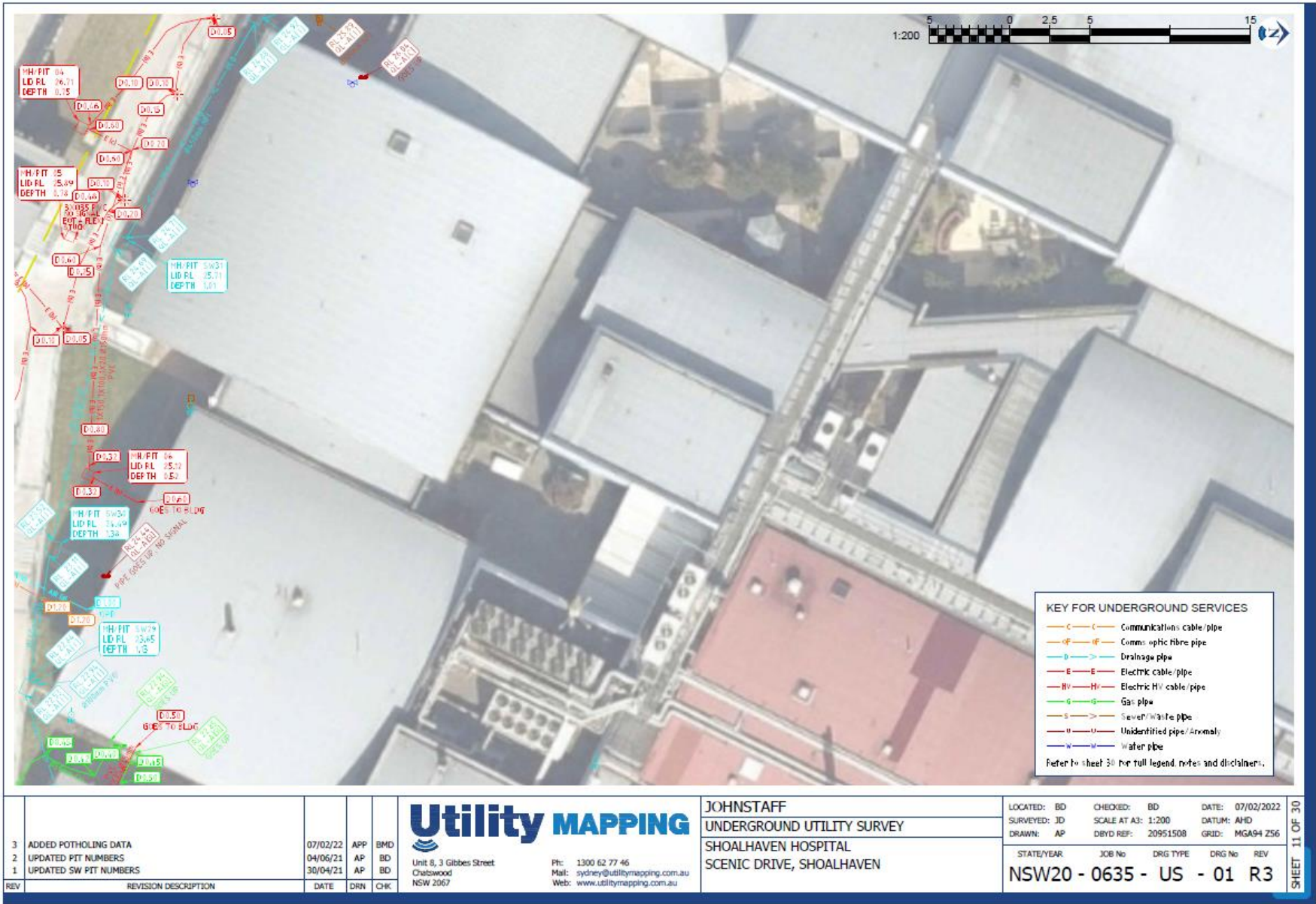


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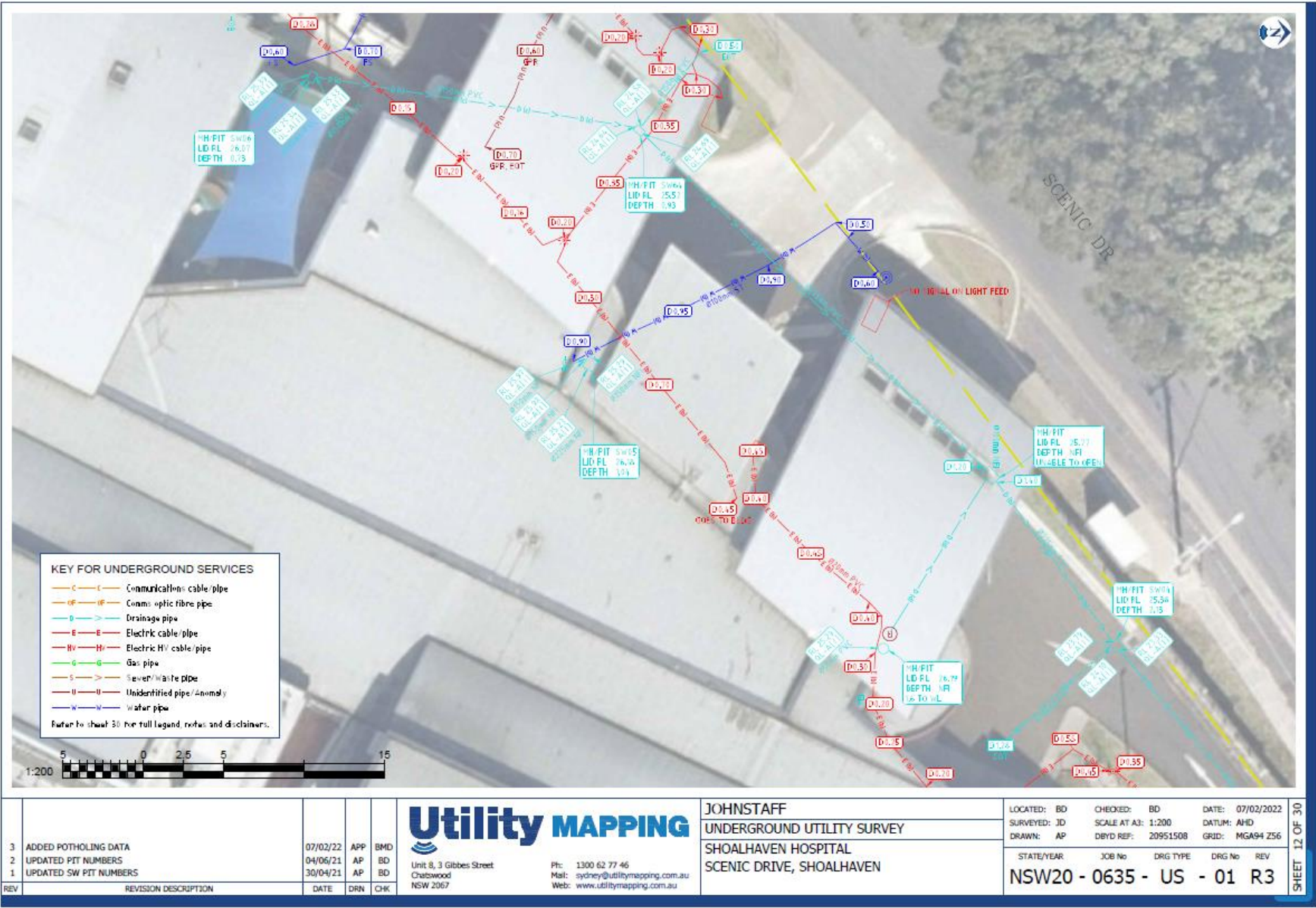






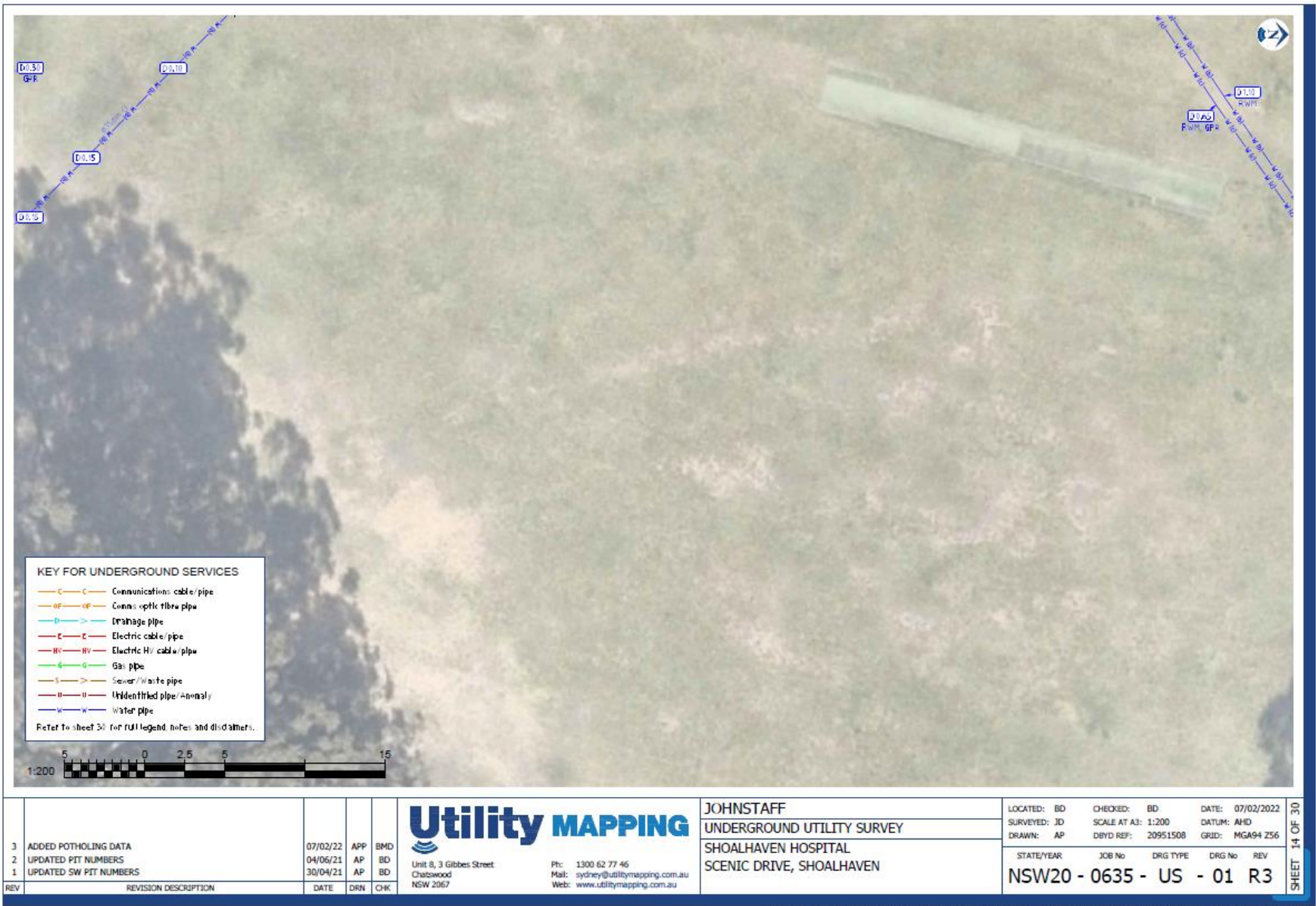


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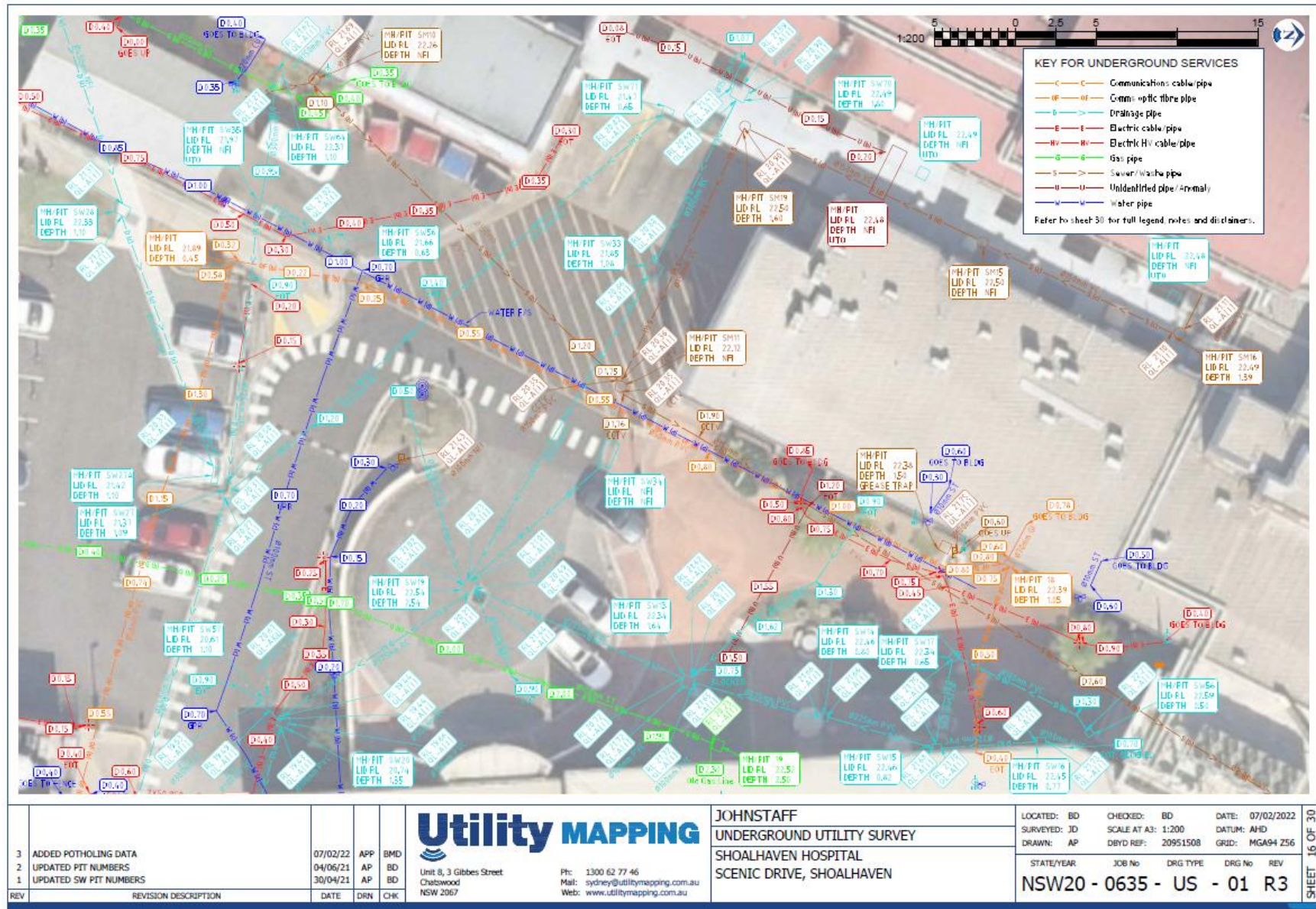
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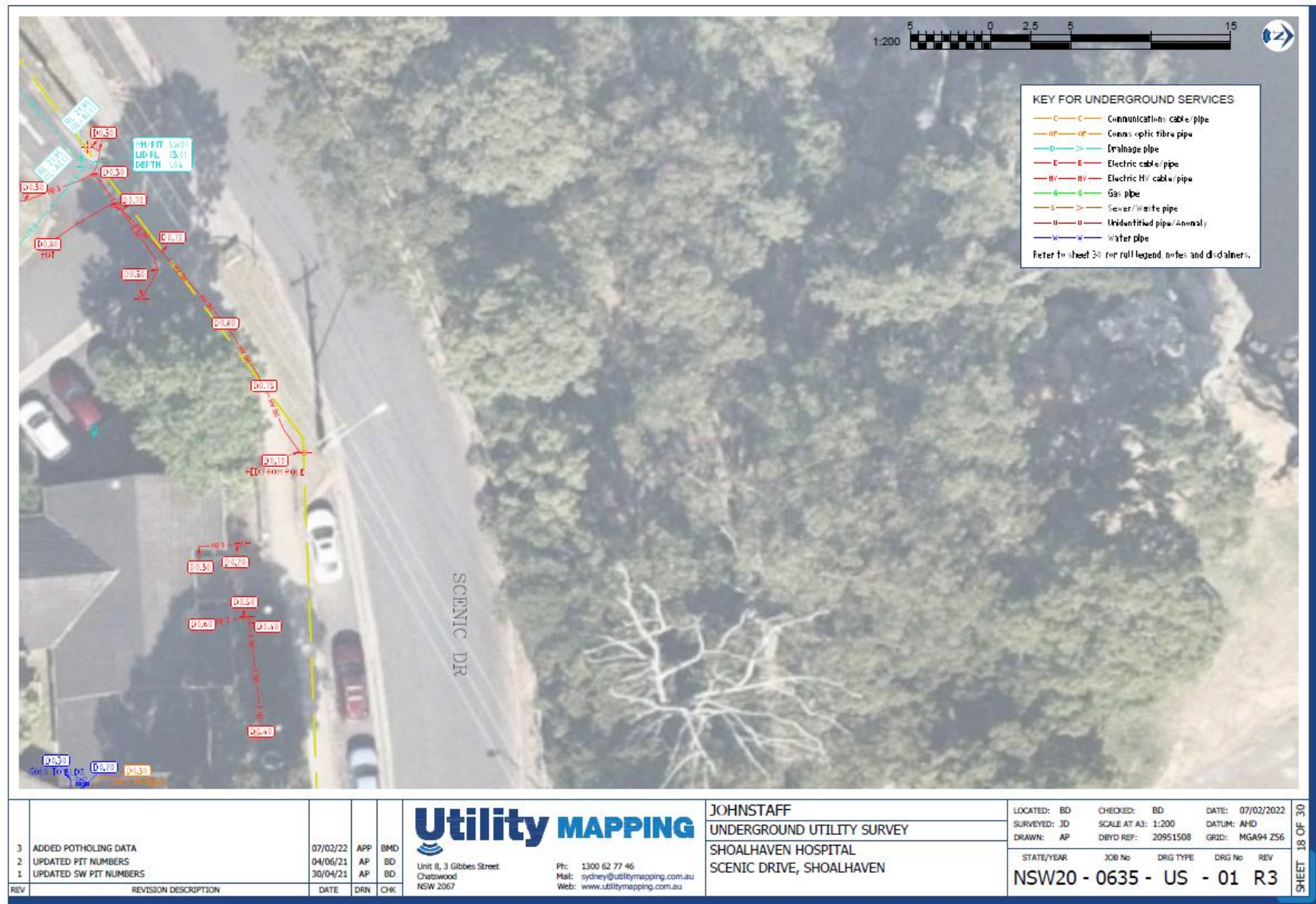
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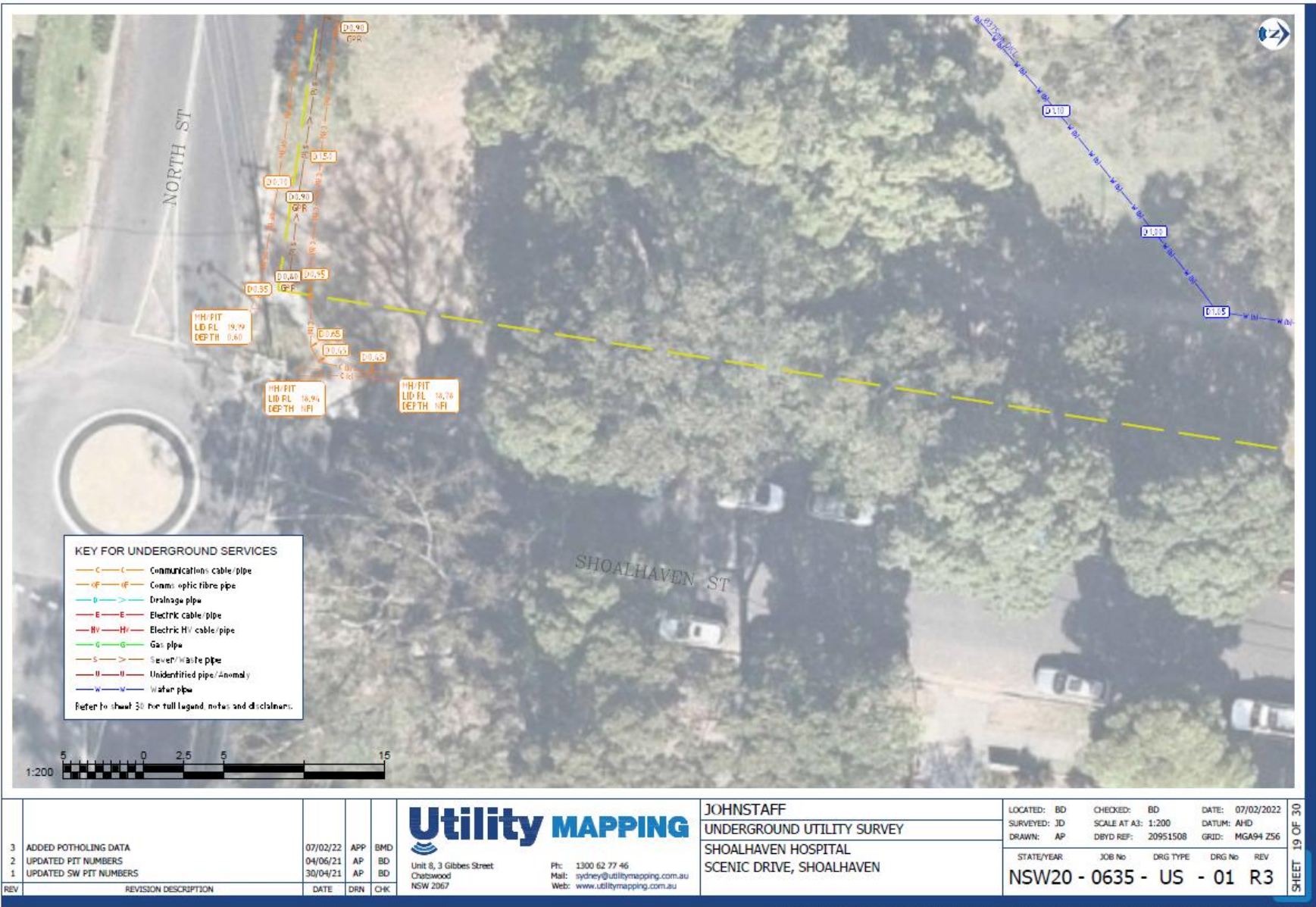


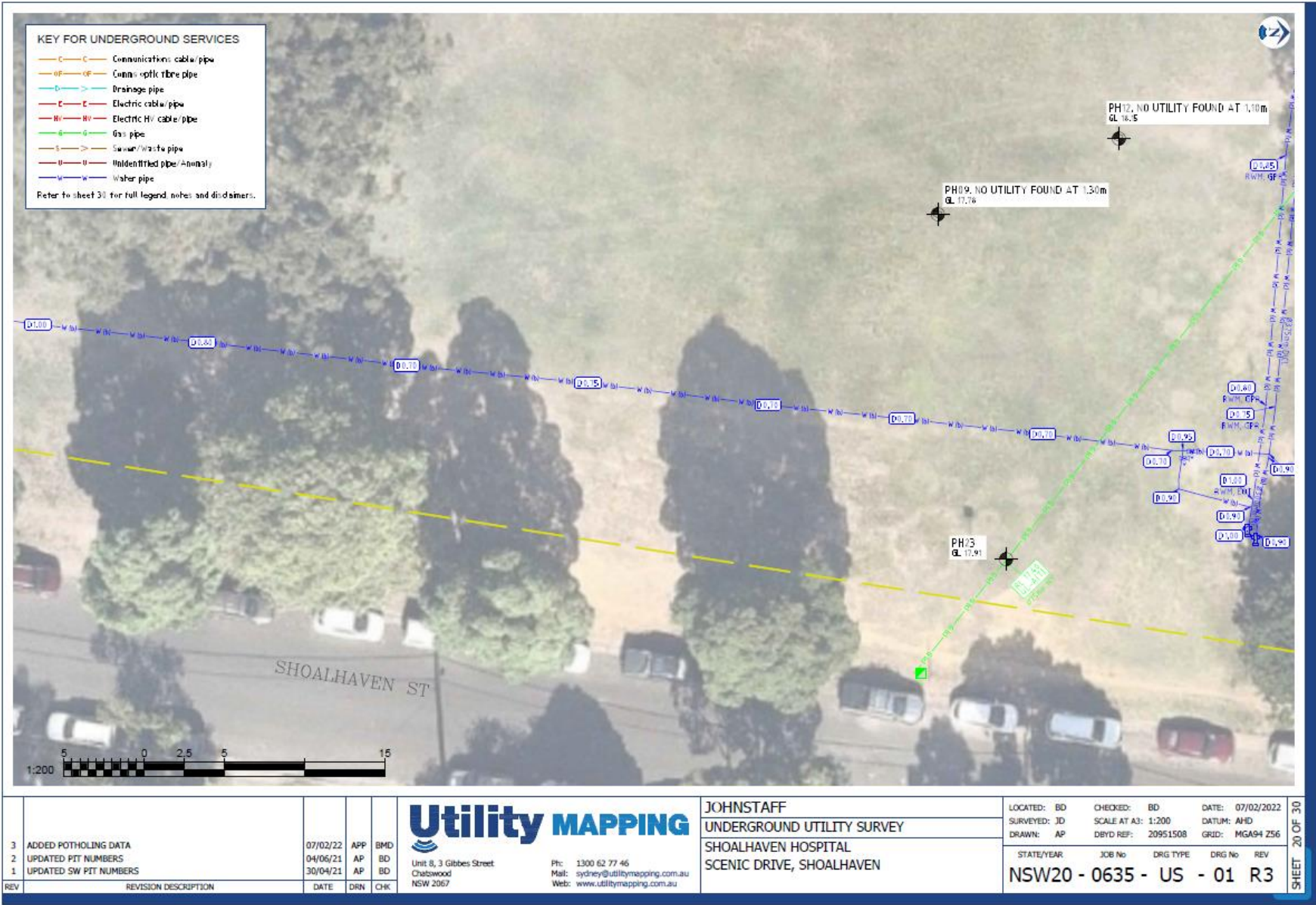


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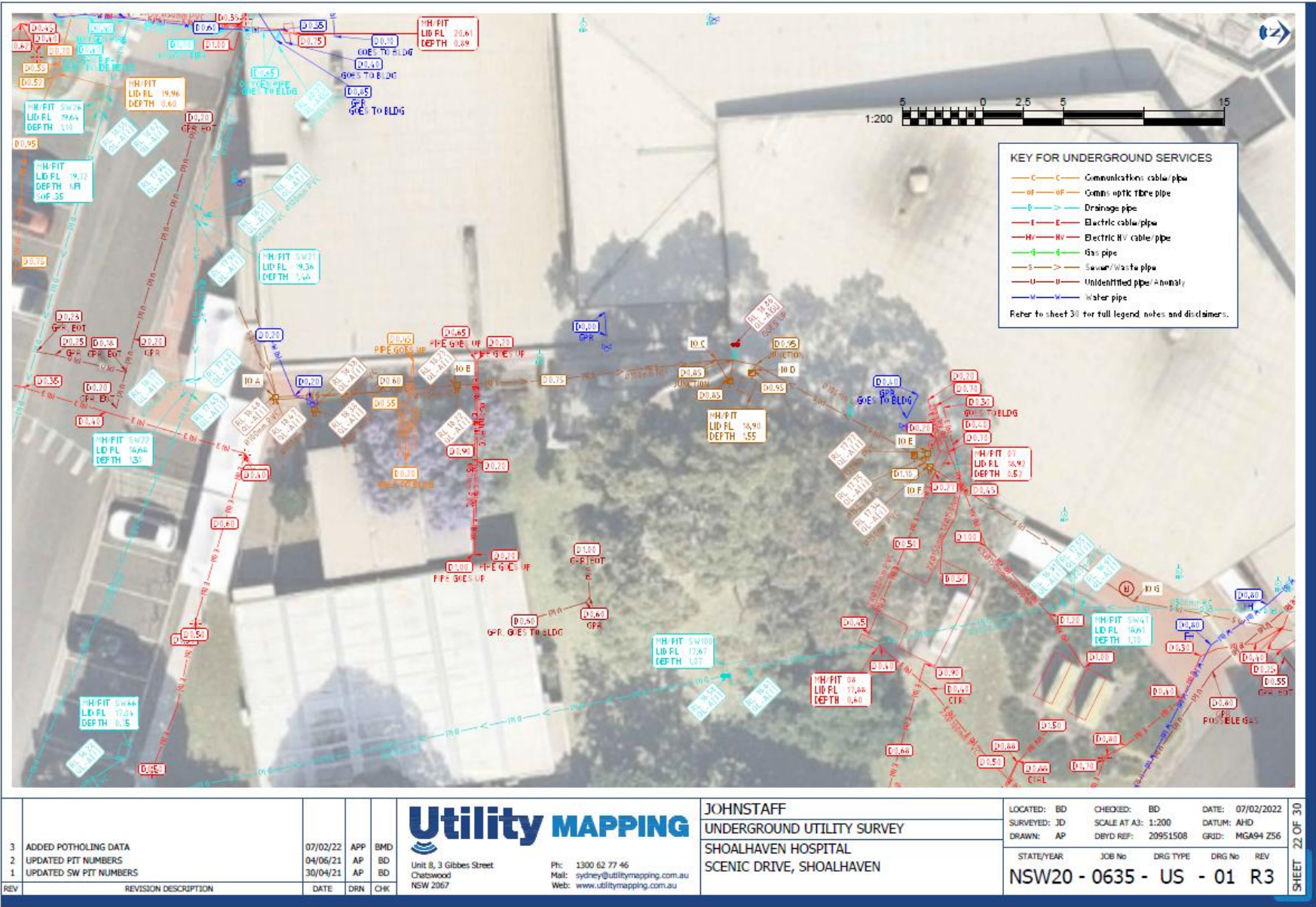




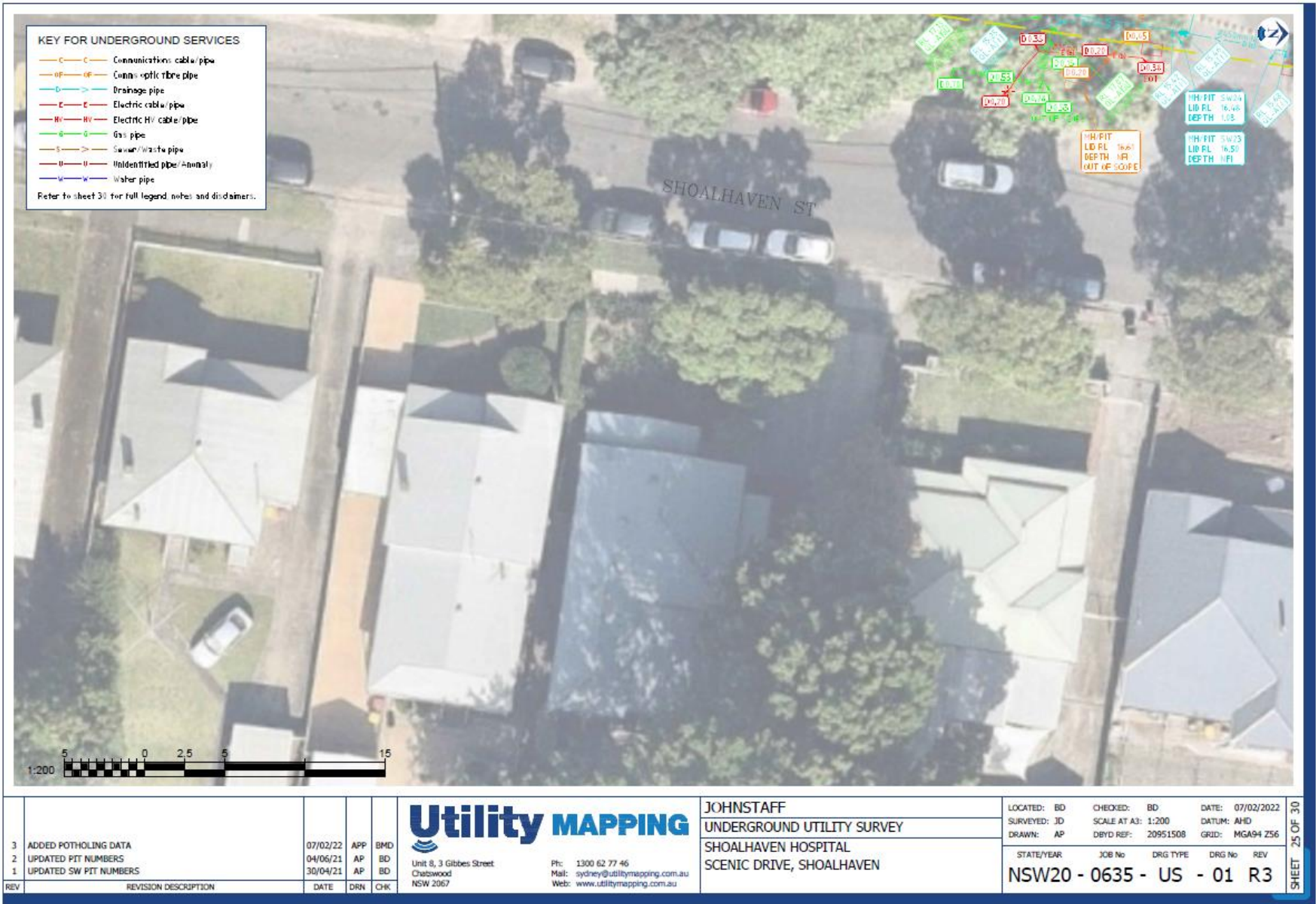


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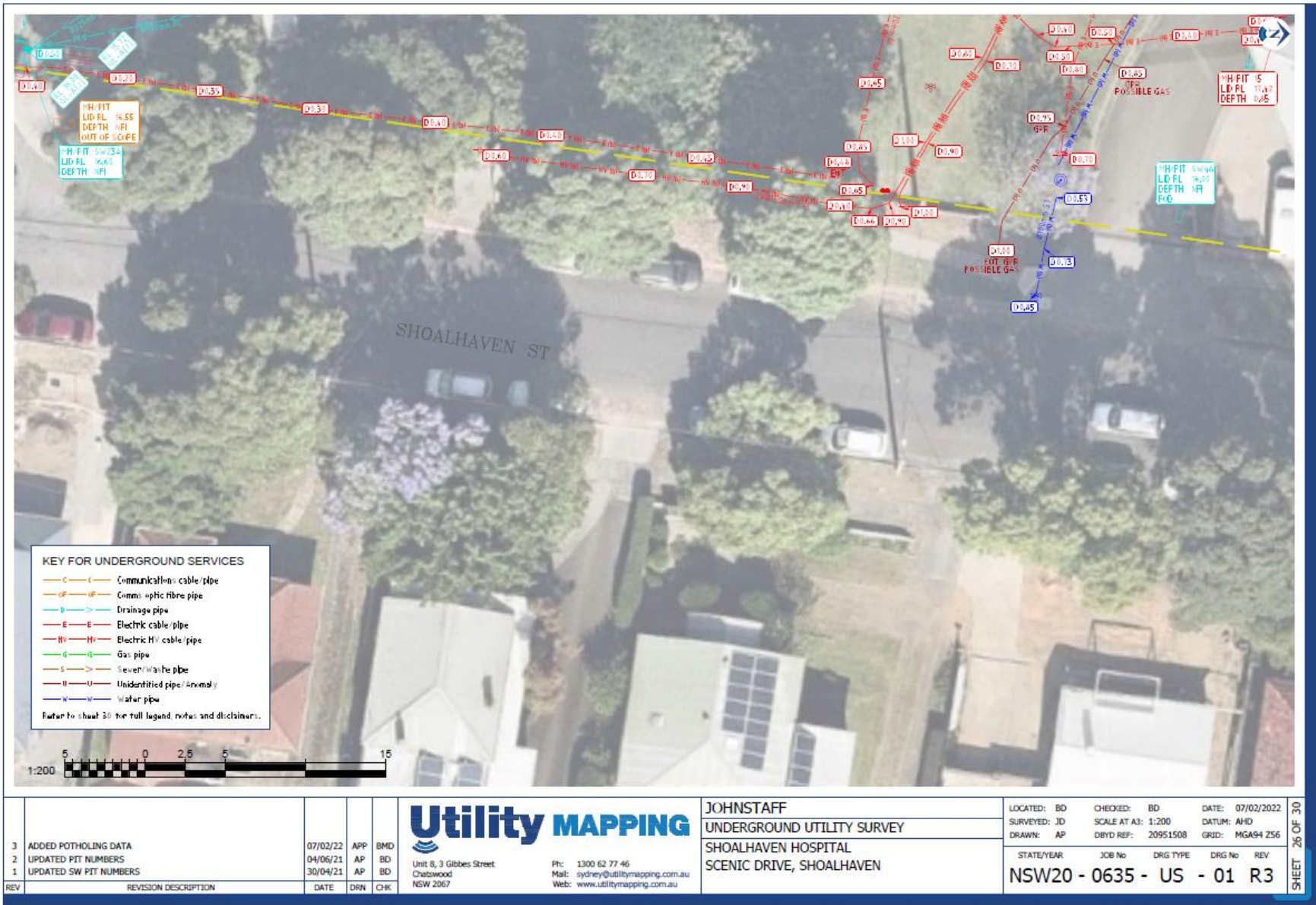




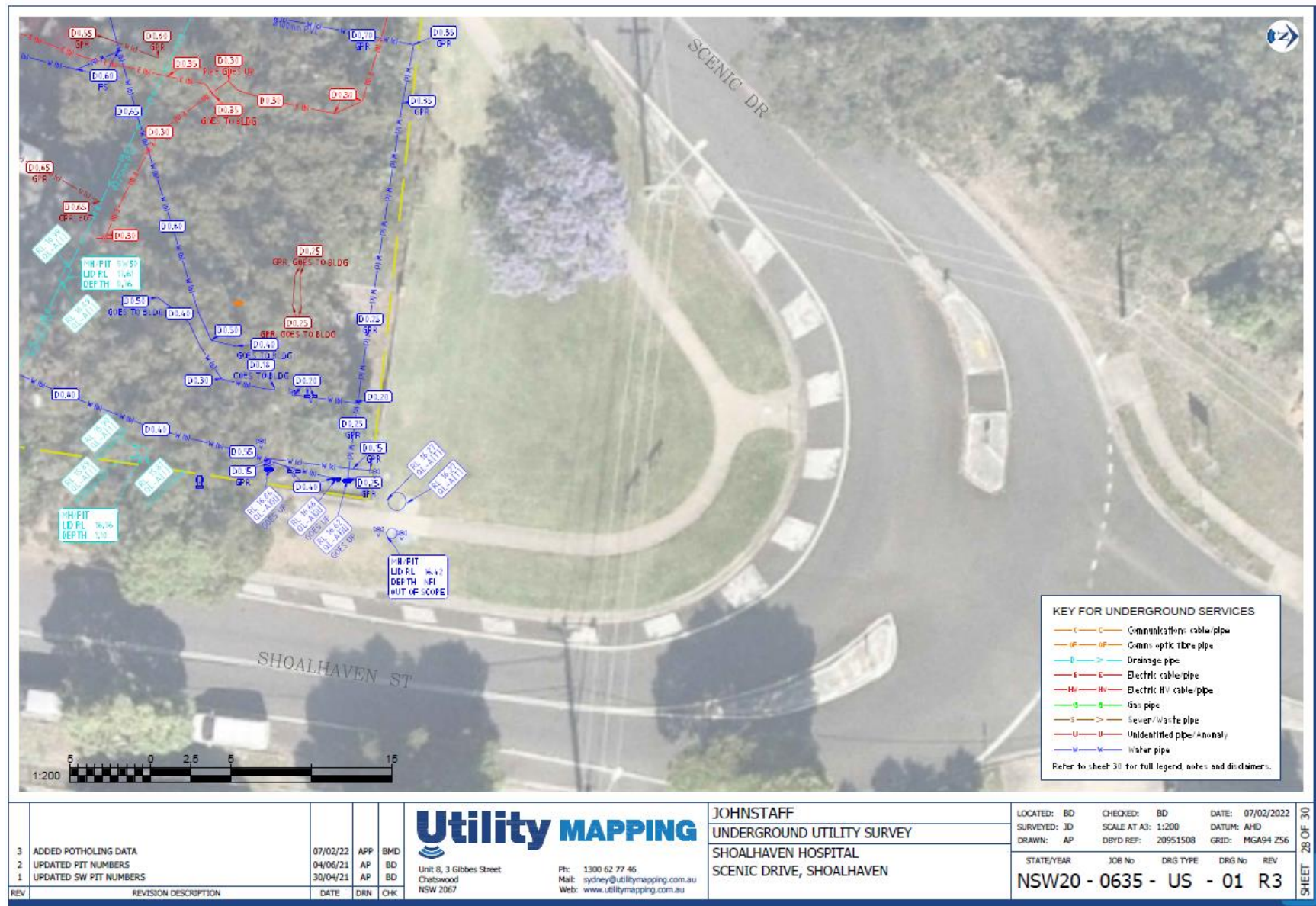
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QL-A POTHOLING RESULTS - MGA94 Z56										
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PH04	280216.9	6138779	22.39						GAS NOT FOUND AT 0.85m	3/02/2022
PH05	280216.6	6138781	22.24						NO UTILITY FOUND AT 1.0m	3/02/2022
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PH07	280227	6138623	20.58	0.25	35	CI	QL-A	PRIVATE	CUT PIPE	3/02/2022
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3 ADDED POTHOLING DATA		07/02/22 04/06/21 30/04/21	APP AP AP	BMD BD BD	 Utility MAPPING Unit 8, 3 Gibbes Street Chatswood NSW 2067 Ph: 1300 62 77 46 Mail: sydney@utilitymapping.com.au Web: www.utilitymapping.com.au	JOHNSTAFF UNDERGROUND UTILITY SURVEY SHOALHAVEN HOSPITAL SCENIC DRIVE, SHOALHAVEN	LOCATED: BD	CHECKED: BD	DATE: 07/02/2022		
2 UPDATED PIT NUMBERS							SURVEYED: JD	SCALE AT A3: NTS	DATUM: AHD		
1 UPDATED SW PIT NUMBERS							DRAWN: AP	DEYD REF: 20951508	GRID: MGA94 Z56		
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SUBSURFACE UTILITY INFORMATION (SUI) AS4588 CLASSIFICATION

QUALITY LABELING UTILITY INFORMATION BY CLASSIFICATION CODE ALLOWS THE USER OF THIS INFORMATION TO UNDERSTAND CLEARLY HOW THE INFORMATION WAS COLLECTED AND THEN PLACE AN APPROPRIATE AMOUNT OF RELIANCE ON IT. PROJECT RISKS RELATED TO UNDERGROUND UTILITIES CAN THEN BE PROPERLY MANAGED.

QUALITY A:
INFORMATION IS THE HIGHEST POSSIBLE LEVEL OF ACCURACY AND IS OBTAINED EXPOSING THE UNDERGROUND UTILITY USING A NON-DESTRUCTIVE EXCAVATION POTHOLING TECHNIQUE. THE VERTICAL INFORMATION FOR THIS LOCATING METHOD IS TO THE TOP OF THE SHALLOWEST PART OF THE LOCATED SERVICE. THE 3D LOCATION IS RECORDED AS AN X,Y,Z COORDINATE. EXPECTED HORIZONTAL AND VERTICAL ACCURACY IS +/-50mm.

QUALITY B:
INFORMATION IS COLLECTED BY DESIGNATING THE HORIZONTAL AND VERTICAL LOCATION OF UNDERGROUND UTILITIES BY USING ELECTROMAGNETIC PIPE AND CABLE LOCATORS, SONDES OR FLEM TRACE, GROUND PENETRATING RADAR AND ACOUSTIC PULSE EQUIPMENT. THIS IS THE MOST COMMON FORM OF UTILITY LOCATION AND ALTHOUGH AN X,Y, AND Z AXIS CAN BE ESTABLISHED IT IS NOT ALWAYS ENTIRELY ACCURATE DUE TO DIFFERING ELECTROMAGNETIC FIELDS, SOIL CONDITIONS AND MULTIPLE BANKS OF CABLES AFFECTING THE LOCATING SIGNAL. EXPECTED HORIZONTAL ACCURACY IS +/-300mm. VERTICAL ACCURACY +/-50mm.

QUALITY C:
INFORMATION IS COLLECTED BY CORRELATING THE SURVEY OF VISIBLE UTILITY SURFACE FEATURES SUCH AS MANHOLE FLATES OR WATER HYDRANTS AND ACOURED DIAL BEFORE YOU DIG PLANS TO DRAW A STRONG WHICH SHOWS THE APPROXIMATE POSITION OF SERVICES. THIS METHOD DOES NOT USUALLY SHOW MULTIPLE BANKS OF CABLES AND DOES NOT ALWAYS SHOW THREE DIMENSIONAL INFORMATION. EXPECTED HORIZONTAL ACCURACY (SURFACE FEATURES ONLY) IS +/-300mm.

QUALITY D:
INFORMATION IS THE MOST BASIC LEVEL OF UTILITY LOCATIONS USING ONLY INFORMATION BASED ON EXISTING DIAL BEFORE YOU DIG PLANS OR OTHER RECORDS AND BY MEASURING BOUNDARY OFFSETS ETC. THIS METHOD OF UTILITY LOCATION SHOULD ALWAYS BE TREATED AS AN INDICATION OF THE PRESENCE OF A SERVICE ONLY AND SHOULD NOT BE USED FOR DESIGN. TOLERANCE DOES NOT APPLY TO AN INDICATIVE LOCATION THAT IS ATTRIBUTED TO QUALITY LEVEL D.

DETECTION DISCLAIMER:
ELECTROMAGNETIC LOCATING TECHNIQUES AS WELL AS GROUND PENETRATING RADAR HAVE BEEN UTILISED IN THE LOCATION OF UNDERGROUND SERVICES. THESE RESULTS ARE NOT INFALLIBLE AND A NON-DESTRUCTIVE DIG PROCESS SHOULD BE CARRIED OUT TO CONFIRM SERVICE IDENTIFICATION, POSITIONS AND PARTICULARLY HEIGHTS. WHERE THERE ARE CRITICAL, ALTHOUGH ALL REASONABLE EFFORT HAS BEEN MADE IN LOCATING AND MAPPING THE UNDERGROUND SERVICES, THE COMPLETE EXTENTS OF THE THIS UTILITY SURVEY INFORMATION CANNOT BE GUARANTEED.

SURVEY TECHNIQUE DISCLAIMER:
ALL SURVEY INFORMATION COLLECTED BY UTILITY MAPPING SHOWN ON THIS PLAN HAS BEEN SURVEYED USING GISS AND TPS SURVEY METHODS. EXPECTED MINIMUM ACCURACY OF GISS SURVEY DATA IS +/-50mm. ACCURACY IS SUBJECT TO VARIATION DEPENDANT ON SITE CONDITIONS AND SURVEY CONTROL NETWORK SOURCES. A PREMENTIONED TOLERANCE PROVIDED SHOULD BE USED AS A GUIDE ONLY AND REVIEWED ON A PROJECT BY PROJECT BASIS.

THIRD PARTY INFORMATION DISCLAIMER:
SOME FEATURES SHOWN IN BLACK HAVE BEEN TAKEN FROM EXTERNAL SOURCES AND AS SUCH UTILITY MAPPING CANNOT VERIFY THE ACCURACY OF THIS INFORMATION. CONTACTING THE RELEVANT PROVIDER IS RECOMMENDED FOR THE LATEST INFORMATION.

AERIAL IMAGERY DISCLAIMER:
AERIAL IMAGERY HAS BEEN SUPPLIED UNDER A COMMERCIAL LICENCE AGREEMENT AND IS NOT TO BE REPRODUCED FOR ANY OTHER PURPOSES OTHER THAN THAT INTENDED BY UTILITY MAPPING UNDER ANY CIRCUMSTANCE. WITHOUT WRITTEN APPROVAL, FEATURES SHOWN ON IMAGERY ARE INDICATIVE ONLY AND MAY NOT REPRESENT THE TRUE AND FINAL POSITION OF FEATURES ON SITE.

KEY FOR UNDERGROUND SERVICES

— AIR — AIR — Air line	— OL — OL — Oil pipe
— CH — CH — Chemical cable/pipe	— RC — RC — Rail counter cable/pipe
— C — C — Communications cable/pipe	— S — S — Sewer/waste pipe
— OF — OF — Comm. optic fibre pipe	— TC — TC — Traffic cable/pipe
— D — D — Drainage pipe	— U — U — Unidentified pipe/Anomaly
— ER — ER — Electric earth cable/pipe	— W — W — Water pipe
— E — E — Electric cable/pipe	— — — Underground storage tank
— DE — DE — Electric direct buried cable	— MUD — MUD — Multi user duct
— HV — HV — Electric HV cable/pipe	— — — Empty duct
— F — F — Fuel pipe	— — — Overhead service
— G — G — Gas pipe	— — — Survey Boundary
— IR — IR — Irrigation pipe	— — — Cable/Pipe group or duct
— CW — CW — Chilled water pipe	— — — Trench scar
— HW — HW — Heated water pipe	

EXPLANATION OF PIPE ANNOTATION

Material: 6X 85mm PVC
Configuration: 6X 85mm PVC
Depth of reading: 1.0m
Service & Quality Level (SUI): E (a)
Reduced Level / Elevation: 1.0m
Surveyed position of pipe: E (a)
Denotes OL-A proven point: E (a)
* Surveyed position of pipe: C = Centre, I = Invert, T = Top, G = Ground Level. Where Ground Level is shown it indicates that no depth has been obtainable.

EXPLANATION OF CONFIGURATION

Pipe configuration is annotated as the number of pipes per row. For example:
2x3x1 (total of 6 pipes)
Where pipes are not clearly defined in rows, a single total number is given eg. 9x.

EXPLANATION OF PIT ANNOTATION

PH/PIT: 5x
LD RL: 05.70
DEPTH: 1.0m
Fit number/name
Lid level
Depth to base

EXPLANATION OF SUBSURFACE UTILITY INFORMATION (SUI) AS4588)

— E (a) — Denotes electric pipe/cable verified to OL-A — Verified utility
— E (b) — Denotes electric pipe/cable verified to OL-B — Verified utility
— E (c) — Denotes electric pipe/cable verified to OL-C — Unverified utility
— E (d) — Denotes electric pipe/cable verified to OL-D — Unverified utility

ABBREVIATIONS FOR UNDERGROUND SERVICES

AC	Asbestos cement	NLA	Not located - route assumed
ALR	Allythene	NLI	Not located - route plotted from on-site information
BR	Brick	NLR	Not located - route plotted from records
C	Cast iron	NLT	Not located - plotted from visible trench scan detail
CCCL	Cast iron culvert lined	NVP	No visible pipes
CMC	Concrete	NTF	Unable to find
CU	Copper	UTGA	Unable to gain access
DI	Ductile iron	UTL	Unable to lift
DICL	Ductile iron cement lined	UTS	Unable to rod
DPL	Ductile iron poly lined	UTS	Unable to survey
EW	Earthenware	UTT	Unable to trace
FG	Fibreglass		
GI	Galvanised iron		
GFP	Glass reinforced plastic		
HDPE	High density polyethylene		
MS	Medium steel	BL	Base level
MCCL	Medium steel cement lined	CL	Cover level
PE	Polyethylene	L	Invert level (pipe)
PVC	Polyvinyl chloride	NFI	No further information
RC	Reinforced concrete	NS	No signal
SGW	Self glazed ware	O/H	Overhead
SI	Span iron		
SPL	Steel poly lined	(R)	Information taken from records
ST	Steel		
VC	Victrolid clay		

NOTES FOR UNDERGROUND SERVICES

- Pipe sizes which cannot be obtained by visual survey are taken from record drawings/manhole plates where available.
- Cable routes shown as a single line may actually consist of many cables. Refer to annotated configuration details.
- Drainage pipe sizes & invert levels have been determined without man entry into chambers. Every effort has been made to correctly obtain this information, however, accuracy is dependent on visibility from the surface. All annotations depict depth to service UNLESS otherwise stated. Annotations marked RL indicate the true elevation of service feature.
- Utility lines located using Electromagnetic Induction (EMI) or similar proving techniques are assumed to have been located to the approximate CENTRE of the service.
- Utility lines located using Ground Penetrating Radar (GPR) or similar proving techniques are assumed to have been located to the TOP of the service.
- This plan needs to be read in conjunction with the CCTV conditional assessment report provided by APH.

3	ADDED POTHOLING DATA	07/02/22	APP	BMD
2	UPDATED PIT NUMBERS	04/06/21	AP	BD
1	UPDATED SW PIT NUMBERS	30/04/21	AP	BD
REV	REVISION DESCRIPTION	DATE	DRN	CHK

Utility MAPPING

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Chatswood
NSW 2067

Ph: 1300 62 77 46
Mail: sydney@utilitymapping.com.au
Web: www.utilitymapping.com.au

JOHNSTAFF

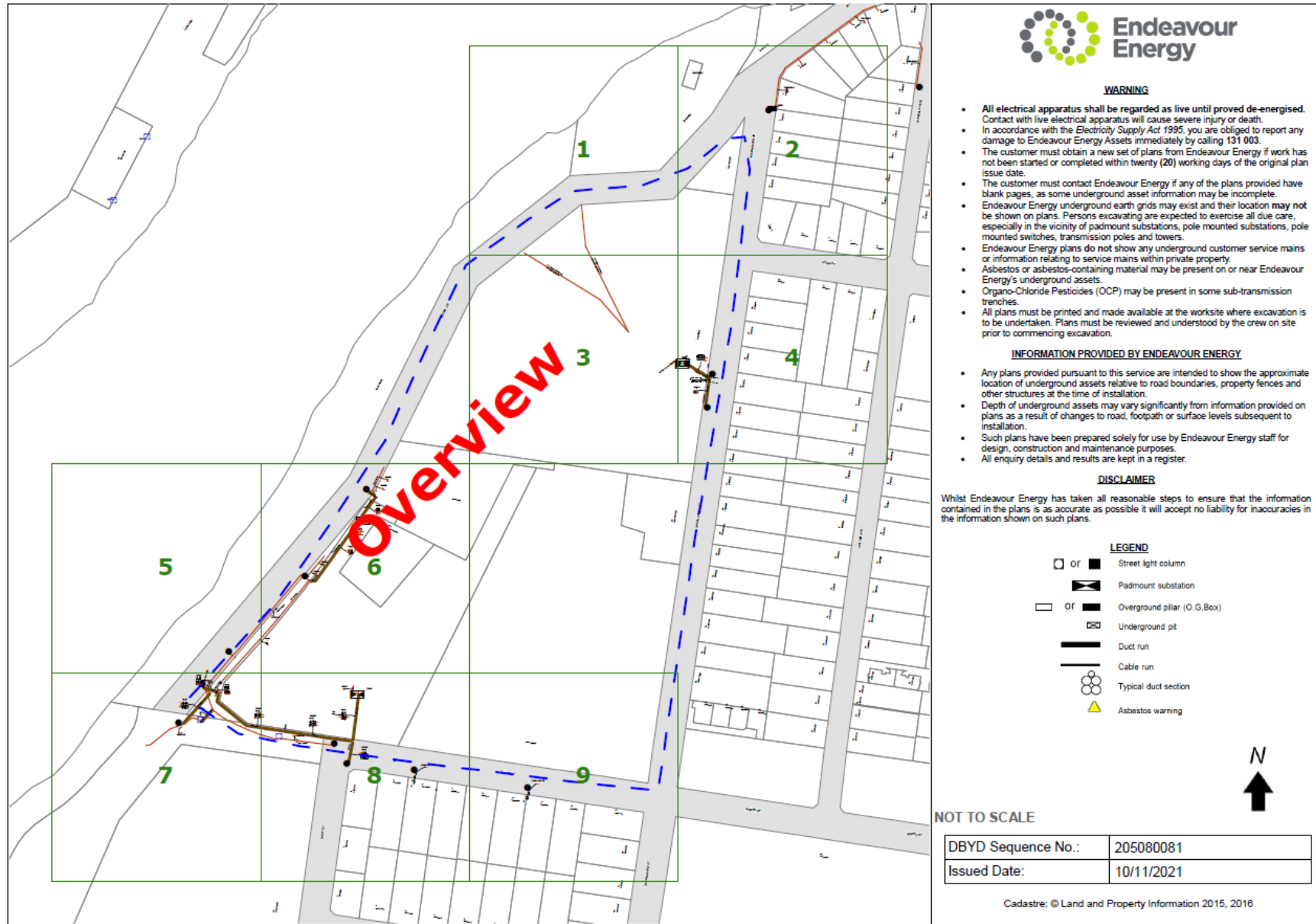
UNDERGROUND UTILITY SURVEY

SHOALHAVEN HOSPITAL

SCENIC DRIVE, SHOALHAVEN

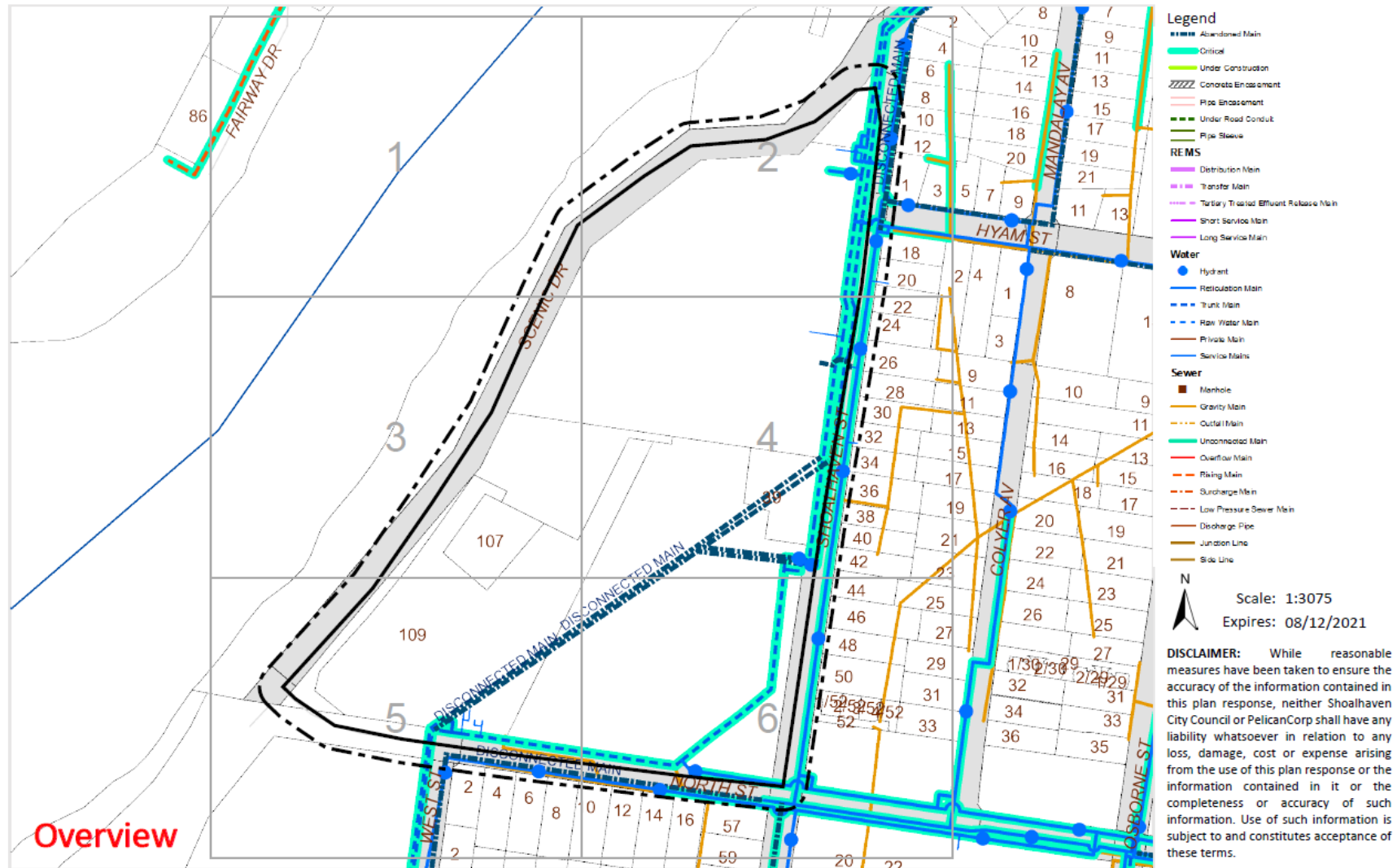
LOCATED: BD	CHECKED: BD	DATE: 07/02/2022
SURVEYED: JD	SCALE AT A3: 1:200	DATUM: AHD
DRAWN: AP	DBVD REF: 20951508	GRID: MGA94 256
STATE/YEAR	JOB No	DRG TYPE
NSW20 - 0635 - US	01	R3
DRG No	REV	

SHEET 30 OF 30



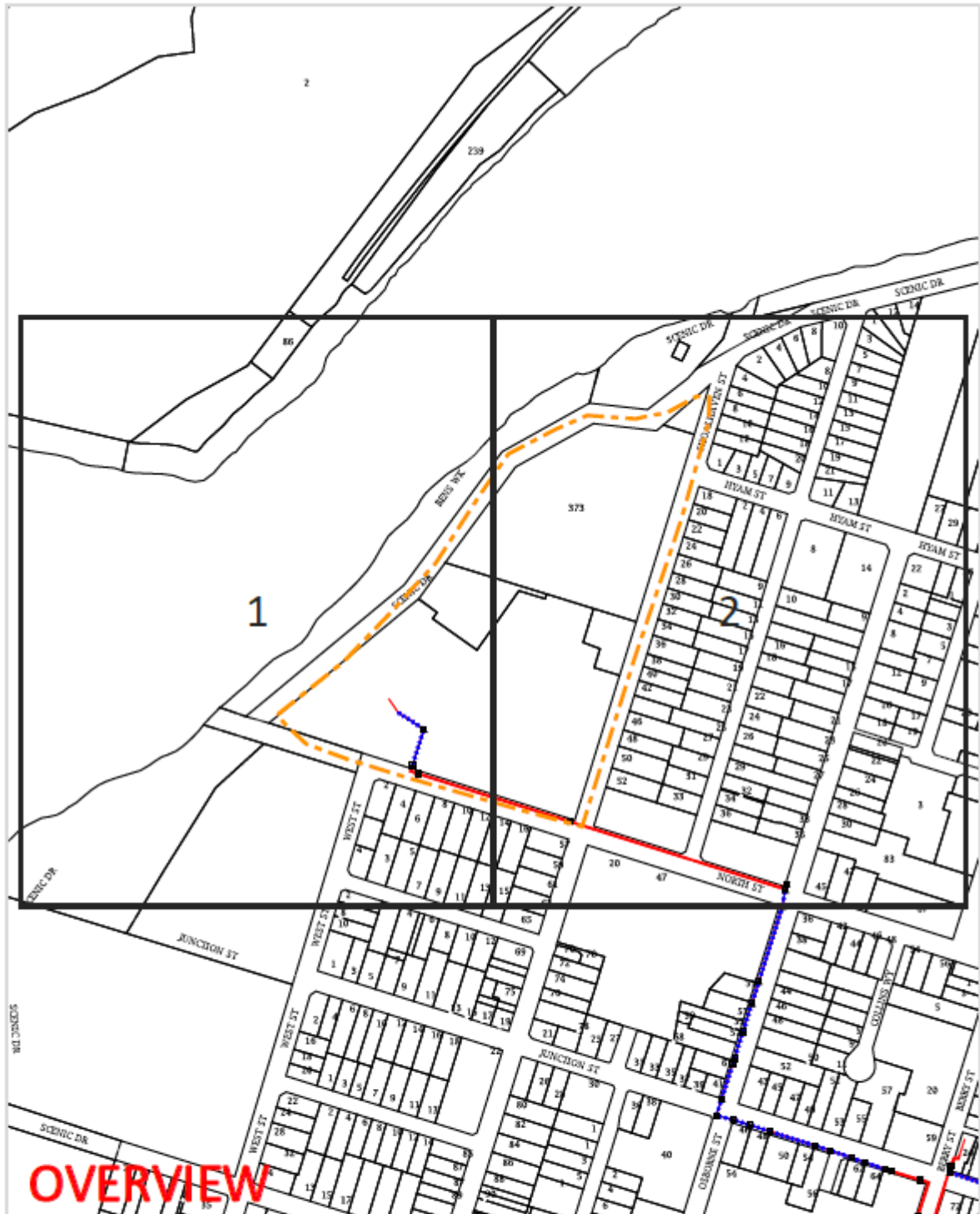


Sequence No: 205080079
 Job No: 30871049
 Location: 39 Shoalhaven Street, Nowra, NSW 2541



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