EXTENT

Civic Link Block 3

Horwood Place, Parramatta

Aboriginal Archaeological Test Excavation Report

Prepared for City of Parramatta

June 2025 – V01.2

Document information

Extent Heritage Project No.:	0224155
Client:	City of Paramatta
Project:	Civic Link Block 3
Site Location:	Horwood Place, Parramatta
Author(s):	Sarah Janson

Document control

Version	Internal reviewer	Date	Review type
V01	A. Costello	4 June 2025	QA/Technical
V01.2	A. Costello	27 June 2025	Final

Extent Heritage Pty Ltd
extentheritage.com.au
ABN 24 608 666 306
ACN 608 666 306

Sydney
L3, 73 Union St
Pyrmont NSW 2009
T 02 9555 4000

Melbourne
L1, 52 Holmes St
Brunswick East VIC 3057
T 03 9388 0622

Brisbane
L2, 109 Edward St
Brisbane QLD 4000
T 07 3051 0171

Hobart
L3, 85 Macquarie St
Hobart TAS 7000
T 03 6144 5880

Executive Summary

Extent Heritage Pty Ltd (Extent Heritage) has been engaged by City of Parramatta to undertake an Aboriginal Cultural Heritage Assessment (ACHAR) in advance of proposed development of the Civic Link pedestrianised way at Horwood Place, between George Street and Phillip Street, Parramatta ('the study area').

In accordance with the *Code of Practice for Archaeological Investigation of Aboriginal Objects in New South Wales* (Department of Environment, Climate Change & Water [DECCW] 2010a) (Code of Practice), it was recommended that an Aboriginal Heritage Impact Permit (AHIP) be obtained to authorise subsurface investigations within areas of the study area due to the potential for evidence of contact archaeology. AHIP 5340 was issued 5 November 2024 to permit the test excavations that are the subject of this report. This Aboriginal Archaeological Test Excavation Report (ATER) has been prepared in accordance with Condition 12 of AHIP no. 5340 and the *Code of Practice*.

The results of the Aboriginal archaeological testing program documented in this report will be used to inform and refine the understanding of Aboriginal archaeological sensitivity of the site and the proposed impacts of the development on cultural heritage. These results will also be included in the updated ACHAR.

Test excavations at the site were undertaken between 7 January 2025 and 7 February 2025. Of eleven originally proposed test locations, three could not be excavated due to the presence of active services identified by service locators at the commencement of works. Of the eight locations that were tested, only one—TL05—revealed a remnant soil profile with the potential to contain Aboriginal cultural heritage. The remaining test pits consisted of historical and modern fills directly overlying the tertiary alluvial mottled clays associated with the Parramatta Sand Body (PSB), but not the Pleistocene terrace sands. Excavation at TL05 recovered 14 lithic (stone) artefacts, while a further stone artefact was identified within the historical fills in TL01.

Through the completion of background research, database searches, field survey, and test excavations, it is established that; there are two Aboriginal sites within the study area—Horwood Place PAD & AS 1 (AHIMS 45-6-4123) and Horwood Place IA 1 (AHIMS 45-6-4161). The proposed works may impact a portion of Horwood Place PAD & AS 1 (AHIMS 45-6-4123), resulting in a partial loss of value. The isolated artefact has been collected through test excavation.

Contents

List of Tables

List of Figures

1. Introduction

1.1 Project description

Extent Heritage Pty Ltd (Extent Heritage) has been engaged by the City of Parramatta Council to undertake an ACHAR in advance of proposed development of the Civic Link pedestrianised way at Horwood Place, between George Street and Phillip Street, Parramatta (the study area). This study area is also referred to as 'Block 3' of the wider Civic Link project. The study area is within Lot 102, Deposited Plan (DP) 241030 and roadways, encompassing an area of around 7,200 m^2.

This report presents the results of an archaeological test excavation undertaken under AHIP #5403, which aimed to understand the nature of Aboriginal heritage within the study area and its place within the wider regional pattern. The site was initially registered as a Potential Archaeological Deposit on the Aboriginal Heritage Information Management System (AHIMS) as Horwood Place PAD 1 (AHIMS 45-6-4123).

1.2 Site location and identification

The study area is located within the Parramatta CBD, within the City of Parramatta Local Government Area (LGA). It consists of Horwood Place between Phillip Street and George Street (including parts of the Phillip Street and George Street roadways), Auctioneer Lane, and a service lane off Phillip Street and also includes Lot 102 DP 241030. It is located within the Parish of St John and within the boundaries of Deerubbin Local Aboriginal Land Council (LALC).

The study area consists of the existing road reserve, currently comprising the carriageway, footways and street furniture. Block 3 forms part of the larger Civic Link project, which extends from Parramatta Square in the south, to the Parramatta River in the north. The study area is outlined below in Figure 1 and Figure 2.

EXTENT

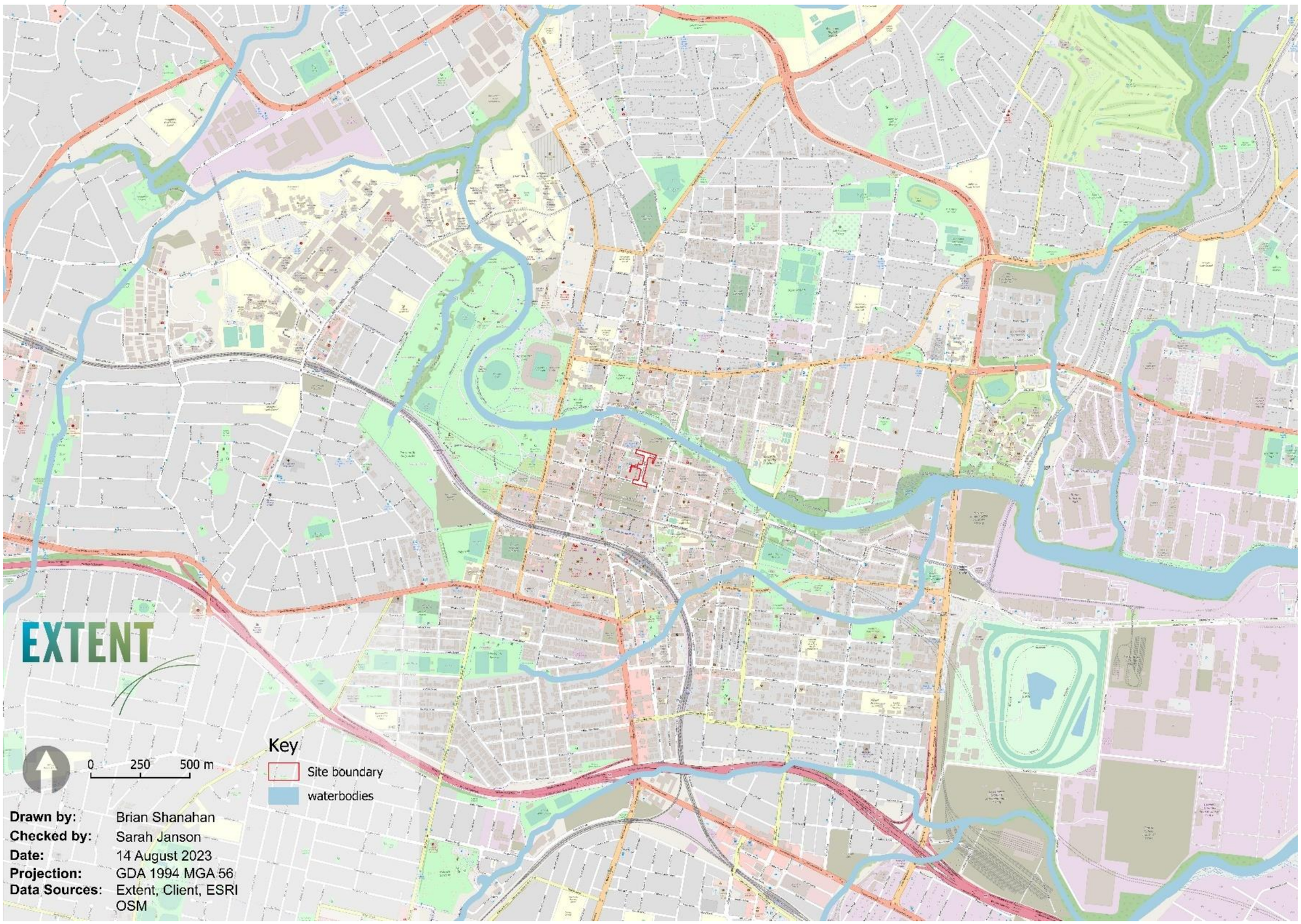


Figure 1. General location of the proposed study area, within the Parramatta region.

EXTENT

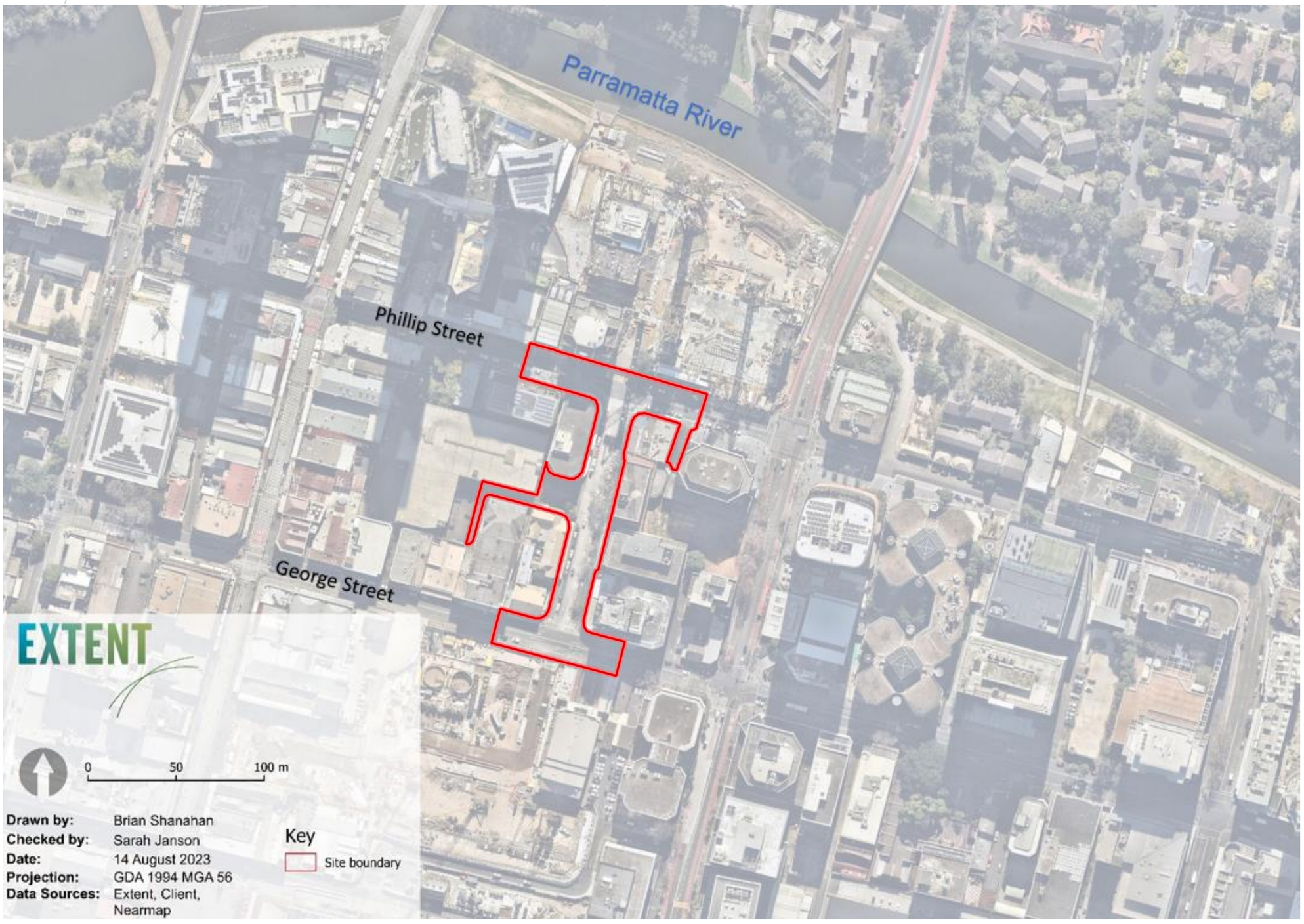


Figure 2. Extent of the proposed study area.

1.3 Objectives

This ATER has been prepared in accordance with Condition 12 of AHIP no. 5340 and the *Code of Practice*. The aims and objectives of this report are to report on test excavations and as such:

- identify any Aboriginal objects or places within the study area;
- assess the scientific significance of any identified Aboriginal objects or places;
- evaluate and discuss the impacts of the proposed works on identified Aboriginal objects or places; and
- develop management measures for the proposed impacts to identified Aboriginal objects or places.

To satisfy the objectives of this report, the following tasks were undertaken:

- review of existing archaeological data, including assessments previously completed within the vicinity of the study area and relevant heritage databases ;
- investigate the environmental context of the study area;
- synthesise background information into a predictive model to inform an assessment of archaeological potential across the study area; and
- complete a test excavation program across the study area to test the results of the predictive model and identify subsurface Aboriginal objects.

The results of these objectives are provided in full in the accompanying ACHAR produced for the site by Extent Heritage (2024).

1.4 Planning and legislative context

Table 1. Summary of legislative context for the project

Legislation	Description	Relevant to subject area?	Details
Commonwealth			
Environment Protection and Biodiversity Conservation Act 1999	Protects Aboriginal places on the world, national and commonwealth registers.	No	There are no listed places within the study area.
Native Title Act 1993	Administers rights and interests over lands and waters by Aboriginal people. Often used in NSW to	No	The study area consists of freehold land, and cannot be subject to a claim under this Act.

	identify relevant stakeholders for consultation.		
Aboriginal and Torres Strait Islander Heritage Protection Act 1984	Protection of areas identified by Aboriginal people as of high significance and under threat.	No	The study area has not been identified as a place of high significance under this Act.
State (NSW)			
National Parks and Wildlife Act 1974	Protects blanket protection for all Aboriginal objects. Includes process and mechanisms for development where Aboriginal objects are present.	Yes	An AHIP must be issued under section 90 of the Act where harm to an Aboriginal object cannot be avoided.
Environmental Planning and Assessment Act 1979	Requires assessment and management of Aboriginal heritage through a range of environmental and approval contexts.	Yes	See ACHAR
Aboriginal Land Rights Act 1983	Allows transfer of ownership of vacant crown land to a Local Aboriginal Land Council. Often used in NSW to identify relevant stakeholders for consultation.	No	The study area consists of freehold land and cannot be subject to a claim under this Act.

1.4.1 AHIPs

AHIP 4981 was issued for 'Phillip Street Smart Street - Upgrades to the public domain along Phillip Street east' in September 2022, and was varied for a 'Stage 2', with an expiration of September 2024. This variation has resulted in a reduction of the AHIP 4981 area and does not currently overlap with the Civic Link Block 3 study area.

AHIP 5340 was issued 5 November 2024 to permit the test excavations that are the subject of this report.

1.5 Relevant reports and investigations

The site has been subject to the following heritage reports. This report mainly draws on the following reports:

- Extent Heritage, 2023a. 'Civic Link Block 3, Historical Archaeological Assessment', prepared for City of Parramatta
- Extent Heritage, 2023b. 'Civic Link Block 3, Preliminary Heritage Assessment' prepared for City of Parramatta

- Extent Heritage, 2024a. 'Civic Link Block 3, Parramatta Aboriginal Cultural Heritage Assessment Report', prepared for City of Parramatta
- Extent Heritage, 2024b. 'Civic Link Block 3, Horwood Place Parramatta Aboriginal Archaeology Test Excavation Methodology' for City of Parramatta
- Extent Heritage, 2024c. 'Civic Link Block 3, Parramatta Historical Archaeological Research Design' prepared for City of Parramatta

1.6 Limitations

This report presents the results of Aboriginal archaeological excavations only but refers to historical archaeological results and information where required.

1.7 Authorship and acknowledgements

This report was authored by prepared by Sarah Janson (Associate) with review by Andrew Costello (Associate Director). Lithic analysis was undertaken by Rebekah Hawkins (Senior Heritage Advisor and lithics specialist). Palynological analysis was undertaken by (Hon.) Associate Professor M.K. Macphail, Australian National University. Mapping was completed by Dr Richard Tuffin (GIS Specialist, Extent Heritage).

Extent Heritage would like to acknowledge the input and assistance of Registered Aboriginal Parties for this project and the ongoing support of the City of Parramatta.

2. Archaeological and environmental context

2.1 Introduction

A full cultural heritage assessment is available in the ACHAR (Extent Heritage 2024a). A brief overview of relevant archaeological and environmental context is provided for reference.

2.2 Environmental context

2.2.1 Geology and soils

The study area is within the Birrong soil landscape**;** a floodplain of silt and clay alluvium from Wianamatta shales, with distinct soil horizons: a silty clay loam topsoil, a hardsetting clay subsoil, and deeper archaeologically sterile mottled clays. The area has low relief and has seen extensive historical landfill, especially near the Parramatta River.

The Parramatta Sand Body (PSB) is an approximately 2.5 km-long fluvial sand deposit along the Parramatta River, formed ~50,000 to 20,000 years ago, with Aboriginal occupation dated to ~31,000 years ago. It lies mostly 4–8 m Australian Height Datum (AHD) and is often buried beneath swamp deposits and fill. Despite some past underestimations, recent archaeology confirms its widespread presence and significance. Current mapping has indicated the PSB would be likely to be found across the study area, at the intersection between the main sand body, and older, associated tertiary clays.

2.2.2 Vegetation

Prior to extensive historical vegetation clearance for early industry and modern urbanisation, the region would have been dominated by open and/or wet sclerophyll forest. The Cumberland Plain, and the alluvial sands of Parramatta in particular, are commonly associated with hard-leaved scribbly gum, rough-barked apple, and old man banksia. Creek lines within the Cumberland Plains may possess riparian corridors containing dense bushland that may reflect pre-European vegetation. However, the study area was extensively cleared in the early nineteenth century.

2.2.3 Hydrology

The study area is located to the south of the Parramatta River, situated in the western section of the Sydney Metropolitan region. Parramatta is the location where tidal sea water meets the freshwater inland stream, becoming brackish. The freshwater flows into the Parramatta River from the Domain Creek, the Darling Mills Creek, and the Toongabbie Creek and is met by salt tides from Sydney Harbour. The study area is approximately 700 m west of the confluence between Clay Cliff Creek and the Parramatta River.

2.3 Archaeological context

2.3.1 AHIMS

An extensive search of the Heritage NSW AHIMS database was carried out on 23 August 2023 (Client ID: 812474). This returned a result of 116 registered Aboriginal sites within the search area. Of these however, there is one deleted, and three 'not a site' determinations, resulting in 112 remaining valid, destroyed or partially destroyed sites (Table 2). The most common site features recorded for this region are Artefacts and Potential Archaeological Deposit (PAD) as shown in Table 3 below.

Table 2. Site status of AHIMS results

Site status	Total
Deleted	1
Destroyed	9
Not a Site	3
Partially Destroyed	19
Valid	84
Total	**116**

Table 3. Site features recorded in the AHIMS search area

Site feature	No.	Percentage
Artefact	44	39%
Potential Archaeological Deposit (PAD)	39	35%
Potential Archaeological Deposit (PAD), Artefact	20	18%
Hearth, Potential Archaeological Deposit (PAD), Artefact	3	3%
Artefact, Aboriginal Resource and Gathering, Potential Archaeological Deposit (PAD)	1	1%
Artefact; Hearth	1	1%
Artefact, modified tree	1	1%
Grinding groove	2	2%
Modified tree	1	1%
Total	**112**	**100%**

AHIMS 45-6-3679 was located within the subject land (Figure 2), however this has been reclassified as 'not a site'. This means the site had been originally entered and accepted onto AHIMS as a valid site but after further investigations it was decided it is not an Aboriginal site. AHIMS 45-6-3679 was listed as three discrete locations along Phillip Street, which had minimal subsurface disturbances mapped and was therefore registered to enable testing to establish the level of disturbance. The site card notes that it was inferred that due to the absence of documented sources, it could not definitively be determined that PSB deposits had not survived in these areas.

Based on the ACHAR assessment, the study area was believed to be within the area of the PSB. As an archaeologically sensitive landform, parts of the study area outside of identified disturbance was identified and registered as a Potential Archaeological Deposit (PAD), AHIMS 45-6-4123 (Horwood Place PAD 1).

Several site types are not located within the vicinity of the study area. Culturally modified trees are less likely to be identified within the Parramatta CBD due to historical land clearance. Sites which require bedrock outcrops, such as closed/shelter deposits, art sites, and grinding grooves, are also absent due to geology of the area. Shell middens are also absent from the AHIMS search results. While shell middens were would have existed within the vicinity of the site, historical use of this easily accessible resource for mortar, as well as erosional factors, have likely removed evidence of this practice.

Table 4. AHIMS sites recorded within and in the vicinity of the study area as of AHIMS search, August 2023.

AHIMS Site Number	Site Features	Aboriginal Object or Place? (Yes/No/Unknown)	Location
45-6-3679	Potential Archaeological Deposit	Non-site	Phillip Street; within end of study area
45-6-3702	Artefact, Potential Archaeological Deposit	Destroyed	37-39 Smith Street, 20 metres east of study area
45-5-4123	Potential Archaeological Deposit	Valid	Horwood Place, within the study area

2.3.2 Previous archaeological work

Archaeological investigations over the past 40 years have identified the PSB as a key feature containing Aboriginal cultural material, with artefact-bearing deposits typically found within 4–8 m AHD and concentrated in the upper 1.5 m of sand (JMDCHM 2005). OSL and TL dating across multiple sites suggest the PSB formed during the Late Pleistocene, with basal ages between 50–60 ka at 140 Macquarie Street (Comber Consultants 2010a) and 50.8 ± 3.6 ka at Cumberland Hospital (Geoprospection 2019). Excavations by Extent Heritage between 2009 and 2019 produced 28 OSL dates, indicating formation through the Last Glacial Maximum and

stabilisation by around 10 ka, with evidence of later bioturbation and disturbance from historic activities.

Table 5. Summary of archaeological investigations in the vicinity of the study area

Year	Authors	Location	Distance from Study Area	Results / Key Findings
2021	AMAC Group	32 Smith St & 93–95 Phillip St	~100 m east	Natural red clayey sands suggest presence of Pleistocene terrace; truncated Birrong soils also present.
2019	CRM	Phillip St Smart Streetscape (Stage 1)	Intersects with northern part of study area	No PSB identified; natural clays found; PSB mapping likely not accurate for this location.
2007	Austral Archaeology	95–101 George St	~320 m east	Artefacts from late Holocene (<4 ka) and earlier (>5 ka); activity focused closer to river.
2010	Comber Consultants	140 Macquarie St	~500 m east	55 artefacts recovered; no intact soils; site on edge of PSB, sloping into a former swamp.
2010	Comber Consultants	Cumberland Newspaper Site (142–154 Macquarie St)	~500 m east	21 artefacts from highly disturbed soils; historical fill and services to 1.3 m depth.
2013	AHMS	189–191 Macquarie St	~500 m south-east	Low-density artefacts dated to ~15–13 ka; PSB present but does not extend to Hassall St.
2016	AHMS	21 Hassall St	~600 m south-east	1,725 artefacts in sand; very high density (52.27/m²); mixed Pleistocene-Holocene context due to bioturbation.

2.4 Historical context

The post-contact history of Horwood Place and the surrounding area has been presented in full in the Historical Archaeological Assessment (Extent Heritage 2023a) and Preliminary Heritage Assessment (Extent Heritage 2023b) for this project. A brief summary of this history in timeline form is presented here for ease of reference, as well as an outline of the phases of historical development at the site.

Table 6. Historical timeline summary

Date	Event
Pre-1788	Burramattagal/Boromedegal land use
1790	Establishment of Rose Hill town plan grid including High Street (later George Street). Allotments were designated along George Street, measuring 100 by 200 feet (30 m by 61 m), each containing a hut at 100 feet intervals. Many of the allotments contained a secondary residence referred to as 'back huts'.
June 1797	First gaol at Parramatta constructed within study area at George Street. The orders for the construction of gaols at Sydney and Parramatta were issued by Governor Hunter in 1796. Both were to be or double log construction. The Parramatta gaol was to be 100 feet long while the Sydney gaol was 80 feet long.
December 1799	First Gaol burnt in act of arson.
1823	Formal leases issued in Parramatta, subsequent grants in 1830s. Civic Link Block 3 is primarily located within Allotment 10 Section 21. Auctioneer Lane is located within Allotment 92, while the Phillip Street lane is located between Allotments 11 and 12.
1831	Allotment 10 Section 21 granted to John Ellison. His will, dated 1832, describes at this time the brick built dwelling, likely referring to the structure known as Dr Pringles Cottage. Precise date of construction unknown.
1832	In September 1832, shortly before Ellison's death, the Sydney Gazette and New South Wales Advertiser had reported that 'a new mess-house is to be erected immediately at Parramatta' (The Sydney Gazette and New South Wales Advertiser 1832, 2). The Redcoats Mess House was constructed on Allotment 10, immediately behind the dwelling. Reference to the Officer's Mess House, George Street appear until the early 1840s (The Sydney Gazette and New South Wales Advertiser 1841, 3).
1836	Probate of Ellison's estate was granted to Richard Hunt, and the estate held by the executors until 1857
1844	Advertised that 'Mr Farrell… intends to open that commodious building George-street, commonly known as the "Officers' Mess-House," as an English, Mercantile, and Mathematical School' (Parramatta Chronicle and Cumberland General Advertiser 1844, 1).
1857	Ellison estate subdivided: **Mess House Allotment** – occupied by Annie Oakes Pringle and George Hogarth Pringle (surgeon at Parramatta Hospital) until sold in 1910 to the Anschau family. **Lot 1 (later referred to as Lot 2)** – purchased by James Thearle and sold to his daughter Elizabeth, milliner and dressmaker. Remained in Thearle family

	until 1882, sold to John Nobbs, and sold on to Annie Oakes Pringle and then sold to William Bramwell Booth in 1915. **Lot 2 (later referred to as Lot 3)** – purchased by William Goodwin, where a residence was constructed on the lot by the time Goodwin died in 1886 and property passed to daughter Jessie. In 1901, the property was transferred to William Williams Hitchcock and Richard Grant, who then in 1903 sold the property to Eliza Nelson for the sum of £90 (HLRV, Book 783 No 682). In 1915, Eliza Nelson sold the property to William Bramwell Booth of the Salvation Army (HLRV, Book 1068 No. 267). **Lots 3, 4 and 5 fronting Phillip Street** – purchased by Francis Oakes, does not appear that any structures were erected during his ownership however was enclosed by a paling fence. Subsequently purchased by Charles Joseph Byrnes and James Manning Byrnes who held the property until 1913 when it was sold to the Anschau family.
1910s	The six lots of Allotment 10 were consolidated into two unequal portions. The Mess House allotment and the three allotments fronting Phillip Street were purchased by the Anschaus. The remaining two allotments fronting George Street were purchased by William Bramwell Booth of the Salvation Army.
1910-1921	Erection of buildings including cottage, office, shed and shop for Anschau and Sons boot making business. In 1921, erection of a factory approved. In 1916, the property is described as having two or three horse paddocks with George and Phillip street entrances.
1919	Salvation Army hall opened, described as having a main hall built of brick and measuring 26 feet by 56 feet. A band and office room were also located at the back of the hall. The 'young people's hall' was also built of brick, 20 x 40 feet, with the primary room 20 x 20 feet. In the rear of the grounds, a nice six-roomed cottage for the use of the officers was noted.
1920	Fire destroyed a weatherboard and iron roof store at the Anschau premises on Phillip Street.
1967-69	Salvation Army premises purchased by Council of the City of Parramatta in 1967 (Vol. 2834 Fol. 123). The buildings were demolished by 1969, and replaced with a carparking lot.
1974	Remaining structures demolished and carparking lot extended through to Phillip Street
1981	Eat Street Car Park construction.

Table 7. Summary of phases of historical development

Phase	Event
Phase 1 – Burramatta (pre-1788)	The Darug people are recognised as the traditional owners of the subject area.
Phase 2 – Establishment of the town of Parramatta &	Establishment of the Rose Hill outpost, planning of streets by Governor Phillip, establishment of first gaol in George Street under Governor Hunter, extension of cross streets under Governor King.

construction of the first Gaol (1788-1830)	Conversion of occupation of blocks by groups of convicts to occupation by individual convicts and their families. Addition of Phillip Street under Macquarie, formalisation of allotments and issue of leases.
Phase 3 – John Ellison Grant (1831-1857)	Construction of Redcoats Mess House. Issue of grants.
Phase 4 – Subdivisions (1857-1910)	Subdivision of Ellison Estate – minor building infill along George Street frontage.
Phase 5 – Consolidation and later occupation (1911-c.1970)	Factory development along Phillip Street, infill development at the rear of the George Street properties. Use of site as a car park.
Phase 6 – Clearance and creation of Horwood Place (1967-present)	Creation of Horwood Place and associated laneways.

2.5 Predictive model

Based on predictive models and site-specific information, it was anticipated that the study area has some potential for subsurface archaeological deposits. The location, in proximity to the Parramatta River, including an elevated point, would have provided an abundance of resources for Aboriginal people and as a high-order watercourse, this location would be linked to potentially more permanent or repeated occupation. Materials for stone tool making, such as IMTC, silcrete, and quartz, are available within the vicinity.

The PSB mapped in this location requires ground-truthing to establish the potential for deep, stratified deposits of Aboriginal archaeology, which was a primary objective of the test excavation programme. Certain areas within the study site, specifically those along George Street and Phillip Street, have experienced high levels of disturbance due to utilities and other infrastructure, and would be considered to contain low to nil potential. Given the proximity to known contact sites (i.e. AHIMS 45-6-3702), there is the potential for contact-period cultural material to be present.

3. Aboriginal consultation

3.1 Consultation process in NSW

Aboriginal stakeholder consultation for the project has been undertaken in accordance with the *Aboriginal Cultural Heritage Consultation Requirements for Proponents 2010* (DECCW 2010b; the 'Consultation Requirements') and Clause 60 of the *National Parks and Wildlife Regulation 2019* as part of the ACHAR (Extent Heritage, 2025).

3.2 Consultation during ACHAR (Extent Heritage, 2025)

Consultation was undertaken as part of the ACHAR process (Extent Heritage, 2025). A total of 27 Registered Aboriginal Parties (RAPs) registered an interest in the project. See section 2 and Appendix A in the ACHAR for consultation details (Extent Heritage, 2025).

3.3 Assessment methodology

A copy of the proposed ACHAR survey and test excavation methodology was provided to the RAPs for review on 14 March 2024. A summary of commentary is provided below.

Table 8. Summary of RAP commentary

Group / Organisation	Feedback	Stage
Didge Ngunawal Clan	The group wrote in support of the methodology and have been working within Parramatta.	Survey methodology review
	The group wrote in support of the reports.	Test excavation methodology and draft ACHAR review
Darug Boorooberongal Elders Aboriginal Corporation	Wrote they are keen to be involved.	Survey methodology review
Widescope Indigenous Group	The group stated they supported the methodology.	Survey methodology review
Long Gully Cultural Services	The group stated that their previous experiences from working around Parramatta that the majority of the suburb is highly disturbed from European settlement and environmental impacts, however, potential remains for artefacts and European historical finds.	Survey methodology review
	The group stated they support the ACHAR and test excavation methodology.	Test excavation methodology

		and draft ACHAR review
Goobah Development	The group stated they support the proposed methodology.	Survey methodology review
ACHS	The group wrote in support of the methodology and expressed their wish to be involved in fieldwork.	Survey methodology review
A1 Indigenous Services	The group wrote in support of the methodology and expressed their wish to be involved in fieldwork.	Survey methodology review
	The group stated they support the ACHAR and test excavation methodology.	Test excavation methodology and draft ACHAR review
Gunjeewong Cultural Heritage Aboriginal Corporation	The group stated they support the proposed methodology.	Survey methodology review
Bariyan Cultural Connections	The group wrote in support of the methodology and expressed their wish to be involved in fieldwork.	Survey methodology review
Koori Digs	The group wrote in support of the methodology and expressed their wish to be involved in fieldwork.	Survey methodology review
Pearl Depoma	The group stated that they support the proposed methodology. The group further stated earlier and ongoing involvement of RAPs to provide a cultural understanding and that Parramatta holds a rich cultural history and undiscovered artefacts beneath the ground and the opportunities to explore this.	Survey methodology review
Konangoo Aboriginal Cultural Heritage Services	The group stated they had reviewed the methodology through cultural protocol for a male/female cultural lens.	Survey methodology review
Wurrumay	The group stated that they support with the proposed methodology.	Survey methodology review
	The group agrees with the draft excavation methodology and ACHAR in which they attend the site visit for.	Test excavation methodology and draft ACHAR review

Kamilaroi Yankuntjatjara Working Group	The group wrote in agreement with the proposed methodology, stating that the whole study area is highly significant due to the proximity to Parramatta River, where fresh water meets salt water and the associated resources. Due to the associated activities, such as hunting and gathering, it is suggested that camping and ceremonial practices may have also taken place. They expressed their interest in participating in fieldwork.	Survey methodology review
	The group stated they agree and support the recommendations and expressed their interest in participating in the fieldwork.	Test excavation methodology and draft ACHAR review
Waarwaar Awaa Aboriginal Corporation	The group stated they support the test excavation methodology and draft ACHAR due to the following factors: minimise/avoidance of impact to known Aboriginal objects, test excavation program to determine nature, extent and significance of Aboriginal archaeology continuing consultation with RAPs to identify Aboriginal cultural values.	Test excavation methodology and draft ACHAR review
DCAC	The group recommended that any artefacts recovered from the test excavation program be stored at the Dharug Keeping Place until their future is determined and that endemic species should be replanted. Extent reached out about the suggestion for temporary storage at their offices and in future proposed the keeping place as a long-term management option.	Test excavation methodology and draft ACHAR review
Murra Bidgee Mullangari Aboriginal Corporation	The group stated that they support the proposed methodology and recommendations.	Test excavation methodology and draft ACHAR review
Yulay Cultural Services	The group stated they support the ACHAR and test excavation methodology.	Test excavation methodology and draft ACHAR review

3.4 Participation in field survey

Aboriginal community representatives were invited to participate in the site survey conducted on 16 April 2024. The survey was undertaken by Sarah Janson (Associate, Extent Heritage) and Rebekah Hawkins (Senior Heritage Advisor, Extent Heritage), with representatives from the following RAPs:

Table 9. List of archaeological survey participants

Name	Organisation
Adam Gunther	Waawaar Awaa Aboriginal Corporation
Amanda Hickey	Amanda Hickey Cultural Services
Basil Smith	Goobah
Carolyn Hickey	A1 Indigenous Services
Ethan Trewlynn	Long Gully
Joleen Smith	Didge Ngunawal Clan Aboriginal
Kaylene Terry	Bariyan Cultural Connections
Lana Wedgwood	Darug Custodian Aboriginal Corporation
Marbuck Khan	Kamilaroi-Yankuntjatjara Working Group Pty Ltd
Pearl Depoma	
Vicky Slater	Wurrumay Pty Ltd

3.5 Archaeological test excavation

Test excavations at the site were undertaken between 7 January 2025 and 7 February 2025. The test excavations were undertaken by Sarah Janson (Associate, Extent Heritage), Gina Basile (Heritage Advisor, Extent Heritage) under Excavation Director, Brian Shanahan (and, with representatives from the following RAPs:

- Long Gully
- KACHS
- Yurrandaali
- Kamilaroi-Yankuntjatjara Working Group Pty Ltd

3.6 ATER review and distribution

This report was distributed for a review period on 1 July 2025. Feedback on the reports can be found in Section 2.7 of the ACHAR (Extent Heritage, 2025). A copy of the final ATER will be provided to the RAPs with the ACHAR.

4. Test excavation methodology

4.1 Introduction

The full methodology document, Extent Heritage (2024b) *Civic Link Block 3, Horwood Place Parramatta Aboriginal Archaeology Test Excavation Methodology*, as accompanied the application for AHIP 5403, can be found appended to the ACHAR. An outline is included below.

4.2 Aims

The archaeological test excavation program aimed to determine whether the Parramatta Sand Body was present within the study area, to minimise harm from geotechnical testing, and to assess the likelihood of subsurface Aboriginal objects within the study area and the area of potential archaeological deposits, registered on AHIMS as Horwood Place PAD 1 (45-6-4123).

Where artefacts were identified, the program aimed to gather preliminary information on their nature, depth, density, associated sediments, and, where possible, the age of deposits. This information will be used to inform the significance assessment and heritage management recommendations in the ACHAR. The program was conducted in accordance with the *Code of Practice for Archaeological Investigation of Aboriginal Objects in NSW* (DECCW 2010b, requirements 14–17) and the requirements of AHIP 5403.

4.3 Methodology and sampling strategy

Excavation was carried out in accordance with the methodology outlined in the following documents:

- Extent Heritage, 2024a. *Civic Link Block 3, Parramatta Aboriginal Cultural Heritage Assessment Report* prepared for City of Parramatta
- Extent Heritage, 2024b. *Civic Link Block 3, Horwood Place Parramatta Aboriginal Archaeology Test Excavation Methodology* for City of Parramatta

The program integrated both historical and Aboriginal archaeology under the direction of Excavation Director Brian Shanahan. Although initially designed as a two-phase process, the works were ultimately combined into a single programme. Test trench locations were marked out on site according to the planned test pit locations, however a number were required to be adjusted due to the presence of services, safety issues, or logistical constraints.

Initial test areas of approximately 2 x 1 metres were opened. The modern ground surface and overlying fills were removed using a machine excavator, with a saw cutter employed where needed to break up hard surfaces. A flat bucket was used under archaeological supervision to remove modern fills, and a toothed bucket was used to break up compacted material. Manual excavation using hand tools followed, focusing on the identification and recording of archaeological remains.

Test Locations (TLs) were excavated within the historical trenches in consultation with RAP representatives. Each TL comprised 500 x 500 mm units; up to 1m^2. Locations and configurations were determined based on site constraints, including the presence of significant historical remains, services, and the limitations of the roadway environment. Natural deposits were excavated manually in 50 mm spits and sieved through 3 mm mesh, with excavation proceeding in 50 mm spits into basal layers where feasible.

The methodology included specific triggers for expanding excavations—such as high artefact density, unusual raw materials, indicators of site formation processes, and evidence of contact archaeology—however none of these triggers were met during excavation. Where archaeological features were encountered, standard documentation was undertaken.

A site datum referenced to Australian Height Datum (AHD) was established by surveyor Guy Hazell, and remains were recorded through measured drawings, annotated photogrammetry, and photographic documentation with appropriate scale and orientation. Context numbers were assigned to deposits and features. Soil and sediment samples were collected where appropriate for potential specialist analyses including archaeobotanical, sedimentological and geochemical studies.

4.4 Limitations and constraints

Several obstacles were encountered during the test excavation program, primarily related to the placement of test pits. Final on-ground service location checks revealed the presence of underground services that prevented excavation at the planned locations of TL07, TL08, and TL01. Alternative locations were explored; however, these presented similar issues or posed access constraints for vehicles and pedestrians. TL02 was able to be relocated to the opposite side of the road similarly to avoid subsurface services. The adjusted test excavation layout was communicated to Heritage NSW and the Registered Aboriginal Parties prior to the commencement of excavations.

As works were carried out while Horwood Place remained open to traffic, works were undertaken with traffic management guidance, and this also limited the ability for test trenches to be extended further into the roadway.

5. Test excavation results

5.1 Overview

Test excavations at the site were undertaken between 7 January 2025 and 7 February 2025. The test excavations were undertaken by Sarah Janson (Associate, Extent Heritage), Gina Basile (Heritage Advisor, Extent Heritage) under Excavation Director, Brian Shanahan (and, with representatives from the following RAPs:

- Long Gully
- KACHS
- Yurrandaali
- Kamilaroi-Yankuntjatjara Working Group Pty Ltd

Figure 3. Excavation Director Brian Shanahan documenting TL05.

Figure 4. Dr Elle Grono taking soil samples from TL05.

Figure 5. Archaeologists and RAP representatives excavating TL05.

Weather conditions during the excavation ranged from extreme heat to storms and rains.

As noted in section 4.4, of the originally proposed eleven test locations, three could not be excavated due to the presence of active services identified by service locators at the commencement of works. An additional testing location (Test Location {TL}02) was repositioned to the opposite side of the road to avoid similar constraints, allowing testing to proceed in that area of the site.

Of the eight locations that were tested, only one, TL05, revealed a remnant soil profile with potential to contain Aboriginal cultural heritage. The remaining test pits consisted of historical and modern fills directly overlying the tertiary alluvial mottled clays associated with the PSB, but not the Pleistocene terrace sand type itself.

Excavation at TL05 recovered 14 lithic (stone) artefacts, while a further stone artefact was identified within the historical fills of TL01.

Below includes the results of each test trench excavated.

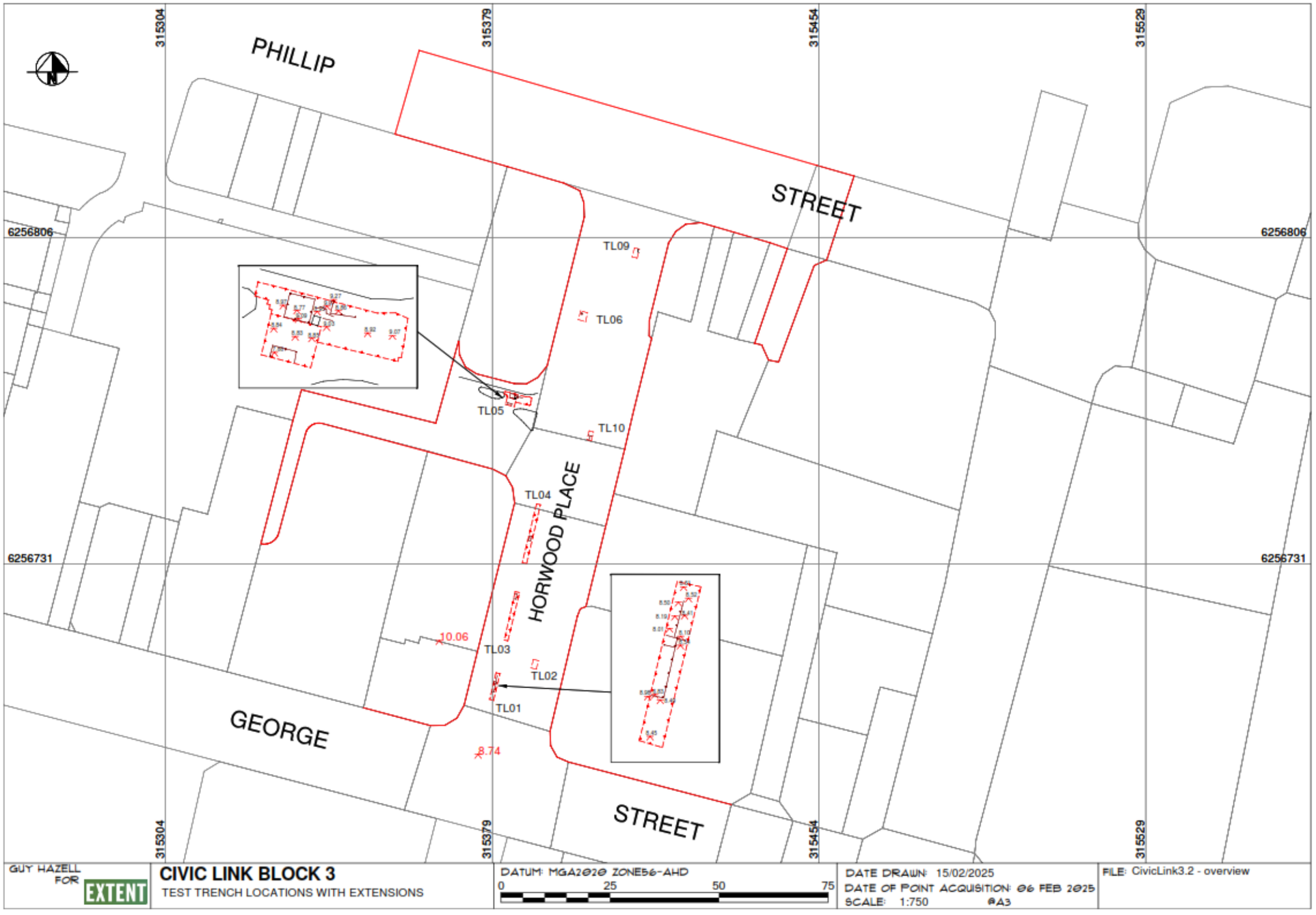


Figure 6. Final test locations and relative levels.

EXTENT | PEOPLE CENTRED HERITAGE

Civic Link Block 3, Horwood Place
Final Test Locations

Study Area
Trench Locations
Abandoned
Aboriginal Test Locations (TL)
Historical Archaeology Test Trenches (TT)

Drawn by: Sarah Janson
Checked by: Brian Shanahan
Date: 1 June 2025
Projection: GDA94 MGA56
Data sources: Extent, Nearmap, NSW Spatial Services City of Parramatta, ArcSurv

0 10 20 30 40 50 60 m

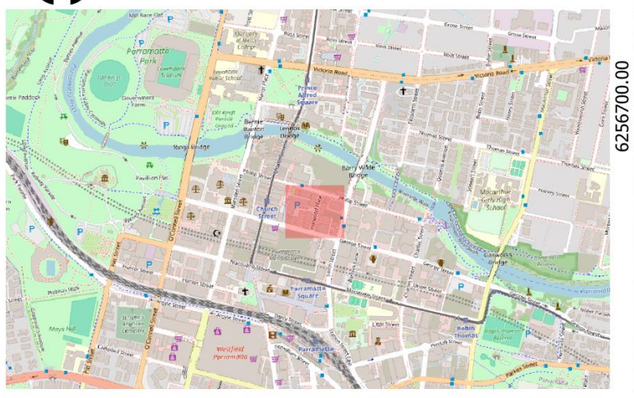


Figure 7. Final test locations.

5.2 Results

5.2.1 TL01

Archaeological testing in test trench (TT) TT01 comprised a 900 mm x 3-metre-long trench, revealed a late nineteenth-century yard surface containing glass, ceramics, and clay pipe fragments. This yard surface lay immediately beneath road fill and likely related to a post-1868 building, though no structural remains were found.

Within this yard surface, TL01 was excavated in four 500 x 500 mm quadrants, aligned north south along the trench (TL01.1, TL01.2, TL01.3, TL1.4). This revealed that historic fills were deeper than expected and continued to a depth of approximately 1800 mm below the street surface, with up to 900 mm of fill containing bricks, ceramics, glass, animal bone, and shell. The materials recovered suggest domestic dumping activity dating mainly from the 1850s–1880s, possibly extending back to the 1820s–30s, and are likely related to the Ellison property and possibly earlier occupation phases such as the Redcoats Mess.

The northern end of the TT01 trench traced a dip in the natural landform, and in section was shown to have historic deposits overlaying natural red clay. This confirmed that the original ground sloped more sharply towards George Street; an important finding for reconstructing the early colonial landscape and settlement layout.

One red silcrete artefact was recovered from the sieved excavations of historic fill within TL1.4.

Table 10. Summary of TL01 results

TL01									
Location (GDA 94 Zone 56)	E 6256703.37, N 315379.57 (NW corner)				AHD: 8.49				
Landform	Filled depression on flat								
Depth of Excavation	1800 mm								
Disturbance	Historical fills of domestic dumping activity, road base and fill								
Artefacts	1; red silcrete distal tool from fill								
Soil & Stratigraphy									
Unit	**Depths (mm)**	**Horizon/ Context**	**Colour**	**Texture**	**Moisture**	**Consistency/ Compaction**	**Boundary**	**Inclusions**	**Artefacts**
1	0-50	bitumen	black	—	dry	rigid	smooth, sharp	—	0
2	50-220	road base	grey	gravel	dry	rigid	smooth, sharp	blue metal aggregate	0

3	220-390	fill (C1003)	beige - yellow	gravel	dry	rigid	smooth, abrupt	sandstone	0
4	390-400	potential yard surface (C1004)	dark grey	silty	dry	firm	smooth, abrupt	nineteenth century ceramic, glass	0
5	400-550	fill (C1005)	grey	silty	dry	firm	wavy, abrupt	frequent nineteenth century artefacts	0
6	550-1250	fill (C1006)	grey brown to pale yellow brown	silty	dry	weak	wavy, clear	small brick fragments, small charcoal fragments, small artefacts, ceramic, glass	1
7	1250-1650	fill (C1007)	grey-brown	silty	mod moist	weak	wavy, clear	glass, ceramic, large artefacts including brick halves and oyster valves	0
8	1650-1800	A2 (C1010)	red brown	sandy clay	mod moist	firm	wavy, gradual	fragment of brick and bottle glass pressed in	0
9	1800 +	B (C1009)	red yellow	clay	mod moist	firm, very strong	—	brick and sandstone fragment pressed in	0

Figure 8. 3D model of TT01 (looking south) showing sondage in foreground and location of 4 test units (TL01.1, TL01.2, TL01.3, TL1.4) in mid-ground.

Figure 9. 3D model of TT01 (looking east) showing the accumulation of soil within the underlying landform dropping towards George Street.

5.2.2 TL02

A 1 x 2 m test trench was excavated and following the mechanical removal of introduced road base and fill, a red-brown mottled B-horizon clay was encountered. Excavation continued in this location to assess any potential variation or change in the soil profile. However, no significant changes were observed, and the clay extended consistently with depth. The trench was terminated at 1,500 mm, the maximum excavation depth. No cultural materials or artefacts were recovered from this location.

Table 11. Summary of TL02 results

TL02		
Location (GDA 94 Zone 56)	E 6256708.86, N 315388.69 (NW corner)	AHD: 9.09
Landform	Flat	
Depth of Excavation	2000 mm	
Disturbance	Road base and fill	
Artefacts	0	

Soil & Stratigraphy

Unit	Depths (mm)	Horizon/Context	Colour	Texture	Moisture	Consistency/ Compaction	Boundary	Inclusions	Artefacts
1	0-30	bitumen	black	—	dry	rigid	smooth, sharp	—	0
2	30-250	road base	grey	gravel	dry	rigid	smooth, sharp	blue metal aggregate	0
3	250-255	fill	beige - yellow	gravel	dry	rigid	smooth, abrupt	sandstone	0
4	255-1500+	B	red brown with grey mottles	clay	mod moist	very strong	—	—	0

Figure 10. View east of TL02, showing road base and fills overlying mottled red brown clays.

5.2.3 TL03

Excavation through TL03 revealed a highly disturbed upper profile, characterised by the by the introduced materials for the construction of the roadway. The upper 50 mm comprised black bitumen, underlain by approximately 200 mm of grey road base containing blue metal aggregate. Below this, 100 mm of beige-yellow fill with sandstone inclusions was encountered. At approximately 350 mm depth, the red-brown B-horizon clay with grey mottling was exposed, indicating the natural subsoil. A 500 x 500 mm test pit was then excavated into this profile to confirm is sterility. The clay was slightly moist and very strongly compacted. No cultural materials or artefacts were recovered from this location.

Table 12. Summary of TL03 results

TL03									
Location (GDA 94 Zone 56)	E 6256715.63, N 315382.45 (NW corner)		AHD: 9.15						
Landform	Flat								
Depth of Excavation	450 mm								
Disturbance	Road base and fill								
Artefacts	0								
Soil & Stratigraphy									
Unit	**Depths (mm)**	**Horizon/Context**	**Colour**	**Texture**	**Moisture**	**Consistency/Compaction**	**Boundary**	**Inclusions**	**Artefacts**
1	0-50	bitumen	black	—	dry	rigid	smooth, sharp	—	0
2	50-250	road base	grey	gravel	dry	rigid	smooth, sharp	blue metal aggregate	0
3	250-350	fill	beige - yellow	gravel	dry	rigid	smooth, abrupt	sandstone	0
4	350+	B	red brown with grey mottles	clay	mod moist	very strong	—	—	0

Figure 11. View west of TL03 profile, showing typical road construction layers directly overlying mottled red brown clays.

5.2.4 TL04

TL04 was excavated through a disturbed sequence comprising 200 mm of grey concrete, followed by 100 mm of road base containing blue metal aggregate, and a further 50 mm of beige-yellow fill with sandstone inclusions. Below this, at a depth of approximately 350 mm, a red-brown B-horizon clay with grey mottling was encountered. A 500 x 500 mm test pit was then excavated into this profile to confirm is sterility. The clay was slightly moist and very strongly compacted, continuing beyond the base of the trench. No artefacts or cultural materials were identified within the excavated profile.

Table 13. Summary of TL04 results

TL04									
Location (GDA 94 Zone 56)	E 6256744.52, N 315389.37 (NW corner)		AHD: 9.44						
Landform	Flat								
Depth of Excavation	400 mm								
Disturbance	Road base and fill								
Artefacts	0								
Soil & Stratigraphy									
Unit	**Depths (mm)**	**Horizon/ Context**	**Colour**	**Texture**	**Moisture**	**Consistency/ Compaction**	**Boundary**	**Inclusions**	**Artefacts**
1	0-200	concrete	grey	—	dry	rigid	smooth, sharp	aggregates	0
2	200-300	road base	grey	gravel	dry	rigid	smooth, sharp	blue metal aggregate	0
3	300-350	fill	beige - yellow	gravel	dry	rigid	smooth, abrupt	sandstone	0
4	350+	B	red brown with grey mottles	clay	mod moist	very strong	—	—	0

Figure 12. View east of TL04 test pit, showing mottled red brown clays.

Figure 13. View east of TL04 test pit, showing sequence of concrete and road base over mottled red brown clays.

Figure 14. View north of extent of TT04, within which TL04 was excavated, showing exposed mottled red brown clays across the area.

5.2.5 TL05

Archaeology in TL05 consisted of a small patch of early soil which had been cut through and heavily impacted on by construction on Auctioneer Lane and what appears to have been a former light pole emplacement. A post hole was documented as cutting into the soil profile.

Historic artefacts, including ceramic and glass, were recovered here as were Aboriginal lithics. Subsequent expansion of the TL05 into a wider test trench (TT05) confirmed that intact soil horizons were truncated and cut into by earlier construction work and services but survived in pockets, and this is likely the case throughout Auctioneer Lane to its interface with Horwood Place.

A 1 x 1 m test pit was excavated in four 500 x 500 mm quadrants (TL05.1, TL05.2, TL05.3 and TL05.4), beginning from the point of the removal of the pavement bedding over burden.

14 artefacts were recovered, primarily from the pale brown A horizon above the red clay subsoil.

Table 14. Summary of TL05 results

TL05									
Location (GDA 94 Zone 56)	E 6256769.90, N 315383.43 (NW corner)				AHD: 8.97				
Landform	Crest								
Depth of Excavation	500 mm								
Disturbance	Modern post hole, truncation by pavement bedding and road construction								
Artefacts	14								
Soil & Stratigraphy									
Unit	**Depths (mm)**	**Horizon/ Context**	**Colour**	**Texture**	**Moisture**	**Consistency/ Compaction**	**Boundary**	**Inclusions**	**Artefacts**
1	0-70	pavers	grey	—	dry	rigid	smooth, sharp	aggregates	0
2	70-100	bedding sand	grey	sand	dry	weak	smooth, sharp	—	0
3	100-200	fill	grey	silty	dry	weak	smooth, abrupt	ceramics	0
4	200-300 (0-100)	A2	grey-brown	silty	dry	firm	smooth, abrupt	—	2
5	300-400 (100 – 200)	A3	light brown	silty	mod moist	firm	smooth, abrupt	—	9

6	400-450 (200-300)	B1	mid brown	sandy clay	mod moist	very strong	smooth, abrupt	—	3
7	450+ (250+)	B2	red brown	clay	mod moist	very strong	—	—	0

Figure 15. Initial 1 x 2 m test location, exposing potential soil profile in north section.

Figure 16. Expansion of TL05 area, exposing potential soil profile that can be seen in section.

Figure 17. Mid-excavation photogrammetry of TL05 area, after removal of paving bedding and excavation of intrusive post hole, prior to excavation of natural soil profile.

Figure 18. Excavation of test pit within area, into the soil profile.

Figure 19. Cross section of post hole in TL05.

Figure 20. North section of TL05.

5.2.6 TL06

Excavation of TL06 revealed a similar disturbed upper 50 mm consisted of black bitumen, underlain by 200 mm of grey road base containing blue metal aggregate. This was followed by a substantial fill layer (450 mm) of beige-yellow gravel with sandstone inclusions. Below this, a thin transitional layer of mottled red-yellow clayey sand was encountered between 700–780 mm. At 780 mm, excavation reached a red-brown B-horizon clay with grey mottling, which extended to the base of the trench at 930 mm. A 500 x 500 mm test pit was then excavated into this profile to confirm is sterility. The natural clay was moist and very strongly compacted. No artefacts or cultural materials were recovered from this trench.

Table 15. Summary of TL06 results

TL06									
Location (GDA 94 Zone 56)	E 6256769.90, N 315383.43 (NW corner)		AHD: 8.97						
Landform	Lower slope								
Depth of Excavation	930 mm								
Disturbance	Road base and fill								
Artefacts	0								
Soil & Stratigraphy									
Unit	**Depths (mm)**	**Horizon/Context**	**Colour**	**Texture**	**Moisture**	**Consistency/Compaction**	**Boundary**	**Inclusions**	**Artefacts**
1	0-50	bitumen	black	—	dry	rigid	smooth, sharp	—	0
2	50-250	road base	grey	gravel	dry	rigid	smooth, sharp	blue metal aggregate	0
3	250-700	fill	beige - yellow	gravel	dry	rigid	smooth, abrupt	sandstone	0
4	700-780	fill	mottled red yellow	clayey sand	mod moist	very strong	smooth, abrupt	—	0
5	780-930+	B	red brown with grey mottles	clay	mod moist	very strong	—	—	0

Figure 21. West section of TL06, showing fills overlying red-orange mottled clay.

5.2.7 TL09

TL09 was excavated through a sequence of disturbed deposits, beginning with 200 mm of black bitumen, underlain by 50 mm of grey road base with blue metal aggregate. This was followed by a 200 mm layer of beige-yellow fill containing sandstone inclusions (C9004), a 50 mm layer of grey sand fill (C9005), and a 100 mm layer of red clay fill (C9006). Between 600–650 mm, mottled grey sandy clay fill (C9007) was encountered, which contained twentieth-century artefactual material. Beneath this, at approximately 650 mm, a natural B-horizon clay with yellow-grey mottling was exposed. A 500 x 500 mm test pit was then excavated into this profile to confirm is sterility. No Aboriginal cultural heritage materials were identified within this trench.

Table 16. Summary of TL09 results

TL09									
Location (GDA 94 Zone 56)	E 6256769.90, N 315383.43 (NW corner)			AHD: 8.97					
Landform	Lower slope								
Depth of Excavation	700 mm								
Disturbance	Concrete, road base and fill								
Artefacts	Twentieth century materials								
Soil & Stratigraphy									
Unit	**Depths (mm)**	**Horizon/Context**	**Colour**	**Texture**	**Moisture**	**Consistency/Compaction**	**Boundary**	**Inclusions**	**Artefacts**
1	0-200	bitumen	black	—	dry	rigid	smooth, sharp	—	0
2	200-250	road base	grey	gravel	dry	rigid	smooth, sharp	blue metal aggregate	0
3	250-450	fill (C9004)	beige - yellow	gravel	dry	rigid	smooth, abrupt	sandstone	0
4	450-500	fill (C9005)	grey	sand	dry	firm	smooth, abrupt	—	0
5	500-600	fill (C9006)	red	clay	mod moist	firm	smooth, abrupt	—	0
6	600-650	fill (C9007)	mottled grey	sandy clay	mod moist	very strong	smooth, abrupt	twentieth century artefacts	0
7	650+	B	yellow grey mottle	clay	mod moist	very strong	—	—	0

Figure 22. West section of TL09, showing fills overlying yellow-grey mottled clay.

Figure 23. North section of TL09, showing fills overlying yellow-grey mottled clay and concrete underlying road base.

5.2.8 TL10

TL10 exhibited the same road base sequence seen throughout the site, and was excavated through a 200 mm layer of black bitumen, underlain by 50 mm of grey road base containing blue metal aggregate. At this point, a 1 x 1 m test pit was excavated in four 500 x 500 mm quadrants (TL10.1, TL10.2, TL10.3 and TL10.4) into the red sandy clay (B1 horizon), to confirm nature of this horizon. This slightly sandier clay, between 250–350 mm, transitioned, into a more compact and clayey, red sandy clay with grey mottling (B2 horizon) from 350 mm to the base of the trench at 750 mm. Both B-horizon units were moist and very strongly compacted. No artefacts or cultural materials were recovered.

Table 17. Summary of TL10 results

TL10		
Location (GDA 94 Zone 56)	E 6256769.90, N 315383.43 (NW corner)	AHD: 8.97
Landform	Crest	
Depth of Excavation	750 mm	
Disturbance	Road base and fills	
Artefacts	0	

Soil & Stratigraphy

Unit	Depths (mm)	Horizon/Context	Colour	Texture	Moisture	Consistency/Compaction	Boundary	Inclusions	Artefacts
1	0-200	Bitumen/ concrete	black	—	dry	rigid	smooth, sharp	—	0
2	200-250	road base	grey	gravel	dry	rigid	smooth, sharp	blue metal aggregate	0
3	250-350	B1	red	sandy clay	mod moist	very strong	smooth, gradual	—	0
4	350+	B2	red with grey mottles	sandy clay	mod moist	very strong	—	—	0

Figure 24. TL10 pre-excavation, showing exposed red clays clay.

Figure 25. North section of TL10 post excavation, showing consistent red mottled clays.

6. Post-excavation analysis

6.1 Lithic analysis

This section provides analysis undertaken by Rebekah Hawkins (Extent Heritage) of a stone artefact assemblage excavated from Horwood Place in Parramatta as part of test excavations for the proposed Civic Link Block 3.

The following research questions have been developed to help determine the scientific value of the artefact assemblage and assess the extent and significance of the Aboriginal heritage resource in the study area.

- **Source information:** What raw material resources were used; where did they come from; and what does this tell us about Aboriginal use of the region in the past?
- **Stone reduction technology**: How was the stone worked and used? Does this change over time? Can the function of the site be inferred from the artefact assemblage? What does this tell us about Aboriginal occupation, use, settlement and activities undertaken through time in this region?
- **Post-depositional influences:** What post-depositional influences have impacted on the assemblage, and what does this tell us about the integrity and significance of the site?
- **Site chronology:** When was the site occupied? Was the assemblage the product of repeated occupations or a single event? Is there spatial patterning in the assemblage, and what does this tell us about repeated use, activities and/or occupation of the region through time?

6.1.1 Artefact analysis method

Artefacts were analysed by lithics specialist Rebekah Hawkins, using a standardised approach to ensure consistency with stone artefact analysis at comparable sites and to support broader data comparison.

To explore the proposed research questions, the following methodology was applied to the assemblage to enable meaningful analysis. The artefacts were cleaned when required and individually analysed, with data entered into a Microsoft Access database. In this way a comprehensive typological, technological and metrical analysis of the excavated assemblage was undertaken. The location of the artefacts was recorded by trench, spit and excavation square. Analysis was aided by the use of a 10x hand lens and a standard digital vernier calliper. Measurements were made in millimetres to one decimal place and weights were recorded using digital scales to 0.01 g. A definition of the terms used for the artefact types and their attributes can be found below in section 6.1.2 of this report and the lithic catalogue is provided below in Table 18.

Artefact densities exceeding 25 artefacts per square metre were not encountered during the test program; therefore, a programme of conjoin (re-fitting) analysis is not currently warranted. The assemblage was examined for evidence of use-wear and residue. No ground stone artefacts were identified.

6.1.2 Recorded artefact attributes

Term	Attributes
Technological class	Artefact type (e.g. core, complete flake, longitudinal split, flake fragmentation, retouch, angular fragments/lithic fragments, other (axe, grindstone etc)
Material	Raw Material type (silcrete tuff, chert, quartz, quartzite etc)
Colour	Raw Material colour
Cortex	Percentage of cortex (if on a flake – amount on the dorsal surface of a flake)
Cortex Type	Type of cortex (rough/terrestrial, water-rolled/tabular)
Platform Type	Unifacial, crushing/missing, Flaked (>2 flake scars), Facetted (3 or more small, systematic flake removals), Cortical (with cortex), n/a
Initiation Type	Bending, hertzian, bipolar, wedging, unclear
Termination Type	Feather, hinge, step, overshot, step
Tool Type	Select the type of tool – usewear, concave scraper, convex scraper, straight scraper, elouera (backed artefact), notched scraper, endscraper, saw, stepped scraper, drill, backed (generic), Bondi point, thumbnail scraper, denticulate, burin, geometric microlith, nosed scraper
Maximum Dimension	All artefacts (in size groupings)
Length Complete Flake	Axial length of the complete flake/complete tool (in mm to 1 dp)
Weight	Weight of the artefact in grams to 1dp
Complete and Broken Flakes	Attributes
Form	Form of the flake – Indeterminate, Expanding, Block (angular Fragment), Blade, N/A, Platform Rejuvenation Flake (tablet), Bipolar, Eraillure, Ridge straightening flake, elongated flake. These attributes reflect core reduction strategies.
Complete Flakes	Showing intensity of retouch or systematic core preparation
Flake Scars	The number of flake scars on the dorsal surface of the flake
Overhang removal	Exterior platform preparation indicates systematic core reduction (complete flakes and proximal flakes)
Scar Direction	The direction of the dorsal flake scars – 1 (initiated from the platform only), 90 (initiated at right angles to the platform), 180 (initiated at the distal end of the flake), radial (initiated from 90 and 270 degrees from the platform)
Complete Tools	(examines measures of curation)
Retouch Edge	The number of retouched quadrants (on complete tools only)
Retouch Type 1, 2, 3, 4	Select the retouch type for quadrants 1, 2, 3 and 4
Cores	Identifying technological strategies and intensity of reduction

Core Type	Unidirectional, bidirectional, bifacial, multiplatform, prismatic, burin-blade core, test, bipolar
Core Body	Core body form – block, flake, nodule, non-diagnostic
Core Section	Core cross section – square, rectangular, lenticular, conical, non-diagnostic
Scar Form	Elongated, expanding, blade, mixed
Core Platform	Number of platforms on the core
Step Termination	Number of step terminations on the core
Hinge	Number of hinge terminations on the core
Core scar Length	Length of the longest core scar
Core scar Width	Width of the longest core scar at maximum
Number of Core	Number of core scars
Metrical	(in mm to 1 dp)
Length Complete	Axial length of the complete flake/complete tool
Width	Maximum width of the complete flake/tool/core
Thickness	Maximum thickness of the complete flake/tool/core at mid-point
Core Length	Maximum length from the working platform
Platform width	Platform width – proximal and complete flakes and tools
Platform Thickness	Platform thickness – proximal and complete flakes and tools (and complete splits)
Weight	Weight of the artefact in grams to 1dp

6.1.3 Lithics catalogue

Table 18. Lithics catalogue

ID	Trench	Quad/Context	Spit	Depth (cm)	DATACLASS	MATERIAL	COLOUR	QUARTZ	Fracture Int	DISTEND	Concretion	CORTEX (%)	CORTET (Type)	FORM	EXTPLAT	PLATTYPE	DORSAL	TOOLTYPE	MAXLENGTH	MAXWIDTH	MAXTHICK	LENGTH	WIDTH	THICK	PLWID	PLTH	WEIGHT	COMMENTS
1	TL05	4	2	5-10	complete flake	quartzite	buff		wedging	crushed		0		intermediate	n/a	crushed	1,3		16.8			16.7	9.21	3.9			0.7	Bipolar flake
2	TL05	2	5	20-25	distal flake	IMT	yellow			feather	Y	0							17	11.2	5.8						0.8	
3	TL05	2	6	25-30	flake fragment	silcrete	red					50-74	smooth						15	10.1	4.7						0.6	
4	TL05	2	6	25-30	distal flake	IMT	white			hinge		0							6.46	4.87	1						0.1	
5	TL05	3	3	10-15	flake fragment	IMT	pink				Y	0							6.87	5.22	2.7						0.1	
6	TL05	3	3	10-15	core fragment	quartz	white	opaque				1-24	smooth						14.5	8.57	6.3						0.8	
7	TL05	3	3	10-15	complete fragment	quartz	white	translucent	hertzian	feather	Y	0		elongated	n/a	uni	1		13.2			12.2	5.85	3.3	3.24	1.9	0.2	
8	TT05	5005			flaked piece tool	silcrete	pink/grey					0						retouched and usewear	32.5	17.6	7						4.3	Two margins with light retouch and possible usewear.
9	TL05	2	4	15-20	complete flake	silcrete	red		hertzian	feather	Y	0		intermediate	n/a	uni	2,4		20			19.6	17.2	4.9	2.04	1.9	0.8	
10	TL05	2	4	15-20	complete flake	silcrete	red		wedging	feather		0		intermediate	n/a	crushed	1,3		5.54			5.56	5.78	1.5			0.1	
11	TL05	2	3	10-15	proximal tool	IMT	buff		hertzian		Y	0			yes	uni		retouched and usewear	24.3	13.2	2.7				16	2.2	1	Two margins with retouch and usewear
12	TL05	2	3	10-15	flake fragment	silcrete	red					100	rough						18.4	10.5	3						0.6	
13	TL05	2	3	10-15	LCS	quartz	pink	translucent	hertzian	step		75-99	smooth		n/a	uni			11.8	7.15	2.7						0.2	
14	TL05	2	3	10-15	complete flake	IMT	grey		bending	hinge		25-49	smooth	intermediate	n/a	cortical			5.67			4.87	4.87	3.1	5.23	2.9	0.1	
15	TL01	4	4	15-20	distal tool	silcrete	red			hinge		0						retouched and usewear	23.1	12	8						2.3	Light retouch and usewear

6.1.4 Results

The testing program involved the placement of an initial nine 1 m x 2 m test trenches across the site, and within these, Aboriginal test pits were placed, excavated in 5 cm spits. A total of 6 m^2 was excavated, with the Pleistocene terrace sand portion of the geological feature known as the Paramatta Sand Body identified in none of the test pits. Excavations continued down to compact clay (B Horizon) and excavated soils were wet sieved through a 3 mm mesh. All identifiable and potential Aboriginal objects recovered from the sieves were bagged and labelled with information identifying their provenance.

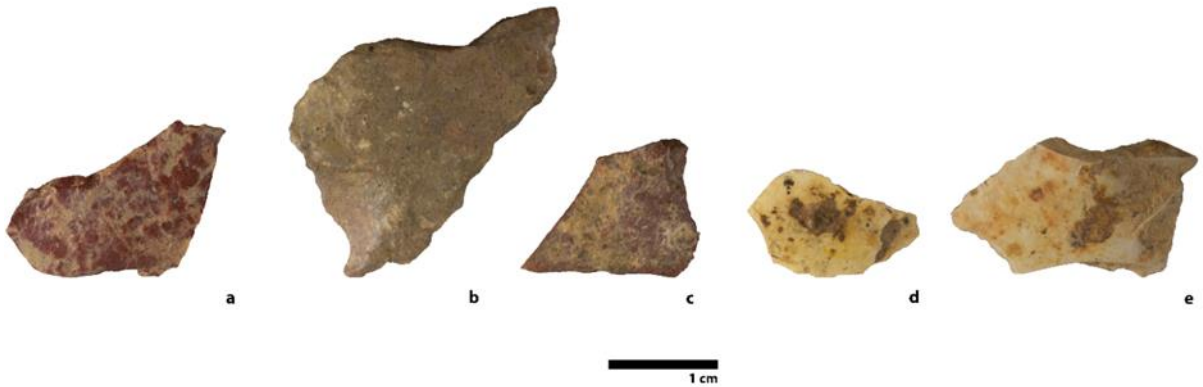
A total of 15 Aboriginal objects (a density of 2.5 artefacts/m^2) were recovered from two of the test pits (25%), with 14 of the artefacts from TL05. Table 19 displays the distribution of artefacts by test pit, quadrant and spit. Figure 6 shows the location of the test pits and their artefact densities.

Overall, the assemblage is dominated by flakes (n=14, 93.3%) with three flakes showing evidence of retouch. There is one core fragment and Table 20 displays the breakdown of the assemblage composition.

The assemblage is dominated by silcrete (n=6, 40%) and indurated mudstone/tuff (n=5, 33.3%) with some quartz (n=3, 20%) and quartzite (n=1, 6.7%).Table 21 displays the breakdown of the raw material composition.

Artefacts were recovered from spits 2 – 6 (200-500 mm below the surface) with one artefact recovered from a historic context within the interface between the soil horizon and historic material. Therefore, cultural material, when present, is mostly found within the natural soil profile, which has been greatly disturbed across the study area and truncated.

Moderate artefactual densities were recovered from TL05, with a total of 14 artefacts (n=93% of the assemblage). While this density is not high, it does indicate cultural material should be expected whenever in-situ soil profile is identified.



a: #15 TL01.4 SP4 | b: #8 TT05 (5005) | c: #9 TL05.2 SP4 | d: #2 TL1.2 SP5 | e: #11 TL05.2 SP3

Figure 26. Sample of lithics recovered from test excavations.

Table 19. Artefact densities by test pit, quadrant and spit.

Trench/test pit	Quadrant	Spit	Number of artefacts
TL05	1	1--6	0
	2	3	4
		4	2
		5	1
		6	2
	3	3	3
	4	2	1
TL01	4	4	1
TT05	n/a	n/a	1
		Total	**15**

Table 20. Assemblage composition

Artefact class	Count	%	Mean Max length (mm)	Std dev.	Mean Weight (g)	Std dev.	Weight Sum (g)	%
Complete flake	5	33.3	12.2	6.5	0.4	0.4	1.9	14.7
Distal flake	2	13.3	11.7	7.5	0.4	0.5	0.9	6.7
Longitudinal cone split	1	6.7	11.8		0.2		0.2	1.6
Flake fragment	3	20.0	13.4	5.9	0.4	0.3	1.3	10.3
Proximal tool	1	6.7	24.3		1.0		1.0	7.9
Flaked piece tool	1	6.7	32.5		4.3		4.3	34.1
Distal tool	1	6.7	23.1		2.3		2.3	18.3
Core fragment	1	6.7	14.5		0.8		0.8	6.3
Total	**15**	**100**					**12.6**	**100**

Table 21. Raw material preference.

Raw material	Count	%	Mean Max length (mm)	Std dev.	Mean Weight (g)	Std dev.	Weight Sum (g)	%
Silcrete	6	40.0	19.1	8.9	1.4	1.6	8.7	68.7
IMT	5	33.3	12.1	8.3	0.4	0.5	2.1	16.3
Quartz	3	20.0	13.2	1.4	0.4	0.3	1.2	9.5
Quartzite	1	6.7	16.8		0.7		0.7	5.6
Total	**15**	**100.0**					**12.6**	**100.0**

6.1.4.1 TL05

TL05 was the only area where a stratigraphic profile was identified with spit 1 of the test pit starting at 200 mm below the surface within a truncated A2 horizon. TL05 recovered the majority of artefacts (n=13, 86.7%), and the spatial patterning of these artefacts within the quadrants is shown below.

Q1 (n=0)	Q2 (n=9)
Q4 (n=1)	Q3 (n=3)

Within this test pit there is a mix of materials (silcrete, IMT, quartz and quartzite) throughout the sequence. As the soil profile present is not extensive or deep, understanding any artefactual patterning is limited. IMT is most often associated with occupation of sites in the Pleistocene and early Holocene, with silcrete increasing in preference during the mid Holocene onwards. This profile, with mixed materials may reflect a mixing of different aged artefacts or could reflect the use of both silcrete and IMT at similar times.

No conjoins were identified and the material colours were mixed, therefore it is difficult to discern whether these artefacts were manufactured from several events or only a select number.

A range of cortex levels were present, with smooth cortex more prevalent than rough cortex, reflecting procurement mostly from secondary sources such as waterways.

Artefact size ranges from 5.54 mm to 24.31 mm, with some small complete flakes reflective of possible on-site reduction of material. However, it is important to consider the levels of disturbance at this site.

One artefact with retouch was identified in TL05, with the retouch present on two margins of a proximal flake along with possible usewear.

In close proximity to TL05, within the same trench (TT05), a flaked piece tool was recovered historic context #5005 an interface between the pavement bedding and the underlying natural soils. This reflects some mixing of artefactual material due to historic activities.

6.1.4.2 TL01

One artefact was recovered from TL01, a red silcrete distal tool with light retouch and usewear. As this test pit was characterised by a rubbish dump it is likely that artefactual material was mixed in through the inclusion of cultural material bearing sediment.

6.1.5 Discussion

The discussion focuses on answering the research questions posed above.

The assemblage recovered from the test excavations at Civic Link Block 3 recovered 15 Aboriginal stone artefacts. The size of the assemblage is limiting; however, the presence of cultural material indicates the likelihood for artefacts whenever in-situ soil profiles are present. Additionally, the presence of two stone artefacts within mixed deposits indicates there is potential for cultural material to be present in historical deposits to some degree.

Due to the lack of high densities, cores and standardised tools it is difficult to provide any in depth discussion on the people who made these artefacts.

- **Post-depositional influences**: What post-depositional influences have impacted on the assemblage, and what does this tell us about the integrity and significance of the site?

Excavations across the Civic Link Block 3 site reveal high levels of disturbance due to historic activities which have removed the natural soil profile and any cultural material it may have contained. Cultural material was seen to have been mixed in with historic deposits, and one area of in-situ sediment was identified (TL05), which contained most of the artefacts in the assemblage recovered from these test excavations.

- **Source information:** What raw material resources were used; where did they come from; and what does this tell us about Aboriginal use of the region in the past?

A range of raw material types were present within the assemblage (silcrete, IMT, quartz and quartzite) and cortex analysis reveals they were most likely procured from secondary sources such as waterways. Raw material sourcing around the Parramatta area is not well understood, and it is likely that material was available along the waterway, or associated waterways however none have been identified in the general area.

- **Stone reduction technology**: How was the stone worked and used? Does this change over time? Can the function of the site be inferred from the artefact assemblage? What does this tell us about Aboriginal occupation, use, settlement and activities undertaken through time in this region?

Due to the lack of cores and standardised tools (e.g. backed artefacts) discussion on how the raw material was reduced is limited. The three artefacts with retouch and usewear were on

flakes, showing selection of flakes for retouch, then use. As no usewear or residue analysis has been undertaken, it is not possible to comment on the function of the site. People likely were onsite reducing material due to the presence of small artefacts, however the level of post-depositional disturbance is unclear and the shallow soil profile may have been subject to erosion or conflation.

- **Site chronology:** When was the site occupied? Was the assemblage the product of repeated occupations or a single event? Is there spatial patterning in the assemblage, and what does this tell us about repeated use, activities and/or occupation of the region through time?

Due to the lack of standardised tools and raw material patterning, it is difficult to understand when the site was occupied. The raw material types present are known to have been used over several thousands of years from the late Pleistocene into the late Holocene. It is possible that the cultural material originates from several occupations of the site over millennia, however disturbance is likely as the profile is shallow and may have been subject to erosion.

6.2 Palynology analysis

Palynological analysis of six samples (three from TL01.4 and three from TL05) was conducted by Hon. Assoc. Prof. Mike Macphail. The primary aims of this palynostratigraphic study were to determine the preservation of plant and animal microfossils, use microfossil assemblages to date samples and reconstruct past environments, and interpret any cultural implications of the sediments.

Table 22. Summary of sample data, adapted from Macphail 2025.

Test Trench	Elevation (AHD)	Test Pit	Depth (cm)	Lithology	Context	Inclusions
TT01	8.49 m	TL01.4	0-10	dark grey-brown loam	C1005	European artefacts
		TL01.4	30-40	dark red-brown silt	C1006	
		TL01.4	80-90	dark brown clay loam	C1007	
TT05	8.97 m	TL05	0-5	grey-brown silty	C5008	Ceramic, glass, Aboriginal lithics
		TL05	10-15	red-brown clayey silt	C5005	
		TL05	20-25	red-brown blocky clay	C5084	

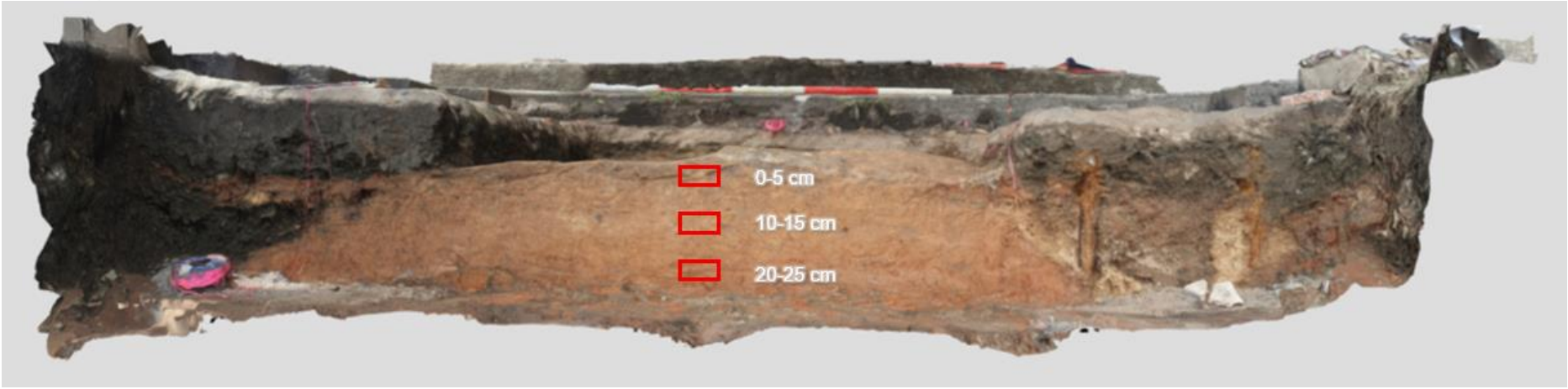


Figure 27. TL05 sampling locations.

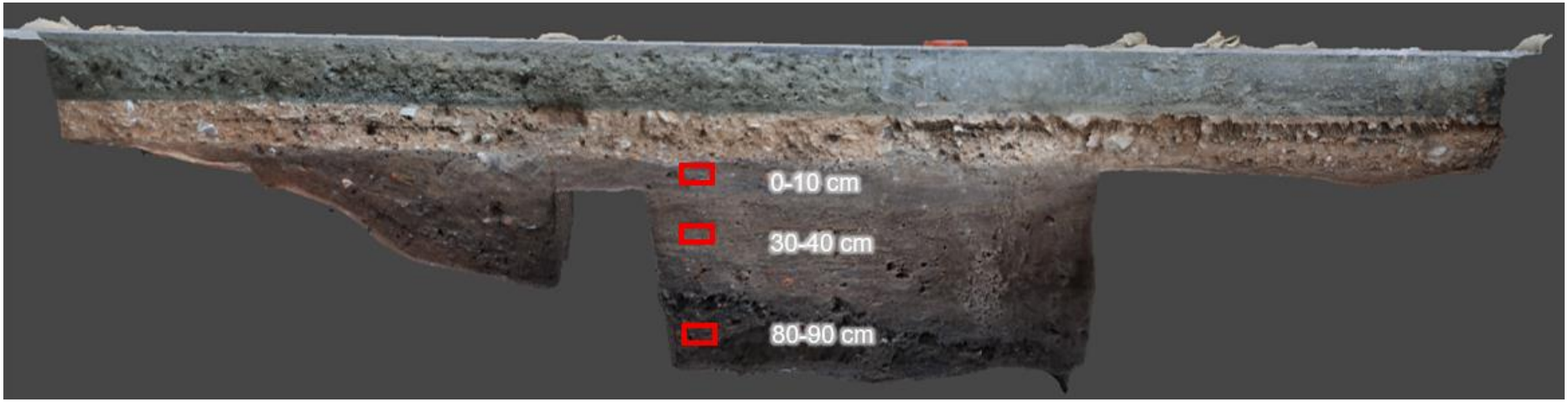


Figure 28. TL1.4 sample locations.

All samples yielded moderate to abundant amounts of organic matter, consisting of well-preserved to strongly humified and burnt plant detritus, fungal spores, and the egg cases of unidentified soil microfauna. Carbon particles, including fragments of burnt wood (carbonized xylem), are common to abundant in all samples, but are difficult to distinguish from the strongly humified plant detritus.

Yields of fossil pollen and spores are insufficient to prepare statistically reliable estimates of their relative abundance, although the raw count data provides a dependable guide to the composition of the fossil pollen and spore assemblages (microfloras).

Unusually for an archaeological site, microfloras at depths of 0–10 cm and 30–40 cm in TL01.4, and 0–5 cm in TL05, are dominated by the same small pollen type, produced by an unidentified samphire (*Amaranthaceae*) species. Except for hornwort and fungal spores, other fossil pollen and spores (miospores) occurred in low to trace numbers.

Three samples, 0–10 cm and 30–40 cm depth in TL01.4, and 0–5 cm depth in TL05, preserved exotic (introduced) pollen. Assuming these palynomorphs are in situ, the maximum age of sediments at these depths is 1788. Their minimum age is suggested to be early nineteenth century, although it is possible that the sediments were deposited as recently as the demolition and clearing of buildings along the line of Horwood Place in the 1960s. It is uncertain whether samples at 80–90 cm depth in TL01.4 and 15–20 cm and 20–30 cm depths in TL05 predate or postdate 1788, due to the apparent high degree of bioturbation of the deposits.

The samples at 0–5 cm and 10–15 cm depth in TL05 include significant numbers of the oil and fat indicator spore Mediaverrunites. The latter sample (10–15 cm depth) also includes large numbers of a second fungal spore (Dyadosporonites), whose ecology is unknown. Depending on the age of the deposits, Macphail poses alternative interpretations of an oil or fat that tipped into the sample at 0–5 cm depth has percolated down into samples at 10–15 cm and 20–30 cm depths in TL05; or the sample at 10–15 cm depth represents waste oil or fat from a colonial kitchen or from game cooked on an Aboriginal campfire. This uncertainty can be resolved by radiocarbon (AMS) dating of organic matter preserved at the sampled depth. The sample at 80–90 cm depth in TL01.4 is likely to represent the B horizon of a natural soil on the site.

7. Discussion

7.1.1 Broad research questions

The following broad research questions were proposed as part of the test excavation methodology:

7.1.1.1 What is the nature, extent, and integrity of the archaeological remains uncovered?

The test excavation identified a limited but clear Aboriginal archaeological resource within the study area. Of the eight test locations excavated, only TL05 revealed a remnant soil profile

with intact potential for Aboriginal cultural heritage, from which 14 lithic artefacts were recovered. An additional artefact was recovered from mixed historical fill in TL01, however this shows that the nature of the archaeology in Parramatta and more broadly across urban areas can comprise isolated artefacts throughout historic fills.

The artefacts primarily comprised flakes of silcrete and indurated mudstone/tuff, with some evidence of retouch and use-wear, indicating onsite tool reduction and possible use. The raw material variability suggests a range of procurement strategies, but most likely from secondary sources such as waterways.

However, across most of the study area, the natural soil profile has been heavily truncated by historic and modern development, including road construction, and service trenches. The integrity of the archaeological deposit is therefore limited to isolated pockets where intact soils survive, as demonstrated at TL05, or larger deposits of early historical fills. Only the tertiary alluvial clays associated with the PSB was identified in any test location; rather than the main Pleistocene sand body.

Palynological analysis of soils from two test locations (TL01.4 and TL05) also shows that there is further evidence in the form of fossil pollen, spores, and other plant microfossils where soils were present. The samples contain a mix of exotic pollen (e.g. pine and European dandelion), indicating post-1788 deposition, and indigenous pollen from native species such as casuarina, eucalypt, grasses, and samphire, the latter being unusually dominant. Other evidence includes fungal spore, some linked to oil, fat, or sewage, hornwort and fern spores and abundant organic matter including carbonised plant remains. The abundant carbon particles suggest a history of natural and anthropogenic fires and the occurrence of specific fungal spores, such as *Mediaverrunites* and *Cloacasporites*, provides circumstantial evidence for the disposal of oil, fat, or human sewage, implying activities like cooking, the use of waste as fertiliser, or general waste accumulation in backyard areas. The integrity of the palynological record is variable due to bioturbation and poor preservation of pollens, however, overall, this does provide some information in regards to in regard to the past environment, human activities, and depositional contexts at the site.

Overall, the extent of in situ Aboriginal archaeological remains appears to be confined to the pockets of less disturbed land in the Auctioneers Lane area. The remainder of the site has low potential due to widespread disturbance and absence of in situ soils or artefacts.

7.1.1.2 Based on the test excavation undertaken, and the proposed development impacts, does the remainder of the site require further excavation or what other mitigation or management is required?

Overall, the excavation allowed us to characterise the majority of the site as disturbed by the construction of the roadway, with intact soil profiles absent across all test locations except TL05. Although some test pit locations could not be excavated, this in itself provides useful information: those areas are more heavily disturbed and considered to have low archaeological potential.

In seven of the eight tested areas, modern and historical fill directly overlay basal clays, and no cultural material was recovered. The exception was TL05, where a truncated but mainly intact A-horizon was identified, and 14 Aboriginal artefacts were recovered from within the

profile, including one from the interface with historical soil. This suggests that isolated pockets of intact deposits may persist in parts of Auctioneers Lane that were not subject to extensive disturbance. It is understood that project impacts in this area will be limited to road surface treatment.

An isolated Aboriginal object was also recovered from historical fill in TL01. While this artefact requires AHIMS registration, it is interpreted as comprising redeposited material and not evidence of in situ cultural deposits.

No triggers for additional excavation as outlined in the methodology were met, and no substantial intact Parramatta Sand Body deposits were identified, therefore the information gained from the excavation is considered sufficient to characterise the archaeological resource for the purposes of mitigation and management.

Future mitigation and management measures will be addressed through the ACHAR, consultation with RAPs and an AHIP, with likely conditions to include site inductions, targeted salvage if required, and interpretive outcomes. Many of the proposed works are designed to be low impact and collaboration with City of Parramatta will be undertaken to reduce potential for impacts where possible.

7.1.1.3 Does the extent and integrity of the archaeological resources identified during test excavation trigger a reassessment of significance to the site?

The results of the test excavation support a refinement of the site boundary and significance assessment for Horwood Place PAD 1 (AHIMS 45-6-4123). The excavation confirms that Aboriginal cultural heritage can be present where modern disturbance has not fully truncated the soil profile, as demonstrated in TL05. However, the cultural deposit is limited in extent, with only one test location having intact Aboriginal archaeological material, and a total assemblage of 15 artefacts across the site. The integrity of this material is moderate at best, and no features or stratified activity areas were identified. The artefact recovered from TL01, while not in situ, indicates the potential for Aboriginal material to be present in historic fills, however there is insufficient evidence to support a broader interpretation of Aboriginal activity during the historic or contact period at this site.

Revised site registrations are proposed in section 8 below.

7.1.2 Site specific research questions

A number of site-specific research questions were proposed; primarily relating to the historical archaeological use of the site. Only the relevant questions for the discussion of Aboriginal cultural heritage are included at this point, with the additional questions included in historical archaeological post excavation report.

7.1.2.1 Is the Parramatta Sand Body present within the study area and what is its likely extent and integrity? How has it been impacted in the colonial period?

The PSB has a number of components as described by Mitchell (Ground Truth 2008). In his assessment of the nature and distribution of the ‘Parramatta Terrace Sand’, it had appeared that the PSB was likely to overlap with the study area, as well as an associated area of higher ground area of high which ‘appears to be underlain by another body of alluvium that is a

mixture of clay and sand that is probably older than the main sand body and may even be of Tertiary age and comparable to the know Tertiary clay at Rosehill'. The body of older alluvium had been indicatively mapped in towards the northern part of the study area. Mitchell notes that the precise interface between the sand body and the sandy clay body remains uncertain.

The results of the present test excavation did not identify the sand body, but rather the profiles encountered appear consistent with the description of associated older clays and sands. Red-grey mottled clays encountered appear similar to the results of analysis of soils at Parramatta Square 3, approximately 200 m south of the current site (Lawrie 2019). The results from the test excavation show that deposits across the site have been impacted in the colonial period and later by the construction of the roadway and any later soil development, or if there were any upper portions of sand, has likely been removed by the roadway construction.

Figure 29.Left: Large pit exposing two distinct clay layers at 3 Parramatta Square. The upper yellow-brown clay has developed from an older, deeper deposit of stiff red-brown and grey-mottled clay containing ironstone gravel. This underlying layer is hypothesised to have formed on a very old alluvial deposit (Lawrie 2019, 3), consistent with soil observations at Civic Link Block 3 (TL02, right).

7.1.2.2 Is any evidence of contact period archaeology present (e.g. use of ceramic and glass by Aboriginal people, or identification of Aboriginal objects in historical archaeological contexts)?

There was one isolated find in historic fill deposit in TL01, and a further artefact found in a deposit at the interface of historic materials in TL05, but it cannot be determined if these artefacts are in a primary context and were manufactured or deposited at the time of the filling events and contact period land use, or if these objects have been redeposited and are in a secondary or tertiary depositional context. No evidence of manufacture on materials such as ceramic and glass has been identified in the lithic or historical archaeological assemblage.

7.1.2.3 Can artefact analysis of Aboriginal cultural heritage identify patterns and types of site use by past people?

The artefact assemblage recovered from the test excavations at Civic Link Block 3 comprises 15 stone artefacts. While the assemblage is small and limits detailed interpretation, the presence of cultural material that Aboriginal people were present in the area and that intact deposits may persist where natural soils survive. The presence of artefacts in mixed historical fills further suggests that Aboriginal objects may also be present in disturbed contexts, albeit likely redeposited.

The assemblage contains a range of raw material types (silcrete, indurated mudstone/tuff, quartz, and quartzite), most likely sourced from secondary deposits such as waterways. However, raw material procurement patterns in the Parramatta area remain poorly understood, and no specific source has been identified in the immediate vicinity.

Due to the absence of diagnostic tools such as cores or backed artefacts, and the lack of high artefact densities, the assemblage does not support detailed interpretation of stone tool reduction strategies or site function. Three artefacts displayed evidence of retouch and usewear, suggesting the selection and reuse of flakes, but further interpretation is limited in the absence of further analysis.

The small size and mixed nature of the assemblage, combined with the high levels of post-depositional disturbance across the site, make it difficult to draw strong conclusions about the timing, nature, or duration of site use. The types of raw material present are consistent with occupation from the late Pleistocene through the Holocene, raising the possibility that the artefacts reflect multiple, temporally distinct episodes of site use. However, with the shallow nature of the surviving profiles, these patterns cannot be clearly resolved.

Therefore, artefact analysis at this site indicates Aboriginal occupation but does not currently allow for detailed insights into the patterns or types of site use due to the assemblage's small size and the discontinuous nature of soils at the site.

7.1.2.4 Can palynological evidence tell us about the past environment?

Palynological evidence provides significant insights into past environments and the results of analysis by Hon. Assoc. Prof. Mike Macphail of six samples aimed to use plant microfossil assemblages (microfloras) to reconstruct the environment prevailing at the time(s) of deposition and interpret any cultural implications of the sediments.

Palynological analysis identifies fossil pollen and spores from various plant types, indicating the flora present at different periods to build a picture of vegetation composition. Whilst yields and diversity of fossil pollen and spores were low, unusually, microfloras in several samples (TL01.4 at 0-10 cm and 30-40 cm, and TL05 at 0-5 cm) were dominated by pollen from an unidentified samphire (Amaranthaceae) species, which can occur in diverse habitats like salt-marsh, salinized soils, waste ground, and domestic ash. The plant family includes edible, native and exotic species. Other taxa represented include:

- Eucalyptus (Myrtaceae), likely from immature flowers
- Allocasuarina/Casuarina (casuarinas)
- Isopogon (native drumstick)
- Asteraceae (subfamily Tubuliflorae), herbaceous, often found on waste and damp ground
- Gonocarpus, herbaceous, associated with damp ground
- Poaceae (grasses)
- Restionaceae, rush-like herbs typical of wet habitats
- Stellaria, small herbaceous plants, often on damp ground
- Calochlaena dubia (rainbow fern), typical of wet forests and gullies, now naturalized in damp urban stonework

- Anthoceros / Phaeoceros (hornworts), spores typical of damp clay soils, especially post-fire

Other aspects of environmental condition can also be inferred from the results. The presence of hornworts indicates damp clay-rich soils. The common to abundant presence of carbon particles, including fragments of burnt wood (carbonized xylem), in all samples serves as proxy data for natural and anthropogenic fires. In cultural deposits, these likely originate from wood burnt for warmth or cooking. Aboriginal land management practice using fire to clear landscapes is noted to have maintained tree- and savanna grasslands across the plains around Parramatta (Gammage 2014, 244). Each of the samples had abundant burnt wood and plant matter; particularly in the sample from 0-10 cm in TL01.4. However, the consistent presence across the sequence makes it difficult to determine whether this material is definitively linked to human activity.

Evidence of later human impact and land use can also be inferred from the data. Land clearing for agriculture is indicated from the late eighteenth to early nineteenth centuries, and the presence of exotic pollen types helps distinguish between pre- and post-European settlement environments. Certain fungal spores provide further insight into site use: *Mediaverrunites*, associated with oil or fat, may reflect cooking activities or waste disposal from colonial kitchens or Aboriginal campfires. *Cloacasporites*, a proxy for human sewage, was present in all samples, indicating the disposal of human waste. The notably high concentrations of fungal spores and carbon particles in samples TL01.4 (0–10 cm and 30–40 cm) are characteristic of ‘backyard’ ash heaps or ash-manured garden soils, suggesting domestic gardening or backyard activity in the area.

8. Preliminary significance assessment

8.1 Assessment criteria

While all Aboriginal objects in NSW are protected under NSW legislation, the *National Parks and Wildlife Act* recognises that some harm may be necessary to allow other activities or developments to proceed. In order for the state regulator to make informed decisions on such matters, a consideration of the significance of cultural heritage places and objects is an important element of the assessment process.

An assessment of the archaeological significance of an item or place is required in order to form the basis of its management. The *Code of Practice* requires that the assessment must reflect the following best practice assessment processes as set out in the *Burra Charter* (Australia ICOMOS 2013):

- **Research potential**: Does the evidence suggest any potential to contribute to an understanding of the area and/or region and/or state’s natural and cultural history?
- **Representativeness:** How much variability (outside and/or inside the subject area) exists, what is already conserved, how much connectivity is there?

- **Rarity:** Is the subject area important in demonstrating a distinctive way of life, custom, process, land-use, function or design no longer practised? Is it in danger of being lost or of exceptional interest?

- **Education potential:** Does the subject area contain teaching sites or sites that might have teaching potential?

In accordance with the *National Parks and Wildlife Regulations 2019*, this report only includes an assessment of the scientific values of identified Aboriginal sites. An assessment of social, aesthetic and historic significance will be included in an Aboriginal Cultural Heritage Assessment Report (ACHAR) prepared in accordance with the *Guide to Investigating, Assessing and Reporting on Aboriginal Cultural Heritage in NSW* (OEH 2011) (the *Guide*) and the *Consultation Requirements*.

It is important to note that heritage significance is a dynamic value and will be updated in consideration of the results of future investigations.

8.2 Archaeological significance assessment

The following section assesses the significance of the PAD investigated through test excavations. The assessment is necessary to most effectively provide recommendations and mitigation measures for managing all the sites identified across the study area. Only scientific significance is assessed here. A full assessment of historical, aesthetic, and social significance can be found in the ACHAR and will be completed following consultation with RAPs.

EXTENT | PEOPLE CENTRED HERITAGE

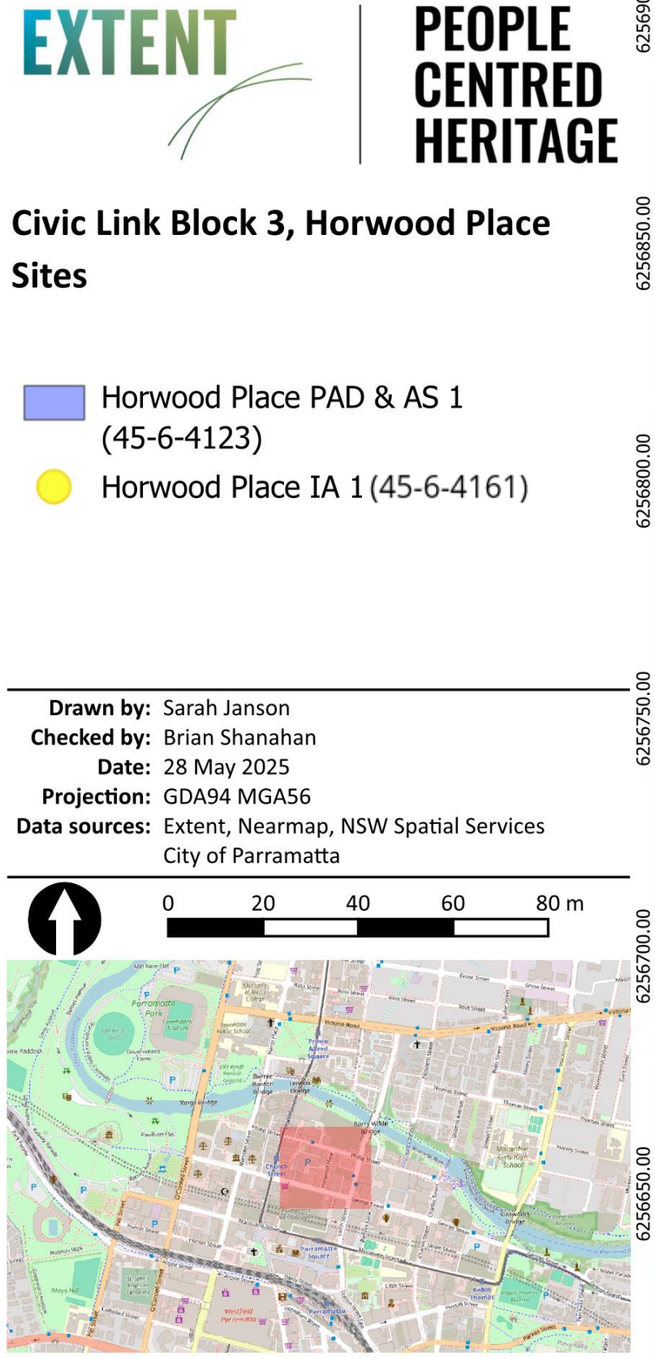
Civic Link Block 3, Horwood Place Sites

Horwood Place PAD & AS 1 (45-6-4123)

Horwood Place IA 1 (45-6-4161)

Drawn by: Sarah Janson
Checked by: Brian Shanahan
Date: 28 May 2025
Projection: GDA94 MGA56
Data sources: Extent, Nearmap, NSW Spatial Services
City of Parramatta

0 20 40 60 80 m



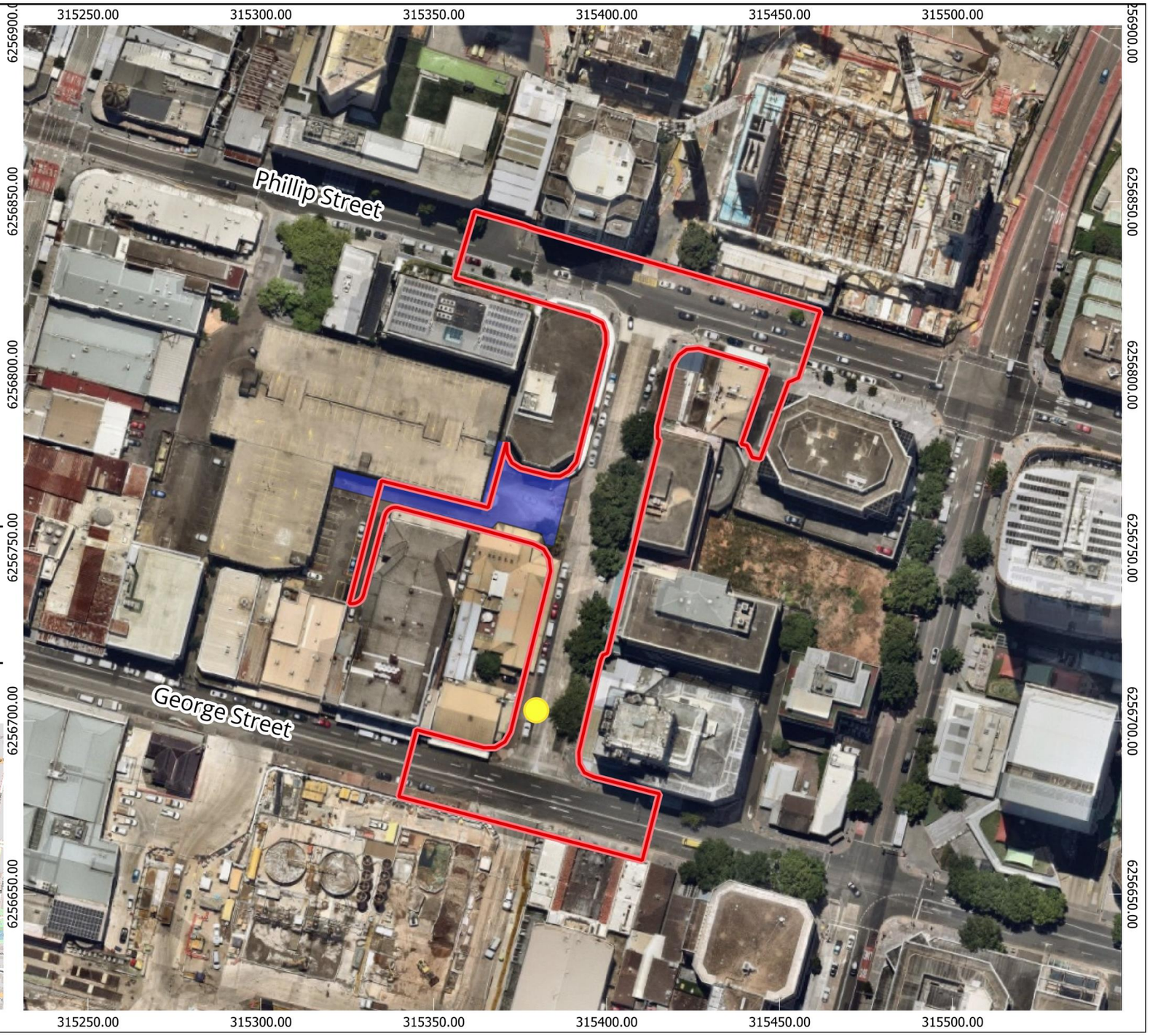


Figure 30. Proposed AHIMS sites; revised after test excavations.

8.2.1 Horwood Place PAD & AS 1 (AHIMS 45-6-4123)

Of the eight test locations excavated to investigate this PAD, only TL05 contained a remnant soil profile with potential for Aboriginal cultural heritage. Fourteen lithic artefacts were recovered from this location. An additional artefact was recovered from mixed historical fill in TL01 (see below).

Site integrity, which refers to the preservation of archaeological deposits, is considered moderate. While a portion of intact soil stratigraphy was identified, the majority of trenches across the study area showed that the construction of the Horwood Place roadway has removed deposits down to the underlying clay subsoils. Similarly, disturbances from services along Phillip and George Streets have significantly impacted the deposits in those areas. The anticipated extent of the area with potential for archaeology to be present, albeit in truncated and discontinuous form, is the paved area of the Eat Street Carpark entrance and Auctioneer's Lane.

The site contents are also considered to be of moderate significance. Although the number of recovered artefacts is relatively small and the range of artefact types and materials is limited, there is some value in the presence of intact, stratified deposits in an otherwise disturbed area.

The representativeness and rarity of the site are also considered moderate. While the artefact types, materials, and distribution are typical for the region, some significance is attributed to the rarity of finding intact deposits in highly developed urban environments.

Given the limited diversity in material types and artefact forms, the educational potential of the site is low. However, the site and the excavation program do contribute to the broader understanding of past Aboriginal occupation in the Parramatta area.

Further palynological and soil analysis may require a reassessment of the research potential for the site. Overall, currently, the preliminary archaeological significance assessment of the site is considered to be moderate.

8.2.2 Horwood Place IA 1 (AHIMS 45-6-4161)

One artefact was recovered from mixed historical fill in TL01. As an isolated (isolated artefact, IA) find from a disturbed context, its research value is limited. The site condition reflects a secondary deposit, and the site contents are extremely limited. In terms of rarity and representativeness, redeposited Aboriginal cultural material is not uncommon in urban settings, and the presence of a silcrete artefact is typical for the region. As such, it is neither rare nor particularly distinctive. Similarly, the site offers little from an educational perspective due to the limited nature of the find and its context.

Overall, this location is considered to be of low archaeological significance (in regards only to the specific Aboriginal cultural heritage questions).

Table 23: Preliminary summary of archaeological significance.

Site name (AHIMS ID)	Research potential	Represent-ativeness	Rarity	Education potential	Overall significance assessment
Horwood Place PAD 1 (45-6-4123)	Moderate	Low	Moderate	Low	Moderate
Horwood Place IA 1 (45-6-4161)	Low	Low	Moderate	Low	Low

9. Impact assessment and management strategy

A detailed impact assessment and management and mitigation strategy will be outlined in the accompanying ACHAR, and subject to consultation with the Registered Aboriginal Parties.

10. Conclusions and preliminary recommendations

10.1 Key findings

Key findings of this ATER, include the following:

- The test excavation program investigated the whole study area which had been identified as having archaeological potential including the Parramatta Sand Body and associated cultural heritage deposits. The investigation revealed that the roadway of Horwood Place has truncated deposits, however, remnant soil profiles were identified in the area of Auctioneer's Lane (TL05) and historical dumping fills were evident near to the George Street intersection (TT01).
- Aboriginal stone artefacts were recovered from TL05 comprising a moderate to low-density background scatter. One artefact was identified in historical dumped fill. Even though the recovered artefacts (n=15) are in low numbers, they provide evidence of the presence of past Aboriginal people using the landscape.
- This draft report will be distributed to the RAPs for review (Extent Heritage, 2025). Final copies of this report and the ACHAR must be submitted to the RAPs and Heritage NSW.

10.2 Preliminary recommendations

The following includes preliminary recommendations that will also be finalised pending the impact assessment and consultation with the RAPs as part of the ACHAR:

- Based on the current proposed development plans, the identified Aboriginal sites, AHIMS 45-6-4123) will be partially impacted by the proposed development; but these may be restricted to impacts to current surface treatments. The isolated artefact has already been collected as part of test excavations. Where impacts to the extent of AHIMS 45-6-4123 cannot be avoided, an AHIP will for harm will be required. A study area wide AHIP is recommended to guide management of for any other isolated finds. The AHIP application must be supported by an ACHAR.

- Long term arrangements for the management of excavated artefacts should be further discussed within the ACHAR and in consultation with registered Aboriginal parties.

- To keep consultation current, the RAPs should continue to be sent an update on the project everything six months, until the AHIP has been approved.

- If changes are made to the proposed works which could impact locations outside of the current study area, or alter the location, depth or nature of impacts, further archaeological investigation may be required.

11. References

Archaeological and Heritage Management Solutions (AHMS) 2014b. 'Aboriginal Cultural Heritage Assessment: 2-8 River Road West, Parramatta.' Unpublished report prepared for Toplace Pty Ltd.

Archaeological and Heritage Management Solutions (AHMS). 2014a. Aboriginal Archaeological Report: 330 Church Street, Parramatta'. Unpublished report prepared for Meriton Apartments Pty Ltd. (PDF).

Archaeological and Heritage Management Solutions Pty Ltd. 2016. '21 Hassall Street: Aboriginal Cultural Heritage Assessment.' Unpublished report prepared for Blue Land Pty Ltd. PDF file.

Austral Archaeology. 2007. 'Archaeological Salvage Excavations 95–101 George Street, Parramatta, NSW. Section 90 Consent #2176 Salvage Excavation Report.' Unpublished report prepared for Webb Property Investments Pty Ltd. PDF file.

Chapman, GA, and CL Murphy. 1989. *Soil Landscapes of the Sydney 1:100,000 Body*' Sydney: Soil Conservation Service of NSW.

Comber Consultants*. 2010. 'Preliminary Excavation Report 140 Macquarie Street, Parramatta.'* Unpublished Report prepared for Integral Energy Pty Ltd*.* PDF file.

Comber Consultants. 2019. '2B-6 Hassall Street, Parramatta.' Unpublished report prepared for Charter Hall Direct Development Services Pty. Ltd.

CRM. 2019. *'*Church Street to Smith Street South Side: Archaeological Testing Report, Stage 1 Phillip Street Smart Streetscape Project'*.* Unpublished report prepared for City of Parramatta.

Department of Environment, Climate Change and Water (DECCW) 2010a. *Aboriginal Cultural Heritage Consultation Requirements for Proponents 2010.* Sydney: DECCW.

Department of Environment, Climate Change and Water (DECCW) 2010b. *Code of Practice for the Archaeological Investigations of Aboriginal Objects in New South Wales*. Sydney: Department of Environment, Climate Change and Water.

Department of Environment, Climate Change and Water (DECCW) 2010c. *Due Diligence Code of Practice for the Protection of Aboriginal Objects in New South Wales*. Sydney: Department of Environment, Climate Change and Water.

Extent Heritage, 2023a. 'Civic Link Block 3, Historical Archaeological Assessment', prepared for City of Parramatta

Extent Heritage, 2023b. 'Civic Link Block 3, Preliminary Heritage Assessment' prepared for City of Parramatta

Extent Heritage, 2024a. 'Civic Link Block 3, Parramatta Aboriginal Cultural Heritage Assessment Report', prepared for City of Parramatta

Extent Heritage, 2024b. 'Civic Link Block 3, Horwood Place Parramatta Aboriginal Archaeology Test Excavation Methodology' for City of Parramatta

Extent Heritage, 2024c. 'Civic Link Block 3, Parramatta Archaeological and Heritage Management Solutions Pty Ltd. 2013. '189–191 Macquarie Street, Parramatta: Aboriginal Cultural Heritage Assessment.' Unpublished report prepared for Toplace Pty Ltd. PDF file.

Gammage, B. 2011. *The biggest estate on earth: How Aborigines made Australia*. Crows Nest, NSW: Allen & Unwin.

GML Heritage. 2021. 'Phillip Street Smart Streetscape Stage 2—Aboriginal Cultural Heritage Assessment Report'. Unpublished report prepared for City of Parramatta.

GML Heritage. 2023. 'Phillip Street Smart Streetscape Stage 2—Interim Archaeological Test Excavation Results'. Unpublished report prepared for City of Parramatta

Groundtruth Consulting. 2006. 'Geomorphology and Soils of the Archaeological Site CG3 at 101-105 George Street, Parramatta.' Unpublished report prepared for Jo McDonald Cultural Heritage Management. PDF file.

Groundtruth Consulting. 2008. Nature and Distribution of the Parramatta Terrace Sand'. Unpublished Report prepared for Parramatta City Council.

Groundtruth Consulting. 2011. 'Sand Body Auger Hole Testing in the Parramatta Local Government Area.' Unpublished Report prepared for NSW Department of Planning and Heritage Branch. PDF file.

Jo McDonald Cultural Heritage Management (JMCHM). 2005a.'Archaeological Salvage Excavation of Site CG1 (NPWS #45-5-2648), at the corner of Charles and George Streets, Parramatta, NSW'. Unpublished report prepared for Meriton Apartments Pty Ltd. PDF file.

Jo McDonald Cultural Heritage Management. 2005b. 'Archaeological Salvage Excavation of Site RTA-G1 109–113 George Street, Parramatta, NSW.' Unpublished report prepared for Landcom. PDF file.

Jo McDonald Cultural Heritage Management. 2006. 'Archaeological salvage excavation of site CG3 101A-105A George Street, Parramatta, NSW.' Unpublished report prepared for Rahi Development Pty Ltd. PDF file.

Kass, T, C Liston, and J McClymont. 1996. *Parramatta: A Past Revealed.* Parramatta: Parramatta City Council.

Kelleher Nightingale Consultants. 2017. 'Parramatta Light Rail: Aboriginal Cultural Heritage Assessment.' Unpublished report prepared for WSP/Parsons Brinckerhoff on behalf of Transport for NSW.

Lawrie, 2019. 'Soil properties at archaeological site, 3 Parramatta Square, 153 Macquarie Street, Parramatta: Draft Final Report.' Report to Casey & Lowe, August 2019.

Office of Environment and Heritage 2011. *'Guide to Investigating, Assessing and Reporting on Aboriginal Cultural Heritage in NSW*.' Sydney South: Office of Environment and Heritage.

Office of Environment and Heritage, NSW (OEH). 2011. *Guide to investigating, assessing and reporting on Aboriginal cultural heritage in NSW*. Sydney: Office of Environment and Heritage, Department of Premier and Cabinet.

Owen, T. D. Jones, J., Watson, L., and C. Norman. 2022. 'Parramatta, NSW: a deep time Aboriginal cultural landscape.' *Journal of Australian Association of Consulting Archaeologists*. Volume 9.

Quinn, M., T. Owen, J. Flanagan, K.E. Westaway. 2023. 'An Aboriginal presence in the Sydney basin prior to the LGM; further investigations into the age and formation of the Parramatta Sand Body', Journal of Archaeological Science: Volume 51.