

30 March 2023

Meighan Woods
Development Manager
Mirvac Projects

Dear Meighan

Re: DRAFT Addendum cover letter for Elizabeth Enterprise Precinct Stage 1

This addendum cover letter has been prepared by Artefact Heritage for Mirvac Projects (Mircvac) to address updates to the following reports prepared by Artefact Heritage:

- Elizabeth Enterprise Precinct Stage 1, Aboriginal Test Excavation Report (ATER) for Public Exhibition
- Elizabeth Enterprise Precinct Stage 1, ATER Not for Public Exhibition
- Elizabeth Enterprise Precinct, Non-Aboriginal Archaeological Research Design Report
- Elizabeth Enterprise Precinct Stage 1, Salvage Excavation Archaeological Research Design Report
- Elizabeth Enterprise Precinct, Historical Archaeological Test Excavation Results Report

A summary of the updates are presented in Table 1. The changes have been found to be consistent with the conclusions and recommendations of these reports.

Sincerely



Gareth Holes

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 We acknowledge the Traditional Custodians of Country in which we live and work, and pay our respects to them, their culture and their Elders past, present and emerging

Table 1: Summary of updates

Report	Section	Page	Original text	Updated text	Comments
Appendix CC2 – Elizabeth Enterprise Precinct Stage 1, ATER for Public Exhibition	Executive Summary	ii	Waste Disposal Facility	A Concept Masterplan comprising eight (8) industrial buildings and a Stage 1 development including site preparation, bulk earthworks, road works, stormwater infrastructure and utilities and construction of two warehouse and distribution buildings	This change is consistent with the conclusions and recommendations of the report
	1.1 Introduction	1	Waste Disposal Facility	A Concept Masterplan comprising eight (8) industrial buildings and a Stage 1 development including site preparation, bulk earthworks, road works, stormwater infrastructure and utilities and construction of two warehouse and distribution buildings	This change is consistent with the conclusions and recommendations of the report
	1.2 Study area	1	54.41ha	55.66ha	The study area has been increased from 54.41ha (Figure 1) to 55.66ha (Figure 2), this change is consistent with the conclusions and recommendations of the report
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Figure 1: Original study area

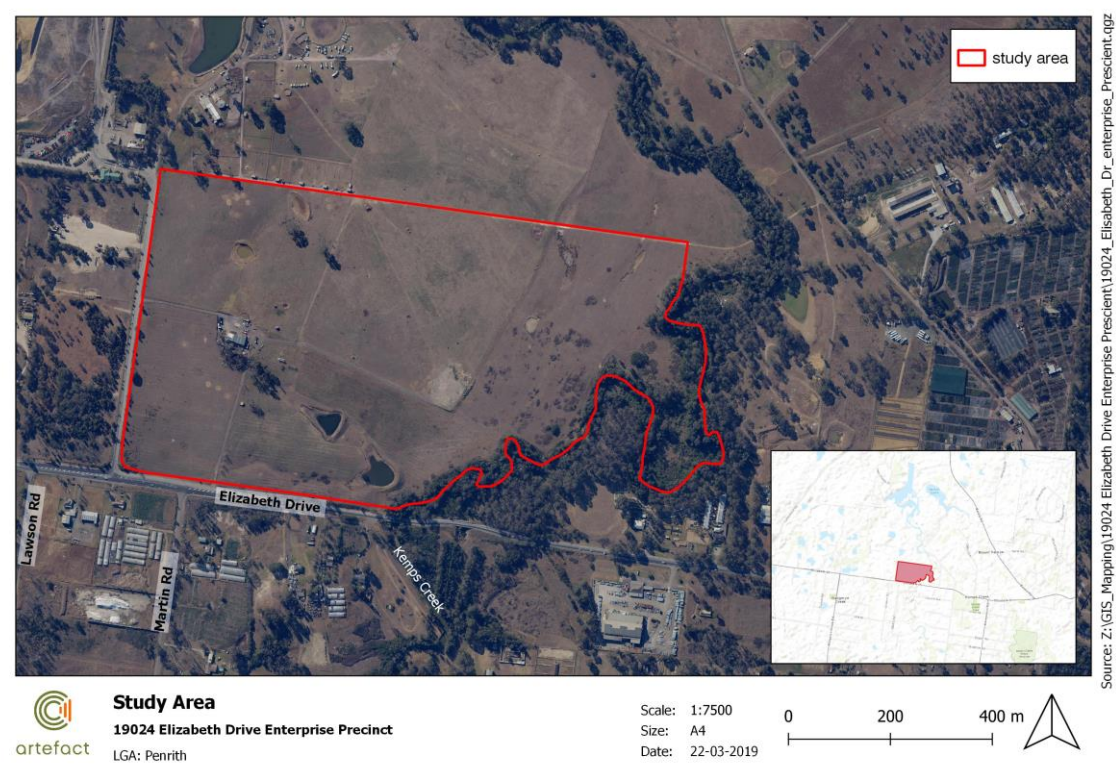
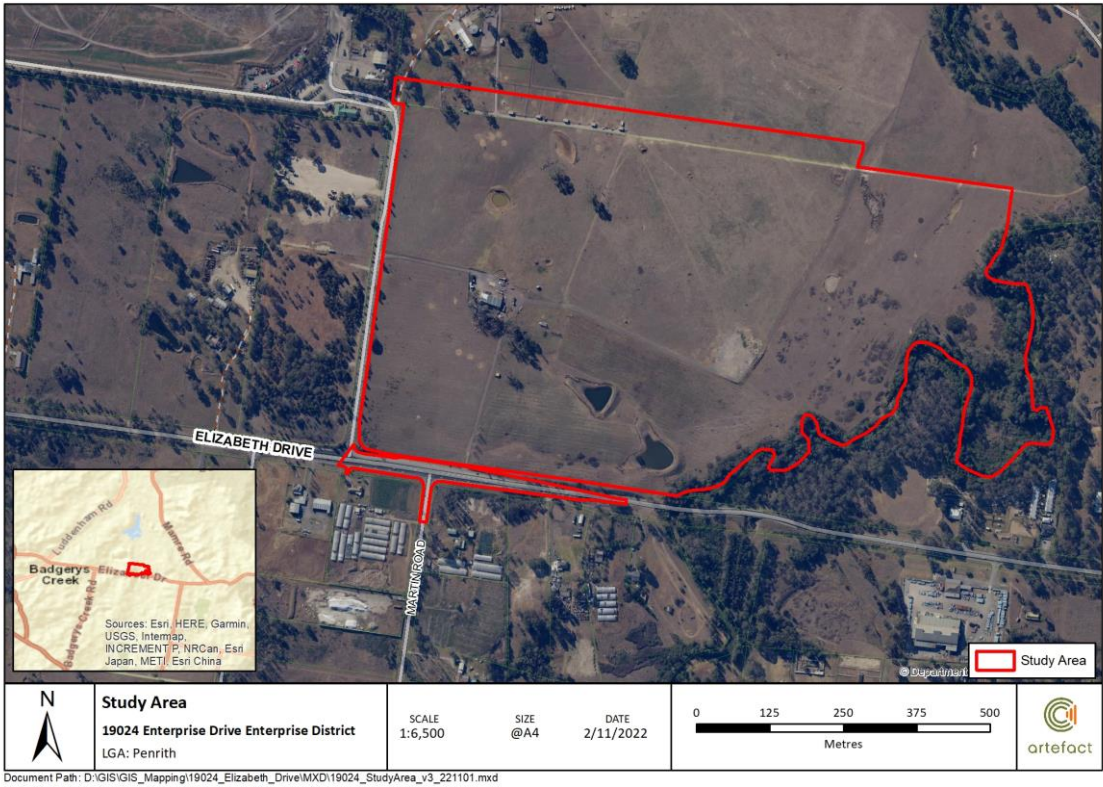


Figure 2: Updated study area

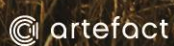


Elizabeth Enterprise Precinct Stage 1

Non-Aboriginal Archaeological
Research Design

Report to Mirvac Projects Pty Ltd

November 2019



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EXECUTIVE SUMMARY

Mirvac Projects Pty Ltd (Mirvac) are proposing to develop a Waste Disposal Facility at 1669 – 1732 Elizabeth Drive, Badgerys Creek, for the disposal of clean waste spoil material resulting from the construction of critical State Significant Infrastructure and building projects.

As part of the environmental assessment, Artefact Heritage (Artefact) were engaged by Mirvac to prepare a Statement of Heritage Impact (SoHI) report for the project.¹ The SoHI assessment indicated that the study area was once the property of James Badgery, an early settler in the colony, and that his original homestead “Exeter Farm”, was once located on the property. The SoHI concluded that there was the potential for significant archaeological remains related to Badgery’s “Exeter Farm” homestead to be located in the study area and recommended further archaeological management of these resources prior to ground disturbing works conducted at the site.

Mirvac have engaged Artefact to prepare a non-Aboriginal Archaeological Research Design (ARD) to provide a detailed assessment of the potential and significance of any archaeological remains in the study area, and to outline an archaeological methodology for managing these remains. This ARD report is provided in support of an application for a s139 exception under the NSW *Heritage Act 1977* (Heritage Act) to undertake an archaeological test excavation to assess the degree of preservation and significance of any predicted non-Aboriginal remains associated with James Badgerys early nineteenth century Exeter Farm.

Conclusions

Based on the results of historical research and a comprehensive surface site inspection, this ARD report has identified the following:

- James Badgery received a grant of land which included the study area in 1809, on which he established a working farm and dairy with the assistance of government-allotted convict labour
- The locations of the first structures on the site – the original wattle and daub house of the Badgery family built in 1809, and other farm working structures, were unable to identified from analysis of historical sources
- James Badgery built his first substantial house on the property between 1810 and 1812, which was a brick homestead call Exeter Farm. Two potential locations for this homestead have been identified from historical research in the study area
- Later landowners constructed a second Exeter Farm homestead, probably in the late nineteenth century, which became the primary residence of the property. This building was demolished in 2006.

Recommendations

- A s139 exception should be sought from Heritage NSW, Department of Premier and Cabinet (Heritage NSW, DPC), with this ARD report as a supporting document. This exception would be sought in order to conduct archaeological test excavation at the study area

¹ Artefact, 2019.

- A program of archaeological test excavation, under an approved s139 exception, should be conducted in those areas where significant archaeological resources have been predicted. This would involve the excavation of five archaeological test trenches to investigate the presence, intactness and integrity of any archaeological remains
- Under the approved s139 exception, no significant structural or artefactual remains or 'relics' may be impacted or removed during test excavation. All remains are to be recorded and conserved *in situ*
- Should significant and intact remains be identified during testing, then further heritage approvals would be required from Heritage NSW, DPC and would involve further archaeological salvage excavation of any identified significant archaeological resources. Project works could not proceed in the area of significant remains until salvage excavation of all identified significant archaeological resources was completed.
- Should State significant remains associated with early nineteenth century convict accommodation and workshops be identified significantly intact during test excavation work, opportunities for retaining these remains *in situ* and redesigning works to avoid impacts should be considered.

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1.0 INTRODUCTION

1.1 Introduction

Mirvac are proposing to develop a Waste Disposal Facility at 1669 – 1732 Elizabeth Drive, Badgerys Creek, for the disposal of clean waste spoil material resulting from the construction of critical State Significant Infrastructure and building projects.

As part of the environmental assessment, Artefact were engaged by Mirvac to prepare SoHI report for the project.² The SoHI assessment indicated that the study area was once the property of James Badgery, an early settler in the colony, and that his original homestead “Exeter Farm”, was once located on the property. The SoHI concluded that there was the potential for heritage significant archaeological remains related to Badgery’s “Exeter Farm” homestead to be located in the study area and recommended further archaeological management of these resources prior to ground disturbing works conducted at the site.

Mirvac have engaged Artefact to prepare a non-Aboriginal ARD report to provide a detailed assessment of the potential and significance of any archaeological remains in the study area, and to outline an archaeological methodology for managing these remains. This ARD report is provided in support of an application for a s139 exception under the Heritage Act to undertake an archaeological test excavation to assess the degree of preservation and significance of any predicted non-Aboriginal remains associated with James Badgerys early nineteenth century Exeter Farm.

1.2 Study area and description of works

The study area is comprised of 1669 – 1723 Elizabeth Drive, Badgerys Creek (Lot 5 / DP 860456), a 54.41 hectare (ha) rural property located within the boundaries of the Penrith Local Government Area (LGA) and the Western Sydney Priority Growth Area. The study area is within the parish of Claremont within the country of Cumberland. The location of the study area is illustrated in Figure 1.

Mirvac proposes to develop a waste management facility in the study area, across the majority of the site. It is understood that the development of the waste management facility would involve widespread earthworks, including infilling, levelling and ground excavation, across much of the subject site.

1.3 Authorship

This report was prepared by Duncan Jones (Senior Heritage Consultant). Josh Symons (Principal) and Jacob Mark (Historian) prepared Section 3 of this report, with some revisions made by Duncan Jones for incorporation into this ARD. Management input and review was provided by Josh Symons (Principal) and Jenny Winnett (Principal).

² Artefact, 2019.

Figure 1: Location and extent of study area



Study Area

19024 Elizabeth Drive Enterprise Precinct

LGA: Penrith

Scale: 1:7500
Size: A4
Date: 22-03-2019



2.0 STATUTORY CONTEXT

2.1 Heritage Act 1977

The NSW *Heritage Act 1977* (Heritage Act) is the primary piece of State legislation affording protection to heritage items (natural and cultural) in NSW. Under the Heritage Act, 'items of environmental heritage' include places, buildings, works, relics, moveable objects and precincts identified as significant. Significance is based on historical, scientific, cultural, social, archaeological, architectural, natural or aesthetic values.

The State Heritage Register (SHR) was established under Section 22 of the Heritage Act and is a list of places and objects of particular importance to the people of NSW, including archaeological sites. The SHR is administered by the Heritage Division of the OEH and includes a diverse range of over 1500 items, in both private and public ownership. To be listed, an item must be deemed to be of heritage significance for the whole of NSW.

2.1.1 Relics Provisions

The Heritage Act also provides protection for 'relics', which includes archaeological material or deposits. According to Section 139 (Division 9: Section 139, 140 – 146):

- (1) A person must not disturb or excavate any land knowingly or having reasonable cause to suspect that the disturbance or excavation will or is likely to result in a relic being discovered, exposed, damaged or destroyed unless the disturbance is carried out in accordance with an excavation permit.
- (2) A person must not disturb or excavate any land on which the person has discovered or exposed a relic except in accordance with an excavation permit.
- (3) This section does not apply to a relic that is subject to an interim heritage order made by the Minister or a listing on the State Heritage Register.
- (4) The Heritage Council may by order published in the Gazette create exceptions to this section, either unconditionally or subject to conditions, in respect of any of the following:
 - a. Any relic of a specified kind or description,
 - b. Any disturbance or excavation of a specified kind or description,
 - c. Any disturbance or excavation of land in a specified location or having specified features or attributes,
 - d. Any disturbance or excavation of land in respect of which an archaeological assessment approved by the Heritage Council indicates that there is little likelihood of there being any relics in the land.

Section 4 (1) of the Heritage Act (as amended in 2009) defines a relic as:

...any deposit, artefact, object or material evidence that:

relates to the settlement of the area that comprises New South Wales, not being Aboriginal settlement, and is of State or local heritage significance

A relic has been further defined as:

Relevant case law and the general principles of statutory interpretation strongly indicate that a 'relic' is properly regarded as an object or chattel. A relic can, in some circumstances, become part of the land be regarded as a fixture (a chattel that becomes permanently affixed to land).³

Excavation permits are issued by the Heritage Council of NSW, or its Delegate, under Section 140 of the Heritage Act. An application for an excavation permit must be supported by an Archaeological Research Design and Archaeological Assessment prepared in accordance with the Heritage NSW, DPC archaeological guidelines.

Minor works that will have a minimal impact on archaeological relics, including archaeological excavation to confirm the presence of relics without removing them, may be granted an exception under Section 139 (4) of the Heritage Act. In the event of the latter approval for archaeological testing for relics, should relics be identified during archaeological testing they cannot be destroyed, impacted or removed. Should relics be identified during test excavation, the Heritage NSW, DPC would be notified under the Section 146 provisions of the Heritage Act.

Should further ground disturbing works be required in an area where excavated relics have been identified, a detailed archaeological salvage methodology would be prepared and submitted in support of a Section 140 Excavation Permit of the Heritage Act. Prior to the S140 excavation's approval from the Heritage NSW, DPC, any uncovered relics should not be disturbed and should be protected during that time.

2.1.2 Works

The Heritage Act places 'works' in a separate category to archaeological 'relics'. 'Works' refer to remnants of historical structures which are not associated with artefactual material that may possess research value. 'Works' may be buried, and therefore archaeological in nature, however, exposure of a 'work' does not require approved archaeological excavation permits under the Act.

The following examples of remnant structures have been considered to be 'works' by the NSW Heritage Council:

- Evidence of former infrastructure, where there are no historical artefacts in association with the item
- Historical building footings where there are no historical artefacts in association with the item.

Where buried remnants of historical structures are located in association with historical artefacts in controlled stratigraphic contexts (such as intact historic glass, ceramic or bone artefacts), which have the potential to inform research questions regarding the history of a site, the above items may not be characterised as 'works' and may be considered to be 'relics'. The classification of archaeological remains as a 'work' therefore is contingent on the predicted remains being associated with historical structures as well as there being no prediction of the recovery of intact artefactual deposits which may be of research interest.

2.2 Environmental Planning and Assessment Act 1979

The *Environmental Planning and Assessment Act 1979* (EP&A Act) establishes the framework for cultural heritage values to be formally assessed in the land use planning and development consent

³ *Assessing Significance for Archaeological Sites and 'Relics'*, Heritage Branch, Department of Planning, 2009:7.

process. The EP&A Act consists of three main parts of direct relevance to Aboriginal cultural heritage; Part 3 which governs the preparation of planning instruments, Part 4 which relates to development assessment processes for local government (consent) authorities, and Part 5 which relates to activity approvals by governing (determining) authorities.

Planning decisions within LGAs are guided by Local Environmental Plans (LEPs). Each LGA is required to develop and maintain an LEP that includes Aboriginal and historical heritage items which are protected under the EP&A Act and the *Heritage Act 1977*. The study area is located in the Penrith LGA and is subject to consents under the Penrith LEP 2010.

2.2.1 Penrith LEP 2010

The study area falls within the boundaries of the Penrith LGA. Clause 5.10 outlines the provisions which apply to heritage conservation and requirements in relation to development applications affecting a heritage item or within a conservation area. The aim of the LEP in relation to heritage is to conserve the heritage significance of heritage items and heritage conservation areas, including associated fabric, settings, views and archaeological sites. The LEP lists identified items of heritage significance in Schedule 5.

The Penrith Development Control Plan (DCP) provides guidelines for development proposals and heritage under Part C 7 Culture and Heritage. It provides examples of the types of development and how this could affect heritage, and what requirements are needed before development can commence, such as heritage impact statements. Controls are listed depending on what type of development is proposed. The controls for currently listed LEP items encourage the retention of the items while enabling sympathetic change. New development must not diminish the significance of the item.

The following clauses apply to places of heritage significance within the Penrith LGA, under Part 5 Clause 5.10 of the Penrith LEP 2010:

(1) *Objectives*

The objectives of this clause are as follows:

(a) *to conserve the environmental heritage of Penrith*

(b) *to conserve the heritage significance of heritage items and heritage conservation areas, including associated fabrics, settings and views,*

(c) *to conserve archaeological sites,*

(d) *to conserve Aboriginal objects and Aboriginal places of heritage significance*

3.0 HISTORICAL BACKGROUND

3.1 Introduction

The following historical background has been derived from Artefact's SoHI report⁴ for the development of the subject site.

3.2 Establishment of Exeter Farm

3.2.1 James Badgery

The land in which the study area is located was first granted to the English migrant, James Badgery. Hailing from Devonshire, he was one of the few free settlers to migrate to New South Wales in the late eighteenth century, having migrated to Sydney in 1799.⁵ With the possible support of Sir Joseph Banks, Badgery sailed into Sydney aboard the supply ship the *Walker*, alongside his later patron Colonel William Patterson. Badgery, before sailing for Sydney, had spent time on Bank's Spring Grove Estate with Patterson. Upon arrival in Sydney, Badgery quickly demonstrated an aptitude to both farming and grazing, renting land along the Hawkesbury River where he established a small farm and bakery. At the time of the 1802 muster, Badgery had 6 acres and 13 goats, expanding in 1803 to 39 acres.

In 1808, Governor Bligh was disposed from his position by the NSW Corps and John Macarthur. Badgery had supported the removal of Bligh, presumably because of Bligh's reluctance to grant additional land to free settlers such as himself. He travelled to Sydney from the Hawkesbury to witness the arrest of Bligh, taking his four-year-old son with him. Colonel Patterson, who replaced Bligh as governor, rewarded Badgery for his support by providing him an inn licence and three grants of lands allocated to his children: 240 acres to his daughter Ann which was called Exeter Farm; 200 acres to his son Henry, to be called Heavy Tree; and 200 acres to his son Andrew.

In November 1810, the newly appointed Governor Macquarie visited Exeter Farm. The purpose of his visit was to evaluate the improvements made to the land so as to determine if the land title should be permanently transferred to Badgery. Officials in London did not recognise the grants made under the 'rebel' administration of Patterson, and Macquarie had been instructed to repeal Patterson's grants unless sufficient improvements had been made to the land. However, Governor Macquarie was impressed by the improvements made at Badgery's Farm, writing in his journal how he:

*Called first at Badgery's Farm close on the left Bank of the South Creek, where I was much pleased to find a good Farm House built, a good Garden, and a considerable quantity of ground cleared.*⁶

In 1812, Badgery wrote to Macquarie to describe the improvements of his farm to further his claim for full title of the land. Badgery described the farm as being enclosed with a good fence, that the land had been subdivided into nine paddocks with stockyards, and that a large garden had been

⁴ Artefact May 2019. *Elizabeth Enterprise Precinct Stage 1, Non-Aboriginal Statement of Heritage Impact*. Report prepared for Mirvac. pp. 14 – 35.

⁵ Biographical information about James Badgery and his immediate family are drawn mostly from Bobbie Hardy, *From the Hawkesbury to the Monaro: The Story of the Badgery Family* (Sydney: Kangaroo Press, 1989); another useful source on the history of Exeter Farm is Beverley Donald and Bill Gulson, *A Little Bit of Country: an Oral History of Badgerys Creek* (Sydney: Alken Press, 1996)

⁶ Lachlan Macquarie, 1979 *Lachlan Macquarie: Governor of New South Wales Journals of His Tours in New South Wales and Van Diemen's Land*. Sydney, NSW. p. 19.

established by the house. The improvements satisfied Macquarie, and title was conferred upon Badgery for the land Patterson had granted to his children.⁷

The whole 640 acre land grant that had been provided to his three children was renamed as a whole 'Exeter Farm'. This area was located in Claremont Parish and was bounded by South Creek to the east, a road easement to the south, and a tributary of South Creek to the west. Nicholas Bayley's 680 acre grant was located to the north near the confluence of a small tributary into South Creek. Later, the tributary was renamed 'Badgery's Creek'. The road easement to the south has been called Elizabeth Drive since 1964, but prior to that was variously called 'Mulgoa Road', 'Orphan School Road', or simply 'from The Northern Road'.

3.2.1.1 Exeter Farm land-use during Badgery family ownership of the property

James Badgery's primary occupation of Exeter Farm involved raising and driving cattle to be sold at market, either in Sydney itself, the government stores in Parramatta or the newly established town of Liverpool. Early use of the property consisted of land-clearing of vegetation to provide pasturage to increase the quantity of cattle that could be raised there. Badgery was keenly interested in horse racing, and Exeter Farm into the nineteenth century also became well known as stud breeding farm.. Badgery's major occupation remained in meat tendering, however, and he was listed in the Sydney Gazette as one of the suppliers of fresh meat in the colony. In July 1817, James Badgery was noted to have supplied to the Deputy Commissary General a large of fresh meat to 'His Majesty's Stores'.⁸ In this article, Badgery was referenced as living at South Creek. With the phasing out of the government meat tendering system during the 1810s, James Badgery started selling his cattle directly to a private butcher, Roberts and Hill.⁹

The business partnership with Roberts and Hill proved to be lucrative to both parties. As demand for his cattle increased, Badgery petitioned Macquarie for additional land grants. In a letter written to Macquarie in 1819, Badgery wrote of Exeter Farm as being "totally enclosed with a good fence, subdivided into nine paddocks. There was a large garden, stockyards, more cultivated area than the terms of his grant stipulated, with good buildings and equipment."¹⁰ During the 1820s, Badgery sought to increase his holdings around South Creek, buying out other local farmers, alongside developing new holdings at Sutton's Forrest in the Southern Highlands and in the Illawarra in the south of Sydney. In 1820, James Badgery requested more land from Governor Macquarie, writing that with 450 cattle, 650 sheep and 16 horses, the 1300 acres he had thus far acquired in Bringelly and Sutton's Forrest was not enough for his growing herds of livestock, and that additional land, particularly in the Illawarra, was needed for continued economic growth.

Badgery's interest in horse racing and horse breeding was well known, with references to Badgery's horses winning races at Hyde Park as early as 1811.¹¹ Badgery was also involved in the earliest races of the Sydney Turf Club in 1825, the year that club was formed. Badgery's horse Hector is listed as winning the second race of the St Patricks Day horse racing at Bellevue Hill.¹²

Dairy farming, a theme in the twentieth century history of Exeter Farm, was established at the property before it was placed on the market by the Badgery and Roberts families in 1869. The auction notice for Exeter Farm in 1869 notes that the property had at that time a good reputation as a dairy farm.¹³ During later subdivisions, advertisements in newspapers emphasised the suitability of the land

⁷ Donald and Gulson, 1996. 'A Little Bit of Country: An Oral History of Badgerys Creek'. Liverpool City Council, p. 4

⁸ The Sydney Gazette and New South Wales Advertiser Saturday 14 June 1817, p.1

⁹ Hardy, 1989, p. 30

¹⁰ Hardy, 1989, p. 27

¹¹ Donald and Gulson, 1996: p. 4

¹² The Sydney Gazette and New South Wales Advertiser Thursday 24 March 1825, p.2

¹³ The Sydney Morning Herald, Wednesday 3 February 1869, p. 7

for raising cattle. With the advent of electrical refrigeration and motorised tractors, the land became increasingly viable for dairy production in the early to mid-twentieth century.

3.2.1.2 Built structures at Exeter Farm during Badgery family ownership of the property

In 1809, shortly after being conferred the land at South Creek by Patterson, Badgery built a temporary wattle and daub building into which he relocated his family from the Hawkesbury area. It is likely that William Badgery, born 1 December 1809, was born in the wattle and daub structure at Exeter Farm.¹⁴ This wattle and daub building was utilised while a more substantial brick farmhouse was constructed. The year in which the brick farmhouse on the property was completed is unknown, with Donald and Gunson suggesting the brick structure was completed by 28 November 1810 when Governor Macquarie visited the property with Gregory Blaxland.¹⁵ Hardy however suggests that it would likely have still been a wattle and daub construction at the time of Macquarie's visit.¹⁶

By 1812, there is sufficient evidence to indicate that the brick house had been completed. In a Sydney Gazette article, Ann Badgery, the daughter of James, is reported to have been bitten by a snake when passing between the kitchen and the back skillion.¹⁷ This suggestion of a kitchen and back skillion indicates the possibility of a more formal farm house being present on the property. It is likely that the brick structure was built from local bricks, featuring a hipped roof. It is unknown if the structure was furnished with a verandah; we do know that beneath the footings two English farthings dating to 1799 were placed, and a hearthstone was potentially made of stone from England that had been brought to Sydney as ship's ballast.¹⁸ These finds were made in 1973 when Margot Badgery, the wife of a great-great grandson of James Badgery excavated the foundations of the original homestead with members of the Nobbs family who at the time owned Exeter Farm.¹⁹ There is also reference to some of the bricks and a part of the hearthstone being retrieved and used as part of a memorial to the Badgery family at Badgerys Creek School.²⁰

The early built structures of the farm would have included a number of dwellings to house convict workers. The farm made use of convict labour, and at least one convict dwelling was located near the farmhouse. Other structures likely to have been located near the farmhouse possibly include smaller ancillary structures for workers and at least one shed or hay barn. A description of a violent event that occurred at the property on 23 November 1823 provides some information on the type of structures present around the farmhouse. On the evening of 23 November, a fight broke out in the convict quarters. Bob Redmond, the overseer, was mentioned as residing in a separate hut near the back gate, and becoming involved in the fight.²¹ Also mentioned was Edwards, a blacksmith who fought with James Badgery's son, Henry, as he attempted to restore order by forcing Edwards back to his own hut.²² Jack Molloy, a possible convict, who died of injuries sustained during the fight, was found next to the cow-bails in the barnyard.²³ This event provides some evidence for the following structures around the farmhouse section of the property:

¹⁴ Hardy, 1989. 'From Hawkesbury to the Monaro: the Story of the Badgery Family'. Kangaroo Press, p. 19

¹⁵ Donald and Gulson, 1996, p. 4

¹⁶ Hardy, 1989, p. 21

¹⁷ The Sydney Gazette and New South Wales Advertiser Saturday 2 May 1812, p. 2

¹⁸ Hardy, 1989, p. 21

¹⁹ Donald and Dunson, 1996, p. 4

²⁰ Hardy, 1989, p. 21

²¹ Hardy, 1989, p. 32

²² Hardy, 1989, p. 32

²³ Hardy, 1989, p. 33

- The family homestead
- A convict quarters
- A small residence/ hut for Bob Redmond, the overseer
- A small residence/ hut for the blacksmith Edwards and his wife
- A barnyard.

A larger and more substantial brick house with wrap-around verandah and two chimneys was demolished in 2006. A series of 37 photographs of the farm house, sheds and surrounds was taken in 1995. From these photographs, inferences can be made about the possible build date for the structure. For instance, we can determine the structure consisted of a hipped roof structure with a verandah supported by brick supports and brick balustrade that had possibly replaced earlier wooden posts. The exposure of existing photographs for the house provides limited visibility of the house façade, however the window and chimney details suggest construction in the second half of the nineteenth century. As such, it is unlikely that this structure was Badgery's farmhouse.

A 1955 aerial photograph of the property shows a smaller hipped roof structure located several metres from the rear of the later brick homestead. It is possible that this structure was the original farmhouse, which was joined under a short covered passage to the later farmhouse. Any verandah(s) and skillions appear to have been removed when the larger adjacent house was constructed. The smaller structure, potentially the original farmhouse, was demolished before 1961, as the second aerial photograph indicates. Further, this image also indicates the presence of a rear verandah extended around the house with two skillions added; one possibly functioning as a kitchen. This phasing for demolition of the smaller structure between 1955 and 1961 supports the timing of the Nobbs family excavation of the footings in 1973.

During preparation of this report attempts were made to better locate the area in which the farmhouse was located on Badgery's property during the early years of the nineteenth century. A search through the land records held in the State Archives and State Library of New South Wales was undertaken. From the correspondence of the colonial secretary, there is a copy of a letter sent to James Badgery in 1818 notifying that James Meehan, the assistant surveyor, was planning to pass through his property in early 1819 with the intention of surveying his property, along with the farms nearby.²⁴ The purpose of Meehan's visit was to consolidate the boundaries between different farms to ensure accurate, precise records of the boundaries between properties were maintained. After consulting Meehan's sketch and field books, only passing mention was made of James Badgery's farm on South Creek, and little information was given on the location of possible structures.²⁵ Further research was conducted in locating other references to the property in the State Archives such as the primary application packet and older maps.²⁶ Whilst these illuminated the history of the land transfer of the property, no map or plan other than the crown plan in figure 20 was found to contain structures.

²⁴ Ancestry.com. *New South Wales, Australia, Colonial Secretary's Papers, 1788-1856* [database on-line]. Provo, UT, USA: Ancestry.com Operations, Inc, 2010 p. 19617.

²⁵ Surveyor General sketch book folio 1-133 [extracted material] SA Reel 2782; NSW Surveyor General Field-book Number 137, Location 2/4789 SA Reel 2623. Both references are for Meehan's 1817-1819 tour of New South Wales.

²⁶ NSW State Archives, Primary Application – Henry Horton, Parish of Claremont County of Cumberland PA 24574; The Old Rolls reference in the Parish Maps are available as aperture cards. C320 – 1688; S331 – SZ442, S288 – SZ438

3.2.2 The Badgery and Roberts family

The Exeter Farm land grant, as issued by Governor Macquarie, was in the possession of James Badgery until his death in 1827. Badgery died on 1 December 1827, aged 58, and was buried in St. Luke cemetery, Liverpool.²⁷

Following James' death, Elizabeth Badgery stayed at Exeter Farm until 1839, when she relocated to a property managed by Andrew Badgery near Braidwood, also called Exeter Farm. Elizabeth remained at that property until her death in 1849.²⁸ Henry Badgery moved to the family's Spring Grove Property at Sutton Forest, where he died in 1880. James Badgery's son, James, moved to an adjacent property, 'Woodbine Cottage Estate', where he died in 1844 at the age of 32.

The Badgery and Roberts family were close associates in horse racing and livestock, with Andrew Badgery being close friends with William Roberts.²⁹ James Badgery had a successful business partnership selling his cattle to William Roberts father, a butcher in Castlereagh Street in Sydney. In 1823, Ann Badgery married William Roberts, and this contributed to the Roberts family becoming more involved in the management and ownership of Exeter Farm. William Roberts' brother, Thomas Roberts, is referenced frequently in later advertisements and notices relating to Exeter Farm. William Robert's brothers included Charles Roberts and Thomas Roberts, both of who are referenced in future advertisements and notices relating to Exeter Farm.

Although living at and managing Exeter Farm near Braidwood, it appears that Andrew Badgery was involved in the management of Exeter Farm, South Creek following James' death in 1827 and Elizabeth's move to Jembaicumbene in 1839. Andrew placed an advertisement in 1848 states that Exeter Farm, consisting at that time of 900 acres, was to be leased, following the expiry of the current ten year tenure by Thomas Roberts.³⁰ In 1853, Charles Roberts is described as purchasing from Andrew Badgery the adjacent property, Woodbine Cottage Estate.³¹

In 1853 Thomas Roberts of Exeter Farm, South Creek, published a number of notices in The Sydney Morning Herald cautioning shopkeepers that he would not be responsible for any goods procured on his account without his express written authority.³² This was mostly directed to his son, Charles Hutchinson Roberts, who was freely using his father's credit for his own ends.³³ In 1855 Thomas Roberts purchased a hotel in Parramatta, "The Red Cow", with the intention of residing there.³⁴ Thomas Roberts is recorded as passing away at that property in 1858 at the age of 48, and buried in the family vault in the Old Burial Ground, Sydney.³⁵ He was noted as being a promoter of 'turf pursuits' and improvement of 'colonial stock'.

In 1856 there is record of Charles Hutchinson Roberts'³⁶ wife giving birth to a daughter at Exeter Farm, South Creek in 1856.³⁷ In 1859 Thomas John Roberts³⁸ instructed an auctioneer to sell all his

²⁷ The Sydney Gazette and New South Wales Advertiser Friday 7 December 1827, p.3; Nepean Times, Saturday 1 October 1932, p. 6

²⁸ Western Sydney Libraries, accessed 24 March 2019, <http://www.westernsydneylibraries.nsw.gov.au/westernsydney/james.html>

²⁹ Hardy, 1989, p. 32

³⁰ The Sydney Morning Herald, Monday 23 October 1848, p. 4

³¹ Accessed 26 March 2019: https://research-data.westernsydney.edu.au/redbox/verNum1.9/default/detail/64a2d42b042b2b209beb0eb589ca5501/SouthCreekListon_final.csv

³² The Sydney Morning Herald, Thursday 17 November 1853, p. 2; *Ibid* Tuesday 22 November 1853, p. 2

³³ The Sydney Morning Herald, Sat 26 Nov 1853

³⁴ The Sydney Morning Herald, Thursday 25 October 1855, p. 8

³⁵ Bell's Life in Sydney and Sporting Reviewer, Saturday 17 April 1858, p. 2

³⁶ Born 1833, son of Thomas Roberts and Hannah Hutchinson

³⁷ The Sydney Morning Herald, Saturday 13 December 1856, p. 1

³⁸ Born 1831, son of William Roberts and Ann Badgery

stock and farm implements, including thoroughbred horses, saddles and cart horses, cows and pigs.³⁹ However, Charles' debts were not entirely absolved through these sales, and in 1861 insolvency proceedings were initiated by his creditors. He was able to retain his interest in Exeter Farm, but some of the other properties in Charles' name were sold.⁴⁰ Mr Roberts was asked to show cause as to why his property should not be placed under sequestration for the benefit of his creditors.⁴¹ His property is described as household furniture, farming implements, hay and other miscellaneous farm goods.

Thomas Roberts had been in possession of Exeter Farm, according to one advertisement in the Sydney Morning Herald, since 1838. The advertisement read of two properties, Melton and Exeter Farm, both situated on South Creek, that were to be let by Thomas Roberts who had been in possession of both for the last ten years. The estate of Exeter Farm, "comprising of 900 acres, of which 300 are cleared, and all fenced in." Inquiries were directed to Andrew Badgery at the Saracen's Head Inn, on King St and Sussex St. It is most likely that Exeter Farm was operated by both Thomas Roberts and Andrew Badgery at this point.

3.2.3 Later Ownership and Subdivision of Exeter Farm

In 1855, the trustees of Thomas Roberts' estate sold Exeter Farm. It was purchased by James Boyd McKaughan purchased the farm at this time, as he had other interests in the area. Upon McKaughan's death in 1893, it was sold to Henry Penton Stivens, who lived at Exeter Farm between 1906 and 1915. Alongside the engineer Ern Kent, who purchased nearby land to Exeter Farm, they worked the farm together to sell grapes and wheat alongside dairy cattle.

In 1893, the advertisement for the sale of Exeter Farm read "One thousand one hundred and fifteen acres, having frontages to Mulgoa Road and Western Road, and well-watered by Badgery and South Creeks. The property is fenced and divided into paddocks, portions of which are cleared, and some portions have been cultivated. There are 2 cottages and outbuildings on the estate."⁴² The advertisement was aimed at dairy farmers, graziers and speculators. It was around this time larger estate became broken into smaller farms for sale. One such advertisement indicates the plan of the subdivision. Lack of a railway into the area did discourage many people from settling into the area. In the aftermath of the First World War, some of the land was again subdivided as part of the resettlement for returned soldiers.

In 1920, Exeter Farm and the surrounding farm land was sold by the Lands Department to Huie Clarence Bowden as part of the Solider Settlement Scheme that had been implemented since 1916 to give returned soldiers access to country land at affordable prices.⁴³ Huie Clarence Bowden had enlisted in the 34th Australian Infantry Battalion in August 1915, where he possibly fought in the battles of Amiens and Villers Bretonneux. Bowden then returned to Australia and was discharged on the 6 May 1919 with the rank of corporal.⁴⁴ Bowden did not farm for long at Exeter Farm; he sold the farm to Ern Kent in 1921, possibly due to the difficulties of getting dairy products to market.

In 1946, Kent sold his share of the farm to Mervyn Jospeh Nobbs, who had in the preceding years rented farm land in Exeter for their dairying. The Nobbs family retained the farm throughout the twentieth century. Nobb's young son remembered during the Second World War the construction of

³⁹ The Sydney Morning Herald, Saturday 8 January 1859, p. 11

⁴⁰ The New South Wales Government Gazette, Friday 26 September 1862, p. 1851.

⁴¹ Empire, Saturday 5 October 1861, p. 5

⁴² The Sydney Morning Herald. Sat 1 April 1893

⁴³ A Land fit for Heroes? A History of Soldier Settlement in New South Wales, 1916-1939

<<https://soldiersettlement.records.nsw.gov.au/>> Accessed 30.4.2019

⁴⁴ Corporal Huie Clarence Bowden', < <https://www.awm.gov.au/collection/P10703866> > Accessed 30.4.2019

the nearby Fleurs airstrip which almost caused the demolition of Exeter Farm house because it was under the flight path.⁴⁵

Figure 2: Ploughing on the Nobbs farm, note the later nineteenth century brick farmhouse at Exeter Farm in the background.



⁴⁵ A Little Bit of Country, p. 42.

4.0 ASSESSMENT OF ARCHAEOLOGICAL POTENTIAL

4.1 Introduction

This section discusses the study area's potential to contain historical archaeological resources. The potential for the survival of archaeological remains is significantly affected by activities which may have caused ground disturbance. This assessment is therefore based on consideration of current ground conditions, and analysis of the historical development of the study area.

'Archaeological potential' refers to the likelihood that an area contains physical remains associated with an earlier phase of occupation, activity or development of that area. This is distinct from 'archaeological significance' and 'archaeological research potential'. These designations refer to the cultural value of potential archaeological remains and are the primary basis of the recommended management actions included in this document.

4.2 Historical overview of the study area

Based on historical research and aerial imagery for the Exeter Farm site, construction and demolition events within the study area are summarised in Table 1.

Table 1: Overview of historic land use and associated structures in the study area

Date	Structures in study area
c.1809	Construction of wattle and daub residence. It is possible that this included the construction of basic amenities, including a separate kitchen, skillions, outbuildings and wells/cisterns. It is assumed that this period would also have seen the clearing of area around the house for later construction of Exeter House, construction of fencing and establishment of gardens. The study area would initially have required vegetation clearing. Land clearing activities are typically archaeologically ephemeral, as is the use of partially cleared land for grazing of livestock.
1810 - 1812	Enclosure of the land with fencing, divided into paddocks with stockyards and a large garden by the house.
1823	Description of the property as comprising a convict quarters, hut for the overseer near the back fence, hut for the blacksmith and his wife, Exeter Farm farmhouse, and a barn.
1869	Description of the property as a notable dairy farm in the area
1920	Crown plan made, property briefly used as part of the Soldier Settlement Scheme
c.1930	Construction and improvement of buildings for continued dairying operations
c.1955-1961	Possible date for the demolition of the original brick farmhouse
1973	Excavation of a part of the footings of the original farmhouse by the land owners at that time (Nobbs) and descendants of the Badgery family. The two 1799 English farthings placed under the foundations by James and Elizabeth Badgery were retrieved during these works. The precise location of this building was not clearly identified.
Pre September 2006	Later brick farmhouse and remaining farm structures demolished.

Based on this chronology of structure and development within the study area, the use of the site has been divided into the following phases outlined in Table 2.

Table 2: Historical phases of land use in the study area

Phase	Date	Historical activities
Phase 1: Badgery Land Grant	1809 – 1839	Land grant to James Badgery, land clearing, construction of original wattle and daub residence, brick farmhouse, blacksmith workshop, convict accommodation and farm sheds.
Phase 2: 19th C. Dairy	1840 – 1920	Property is taken up by the Roberts family and is known to be a notable dairy by the 1860s. The brick farmhouse (demolished in 2006) was constructed during this time to replace the original brick farmhouse as the primary residence.
Phase 2: 20th C. Dairy	1921 - 2006	Brief use as part of Soldier Settlement Scheme, owned by Kent and Nobbs families as an active dairy during this time. The western annex to the late 19 th c. farmhouse and possible brick cottage in the northern paddock are demolished in the late 1950s
Phase 4: Modern use	2006 – present	Residential buildings, sheds and barns demolished, and the property used for agistment.

4.3 Results of site inspection

4.3.1 Site inspection methodology

A site inspection was conducted for the preparation of the SoHI report for the Elizabeth Avenue project in 20 March 2019. This site inspection was conducted by Alyce Haast (Senior Heritage Consultant) and Ryan Taddeucci (Senior Heritage Consultant) of Artefact Heritage.

Following analysis of historical aerials and crown plans, a second site inspection was conducted on 3 July 2019 to further focus on locating any surface evidence for archaeological remains. This site inspection was conducted by Duncan Jones (Senior Heritage Consultant) and Jacob Mark (Historian) of Artefact Heritage.

The July 2019 site inspection also included Beverley Donald (Local Historian, Liverpool). Beverley had previously been shown the location of the 1973 investigation of the former Badgery family homestead and accompanied Artefact Heritage personnel in trying to ascertain which location the site was located on in the property. Unfortunately, due to the demolition and replacement of farm structures on the site over the last several decades, Beverley and the Artefact team were not able to conclusively locate the site of the former house.

The SoHI report for the project has provided a general description of the whole of the Elizabeth Drive study area.⁴⁶ The following site inspection discussion provides the results of specific areas in the western portion of the property where surface information for archaeological remains were identified. Two areas where potential archaeological surface remains were identified are discussed in the subsections below.

⁴⁶ Artefact May 2019, pp. 36 – 38.

4.3.2 Stone remains in northern paddock

A single square and weathered sandstone fragment was identified on the ground surface located in a paddock to the north of the existing structures on the site. This sandstone was approximately 25 cm by 15 cm in horizontal size (Figure 3). This fragment was located in an area that was near the location of a suspected former brick cottage in this area.

The sandstone was located on the northern edge of a small and relatively level spur crest (Figure 4). It is noted that no natural sandstone was identified on the ground surface of the site and it has been presumed that this stone has been brought into the site. It is uncertain whether this stone represents evidence of a former structural feature such as a demolished building or whether it represents evidence of former fencing or pens.

Figure 3: Sandstone on ground surface, south aspect



Figure 4: View of edge of spur crest where sandstone was located, southeast aspect



4.3.3 Brick remains in eastern paddock

Several orange clay machine pressed bricks were identified near a surface exposure scar in a paddock to the east of the existing structures at the site (Figure 5). These orange clay bricks imply that they were constructed out of local clays, however the regular frogs and pressing indicate a late nineteenth to early twentieth century date. Whole brick and brick fragments were identified across an area of approximately 15 m by 10 m (Figure 6).

The surface exposure scar was approximately 4 m in length and would likely have been caused by recent ground excavation, possibly for geotechnical investigation on the site.

Three young non-native tree plantings were identified to the south-east of the surface exposure and brick remains (Figure 7).

The bricks are likely related to the late-nineteenth century farmhouse which was demolished in 2006. Plantings located near the site of the former house however are not present in aerial imagery prior to 2002 and these are not considered to be historic plantings. Aerial imagery from the 1950s to the 1980s shows that fencing which surrounded the former house was located much closer to the former structure than present paddock fencing is today.

Figure 5: Surface bricks and surface exposure in eastern paddock, southwest aspect.



Figure 6: Detail of orange-red clay brick, southwest aspect.



Figure 7: Tree plantings (at left of image) and uneven ground in location of former late nineteenth century homestead. South-west aspect.



4.4 Discussion of previous land disturbance

While the history of the study area could have produced a range of archaeological evidence related to former activities and phases, the likelihood of such evidence surviving to the present is influenced by a range of factors. These factors include the durability of the material evidence and subsequent impacts such as demolition and construction.

The available historical sources provide evidence for an extensive domestic establishment and associated agricultural landholding that evolved through time to support a variety of agricultural activities including horse breeding, cattle and sheep grazing and dairying.

From 1809 to the present, the study area has been associated with rural and agricultural related activities. It has however undergone several changes of use, initially being utilised for cattle grazing and then dairying. Previous impacts identified within the study area include:

- Vegetation clearance throughout the majority of the subject site from 1809 onwards
- Construction of a larger brick farmhouse, likely in the mid to late nineteenth century
- Adaptation and modification of the earlier farmhouse
- Construction of mid-twentieth century farm buildings and structures (e.g. c1930s dairy improvements)
- Adaptation and modification of earlier outbuildings
- Landscape gardens, tree plantings, ground modification and machining
- Excavation of at least a portion of the footings of the original farmhouse in 1973 by the landowner and descendant of the Badgery family
- Recent impacts such as demolition of the original farmhouse and associated structures, and construction of pens, fencing and sheds.

Based on the history of these events, these activities would not be expected to produce extensive ground disturbance. These types of activities would cause either highly localised or generally shallow or surface-level ground disturbance across the site. None of these activities would be considered likely to have entirely removed any archaeological remains that may be present within the study area.

4.5 Identification of former structures and assessment of archaeological potential

4.5.1 Historical evidence from crown plans and aerial photography

A number of written sources give partial descriptions of the Badgery farm property for select events during the nineteenth century. However, no plans of the property from the nineteenth century show the location of any structures on the land and are limited to boundary maps for parish and land ownership records.

The first crown plan to provide evidence of structures is dated from 1920 when the property was used as part of the Soldiers Settlement Scheme. While the structures indicated on this plan generally correlate with known structures present on the property in 1955, the locations on the crown plan for these structures do not align with the aerial imagery; apart from the lot boundaries for the whole property, the information on structures on this plan are considered to be indicative and do not seem to be precisely surveyed in.

Aerial imagery is available for the property from the following periods – 1955, 1961, 1970, 1982, as well as approximately 40 publicly available aerial images between 2002 and 2018. These aerial images show the progressive demolition and replacement of a number of structures on the property over this time.

Archaeological mapping of the location of former structures has principally been derived from these aerial images to provide spatial resolution. Crown plan information and historical accounts have been used to provide contextual information for the use of these structures. However, the use and re-use of structures at the site have been implied from these mid- to late-twentieth century aerial images.

Because of this, the location of former historical structures which may have been removed from site prior to the drawing of the crown plan in 1920 and the taking of the 1955 historical aerial photograph is unknown. Due to the size of the property and area of archaeological investigation, a testing program cannot be meaningfully developed for greenfield excavation in areas where no evidence for structures exist.

The presumption of re-use of buildings has also meant that buildings which may not be of archaeological value (such as mid-twentieth century farm sheds and pens) would be investigated during archaeological testing to ascertain whether these buildings represented original farm buildings which had been repurposed or continued in use over time.

The 1920 crown plan for the property, with the indicative location of structures on it, is provided in Figure 8. Historical aerial images from 1955, 1961, 2006, 2009 and 2018 are provided in Figure 9 to Figure 13. The crown plan and aerial imagery provides a clear sequence of mid- to late-twentieth century construction, modification and demolition of structures, which are referenced in specific cases as part of the archaeological assessment outlined in Section 4.5.

Figure 8: 1920 crown plan



Figure 9: 1955 aerial imagery



Figure 10: 1961 aerial imagery



Figure 11: Google Earth historical aerial imagery, 17 April 2006

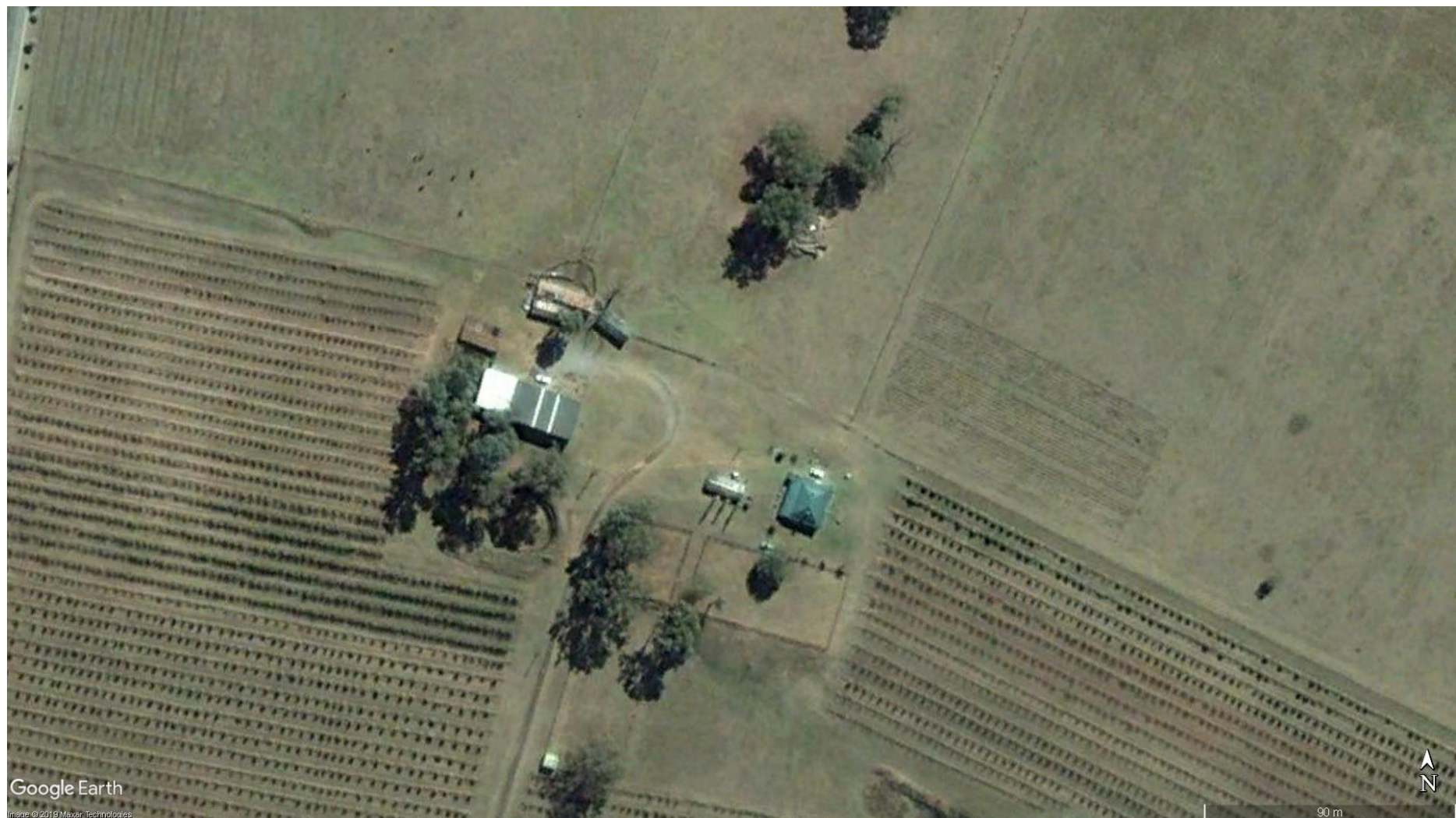


Figure 12: Google Earth historical aerial imagery, 30 June 2009

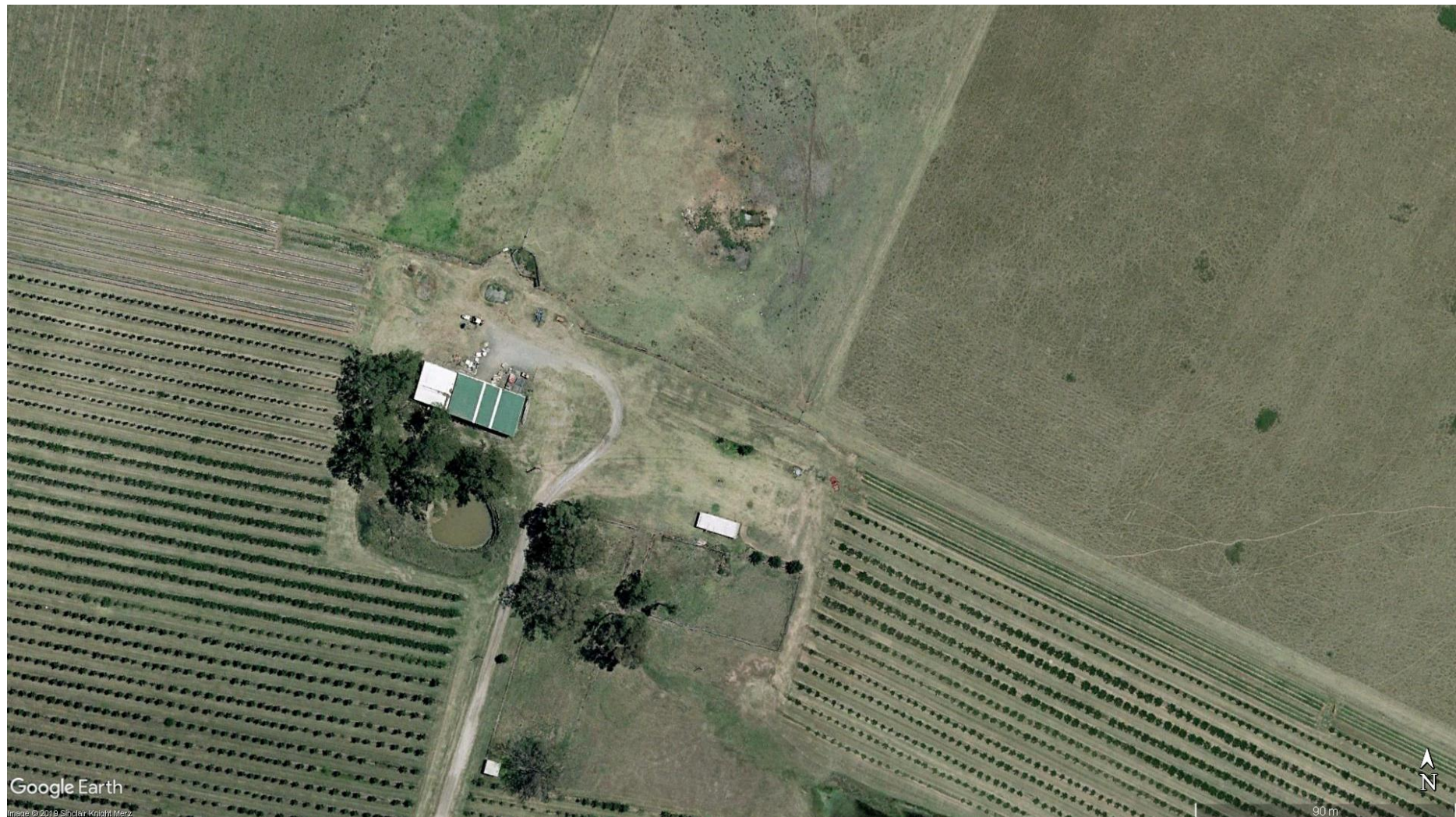


Figure 13: Google Earth historical aerial imagery, 3 December 2018



4.5.2 First residence (wattle and daub hut) of James Badgery

James Badgery received the South Creek land grant from Colonel Paterson in 1809, on which it was known he commenced land clearing and constructed a wattle and daub building as his first residence on the property. This original wattle and daub building was replaced in either 1810 or 1812 with a 'brick cottage' which became the new primary residence for James Badgery and his family.

It is uncertain when the wattle and daub structure was demolished, and it is possible that it continued in use after the construction of the brick cottage as a farm shed or as worker's accommodation from this time. However, the earliest historical plans showing structures for the site, which date from the 1920s, do not indicate the presence of any more than two residences and it is considered unlikely that the building was present at this time.

Archaeological remains associated with early wattle and daub buildings may consist of former earthen packed floor surfaces and timber posts and post-holes. Artefact scatters, brick or stone chimneys, hearths or fireplaces, as well as outhouses and remnant water supply cisterns may also be present associated with this early residential structure. In the context of the long use of the site as a dairy farm and the history of demolition and construction of buildings at the site, the likelihood for the preservation of remains associated with the wattle and daub residence are considered very low. As the precise location of this building cannot be ascertained from historical sources, the archaeological potential for identifying the relatively insubstantial remains associated with the wattle and daub first residence of James Badgery is considered **nil to low**.

4.5.3 First Exeter House of James Badgery

The precise location of the former brick farmhouse constructed by James Badgery between 1810 and 1812 is uncertain and two potential locations have been proposed. The potential locations of this former farmhouse are shown in Figure 14, and the two possible locations are discussed below.

4.5.3.1 Northern location

A brick farmhouse was constructed between 1810 and 1812 to replace the use of the early wattle and daub building for James Badgery and his family. This building remains in use as the primary residence of the Badgery family until the property was sold to the Roberts family from 1838, and it is likely that this house continued in use as the primary property residence until a new farm house was constructed on the site at some point in the late 1800s.

The 1920 crown plan of the site shows that there is a building labelled as a 'brick cottage' located on the northern portion of the hill crest at that time. The earliest historical aerials available for the site in 1955 also show a small building in the location of where the 'brick cottage' was, with a small animal pen located on its northern side. It is possible that the former brick cottage was repurposed as an animal pen or shed once it ceased to be used as a residence in the late 1800s.

During the archaeological site inspection on 3 July 2019, a small shaped sandstone flagstone was identified on the ground surface at a location roughly approximate to the former location of this brick cottage / animal pen. This may represent a former portion of a building footing, or it may be associated with the former pen located to the north of the former structure.

However, evidence to confirm that this former brick cottage was the original brick farmhouse from 1810 – 1812 remains ambiguous. Should this location not have been the original brick farmhouse of James Badgery, this building may instead have been worker or convict accommodation, or possible one of the workshops described in the 1820s. While the building seems to have been used as a livestock pen from the 1950s it is not considered likely that a brick building rather than a timber

structure would have been used a purpose-built animal pen and it is presumed that this brick building was adapted to this use from its former role.

Aerial imagery indicates that this building was demolished between 1961 and 1965. The timing of this demolition means that it is possible that this was the site that the Badgery and Nobbs family excavated in 1973.

Archaeological remains associated with this former structure are considered likely to remain, although it is uncertain the degree of subsurface intactness of any buried remains. Archaeological remains related to this former building (whether brick residence, worker's cottage or former workshop) are considered to have **low to moderate** potential to remain.

4.5.3.2 Southern location

Aerial imagery from 1955 indicates the presence of a small hipped roof structure located to the west of the late-nineteenth century farmhouse. This building was connected to the late-nineteenth century farmhouse with a small annex connection. It is possible that this building is a skillion building, however the annex connection also implies the possibility that this is the earlier 1810 farmhouse which was incorporated into the new farmhouse building when it was constructed in the late 1800s. This building is indicatively present on the 1920 crown plan for the property where it is included in the description of the buildings as "House & Kitchen".

Circumstantial corroboration for this area continuing in use as the site for the permanent residence of the landowners of the property include the reference to a large 'good garden' in proximity to the house which may be represented a fenced lot located directly to the north of the houses in the 1950s and 1960s. This site for the house location also has a better overlook to the east facing towards South Creek.

Should this building not be identified as the former original 1810 – 1812 brick farmhouse for James Badgery, it may have functioned as a later kitchen or skillion building for the late-1800s farm house on the property.

Aerial imagery indicates that this building was demolished between 1955 and 1961. The timing of this demolition means that it is possible that this was the site that the Badgery and Nobbs family excavated in 1973.

Archaeological remains associated with this former structure are considered likely to remain, although it is uncertain the degree of subsurface intactness of any buried remains. Archaeological remains related to this former building (whether 1810s brick residence or late-1800s kitchen or skillion) are considered to have **low to moderate** potential to remain.

Figure 14: Proposed locations for former 1810/1812 brick farmhouse of James Badgery



4.5.4 Early farming sheds, convict quarters and early farm infrastructure

Historical accounts indicate the presence of a number of additional buildings on Badgerys farm which date from the early 1810s to 1820s, including a blacksmith's workshop, convict accommodation quarters, farm sheds and fenced cleared paddocks. Historical accounts also describe a 'large' and 'good' garden which was located in proximity to James Badgerys brick house in the 1810s and 1820s.

However, there is little information for identifying the precise location of these structures, and no mapping of their locations were prepared. Relative locations from historical descriptions (such as the convict overseer residing in a hut near 'the back gate' in 1823) cannot be clearly discerned as the location of the primary structures remains uncertain.

Many of the structures described as located on the site in the 1810s and 1820s are unlikely to have been preserved or repurposed throughout the nineteenth century. The majority of these buildings would have been timber huts and barns, or wattle and daub huts and their continued use for dairying on a working farm into the twentieth century is considered unlikely. Should farm buildings have continued in use from the 1810s/1820s up until the 1920s (when farm buildings are visible on the crown plan of that year), it is considered possible that the renovation and modification to these structures to ensure their continuing use may have removed clear archaeological evidence of the original date of their construction.

Furthermore, vernacular settler and convict architecture of this kind is considered archaeologically ephemeral and is not likely to be preserved below ground. Archaeological remains related to early nineteenth century timber structures and early field improvements would consist of posts and postholes, informal field drains, isolated artefact deposits.

As the precise location of these buildings isn't known, and archaeological remains associated with these buildings are considered to be unlikely to preserve below ground, the archaeological potential for the identification of remains associated with these structures is considered to be **nil to low**.

4.5.5 Second Exeter House

A brick hipped roof house was present on the site from the late 1800s, however it is uncertain the precise date the building was constructed. Photographs and aerial imagery from the 1950s show that this building possessed a wide verandah on at least three sides of the building. 1955 aerial imagery also shows that it was connected to an annex on its western side (which may be the original 1810s brick Exeter House – see Section 4.5.3.2 above). Other modifications were made to the building from the 1950s onwards, including the likely incorporation of new toilet facilities with the removal of an outhouse by 1961. The building was used as the primary residence on the property and was demolished in 2006. A photograph of the building taken in 1995 is shown in Figure 15.

Aerial imagery from 2006 to 2009 shows that the area where the building was located was likely levelled following demolition which may have contributed to the wider dispersal of bricks from the building across the field in which it was located. Archaeological remains related to the second Exeter Farm would be anticipated to consist of brick demolition rubble, brick foundations or footings, concrete pads (associated with later renovations), timber fragments and isolated artefact deposits.

Due to the known location of the former structure and the relative robustness of the materials of the building, the archaeological potential for identifying remains associated with the second Exeter House is considered **moderate**.

Figure 15: Second Exeter Farm House in 1995. Source: Liverpool City Library.



4.5.6 Late nineteenth and early twentieth century farm buildings

Aerial imagery from 1955 through to 2006 shows a number of structures in the vicinity of the second Exeter Farm which may represent buildings present on the 1920 crown plan. Not including the former 'brick cottage' and the second Exeter House and outbuildings (discussed in Sections 4.5.3.1 and 4.5.5 above), one farm shed present on the crown plan may align with structures present in the 1955 aerial.

This shed may represent one of two sheds or stables which were formerly located in the current area of the site laydown area. A photograph from 1995 show the interior of one of these stables (not identified which building) with rough-hewn interior timber mortise and tenon posts and pens (Figure 16). A second photograph from 1995 shows the exterior of two sheds or outbuildings at the same property which were constructed of brick with corrugated metal hipped roofs (Figure 17). Brick buildings identified in the 1995 photographs are identifiable as buildings which do not seem to correlate with the location of the shed indicated in the 1920 crown plan and are likely later constructions. These buildings were demolished in 2006.

The presence of locally constructed interior timberwork in one of the stable buildings could suggest that at least one of the stables was represented on the 1920 crown plan although there is no information to attest when the building would have been originally constructed.

Demolition and clearing in 2006 was a robust activity and the current parking and laydown area in the study area has been likely partially levelled prior to new gravel surfaces being laid. Archaeological remains associated with early timber structures, predominantly remnant posts and postholes, would not likely have survived intact from this ground disturbance. Brick, concrete, metal and timber remains associated with later sheds may have survived the ground disturbing works however. The potential for the identification of archaeological evidence associated with these later remains is **low**.

Figure 16: Interior of Exeter Farm stable in 1995. Source: Liverpool City Library.



Figure 17: Exeter Farm shed and outbuildings in 1995, likely north-east facing aspect. Source: Liverpool City Library.



4.6 Summary of archaeological potential

Table 3 below provides a summary of the potential for identifying intact, legible archaeological remains related to former structures and historical land use described in Section 4.5 above. An overlay of structures identified on the 1920 crown plan, and the 1955 and 1961 historical aerial imagery is provided in Figure 18.

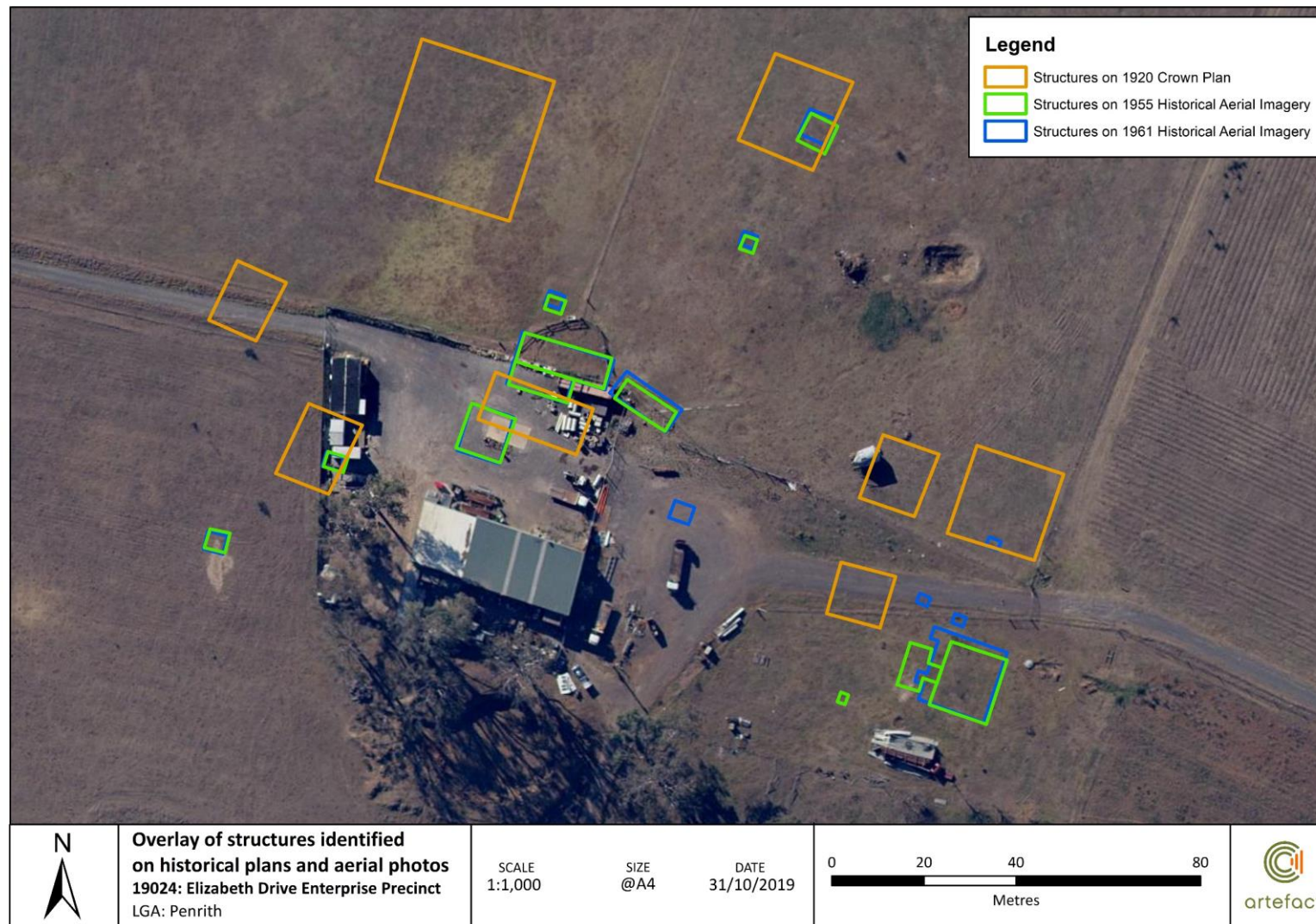
Table 3. Assessment of archaeological potential for the study area

Phase	Known structure/activity	Potential archaeological remains	Survivability	Arch. Potential
Phase 1 Badgery Land Grant (1809 – 1839)	Wattle and daub cottage (first house of Badgery Family 1809 – 1810/1812)	<ul style="list-style-type: none"> • Post holes, rubbish scatters, evidence of beaten earth working surfaces or paving • Evidence of land clearance and cultivation of land, manipulation and use of early watercourse, postholes / working or yard surfaces / occupation or refuse deposits / artefacts / footings associated with early huts, rubbish pits or wells. 	Very poor because of the ephemerality of the deposit	Nil to Low
Phase 1 Badgery Land Grant (1809 – 1839)	<u>Northern Location</u> for the First Exeter House, surrounds and gardens	<ul style="list-style-type: none"> • Evidence of former masonry buildings or structures (brick or stone footings, associated deposits) • Occupation deposits (underfloor accumulations, yard scatters, rubbish pits) • Paving associated with external yard divisions and landscaping • Postholes associated with fence lines • Beaten earth or paved surfaces, hearth, chimney remnants, refuse deposits associated with external kitchen • Evidence of landscaping (such as stone or brick retaining walls, edging, hard surfaces indicating former pathways, stone flagging) • Rubbish pits. 	Poor due to demolition works and potential reuse of the building as farm shed.	Low to Moderate

Phase	Known structure/activity	Potential archaeological remains	Survivability	Arch. Potential
Phase 1 Badgery Land Grant (1809 – 1839)	<u>Southern location</u> for the First Exeter House, surrounds and gardens	<ul style="list-style-type: none"> Evidence of former masonry buildings or structures (brick or stone footings, associated deposits) Occupation deposits (underfloor accumulations, yard scatters, rubbish pits) Paving associated with external yard divisions and landscaping Postholes associated with fence lines Beaten earth or paved surfaces, hearth, chimney remnants, refuse deposits associated with external kitchen Evidence of landscaping (such as stone or brick retaining walls, edging, hard surfaces indicating former pathways, stone flagging) Rubbish pits. 	Poor due to initial demolition in 1950s and later more widespread landscaping following demolition of all structures on site in 2006	Low to Moderate
Phase 1 Badgery Land Grant (1809 – 1839)	Early farming sheds, convict quarters and early farm infrastructure	<ul style="list-style-type: none"> Post holes associated with ephemeral structures such as coops, stalls, stables, stock yard fencing Indicators of natural flooring including areas of compacted earth or paving indicating the location of flooring, occupation or underfloor deposits, hard stands/working surfaces Evidence of landscaping (such as stone or brick retaining walls, garden soils, terracing) Structures typically located in rear yards such as privies, wells, cisterns or cesspits Rubbish pits 	Very poor because of the ephemerality of the deposit	Nil to Low
Phase 2: 19th C. Dairy (1840 – 1920)	Second Exeter Farm House and grounds	<ul style="list-style-type: none"> Evidence of former masonry buildings or structures (brick or stone footings, associated deposits) Occupation deposits (underfloor accumulations, yard scatters, rubbish pits) Paving associated with external yard divisions and landscaping Postholes associated with fence lines Beaten earth or paved surfaces, hearth, chimney remnants, refuse deposits associated with external kitchen Evidence of landscaping (such as stone or brick retaining walls, edging, hard surfaces indicating former pathways, stone flagging) Rubbish pits. 	Reasonable. The structure was only recently demolished (2006) although the scale of earthworks during demolition may have been considerable. Demolition material was identified on the surface although the extent to which intact and legible evidence of the former house remain <i>in situ</i> and not disturbed (<i>ex situ</i> demolition deposits) is unknown.	Moderate

Phase	Known structure/ activity	Potential archaeological remains	Survivability	Arch. Potential
Phase 2: 19th C. Dairy (1840 – 1920) and Phase 3: 20th C. Dairy (1921 – 2006)	Late nineteenth and early twentieth century farm buildings	<ul style="list-style-type: none"> • Posts and postholes associated with timber support posts, walls, pens and fences • Evidence of former masonry buildings or structures (brick, stone or concrete footings, associated deposits) • Paving associated with external yard divisions and landscaping • Beaten earth or paved surfaces, yard surfaces • Isolated artefact deposits • Evidence of landscaping (such as stone or brick retaining walls, edging, hard surfaces indicating former pathways, stone flagging) 	Relatively poor. Buildings were demolished in 2006 involving widespread earthworks. The area was later modified as a gravel car park and laydown area. Demolition and earthworks are considered likely to have removed all evidence of earlier (phase 2) timber structures, although brick masonry (relating to phase 3 structures) may remain intact subsurface.	<p>Nil for archaeological remains related to Phase 2</p> <p>Low for archaeological remains related to Phase 3</p>

Figure 18: Overlay of structures in the study area from the 1920 crown plan, and 1955 and 1961 aerial photographic imagery



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5.0 ASSESSMENT OF ARCHAEOLOGICAL SIGNIFICANCE

5.1 Methodology

This section assesses the heritage significance of the known or potential archaeological remains outlined in Section 4.0. Similar to other types of heritage items, archaeological remains should be managed in accordance with their significance. Assessing the heritage value of archaeological remains is complicated by the fact that their extent and nature is often unknown. Judgement must therefore be based on expected or potential attributes.

The *NSW Heritage Manual* provides the framework for the following significance assessment of the study area. These guidelines incorporate the aspects of cultural heritage value identified in the *Burra Charter* (Australia ICOMOS 2013). The Heritage Branch (now Heritage Division) has also issued the 2009 *Assessing Significance for Historical Archaeological Sites and 'Relics'*.⁴⁷ and the 1996 *Archaeological Assessment Guidelines*.⁴⁸ The assessment of historical archaeological sites requires a specialised framework in order to consider the range of values of an archaeological site.

The most widely used framework is that developed by Bickford and Sullivan and comprises three key questions which can be used as a guide for assessing the significance of an archaeological site:

- *Can the site contribute knowledge that no other resource can?*
- *Can the site contribute knowledge that no other site can?*
- *Is this knowledge relevant to general question about human history or other substantive questions relating to Australian history, or does it contribute to other major research questions?*

The emphasis in these three questions is on the need for archaeological research to add to the knowledge of the past in an important way, rather than merely duplicating known information or information that might be more readily available from other sources such as documentary records or oral history. As a result, archaeological significance has usually been addressed in terms of Criterion (e) of the NSW Heritage assessment criteria that is '*the potential to yield information...*'.

The following assessment of archaeological significance for the study area responds to both the Heritage Branch and the Bickford and Sullivan questions.

5.2 Assessment of significance

5.2.1 Assessment against the NSW heritage assessment guidelines

The significance of the potential archaeological resource, defined as being all potential archaeological remains within a site as identified in Section 4.0, has been assessed using the NSW heritage assessment criteria and described in Table 4.

Further detail on the possible significance of potential archaeological remains is then discussed in relation to the specific predicted archaeological remains within the study area Table 4.

⁴⁷ NSW Heritage Branch 2009

⁴⁸ NSW Heritage Office 1996: 25 – 27

Table 4: Significance assessment for archaeological remains of Exeter Farm

Criteria	Discussion
A - Historical Significance An item is important in the course or pattern of the local area's cultural or natural history	<p>Potential archaeological remains associated with Exeter Farm would have historical significance for its ability to provide information relating to the early European settlement and land use along Badgerys Creek from 1809 onwards. The farm was established and occupied by James Badgery and his family who raised cattle, thoroughbred horses, and cultivated crops. They were well known figures within the colony during this period and continue to be remembered amongst members of the wider Sydney region today. Governor Macquarie is known to have visited the farm in November 1810.</p> <p>Archaeological resources associated with James Badgerys Exeter Farm would be of local significance under this criterion, depending on the degree of intactness and legibility of the remains.</p>
B - Associative Significance An item has strong or special associations with the life or works of a person, or group of persons, of importance in the local area's cultural or natural history	<p>Potential archaeological remains associated with Exeter Farm would be directly related to James Badgery and his family. The land was first granted to James by Colonel Patterson in 1809, and then again by Macquarie in 1812. Macquarie made a visit to the house in November 1810 with Gregory Blaxland. James Badgery would go on to become a prominent landowner and pastoralist in the colony, with the family expanding land-holdings to Spring Grove, Sutton Forest, and through the Roberts family to Exeter Farm. The watercourse 'Badgerys Creek' and adjoining suburb are both named in James Badgery's honour.</p> <p>Archaeological resources associated with James Badgerys Exeter Farm would be of local significance under this criterion, depending on the degree of intactness and legibility of the remains.</p>
C – Aesthetic Significance An item is important in demonstrating aesthetic characteristics and/or a high degree of creative or technical achievement in the local area	<p>Although it is recognised that exposed <i>in situ</i> archaeological remains may have distinctive/attractive visual qualities, only rarely are these considered 'important in demonstrating aesthetic characteristics and/or a high degree of creative or technical achievement in NSW'.</p> <p>The potential archaeological resource associated with Exeter Farm is unlikely to meet the significance threshold for local or State significance under this criterion.</p>
D – Social Significance An item has strong or special association with a particular community or cultural group in the local area for social, cultural or spiritual reasons	<p>Potential archaeological remains associated with Exeter Farm are likely to contain social significance amongst members of the surrounding community, as well as individuals or associations interested in the early colonial history of Penrith and NSW. It is also likely that potential remains would hold significance amongst descendants of the Badgery family and other individuals who lived on the property prior to 2006.</p> <p>If substantial and intact archaeological resources associated with Exeter Farm were found, they may have local significance under this criterion.</p>
E – Research Potential An item has potential to yield information that will contribute to an understanding of the local area's cultural or natural history	<p>Potential archaeological remains associated with Exeter Farm would have the ability to yield information relating to early colonial construction techniques, agricultural practices and pastoral activities (and their evolution) across the site from 1809 to the early 20th century. They may also provide information regarding domestic activities that occurred at the property and the use of outbuildings that may not be included in available documentary resources. The known presence of convict workers on the site may, if artefactual remains related to convict occupation were identified, provide unique material insights into the lifeways of early indentured settlers in western Sydney.</p> <p>The site has the potential to contain intact artefact bearing deposits with the potential to yield significant information regarding the evolving agricultural and pastoral activities of an early homestead in western Sydney. The archaeological resource has potential to yield information relating to the early 19th century construction techniques, and the individuals that occupied that homestead and labour quarters. Intact artefact-bearing structures or deposits, such as wells, rubbish pits and underfloor deposits, may provide an archive of information that may not be able to be ascertained through other historical sources. As the precise location of many of the structures across the property from the early 19th century is unknown, it is possible</p>

that archaeological remains may provide some insight into the early layout of the estate.

Archaeological resources associated with James Badgerys Exeter Farm would be of local to State significance under this criterion, depending on the degree of intactness and legibility of the remains. Remains which are demonstrably associated with indentured convict workers would be of State significance under this criterion.

F – Rarity

An item possesses uncommon, rare or endangered aspects of the local area's cultural or natural history

If intact archaeological remains associated with Exeter Farm were identified within the study area, they would be considered rare due to limited information available regarding land use and social activities at the property over time. In addition, few examples of intact colonial agricultural estates are known in the archaeological record and potential archaeological remains dating to early settlement as well as *in situ* evidence of early agricultural practices, if found to be substantially intact and extensive, would be of contributory value to this criterion at a State level.

Archaeological resources associated with James Badgerys Exeter Farm would be of local to State significance under this criterion, depending on the degree of intactness and legibility of the remains.

G – Representative

An item is important in demonstrating the principal characteristics of a class of NSW's cultural or natural places of cultural or natural environments (or the cultural or natural history of the local area)

If intact archaeological remains associated with Exeter Farm were identified within the study area, they would represent physical evidence of pastoral and agricultural activities that took place within the first decades of European settlement in NSW. They would also represent principal characteristics of large farmsteads owned and operated by successful pastoralists in the early to mid-19th century including a homestead, outbuildings, gardens and paddocks.

Archaeological resources associated with James Badgerys Exeter Farm would be of local to State significance under this criterion, depending on the degree of intactness and legibility of the remains.

5.2.2 Statement of Archaeological Significance

Potential archaeological remains associated with Exeter Farm would contain historical, social, associative and representative significance at a State level due to the property's association with James Badgery and his family as well as with Governor Macquarie. Potential former structures related to indentured convicts who were employed by James Badgery. Such remains are considered rare and would likely hold significant research potential if intact and substantial evidence of buildings and cultivation fields/gardens were found. Intact, robust remains related to the first phase of Exeter Farm would be of local and possibly State significance.

5.3 Archaeological significance of specific predicted remains

Due to the long use and re-use of the site as an active dairy and farm, the archaeological significance of potential remains in the study area are associated with specific historic phases, structures and land uses of the land. Table 5 provides a summary of the specific archaeological significance of predicted archaeological remains derived from Section 4.6 above.

Based on this information, Figure 19 illustrates the location, potential and significance of non-Aboriginal archaeological remains within the study area.

Table 5: Assessment of archaeological significance for specific potential archaeological remains

Phase	Specific remains	Arch. Potential	Discussion of significance in relation to specific archaeological remains	Significance
Phase 1 Badgery Land Grant (1809 – 1839)	Wattle and daub cottage (first house of Badgery Family 1809 – 1810/1812)	Nil to Low	The first residence of James Badgery and his family was attested as a small wattle and daub structure and archaeological remains relating to this former building may have the ability to demonstrate early vernacular rural architecture. Domestic artefact deposits have the potential to inform on early colonial lifeways and living practices. The precise location of this cottage is unknown and archaeological remains of this type are considered unlikely to be significantly preserved in the study area. Robust and legible remains associated with the structure and its inhabitants would be of local to State significance, depending on the degree of intactness of the deposit.	Local to State
	<u>Northern Location</u> for the First Exeter House, surrounds and gardens	Low	The first brick house constructed by the Badgery family, along with its outbuildings and gardens, has the potential to provide material information on an early homestead in the rural Cumberland Plain. Structural remains have the potential to inform early rural architectural techniques while artefactual deposits have the potential to provide information on past lifeways and living and working practices from early 19 th century Sydney.	Local to State
	<u>Southern location</u> for the First Exeter House, surrounds and gardens	Low		Local to State
	Early farming sheds, convict quarters and early farm infrastructure	Nil to Low	Early farming workshops, sheds and workers accommodation would likely have been timber buildings which may have the ability to demonstrate early vernacular rural architecture. Domestic and agricultural-associated artefact deposits have the potential to inform on early colonial lifeways and living practices. The precise location of these remains are unknown and archaeological deposits of this type are considered unlikely to be significantly preserved in the study area. Robust and legible remains associated with these structures, their use and their inhabitants would be of local to State significance, depending on the degree of intactness of deposits.	Local to State
Phase 2: 19th C. Dairy (1840 – 1920)	Second Exeter Farm House and grounds	Moderate	<p>This farm house was constructed at an unknown time in the (probably late) 19th century, was demolished in 2006 and was used as the primary residence for the property during that time. While twentieth century remains are unlikely to reach the threshold for local significance, it is possible that the wider gardens and outbuildings may be remnant or repurposed from an earlier historical phase.</p> <p>Depending on the intactness of remains and the degree of association with earlier phases of the use of the property, archaeological structures or deposits associated with the second Exeter Farm House may be of local significance.</p>	Local

Phase	Specific remains	Arch. Potential	Discussion of significance in relation to specific archaeological remains	Significance
Phase 3: 20th C. Dairy (1921 – 2006)	Mid to late twentieth century farm buildings	Low	Remains associated with twentieth century farm buildings would not reach the threshold for local significance.	Nil

Figure 19: Areas of significant archaeological potential in the study area



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6.0 ARCHAEOLOGICAL IMPACT ASSESSMENT

6.1 Proposed works

This proposal seeks approval for a Waste Disposal Facility at 1669 – 1732 Elizabeth Drive, Badgerys Creek, for the disposal of clean waste spoil material resulting from the construction of critical State Significant Infrastructure and building projects.

The proposed development seeks approval for a Waste Disposal Facility including the following activities:

- The demolition and removal of existing rural structures;
- Termination, connection or augmentation of services and utilities to the site;
- Dewatering and decommissioning of existing farm dams;
- Clearing of existing vegetation on the subject site;
- The importation, placement and compaction of clean waste spoil material as defined within the Fill Management Protocol supporting this application;
- Ancillary onsite earthworks associated with the waste disposal facility; and
- Construction of stormwater, erosion and sediment control systems.

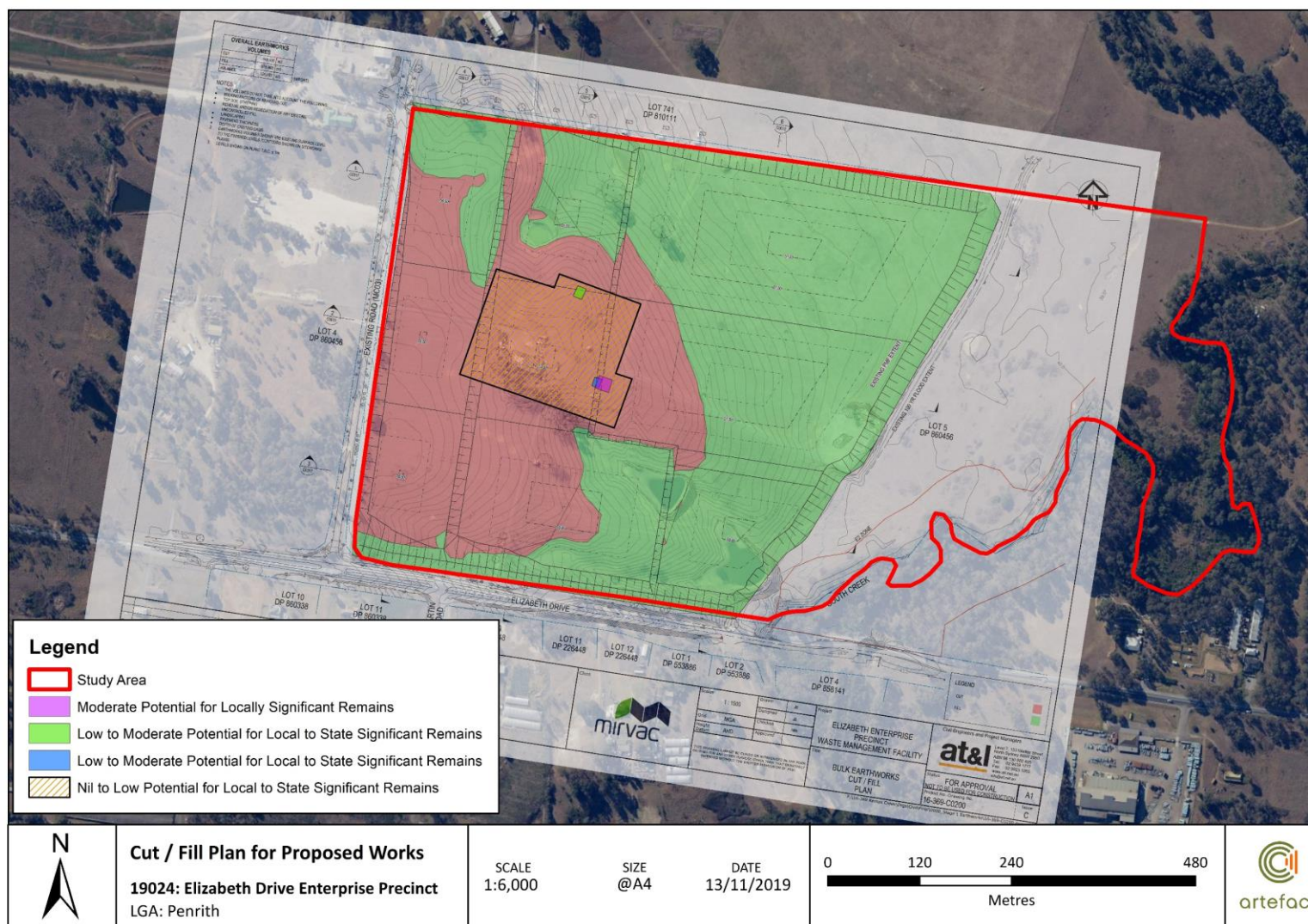
Major works which would impact archaeological remains involve widespread landscaping and earthworks in the study area, involving excavation of higher areas of the ridge line and infilling with material at lower elevations on the site.

6.2 Archaeological impact assessment

Potential significant archaeological remains have been identified on the ridgeline in the western portion of the study area. Landscaping works in this location would involve the removal of between three and seven metres of ground for the levelling of the property site and for the use of the waste disposal facility.

Ground disturbing works would entirely remove all areas of predicted significant archaeological potential. The horizontal extent of landscaping works in the study area in relation to areas of archaeological potential is illustrated in Figure 20.

Figure 20: Overlay of landscaping cut and fill plan with predicted areas of significant archaeological potential in the study area



7.0 ARCHAEOLOGICAL RESEARCH DESIGN

7.1 Historic themes

Historical themes are a way of describing important processes or activities which have significantly contributed to Australian history at a national and state level. The Heritage Council of NSW has prepared a list of state historic themes relevant to the demographic, economic and cultural development of the state. The use of these themes provides historical context to allow archaeological items to be understood in a wider historical context. Historical themes relevant to the subject site are summarised in Table 6.

Table 6: Historic themes for archaeological resources in the study area

Australian Theme	NSW Theme	Discussion
Peopling Australia	Convict	James Badgery was known to have convict workers appointed to his property to assist in land clearing and developing his cattle and horse farm. These convicts were attested to have their own accommodation on the property. Archaeological remains related to convict domestic and agricultural practices may therefore be present which could address this historic theme.
Developing local, regional and national economies	Agriculture	Badgery's Exeter Farm was developed primarily as a pastoral property however gardens and crops were also grown there. Archaeological remains related to the operation of this farm would address this historic theme.
Developing local, regional and national economies	Industry	A blacksmith's workshop was attested in historical documents as being present on the site in the 1820s. Due the-then relative remoteness of the property during this time, blacksmithing and ironmongery would have been required to be produced at the property for the operation of the farm, particularly for horse-rearing and racing. Any intact archaeological remains related to this former workshop be identified they would address this historic theme.
Developing local, regional and national economies	Pastoralism	Badgery's Exeter Farm was developed for grazing and dairying from soon after its establishment, and a number of sheds, pens and stables were constructed for the operation of the farm. Archaeological remains associated with these structures would address this historic theme.
Developing Australia's cultural life	Domestic Life	Badgery's Exeter Farm consisted of the homestead for the landowning Badgery family but was also the location where indentured convict and other workers lived while they worked on the property. Archaeological remains associated with their accommodation, subsistence, cooking, clothing and toiletries may be present which would address this historic theme.

7.2 Research questions

Archaeological resources within the study area have the potential to answer a number of research questions. Research questions provided for the testing program are designed to be preliminary, and to address basic questions associated with confirming the location, integrity and provenance of any non-Aboriginal archaeological resource. As archaeological test investigation would not involve the removal of impact of any suspected 'relics' under an approved s139 exception, detailed research

questions which could be answered with comprehensive artefactual analysis would not be able to be addressed under this test excavation program.

7.2.1 General and analytical research questions for the whole of the study area

The following research general and analytical research questions are provided for guiding immediate investigation concerns during archaeological test excavation within the study area.

- What is the integrity of the remains? Have they been truncated or dispersed by later demolition and construction work within the study area?
- Has site landscaping involved the deposition of fill over the upper portions of the ridgeline in the study area, which may assist in preserving archaeological remains? Or have successive landscaping activities led to the reduction in the ground level of the ridge line, which would have had a greater impact on any buried archaeological deposits?
- Due to the long use and re-use of the site as a rural dairy, to what extent can archaeological remains (structural or artefactual) be individuated clearly between time periods and phases of use? Were early nineteenth century structures maintained on the property and utilised into the late nineteenth or twentieth centuries? What evidence of use and renovation of structures is identifiable in the study area? Does the continued use of structures and areas on site reduce our ability to discern earlier uses of these structures and areas?
- Are significant artefactual 'relics' present in the study area? What structures or archaeological features are these 'relics' associated with?
- What physical evidence of former activities can be identified within the site?
- What contexts, phases, and activity areas are evident in revealed archaeological remains?
- What natural and cultural taphonomic processes have contributed to the archaeological site and its associated deposits/features?

7.2.2 Research questions for Badgery's Exeter Farm Phase 1 (1809 – 1839)

- Are potential remains located within a paddock to the north of the existing site laydown area, associated with a "brick cottage" identified in the 1920 crown plan for the property, evidence for the first Badgery Exeter Farm House, built between 1810 and 1812? If remains of this former building are identified and they are not the first Exeter Farm House, what was this building and when was it constructed?
- Alternatively, is a former western annex to the second Exeter Farm House, demolished between 1855 and 1861, the site of the former first Badgery Exeter Farm House? If remains of this former building are identified and they are not the first Exeter Farm House, what was this building and when was it constructed?
- Can structural and exposed artefactual remains identified during the test excavation in the study area, indicate the location of the first Exeter Farm House at all?

- If the location of the first Exeter Farm House is identified, how does this improve our spatial understanding of other attested structures at the property, including convict worker's accommodation, blacksmith's workshops and farm sheds?
- Can the earliest attested structure on the site – the Badgery wattle and daub cottage constructed when the land grant was received in 1809 – be archaeologically identified during the test excavation? Was it situated on the ridge line near the area of later homestead locations?
- Are other early nineteenth century buildings associated with the earliest phase of land-clearing, indentured convict labour and pastoral activity archaeologically discernible?
- Are archaeological remains related to early fencing and gardening identifiable, considering the delicate nature of these types of archaeological remains at a site which has undergone significant, but only localised, episodes of ground disturbance?
- Do structural remains associated with this phase of activity show any evidence of hearths, chimneys or manufacturing furnaces (such as a blacksmith's workshop), which may provide information on domestic and agricultural working practices from that era?

7.2.3 Research questions for later nineteenth century use of Exeter Farm

- When was the second Exeter Farm House constructed? Can structural remains and contextual information provide a clear date or date range for the original construction of the building?
- Was the former western annex to the building, demolished after 1955, the former first Exeter Farm House? How was this western annex incorporated into the second Exeter Farm house building?
- Were landscaped gardens present in the vicinity of the second Exeter Farm house? Is there preserved archaeological evidence for these gardens? Are these remains discernible from earlier landscaping and garden features?
- Were stables and outbuildings of the second Exeter Farm house constructed before the second Exeter Farm house was built, showing continuity of use?
- Are artefactual remains present associated with the second Exeter Farm house which provide discrete information about nineteenth century domestic lifeways?

8.0 ARCHAEOLOGICAL METHODOLOGY

8.1 Approval pathway

The study area has been assessed as having low potential to contain locally significant relics and a low potential to contain intact State significant remains, associated with James Badgerys Exeter Farm homestead. Future project works in the study area involve widespread landscaping which would result in a total impact to any subsurface archaeological remains.

However, due to several historical phases of demolition and construction within the study area the precise location and extent of subsurface archaeological remains relating to the nineteenth century use of the property is uncertain. An archaeological test excavation program is proposed to ascertain the location, integrity and significance of any archaeological remains which may be located at the site. A s139 exception permit should be sought from Heritage NSW Department of Premier and Cabinet (DPC), with this ARD report as a supporting document for that application.

The s139 permit would only allow test excavation to locate and identify any subsurface 'relics' without impacting or removing them. Should intact and significant remains be located during the test excavation program, further assessment and approvals would be required (discussed in Section 8.4.2).

8.2 Test excavation methodology

8.2.1 Introduction

A program of archaeological test excavation would be conducted under an approved s139 Exception to attempt to identify the location of James Badgerys former Exeter Farm. This test excavation would aim to ascertain the location of former structures of the property and identify the provenance and potential significance of the remains.

The following subsections outline a methodology for managing potential archaeological resources within the study area. A discussion of proposed test trench locations is provided in Section 8.3 of this report.

8.2.2 Excavation methodology

Investigations in each area would involve the machine excavation of test trenches under the supervision of the archaeological team. Machine excavation would use a 5- to 10-tonne excavator with a 1.2 m to 1.6 m flat bucket. Machine excavation would remove existing ground surfaces in narrow vertical layers to ensure that deep excavation does not occur which would impact potential archaeological remains.

On identification of potential archaeological deposits or remains, investigation would be undertaken by hand. Archaeological remains would be cleaned by hand to allow archaeologists to understand the nature of the potential archaeological resource within the trench. Archaeological deposits would be recorded by context. Should buried remains be identified as non-significant (i.e. not 'relics') machine excavation may continue in that area once the resource had been completely recorded.

Excavation of each trench area would continue until natural subsurface culturally sterile soil layers had been identified. In the Badgerys Creek area, this culturally sterile layer is expected to consist of mottled grey to mottled red clay underlying either natural clay loams or historically imported or modified soils.

8.2.3 Identification and handling of potential 'relics'

Under the s139 exception, 'relics' may not be impacted or removed from site in any way. As such, any identified 'relics', as well as structural remains associated with these 'relics' would not be impacted, and their location and significance recorded for future archaeological investigations under further heritage approvals.

During the test excavation program, any intact structural remains would be exposed, cleaned and archaeologically recorded. Any intact artefactual remains identified during ground excavation would remain *in situ* and would be assessed for its potential significance. Should remains be identified as a 'relic' or suspected 'relic', manual excavation may continue around the deposit or structure to identify the extent of the resource, with all structural and artefactual materials remaining in place during excavation.

In situ significant remains would be archaeologically recorded by context, photographed and their location precisely planned. Once recording had been completed, the remains would be protected by a layer of geofabric and backfilled under archaeological supervision to ensure their preservation for later salvage excavation.

8.2.4 Recording methods

In the event that archaeological remains are uncovered during archaeological monitoring the supervising archaeologist would implement a number of recording methods, dependent on the extent and integrity of archaeological remains. Highly intact and significant remains would be archaeologically recorded with the following approach:

- Significant archaeological structural remains, deposits and features would be recorded on context sheets
- A photographic record of the archaeological works and details of significant archaeological remains made
- Detailed survey and/or measured drawings would be prepared and include location of remains within the overall site. Georeferenced surveyed plans and orthographic photography of the site would be conducted for intact and significant remains
- While significant artefactual material 'relics' would not be impacted or removed during test excavation work, and all artefacts would remain *in situ*, detailed descriptions and photographs of any identified 'relics' would be included in comprehensive site recording
- Registers of contexts, photos, samples and drawings would be kept.

8.2.5 Archaeological team

Duncan Jones (Senior Heritage Consultant) would be site coordinator and responsible for site management, logistics and staffing. Archaeological assistants would also include Josh Symons (Principal), Alyce Haast (Senior Heritage Consultant), Ryan Taddeucci (Senior Heritage Consultant) and Sarah Hawkins (Heritage Consultant). Subcontracting archaeological staff may be sourced if necessary. Guy Hazel (Archaeological Surveyor) would prepare orthographic photographs and georeferenced survey plans should intact and significant remains be identified.

8.3 Test Trench Locations

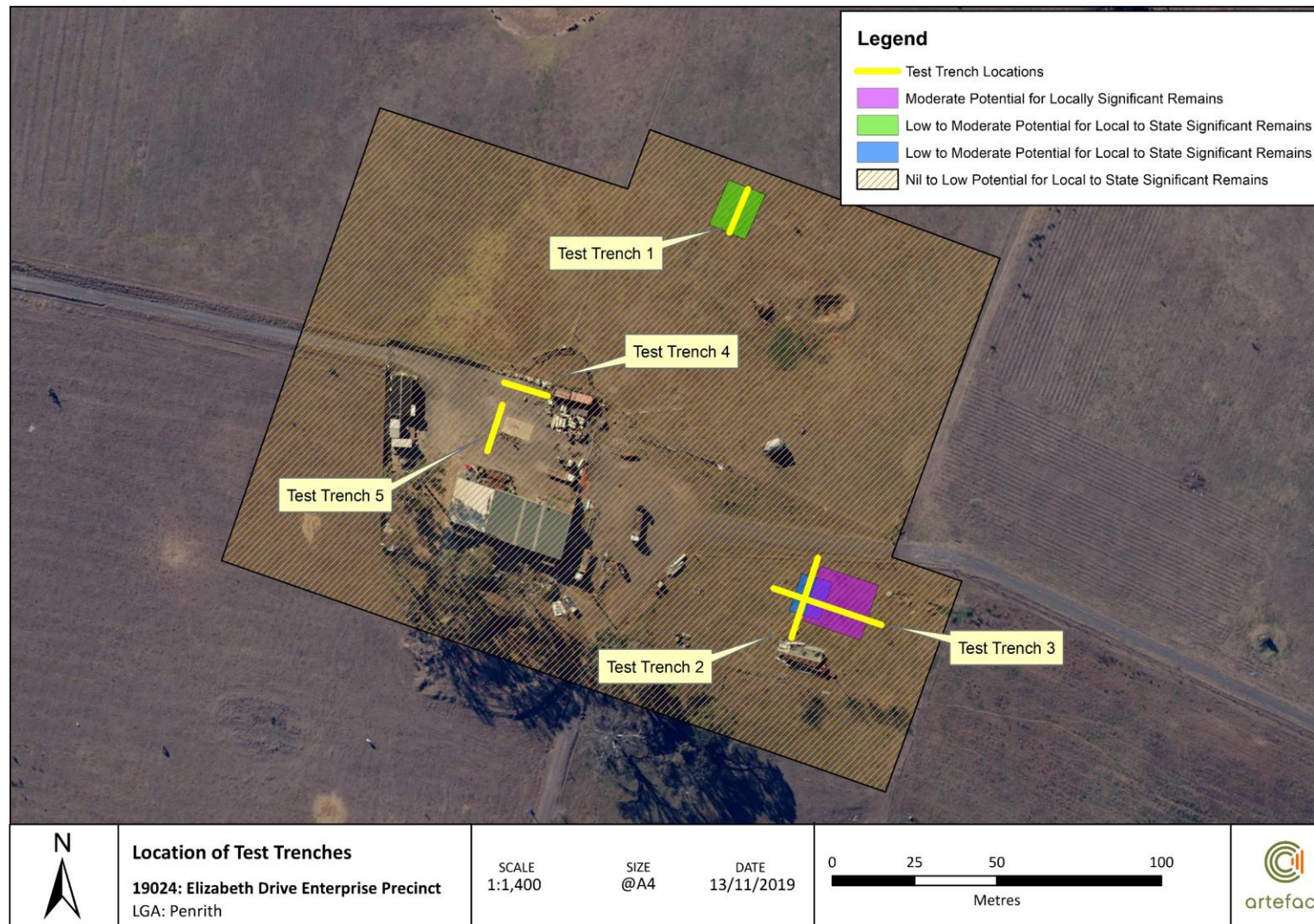
Five test trenches are proposed to ascertain the presence, location and integrity of any archaeological remains associated with known and suspected Exeter Farm structures. Table 7 provides a discussion for the location of each test trench, and the location of the test trenches is illustrated in Figure 21.

The locations of test trenches may be slightly modified during excavation should unexpected modern obstructions (such as utility services) are identified below ground. Test trenches would be moved within 5 m of their original location in these circumstances.

Table 7: Discussion of test trench locations

Test Trench Number	Discussion
TT# 1	Test trench 1 would be up to 15 m in length and would aim to identify archaeological remains related to the former 'brick cottage' identified on the 1920 crown plan, which may be the original brick first Exeter Farm homestead.
TT# 2	Test trench 2 would be up to 20 m in length and would aim to identify archaeological remains associated with the western annex to the second Exeter Farm House, which was demolished between 1955 and 1961. This building may have been the original first Exeter Farm brick homestead constructed in 1810 to 1812. This test trench is elongated past the boundaries of the former building footprint to attempt to identify any related garden or landscaping remains.
TT# 3	Test trench 3 would be up to 30 m in length and would aim to identify archaeological remains associated with the second Exeter Farm House and its structural relationship with the western annex (and possible first Exeter Farm brick homestead). Test trench 3 would cross perpendicularly through test trench one and would also be excavated to ascertain the east-west extent of any remains identified in test trench 2.
TT# 4	Test trench 4 would be up to 15 m in length and would aim to identify whether any archaeological remains related to a former shed or stable was present in the study area. This building may have been the shed identified in the 1920 crown plan. This test trench would also aim to establish a stratigraphic profile for ground at the higher point of the ridge line.
TT# 5	Test trench 5 would be up to 15 m in length and would aim to identify whether any archaeological remains related to a former shed or stable was present in the study area. This building may have been the shed identified in the 1920 crown plan. This test trench would also aim to establish a stratigraphic profile for ground at the higher point of the ridge line.

Figure 21: Locations of proposed archaeological test trenches



8.4 Archaeological reporting and further heritage approvals

8.4.1 Post fieldwork analysis and reporting

Post fieldwork analysis and reporting would be required which would meet Heritage NSW, Department of Premier and Cabinet (DPC) criteria.

The document would be issued as a single report incorporating the findings of the archaeological program. Post fieldwork analysis would include stratigraphic reporting and production of Harris Matrices, production of illustrations and detailed site plans, interpretation of site plans and illustrations. The final report detailing the archaeological program and results would be prepared. It would include photographs and plans, and also respond to the research questions. The report would include a reassessment of archaeological significance based on the investigation results.

The scale of post-fieldwork reporting would be commensurate the integrity and significance of identified archaeological remains. A preliminary catalogue of artefact descriptions would be provided

8.4.2 Non-destructive remote sensing archaeological investigation

Due to the high degree of spatial uncertainty for the locations of former early nineteenth century working and convict structures, should archaeological test excavation yield poorly informative results, opportunities for non-destructive remote sensing may be explored. Remote sensing techniques such as ground penetrating radar (GPR) may be investigated to cover greenfield areas where a nil to low potential for early nineteenth century archaeological remains have been identified. The results of any remote sensing investigation would be included in any future archaeological investigation and salvage strategy for the project.

8.4.3 Further heritage approvals

If no significant remains or 'relics' have been identified from the proposed test excavation program, no further approvals under the Heritage Act would be sought from Heritage NSW DPC. In this case, a short excavation report would be prepared and provided to Heritage NSW DPC for their records.

Should significant 'relics' be identified, recorded and protected during archaeological investigations, a detailed test excavation report would be prepared. This test excavation report would identify whether intact 'relics' were of local or State significance.

An ARD report, providing a robust archaeological methodology for archaeological salvage excavation, would be prepared with the test excavation report as a supporting document. This ARD would be prepared by a suitably qualified and experienced excavation director who fulfils the Heritage Council's Excavation Director Criteria for the excavation of locally or State significant archaeological sites, depending on whether locally significant or State significant 'relics' were identified at the site.

The ARD and test excavation report would be submitted to Heritage NSW DPC as supporting documents for a s140 Excavation Permit, with the Excavation Director who prepared the ARD report for the project nominated on that application.

9.0 CONCLUSIONS AND RECOMMENDATIONS

9.1 Conclusions

Based on the results of historical research and a comprehensive surface site inspection, this ARD report has identified the following:

- James Badgery received a grant of land which included the study area in 1809, on which he established a working farm and dairy with the assistance of government-allotted convict labour
- The locations of the first structures on the site – the original wattle and daub house of the Badgery family built in 1809, and other farm working structures, were unable to be identified from analysis of historical sources
- James Badgery built his first substantial house on the property between 1810 and 1812, which was a brick homestead called Exeter Farm. Two potential locations for this homestead have been identified from historical research in the study area
- Later landowners constructed a second Exeter Farm homestead, probably in the late nineteenth century, which became the primary residence of the property. This building was demolished in 2006.

9.2 Recommendations

- A s139 exception should be sought from Heritage NSW, Department of Premier and Cabinet (Heritage NSW, DPC), with this ARD report as a supporting document. This exception would be sought in order to conduct archaeological test excavation at the study area
- A program of archaeological test excavation, under an approved s139 exception, should be conducted in those areas where significant archaeological resources have been predicted. This would involve the excavation of five archaeological test trenches to investigate the presence, intactness and integrity of any archaeological remains
- Under the approved s139 exception, no significant structural or artefactual remains or 'relics' may be impacted or removed during test excavation. All remains are to be recorded and conserved *in situ*
- Should significant and intact remains be identified during testing, then further heritage approvals would be required from Heritage NSW, DPC and would involve further archaeological salvage excavation of any identified significant archaeological resources. Project works could not proceed in the area of significant remains until salvage excavation of all identified significant archaeological resources was completed.
- Should State significant remains associated with early nineteenth century convict accommodation and workshops be identified significantly intact during test excavation work, opportunities for retaining these remains *in situ* and redesigning works to avoid impacts should be considered.

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