

Non-Aboriginal Archaeological Assessment & Impact Statement

Lend Lease Circular Quay Development 182 George & 33-35 Pitt Streets Sydney



View of Sydney Cove by John Skinner Prout, 1842



Report to

Lend Lease Development Pty Ltd

June 2014

Updated October 2015

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EXECUTIVE SUMMARY

RESULTS

- This Archaeological Assessment identified that the southern two-thirds of the site has low to medium and medium archaeological potential. Areas with basements have little or no archaeological potential. The proposed development would remove the surviving archaeological remains within the study area.
- Historic research has indicated that the site was located partially within the mouth of the Tank Stream. Due to the proximity to the Tank Stream and Sydney Cove, there is potential for environmental evidence associated with the earliest phase of historic settlement of the colony as well as much earlier environmental evidence.
- The SHR curtilage of the Tank Stream is outside the study area.
- It is possible that part of the site has potential for State-significant archaeology associated with James Underwood's pre-1807 reclamation within the Tank Stream and his boatbuilding yard. These potential remains were a small part of the overall shipyard and not a key element of it. It is possible that the integrity of the structural remains may be limited.
- Most of the potential archaeological remains within the study area are considered to have local heritage significance (Figure 6.1).
- The site has potential to contain relics under the *NSW Heritage Act* which requires an application under S139/140 of the *NSW Heritage Act 1977*.
- Since completing the original Archaeological Assessment in 2014 Casey & Lowe have prepared an Archaeological Research Design which involved considerable further analysis building on the results of the archaeological excavation at 200 George Street. As a result of this reanalysis Casey & Lowe do not consider the site to contain archaeological remains of State significance. This reassessment arises from further and more detailed analysis of researched plans and images together with an assessment of the archaeological findings at the adjacent 200 George Street redevelopment site. See *Non-Indigenous Archaeological Research Design – S140 application, Lend Lease Circular Quay Development, 182 George & 33 Pitt Street, Sydney*, Casey & Lowe, September 2015. A S140 has now been lodged for this site.

RECOMMENDATIONS

1. An application for an excavation permit under S139/140 of the *NSW Heritage Act 1977* will need to be approved by the Heritage Council or its delegate.
2. A S140 application requires the writing of an Archaeological Research Design outlining the proposed excavation methodology and approach to be used. The Research Design requires the nomination of an Excavation Director and key members of the archaeological team who will undertake the archaeological program.
3. Discussions should be undertaken with the Heritage Division prior to lodging a permit to see if they are in agreement with the suggested approach.
4. Archaeological excavation would focus on the area of the site with medium archaeological potential. Only limited archaeological investigation would need to be undertaken within areas with basements.
5. No excavation or ground disturbance of the site can be undertaken prior to the issuing of a S140 approval. A S140 application typically takes 4 to 6 weeks to be processed.
6. The archaeological program will need to be undertaken in accordance with the S140 Conditions of Consent.
7. An excavation report presenting the results of the archaeological program should be prepared at the end of the archaeological program. The final report needs to comply with the S141 conditions of consent.

8. A repository, storage in perpetuity, for the artefacts recovered from the site will need to be provided by the proponent. A suitable storage solution may be the construction of a storage room within the new development.
9. Excavation or disturbance of the ground needs to be co-ordinated with Aboriginal archaeology and OEH's AHIP approval process.
10. A Statement of Heritage Impact will need to be written for the proposed development in relation to potential issues associated with the Tank Stream.

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Document Status

Name	Date	Purpose	Author	Reviewer
Issue 1	November 2013	Final	Rhian Jones & Mary Casey	Dr Mary Casey
Update 1	June 2014	Update property details	Mary Casey	Tony Lowe
Update 2	October 2015	Update ownership information and status of S140 and site significance	Mary Casey	Mary Casey

**Non-Aboriginal Archaeological Assessment
Lend Lease Circular Quay
33-35 Pitt & 182 George Streets, Sydney**

1.0 Introduction

1.1 Background

Nos 33-35 Pitt Street, 182 George Street and Jacksons on George and surrounding laneways (in part) have been acquired by Lend Lease as a development site (Figure 1.1, Figure 1.2). This project is called Lend Lease Circular Quay (LLCQ). It has been proposed that the study area be redeveloped with a multi-storey tower and it is proposed the existing building at 182 George Street will be demolished and the site landscaped for a public square. The proposed multi-storey commercial office tower would be located at no. 33-35 Pitt Street. Much of the site will have a basement and the multi-storey office tower would have approximately three basement levels (Figure 1.3). It is noted that the State Heritage Register protected route of the Tank Stream is immediately adjacent to the study area in Pitt Street. Jacksons on George would be retained, with modification and adaptive reuse.

A number of archaeological assessments and heritage reports for surrounding properties have been reviewed, which have provided general background for the site:

Mirvac (188-194A George Street): D/2012/893

- Godden Mackay Logan *Heritage Assessment and Impact Statement*, October 10, 2012.
- Godden Mackay Logan 200 George Street, Sydney Historical Archaeological Research Design, September 2012.
- Godden Mackay Logan 200 George Street, Sydney *Heritage Assessment and Impact Statement for Redevelopment*, June 2012.
- Godden Mackay Logan 190 and 200 George Street and 4 Dalley Street, Sydney, *Heritage Assessment and Impact Statement for Demolition Works*, April 2012.

Fairfax (19 Pitt Street): D2010/1533

- Rappaport *Statement of Heritage Impact, Proposed New Building at 19-31 Pitt Street Heritage Impact*, September 2010.

Valad (1 Alfred Street): D 2010/2029

- Godden Mackay Logan, *One Alfred Street Redevelopment, Heritage Impact Statement and Archaeological Assessment*, November 2010.

Orwell Peter Phillips wrote a *Built Heritage Assessment, 182 George Street and 33-35 Pitt Street, Sydney*, September 2013 which addressed the built heritage issues associated with this site.

As part of earlier advice to Lend Lease Development, Casey & Lowe had undertaken a Baseline Archaeological Assessment which provided preliminary advice on the archaeological issues for the site. A Statement of Heritage Impact (SOHI) will also be written for the proposal on the Tank Stream which is within Pitt Street. Comber Consultants have written a report on the potential for Aboriginal Archaeology for this project. As the focus of this report is on areas of proposed bulk excavation which may impact on the potential archaeological remains it focusing on the potential archaeology of 182 George and 33-35 Pitts Street, Crane Place and the triangle of land formerly owned by Mirvac (Figure 1.2).

1.2 Study Area

The site at 33-35 Pitt Street and 182 George Street is located within a block bounded by George Street in the west and Pitt Street in the east, Underwood Street to the south and Crane Place to the north (Figure 1.1, Figure 1.2). The site is highly urbanised, being located in the centre of Sydney's CBD, and just south of the busy public transport interchange at Circular Quay. The site currently contains multi-storey commercial buildings. The study area now also includes land assessed as part of 200 George Street, the Mirvac Triangle. This triangle is briefly referred to in this report as it was addressed in a previous Archaeological Assessment for 200 George Street. The research and analysis of this triangle is taken from the Godden Mackay Logan Archaeological Assessment and Research Design and S140 Application for 200 George Street (April 2012).

Lend Lease are proposing to develop a multi-storey commercial office tower on this site with approximately three basement levels (Figure 1.3). This would remove most of the surviving archaeology within the study area. The current proposal involves basement excavation for:

- 33-35 Pitt
- Mirvac Triangle.
- Crane Lane (Place).

The proposal for the existing basement at 182 George Street is that it be adapted, reused and augmented where required. All other areas of the current proposal will not be subject to bulk excavation, notably Jacksons on George which under the proposal would be refurbished (Figure 1.2).

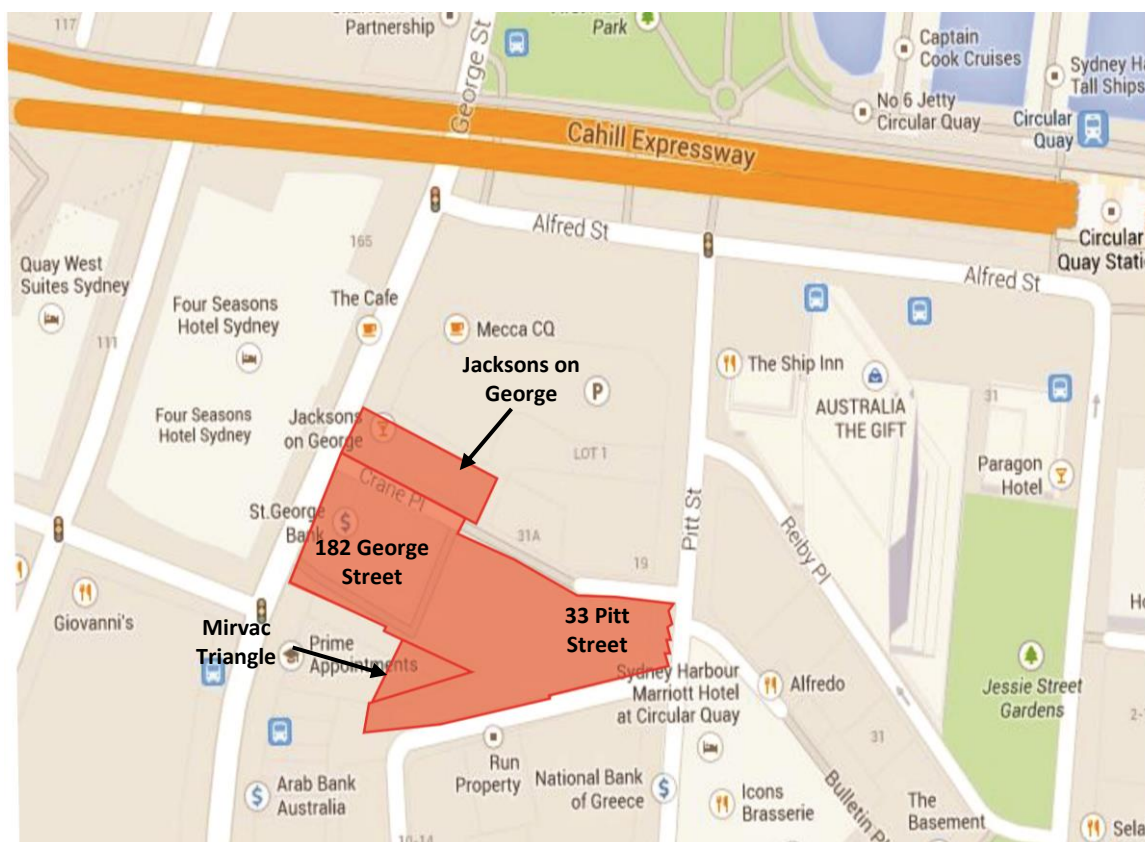


Figure 1.1: Location of the study area highlighted in red. Source: Google Maps.

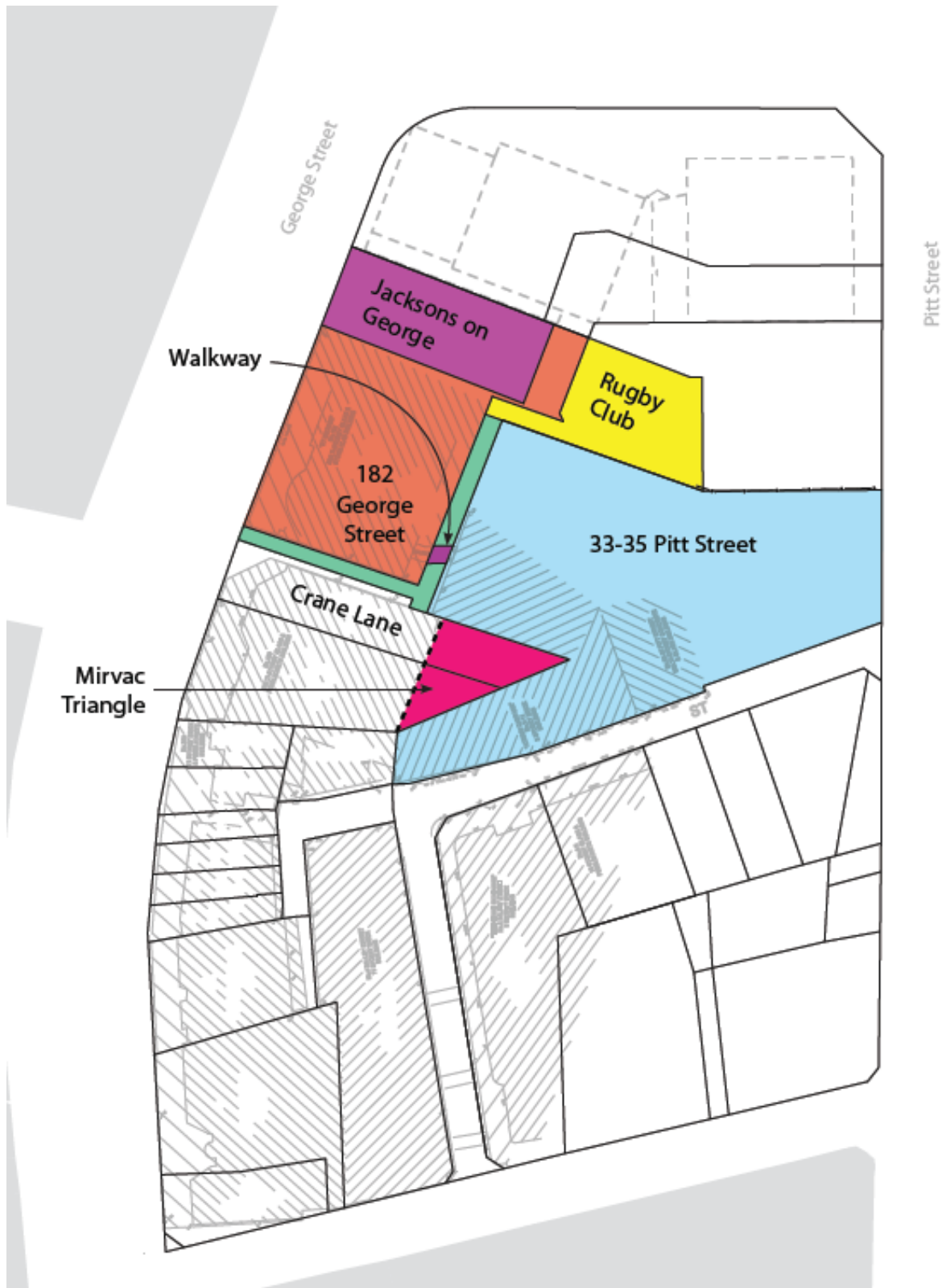


Figure 1.2: Plan of the study area. The focus of this report is on 33-35 Pitt Street, 182 George Street, the Mirvac Triangle and Crane Lane (green). All of which will be subject to excavation. The current proposal for Jacksons on George and the Rugby Club involves no excavation therefore they have not been assessed as part of this project.

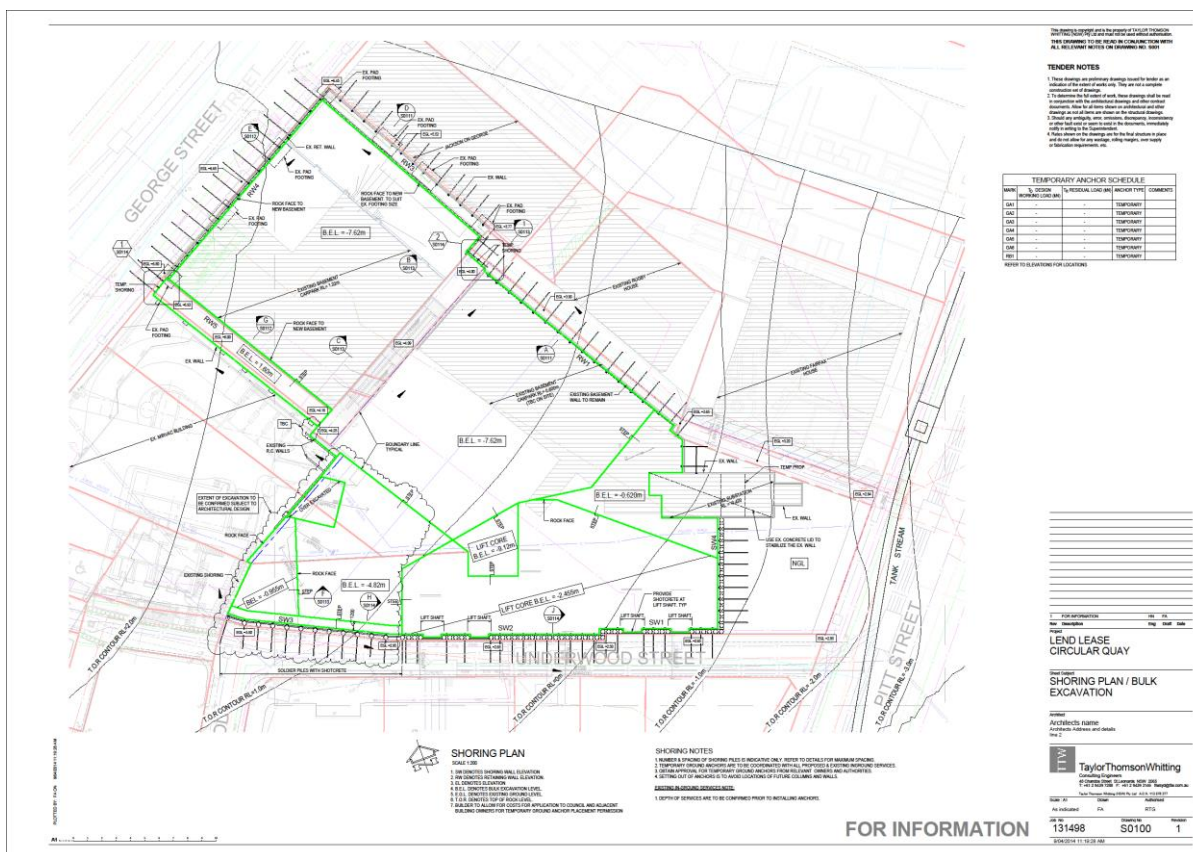


Figure 1.3: Bulk excavation plan, showing the soldier piles around the perimeter and bulk excavation levels within the footprint. The footprint of the basement will be cut into bedrock and the alignment and depth of the basement will be subject to further design development.

1.3 Statutory Constraints

1.3.1 Relics Provisions *NSW Heritage Act, 1977*

1.3.1.1 Division 9: Section 139, 140–146 - Relics Provisions - Excavation Permit

The main legislative constraint on archaeological remains is the relic provisions of the *Heritage Act 1977*.

According to Section 139:

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

A 'relic' is an item of 'environmental heritage' defined by the *Heritage Act 1977* (amended) as:

those places, buildings, works, relics, moveable objects, and precincts of State or local heritage significance.

A relic, as further defined by the Act is:

..any deposit, object or material evidence -

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

(b) is of State or local heritage significance.

Any item identified as an historical archaeological site or relic cannot be impacted upon without an **excavation permit**. An excavation permit forms an approval from the Heritage Council for permission to 'disturb' a relic. Sydney Water has delegation from the NSW Heritage Council to approve impacts on relics of local significance.

An application for an excavation permit must be made to the Heritage Council of NSW (Section 140) (or its delegate) and it will take approximately six to eight weeks to be processed. The application for a permit must nominate a qualified archaeologist to manage the disturbance of the relics. There is a processing fee for each excavation permit application, the details of which can be obtained from the Heritage Division, Office of Environment and Heritage website.

Exceptions

An application for a S139(4) Exception to applying for an Excavation Permit may be made where the impact is considered to be in accordance with the following categories:

- (1A) An archaeological assessment, zoning plan or management plan has been prepared in accordance with Guidelines published by the Heritage Council of NSW which indicates that any relics in the land are unlikely to have State or local heritage significance.
- (1B) The excavation or disturbance of land will have a minor impact on archaeological relics including the testing of land to verify the existence of relics without destroying or removing them.
- (1C) A statement describing the proposed excavation demonstrates that evidence relating to the history or nature of the site, such as its level of disturbance, indicates that the site has little or no archaeological research potential.

1.3.1.2 Statutory and Non-statutory Guidelines

The management of heritage sites in NSW should conform to the requirements of the *Burra Charter* of Australia ICOMOS. Many of the following guidelines provide for best practice conservation approaches and can be used to inform all the management of the archaeological remains. There are a range of archaeological guidelines which inform the management of the place:

Archaeological Assessment Guidelines, NSW Heritage Office, Department of Urban Affairs & Planning, 1996. A new draft of this has been prepared but not yet published.

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

NSW Heritage Manual, NSW Heritage Office, Department of Urban Affairs & Planning, 1996.
Historical Archaeological Investigations: A Code of Practice, NSW Department of Planning, 2006.

Historical Archaeological Sites, Investigation and Conservation Guidelines, Department of Planning and NSW Heritage Council, 1993.

Excavation Director's Assessment Criteria, NSW Heritage Office.

ICHAM Charter, The ICOMOS Charter for the Protection and Management of Archaeological Heritage, ICOMOS International, 1990.

Recommendation on International Principles Applicable to Archaeological Excavations, UNESCO, 1956.

Heritage Interpretation Policy and Guidelines, Heritage Information Series, NSW Heritage Office, August 2005.

Photographic Recording of Heritage Items, Heritage Information Series, NSW Heritage Office, 2006.

1.3.2 Heritage Listings

Neither 182 George Street nor 33-35 Pitt Street is listed on the State Heritage Register (SHR) or the Sydney LEP 2005, nor are they within a Heritage Conservation Area. The site is located to the immediate west of the curtilage of the Tank Stream, an archaeological feature dating to the earliest period of British settlement.

1.3.2.1 Tank Stream

The Tank Stream is listed on the State Heritage Register and consists of a mixture of structures of brick oviform and a stone arched drain enclosing what was the earliest fresh water source for the colony. The curtilage of the Tank Stream measures 3 metres from all surfaces of the drain.¹

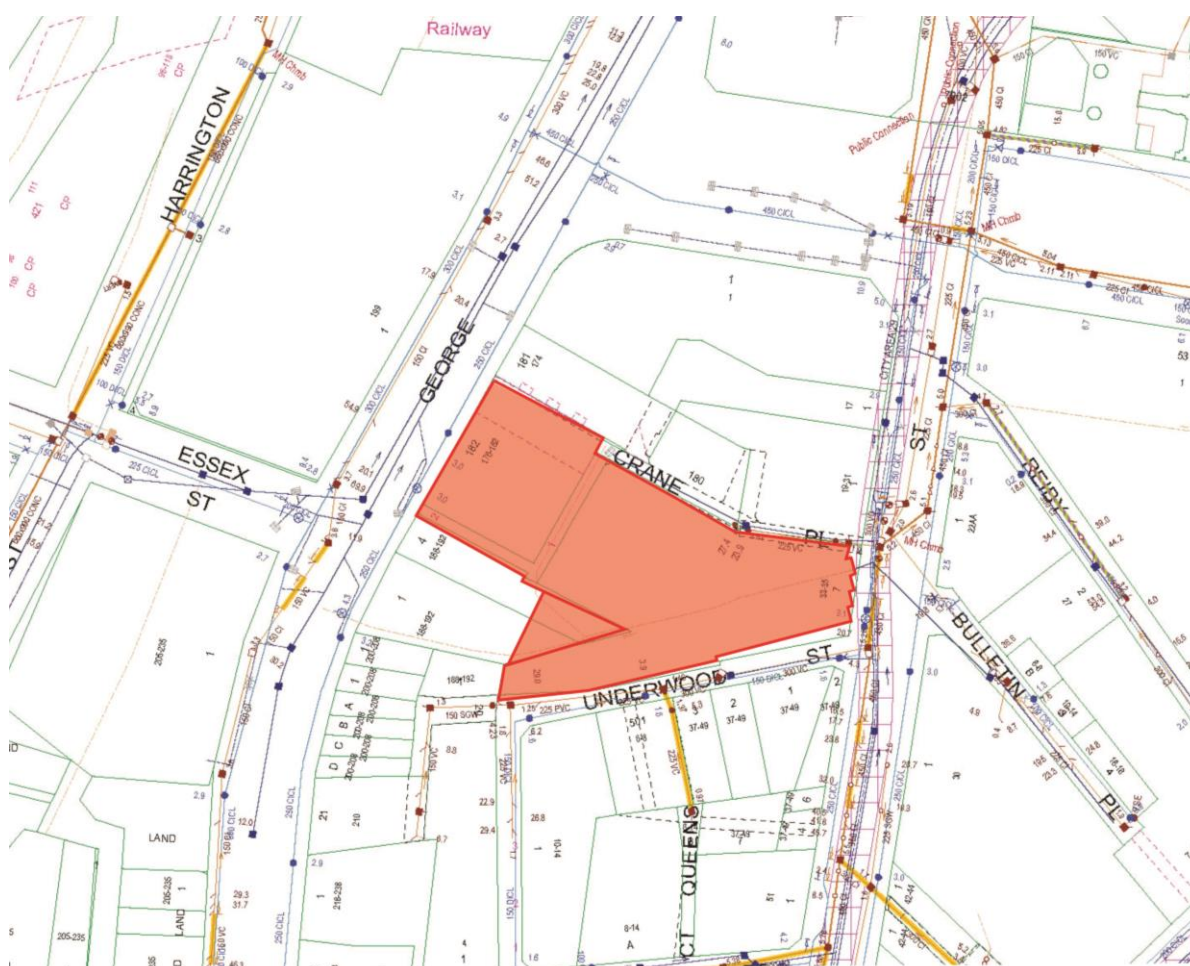


Figure 1.4: Plan showing the location of the Tank Stream in relation to the Pitt Street frontage of the study area. Sydney Water

¹ SHR listing, <http://www.environment.nsw.gov.au/heritageapp/ViewHeritageItemDetails.aspx?ID=5045604>, accessed 29/11/2012.

The Tank Stream is also included on the Sydney LEP 2005 as an archaeological element (Schedule 8, Part 3, Item No. 42; SHI No. 7001), and is also a Registered place on the Register of the National Estate. It is also listed on Sydney Water's S170 register. Sydney Water has an endorsed *Tank Stream Conservation Management Plan* for the Tank Stream (2003). This provides policies and guidelines for its management of the Tank Stream. The client will need to design the building so as to avoid any impacts on the curtilage of the Tank Stream. The client will need to discuss the issues associated with the Tank Stream and understand their heritage reporting requirements in relation to the Tank Stream. They are likely to require a Statement of Heritage Impact that addresses relevant issues in relation to the Tank Stream. This report is likely to require an engineering report outlining how the design of the proposed Pitt Street basement and building, including any bracing and rock anchors, will avoid impacting within the curtilage of the Tank Stream.

1.3.3 Sydney Local Environmental Plan 2012

Part 5: 5.10(7) Heritage Conservation, of the LEP 2012 states that where there is an identified archaeological site:

Archaeological sites

The consent authority must, before granting consent under this clause to the carrying out of development on an archaeological site (other than land listed on the State Heritage Register or to which an interim heritage order under the [Heritage Act 1977](#) applies):

- a) notify the Heritage Council of its intention to grant consent, and
- b) take into consideration any response received from the Heritage Council within 28 days after the notice is sent.

1.3.4 City of Sydney Archaeological Zoning Plan

The study area was included in the City of Sydney Archaeological Zoning Plan but the site was identified as having no archaeological potential. Our analysis of the archaeological issues for the site indicate that the site does not have a basement in part of the property and therefore the site does have archaeological potential.

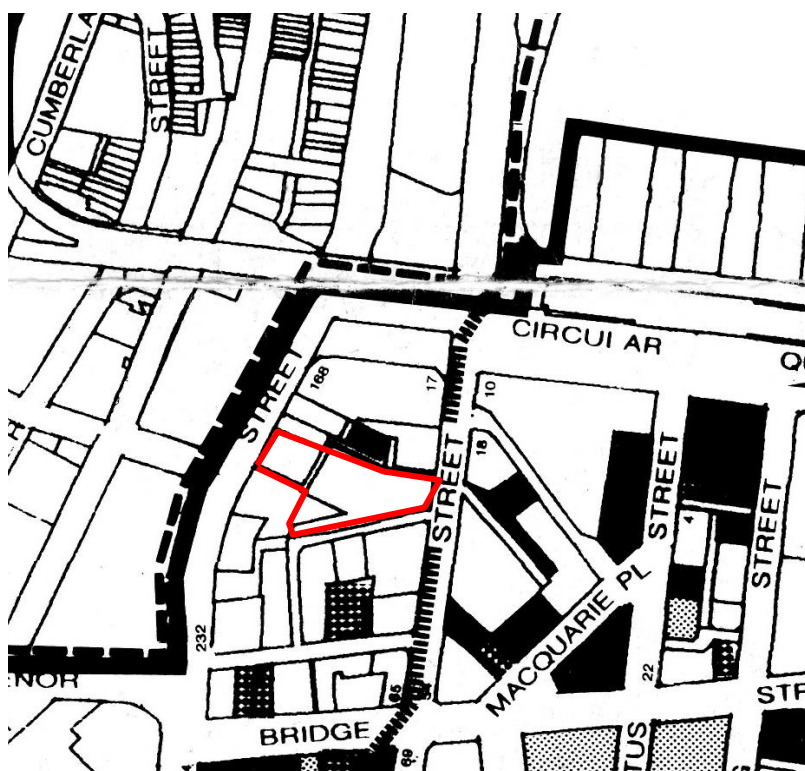


Figure 1.5: Detail from *City of Sydney Archaeology Zoning Plan*. The study area where archaeology is investigated for this report is coloured white and was identified as having no archaeological potential. Results from the archaeology at 200 George Street shows that this assessment is incorrect.

1.4 Authorship

This report was written by Rhian Jones, Senior Archaeologist and Dr Mary Casey, Director, Casey & Lowe. It was reviewed by Tony Lowe, Director, Casey & Lowe. Jenny Winnett and Rhian Jones produced the overlays of historic plans. The historical research presented in Section 3 was researched and written by Caroline Plim, (BA Assoc Dip Local & Applied History, Graduate member PHA NSW).

1.5 Acknowledgements

Warwick Bowyer, Lend Lease Development
Michelle Mason, Lend Lease Development
Alison Brown, BBC Planning
Greg Frith, Rygate Surveyors

1.6 Limitations

There were no particular constraints to producing this report. There was sufficient time and funding to complete this report to a quality standard. One of the problems we encountered is that the Pitt Street land often operated as ancillary to the George Street properties. This made it difficult to have certainty about the uses of the land during parts of the 19th century when Pitt Street was not a main street frontage. Pitt Street did not have its own street frontage until after the Tank Stream was covered over after 1856 and until Pitt Street extended into this area by 1865. It is only at this time that the Pitt Street frontage acquired separate uses and functions to the George Street parts of the property.

1.7 Glossary

Historical Archaeology (Non-Indigenous/European)

Historical Archaeology (in NSW) is the study of the physical remains of the past, in association with historical documents, since the British occupation of NSW in 1788. As well as identifying these remains the study of this material can help elucidate the processes, historical and otherwise, which have created our present surroundings. Historical archaeology includes an examination of how the late eighteenth and 19th-century arrivals lived and coped with a new and alien environment, what they ate, where and how they lived, the consumer items they used and their trade relations, and how gender and cultural groups interacted. The material remains studied include:

- Archaeological Sites:
 - below ground: these contains relics which include building foundations, occupation deposits, rubbish pits, cesspits, wells, other features, and artefacts.
 - above ground: buildings, works, industrial structures and relics that are intact or ruined.
- cultural landscapes: major foreshore reclamation
- maritime sites: infrastructure and shipbuilding
- shipwrecks
- structures associated with maritime activities.

Archaeological Potential

Archaeological potential is here used and defined as a site's potential to contain archaeological relics which fall under the provisions of the *Heritage Act 1977* (amended). This potential is

identified through historical research and by judging whether current building or other activities have removed all evidence of known previous land use.

Archaeological Site

A place that contains evidence of past human activity. Below ground sites include building foundations, occupation deposits, features and artefacts. Above ground archaeological sites include buildings, works, industrial structures and relics that are intact or ruined.

Archaeological Investigation or Excavation

The manual excavation of an archaeological site. This type of excavation on historic sites usually involves the stratigraphic excavation of open areas.

Archaeological Monitoring

Archaeological monitoring is recommended for those areas where the impact of the works is not considered to mean the destruction of significant archaeological fabric. Nevertheless the disturbance of features both suspected and unsuspected is possible. In order to provide for the proper assessment and recording of these features an archaeologist should inspect the works site at intervals they consider to be adequate and to be 'at call' in case the contractor uncovers remains that should be assessed by the archaeologist.

If recording of features is necessary it would be carried out as quickly as possible so that any time delays are minimised. Monitoring is a regular archaeological practice used on many building and development sites.

Research Design

A set of questions which can be investigated using archaeological evidence and a methodology for addressing them. A research design is intended to ensure that archaeological investigations focus on genuine research needs. It is an important tool that ensures that when archaeological resources are destroyed by excavation, their information content can be preserved and can contribute to current and relevant knowledge.

Research Potential

The ability of archaeological evidence, through analysis and interpretation, to provide information about a site that could not be derived from any other source and which contributes to the archaeological significance of that site and its 'relics'.²

Relic

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

- (a) relates to the settlement of the area that comprises New South Wales, not being Aboriginal settlement, and
 - (b) is of State or local heritage significance.
- (NSW *Heritage Act 1977*, Definitions, Part 1.4)

² Taken from the Assessing Significance for Historical Archaeological Sites and 'Relics', 2009:11.

2.0 Study Area

2.1 Description of Site

The study area consists of a series of mid to late 20th-century multi-storey commercial buildings, surrounded by streets with a high volume of traffic, and lanes that access basement and ground floor parking areas (Figure 2.5 to Figure 2.9).

The results of a basic site inspection are listed below:

- The study area is located in the central CBD, just south of Circular Quay, and is dominated by large multi-storey buildings at 182 George Street, 33-35 Pitt Street, Underwood Street and Crane Place.
- 182 George Street has basement car parking for 26 cars (Figure 2.1, Figure 2.2).
- Nos 33 to 35 Pitt Street has ground level car parking (Figure 2.5 to Figure 2.8), with the exception of a very small single level basement (containing approximately 6 to 8 car spaces).
- Undercover parking area at 33-35 Pitt Street is accessed via Underwood Street (Figure 2.7, Figure 2.8).
- No original ground surfaces were evident. The area is dominated by asphalt road base and concrete paving.
- The site is located on ground that slopes down to the east. This slope would have been more evident in the past, as the study area is located towards the bottom of the Tank Stream Valley between the ridges along (present day) York Street and Macquarie Street, with the stream running along the line of Pitt Street. George Street has generally been interpreted as a lower ridgeline which slopes down to the Tank Stream.
- A survey plan of the basements has been provided to assess the extent of impacts on the potential archaeological remains (Figure 2.10). An interpretation of this provides a map of the archaeological potential of the site. The focus of this assessment is on the areas of the site which may contain potential archaeological remains and where there is a proposal to impact on these remains (Figure 2.11). There will be no detailed analysis or assessment of the basement areas in this report as it is believed that the excavation for the basement will have removed most of the potential archaeology within their footprint.



Figure 2.1: 182 George Street, centre left, looking northwest. C&L 2013.



Figure 2.2: View to east with Jacksons on George on the left and the opening to the Blue Anchor Lane on the northern side of 182 George Street. C&L 2013.



Figure 2.3: View to east along Blue Anchor Lane, at the northern side of 182 George Street, Jacksons on George is to the left. The northern side of 33-35 Pitt Street is visible in the middle ground, behind the van on the road and the Rugby Club is to left. C&L 2013.

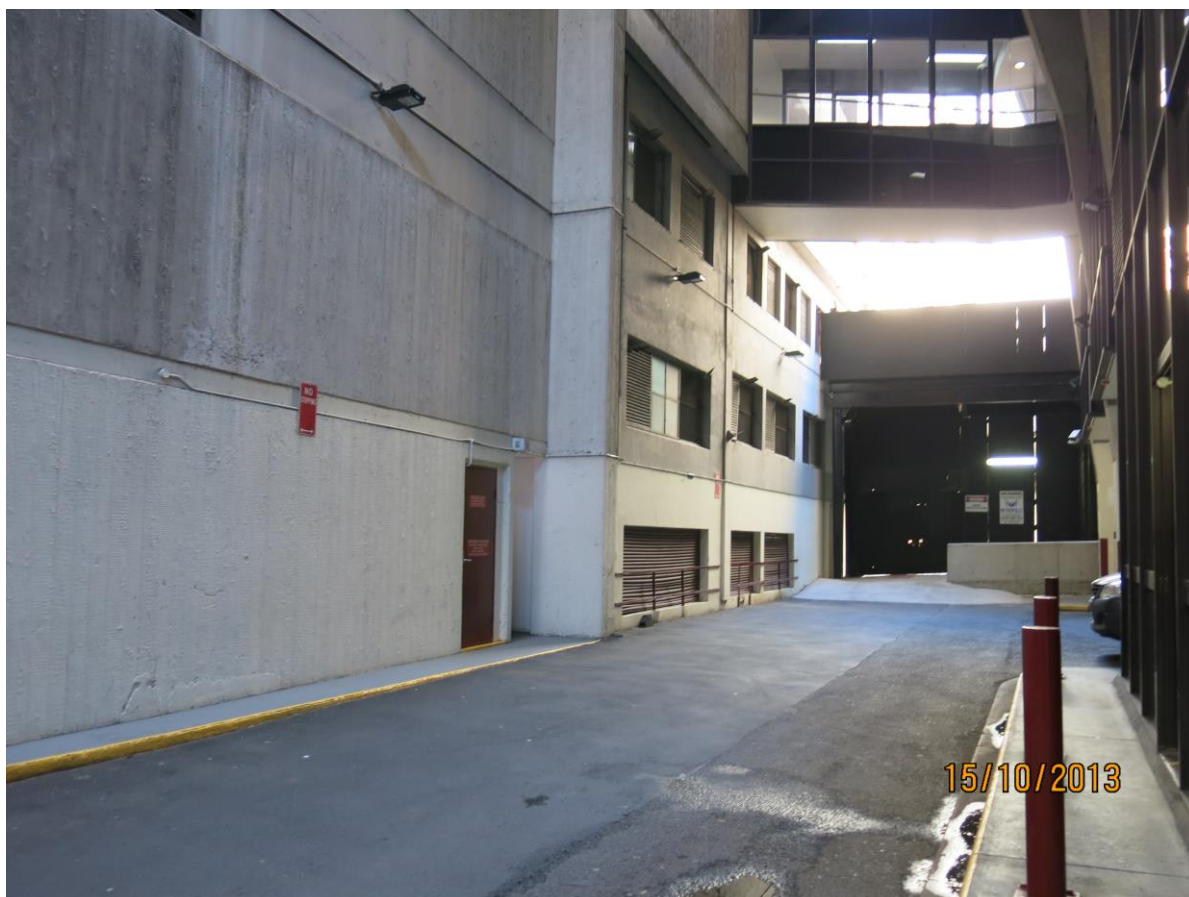


Figure 2.4: View to the south along the laneway between 182 George Street and 33-35 Pitt Street. This area would be subject to bulk excavation. C&L 2013.



Figure 2.5: Nos 33-35 Pitt Street, looking west with Underwood Lane on the left and Crane Place on the right. Google Street View.

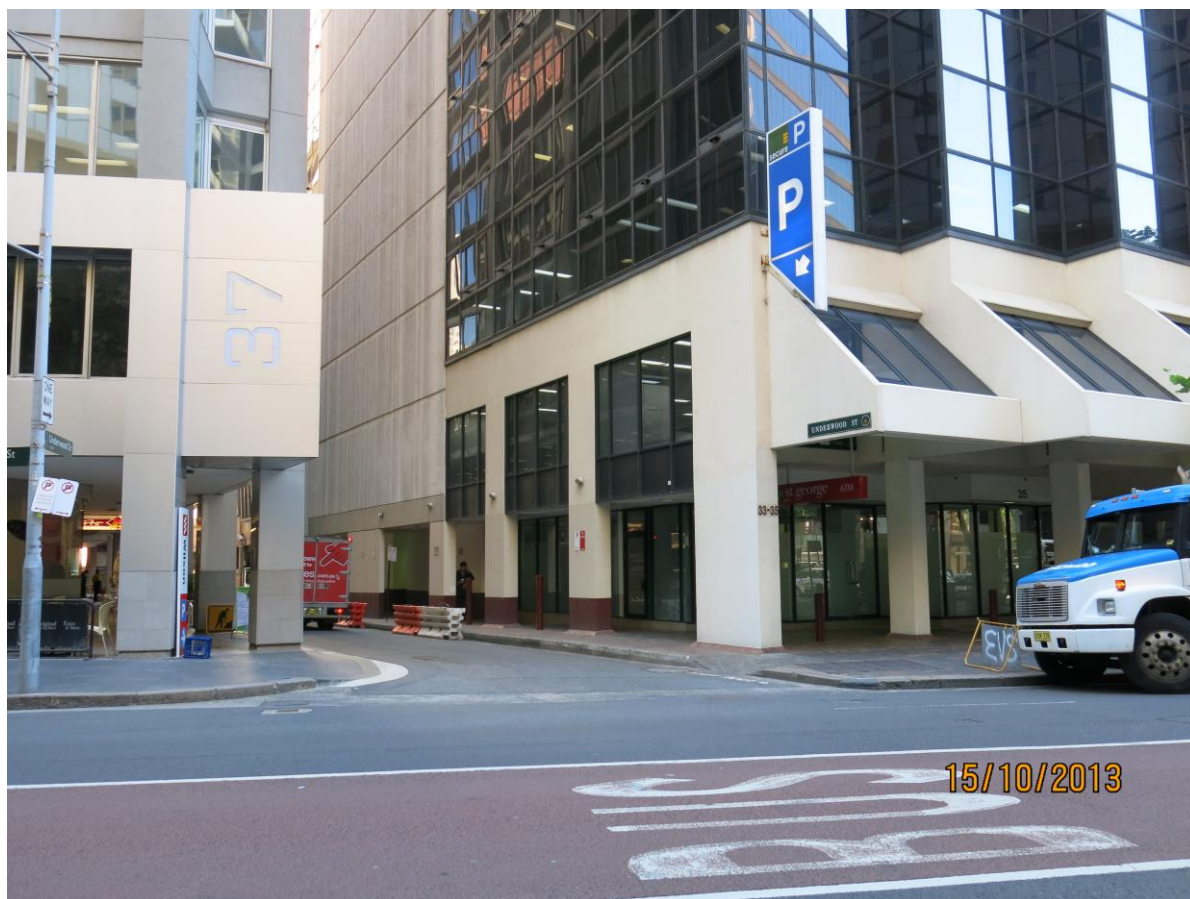


Figure 2.6: View of the southern side of 33-35 Pitt Street showing Underwood Street. C&L 2013.



Figure 2.7: Underwood Street looking east towards Pitt Street. Nos 33-35 Pitt Street is on the left with the three-level aboveground carpark. C&L 2011.



Figure 2.8: Ground level parking at 33-35 Pitt Street, off Underwood Street. C&L 2011.



Figure 2.9: View of Crane Place, looking west along the northern side of 33-35 Pitt Street. C&L 2011.

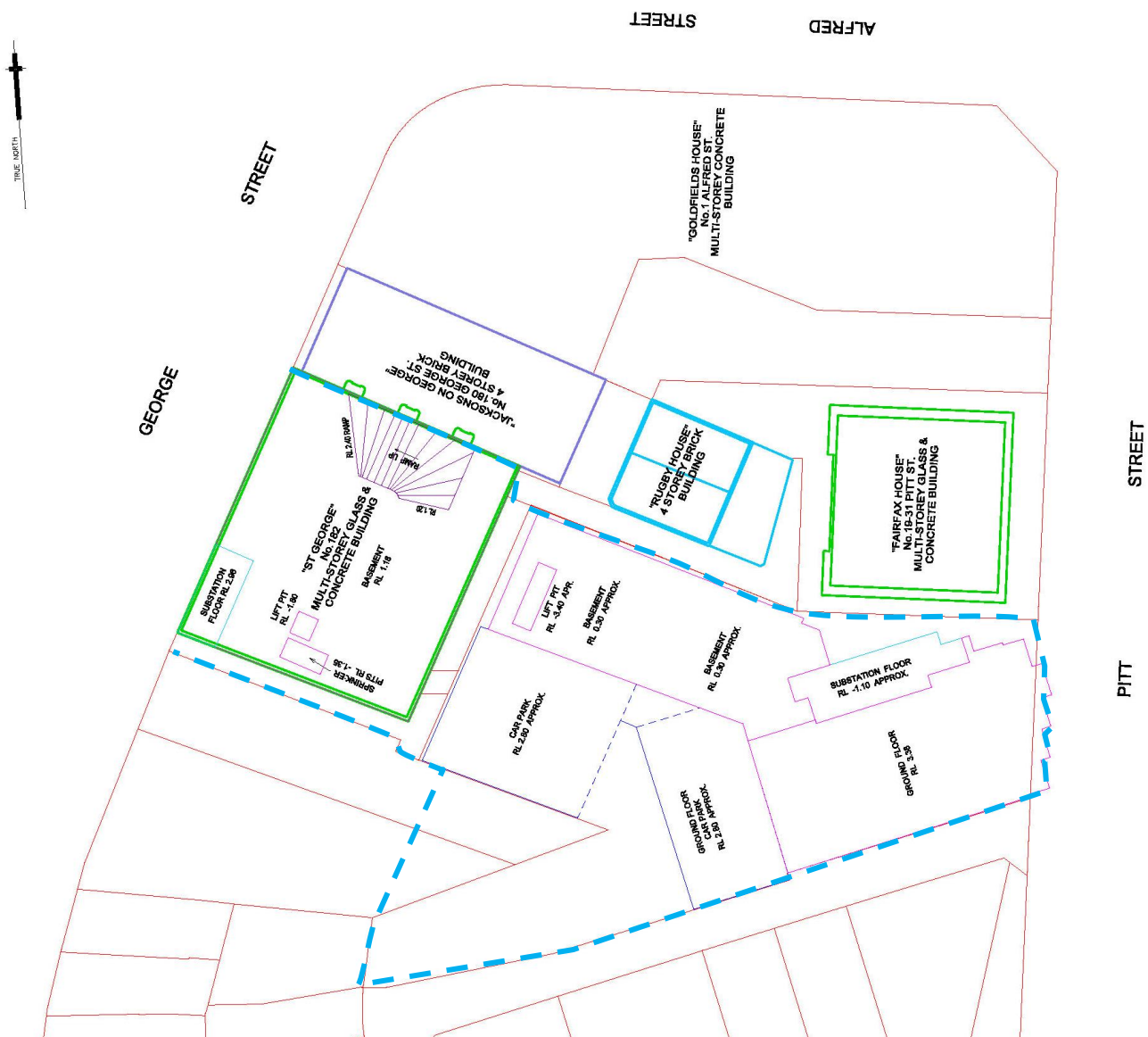


Figure 2.10: Survey plan indicating the RLs on floor levels and position of current basements within the development area. This plan has been used as the basis for assessing the archaeological potential of areas. Plan from Rygates.

2.2 Impacts from current buildings and earlier buildings

2.2.1 33-35 Pitt Street

The current building has a basement along the northern part of study area but approximately two-thirds of this building has no basement and therefore should retain substantial archaeological potential (Figure 2.10, Figure 2.11). The RL on the floor of the basement is RL 0.30. The top of bedrock contours from west to east are from RL 0.5 falling to RL -2.5m (Appendix 1, Figure 2). The eastern part of the building is a modern building with piles which will have had some impacts, as well as footing beams (Figure 2.12). The eastern section of bedrock is below the alluvium deposits within the valley of the Tank Stream (Figure 5.1; Appendix 1, Figure 3). Where archaeological deposits are close to the foreshore, tidal water will invade the area at high tide where the soil is at approximately RL 0.5m or lower. Where bedrock is higher than this level water will not be able to flow into the site. The extent of the alluvium deposit is close to the RL 0m to 0.5m bedrock contour (Appendix 1, Figure 3). There is also considerable fill above the southeastern alluvium deposits within the Tank Stream Valley and above bedrock (Appendix 1, Figure 4).

Approximately one-third of deposits within the northern section of existing building footprint are beneath the basement floor with RL 0.30m (Figure 2.10, Figure 2.11). In terms of historic occupation land does not become useable until it is reclaimed, typically at or above a minimum of RL 1m to avoid King tidal flows.³ Therefore a section of the potential archaeological remains in the northern section of 33-35 Pitt Street were removed by this basement. There are still some potential archaeological remains in this area (green on Figure 5.2) and these will be discussed below.



Figure 2.11: Plan showing the location of existing basements (green) and within the study area (outlined in red). This report will be focusing on the areas with low to medium and medium archaeological potential. There will only be limited further discussion of the areas with basements.

³ This is our experience at two major foreshore excavations, Barangaroo South and Darling Quarter.

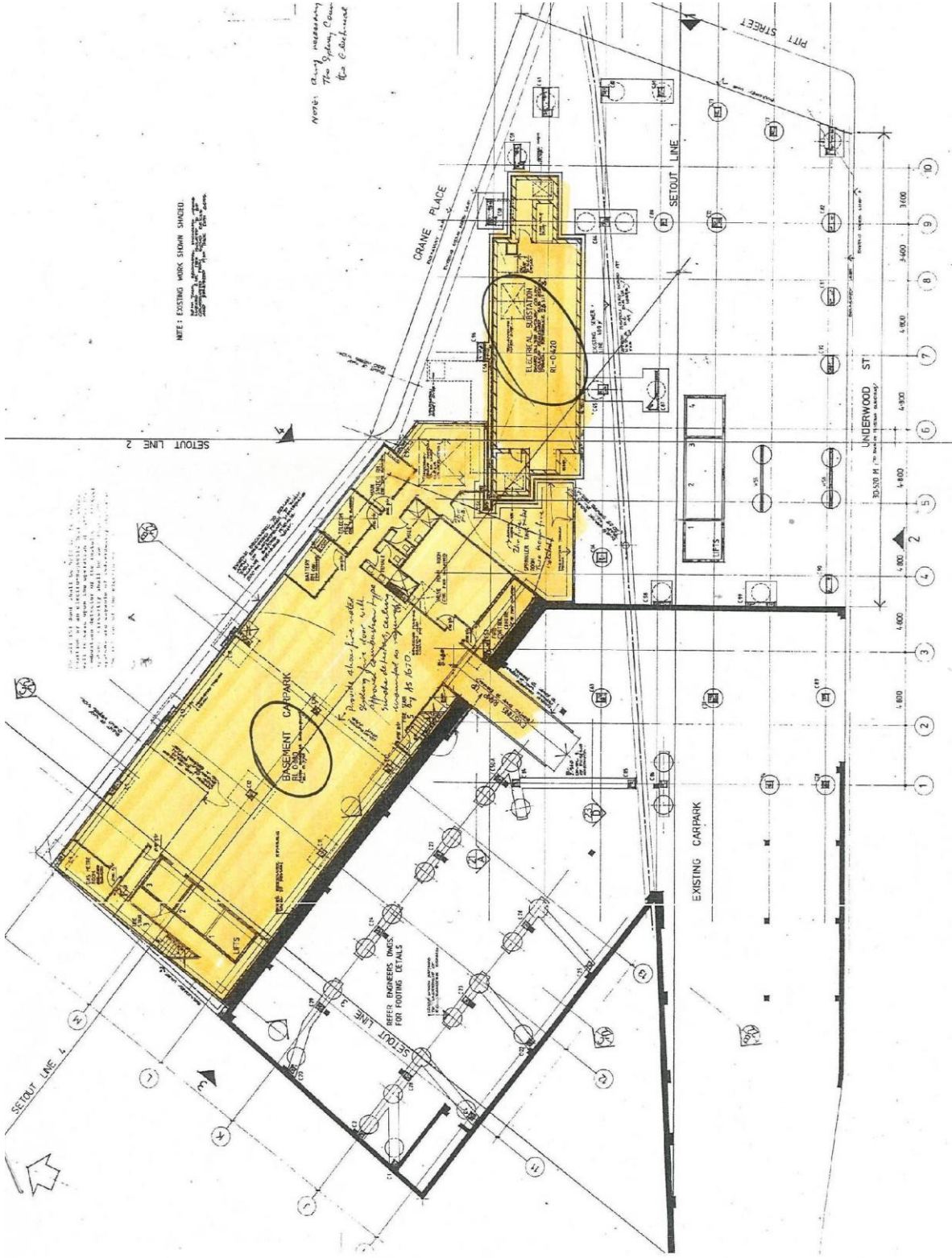


Figure 2.12: Plan of the basement at 33-35 Pitt Street.

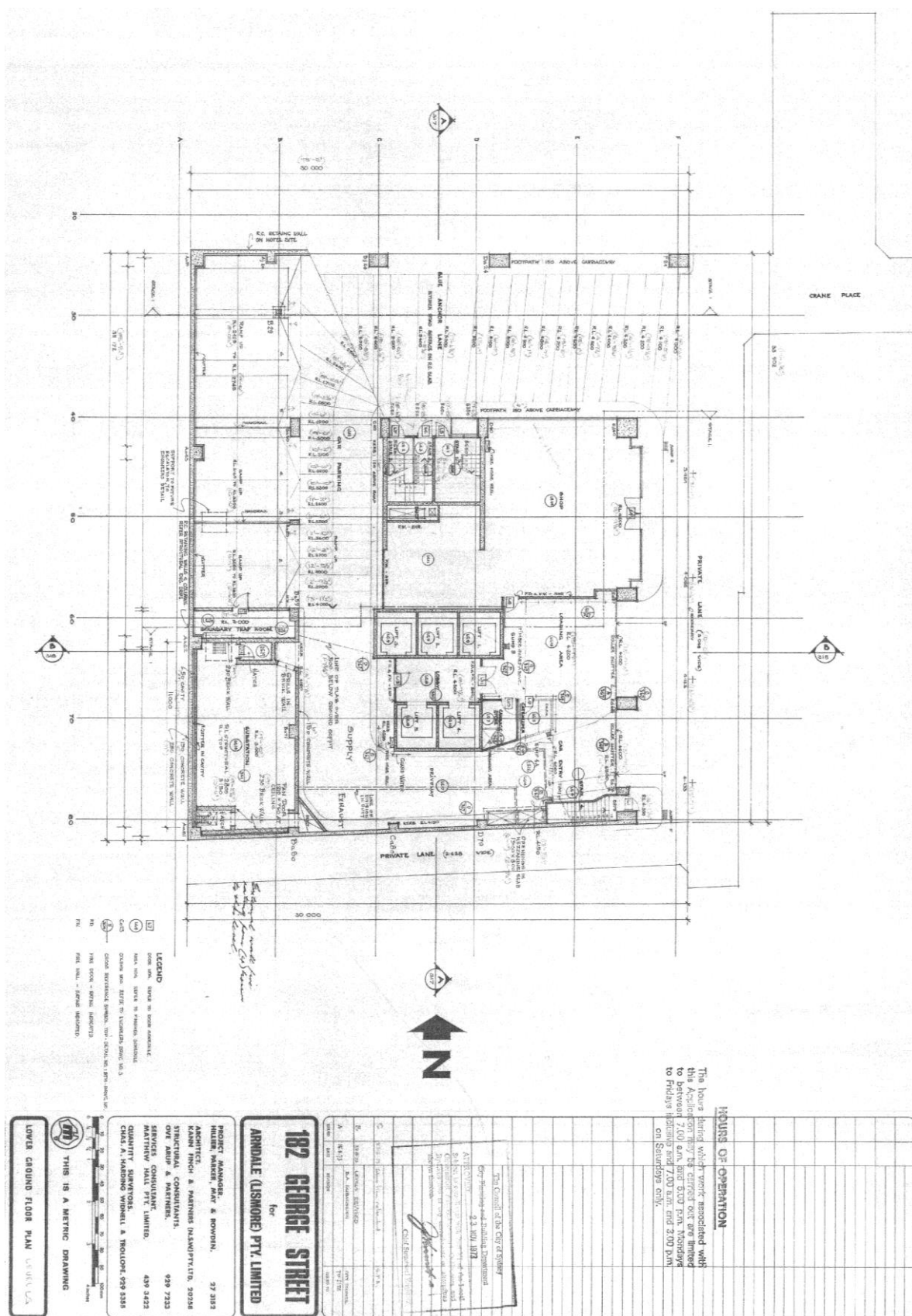


Figure 2.13: Plan of the lower ground floor of the existing building at 182 George Street.

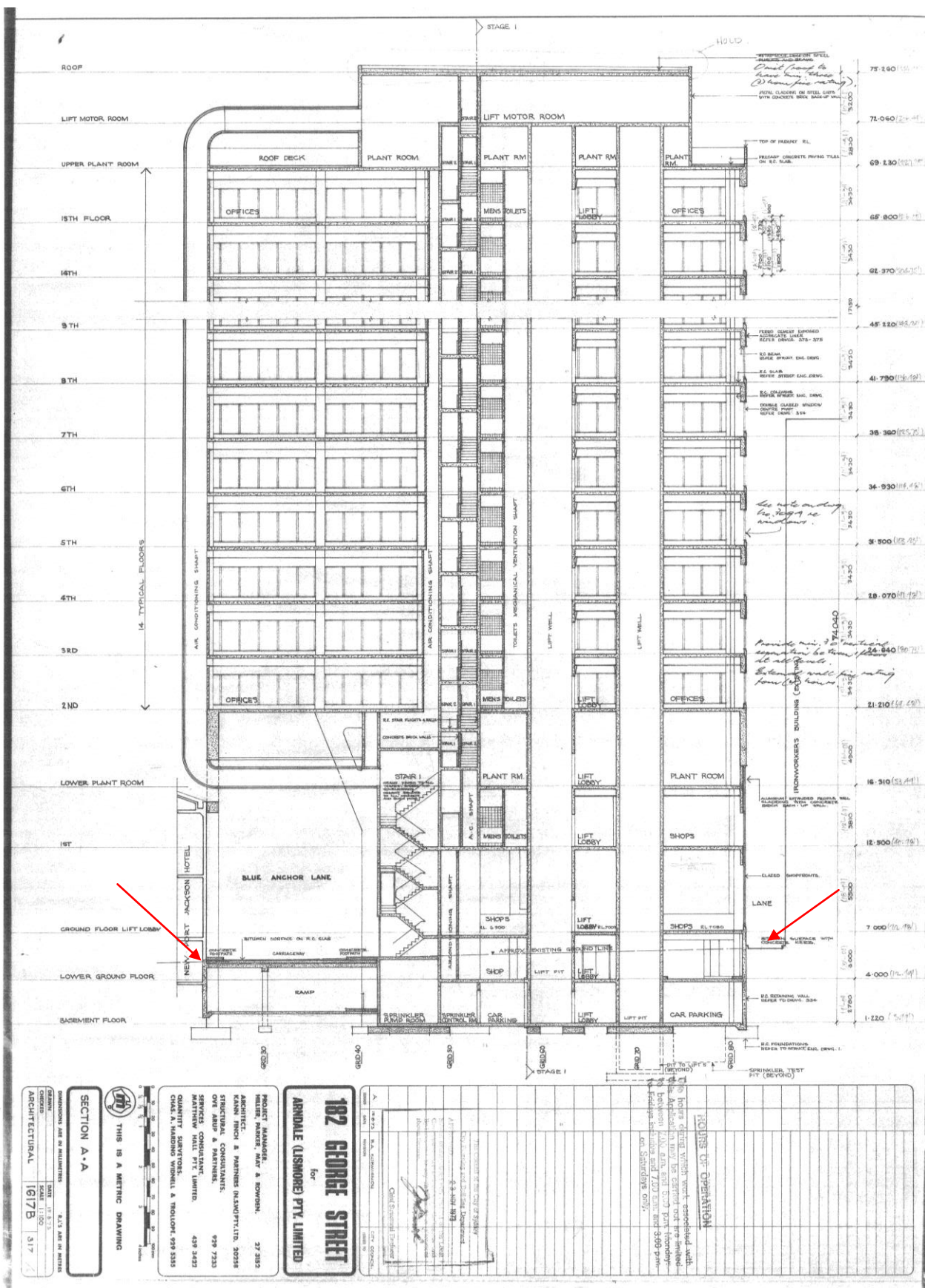


Figure 2.14: Plan of the lower ground floor of the existing building at 182 George Street. Arrows indicate the original ground level in relation to the basement. Section A-A on Figure 2.12.

The southern and eastern sections of the site are considered to have medium archaeological potential (Figure 5.2). The RL of the ground-floor carpark in this area is RL 3.2m and RL 2.8m, with the Atrium Carpark at ground level, approximately RL 2.8m. The Atrium building is considered to be the same structure as shown in a 1960's photo and the Fire Underwriters plan and was built during the early 20th century (Figure 3.24, Figure 3.21). As shown on the rock contour, bedrock at its highest is RL 0.5m (Appendix 1, Figure 2). In the eastern area deposits of fill overlay alluvium above bedrock (Figure 5.1, Appendix 1, Figure 4). Section C-C suggests bedrock RLs in the southern part of the site are below considerable fill. It is noted that references to fill in geotechnical reports typically includes potential archaeological deposits.

2.2.2 182 George Street

The existing building on George Street has a basement with RL 1.18m on the main basement floor while the northern ramp has a higher RL (Figure 2.10, Figure 2.13, Figure 2.14). Analysis of the rock contour plan across this area indicates that rock is between RL 1.5m and RL 2m (Appendix 1, Figure 2). This suggests that all fill deposits above rock have been removed by the current basement. There may be some deeper features surviving such as wells and cesspits but most other archaeology will have been removed during the construction of this building. There is some potential for archaeological remains and deposits beneath the substation which has a floor with RL 2.96m but as this is quite a small area there is less likelihood of locating archaeological remains (Figure 5.2).

2.3 Proposed Development

The proposed development relates to the land parcels listed in Table 1 below. The redevelopment site is located towards the northern end of Pitt Street, bounded to the south by Underwood Street, to the north by Rugby Place and to the west by George Street. There are existing multi-storey developments adjacent to the site's northern, southern and western boundaries. The Lend Lease Circular Quay (LLCQ) scheme contemplates:

- Demolition of existing commercial office buildings at 182 George Street and 33-35 Pitt Street (and possibly Rugby Club (optional site), including the removal and disposal of hazardous materials (where relevant)
- The retention, modification and adaptive reuse of Jacksons on George
- Site preparatory works including (where relevant):
 - The erection of hoardings and overhead protection structures
 - Remediation of contamination
 - Undertaking of archaeological investigation and protection works
 - Augmentation and diversion of existing infrastructure services.
- The erection of a multi-storey commercial office tower up to 248m in height, up to 70,000 m² of gross floor area, and approximately three basement levels.
- Delivery of new public realm consisting of a public plaza on George Street and new interconnecting laneway extensions between Underwood Street and Rugby Place
- The construction of shared laneway and plaza retail for the purpose of activating the new public realm
- Internal traffic amendments to Rugby Place.

These works will involve the bulk excavation of:

- 33-35 Pitt Street will have a basement covering the whole footprint of the current building.
- 182 George Street basement to be adapted, reused and augmented where required.
- Basement beneath the 'Mirvac triangle'
- Crane Place, excavation.

Other impacts include:

- Reduction of levels along Blue Anchor Lane, this is currently part of basement for 182 George Street.
- Jacksons on George, no known excavation, purchase of unrealised GFA and improvements.
- Rugby Club, possible purchase of unrealised GFA and improvements.

Table 1: Land Parcels Covered by the Planning Proposal

Informal Title	Address	Lot and DP	Ownership
The Pitt Street Property	33-35 Pitt Street	Lot 7 DP 629694	Lend Lease (Circular Quay) P/L
The George Street Property	182 George Street	Lot 182 DP 606865	Lend Lease (Circular Quay) P/L
Jacksons on George	174-176A George Street	Lot 181 DP 606865	Lend Lease Development P/L
Mirvac Triangle	Part of 200 George Street development site	Lot 1 in DP 69466 and Lot 4 in DP 57434. The part of these Lots to which the Planning Proposal relates is referred to as Lot 2 in the draft plan of subdivision 13 November 2012 (Issue 7) contained in the executed VPA between the City of Sydney and Mirvac	Mirvac owns the land. Mirvac will transfer the new Lot 2 to the City of Sydney who will then transfer to Lend Lease in return for an equivalent area of completed public realm
Crane Lane including walkway (aerial bridge)	Crane Lane extending east from George St, then north to Rugby Place	Lot 1 and 2 in DP 880891. Lot 1 is in the stratum above Lot 2	City of Sydney
Rugby Club (Optional Site)	Rugby Place	Lot 180 DP 606866	Wanda One Sydney P/L

3.0 Historical Background

3.1 Focus of Historical Research

Given the location and impact from the basements of the current buildings discussed in Section 2, it was decided to target the primary historical research to the south and west sections of 33-35 Pitt Street (Figure 2.11). The other parts of the study area are considered to have archaeological potential and it is considered important to have a detailed historical background to inform the assessment of archaeological potential and heritage significance of these areas.

3.2 British Settlement at Sydney Cove

On 22 January 1788 Sydney Cove in Port Jackson was chosen as the site for a settlement due to its fine spring of water and deep anchorage close to the shore.⁴ The stream was reputed to be navigable for small craft up to what is now Bridge Street.⁵ A chart drawn by William Bradley in March 1788 after a survey by Captain Hunter illustrates the arrangement of the settlement in relation to the shoreline and tidal stream (Figure 3.1).⁶ The freshwater stream with a seemingly plentiful water supply was named the Tank Stream after the reservoirs excavated for water collection by 1796.

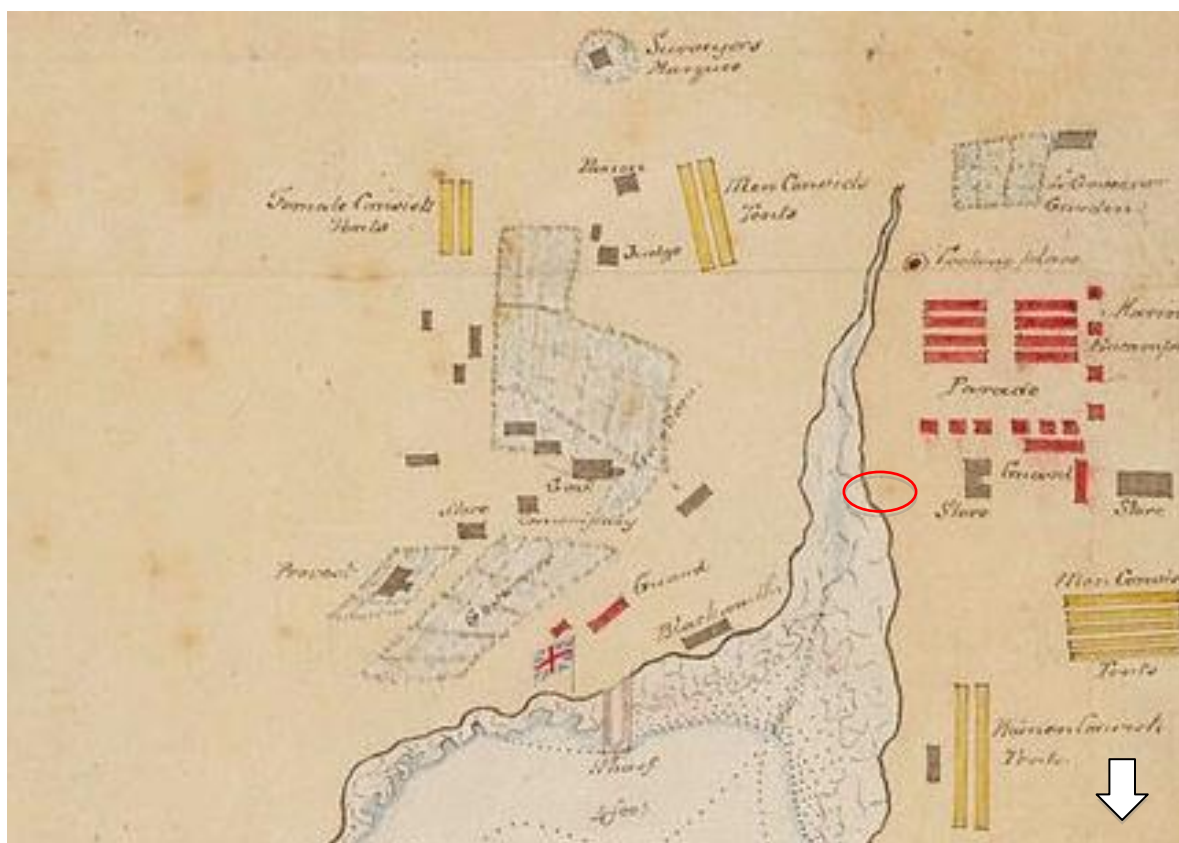


Figure 3.1: Part of Bradley's chart titled 'Sydney Cove, Port Jackson' showing the 'position of the encampment and buildings as they stood on 1st March 1788'. The approximate location of the study area is circled in red. Bradley, 1802+, Safe 1/14, ML SLNSW.

⁴ A. Phillip, *The Voyage of Governor Phillip to Botany Bay*, John Stockdale, Piccadilly, London, 1789: Ch VI, <http://gutenberg.net.au/ebooks/e00101.html>, accessed 30 Aug 2013.

⁵ T. J. Roseby, *Sydney's Water Supply and Sewerage 1788-1918*, William Applegate Gullick Government Printer, Sydney, 1918: 20.

⁶ W. Bradley, *A Voyage to New South Wales*, 1802+, ML, SLNSW, <http://acms.sl.nsw.gov.au/item/itemdetailpaged.aspx?itemid=404927>

Prepared around the same time as the chart, Bradley's coloured sketch of Sydney Cove in 1788 illustrates the character of the natural environment, and the modest structures built in close proximity to the shoreline and stream (Figure 3.2). At low tide the estuary was transformed into mudflats, although there were deep anchorages on the east and west sides of the cove.



Figure 3.2: William Bradley's drawing of 'Sydney Cove Port Jackson 1788', illustrating the extent of the building development around the shore. The study area is located on the west side (right) of the stream. Bradley, 1802+, opp p 84, Safe 1/14, ML SLNSW.

Land grants to George Johnston and James Underwood are associated with the study area and their early development is discussed separately.

3.3 George Johnston's Grant

George Johnston (1764-1823) arrived in the colony with the First Fleet's marine detachment, nominated by Governor Arthur Phillip for his suitability to form and lead a company to be attached to the New South Wales Corps.⁷ Johnston is well-known for his role in the arrest of Governor William Bligh in 1808. After the turbulent period surrounding his court martial and trial, he returned to the colony to retire as a farmer and grazier.

Governor John Hunter leased Captain George Johnston land on the west side Sydney Cove on 7 January 1796 (Figure 3.3). The allotment measured 360 feet (109.73m) 'in front' bearing west on the road leading to the hospital (later George Street) by 70 feet (21.34m) in depth. Adjacent to land

⁷ A. T. Yarwood, 'George Johnston (1764-1823),' *Australian Dictionary of Biography*, <http://adb.anu.edu.au>.

occupied by Henry Hacking, Johnston's lease was well positioned near the head of the cove. The 14-year lease specified the allotment's use for building and attracting a quit rent of 2 shillings and six pence per annum.⁸ According to Alan Roberts Johnston's early use of this land was for market gardening.⁹

Preferring to focus on his farms at Bankstown and Petersham Hill, Johnston took little interest in the town allotment until the early 19th century. The Sydney Cove lease is not listed in returns or musters of the colony around that time although is recorded in maps and plans.¹⁰ Grime's Plan of Sydney in 1800 shows Johnston's lease on the west side of the cove (Figure 3.3). Governor King renewed Johnston's lease in January 1806 with the area recorded, marginally reduced in size, as 340 feet (103.6m) by 70 feet (21.4m) and adjacent to William Blake's allotment.¹¹ The eastern boundary of Johnston's lease appears to align with the high water mark however at low tide it was some distance from the waterline.



Figure 3.3: Part of 'Grime's Plan of Sydney' dated 1800 showing Johnston's allotment (circled in red) recorded as No 29 on the west side of the cove. Z/Ce 89/13 ML SLNSW.

3.4 James Underwood's Grant

On 1 May 1804 Governor Phillip Gidley King granted ex-convict James Underwood a lease of 1 acre 27 poles (0.47 ha) on the west side of Sydney Cove south of George Johnston's lease.¹² James Underwood (1771-1844) was transported to New South Wales on the *Admiral Barrington* arriving in

⁸ Grants Register No 1A Entry 179 (1), LPI.

⁹ Roberts 2008:86

¹⁰ *Historical Records of Australia* (HRA), Series 1 Vol 1 1914: 438; HRA Vol 2 1914: 459, 461.

¹¹ Grants Reg No 3C p199, LPI.

¹² Grants Reg No 3C No 128 (2), LPI.

1791. He trained as a boat builder, continuing in this occupation after earning his freedom. By 1800 Underwood was a successful merchant with interests in shipbuilding and distilling, and was instrumental in the early sealing industry in NSW. Business partners during his career included Henry Kable, Simeon Lord, and Samuel Chace; and later Robert Cooper and F E Forbes, all prominent figures in Sydney commerce.¹³

James Meehan's 1807 plan of Sydney shows Underwood's land (No 13) to the south of George Johnston's lease (No 8) (Figure 3.4). A building constructed by Underwood is shown on the western boundary (George Street) at a distance from the Tank Stream and cove. John Redmond's small allotment (No 91) and Johnston's to the north were undeveloped. The plan illustrates the extent of land reclaimed by Underwood along the intertidal area on the eastern boundary of his grant. Reclamation by Underwood and a number of other landholders on the eastern side of the cove reduced the Tank Stream to a narrow channel where there had once been an estuary. The study area includes to a strip of land along the northern boundary of Underwood's grant. The remainder of Underwood's land is within adjacent land and is covered by research in a separate Archaeological Assessment for 200 George Street.¹⁴



Figure 3.4: Part of Meehan's 1807 'Plan of the Town of Sydney' showing Underwood's grant (No 13) to the south of Johnston's lease (No 8). Underwood reclaimed land in the estuary, extending the allotment for potential development. Map F 105B NLA.

¹³ C. J. Baxter, *Musters and Lists New South Wales & Norfolk Island 1800-1802*, ABGR/SAG, Sydney, 1988: 55; D. R. Hainsworth, 'James Underwood (1771-1844)', *Australian Dictionary of Biography*, <http://adb.anu.edu.au>.

¹⁴ Godden Mackay Logan 200 George Street, *Sydney Heritage Assessment and Impact Statement for Redevelopment*, June 2012.

3.5 Development of Johnston's and Underwood's Leases, 1811-1850

By 1811 James Underwood was established in colonial trade, with a 'commodious and comfortable' dwelling and warehouses.¹⁵ A mortgage of £1524/6/- to Samuel Terry on 17 April 1815 (registered 6 Nov 1816) described the '1 acre 20 pole' site as containing a '...Dwelling House Out Houses Offices Kitchens stable Barns Stores Yards Gardens'.¹⁶ George Johnston renewed his interest in his George Street property in 1816, requesting the lease's renewal. By 1819 he was reputed to be 'busy building houses'.¹⁷ Johnston died in January 1823 and in June of that year Governor Thomas Brisbane granted the land, now described as 288 rods (0.73 ha), to Johnston's daughters, Julia, Maria and Blanche Johnston. Harper's c. 1823 map of Sydney shows the section of Johnston's land within the study area as unoccupied (Figure 3.5).¹⁸ In contrast, James Underwood's property featured two new structures along the northern boundary and in the study area.



Figure 3.5: Part of Harper's c. 1823 'Map of Sydney' showing the location of two of Underwood's buildings within the study area. Map No SZ434 SRNSW.

After Maria Johnston's death in 1833 the Johnston Estate was granted to Julia Johnston, Blanche Weston née Johnston, and George Edward Weston (Blanche's husband). The allotment included reclaimed land between George Johnston's grant and the Tank Stream. An 1833 a City of Sydney survey of Section 47 records the Johnston Estate's Lot 6 (1 acre 2 roods 32½ perches) and James Underwood's Lot 2 (1 acre 31 perches), also illustrating the increase in reclaimed land along the Tank Stream (Figure 3.6). Although not reproduced here, comparison with Hoddle, Larmer and

¹⁵ D. D. Mann, *The Present Picture of New South Wales: 1811*, John Ferguson, Sydney, 2000: 57.

¹⁶ Mortgage: Underwood to Terry, 6 Nov 1816, Book 6 p121 Entry 1533, *Old Register One to Nine*, LPI & SRNSW, 2008.

¹⁷ Item 4/3494 p506, 515 Reel 6004 SRNSW; A. Roberts, *Marine Officer, Convict Wife: The Johnstons of Annandale*, Annandale Urban Research Association, Balmain, NSW, 2008: 128.

¹⁸ 'Harper's Map of Sydney,' c1823, drawn by G. C. Stewart, c1823, SZ 434 (No 1 of 3), SRNSW.

Mitchell's 'Map of the Town of Sydney' published in 1831 shows the reclamation took place after 1831 and by 1833.¹⁹

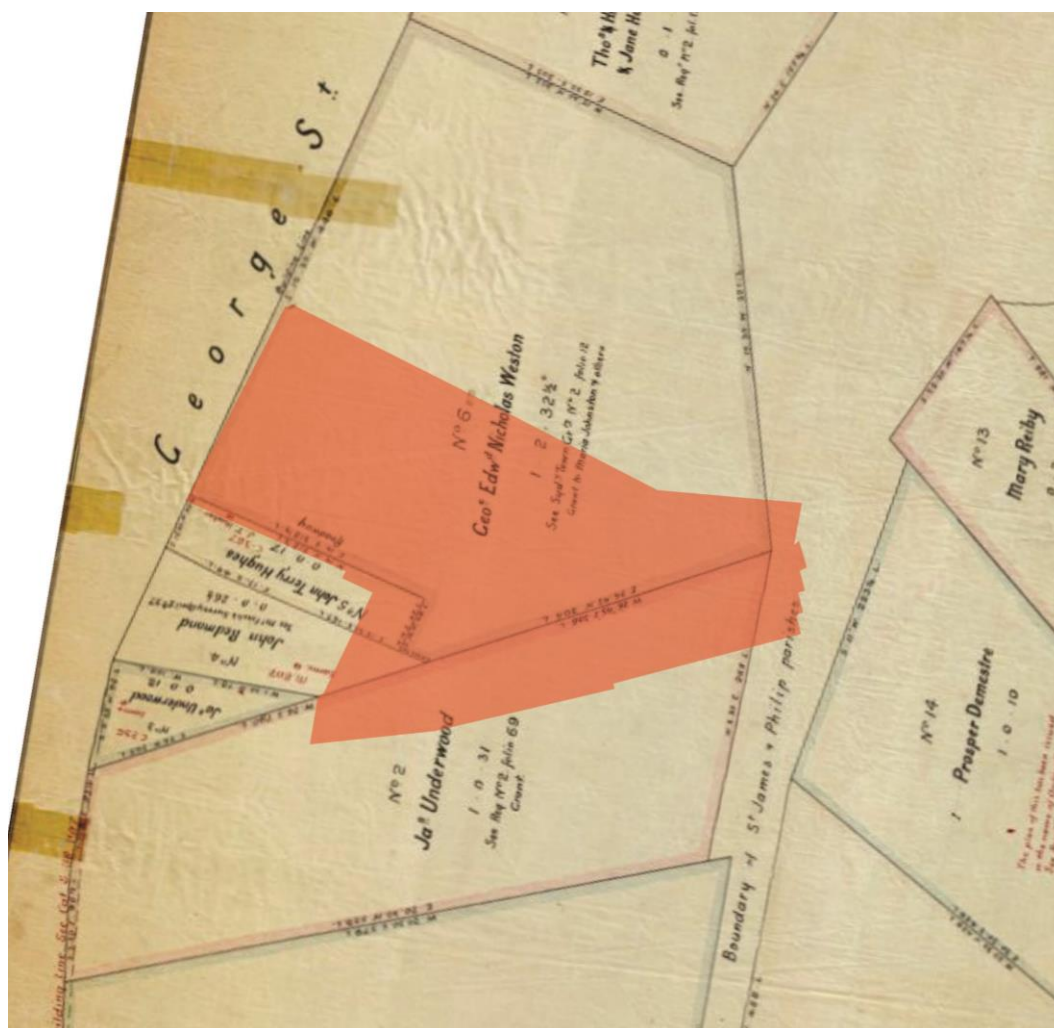


Figure 3.6: Survey of Section 47 showing the Johnston Estate's Lot 6 and the Underwood Estate's Lot 2 in 1833, in relation to the study area. The increase in area of both grants resulted from reclamation along the Tank Stream. City Section Survey Plan No 47, Historical Atlas of Sydney, City of Sydney Archives.

The extension of the Johnston Estate eastward, in closer proximity to the Tank Stream channel, provided land for potential development and ease of access to the cove reducing the extensive area of mudflats. By this time the stream was no more than an open sewer, with its attendant health and environmental problems. The deterioration of the Tank Stream and the unpleasant odours emitted by accumulated waste encouraged land owners and their tenants to build as near as possible to the George Street boundary facing away from the cove. The exception was secondary buildings such as stores, sheds and workshops linked to trade and maritime activities that were built towards the centre of the leases in a haphazard fashion. For many years after its incorporation on 20 July 1842 Sydney Municipal Council was ineffective in managing the increasing quantities of waste generated by the settlement, in particular by landholders and tenants who disposed of waste into the watercourse. The neglected state of the Tank Stream estuary and the erosion of its banks near Johnston's grant are illustrated in John Skinner Prout's 1842 sketch of Sydney Cove (Figure 3.7).

¹⁹ 'Map of the Town of Sydney,' Hoddle, Larmer & Mitchell, 1831, SR Item 5448 & 5449, SRNSW.

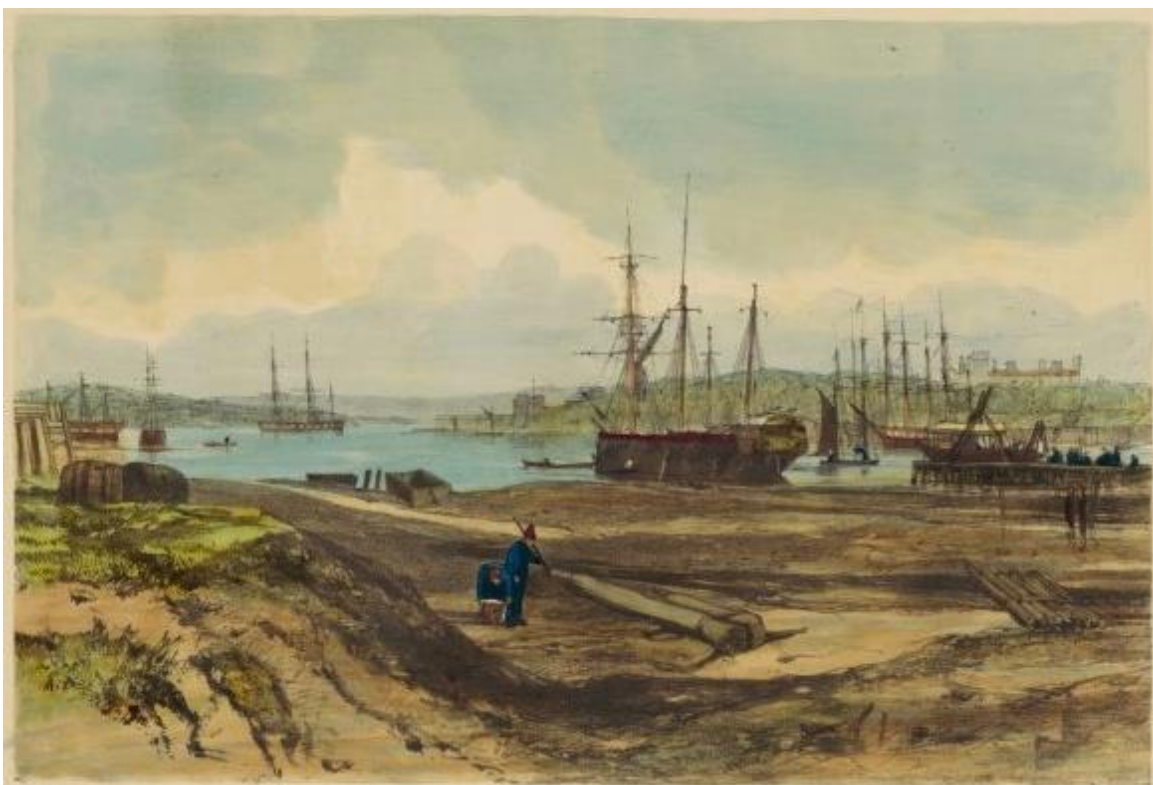


Figure 3.7: View of Sydney Cove by John Skinner Prout, 1842. The image illustrates the character of the mud flats to the east of the study area at the mouth of the Tank Stream. Bib ID 2903188, NLA.



Figure 3.8: The Tank Stream at Bridge Street, as observed by John Skinner Prout in 1842. SLNSW Call No. DG SSV1A / 32.

3.6 Development of Johnston's and Underwood's Grants, 1850-1870

James Underwood died on 19 February 1844 and under the terms of his will the Underwood Estate was held in trust for his sons, including Thomas Underwood who is linked to the study area. The Tank Stream was enclosed in 1856 at which time Thomas Underwood acquired a 'compensation grant', a triangular remnant of land between James Underwood's lease and the Tank Stream. A small portion of the 5½ perch site relates to the study area.²⁰ It was later consolidated with land from the Underwood Estate.²¹

After George Weston's death in 1856, sisters Blanche Weston and Julia Johnston, both of Horsley near Prospect, partitioned the Johnston Estate land in Sydney. The study area includes 22½ p owned by Julia Johnston, 38 ¼ perches by Blanche Weston, and 2 ¼ perches of a grant to Blanche Weston after the reclamation of land over the Tank Stream.²² For simplicity, parts of the study area linked to Julia Johnston and Blanche Weston will be referred to as the Johnston Estate.

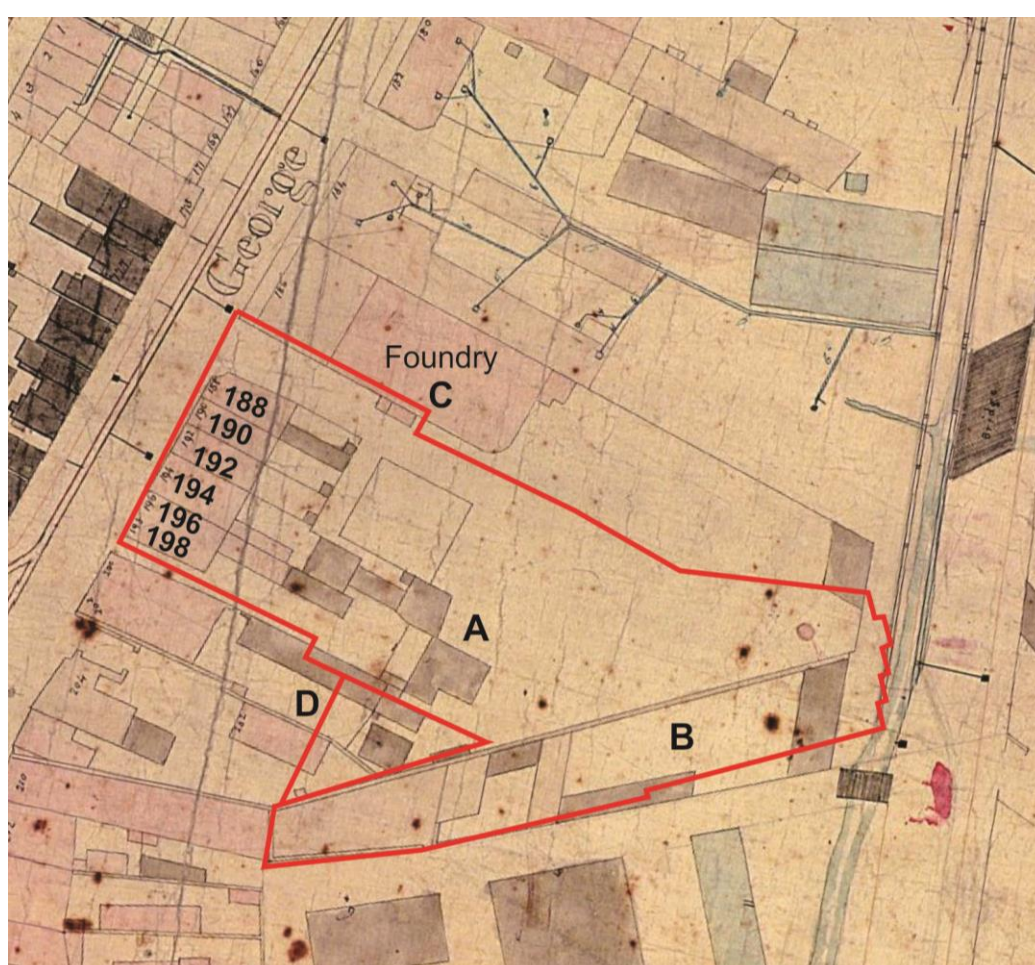


Figure 3.9: Part of a trignometrical survey of Sydney, dated c.1855. The study area is outlined in orange. The timber buildings in Johnston's Estate (labelled A) are linked to George Street tenants including Dawson's Foundry (labelled C) and Francis O'Brien's tenements (labelled D). Underwood Estate (labelled B) shows buildings in the study area listed as being of stone and timber. Block B2-1 Trig Survey, c.1855, Historical Atlas of Sydney, City of Sydney Archives.

²⁰ PA 4694 and DP 54694, LPI.

²¹ The grant boundaries were adjusted in 1878. The Underwood Family Papers relating to Thomas Underwood (A5444 Box 2 ML SLNSW) include surveys and letters relating to the Pitt Street boundary in 1878. Although not required in the context of this report, they should be consulted if further research into the eastern boundary of the study area is required.

²² Vol 1145 Fol 240, LPI.

A c. 1855 trigonometrical survey of Sydney records increasing building development on the Johnston and Underwood estates on the west side of the Tank Stream (Figure 3.9). The majority of buildings in the study area were of timber and iron construction, with a few in stone or brick. Colours on the survey indicate construction materials such as stone (umber), brick (red), timber (brown) and iron (blue). Structures shown in pencil represent development post-dating the original survey.²³ At this time the numerous timber buildings in the study area were associated with George Street houses, shops and businesses. Council assessment records for 1845 indicate that at the rear of 610 (202-200) Lower George Street, leased to Francis O'Brien, were 'six wood tenements let out at 4/- per week, the premises in bad condition'. To the north, 614 (198-196) Lower George Street leased by John Williams had a cooperage at the rear (Appendix 2).²⁴ Although further away from the study area, Richard Dawson's foundry, recorded at No 285 George Street in 1848 and at 27-43 Pitt Street in 1858, is likely to be associated with buildings in the study area.

Other features of the c. 1855 trigonometrical survey include a boundary wall between the Johnston Estate and the Underwood Estate and Thomas Underwood's bridge over the Tank Stream at Underwood Street.

Although not identifiable on the plans of the period, Council Assessment Books for Bourke Ward name tenants and provide description of Underwood Estate buildings (Appendix 2). In 1858 Henry Selfe leased 45 Pitt Street recorded as a two-storey, two-roomed open shed constructed of stone and tin. In 1861 and 1863 Selfe occupied 29 Pitt Street and was variously described as a contractor, or engineer and dealer in building materials. The property was a single-storey 'office' clad and roofed in iron, replacing an earlier building at this location.²⁵ Due to the organisation of the assessment records and changes in street numbering, it is not possible to securely identify other tenants in the study area.

A revised trigonometrical survey dated 1865 records the study area after the enclosure in 1856 of the Tank Stream and extension of Pitt Street (Figure 3.10). Comparison of the c1855 and 1865 surveys shows the formalisation of streets and their alignment. Improved access to the multiple-occupancy estate encouraged development of the increasingly busy commercial area. A number of new buildings in the Underwood Estate (one in iron and another of unidentified material) are linked to the many small industries that still occupied the city, especially around the wharves. Buildings pencilled on the survey record post c1865 construction.²⁶ From 1867 until 1871 John McIlwraith & Co, importers of building materials leased an office and yard at 27 Pitt Street on the corner of Underwood Street. The single-storey, iron clad structure described on the site corresponds to the building occupied by Henry Selfe in 1863 (green arrow).²⁷

²³ Block B2-1 Trig Survey, c1855, CSA.

²⁴ Assessments Schedule, Appendix 2.

²⁵ Assessments and Sands Directory Schedules, Appendix 2.

²⁶ Block B2-1 Trig Survey, c1855, CSA.

²⁷ See Assessments Schedule.

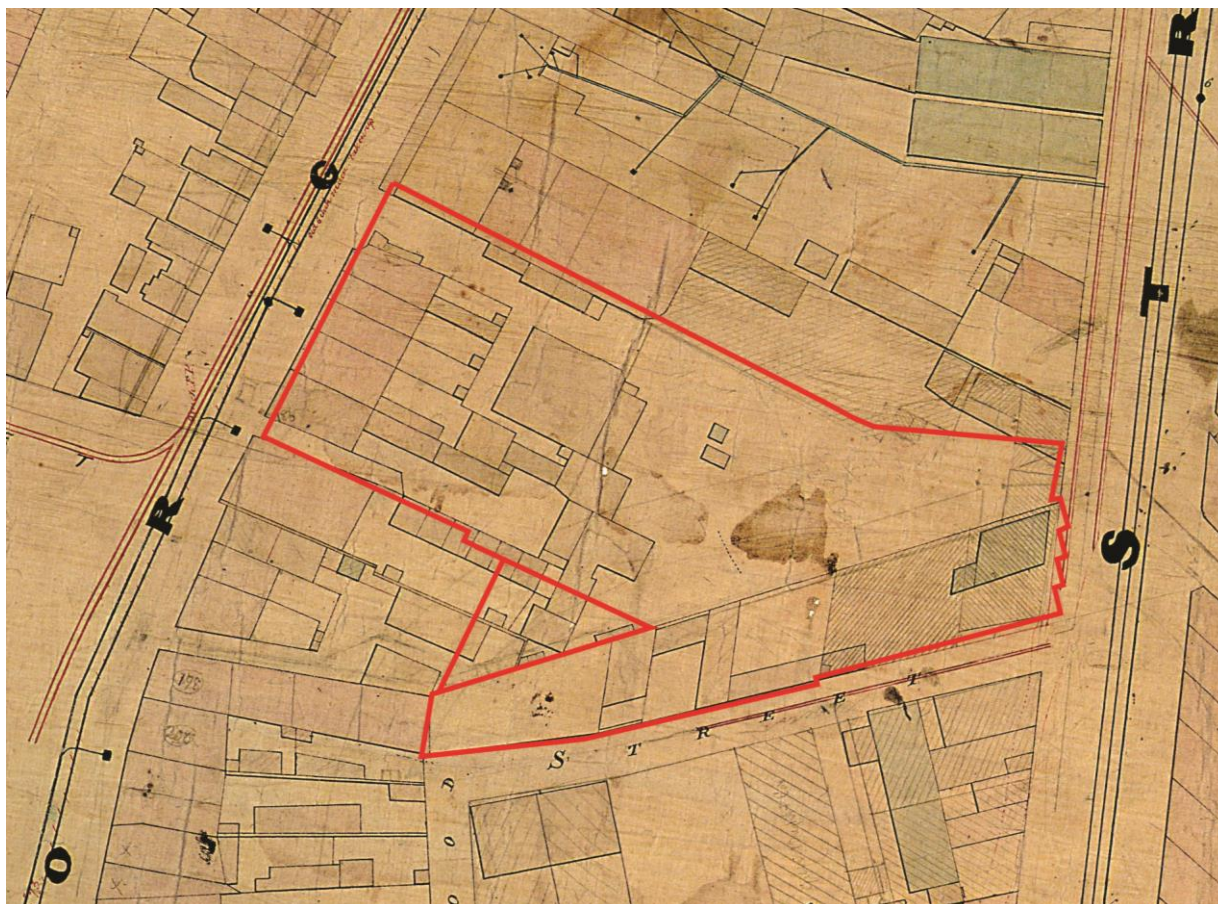


Figure 3.10: Part of an 1865 trigonometrical survey showing the extension of Pitt Street along the eastern boundary of the Johnston and Underwood Estates. McIlwraith & Co at 27 Pitt Street and the corner of Underwood Street is arrowed in green. The pencil outlined buildings are later additions and represent a later stores building erected above the smaller earlier buildings. Block B2 Trig Survey, 1865, CSA. Historical Atlas of Sydney, City of Sydney Archives.

The 1865 trigonometrical survey records fewer changes to the Johnston Estate than evident on the Underwood Estate. The footprints of the timber buildings at the rear of the George Street properties show evidence of small extensions and alteration. As noted previously, it is difficult to securely identify buildings and their tenants on the Johnston and Underwood Estates. Of few able to be identified are six timber houses with shingle roofs in O'Brien's Lane 'off' George St, recorded in 1863 and extending into the western end of the study area.²⁸

3.7 Development of Johnston's and Underwood's Grants, 1871-1880

The study area underwent redevelopment in the 1870s and 1880s due to the increase in value of land in the city of Sydney and the deterioration of buildings, many of which had become uninhabitable. The Underwood's Estate Acts of 1873 and 1874 allowed for parts of James Underwood Estate to be sold to provide capital for the maintenance and improvement of the estate.²⁹ Estate trustees William George Pennington, William Henry Mackenzie the elder, John Piper Mackenzie, Robert John King and Charles Wye Weekes of Sydney managed tenancies and land sales from this date. A primary application dated 1874 records tenants including Blyth, Drysdale

²⁸ See Assessments Schedule.

²⁹ Underwood Estate Act 1873 and Underwood Estate Act Amendment, 1874.

and Roberts, R. A. & H. R. Robinson, Thomas Sutcliffe Mort, Frederick Ebsworth, and Mrs Marns. Deposited Plan No 53771 linked to the conversion to Torrens Title shows the location of tenants' premises and construction material (Figure 3.11). Blyth, Drysdale and Roberts occupied a brick-fronted, iron-roofed building on the corner of Pitt and Underwood Streets. Mrs Marns' dairy was an unusual tenancy in a largely industrial and commercial area, and is likely to have been linked to distribution rather than production.³⁰



Figure 3.11: Part of DP53771 providing details of Underwood Estate lessees and construction material of the premises, 22 Aug 1874. DP53771, LPI.

In 1877 Andrew Drysdale (Blyth, Drysdale and Roberts) occupied 27 Pitt Street, an extensive two-storey, brick store with eleven rooms. Drysdale is linked to Thomas Mort, a tenant of the Johnston Estate to the north and in the study area. Frederick Ebsworth leased the western-most site along Underwood Street (nos 16, 18 at this time), occupying a three-storey, stone store with a shingled roof and four rooms.³¹

In 1878 Julia Johnston (1796-1879) conveyed Lots 7 and 8 of the Johnston Estate to her nephew Frederick Weston, a surveyor of Parramatta. Weston heavily mortgaged the land to fund land development in western Sydney.³² Structures on Lots 7 and 8 shown on 'Dove's Plans of Sydney' in 1880 record buildings including a timber shed linked to George Street tenancies, and iron and timber sheds in the 'Lumber Yard' of the Pitt Street premises (Figure 3.12).³³ Construction materials are distinguished by colour, with pink representing brick or stone, yellow indicating timber and blue indicating iron.

³⁰ PA 3771 & DP 53771, LPI.

³¹ See Assessments and Sands Directory Schedules.

³² Bk 197 No 804, Bk 201 No 102, LPI. Other mortgages listed in Land Titles Schedule.

³³ Block 45, 'Plans of Sydney,' H Percy Dove, 1880, CSA.

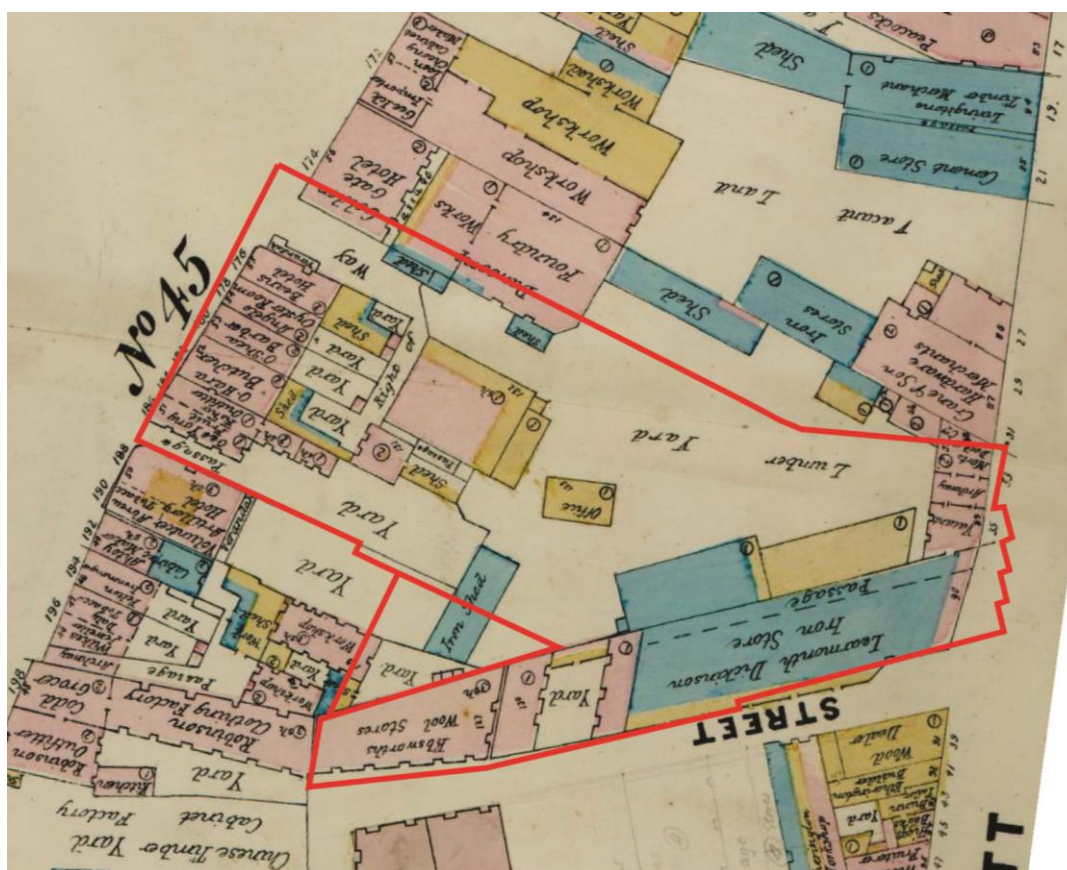


Figure 3.12: Part of Dove's Plan of Block 45 in Sydney showing tenancies in the study area and the construction materials of the buildings in 1880. Building materials indicated by colour are, pink for brick or stone, yellow for timber and blue for iron. 'Dove's Plans of Sydney', Block 45, 1880, Historical Atlas of Sydney, City of Sydney Archives.

Figure 3.12 documents Underwood Estate buildings including Ebsworth's three-storey, stone wool stores featuring windows on the south and east facades. To the east, single-storey stone buildings flanked a small courtyard on the northern side of which was a timber shed, probably the buildings associated with Mrs Marn's dairy. Learmonth Dickinson's iron store on the corner of Pitt Street had a brick façade on the east side, and a timber facade to the south.³⁴

3.8 Development of Johnston's Estate, 1881-1906

The buildings in Frederick Weston's Lots 7 and 8 of the Johnston Estate are thought to have been demolished in the mid-1880s (Figure 3.13). Weston died in 1884 and United Colonial Land Investment Company purchased the land in 1888. The property was conveyed in 1890 to mortgagees and investors John Boyd Watson, William Cain and Malcolm McEachern.³⁵ Watson (1828-1889) a mining magnate and investor, McEachern a businessman and politician, and Cain (1831-1914) a businessman and contractor, were well-known in Victoria.³⁶ The site, later described as 22½ perch (556.44 sq m), was accessible via a narrow lane from George Street, limiting its development potential for retail use (Figure 3.13). In 1906 Watson, Cain and McEachern sold a ¾ perch (18.9 sq m) triangular portion of land at the eastern end of the site to Frederick Crane, the

³⁴ Block 45, 'Plans of Sydney', H Percy Dove, 1880, CSA.

³⁵ PA 14689 LPI. DP 58298, LPI. Also see Land Titles Schedules Johnston Part 2.

³⁶ F. Cusack, 'John Boyd Watson (1828-1889)', *Australian Dictionary of Biography (ADB)*, <http://adb.anu.edu.au/biography/watson-john-boyd-4812/text8023>; D. Dunstan, 'Sir Malcolm Donald McEachern (1852-1910)', *ADB*, <http://adb.anu.edu.au/biography/mceachern-sir-malcolm-donald-7350/text12765>; J. A. Hone, 'William Cain (1831-1914)', *ADB*, <http://adb.anu.edu.au/biography/cain-william-186/text4679>.

owner of adjacent properties in the study area.³⁷ Council Assessment Books for Bourke Ward in 1902 and 1907 record the undeveloped property as 'off' George Street at the rear of 182-186 George Street.³⁸

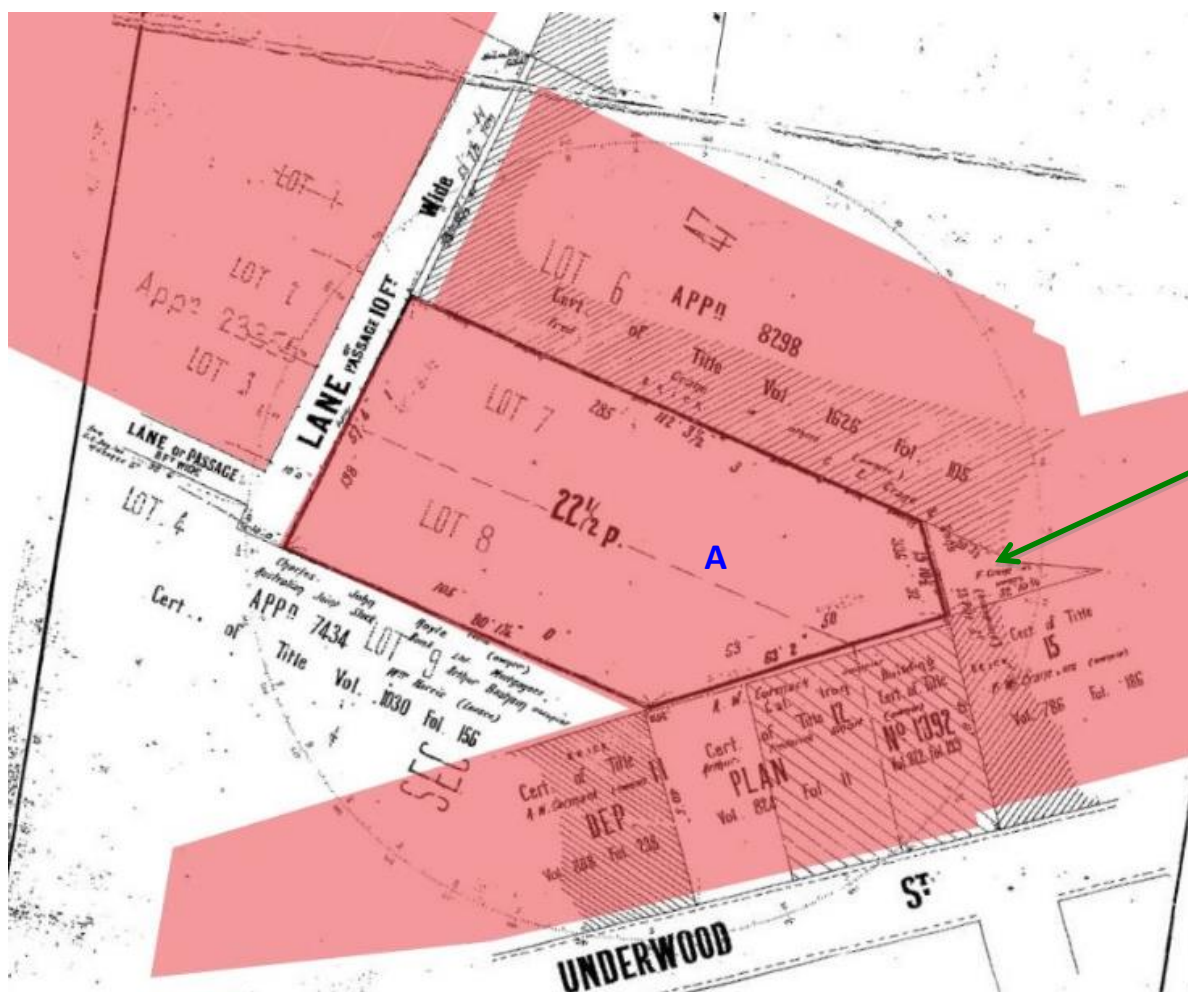


Figure 3.13: Part of a plan of 22 ½ perches (labelled A) of Johnston Estate land conveyed to investors Watson, Cain and McEachern in 1890. G.E. Crane & Sons Ltd purchased ¼ perches of the land in 1906 (indicated with green arrow). DP54689 (1906), LPI.

³⁷ PA 47417 LPI; PA 47417 LPI.

³⁸ See Assessments Schedule.

In 1890 Blanche Weston (1806-1904) converted her share of the Johnston Estate to Torrens Title. An area of $38 \frac{1}{4}$ perches (967.5 sq m) corresponds with the northern part of the study area (Figure 3.14). A large part of the site corresponds to land reclaimed on the western side of the Tank Stream before 1833. The timber buildings documented on c1855 and 1865 trigonometrical surveys (Figure 3.9, Figure 3.10) were no longer extant. Stores and office buildings on the plan date from the 1870s and 1880s. Land in the Deposited Plan No 58298 included $2 \frac{1}{4}$ perches (56.91 sq m) of a 23 perch grant over the 'Old Tank Stream' formalised in October 1894.³⁹

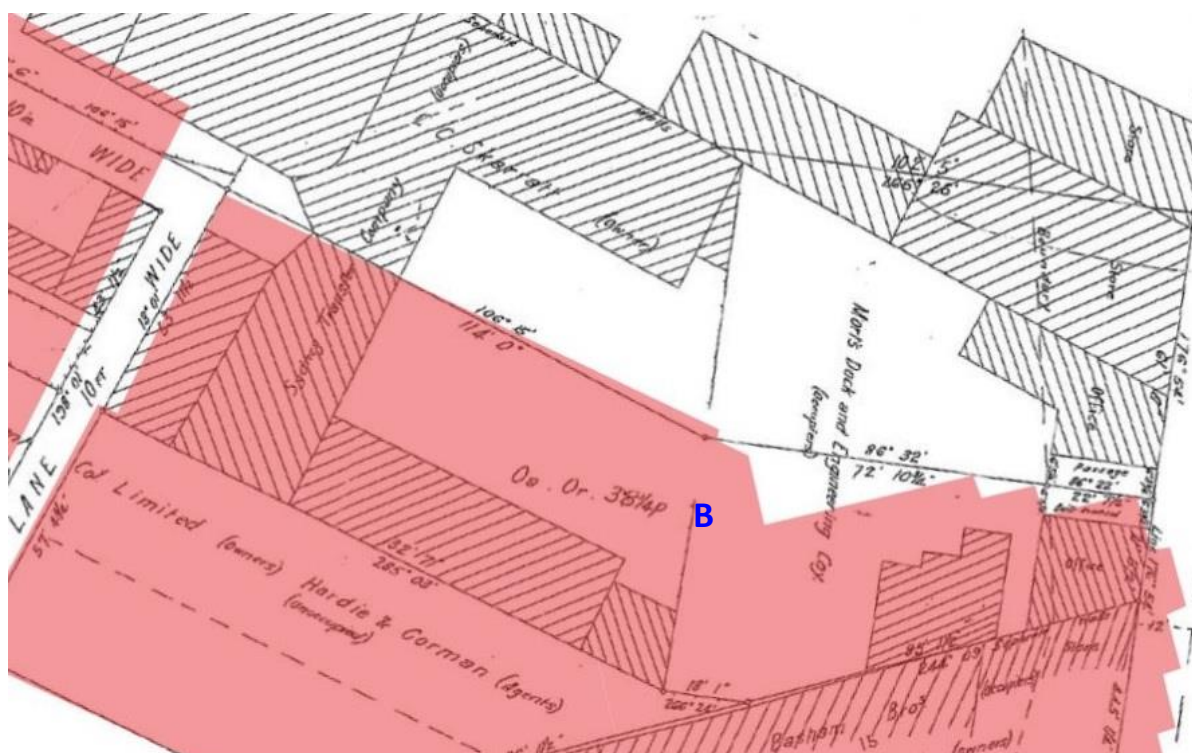


Figure 3.14: An undated (c.1889) survey of $38 \frac{1}{4}$ perches (labelled B) of the Johnston's Estate and $2 \frac{1}{4}$ perches of land granted to Blanche Weston over the Old Tank Stream (indicated by dashed line). Tenants included Mort's Dock & Engineering CO and the Sydney Transfer Company. DP58298, LPI.

Table 2 below shows listings in the *Sands Directory* linked to $38 \frac{1}{4}$ perches of the study area associated with 33 Pitt Street, Sydney. The site was used in conjunction with land to the north outside the study area.

Table 2: Business listed in the *Sands' Sydney & Suburban Directory*, 1867-1905, associated with the study area.

Year of Issue	<i>Sands Sydney & Suburban Directory</i> – 33 Pitt Street Sydney
1867-1871	27 & 29 J. McIlwraith & Co lead manufacturers and importers of building materials.
1873	Mort's Foundry & Assay Dept.
1875	25 Mort & Co Assaying Dept.
1876	25 Mort & Co Assaying Dept.
1877	25 T. S. Mort, Mort's Dock Co. Campbell, Jas R. agent. C. Watt, assayer & Government analyst.
1879	25 Mort's Engineering Co Ltd.

³⁹ Vol 1145 Fol 240, LPI; PA 8298, LPI; DP58298, LPI.

Year of Issue	<i>Sands Sydney & Suburban Directory – 33 Pitt Street Sydney</i>
	Charles Watt, assayer etc.
1880	25 Mort's Dock and Engineering Co Ltd. Drysdale & Roberts iron stores. Charles Watt, analytical chemist & assayer. John Drake.
1882	35 Harris & Solomon customhouse agents. Mort's Dock & Engineering Co Ltd head office. Works & Dry Dock Balmain.
1885	33 Briscoe, Drysdale & Co iron merchants. C.C. Medcalf, hardware & metal broker. Joseph Page, mining agent. Mort's Dock & Engineering Co's office. JP Frank, manager.
1890	33 Sydney Transfer Co – Thomas R Austin manager. 35 Mort's Dock and Engineering Co Ltd City office.
1895-1900	33 Sydney Transfer Co Depot. J. Barre Johnson & Co General merchants. 33 Sutton & Co General Carrier.
1905	33 Sutton & Co General Carrier. 33 John Mackenzie, marble slate etc yard show rooms 52 Pitt St. 33 Scott Sibald & Co Pty Ltd General merchants...galvanised iron workers.

From 1860, tenants in the study area were associated with mining, manufacture, importation and trade. The industrial and commercial character of the study area is evidence of the close connection between this part of Sydney and the docks at Circular Quay during the 19th century, and into the early 20th century. Mort's Dock and Engineering Co Ltd, established by Thomas Sutcliffe Mort (1816-1878) in 1853 was the largest shipyard and engineering workshop in Australia in the second half of the 19th century.⁴⁰ The assay office in Pitt Street is evidence of Mort's diverse industrial interests.⁴¹ Council assessment books for 1877 record 27 Pitt Street with a two-storey, iron-roofed, brick storehouse with eleven rooms.⁴²

In the late 19th century the study area remained semi-industrial. Tenants from 1895 to 1905 included a general carrier, wool broker, wool and skin merchant, marble and slate yard, and galvanised iron merchant.⁴³ The study area underwent a transition after 1900 with the consolidation of smaller sites and exodus of the smaller manufacturers and depots from the city centre. Larger enterprises with capital consolidated smaller sites and built new and modern headquarters. From 1871 G. E. Crane and Company, importers and manufacturers traded from 23-25 Pitt Street to the north of the study area. In August 1905 the company purchased 38¼ perches of the Johnston Estate, and two smaller sites in the study area, for the construction of Stanway House and a warehouse for bulk storage.⁴⁴

3.9 Subdivision and Development of the Underwood Estate, 1883-1907

The Underwood Estate was subdivided for auction in 1883 with allotments in the study area subdivided as Lots 10, 11, 12 and 15 (Figure 3.15). Tenants included F. & E. A. Ebsworth's woolstore on Lot 10; blacksmith Malcolm Neill, and carpenter George Wood on Lot 11; and Learmonth Dickenson, operators of an iron store, and Briscoe Drysdale & Co, hardware merchants on Lots 12

⁴⁰ A. Barnard, 'Thomas Sutcliffe Mort (1816–1878)', *ADB*, <http://adb.anu.edu.au/biography/mort-thomas-sutcliffe-4258/text6777>.

⁴¹ *SMH* 6 Sep 1873: 9.

⁴² See Assessment Schedule.

⁴³ See Sands Directory Schedule.

⁴⁴ See Assessment Schedule; Vol 1158 Fol 27, LPI; Vol 1626 Fol 105, LPI.

and 15.⁴⁵ With a long history at this location near Circular Quay, Frederick Louis Ebsworth (1816-1884) established a wool-broking business in Pitt Street in October 1839 and was an agent for the Australian Agricultural Company. In 1855 he worked as a wool specialist with Mort & Co, before setting up independently on the adjacent site in 1860.⁴⁶



Figure 3.15: Allotments 10, 11, 12 and 15 in the Underwood Estate offered at auction on 3 August 1883. SP 811.1715/21 ML SLNSW.

The small Underwood Estate allotments sold slowly with Lot 10 (8¾ p) purchased by master cooper Alexander William Cormack in 1884 for £2700. In 1886 tobacco merchant and developer Thomas Saywell purchased Lot 15 (18 ½ p) and Arthur Frederick Smart bought Lots 11 and 12 (8 p and 6 ¼ p). Smart re-subdivided Lots 11 and 12 in 1886, selling portions to Cormack (4 ¾ p of Lot 11), and John Thomas Neale of Potts Point (parts of Lot 11 & 12). In 1888 the United Colonial Land Investment Company acquired the remaining 6½ perches of Lot 12, also purchasing three perches of Neale's allotment.⁴⁷ The United Colonial Land Investment Company's purchase of part of Lot 12 provided secondary access for the 22½ perch site to the north (See Section 3.8: Development of the Johnston Estate, 1881-1905).

Lot 10 and 11 provided A. W. Cormack with a city depot, operating in conjunction with a factory established at Darling Harbour in 1872. Cormack occupied one building on his Underwood Street allotments from c1907-1910, leasing others on adjacent land.⁴⁸ Assessment records for Underwood Street in the late 19th century are inconsistent and sometimes inaccurate, however, after 1900 they correspond more closely to maps and plans of the period. In 1902 there were two stone buildings owned by Cormack adjacent to an iron store that he occupied. The Australian Electric Light

⁴⁵ SP 811.1715/21, ML SLNSW; See Assessments and Sands Directory Schedules.

⁴⁶ G. P. Walsh, 'Frederick Louis Ebsworth (1816-1884),' *ADB*, <http://adb.anu.edu.au/biography/ebsworth-frederick-louis-3465/text5299>.

⁴⁷ Vol 478 Fols 8 & 9, LPI.

⁴⁸ AT&CJ 26 Sep 1874: 501; Vol 728 Fol 100, LPI; Vol 806 Fol 98, LPI; Vol 808 Fol 238, LPI; Vol 824 Fol 11, LPI.

Company leased the two-storey, iron-roofed, stone store, and E. T. Radcliffe, printers and bookbinders leased the single-storey, stone store.¹ Thomas Saywell leased Lot 15 at 35 Pitt Street to various tenants including R. L. Scrutton and Co ironmongers and shipping agents from c1884. In 1891 it was described as a three-storey, iron-roofed, brick and stone stores.²

A c1893-1900 Public Works Department survey for the construction of sewerage and drainage in the city provides further evidence of the construction of workshops and stores in Underwood Street, although it sometimes differs from Council Assessment Books (Figure 3.16). Three buildings on Cormack's Lots 10 and 11 were of stone construction and another of timber. Saywell's buildings on Lots 12 and 15 were of iron, or a combination of iron and brick.³ Although the western end of the Underwood Street study area was redeveloped in the next decade, it is thought that the c1855 stone building at the western end remained a feature of the small city back street well into the 20th century.



Figure Error! No text of specified style in document..1: Part of a Public Works Department survey dated from c.1893 with additions that date to 1900 showing construction materials of Underwood Street workshops and stores. Key: stone (S), timber (W), iron (I) and brick (B). Newer buildings are shaded black. PWDS1544-S1080, c.1893-1900, Sydney Water.

3.10 Redevelopment of the Johnston and Underwood Estates, 1904-19020s

The first decades of the 20th century were a period of transformation in the centre of Sydney, with commercial and industrial enterprises trying to keep pace with the requirements of the growing population. Demand for increasing quantities of modern building materials and household goods stimulated the growth of companies such as G. E. Crane & Sons Ltd and Nock & Kirby Ltd, both associated with the study area. Mort & Co continued its link with the study area, maintaining an office at 33-35 Pitt Street. As the value of land near Circular Quay increased, so did rents and council rates. In the 20th century large retailers and wholesalers replaced smaller businesses and manufacturers like master cooper Alexander Cormack, the owner of a store in Underwood Street.

¹ See Assessments Schedule.

² See Assessments and Sands Directory Schedules in Appendices.

³ PWDS1544-S1080, c1893-1900, Sydney Water.

3.10.1 Lots 10, 11, 12 & 15 DP 1092, 3-17 Underwood Street, 1904-1905

In December 1904 Sydney importers G. E. Crane & Sons Ltd purchased Lot 15 of 18½ perches, and part of 5½ p of a ‘compensation grant’ to Thomas Underwood. The company purchased the adjacent 38¾ perches of the Johnston Estate in 1905 providing a suitable building block with main street exposure on which to build showrooms and offices (Figure 3.16, Figure 3.17). The formalisation of Crane Place provided access to stores at the west. In January 1906 they acquired a further three quarter perch allotment at the western intersection of the two sites.⁵²

By 1907 Alexander William Cormack, owner of Lot 10, had acquired Lots 11 and 12. Cormack occupied premises in Underwood Street until c. 1910 and in 1912 the titles were transferred to the Permanent Trustee Company of NSW, managers of Cormack’s deceased estate. Nock & Kirby Ltd leased part of Cormack’s buildings in Underwood Street from c. 1909, gradually expanding their leasehold.⁵³ Both Nock & Kirby Ltd and G. E. Crane & Sons Ltd continued their association with the study area during the first half of the 20th century.

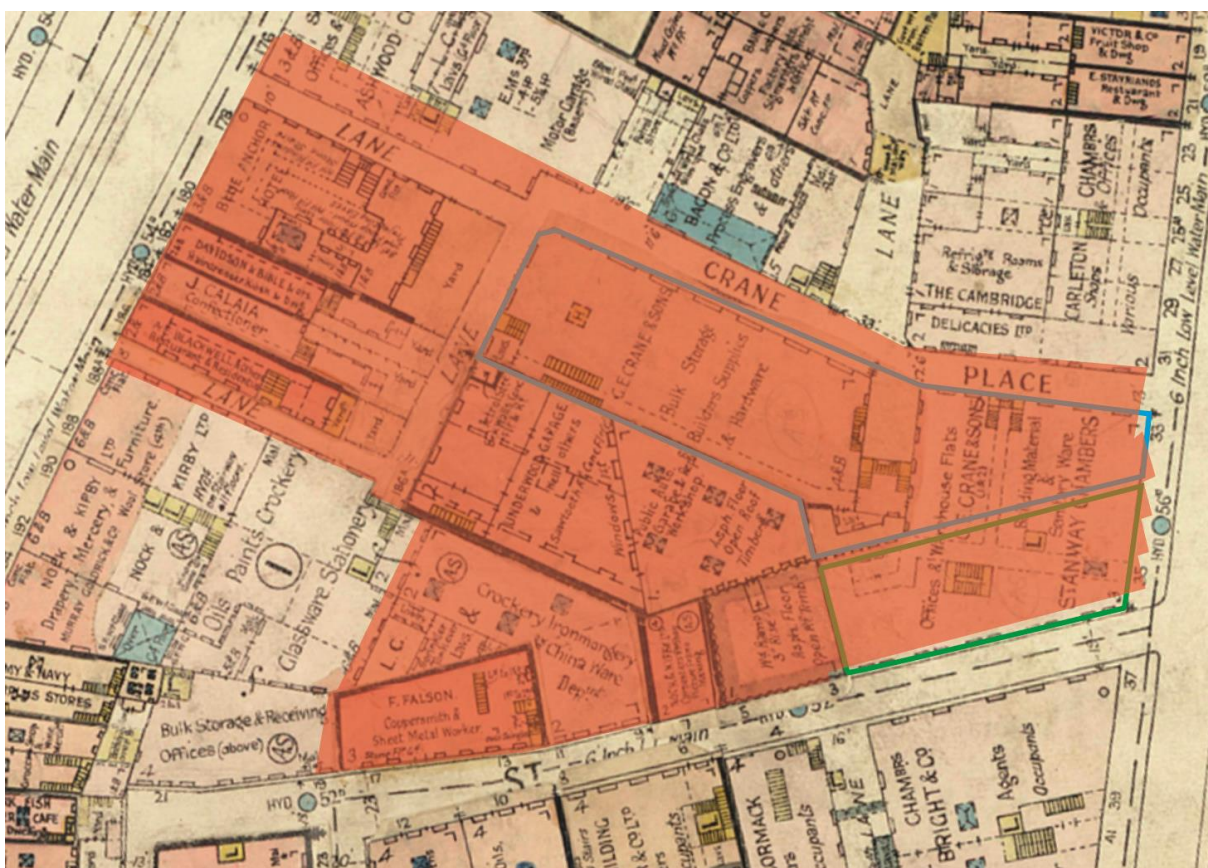


Figure 3.17: Part of a Fire Underwriters Survey showing GE Crane & Sons at 33-35 Pitt Street, incorporating 38¾ p and ¾ p of the Johnston Estate (outlined in blue) and Lot 15 DP1092 of the Underwood Estate (outlined in green), 1921. Block 125, CSA.

⁵² Vol 4065 Fol 172, LPI; Vol 811 Fol 606, LPI.

⁵³ Vol 728 Fol 100, LPI.

3.10.2 G. E. Crane & Sons Ltd, 33-35 Pitt Street, Sydney

Merchant George Ekins Crane established a business in Sydney in 1867. Crane's brothers later joined the business followed by his sons, trading as G. E. Crane & Sons Ltd, manufacturers and importers of building materials. The company occupied 23-25 Pitt Street, to the north of the study area from 1871 until the purchase of land on the corner of Pitt and Underwood Streets in 1905 and 1906. The company manufactured metal ceilings, and marble and slate products, occupying other city premises in Harrington and Essex Streets. The company's Sydney Lead Works was originally located in Pitt Street.⁵⁴

In 1905 Crane & Sons built Stanway Chambers at 33-35 Pitt Street on the corner of Crane Place, Pitt and Underwood streets. The three-storey building comprised offices and showrooms, parts of which were leased. Tenants included Mort's Dock & Engineering Co, operating an office and motor showrooms on the premises. Assessment records for 1907 record Stanway Chambers as a three-storey, brick 'warehouse' with 35 rooms.⁵⁵ It was connected to a four-storey brick warehouse to the west in Crane Place, providing bulk storage for builder's supplies and hardware (Figure 3.17).

In 1906 an article in the *Australian Town and Country Journal* described G. E. Crane & Sons Ltd's extensive manufacturing activities, publishing photographs of the Pitt Street head office and showrooms (Figure 3.18, Figure 3.19).



Figure 3.18: G.E. Crane & Sons Ltd head office and showroom at 33-35 Pitt Street in 1906. *Australian Town & Country Journal*, 7 November 1906: 35.

⁵⁴ *SMH* 1 Jul 1940: 4; *AT&CJ* 7 Nov 1906: 33.

⁵⁵ Vol 1158 Fol 27, LPI; Vol 1626 Fol 105, LPI; See Sands Directory and Assessments Schedules.



Figure 3.19: G.E. Crane & Sons Ltd showroom displaying the local and imported building products sold there in 1906. *Australian Town & Country Journal*, 7 November 1906: 35.

3.10.3 Nock & Kirby Ltd, 188-194 George Street and 3-17 Underwood Street, Sydney

Thomas Nock (1860-1951) started in business in 1884 through a partnership with Frederick Felton, an ironmonger of George Street. Nock purchased the business in 1894, going into partnership with Herbert Kirby. The business at 194 George Street expanded rapidly and additional buildings in the vicinity were leased for showrooms, workshops and storage. By 1906 Nock & Kirby Ltd sold a diverse range of household goods and hardware, trading under this name until 1983.⁵⁶ Between 1907 and 1914 Nock and Kirby leased the 22½ perch Johnston Estate allotment from investors John Boyd Watson, William Cain and Malcolm McEachern. It is not known if Nock & Kirby built the structure or adapted the existing spaces for stores and workshops in conjunction with their retail premises at 188-194 George Street.⁵⁷

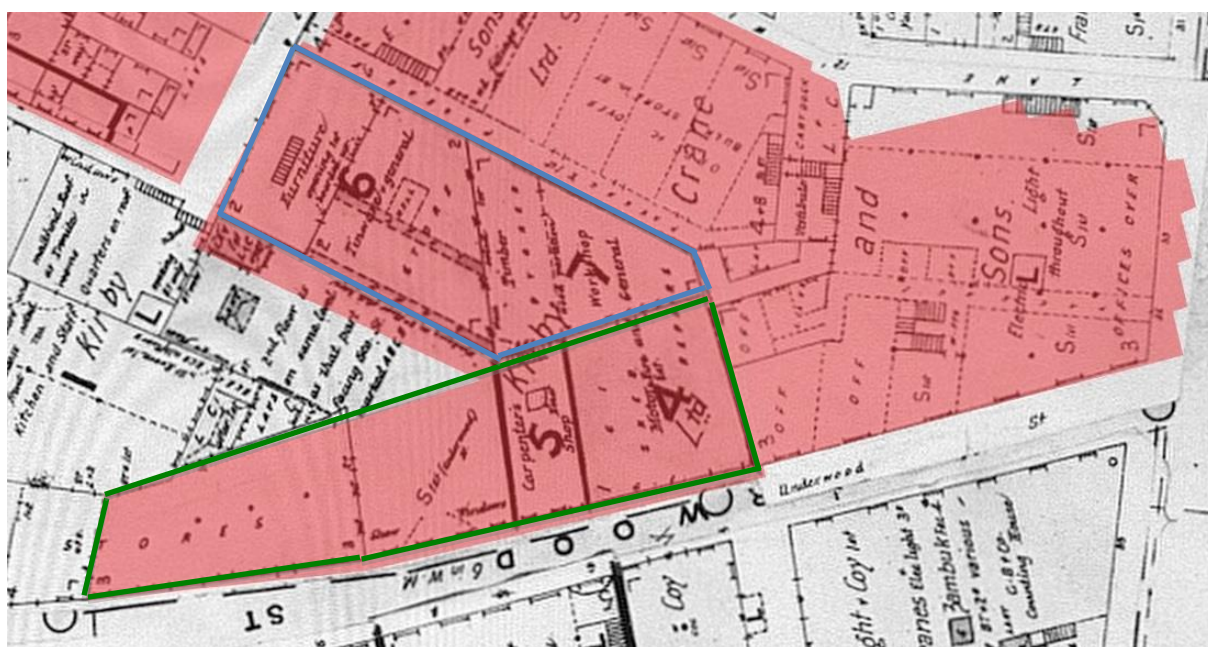


Figure 3.20: Part of a structural survey showing buildings leased by Nock & Kirby Ltd within the study area in 1907. Areas relating to the Johnston Estate are outlined in blue and the Underwood Estate in green. 'Ignis et Aqua' Series Sheet 33 Vol 1, 1907, ML SLNSW.

⁵⁶ P. Spearritt, 'Thomas Nock (1860-1951),' *ADB*, <http://adb.anu.edu.au/biography/nock-thomas-7856/text13649>.

⁵⁷ 'Ignis et Aqua' Structural Plans of the City of Sydney, Sht No 33 Vol 1 p 35, FM 4/10537, ML SLNSW.

A structural survey of Sydney illustrates the extent and use of Nock & Kirby's Underwood Street premises in 1907 (Figure 3.20). Nock & Kirby Ltd utilised Cormack's Lot 10 (the Estate of AW Cormack) as a bulk store while Lots 11 and 12 provided storage, a carpentry workshop and a garage.⁵⁸

Comparison of the 1907 survey above (Figure 3.20) with a 1921 Fire Underwriters Survey (Figure 3.21) shows minor changes in use and additional details about the structures. F. Falson, coppersmith and sheetmetal, linked to Nock & Kirby Ltd, occupied Lot 10 or 13-17 Underwood Street at this time. The survey provides further information about the scale and construction of the buildings in the study area. The westernmost building (Lot 10) was three-storeys and built of stone to first floor level. The roofing was laid on top of shingles, the building's mid-19th-century roof cladding.⁵⁹ The two-storey building on the site to the east of Lot 10 (Part Lot 11) was used in conjunction with an adjoining site to the north and outside the study area. A two-storey building housing a carpenters' workshop occupied the easternmost part of Lot 11. It is not known if the buildings on Lot 11 and 12 were recently constructed or adapted from those on the site in the late 19th century. The single-storey building on Lot 12 was used in conjunction with the two-storey Underwood Garage to the north, and a more recent structure. The 'Public Auto Garage' had an open-timbered, sawtooth roof and asphalted concrete floor. A brick walled petrol store was housed in the northern corner of the building.⁶⁰



Figure 3.21: Part of a Fire Underwriters Survey showing Nock & Kirby Ltd's use of 3-17 Underwood Street, formerly part of the Underwood Estate (outlined in green) in conjunction with 22½ perches of Johnston Estate land (outlined in blue), 1921. Block 125, CSA.

3.11 Development of the Study Area from the 1920s

The Meat and Allied Trades Federation of Australia purchased 33-35 Pitt Street and 3-17 Underwood Street (the study area) in 1955. Stanway Chambers was renamed Paul Buildings by c1960. The buildings in the study area appear to have remained largely intact in terms of its form

⁵⁸ 'Ignis et Aqua' Structural Plans of the City of Sydney, Sht No 33 Vol 1 p 35, FM 4/10537, ML SLNSW.

⁵⁹ Fire Underwriters Association of NSW Detail Survey Map, Nock & Kirby's Block No 125, 6 Jul 1921, CSA; *Sands Directory* Schedule.

⁶⁰ Fire Underwriters Association of NSW Detail Survey Map, Nock & Kirby's Block No 125, 6 Jul 1921, CSA.

and footprint during the 1960s (Figure 3.22, Figure 3.23, Figure 3.24). It is thought that the Underwood Street and Crane Place buildings also remained unaltered.

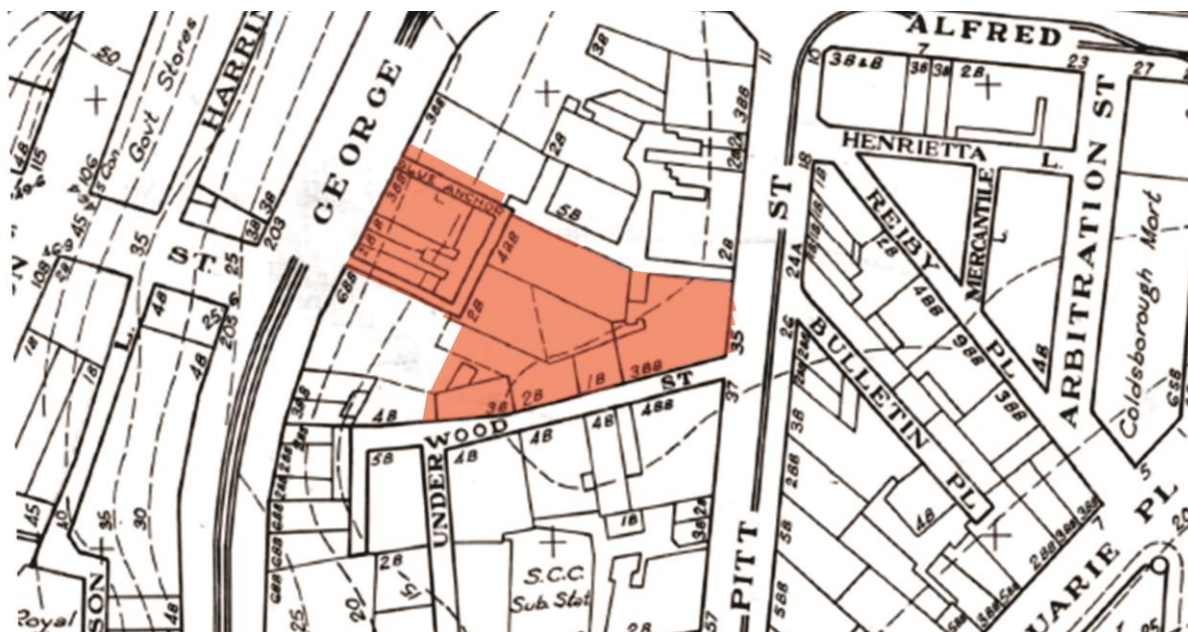


Figure 3.22: City of Sydney Civic Survey showing the footprints of buildings in the study area which appear unchanged from those in earlier records (1948). Historical Atlas of Sydney, CSA.



Figure 3.23: c.1960 photo of the Paul Buildings, 33-35 Pitt Street, on the right, formerly known as Stanway Chambers, and owned by Meat and Allied Trades Federation of Australia from 1955. SRC10118 Archive Pix, CSA.



Figure 3.24: View looking west along Underwood Street with Paul Buildings, 33-35 Pitt Street, on the right, c.1960. SRC10113, Archive Pix, CSA.

Despite development on adjacent city blocks 33-35 Pitt Street and 3-17 Underwood Street were not redeveloped until the 1980s.⁶¹ The study area was consolidated on a single title as Lot 7 DP 629694 (2595 m2) in 1983.⁶²

3.12 Mirvac Triangle

This section of the study area has previously been assessed by Godden Mackay Logan as part of the Mirvac redevelopment at 190-200 George Street but it was not subject to archaeological excavation as part of that project.⁶³ A brief historical background and analysis has been written based on the research by GML.

The land appears to have been granted to Garnham Blaxcell (1778-1817), a naval officer who arrived in Sydney in 1802 as an acting purser. Popular with Governor King, he was promoted to deputy-commissary and acting provost marshal and in 1806 was granted a large parcel of land in Granville, as well as a windmill in Pyrmont, a farm in Petersham, and a warehouse in George Street. He was active in the Bligh rebellion, however, and was criticised for his part in the building of the general hospital in Sydney between 1810 and 1816. Blaxcell fell into heavy debt and secretly fled for England in 1817 to avoid a Supreme Court inquiry, but died on the journey.⁶⁴

⁶¹ City of Sydney Council Files Items 45 81 1370, & 44 80 0592, CRS 116, CSA.

⁶² Vol 14986 Fol 248, LPI.

⁶³ Godden Mackay Logan Heritage Consultants, 2012, *190 and 200 George Street and 4 Dalley Street, Sydney, Heritage Assessment and Impact statement for Demolition Works*. Report prepared for Mirvac Projects Pty Ltd, April 2012.

⁶⁴ <http://adb.anu.edu.au/biography/blaxcell-garnham-1794>.

In 1837 a total of 26½ perches of land, forming a triangular lot fronting George Street was granted to John Redman, although he appears to have owned or leased the property prior to the formal grant of 1837 (Figure 3.6). The study area shows structures as early as 1823 (Figure 3.5) and a structure known as 'Redman's Court' was known to have been on the site since at least 1830 (Figure 5.6). The Redman family owned this land until 1877 and rates assessments from 1845-1855 list three to four single and double storey shop/dwellings along George Street.

By 1870, Frederick Felton was operating an ironmongers at 194 George Street and, by 1884, had gone into partnership with Kirby. The business expanded from this address during the late 1890s-early 1900s and the land at the rear was probably used as workshops and storage. All earlier buildings within the triangle were demolished by c. 1893 (Figure 3.16). This part of the study area was eventually incorporated into the Nock & Kirby building in 1907 (Figure 3.17, Figure 3.20). By 1907 the Nock & Kirby's building was built on this whole property, and extended into the southern part of the property.

4.0 Archaeological Context

4.1 Nearby Archaeological Excavations and Assessments

A number of assessments and archaeological investigations and excavations have been conducted in recent years in the vicinity of the study area. The findings from these assessments and excavations have been reviewed in order to give the most accurate assessment of archaeological potential and heritage significance. The majority of the assessments undertaken near the study area have listed the Tank Stream as the main archaeological constraint to development in the area. Previous excavations and assessments in the vicinity of the study area are discussed below and their location is illustrated on Figure 4.1.

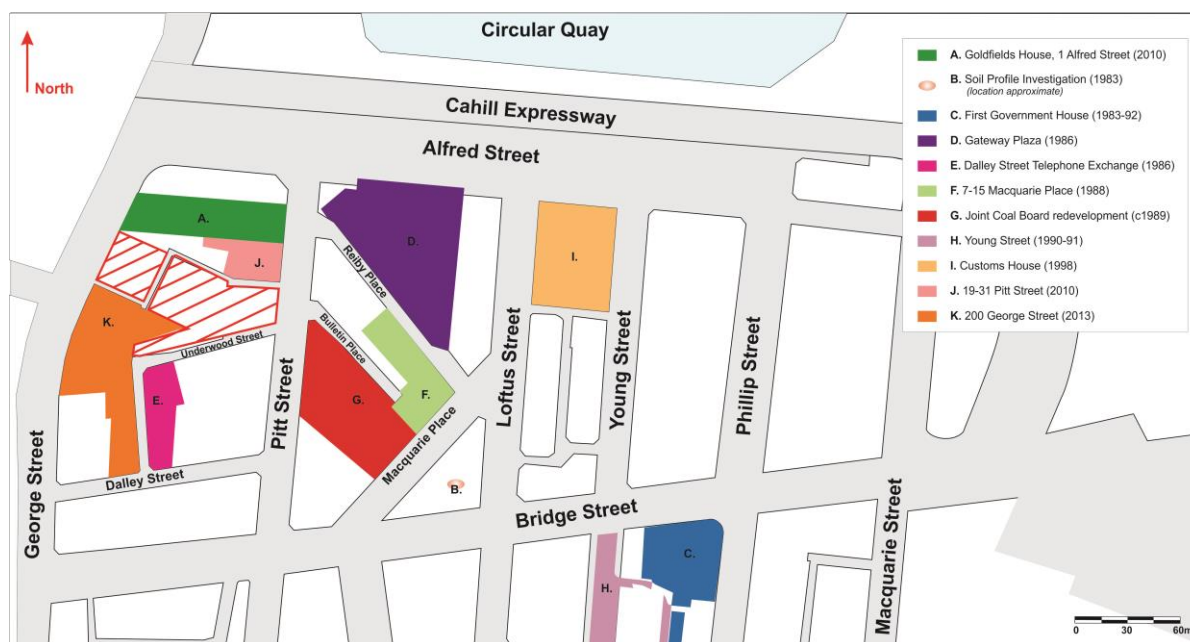


Figure 4.1: Nearby archaeological sites discussed in this section. The current study area is indicated with red hatch lines. Composite figure based on site reports and cadastral boundary information from SIX, NSW LPI.

4.1.1 Telephone Exchange, Dalley Street

This was an archaeological ‘watching brief’ excavation undertaken by Wendy Thorp in 1986, where archaeological recording was attempted during bulk excavation. Although this limited the amount of archaeology which could be recorded, some key features were noted in general terms. The foundations of earlier structures were found and photographed.⁶⁵ Evidence of a sandstone drain was found, running from the southwest portion of the site, in a northeasterly and then northern direction. This drain was a sandstone dish drain with a sandstone cover.⁶⁶ Different artefact-rich deposits were also recorded, which were probably reclamation fills.⁶⁷ A section of wet, grey-brown loam was found just above bedrock in the northern portion of the site. It contained no artefacts and lay about 4m below modern street level. This was interpreted as the original upper estuarine deposit associated with the Tank Stream.⁶⁸

⁶⁵ Thorp 1987: 26.

⁶⁶ Thorp 1987: 27.

⁶⁷ Thorp 1987: 28-30.

⁶⁸ Thorp 1987: 28, 33.

4.1.2 Gateway Plaza, Circular Quay

From February to May 1986 a watching brief was undertaken by Robyn Stocks at the Gateway Site, located to the east of the subject site, bounded by Reiby Place and Alfred Streets (D). The remains of substantial sandstone and sandstock brick footings, timber flooring, a timber pile and the remains of pits and other ephemeral features were found approximately 1.5-2m below the concrete ground slab. Bedrock was found at approximately 3m.⁶⁹

4.1.3 19-31 Pitt Street, Sydney

Rappoport Pty Ltd issued a Statement of Heritage Impact for 19-31 Pitt Street, located to the north of Crane Place, in September 2010 (J).⁷⁰ The only subsurface archaeological constraint listed is the Tank Stream, the curtilage of which had already been impacted upon by the existing building on the site. The report focused largely on the built heritage in the surrounding area. The assessment concluded that the development would not adversely affect heritage structures in the vicinity, including the Tank Stream.

4.1.4 Goldfields House, 1 Alfred Street, Circular Quay

In November 2010 Godden Mackay Logan Pty Ltd assessed the site of 1 Alfred Street when a redevelopment of the site containing Gold Fields house was proposed (A).⁷¹ This proposed redevelopment is located to the north of the subject site. The redevelopment was not proposed to extend beyond the footprint of Gold Fields House, which had already impacted on the 3m curtilage of the State Heritage Register listed Tank Stream during the construction of its basement parking in the 1960s. The assessment found that the development would not further impact on the Tank Stream, which was not believed to have been compromised by the construction of Gold Fields House, although the effects of vibration and subsidence would need to be analysed. The report did however suggest that there was some potential for archaeological relics to exist along the George Street frontage, outside the footprint of Gold Fields House, which may be related to the 19th-century development of the area.

4.1.5 200 George Street

During March and April 2013, archaeologists from Godden Mackay Logan Pty Ltd (GML) undertook archaeological excavations in the basement of 190 George Street. This is part of a planned redevelopment of the site by Mirvac as part of '200 George Street'. Although the '200 George Street' redevelopment incorporates three existing properties, 200 George Street, 190 George Street and 4 Dalley Street, the archaeological work undertaken by GML in March and April 2013 appears to be limited to 190 George Street.

The archaeological excavations by GML found the natural sandstone rock shelf below the northern part of the basement of 190 George Street. Into this bedrock, a large well (2.5m deep, 1.6m wide) was found, filled with a wide range of well-preserved artefacts.⁷² Another well was found in the southern part of the basement. This well was filled with artefacts possibly associated with Chinese occupation of the site in the late 19th century. Small post-holes cut into the bedrock were also found on the site, as were limited signs that the bedrock had been modified by human activity.⁷³ Further excavation in the basement found a sandstone wall and platform, which was thought to be associated with shipbuilding from c. 1800.⁷⁴

⁶⁹ Stocks, R. 1986, Field notes and pers. comm. 15th November, 2012.

⁷⁰ Rappoport Pty Ltd, *Statement of Heritage Impact, Proposed New Building at 19-31 Pitt Street, Sydney*. September 2010.

⁷¹ Godden Mackay Logan Heritage Consultants, *One Alfred Street Redevelopment, Heritage Impact Statement and Archaeological Assessment*. Report prepared for Valad Fields Trust, November 2010.

⁷² Godden Mackay Logan 2013a <http://www.gml.com.au/200-george-st-archaeological-investigation-update-1/>

⁷³ Godden Mackay Logan 2013b <http://www.gml.com.au/200-george-st-archaeological-investigation-update-2/>

⁷⁴ Godden Mackay Logan 2013c <http://www.gml.com.au/200-george-st-archaeological-investigation-update-3/>

Godden Mackay Logan had earlier also undertaken an assessment of the entire 200 George Street redevelopment. This assessment mentioned two pieces of anecdotal evidence for the survival of archaeological remains. The first was a discovery made during the excavation of the Dalley Street Telecommunication Tunnel around 1950, where wharf timbers were found wedged into mud-filled cracks in the bedrock.⁷⁵ The second was the discovery of a small stone jetty with two flights of stairs found when Redman Court on George Street opposite Essex Street (the original office of the *Sydney Morning Herald*) was demolished around 1916.⁷⁶

4.1.6 Joint Coal Board Redevelopment, 20 Pitt Street (17-25 Macquarie Place)

In 1985 Edward Higginbotham undertook an assessment of what was then a new redevelopment for the Joint Coal Board (G), at a block which extended between Macquarie Place and Pitt Street. The site eventually was the location of the Ramada Renaissance Hotel, now the Sydney Harbour Marriott Hotel. As part of the preparation of this archaeological report, Higginbotham undertook a site visit following the partial demolition of the buildings on the site. He recorded four notable features. Two large sandstone walls on the northeast and southwest sides of Sirius House (23-25 Macquarie Place).⁷⁷ Higginbotham considered that these probably belonged to the building on the site prior to Sirius House. He also described arched brick vaults in the basement of St John's House (21 Macquarie Place). These were described as being made using early (pre-1820s) sandstock brick using mud mortar.⁷⁸ Finally, Higginbotham described a sandstone wall, which he thought may have belonged to Andrew Thompson's early 19th-century house. This wall was between St John's House (21 Macquarie Place) and the current Customs House Hotel (17-19 Macquarie Place).⁷⁹

These various reports indicates that even with 20th-century building techniques there is still potential for archaeology to survive, as stone walls along boundaries, reclamation fills and wharfage, as wells which may have been excavated more than 2m into bedrock and the artefact-rich contents of these wells.

4.1.7 Comments on Shipyard and Intertidal archaeology from Barangaroo South and Darling Quarter

Archaeological investigations by Casey & Lowe at Barangaroo South and Darling Quarter have provided key evidence of early reclamation and other activities within the intertidal zone of the foreshore. A pre-1820s timber slipway was excavated along the foreshore at Darling Quarter, as well as archaeological remains from Bass' shipyard at Barangaroo South, which is thought to have been in use from the 1830s to 1850s.

The types of remains encountered in Darling Harbour may differ from the potential remains within the Pitt Street study area, as Darling Harbour is a deep-water area, while the study area falls within the mudflats and alluvial area around Sydney Cove and the Tank Stream. Nevertheless, the types of remains previously excavated and interpreted from other sites can inform the understanding of early land reclamation processes and foreshore activities.

⁷⁵ Godden Mackay Logan 2012: 49; Kennedy & Kennedy 1982: 48

⁷⁶ Godden Mackay Logan 2012: 49; Sharpe 1987: 21; Bertie 1920: 14

⁷⁷ Higginbotham 1985:14; cf Thorp, Green & Associates & Anglin Associates 1989:118.

⁷⁸ Higginbotham 1985:14. Note there are conflicting descriptions regarding the location of these vaults.

⁷⁹ Higginbotham 1985:14-15.

Several key concepts and types of remains have been clarified through previous investigations, including:

- The survival of archaeological deposits can be compromised by the dynamic environment of a harbour foreshore.⁸⁰ This is likely to be less of a concern in the current study area, as the water action should be less severe within the mouth of the Tank Stream.
- Reclamation of land within privately owned properties can use very varied construction materials and methodologies. It can also be of varying qualities of construction, depending on the proposed use of the property and the wealth of the owner.
- Reclamation is usually undertaken to increase the useable land area of a property, but can also be carried out to provide more formal access to the water.
- Evidence for the use of land as shipyards is generally quite ephemeral.

Types of evidence associated with early land reclamation can include timber or stone retaining walls used as baulk-heads or revetments to contain the reclamation fills. Sandstone rubble may be used to provide a firm base for reclamation fills as the rubble is less prone to water erosion than clay or sand fills. Sandstone rubble is also used to retain reclaimed material or fills along the waterline, like a break-water or rubble berm.⁸¹

Once reclamation has taken place, structures such as slipways, skids or informal arrangements of timber or stone may be built to provide access to the water. Previously encountered remains of this nature have included sloping sandstone slabs or pavers and timber slipways. The timbers making up a slipway are often laid in an alternating pattern; leading down the slope into the water, and across the slope, parallel to the land.⁸² This distinctive pattern is used so timbers 'key' into each other and the weight of the boat does not drag the timbers into the water.⁸³ There may also be brick piers or timber piles at the landward end of the slipway used to anchor the timbers to the reclamation or underlying bedrock. Any stone pavers or timbers used as slipways or skids can show signs of water erosion, such as smoothing, which indicates their location within the tidal interface.

Types of remains associated with ship-building activities have generally been found to be quite ephemeral within the archaeological record. At Barangaroo, evidence for Bass' shipyard was limited to a single deposit with a high concentration of timber fragments and small copper nails, typical of those used in maritime construction given their anti-corrosion properties. This material showed lenses of silt suggesting the deposit was built-up as an accumulation rather than a single event, indicating use over time.⁸⁴ This deposit was possibly the remains of a working surface associated with Bass' shipbuilding activities. There were a few small postholes and a row of three sandstone blocks associated with this deposit. Any of the archaeological remains discussed above may be encountered within the study area, particularly in the eastern half along the Tank Stream.

Two sections of 1830s and 1840s seawall were found and recorded at Barangaroo South. Lend lease attempted to dismantle the wall so as to reuse the stone blocks as part of the interpretation of the archaeological landscape. More than 50 per cent of these fell apart even with careful handling.

⁸⁰ Casey & Lowe, Volume 2, Section 7.2 Area 6 Trench Report, forthcoming Darling Quarter publication.

⁸¹ Casey & Lowe, Area M Trench Report, forthcoming Barangaroo publication.

⁸² Volume 2, Section 7.2 Area 6 Trench Report, forthcoming Darling Quarter publication.

⁸³ Area C4 (Lot 20) Trench Report, forthcoming Barangaroo publication.

⁸⁴ Area M (Lot 18) Trench Report, forthcoming Barangaroo publication.

5.0 Archaeological Potential

5.1 Impacts from current buildings and earlier buildings

As discussed in Section 2.2 above the site study area has two large basements which are considered likely to have removed nearly all of the archaeological potential within their footprint (Figure 2.11). The remaining area is considered to contain archaeology of varying degrees of intactness (Figure 5.1). This analysis is based on the description outlined in Section 2.2. Below are some additional images showing the study area which will assist in the analysis of archaeological issues.

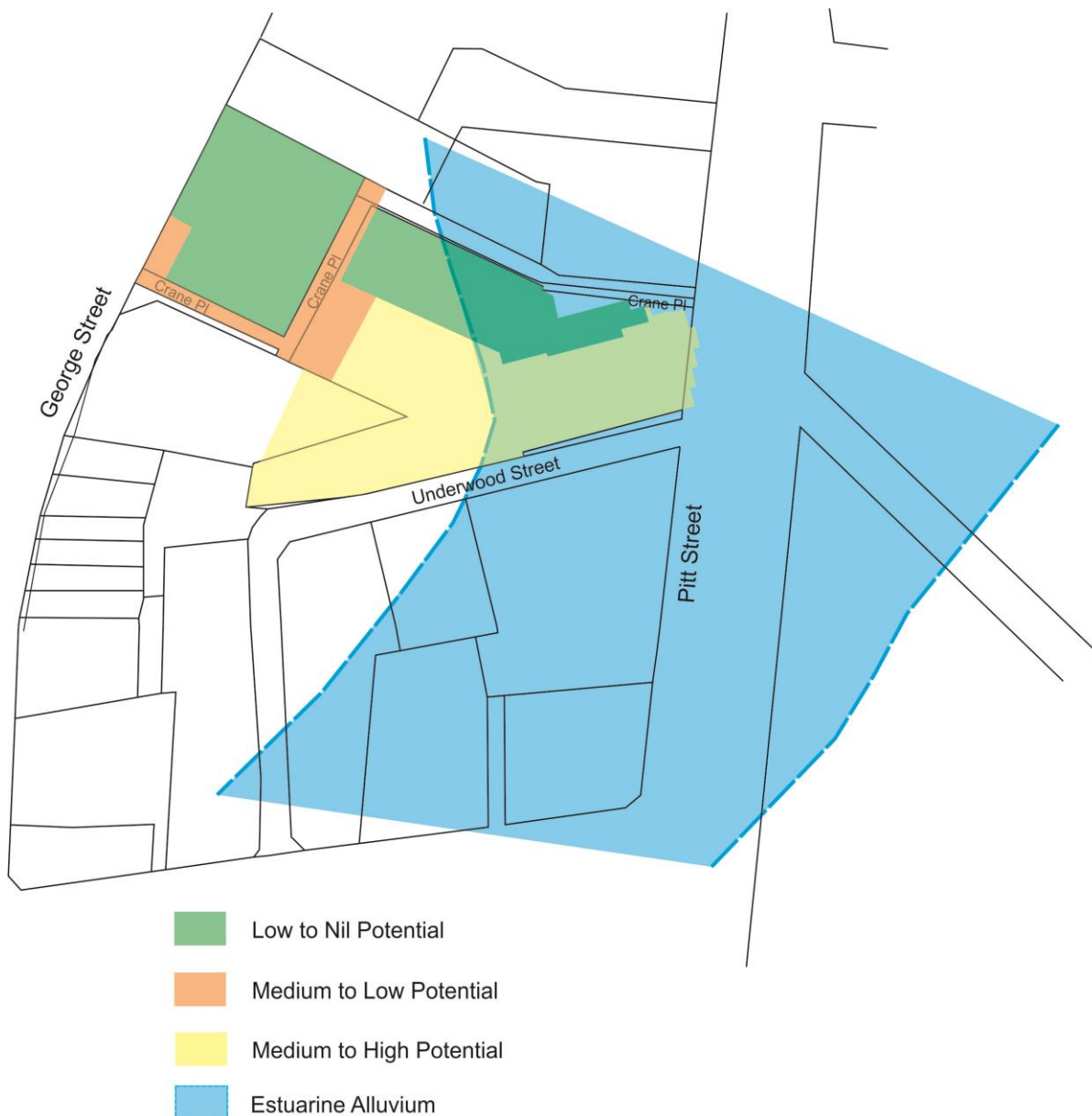


Figure 5.1: Plan of archaeological potential, showing the position of the basements, the alluvium which should indicate the valley of the Tank Stream in relation to the study area. Bulk excavation is thought to have removed most of the potential archaeological remains within the basement footprints adjacent off George Street and adjacent to Crane Place (Figure 2.10). Some deeper sub-surface features may survive. Beyond the limits of the estuarine material is bedrock. Geotechnical information indicates that fill sits on the bedrock in the western half of the site (Appendix 1: Figures 1, 2, 3, 4).

5.2 Analysis of Historic Plans

Early images and plans indicate that the site was located partially within the mudflats at the mouth of the Tank Stream into the early 1800s (Figure 5.2). The Tank Stream CMP (2005) refers to this area as being a 'perched swamp', as the inlet mouth contained water in a constant state of flux due to tidal and other factors.⁸⁵ A c. 1803 painting of Sydney Cove illustrates this (Figure 5.3). Meehan's plan of 1807 indicates that the stream ended and the cove began at the approximate line of Bridge Street, where it was spanned by a small bridge, the line of modern Bridge Street (Figure 5.2). Some of the early properties on either side of the Tank Stream were partially reclaimed by this time, including the land in Lot 13, leased to James Underwood. The western and northern sections of the study area are within Lot 8, which was leased to Major George Johnston.



Figure 5.2: Historic plans from 1807, 1822 and 1855 overlaid with the plan of archaeological potential. Areas with nil to low potential are coloured green. Areas with low to medium potential are coloured orange and with medium potential area coloured yellow.

⁸⁵ Tank Stream Conservation Management Plan, for Asset Management and Sydney Water Corporation, January 2005: 11.



Figure 5.3: View of the mudflats at the head of the Tank Stream c. 1803, prior to any reclamation. The early bridge along what is now Bridge Street is visible. The approximate location of study area is indicated by red arrow. The ship beached on the mudflats may have been one under repair at James Underwood's boatyard. Sydney from the western side of the Cove, ca 1803 / attributed to G.W. Evans. XV1/a803/1, ML, SLNSW.



Figure 5.4: This view shows the bridge over the Tank Stream at Bridge Street. The buildings in the foreground are not the study area but part of the Hunter government dockyard which is beneath part of the Museum of Contemporary Art site. This is obvious from the bell tower and the large boathouse which sat in the dockyard in a number of paintings. *View of Sydney Port Jackson, New South Wales*, taken from the Rocks on the western side of the Cove, ca. 1803 / drawn by John William Lancashire. Mitchell Library, SLNSW.



Figure 5.5: This c.1808 image appears to show the northern edge of the Orphan School property with Underwood's land to the west reclaimed land (arrow). Some of the buildings to the rear are probably associated with Underwood's house and warehouses (right) as well as the Female Orphan School (left). Most of the property on the left is the land associated with 200 George Street. *Sydney Cove, 1808*, by John Lewin, ML60, ML, SLNSW.

By the time of Harper's plan of 1822 (Figure 5.2) more reclamation to the south has taken place, with formalisation of the edge of the Tank Stream (Figure 5.5). The 1822 plan suggest that the line of the Tank Stream was immediately to the east of Underwood's property. A structure is also present within the eastern portion of the study area in 1808, alongside this formalised edge, probably a shed or workshop.

5.2.1 Johnston's Estate, Pitt Street frontage

Between c. 1831 and 1833 the whole of the study area was reclaimed land, extending into the mouth of the Tank Stream (Figure 5.6, Figure 3.6). The Tank Stream was generally unformed until the 1860s when Pitt Street North was established along the alignment of the Tank Stream/drain and the area was utilised for the construction of numerous buildings (Figure 5.2, Figure 5.7). Prior to the forming of Pitt Street, 182 George Street, the western part of the study area, contained five formalised lots with shop buildings, the northernmost with a verandah fronting onto the lane that would become Crane Place, with rear yards and outbuildings.

Nos 33-35 Pitt Street was mostly a large lumberyard with smaller outbuildings in the centre, with larger sheds or workshops along its southernmost boundary. Prior to the 1860s the Pitt Street part of the Johnston Estate operated as ancillary land to the rear of the George Street properties. It was basically only used from the George Street frontage as there was no Pitt Street at this period. This has made it difficult to have certainty about the uses of the land between c. 1833, when the eastern land was reclaimed, and the establishment of Pitt Street as a formal road by c. 1865. It is only after this time that the Pitt Street frontage acquired separate uses and functions to George Street parts of the Johnston property, following the subdivision.

The separate uses begin to appear by the 1865 and 1880s plans and some are also pencilled in on the 1865 plan (Figure 3.10, Figure 5.8). By the 1870s Thomas Mort was a tenant of the southern part of the Johnston's land, then called Weston's Estate, and probably occupied the single-storey timber and iron buildings behind the small brick building on the frontage in 1880 (Figure 5.8). The Sands Directory indicated that the likely tenants of 33 Pitt Street in the 1860s were McIlwraith & Co lead manufacturers and importers of building materials (Table 1). By the 1870s Thomas Mort's assay office and later his engineering office were located here. His main dock of course was located at Balmain. Mort's continued to operate from this office until at least 1890. Other tenants along Pitt Street included iron stores (1880), customs agents, general carrier, marble yard, galvanised iron workers (Table 1). These buildings were demolished when the three-storey Crane & Sons erected the Stanway Chambers in 1905 (Figure 3.18).

George Street frontage

In 1880 George Street frontages contains six shops: Gee Yong, fruiter, Fisher's outfitters, O'Hara butcher shop, O'Shea's barber shop, Angelo's oyster room, and Beans Hotel on the corner of Cranes Lane and George Street. The northern four were two-storey masonry shops, presumably with upstairs residences. By 1894 the southern shops had been demolished and were later replaced by three narrow shops (Figure 5.9).

5.2.2 Underwood land within the study area

The land within the Underwood property had a separate development. The reasons for the presence of Underwood Street within this property relates to the need to provide access to the eastern part of the property, which could not be accessed by vehicles other than from this road until Pitt Street was formed by the 1860s. There were buildings aligned along the northern side of Underwood Street, immediately south of Johnston's Estate. There was a separate development of this property mostly because it once belonged to James Underwood. The details of these two separate ownerships are spelt out in Section 3.

By 1822 and also in 1831 there was one building within the Underwood part of the study area (Figure 5.2, Figure 5.6). This building may have had something to do with the boat building on Underwood's property but it is only a guess. By 1856-65 there were six buildings on this property (Figure 5.7). By 1880 there were some additions, offices, yards and storehouses (Figure 5.8). Among the buildings on Underwood Street: were Ebsworth's wool store, Learmouth Dickinson's iron store and a group of three buildings around a courtyard.

The Fire Underwriter's plan indicates that most of the 20th-century buildings across the site have one or more floors and that some also had basements (Figure 5.10). For example those along Underwood Street have a mixture of one, two and three levels but no basements. It is likely that the western buildings shown on this plan still survive as the carpark building today.



Figure 5.6: Hoddle, Larmer and Mitchell's 1831 plan showing the edge of the Underwood property and the scoured mouth of the Tank Stream in the eastern area of the Johnston's property, prior to it being reclaimed by 1833. This area is clearly silting up to the south and west. SRNSW

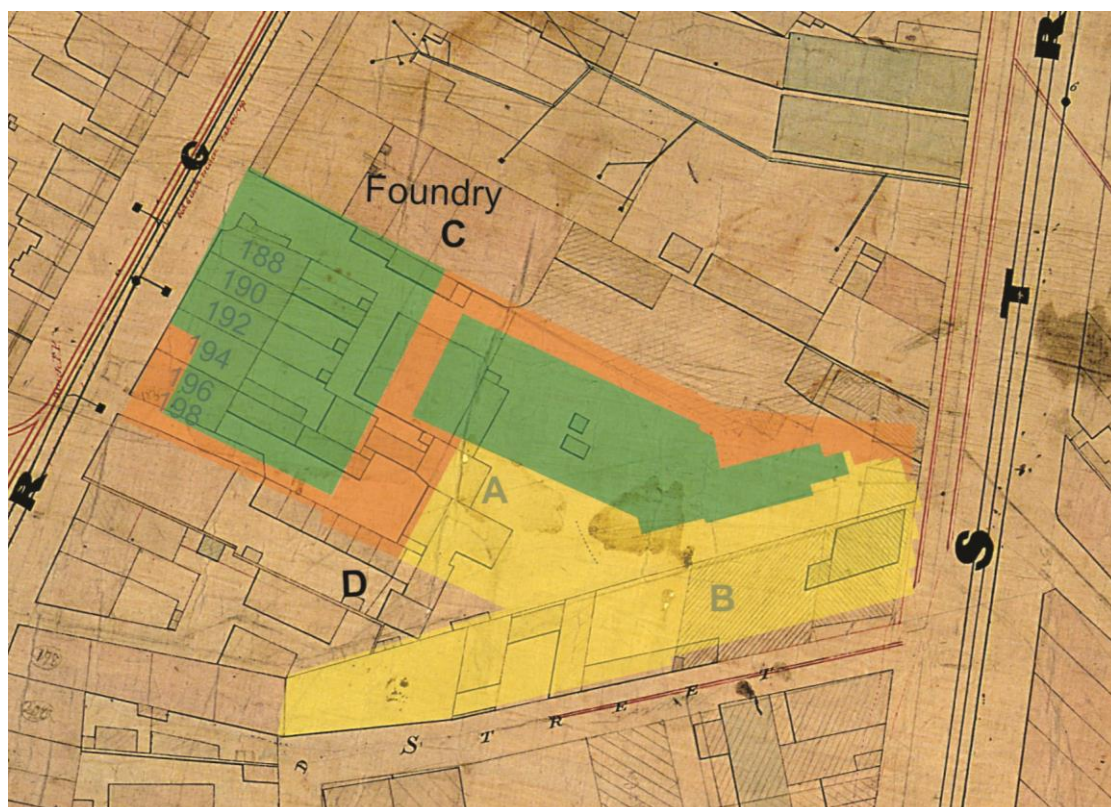


Figure 5.7: By 1865 Pitt Street has been formed and buildings are being erected on this frontage, including on the Underwood and Johnston's properties. Green is basement, orange low to medium potential and yellow is medium potential. 1865 Trigonometrical Survey. City of Sydney Archives.

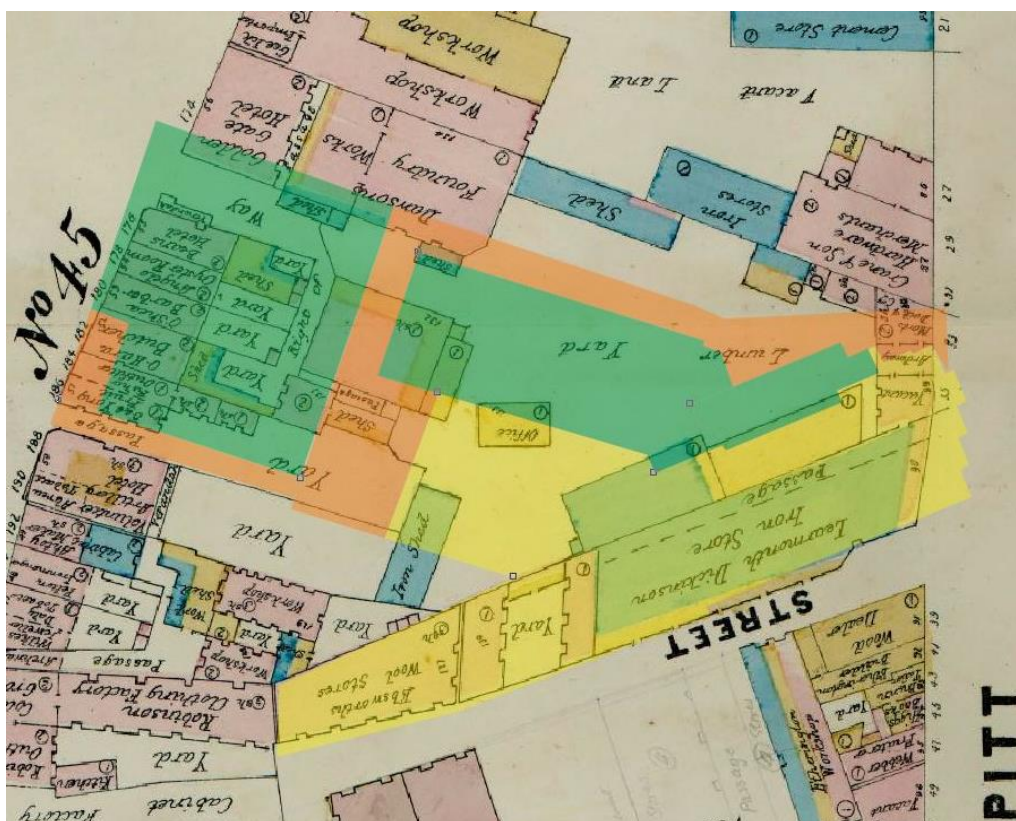


Figure 5.8: Dove's 1880 plan showing the extent of development of the area in the late 19th century, overlaid with plan of archaeological potential. Areas of nil to low potential are coloured in green. Areas of low to medium potential are coloured in orange. Areas of medium potential are coloured in yellow.



Figure 5.9: Site on 1894 Metropolitan Detail Sheet. The dashed line indicates the 'approximate position of the Tank Stream'. Green is basement, orange low to medium potential and yellow medium potential. ML, SLNSW.

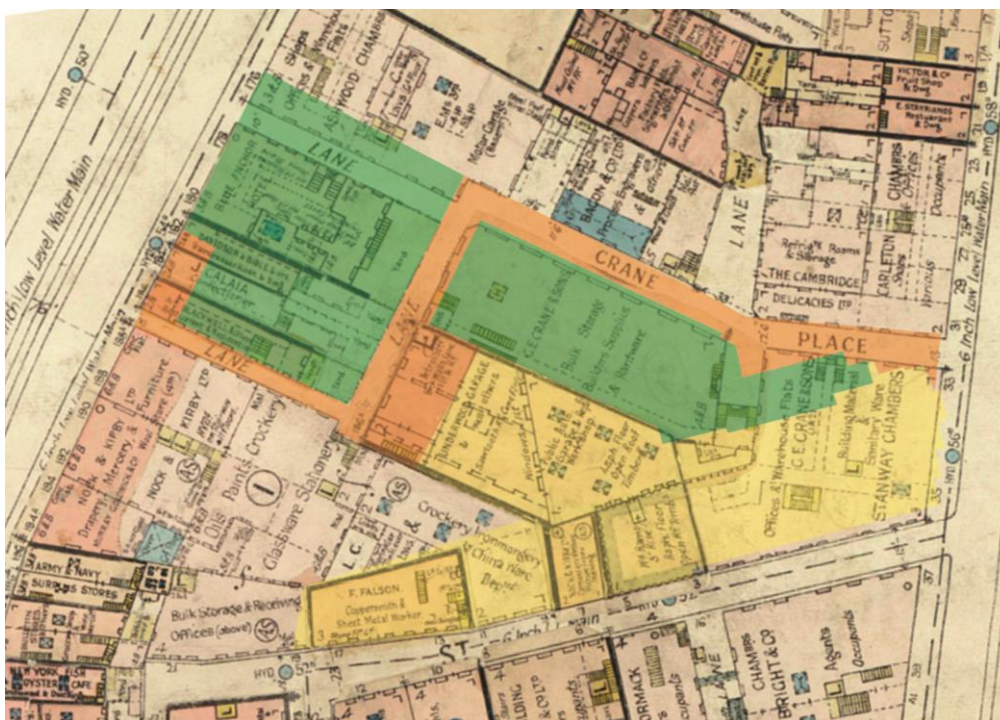


Figure 5.10: 1917-1939 Fire Underwriters plan showing the buildings along Underwood Street at this period, overlaid with plan for archaeological potential. Areas of nil to low potential are coloured in green. Areas of low to medium potential are coloured in orange. Areas of medium potential are coloured in yellow.

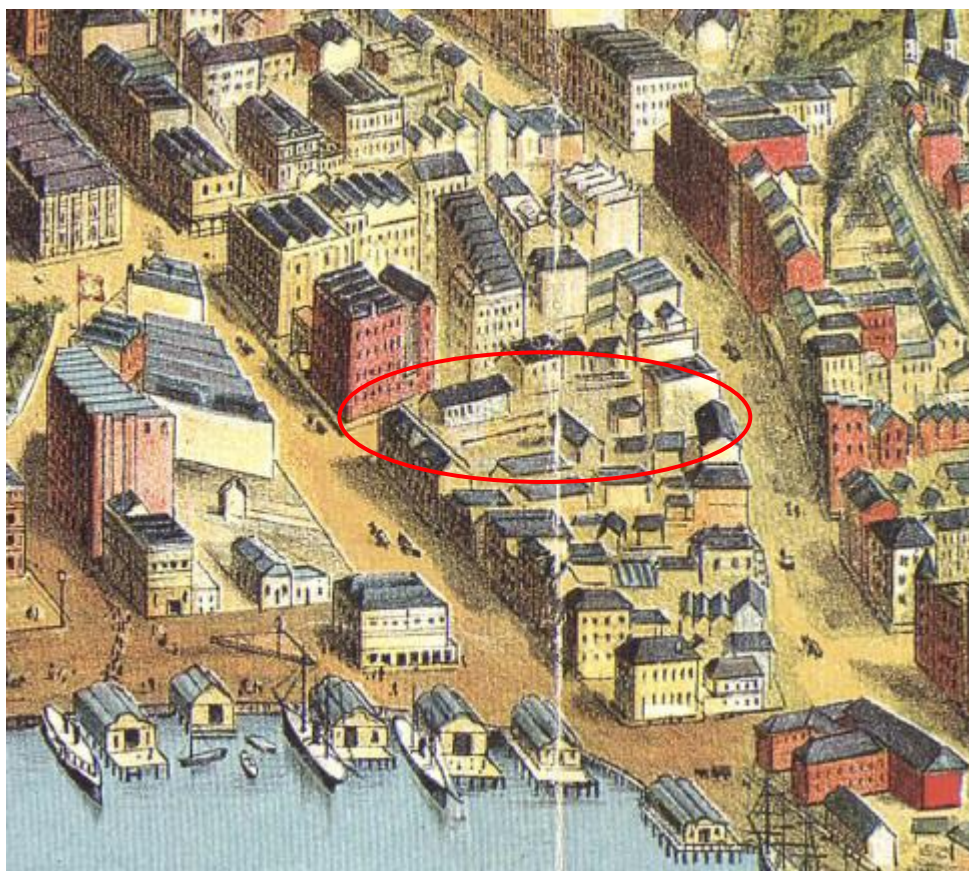


Figure 5.11: Approximate location of the study area is circled. 1888 *City of Sydney Birds eye view*, Historical Atlas of Sydney, City of Sydney Archives.

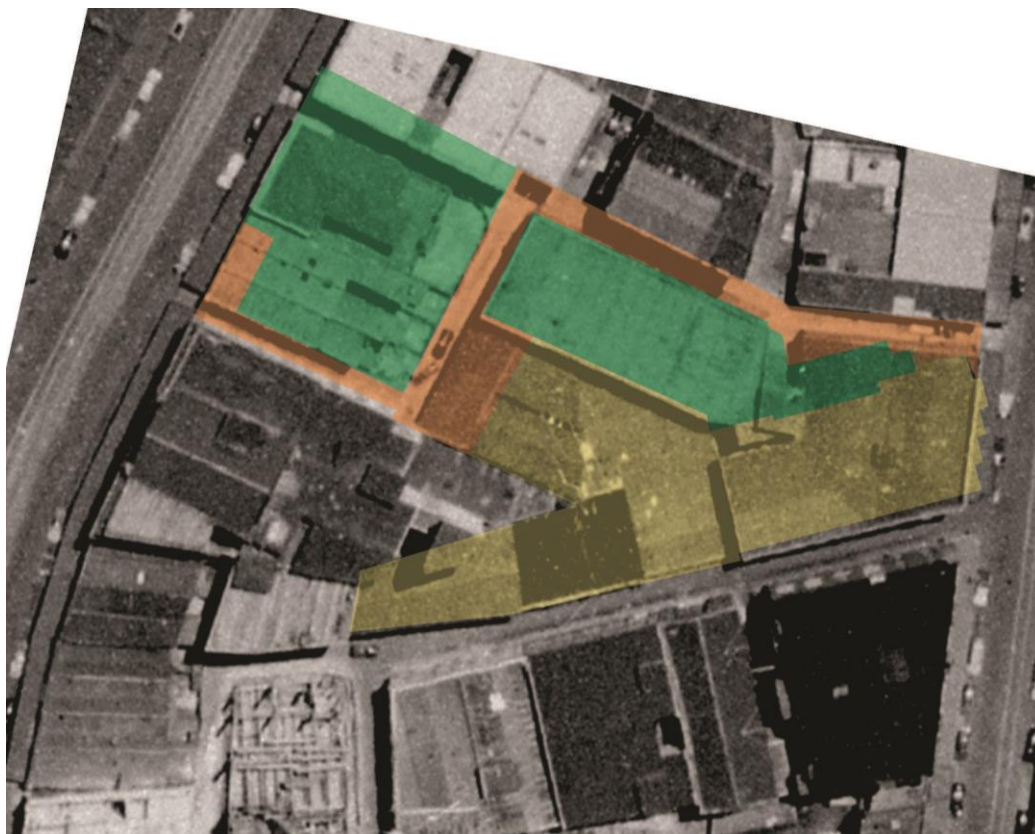


Figure 5.12: 1949 aerial photograph showing extensive buildings within the study area. Green is basement, orange low to medium potential and yellow is medium potential. Historical Atlas of Sydney, City of Sydney.

5.3 Analysis of Potential Archaeological Remains

Archaeological potential is the degree to which archaeological remains are considered likely to survive within the study area in light of the above historical analysis and impacts from modern development. The following section is based on the analysis of the detailed history and maps presented in Section 3, the plan of the existing basements (Figure 2.10, Figure 2.11, Figure 2.12, Figure 2.13), the schedules in Appendix 2 and the archaeological context discussed in Section 4.0.

5.3.1 Typical archaeological remains found in Sydney take a number of forms:

- Structural remains associated with buildings shown on plan are likely to survive but will be impacted by later phases of building. Potential remains associated with structures and occupation include:
 - building footings
 - underfloor deposits associated with the occupation of the house
 - other types of deposits.
- Certain types of remains are typically not shown on plan but have potential to survive with the study area:
 - wells
 - cesspits
 - site drainage
 - rubbish pits, dumps and other features
 - evidence for gardens, layout and use of the yard areas
 - fencelines, assisting with clarification of lot boundaries and internal use of lots
 - pollen and soil evidence

- land clearing and modification of the landform, including major filling events, i.e., backfilling of ponds
- reclamation fills
- other types of archaeological deposits.
- Later building phases will impact on the remains of early phases.
- The greater the number of phases the more complicated the nature of the archaeological the remains.

Other issues are the nature of impacts from later 20th-century activities such as demolition, clearing and construction.

- The later the date a building was demolished then the greater the impact from larger modern machinery.
- Footing systems of single-storey buildings generally have less impact than those of multi-storey buildings.
- Demolishers and builders typically do as little as they have to because of the need to control costs.
- Higher areas get cut down and levelled and lower damp areas get filled.
- Roadways usually include impacts from modern services.

5.4 Assessment Categories

Gradations of archaeological potential have been identified and mapped to indicate the degree to which archaeological remains are likely to survive within the study area (Figure 5.1, Figure 5.2, Figure 5.8, Figure 5.10). The potential mapping does not necessarily address the actual remains within an area but the impact by 20th-century activities, i.e. basements. The overlay maps show the likely remains within the study area. The identified levels of archaeological potential are:

- **Low to Nil Potential:** while the majority of archaeological remains have been removed, usually by modern basements, deeper sub-surface features such as wells, cesspits and their artefact-bearing deposits may survive.
- **Low to Medium Potential:** while there are impacts in these areas, a range of archaeological remains are likely to survive to a limited extent, including building footings and shallow remains, in addition to deeper sub-surface features.
- **Medium to High Potential:** any impacts are thought to be minor and substantially intact archaeological remains could survive in these areas.

5.5 Overview of Archaeological Potential

5.5.1 33-35 Pitt Street

Original Landform:

- Natural bedrock is thought to be sloping downwards from west to east.
- Original soil profiles, including alluvium washed down the Tank Stream in the southern part of the property.
- Alluvium deposits from the Tank Stream may relate to thousands of years of deposition. Evidence contained with the alluvium main contain archaeo-botanical and environmental evidence.

1788-1810s:

- Land leased to George Johnston and James Underwood.
- Johnston's land:
 - No known structures with Johnston's land.

- The eastern part of this land is within the mud flats of the Tank Stream (Figure 5.2, Figure 5.3, Figure 5.4).
- The Lewin painting may suggest a structure located against the northern edge of the reclaimed Underwood land (Figure 5.5).
- Possible ephemeral structures and artefacts in the mudflats, however unlikely to be a significant quantity.
- Possible that there were early modifications of the landscape.
- Underwood's land:
 - Initial reclamation into the Tank Stream valley carried out by James Underwood within his grant (Figure 5.2, Figure 5.3). This would have changed the tidal dynamics of the stream. The c.1808 image suggests a formalised edge was built for the northern edge of newly reclaimed land (Figure 5.5). This is likely to survive along this property boundary.
 - Burial of pre-1807 environmental evidence in relation to the Tank Stream.

1810s-c. 1833:

- Johnston's land:
 - Tank Stream still open, this phase probably involved formalisation of the mouth of the Tank Stream. Possible slipways or timber remains associated with the modification or use of the intertidal zone.
 - The eastern half is unreclaimed until c. 1833.
 - No known buildings within the western half but there was a structure to the east of the study area in 1822. There may have been uses or activities associated with uses outside the study area. Potential remains would be ephemeral.
 - Johnston built two buildings on the George Street frontage in 1820-21, to the north of the study area (Figure 5.2).⁸⁶
- Underwood's land:
 - Single structure shown on the 1822 plan, immediately above the northern edge of the reclaimed land (Figure 5.2, Figure 5.3).
 - Most of the early buildings in Underwood's land were outside the study area (Figure 5.6).
 - Undeveloped area probably used as part of shipyard, possible surfaces, artefact scatters or structural remains associated with shipbuilding activities.

1830s-1850s:

- Johnston's land:
 - Eastern half of site reclaimed by 1833 (Figure 3.6).
 - Area mostly used as yards associated with use of George Street frontages.
 - Channelising of the Tank Stream in 1850s but Pitt Street still not formed.
 - Rates from 1855, 1858 and 1863 list yards, sheds, a foundry, offices, stores and houses within the study area. Possible yard or work surfaces, forge/smithing areas, footings or structural remains, rubbish pits or artefacts associated with the commercial and industrial uses of the site. Sub-surface features such as wells, cisterns and drains.
 - Pitt Street frontage is mostly removed by modern basement except for some timber structures under the yellow and orange areas, east of the 182 George Street basement, which may include some slum tenements (Figure 5.2).
 - The northern Pitt Street frontage, under the orange area is a foundry building associated with the main foundry structure on George Street (Figure 5.2).
- Underwood's land:

⁸⁶ Roberts 2008: 128.

- Six timber and stone buildings within the Underwood land (Figure 5.2). Possible timber, stone or brick remains associated with these buildings.
- Boundary wall between Underwood and Johnston Estates.

1860s-c.1900:

- Series of subdivisions of Johnston and Underwood Estates.
- Johnston's land:
 - In the central area the timber tenement structures were still present in 1865 and a new structure was built, an 'iron shed', which appears to extend southwards into a separate property (Figure 5.7, Figure 5.8).
 - Part of the central area was probably associated with a lumber yard accessed from George Street.
 - All buildings in the central area were demolished by 1894 when it is shown as vacant. The related George Street properties were also shown as vacant (Figure 5.9).
- Underwood's land:
 - Some of the structures on the 1856 and 1865 plans are still present but new ones are also built by 1880, such as Ebsworth's woolstore which was built by 1874 (Figure 3.11). It was a three-storey, stone store with a shingled roof and four rooms.
 - On the corner of Pitt and Underwood streets was a two-storey, brick store with eleven rooms.
 - Mrs Marn's dairy probably operate from the courtyard property.
 - New workshops built along Underwood Street, tenants include merchants, general carrier, engineering workshops (Figure 5.7). Possible yard or work surfaces, footings or structural remains, rubbish pits or artefacts associated with the occupation and use of these buildings.
- Subsurface features such as wells, cisterns and drains on both properties.

1900-1970s

- Johnston's land:
 - The next stage of building in the central area is a two-storey garage building (Figure 5.10). This would have had concrete slab floor with pile and beam footings.
 - The current building at the rear of this property has four or more levels with a modern concrete superstructure (Figure 2.4). Suggesting that there have been two phases of buildings covering the whole of the site. This area includes a lift pit.
- Underwood's land:
 - Various buildings along Underwood Street were demolished, replaced with two and three-storey commercial buildings, used by large companies such as Nock and Kirby, and Crane and Co. In 1905 Crane and Co constructed Stanway House on Pitt Street, a three-storey brick warehouse with 35 rooms, and a four-storey brick warehouse to west for bulk storage. Possible demolition deposits, structural remains and subsurface features associated with this phase.
 - Extant carpark building, western half of Underwood Street was built by 1910s and is shown on the insurance plans (Figure 5.10).
 - In 1955 the study area was purchased by Meat and Allied Trades Federation of Australia; however the footprints of the buildings remained unchanged throughout the 1960s.
 - The footings of these buildings will have impacted on the early remains.
 - The carpark building at the rear of the 35 Pitt Street dates to the 1910s. There is no modern construction in this area.

- Modern buildings along southern part of 33-35 Pitt Street have had some impacts from piling, exterior footings and footing beams.
- Current buildings were erected in the 1970/80s. Structural remains from these buildings will include concrete footings (Figure 2.12). We understand that there is no basement beneath the modern buildings on the southern half of the Pitt Street frontage. Impacts from this building will be focused on the exterior footing, piles, footing beams and services.

Existing Impacts: Basement (RL 0.3m) along northern part of property. Top of bedrock contours are RL 0.5m to RL -2.5m falling west to east (Appendix 1, Figure 2). There is likely to be concrete piles, piers and footings associated with the current building, in addition to the bulk reduction associated with the basements.

Assessment of Potential: The northern part of the property is assessed as having low to nil potential due to the presence of the basement. The southern and western parts of the property are assessed as having medium potential as there is a good likelihood they will contain substantial intact archaeological deposits (Figure 5.1). The eastern part of the property along Pitt Street may have suffered larger impacts from the foundation piers.

5.5.2 182 George Street

Preliminary analysis of the historic plans show that this part of the study area contained a series of five buildings, first appearing on plan in the mid-1850s. These buildings had a variety of commercial and light industrial uses. As the current building at 182 George Street has a basement, no in-depth history or phasing of this part of the study area has been undertaken at present. It is not expected to contain any substantial archaeological remains, other than some limited potential for the lower parts of wells.

Impacts: Most of this property has been cut down to bedrock by the existing basement, with a floor level of RL 1.18m (Figure 2.10, Figure 2.13). This is assumed to have removed any surviving archaeological remains, therefore there is little archaeological potential associated with any of the phases of buildings along George Street seen on the historic plans. The floor of the substation in the southwest corner has a higher RL, surveyed as being between 2.4m-2.9m.

Assessment of Potential: The majority of this property has been assessed as having nil to low potential given the RL of the basement floor. The substation in the southwest corner has been assessed as having low to medium potential as the level has not been reduced as much as the rest of the basement. Any potential archaeological deposits in this property would be deeper sub-surface features excavated into the bedrock, such as wells and cesspits. These types of features have the potential to contain quantities of artefacts from the period they were backfilled. It is also possible that during the construction of the current building, any features of this nature may have been excavated and backfilled with sterile material.

5.5.3 Crane Place and Laneways

In addition to the properties within the study area, the laneways and Crane Place have also been assessed for archaeological potential. Crane Place extends from the middle of the site eastwards to Pitt Street and to the south between 182 George and 33-35 Pitt streets.

- Early access to the eastern part of the study area along the northern boundary, current Crane Place. Possible evidence of earlier surfaces or alignments.
- The central and southern laneways off Crane Place appear to have been formalised in the early 1900s, under Crane and Co.
- Northern Crane Place is mostly vacant land used in association with the land within the Pitt Street basement area.

- Western Crane Place includes potential remains associated with the timber tenements shown on the 1856, 1865 and 1880 plans (Figure 5.2, Figure 5.7, Figure 5.8).

Impacts: It is likely the laneways and Crane Place have been impacted by modern services within the study area or changing road levels in the 20th century, however the extent of disturbance is difficult to ascertain.

Assessment of Potential: Crane Place and the laneways are assessed as having low to medium potential as there is the potential for earlier surfaces or alignments as well as potential remains prior to the creation of the laneway between 182 George and 33-35 Pitt Street (Figure 5.1).

5.5.4 Mirvac Triangle

Godden Mackay Logan (April 2012) assessed this part of the study area by phase, indicating that there was 'high' archaeological potential for early remains, including original soil profiles, archaeological evidence and early land modifications including reclamation. Any use of the land for domestic, commercial or light industrial activities from 1830 to 1918 has been assessed as having 'low' potential, acknowledging that there may be deeper subsurface features, such as wells or cisterns associated with the yards at the rear of the George and Underwood Streets properties. There is thought to be a 'moderate' potential for archaeological remains associated with the Nock & Kirby development on the study area between 1918-1970s. The recent archaeological work on the site found that considerable archaeology survived and this triangle should have a good level of survival for the archaeology. This archaeology is not considered to be significant.

6.0 Heritage Significance

6.1 Heritage Significance

This section has been updated to be in accordance with the Heritage Branch 2009 guidelines: *Assessing significance for historical archaeological sites and relics*.

Apart from NSW State guidelines, the nationally recognised Australia ICOMOS Charter for the Conservation of Places of Significance (*The Burra Charter*) also defines 'cultural significance' as meaning:

aesthetic, historic, scientific and social value for past, present and future generations.

Significance is therefore an expression of the cultural value afforded a place, site or item.

Understanding what is meant by value in a heritage sense is fundamental, since any society will only make an effort to conserve things it values. In terms of built heritage, what we have inherited from the past is usually places that have been continuously cared for. Conversely, many archaeological sites will comprise places which, for whatever reason, have not been cared for until the relatively recent period.

Our society considers that many places and items we have inherited from the past have heritage significance because they embody, demonstrate, represent or are tangible expressions of values society recognises and supports. Our future heritage will be what we keep from our inheritance to pass on to the following generations.⁸⁷

6.2 Basis of Assessment of Heritage Significance

To identify the heritage significance of an archaeological site it is necessary to discuss and assess the significance of the study area. This process allowed for the analysis of the site's manifold values. These criteria are part of the system of assessment which is centred on the *Burra Charter* of Australia ICOMOS. The Burra Charter principles are important to the assessment, conservation and management of sites and relics. The assessment of heritage significance is enshrined through legislation in the NSW *Heritage Act 1977* and implemented through the *NSW Heritage Manual* and the *Archaeological Assessment Guidelines* and *Assessing significance for historical archaeological sites*.⁸⁸

The nature of heritage values and the degree of this value will be appraised according to the following criteria:⁸⁹

6.2.1 Nature of Significance Criteria:

Criterion (a): *Historic Significance - (evolution)*

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

Criterion (b): *Associative Significance – (association)*

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

⁸⁷ This section is an extract based on the Heritage Office *Assessing significance for historical archaeological site*, 2009:1

⁸⁸ NSW Heritage Office 1996:25-27; 'Assessing Heritage Significance', a NSW Heritage Manual update from the Heritage Office website (July 2001); Heritage Branch 2009 *Assessing Significance for Historical Archaeological Sites and Relics*.

⁸⁹ NSW Heritage Office 2001, NSW Heritage Office 2009.

Criterion (c): *Aesthetic Significance - (scenic qualities / creative accomplishments)*

an item is important in demonstrating aesthetic characteristics and/or a high degree of creative or technical achievement in NSW (or the cultural or natural history of the local area);

Criterion (d): *Social Significance - (contemporary community esteem)*

an item has a strong or special association with a particular community or cultural group in NSW for social, cultural or spiritual reasons (or the cultural or natural history of the local area);

Criterion (e): *Technical/Research Significance - (archaeological, educational, research potential and scientific values)*

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

Criterion (f): *Rarity*

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

Criterion (g): *Representativeness*

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

To be assessed as having heritage significance an item must:

- meet at least one of the one of the seven significance criteria
- retain the integrity of its key attributes

If an item is to be considered to be of State significance it should meet more than one criterion, namely in the case of relics, its research potential.⁹⁰ Archaeological Significance:

may be linked to other significance categories especially where sites were created as a result of a specific historic event or decision, or when sites have been the actual location of particular incidents, events or occupancies.

Other relevant factors may be comparative values related to the intactness and rarity of individual items. The rarity of individual site types is an important factor, which should inform management decisions.

Relics must also be ranked according to their heritage significance as having:

- Local Significance
- State Significance

If a potential relic is not considered to reach the local or State significance threshold then it is not a relic under the *NSW Heritage Act 1977*.

'*State heritage significance*', in relation to a place, building, work, relic, moveable object or precinct, means significance to the State in relation to the historical, scientific, cultural, social, archaeological, architectural, natural or aesthetic value of the item.

⁹⁰ Heritage Branch, *Assessing Significance for Historical Archaeological Sites and Relics* 2009:9.

'Local heritage significance', in relation to a place, building, work, relic, moveable object or precinct, means significance to an area in relation to the historical, scientific, cultural, social, archaeological, architectural, natural or aesthetic value of the item.⁹¹

6.2.2 Research Potential

*Research potential is the most relevant criterion for assessing archaeological sites. However, assessing research potential for archaeological sites can be difficult as the nature or extent of features is sometimes unknown, therefore judgements must be formed on the basis of expected or potential attributes. One benefit of a detailed archaeological assessment is that the element of judgement can be made more rigorous by historical or other research.*⁹²

Assessment of Research Potential

Once the archaeological potential of a site has been determined, research themes and likely research questions identified, as addressed through archaeological investigation and analysis, the following inclusion guidelines should be applied:

Does the site:

- (a) contribute knowledge which no other resource can?
- (b) contribute knowledge which no other site can?
- (c) is the knowledge relevant to general questions about human history or other substantive problems relating to Australian History, or does it contribute to other major research questions?⁹³

If the answer to these questions is yes then the site will have archaeological research potential. The new significance guidelines have taken a broader approach

6.2.3 Level of Heritage Significance

New criteria were developed in 2009 to identify whether the archaeological resource is of Local or State significance.⁹⁴ The following four criteria were identified in the 2009 guidelines and are considered to be relevant to 33-35 Pitt Street:

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

⁹¹ This section is an extract based on the Heritage Office *Assessing Significance for Historical Archaeological Sites and Relics* 2009:6.

⁹² NSW Heritage Office 1996:26.

⁹³ Bickford, A. & S. Sullivan 1984:23.

⁹⁴ Heritage Branch, Dept of Planning 2009.

6.3 Discussion of Heritage Significance

6.3.1 Discussion of Heritage Significance

The assessment of archaeological potential above indicates that the site at 33-35 Pitt Street has potential to contain archaeological remains from a number of phases. The likely level of significance of these potential remains is illustrated below in Figure 6.1. The following is a discussion of the heritage significance of the potential archaeological remains within the study area, first considering significance using the NSW Heritage Council criteria, and then the questions in the 2009 Heritage Branch guidelines (Section 6.2.2).

Criterion (a): Historic Significance - (evolution)

an item is important in the course, or pattern, of NSW's cultural or natural history (or the cultural or natural history of the local area).

Parts of this site are assessed as having low to medium potential to contain archaeological remains associated with early land use and development in Sydney. The site has historical significance given its location adjacent to Sydney Cove and the Tank Stream, which were important features in the early British settlement of Sydney. Archaeological evidence could be related to the original topography, natural environment, and early modification of the landscape; particularly regarding reclamation and development along the Tank Stream before 1810. Any remains from Underwood's shipyard, between would be associated with the early maritime industry and a more general understanding of the occupation and use of the early land leases.

Later archaeological remains from the late 19th or early 20th centuries would have historic significance as a part of the commercial development of the city of Sydney and the continual commercial use of the site.

Criterion (b): Associative Significance – (association)

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

The site is associated with James Underwood, a successful emancipated convict, who operated a boat-building yard on the site for more than 20 years. This is one of the earliest such yards in the colony, outside the government boat yard on the site of the Museum of Contemporary Art. Only part of Underwood's land is within the study area. Other parts may survive to the southwest of the current site.

Major George Johnston was a significant individual during the early years of the colony, well-known for his role in the arrest of Governor William Bligh in 1808. There is no known occupation of the land prior to his death in 1823, although the land continued to be associated with his heirs. This association currently has no known physical evidence in relation to the study area.

While Thomas Sutcliffe Mort had an association with the Pitt Street part of the property by the 1870s, following the formation of Pitt Street there is limited potential for archaeological remains associated with his occupation as they were buildings that filled the site, including an assay office. These remains will have been mostly removed by the Pitt Street basement.

Criterion (c): Aesthetic Significance - (scenic qualities / creative accomplishments)

An item is important in demonstrating aesthetic characteristics and/or a high degree of creative or technical achievement in NSW (or the cultural or natural history of the local area).

Any archaeological remains within the study area will generally not fulfil this criterion. While archaeological remains may have aesthetic value, mostly through their novelty and age, they are not 'important in demonstrating aesthetic characteristics and/or a high degree of creative or technical achievement in NSW'. Their aesthetic values are more by accident than design. It is possible that the Underwood reclamation, if a substantial wall was built along the northern boundary of the reclamation, may represent creative accomplishments. Though often private reclamation and seawall building, as found at Barangaroo South, can represent a minimal investment in labour and supplies, this can only be confirmed by archaeological investigation.

Criterion (d): Social Significance - (contemporary community esteem)

an item has a strong or special association with a particular community or cultural group in NSW for social, cultural or spiritual reasons (or the cultural or natural history of the local area).

While no consultation has been undertaken to identify the social significance of the potential archaeological remains they are likely to have significance to the residents of Sydney interested in the history and archaeology of Sydney. Sites and structures associated with the early settlement, particularly those associated with convicts, are considered to have substantial significance to the NSW community.

Criterion (e): Technical/Research Significance - (archaeological, educational, research potential and scientific values)

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

The site has the potential to contain archaeological remains associated with the transformation of Sydney's natural landscape, notably the sandstone ridgeline running along Lower George Street and the Tank Stream valley which were important for the establishment and development of the settlement in the first years of the colony. It also has limited potential to contain archaeological remains and artefacts associated with the Underwood use of the land and its reclamation, which may provide important evidence of the working life of emancipated convicts during the early years of the colony. Later uses of this study area may have impacted aspects of these potential archaeological remains. Generally, the site is considered to have a low to medium potential to contain remains associated with the early colonial period as well as the mid to late 19th-century residential and commercial use of the site.

The potential remains within this site have the ability through archaeological excavation, recording and analysis, to address research themes:

- Environmental analysis of the Tank Stream and environs.
- Changing nature of the landscape through reclamation and other uses.
- Some limited evidence of early shipbuilding on the James Underwood site and general maritime activities. Evidence for life of an emancipated convict.
- 1840s to 1870s expansion and occupation of the site including the Pitt Street frontage. May have some limited evidence associated with early slums associated with the O'Brien tenements.
- Changing lifeways for development of Sydney.

Potential research questions the archaeology from this site may address would include:

- Commercial and residential occupation, ‘slum’ lives and the nature of ‘vice’:
 - Identification, analysis and interpretation of living conditions and class structure within nineteenth-century Sydney society and how this evidence is structured within the archaeological resource.
 - What can the artefacts, deposits and features associated with these sites tell us about the living standards of the residents of the Colony? What changes are happening by the mid-nineteenth century to domestic markets and their relationship to trade with overseas countries and how are they reflected by the occupants of this site.
 - Examination of the role of gender relations and how it structured nineteenth-century life.
- General questions addressed to all phases of the site relating to processes of Immigration, Urbanisation, the Economy and Consumerism, Gender and Ethnicity.
 - What were the expectations of immigrants when they arrived in the early nineteenth century? Were the expectations of convicts and free settlers different? How do these aspirations reflect themselves in the material culture of early nineteenth-century Sydney and later nineteenth-century Sydney?
 - An examination of the archaeological material from all phases of the site’s occupation should help us understand the process of urbanisation in this part of the city. The identified phases should relate to changes in the urbanisation of the city and the archaeological evidence of these phases should provide insight into how these processes altered the material behaviour of the occupants of the site.
 - These processes include changes in sanitary practices, access to markets, domestication of the topography and other areas of evidence.
 - The processes of urbanisation are also closely connected to questions relating to the economy and consumerism. How and when people bought ceramics and other artefacts can help us begin to understand the behaviour of these early European occupants.
 - How does the evidence from this part of the city relate to other sites nearby, such as the Rocks and Darling Harbour, where similar archaeology associated with reclamation and shipbuilding has been found Darling Quarter and Barangaroo South?
- Other relevant questions as they arise and as suggested from the results of the archaeological program.

Criterion (f): *Rarity*

an item possesses uncommon, rare or endangered aspects of NSW’s cultural or natural history (or the cultural or natural history of the local area).

The location of the site to Sydney Cove and the Tank Stream is rare and may yield unique information about modification of the landscape by the early colonists, including environmental and archaeo-botanical information from any original soil profiles and alluvium deposits. Only two per cent of the core area of early Sydney, within the Tank Stream Catchment, has archaeological potential and may preserve evidence related to the earliest phases of Sydney’s development.⁹⁵

In terms of the site rarity of the site the GML report for 200 George Street is also within the early Underwood lease.⁹⁶ They have indicated that the early phases of the Underwood land within their study area survived, prior to archaeological excavation in April 2013, and that known disturbance was limited to later phases and modern buildings. This is the second project on this block to

⁹⁵ Lavelle, S and D Mider 1992 (reprinted 1997), *The Central Sydney Archaeological Zoning Plan*, published report prepared for the City of Sydney, p 9.

⁹⁶ Table of archaeological potential, p48-50; maps: 55-59.

provide different outcome to the City of Sydney *Archaeological Zoning Plan* which says that there is no archaeology within the current study area of the 190-200 George Street site. What is clear is the landform and topography of the site makes it difficult to determine the archaeological potential of this general area without a close understanding of the specific sites and their archaeological potential. The proposed development of 190-200 George Street involved the bulk excavation and removal of the potential archaeology associated with Underwood's boat yard and the main buildings along George Street. The timber structures associated with the O'Brien tenements may be rare but the degree to which they survive is unclear as they were timber structures and part of the structures were within the basement footprint of 182 George Street. This may be represented by pits and wells, deeper features rather than all phases of occupation. Any later archaeological remains would not be considered rare as late 19th to early 20th-century structures and artefacts are well-represented in the historical and archaeological record of Sydney.

Criterion (g): Representativeness

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

Archaeological remains of the early phases of use would be representative of the transformation of Sydney's natural landscape, the early history and development of Sydney, and commercial activities and lifestyle of emancipated convicts. Some remains may relate to occupation by slum housing. Later 19th-century remains may be representative of the urban and commercial development of Sydney, however, representative examples of these types of remains are likely to be better preserved elsewhere.

Integrity/Intactness

The integrity of a site is quite important for the discussion of the significance of the potential archaeological resource within this site. There are several known large impacts within or adjacent to the site that will have reduced the level of integrity or intactness of the potential archaeological resource within the study area.

Excavation for and construction of the current buildings will have impacted the integrity and intactness of the potential archaeological remains. The bulk excavation for the below-ground basements, particularly the very low levels required for the sprinkler pits and lift shafts, will have removed most archaeological remains in these areas, only deeper features such as wells may partially survive. Even in areas which do not have basements, such as the 33-35 Pitt Street frontage, there are impacts from piers, strip footings, modern conduits, service pits and sewer lines which are likely to have disturbed archaeological remains, in addition to the footings of the current buildings there are also the earlier buildings and their piling systems. Similar impacts at 19-41 Reservoir Street, Surry Hill had substantial impacts on the later layers of 19th-century housing but still left some of the deeper ephemeral archaeology of an 1830s/1840s brickfield.⁹⁷

The fabric of the surviving retaining stonewall (c.1807) associated with the northern and eastern boundaries of Underwood's reclamation is probably in quite poor condition, as the stone is likely to be saturated with salt water and not founded on bedrock. The 1830s and 1840s stone seawalls at Barangaroo South survived in the ground but were typically unsafe due to the removal of the archaeology and reclamation fills which they were retaining. When the stones were being removed to be stored and reused many of them were very soft and broke up. The conditions of buried stone in a wet environment with fluctuating seawater means that the walling may be in quite poor condition. If this is the case it would not be of State significance in terms of surviving fabric.

⁹⁷ Mary Casey, pers. comm

6.3.2 Levels of Significance Discussion

The 2009 Heritage Branch produced a set of significance guidelines, *Assessing Significance for Archaeological Sites and 'Relics'*, Heritage Branch, Department of Planning, 2009. These guidelines identified a series of questions to assist with understanding the level of significance for archaeological sites and relics. Many of these have been addressed within the discussion of significance but are further discussed below:

Archaeological Research Potential (Criterion E)

- **To which contexts (historical, archaeological and research-based) is it anticipated that the site will yield important information?**

The site has areas of low to medium and medium potential to contain archaeological remains associated with early land use, reclamation and occupation in Sydney Cove, alluvium of the Tank Stream and other later phases of European occupation, both commercial and residential. This information can be relevant to historical, archaeological and research-based contexts.

- **Is the site likely to contain the mixed remains of several occupations and eras, or is it expected that the site has the remains of a single occupation or a short time-period?**

The site is expected to have archaeological remains from a number of distinct phases of use, dating from c. 1807 to the early 20th century.

- **Is the site rare or representative in terms of the extent, nature, integrity and preservation of the deposits (if known)?**

The potential of the site to reveal information about the original landform of the Tank Stream, particularly environmental information about the alluvium and remnant soils in the Tank Stream valley is a unique opportunity to investigate these landscape features, and how they were used and polluted by early colonists. The potential archaeology of the site is associated with the early development of Sydney in the 1810 and 1820s, as part of an early land grant to the emancipated convict James Underwood. Used as a shipyard, there is the potential to yield information about the shipbuilding industry, wharfage and early commercial activities in Sydney, although investigations by Casey & Lowe at Barangaroo South have revealed remains from shipyards can be limited to yard areas, surfaces and subsidiary structures with little evidence for boat manufacturing. The remains of the pre-1807 reclamation is relatively rare but is also part of a suite of reclamation activities which to date have had a limited variety of reclamation evidence, such as dredged silts with little artefactual material. The nature of the wall or fencing which formed the northern edge to Underwood's reclamation is unclear and may be both rare and representative of such activities as found at Barangaroo South and Darling Quarter.

The potential mid to late 19th century archaeological remains are likely to be representative of both residential, commercial and some industrial uses.

- **Are there a large number of similar sites?**

There have been a number of archaeological excavations of sites with evidence for late 18th and early 19th century occupation and development in Sydney, including:

- First Government House, Sydney
- 7-19 Macquarie Place, Sydney
- Conservatorium of Music, Sydney
- Cumberland and Gloucester Streets, the Rocks, Sydney
- 710 George Street, Sydney

- 200 George Street, Sydney where some of the archaeology associated with James Underwood may still survive.

Sites with early reclamation along Sydney Cove are rare as many along the Tank Stream have already been excavated and the contemporary early reclamation already removed. It is important to note, however, that sites with the potential to contain archaeological remains of early occupation are rare and diminishing, particularly near Sydney Cove.

▪ **Is this type of site already well-documented in the historical record?**

Archaeological remains associated with early stages of colonial occupation rarely have detailed information available when the actions were taken by private individuals. There is some historical information regarding the granting and exchanging of early land leases associated with the site (Section 3), however, this does not provide detailed information of how the land was reclaimed and developed, or about the daily lives and activities of the occupants. Archaeological evidence of reclamation in Darling Harbour and Farm Cove is now quite well-documented.

Potential archaeological remains from the late 19th-early 20th century are generally better recorded in the historical records, however, any archaeological evidence, such as artefact deposits from subsurface features like wells or cisterns, from these later phases would contribute to our understanding of this period.

▪ **Has this site type already been previously investigated with results available?**

Examples of similar sites with late 18th to early 19th-century archaeology are listed above and results of some are available with varying degrees of detail. Detailed reports for the First Government House and Conservatorium of Music are available. Results of the excavations at 200 George Street are not yet available as the excavation was only completed earlier in 2013. Several of the archaeological monitoring and 'watching briefs' carried out around Sydney Cove (Section 4.1) are also available, but have a limited scope. Little information has been provided for contemporary data sets on the eastern side of the Tank Stream.

▪ **Is the excavation of this site likely to enhance or duplicate the data set?**

Use and occupation of the colony's early land grants are as varied as the individuals associated with them. It is hoped that any potential archaeological remains associated with the early use of the site will enhance the data set. Later archaeological remains may duplicate the data set, but each site has the potential to contribute unique archaeological information about the development and daily life in Sydney.

Associations with individuals, events or groups of historical importance (Criteria A, B & D)

- **Does the archaeological site link to any NSW Historic Themes? Will the site contain 'relics' and remains which may illustrate a significant pattern in State or local history?**

Yes, the key historic themes relating to the study area are listed below.

Australian theme (abbrev)	New South Wales theme	Local theme
2. Peopling-Peopling the continent	Convict-Activities relating to incarceration, transport, reform, accommodation and working during the convict period in NSW (1788-1850) - does not include activities associated with the conviction of persons in NSW that are unrelated to the imperial 'convict system': use the theme of Law & Order for such activities	Experiencing life opportunities after emancipation-

3. Economy- Developing local, regional and national economies	Environment - cultural landscape-Activities associated with the interactions between humans, human societies and the shaping of their physical surroundings	
3. Economy- Developing local, regional and national economies	Commerce –Activities relating to buying, selling and exchanging goods and services	
4. Settlement- Building settlements, towns and cities	Land tenure-Activities and processes for identifying forms of ownership and occupancy of land and water, both Aboriginal and non-Aboriginal	Sub-division of large estates
4. Settlement- Building settlements, towns and cities	Towns, suburbs and villages-Activities associated with creating, planning and managing urban functions, landscapes and lifestyles in towns, suburbs and villages	Creating landmark structures and places in urban settings
9. Phases of Life- Marking the phases of life	Persons-Activities of, and associations with, identifiable individuals, families and communal groups	Association with James Underwood, emancipated convict

- **Is the site widely recognised?**

The site is not widely recognised.

- **Does the site have symbolic value?**

The study area itself does not have symbolic value though the adjacent Tank Stream does as the reason for the initial British settlement in this location and for providing water to the early colony before it became polluted. The environmental information within the Tank Stream may provide information that will further understanding of the value of the Tank Stream and how its environment was changed by British settlement. The protected part of the Tank Stream is outside the study area. The proposed new development's basement is approximately 6 to 9m away from the Tank Stream's SHR curtilage.

- **Is there a community of interest (past or present) which identifies with, and values the specific site?**

The site will be of interest to those curious in the archaeology and history of Sydney, particularly those who are interested in the Tank Stream and the lives of emancipated convicts.

- **Is the site likely to provide material expression of a particular event or cultural identity?**

It is unlikely the study area will provide material expression of a particular event or cultural identity.

- **Is the site associated with an important person? (the role of the person in State or local history must be demonstrated/known)**

The potential archaeology of the site is associated with emancipated convict, James Underwood, who operated a shipbuilding yard on the site. The site is also associated with Major George Johnston although there is no known occupation or use of this part of the land other than for market gardening prior to his death in 1822.⁹⁸

⁹⁸ Roberts 2008: 130.

- **What is the strength of association between the person and the site?**

There is a strong association between James Underwood and the site, and a weaker association between George Johnston and any potential archaeological remains.

- **Did the person live or work at the site? During the phase of their career for which they are most recognised? Is that likely to be evident in the archaeology /physical evidence of the site?**

It is thought that James Underwood lived on his estate, however the house is likely to be outside the study area, fronting George Street to the southwest of the study area. The section of the Underwood Estate that falls within the study area is likely to be associated with his shipbuilding or other commercial activities. George Johnston did not live on this grant.

- **Did a significant event or discovery take place at the site? Is that evident/or likely to be evident in the archaeology/physical evidence of the site?**

There are no known significant events/discoveries associated with the site that would be evident in the archaeological record.

Aesthetic or technical significance (NSW Criterion C):

- **Does the site/is the site likely to have aesthetic value?**

All archaeological sites can have incidental aesthetic values, notably in relation to the process of ruination but this cannot be determined until a site is tested or excavated. We consider this to be an incidental part of any site, meaning there is no intentionality involved in such an aesthetic outcome. As identified above the nature of the northern face of the Underwood reclamation may have some technical significance but this cannot be determined prior to archaeological investigation and there is some question about its integrity.

- **Does the site/is the site likely to embody distinctive characteristic?**

It is considered that the most of the potential archaeological remains of this site and its characteristics are similar to other archaeological sites of this date in Sydney CBD. While the reclamation of Underwood's part of the Tank Stream is early, the reclamation techniques used are quite traditional throughout the 18th and 19th century and follow medieval European practices.

- **Does the site/is the site likely to embody a distinctive architectural or engineering style or pattern/layout?**

This is unlikely but cannot be dismissed completely in relation to the pre-1807 reclamation within the Tank Stream.

- **Does the site demonstrate a technology which is the first or last of its kind?**

Such remains are not anticipated.

- **Does the site demonstrate a range of, or change in, technology?**

While such a characteristic might be found at a superficial level in artefacts found on the site, they are not expected to be specific to this site or its cultural assemblage.

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

- **Does the site contain well-preserved or rare examples of technologies or occupations which are typical of particular historic periods or eras of particular significance?**

While the site may contain 'well-preserved' or rare examples of particular technologies, this will not be known until the uncovering of such remains. Potential archaeological remains from the 1800s and 1810s would be considered a rare period of occupation within the city. In terms of archaeological potential, much mid to late 19th-century archaeology is considered to be representative.

- **Was it a long-term or short-term use?**

While parts of the site were leased in 1796 and 1804, aside from the reclamation and associated walling, the earliest structure within the study area was built prior to 1823, although it is likely that Underwood was using the reclaimed land before this time. The study area was in continual use for commercial and light-industrial activities until the 1970s, when the current buildings were constructed.

- **Does the site demonstrate a short period of occupation and therefore represents only a limited phase of the operation of a site or technology or site? Or does the site reflect occupation over a long period?**

The study area is thought to include a long period of occupation by James Underwood, as well as short-term occupation from various tenants who leased the buildings and yards in the late-19th century. Large companies such as Crane and Co, Mort and Co and Nock & Kirby developed and occupied the site for the first half of the early 20th century.

- **Does the site demonstrate continuity or change?**

The study area is expected to demonstrate both continuity and change.

- **Are the remains at the site highly intact, legible and readily able to be interpreted?**

This is unclear. There is low to medium and medium potential for archaeological remains within the site, however there is also a high level of previous impacts in some parts of the site. It is possible and likely that at least some of the archaeology within the study area will be intact, legible, and readily able to be interpreted.

Archaeological remains of potential State significance within the study area

- Environmental or archaeo-botanical evidence from original soil profiles or alluvium around the Tank Stream. Evidence of modification to the landscape during the early years of the colony.
- Early reclamation and associated structural elements, shipyard, structures and any artefacts associated with the early development of the Underwood Estate and James Underwood's occupation of this site.

Any potential archaeological remains associated with the early reclamation and use of the land as a shipyard potentially may be of State significance. Their significance resides in their rarity to survive within the area around Sydney Cove and their research value. However the question of significance is tied to the integrity of the remains and the ability of the remains to demonstrate early activities and uses through archaeological excavation. As outlined above there may be issues with the integrity or intactness of the stonewall due to construction and environmental issues.

Archaeological remains of Local significance within the study area

- The 1830s reclamation of Johnston's property.
- Ephemeral and partial remains of timber slum housing in the central part of the study area.
- Evidence for use semi-industrial and commercial activities across the Pitt Street and Underwood parts of the property during the mid to late 19th century.
- Evidence for use various commercial uses along Underwood Street.

Potential archaeological remains from the later phases of occupation may have research potential and significance, depending on the type and preservation of the remains. In the case of deeper sub-surface features, such as wells, there is the possibility that any artefacts associated with these features may have a high research potential.

6.4 Heritage Significance of the Mirvac Triangle⁹⁹

Criterion A: Any early archaeological remains would have historic significance as part of the early development of the area around Sydney Cove during the first years of the settlement and may relate to the natural environment, landscape modification and early commercial activities.

Criterion B: The site has historical association with prominent 19th-century businessmen, including Thomas Nock. By the 1950s Nock & Kirby had become a household name in NSW, synonymous with hardware and household requisites. Historical associations of potential archaeological remains, while interesting for their associative value, are not likely to make the archaeological evidence inherently more significant.

Criterion D: May have some social significance for people that remember it as the original location of Nock & Kirby's hardware store, although this would be more important to the George Street frontage than the rear of the building. Casey & Lowe consider that these remains are unlikely to reach the local significance threshold.

6.5 Statement of Heritage Significance

The site at 33-35 Pitt Street, 182 George Street and the Mirvac Triangle has the potential to contain archaeological remains associated with modifications to the landscape around Sydney Cove and the Tank Stream from the early days of the colony. There may be archaeological remains from the early land use and development including reclamation and shipbuilding, associated with James Underwood, a successful emancipated convict. Only part of his 1796 lease is within the study area, other potential archaeology of this early lease should have been recorded on the adjacent site at 200 George Street. While Major George Johnston owned most of the land within the study area none of the potential remains are thought to be associated with his use or occupation of the site. Substantial basements within the study area removed significant archaeology along George Street and Pitt Street in the 1970s. Potential mid to late 19th-century remains which may survive include sections of timber slum housing, remains of commercial and industrial activities with later warehousing and stores. Archaeological excavation, recording, analysis and interpretation, may have the ability to address a range or research questions relating to early land use, and the lives of emancipated convicts, environmental analysis and modification of the landscape, early shipbuilding, slum lifeways and themes associated with urbanisation, economy and consumerism, and industrial activities. Potential archaeological remains from the late 19th century have the potential to further our understanding of the development of the Sydney CBD as a commercial centre. There is both low to medium and medium potential for archaeological remains of local and some potential for remains of State significance within the study area.

⁹⁹ Taken from Godden Mackay Logan April 2012.



Figure 6.1: Plan showing the levels of archaeological potential and the area of possible State significance. The rest of the study area has local heritage significance. The yellow is likely to have substantial intact deposits, particular in the deeper areas while the green basements are unlikely to have much archaeology, apart from the base of wells.

7.0 Results and Recommendations

7.1 Results

- This Archaeological Assessment identified that the southern two-thirds of the site has low to medium and medium archaeological potential. Areas with basements have little or no archaeological potential. The proposed development would remove these potential archaeological remains.
- Historic research has indicated that the site was located partially within the mouth of the Tank Stream. Due to the proximity to the Tank Stream and Sydney Cove, there is potential for environmental evidence associated with the earliest phase of historic settlement of the colony as well as much earlier environmental evidence.
- The SHR curtilage of the Tank Stream is outside the study area.
- It is possible that part of the site has potential for State-significant archaeology associated with James Underwood's pre-1807 reclamation within the Tank Stream and his boatbuilding yard. These potential remains were a small part of the overall shipyard and not a key element of it. It is possible that the integrity of the structural remains may be limited.
- Most of the potential archaeological remains within the study area are considered to have local heritage significance (Figure 6.1).
- The site has potential to contain relics under the *NSW Heritage Act* which requires an application under S139/140 of the *NSW Heritage Act 1977*.
- Since completing the original Archaeological Assessment in 2014 Casey & Lowe have prepared an Archaeological Research Design which involved considerable further analysis building on the results of the archaeological excavation at 200 George Street. As a result of this reanalysis Casey & Lowe do not consider the site to contain archaeological remains of State significance. This reassessment arises from further and more detailed analysis of researched plans and images together with an assessment of the archaeological findings at the adjacent 200 George Street redevelopment site. See *Non-Indigenous Archaeological Research Design – S140 application, Lend Lease Circular Quay Development, 182 George & 33 Pitt Street, Sydney*, Casey & Lowe, September 2015. A S140 has now been lodged for this site.

7.2 Recommendations

1. An application for an excavation permit under S139/140 of the *NSW Heritage Act 1977* will need to be approved by the Heritage Council.
2. A S140 application requires the writing of an Archaeological Research Design outlining the proposed excavation methodology and approach to be used. The Research Design requires the nomination of an Excavation Director and key members of the archaeological team who will undertake the archaeological program.
3. Discussions should be undertaken with the Heritage Division prior to lodging a permit to see if they are in agreement with the suggested approach.
4. Archaeological excavation would focus on the area of the site with medium archaeological potential. Only limited archaeological investigation would need to be undertaken within areas with basements.
5. No excavation or ground disturbance of the site can be undertaken prior to the issuing of a S140 approval. A S140 application typically takes 4 to 6 weeks to be processed.
6. The archaeological program will need to be undertaken in accordance with the S140 Conditions of Consent.

7. An excavation report presenting the results of the archaeological program should be prepared at the end of the archaeological program. The final report needs to comply with the S141 conditions of consent.
8. A repository, storage in perpetuity, for the artefacts recovered from the site will need to be provided by the proponents. A suitable storage solution may be the construction of a storage room within the new development.
9. Excavation or disturbance of the ground needs to be co-ordinated with Aboriginal archaeology and OEH's AHIP approval process.
10. A Statement of Heritage Impact will need to be written for the proposed development in relation to potential issues associated with the Tank Stream.

8.0 Bibliography

8.1 Bibliography

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Appendix 1: Geotechnical Plans

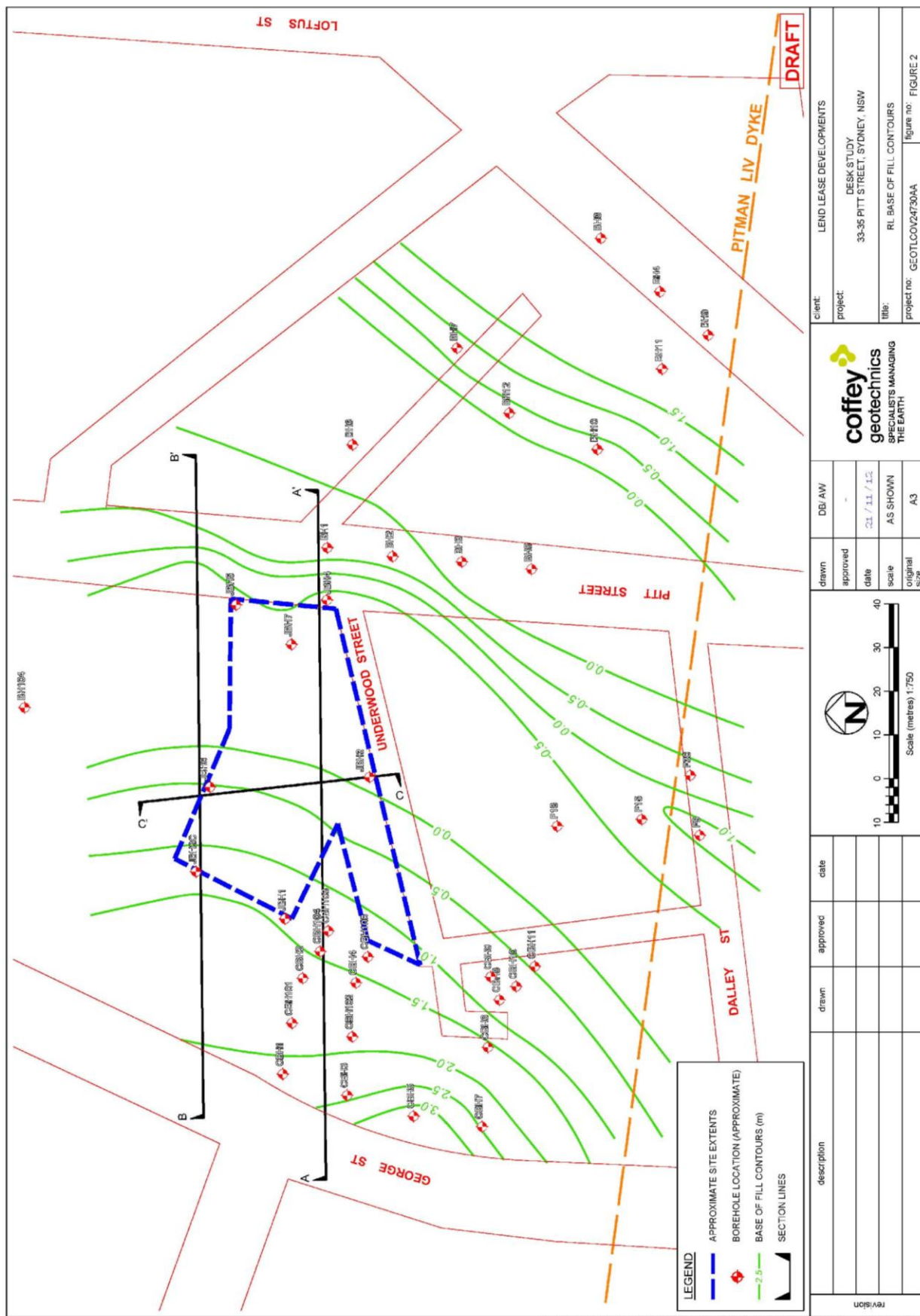
Appendix 2: Schedules

Appendix 2.1: Land Titles

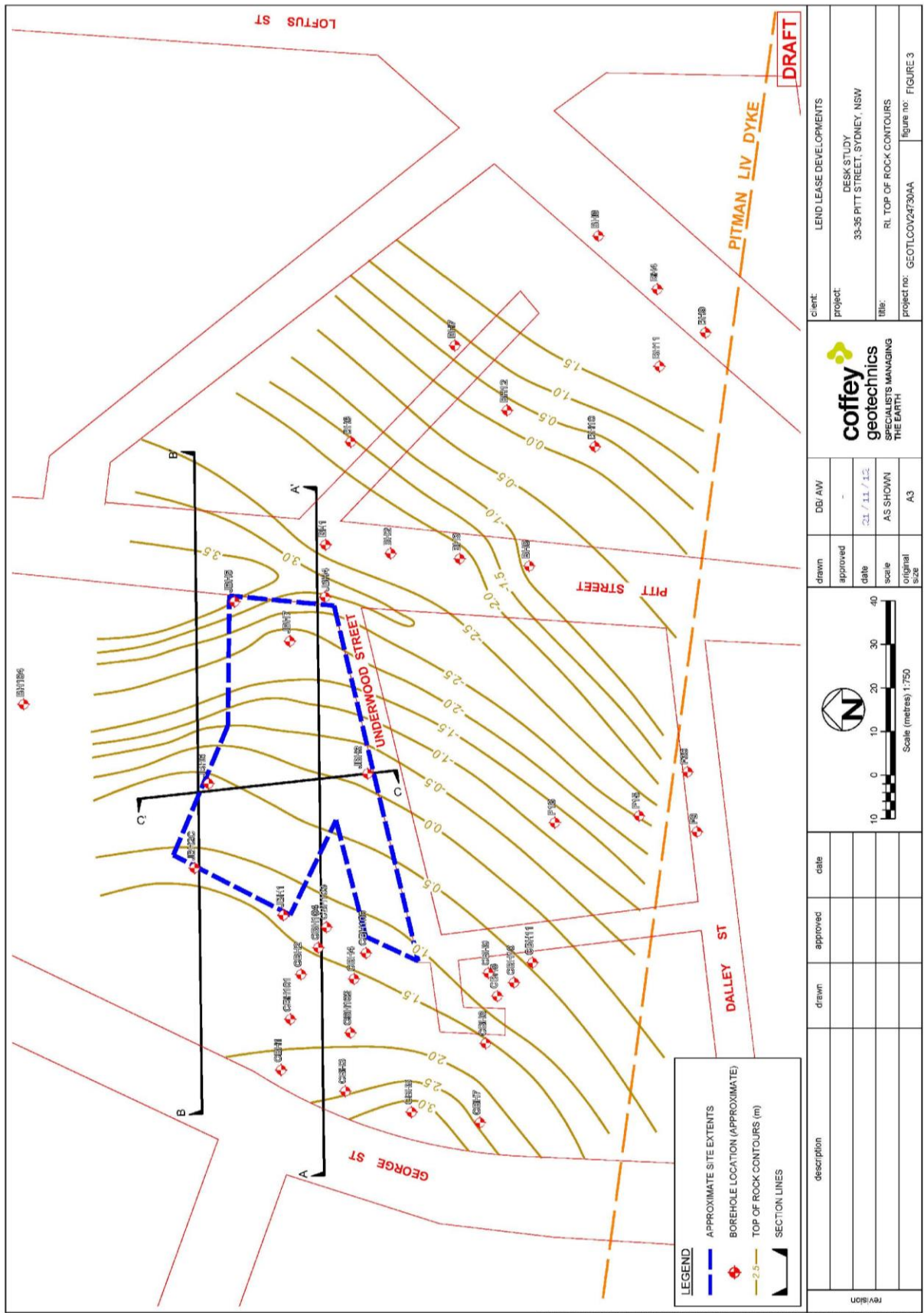
Appendix 2.3: Council Rates Assessments, City of Sydney

Appendix 2.3: Sands Directory

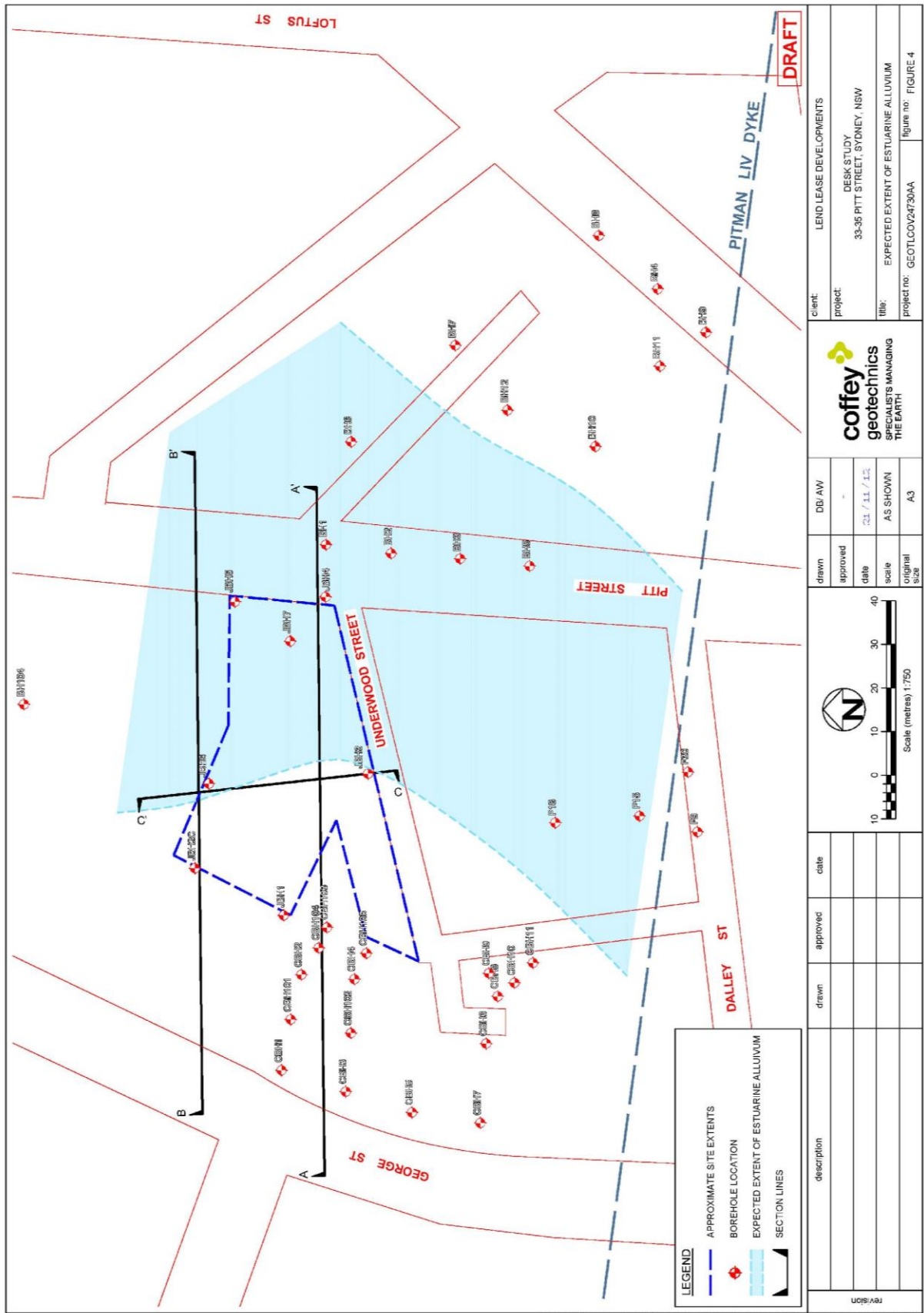
Appendix 1: Geotechnical Plans



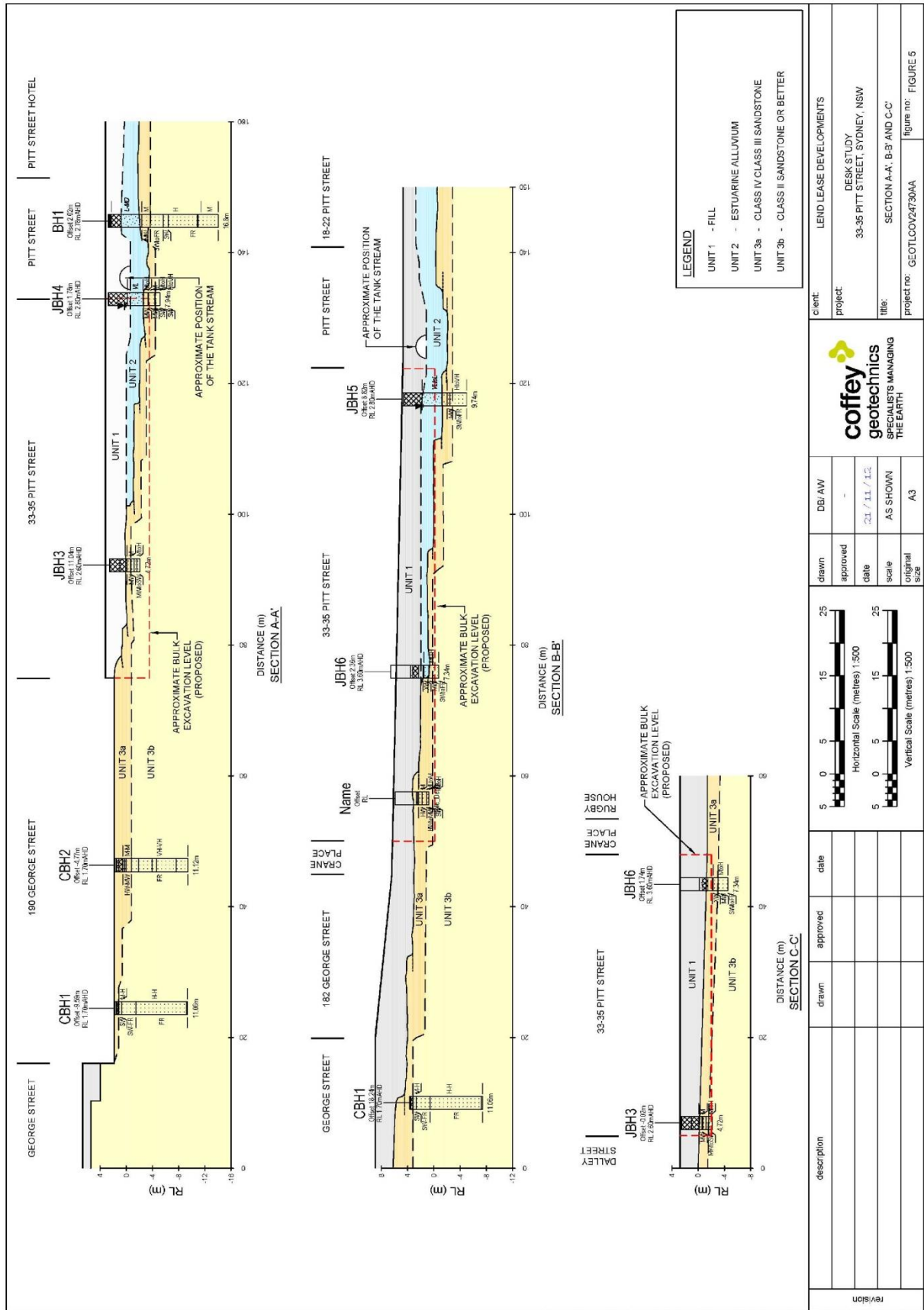
Appendix 1, Figure 1: Plan showing the contours across nos 33-35 Pitt Street and the surrounding land.



Appendix 1, Figure 2: Rock contours across the study area.



Appendix 1, Figure 3: Location of Tank Stream alluvium along the eastern edge of the study area.



Appendix 1, Figure 4: Section through the site showing the Tank Stream alluvium along the eastern edge of the study area covered by fill but in the western area bedrock is quite high.