

Appendix 3: Archaeological test excavation report

Appendix 3:

Archaeological test excavation results

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1.0 INTRODUCTION

1.1 Scope of the Work

The Director General's Requirements (DGRs) for the project required that test excavation be carried out to inform the assessment and evaluation of archaeological resources. Specifically this component of the evaluation was to:

“develop an appropriate archaeological assessment methodology, including research design, to guide physical archaeological test excavations (terrestrial and maritime) and include the results of these excavations”.

This report was written by the Excavation Director, Wendy Thorp of Cultural Resources Management (CRM) and reviewed by Pamela Kottaras (Biosis Research).

1.2 Scope of the Test Excavation

Two test trenches were excavated within Thompson Square: one was in the Old Bridge Street alignment and the second in the small car park at the northern end of the square. A third trench at the southern end of the square was proposed in the research design. The third trench was not excavated; the decision to not excavate this trench was based on two circumstances.

First, two test trenches were excavated at the southern end of Thompson Square for the purpose of assessing Aboriginal archaeological potential. Both trenches were excavated beyond the depths required for the project and both trenches revealed that the archaeological profile here had been comprehensively disturbed in the twentieth century.

Second, this evidence was confirmed by the results of the test trench excavated for non-Aboriginal archaeology in Old Bridge Street. This excavation revealed extensive cutting to lower the levels of Thompson Square in this area. The combined results of these excavations provided sufficient evidence to address the issues outlined in the research design. Further excavation would have caused unnecessary disturbance to the profile. The results from another four pits excavated for Aboriginal archaeology excavated in Thompson Square were also used to inform the assessment.

On the northern side of the river, the excavation of six geo-technical test pits across the project area was archaeologically monitored to provide a sample of the sub-profile. Two test pits for Aboriginal archaeology excavated here were also used to inform this assessment.

The premises that were made for this work and that were made explicit in the research design were:

- That any work undertaken would be as small as possible to minimise the damage caused to the resource while still meeting the project objectives
- That the work was not designed to locate specific archaeological sites that were identified in a preliminary analysis but to determine whether the maximum depths of excavation required for various parts of the design would impact on an intact archaeological profile or be confined to depths already disturbed for road works or services.

Excavation for the project on the southern side of the river is anticipated to require a depth of 0.5 metres at the southern end of Thompson Square, 1.0 metres in the centre and 1.5 metres at the northern end.

On the northern bank of the river the excavation depths for the roundabout and road works would reach depths of between 1-3 metres.



Figure 1: Location of the Study Area in a Regional Context

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Biosis Research Pty. Ltd.
 18-20 Manidale Street
 Alexandria
 NSW, 2015

Offices also in: Wollongong,
 Ballarat, Melbourne,
 Canberra, Wangaratta.

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 Metres
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1.3 Excavation

Test excavations were carried out using a small excavator to assist with the removal of large deposits and a small team of archaeologists to manually clean surfaces, fragile deposits and features.

1.4 Recording

Recording for the test excavation conformed to standard archaeological practices. The positions of all trenches were surveyed and all features in each trench were recorded in measured drawings. Each individual archaeological unit was recorded by means of inventory listings and photography.

Artefacts were recorded within the inventory as to location. Artefacts retrieved during the course of work were subsequently cleaned and catalogued and the information provided by them encompassed within the analysis presented in this report.

1.5 Post-Excavation

The two large test trenches on the southern side of the river were backfilled after geo-fabric was laid across the base of each; the surfaces were then made good. All of the test trenches on the northern side of the river were backfilled and made good.

2.0 RESEARCH OBJECTIVES

The outcomes or the principal questions that were addressed by the test excavations were as follows:

- Will the depths of excavation required for the several components of the new bridge impact on levels that encompass intact archaeological resources?
- Can the test pits provide a sample that can be used to establish a profile that generally characterise each part of the construction area and, thus, establish what the impacts of the proposed works will be on the integrity and significance of the archaeological resource?
- Will the profiles provide sufficient evidence to establish dates or specific associations for archaeological evidence revealed in them?
- Is it possible to determine whether the impacts of land forming and the provision of infrastructure have combined to effectively remove a substantial and significant archaeological resource?

3.0 RESULTS

3.1 Test Trench 1: Old Bridge Street, Thompson Square

3.1.1 Site Selection

The selection of this site in the middle of Thompson Square was intended to test the depth of the profile to the planned project excavation depth of one metre. The site was chosen because it was close to one identified archaeological site, a possible late eighteenth century granary or store, a small, unidentified building of the c. 1820s and police buildings and stables of the c.1830s. It was also close to Thompson's leasehold and its improvements. Most of these sites were anticipated to fall just outside the proposed excavation area.



Plate 1: Detail of Figure 1 showing the location of Test trench 1.



Plate 2: View south looking up Bridge Street and the area of Test Trench 1 indicated by the dark rectangle in the roadway

3.1.2 The Excavation Area

The excavation area measured 3.9 x 4.1 metres and was located approximately half way along Old Bridge Street (Plate 1 Plate 2). It was within the portion of the road that had originally been constructed in 1855. This was the only test trench that was located in an area identified from archival sources as one that might encompass a specific feature; in this case the potential for evidence from Thompson's lease, one of the log granaries and the police buildings.

The results of this work are described in the following sections. The unit or strata numbers used during the excavation recording are presented in italics and in parenthesis, for example, *[057]*.

3.1.3 Excavation Description

The surface of the excavation area was covered with bitumen, the present road surface *[050]* underlain by road base, crushed sandstone up to 300 mm deep on the eastern side of the trench *[051]* (Plate 3). This road base decreased in depth to approximately 80 mm on the western side of the trench. Along the western side was the kerb and gutter for the street *[052]*. The gutter lay over a narrow 100 mm wide trench *[053]* excavated when the gutter was built; it was backfilled with yellow clay at the base *[055]* and above this was a thin deposit (20 mm) of blue metal *[054]*. The blue metal lay under the gutter. This trench had been dug into the road base *[051]*.



Plate 3: Test Trench 1, view north showing road surface, road base [050, 051], gutter and kerb [052, 073]; scale 500 millimetres

Below the road base the entire surface of the test trench was covered with dark yellow/brown coloured clay loam [056]. It was thicker on the western side, up to 150 mm, thinning to 20-30 mm across most of the trench. It included a few pieces of domestic wastes; small pieces of bone (food wastes) and green bottle glass, neither particularly diagnostic in type or manufacture. These were randomly scattered in the soil and may have been imported with the soil rather than deposited after it was laid down.



Plate 4: Test Trench 1, view south showing the clay-loam [056] and the slope of the ground evident from the different depths of road base [051] shown in the section at the end of the trench; scale one metre.

The trench [053] made for the gutter [052] at the western side of the excavation had been cut into this surface. Below this clay-loam deposit [056] was another deposit that covered the surface of the trench. This deposit [057] comprised dark brown coloured silty loam to an approximate depth of 100 mm but it was found to cover the peaks and troughs of the material under it leading to considerable variations in the depth, up to 300 mm on the eastern side of the trench (Plate 5).



Plate 5: Test Trench 1, view south showing the silty soil [057] with a service pipe [058/59] cut into it; scale one metre

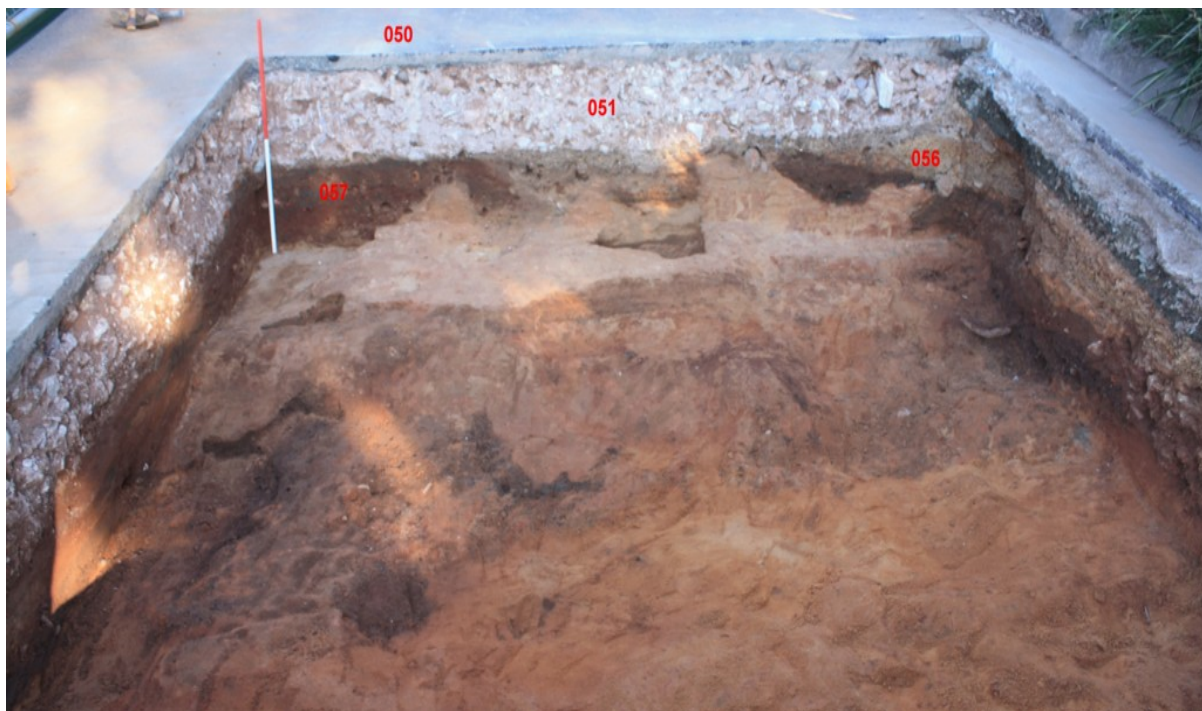


Plate 6: Test Trench 1, view south where the variations in the depth of the dark brown silty soil [057] can be seen in the section due to the underlying sand; scale one metre.

Cut into this surface [057] was a service trench [059] 300 mm wide. It ran diagonally across the road from south-west to north-east. It contained a broken terracotta service pipe [058] 250 mm in diameter.

At this level, in the north – western corner of the trench was part of what is likely to be a large circular pit; only a quadrant was contained in the test excavation area. This pit [060] was filled with sandy loam that contained small gravel [076]. At the southern end, also within this surface was a wide, shallow pit or depression [073] filled with coarse rubble and loam (Plate 7).



Plate 7: Test Trench 1, view west showing the circular pit [060] in the north-western corner of the trench; scale 500 millimetres.



Plate 8: Test Trench 1, the wide pit [073] shown in the southern section; scale 1 metre. View south.

The pit in the north-western corner [060] was excavated; removal of the gravel fill [076] revealed that the gravel was a lens across the matrix of loam and this filled the majority of the pit. At the base of the pit, the hole had been filled in and sealed with clay [070] (Plate 9).



Plate 9: Test Trench 1, view from above with south at the top, showing the pit [060] excavated and the clay [070] used to seal the cut at the base exposed; scale 500 millimetres

Removal of the silty loam [057] revealed a number of surfaces and excavations across the length of the trench. The middle of the trench was covered with a thick clay-loam surface [062].



Plate 10: Test Trench 1, View north showing the thick clay surface in the middle of the trench [062]; scale one metre

Mixed into this matrix was a considerable amount of charcoal and fragments of broken brick; the majority of the brick was of a pre-1850 type identifiable by its colour, composition and firing. It also included a considerable number of artefacts. The latter included some fragments of cow bone including part of a rib and a joint; none had been sawn or butchered but they had been broken. There was also a small quantity of oyster shell, almost certainly domestic food waste. Only three sherds of glass were found; two from the base of a heavy black beer or wine bottle and one, part of a moulded base from a milky/clear glass tumbler.

The majority of artefacts from this deposit were made from ceramic. There was a portion of a terracotta flowerpot but the remainder of the assemblage consisted of broken domestic ceramics. There were plates, platters and bowls represented in the group. Most were decorated with transfer printed designs; two were green-coloured floral patterns but the majority were cobalt blue variations on the willow pattern. There were also a small number of sherds with more generic floral patterns and variations of a seaweed pattern.

The fineness of the transfer and the colour indicate a mid-nineteenth century date or earlier. The green-coloured sherds also fit into this chronological period. One of the blue floral rims (shown in Plate 11, bottom right), has been found in contexts that date between the 1830s and the 1850s.¹



Plate 11: Examples of the transfer-printed ceramics found in deposit [062] including a rim sherd from a very fine willow pattern in the top left corner; scale 10 millimetre increments

¹ For example, a well defined and sealed deposit in the base of the Pitt Street Congregational church Sydney

The best-dated examples in the ceramic assemblage were two pieces of lead-glazed terracotta from a heavy, rolled rim bowl or dish and a distinctively decorated rim from a bowl; the decoration is known as feather-edge (Plate 12). The lead-glazed bowl, probably a kitchen bowl, is likely to have been locally made while the feather-edge bowl (Plate 13) was certainly imported. Numerous examples have been found of both types of ceramic in many excavations in Sydney and its environs and they almost always are associated with pre-1850 contexts and usually pre-1830 contexts. The assemblage also contained one sherd of extremely fine pre-1850 window glass.



Plate 12: Two pieces of lead-glazed terracotta, probably from a kitchen bowl in deposit [062]; scale 10 millimetre increments

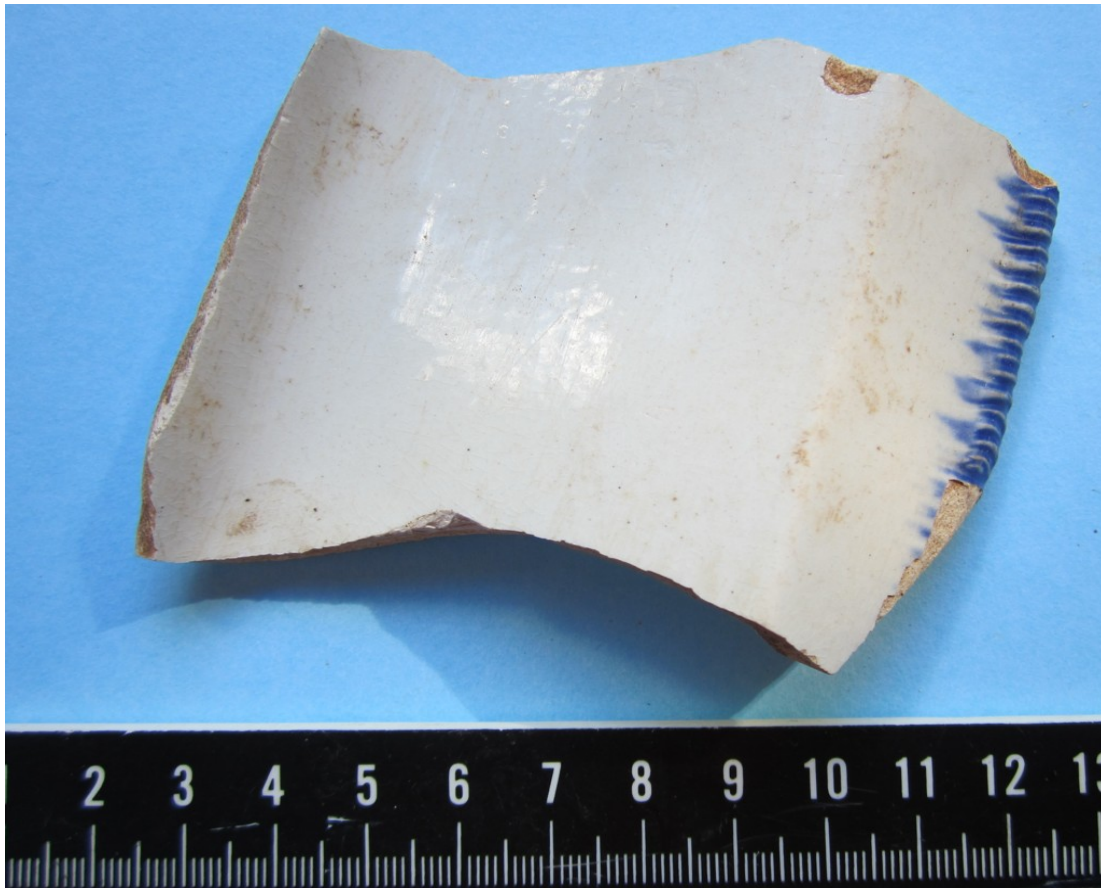


Plate 13: Feather-edge rim from a deep bowl in deposit [062]; scale 10 millimetre increments

This deep, artefact filled deposit [062] terminated towards the northern end of the trench in a straight line. The deposit adjoining to the north [065] was lower by 50-80 mm and the interface between the two sloped downwards.

On that northern side of the line of [062], at the eastern end were two small excavations. The easternmost of these small holes [064] was an excavation made to enclose three stakes that would have supported a shrub or small tree. The distinct points of each stake could be seen in the base of the hole. The hole adjoining it to the west [063] appears to have supported another small stake or even the base of a plant; there was a small fragment of a pre-1850 brick at the base of the excavation. Both of these small pits were dug into sand [065] that covered the entire southern portion of the trench beyond the line of the surface [062] and slightly lower than it.

At the eastern side of the trench (Plate 16) on the same alignment as the planting holes [063, 064] and cut into both the compacted surface [062] and the sand [065] was a larger pit [069]. This might also have been a planting hole, filled with household wastes when the plant was removed or it may have been a small rubbish pit used to dispose of some household wastes. The assemblage was similar to that found in the surface [062]; a small quantity of oyster shells, some fragments of broken bones (animal, probably cow), part of a moulded clear/milky glass tumbler and two fragments of a similar, distinctive lead glazed terracotta kitchen bowl, in this case a straight sided large bowl (Plate 15).

There was one other pit or base of a pit or planting hole at the western end of these three excavations. The fourth pit [068] was approximately circular but only a few centimetres remained in the excavation. The excavation that had lowered the entire northern end of the trench revealing the sand [065] below it had cut down the depth of all the pits.

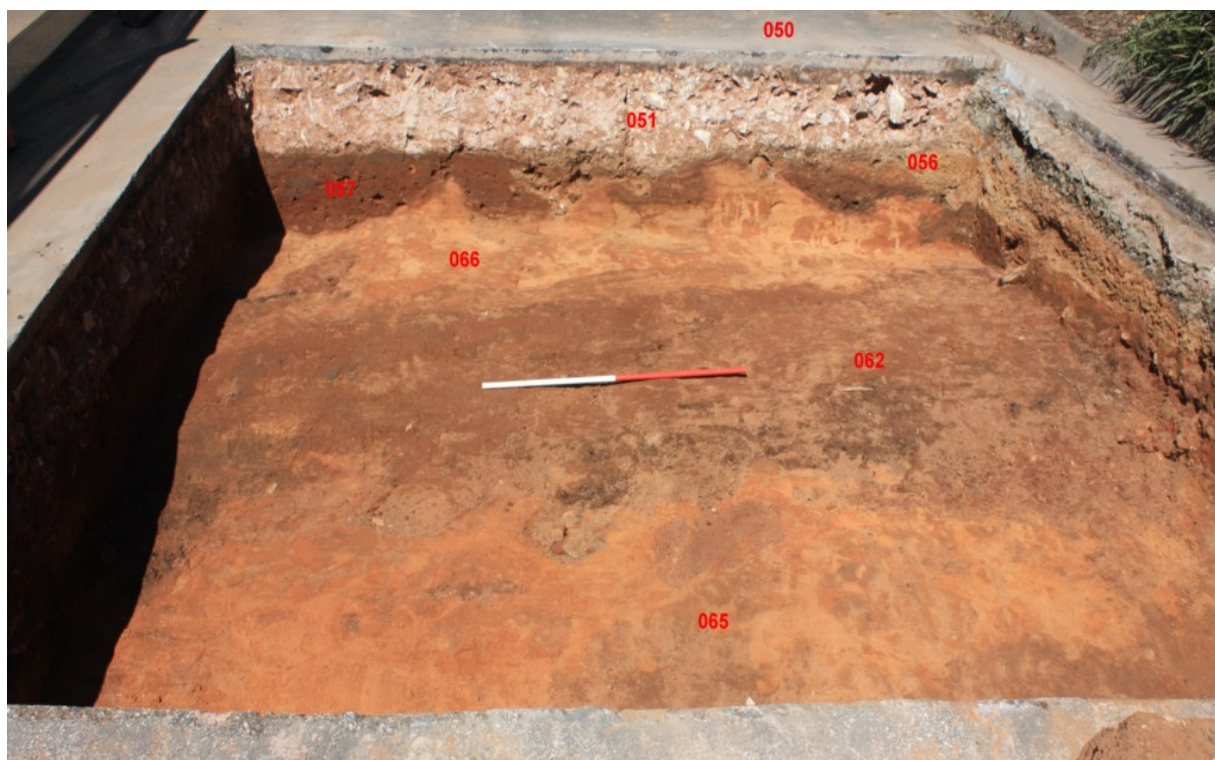


Plate 14: Test Trench 1, view south showing in the foreground the termination of the surface [062] in a straight line across the width of the trench; scale one metre.



Plate 15: Test Trench 1, two rim fragments from a lead glazed terracotta kitchen bowl from the small pit [069]; scale 10 millimetre increments

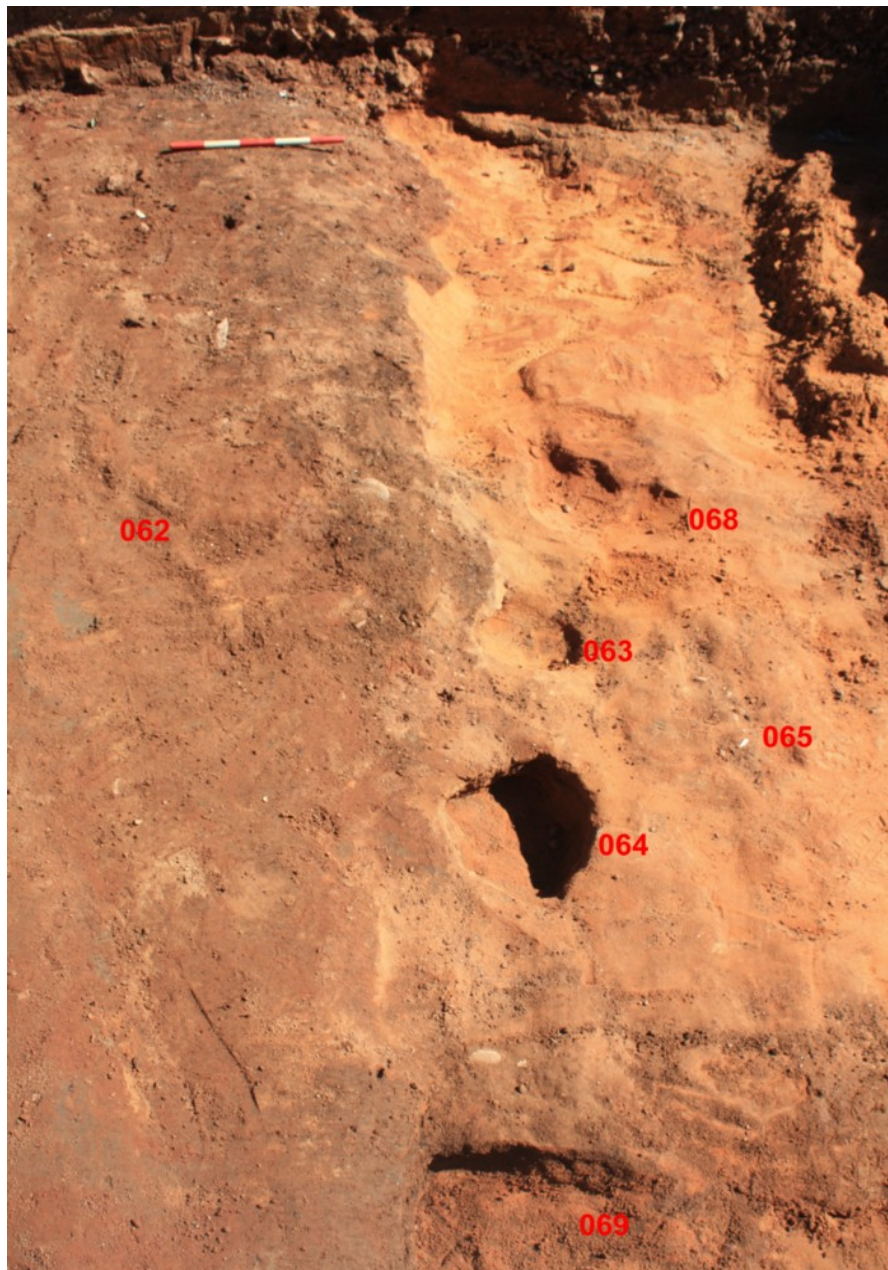


Plate 16: View west showing the line of pits that defined the northern edge of the compacted surface [062]. On the right is the underlying sand [065]; scale 500 millimetres

The pit in the north-western corner [060] had almost certainly been excavated at the same time as the pits close to it at the boundary between the sand [065] and the surface [062]. Adjoining the larger hole [060] in the north-western corner was a small excavation [071] that clearly showed evidence of containing three stakes in a tripod fashion.

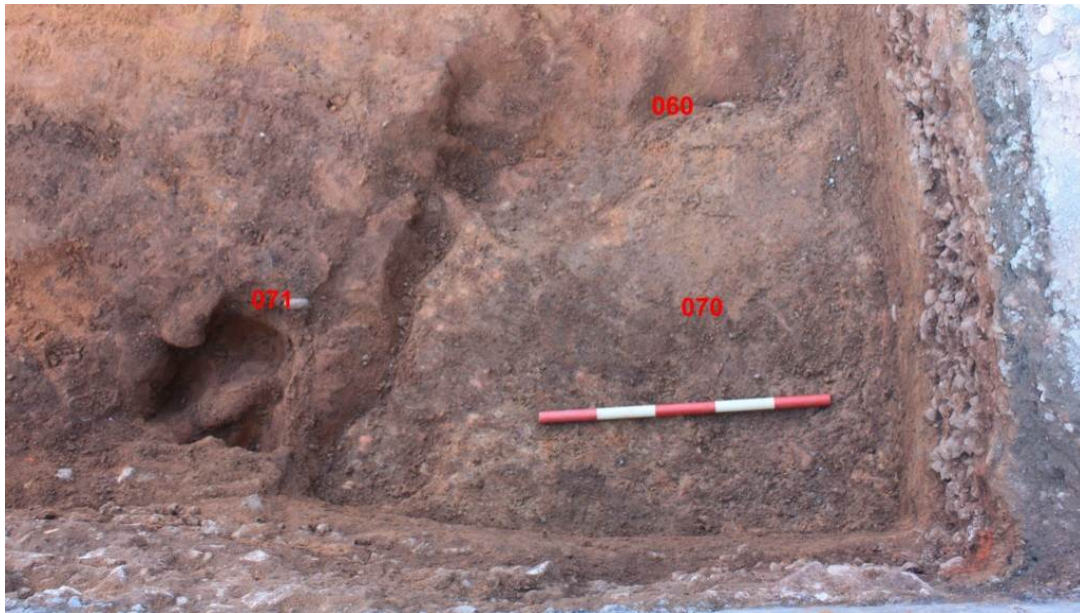


Plate 17: Test Trench 1, Pit [060] with the smaller excavation [071] next to it on the eastern side; scale 500 millimetres

Excavation at the southern end of the trench revealed more evidence of pits that had been excavated apparently for substantial plants or shrubs. In the south-western corner, largely visible in the section, was a substantial pit [074] nearly a metre long but only the very smallest edge was visible in the trench at the base of the excavation. In the section it could be seen that it had been filled with dark, loamy soil [075].



Plate 18: Test Trench 1, view of the western section showing a large pit at the southern end just visible in the section [074/075] and another large pit at the northern end [060/070/076]; scale 500 millimetres

There was another pit in the south-eastern corner of the excavation [077]; only a quadrant of this circular excavation was exposed in the test trench and it was very shallow. The excavation that had sliced across the entire land surface here in the past had substantially cut it down. Next to this pit [077] was a smaller L-shaped hole [072].



Plate 19: Test Trench 1, view east showing the two pits in the south-eastern corner of the test trench [072, 077] and the section shows the dark silty-loam [057] covering the extent of the trench and also showing the fall of the land; scale one metre.

One other very large pit was exposed on the southern boundary of the test pit and only partly within it. An approximately square excavation [061], 600 mm wide in the exposed portion, the base was over 800 mm deep from the surface of the sand. At the base of the pit, probably a post-hole, was packing made from broken early nineteenth century bricks (1820s or earlier in type) all the pieces generally worn and well used before they were used for packing (Plate 21). As well as these bricks the post-hole contained three sherds of thick pale green bottle glass, one sherd of thick black bottle glass, a small fragment of salt glazed ceramic and a few pieces of oyster shell.

The most useful artefact recovered from this assemblage with respect to dating the feature was a large piece of transfer printed earthenware, a sherd from the base of a large platter. The sherd had a very distinctive cobalt blue pattern (Plate 22). The exact pattern was not identified but similar designs have been recorded that generally date between 1800 and 1820.

Common to all the other pits and holes found at the base of the excavation this post-hole was sealed with the thick silty brown soil [057] that covered the entire area of the trench.

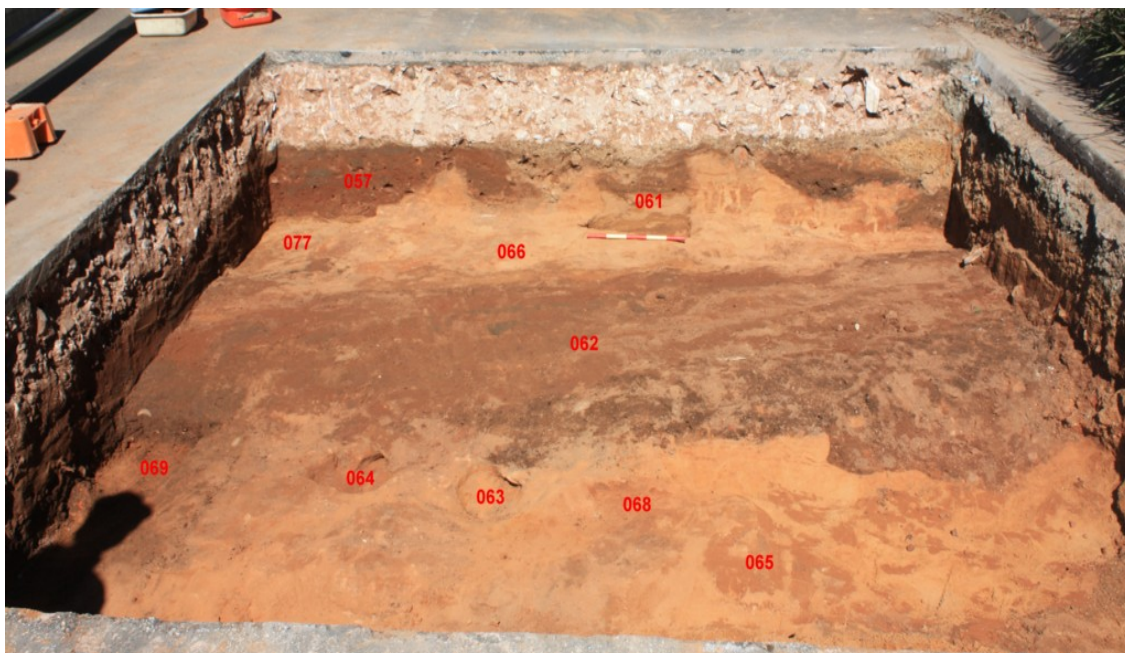


Plate 20: Test Trench 1, view south showing the square post-hole [061] at the southern edge of the excavation; scale 500 millimetres



Plate 21: Test Trench 1, some of brick packing from close to the base of the post-hole [061]; scale increments of 10 millimetres

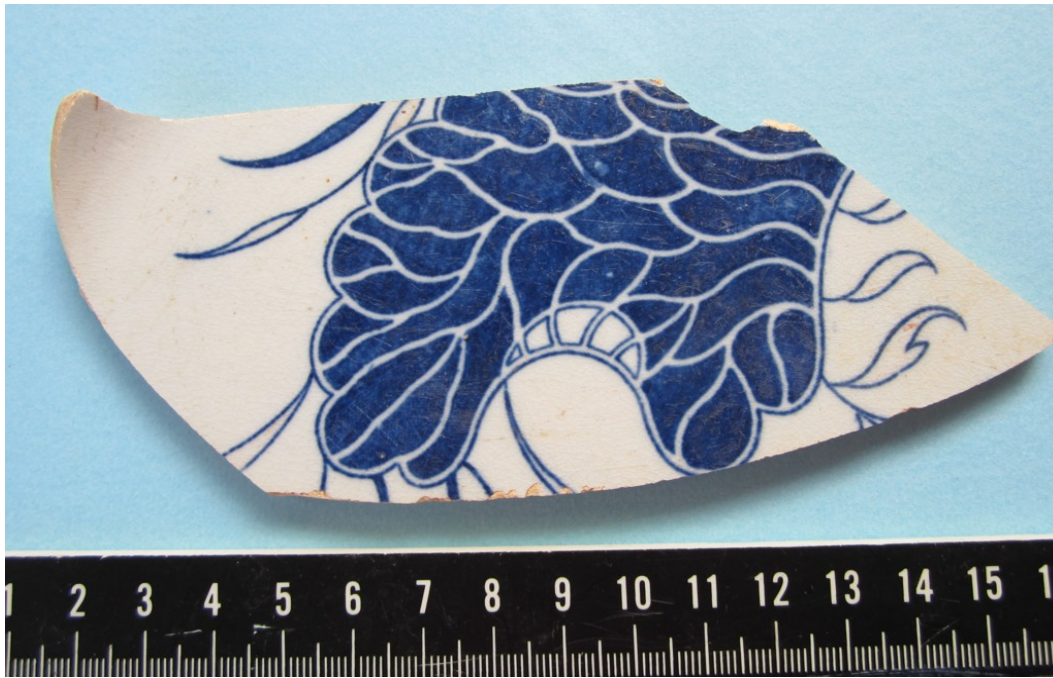


Plate 22: Test Trench 1, the distinctive cobalt blue transfer printed base sherd from the post-hole [061]; scale increments of 10 millimetres

The sand exposed at the northern edge of the test pit [065] and at the southern end [066] was not a working surface. Any evidence of a formed surface had been removed by a slicing cut or excavation down to the north. The sand revealed was a natural deposit demonstrated by the excavation of a small test pit into it at the conclusion of the excavation.

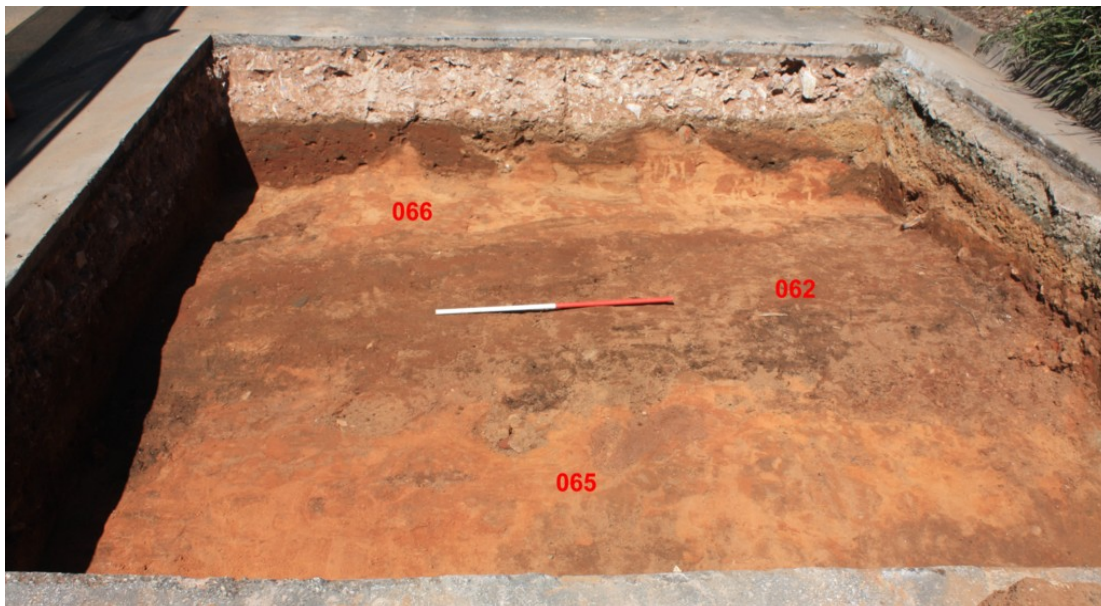


Plate 23: View south showing the remnant surface [062] preserved in the middle of the trench and the underlying sand exposed by a slicing excavation at the southern end [066] and the northern end[065]; scale one metre

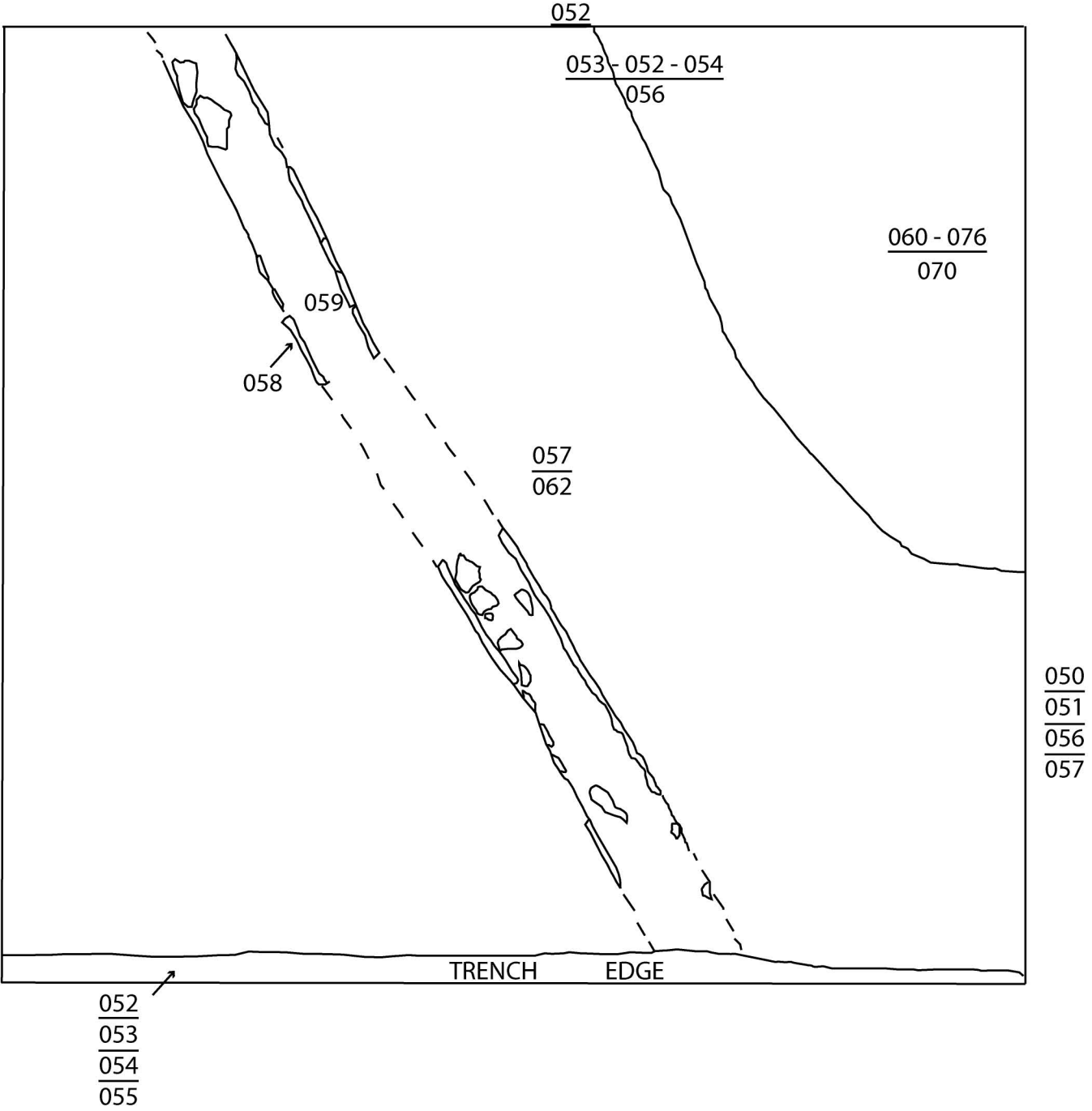
The small test pit, or sondage, was excavated at the interface between the remnant working surface [062] and the exposed sand to the north [065]; it removed a portion of the surface to show that the sand continued beneath this surface (Plate 24). Subsequently the test trench was further excavated for Aboriginal archaeology by (Kelleher Nightingale Consultants); this demonstrated conclusively that this sand was part of the remnant ancient dune. A test pit excavated for Aboriginal archaeology (Pit 35E 627N) into the base of the European test trench revealed that the pink sand at the base of the excavation continued for another 700 mm being a truncated natural profile².



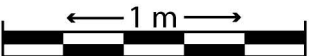
Plate 24: Test pit or sondage excavated at the interface between the exposed surface in the middle of the trench [062] and the sand at the northern end [065]; scale 500 millimetres


The base of the excavation, the top of the remnant soil profile and the introduced surface is at the limit of the one metre excavation zone required for the bridge construction.

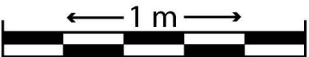
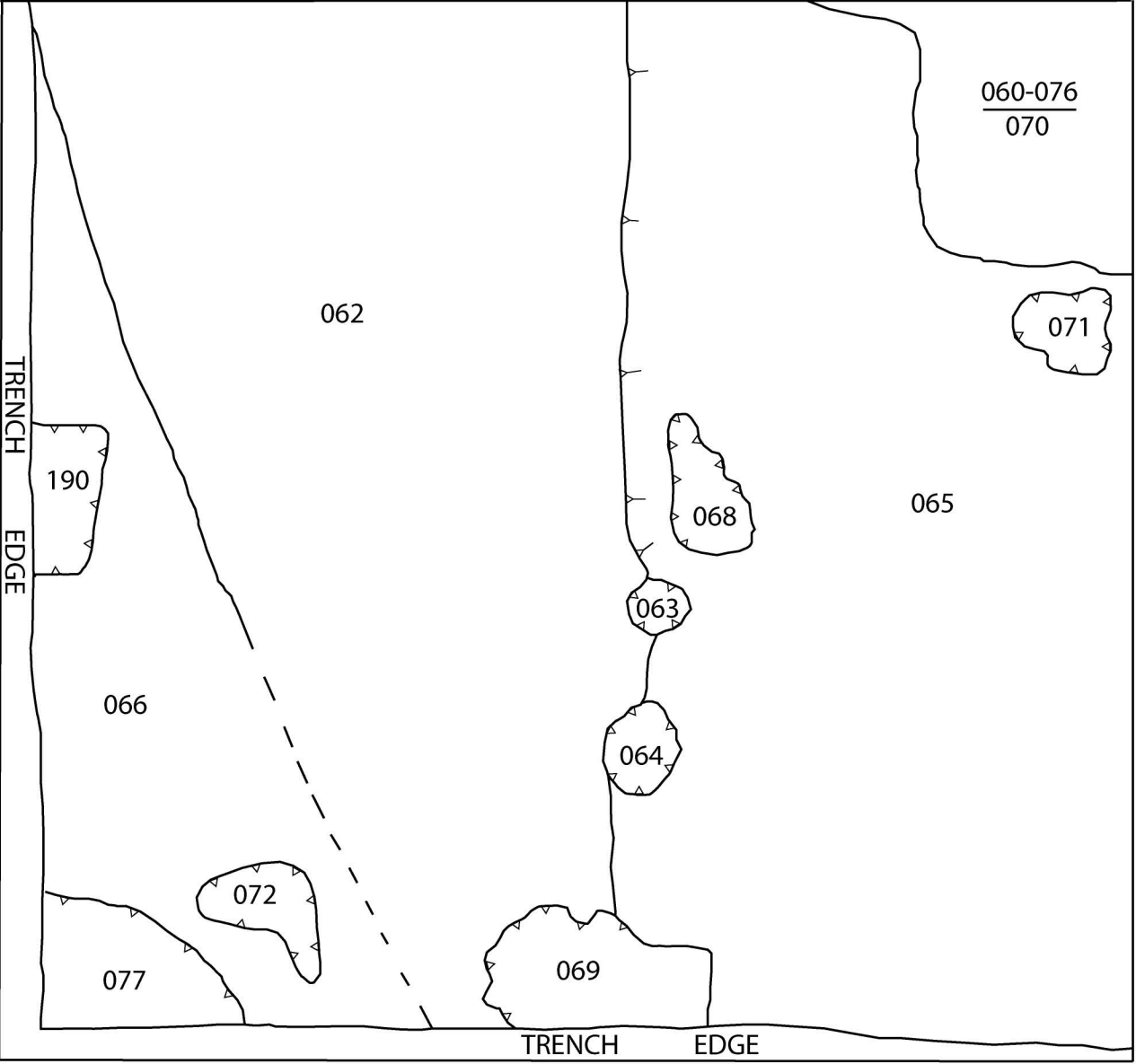
² Kelleher Nightingale Consulting Pty Ltd (2012); Windsor Bridge Replacement Project Cultural Heritage Assessment Report):
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Reviewed: Wendy Thorp	26 July 2012



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European Test Excavation		Test Trench 1
Scale: 1:25	 N	Plan No: 1



Windsor Bridge Replacement Project 14020		
European Test Excavation	Test Trench 1	
Scale: 1:25	 N	Plan No: 2

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3.2 Interpretation of the Results

3.2.1 Natural Profile

The base of the excavation [065/066] is part of the natural soil profile, the upper part of an ancient sand dune; there is no evidence remaining within the test area of a developed soil profile although part of the lowest formed surface [062] might contain some of the soil that characterised the site before or at the commencement of European occupation in 1795. It could be tested for pollen.

The landform has been modified by excavation but the substantial natural slope down from the south towards the river at the north is still evident.

3.2.2 First European Use to c. 1850

There was no evidence within the sample area of clearing, burning or stumping with the possible exception of some charcoal mixed into the remnant surface [062]. The earliest evidence of European use is the introduction of this formed surface. It comprises dark loam and might contain remnant soil from the pre-existing environment. Only a narrow band of this surface [062] was preserved within the middle of the test trench; the northern and southern extremities were removed later in the nineteenth century by a slicing excavation down the hill.

The remnant surface encompassed a substantial number of artefacts, all domestic in nature and all can be dated at least from the 1820s to the 1850s and probably earlier. The material could have been introduced from an earlier deposit elsewhere and date to a later period but its relationship to the natural profile and the sequence above it indicates that it probably is a surface formed *in situ* in the early years of the nineteenth century between c.1800 and c. 1830. A greater sample might be able to more accurately date this deposit. The inclusions suggest that it was associated with a domestic site.

The land within the trench and, presumably around it was heavily planted; there were three large planting pits in the north-western corner [060], the south-eastern corner [077], the south-western boundary but the latter was best seen in the trench section [074]. There were smaller excavations that clearly held posts that supported small trees or shrubs, often a tripod arrangement of posts or stakes [072, 069, 064, 063, 068, 071]. The few artefacts found in the pits were comparable in date to the artefacts mixed in the soil surface [062], c. 1800 - 1830 or a little later, at the greatest chronological extent up to the mid-nineteenth century.

There was one large excavation only partly within the test trench on the southern boundary. This square excavation [061] was almost certainly for a very large square post. It was very deep and packed with early nineteenth century brick rubble. The size and depth of the hole suggests that it was part of a structure rather than for planting; additional excavation is likely to uncover more of this structure. Although the surface that it was dug into had been removed by later excavation it could be determined from its relationship to the profile above it that this post had been excavated either at the same time as the planting holes or earlier; one distinctive artefact (Plate 22) included in the fill suggests a date of between 1800 and 1820.

The physical evidence recovered from the test trench examined in terms of what is known of the development of Thompson Square in the period up to c.1850 suggests only a limited number of likely associations for this evidence and this archaeological horizon.

- It could be part of Andrew Thompson's garden allotment; the timber post might be part of the weatherboard house he lived in or even one of the former log granaries that, in the historical analysis, was discussed as a building adapted for use as a boathouse in the early years of the nineteenth century. Far more investigation would be required to determine these associations or possibilities.
- It could be part of the extended government reserve made after Thompson's leasehold was absorbed into it after his death in 1810 and after it has been landscaped as is evident in several early nineteenth century images.