ARCHAEOLOGICAL IMPACT ASSESSMENT:

HISTORICAL ARCHAEOLOGICAL MANAGEMENT PLAN

42 Honeysuckle Drive
Newcastle

AMAC

Archaeological

Ivana Vetta, Jaki Baloh and Steven Vasilakis

Archaeo*logical* Management & Consulting Group

for

Doma Group

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Martin Carney
Director
(mobile 0411 727 395)

AMAC
Archaeological

Archaeo*logical* Management & Consulting Group

Ph (02) 9568 6093
Fax (02) 9568 6093
Mob 0411 727 395
E-mail amac@archaeological.com.au

Cover Image
Railway sidings on the study site c1950.
Hunter Photobank Series.

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EXECUTIVE SUMMARY

Documentary Research

During the late nineteenth century Cottage and Throsby Creeks crossed into the area of the study site. Due to growing pollution and environmental changes brought on by European settlement, Cottage Creek was canalised in 1896 and its course removed from the study site. From this point reclamation works were conducted in the area, also changing the shape of Throsby Creek. From 1913-1916, the study site was no longer a part of its foreshore due to land remediation. A large amount of fill was deposited on site in order to instigate the form the site takes today. Rail infrastructure has since been installed, earliest evidence for this is from 1937 and a variety of line configurations has existed since then. It is believed these lines are extant and are currently filled over.

Significance

As a part of the Newcastle foreshore, the study site has borne witness to the increasing amount of human activity in the area and is yet simultaneously apart from that history due to its disuse. However, it is that lack of development that now renders the site locally significant as it should contain predominantly undisturbed archaeological data. It is likely that the site will yield information on twentieth century rail infrastructure, early twentieth century land reclamation and possibly evidence of the natural landscape prior to waterway modification all of which is considered of potential local significance.

Physical Evidence

The site is a currently vacant area bounded by Honeysuckle Drive, Cottage Creek and the Sydney-Newcastle railway line. The proposed development seeks to construct a nine-storey mixed hotel, residential and commercial building. Low archaeological potential survives for early twentieth century rail infrastructure. Moderate potential survives for natural features associated with the original Cottage and Throsby creek lines. There stands unknown potential in these areas to reveal unexpected material in an unknown condition that may have been buried during reclamation.

The results of the documentary research, archaeological potential and significance address SEARS Point 1 of Condition 12 (Appendix 9.1).

Statement of Archaeological Heritage Impact

It is likely that any potential archaeology will be significantly disturbed by subsurface excavation for foundation piers, footings, fire tank rooms, lift and stair core bases. As such, the heritage impact of the development is considered negative as it will completely remove any archaeology on the site. To ensure that any material of significance is not impacted by the proposed development, as the exact presence and depth of any archaeological material is unknown, archaeological monitoring by a qualified archaeologist is recommended as a precaution for all excavation that occurs on site. Monitoring and excavation will be guided by the Archaeological Work Method Statement (see Section 6.0).

As the study site contains a registered Aboriginal site (site card pending), Aboriginal archaeological test excavation has been recommended to occur in accordance with

the findings of the Archaeological Impact Assessment (Preliminary Aboriginal Archaeological Assessment).[1] If Aboriginal test excavation takes place, where locally significant historical archaeological material or features coincide with Aboriginal test pits, the historical archaeology will be recorded and removed as guided by the Archaeological Work Method Statement (Section 6.0).

The Statement of Archaeological Heritage Impact addresses SEARS Point 2 of Condition 12 (Appendix 9.1).

Recommendations

According to the results of documentary research, the site has a moderate potential to contain locally significant relics related to the 19th century modification of Throsby and Cottage Creeks as well as an unknown potential for relics in land reclamation fills. Archaeological work at the study site should follow the Historical Archaeological Management Plan (HAMP). This HAMP has proposed an Archaeological Work Method Statement (AWMS) in order to mitigate archaeological heritage impacts posed by the development. The AWMS allows for archaeological monitoring of the development's excavation. Monitoring will identify the potential for, and location and integrity of, archaeological relics relative to impacts. The plan also guides the archaeological recording and excavation of locally significant relics.

The Historical Archaeological Management Plan is based on the standards of the NSW Heritage Act (1977) and best practice guidelines published by the Heritage Council. All archaeological work is subject to the approval of this methodology by the NSW Department of Planning and Environment, or its delegate, and subject to any conditions posed by this approval.

[1] AMAC Group (October 2017).

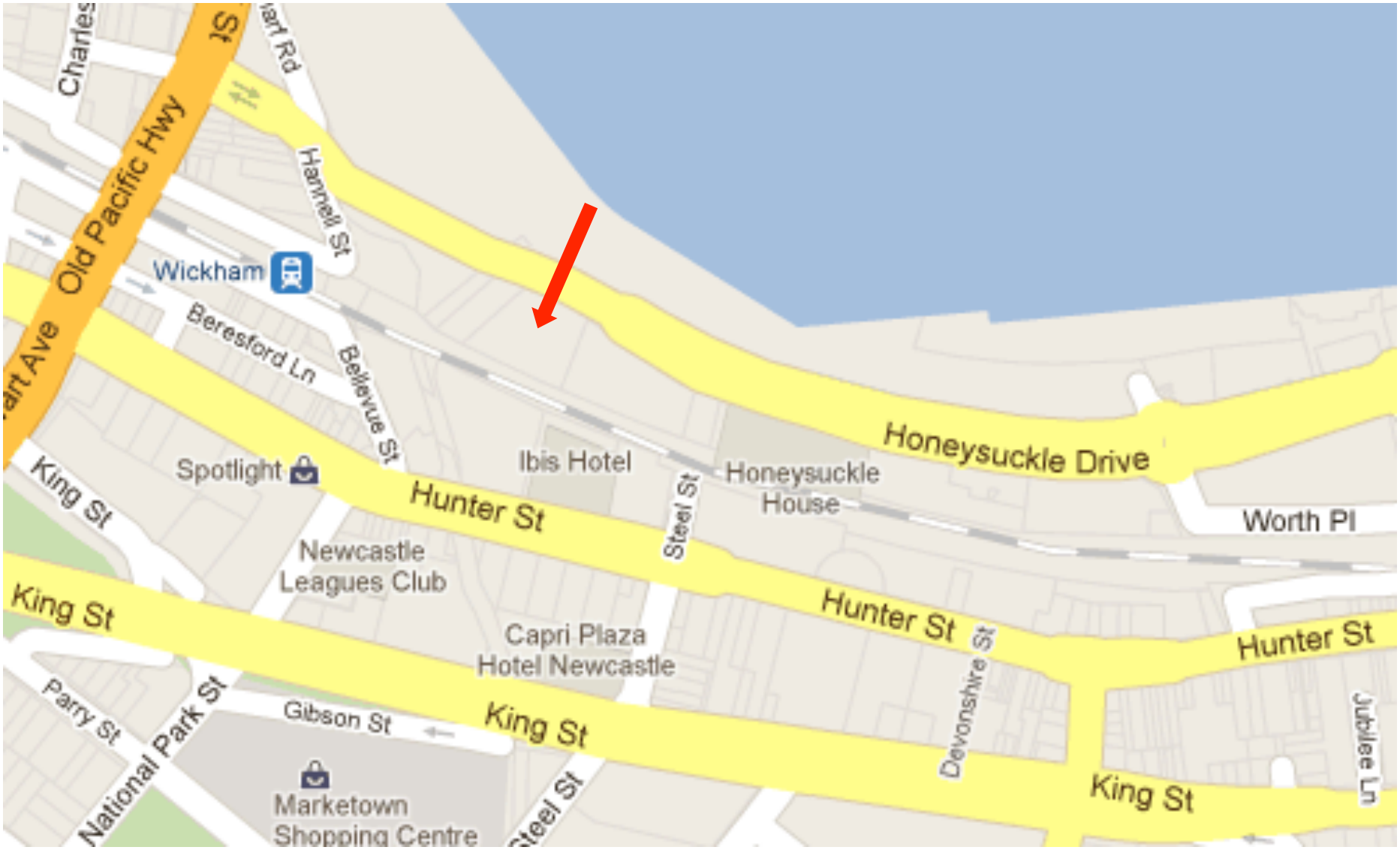

Figure 1.1 **Approximate study site location (red arrow).**
Google Maps, accessed October 2017, maps.google.com

Figure 1.2 **Study site boundary, approximately outlined in orange.**
NSW Land and Property Information, SIX maps Viewer, accessed October 2017.

1.0 INTRODUCTION

1.1 BACKGROUND

Doma Group has commissioned the Archaeological Management and Consulting Group to prepare a Historical Archaeological Management Plan as part of the SEARs requirements for the site at 42 Honeysuckle Drive, Newcastle. The report conforms to Heritage Office Guidelines for Archaeological Assessment.[2]

As an advisory tool, the Historical Archaeological Management Plan provides a clear understanding of the nature and extent of local archaeological resources. The primary purpose of this report is to ensure that the archaeology is considered in the strategic planning of land use in places that are likely to present a high concentration of archaeological sites.

The report conforms to Condition 12 as set out in the Secretary's Environmental Assessment Requirements (SEARs).

1.2 STUDY AREA

The study site is that piece of land described as Lot 22 in Land Titles Office Deposited Plan 1072217 and known by the street address 42 Honeysuckle Drive, Newcastle, in the parish of Newcastle, county of Northumberland.

1.3 SCOPE

This report does not consider the potential Aboriginal archaeology of the study site. However, any Aboriginal sites and objects are protected by the National Parks and Wildlife Service Act (see Section 1.5.3). A separate Aboriginal Cultural Heritage Assessment Report is also being prepared by AMAC Group (September 2017).

The heritage value of the structures currently standing on the study site is not assessed as part of this report.

The discovery of unknown and unassessed remains will require additional assessment.

1.4 AUTHOR IDENTIFICATION

This report was researched and written by Ivana Vetta, Jaki Baloh and Steven Vasilakis based on an earlier report written by AMAC Group on the Cottage Creek Precinct and Wickham Urban Village.[3] The collections used were the Land Titles Office, the State Library of NSW, the Newcastle Region Library Local Studies Section, and the online resources of the NSW Registry of Births, Deaths and Marriages, NSW State Records, Hunter Photobank and National Library of Australia.

[2] Heritage Office and Department of Urban Affairs and Planning (1996).

[3] AMAC (September 2009) Baseline Archaeological Assessment Cottage Creek Precinct and Wickham Urban Village Newcastle, NSW.

1.5 STATUTORY CONTROLS AND HERITAGE STUDIES

1.5.1 NSW Heritage Act 1977 (as amended)

The NSW Heritage Act 1977 affords automatic statutory protection to relics that form archaeological deposits or part thereof. The Act defines relics as:

> 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

Sections 139 to 145 of the Act prevent the excavation or disturbance of land for the purpose of discovering, exposing or moving a relic, except by a qualified archaeologist to whom an excavation permit has been issued by the Heritage Council of NSW.

1.5.3 National Parks and Wildlife Act (1974)

The *National Parks and Wildlife Act 1974* (as amended) affords protection to all Aboriginal objects and is governed by the NSW Office of Environment and Heritage (formerly Department of Environment, Climate Change and Water). These objects are defined as:

> any deposit, object or material evidence (not being a handicraft made for sale) relating to the Aboriginal habitation of the area that comprises New South Wales, being habitation before or concurrent with (or both) the occupation of that area by persons of non-Aboriginal extraction, and includes Aboriginal remains.[4]

It is an offence to destroy Aboriginal objects or places without the consent of the Director-General.[5] Section 86 discusses 'Harming or desecration Aboriginal objects and Aboriginal places:

> (1) A person must not harm or desecrate an object that the person knows is an Aboriginal object. Maximum penalty:
> (a) in the case of an individual-2,500 penalty units or imprisonment for 1 year, or both, or (in circumstances of aggravation) 5,000 penalty units or imprisonment for 2 years, or both, or
> (b) in the case of a corporation-10,000 penalty units.
> (2) A person must not harm an Aboriginal object. Maximum penalty:
> (a) in the case of an individual-500 penalty units or (in circumstances of aggravation) 1,000 penalty units, or
> (b) in the case of a corporation-2,000 penalty units.
> (3) For the purposes of this section, "circumstances of aggravation" are:
> (a) that the offence was committed in the course of carrying out a commercial activity, or
> (b) that the offence was the second or subsequent occasion on which the offender was convicted of an offence under this section.
> This subsection does not apply unless the circumstances of aggravation were identified in the court attendance notice or summons for the offence.
> (4) A person must not harm or desecrate an Aboriginal place.
> Maximum penalty:
> (a) in the case of an individual-5,000 penalty units or imprisonment for 2 years, or both, or

[4] Part 1 Section 5, National Parks and Wildlife Act 1974.
[5] Part 6 Section 90 (1) National Parks and Wildlife Act 1974.

(b) in the case of a corporation-10,000 penalty units.
(5) The offences under subsections (2) and (4) are offences of strict liability and the defence of honest and reasonable mistake of fact applies.
(6) Subsections (1) and (2) do not apply with respect to an Aboriginal object that is dealt with in accordance with section 85A.
(7) A single prosecution for an offence under subsection (1) or (2) may relate to a single Aboriginal object or a group of Aboriginal objects.
(8) If, in proceedings for an offence under subsection (1), the court is satisfied that, at the time the accused harmed the Aboriginal object concerned, the accused did not know that the object was an Aboriginal object, the court may find an offence proved under subsection (2).[6]

1.5.3.1 Due Diligence Code of Practice for the Protection of Aboriginal Objects in NSW

In October 2010 the DECCW (now OEH) introduced the "Due Diligence Code of Practice for the Protection of Aboriginal Objects in NSW".[7] This code should be used by individuals or organisations who are contemplating undertaking activities which may harm Aboriginal objects.

This code provides a process whereby a reasonable determination can be made as to whether or not Aboriginal objects will be harmed by an activity, whether further investigation is warranted and whether the activity requires an Aboriginal Heritage Impact Permit (AHIP) application.

If through this or any other process that meets the standards of this code, such as an environmental impact assessment, you have already taken reasonable steps to identify Aboriginal objects in an area subject to a proposed activity and it is already known that Aboriginal objects will be harmed or are likely to be harmed by an activity, then an application should be made for an AHIP. Individuals or organisations who are contemplating undertaking activities which could harm Aboriginal objects should consult this code or engage the services of an appropriately qualified Archaeological consultant to carry out a due diligence study on any proposed development.

This code of conduct was released in response to changes in the NPW Act which are outline below which now states "A person must not harm or desecrate an object that the person knows is an Aboriginal object" or that "A person must not harm or desecrate an Aboriginal place" (NPW Act, Amendment 2010).

1.5.4 Environmental Planning and Assessment Act 1979

The Environmental Planning and Assessment Act 1979 requires all environmental impacts to be considered prior to the re-development or development of land. This covers, among other things, potential impacts to cultural and historic heritage. The requirements for compliance with the regulations of the Act are usually set out in the management tool afforded by Local Environment Plans (LEPs), and Heritage Schedules that form a part of them.

Although this Act is regulative, it cannot be used to grant a permit for archaeological excavation in NSW.

[6] Part 6 Section 86, National Parks and Wildlife Act 1974.
[7] DECCW, http://www.environment.nsw.gov.au/resources/cultureheritage/ddcop/10798ddcop.pdf.

1.5.5 Newcastle City Centre Local Environmental Plan 2012

The site is not included in the Heritage Conservation Areas listed in “Schedule 5: Environmental Heritage, Part 2: Heritage Conservation Areas” of the Local Environment Plan (LEP). “Schedule 5: Environmental Heritage, Part 1: Heritage Items” does not identify any heritage items within the boundaries of the site.

1.6 HERITAGE INVENTORIES AND STUDIES

1.6.1 State Heritage Register and Inventory

The NSW State Heritage Register or Inventory is a list which contains places, items and areas of heritage value to New South Wales. These places are protected under the New South Wales Heritage Act 1977.

The site is not listed on the NSW State Heritage Register or Inventory. The site is located to the west of the “Civic Railway Workshops”, which is listed on the State Heritage Register. However, the listing notes that some associated archaeological remains may lie outside the boundaries given in that listing.[8]

1.6.2 National Heritage List

The National Heritage List is a list which contains places, items and areas of outstanding heritage value to Australia. This can include places and areas overseas as well as items of Aboriginal significance and origin. These places are protected under the Australian Government's EPBC Act.

The study site is not listed on the National Heritage List.

1.6.3 Commonwealth Heritage List

The Commonwealth Heritage List can include natural, Indigenous and historic places of value to the nation. Items on this list are under Commonwealth ownership or control and as such are identified, protected and managed by the federal government.

The study site is not listed on the Commonwealth Heritage List

1.6.4 Historical and Industrial Archaeological Survey 1991

The 1991 “Honeysuckle Historical and Industrial Archaeological Survey” includes the current site yet it was not listed as an item.[9] The survey did identify “H12 Cottage Creek and Railway Bridges” as occurring nearby.

Several general items are also identified as being relevant to the site:

Z03	Original waterfront line
Z06	Miscellaneous buried archaeological evidence
Z07	Pipelines
Z10	Underground mine workings

[8] State Heritage Register, Database No.5044977.

[9] C & M. J. Doring (October 1991) Honeysuckle Project: Historical and Industrial Archaeological Survey, for the NSW Property Services Group.

1.6.5 Newcastle Archaeological Management Plan 1997

The Newcastle Archaeological Management Plan (AMP) took the Newcastle Central Business District (CBD) as its study area. The study identified 425 known or potential archaeological sites and of those, the study recommended that Newcastle Council protect 301 sites as heritage items. The study also proposed that all significant sites should have comprehensive archaeological investigations undertaken prior to any development that may disturb an archaeological resource on the site. Allotments which have a low level of disturbance and are therefore considered potential archaeological sites, or allotments which are adjacent to known archaeological sites, should be subject to a preliminary archaeological assessment to determine whether further investigations are required.

The current site occurs within the bounds of the "Newcastle Archaeological Management Plan" study; however, it is not listed as an item. The plan identifies "1231 - Rail Tracks to Lee Wharf" as being nearby.

1.6.6 Previous Archaeological Studies Relating to the Study Area

The study site has not previously undergone archaeological assessment; however, it is adjacent to areas that have been extensively studied.

The area to the west of the study site, known as the Cottage Creek Precinct (parts of Lot 2 DP1113281, Lot 105 DP1015391 and Lot 8 DP883474), was included in a Baseline Archaeological Assessment prepared in 2008.[10] Research revealed that most of the site consisted of reclaimed land and potential archaeological evidence included:

- Late 19th century soap works and houses,
- c.1875 Bullock Island Bridge,
- c.1920 wharf,
- c.1930s stores and sheds,
- Water lines, wharves and rail lines.[11]

Test excavation at nearby 738 Hunter Street Newcastle did not discover topsoil or definitive evidence of the original topography.[12] The level of the site had been substantially built up, either naturally by the flooding of Cottage Creek or artificially by land reclamation. It was not possible to determine which.

The area to the west of Worth Place (parts of Lot 2 DP1113281 and Lot 8 DP883474) was included in an Assessment of Significance and Research Design prepared in 2004.[13] The work proposed for this area consisted of the excavation of contaminated soil, and the replacement of this soil with clean fill.[14]

Because it was found that most of the area consisted of reclaimed land, the report considered that it was unlikely that evidence of very early occupation of the area

[10] AMAC Group (July 2008) Baseline Assessment Report, Cottage Creek Precinct, Newcastle.
[11] AMAC Group (July 2008), p. 164.
[12] AMAC Group (August 2006) Test Excavation Report, 738 Hunter Street, Newcastle.
[13] Umwelt (August 2004) Assessment of Significance and Research Design for the Historical Archaeology of Worth Place Park, Park Residential and South Park precincts, Honeysuckle Drive, Newcastle", for the Honeysuckle Development Corporation.
[14] Umwelt (August 2004), p. 1.

would be found during the work. The report found that potential sub-surface evidence was likely to consist of:

- Historic shoreline of the southern point of Bullock Island,
- No.3 Goods Shed (Building D) and cargo shed (Building E),
- 1960s office and amenities buildings,
- Railway siding and associated infrastructure along Lee Wharf Road,
- c1931 John Reid and Co. Wool Shed,
- c1961 goods shed on the former Wool Shed site,
- Rail lines and associated infrastructure.[15]

The report recommended that the proposed work be archaeologically monitored and that any relics exposed be investigated and recorded.[16]

1.6.7 Statement of Heritage Impact

A Statement of Heritage Impact has been prepared by EJE Heritage for the Greater Building Society proposed head office building at 42 Honeysuckle Drive, Lot 22 DP 1072217.[17] They conclude that the only remaining built item of European heritage in proximity to the site is Cottage Creek and that no aspects of the design have been identified that could detrimentally impact such heritage. The report recommends that an Indigenous archaeological assessment is essential due to the former course of Cottage Creek.

1.7 ACKNOWLEDGMENTS

Chris Farrington and Anna Lansley of Doma Group for all their assistance during the reporting process.

[15] Umwelt (August 2004), p. 6.
[16] Umwelt (August 2004), p. 14.
[17] EJE (2012) DRAFT Statement of Heritage Impact - The Greater Building Society Head Office, p. 35.

2.0 SITE HISTORY

2.1 HISTORY

The general history of the Newcastle region has been adapted from a previous assessment written in 2008 by AMAC Group in relation to an adjacent site located to the west of the current study site and known as the Cottage Creek Precinct.[18]

Aboriginal habitation in the Newcastle area is known from archaeology to have begun thousands of years ago. Archaeological sites at the heart of Newcastle CBD on the Hunter River provide evidence for Aboriginal habitation of the area during the Holocene period.[19] The Aboriginal people who occupied the present area of Newcastle prior to European contact belonged to the Awabakal language group.[20]

In 1804, a group of convicts and soldiers were sent to settle the area, and the town of Newcastle, originally named King's Town, was proclaimed.[21] The settlement was intended for convicts sentenced for a further felony or misdemeanour committed while in the colony.[22] However, it was also intended to exploit the resources of the region, principally coal, timber, salt and lime.[23]

In the early 1820s, the decision was made to open the Hunter Valley to free settlers. As a result, in 1822, most of Newcastle's convicts were moved to Port Macquarie.[24] It was intended that Newcastle would become a port for the surrounding settlers.[25] In the early 1820s, Henry Dangar, the government surveyor, surveyed Newcastle and laid the town out in a grid.[26]

At the time of European settlement of the area, Honeysuckle Point was a low-lying promontory surrounded by tidal flats. To the north-west of Honeysuckle Point was Bullock Island, divided from the mainland by Throsby Creek. It is possible that cattle were held on the island before being loaded onto ships and that gave the island its name.[27] Other names for the island were Onebygamba, Chapman Island and Denison Island. It is now known as Carrington.

To the west of Honeysuckle Point was Cottage Creek, one of the early sources of water for the earliest European settlers of the Newcastle area.[28] Its catchment area was the present location of Merewether, the Glebe and the Junction, as well as

[18] AMAC Group (July 2008).
[19] Steele in AMAC (July 2002), p. 94.
[20] Dominic Steele Consulting Archaeology (March 2004), p. 28.
[21] NSW State Records, A.O. Reel 6039 sz756, p.283. Newcastle is the name intended for the settlement at Coal Harbour and Hunters River in this document, dated September, 1804.
[22] Wood (1972), p. 1.
[23] Turner (February 1997), p 12.
[24] Turner (February 1997), p. 18.
[25] Turner (1997), p. 12.
[26] Dangar (1828). The engraving of Dangar's earlier survey work was undertaken by J. Cross of London and published in August 1828.
Gray (1966). His original work in the Hunter was conducted in c1822-1824.
[27] Callen (1986), p. 191.
[28] Armstrong (1967), p. 179.

parts of Newcastle and Hamilton.[29] It appears to have been swampy, at least along the northern stretch, and it was at first known as Swamp Creek.

A Government farm was established in the area of Honeysuckle Point and Cottage Creek. A guard house was built on the eastern bank of the Creek, near the point where the track from Newcastle to Maitland (now Hunter Street) crossed the Creek.[30]

Near this point, a track branched off to the right, leading to the farms in the Wickham area. This became Hannell Street.[31] Although there is a reference to "the village of Wickham" as early as 1840,[32] the area remained sparsely populated until well after the establishment of Newcastle. It was low-lying and marshy in places, and prone to flooding.[33]

In 1857, the railway line from East Maitland to Honeysuckle was opened. It was extended through to Watt Street in Newcastle the following year.[34] Approaching Honeysuckle Point, the line ran along an embankment (Figure 2.3). Honeysuckle Station was built on land resumed on Honeysuckle Point.[35] The buildings constructed at the station included a group of workshops,[36] to which additions were added over time and became known as the Locomotive Branch. In 1870, the Existing Lines Branch later called the Permanent Way or Per Way Branch, established separate workshops at Honeysuckle.[37]

As Newcastle developed into a major port, and as shipping and other transport and methods of cargo loading changed, substantial works were carried out on the harbour. Several major works were carried out in the area of Honeysuckle Point, altering the shape of the coast (Figure 2.5-Figure 2.7). The construction of the Dyke, at Bullock Island, began in the 1860s, and a coal-loading wharf was built there in the 1870s.[38] In c.1875, a bridge was built across Throsby Creek to Bullock Island, largely for the transportation of coal to the loading wharf.

The construction of the railway increased the importance of Hannell Street, which had already become a commercial strip. The southern end of the street became the commercial centre of Wickham from about the 1870s.[39] The Municipality of Wickham was formed in 1871, following the passing of the Municipalities Act in 1867.[40] Charlton Street, which was then the name of the stretch of Hunter Street between Cottage Creek and Tudor Street, was the boundary between Wickham and Newcastle municipalities.[41]

In about 1890, the creation of the Basin, between the Dyke and Bullock Island began. The work involved the dredging of the sea floor in the area of the Basin, and

[29] Armstrong (1967), p. 180.
[30] Armstrong (1967), p. 179.
[31] Department of Public Works (February 1996) Section 3.1.
[32] LTO Bk 4 No.247.
[33] Armstrong (1967), p. 5.
[34] Suters Architects (April 1997) p. 2, 21.
[35] Godden Mackay Logan (May 2003), p. 7.
[36] Preston (1982), p. 26.
[37] Doring, C. & M.J. (1990), p. 13.
[38] Callen (1986), p. 204.
[39] Department of Public Works (February 1996) Section 3.1.
[40] Armstrong (1967), p. 10.
[41] Jackson Teece (November 2004), p. 6.

removal of rock at the entrance.[42] The dredged silt was used as fill, in order to reclaim areas of Carrington and Honeysuckle. [43] By 1896, the area to the south of the railway embankment had been reclaimed by the deposition of fill (Figure 2.8).

The flooding and pollution of Cottage Creek had become a problem by this stage.[44] In 1896, a concrete channel about 1000 feet long was built to contain the creek. A minor extension towards Hannell Street was built in 1897-98 (Figure 2.8).[45]

The reclamation of land in the early 19th century occurred in a piecemeal fashion. Bullock Island Bridge was removed by 1915. In the late 1920s, Lee Wharf was extended 540 feet to the west, and in the late 1930s another 100 feet, with a low level wharf for another 460 feet.[46] Reclamation of the land to the rear of the wharf continued. The study site first appears on maps in 1916 as reclaimed land to the north of the railway (Figure 2.13-Figure 2.14).

The ownership of Lee Wharf and the resumed and reclaimed land to the south was retained by the State and Commonwealth Governments, divided among various departments; principally the Public Works Department, along the Wharf, and the Commissioner for Railways, to the south. The wharf and the land alongside it were used for shipping, loading and unloading vessels, and associated activities. Some of the buildings were leased to private companies, while others were used by official bodies such as the Water Police and the Fisheries Department.

By the 1920s, Cottage Creek was again polluted. Further works were carried out on the Creek, beginning in 1925-26.[47] The existing concrete and rubble channel at Newcastle West was widened by removing one wall and extending the width of the channel. Under the railway line and Hunter Street, the channel was duplicated to allow for the increased flow of water.[48]

In the 1930s, the growth of the Honeysuckle Point railway workshops ceased after the workshops at Chullora were expanded.[49] Some work was also removed to the workshops at Cardiff.[50] However, up until the 1950s, the Per Way Workshops continued to take on contracts for other government departments, such as Public Works. The workshops contributed fabricated materials for several large Government civil engineering and construction projects.[51]

A further extension to the western end of Lee Wharf was made by the construction of 100 feet of timber wharf and 460 feet of concrete wharf. This work began in 1937 and was completed in 1941.[52] Repairs carried out after the Second World War included re-decking the Wharf with concrete and driving in raker piles to support the structure.

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[42] Callen (1986), p. 206.
[43] Callen (1986), p. 206.
[44] Armstrong (1967), p. 179-180.
[45] Armstrong (1967), p. 181.
[46] Cosmos Archaeology (October 2005), p. 23.
[47] Armstrong (1967), p. 186.
[48] Armstrong (1967), p. 186.
[49] Doring, C. & M.J. (1990), p. 26.
[50] Doring, C. & M.J. (1990), p. 22.
[51] Doring, C. & M.J. (1990), p. 26.
[52] Cosmos Archaeology (October 2005), p 23.

Aerial photographs from the 1940s-1950s show that the study site remained undeveloped throughout the expansion of the wharves (Figure 2.18 - Figure 2.21). It is only in the 1960s that the aerials indicate light usage through the installation of railway tracks at the southern end of the site (Figure 2.22 - Figure 2.23). These remain evident in another aerial taken in 1992 (Figure 2.25). No other development or activity appears to have been conducted on site.

In 1958, the foundry at the railway workshops was closed down, and several of the operations were moved to Cardiff. In the late 1970s, most of the Per Way Workshop buildings were demolished.[53] Buildings on the Workshops site continued to be used by the Railways until the early 1990s, principally for storage and minor maintenance.[54]

The study site is reclaimed land that has fronted the wharves of Newcastle since the early twentieth century. That the space has not yet been properly utilised is indicative of the once burgeoning development in the area that fell short of its full potential. For the greater part of the twentieth century, the study site has been representative of the cessation of growth and gradual downturn of industry in the area.

53 Doring, C. & M.J. (1990), p. 29.
54 Doring, C. & M.J. (1990), p. 29, p. 37.

2.2 OWNERSHIP, OCCUPATION AND SITE DEVELOPMENT

At the time of European occupation in Newcastle, Cottage Creek ran through the study site which existed partly as dry land on both its banks, as well as forming the tidal foreshore of Throsby Creek (Figure 2.1 - Figure 2.4 and Figure 2.25).

The flooding and pollution of Cottage Creek reached a critical point by the late nineteenth century and a concrete channel 1000 feet long was installed to contain the waterway in 1896.[55] This channel redirected the creek off the study site to the north-west. This is shown through the 1896 plan as overlaid on a current aerial photograph (Figure 2.9). Between 1896, and at least 1908, the site does not appear to exist as dry land due to the realignment of the creek (Figure 2.10 - Figure 2.11).

Land reclamation of the general area was a long process, beginning in c.1910, and not being completed until the late 1920s or early 1930s. Titles pertaining to the study site were not established until the land was reclaimed through the deposition of fill between 1913 and 1916 and then appropriated for railway purposes (Figure 2.12 - Figure 2.14). Plans from 1922 and 1927, show the area of the site but there is no indication of development (Figure 2.15 - Figure 2.16). Not until 1937 is there a plan that shows two rail lines cutting through the study area, one in the north-east and one branching off the Sydney-Newcastle line to the south-west (Figure 2.17).

Aerial photographs from the 1940s and 1950s do not show the site in detail, however, it is clear that the area remained largely vacant (Figure 2.18 - Figure 2.21). There are two small shed structures evident to the east, but they do not occur within the current study site (Figure 2.20). A clearer photo was taken in 1963 that shows the similar rail lines from 1937, however, there appears to be an additional rail through the middle of the site running north-west to south-east. (Figure 2.22 - Figure 2.23). In 1992, the site is still used solely as a rail thoroughfare between the Sydney-Newcastle line and the Railway Workshops (Figure 2.25). After this point, the rail lines are no longer in use, having either been removed or filled over. As the level of the site is currently 1-1.5 metres above road surface, the latter is more likely.

[55] Doring C. & M.J. (1991), p. 316.

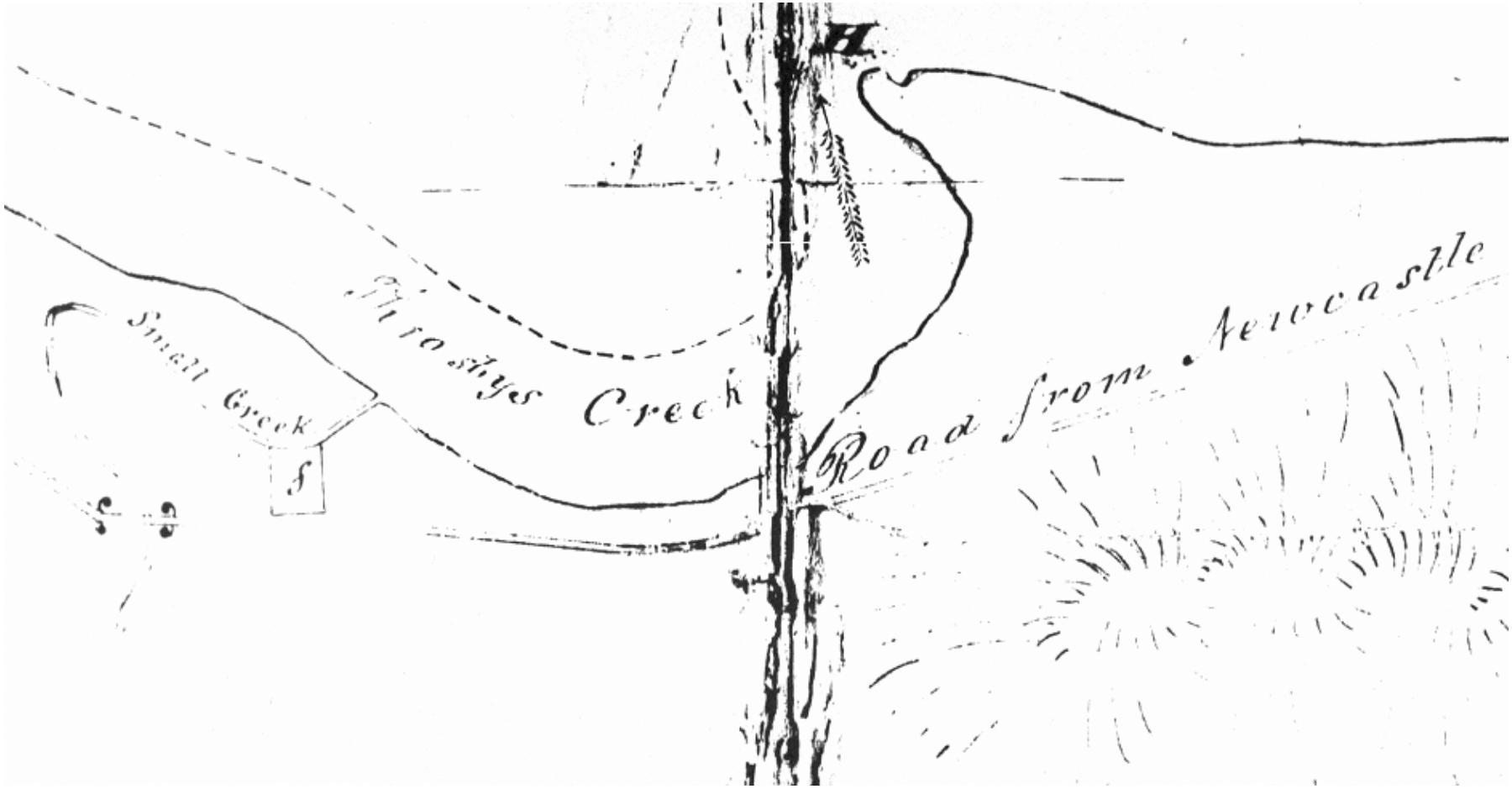


Figure 2.1 **A plan showing the area of the site in c.1838.**
The "Small Creek" is Cottage Creek, and "f" indicates the ½-acre grant to Mr Weller, thought to be the site of the Government cottage. Mr Dangar's Sketch for the Aus. Ag. Company's Coal Grant. LTO Crown Plan 64B-663.

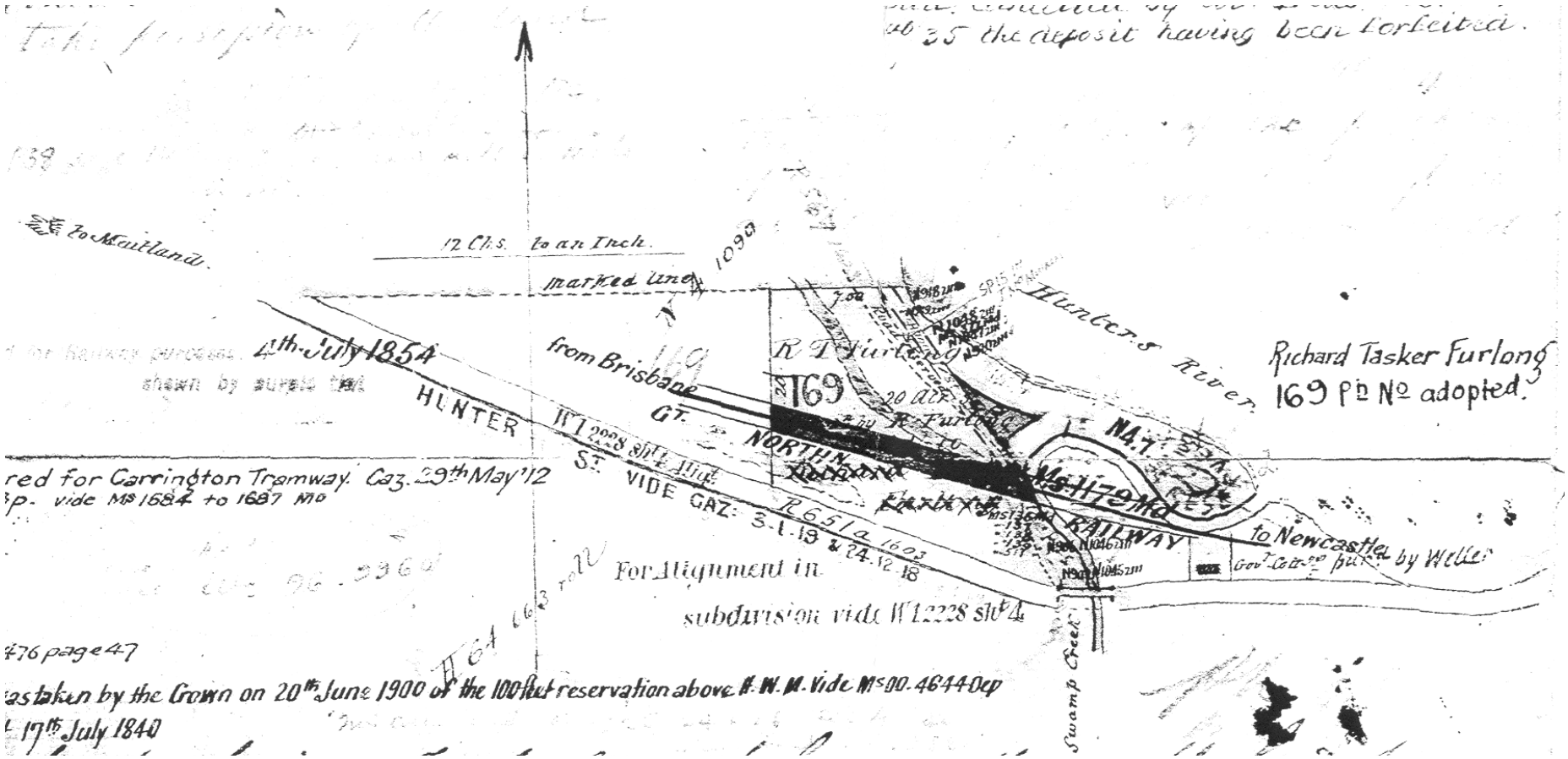


Figure 2.2 **A sketch plan from 1839, with later additions, showing Furlong's grant, and the neighbourhood. The Government cottage is indicated on Weller's property to the south of the original line of Cottage Creek.**
B. White (1839). Sketch showing twenty acres of land in the neighbourhood of Newcastle applied for by Richard Furlong. LTO Crown Plan 525-663.

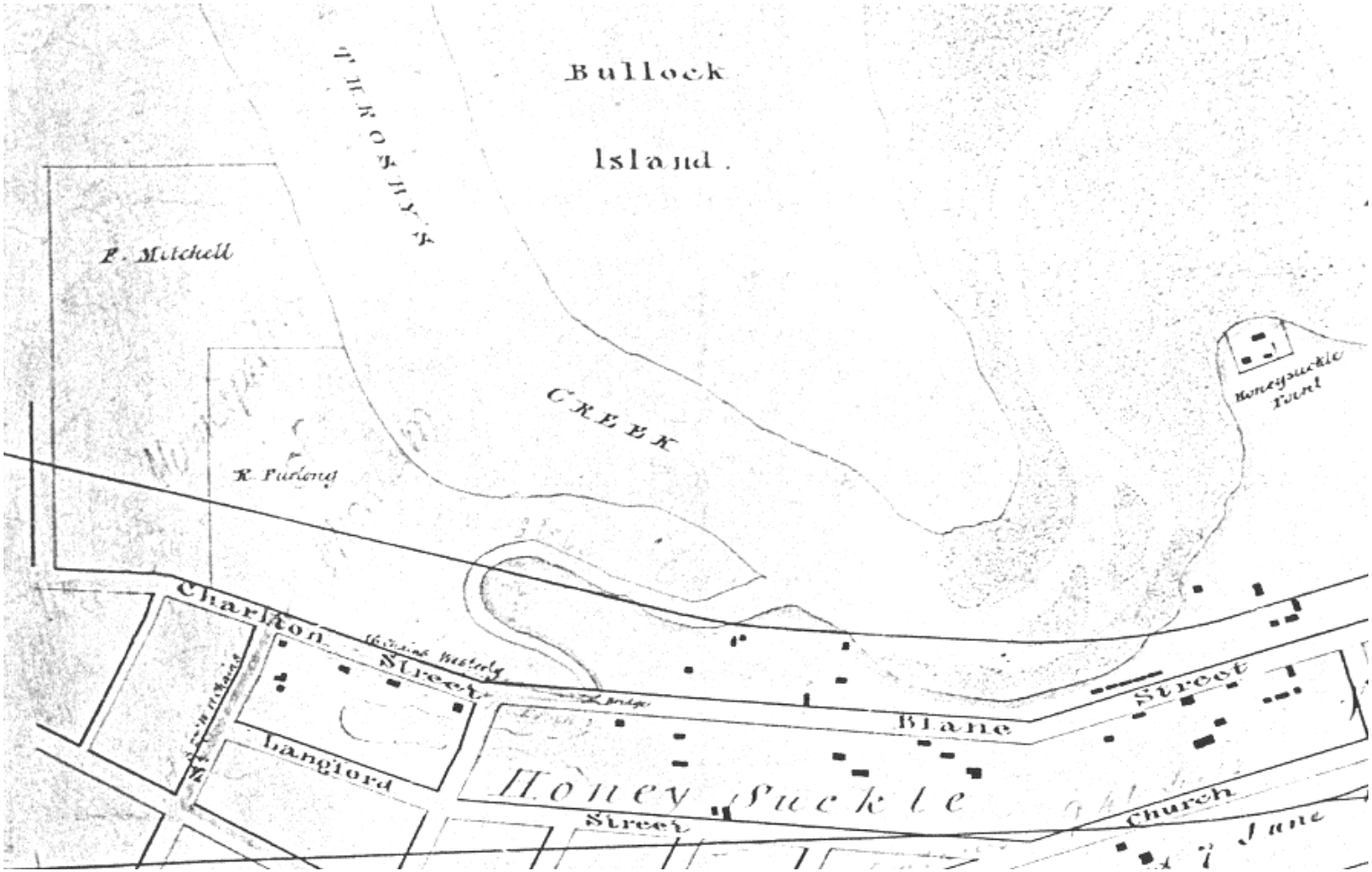


Figure 2.3 **The wider area of the site in 1857.**
Most of the site is still part of Throsby Creek and Cottage Creek. Both still follow their original course. No development is shown in the area of the site that is on land.
Kirkby (1857), Plan of the City of Newcastle, County of Northumberland, NSW. State Records NSW, AO Map 4405.

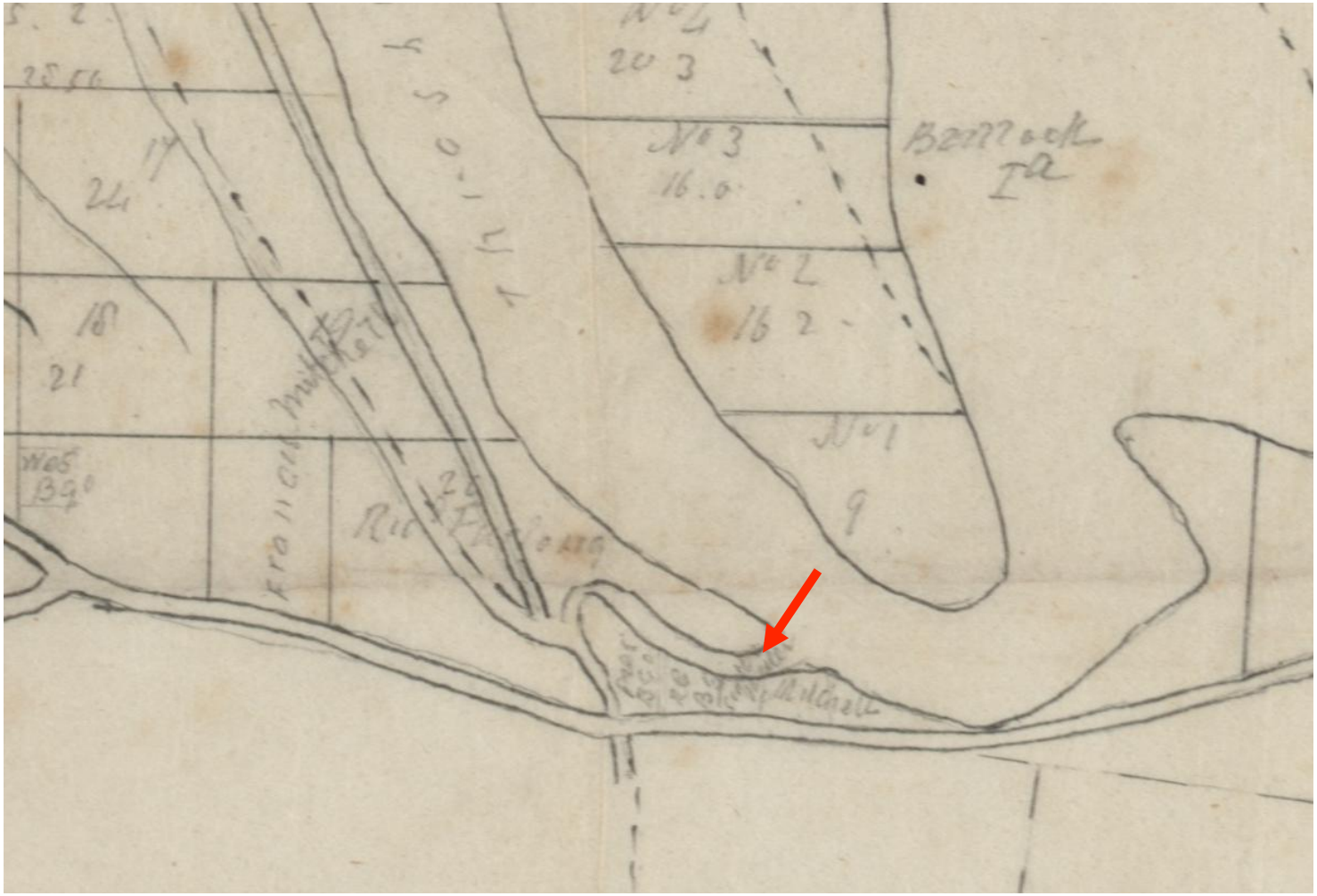


Figure 2.4 **Map of Newcastle, NSW and Environs c1850-1859.**
Red arrow indicates approximate area of study site.
National Library of Australia Map F 53.

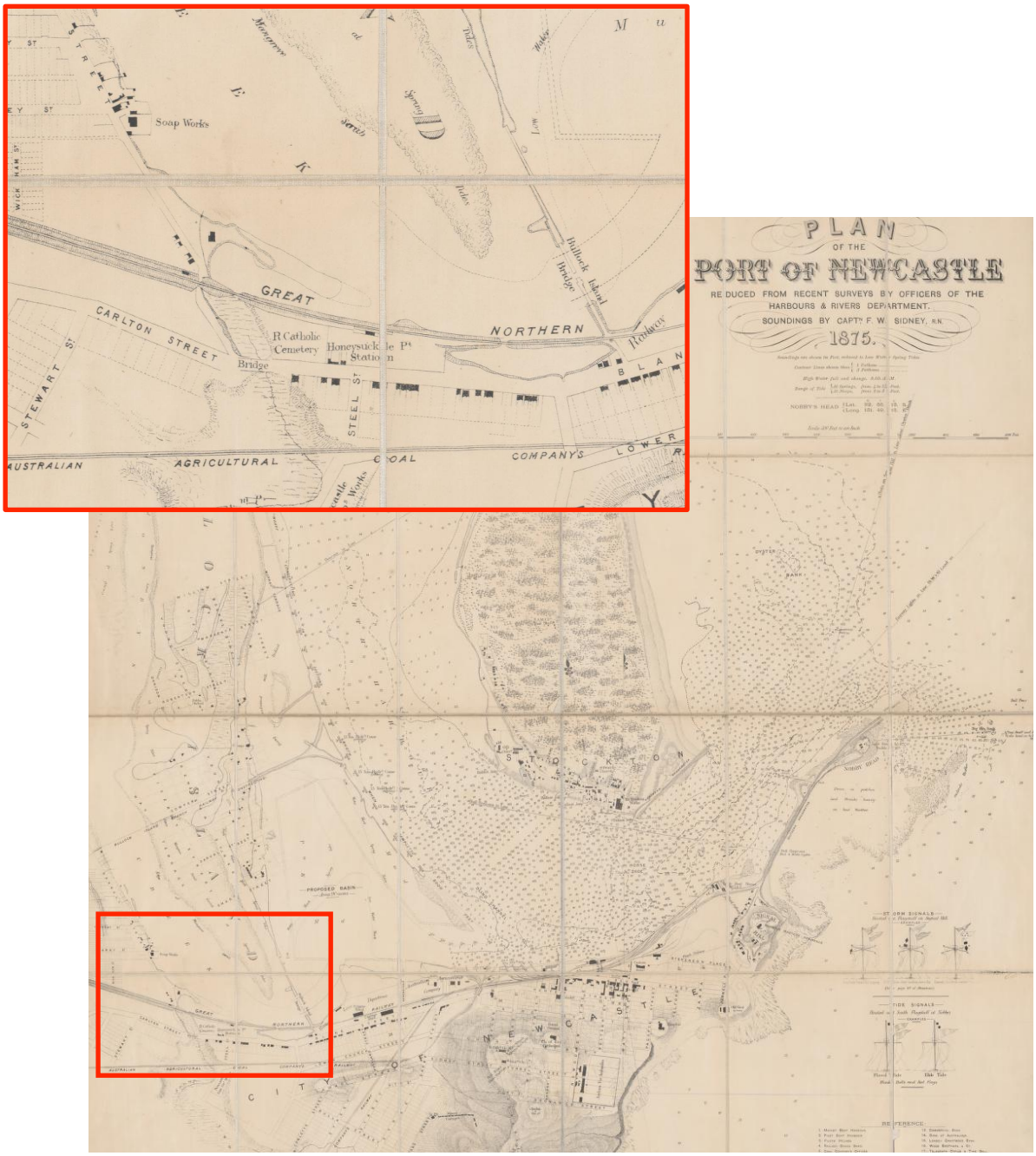


Figure 2.5 **Plan of Port of Newcastle, Reduced from recent surveys by officers of the Harbours and Rivers Department, Captain F.W. Sydney, c.1875.**
Inset shows wider study area.
National Library of Australia, Map RM 818.

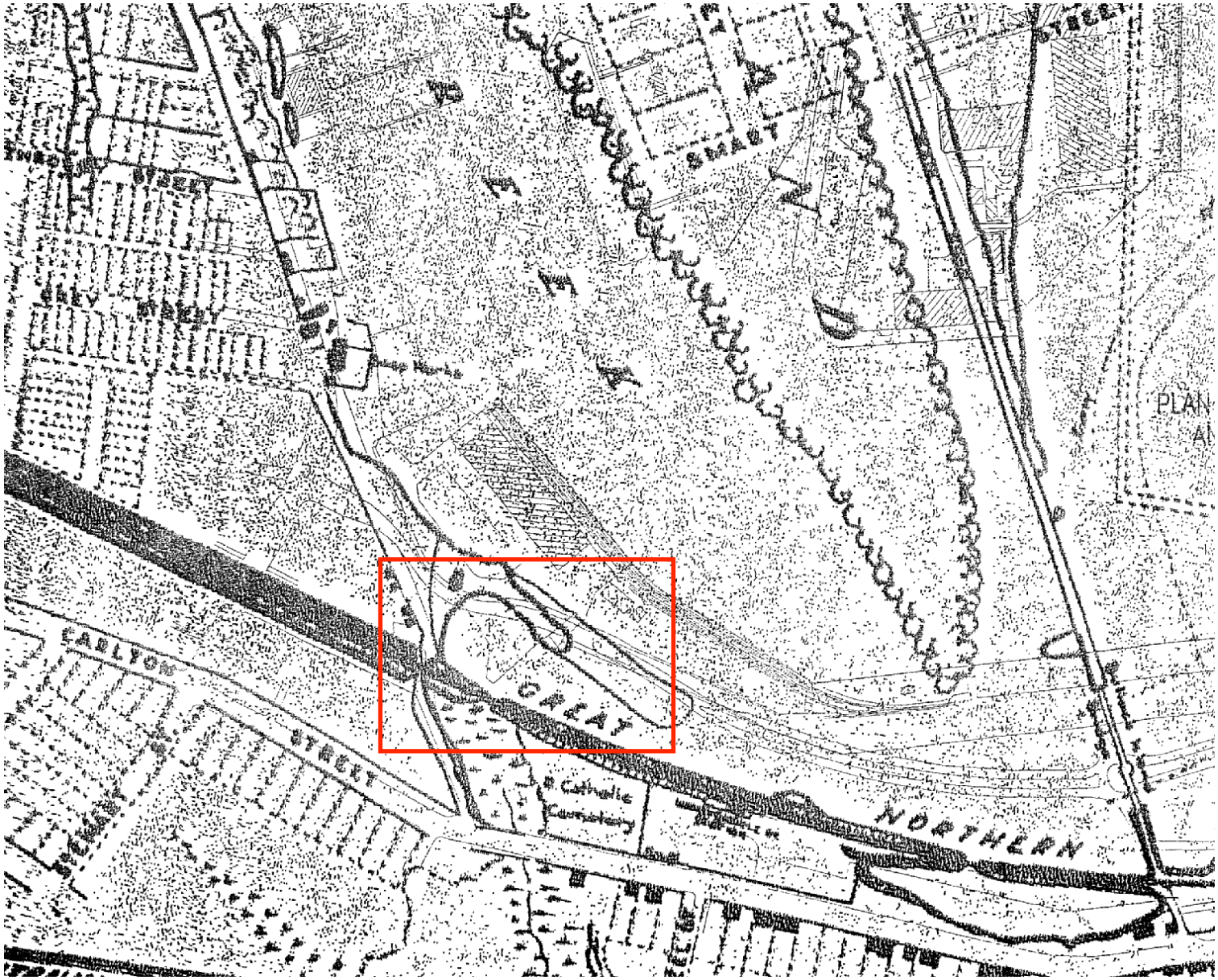


Figure 2.6 A copy of the 1878 plan of the Port of Newcastle, overlaid with the current foreshore.

Red outlines approximate study area. By this stage, some development, including the establishment of a Soap Works, had taken place on the northern part of the study site. Plan showing current foreshore detail and detail from 1878 superimposed in the Port of Newcastle.
Based on F.W. Sidney (1878) Port of Newcastle. Newcastle Region Library.

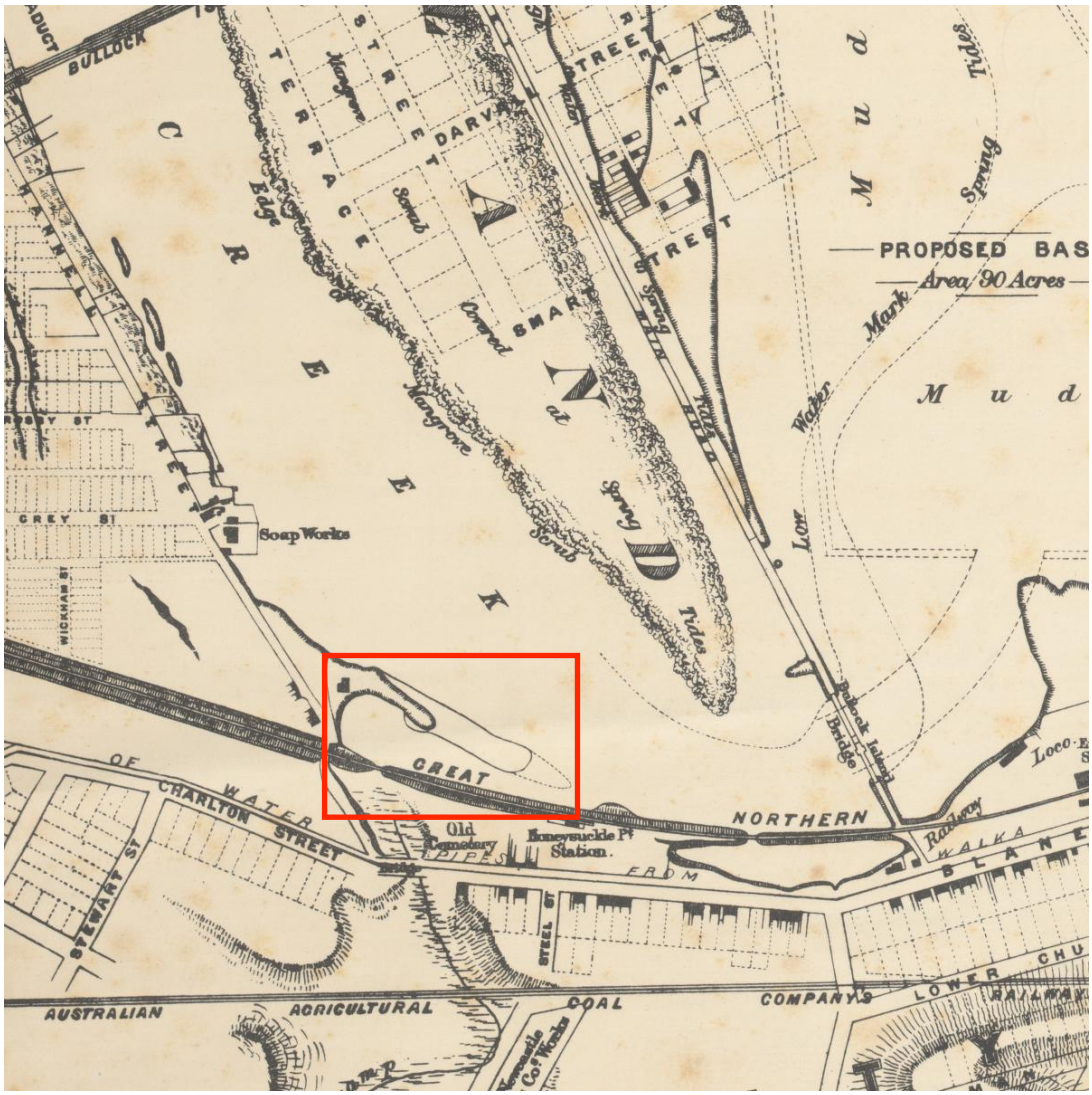


Figure 2.7 **A plan of the Port of Newcastle in 1887.**
Red outlines approximate study area.
Plan of Port of Newcastle, reduced from recent surveys by offices of the Harbours and Rivers Department, Captain F.W. Sidney RN 1887.
National Library of Australia Map RM 158.

Figure 2.8 **A plan from 1896 showing part of the site. A large amount of which is still under water.**
The Cottage Creek stormwater channel had not yet been extended north of the railway line.
NSW Department of Lands (1896) Newcastle and Suburbs. Sheet 48. Mitchell Library Z M Ser 3 811.251/1.

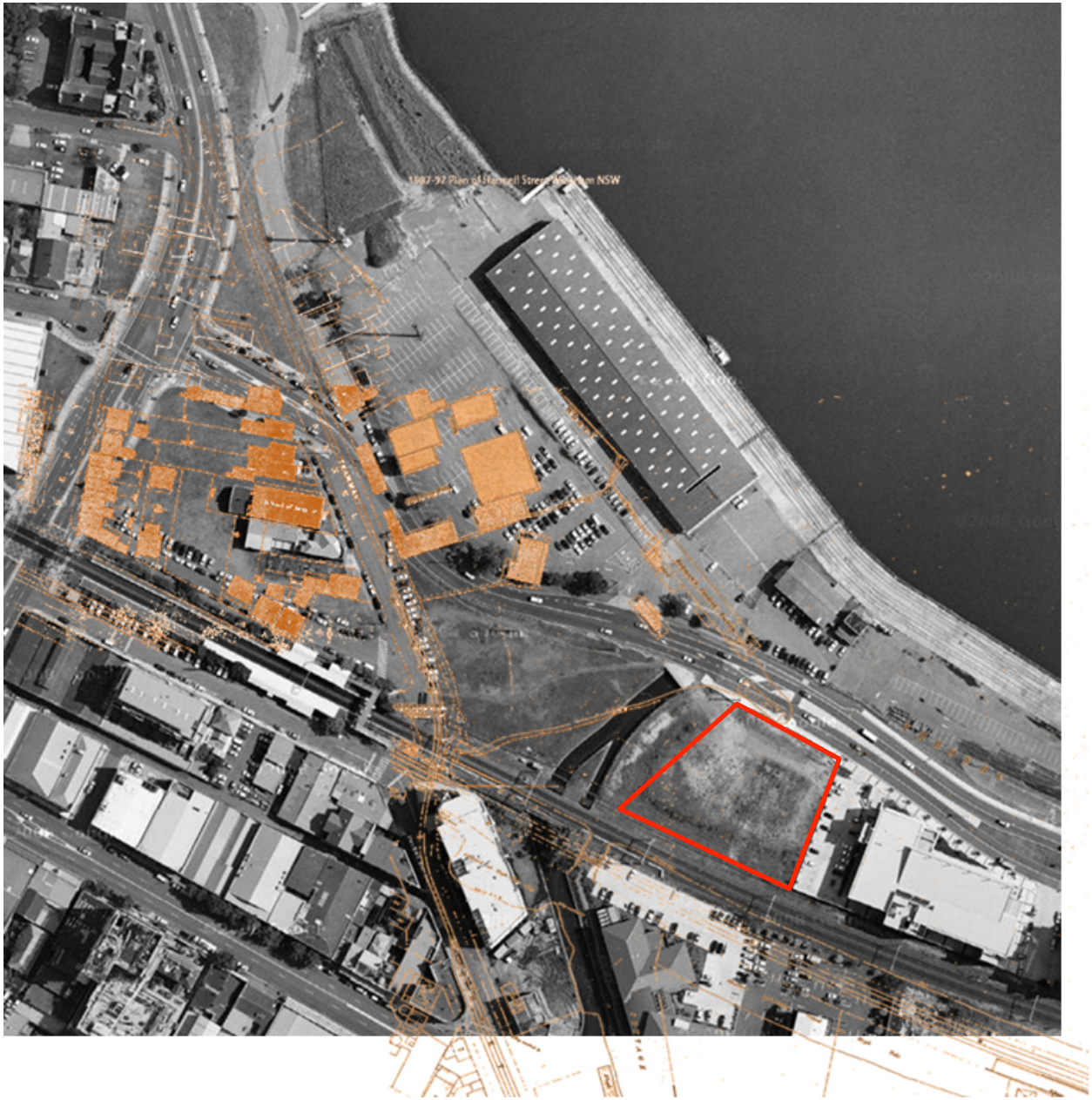


Figure 2.9 Overlay, 1896 plan over current aerial photograph.

Study site approximately outlined in red.
Maps.google.com.au, Overlay by Vetta (2009).

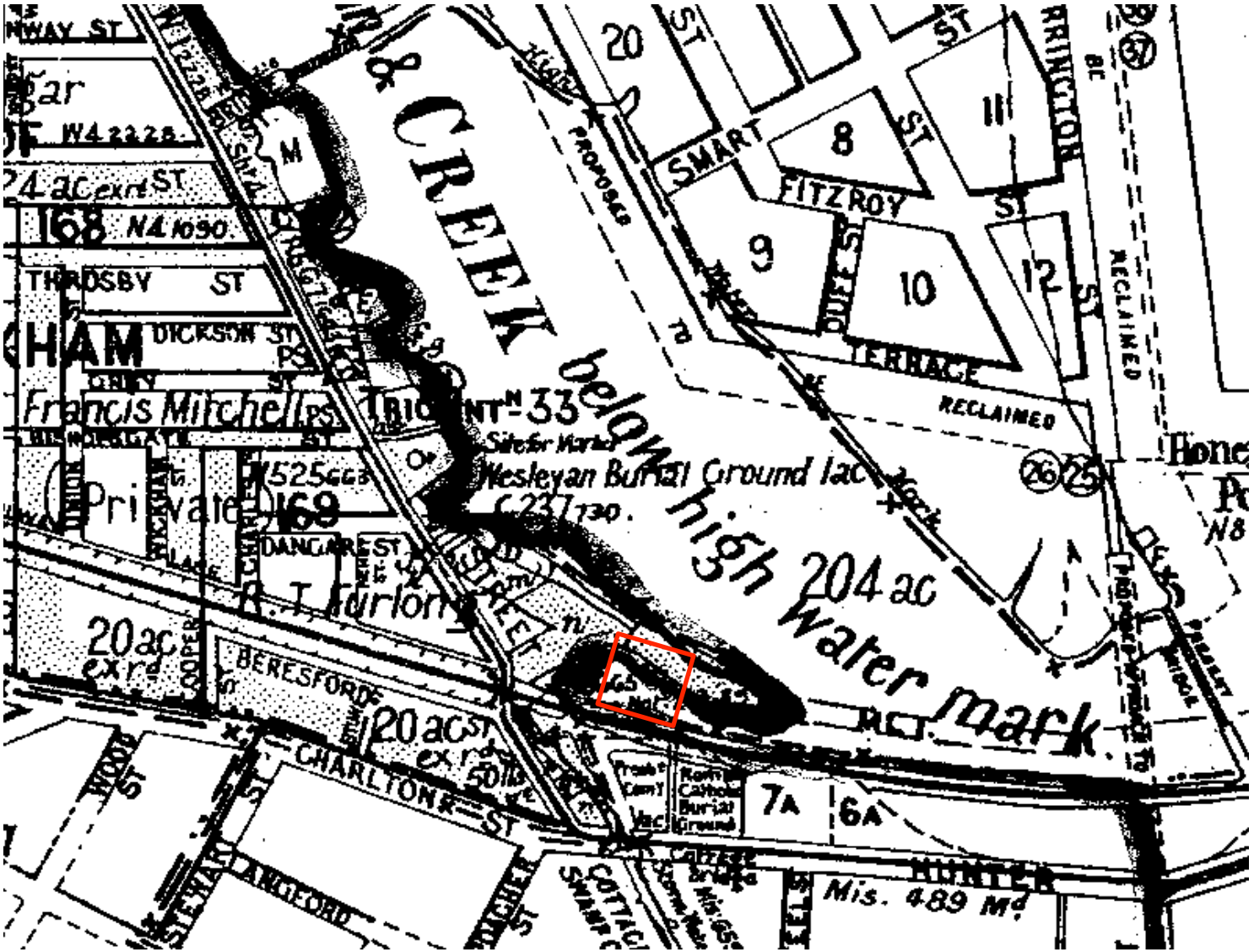


Figure 2.10 An 1899 parish map, indicating that some reclamation had been carried out in a piecemeal fashion along the banks of Throsby Creek. (1899)

Study site approximately outlined in red.
Parish of Newcastle, County of Northumberland.
Newcastle Region Library, Local Studies Section.

Figure 2.11 **A 1908 plan of Newcastle showing the waterline.**
Study site approximately outlined in red. The southern part of the site was still under water, while some reclamation had taken place along Throsby Creek in the northern part of the site. NSW Department of Public Works (1908) Map of City of Newcastle and Suburbs. Mitchell Library Z M4 811.251/1908/1.

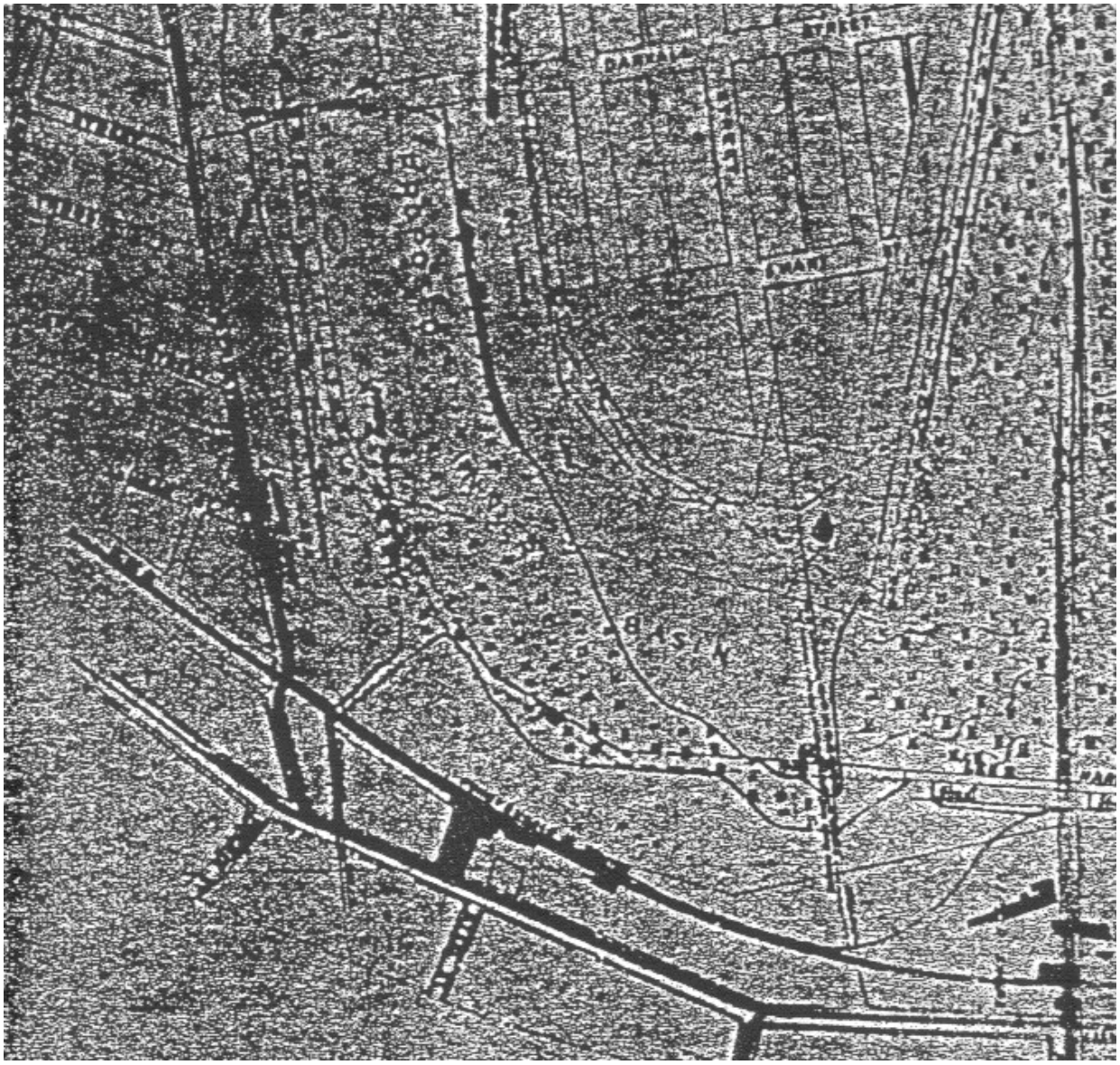


Figure 2.12 A 1913 plan of Newcastle Harbour.
Although it is difficult to distinguish detail in this plan, the water line and the existing and proposed wharves can be seen.
C. King (1913) Plan of Newcastle Harbour. Newcastle Region Library, Local Studies Section.

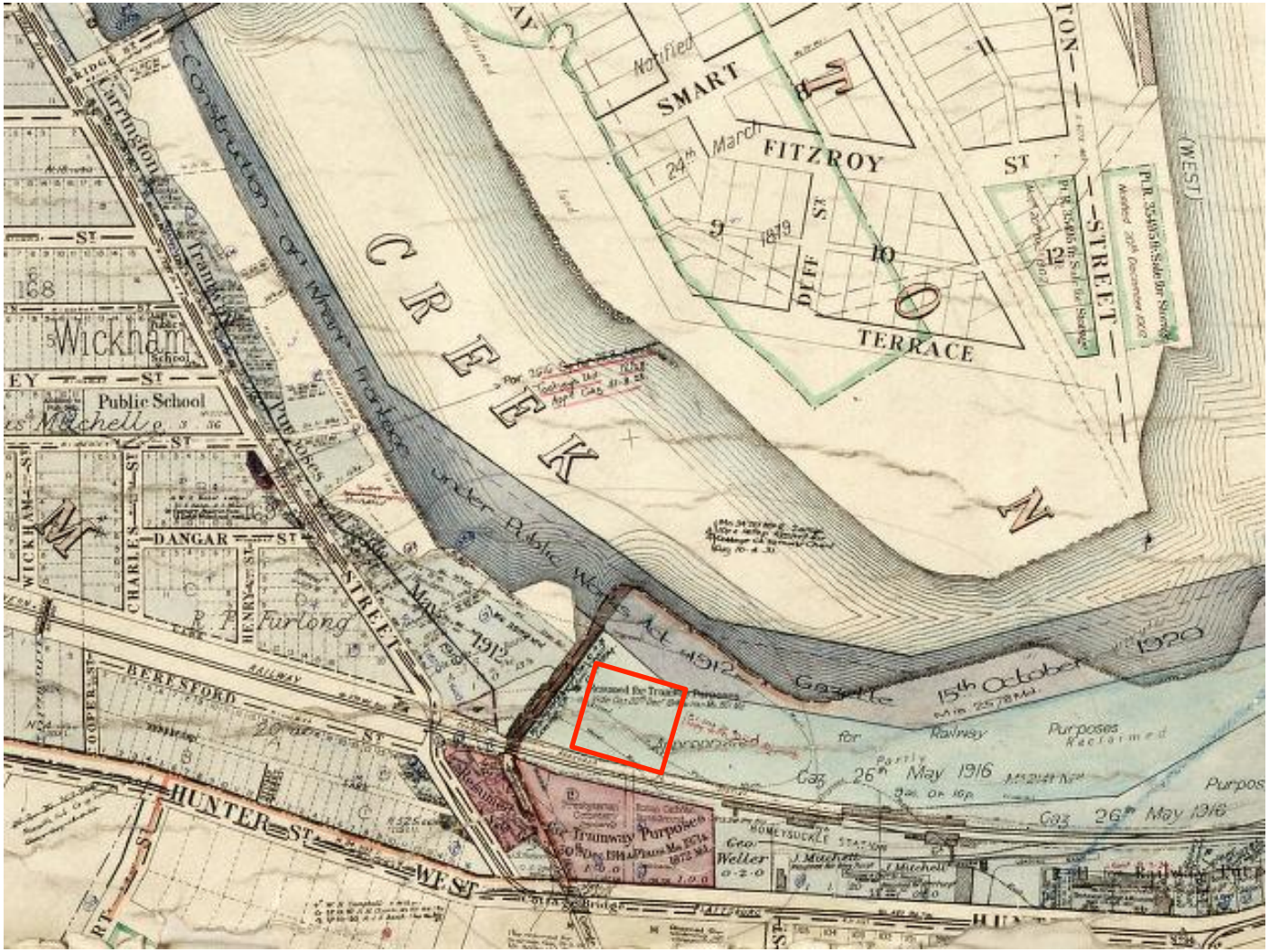


Figure 2.13 A town map dated to 1916.
Study site approximately outlined in red. This plan also includes some later work, and some work that was proposed but never undertaken. However, it allows a comparison to be made between the original waterline and the later one. (1916) Town of Newcastle, County of Northumberland.
NSW Land and Property Information, Parish Map Preservation Project, Image No.10855601.

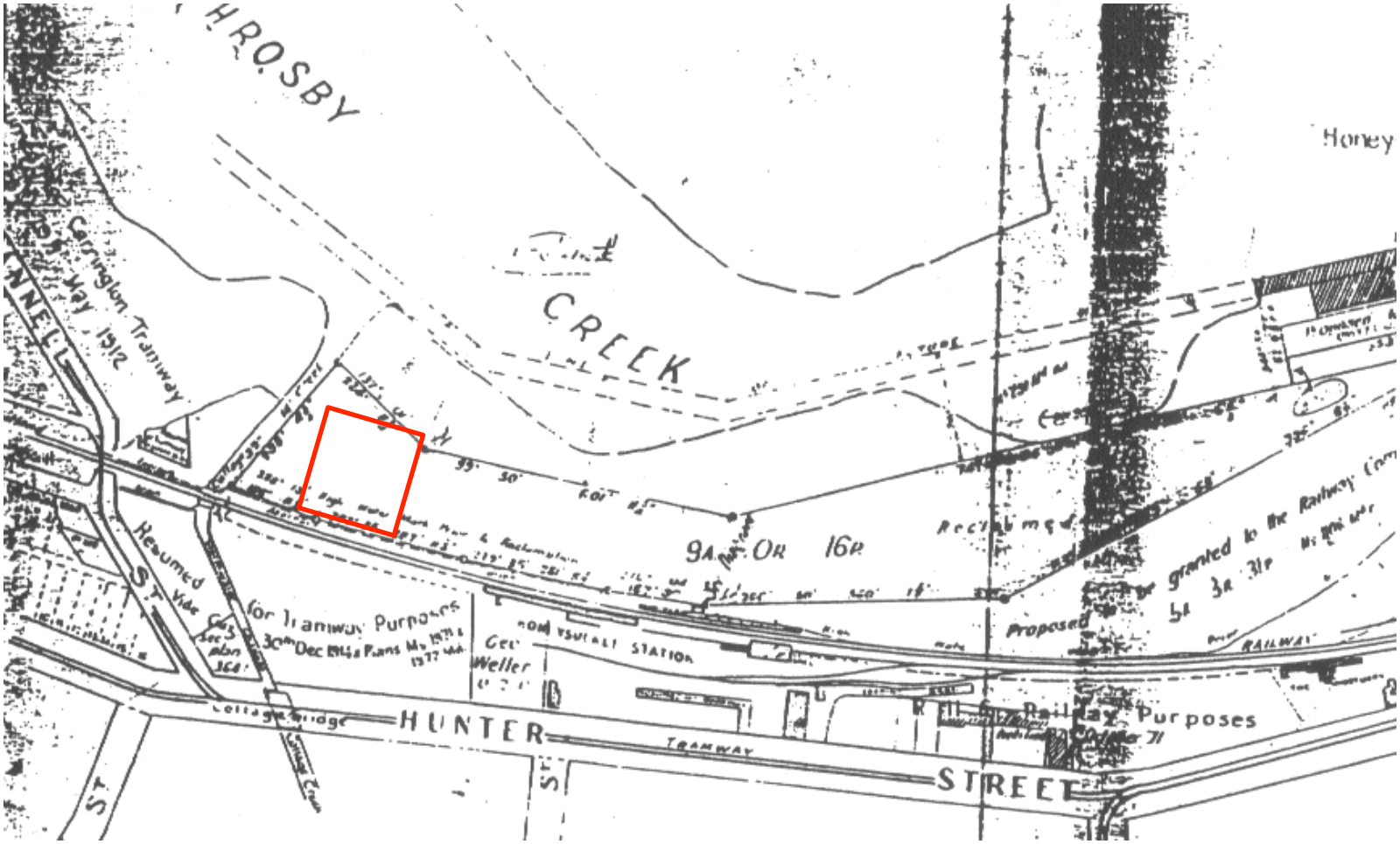


Figure 2.14 **A plan showing reclamation to create the site in 1916.**
W.L. Cooke (1916), Newcastle Harbour Improvements Plan showing reclaimed land proposed to be transferred to the Railway Commissioners at Honeysuckle, Newcastle. C. and M.J. Doring (1990) Fig. 6.

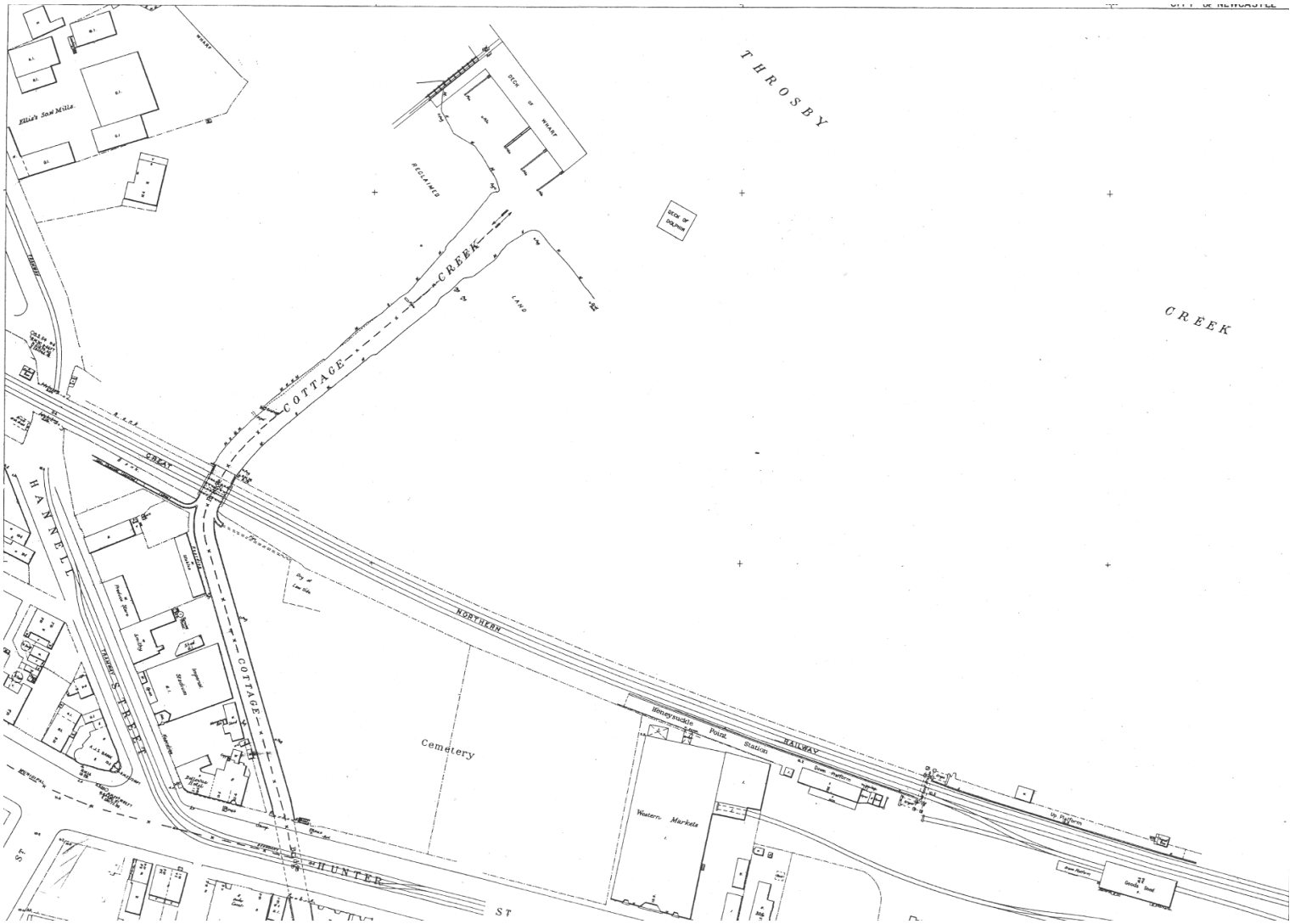


Figure 2.15 The vacant site in 1922.
Newcastle and Suburbs, Sheet No.48 (1922). Newcastle Region Library, Local Studies Section, AM C55/48.

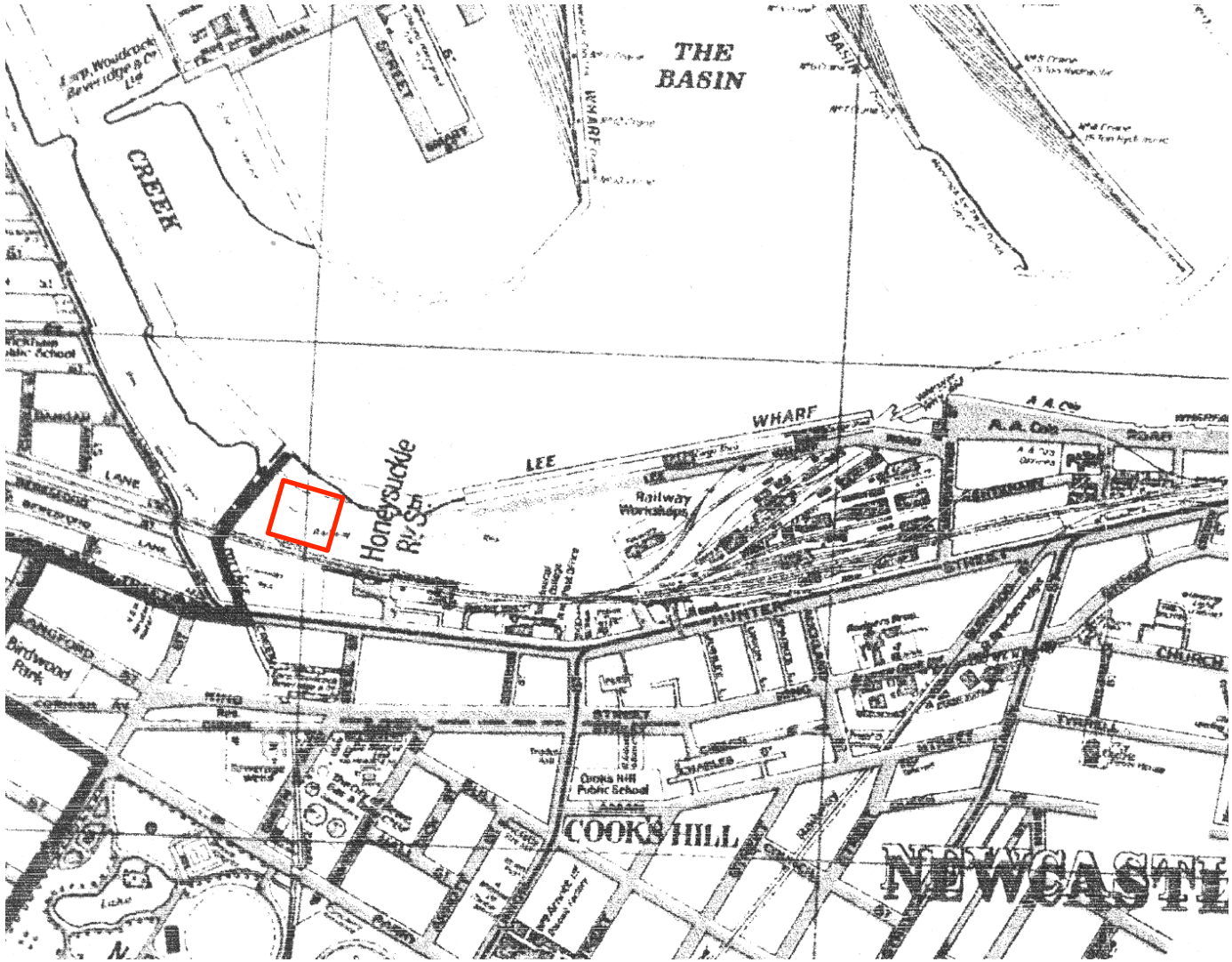


Figure 2.16 A plan from c.1927, showing the site had been reclaimed by this time. No structures are shown
Study site approximately outlined in red. Craigie Map Co. (1927) Map of Newcastle and District. ML Z M4 811.251/1927/1.

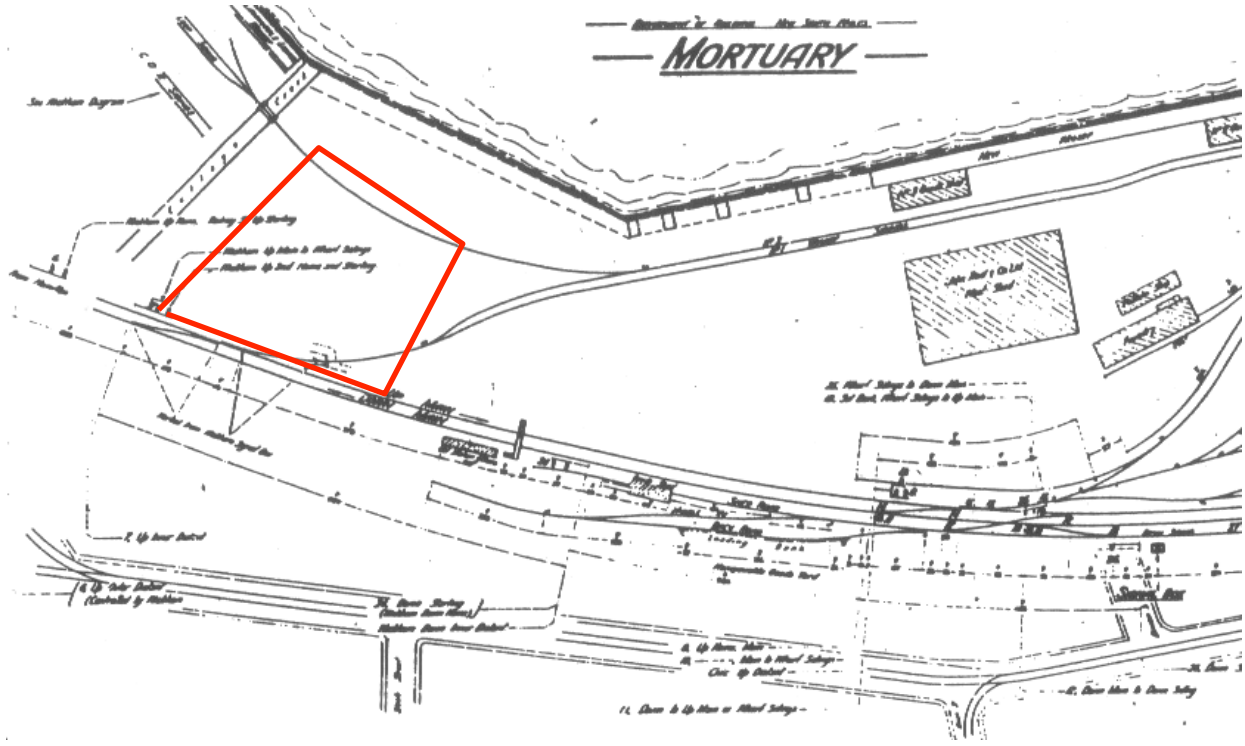


Figure 2.17 **A plan from 1937 showing the site, no structures other than the rail lines are evident.** Study site approximately outlined in red.
Office of the Signals and Telegraph Engineer (1937) Department of Railways New South Wales – Mortuary. In C. and M.J. Doring (1990) Figure 8.

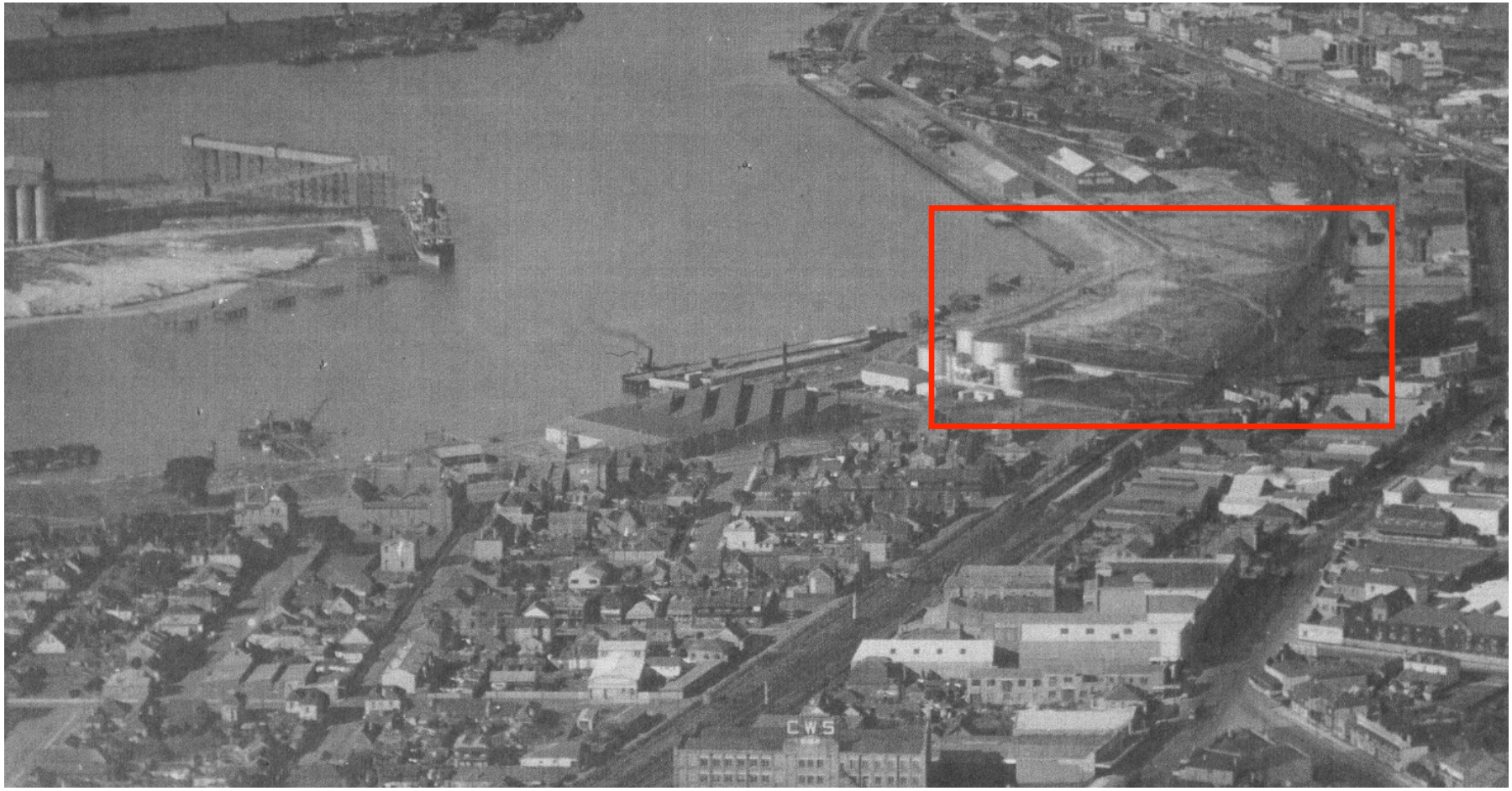


Figure 2.18 **A photograph showing the site. This has been dated to c.1955, but was probably taken in the early 1940s, as Lee Wharf Shed D is not shown.**
Mitchell Library, Small Pictures File, Newcastle c.1955. .

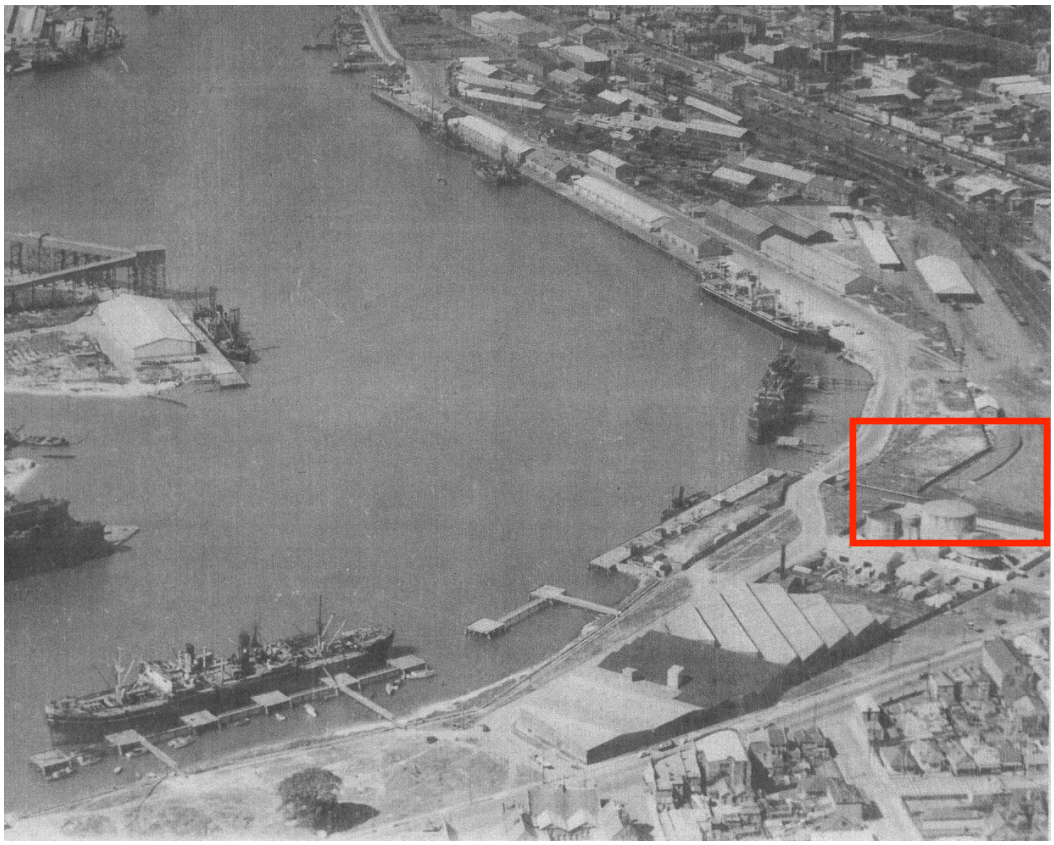


Figure 2.19 The area of the study site in c.1950.
Mitchell Library, Small Pictures File, Newcastle – Harbour, c1950.

Figure 2.20 Railway sidings on the study site c.1950.
Hunter Photobank.

Figure 2.21 **An aerial photograph showing the wider site in 1954.**
Department of Lands (1954) Newcastle Run 4N, NSW 252-5056.

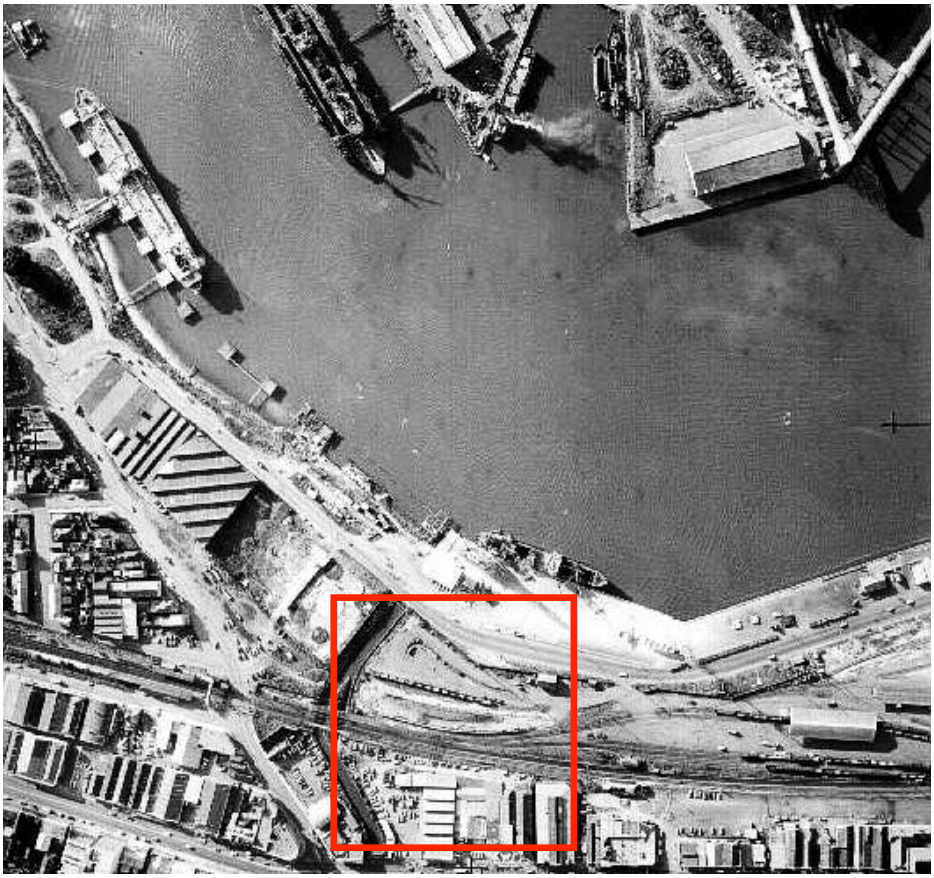


Figure 2.22 **1963 Aerial Photograph.**
William Keith Hilder, Hunter Photobank, 19.06.1963, 003 000683.

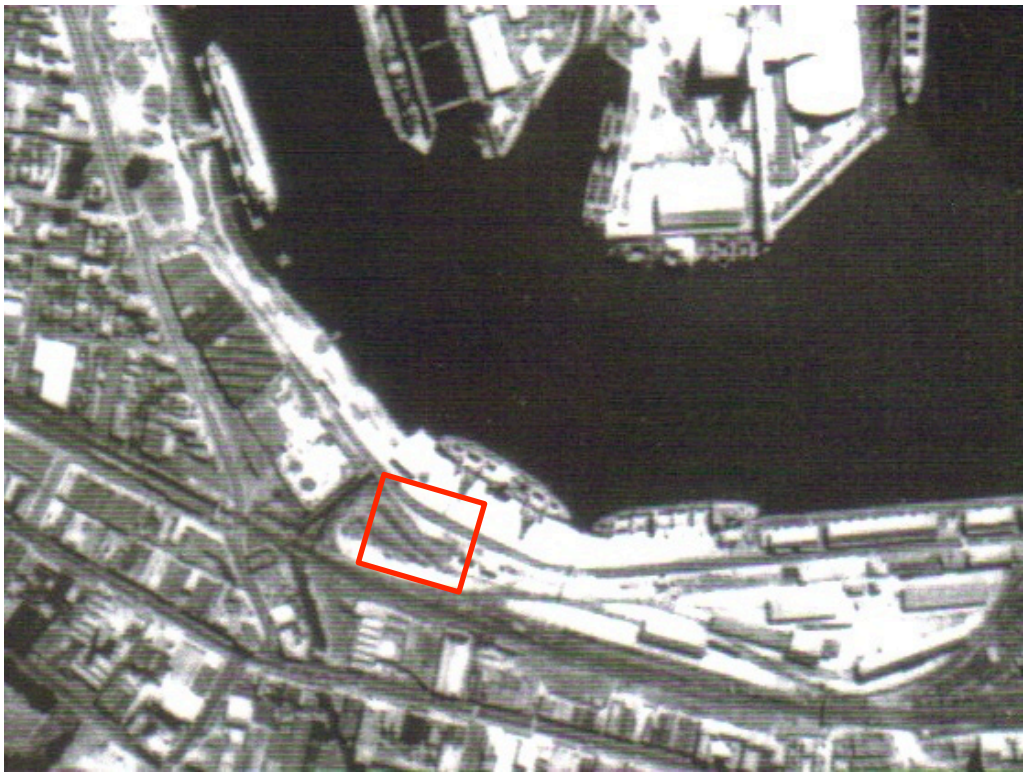


Figure 2.23 An aerial photograph showing the wider site in 1966.
Department of Lands (1966) Newcastle Run 4N, NSW 1464.

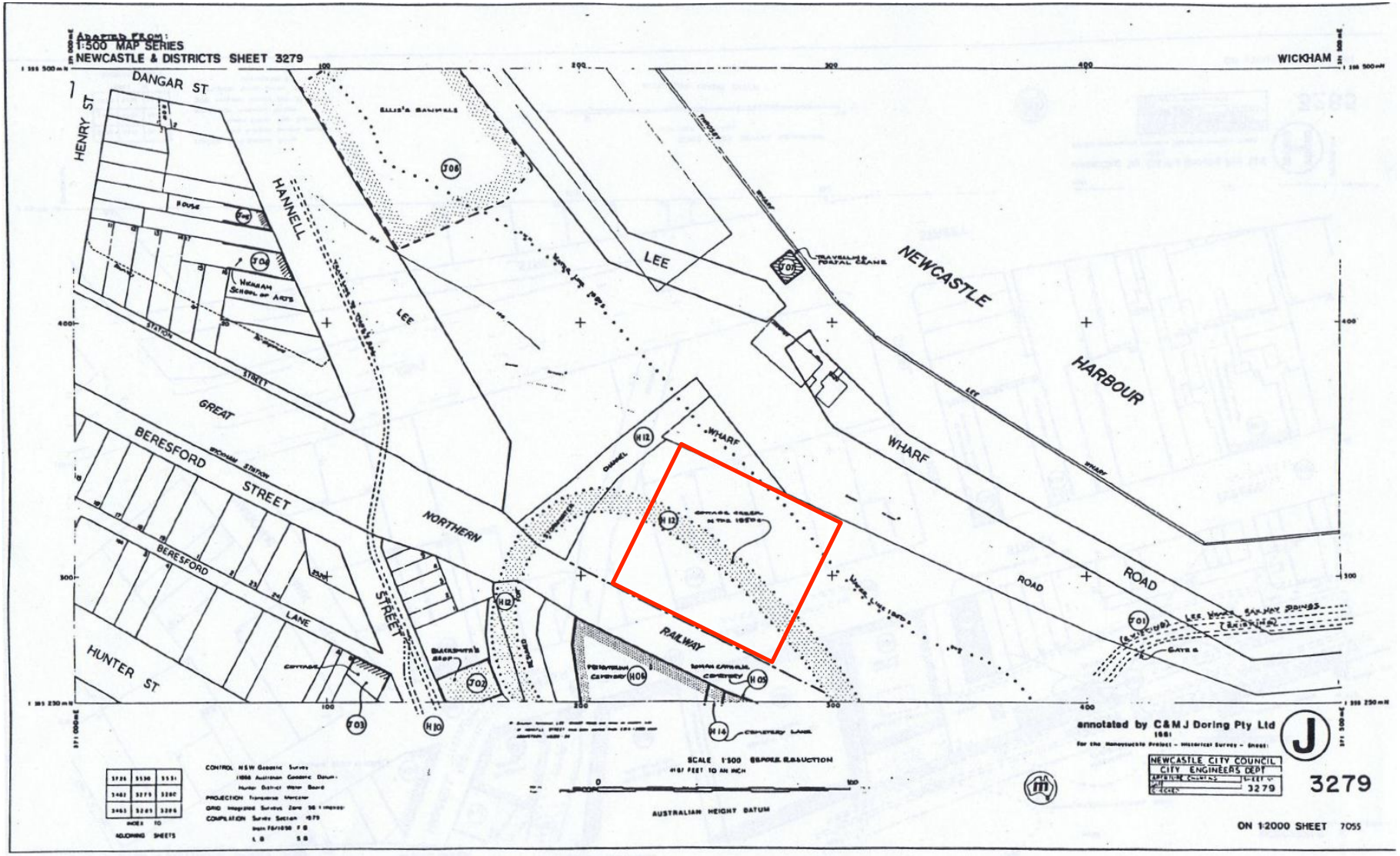


Figure 2.24 The study site with overlay of 1850s course of Cottage Creek and Throsby Creek 1850s high water mark.
Study site approximately outlined in red. Doring, C. & M. J. (1991) Honeysuckle Project: Historical and Industrial Archaeological Survey for the NSW Property Services Group.

Figure 2.25 **1992 aerial view of the site, with the approximate area of the study site outlined in red.**
Honeysuckle Development Corporation, 1992.

3.0 PHYSICAL EVIDENCE

3.1 SITE INSPECTION

Martin Carney of AMAC Group first inspected the study site on the 21st January 2008. The site forms a vacant area bounded by Honeysuckle Drive, Cottage Creek and the Sydney-Newcastle railway line. The site has been raised approximately 1.5m above the road level (Figure 3.1). Grass and weeds cover most of the surface, however, sparse mixed fills are evident from the late nineteenth and early twentieth centuries. The study area includes part of the original line of Cottage Creek and could also have been on the banks of or within Throsby Creek. Should archaeological sites exist in the area, they will not have been strongly impacted by developments in the nineteenth and twentieth centuries.[56]

The study site was viewed again on 20th December 2011 and is in the same condition, no further activity has since occurred on site.

3.2 PROPOSED DEVELOPMENT

The development proposed for the site 42 Honeysuckle Drive, Newcastle is a nine-storey mixed hotel, residential and commercial building at ground level. A small basement level is proposed as a tank room and pump room. The footprint of the development will cover almost the entire allotment, measuring approximately 3728 square metres. Excavation will be required for several elements across the site footprint: installation of services, lift pits, stairwells, fire tanks, concrete piers, re-use tanks, water quality devices and deep root planting zones (Figure 3.4).

Deep piling excavation for approximately 304 piers at a depth of 8.0 metres will be conducted for 85 footings, 4 lift core bases, and 3 stair core bases.[57] A further 20 piers at a depth of 4.0 metres are required for 2 below ground fire tanks. The southwest subsurface fire tank needs a concrete casing approximately 10.0 metres long x 3.0 metres wide and excavated to a depth of 4.0 metres. The concrete casing for the northern subsurface fire tank will be approximately 5.0 metres square and similarly excavated to a depth of 4.0 metres (see Figure 3.4).

Further excavations are required for circular concrete cases for 2 water quality devices, one approximately 2.4 metres in diameter, the other 1.6 metres in diameter and both 2.0 metres deep. Additional excavation is needed for concrete cases for a re-use tank, approximately 4.4 metres long x 3.0 metres wide x 1.5 metres deep as well as a re-use tank outlet pit, approximately 0.9 metres square x 0.9 metres deep. The water devices and re-use tank facilities are all located to the northeast side of the development. A concrete casing for a pump out pit will be excavated approximately 2.4 meters square x 1.5 metres deep and located within the central area of the development. Finally, concrete caps for all the piers of the footings, lift bases and stair bases will be excavated to a depth of 0.6 metres (see **Error! Reference source not found.** below for a breakdown of proposed development excavations).

[56] AMAC Group (September 2009).

[57] Note that in Figure 3.4 the lift core base to the northeast of the development indicates only 4 piers in text, however, 6 are denoted in the drawing plan, suggesting the total of piers requiring excavation to a depth of 8 metres would increase to 306.

At ground level, the building does not cover the entire allotment and the remaining curtilage will be used as outdoor dining in the forecourt with landscaping at the entrance and along the eastern and southern carpark facades (Figure 3.6).

Development plans are included below for clarification of proposed works and impacts (Figure 3.4-Figure 3.8).

Table 3.1 Proposed Development Impacts

Item Details	Description	Number	Excavation Depth
Concrete Piles	Piles for 85 footings, 4 lift core bases, 3 stair core bases – 0.6 m dia.	304	8.0 m
	Piles for southwest subterranean fire tank – 0.6 m dia.	14	4.0 m
	Piles for northern subterranean fire tank – 0.6 m dia.	6	4.0 m
Subterranean Fire Tanks	Southwest fire tank concrete casing – 10.0 m x 3.0 m	1	4.0 m
	Northern fire tank concrete casing - ca. 5.0 m square	1	4.0 m
Pile Caps - Footings	Triangular Caps – 2.8 m x 2.8 m – Each footing cap covers 3 concrete piles	82 (total of 246 concrete piles covered)	0.6 m
	Rectangular Caps – 3.6 m x 2.6 m - Each footing cap covers 4 concrete piles	3 (total of 12 concrete piles covered)	0.6 m
Pile Caps – Lift Core Bases	Northwest lift pile cap – 6.6 m x 3.6 m	1	0.6 m
	North central (west) lift pile cap – 6.0 m x 3.6 m	1	0.6 m
	North central (east) lift pile cap – 3.6 m square	1	0.6 m
	Northeast lift pile cap – 6.5 m x 3.6 m	1	0.6 m
Pile Caps – Stair Core Bases	Southwest stair pile cap – 5.3 m x 3.6 m	1	0.6 m
	Southern stair pile cap – 6.6 m x 3.6 m	1	0.6 m
	Northwest stair pile cap – 5.3 m x 3.6 m	1	0.6 m
Water Quality Devices	Northeast water device – 2.4 m dia.	1	2.0 m
	Water device directly south from above – 1.6 m dia.	1	2.0 m
Re-Use Tanks	Northeast re-use tank – 4.4 m x 3.0 m	1	1.5 m
	Re-use tank outlet pit directly north from above – ca. 0.9 m square	1	0.9 m
Pump Out Pit	Central site area – ca. 2.4 m square	1	1.5 m

3.3 RESULTS OF NEARBY WORK

Test excavation at the site of the Bellevue Hotel, at 738 Hunter Street, revealed large amounts of fill, however, there was insufficient evidence to determine whether it was naturally occurring or artificially introduced. In one particular trench, fill, consisting largely of sand, was found to the level of the groundwater, at 0.18m AHD, where excavation ceased.[58] Similar results in terms of fill types could be expected for the current study site.

Excavation at nearby Lee Wharf, Worth Place and the 'Floodway' area have discovered extensive remains of rail infrastructure north and south of Honeysuckle Drive.[59] The large amount of fill on site, in conjunction with previous results, suggests that the twentieth century rail lines are either likely to have been substantially buried, or have been removed.

3.4 ARCHAEOLOGICAL POTENTIAL

The study site contains part of the 1850s course of Cottage Creek, as well as the 1850s water line from Throsby Creek. These are two examples of a human wrought change in the natural topography of the local area. No other features are known from historical sources to have been present in this area until it was reclaimed in 1913-1916. Therefore, there is no evidence to suggest these natural features have been removed and based on nineteenth and twentieth century land reclamation activities, it is likely they have been buried by fill and therefore hold moderate archaeological potential. The original course of Cottage Creek will have been greatly disturbed by its canalisation in 1896; however, it could still remain in remnant form. As the current development will reach a depth of 8.0 metres, it is possible that these natural features will become evident during excavation. Indicators will include the discovery of natural soil horizons, an increase in clean silt and sand and a decrease in European artefacts beneath the nineteenth and twentieth century reclamation fills.

There was some dry land originally on the study site, although more was created from the filling of this land between 1913 and 1916. Archaeological remains from this process are likely to include, as well as fill, temporary retaining walls and items deposited as part of that fill.[60]

There stands unknown potential in these areas to reveal unexpected material in an unknown condition that may have been buried during reclamation. These may be minor, such as sea walls, or major, such as disused boats or vessels. There may be evidence of wharves or jetties that are not known from the documentary sources, and there may be areas where artefacts have been deposited on the creek bed. A huge amount of fill has been deposited in order to make dry land in this area. On the neighbouring site to the west, an abandoned paddle steamer and two rough retaining walls were found within the fill.[61] Although the presence of one of these walls was indicated within the documentary evidence, the other two features were not known. The presence of such features is equally likely on the present study site.

[58] AMAC Group (August 2006), p. 61.
[59] AMAC Group (November 2005) Honeysuckle Foreshore Development, Honeysuckle Drive, Newcastle NSW.
[60] AMAC Group (September 2009), p. 190
[61] Cosmos Archaeology (In prep).

Of the known developments on site, a railway branching off the main Sydney-Newcastle line cut through the site by 1937. Various configurations of these were in evidence throughout the twentieth century and are likely to have been filled over between 1992 and present day. Similar rail infrastructure was discovered at the floodway site adjoining 26 Honeysuckle Drive.[62] However, the remains were sporadic and their survival was low having mostly been robbed out or recycled. Based upon these results, the archaeological potential for rail infrastructure at the current study site is assessed as low.

[62] AMAC Group (February 2006) Unpublished field report.

Figure 3.1 **Study site facing south-west from Honeysuckle Drive.**
AMAC Group (2008).

Figure 3.2 **Study site facing south-east from Cottage Creek.**
AMAC Group (2008).

Figure 3.3 **Study site facing north-east.**
AMAC Group (2008)..

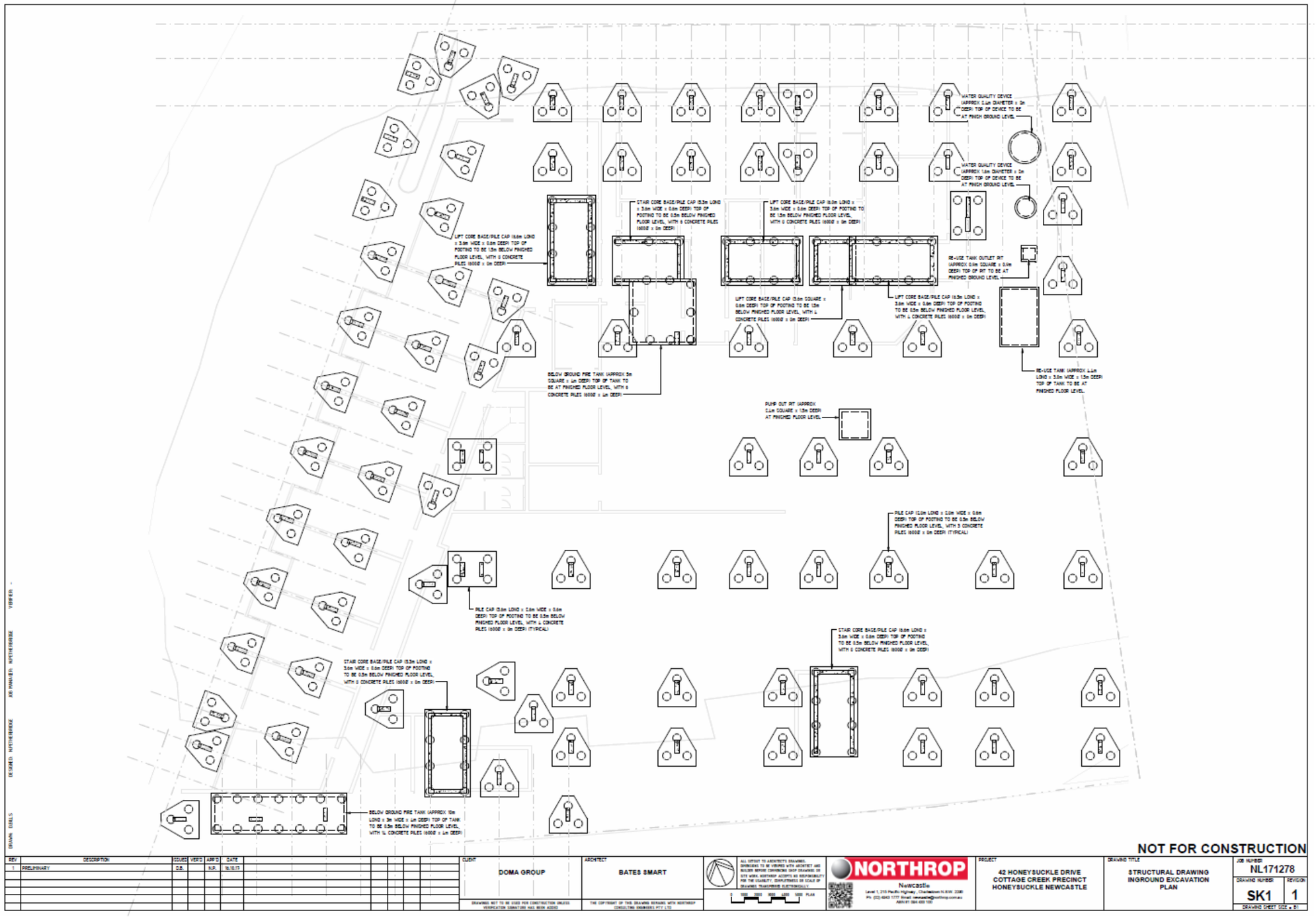


Figure 3.4 **Structural drawing of below ground excavation plan for the development.**
Bates Smart Inground Excavation Plan No. SK1 (October 2017).

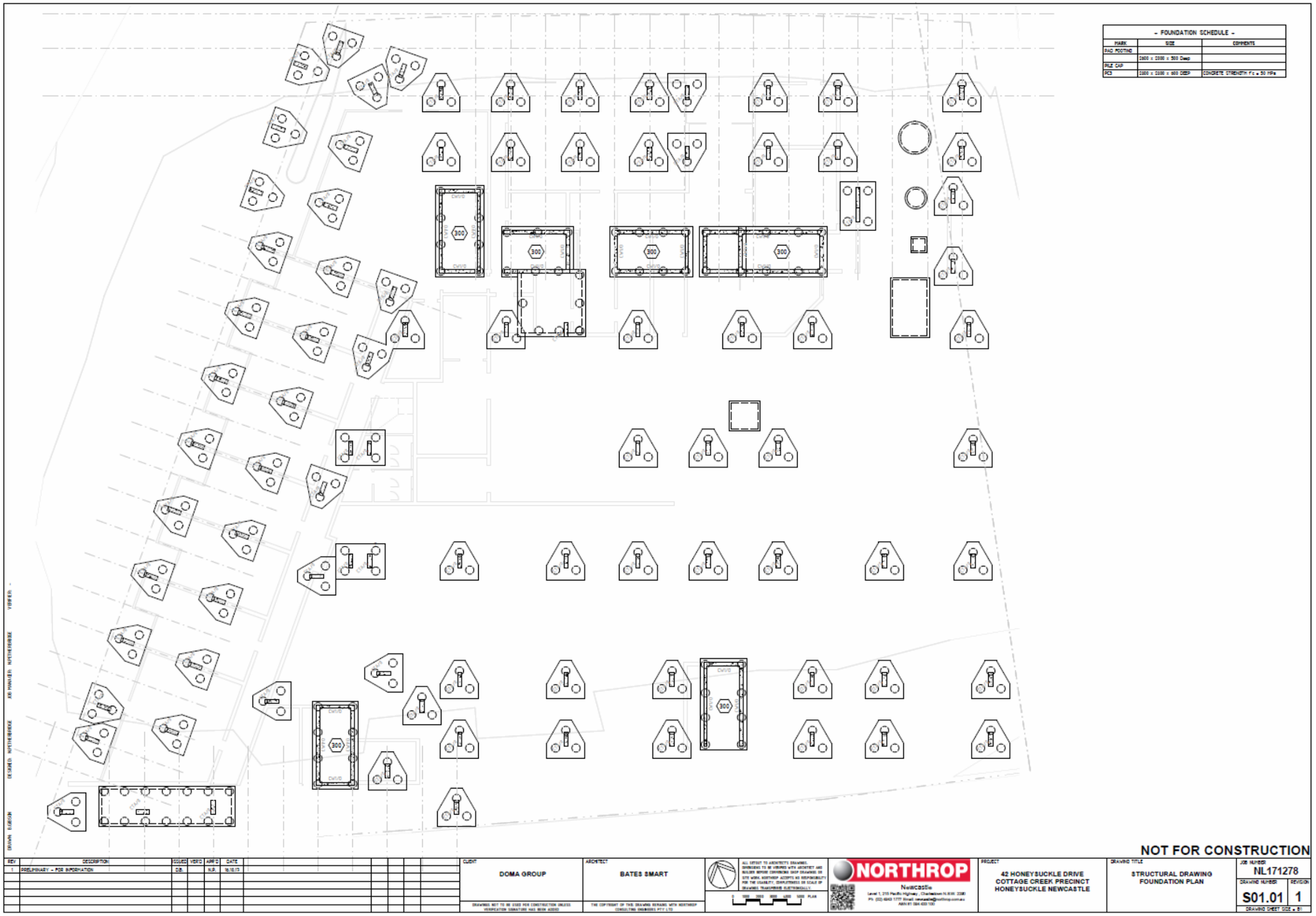
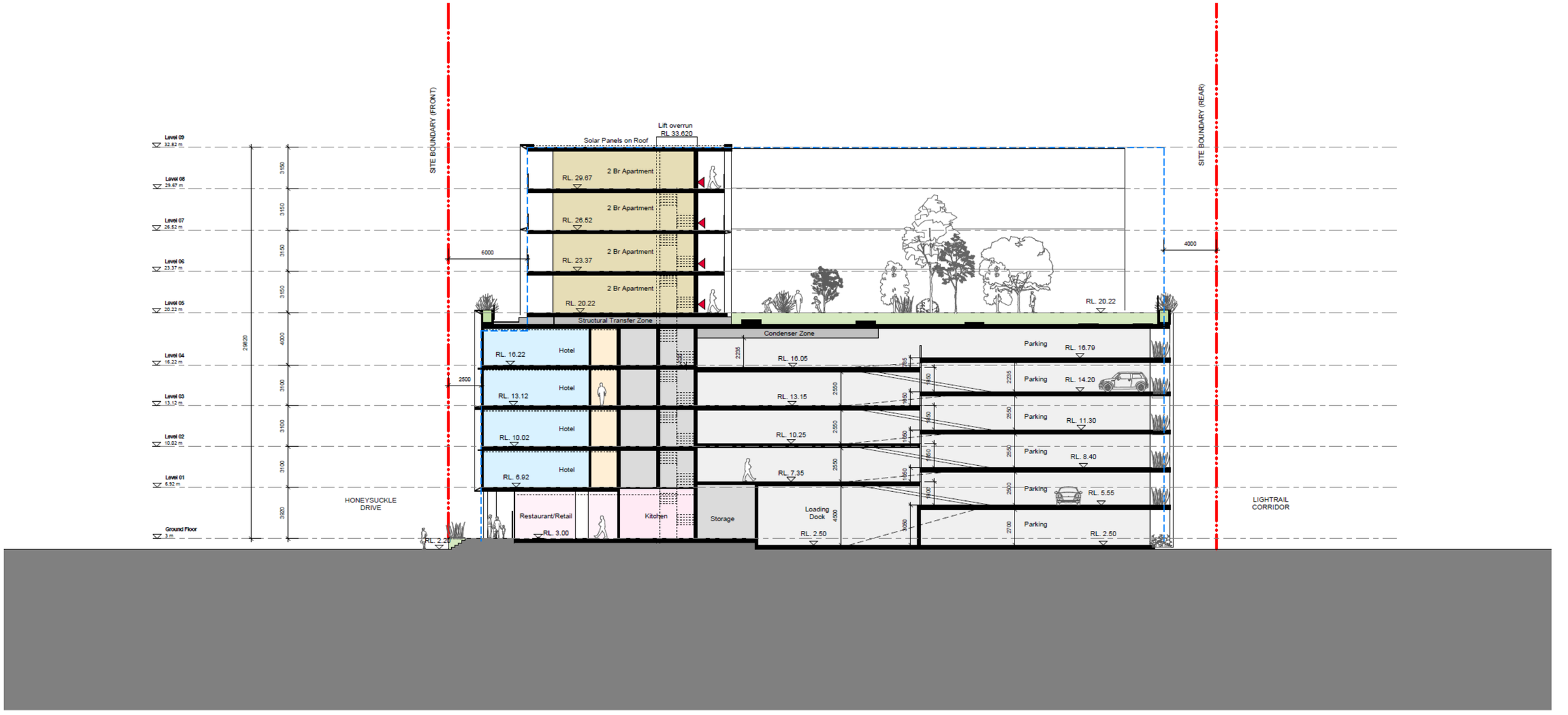


Figure 3.5 **Structural drawing of foundation plan for the development.**
Bates Smart Foundation Plan No. S01.01 (October 2017).



A 27/09/17 DA Draft DOMA BG
Revision Date Description Initial Checked

42 Honeysuckle Drive
42 Honeysuckle Drive, Newcastle

Section North-South

Check all dimensions and site conditions prior to commencement of any work, the purchase or ordering of any materials, fittings, plant, services or equipment and the preparation of shop drawings and or the fabrication of any components.

Do not scale drawings - refer to figured dimensions only. Any discrepancies shall immediately be referred to the architect for clarification.

All drawings may not be reproduced or distributed without prior permission from the architect.

Scale	1 : 150 @ A1		1:300 @ A3
Drawn	MDJ	Checked	VG
Project no.	s12109		
Status	DA		
Plot Date	27/10/2017 12:13:44 PM		
Plot File	\\liv-vfp-01\home$\GAV\Documents\42HONEYSUCKLEDRIVE_BS_ARCH_DA_GAV.rvt		
Drawing no.	A11.002	Revision	A

Melbourne 1 Nicholson Street
Melbourne VIC 3000 Australia
T 03 8664 6200 F 03 8664 6300
email mel@batessmart.com.au
http://www.batessmart.com.au

Sydney 43 Brisbane Street
Surry Hills NSW 2010 Australia
T 02 8354 5100 F 02 8354 5199
email syd@batessmart.com.au
http://www.batessmart.com.au

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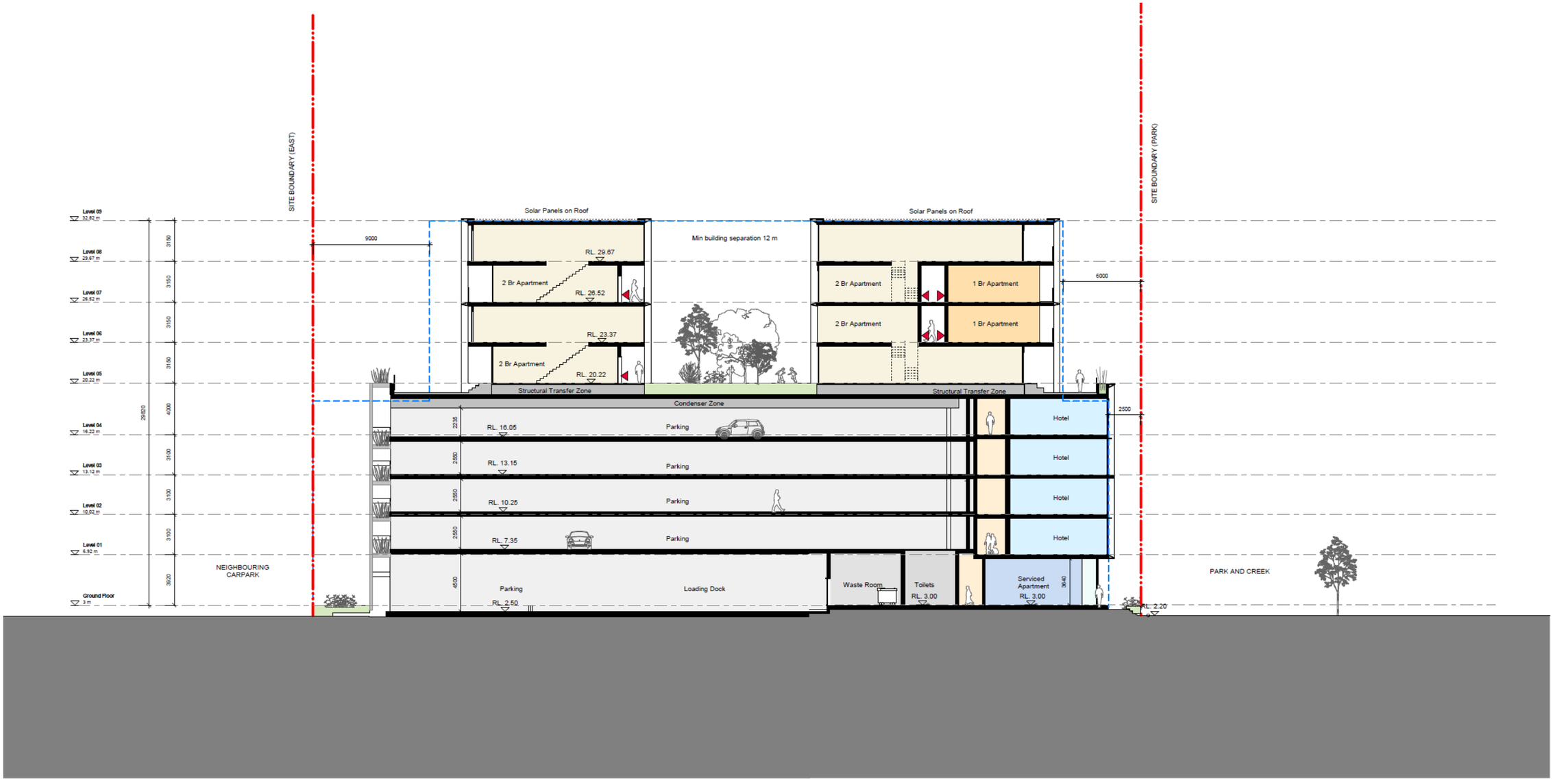
Figure 3.6 **Excerpt of Current North-South Section plan for the development.**
Bates Smart Section North-South Plan No. A11.002 (September 2017).



Revision	Date	Description	Initial	Checked
A	27/09/17	DA Draft	DOMA	BG

42 Honeysuckle Drive
42 Honeysuckle Drive, Newcastle

Section East-West

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Drawing no.	A11.001	Revision	A

Melbourne 1 Nicholson Street
Melbourne VIC 3000 Australia
T 03 8664 6200 F 03 8664 6300
email mel@batessmart.com.au
http://www.batessmart.com.au

Sydney 43 Brisbane Street
Surry Hills NSW 2010 Australia
T 02 8354 5100 F 02 8354 5199
email syd@batessmart.com.au
http://www.batessmart.com.au

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Figure 3.7 **Excerpt of Current East-West Section plan for the development.**
Bates Smart Section East-West Plan No. A11.001 (September 2017).

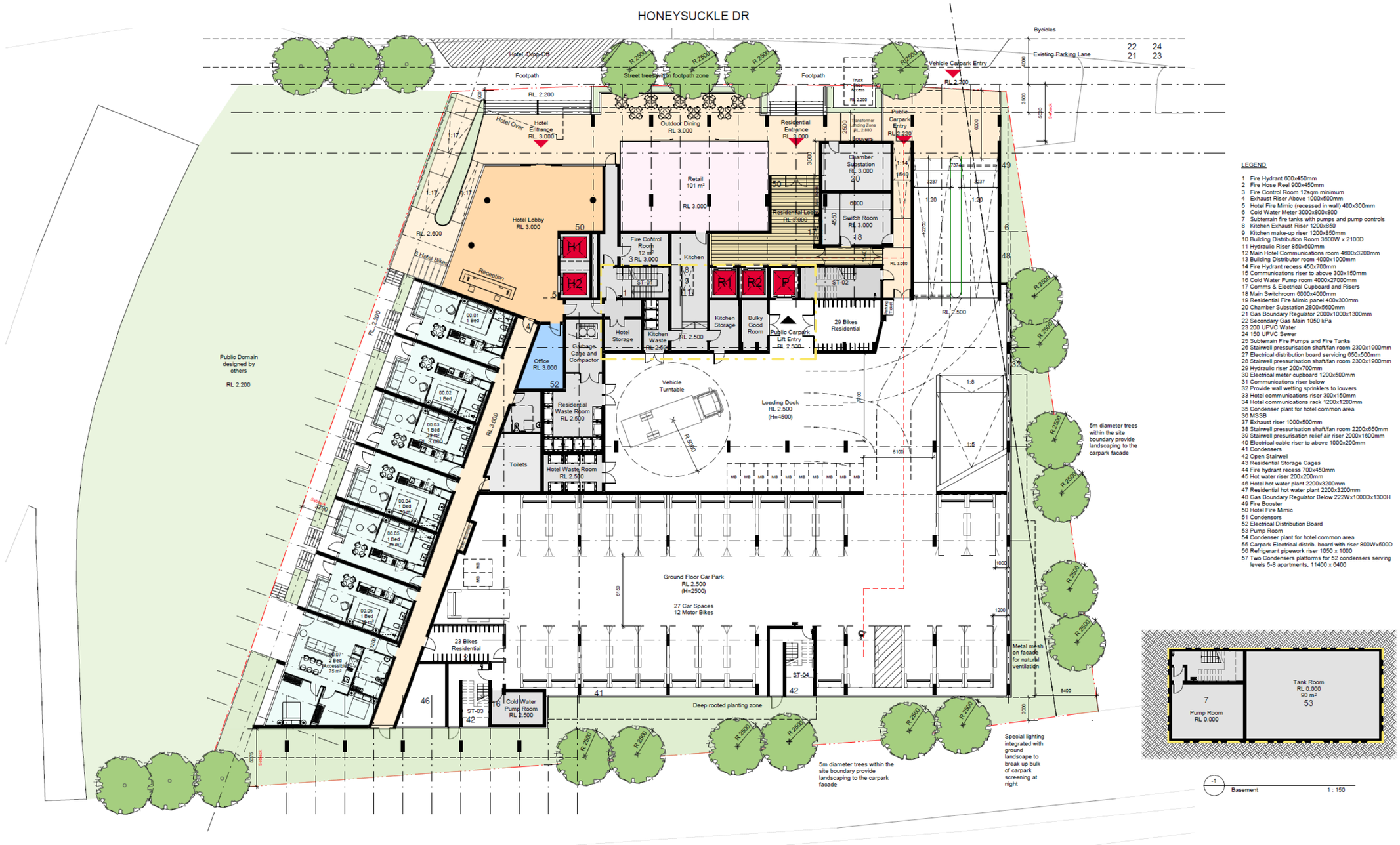

Figure 3.8 **Excerpt of Current Ground Floor and Basement plan for the development.**
Bates Smart Section East-West Plan No. A03.101 (September 2017).

4.0 ASSESSMENT OF SIGNIFICANCE

4.1 METHODOLOGY

The current standard for assessment of significance of heritage items in NSW is the publication 'Assessing Significance for Historical Archaeological Sites and 'Relics'' produced by the Heritage Branch of the NSW Department of Planning (December 2009). This production is an update to the NSW Heritage Manual (1996), and the criteria detailed therein are a revised version of those of the Australia ICOMOS Burra Charter, formulated in 1979, which was based largely on the Venice Charter (for International Heritage) of 1966.

Archaeological heritage significance can also be viewed in light of the framework set out by Bickford and Sullivan in 1984.[63] Bickford and Sullivan, taking into consideration the "archaeological, scientific or research significance" of a site posed three questions in order to identify significance:

1. Can the site contribute knowledge which no other resource can?
2. Can the site contribute knowledge which no other site can?
3. Is this 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?[64]

These questions have been broadly used to shape the response to the heritage significance criteria as described in Section 4.2 and 4.3.

The criteria and the definitions provided by 'Assessing Significance for Historical Archaeological Sites and 'Relics'' have been adhered to in assessing the cultural significance of the potential archaeological site at 42 Honeysuckle Drive, Newcastle. An assessment of significance, under each of the criteria, is made possible by an analysis of the broad body of archaeological sites previously excavated both locally and elsewhere, in conjunction with the historical overview of the study site in particular.

The Criteria used to assess Heritage Significance in NSW are the following:

Table 4.1 Criteria for Assessing Heritage in NSW

Criterion	Description	Significance
Criterion A	An item is important in the course, or pattern, of NSW's or the local area's cultural or natural history	State significant or locally significant
Criterion B	An item has strong or special association with the life or works of a person, or group of persons, of importance in NSW's or a local area's cultural or natural history	State significant or locally significant
Criterion C	An item is important in demonstrating aesthetic characteristics and/or a high degree of creative or technical achievement in NSW or the local area	State significant or locally significant

[63] Bickford and Sullivan (1984).
[64] Bickford and Sullivan (1984), p. 23-4.

Criterion D	An item has strong or special association with a particular community or cultural group in NSW or a local area for social, cultural or spiritual reasons	State significant or locally significant
Criterion E	An item has potential to yield information that will contribute to an understanding of NSW's or a local area's cultural or natural history	State significant or locally significant
Criterion F	An item possesses uncommon, rare or endangered aspects of NSW's or a local area's cultural or natural history	State significant or locally significant
Criterion G	An item is important in demonstrating the principal characteristics of a class of NSW's or a local area's - cultural or natural places; or - cultural or natural environments	State significant or locally significant

The following assessment deals only with sub-surface archaeological features and deposits. The built environment is not considered in this study.

4.2 IDENTIFICATION OF SIGNIFICANCE

Archaeological Research Potential (NSW Heritage Criterion E)

The study site has the potential to yield information regarding the pre-1896 nature of Cottage and Throsby Creeks, in particular how late nineteenth and early twentieth century reclamation practices have impacted upon them. This will contribute to a growing understanding of the development of the Newcastle foreshore throughout its settlement, industrial peaks and declines. Evidence of these natural features will be considered locally significant according to this criterion if found.

As the site underwent reclamation, the information it could yield will be based mostly on isolated large scale fill events. There is, however, potential here for unknown significance as there may be unidentified material within that fill.

The study site was also host to a variety of rail line configurations during the mid to late twentieth century that are unlikely to have been removed. Similar infrastructure has been found in this area of Newcastle and is considered locally significant under this criterion.

There has been some previous archaeological work conducted in this general area and relevant to Cottage Creek, reclamation and rail lines. In some cases, this might create comparable data sets. However, due to the nature of reclaimed land, there is an element of archaeological unpredictability which renders the site unlikely to closely duplicate any previous data set.

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

The study site is not considered significant according to this criterion.

Aesthetic or technical significance (NSW Heritage Criterion C)

The site generally has not been found to demonstrate aesthetic characteristics. However, should the original waterline be preserved, it is possible that this could have aesthetic characteristics that are significant at a local level.

Local level technical significance could also be evident in the rail infrastructure and reclamation works that have taken place on site.

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

As the site has not been greatly disturbed, any relics discovered are likely to be in situ. This is particularly important in the case of the 1850s course of Cottage and Throsby Creeks as there may be material remains associated with the use of these resource areas. The same may be said for the long-term twentieth century use of the site as rail line area. As a probable undisturbed example of the developing Newcastle foreshore, the site is considered locally significant under this criterion.

4.3 STATEMENT OF CULTURAL SIGNIFICANCE

Today, the study site and its surrounds are unrecognisable when compared to early plans of the area. Where the banks of Cottage and Throsby Creeks used to lie have since been completely filled in; their courses altered and streamlined to better suit the increasing population and industrial activities of nineteenth century Newcastle.

The site does not demonstrate potential for significance in regard to associations with well-known historical figures or events. However, it may show a local level of technical importance due to the reclamation works and rail infrastructure, even a local aesthetic quality if the remnants of the natural courses of Throsby and Cottage Creeks are discovered.

The most salient issue for determining cultural significance is the existence of reclaimed land as it is not possible to accurately predict its contents. Therefore, this middle phase of the development on site has an unknown element of cultural importance.

As a part of the Newcastle foreshore, the study site has borne witness to the increasing amount of human activity in the area and is yet simultaneously apart from that history due to its disuse. However, it is that lack of development that now renders the site locally significant as it should contain predominantly undisturbed archaeological data. It is likely that the site will yield information on twentieth century rail infrastructure, early twentieth century land reclamation and possibly evidence of the natural landscape prior to waterway modification all of which is considered of potential local significance.

5.0 STATEMENT OF ARCHAEOLOGICAL HERITAGE IMPACT

The study site holds moderate archaeological potential for locally significant material that demonstrates the natural and cultural history of the local area, including the original course of Throsby and Cottage Creeks, twentieth century railway infrastructure and items potentially used to fill reclaimed land.

The footprint of the development will cover almost the entire allotment of approximately 3728 square metres. While the development does not have an underground carpark, there will be subterranean provisions for fire tanks, water quality devices, re-use tanks and a pump out pit (see Section 3.2). The plans indicate that deep piling excavation will be required for the footings, lift core bases, and stair core bases to a depth of 8.0 metres. Excavations for concrete cases and piers to a depth of 4 metres will be conducted for the below ground fire tanks.

It is likely that any potential archaeology will be significantly disturbed by the excavation for this subterranean level, as well as, the piling works for the building foundations. As such, the heritage impact of the development is considered negative as it will completely remove any archaeology on the site. To ensure that any material of significance is not impacted by the proposed development, as the exact presence and depth of any archaeological material is unknown, archaeological monitoring is recommended as a precaution for all excavation that occurs on site. Monitoring will occur for the entire depth of the excavation required for the development, or to the point at which a sterile, natural soil horizon is reached. For this reason, a qualified archaeologist must be on site to supervise all work where there is a possibility of revealing archaeological material of significance. Monitoring and excavation will be guided by the Archaeological Work Method Statement (see Section 6.0).

As the study site contains a registered Aboriginal site (site card pending), Aboriginal test excavation has been recommended to occur in accordance with the findings of the Archaeological Impact Assessment (Preliminary Aboriginal Archaeological Assessment).[65] If Aboriginal test excavation takes place, where locally significant historical archaeological material or features coincide with Aboriginal test pits, the historical archaeology will be recorded and removed as guided by the Archaeological Work Method Statement (Section 6.0).

[65] AMAC Group (October 2017).

6.0 ARCHAEOLOGICAL WORK METHOD STATEMENT

6.1 INTRODUCTION

The study site once hosted the original courses of both Cottage and Throsby Creeks but is now characterised by nineteenth and twentieth century land reclamation. The available historical documentation does not indicate development on the study site other than an early twentieth century railway line in the study area. However, this absence of evidence is not necessarily evidence of absence. Therefore, the archaeological potential of the study site is characterised largely by the former creek courses and reclamation fills which have the potential to retain undocumented structures, remains of an early twentieth century railway line and former services. Reclamation fills may contain unexpected relics such as sea walls, wharves, and whole maritime vessels.

The proposed development seeks to excavate widely across the site and to substantial depths. These works are highly likely to impact any archaeological remains, if they exist. To manage the site's unknown potential and mitigate impacts to potentially locally significant archaeology, it is recommended that excavations for the proposed development proceed with an Archaeological Work Method Statement (AWMS) as part of the Historical Archaeological Management Plan endorsed by the Heritage Division. The AWMS allows for a site briefing, initial ground surface inspection, archaeological monitoring, recording and excavation for locally significant finds and a call-out system for unexpected finds.

Archaeological monitoring or excavation will occur only in locations that will be impacted by proposed development. As the archaeology of the site is largely characterised by unknown potential and the impacts of the development are across the site footprint, the level of archaeological input, for instance in the form of manual excavation and recording, will need to adapt to site conditions as they are revealed by archaeological monitoring of mechanical excavation. The excavation team will be made up of qualified archaeologists, utilised as required by finds. In addition, a qualified and experienced driver will be required to operate a mechanical excavator.

6.2 ARCHAEOLOGICAL WORK METHOD STATEMENT

To ensure that relics of significance are not impacted by the current development, as the exact depth of relics is unknown, archaeological monitoring is recommended as a precaution for all excavation that occurs on site. The monitoring will occur for the entire depth of the excavation required for the development, or to the point at which a sterile, natural soil horizon is reached. For this reason, a qualified archaeologist must be on site to supervise all work where there is a possibility of revealing archaeological relics.

The proposed works require large scale excavation, for the installation of subterranean provisions and foundation piers. Where archaeological potential coincides with proposed excavation, the removal of modern soils and fills will be carried out according to the direction of the archaeologist. Experienced operators will be required to undertake this work under specific instructions by the archaeologist (see Section 6.2.3). The soil will be removed in layers, with no more than one context, such as topsoil, being removed at one time. This will allow any relics to be identified. Should any un-assessed archaeological relics be found during

the excavation of the site, excavation will cease while these are investigated and if necessary, re-assessed.

Where relics of a local level of significance are encountered, these will be archaeologically recorded and removed. A written description of each feature and context will be made using printed context sheets. A scaled plan will be made of the site and of each feature found, and levels will be taken as part of this process. The site and features will also be recorded photographically, according to current Heritage Division guidelines; photographs will be processed to archive standards. The results of these works will be summarised in a Final Archaeological Report prepared for the Department of Planning or its delegate, as required, with all necessary interpretation (see Section 6.2.6 and 6.2.7). The Archaeological Work Method is set out in detail below.

6.2.1 Site Briefing

At the outset of excavation works, a suitably qualified archaeologist should be present to inspect the site and brief the excavation personnel regarding its potential archaeology and the excavation procedures set out in this methodology. This briefing will inform the excavation works team that the initial removal of the ground surface in all areas to be impacted that are likely to contain relics will require initial archaeological inspection and the briefing will relate how archaeological monitoring would proceed if it is required.

6.2.2 Ground Surface Inspection

Ground surface inspection occurs at the outset of excavations when the development is ready to proceed with bulk excavation. It involves an archaeologist working in tandem with an experienced excavator operator using a flat or 'mud' bucket to lift slabs, existing ground surfaces or sub-packing to allow for visual inspection. All excavation works that involve the archaeologist will follow the methodology outlined by the AWMS.

During ground surface inspection, the archaeologist will be able to inspect the upper layer of the soil profile as it is revealed and determine the presence or otherwise of archaeologically sensitive stratigraphy or undocumented archaeological features.

If the ground in an area is determined to be highly disturbed or natural and undeveloped, excavation for the development may proceed without the presence of an archaeologist. From that point, archaeological monitoring of the excavation will only occur as needed, on a call out basis, in the event that archaeological material is encountered by the excavation works team.

If archaeological material or potential relics are encountered during inspection, the excavation team will cease operations to await archaeological advice.

6.2.3 Archaeological Monitoring Methodology

The archaeologist must be on site to supervise all excavation with the possibility of revealing archaeological relics. The excavation will be carried out according to the direction of the archaeologist. Any archaeological excavation will be carried out according to current best practice and in terms of the methodology set out here and required under permit conditions.[66]

[66] NSW Department of Planning and Heritage Council of NSW (2006).

Archaeological monitoring, when required, involves a suitably qualified archaeologist supervising and co-ordinating with an experienced mechanical excavator operator during bulk excavation in areas of archaeological potential. As the study site is characterised by unknown and known potential for locally significant archaeology, the monitoring program will be reliant on the results of Ground Surface Inspection phase (Section 6.2.2). Where required, monitoring proceeds by the archaeologist overseeing the work of a mechanical excavator who would remove modern soils and fills according to the direction of the archaeologist.

When engaged in excavation monitored by the archaeologist, the machine must have a flat edged or mud bucket, rather than a toothed bucket, to maintain a clean excavated surface. In general, any machinery used will move backwards, working from a slab surface, in order not to damage any exposed archaeological relics. The soil will be removed in layers, with no more than one context, such as topsoil, being removed at one time. This will allow any relics to be identified and recorded, and preserved if necessary.

In areas of archaeological potential, monitoring will continue until one of the following points are encountered:

- The level of ground disturbance is understood by the archaeologist;
- Or the entire depth of the excavation required is reached;
- Or to the point at which a sterile, natural soil horizon, or bedrock, is identified.

6.2.4 Archaeological Excavation and Potential Relics

Should any archaeological material be found during works at the study site, excavation will cease while these are investigated by a qualified archaeologist. The nature of the investigation is dependent on the nature, extent and condition of the finds, the investigation is conducted to allow the archaeologist to determine an appropriate management procedure. All activities will be carried out in compliance with the AWMS and any conditions imposed by the Department of Planning.

A range of possible procedures is outlined below:

The archaeologist discovers archaeological material not deemed a relic i.e.: not of local or state significance:

- This material can be removed and, if deemed necessary by the archaeologist, recorded. Excavation for the proposed development may re-start at the discretion of the archaeologist and subject to the Historical Archaeological Management Plan and any conditions imposed on the development.

The archaeologist discovers potential relics of local significance:

- The archaeologist must investigate, by physical exposure of the potential relic and/or desktop research, to ascertain the nature, extent, condition and significance of the relic. Excavation or removal of the locally significant relic may begin at the discretion of the archaeologist and is subject to the Historical Archaeological Management Plan and any conditions imposed on the development.

All relics of local significance will be recorded and excavated by hand (or where possible machine) to the extent that they will be destroyed by the proposed

development. All works will be carried out in line with the AMAC Site Manual[67] and in compliance with the permit issued for such works by the Department of Planning or its delegate.

Samples will be taken of any earlier topsoils. Though their presence on the study site is unlikely, samples will also be taken of soils within features such as pits or wells and of occupation deposits, especially those from the nineteenth century use of the site, if present. Samples will also be taken of any building materials, such as bricks and mortar found. Any occupation deposits and fills of features such as pits will be sieved and all artefacts will be retained with the exception of building materials which will be sampled. A sample square will be sieved for any yard deposit which covers a large area. This is also considered unlikely for the study site.

Though unlikely for the study site, should intact underfloor deposits be uncovered within the structural units, these will be excavated by hand and may be excavated using a metre grid system in order to maximise the retrieval of data and help identify variations in the use of space during the domestic occupation of the site. Deep deposits, such as cesspit and well fills, may be excavated in spits with the depth of each spit to be determined as required to maximise the information that can be gained from the archaeological record.

Should intact soil profiles of this period be found, these will be recorded and sampled appropriately with the possibility of further scientific analysis.

Should any archaeological relics be uncovered, but not removed, in the process of excavation, these will be recorded. They should be covered with a semi-permeable membrane, such as bidum, before construction. Should the proposed development require any plantings in the areas of retained archaeological remains, these should be restricted to small plants and not include trees, as significant root growth may disturb the retained remains.

Relics will be archaeologically recorded following the procedure set out below in Section 6.2.6. The discovery of any Aboriginal objects should immediately be reported to the NPWS as governed by the Office of Environment and Heritage. Any historical archaeological finds are made within Aboriginal test trenches, these will be recorded and removed according to the Archaeological Work Method Statement.

6.2.5 Potential Finds

Potential archaeological material for the study site at this time is identified as establishing the courses of the Cottage and Throsby creeks and subsequent reclamation fills, the cut and remains for an early 20th century railway line and former services. Undefined potential exists for unexpected material buried during reclamation such as, sea walls, wharves, and vessels. See Section 3.4 for greater details. Those finds in the form of internally coherent discrete deposition or integral form may be considered relics and further investigation and assessment by the archaeologist will be required and if found to be relics and their removal is required liaison with the Heritage Division will also be needed.

6.2.6 Archaeological Recording

Any relics found will be archaeologically recorded. This entails a written description of each feature, structure or stratigraphic unit using diary and printed context sheets. A Harris Matrix will be formulated in order to record the relationship of all

[67] AMAC Group (September 2006).

stratigraphic units found. A scaled plan will be made of the site and of each feature found, and levels will be taken as part of this process. The site and features will also be recorded photographically, according to current Heritage Division guidelines and processed to archival standards. Recording of the site will be carried out according to Heritage Division guidelines.[68] The results of this work will be summarised in a Final Archaeological Report, if required by the Department of Planning or any development conditions (see below Section 6.2.7).

Artefacts from the excavation will be cleaned and catalogued and placed in labelled bags according to their catalogue number. The artefacts, in boxes, will be returned to the property owner for safe-keeping (as per the permit conditions).

6.2.7 Archaeological Reporting

The scope and extent of reporting is linked directly to the nature, extent and complexity of site finds and a ratio of 1:1 for site time should be expected as a starting point to complete reporting in terms of Heritage Division Guidelines, the methodology proposed and permit conditions. The time frame will move up or down relative to the extant and complexity of material.

If required by the permit, at the cessation of site works a Final Archaeological Report for the site will be prepared in compliance with that permit and any conditions. This will include an analysis of the results of the work and a comparison with the results of similar sites in the local area, where possible. Additional research may also be conducted in response to the finds of excavation. A photographic volume including a photographic report, selection of printed digital photographs and an electronic copy of all archival photographs from the archaeological excavation is to accompany the final report. If required, all components of the Final Archaeological report will be submitted to the NSW Department of Planning or its delegate.

6.2.8 Interpretation

Interpretation of the archaeological remains has not yet been requested by an acting authority. Signage describing the history of the site and related archaeological material may be considered as a means of retaining the heritage value of the site. Displays of significant artefacts discovered during excavation, should this be a viable option, may also be considered.

[68] NSW Heritage Office (1998) and (2001, revised 2006).

7.0 RESULTS AND RECOMMENDATIONS

7.1 RESULTS

7.1.1 Documentary Research

During the late nineteenth century Cottage and Throsby Creeks crossed into the area of the study site. However, due to growing pollution and environmental changes brought on by European settlement, Cottage Creek was canalised in 1896 and its course removed from the study site. From this point reclamation works were conducted in the area, also changing the shape of Throsby Creek. From 1913-1916, the study site was no longer a part of its foreshore due to land remediation. A large amount of fill was deposited on site in order to instigate the form the site takes today. Rail infrastructure has since been installed, earliest evidence for this is from 1937 and a variety of line configurations has existed since then. It is believed these lines are extant and are currently filled over. Maps, plans and photographs from 1850 onwards have documented these changes.

7.1.2 Significance

As a part of the Newcastle foreshore, the study site has borne witness to the increasing amount of human activity in the area and is yet simultaneously apart from that history due to its disuse. However, it is that lack of development that now renders the site locally significant as it should contain predominantly undisturbed archaeological data. The most salient issue for determining cultural significance is the existence of reclaimed land as it is not possible to accurately predict its contents. Therefore, this middle phase of the development on site has an unknown element of cultural importance. It is likely that the site will yield information on twentieth century rail infrastructure, early twentieth century land reclamation and possibly evidence of the natural landscape prior to waterway modification all of which is considered of potential local significance.

7.1.3 Physical Evidence

The site is a currently vacant area bounded by Honeysuckle Drive, Cottage Creek and the Sydney-Newcastle railway line. The site has been raised approximately 1.5m above the road level. Grass and weeds cover most of the surface, however, where they are, sparse mixed fills are evident from the late nineteenth and early twentieth centuries.

The proposed development seeks to construct a nine-storey mixed hotel, residential and commercial building. Low archaeological potential survives for early twentieth century rail infrastructure. Moderate potential survives for natural features associated with the original Cottage and Throsby creek lines. There stands unknown potential in these areas to reveal unexpected material in an unknown condition that may have been buried during reclamation.

The results of the documentary research, archaeological potential and significance address SEARS Point 1 of Condition 12.

7.2 RECOMMENDATIONS

According to the results of documentary research, the site has a moderate potential to contain locally significant relics related to the 19th century modification of Throsby and Cottage Creeks as well as an unknown potential for relics in land reclamation

fills. Archaeological work at the study site should follow the Historical Archaeological Management Plan (HAMP). This HAMP has proposed an Archaeological Work Method Statement (AWMS) in order to mitigate archaeological heritage impacts posed by the development. The AWMS allows for archaeological monitoring of the development's excavation. Monitoring will identify the potential for, and location and integrity of, archaeological relics relative to impacts. The plan also guides the archaeological recording and excavation of locally significant relics.

The Historical Archaeological Management Plan is based on the standards of the NSW Heritage Act (1977) and best practice guidelines published by the Heritage Council. All archaeological work is subject to the approval of this methodology by the NSW Department of Planning and Environment, or its delegate, and subject to any conditions posed by this approval.

7.3 STATEMENT OF ARCHAEOLOGICAL HERITAGE IMPACT

The footprint of the development will cover almost the entire allotment of approximately 3728 square metres. While the development does not have an underground carpark, there will be subterranean provisions for fire tanks, water quality devices, re-use tanks and a pump out pit (see Section 3.2). The plans indicate that deep piling excavation will be required for the footings, lift core bases, and stair core bases to a depth of 8.0 metres. Excavations for concrete cases and piers to a depth of 4 metres will be conducted for the below ground fire tanks.

It is likely that any potential archaeology will be significantly disturbed by the excavation of this subterranean level, as well as, the piling works for the building foundations. As such, the heritage impact of the development is considered negative as it will completely remove any archaeology on the site. To ensure that any material of significance is not impacted by the proposed development, as the exact presence and depth of any archaeological material is unknown, archaeological monitoring is recommended as a precaution for all excavation that occurs on site. Monitoring will occur for the entire depth of the excavation required for the development, or to the point at which a sterile, natural soil horizon is reached. For this reason, a qualified archaeologist must be on site to supervise all work where there is a possibility of revealing archaeological material of significance. Monitoring and excavation will be guided by the Archaeological Work Method Statement (see Section 6.0).

As the study site contains a registered Aboriginal site (site card pending), Aboriginal archaeological test excavation has been recommended to occur in accordance with the findings of the Archaeological Impact Assessment (Preliminary Aboriginal Archaeological Assessment).[69] If Aboriginal test excavation takes place, where locally significant historical archaeological material or features coincide with Aboriginal test pits, the historical archaeology will be recorded and removed as guided by the Archaeological Work Method Statement (Section 6.0).

The Statement of Archaeological Heritage Impact addresses SEARS Point 2 of Condition 12.

[69] AMAC Group (October 2017).

8.0 BIBLIOGRAPHY

AMAC Group (November 2005) Honeysuckle Foreshore Development, Honeysuckle Drive, Newcastle NSW

AMAC Group (March 2006) "Lee Wharf Project Stage 3 (Buildings A3-6), Honeysuckle Precinct, Newcastle: Archaeological Assessment, Research Design, Excavation Methodology and Heritage Impact Statement", for Lee Wharf Developments.

AMAC Group (August 2006) "Bellevue Hotel, 738 Hunter Street, Newcastle: Permit Variation Application, Interim Test Excavation Report, Revised Mitigation Strategy, Excavation Methodology, and Heritage Impact Statement", for Task Developments 2 Pty Limited.

AMAC Group (in progress) "Archaeological Monitoring and Recording Report: Remediation Works (2004-2009), Lee Wharf A and C, Worth Place Park, Park Residential and South Park, Honeysuckle Precinct, Newcastle", draft.

AMAC Group (September 2009) Baseline Archaeological Assessment Cottage Creek Precinct and Wickham Urban Village Newcastle, NSW

Armstrong, J.W. (1967) *Pipelines and People*, The Hunter District Water Board

Callen, T. (1986) *Bar Dangerous: A Maritime History of Newcastle*, Newcastle Region Maritime Museum, Newcastle

Cosmos Archaeology (October 2005) "Construction of Newcastle Foreshore Promenade, 'Lee Wharf Development', Construction of pontoon adjacent to Part Lot 51 DP 1036132: Assessment of impact of proposed works on the Monier Seawall", for AMAC Group Pty Limited

Dangar, H. (1828) *Index and Directory to the Map of the Country bordering upon the River Hunter*, London

Department of Public Works (February 1996) "Bellevue Hotel: Heritage Assessment", for the Honeysuckle Development Corporation

Dominic Steele Consulting Archaeology (March 2004) "Former Catholic Education Office Site, Newcastle, NPWS Site #38-4-0525 and associated areas of potential archaeological deposit: Aboriginal Archaeological Test Excavation and Monitoring Report", for the Catholic Diocese of Maitland-Newcastle

Doring, C. & M. J. Pty Limited (1990) "Honeysuckle Point Heritage Study: 1856 to 1990", for the State Rail Authority of NSW.

Doring, C. & M. J. Pty Limited (1991) "Honeysuckle Project: Historical and Industrial Archaeology Survey" for the NSW Property Services Group.

EJE (2012) DRAFT Statement of Heritage Impact The Greater Building Society Head Office

Godden Mackay Logan (May 2003) "Lee Wharf, Newcastle: Heritage Impact Statement", for Lee Wharf Developments Pty Limited

Gray, N. (1966) "Dangar, Henry (1796-1861) *Australian Dictionary of Biography*, Online Edition. <www.adb.online.anu.edu.au/biogs/A010268b.htm>

Jackson Teece Architects (November 2004) "Heritage Report and Statement of Heritage Impact for the former Bellevue Hotel at 742 Hunter Street, Newcastle"

NSW State Records, (September 1804) A.O. Reel 6039 sz756, p.283

Preston, R.G. (1982) *The Great Northern Railway: Newcastle to Maitland, 1857-1982*, NSW Rail Transport Museum

Suters Architects (April 1997) "Newcastle City Wide Heritage Study 1996-97, Vol.1: Study Report and Recommendations", for Newcastle City Council

Turner, J.W. (February 1997) "Newcastle 1804-1993, an Overview", in Suters Architects (February 1997) vol.1, 10-25

Turner, J.W. (1997) *A Pictorial History of Newcastle*, Kingsclear Books, Crows Nest

Umwelt (August 2004) "Assessment of Significance and Research Design for the Historical Archaeology of Worth Place Park, Park Residential and South Park precincts, Honeysuckle Drive, Newcastle", for the Honeysuckle Development Corporation

Wood, W.A. (1972) *Dawn in the Valley: The Story of Settlement in the Hunter River Valley to 1833*, Wentworth Books, Sydney.

9.0 APPENDICES

9.1 SECRETARY'S ENVIRONMENTAL ASSESSMENT REQUIREMENTS

Secretary's Environmental Assessment Requirements

Section 78A(8A) of the *Environmental Planning and Assessment Act*
Schedule 2 of the Environmental Planning and Assessment Regulation 2000

Application Number	SSD 8440
Proposal Name	Mixed use development including commercial / retail uses, residential apartments and hotel accommodation
Location	42 Honeysuckle Drive, Newcastle (Lot 22 DP 1072217)
Applicant	Doma Holdings (Honeysuckle) Pty Ltd
Date of Issue	2 June 2017
General Requirements	The Environmental Impact Statement (EIS) must meet the minimum form and content requirements in clauses 6 and 7 of Schedule 2 the *Environmental Planning and Assessment Regulation 2000*. Notwithstanding the key issues specified below, the EIS must include an environmental risk assessment to identify the potential environmental impacts associated with the development. Where relevant, the assessment of the key issues below, and any other significant issues identified in the risk assessment, must include: • adequate baseline data; • consideration of potential cumulative impacts due to other development in the vicinity; and • measures to avoid, minimise and if necessary, offset the predicted impacts, including detailed contingency plans for managing any significant risks to the environment. The EIS must be accompanied by a report from a qualified quantity surveyor providing: • a detailed calculation of the capital investment value (CIV) (as defined in clause 3 of the *EP&A Regulation 2000*) of the proposal, including details of all assumptions and components from which the CIV calculation is derived; • a detailed cost report prepared in accordance with Newcastle Section 94A Development Contributions Plan 2009; • an estimate of the jobs that will be created by the future development during the construction and operational phases of the development; and • certification that the information provided is accurate at the date of preparation.
Key issues	The EIS must address the following specific matters: **1. Statutory and Strategic Context** Address the statutory provisions applying to the development contained in all relevant environmental planning instruments, including: • State Environmental Planning Policy (State & Regional Development) 2011; • State Environmental Planning Policy 55 – Remediation of Land; • State Environmental Planning Policy 65 – Design Quality of Residential Flat Development & Accompanying Apartment Design Guide; • State Environmental Planning Policy (Building Sustainability Index BASIX) 2004;

	• State Environmental Planning Policy (Urban Renewal) 2010; • Threatened Species Conservation Act 1995 (TSC Act); and • Newcastle Local Environmental Plan (LEP) 2012. Address the relevant planning provisions, goals and strategic planning objectives in the following: • NSW 2021 (State Plan); • Hunter Regional Plan 2036; • Newcastle Urban Renewal Strategy 2014; • Guide to investigating, assessing and reporting on Aboriginal Cultural Heritage in NSW (DECCW, 2011); • Aboriginal Cultural Heritage Consultation Requirements for Proponents 2010; • Guide to Traffic Generating Developments (RMS, 2002); • Austroads Guide to Traffic Management Part 12: Traffic Impacts of Development; • Interim Construction Noise Guidelines (DECCW, 2009); • Newcastle Development Control Plan 2012; • Newcastle Section 94A Development Contributions Plan 2009; • Port of Newcastle Port Development Plan (PDP) 2015; and • Aquifer Interference Policy (2012). **2. Land Use** The EIS shall: • address the relationship between the proposed residential and hotel land uses; and • provide fit-out and operational details of the hotel, if proposed, including a preliminary operational management plan. **3. Built Form and Urban Design** • The proposal must be informed by a design excellence strategy, prepared in consultation with the Office of the Government Architect, which may require a design excellence process in accordance with the *Director General's Design Excellence Guidelines*. • Address design quality, with specific consideration of bulk and scale, overall site layout, axis, vistas and connectivity, open spaces and edges, ground floor activation, primary elements, gateways, façade, rooftop, mechanical plant, massing, setbacks, building articulation, materials and choice of colours. • Demonstrate that the proposal addresses and provides amenity to the light rail corridor and existing developments to the south and the proposed pedestrian/cycle link to run adjacent to the Cottage Creek drainage channel. • Provide design approaches to mitigate any potential flooding. **4. Residential Amenity** • Provide information detailing the impact and provision of solar access, overshadowing, acoustic impacts, visual privacy, view loss and wind. A high level of environmental amenity must be demonstrated. • Demonstrate compliance with SEPP 65 and the Apartment Design Guide (ADG) recommendations to achieve a high level of environmental and residential amenity. **5. Ecologically Sustainable Development (ESD)** • Detail how ESD principles (as defined in clause 7(4) of Schedule 2 of the Environmental Planning and Assessment Regulation 2000 will be incorporated in the design, construction and ongoing operation phases of the development.

- Demonstrate how the proposed development responds to sustainable building principles and best practice, and improves environmental performance through energy efficient design, technology and renewable energy.
- Include a description of the measures that would be implemented to minimise consumption of resources, water and energy, including an Integrated Water Management Plan which details any proposed alternative water supplies, proposed end uses of potable and non-potable water, and water sensitive urban design.

6. Noise

- Identify the likely noise impacts any acoustic measures required to ensure acceptable residential amenity noting the proximity to the operational areas of the Port of Newcastle.
- Identify the main noise generating sources and activities at all stages of construction, and any noise sources during operation. Outline measures to minimise and mitigate the potential noise impacts on surrounding occupiers of land.

7. Transport and Accessibility (Construction and Operation)

- Detail access arrangements at all stages of construction and measures to mitigate any associated traffic impacts.
- Detail existing pedestrian and cycle movements within the vicinity of the site and determine the adequacy of the proposal to meet the likely future demand for increased public transport and pedestrian and cycle access.
- Describe the measures to be implemented to promote sustainable means of transport, including public transport use, pedestrian and bicycle linkages, in addition to addressing the potential for implementing a location specific sustainable travel plan.
- Demonstrate the provision of sufficient on-site car parking having regard to the availability of public transport.
- Estimate the total daily and peak hour trips generated by the proposed development, including accurate details of the current and future daily vehicle movements.
- Assess the impacts of the traffic generated on the local road network, and surrounding intersections (including Hannell Street / Honeysuckle Drive intersections) using SIDRA or similar traffic model and any potential need for upgrading or road works (local and classified) to maintain existing levels of service.
- Address the impacts of the proposal having regard to the cumulative traffic impact of other proposed developments in the area and the impact of the Newcastle Light Rail project.
- Details of service vehicle provision, access, delivery and loading arrangements and estimated service vehicle movements (including vehicle type and the likely arrival and departure times).

8. Flooding

The EIS is to include an assessment of any potential flood risk on site in accordance with any relevant provisions of the NSW Floodplain Development Manual (2005), The Cottage Creek Flood Management Plan 1999 and the Newcastle Floodplain Risk Study 2012 including an:

- assessment of existing flood behaviour and impact of sea level rise, climate change, and ecosystem migration;
- assessment of potential flood impacts on the proposed development and measures to mitigate any potential flooding;
- assessment of potential impacts of the proposed development on flood behaviour at the site and impacts on adjacent land, and measures to mitigate any potential flooding;
- emergency management measures and evacuation;

- consistency with any floodplain risk management plans;
- compatibility with the flood hazard of the land;
- assessment of whether the proposal will significantly adversely affect the environment or cause avoidable erosion, siltation, destruction of riparian vegetation or a reduction in the stability of river banks or watercourses; and
- detailed consideration of the proposed drainage associated with the proposal, including stormwater and drainage infrastructure.

9. Drainage

Provide details of all drainage associated with the proposal, including stormwater and drainage infrastructure.

10. Water Quality

- Assessment of existing site hydrogeology, groundwater quality and levels; licensing requirements (including details of groundwater dewatering required during the construction phase and that for ongoing water take following completion of the project); and
- details of any structural works due to potential subsidence impacts and whether such activity will cause displacement of groundwater to surface.

11. Mine Subsidence

Provide a Geotechnical Investigation and Report which addresses potential subsidence risks, stabilisation works required/undertaken and confirms suitability of the site for the proposal.

12. Heritage

The EIS shall:

- identify if there are any listed or potential heritage items within the vicinity of the site. If any items are likely to be affected a Heritage Impact Statement is required;
- assess any impacts to State and local heritage including conservation areas, natural heritage areas, places of Aboriginal heritage value, buildings, works, relics, gardens, landscapes, views and trees and mitigation and management measures required; and
- assess Aboriginal cultural heritage impacts, including current Aboriginal Heritage Information Management System (AHIMS) search results, a summary of the site's disturbance history and an assessment of the likelihood of harming Aboriginal objects.

13. Sediment, Erosion and Dust controls (Construction and Excavation)

The EIS shall:

- identify measures and procedures to minimise and manage the generation and off-site transmission of sediment, dust and fine particles;
- provide an assessment of presence of acid sulfate soils on the site and any mitigation measures required.

14. Utilities

- In consultation with relevant agencies, ascertain existing capacity and licensing requirements for ongoing water supply and any additional electricity works and or boosted water supply (including need for hydraulic plans) are adequately addressed for the provision of utilities including staging of infrastructure.
- Provide an assessment of potential noise / electromagnetic frequency (EMF) impacts and appropriate mitigation measures related to any existing or proposed electrical infrastructure in the vicinity of the site.

	15. Public Benefit and Contributions Provide confirmation of the public benefit offer to be derived from the proposal and address Council's Section 94A Contribution Plan and/or details of any Voluntary Planning Agreement. **16. Servicing and Waste** Identify, quantify and classify the likely waste streams to be generated during construction and operation and describe the measures to be implemented to manage, reuse, recycle and safely dispose of this waste. Identify appropriate servicing arrangements (including but not limited to, waste management, loading zones, mechanical plant) for the site.
	The EIS must include all relevant plans, architectural drawings, diagrams and relevant documentation required under Schedule 1 of the *EP&A Regulation 2000*. Provide these as part of the EIS rather than as separate documents. In addition, the EIS must include the following: • architectural drawings (to a usable scale at A3); • architectural design statement; • landscape drawings (to a usable scale at A3); • landscape design statement; • site survey plan, showing existing levels, location and height of existing and adjacent structures/buildings; • site analysis plan; • shadow diagrams; • ESD statement; • pre-submission consultation statement; • heritage impact assessment; • archaeological impact assessment; • bushfire assessment • access impact statement; • traffic and parking assessment; • visual and view impact analysis and photomontages; • stormwater concept plan; • flood risk assessment • sediment and erosion control plan; • operational management plan; • preliminary construction management plan, including a construction traffic management plan, construction noise and vibration management plan, construction waste management plan and cumulative impact of construction activities on other nearby sites; • geotechnical and structural report; • services and infrastructure report; • contamination assessment; and • schedule of materials and finishes.
Consultation	During the preparation of the EIS, you are required to consult with the relevant local, State or Commonwealth Government authorities, service providers, and the local community. You must consult with the City of Newcastle Council and the Office of the Government Architect. The EIS must describe the pre-submission consultation process, issues raised and how the proposed development has been amended in response to these issues. A short explanation should be provided where amendments have not been made to address an issue.
Further consultation after 2 years	If you do not lodge a development application and EIS for the development within 2 years of the issue date of these SEARs, you must consult further with the Secretary in relation to the preparation of the EIS.