

Bradfield City Centre First Building

Statement of Heritage Impact

Prepared for Western Parkland Authority

February 2022 - FINAL 03



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List of abbreviations

Abbreviation	Meaning
CMP	Conservation Management Plan
DA	Development application
DP&E	Department of Planning and Environment
EP&A Act	Environmental Planning and Assessment Act 1979
Growth Centres SEPP	State Environmental Planning Policy (Sydney Region Growth Centres) 2006
HCA	Heritage Conservation Area
Heritage Act	Heritage Act 1977 (NSW)
SEMPI	State Environmental Planning Policy (Infrastructure) 2007
LEP	Local Environmental Plan
NSW	New South Wales
S170 Register	Section 170 State Agency Heritage and Conservation Register
SEPP	State Environmental Planning Policies
SHI	State Heritage Inventory, NSW
SHR	State Heritage Register
SoHI	Statement of Heritage Impact

1. Introduction

1.1 Project description

Extent Heritage Pty Ltd (Extent Heritage) has been commissioned by Western Parkland City Authority (WPCA) to prepare a Statement of Heritage Impact for the Advanced Manufacturing Research Facility (AMRF)– the Bradfield City Centre First Building (the study area, also known herein as “the First Building”). The building is intended to be operational by 2023, and it will be an advanced manufacturing research, development and training facility.

The project has been declared State Significant Development (SSD) and is being assessed under Part 4.1 of the Environmental Planning and Assessment Act 1979 (NSW) (EP&A Act). The Planning Secretary’s Environmental Assessment Requirements (SEARs) have been issued for the Project (SSD-25452459) and include requirements for Non-Aboriginal Heritage. Heritage News South Wales (HNSW) has responded to the SEARs and has recommended that a Statement of Heritage Impact (SOHI) be prepared to assess the impacts of the proposal on the non-Aboriginal archaeology and on the heritage significance of the following SHR items in the vicinity of the study area.

- Kelvin (Item #00046), 30 The Retreat, Bringelly
- Church of the Holy Innocent (Item #02005), 130 Rossmore Avenue West, Rossmore

This SOHI has been prepared in accordance with the SEARs. The purpose of the report is to analyse the proposed construction of the AMRF First Building and the potential impacts on the significance of heritage items in the vicinity and non-Aboriginal archaeology.

1.2 Approach and methodology

The methodology used in the preparation of this Statement of Heritage Impact (SOHI) is in accordance with the principles and definitions as set out in the guidelines to *The Burra Charter: The Australia ICOMOS Charter for Places of Cultural Significance* (the *Burra Charter*) (Australia ICOMOS 2013) and the latest version of the *Statement of Heritage Impact Guidelines* (Heritage Office and Department of Urban Affairs and Planning 2002), produced by the former NSW Office of Environment and Heritage (now the Department of Planning, Industry and Environment).

This SOHI will review the relevant statutory heritage controls, assess the impact of the proposal on the subject property and make recommendations as to the level of impact.

1.3 Limitations

The site was inspected and photographed by Hannah Morris on 18 October 2021. The inspection was undertaken as a visual study only.

The historical overview provides sufficient historical background to provide an understanding of the place in order to assess the significance and provide relevant recommendations, however, it is not intended as an exhaustive history of the site.

This assessment does not include an assessment of Aboriginal heritage. For information on Aboriginal cultural heritage, please refer to the separate report:

Bradfield City Centre – First Building Aboriginal Due Diligence Assessment in preparation by Extent Heritage (October 2021).

1.4 Authorship

The following staff members at Extent Heritage have prepared this statement of heritage impact:

- Graham Wilson, Principal Heritage Advisor, and
- Gabrielle Harrington, Heritage Advisor.

This report was reviewed by Eleanor Banaag (Senior Associate, Heritage Places Team Leader) and Dr MacLaren North (Managing Director).

1.5 Ownership

The site is owned and managed by Western Parkland City Authority.

1.6 Terminology

The terminology in this report follows definitions presented in the *Burra Charter* (Australia ICOMOS 2013). Article 1 provides the following definitions:

Place means a geographically defined area. It may include elements, objects, spaces and views. Place may have tangible and intangible dimensions.

Cultural significance means aesthetic, historic, scientific, social or spiritual value for past, present or future generations. Cultural significance is embodied in the *place* itself, its *fabric*, *setting*, *use*, *associations*, *meanings*, records, *related places* and *related objects*. Places may have a range of values for different individuals or groups.

Fabric means all the physical material of the *place* including elements, fixtures, contents and objects.

Conservation means all the processes of looking after a *place* so as to retain its *cultural significance*.

Maintenance means the continuous protective care of a *place*, and its *setting*. Maintenance is to be distinguished from repair which involves *restoration* or *reconstruction*.

Preservation means maintaining a *place* in its existing state and retarding deterioration.

Restoration means returning a *place* to a known earlier state by removing accretions or by reassembling existing elements without the introduction of new material.

Reconstruction means returning a *place* to a known earlier state and is distinguished from *restoration* by the introduction of new material.

Adaptation means changing a *place* to suit the existing *use* or a proposed use.

Use means the functions of a *place*, including the activities and traditional and customary practices that may occur at the place or are dependent on the place.

Compatible use means a *use* which respects the *cultural significance* of a *place*. Such a use involves no, or minimal, impact on cultural significance.

Setting means the immediate and extended environment of a *place* that is part of or contributes to its *cultural significance* and distinctive character.

Related place means a *place* that contributes to the *cultural significance* of another place.

Related object means an object that contributes to the cultural significance of a place but is not at the place.

Associations mean the connections that exist between people and a place.

Meanings denote what a place signifies, indicates, evokes or expresses to people.

Interpretation means all the ways of presenting the cultural significance of a place.

2. Site identification

The study area is located at 215 Badgerys Creek Road, Bringelly within the Bradfield City Centre of the Western Parkland City. It is legally defined as part of Lot 10, DP 1235662. The First Building is located in the north-western corner of the Bradfield City Centre and has an approximate area of 3 hectares including vehicular connection to Badgerys Creek Road.

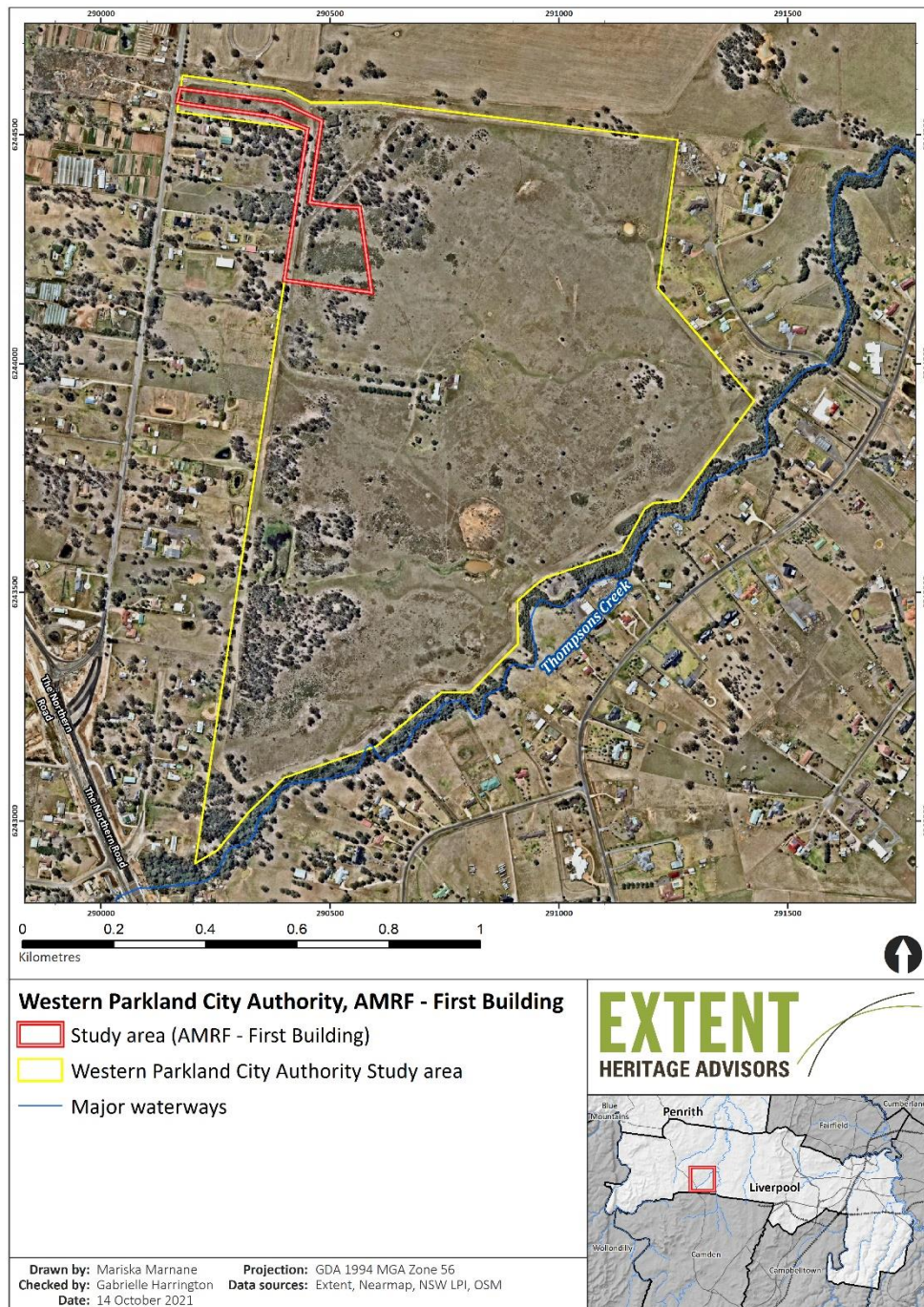


Figure 1. Map indicating location of Bradfield City Centre First Building within the Bradfield City Centre.
Source: NearMaps

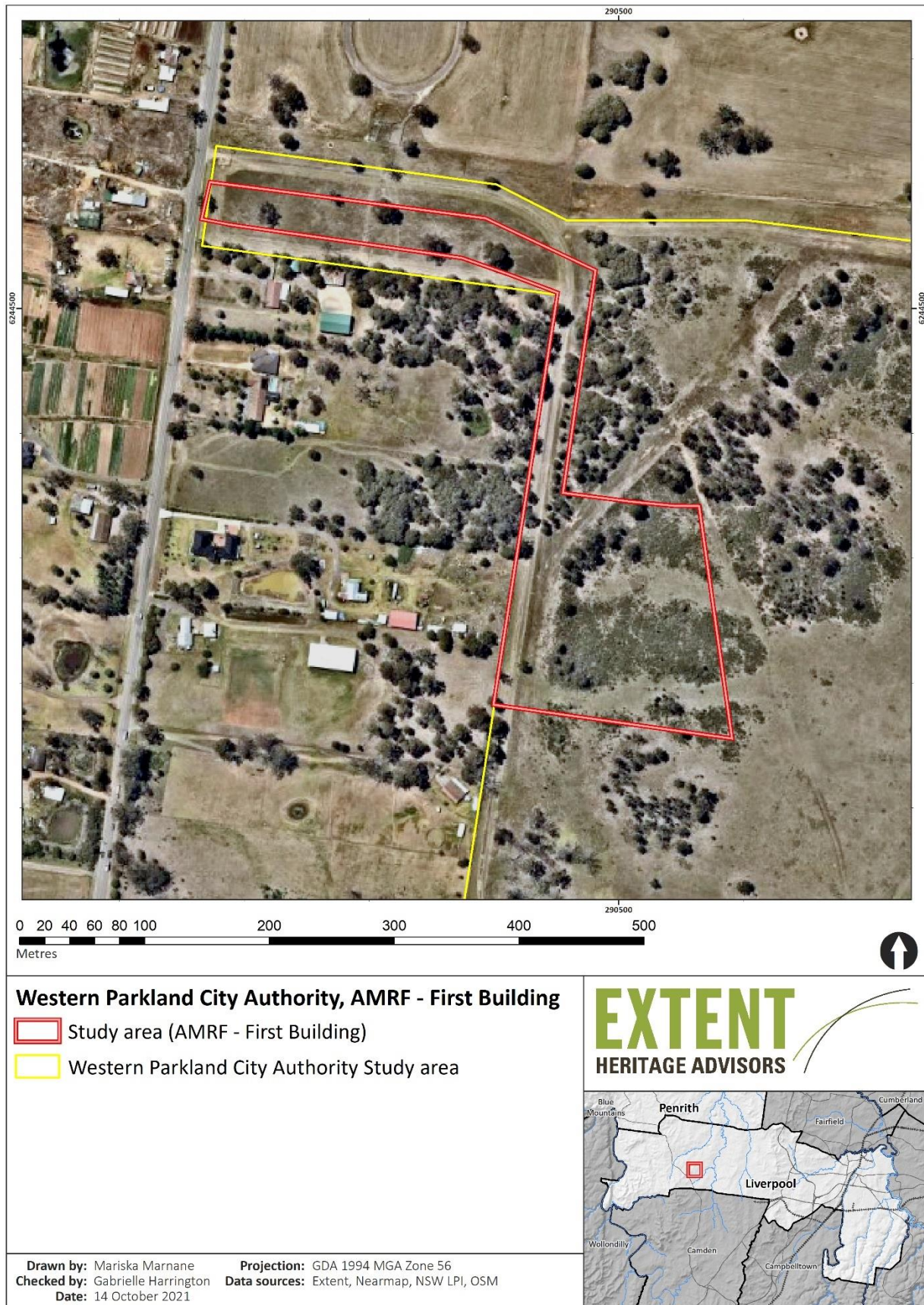


Figure 2. Close up map indicating location of Bradfield City First Building within the Bradfield City Centre.
Source: NearMaps.

3. Planning context

3.1 Heritage status

The study area is not listed on any statutory or non-statutory heritage registers. The following table outlines the heritage status of the study area.

Table 1. Summary of heritage status.

Register/listing	Item listed (Y/N)	Item name	Item number
Statutory listings			
World Heritage List	N	-	-
National Heritage List	N	-	-
Commonwealth Heritage List	N	-	-
State Heritage Register	N	-	-
State Environmental Planning Policy (Western Sydney Aerotropolis) 2020	N	-	-
Non-statutory listings			
Register of the National Trust (NSW)	N	-	-

3.2 Heritage items in the vicinity

There are no local heritage items in the immediate vicinity of the study area that will be impacted as a part of the proposed works. There are two heritage items listed on State Heritage Register and the State Environmental Planning Policy (Western Sydney Aerotropolis) 2020 that are located in the immediate vicinity of the study area.

- Kelvin (Item #00046), 30 The Retreat, Bringelly
- Church of the Holy Innocent (Item #02005), 130 Rossmore Avenue West, Rossmore



Figure 3. Map showing heritage in the vicinity of the study area (outlined in red). State heritage items are hatched in blue and local heritage items are shaded in brown. Source: NSW Planning Portal, accessed October 2021.

4. Historical context

4.1 Introduction

This historical context relies largely on the compilation of primary and secondary historical resources, as well as detailed analysis of historical plans and aerial images.

4.2 Aboriginal occupation pre-1788

Aboriginal people have lived in the area known as NSW for at least 45,000 years (NPWS 2003, 14). To date, more than thirty-eight Aboriginal language groups (previously referred to as ‘tribes’) have been identified within NSW (NPWS 2003, 14). Examples of these broader cultural-linguistic groups in NSW include the Darug (alternative spellings include ‘Dharug,’ ‘Dharuk’ and ‘Dharook’), Darkinjung, Gandangara (also spelled as ‘Gundungarra’), Tharawal (also referred to as ‘Dharawal’), Kuringai and Awabakal (Attenbrow 2010, 23, 32). Since the 1970s, archaeologists and anthropologists working in the Sydney region have largely adopted the nomenclature for cultural-linguistic groups compiled by Capell (1970) and amended by Eades (1976) (Attenbrow 2010). On the basis of this research, the study area is considered to have been occupied by Darug-speaking clans.

The Darug people are generally thought to have lived in clan-based bands of around fifty members each. Each clan retained its own hunting district and moved through Country seasonally (Murray and White 1988). The inland clans, in particular, are also thought to have moved more often according to the season, with summer attracting large numbers of clans to the land around the Nepean and Hawkesbury Rivers, and winter dispersing these clans over the plain and into the mountains (Kohen and Lampert 1987, 357).

4.3 British exploration 1788-1804

Life changed irreversibly for the Darug after the invasion of their lands following the arrival of the First Fleet in 1788. Theft of Country, dispossession, alienation from resources, disease and violence became a reality of life for Aboriginal people in the Sydney Region, shaping this next chapter of history profoundly.

The Aboriginal people of the broader Sydney basin who survived the disease and violence wrought by colonisation were increasingly forced to live on the fringes of colonial society. With access to resources limited, they also became necessarily dependent on the state (see NSW Legislative Council 1845), and thus subjected to increasing levels of government control. Government allocations of blankets and slop clothing, and the bartering of fish and game for sugar, flour and alcohol also reflect the changes that occurred in Aboriginal economies and lifeways at this time.

Notwithstanding the devastation caused in this period, it is critical to note that while many of their kin had either perished or been forced away from their traditional lands, there are records of Aboriginal people who remained on Country throughout the nineteenth century. Campaigns

of resistance were central to this survival and records of them across the broader Western Sydney region illustrate Aboriginal people's experiences of this period.

The rapid expansion of British settlement in the Cumberland Plains from the early nineteenth century, led to increasing violence between colonists and Aboriginal people in the region. Between 1814 and 1816, tensions rose dramatically as a result of drought and the increasing numbers of Europeans moving to the area. This encroachment restricted Aboriginal people's access to Country and resources. The violence escalated during this period, culminating on 17 April 1816 in what is referred to as the Appin Massacre (35 km south of the study area). Although these events of conflict did not occur within the study area, they are important in demonstrating the Aboriginal experience of European settlement in Australia.

4.4 Early settlement of the Bringelly district 1805-1850

Europeans first explored the Nepean district approximately a decade before they returned to settle permanently in the area. During 1788, Governor Arthur Phillip led parties to explore the outlying regions of Sydney. From a rise near the present Pennant Hills, Phillip first observed the Blue Mountains and the southern portion of the Lansdowne Hills. From the rising of these mountains he had no doubt a large river would be found although at the time this search proved unsuccessful (Murray and White, 1988). In June 1789, Captain Watkin Tench (marine in charge of the new outpost at Rose Hill) led an expeditionary party to the banks of the Nepean River 'through a country untrodden before by a European foot' (Power, 1983 in RMS 2016, 21). In 1791 Tench undertook a second exploratory journey through the study area travelling from Prospect Hill in a south-southwest direction towards the upper Nepean. The course of his outward journey took him through the lowland near the junction of South Creek and Kemps Creek and then through Bringelly. His return route was east through what is now Leppington and Hoxton Park.

In 1795 Henry Hacking investigated the region of the Upper Nepean to confirm reports of the presence of the cattle that had escaped from Sydney Cove in 1788. His journey south took his party along the line of Tench's return route.

Former convict John Warby received 50 acres at Prospect and in 1803 was appointed stockman of the wild cattle at the Cowpastures. Warby appears to have created a track from Prospect to the Cowpastures. The track passed through country described as the Devil's Back and established the main route for the movement of Europeans between Parramatta and the Camden district, later formalised as the Cowpasture Road.

The study area remained relatively undisturbed until 1805 and 1806 at which time James Meehan undertook initial surveys for land grants along South Creek. The district was named Bringelly. The first grants of 1805 included 680 acres to Nicholas Bayly, 300 acres to Richard Fitzgerald and 300 acres to Ezekiel Wood. All were located near the junction of South Creek and Badgerys Creek. During the next five years Meehan would lay out grants for Anthony Fenn Kemp (Mt Vernon) and John Driver (200 acres) adjacent to Kemps Creek. All these early grants were within 5 km of the only road in the district (Cowpasture Road).

During the interregnum between Bligh's and Macquarie's administration Colonel Paterson, the interim Governor may have granted a considerable quantity of land since Macquarie affirmed grants in excess of 2,200 acres backdated to the first day of his administration (1 January 1810). These grants were in the Badgerys Creek Precinct and the Wianamatta-South Creek Precinct with frontages to South Creek, Kemps Creek and Badgerys Creek.

It was not until 1818 that land was first granted within the present-day suburb of Bringelly. Charles Reid, Thomas Laycock, Penelope Lucas were granted land on 26 November 1818 and William Hutchinson on 30 June 1823.

By 1821 The Northern Road ('Bringelly' road) had been formed connecting the Camden district with Richmond (Sydney Gazette 15 September 1821, 1). This road also crossed the great Western Road in the north providing access to Penrith and St Marys.

During the mid-to-late 1820s several grants were absorbed and consolidated to create large estates, held in the main by absentee landholders. Darcy Wentworth increased his 2,500-acre holdings by absorbing the adjoining properties of Ellis Bent, William Gore, John Piper, John Palmer (Jr) and Mary Birch such that at the time of his death in 1827 his Bringelly holdings consisted of 8,515 acres. Similarly, Captain Philip Parker King purchased or obtained 999-year leases on properties totalling 2,465 acres between 1820 and 1836.

One of the most important, and only surviving example of building complex associated with a large pastoral estate within the study area is the property now known as Kelvin Park (Figure 5). This was originally a 600-acre grant made to Thomas Laycock (Jr) on 26 November 1818 and known initially as 'Cottage Vale'. The adjoining 600-acre grant to the south was made out to Charles Reid on the same date and referred to as 'Cottage Grove'. Laycock absorbed the Reid property and the consolidated estate was known as 'The Retreat'. In 1824 the estate was sold to Edward Riley and acquired by Provost Marshal John Thomas Campbell one month later. Campbell subsequently leased the property to the Australian Agricultural Company in 1825. Campbell died in 1830 and in 1837 the property was purchased by Alfred Kennerley from Campbell's heir. The estate remained in the hands of the Kennerley family until 1853 at which time Kennerley returned briefly to England. The main farm complex and homestead survive substantially intact to the north east of the study area.

The early land grants are shown in Figure 4 and described in Table 2 below.

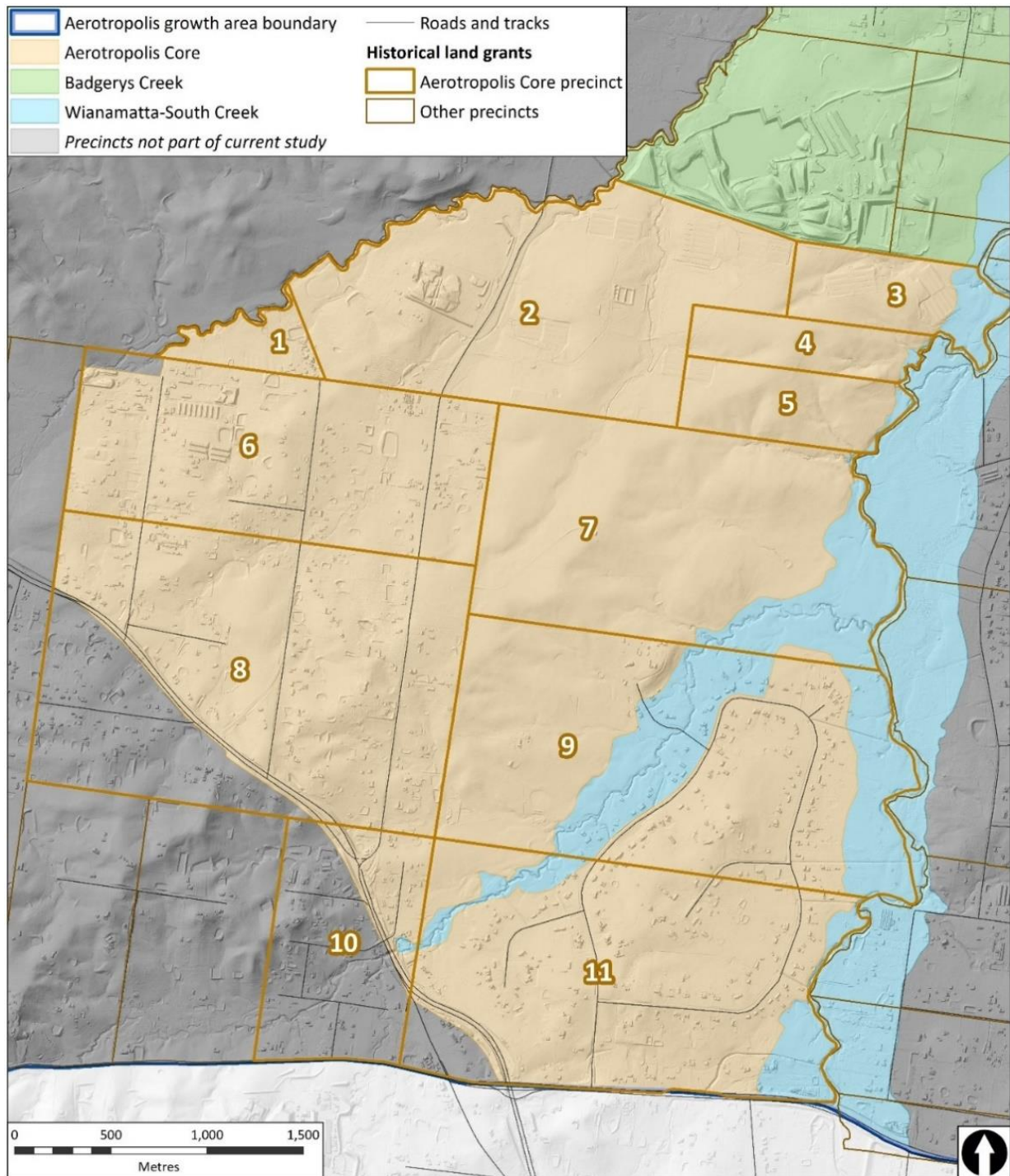


Figure 4 Early land grants within the Aerotropolis Core Precinct. *Source* Extent Heritage 2021.

Table 2. Description of early land grants within the Aerotropolis Core Precinct

No	Grantee	Area (acres)	Parish	Portion	Date of grant	Estate name
1	William White	40	Bringelly	36	11 Sep 1817	
2	Michael Robinson	500	Bringelly	35	11 Sep 1817	<i>St Aubyns</i>
3	Gustavus A Low	100	Bringelly	26	11 Sep 1817	<i>Low Brook</i>
4	Matthew Hughes	65	Bringelly	25	8 Oct 1816	
5	William Hayes	100	Bringelly	24	12 Mar 1818	<i>Bally-hayes</i>
6	Edward Wright	350	Bringelly	16	5 Apr 1821	
7	Penelope Lucas	500	Bringelly	23	26 Nov 1818	<i>Lucas Farm</i>
8	William Hutchinson	700	Bringelly	17	30 Jun 1823	
9	Thomas Laycock	600	Bringelly	22	26 Nov 1818	<i>Cottage Vale</i>
10	William Hutchinson	220	Bringelly	20	13 Nov 1818	
11	Charles Reid	600	Bringelly	21	26 Nov 1818	<i>Cottage Grove</i>



Figure 5. Kelvin Park, main homestead with outbuildings visible in the rear, looking north. Source: *Extent Heritage* 2020

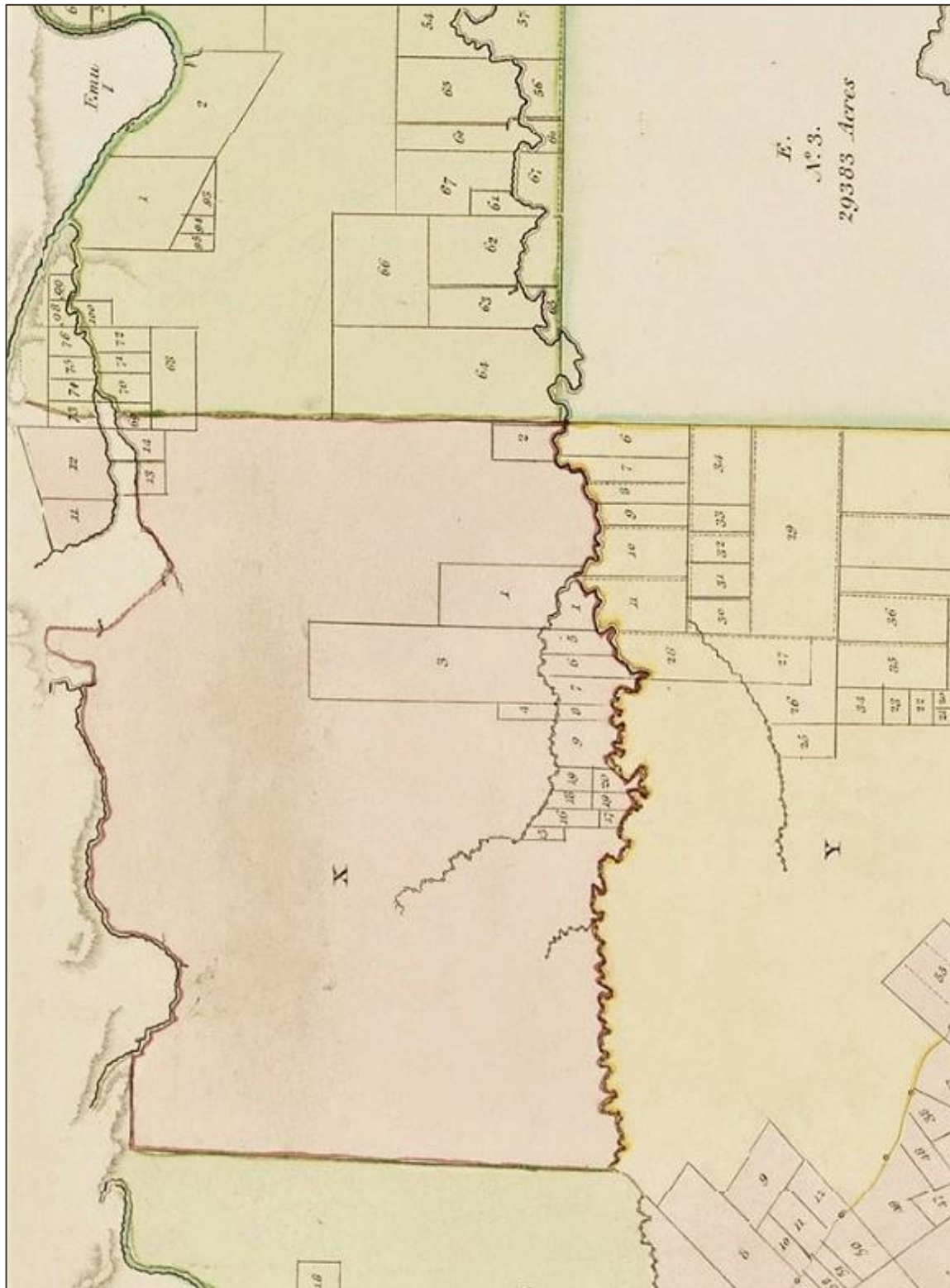


Figure 6. Detail of Plan of the allotments of ground, granted from the Crown in New South Wales. Note: The Bringelly land district is pink (marked 'X'), north at top. *Source:* J. Burr & G. Ballisat. Burr, J.: London, 1814 SLNSW Z/Cb 81/6

The late 1830s and early 1840s saw a convergence of factors that resulted in a decline in the viability of many large estates. The end of transportation with the resulting loss of cheap labour and severe drought between 1838 and 1840 resulted in extensive crop failures. Falling wool prices contributed to an economic depression during the 1840s that saw capitalists that had borrowed heavily in the 1830s in order to purchase land were unable to service their debts. Some owners of the larger estates sought relief by providing tenancies. The configuration of the tenancies was generally ad hoc in nature.

4.5 Nineteenth century subdivision 1850-1900

During the second half of the nineteenth century many of the large landholders within the study area struggled to maintain their properties as viable concerns. Most grazing properties ceased sheep breeding and moved to agistment and fattening of cattle. There were a number of attempts to promote the district for dairying, but this form of agricultural pursuit required good pasture and a reliable water supply, both of which were absent. The only form of stock-raising that held any promise was horse breeding. The larger estates that did survive the economic

difficulties of the 1840s relied in great part on tenancies. The tenancies were usually small family farms that relied primarily on stock raising.

Bringelly had the potential to develop as a regional service town. It was located at the intersection of The Northern Road and Bringelly Road. It was however encircled by the 'Hutchinsonian Estate' that remained in private hands until the 1880s. For much of the later nineteenth century the estate lay fallow resulting in significant regrowth. Portions of the estate were cleared, and the property was subdivided and put up for sale. The initial sale failed, and the property was resurveyed and subdivided and placed on the market in 1892. By this stage Bringelly had a post office (on The Northern Road north of Bringelly Road) and a public school. This subdivision was only partially successful, and few lots were taken up. The village of Bringelly failed to develop.

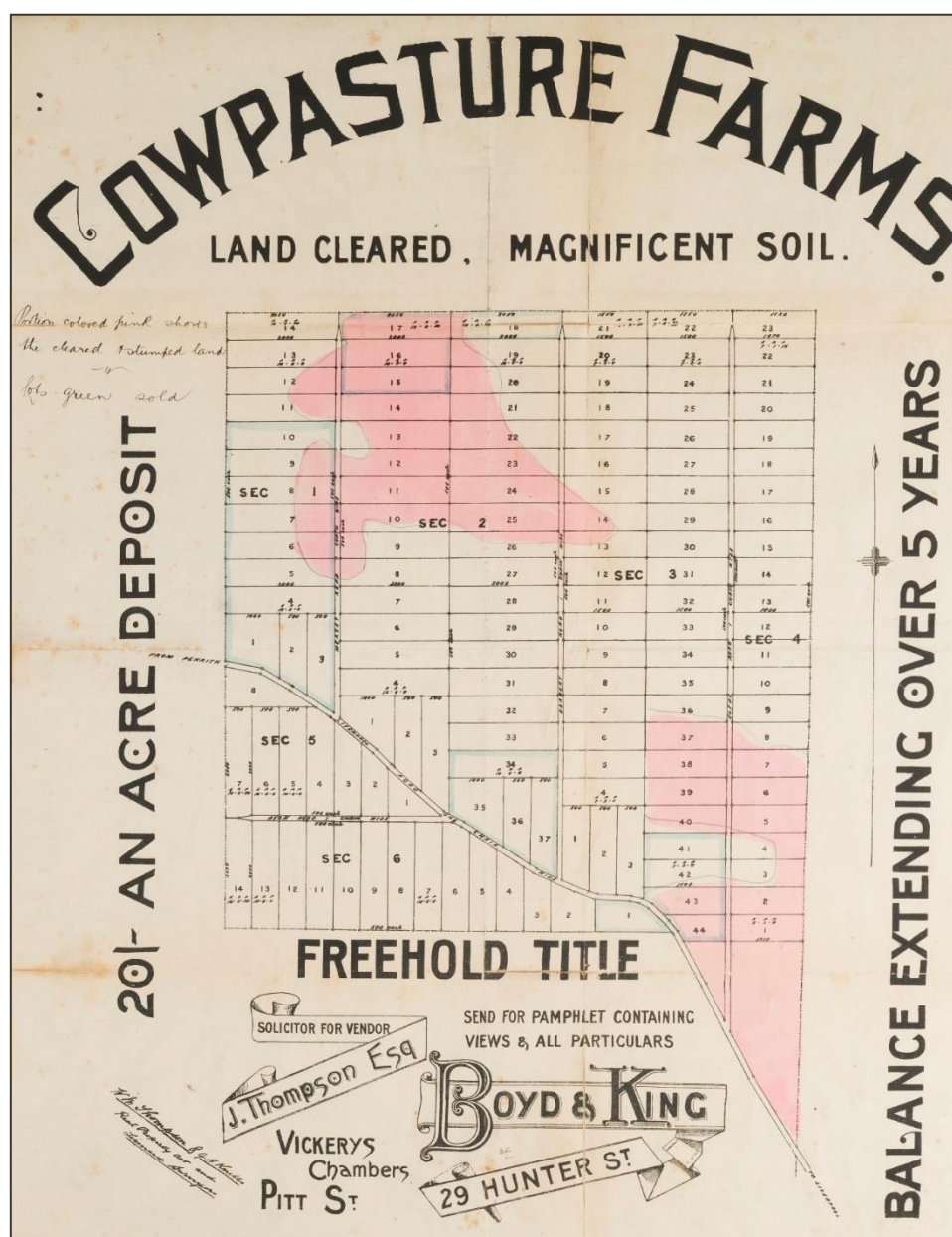


Figure 8. Cowpasture Farms, in 7 and 10-acre blocks, 1892. Source: SLNSW DSM/Q981.2/B



Figure 9. Cowpasture Farms, in 7 and 10-acre blocks, view of property from main road, 1892. Note: Bringelly Road looking west. Source: SLNSW DSM/Q981.2/B

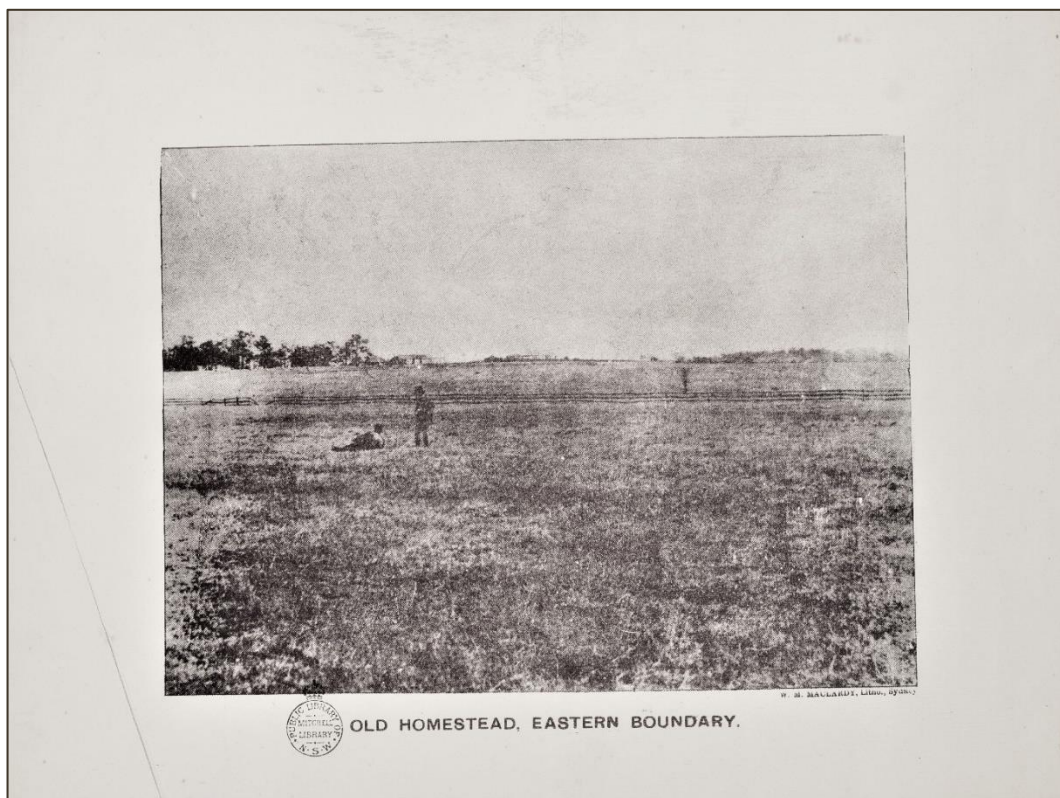


Figure 10. Cowpasture Farms, in 7 and 10-acre blocks, 1892. Note: Old homestead [Kelvin Park?] eastern boundary. Source: SLNSW DSM/Q981.2/B

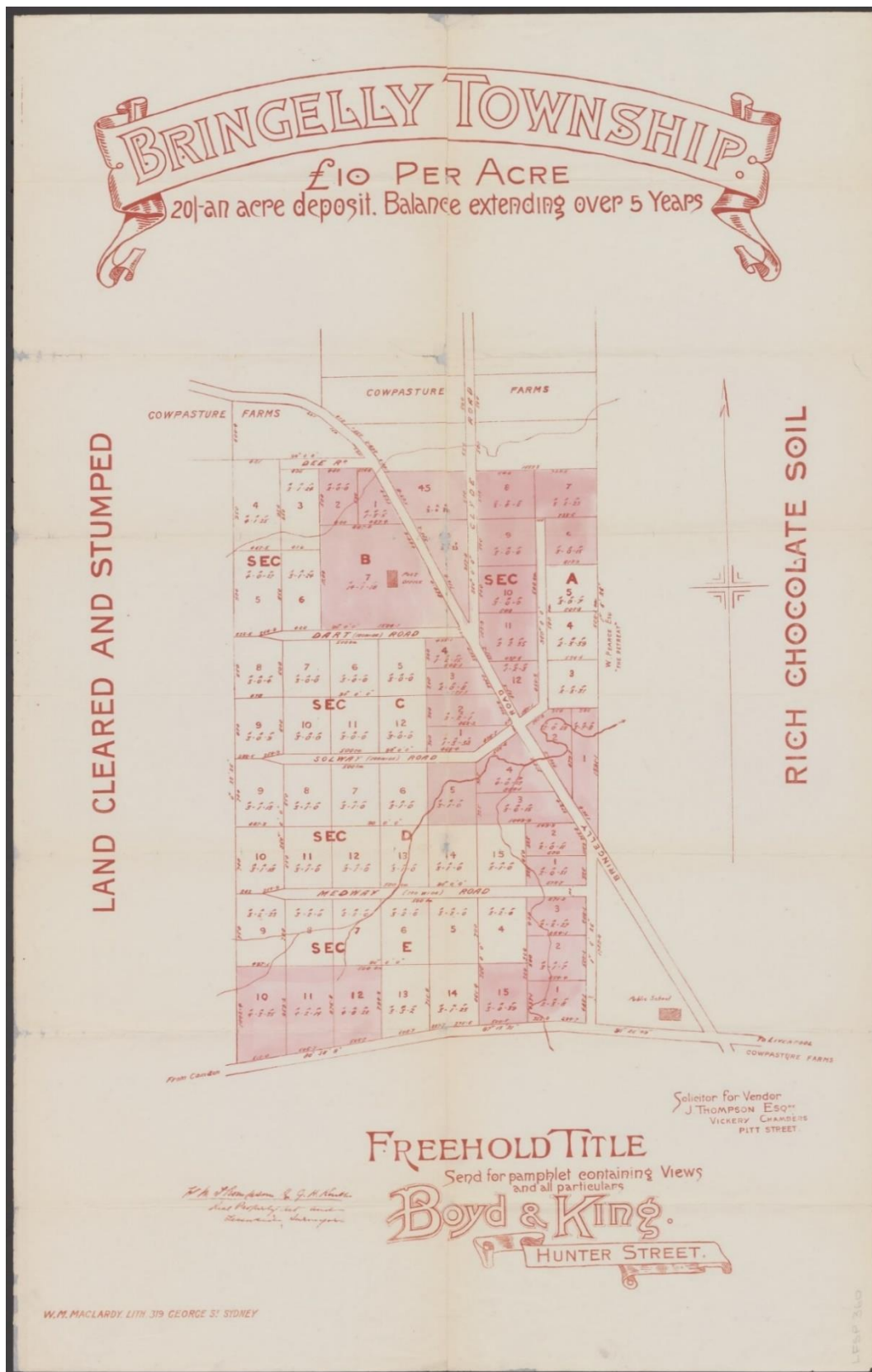


Figure 11. Bringelly Township, 1892. Source: NLA MAP LFSP 360, Folder 28

4.6 Early twentieth century development 1900-1945

By 1900 the second generation of large landowners had subdivided most of their properties. Many of the smaller lots had been purchased by local families that had been former tenants. During this period these holdings were consolidated and expanded with the names Braithwaite, Adams, Nobbs, McKaughan, Sales, and Hughes.

The principal agricultural activities undertaken within the district included dairying, orcharding, pig-raising, potato-growing, grazing and grain production. Industrial activities were mainly associated with the processing of agricultural products. A small abattoir was located at Luddenham and a butter factory at Rossmore. Bacon-curing was also undertaken on a number of larger properties including Fleurs. One of the principal activities undertaken in the first two decades of the twentieth century was wood-cutting. The dereliction of many of the larger grazing properties during the latter part of the nineteenth century saw regrowth of native timbers suitable for use as firewood. These activities formed the main stay of the local economy until the Second World War.

The presence of large tracts of cleared land close to the main settled district in New South Wales also saw the Commonwealth take notice. From 19 March 1942 to 28 February 1945 the Commonwealth leased a large portion of Kelvin Park (known then as 'Kelvin') from Lorna MacDonald. This would form the RAAF Bringelly Dispersal Area attached to the parent airfield at Fleurs. The land between Thompsons Creek and South Creek was developed as an Emergency Landing Ground and included new fencing, drainage, aircraft hide-outs and other infrastructure. Figure 14 illustrates the location dispersal area, landing strip and fence lines. The area to the west of Thompsons Creek (including the study area) remained substantially unchanged since all infrastructure associated with the strip was concealed in the stands of trees immediately surrounding the strip. The main house at Kelvin was leased as officer accommodation.

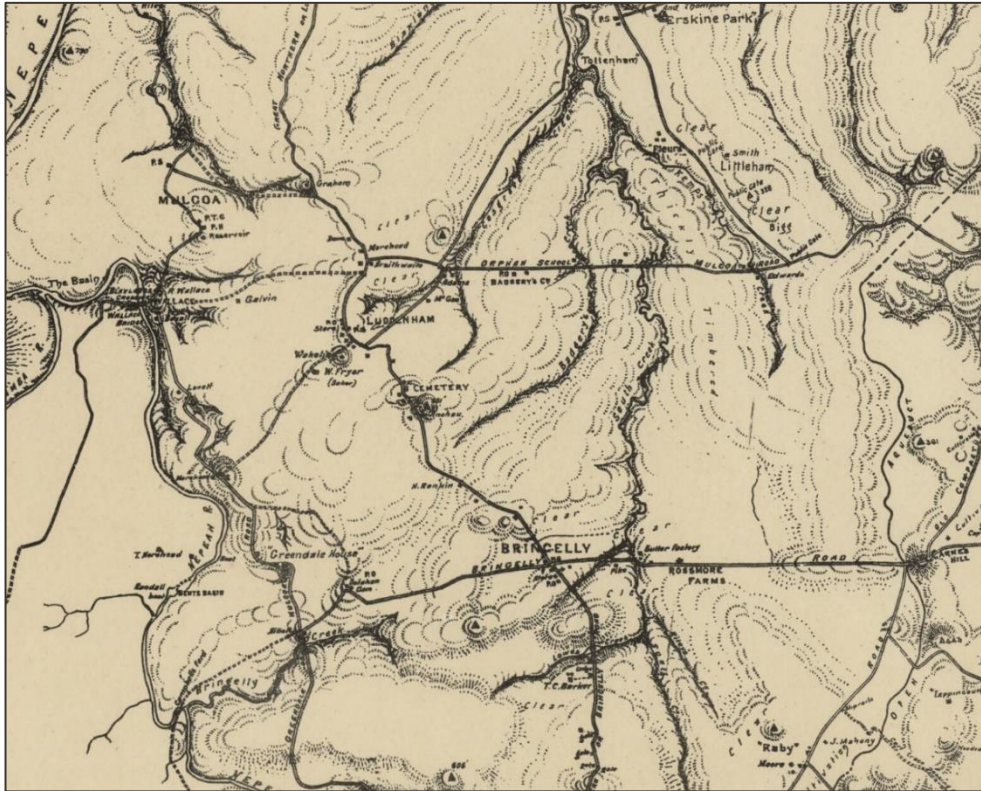


Figure 12. Map of the manoeuvre area Liverpool NSW, 1906. *Source:* NLA, NLA.OBJ-232733847

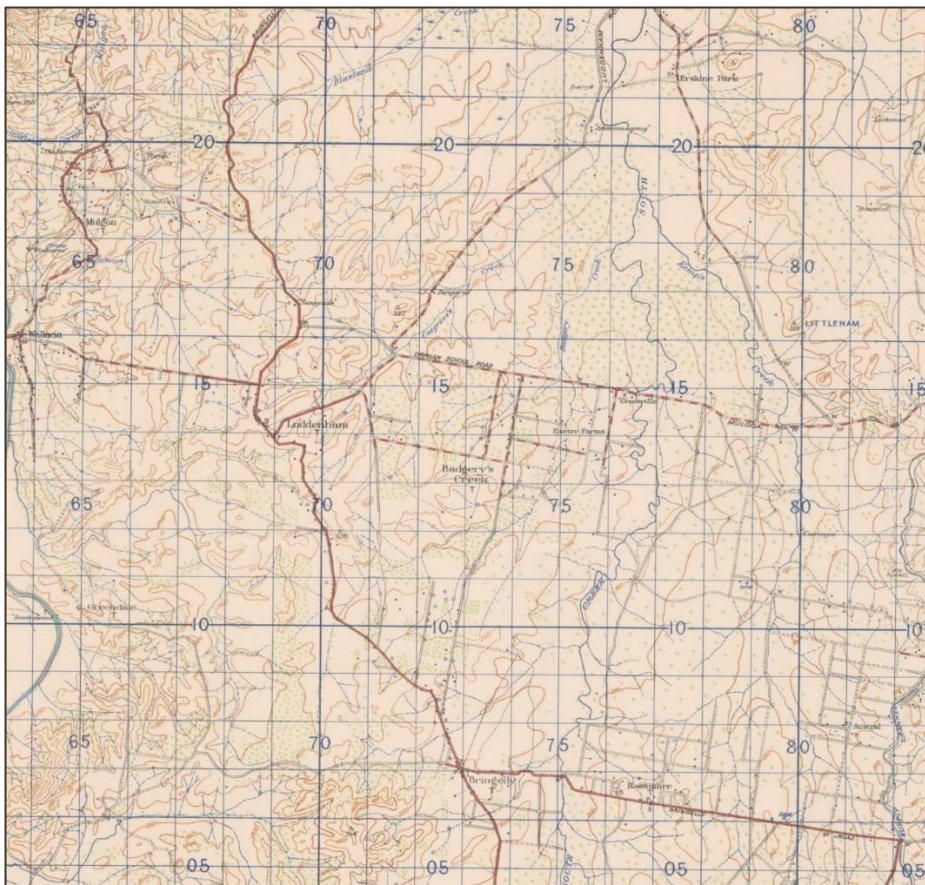


Figure 13. Liverpool NSW, 1935 (Information to 1927) detail. *Source:* NLA, NLA.OBJ-446266912

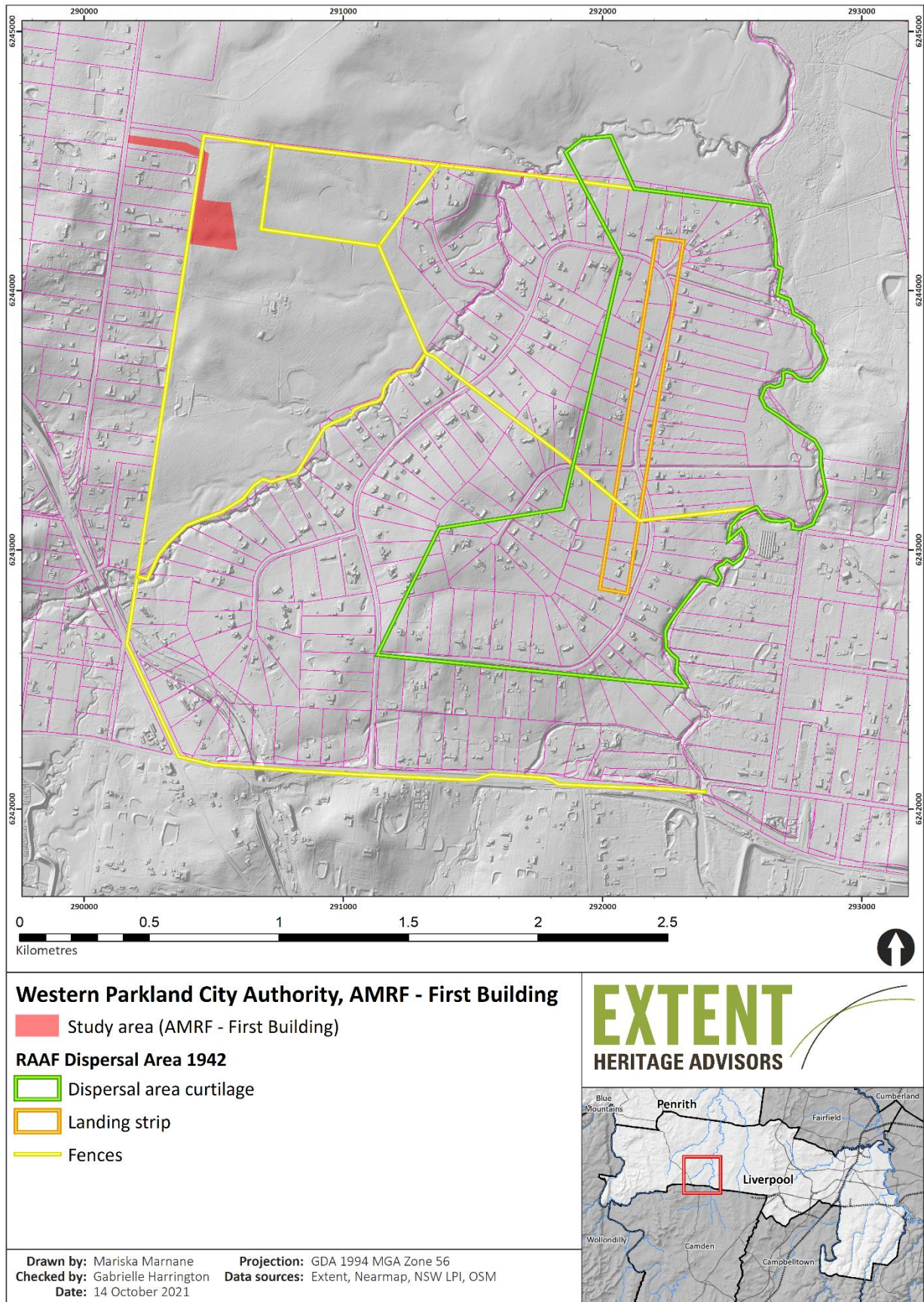


Figure 14. RAAF Bringelly Dispersal Area 1942. Source: NAA SP16/4 1892

4.7 Late twentieth century development 1945-2000

Following the Second World War the region returned to primarily agricultural activities. The introduction of the County of Cumberland Planning Scheme placed the study area within the rural zone adjacent to the green belt that was to encircle Sydney. The County of Cumberland Council, tasked with implementing the scheme, sought to address the problems associated with the rapid development of the County within an unplanned framework. The key problems identified were over-centralisation and congestion of industry, congested traffic, slum housing, conflicting land uses, unregulated residential sprawl, the provision of basic infrastructure and the destruction of the natural beauty of the County (Abercrombie 2008, 25). The Scheme meant that subdivisions within the study area could not be smaller than 5-acres. This resulted in a spate of 5-acre subdivisions during the early 1950s, many of these lots were taken up by migrant families with poultry production and market-gardening being the main agricultural enterprises.

RAAF Bringelly Receiving Station

During the Second World War the Royal Australian Air Force (RAAF) developed an area as an Emergency Landing Ground, this was essentially a grass strip with little or no associated infrastructure. In 1954 the Commonwealth commenced purchasing of land for the construction of a RAAF Radio Receiving Station immediately adjacent to the OTC station. Delays in purchasing the properties resulted in construction commencing in 1959 (Godden Mackay 1997, 5–8). The radio receiving station was designed to receive international radio telegrams and telephone calls and from ships at sea. The station replaced an earlier station at La Perouse and featured thirty-two rhombic aerials on masts from 70 to 120 feet high. The station was to operate in concert with RAAF Londonderry Transmitting Station and subordinate to RAAF Glenbrook (Godden Mackay 1997, 5–8). The historical aerial photograph shown in Figure 15 and Figure 16 show the development of the RAAF Bringelly site between 1947 and 1965 and confirm the lack of development within the study area.

Advances in technology rendered the radio receiving station obsolete and was downgraded in the late 1980s (AMC 2014, 28). During the 1990s and into the 2000s buildings and infrastructure were progressively removed leaving only the core structures and the main aerial intact.

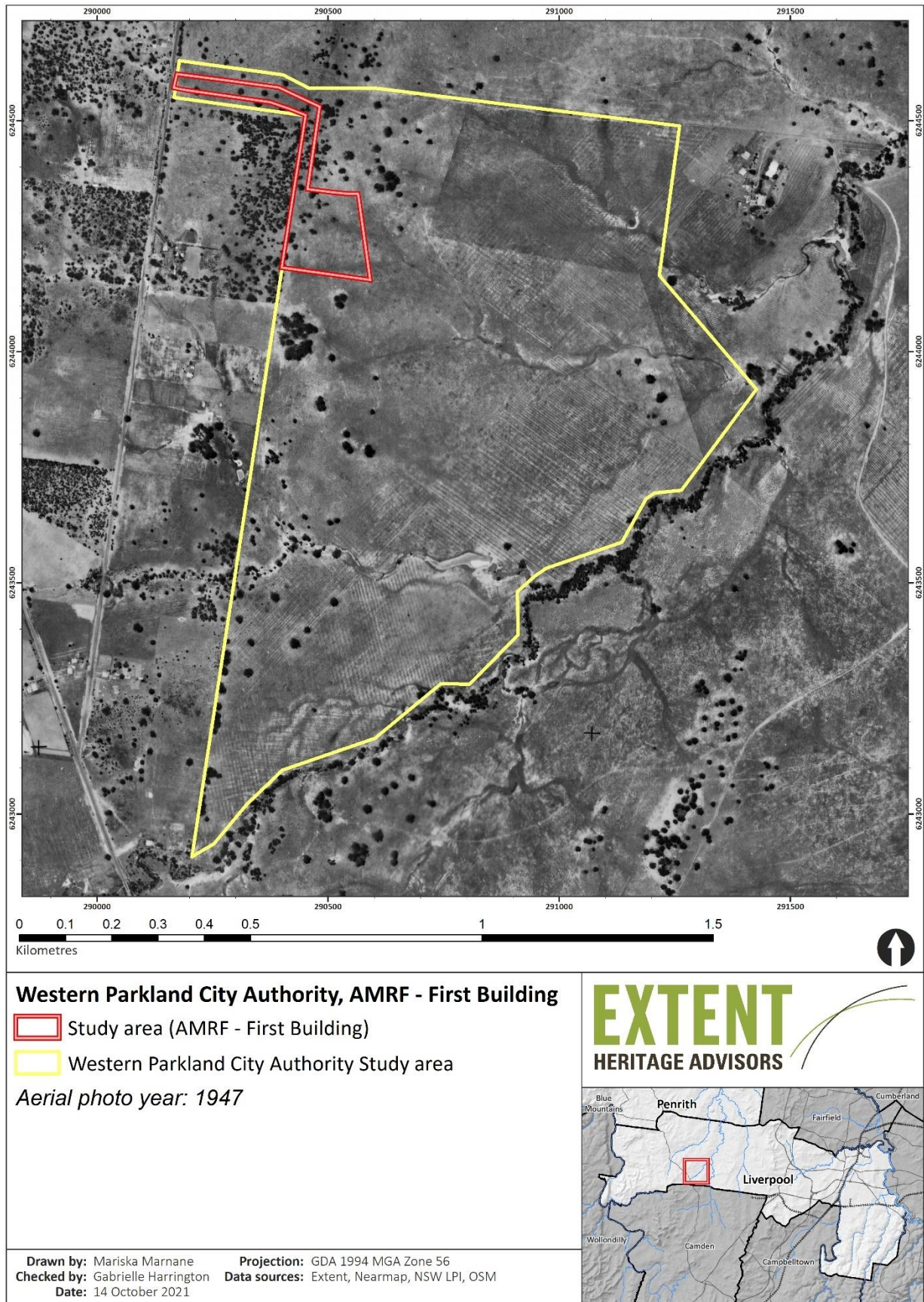


Figure 15. Aerial image of site 1947. *Source:* NSW LPI.

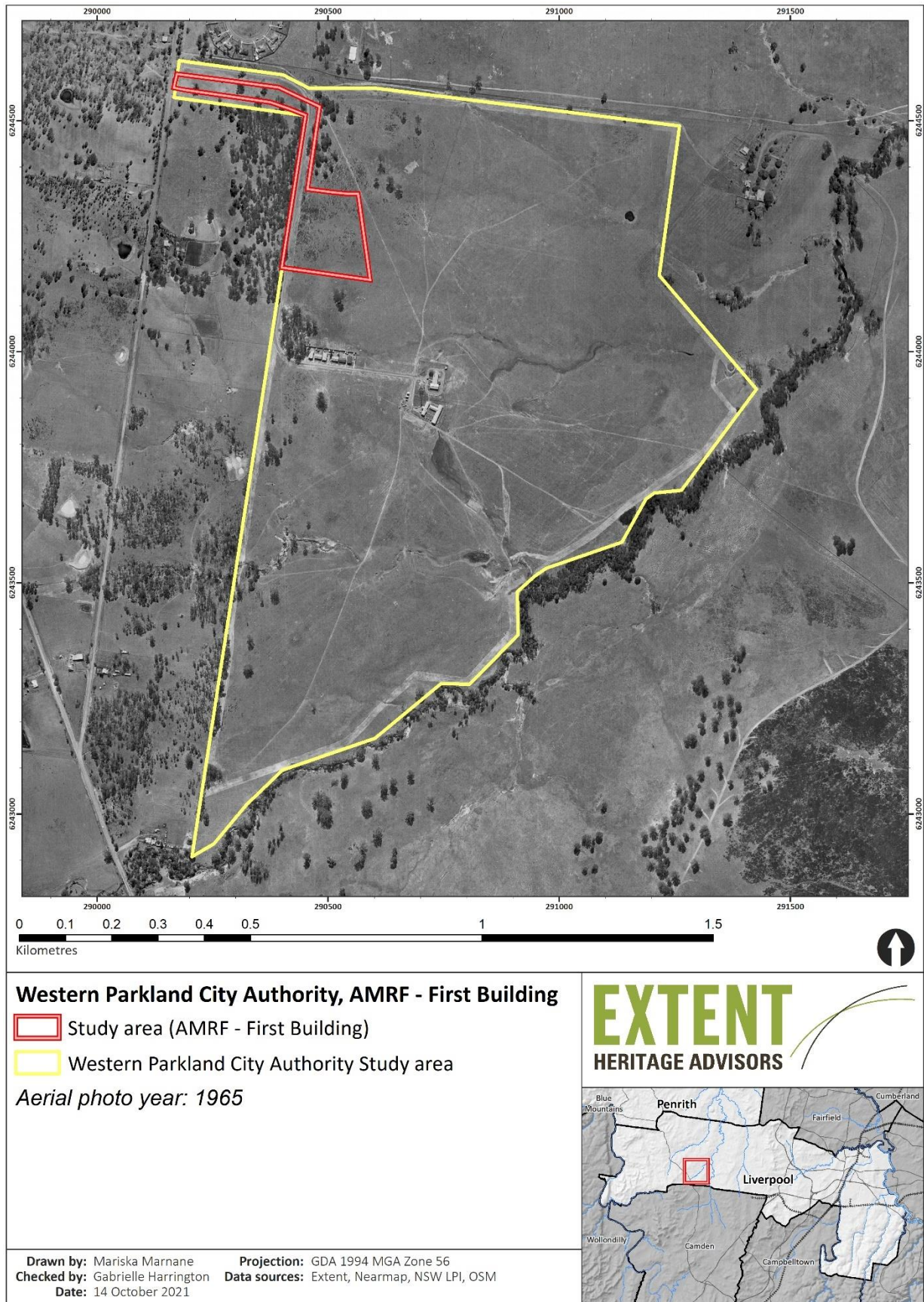


Figure 16. Aerial image of site 1965. Source: NSW LPI.

4.8 Post-2000 intensive development

In the period after 2000 the area surrounding the study area has undergone significant changes in select areas. Regarding agriculture there has been a significant growth in market-gardening along South Creek, and a general decline in grazing. Similarly, there has been an increase in the use of glasshouses and a general intensification of cultivation where soils and water permit.

There has also been significant upgrading of existing main roads, particularly The Northern Road. Access to main roads has also seen the development of warehousing and transport facilities on former rural properties.

The area is in the process of being transformed significantly over the coming decades with the development in the initial Aerotropolis precincts, including the new Bradfield City Centre, at the Aerotropolis Core Precinct at Bringelly. This study area is the proposed location of the AMRF First Building to be constructed within the Bradfield City Centre. The Western Sydney International Airport acts as a catalyst for this development and is currently under construction with the first runway set to open in 2026. The region will also gain its first rail link with the construction of the Sydney Metro-Western Sydney Airport line, from St Marys to the Aerotropolis Core. Further major road links are proposed with the construction of the M12 and Outer Sydney Orbital.

5. Physical description

Extent Heritage carried out a physical assessment of the study area on 18 October 2021. The analysis involved an investigation into the built form and landscape setting. It does not provide a detailed investigation of all fabric but an overview of the elements of the place to assist in determining significance.

5.1 The site of the First Building

The study area is located at 215 Badgerys Creek Road, Bringelly within the Bradfield City Centre of the Western Parkland City. The study area is located in the north-western corner of the Bradfield City Centre and covers an approximate area of 3 hectares. The area is accessed off Badgerys Creek Road via an unsealed road to Badgerys Creek Road.

The study area consists of an entirely rural area, located to the west of Thompsons Creek. The area is set on a hill and slopes down towards the east. had been largely cleared of vegetation and consists predominately of low-lying dense scrub with several established mature trees. There are no built features within the study area.



Figure 17. View east along southern boundary of study area.



Figure 18. View south along western boundary of study area.



Figure 19. View north along western boundary of study area.



Figure 20. Overview of study area from the south-western boundary of the site.



Figure 21. Western boundary of the study area facing east.



Figure 22. Northeast corner of study area looking south.



Figure 23. View west along northern boundary of study area from north-east corner.



Figure 24. View south-east from north-eastern corner of site. Note the low-lying scrub covering the majority of the site.



Figure 25. View west from centre of study area showing rural landscape.



Figure 26. View north west from southern boundary of the study area showing Kelvin at 30 The Retreat.

5.2 Settings and views

The study area is set within an expansive rural setting with low lying scrub and mature trees. The majority of the area to the north, south and east of the study area has been cleared, although there are a number of structures associated with the historical use of the site by the RAAF. This is centred around the main building and transmission tower located to the south of the study area. To the west of the study area are rural residential allotments set along Badgerys Creek Road. Views west, however, are not visible from the study area as there are a line of mature trees along the western boundary of the site.

The significant views from the study area are directly east towards the SHR item 'Kelvin' at 30 The Retreat, Bringelly. The rural setting of the study area contributes to the significant rural views and setting of this SHR item. There are no views from the study area towards the SHR item 'Church of the Holy Innocents' at 130 Rossmore Avenue West, Rossmore. Figures 27 to 29 illustrates the key views to and from the study area. Figure 30 maps the location of these photos using arrows to indicate the direction each photograph was taken.



Figure 27. Northeast corner of study area looking southeast. Note view towards the RAAF transmission tower (shown by pink arrow).



Figure 28. Southern boundary of study area showing view north - east towards Kelvin homestead (shown by orange arrow).



Figure 29. View from Kelvin looking west towards the study area (shown by green arrow).

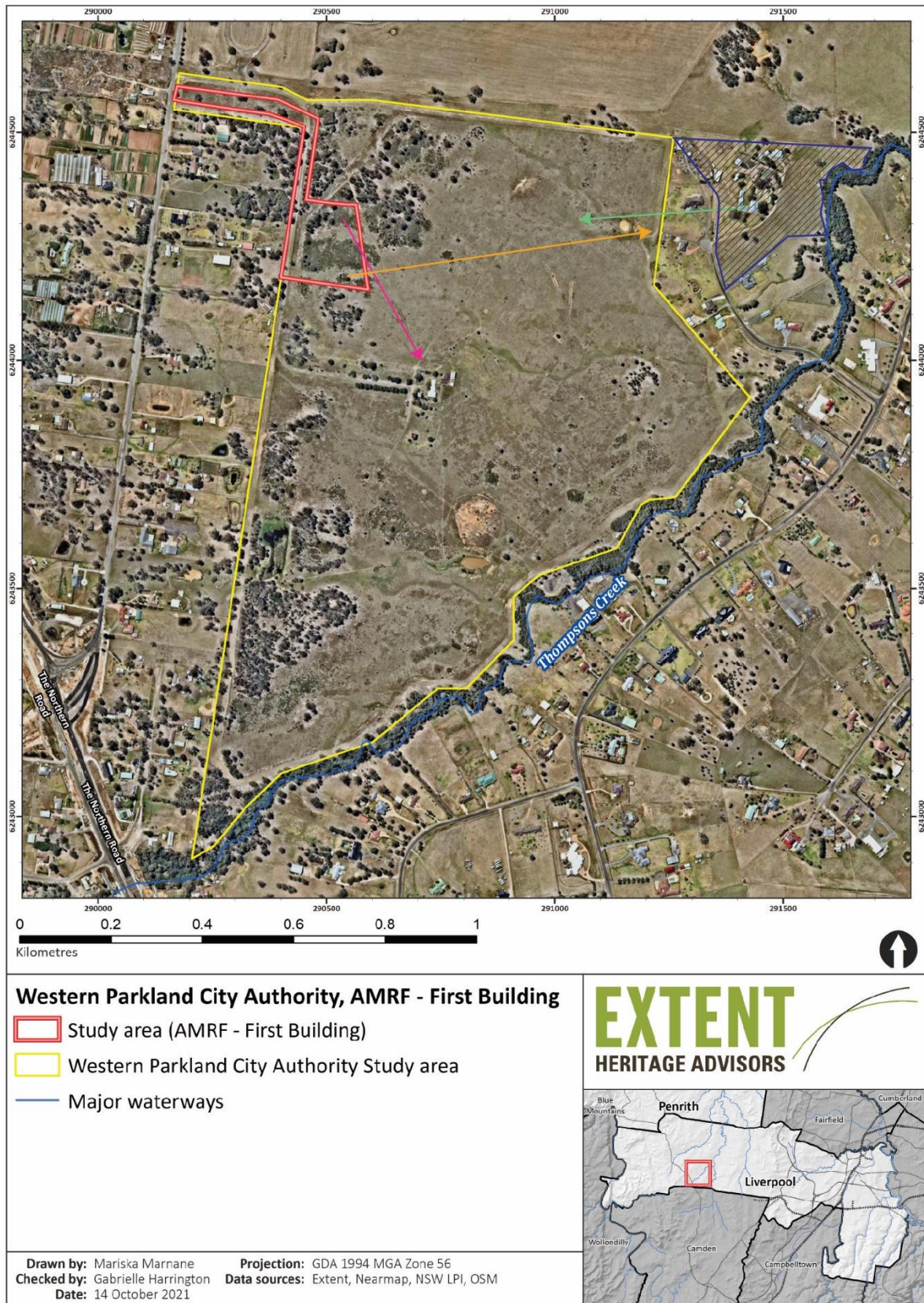


Figure 30. Map showing key views relating to the study area and heritage in the vicinity. Kelvin (SHR item) hatched in blue.

6. Historical archaeological potential

6.1 Introduction

Archaeological potential refers to the likelihood of a site to contain evidence of previous phases of historical occupation. Archaeological features and deposits in the form of structural remains and artefact bearing deposits are tangible evidence of previous occupation and human activities. The study area's archaeological potential is usually presented in accordance with (1) the types of potential archaeological remains associated with features or activities that may survive at the site, (2) a date indicating the year by which the resource is known to have been constructed, (3) the likely extent and integrity of relics, i.e. the predicted level of survival, which is expressed in accordance with the following rankings:

- High: it is likely that archaeological relics associated with a particular historical phase or features survive intact.
- Moderate: it is possible that some archaeological relics associated with a particular historical phase or features survive, but they may have been subject to some disturbance.
- Low: it is unlikely that archaeological relics associated with a particular historical phase or features survive.
- Nil: the degree of ground disturbance indicates that there is no potential for any significant archaeological relics to be preserved.

This section identifies where archaeological evidence is likely to be found at the site, and to what extent it may be preserved.

6.2 Phases of development and historical archaeological

Phase 1: Aboriginal occupation pre-1788

The archaeological evidence associated with the pre-1788 Aboriginal occupation of the study area has been examined in the Bradfield City Centre – First Building Aboriginal Due Diligence Assessment in preparation by Extent Heritage (October 2021).

Phase 2: British exploration and survey, 1788-1804

Activities undertaken during this phase include exploration and first surveys. These activities are unlikely to have left physical traces ('relics') on the site. Survey marks, such as blazed trees have not been located despite an investigation of the site and an examination of mature trees in particular.

Phase 3: Early settlement, 1805-1850

Activities undertaken during this phase of development are primarily associated with the formation and operation of 'The Retreat' ('Kelvin'). The study area was cleared of trees and converted to grazing land. Most developments were concentrated around the homestead itself

(outside the study area). Archaeological remains are likely to be restricted to the remains of former fence lines and tracks.

Phase 4: Nineteenth century subdivision 1850-1900

As for Phase 3.

Phase 5: Early twentieth century development 1900-1945

As for Phase 3. Although part of the property west of Thompsons Creek was occupied by the RAAF as part of the Bringelly Dispersal Area all infrastructure appears to have been located east of Thompsons Creek.

Phase 6: Late twentieth century development 1945-2000

The main activity associated with this phase of the site's development was the operation of the RAAF Bringelly Receiving Station. Subsurface remains associated with the phase may include footings associated with staff housing, remains of the aerial array, remains of the water tank and roads and tracks.

Phase 7: Post-2000 Intensive Development

Activities associated with this phase of development do not fall within the scope of archaeological investigation.

6.3 Summary of historical archaeological potential

Based on the information presented in the historical context and an analysis of historical aerial photographs and maps, the extent and integrity of relics associated with archaeological sites identified within the Aerocore precinct varies from Low to Moderate, depending on the phase of development. Within the study area the archaeological potential for all phases is assessed as being Low.

Table 3 Summary of historical archaeological potential

Phase	Site feature or site activities	Potential remains	Level [or likelihood] of survival within Aerocore	Level [or likelihood] of survival within study area	Research potential
1: Aboriginal occupation pre-1788	n/a	n/a	n/a	n/a	n/a
2: British exploration and survey 1788-1804	Survey	Survey marks	Low	Low	Moderate
3: Early settlement, 1805-1850	Grazing	Postholes, fence lines, tracks	Low	Low	Low
4: Nineteenth century subdivision 1850-1900	Grazing	Postholes, fence lines, tracks	Low	Low	Low

Phase	Site feature or site activities	Potential remains	Level [or likelihood] of survival within Aerocore	Level [or likelihood] of survival within study area	Research potential
5: Early twentieth century development 1900-1945	Grazing	Postholes, fence lines, tracks	Low	Low	Low
6: Late twentieth century development 1945-2000	RAAF Bringelly	Subsurface remains of staff housing, bases for aerial array, roads, water tank site	Moderate	Low	Moderate
7: Post-2000 Intensive Development	n/a	n/a	n/a	n/a	n/a
All Phases	Lost or discarded artefacts	Isolated artefacts	Low	Low	Low

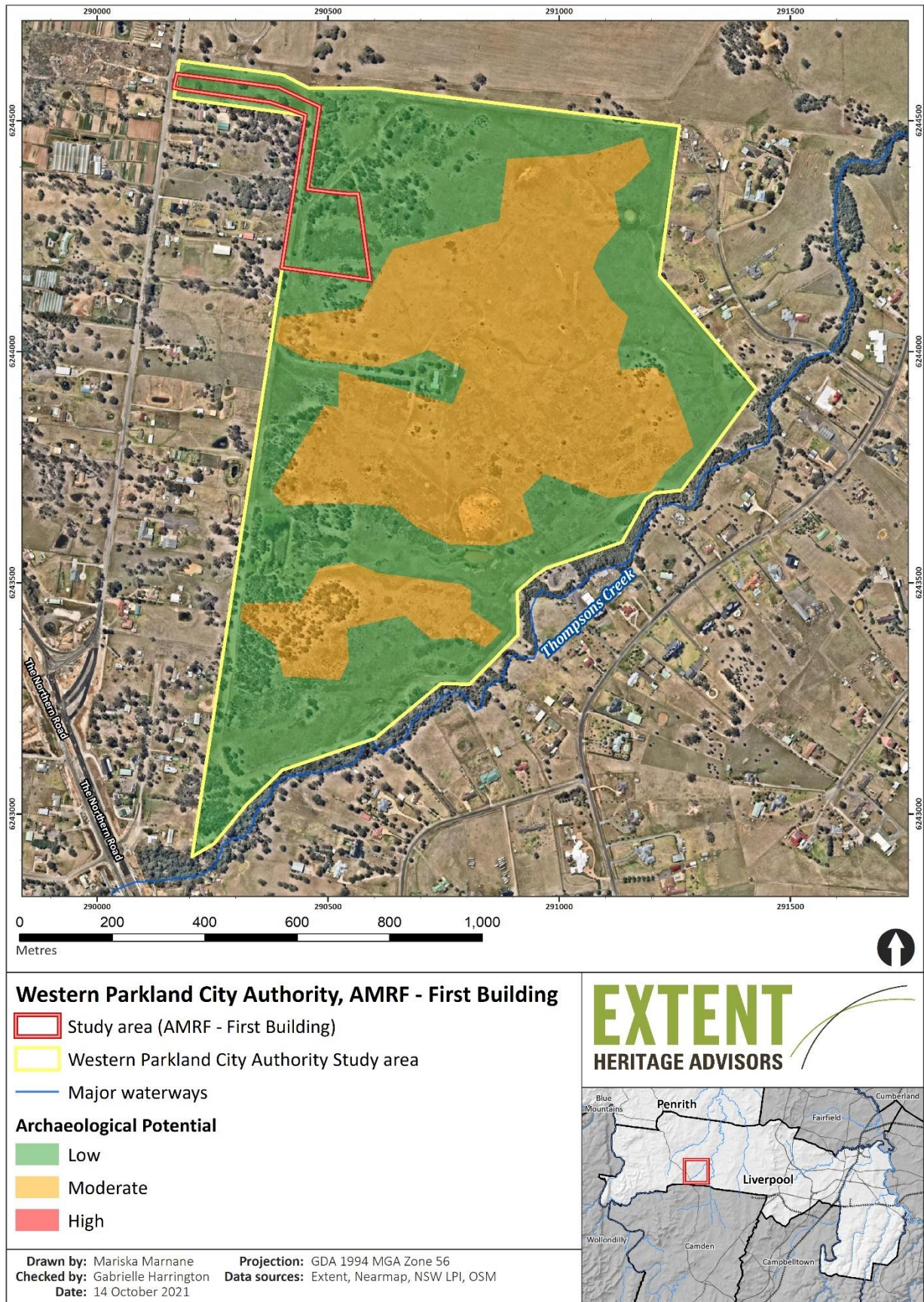


Figure 31. Historical archaeological potential

7. Assessment of heritage significance

The NSW Heritage Manual was developed by the Heritage Office and the former NSW Department of Urban Affairs and Planning to provide the basis for an assessment of heritage significance of an item or place. This is achieved by evaluating the place or items significance in reference to specific criteria, which can be applied at a national, state, or local level (Heritage Office 2001). The NSW Assessing Heritage Significance details these specific criteria which are quoted in Section 6.1.1 below. (Heritage Office 2001, 9). The significance of the study area is assessed against these criteria below.

7.1.1 Assessment against criteria

Criterion (a) An item is important in the course, or pattern, of NSW's cultural or natural history (or the cultural or natural history of the local area);

Criterion (b) An item has strong or special association with the life or works of a person, or group of persons, of importance in NSW's cultural or natural history (or the cultural or natural history of the local area);

Criterion (c) An item is important in demonstrating aesthetic characteristics and/or a high degree of creative or technical achievement in NSW (or the local area);

Criterion (d) An item has strong or special association with a particular community or cultural group in NSW (or the local area) for social, cultural or spiritual reasons;

Criterion (e) An item has potential to yield information that will contribute to an understanding of NSW's cultural or natural history (or the cultural or natural history of the local area);

Criterion (f) An item possesses uncommon, rare or endangered aspects of NSW's cultural or natural history (or the cultural or natural history of the local area);

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

7.1.2 Gradings of significance

Graded levels of significance are a management tool used to assess the relative significance of elements within an item, place or site and to assist in decision-making regarding elements of a place. The gradings of significance that have been used for elements within the study area are based on guidelines established in the NSW Heritage Division publication, *Assessing Heritage Significance* (2001).

Table 4. Gradings of significance definitions. *Source:* NSW Heritage Office (2001).

Grading	Justification	Status
Exceptional	Rare or outstanding element directly contributing to an item's local and State significance.	Fulfil criteria for local and State listing.
High	High degree of original fabric. Demonstrates a key element of	Fulfil criteria for local or State listing.

Grading	Justification	Status
	the item's significance. Alterations do not detract from significance.	
Moderate	Altered or modified elements. Elements with little heritage value, but which contribute to the overall significance of the item.	Fulfils criteria for local or State listing.
Little	Alterations detract from significance. Difficult to interpret.	Does not fulfil criteria for local or State listing.
Intrusive	Damaging to the item's heritage significance	Does not fulfil criteria for local or State listing.

7.2 The Site of the First Building

Criteria Assessment	
Historic	<p>The study area is of some local historical significance forming a part of 600 acres of land granted to Thomas Laycock on 26 November 1818, initially known as 'Cottage Vale'. This grant was later absorbed with the Charles Reid's adjoining 600-acre grant to the south and the consolidated estate was known as 'The Retreat'. The main farm complex and homestead 'Kelvin' survive substantially intact to the north-east of the study area.</p> <p>The study area is also of some local historical significance as a part of the RAAF Bringelly Dispersal Area which developed between 1942 and 1945 and was attached to the parent airfield at Fleurs. The area between South Creek and Thompson's Creek were developed as an Emergency Landing Ground. Although the study area was a formed a part of this property, it remained substantially unchanged since all infrastructure associated with dispersal area were concealed in the stands of trees immediately surrounding the landing ground.</p> <p>In 1954 the Commonwealth commenced purchasing of land for the construction of a RAAF Radio Receiving Station which included the study area. The radio receiving station was designed to receive international radio telegrams and telephone calls and from ships at sea. Advances in technology rendered the radio receiving station obsolete and was downgraded in the late 1980s (AMC 2014, 28). During the 1990s and into the 2000s buildings and infrastructure were progressively removed leaving only the core structures and the main aerial intact.</p> <p>Whilst the study area has some local historical significance as one of Thomas Laycock's early land grants and as a part of RAAF Bringelly, there are no built elements or landscape features on the site that are associated with any of these periods. The study area does not meet the threshold for this criterion.</p>

Criteria Assessment	
Associative	The study area has some associations with the RAAF Bringelly although these are no longer visible within the built environment and landscape.
Aesthetic/Technical	The study area does not meet this criterion. There are no built or landscape values within this landscape.
Social	The item does not meet this criterion.
Scientific	The item does not meet this criterion.
Rarity	The item does not meet this criterion.
Representativeness	The item does not meet this criterion.

Summary of Significance Assessment

The site of the Bradfield City Centre First building is of some local historical significance forming a part of 600 acres of land granted to Thomas Laycock on 26 November 1818, initially known as 'Cottage Vale'. This grant was later absorbed with the Charles Reid's adjoining 600-acre grant to the south and the consolidated estate was known as 'The Retreat'. The main farm complex and homestead 'Kelvin' survive substantially intact to the north-east of the study area.

The study area is also of some local historical significance as a part of the RAAF Bringelly Dispersal Area which developed between 1942 and 1945 and was attached to the parent airfield at Fleurs. The area between South Creek and Thompson's Creek were developed as an Emergency Landing Ground. Although the study area was a formed a part of this property, it remained substantially unchanged since all infrastructure associated with dispersal area were concealed in the stands of trees immediately surrounding the landing ground.

In 1954 the Commonwealth commenced purchasing of land for the construction of a RAAF Radio Receiving Station which included the study area. The radio receiving station was designed to receive international radio telegrams and telephone calls and from ships at sea. Advances in technology rendered the radio receiving station obsolete and was downgraded in the late 1980s (AMC 2014, 28). During the 1990s and into the 2000s buildings and infrastructure were progressively removed leaving only the core structures and the main aerial intact.

Whilst the study area has some local historical significance as one of Thomas Laycock's early land grants and as a part of RAAF Bringelly, there are no built elements or landscape features on the site that are associated with any of these periods. Archaeological research potential is low.

Although the study area has some association with the RAAF Bringelly, these are not evident within the built environment and landscape. There are no significant built or landscape features within the study area.

The site of the Bradfield City Centre First Building does not meet the threshold as a site of local or state heritage significance.

7.3 Heritage in the vicinity

7.3.1 Kelvin – Statement of Significance

The following statement of significance has been quoted from the State Heritage Inventory form for 'Kelvin' (Heritage NSW, last updated 2005).

Kelvin Park, formerly known as Cottage-ville or Retreat Farm, is able to demonstrate the pastoral development of Bringelly from 1818. Although there is only a remnant (9.784 ha) of the original 1200 acre site (486ha), the homestead and farm buildings in their current setting with extensive views over rural land, is still able to demonstrate the principles of 19th century farm estate architecture, planning and design.

Kelvin Park is significant for its association with a number of people and organisations of importance in NSW's cultural history, including Thomas Laycock Junior who established the farm at Bringelly, and later owners, John Thomas Campbell and Alfred Kennerley. The lease of the property by the Australian Agricultural Company, the country's oldest agricultural and pastoral development company established in 1824, is of particular significance.

The homestead at Kelvin Park retains its colonial Georgian single-storey form and planning and is representative of a gentleman's rural residence of the 1820s. Despite some modifications it retains the architectural elements and character that make it a good example of its type. The kitchen wing and servants' quarters are modest examples of early colonial Georgian style architecture but similarly retain their original form and planning. All of these buildings are evidence of the establishment of a home and farm by Thomas Laycock.

The brick coach house at Kelvin Park retains its picturesque, early Victorian form, planning and much of its original detailing. It is evidence of the development of the property in the 1850s by Alfred Kennerley, who later became Premier of Tasmania.

The two slab barns are evidence of Kelvin Park as a working farm from 1818 until, at least, the mid-20th century. The structures demonstrate 19th century building methods and farm practice.

The buildings at Kelvin Park belong to an important and rare group of colonial Georgian and early Victorian farm buildings that contribute to the historic rural landscape. They are evidence of continuity of land use for farming for 187 years (to 2005).

The form of, and elements within, the garden, courtyard areas and entry to the property are evidence of the planning of the homestead complex by Laycock and subsequent owners and express the status they hoped to convey.

The homestead of Kelvin Park retains important historic views to the east to Thompson's Creek and beyond to South Creek. The site also retains views of other historically related rural landscapes beyond the current boundaries such as the pasture and stands of trees to the north. Both views contribute to the site's significance and maintain the context of the homestead group.

Kelvin Park group, including the homestead complex and remnant of farmland is significant at local, regional, state and national levels. All areas of the site are considered equally significant. (FORM Architects, 12/2006, slightly modified, Read, S., 12/2006)

NB: neither the above nor below statements address the archaeological potential of the site).

The Kelvin Park site landscaping is a significant component of the Kelvin Park group. The early numerous tree plantings contribute to making the site a notable landmark in the area. The remaining details of driveways, fencing and entrances also contribute to the historic and social

evidence provided by the site of its original patterns of occupation and use. The site is part of an intact early 19th century farm complex that is now rare within the wider urbanised environs of Liverpool. There is the potential to gain more information on the site from further archaeological and documentary research. (LEP listing/landscape).

The setting of the house on a knoll above a creek, its remnant layout of early buildings and garden, and its fine, mature trees, particularly its variety of old pines, add greatly to the character and significance of the property. The garden and setting are considered to have regional significance (Perumal Murphy Wu, 1990)

Built by Thomas Laycock junior, 1820, having received the Bringelly grant in 1818. He returned to Australia in 1817 after fighting for England in the American War of 1812. An early house of quality and rich historical associations being one of the charming country houses of the 1820s. It is well-sited above Thompson's Creek and is surrounded by a beautifully landscaped garden. (AHC, 1998)

7.3.2 The Church of the Holy Innocents – Statement of Significance

The following statement of significance has been quoted from the State Heritage Inventory form for 'The Church of the Holy Innocents' (Heritage NSW, last updated 2018).

The Church of the Holy Innocents, churchyard, and cemetery is of state heritage significance because of its historical, associative, technical, aesthetic, research, rarity, and representative values. The church is the result of an unusual partnership of two prominent ecclesiastical architects: Richard Cromwell Carpenter, one of the leading English architects of the Cambridge Camden Society, and Edmund Blacket, the most prominent Australian ecclesiastical architect of the nineteenth century. It is the only church in NSW based on a design by Richard Cromwell Carpenter and only one of three in Australia. This church is one of the earliest Gothic Revival churches in NSW recognised as being correct in its medieval detail and thus, an important, rare and representative example of this new wave of church architecture. Its highly detailed, Gothic Revival design renders it remarkable in a state context as a small rural church. The church is also designed according to the principles of the Tractarian Movement, facilitating a change in liturgical emphasis from the pulpit and the spoken word, to the altar and the sacraments associated with a separate choir. The application of a Tractarian design in this small rural church embodies wider debates within the Church of England under Bishop Broughton. The church is also strongly associated with the main group of proponents of the Gothic Revival and Tractarian Movements operating in, or in association with, the Church of England during the 1840s in NSW: Bishop Broughton, Edmund Blacket, Reverend Horatio Walsh, and Reverend George Vidal.

The church, churchyard, cemetery, and archaeological site are associated with several important pieces of legislation relating to the governance and position of religion, and specifically the Church of England, in colonial society during the early nineteenth century. As such, these original features and the church land is able to tell a story about the changing nature of religion and the position of the Church of England in the early colony. The retention of the semi-rural nature of the church, churchyard, and cemetery into the twenty-first century also demonstrates the historic rural landscape and isolation that made the finely designed Gothic Revival Church of the Holy Innocents a remarkable and rare place of worship.

7.4 Assessment of historical archaeological significance

Archaeological significance refers to the heritage significance of known or potential archaeological remains. While they remain an integral component of the overall significance of a place, it is necessary to assess the archaeological resources of a site independently from aboveground and other heritage elements. Assessment of archaeological significance is more challenging, as the extent and nature of the archaeological features is often unknown and judgment is usually formulated on the basis of expected or potential attributes.

The following significance assessment of the subject area's archaeological resource is carried out by following guidelines expressed in Assessing Significance for Historical Archaeological Sites and 'Relics' (Heritage Branch, Department of Planning, December 2009, now Heritage NSW, Department of Premier and Cabinet).

7.4.1 NSW Heritage Criteria

The NSW heritage criteria are assembled into the following four groups:

- Archaeological research potential (NSW Heritage Criterion E)
- Association with individuals, events, or groups of historical importance (NSW Heritage Criteria A, B & D)
- Aesthetic or technical significance (NSW Heritage Criterion C)
- Ability to demonstrate the past through archaeological remains (NSW Heritage Criteria A, C, F & G)

The above assessment criteria are supplemented by the established assessment framework that has been developed by Anne Bickford and Sharon Sullivan (1984), who set three fundamental questions to assist in determining the research potential of an archaeological site. These questions are as follows:

- 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 questions about human history or other substantive questions relating to Australian history, or does it contribute to other major research questions?
- As part of this preliminary assessment, a synthesised evaluation of significance is expressed in the statement below.

7.5 Assessment of historical archaeological significance

The study area has the potential to contain sub-surface remains associated with a number of phases of site occupation. The most significant of these are remains associated with the

RAAF Bringelly Receiving Station. In regard to the assessment criteria these potential remains have been assessed as follows:

- Archaeological research potential (NSW Heritage Criterion E)

The physical remains associated with the receiving station have some limited capacity to provide information that would provide a substantive understanding of the operation of the station. These have a moderate level of significance in regard to research potential. These remains are however located outside the footprint of the first building study area.

- Association with individuals, events, or groups of historical importance (NSW Heritage Criteria A, B & D)

The site has associations with the Laycock family and the development of The Retreat as a significant pastoral property. Any remains associated with the pre-1850 development of the Aerocore site would be potentially of State significance. However, there is no evidence to indicate the presence or survival of such remains outside the central core of buildings associated with The Retreat (Kelvin) located outside the Aerocore site.

- Aesthetic or technical significance (NSW Heritage Criterion C)

In regard to significance the aerial array associated with the receiving station, the complex was of considerable importance during its period of operation. This significance is not necessarily reflected in the survival physical remains. Such remains would have a moderate level of research potential but their retention is not warranted. The remains associated with the receiving station are located outside the first building curtilage.

- Ability to demonstrate the past through archaeological remains (NSW Heritage Criteria A, C, F & G)

Surviving remains have some moderate research value in demonstrating activities in the site during its function as a receiving station. The array of aerals and other infrastructure may demonstrate the operation of the receiving station but their significance lies in their arrangement rather than in the physical remains themselves. As stated earlier the aerial array and other receiving station infrastructure are located outside the first building curtilage.

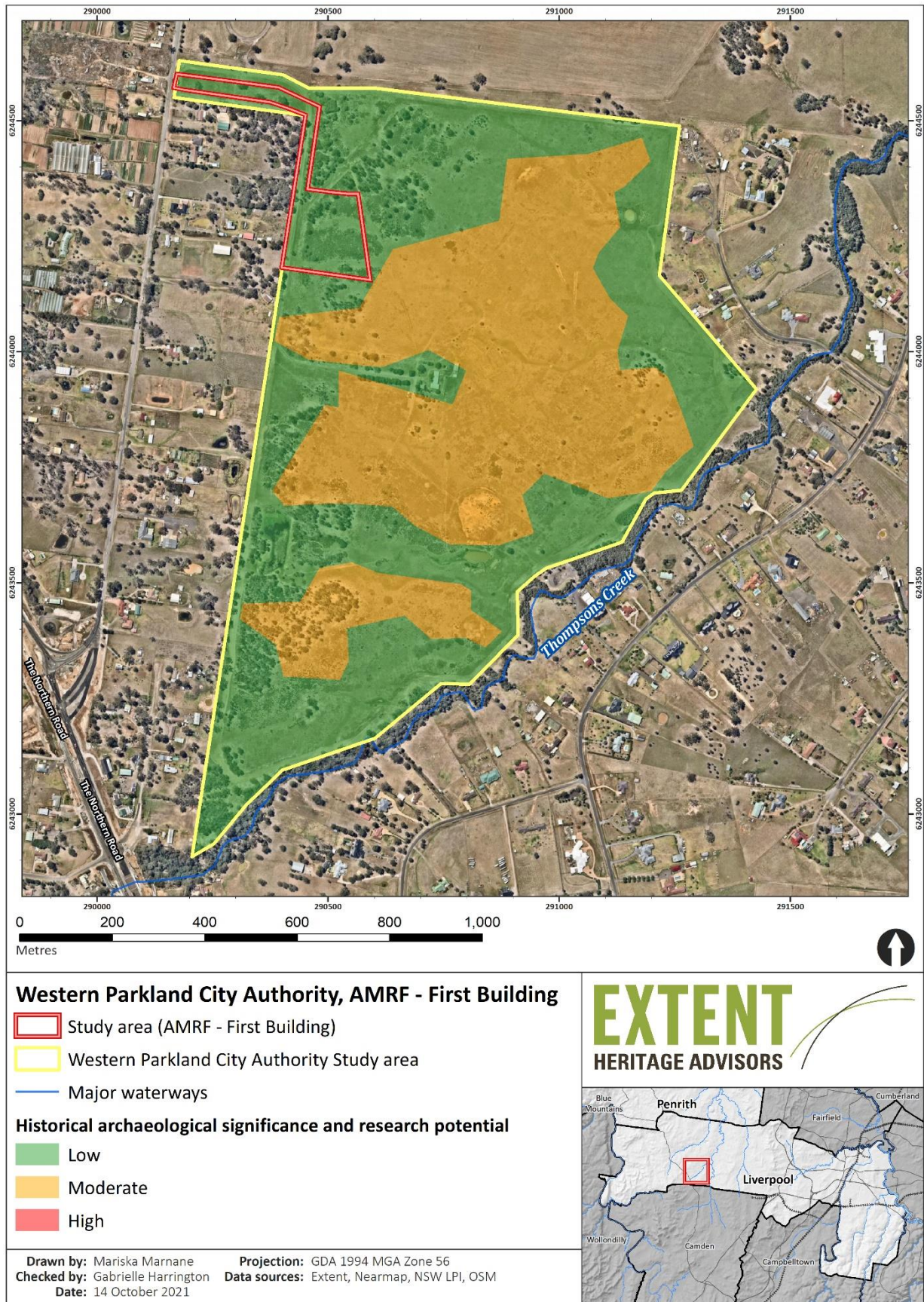


Figure 32 Historical archaeological significance and research potential.

8. Proposed works

8.1 Rationale

The Western Sydney Airport is the catalyst for much of Western Sydney's future urbanisation. The Western Sydney Aerotropolis is an 11,000-hectare region set to become Sydney's third city, and the gateway and economic powerhouse of Western Sydney.

The Aerotropolis is comprised of the new international airport surrounded by ten precincts which focus on advanced manufacturing, technology, research, training, education, freight and logistics, agribusiness, and mixed-use development.

The 1,382-hectare Aerotropolis Core Precinct is one of six precincts identified for early activation. The first stage of city building, and the focus of this Master Plan, is the Bradfield City Centre – a new city centre planned on 115 hectares of government-owned land off Badgerys Creek Road, Bringelly located within the Aerotropolis Core.

The first phase of the Western Sydney Aerotropolis Planning Package was finalised in September 2020, and includes the Western Sydney Aerotropolis Plan (WSAP), Western Sydney Aerotropolis (Aerotropolis) State Environmental Planning Policy (SEPP) and the Western Sydney Aerotropolis Development Control Plan (DCP) Phase 1. Draft Precinct Plans for the initial precincts, including the Aerotropolis Core were released for consultation in November 2020 and are expected to be finalised in late-2021. The Aerotropolis SEPP permits development that meets certain criteria, such as the First Building, to occur ahead of the finalisation of precinct planning.

The Aerotropolis SEPP rezones the land and provides for development to occur prior to the finalisation of precinct planning provided that development is consistent with the objectives of the SEPP and makes suitable arrangements (where necessary) in relation to designated State public infrastructure (WPCA 2021, 4)

8.2 Outline

The State Significant Application for the AMRF First Building will seek consent for construction, fit out and use of the proposed First Building as an advanced manufacturing research and development facility, including site preparation works, site access and parking, utilities infrastructure, landscaping/public domain, signage and other ancillary works. The proposed building will have an approximate building footprint of approximately 2,500m, an internal area of approximately 2,000 m² (GFA), a building height of approximately 18 metres above finished ground level, and will include approximately 51 at-grade parking spaces. The total site area that the study area covers including the access road, is approximately 3 hectares (WPCA 2021, 12)

The proposal, as shown on drawings prepared by Hassell, and dated 2021 is shown below.

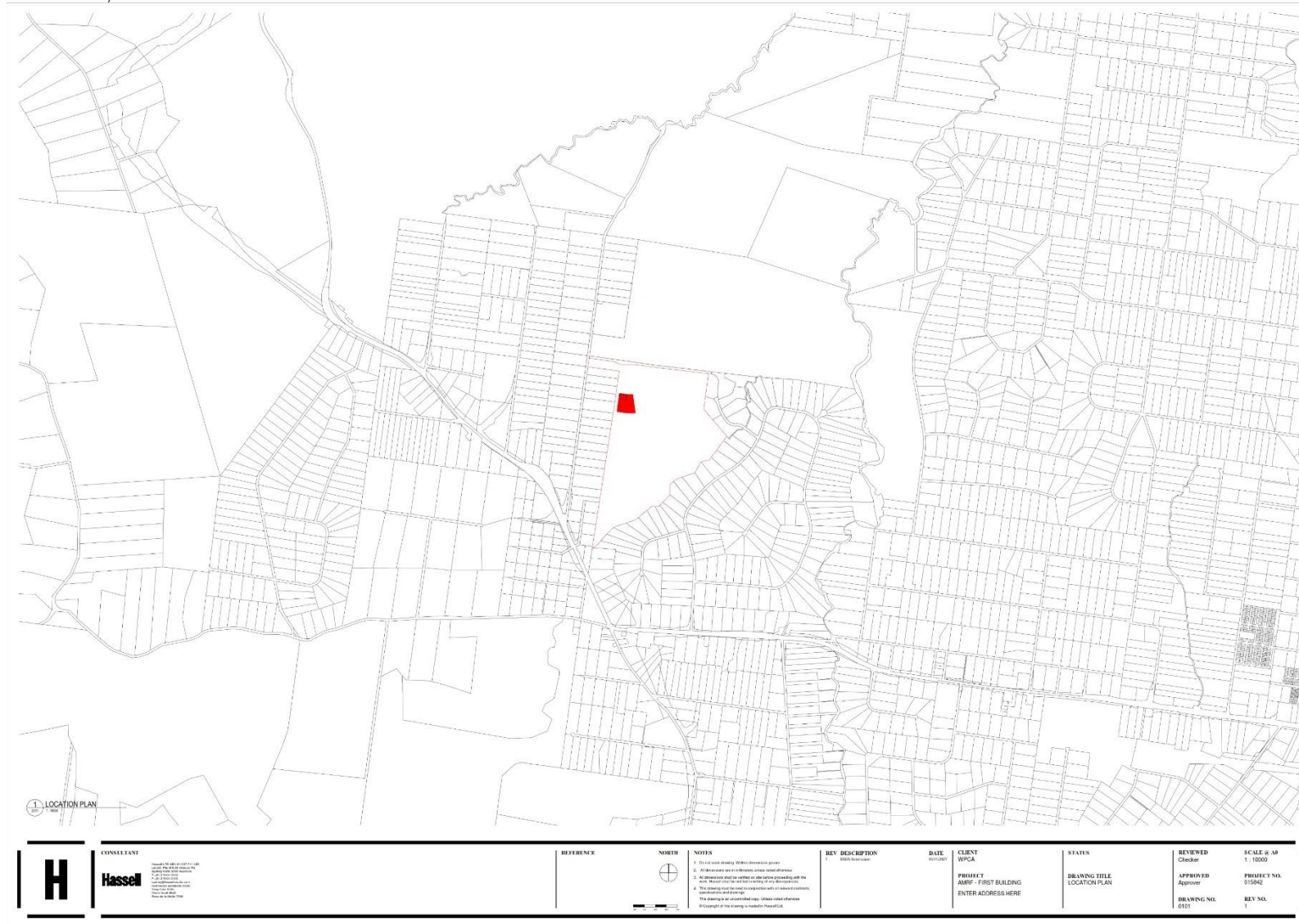


Figure 34. AMRF – First Building location plan (Architectural drawings prepared by Hassell, 2021).

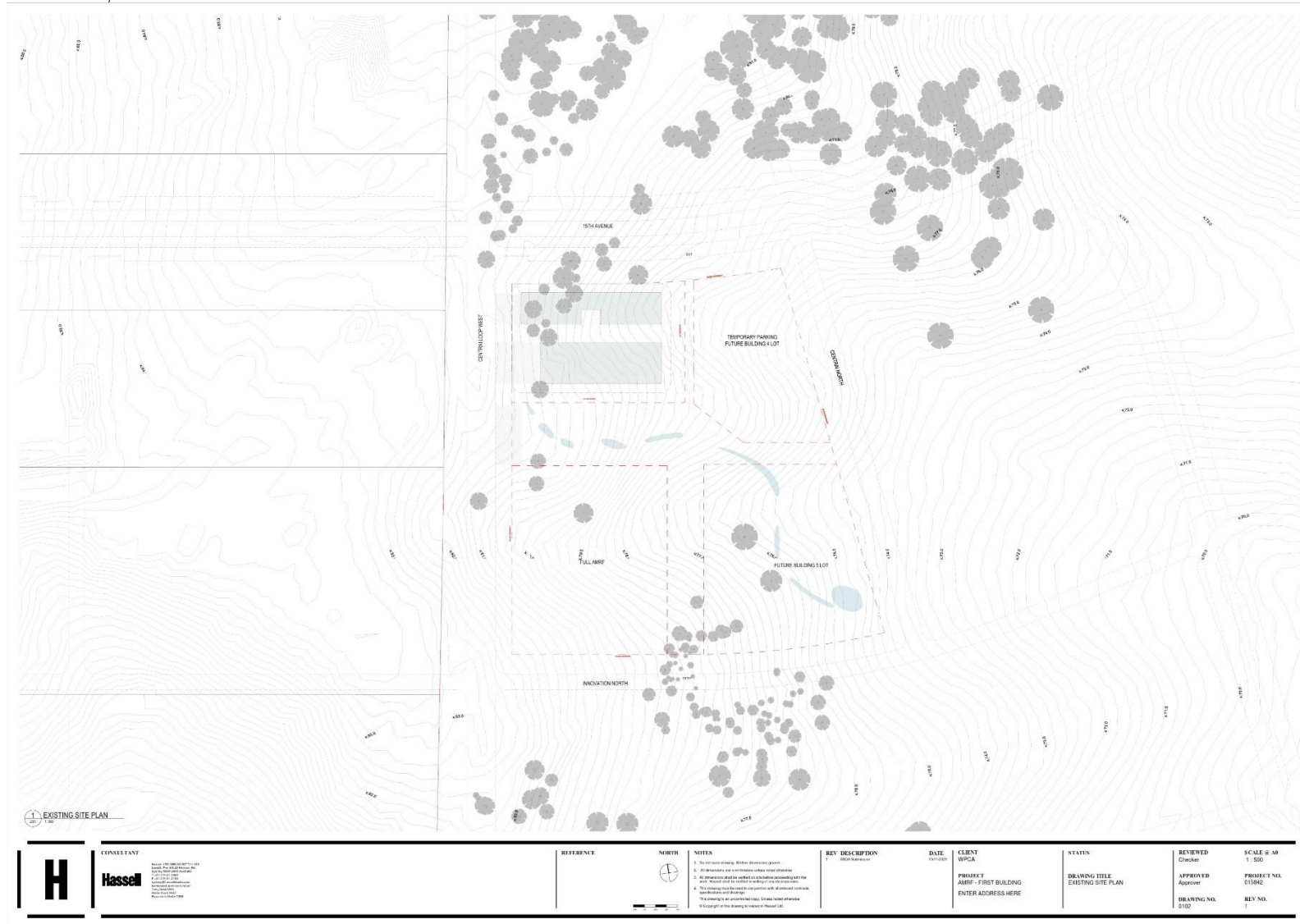


Figure 35. AMRF – existing site plan (Architectural drawings prepared by Hassell, 2021).

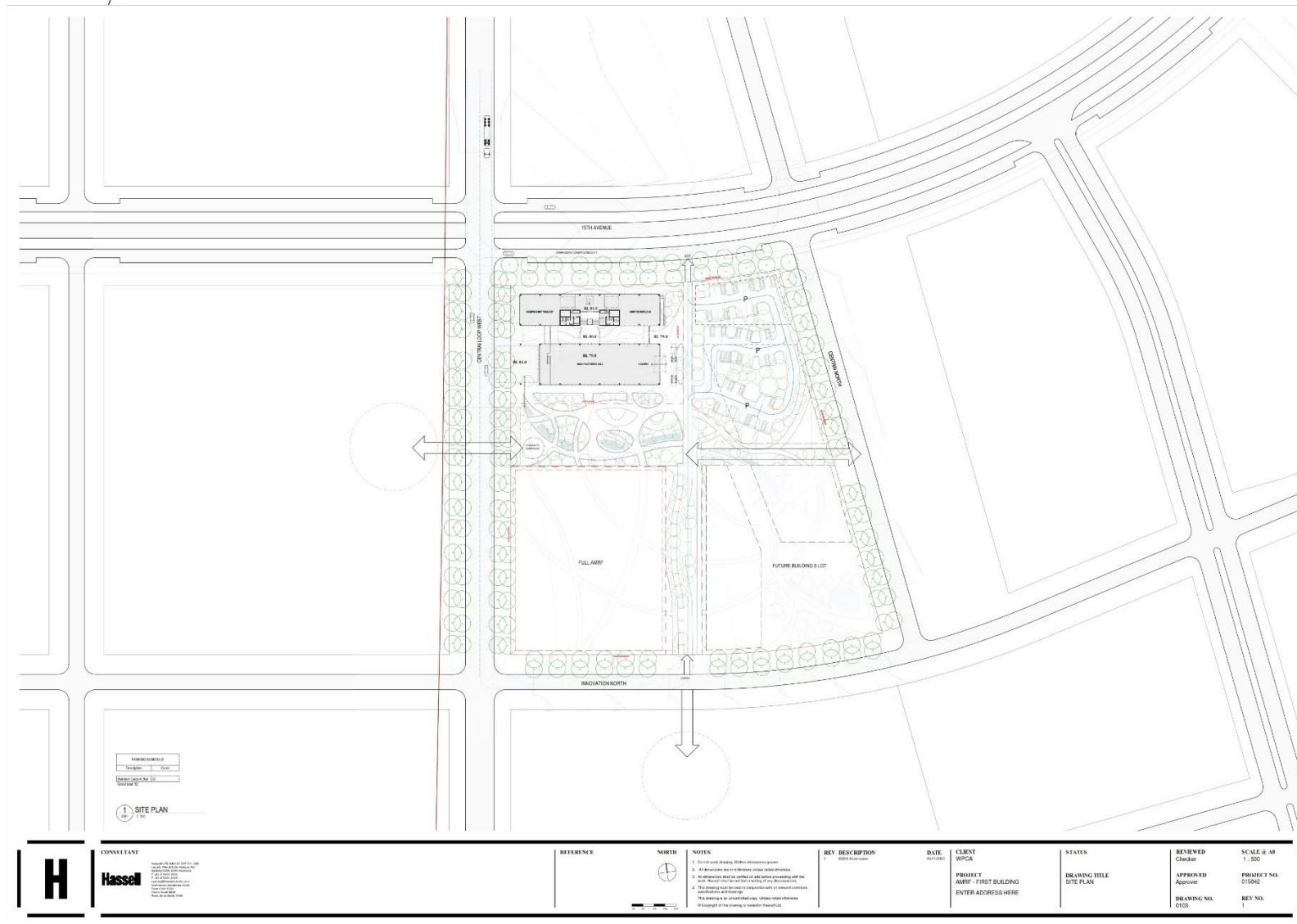


Figure 36. AMRF – First Building site plan (Architectural drawings prepared by Hassell, 2021).

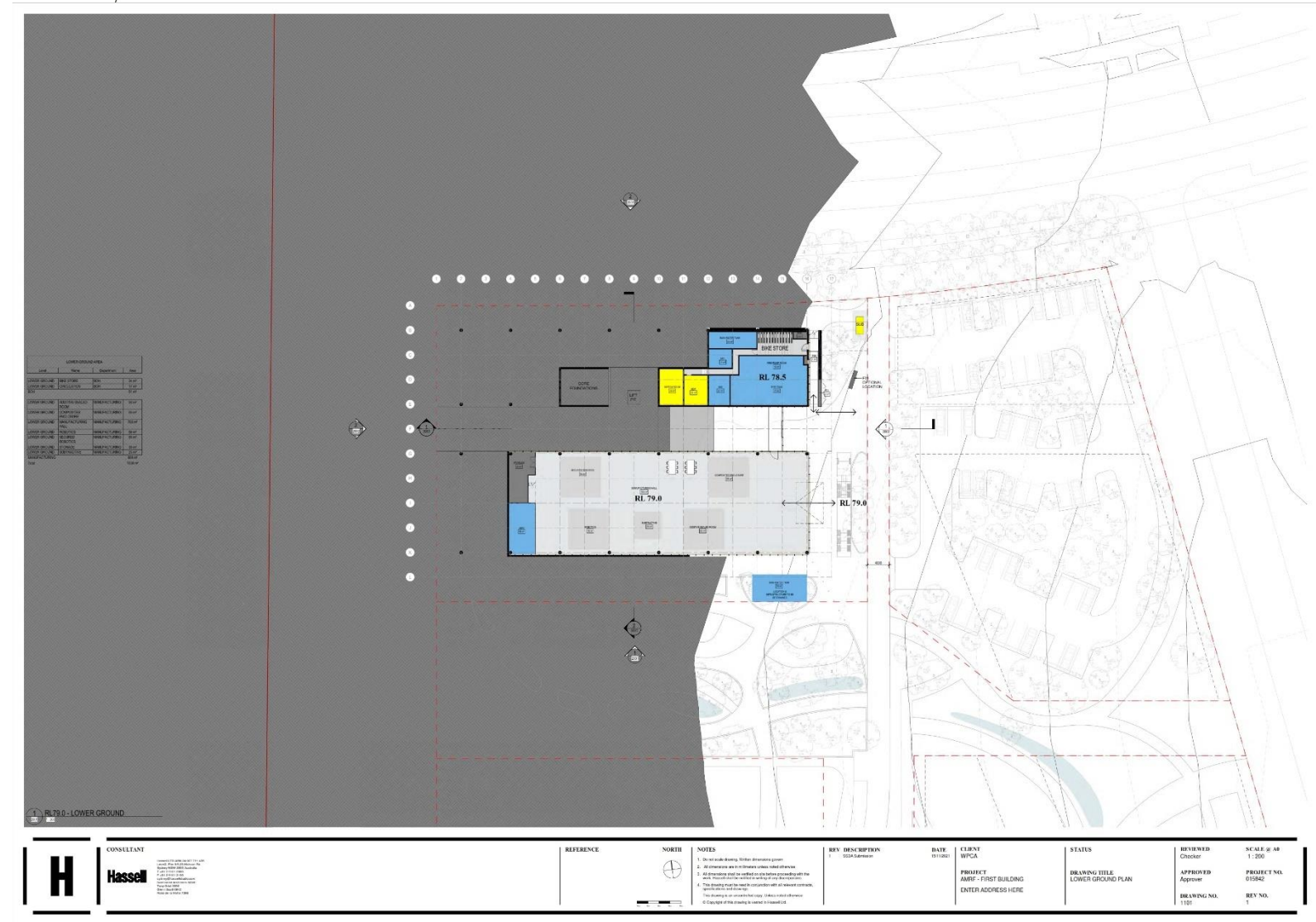


Figure 37. AMRF – First Building site explorations (Architectural drawings prepared by Hassell, 2021).

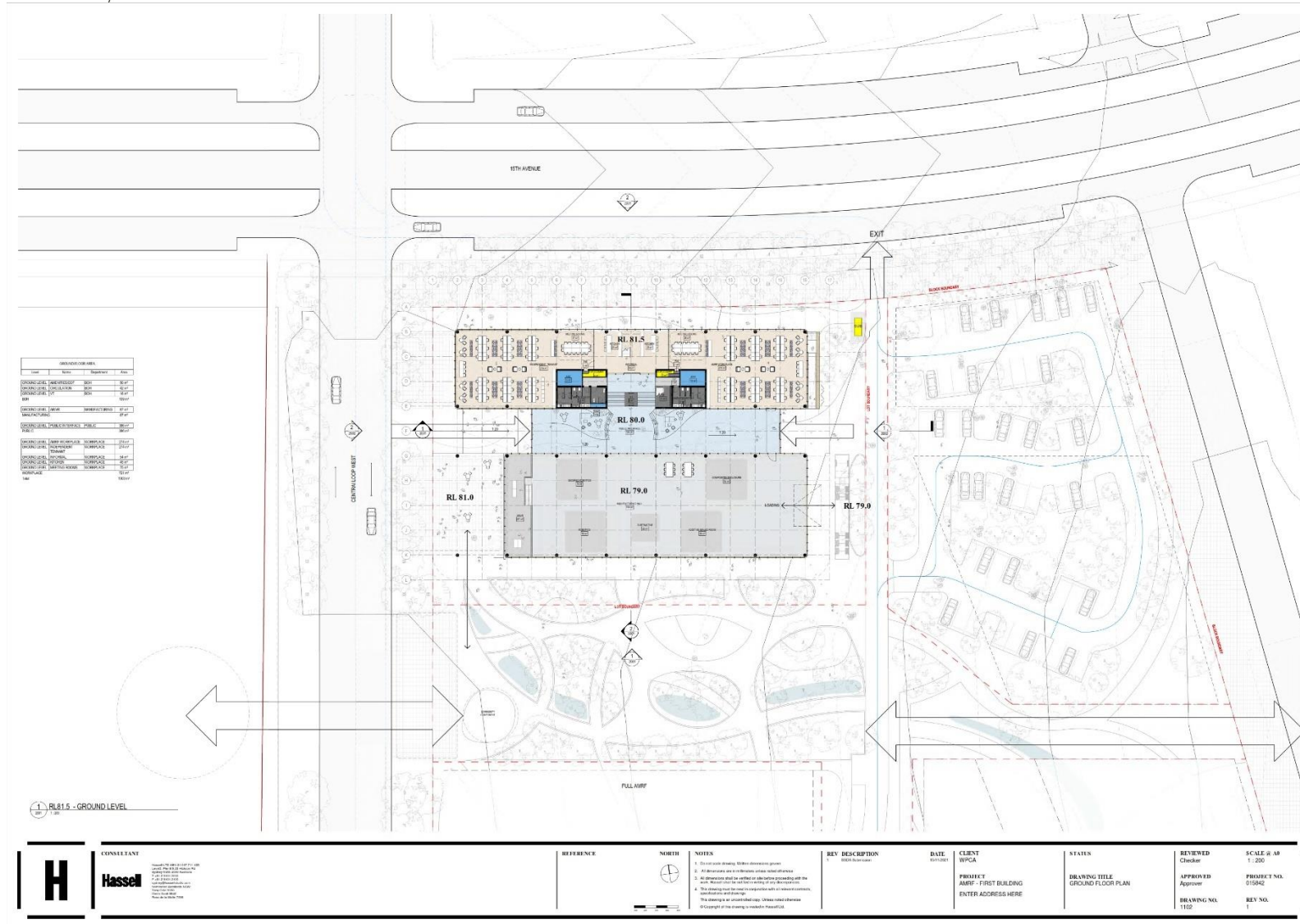


Figure 38. AMRF – First Building ground floor plan (Architectural drawings prepared by Hassell, 2021).

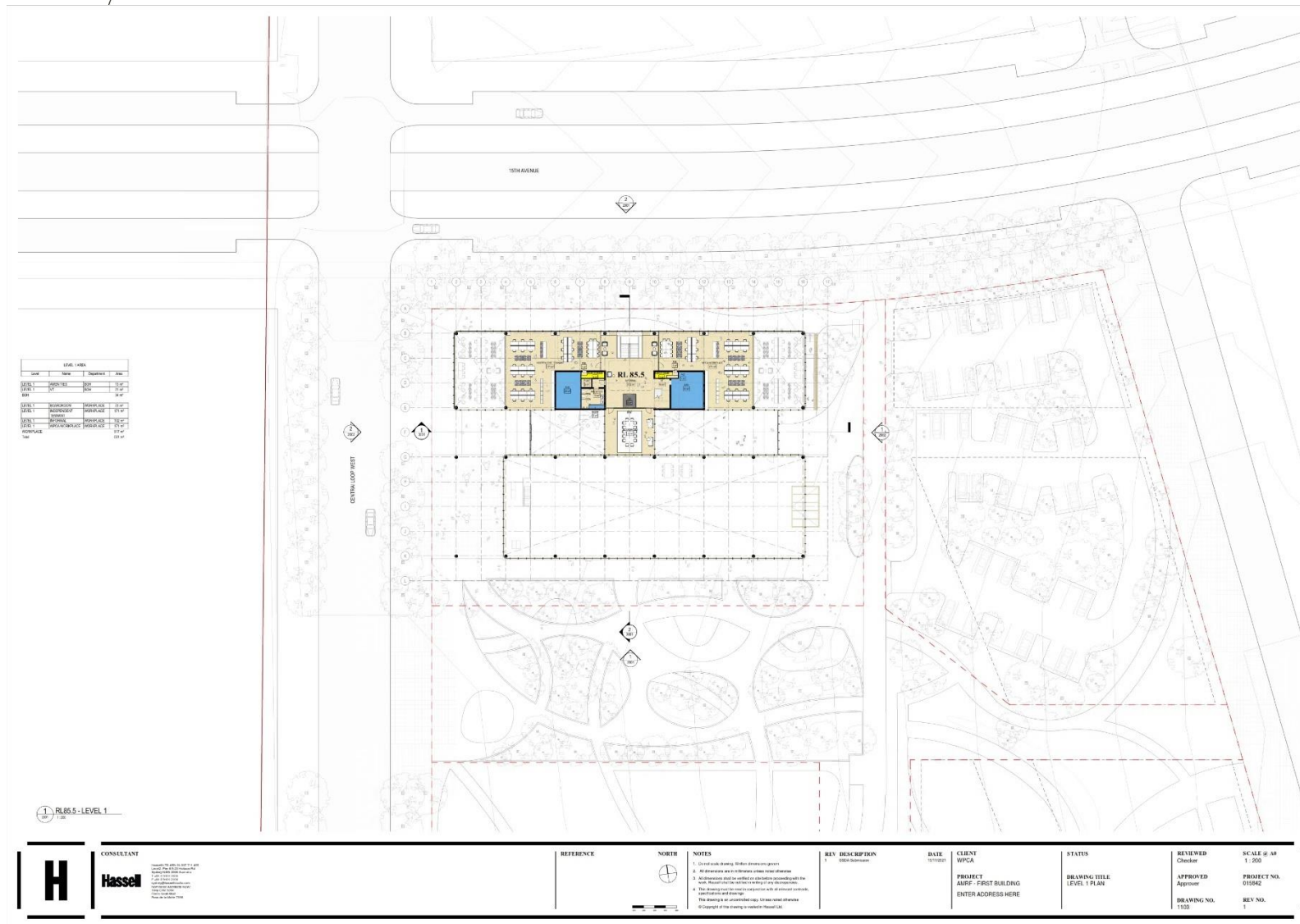


Figure 39. AMRF – First Building level 1 plan (Architectural drawings prepared by Hassell, 2021).

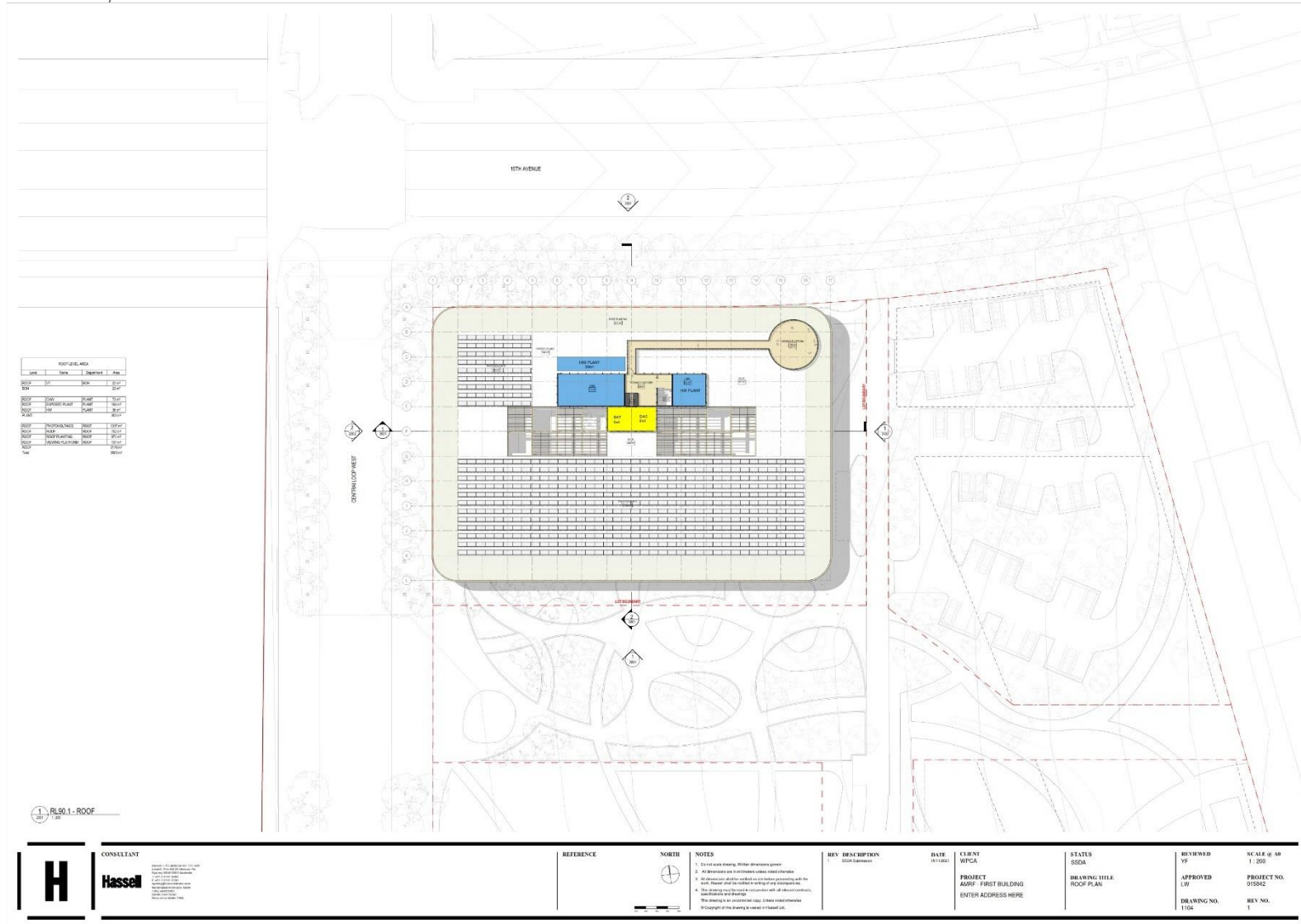


Figure 40. AMRF – First Building roof plan (Architectural drawings prepared by Hassell, 2021).

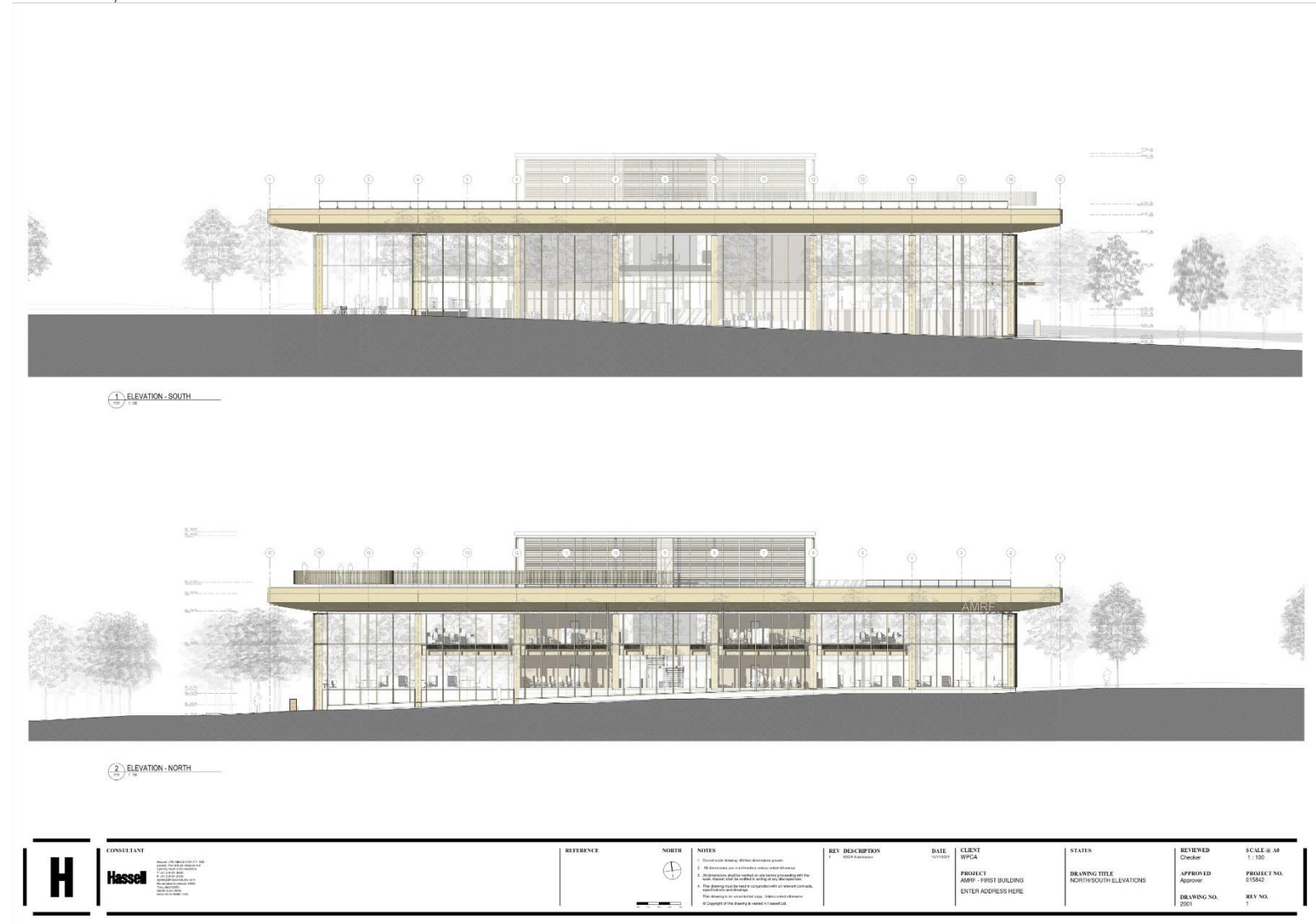


Figure 41. AMRF – First Building north-south elevations (Architectural drawings prepared by Hassell, 2021).

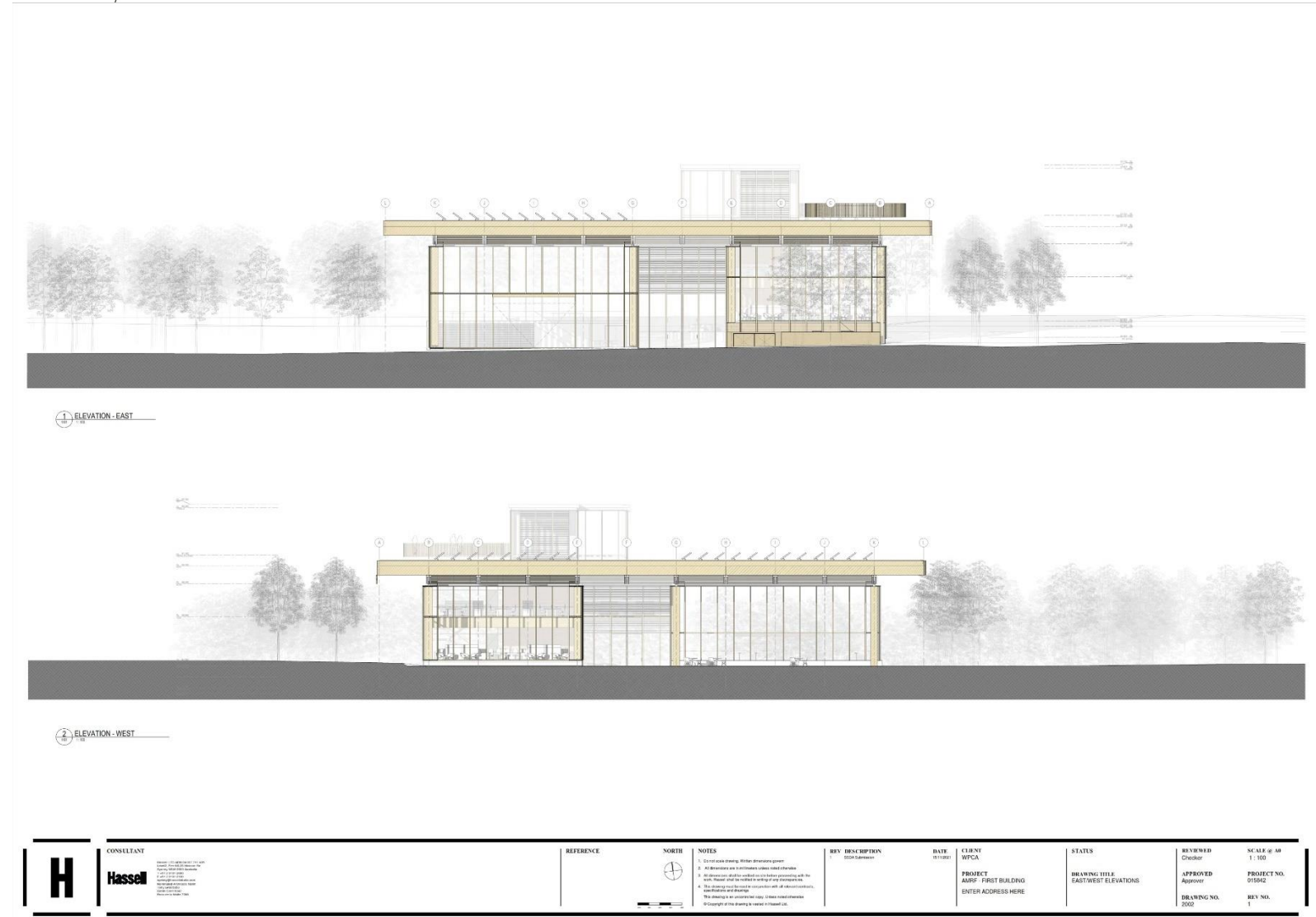


Figure 42. AMRF – First Building east-west elevations (Architectural drawings prepared by Hassell, 2021).

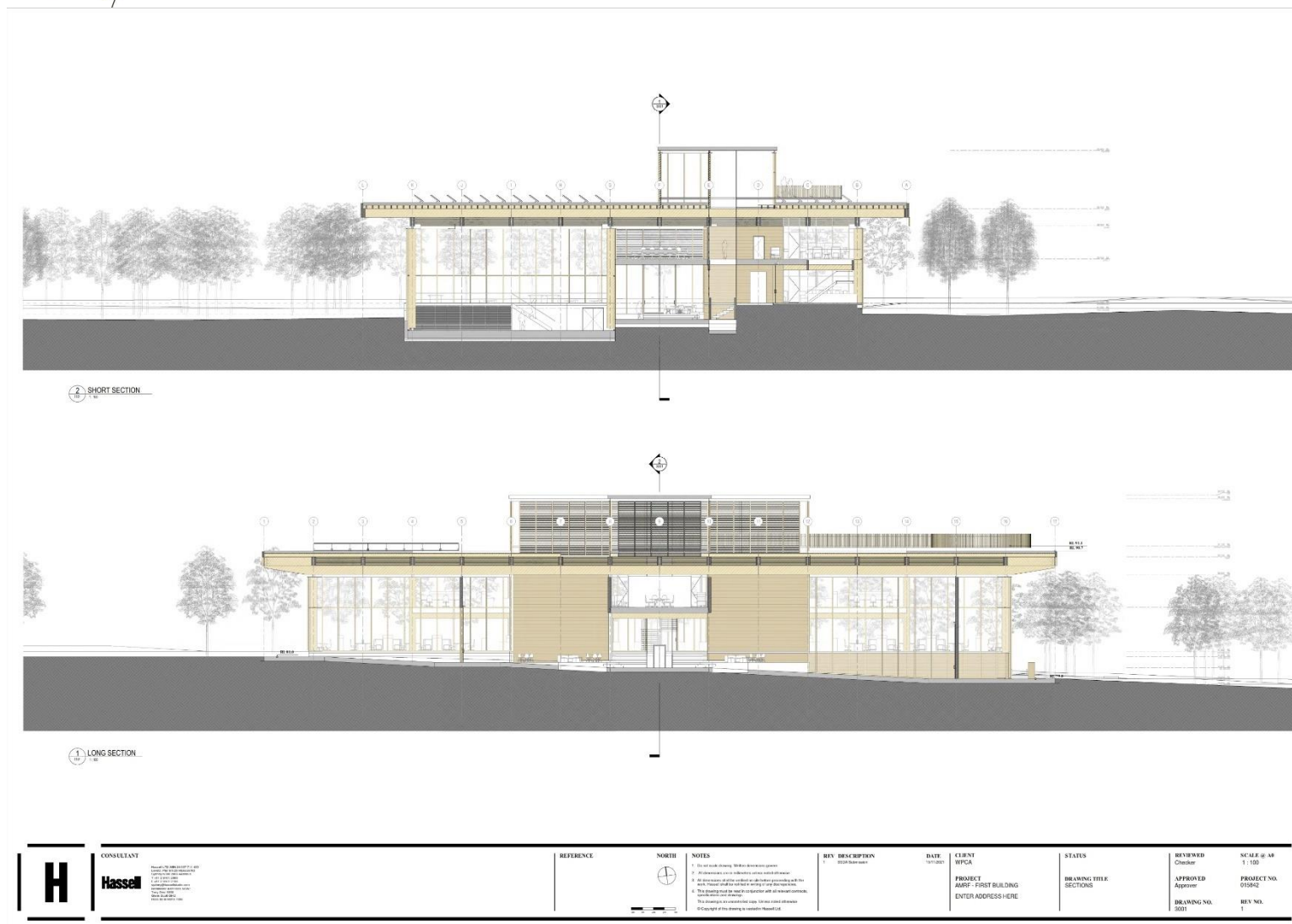


Figure 43. AMRF – First Building section plan Architectural drawings prepared by Hassell, 2021).

9. Assessment of heritage impact

The assessment of the degree of impacts made in this report has been based on the ICOMOS *Guidance on Heritage Impact Assessments for Cultural World Heritage Properties* (2011). While the guideline was prepared for the Heritage Impact Assessment to evaluate the impact of developments on the outstanding universal value (OUV) of World Heritage properties, the definitions and evaluation matrix can be applied to the values of any heritage significant place. Appendix 3B of the ICOMOS guideline provides an example guide for assessing magnitude of impact to built heritage and historic urban landscapes. The definitions for gradings of impact specific to this project and the study area are taken from this guideline and are outlined in the below table.

Table 5. Impact gradings (ICOMOS 2011).

Impact grading	Built heritage or Historic Urban Landscape attributes
Major	Changes to key historic building elements that contribute to OUV, such that the resource is totally altered. Comprehensive changes to the setting.
Moderate	Changes to many key historic building elements, such that the resource is significantly modified. Changes to the setting of an historic building, such that it is significantly modified.
Minor	Change to key historic building elements, such that the asset is slightly different. Change to setting of an historic building, such that it is noticeably changed.
Negligible	Slight changes to historic building elements or setting that hardly affect it.
No change	No change to fabric or setting.

9.1 Built heritage

The proposed works will have no impact on any items of built heritage significance. There are no built structures within the study area and any of the natural environment that will be cleared as a part of the proposed development are not of any heritage significance.

9.2 Curtilage and subdivision

The proposed works will have no impact on the study area's curtilage or subdivision.

9.3 Views and settings

The proposed development will be set within an expansive rural setting which currently contains low lying scrub and mature trees. The majority of the area to the north, south and east of the study area has been cleared, although there are a number of structures associated with the historical use of the site by the Royal Australian Air Force (RAAF). This is centred around the main building and transmission tower located to the south of the study area. To the west of the study area are rural residential allotments set along Badgerys Creek Road. Views west,

however, are not visible from the study area as there are a line of mature trees along the western boundary of the site.

The only significant views from the study area are directly east towards the SHR item 'Kelvin' which sits atop an elevated rise above the study area. The rural setting of the study area contributes to the significant rural views and setting of this SHR item.

The proposed new development has been designed as a low-scale, two-storey building. The design has sensitively considered the surrounding natural, rural and built environment through the use of muted and natural colours in the woven modular structure and through the low-scale of the development. The use of glass walls on all elevations provide a sense of continuity and transparency through the expansive rural landscape. Given the sensitive design, form, scale and choice of materials proposed for the AMRF, the overall impact to views and settings of the First Building is considered a minor impact.

9.4 Heritage items in the vicinity

There are two heritage items listed on the State Heritage Register and the State Environmental Planning Policy (Western Sydney Aerotropolis) 2020 that is located in the immediate vicinity of the study area.

- Kelvin (Item #00046), 30 The Retreat, Bringelly
- Church of the Holy Innocents (Item #02005), 130 Rossmore Avenue West, Rossmore

Kelvin is located approximately 500 metres from the study area. Although there will be no physical impact to the site there is a minor impact to the settings and views from this heritage item. Shown in Figures 28 and 29 are the key views to Kelvin from the study area and from Kelvin towards the study area. Figure 30 in Section 5.2 illustrates the directions of these key views. The rural setting of the study area contributes to the significant rural views and setting of this SHR item.

As the study area is located on the top of a rise that slopes east, the proposed new development will be visible from the SHR item. The proposed design has shown consideration to the heritage in the vicinity. The design has sensitively considered the surrounding natural, rural and built environment through the use of muted and natural colours in the woven modular structure and through the low-scale of the development. Further, the use of glass walls on all elevations of the proposed development provide a sense of continuity and transparency to the significance views from Kelvin.

Given the sensitive design, and appropriate use of form, scale and choice of materials proposed for the AMRF building, the overall visual impact of the First Building, to or from the SHR item, Kelvin, is considered a minor impact.

The Church of the Holy Innocents is located approximately 4 kilometres southeast of the study area. Due to the large distance between the study area and this item there will be no physical impact to the site and no visual impact to the settings and views of this heritage item. The proposed works present no change to the Church of the Holy Innocents.



Figure 44. View from the study area towards Kelvin.



Figure 45. View from Kelvin (30 The Retreat Bringelly) looking west towards the study area.

9.5 Historical archaeology

The proposed works are within a portion of the former estate referred to as The Retreat and subsequently Kelvin and then Kelvin Grove. The estate operated primarily as a grazing property until the early 1950s at which time it was purchased by the Commonwealth and functioned as the RAAF Bringelly Receiving Station. The assessed potential for the presence of archaeological material associated with all post 1788 occupational phases of the site are low within the works footprint. Any surviving remains are likely to have a low archaeological significance since the works area is located outside the main areas of activity.

The proposed works will have no impact on the potential archaeological resources present within the Aerocore precinct.

10. Statutory controls

The study area is subject to several legislative acts and statutory controls that govern the management of environmental heritage. An overview of the legislation relevant to heritage matters is provided below.

10.1 Environmental Planning and Assessment Act 1979 (NSW)

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

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

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

Extent Comment:

This report fulfils the assessment requirements under Section 4.12(8) of the EP&A Act and its recommendations should form part of the Environmental Impact Statement.

The project has been declared State Significant Development and is being assessed under Part 4.1 of the Environmental Planning and Assessment Act 1979 (NSW) (EP&A Act). The Planning Secretary's Environmental Assessment Requirements (SEARs) have been issued for the Project (SSD-25452459) and include requirements for Non-Aboriginal Heritage.

10.2 Heritage Act 1977 (NSW)

The *Heritage Act 1977* (NSW) (Heritage Act) was enacted to conserve the environmental heritage of NSW. Under section 32, places, buildings, works, relics, moveable objects, and precincts of heritage significance are protected by means of either Interim Heritage Orders (IHO) or by listing on the State Heritage Register (SHR), the statutory register under part 3A of the Heritage Act. Items that are assessed as having State heritage significance can be listed on the SHR by the Minister on the recommendation of the NSW Heritage Council.

The Relics Provisions

Archaeological features and deposits are afforded statutory protection by the 'relics provision'. section 4(1) of the Heritage Act (as amended 2009) defines 'relic' as follows:

any deposit, artefact, object or material evidence that:

(a) relates to the settlement of the area that comprises New South Wales, not being Aboriginal settlement, and

(b) is of State or local heritage significance.

The 'relics provisions' requires that no archaeological relics be disturbed or destroyed without prior consent from the Heritage Council of NSW. Therefore, no ground disturbance works may proceed in areas identified as having archaeological potential without first obtaining an Excavation Permit pursuant to section 140 of the Heritage Act, or an archaeological exception, or in the case of places listed on the SHR, an approval under section 60, or an exemption under section 57 of the Heritage Act from the NSW Heritage Council.

Extent Comment

The proposal does not involve any works, impacts or changes to items listed on the State Heritage Register, nor is there any substantial potential to impact significant historic archaeological relics. Therefore, no approval by the Heritage Council of NSW or its delegates is required.

Although the proposed works are not expected to excavate or disturb land that will result in a relic being discovered, and do not require a permit, a stop works protocol should be implemented in the event of unexpected discovery.

10.3 State Environmental Planning Policy (State and Regional Development) 2011

The *State Environmental Planning Policy (State and Regional Development)* outlines planning provisions for development that has been declared as State Significant Development (SSD). State Significant Development is development that has been specific in Schedule 1 or 2 of the SEPP.

The proposed development is development for the purpose of manufacturing research and development facilities. As the proposed development will have a capital investment value (CIV) exceeding \$30 million, it is declared to be State Significant Development (SSD application # 25452459) for the purposes of the Environmental Planning and Assessment Act 1979 (EP&A Act) pursuant to Section 11(a) of Schedule 1 of State Environmental Planning Policy (State and Regional Development) 2011. Specifically, the proposed development meets the criteria under s11(a) because it:

- Is for the purpose of research and development within the advanced manufacturing sector.

- Will accommodate specialised manufacturing equipment and technology that is critical to the development of advanced manufacturing processes and products.
- Provides access for industry to highly specialised equipment to emerging businesses, to facilitate the establishment of new advanced manufacturing businesses.
- Incorporates office and meeting spaces that are integrated with advanced manufacturing spaces to facilitate connection and knowledge-sharing, for the purpose of research and development.
- Provides opportunities for collaborative research partnerships between industry, tertiary education institutions and government agencies.
- The CIV of the proposed development exceeds the statutory \$30m threshold.

Extent Comment

The proposed works are considered SSD as an activity relating to laboratory, research or development facilities with a capital investment value of more than \$30 million, outlined in Schedule 1, Section 11(a) of the SEPP (State and Regional Development).

In accordance with Section 89D of the EP&A Act, the Minister for Planning becomes the Consent Authority for this development.

10.4 State Environmental Planning Policy (Western Sydney Aerotropolis) 2020

The *State Environmental Planning Policy (Western Sydney Aerotropolis)* was gazetted in September 2020 and came into effect on 1 October 2020. It applies to the land within the study area and provides statutory weight to the planning and development of land within the Aerotropolis.

With specific reference to heritage, section 28 of part 4 of the Aerotropolis SEPP includes objectives and controls for heritage conservation. In addition, the SEPP includes a list of heritage items within the initial Aerotropolis precincts in schedule 2 and an associated map. Of the items in the vicinity of the study area, two items, 'Kelvin' and 'The Church of the Holy Innocents' are listed as state-significant.

The objectives of the Aerotropolis SEPP pertaining to heritage conservation as per clause 1 of part 4, section 28 are:

- to conserve the environmental heritage of the land to which this Policy applies,
- to conserve the heritage significance of heritage items and heritage conservation areas, including associated fabric, settings and views,
- to conserve archaeological sites, and
- to conserve Aboriginal objects and Aboriginal places of heritage significance.

Clause 6 of part 4, Section 28 states that the consent authority may before granting consent to development:

- (a) on land on which a heritage item is located, or
- (b) on land that is within a heritage conservation area, or
- (c) on land that is within the vicinity of land referred to in paragraph (a) or (b),

require a heritage management document to be prepared that assesses the extent to which the carrying out of the proposed development would affect the heritage significance of the heritage item or heritage conservation area concerned.

Extent Comment

Two items in the vicinity of the study area, Kelvin (Item #00046) and the Church of the Holy Innocents (Item #02005) are listed as a state significant heritage item on the Aerotropolis SEPP 2020. This report, its assessment and recommendations fulfill the requirement of Clause 6, part 4, Section 28 of this SEPP and should be submitted as part of the Environmental Impact Statement for consideration by the Minister.

10.5 Draft Western Sydney Aerotropolis Development Control Plan 2021

The draft *Western Sydney Aerotropolis Development Control Plan 2021 (DCP)* provides controls to supplement the Western Sydney Aerotropolis Plan (WSAP), the Aerotropolis SEPP, the Western Sydney Aerotropolis Precinct Plan (Aerotropolis Precinct Plan) and inform the preparation and assessment of master plans and development applications (DAs).

The proposed works require assessment against the heritage controls set out in the DCP. The Performance Outcomes and Benchmark Solutions outlined in the table below are the controls taken from Section 3.2 Non-Aboriginal Heritage of the DCP. This report has included and responds only to controls that are relevant to the Bradfield First Building development.

Relevant Performance Outcome	Benchmark solution	Extent Comment
P05. The impact of new development adjacent to or within the vicinity of a heritage item is minimised.	<p>1. Development in the vicinity of a heritage item minimises the impact on the setting of the item by:</p> <ul style="list-style-type: none"> a. Providing an adequate area around the building to allow interpretation of the heritage item; b. Retaining original or significant landscaping (including plantings with direct links or 	<p>Two items in the vicinity of the study area, Kelvin (Item #00046) and the Church of the Holy Innocents (Item #02005) are listed as heritage items on the Aerotropolis SEPP 2020.</p> <p>The Church of the Holy Innocents is located approximately 4 kilometres southeast of the study area. There will be no physical impact to the site and no visual impact to the settings and views of this heritage item. The proposed works present no change to the Church of the Holy Innocents.</p> <p>Kelvin is located approximately 500 metres east of the study area. Although there will be no physical impact to the site there is a minor</p>

Relevant Performance Outcome	Benchmark solution	Extent Comment
	<p>association with the heritage item);</p> <p>c. Protecting (where possible) and allowing the interpretation of archaeological features; and</p> <p>d. Retaining and respecting significant views to and from the heritage item.</p>	<p>impact to the settings and views from this heritage item. As the study area is located on the top of a rise that slopes east, the proposed new development will be visible from the SHR item. The proposed design has shown consideration to the heritage in the vicinity and has minimised the impact on the setting of Kelvin by maintaining the curtilage and keeping an adequate distance from the item. Further, the development presents no change to original or significant landscaping (including plantings with direct links or association with the heritage item) and has provided for the protection and allowing the interpretation of archaeological features where necessary.</p> <p>Overall, the form, scale, sensitively chosen materials and landscaping of the proposed new development has considered the heritage in the vicinity and aims to maintain the significant rural setting of Kelvin.</p>
	<p>2. Design of new buildings in the vicinity of heritage items should be of a contemporary design in recessive colours and materials that do not overwhelm any adjacent heritage items.</p>	<p>The design of the new Bradfield City Centre AMRF - First Building has sensitively considered the surrounding natural, rural and built environment through the use of muted and natural colours in the woven modular structure and through the low-scale of the development. Further, the use of glass walls on all elevations of the proposed development provide a sense of continuity and transparency to the significance views from Kelvin. The design is also considered contemporary and does not overwhelm the heritage items in the vicinity.</p> <p>Given the sensitive design, and appropriate use of form, scale, recessive colours and choice of materials proposed for the AMRF building, the overall visual impact of the First Building, to or from the SHR item, Kelvin has been effectively minimised.</p>
	<p>3. Open spaces should be planned around heritage items to ensure it maintains its prominent siting and encourages opportunities for active and passive interaction with the place.</p>	<p>The new design consists of ample open space which encourages opportunities for active and passive interaction with the place. As the closest heritage item in the vicinity is 500 metres from the proposed new development, the siting of the heritage items has been thoughtfully considered is not impacted by this development.</p>
	<p>4. Highly activated urban areas in the vicinity of a heritage item must be carefully and</p>	<p>As the study area is located on the top of a rise that slopes east, the proposed new</p>

Relevant Performance Outcome	Benchmark solution	Extent Comment
	respectfully sited, designed and landscaped to ensure protection of the heritage values of the heritage item.	<p>development will be visible from the SHR item.</p> <p>Given the siting, the design of the new Bradfield City Centre AMRF - First Building has sensitively considered the surrounding natural, rural and built environment through the use of muted and natural colours in the woven modular structure and through the low-scale of the development. Further, the use of appropriate landscaping contributes to the rural environment and aims to enhance the rural landscape rather than change it. The heritage values of the heritage in the vicinity have been adequately maintained and are considered acceptable.</p>

11. Conclusion and recommendations

11.1 Conclusion

This Statement of Heritage Impact considers the proposed construction of the Bradfield City Centre AMRF - First Building. The proposed construction is declared a State Significant Development. The proposed works assessed within this report included the construction of an advanced manufacturing research and development facility, including site preparation works, site access and parking, utilities infrastructure, landscaping/ public domain, signage and other ancillary works. The proposed building will have an approximate building footprint of approximately 2,500m, an internal area of approximately 2,000 m² (GFA), a building height of approximately 18 metres above finished ground level, and will include approximately 51 at-grade parking spaces. The new development will command a prominent position of the top of a hill within a predominately rural landscape.

This report has determined that the study area is not identified as a heritage item on any statutory or non-statutory registers, nor does it meet the criteria for local or State significance. The proposed works will not directly impact on any identified built heritage. An analysis of historic plans and historical aerial photographs demonstrates that the site was located within a portion of the former estate referred to as The Retreat and subsequently Kelvin and then Kelvin Grove. The estate operated primarily as a grazing property until the early 1950s at which time it was purchased by the Commonwealth and functioned as the RAAF Bringelly Receiving Station. The assessed potential for the presence of archaeological material associated with all post 1788 occupational phases of the site are low within the works footprint. Any surviving remains are likely to have a low archaeological significance.

There are two State heritage listed items in the vicinity of the proposed development Kelvin, and the Church of the Holy Innocents. Kelvin is located approximately 500 metres to the north-east of the study area. The impact on the views to and from this item is considered to be minor given the rural landscape and the location of the study area on top of a hill. Any minor negative impacts to the heritage significance of these items are considered acceptable in understanding the positive outcomes of the proposed development for the wider community. The Church of the Holy Innocents is located approximately 4 kilometres southeast of the study area. Due to the large distance between the study area and this item there will be no physical impact to the item and no visual impact to the settings and views of this heritage item.

11.2 Approval and Notification Requirements

Heritage Act 1977 – As the works will not directly affect any items on the State Heritage Register and there is low potential for impacting on known or expected relics, no notifications, permits or approvals are required in accordance with the Heritage Act.

Environmental Planning and Assessment Act 1979 – The development has been declared a State Significant Development and as such, authority to approve the works has been delegated to the Minister for Planning. An assessment of Environmental Impacts (through the preparation of an Environmental Impact Statement) is required, where heritage is considered a

matter of the environment. As the works are being undertaken in the vicinity of a State heritage item, an assessment of impacts to this item must be made. This report fulfils this requirement.

SEPP (State and Regional Development) 2011 – The development is considered a State Significant Development as an activity relating to laboratory, research or development facilities with a capital investment value of more than \$30 million. As such, development approval has been delegated to the Minister for Planning.

SEPP (Western Sydney Aerotropolis) 2020 - As this development has been declared a State Significant Development, development approval has been delegated to the Minister for Planning.

11.3 Recommendations

The following recommendations have been prepared for the proposed development of the AMRF – First building site.

- In regards to the management of historical archaeological remains an Unexpected Finds Procedure should be in place prior to the commencement of ground works.

12. References

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